



SII Printer Driver for Windows User's Guide

Rev.05

[Products]

MP-B20 Series

Seiko Instruments Inc.

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Introduction

This manual describes the "SII Printer Driver for Windows" for MP-B20 (hereinafter referred to as "printer driver") provided by Seiko Instruments Inc.

This manual is basically written on the basis of the following conditions:

- Screenshots and display layouts of Windows 10
- Operating instructions with a mouse and a keyboard

Symbols

This section describes symbols used in this manual.

Caution

- ◆ Notes and limitations are described.

Reference

- Supplemental information and related matters are described.

Target Printer

This section lists the printer (product) supported by the printer driver.

Printer	Interface
MP-B20 Series	Bluetooth
	USB

Operating System Abbreviations

This section lists the operating system abbreviations used in this manual.

When an individual description is necessary, the description is written in parentheses behind the abbreviation.

- | | |
|-----------------------------------|------------------------------------|
| • General Microsoft® Windows® | → Windows |
| • Microsoft® Windows® 11 | → Windows 11 |
| • Microsoft® Windows® 10 | → Windows 10 |
| • Microsoft® Windows Server® 2019 | → Windows 10 (Windows Server 2019) |
| • Microsoft® Windows Server® 2016 | → Windows 10 (Windows Server 2016) |
| • Microsoft® Windows® 8.1 | → Windows 8.1 |
| • Microsoft® Windows Server® 2012 | → Windows Server 2012 |

Terms

This section describes terms used in this manual.

Term	Description
Tool	Various tools which can be started by the printer driver.
Printer name	Friendly name which is displayed in the Printer folder and can be changed by users.
Driver name	Unique model name for identifying the printer driver.
SDK	Dynamic link library (DLL) for application development provided with the printer driver, designed to directly communicate with a printer to control it.
Printer command	Instruction to control the printer, described in "MP-B20 SERIES THERMAL PRINTER TECHNICAL REFERENCE".
Test Print command	Instruction to execute the test print in the printer driver. Various commands which are entered in the [Command List] of [Test Print] in the tool panel.
Memory switch	Feature for the [Function Setting] described in "MP-B20 SERIES THERMAL PRINTER USER'S GUIDE".
NV image	Image data that is registered in the NV memory (non-volatile memory) in the printer.
IPD*1 font	Generic name of the following fonts specific to the printer driver. <ul style="list-style-type: none">▪ Device font▪ Barcode font▪ 2D-Barcode font▪ Control font▪ ControlA font
Special font	Generic name of the following fonts in the IPD font, which are used to output the Printer command. <ul style="list-style-type: none">▪ Barcode font▪ 2D-Barcode font▪ Control font▪ ControlA font
Maintenance Counter	Maintenance counter value which can be retrieved by the Printer command.
Printer status	Response retrieved by the Printer command "Automatic Status Back Enable/Disable". For details of response, see "5.2.3 List of Status".
Dot	A unit that configures print. Printer resolution is 8 dots per 1 mm.

*1 : Integrated Printer Driver

Notations

In this manual, the following OS-dependent contents are defined as common names.

Printer folder

The "Printer folder" described in this manual means the folder displayed by one of the following operations.

[Devices and Printers] folder displayed by selecting [Control Panel] => [Hardware and Sound]

Print Server Properties

The "Print Server Properties" described in this manual means the properties displayed by one of the following operations.

[Print Server Properties] displayed by clicking any printer icon in the Printer folder and selecting [Print Server Properties] displayed on the toolbar at the top of the Printer folder.

Disclaimer

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Chapter 1 Overview	1-1
1.1 Operating Environment.....	1-1
1.1.1 Operating Systems.....	1-1
1.1.2 Computers.....	1-1
1.1.3 Interfaces.....	1-2
1.2 Use Conditions of Memory Switch.....	1-3
1.3 Limitation.....	1-4
Chapter 2 Installation	2-1
2.1 New Installation Method	2-2
2.1.1 Common Installation Procedure.....	2-2
2.1.2 Installation with USB Connection	2-4
2.1.3 Installation with Bluetooth Connection	2-6
2.1.4 Installation of Shared Printer	2-8
2.2 Uninstallation	2-10
Chapter 3 Printing Preferences	3-1
3.1 Layout	3-2
3.1.1 Setting of Layout.....	3-2
3.2 Paper/Quality	3-3
3.2.1 Setting of Paper/Quality	3-3
3.3 Document Settings	3-4
3.3.1 Setting of Document.....	3-4
3.3.2 Mark List of Setting View.....	3-5
3.3.3 Categories of Setting List	3-5
3.3.4 Use of Preset.....	3-6
3.3.5 General Settings.....	3-7
3.3.6 Setting of Paper Feed	3-8
3.3.7 Setting of Option.....	3-9
3.3.8 How to Use Binary Editor	3-10
3.4 Font.....	3-11
3.4.1 Setting of Font	3-11
3.4.2 Mark List of Setting View.....	3-12
3.4.3 Categories of Setting List	3-12
3.4.4 Setting of Device Font	3-13
3.4.5 Setting of Barcode Font.....	3-15
3.4.6 Setting of 2D-Barcode Font.....	3-19
3.4.7 Setting of ControlA Font	3-22

3.5	Advanced Options.....	3-23
3.5.1	Setting of Advanced Options.....	3-23

Chapter 4 Printer Property	4-1
-----------------------------------	------------

4.1	General	4-2
4.2	Sharing.....	4-3
4.3	Ports.....	4-4
4.4	Tool.....	4-5

Chapter 5 Tool	5-1
-----------------------	------------

5.1	Display of [Tool].....	5-2
5.2	Information	5-3
5.2.1	Display of Information.....	5-3
5.2.2	Display of Printer Status	5-4
5.2.3	List of Status	5-5
5.2.4	Save of Status History	5-6
5.2.5	Display of Hardware	5-6
5.2.6	Display of Maintenance Counter	5-7
5.3	Memory switch.....	5-8
5.3.1	Setting of Memory Switch.....	5-8
5.3.2	Registration of Memory Switch Settings to Printer.....	5-9
5.3.3	Save of Memory Switch Settings	5-10
5.4	Log	5-11
5.4.1	Setting of Log Output.....	5-11
5.4.2	Change of Log Output Settings	5-13
5.4.3	Content of Log File	5-13
5.5	Test Print	5-14
5.5.1	Setting of Test Print	5-14
5.5.2	Execution of Test Print	5-22
5.5.3	Save of Test Print File	5-22
5.6	NV Image	5-23
5.6.1	Setting of NV Image	5-23
5.6.2	Setting of Registration	5-25
5.6.3	Setting of Edit	5-27
5.6.4	Registration of NV Image	5-28
5.6.5	Edit of Image Data	5-29
5.6.6	Setting of Image Data and Save of Image	5-29
5.7	Codepage	5-30
5.7.1	Setting of Codepage.....	5-30

5.7.2	Setting of Codepage Registration	5-32
5.7.3	Edit of Font Data by [Character View].....	5-34
5.7.4	Registration of Codepage.....	5-35
5.7.5	Edit of Font Data.....	5-36
5.7.6	Setting of Font Data and Save of Image	5-36
5.8	Other	5-37
5.8.1	Setting of Other	5-37
5.8.2	Import of Setting	5-38
5.8.3	Export of Setting	5-38

Chapter 6 Page Setup	6-1
-----------------------------	------------

6.1	Paper size	6-3
6.2	Margin	6-3
6.3	How to Add a New Paper Size	6-5

Chapter 7 Font	7-1
-----------------------	------------

7.1	Device font.....	7-2
7.1.1	Selection of Type of Device Font	7-2
7.1.2	Print of Device Font.....	7-3
7.2	Barcode font.....	7-4
7.2.1	Selection of Type of Barcode Font.....	7-4
7.2.2	Print of Barcode Font.....	7-5
7.3	2D-Barcode Font.....	7-7
7.3.1	Selection of Type of 2D-Barcode Font.....	7-7
7.3.2	Print of 2D-Barcode Font.....	7-7
7.4	Control font	7-8
7.4.1	Selection of Type of Control Font.....	7-8
7.4.2	Use of Control Font	7-8
7.5	ControlA font	7-9
7.5.1	Selection of Type of ControlA Font	7-9
7.5.2	Use of ControlA Font.....	7-9

Chapter 1 Overview

This chapter describes the overview of the printer driver.

1.1 Operating Environment

This section describes the operating environment of the printer driver.

1.1.1 Operating Systems

The printer driver supports the following operating systems. Supported architectures are described in parentheses.

- Windows 11 (64 bit)
- Windows 10 (32 bit and 64 bit)
- Windows Server 2019 (64 bit)
- Windows Server 2016 (64 bit)
- Windows 8.1 (32 bit and 64 bit)
- Windows Server 2012 (64 bit)

Caution

◆ Modern UI is not supported.

1.1.2 Computers

The printer driver supports the following computers.

- PC/AT compatible machines

1.1.3 Interfaces

The printer driver supports the following interfaces.

- USB (Standard: Full-Speed)
- Bluetooth (Profile: SPP)

Caution

◆ For Bluetooth connection:

- Operating conditions are as follows.
 - The target printer is not connected with another computer via Bluetooth.
 - Microsoft standard system driver is used.
 - Communication is available through a virtual serial port generated when installing via Bluetooth connection.
- The status information of printer information structure (PRINTER_INFO) is not reflected when the printer driver or communication library is not used through Bluetooth communication.
- Bluetooth connection is not supported by Windows Server 2019, 2016 or 2012.

Reference

- Contact us for the operation test verified Bluetooth environment.

1.2 Use Conditions of Memory Switch

Set the Memory switch from the value in the following table.

The Memory switch can be changed by the tool. For details, see "5.3 Memory switch".

MS	Item	Value
1-1	Interface	· USB · Wireless
3-1	Automatic Status Response Selection (Auto Status Back)	· Enable · Disable ^{*1}
3-2	Initialized Response Selection (Init Response)	· Enable ^{*2} · Disable ^{*1}
3-3	Realtime Command Selection (Realtime Command)	· Enable

*1: Use this setting with "Enable" usually. However, when [Enable bidirectional support] checkbox described in "4.3 Ports" is cleared, set this setting to "Disable".

*2: Required when getting [Initialization Response] in the SDK.

Caution

- ◆ When other than the above Settings are used, it may prevent the printer driver from working properly.

1.3 Limitation

The printer driver has the following limitations.

- Abnormal printing in sleep mode or hibernation mode, which is a part of the Windows standard function, is not guaranteed including garbled characters.
- For using reduction function, it is need to be selected the dedicated print processor (SIIPrintProcessor). Check the selected state of the dedicated print processor from [Advanced...] tab in the printer properties.
- When the printer is unconnected at print suspension or in the state of not accepting data, the printer resetting may not be correctly completed and garble character may occur.

Chapter 2 Installation

This chapter describes the installation procedures.

Caution

- ◆ This installation requires logon to the computer with administrator privileges.

Reference

- When multiple printers using this printer driver are installed, from the second time or later installation, use the installed program [Add printer driver wizard].
[Add printer driver wizard] is available from the following.
 - For Windows 11 and Windows 10
Select [All apps] from Start menu.
Select [Add printer driver wizard] in [SII MP-B20 series printer] from the program list.
 - For Windows 8.1 and Windows Server 2012
Click the down arrow displayed in the bottom left of the tile menu of the Start screen.
Click [Add printer driver wizard] from [SII MP-B20 series printer] in [Apps] view.

2.1 New Installation Method

This section describes the new installation method.

Caution

- ◆ Do not install more than 1 printer for the same communication port.

2.1.1 Common Installation Procedure

This section describes the procedure of starting installation used for every connection.

1. When the [Installer start] window is displayed, click the [Next>] button.

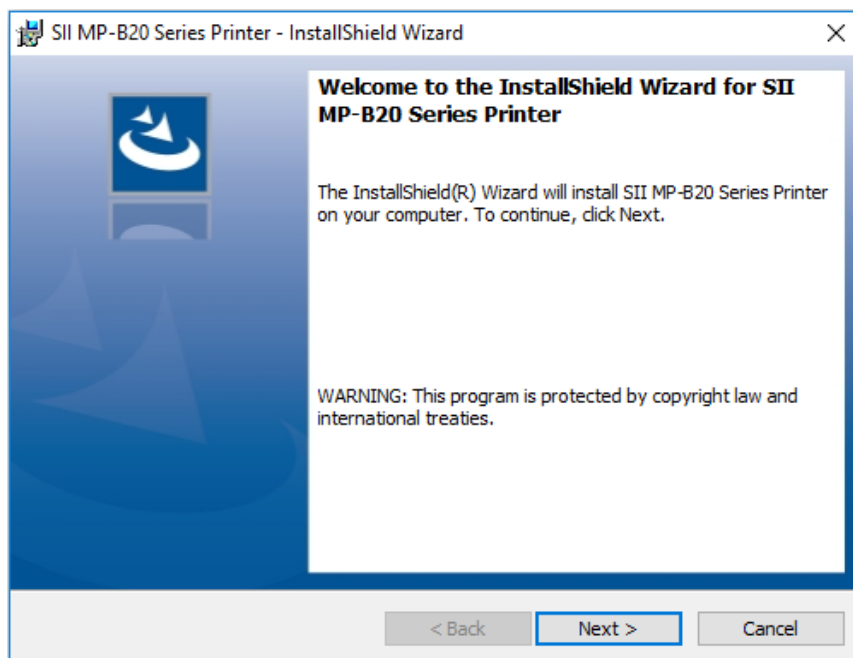


Figure 2-1 [Installer start] window

2. When the [SOFTWARE LICENSE AGREEMENT] is displayed, read it carefully, select "I accept the terms in the license agreement", and then click the [Next>] button.
3. When [Setup type selection] is displayed, select "Complete", and then click the [Next>] button.
When only printer driver is installed, select "Custom", and select the program functions according to the display.

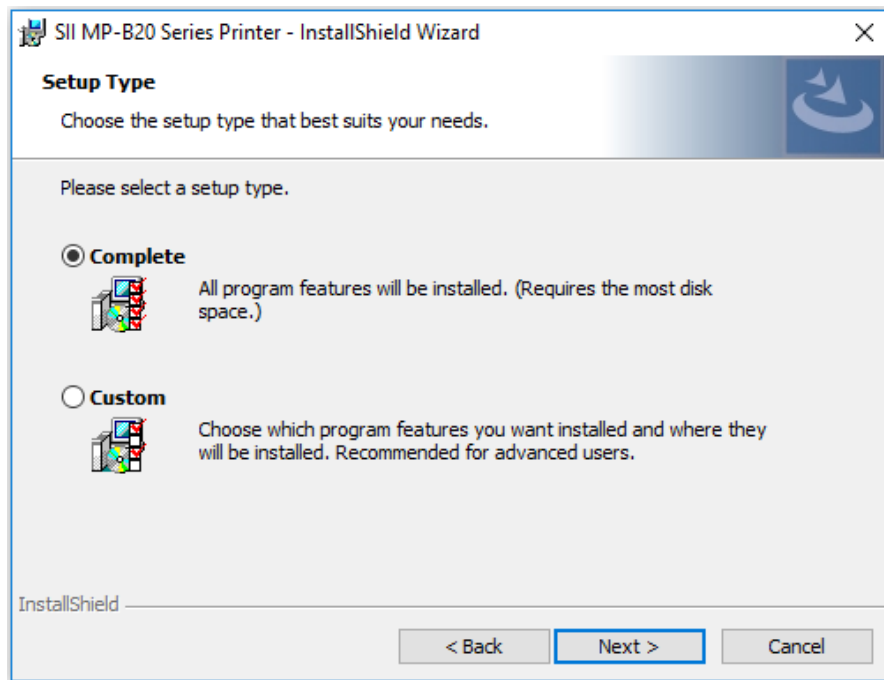


Figure 2-2 [Setup type selection] window

4. When the [Installation confirmation] window is displayed, click [Install] button.

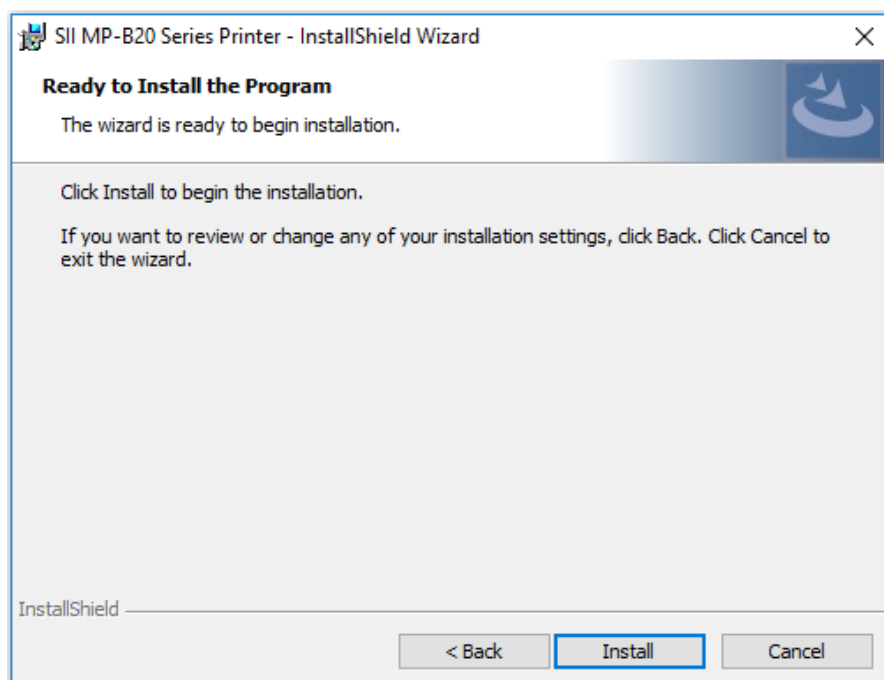


Figure 2-3 [Installation confirmation] window

The subsequent procedure varies depending on the connection method with the printer. For the USB connection, proceed to "2.1.2 Installation with USB Connection". For the Bluetooth connection, proceed to "2.1.3 Installation with Bluetooth Connection". For using shared printer, proceed to "2.1.4 Installation of the Shared Printer".

2.1.2 Installation with USB Connection

This section describes the installation procedure of the USB connection.

Caution

- ◆ For the USB connection, keep the printer power off until being instructed to do so in this manual.

5. When the [Installation format selection] window is displayed, select "Plug and play install (Uses USB port)", and then click the [Install] button.

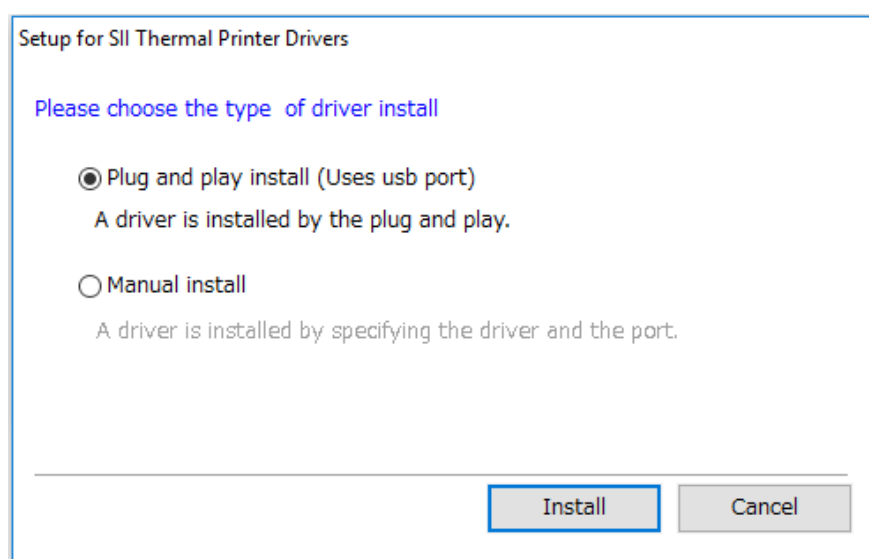


Figure 2-4 [Installation format selection] window (USB connection)

6. When the [Completion] window is displayed, use the USB cable to connect the printer with the computer, and then turn on the printer power.

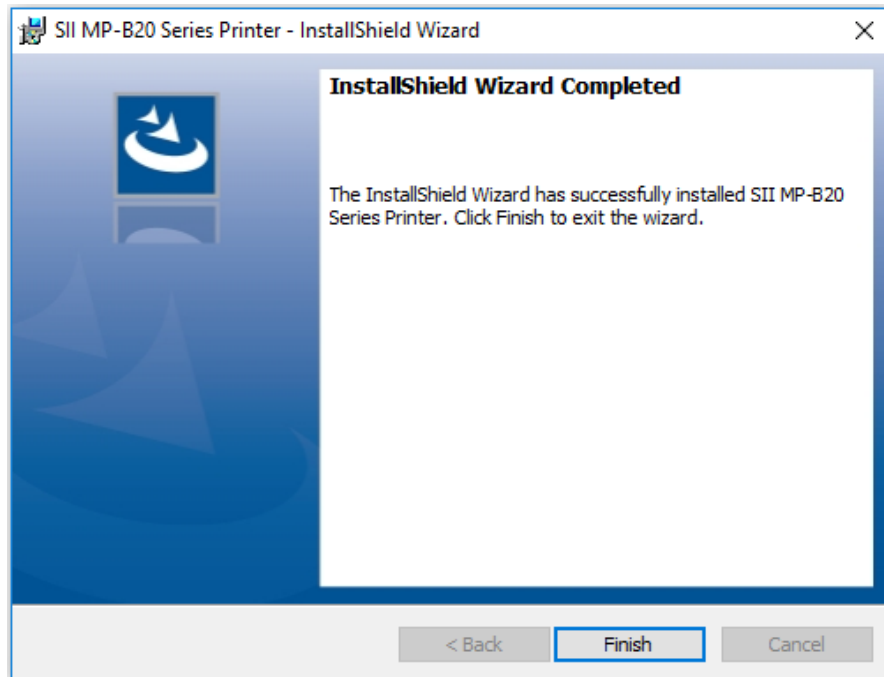


Figure 2-5 [Completion] window (USB connection)

7. After the printer is recognized by the computer, the printer driver is automatically installed by the plug and play.

Caution

- ◆ When reconnecting the USB cable once removed after installing the printer driver successfully, connect it to the same USB port used to install the driver. When the printer is connected to a different USB port on the computer, the host recognizes it as another printer, and again prompts for printer driver installation.

2.1.3 Installation with Bluetooth Connection

Caution

- ◆ When using Bluetooth connection, execute pairing beforehand and assign to generated virtual serial port.
- ◆ When using Bluetooth connection, more than one host cannot be used simultaneously.

This section describes the installation procedure for Bluetooth connection.

5. When the [Installation format selection] window is displayed, select "Manual install". Select the generated virtual serial port, and click the [Install] button. Then, installation will start.

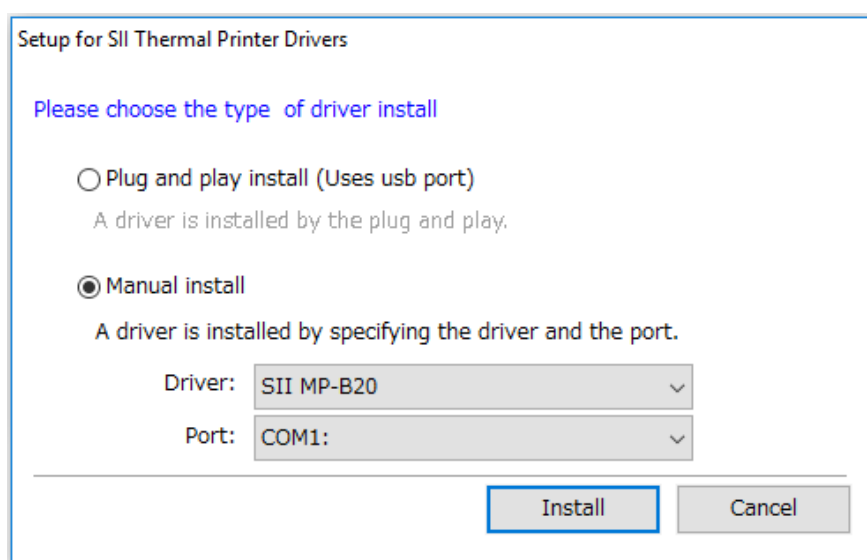


Figure 2-6 [Installation format selection] window (Bluetooth connection)

6. When the installation is completed, the [Completion] window is displayed.

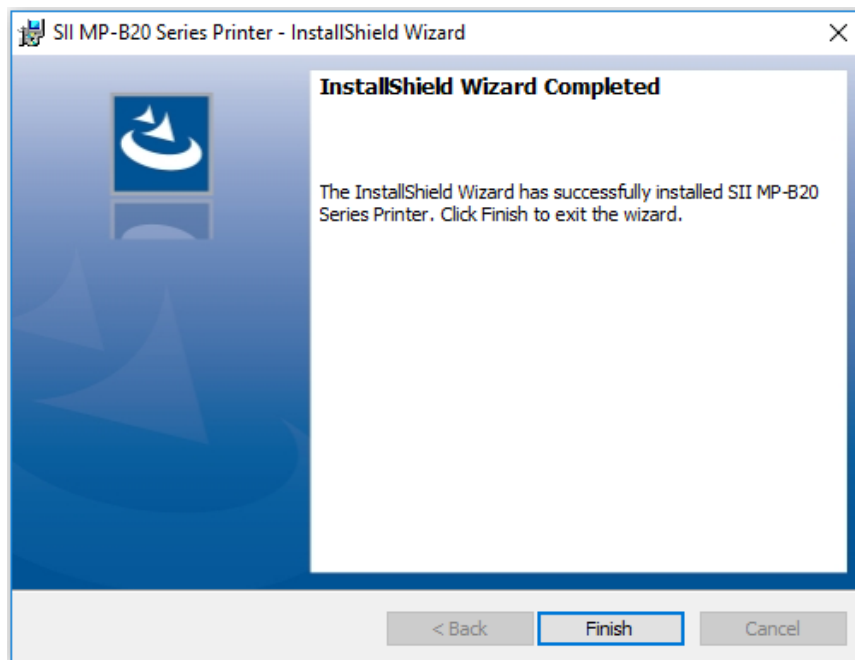


Figure 2-7 [Completion] window (Bluetooth connection)

2.1.4 Installation of Shared Printer

This section describes the installation procedure of the shared printer.

5. When the [Installation format selection] window is displayed, select "Manual install" and "Add New Port...".

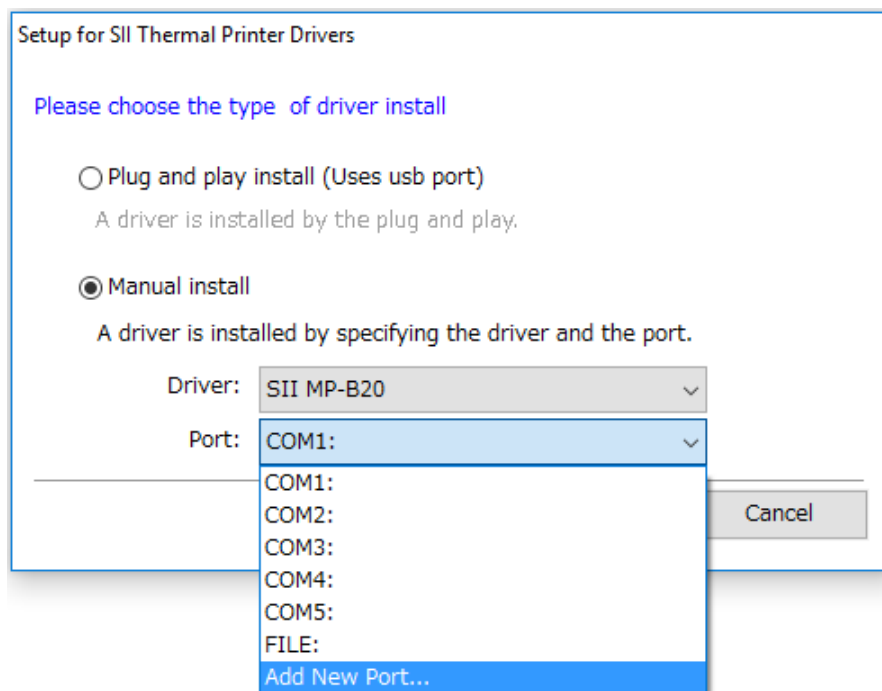


Figure 2-8 [Installation format selection] window (shared printer)

6. When the [New port creation] window is displayed, select "Network Printer Port" and specify [Printer], and then click the [OK] button to add the port to the port list on the [Installation format selection] window.

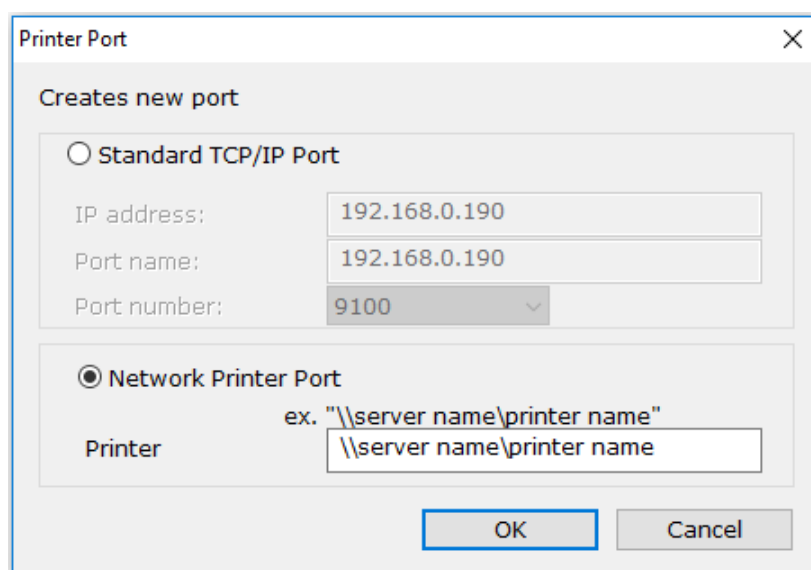


Figure 2-9 [New port creation] window

7. When the [Installation format selection] window is displayed again, select the driver to install and the connection port, and then click the [Install] button. Then, installation will start.

8. When the installation is completed, the [Completion] window is displayed.

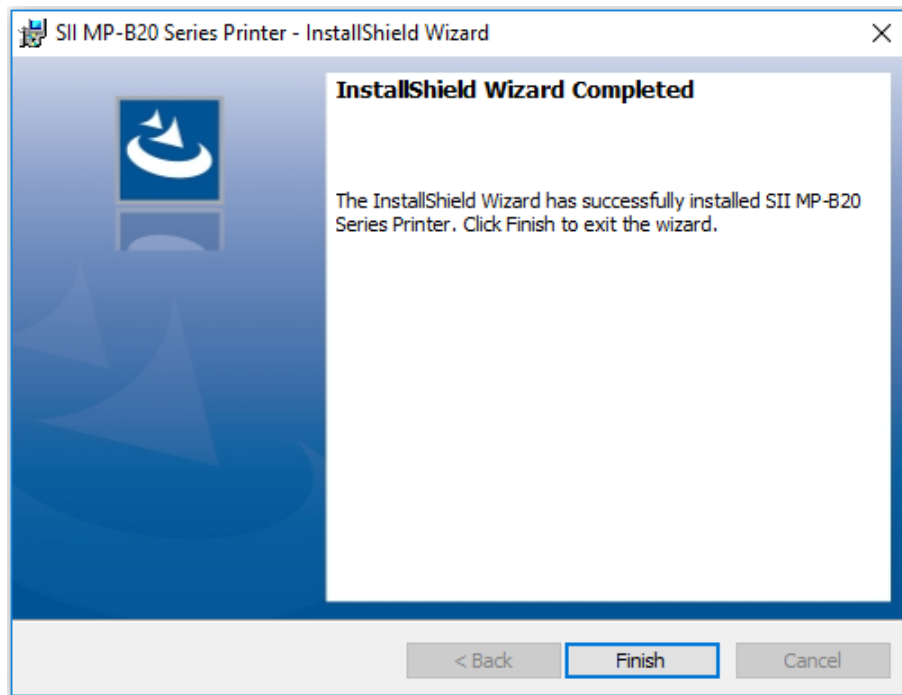


Figure 2-10 [Completion] window (shared printer)

2.2 Uninstallation

When the printer driver is no longer needed, select [SII MP-B20 Series Printer] from [Programs and Features] in the Control Panel, and then uninstall it.

Chapter 3 Printing Preferences

This chapter describes the printing preferences.

The printing preferences can be reviewed and changed from each tabs in the [Printing Preferences] dialog.

To display the setting windows in the [Printing Preferences] dialog, follow the steps below.

1. Right-click a printer icon in the Printer folder to display the sub-menu.
2. Click [Printing Preferences] from the sub-menu.

The following tabs are displayed in the [Printing Preferences] dialog.

- [Layout] tab : Sets the print direction, page order, and page format.
- [Paper/Quality] tab : Sets the print mode.
- [Document Settings] tab : Sets the print format.
- [Font] tab : Sets the IPD font.

Caution

- ◆ When printing from Windows Store Apps in Windows 8.1 or later, only a part of configurable items is displayed in [Printing Preferences] window.

Details of the windows are described in subsequent sections.

3.1 Layout

Sets the print direction, page order, and page format.

3.1.1 Setting of Layout

Select the [Layout] tab to display the window below.

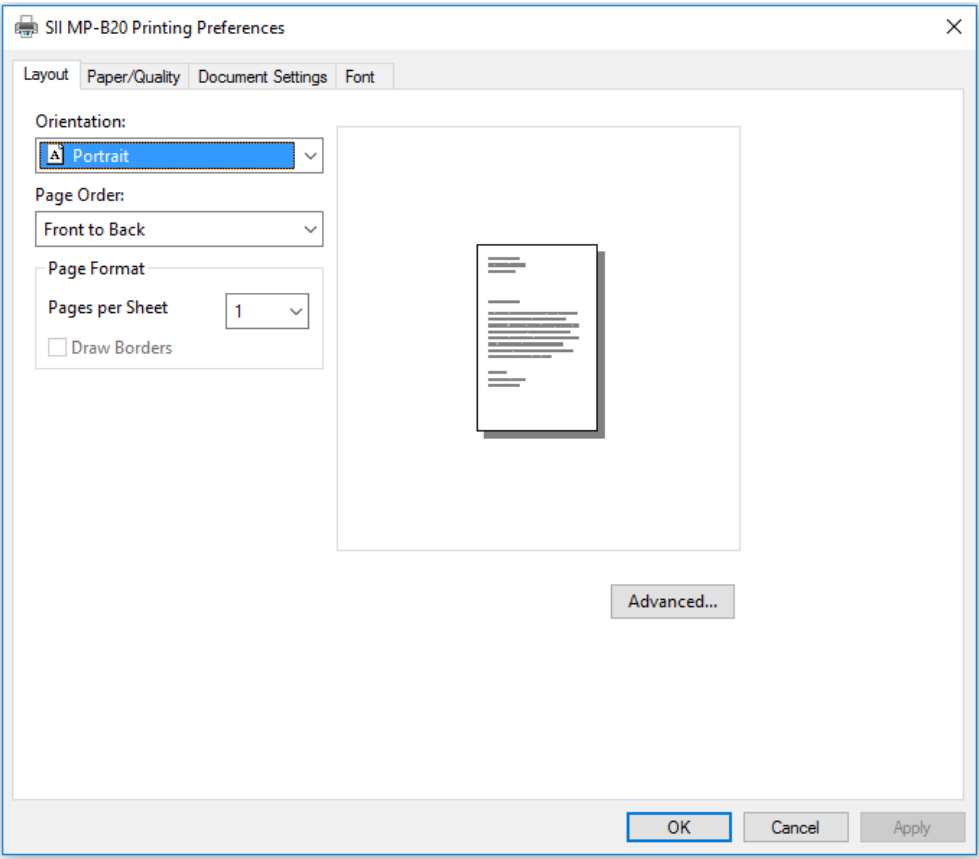


Figure 3-1 [Layout] window

Item	Description ("": Default)
Orientation	Select for the print direction.*1 <ul style="list-style-type: none">PortraitLandscape
Page Order	Select for the order of pages to print. <ul style="list-style-type: none">Front to BackBack to Front
Page Format	Set the number of pages per sheet.
Pages per Sheet	Select for the number of pages to print per sheet. <ul style="list-style-type: none">1246916
Advanced...	Displays the advanced option dialog. For details, see "3.5 Advanced Options".

*1: When selecting "Landscape", the IPD font cannot be used.

3.2 Paper/Quality

Sets the print mode.

3.2.1 Setting of Paper/Quality

Select the [Paper/Quality] tab to display the window below.

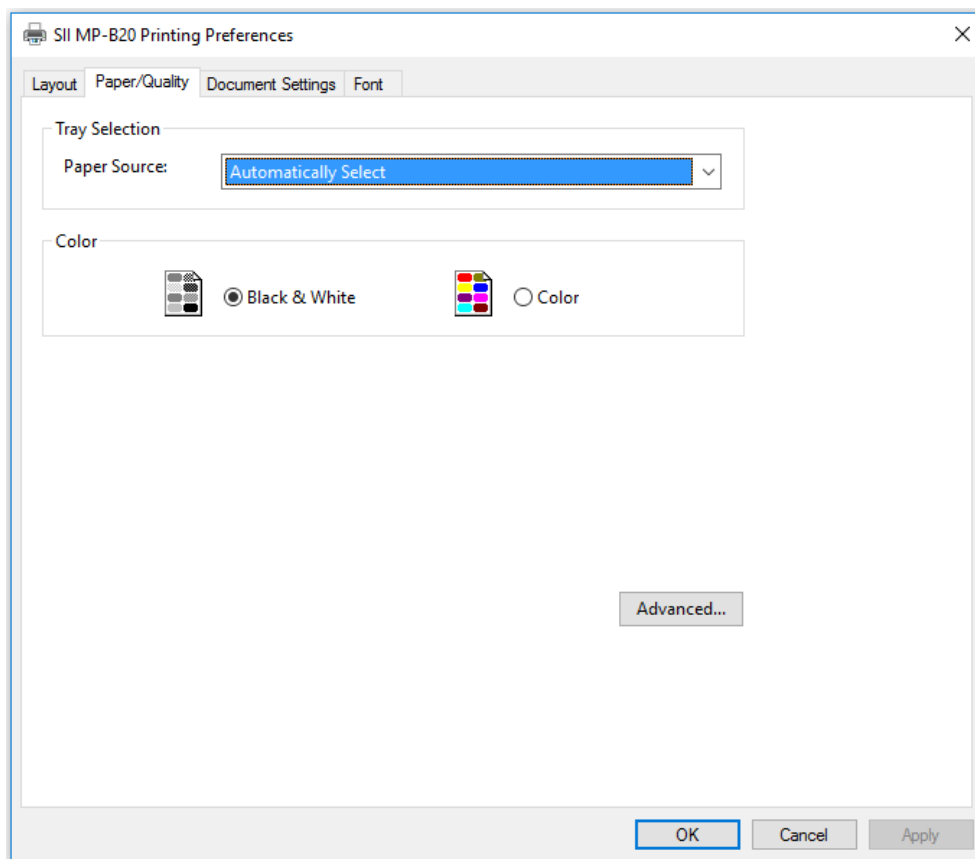


Figure 3-2 [Paper/Quality] window

Item	Description ("": Default)
Tray Selection	Set the paper source.
Paper Source	Fixed to "Automatically Select". <ul style="list-style-type: none">Automatically Select
Color	Select for the print mode.*1, *2 <ul style="list-style-type: none">Black & White (Uses the halftone of the system standard.)Color (Uses the halftone of the printer driver.)
Advanced...	Displays the advanced option dialog. For details, see "3.5 Advanced Options".

*1: When "Color" is selected, only "Auto Select" can be selected in [Halftoning] described in "3.5 Advanced Options".

*2: This setting works in conjunction with [Color Printing Mode] in "3.5 Advanced Options".

3.3 Document Settings

Sets the print format.

3.3.1 Setting of Document

Select the [Document Settings] tab to display the window below.

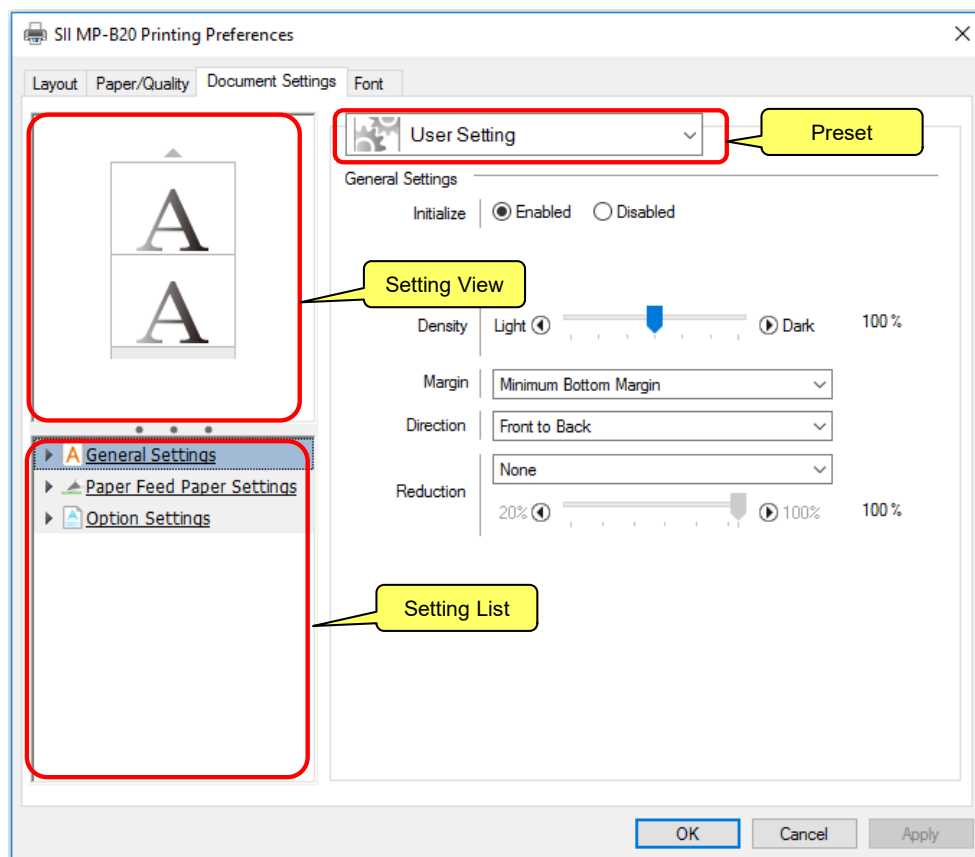










Figure 3-3 [Document Settings] window

Item	Description (" ": Default)
Setting View	Displays the setting state of main functions with marks. For details of marks, see "3.3.2 Mark List of Setting View".
Setting List	Displays all the document setting functions by category. When selecting a category name, the corresponding setting window is displayed. For details of the displayed categories, see "3.3.3 Categories of Setting List". Click ▶ at the left of a category to display the items in the category. An item whose setting is changed is displayed in red until the change is confirmed.
Preset	Select to set previously registered settings at a time for a specific usage. <ul style="list-style-type: none"> • 58 mm Receipt Setting • A4->58 mm Reduction Setting • User Setting For details of the settings of each "Preset", see "3.3.4 Use of Preset".

3.3.2 Mark List of Setting View

The following table describes the marks displayed in the "Setting View" in the [Document Settings] window.

Item	Mark	
Orientation	 Portrait*1	 Landscape*1
Density	 Light	 Dark
Margin	 Maximum Margin	 Minimum Bottom Margin
Direction	 Front to Back*2	 Back to Front*2

*1: Mark displayed when [Direction] is selected to "Front to Back".

*2: Mark displayed when [Orientation] is selected to "Portrait".

3.3.3 Categories of Setting List

The following table describes the functional categories displayed in the "Setting List".

Category	Description
General Settings	Sets basic items such as initialization.
Paper Feed Paper Settings	Sets parameters of paper feed to the paper cut position.
Option Settings	Sets the operations at specific print timings.

Setting items for each category are described in subsequent sections.

3.3.4 Use of Preset

"Preset" enables to set predefined parameters at a time for a specific usage.

When changing any setting item in "Preset", "Preset" is released at that point and then becomes "User Setting".

When changing "Preset" settings, all the setting items except for the document setting are also switched according to the newly specified "Preset". Note that a message about the changed settings is not displayed.

The following table describes the available "Preset" types and its settings.

Preset Type	Item	Description
58 mm Receipt Setting	Advanced Options	
	Paper size	58 mm
	Document Settings	
	General Settings	
	Reduction	None
	Paper Feed Settings	
	Paper feed to cut position	Enabled
A4->58 mm Reduction Setting	Advanced Options	
	Paper size	A4
	Document Settings	
	General Settings	
	Reduction	Fit 58 mm Width
	Paper Feed Settings	
	Paper feed to cut position	Enabled

The following table describes the common "Preset" settings.

Type	Item	Description
Common Settings	Layout	
	Orientation	Portrait
	Document Settings	
	General Settings	
	Initialize	Enabled
	Density	100 %
	Margin	Minimum Bottom Margin
	Direction	Front to Back
	Option Settings	
	(Common to all timings)	
	Enable/disable logo	Disabled
	Feed	0 dots
	Send Command	(Blank)

3.3.5 General Settings

Select [General Settings] in the "Setting List" to display the window below.

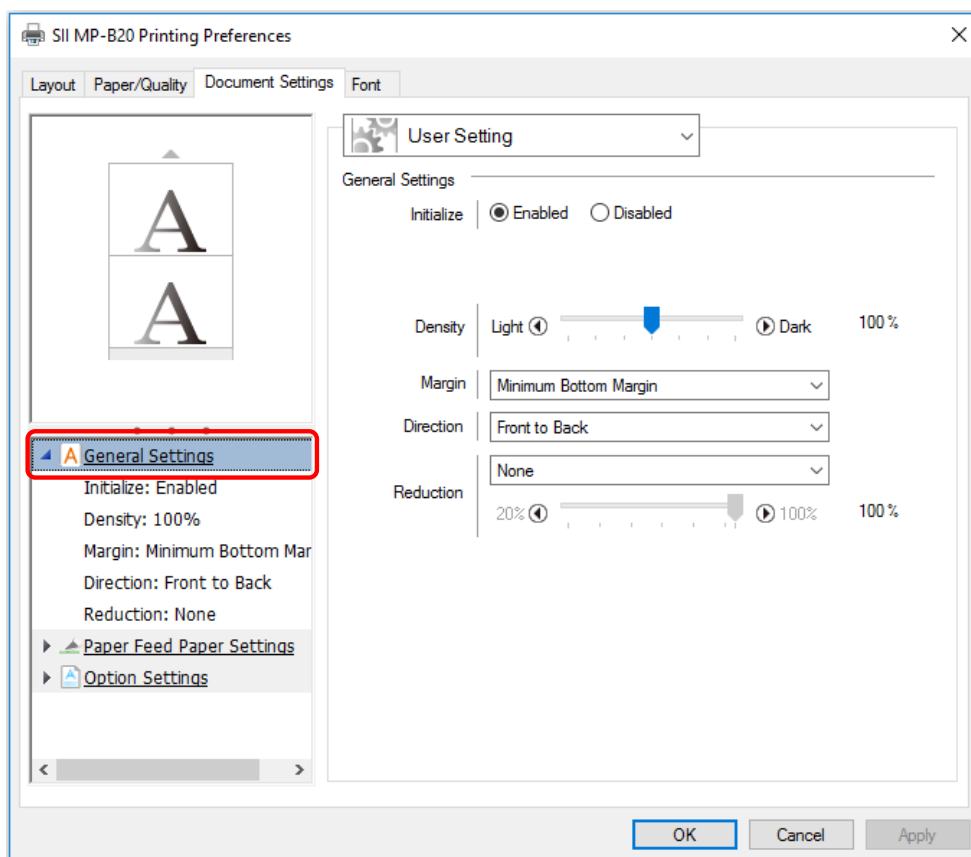


Figure 3-4 [General Settings] window

Item	Description ("": Default)
General Settings	Set basic items such as initialization.
Initialize	Select whether or not to initialize the printer before printing. <ul style="list-style-type: none"> Enabled Disabled
Density	Set the print density (Unit:%). <ul style="list-style-type: none"> 70 to 130 (100)
Margin	Select for the margin. <ul style="list-style-type: none"> Minimum Bottom Margin^{*1} Maximum Margin
Direction ^{*2}	Select for the paper feed direction. <ul style="list-style-type: none"> Front to Back Back to Front
Reduction ^{*3}	Set the reduction print. <ul style="list-style-type: none"> None Fit 58 mm Width Scale [20 to 100] (Unit: %)

*1: When the print size is less than 30mm, paper is fed to be 30mm.

*2: When selecting "Back to Front", the IPD font cannot be used.

*3: When selecting other than "None", the IPD font cannot be used.

Reference

- **Direction**
When setting [Direction] to "Back to Front", available to rotate the print data by 180°.
- **Margin**
When setting [Margin], change margin quantities.
 - **Minimum Bottom Margin:** Feed the paper to the end of the image regardless of the paper height.
 - **Maximum Margin:** Feed the paper to the paper height.
However, maximum of the paper feed length is the paper height including the printing data.

3.3.6 Setting of Paper Feed

Select [Paper Feed Settings] in the "Setting List" to display the window below.

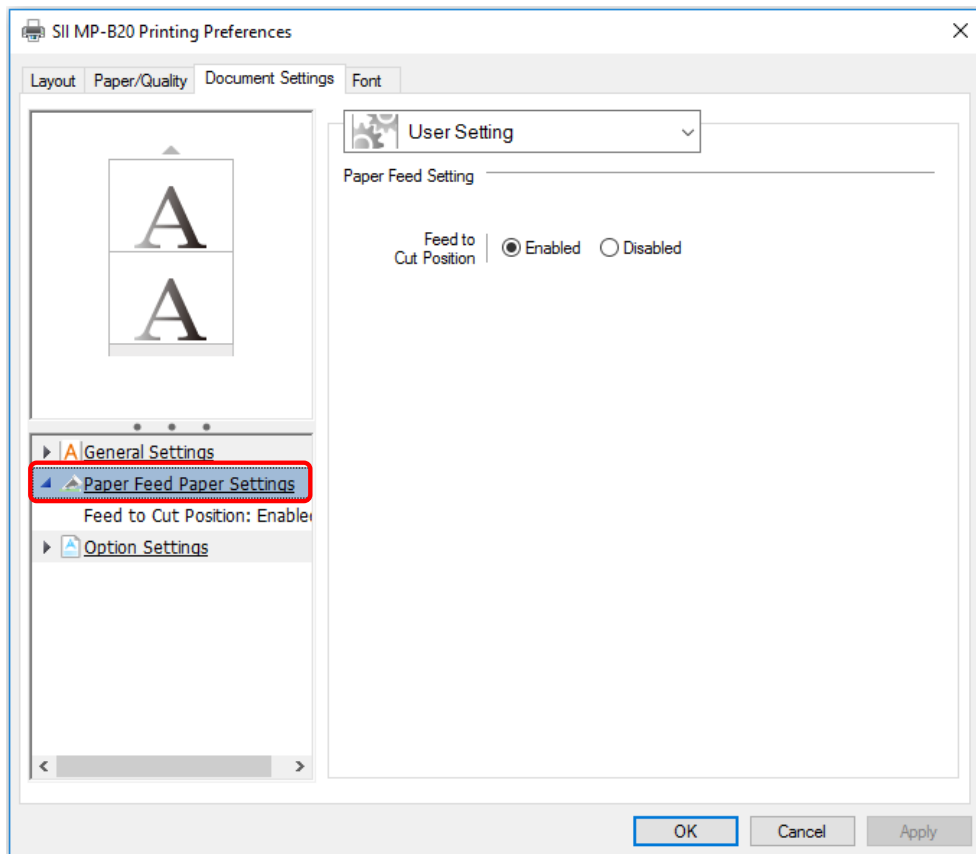


Figure 3-5 [Paper Feed Settings] Window

Item	Description ("": Initial Value)
Paper Feed Paper Settings	Set parameters of paper feed to the paper cut position.
Feed to Cut Position	Select whether or not to feed the paper to the cut position. <ul style="list-style-type: none"> • Enabled • Disabled

3.3.7 Setting of Option

Select [Option Settings] in the "Setting List" to display the window below.

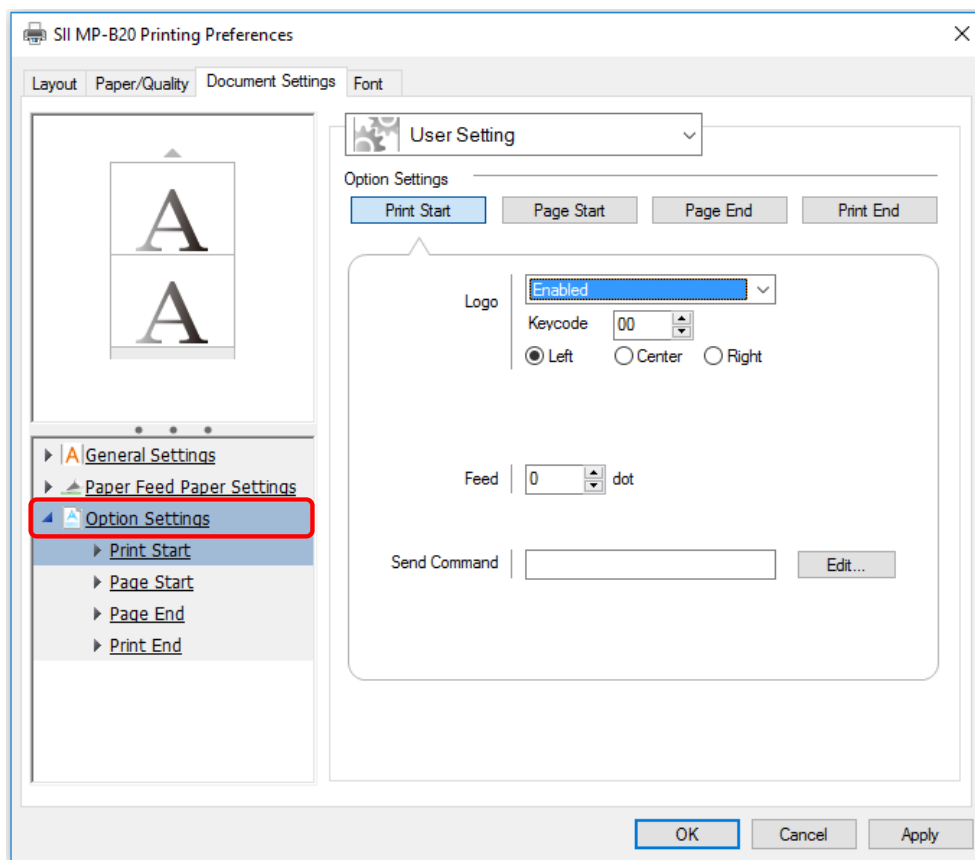


Figure 3-6 [Option Settings] window

Item	Description ("": Default)
Option Settings	Set parameters about the Logo, Feed, and Send command.
Print Start Page Start Page End Print End	Set the operations at specific timings.
Logo	Set parameters about the logo.
Enable/disable logo	Select whether or not to show the logo. <ul style="list-style-type: none"> Disabled Enabled
Keycode	Set the keycode of the logo. <ul style="list-style-type: none"> 00 to 99
Logo Position	Select for the position to print the logo. <ul style="list-style-type: none"> Left Center Right
Feed	Set the feed (Unit: dot). <ul style="list-style-type: none"> 0 to 255 (0)

Item		Description ("": Default)
	Send Command	Set the Printer command to send.
	Command data	Displays the Printer command to send. To enter data, use the binary editor which is displayed by clicking the [Edit...] button.
	Edit...	Enter the Printer command by the binary editor. The Printer command entered is displayed in [Command data]. Up to 128 bytes can be specified. For details of the binary editor, see "3.3.8 How to Use Binary Editor".

Reference

- Logo
Function to print a predefined image as logo. An NV image is used as the logo image.
For details of the NV image, see "5.6 NV Image".

3.3.8 How to Use Binary Editor

For a control in which the Printer command or arbitrary data needs to be input, the binary editor is used.

Use the binary editor in the following situation.

- [Send Command] of [Option Settings] in the [Document Settings]
- [ControlA Font Settings]
- To set [Custom Cmd.] of [Test Print] in the [Tool]

Click the [Edit...] button for above settings to display the window below.

Enter hexadecimal and click the [OK] button to confirm the value.

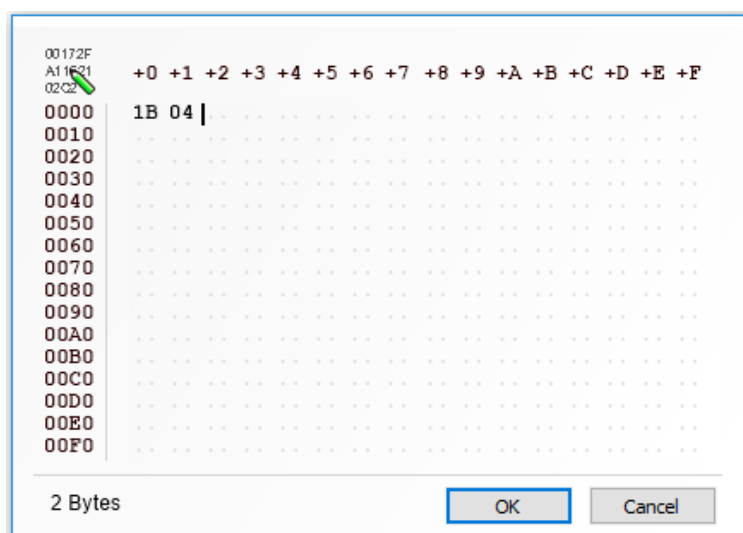


Figure 3-7 [Binary editor] window

3.4 Font

Sets the IPD font.

Caution

- ◆ The IPD font settings are not available with any of the following settings.
 - [Orientation] in "3.1.1 Setting of Layout" : "Landscape"
 - [Direction] in "3.3.5 General Settings" : "Back to Front"
 - [Reduction] in "3.3.5 General Settings" : Other than "None"

Reference

- For details of the IPD font, see "Chapter 7 Font".

3.4.1 Setting of Font

Select the [Font] tab to display the window below.

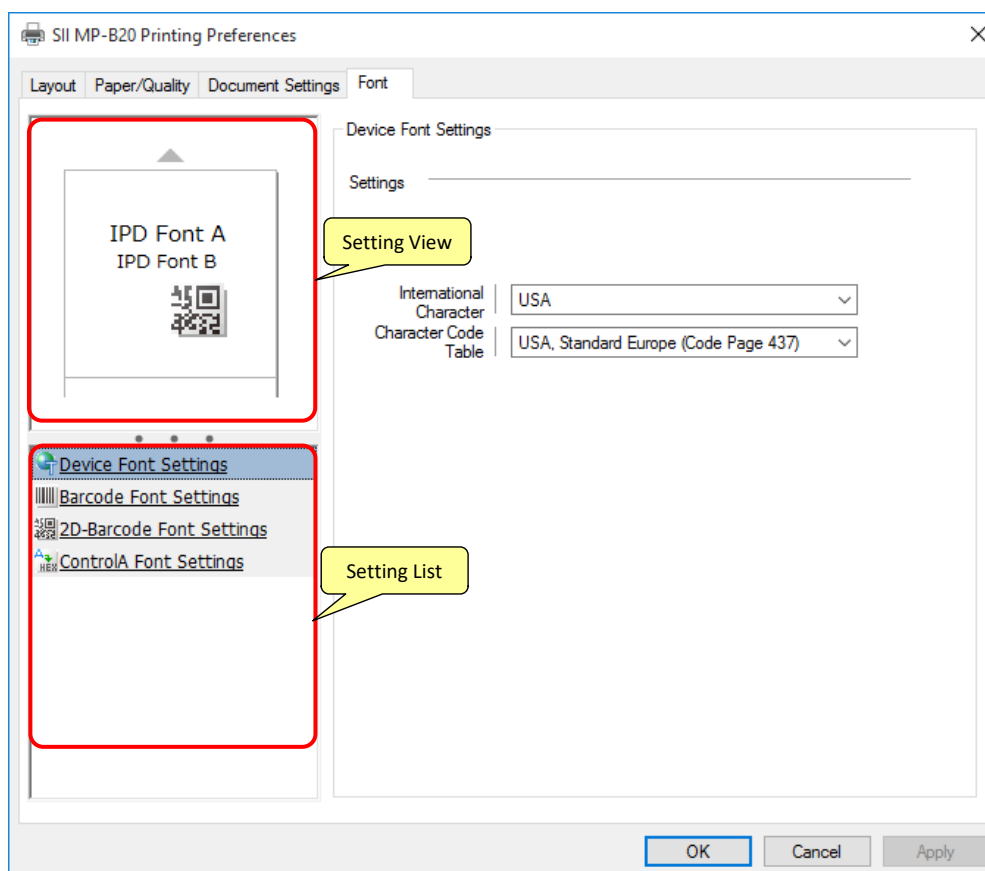




Figure 3-8 [Font] window

Item	Description
Setting View	Displays whether the IPD font can be used or not in the current settings with marks. For details of marks, see "3.4.2 Mark List of Setting View".
Setting List	Displays the font category names. When a category name is selected, the corresponding setting window is displayed.

3.4.2 Mark List of Setting View

The following marks are displayed in the "Setting View" in the [Font] window.

Condition	Mark
IPD font available	
IPD font not available	

3.4.3 Categories of Setting List

The following categories are displayed in the "Setting List" in the [Font] window.

Category	Description
Device Font Settings	Sets the International Character and Character Code Table for the device font.
Barcode Font Settings	Sets the type, barcode size, and others for the Barcode font.
2D-Barcode Font Settings	Sets the type, barcode size, and others for the 2D-Barcode font.
ControlA Font Settings	Sets parameters about the Printer command assigned to the ControlA font.

Setting items for each category are described in subsequent sections.

3.4.4 Setting of Device Font

Select [Device Font Settings] in the "Setting List" to display the window below.

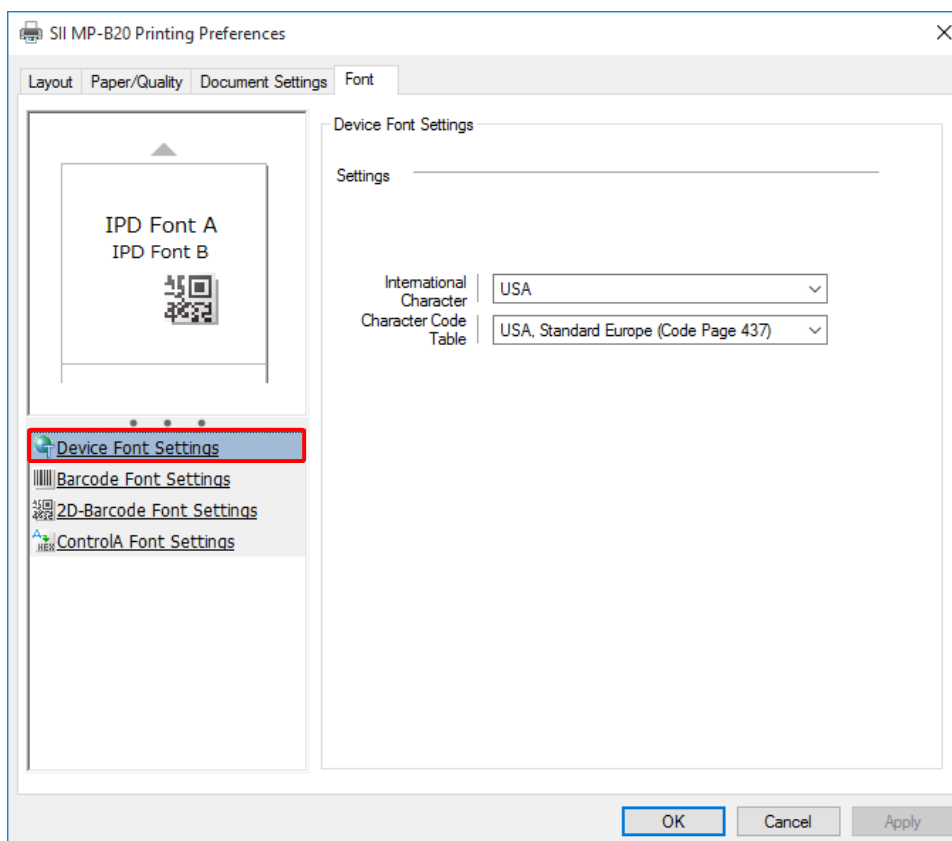


Figure 3-9 [Device Font Settings] window

Item	Description ("": Default)
Settings	Set parameters about the device font.
International Character	Select for the international character. <ul style="list-style-type: none"> • USA • France • Germany • United Kingdom • Denmark I • Sweden • Italy • Spain I • Japan • Norway • Denmark II • Spain II • Latin America • Arabia

Item	Description ("": Default)
Character Code Table	<p>Select for the character code table.</p> <ul style="list-style-type: none"> • USA, Standard Europe (Code Page 437) • Katakana • Multilingual (Code Page 850) • Portuguese (Code Page 860) • Canadian-French (Code Page 863) • Nordic (Code Page 865) • Turkish (Code Page 857) • Greek (Code Page 737) • Latin (Code Page 1252) • Russian (Code Page 866) • Eastern Europe (Code Page 852) • Euro (Code Page 858) • Cyrillic (Code Page 855) • Arabic (Code Page 864) • Central European (Code Page 1250) • Cyrillic (Code Page 1251) • Greek (Code Page 1253) • Turkish (Code Page 1254) • User Page

3.4.5 Setting of Barcode Font

Select [Barcode Font Settings] in the "Setting List" to display the window below.

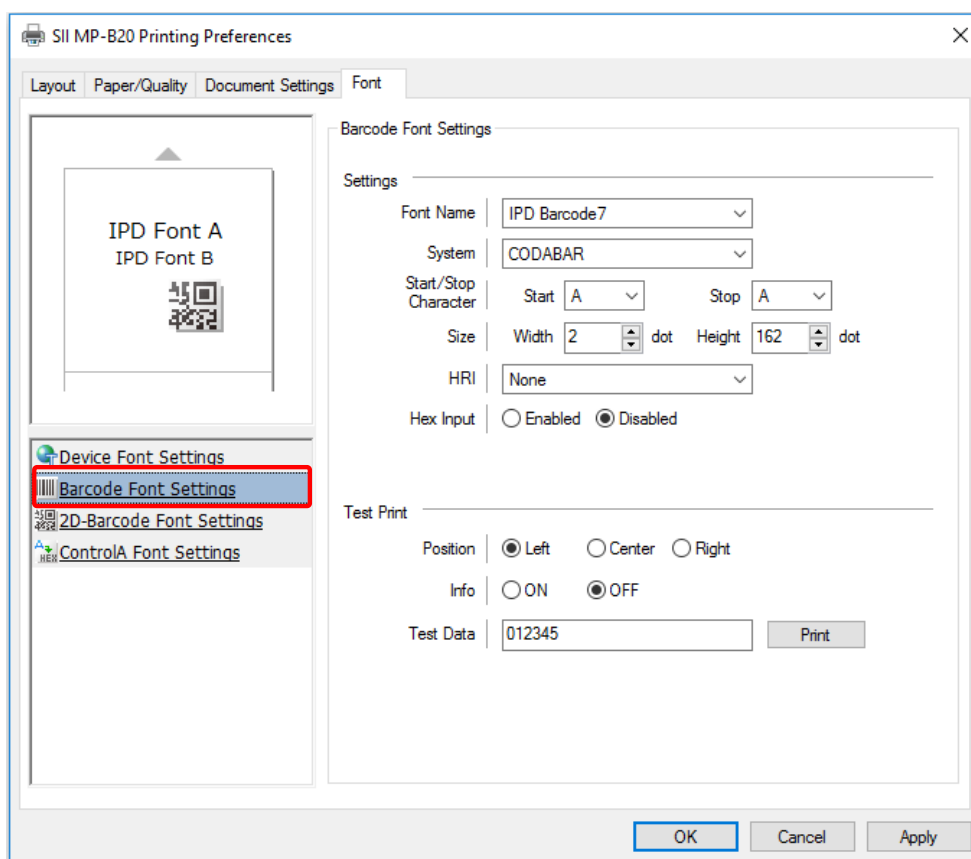


Figure 3-10 [Barcode Font Settings] window

Item	Description ("": Default)
Settings	Set parameters about the barcode font.
Font Name	Select for the Font Name. <ul style="list-style-type: none"> • IPD Barcode1 • IPD Barcode2 • IPD Barcode3 • IPD Barcode4 • IPD Barcode5 • IPD Barcode6 • IPD Barcode7 • IPD Barcode8 • IPD Barcode9 • IPD Barcode10

Item	Description ("": Default)
System	Select for the system of the barcode. <ul style="list-style-type: none"> • UPC-A^{*1} • UPC-E^{*2} • JAN13 (EAN13)^{*3} • JAN8 (EAN8)^{*4} • Code39^{*5} • ITF^{*6} • CODABAR^{*7} • CODE128^{*8} • CODE93^{*9} • JAN13 (EAN13) add-on 2^{*10} • JAN13 (EAN13) add-on 5 • GS1 Databar Omni-directional • GS1 Databar Truncated • GS1 Databar Limited • GS1 Databar Expanded
Start/Stop Character ^{*11}	Set the start character and stop character.
Start	Select for the start character of "CODABAR". <ul style="list-style-type: none"> • A • B • C • D
Stop	Select for the stop character of "CODABAR". <ul style="list-style-type: none"> • A • B • C • D
Size	Set the barcode size.
Width	Set the narrow element width or the module width. (Unit: dot) <ul style="list-style-type: none"> • 2 to 6 (2)
Height	Set the height of the barcode in dots.(Unit: dot) <ul style="list-style-type: none"> • 1 to 255 (162) However, regarding the following barcodes, the settable range depends on the [Width] selection. ^{*12} <ul style="list-style-type: none"> ➤ GS1 Databar Omni-directional ➤ GS1 Databar Truncated ➤ GS1 Databar Limited ➤ GS1 Databar Expanded
HRI	Select for the position and font of the HRI characters added to the barcode. <ul style="list-style-type: none"> • None • Over barcode (Font A) • Under barcode (Font A) • Over and under barcode (Font A) • Over barcode (Font B) • Under barcode (Font B) • Over and under barcode (Font B)
Hex Input	Select [Enabled] when the barcode font data or [Test Data] is entered by hexadecimal. ^{*13} <ul style="list-style-type: none"> • Enabled • Disabled

Item	Description ("": Default)
Test Print	Set parameters about the test print.
Position	Select for the position of the barcode. <ul style="list-style-type: none"> • Left • Center • Right
Info	Select whether or not to append the information in the [Settings] to the test print. <ul style="list-style-type: none"> • ON • OFF
Test Data	Enter the data for test print. Up to 64 characters can be input, and only 1-byte is valid.*13
Print	Prints the barcode with the entered settings and [Test Data].*14

*1: The default when "IPD Barcode1" is selected in [Font Name].

*2: The default when "IPD Barcode2" is selected in [Font Name].

*3: The default when "IPD Barcode3" is selected in [Font Name].

*4: The default when "IPD Barcode4" is selected in [Font Name].

*5: The default when "IPD Barcode5" is selected in [Font Name].

*6: The default when "IPD Barcode6" is selected in [Font Name].

*7: The default when "IPD Barcode7" is selected in [Font Name].

*8: The default when "IPD Barcode8" is selected in [Font Name].

*9: The default when "IPD Barcode9" is selected in [Font Name].

*10: The default when "IPD Barcode10" is selected in [Font Name].

*11: Displayed only when "CODABAR" is selected in [System].

*12: The range of the barcode size is in the following table.

When the [Height] value is specified less than the minimum value, the value is automatically changed to the minimum value.

[System]	[Width]	Range of [Height]
GS1 Databar Omni-directional	2	66 to 255
	3	99 to 255
	4	132 to 255
	5	165 to 255
	6	198 to 255
GS1 Databar Truncated	2	26 to 255
	3	39 to 255
	4	52 to 255
	5	65 to 255
	6	78 to 255
GS1 Databar Limited	2	20 to 255
	3	30 to 255
	4	40 to 255
	5	50 to 255
	6	60 to 255
GS1 Databar Expanded	2	68 to 255
	3	102 to 255
	4	136 to 255
	5	170 to 255
	6	204 to 255

- *13: There are 2 methods for inputting barcode font data.
- Method to use the barcode font data other than "CODE C" of CODE 128:
 Input Example: barcode font data (012345)
 When [HEX Input] is "Disabled" : 012345
 When [HEX Input] is "Enabled" : 303132333435
 - Method to use "CODE C" of CODE128
 When [HEX Input] is "Disabled" : Select the code corresponding to the character string to be input from [CODE] in Table 5-1 CODE128 Code Set, and then, input the character string corresponding to the data, referring to Table 5-3 Character Code.
 When [HEX Input] is "Enabled" : Input the data from [CODE] in Table 5-1 CODE128 Code Set.
- *14: Not available when the [Test Data] is blank.

3.4.6 Setting of 2D-Barcode Font

Select [2D-Barcode Font Settings] in the "Setting List" to display the window below.

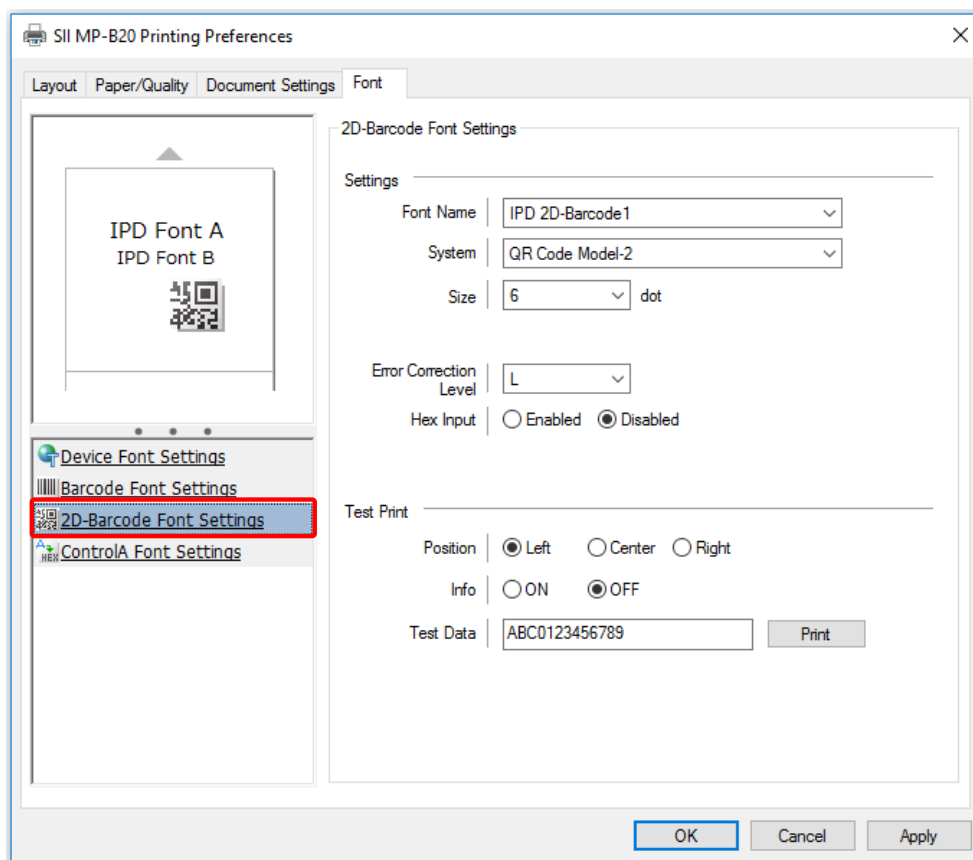


Figure 3-11 [2D-Barcode Font Settings] window

Item	Description ("": Default)
Settings	Set parameters about the 2D-Barcode font.
Font Name	Select for the Font Name. <ul style="list-style-type: none"> • IPD 2D-Barcode1 • IPD 2D-Barcode2 • IPD 2D-Barcode3 • IPD 2D-Barcode4 • IPD 2D-Barcode5
System	Select for the system of the 2D-Barcode. <ul style="list-style-type: none"> • QR Code Model-2^{*1} • PDF417^{*2} • Data Matrix^{*3} • Maxi Code^{*4} • GS1 Databar Stacked^{*5} • GS1 Databar Stacked Omni-directional • GS1 Databar Expanded Stacked
Size ^{*6}	Set 1 module size (Unit: dot). <ul style="list-style-type: none"> • 2 to 16^{*7} (6) • 2 to 8^{*8} (3)
Module Height ^{*9}	Set the height of the barcode. (Unit: dot) <ul style="list-style-type: none"> • 2 to 127^{*10} (10) • 33 to 255^{*11}

Item	Description ("": Default)
Error Correction Level ^{*12}	Select for the QR Code error correction level. ^{*13} <ul style="list-style-type: none"> • L • M • Q • H Select for PDF417 error correction level. <ul style="list-style-type: none"> • 0 to 8^{*14} (0)
Mode ^{*15}	Select for Mode. <ul style="list-style-type: none"> • Mode 2 • Mode 3 • Mode 4 • Mode 5
Module ^{*16}	Select for the number of Modules. <ul style="list-style-type: none"> • Auto • 10 x 10 • 12 x 12 • 14 x 14 • 16 x 16 • 18 x 18 • 20 x 20 • 22 x 22 • 24 x 24 • 26 x 26 • 32 x 32 • 36 x 36 • 40 x 40 • 44 x 44 • 48 x 48 • 52 x 52 • 64 x 64 • 72 x 72 • 80 x 80 • 88 x 88 • 96 x 96 • 104 x 104 • 120 x 120 • 132 x 132 • 144 x 144 • 8 x 18 • 8 x 32 • 12 x 26 • 12 x 36 • 16 x 36 • 16 x 48
Element ^{*17}	Set the number of Element. <ul style="list-style-type: none"> • 2 to 20
Hex Input	Select [Enabled] when the barcode font data or [Test Data] is entered by hexadecimal. ^{*18} <ul style="list-style-type: none"> • Enabled • Disabled

Item	Description ("": Default)
Test Print	Set parameters about the test print.
Position	Select for the position of the 2D-Barcode. <ul style="list-style-type: none"> • Left • Center • Right
Info	Select whether or not to append the information in the [Settings] to the test print. <ul style="list-style-type: none"> • ON • OFF
Test Data	Enter the data for test print. Both 1-byte character and 2-byte character can be entered up to 64 characters.*18
Print	Prints the 2D-Barcode with the entered settings and [Test Data].*14

*1: The default when "IPD Barcode1" is selected in [Font Name].

*2: The default when "IPD Barcode2" is selected in [Font Name].

*3: The default when "IPD Barcode3" is selected in [Font Name].

*4: The default when "IPD Barcode4" is selected in [Font Name].

*5: The default when "IPD Barcode5" is selected in [Font Name].

*6: Displayed only when the following is selected in [System].

- QR Code Model-2
- PDF417
- Data Matrix
- GS1 Databar Stacked
- GS1 Databar Stacked Omni-directional
- GS1 Databar Expanded Stacked

*7: The value only when the following is selected in [System].

- QR Code Model-2
- Data Matrix
- GS1 Databar Stacked
- GS1 Databar Stacked Omni-directional
- GS1 Databar Expanded Stacked

*8: Values only when "PDF417" is selected in [System].

*9: Displayed only when the following is selected in [System].

- PDF417
- GS1 Databar Stacked Omni-directional

*10: Values only when "PDF417" is selected in [System].

*11: Values only when "GS1 Databar Stacked Omni-directional" is selected in [System].

*12: Displayed only when the following is selected in [System].

- QR Code Model-2
- PDF417

*13: Values only when "QR Code Model-2" is selected in [System].

*14: Values only when "PDF417" is selected in [System].

*15: Displayed only when "Maxi Code" is selected in [System].

*16: Displayed only when "Data Matrix" is selected in [System].

*17: Displayed only when "GS1 Databar Expanded Stacked" is selected in [System].

*18: Input formats for barcode font data are as follows.

Input Example: barcode font data (012345)

When [HEX Input] is "Disabled" : 012345

When [HEX Input] is "Enabled" : 303132333435

*19: Not available when the [Test Data] is blank.

3.4.7 Setting of ControlA Font

Select [ControlA Font Settings] in the "Setting List" to display the window below.

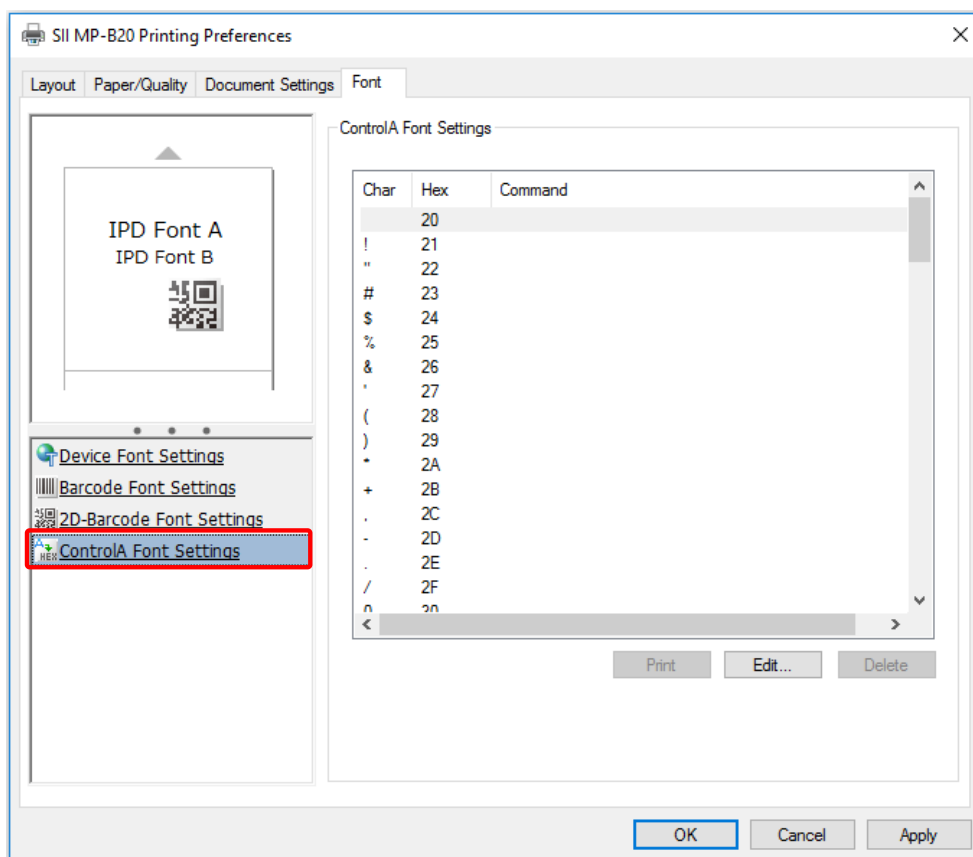


Figure 3-12 [ControlA Font Settings] window

Item	Description
Char	Displays characters to assign the Printer command.
Hex	Displays [Char] in hexadecimal.
Command	Displays the Printer command set. To enter the Printer command, use the binary editor which is displayed by clicking the [Edit...] button.
Print	Executes the Printer command selected in the list. ^{*1}
Edit...	Enter the Printer command by the binary editor. ^{*2} The Printer command entered is displayed in [Command] column. Up to 256 bytes can be specified. For details of the binary editor, see "3.3.8 How to Use Binary Editor".
Delete	Clears the [Command] field selected in the list. ^{*1,*2}

*1: Not available when a blank [Command] field is selected in the list.

*2: Not available from the printing preferences window that was started when printing from an application.
To use these options, start the [Printing Preferences] window from the Printer folder.

3.5 Advanced Options

3.5.1 Setting of Advanced Options

Click the [Advanced...] button at the lower right of the [Layout] or [Paper/Quality] window to display the window below.

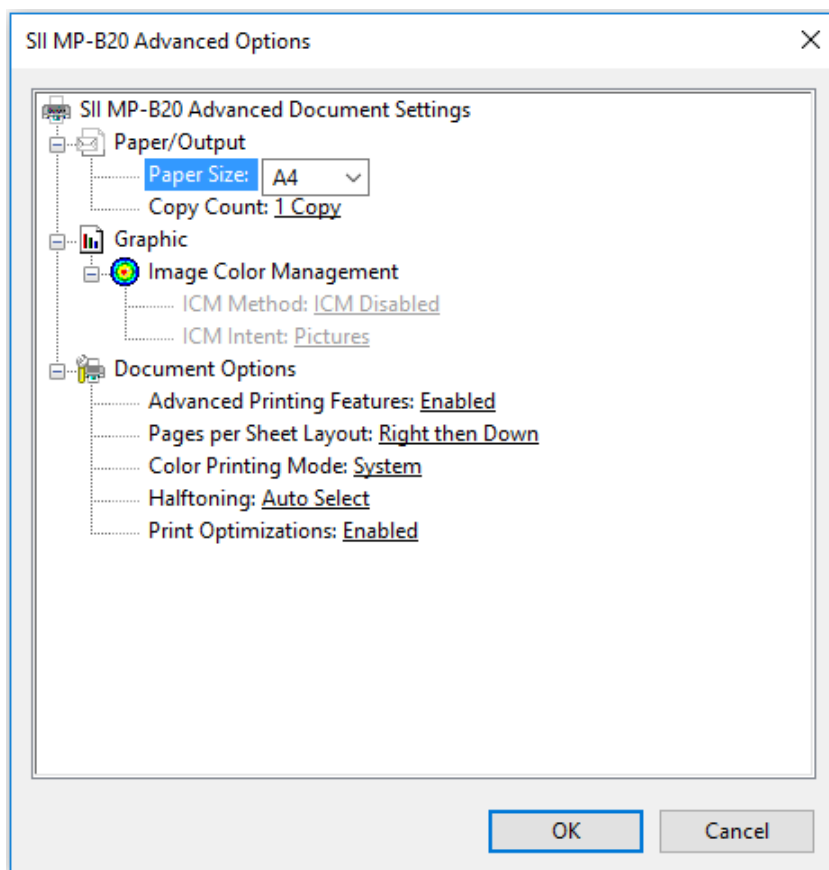


Figure 3-13 [Advanced Options] window

Item	Description ("": Default)
Paper/Output	Set the paper size and the number of copies.
Paper size	Select for the paper size to use.* ¹ <ul style="list-style-type: none">• 58 mm• A4*²• Letter*³
Copy Count	Enter the number of copies to print (Unit:Copy). <ul style="list-style-type: none">• 1 to 9999

Item	Description ("": Default)
Graphic	Set the ICM method and intent.*4
ICM Method	Select for the ICM method. <ul style="list-style-type: none"> • ICM Disabled • ICM Handled by Host System • ICM Handled by Printer
ICM Intent	Select for the ICM intent. <ul style="list-style-type: none"> • Graphics • Pictures • Proof • Match
Document Options	Set the document options.
Advanced Printing Features	Select for the advanced printing features. <ul style="list-style-type: none"> • Enabled • Disabled
Pages per Sheet Layout	Select for the page layout in a sheet. <ul style="list-style-type: none"> • Right then Down • Down then Right • Left then Down • Down then Left
Color Printing Mode	Select for the color print mode. <ul style="list-style-type: none"> • System • Driver This selection works in conjunction with the [Color] setting in "3.2 Paper/Quality".*5
Halftoning	Select for the halftoning.*6 <ul style="list-style-type: none"> • Auto Select • Super Cell • Dither 2x2 • Dither 4x4 • Dither 6x6 • Dither 8x8
Print Optimization	Select for the print optimization. <ul style="list-style-type: none"> • Enabled • Disabled

*1: New paper size can be registered and set.

For details how to register a paper size, see "6.3 How to Add a New Paper Size".

*2: The default of Japanese environment.

*3: The default of the environment other than Japanese.

*4: Available only when selecting "Color" for [Color] described in "3.2 Paper/Quality".

*5: When selecting [System], [Color] in the [Paper/Quality] window is changed to "Black & White", or when selecting [Driver], [Color] in the [Paper/Quality] window is changed to "Color".
For details, refer to "3.2 Paper/Quality".

*6: When selecting "Color" for [Color] described in "3.2 Paper/Quality", only "Auto Select" can be selected.

Chapter 4 Printer Property

This chapter describes the printer property settings.

The printer property settings can be reviewed and changed from each tabs in the [Printer Properties] dialog.

To display the setting windows in the [Printers Folder] dialog, follow the steps below.

1. Right-click a printer icon in the [Printers Folder] to display the sub-menu.
2. Click [Printer Properties] from the sub-menu.

Various settings can be changed from the following 4 tabs in [Printer Properties] window.

- [General] tab : Executes the general management of the printer driver and prints the test page.
- [Sharing] tab : Sets shared printers.
- [Ports] tab : Sets output ports.
- [Tool] tab : Displays the version information of the printer driver and the start buttons for various tools.

Caution

- ◆ For the setting tabs other than the above 4 tabs in [Printer Properties] window, keep the default settings at installation.

Details of windows are described in subsequent sections.

4.1 General

Executes the general management of the printer driver and prints the test page.
Select the [General] tab to display the window below.

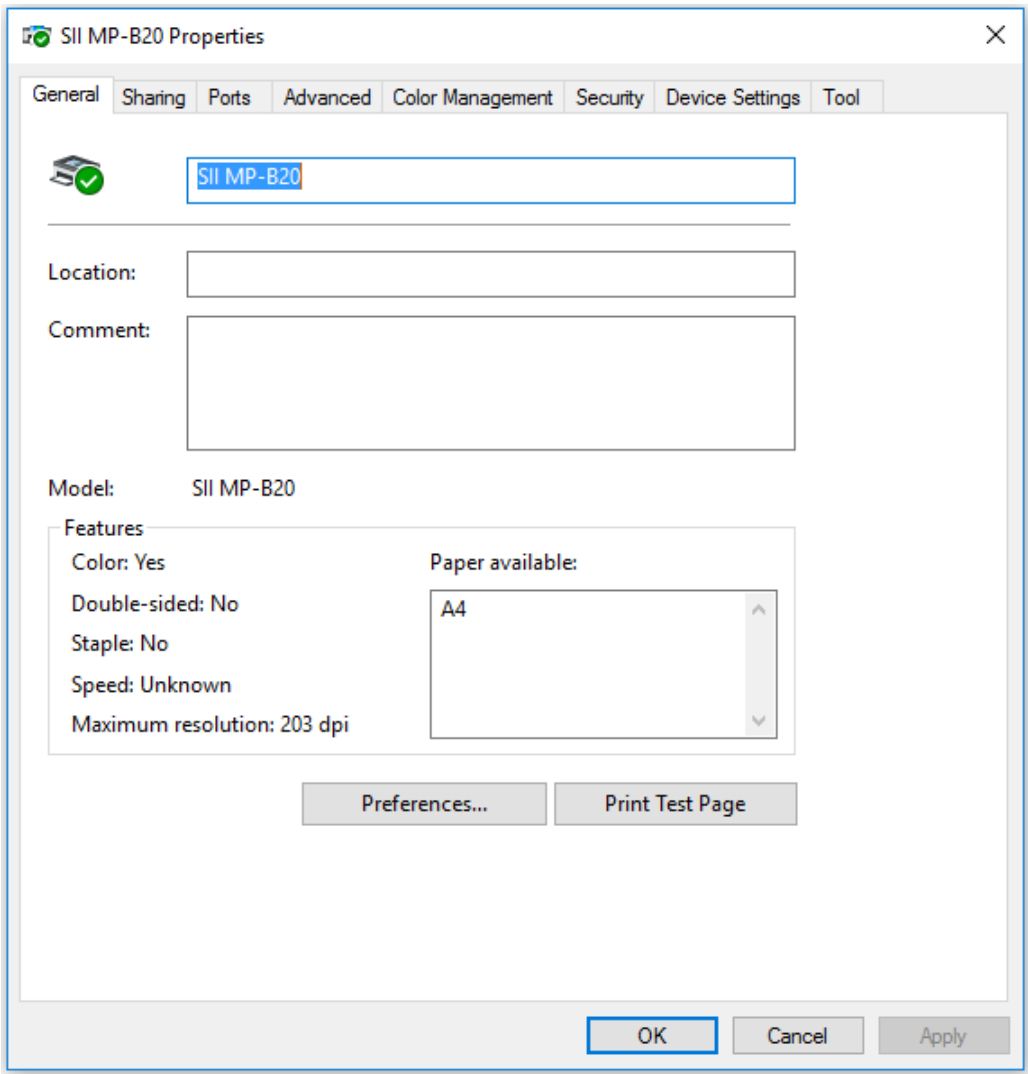


Figure 4-1 [General] window

Item	Description
Printer name	Review or change the Printer name.*1
Location	Enter the location of the printer.
Comment	Enter a comment.
Model	Displays the printer Driver name.
Preferences...	Displays the [Printing Preferences] window.
Print Test Page	Executes the Windows test print.*2

*1: If the printer name is changed, the values set in [Preferences...] may be initialized.
*2: The test printing by [Print Test Page] will not produce a whole-page printout on the paper whose width is for compact printers. So it is not a defect.

4.2 Sharing

Sets shared printers.
Select the [Sharing] tab to display the window below.

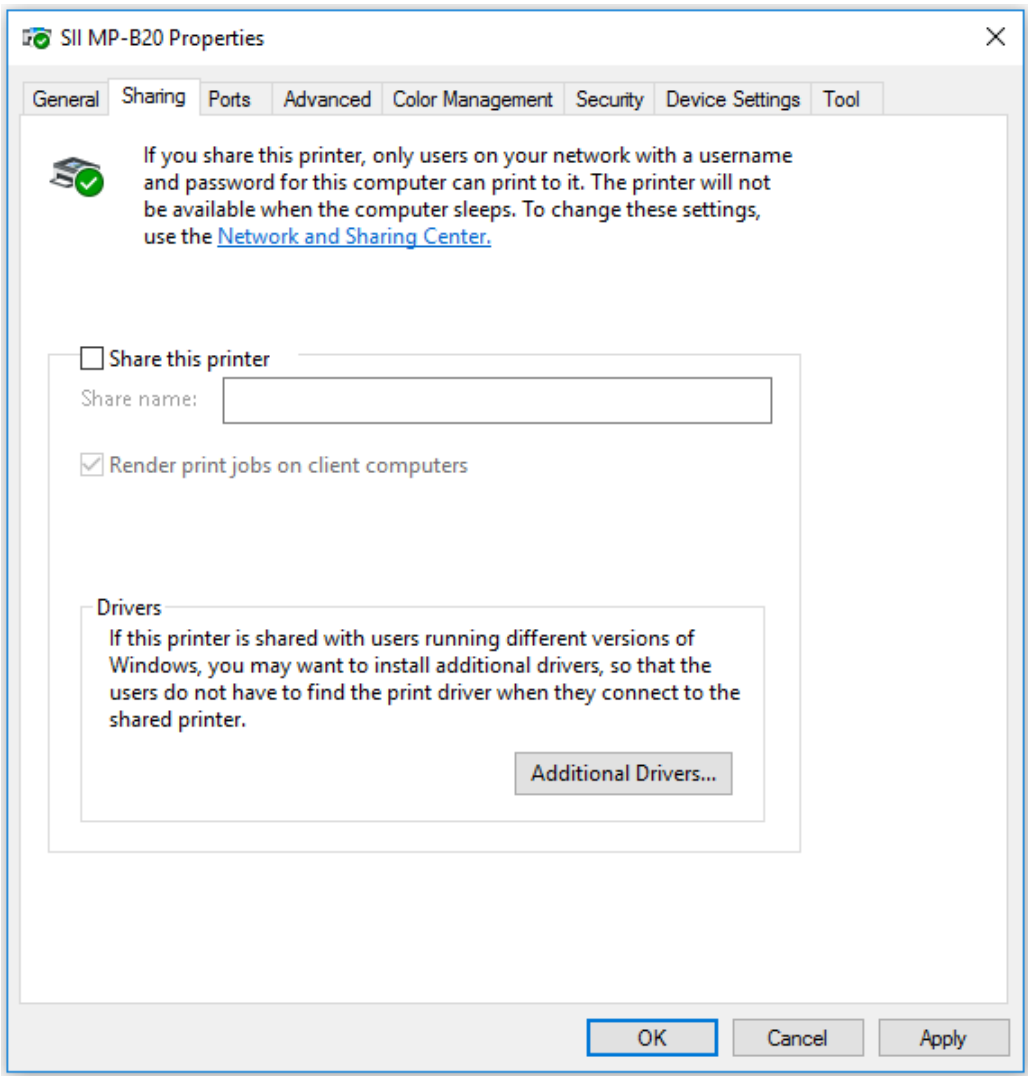


Figure 4-2 [Sharing] window

Item	Description
Share this printer	When selecting this checkbox and enter an arbitrary share name in [Share name], the printer driver can be used by any computer on the network.
Share name	Enter the share name of the printer.
Additional Drivers...	This function is not supported.

Caution

◆ A shared printer may not work properly depending on the network usage.

4.3 Ports

Sets output ports.
Select the [Ports] tab to display the window below.

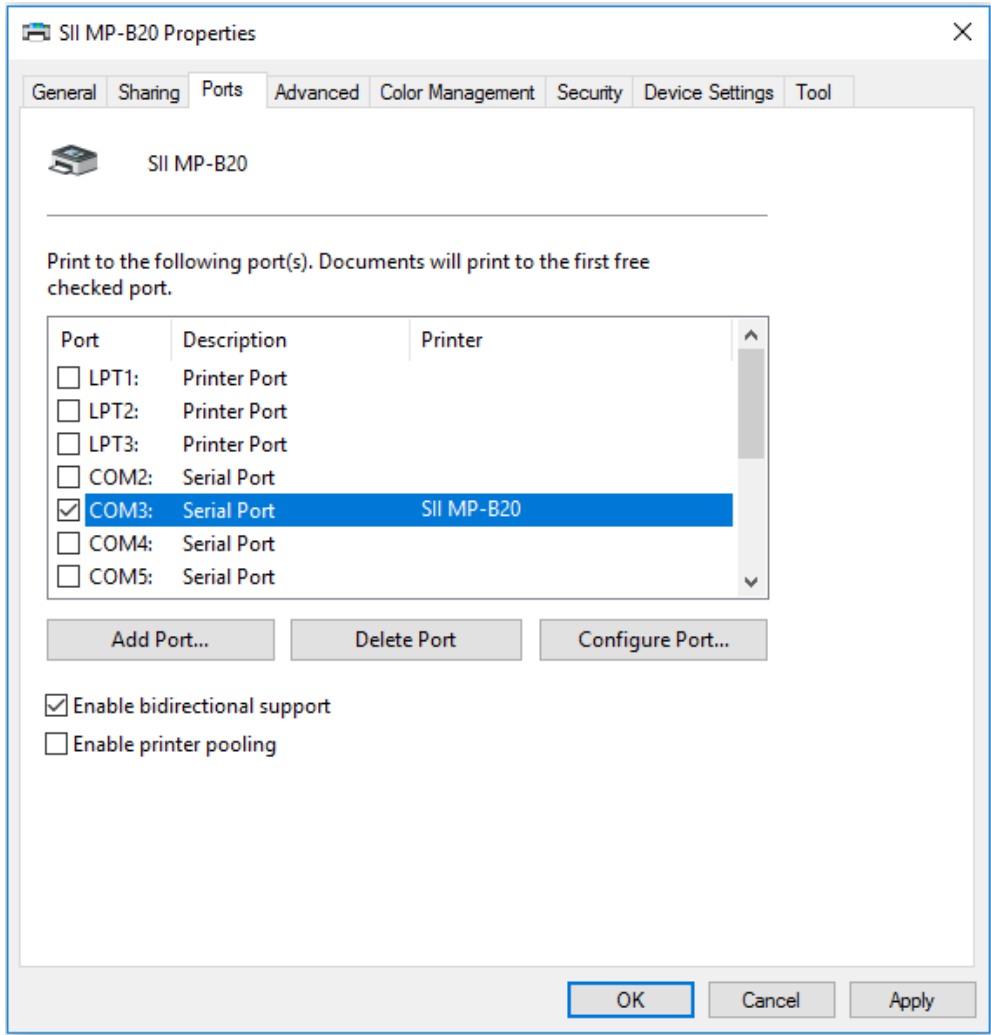


Figure 4-3 [Ports] window

Item	Description
Add Port...	Add ports.
Delete Port	Delete the added ports.
Configure Port...	Set parameters about the serial connection.*1
Enable bidirectional support	Select this checkbox to get the information from the printer.*2
Enable printer pooling	By enabling it, checkboxes of multiple ports are available to select, so that the same content can be printed by the printers connected to those ports.*3

*1: This setting requires logon to the computer with administrator privileges.
*2: When the checkbox is cleared, the tools and the SDK become unavailable.
*3: When using the SDK, be sure to clear the checkbox.

4.4 Tool

Displays the version information of the printer driver and the start buttons for various tools.
For details of the tools, see "Chapter 5 Tool".

Chapter 5 Tool

This chapter describes various tools which can be started from the printer driver.

These tools can be started from [Tool] tab in [Printer Properties] window. It is also possible to go to another tool from the tool panel at the top of the window displayed after starting a tool.

The following types of tool are provided:

- Information : Displays the information of the printer.
- Memory switch : Sets the Memory switch.
- Log : Sets the log output of the printer driver.
- Test Print : Executes the test print with arbitrary content.
- NV image : Edits and registers the image to be used as the logo, or manages the registered NV images.
- Codepage : Edits and registers the font data that the user can register, or manages the registered codepages.
- Other : Exports the printer driver setting to a file, or imports an exported file.

Caution

- ◆ When [Enable bidirectional support] in "4.3 Ports" is off, these tools cannot be started.
- ◆ No operation is available in the [Printer Properties] dialog while any tool is running.

The initial storage location of data file created by various tools is shown below:

<Drive on which Windows is installed>:\Users\<User name>\Documents\
<Printer name (SII MP-B20 etc.)>\

Details of windows are described in subsequent sections.

5.1 Display of [Tool]

Select the [Tool] tab to display the window below.

The version information and the buttons for starting the tools are displayed in the [Tool] window.

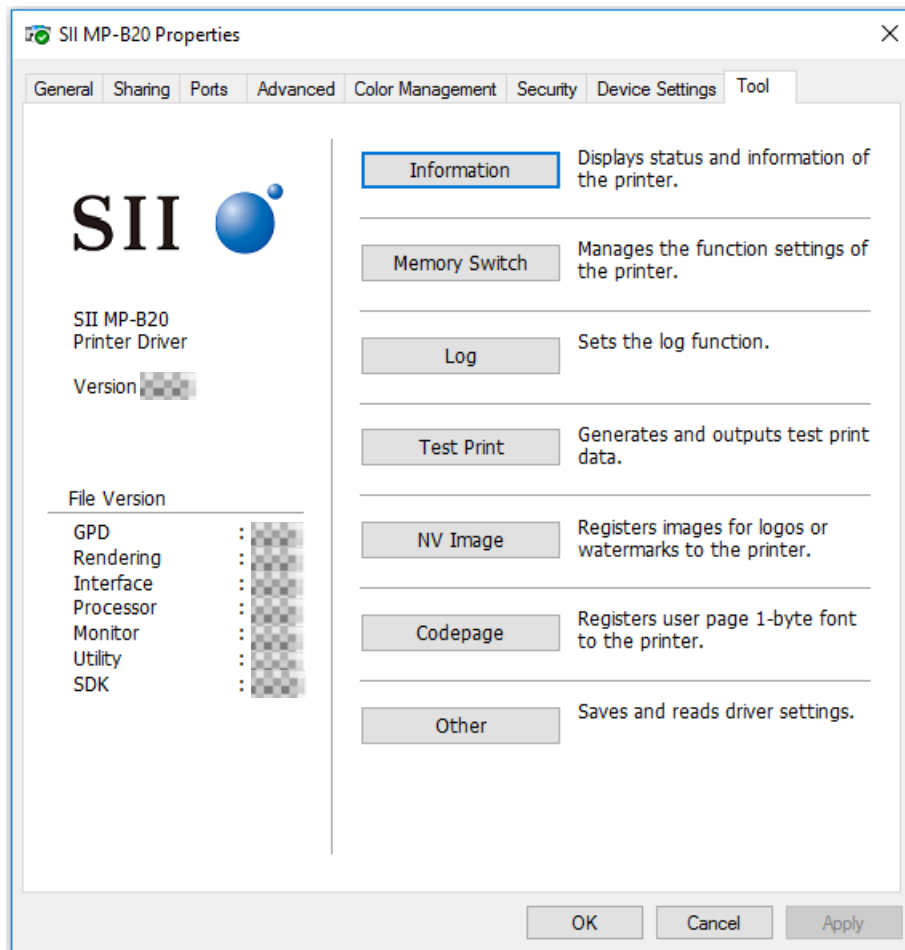


Figure 5-1 [Tool] window

Item	Description
Version information	Displays the file information of the printer driver.
Tool start buttons	Click a button to start the corresponding tool.

5.2 Information

Displays the information of the printer.

5.2.1 Display of Information

Select [Information] in the tool panel to display the window below.

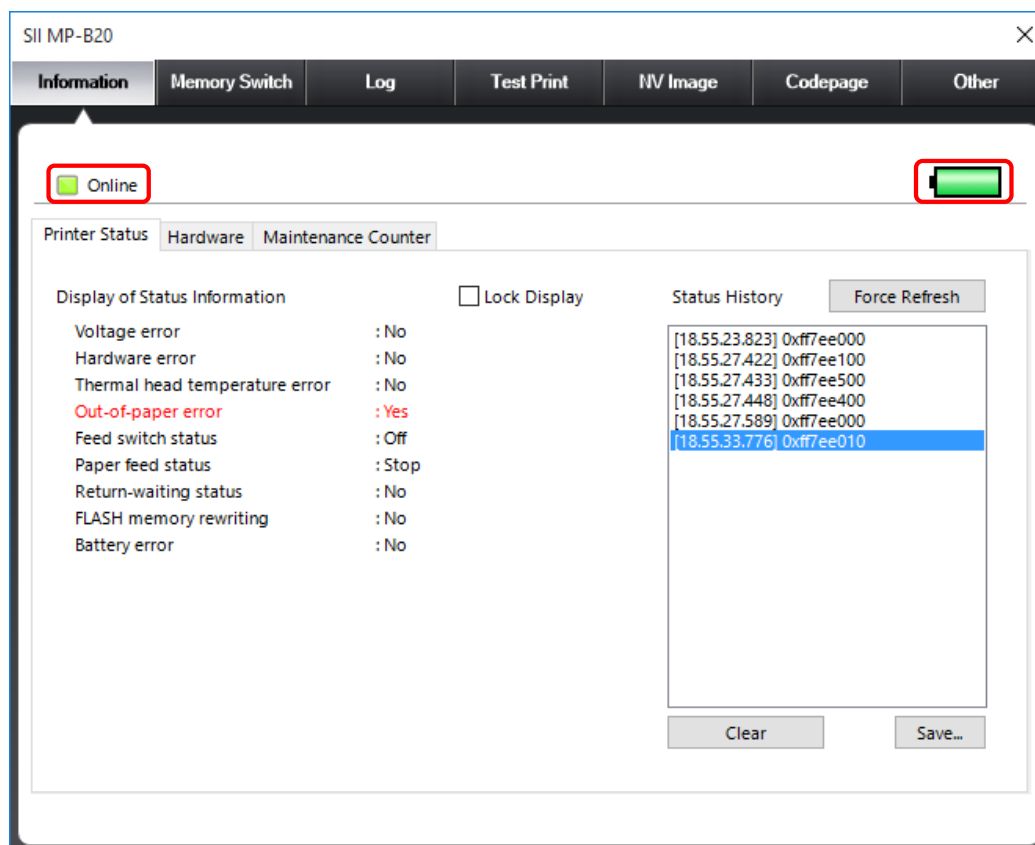


Figure 5-2 [Information] window

Item	Description
Connection state	Displays the connection state with the printer. <ul style="list-style-type: none"> Online (Indicator: green) Offline (Indicator: gray)
Battery remaining capacity	Displays the battery remaining capacity level. In case of Full, this entire indicator is displayed in green. As the battery remaining capacity is decreased, this green part in the indicator is reduced.

5.2.2 Display of Printer Status

Select the [Printer Status] tab in the [Information] window to display the window below.

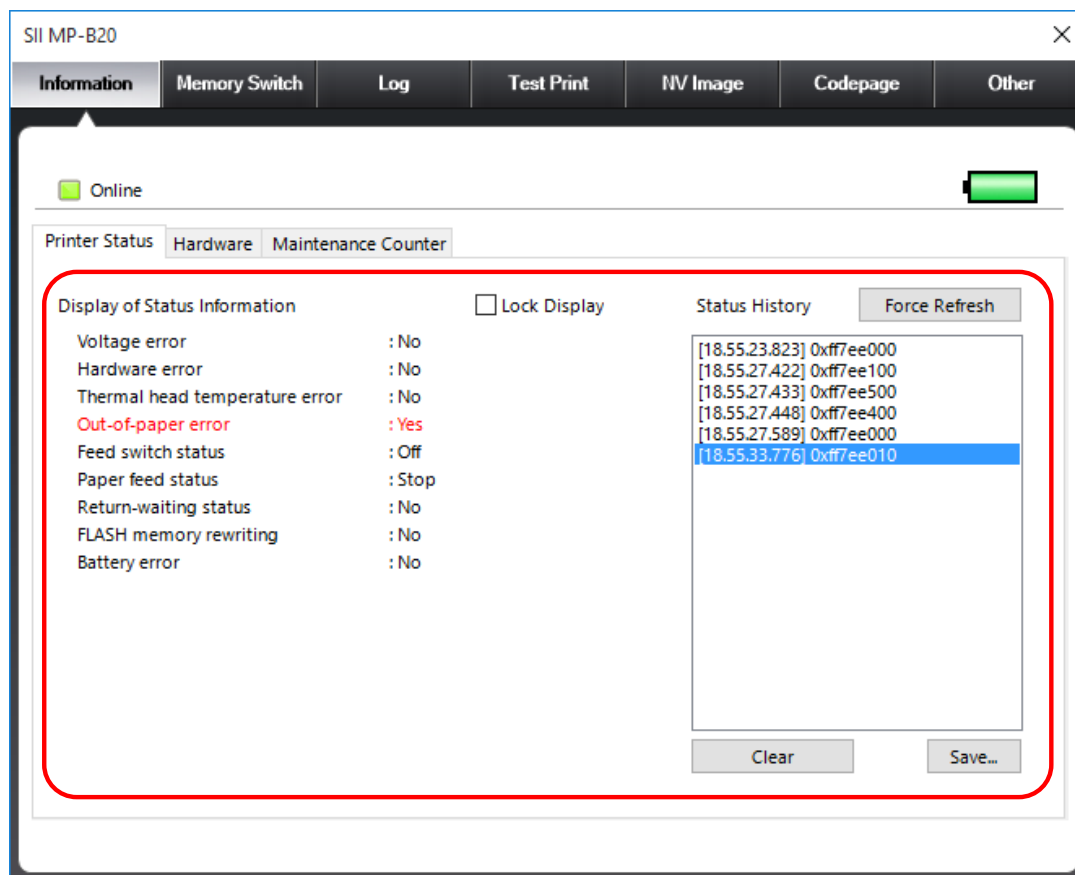


Figure 5-3 [Printer Status] window

Item	Description
Display of Status Information	Displays the Printer status information.*1 The status information selected in [Status History] is displayed here.
Lock Display	Locks the selected [Status History].*2 When the checkbox is off, the latest Printer status is always selected in [Status History]. Every time the Printer status changes, the latest data is selected, and [Status History] automatically scrolls. When the checkbox is on, even when the selected Printer status in [Status History] changes, the information is not updated and [Status History] does not scroll automatically. When the selected row is deleted while the display is locked, the row beneath is selected every time the selected row is deleted, and displayed in [Display of Status Information].
Status History	Displays the response history of the Printer status. <ul style="list-style-type: none"> Response time:[hh.mm.ss.sss] (hour: 00 to 23, minute: 00 to 59, second: 00.000 to 59.999) Response: Indicates the Printer status as a hexadecimal (32 bits)*3, *4
Clear	Clears the information displayed in [Status History] to initialize the history.*2

Item	Description
Force Refresh	Issues the Printer command for getting the Printer status to forcibly get the Printer status from the printer. ^{*5}
Save...	Specify the location and file name in the [Save As] dialog to save the data of [Status History] as a text file (*.csv). ^{*2, *6}

*1: When the information cannot be retrieved from the printer, "-" is displayed instead of the state.

*2: Not available when [Status History] is blank.

*3: For details, see "5.2.3 List of Status".

*4: Up to 100 history entries can be displayed in [Status History]. When the limit is exceeded, oldest ones are removed.

*5: When newly retrieved Printer status is the same as the last one, the display is not updated.

*6: When clicking the [Save...] button, the data contained in [Status History] at that time will be saved. Later Printer status responses will not be included in the saved file.

5.2.3 List of Status

The following corresponding bits are displayed as a hexadecimal (32 bits) format in [Status History]:

Status	Corresponding Bit	Description
Voltage error	0x00000001	0: No (No error) 1: Yes (Error exists)
Hardware error	0x00000002	0: No (No error) 1: Yes (Error exists)
Thermal head temperature error	0x00000004	0: No (No error) 1: Yes (Error exists)
Out-of-paper error	0x00000010	0: No (No error) 1: Yes (Error exists)
Feed switch status	0x00000100	0: Off 1: On
Paper feed status	0x00000400	0: Stop 1: Operating
Return-waiting status	0x00000800	0: No 1: Yes (Return-waiting status)
FLASH memory rewriting	0x00010000	0: No 1: Yes (Rewriting)
Battery remaining capacity level	0x00700000	0: Discharged (0%) 1: Low (10%) 3: Middle (40%) 7: Full (80%)
Battery error	0x00800000	0: No (No error) 1: Yes (Error exists)

An acquirable response value can be found by adding the above value.

However, all bits turn 0 for disconnection or communication error.

Caution

- ◆ The values not described above are reserved.
- ◆ When a disconnection or communication error occurs, other status data is ignored.

5.2.4 Save of Status History

This section describes the procedure to save the status history as a text file.

1. Click the [Save...] button in the [Printer Status] window.
2. Specify the location and file name to save the file in the [Save As] dialog.
3. Click the [Save] button in the [Save As] dialog.

5.2.5 Display of Hardware

Select the [Hardware] tab in the [Information] window to display the window below.

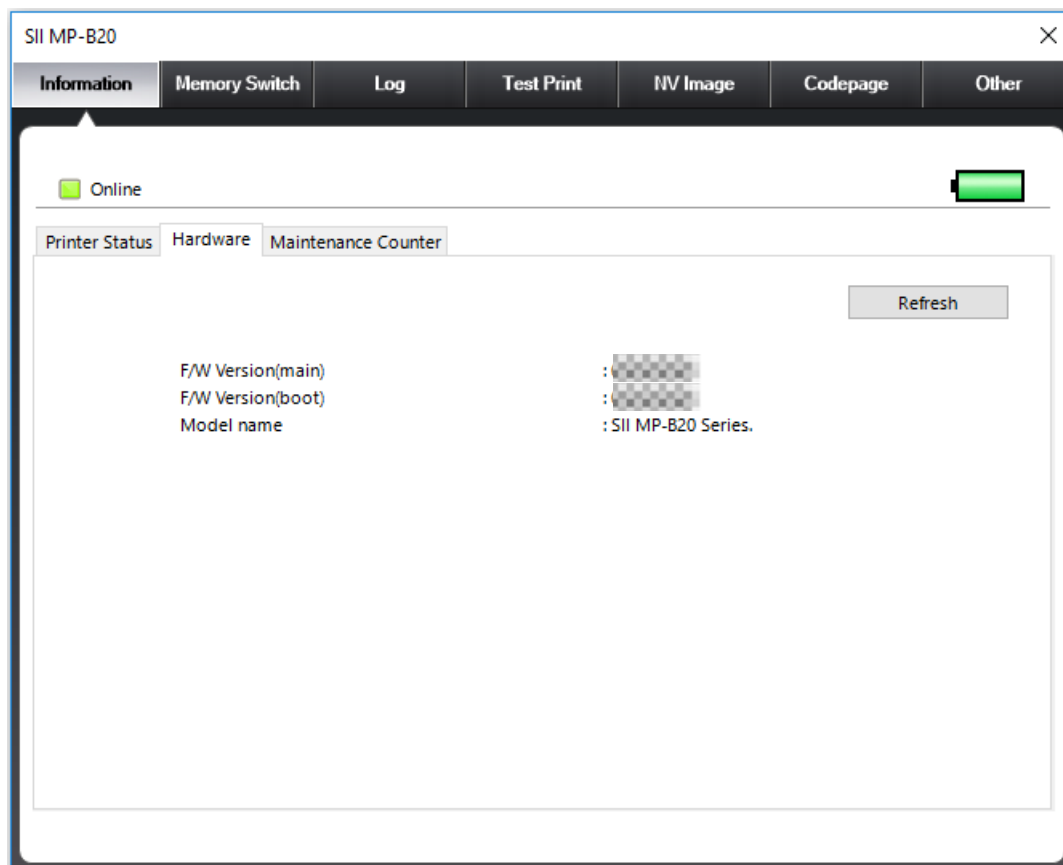


Figure 5-4 [Hardware] window

Item	Description
Hardware	Displays the following hardware information retrieved from the printer product. <ul style="list-style-type: none">• F/W Version(main)• F/W Version(boot)• Model name
Refresh	Gets the hardware information from the printer again.

5.2.6 Display of Maintenance Counter

Select the [Maintenance Counter] tab in the [Information] window to display the window below.

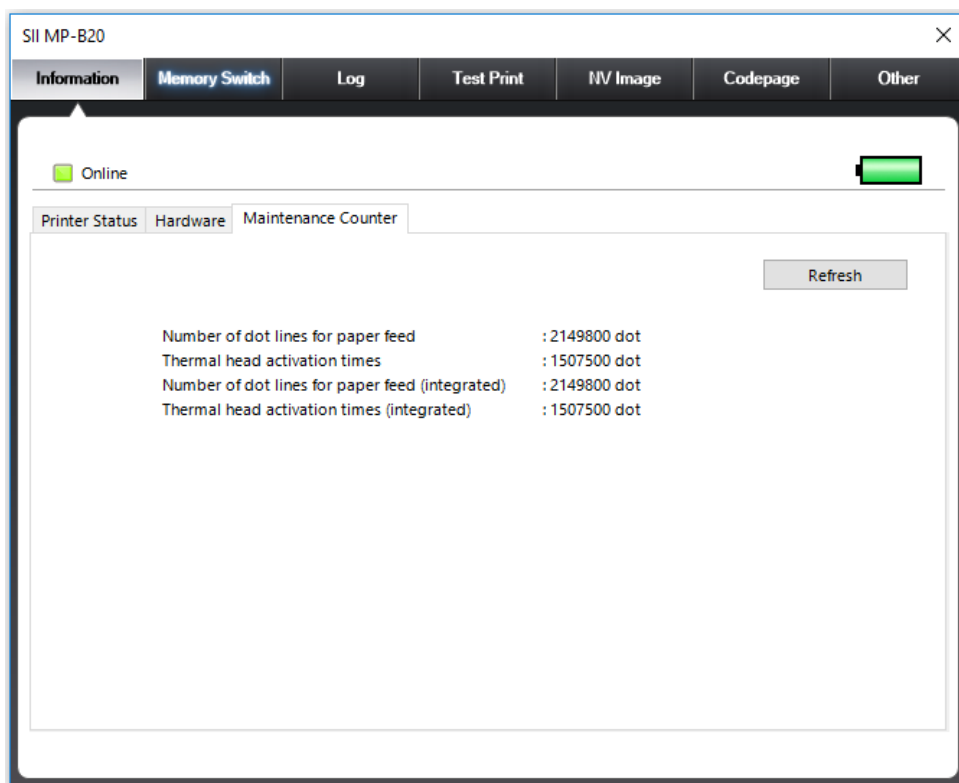


Figure 5-5 [Maintenance Counter] window

Item	Description
Maintenance Counter	Displays the following Maintenance counter values: <ul style="list-style-type: none">• Number of dot lines for paper feed (Unit: dot)• Thermal head activation times (Unit: dot)• Number of dot lines for paper feed (integrated) (Unit: dot)• Thermal head activation times (integrated) (Unit: dot)
Refresh	Gets the Maintenance counter values from the printer again.

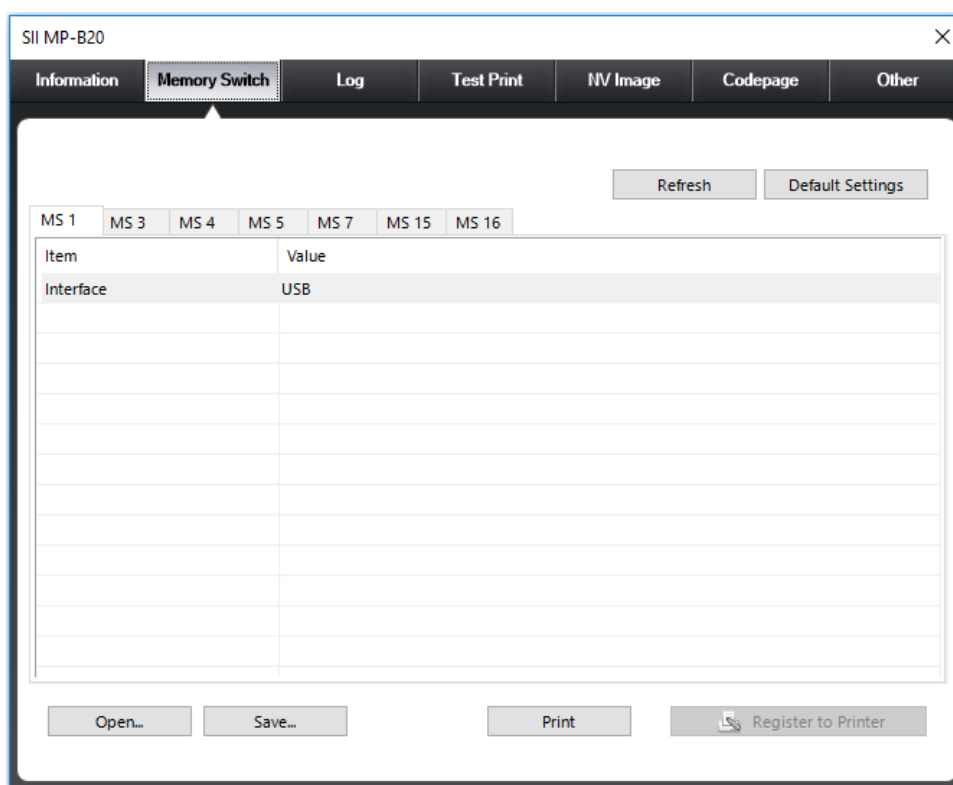
Caution

- ◆ [Register to Printer] of the Memory switch requires logon to the computer with administrator privileges.
- ◆ If the following item is changed, printer needs to be restarted.
However the setting change may disable the connection with the printer driver.
 - MS1-1: Interface

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1. *Journal of the American Medical Association*, 1997; 278: 1039-1044.

1. *Journal of Management Studies*, 1990, 27, 1, 1-14.



• • • • •

Item	Description
Refresh	Loads the current settings of the printer and displays them. The settings currently being edited will be lost.
Default Settings	Restores the factory default settings. The settings currently being edited will be lost. ^{*1 *2} See "MP-B20 SERIES THERMAL PRINTER USER'S GUIDE" for the factory default settings.
[MS] tabs	Displays items of the Memory switch.
Item	Displays item names of the Memory switch function.
Value	Displays values of the Memory switch retrieved from the printer or Memory switch file. Double click any value to enter the edit mode, and change the value by selecting a value from the drop-down list or entering a new value in the edit box. ^{*2 *3} When changing a retrieved value, that value is displayed in red. When the information cannot be retrieved from the printer when starting the Memory switch, "---" is displayed and values cannot be edited.
Open...	Loads a saved Memory switch file (*.sms) and displays the settings. ^{*1}
Save...	Specify the location and file name in the [Save As] dialog to save the settings displayed in the current window as a Memory switch file (*.sms). ^{*1}
Print	Prints the current settings of the printer. ^{*1}
Register to Printer	Saves the settings displayed in the window for the printer settings. ^{*1 *4}

*1: Not available when the values are not retrieved from the printer.

*2: The settings are not applied until [Register to Printer] is clicked.

*3: A value that is out of the range is automatically rounded to a value within the range.

*4: Not available when there is no change from the values retrieved from the printer.

5.3.2 Registration of Memory Switch Settings to Printer

This section describes procedures to register the Memory switch settings to the printer.

Registration Procedure When Changing Settings

1. Switch [MS] tabs to display the target Memory switch items.
2. Select or enter values for the target Memory switch items.
3. Click the [Register to Printer] button.

Registration Procedure When Loading from Memory Switch File

1. Click the [Open...] button in the [Memory Switch] window.
2. Specify a Memory switch file storing the settings in the [Open] dialog.
3. Click the [Open] button in the [Open] dialog.
4. Click the [Register to Printer] button.

Registration Procedure When Restoring to Default Settings

1. Click the [Default Settings] button.
2. When the confirmation window is displayed, click the [Yes] button.
3. Click the [Register to Printer] button.

5.3.3 Save of Memory Switch Settings

This section describes the procedure to save the Memory switch settings as a Memory switch file.

1. Click the [Save...] button in the [Memory Switch] window.
2. Specify the location and file name to save the Memory switch file in the [Save As] dialog.
3. Click the [Save] button in the [Save As] dialog.

5.4 Log

Sets the log output of the printer driver.

Caution

- ◆ [Apply] of log output requires logon to the computer with administrator privileges.
- ◆ When log output is enabled, it can slow the printer driver performance. Please avoid unnecessary log output.
- ◆ Log is not guaranteed when a log file is open.

5.4.1 Setting of Log Output

Select [Log] in the tool panel to display the window below.

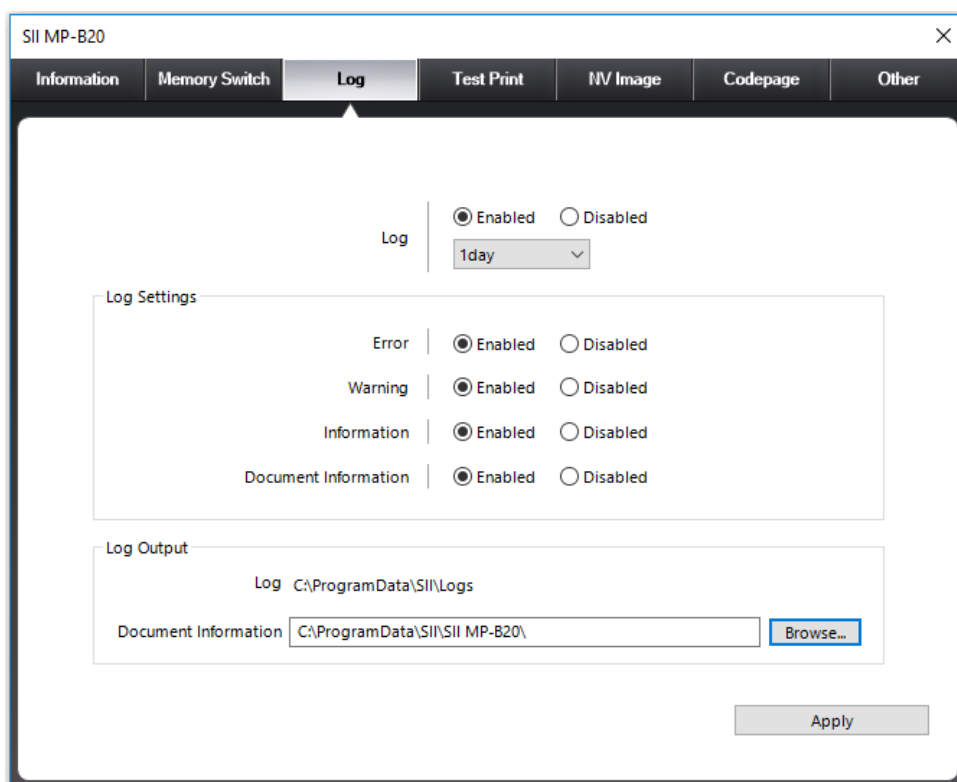


Figure 5-7 [Log] window

Item	Description ("": Default)
Log	<p>Select for the log output.</p> <ul style="list-style-type: none"> Enabled Disabled <p>When selecting "Enabled", then select for the retention period.</p> <ul style="list-style-type: none"> 1 day 3 days 10 days 30 days 90 days <p>A log file whose retention period has passed is cleared when outputting log.^{*1}</p> <p>The maximum size of a log file (excluding the document information) is 32MB.^{*2}</p>
Log Settings	Set the content of the log output.
Error	<p>Select whether to output errors to the log or not.^{*3}</p> <ul style="list-style-type: none"> Enabled Disabled
Warning	<p>Select whether to output warnings to the log or not.^{*3}</p> <ul style="list-style-type: none"> Enabled Disabled
Information	<p>Select whether to output information to the log or not.^{*3}</p> <ul style="list-style-type: none"> Enabled Disabled
Document Information	<p>Select whether to output the document information or not.^{*3 *4}</p> <ul style="list-style-type: none"> Enabled Disabled <p>When select "Enabled", the data sent to the printer when printing is saved to a file for each job.</p>
Log Output	Set the log output destination. ^{*3 *5}
Log	<p>The log output destination and the file name are as follows.</p> <p>Output destination: <Drive on which Windows is installed>:\ProgramData\SII\Logs\ File name: <yyyyMMdd>.log</p> <p>However, when the file size exceeds 32 MB, the file name is changed to <yyyyMMdd_HH:mm:ss>.log, and creates new <yyyyMMdd>.log file.^{*6}</p>
Document Information	<p>Enter the location to create the folder for saving the document information, or use the [Browse...] button next to the [Document Information] field to specify the output destination in the [Browse Folder] dialog.^{*7}</p> <p>The document information is saved as a document information file (*.prn) per job. The file name indicates the time "h:mm:ss(fff)" when the file is created (the second has five digits including three decimal places).^{*6}</p> <p>The saved document information is stored in a folder per date (folder name <yyyyMMdd>).^{*6}</p>
Browse...	<p>Specify the location of the folder for saving the document information.</p> <p>The destination specified is displayed in the [Document Information] field.^{*7 *8 *9}</p>

Item	Description ("": Default)
Apply	Determines the log settings and output destination, and starts the log output.

- *1: Actual retention period may be prolonged by 1 day at a maximum.
- *2: When the log file exceeds 32 MB, a new log file is generated, and the original one is kept for the retention period.
- *3: Not available when [Log] is set to "Disabled".
- *4: When this function is used in a printer sharing environment, it cannot be set from the client side.
- *5: Privileges to the folder or file are required to write log.
- *6: Meanings of the symbols used for the file name or folder name are as follows. Each value comes from System Clock of Windows.
 yyyy : year
 MM : month
 dd : date
 hh : hour
 mm : minute
 ss (fff) : Second (5 digits including 3 digits after the decimal point)
- *7: Not available when [Log] is "Disabled", or when select "Disabled" in [Document Information].
- *8: When a folder is used by several users, specify the folder that can be accessed by all users.
- *9: Available path length is up to 260 characters.

5.4.2 Change of Log Output Settings

This section describes the procedure to change the log output settings.

1. Select "Enabled" for [Log], and then select the retention period.
2. Select [Log Settings].
3. Enter the destinations of the logs in [Document Information].
4. Click the [Apply] button.

5.4.3 Content of Log File

This section describes the contents output to the log file.

[MM/dd hh:mm(ss.fff)] [log type] [error information]:[module] log content

The following table lists the output log contents of time information.

Symbol	Description
MM	Month
dd	Date
hh	Hour
mm	Minute
ss.fff	Second (5 digits including 3 digits after the decimal point)

The following table lists the log types.

Log Type	Level	Description	Remarks
I	Information	Successful operation log	Example: input-output data
W	Warning	Log which is not related to information and error.	-
E	Error	Unexpected failure detection log	Example: communication error

5.5 Test Print

Executes the test print with arbitrary content.

5.5.1 Setting of Test Print

Select [Test Print] in the tool panel to display the window below.

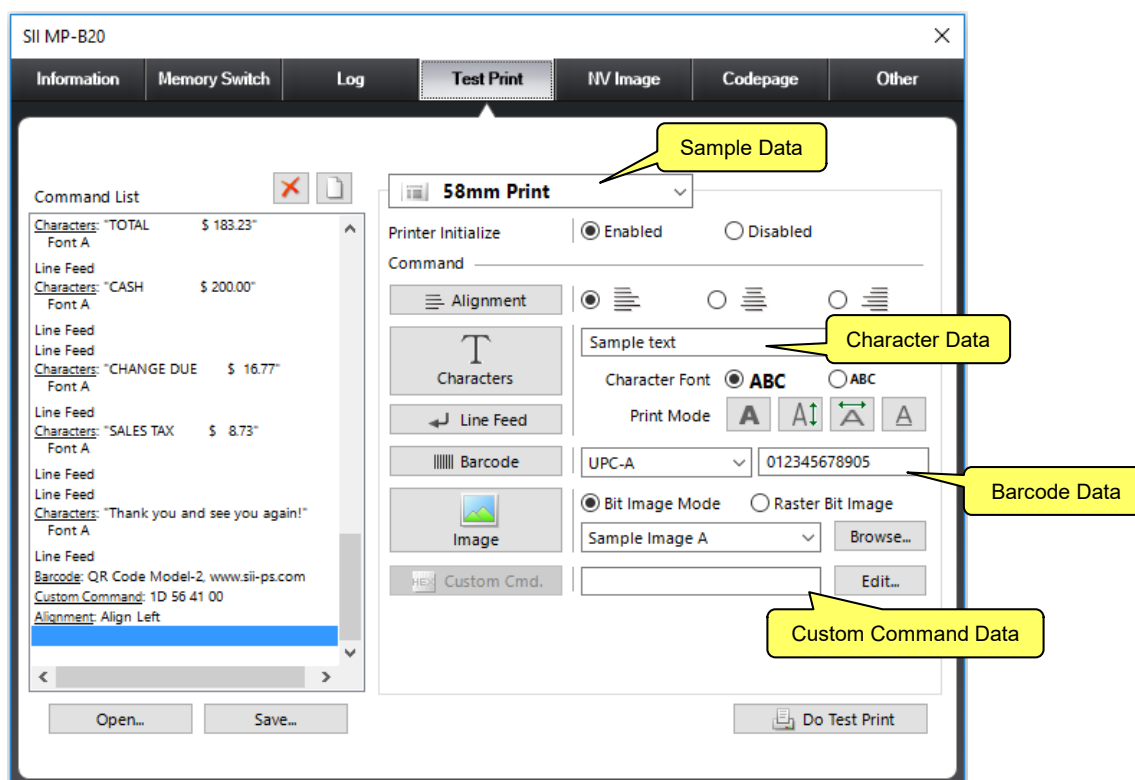













Figure 5-8 [Test Print] window

Item	Description (" ": Default)
Command List	Displays the contents which are set in "Sample Data" or the contents of test print file as a list. Up to 128 commands can be added to [Command List]. Test Print commands which are added to [Command List] are sent to the printer when executing [Do Test Print]. ^{*1}
 Delete	Deletes the Test Print command selected in [Command List] from the list. ^{*2} When the empty row at the bottom is selected in [Command List], the Test Print command in the row just above is deleted.
 New	Clears all the Test Print commands in [Command List]. ^{*2}
Open...	Opens a saved test print file (*.stp) that has been saved to display its content in [Command List].
Save...	Saves the Test Print command in [Command List] as a test print file (*.stp).

Item	Description ("": Default)
Sample Data	Displays the preset test print content in [Command List]. ^{*3} <ul style="list-style-type: none"> • 58mm Print • Barcode • Custom
Printer Initialize	Select whether to initialize the printer by the Printer command "Printer Initialize" or not when starting the test print. ^{*4} <ul style="list-style-type: none"> • Enabled • Disabled
Command	Set parameters about the test print content.
Alignment	Adds the position to print characters, barcodes, and images to [Command List]. An alignment setting remains valid until next Test Print command of alignment is inserted. <ul style="list-style-type: none"> •  Align Left •  Centered •  Align Right
Characters	Adds the characters entered in "Character Data" along with the settings of [Character Font] and [Print Mode] to [Command List]. ^{*5 *6 *7}
Character Data	Enter the string for test print. Both 1-byte character and 2-byte character can be entered up to 64 characters.
Character Font	Select for the font size. <ul style="list-style-type: none"> •  Font A(24x12) •  Font B(16x8)
Print Mode	Set the print mode. Each button is turned "on" or "off" each time it is clicked. When turned "off", its setting is not displayed in [Command List] when adding the Test Print command. <ul style="list-style-type: none"> •  Bold Print •  Double Height •  Double Width •  Underline
Line Feed	Adds Test Print command of [Line Feed] to [Command List]. When chracters are entered to "Character Data", Test Print command of [Line Feed] is added after the "Character Data", "Test Print" command of [Character Font], and Test Print command of [Print Mode].
Barcode	Adds the barcode type and the data entered in "Barcode Data" to [Command List] together. ^{*8}

Item		Description ("": Default)
	Barcode Type	<p>Select for the type of barcode for test print.</p> <ul style="list-style-type: none"> • UPC-A • UPC-E • JAN13 (EAN13) • JAN8 (EAN8) • CODE39 • ITF • CODABAR • CODE128^{*9} • CODE93^{*10} • JAN13 (EAN13) add-on 2 • JAN13 (EAN13) add-on 5 • GS1 Databar Omni-directional • GS1 Databar Truncated • GS1 Databar Limited • GS1 Databar Expanded • QR Code Model-2 • PDF417^{*11} • Data Matrix • Maxi Code^{*12} • GS1 Databar Stacked • GS1 Databar Stacked Omni-directional • GS1 Databar Expanded Stacked
	Barcode Data ^{*13}	Enter the data of character strings for barcode printing. Up to 64 characters can be entered.
	Image	Adds the settings of the print method and image selection to [Command List] together.
	Print method	<p>Select for the type of the Printer command to use for image print.^{*14}</p> <ul style="list-style-type: none"> • Bit Image Mode • Raster Bit Image
	Image selection	<p>Select for the image data to use for image print.</p> <ul style="list-style-type: none"> • Sample Image A • Sample Image B • User Specified Image <p>When selecting [User Specified Image] from the combo box, the [Open] dialog is automatically opened, where the using image can be specified.</p>
	Browse...	Specify a user specified image in the [Open] dialog to use for image print. An image file (*.jpg, *.jpeg, *.bmp, *.png) can be selected. ^{*15}
	Custom Cmd.	Adds the Printer command entered in "Custom Command Data" to [Command List]. ^{*16}
	Custom Command Data	<p>Displays a custom command.</p> <p>To enter data, use the binary editor which is displayed by clicking the [Edit...] button.</p>
	Edit...	<p>Enter the Printer command by the binary editor in hexadecimal. The Printer command entered is displayed in [Custom Command Data].</p> <p>Up to 64 bytes can be specified.</p> <p>For details of the binary editor, see "3.3.8 How to Use Binary Editor".</p>

Item	Description ("": Default)
Do Test Print	Sends all the Test Print commands in [Command List] to the printer.

- *1: When selecting a Test Print command of string, barcode, or custom command in [Command List] by double clicking or using the spacebar, the selected string or data is entered in the corresponding edit box.
- *2: Not available when [Command List] is blank.
- *3: When selecting other than "Custom" in "Sample Data", "Sample Data" is changed to "Custom" by the following operation:
 - When changing the contents of [Command List] displayed on the screen.
 - When loading a test print file (*.stp) by clicking [Open] button.
- *4: Even when "Enabled" is selected, this command is not displayed in [Command List]. These settings are applied to the print data or the content saved to the test print file according to the selection in [Printer Initialize] when [Do Test Print] or [Save...] button is clicked.
- *5: Not available when the "Character Data" is blank.
- *6: The printing is executed when a line buffer is filled with character data (1 line full printing) or when the printing condition is satisfied, for example, with the Printer command "Line Feed". Unless the above condition is satisfied, data sent to the printer is not printed.
- *7: For Kanji code system and the string encoding, see "7.1 Device font".
- *8: Not available when the [Barcode Data] is blank.
- *9: There are 2 methods for inputting data. For details of inputting methods, see "Using CODE128".
- *10: For details of data inputting methods, see "Using CODE93".
- *11: Fixed to normal PDF417.
- *12: Fixed to Mode5.
- *13: The data input method differs from the one for barcode font. For entered data, input data [d] described in the following Printer commands in "MP-A40 SERIES THERMAL PRINTER TECHNICAL REFERENCE" by character strings:
 - "Barcode Print"
 - "PDF417 Print"
 - "QR Code Print"
 - "DataMatrix Print"
 - "MaxiCode Print (Mode5)"
 - "GS1 Databar Stacked Print"
 - "GS1 Databar Stacked Omni-directional Print"
 - "GS1 Databar Expanded Stacked Print"
- *14: [Print method] is fixed to raster bit image when selecting "Sample Image B" for the image selection.
- *15: When clicking [Browse...] button and select an image file, the image selection is changed to "User Specified Image".
- *16: Not available when the [Custom Command Data] is blank.

This section describes the methods for inputting data to "Barcode Data" in [Test Print].

1) Using CODE128

There are 2 methods.

1. Method to use Table 5-1 CODE128 Code Set and Table 5-3 Character Code

- (1) Select the start code of using code set from [Code] in Table 5-1 CODE128 Code Set. Input the character string corresponding to selected start code from Table 5-3 Character Code.

Example: When selecting code set "CODE A"
The code corresponding to "START A" from [Data] of Table 5-1 CODE128 Code Set is 0x67.
Then, input 'g' corresponding to 0x67 from Table 5-3 Character Code.

- (2) In the same way as (1), input the character string corresponding to the data to be printed as barcode, referring to Table 5-1 CODE128 Code Set and Table 5-3 Character Code.

Example: To convert 'A' in [Data] to the barcode data under code set "CODE A", input '!' corresponding to 0x21 from the Table 5-3 Character Code.

2. Method to use Table 5-1 CODE128 Code Set and Table 5-2 CODE128 Special Characters Code

- (1) Input the character string corresponding to start code in [Data] from [Code] - [ASCII] in Table 5-2 CODE128 Special Characters Code.

Example: When selecting code set "CODE A"
Input '{A' corresponding to "START A" from [Data] of Table 5-2 CODE128 Special Characters Code.

- (2) The inputting method for succeeding data depends on the start code.

- When selected "CODE A" or "CODE B"
Input the character string to be printed as barcode corresponding to the Barcode Data to be printed.

Example: When convert 'A' in [Data] to the barcode data, input 'A'.

The following value can be input as for the barcode data.

CODE A	0x00 to 0x3F in [Code] of Table 5-1 CODE128 Code Set can be input.
CODE B	0X00 to 0x5E in [Code] of Table 5-1 CODE128 Code Set can be input.

- When selected CODE C
In the same way as 1.(2), input the character string corresponding to the "Barcode Data" to be printed as barcode data, referring to Table 5-1 CODE128 Code Set and Table 5-3 Character Code.

Example: To convert '65' in [Data] to barcode data, input 'A' corresponding to 0x41 from the Table 5-3 Character Code.

Input the character string corresponding to selected start code from Table 5-2 CODE128 Special Characters Code.

Example: When setting "SHIFT" from [Data] - [CODE A], input '{S'.

Table 5-1 CODE128 Code Set

Code	Data			Code	Data			Code	Data		
	CODE A	CODE B	CODE C		CODE A	CODE B	CODE C		CODE A	CODE B	CODE B
0x00	SP	SP	00	0x24	D	D	36	0x48	BS	h	72
0x01	!	!	01	0x25	E	E	37	0x49	HT	i	73
0x02	"	"	02	0x26	F	F	38	0x4A	NL*	j	74
0x03	#	#	03	0x27	G	G	39	0x4B	VT	k	75
0x04	\$	\$	04	0x28	H	H	40	0x4C	NP	l	76
0x05	%	%	05	0x29	I	I	41	0x4D	CR	m	77
0x06	&	&	06	0x2A	J	J	42	0x4E	SO	n	78
0x07	'	'	07	0x2B	K	K	43	0x4F	SI	o	79
0x08	(	(	08	0x2C	L	L	44	0x50	DLE	p	80
0x09	)	)	09	0x2D	M	M	45	0x51	DC1	q	81
0x0A	*	*	10	0x2E	N	N	46	0x52	DC2	r	82
0x0B	+	+	11	0x2F	O	O	47	0x53	DC3	s	83
0x0C	,	,	12	0x30	P	P	48	0x54	DC4	t	84
0x0D	-	-	13	0x31	Q	Q	49	0x55	NAK	u	85
0x0E	.	.	14	0x32	R	R	50	0x56	SYN	v	86
0x0F	/	/	15	0x33	S	S	51	0x57	ETB	w	87
0x10	0	0	16	0x34	T	T	52	0x58	CAN	x	88
0x11	1	1	17	0x35	U	U	53	0x59	EM	y	89
0x12	2	2	18	0x36	V	V	54	0x5A	SUB	z	90
0x13	3	3	19	0x37	W	W	55	0x5B	ESC	{	91
0x14	4	4	20	0x38	X	X	56	0x5C	FS	|	92
0x15	5	5	21	0x39	Y	Y	57	0x5D	GS	}	93
0x16	6	6	22	0x3A	Z	Z	58	0x5E	RS	~	94
0x17	7	7	23	0x3B	[	[	59	0x5F	US	DEL	95
0x18	8	8	24	0x3C	\	\	60	0x60	FNC3	FNC3	96
0x19	9	9	25	0x3D	]	]	61	0x61	FNC2	FNC2	97
0x1A	:	:	26	0x3E	^	^	62	0x62	SHIFT	SHIFT	98
0x1B	;	;	27	0x3F	_	_	63	0x63	CODE C	CODE C	99
0x1C	<	<	28	0x40	NUL	`	64	0x64	CODE B	FNC 4	CODE B
0x1D	=	=	29	0x41	SOH	a	65	0x65	FNC 4	CODE A	CODE A
0x1E	>	>	30	0x42	STX	b	66	0x66	FNC1	FNC1	FNC1
0x1F	?	?	31	0x43	ETX	c	67				
0x20	@	@	32	0x44	EOT	d	68	0x67	START A		
0x21	A	A	33	0x45	ENQ	e	69	0x68	START B		
0x22	B	B	34	0x46	ACK	f	70	0x69	START C		
0x23	C	C	35	0x47	BEL	g	71				

Table 5-2 CODE128 Special Characters Code

Code		Data		
Code	ASCII	CODE A	CODE B	CODE C
0x7B53	{S	SHIFT	SHIFT	-
0x7B41	{A	START A	CODE A	CODE A
0x7B42	{B	CODE B	START B	CODE B
0x7B43	{C	CODE C	CODE C	START C
0x7B31	{1	FNC1	FNC1	FNC1
0x7B32	{2	FNC2	FNC2	-
0x7B33	{3	FNC3	FNC3	-
0x7B34	{4	FNC4	FNC4	-
0x7B7B	{{	-	'{'	-

Table 5-3 Character Code

Code	Character String	Code	Character String	Code	Character String	Code	Character String	Code	Character String	Code	Character String
0x20	SP	0x30	0	0x40	@	0x50	P	0x60	`	0x70	p
0x21	!	0x31	1	0x41	A	0x51	Q	0x61	a	0x71	q
0x22	"	0x32	2	0x42	B	0x52	R	0x62	b	0x72	r
0x23	#	0x33	3	0x43	C	0x53	S	0x63	c	0x73	s
0x24	\$	0x34	4	0x44	D	0x54	T	0x64	d	0x74	t
0x25	%	0x35	5	0x45	E	0x55	U	0x65	e	0x75	u
0x26	&	0x36	6	0x46	F	0x56	V	0x66	f	0x76	v
0x27	'	0x37	7	0x47	G	0x57	W	0x67	g	0x77	w
0x28	(	0x38	8	0x48	H	0x58	X	0x68	h	0x78	x
0x29	)	0x39	9	0x49	I	0x59	Y	0x69	i	0x79	y
0x2A	*	0x3A	:	0x4A	J	0x5A	Z	0x6A	j	0x7A	z
0x2B	+	0x3B	;	0x4B	K	0x5B	[	0x6B	k	0x7B	{
0x2C	,	0x3C	<	0x4C	L	0x5C	\	0x6C	l	0x7C	|
0x2D	-	0x3D	=	0x4D	M	0x5D	]	0x6D	m	0x7D	}
0x2E	.	0x3E	>	0x4E	N	0x5E	^	0x6E	n	0x7E	~
0x2F	/	0x3F	?	0x4F	O	0x5F	_	0x6F	o	0x7F	DEL

2) Using CODE93

Input the character string to be printed as barcode corresponding to the "Barcode Data" referring to Table 5-4 CODE93 Code Set, and input the character string corresponding to the code in Table 5-3 Character Code.

The following value can be input is 0x20 to 0x2E.

Example: To convert 'X' in [Data] to the barcode
 The code corresponding to 'X' from Table 5-4 CODE93 Code Set is 0x21.
 Input '!' corresponding to 0x21 from Table 5-3 Character Code.

Table 5-4 CODE93 Code Set

Code	Data	Code	Data	Code	Data
0x00	0	0x10	G	0x20	W
0x01	1	0x11	H	0x21	X
0x02	2	0x12	I	0x22	Y
0x03	3	0x13	J	0x23	Z
0x04	4	0x14	K	0x24	-
0x05	5	0x15	L	0x25	.
0x06	6	0x16	M	0x26	SP
0x07	7	0x17	N	0x27	\$
0x08	8	0x18	O	0x28	/
0x09	9	0x19	P	0x29	+
0x0A	A	0x1A	Q	0x2A	%
0x0B	B	0x1B	R	0x2B	[S1]
0x0C	C	0x1C	S	0x2C	[S2]
0x0D	D	0x1D	T	0x2D	[S3]
0x0E	E	0x1E	U	0x2E	[S4]
0x0F	F	0x1F	V		



5.5.2 Execution of Test Print

This section describes the execution procedure of the test print.

Printing Procedure When Using "Sample Data"

1. Select the content of test print from "Sample Data".
2. Click the [Do Test Print] button.

Printing Procedure When Specifying Test Print Commands (Printing Characters)

1. Click the  [New] button.
2. Select whether or not to initialize the printer by [Printer Initialize].
3. Select one of the print positions from left, center, or right alignment by the radio button, and click the [Alignment] button.
4. Enter characters to print in "Character Data".
5. Select [Character Font] and [Print Mode], and click the [Line Feed] button.
6. Add Test Print commands such as [Barcode] or [Custom Cmd.] to [Command List], when necessary.
7. When a Test Print command (Test Print command name and setting values) needs to be deleted, select the target Test Print command row in [Command List] and click the  [Delete] button.
8. Click the [Do Test Print] button.

Printing Procedure When Using Test Print File

1. Click the [Open...] button in the [Test Print] window.
2. Specify a test print file where the Test Print command is saved from the [Open] dialog.
3. Click the [Open] button in the [Open] dialog.
4. Click the [Do Test Print] button.

5.5.3 Save of Test Print File


This section describes the procedure to save the test print information as a test print file.

1. Click the [Save...] button in the [Test Print] window.
2. Specify the location and file name to save the test print file in the [Save As] dialog.
3. Click the [Save] button in the [Save As] dialog.

5.6 NV Image

Edits and registers the image to be used as the logo, or manages the registered NV images.

Caution

- ◆ [Register to Printer] in [Registration] tab requires logon to the computer with administrator privileges.
- ◆  (deletion) of [NV Image List] requires logon to the computer with administrator privileges.

Reference

- The NV image is an image data that is registered in the NV memory (non-volatile memory) in the printer. When turn off the power of the printer, this data is retained.

5.6.1 Setting of NV Image

Select [NV Image] in the tool panel to display the window below.

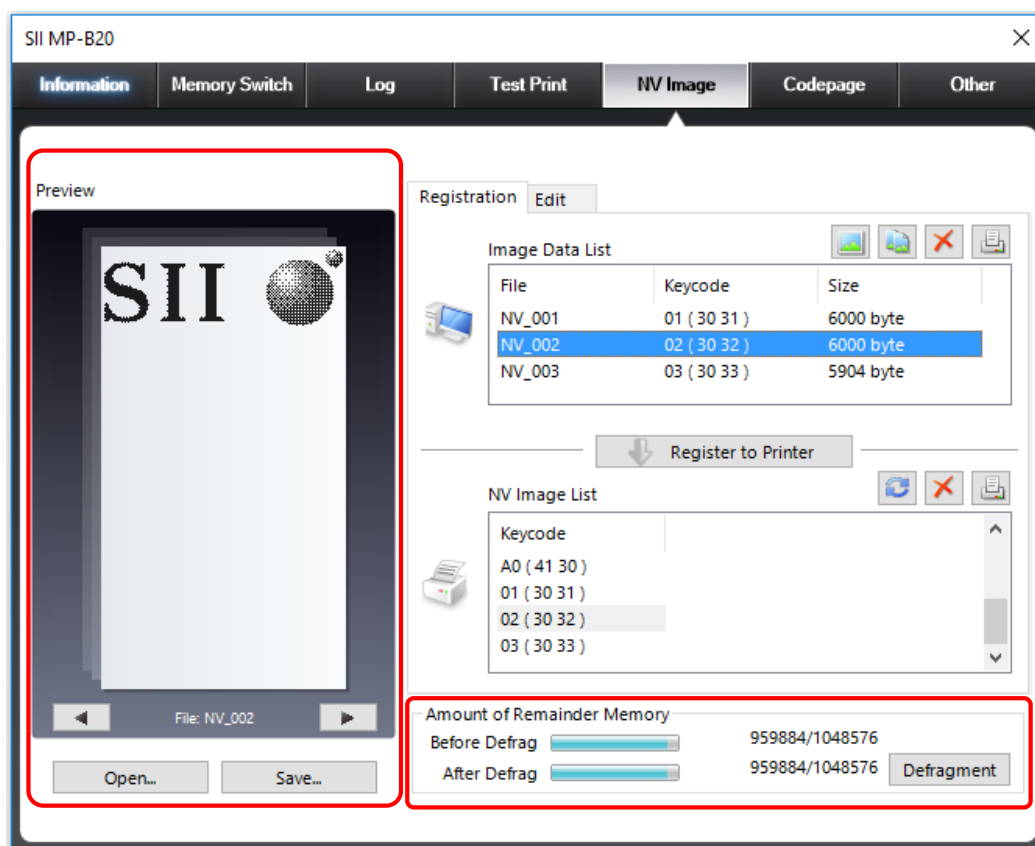




Figure 5-9 [NV Image] window

Item	Description
Preview	Displays the image data selected in [Image Data List].
 Back	Changes the image data displayed in [Preview] to the previous image.* ¹
 Next	Changes the image data displayed in [Preview] to the next image.* ¹
File	Displays the file name of the image data displayed in [Preview].
Open...	Loads the setting and image from a saved image data file (*.snv) to display the image data.
Save...	Saves the settings and images of the image data added to [Image Data List] as an image data file (*.snv). ^{*2}
Amount of Remainder Memory	Displays the free memory. To reserve a free memory area, performs defragmentation by reallocating the printer memory.
Before Defrag	Displays the free memory before defragmentation.
After Defrag	Displays the free memory after defragmentation.
Defragment	Executes defragmentation.

*1: Available only when [Image Data List] contains two or more image data.

*2: Not available when [Image Data List] contains no image data.

5.6.2 Setting of Registration

Select the [Registration] tab in the [NV Image] window to display the window below.

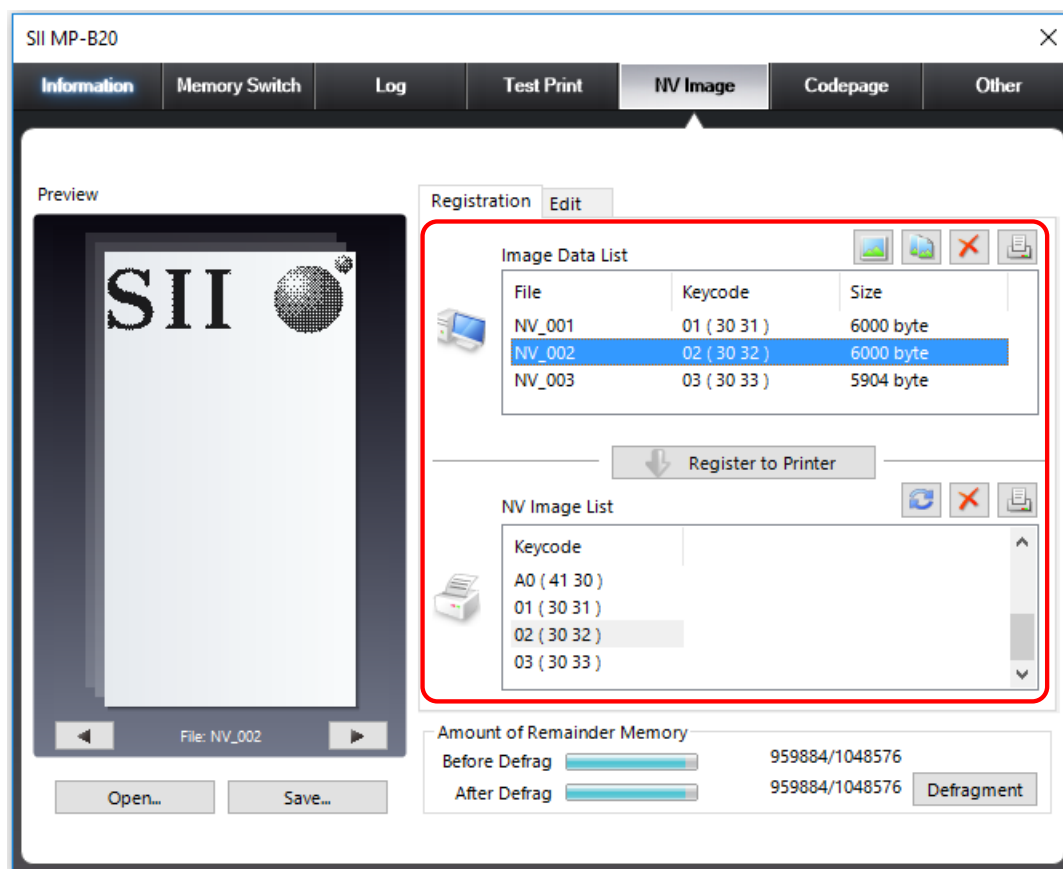









Figure 5-10 [Registration] window

Item	Description (" ": Default)
Image Data List	Displays the list of the added image data. Up to 20 image data can be added to [Image Data List]. When start [NV Image] again, previously specified list is restored.
File	The name for managing the image data to be registered to the printer.*1 This name is automatically assigned when the image data is added to [Image Data List].
Keycode	The image data number used when registering the image data to the printer. A keycode that is not yet registered in the printer is assigned automatically. To change the assigned keycode, select the image data in [Image Data List] and enter a new keycode in figures in the edit box. · 00 to 99 (automatically assigned keycode)*2
Size	Displays the data size of the image data.*1
 Open the image data...	Adds a specified image data file to [Image Data List]. An image file (*.jpg, *.jpeg, *.bmp, *.png) can be selected.*3

Item		Description (" ": Default)
	Copy of image data	Duplicates all the image data selected in [Image Data List] with different file names, and adds them to [Image Data List]. ^{*4}
	Deletion of image data	Deletes the image data selected in [Image Data List]. ^{*4}
	Print of image data	Prints all the image data selected in [Image Data List]. ^{*4}
	Register to Printer	Registers all the image data selected in [Image Data List] to the printer. After registration of the image data, [Amount of Remainder Memory] is updated. When the keycode of an image data to be registered is already registered, a message appears confirming the overwrite. ^{*4}
	NV Image List	Displays the list of the NV images already registered in the printer. ^{*5}
	Keycode	Displays the keycodes of the NV images already registered in the printer.
	Refresh	Gets the NV images registered in the printer and the free memory again.
	Delete	Deletes all the NV images selected in [NV Image List] from the printer. ^{*6} After deletion of the images, [Amount of Remainder Memory] is updated.
	Test Print	Prints all the NV images selected in [NV Image List]. ^{*6}

*1: Not editable.

*2: When delete an image data, its keycode becomes a missing number and is not automatically assigned again. However, when the numbers up to 99 are used for keycode, then missing numbers are assigned from the smallest one.

*3: The specified image data is resized so as to fit 58 mm paper (printable (head) width: 48 mm) when being loaded. When a color image is specified, it is converted to the monochrome image when being loaded.

*4: Not available when [Image Data List] contains no image data.

*5: When the NV image information cannot be retrieved from the printer, "-" is displayed for the first row of the list.

*6: Not available when [NV Image List] contains no NV image.

5.6.3 Setting of Edit

Select the [Edit] tab in the [NV Image] window to display the window below.

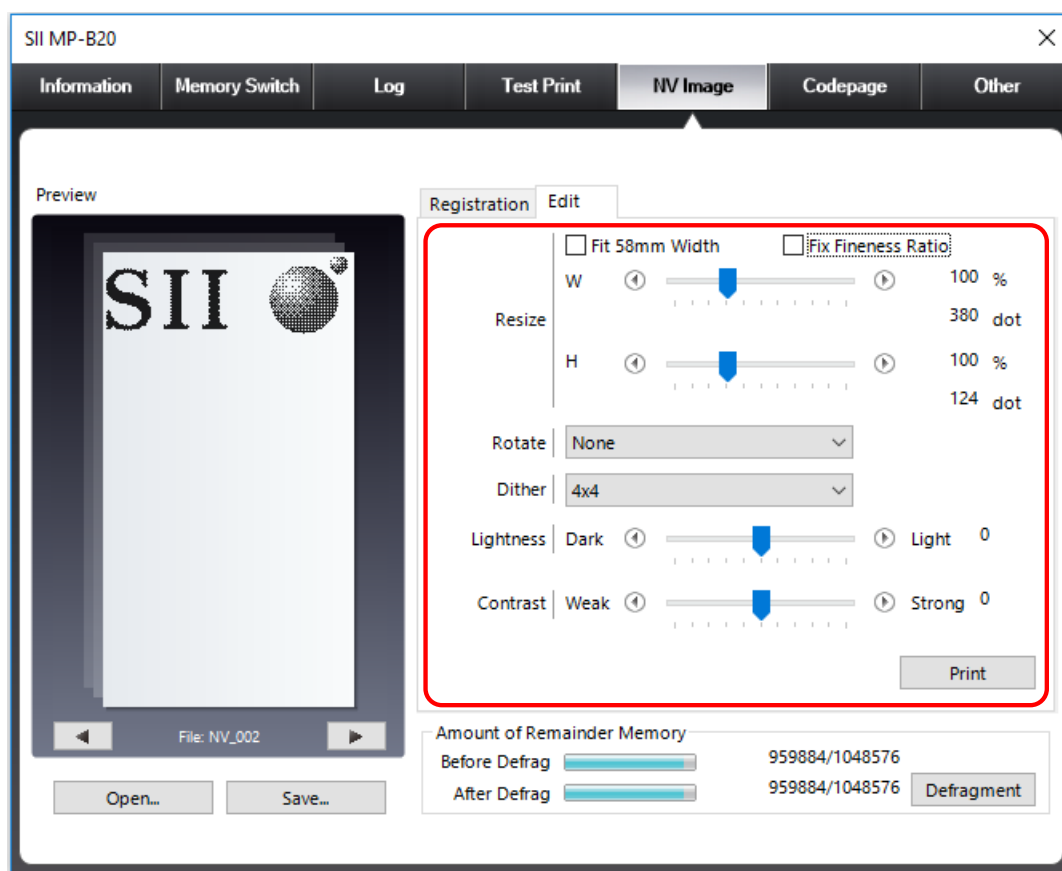


Figure 5-11 [Edit] window

Item	Description ("": Default)
Resize	Expands or reduces the selected image data. ^{*1}
Fit 58mm Width	Resizes the size of the image data automatically to fit 58 mm paper (printable (head) width: 48 mm).
Fix Fineness Ratio	Fixes the aspect ratio when resizing the image data.
W H	Resizes the image data using the slider control. ^{*2 *3} <ul style="list-style-type: none"> 10 to 300% of the original image (the range of dots differs depending on the original image size. Height can be specified up to 8 inches (1624 dots).
% dot	Displays reduction ratio (%) and dots equivalent of the image data selected.
Rotate	Rotates the image data to the specified direction by the specified angle. ^{*1} <ul style="list-style-type: none"> None Rotate 90 degrees to right Rotate 180 degrees Rotate 90 degrees to left When rotate the image by 90 degrees from the current angle when [Fit 58mm Width] is on, then [Fit 58mm Width] is cleared.

Item	Description ("": Default)
Dither	Selects the dithering pattern. ^{*1} <ul style="list-style-type: none"> • 2x2 • 4x4 • 6x6 • 8x8 • Error Diffusion
Lightness	Sets the lightness of the image data. ^{*1 *3} <ul style="list-style-type: none"> • -100 to 100 (0)
Contrast	Sets the contrast of the image data. ^{*1 *3} <ul style="list-style-type: none"> • -100 to 100 (0) Setting -100 makes the whole image flat.
Print	Prints the edited image data. ^{*1}

*1: Not available when [Image Data List] contains no image data.


*2: The [H] slider is not available when [Fix Fineness Ratio] is selected.

*3: When use the mouse to operate the slider, the setting is applied to [Preview] when release the left mouse button. When use the keyboard to operate the slider or use the left/right arrow buttons, the setting is applied to [Preview] each time pressing a key or clicking a button.


5.6.4 Registration of NV Image

This section describes the procedures to register an NV image.

Registration Procedure When Specifying Image Data File

1. Click the  [Open the image data...] button in the [Registration] window.
2. Specify an image data file to register in the [Open] dialog.
3. Click the [Open] button in the [Open] dialog.
4. Select an added image in [Image Data List].
5. Click the [Register to Printer] button in the [Registration] window.

Registration Procedure When Duplicating Image Data

1. Select an image to duplicate in [Image Data List], and click the  [Copy of image data] button in the [Registration] window.
2. Select duplicated image data in [Image Data List].
3. Click the [Register to Printer] button in the [Registration] window.

Registration Procedure When Loading Settings and Images from Image Data File

1. Click the [Open...] button in the [NV Image] window.
2. Specify a saved image data file where the settings and images are saved from the [Open] dialog.
3. Click the [Open] button in the [Open] dialog.
4. Select loaded image data in [Image Data List].
5. Click the [Register to Printer] button in the [Registration] window.

5.6.5 Edit of Image Data

This section describes the procedure to edit image data.

1. Select an image data to edit from [Image Data List] in the [Registration] window.
2. Select the [Edit] tab.
3. Change settings such as size, image data rotation and lightness, in the [Edit] tab.

5.6.6 Setting of Image Data and Save of Image


This section describes the procedure to save the image data setting and image in a file.

1. Click the [Save...] button in the [NV Image] window.
2. Specify the location and file name to save the image data file in the [Save As] dialog.
3. Click the [Save] button in the [Save As] dialog.

5.7 Codepage

Edits and registers the font data that the user can register, or manages the registered codepages.

Caution

- ◆ [Register to Printer] in [Codepage] tab requires logon to the computer with administrator privileges.
- ◆  (deletion) of [Codepage List] requires logon to the computer with administrator privileges.

Reference

- Codepage
A codepage is a set of characters that are collected by language and used as a device font. This tool allows the user to create a new codepage and edit the existing one.

5.7.1 Setting of Codepage

Select [Codepage] in the tool panel to display the window below.

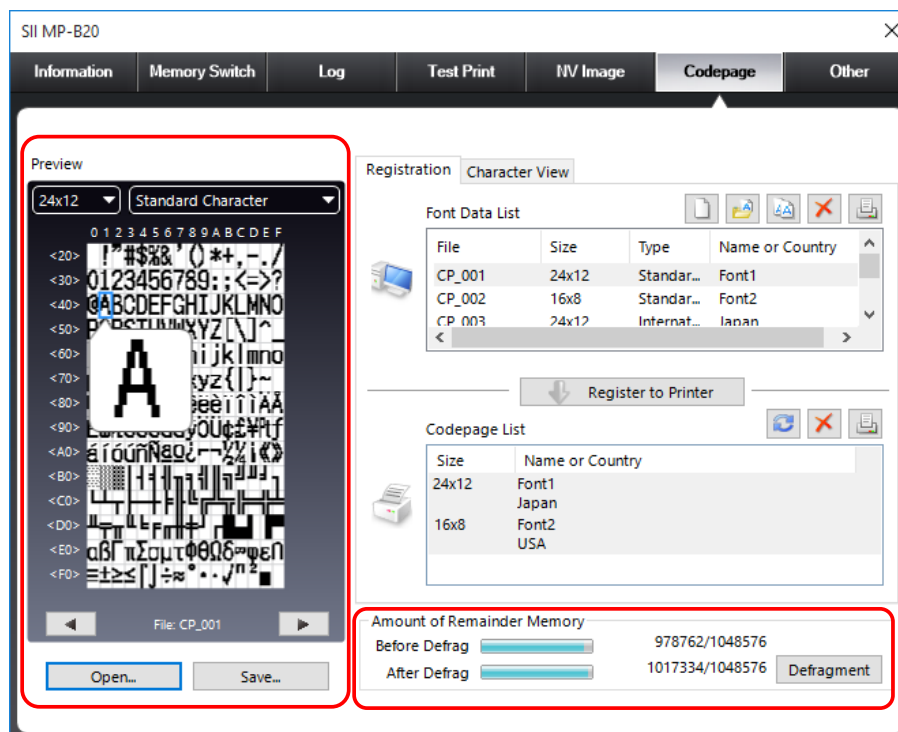




Figure 5-12 [Codepage] window

Item	Description ("": Default)
Preview	Displays the font data selected in [Font Data List]. When place the mouse, expanded image of the font is displayed in a frame. The content of [Preview] varies depending on [Size] and [Type] of the selected image.
Size	Select for the size of the font data selected in [Font Data List]. <ul style="list-style-type: none"> • 24x12 • 16x8 When change the setting, it is applied to [Preview], [Character View], and [Font Data List].
Type	Select for the type of the font data selected in [Font Data List]. <ul style="list-style-type: none"> • Standard Character • International Character When change the setting, it is applied to [Preview] and [Font Data List].
 Back	Changes the font data displayed in [Preview] to the previous page.*1
 Next	Changes the font data displayed in [Preview] to the next page.*1
File	Displays the file name of the font data displayed in [Preview].
Open...	Loads and displays the saved font data file (*.scp).
Save...	Saves the settings and images of the font data added to [Font Data List] as a font data file (*.scp). ^{*2}
Amount of Remainder Memory	Displays the free memory. To reserve a free memory area, performs defragmentation by reallocating the printer memory.
Before Defrag	Displays the free memory before defragmentation.
After Defrag	Displays the free memory after defragmentation.
Defragment	Executes defragmentation.

*1: Available only when [Font Data List] contains more than 1 font data.

*2: Not available when [Font Data List] contains no font data.

5.7.2 Setting of Codepage Registration

Select the [Registration] tab in the [Codepage] window to display the window below.

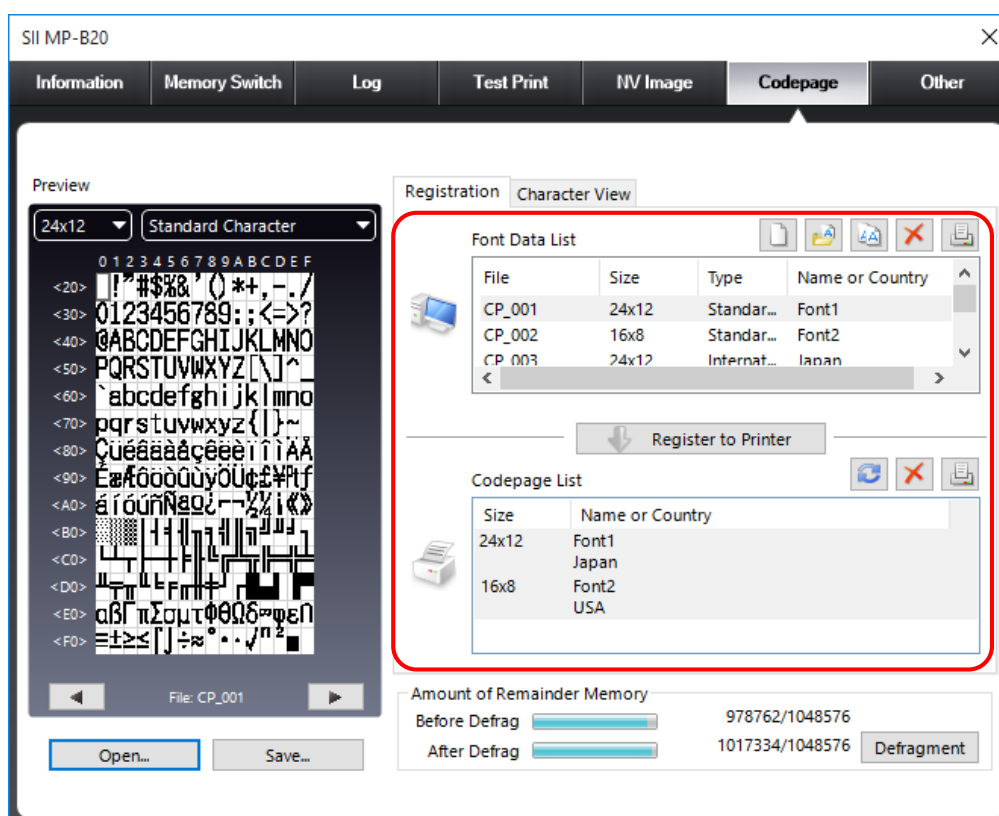










Figure 5-13 [Registration] window

Item	Description ("": Default)
Font Data List	<p>Displays the list of the font data added to the project. Up to 60 font data can be added to [Font Data List]. When Codepage tool is started, the list at the time when exit the tool last time is restored. More than 1 font data in [Font Data List] cannot be selected.</p>
File	<p>The name for managing the font data to be registered to the printer.*1 The name is automatically assigned when the font data is added to [Font Data List].</p>
Size	<p>Select for the size of the font data.</p> <ul style="list-style-type: none"> • 24 x 12 • 16 x 8 <p>When change the setting, it is applied to [Preview] and [Character View].</p>
Type	<p>Select for the type of the codepage.</p> <ul style="list-style-type: none"> • Standard Character • International Character <p>When change the setting, it is applied to [Preview].</p>

Item	Description ("": Default)
Name or Country	<p>When [Type] is "Standard Character", enter the font name in 1-byte alphanumeric and symbol. Up to 64 characters can be input.</p> <p>When [Type] is "International Character", select for a country name.</p> <ul style="list-style-type: none"> • USA • France • Germany • United Kingdom • Denmark I • Sweden • Italy • Spain I • Japan • Norway • Denmark II • Spain II • Latin America • Arabia
 Make new font data	<p>Creates new font data.</p> <p>The display of [Preview] is cleared to be blank, and font data with a new file name is added to [Font Data List].</p>
 Open the font data...	<p>Adds a specified font data file to [Font Data List].</p> <p>Available to select *.bmp and *.bin of width 16 x height 14 characters.*²</p>
 Copy of font data	<p>Duplicates the font data selected in [Font Data List] with a different file name, and adds it to [Font Data List].*³</p> <p>The size, type and font name/country name are also duplicated.</p>
 Deletion of font data	<p>Deletes the font data selected in [Font Data List].*³</p>
 Print of font data	<p>Prints the font data selected in [Font Data List].*³</p>
Register to Printer	<p>Registers the codepage selected in [Font Data List] to the printer.*⁴</p> <p>When a codepage to be registered is already registered, a confirmation message for overwriting is displayed.</p> <p>After the registration of the codepage, [Amount of Remainder Memory] is also updated.</p>
Codepage List	<p>Displays the codepages registered in the printer.</p> <p>The size and font name are displayed for "Standard Character", and the size and country name are displayed for "International Character".</p>
Size	<p>Displays the size of a codepage registered in the printer.</p>
Name or Country	<p>Displays the font name or country name of a codepage registered in the printer.</p>
 Refresh	<p>Gets the codepages registered in the printer and the free memory again.</p>

Item	Description (" ": Default)
 Delete	Deletes the codepage selected in [Codepage List] from the printer. ^{*5} After the deletion of the codepage, [Amount of Remainder Memory] is also updated.
 Test Print	Prints the codepage selected in [Codepage List]. ^{*5}

*1: Not editable.

*2: When a font data file to be loaded is in binary format, the size and type are determined to be displayed in [Font Data List].

When a font data file to be loaded is a BMP file containing color or gray scale image, it is binarized to black and white when being loaded.

When a font data to be loaded is *.bin format and the font data size is different, the shortage is displayed as blank. The part over the size is discarded and not displayed.

*3: Not available when [Font Data List] contains no font data.

*4: When registering an international character, register a standard character of the same size in advance.

*5: Not available when [Codepage List] contains no codepage.

5.7.3 Edit of Font Data by [Character View]

Select the [Character View] tab in the [Codepage] window to display the window below.

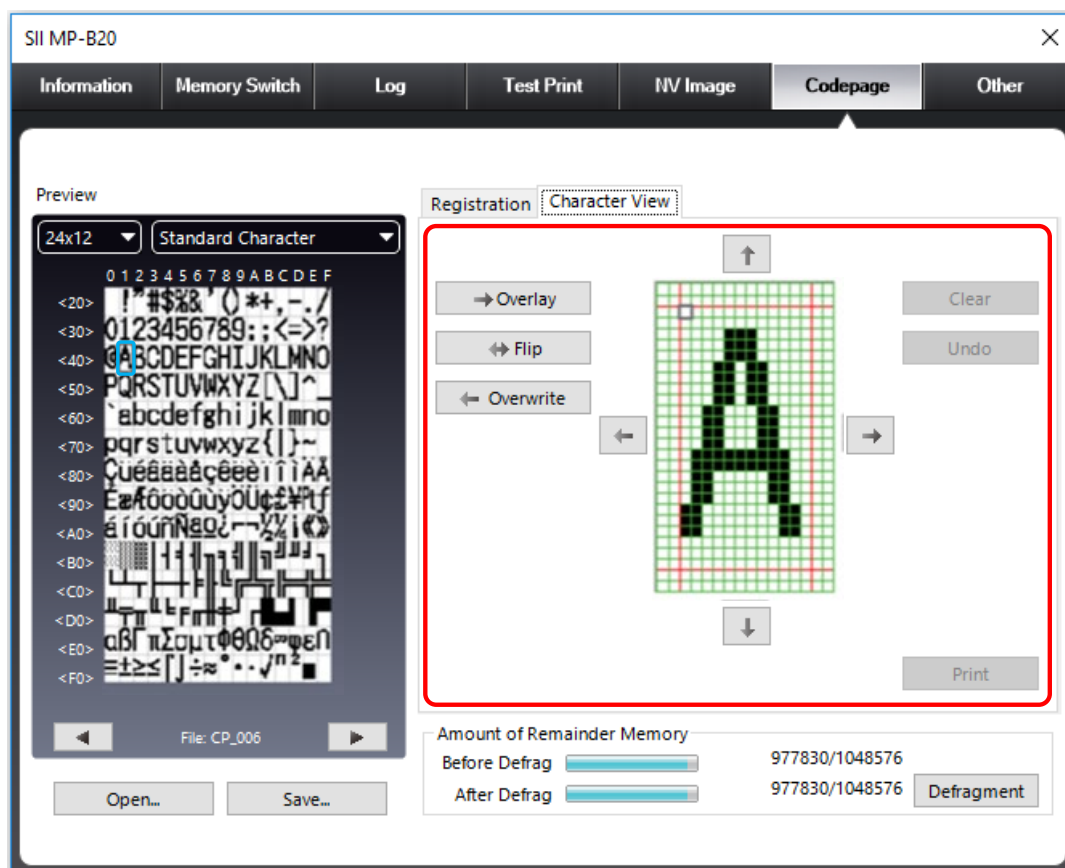



Figure 5-14 [Character View] window

Item	Description
Character View	Each character of the font data displayed in [Preview] can be edited. When clicking the mouse (left click) or pressing the spacebar on a white block, it changes to black, and when dragging the mouse while holding the left mouse button down, available to draw a line. When right clicking the mouse or pressing the "Delete" key on a black block, it changes to white, and when dragging the mouse while holding the right mouse button down, available to change black blocks to white continuously.
Overlay	Overlays the character selected in [Preview] on [Character View]. ^{*1} Any image already contained in [Character View] is not cleared by the overlay.
Flip	Swaps the character displayed in [Character View] and the character selected in [Preview]. ^{*1 *2}
Overwrite	Overwrites the character selected in [Preview] with the character displayed in [Character View]. ^{*1 *2} Clicking this button clears the image in [Character View].
	Shifts the character displayed in [Character View] by 1 dot each time click one of these buttons, to the corresponding direction. Any data that goes outside [Character View] is not retained.
Clear	Clears all drawing in [Character View] to be blank. ^{*3}
Undo	Reverts the state in [Character View] to its previous state. It can be enabled for only once.
Print	Prints the content of [Character View]. ^{*3}

*1: Not available when [Font Data List] of the [Registration] window contains no font data or when an uneditable part of the international characters is selected.


*2: Areas outside the red frame in [Character View] are not reflected on [Preview].

*3: Not available when nothing is drawn in [Character View].


5.7.4 Registration of Codepage

This section describes the procedures to register the codepage.

Registration Procedure When Creating New Codepage

1. Click the  [Make new font data] button on the [Registration] window.
2. Enter [Size], [Type], and [Name or Country] of the new file added to [Font Data List].
3. Select the [Character View] tab and edit the character of each address.
4. Select the [Registration] tab, and then select the file whose characters edited from [Font Data List].
5. Click the [Register to Printer] button on the [Registration] window.

Registration Procedure When Specifying Font Data File

1. Click the  [Open the font data...] button.
2. Specify a font data file to register in the [Open] dialog.
3. Click the [Open] button in the [Open] dialog.
4. Enter [Size], [Type], and [Name or Country] of the file added to [Font Data List].
(When the font data file is binary data, the size and type are automatically determined from the data size.)
5. Select the added file from [Font Data List] in the [Registration] window.
6. Click the [Register to Printer] button on the [Registration] window.

Registration Procedure When Loading Settings and Images from Font Data File

1. Click the [Open...] button in the [Codepage] window.
2. Specify a saved font data file in the [Open] dialog.
3. Click the [Open] button in the [Open] dialog.
4. Select the loaded file from [Font Data List] in the [Registration] window.
5. Click the [Register to Printer] button on the [Registration] window.

5.7.5 Edit of Font Data

This section describes the procedure to edit font data.

1. Select the font data to edit from [Font Data List] in the [Registration] window.
2. Select the [Character View] tab.
3. Select a character to edit from [Preview].
4. Click the [Overlay] button.
5. Edit the selected character in [Character View].
6. Select the position to register the edited character in [Preview].
7. Click the [Overwrite] button.

5.7.6 Setting of Font Data and Save of Image

This section describes the procedure to save the setting and image of a codepage as a font data file.

1. Click the [Save...] button in the [Codepage] window.
2. Specify the location and file name to save the font data file in the [Save As] dialog.
3. Click the [Save] button in the [Save As] dialog.

5.8 Other

Exports the printer driver setting to a file, or imports an exported file.

The setting to be imported or exported is the printer driver setting information (including the ControlA font setting information).

5.8.1 Setting of Other

Select the [Other] in the tool panel to display the window below.

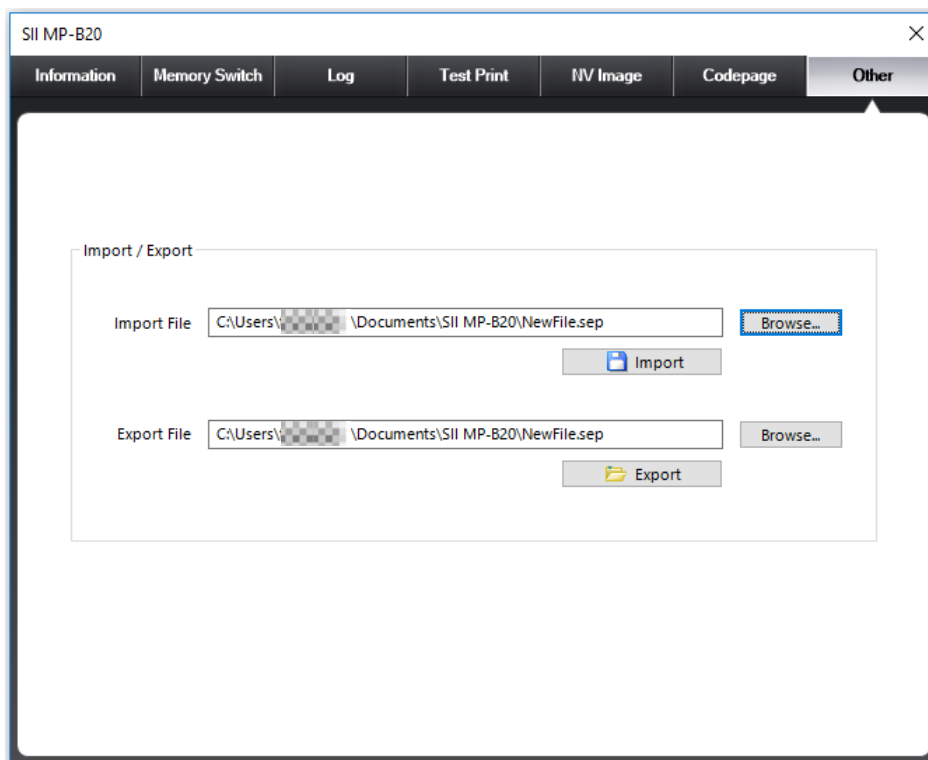


Figure 5-15 [Other] window

Item	Description
Import File	Enter the file name of a saved export file (*.sep). Alternatively, click the [Browse...] button next to the [Import File] field and specify the location and file name of a file to import in the [Open] dialog.
Browse...	Specify the export file to import in the [Open] dialog. The specification is displayed in the [Import File] field.
Import	Imports the printer driver setting information (including the ControlA font setting information) from the file specified in the [Import File] field.*1
Export File	Enter the export file name. Alternatively, click the [Browse...] button next to the [Export File] field and specify the location and file name in the [Save As] dialog.
Browse...	Specify the location and file name to save the export file in the [Save As] dialog. The specification is displayed in the [Export File] field.

Item	Description
Export	Exports the printer driver setting information (including the ControlA font setting information) to the file specified in the [Export File] field.

*1: Not available to import an export file exported in different language environment. In addition, when the paper size for an import file is the user defined paper, the setting may not possibly be reflected.

5.8.2 Import of Setting

This section describes the procedure to import the setting.

1. Click the [Browse...] button next to the [Import File] field.
2. Select the file to import in the [Open] dialog.
3. Click the [Open] button in the [Open] dialog.
4. Click the [Import] button.

5.8.3 Export of Setting

This section describes the procedure to export the setting.

1. Click the [Browse...] button next to the [Export File] field.
2. Specify the location and file name to save the export file in the [Save As] dialog.
3. Click the [Save] button in the [Save As] dialog.
4. Click the [Export] button.

Chapter 6 Page Setup

This chapter describes the paper settings.

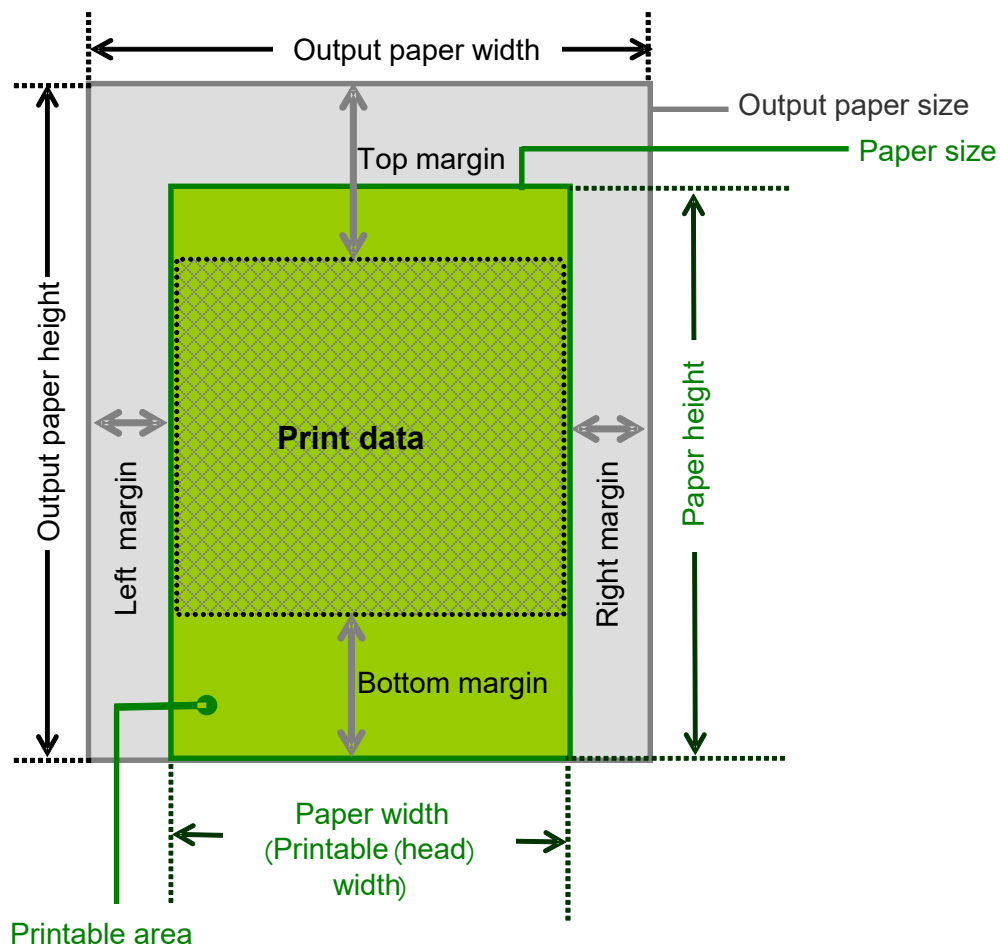
This section describes terms used in this chapter.

Definition	Description
Height (Paper height)	Vertical size when the paper feed direction is "portrait"
Width (Paper width)	Horizontal size when the paper feed direction is "portrait"
Output paper size	Paper (roll paper) size which is actually used for printing
Paper size	Printable area size specified on the printer driver
Standard paper	Paper sizes that are automatically registered on installation
User defined paper	Custom sizes that can be newly registered by users

Caution

- ◆ When specify user defined paper, use the paper size (printable area size) instead of the output paper size.
- ◆ Standard paper other than A4 and Letter is named after the "width of the output paper", which does not match the paper size.

The following figure illustrates a print image.



The above figure is just a print image. The print end position varies depending on the setting in [Paper Feed to Cut Position] described in "3.3.6 Setting of Paper Feed".

6.1 Paper size

The following table describes paper sizes available for output paper width.

Output Paper Width	Paper Type	Paper Name	Paper Size (Range)	
			Width	Height
58 mm	Standard paper	58mm	48 mm	3276 mm
		A4	210 mm	297 mm
		Letter	215.9 mm	279.4 mm
	User defined paper	-	25.6 mm to 48 mm	30 mm to 3276 mm

Specify paper sizes as follows.

- Paper width = Output paper width - Left margin - Right margin
- Paper height = Output paper height - Paper feed between head and tear bar

For details of the margin and the paper feed between head and tear bar, see "6.2 Margin".

6.2 Margin

This section describes the margin sizes.

The following descriptions assume that [Orientation] described in "3.1.1 Setting of Layout" is set to [Portrait] and [Direction] described in "3.3.5 General Settings" is set to [Front to Back].

There are the following margins in the paper width direction.

Left Margin

The 5 mm left margin appears.

Right Margin

The following right margin appears.

Right margin = Output paper width - Paper width - Left margin

Top Margin

The top margin is an area above the print data within the paper size plus the length of the paper feed between head and tear bar.

The followings are the actions by selecting [Paper Feed to Cut Position] in "3.3.6 Setting of Paper Feed".

- When select "Enabled": Feeds the paper to the cut position.
- When select "Disabled": Not feed the paper to the cut position.
The bottom of print may be truncated.

Bottom Margin

The bottom margin is an area below the print data within the paper size, which does not contain the print data.

The followings are the actions by selecting [Margin] in "3.3.5 General Settings".

- Minimum Bottom Margin: Feeds the paper to the end of the image regardless of the selected paper height.
- Maximum Margin: Feeds the paper to the selected paper height. However, maximum of the paper feed length is the paper height including the printing data.

Caution

- ◆ When [Paper Feed to Cut Position] described in "3.3.6 Setting of Paper Feed" is set to "Disabled", the print will be ended within the printable area by the length from head to tear bar.
- ◆ When the paper width setting on the printer and the width of the paper size on the printer driver do not match, the printed layout may corrupt.
- ◆ Due to the printer mechanism, the actual output paper height may be slightly different from the specified paper size.
- ◆ Print using logo, feed, paper feed to cut position, or custom command is not performed within the paper size and may run off the specified paper size.

Reference

- For details how to register a new paper size, see "6.3 How to Add a New Paper Size".

6.3 How to Add a New Paper Size

This section shows an example of the procedure to add a user defined paper size.

1. Select the [Forms] tab in the [Print Server Properties] window.
2. Select the [Create a new form] checkbox.
3. Enter the paper name in the [Form name] field.
4. Select "Metric" in the [Units:].
5. Type the width for the new paper size in the [Width] field in [Paper size].
6. Type the height for the new paper size in the [Height] field in [Paper size].
7. Click the [Save Form] button to save the form.

Print Server Properties

Forms Ports Drivers Security Advanced

Forms on:

- 58 x 1188 mm
- 6 3/4 Envelope
- 80 mm
- 80 x 1188 mm

Delete

Save Form

Form name: 58 x 1188 mm

☒ Create a new form

Define a new form by editing the existing name and measurements. Then click Save Form.

Form description (measurements)

Units: ☒ Metric ☐ English

Paper size: Printer area margins:

Width: 4.80cm Left: 0.00cm Top: 0.00cm

Height: 118.92cm Right: 0.00cm Bottom: 0.00cm

Change Form Settings

OK Cancel Apply

Figure 6-1 [Print Server Properties] window

Caution

- ◆ Adding a user defined paper size requires logon to the computer with administrator privileges.
- ◆ When adding a user defined paper size, review [Paper Size (Range)] in "6.1 Paper size". Among the paper sizes listed in the [Forms on:], only those within the size range specified in [Paper Size (Range)] in "6.1 Paper size" are available for the printer driver.

Chapter 7 Font

This chapter describes the font printing function.

The following types of font can be handled by the printer driver.

- TrueType Font : Font installed in Windows.
- Device font : Font installed in a printer.
- Barcode font : Special font to print the barcode using the printer.
- 2D-Barcode Font : Special font to print the 2D-Barcode using the printer.
- Control font : Special font to use the Printer command registered in advance.
- ControlA font : Special font to use the Printer command registered by users.

Reference

• TrueType Font

The TrueType font is available to change character decorations such as italic type and the font size flexibly. It also enables almost WYSIWYG print.

The TrueType font is printed as image data.

Caution

- ◆ When use the IPD font, set the following settings:
 - [Orientation] in "3.1.1 Setting of Layout" : "Portrait"
 - [Direction] in "3.3.5 General Settings" : "Front to Back"
 - [Reduction] in "3.3.5 General Settings" : "None"
- ◆ Special fonts are not displayed as images in the preview and edit windows.
- ◆ When use special fonts, print results may exceed the specified paper size.
- ◆ A device font, barcode font, and 2D-Barcode font cannot be printed together in a line.
- ◆ A TrueType font and IPD font cannot be printed together in a line.
- ◆ An images and IPD font cannot be printed together in a line.

7.1 Device font

A device font is a font set that is built into the printer. The device font can be printed faster than TrueType.

The Kanji code system differs depending on the used language environment.

Windows OS	System Locale	Kanji Code System
Japanese	Japanese (Japan)	Shift-JIS code
	Other than Japanese (Japan)	JIS code
Other than Japanese	Japanese (Japan)	Shift-JIS code
	Other than Japanese (Japan)	JIS code

The string encoding differs depending on the selection of [Device Font Settings] in the [Printing Setting Dialog] - [Font] tab.

When "Character Code Table" in [Device Font Settings] is set to the default, character string is encoded in the ANSI codepage currently valid in the system.

When "Character Code Table" in [Device Font Settings] is not set to the default, character string is encoded in the codepage selected in [Device Font Settings]. For details of the codepage, see "3.4.4 Setting of Device Font".

Caution

- ◆ When specify italic for characters, it cannot be reflected to the print.
- ◆ When specify underline for characters, position or line type of the underline is fixed because it is printed by the underline of the device font.

7.1.1 Selection of Type of Device Font

The type of device font is as follows.

Font Name	Font Size	Character Set	Description
IPD Font A ^{*1}	8.5 points	Western	24 x 12 Standard font
	17 points		24 x 12 Double height
IPD Font A Wide ^{*1}	8.5 points		24 x 12 Double width
	17 points		24 x 12 Double height, Double width
IPD Font B ^{*1}	5.5 points		16 x 8 Standard font
	11.5 points		16 x 8 Double height
IPD Font B Wide ^{*1}	5.5 points		16 x 8 Double width
	11.5 points		16 x 8 Double height, Double width

Font Name	Font Size	Character Set	Description
IPD Font A Japanese ^{*2}	8.5 points	Japanese	24 x 12 Standard font
	17 points		24 x 12 Double height
IPD Font A Wide Japanese ^{*2}	8.5 points		24 x 12 Double width
	17 points		24 x 12 Double height, Double width
IPD Font B Japanese ^{*2}	5.5 points		16 x 8 Standard font
	11.5 points		16 x 8 Double height
IPD Font B Wide Japanese ^{*2}	5.5 points		16 x 8 Double width
	11.5 points		16 x 8 Double height, Double width

*1 : Not displayed in Japanese environment.

*2 : Displayed in Japanese environment only.

7.1.2 Print of Device Font

The device font is available to print from a general application or by making a program.

7.2 Barcode font

A barcode font is a special font that prints barcodes by only specifying the font without generating barcodes on the application side.

Necessary to register the type and size of the barcode in [Printing Preferences] before using a barcode font. Available to register up to 10 types of barcode font (IPD Barcode1 to 10) in the printer driver. For the registration method, see "3.4.5 Setting of Barcode Font".

Caution

- ◆ When a barcode becomes wider than the print width (printable (head) width) due to the barcode setting or data setting, it cannot be printed correctly.

7.2.1 Selection of Type of Barcode Font

Font Names of the Barcode Font are as follows.

Font Name	Font Size	Character Set
IPD Barcode1	8.5 points	Western
IPD Barcode2		
IPD Barcode3		
IPD Barcode4		
IPD Barcode5		
IPD Barcode6		
IPD Barcode7		
IPD Barcode8		
IPD Barcode9		
IPD Barcode10		

7.2.2 Print of Barcode Font

The barcode font is available to print from a general application or by making a program.

The following table describes the input conditions of barcode font data. Input the available barcode font data in ASCII format.

Type	Barcode Font Data Characters	Available Barcode Font Data	Remarks
UPC-A	11 to 12 characters	'0' to '9' (0x30 to 0x39)	-
UPC-E	11 to 12 characters	'0' to '9' (0x30 to 0x39)	-
JAN13 (EAN13)	12 to 13 characters	'0' to '9' (0x30 to 0x39)	-
JAN8 (EAN8)	7 to 8 characters	'0' to '9' (0x30 to 0x39)	-
Code39	One or more characters	'0' to '9' (0x30 to 0x39)	The start and stop codes (**) are automatically added.
		'A' to 'Z' (0x41 to 0x54)	
		' ' (0x20)	
		'\$' (0x24)	
		'%' (0x25)	
		'+' (0x2B)	
		'-' (0x2D)	
		'.' (0x2E)	
		'/' (0x2F)	
ITF	Two or more characters (even number of characters)	'0' to '9' (0x30 to 0x39)	Specify even number of barcode font data. Otherwise, the print may be improper.
CODABAR	One or more characters	'0' to '9' (0x30 to 0x39)	For details of setting start and stop codes ('A' to 'D'), see "3.4.5 Setting of Barcode Font".
		'\$' (0x24)	
		'+' (0x2B)	
		'-' (0x2D)	
		'.' (0x2E)	
		'/' (0x2F)	
		':' (0x3A)	
CODE128	Two or more characters	(0x00 to 0x7F)* ¹ * ² * ³	-
CODE93	One or more characters	(0x00 to 0x7F)* ² * ³	-
JAN13 (EAN13) add-on 2	12 to 13 + 2 characters	'0' to '9' (0x30 to 0x39)	-
JAN13 (EAN13) add-on 5	12 to 13 + 5 characters	'0' to '9' (0x30 to 0x39)	-
GS1 Databar Omni-directional	13 characters	'0' to '9' (0x30 to 0x39)	Check digit is automatically calculated.

Type	Barcode Font Data Characters	Available Barcode Font Data	Remarks
GS1 Databar Truncated	13 characters	'0' to '9' (0x30 to 0x39)	Check digit is automatically calculated.
GS1 Databar Limited	13 characters	'0' to '9' (0x30 to 0x39)	Check digit is automatically calculated.
GS1 Databar Expanded*5	Two or more characters	' ' to ''' (0x20 to 0x22)*3	-
		'%' to '?' (0x25 to 0x3F)	
		'A' to 'Z' (0x41 to 0x54)	
		'_' (0x5F)	
		'a' to 'z' (0x61 to 0x7A)	
		'{' (0x7B)*4	

*1: Available barcode font data depends on the CODE selection.

•CODE A: 0x00 to 0x5F

•CODE B: 0x20 to 0x7F

•CODE C: Two-digit number 00 to 99 (0x00 to 0x63)

To select CODE, FNC, or SHIFT, refer Table 5-2 CODE128 Special Characters Code.

For the data corresponding these, refer Table 5-1 CODE128 Code Set.

The method for inputting barcode font data of CODE128 is as follows:

- Method to use "CODE A" or "CODE B":

Input Example: barcode font data (012345)

When [HEX Input] is "Disabled" : 012345

When [HEX Input] is "Enabled" : 303132333435

- Method to use "CODE C" of CODE128

When [HEX Input] is "Disabled" : Select the code corresponding to the character string to be input from [CODE] in Table 5-1 CODE128 Code Set. Then, input the character string corresponding to the data, referring to Table 5-3 Character Code.

When [HEX Input] is "Enabled" : Input the data from [CODE] in Table 5-1 CODE128 Code Set.

*2: To use 0x00 to 0x1F and 0x7F, set [Hex Input] in "3.4.5 Setting of Barcode Font" to "Enabled" to enter codes.

*3: 0x20 is only available when [Hex Input] is enabled in "3.4.5 Setting of Barcode Font".

*4: Use '{' only for specifying FNC.

When specifying FNC1, enter '{' and '1' (0x7B and 0x31).

*5: For entering the valid values, refer to "MP-B20 SERIES THERMAL PRINTER TECHNICAL REFERENCE".

7.3 2D-Barcode Font

A 2D-Barcode font is a special font that prints 2D-Barcodes by only specifying the font without generating 2D-Barcode images on the application side.

Necessary to register the type and size of the 2D-Barcode in [Printing Preferences] before using a 2D-Barcode font. Available to register up to 5 types of barcode font (IPD 2D-Barcode1 to 5) in the printer driver. For the registration method, see "3.4.6 Setting of 2D-Barcode Font".

Character string is encoded in the ANSI code page currently valid in the system.

Caution

- ◆ When a 2D-Barcode becomes wider than the print width (printable (head) width) due to the 2D-Barcode setting or data setting, it cannot be printed correctly.

7.3.1 Selection of Type of 2D-Barcode Font

Font Names of the 2D-Barcode Font are as follows.

Font Name	Font Size	Character Set
IPD 2D-Barcode1	8.5 points	Western/Japanese ^{*1}
IPD 2D-Barcode2		
IPD 2D-Barcode3		
IPD 2D-Barcode4		
IPD 2D-Barcode5		

^{*1}: In environment other than Japanese, set the [Character Set] (Font Script) to "Western".
In Japanese environment, set the [Character Set] (Font Script) to "Japanese".

7.3.2 Print of 2D-Barcode Font

2D-Barcode font is available to print from a general application or by making a program.

For entering the valid values, refer to "MP-B20 SERIES THERMAL PRINTER TECHNICAL REFERENCE".

7.4 Control font

A control font is a special font that executes the Printer command assigned to fixed characters from a document.

7.4.1 Selection of Type of Control Font

Type of control font is as follows.

Font Name	Font Size	Character Set
IPD Control	8.5 points	Western

7.4.2 Use of Control Font

The control font can be used from a general application or by programming.

The following table lists the characters assigned for the control font and their actions.

Assigned Character	Action	Assigned Character	Action
5	HT	v	Character 90 degrees right rotate cancel
6	LF	w	Alignment left
7	CR	x	Alignment center
h	NV image 00 (30,30) print	y	Alignment right
i	NV image 01 (30,31) print	G	NV image 00 (30,30) Normal print
j	NV image 02 (30,32) print	H	NV image 01 (30,31) Normal print
k	NV image 03 (30,33) print	I	NV image 02 (30,32) Normal print
l	NV image 04 (30,34) print	J	NV image 03 (30,33) Normal print
m	Inversion (flip) printing specify	K	NV image 04 (30,34) Normal print
n	Inversion (flip) printing cancel	P	Paper feed to cut position
o	Reverse print specify	Q	Paper feed to cut position
p	Reverse print cancel	[	NV image 00 (30,30) Quad print
q	Underline specify	]	NV image 01 (30,31) Quad print
r	Underline cancel	^	NV image 02 (30,32) Quad print
s	Bold print specify	_	NV image 03 (30,33) Quad print
t	Bold print cancel	`	NV image 04 (30,34) Quad print
u	Character 90 degrees right rotate specify	-	-

*Keycodes of NV image enclosed in parenthesis are described in hexadecimal.

Caution

◆ Underline is not applied at 90 degrees rotation.

7.5 ControlA font

ControlA font is a special font that executes the Printer command assigned to characters in advance from a document. For the Printer command, refer to "MP-B20 SERIES THERMAL PRINTER TECHNICAL REFERENCE".

Necessary to register the Printer command to execute in [Printing Preferences] before using the ControlA font. Available to arbitrarily register the Printer command to characters from 0x20 to 0x7F in the printer driver. For the registration method, see "3.4.7 Setting of ControlA Font".

7.5.1 Selection of Type of ControlA Font

There is the following type of ControlA font.

Font Name	Font Size	Font Script
IPD ControlA	8.5 points	Western

7.5.2 Use of ControlA Font

The ControlA font can be used from a general application or by programming.

SII



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(Specifications are subject to change without notice.)