DNP

Digital Photo Printer

DS40/DS80

Printer Driver Manual for Windows 2000/Windows XP

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 2000/Windows XP

Acknowledgements

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Purpose

This document includes instructions for installing and updating Windows drivers for the DS40/DS80 printers.

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 DS40/DS80 using the procedures outlined in the “Found New Hardware Wizard” section of this document.
   If the *Found New Hardware Wizard* is NOT initiated, install the DS40/DS80 using the procedures outlined in the “Install from the *Add Printer Wizard*” section of this document.

INSTALL USING THE FOUND NEW HARDWARE WIZARD

Note

The following describes the driver installation for the DS40 printer, but instructions are the same for the DS80. Substitute “DS80” for “DS40” when following the instructions.

1. Select “Install from a list or specific location (Advanced)” and click **Next**.

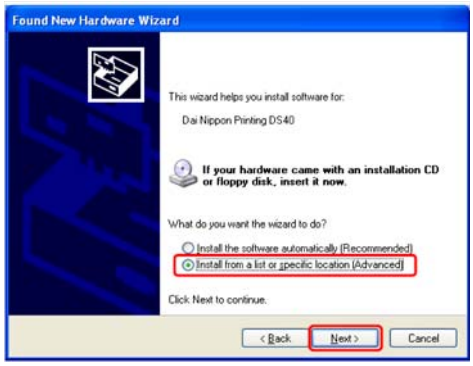


Figure 1. Found New Hardware Wizard

Note

When using Windows XP SP2, the following screen (see below) may appear in the *Found New Hardware Wizard*. Select “No, not at this time” and click **Next**.

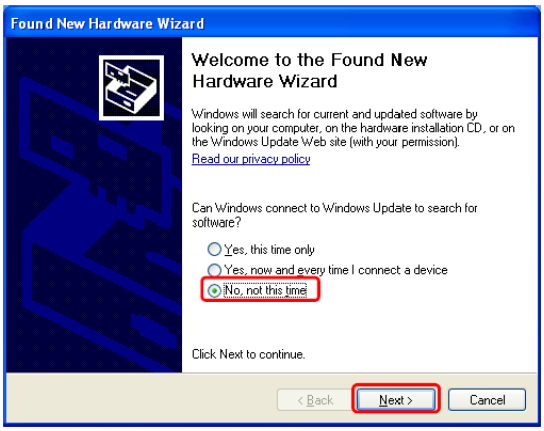


Figure 2. Can Windows connect to Windows update?

2. The next screen will ask you to choose search and installation options.
   Select “Search for the best driver in these locations.” Check the “Include this location in the search” box.
   Specify the location of the installation disk using the **Browse** button. Click **Next**.

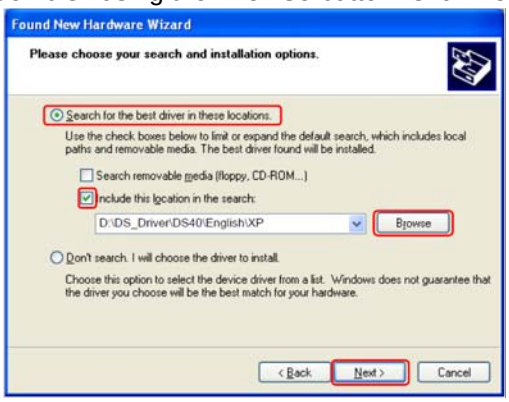


Figure 3. Search and Installation Options

3. After searching for the driver file, the software installation begins.

Figure 4. Searching for Driver File

Note

The following window (see below) may appear during the installation. Look at the *Version* column and select the newest version. Click **Next**.

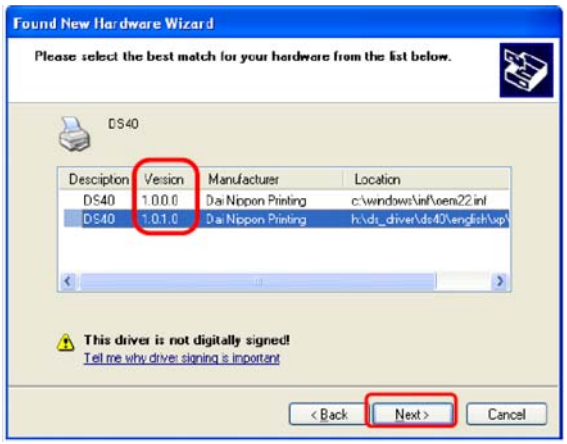


Figure 5. Version Number

4. During software installation, the following message will be displayed. Click **Continue Anyway** to proceed.

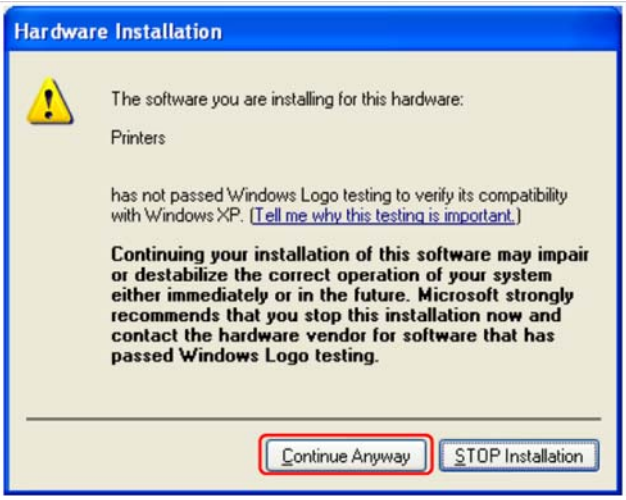


Figure 6. Verify Windows Logo

Note

If “Search removable media (floppy, CD-ROM)” was selected in Figure 3, the following message (see below) will be displayed. Insert the CD-ROM and click **OK**.

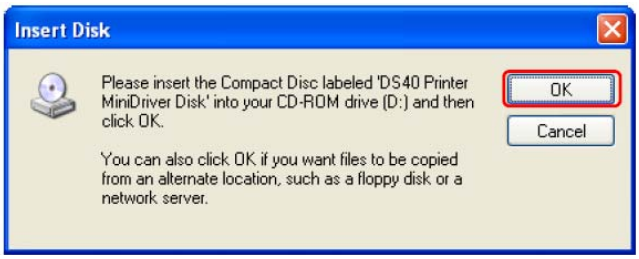


Figure 7. Insert Compact Disc

Note

If the following window (see below) appears after clicking **OK** in Figure 7, specify the location of the installation disc using the **Browse** button. Click **OK**.

Figure 8. Specify Locationdojo

5. Click **Finish** to complete the wizard.

Figure 9. Finish

6. Go to the *Start* menu and select **Printers and Faxes**. Confirm that the DS40/DS80 printer is shown.

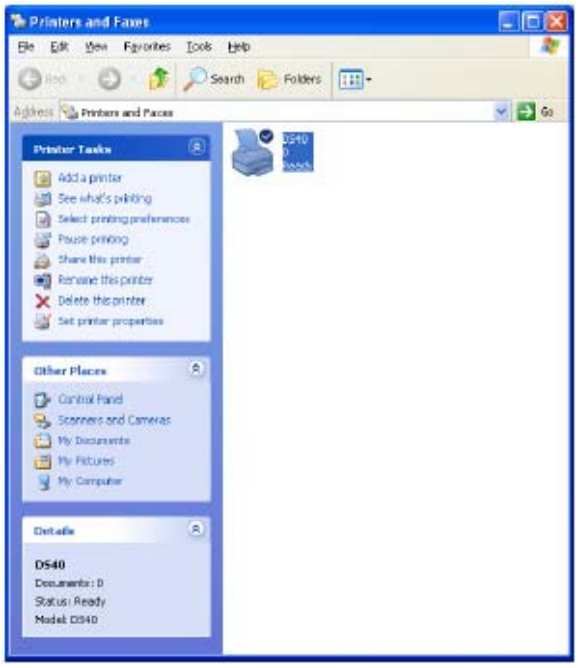


Figure 10. Verify Printer

INSTALL FROM THE ADD PRINTER WIZARD

1. Go to the *Start* menu and select **Printers and Faxes**.

Note

Depending on the host computer, Printers and Faxes may not be available from the Start menu. In that case, go to **Start > Control Panel > Printer and Other Hardware > Printers and Faxes**.

2. Click **Add Printer**.

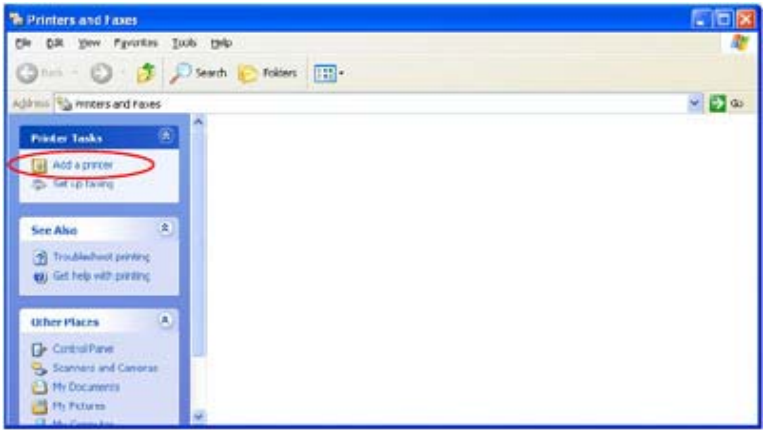


Figure 11. Add Printer

3. When the *Add Printer Wizard* window opens, click **Next**.

Figure 12. Add Printer Wizard

4. Select “Local printer attached to this computer”, and deselect “Automatically detect and install my Plug and Play printer”. Click **Next**.

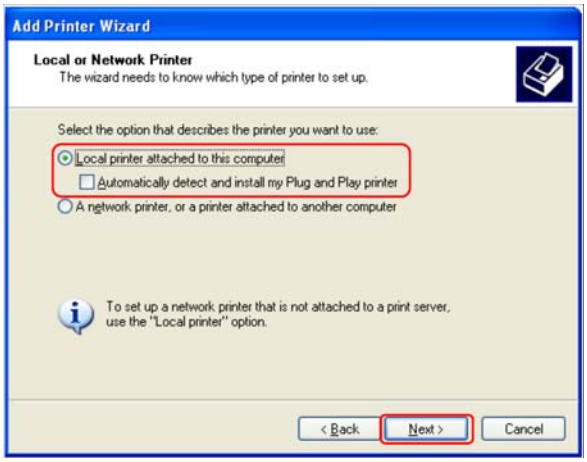


Figure 13. Local or Network Printer

5. Select “Use the following port” and assign a USB port (USB001 and so on) from the drop-down list. Click **Next**.

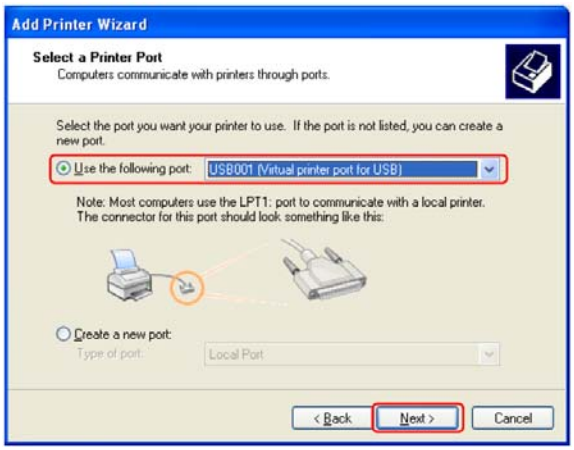


Figure 14. Select a Printer Port

6. Click **Have Disk**.

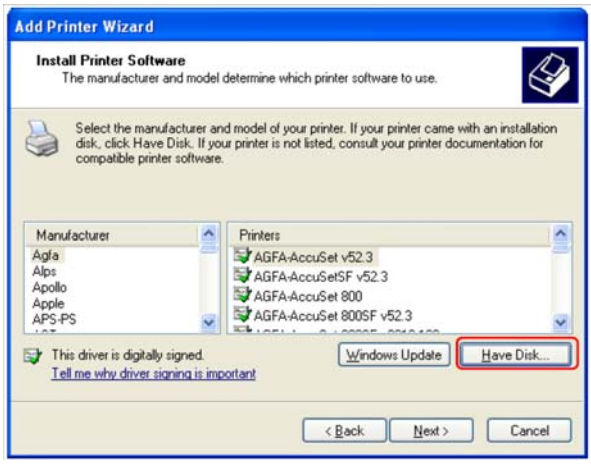


Figure 15. Install Printer Software

7. Click the **Browse** button to select the location of the installation disc.

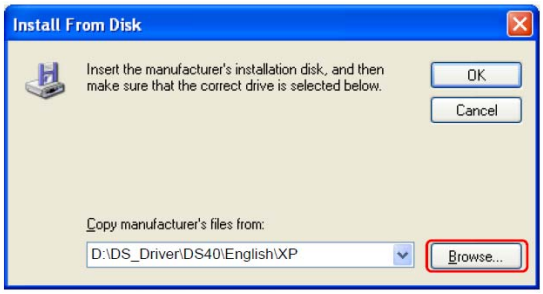


Figure 16. Install from Disc

8. Confirm that DS40 is listed under *Printers*. Click **Next**.

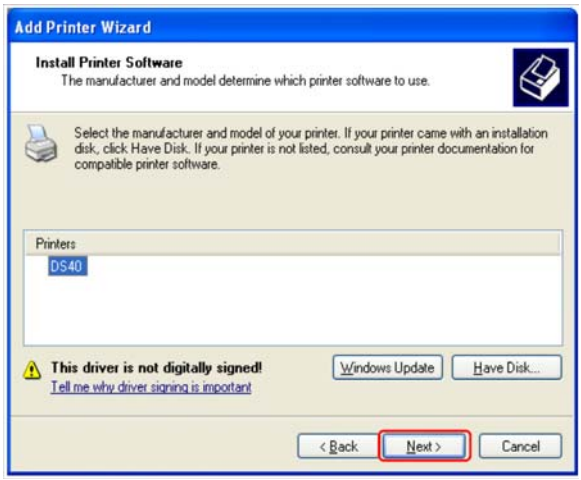


Figure 17. Printers

9. Assign a name to the printer and click **Next**.

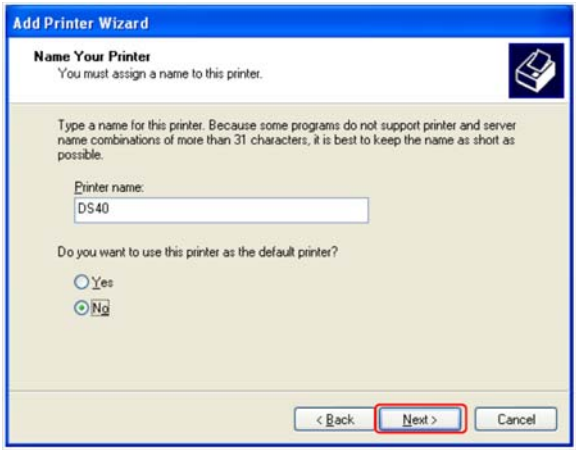


Figure 18. Name Your Printer

10. In the *Print Test Page* window, select **NO**. Click **Next**.

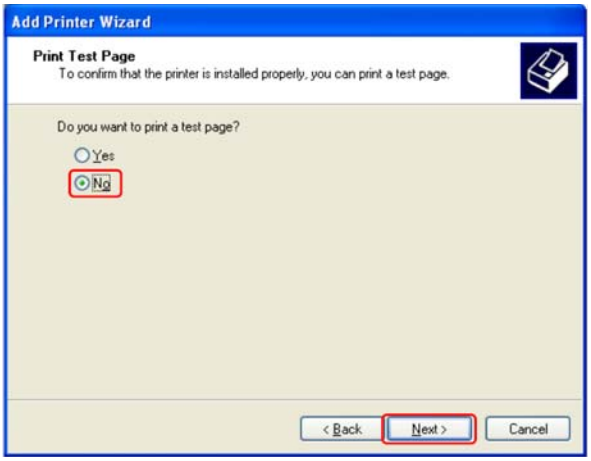


Figure 19. Print Test Page

11. Click **Finish**.

Figure 20. Finish

12. Restart the system.

Note

When installing the software, the following message may appear.
Click **Continue Anyway** to proceed.

Figure 21. Windows Logo Test

PROPERTIES

Various printer settings can be changed using the DS40/DS80 Driver properties. As a rule, the printer settings should not be altered. Use the default settings present at installation.

Opening Printer Properties

1. Go to the *Start* menu and select **Printers and Faxes**.

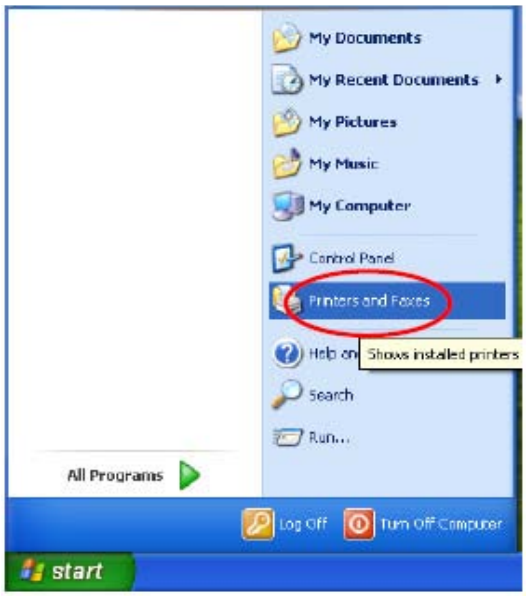


Figure 22. Printers and Faxes

2. Select the DS40 printer. Click on **Set printer properties** in the *Printer Tasks* menu.

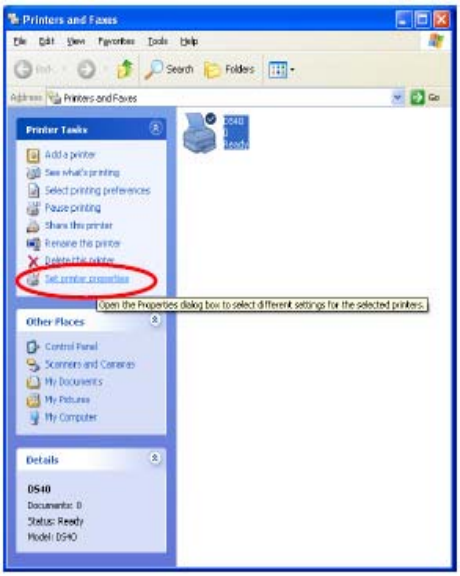


Figure 23. Set Printer Properties

3. The *DS40 Properties* window will open.

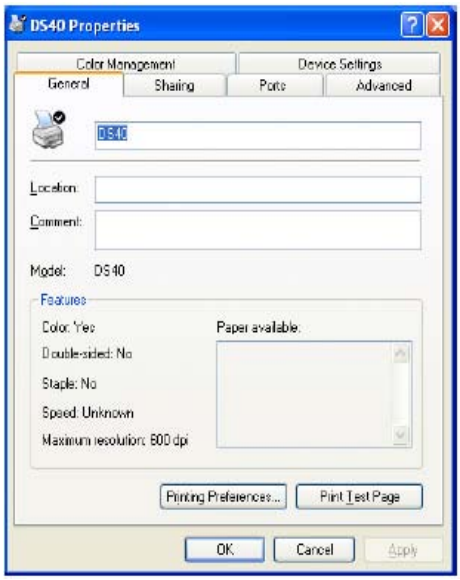


Figure 24. DS40 Properties

Explanation of Print Setting Functions

By selecting **Printing Preferences** from the *Properties* window, you can make changes to various settings.

Layout Tab

Assign the print orientation as **portrait** or **landscape**.

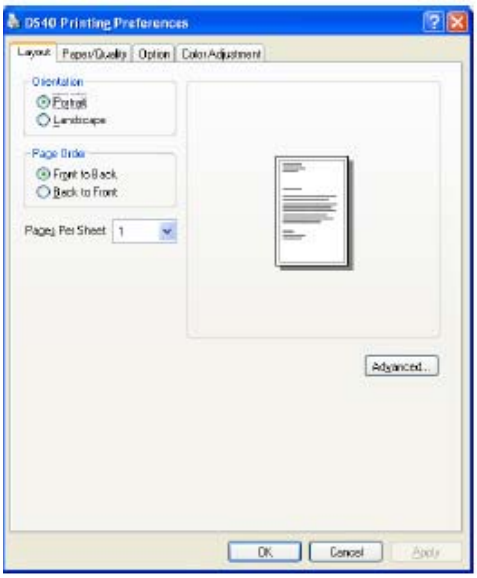
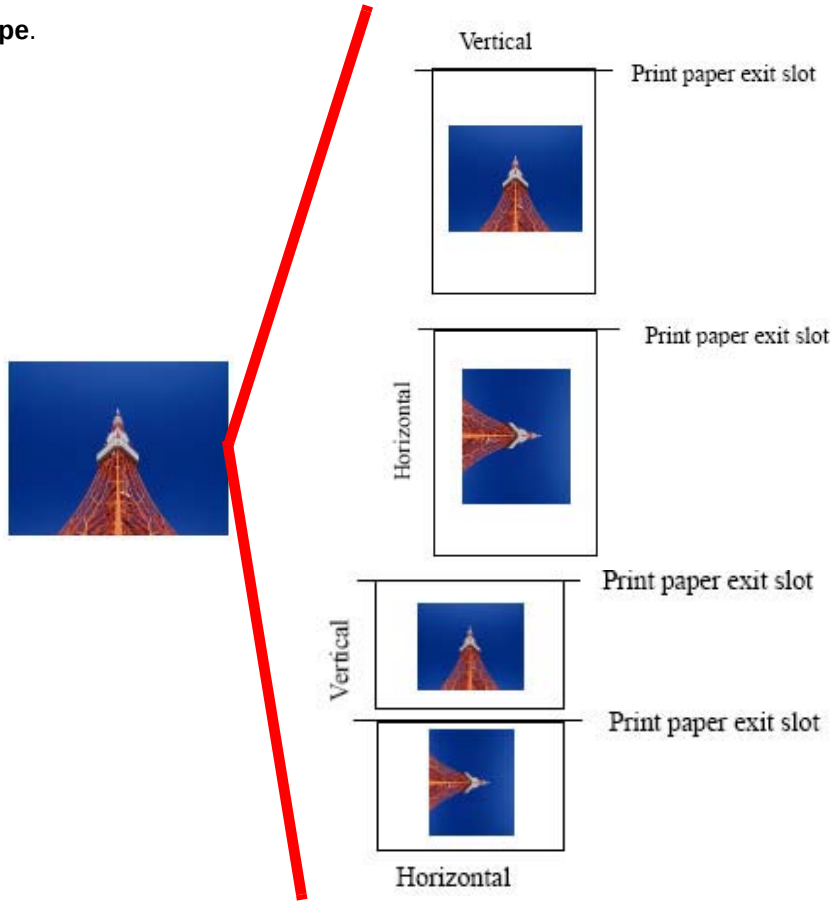


Figure 25. Layout

Orientation:

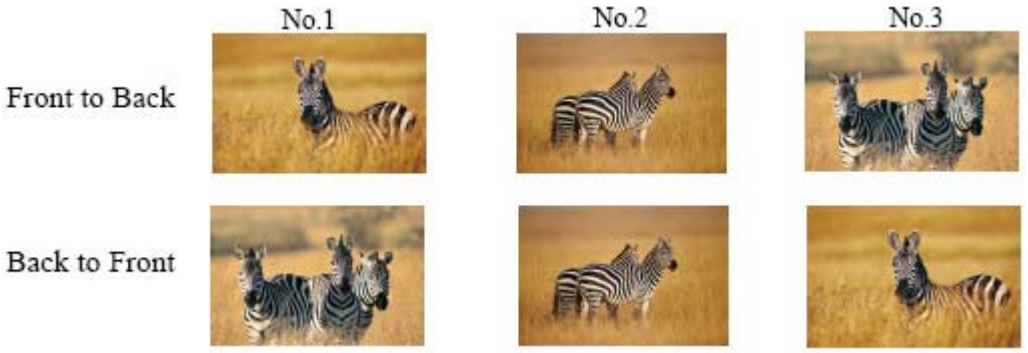
Assign print orientation as vertical or horizontal.



Page Order

When printing multiple pages, you can set the page order to **Front to Back** or **Back to Front**.

Example – Print Order



Pages Per Sheet

This setting will print the designated fractional size.

Example – Fractional Size

Advanced Options

1. With the *Layout* tab selected in the *Properties* window, click the **Advanced**... button to change advanced settings.

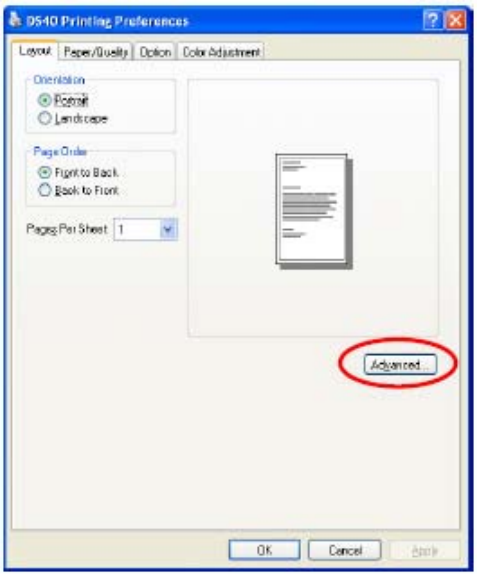


Figure 26. Advanced

2. The *Advanced Options* window will open.

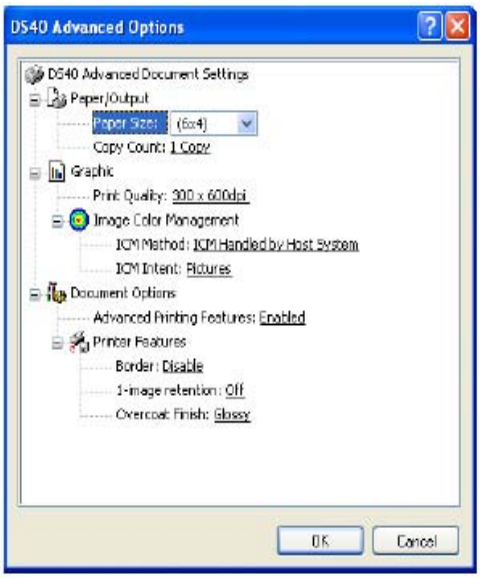


Figure 27. Advanced Properties

Paper Size

You can designate the default 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 print.

Print Quality

You can designate the print quality. Please match the print quality to the printer settings.

Print Quality	Function
300 x 300 dpi	Printing in high-speed mode
300 x 600 dpi	Printing in high-quality mode *If the application can not set as an asymmetric aspect resolution, use 600x600.*
600x600 dpi	Printing in high-quality mode *Printer driver converts to 300x600 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 change it to other settings.

Advanced Printing Features

Always have this set to **Enabled**. DO NOT change it to other settings.

Border

This settings is synchronous with the border option in the *Paper* tab.

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.

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

Print Re-try

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:

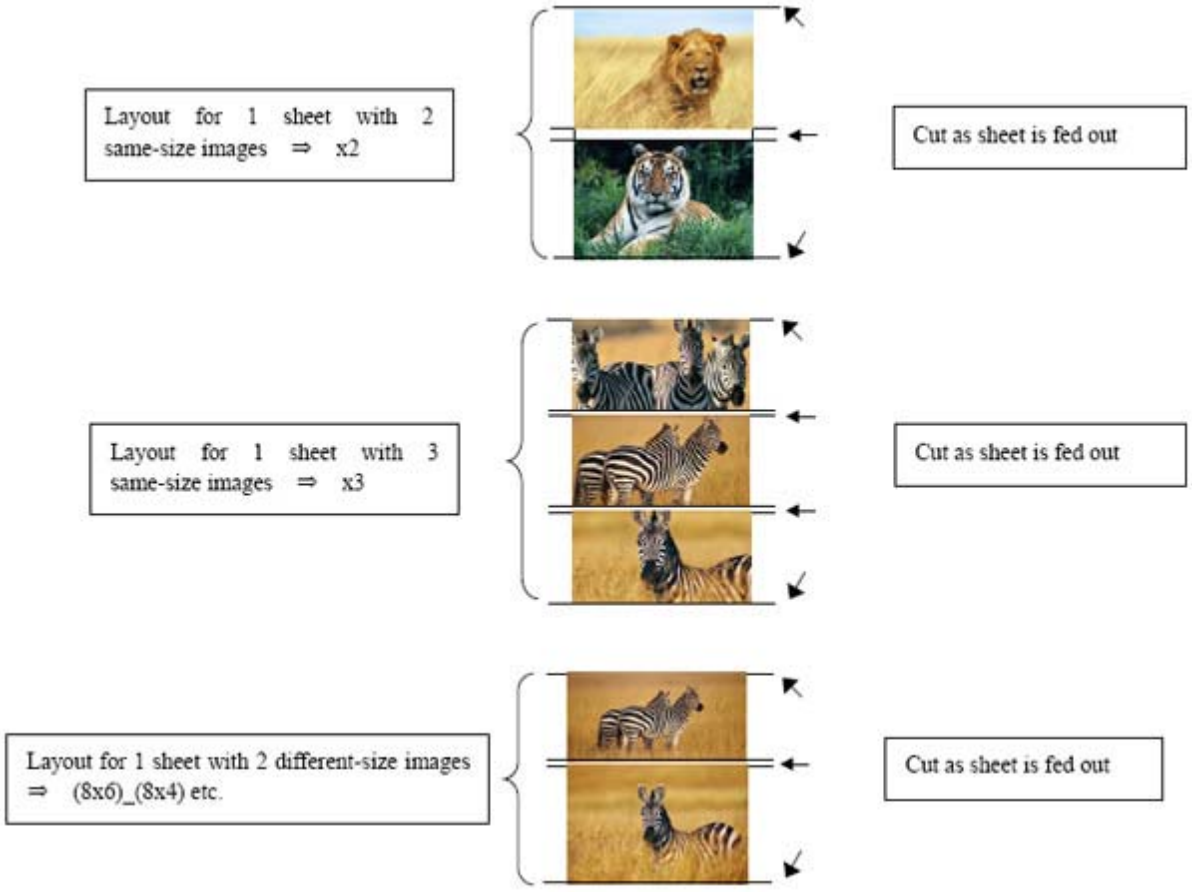
1. The printer is using 6x9, 6x8, or 8x12, 8x10 sized media.
2. The printer driver paper size is set to one of the above sizes.
3. Multiple images are sent from the application.

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

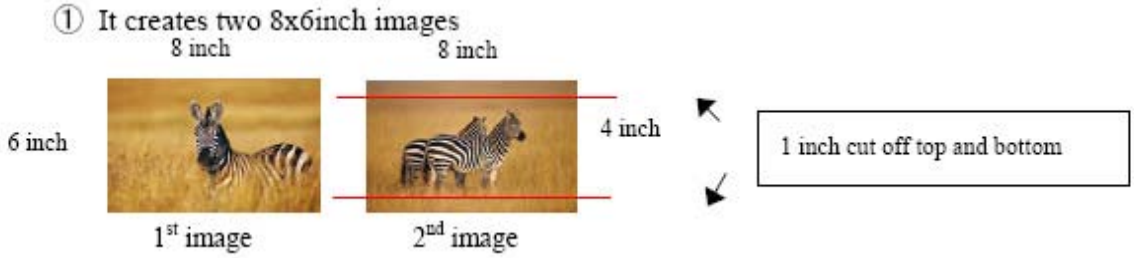
The following combinations are possible for the multi-image layout patterns:



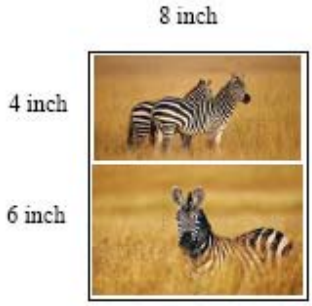
Cautions for Printing Two Different-size Images on One Sheet

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:

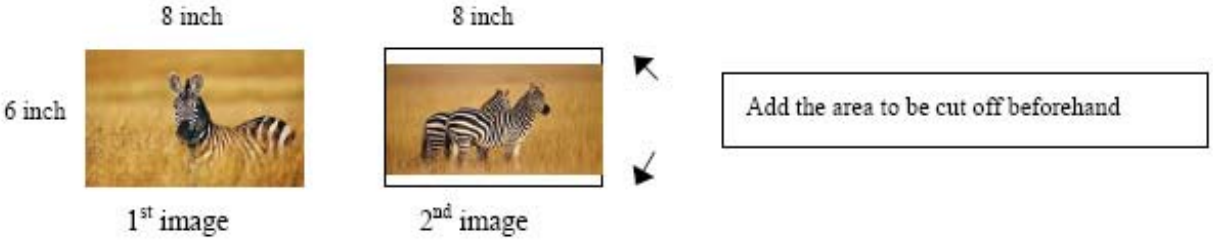
Example – When the layout is set for (8x6)_(8x4), the driver creates the layout image in the following order:



②The 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

The following is an example of how to use *Adobe Systems Photoshop Album* to print.

1. Using File > Get Photo, select two or more images to print. Go to **File > Print**.

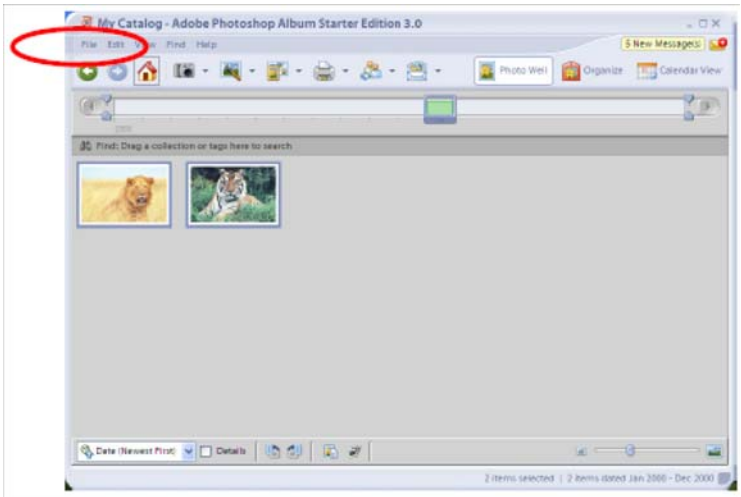


Figure 28. Print

2. In **Print Sizes**, select **Fit to Page**. Then click **Page Setup**.

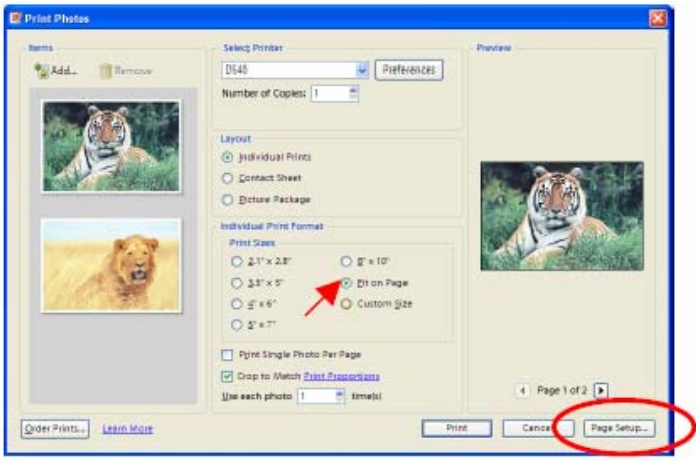


Figure 29. Page Setup

3. Click on **Printer**.

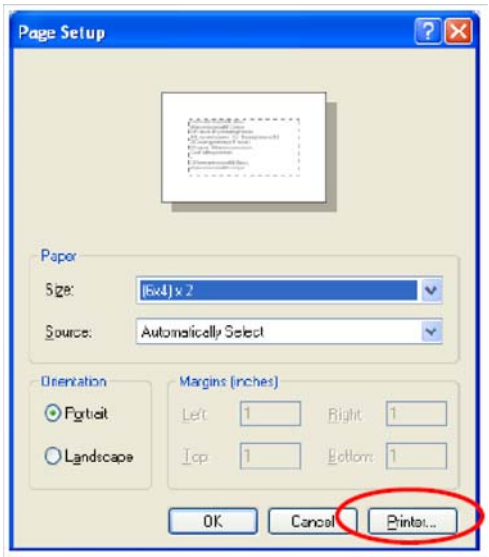


Figure 30. Select Printer

4. After selecting the printer, open **Properties**.

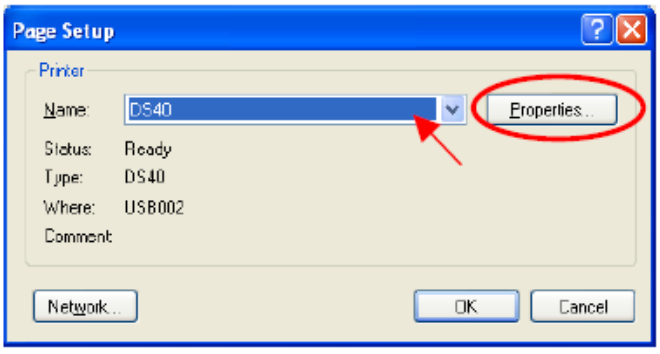


Figure 31. open properties

5. In the *Printing Preferences* window, click **Advanced**.

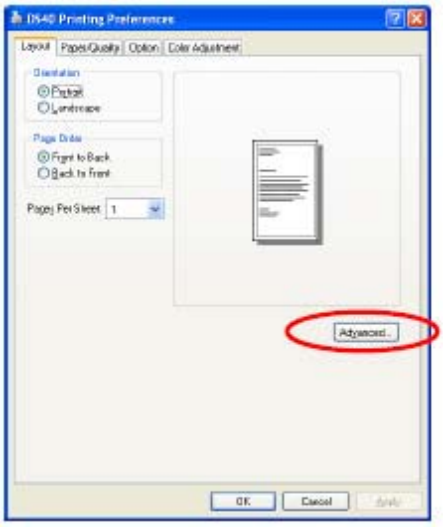


Figure 32. Preferences

6. Set the *Paper Size* to **(6x4) x 2**. Then click **OK** until you return to the window in Step 4, then click **Next**.

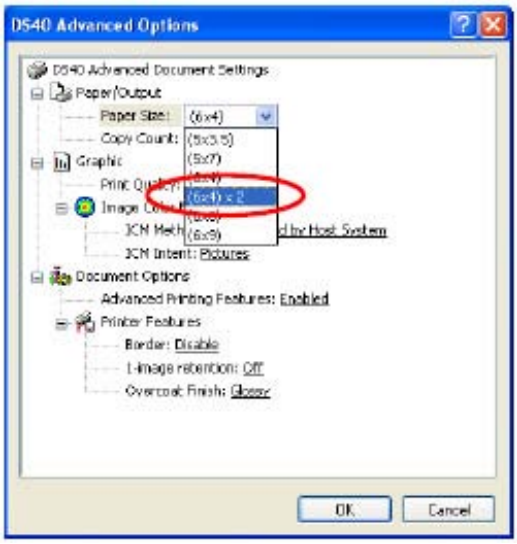


Figure 33. Paper Size

7. Click **Next**.

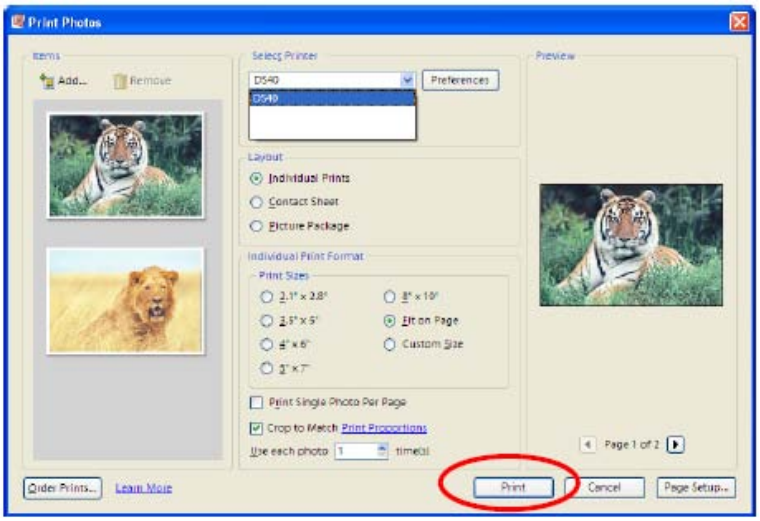


Figure 34. Layout Selection

Figure 35.

Paper/Quality Tab

Select **Color** in the *Paper/Quality* tab.

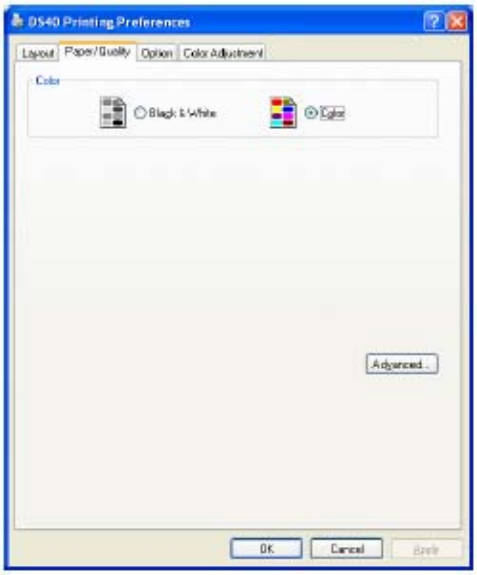


Figure 36. Paper/Quality

Options Tab

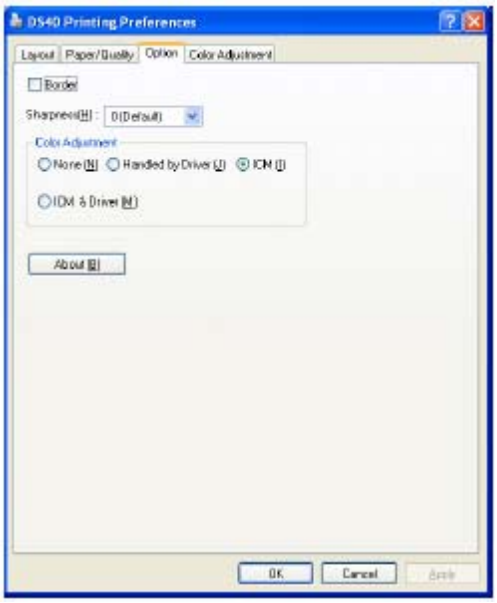


Figure 37. Options

Border

Check the border box to add border. This setting is synchronous with border setting in *Advanced Settings*.

Sharpness

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

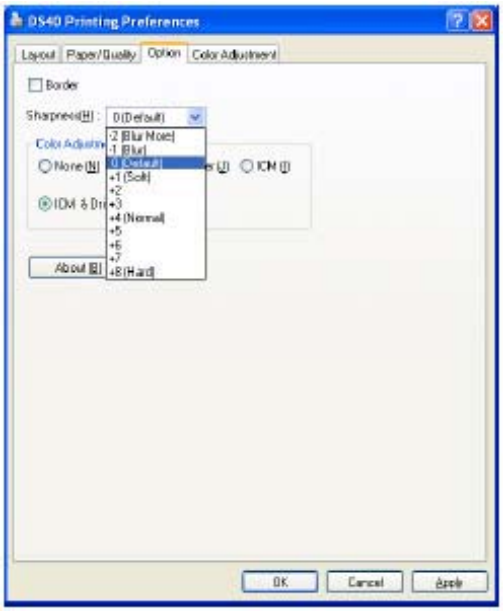


Figure 38. Sharpness

Color Adjustment

None – this item is synchronous with the *ICM Method* in the *Advanced Settings*. Selecting **None** disables ICM and the *Color Adjustment* tab, and color adjustment does not occur from the driver.

Handled by Driver – checking this item disables ICM and *Color Adjustment* is enabled. The adjustment values for gamma, brightness, contrast, and chroma are shown.

ICM – this item is synchronous with *ICM Handled by Host System* setting in the *Advanced Settings*. Checking this item enables color management from the driver.

ICM & Driver – checking this item enables ICM (color management) and color adjustment

About – displays the driver version

Color Adjustment Tab

If you checked **Handled by Driver** under the *Color Adjustment* section of the *Options* tab, the respective color adjustment values are reflected in the image on this tab.

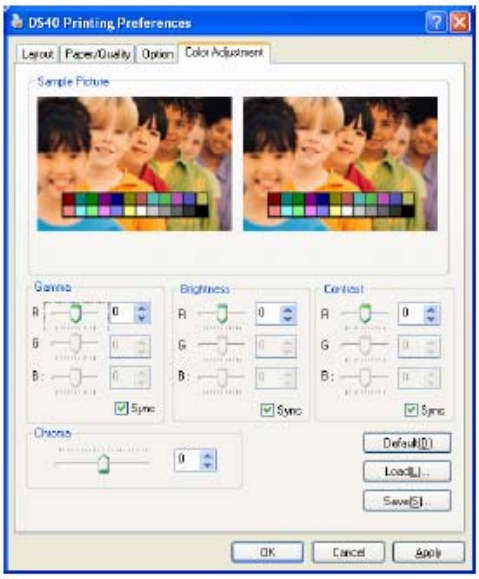


Figure 39. Color Adjustment Tab

Setting ranges 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

Adjustment Item	Adjustment 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
		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.

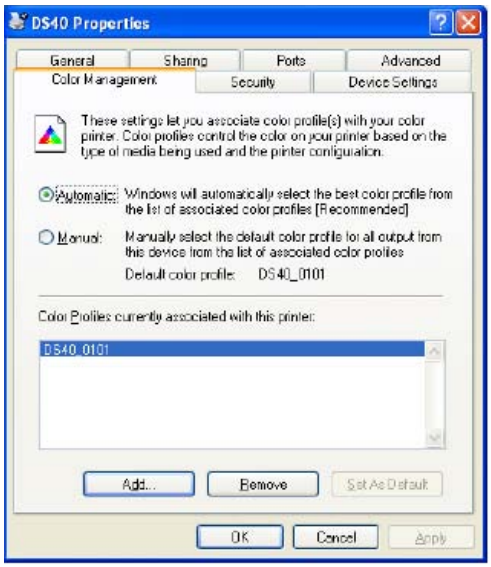


Figure 40. Color Management

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 the instructions below:

Note

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

Driver Removal

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 removal of the driver.

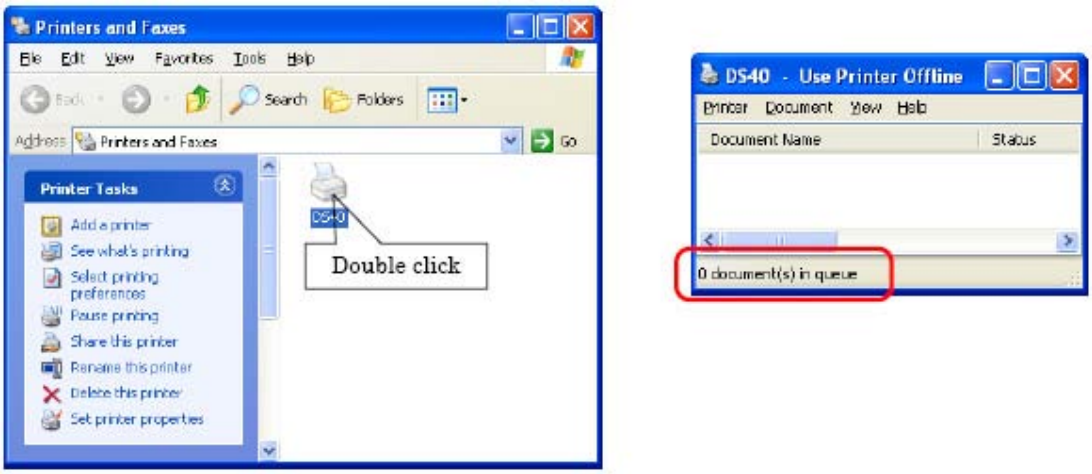


Figure 41. Printers & Printer Queue

2. From the *Printers and Faxes* window, select the DS40 printer. From the *File* menu, select **Delete**.
   You will be asked if you are sure you want to delete the printer. Select **Yes**.

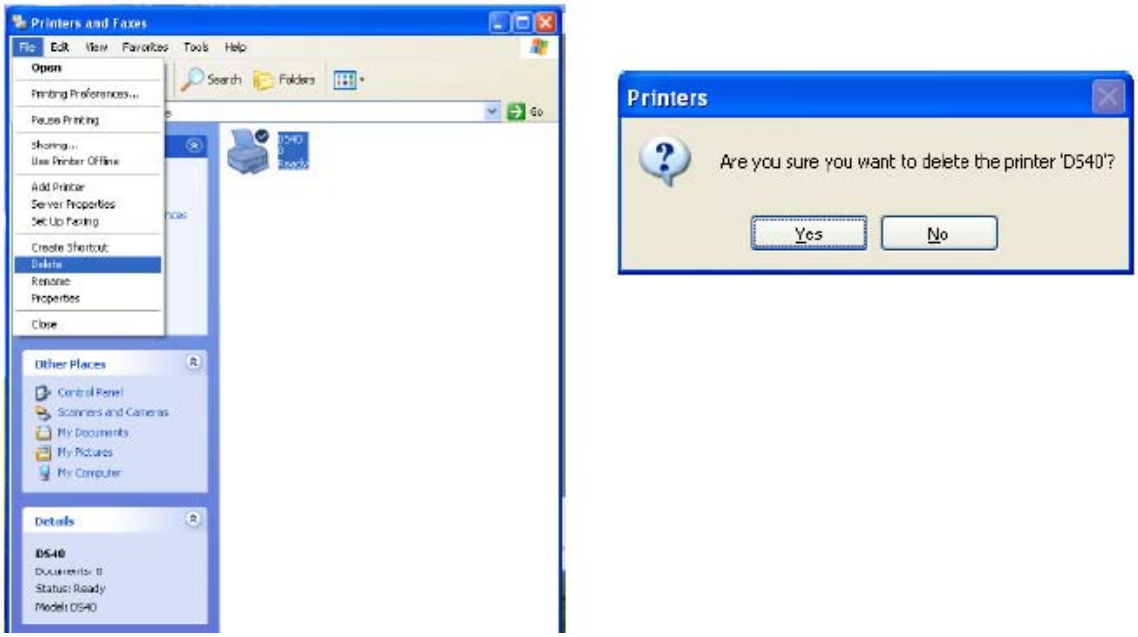


Figure 42. Delete Printer

3. After the DS40 printer has been removed, go to the *File* menu and select **Server Properties**.
   The *Print Server Properties* dialog box appears. Select the *Drivers* tab.
   Select the DS40 driver and click **Remove**. A confirmation box will appear. Click **Yes**.

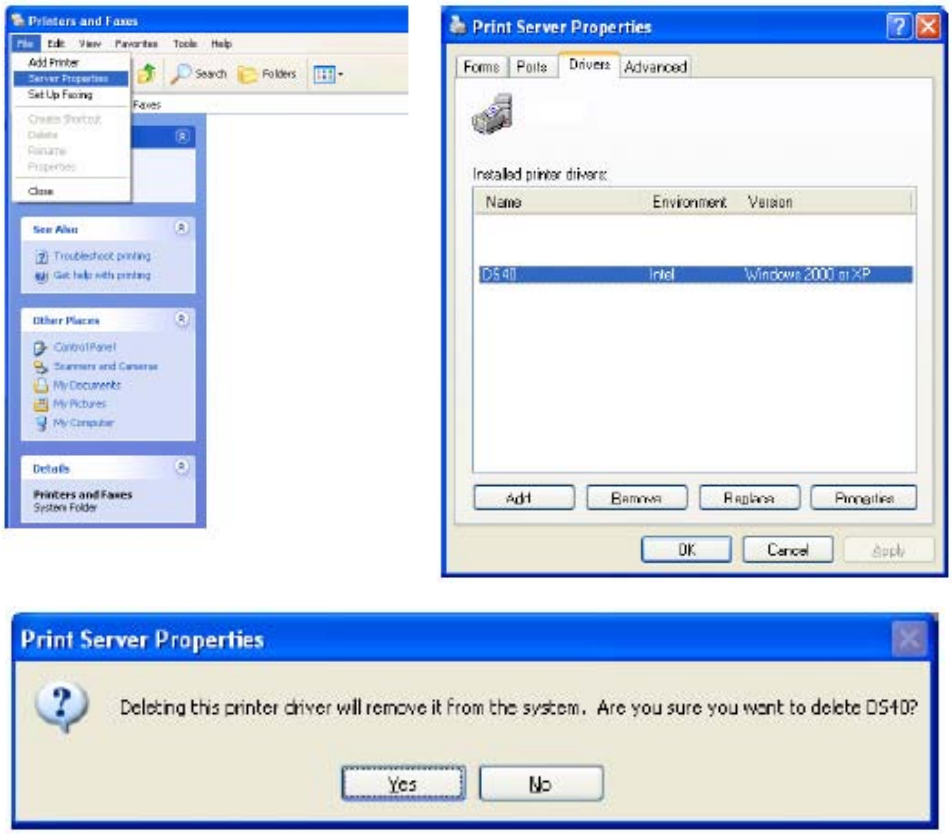


Figure 43. Removing Driver

Note

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

Figure 44. Error Occurred

Installing the Printer Driver Upgrade

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

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.)