

DNP

DIGITAL PHOTO PRINTER
DS-RX1 HS
DS-RX1

Version 1.14

Printer Driver Instruction Manual

- Safety precautions

Before you use the printer, carefully read the User Guide to ensure that you use the printer correctly. Be aware that the content complies with the standards at the time the User Guide section related to safety, including usage and safety precautions, was created.

- Modifications

For product safety, it is prohibited to modify the DS-RX1 printer, DS-RX1 printer driver, and CD contents.

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The ICC profile is prepared by the technology of X-Rite.

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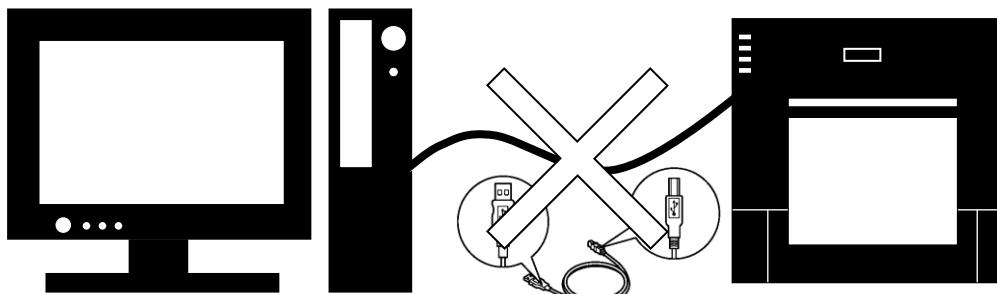
Chapter 1 Installation

Installation procedure

The installation procedure is made up of three steps.
The details of each step are explained below.

Step 1 Prepare the printer and computer

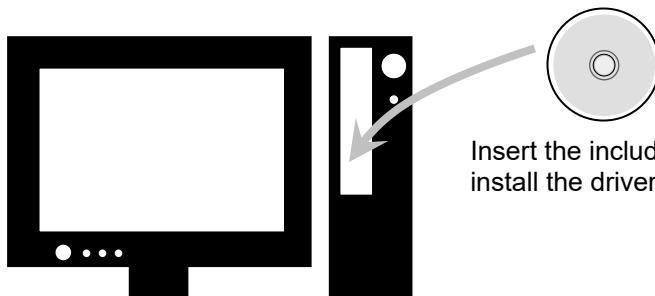
→ “1.1 Prepare the printer and computer”



At this point, the USB cable is not yet connected.

Step 2 Install the driver package

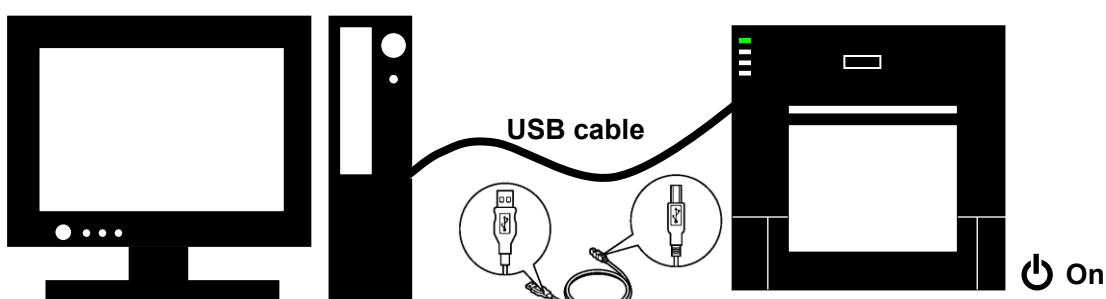
→ “1.2 Install the driver package”



Insert the included CD into the disk drive, and then install the driver package.

Step 3 Install the printer driver

→ “1.3 Install the printer driver”



Connect the USB cable, switch on the printer, and then install the printer driver.
After installation is complete, restart the computer.

1.1 Prepare the printer and computer

- 1) Make sure that the DS-RX1 printer power is off.
Prepare a USB cable. However, do not use the USB cable to connect the printer and computer at this time.
- 2) Log in to Windows as an administrator. The following explanation presumes that the operations are carried out with administrator privileges.

CAUTION:

The display settings of the computer must be set as follows. If the settings differ from the following, the printing preferences screen and other items may not fit in the display area.

- Resolution: At least 1280x800
- Size of text and other items (DPI): 100%

1.2 Install the driver package

Insert the included CD into the disc drive.

Open Windows Explorer, and then click the corresponding drive.

If AutoPlay is enabled, a message appears stating “Tap to choose what happens with this disk”. Click the message and select “Open folder to view files Windows Explorer”.

Select the following installation folder. *Select the folder for your usage environment.

CD drive:\DS-RX1_Driver\English\11

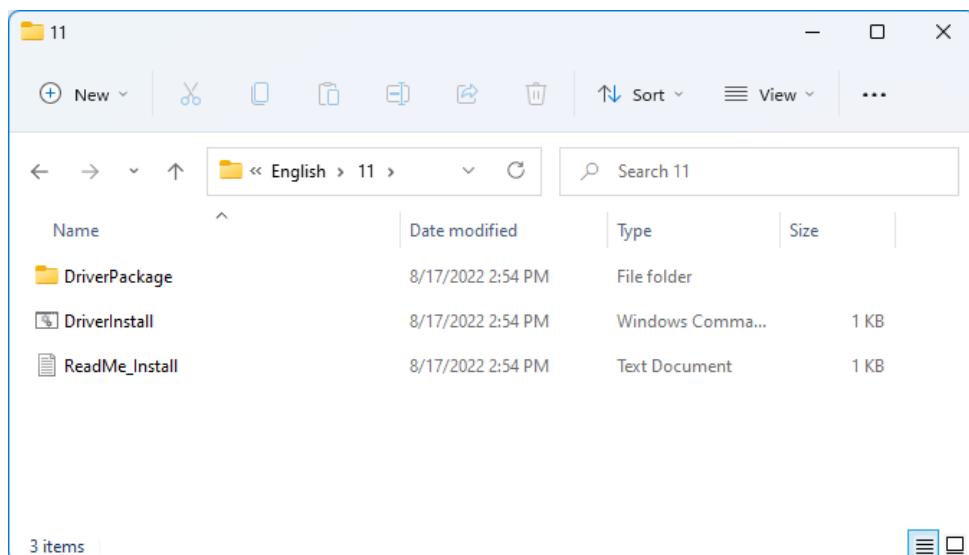


Figure 1.2.1 Driver Package folder

In the selected folder, double click the following file: DriverInstall.CMD. (Depending on your usage environment, the .CMD extension may not be displayed.)

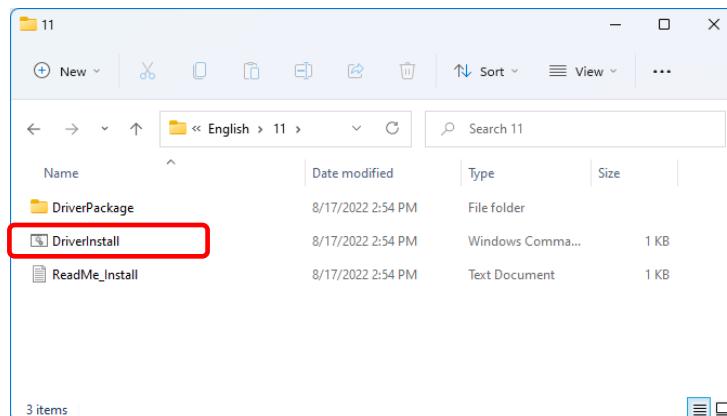


Figure 1.2.2 Installation file

When a User Account Control dialog box appears, click “Yes”.

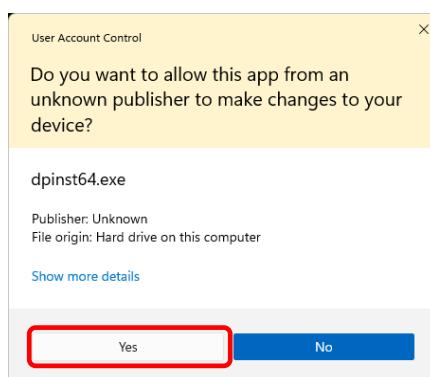


Figure 1.2.3 User Account Control

The “Welcome to the Device Driver Installation Wizard!” screen appears. Click “Next >”.

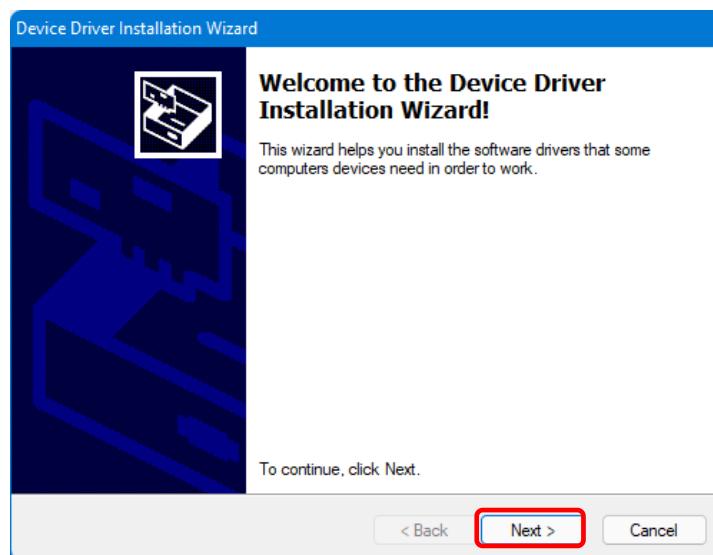


Figure 1.2.4 Start of Installation Wizard

Click “Install” when the Windows Security confirmation display appears.

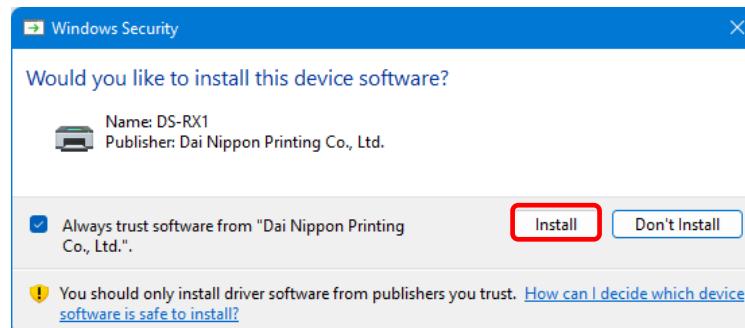


Figure 1.2.5 Windows Security confirmation

Installation of the driver package starts. Wait until installation finishes.
The “Completing the Device Driver Installation Wizard” screen appears. Click “Finish”.

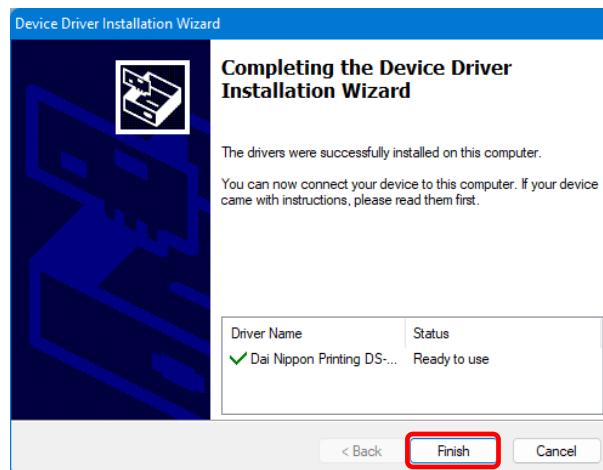


Figure 1.2.6 Finish of Installation Wizard

1.3 Install the printer driver

Use the USB cable to connect the printer and computer, and then switch on the power of the printer.
After the printer is recognized, installation of the driver starts.

*For the connection, see the User Guide of the printer.

Click “Start”, select “Settings” -> “Bluetooth & devices”, and then open “Printers & scanners”.

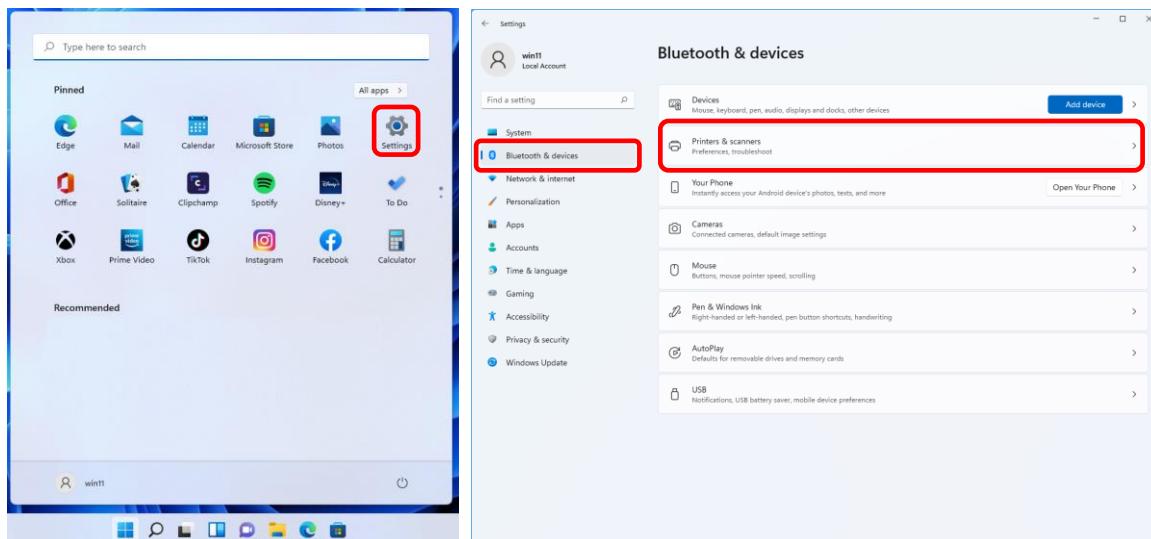


Figure 1.3.1 Bluetooth & devices

On the Printers & scanners screen, check that DS-RX1 appears.
This completes installation of the DS-RX1 printer driver.

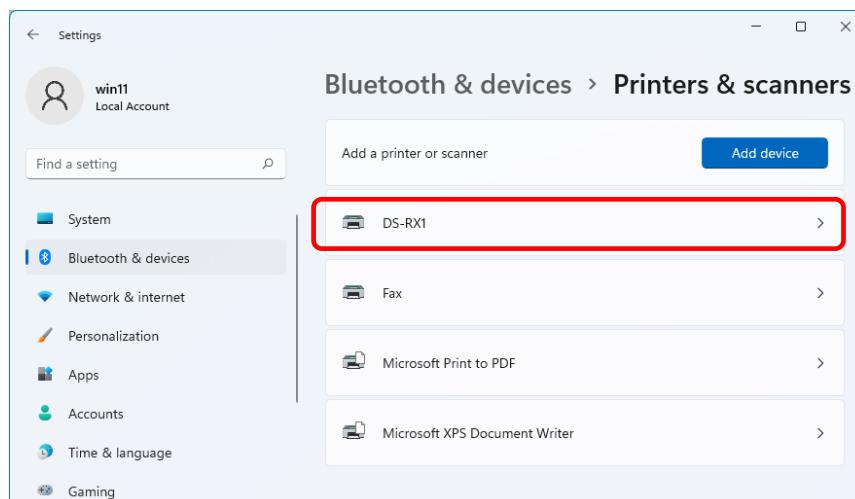


Figure 1.3.2 Printers & scanners

After the installation of the printer driver is complete, always restart the computer.

1.4 Install drivers for unspecified devices

If the printer does not appear on the Printers & scanners screen, select “Devices” on the “Bluetooth & devices” screen. Select “More devices and printer settings” on the “Devices” screen to open the “Devices and Printers” screen. If you connect a printer that is on to the computer before installing the driver package, a device is created under “Unspecified” in “Devices and Printers”.

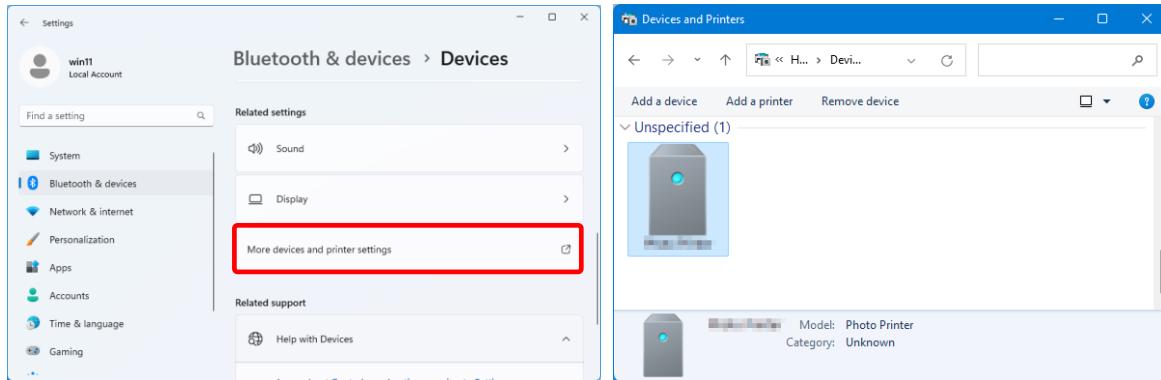


Figure 1.4.1 Photo Printer under Unspecified

In such a case, use the following method to install the printer driver. Furthermore, use the following method to install the printer driver if you use the standard installation procedure (install the driver package, connect the printer, and then install the printer driver), but the driver is not installed correctly, and a device is created under “Unspecified”.

1. Install the driver package

When the driver package has not yet been installed, install it by following the procedure in “1.2 Install the driver package”.

If you install the driver package, installation of the printer driver for the unspecified device completes it automatically.

2. Installing a driver for an unspecified device

Refer to page 7 for the driver installation procedure for an “Unspecified” device after installing the driver package.

1. Right-click “Dai Nippon Printing DS-RX1” of the “Unspecified” device in “Devices and Printers”, and click “Remove device” from the pull-down menu.

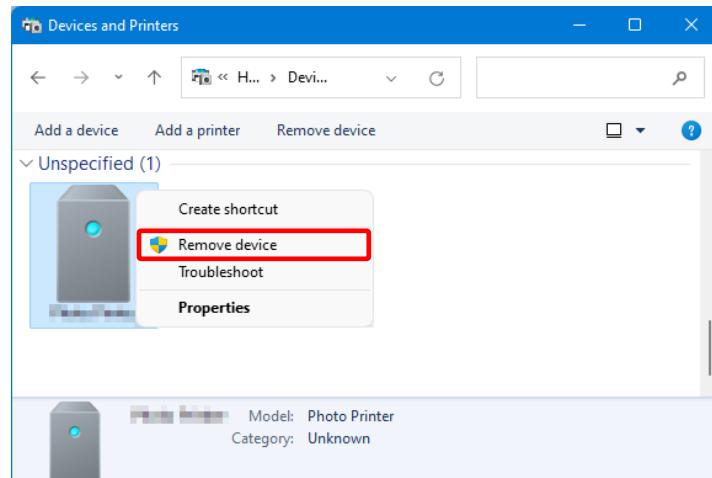


Figure 1.4.2 Delete “Photo Printer”

2. Disconnect the USB cable connected to the printer.
3. Restart your computer.
4. After starting up the computer, connect the USB cable again and turn on the printer.

In Printers & scanners, make sure that DS-RX1 is present.
This completes installation of the printer driver.

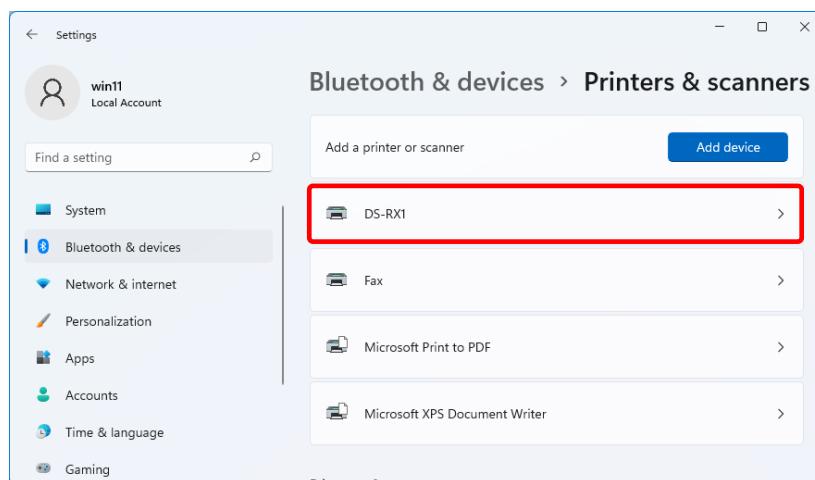


Figure 1.4.3 Printers & scanners

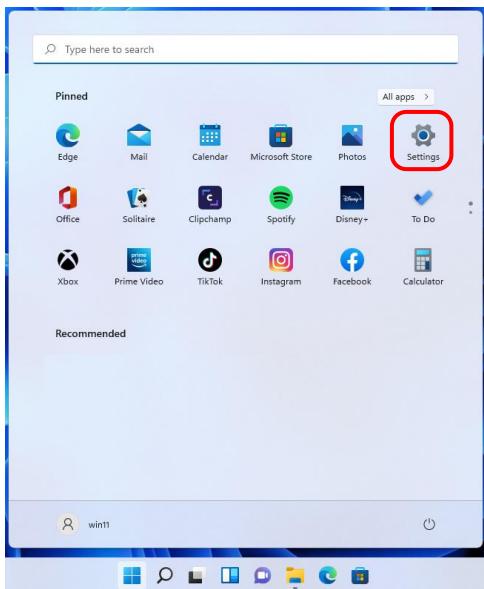
After the installation of the printer driver is complete, always restart the computer.

Chapter 2 Properties

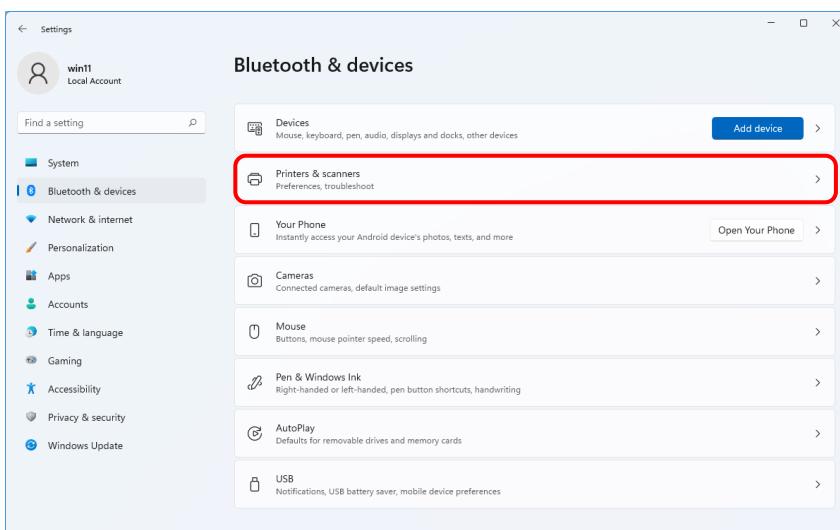
You can configure various printer settings from the Properties of the driver. Make sure you understand the contents well before changing settings. To use the properties, log in as an administrator. Depending on the application you are using, you must perform this operation from the print settings of the application.

2.1 Open the printer properties

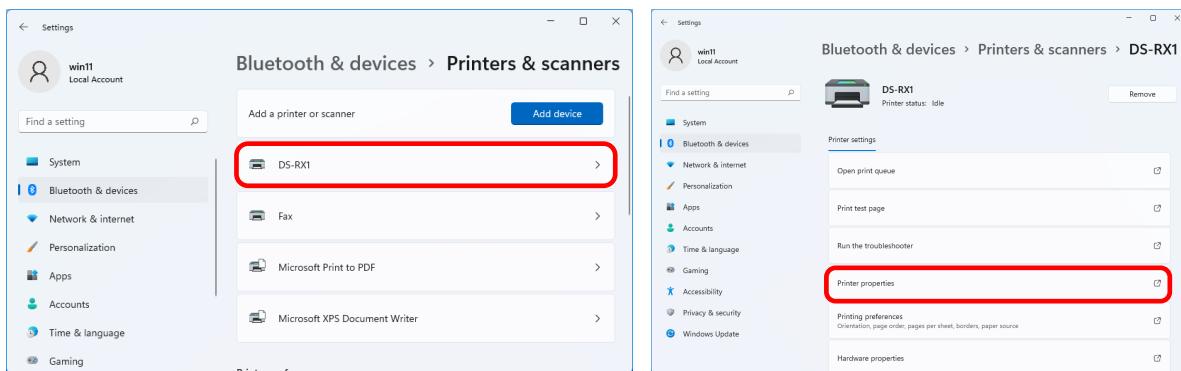
1. Click “Start”, and then select “Settings” to open the Settings screen.



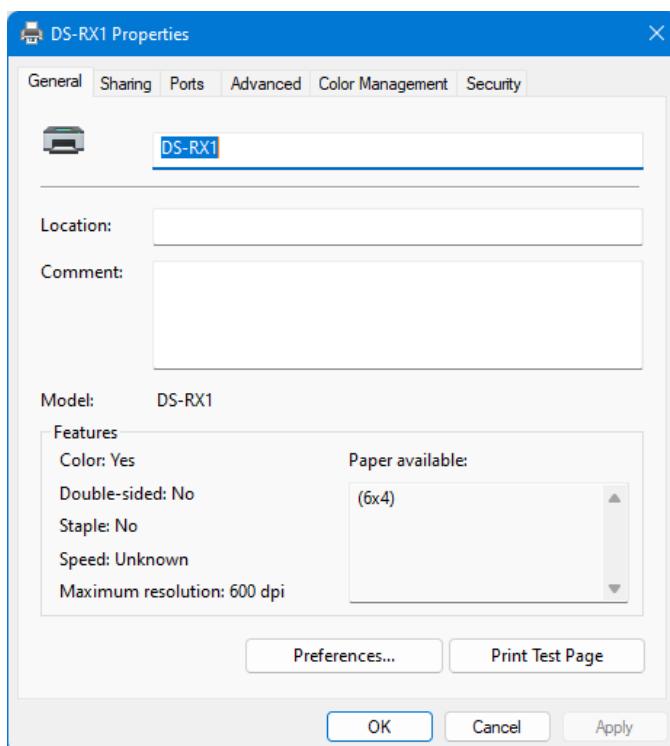
2. From the “Settings” screen, select “Bluetooth & devices” -> “Printers & scanners”.



3. Click “DS-RX1”, and then select “Printer properties” to open the Properties screen.



4. The DS-RX1 Properties screen appears.



2.2 Print settings functions

If you select the basic settings from the Properties screen, you can change various print settings.

2.2.1 Layout

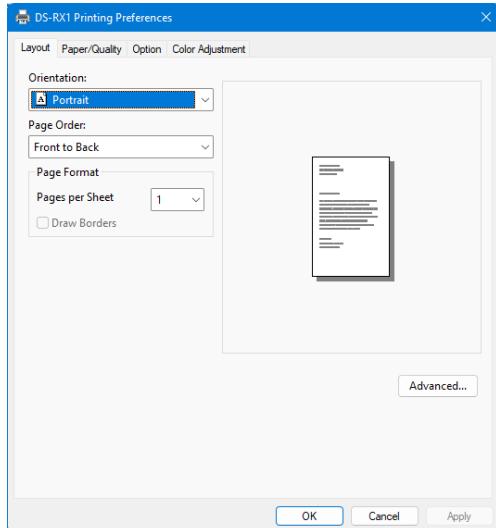


Figure 2.2.1 Layout tab

Orientation

Set the print orientation to “Portrait” or “Landscape”.
For details, refer to “2.6 Orientation”.

Page Order

In the application, specify the order when multiple copies of an image are printed.

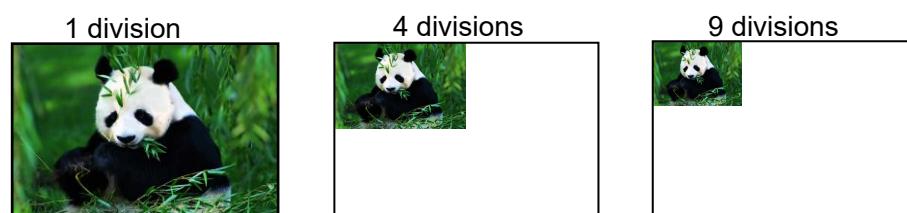
Example) Print order No.1 No.2 No.3



Pages per Sheet

Prints the designated fractional size. Normally you should specify a value of 1.
(If you want to specify other than 1, please use the Print Quality settings to 300x300dpi or 600x600dpi)

Example) Division size



2.2.2 Advanced options

If you select “Advanced...” on the Layout tab, you can configure various advanced options.

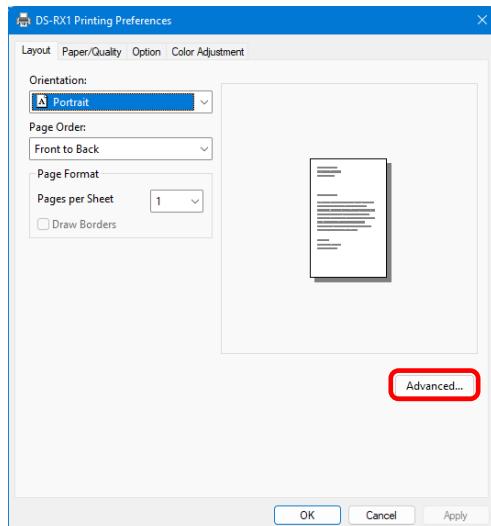


Figure 2.2.2.1 Advanced settings

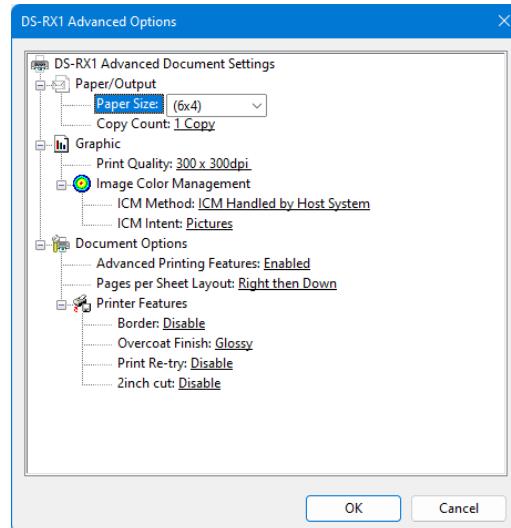


Figure 2.2.2.2 Advanced options tab

Paper Size

You can designate the paper size. Please match the paper size to the media size with which the printer is equipped.

Also multiple layout will be automatically used depending on the specified paper size. See later sections for details.

Copy Count

You can specify the number of copies to be published for images.

Print Quality

You can designate the print quality.

Print Quality	Function
300 x 300dpi	Printing in the high-speed mode
300 x 600dpi	Printing in the high-quality mode * If the application can not set an asymmetric aspect resolution, please set the 600x600dpi. *When you execute the “Print Test Page” in printer properties, depending on the specifications of the OS, is printed the aspect ratio of the printer mark is different.
600 x 600dpi	Printing in the high-quality mode (Printer driver converts to 300x600dpi data, and sends it to the printer.)

ICM Method

ICM Method	Function
ICM Disabled	Synchronized with “Color Adjustment Disabled” in the 2.2.4 Option.
ICM Handled by Host System	Synchronized with “Color Adjustment ICM” in the 2.2.4 Option. Manage colors using the driver.
ICM Handled by Printer	When this item has been selected, operation is the same as “ICM Handled by Host System”.

ICM Intent

Set the rendering method when using ICM. For the ICC profile, always set to “Pictures”. Do not use other settings.

Advanced Printing Features

Always set “Enabled”. Do not use other settings.

Pages per Sheet Layout

Set the layout direction of an image when the Pages per Sheet setting is set for multiple divisions.

Border

Synchronized with Border in the Option.

Overcoat Finish

Set the overcoat finish method for the surface of printed items from the following two types.

Overcoat Finish	Function
Glossy	Create an item with a glossy finish.
Matte	Create an item with a matte finish.

Print Re-try

Specify whether to print data in the printer buffer after a printer error has been cleared.

Print Re-try	Function
Disable	Clear the print data in the printer buffer when a printer error occurs. You must send the cleared print data again after the error is cleared. When you use an application with an error recovery function, select this option.
Enable	Save print data in the printer buffer when an error occurs. The printing process is restarted from the saved data after the error is cleared. Note that if the power is switched off, the data is not saved.

Depending on the content of the printer error, it may be necessary to restart the printer to clear the error. In such cases, the print data in the printer buffer is cleared regardless of the Print Re-try setting.

The following section shows the operation for each Print Re-try setting by error.

Error content	When Print Re-try is "Disable"	When Print Re-try is "Enable"
Paper end	You must send the unprinted image data again after the error is cleared.	The printing process is restarted from the data saved in the printer buffer after the error is cleared.
Ribbon end		
Cover open		
Paper jam (*1)		
Ribbon error (*1)		
Paper setting error		
Data error	Because the printer must be switched on and off to clear the error, the print data in the printer buffer is cleared regardless of the Print Re-try setting.	Because the printer must be switched on and off to clear the error, the print data in the printer buffer is cleared by switching the printer off, even when the Print Re-try setting is "Enable".
Head voltage error		
Head position error		
Power supply fan stopped		
Cutter error	After the printer has restarted, you must send the unprinted image data again.	After the printer has restarted, you must send the unprinted image data again.
Head temperature error		
Media temperature error		
Ribbon Tension Error		
RFID module error		
System error		

*1: After the printer stops due to an error, follow the User Guide of the printer to eliminate the cause of the paper or ribbon error.

2inch cut (Depending on the version of printer firmware being used, "Disable" may be the only option.)

In the case of the specific paper size, it sets up whether it cuts into two or more sheets by the length of 2 inches.

2inch cut	Function
Disable	It cuts in usual size.
Enable	By the length of 2 inches, in the case of (6x4) and PR(4x6) size, it cuts to two sheets, and, in the case of (6x8) size, it cuts to four sheets.

<Multiple layout>

When the DS-RX1 is using 6x8 size media, 2 image layout is possible.

With the printer driver paper setting, multi-image layout is made possible, and the image sizes are as follows.

Layout designation

Driver paper setting (layout)	Paper Orientation	Image size width x height (mm)	Using media
(6x4) x 2	Portrait	(156.1x105.0) x 2	6x8
	Landscape	(105.0x156.1) x 2	
PR(4x6) x 2	Portrait	(105.0x156.1) x 2	6x8
	Landscape	(156.1x105.0) x 2	
Image layout median size		2.54	

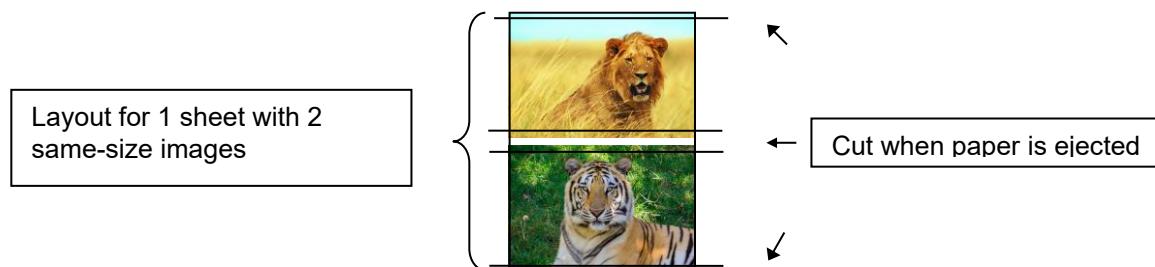
Multiple layout is possible under the following conditions.

- 1.The printer is using 6x8 size media.
- 2.The printer driver paper size is set to one of the above sizes.
- 3.Multiple images are sent from the application.

Note) Because the multi-image layout occurs on a per job basis, this works when there are multiple images for 1 job. If you want to print the same image, be sure to send the image data for each copy to be printed. The printer prints 2 images in one operation, and the paper is cut as it is fed out.

<Multi-image layout patterns>

The following is possible for the multi-image layout pattern.

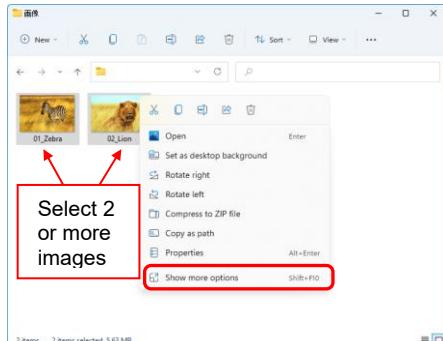


< Application usage example >

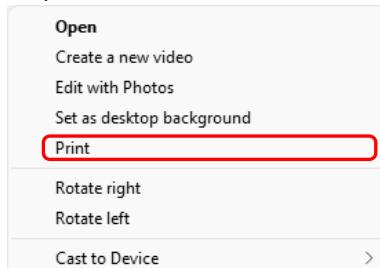
This usage example uses Windows Explorer.

Step 1. In Windows Explorer, select two or more pictures.

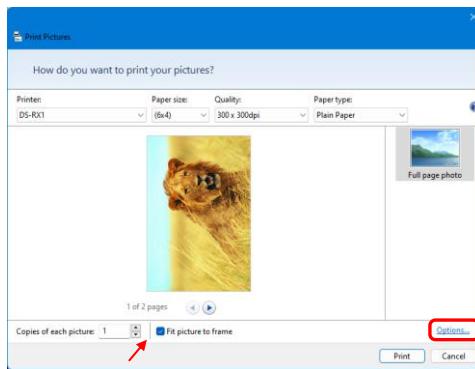
Next, click "Show more options".



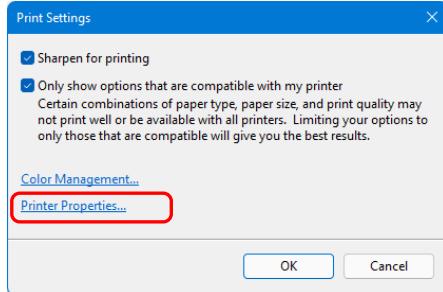
Step 2. Click "Print".



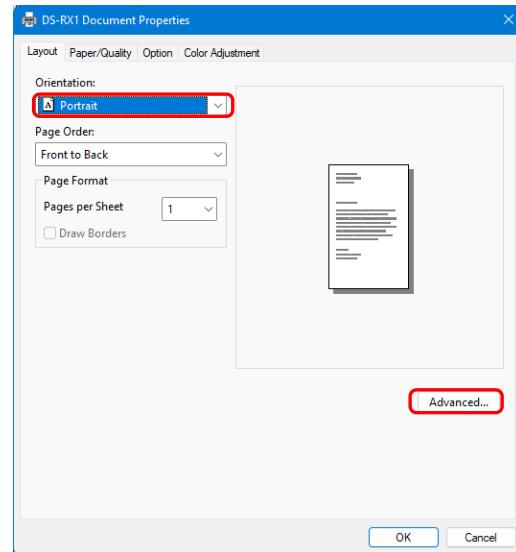
Step 3. Select "Fit picture to frame" check box, and then click "Options...".



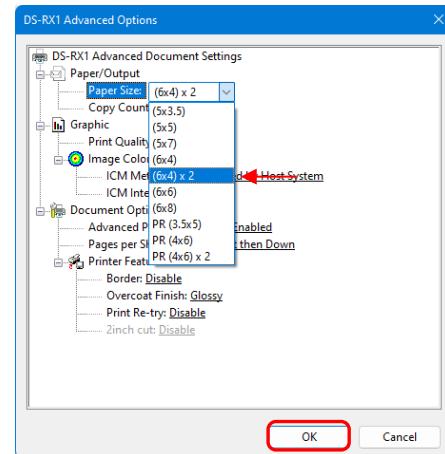
Step 4. Click "Printer Properties...".



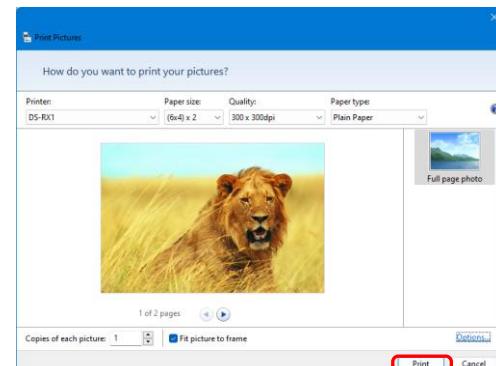
Step 5. Set the Orientation to "Portrait", and click "Advanced...".



Step 6. Set the paper size to the setting of the multiple layout. Click "OK" twice to close the dialog boxes in Step 6 and 5 and return to the display in Step 3.



Step 7. Click the "Print" button.



2.2.3 Paper/Quality

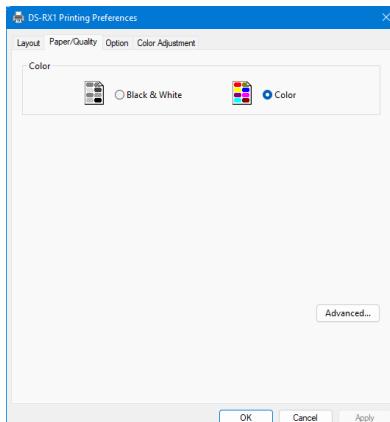


Figure 2.2.3 Paper/Quality tab

Color

Set Color. Do not use black and white.

2.2.4 Option

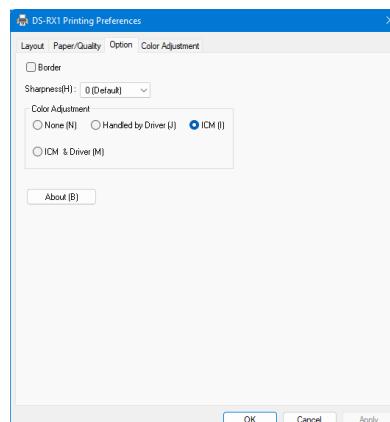


Figure 2.2.4.1 Option tab

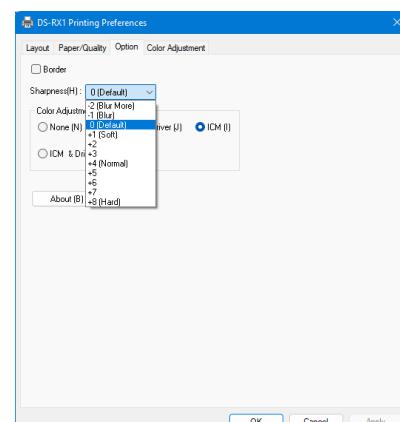


Figure 2.2.4.2 Sharpness setting

Border

Specify a border for printing. (Select the check box for a border.) Synchronized with Border Enable/Disable in the Advanced settings.

Sharpness

Process sharpness using one of the 11 stages (Figure 2.2.4.2). If the setting is 0 (Default), sharpness is not processed.

Moving to the minus (-) side blurs the image and moving to the plus (+) side sharpens the image.

Color Adjustment

None

Synchronized with the ICM Method in the Advanced settings. If this check box is selected, ICM is disabled, the Color adjustment tab is also disabled, and the printer driver does not carry out color adjustment.

Handled by Driver

If this check box is selected, ICM is disabled, and the 2.2.5 Color Adjustment is enabled. The result is applied to the adjustment values of the following items: Gamma, Brightness, Contrast, and Chroma.

ICM

Synchronized with the ICM Method of the Advanced settings (ICM Handled by Host System).

If this check box is selected, the driver manages colors.

ICM & Driver

If this check box is selected, ICM (color management) and the 2.2.5 Color Adjustment are enabled.

About

Show the driver version.

2.2.5 Color Adjustment

If the Handled by Driver check box is selected in the 2.2.4 Option, the adjustment values of the Color Adjustment tab are applied to the image.

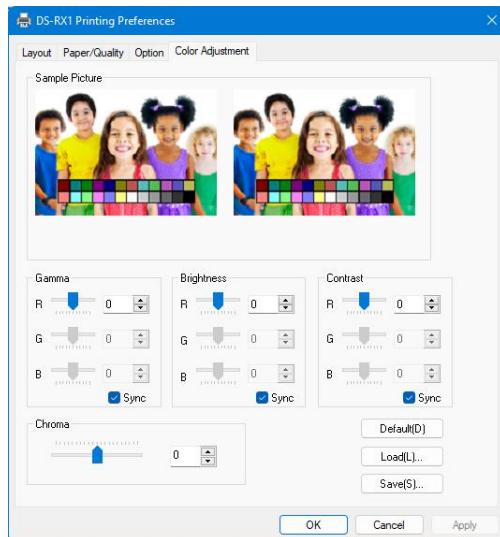


Figure 2.2.5 Color Adjustment tab

The following section shows the setting ranges on the Color Adjustment tab.

Adjustment item	Adjustment value
Gamma	-100 (dark) to 100 (bright) ("0" results in no adjustment, γ2.0 to 0.5) Adjust the density of the half-tone section of the image. Increasing the gamma value brightens the half-tone section. Sync check box ON: Set RGB to same value. OFF: Set RGB to different value.
Brightness	-100 (dark) to 100 (bright) ("0" results in no adjustment) Adjust the brightness of the image. Increasing the brightness value brightens the entire image. Sync check box ON: Set RGB to same value. OFF: Set RGB to different value.
Contrast	-100 (weak) to 100 (strong) ("0" results in no adjustment) Adjust the contrast of the image. Increasing the contrast value increases the difference of brightness and darkness. Sync check box ON: Set RGB to same value. OFF: Set RGB to different value.
Chroma	-100 (weak) to 100 (strong) ("0" results in no adjustment) Adjust the chroma of the image.

2.3 Default values for settings

The following section shows the default values of the settings (at installation). If the settings have been changed, and the printer driver no longer operates normally, return to the default values shown below.

Note) Depending on the service pack of your operating system or your usage environment, the default values at installation may differ from those in the chart below.

Chart 2.3 Default print settings

Tab	Setting		Value	
Layout	Orientation		Portrait	
	Page Order		Front to Back	
	Pages Per Sheet		1	
Paper/Quality	Color		Color	
Option	Border		Disable	
	Sharpness		0 (Default)	
	Color Adjustment		ICM	
Color Adjustment	Gamma		0	
	Brightness		0	
	Contrast		0	
	Chroma		0	
Advanced settings (In the Layout tab, click "Advanced...")	Paper/Output	Paper Size		(6x4)
		Copy Count		1 Copy
	Graphic	Print Quality		300 x 300dpi
		Image Color Management	ICM Method	ICM Handled by Host System
	Document options		ICM Intent	Pictures
	Advanced Printing Features		Enabled	
	Pages per Sheet Layout		Right then Down	
	Printer function	Border	Disable	
		Overcoat Finish	Glossy	
		Print Re-try	Disable	
		2inch cut	Disable	

2.4 Color management

In [Color Management], this designates the color profile. Default at installation associates [RX1_xxxx.icc]. xxxx indicates the version.

Step 1. From the Printer Properties, select the Color Management tab, and then click “Color Management...”.

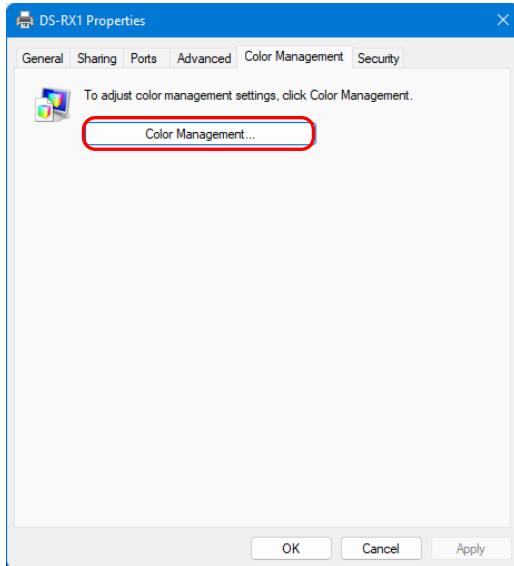


Figure 2.4.1 Color Management Tab

Step 2. From Device, select DS-RX1.

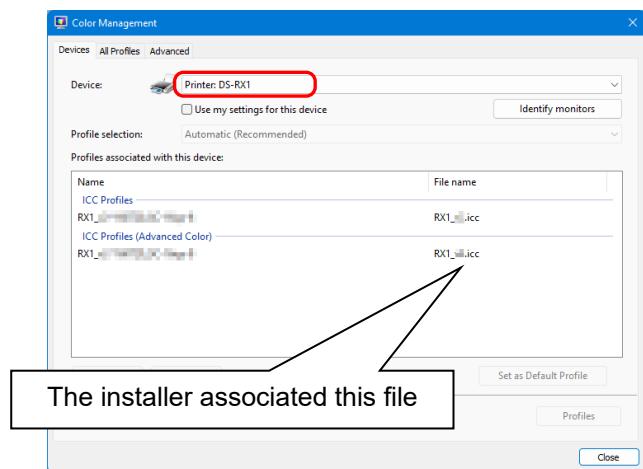


Figure 2.4.2 Color Management Window

2.5 Print Area

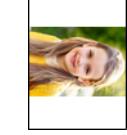
The following section shows the image sizes and numbers of dots generated by the paper size setting of the driver.

Paper	Paper Orientation	Image size (width x height)		Image pixel amount (width x height)		
		(inch)	(mm)	300 x 300 DPI	300 x 600 DPI	600 x 600 DPI
(5x3.5)	Portrait	5"x 3.5"	131.1 x 92.1	1548 x 1088	1548 x 2176	3096 x 2176
	Landscape	3.5"x 5"	92.1 x 131.1	1088 x 1548	2176 x 1548	2176 x 3096
(5x5)	Portrait	5"x 5"	131.1 x 130.4	1548 x 1540	1548 x 3080	3096 x 3080
	Landscape	5"x 5"	130.4 x 131.1	1540 x 1548	3080 x 1548	3080 x 3096
(6x4)	Portrait	6"x 4"	156.1 x 105.0	1844 x 1240	1844 x 2480	3688 x 2480
	Landscape	4"x 6"	105.0 x 156.1	1240 x 1844	2480 x 1844	2480 x 3688
(5x7)	Portrait	5"x 7"	131.1 x 181.0	1548 x 2138	1548 x 4276	3096 x 4276
	Landscape	7"x 5"	181.0 x 131.1	2138 x 1548	4276 x 1548	4276 x 3096
(6x6)	Portrait	6"x 6"	156.1 x 155.4	1844 x 1836	1844 x 3672	3688 x 3672
	Landscape	6"x 6"	155.4 x 156.1	1836 x 1844	3672 x 1844	3672 x 3688
(6x8)	Portrait	6"x 8"	156.1 x 206.2	1844 x 2436	1844 x 4872	3688 x 4872
	Landscape	8"x 6"	206.2 x 156.1	2436 x 1844	4872 x 1844	4872 x 3688
PR (3.5x5)	Portrait	3.5"x 5"	92.1 x 131.1	1088 x 1548	2176 x 1548	2176 x 3096
	Landscape	5"x 3.5"	131.1 x 92.1	1548 x 1088	1548 x 2176	3096 x 2176
PR (4x6)	Portrait	4"x 6"	105.0 x 156.1	1240 x 1844	2480 x 1844	2480 x 3688
	Landscape	6"x 4"	156.1 x 105.0	1844 x 1240	1844 x 2480	3688 x 2480

2.6 Orientation

The following chart shows the relationship of images generated by an application and printed items (output direction) according to the orientation setting.

Hint: The PR print size (center column) is prepared for applications that are not able to change from landscape to portrait and back using the orientation setting on the layout tab. Normally it is recommended to use the non-PR print sizes and use the orientation settings for landscape and portrait on the layout tab.

Original image	Orientation	Driver setting					
		(5x3.5) (5x5) (6x4) (6x4)x2 (6x6)		Paper setting		(5x7) (6x8)	
		Generated image	Printed item (Output orientation ↓)	Generated image	Printed item (Output orientation ↓)	Generated image	Printed item (Output orientation ↓)
	Portrait						
	Landscape						
	Portrait						
	Landscape						

Chapter 3 Update the driver

As when performing the installation, log in as an administrator before carrying out this operation.

1. Delete the driver

- Before deleting the printer driver, close all applications. Furthermore, click on the printer to be deleted on the “Printers & scanners” screen, and then click “Open print queue”. Confirm that there are no print jobs, and then start deletion of the driver.

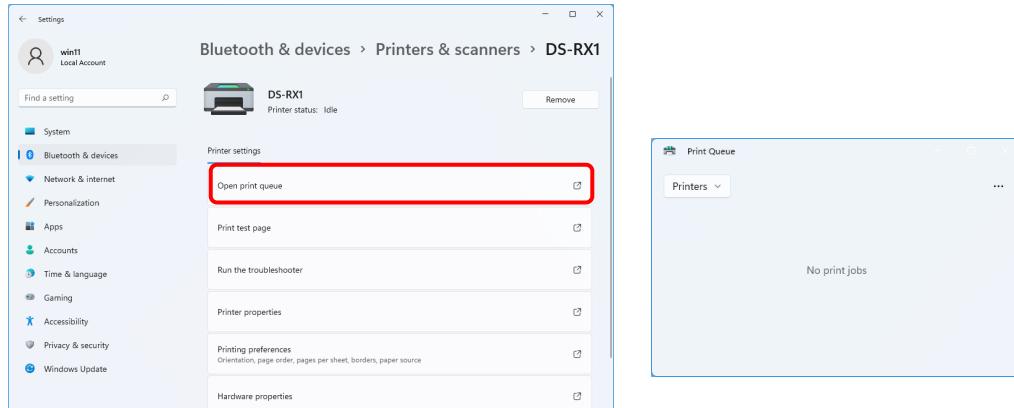


Figure 3.1 Screen when Open print queue is clicked

- From the “Printers & scanners” screen, select DS-RX1, and then click “Remove”.

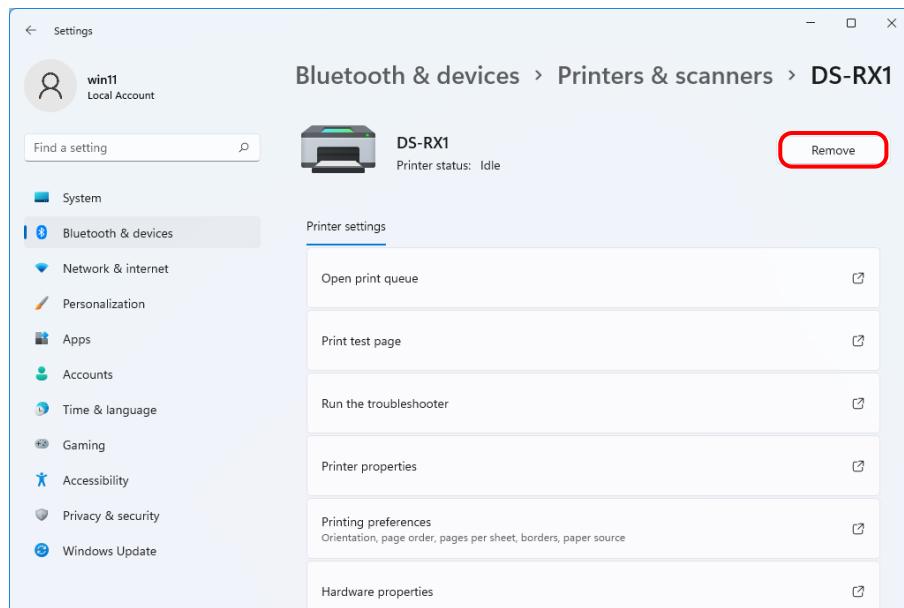


Figure 3.2 Screen when DS-RX1 is selected and Remove is clicked

If the printer is on but not connected, the DS-RX1 icon is not displayed. In such cases, use the following procedure to delete the device.

- (i) Right click “Start”, and then select “Device Manager”.



Figure 3.2.i Screen when the Start button is right clicked

- (ii) Click “View”, and then select “Show hidden devices”.

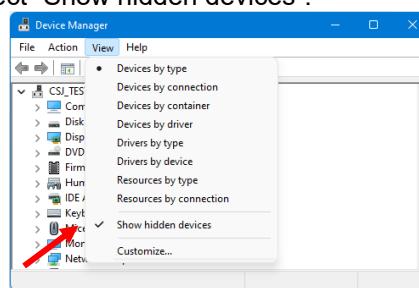


Figure 3.2.ii Displaying the View menu for hidden devices

- (iii) Under “Printers”, right click “DS-RX1”, and then select “Uninstall device”.

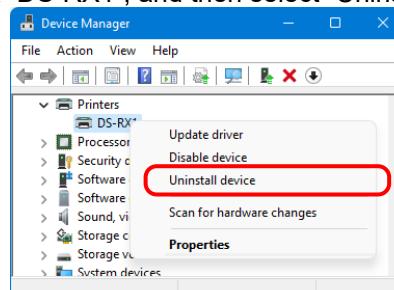


Figure 3.2.iii Displaying the menu to delete DS-RX1

- (iv) At the “Uninstall Device” screen, click “Uninstall”.

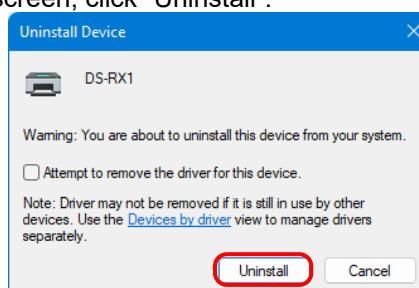


Figure 3.2.iv Uninstall Device screen

3) The printer deletion confirmation dialog box appears. Click "Yes".

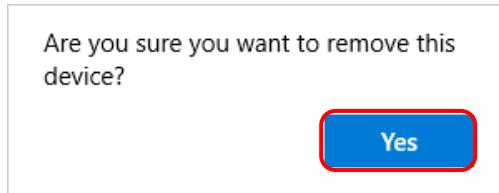


Figure 3.3 Printer deletion confirmation dialog box

4) After removing the DS-RX1 printer, click "Print server properties" in "Printers & scanners".

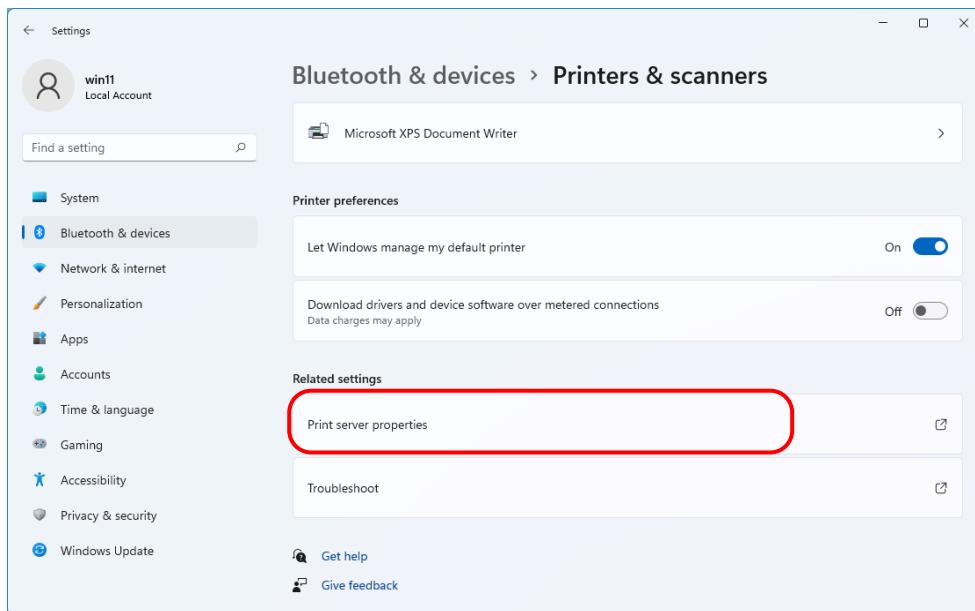


Figure 3.4 Screen when Print server properties is clicked on the Printers & scanners screen

- 5) The “Print Server Properties” dialog box appears. Click the “Drivers” tab. From the installed printer driver list, select “DS-RX1”, and then click “Remove...”.

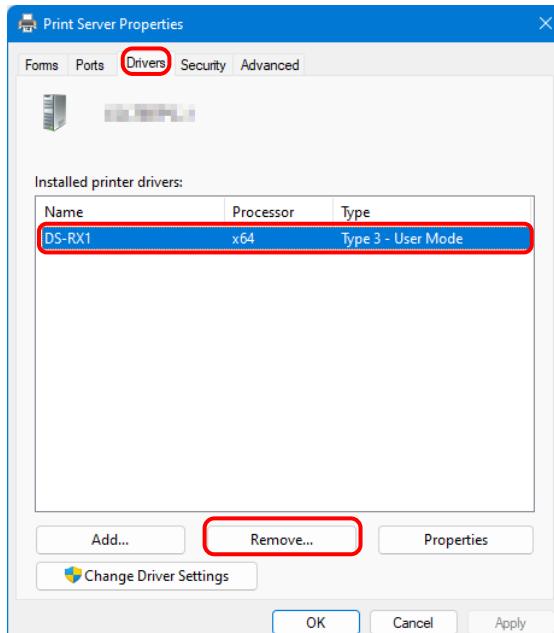


Figure 3.5 Printer Server Properties dialog box

- 6) The “Remove Driver and Package” dialog box appears. Select “Remove driver only.”, and then click “OK”. To delete the driver package, carry out the procedure in the next section, “2. Uninstall the driver package”.

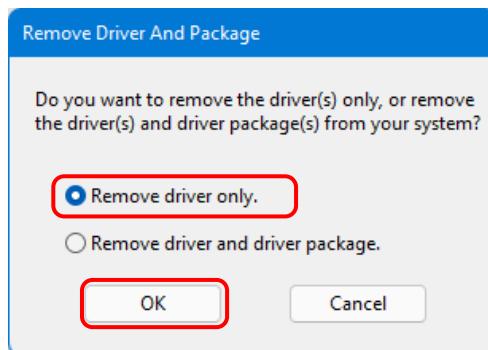


Figure 3.6 Remove Driver And Package dialog box

7) The “Print Server Properties” confirmation dialog box appears. Click “Yes”.

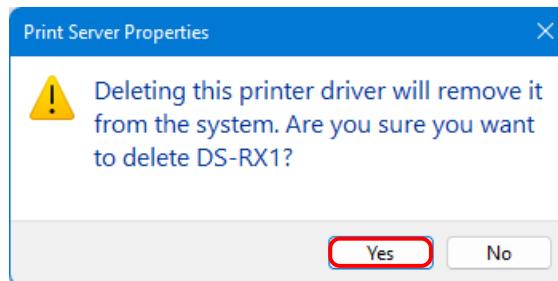


Figure 3.7 Driver deletion confirmation dialog box

If the following message appears, the operating system may be using the driver (Print Spooler service) in the background. Disconnect the USB cable and then restart your computer and try deleting the printer driver again.

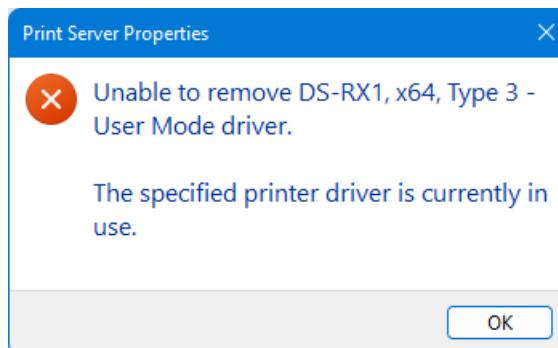


Figure 3.7.i Driver in use

8) In the “Print Server Properties” dialog box, confirm that DS-RX1 was deleted, and then click “Close”. After deleting the printer driver, uninstall the driver package.

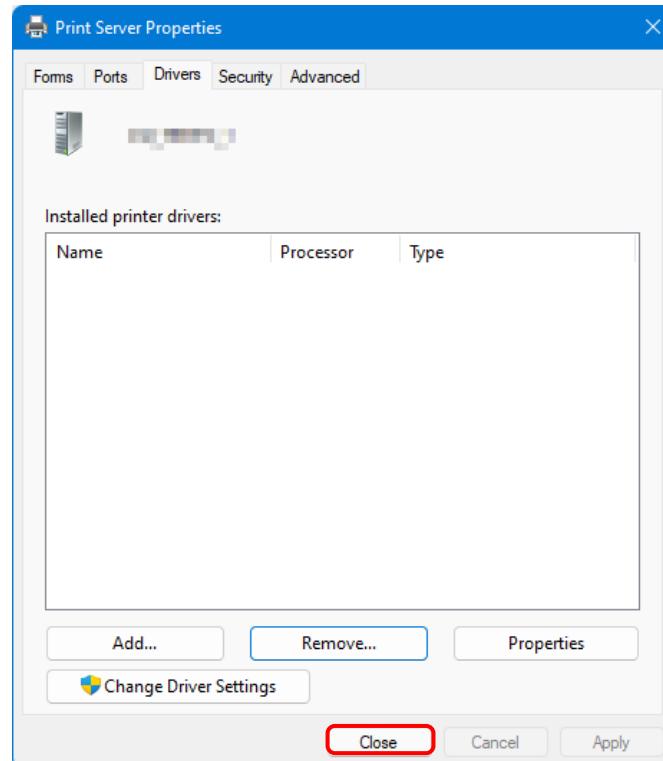


Figure 3.8 Print Server Properties

2. Uninstall the driver package

- 1) Right click “Start”, and then select “Installed apps”.



Figure 3.9 Screen when the Start button is right clicked

- 2) Click the menu display button of “Windows Driver Package - Dai Nippon Printing DS-RX1 (mm/dd/yyyy x.x.x.x)” in the list of apps, and then select “Uninstall”.

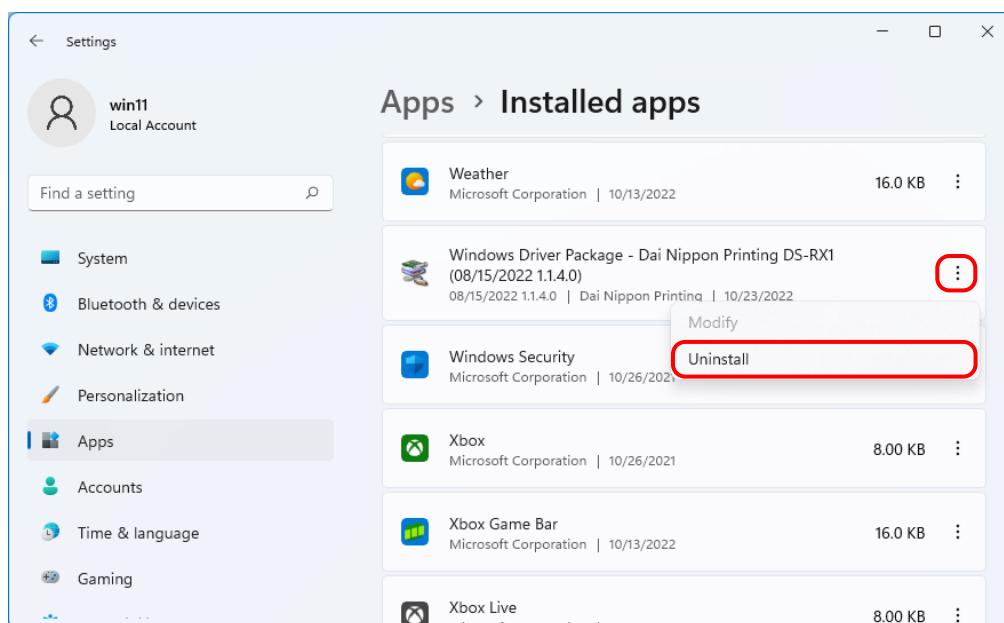


Figure 3.10 Uninstall a program

When the “This app and its related info will be uninstalled.” message appears, click “Uninstall”.

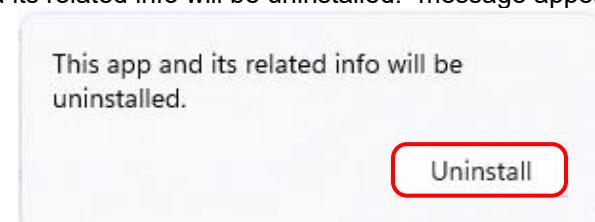


Figure 3.11 Uninstallation confirmation screen

If the User Account Control dialog box appears, click “Yes”.

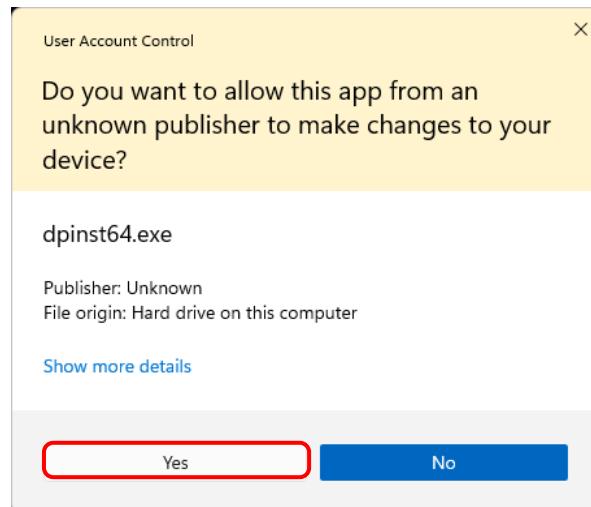


Figure 3.12 User Account Control

3) The “Uninstall Driver Package” screen appears. Click “Yes”.

The program has been uninstalled.

After uninstalling the printer package, restart the computer.

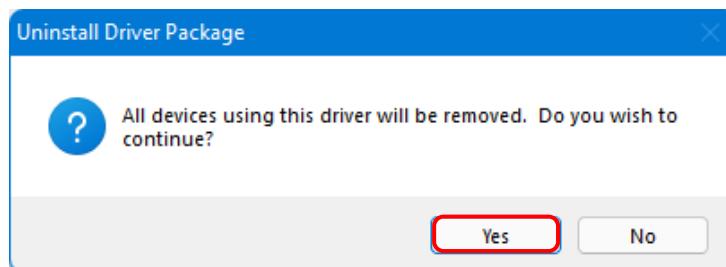


Figure 3.13 Uninstallation confirmation

3. Install an upgrade for the printer driver

After deleting the printer and the printer driver, install the new printer driver. For the installation procedure, see “Chapter 1 Installation”.

4. Restart the computer

After the installation of the printer driver is complete, always restart the computer.
(Do not print just after installation. Always restart the computer once.)

Chapter 4 Delete the driver

For the procedure to delete the printer driver, see Chapter 3, “1. Delete the driver” and “2. Uninstall the driver package”.

Dai Nippon Printing Co., Ltd.