

Setting Guide

How to Use and Reference

Regarding the summary of how to use Integration Driver, the property
And the tool.

Restrictions

Regarding restrictions of Integration Driver.

Attention



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Signs

Please understand the meaning of each symbol before handling the product.

	<p>It indicates the precautions to be observed fully when using the product.</p> <p>Disregard of the signs and wrong usage may cause product failure and malfunction.</p>
	<p>It indicates supplementary descriptions and relevant matters.</p>

Usage restrictions

In the event that this product is used with devices that require high reliability and safety for function and accuracy, etc. directly on conveyance including aircraft, train, ship or vehicle; etc., disaster prevention and security devices, etc., users should use products after considering the safety design of the whole system by applying fail-safe or redundancy design in order to maintain reliability and safety.

This product is not designed to use with devices that require extremely high reliability and safety including aerospace mechanism, devices for trunk communication, nuclear control device or medical services. Users should ascertain and evaluate suitability of these products for those applications.

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Introduction

NPI Integration Driver (hereinafter Integration Driver) is Windows driver for printing product made by Nippon Primex Inc.

Integration Driver can control printer with Integration Driver API for POS/Kiosk applications.

Caution

Descriptions of this document are made for the screens of Windows 10.
Please use this document by changing them for the right descriptions for other OSes.
Please note that displayed contents for the property and the tool vary depending on the printer models.

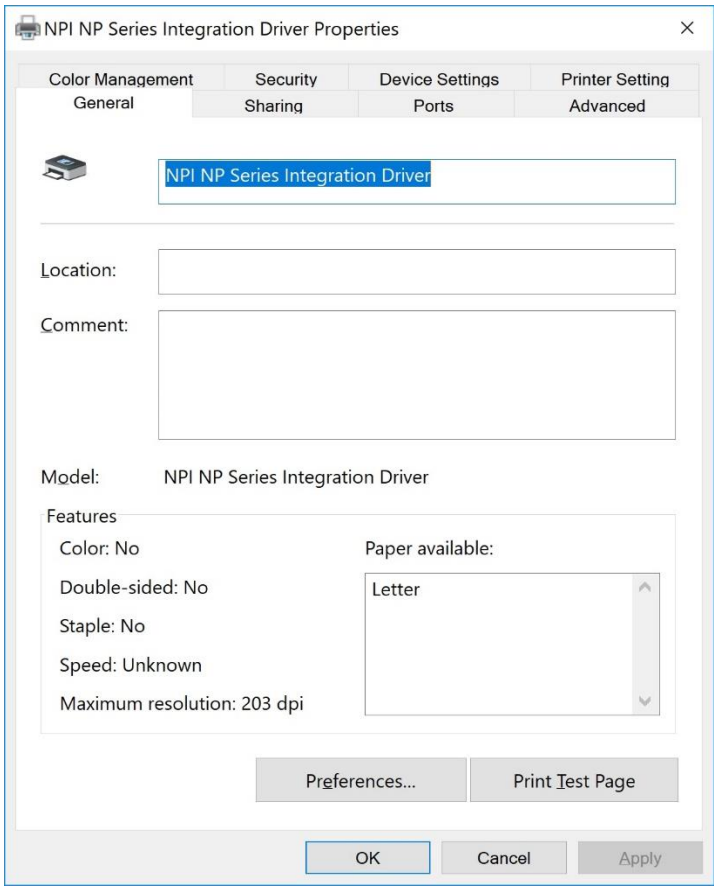
Contact information

Refer to our website.

<https://www.primex.co.jp/en/>

Properties

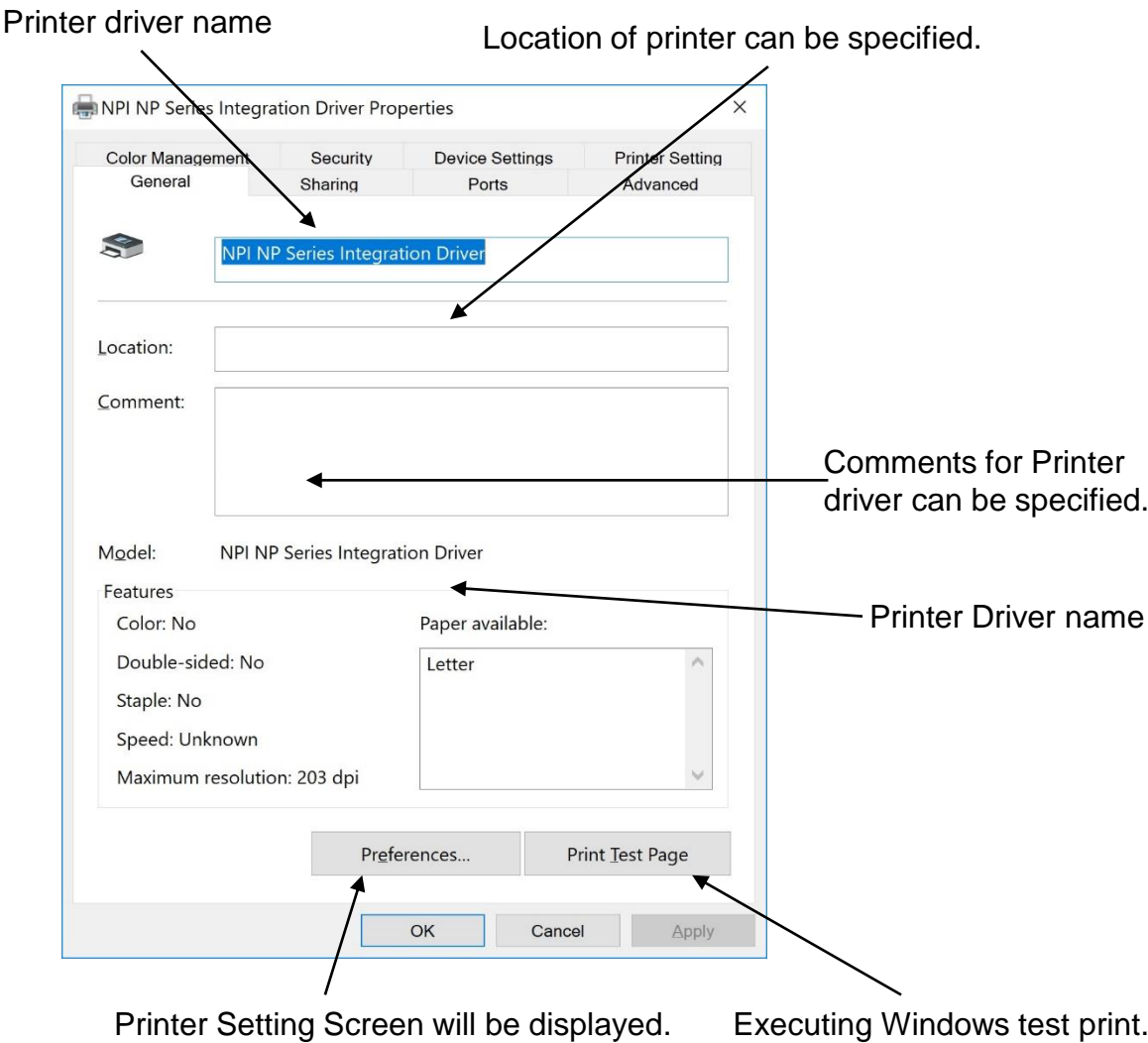
The following items should be set in the screen below.



Tab	Overview
General	Printer name and print setting, and test printing
Common	Common setting of printer
Port	Port setting
Advanced Setting	Advanced setting at printing
Color control	Display color setting (Not being used)
Security	Security setting of Windows
Device Setting	Set paper feed method of device and paper allocation. (Not being used for Ex Driver)
Printer Setting	Display of driver version, and printer setting window

Properties - General

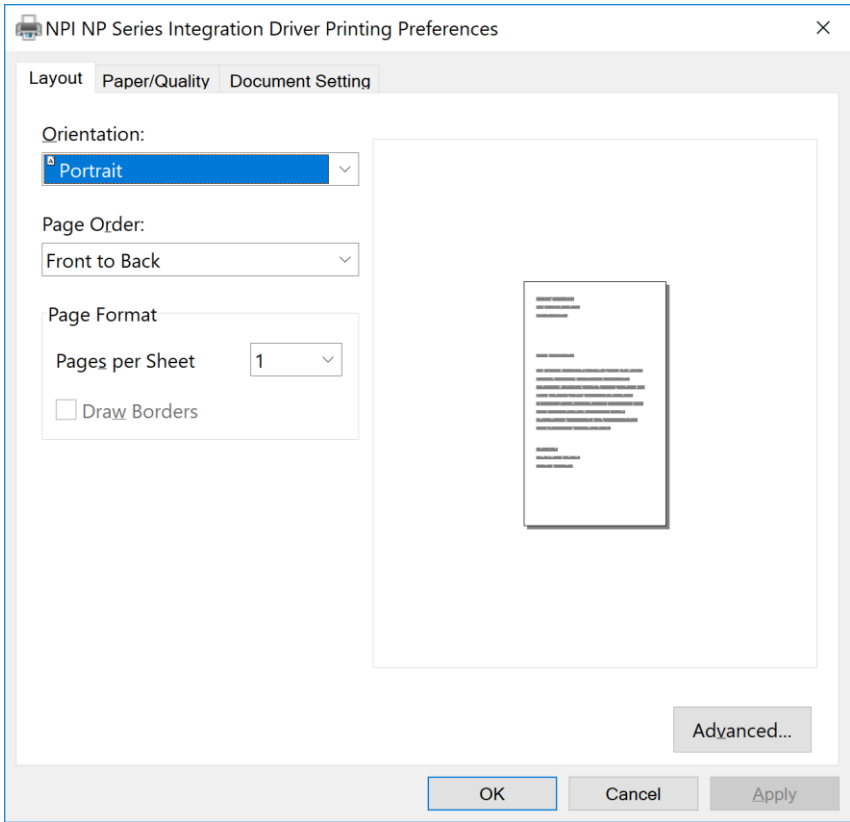
Displaying/changing printer name, displaying print setting screen and test page can be performed from this screen.



When the printer name has been changed, please tune the power ON and OFF or reactivate “Print Spooler” (Service name : Spooler) by the following steps.

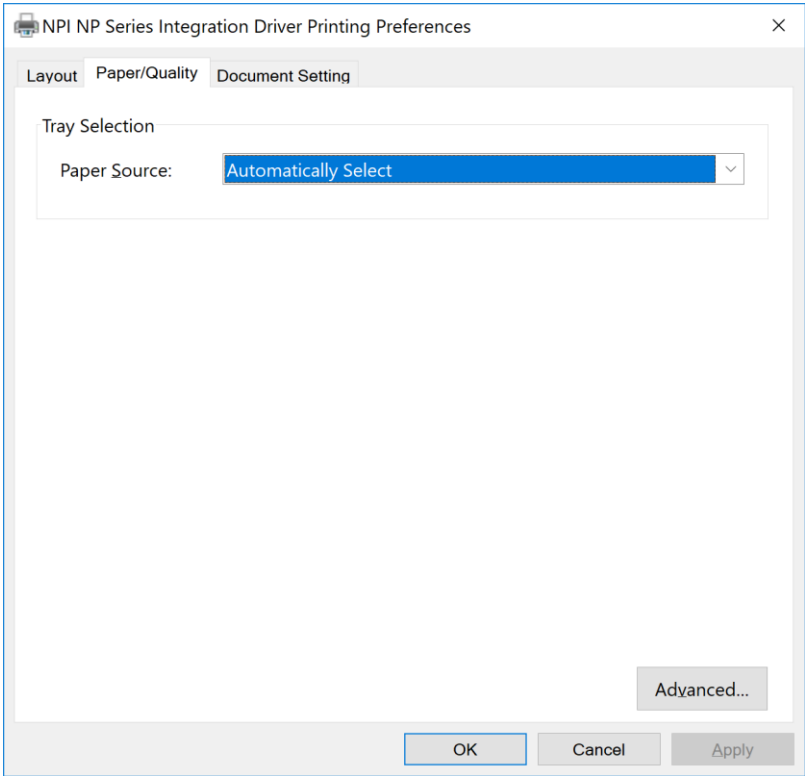
[Control Panel] → [Management Tool] → [Service]

Printer Setting - Layout



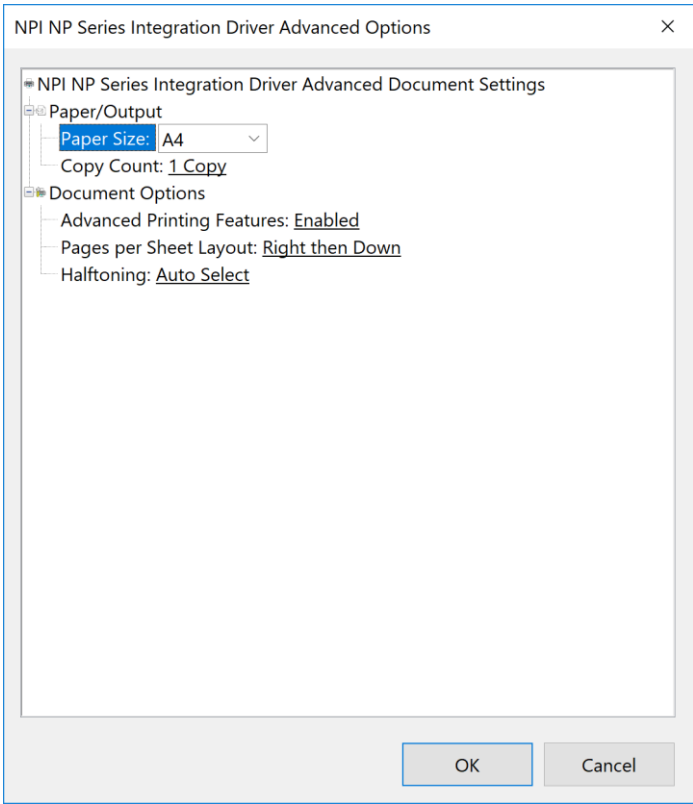
Item name	Value
Print direction	Vertical (printing vertically against paper)
	Horizontal (printing horizontally against paper) Text font is unavailable. Use Windows font.
Page order	Order (the first page is printed at first)
	Reverse (the first page is printed at the end)
Page per sheet	1 (select this normally)
	2, 4, 6, 9, 16 (not supported)

Printer Setting - Paper/Quality



Item name	Value
Paper feeding method	Automatic selection (select this normally)
	Roll paper holder (printing from roll paper holder)

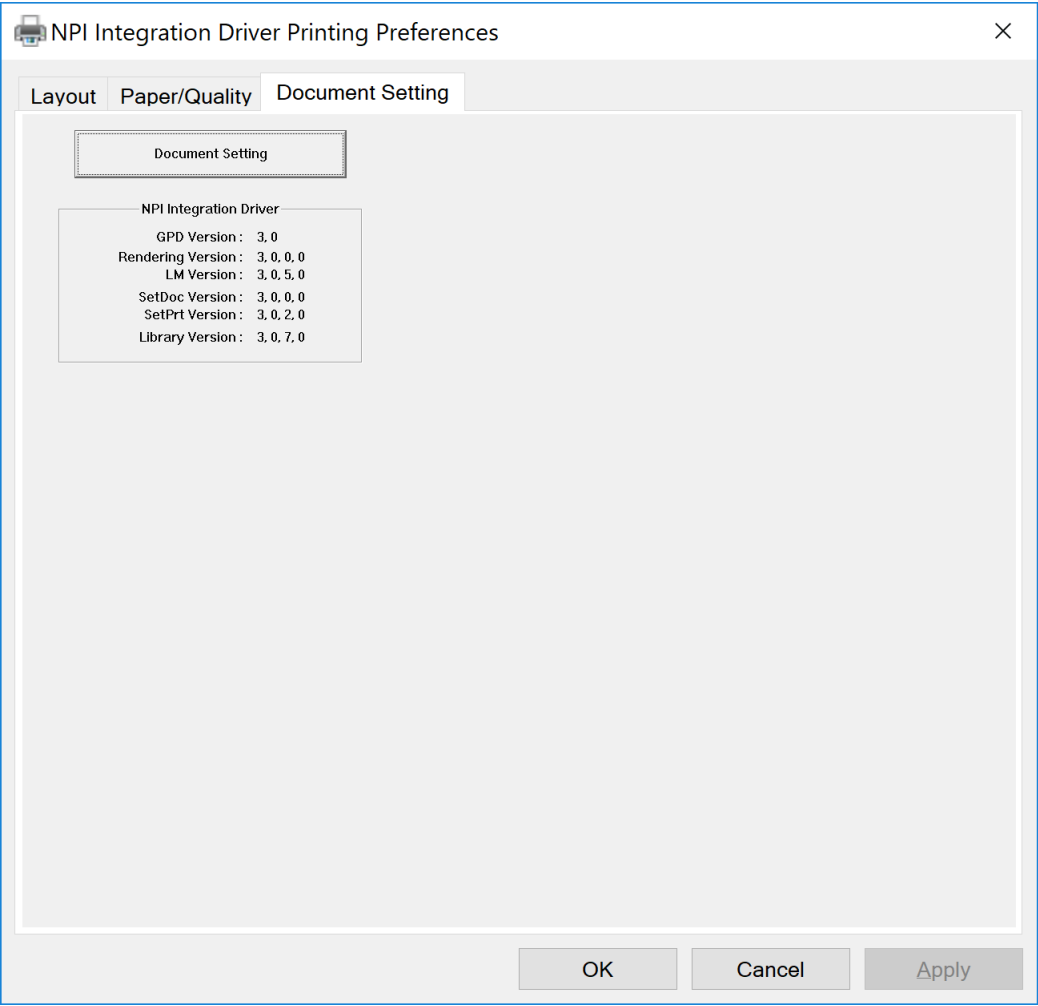
Printer Setting - Advanced setting




Item name	Value
Paper size	Selecting the same size as the paper set in the printer.
Number of copies	Setting number of copies when copies are necessary
Detailed printing function	Effective (Please select this one regularly.)
	Ineffective (Setting of printing direction, order, pages per sheet and number of copies will be reset.)
Halftoning	Monochrome (Please use the perfectly binarized image data.)
	Grayscale (Data will be binarized according to the setting by setting the color printing mode.) (The printed tickets length may not be processed properly.)

Printer Setting - Format setting

There is "Document Setting" button for proceeding to next steps and names of the driver related files and their versions are described in this screen.



Printer Setting - Format setting - Easy Setting



日本語 ?

Cut Image

Job1
Page1

Job1
Page2

Job2
Page1

Job2
Page2

Detailed Setting

Easy Setting

Undo

58mm Rollpaper Setting

Revert to default

80mm Rollpaper Setting

A4->58mm Resize Print

A4->80mm Resize Print

Color Control

☒ Binarization

☐ Patterning

☐ Halftone

☐ error diffusion

☐ No Change

The property which can't be used is indicated with Invalid.

Cancel

O K

Item name		Value
Easy setting		Batch changing to designated settings
	58mm Roll paper setting	Paper : 52mm Scale : 100% Rotation : 0° Print notice setting: flag + notice or flag + notice + store Action at end position => feeding : setting the cutting position. cut : full cut.

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Item name		Value
Easy setting		Batch changing to designated settings
	80mm Roll paper setting	Paper: 72mm Scale: 100% Rotation: 0° Print notice setting: flag + notice or flag + notice + store Action at end position -> feeding to the cut position cut: full cut.
	A4-58mm Reduced printing	Paper : A4 Scale : 27% Rotation: 0° Print notice setting: flag + notice or flag + notice + store Action at end position -> feeding to the cut position cut: full cut.
	A4-80mm Reduced printing	Paper : A4 Scale : 38% Rotation : 0° Print notice setting: flag + notice or flag + notice + store Action at end position -> feeding to cut position cut: full cut.
	Return to before change	Returns setting contents to status before change
	Return to the initial setting	Paper: A4 Scale: 100% Rotation : 0° Color management : binarization

Printer Setting - Format setting - Detailed Setting

The property which can't be used is indicated with Invalid.

Item name	Value
Scale	25% ~ 255%
Rotation	0° /90° /180° /270°
Position alignment (X)	Variable setting : -127~128
Position alignment (Y)	Variable setting : -127~128
Default value of printer	True (Usually select this)
	False (If it dose not work well at the default value)
Print datum position	Selectable from Left, Center and Right
Print speed	5 points of print speed setting (Fast printing <-> High quality print)
Divided printing	Selectable from 1 to 3
Paper type	Selectable from continuous paper, label paper and BM paper
Density adjustment	Variable for 65 to130%
LED bezel movement	Selectable from Puttern0 to Puttern2
Presenter action, automatic ejection/retraction time	Setting for the presenter. Please see details by clicking "?" mark.
Command which is send to the host after to be connected.	You can set the command which is send to host after the printer was connected and recognized to the host.
Printing completion notice	You can select the printing completion notice.
Color management	Select binarization for grayscale data.

Printer Setting - Format setting - Document operation

At the Beginning of Print

Send Command

Print Fix NV Print Variable NV Print Gradation NV

Mark Detection OFF Black Mark Detection(Switch) OFF Invalid dot

Back Feed 0 mm Feed 0 mm

Before cut

Cut No cut

After cut

Print Fix NV Print Variable NV Print Gradation NV

Drawer open Not open(not to send command)

ON Time 0 OFF Time 0

Send Command

Clear setting Cancel OK

* "Invalid" is shown for invalid properties depending on the printer model.

Item name	Value
Command transmission	Specifying the command to be transmitted before and after cutting.
Fixed NV Print	Specifying fixed NV printing before and after cutting.
Variable NV Print	Specifying valuable NV printing before and after cutting.
Gray scale NV Print	Specifying gray scale NV printing before and after cutting.
Mark Detection	Setting the "Black Mark Detection" ON or OFF.
Black Mark Detection (Switch)	Setting ON or OFF and specifying the paper feeding after sensing by dots.
Back Feed	Specifying the back feeding amount by mm unit. Can set the back feed from 0 to 31.875mm.
Feed	Specifying the feeding amount by mm unit. Can set the back feed from 0 to 31.875mm.
Cut	Specifying the way how it is cut.
Drawer open	Specifying the setting regarding the drawer open.
ON Time OFF Time	Setting the time for drawer open ON and OFF.
Setting clear	Clear the settings,
Cancel	Close this screen without saving the settings.
OK	Save the settings and close this screen.

Drawer control

Drawer can be controlled by the following 2 ways.

- Controlling by the printer property : Controlling it before or after document or page printing.
- Controlling by the command “ESC/POS” by using an API.

Setting by the printer property

1. Opening the format setting screen and the timing of drawer opening from descriptions below can be selected.

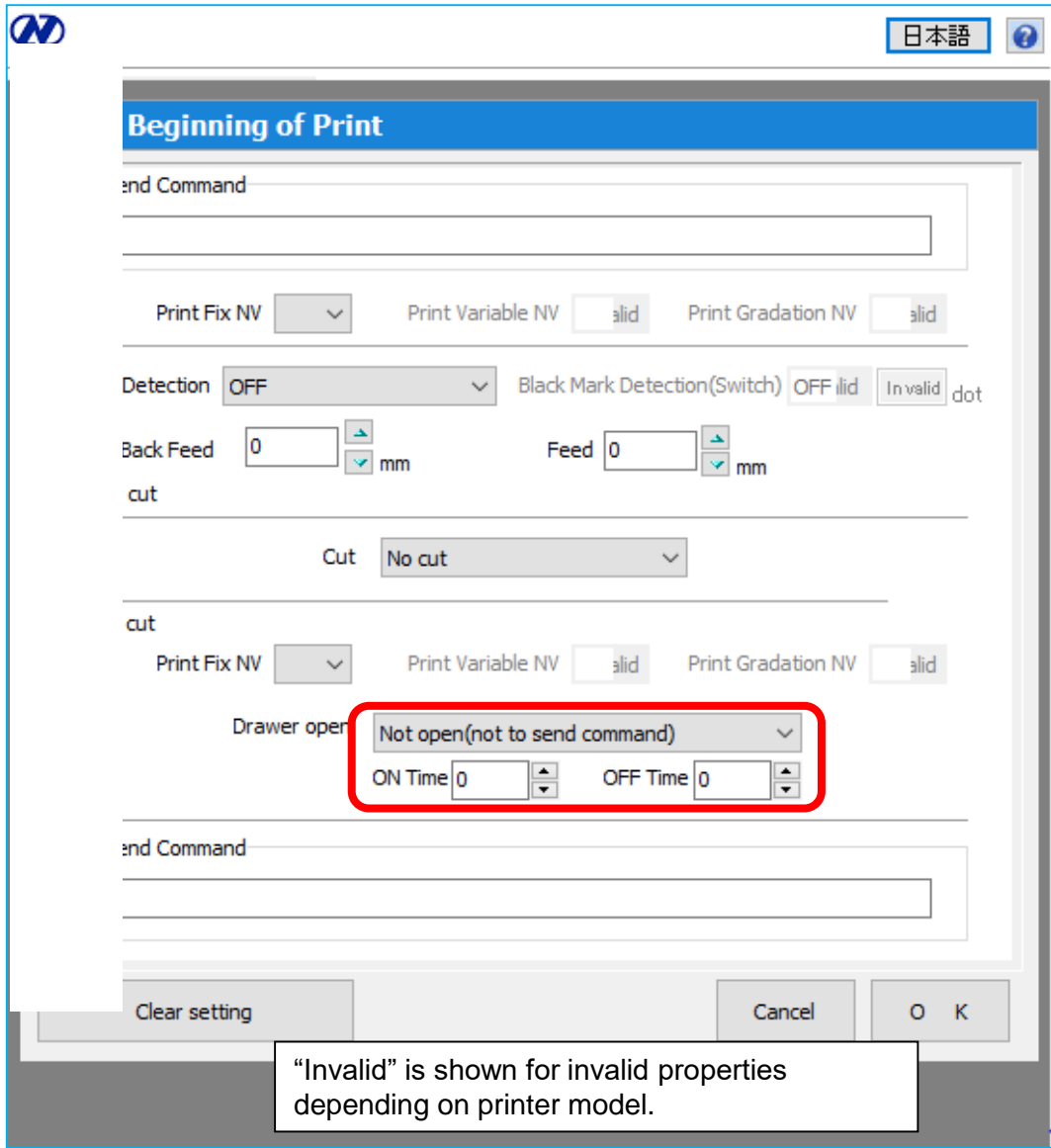
- At printing starting
- At page starting
- At page ending
- At printing ending

The screenshot shows the 'At the Beginning of Print' settings window. The 'Drawer open' dropdown menu is highlighted with a red box and contains the text 'Not open(not to send command)'. Other settings include 'Send Command' fields, 'Print Fix NV', 'Print Variable NV', 'Print Gradation NV', 'Mark Detection', 'Black Mark Detection(Switch)', 'Back Feed', 'Feed', 'Cut', and 'After cut' settings. The window also has 'Clear setting', 'Cancel', and 'OK' buttons.

* “Invalid” is shown for invalid properties depending on printer model.

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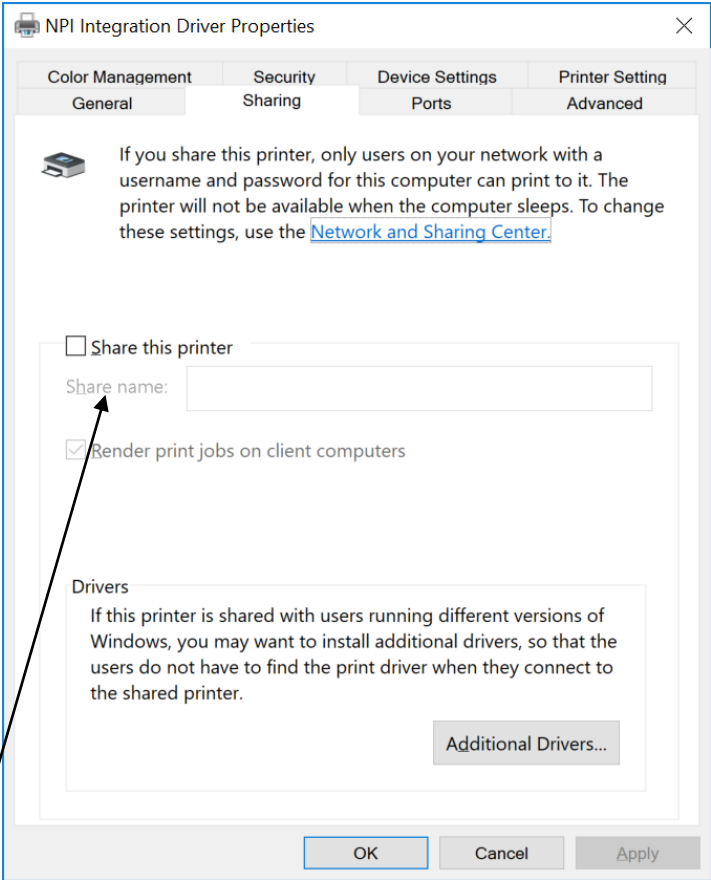
2. From the drawer opening dialogue box, please select “drawer open 1 (2 pin)” or “drawer open 2 (5 pin)” and set “ON Time or /and “OFF Time”.



3. When performing the printing from the application, the drawer will be controlled at the designated timing.

Property - Sharing

Setting the printer sharing.



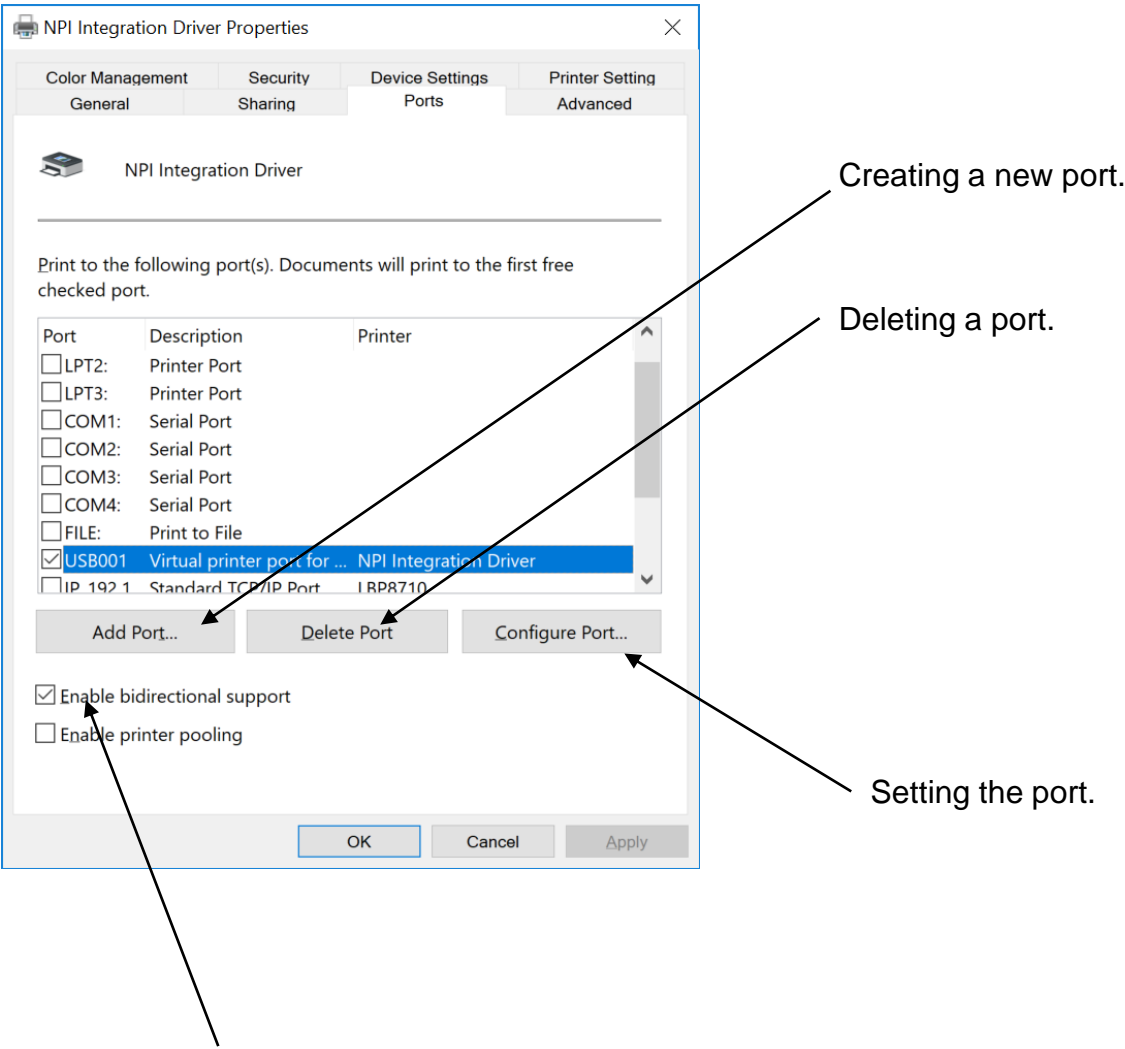
Specifying the name of the printer sharing.

Caution

In case of printing by using the printer sharing, please execute “printer function information export” in “Printer setting -> Driver setting” on the sharing original side for making a file and execute “printer function information import” in “Printer setting -> Driver setting” on the shared side for importing the file.

Property - Port

Setting the port to be used.



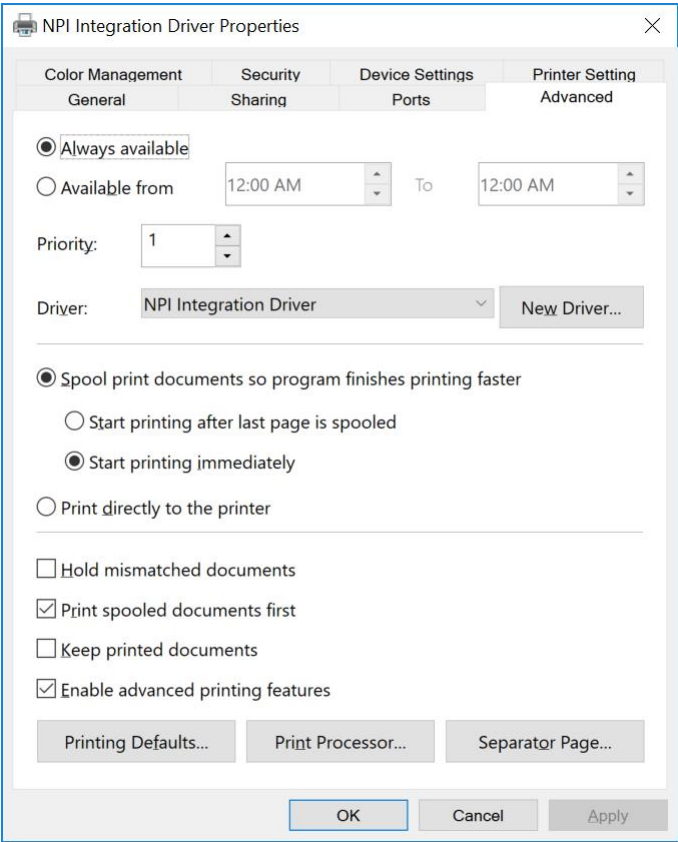
Please DO NOT delete the check unless using the parallel port.
If it is deleted, it will not work properly.

Caution

Please DO NOT create “Standard TCP/IP Port” here.
Please set it after creating it by using “Setup tool”.

Property – Advanced setting

For the detailed setting of printing.
Please use it at the default settings.



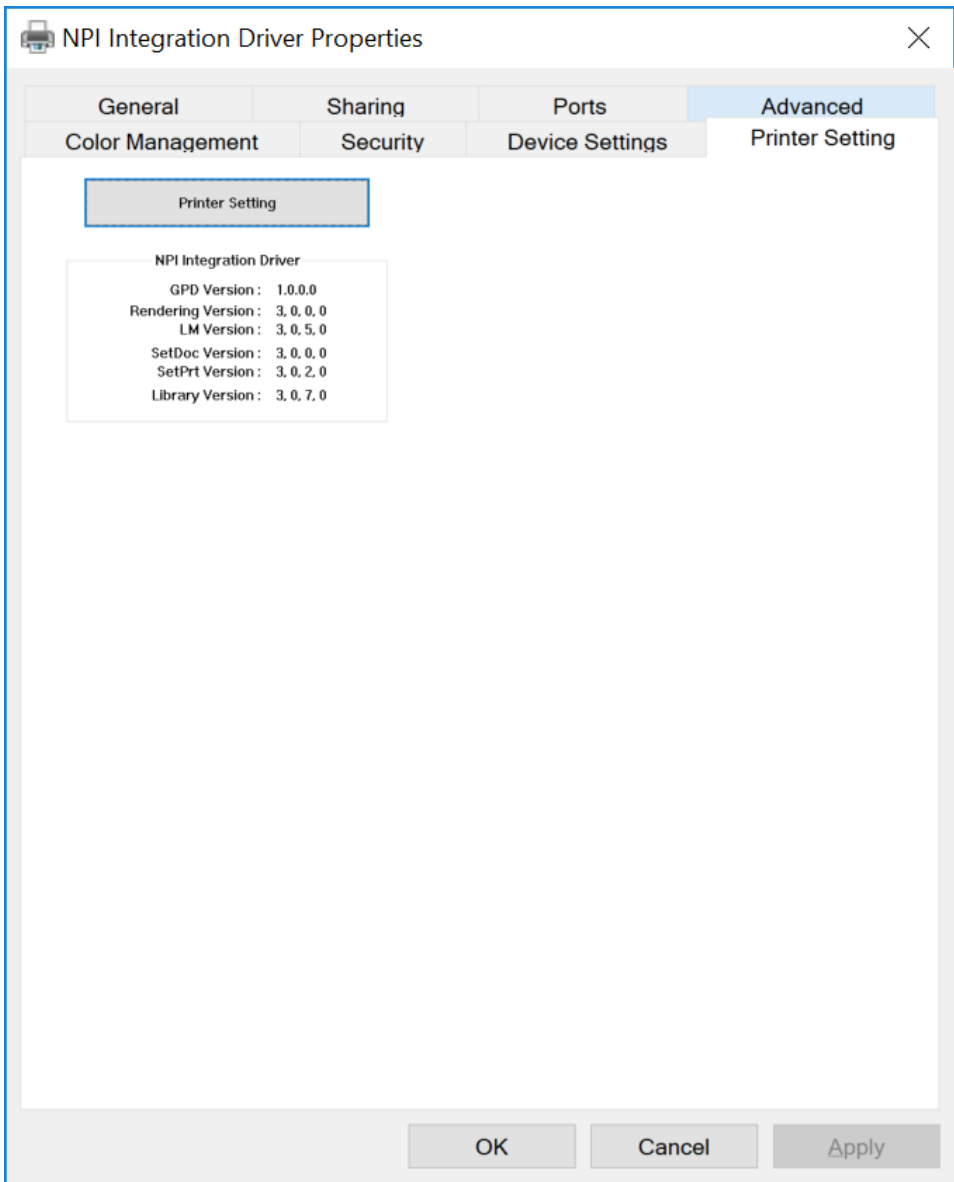
Item	Description
Always available (<u>L</u>)	Making the printer always available.
Available from / to	Making the printer's available time restricted. When the printer is not available, data will be stored in the spooler.
Priority	Current priority setting is displayed. Higher priority document will be printed earlier.
Driver	Installed printer drivers are listed.
Spool print documents so program finishes printing faster	Setting it for spooling the documents before being printed.
Start printing after last page is spooled	Setting it for starting the print after the last page of the document is spooled.

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Item	Description
Start printing immediately	Setting it for starting the print after the first page of the document is spooled.
Print directly to the printer	Setting it for transmitting the documents to the printer without spooling them.
Hold mismatched documents	When this setting is selected, printer setting is checked with the document setting by the spooler before transmitting document to the printer and documents with mismatched setting will be held in the spooler.
Print spooled documents first	<p>When this setting is selected, spooled document with lower priority will be highly prioritized to being spooled document with higher priority for judging which document should be printed firstly and it will be printed firstly. When there is no document having been spooled, the spooler will decide to print the document being spooled with the largest size firstly.</p> <p>When this setting is not selected, the spooler will decide to print documents by the order of priority. If a document has already been spooled and there is a highly prioritized document being spooled with higher priority, the document with higher priority will be printed firstly.</p>
Keep printed documents	Since the document after printing is kept in the printing spooler, it can be printed again immediately.
Enable advanced features	Documents are transmitted with Meta FileData type (EMF). Detailed functions such as page order, booklet printing and specifying the number of pages per sheet, etc. will become available. Please disable this option when the compatibility problems with compatibility occur.
Printing defaults...	This button is for moving to "Printing defaults" screen.
Print Processor...	This button is for specifying the data types. Ordinarily preset print processor or data types do not have to be changed.
Separator page...	Not available.

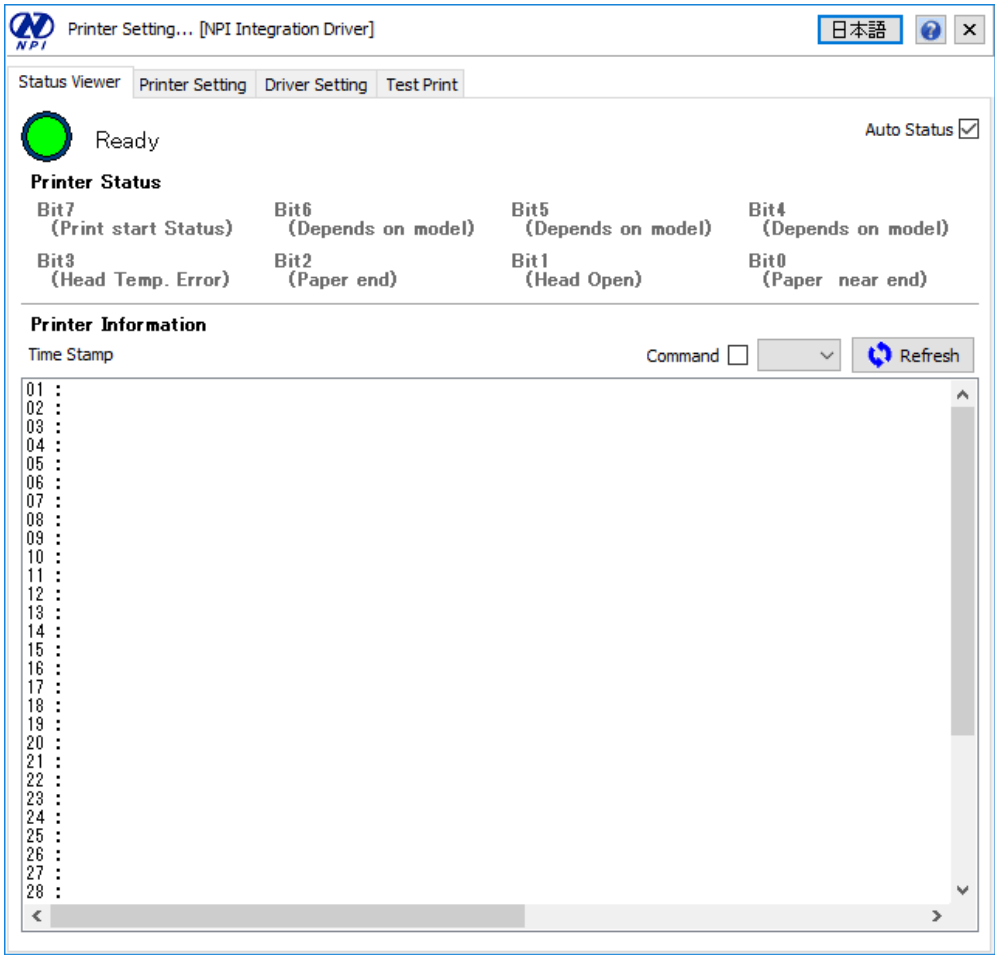
Property – Printer Setting

This screen is for opening the printer setting screen and displaying versions of the driver and related files.



Printer Setting – Status Viewer

Status of printer and printer information are displayed.



Item name	Value
Auto Status	Updating the standard status at every 50msec.
Time Stamp	Selected extended information obtaining time is shown by elapsed time after Windows opening.
Command	Issuing the request command for obtaining extended information again.
Refresh	Obtaining extended information again,

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Extended information : Please refer to the Product Specifications of each printer for details.

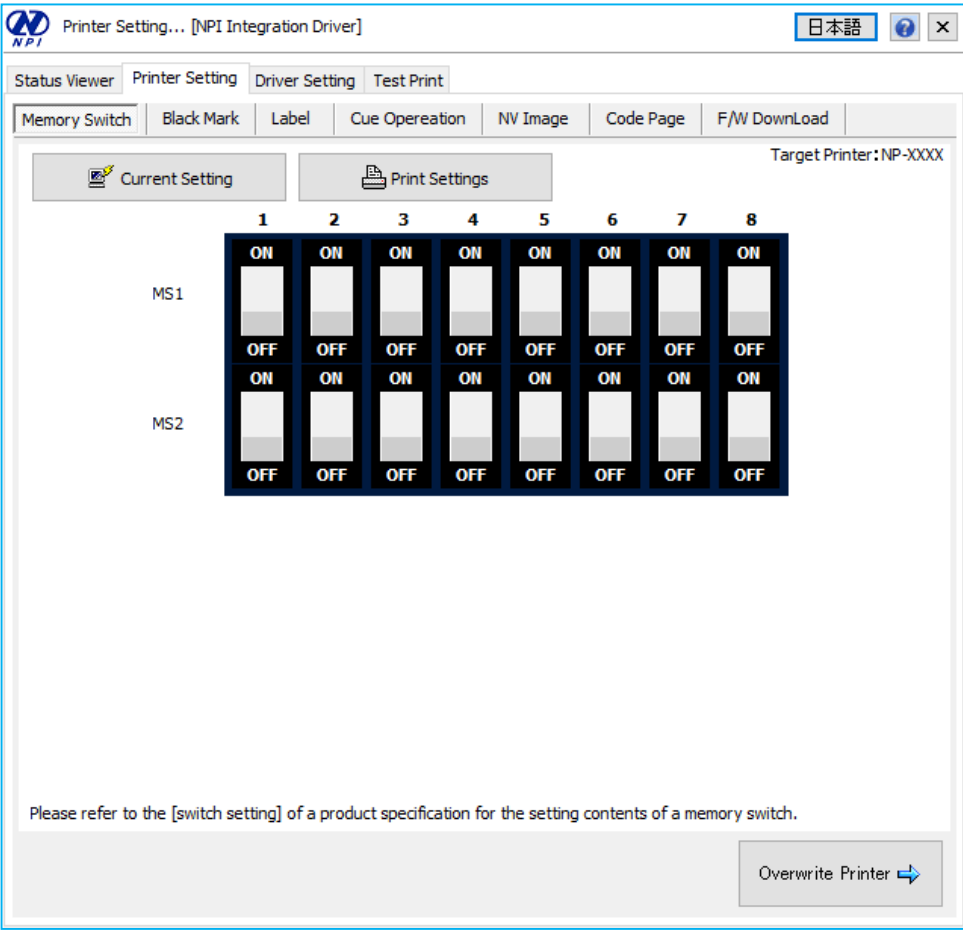
Type ID	Data size	Content
Type 1	4 byte (fixed)	Extended status 1 st byte: undefined 2 nd byte: undefined 3 rd byte: undefined 4 th byte (least significant 4 bit): printer receipt buffer remainder [KBYTE]
Type 2	32 byte (delimiter)	Model name
Type 3	8 byte (fixed)	F/W version
Type 4	8 byte (fixed)	Boot version
Type 5	4 byte (fixed)	Memory switch setting information
Type 6	4 byte (fixed)	Number of head current carrying line
Type 7	4 byte (fixed)	Number of running dot line number
Type 8	4 byte (fixed)	Cutting number
Type 9	16 byte (fixed)	<User maintenance counter: number of head conducting dot line, number of running dot line, number of cutting and reserved>
Type 10	16 byte (fixed)	Printer function information
Type 11	64 byte (delimiter)	Undefined
Type 12	32 byte (delimiter)	Undefined
Type 13	32 byte (delimiter)	NV registration status, supporting 256 images
Type 14	32 byte (fixed)	Batch settings reading
Type 15	16 byte (fixed)	Number of head temperature errors
Type 16	16 byte (fixed)	Product serial number
Type 17	16 byte (fixed)	Undefined
Type 18	16 byte (fixed)	Undefined
Type 19	8 byte (fixed)	Print End Notice: Job ID and end status at the end of document are described by designation of print notice setting. Upper 4 byte = job ID, lower 4 byte = end status
Type 20	8 byte (fixed)	USB serial ID
Type 21	8 byte (fixed)	Font data1 version "6 byte"/checksum "2 byte"

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Type ID	Data size	Content
Type 22	8 byte (fixed)	Font data2 version "6 byte"/checksum "2 byte"
Type 23	8 byte (fixed)	Undefined
Type 24	4 byte (fixed)	NV area free space, supporting 256 images
Type 25	4 byte (fixed)	Transmission completed notice: job ID completed transmitting is described.
Type 26	4 byte (fixed)	Scale printing NV control information
Type 27	4 byte (fixed)	Used space by each NV are, supporting 256 images
Type 28	2 byte (fixed)	F/W checksum
Type 29	2 byte (fixed)	Backup F/W checksum
Type 30	2 byte (fixed)	NV registration status, supporting 3 images
Type 31	2 byte (fixed)	Communication status information: USB: 0x0000 fixed COM: 1 st byte CTS, 2 nd byte DSR * Stamp acquisition time of final signal status to renew flag.
Type 32	12 byte (fixed)	<General information 8 byte> 0 byte =Sub ID, 1st~3rd byte=00h fixed, 4th~11th byte General information
Type 33	8 byte (fixed)	<General information 4 byte> 0 byte=Sub ID, 1~3 byte=00h fixed, 4th~7th byte General information
Type 34	4 byte (fixed)	<General information 2 byte> 0 byte =Sub ID, 1st byte=00h fixed, 2nd~3rd byte General information
Type 35	8 byte (fixed)	Undefined
Type 36	8 byte (fixed)	Undefined
Type 37	4 byte (fixed)	Undefined
Type 38	4 byte (fixed)	Undefined
Type 39	2 byte (fixed)	Undefined
Type 40	2 byte (fixed)	Undefined

Printer option (Memory Switch)

Setting the memory switch of the printer.

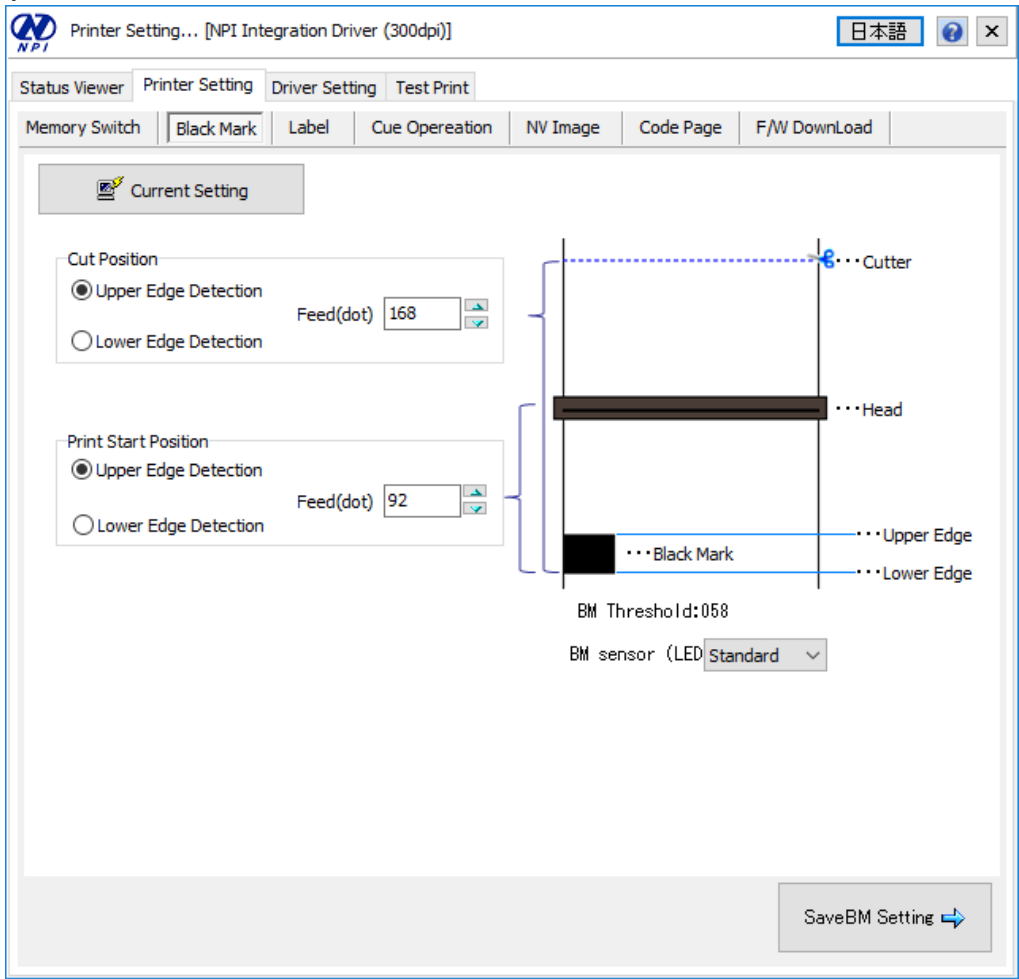


Item name	Value
Current Setting	Current settings obtained by reading from the printer are displayed.
Print Settings	Printing the current settings current setting.
Overwrite Printer	Transmitting the set result to the printer and change the settings of the printer.

Printer option (Black Mark)

Setting black mark detection.

* Black mark sensor is equipped in some standard printer models or provided as an option otherwise.



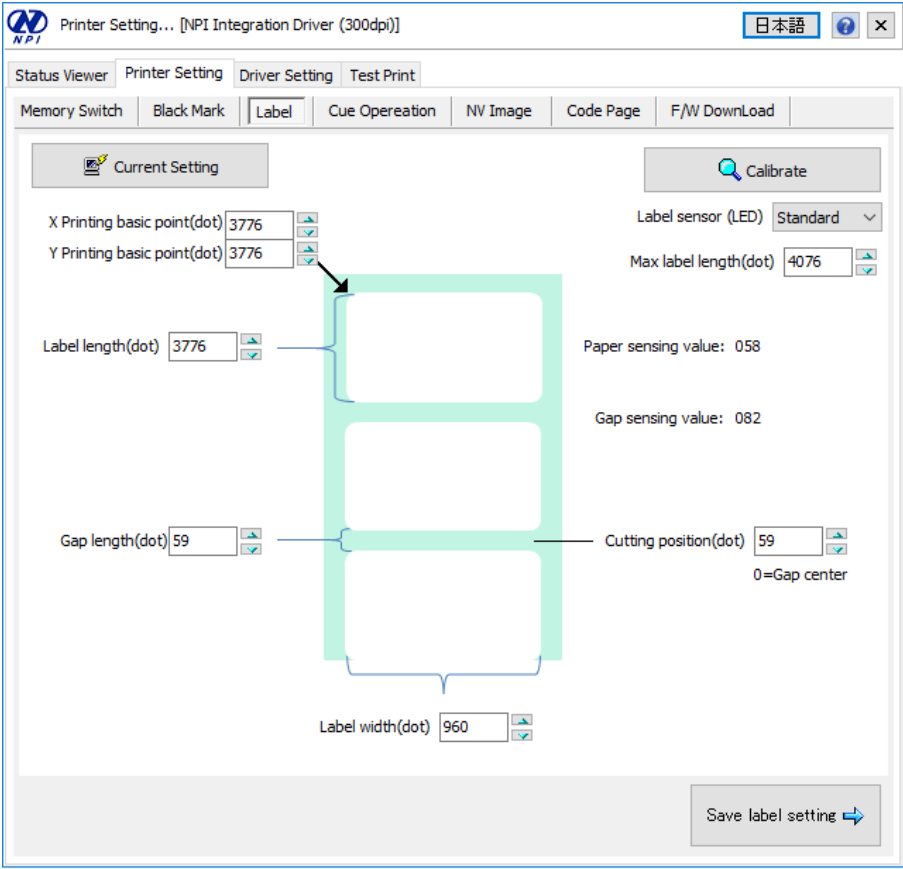
Item name	Value
Current Setting	Current settings obtained by reading from the printer are displayed.
Print Start Position	It will be effective when the position alignment after black mark sensing is specified for the printing starting position. * This value is used for black mark sensing of the driver.
Upper Edge Detection	Detecting the black mark by its upper edge.
Lower Edge Detection	Detecting the black mark by its lower edge.
Feed	Setting the position correction after black mark sensing. The value from -32767 to 32767 can be set. * Applicable range varies depending on the printer models.

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Item name	Value
Cut Position	It will be effective when the position alignment after black mark sensing is specified for the cut position.
Upper Edge Detection	It will be effective when the position alignment after black mark sensing is specified for the printing starting position. * This value is used for black mark sensing of the driver.
Lower Edge Detection	Detecting the black mark by its upper edge.
Feed	Detecting the black mark by its lower edge.
BM Threshold	Threshold for the black mark sensor The value from 0 to 100 can be set.
BM sensor LED	Setting the amount of light emitted by the black mark sensor LED.
Save BM Setting	Transmitting the set black mark setting to the printer and change the settings of the printer.

Printer option (Label)

Label settings



Item Name	Value
Current Setting	Current label settings obtained by reading from the printer are displayed.
Calibrate	Executing calibration.
Label sensor (LED)	Setting the amount of light emitted from the label sensor LED.
X Printing basic point(dot)	Shifting the position of image on the label horizontally. The value from -9999 to 9999 can be set. * Applicable range varies depending on the printer models.
Y Printing basic point(dot)	Shifting the position of image on the label vertically. The value from -9999 to 9999 can be set. * Applicable range varies depending on the printer models.
Maximum label length (dot)	Setting the length of the label to be detected. The value from 0 to 4076 can be set. * Applicable range varies depending on the printer models.

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Item name	Value
Label length(dot)	Setting the label length. The value from 1 to 3776 can be set. * Applicable range varies depending on the printer models.
Paper sensing value	The sensing value of the paper part measured by the calibration.
Gap sensing value	The sensing value of the gap part measured by the calibration.
Gap length	Setting the gap length between labels. The value from 1 to 255 can be set. * Applicable range varies depending on the printer models.
Cutting position(dot)	Setting the cutting position. The value from -120 to 120 can be set. * Applicable range varies depending on the printer models.
Label width(dot)	Setting the label width. The value from 0 to 960 can be set. * Applicable range varies depending on the printer models.
Save label setting	Sending the specified label setting to the printer and changing the printer settings.

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Printer option (Cue Operation)

Setting the paper cueing operation at paper loading.

The screen for label printers is different from that for other printers.

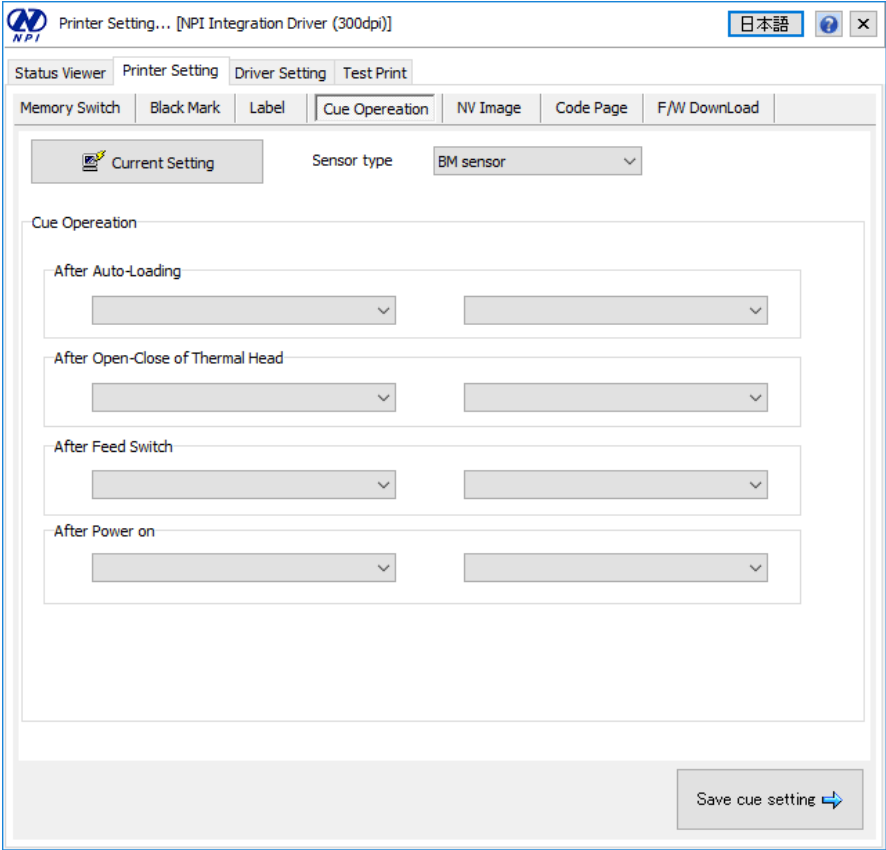
* Black mark sensor is equipped in some standard printer models or provided as an option otherwise.

When using label printers.

An operation of the item will be ineffective by saving the setting with blanks in the items” boxes.

The cueing operation that can be set depends on the modes.

Please refer to the section of the command “Cue operation <<GS FF n >>” in the Command Reference.



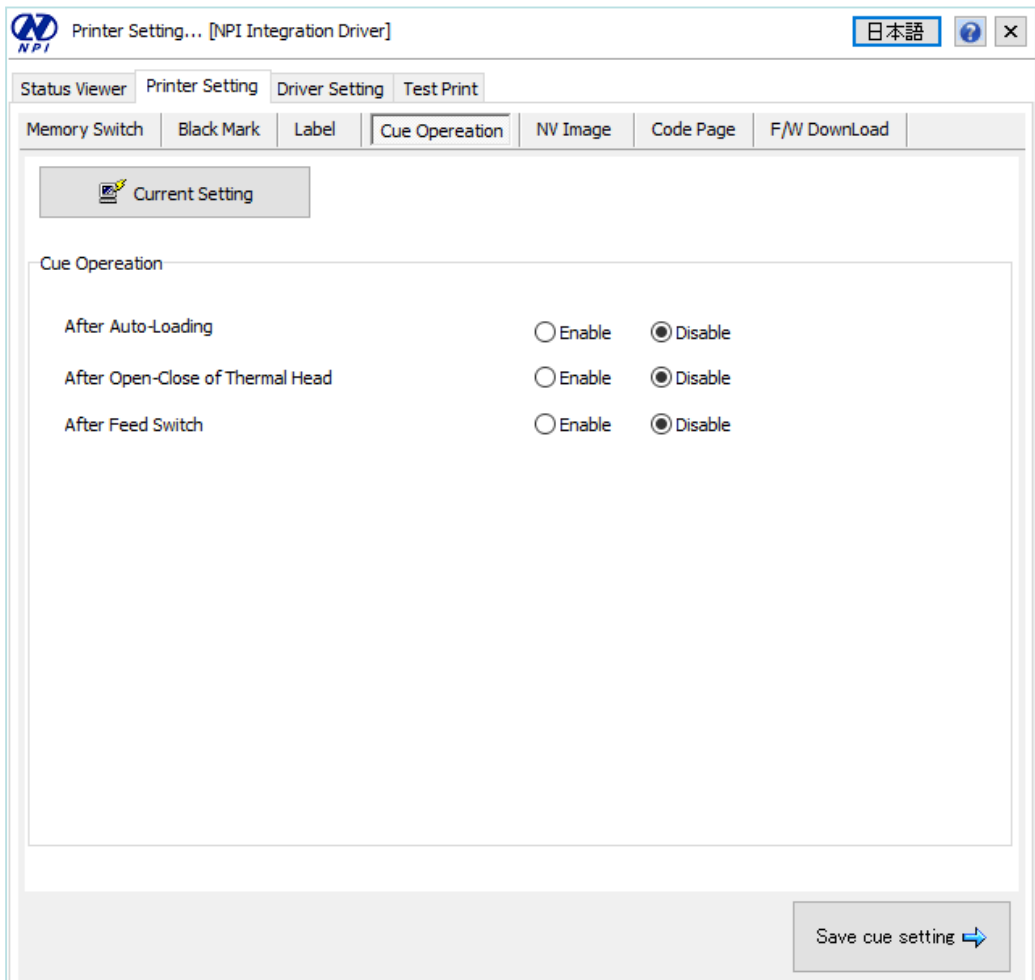
Item Name		Value
Current Setting		Current cue operation settings obtained by reading from the printer are displayed.
Sensor type		Setting which of BM sensor and GAP sensor will be used. It cannot be changed from the BM sensor in the standard mode.
Cue operation		Setting the printer operation at the paper loading.
	After auto-loading	Setting whether sensing is executed or not when paper is automatically loaded.

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Item name		Value
	After Open-Close of Thermal Head	Setting whether sensing is executed or not when thermal head cover is opened or closed.
	After Feed Switch	Setting whether sensing is executed or not after FEED button is pushed.
	After Power On	Setting whether sensing is executed or not when the power is turned on.
Save cue setting		Sending the specified cue operation setting to the printer and changing the printer settings

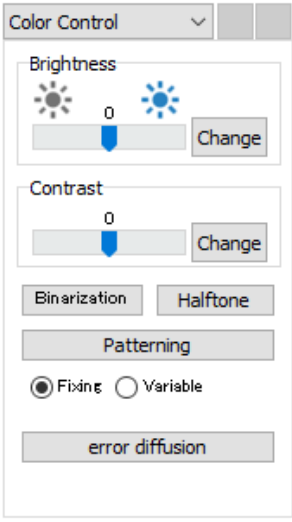
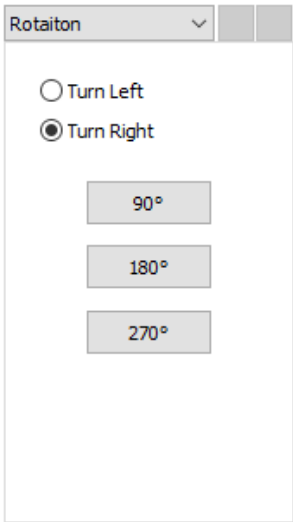
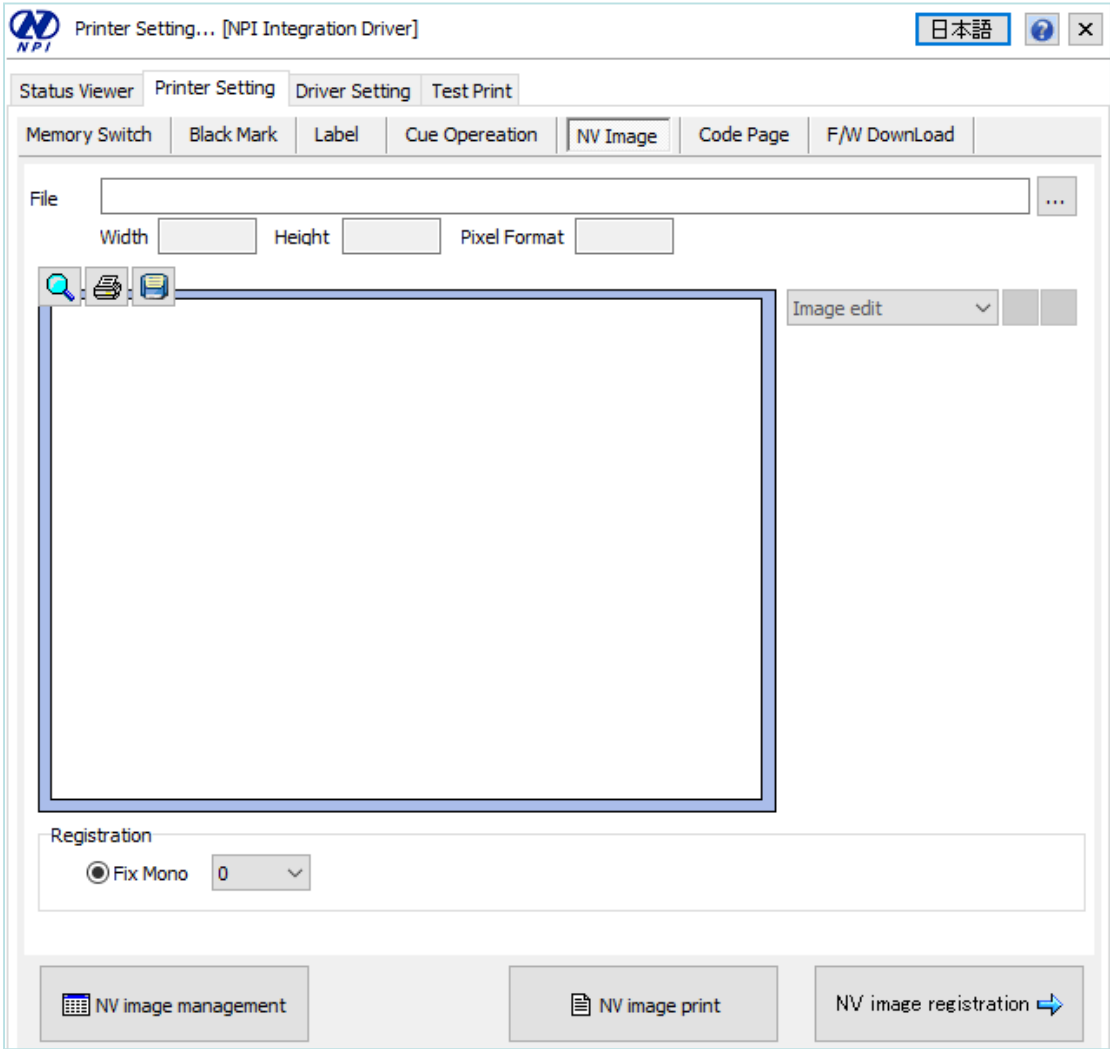
When using other printers than the label printers.

Whether operations at the paper cueing is executed or not can be set for each timing.



Printer setting – NV Image registration

A tool to register image into NV memory of the printer and to conduct a test printing.



Regarding logo file

Size of logo file to prepare varies depending on the Printer's resolution described in the Product Specifications.

e.g.) For printing the logo with 30mm width and 15mm height with the printer resolution 203dpi, the size of the logo file should be calculated by the following calculation.

$$\begin{array}{rcl} \text{Value expressed by dots} & = & 25.4(1\text{inch}) / \text{resolution (dpi)} \\ 0.125 & = & 25.4 / 203 \end{array}$$

* The 4th decimal place will be rounded.

$$\begin{array}{rcl} \text{Image width (dots)} & = & \text{width (mm)} / \text{value expressed by dots} \\ 240 & = & 30 / 0.125 \end{array}$$

$$\begin{array}{rcl} \text{Image height (dots)} & = & \text{width (mm)} / \text{value expressed by dots} \\ 120 & = & 15 / 0.125 \end{array}$$

The size of the logo file will be 240 x 120 dots.

Operation steps

1. Designating the name of the image file by the absolute path.
It can be specified from the reading dialogue by clicking "[...]" button.
Available extensions for the images are the following five types.
jpg(jpeg), png, bmp, gif, and tif (tiff).
2. Selectin the registration destination (Mono [0-2/0-255], Gradation [0-24], Water Mark).
3. Registering NV image by clicking "[NV image registration]" button.

Descriptions for this screen

- [NV image print] button

When the printer selects “Mono” as a registration destination and it does not support 256 NV images registration :

Registered 3 patterns of registered NV bit image and the water mark (only when it is preset in the printer) will be printed.

When printer selects “Mono” as a registration destination and it supports 256 NV images registration:

Fixed bit image with the selected registration number will be printed. When “NV image print” button is pushed without imputing anything, all registered fixed bit images will be printed.

When blank is selected, prints all of registered NV bit image.

When printer selects “Gradation” as registration destination it supports gray scale NV registration:

Fixed bit image with the selected registration number will be printed. When “NV image print” button is pushed without imputing anything, all registered fixed bit images will be printed.

- [Return to saved condition] button

Returning the setting to the default setting.

- [Undo] button

Canceling the previous operation just once.

- [Redo] button

Returning the canceled operation by [Undo] just once. ジョツツオ

- [Rotation] button

Rotating the image by designated direction and angle.

- [Resize] button

Resizing the image to designated size (percent or number of dots).

* The ratio of the image will be kept when “Fix ration” is checked.

- [Binarization] button

Converting the image to black and white expression.



Original Image



Image after converted

- [Patterning] button

Converting the image to 16 gray scale expression.

Fixing : Expressing the image with 16 gray scale pattern by using fixed values.

Variable : Expressing the image with image 16 gray scale on the basis of the generated colors density.



Original image

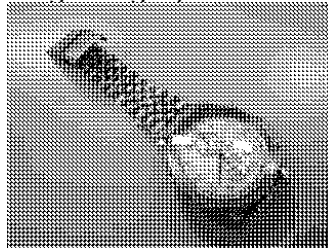


Image after converted.
Fixed

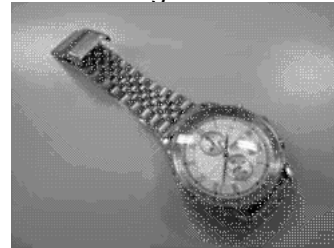


Image after converted
For gray scale

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- [Brightness] button
Changing the brightness by selected \pm value.
- [Contrast] button
Changing the contrast by selected \pm value.
- [Halftone] button
Converted the image to the expression by using a particular filter.



Original image

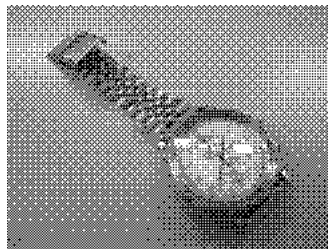


Image after converted

- [Error diffusion] button
Converted the image to the expression by using a error diffusion method.



Original image

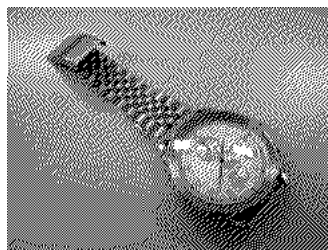


Image after converted

Reference

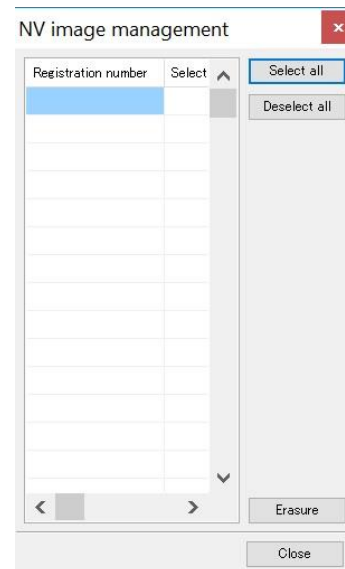
This tool provides simple functions for changing images. Designing the black and white or the target gray scale images by a dedicated tool is recommended.

- [NV image management] button
Displaying the NV images management screen for selected registration destination. In this screen registered numbers, the location (only for gray Scale NV images) can be checked and the target NV image can be deleted.

- * NV images with “*” mark after registration numbers have been registered during “Mono”.
- * Only NV images whose registration numbers are displayed have been registered during “Gray scale”.

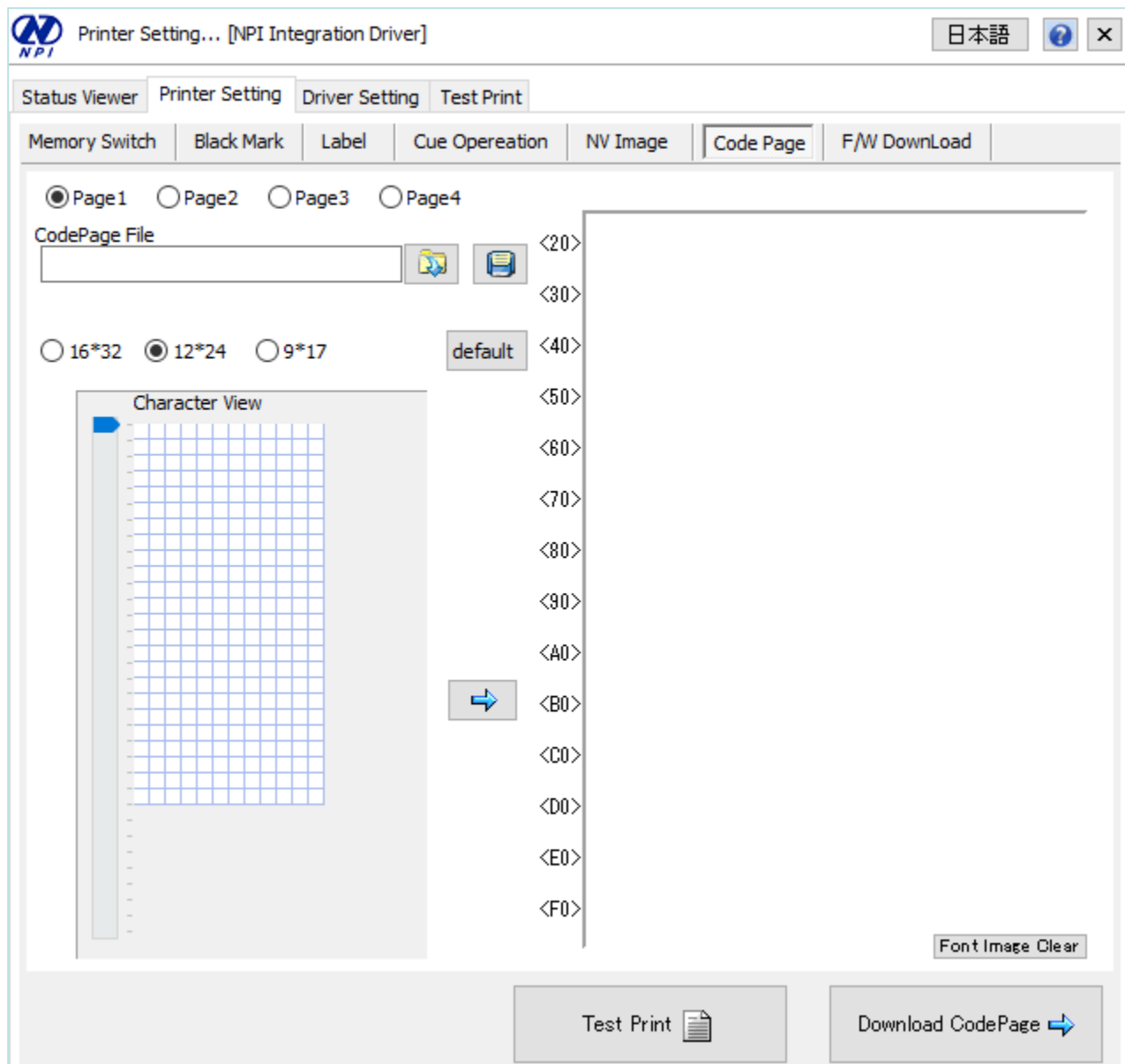
Caution

During “Gray scale”, large memory area is required for large image registration. When the contiguous memory are with sufficient size cannot be secured, it will not be registered due to the lack of space.




Printer setting – User Code Page Registration



A tool to register and edit the user code page and to perform the test printing.



Operation steps

1. Designating the code page file from [] button.
Black and white bit map files of "Font A (12x24) = 192x336" or "Font B (8x16) = 128x224" or binary files can be handled as code page files.
2. Registering it to the user code page by clicking the "Download CodePage" button.

Descriptions for this screen explanation

- [] button
Opening the code page file.
- [] button
Saving the font image being edited in the file with the file name specified for the “CodePageFile” (specified by the absolute path).
- [Character View]
Certain character will be displayed by double-clicking it in the listed characters in the right side of the screen. It can be edited here as well.
Right click : Making the cell white
Left click : Painting the cell black
- [Character Size]
Please select 12x24 or 8x16.
12x24 is treated as Font A.
8x16 is treated as Font C.
- [Character images list]
Displaying the font image which is being edited.
It will be enlarged in “Character View” by double-clicking the specific character and it will become editable.
- [Grid Show/Hide]
Displaying grid lines or removing them.
- [Download CodePage]
Registering the edited font image to the printer.
- [Test Print]
Print all the characters currently registered in the user code page.

* Once printing test of code page is conducted, following character code tables will be “USER Code Page” until they are changed by the command.

Printer setting – F/W Download

A tool for downloading F/W to the printer.

Printer Setting... [NPI Integration Driver]

日本語

Status Viewer Printer Setting Driver Setting Test Print

Memory Switch Black Mark Label Cue Operation NV Image Code Page F/W Download

Printer Information Get Info

Model Name

F/W Version

Boot Version Print Test Page

F/W File ...

F/W File: -----

Version: -----

Download status

☐ Compulsion Download

Download F/W

Caution

F/W updating is a service conducted under customer's responsibility. When the printer failure occurs by updating F/W, it will be repaired by customer's expense.

Reference

Since F/W cannot be rewritten properly by ending it in the middle of F/W downloading, Please DO NOT end it during F/W downloading.

Operation steps

● F/W download (online)

1. Please check whether the connection to the printer is established correctly by the test print.
2. Obtaining the connected printer information before F/W download.
3. Specifying the target F/W file.
4. Checking whether F/W file and the version information are correct.
5. Starting the F/W downloading by clicking "Download F/W" button.

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6. Once download is started, ALM Lamp of the printer will start blinking. After repeating the light on and blinking, reset will be executed and F/W downloading will be completed finally.

Reference

When ALARM lamp blinking become slow in the middle of downloading, it indicates that F/W downloading has failed. In this case, please click the "Cancel" button and stop transmitting and stop the downloading by turning the printer power

Reference

If downloading F/W with "online" during compulsion downloading status, the printer will become frozen status. In this case, please click the "Cancel" button to stop transmitting, cancel this screen by turning the

7. Once download is completed properly, please obtain the printer connection information or check whether F/W is changed to the new one by executing the self-diagnostic printing.

● F/W Download (compulsion downloading)

1. Please check whether the communication between PC and the printer is set properly.
2. Activating the printer with the forcible downloading mode. ALM lamp will be blinking.
Plea refer to the Product Specifications of each printer regarding how to start the printer with forcible downloading mode.
3. Inputting the check to the box before "Compulsion Download".
4. Specifying the target F/W file.
5. Checking whether the F/W file and the version information are correct.
6. Starting F/W downloading by clicking "Download F/W" button.
7. Once downloading is started, printer ALARM lamp blinking will change to lighting.
After that, ALARM lamp lighting will continue and F/W downloading will be completed by executing resetting. Please use the printer after turning the power OFF.

Caution

It is necessary to input the check to forcible output for operation during an error in "printer settings → control option" in advance. F/W data may not possibly be transmitted if this check is not input.

● [printer connection information] items

The information regarding the following items can be obtained by clicking [Get Info] button.

- ◆ Model information
- ◆ F/W version information
- ◆ Boot version information

● [F/W file:] & [Version information:] items

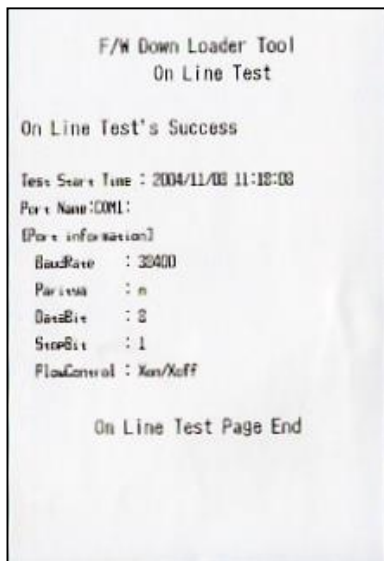
Contents of the specified target F/W file will be displayed.

How to use Integration Driver and Reference

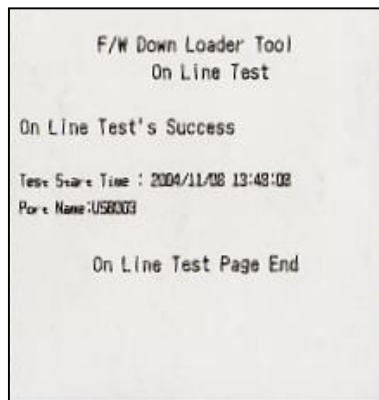
- [Print Test Page] button
Executing the test print for checking whether communication settings are correct.
One of the two kinds of the following test printings will be printed depending on printer driver communication settings.

Print Samples

Serial connection



Other connections



- [Download F/W] button
Executing F/W downloading.
- [Cancel] button
Stopping data transmission.

Caution

Please be careful that F/W is not rewritten properly when using the [Cancel] button.


- [Download status] bar
Transmitting status is displayed.

Caution

F/W downloading may not have been completed when the bar reaches 100% position. Please turn the power ON or OFF and unplug the cable after the printer is reset.

Control option

Specifying the log settings and operations at errors.



Printer Setting... [NPI Integration Driver]

日本語 ⓘ ✕

Status ViewerPrinter SettingDriver SettingTest Print

Error Action Setting

☒ Compulsion output

☐ BIT6 is assumed to be an error.

☐ BIT5 is assumed to be an error.

☒ BIT4 is assumed to be an error.

☒ BIT3 is assumed to be an error.

☐ Near end is assumed to be an error.

Serial Communication Setting

☒ Enable OFFLINE

☐ Disable OFFLINE

☐ Judge by status reception status

Email notification

SMTP Server

ID

PASS

From address

To address

The notification condition

☐ Bit7 On

☐ Bit6 On

☐ Bit5 On

☐ Bit4 On

☐ Bit3 On

☐ Bit2 On

☐ Bit1 On

☐ Bit0 On

Printer function information exportPrinter function information importClear printer functional information

*setting enabling to restart spooler

CancelSetting

Names of the buttons	Operation
Setting	Saving the current status.
Cancel	Returns settings to the statuses before editing.
Printer function information export	Function information of the connected printer will be saved in is stored the file. (It will be used to activate the property by the shared printer.)
Printer function information import	Setting the printer's function information (This step is for making the property effective when used by the shared printer.)
Printer function information clear	It is used to obtain the printer function information again.

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Control Option

Item name		Value
Operations during errors		Specifying operations when printer errors occur.
	Compulsion output	Making the data transmission to the printer effective even during a printer error.
	Paper near end is regarded as an error.	Paper near end is regarded as an error and the data transmission to the printer will be made ineffective. <ul style="list-style-type: none"> The document being printed will be printed continuously.
	“BitN” is regarded as an error.	When “BitN” is detected, it will be regarded as an error and the data transmission to the printer will be made ineffective.
Serial communication setting		Designating the way how “OFFLINE” will be judged.
	Making “OFFLINE” judgement effective	Whether it is “OFFLINE” or not will be judged by using the signal line.
	Not validate OFF LINE judgement	It works as regular ON LINE.
	Judged by the status receiving situation.	It will become “OFFLINE” when statuses cannot be received for a certain period of time.
e-mail notification		It should be specified when monitoring the printer status from the remote.
	SMTP server	Designating the SMTP server to be used for sending e-mails.
	Mail ID	Designating the ID to be used for sending e-mails.
	Mail PASS	Designating the password to the mail ID.
	Sender’s e-mail address	Designating the sender’s e-mail address.
	Destination’s e-mail address	Designating the destination’s e-mail address.
	The notification condition	Selecting the error bits to be notified by an e-mail.

Printer setting – Test Print

A tool for making one of any images for test printing and executing the test print.

Printer Setting... [NPI Integration Driver]

日本語 ? x

Status Viewer Printer Setting Driver Setting Test Print

Work Area Clear Open Save as Test Print repeat 100 0

Comment Command

Printer Init Density 100 % Speed 00 Divided printing 01

Presenter Action Loop Function Auto Ejection/Retraction Time sec

LED bezel Action 1

Start Print JOBID

Align Left Align Center Align Right

Font Style Font A B C D Bold Dbl W Dbl H

Underline Line 1 2 Reset Underline

Character data Test Sample Line Feed

Barcode UPC-A

BitImage

Raster Image

Print Fix NV 0 Print Variable NV 0 Print Gradation NV 0

Custom Command

Black Mark Detection Black Mark Detection(Switch) dot

Feed 1 mm Back Feed 1 mm

Full cut Prial cut

Cash Drawer 2 On Time Off Time

OFF Interval has to be at least quadruple of ON Interval.

Delete Command End Print

Operation steps

● How to create a printing samples and output it.

1. Adding the target command by using the buttons for each command in the right side of the screen.
2. “[Command Name]” and “[Command Code]” of added commands are displayed in the grid at the left side of the screen.
 - * If there are command lines ([Command Name] and [Command Code]) to be deleted, please select the command line and click the “Delete Command” button to delete the selected command line.
3. The printing sample made with the “Test Print” will be output to the printer.
 - * Be sure to check whether the connection is properly established before the test print.

How to use Integration Driver and Reference

Descriptions for the screen

- [File] menu
 - ◆ [Work Area Clear] menu
Clearing the print sample in the left box.
 - ◆ [Open] menu
A file with “nsl” format can be selected and opened.
 - ◆ [Save as] menu
Created printing sample can be saved in a file after being named with “nsl” format.
- [Test Print] button
Printing the printing sample according to the setting of selected and arranged commands in the left box.
- The left box
Added commands are displayed with its name and the command code.
e.g.) 10mm paper feeding and full cut.

Comment	Comr
Feed10mm	1b" J"
Full cut	1b" i"

- [Character data] button
Clicking the [Character data] button after inputting the character data to add into the text] box at the right of [Character data] button.
- [Barcode] button
Selecting the type of barcode to add from the list box and clicking the [Barcode] button.

Reference Please input the data in accordance with Input each barcode data condition.

- [Bitimage] button / [Raster Image] button
A dialogue box will appear by clicking the [. . .] button.
Please select the target image. Path name will be displayed in the text box.
They will be added to the left box by clicking the [Bit Image] button or the [Raster Image] Button.
- [Delete Command] button
Please moving the cursor on the command line to be deleted.
The command will be deleted by clicking the [Command detail] button.

* Please refer to the printer command in the Product Specifications of the printer for other buttons.

Customized form setting

Opening the [Print Server Properties] window from ([Printer & Fax] window or [Printer and Scanner] window).

Print Server Properties

Forms Ports Drivers Security Advanced

Forms on: DESKTOP-T28F9TM

10x11
10x14
104mm
11x17

Delete

Save Form

Form name: 10x11

☒ 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: 10.00in Left: 0.00in Top: 0.00in

Height: 11.00in Right: 0.00in Bottom: 0.00in

Change Form Settings

OK Cancel Apply

1. Selecting the closest form from “Forms on” list box and input the check to [Create a new form].
2. Specifying the form name, the width the height, etc.
3. Save the form setting.

Caution

If the existing form name is specified, the original setting will disappear.

Reference

In application supporting only forms with fixed size, the similar printing result to the printing with printing preview can be realized by using customized form setting.

Restrictions of Integration Driver including those for the environment and OS configuration are described below in this chapter.

1. It is necessary to apply ".net FramWork2.0" or later.
2. When using NiiPrinerLib.dll or NPrinterLib.dll under ".net FramWork1.1", there may be cases for which controlling errors by applications is required.
3. During the serial connection, there may be a case in which "??" is printed at OS activating timing or when it is returned from the hibernation.
4. Please use it with [enable detail print function] set ON in [detail setting] (EMF spool configuration).
5. Operation is not guaranteed under multi-user environment .
6. Reserved name of resource
Integration Driver reserves a following each namespace.
Shared memory: Global¥SHMEM/ <printer name>/monitor/status
7. In case multi-printer drivers are allocated to the same port, the accurate status cannot be obtained.
8. In case the printer is controlled by the direct communication, the accurate status cannot be obtained.
9. Please set up the driver by a user with the administrator authority.
10. When using shared printers, user switching will not be supported.
11. Although there is an "IN/OUT" log function, it does not guarantee input and output.
12. Regarding generated log files, when the file is opened during input to the file or output from the file, there may not be data in it.
13. Since NPIDelDev.exe is used for uninstalling the printer driver under 64bit OS, please save the NPI_UnInstaller.exe and the NPIDelDev.exe in the same folder.
14. In the serial communication, if printer's power OFF and ON (including software reset) are performed repeatedly, it may be judged as offline temporally.
15. Some items to be specified by this driver may not be supported by each printer.
16. The Administrator authority is required for using NPI_UnInstaller.exe.
17. When deleting the printer driver by NPIUninstaller.exe, it may be returned to the state with uninstalled printer driver again. When this problem occurs, please delete the device from both the device screen and the printer screen and delete the driver from the server property.
18. Please restart the PC before reinstalling this driver.
19. Please note that using multiple printers with Bluetooth connection and with the combination of Bluetooth connection and COM connection cannot be done.
20. When using TCP/IP port, please DO NOT change the port name which has been named by the setup tool.
21. Communication is NOT guaranteed when communicating to the same port as the driver directly by the library.
22. Please note that it may take from 5 to 60 seconds (longer than 60 seconds possibly) to switch online status to offline status and vice versa. Please check the online / offline switching by the status display.)
23. When it is connected to the printer , it receives the status by the printer driver.
24. When the printer name is changed, It is required to restart the spooler.
25. Regarding NEX-C200, it is supported with the FW version 1.01 or higher. of firm ware version 1.00,
* Please use version 1.0.8.0 Integration Driver (the old version) with the FW version 1.00.
26. Although it can be used by setting the color printing mode to the grayscale when using the image conversion function for color management in format settings, printing tickets length may not be processed properly.