# **C9600**



# **Printing Guide**



## 59373001

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#### Document Information

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# **CHAPTER 1: INTRODUCTION**

## Авоит тніѕ воок

This book is delivered as an Adobe Acrobat PDF file. It provides a convenient on-screen reference to the many features of the driver software supplied with your C9600.

There are many cross-references within this book, each highlighted as <u>blue text</u>. When you click on a cross-reference within Adobe Acrobat or Adobe Reader (also supplied on the Manuals CD) the display will instantly jump to the part of the manual containing the referenced material.

By using the S button in Adobe Reader, you can navigate directly back to where you were before.

If you need to print a part of this manual, use Adobe Reader's print command, and choose which pages you want to print. Some pages are deliberately left blank so that the page format is appropriate for duplex (double-sided) printing if you wish.

## HOW TO ACCESS THE DRIVER SCREENS

Most of the features described are accessed via the printer driver screens. How you access them depends on your computer and its operating system.

### WINDOWS DRIVERS

The driver windows are tabbed dialogue boxes, offering a wide range choices about how you want to print your documents.

There are two ways to access the driver features from within Windows:

**1.** Directly from the Windows "Printers" folder ("Printers and Faxes" folder in Windows XP).

If you choose this method any changes you make will become the **driver defaults**. This means they will remain active for all your applications unless you specifically change them from within the application's Print dialogue.

**2.** From your application's Print dialogue.

If you choose this method any changes you make will usually only last for as long as the particular application is running, or until you change them again. In most cases, once you quit the application the driver defaults will return.

#### **IMPORTANT!**

Settings made from the printer's own control panel are the **printer defaults**. They determine how your printer will behave unless you specify otherwise from your computer.

The **driver defaults** override the printer defaults.

**Application Print settings** override both the printer defaults and the driver defaults.

#### CHANGING THE DRIVER DEFAULTS

#### Windows XP/2000/Server 2003

- **1.** Click [Start]  $\rightarrow$  [Settings]  $\rightarrow$  [Printers and Faxes] to open the Printers and Faxes window.
- **2.** In the Printers and Faxes window, right-click on the appropriate printer driver icon, and choose [Printing Preferences] from the context menu.

#### Windows 98/Me/NT

- **1.** Click [Start]  $\rightarrow$  [Settings]  $\rightarrow$  [Printers] to open the Printers window.
- **2.** In the Printers window, right-click on the appropriate printer driver icon, and choose [Properties] from the context menu.

#### CHANGING THE APPLICATION'S DRIVER SETTINGS

#### Windows

- **1.** In your application, open the file you want to print.
- **2.** On the [File] menu, choose [Print...].
- **3.** In the application's Print dialogue, make sure the printer shown is the appropriate one, and click [Properties].

#### Macintosh

The Mac user interface is very different to that in Windows. In particular, OS X differs considerably from previous versions. Full instructions are therefore included with each procedure.

### **PCL** SAVED DRIVER SETTINGS

This feature, unique to the Windows PCL drivers, allows you to save the printer driver settings and reuse them later. This could be useful if you frequently print many different types of document that require different printer driver settings.

Recalling saved settings in the PCL drivers is a simple task that must be done first, before any job-specific changes are made. Rather than repeat the procedure throughout this manual, it is described here.

#### **S**AVING A SET OF DRIVER SETTINGS

- **1.** Make any changes to the driver settings you want, as described in the relevant section of this manual.
- 2. In the driver's [Setup] tab, click [Save...].

ize:	A4 210 x 297 mr	n 🗸	A
ource:	Auto	*	
Veight:	Printer Setting	~	
	Paper Fe	ed Options	
inishing	Mode		
Standar	d	~	
	0	ptions	
2-Sided	Printing (Duplex)		20000 TA.
(None)			
Driver S	ettings	$\sim$	
Untitled		~ )	
Save		Delete	A4 210 x 297 mm
			Default

**3.** Enter a meaningful name for the settings you are saving, and click [OK].

#### **RECALLING SAVED DRIVER SETTINGS**

- 1. In the driver's [Setup] tab, choose any previously saved [driver settings] you need.
- **2.** Proceed to make any other adjustments for this job, as described in the relevant section in this manual.

## **SETTING THE DRIVER DEVICE OPTIONS**

This section explains how to ensure that your printer driver can utilize all of the hardware features installed in your printer.

Accessories such as hard disk, duplex unit (two sided printing), additional paper trays, etc., will only be usable if the printer driver on your computer knows they are there.

In some cases the hardware configuration of your printer is automatically detected when the driver is installed. However, it is advisable to at least check whether all of the available hardware features are listed in the driver.

This procedure is essential if you subsequently add extra hardware features to your printer after the drivers have been installed and set up.

### WINDOWS

- 1. Access the driver's [Properties] window. (See "Changing the driver defaults" on page 7.)
- **2.** Select the [Device Options] tab.

In the Windows XP PostScript driver the tab may be called "Device Settings".

- **3.** Set the options for any devices you have installed, including the correct number of paper trays, high capacity feeder, duplex unit, etc.
- **4.** Click [OK] to close the window and save your changes.

## MAC OS9

There are 2 methods to configure printer hardware options, depending on whether or not you use Desktop Printing:

- > Use the desktop printer icon if you use desktop printing; or...
- > Use the Chooser if you do not use desktop printing and print via AppleTalk.

#### CONFIGURING HARDWARE OPTIONS FROM THE DESKTOP

Use this method if you have a printer icon on your desktop.

- **1.** Select the printer icon on the Desktop for your printer.
- 2. From the [Printing] menu, choose [Change Setup...].
- **3.** In the [Change] menu, select the hardware item(s) that you have installed, and change the [To] values as appropriate.

*Tip—If your printer is connected via USB or AppleTalk, click the [Auto Setup] button. This queries the printer, and sets the options automatically.* 

4. Click [OK] to save your settings.

# CONFIGURING HARDWARE OPTIONS FROM CHOOSER (APPLETALK ONLY)

Use this method if you do not use Desktop Printing.

- **1.** In the Apple menu, select [Chooser].
- **2.** Select the printer driver that you use (LaserWriter or AdobePS) in the left-hand side of the Chooser window.
- **3.** If you are on a network with multiple AppleTalk zones, select the appropriate zone for the printer in the bottom left side of the Chooser.

If your network does not have multiple AppleTalk zones, this option will not be visible.

- **4.** Select the name of your printer in the right-hand side of the Chooser.
- 5. Click [Setup...].
- **6.** Click [Configure].
- **7.** Make changes to the installed hardware options as appropriate for your printer.

**8.** Click [OK], and close the Chooser window to save your settings.

## MAC OS X IN CLASSIC MODE

#### Printers connected via AppleTalk:

- **1.** Launch a Classic application (such as SimpleText).
- **2.** Click the Apple menu and point to [Chooser].
- **3.** Select your printer driver on the left-hand pane of Chooser (for example "LaserWriter 8").
- 4. Select your printer model in the right-hand pane of Chooser.
- 5. Click [Setup...].
- 6. Click [Auto Setup].

The printer is queried and additional hardware options are automatically detected.

#### Printers connected via USB:

It is not possible to change printer hardware options for printers connected via USB in Classic Mode. If you change the hardware configuration of your printer, you must delete the existing printer and set it up again. When the printer is set up, hardware device options are automatically detected.

#### Printers connected via LPR (TCP/IP):

It is not possible to change printer hardware options for printers connected via LPR (TCP/IP) in Classic Mode. It is recommended you connect to your printer via AppleTalk instead.

## MAC OS X

- Open the Printer Setup Utility (OS X 10.3) or Printer Center (OS X earlier versions), and ensure that your printer model is selected.
- **2.** Choose [Printers]  $\rightarrow$  [Show Info]  $\rightarrow$  [Installable Options].

**3.** Select all hardware options appropriate to your printer, and click [Apply Changes].

# CHAPTER 2: BLACKS AND GREYS

## **BLACK OVERPRINT**

Black overprint eliminates the white edge between the printed fonts and the colored background.

Black overprint can only be used when printing 100 percent black text over a background color.

Black Overprint may not be available with some software applications.

NOTES

- 1. The Black Overprint feature is not included in the Windows PCL 6 driver.
- **2.** When the background color is very dark, the toner may not fuse correctly. Change the background to a lighter color.

### WINDOWS

**1.** On the [Job Options] tab, click [Advanced].



2. Check [Black Overprint].

## MAC OS 9

**1.** Choose [File]  $\rightarrow$  [Print].



- **2.** From the [Printer] menu (1), select your printer model.
- **3.** Select [color Options] (2).
- **4.** Select the [Black Overprint] checkbox (3).

## MAC OS X

**1.** Choose [File]  $\rightarrow$  [Print].

	Presets: Standard	\$
-	Printer Features	•
	-Feature Sets: Colour Options	;
	Colour Mode: Automatic	•
	Always use printer halftone	
<b>)</b>		
	Toner Saving	
	☑ Use optimized greyscale halftones	
	Separations: Off	

- 2. From the [Printer] menu (1), select your printer model.
- **3.** Select [Printer Features] (2).
- **4.** From the [Feature Sets] menu (3), select [color Options].
- **5.** Select the [Black Overprint] checkbox (4).

# BLACK PRINTING (BLACK GENERATION)

To use Black Generation, Office color or Graphic Pro must be the selected Print Mode.

Your printer prints the color black in one of two ways: **Composite Black** or **True Black**.

### **COMPOSITE BLACK**

The cyan, magenta, yellow, and black toners are *combined* to create composite black.

This will sometimes give a glossier finish, due to the increased amount of toner. It can also sometimes appear as a slightly brownish black.

Use composite black when printing photographs.

## TRUE (PURE) BLACK

Only black toner is used to print true black.

Use True Black when printing a combination of text and graphics. If you use True Black to print photographs, dark sections of the photos may appear black.

### WINDOWS (OFFICE COLOR)

1. On the driver's [color] tab, select [Office color] (1) and click the [Options] button.



2. On [Black Finish] (2), make your selection: [Auto] (allow printer to choose the best method depending on page content), [True Black] or [Composite Black].

## WINDOWS (GRAPHIC PRO)

1. On the driver's [color] tab, select [Graphic Pro] (1) and click the [Options] button.



**2.** From the [Black Finish] menu (2), choose your preferred setting.

## MAC OS 9 (OFFICE COLOR)

**1.** From the [File] menu, select [Print].

<b>0</b> - 0-	Printer: 主	Z1-8.7.1 Destination: Printer \$
	Office Colour options: CMYK Ink Simulation:	Monitor(6500K) - Auto ¢
6	Black Finish:	Auto 🔷
	Save Settings	Cancel

- **2.** From the [Printer] menu (1) select your printer.
- **3.** In the next menu (2), select [color Office color].
- **4.** For [Black Finish] menu, choose your preferred setting.

## MAC OS 9 (GRAPHIC PRO)

**1.** From the [File] menu, select [Print].

0-	Printer:	Z1-8.7.1 Destination: Printer
0-	Colour - Graphic Pro 2	€
	Printer Output Profile:	Auto 🗢
	Rendering Intent:	Perceptual 🗢
6-	Black Finish:	Composite Black (CMYK) 😫
	☑ Pure Black Text/Graph	lics
	Colour Match Precision:	Fine 🗘
	Save Settings	Cancel Print

- **2.** From the [Printer] menu (1) select your printer.
- **3.** In the next menu (2), select [color Graphic Pro 2].
- **4.** For [Black Finish] menu (3), choose your preferred setting.

## MAC OS X (OFFICE COLOR)

**1.** From the [File] menu, select [Print].



- **2.** From the [Printer] menu (1), select your printer.
- **3.** In the next menu (2), select [Printer Features].
- **4.** From the [Feature Sets] menu (3), select [color Office color].
- 5. For [Black Finish] menu (4), choose your preferred setting.

## MAC OS X (GRAPHIC PRO)

1. From the [File] menu, select [Print].



- 2. From the [Printer] menu (1), select your printer.
- **3.** In the next menu (2), select [Printer Features].
- **4.** From the [Feature Sets] menu (3), select [color Graphic Pro 3].
- **5.** For [Black Finish] menu (4), choose your preferred setting.

## FINE LINES ENHANCEMENT

This feature can be used to emphasize the pen width of very fine lines (minimum line width).

With some software applications, if this feature is turned ON, the spaces in bar codes may become too narrow. If this happens, turn [Adjust Ultra Fine Lines] OFF.

NOTE

This is a feature of the Windows PCL 5c driver only.

**1.** In the driver's [Job Options] tab, click [Advanced].

Setup Job Options Colour		Image compression
Quality Quality Photo (Multilevel) Fine / Detail (600x 500) Draft (500 x 600) Finisher Output Bin: Postion:	Normal     Secure Print     Store to HDD     Copies:     1     Copies:     1     Copies:     1     Copies:     1     Copies:     Copi	Speed Quality Advanced  Reduce Size of Spool File  Keep page layout when resizing document  Give application priority when collating  Give application prior
Vatemarks Overlays	Fonts Advance Defau ancel Apply H	OK Cancel Help Default ad it

Click the checkbox to turn on [Adjust Ultra Fine Lines].
 If the option is turned on, a check mark appears in the box.

## **GREYSCALE PRINTING**

If you select Greyscale, the printer converts all colors into shades of grey, and prints using only black toner.

Use Grayscale to speed up printing of proof copies or when you do not need to print a color document in color.

### WINDOWS

- If using the PCL driver, in the driver's [Setup] tab, choose any previously saved [driver settings] you need. See "Recalling saved driver settings" on page 8.
- **2.** On the driver's [color] tab, click [Greyscale], then click [Advanced].

Layout Paper/Quality Job Options Colour	
Colour Mode	
C Automatic	
C Office Colour	Advanced Colour Options
Graphic Pro	I✓ Always use printer halftone
🕅 🔿 No Colour Matching	Elack overprint     Elack overprint
Greyscale	DK Cancel Default
□ Ioner Save	
Advanced	
Colour Swatch Default	
OK Cancel Apply	

Some applications will attempt to set the halftone screen information for the printer. If the option to [use printer halftones] is left at ON, the printer will set its own halftone screen value, giving a smoother result. It is recommended to leave this option on.

[optimized greyscale halftones] may take slightly longer to print but will give best quality.

**3.** On the [color] tab, click [Greyscale], and then click [Options] if you want to adjust brightness and contrast.

Setup Jab Options Colour			
Caoul Mode			
Office Colour Options	Manual Settings		
Graphic Pro Options	Brightness: 🚺 🔾 🔇		≥ ☆ ≥ 0
No Colour Matching	OK Cancel	Help	Default
Greyscale OptionsV			
Toner Save			
Colour Swatch	Help		

## MAC OS 9

**1.** In your application program, choose [File]  $\rightarrow$  [Print].

0	Printer:
0- 6- ()-	Colour Options 🔶 Colour Mode: Greyscale 💠 Malways use printer halftone Black Overprint
	☐ Toner Saving Separations: Off \$ Custom Gamma Adjustment: None \$
	Save Settings Cancel Print

- 2. From the [Printer] menu (1), select your printer.
- **3.** From the next menu (2), select [color Options].
- **4.** From the [color Mode] menu (3), select [Greyscale].
- Select [Always Use Printer Halftone] checkbox (4). This ensures best quality when using greyscale.

	Printer: 主	Destination: Printer \$
6-	Job Options 💠	
Ŭ	Quality: Photo (Multilevel)	PPD ver 1.0
	🔲 Image smoothing	
	🗌 Collate	
	🗌 Page rotate	
	🗹 Adjust ultra fine lines	
<b>0</b> -	🗹 Use optimised greyscale halfton	ies
-		
	Save Settings	Cancel Print

- 6. From the menu below [Printer] (5), select [Job Options].
- Select the [Use optimized greyscale halftones] checkbox (6). This may slow down printing slightly, but will produce superior results.

## MAC OS X

**1.** In your application program, choose [File]  $\rightarrow$  [Print].



- 2. From the [Printer] menu (1), select your printer.
- **3.** From the next menu (2), select [Printer Features].
- **4.** From the [Feature Sets] menu (3), select [color Options].
- 5. From the [color Mode] menu (4), select [Greyscale].
- **6.** Select [Always Use Printer Halftone] checkbox (5). This ensures best quality when using greyscale.
- Select the [Use optimized greyscale halftones] checkbox (6). This may slow down printing slightly, but will produce superior results.

# CHAPTER 3: COLOR MATCHING

# BASICS

There are three methods by which your document's color can be managed and adjusted:



**1.** Application color Management (1).

Some graphics and desktop publishing programs such as Adobe Photoshop, Adobe Illustrator, and Quark Xpress have their own built-in color management systems. See page 63.

Most applications do not have these color management features and rely instead on the printer or operating system.

**2.** Operating System color Management (2).

Windows 98, Me, 2000 and XP have Windows ICM color Management.

Mac OS and Mac OS X have Apple ColorSync.

**3.** Printer color Management (3).

When you print your document and modify settings in the printer driver, the printer performs color adjustments.

#### **IMPORTANT!**

Only use one color management system if you want the best results from your printer.

If you wish to use your printer's color management system, ensure that your application or operating system color management is switched off.

Applying color management in multiple places will give unpredictable results.

## WHAT THIS GUIDE DESCRIBES

This user guide only discusses the **printer** color management system.



If you wish to learn more about your application program or operating system color management, please see the documentation that was supplied with your application software or computer.

## **PRINTER COLOR MANAGEMENT**

## INTRODUCTION

Your printer has two separate color management systems – Office color and Graphic Pro.



> Office color (3a) – See page 28.

This is a simpler color management system designed for ease of use. Office color is recommended for users who are not experts in color but want good results when printing from programs such as Microsoft Office.

> Graphic Pro (3b) – See page 35.

This is a powerful color management system based on ICC color profiles.

Profiles can be downloaded to the printer hard disk using a special utility, and then color matching can be applied to all incoming print jobs.

The Graphic Pro color management system is recommended for users who are already familiar with ICC profile-based color matching and require more control over color.

## ABOUT RGB AND CMYK COLOR

Some application programs give you the choice to create and edit documents using either RGB color or CMYK color. Typically, only professional graphics and desktop publishing software support CMYK color. Most application programs only support RGB color, for example Microsoft Office programs or web browsers.

If your application program does not give you the choice of RGB or CMYK color, you should assume that it only supports RGB.

The RGB color model is based on the three primary colors of light; **Red**, **Green** and **Blue**. This model is used by scanners, digital cameras and computer monitors.

The CMYK color model is based on Cyan, Magenta, Yellow and **Black** printer inks or toners.

#### **ABOUT THE PRINTER DRIVERS**

Depending on your operating system, you may have the choice of different drivers to use with your printer. You may wish to select a printer driver based on whether it supports CMYK data.

	SUPPORT FOR RGB DATA	SUPPORT FOR CMYK DATA
PCL 5c driver (Windows)	~	×
PCL 6 driver (Windows)	~	×
PostScript driver (Windows)	~	~
PostScript driver (Mac)	~	~

## **OFFICE COLOR**

This section describes the features in the printer driver for "Office color" printer color management.

RGB OPTIONS	CMYK OPTIONS (POSTSCRIPT ONLY)
Monitor (6500K) – Auto	SWOP
Monitor (6500K) – Perceptual	Euroscale
Monitor (6500K) – Vivid	Japan Color
Monitor (9300K)	
Digital Camera	
sRGB	

There are two different sets of options in Office color:

#### **IMPORTANT!**

The options for CMYK data are not present in the Windows PCL 5c or PCL 6 printer drivers. These printer drivers only support RGB color data.

Although the Office color options contain controls for CMYK data, it is strongly recommended that you use the Graphic Pro options instead. If you are printing CMYK data, the Graphic Pro options provide more power and flexibility.

## **OFFICE COLOR - RGB OPTIONS**

Office color provides a collection of several different color matching presets for RGB data.

These presets each change the color of your print in a slightly different way.

These RGB color matching options are available in all printer drivers.

Preset	EXPLANATION
Monitor (6500K) – Auto	The best color match preset will be selected based on the type of document. 6500K - Perceptual will be selected if printing photographs. 6500K - Vivid will be selected if printing graphics and text.
Monitor (6500K) – Perceptual	Optimized for printing photographs. colors are printed with emphasis on saturation.
Monitor (6500K) – Vivid	Optimized for printing photographs and for office graphics. The printer uses even more saturation than the Monitor (6500k) Perceptual setting.
Monitor (9300K)	Colors are printed with emphasis on Lightness. Use this setting if you are having problems achieving the correct color when printing from Microsoft Office applications.
Digital Camera	Optimized for printing photos taken with a digital camera. Your results will vary depending on the subject and the conditions under which the photograph was taken.
sRGB	The printer will try to reproduce the sRGB color space. This may be useful if color matching from an sRGB input device such as a scanner or digital camera.

### WINDOWS

This information applies to the Windows PCL 5c, PCL 6 and PostScript drivers.

1. On the printer driver [color] tab, select [Office color] (1) and click the [Options] button.

Layout Paper/Quality Job Options Colour Colour Mode	0	
Office Colour     Optice	ons	
Graphic Pro	RGB Colour Settings	
No Colour Matching	User Settings	
☐ Ioner Save		Plant Frith
Colour Swatch	None	Composite Black (CMYK)
OK C		C True Black (K) OK Cancel Default

**2.** Select a preset from [color matching options] (2).

### MAC OS 9

1.	Choose [File] $\rightarrow$ [Print].
-	☑ Always use printer halftone
	Black Overprint
	Toner Saving
	☑ Use optimized greyscale halftones
	Separations: Off
	Preview Save As PDF Fax     Cancel Print
	Printer:
	Presets: Standard
	Printer Features
	5 Feature Sets: Colour - Office Colour
	6 Office Colour options: Monitor (6500K) – Auto
	CMYK Ink Simulation: None
	Black Finish: Auto
	(Preview) Save As PDF Fax Cancel Print

- **2.** From the [Printer] menu (1), select your printer model.
- **3.** Select [color Options] (2).
- **4.** From the [color Mode] menu (3), select [Office color].
- **5.** Select [color Office color] (4).
- **6.** Select the Office color Preset (5) you wish to use.

### MAC OS X

#### **IMPORTANT!**

When printing from some applications on Mac OS X, these RGB color match options may not affect the color of your print. If you discover that the color of your print has not changed after applying one of the Office color Match presets, then the application is incompatible with this type of printer color matching.

As an alternative, Mac OS X 10.3.x users may be able to adjust the color of their document using ColorSync Quartz filters.

**1.** In your application program, choose [File]  $\rightarrow$  [Print].

	Presets: Standard
-	Printer Features
-	Feature Sets: Colour Options
-	Colour Mode: Office Colour
	Always use printer halftone
	Black Overprint
	Toner Saving
	☑ Use optimized greyscale halftones
	Separations: Off

- **2.** From the [Printer] menu (1), select your printer model.
- **3.** Select [Printer Features] (2).
- **4.** From the [Feature Sets] menu (3), select [color Options].
- 5. From the [color Mode] menu (4), select [Office color].

**6.** From the [Feature Sets] menu (5), select [color – Office color].

Presets: Standard
 Printer Features
Feature Sets: Colour - Office Colour
Office Colour options: Monitor (6500K) – Auto
CMYK Ink Simulation: None
Black Finish: Auto

**7.** Select the [Office color] Preset (6) you wish to use.

## CUSTOMIZING RGB OFFICE COLOR WITH THE COLOR CORRECT UTILITY (WINDOWS)

If the Office color presets are not sufficient for your needs, the color Correct utility provides a means of further adjustment. The color Correct utility provides two methods for adjusting the Office color settings:

- **1.** You can adjust the overall appearance of the print by modifying Hue, Saturation and Gamma.
- **2.** You can adjust the specific palette colors used in Microsoft Office applications. These adjustments only affect one specific palette color at a time.

Note

The color Correct Utility is available for Windows only.

For more details, see the C9600 Utilities Guide.

## **GRAPHIC PRO**

This section describes the color matching options available for Graphic Pro.

The Graphic Pro color matching system is based around ICC profiles. These profiles are downloaded to the printer using the Profile Assistant utility and then selected in the printer driver. When a job is sent to the printer, the ICC profiles are applied to the print job on the printer.

#### IMPORTANT!

Some features of Graphic Pro color matching can only be used if your printer is fitted with a hard disk. The printer hard disk is required if you wish to download and use your own ICC profiles to the printer.

If your printer does not have a hard disk fitted, you will only be able to select the factory default profiles that are built-in to the printer.

Note

The printer's internal hard disk is an optional accessory for C9600n and C9600dn, and standard equipment on C9600hdn and C9600hdtn.

### WHAT CAN YOU DO WITH GRAPHIC PRO COLOR MATCHING?

The Graphic Pro color matching system is both powerful and flexible. Here are some examples of how the Graphic Pro color matching system can be used:

#### MATCHING PRINTER COLOR TO AN RGB INPUT DEVICE

By using the ICC profiles of a scanner, digital camera or monitor, the printer's color can be matched to the input device.

#### **PRINTER SIMULATION**

Your printer can be used to simulate the color output of another printer, even when printing RGB documents. For best results, use CMYK documents when simulating the color output of other printers.

### **CMYK** INK SIMULATION

Your printer can be used to simulate the color output of a commercial printing press (SWOP, Euroscale or Japan Color inks).

#### MORE ACCURATE PRINTER COLOR

If you have created your own profiles with third-party ICC profile creation software, these can be downloaded to the printer and used when printing.

### TYPES OF ICC PROFILE SUPPORTED

There are four classes of ICC profile supported by the Graphic Pro color matching system:

<b>P</b> ROFILE TYPE	DESCRIPTION
RGB Source (RGB Input)	These profiles describe the device that was used to capture RGB data (e.g. scanner or digital camera). The RGB Input Profile may also be your monitor profile if you are trying to match to your screen.
CMYK Simulation (CMYK input)	These profiles describe the CMYK device whose colors you are trying to simulate. Typically this would be another manufacturer's printer or an offset printing press. Profiles are already built-in to the printer for commercial printing press inks such as SWOP or Euroscale.
Printer (CMYK Output)	This profile describes the color characteristics of your own printer. The printer already has factory default profiles built-in, but you can replace these profiles with your own if required.
Link Profile	This is a special type of ICC profile that converts directly from CMYK to CMYK. For example, a link profile could convert directly from the CMYK space of another printer to the CMYK space of your printer.
#### **GRAPHIC PRO WORKFLOW – OVERVIEW**

There are three steps to using the Graphic Pro color matching system:

- **1.** Gather or create ICC profiles (see below)
- 2. Download ICC profiles to the printer hard disk (page 37)
- **3.** Select the ICC profiles in the printer driver when printing (page 39)

## **STEP 1 - GATHER OR CREATE THE ICC PROFILES**

Where can I get the profiles I need?

<b>P</b> ROFILE TYPE	WHERE TO GET PROFILES
RGB Source (RGB Input)	Obtain your RGB source profiles from your scanner, camera or monitor manufacturer.
CMYK Simulation (CMYK input)	Obtain the simulation profile from the manufacturer of the printer you wish to simulate.
Printer (CMYK Output)	The factory default profiles for your printer are built-in. If you need greater accuracy, you should create your own printer profile using third-party ICC profile creation software.
Link Profile	You can create Link profiles using third-party ICC profile creation software. Note that not all ICC profile creation software can create Link profiles.

#### STEP 2 - DOWNLOADING ICC PROFILES TO THE PRINTER HARD DISK

You can download profiles to the printer hard disk using the Profile Assistant utility.

#### **Using Profile Assistant**

- 1. Launch Profile Assistant
- 2. Select a printer

If this is the first time you have used Profile Assistant, you should allow the utility to search for compatible printers.

Select the connection types that you wish to search – Parallel, USB or Network (TCP/IP), and click [Start].

If you know the Printer's IP address, you can enter it manually.

- **3.** The main screen of Profile Assistant displays the profiles resident on the selected printer's hard disk. To download a new profile to the printer:
  - a. Click [Add].
  - b. Select an ICC profile from your computer's hard disk.
  - c. Once you have selected a profile, you can add it to the printer as one of the 4 profile types RGB Source, CMYK Simulation, Printer or Linked.

The options available will depend on which ICC profile you have selected. For example, if you have selected a CMYK profile, you may only be able to add this to the printer as a CMYK Simulation or Printer output profile.

d. Select a number from 1 to 12. This number is used to identify the profile in the printer driver.

C:\WINNT\sys	em32\spool\driv	ers\color\EuroscaleCoa	ited.icc		Γ	Browse	•
Date:	Wed, Jul, 26,	2000	Color Sp	ace: I	СМҮК		
Description:	Euroscale Coa	ated v2	Device	Class:	ortr		
Copyright	Copyright 200	0 Adobe Systems, Inc	Size:	1	557164	bytes	
You can add it	as CMYK Simulat	tion or printer profile.					
Profile Type		Add Status					
C RGB Sour	ce			2	3	4	
— 🖲 CMYK Sin	nulation	Profile ID:			7		
C Printer		3 -	_	, , ,	<u>  '</u>		
C Linked			1	9 10	11	12	
Comments							

e. Click [OK] to download the ICC profile to the printer.

## STEP 3 - SELECT ICC PROFILES IN THE PRINTER DRIVER

What you select in the printer driver depends on the color matching task that you wish to perform.

Examples of selecting ICC profiles for different color matching tasks are shown in the next sections of this guide.

## MATCHING THE COLOR OF A MONITOR, SCANNER OR CAMERA

The Graphic Pro color matching system can be used to match the printer color to an RGB input device such as a monitor, scanner or digital camera.



To match an RGB input device, first download the RGB source profile and printer profile (optional) to the printer hard disk using Profile Assistant. See "Using Profile Assistant" on page 37.

Once the profile(s) have been downloaded, make the appropriate selections in the printer driver. These are described in the next section (Windows page 41, Mac OS 9 page 42. Mac OS X page 44).

#### WINDOWS

This information applies to the Windows PCL 5c, PCL 6 and PostScript drivers.

To match the color of an input RGB device such as a monitor, scanner or digital camera, make the following selections in the printer driver:

1. On the printer driver [color] tab, select [Graphic Pro] (1) and click [Options].



2. Select [ICC Profile color Matching] (2).

**3.** Select the ICC profile that corresponds to the device you are trying to match such as your monitor, scanner or digital camera (3).

Remember that the names "RGB Source 1", "RGB Source 2" and so on relate to the number assigned to the profile using Profile Assistant. See "Using Profile Assistant" on page 37.

**4.** Select a Printer Output Profile (4).

If [Auto] is selected, the factory default profiles that are embedded in the printer will be used. If you have created a printer profile yourself using profile creation software, select it here.

Tip—If you have selected your own printer output profile (4), you will also be able to adjust the rendering intent. See "Rendering intents" on page 61.

## MAC OS 9

**1.** In your application program, choose [File]  $\rightarrow$ [Print].

0-	Printer:
2- 8-	Colour Options 🔹 Colour Mode: Graphic Pro 💠 Always use printer halftone
	☐ Black Overprint ☐ Toner Saving Separations: Off
	Save Settings Cancel Print

- **2.** From the [Printer] menu (1), select your printer model.
- **3.** Select [color Options] (2).
- **4.** From the [color Mode] menu (3), select [Graphic Pro].

5. Select [color – Graphic Pro 1] (4).

Colour Mate	ching Task: ICC Profile Col	our Matching 🗦
Colour Mate	ch Precision: Quality	•
Preserve 🗹	Black	

- **6.** From the [color Matching Task] menu (5), select [ICC Profile color Matching].
- **7.** From the RGB Profile source, select the ICC profile that corresponds to the device you are trying to match such as your monitor, scanner or digital camera (6).

Remember that the names "RGB Source 1", "RGB Source 2" and so on relate to the number assigned to the profile using Profile Assistant. See "Using Profile Assistant" on page 37.

**8.** Select [color – Graphic Pro 2] (7).

-	RGB Profile: sRGB	•
	CMYK Profile Type: CMYK Input Profile	•
	CMYK Input Profile: None	+
	CMYK Link Profile: None	\$
	Simulation Target Profile: None	•

**9.** From the [Printer Output Profile] menu (8), select your printer profile.

If [Auto] is selected, the factory default profiles that are embedded in the printer will be used. If you have created a printer profile yourself using profile creation software, select it here and choose a rendering intent (see page 61).

## MAC OS X

**1.** Choose [File]  $\rightarrow$  [Print].



- 2. From the [Printer] menu (1), select your printer model.
- **3.** Select [Printer Features] (2).
- **4.** From the [Feature Sets] menu (3), select [color Options].
- 5. From the [color Mode] menu (4), select [Graphic Pro].

**6.** From the [Feature Sets] menu (5), select [color - Graphic Pro 1].

	Presets:	Standard	•
_		Printer Features	•
	Feat	ure Sets: Colour - Graphic Pro	1
	Colour Matching	Task: ICC Profile Colour Match	ing
	Colour Match Pre	cision: Quality	
	Preserve Black	( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (	

- **7.** From the [color Matching Task] menu (6), select [ICC Profile color Matching].
- **8.** From the [Feature Sets] menu (7), select [color Graphic Pro 2].

	Printer Features	
Feat	ure Sets: Colour - Graphic Pro	
reut	are sets. Colour Graphierro	
RGB Profile: sRG	B	\$
CMYK Profile Typ	e: CMYK Input Profile	\$
CMYK Input Prof	file: None	+
CMYK Link Profi	le: None	\$
Simulation Targe	t Profile: None	\$

**9.** From the [RGB Profile source] (8), select the ICC profile that corresponds to the device you are trying to match such as your monitor, scanner or digital camera.

Remember that the names "RGB Source 1", "RGB Source 2" and so on relate to the number assigned to the profile using Profile Assistant. See "Using Profile Assistant" on page 37.

From the [Feature Sets] menu, select [color - Graphic Pro 3]
 (9).

	Printer:
_	Printer Features
<b>9</b> –	Feature Sets: Colour – Graphic Pro 3
10-	Printer Output Profile: Auto
	Rendering Intent: Perceptual
	Black Finish: Composite Black (CMYK)
	✓ Pure Black Text/Graphics
-	

**11.** From the [Printer Output Profile] menu, select your printer profile (10).

If Auto is selected, the factory default profiles that are embedded in the printer will be used. If you have created a printer profile yourself using profile creation software, select it here and choose a rendering intent (see page 61).

## SIMULATING ANOTHER PRINTER - RGB SOURCE DATA

The Graphic Pro color matching system can be used to simulate the color output of another printer.



#### **IMPORTANT!**

Be aware that if the device you are trying to simulate has different color capabilities from your own printer, exact color simulation will not be possible. For example, it may be difficult to reproduce the exact colors of an inkjet printer on a toner-based printer.

Additionally, differences in the range of printable colors between different devices can make simulation using RGB source data inaccurate. To achieve best results when simulating the color output of other printers, you are strongly advised to use CMYK data as a source. See CMYK Ink Simulations on page 55.

To simulate the output of another printer, you need to download at least 2 profiles to your printer using Profile Assistant:

- > RGB Source Profile
- > Simulation Target Profile
- > Printer Output Profile (optional)

Once the profile(s) have been downloaded, make the appropriate selections in the printer driver. These are described in the next section (Windows page 48, Mac OS 9 page 50, Mac OS X page 51).

#### WINDOWS

This information applies to the Windows PCL 5c, PCL 6 and PostScript drivers.

If you are using a source RGB document, simulate the output of another printer by making the following selections in the printer driver:

1. On the printer driver [color] tab, select [Graphic Pro] (1) and click [Options].



**2.** Select [Printer Simulation] (2).

**3.** Select the ICC profile that corresponds to the device used to capture or display your source document - this could be a monitor, scanner or digital camera (3).

Remember that the names "RGB Source 1", "RGB Source 2" and so on relate to the number assigned to the profile using Profile Assistant. See "Using Profile Assistant" on page 37.

**4.** Select a Simulation Target Profile (4).

This profile corresponds to the printer you want to simulate.

If you wish to produce black and grey colors that are printed using only black toner, enable the [Preserve Black] option. Although this produces a better quality print, the black and grey colors will not be simulated accurately.

**5.** Select your printer output profile (5).

If [Auto] is selected, the factory default profiles that are embedded in the printer will be used. If you have created a printer profile yourself using profile creation software, select it here and choose a rendering intent (see page 61).

## MAC OS 9 / CLASSIC

If you are using a source RGB document, simulate the output of another printer by making the following selections in the printer driver:

- **1.** Choose [File]  $\rightarrow$  [Print].
- 2. From the [Printer] menu (1), select your printer model.



- **3.** Select [color Options] (2).
- **4.** Choose [color Mode]  $\rightarrow$  [Graphic Pro] (3).
- **5.** Choose [color]  $\rightarrow$  [Graphic Pro 1] (4).



**6.** Choose [color Matching Task]  $\rightarrow$  [Printer Simulation] (5).

**7.** From the [RGB Profile source] (6), select the ICC profile that corresponds to the device you are trying to match such as your monitor, scanner or digital camera.

Remember that the names "RGB Source 1", "RGB Source 2" and so on relate to the number assigned to the profile using Profile Assistant. See "Using Profile Assistant" on page 37.

**8.** From the [Simulation Target Profile] menu (7), select the profile of the device you wish to simulate.

Remember that the names "CMYK Source 1", "CMYK Source 2" and so on relate to the number assigned to the profile using Profile Assistant. See "Using Profile Assistant" on page 37.

If you wish to produce black and grey colors that are printed using only black toner, enable the [Preserve Black] option. Although this produces a better quality print, the black and grey colors will not be simulated accurately.

**9.** Choose [color]  $\rightarrow$  [Graphic Pro 2] (8).

8	RGB Profile: sRGB	•
	CMYK Profile Type: CMYK Input Profile	•
	CMYK Input Profile: None	\$
	CMYK Link Profile: None	•
0	Simulation Target Profile: CMYK Source 1	•
(	? Preview Save As PDF Fax	Cancel Print

**10.** From the [Printer Output Profile] menu (9), select your printer profile.

If [Auto] is selected, the factory default profiles that are embedded in the printer will be used. If you have created a printer profile yourself using profile creation software, select it here and choose a rendering intent (see page 61).

### MAC OS X

**1.** Choose [File]  $\rightarrow$  [Print].

**2.** From the [Printer] menu (1), select your printer model.



- **3.** Select [Printer Features] (2).
- **4.** From the [Feature Sets] menu (3), [color Options].
- **5.** From the [color Mode] menu (4), select [Graphic Pro].
- **6.** From the [Feature Sets] menu (5), select [color Graphic Pro 1].

	Printer:		\$
	Presets:	Standard	•
-		Printer Features	•
	Feat	ure Sets: Colour - Graphic	: Pro 1
	Colour Matching	Task: Printer Simulation	•
	colour match rie	cision. Quanty	<b>·</b>

**7.** From the [color Matching Task] menu (6), select [Printer Simulation].

If you wish to produce black and grey colors that are printed using only black toner, enable the [Preserve Black] option. Although this produces a better quality print, the black and grey colors will not be simulated accurately. **8.** From the [Feature Sets] menu (7), select [color – Graphic Pro 2].

	Presets:	Standard	•
		Printer Features	•
	Feat	ure Sets: Colour - Graphic Pro 2	:
1			
	RGB Profile: sRG	В	•
	CMYK Profile Type	e: CMYK Input Profile	•
	CMYK Input Prof	îile: None	•
	CMYK Link Profi	le: None	•
	Simulation Target	Profile: CMYK Source 1	•

**9.** From the [RGB Profile source] (8), select the ICC profile that corresponds to the device you are trying to match such as your monitor, scanner or digital camera.

Remember that the names "RGB Source 1", "RGB Source 2" and so on relate to the number assigned to the profile using Profile Assistant. See "Using Profile Assistant" on page 37.

**10.** From the [Simulation Target Profile] menu (9), select the profile of the device you wish to simulate.

Remember that the names "CMYK Source 1", "CMYK Source 2" and so on relate to the number assigned to the profile using Profile Assistant. See "Using Profile Assistant" on page 37.  From the [Feature Sets] menu (10), select [color – Graphic Pro 3].

		Printer Features	;	
_	Fe	ature Sets: Colour - C	raphic Pro 3	•
Р	rinter Output	Profile: Auto		•
R	endering Inter	nt: Perceptual		+
B	lack Finish:	Composite Black (CMYK	)	+
6	Pure Black T	ext/Graphics		

**12.** From the [Printer Output Profile] menu (11), select your printer profile.

If [Auto] is selected, the factory default profiles that are embedded in the printer will be used. If you have created a printer profile yourself using profile creation software, select it here and choose a rendering intent (see page 61).

## CMYK INK SIMULATIONS - CMYK SOURCE DATA

The ICC-based color matching system can be used to simulate the output on commercial printing presses.

You can select from the ink types most commonly used in different regions of the world:

- > Euroscale Europe
- > SWOP North America
- > Toyo Japan

To print CMYK Ink Simulations, you must use PostScript printer driver supplied.



Although it is possible to perform CMYK ink simulations using the Office color options in the printer driver, we recommend that you use the Graphic Pro color matching system to perform CMYK ink simulations, as this provides additional controls, such as using the "Preserve Black" feature, or specifying an alternative printer output profile.

Instructions on how to apply Ink Simulations appear in the next section (Windows page 56, Mac OS 9 page 57, Mac OS X page 59).

#### WINDOWS

Note

This information applies to the Windows PostScript driver only.

If you are using a source CMYK document, use the following printer driver settings to perform a CMYK Ink Simulation:

Layout Paper/Quality Job Options Colour
Colour Mode
C Office Colour
Graphic Pro     Detions
C Printer Simulation
C Disable colour matching for profile creation     Use application colour matching
□ Ioner Sav
C _ MYK Input Profile      EuroScale

- 1. On the printer driver [color] tab, select [Graphic Pro] (1) and click [Options].
- **2.** Select [ICC Profile color Matching] (2).
- **3.** Select the [CMYK Input profile] (3) that corresponds to the device you are trying to match such as a SWOP or Euroscale Press. If you have another CMYK Ink profile that you wish to use, select it here as the appropriate "CMYK Source x" profile.

Remember that the names "CMYK Source 1", "CMYK Source 2" and so on relate to the number assigned to the profile using Profile Assistant. See "Using Profile Assistant" on page 37.

Use the [Preserve Black] option to keep the original grey component (K channel) information. If [Preserve Black] is

disabled, the grey components may be printed using a mixture of CMYK toner, instead of just K (black) toner.

**4.** Select a Printer Output Profile (4).

If [Auto] is selected, the factory default profiles that are embedded in the printer will be used. If you have created a printer profile yourself using profile creation software, select it here.

If you have selected a profile other than [Auto], select the [Rendering Intent] (5). (See "Rendering intents" on page 61.)

## MAC OS 9 / CLASSIC

If you are using a source CMYK document, use the following printer driver settings to perform a CMYK Ink Simulation:

Colour Mode: Graphic Pro
Always use printer halftone
Black Overprint
Toner Saving
☑ Use optimized greyscale halftones
Separations: Off

- **1.** Choose [File]  $\rightarrow$  [Print].
- **2.** From the [Printer] menu (1), select your printer model.
- **3.** Select [color Options] (2).
- **4.** From the [color Mode] menu (3), select [Graphic Pro].

**5.** Select [color – Graphic Pro 1] (4).



- **6.** From the [color Matching Task] menu (5), select [ICC Profile color Matching].
- 7. From the [CMYK Input Profile source] (6), select the CMYK Input profile that corresponds to the device you are trying to match such as a SWOP or Euroscale Press. If you have another CMYK Ink profile that you wish to use, select it here as the appropriate "CMYK Source x" profile.

Remember that the names "CMYK Source 1", "CMYK Source 2" and so on relate to the number assigned to the profile using Profile Assistant. See "Using Profile Assistant" on page 37.

Use the [Preserve Black] option to keep the original grey component (K channel) information. If [Preserve Black] is disabled, the grey components may be printed using a mixture of CMYK toner, instead of just K (black) toner.

8. Select [color – Graphic Pro 2] (7).

ີ້ດ		
	Feature Sets: Colour – Graphic Pro 2	9
	RGB Profile: sRGB	•
8	CMYK Profile Type: CMYK Input Profile	•
~	CMAXIX Insura Des Ellas (Essen Essela	
J	CMYK Input Profile: Euroscale	•
	CMYK Link Profile: None	•
	Simulation Target Profile: None	•

**9.** From the [Printer Output Profile] menu (8), select your printer profile.

If [Auto] is selected, the factory default profiles that are embedded in the printer will be used. If you have created a printer profile yourself using profile creation software, select it here and choose a rendering intent (see page 61).

## MAC OS X

If you are using a source CMYK document, use the following printer driver settings to perform a CMYK Ink Simulation:

**1.** Choose [File]  $\rightarrow$  [Print].



- **2.** From the [Printer] menu (1), select your printer model.
- **3.** Select [Printer Features] (2).
- **4.** From the [Feature Sets] menu (3), select [color Options].
- **5.** From the [color Mode] menu (4), select [Graphic Pro].
- **6.** From the [Feature Sets] menu (5), select [color Graphic Pro 1].

	Printer:
	Presets: Standard
	Printer Features
<b>O</b> –	Feature Sets: Colour - Graphic Pro 1
6—	Colour Matching Task: ICC Profile Colour Matching
	Colour Match Precision: Quality
	☑ Preserve Black

**7.** From the [color Matching Task] menu (6), select [ICC Profile color Matching].

Use the [Preserve Black] option to keep the original grey component (K channel) information. If [Preserve Black] is disabled, the grey components may be printed using a mixture of CMYK toner, instead of just K (black) toner. **8.** From the [Feature Sets] menu (7), select [color – Graphic Pro 2].

Presets:	Standard	•
	Printer Features	
Feat	ure Sets: Colour - Graphi	c Pro 2
RGB Profile: sRG	В	•
CMYK Profile Typ	e: CMYK Input Profile	:
- CMYK Input Proj	file: EuroScale	•

- **9.** From the [CMYK Profile Type] menu (8), select [CMYK Input Profile].
- 10. From the [CMYK Input Profile source] (9), select the CMYK Input profile that corresponds to the device you are trying to match such as a SWOP or Euroscale Press. If you have another CMYK Ink profile that you wish to use, select it here as the appropriate "CMYK Source x" profile.

Remember that the names "CMYK Source 1", etc., relate to the number assigned to the profile using Profile Assistant. See "Using Profile Assistant" on page 37.

 From the [Feature Sets] menu, select [color – Graphic Pro 3] (10).

Printer:		÷
Presets:	Standard	:
	Printer Features	:
Featu	re Sets: Colour - Graphi	c Pro 3
	et. (1.1.	
Printer Output Pro	hle: Auto	
Rendering Intent:	Percentual	

**12.** From the [Printer Output Profile] menu (11), select your printer profile.

If [Auto] is selected, the factory default profiles that are embedded in the printer will be used. If you have created a printer profile yourself using profile creation software, select it here and choose a rendering intent (see page 61).

### **RENDERING INTENTS**

When selecting the Printer Output Profile, if you select any other profile apart from [Auto], you can select the Rendering Intent. The rendering intents are essentially a set of rules that determine how colors that fall outside of the printable colors are treated.

Select the rendering intent that best suits the document you are printing.

#### PERCEPTUAL

This option is recommended for printing photographs.

Typically, perceptual rendering desaturates all the colors when printing. This brings unprintable colors into the printer's range, while keeping the relationships between the colors the same.

#### SATURATION

This option is recommended for printing business graphics if you want vivid colors. This will not necessarily produce accurate color, as the emphasis is on maintaining saturation.

#### **RELATIVE COLORIMETRIC**

This option is best for printing solid colors and tints. Use Relative Colorimetric when printing from a drawing program such as Adobe Illustrator, or Macromedia Freehand.

#### **ABSOLUTE COLORIMETRIC**

This option is recommended if you are proofing images on your printer that are intended for final output on a printing press. This may result in a visible color cast on your print as it will also try to simulate the paper white of the target device.

## **PURE BLACK TEXT / GRAPHICS**

When your document is printed, often the pure black colors will not be printed using 100% black toner. Instead, these pure black colors are sometimes converted and printed using a mixture of CMYK toner.

Using the Pure Black Text / Graphics feature ensures that 100% black text or graphics in your document is printed using pure black toner.

This means that the following colors in your documents will be printed using only 100% black toner:

RGB	Red = 0, Green = 0, Blue = $0$
СМҮК	Cyan = 0%, Yellow = 0%, Magenta = 0%, Black = 100%

### COLOR MATCH PRECISION

When the printer performs color matching, it must do many calculations to convert between different color formats (RGB, CMYK, etc). These calculations can take time to process.

The [color Match Precision] option allows you to choose between higher quality color matching (more time consuming) or faster but less accurate color matching.

## PRINTER DRIVER SETTINGS FOR ICC PROFILE CREATION OR NO COLOR MATCHING

If you are creating ICC profiles using third-party software, select [Disable color Matching for ICC Profile Creation]. This option switches off all printer color management and also prevents the printer from restricting toner layer thickness.

If you are using your application color matching, select [Use Application color Matching]. This option switches off all printer color management. (Mac OS 9 page 64, Mac OS X page 65.)

#### WINDOWS

- 1. On the printer driver [color] tab, select [Graphic Pro] (1) and click [Options].
- Select [Disable color Matching for Profile Creation] (2) if you are creating an ICC profile using third-party profile creation software. Select [Use Application color Matching] (3) if you wish to switch off all printer color management and use your application's color matching..



#### MAC OS 9

- **1.** Choose [File]  $\rightarrow$  [Print].
- **2.** From the [Printer] menu (1), select your printer model.
- **3.** Select [color Options] (2).
- **4.** From the [color Mode] menu (3), select [Graphic Pro].

0	Printer:
0-	Colour Options 🗢
6	Colour Mode: Graphic Pro 🗢
	Always use printer halftone
	Black Overprint
	🗌 Toner Saving
	Separations: Off 🗢
	Custom Gamma Adjustment: None 🗢
	Save Settings Cancel Print

5. Select [color – Graphic Pro 1] (4).

_	Printer:	Destination:	Z1-8.7.1 Printer 🔶
<b>0</b> -	Colour - Graphic Pro 1 🗢		
6	Colour Matching Task:	Disable colour matching	\$
-	RGB Profile:	sRGB	\$
	Options for ICC Profile Colour	datching:	
	CMYK Input Profile:	None	¢
	O CMYK Link Profile:	None	\$
	Options for Print Simulation:		
	Simulation Target Profile:	None	¢
	Preserve Black		
	Save Settings	Cancel	Print

**6.** From the [color Matching Task] menu (5), select [Disable color Matching for Profile Creation] if you are creating an ICC profile using third-party profile creation software. Select [Use Application color Matching] if you wish to switch off all printer color management and use your application's color matching.

## MAC OS X

**1.** Choose [File]  $\rightarrow$  [Print].



- **2.** From the [Printer] menu (1), select your printer model.
- **3.** Select [Printer Features] (2).
- **4.** From the [Feature Sets] menu (3), select [color Options].
- **5.** From the [color Mode] menu (4), select [Graphic Pro].
- **6.** From the [Feature Sets] menu (5), select [color Graphic Pro 1].

Presets:	Standard	
	Printer Features	
Feat	ure Sets: Colour - Graphic Pro 1	•
		-
-Colour Matching	Task: Disable colour matching for pro	
-Colour Matching Colour Match Pre	cision: Quality	•

7. From the [color Matching Task] menu (6), select [Disable color Matching for Profile Creation] if you are creating an ICC profile using third-party profile creation software. Select [Use Application color Matching] if you wish to switch off all printer color management and use your application's color matching.

# **CHAPTER 4: FINISHING OPTIONS**

Your printer offers a wide selection of document finishing options that help you to control the final form of your printed document.

Depending on the hardware fitted, either as optional upgrades or included as standard, depending on which model you have, your system can offer the choice of double-sided (duplex) printing, booklet printing, stapling and hole punching. It can also print posters as a series of tiles that can be joined together to make a large poster, or print on very long media for banner displays.

For detailed information on finishing options see:

- > "Booklet printing (imposition)" on page 67
- > "Collating" on page 70
- > "color separation" on page 74
- > "Separating queued print jobs" on page 77
- > "Cover print" on page 79
- > "Custom page size" on page 81
- > "Duplex (double-sided) printing" on page 87
- > "Printing multiple pages on one sheet (N-up)" on page 90
- > "Poster printing" on page 93
- > "Scale to page" on page 94
- > "Watermarks" on page 95

## **BOOKLET PRINTING (IMPOSITION)**

Booklet printing in the Windows drivers printing allows printing of multipage documents with their pages ordered and arranged so that final printed output can be folded into a booklet. Typically, letter (or tabloid) pages would be reduced to half-letter (or letter) and printed side by side on both sides of letter (or tabloid) paper, so that the paper can be folded into a booklet.

Since this feature prints on both sides of the page, it requires a duplex unit to be installed in the printer, and 256MB of additional memory (512MB in total).

Notes

- 1. To find out how much memory is currently installed, print a Configuration Page from the printer control panel. See the C9600 User's Guide.
- **2.** A few applications do not support booklet printing, but most do.
- **3.** This feature is not available in the Macintosh drivers.
- **4.** This feature is not available in the Windows 98 PostScript driver.

When using the PostScript driver, if you plan to print a long document, more than about 16 pages, consider printing it in sections of 8 or 16 at a time. This is called the "signature," and will avoid having too thick a stack of paper to fold to make your booklet. Your document will then be printed in a series of booklets which can be stacked one above the other. This is usually a neater arrangement.

The above considerations do not matter when using the PCL driver as the signature can be set within the driver, and a long document can be printed directly as a series of booklets.

Note that the number of pages in a booklet is always a multiple of four, since two pages are printed on each side of each sheet of paper. If your document is not a multiple of four pages long, the last one, two or three pages in your folded booklet will be blank.

## WINDOWS POSTSCRIPT

(Windows 2000/XP/Server 2003 only)

1. In the driver's [Layout] tab, choose [Booklet] from the [Pages Per Sheet] drop-down list.

Layout Paper/Quality Job Options C Orientation Potrat Clandscape Rotated Landscape	alour
Nore     Nore     Fip on Long Edge     Fip on Short Edge      Page Order     Front to Back     Back to Front	
Pages Per Sheet Booklet	Advanced
	OK Cancel Apply

2. Check that the duplex option is set to [Flip on Short Edge].

#### NOTE

If the Booklet choice is not shown, check that the Duplex option is enabled in the driver. (See "Setting the driver device options" on page 9.)

## WINDOWS PCL

**1.** In the driver's [Setup] tab, recall any saved [driver settings] you may wish to use.

Setup Job Options Colour		
Media		
Size: A4 210 x 297 mm	ATT S	
Source: Auto		
Weight: Printer Setting		
Paper Feed Options		
Finishing Mode		
Booklet		
Options	84 22	
	Options	
Privac Cattings	Signature:	N 1.
Untitled	16 💌	h
Save Delete		
	2 pages	
	Bight to Left	
OK Cancel	Bind Margin: 0.0 C	nm
		OK Cancel <u>H</u> elp

- **2.** Choose [Booklet] from the [Finishing Mode] drop-down list, then click [Options].
- **3.** In the Options window you can set the [signature] size (see page 67, the number of [pages] per side of paper and the [binding margin] if your document is going to be thick. The graphic in this window shows the effect of each choice you make.

NOTE

If the Booklet choice is not shown, check that the Duplex option is enabled in the driver. (See "Setting the driver device options" on page 9.)

## COLLATING

This feature allows multiple copies of a multipage document to be printed with the pages of each copy in sequence.

Uncollated pages print like this







Collated pages print like this



**Application collate**—Some application programs have a collate feature in their print options. In this case the application performs the document collation and may send the job multiple times to the printer. Generally, this method is slower but can be more reliable.

**Printer collate**—This section describes the collate function built into the printer driver. In this case the job is stored temporarily in printer memory or on the printer's hard disk (if installed), and the printer performs collation. This method is normally faster, but may not work from all applications.

If you experience problems using printer collate, use the collate option in your application's print options instead.

## WINDOWS

- **1.** If using the PCL driver, on the [Setup] tab first choose any saved [driver settings] that you wish to use. See "Recalling saved driver settings" on page 8.
- **2.** In the [Job Options] tab, choose how many [copies] you want to print from the scrolling list.



**3.** Click the [Collate] checkbox.

## MAC OS9.X

**1.** Choose [File]  $\rightarrow$  [Print].



- 2. From the printer menu (1), select your printer model.
- **3.** Select [General] (2).
- **4.** Enter the number of [copies] (3) you wish to print.



- **5.** Select [Job Options] (4).
- **6.** Select the [Collate] checkbox (5) to enable printer collate.

#### NOTE

The illustrations here show the Apple LaserWriter driver, which uses "printer collate". The Adobe PostScript driver looks very similar but uses "application collate". See page 70.
## MAC OS X

**1.** Choose [File]  $\rightarrow$  [Print].



- **2.** From the printer menu (1), select your printer model.
- **3.** Select [Copies & Pages] (2).

The [Collate] option in the [Copies & Pages] dialogue is for application collate. See page 70.

	•	
	Presets: Standard	
	Printer Features	
	Feature Sets: Job Options	
(		
	Quality: Photo (Multilevel)	
	Image Smoothing	
	Page Rotate	
	☑ Adjust ultra fine lines	

- **4.** Enter the number of [copies] (3) you wish to print.
- **5.** Select [Printer Features] (4).
- **6.** From the [Feature Sets] menu (5), select [Job Options].
- 7. Select the [Collate] checkbox (6) to enable printer collate.

## **COLOR SEPARATION**

The color separation feature prints each of four primary colors as separate greyscale images. This is a proofing facility that indicates the relative densities of each of the four toner colors in your print document. The darker an area appears, the more of the corresponding toner color will be used when printing in full color.

### WINDOWS POSTSCRIPT

**1.** In the driver's [color] tab, click [Advanced].

Layout Paper/Quality Job Options Colour	
Colour Mode	
Automatic	
C Office Colour Options	Advanced Colour Options
Graphic Pro Options	Always use printer halftone     Black overprint
🗰 🔿 No Colour Matching	Image: Use optimised greyscale halftones           Print colour separations:
Greyscale	OK Cancel Default
Toner Save	
Advanced Colour Swatch Default	Ĩ
OK Cancel Apply	)

**2.** Select which [separations] you want to print from the dropdown list.

### MAC OS9

**1.** Choose [File]  $\rightarrow$  [Print].

Printer:
Colour Options
Colour Mode: Automatic 🗢
☑ Always use printer halftone
🔲 Black Overprint
🗌 Toner Saving
Separations: CMYK 🗢
Custom Gamma Adjustment: None 🗢
Save Settings Cancel Print

- **2.** From the printer menu (1), select your printer model.
- **3.** Select [color Options] (2).
- **4.** From the [Separations] menu (3), select the separations you wish to print.

## MAC OS X

**1.** Choose [File]  $\rightarrow$  [Print].



- **2.** From the printer menu (1), select your printer model.
- **3.** Select [Printer Features] (2).
- 4. From the [Feature Sets] menu (3), select [color Options]
- **5.** From the [Separations] menu (4), select the separations you wish to print.

## **S**EPARATING QUEUED PRINT JOBS

When you share a printer with other users it can be useful to print a special page between print jobs to help locate each user's job in a paper stack at the printer. In Windows this page is called a "separator page". On the Mac it is called a "cover page".

NOTE

Do not confuse Cover Page with "Cover Print". Cover Print is when the first page (cover) of a print job is fed from one paper tray, and the remaining pages of the print job are fed from a different tray. See "Cover print" on page 79.

#### WINDOWS SEPARATOR PAGE

The separator page is set from the printer driver's default properties window. Access to this is directly from Windows, not from within your application program. See "Changing the driver defaults" on page 7.



- In the driver's Advanced tab click the [Separator Page...] button (1).
- **2.** Click [Browse] (2) and navigate to a file containing an image of the separator page you wish to use, then click [OK].

### MAC OS 9 COVER PAGE

The cover page is accessed from your application's print dialogue.

0-	Printer: Destination: Printer \$
9-	Cover rage
6-	Before Document     After Document
	Cover Page Paper Source: Same as document 💠
	Save Settings Cancel Print

- **1.** Choose [File]  $\rightarrow$  [Print].
- 2. From the [Printer] menu (1), select your printer model.
- **3.** Select [Cover Page] (2).
- **4.** Select the required options for the cover page (3).

### MAC OS X COVER PAGE

The cover page is accessed from your application's print dialogue.

0	Printer:		\$
	Presets:	Standard	•
0		Cover Page	:
6	Print C	over Page: O None Before Document After Document	

- **1.** Choose [File]  $\rightarrow$  [Print].
- 2. From the [Printer] menu (1), select your printer model.
- **3.** Select [Cover Page] (2).
- **4.** Select the required options for the cover page (3).

## **COVER PRINT**

Cover print is when the first page (cover) of a print job is fed from one paper tray, and the remaining pages of the print job are fed from another paper tray.

This feature is not available in the Windows PostScript Drivers.

Do not confuse Cover Print with "Cover Page". A Cover Page is an identification sheet inserted between the print jobs of a network printer. See "Separating queued print jobs" on page 77.

### WINDOWS PCL

- 1. In the Setup tab, choose any saved driver settings you wish to use. See "Recalling saved driver settings" on page 8.
- 2. Click [Paper Feed Options].



- **3.** Check the [Use different source for first page] checkbox.
- **4.** Choose the tray you want to feed the cover page from and the paper type in the [Source] and [Weight] drop-down lists.

## MAC OS9.X

**1.** Choose [File]  $\rightarrow$  [Print].



- **2.** From the [Printer] menu (1), select your printer model.
- **3.** Select [General] (2).
- **4.** From [Paper Source] (3), select the trays or paper types you wish to use for the first page and remaining pages.

#### MAC OS X

**1.** Choose [File]  $\rightarrow$  [Print].

0-	Printer:		<b>;</b>	
	Presets:	Standard	•	
0-		Cover Page	•	
	Print C	over Page: 🔘 None		
6—		💽 Before Doc	ument	
Ū.,		O After Docu	ment	
	C	T		

- 2. From the [Printer] menu (1), select your printer model.
- **3.** Select [Paper Feed] (2).
- **4.** Select the trays or paper types you wish to use for the first page and remaining pages (3).

## **CUSTOM PAGE SIZE**

This feature enables printing on non-standard sized print media.

The multipurpose tray is used for feeding non-standard media sizes. Print media width can be from approximately 76mm to 328mm, and its length can be from 90mm to 1200mm. Actual limits vary slightly depending on which printer driver you use and your computer's operating system.

Some applications software may not produce the desired results with non-standard print media sizes, and some experimentation may be required to obtain the results you want.

## WINDOWS XP/2000 POSTSCRIPT

- Layout Paper/Quality Job Options Colour - Orientation Portrait O Landscape O Rotated Landscape Page Order Front to Back O Back to Front Pages Per Sheet: 1 v 🕵 OKI C9600(PS) Advanced Document Settings Paper/Output Paper Size: PostScript Custom 🗸 Edit Custom Page Size - In Graphic Advanced... 😑 🧿 Image Color Management ICM Method: ICM Disabled ICM Intent: Pictures Custom Page Size Dimensions - Unit-TrueType Font: Substitute with Device Font O Inch Millimeter Width: 210.00 (76.20, 328.08) 🖃 🐌 Document Options (89.96, 1200.15) Height: 297.00 Advanced Printing Features: Enabled O Point 🗉 🥵 PostScript Options Paper Feed Direction: Short Edge First 🖃 👫 Printer Features Page Rotate: Normal Cut Sheet Paner Type: Media Check: On Offsets Relative to Paper Feed Direction Media Type: Use Printer Settings Perpendicular Direction: 0.00 100 0 000 Multipurpose tray is handled as manual feed: No Parallel Direction: Tray Switch: On 0.00 (0.00, 0.00) OK Cancel Restore Defaults OK Cancel
- 1. In the driver's [Layout] tab, click [Advanced].

2. In the Advanced Options window, under [Paper/Output], choose [PostScript Custom Page Size] from the [Paper Size] drop-down list. 3. In the PostScript Custom Page Size Definition window, Choose your [paper feed direction] from the drop-down list.

Width: Height:	210.00 297.00	(76.20, 328.08) (89.96, 1200.15)	O Inch Millimete
per Feed Direction:			OPoint
ber Feed	Direction:	Short Edg	ge First
per Feed per Type: lífsets Re	lative to Paper	Short Edg	eet ORoll Fee
per Feed per Type: Iffsets Re Perpend	lative to Paper icular Direction	Feed Direction	ge First

The available choices are:

Short edge first	The page is portrait (tall) format and you will feed the top of the page into the printer.
Long edge first	The page is landscape (wide) format and you will feed the top of the page into the printer.
Short edge first flipped	The page is portrait (tall) format and you will feed the bottom of the page into the printer.
Long edge first flipped	The page is landscape (wide) format and you will feed the bottom of the page into the printer.

Notice that the size ranges available swap places when you change the paper feed direction between a portrait and a landscape choice.

Remember that the width of the multipurpose tray is limited to the width of an A3 sheet (297mm), so if your paper is longer than this you will have to feed it short edge first.

**4.** You can also position the page image on the paper to avoid printing too close to the edge by choosing an [Offset].

Offset relative to [perpendicular] direction adds to your left margin.

Offset relative to [parallel] direction adds to your top margin (normal feed) or bottom margin (flipped feed).

- **5.** Click [OK] to close the PostScript Custom Page Size Definition window.
- **6.** Click [OK] to close the Advanced Options window.
- **7.** In the driver's window, choose the [Multipurpose Tray] as the [Paper Source].

## WINDOWS 98/ME POSTSCRIPT

The Windows 98 PostScript driver allows up to three custom page sizes to be defined and saved for future use.

**1.** In the driver's [Setup] tab, on the [Size] drop-down list, choose one of the available [custom paper sizes].



- **2.** If this is a previously saved custom size that you wish to use, click [OK] to close the Printer Properties window.
- 3. To create a new custom size:
  - a. Click the [Custom Size] button.
  - b. Enter a name for your new custom size in the [Name] box.
  - c. Enter the page dimensions in the [Width] and [Length] boxes.
  - d. Click [OK] to save your new custom size.
- **4.** Print your document.

## WINDOWS PCL

**1.** In the driver's [Setup] tab, select any previously saved settings you wish to use.

Size: User Defined 210.0 x 297.0n 🗸	Resize document to fit printer page	
Source: Auto	Conversion: User Defined Size ->	A4 💌
Weight Printer Setting	Cover Printing Use different source for first page	Paper feed options  Auto Tray Change  Paper Check
Finishing Mode Standard Options		Multipurpose Tray Settings
2Sided Pining (Duplex) [None] Diver Settings United Save United	My Special 1 105 0 x 148 0mm My Special 2 100.0 x 180 0mm	Default K Cancel Help OK Cancel Add>
OK Cance	Name:         My Special 3           Width:         110.0         [         76.2	304.8 ] Modify
	Length: 200.0 [ 120.0	1200.0 ]

- **2.** Click the [Paper Feed Options] button.
- **3.** In the Paper Feed Options window, click [Custom Size].

If you have previously saved any special custom sizes they will be listed in the Custom Size window.

**4.** To use a previously saved custom size, click its name in the list.

To create a new custom size:

- a. Enter its dimensions in the [Width] and [Length] boxes.
- b. Enter a name for the new size in the [Name] box, and click [Add] to save it in the list.
- **5.** Click [OK] to accept your chosen size and close the Custom Size window.

6. If this is the size of your document but you want to scale it to fit a standard size of paper, click [Resize document to fit printer page] in the Paper Feed Options window, and choose the printer's actual paper size from the [Conversion] drop-down list.

## MAC OS 9

#### NOTE

The illustration in this procedure shows the Apple LaserWriter driver. The procedure is almost identical in the Adobe PostScript driver.



**1.** In your application program, choose [File]  $\rightarrow$  [Print].

- **2.** Select [Custom Page Sizes] (1).
- 3. Click the [New] button (2) to define a new paper size.
- 4. Enter the [Width] and [Height] (3) of your paper.
- **5.** Specify paper [margins] (4) as required.
- 6. Enter a [Name] (5) for your new size and click [OK].

## MAC OS X

**1.** In your application program, choose [File]  $\rightarrow$  [Page Setup].

-	lanner				_		
		Duio				licate lete ave	
Paper Size	2	Prin	iter Marg	Ton	0.64	cm	
Height:	90.00	cm	_	TOP.	0.04	cin	_
Width:	32.00	cm Le	ft: 0.64	c	m Right	0.64	cm
			Bo	ttom:	1.45	cm	

- **2.** Select [Custom Page Size] (1).
- **3.** Click the [New] button (2) to define a new paper size and enter a name for the paper size.
- **4.** Enter the [Width] and [Height] (3) of your paper.
- **5.** Specify paper [margins] (4) as required.
- **6.** Click [OK] to save the new paper size.

# DUPLEX (DOUBLE-SIDED) PRINTING

If your printer has a duplex unit installed you can print on both sides of the paper, to save paper, weight, bulk and cost.

- > Only paper can be used for duplex printing, not transparencies or other media.
- > Use paper stock of 75–120 g/m<sup>2</sup>. If you experience excessive curling with 75–90 g/m<sup>2</sup> paper, use 105 g/m<sup>2</sup>.
- > Use standard sized paper stock only, e.g. A4, A3, Letter, etc.
- > Load the paper print side up. Ream wrappers are usually marked with an arrow, indicating which is the print side.
- > Paper can be fed from standard paper trays, including the high capacity feeder if you have one, but not from the multipurpose tray.
- > Do not set the paper weight to Ultra Heavy.
- > Do not enable the White Page Skip function.

#### WINDOWS POSTSCRIPT

 In the driver's Layout tab (Windows XP) or Setup tab (Windows 98), under [2-Sided Printing], select the binding edge you want.



For portrait (tall) page layout the usual choice is [Long Edge]. For landscape (wide) page layout the usual choice is [Short Edge]. Choosing [Off] turns off duplex printing and your document will be printed single-sided.

## WINDOWS PCL

1. In the driver's Setup tab, under [2-Sided Printing], select the binding edge you want.

Serie Lob Options Colour Media See M4200 x25 mm V Source Auto Weight: Breint Series Deven Exect Unions	Mob Option         Celux         Device Dataset         Shang         Sec.           Bread         Cold Margament         Shang         Sec.         Sec.
Finding Mode Stundard Ungenerative Ung Edge Winding Michael Ung Edge Winding Ungenerative Ungene	Baser Fred Option:
WINDOWS XP	WINDOWS 98
OK Cancel Appl	OK Cancel Apply Help

For portrait (tall) page layout the usual choice is [Long Edge]. For landscape (wide) page layout the usual choice is [Short Edge].

Choosing [Off] turns off duplex printing and your document will be printed single-sided.

## MAC OS 9

**1.** In your application program, choose [File]  $\rightarrow$ [Print].



2. From the [Printer] menu (1), select your printer model.

- **3.** Select [Layout] (2).
- **4.** Select the [Print on Both Sides] checkbox (3).
- **5.** Select the binding edge (4) that you want.

The graphic shows how you paper will be flipped, either on the short or the long edge. Which choice you make will usually depend on whether your page format is portrait (tall) or landscape (wide), and how you plan to turn the paper over to read the second side.

## MAC OS X

**1.** In your application program, choose [File]  $\rightarrow$ [Print].

-	Presets:	Standard	;		
2		Layout			
		Pages per Sheet:	1	•	
		Layout Direction:	254	1	
1		Border:	None	•	
	-	Two Sided Printing:	Off Long-Edge Bir	nding	
			O Short Edge Bir	nding	E

- **2.** From the [Printer] menu (1), select your printer model.
- **3.** Select [Layout] (2).
- **4.** From the [Two Sided Printing] options (3), select either [Long Edge Binding] or [Short Edge Binding].

Which choice you make will usually depend on whether your page format is portrait (tall) or landscape (wide), and how you plan to turn the paper over to read the second side.

## **PRINTING MULTIPLE PAGES ON ONE SHEET (N-UP)**

This feature scales the page size of your document for printing and reproduces several pages per sheet.

This is useful when you simply want to proof your page layout, or distribute your document in a more compact format. It saves paper, bulk, weight and cost.

If you have a duplex unit installed, you can even combine this feature with duplex printing to save even more.



### WINDOWS POSTSCRIPT

 In the driver's Layout tab (Windows XP) or Setup tab (Windows 98), choose the number of pages ("N-up") you want to print on each sheet. 1-up is normal, 16-up is maximum.

Orientation	
<ul> <li>Portrait</li> </ul>	
O Landscape	
Rotated Landscape	
Print on Both Sides	
None	
O Flip on Long Edge	
O Flip on Short Edge	
Page Order	
Front to Back	
Back to Front	
Pages Per Sheet	<b>)</b>
	Advanced

### WINDOWS PCL

 In the driver's Layout tab (Windows XP) or Setup tab (Windows 98), choose the number of pages ("N-up") you want to print on each sheet. 1-up is normal, 16-up is maximum.



**2.** Click [Options] to choose from the available options for this feature.

From here you can choose the page printing order, the page layout, whether you want printed page borders, and a binding margin if you need it.

## MAC OS 9

**1.** In your application program, choose [File]  $\rightarrow$ [Print].

Destination: Printer
es per sheet: 4 + + + + + + + + + + + + + + + + + +

- **2.** From the [Printer] menu (1), select your printer model.
- **3.** Select [Layout] (2).
- **4.** From the [Pages per Sheet] menu (3), select the number of pages you want to fit onto a single sheet of paper.
- **5.** If required, change the direction (4) the document pages are laid out on each sheet of paper.

### MAC OS X

**1.** In your application program, choose [File]  $\rightarrow$  [Print].



- **2.** From the [Printer] menu (1), select your printer model.
- **3.** Select [Layout] (2).
- **4.** From the [Pages per Sheet] menu (3), select the number of pages you want to fit onto a single sheet of paper.
- **5.** If required, change the direction (4) the document pages are laid out on each sheet of paper.
- **6.** If required, you can surround each page with a border (5).

## **POSTER PRINTING**

This option allows you to print posters by dividing a single document page into multiple pieces (sometimes called "tiles"). Each piece prints, enlarged, on a separate sheet. Then, you combine the separate sheets to create a poster.

Poster Print is only available with the Windows PCL printer drivers.



## WINDOWS PCL

1. In the driver's Setup tab, under [Finishing Mode], choose [Poster Print].

Media	Onlines	
Size: 🗛 210 x 297 mm 🛛 👻	opions	
Source: Auto	Enlarge 2	
Weight: Printer Setting	Options	
Paper Feed Ontions	Add Registration Marks	
Tripling Made	Colour	
Poster Print		
Options	Add Overlap	10000000 at
Driver Settings		
Untitled 🛛 🖌		
Save Delete	A4 210 x 297 mm	
	Default	

- **2.** Click [Options] to open the Options window.
  - a. Choose the [enlargement] required for your document to fill the poster.
  - b. [Registration marks] can be printed if required so that your printed pages (tiles) can be trimmed exactly to the edge of the image.

c. An [overlap] may help you to match adjacent tiles when making up your final poster.

## SCALE TO PAGE

Scale to Page allows you to print data formatted for one size page onto a different size page, without modifying the print data.

This feature is only available with the Windows PCL drivers.

**1.** In the driver's Setup tab, click the [Options] button.

Bize:	A4 210 x 297 mm		Filto Page	<u> </u>			
Source:	Auto	×	Conversion	ament to ht pri	nter page		)
Weight:	Printer Setting Paper Feed Option	ns	Cover Printing	t source for fi	rst page	Paper feed opti Auto Tray C	ons hange k
Standar	rd Options		Γ			Multipurpose Tr Use MP tray	ay Settings as manual feed Feed
2-Sided (None)	Printing (Duplex)	A	Custom Siz	e			Default
Driver S	ettings				OK	Cancel	Help
Default		~					
Save	e Delete		A4 210 x 297 mm	2			
				fault			

- **2.** Check the [Fit to Page] checkbox.
- **3.** Choose the scaling factor you need from the [Conversions] drop-down list.

## WATERMARKS

A watermark is typically faint text that is superimposed on a printed document. This can used to indicate that the document is "Draft", or perhaps "Confidential".

This feature is not available on Mac OS X. The illustration below shows the Windows PostScript driver. The PCL driver is very similar.

#### WINDOWS

The Watermarks Feature is found in the driver's [Job Options] tab. Click the [Watermarks] button.



#### TO CREATE A NEW WATERMARK

- **1.** In the Watermarks window, click [New...].
- **2.** Enter the text you want for your watermark.
- **3.** Adjust your watermark's font, size, color, angle, position and border (trim) as required.
- **4.** Click [OK] to accept your changes.

#### TO CHOOSE A PREVIOUSLY CREATED WATERMARK

1. In the Watermarks window, click the watermark in the list.

#### TO EDIT AN EXISTING WATERMARK

- **1.** In the Watermarks window, click the watermark's name in the list.
- **2.** Click [Edit...].
- **3.** Make any adjustments you wish, and click [OK] to accept your changes.

#### TO PRINT USING A WATERMARK

- **1.** In the Watermarks window, click the watermark's name in the list.
- **2.** Click [OK] to close the Watermarks window.
- **3.** Click [OK] to close the Printer Properties window.
- **4.** Print your document.

## MAC OS 9

The illustrations here are for the Adobe PostScript driver. Watermarks are not featured in the Apple LaserWriter driver.

	Printer:		\$ 8.8.0 (30)	1)
0	Watermark	\$		
0-	○ None	🔾 First 🛛 🖲	All	
€	© PICT ○ EPS ● TEXT	Watermark: Draft	÷	
0	Edit	Save With De	cument	
			Cancel OK	
				_
	Watermark Sp	ecification	8.7.1 (103) OK	
	Watermark Sp	ecification	8.7.1 (103) OK Watermark File: Cancel	
	Watermark Spo	ecification	8.7.1 (103) OK Watermark File: Cancel Draft \$ Save As.	
	Watermark Spo		8.7.1 (103) OK Watermark File: Cancel Draft \$ Save As. Watermark Font/Size/Style:	
6-	Watermark Spr		8.7.1 (103)     OK       Watermark File:     Cancel       Draft     \$       Watermark     Save As.       Font/Size/Style:     Helvetica	
<b>0</b> -	Watermark Sp	2cification	8.7.1 (103) OK Watermark File: Cancel Draft \$ Save As. Watermark Font/Size/Style: Helvetica \$ Watermark Text: Deaft Deaft	
6-	Watermark Sp	2cification	8.7.1 (103) OK Watermark File: Cancel Draft \$ Save As. Watermark Font/Size/Style: Helvetica \$ Watermark Text: Draft	
<del>0</del> -	Watermark Spo	ecification	8.7.1 (103) OK Watermark File: Cancel Draft      \$ Watermark Font/Size/Style: Helvetica Watermark Text: Draft Color ▼  Nove mouge over document. Cick and hold mouse down that of vidence is the direction for the	

**1.** In your application program, choose [File]  $\rightarrow$  [Page Setup].

- 2. Select [Watermarks] (1).
- Select which pages you want to print watermarks on (2). [None] (no watermarks), [First] or [All].
- **4.** Choose the type of watermark data to use (3): a PICT file, EPS file or plain text.
- **5.** To create or edit the text for a watermark, click [Edit...] (4). This launches the watermark editing dialogue (5).

# **CHAPTER 5: SECURE PRINTING**

Secure printing allows you to print confidential documents on printers that are shared with other users in a network environment.

The document does not print until a PIN (**P**ersonal **I**dentification **N**umber) is entered through the Printer Control Panel. You must go to the printer and enter the PIN.

This feature requires the hard disk drive in your printer, this device must be enabled in the printer driver. (See "Setting the driver device options" on page 9.)

The secure printing feature is not available for Mac OS X.

If there is not enough hard disk space for the spooled data, a "Disk Full" message displays, and only one copy prints.

The secure printing feature may not be available from within some PC applications.

If your application software has a collate print option, turn it off. Otherwise secure printing will not work.

There are three parts in secure printing:

- Sending the document to the printer (Windows page 99, Mac page 100);
- 2. Printing the document (page 101);
- **3.** Deleting the document when it is not required (page 102).

## SENDING THE DOCUMENT

#### WINDOWS

- 1. If using the PCL driver, in the [Setup] tab choose any saved driver settings you wish to use. See "Recalling saved driver settings" on page 8.
- In the driver's [Job Options] tab, click [Secure Print].
   The Job PIN (Personal Identification Number) window opens.

ayout Paper/Quality Job Options Colour	
Photo (Mullievel)     Fine / Detail (600:1200)     Normal (600:600)     Inone Strongbling	Init PIN Job Name Settings Job Name: Prind Job 1 Request Job Name for each print job
Finable       Pinable       Bind Position:       Stacker (Face-down)       Left       Stacker       Data       Dift       Off	Personal ID Number (PIN) 1234 Enter 4 digits. Use numbers 0-9. OK Cencel
Overlags     Watermarks       About	Advanced Default Cancel

If the PIN window does not open, click the [PIN] button.

**3.** In the Job PIN window, enter a [name] for this print job.

The name may be up to 16 alpha-numeric characters. If you have more than one print job stored on the printer when you come to print, you will need a distinctive name to distinguish between each of your print jobs.

- **4.** If you would like a prompt at the printer for the job name, click the [Request...] checkbox below the name entry.
- 5. Enter a number from 0000 to 9999 in the [PIN] box.

Your PIN must be unique on this printer. Each user should be allocated a PIN by the system administrator.

- **6.** Click [OK] to accept your changes.
- 7. Click [OK] to close the Printer Properties window.
- **8.** Print your document.

The print job will be sent to the printer, but will not print at this time.

## MAC OS 9

If you use the Apple LaserWriter driver, the printing plug-in for secure printing must first be enabled in the printer driver. This step is not necessary for the Adobe PostScript driver.

#### To enable the LaserWriter plug-in:

- **1.** On the desktop, click the printer icon for the printer for which you want to enable the plug-in.
- **2.** Choose [File]  $\rightarrow$  [Print Desktop].



- **3.** Select [Plug-In Preferences] (1).
- 4. Select [Print Time Filters] (2) and [Job Type] (3).
- 5. Click [Save Settings] (4).
- **6.** Click [Cancel] (5) and return to the desktop.

#### To send the document to the printer:

**1.** In your application program, choose [File]  $\rightarrow$ [Print].

- **2.** From the [Printer] menu (1), select your printer model.
- **3.** Select [Job Type] (2).
- **4.** Select [Secure Printing] (3).
- **5.** In the [Job Name] field (4), enter a job name to identify the job on the printer's control panel.
- **6.** Enter a number from 0000 to 9999 in the [PIN] box and click [Print].

Your PIN must be unique on this printer. Each user should be allocated a PIN by the system administrator.

## **PRINTING THE DOCUMENT**

Your secure print job is printed using the Printer Control Panel on the front of the printer.



- When the printer is idle (Ready to Print indicated in the display), use the ▲ ▼ buttons to select the PRINT SECURE JOB menu, then press [ENTER].
- Use the ▲ ▼ buttons to enter the first digit of your PIN, then press [ENTER].
- **3.** Repeat step **2** to enter the remaining three digits.

If you have more than one stored document, a list appears in the display.

Use the ▲ ▼ buttons to select the name of the print job you wish to print, and press [ENTER] to select it.

- If necessary, use the ▲▼ buttons to highlight the PRINT option.
- **6.** Press [ENTER] to confirm you wish to print the document.
- Use the ▲▼ buttons to select the number of collated copies you require.
- **8.** Press [ENTER] to print your document.

When all required copies have been printed your document is automatically deleted from the printer's hard disk.

It is also possible to print and delete secure documents remotely from your PC using the *Storage Device Manager* utility.

## **DELETING A SECURE PRINT DOCUMENT**

If you change your mind about printing a secure document, you can delete it from the printer's hard disk without printing it first.

- **1.** Follow steps 1 to 4 in the above procedure for printing the document.
- Use the ▲▼ buttons to highlight the DELETE option and press [ENTER].
- 3. If necessary, use the ▲▼ buttons to highlight the YES choice, and press [ENTER] to confirm the deletion.

Your document is deleted from the printer's hard disk without printing.

# CHAPTER 6: STORE TO HARD DISK

This feature allows print jobs to be created on the PC and stored on the printer's hard disk for printing on demand. This is good for forms, generic memos, letterhead, stationery, etc.

If you use this feature for standard forms, for example, you can walk up to the C9600 at any time and print off your forms without having to resend them from the PC.

This feature works in exactly the same way as the secure printing feature described in Chapter 5, and is available only in the Windows PostScript and PCL drivers. The difference with job spooling is that the document is not automatically deleted from the printer's hard disk after printing. It remains there for future use until you delete it from the Printer Control Panel or from your PC with the Storage Device Manager utility.

#### NOTE

If this choice does not appear in the driver screens, or if it is greyed out, check to ensure that the hard disk is enabled in the printer driver. (See "Setting the driver device options" on page 9.)

Like the secure printing feature, there are three parts in job spooling:

- **1.** Sending the document
- 2. Printing the document
- **3.** Deleting a stored document

## SENDING THE DOCUMENT

Follow the same procedures as described in the section starting on page 99 in Chapter 5 for sending a secure document, except that on the [Job Options] tab in step 2, click [Store to HDD].

ayout Paper/Quality Job Options	Colour Job Type	
	C Secure Print	PIN
Photo (Multilevel)     Fine / Detail (600x1200)     Normal (600x600)     Image Smoothing	Copies: 1 Scalg: 100	Job Name Settings Job Name: PrintJob1
Finisher Output Bin:	Bind Position:	
Stacker (Face-down)	Left  Punch:	Personal ID Number (PIN)           1234         Enter 4 digits.           Use numbers 0-9.
Overlags	Watermarks	OK Cancel
	About	Default
	OK I	Cancel Apply

## **PRINTING THE DOCUMENT**

Follow the same procedures as described in the section starting on page 101 in Chapter 5 for printing a secure document. In this case the document will *not* be deleted from the hard disk after it has been printed.

## **DELETING A STORED DOCUMENT**

Follow the procedure as described on page 102 in Chapter 5 for deleting a secure print document.

Like secure print documents, any other documents stored on the printer's hard disk can also be deleted remotely from the PC using the Storage Device Manager utility.

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