

DNP

DIGITAL PHOTO PRINTER

DS-RX1 HS

DS-RX1

Printer Driver Instruction Manual

For Windows Vista

- Safety precautions**

Please read the User's Manual for the printer carefully before use, and follow the instructions. Note that the contents of directions for use and safety precautions correspond to the safety standards as of the time the User's Manual has been created.

- Remodeling**

For product safety, do not remodel the DS-RX1 printers or the contents of the DS-RX1 printer drivers and the CD.

- Copyright**

Copyrights, trademarks or any other intellectual property rights whatsoever that pertain to documents, programs or other items provided with this product, are ascribed to Dai Nippon Printing Co., Ltd., or the respective other holders of rights. Except in cases permitted by applicable laws, these may not be duplicated or used without consent from Dai Nippon Printing Co., Ltd.

Microsoft and Windows are registered trademarks of Microsoft Corporation valid in the USA and other countries.

LEADTOOLS Copyright (C) 2008 LEAD Technologies, Inc.

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

Contents

Chapter 1 Install	1
1.1 Printer and Host computer Connection	1
1.2 Found New Hardware Wizard	1
1.3 Install from Add Printer Wizard	6
Chapter 2 Properties	12
2.1 Opening Printer Properties	12
2.2 Explanation of Print Setting Functions	14
2.2.1 Layout	14
2.2.2 Advanced Options	15
2.2.3 Paper/Quality	19
2.2.4 Option	19
2.2.5 Color Adjustment	20
2.3 Default Values for Various Settings	21
2.4 Color Management	21
2.5 Print Area	22
2.6 Print Drection	22
Chapter 3 Updating the Driver	23
Chapter 4 Driver Removal	29

Chapter 1 Install

1.1 Printer and Host computer Connection

Power ON the DS-RX1 and connect the DS-RX1 printer and the host by USB cable.

* Please refer to the manual for the DS-RX1 printer for connection if needed.

Note) Do not insert the accompanying CD at this time.

In order to install the driver, log in with administrator right. The following explanations are given on the assumption of use with administrator rights.

After that, if [Found New Hardware Wizard] is initiated, please install using the procedure in [1.2 Found New Hardware Wizard]. If [Found New Hardware Wizard] is not initiated, please install in accordance with [1.3 Install from Add Printer Wizard].

1.2 Found New Hardware Wizard

When “Found New Hardware Wizard” starts running, click on “Locate and install driver software (recommended)”.

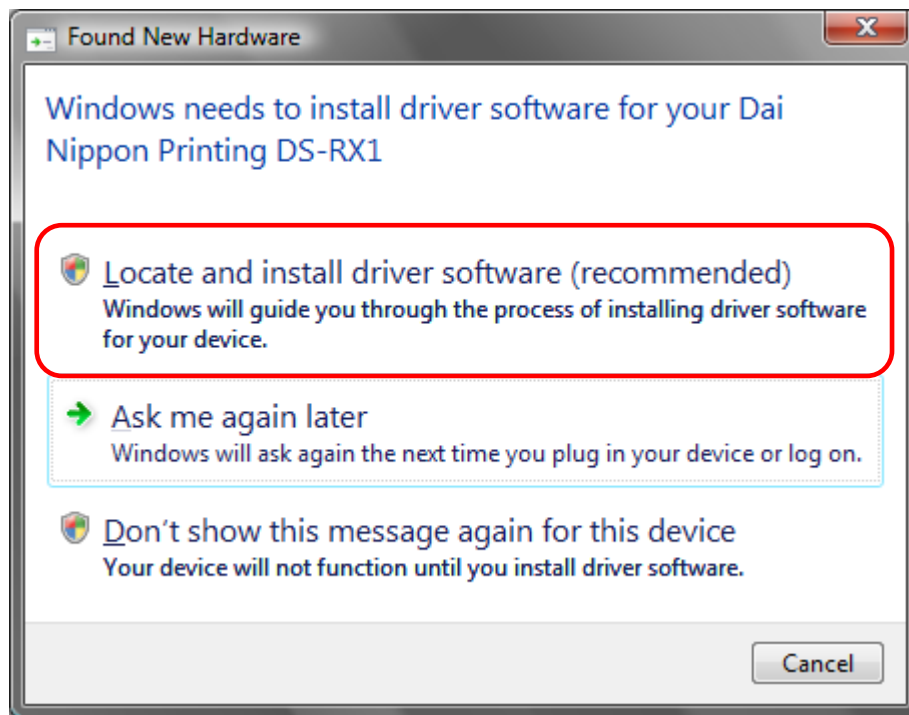


Fig 1.1 Found New Hardware Wizard

Note) For user account control, confirmation of “Windows needs your permission to continue” will be requested. Click on the “Continue” button.

If the message “Insert the disc that came with your Dai Nippon Printing DS-RX1” appears, click on “I don’t have the disc. Show me other options”.

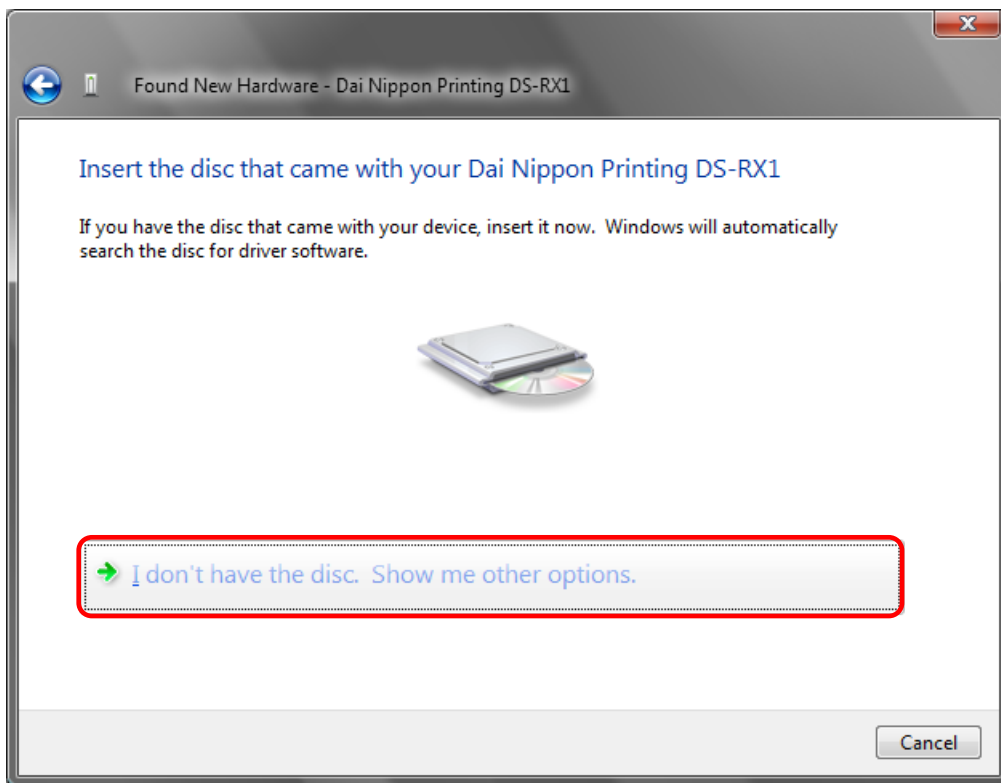


Fig 1.2 Insert the disc

If the message “Windows couldn’t find driver software for your device” appears, click on “Browse my computer for driver software (advanced)”.

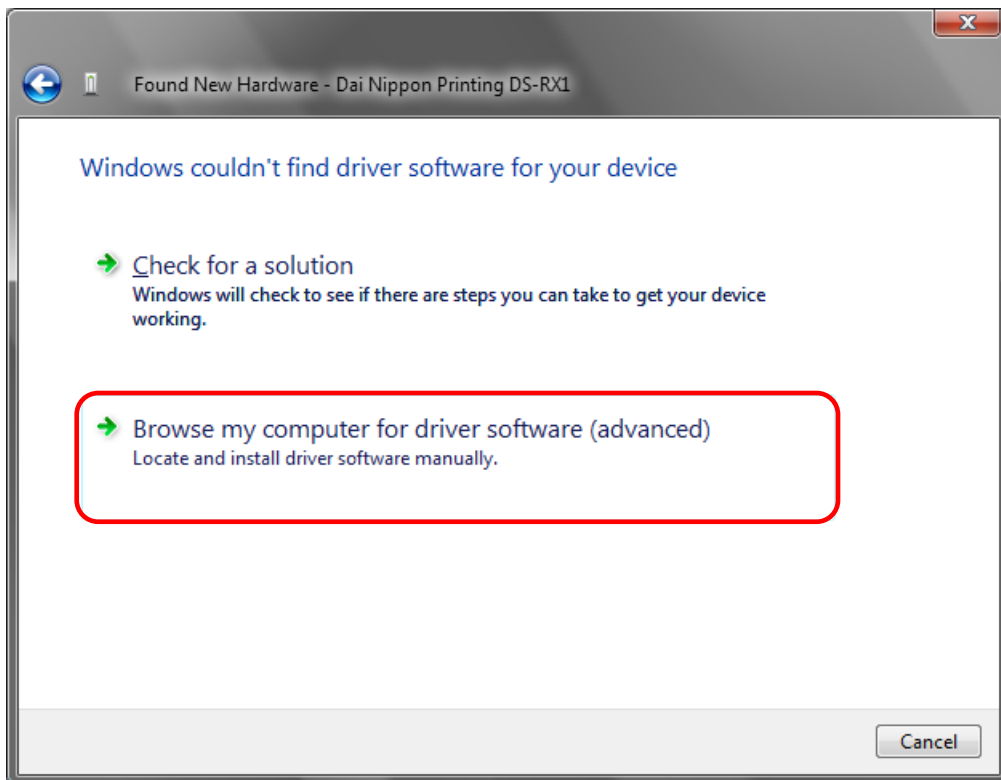


Fig 1.3 Windows couldn't find driver software for your device

Insert the accompanying CD here.

If the message “Browse for driver software on your computer” appears, click on the “Browse” button, designate the location of the Installation Disk, and click on the “Next” button.

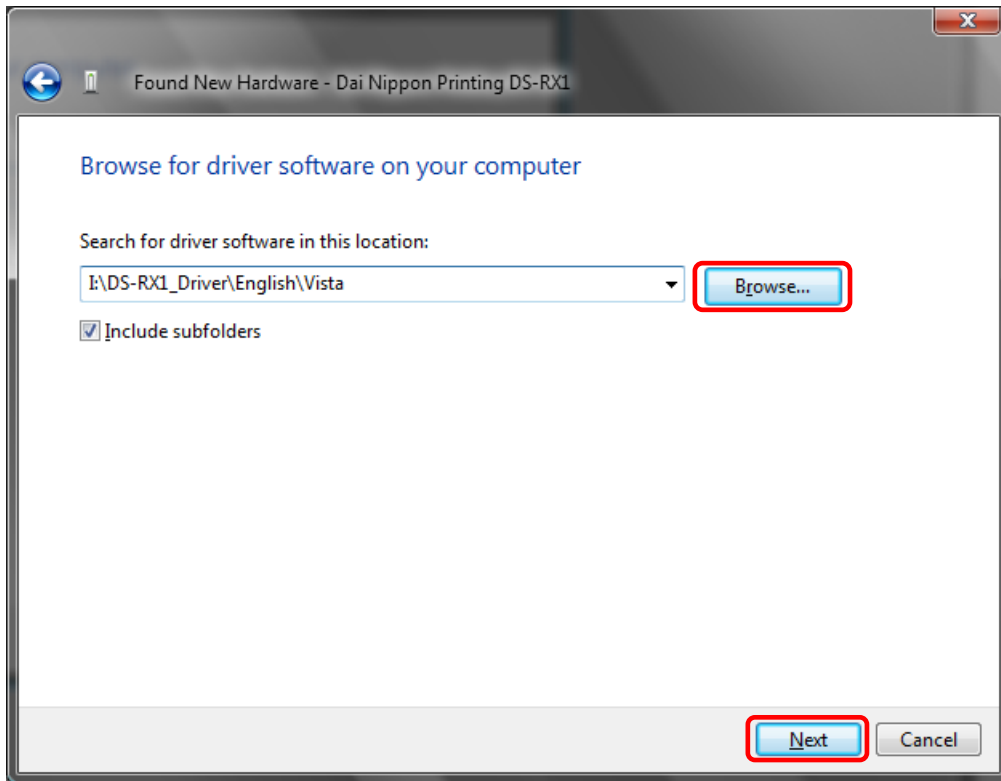


Fig 1.4 Designating the driver software location

If the Windows Security confirmation window appears, click on “Install this driver software anyway”.

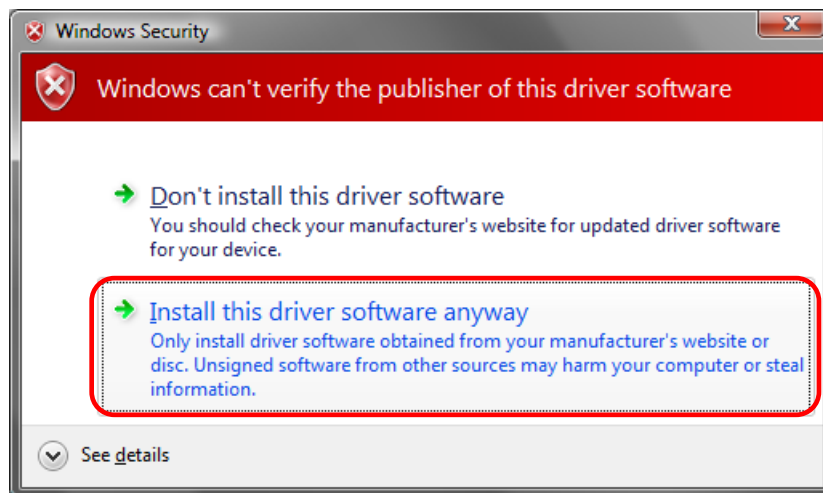


Fig 1.5 Windows Security confirmation

The driver software will be installed.

When “The software for this device has been successfully installed” appears, click on the “Close” button, and end the wizard.

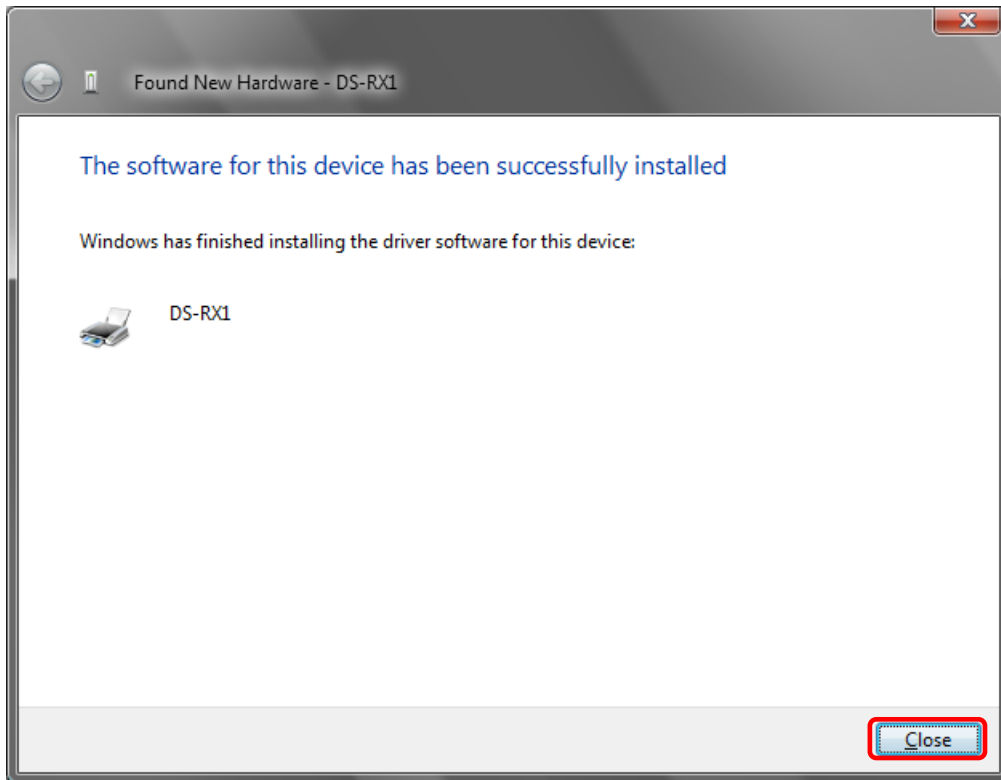


Fig 1.6 Installation Complete window

Select “Start”, then “Control Panel”, and open the control panel. Click on “Printer” in the control panel.

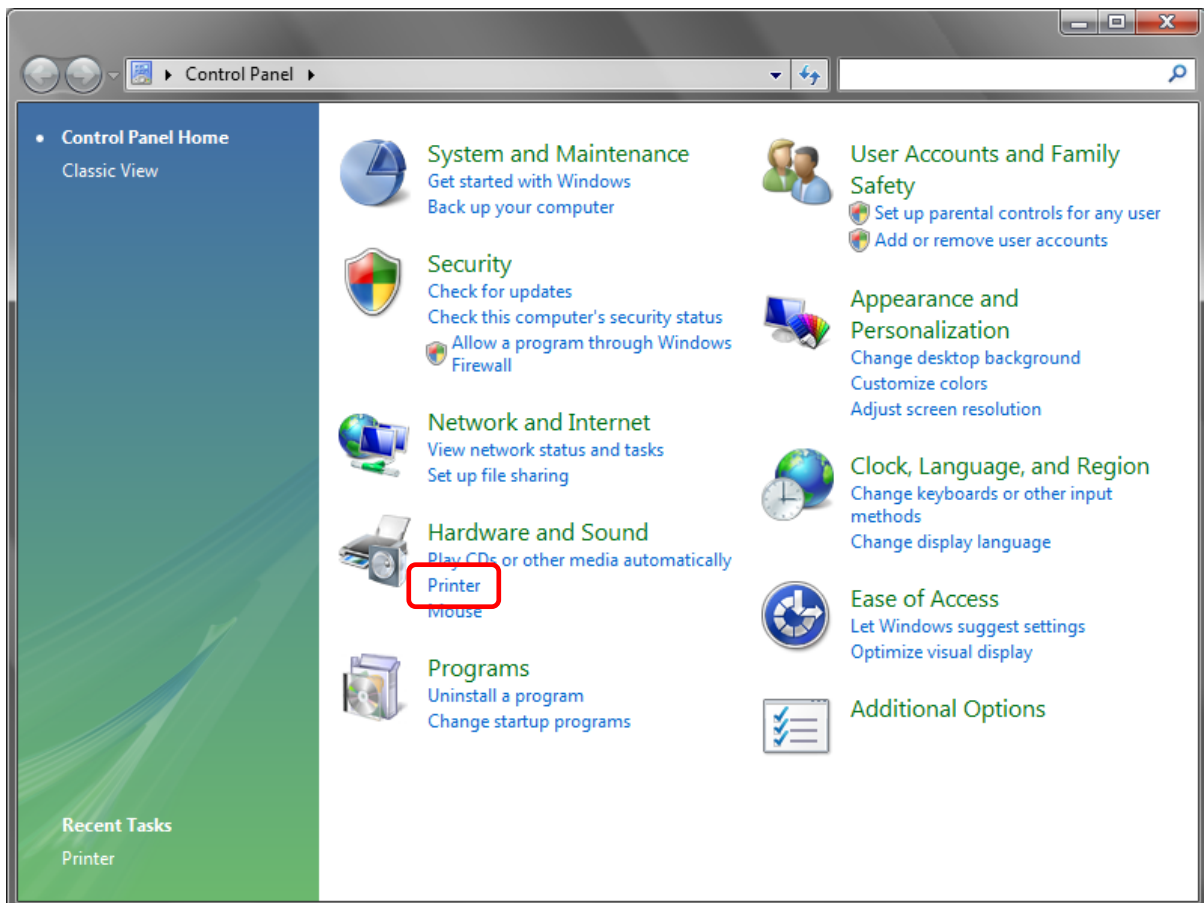


Fig 1.7 Control panel

Open [Printer] and confirm that [DS-RX1] is shown.
Now installation is complete.

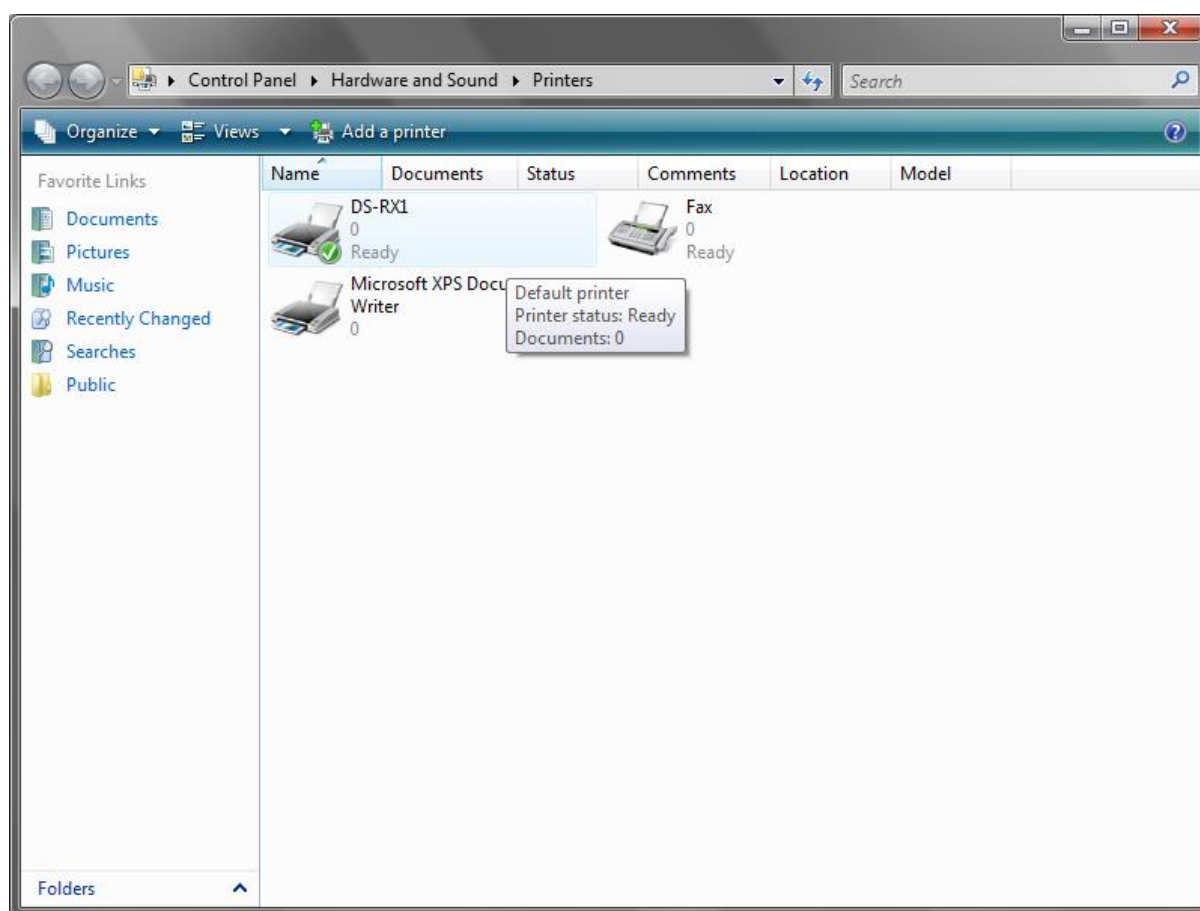


Fig 1.8 Printers

After installation of the printer-driver is complete, be sure to reboot the computer.

1.3 Install from Add Printer Wizard

Select “Start”, then “Control Panel”, and open the control panel. Click on “Printer” in the control panel.

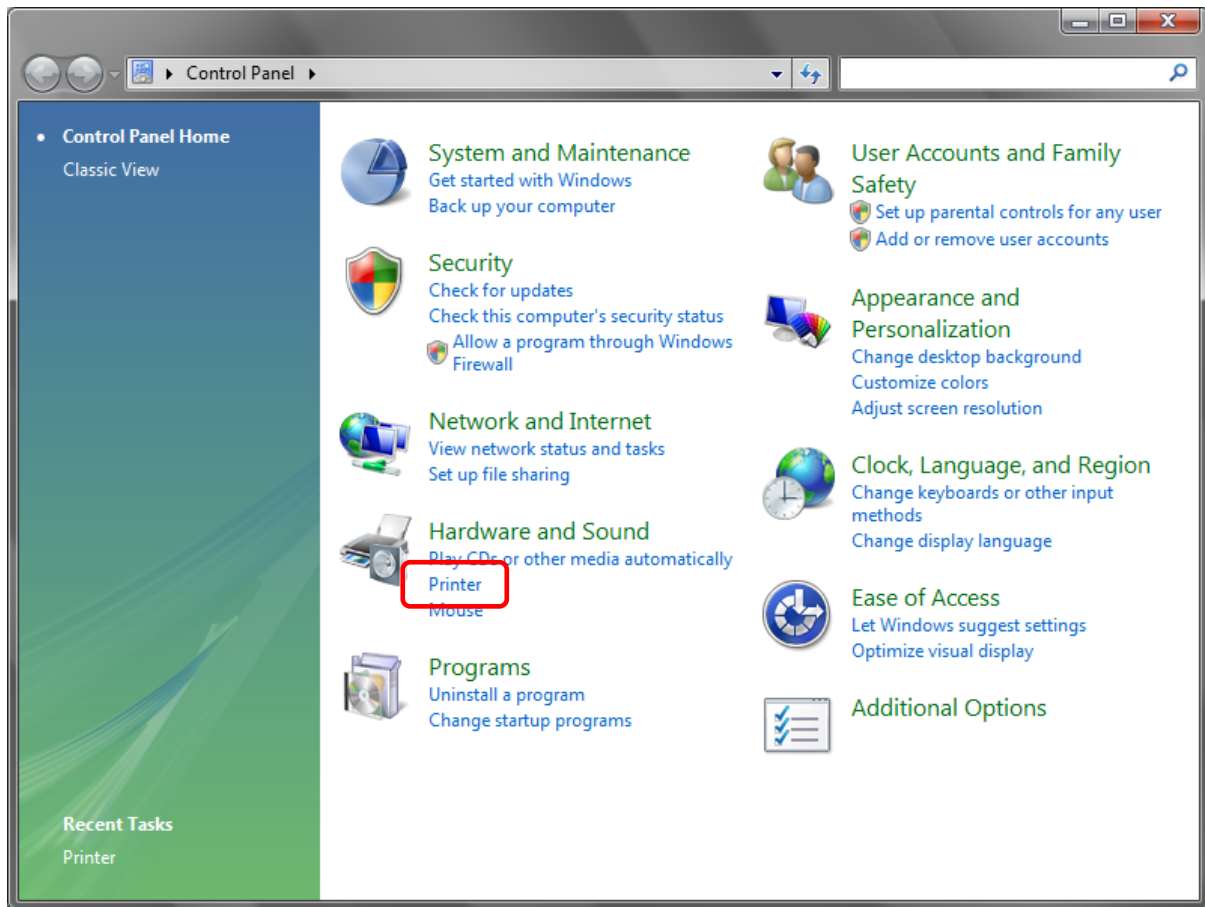


Fig 1.9 Control Panel

Click on “Add a Printer” in the menu bar at the top of the “Printer” window.

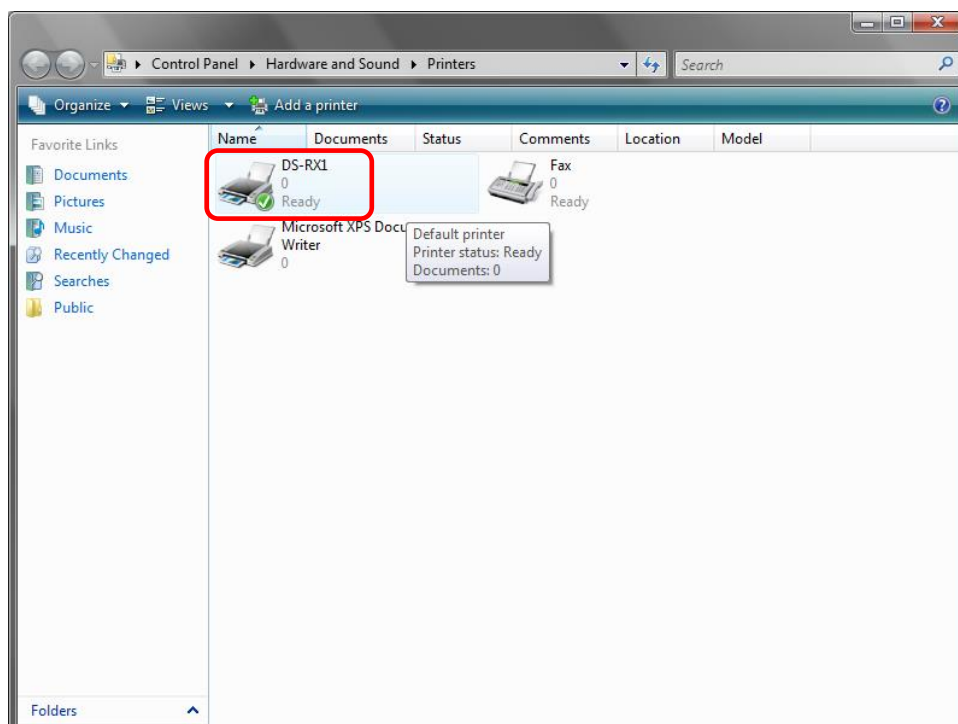


Fig 1.10 Printer window

When the “Choose a local or network printer” window appears, click on “Add a local printer”.

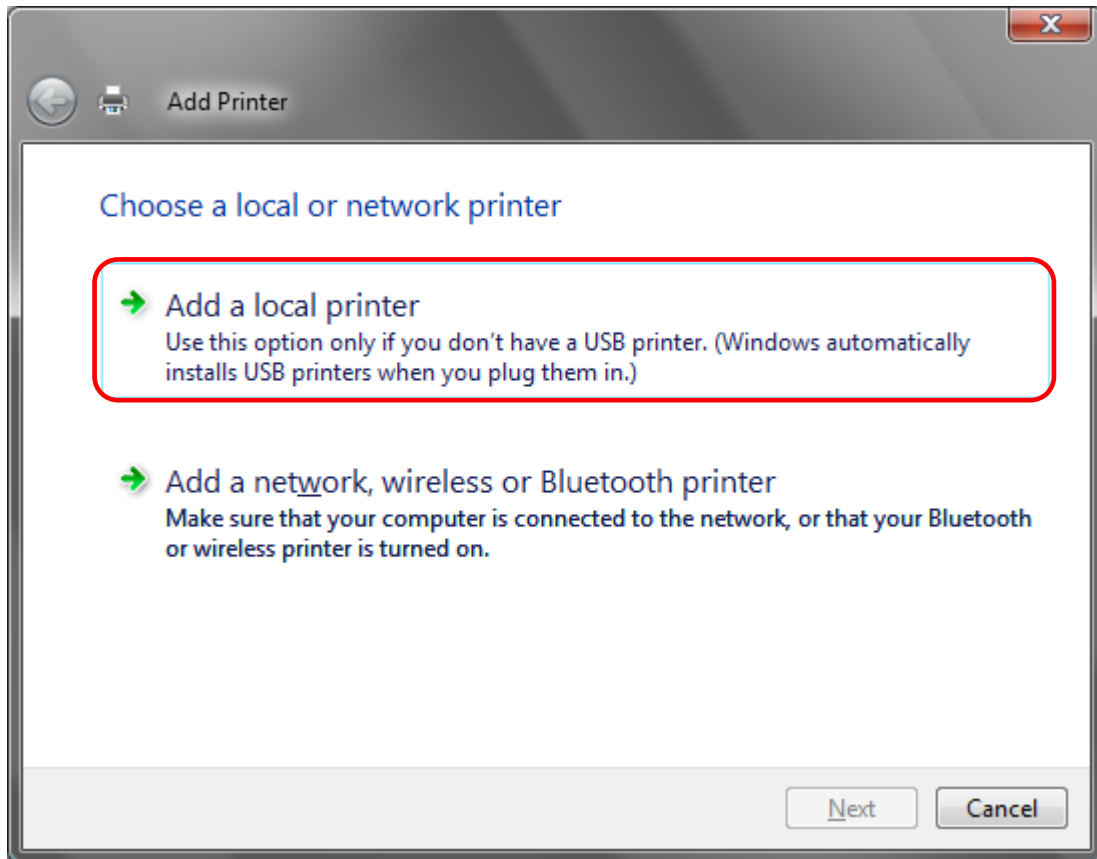


Fig 1.11 Choose a local or network printer window

When the “Choose a printer port” window appears, select “Use an existing port:”, and select the USB port the printer is connected to (for example, “USB001”) from the drop-down list, and click the “Next” button.

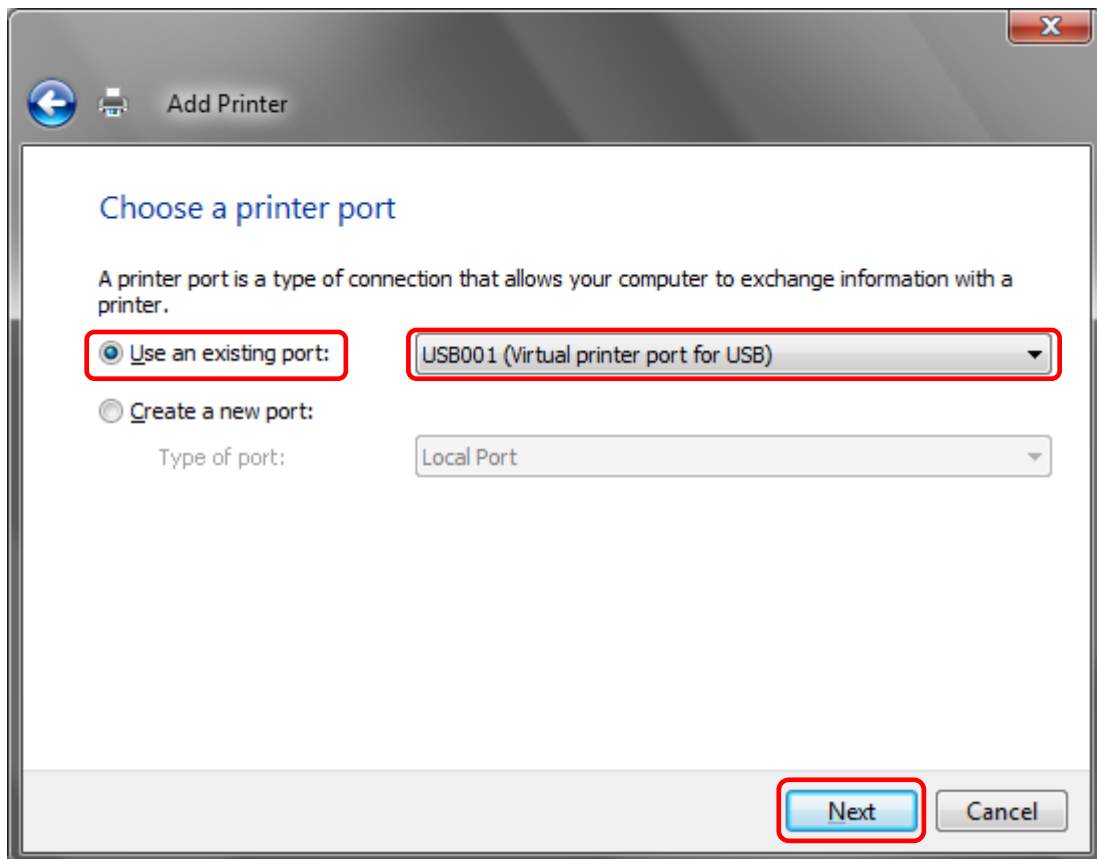


Fig 1.12 Choose a printer port window

When the “Install the printer driver” window appears, click on the “Have Disk...” button.

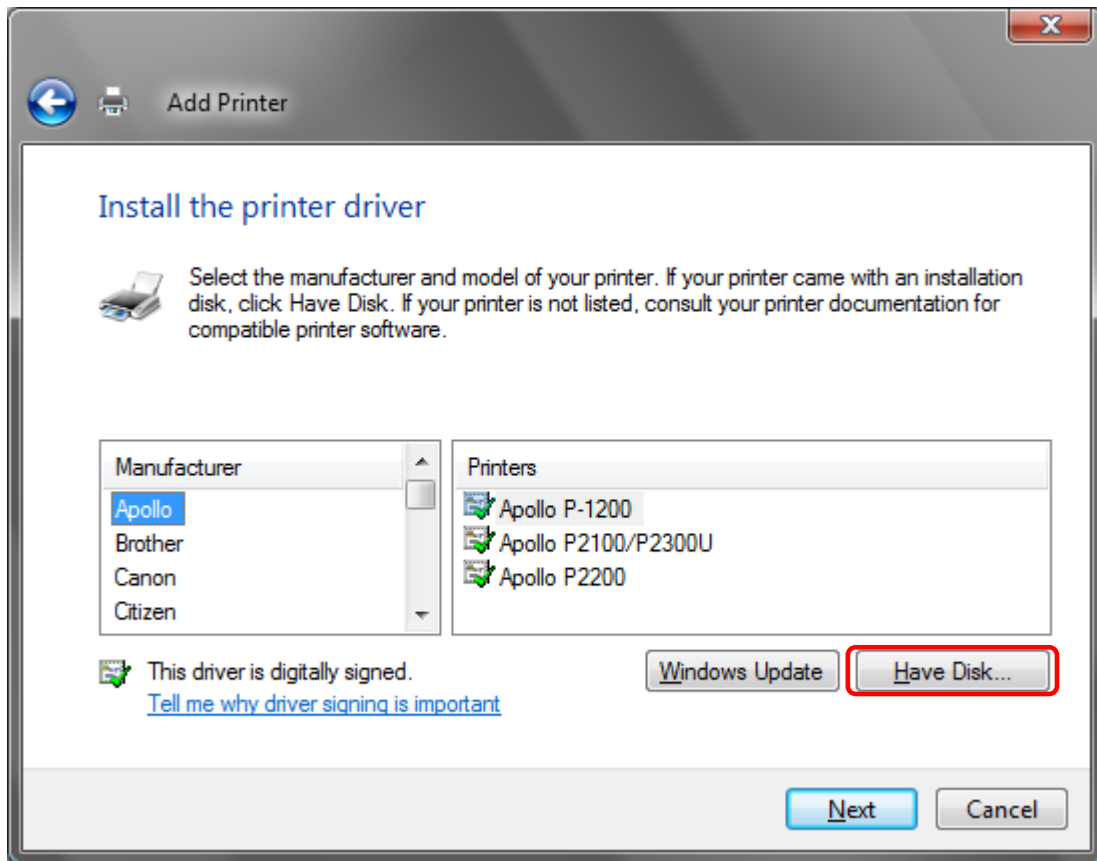


Fig 1.13 Install the printer driver window

When the “Install From Disk” window appears, use “Browse...” to designate the installation disk location, and click the “OK” button.

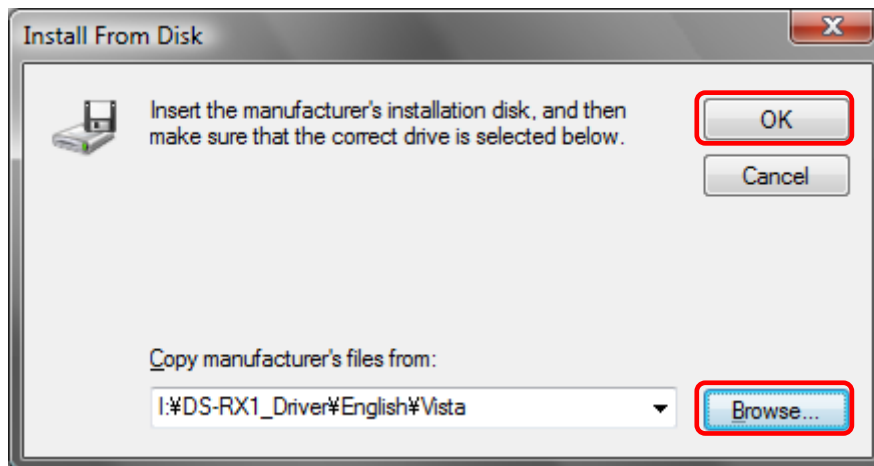


Fig 1.14 Install From Disk window

In the “Install the printer driver” window, check that “DS-RX1” is displayed, and click the “Next” button.

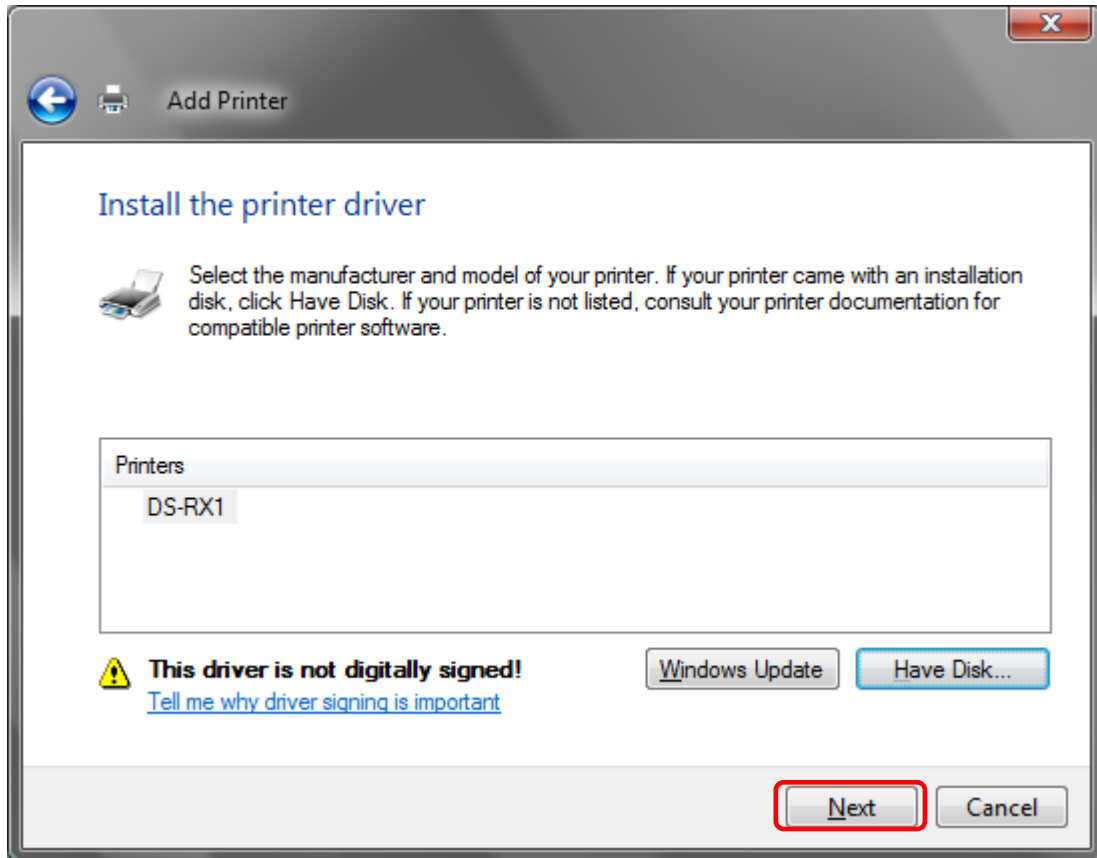


Fig 1.15 DS-RX1 Install the printer driver window

When the “Type a printer name” window appears, you can set the printer name. Also, to set it as the printer usually used, select the check box for “Set as the default printer”, and click the “Next” button.

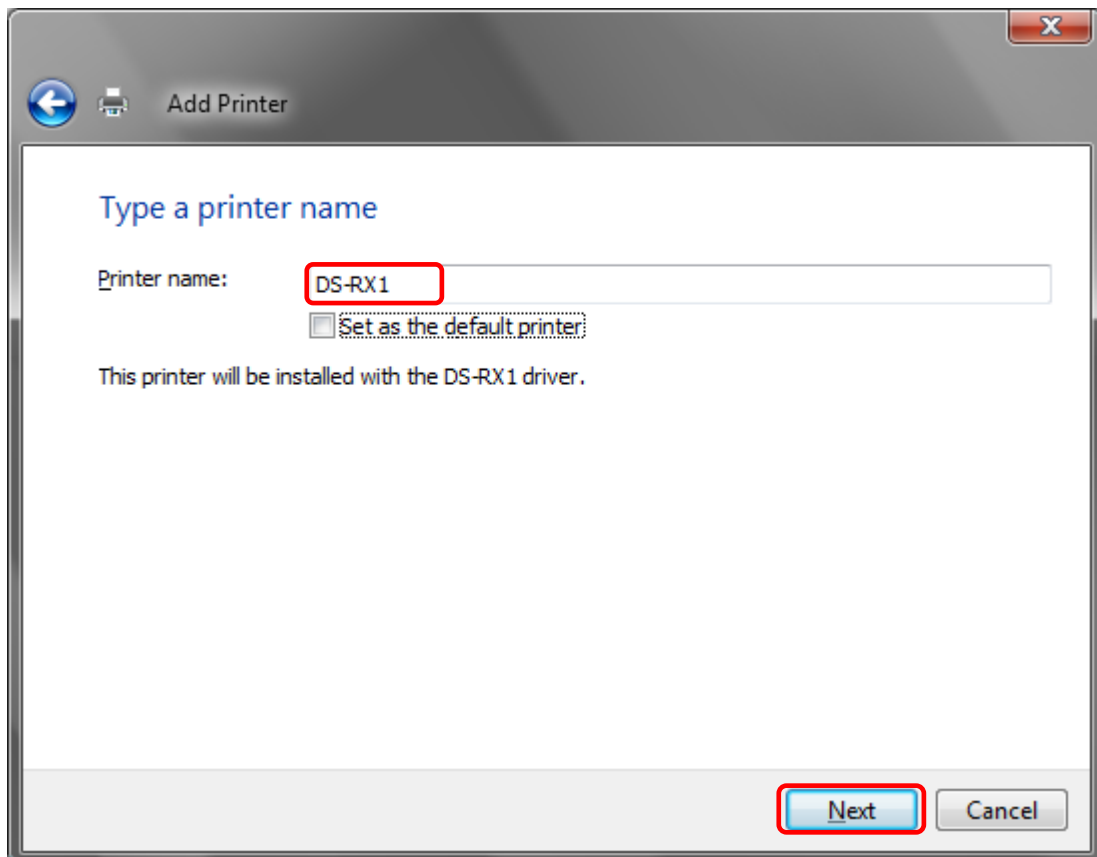


Fig 1.16 Type a printer name window

Note) Installation will begin, but the User Account Control will request confirmation with the message “Install this driver software anyway”. Click on “Continue”.

When the Windows Security window appears, click on “Install this driver software anyway”.

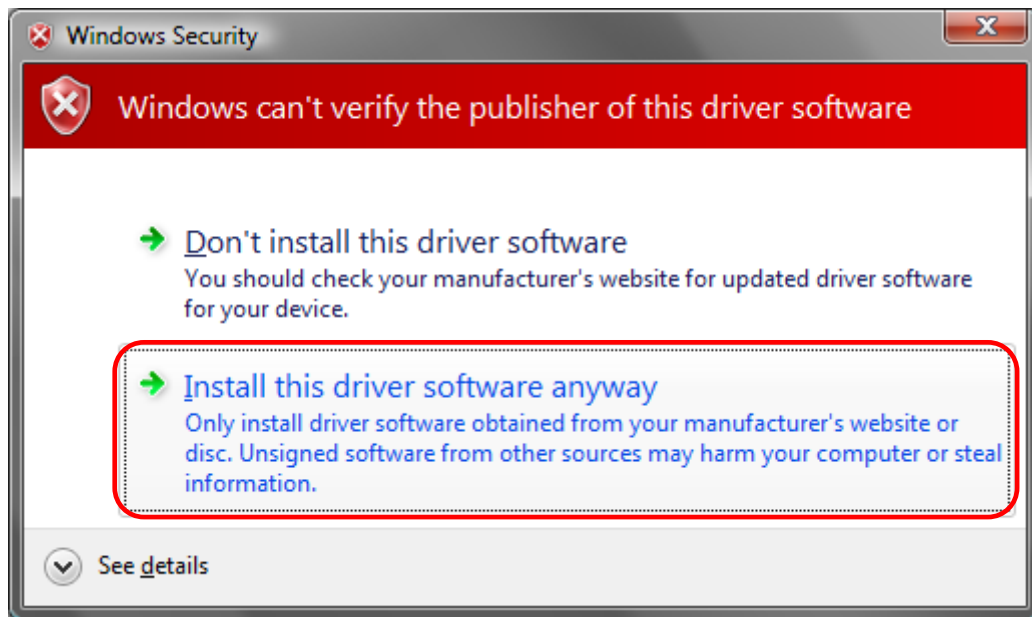


Fig 1.17 Windows Security confirmation

When the message “The software for this device has been successfully installed”, click on “Finish”.

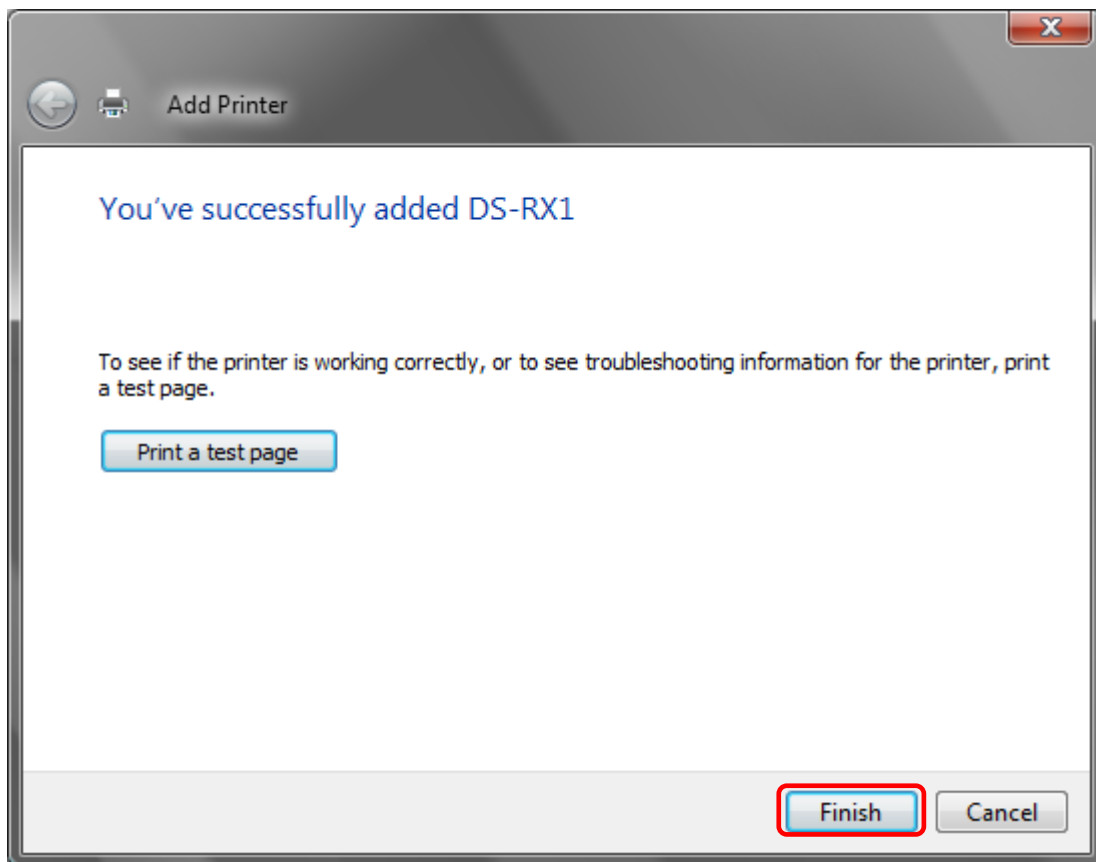


Fig 1.18 DS-RX1 driver has been successfully installed

Check that the DS-RX1 is shown in the Printer window.
Now, installation of the DS-RX1 printer driver is complete.

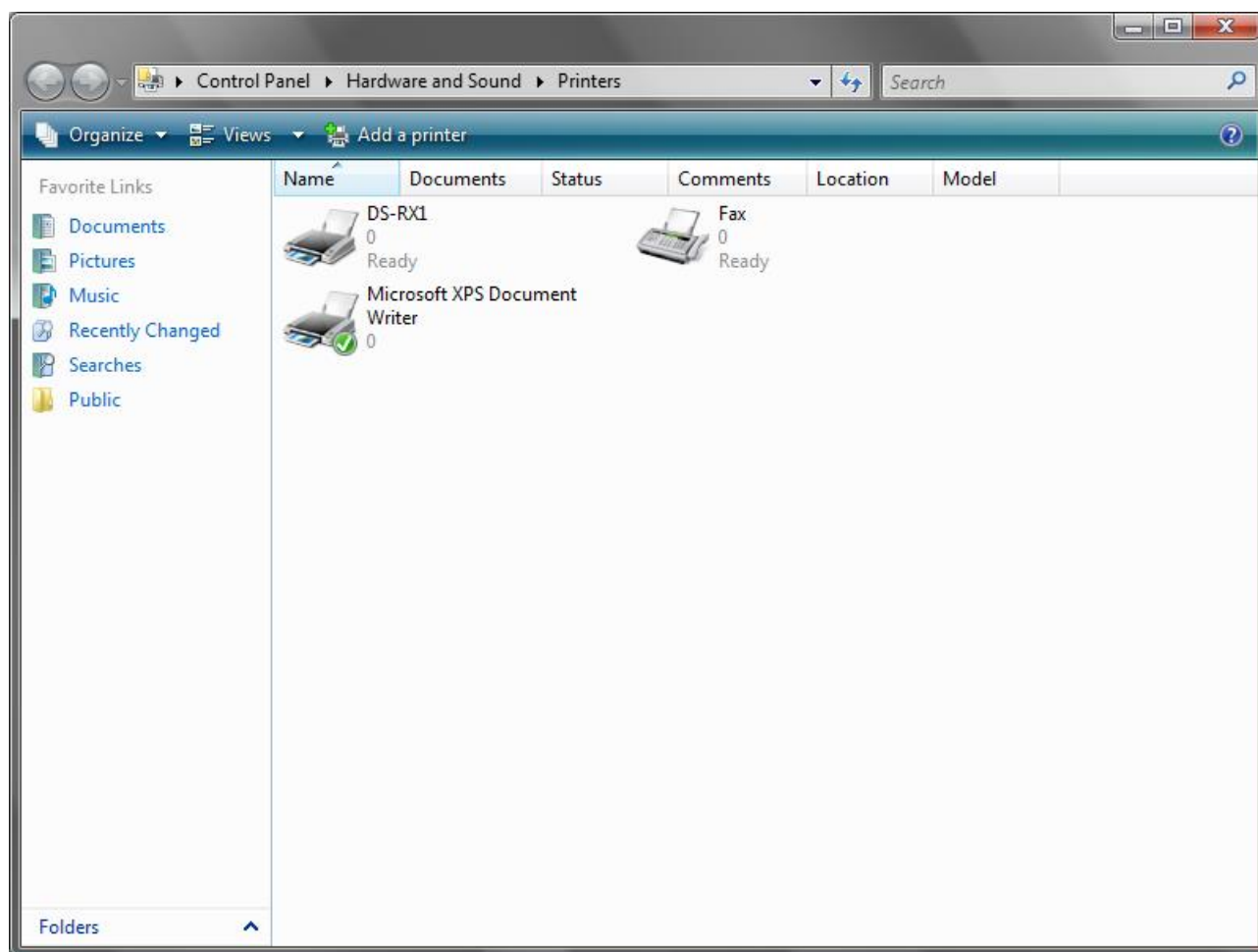


Fig 1.19 Printer window

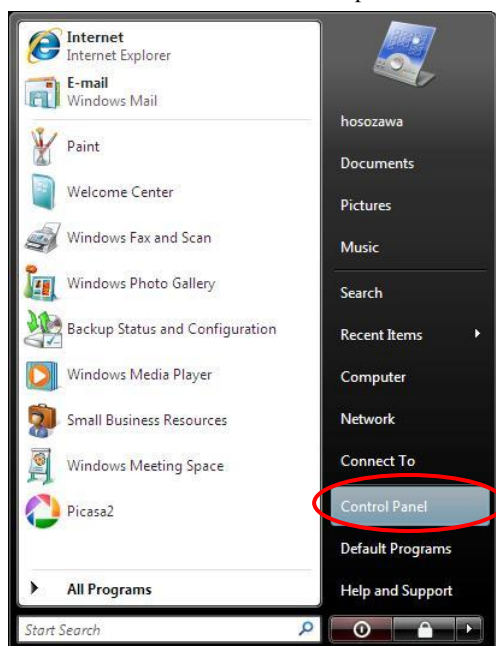
After installation of the printer-driver is complete, be sure to reboot the computer.

Chapter 2 Properties

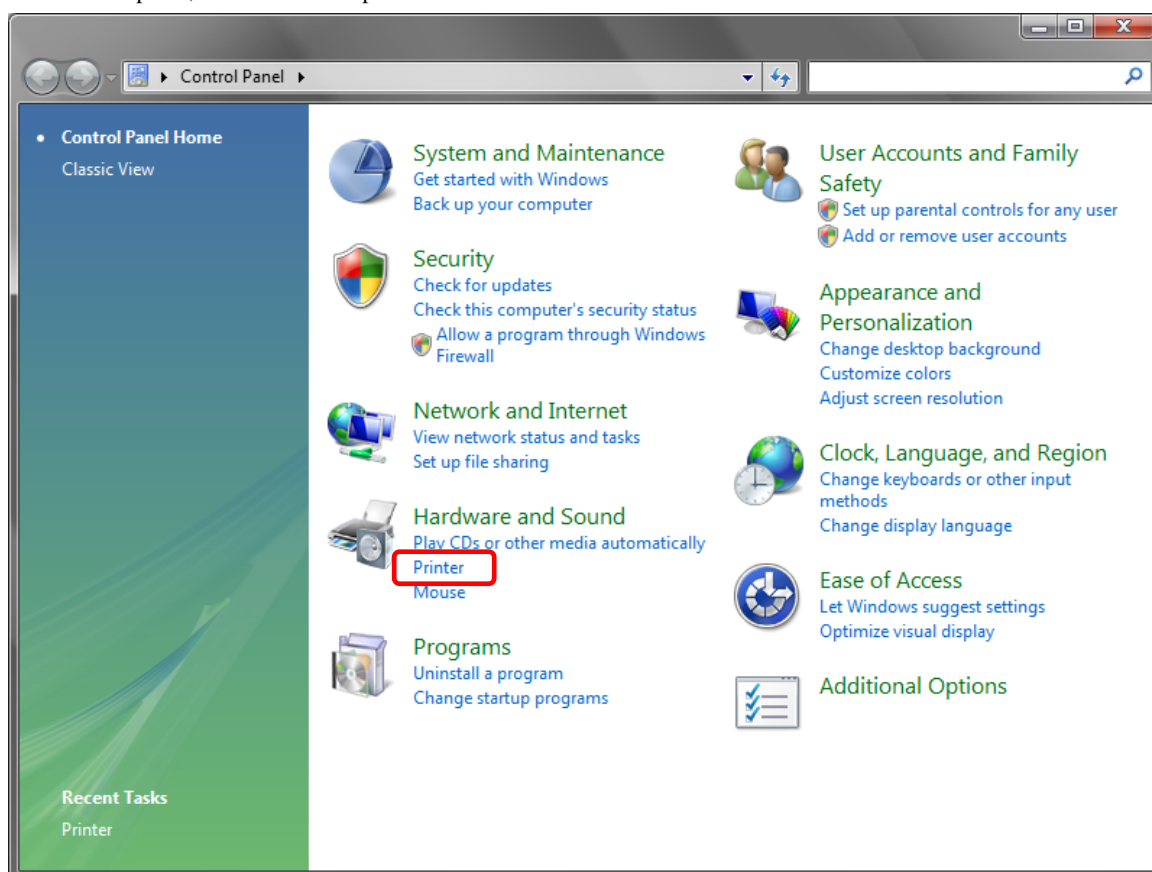
Various printer settings can be made using the DS-RX1 Driver properties. Before operation, be sure to have a good understanding of the contents. Login by administrator authority is required for operation. Depending on application of the use, operation from print setting of the application is necessary.

2.1 Opening Printer Properties

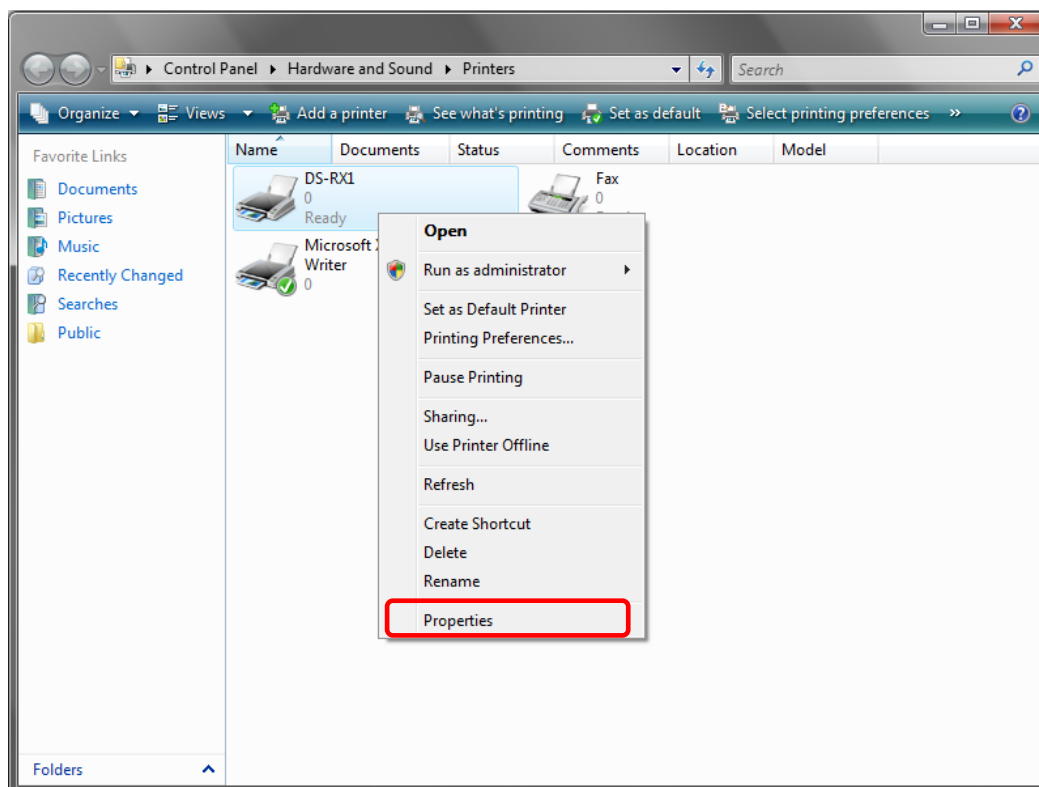
1. Click Start ⇒ Control Panel ⇒ open the control panel



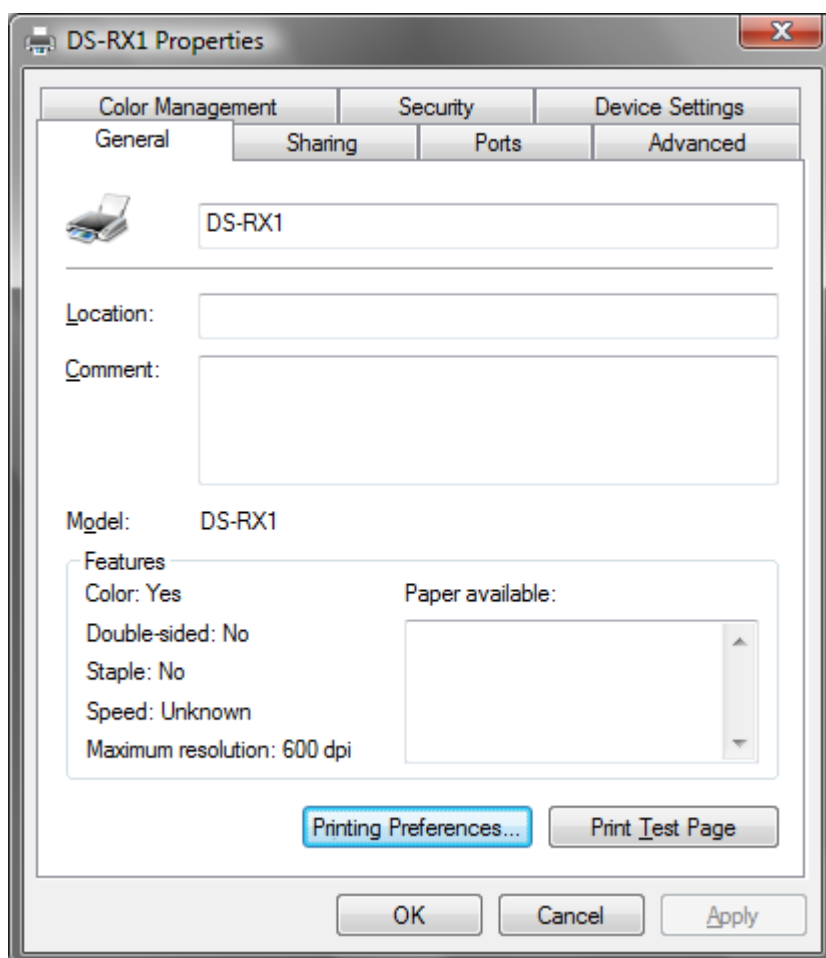
2. In the control panel, select Printer⇒open the Printer window



3. Right-click on the DS-RX1 icon, and from the pull-down menu select Properties ⇒ open the Properties window



4. The DS-RX1 Properties window will appear.



2.2 Explanation of Print Setting Functions

From the Properties window, by selecting Printing Preferences you can make various print settings.

2.2.1 Layout

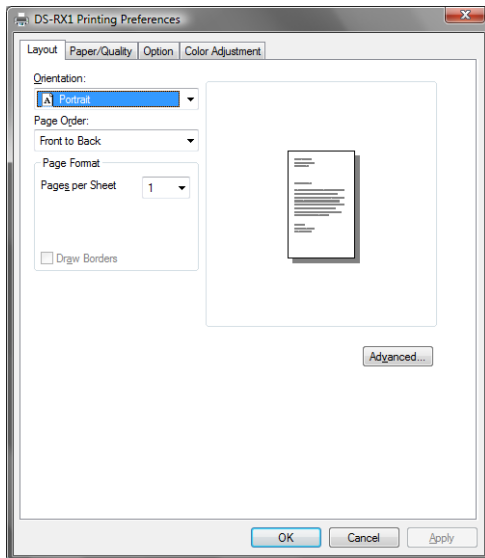


Fig 2.2.1 Layout tab

Orientation

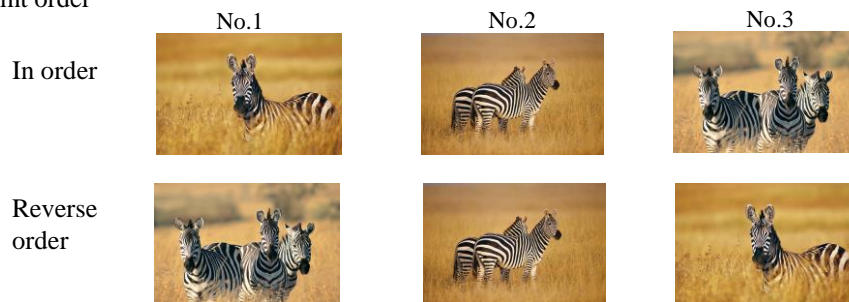
Assign print orientation as Landscape or Portrait.

Refer to [2.6 Print direction](#).

Page Order

When printing multiple images in the application, you can set the order.

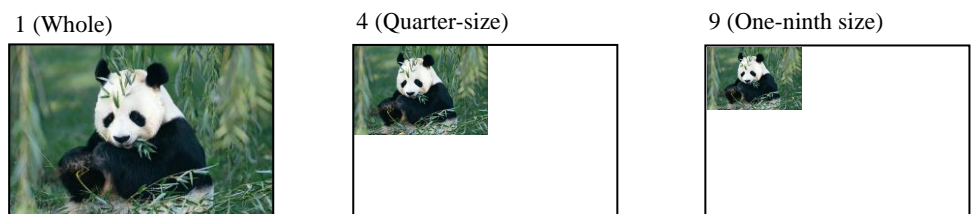
Ex.) Print order



Pages per Sheet

Prints the designated fractional size.

Ex.) Fractional size



2.2.2 Advanced Options

By selecting [Advanced] in the Layout window, various settings can be made using Advanced Options.

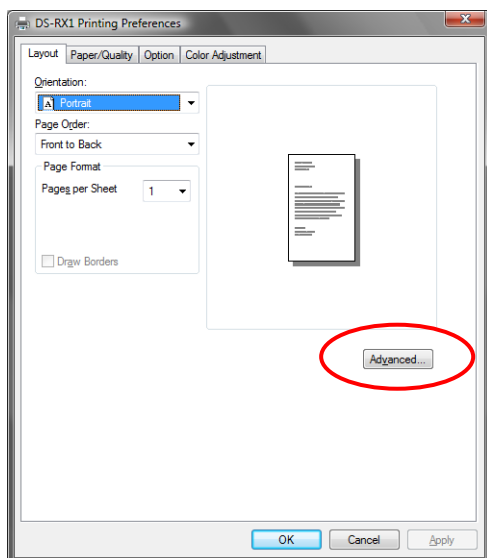


Fig 2.2.2.1 Advanced Settings

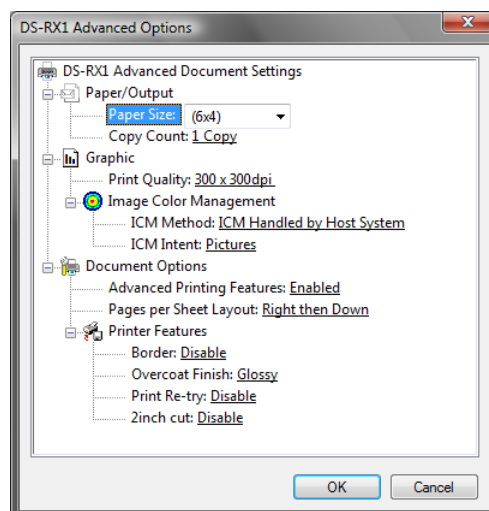


Fig 2.2.2.2 Advanced Options tab

Paper Size

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

Copy Count

You can designate the number of times an image will be printed.

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.)
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	2.2.4 Synchronous with “Color Management: None” in paper option.
ICM Handled by Host System	2.2.4 Synchronous with “Color Management: ICM” in paper option. Performs color management with the driver.
ICM Handled by Printer	This is the same as setting “ICM Handled by Host System”.

ICM Intent

This designates the rendering method when using ICM. Always have the ICC profile for the DS-RX1 set to “Picture”. Please do not use it at other settings.

Advanced Printing Features

Always have it set to “Enabled”. Please do not use it at other settings.

Pages per Sheet Layout

The layout direction of a picture is specified, when Pages per Sheet setting is multiple pages per sheet.

Border

Synchronous with the border option in the paper option.

Overcoat Finish

The overcoat finish for the printed surface can be selected from the following two types.

Overcoat Finish	Function
Glossy	This finishes the print with a glossy surface.
Matte	This finishes the print with a matte (non-glossy) surface.

Print Re-try

This sets up whether print data in a printer buffer when the error of a printer occurs is printed after error recovery, or it does not print.

Print Re-try	Function
Disable	Printing data in a printer buffer is cleared in the case of a printer error. After an error recovery, the cleared image data must be re-sent. When using an application that has an error recovery function, select this option.
Enable	Printing data in a printer buffer is held in the case of a printer error. After an error recovery, the print process resumes with the saved data. However, if the power is turned OFF, the data will not be saved.

According to the contents of a printer error, the power supply of a printer needs to be re-switched on for error recovery. In this case, it is not dependent on a setup of Print Re-try, and printing data in a printer buffer is cleared. Operation by Print Re-try setup in each error is shown below.

Contents of an error	Print Re-try setup is "Disable"	Print Re-try setup is "Enable"
Paper End	Please resend picture data not printed after error recovery.	Printing processing is resumed from data currently held in a printer buffer after error recovery. When paper initialization operation is performed, it is printed after paper initialization operation.
Ribbon End		
Cover Open		
Paper Jam (*1)		
Ribbon Error (*1)		
Paper Definition Error		
Data Error	For error recovery, the power supply of a printer once needs to be turned OFF. Therefore, print data in a printer buffer is cleared by power-supply OFF of a printer regardless of a setup of the Print Re-try function.	For error recovery, the power supply of a printer once needs to be turned OFF. Therefore, print data in a printer buffer is cleared by printer power-supply OFF even if the Print Re-try function is set to "Enable".
Head Position Error		
Power Supply Fan Stop		
Cutter Error		
Head Voltage Error		
Abnormal Head Temp.		
Abnormal Media Temp.		
Ribbon Tension Error	Please resend picture data not printed after printer re-starting.	Please resend picture data not printed after printer re-starting.
RFID Module Error		
System Error		

*1: After an error stop, a paper or a ribbon should perform removal work of an error factor according to a printer user's manual.

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	

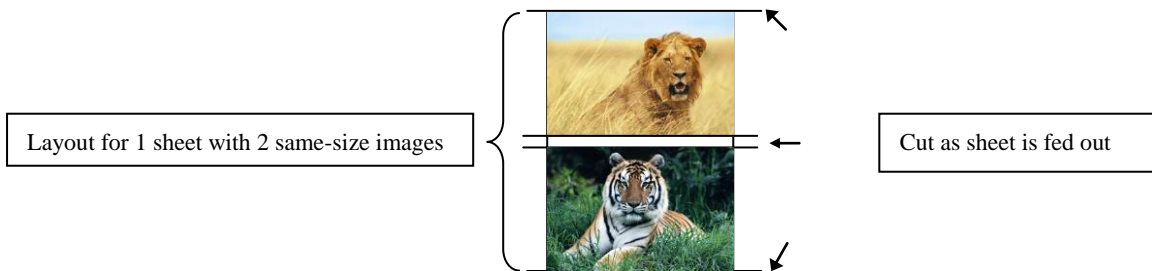
Multiple layout is possible under the following conditions.

- 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>

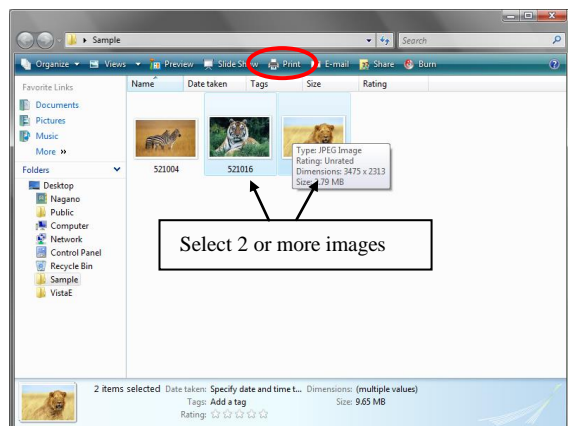
The following is possible for the multi-image layout pattern.



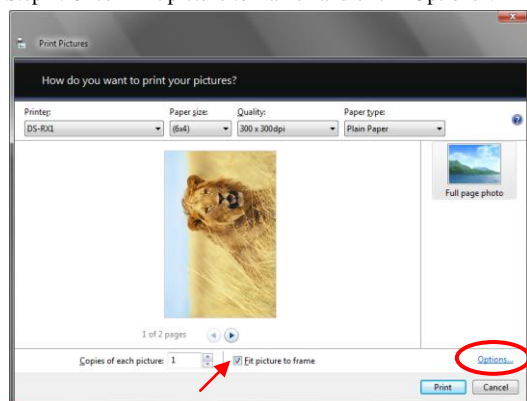
<Example of Application Use>

This is an example using Windows Explorer

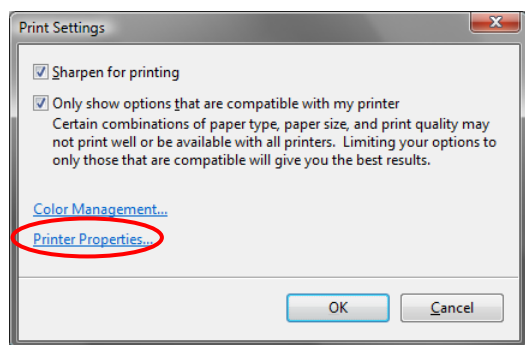
Step 1. Select 2 or more images⇒Click “Print”.



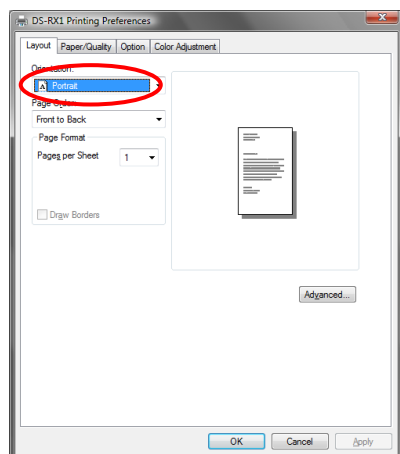
Step 2. Check “Fit picture to frame” and click “Options”.



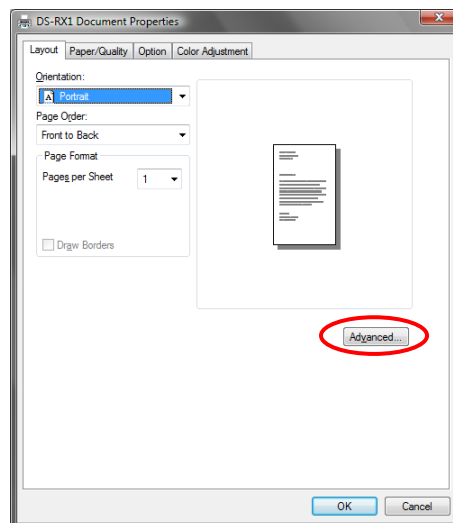
Step 3. Click on “Printer Properties”.



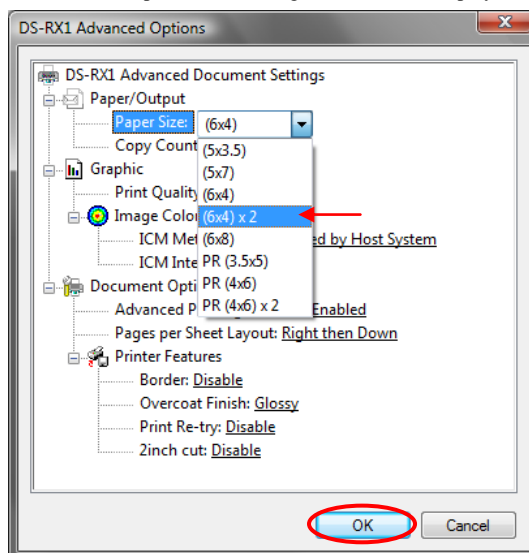
Step 4. From the “Orientation” pull-down menu, select “Portrait”.



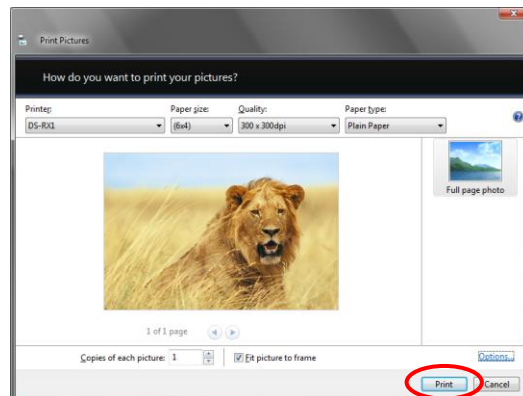
Step 5. Click on “Advanced”.



Step 6. Set the Paper Size to “(6x4)”. Then click “OK” on the windows from steps 6⇒5, returning to the window displayed in Step 2.



Step 7. Click on “Print”.



2.2.3 Paper/Quality

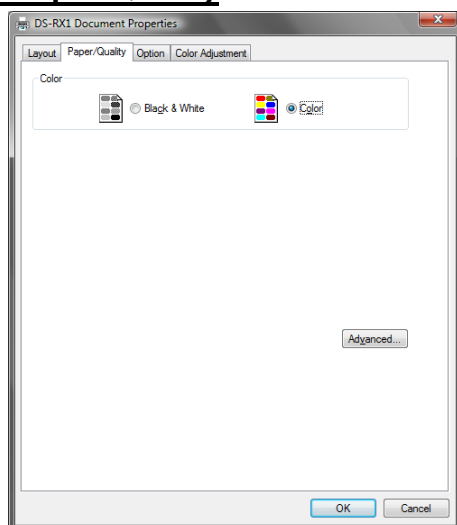


Fig 2.2.3 Paper/Quality tab

Color Please set to color print. Do not use for black and white printing.

2.2.4 Option

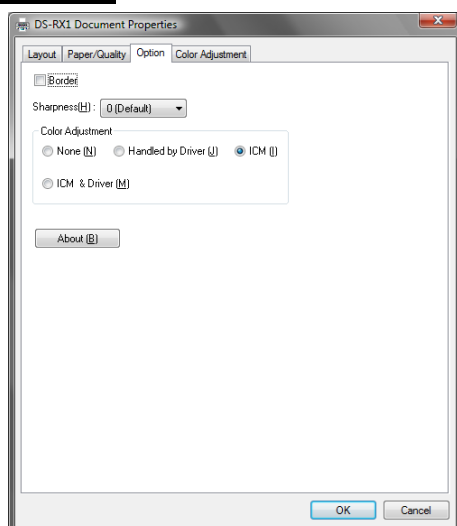


Fig 2.2.4.1 Paper option tab

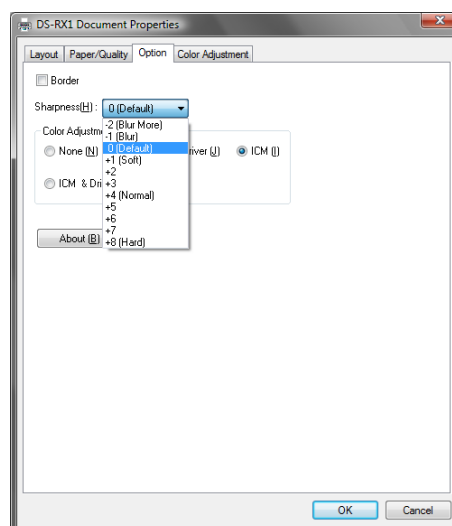


Fig 2.2.4.2 Sharpness setting

Border

Designates yes or no for border (check means with border). Synchronous with border in the Advanced Settings.

Sharpness

Processes for 11 sharpness levels (Fig 2.2.4.2). 0 (Initial setting) means there is no sharpness processing. Minus(-) blurs the image, and plus(+) increases the sharpness.

Color Adjustment

None

Synchronous with the ICM Method in the Advanced Settings. Checking this item disables ICM and the Color Adjustment tab, and color management does not occur from the driver.

Handled by Driver

Checking this item disables ICM and [2.2.5 Color Adjustment](#) is enabled. The adjustment values for gamma, brightness, contrast, and chroma are shown.

ICM

Synchronous with the ICM Method in the Advanced Settings (ICM Handled by Host System). Checking this item enables color management from the driver.

ICM & Driver

If you check this, ICM (color management) and color adjustment will be enabled.

About

Displays the driver version.

2.2.5 Color Adjustment

If you check **Handled by Driver** in [2.2.4 Option](#), the respective color adjustment values in the Color Adjustment tab are reflected in the image.

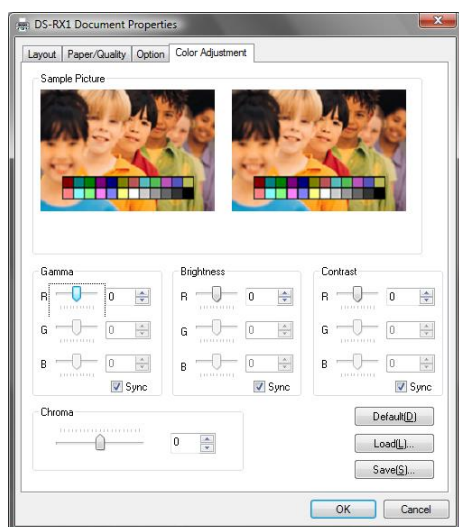


Fig 2.2.5 Color Adjustment tab

Setting ranges in the Color Adjustment tab are as follows:

Adjustment Item	Adjustment Value
Gamma	-100(dark) ~ 100(light) (0 means no adjustment, Gamma 2.0 ~ 0.5) Adjusts the density of the highlights in the image. The greater the gamma value, the brighter the highlights. Synchronous check box ON : Sets RGB at the same value OFF: Sets RGB at a different value
Brightness	-100(dark) ~ 100(light) (0 means no adjustment) Adjusts the brightness of the image. The larger the value, the greater the overall brightness of the image. Synchronous check box ON : Sets RGB at the same value OFF: Sets RGB at a different value
Contrast	-100(weak) ~ 100(strong) (0 means no adjustment) Adjusts the contrast of the image. The larger the value, the greater the contrast. Synchronous check box ON : Sets RGB at the same value OFF: Sets RGB at a different value
Chroma	-100(weak) ~ 100(strong) (0 means no adjustment) Adjusts the color saturation of the image.

2.3 Default Values for Various Settings

Default values for each option (at the time of installation) are shown below. If the printer driver does not work correctly after changing the options, please return the options to the default settings.

Note) According to the Service Pack and use environment of OS, the default value at the time of installation may differ from the following chart.

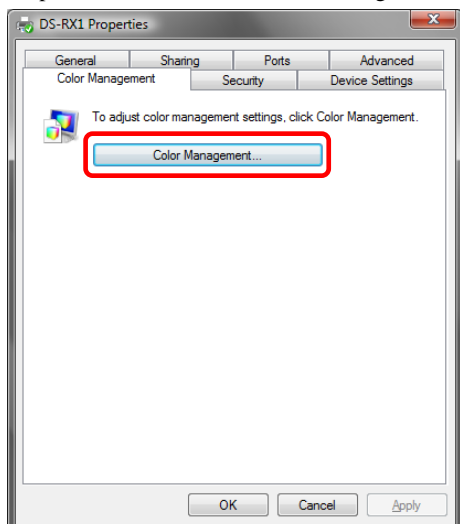
Tab	Options			Default	
Layout	Orientation			Portrait	
	Page Order			Front to Back	
	Pages Per Sheet			1	
Paper/Quality	Color			Color	
Option	Border			Disable	
	Sharpness			0 (Default)	
	Color Adjustment			ICM	
Color Adjustment	Gamma			0	
	Brightness			0	
	Contrast			0	
	Chroma			0	
Advanced (Click [Advanced] button of Layout tab)	Paper/Output	Paper Size		(6 x 4)	
		Copy Count		1	
	Graphic	Print Quality		300 x 300dpi	
		Image Color Management	ICM Method		ICM Handled by Host System
			ICM Intent		Pictures
	Document Option	Advanced Printing Features		Enable	
		Pages per Sheet Layout		Right then Down	
		Printer Features	Border		Disable
			Overcoat Finsh		Glossy
			Print Re-try		Disable
			2inch cut		Disable

Chart 2.3 Print Setting Default Values

2.4 Color Management

In [Color Management], this designates the color profile. Default at installation associates [RX1.icc].

Step 1. Select “Color Management” tab in “Printer Properties”, and click on “Color Management” button.



Step 2. Choose printer: DS-RX1 from a device.

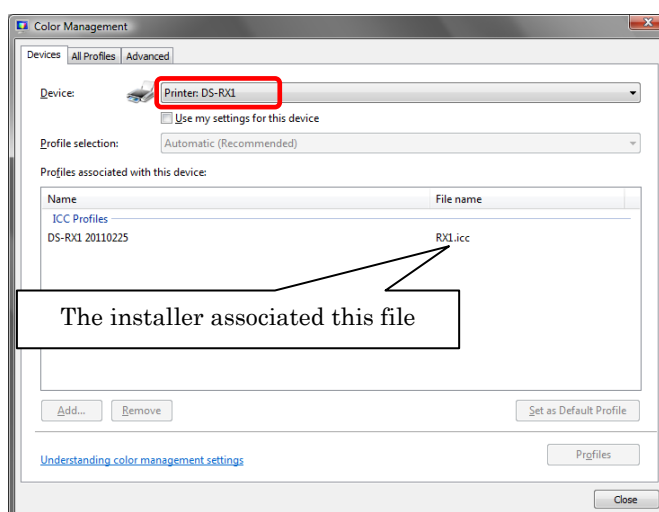


Fig 2.4 Color Management




2.5 Print Area

Depending on the paper size designated at the driver, the image size and dot count will be as follows.

Paper	Paper Orientation	Image size (width x height)		Image pixel amount (width x height)		
		(inch)	(mm)	300 x 300 DPI	300 x 600 DPI	600x600 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
(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
(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 Print Drection

Regarding the print direction setting, the relationship between the application-generated image and the print (feed direction) is as shown in the following chart. The generated image is the image generated through enlargement/reduction to fit the size shown in 2.5 Print Area, without having the application rotate the original image.

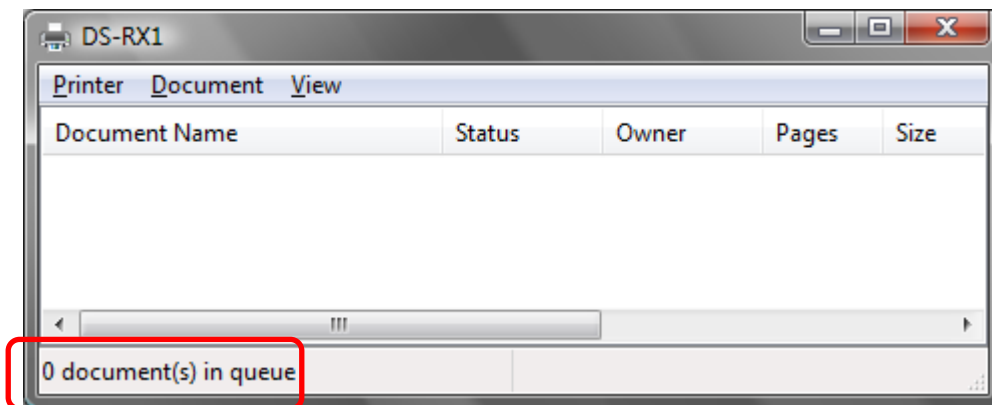
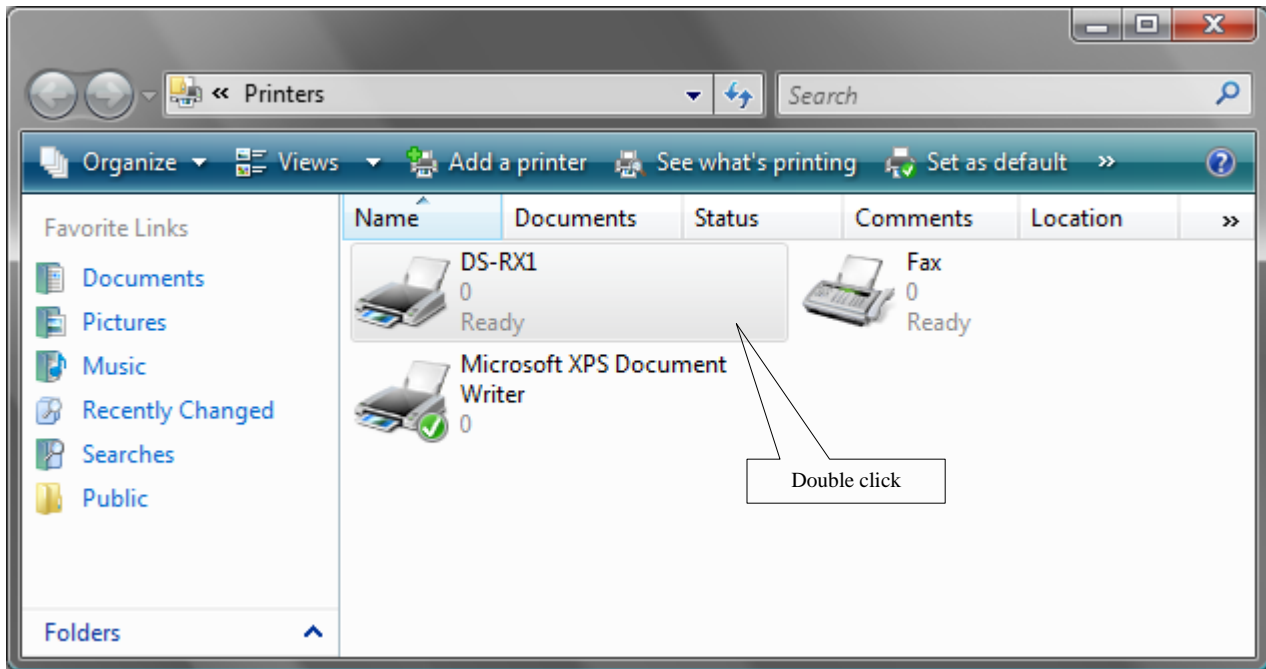
Original Image	Driver setting Orientation setting	Paper setting					
		(5x3.5) (6x4) (6x4) x2		PR (3.5x5) PR (4x6) PR (4x6) x2		(5x7) (6x8)	
		Generation image	Output image (direction ↓)	Generation image	Output image (direction ↓)	Generation image	Output image (direction ↓)
	Portrait						
	Landscape						
	Portrait						
	Landscape						

Chapter 3 Updating the Driver

In order to update the printer-driver, follow the steps shown below.

1. Driver Removal

- (1) Before removing the printer-driver, shut down all other applications. Also, double click the icon for the printer to be removed, and make sure there are no documents in the queue before you begin removal of the driver.



- (2) Select “Start”–“Control Panel”, and click on “Printer” in the control panel. From the “Printer” window, select the DS-RX1 printer, display the pull-down menu with the right click, and click on “Delete”.

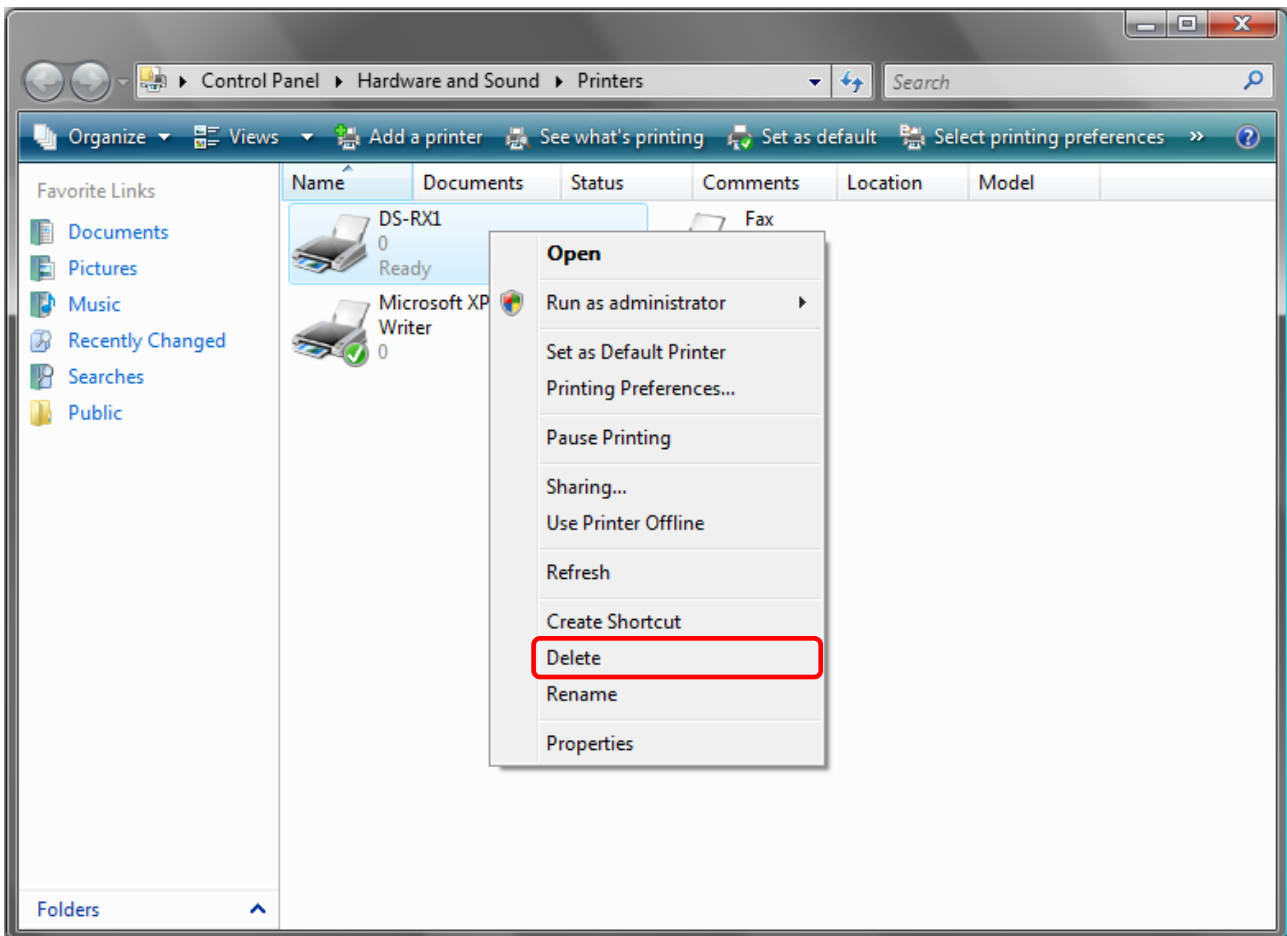


Fig 3.1 Printer window: DS-RX1 right-clicked menu

- (3) When “Are you sure you want to delete the printer ‘DS-RX1’?” appears, click on “Yes”.

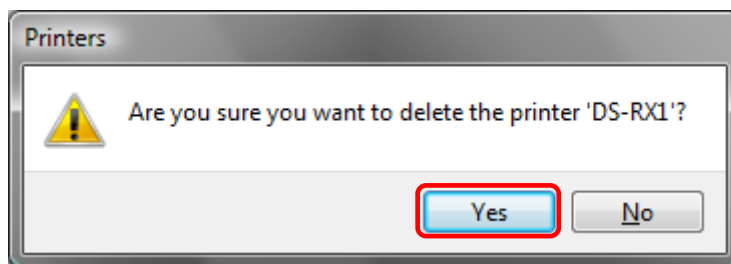


Fig 3.2 Delete Printer confirmation window

- (4) After the DS-RX1 has been deleted, right-click where there is no icon, and get the pull-down menu. In the pull-down menu, click on “Run as administrator”— “Server Properties”.

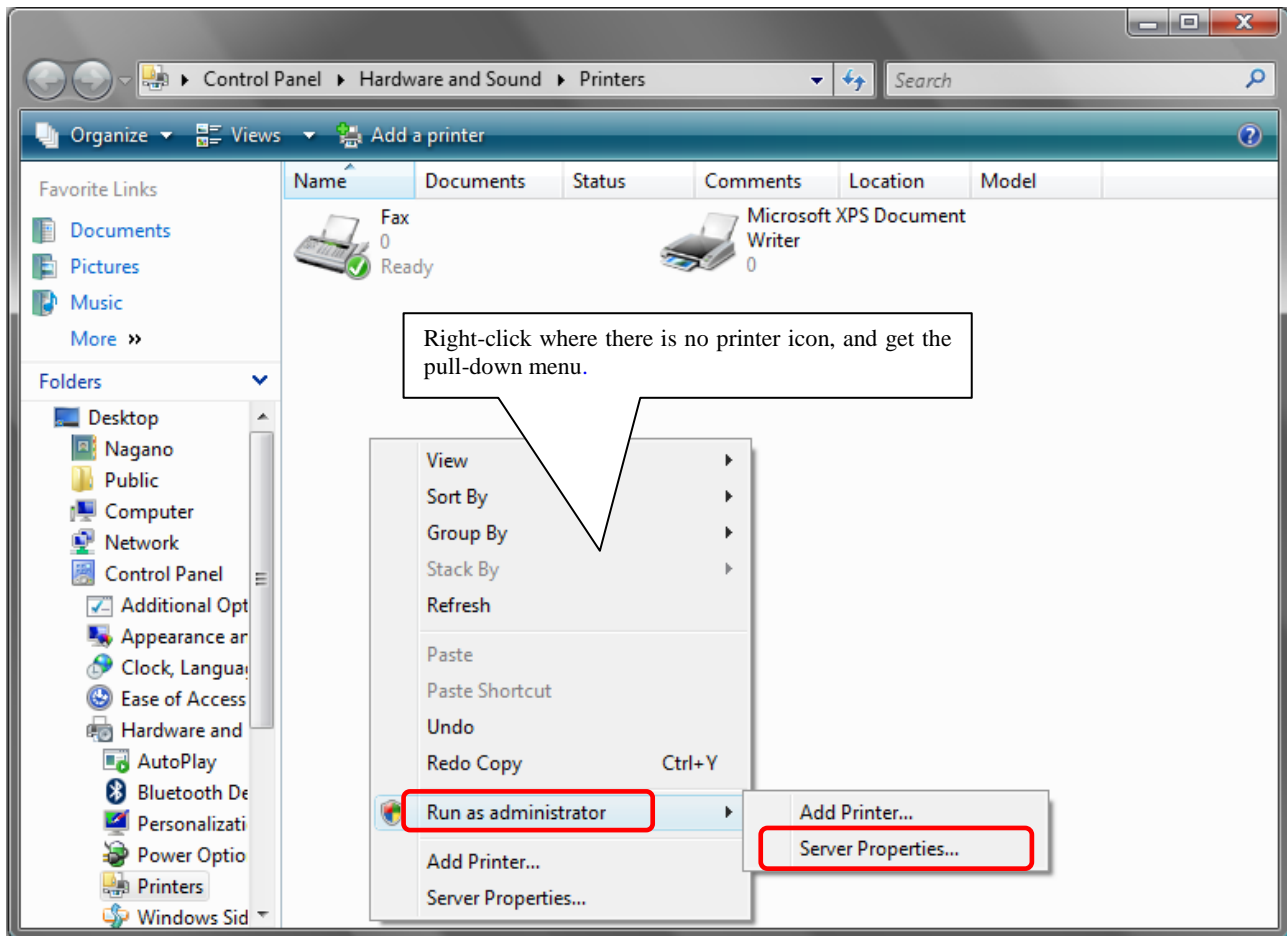


Fig 3.3 Pull-down menu opened by right-clicking on the Printer window

- (5) After this, user account control will request confirmation with “Windows needs your permission to continue.” Click on the “Continue” button.

- (6) When the Print Server Properties window appears, click on the Drivers tab. From the list of installed printer drivers, select “DS-RX1”, and click the “Remove” button.

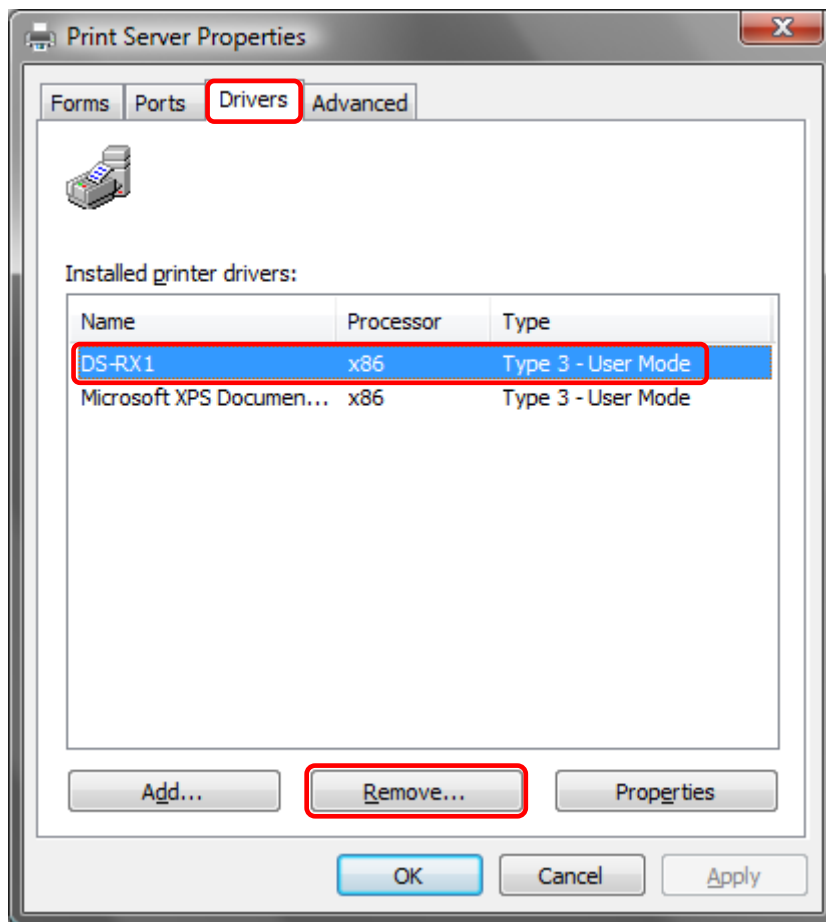


Fig 3.4 Print Server Properties window

- (7) When the Remove Driver and Package window appears, select “Remove driver and driver package”, and click on the “OK” button.

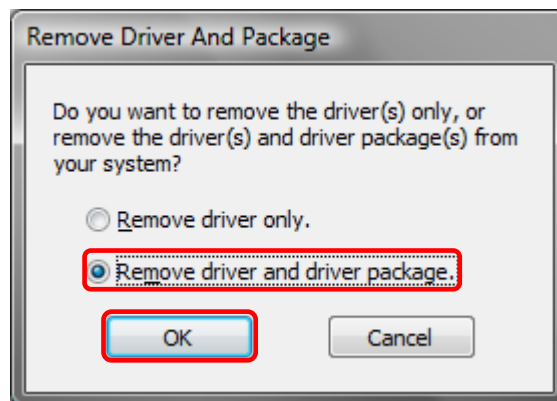


Fig 3.5 Remove Driver and Package window

(8) When the Print Server Properties confirmation window appears, click on the “Yes” button.

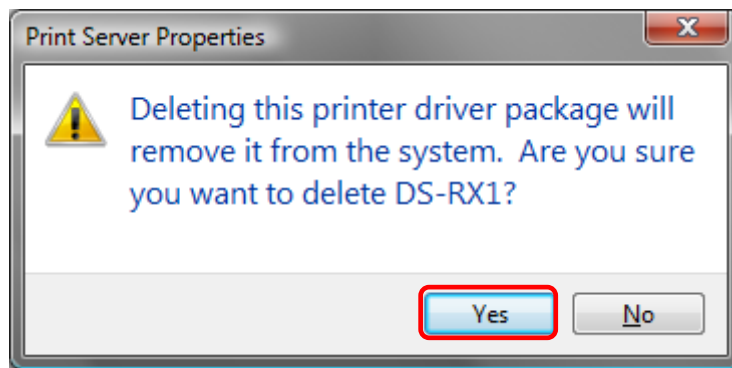


Fig 3.6 Print Server Properties confirmation window

(9) When the Remove Driver Package window appears, click on the “Delete” button.

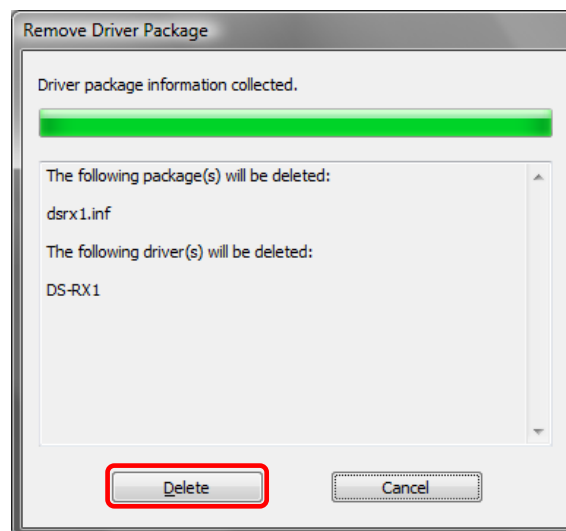
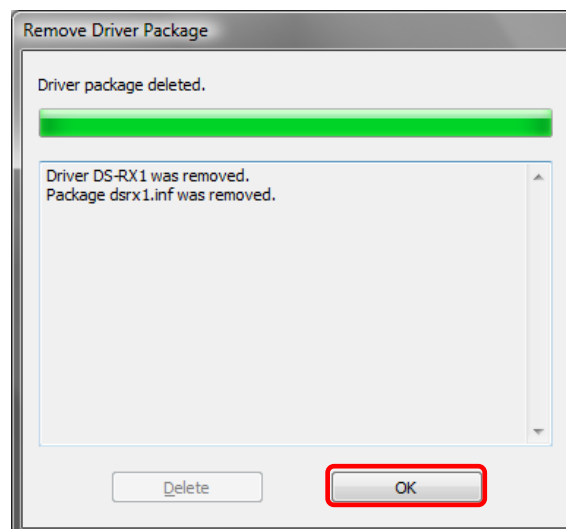
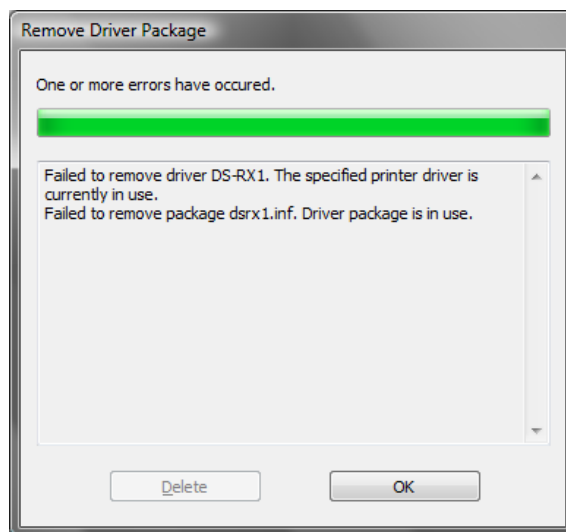


Fig 3.7 Remove Driver Package window

(10) When the Driver Package Deleted window appears, click on the “OK” button.



Note) Before removing the printer-driver, if the following error message appears, please reboot the computer. After the computer has been rebooted, repeat the steps to remove the printer-driver.



(11) Using the Print Server Properties window, confirm that “DS-RX1” has been removed, and click on the “Close” button. Now the removal of the printer driver is complete. After removal, reboot the computer.

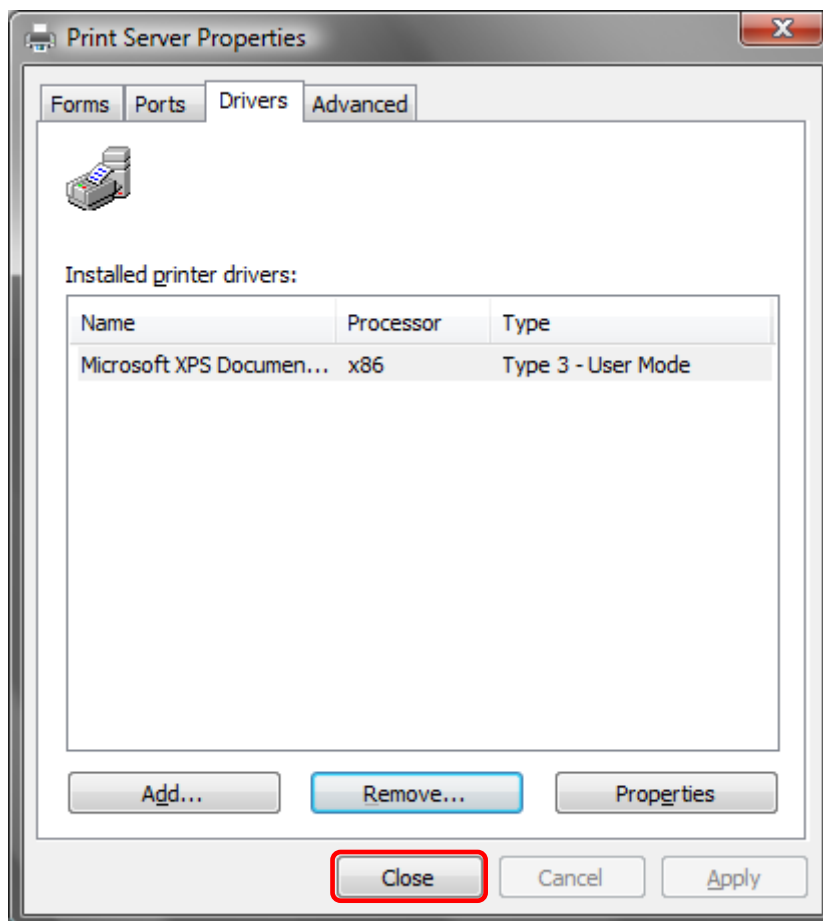


Fig 3.9 Print Server Properties window

2. Installing the printer-driver upgrade

After removing the printer and printer-driver, install the new printer-driver. For installation steps, please refer to Chapter 1 “Install”.

3. Rebooting the computer

After installation of the printer-driver is complete, be sure to reboot the computer.
(Do not print immediately after installation. First reboot the computer.)

Chapter 4 Driver Removal

For steps to remove the printer-driver, refer to Chapter3-1 “Driver Removal”

Dai Nippon Printing Co., Ltd.