# **DNP Photo Imaging America Corp.**

# **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.



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".



Note

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

# 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".

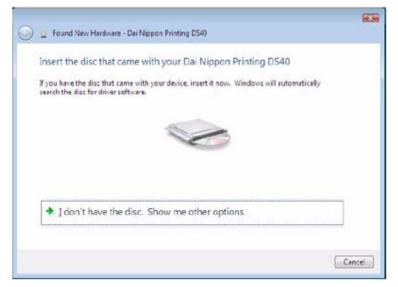


Figure 2. Insert Disc

#### Found New Hardware Wizard

#### Software Update Procedure

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**.

Browse for driver software on your compute	et :	
Search for driver software in this location:		
G\Drive\English\Vista	· Browse	
Include subfolders		

Figure 4. Browse Driver Software

#### Found New Hardware Wizard

#### Software Update Procedure

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.

🕖 🔋 Found New Hardware - DS40	X
The software for this device has been successfully installed	
Windows has finished installing the driver software for this device:	
D540	
	Close

Figure 6. Finish Wizard

#### Software Update Procedure

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.

Favorita Links	Add a pranter 👸 Seev	Documents	Stetus	Commenta	Location	Model	0
Documents  Pictures  Music  More #	-	Microsoft Default ( Wither Docume	tatus: Ready	Fax 0 Feady			
Felders Desktop	•						

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.

#### Software Update Procedure

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.

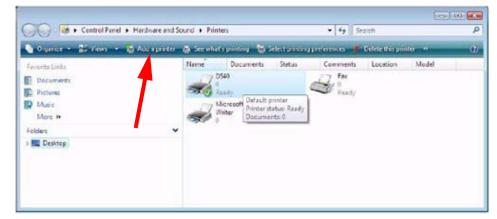


Figure 10. Add a Printer

# Software Update Procedure

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

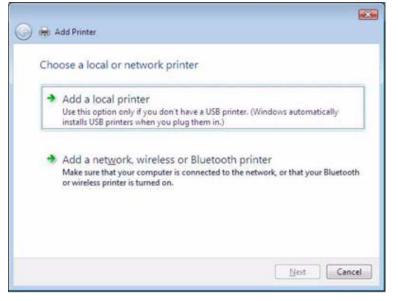


Figure 11. Local or Network Printer

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**.

Choose a printer po	rt	
n 2	nnection that allows your computer to exchange	information with a
Use an existing port:	USB001 (Virtual printer port for USB)	
Create a new port:		
Type of ports	Local Port	

Figure 12. Choose Printer Port

#### Software Update Procedure

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

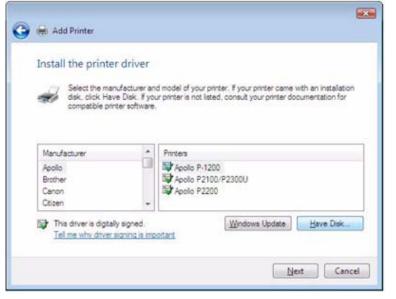


Figure 13. Install Printer Driver

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

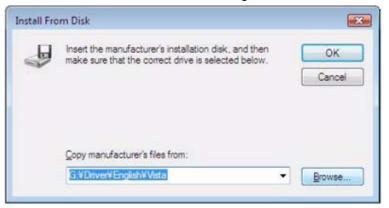


Figure 14. Install From Disk

# Software Update Procedure

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

(B) /	Add P	rinter						
Inst	all t	ne prin	er drive	r				
-	á d	ik, click H		your printe		r printer came your printer d		
Prin	ters DS40	l.						_
	D540			lly signed	 	ws Update	Have	

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**.

•	🔒 Add Printer		
	Type a printe	er name	
	Printer name:	0540	
		Set as the gefault printer	

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.

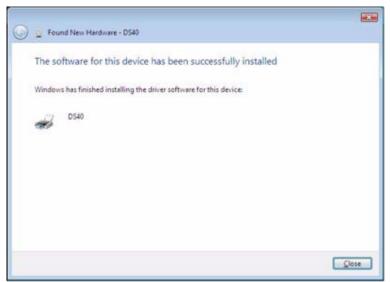


Figure 18. Close

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.

verta Links	Neme	Documents	Stetus	Comments	Location	Model	
Documents	1	2 0540	4	Z Fax			
Pictures	-77	Ready Default s	-	Feady .			
Music More #	-		tatus: Ready				
Ider:	× 30	0 Docume	PER C				
Desktop							

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.

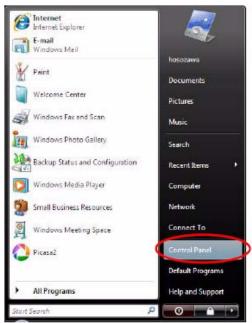


Figure 20. Control Panel

# Software Update Procedure

2. In the Control Panel select Printer.

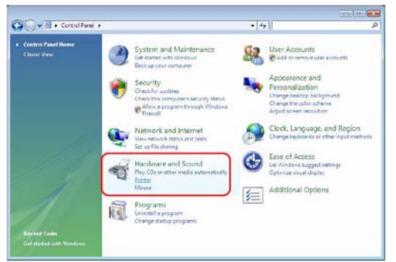


Figure 21. Printer

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

serite Links.	Name	Decuments	9	ertus.	Comments	Locati	ion	Model	
Documenta	1000	0		Open	/77 FM	1			
Pictures Music More 9	1.000	Rendy Microsoft XPS Dec Writer	•		deninistretor Freferences	•			
lder: Y	10000	5.		Pause Pr					
Desktop				Sharing.	-				
				Use Print Refresh	ser Offline				
				Create S Delete	hortcut				
				Rename					
				Propertie	H.				

Figure 22. Properties

4. The DS40 Properties window will appear.

Color Manageme	nt	Security	Device Settings
General	Sharing	Ports	Advanced
DS40	1		
Su?			
ocation:			
omment:			
lodel: DS40			
Features			
Color: Yes		Paper available:	
Double-sided: No			
Staple: No			
Speed: Unknown			
Maximum resolutio	n: 600 dpi		
	Printing P	references	Print Test Page

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

0540 Printing Prefe		and and a second se
a market and the	Lobicu   Calor vd	1011C 8
Qiartation:		
A Petrat		
Page Order		
Front to Back	•	
Page Format		
Pages per Sheet	1 +	
		-
Drgw Borders		L
		Adjanced
		OK. Cancel Both

Figure 24. Layout

# **Print Orientation**

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

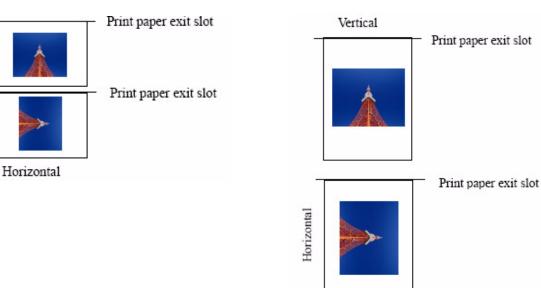
The original image without rotation is shown to the right.



Example - for (5x7), (6x8), (6x9)

Output images depending on print direction:

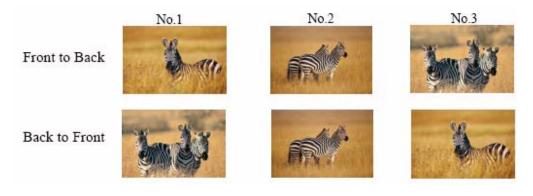
Example - for (4x6), (3.5x5)



# Page Order

Vertical

When printing multiple images, you can set the order to **Front to Back** or **Back to Front**. Example – print order



# Pages Per Sheet

This setting prints the designate fractional size.

# Example – fraction size

1 (Whole)



4 (Quarter-size)



9	(One	e-ninth size)	
0	L.C.F.		
1			

# Advanced Options

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

H D541 Printing Preferences		DS40 Advanced Options	X
Lby3J Roser Guolb Octon Color Adustrient		DS40 Advanced Options DS40 Advanced Document Settings DS40 Advanced Document Settings Dependent State Dependent State De	
OK	Cencel Sculy		

Figure 25. 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.

# 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.

#### Border

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

#### 1-image Retention

When the DS40 is printing multiple PC or L-sized images serially, it can retain the previous image within the printer while printing the next image, in order to minimize paper feed. Set this to **ON** to enable the setting.

#### **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.

# **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.

Software Update Procedure

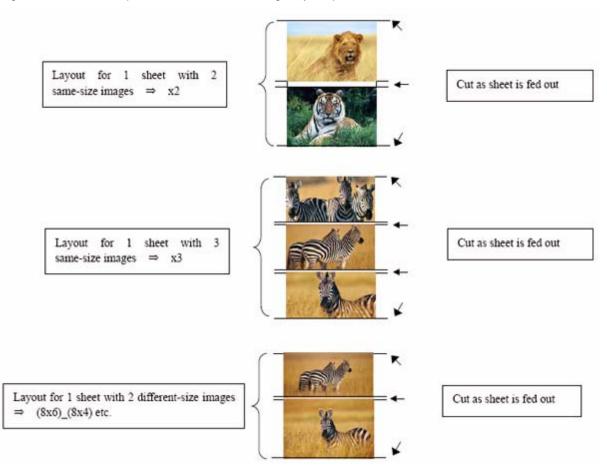
#### **Printer Properties**



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:

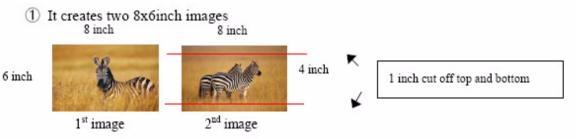


# Software Update Procedure

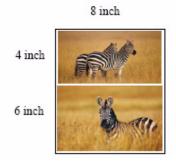
# **Cautions for Printing Two Different-size Images on One Sheet**

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:

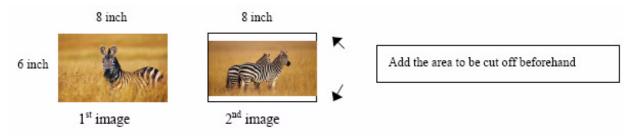
Example – When the layout is set for (8x6)\_(8x4), the driver creates the layout image in the following order:



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.

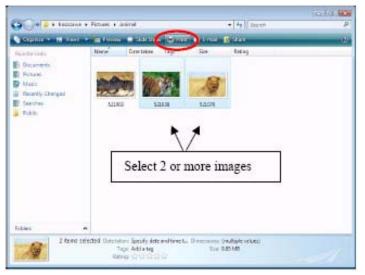


Figure 26. Select Images

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

	want to print	tyour picture	B?			
ieta: DS40-		Paper size	0.149p	Papertype Film Paper		
		No.	AK.		Fallorg	* <b>#</b> 5011
	1.67	nge (4/	1.00			

Figure 27. Options

3. Click on Printer Properties.



Figure 28. Printer Properties

Software Update Procedure

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

Lapout Papar Qualty	Option   Calor A	utret	6
D fame	$\supset$		
Front to Book	-		
Fage format		=	
Pages per Sheet	t •		
Dige Buides		35	_
			Aduanced

Figure 29. Orientation

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

DS40 Document Pr		
	Li obeau i cale valo	EPATE -
Olertation	-	
Rage Orden	•	
Front to Back		
Page Format		100 B
Fagegper Sheet	( <u>1</u> (•)	
Digu Boolers		-
		Ajarosi
		OK Cancel

Figure 30. Advanced

# Software Update Procedure

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

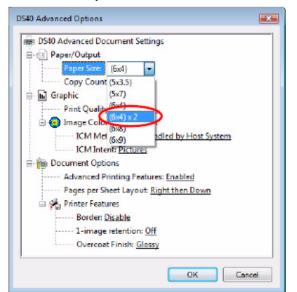


Figure 31. Paper Size

7. Click on Print.

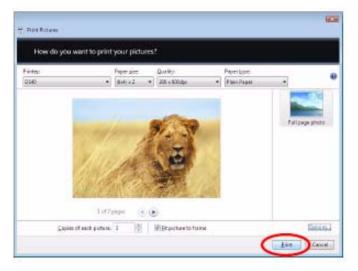


Figure 32. Print

# Software Update Procedure

# **Printer Properties**

# Paper/Quality Tab

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

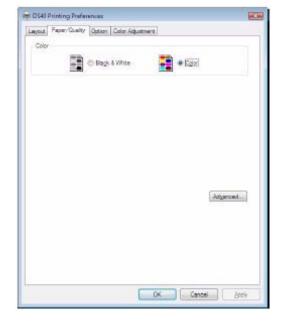


Figure 33. Color

1 DS40 Printing Preferences		
Lagnut Paper/Gualty Option Color Ag Brocket Shapmenigh 000 etsuit • Color Adjustment • None (2) • Handled by Driver (2) • KDN & Driver (4)		
About (E)		

Figure 34. Options

# Border

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

# **Options** Tab

#### Sharpness

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

DS40 Printing Preferences		
ayout Paper/Quality Option (	Color Adjustment	
Brecker	-	
Shapnent[]: 00 elavit (2Blue More)	-	
Color Adjustme -1(Blue)	1 (1998) T	
None N +1[Satt]	Fi a cwfi	
CN 5Dn.+3 +4[Norsal]		
45 About (B) +6		
+7 +8[Hard)		
aldered		
	OK Cancel	) ann

Figure 35. 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.

# Software Update Procedure

# 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.

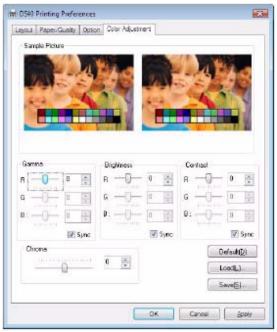


Figure 36. Color Adjustment

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

Software Update Procedure

Adjustment Item	Adjustment 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
	Frame	Disable		
Option	Sharpness			0 (Default)
	Color Adjustment			ICM
	Gamma			0
Color	Brightness			0
Adjustment	Contrast			0
	Chroma			0
	Paper/Output	Paper Size		DS40 (6x4) DS80 (8x10)
		Copy Count		1
		Print Quantity		300 x 600 dpi
	Graphic	Image Color Management	ICM Method	ICM Handled by Host System
Advanced			ICM Intent	Pictures
(click Advanced on Layout tab)		Advanced Prin	ting Features	Enable
	Document	Pages Per	Sheet Layout	Right then Down
	Options	Printer Features	Border	Disable
	1		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 fourdigit number that refers to the version.

👼 DS40 Properties	<b>E</b>	Color Management	
General Sharing Ports Color Managament Security I To adjust color management settings, click Col Color Management.	Advanced Device Settings for Management.	Devices Al Profiles Advanced Devices Printer: DS40 Profile selection: Automatic (Recommended) Profile selection: Automatic (Recommended) Profiles associated with this device	-
		JCC Profiles	e name 40 <u>.</u> 0101 <i>j.</i> cm
		Add	iet as Default Profile Pr Ocea
OK Cance	A Apply		

Figure 37. 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
	(3.5x5)	3.5" x 5"	92.1 x 131.1	1088 x 1548	2176 x 1548
DS40/	(4x6)	4" x 6"	105.0 x 156.1	1240 x 1844	2480 x 1844
DS80	(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
	(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
DS80	(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.

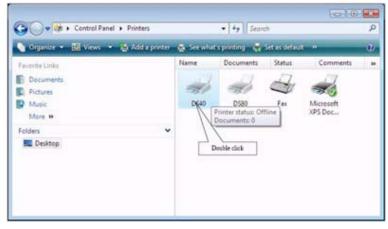


Figure 38. Printers

Printer Document	liew			
Document Name	Status	Owner	Pages	Size
	111			

Figure 39. Printer Queue

### Software Update Procedure

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**.

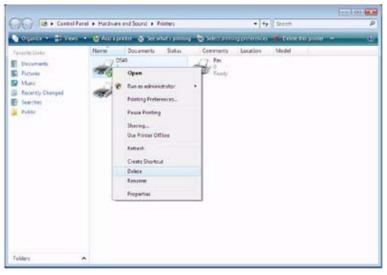


Figure 40. Delete

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



Figure 41. 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**.

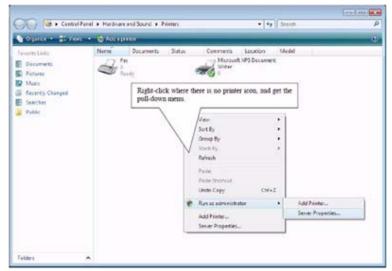


Figure 42. Run As Administrator



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.

Print Server Properti	es		
Forms Ports Driver	s Advanced		
A			
Installed grinter driver	11022000000		
Name	Processor	Туре	
DS40	x86	Type 3 - User Mode	
Microsoft XPS Docum	ien x86	Type 3 - User Mode	
			_
Add	Remove	Properties	
	OK	Cancel Ac	ply

Figure 43. Print Server Properties

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

Remove Driver	And Packa	ge
		e driver(s) only, or driver package(s) from
	driver only. driver and o	
ОК		Cancel

Figure 44. Remove Driver and Package

### Software Update Procedure

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



Figure 45. Confirmation

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

priver package information collected.	_
The following package(s) will be deleted: dhpds40.inf The following driver(s) will be deleted: DS40	
	-

Figure 46. Remove Driver Package

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

Remove Driver Package	
Driver package deleted.	_
	-
Driver DS40 was removed. Package dnpds40. inf was removed.	1
	7
Delete	

Figure 47. 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.

Ine or more errors have occured.	_
Failed to remove driver DS40. The specified printer driver is currently in use. Failed to remove package dnpds40.inf. Driver package is in use.	*
	-

Figure 48. Error Has Occurred

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

a	rivers Advanced	
stalled grinter d	riverer	
Vame	Processor	Туре
dicrosoft XPS De	ocumen x86	Type 3 - User Mode

Figure 49. 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.)