

DNP

DIGITAL PHOTO PRINTER

DS40

DS80

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 DS40/DS80 printers or the contents of the DS40/DS80 printer drivers and the CD.

- **Copyright**

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Chapter 1 Install

1.1 Printer and Host computer Connection

Power ON the DS40/DS80 and connect the DS40/DS80 printer and the host by USB cable.

* Please refer to the manual for the DS40/DS80 printer for connection if needed.

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

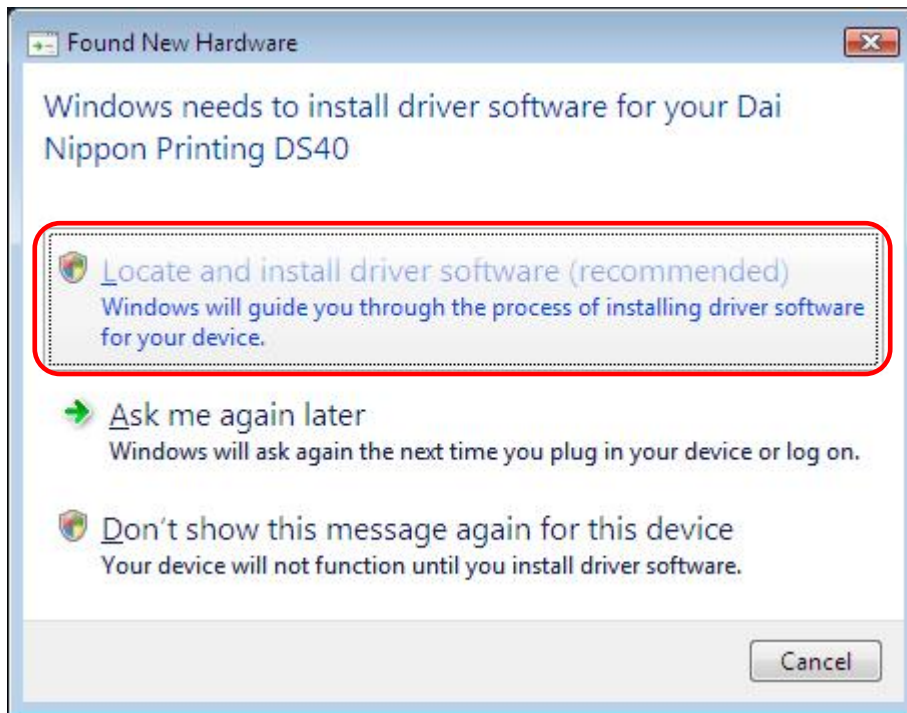
In order to install the driver, log in with administrator right. The following explanations are given on the assumption of use with administrator rights.

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].

The following describes the driver installation for the “DS40”, but it is the same for the “DS80”. Please just substitute “DS80” for “DS40” when following the directions.

1.2 Found New Hardware Wizard

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



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 DS40” appears, click on “I don’t have the disc. Show me other options”.

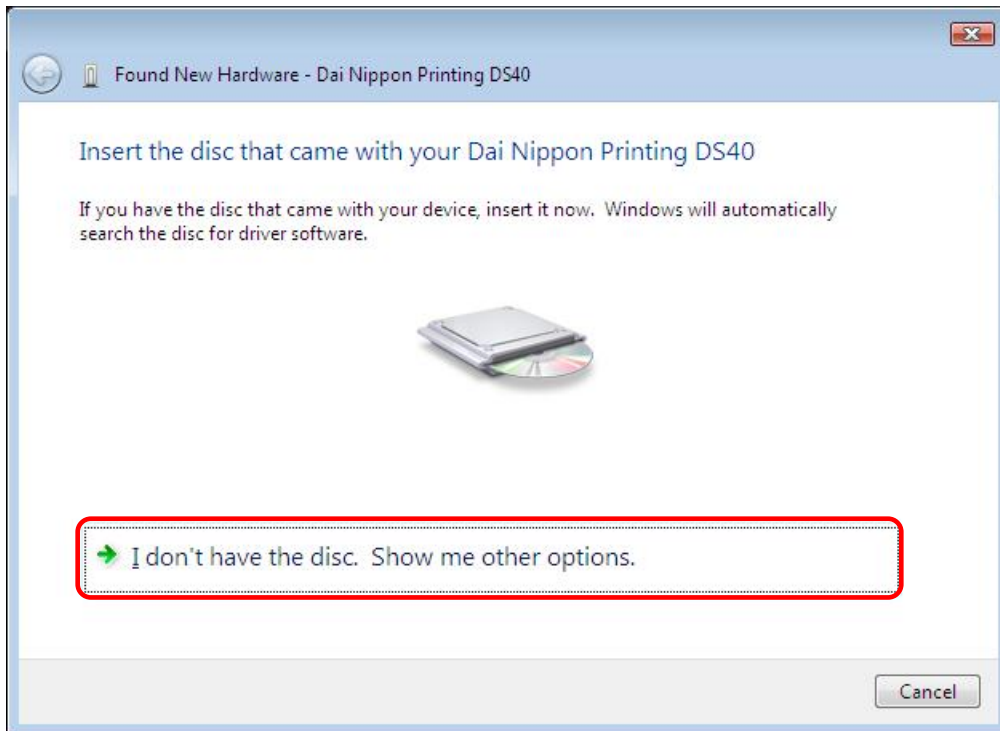


Fig 1.2 Insert the disc

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

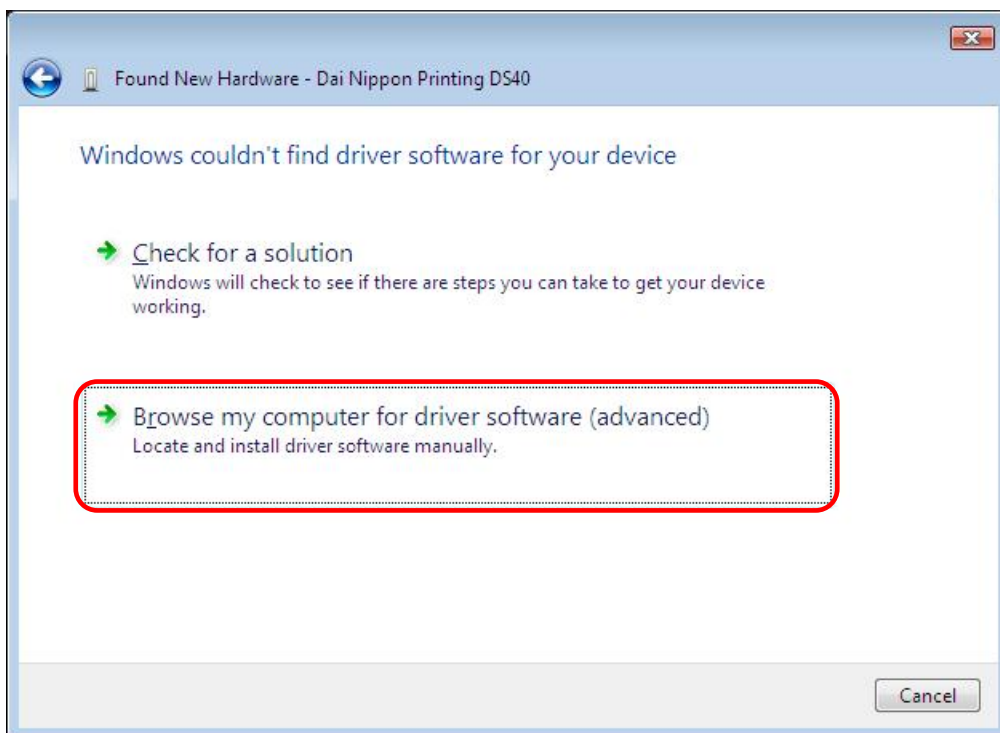


Fig 1.3 Windows couldn't find driver software for your device

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.

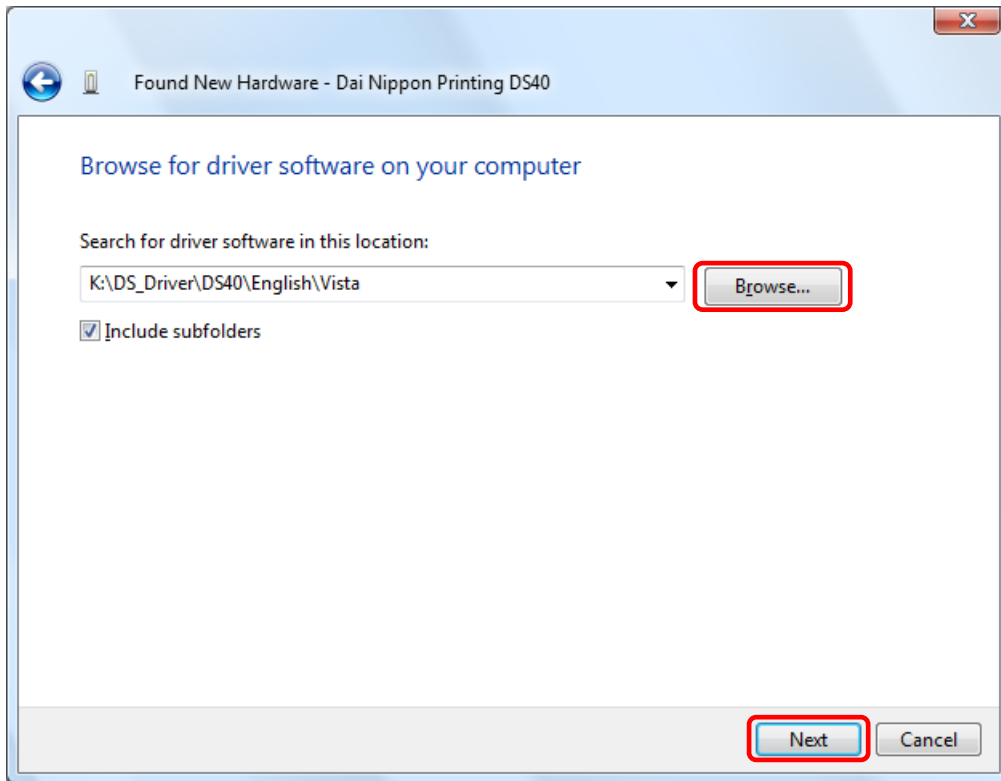


Fig 1.4 Designating the driver software location

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

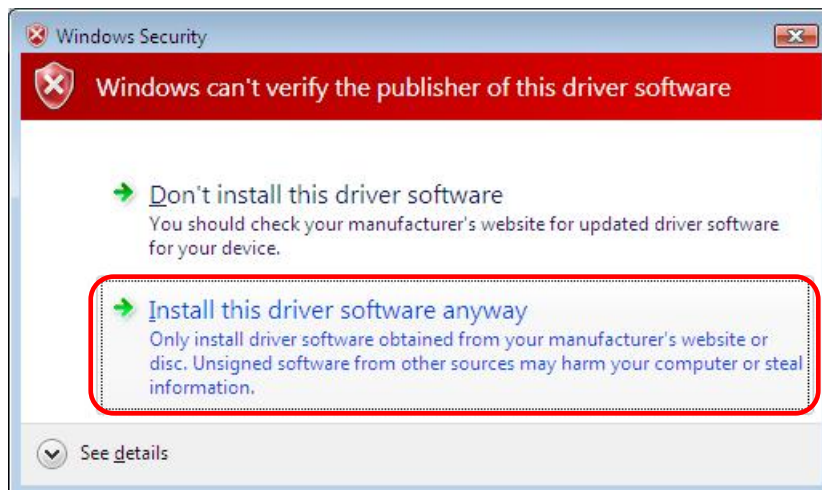


Fig 1.5 Windows Security confirmation

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.

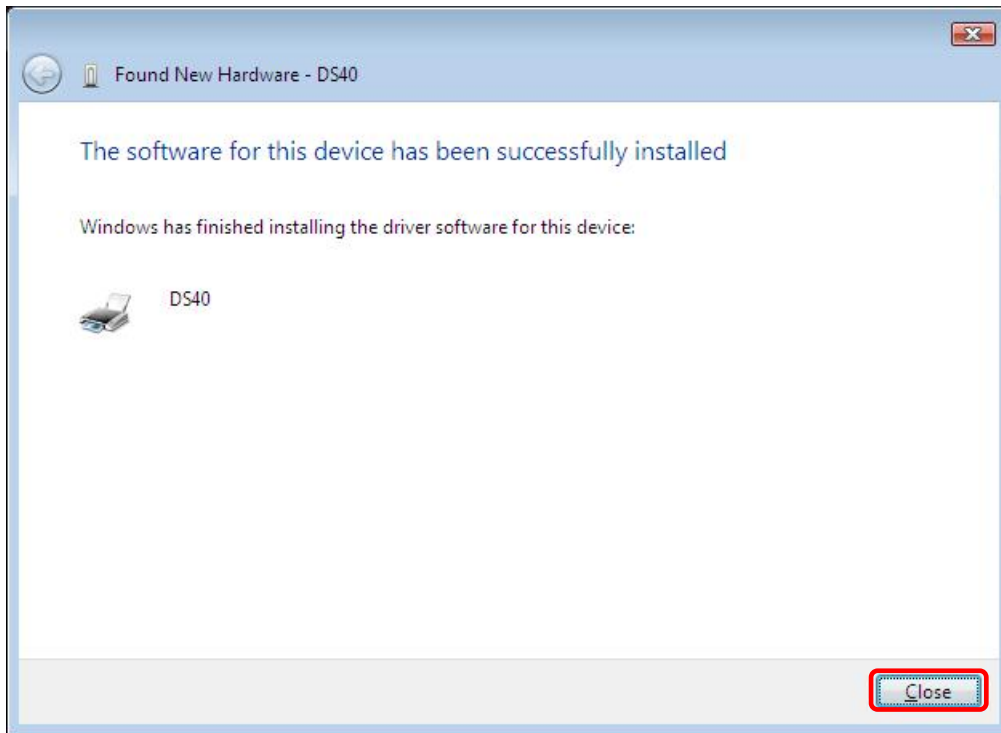


Fig 1.6 Installation Complete window

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

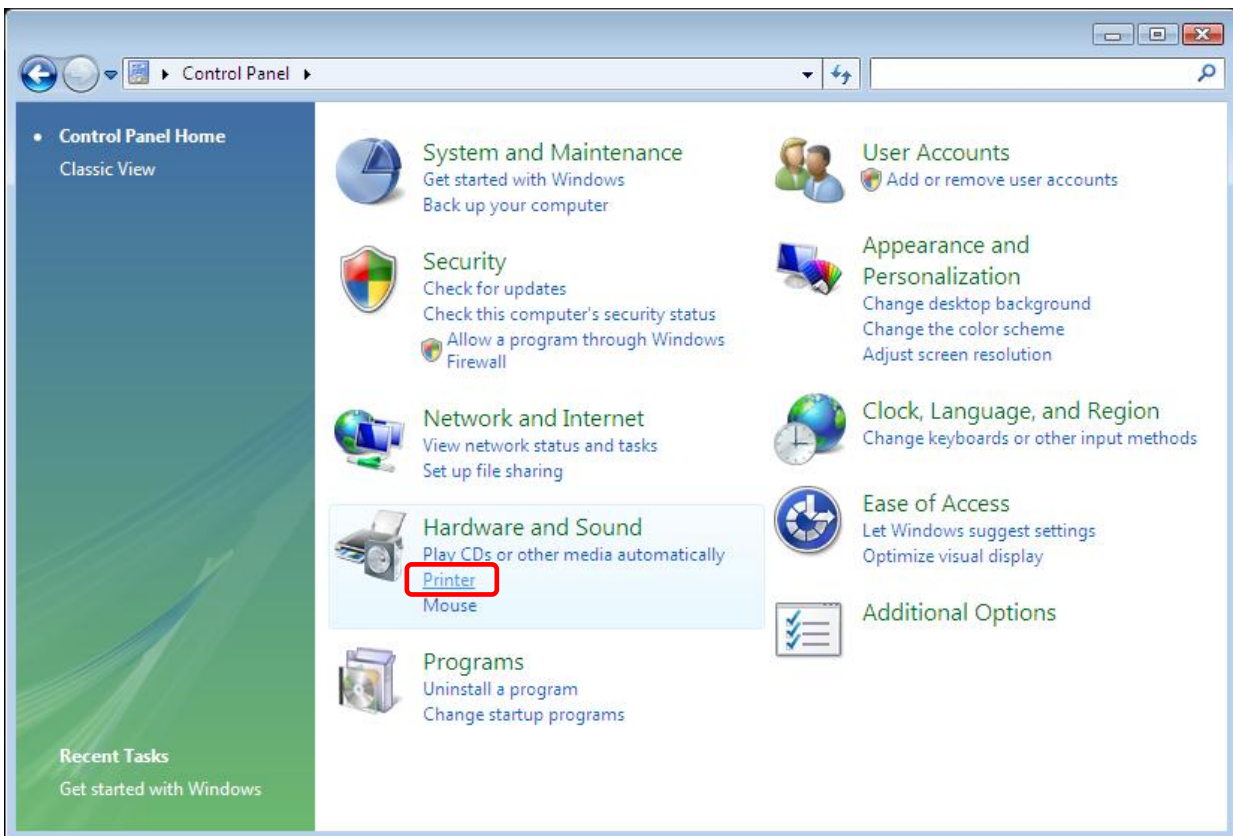


Fig 1.7 Control panel

Open [Printer] and confirm that [DS40] is shown.
Now installation is complete.

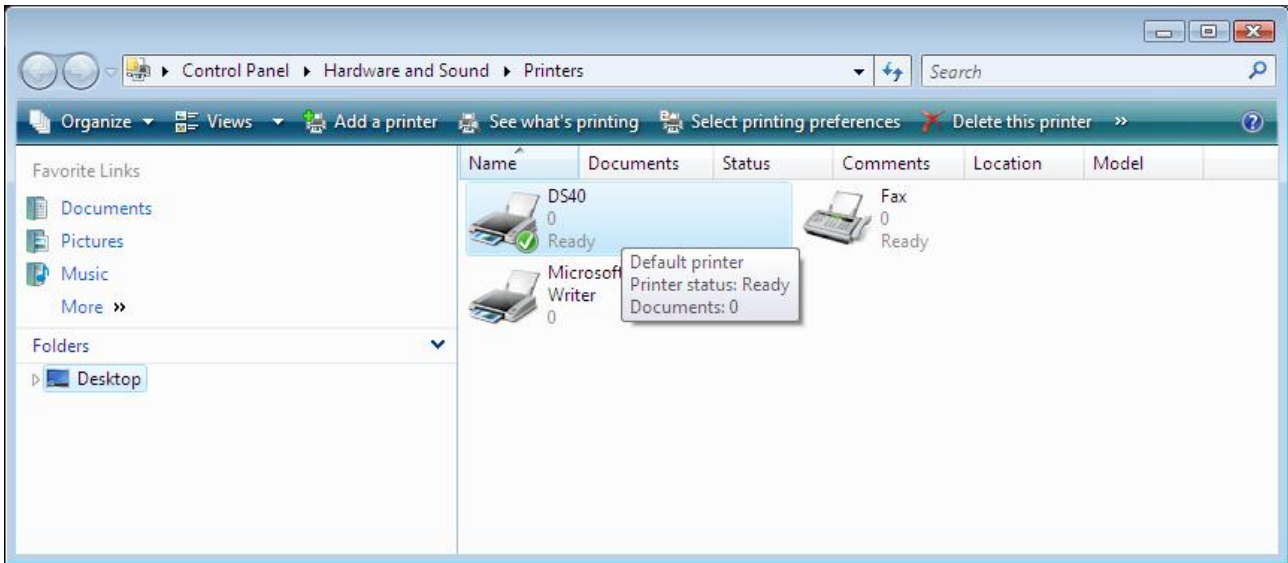


Fig 1.8 Printers

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.

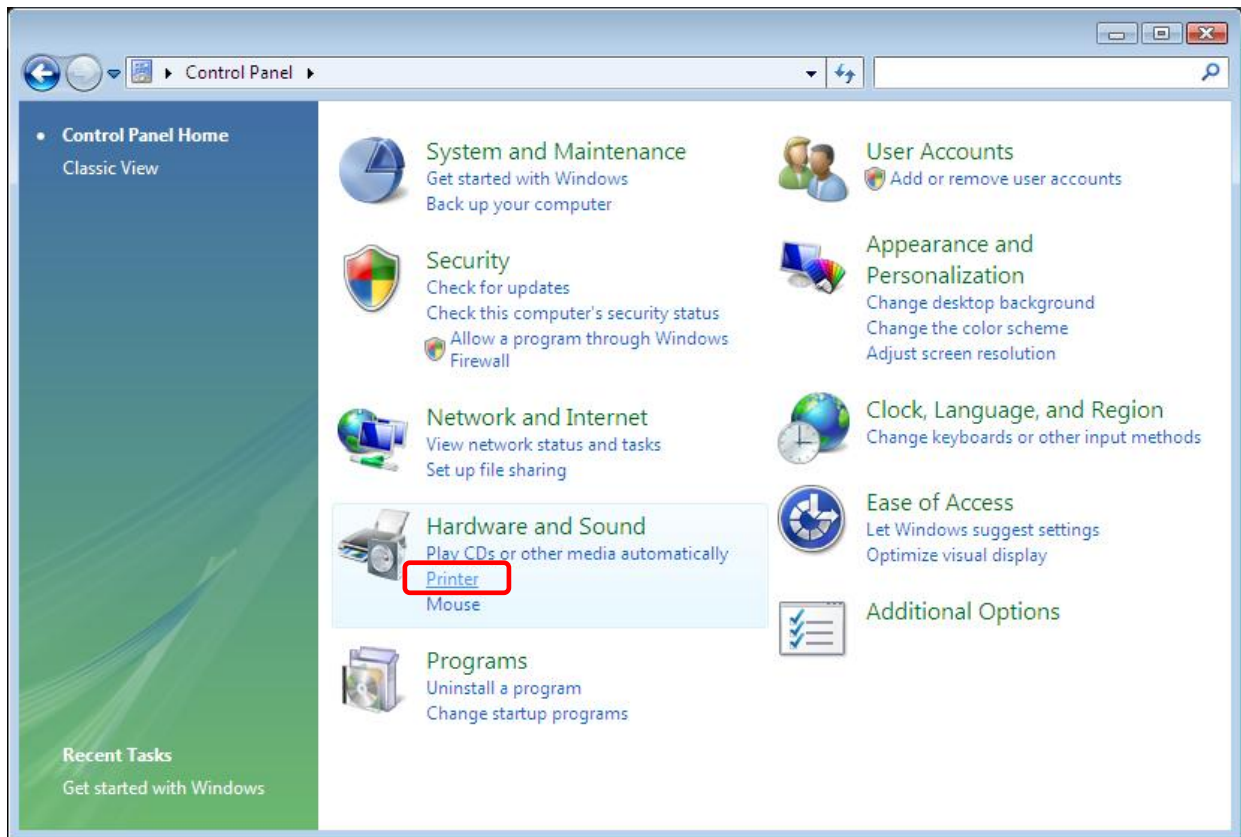


Fig 1.9 Control Panel

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

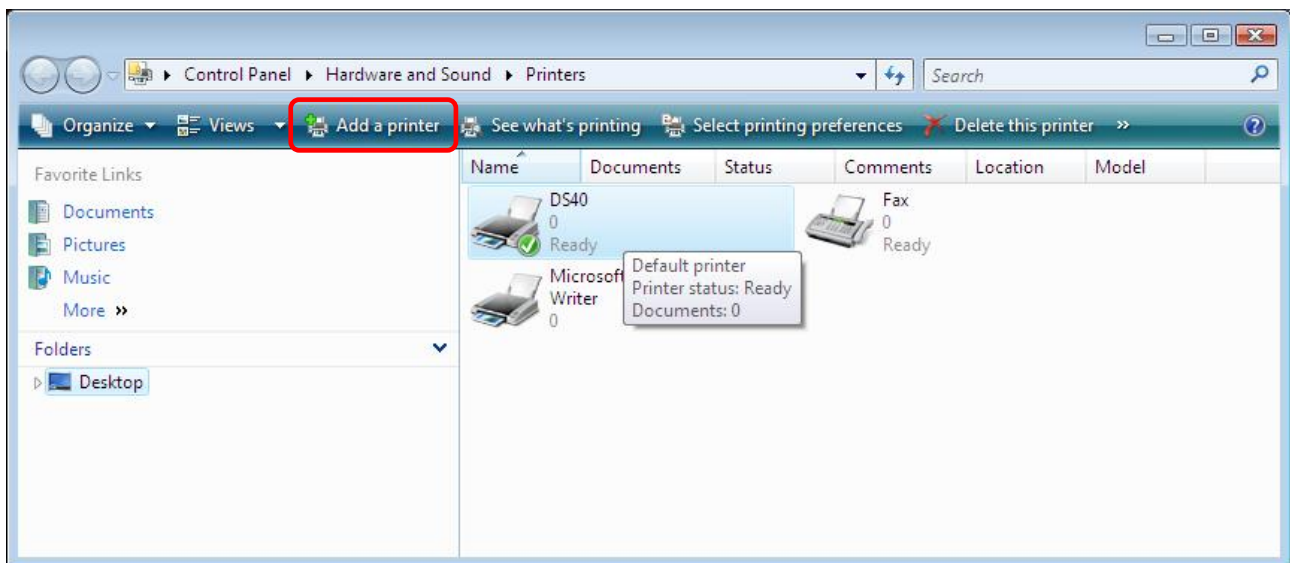


Fig 1.10 Printer window

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

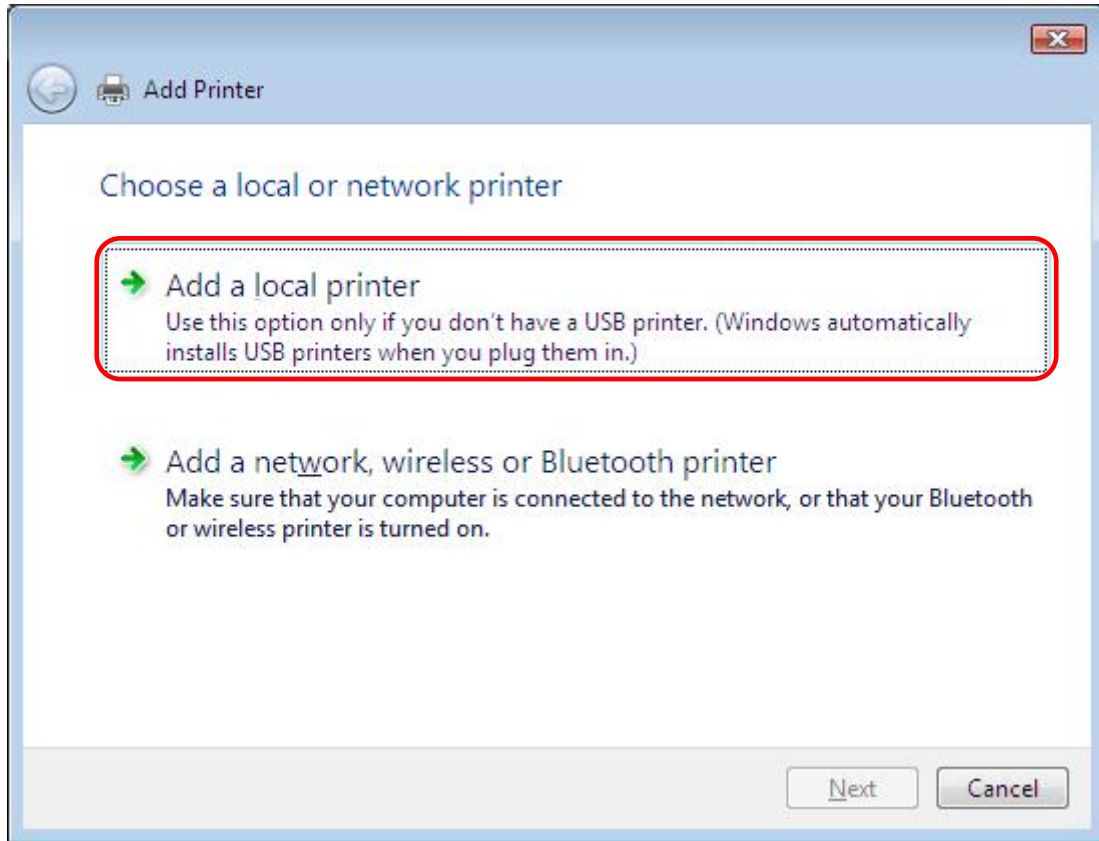


Fig 1.11 Choose a local or network printer window

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.

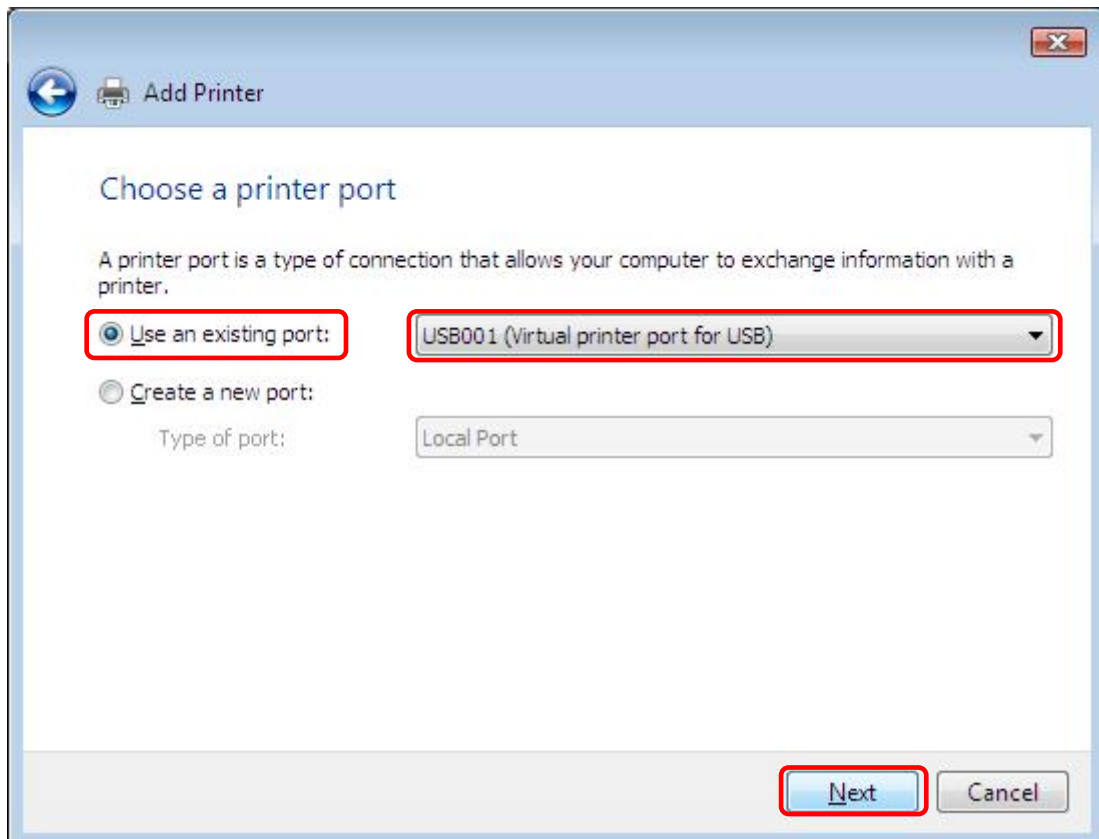


Fig 1.12 Choose a printer port window

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

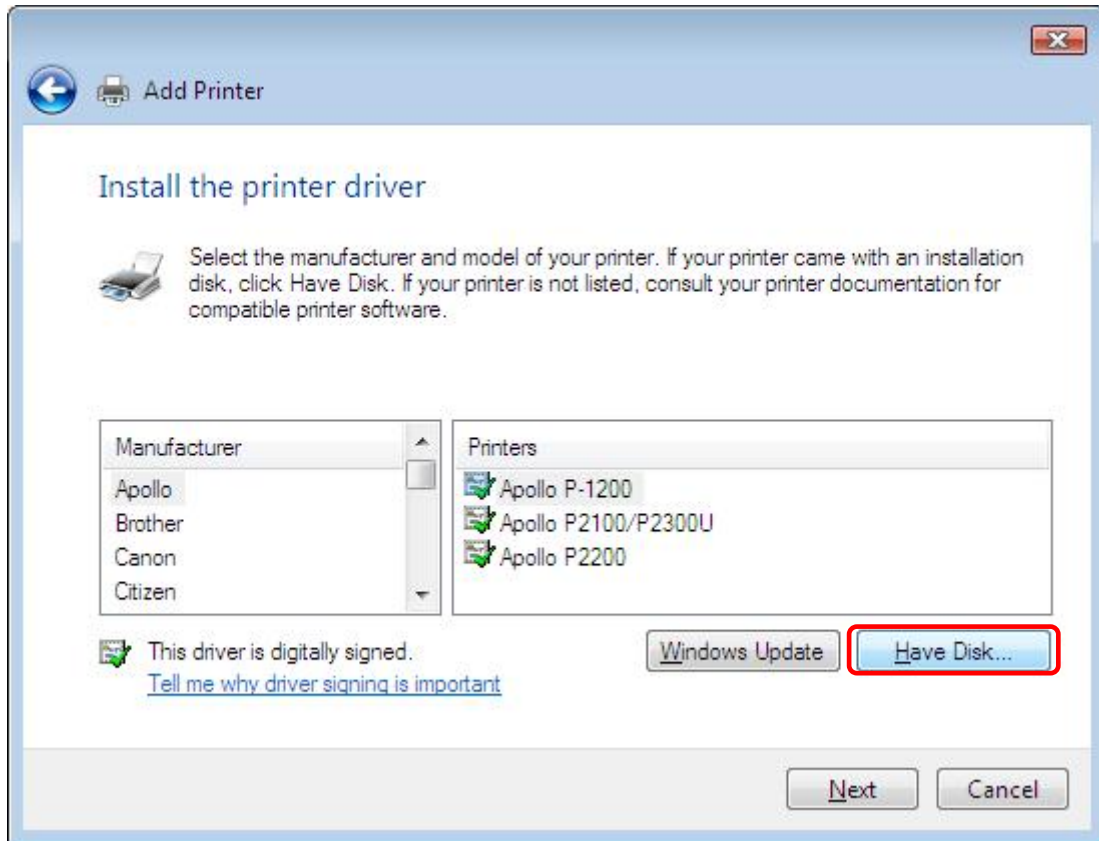


Fig 1.13 Install the printer driver window

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

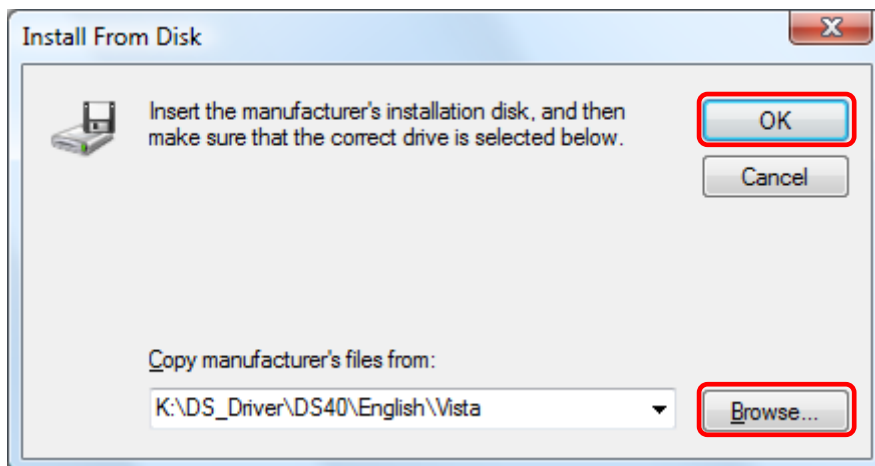


Fig 1.14 Install From Disk window

In the “Install the printer driver” window, check that “DS40” is displayed, and click the “Next” button.

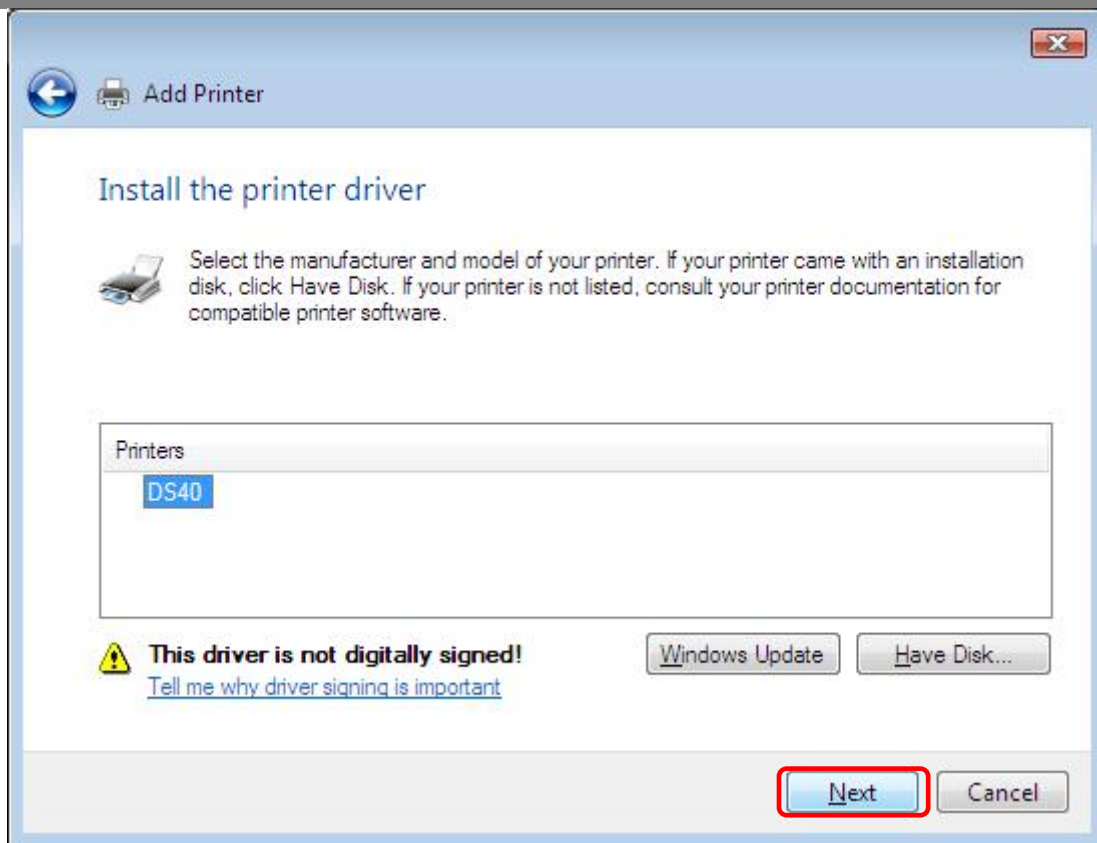


Fig 1.15 DS40 Install the printer driver window

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.

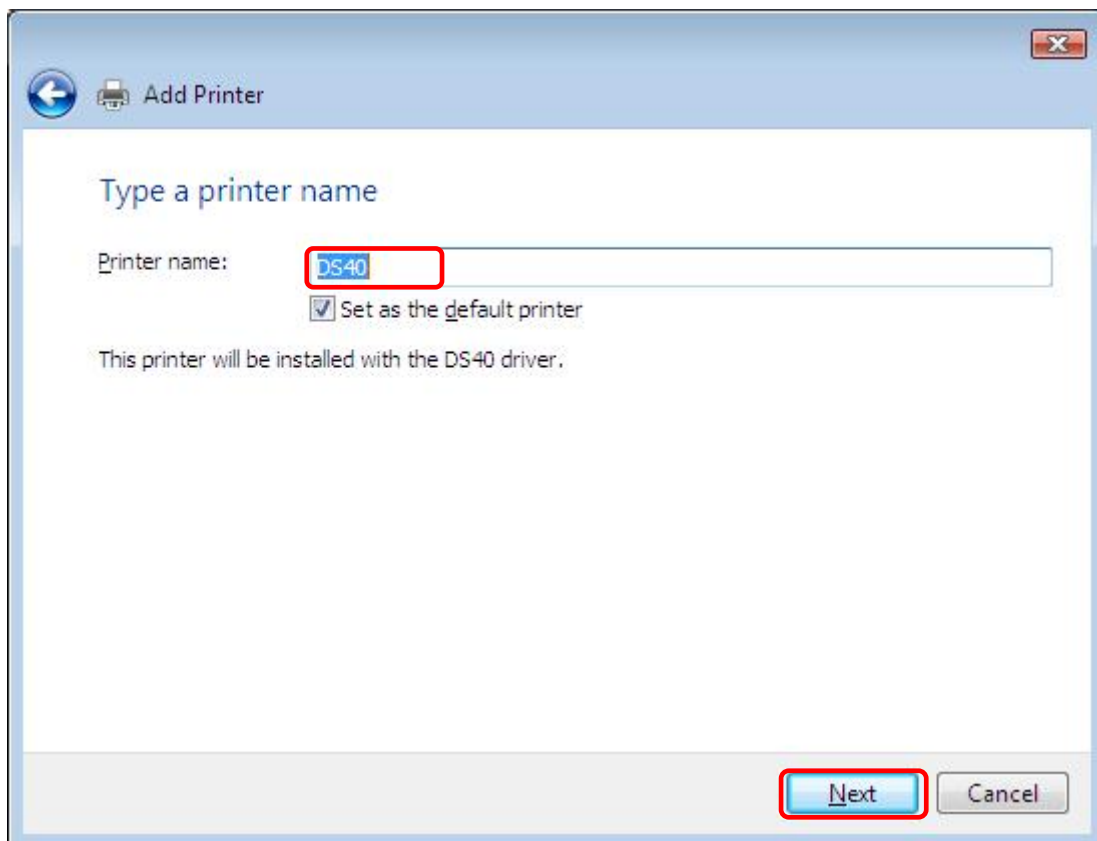


Fig 1.16 Type a printer name window

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”.

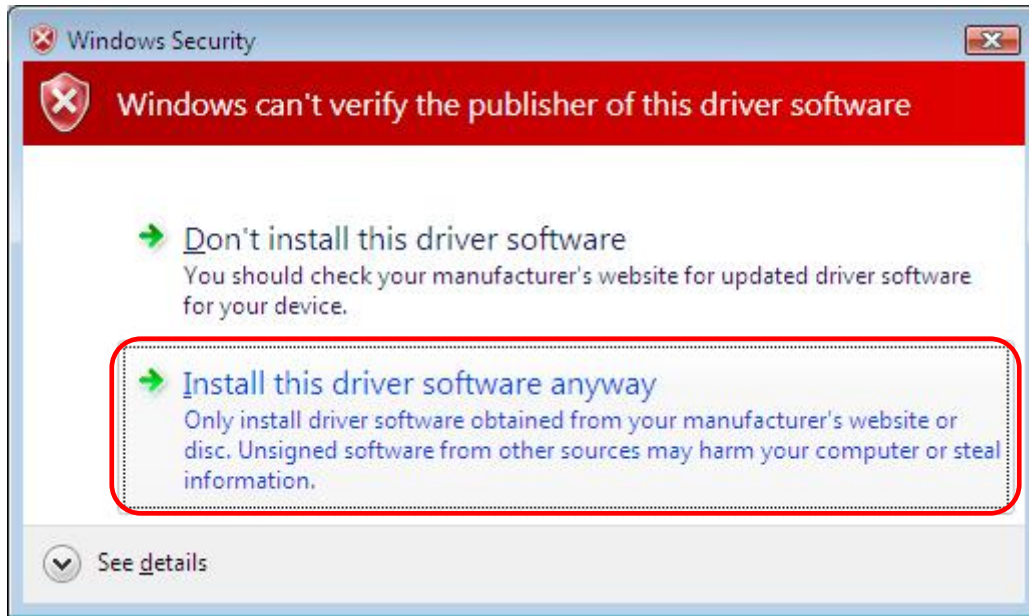


Fig 1.17 Windows Security confirmation

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

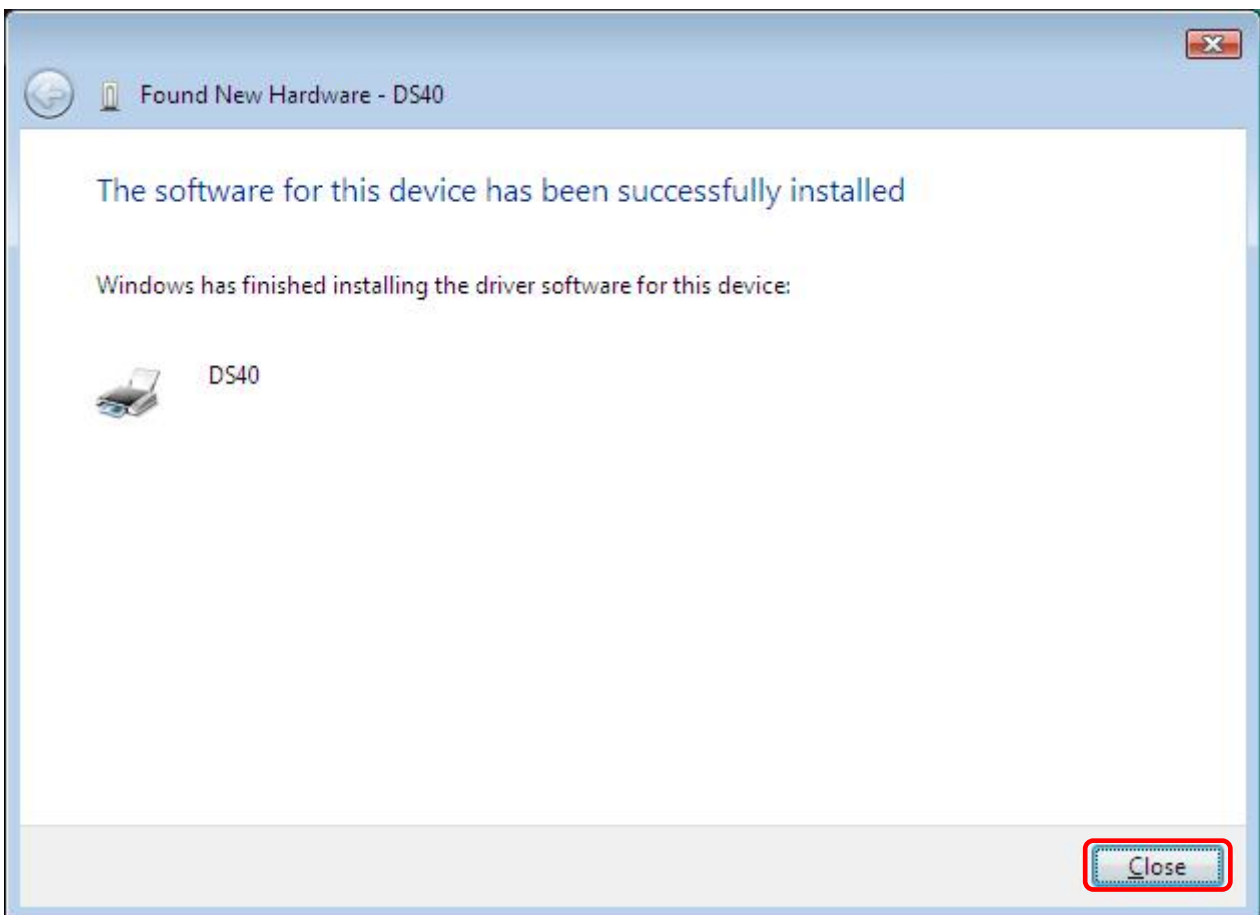


Fig 1.18 DS40 driver has been successfully installed

Check that the DS40 is shown in the Printer window.
 Now, installation of the DS40 printer driver is complete.

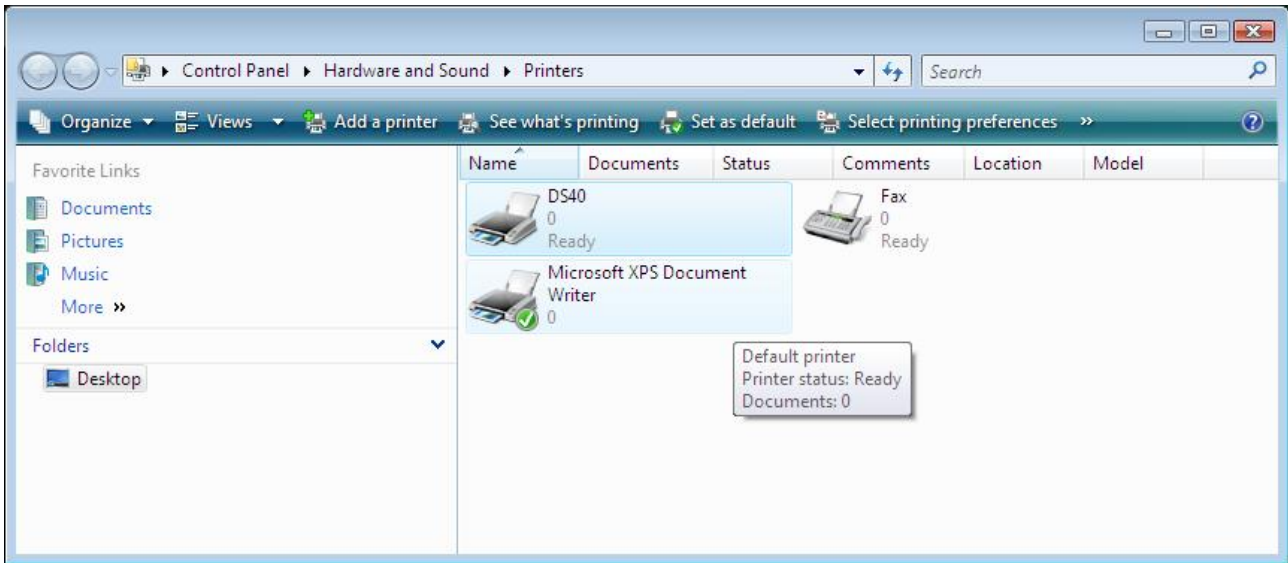


Fig 1.19 Printer window

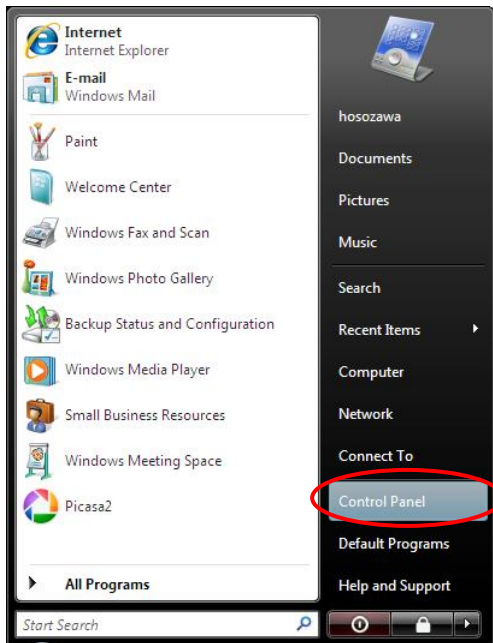
After installation of the printer-driver is complete, be sure to reboot the computer.

Chapter 2 Properties

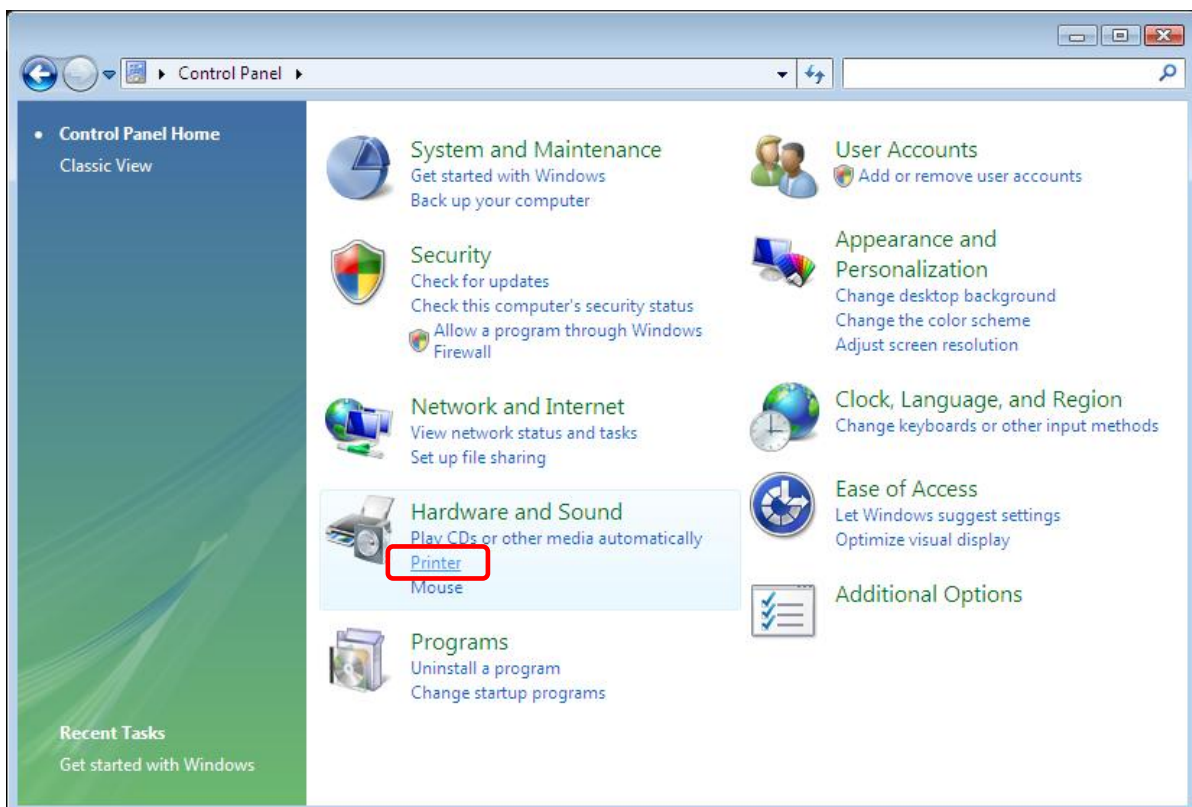
Various printer settings can be made using the DS40/DS80 Driver properties. Before operation, be sure to have a good understanding of the contents. Login by administrator authority is required for operation. Depending on application of the use, operation from print setting of the application is necessary.

2.1 Opening Printer Properties

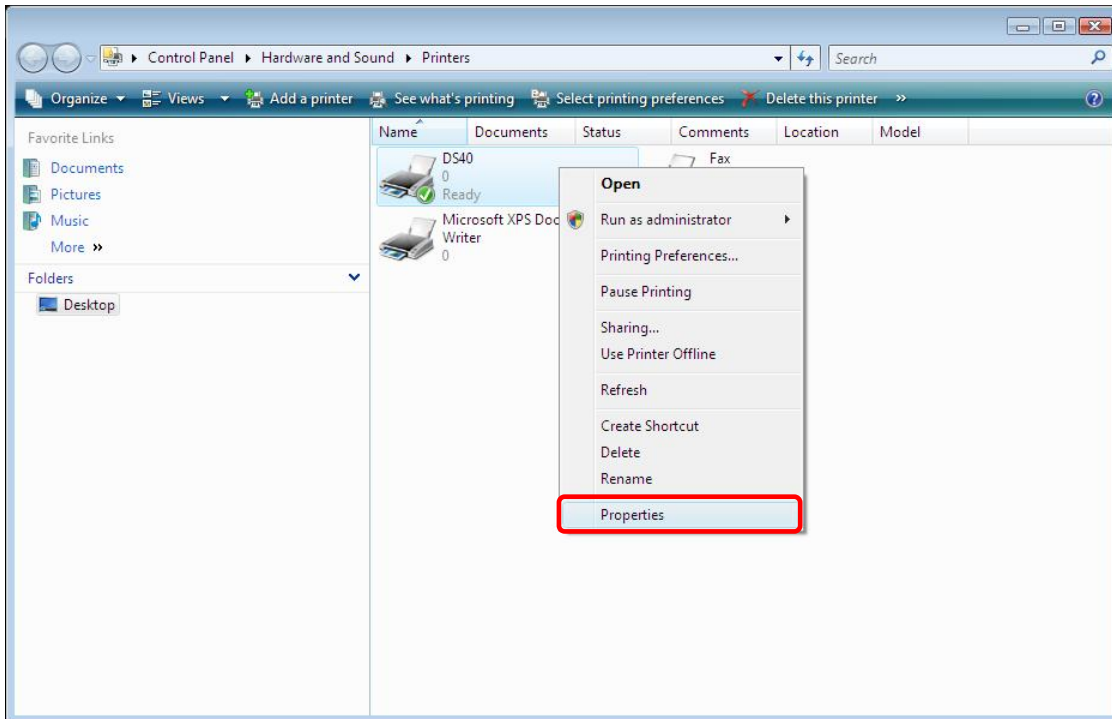
1. Click Start ⇒ Control Panel ⇒ open the control panel



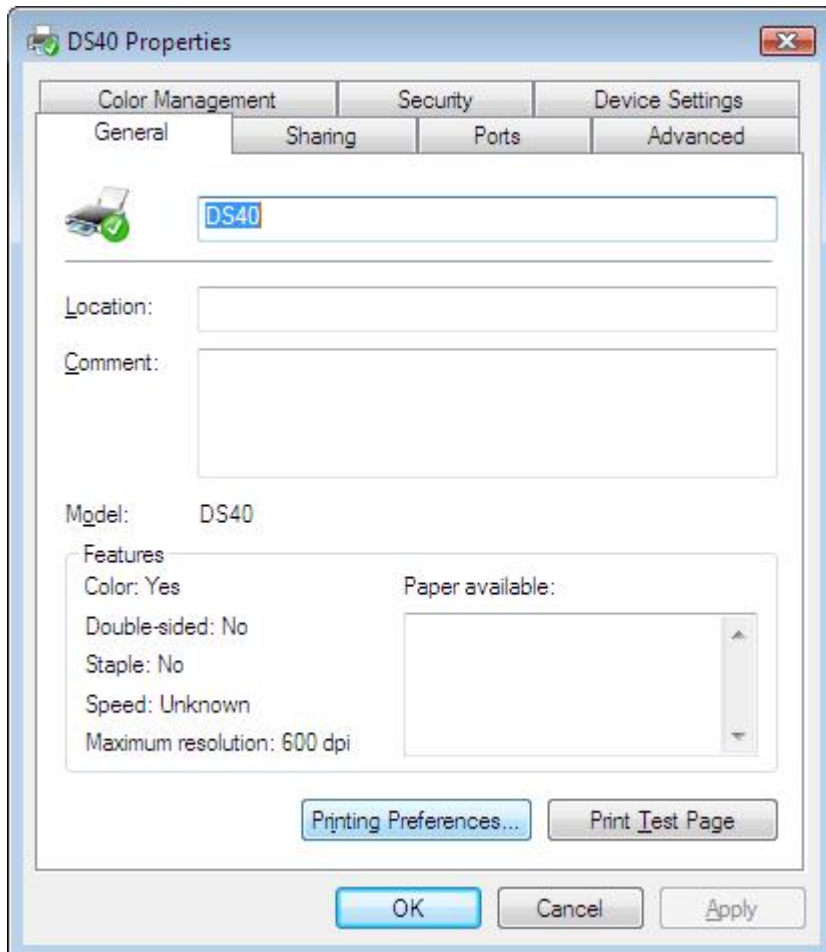
2. In the control panel, select Printer⇒open the Printer window



3. Right-click on the DS40 icon, and from the pull-down menu select Properties ⇒ open the Properties window



4. The DS40 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

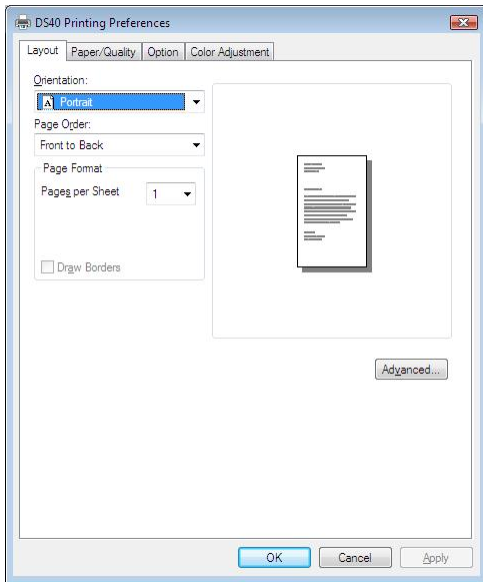
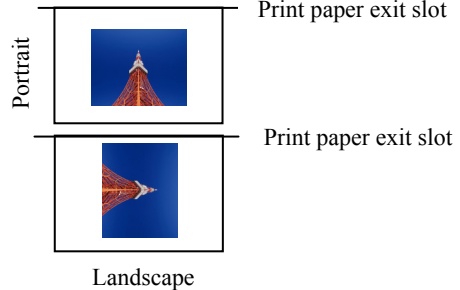


Fig 2.2.1 Layout tab

Output image depending on print direction

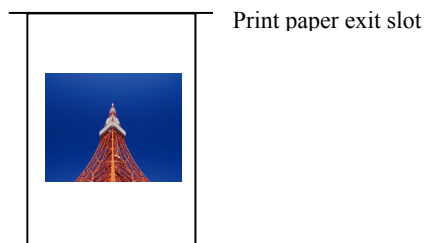
Ex.) For (6x4), (5x3.5)



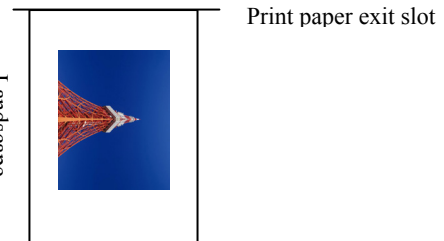
Landscape

For (5x7), (6x8), (6x9)

Portrait



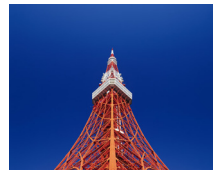
Landscape



Orientation

Assign print orientation as vertical or horizontal.

Output images of the original image without rotation are shown at the right.

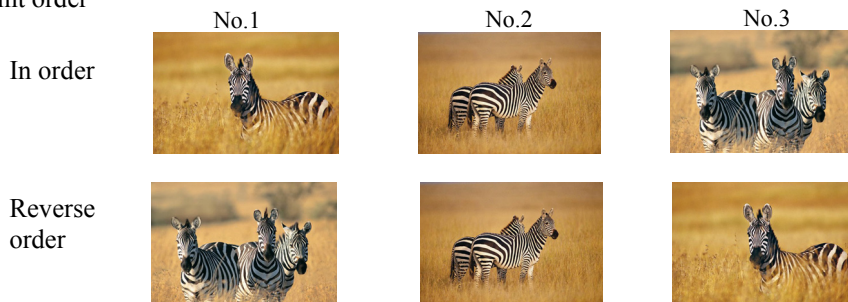


Original image orientation

Page Order

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

Ex.) Print order



Pages per Sheet

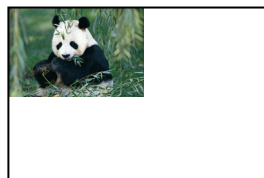
Prints the designated fractional size.

Ex.) Fractional size

1 (Whole)



4 (Quarter-size)



9 (One-ninth size)



2.2.2 Advanced Options

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

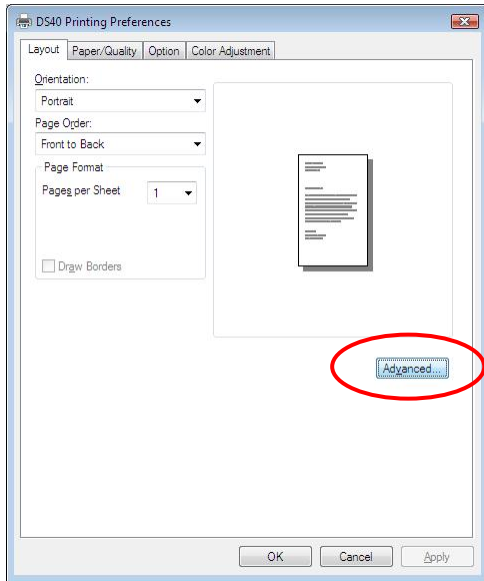


Fig 2.2.2.1 Advanced Settings

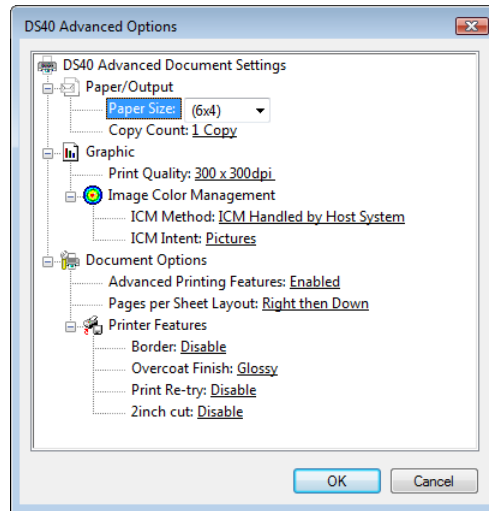


Fig 2.2.2.2 Advanced Options tab

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 DS40/DS80 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 (Depending on the version of printer firmware being used, “Glossy” may be the only option.)

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.

- * Change the printer of the version corresponding to Overcoat Finish and a non-corresponded version, and when you use it by connecting it to the same USB port, when you change printers, reboot the computer.

Print Re-try (Depending on the version of printer firmware being used, “Disable” may be the only option.)

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.

- * Change the printer of the version corresponding to Print Re-try and a non-corresponded version, and when you use it by connecting it to the same USB port, when you change printers, reboot the computer.

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		
Scrap Box 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 Voltage Error		
Head Position Error		
Power Supply Fan Stop		
Cutter 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		
Abnormal motor Temp.		
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 *Correspondence model:DS40

(Depending on the version of printer firmware being used, “Disable” may be the only option.)

In the case of the specific paper size of DS40, 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 size, it cuts to two sheets, and, in the case of 6x8 size, it cuts to four sheets.

<Multiple layout>

When the DS40 is using 6x9(A5W), 6x8 or DS80 is using 8x12, 8x10 size media, 2 or 3 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)	Image size (mm)	Using media
DS40	(6x4) x 2	(156.1x105.0) x 2	6x9 (A5W), 6x8
DS80	(8x4) x 2	(207.3x104.6) x 2	8x12, 8x10
	(8x5) x 2	(207.3x130.0) x 2	8x12, 8x10
	(8x6) x 2	(207.3x155.4) x 2	8x12
	(8x5) _ (8x4)	(207.3x130.0) x (207.3x104.6)	8x12, 8x10
	(8x6) _ (8x4)	(207.3x155.4) x (207.3x104.6)	8x12, 8x10
	(8x6) _ (8x5)	(207.3x155.4) x (207.3x130.0)	8x12
	(8x8) _ (8x4)	(207.3x206.2) x (207.3x104.6)	8x12
	(8x4) x 3	(207.3x104.6) x 3	8x12

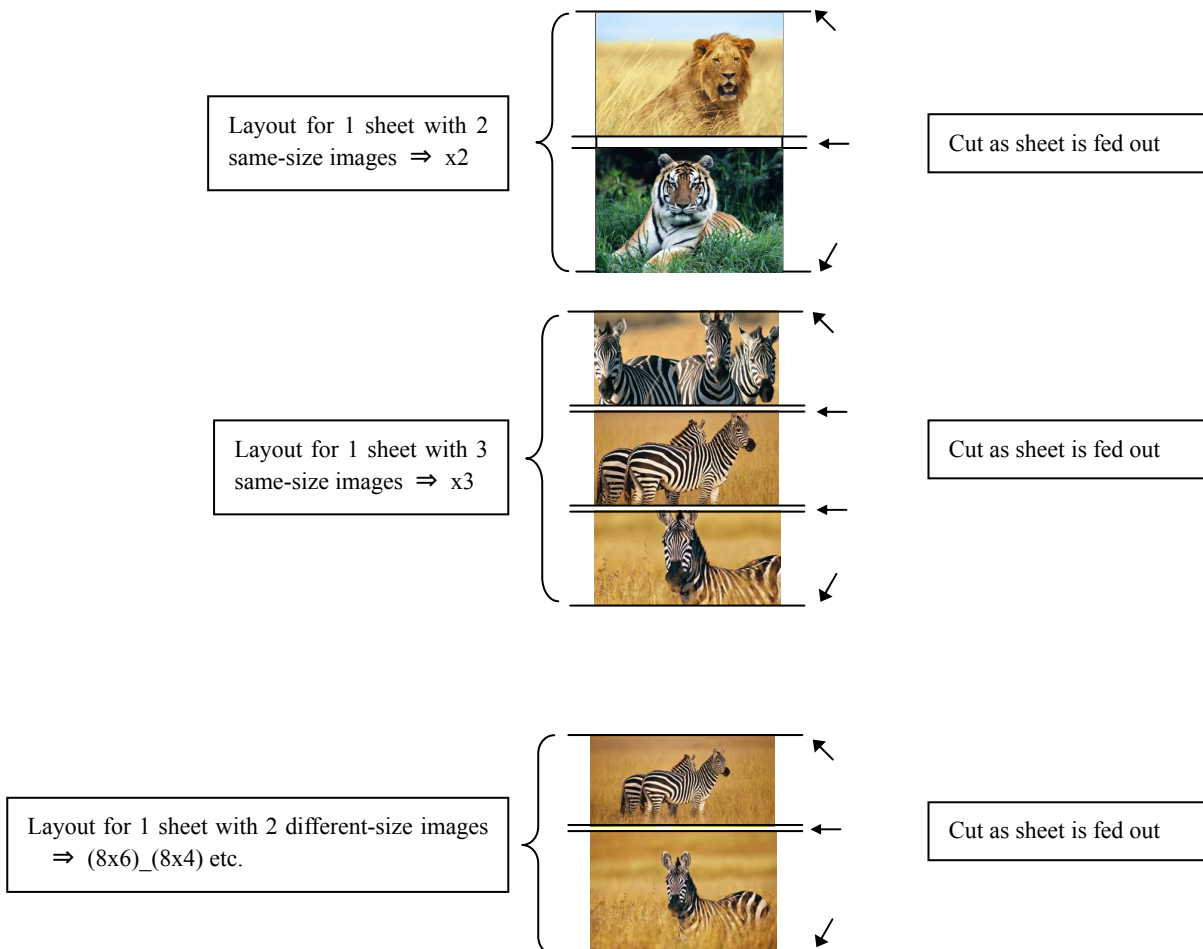
Multiple layout is possible under the following conditions.

1. The printer is using 6x9, 6x8 or 8x12, 8x10 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 or 3 images in one operation, and the paper is cut as it is fed out.

<Multi-image layout patterns>

The following combinations are possible for the multi-image layout patterns.



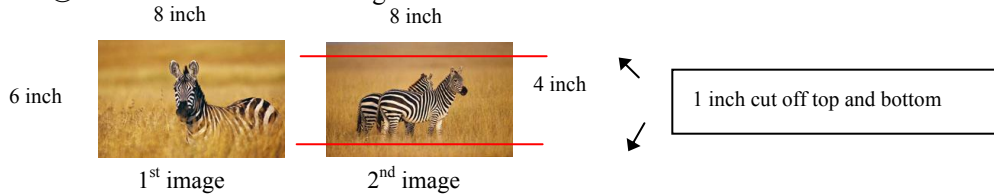
Cautions for printing 2 different-size images on one sheet

When printing 2 different-size images on 1 sheet, 1 inch will be cut off the top and bottom of the 2nd image when the image is being generated. When creating the original image, be aware of the following points.

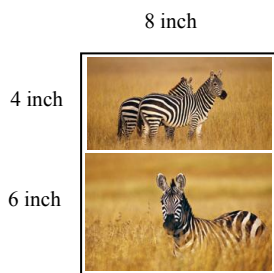
Ex.) When the layout is set for (8x6)₁_(8x4)₂

The driver creates the layout image in the order of ①, ②.

① It creates two 8x6inch images

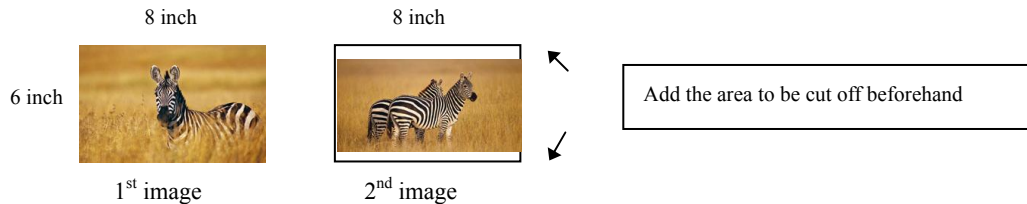


② The driver then lays out the 2 different-size images from ① as one (8x10) image and outputs it to the printer.



Ex.) Example of creating the original image.

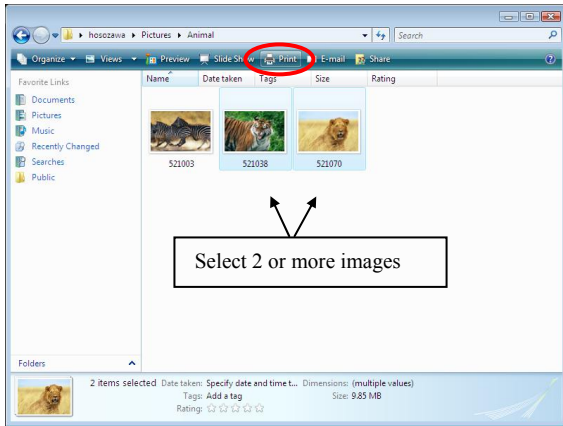
When outputting the original image to the driver, the 1st and 2nd images are created as the same size, so factor in the space that will be cut off from the 2nd image.



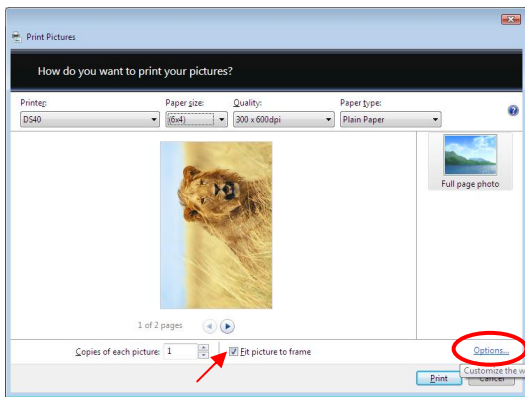
<Example of Application Use>

This is an example using Windows Explorer

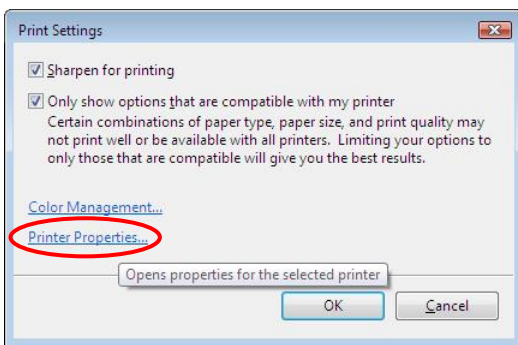
Step 1. Select 2 or more images⇒Click “Print”.



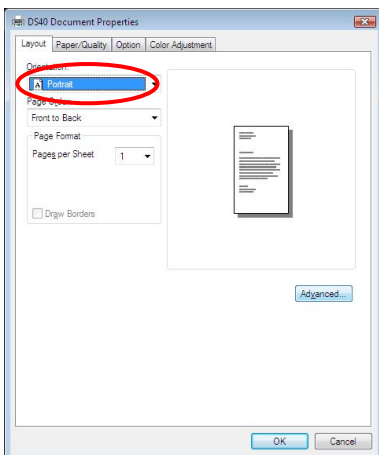
Step 2. Check “Fit picture to frame” and click “Options”.



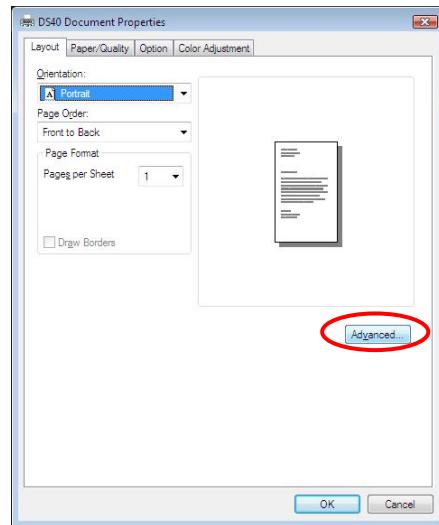
Step 3. Click on “Printer Properties”.



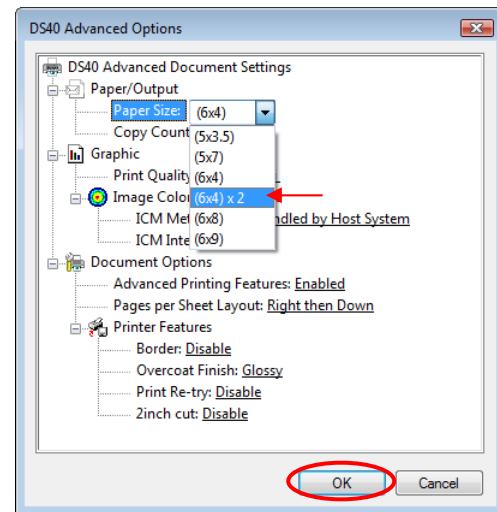
Step 4. From the “Orientation” pull-down menu, select “Portrait”.



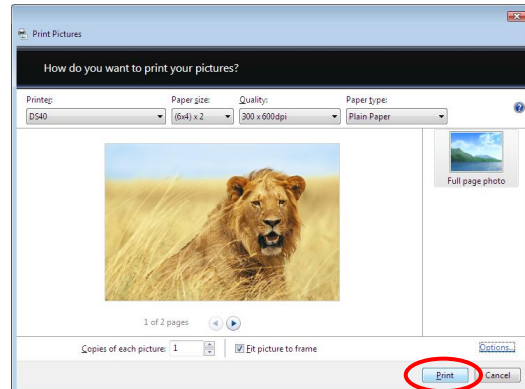
Step 5. Click on “Advanced”.



Step 6. Set the Paper Size to “(6x4)x2”. 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

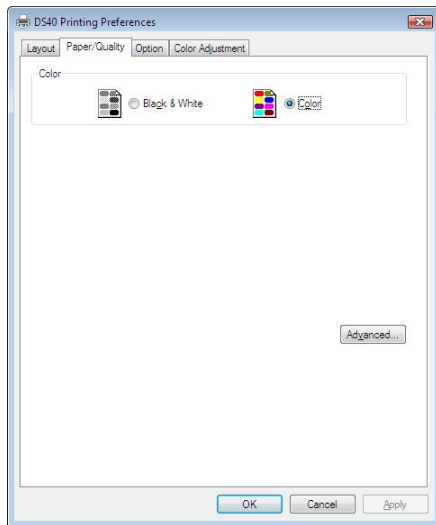


Fig 2.2.3 Paper/Quality tab

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

2.2.4 Option

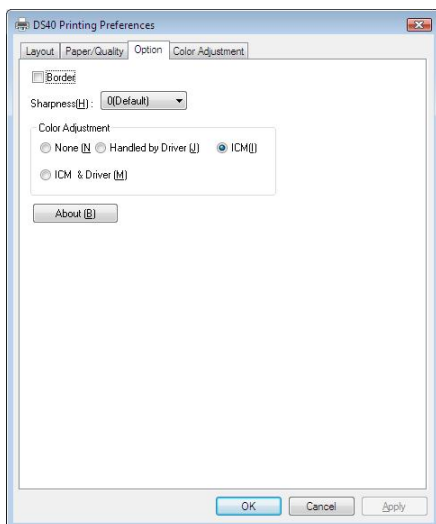


Fig 2.2.4.1 Paper option tab

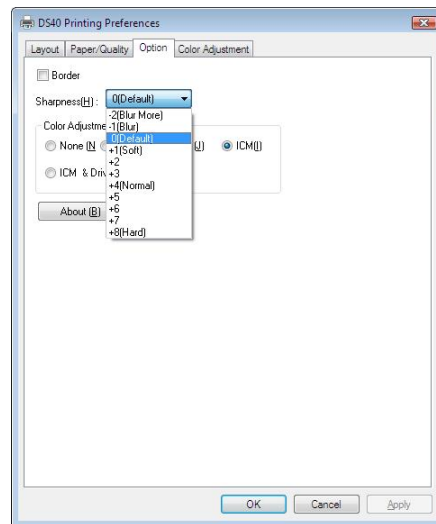


Fig 2.2.4.2 Sharpness setting

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.

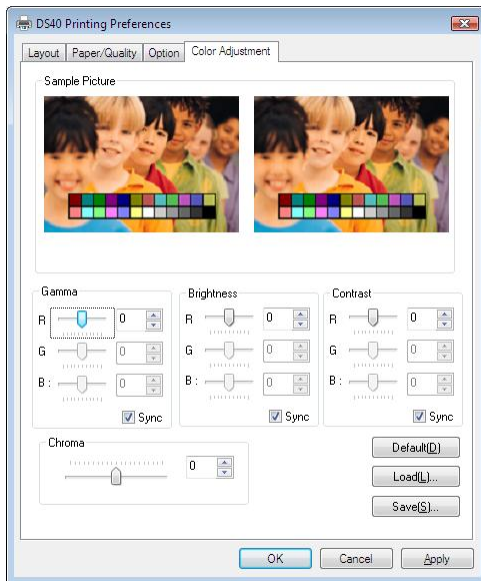


Fig 2.2.5 Color Adjustment tab

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.

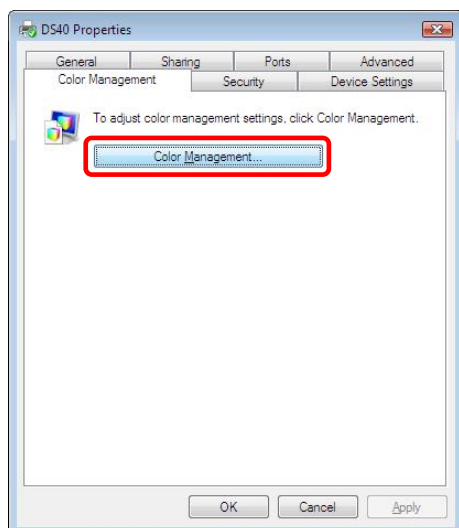
Tab	Options		Default	
Layout	Orientation		Portrait	
	Page Order		Front to Back	
	Pages Per Sheet		1	
Paper/Quality	Color		Color	
Option	Border		Disable	
	Sharpness		0 (Default)	
	Color Adjustment		ICM	
Color Adjustment	Gamma		0	
	Brightness		0	
	Contrast		0	
	Chroma		0	
Advanced (Click [Advanced] button of Layout tab)	Paper/Output	Paper Size		DS40 (6 x 4) DS80 (8x10)
		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 Finish	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 [DS40_xxxx].
xxxx is a 4-digit number that refers to the version.

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



Step 2. Choose printer: DS40 from a device.

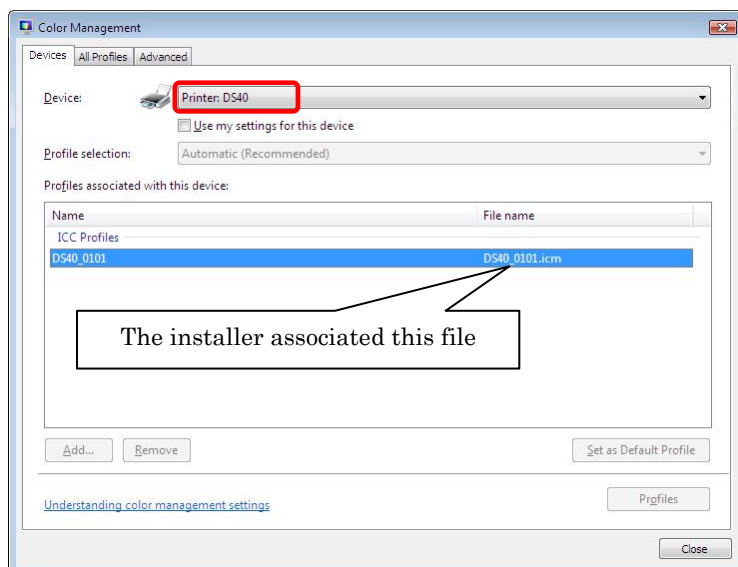


Fig 2.4 Color Management

2.5 Print Area

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

Model	Paper	Size (inch)	Print Area (mm)	300 x 300 DPI Dot amount	300 x 600 DPI Dot amount
DS40 / DS80 (*)	(5x3.5)	3.5" x 5"	92.1 x 131.1	1088 x 1548	2176 x 1548
	(6x4)	4" x 6"	105.0 x 156.1	1240 x 1844	2480 x 1844
	(5x7)	5" x 7"	131.1 x 181.0	1548 x 2138	1548 x 4276
	(6x8)	6" x 8"	156.1 x 206.2	1844 x 2436	1844 x 4872
	(6x9)	6" x 9"	156.1 x 232.0	1844 x 2740	1844 x 5480
DS80	(8x4)	8" x 4"	207.3 x 104.6	2448 x 1236	2448 x 2472
	(8x5)	8" x 5"	207.3 x 130.0	2448 x 1536	2448 x 3072
	(8x6)	8" x 6"	207.3 x 155.4	2448 x 1836	2448 x 3672
	(8x8)	8" x 8"	207.3 x 206.0	2448 x 2436	2448 x 4872
	(8x10)	8" x 10"	207.3 x 257.0	2448 x 3036	2448 x 6072
	A4 Length	8" x 11.7"	207.3 x 297.0	2448 x 3544	2448 x 7088
	(8x12)	8" x 12"	207.3 x 307.8	2448 x 3636	2448 x 7272

With the DS80 printer, the paper size (output size) can be designated as less than 8 inches, but the media used will be the DS80 8 inch width media.

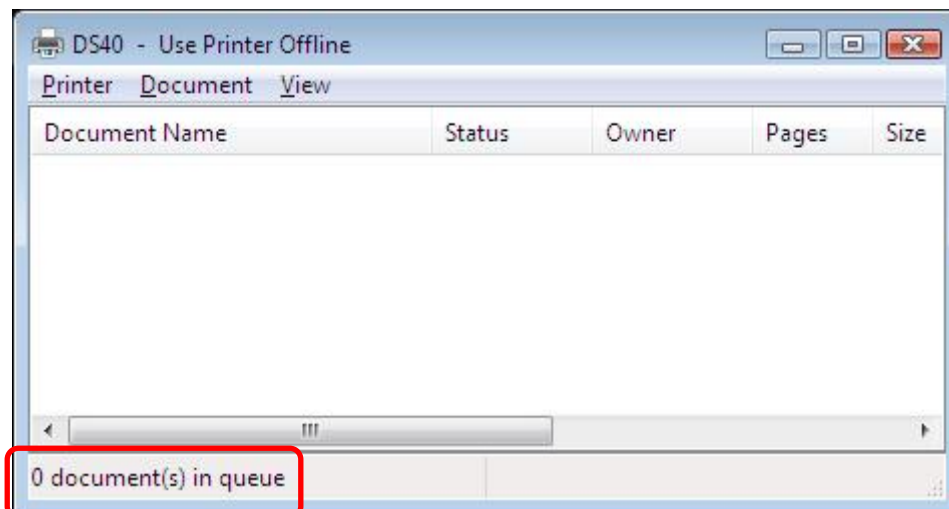
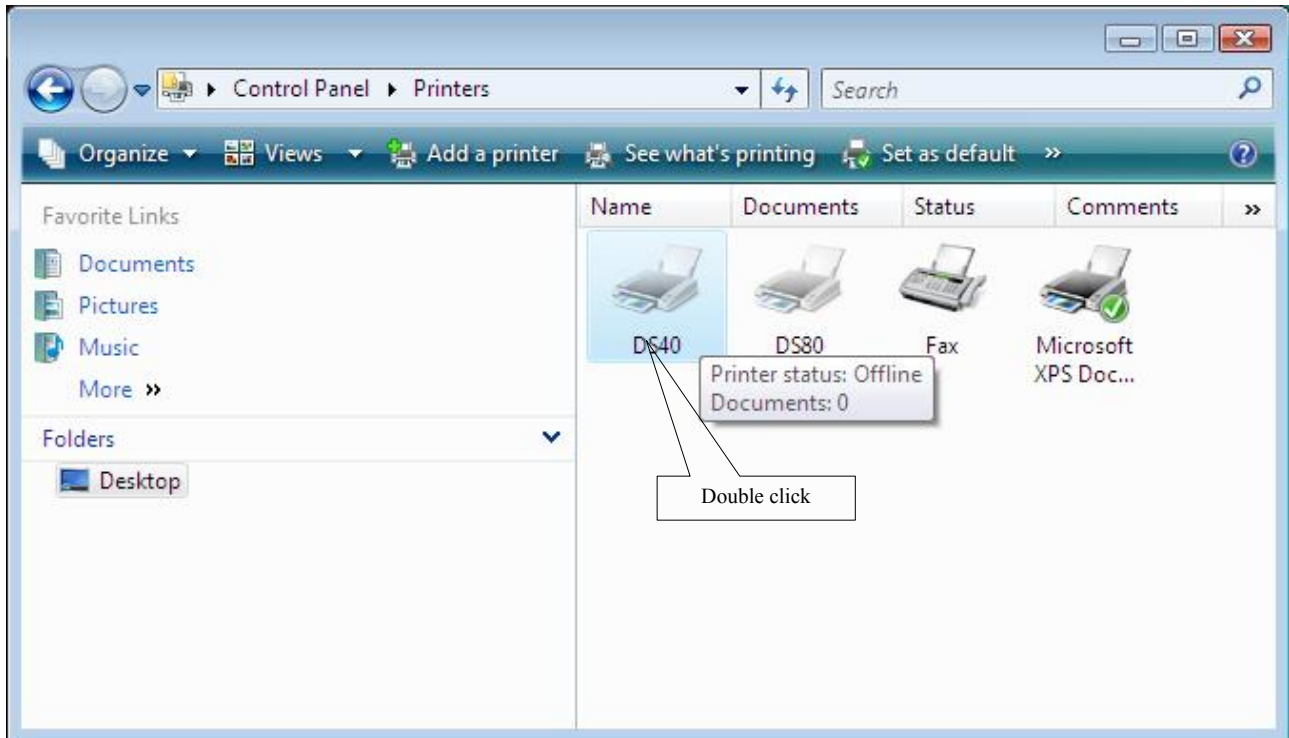
Chapter 3 Updating the Driver

Removing the driver is the same for both the “DS40” and the “DS80”. The following instructions are for the “DS40”, but if you are using the “DS80”, just read it as “DS80”.

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 DS40 printer, display the pull-down menu with the right click, and click on “Delete”.

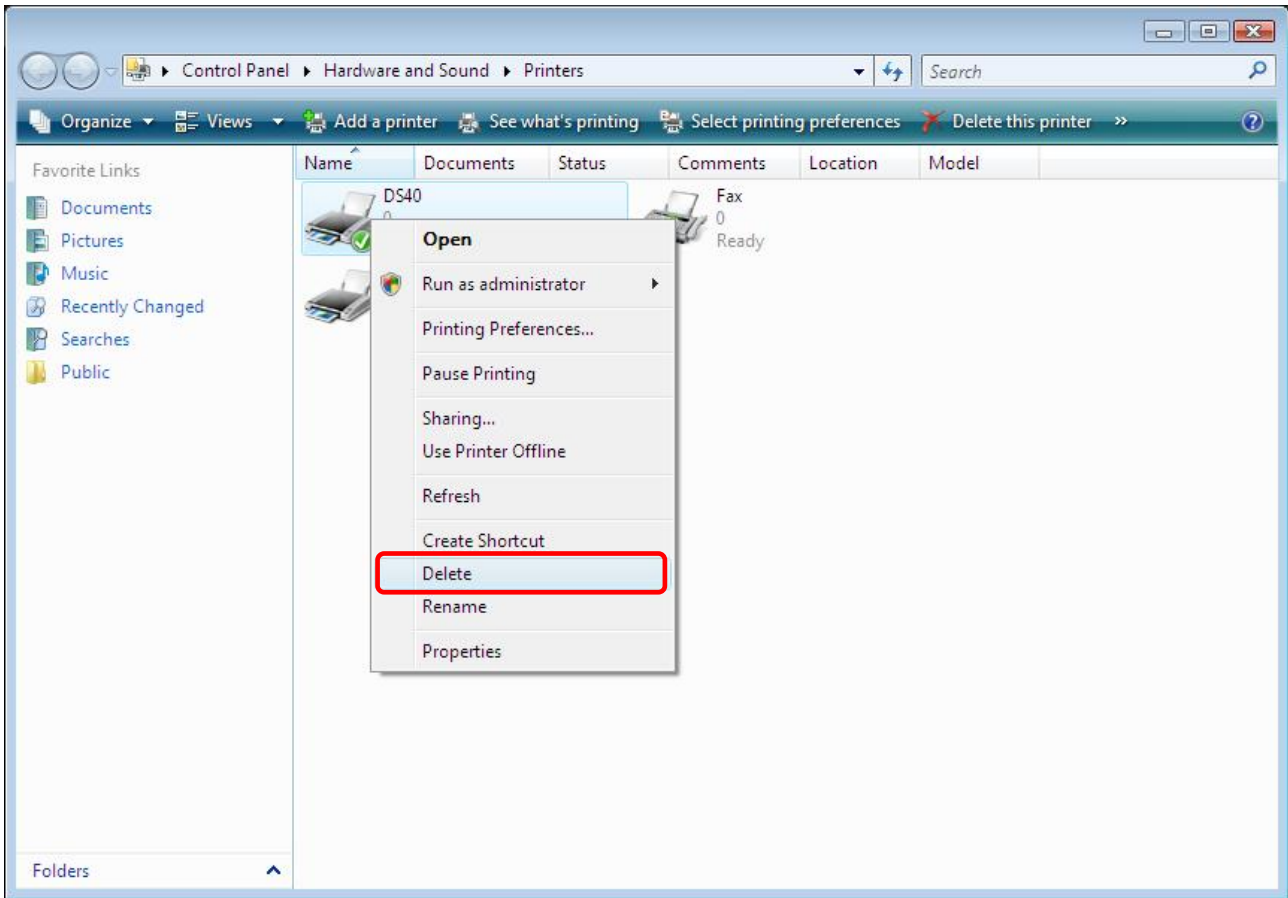


Fig 3.1 Printer window; DS40 right-clicked menu

(3) When “Are you sure you want to delete the printer ‘DS40’?” appears, click on “Yes”.

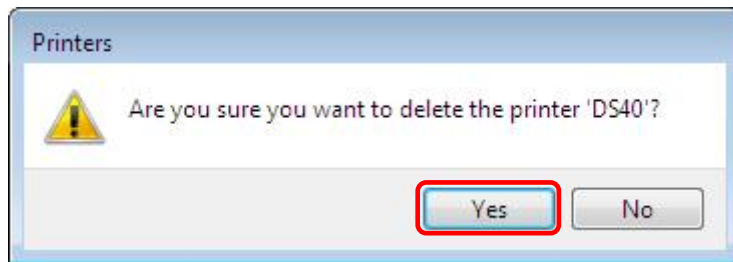


Fig 3.2 Delete Printer confirmation window

(4) After the DS40 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”.

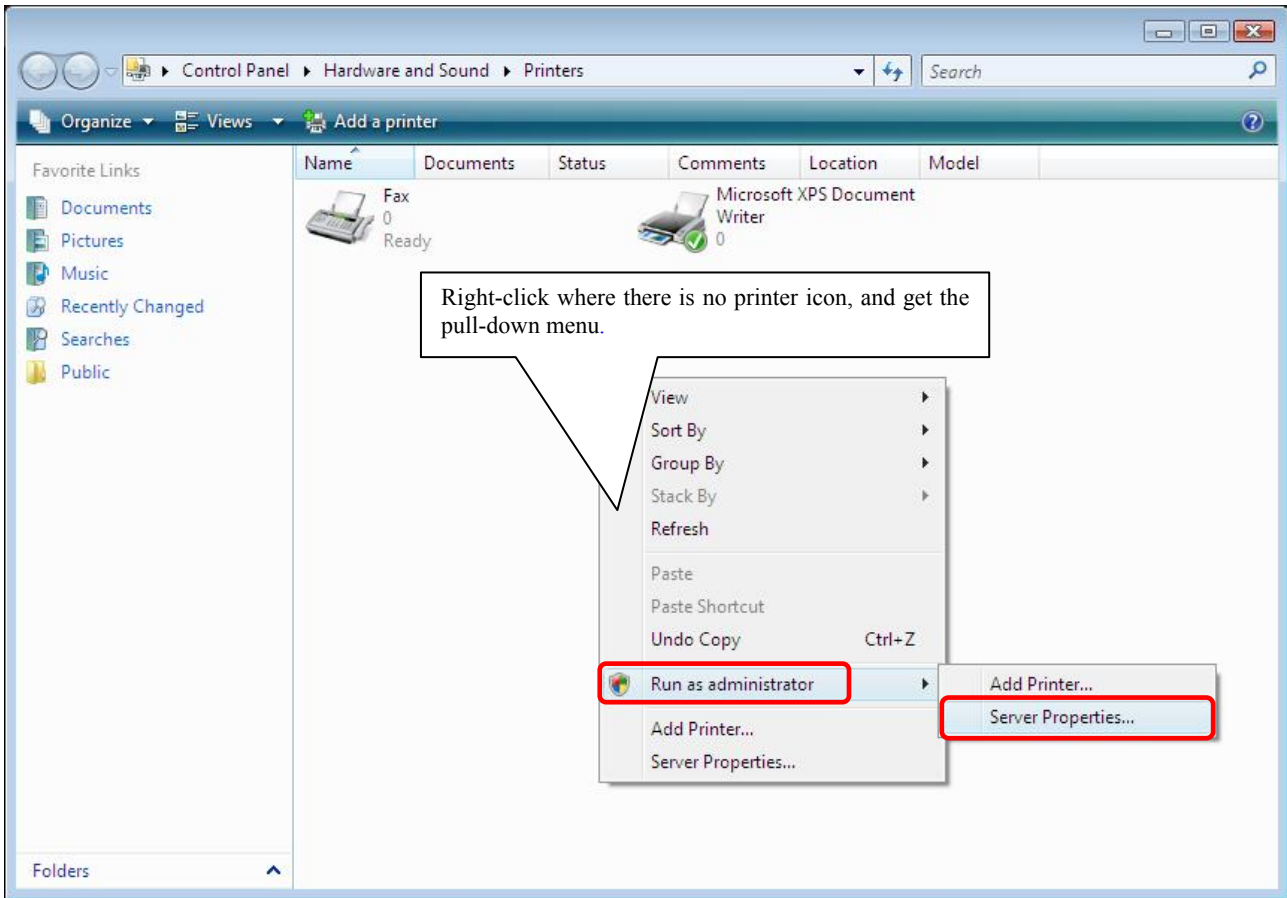


Fig 3.3 Pull-down menu opened by right-clicking on the Printer window

(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 “DS40”, and click the “Remove” button.

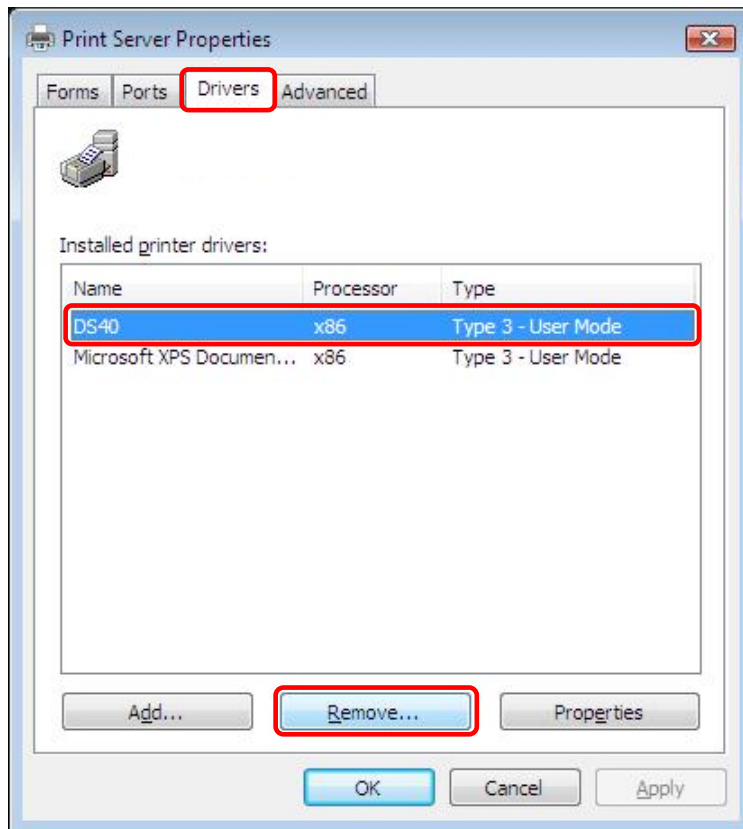


Fig 3.4 Print Server Properties window

- (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.

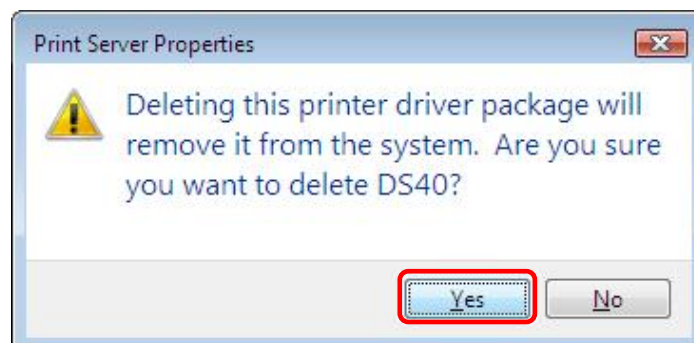


Fig 3.6 Print Server Properties confirmation window

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

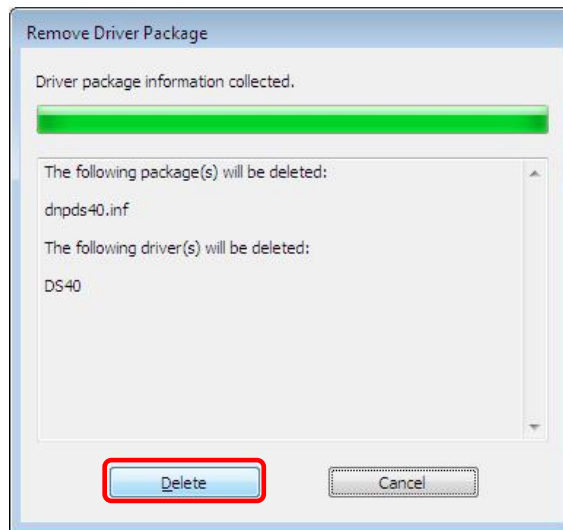


Fig 3.7 Remove Driver Package window

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

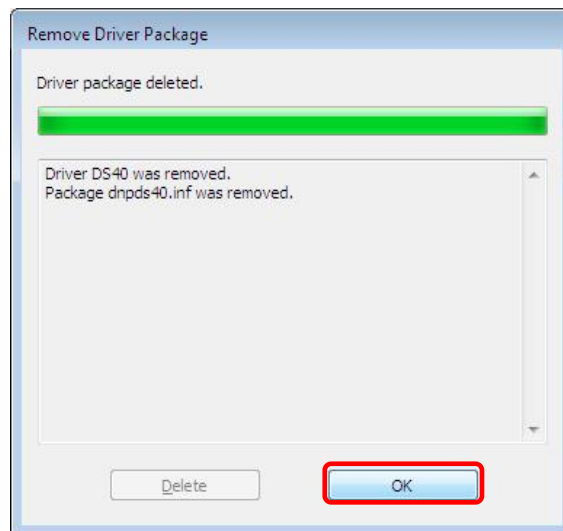
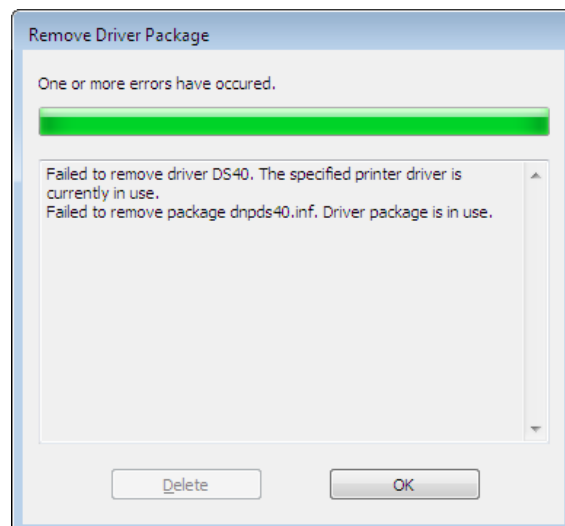


Fig 3.8 Driver Package Deleted window

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 “DS40” has been removed, and click on the “Close” button. Now the removal of the printer driver is complete. After removal, reboot the computer.

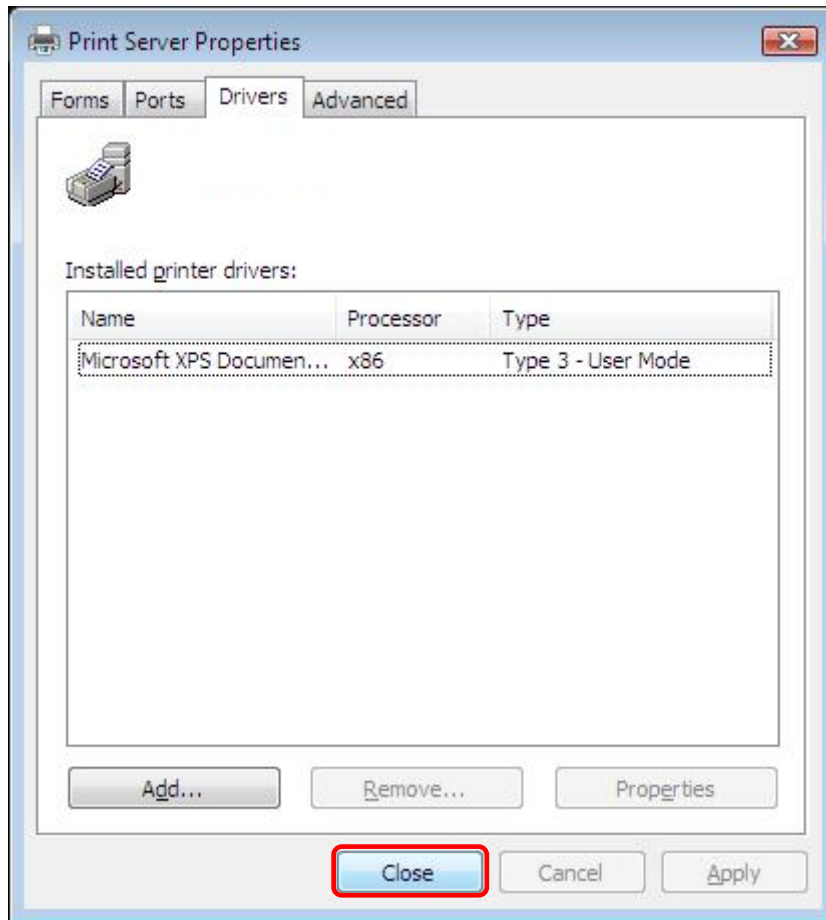


Fig 3.9 Print Server Properties window

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.