

smart Extendable Platform2
Indexed Scan
User's Manual

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1. About this Document

Introduction

Indexed Scan is a built-in feature that allows to manage paper documents in a document management system or to use them in an electronic workflow by digitizing the paper documents.

When digitizing paper documents, a file containing attribute information (such as the document type, contract number, etc.) for the digitized paper document is generated along with the scanned image. This attribute information is called metadata. A file with metadata is called a metadata file. If your system can import the image and metadata file pair, a multifunction printer (MFP) will be able to cooperate with your system. By configuring an MFP as described in this document, the user can specify and enter metadata on the operator panel when scanning paper documents.

Normally, the metadata file format is specified in a certain format specific to your system. With Indexed Scan, metadata files are generated in a format that can be read by your system by importing this format to an MFP as a metadata template.

This enables an MFP to cooperate with your system without making any changes.

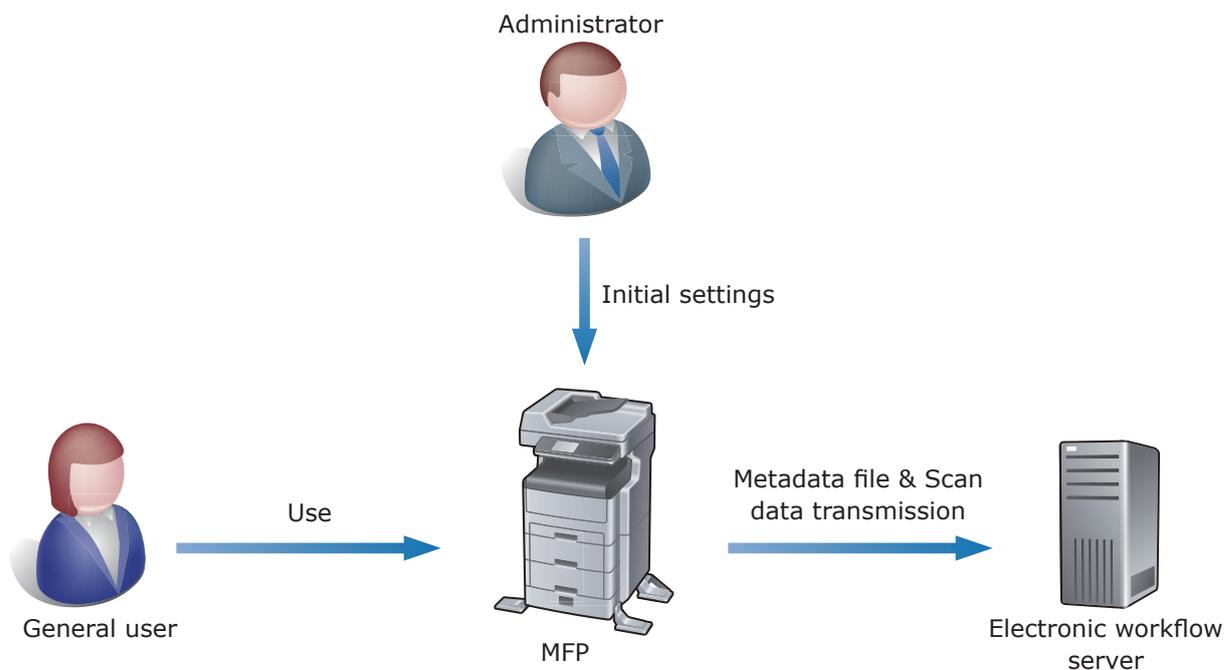
This document is for people who have experience deploying document management systems in companies and the sales support staff of companies that build such systems.

2. Overview

Basic structure

Configuration and function image

The overall function configuration of Indexed Scan is as follows.

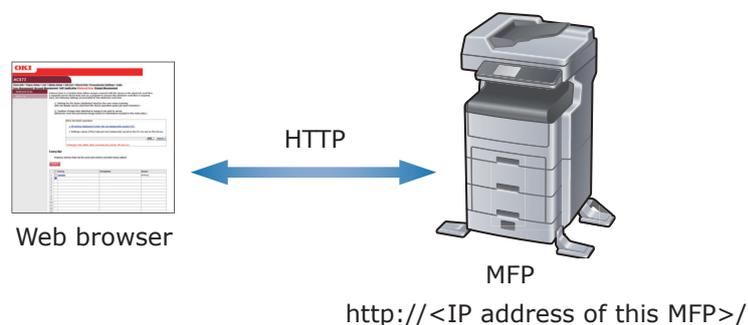


Initial configuration tool

Indexed Scan settings are performed entirely from a web browser.

Details of the initial settings are described in "3. Entry Registration Details" (p. 8).

Indexed Scan Settings Configuration



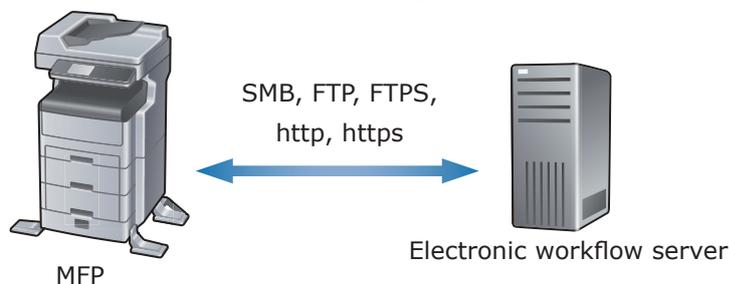
Configuration for use

Indexed Scan operation is made up of an MFP and electronic workflow server combination.

Indexed Scan is displayed as a job macro on an MFP. Job macro is a function that creates a macro for settings of functions used frequently and registers a shortcut for this.

Supported protocols between the MFP and the electronic workflow server are SMB, FTP, FTPS, http, and https.

Indexed Scan Operation Configuration



Supported browser is as follows.

Windows

- Internet Explorer 7.0 or higher
- Firefox 3.5 or higher

Macintosh

- Safari 4.0 or higher

UNIX

- Firefox 3.5 or higher

Basic usage models

To use the Indexed Scan functions, it is necessary to perform entry registration to the MFP and register a metadata file template. The procedure and rules for registration are described here.

Obtain the metadata file template specified in a system that the MFP cooperates with, such as an electronic workflow system.

Entry registration (settings)

An entry is an aggregation that collects the operation settings for Indexed Scan. Normally, the document to be scanned differs depending on your work and the content of the metadata that needs to be generated also differs, so entries are to be created per individual work.

Up to 30 entries can be registered.

Setting items can be broadly categorized into 6 categories (see "List of Entry Registration Items" shown below).

Writing entry registration to the MFP is feasible even if not all settings are complete.

Entries can be edited any number of times.

List of Entry Registration Items

Setting Item	Description
Entry name	Provide a name for an entry created. After registering the entry, assign it a name referring to the digitization of paper documents for identification purposes. (Example: Contract archive management) The entry name is used as the JobMacro name because, to use the entry, it is registered to the entry and executed from the JobMacro.
Transmission settings	This is for transmission settings for the images and the metadata. This is for various settings needed for communication such as communication protocol, subfolder, and filename. The transmission destination for the image file and metadata can be set separately, so it is possible to send each of them to different servers.
Scan settings	This is for various settings needed to scan images such as scan size, document type, quality, and file format.
Initial value settings for access privileges	This is for settings for entry usage authorization. This sets usage to permitted or prohibited for all users in the entry registration screen. Detailed access control for each user can be performed at user management access control settings.
Attribute selection and settings	This is for selecting and setting attributes to embed in the metadata. There are two types of attributes [Existing Attributes] and [User Defined Attributes]. Existing Attributes are stored in the MFP and users are not requested to input. User Defined Attributes are those that users are requested to input through the input screen on the operator panel. The input order of User Defined Attributes can be changed.
Metadata Template selection	This is for uploading a metadata template to the MFP and associating this with an entry.

Obtaining and editing a metadata template

A metadata template is a text file to register the format of the generated metadata.

A metadata template can be obtained from the system that the MFP cooperates with, such as the electronic workflow.

By inserting attributes defined according to the procedure "Selection and setting of attributes (Step 5)" (p. 17) in the metadata template, unique information of the MFP and information input by the user with the operator panel can be embedded in metadata files.

Information embedded in metadata file

There are two types of information embedded in metadata file: Existing Attributes and User Defined Attributes.

Existing Attributes are information referred to when information held in the MFP is used as metadata. Examples are the printer name or serial number.

User Defined Attributes are information input or selected by the user from the operator panel according to your work.

User Defined Attributes can be freely defined by adding and editing them. Defined attributes are displayed on the operator panel as items that must be input when executing entry on the MFP.

Individual attribute information has an attribute ID in a format where it is surrounded by %%.

Attribute IDs play a role like a variable, so by embedding attribute IDs in metadata templates, the text string part of the attribute ID is replaced with information input by the user and generated by the MFP as a metadata file.

Setting access privilege to entry

If the access control of the MFP is enabled, it is possible to perform access control for each entry.

If the access control is disabled, all users can execute all entries.

Initial value settings are performed for access privileges when entries are registered. If registered as [Allow all users], entry usage privileges are provided to all users upon enabling access control. If the initial value is set to [Prohibits all users], nobody can execute entry if access control is enabled.

Access privilege settings can be performed at user management access control settings.

 **Execution of Indexed Scan requires ScanToServer access permission in addition to entry access permission.**

Use of Indexed Scan (Operation)

The registered entry will appear on the job macro screen as a job macro.

Select the job macro for the entry and start execution of the entry.

The screen for input of information that is to be embedded in the metadata file is displayed on the operator panel.

Upon completion of all inputs, the paper document is scanned and then the image data and metadata file are transmitted to the server set up beforehand.

3. Entry Registration Details

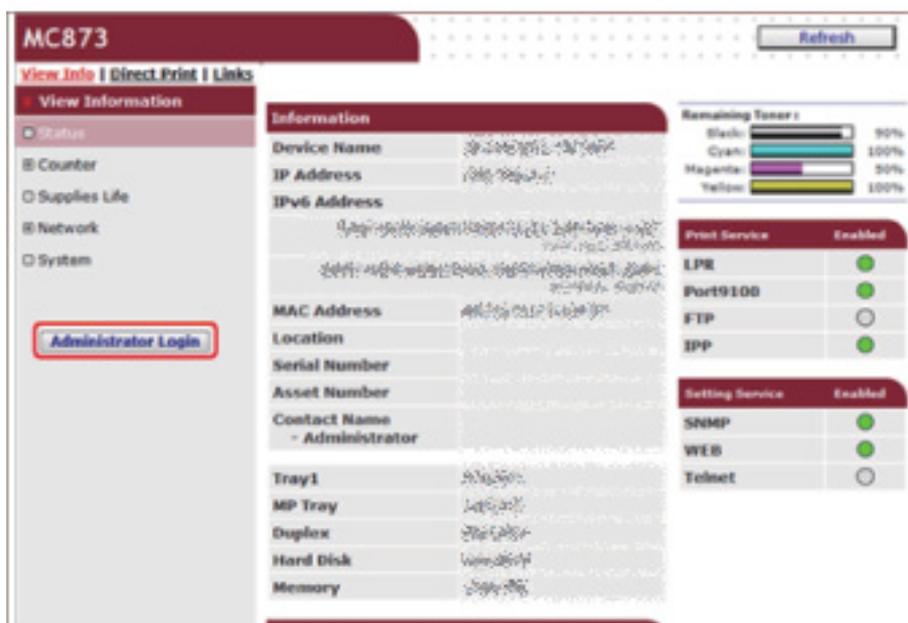
Entry registration is performed using the MFP's web page. The procedure for entry registration on the web page is described below.

Displaying the entry registration screen on the web page of this MFP

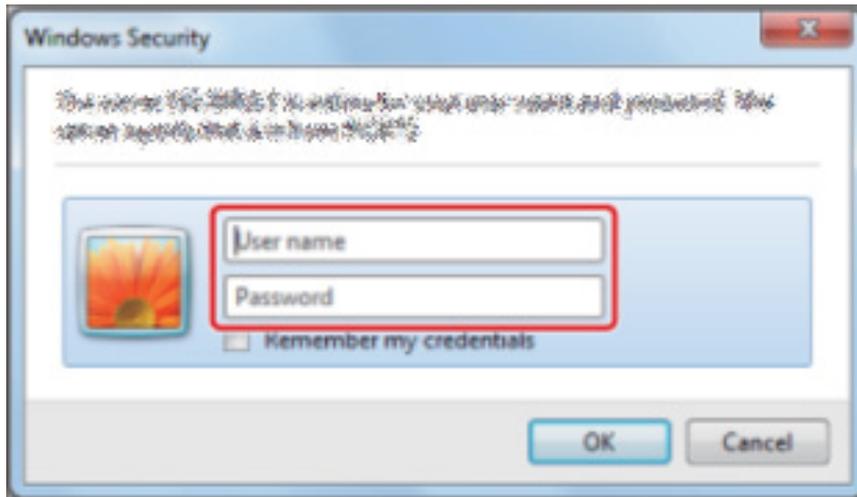
- 1 Open a web browser, enter the URL "http://(IP address for this MFP)" and press the Enter key.



- 2 Click [Administrator Login].



- 3 Enter "admin" in "User name" and the administrator password of this MFP in "Password" and click [OK].



- 4 Click [SKIP].

A screenshot of a configuration page for an MC873 device. The page has a dark red header with the text "MC873". Below the header, there are several sections. The first section is "Identification" and contains the following fields:

Device Name	OKI-MC873-F6C8D7	(Max.31 characters)
	This is the devices identity on the network (sysName, and Device Name).	
Short Device Name	MC873-F6C8D7	(Max.15characters)
	A maximum of 15 characters can be used (alpha/numeric characters and "-" are acceptable.)	
Location		(Max.255 characters)
Asset Number		(Max.32 characters)
Contact Name - Administrator		(Max.255 characters)

The second section is "Protocol" and contains the following fields:

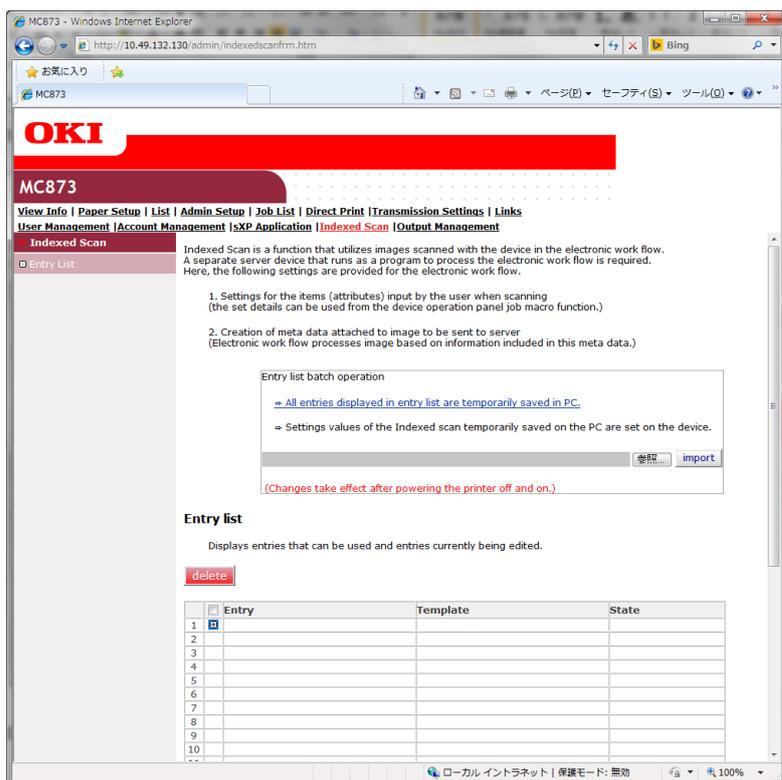
TCP/IP	Enable
NetBIOS over TCP	Enable

At the bottom of the page, there are two buttons: "OK" and "SKIP". The "SKIP" button is highlighted with a red rectangular box. To the right of the buttons is a checkbox labeled "Do not show this page again." which is currently unchecked.

5 Click [Indexed Scan] at the top of the screen.



The entry registration screen is displayed.



Adding entry

When [+] inside the entry list is clicked, the add entry screen shown below is displayed.

Entry list

STEP1 **Entry Name** (Max.30 characters)

STEP2 **Sending Settings**

Sets necessary settings to transmit subfolder, file name, etc. in order to send images and meta data to destination address.

STEP3 **Scanning Setting**

Sets necessary settings for scanning such as scan size, document type, file format, etc.

STEP4 **Default values of access privileges**

Set access privileges for this entry.

-Allow all users -Prohibits all users

Entry name (Step 1)

Input the entry name to register.

The entry name is displayed on the operator panel as the job macro name.

Enter a character string up to 30 UTF-8 string characters.

Sending settings (Step 2)

Set transmission protocol, transmission path, filename, etc.

The destinations to transmit the metadata files and image files can be set separately. They can be sent to different servers.

In the case of saving metadata file to a different location, place a check in the [Sets display and META-DATA individually.] checkbox at the top of the [Display sending settings] screen. When a check is placed, the settings of protocol, save destination server, and sub-folder are displayed in the "META-DATA sending settings" screen in the same way as the "Display sending settings" screen.

Note The file with the same file name stored in the metadata file transmission destination is overwritten with the matadata file transmitted later unconditionally.

Display sending settings
 Sets display and META-DATA individually.

Protocol	CIFS ▾
Encode Communication	None ▾
Port Number	445 <small>(1-65535)</small>
CIFS Character Set	UTF-16 ▾
User Name	<input type="text"/> <small>(Max.32 characters)</small>
Password	<input type="text"/> <small>(Max.32 characters)</small>
Target URL	<input type="text"/> <small>(Maximum 192 1-byte ch., 86 2-byte ch. (including subfolders))</small>

Subfolder(Image):

Subfolder Name	<input type="text"/>
Structure Elements	%%PRT_PRINTERNAME%% ▾ <input type="button" value="Add"/>

File Name(Image):

File Name	<input type="text"/>
Structure Elements	%%PRT_PRINTERNAME%% ▾ <input type="button" value="Add"/>

Target URL Confirmation:

META-DATA sending settings

File Name(META-DATA):

File Name	<input type="text"/>
Structure Elements	%%PRT_PRINTERNAME%% ▾ <input type="button" value="Add"/>

Target URL confirmation:

Transmission protocol settings

The transmission protocols that can be used by this MFP are as follows.

- CIFS
- FTP
- FTPS
- http(WebDAV)
- https(WebDAV)

Port number settings

Enter the port number used.

Set the port number using a numeric value of 1-65535.

Settings required for each protocol

Settings are different for each protocol. Set up as needed.

User name and password settings

Set when the access privilege is set up for a shared folder.

Set the User Name and password of the account used to login to the transmission destination server.

User name and password can be a maximum of 32 alphanumeric characters, and double-byte characters cannot be used.

Target URL settings

Enter the path for the shared folder set up on the server in the Target URL.

Subfolder name settings

A subfolder can be created in the location specified using the transmission destination path and used as the save destination.

In addition to a uniquely specified string, "Existing Attributes" defined using "Attribute Selection and Setup" at entry registration can be used as the subfolder name. "Existing Attributes" can be used after inputting the attribute ID (attribute ID of Existing Attributes are described in "Selecting Existing Attributes" (p. 18) for subfolder name. There are two input methods; method of direct text input and the method of selecting [Structure Elements] using a pull down menu and pressing the [Add] button.

If a serial number or date/time that is different for each MFP is used in the subfolder name, this enables avoiding conflict even if entries with the same content are executed on multiple MFPs. If there is conflict with a filename, the MFP overwrites using the new file.

Filename settings

Similar to subfolders, Existing Attributes can be used instead of unique string for the filename. The method using Existing Attributes is described in "Subfolder name settings" (p. 13).

The MFP will automatically add the extension of the image file based on the format of the image file to save.

In addition, if SinglePage save format is selected for file segmentation, "-xxx" is automatically added between the specified filename and the extension. (Example: Page 1 scan data name → "SINGLETIFF-001.tif", Page 2 scan data name → "SINGLETIFF-002.tif")

Image File Extension

Save format	File Segmentation	Extension
Single-TIFF	SinglePage	.tif
Multi-TIFF	MultiPage	.tif
Single-PDF	SinglePage	.pdf
Multi-PDF	MultiPage	.pdf
Single-HC-PDF	SinglePage	.pdf
Multi-HC-PDF	MultiPage	.pdf
Multi-PDF/A	MultiPage	.pdf
XPS	MultiPage	.xps
JPEG	SinglePage	.jpg

Target URL confirmation

The transmission destination is created by combining the Target URL, subfolder name, and filename.

The displayed URL may not be accurate, because it includes information before the Existing Attributes are fixed.

The maximum length of the transmission destination is 260 characters for alphanumeric characters. This restriction is based on the file system specification for Windows Server. The check for exceeding the maximum number of characters is performed at entry execution timing. If the maximum number of characters is exceeded, an error is displayed on the operator panel and the entry execution request is canceled.

Scanning settings (Step 3)

This performs various settings for image files sent to the server such as scan size, color mode, and image format to save.

Setting Value	Description
Scan Size	Specifies read size.
Mixed Scan	Scans documents that are different sizes.
Duplex	Specifies reading both sides. Set this for reading both front and back of documents.
Direction	Specifies the direction of images to be scanned.
Continuous Scan	Reads multiple documents as one job.
Preview	Specifies display of scan image preview.
Density	Can be set in range of -3 to +3. Higher values lead to darker reading of images.
Document type	Select the suitable document type from selection shown below. Text: Documents with a lot of text Text/picture: Documents with mixture of text and pictures Picture: Documents of pictures or graphics Glossy picture: Documents that are glossy pictures or printed using glossy ink jet paper
Background removal	Reads documents with ground color easier to view. Background removal settings are as follows; Auto adjustment: MFP automatically performs adjustment. 6 Step Adjustment: Enables manual adjustment of background removal settings in range of 1 through 6. Larger numbers lead to stronger background removal. Off: Background removal not performed
Resolution	Specifies resolution for reading. The following values can be set in this MFP: 75dpi, 100dpi, 150dpi, 200dpi, 300dpi, 400dpi, and 600dpi
Contrast	Adjusts contrast. Can be set between -3 and +3. Larger values lead to stronger contrast being read.
Hue	Adjusts tint. Can be set between -3 and +3. Smaller values lead to stronger emphasis of red color. Higher values lead to stronger emphasis of green color.
Saturation	Adjusts color brilliance. Can be set between -3 and +3. Higher values lead to greater brilliance for reading.
RGB	Adjusts the strength of each color red, green, blue. Adjusts the strength of reading each of the colors. Can be set between -3 and +3. Higher set values lead to higher concentration reading.

Setting Value	Description
Color mode	<p>Sets color mode.</p> <p>Automatic (color/monochrome): color documents scanned using color, black and white documents scanned using monochrome</p> <p>Automatic (color/gray scale): color documents scanned using color, black and white documents scanned using gray scale</p> <p>Color: scanned using color</p> <p>Gray scale: scanned using gray scale</p> <p>Monochrome: scanned using monochrome</p> <p> The judgment criteria between color documents and black and white documents can be changed in [Device Settings] of the MFP.</p>
File format	<p>Sets the format of files to be saved.</p> <p>The selections are as follows.</p> <p>Single-PDF, Multi-PDF, Single-HC-PDF, Multi-HC-PDF, Multi-PDF/A, Single-TIFF, Multi-TIFF, and XPS</p> <p>The file format that can be selected differs depending on the color mode selected.</p> <p>Automatic (Color/Monochrome): Single-PDF, Multi-PDF, Multi-PDF/A, Single-TIFF, Multi-TIFF, and XPS</p> <p>Automatic (Color/Gray scale): Single-PDF, Multi-PDF, Single-HC-PDF, Multi-HC-PDF, Multi-PDF/A, Single-TIFF, Multi-TIFF, JPEG, and XPS</p> <p>Color: Single-PDF, Multi-PDF, Single-HC-PDF, Multi-HC-PDF, Multi-PDF/A, Single-TIFF, Multi-TIFF, JPEG, and XPS</p> <p>Gray scale: Single-PDF, Multi-PDF, Single-HC-PDF, Multi-HC-PDF, Multi-PDF/A, Single-TIFF, Multi-TIFF, JPEG, and XPS</p> <p>Monochrome: Single-PDF, Multi-PDF, Multi-PDF/A, Single-TIFF, Multi-TIFF, and XPS</p>
Encrypted PDF	<p>When selecting the file formats as Single-PDF, Multi-PDF, Single-HC-PDF, or Multi-HC-PDF, options are displayed.</p> <p>If encryption is desired, the encryption level and password etc. have to be input.</p> <p>The password used for encryption is fixed for each entry.</p>
Compression Rate	<p>Sets the compression level respectively for color, monochrome (gray scale), and monochrome (2 value).</p>
Edge Erase	<p>Setting for removing dark shadow and frame border that occurs at the edge.</p> <p>If needed set this to on.</p> <p>The erase width setting can be set in the range of 5 mm to 50 mm at 1 mm increments.</p>
Center Erase	<p>Setting for erasing dark shadow in center.</p> <p>If needed set this to on.</p> <p>The erase width setting can be set in the range of 1 mm to 50 mm at 1 mm increments.</p>
White Page Skip	<p>Setting for removal of white pages when scanning.</p> <p>When the document includes white pages, this enables removal of the white pages from the scan results.</p>

Default values of access privileges (Step 4)

Sets the initial setting values of entry access privileges added.

Here, whether or not to permit entry of all users can be decided. Once registered, the information of this setting cannot be changed later.

Note The access privilege for entry can be edited using the edit role screen at user management/access control settings. The permission with the same name is displayed in the permission list on the the edit role screen. The access privilege for entry can be edited for each role after the entry is registered.

Selection and setting of attributes (Step 5)

There are two types of attributes to embed in metadata; Existing Attributes and User Defined Attributes.

An ID called attribute ID is allocated to attributes as an identifier. When attribute values are embedded in metadata, the attribute ID is an identifier for showing the embed destination in the metadata template. Since the attribute IDs are created and allocated by the MFP itself, the attribute ID must be fixed by completing "Selection and setting of attributes" before metadata template is created.

Click [Next Step] on the first entry list screen to show the "Selection and setting of attributes" screen (shown below).

Entry list

STEP5

Selection and setting of attributes

Here, the items displayed/inputted on the panel when Indexed scan is executed and items (attributes) are sent to electronic work flow after storing in meta data are set.

Selection of existing attributes

Attributes prepared in advance in device

User defined attribute settings

Text string	Integer value	Decimal value	ON/OFF
List	Date	Address book	Password

Change order of display in panel

The order of display in panel can be changed.

delete

	<input type="checkbox"/>	Attributes display name	Variables	Displayed in panel
1	<input type="checkbox"/>	PRINTER_NAME	%%PRT_PRINTERNAME% %	
2	<input type="checkbox"/>	COMPATIBLEID	%%PRT_COMPATIBLE%%	
3	<input type="checkbox"/>	DATE	%%PRT_DATE%%	
4	<input type="checkbox"/>	TextSample	%%USER0002%%	[1]
5	<input type="checkbox"/>	IntegerSample	%%USER0003%%	[2]
6	<input type="checkbox"/>	DecimalSample	%%USER0004%%	[3]
7	<input type="checkbox"/>	ON/OFF Sample	%%USER0005%%	[4]
8	<input type="checkbox"/>	ListSample	%%USER0006%%	[5]
9	<input type="checkbox"/>	DateSample	%%USER0007%%	[6]
10	<input type="checkbox"/>	AddressSample	%%USER0008%%	[7]
11	<input type="checkbox"/>	PasswordSample	%%USER0009%%	[8]
12				
13				

Selecting Existing Attributes

Existing Attributes are attributes that are prepared in the MFP beforehand. This is the collection of information retained in the MFP and does not include information that can be input using the operator panel during work flow execution.

When Existing Attributes are used to embed in metadata, the Existing Attributes must be added to the usage attribute list inside entry. The following is a method to add a default attribute to the usage attribute list.

- 1 Click [Attributes prepared in advance in device] at "Selection of existing attributes" of STEP5 "Selection and setting of attributes".
- 2 The "Selection of attributes" screen will appear. Select the attributes to be embedded in metadata from the "List of attributes" on the left of the screen and click [Add] to add them to "Previously selected attributes" on the right of the screen.

After finishing selection of attributes, click [OK] at the bottom of the screen to close the select attributes screen.

Currently selected attributes	
Name of Attribute	PRINTER_NAME
Explanation	Printer name

- 3 Make sure the Existing Attributes added to the entry list are displayed.

All the Existing Attributes that exist in the MFP can be used for entry registration.

In addition, there are Existing Attributes whose format can be changed when embedding in metadata, such as date and time. The items in blue characters on the entry list are Existing Attributes that can be changed.

The embed format is changed by clicking the Existing Attribute name in blue characters to display the following screen.

Attribute Settings	
Name	DATE
Date display type	YYYYMMDD ▾
<input type="button" value="OK"/> <input type="button" value="Cancel"/>	

The following table shows examples of Existing Attributes.

Existing Attributes Examples

No	Attribute ID	Name
1	%%PRT_PRINTERNAME%%	Printer name
2	%%PRT_SERIAL%%	Printer serial number
3	%%PRT_MANUFACT%%	Manufacturer name
4	%%PRT_FWVER%%	Firmware version
5	%%PRT_IPADDRESS%%	IP address
6	%%PRT_LOCATION%%	Location
7	%%PRT_CONTACT%%	Contact address information
8	%%PRT_FQDN%%	FQDN
9	%%PRT_DEPTNAME%%	Department name
10	%%PRT_ENTRYNAME%%	Entry name
11	%%PRT_JOBMACRONAME%%	Job macro name
12	%%PRT_METATEMPNAME%%	META-DATA template name
13	%%PRT_NUMATTRIBUTE%%	Number of registered attributes
14	%%PRT_PICTURL%%	Transmission destination path (image)
15	%%PRT_PICTPROTOCOL%%	Transmission protocol (image)
16	%%PRT_PICTPORT%%	Port number (image)
17	%%PRT_PICTUSER%%	User ID (image)
18	%%PRT_PICTFILENAME%%	Filename (image)
19	%%PRT_METAURL%%	Transmission destination path (META-DATA)
20	%%PRT_METAPROTOCOL%%	Transmission protocol (META-DATA)
21	%%PRT_METAPORT%%	Port number (META-DATA)
22	%%PRT_METAUSER%%	User ID (META-DATA)
23	%%PRT_METAFILENAME%%	Filename (META-DATA)
24	%%PRT_COLORMODE%%	Color mode
25	%%PRT_RESOLUTION%%	Resolution
26	%%PRT_FILEFORMAT%%	File format

No	Attribute ID	Name
27	%%PRT_USERNAME%%	User name
28	%%PRT_STARTTIME%%	Workflow execution start time
29	%%PRT_COMPTIME%%	Workflow execution end time
30	%%PRT_RESULT%%	Workflow process results
31	%%PRT_NUMFILE%%	Multipage information
32	%%PRT_PAGES%%	Number of scanned pages
33	%%PRT_DATE%%	Date
34	%%PRT_YEAR%%	Year
35	%%PRT_MONTH%%	Month
36	%%PRT_DAY%%	Day
37	%%PRT_RANDOM%%	Random Number

Setting User Defined Attributes

User Defined Attributes are the attributes to define the information that users want to embed in metadata. Unlike existing attributes, User Defined Attributes require the person who execute workflow to input through the operator panel.

The number of attributes that can be registered in entry is 300 aggregating Existing Attributes and User Defined Attributes.

The definition of User Defined Attributes is performed at "User defined attribute settings" of STEP 5 "Selection and setting of attributes".

There are 8 types of input method of input information and there is a settings start button prepared for each input method.

The attribute ID allocated to each User Defined Attribute will be of the form "%%USERXXXX%%". A number allocated to the User Defined Attribute is included at XXXX. The attribute ID is created by the MFP so the user cannot set this. Attribute IDs assigned to the User Defined Attribute can be checked in the entry list in the example in "Selection and setting of attributes (Step 5)" (p. 17).

-  **Note** • **User Defined Attributes are items that are independently defined for each entry and cannot be shared across entries.**
- **The number of attributes that can be registered in the entire MFP is 900. If the number of attributes for the entire MFP is exceeded, the registration fails even if the the number of attributes used in entries is less than 300.**

Input method 1: Text string

This requests input of a string from the person executing workflow on the operator panel. Following settings are required for defining a User Defined Attribute in the text string format.

Text string input settings *required input

Name*	<input style="width: 90%;" type="text" value="TextSample"/> <small>(Max.30 characters)</small>
Panel display	<input checked="" type="radio"/> Display <input type="radio"/> Hide display
Changes from panel	<input checked="" type="radio"/> Permit <input type="radio"/> Forbidden
Allow space	<input checked="" type="radio"/> Permit <input type="radio"/> Forbidden
Text string length	<input style="width: 30px;" type="text" value="1"/> ~ <input style="width: 30px;" type="text" value="80"/> <small>(1 ~ 80)</small>
Standard text string	<div style="border: 1px solid gray; height: 40px; width: 100%;"></div>
Help display content	<div style="border: 1px solid gray; height: 40px; width: 100%;"></div> <small>(Max.300 characters)</small>

Type	Description
Name	Set the attribute name using maximum 30 characters. The attribute name is used as a text string displayed on the operator screen.
Panel display	Sets whether to display or not display the attribute value settings screen. The standard text string is unconditionally applied if the screen is set to not display.
Changes from panel	Sets whether or not to permit input using the panel. This setting is not valid if the panel display is set to not display. If this setting is set to forbidden, the operator screen displays the screen that shows the standard text string and only the set button is enabled.
Allow space	Permits or forbids setting a null value. An error occurs if a person executing workflow attempts to set a null value using the operator panel when this setting is set to forbidden.
Text string length	Sets the upper and lower limit of the text string length. If values are set out of the range, an error occurs.
Standard text string	Sets the initial text string of the setting value.
Help display content	Defines the help string using a maximum of 300 characters.

Input method 2: Integer value

This requests input of an integer value from the person executing workflow on the operator panel. Following settings are required for defining a User Defined Attribute in integer value.

Integer value input settings *required input

Name*	<input style="width: 90%;" type="text" value="IntegerSample"/> <small>(Max.30 characters)</small>
Panel display	<input checked="" type="radio"/> Display <input type="radio"/> Hide display
Changes from panel	<input checked="" type="radio"/> Permit <input type="radio"/> Forbidden
Allow space	<input checked="" type="radio"/> Permit <input type="radio"/> Forbidden
Value range*	Min: <input style="width: 100px;" type="text" value="-999999999"/> ~ Max: <input style="width: 100px;" type="text" value="999999999"/> <small>(-999,999,999 ~ 999,999,999)</small>
Stride*	<input style="width: 80px;" type="text" value="10"/> (1~1999999998)
Standard value*	<input style="width: 80px;" type="text" value="100"/> (-999999999~999999999)
Help display content	<div style="border: 1px solid gray; height: 60px; width: 100%;"></div> <small>(Max.300 characters)</small>

Type	Description
Name	Set the attribute name using maximum 30 characters. The attribute name is used as a text string displayed on the operator screen.
Panel display	Sets whether to display or not display the attribute value settings screen. The standard value is unconditionally applied if the screen is set to not display.
Changes from panel	Sets whether or not to permit input using the panel. This setting is not valid if the panel display is set to not display. If this setting is set to forbidden, the operator screen displays the screen that shows the standard value and only the set button is enabled.
Allow space	Permits or forbids setting a null value. An error occurs if a person executing workflow attempts to set a null value using the operator panel when this setting is set to forbidden.
Value range	Sets the upper and lower limit of the values that can be set. If values are set out of the range, an error occurs. The values can be set from -999,999,999,999 to 999,999,999,999.
Stride	Sets the step size of the set value in the range from 1 to the maximum value. Value range and standard value must be set as a multiple of the stride. Re-entry is requested if the set value is not a multiple of the stride when executing entry.
Standard value	Sets the initial value of the set value.
Help display content	Defines the help string using a maximum of 300 characters.

Input method 3: Decimal value

This requests input of a decimal number from the person executing workflow on the operator panel. The following settings are required for defining a User Defined Attribute in decimal value.

Decimal value input setting

*required input

Name*	DecimalSample <small>(Max.30 characters)</small>
Panel display	<input checked="" type="radio"/> Display <input type="radio"/> Hide display
Changes from panel	<input checked="" type="radio"/> Permit <input type="radio"/> Forbidden
Allow space	<input checked="" type="radio"/> Permit <input type="radio"/> Forbidden
Digits after decimal point	1 ▾ <small>(eg:0.1)</small>
Value range*	-999999999 . 9 ~ 999999999 . 9 <small>(-999,999,999.9-999,999,999.9)</small>
Stride	0.1 <small>(0.1~1999999999.8)</small>
Standard value*	999999 . 9 <small>(-999999999.9~999999999.9)</small>
Help display content	<div style="border: 1px solid gray; height: 40px; width: 100%;"></div> <small>(Max.300 characters)</small>

Type	Description
Name	Set the attribute name using maximum 30 characters. The attribute name is used as a text string displayed on the operator screen.
Panel display	Sets whether to display or not display the attribute value settings screen. The standard value is unconditionally applied if the screen is set to not display.
Changes from panel	Sets whether or not to permit input using the panel. This setting is not valid if the panel display is set to not display. If this setting is set to forbidden, the operator screen displays the screen that shows the standard value and only the set button is enabled.
Allow space	Permits or forbids setting a null value. An error occurs if a person executing workflow attempts to set a null value using the operator panel when this setting is set to forbidden
Value range	Sets the upper and lower limit of the values that can be set. If values are set out of the range, an error occurs. The values can be set from -999,999,999,999 to 999,999,999,999.
Stride	Sets the step size of the set value in the range from 0.000001 to the maximum value. Value range and standard value must be set as a multiple of the stride. Re-entry is requested if the set value is not a multiple of the stride when executing entry.
Standard value	Sets the initial value of the setting value.
Help display content	Defines the help string using a maximum of 300 characters.

Input method 4: List

This requests information input by selecting an item in the item list from the person executing workflow on the operator panel. The following settings are required for defining a User Defined Attribute in list input format.

List input settings
*required input

Name*	<input type="text" value="ListSample"/> <small>(Max.30 characters)</small>
Panel display	<input checked="" type="radio"/> Display <input type="radio"/> Hide display
Changes from panel	<input checked="" type="radio"/> Permit <input type="radio"/> Forbidden
Allow space	<input checked="" type="radio"/> Permit <input type="radio"/> Forbidden

list items*
Sets list items used in list input.

	Standard	Display text strings	Sent text strings
<input type="checkbox"/>	<input checked="" type="radio"/>	List-1	1
<input type="checkbox"/>	<input type="radio"/>	List-2	2
<input type="checkbox"/>	<input type="radio"/>	List-3	3
<input type="checkbox"/>	<input type="radio"/>		
<input type="checkbox"/>	<input type="radio"/>		
<input type="checkbox"/>	<input type="radio"/>		

Help display content

(Max.300 characters)

Type	Description
Name	Set the attribute name using maximum 30 characters. The attribute name is used as a text string displayed on the operator screen.
Panel display	Sets whether to display or not display the attribute value settings screen. The standard value is unconditionally applied if the screen is set to not display.
Changes from panel	Sets whether or not to permit input using the panel. This setting is not valid if the panel display is set to not display. If this setting is set to forbidden, the operator screen displays the screen that shows the standard value and only the set button is enabled.
Allow space	Permits or forbids setting a null value. An error occurs if a person executing workflow attempts to set a null value using the operator panel when this setting is set to forbidden. When using list input, a null value is input when you select an item whose transmission text string is null.
list items	Sets the list item used for list input. List items consist of the following 3 elements of information. Up to 20 items can be set. Standard: Selects the initial value of the list selection. The initial screen of the list selection displays the selected item as an initial value. Display text strings: Defines the text string that is displayed when an item is selected using maximum 30 characters. Sent text strings: Sets the text string that is actually embedded in metadata using maximum 80 characters.
Help display content	Defines the help string using a maximum of 300 characters.

Input method 5: Date

This requests input of a date to the person executing workflow on the operator panel. The following settings are required for defining a User Defined Attribute in date format.

Date input settings *required input

Name*	<input style="width: 95%;" type="text" value="DateSample"/> <small>(Max.30 characters)</small>						
Panel display	<input checked="" type="radio"/> Display <input type="radio"/> Hide display						
Changes from panel	<input checked="" type="radio"/> Permit <input type="radio"/> Forbidden						
Allow space	<input checked="" type="radio"/> Permit <input type="radio"/> Forbidden						
Date display type	<input type="text" value="YYYYMMDD"/>						
Default value*	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center; border-right: 1px solid gray;">Year</td> <td style="text-align: center; border-right: 1px solid gray;">Month</td> <td style="text-align: center;">Day</td> </tr> <tr> <td style="text-align: center; border-right: 1px solid gray;"><input style="width: 40px;" type="text" value="2015"/></td> <td style="text-align: center; border-right: 1px solid gray;"><input style="width: 40px;" type="text" value="7"/></td> <td style="text-align: center;"><input style="width: 40px;" type="text" value="1"/></td> </tr> </table>	Year	Month	Day	<input style="width: 40px;" type="text" value="2015"/>	<input style="width: 40px;" type="text" value="7"/>	<input style="width: 40px;" type="text" value="1"/>
Year	Month	Day					
<input style="width: 40px;" type="text" value="2015"/>	<input style="width: 40px;" type="text" value="7"/>	<input style="width: 40px;" type="text" value="1"/>					
Help display content	<div style="border: 1px solid gray; height: 40px; width: 100%;"></div> <small>(Max.300 characters)</small>						

Type	Description		
Name	Set the attribute name using maximum 30 characters. The attribute name is used as a text string displayed on the operator screen.		
Panel display	Sets whether to display or not display the attribute value settings screen. The default value is unconditionally applied if the screen is set to not display.		
Changes from panel	Sets whether or not to permit input using the panel. This setting is not valid if the panel display is set to not display. If this setting is set to forbidden, the operator screen displays the screen that shows the default value and only the set button is enabled.		
Allow space	Permits or forbids setting a null value. An error occurs if a person executing workflow attempts to set a null value using the operator panel when this setting is set to forbidden.		
Date display type	Sets the format applied when embedding in metadata. Select from twelve types. <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> ● YYYYMMDD ● MMDDYYYY ● DDMMYYYY ● YYYY/MM/DD ● MM/DD/YYYY ● DD/MM/YYYY </td> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> ● YYYY.MM.DD ● MM.DD.YYYY ● DD.MM.YYYY ● YYYY-MM-DD ● MM-DD-YYYY ● DD-MM-YYYY </td> </tr> </table>	<ul style="list-style-type: none"> ● YYYYMMDD ● MMDDYYYY ● DDMMYYYY ● YYYY/MM/DD ● MM/DD/YYYY ● DD/MM/YYYY 	<ul style="list-style-type: none"> ● YYYY.MM.DD ● MM.DD.YYYY ● DD.MM.YYYY ● YYYY-MM-DD ● MM-DD-YYYY ● DD-MM-YYYY
<ul style="list-style-type: none"> ● YYYYMMDD ● MMDDYYYY ● DDMMYYYY ● YYYY/MM/DD ● MM/DD/YYYY ● DD/MM/YYYY 	<ul style="list-style-type: none"> ● YYYY.MM.DD ● MM.DD.YYYY ● DD.MM.YYYY ● YYYY-MM-DD ● MM-DD-YYYY ● DD-MM-YYYY 		
Default value	Sets the initial value of the set value. When the panel display is set to not display or the setting of the changes from panel is set to forbidden, this value is embedded to metadata.		
Help display content	Defines the help string using a maximum of 300 characters.		

Input method 6: Password

This requests input of a password to the person executing workflow on the operator panel. The input string is concealed by asterisks. The following settings are required for defining a User Defined Attribute in password format.

Enter password settings
*required input

Name*	<input style="width: 90%;" type="text" value="PasswordSample"/> <small>(Max.30 characters)</small>
Panel display	<input checked="" type="radio"/> Display <input type="radio"/> Hide display
Changes from panel	<input checked="" type="radio"/> Permit <input type="radio"/> Forbidden
Allow space	<input checked="" type="radio"/> Permit <input type="radio"/> Forbidden
Length of Password*	<input style="width: 40%;" type="text" value="1"/> ~ <input style="width: 40%;" type="text" value="30"/> <small>(1 ~ 30)</small>
Default Password*	<input style="width: 90%;" type="text" value="aaaaaa"/>
Help display content	<div style="border: 1px solid gray; height: 40px; width: 95%;"></div> <small>(Max.300 characters)</small>

Type	Description
Name	Set the attribute name using maximum 30 characters. The attribute name is used as a text string displayed on the operator screen.
Panel display	Sets whether to display or not display the attribute value settings screen. The default password is unconditionally applied if the screen is set to not display.
Changes from panel	Sets whether or not to permit input using the panel. This setting is not valid if the panel display is set to not display. If this setting is set to forbidden, the operator screen displays the screen that shows the default password and only the set button is enabled.
Allow space	Permits or forbids setting a null value. An error occurs if a person executing workflow attempts to set a null value using the operator panel when this setting is set to forbidden.
Length of Password	Sets the length of the password string in a numeric value from 1 to 30.
Default Password	Sets the initial value of the set value. When the panel display is set to not display or the setting of the changes from panel is set to forbidden, this value is embedded to metadata.
Help display content	Defines the help string using a maximum of 300 characters.

Input method 7: ON/OFF

This displays an ON/OFF selection screen and requests input to the person executing workflow on the operator panel. The following settings are required for defining a User Defined Attribute in ON/OFF format.

ON/OFF input settings
*required input

Name*	<input style="width: 90%;" type="text" value="ON/OFF Sample"/> <small>(Max.30 characters)</small>
Panel display	<input checked="" type="radio"/> Display <input type="radio"/> Hide display
Changes from panel	<input checked="" type="radio"/> Permit <input type="radio"/> Forbidden
Default value of attributes	<input checked="" type="radio"/> ON <input type="radio"/> OFF
Text string sent when ON is selected*	<input style="width: 90%;" type="text" value="ON"/> <small>(Max.80 characters)</small>
Text string sent when OFF is selected*	<input style="width: 90%;" type="text" value="OFF"/> <small>(Max.80 characters)</small>
Help display content	<div style="border: 1px solid gray; height: 40px; width: 90%;"></div> <small>(Max.300 characters)</small>

Type	Description
Name	Set the attribute name using maximum 30 characters. The attribute name is used as a text string displayed on the operator screen.
Panel display	Sets whether to display or not display the attribute value settings screen. The default value of attributes is unconditionally applied if the screen is set to not display.
Changes from panel	Sets whether or not to permit input using the panel. This setting is not valid if the panel display is set to not display. If this setting is set to forbidden, the operator screen displays the screen that shows the default value of attributes and only the set button is enabled.
Text string sent when ON is selected	Defines the text string embedded to metadata when ON is selected using maximum 80 characters.
Text string sent when OFF is selected	Defines the text string embedded to metadata when OFF is selected using maximum 80 characters.
Help display content	Defines the help string using a maximum of 300 characters.

Input method 8: Address book type input

This displays a screen on the operator panel to prompt the person executing workflow to select a telephone number or e-mail address from a telephone book. The following settings are required for defining a User Defined Attribute in address book type input format.

Address book type input settings *required input

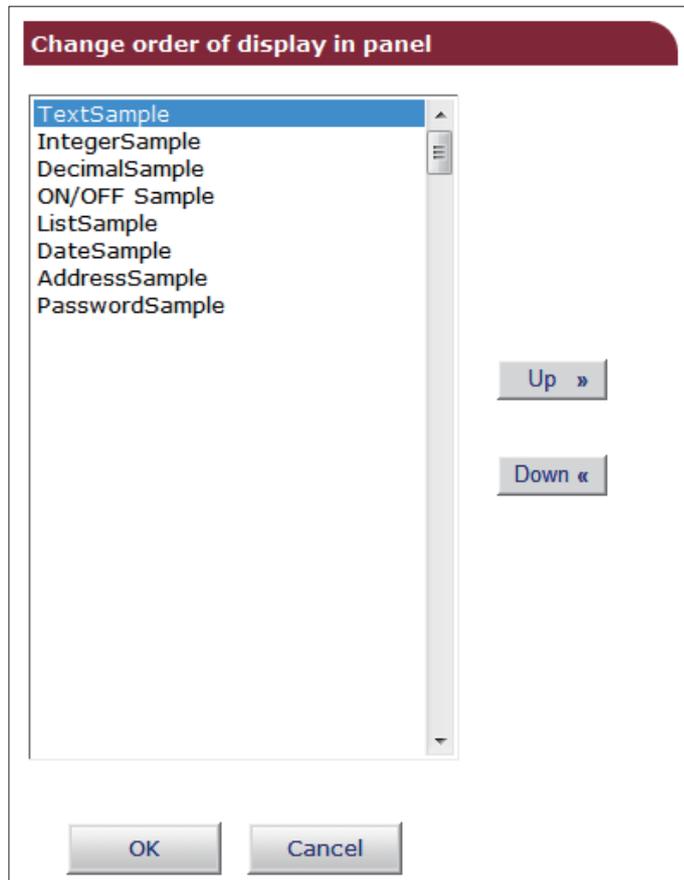
Name*	<input type="text" value="AddressSample"/> <small>(Max.30 characters)</small>
Panel display	<input checked="" type="radio"/> Display <input type="radio"/> Hide display
Changes from panel	<input checked="" type="radio"/> Permit <input type="radio"/> Forbidden
Allow space	<input checked="" type="radio"/> Permit <input type="radio"/> Forbidden
Address book type	<input type="text" value="E-mail address"/> ▾
Help display content	<div style="border: 1px solid gray; height: 40px; width: 100%;"></div> <small>(Max.300 characters)</small>

Type	Description
Name	Set the attribute name using maximum 30 characters. The attribute name is used as a text string displayed on the operator screen.
Panel display	Sets whether to display or not display the attribute value settings screen. If the screen is set not display, a null value is embedded in metadata for this information has no standard value.
Changes from panel	Sets whether or not to permit input using the panel. This setting is not valid if the panel display is set to not display. If this setting is set to forbidden, the operator screen displays the screen that shows a null value and only the set button is enabled.
Allow space	Permits or forbids setting a null value. An error occurs if a person executing workflow attempts to set a null value using the operator panel when this setting is set to forbidden.
Address book type	Selects from address book and E-mail address.
Help display content	Defines the help string using a maximum of 300 characters.

Changing the order of display in panel

The the input screens of the User Defined Attributes shown on the operator panel are basically displayed in an order of the timing of definition completion. However, the order can be changed after definition is complete.

Change of the order displayed on the panel is performed using "Change order of display in panel" in STEP5 "Selection and setting of attributes". When "Change order of display in panel" is clicked, the following screen appears. Select the User Defined Attribute of that you want to change the order and move it to your desired place by clicking [Move Up] or [Move Down]. The higher up in the order, the more quickly it is displayed on the operator panel.



Selecting metadata template (Step 6)

This uploads a metadata template to the MFP.

This specifies a metadata template and executes upload. When this operation is executed, the metadata template is associated with the entry.

If a metadata template had been previously uploaded, the old metadata template in the MFP is deleted and replaced with the new metadata template.

The metadata template must be created before uploading. For information on creating metadata templates, see "4. Editing a Metadata Template" (p. 30).

The entry can be saved before editing is complete. If the metadata template has not yet been created in this step, save the entry to create the metadata template, and then edit the entry again and upload the metadata template.

4. Editing a Metadata Template

After obtaining a metadata template specified by a system such as the electronic workflow that the MFP cooperates with, edit the template file to insert the attribute ID text string defined in the entry. The maximum size of a metadata template is 10 kbytes.

When an entry is deleted, a metadata template uploaded to the MFP will be deleted simultaneously.

When an attribute ID is not added to the usage attribute list and you add it to a metadata template, that attribute ID will not be replaced with the actual value, and the attribute ID itself will be output to the metadata.

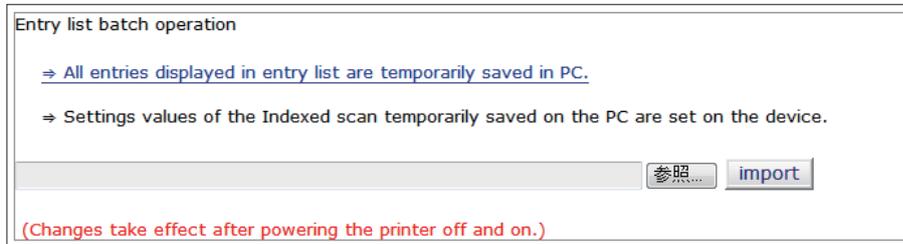
The following is an example of a metadata template.

In metadata, the section written as the attribute ID is replaced with the actual value.

```
--User Defined Attributes--
NUM=%%USER0001%%
DEC=%%USER0002%%
CHAR=%%USER0003%%
LIST=%%USER0004%%
ONOFF=%%USER0005%%
DATE=%%USER0006%%
ADDRS=%%USER0007%%
PSWD=%%USER0008%%

--Existing Attributes--
PRINTERNAME =%%PRT_PRINTERNAME%%
SERIAL =%%PRT_SERIAL%%
MANUFACT =%%PRT_MANUFACT%%
FWVER =%%PRT_FWVER%%
IPADDRESS =%%PRT_IPADDRESS%%
PICTFILENAME =%%PRT_PICTFILENAME%%
```

5. Entry List Batch Operation



All entries displayed in entry list are temporarily saved in personal computer.

This enables saving the entry list registered on the MFP to a local disk on a personal computer. A destination folder and filename can be specified to use this file as a backup for the entry list.

All the setting contents of the entry and metadata templates uploaded to the MFP are saved.

Settings values of the Indexed Scan temporarily saved on the personal computer are set on the MFP.

This updates the entry list on the MFP using an entry list saved on a personal computer.

The entry lists on the MFP to be updated are all deleted.

Entry access privileges become the same as when setting entry registration ("Allow all users" or "Prohibits all users"). Access privileges that are changed individually per roles using user management/access control are not saved.

Appendix

Metadata Template Sample

```

<Dokumente>
  <Dokument>
    <printer_name>%%PRT_PRINTERNAME%%</printer_name>
    <printer_serial_number>%%PRT_SERIAL%%</printer_serial_number>
    <manufacturer>%%PRT_MANUFACT%%</manufacturer>
    <firmware_version>%%PRT_FWVER%%</firmware_version>
    <ip_address>%%PRT_IPADDRESS%%</ip_address>
    <location>%%PRT_LOCATION%%</location>
    <contact>%%PRT_CONTACT%%</contact>
    <domain_name>%%PRT_FQDN%%</domain_name>
    <department_name>%%PRT_DEPTNAME%%</department_name>
    <entry_name>%%PRT_ENTRYNAME%%</entry_name>
    <meta_template_name>%%PRT_METATEMPNAME%%</meta_template_name>
    <attribute_number>%%PRT_NUMATTRIBUTE%%</attribute_number>
    <picture_targeturl>%%PRT_PICTURL%%</picture_targeturl>
    <picture_protocol>%%PRT_PICTPROTOCOL%%</picture_protocol>
    <picture_port>%%PRT_PICTPORT%%</picture_port>
    <picture_userid>%%PRT_PICTUSER%%</picture_userid>
    <picture_filename>%%PRT_PICTFILENAME%%</picture_filename>
    <meta_targeturl>%%PRT_METAURL%%</meta_targeturl>
    <meta_protocol>%%PRT_METAPROTOCOL%%</meta_protocol>
    <meta_port>%%PRT_METAPORT%%</meta_port>
    <meta_userid>%%PRT_METAUSER%%</meta_userid>
    <meta_filename>%%PRT_METAFILENAME%%</meta_filename>
    <colormode>%%PRT_COLORMODE%%</colormode>
    <resolution>%%PRT_RESOLUTION%%</resolution>
    <fileformat>%%PRT_FILEFORMAT%%</fileformat>
    <user_name>%%PRT_USERNAME%%</user_name>
    <start_time>%%PRT_STARTTIME%%</start_time>
    <complete_time>%%PRT_COMPTIME%%</complete_time>
    <result>%%PRT_RESULT%%</result>
    <file_number>%%PRT_NUMFILE%%</file_number>
    <pages>%%PRT_PAGES%%</pages>
    <date>%%PRT_DATE%%</date>
    <year>%%PRT_YEAR%%</year>
    <month>%%PRT_MONTH%%</month>
    <day>%%PRT_DAY%%</day>
    <random>%%PRT_RANDOM%%</random>
  </Dokument>
</Documente>

```

Metadata Sample

```
<Dokumente>
  <Dokument>
    <printer_name>MC873</printer_name>
    <printer_serial_number>AA00000000</printer_serial_number>
    <manufacturer>OKI DATA CORP</manufacturer>
    <firmware_version>A06.02_0_6</firmware_version>
    <ip_address>192.168.100.100</ip_address>
    <location>OfficeA1</location>
    <contact>0123456789</contact>
    <domain_name></domain_name>
    <department_name></department_name>
    <entry_name>Entry_PrintAttr</entry_name>
    <meta_template_name>METATEMP_printattr.txt</meta_template_name>
    <attribute_number>42</attribute_number>
    <picture_targeturl>//192.168.100.150/picture</picture_targeturl>
    <picture_protocol>FTP</picture_protocol>
    <picture_port>21</picture_port>
    <picture_userid>sample</picture_userid>
    <picture_filename>image.pdf</picture_filename>
    <meta_targeturl>//192.168.100.150/metadata</meta_targeturl>
    <meta_protocol>FTP</meta_protocol>
    <meta_port>21</meta_port>
    <meta_userid>sample2</meta_userid>
    <meta_filename>meta.xml</meta_filename>
    <colormode>AUTOCOLOR</colormode>
    <resolution>200dpi</resolution>
    <fileformat>MultiplePDF</fileformat>
    <user_name>default</user_name>
    <start_time>12:19:16</start_time>
    <complete_time>12:19:24</complete_time>
    <result>completed</result>
    <file_number>1</file_number>
    <pages>1</pages>
    <date>20150425</date>
    <year>2015</year>
    <month>04</month>
    <day>25</day>
    <random>578954</random>
  </Dokument>
</Dokumente>
```