DNP

Digital Photo Printer

DS40/DS80

Printer Driver Manual for Windows Vista

Before operating the unit, please read this manual thoroughly and retain it for future reference.

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v. 3.20

DS40/DS80 Printer Driver Instructions For Windows Vista

Acknowledgements

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Purpose

This document includes instructions for installing and updating the printer drivers for DS40/80 printers on Windows Vista.

Printer and Host Computer Connection

1. Connect the DS40/DS80 USB cable to the host computer and turn the printer ON.

Attention

Do not insert the accompanying CD at this time.
In order to install the driver, **log in with administrator rights**.
These instructions are written on the assumption that you have administrator rights.

2. If the *Found New Hardware Wizard* is initiated, install the printer using the procedures described in the section titled "Install Using the Found New Hardware Wizard".
   If the *Found New Hardware Wizard* is NOT initiated, install the printer using the procedures described in the section titled "Install from Add Printer Wizard".

Attention

The following instructions describe installation procedures for a DS40 printer, but instructions are the same for a DS80. Substitute "DS80" for "DS40" when reading instructions.

FOUND NEW HARDWARE WIZARD

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

Figure 1. Found New Hardware Wizard

Note

For user account control, a confirmation window will state “Windows needs your permission to continue”. Click **Continue** to proceed.

2. 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”.

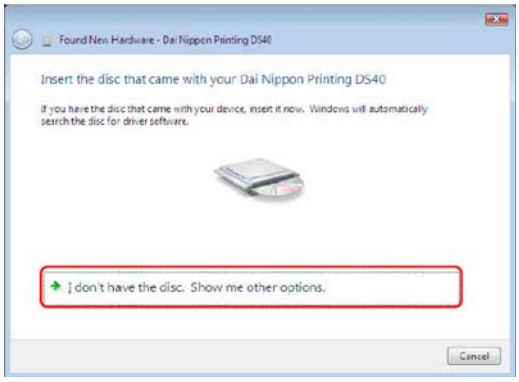


Figure 2. Insert Disc

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

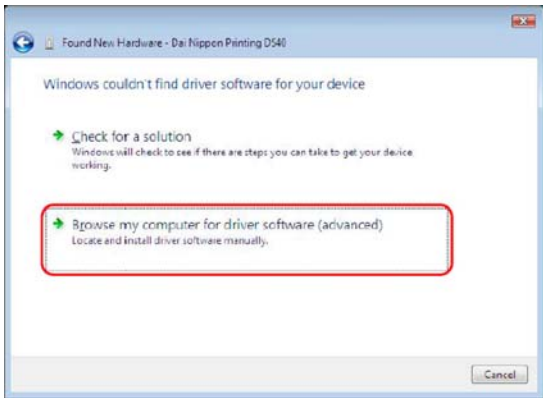


Figure 3. Windows Couldn’t Find Sofware...

4. Insert the accompanying CD at this point.
   If the message “Browse for driver software on your computer” appears, click on the **Browse** button, and designate a location for the Installation Disc. Click **Next**.

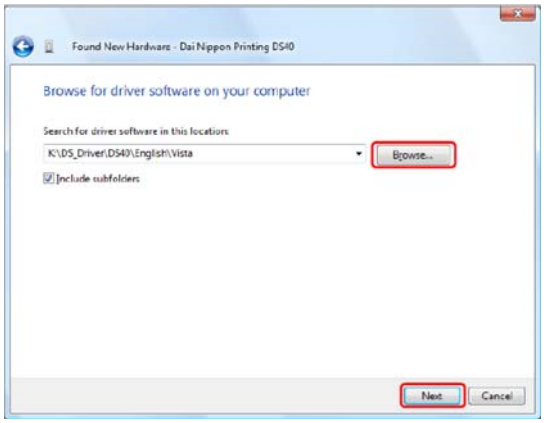


Figure 4. Browse Driver Software

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

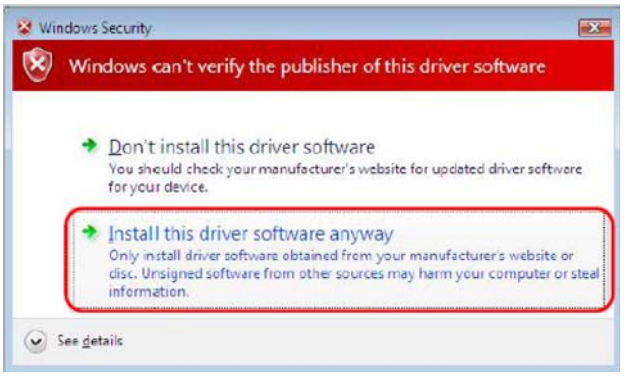


Figure 5. Security

6. The driver software will be installed. When the message “The software for this device has been successfully installed” appears, click **Close** and end the wizard.

Figure 6. Finish Wizard

7. Go to the *Start* menu and select **Control Panel**. Click on **Printer** in the Control Panel.

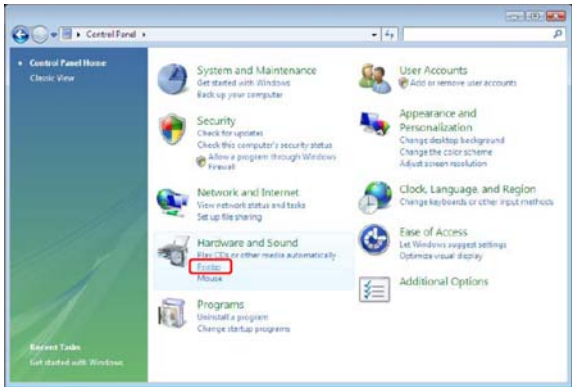


Figure 7. Control Panel

8. Confirm that DS40 is shown in the list of installed printers. Installation is now complete.

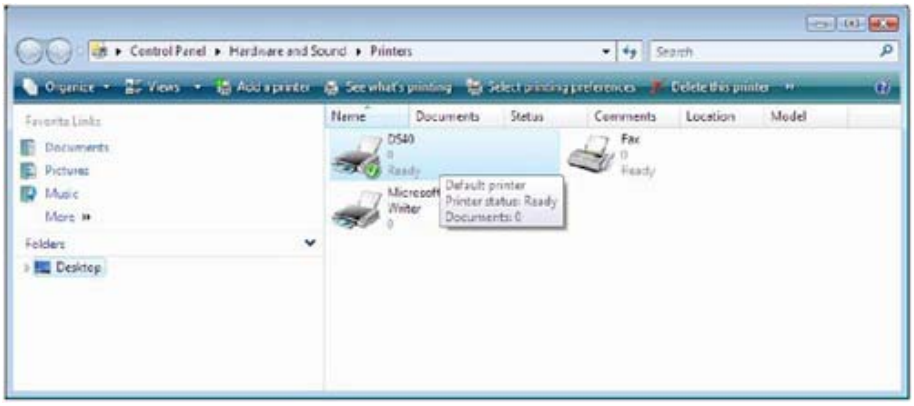


Figure 8. Printers

9. Restart the system.

INSTALL FROM THE ADD PRINTER WIZARD

Note

Follow these instructions if the *Found New Hardware Wizard* does not initiate after connecting your printer.

1. Go to the *Start* menu and select **Control Panel**. Click on **Printer** in the Control Panel.

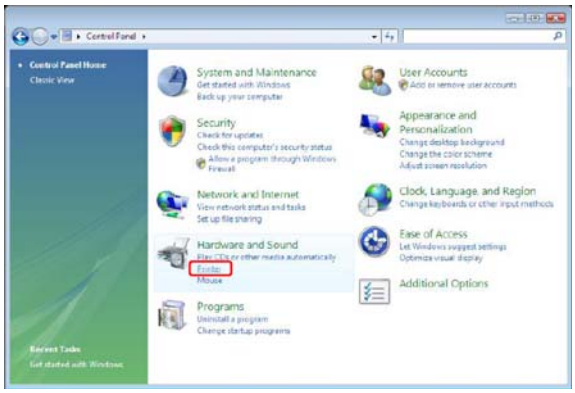


Figure 9. Control Panel

2. Click on **Add a Printer** in the menu bar along the top of the *Printer* window.

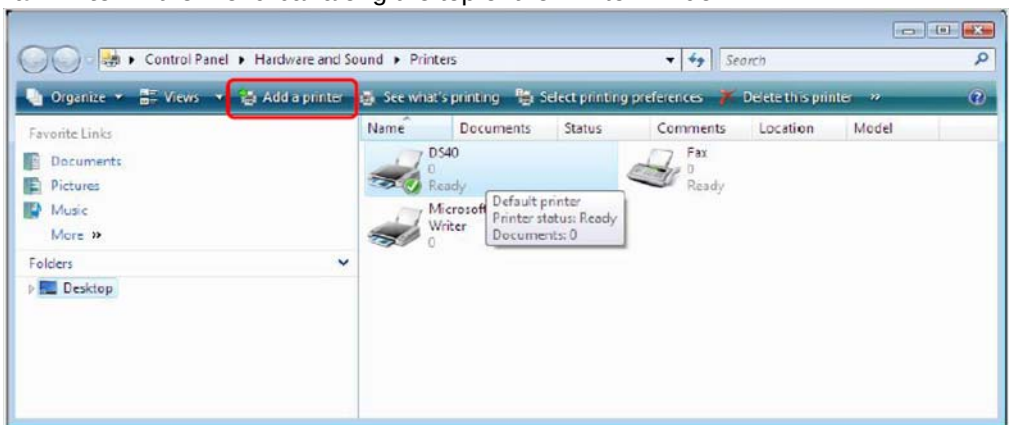


Figure 10. Add a Printer

3. At the *Choose a local or network printer* window, select **Add a local printer**.

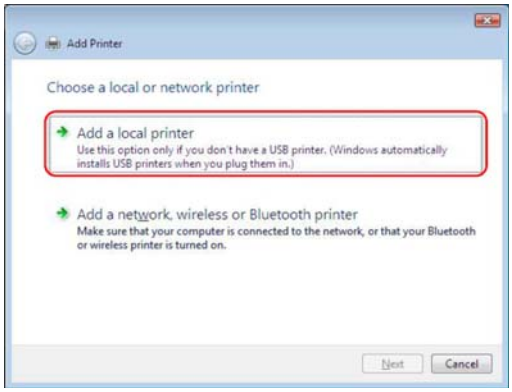


Figure 11. Local or Network Printer

4. At the *Choose a printer port* window, select **Use an existing port**, and select the USB port the printer is connected to (i.e. USB001) from the drop-down menu. Click **Next**.

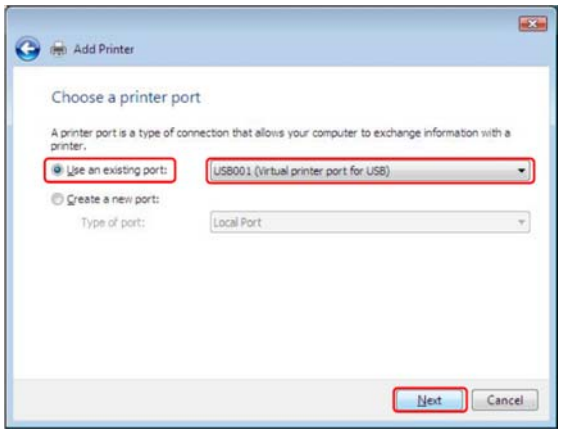


Figure 12. Choose Printer Port

5. At the *Install the printer driver* window, click on the **Have Disk...** button.

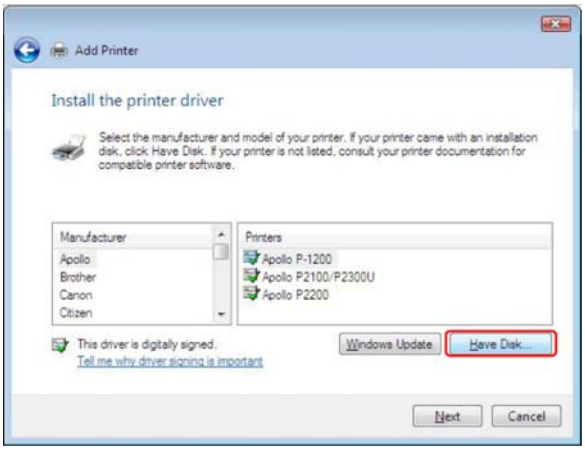


Figure 13. Install Printer Driver

6. At the *Install From Disk* window, use the **Browse** button to designate the installation disc location. Click **OK**.

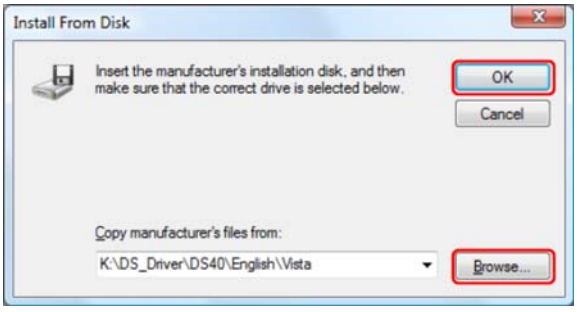


Figure 14. Install From Disk

7. At the *Install the printer driver* window, check that DS40 is displayed under *Printers*. Click **Next**.

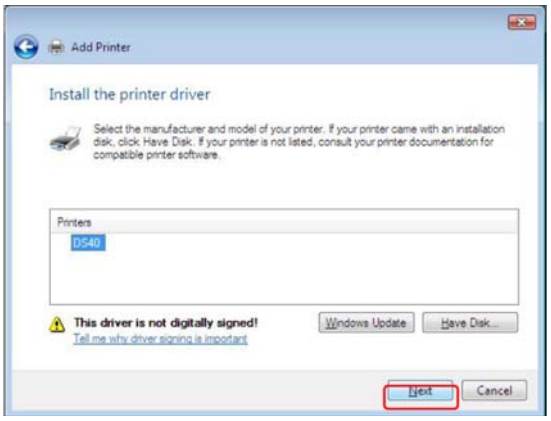


Figure 15. Install Printer Driver

8. At the *Type a printer name* window, you can enter a name for the printer. To set it as the default printer check the box next to **Set as the default printer**. Click **Next**.

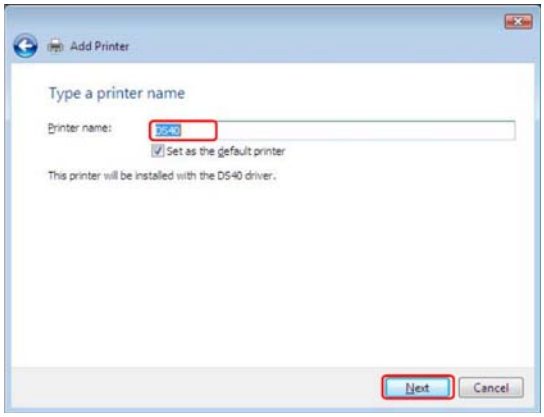


Figure 16. Printer Name

Note

Installation will begin, but the *User Account Control* will request confirmation. Select **Install this driver software anyway**. Click **Continue**.

Figure 17. Confirmation

9. When the message “The software for this device has been successfully installed” appears, click **Close** to end the wizard.

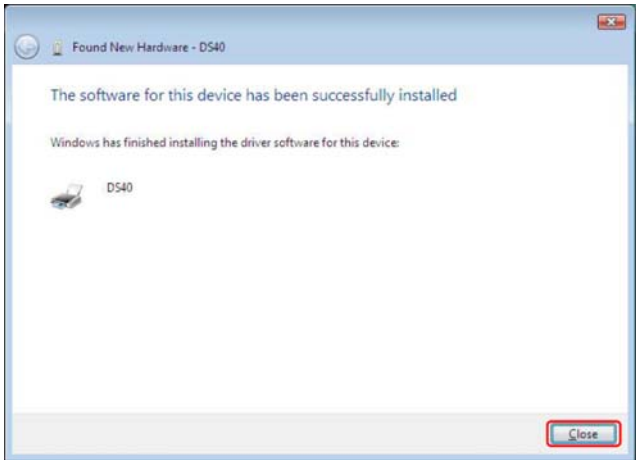


Figure 18. Close

10. Go to the *Start* menu and select **Control Panel**. Click on **Printer** in the Control Panel. Confirm that the DS40 is shown in the *Printer* window. Installation of the printer driver is complete.

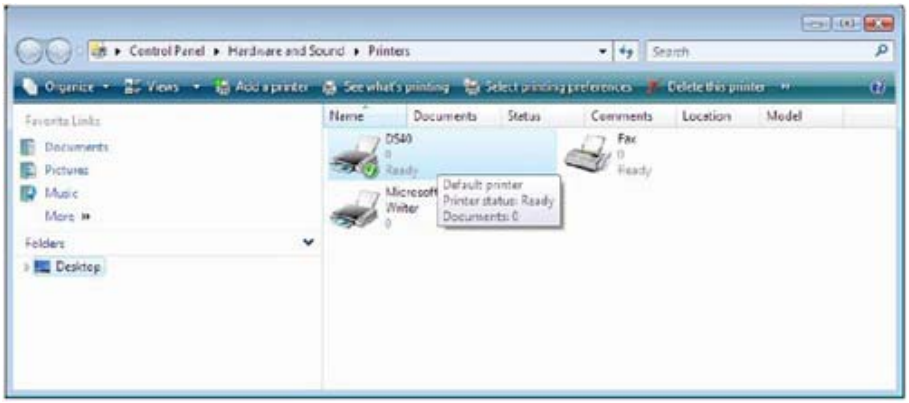


Figure 19. Printers

11. Restart the system.

PRINTER PROPERTIES

Various printer settings can be set using the DS40/DS80 driver properties. As a rule, the printer settings should not be altered, instead use the default settings present at installation. Paper size settings should be altered from the application side.

Opening Printer Properties

1. Go to the *Start* menu and select **Control Panel**.

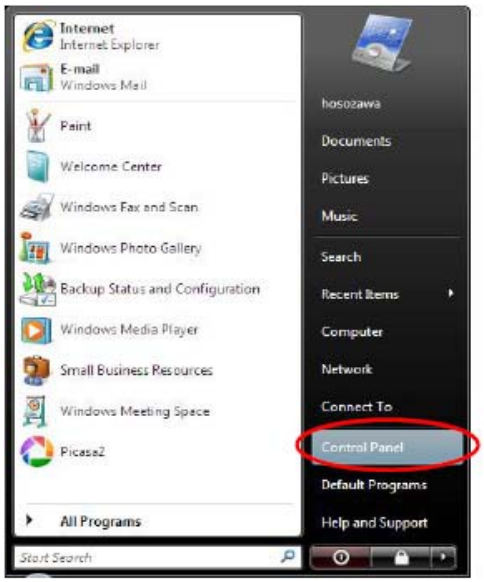


Figure 20. Control Panel

2. In the *Control Panel* select **Printer**.

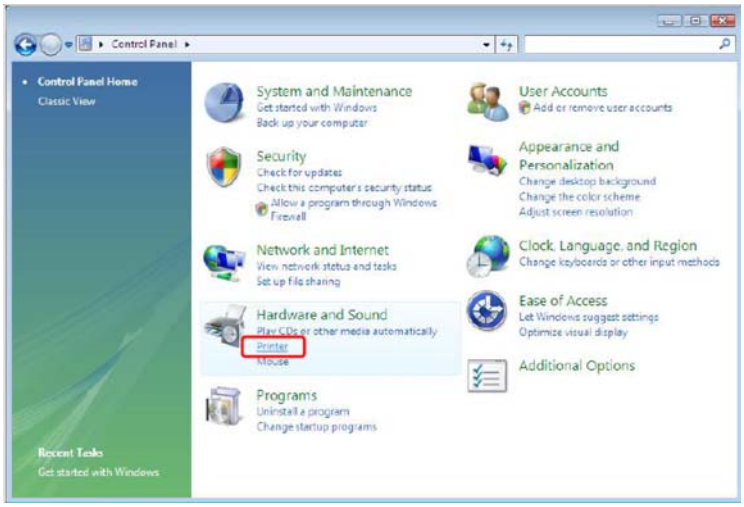


Figure 21. Printer

3. In the *Printers* window, right-click on the DS40 icon and select **Properties**.

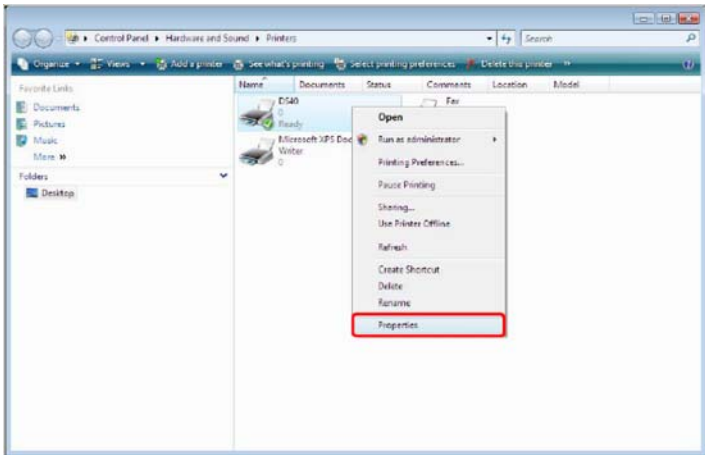


Figure 22. Properties

4. The *DS40 Properties* window will appear.

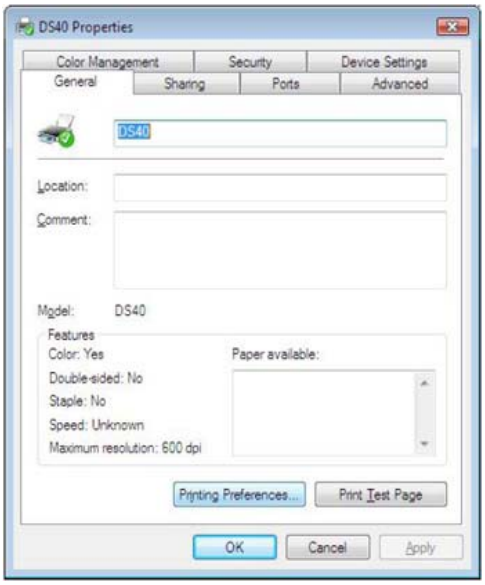
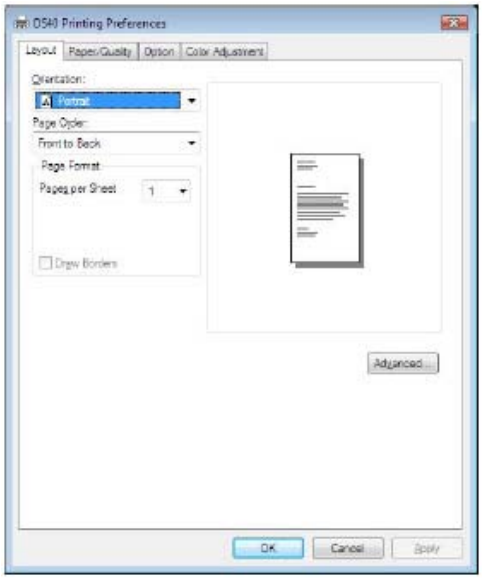


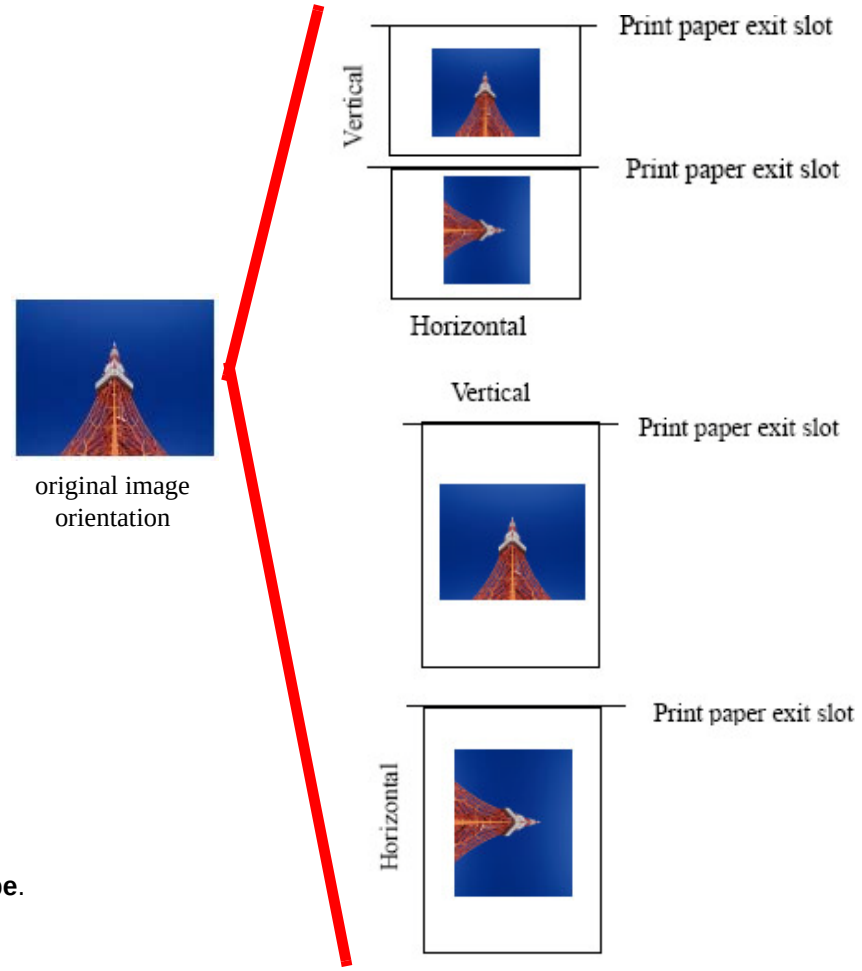
Figure 23. DS40 Properties

Explanation of Print Setting Functions

From the *DS40 Properties* window, you can click on **Printing Preferences** to change various print settings.

Layout Tab

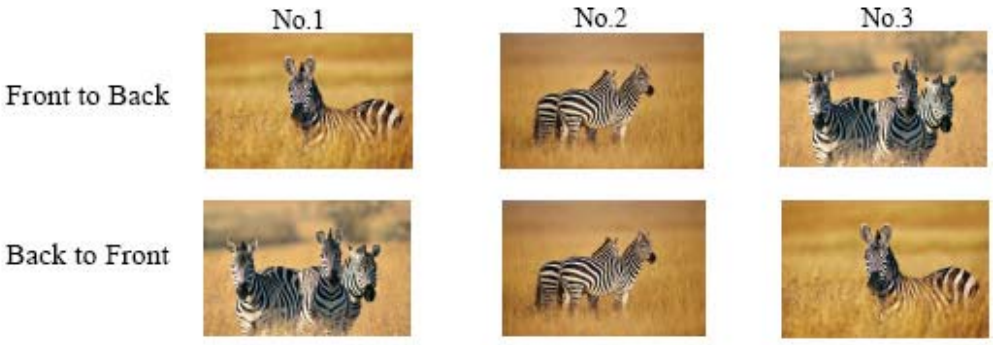




Print Orientation
Set the print orientation as **Portrait** or **Landscape**.

Page Order

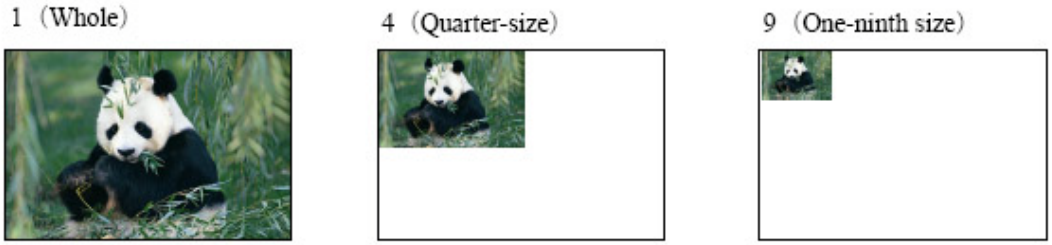
When printing multiple images in the application, you can set the order.



TPages Per Sheet

This setting prints the designate fractional size.

Example – fraction size



Advanced Options

By clicking the **Advanced** button in the *Layout* tab, various advanced settings can be changed.

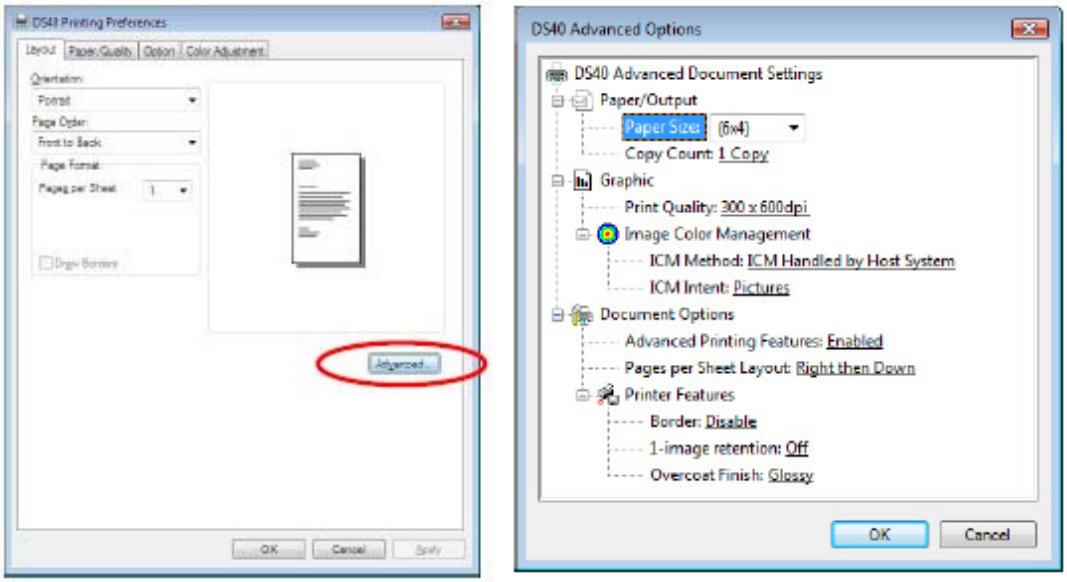


Figure 24. Advanced Button & Advanced Options Tab

Paper Size
You can designate the paper size. 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. Match the print quality to the printer settings.

Print Quality	Function
300 x 300 dpi	Print in high-speed mode
300 x 600 dpi	Print in high-quality mode *If the application can not set an asymmetric aspect resolution, use 600 x 600 dpi*
600 x 600 dpi	Print in high-quality mode. *Printer driver converts to 300 x 600 dpi data, and sends to printer.*

ICM Method

ICM Method	Function
ICM Disabled	Synchronous with “Color Management: None” in Paper tab.
ICM Handled by Host System	Synchronous with “Color Management: ICM” in Paper tab. Performs color management with the driver
ICM Handled by Printer	This is the same setting as “ICM Handled by Host System”

ICM Intent
This designates the rendering method when using ICM. Always have the ICC profile for the DS40 set to **Picture**. Do not use other settings.

Advanced Printing Features
Always have this set to Enabled. Do not use other settings.

Pages per Sheet Layout
If Pages per Sheet setting is “multiple pages per sheet,” the layout direction of a picture is specified.

Border
This setting is synchronous with the border option in the Paper tab.

Overcoat Finish
You can choose an overcoat finish for the printed surface 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.

Note

Depending on the version being used, “Glossy” may be the only finish option.

Print Retry

If printer errors, the setting in Print Re-try will determine if data in the printer buffer will print after error recovery.

Print Re-try	Function
Disable	Printing data in the buffer is cleared after printer error. After an error recovery, the cleared image data must be resent.
Enable	Printing data in the buffer is held after printer error. After an error recovery, the print process resumes with the saved data in the buffer. However, if printer is powered OFF, it is lost.

According to the contents of a printer error, the power supply of the printer may need to be re-switched on for error recovery. In this case, it is not dependant on the setup of Print Re-try, and printing data in a printer buffer is cleared.

2inch cut

In the case of a specific paper size of DS40, it sets up whether the printer cuts into two or more sheets in 2” length.

2inch cut	Function
Disable	It cuts in usual size
Enable	If set to 4x6 size, the printer will cut the print into two 2” sheets. If set to 6x8 size, the printer will cut the print into four 2” sheets.

Multiple Layout

When the DS40 is using 6x9 (A5W)/6x8 sized media, or the DS80 is using 8x12/8x10 sized media, two- or three-image layout is possible. The printer driver paper setting makes multi-image layout possible. The image sizes are as follows:

Model	Driver Paper Setting (layout)	Image Size (mm)	Using Media
DS40	(6x4) x 2	(156.1x105.0) x 2	6x9 (A5W), 6x8
DS80	(6x4) x 2	(156.1x105.0) x 2	8x12, 8x10
	(8x4) x2	(207.3x104.6) x 2	8x12, 8x10
	(8x5) x2	(207.3x130.0) x 2	8x12, 8x10
	(8x6) x2	(207.3x155.4) x 2	8x12
	(8x5) _ (8x4)	(207.3x130.0) + (207.3x104.6)	8x12, 8x10
	(8x6) _ (8x4)	(207.3x155.4) + (207.3x104.6)	8x12, 8x10
	(8x6) _ (8x5)	(207.3x155.4) + (207.3x130.0)	8x12
	(8x8) _ (8x4)	(207.3x206.2) + (207.3x104.6)	8x12
	(8x4) x 3	(207.3x104.6) x 3	8x12
Image Layout	Median Size	2.54	

Multiple layout is possible under the following conditions:

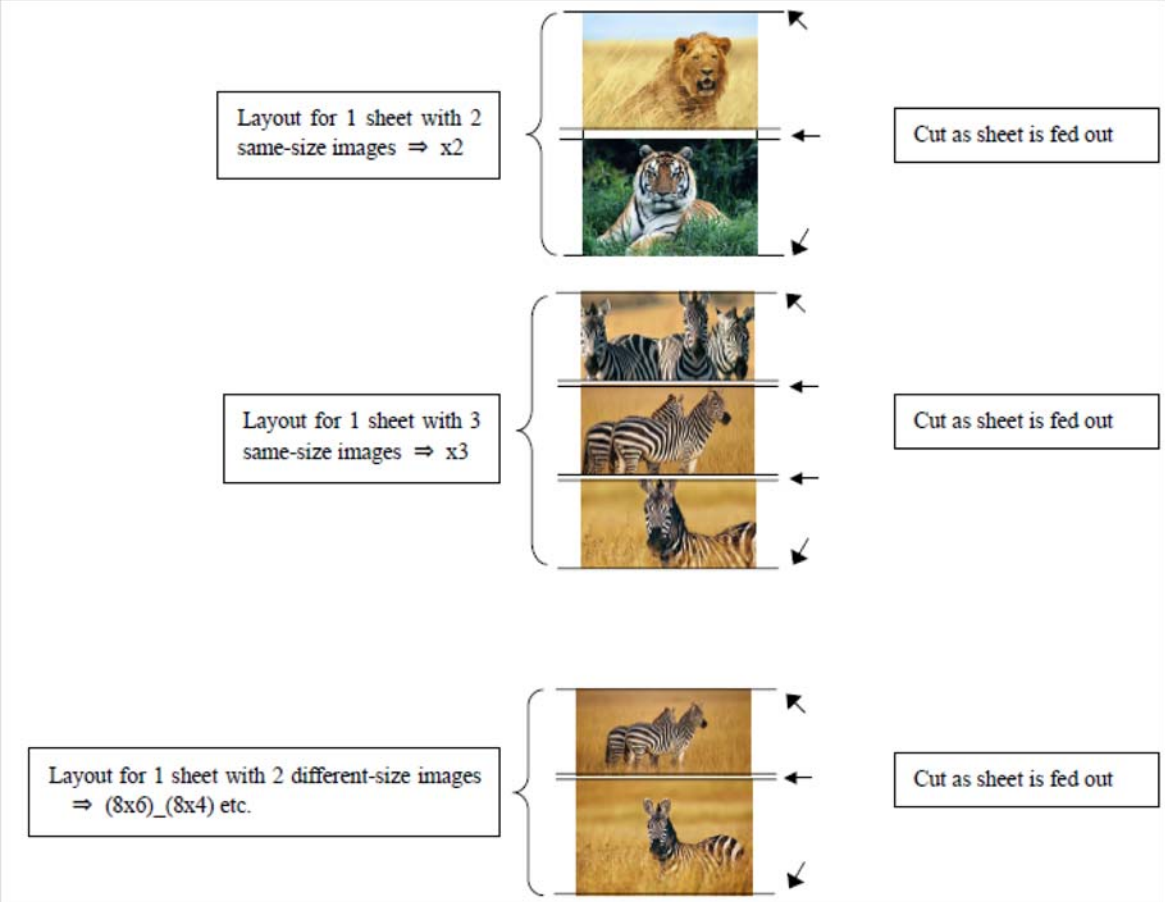
1. The printer is using 6x9, 6x8, or 8x12, 8x10 sized media.
2. The printer driver paper size is set to one of the above sizes.
3. Multiple images are sent from the application.

Note

Because the multi-image layout occurs on a per-job basis, this works when there are multiple images for one 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

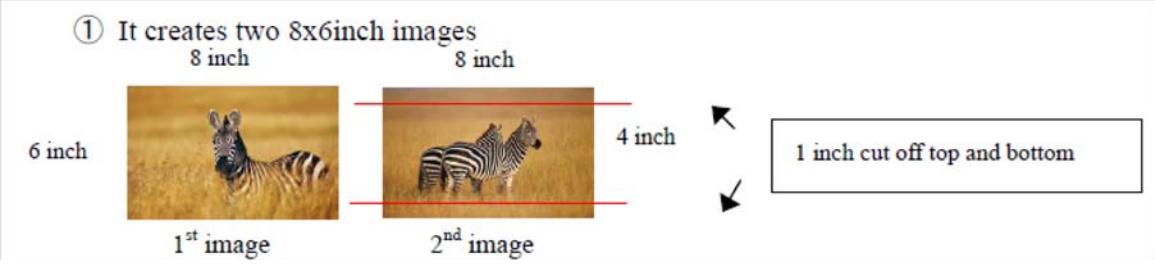
The following combinations are possible for the multi-image layout patterns:



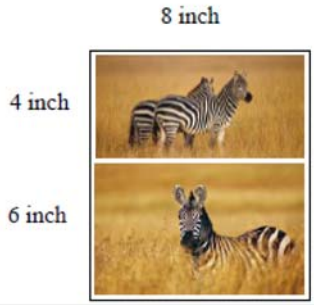
Cautions for Printing Two Different-size Images on One Sheet

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

Example – When the layout is set for (8x6)_(8x4), the driver creates the layout image in the following order:

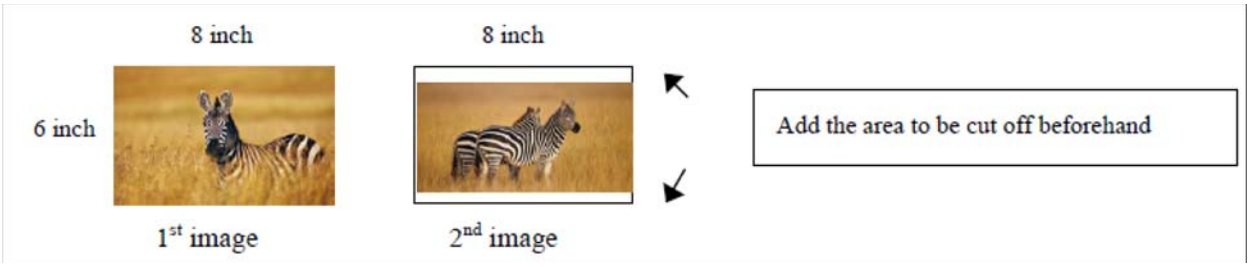


② The driver then lays out the 2 different-size images from ① as one (8x10) image and outputs it to the printer.



Example – When outputting the original image to the driver, the first and second images are created as the same size.

Factor in the space that will be cut off from the second image.



Using the Application

This is an example of using *Windows Explorer* to print:

1. Select two or more images and click **Print**.

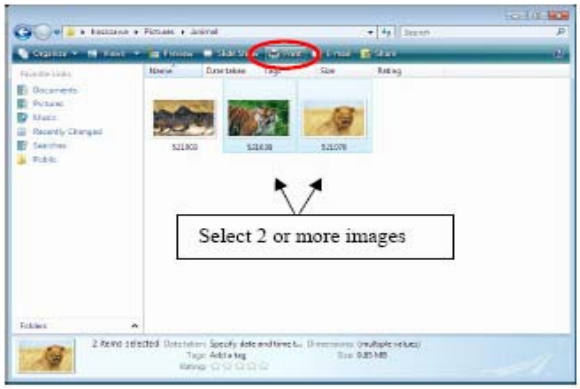


Figure 25. Select Images

2. Check the **Fit picture to frame** box and click **Options**.

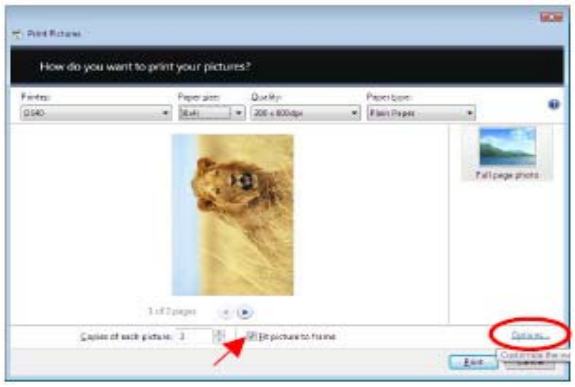


Figure 26. Options

3. Click on **Printer Properties**.

Figure 27. Printer Properties

4. From the *Orientation* drop-down menu, select **Portrait**.

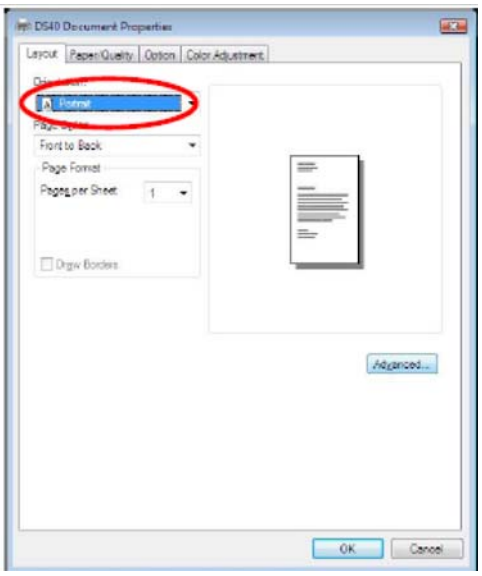


Figure 28. Orientation

5. Click on the **Advanced...** button.

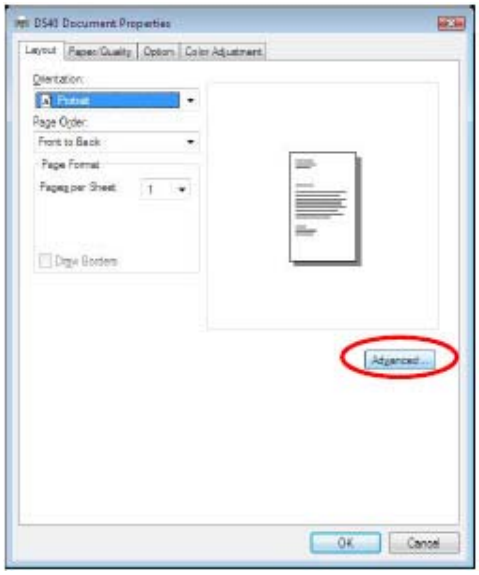


Figure 29. Advanced

6. Set the *Paper Size* to **(6x4) x 2**. Click **OK** until you return to the *Print Pictures* window.

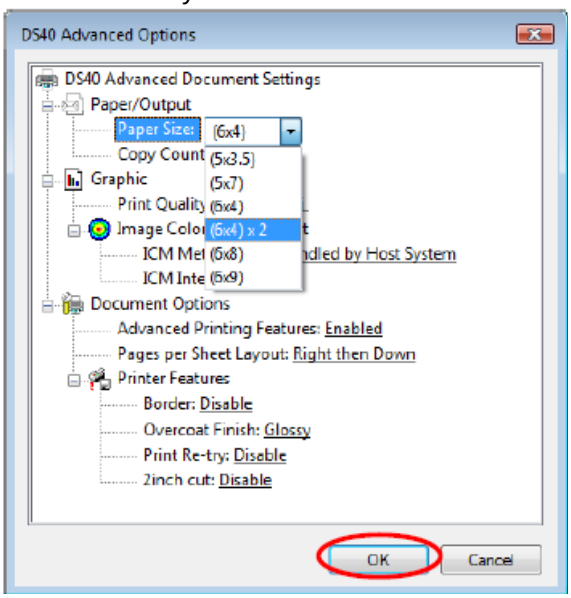


Figure 30. Paper Size

7. Click on **Print**.

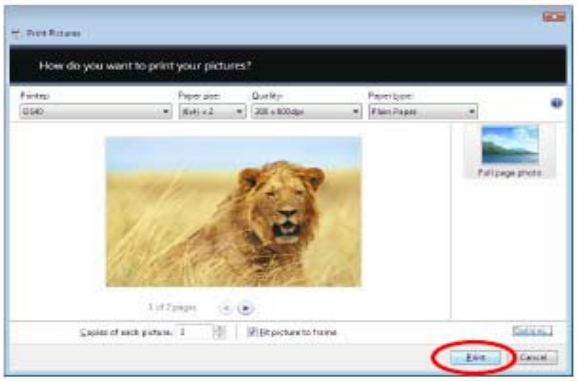


Figure 31. Print

Paper/Quality Tab

Select the **Color** setting. (Do not use Black & White setting.)

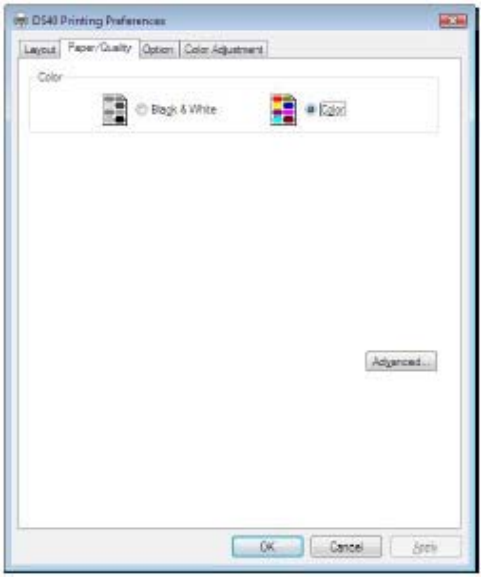


Figure 32. Color

Options Tab

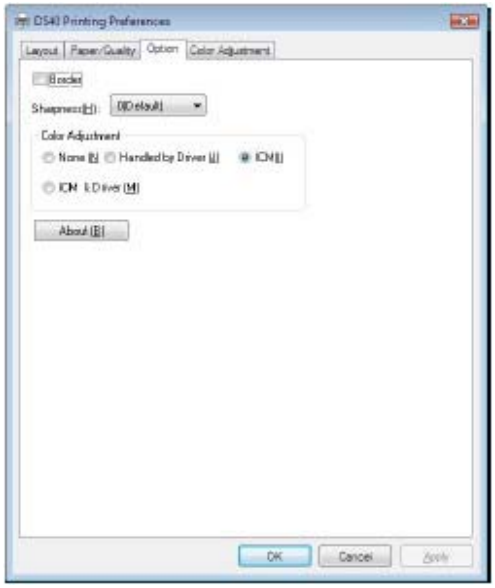


Figure 33. Options

Border
Check the box to designate a border. This setting is synchronous with border in the *Advanced* settings.

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

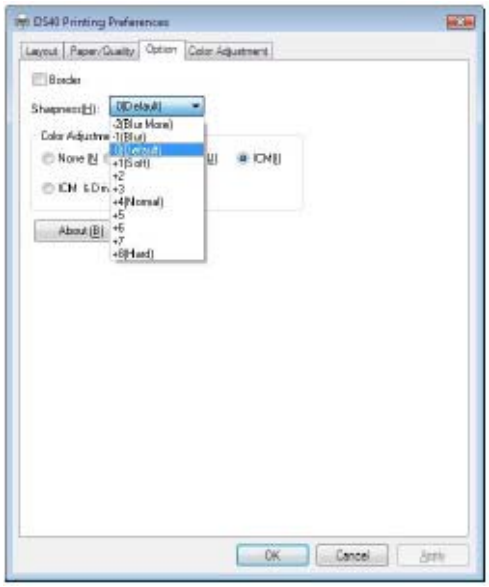


Figure 34. Sharpness

Color Adjustment
None – this setting is synchronous with “ICM Method” in the Advanced settings. Checking **None** 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 the Color Adjustment tab is enabled. The adjustment values for gamma, brightness, contrast, and chroma are shown.

ICM – this setting is 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.

Color Adjustment Tab

If you check **Handled by Driver** in the *Option* tab, the respective color adjustment values are reflected in the *Color Adjustment* tab.

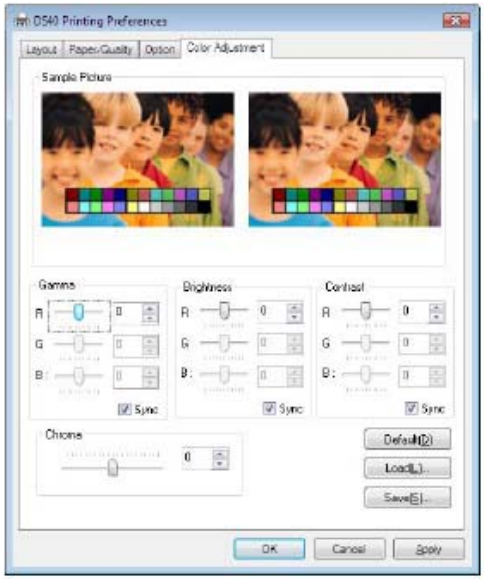


Figure 35. Color Adjustment

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 saturations of the image.

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, return to the default settings.

Tab	Options			Default
Layout	Orientation			Portrait
	Page Order			Front to Back
	Pages Per Sheet			1
Paper/Quality	Color			Color
Option	Frame			Disable
	Sharpness			0 (Default)
	Color Adjustment			ICM
Color Adjustment	Gamma			0
	Brightness			0
	Contrast			0
	Chroma			0
Advanced (click Advanced on Layout tab)	Paper/Output	Paper Size		DS40 (6x4) DS80 (8x10)
		Copy Count		1
	Graphic	Print Quantity		300 x 600 dpi
		Image Color Management	ICM Method	ICM Handled by Host System
			ICM Intent	Pictures
	Document Options	Advanced Prin	ting Features	Enable
		Pages Per	Sheet Layout	Right then Down
		Printer Features	Border	Disable
			Dual Image	Off
			Overcoat Finish	Glossy

Color Management

The *Color Management* tab designates the color profile. Default profile at installation is [DS40_xxxx] where xxxx is a four-digit number that refers to the version.

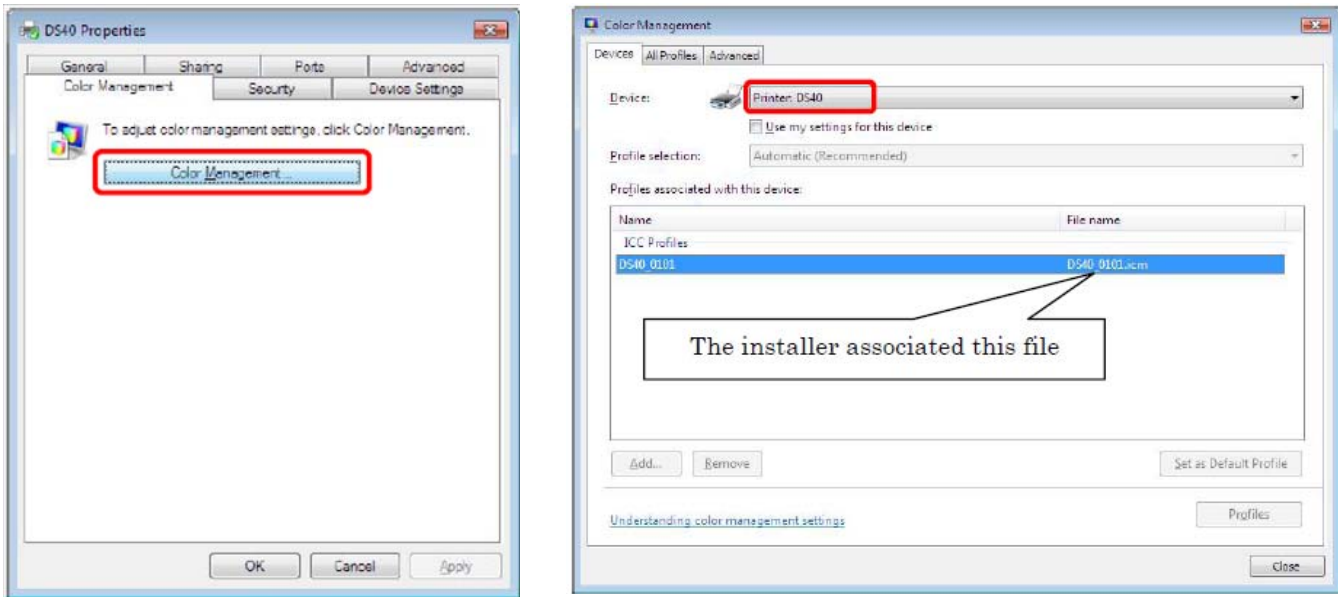


Figure 36. Color Management & Profile

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)	300x300 dpi	300x600 dpi
DS40/ DS80	(3.5x5)	3.5” x 5”	92.1 x 131.1	1088 x 1548	2176 x 1548
	(4x6)	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 then 8 inches, but the media used will be the DS80 8-in. width media.

UPDATING THE DRIVER

In order to update the printer driver, follow these instructions:

Driver Removal

Note

Removing the driver is the same for both the DS40 and DS80.

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

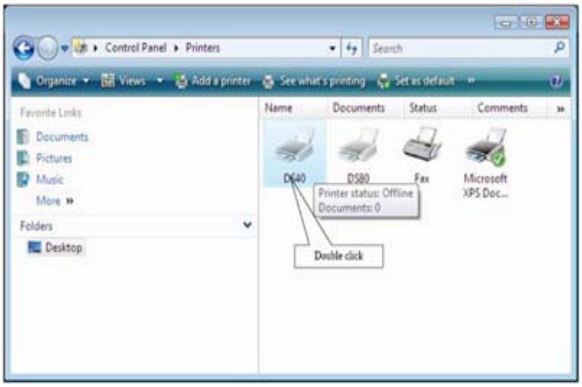


Figure 37. Printers

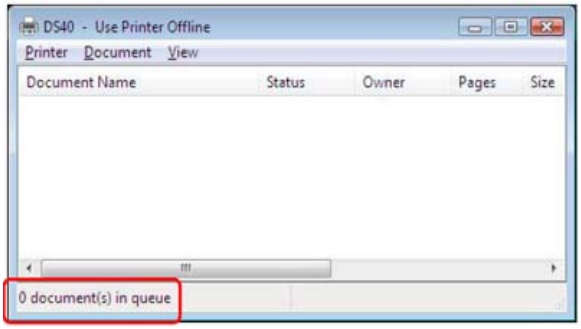


Figure 38. Printer Queue

2. Go to the *Start* menu and select **Control Panel**. Click on **Printer** in the Control Panel. From the *Printer* window, right-click on the DS40 printer and select **Delete**.

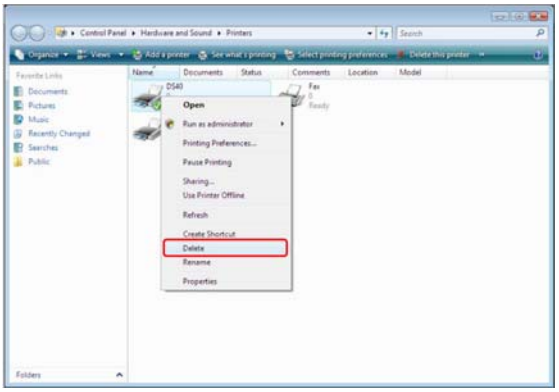


Figure 39. Delete

3. When asked “Are you sure you want to delete the printer DS40?” click **Yes**.

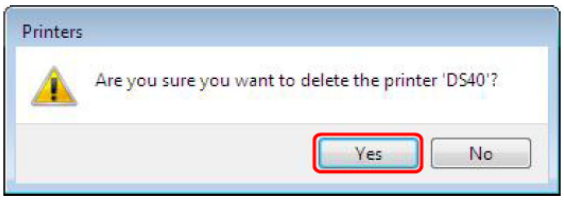


Figure 40. Are You Sure?

4. After the DS40 has been deleted, right-click where there is no icon and select **Run as administrator** from the menu. Select **Server Properties**.

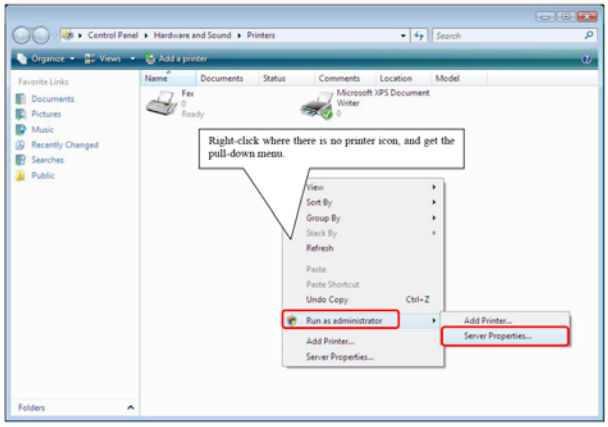


Figure 41. Run As Administrator

Note

User Account Control will request confirmation (see below). Click **Continue**.

5. When the *Print Server Properties* window appears, click on the *Drivers* tab. Select **DS40** from the list of installed printer drivers and click the **Remove** button.

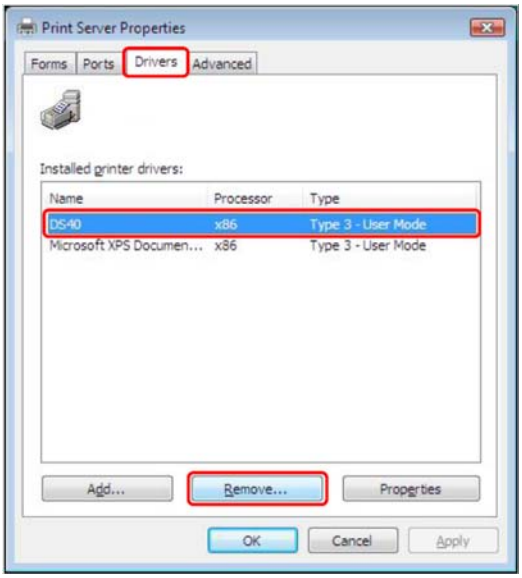


Figure 42. Print Server Properties

6. When the *Remove Driver and Package* window appears, select **Remove driver and driver package**. Click **OK**.

Figure 43. Remove Driver and Package

7. When the *Print Server Properties* confirmation window appears, click **Yes**.

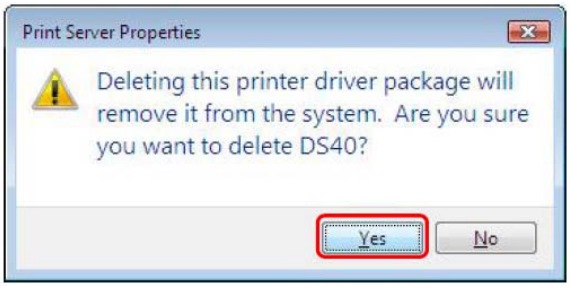


Figure 44. Confirmation

8. When the *Remove Driver Package* window appears, click **Delete**.

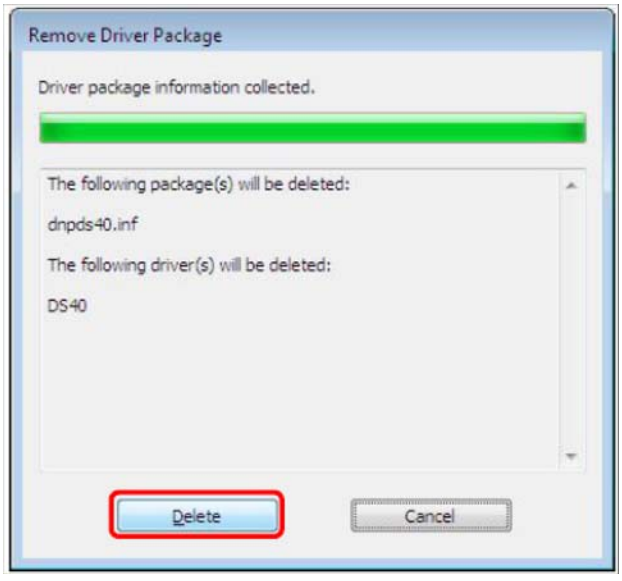


Figure 45. Remove Driver Package

9. When the *Driver Package Deleted* window appears, click **OK**.

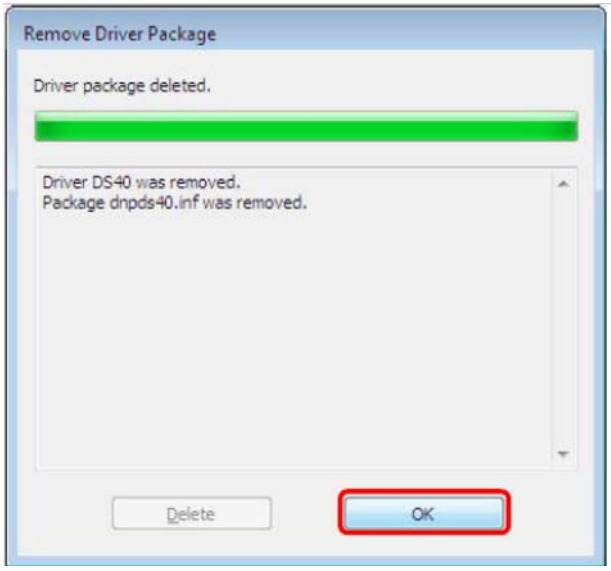


Figure 46. Package Deleted

Note

Before removing the printer driver, if the following error message appears (see below), reboot the computer. After the computer has rebooted, repeat the steps to remove the printer driver.

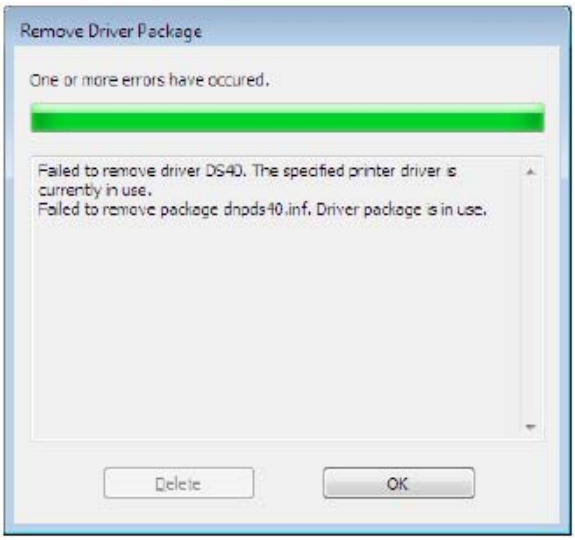


Figure 47. Error Has Occurred

10. From the Print Server Properties window, confirm that the DS40 has been removed. Click **Close**.

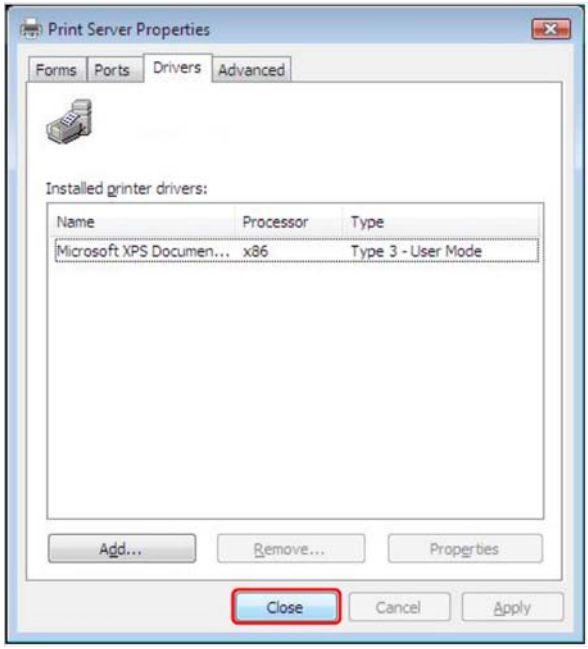


Figure 48. DS40 Removed

The removal of the printer driver is complete. Reboot the computer.

Installing the Printer Driver Upgrade

After removing the printer and printer driver, follow the instructions at the beginning of this document for installing the printer and printer drivers.

Rebooting the Computer

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

Driver Removal

For steps to remove the printer driver, refer to **Updating the Driver** --> “Driver Removal” (page 25)