

software  
technical  
reference



hp color LaserJet 9500





# **hp Color LaserJet 9500 series printers**

**software technical reference**

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# 1 Purpose and scope

## Introduction

This software technical reference (STR) provides information about and troubleshooting tips for the printing-system software for the HP Color LaserJet 9500 series printer.

This document is prepared in an electronic format to serve as a quick-reference tool for Customer Care Center (CCC) agents, support engineers, system administrators, management information systems (MIS) personnel, and HP Color LaserJet 9500 printer end users, as appropriate.

The following information is included in this technical reference:

- descriptions of drivers and platforms with system modifications
- procedures for installing and uninstalling software components
- descriptions of problems that can arise while using the printer, and known solutions to those problems

**Note** An addendum to this STR includes system modification information and descriptions of known software issues and workarounds.

The following table contains descriptions of the printer models that are described in this STR. The printing-system software for each printer model accommodates the differences between models.

**Note** Bundle configurations might vary among countries/regions.

## HP LaserJet Color 9500 series printer models

**Table 1: Features of the HP Color LaserJet 9500 series printer models**

	HP Color LaserJet 9500n printer	HP Color LaserJet 9500hdn printer
Memory	<ul style="list-style-type: none"><li>• 128 megabytes (MB) random-access memory (RAM)</li><li>• Expandable to 384 MB RAM</li><li>• Optional hard disk available</li></ul>	<ul style="list-style-type: none"><li>• 256 MB RAM</li><li>• Expandable to 384 MB RAM</li><li>• 10 gigabytes (GB) hard drive</li></ul>
Speed	<ul style="list-style-type: none"><li>• 24 pages per minute (ppm) A4-sized color or black and white</li><li>• 25 ppm Letter-sized color or black and white</li></ul>	<ul style="list-style-type: none"><li>• 24 ppm A4-sized color or black and white</li><li>• 25 ppm Letter-sized color or black and white</li></ul>

Connectivity	<ul style="list-style-type: none"> <li>• IEEE 1284 type-C parallel connection</li> <li>• HP Jetdirect print server enhanced input/output (EIO) network card</li> <li>• HP Jet-Link</li> <li>• HP Fast InfraRed (FIR) Connect</li> <li>• Foreign Interface Harness connection (FIH)</li> <li>• Up to three open EIO expansion slots are available to support HP Jetdirect EIO cards</li> </ul>	<ul style="list-style-type: none"> <li>• IEEE 1284 type-C parallel connection</li> <li>• HP Jetdirect print server EIO network card</li> <li>• HP Jet-Link</li> <li>• HP Fast InfraRed (FIR) Connect</li> <li>• Foreign Interface Harness connection (FIH)</li> <li>• up to three open enhanced input/output (EIO) expansion slots are available to support HP Jetdirect EIO cards</li> </ul>
Paper handling	<ul style="list-style-type: none"> <li>• One 100-sheet multipurpose tray (tray 1); maximum paper size, 306 mm by 470 mm (12 inches by 18.46 inches)</li> <li>• Two 500-sheet trays (trays 2 and 3); maximum paper size 297 mm by 432 mm (11.7 inches by 17 inches)</li> <li>• Optional duplexer; supports all standard and custom sizes; does not support envelopes, labels, or transparencies</li> </ul>	<ul style="list-style-type: none"> <li>• One 100-sheet multipurpose tray (tray 1); maximum paper size, 306 mm by 470 mm (12 inches by 18.46 inches)</li> <li>• Two 500-sheet trays (trays 2 and 3); maximum paper size 297 mm by 432 mm (11.7 inches by 17 inches)</li> <li>• One 2000 sheet tray (tray 4); maximum paper size, 297 mm by 432 mm (11.7 inches by 17 inches)</li> <li>• Duplexer; supports all standard and custom sizes; does not support envelopes, labels, or transparencies</li> <li>• Optional HP 3000-Sheet Stacker; maximum paper size, 306 mm by 470 mm (12 inches by 18.5 inches)</li> <li>• Optional HP 3000-Sheet Stapler/Stacker; maximum paper size, 306 mm by 470 mm (12 inches by 18.5 inches)</li> <li>• Optional HP Multifunction Finisher; maximum paper size, 306 mm by 470 mm (12 by 18.5 inches)</li> </ul>
Resolution	<ul style="list-style-type: none"> <li>• 600 dots per inch (dpi)</li> </ul>	<ul style="list-style-type: none"> <li>• 600 dpi</li> </ul>
Print cartridges	<ul style="list-style-type: none"> <li>• Four 25,000-page color print cartridges (black, cyan, yellow, and magenta)</li> <li>• Four 40,000-page color image drums (black, cyan, yellow, and magenta)</li> </ul>	<ul style="list-style-type: none"> <li>• Four 25,000-page color print cartridges (black, cyan, yellow, and magenta)</li> <li>• Four 40,000-page color image drums (black, cyan, yellow, and magenta)</li> </ul>



# 2 Software description

## Introduction

The HP Color LaserJet 9500 printer comes with software and installers for Microsoft (R) Windows (R) and Apple Computer, Inc., Macintosh systems. Linux, UNIX (R) and OS/2 systems are supported, and software is available on the Web. For information about specific system installers, drivers, and components, locate the section that corresponds to that system.

## Supported operating systems

The following operating systems (OSs) support the HP Color LaserJet 9500 printing-system software, including standard printer command language (PCL) drivers and PostScript (R) 3 emulation (PS) drivers. Windows OSs support a full-featured configuration of the HP Color LaserJet 9500 series printer; other OSs support varying levels of functionality.

- Windows 95
- Windows 98
- Windows Millennium Edition (Me)
- Windows NT (R) (Service packs 3 through 6)
- Windows 2000 (Service packs 1 and 2)
- Windows XP Home Edition and Windows XP Professional (Service pack 1)
- Windows Server 2003

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**Note** Throughout this guide, Windows XP is used to denote both Windows XP Home Edition and Windows XP Professional.

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## Additional operating environments

The following operating environments also support the HP Color LaserJet 9500 printing system:

- Windows Terminal Server
- Citrix Terminal Server
- Windows Cluster Server
- Mac OS 8.6 to 9.x and Mac OS X (10.1 or later)
- IBM OS/2 (available at <http://www.ibm.com>)
- Linux (available at <http://www.hp.com/go/linux>)
- Unix (available at [http://www.hp.com/go/jetdirectunix\\_software](http://www.hp.com/go/jetdirectunix_software))
- HP mobile printing driver (available at <http://www.hp.com/support/mpd100>)

For more information, go to: <http://www.hp.com/support/lj9500>.

## Technology background information

This section contains information about the following topics:

- HP Color LaserJet 9500 printer drivers
- HP Color LaserJet 9500 user documentation
- Bidirectional communication
- Driver Autoconfiguration
- HP Embedded Web Server
- Printer Status and Alerts
- Remote firmware update
- Euro character

### HP LaserJet printer drivers

HP LaserJet printer drivers for the HP Color LaserJet 9500 printer control the print settings. These printer drivers differ, depending on the operating system environment. The following drivers are available on the printing-system software CD-ROM:

- HP traditional PCL 6 driver for Windows 95, Windows 98, Windows Me, and Windows NT 4.0.
- HP traditional PCL 5c driver for Windows 95, Windows 98, Windows Me, and Windows NT 4.0.
- HP traditional PS driver for Windows 95, Windows 98, Windows Me, and Windows NT 4.0.
- HP PCL 6 unidriver for Windows 2000 and Windows XP.
- HP PCL 5c unidriver for Windows 2000 and Windows XP.
- HP PS unidriver for Windows 2000 and Windows XP.

You gain access to the drivers through onscreen windows, or driver tabs, that offer dialog boxes with printer settings. The driver tabs are available in the software application from which you send your print jobs to the printer and from your computer control panel.

The graphical user interface (GUI) of the driver tabs differs from driver to driver. The GUI of the HP traditional PS driver is significantly different from the GUI of the HP traditional PCL 6 and HP PCL 5c drivers. The HP PCL 6, HP PCL 5c and HP PS unidrivers for Windows 2000, Windows XP, and Windows Server 2003 have a uniform general appearance.

See Chapter 3, "Driver features," for detailed information about each of the HP printer drivers.

### HP LaserJet user documentation

#### Adobe(R) Acrobat Reader(R)

The HP Color LaserJet 9500 software compact disk read-only memory (CD-ROM) includes Adobe Acrobat Reader for viewing online documentation. When you click any of the documentation links on the HP Color LaserJet 9500 software CD-ROM, the installer scans the system for an installed portable document format (PDF) reader. If the installer cannot find a reader, the installer presents the option to install the Adobe Acrobat Reader.

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**Note**

Adobe Acrobat Reader 4.0 or later is required to view the documents on the HP Color LaserJet 9500 software CD-ROM.

## HP LaserJet guides

On the CD-ROM that came with the printer, the following guides for the HP Color LaserJet 9500 printer are supplied in Adobe Acrobat Reader .PDF files for viewing on your computer.

- *User Reference Guide* for the HP Color LaserJet 9500: A full-size, comprehensive version of the User Guide.
- *User Guide* for the HP Color LaserJet 9500: An electronic copy of the printed, minimized version of the User Reference Guide that comes with the printer and is installed inside the front doors of the printer.

You can either view the guides from the HP Color LaserJet 9500 software CD-ROM or install them on your system. To view the guides from the HP Color LaserJet 9500 software CD-ROM, click **printer documentation** on the main screen, and then click the guide you want to view. To install the online user guides, select the **User Guide** check box during a Custom Installation. The guide is installed in the **Manuals** folder on the target system. You can also choose to install the guides later, or to read the guide on the printing-system software CD-ROM by navigating to **<language>/Manuals**.

In accordance with the Americans with Disabilities Act (ADA), Hewlett-Packard provides readable, onscreen versions of the *User Reference Guide* for the HP Color LaserJet 9500 at:

<http://www.hp.com/support/clj9500>

A hyperlinked, screen-readable version of the *User Reference Guide* for the HP Color LaserJet 9500 is available on the printer software CD-ROM. To view the user guide, navigate to the **<language>** folder for your language, and then to the **Manuals** folder. There, open the file with this file name:

LJ9500\_USER\_REFERENCE.CHM

## HP Color LaserJet 9500 printing-system install notes

The *HP Color LaserJet 9500 Printing System Install Notes* are available on the HP Color LaserJet 9500 printing-system software CD-ROM. The install notes (file name LJ9500\_INSTALL\_NOTES.RTF) contain important information about printer features, instructions for installing the printing-system software, and technical assistance.

To view this text file from the HP Color LaserJet 9500 software CD-ROM, click **printer documentation** on the main screen of the CD-ROM, and then click **install notes**.

You can also gain access to the file by inserting the CD-ROM into the CD-ROM drive, navigating to **<language>**, and then clicking the file name LJ9500\_INSTALL\_NOTES.RTF. When you have the file open in Wordpad, you can click **File**, and then click **Save As** to save a copy of the file to another location.

## HP Jetdirect Administrator's Guide

The *Hewlett-Packard Jetdirect Administrator's Guide* can be viewed from the HP Color LaserJet 9500 software CD-ROM by clicking **printer documentation** from the installer main screen and then clicking **hp jetdirect guide**. The guide is installed in the **Manuals** folder on the target system. You can also choose to install the guide later, or to read the guide on the printing-system software CD-ROM by navigating to **<language>/Manuals**, and then clicking the file name HPJDAG.PDF.

## HP Color LaserJet 9500 printing-system release notes

The HP Color LaserJet 9500 Printing-System Release notes, late-breaking information, and other technical assistance, are available at:

<http://www.hp.com/support/clj9500>

## Bidirectional communication

Bidirectional communication is the printer capability to respond to data inquiries from the computer and report back information, such as what type of print media is available or what accessories are connected to the printer. If a printer

does not have this capability (that is, if it has no bidirectional mode), it can only accept commands from the host and cannot report back information.

Driver Autoconfiguration and Printer Status and Alerts use bidirectional communications software. The Typical Installation installs Driver Autoconfiguration in supported environments that contain the bidirectional communication software. Use Custom Installation when you do not want these features.

Bidirectional communication depends on the operating system on which your network runs and on the type of connection you have between your computer and your printer.

The following tables provide information about bidirectional communication availability in various operating systems and network environments.

**Table 2: Bidirectional communication availability in Microsoft Windows and Microsoft Share**

Method	Connection type		Microsoft Windows					Microsoft Share			
			95	98	Me	NT 4.0	2000 <sup>1</sup>	XP 1, 3	9x/NT 4.0 host	2000/XP host <sup>1</sup>	
Installer	Direct connect	USB (DOT4)									
		Parallel	x	x	x	x	x	x	x	x <sup>2</sup>	
	Network	Jetdirect	TCP/IP	x	x	x	x	x	x	x	x <sup>2</sup>
			IPX/SPX	x	x	x	x			x	
		Standard	TCP/IP (HP)	x	x	x	x	x	x	x	x <sup>2</sup>
			TCP/IP (MS)	x	x	x	x	x	x	x	x <sup>2</sup>
IPX/SPX (HP)	x	x	x	x			x				

1- In Windows 2000, Windows XP, and Windows Server 2003, the bidirectional-communication components that are installed for HP PCL 5c, PCL 6, and PS unidrivers are limited to TCP/IP connections. EAC is used for autoconfiguration.

2- During installation, **Auto Configure** works, but is limited to TCP/IP connections. The **Update Now** feature is not supported in environments where shared Windows NT 4.0, Windows 2000, Windows XP, or Windows Server 2003 clients are connected to Windows NT 4.0, Windows 2000, Windows XP, or Windows Server 2003 hosts.

3- This information also applies to Windows Server 2003.

**Table 3: Bidirectional communication availability in Novell Netware environments**

Method	Connection type		Novell			
			Netware 4.x		Netware 5.x	
Installer	Bindery	MS Netware Client <sup>1</sup>				
		Novell Netware Client	x	x	x	x
	NDS	MS Netware Client <sup>1</sup>				
		Novell Netware Client	x	x	x	x
	NDPS	MS Netware Client <sup>1</sup>				
		Novell Netware Client				

1- Bidirectional functionality is supported only with the client software from Novell. It is not supported with Microsoft Client Service for NetWare.

The following tables show the availability of Enterprise Autoconfiguration for various operating systems and network environments that support bidirectional communication.

**Table 4: Enterprise Autoconfiguration availability in Microsoft Windows and Microsoft Share**

Method	Connection type		Microsoft Windows					Microsoft Share				
			95	98	Me	NT 4.0	2000	XP <sup>3</sup>	2000/XP host with 2000/XP client	NT 4.0 host with NT 4.0 client	Other <sup>1</sup>	
Installer	Direct connect	USB (DOT4)										
		Parallel		x	x	x	x	x	x	x <sup>2</sup>	x <sup>2</sup>	
	Network	Jetdirect	TCP/IP	x	x	x	x	x	x	x <sup>2</sup>	x <sup>2</sup>	
			IPX/SPX	x	x	x	x	x	x	x <sup>2</sup>	x <sup>2</sup>	
		Standard	TCP/IP (HP)	x	x	x	x	x	x	x <sup>2</sup>	x <sup>2</sup>	
			TCP/IP (MS)	x	x	x	x	x	x	x <sup>2</sup>	x <sup>2</sup>	
			IPX/SPX (HP)	x	x	x	x	x	x	x <sup>2</sup>	x <sup>2</sup>	
Add Printer	Direct connect	USB										
		Parallel										
	Network	Jetdirect	TCP/IP	x	x	x	x	x	x			
			IPX/SPX	x	x	x	x	x	x	x <sup>2</sup>	x <sup>2</sup>	
		Standard	TCP/IP (HP)	x	x	x	x	x	x	x <sup>2</sup>	x <sup>2</sup>	
			TCP/IP (MS)					x	x	x <sup>2</sup>	x <sup>2</sup>	
			IPX/SPX (HP)	x	x	x	x	x	x	x <sup>2</sup>	x <sup>2</sup>	

1- This column represents the following Microsoft Share configurations:

- 2000, XP, or 2003 host with NT 4.0, 95, 98, or Me client
- NT 4.0 host with 2000, XP, 2003, 95, 98, or Me client
- 95, 98, or Me host with any client

2- In this environment, client machines use Point and Print to download the configured driver from the host.

3- This information also applies to Windows Server 2003.

**Table 5: Enterprise Autoconfiguration availability in Novell Netware environments**

Method	Connection type		Novell				
			Netware 4.x		Netware 5.x		
			Bindery queue	NDS queue	Bindery queue	NT 4.0	
Installer	Direct connect	USB					
		Parallel					
	Network	Jetdirect	TCP/IP	x	x	x	x
			IPX/SPX				
		Standard	TCP/IP (HP)				
			TCP/IP (MS <sup>2</sup> )				
			IPX/SPX (HP)				

1- Bidirectional functionality is supported only with the client software from Novell. It is not supported with Microsoft Client Service for NetWare.

The following tables provide information about the availability of Printer Status and Alerts in various operating systems and network environments.

**Table 6: Printer Status and Alerts availability in Microsoft Windows and Microsoft Share**

Method	Connection type		Microsoft Windows						Microsoft Share		
			95 <sup>1</sup>	98	Me	NT 4.0	2000	XP <sup>4</sup>	9x/NT 4.0 host <sup>2</sup>	2000/XP host <sup>2, 4</sup>	
Installer	Direct connect	USB (DOT4)									
		Parallel		x	x	x	x	x	x	x <sup>3</sup>	x <sup>3</sup>
	Network	Jetdirect	TCP/IP	x	x	x	x	x	x	x	x
			IPX/SPX	x	x	x	x	x	x	x	x
		Standard	TCP/IP (HP)	x	x	x	x	x	x	x	x
			TCP/IP (MS)	x	x	x	x	x	x	x	x
			IPX/SPX (HP)	x	x	x	x	x	x	x	x

1- For Windows 95, the Microsoft Winsock 2 patch must first be installed. To download the patch, go to: [http://www.microsoft.com/windows95/downloads/contents/WUAdminTools/S\\_WUNetworkingTools/W95Sockets2/Default.asp](http://www.microsoft.com/windows95/downloads/contents/WUAdminTools/S_WUNetworkingTools/W95Sockets2/Default.asp)

2- When using Microsoft Share, Printer Status and Alerts must be installed on both the host and the client machines.

3- Printer Status and Alerts is not supported with direct-connect shares.

4- This information also applies to Windows Server 2003.

**Table 7: Printer Status and Alerts availability in Novell Netware environments**

Method	Connection type		Novell				
			Netware 4.x		Netware 5.x		
			Bindery queue	NDS queue	Bindery queue	NDS queue	
Installer	Network	Jetdirect	TCP/IP	x	x	x	x
			IPX/SPX	x	x	x	x
	Standard	TCP/IP (HP)	x	x	x	x	
		TCP/IP (MS <sup>1</sup> )					
		IPX/SPX (HP)	x	x	x	x	

1- Bidirectional functionality is supported only with the client software from Novell. It is not supported with Microsoft Client Service for NetWare.

## Driver Autoconfiguration

The HP Color LaserJet 9500 PCL 6 and PCL 5c drivers for Windows and the PS drivers for Windows 2000, Windows XP, and Windows Server 2003 feature bidirectional communication technology which, in supported environments, provides automatic discovery and driver configuration for printer accessories at the time of installation. Some accessories the Driver Autoconfiguration supports are the duplexing unit, optional paper trays, and dual inline memory modules (DIMMs).

If the environment supports bidirectional communication, the installer presents Driver Autoconfiguration as an installable component by default for a Typical Installation and for a Custom Installation. The Driver Autoconfiguration component installs the bidirectional communication software. If the installation environment does not support bidirectional communication, the Driver Autoconfiguration option does not appear during installation. However, installed drivers are configured automatically in accordance with the HP printer bundle that is selected during installation of the printing-system software, except in Windows 2000, Windows XP, and Windows Server 2003.

## Windows 2000, Windows XP, and Windows Server 2003

For Windows 2000, Windows XP, and Windows Server 2003, Driver Autoconfiguration works in the following ways:

- In environments that support bidirectional communication, the computer communicates with the printer during installation, determines the physical configuration, and then configures the driver accordingly.

### Note

The bidirectional communication software that is necessary for the preceding method of Driver Autoconfiguration is included in a Typical Installation and a Custom Installation when installing a network printer in supported environments.

- Enterprise AutoConfiguration (EAC) uses bidirectional communication to provide autoconfiguration functionality for an Add Printer wizard installation over a network. An Add Printer wizard installation that includes EAC is configured with the same settings as the physical configuration of the device. Configuration occurs without user interaction. If bidirectional communication software has been installed previously, EAC is not activated, and the Add Printer Wizard uses the pre-existing bidirectional communication software to configure the printer driver. If bidirectional communication software has not been installed, EAC installs the bidirectional communication software. EAC communicates with the printer and automatically matches the printer driver with the actual printer configuration. EAC is activated only once to use the autoconfiguration utility, and is then shut off. The files required to install EAC remain on your system.

---

**Note**

When you use the Add Printer wizard to install drivers, you must select the HP LaserJet model that corresponds to your printer. The Add Printer wizard installs the driver using the correct settings for the model without communicating with the printer. If you do not select the model that corresponds to your printer, the driver settings do not match the actual printer.

- HP Driver Preconfiguration is a software architecture and set of tools that permits HP software to be customized and distributed in managed corporate printing environments. Using HP Driver Preconfiguration, information technology (IT) administrators in corporate and enterprise environments can preconfigure the printing and device defaults for HP printer drivers before installing the drivers in the network environment. For more information, see the *HP Driver Preconfiguration Support Guide*, which is available at: <http://www.hp.com/support/clj9500>

## Windows 9.x, Windows Me, and Windows NT 4.0

For Windows 9.x, Windows Me, and Windows NT 4.0, Driver Autoconfiguration works in the following ways:

- In environments that support bidirectional communication, the computer communicates with the printer during installation, determines the physical configuration, and then configures the driver accordingly.
- If the configuration of the HP Color LaserJet 9500 printer changes after installation, the driver can be automatically updated with the new configuration in environments that support bidirectional communication. For example, if the HP Color LaserJet 9500hdn is installed and an optional paper-handling accessory is added later, you can automatically configure the accessory in the driver by clicking the **Update Now** button on the driver's **Configuration** tab. The **Update Now** button activates the HP Network Registry Agent (HPNRA) and triggers the driver to recheck the registry for new information. The HPNRA automatically updates the registry and changes the configuration information that appears on the **Configuration** tab in the **Printer** folder.

---

**Note**

The bidirectional communication software that is necessary for the two preceding methods of Driver Autoconfiguration is included in a Typical Installation and a Custom Installation when installing a network printer in supported environments.

- In environments that do not support bidirectional communication, the driver automatically configures options based on the HP Color LaserJet 9500 printer model that is selected during the installation of the printing-system software. Configuration is based solely on the definition of the printer model. See the following table, Driver Autoconfiguration Defaults, for more information.
- Enterprise AutoConfiguration (EAC) uses bidirectional communication to provide autoconfiguration functionality for an Add Printer wizard installation over a network. An Add Printer wizard installation that includes EAC is configured with the same settings as the physical configuration of the device. Configuration occurs without user interaction. If bidirectional communication software has been installed previously, EAC is not activated, and the Add Printer Wizard uses the pre-existing bidirectional communication software to configure the printer driver. If bidirectional communication software has not been installed, EAC installs the bidirectional communication software. EAC communicates with the printer and automatically matches the printer driver with the actual printer configuration. EAC is activated only once to use the autoconfiguration utility, and is then shut off. The files required to install EAC remain on your system.
- HP Driver Preconfiguration is a software architecture and set of tools that permits HP software to be customized and distributed in managed corporate printing environments. Using HP Driver Preconfiguration, information technology (IT) administrators in corporate and enterprise environments can preconfigure the printing and device defaults for HP printer drivers before installing the drivers in the network environment. For more information, see the *HP Driver Preconfiguration Support Guide*, which is available at: <http://www.hp.com/support/clj9500>

The following table lists the Driver Autoconfiguration defaults for Windows operating systems.



**Table 8: Driver Autoconfiguration defaults in Windows operating systems**

Operating System	Configuration Method	Installation method			
		Parallel	USB	Network	Network
		Add Printer Wizard			
Windows 95	Model configuration	N		N	Y
	HP Preconfiguration	Y <sup>1</sup>		Y <sup>1</sup>	Y <sup>1</sup>
	EAC	N		Y <sup>2</sup>	Y
Windows 98	Model configuration	N		N	Y
	HP Preconfiguration	Y <sup>1</sup>		Y <sup>1</sup>	Y <sup>1</sup>
	EAC	N		Y	Y
Windows me	Model configuration	N		N	Y
	HP Preconfiguration	Y <sup>1</sup>		Y <sup>1</sup>	Y <sup>1</sup>
	EAC	N		Y	Y
Windows NT 4.0	Model configuration	N		N	Y
	HP Preconfiguration	Y <sup>1</sup>		Y <sup>1</sup>	Y <sup>1</sup>
	EAC	N		Y	Y
Windows 2000 unidriver	Model configuration	N		N	N
	HP Preconfiguration	Y <sup>1</sup>		Y <sup>1</sup>	Y <sup>1</sup>
	EAC	N		Y	Y
Windows 2000 traditional	Model configuration	N		N	Y
	HP Preconfiguration	Y <sup>1</sup>		Y <sup>1</sup>	Y <sup>1</sup>
	EAC	N		Y	Y
Windows XP unidriver <sup>5</sup>	Model configuration	N		N	N
	HP Preconfiguration	Y <sup>1</sup>		Y <sup>1</sup>	Y <sup>1</sup>
	EAC	N		Y	Y
Windows XP traditional <sup>4</sup>	Model configuration	N		N	Y
	HP Preconfiguration	Y <sup>1</sup>		Y <sup>1</sup>	Y <sup>1</sup>
	EAC	N		Y	Y

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1- HP Preconfiguration should always work. HP Preconfiguration configures the driver to match the printer the user is installing to if the printer matches the current HP Preconfiguration file (for example, duplexer on, no trays, manual duplex on, memory 48 MB, job storage off, mopy off) or if the administrator has modified the configuration file and the configuration file matches the printer being installed to.

2- Supported only if the Windows 95 system has both Microsoft Distributed Component Object Model (DCOM) and the Winsock2 patch installed.

3- Technically, Windows 95 supports USB. However, the HP Color LaserJet 9500 does not support USB on Windows 95.

4- This information also applies to Windows Server 2003.

The following table lists the drivers that support EAC in Windows operating systems.

**Table 9: Drivers that support Enterprise AutoConfiguration**

Product	Windows 95, 98, Me	Windows NT 4.0	Windows 2000, XP <sup>2</sup>
HP LaserJet 2300	Yes	Yes	Yes
HP Color LaserJet 2500	Yes	Yes	Yes
HP LaserJet 4100 and 4100mfp	No	Yes	Yes
HP LaserJet 4200 and 4300	Yes	Yes	Yes
HP Color LaserJet 4550	No	Yes	Yes
HP Color LaserJet 4600	Yes	Yes	Yes
HP LaserJet 5100	No	Yes	Yes
HP Color LaserJet 5500	Yes	Yes	Yes
HP Color LaserJet 8150	No	Yes	Yes
HP LaserJet 9000mfp	No	Yes	Yes
HP Color LaserJet 9500	Yes <sup>1</sup>	Yes	Yes

1- EAC is supported in the Windows 95 operating system only when both DCOM and the Microsoft Winsock2 patch are installed. For information about DCOM, go to:

<http://www.microsoft.com/com/tech.dcom.asp>

To download the Microsoft Winsock2 patch, go to:

[http://www.microsoft.com/windows95/downloads/contents/WUAdminTools/S\\_WUNetworkingTools/W95Sockets2/Default.asp](http://www.microsoft.com/windows95/downloads/contents/WUAdminTools/S_WUNetworkingTools/W95Sockets2/Default.asp)

2- This information also applies to Windows Server 2003.

## HP Embedded Web Server

The HP Embedded Web Server (EWS) is a standard feature for the HP Color LaserJet 9500 printer.

The HP Embedded Web Server provides a simple, easy-to-use solution for one-to-one printer management. In offices that have a limited number of printers, remote management of printing devices can be accomplished without installing any management software, such as HP Web JetAdmin. The only requirement is that the management console have a supported Web browser.

In environments with a larger number of printers, where one-to-one management is impractical, the HP Embedded Web Server and HP Web JetAdmin work together to provide scalable remote printer management. Use HP Web JetAdmin for consolidated management tasks, when you want to perform operations on a selected set of printers instead of on individual printers. For such environments, HP provides hooks between the HP Embedded Web Server and HP Web JetAdmin so that you can configure HP Embedded Web Server features on multiple printers in one operation. For example, you can set the security password for the HP Embedded Web Server on a population of printers simultaneously.

For additional information and a copy of the *HP Embedded Web Server User Guide*, go to:

<http://www.hp.com/support/clj9500>

To view information about the printer by using the HP Embedded Web Server, open a supported Web browser and type in the printer transmission control protocol/internet protocol (TCP/IP) address or host name. To find the TCP/IP address, look for "IP Address" on the enhanced input/output (EIO) Jetdirect page, in the "TCP/IP" section under "Protocol Information". To find the host name of the printer, look for "Host Name" in the "TCP/IP" section.

You also can view information about an installed HP Jetdirect print server by clicking the **Networking** tab in the HP Embedded Web Server window.

To print a copy of the EIO Jetdirect page from the printer control panel display, follow these steps:

1. Press the select button (the one with the check mark) to open the menus.
2. Press the up and down buttons to scroll to INFORMATION, and then press the select button.

3. Press the up and down buttons to scroll to PRINT CONFIGURATION.
4. Press the select button to print the configuration page.
5. Look in the configuration page section marked "Printer Information" for the firmware date code. The firmware date code looks something like this: 20030502 05.003.0

## Information tab

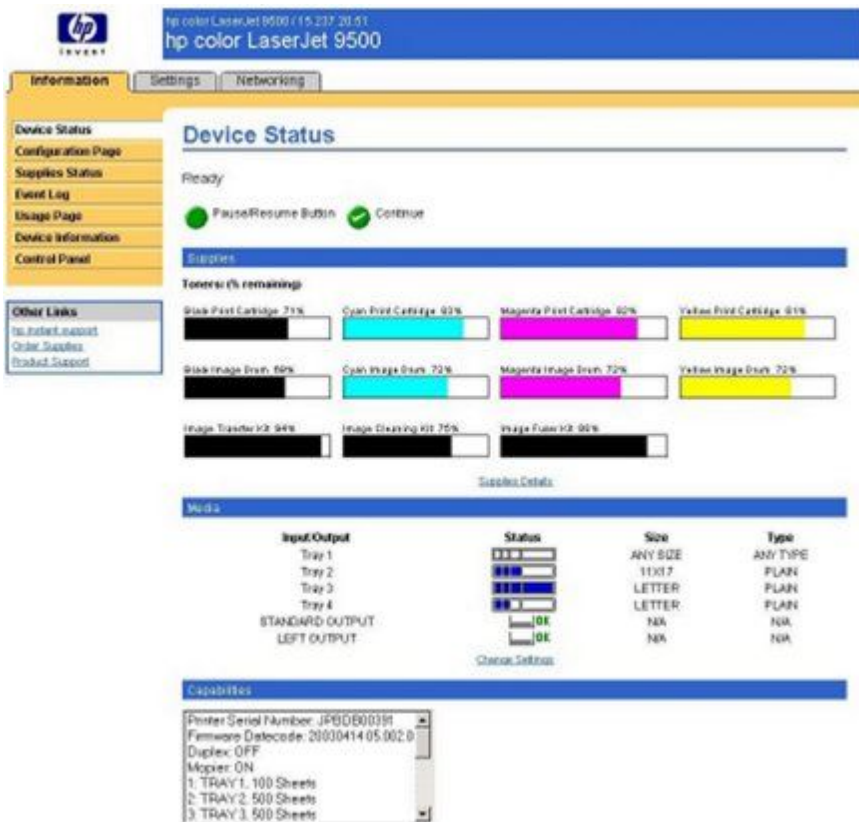
The HP Embedded Web Server offers the following additional features. To view the information, click the items on the menu that is on the left side of the HP Embedded Web Server **Information** tab:

- **Device Status.** This page provides current status information about your printer.
- **Configuration Page.** This page provides information about the configuration of your printer.
- **Supplies Status.** This page provides information about the print cartridge and the total pages printed, and the serial number of the printer.
- **Event Log.** This page provides information about reported printer errors.
- **Device Information.** This page shows device information, such as the printer TCP/IP address and serial number.
- **Control Panel.** This page shows the layout of the control panel.

## Device status

If a printer problem exists, status information (such as whether the printer is online or the toner is low) is available through your Web browser on a computer that is linked directly to the printer. You can view this information without physically going to the printer to identify the status. The following illustration shows how this information is presented on the printer Web page.

Figure 1: Device Status page



### Configuration information

You can gain access to the HP Color LaserJet 9500 printer configuration page remotely through the HP Embedded Web Server. The HP Embedded Web Server configuration page provides configuration information about the printer in the same way as the configuration page printed from the printer. The following illustration shows an example of a configuration page viewed remotely through the HP Embedded Web Server.

Figure 2: Configuration page

The screenshot displays the HP Configuration Page for an hp color LaserJet 9500. The page is divided into several sections:

- Device Information:**

Product Name:	hp color LaserJet 9500
Printer Name:	hp color LaserJet 9500
Printer Model:	CXXXXA
Printer Serial Number:	X000000000
Firmware Datecode:	20021218-A.20021218-A
Service ID:	00000
PS Wait Time-out:	300 seconds
Page Count:	442
Color Page Count:	428
- Installed Personalities and Options:**

PCL:	(20010402)
PCLXL:	(20010402)
POSTSCRIPT:	(20010402)
PDF:	(20021216)
DIMM Slot 1:	Side 1: 16 MB Flash Side 2: 32 MB SDRAM
DIMM Slot 2:	Side 1: 128 MB SDRAM Side 2: 128 MB SDRAM
DIMM Slot 3:	Empty
DIMM Slot 4:	Empty
DIMM Slot 5:	Empty
EIO 1:	Empty
EIO 2:	HP JetDirect J6057A
EIO 3:	HP J6054B
Desk Storage:	9462 MB Capacity
- Memory:**

Total Memory:	288 MB
CMS:	70.0
Automatic Resource Saving Enabled:	
- Security:**

Control Panel Lock:	NONE
Control Panel Password:	DISABLED
Device Type: DESK:	Write Protect: DISABLED
- Paper Trays and Options:**

Default Paper Size:	LETTER
Tray 1 Size:	LETTER

**Note** The difference between the Total Memory setting and the DIMM Slot 1 memory value is reserved for system use.

## Links to off-printer solutions

Links within the home page of the HP Web Server provide an easy way to locate information or complete tasks.

- **hp instant support.** This link connects you to a set of dynamic Web resources that help you solve specific problems and determine additional services that might be available for your device. Specific status and configuration information about the printer is retained and directed to the "Solve a Problem" Web site. This site offers targeted support content and messages to help resolve problems as quickly as possible.
- **Order Supplies.** This link connects to an ordering page where you can order genuine HP supplies, such as print cartridges and paper.
- **Product Support.** This link connects to an HP product support page from which you can search for information, contact the HP customer care home page, or find additional resources for your printer.

## Settings tab

The options on the left side of the **Settings** tab are as follows:

- Configure Device
- Email Server
- Alerts
- AutoSend

- Security
- Edit Other Links
- Device Information
- Language
- Time Services

## Remote printer configuration

You can obtain printer configuration information through a Web browser by opening the printer HP Embedded Web Server page and changing any of the basic configuration information on the **Settings** tab. Security and password controls give management information system managers the level of control that they require within their environments. The following illustration shows an example of printer options that can be configured remotely.

Some configuration tasks cannot be performed remotely because you must examine printed pages.

Figure 3: Configure Device



## Networking tab

The following illustration shows the **Network Settings** option on the HP Embedded Web Server **Networking** tab.

Figure 4: Networking tab

The screenshot shows the HP Embedded Web Server interface for the Networking tab. The top header includes the HP logo and the device name 'hp color LaserJet 9500'. Below the header, there are tabs for 'Information', 'Settings', and 'Networking'. The 'Networking' tab is active, and the 'Network Settings' option is selected in the left-hand navigation menu. The main content area shows the 'IP Configuration Method' set to 'Manual'. A note states: 'Note: A change in IP Address will result in loss of connectivity to the browser.' The configuration fields are as follows:

Field	Value
Host Name	NP17F3ABE
IP Address	63.230.114.50
Subnet Mask	255.255.255.0
Default Gateway	63.230.114.1
Domain Name	
Primary WINS Server	63.230.114.17
Secondary WINS Server	209.189.222.136
Syslog Server	
Syslog Maximum Messages	10
Syslog Priority	7
Idle Timeout	270 Seconds
TTL/SLP	4
System Contact	
System Location	
LPO Banner Page	Enable

At the bottom of the form, there are 'Apply' and 'Cancel' buttons.

The menu on the left side of the screen contains other networking options under three categories: configuration, security, and diagnostics. For more information, see the *HP Jetdirect Administrator's Guide*.

### Configuration

- Network Settings
- Other Settings
- Support Info
- Select Language

### Security

- Admin Password
- SSL/TLS
- Simple Network Management Protocol, version 3 (SNMPv3)
- Telnet
- Access Control

### Diagnostics

- Network Statistics
- Protocol Info
- Configuration Page
- Refresh Rate

## Network settings

From the **Networking** tab, you can enable and configure the following network protocols:

- TCP/IP
- IPX/SPX
- AppleTalk
- Data link control/logical link control (DLC/LLC)
- Simple network management protocol (SNMP)

## Configurable e-mail alerts

The printer can automatically send e-mail alerts about printer problems or job status to specified e-mail addresses. For example, if toner is low, the printer can notify the person who is responsible for ordering or changing the cartridge. If a printer failure occurs, the printer can send an e-mail alert directly to the person who is responsible for fixing the problem. These e-mail alerts can be configured to be sent to any device that can accept e-mail, such as digital phones, pagers, and personal digital assistants (PDAs). In large environments, administrators can route e-mail addresses to list-servers or URLs for expanded notification.

Figure 5: Configurable Alerts page

The screenshot shows the HP Color LaserJet 9500 web interface. The top navigation bar includes 'Information', 'Settings', and 'Networking'. The left sidebar contains various configuration options like 'Configure Device', 'Email Server', 'Alerts', 'AutoSend', 'Security', 'Edit Other Links', 'Device Information', 'Language', 'Time Services', and 'Other Links'. The main content area is titled 'Alerts' and is divided into two steps. Step 1, 'Enter Alert Destinations', prompts the user to 'Select alert destination list to add!' and provides four rows for 'List 1' through 'List 4', each with an 'Edit' button and a text input field. Step 2, 'Choose Alerts', prompts the user to 'Choose alert categories to send to lists or click category link to select individual alerts:'. It features a table with columns for 'Alert Category' and 'List 1' through 'List 4', each with a checkbox. The categories are 'Supplies', 'Service', 'Paper Path', and 'Advisory'. At the bottom, there are buttons for 'Choose Attachments', 'Apply', and 'Cancel'.

## E-mail command and response

The HP Color LaserJet 9500 series printer can send e-mail messages directly. However, you must configure the e-mail information to initiate this feature. One use for this feature is to send diagnostic information to solve a printer problem. An e-mail sent to the printer requests configuration information. The printer automatically sends that information back to the service provider. In many cases, the service provider can quickly identify the problem and solve the problem remotely. For more information about e-mail command and response, see the *HP Embedded Web Server for HP LaserJet Printers* guide.

To configure your printer to send e-mails, follow these steps:

1. Take note of your printer's TCP/IP address on the EIO X Jetdirect page (this is the second page of the Configuration Page printout. The number indicated by "X" can vary. To print a configuration page, see "Determining the current level of firmware").
2. Launch your Web browser.



3. In the **Address:** or **Go to:** field, type the TCP/IP address that is assigned to the printer (for example, 192.168.0.20) or the host name (for example, http://myprinter). The HP Embedded Web Server home page appears.
4. From the top of the HP Embedded Web Server screen, click **Device**.
5. On the navigational bar on the left, click **Alerts**.
6. Under Notification Recipients, type your e-mail address (for example, name@company.com).
7. Click **Apply**.
8. Under **Select Events**, click **Media Path**.
9. Select the **List1** check box next to CLOSE DRAWERS/DOORS/COVERS.
10. Click **Apply**. A screen stating that your selections have been accepted should appear. Click **OK**.
11. In the **SMTP Server:** field under Outgoing Mail, type the TCP/IP address for the SMTP server (for example, 192.168.0.201).
12. In the **Domain Name:** field under **Outgoing Mail**, type the domain name.
13. Click **Apply**.
14. Click **Security**.
15. Under **Security**, select the **Outgoing Mail** check box.
16. Click **Apply**.
17. To test the configuration, open the top cover of the printer, and then go to your computer and verify that you have received an e-mail message from the printer.

## Printer Status and Alerts

The HP Color LaserJet 9500 printing-system software includes a utility called Printer Status and Alerts that you can use to monitor print jobs and printer status from the desktop. The Printer Status and Alerts feature provides printer and job status information such as printing history, job progress, toner and paper levels, and consumables and supplies reordering information, and presents a simulated view of the printer control panel. This utility offers several options for configuring pop-up windows to view the status of the printer and of individual print jobs.

Printer Status and Alerts is a selectable component of Custom Installation. To install Printer Status and Alerts, select **Custom Installation**, and then select the **Printer Status and Alerts** check box.

Printer Status and Alerts features are available for printers that have a connection that supports bidirectional functionality, whether directly or over a network. The Printer Status and Alerts feature cannot be installed over infrared (IR) or serial ports. See "Bidirectional communication."

For Windows 95, the Microsoft Winsock2 patch must first be installed. To download the Microsoft Winsock2 patch, go to:

**[http://www.microsoft.com/windows95/downloads/contents/WUAdminTools/S\\_WUNetworkingTools/W95Sockets2/Default.asp](http://www.microsoft.com/windows95/downloads/contents/WUAdminTools/S_WUNetworkingTools/W95Sockets2/Default.asp)**

HP Printer Status and Alerts communicates with the printer only during an active print job, which minimizes network traffic.

The following restrictions apply to HP products that use Printer Status and Alerts:

- Windows NT 4.0, Windows 2000, Windows XP, and Windows Server 2003 do not support Printer Status and Alerts with terminal servers.
- For Device Status (printer icons in the status window), your computer must have Internet Explorer version 4.72.x or later installed. To find the version number, open Internet Explorer, click **Help**, and then click **About Internet Explorer**. Internet Explorer is not necessary for getting status about jobs. You can install Internet Explorer after installing Printer Status and Alerts.
- Netscape browsers do not support HP Printer Status and Alerts.
- On a few programs, such as Microsoft Excel and Seagate Crystal Reports, multiple copies of the same document show up in the Printer Status and Alerts window as separate jobs. This is because these programs actually send each copy as a separate job.

- For Windows screen-reader programs, such as Job Access With Speech from Freedom Scientific, your computer must have Internet Explorer version 5.0 or later installed. To find the version number, open Internet Explorer and click **Help**, and then click **About Internet Explorer**. Version 5.0 is reported as Version 5.00.x or later. Internet Explorer is not necessary for getting status about jobs for network-connected printers. You can install Internet Explorer after installing Printer Status and Alerts.
- When a driver is renamed, job and device status are not tracked until the computer is restarted.
- Drivers that are added after Printer Status and Alerts is installed are not recognized until the computer is restarted.
- Clicking the **Cancel** button in the Printer Status and Alerts window does not always cancel a print job. This button sends a cancel request to the printer, but if the job has already been processed, it might not be possible to cancel the print job. (This is commonly the case with smaller print jobs.)

When using Printer Status and Alerts with Microsoft printer sharing, the following items apply:

- The Microsoft patch "Vredir" is required if you want to use Printer Status and Alerts on a Windows 98 or Windows Me computer for a printer that has been shared directly from a computer with Windows NT 4.0, Windows 2000, Windows XP, or Windows Server 2003 installed. Failure to install the patch could cause an intermittent blue screen to appear on the client computer. For Windows 95 operating systems, you must load DSCLIENT.EXE, copy VREDIR.VXD into the system folder, and restart your computer.
- For Microsoft shared printers, the host system must have either **Printer Status and Alerts** or the **HP Driver Autoconfiguration** option from the HP installer on the computer. Load Printer Status and Alerts on the computer that shares the printer before loading Printer Status and Alerts on the client computer.
- For Windows 95, Windows 98, and Windows Me client computers that have Printer Status and Alerts installed, installing a printer by using the Point and Print method does not activate Printer Status and Alerts.

When the Printer Status and Alerts feature is installed, a status icon in the form of a printer is included in the Windows system tray in the lower-right corner of the screen, in the Systray. The printer icon remains unchanged until you send a print job to the HP Color LaserJet 9500 series printer. When you send a print job, the icon changes to alert you to the status of the print job. Eight icons exist in this feature. The eight icons in the following illustration show current job status. Neither the **Receiving** nor the **Waiting** icon ever shows up in the Systray. When the print job is in a receiving or waiting state, the **Printing** icon appears in the Systray.

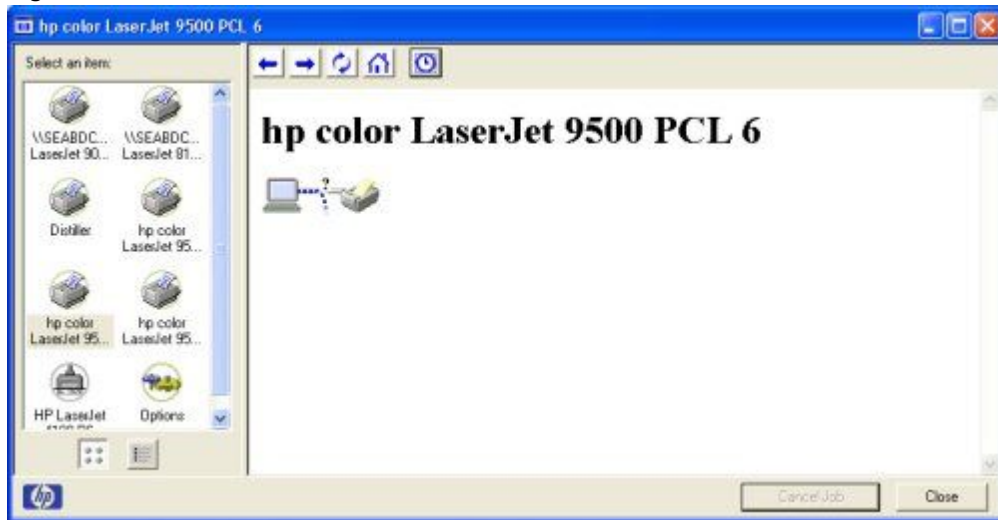
The icons behave differently, depending on whether the printer is connected through a direct connection (USB or parallel) or through a network.

**Figure 6: Printer Status and Alerts icons**



Double-click the status icon to open the Printer Status and Alerts window, shown in the following illustration.

**Figure 7: Printer Status and Alerts window**



**Note** The appearance on the screen varies according to the HP Color LaserJet 9500 printer and its configuration.

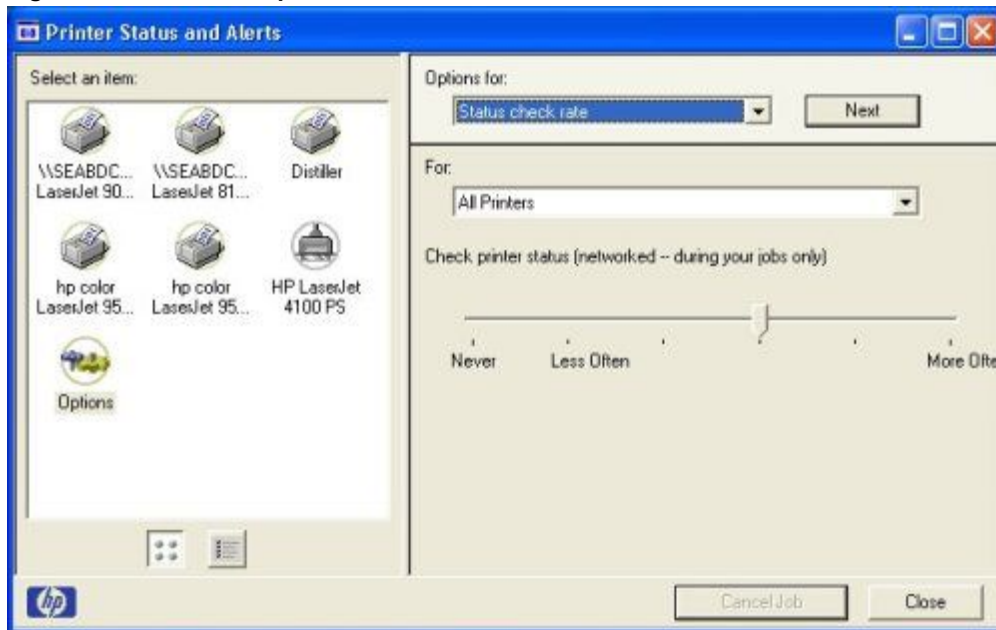
The Printer Status and Alerts window consists of two panes. The left pane shows icons for the available printers, an icon for each current print job in progress, and an **Options** icon. The right pane provides information based on what is selected in the left pane. The buttons at the top can be used to perform the following functions:

- **Left arrow:** Return to the previous pane.
- **Right arrow:** Go to the next pane.
- **Circular arrows:** Refresh the pane.
- **Home:** Return to the device status.
- **Clock face:** Show print-job history.

Click a printer icon in the left pane to view information about the printer and supplies or to view a history of recent print jobs. The following printer information is available:

- **Device Status** indicates the current status of the HP Color LaserJet 9500 series printer.
- **Supplies** shows information about the percentage of print-cartridge life remaining.
- **Media** provides information about paper-handling devices and the status of each device. For example, this section of the window shows the level of media in each input device, as well as the status of output devices. This section also provides information about the type and size of media in each input device.
- **Capabilities** provides information about such things as installed trays, paper-handling devices, and disk storage. Also listed are DIMM slots, the printer serial number, and the firmware date code. Click a print job icon to see information about the progress and status of the print job. Click the **Options** icon to select options for configuring pop-up status windows that contain document alerts and to set the refresh rate for showing printer status information.

Figure 8: Refresh rate option



**Note** The appearance of the screen varies according to the HP Color LaserJet 9500 series printer and its configuration.

Six settings are available for the refresh rate. The default setting is halfway between **Less Often** and **More Often**, as shown.

The **Less Often** setting specifies the least frequent update intervals, which have minimal impact on network traffic. The **More Often** setting updates the status more frequently, but also has the most impact on traffic. The **Never** setting disables the job-status monitoring mechanism for the selected printer. If the refresh rate for a given printer is set to **Never**, then subsequent jobs sent to that printer do not appear in the Printer Status and Alerts window. If the **Never** setting is selected when the scope control is set to **All Printers**, then all job-status monitoring is disabled. However, even when job-status monitoring is disabled, you can open the status window and view the printer status panels.

Changes to the refresh rate settings affect any subsequent jobs that are submitted to the affected printer. Existing jobs that are already being processed have a fixed refresh rate that was determined (according to the setting in the Refresh Rate panel) when the job was submitted.

Refresh-rate intervals for direct-connect printers are as follows:

- Less Often setting: 5 minutes
- One setting to the right of Less Often: 2 minutes
- Two settings to the right of Less Often: 1 minute
- Three settings to the right of Less Often: 30 seconds
- More Often setting: 10 seconds

On network printers, the refresh-rate interval changes, depending on the stage of the print job.

The **Alerts** options panel has controls to determine when the Printer Status and Alerts window automatically appears for each printer that has an icon in the left pane. The drop-down menu provides a list of available printers for which to make the selection. An option for all printers is included as the default selection. Each of the three, four, or five available selections, depending on the printer connection type, causes the Printer Status and Alerts window to automatically appear when that alert condition arises.

Printers that are involved with at least one active print job are queried for job status periodically according to the **Status Check Rate** setting. If an error or a warning condition is detected, the Printer Status and Alerts window automatically appears according to the **Alerts** options.

**Note** Depending on the options you select, information in the status window changes for each job printed, each job completed, and each warning condition detected.

**Figure 9: Printer Status and Alerts options**



**Note** The appearance of the screen varies according to the HP Color LaserJet 9500 series printer and its configuration.

## Remote firmware update

The HP Color LaserJet 9500 series printer features a remote firmware update capability. The method for downloading remote firmware updates from the Web site is similar to that used to download the latest printing-system software and printer drivers.

The process for remotely upgrading printer firmware involves three steps:

1. Determine the current level of firmware installed on the HP Color LaserJet 9500 series printer.
2. Go to the Web site and download the latest firmware to your computer.
3. Download the new firmware to the printer.

## Determining the current level of firmware

To determine the current level of firmware, view the configuration page. To print a configuration page, press 22 on the printer control panel or follow these instructions.

1. On the printer control panel, press the SELECT button (the one with the check mark) to open the menus.
2. Press the up and down buttons to scroll to INFORMATION, and then press the select button.
3. Press the up and down buttons to scroll to PRINT CONFIGURATION.
4. Press the select button to print the configuration page.
5. Look in the configuration page section marked **Printer Information** for the firmware date code. The firmware date code looks something like this: 20030502 05.003.0

## Downloading the new firmware from the HP Web site

For support information about downloading new firmware from the Web, go to:  
[http://www.hp.com/go/clj9500\\_firmware](http://www.hp.com/go/clj9500_firmware)

## Downloading the new firmware to the printer

The printer can receive an .RFU update to a printer as long as it is in a "ready" state. The printer waits for all of the input/output (I/O) channels to become idle before performing the update.

**Note** The firmware update involves a change in the format of nonvolatile random-access memory (NVRAM). Any menu settings that are changed from the default settings return to default settings and must be changed again if you want settings that are different from the defaults. Examples of settings that are affected in this way are tray types, default symbol sets, and Web access alerts.

The elapsed time for an update depends on the I/O transfer time, as well as the time that it takes for the printer to reinitialize. The I/O transfer time depends on a number of things, including the speed of the host computer that is sending the update and the I/O method (Fast InfraRed Connect [FIR], parallel, or network). The reinitialization time depends on the specific hardware configuration of the printer, such as the number of EIO devices installed, the presence of external paper-handling devices, and the amount of memory installed.

If the remote firmware update process is interrupted before the firmware is downloaded (while RECEIVING UPGRADE appears on the control panel display), the firmware file must be sent again. If power is lost during the flash DIMM update (while UPGRADING PRINTER appears on the control panel display), the update is interrupted and the message RESEND UPGRADE appears (in English only) on the control panel display. The update must now be sent only by a computer that is attached to the parallel port of the printer.

Finally, any print jobs ahead of the .RFU job in the queue are printed before the update is processed.

**Note** The printer automatically turns off and then on again after processing the update.

Use one of the following methods to update your printer.

## Remote firmware update through a local Windows port

If the printer is connected through a local port (USB or parallel), then you can send the .RFU file directly to the printer by using a COPY command from a command prompt or an MS-DOS (R) window. At the command prompt, perform the following steps for your operating system.

### Windows 95, Windows 98, or Windows Me

1. From a command prompt or in an MS-DOS window, type:

**Mode lpt1:.,,p**

**Note** If the printer is attached to a parallel port other than LPT1, then substitute the proper LPT port number in the **mode** command.

2. Press **Enter** on the keyboard. The response you receive should be similar to these examples:

**> LPT1 Not Rerouted**

**> Resident portion of MODE loaded**

**> Infinite retry on parallel printer time-out**

3. At a command prompt, type:

4. **copy /b <FILENAME> <PORTNAME>**

where <FILENAME> is the name of the .RFU file (including the path) and <PORTNAME> is the name of the appropriate printer port (such as LPT1). For example:

**C:\>copy/b c:\9500fw.rfu lpt1**

**Note**

If the file name or path includes a space, you must enclose the file name or path in quotation marks. For example, type:

```
C:\>copy/b "c:\My Documents\9500fw.rfu" lpt1
```

5. Press **Enter** on the keyboard. The printer control panel displays the messages described in the section "Printer messages during firmware update". At the end of the upgrade process, the control panel displays the READY message .
6. Print a configuration page and verify that the firmware revision number matches the revision of the current upgrade.
7. Type  
**exit**  
at the command prompt to close the command window.

## Windows NT 4.0, Windows 2000, Windows XP, or Windows Server 2003

The .RFU file can be sent directly to the printer by typing a **copy** command at a command prompt or in an MS-DOS window.

1. At a command prompt, type:

```
copy /b <FILENAME> <PORTNAME>
```

where <FILENAME> is the name of the .RFU file (including the path) and <PORTNAME> is the name of the appropriate printer port (such as LPT1). For example:

```
C:\>copy/b c:\9500fw.rfu lpt1
```

**Note**

If the file name or path includes a space, you must enclose the file name or path in quotation marks. For example, type:

```
C:\>copy/b "c:\My Documents\9500fw.rfu" lpt1
```

2. Press **Enter** on the keyboard. The printer control panel displays the messages described in the section "Printer messages during firmware update". At the end of the upgrade process, the control panel displays the READY message .
3. At the command prompt, type:  
**exit**  
to close the command window.

## Remote firmware update through a Windows network

If the printer is shared on a Windows network, follow these instructions.

1. From a command prompt or in an MS-DOS window, type:

```
copy /B <FILENAME> \\<COMPUTERNAME>\<SHARENAME>
```

where <FILENAME> is the name of the .RFU file (including the path), <COMPUTERNAME> is the name of the computer from which the printer is being shared, and <SHARENAME> is the printer share name. For example:

```
C:\>copy /B c:\9500fw.rfu \\your_server\your_computer
```

**Note**

If the file name or path includes a space, you must enclose the file name or path in quotation marks. For example, type:

```
C:\>copy/b "c:\My Documents\9500fw.rfu" \\your_server\your_computer
```

2. Press **Enter** on the keyboard. The printer control panel displays the messages described in the section "Printer messages during firmware update". At the end of the upgrade process, the control panel displays the READY message . The message **1 file(s) copied** appears on the computer screen.



## Remote firmware update for UNIX systems

For UNIX systems, any command method that delivers the .RFU file to the printer is acceptable, including the following:

1. At the command prompt, type:  
**\$cp </home/yourmachine/FILENAME/dev/parallel>**  
where </home/yourmachine/FILENAME> contains the .RFU file.

## Remote firmware update using FTP on a direct network connection

If the HP Color LaserJet 9500 series printer uses a direct network connection, use file transfer protocol (FTP) to update your HP LaserJet firmware. Complete the following steps for your operating system.

## Windows operating systems

1. Take note of the TCP/IP address on the EIO Jetdirect page. The HP Jetdirect page is the second page of the configuration page printout. To print a configuration page, see "Determining the current level of firmware".

### Note

Before connecting to the printer, make sure that the printer is not in PowerSave mode. Also make sure that any error messages are cleared from the control panel display.

2. Open a command window on your computer.
3. Type:  
**ftp <TCP/IP PRINTER ADDRESS>**  
For example, if the TCP/IP address is 192.168.0.90, type:  
**ftp 192.168.0.90**
4. Press **Enter** on the keyboard.
5. When prompted for the user name, press **Enter**.
6. When prompted for the password, press **Enter**.
7. Type:  
**bin**  
at the command prompt.
8. Press **Enter**. The message **200 Types set to I, Using binary mode to transfer files** appears in the command window.
9. Type:  
**put <FILENAME>**  
where <FILENAME> is the name of the .RFU file that was downloaded from the Web, including the path. For example, type:  
**put C:\LJ\9500FW.RFU**  
and then press **Enter**.

### Note

If the file name or path includes a space, you must enclose the file name or path in quotation marks. For example, type:

```
put "c:\My Documents\LJ\9500fw.rfu"
```

The following series of messages appears in the command window:

```
200 PORT command successful
150 Opening BINARY mode data connection
226 Ready
226 Processing Job
226 Transfer complete
```

Then, a message containing transfer speed information appears.



10. The download process begins and the firmware is updated on the printer. This can take about five minutes. Let the process finish without further interaction with the printer or computer.

**Note**

The printer automatically turns off and then on again after processing the upgrade.

11. At the command prompt, type:  
**bye**  
to exit the ftp command.
12. At the command prompt, type:  
**exit**  
to return to the Windows interface.

## Mac operating systems

1. Take note of the TCP/IP address on the EIO Jetdirect page. The Jetdirect page is the second page of the configuration page printout. To print a configuration page, see the "Determining the current level of firmware" section of this guide.
2. Open a Terminal window on your Macintosh. You can find the Terminal application on the computer hard drive under the Applications/Utilities folder.
3. Type:  
**FTP <TCP/IP PRINTER ADDRESS>**  
For example, if the TCP/IP address is 192.168.0.90, type:  
**FTP 192.168.0.90.**
4. Press **Enter** on the keyboard.
5. When prompted for a user name and password, press **Enter**.
6. Type:  
**put <path>**  
where <path> is the location where the .RFU file was downloaded from the Web, including the path. For example, type:  
**put /username/desktop/9500FW.RFU**  
and then press **Enter**.

**Note**

If the file name or path includes a space, you must enclose the file name or path in quotation marks. For example, type:

**put "/user name/desktop/9500FW.RFU"**

**Note**

To ensure that the entire proper path to the .RFU file is placed in the **put** command, type

**put** and a **space**

and then drag and drop the .RFU file on to the terminal window. The complete path to the file will be placed after the **put** command automatically.

7. The download process begins and the firmware is updated on the printer. This can take about five minutes. Let the process finish without further interaction with the printer or computer.

**Note**

The printer automatically turns off and then turns on again to activate the update.

## Remote firmware update using FTP through a browser

Follow the instructions below to use FTP through a browser to update the printer firmware remotely.

**Note**

The following instructions can be used on Windows or Mac operating systems.

1. Open a browser window.
2. In the address line of the browser, type:  
**ftp://<IPADDRESS>**  
where <IPADDRESS> is the TCP/IP address of your printer. For example, if the TCP/IP address is 192.168.0.90, type:  
**FTP 192.168.0.90**
3. Locate the .RFU file for the printer.
4. Drag and drop the .RFU file onto the **PORT1** icon in the browser window.

### Remote firmware update using Fetch (Mac OS 8.6 and OS 9. x only)

For Mac OS 8.6 through 9.x OSs, a shareware program called Fetch provides FTP control for a **put** command. Download and install the program from:

**<http://download.cnet.com/downloads/0-10207-100-5250613.html>**

Follow these instructions to use Fetch.

1. Start the program by clicking on the **Fetch** icon.
2. Type the IP address of the printer in the **Host:** box
3. Click the **Put Files** button and browse to the location of the .RFU file.
4. Double-click the file to select it and download it to the printer. A confirmation message appears in the main window.
5. Click **OK**.

### Remote firmware update using the HP LaserJet Utility (Mac OS 8.6 and OS 9. x only)

Follow these instructions to update the firmware using the HP LaserJet Utility.

1. The first step is to make sure you have the tools and files necessary for the update. You will need the HP LaserJet Utility and the **9500fw.rfu** file, which is the firmware file for the printer.  
The HP LaserJet Utility can be found on the HP Color LaserJet 9500 printing-system software CD-ROM that came with the printer. If you do not have the software CD-ROM, you can obtain the HP LaserJet Utility by downloading the latest printer installer from:  
**<http://www.hp.com>**  
The firmware file (**9500fw.rfu**) can be downloaded from:  
**[http://www.hp.com/go/clj9500\\_firmware](http://www.hp.com/go/clj9500_firmware)**  
See the "Downloading the new firmware to the printer" section of this guide for more information.  
Once you have the firmware file and the HP LaserJet Utility, you are ready to begin the upgrade process.
2. Launch the HP LaserJet Utility.
3. Click **Select Printer** and locate the printer you would like to upgrade on the network.
4. Select the printer on the right side of the dialog box, and click **OK**. An information dialog box for the HP Color LaserJet 9500 printer appears.
5. On the left side of the information dialog box, click **Files**. A dialog box appears that allows you to choose a file to be downloaded to the printer.
6. Click **Select File**.
7. Locate the **9500fw.rfu** file on your hard disk, and click the file name to highlight it. Then click **Select**. The **Files** dialog box updates showing the **9500fw.rfu** file under **File to download**.
8. Click **Download**.

The HP LaserJet Utility starts downloading the file to the printer. A progress bar keeps you updated on how much of the file has been downloaded. While the file is downloading, the RECEIVING UPGRADE message appears on the control-panel display on the printer. After the file has downloaded to the printer the PERFORMING UPGRADE message appears on the control-panel display.

#### Note

The printer automatically turns off and then turns back on again after processing the upgrade.

9. After the printer has turned on again and finished initializing, print a configuration page to verify that the new firmware has been installed. Press 2, 2, on the printer control panel to print a configuration page. See the "Determining the current level of firmware" section of this guide for more information.

## Remote firmware update using the LPR command

**Note** This remote firmware update method is for use in Windows NT 4.0, Windows 2000, Windows XP, and Windows Server 2003.

Follow the instructions below to update the printer software remotely using the LPR command.

1. From a command window, type:

```
lpr -P <IPADDRESS> -S <IPADDRESS> -o l <FILENAME>
```

-OR-

```
lpr -S <IPADDRESS> -Pbinps <FILENAME>
```

where <IPADDRESS> can be either the TCP/IP address or the hostname of the printer, and where <FILENAME> is the filename of the .RFU file.

**Note** The parameter (-o l) consists of a lowercase "O", not a zero, and a lowercase "L", not the numeral 1. This parameter sets the transport protocol to binary mode.

2. Press **Enter** on the keyboard. The printer control panel displays the messages described in the section "Printer messages during firmware update". At the end of the upgrade process, the printer control panel displays the READY message.
3. Type:  
**exit**  
at the command prompt to close the command window.

## Using HP Web JetAdmin to download the firmware to the printer

This procedure requires that you install HP Web JetAdmin version 7.0 or later on your computer. Complete the following steps to update a single printer through HP Web JetAdmin after downloading the .RFU file from the HP Web site.

1. Start HP Web JetAdmin.
2. Type the TCP/IP address or IP host name of the printer in the **Quick Device Find** field, and then click **Go**. The printer Status window appears.
3. Open the **Device Management** folder in the drop-down list in the Navigation panel. Navigate to the **Device Lists** folder.
4. Expand the **Device Lists** folder and select **All Devices**. Locate the printer you wish to update in the list of printers and click to select it.
5. Locate the drop-down box for **Device Tools** in the upper right corner of the window. Select **Update Printer Firmware** from the **choose action** list.
6. If the name of the .RFU file is not listed in the **All Available Images** box, click **Browse** in the **Upload New Firmware Image** dialog box and navigate to the location of the .RFU file you downloaded from the web at the start of this procedure. If the filename is listed, select it.
7. Click **Upload** to move the .RFU file from your hard drive to the HP Web JetAdmin server.
8. Refresh the browser.
9. Select the .RFU file from the **Printer Firmware Update** drop-down menu.
10. Click **Update Firmware**. HP Web JetAdmin sends the selected .RFU file to the printer. The printer control panel displays the messages described in the section "Printer messages during firmware update". At the end of the upgrade process, the printer control panel displays the READY message.

Also, HP Web JetAdmin 6.5 can be used to perform multiple or unattended installations.

1. Start HP Web JetAdmin.
2. Create a device group. A simple way to do this is to follow these steps:
  - a. Click **Device Management**, then click **All Devices**.
  - b. Shift-click to select printers that you want to be included in the group, and then click **OK**.
  - c. When prompted, type a name for the new device group, and then click **OK**.
3. To modify several printers in a group, click the group name, and then click **Open**.
4. The drop-down menu for **Device Group Tools** appears in the right side of the window. Scroll if necessary to view it.
5. In the **Device Group Tools** drop-down box, choose an action. Type in the appropriate information, and click **Return to Device Group** when finished.

## Printer messages during firmware update

The printer shows three messages that appear during a normal update process.

**Table 10: Update messages**

Printer message	Explanation
RECEIVING UPGRADE	This message appears from the time the printer recognizes the beginning of an .RFU update until the time the printer has verified the validity and integrity of the .RFU update.
UPGRADING PRINTER	This message appears while the printer is actually reprogramming the firmware.
WAIT FOR PRINTER TO REINITIALIZE	This message appears from the time the printer has finished reprogramming the DIMM until the printer reinitializes.

**Note** To verify that the firmware update succeeded, print a new configuration page from the printer control panel and verify that the firmware date code on the configuration page has changed.

## Troubleshooting a firmware update

The following table lists the causes and results of possible interruptions to the firmware update.

**Table 11: Troubleshooting a firmware update**

Cause	Result
The job was cancelled from the printer control panel.	No update has occurred.
A break in the I/O stream occurred during send (for example, the parallel cable was removed).	No update has occurred.
A power cycle occurred during RECEIVING UPGRADE.	No update has occurred.
A power cycle occurred during UPGRADING PRINTER.	No update has occurred. Resend the update through a parallel port.
A power cycle occurred during WAIT FOR PRINTER TO REINITIALIZE.	The update has been completed.

Print jobs sent to the printer while an update is in process do not interrupt the update.

The following table lists possible reasons for the failure of a remote firmware update and the corrective action required for each situation.

**Table 12: Troubleshooting a firmware update failure**

Reason for firmware update failure	Corrective action
The .RFU file is corrupted.	The printer recognizes that the file is corrupted and rejects the update. Download the file again and send the new file to the printer. Download the file from: <a href="http://www.hp.com/go/clj9500_firmware">http://www.hp.com/go/clj9500_firmware</a>
The wrong printer model is contained in the .RFU file.	The printer recognizes the model mismatch and rejects the update. Download the correct file and send it to the printer. Download the file from: <a href="http://www.hp.com/go/clj9500_firmware">http://www.hp.com/go/clj9500_firmware</a>
The upgrade was interrupted.	See the "Troubleshooting a firmware update" table.
A flash hardware failure occurred.	Although it is extremely unlikely, the device might have a hardware failure. Call technical support to address the problem (see the flyer that came with the printer for a local telephone support list).

**Note** All HP LaserJet printers leave the factory with the latest available firmware version installed. If a remote firmware update fails, the .RFU file must be sent over a parallel port connection.

## Printing .PDF documents from a command line

Documents in Portable Document Format (PDF) can be printed by using a command line instead of the Adobe Acrobat or Acrobat Reader programs.

Use one of the following methods to print PDF files to your printer.

### Command-line printing using a local Windows port

#### Windows 95, Windows 98, or Windows Me

1. From a command prompt or in an MS-DOS window, type:  
**Mode lpt1:,,p**

**Note** If the printer is attached to a parallel port other than LPT1, then substitute the proper LPT port number in the **mode** command.

2. Press **Enter** on the keyboard. The response you receive should be similar to these examples:  
**> LPT1 Not Rerouted**  
**> Resident portion of MODE loaded**  
**> Infinite retry on parallel printer time-out**
3. At a command prompt, type:
4. **copy /b <FILENAME> <PORTNAME>**  
where <FILENAME> is the name of the .PDF file (including the path) and <PORTNAME> is the name of the appropriate printer port (such as LPT1). For example, type:  
**C:\>copy/b c:\9500fw.pdf lpt1**

**Note** If the file name or path includes a space, you must enclose the file name or path in quotation marks. For example, type:

**C:\>copy/b "c:\My Documents\9500fw.pdf"**

5. Press **Enter** on the keyboard. The message PROCESSING JOB appears on the printer front panel, and the job prints.
6. At the command prompt, type:

**exit**

to close the command window.

## Windows NT 4.0, Windows 2000, Windows XP, or Windows Server 2003

The .PDF file can be sent directly to the printer by typing a **copy** command at a command prompt or in an MS-DOS window.

1. At a command prompt, type:

```
copy /b <FILENAME> <PORTNAME>
```

where <FILENAME> is the name of the .PDF file (including the path) and <PORTNAME> is the name of the appropriate printer port (such as LPT1). For example, type:

```
C:\>copy/b c:\9500fw.pdf lpt1
```

2. Press **Enter** on the keyboard.

**Note** If the file name or path includes a space, you must enclose the file name or path in quotation marks. For example, type:

```
C:\>copy/b "c:\My Documents\9500fw.pdf"
```

The message PROCESSING JOB appears on the printer control panel, and the job prints.

3. At the command prompt, type:

```
exit
```

to close the command window.

## Command-line printing using a Windows network

If the printer is shared on a Windows network, follow these instructions.

1. From a command prompt or in an MS-DOS window, type the following:

```
copy /B <FILENAME> \\<COMPUTERNAME>\<SHARENAME>
```

where <FILENAME> is the name of the .PDF file (including the path), <COMPUTERNAME> is the name of the computer from which the printer is being shared, and <SHARENAME> is the printer share name. For example:

```
C:\>copy /B c:\9500fw.pdf \\your_server\your_computer
```

**Note** If the file name or path includes a space, you must enclose the file name or path in quotation marks. For example, type:

```
C:\>copy/b /B "c:\My Documents\9500fw.pdf" \\your_server\your_computer.
```

2. Press **Enter** on the keyboard. The message PROCESSING JOB appears on the printer front panel, and the job prints. The message **1 file(s) copied** appears on the computer screen.

## Command-line printing using UNIX systems

For UNIX systems, any command method that delivers the .PDF file to the printer is acceptable, including the following:

1. At the command prompt, type:

```
$cp </home/yourmachine/FILENAME/dev/parallel>
```

where </home/yourmachine/FILENAME> contains the .PDF file.

## Command-line printing using FTP on a direct network connection

If the HP Color LaserJet 9500 series printer uses a direct network connection, use file transfer protocol (FTP) to print a PDF document. Complete the following steps for the operating system.

## Windows operating systems

1. Open a command window on your computer.
2. Type:  
**ftp <TCP/IP PRINTER ADDRESS>**  
For example, if the TCP/IP address is 192.168.0.90, type:  
**ftp 192.168.0.90**
3. Press **Enter** on the keyboard.
4. When prompted for the user name, press **Enter**.
5. When prompted for the password, press **Enter**.
6. Type:  
**bin**  
at the command prompt.
7. Press **Enter**. The message **200 Types set to I, Using binary mode to transfer files** appears in the command window.
8. Type:  
**put <FILENAME>**  
where <FILENAME> is the name of the .PDF file to be printed, including the path. For example, type:  
**put C:\LJ\9500FW.PDF**  
and then press **Enter**.

### Note

If the file name or path includes a space, you must enclose the file name or path in quotation marks. For example, type:

```
put "c:\My Documents\LJ\9500fw.pdf"
```

The following series of messages appears in the command window:

```
200 PORT command successful
150 Opening BINARY mode data connection
226 Ready
226 Processing Job
```

9. Your .PDF print job prints.

## Mac operating systems

1. Take note of the TCP/IP address on the EIO Jetdirect page. The Jetdirect page is the second page of the configuration page printout. To print a configuration page, see the "Determining the current level of firmware" section of this guide.
2. Open a Terminal window on your Macintosh. You can find the Terminal application on the computer hard drive under the Applications/Utilities folder.
3. Type:  
**FTP <TCP/IP PRINTER ADDRESS>**  
For example, if the TCP/IP address is 192.168.0.90, type:  
**FTP 192.168.0.90.**
4. Press **Enter** on the keyboard.
5. When prompted for a user name and password, press **Enter**.
6. Type:  
**put <path>**  
where <path> is the location where the .PDF file was downloaded from the Web. For example, type:

**put /username/desktop/9500FW.PDF**

and then press Enter.

**Note** If the file name or path includes a space, you must enclose the file name or path in quotation marks. For example, type:

**put "/user name/desktop/9500FW.PDF"**

**Note** To ensure that the entire proper path to the .PDF file is placed in the **put** command, type **put** and a **space**

and then click and drag the .PDF file on to the terminal window. The complete path to the file will be placed after the **put** command automatically.

7. The download process begins and the firmware is updated on the printer. This can take about five minutes. Let the process finish without further interaction with the printer or computer.
8. The printer automatically turns off and on again to activate the update.

## File printing using FTP through a browser

Follow the instructions below to use FTP through a browser to print from a command line.

**Note** The following instructions can be used on Windows or Mac operating systems.

1. Open a browser window.
2. In the address line of the browser, type:  
**ftp://<IPADDRESS>**  
For example, if the TCP/IP address of your printer is 192.168.0.90, type:  
**FTP 192.168.0.90**
3. Locate the .PDF file for the printer.
4. Drag and drop the .PDF file onto the **PORT1** icon in the browser window.

## File printing using Fetch (Mac OS 8.6 and OS 9. x only)

For Mac OS 8.6 through 9.x OSs, a shareware program called Fetch provides FTP control for a **Put** command.

Download and install the program from:

**<http://download.cnet.com/downloads/0-10207-100-5250613.html>**

Follow these instructions to use Fetch.

1. Start the program by clicking on the **Fetch** icon.
2. Enter the IP address of the printer in the **Host:** box
3. Click the **Put Files** button and browse to the location of the .PDF file.
4. Double-click the file to select it and download it to the printer. A confirmation message appears in the main window.
5. Click **OK**.

## File printing using the HP LaserJet Utility (Mac OS 8.6 and OS 9. x only)

Follow these instructions to print a .PDF file using the HP LaserJet Utility.

1. The first step is to make sure you have the tools and files necessary for the update. You will need the HP LaserJet Utility and the .PDF file that you want to print.  
The HP LaserJet Utility can be found on the HP Color LaserJet 9500 printing-system software CD-ROM that came with the printer. If you do not have the software CD-ROM, you can obtain the HP LaserJet Utility by downloading the latest printer installer from:  
**<http://www.hp.com>**



Once you have the HP LaserJet Utility and you know the location of the .PDF file you want to print, you are ready to begin the command-line printing process.

2. Launch the HP LaserJet Utility.
3. Click **Select Printer** and locate the printer you would like to upgrade on the network.
4. Select the printer on the right side of the dialog box, and click **OK**. An information dialog box for the HP Color LaserJet 9500 printer appears.
5. On the left side of the information dialog box, click **Files**. A dialog box appears that allows you to choose a file to be downloaded to the printer.
6. Click **Select File**.
7. On your hard disk, locate the .PDF file that you want to print, and click the file name to highlight it. Then click **Select**. The **Files** dialog box updates showing the .PDF file that you want to print under **File to download**.
8. Click **Download**.

The HP LaserJet Utility starts downloading the file to the printer. A progress bar keeps you updated on how much of the file has been downloaded. While the file is downloading, the PROCESSING JOB message appears on the control-panel display on the printer, and the the .PDF file prints.

## Command-line printing using the LPR command

### Note

This command-line printing method is for use in Windows NT 4.0, Windows 2000, Windows XP, and Windows Server 2003.

Follow the instructions below to print a .PDF file remotely using the LPR command.

1. From a command window, type:  
**lpr -P IPADDRESS -S IPADDRESS -o l FILENAME**

-OR-

**lpr -S <IPADDRESS> -Pbinps <FILENAME>**

where IPADDRESS can be either the TCP/IP address or the host name of the printer, and where FILENAME is the file name of the .PDF file.

### Note

The parameter (-o l) consists of a lowercase "O", not a zero, and a lowercase "L", not the numeral 1. This parameter sets the transport protocol to binary mode.

2. The file prints, but no further messages appear in the command prompt window.
3. Type:  
**exit**  
at the command prompt to close the command window.

## Euro character

The euro is the name for the currency of the European Union (EU). This unit was launched on January 1, 1999. The euro has changed the way business is conducted in Europe and has affected every company and industry in the world. It is vital that companies understand and prepare for the changes the euro brings.

This HP Color LaserJet 9500 series printer includes euro characters for each of the internal fonts. The printer can print the euro character in the Windows 95, Windows 98, Windows Me, Windows NT 4.0, Windows 2000, Windows XP, and Windows Server 2003 operating systems. HP is committed to maximizing document portability through supporting and promoting euro-symbol standards.

## Printing-system components

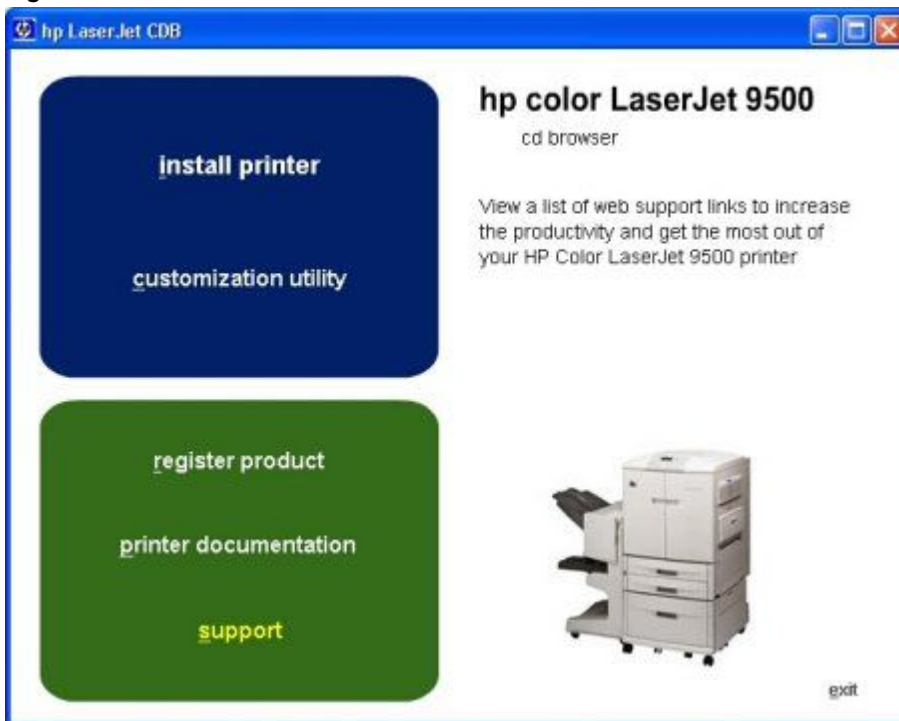
### Printing system and installer

#### HP Color LaserJet 9500 software CD-ROM for Windows systems

In previous versions of the printing-system software, the installer was started by locating and running the SETUP.EXE file. For the Microsoft Windows environment (Windows 95, Windows 98, Windows Me, Windows NT 4.0, Windows 2000, Windows XP, and Windows Server 2003), the HP Color LaserJet 9500 software CD-ROM provides an interactive software window that you can use not only to install the printer drivers and related components, but also to gain access to online product registration, user documentation, a customization utility, Adobe Acrobat Reader software, and optional HP software.

The following illustration shows the main screen of the HP Color LaserJet 9500 software CD-ROM, which appears when you insert the printing software CD-ROM in your CD-ROM drive. If the screen does not appear when you insert the CD-ROM, click **Start**, click **Run**, click **Browse...**, navigate to the root directory of the CD-ROM, and then double-click the SETUP.EXE file to start the CD-ROM.

Figure 10: Installation software CD-ROM main screen



The HP Color LaserJet 9500 software CD-ROM contains the following options. The text that follows each of the following options is approximately the same text that appears when you put the cursor on the option button.

**Note** The options on your printer might vary from the illustration.

**install printer** - This wizard guides you through the installation of your HP Color LaserJet 9500 printing-system software. You are given the choice of performing a Typical Installation or a Custom Installation. If you select Typical Installation, only the necessary software is installed. If you select Custom Installation, you can select the components you want to install.

**customization utility** - This utility can be used to create a custom software installer for the HP Color LaserJet 9500 series printer that can then be copied to other media, such as a local hard drive or a network drive.

**register product** - This option can be used to register your HP Color LaserJet 9500 series printer now and to receive the following information at no cost:

- notification of driver updates
- technical support updates
- news about emerging technologies

**printer documentation** - This option can be used to view the HP Color LaserJet 9500 series printer documentation. The following document options are available:

- **user guide**
- **user reference guide**
- **install notes**
- **hp jetdirect guide**

---

**Note**

For systems that do not have Adobe Acrobat Reader 4.0 or later installed, you are given the option to install that software. Clicking any of the links to documentation that is provided in the Adobe Acrobat PDF file format opens a dialog box from which you can install Adobe Acrobat Reader software from the HP Color LaserJet 9500 software CD-ROM.

**support** - To increase productivity and get the most use from your HP Color LaserJet 9500 printer, view a list of optional software available for installation and links to HP Web sites. The following options are available:

- Click **HP web jetadmin** to download HP Web JetAdmin software from the Web for a Web browser-based network-printer-management tool.
- Click **color matching information** for information about how to make best use of the color functions of your HP Color LaserJet 9500.
- Click **supplies** for information about ordering HP Color LaserJet 9500 series printing supplies.
- Click **product information** for HP Color LaserJet 9500 series printer support information and updates.
- Click **hp.com** to go to the HP home Web page for products and services, support, drivers, and HP online stores.

## Installer features

The common installer is designed to provide a simple and consistent installation method for the product line. The common installer is available for the Windows 95, Windows 98, Windows Me, Windows NT 4.0, Windows 2000, Windows XP, and Windows Server 2003 operating systems.

The common installer offers the following features:

- The HP Color LaserJet 9500 software CD-ROM features an interactive software interface. See the "HP Color LaserJet 9500 software CD-ROM for Windows systems" section of this guide.
- Acrobat Reader is available.
- The installer is Web-enabled, providing access to the HP Web site for the latest software components and drivers.
- Network connection is integrated so that you can install drivers and connect to a network printer in a single process.
- The selection dialog box sets the operating-system language as the default language (for Windows 95, Windows 98, Windows Me, Windows NT 4.0, Windows 2000, Windows XP, and Windows Server 2003 only). You can use the installer to select any of the languages on the HP Color LaserJet 9500 software CD-ROM.

The HP Color LaserJet 9500 software CD-ROM also includes the following features:

- the HP LaserJet Uninstaller Utility
- product registration, using the Web and e-mail
- the HP Customization Utility for custom installations

All of the Windows system components are installed by using the HP Color LaserJet 9500 printing-system installer. The installer automatically senses your language of choice and your operating system. It offers selections for each printer model. You can select the type of installation you prefer: Typical Installation or Custom Installation.

When performing a Web installation, the installer compares the versions of the software components on the HP Color LaserJet 9500 software CD-ROM to those on the HP Web site. If newer versions are on the HP Web site, the installer downloads them.

## Installable components

This section provides information about the various installable components that are available either with the HP Color LaserJet 9500 software CD-ROM or from the HP Web site.

### Printer drivers

In some cases, older drivers can be used with new printers. Because earlier (legacy) HP LaserJet printers might have different versions of the PCL language, new drivers are not supported with legacy printers. The drivers associated with each printer use the version of PCL language that is installed in the printer.

The printing system for the HP Color LaserJet 9500 series printer includes the following printer drivers.

### PCL 5c, PCL 6, and PS drivers

The following drivers are available for the HP Color LaserJet 9500 series printer.

- HP traditional PCL 6 and PCL 5c drivers for Windows 95, Windows 98, Windows Me, and Windows NT 4.0.
- The HP traditional PS driver for Windows 95, Windows 98, Windows Me, and Windows NT 4.0.
- HP PCL 5c, PCL 6, and PS unidrivers for Windows 2000, Windows XP, and Windows Server 2003.

All of the drivers provide access to the printer paper-handling and print-quality features, and are described in Chapter 3 of this guide.

**Note** If you select a Typical Installation during installation of the printing-system software, the PCL 6 driver is set as the default driver.

### Windows 95, 98, Me, NT 4.0, 2000, XP, and Server 2003 driver versions

The PCL 6 and PCL 5c support for Windows 95, Windows 98, Windows Me, Windows NT 4.0, Windows 2000, Windows XP, and Windows Server 2003 operating systems is provided by using the HP Color LaserJet 9500 series printer drivers for the HP Color LaserJet 9500 series printer. For Windows 2000, Windows XP, and Windows Server 2003, the HP Color LaserJet 9500 generic printer description (GPD) provides information about printer features for the PCL 5c and the PCL 6 driver. The HP Color LaserJet 9500 PS printer description (PPD) provides PS feature support for the HP Color LaserJet 9500 series printer.

If you are using an HP traditional driver, you can view the printer driver version number by clicking the HP logo in the lower-left corner of the following HP PCL 5c printer-driver tabs:

- Configure
- NT Forms
- Finishing
- Effects
- Paper
- Destination
- Basics

If you are using an HP unidriver in Windows 2000, Windows XP, or Windows Server 2003 environments, follow these steps to find driver version information:

1. Click **Start**.
2. Click **Settings**.
3. Click **Printers** (or **Printers and Faxes** in Windows XP and Windows Server 2003).
4. Right-click the printer icon.
5. Click **Properties**.
6. Click the **About** tab.

## Macintosh and Macintosh-compatible system-driver versions

The HP Color LaserJet 9500 printing solution for Macintosh is composed of the Print Center for OS X and the Apple LaserWriter for OS 8.6 and OS 9, which are provided with the operating system, and HP-created PPD files. The driver uses these files to determine the features and PS commands that the printer supports. Bidirectional support in AppleTalk and USB connections supports autoconfiguration of the software. The installable components are:

- the HP LaserJet Installer for Mac OS 8.6, Mac OS 9, and Mac OS X.
- the HP LaserJet Screen Fonts Installer.
- SYSTEM/EXTENSIONS/PRINTER DESCRIPTIONS (for Mac OS 8 and Mac OS 9).
- LIBRARY/PRINTERS/PPDS/CONTENTS/RESOURCES/LANGUAGE.LPROJ (for Mac OS X).
- the HP LaserJet Utility, an HP printer utility that is installed in the HP LaserJet folder of Mac OS 8 and Mac OS 9. The HP LaserJet Utility provides configuration and management support for PS .
- online Help, an HTML-based printer and utility help that can be viewed through a browser or in the Macintosh OS Help Center (English only).
- install notes.

## Additional driver availability

Additional drivers are available from your HP distributor or from the Web site.

These drivers are:

- OS/2 PCL 5c, OS/2 PS, and OS/2 PCL 6 printer drivers. The OS/2 drivers are available from IBM and are packaged with OS/2.
- UNIX model scripts. For further information about UNIX drivers, click **hp printer installation software** at: [http://www.hp.com/support/net\\_printing](http://www.hp.com/support/net_printing)
- Linux drivers. For further information about Linux drivers for HP LaserJet printers, go to: <http://www.hp.com/go/linux>

Or visit the HP Linux support home page at:

<http://hp.sourceforge.net>.

## Additional productivity tools

### HP Web Registration

You can use this component to register your HP Color LaserJet 9500 series printer on the HP Web site or through e-mail. After you have successfully installed the software, the installer prompts you to register your HP Color LaserJet 9500 printer. Also, you can gain access to HP Web Registration from the HP Color LaserJet 9500 software CD-ROM by clicking **Register Product**. You can choose to complete the online registration at that time or later. If you want to register your printer later, click **Register Product** from the HP Color LaserJet 9500 program group when you decide to complete your registration.

## HP Web JetAdmin

Use HP Web JetAdmin to manage HP Jetdirect connected printers within your intranet by using a browser. HP Web JetAdmin is a browser-based management tool and should be installed only on the network administrator's computer.

When it is installed on a host server, any client can use HP Web JetAdmin through a supported Web browser (such as Microsoft Internet Explorer 5.5 and 6.0, or Netscape Navigator 7.0, by browsing to the HP Web JetAdmin host. HP Web JetAdmin 7.0 and later versions have the following features:

- task-oriented user interface that provides configurable views for network managers
- customizable user profiles that can be customized to let network administrators include only the function that is being viewed or used
- routing of instant e-mail notification of hardware failure, low supplies, and other printer problems to different people
- remote installation and management from anywhere by using only a standard Web browser
- advanced automatic discovery of peripherals on the network without manually typing information about each printer into a database
- simple integration into enterprise-management packages
- capacity to find peripherals based on parameters such as the Internet protocol (IP) address, color capability, and model name
- capacity to organize peripherals into logical groups, with an option that provides virtual office maps for easy navigation

HP Web JetAdmin can be used for access to the HP Embedded Web Server, ordering supplies, and remote firmware updates (for supported printers).

The HP Color LaserJet 9500 software CD-ROM browser provides the following link to download the latest version of the HP Web JetAdmin software:

**<http://www.hp.com/go/webjetadmin>**

Click **support** from the CD-ROM browser, and then click **hp web jetadmin**. The following table shows the supporting operating systems and hardware for HP Web JetAdmin.

**Table 13: HP Web JetAdmin support**

<b>Protocols</b>	<ul style="list-style-type: none"><li>• TCP/IP</li><li>• IPX/SPX</li></ul>
------------------	--

<b>Compatible operating systems</b>	<ul style="list-style-type: none"> <li>• Microsoft Windows 2000 Professional, Server, and Advanced Server</li> <li>• Microsoft Windows XP Professional with service pack 1 and Windows Server 2003</li> <li>• Microsoft Windows NT Server and Workstation with service pack 3 or later</li> <li>• Red Hat Linux 8.0</li> <li>• SuSE Linux v. 8.1</li> </ul> <p><b>Shared print queue creation support</b></p> <ul style="list-style-type: none"> <li>• Microsoft Windows 2000 Professional, Server and Advanced Server</li> <li>• Microsoft Windows XP Professional and Windows Server 2003</li> <li>• Microsoft Windows NT 4.0 Server and Workstation</li> <li>• HP-UX 11.0</li> <li>• Red Hat Linux 8.0</li> <li>• Solaris 2.6, 7 and 8</li> <li>• SuSE Linux v 8.1</li> <li>• Novell NetWare 5.1 and 6.0 (IPX only) using Netware Client 4.83 -- using HP Web JetAdmin only on a Microsoft Windows NT 4.0, Windows 2000, Windows XP, or Windows Server 2003 system</li> </ul>
<b>Supported products</b>	All HP and non-HP printers connected through HP Jetdirect print servers, and standard MIB-compliant third-party network connected printers.
<b>Supported browsers</b>	<ul style="list-style-type: none"> <li>• Microsoft Internet Explorer 5.5 and 6.0 (Windows only);</li> <li>• Netscape 7.0 (English) all operating systems</li> </ul>
<b>Supported printers</b>	All HP and non-HP printers connected through HP Jetdirect print servers, and standard MIB-compliant third-party network connected printers.





# 3

## Printer driver features

### Introduction

This chapter describes the features of the the HP Color LaserJet 9500 series printer drivers. The chapter contains the following major sections:

- HP traditional PCL 6 and PCL 5c driver features. This section describes the PCL 6 and PCL 5c drivers for Windows 95, Windows 98, Windows Me, and Windows NT 4.0.
- The HP traditional PS driver features. This section describes the PS driver for Windows 95, Windows 98, Windows Me, and Windows NT 4.0.
- HP PCL 5c, PCL 6, and PS unidriver features. This section describes the PCL 5c, PCL 6, and PS drivers for Windows 2000, Windows XP, and Windows Server 2003.
- Structure and availability of the HP Color LaserJet 9500 printing-system software CD-ROM. This section describes the three printing-system software CD-ROMs that are included with the HP Color LaserJet 9500 printer.
- Driver feature comparison in Windows and Macintosh operating systems. The tables in this section provide an overview of printer driver features.

You can control print jobs from several places: the printer control panel, the software program, and the driver UI. Generally, for features that are common to two or more of these places (for instance, you can select the media input tray from any of them), settings made at the printer control panel are overridden by settings made from within a software program, and settings made from within a software program are overridden by settings made to driver properties through the driver UI.

### HP traditional PCL 6 and PCL 5c driver features

When you install the printer in Windows 95, Windows 98, Windows Me, or Windows NT 4.0, the HP traditional PCL 6 and PCL 5c drivers are used.

This section describes the options that are available on each tab of the HP traditional PCL 6 and PCL 5c driver interfaces.

### Access to drivers

To gain access to driver settings from within most software programs, click **File**, click **Print**, and then click **Properties**. The appearance and names of the driver tabs that appear vary, depending on the printer model and the driver.

You can also control the drivers directly from your computer. In Windows 95, Windows 98, Windows Me, Windows NT 4.0, and Windows 2000, click **Start**, click **Settings**, click **Printers**, right-click the printer name, and then click **Printing Preferences** or **Document Defaults** (depending on the OS and driver), to gain access to the same set of driver tabs that the software program controls.

If, after right-clicking the printer name, you click **Properties**, you gain access to a different set of tabs that control the driver and driver connections.

## Help system

The HP LaserJet 6 and PCL 5c drivers include a full-featured Help system to provide assistance with printing and configuration options.

### What's this? Help

What's this? Help is supported in Windows 95, Windows 98, Windows Me, and Windows NT 4.0. You can gain access to What's this? Help messages in any of the following ways:

- Right-click a control and click **What's this?**, and a pop-up Help window appears.
- Click the ? button at the upper-right corner of the frame, next to the X, to change the cursor to an arrow with a question mark. Use this special cursor to select a control, and the pop-up Help window for that feature appears.
- Press the **F1** key, and the Help window for the currently selected control appears.

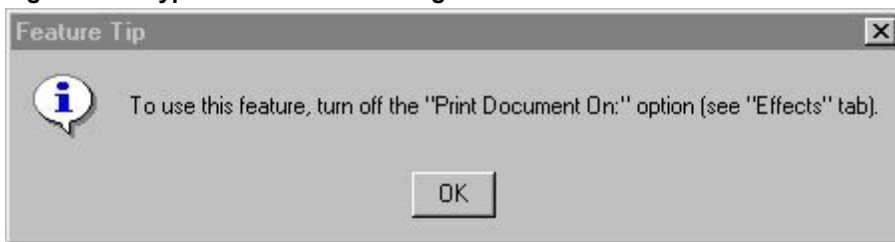
### Context-sensitive Help

Press the **Help** button on a driver tab or in a dialog box, and context-sensitive Help appears.

### Constraint messages

Constraint messages are unsolicited messages that appear in response to specific actions you take. These messages alert you to selections that are illogical or impossible given the capabilities of the printer or the current settings of other controls. For example, if you click **Print on Both Sides** and then change the paper type to transparencies, a message appears asking you to resolve this conflict.

Figure 11: A typical constraint message with an OK button



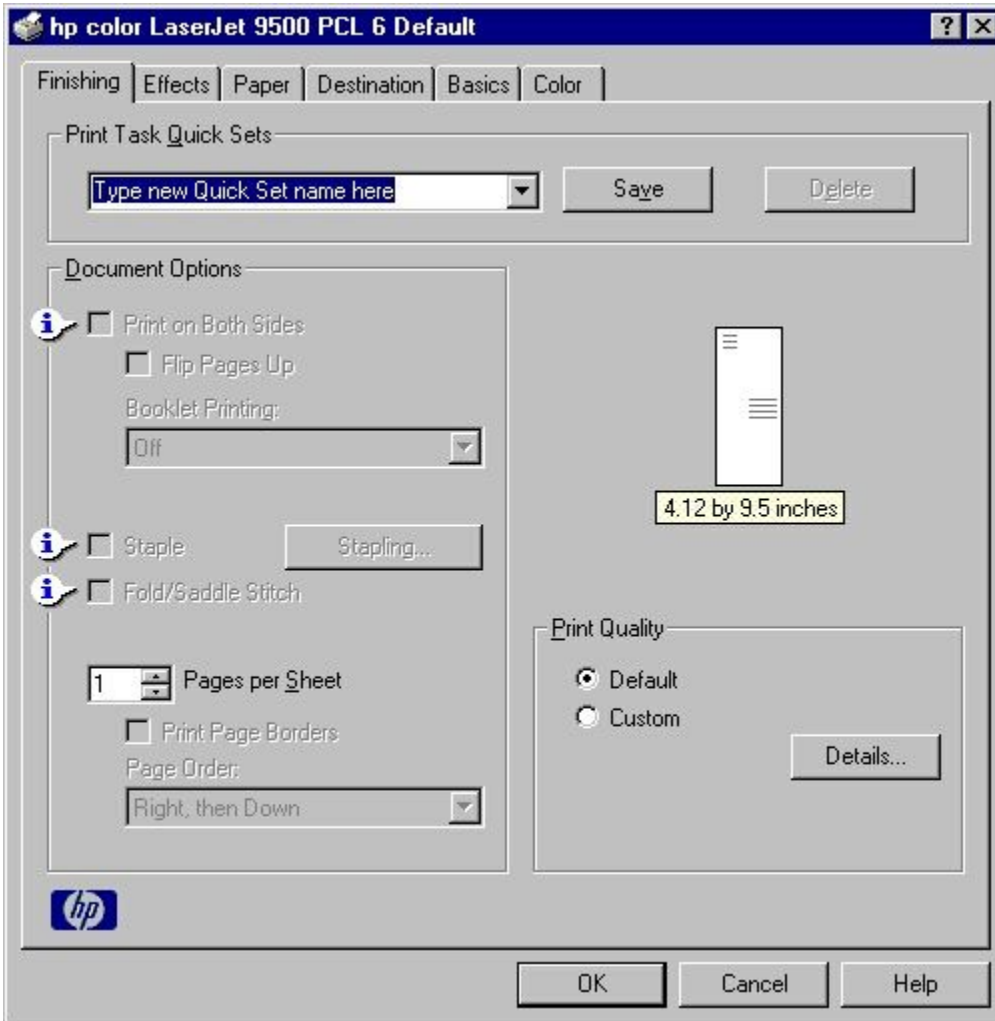
Whenever a constraint message appears with the **OK** or **Cancel** button, the interpretation of the button is as follows:

- Clicking **OK** accepts the change that was just made, and the driver then resets the conflicting control to a setting that is compatible with the new value.
- Clicking **Cancel** rejects the change that was just made, and the control returns to its previous value.

## Bubble Help

Bubble Help features a graphical icon that resembles a cartoon speech bubble with a lowercase "i" in it, representing the international symbol for information. The following illustration shows Bubble Help icons on a driver tab.

Figure 12: A property page with Bubble Help icons

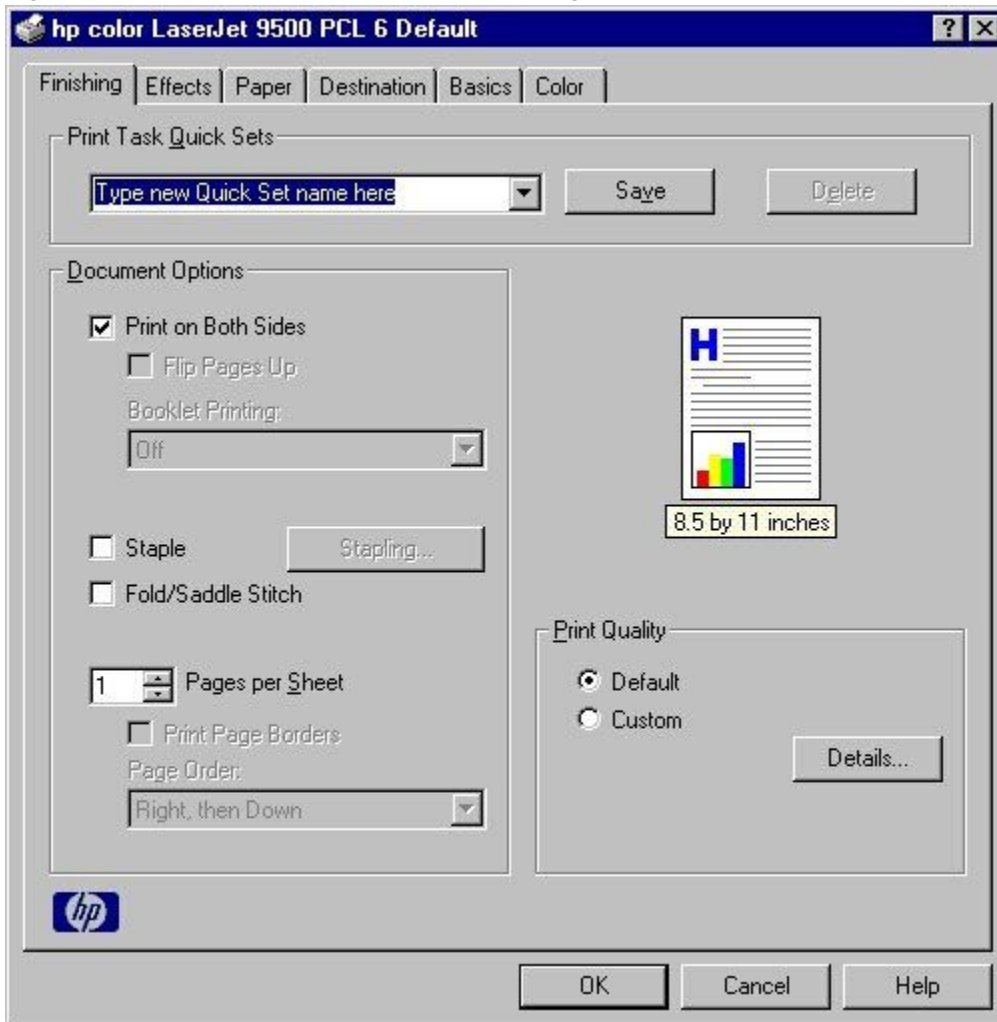


The bubble typically appears next to a disabled control, although it can also accompany an enabled control if there is an important note concerning its use. Moving the pointer over the bubble changes the arrow to a gloved hand, which indicates that the area underneath the pointer is selectable. When the bubble is selected by using either the mouse or the keyboard, a message box appears that contains a brief explanation about why the control is disabled and what can be done to enable it. If the control is not disabled, the message is a tip or a precaution you should be aware of when using that particular feature.

## Finishing tab features

The following illustration shows the **Finishing** tab.

Figure 13: The default appearance of the **Finishing** tab



The options in the **Print Quality** group box might vary, depending on your HP Color LaserJet 9500 series printer model. The **Finishing** tab contains the following controls.

- **Print Task Quick Sets** group box
- **Document Options** group box
- Document preview image
- **Print Quality** group box

### Print Task Quick Sets

**Print Task Quick Sets** is a setting that is available on all of the tabs except the **NT Forms** and **Configure** tabs and that is used to store the current combination of driver settings that are found on all of the other tabs (except the **NT**

**Forms** and **Configure** tabs). **Print Task Quick Sets** are either preset or user-defined printing specifications (such as paper size, pages per sheet, and so on).

The **Print Task Quick Sets** control is available on all of the **Document Defaults** or **Printing Preferences** driver tabs (the **Finishing**, **Effects**, **Paper**, **Destination**, **Basics**, and **Color** tabs). The **Print Task Quick Sets** control does *not* appear on the driver **Properties** tabs (the **NT Forms** tab and the **Configure** tab).

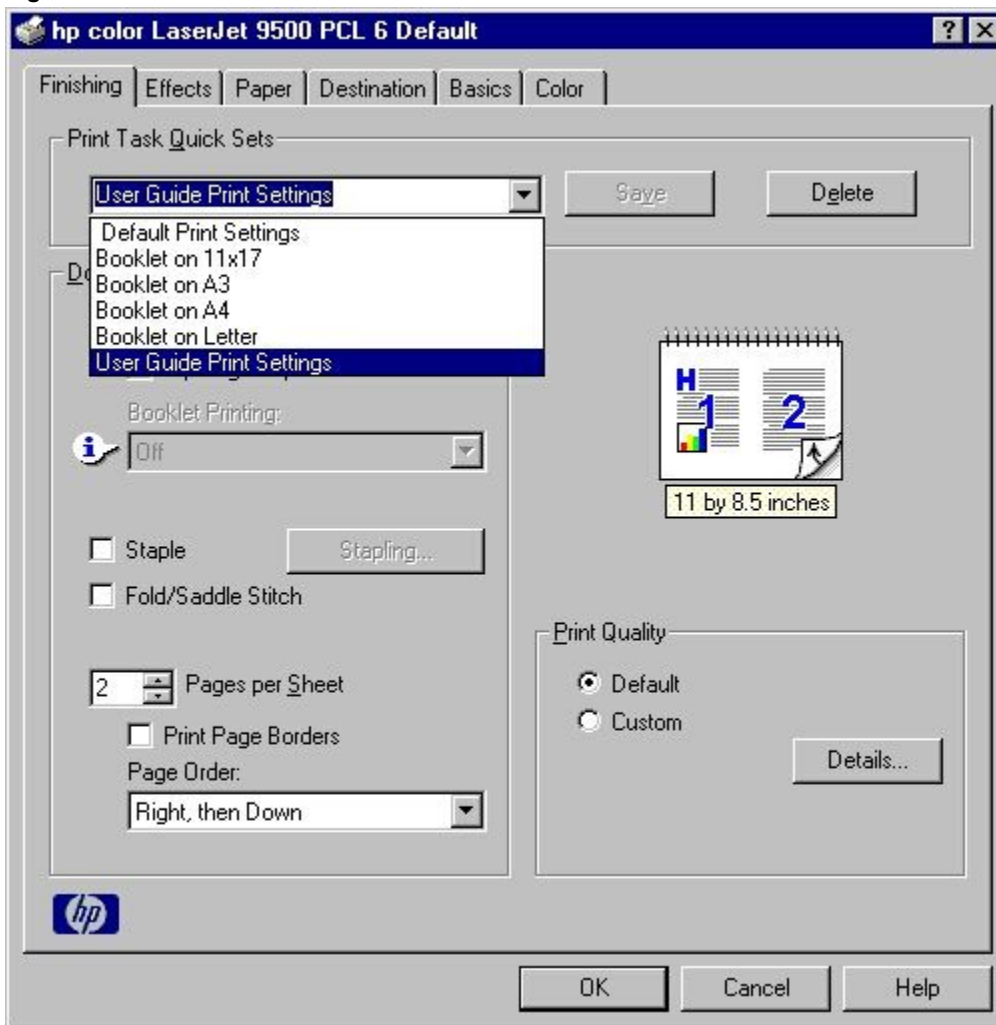
The **Print Task Quick Sets** control is used to store the current combination of driver settings that are found on all other **Document Defaults** or **Printing Preferences** driver tabs.

The following settings are available in the **Print Task Quick Sets** drop-down menu.

- **Default Print Settings**
- **Booklet on 11x17**
- **Booklet on A3**
- **Booklet on A4**
- **Booklet on Letter**
- **User Guide Print Settings**

An illustration of the available **Print Task Quick Sets** appears below.

**Figure 14: Print Task Quick Sets**



## Default Print Settings

When you select **Default Print Settings**, nearly all of the settings are restored to the combination that existed after the driver was installed (the original settings). However, if the attribute combinations that are associated with watermark definitions, custom paper sizes, or the **User Guide Print Settings** quick set have been changed or deleted, the original settings are not restored.

**Type a new Quick Set name here** appears in the **Print Task Quick Sets** menu automatically if no other driver settings have been changed since the driver was installed, or if all of the driver settings match the original settings. Otherwise, the setting in the **Print Task Quick Sets** menu is the same label that appeared when you last closed the printing **Properties** dialog box by clicking **OK**.

The following table shows the default settings for **Print Task Quick Sets**. See the "HP Driver Preconfiguration" section of this document for information about preconfigurable driver settings.

**Table 14: Print Task Quick Set default values for the HP Color LaserJet 9500 printer**

Driver feature	U.S. English Print Task Quick Sets default values	Other language default setting (if different)	Preconfigurable <sup>1</sup>
Print on both sides	Off		Yes
Flip pages up	Off		Yes
Booklet printing	Off		Yes
Pages per sheet	1		Yes
Print page border	Off		Yes
Page order	Right, then down		Yes
Print quality	Best quality		Yes
Current setting	PCL 6: This is the "Faster Printing" setting PCL 5c: This is the "Best Quality" setting		No
Rendering mode (PCL 5c only)	Automatic		No
Scale patterns (WYSIWYG)	On		Yes
Print text as black	Off		Yes
TrueType as bitmaps	Off - send TrueType fonts as outlines	On (in Thai only)	Yes (except in Thai)
Print document on	Off - print on the size specified in the <b>Paper</b> tab		Yes
Size to print on	Letter	Default value depends on regional paper size	Yes
Scale to fit	Off		Yes
% of normal size	100		Yes
Watermarks	(none)		Yes
Watermarks first page only	Off		Yes
Current watermarks	(none), Confidential, Draft, SAMPLE		Yes <sup>2</sup>
Watermark message	(none)		Yes <sup>2</sup>
Watermark message angle	Diagonal		Yes <sup>2</sup>
Watermark message custom angle	52		Yes
Watermark font name	Arial (R)	Language dependent	Yes <sup>2</sup>
Watermark font color	Gray		Yes <sup>2</sup>

Driver feature	U.S. English Print Task Quick Sets default values	Other language default setting (if different)	Preconfigurable <sup>1</sup>
Watermark font shading	Very Light		Yes <sup>2</sup>
Watermark font size	140		Yes
Watermark font style	Regular		Yes <sup>2</sup>
Mini pages tab	All pages		No
Use different paper for first page	Off - all of the pages use the same paper		No
All pages and first page size is	Letter	Default value depends on regional paper size	Yes
All pages and first page source is	Auto Select		Yes
All pages and first page type is	Unspecified		Yes
Other pages source is	Auto Select		No
Other pages type is	Unspecified		No
Back cover	No back cover		No
Back cover source is	Auto Select		No
Back cover type is	Unspecified		No
Custom paper size width	8.50 inches	210 mm	No
Custom paper size height	11.0 inches	297 mm	No
Paper size units	Inches	Millimeters	No
Destination features	Job Storage		No
Job storage mode	Off		No
Job storage require PIN to print	Off		No
Job storage user name	User logon name <blank - user must enter>		No
Job storage job name	<blank - user must enter>		No
Job storage PIN to print	0000		No
Output bin	Top bin (face-down)		Yes
Output bin option	(none)		Yes
Copies	1		Yes
Orientation	Portrait		Yes
Rotate by 180 degrees	Off		Yes

1- Preconfigurable by using an HP Preconfiguration tool. For more information, go to:  
<http://www.hp.com/support/clj9500>

2- Not supported in Windows 95, Windows 98, and Windows Me

## User Guide Print Settings

The **User Guide Print Settings** option provides a **Print Task Quick Set** for optimal printing of the *User Reference Guide* for the HP Color LaserJet 9500.

### Type new Quick Set name here

By default, the **Print Task Quick Set** menu is set to **Type new Quick Set name here**. When you change any of the default settings on any of the **Document Defaults** driver tabs and you want to save the configuration as a **Print Task Quick Set**, highlight the word **Type new Quick Set name here**, type the name you want for your new **Print Task Quick Set**, and click **Save**. **Print Task Quick Sets** are saved in the system registry. To delete a **Print Task Quick Set**, select it from the drop-down menu and click **Delete**.

You can store a maximum of 25 user-defined **Print Task Quick Sets** on a particular system. If you attempt to save too many, a message box appears that reads, "There are too many Print Task Quick Sets defined. Please delete some before adding new ones."

## Document Options

The **Document Options** group box contains the following controls.

- **Print on Both Sides** check box
- **Flip Pages Up** option
- **Booklet Printing** drop-down menu
- **Staple** check box and stapling options
- **Pages Per Sheet** spin box
- **Print Page Borders** check box
- **Page Order** drop-down menu

### Print on Both Sides check box

#### Note

The **Print on Both Sides** check box is available only if the printer has a duplexing unit installed. The HP Color LaserJet 9500hdn comes with a duplexing unit already installed. The duplexing unit is an optional accessory for the HP Color LaserJet 9500n.

In addition to having a duplexing unit installed, the duplexing unit must be correctly configured in the printer driver in order to use the **Print on Both Sides** option. To configure the duplexing unit, click **Start** on the Windows task bar, click **Settings**, and then click **Printers**. Right-click on the printer name, and then click **Properties**. Click the **Configure** tab, and click the **duplexing unit** check box to select it. Then click **Apply**, and close the driver window.

The default setting for the **Print on Both Sides** option is off (not selected). **Print on Both Sides** is available when the following conditions exist:

- **Type is** on the **Paper tab** is set to any type except for **Envelope**, **Labels**, or **Transparency**.
- **Size is** Letter, Legal, A3, A4, A5, B4 (Japanese Industry Standard, or JIS), B5 (JIS), Executive, Executive (JIS), 8.5x13 (Custom), 12x18 (Custom), 8K, 16K, or custom sizes greater than or equal to 98 mm by 191 mm (3.86 inches x 7.5 inches) and less than or equal to 306 mm by 469 mm (12.0 inches x 18.5 inches).

When **Paper Size** is set to Letter, Legal, A4, or B4 (JIS), clicking **Print on Both Sides** makes the **Flip Pages Up** and **Booklet Printing** options available.

### Automatically printing on both sides

Use the duplexing unit in the printer to automatically print on two sides of the paper when that option is specified in the job. The HP Color LaserJet 9500hdn comes with a duplexing unit installed. The duplexing unit is an optional accessory for the HP Color LaserJet 9500n printer.

To achieve the best print quality when printing on the second side of the page, the printer needs to make adjustments to its print modes. When you select a media type, you are, in effect, instructing the printer to use a group of printer settings (such as fuser temperature and print speed) to print the media with the best possible quality. This group of settings is known as a mode or print mode, and a different print mode with each media type. Print-mode adjustments are automatic when the duplexing unit is used.



## Flip Pages Up

The **Flip Pages Up** check box, enabled only when **Print on Both Sides** is selected, is used to specify the duplex-binding option. By default, the **Flip Pages Up** check box is not selected. The following table demonstrates the results of selecting this box, depending on the paper orientation selected on the **Basics** tab.

**Table 15: Page orientation**

Orientation (Basics tab)	Flip Pages Up selected	Flip Pages Up not selected
Portrait	Short-edge binding	Long-edge binding
Landscape	Long-edge binding	Short-edge binding

When **Print on Both Sides** is selected, the document preview image changes to show a spiral binding along either the left edge or the top edge of the page. In addition, a folded-over corner appears in the lower-right portion of the preview image, indicating that printing occurs on the back side. An arrow on the folded-over corner points in the direction that the pages would be flipped if they were bound together.

## Booklet printing

The **Booklet Printing** drop-down menu, visible when **Print on Both Sides** is selected, offers choices that are based on the current paper size. The default setting for the **Booklet Printing** drop-down menu is **Off**. The other settings have the following format, where [paper size] depends on the paper size set on the **Paper** tab.

- [paper size] (Left Binding)
- [paper size] (Right Binding)

When you select [paper size] (Left Binding) or [paper size] (Right Binding), the document preview image changes to show the location of the binding, and, if the **Pages per Sheet** setting is on the default setting of 1, it automatically changes to 2. You may change the **Pages per Sheet** setting manually to 4, 6, 9, or 16. See "Pages per Sheet" in the "HP traditional PCL 6 and PCL 5c driver features" section of this document for more information.

Booklet printing is enabled only when Letter, Legal, 11x17, or B4 (JIS) is selected as the paper size. Booklet printing is disabled when other paper sizes are selected, including envelopes and postcards of any size.

The **Booklet Printing** drop-down menu appears only when:

- **Print on Both Sides** is selected.
- **% of Normal Size** (on the **Effects** tab) is 100.
- **Pages per Sheet** is 1.
- **Print Document On <media type>** (on the **Effects** tab) is not selected.

If any of these conditions is not met (except the first), a Bubble Help appears next to **Booklet Printing** to tell you why it is disabled.

## Book and booklet printing

Book and booklet printing are both supported by the HP Color LaserJet 9500 printer.

A book is a print job consisting of at least two pages that can have a different media type for the first page (front cover) or last page (back cover). Use the **First Page** and **Back Cover** minitabs on the **Paper** tab (available when you select the **Use different paper for first page** check box) to select different media for the first and last pages.

A booklet is a print job that places two pages on each side of a sheet that can be folded into a booklet that is half the size of the media type. Use the **Booklet Printing** drop-down menu on the **Finishing** tab to control booklet settings.

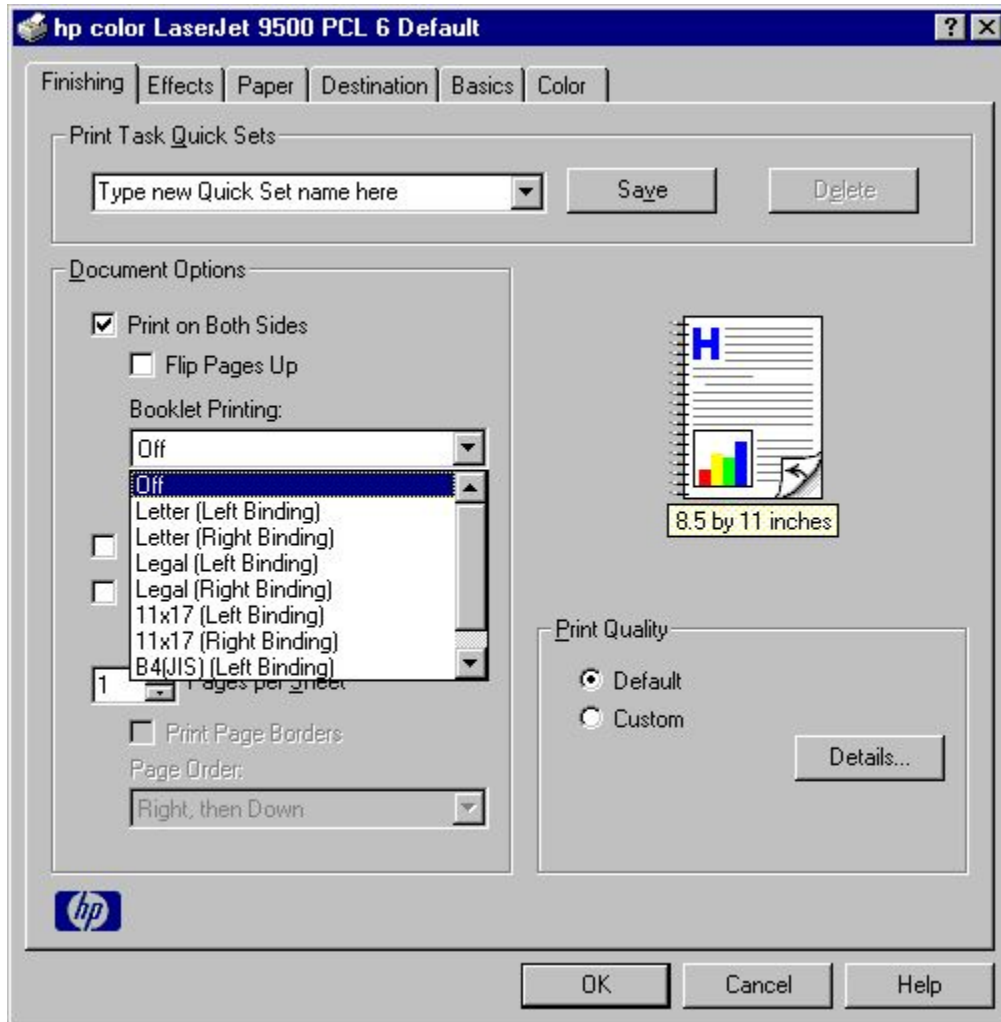
## Printing a Booklet

A booklet is a print job that places two pages on each side of a sheet and that can be folded into a booklet that is half the size of the media type. Follow the instructions below for printing a booklet.

**Note** The following instructions apply only to the HP traditional PCL 6 and PCL 5c drivers. The HP traditional PS driver supports booklet printing through Windows programs that provide booklet-printing configuration settings.

1. Click **File**, click **Print**, and then click **Properties**.
2. Click the **Finishing** tab. On the drop-down menu, select **Print on Both Sides**.
3. In the **Booklet Printing** drop-down menu, select the type of booklet printing that you want. The booklet printing type consists of the media size and the location of the binding (for example, **Letter [Left binding]**).

**Figure 15: Printing a booklet**



## Printing a book

A book is a print job consisting of at least two pages that can have a different media type for the first page (front cover) or last page (back cover). The book cover must be the same size as the inside sheets. Follow these instructions for book printing.

1. Click **File**, click **Print**, and then click **Properties**.
2. Click the **Paper** tab, and then select the **Use different paper for first page** check box.
3. Click the **First Page** tab. On the **Size is**, **Source is**, and **Type is** menus, select the size, source, and type settings for your cover.

4. Click the **Other Pages** tab. On the **Size is** and **Source is** menus, select the size and source settings for the inside sheets of your print job.
5. Click the **Back Cover** tab. The back cover, if there is one, must be the same size as the booklet cover and the inside sheets. The **No back cover** is the default setting. If your print job has a back cover that uses the same source and type settings you selected in the **First Page** tab, select **Use the first page source**. If not, select **Use an alternate source**, and then select the back-cover settings in the **Source is** and **Type is** menus.

Whenever you make changes to all of the pages (that is, when **Use different paper** is cleared), these changes are reflected in both the **First Page** and **Other Pages** settings whenever you set **Use different paper**.

**Note** The **Back Cover** tab is not available when you select any **Booklet Printing** setting except **Off** (which is the default). When you use this feature, the last page of the print job is folded into the middle of the booklet.

## Staple check box

**Note** The **Staple** check box, the **Stapling** button, and the **Fold/Saddle Stitch** check box are available only if you have an Accessory Output Bin with a stapling device installed on the printer and configured in the driver. The HP Color LaserJet 9500hdn comes standard with either an HP 3000-Sheet Stapler/Stacker or an HP Multifunction Finisher installed. Accessory Output Bins are not available for the HP Color LaserJet 9500n.

To configure the Accessory Output Bin in the driver, click **Start**, click **Settings**, click **Printers**, right-click on the printer name, and then click **Properties**. Click the **Configure** tab, select your output device from the drop-down menu, and then click **OK**.

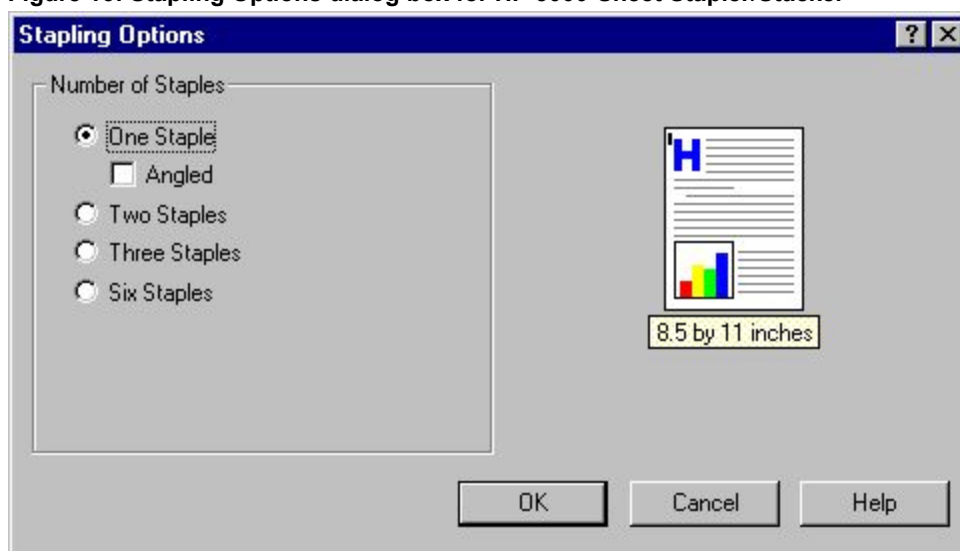
Click the **Staple** check box if you want to use any of the stapling options for the HP 3000-Sheet Stapler/Stacker or the HP Multifunction Finisher.

## Stapling Options dialog box

Click the **Stapling** button to open the **Stapling Options** dialog box. Use these settings to select the stapling options you want to apply to your document. The stapling options are only available when the Accessory Output Bin installed on your printer has a stapler (for example, the HP 3000-Sheet Stapler/Stacker or the HP Multifunction Finisher). The specific stapling options available depend on which Accessory Output Bin is installed.

The following illustration shows the **Stapling Options** dialog box for the HP 3000-Sheet Stapler/Stacker.

**Figure 16: Stapling Options dialog box for HP 3000-Sheet Stapler/Stacker**



The following **Stapling Options** are available.

- **None** (default)
- **One Staple**
- **One Staple Angled** (HP 3000-Sheet Stapler/Stacker only)
- **Two Staples**
- **Three Staples** (HP 3000-Sheet Stapler/Stacker only)
- **Six Staples** (HP 3000-Sheet Stapler/Stacker only)
- **Fold/saddle stitch** (HP Multifunction Finisher only)

Use the following guidelines when stapling.

- Each stapler has a maximum number of pages that can be stapled. Consult your stapler documentation to find out your stapler limitations.
- **One Staple Angled** does not work with some paper sizes; in these cases, **One Staple** is used.
- If you have selected more than one staple per page and you are printing on both sides, you cannot flip your pages up, or to the left or right, depending on which edge of the paper the staples are placed.
- When selecting a stapling option, pages are always printed to the **Stapler Bin** on the printer.
- For some paper sizes, the printer might assume a specific paper feed orientation (that is, which edge goes into the printer first). If you encounter unexpected results in staple placement, try using a different feed orientation. For example, find a paper tray on your printer where you can insert letter paper with the short edge towards the printer rather than the long edge.
- You might want to avoid some staple positions. For example, if you are printing on both sides of the paper and want to flip your pages up, you should not select more than one staple if the paper is fed from the long edge. Using two or more staples will prevent you from flipping the paper up.
- If your stapler head cannot move, then there are some corners on the paper that staples cannot be placed. For portrait orientation, a staple can be placed only on the upper-left or the lower right corners. For landscape orientation, a staple can be placed only on the lower-left or upper-right corners.

## Fold/Saddle Stitch option

The **Fold/Saddle Stitch** check box is available only when you have the HP Multifunction Finisher installed on your printer and configured in the driver. Use this option when you are printing a booklet.

## Pages per Sheet

The **Pages per Sheet** drop-down menu provides six settings: 1 (default), 2, 4, 6, 9, and 16. If you type another value into the box (for example, 3), the control rounds that value to the nearest valid value (in this example, 4).

## Print Page Borders

Related controls indented beneath the **Pages per Sheet** edit box are **Print Page Borders** and **Page Order**, which become active when **Pages Per Sheet** is greater than 1.

**Print Page Borders** sets a line around each page image on a printed sheet to help visually define the borders of each logical page.

## Page Order

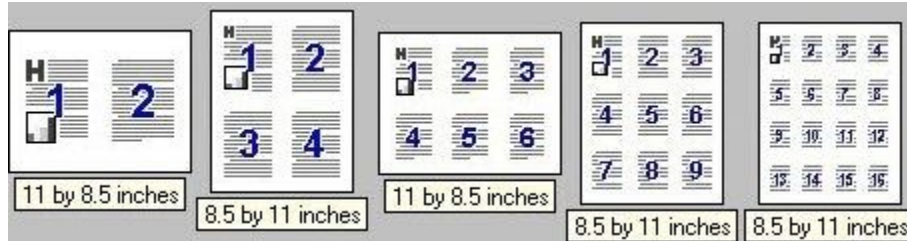
The **Page Order** drop-down menu contains four selections:

- **Right, then Down**
- **Down, then Right**

- **Left, then Down**
- **Down, then Left**

The preview document image changes to reflect alterations in these settings, as shown by the examples in the following illustration.

**Figure 17: Page-order preview images**



- **2 pages per sheet**
- **4 pages per sheet**
- **6 pages per sheet**
- **9 pages per sheet**
- **16 pages per sheet**

## Document preview image

The preview image is a color, line-drawn image of a page that represents graphics and text. The image is always oriented so that the contents of the page are right-side up. The preview image appears in the upper-right corner of the **Finishing, Effects, Paper, Destination, Basics, and Color** tabs.

Switching between tabs does not change the location or appearance of the preview image. When you move the mouse over the preview image, the mouse cursor changes from an arrow to a gloved hand. You can toggle between portrait and landscape page orientation by clicking on the image. The pale-yellow dimensions label that appears below the preview image reflects the selected page size. The horizontal dimension is always first, so the order of the numbers reverses when the orientation changes. Click on the label to toggle between English and metric units.

## Print Quality

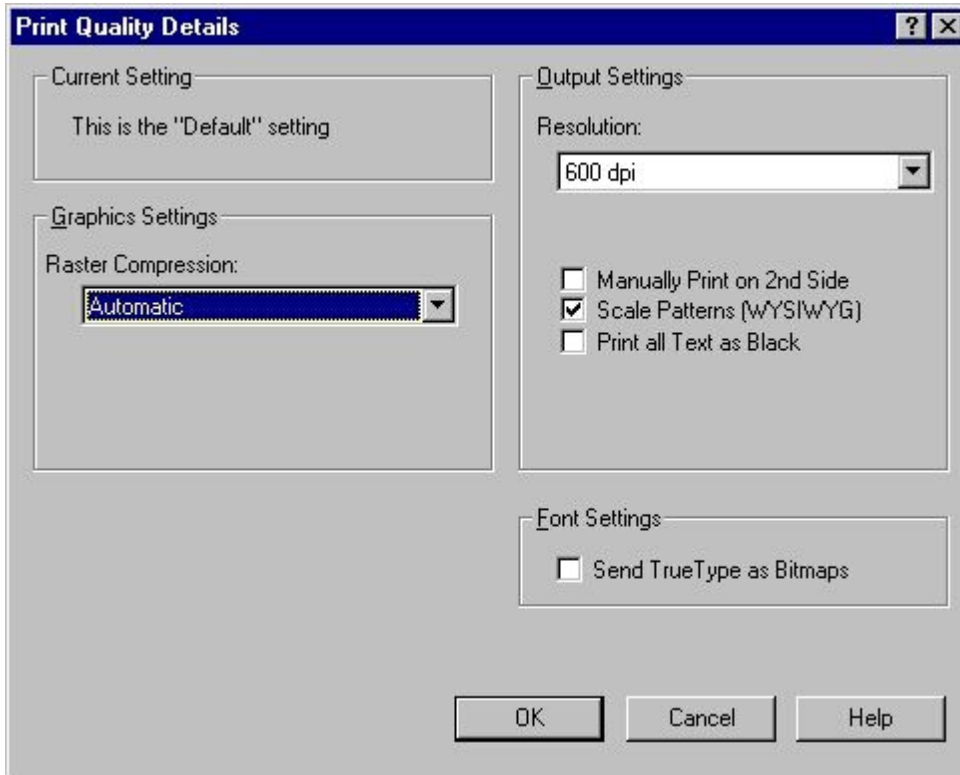
The HP Color LaserJet 9500 printer driver **Print Quality** group box provides options that control resolution, graphics settings, and font settings.

The default setting for **Print Quality** is **Default**. To change the default print quality settings, click the **Details** button. Clicking the **Details** button opens the **Print Quality Details** dialog box. The **Print Quality Details** dialog box has different options depending on the driver you are using.

## Print Quality Details for the PCL 6 driver

The **Print Quality Details** dialog box provides the options for print-quality settings in the PCL 6 driver as shown in the following illustration.

Figure 18: Print Quality Details dialog box for HP traditional PCL 6 driver



The following options are available.

- **Current Settings** group box
- **Graphics Settings** group box
- **Output Settings** group box
- **Font Settings** group box

### Current Settings group box

The **Current Settings** group box has three states in the HP traditional PCL 6 driver:

- **This is the "Faster Printing" setting**
- **This is the "Best Quality" setting**
- **This is a "Custom" setting**

**This is the "Best Quality" setting** appears if you select **Best Quality** in the **Print Quality** group box on the **Finishing** tab.

**This is the "Faster Printing" setting**, the default setting, appears if you select **Faster Printing** in the **Print Quality** group box on the **Finishing** tab.

**This is a "Custom" setting** appears if you select **Custom** in the **Print Quality** group box on the **Finishing** tab.

## Graphics Settings group box

The **Graphics Settings** group box in the HP traditional PCL 6 driver has settings under **Raster Compression** for compressing graphics. The following options are available in the **Raster Compression**: drop-down menu:

- **Automatic**. This is the default setting. When this option is selected, the printer driver determines the best compression method to use.
- **Best Quality**. This setting forces the driver to use a compression method that results in no loss of data during compression.
- **Maximum Compression**. Where applicable, this setting requires the printer driver to use a compression method that maximizes compression. This setting can result in a loss of quality in the printed output.

## Output Settings

The **Output Settings** group box contains controls for selecting resolution and other print-job settings, including pattern scaling and printing all text as black.

For the HP LaserJet 6 driver, the Default values for output settings are as follows:

- Resolution is **600 dpi**
- **Raster Compression** is set to **Automatic**
- **Scale Patterns (WYSIWYG)** is selected
- **Print all Text as Black** is *not* selected
- **Send TrueType as Bitmaps** is *not* selected

## Resolution

There is a single **Resolution**: setting for the HP traditional PCL 6 driver, **600 dpi**. "Resolution" refers to the number of dots per inch (dpi) used to print the page.

## Scale Patterns (WYSIWYG)

Use the **Scale Patterns (WYSIWYG)** feature to address the moiré effect created when certain programs encounter certain patterns. Use this feature to turn off the pattern scaling. What you lose is WYSIWYG with patterns, but the printed result might look better. The feature works only with programs that use vector hatch patterns. This option is on by default.

## Print all Text as Black

The **Print all Text as Black** feature is off by default. When selected, this option causes the driver to print all text as black regardless of the original document text color. By design, white text remains white as a reliable method of printing reverse typeface against a dark background. This setting does not affect graphic images on the page. **Print all Text as Black** remains selected only for the current print job. When the current print job is completed, **Print all Text as Black** is automatically turned off.

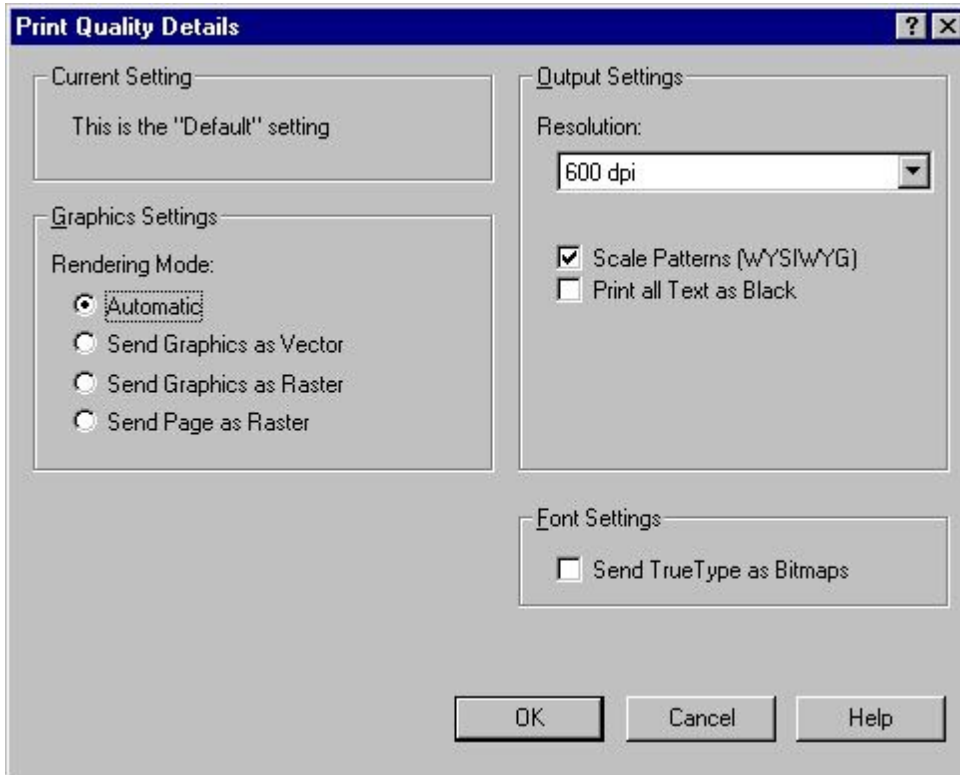
## Font Settings group box

In the **Font Settings** group box, the only available option is **Send TrueType as Bitmaps**, which provides an alternative for software programs that cannot easily use TrueType (TM) fonts for special graphic purposes, such as shading, rotation, or slanting. The **Send TrueType as Bitmaps** check box is not selected by default. If you select this option, the driver sends TrueType fonts to the printer as outlines, which retains the standard format (outlines) of the fonts.

## Print Quality Details for the PCL 5c driver

The **Print Quality Details** dialog box provides the options for print-quality settings in the PCL 5c driver as shown in the following illustration.

Figure 19: Print Quality Details dialog box for HP traditional PCL 5c driver



The following options are available.

- **Current Settings** group box
- **Graphics Settings** group box
- **Output Settings** group box
- **Font Settings** group box

### Current Settings group box

The **Current Settings** group box has two states in the HP traditional PCL 5c driver:

- **This is the "Default" Setting**
- **This is a "Custom" Setting**

**This is the "Default" Setting** is enabled when the setting under **Rendering Mode:** is **Automatic**.

When any other setting under **Rendering Mode:** is enabled, the **Current Setting** value becomes **This is a "Custom" Setting**.

### Graphics Settings group box

The **Graphics Settings** group box in the HP traditional PCL 5c driver has settings for the graphics rendering mode. The following **Rendering Mode:** option buttons are available:



- **Automatic** (this is the default setting)
- **Send Graphics as Vector.** Select this setting to send graphics to the printer as a combination of HP Graphics Language, version 2 (HP-GL/2) and raster images. This setting might produce higher-quality output.
- **Send Graphics as Raster.** Select this setting to send all graphics to the printer as images composed of individual dots. This setting might improve printing speed in some cases.
- **Send Page as Raster.** Select this setting to send all graphics and text (TrueType fonts) to the printer as images composed of individual dots. Use **Send Page as Raster** if you are experiencing problems with overlapping text and graphics. With this setting, the **Send TrueType as Bitmaps** option has no effect.

## Output Settings

The **Output Settings** group box contains controls for selecting resolution and other print-job settings, including pattern scaling and Printing All Text as Black.

For the HP LaserJet 5c drivers, the Default values for output settings are as follows:

- Resolution is **600 dpi**
- **Rendering mode** is set to **Automatic**
- **Scale Patterns (WYSIWYG)** is selected
- **Print all Text as Black** is *not* selected
- **Send TrueType as Bitmaps** is *not* selected

## Resolution

There is a single **Resolution:** setting for the HP traditional PCL 5c driver, **600 dpi**. "Resolution" refers to the number of dots per inch (dpi) used to print the page.

## Scale Patterns (WYSIWYG)

Use the **Scale Patterns (WYSIWYG)** feature to address the moiré effect created when certain programs encounter certain patterns. Use this feature to turn off the pattern scaling. What you lose is WYSIWYG with patterns, but the printed result might look better. The feature works only with programs that use vector hatch patterns. This option is on by default.

## Print all Text as Black

The **Print all Text as Black** feature is off by default. When selected, this option causes the driver to print all text as black regardless of the original document text color. By design, white text remains white as a reliable method of printing reverse typeface against a dark background. This setting does not affect graphic images on the page. **Print all Text as Black** remains selected only for the current print job. When the current print job is completed, **Print all Text as Black** is automatically turned off.

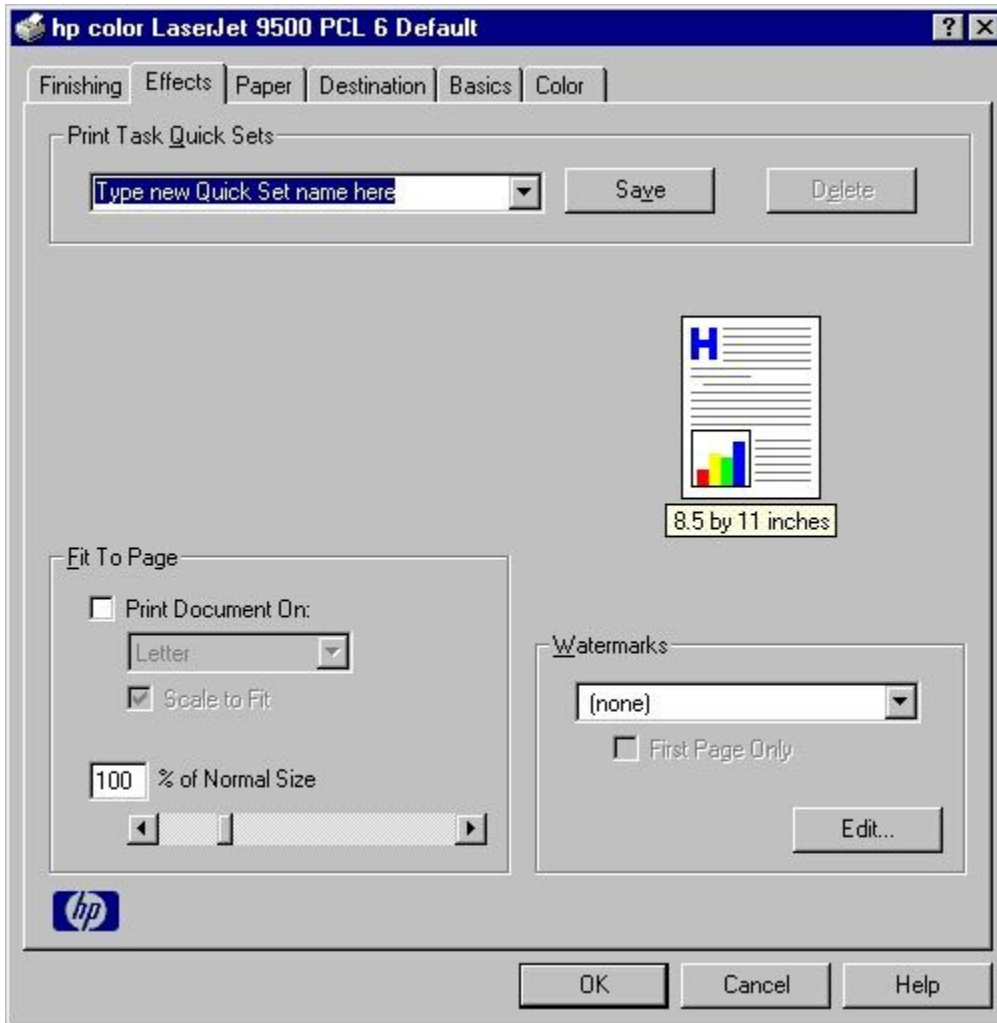
## Font Settings group box

In the **Font Settings** group box, the only available option is **Send TrueType as Bitmaps**, which provides an alternative for software programs that cannot easily use TrueType (TM) fonts for special graphic purposes, such as shading, rotation, or slanting. The **Send TrueType as Bitmaps** check box is not selected by default. If you select this option, the driver sends TrueType fonts to the printer as outlines, which retains the standard format (outlines) of the fonts.

## Effects tab features

Use the **Effects** tab to create unique paper effects such as scaling and watermarks. The following illustration shows the **Effects** tab.

Figure 20: Effects tab



The **Effects** tab contains the following controls.

- **Print Task Quick Sets** group box
- **Fit to Page** group box
- Document preview image
- **Watermarks** group box

### Print Task Quick Sets

The **Print Task Quick Sets** control is used to store the current combination of driver settings that are found on all other **Document Defaults** or **Printing Preferences** driver tabs. Print task quick sets are either preset or user-defined printing specifications, such as paper size and pages per sheet. For more information, see the "Finishing tab features" section of this guide.

## Fit to Page group box

The **Fit to Page** group box consists of the following controls.

- **Print Document On** setting
- **Scale to Fit** option
- **% of Normal Size** setting

## Print Document On setting

Select the **Print Document On** check box to format the document for one paper size and then print the document on a different paper size, with or without scaling the image to fit the new paper size.

The **Print Document On** control is disabled by either of the following conditions:

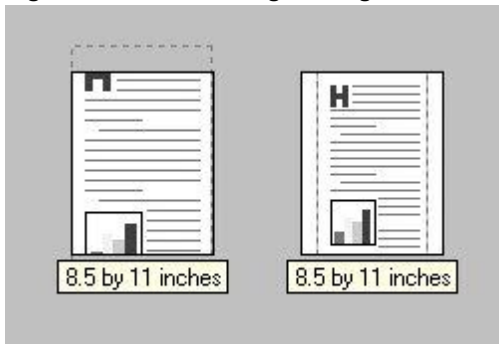
- The **% of Normal Size** value is not 100.
- The **Pages per Sheet** value (on the **Finishing** tab) is not 1.

When **Print Document On** is selected, the drop-down menu shows the media sizes on which you can print. The list contains all of the the standard media sizes that are supported by the selected media source and any custom sizes that you have created (if the currently selected media source is manual, auto, or any tray). When **Print Document On** is selected, **Scale to Fit** is automatically selected.

## Scale to Fit option

The **Scale to Fit** option specifies whether each formatted document page image is scaled to fit the target paper size. By default, **Scale to Fit** is selected when **Print Document On** is selected. If the setting is turned off, then the document page images will not be scaled, and are instead centered at full size on the target paper. If the document size is larger than the target paper size, then the document image is clipped. If it is smaller, then it is centered within the target paper. The following illustration shows preview images for a document formatted for legal-size paper with the **Print Document On** check box selected, and the target size specified as **Letter**.

**Figure 21: Preview images - Legal on Letter; Scale to Fit off (left) and on (right)**



When the size for which the document is formatted (that is, the logical size) differs from the target size, the preview image uses a dashed gray line to show the boundaries of the logical page in relation to the target page size.

## % of Normal Size option

The **% of Normal Size** option provides a slider bar to use for scaling the percentage setting. The default setting in the entry box is 100 percent of normal size. Normal size is defined as the paper size that is selected within the driver or what the driver receives from the software program (if the software program does not negotiate the paper size with the driver). The driver scales the page by the appropriate factor and sends it to the printer.

The limits of the range are from 25 percent to 400 percent, and any values outside the range are adjusted to those limits as soon as the focus is removed from the control (that is, when the Tab key is pressed or another control is selected).

Any change to the scale also changes the page preview, which increases or decreases from the upper-left corner of the preview.

The slider bar controls the scale directly. The value in the edit box changes as the scroll bar indicator is dragged, and the preview image is updated to the new image scale. Each click on the scroll bar arrows increases or decreases the scale by one percent. Each click on the slider bar affects the scale by 10 percent.

You cannot achieve an exact value by dragging the scroll bar indicator at the default Windows resolution; use the scroll bar indicator to approximate the desired value, and then use the scroll bar arrows to refine the value.

The following settings disable **% of Normal Size**:

- **Print Document On** is selected
- **Pages per Sheet** is not 1

## Document preview image

The document preview image is a color, line-drawn image of a page that represents graphics and text. The preview image appears in the upper-right corner of all of the **Document Defaults** or **Printing Preferences** driver tabs (the **Finishing**, **Effects**, **Paper**, **Destination**, **Basics**, and **Color** tabs). For more information about the document preview image, see the "Finishing tab features" section of this document.

## Watermarks

Use the **Watermarks** feature to choose a watermark, create your own custom watermarks (text only), or edit an existing watermark. The following watermarks are preset in the driver:

- (none)
- Confidential
- Draft
- SAMPLE

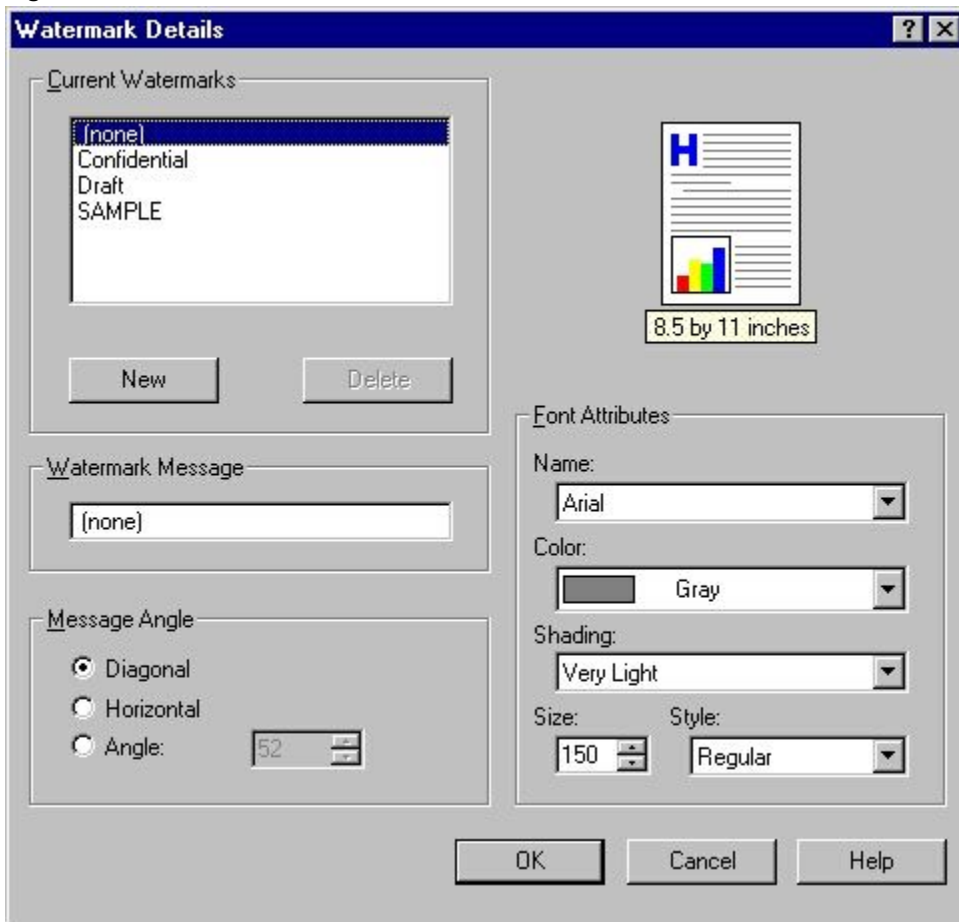
The drop-down menu shows alphabetically sorted watermarks that are currently available on the system, plus the string "(none)", which indicates that no watermark is selected. This is the default setting. Any watermark selected from this list appears in the preview image.

When **First Page Only** is selected, the watermark is printed only on the first page of the document. The **First Page Only** check box is disabled when the current watermark selection is "(none)".

Watermarks are applied to logical pages. For example, when **Pages per Sheet** is set to "4" and **First Page Only** is turned off, four watermarks appear on the physical page (one on each logical page).

Click **Edit**, and the **Watermark Details** dialog box appears.

**Figure 22: Watermark details**



The dialog box shows a preview image and provides options for creating a new watermark and controlling the message angle and font attributes.

Click **OK** to accept all of the changes that are made in the **Watermark Details** dialog box. However, clicking **Cancel** does not cancel all of the changes. If you make changes to a watermark, and then select a different watermark or click **New**, all of the changes made to the previous watermark are saved, and only the current, unsaved changes can be canceled.

## Current watermarks

The **Current Watermarks** group box contains a list of available watermarks, both predefined watermarks made available in the driver and any new watermarks you have created.

To create a new watermark, click **New**. The new watermark appears in the **Current Watermarks** list and in the **Watermark Message** edit box as "Untitled" until you name it. The name that you type in the **Watermark Message** field appears in the **Current Watermarks** group box in the **Watermark Details** dialog box and in the **Watermarks** group box on the **Effects** tab.

To name the new watermark, type the selected watermark text in the **Watermark Message** edit box. To delete a watermark, select the watermark in the **Current Watermarks** list and click **Delete**. A warning appears asking whether

you are sure you want to delete the selected item. Click **Cancel** if you want to keep the watermark. Click **OK** to delete the selected watermark.

**Note** You can have no more than 30 watermarks in the **Current Watermarks** list at one time. When you reach the limit of 30 watermarks, the **New** button is disabled, and a Bubble Help message appears that explains why the button is disabled and how to enable it.

To edit an existing watermark, select the watermark in the **Current Watermarks** list. If you change the **Watermark Message** for that watermark, you are, in effect, creating a new watermark.

## Watermark message

The **Watermark Message** is also the name that identifies the watermark in the **Current Watermarks** list, except when more than one watermark has the same message. For example, you might want several different watermarks with the message DRAFT, each with a different font or size. When this occurs, the string is appended with a space, a pound sign, and a number (for example, **Draft #2**). When a number is added, the number two is used first, but if the resulting name is also in the list, then the number increases until the name is unique.

## Message angle

Use the controls in the **Message Angle** group box to print the watermark in different orientations in relation to the page's text. The settings are **Diagonal**, **Horizontal**, or **Angle** (custom). The default is **Diagonal**. All three settings automatically center the watermark string within the page; the selection of a particular setting affects only the angle of the string placement. **Diagonal** places the text along a line that spans the lower-left to upper-right corners of the page. **Horizontal** places the text along a line that spans the mid-left and mid-right edges of the page. **Angle** places the text at the specified angle across the page.

## Font attributes

Use the controls in the **Font Attributes** group box to change the font and the color, shading, size, and style of the font.

### Name

The **Name** drop-down menu lists TrueType fonts that are currently installed on the system. The default is language-dependent.

### Color

The **Color** drop-down menu lists the fixed, unalterable color choices for the watermark. The color options are:

- Gray
- Red
- Yellow
- Green
- Cyan
- Blue
- Magenta

### Shading

The following range of shades is available from the **Shading** drop-down menu:

- **Lightest**
- **Very Light** (default)

- **Light**
- **Medium Light**
- **Medium**
- **Medium Dark**
- **Dark**
- **Very Dark**
- **Darkest**

These values represent the intensity of the gray that is used for the **Color** attribute. A choice of **Light** plus **Gray** (from the **Color** attribute) produces a lightly saturated gray watermark. A choice of **Lightest** plus **Gray** produces the lightest shade of watermark; **Darkest** plus **Gray** produces a black watermark.

## Size

Font sizes from **1** to **999** points are available from the **Size** menu. The default point size is language-dependent. The choice of **Regular**, **Bold**, **Italic**, and **Bold Italic** is available from the **Style** drop-down menu.

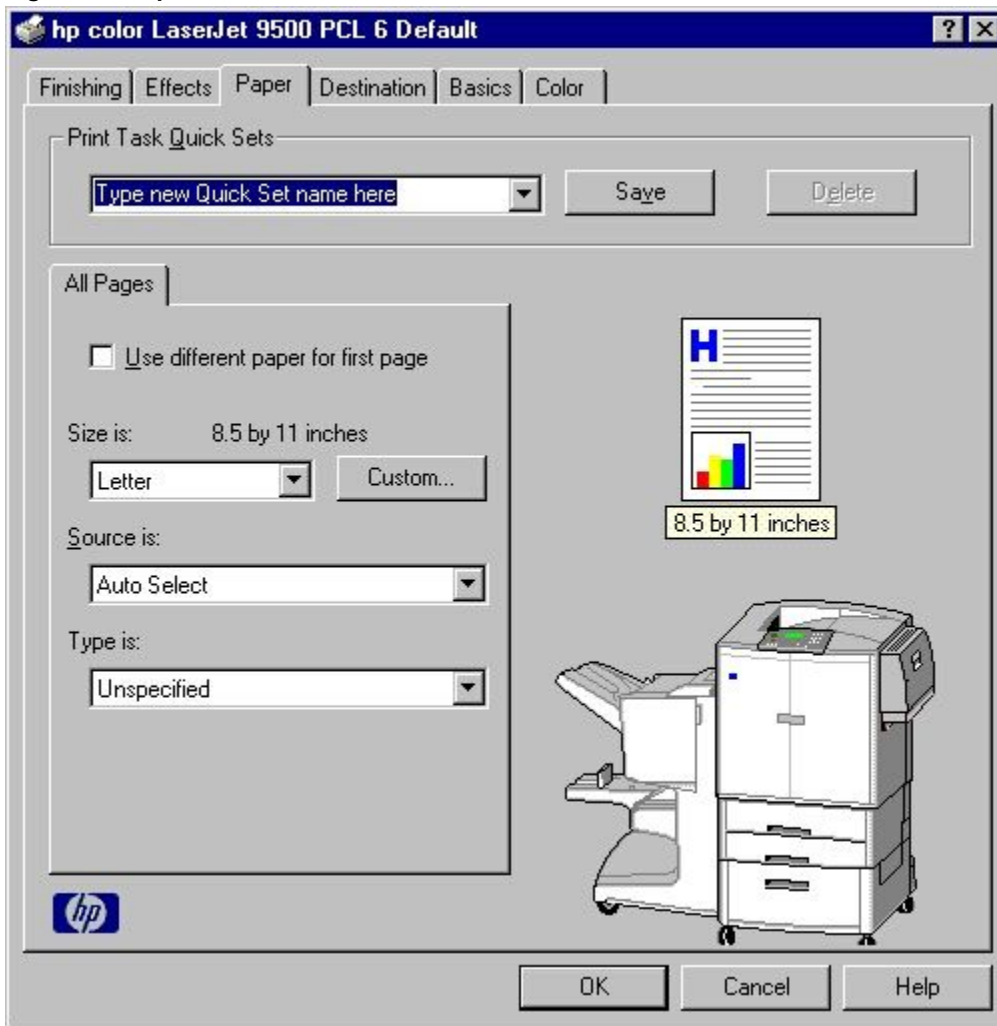
## Default settings

The default settings for new watermarks are **Arial** font, **Gray** color, **Very Light** shading, **150** points, and **Regular** style. The default settings for preset watermarks are **Arial** font, **Gray** color, **Very Light** shading, and **Bold** style. The default point size for preset watermarks is language-dependent, and varies.

## Paper tab features

Use the **Paper** tab to specify the size, type, and source of the media, as well as to define a custom paper size. If you want to, you can use this tab to indicate different paper-selection choices for the first page and back cover of the document. The following illustration shows the **Paper** tab.

Figure 23: Paper tab



The **Paper** tab contains the following controls.

- **Print Task Quick Sets** group box
- Document preview image
- Printer image
- **All Pages** minitab set

The first group box in the upper-left portion of the **Paper** tab view is **Print Task Quick Sets**. This feature is described in the "Finishing tab features" section. Any change to the **Print Task Quick Sets** group box that is made on the **Paper** tab affects the group box on the **Finishing** tab and on the **Destination** tab, and vice versa - they are all one and the same control.



## Print Task Quick Sets

The **Print Task Quick Sets** control is used to store the current combination of driver settings that are found on all other **Document Defaults** or **Printing Preferences** driver tabs. Print task quick sets are either preset or user-defined printing specifications, such as paper size and pages per sheet. For more information, see the "Finishing tab features" section of this guide.

## Document preview image

The document preview image is a color, line-drawn image of a page that represents graphics and text. The preview image appears in the upper-right corner of all of the **Document Defaults** or **Printing Preferences** driver tabs (the **Finishing**, **Effects**, **Paper**, **Destination**, **Basics**, and **Color** tabs). For more information about the document preview image, see the "Finishing tab features" section of this document.

## Printer image

The bitmap image in the lower-right portion of the **Paper** tab represents the current physical configuration of the printer and corresponds to its configuration data, either obtained automatically through bidirectional communication or configured manually. The bitmap image should look the same as the image that appears in the same location on the **Destination** tab and the **Configure** tab.

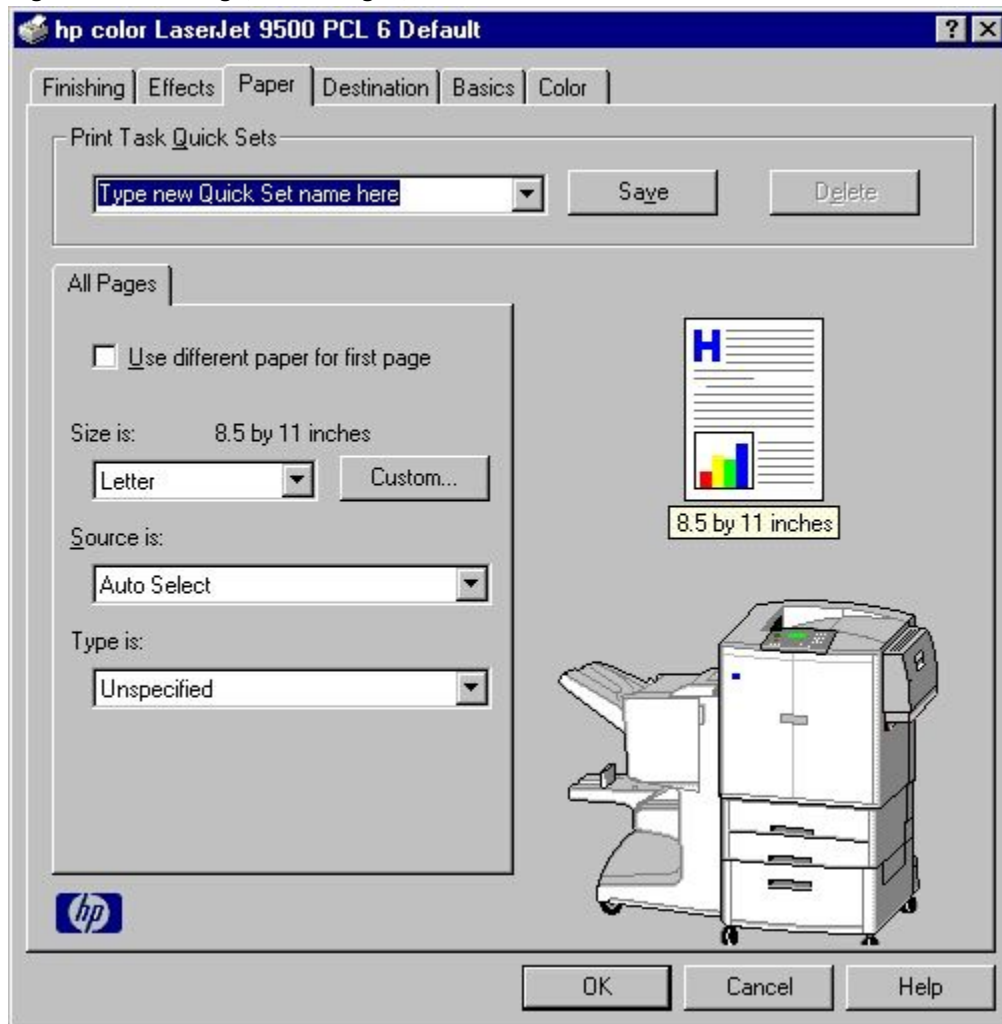
On the **Paper** tab, the printer image contains hot spots where you can select a paper source. When the pointer moves over a hot spot, the arrow reverts to the gloved hand used in the Bubble Help, the preview image, and other areas. The current paper source, whether selected from the drop-down menu or from a printer-image hot spot, is highlighted in bright green on the printer bitmap. The following points are worth noting:

- The **Auto Select** setting in the **Source is:** drop-down menu does not have a corresponding area to highlight in the printer image. Selecting other settings in this menu highlights the corresponding area in the printer image.
- Selecting the area that represents tray in the bitmap always selects the corresponding tray in the **Source is:** option. **Manual Feed**, which is available from the **Source is:** option, cannot be selected by selecting the bitmap.
- On the **Paper** tab, only input trays have printer-image hot spots and can be highlighted. Output bins must be selected from the **Destination** tab.

## All Pages minitab set

The controls on this minitab are contained in an **All Pages** minitab. As the name implies, this means that the settings specified on that minitab apply to all of the pages of the document. The following illustration shows the **All Pages** minitab set.

Figure 24: First Page, Other Pages, and Back Cover minitabs



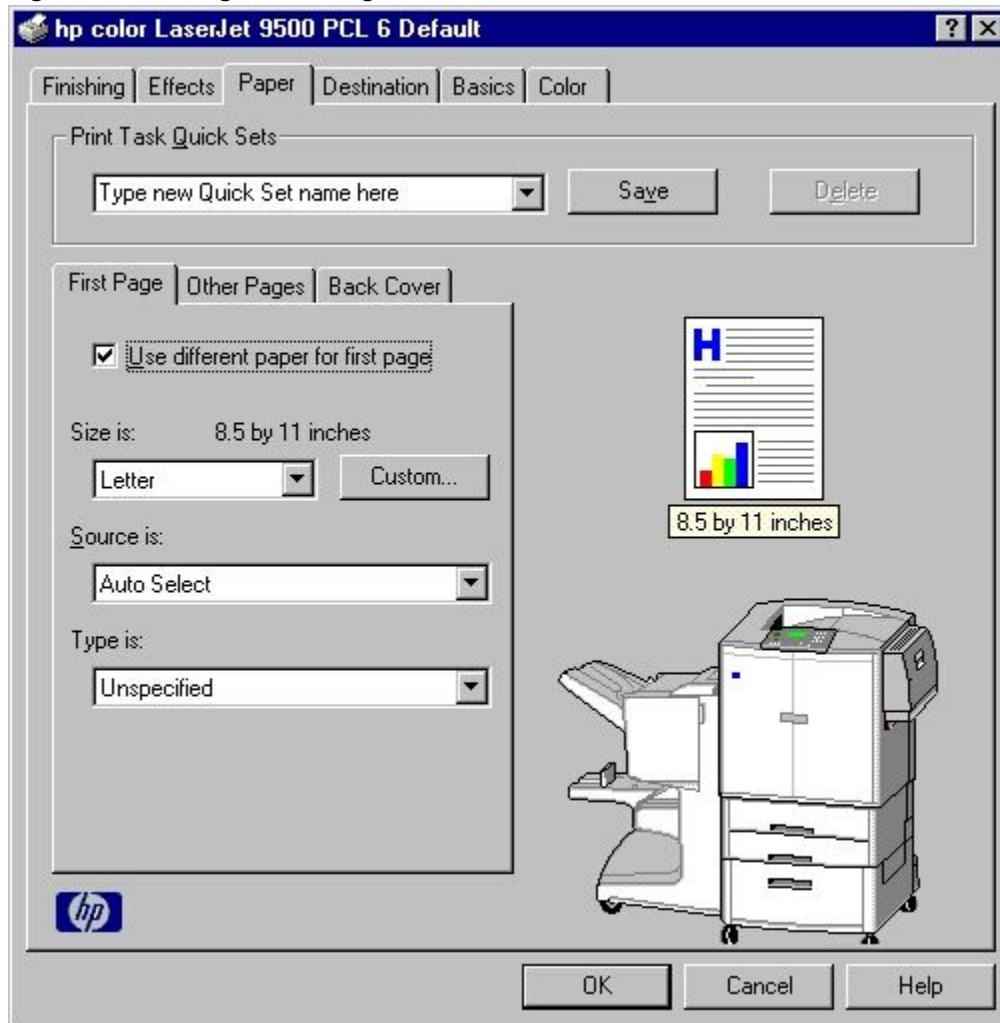
**Note** The printer image shown in the following illustration might differ from your HP Color LaserJet 9500 series printer, depending on the model number and accessory devices.

When you select the **Use different paper for first page** check box, the **All Pages** minitab is replaced by the following minitabs.

- **First Page**, which contains the same controls as **All Pages**.
- **Other Pages**, which contains different controls, as noted in the following sections.
- **Back Cover**, which also contains different controls, as noted in the following sections.

The following illustration shows the **First Page**, **Other Pages**, and **Back Cover** minitabs.

**Figure 25: First Page, Other Pages, and Back Cover minitabs**



## Using the First Page and Other Pages minitabs

A cover can have two forms, depending on the type of booklet you are printing:

- For a full-size book (for example, Letter size, Letter type), select a different media for the first page and add an extra blank back page. The front cover can contain print or be a blank page, and can either be pulled from a different paper source or be of another media type. The back cover can be printed on a different media from the front cover.
- For two-page-per-sheet (2-up) booklet printing, you can obtain a cover by selecting a different media for the first page only. The back cover setting is hidden, because this page would otherwise be printed in the middle of a booklet.

Whenever you make changes to all of the pages (that is, when **Use different paper for first page** is not selected), these changes are reflected in both the **First Page** and **Other Pages** settings whenever you set "Use different paper".

## First Page minitab

The **All Pages** minitab turns into three minitabs when you select the **Use different paper for first page** check box: **First Page**, **Other Pages**, and **Back Cover**. The **First Page** minitab is shown in the following illustration.

Figure 26: First Page minitab



The **First Page** minitab contains the following controls.

- **Use different paper for first page** check box
- **Size is:** drop-down menu
- **Custom** button, which opens the **Custom Paper Size** dialog box

### Use different paper for first page check box

To select different media for the first page of a print job, follow these steps:

1. Click **File**, click **Print**, and then click **Properties**.
2. Click the **Paper** tab, and then select the **Use different paper for first page** check box.
3. Click the **First Page** tab. In the **Size is:**, **Source is:**, and **Type is:** drop-down menus, select the size, source, and type settings for your cover.

### Size is: drop-down menu

This feature actually functions as two controls: a drop-down menu that contains all of the supported media sizes (including any user-defined custom sizes) and a text label that indicates the dimensions of the selected size.

Moving the pointer over the text label causes the arrow to change to a gloved hand, indicating that the area beneath the pointer is selectable. Clicking here toggles the units of measure between inches and millimeters, offering the same options on the dimensions label in the preview image. Selecting a new size from the drop-down menu updates the media-dimensions text label as well as the preview image. Changing the orientation (on the **Basics** tab) also updates the dimensions text label.

You can specify size only for the first page or for all of the pages. On the **Other Pages** and **Back Cover** minitabs, the **Size is** drop-down menu does not appear because the media size must be consistent for all of the pages of the job. Certain software programs can override this command and specify different media sizes within a single document. Any change in the media size selection causes the **Booklet Printing** feature to be turned off.

## Custom button

The **Custom Paper Size** dialog box appears when you click the **Custom** button on the **Paper** tab. The following illustration shows the initial appearance of the **Custom Paper Size** dialog box.

Figure 27: Custom Paper Size dialog box



When the **Custom Paper Size** dialog box appears, the drop-down menu content in the **Name** group contains is dependent on the current paper size selection in the **Paper** tab:

- If the paper size selection is a previously defined custom size, then the drop-down menu contains the name of that custom size.
- If the paper size selection is a standard paper size, then the drop-down menu shows the default name **Untitled** for a custom paper size.

### Note

In Windows 95, Windows 98, and Windows Me, two names for the same size media can coexist (for example, "big" and "BIG" can both be used as names for custom-size paper measuring 8.4 inches by 11 inches). In Windows NT 4.0, Windows 2000, Windows XP, and Windows Server 2003, both uppercase and lowercase names can be used, but they cannot be used to name the same paper size.

The new name is compared only against the list of user-defined custom paper-size names, and not against the standard paper-size names.

The complete set of titles for this button and the specific characteristics that determine its title and capabilities are discussed in the "Dynamic command button" section of this guide.

## Name drop-down menu

The **Name** drop-down menu shows the name of the last selected custom paper size. Use the **Name** drop-down menu to type new names for custom paper sizes and to select from the list of currently defined custom paper sizes.

The name that appears in the **Name** drop-down menu is dependent on the following conditions:

- If a saved custom paper size has been selected from the drop-down menu and the other controls in the dialog box have not been changed since then, the **Name** drop-down menu shows the name of the last selected custom paper size.
- If the width or height controls have been changed since a custom size was selected or saved, or if a saved paper size has just been deleted, then the **Name** drop-down menu shows the default name of **Untitled**.
- If a new name has been typed into the **Name** drop-down menu for the purpose of saving a new size or renaming an existing size, then that new name remains in the drop-down menu until a saved custom paper size is selected from the drop-down menu.

If you type a new name into the **Name** drop-down menu, but then do not click the **Save** button, you should be able to change the width and height values without losing the name. However, if a saved paper-size name is selected from the drop-down menu, any unsaved name or size values are lost without warning, and replaced by the values of the selected custom paper size.

## Dynamic command button

The button located to the right of the **Name** drop-down menu has three possible labels: **Save**, **Delete**, and **Rename**.

- **Save** is the button title whenever the height and width values have been changed since the last save or since the selection of an existing custom paper size. Clicking the button causes the name in the **Name** drop-down menu to be compared against each of the saved names. If a duplicate is found, a dialog box appears, asking if it is okay to replace the existing item. If you click **Yes**, the old item is updated with the new values. If you click **No**, the driver returns to the **Custom Paper Size** dialog box, where you can type a different name. The new name is compared only against the list of user-defined custom paper names, and not against the standard paper-size names. Whenever the command button has the **Save** title, it is the default button.
- **Delete** is the button title whenever the name of an existing (previously saved) custom paper size appears in the **Name** drop-down menu, such as immediately after selecting an item from the drop-down menu or clicking the **Save** button. Clicking the **Delete** button causes the saved custom paper size to be deleted, after which the **Name** drop-down menu changes to **Untitled**, the height and width controls are unchanged, and the button title changes to **Save**.
- **Rename** is the button title when you type something into the **Name** drop-down menu after selecting an existing custom paper size from the drop-down menu. If no duplicate is found, the name of the stored custom paper size changes to match the contents of the **Name** drop-down menu. Whenever the command button has the **Rename** title, it is also the default button.

The following table illustrates the relationships between the **Name** drop-down menu, the command button, and the actions that take you from one state to another.

**Table 16: Name drop-down menu text strings**

State	Drop-down menu contents	Button label	Action	Next state
1	Untitled	Save	Click <b>Save</b>	3
			Type something into the <b>Name</b> drop-down menu	2
			Change the width or height values	1
			Select a saved item from the drop-down menu	3
2	<user-typed text>	Save	Click <b>Save</b>	3
			Type something into the <b>Name</b> drop-down menu	2
			Change the width or height values	2
			Select a saved item from the drop-down menu	3
3	<name of saved item>	Delete	Click <b>Delete</b>	1
			Type something into the <b>Name</b> drop-down menu	4
			Change the width or height values	1
			Select a saved item from the drop-down menu	3

State	Drop-down menu contents	Button label	Action	Next state
4	<user-typed text>	Rename	Click <b>Rename</b> (when the name is unique)	3
			Click <b>Rename</b> (when the name is a duplicate)	4
			Type something into the <b>Name</b> drop-down menu	4
			Change the width or height values	2
			Select a saved item from the drop-down menu	3

## Width and height controls

The width and height values can be changed either by typing numeric strings into the edit boxes, or by using the up and down arrows.

Any entry that is greater than the maximum limits of the width and height control is rounded down to the maximum valid entry, while any entry that is smaller than the minimum limits of the width and height control is rounded up to the minimum valid entry. See the "Custom width and height control limits" section of this guide.

If units are in millimeters, the custom paper-size range minimum is the limit rounded up to the nearest whole millimeter. The custom paper-size range maximum is the limit rounded down to the nearest whole millimeter. Any non-numerical entry reverts to the last valid entry. Width and height entries are validated when the focus has changed.

The resolution of each control is one millimeter or one-tenth of an inch, depending on the current measurement units. Clicking the up and down arrows increases or decreases the current value by the increment amount (within the allowed range of values). The computer determines the rate at which the values change.

Unit indicator labels change dynamically to indicate inches or millimeters, depending on the measurement units the driver is currently using. To change measurement units, click the **Measurement Units** button.

## Custom width and height control limits

The minimum paper size for the HP Color LaserJet 9500 series printer is 98 mm by 191 mm (3.86 inches by 7.5 inches) and the maximum is 311 mm by 469 mm (12.23 inches by 18.5 inches). The following table summarizes paper size limits for each paper-handling device.

**Table 17: Custom width and height limits for the HP Color LaserJet 9500 series printer**

Media source or paper-handling accessory	Minimum size - width by height	Maximum size - width by height
Tray 1 (multipurpose)	98 mm by 191 mm (3.86 inches by 7.5 inches)	306 mm by 469 mm (12.05 inches by 18.5 inches)
Tray 2	148 mm by 210 mm (5.83 inches by 8.27 inches)	296 mm by 432 mm (11.69 inches by 17.0 inches)
Tray 3	148 mm by 210 mm (5.83 inches by 8.27 inches)	296 mm by 432 mm (11.69 inches by 17.0 inches)
Tray 4 <sup>1</sup>	182 mm by 210 mm (7.17 inches by 8.27 inches)	296 mm by 432 mm (11.69 inches by 17.01 inches)
Duplex printing accessory	148 mm by 210 mm (5.83 inches by 8.27 inches)	311 mm by 469 mm (12.28 inches by 18.5 inches)

1- Tray 4 is available for the HP Color LaserJet 9500hdn only.

## Paper and envelope icons

The paper and envelope icons visually define width and height.

## Measurement Units button

Use the **Measurement Units** button to toggle the unit of measurement between standard (inches) and metric (millimeters) units of measurement.

## Close button

The **Close** button closes the **Custom Paper Size** dialog box according to the logic in the following table. In all cases, any custom paper sizes that are successfully saved (and not renamed or deleted) while the dialog box is open will remain in the paper size list in the **Paper** tab. The following table lists options that appear when you click the **Close** button.

**Table 18: Close dialog box text strings**

If the drop-down menu contains ...	And the button says ...	Then this happens when you click the Close button
Untitled	Save	The dialog box closes, but you lose the changes that were not saved. The current paper size remains the same as it was when the <b>Custom</b> button was selected.
<user-typed text>	Save	The dialog box closes, but you lose the changes that were not saved. The current paper size remains the same as it was when the <b>Custom</b> button was selected.
<name of saved item>	Delete	The dialog box closes, and the current paper size is set to that which was last shown in the drop-down menu.
<user-typed text>	Rename	The dialog box closes, but you lose the changes that were not saved. The current paper size remains the same as it was when the <b>Custom</b> button was selected.

## Source is: drop-down menu

The **Source is:** setting specifies the paper source to use for printing a document. Different printer models support different paper sources. The list of paper sources depends on the printer model and its accessories. Any optional paper trays that are installed through the **Configure** tab are also shown here.

The **Source is:** drop-down menu can contain the following options:

- **Auto Select**
- **Manual Feed**
- **Tray 1**
- **Tray 2** (500-sheet tray)
- **Tray 3** (500-sheet tray)
- **Tray 4** (2000-sheet tray)

### Note

Tray 4 is available for the HP Color LaserJet 9500hdn only.



The default setting is **Auto Select**. When this setting is selected, the printer uses the paper tray that supports the media size that you have selected. If you select a paper source other than **Auto Select**, make sure that the correct paper size is loaded in the paper source.

If a conflict exists among paper source, size, and type, and you choose to keep the conflicting settings, the settings are processed in the following order: paper size, paper type, and then paper source.

For information about media sizes and types, see the "Media attributes" section of this guide.

## Type Is

The **Type Is** drop-down menu shows all of the the paper types that the HP Color LaserJet 9500 series printer supports, as well as any user-defined types that have been created by a network administrator. The default setting is **Unspecified**, which allows the software program to select the paper type.

You cannot manually add custom paper types through the driver. Custom sizes can be added only if you use the bidirectional communication mechanism, so the sizes must already exist in the printer when the bidirectional query occurs. If bidirectional communication is enabled, then the information returned is an updated list of paper types. If bidirectional communication is not enabled, then the driver looks for custom paper types saved from a previous bidirectional communication query, and uses those. Otherwise, no custom paper types are available through the driver.

The following standard types appear in the lists:

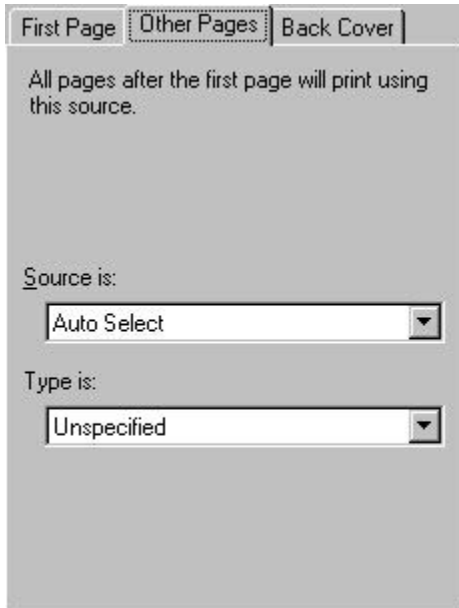
- Bond
- Cardstock (> 164 g/m<sup>2</sup>)
- Color
- Glossy (75 - 105 g/m<sup>2</sup>)
- Envelope
- Heavy (106 - 163 g/m<sup>2</sup>)
- HP Heavy Glossy
- Labels
- Letterhead
- Light (< 75 g/m<sup>2</sup>)
- Non-HP Heavy Glossy
- Plain
- Preprinted
- Prepunched
- Recycled
- Tough Paper
- Transparency
- Unspecified

For more information about media types and sizes, see the "Media attributes" section of this guide.

## Other Pages minitab

Use the **Other Pages** minitab to select an alternative media type or source for the pages that follow the first page of a document. The following illustration shows the **Other Pages** minitab.

**Figure 28: Other Pages minitab**



First Page | **Other Pages** | Back Cover

All pages after the first page will print using this source.

Source is:  
Auto Select

Type is:  
Unspecified

The **Other Pages** minitab contains the following controls.

- **Source is:** drop-down menu
- **Type is:** drop-down menu

### Source is: drop-down menu

The **Source is:** setting specifies the paper source to use for printing a document. Different printer models support different paper sources. The list of paper sources depends on the printer model and its accessories. Any optional paper trays that are installed through the **Configure** tab are also shown here. For more information about the **Source Is:** setting, see the "First Page minitab" section of this guide.

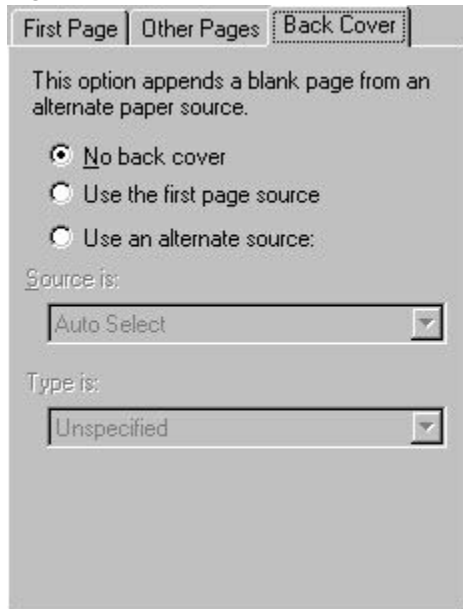
### Type is: drop-down menu

The **Type is:** drop-down menu shows all of the the media types supported by the printer, as well as any user-defined types that have been created by a network administrator using Web JetAdmin. When you use the default setting, **Unspecified**, the printer uses the default media type, usually **Plain**.

## Back Cover minitab

The **Back Cover** minitab allows you to include a blank back cover on a document, or to include a back cover from a paper source different from that used for the remainder of the document. Use the **Back Cover** minitab to select an alternative media source (or the same source as **First Page**) from which a blank page is drawn and placed after the final page of the body of the document. The following illustration shows the **Back Cover** minitab.

Figure 29: Back Cover minitab



The **Back Cover** minitab is not available when **Booklet Printing:** is enabled on the **Finishing** tab.

The minitab contains three option buttons.

- **No back cover** option button (default)
- **Use the first page source** option button
- **Use an alternate source** option button

### No Back Cover option button

**No back cover** is selected as the default. The **Source is** and **Type is** drop-down menus are disabled, but their values are not changed. No Bubble Help is available for the inactive drop-down menus. The settings revert to defaults when **Use different paper for first page** is selected again.

### Use the first page source option button

Clicking **Use the first page source** changes the value of the **Source is:** and **Type is:** drop-down menus to match the first page, if necessary, but the drop-down menus are inactive.

### Use an alternate source option button

Clicking **Use an alternate source** activates the drop-down menus. The drop-down menu value defaults to the same source as that chosen for the **First Page** minitab.

Two drop-down menus become available when **Use an alternate source** is selected:

- **Source is:** drop-down menu (default)
- **Type is:** drop-down menu

## Source is: drop-down menu

The **Source is:** setting specifies the paper source to use for printing a document. Different printer models support different paper sources. The list of paper sources depends on the printer model and its accessories. Any optional paper trays that are installed through the **Configure** tab are also shown here. For more information about the **Source Is:** setting, see the "First Page minitab" section of this guide.

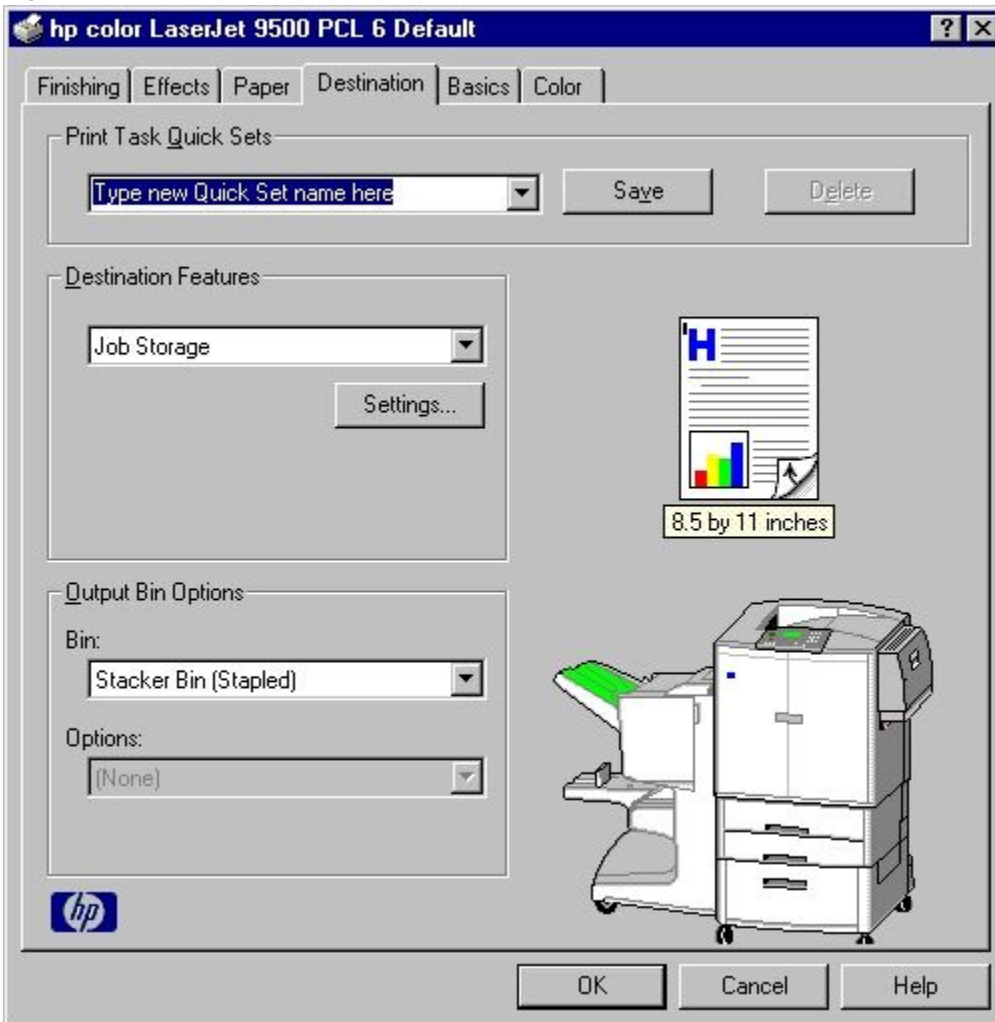
## Type is: drop-down menu

The **Type is:** drop-down menu shows all of the the media types supported by the printer, as well as any user-defined types that have been created by a network administrator using Web JetAdmin. When you use the default setting, **Unspecified**, the printer uses the default media type, usually **Plain**.

## Destination tab features

The **Destination** tab provides options for job storage and output bin selection. The following illustration shows the **Destination** tab.

Figure 30: Destination tab



The **Destination** tab contains the following controls.

- **Print Task Quick Sets** group box
- **Destination Features** group box (visible only if the printer has a hard disk installed and configured)
- **Output Bin Options** group box
- Document preview image
- Printer image

## Print Task Quick Sets

Use the **Print Task Quick Sets** control to store the current combination of driver settings that are found on all other **Document Defaults** or **Printing Preferences** driver tabs. **Print Task Quick Sets** are either preset or user-defined printing specifications, such as paper size and pages per sheet. For more information, see the "Finishing tab features" section of this guide.

## Destination Features

The **Destination Features** group box contains the **Job Storage** drop-down menu and the **Job Storage Settings** button. Clicking **Settings** opens the **Job Storage Settings** dialog box.

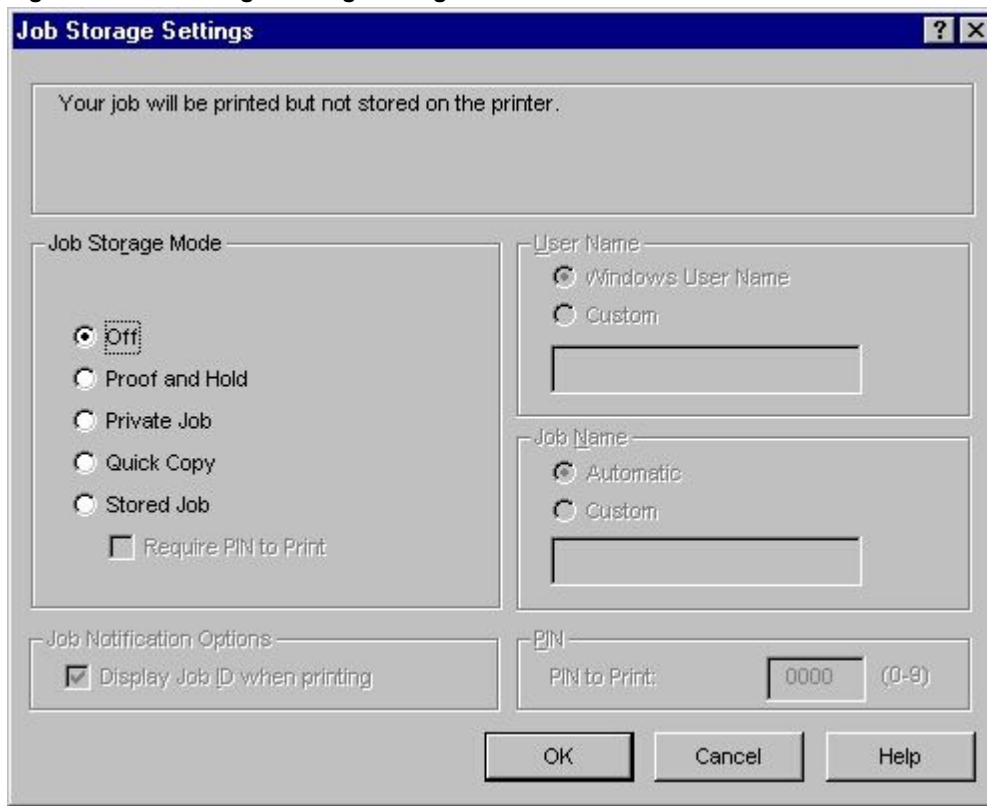
### Note

To see the **Destination Features** group box to use the **Job Storage** options, the printer must have a hard disk installed. A printer hard disk is an optional feature for the HP Color LaserJet 9500n printer and a standard feature of the HP Color LaserJet 9500hdn printer. In addition to having a hard disk installed, the printer must also have the **Printer Hard Disk** selected in the **More** dialog box of the **Configure** tab.

## Job Storage Settings dialog box

The following illustration shows the **Job Storage Settings** dialog box.

Figure 31: Job Storage Settings dialog box



The **Job Storage Settings** dialog box contains the following controls.

- **Job Storage Mode** group box
- **Job Notification Options** group box
- **User Name** group box
- **Job Name** group box
- **PIN** group box

## Job Storage mode

Using the **Job Storage** feature on the HP Color LaserJet 9500 series printer, you can store documents at the printer and then control their printing at the printer control panel. This feature is intended to provide greater flexibility, convenience, security, and cost savings.

The HP Color LaserJet 9500 printer offers the following **Job Storage Mode** options:

- **Off**
- **Proof and Hold**
- **Private Job**
- **Quick Copy**
- **Stored Job**

These features and the settings that control them are described below.

### Off

When selected, this option turns the **Job Storage** feature off (it is disabled), which means that the print job will not be stored in the printer.

### Proof and Hold

When selected, this option stores the print job and prints only the first copy of the job, allowing you to check the first copy. If the document prints correctly, you can print the remaining copies of the print job at the printer control panel. You can set the number of proof-and-hold print jobs that can be stored in the printer at the printer control panel.

After it is released for printing, the proof-and-hold job is immediately deleted from the printer. If more copies are needed, you must reprint the job from the software program. If you send a second proof-and-hold job to the printer with the same user name and job name as an existing proof-and-hold job (and you have not released the original job for printing), the job will overwrite the existing job. Proof-and-hold jobs are deleted if you disconnect the power to the printer.

### Private Job

Use this option to send a print job directly to the printer memory. Selecting **Private Job** activates the **PIN** field. The print job can be printed only after you type a PIN at the printer control panel. After the job is printed, the printer removes the job from the printer memory. This feature is useful when you are printing sensitive or confidential documents that you do not want to leave in an output bin after printing.

After it is released for printing, the private job is immediately deleted from the printer. If more copies are needed, you must reprint the job from the software program. If you send a second private job to the printer with the same user name and job name as an existing private job (and you have not released the original job for printing), the job will overwrite the existing job, regardless of the PIN. Private jobs are deleted if you disconnect the power to the printer.

### Using a PIN for Private Job

The **Private Job** option can be secured by a four-digit personal identification number (PIN). You must type in this number at the printer control panel before the printer prints the job.

The box labeled **PIN** is usually inactive. Selecting **Private Job** activates the **PIN to Print:** box. The Private Job/PIN coupling has a PIN restriction of four ASCII numeric characters (ASCII 0-30 through 0-39). If you type non-numeric characters, they are removed immediately. If you type more than four characters, the characters past the fourth are truncated. The field temporarily accepts fewer than four digits in the string, but when the edit field loses focus, the zeroes pad the left end until there are exactly four digits. The default initialized value for the PIN is 0000 for **Private Job**.

## Quick Copy

When you select **Quick Copy**, a copy of the print job is stored on the hard disk, after which you can print additional copies of the print job at the control panel. The number of quick-copy print jobs that can be stored in the printer is set from the printer control panel.

**Note** The printer configuration can be set to hold a maximum of 50 quick-copy or proof-and-hold jobs. The number is set at the printer control panel in the **Configuration** menu, and the default is 32. When this preset limit is reached, a newer document will overwrite the oldest. Also, a document that has the same user and job name as one that is already stored on the hard disk will overwrite the existing document. **Quick Copy** jobs are deleted if you disconnect the power to the printer.

## Stored Job

Use the **Stored Job** option to send a print job directly to the printer hard disk. The print job is stored in the printer as if it is an electronic file cabinet. After the print job is stored in the printer hard disk, you can print the job at the printer control panel.

The job remains stored on the printer until it is deleted or overwritten by a document with the same user and job names. Stored jobs remain on the printer hard disk when power is interrupted. Use this feature for forms and other common or shared documents.

A stored job can be managed in two ways: as either a private or a public job. Use a private stored job to send a print job directly to the printer memory, which can then be printed only after you type in a PIN at the printer control panel. (You can set the PIN in the **Print** dialog box.) After the job is printed, the job remains in the printer memory and can be printed again at the printer control panel. This feature is useful when you are printing sensitive or confidential documents that you do not want to leave in an output bin after printing. Private mode is initiated by clicking the **Require PIN to Print** check box. In this mode, a PIN typed at the control panel is required to release the job.

The box labeled PIN is usually inactive. The **Require PIN to Print** option is activated if you click **Stored Job**. If selected, you must enter a PIN to make the stored job private.

**Note** A private stored job is not the same as a private job (see above). Private jobs are deleted from the printer memory after they are printed. Private stored jobs are retained in the printer memory after printing, but require that a PIN be typed each time they are printed.

## Job notification options

When you use a **Job Storage** feature, your document is identified at the printer control panel by user name and job name. You can also use a PIN to make your print job more secure.

Clicking the **Display Job ID when printing** check box causes the **User Name**, **Job Name**, and **PIN** group boxes to become available. The **Display Job ID when printing** check box is selected by default.

## User Name

Use the **User Name** edit box to identify the job at the printer control panel. When the driver is first installed (or when **Default Print Settings** in the **Print Task Quick Sets** drop-down menu is selected), this string initializes to the empty string (""), but the dialog box detects this condition and replaces the string with your login name in Windows 95, Windows 98, and Windows NT 4.0. Restrictions for the **User Name** field are described in the "Job Name" section of this guide.

## Job Name

Use the **Job Name** edit box to specify a name to identify the job at the printer control panel. When the driver is first installed (or when **Default Print Settings** in the **Print Task Quick Sets** drop-down menu is selected), this string initializes to the empty string (""), but the dialog box detects this condition and replaces the string with **Untitled**.

The **Job Name** and the **User Name** fields can contain no more than 16 characters each, and are limited to A through Z and 0 through 9 because the name appears on the printer control panel display. If you try to type a lowercase character, it automatically shifts to uppercase. If you try to type a character with an ASCII code of fewer than 32 or more than 126 characters, the character is removed from the edit field, along with all of the characters that follow it. If you try to type more than 16 characters, any character beyond 16 is truncated.

When the dialog box is closed, or as soon as the focus is removed from the control (that is, when the **Tab** key is pressed or another control is selected), an empty string is replaced with **Untitled**. In those languages for which **Untitled** cannot be translated without the use of invalid characters, the driver uses a string of three dashes. The acceptable characters for job name and user name vary for each operating system. The string must be of a length and type that can appear on the printer control panel display.

## PIN

The box labeled PIN is usually inactive. The **Require PIN to Print** option is activated if you click either of the following options.

- **Stored Job.** If selected, you must enter a PIN to make the stored job private. For more information, see the "Stored Job" section of this guide.
- **Private Job.** If selected, you must type in the PIN number at the printer control panel to make the job print. For more information, see the "Using a PIN for Private Job" section of this guide.

## Using Job Storage options when printing

You can use **Job Storage** options in the **Destination** tab of the printer driver.

**Note** The printer driver that is installed on your computer must be configured to use the **Job Storage** features. To enable **Job Storage**, click **Start**, click **Settings**, click **Printers**, and then right-click the printer icon. Click **Properties**, click the **Configure** tab, and then select the **Job Storage Enabled** check box.

1. Click **Print** from the software program. The **Print** dialog box appears.
2. Click **Properties**. The **Properties** dialog box appears.
3. Click the **Destination** tab to show the destination options.
4. Click **Job Storage** on the drop-down menu under **Destination Features**.
5. Click **Settings**. The **Job Storage Settings** dialog box appears. You can then select one of the Job Storage options described above by clicking the appropriate option button.

**Note** These instructions are specific to the Windows 95, Windows 98, Windows Me, and Windows NT 4.0 environments when using the latest available PCL 6 and PCL 5c drivers. The basic concepts of the **Job Storage** feature are the same for PS print jobs, but significant differences in the driver user interface exist. Also, some limitations in naming and PIN selection exist.

## Releasing private jobs stored at the printer

After you send a private job using the **Job Storage** feature, you can release the job to print by using the printer control panel.

1. Press the select button (the one with the check mark) to open the menus.
2. Press the up and down buttons to scroll to **RETRIEVE JOB**, and then press the select button.
3. Press the up and down buttons to scroll to the user name, and then press the select button.
4. Press the up and down buttons to scroll to the job name, and then press the select button.



5. Press the up and down buttons to scroll to PRINT. The PRINT selection has an icon next to it indicating that the job is locked and requires a PIN to print. Press the select button.
6. Type in the PIN using the control panel number pad, and then press the select button.
7. Indicate the number of copies you wish to print, and then press the select button. The default is one copy.
8. The private job prints and then is deleted from the hard disk.

## Deleting a print job

Sometimes it is necessary to delete a print job from the printer hard disk. You can do this by using the printer control panel.

1. Press the select button (the one with the check mark) to open the menus.
2. Press the up and down buttons to scroll to RETRIEVE JOB.
3. Press the up and down buttons to scroll to the user name, and then press the select button.
4. Press the up and down buttons to scroll to the job name, and then press the select button.
5. Press the up and down buttons to scroll to DELETE, and then press the select button.

### Note

The DELETE selection might have an icon next to it indicating that the job is locked. If so, type the PIN number, and then press the select button.

6. The stored print job is deleted and the printer returns to the Ready state.

## Output bin options

The **Output Bin Options** group box contains a drop-down menu that you can use to select an output bin from a list of configured output bins. Only output bins that are configured on the **Configure** tab appear in this drop-down menu.

The HP Color LaserJet 9500 series printer comes with two output bins. Print jobs use the top output bin when the rear output bin is closed. When the rear output bin is open, print jobs use this bin and emerge face-up from the printer.

The output bin options that can be selected in the driver are:

- The **Top Bin (Face-Down)** option refers to the main output bin at the top of the printer. The print jobs sent to this bin are delivered face-down. This option is always available and has no media size or type constraints beyond those determined by the printer hardware.

### Note

When using the face-down output bin, you must manually switch the bin between face-down and face-up output.

- The **Left Bin (Face-Up)** option refers to the bin on the left side of the printer. The print jobs sent to this bin are delivered face-up.

The HP Color LaserJet 9500hdn printer comes standard with one of the following output devices.

- **HP 3000-Sheet Stapler/Stacker.** This single 3000-sheet stacking device accommodates up to 3,000 sheets of Letter-sized and A4-sized paper, or up to 1,500 sheets of 11-inch by 17-inch and A3 paper. It provides multi-position stapling for up to 50 sheets of paper per document.
- **HP 3000-Sheet Stacker.** This single, 3000-sheet stacking device accommodates up to 3,000 sheets of Letter-sized and A4-sized paper, or up to 1,500 sheets of 11-inch by 17-inch and A3 paper.
- **HP Multifunction Finisher.** This booklet-printing device creates booklets and stapled documents in a variety of sizes.

## Options

The **Options** drop-down menu is inactive. You can use this setting to enable non-HP paper-handling devices.

## Document preview image

The document preview image is a color, line-drawn image of a page that represents graphics and text. The preview image appears in the upper-right corner of all of the **Document Defaults** or **Printing Preferences** driver tabs (the

**Finishing, Effects, Paper, Destination, Basics, and Color** tabs). For more information about the document preview image, see the "Finishing tab features" section of this document.

## Printer image

The bitmap image in the lower-right portion of the **Destination** tab represents the current physical configuration of the printer according to the driver configuration data (obtained automatically through bidirectional communication, or configured manually through the driver). The bitmap image should have the same appearance as the image in the same location on the **Paper** tab and the **Configure** tab.

**Note** The printer image shown in the illustration might differ from your HP Color LaserJet 9500 series printer, depending on the model number and the installed accessory devices.

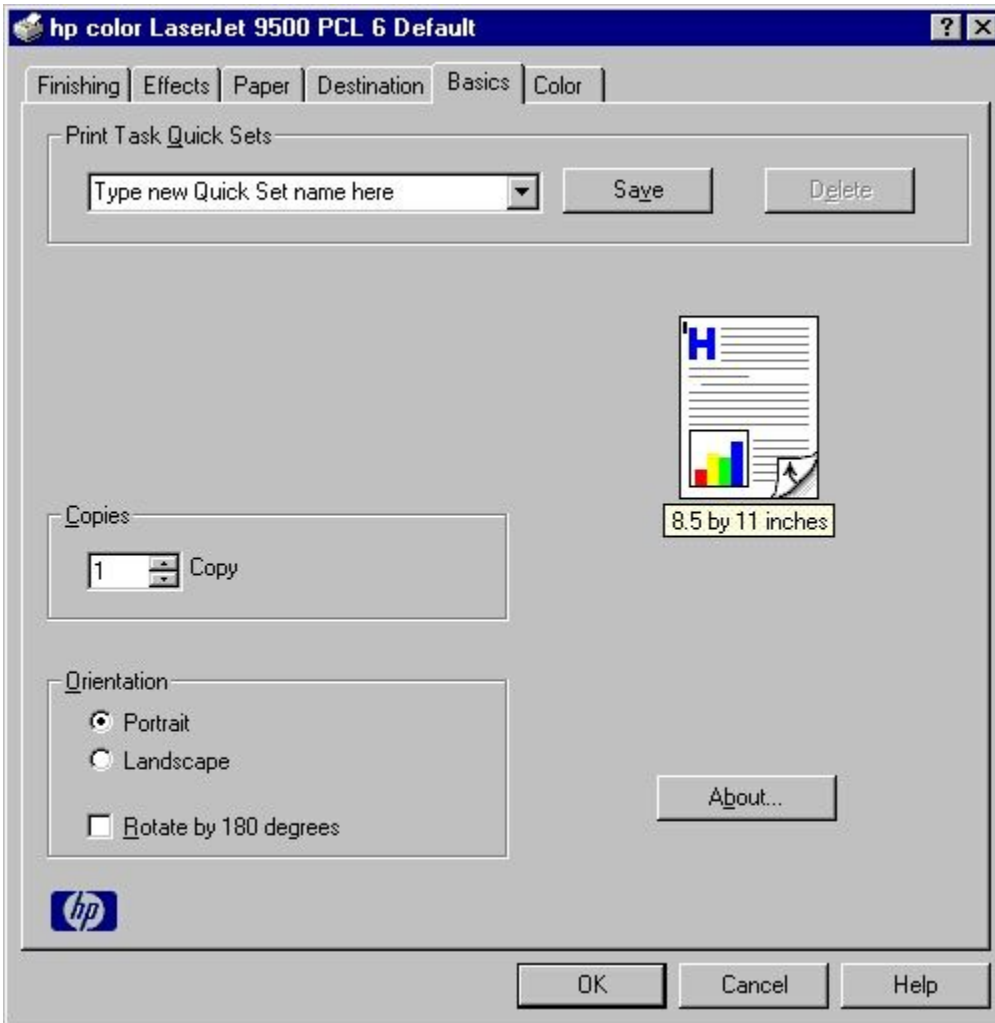
On the **Destination** tab, the printer image contains hot spots for selecting an output bin. When the pointer moves over a hot spot, the arrow reverts to the gloved hand used in the Bubble Help, the preview image, and other areas. The current output bin is highlighted in a bright green color on the printer bitmap.

**Note** On the **Destination** tab, only output bins have hot spots and can be highlighted; source trays must be selected from the **Paper** tab.

## Basics tab features

The **Basics** tab provides options for setting the number of copies to be printed and for the orientation of the print job. You can also use the **Basics** tab to retrieve information about the driver.

Figure 32: Basics tab



The **Basics** tab contains the following controls.

- **Print Task Quick Sets** group box
- **Copies** group box
- **Orientation** group box
- Document preview image
- **About** button

### Print Task Quick Sets

The **Print Task Quick Sets** control is used to store the current combination of driver settings that are found on all other **Document Defaults** or **Printing Preferences** driver tabs. **Print Task Quick Sets** are either preset or user-defined printing specifications, such as paper size and pages per sheet. For more information, see the "Finishing tab features" section of this guide.

## Copies

Use the **Copies** feature to specify the number of copies to print.

The number of copies you request appears in the **Copies** box. You can select the number by typing in the edit box or by using the up and down arrows to the right of the edit box. Valid entries are numbers from 1 to 9999 for the HP Color LaserJet 9500 series printer. The copies value does not advance from the maximum number (9999) to 1 when the up arrow is used, or change from 1 to the maximum number (9999) when the down arrow is used. When you click another group box or leave the **Basics** tab, invalid entries into the edit box (such as non-numerical input, numbers less than 1, or numbers greater than the maximum allowed) are changed to the last valid value that appeared in the box. The default number of copies is 1.

Conflicts between the software program you are using and the driver can arise because you can set the number of copies you want from some software programs. In most cases, the software program and the driver communicate, so that the number of copies set in one location (such as the software program) appears in the other (such as the driver). For some software programs, this communication does not take place, and the copies values are treated independently. For these software programs, setting 10 copies in the software program and then setting 10 copies in the driver results in 100 copies (10 x 10) being printed. It is recommended that you set the number of copies in the software program, whenever possible.

## Orientation

Orientation refers to the layout of the image on the page, and does not affect the manner in which media is fed into the printer. You can specify the orientation of the print job. The three available orientations are **Portrait**, **Landscape**, and **Rotated**. The default orientation is **Portrait**.

The three orientation options have these configurations:

- **Portrait**. The top edge of the document is the shorter edge of the paper.
- **Landscape**. The top edge of the document is the longer edge of the paper.
- **Rotate by 180 degrees**. This creates a landscape or portrait orientation in which the image is rotated 180 degrees. This setting is useful for printing envelopes and when using some third-party paper-handling devices.

You can toggle orientation between portrait and landscape by left-clicking the preview image. If you select the **Rotate by 180 degrees** check box, there is no change in the preview image.

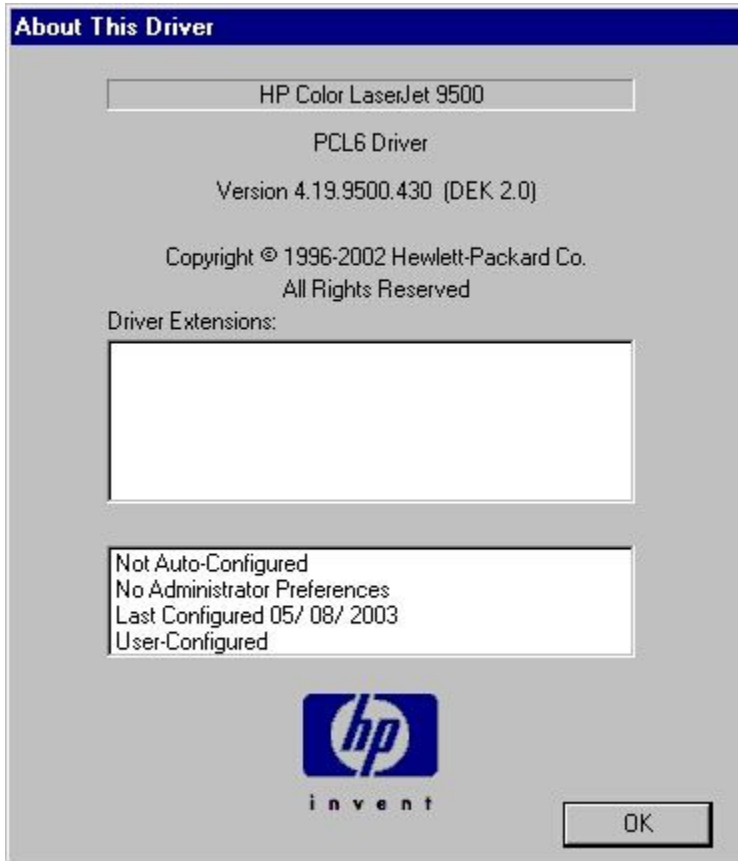
## Document preview image

The document preview image is a color, line-drawn image of a page that represents graphics and text. The preview image appears in the upper-right corner of all of the **Document Defaults** or **Printing Preferences** driver tabs (the **Finishing**, **Effects**, **Paper**, **Destination**, **Basics**, and **Color** tabs). For more information about the document preview image, see the "Finishing tab features" section of this document.

## About button

By clicking the **About** button on the **Basics** tab or clicking the HP logo on any of the driver property pages, the **About This Driver** dialog box appears. To close the **About** box, click **OK**, press **Esc**, press **Alt + F4**, or press **Enter**. The following figure shows the **About This Driver** dialog box. The information it contains varies according to the HP Color LaserJet 9500 model number, driver, date, and versions.

Figure 33: About This Driver dialog box



The **About** tab indicates whether the driver was autoconfigured, whether administrator preferences were set, the date the driver was last configured, and whether the configuration is default or user-defined.

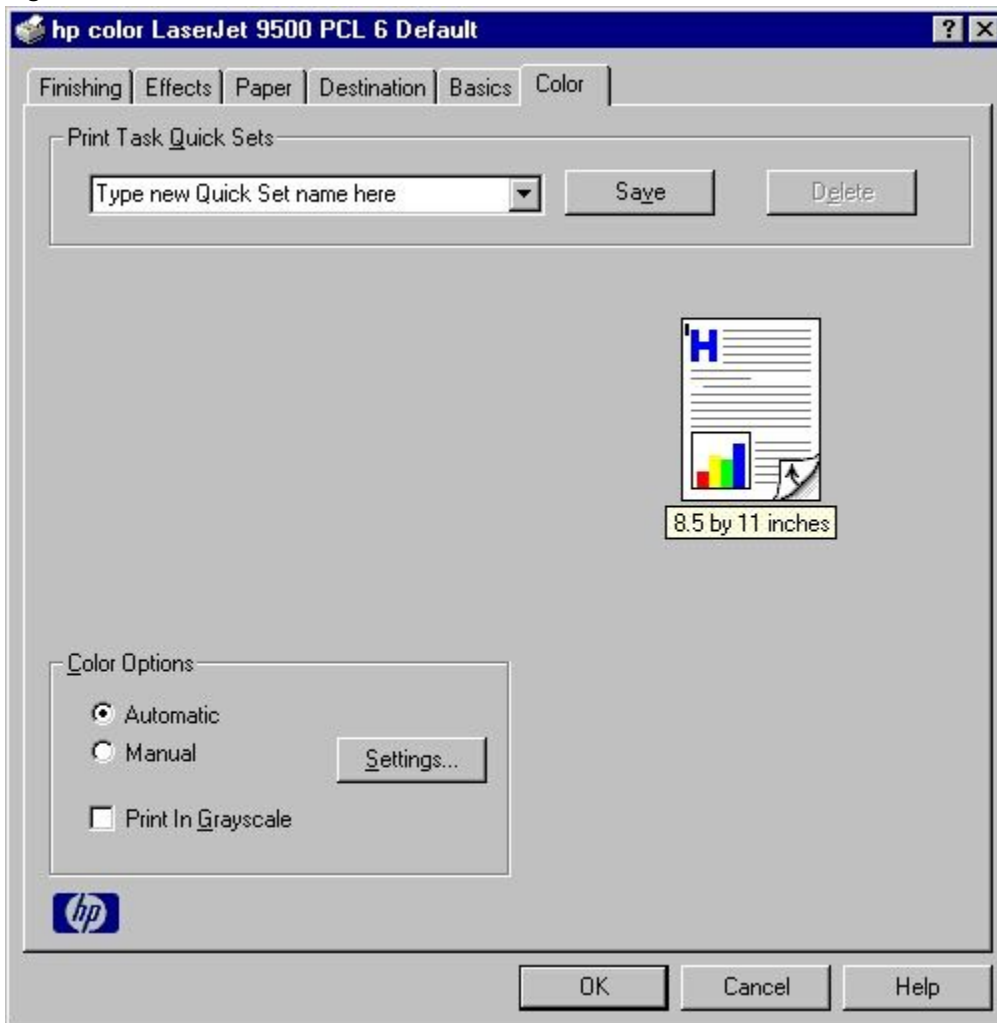
## Driver extensions

The **Driver Extensions** text box provides you with information about any extended driver functionality. It can contain a brief description of the driver extension and a version number.

## Color tab features

Use the **Color** tab to specify predefined color-option settings or to fine-tune the color treatments and halftone settings. Color output can also be converted to grayscale. The **Color** tab is shown in the following illustration.

Figure 34: Color tab



The **Color** tab contains the following controls.

- **Print Task Quick Sets** group box
- Document preview image
- **Color Options** group box

### Print Task Quick Sets

The **Print Task Quick Sets** control is used to store the current combination of driver settings that are found on all other **Document Defaults** or **Printing Preferences** driver tabs. **Print Task Quick Sets** are either preset or user-defined printing specifications, such as paper size and pages per sheet. For more information, see the "Finishing tab features" section of this guide.

## Document preview image

The document preview image is a color, line-drawn image of a page that represents graphics and text. The preview image appears in the upper-right corner of all of the **Document Defaults** or **Printing Preferences** driver tabs (the **Finishing**, **Effects**, **Paper**, **Destination**, **Basics**, and **Color** tabs). For more information about the document preview image, see the "Finishing tab features" section of this document.

## Color options

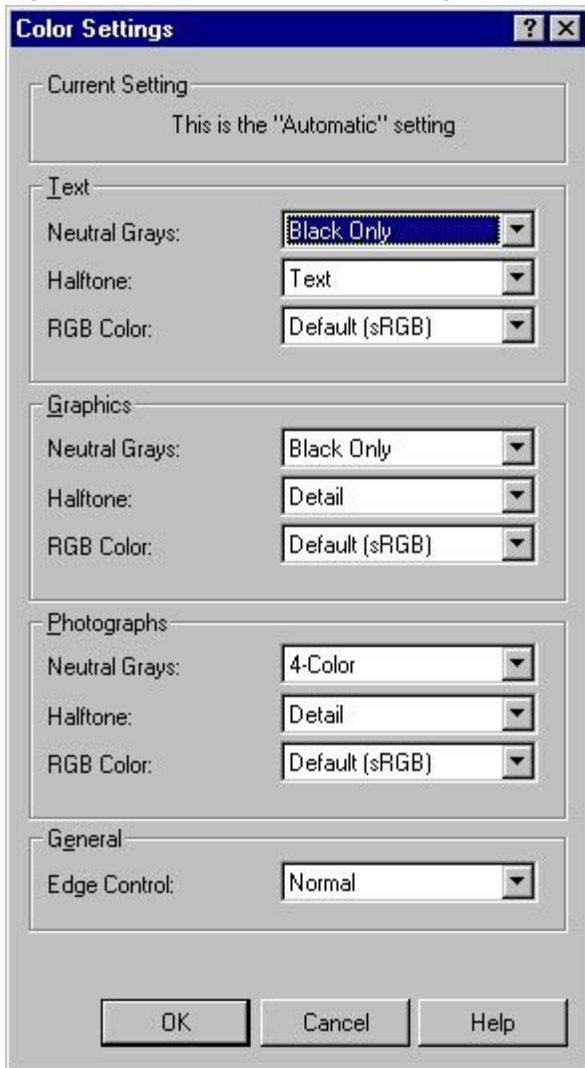
Use the **Color Options** group box to adjust the independent color controls. The settings affect the print job color rendering and print quality.

To use default coloration settings, click the **Automatic** option button. To change the default coloration settings, click the **Manual** option button, and then click the **Settings** button. To convert color information to grayscale and print the document in black and white, select the **Print in Grayscale** checkbox.

## Manual color settings

When you click the **Settings . . .** option button, the **Color Settings** dialog box appears. The default settings are shown in the following illustration. To change the settings, make your selections using the drop-down menus in the **Color Settings** dialog box, and then click **OK**. You are then prompted to save your selections as **Custom** or **Manual** settings.

Figure 35: Manual Color Options dialog box



The **Manual Color Options** dialog box gives you independent control of neutral grays and halftone for three major components: text, graphics, and photographs.

The **Neutral Grays** drop-down menu controls the selection of a device-dependent color table that is embedded in the printer firmware. The options are **Black Only** or **4-Color**. You can adjust the **Neutral Grays** setting independently for text, graphics, or photographs.

- **Black Only.** This option generates neutral colors (grays and blacks) using only black toner, which ensures that neutral colors do not have a color cast.
- **4-Color.** This option generates neutral colors by combining all four colors of toner, which produces smoother gradients and transitions to non-neutral colors. It also produces the darkest possible black.



The **Halftone** settings control the selection of a device-dependent halftone algorithm that is embedded in the printer firmware. The **Halftone** options, **Text** and **Detail**, affect the resolution and clarity of your color output. You can independently adjust halftone settings for text, graphics, and photos.

- **Text.** This option is optimized for the best reproduction of normal to small text and graphics that require sharp distinctions among lines or colors. Choose this option when the sharp edges of small objects, especially those that contain secondary colors (such as red, green, and blue), are the top priority.
- **Detail.** This option is optimized for the best reproduction of images, graphics, and large, solid-filled print areas. It also enhances photographs by smoothing out fine color gradations. Choose this option when the color fidelity of large objects is the top priority.

The **RGB Color** settings affect the color treatment for object types and determines how colors are rendered. The options are **Default (sRGB)**, **Device**, and **Vivid**.

- **Default (sRGB).** This option interprets RGB color as standard default RGB color space (sRGB), which is the accepted standard for many software companies and organizations such as Microsoft and the Worldwide Web Consortium.
- **Device.** This option sets the printer to print RGB data in the raw device mode. To render photographs properly when this option is selected, you must manage color in the software program in which you are working or in the operating system.
- **Vivid.** This option sets the printer to increase the color saturation in the midtones. Less colorful objects are rendered more colorfully. This value is recommended for printing business graphics.

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**Note**

If your software program converts text and graphics to raster, the **Photographs** settings also control the **Text** and **Graphics** settings.

The **General Color Options** settings are **Edge Control** and **RGB Color**. The **Edge Control** setting, which determines how edges are rendered, consists of two components: **Adaptive Halftoning** and **Trapping**. The **Adaptive Halftoning** setting increases the edge sharpness of text and graphics while maintaining the quality of area fills. The **Trapping** setting reduces the effect of color plane misregistration by slightly overlapping the edges of adjacent objects. The following options are available:

- **Off**, which sets **Trapping** and **Adaptive Halftoning** to **Off**.
- **Light**, which provides minimal trapping. **Adaptive Halftoning** is set to **On**.
- **Normal**, which provides the default **Trapping** setting. **Adaptive Halftoning** is set to **On**.
- **Maximum**, which provides the most trapping. **Adaptive Halftoning** is set to **On**.

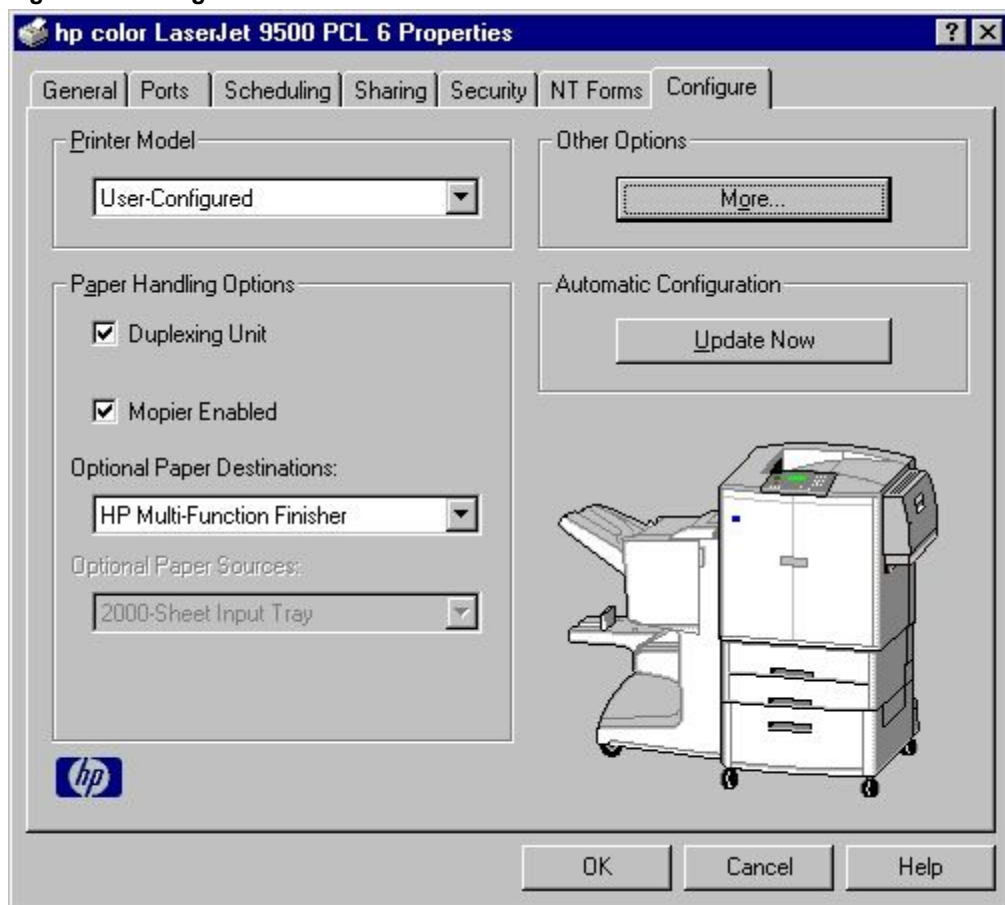
## Configure tab features

**Note** The **Configure** tab can be found in the **Properties** for the printer driver. To gain access to the printer driver **Properties**, click **Start** on your Window task bar, click **Settings**, and then click **Printers** (for Windows XP and Windows Server 2003, click **Printers and Faxes**). Right-click the printer name, and then click **Properties**.

Use the **Configure** tab to tell the driver about the hardware configuration of the printer. If bidirectional communication is enabled in a supported environment, set up the **Configure** tab by clicking the **Update Now** button. If your environment does not support bidirectional communication, the **Update Now** button is unavailable so you must manually configure the options on this tab.

The **Configure** tab is available when the driver is opened from the **Printers** folder by clicking **Properties**. When you open the driver from within a software program, the **Configure** tab is not visible (with a few exceptions, such as when using Excel 5.0 or Corel (R) Chart 4.0). When opened from the **Printers** folder, the **Configure** tab looks like the following illustration.

Figure 36: Configure tab



The **Configure** tab contains the following controls.

- **Printer Model** group box
- **Paper Handling Options** group box
- **Other Options** group box
- **Automatic Configuration** group box
- Printer image

## Printer Model group box

In the **Printer Model** group box, the driver title remains HP Color LaserJet 9500 for both models. If you select another printer model on the **Configure** tab, the appropriate changes to the other configuration options on the tab are also made.

## Printer model defaults

The following are the default settings for each printer model in the HP Color LaserJet 9500 printer series.

### HP Color LaserJet 9500n

When you select the HP Color LaserJet 9500n printer, the following settings apply.

#### On the Configure tab

- The **Total Printer Memory** value is 128 MB.
- The value shown in the **(DWS)** dialog box is 5.0 MB.
- The **Duplexing Unit** check box is not selected.
- The **Mopier Enabled** check box is not available and not selected.
- **Optional Paper Destinations** is set to **None**.
- **Optional Paper Sources** is set to **None**.

#### On the More Configuration Options dialog box

When you click the **More** button in the **Other Options** group box on the **Configure** tab, the **More Configuration Options** dialog box appears. The following defaults are found here.

- The **Printer Hard Disk** check box is not available and not selected.
- The **Job Storage Enabled** check box is not available and not selected.
- The **Font DIMM(s)** check box is not selected and the **Configure** button is not available.
- The **Ignore Application Collation** check box is not available and not selected.
- The **Include Types in Application Source List** check box is selected.

### HP Color LaserJet 9500hdn

When you select the HP Color LaserJet 9500hdn printer, the following settings apply:

#### On the Configure tab

- The **Total Printer Memory** value is 256 MB.
- The value shown in the **(DWS)** dialog box is 5.0 MB.
- The **Duplexing Unit** check box is selected.
- The **Mopier Enabled** check box is selected.
- **Optional Paper Destinations** is set to **None**.
- **Optional Paper Sources** is set to **2000-Sheet Paper Tray**.

## On the More Configuration Options dialog box

When you click the **More** button in the **Other Options** group box on the **Configure** tab, the **More Configuration Options** dialog box appears. The following defaults are found here.

- The **Printer Hard Disk** check box is selected.
- The **Job Storage Enabled** check box is selected.
- The **Font DIMM(s)** check box is not selected and the **Configure** button is not available.
- The **Ignore Application Collation** check box is selected.
- The **Include Types in Application Source List** check box is selected.

## Paper-handling options

The **Paper Handling Options** group box contains the following controls.

- **Duplexing Unit** check box
- **Mopier Enabled** check box
- **Optional Paper Destinations** drop-down menu
- **Optional Paper Sources** drop-down menu

## Duplexing unit

Select this option if a duplexing unit is installed in the printer. When the **Duplexing Unit** option is selected, additional controls appear in the **Document Options** group box on the **Finishing** tab. Unlike most of the options in this group box, the **Duplexing Unit** option does not affect the printer image because the duplexing unit is contained within the printer. To print on both sides of the paper, click **Print** from the program, click the **Properties** button, click the **Finishing** tab, and then click **Print on Both Sides**.

## Mopier enabled

A mopier is an HP-designed printer that produces multiple, collated copies from a single print job. Multiple-original printing (mopying) increases printer performance and reduces network traffic by sending the job to the printer once, then storing it. The remainder of the copies are printed at the fastest speed of the printer. All documents can be created, controlled, managed, and finished from the desktop, which eliminates the extra step of using a photocopier.

Both HP Color LaserJet 9500 printer models support the transmit-once mopying feature if the printer has a hard disk installed (the hard disk is standard on the HP Color LaserJet 9500hdn and is an available option for the HP Color LaserJet 9500n). The **Mopier Enabled** option is selected by default for the HP Color LaserJet 9500hdn printer.

## Optional Paper Destinations

The **Optional Paper Destinations** drop-down menu contains the following options:

- **(None)**
- **HP Multi-Function Finisher**
- **HP 3000-Sheet Stapler/Stacker**
- **HP 3000-Sheet Stacker**

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### Note

The optional paper destinations are available for the HP Color LaserJet 9500hdn only, although the options appear in the driver for the HP Color LaserJet 9500n also.

## Optional Paper Sources

The **Optional Paper Sources** drop-down menu lists optional paper sources for the HP Color LaserJet 9500 series printer. The list of available paper sources varies, depending on your printer, its input accessories, and the printer configuration settings on the **Configure** tab.

For the HP Color LaserJet 9500 series printer, two optional paper sources are available. The settings in the **Optional Paper Sources** drop-down menu are as follows:

- **(None)** (the default setting for the HP Color LaserJet 9500n printer)
- **2000-Sheet Input Tray** (the default setting for the HP Color LaserJet 9500hdn printer)

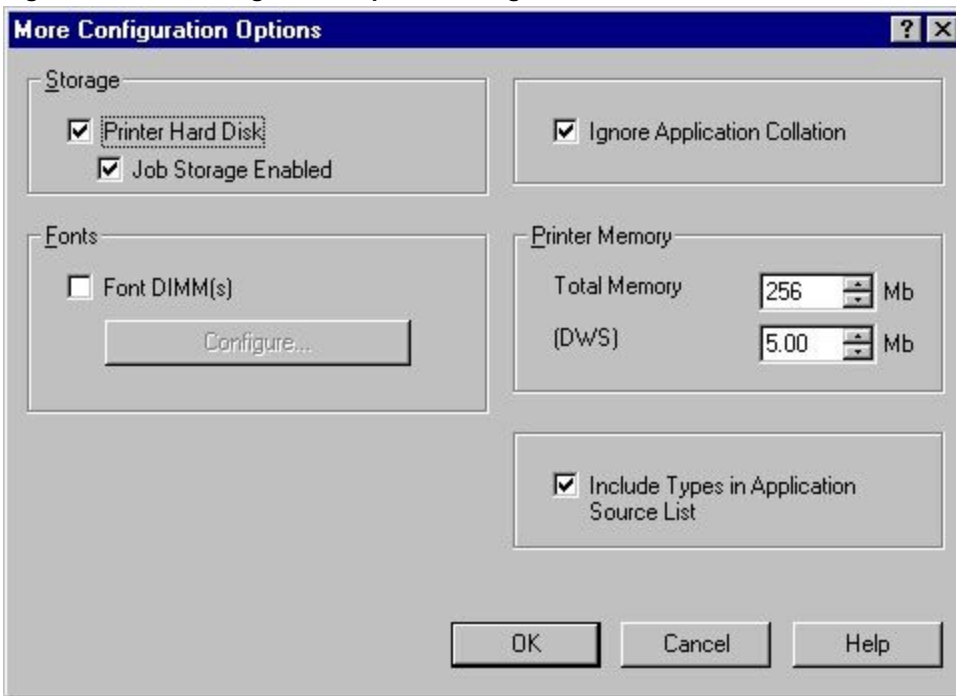
## Other options

The **Other Options** group box contains a single **More** command button. Clicking the **More** button opens the **More Configuration Options** dialog box.

## More configuration options

When you press the **More...** button under **Other Options**, more configuration options are available. The **More Configuration Options** dialog box is shown in the following illustration.

Figure 37: More Configuration Options dialog box



The **More Configuration Options** dialog box contains the following controls.

- **Storage** group box
- **Fonts** group box
- **Ignore Application Collation** check box
- **Printer Memory** group box
- **Include Types in Application Source List** check box

## Storage

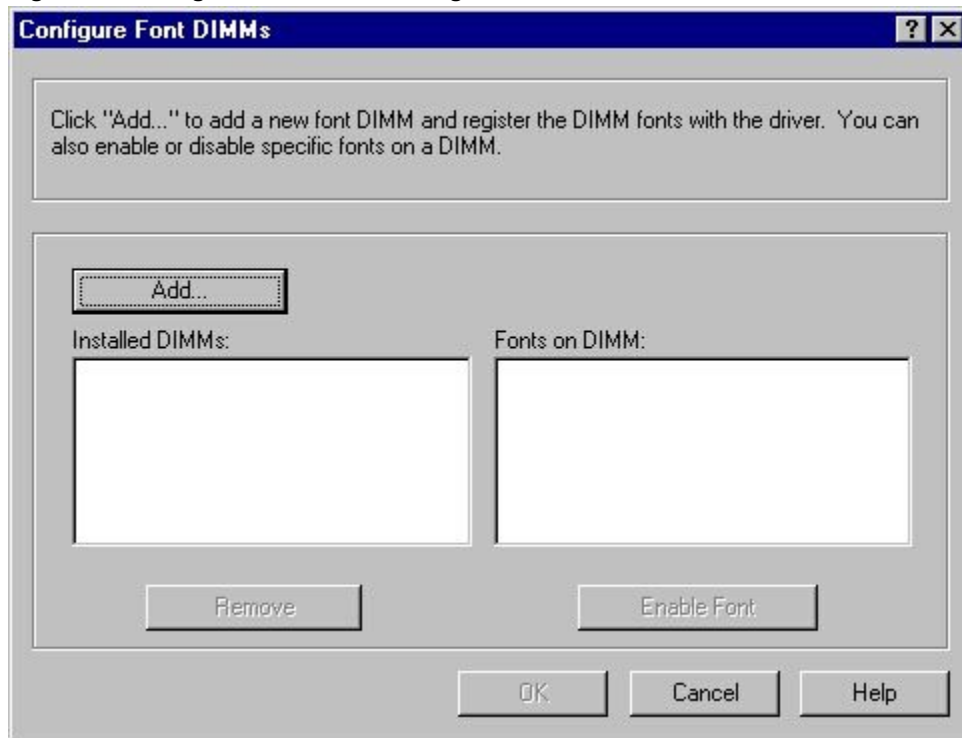
You can use the **Storage** section to specify whether **Job Storage** is enabled. **Job Storage** is automatically enabled if the printer has a hard disk installed. **Job Storage Enabled** determines whether **Job Storage** appears as a feature on the **Destination** tab. For more information, see the "Job Storage" section of this guide.

**Note** The HP Color LaserJet 9500hdn comes with a hard disk already installed. The hard disk is an available option for the HP Color LaserJet 9500n.

## Fonts

The **Fonts** group box contains a **Font DIMM** check box and a corresponding **Configure** button. Selecting the **Font DIMM** check box tells the driver that a Font DIMM is installed, and that stored data about the fonts on the DIMM is available. When the check box is selected, the **Configure** button is enabled. Click the **Configure** button to open the **Configure Font DIMMs** dialog box. If the **Font DIMM** check box was not selected when you opened the **More Configuration Options** dialog box, selecting that check box automatically opens the **Configure Font DIMMs** dialog box.

Figure 38: Configure Font DIMMs dialog box



Use the **Configure Font DIMMs** dialog box to perform the following tasks:

- Add up to two font DIMMs by clicking the **Add** button.
- Specify a unique font DIMM name.
- Select specific font DIMM data files that contain lists of fonts on specified DIMMs.
- Select one or more installed DIMMs in the **Installed DIMMs** list, and based on the selected DIMM(s). The list to the right (**Fonts on DIMMs**) shows all of the fonts available on the selected DIMM(s).
- Enable or disable one or more of the selected font(s).

Use the following procedure to configure a font DIMM.

1. Make sure that the font DIMM is correctly installed.
2. Click **Add**. The **Add Font DIMM** dialog box appears.
3. Click **Browse**. The **Font DIMM Files** dialog box appears.
4. Find and select the appropriate printer cartridge metrics (PCM) file that came with the font DIMM.
5. Click **Open**.
6. If you want to, specify a **Font DIMM Name** in the **Add Font DIMM** dialog box.
7. Click **OK**. The selected printer cartridge metrics (.PCM) file appears in the **Installed DIMMs** list. Select the .PCM file to see a list of available fonts in the **Fonts on DIMM** list.
8. Click **OK** to close the **Add Font DIMM** dialog box. The fonts on the DIMM should now be available on the system.

**Note**

When using font DIMMs with the PCL 6 and PCL 5c drivers: To install screen fonts that match the font DIMM, use the .HPB file specifically designed to work with that DIMM. If there are no screen fonts for the DIMM, use the .PCM file specifically designed to work with that DIMM.

## Ignore Application Collation

Use the **Ignore Application Collation** setting to allow the driver, rather than the software program, to manage collation.

You cannot use the **Ignore Application Collation** setting alone to print non-collated copies. If you want to print multiple copies of non-collated copies, make sure that the **Mopier Enabled** setting is **Off** and that the **Collate** check box is not selected in the **Print** dialog box of your software program.

The following table shows the expected behavior for a two-page print job when the number of copies is three. In some instances, the application collation setting overrides the **Ignore Application Collation** setting on the driver.

**Table 19: Printer behavior with Ignore Application Collation settings**

Mopier Enabled setting	Ignore Application Collation check box	Application Collation check box in Print dialog box	Commands sent by printer	Pages sent to printer	Pages output from printer
On	On	On Off None	QTY=3	1,2	1,2,1,2,1,2
On	On	On	QTY=3	1,2	1,2,1,2,1,2
On	Off	Off	Copies=3	1,2	1,1,1,2,2,2
Off	Off	On	Copies=1	1,2,1,2,1,2	1,2,1,2,1,2
Off	Off	Off	Copies=3	1,2	1,1,1,2,2,2
Off	Off	None	Copies=1	1,2,1,2,1,2	1,2,1,2,1,2
Off	Off	None	Copies=3	1,2	1,1,1,2,2,2
On	On	On Off None	QTY=3	1,2	1, 2
On	Off	On Off None	QTY=3	1,2	1, 2

## Printer memory

**Total Memory** shows the total amount of memory physically installed in the printer. The default values for the total printer memory are based on the printer model and are specified in the **Printer Model** setting of the **Configuration** tab. The total printer memory is updated through a successful bidirectional query, or it can be set manually.

The **(DWS)** value shows the amount of memory available for keeping track of the fonts that are downloaded from the driver. The driver deletes downloaded fonts if it has exceeded the available memory value. The **(DWS)** value is a dynamic value that varies, depending on the product, the product model, the specific configuration of the printer, and the print job. An accurate **(DWS)** value optimizes driver performance.

The **(DWS)** value is configured automatically by the PCL 6 and PCL 5c drivers in Windows 95, Windows 98, Windows Me, and Windows NT 4.0 environments that support bidirectional communication. Use the **(DWS)** option to specify the amount of work-space memory that is available to the printer. To manually set the **(DWS)** value, print a configuration page and find the **DWS** value in the Memory section of the configuration page. Then, click the **More...** button on the **Configuration** tab, and type the **DWS** value in the **(DWS)** field of the **More Configuration Options** dialog box. The **(DWS)** value might change if you switch printer-model settings.

## Include types in application source list

When the **Include types in application source list** check box is selected, all paper types (such as envelopes and transparencies) are available from the **Source is:** list on the **Paper** tab. When you are in a software program, you can open the **Paper** tab by clicking **Print** from the **File** menu, and then clicking **Properties**.

**Note** This option is available only when using a computer that is running Windows NT 4.0.



## Automatic configuration

If you have modified the configuration of the HP Color LaserJet 9500 series printer since installation, click the **Update Now** button to automatically reflect the new configuration in the driver. For more information about the driver automatic configuration feature, see the "Driver Autoconfiguration" section of this guide.

## Printer image

The bitmap image in the lower-right portion of the **Configure** tab represents the current physical configuration of the printer according to the driver configuration data (which can be obtained automatically through bidirectional communication, or configured manually in the **Paper-Handling Options** group box). The printer image should have the same appearance as the image in the same location on the **Paper** tab and the **Destination** tab.

### Note

The printer image shown in the illustration might differ from your HP Color LaserJet 9500 series printer, depending on the model number and the installed accessory devices.

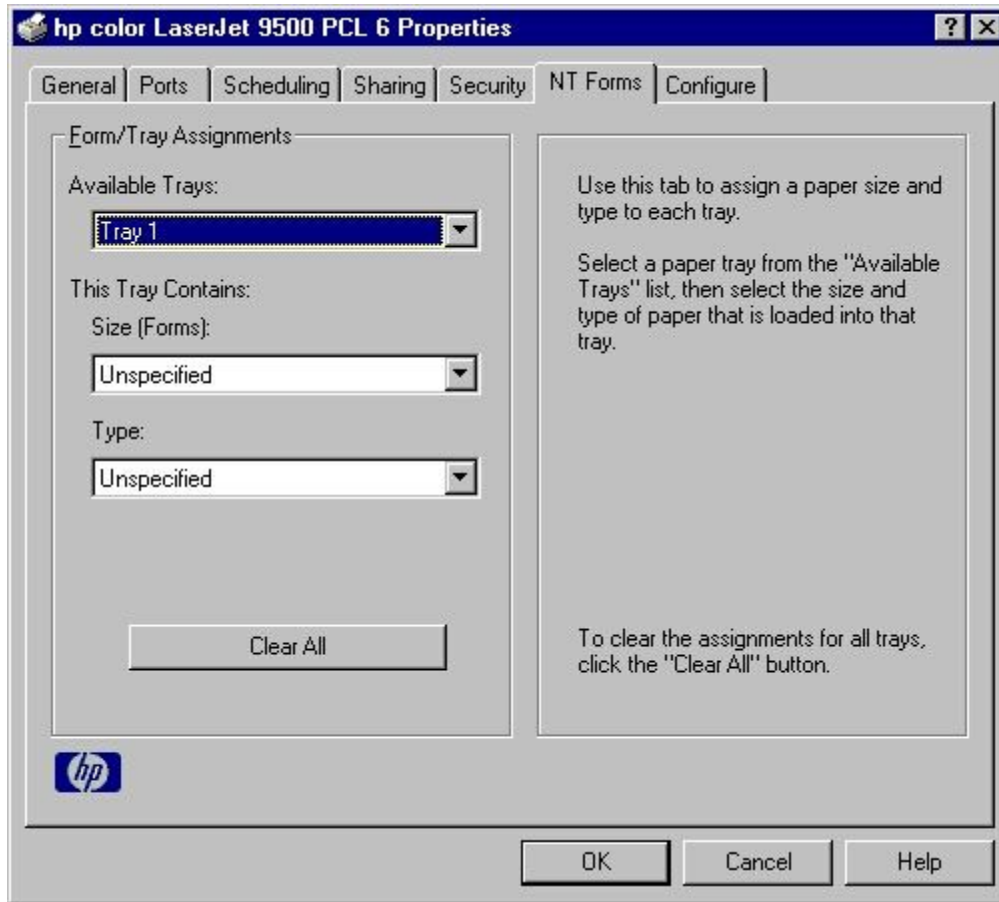
## NT Forms tab features

**Note** The **NT Forms** tab can be found in the **Properties** for the printer driver.

To gain access to the printer driver **Properties**, click **Start** on your Window task bar, click **Settings**, and then click **Printers** (for Windows XP and Windows Server 2003, click **Printers and Faxes**). Right-click the printer name, and then click **Properties**.

The **NT Forms** tab appears only in the Microsoft Windows NT 4.0 operating environment. You can view the **NT Forms** tab (like the **Configure** tab) only from the **Properties** window. The following illustration shows the **NT Forms** tab.

Figure 39: Driver NT Forms tab



Use the **NT Forms** tab to specify which media sizes and types are loaded in each of the available paper trays. This constrains the choices available in the **Size** and **Type** lists on the **Paper** tab. This constraint prevents information overload if you request unavailable sizes or types.

The **NT Forms** tab contains a single group box, the **Form/Tray Assignments** group box, which contains the following controls.

- **Available Trays** is a drop-down menu that contains all of the the printer trays that are specified on the **Configure** tab.
- **This Tray Contains/Size (Forms)** drop-down menu contains a list of standard paper sizes the HP Color LaserJet 9500 series printer supports, as well as any custom forms that are defined in the **NT Forms** tab.
- **This Tray Contains/Type** drop-down menu lists all of the media types that the HP Color LaserJet 9500 series printer supports.
- **Clear All** button removes all of the the size and type constraints on the **Paper** tab.

## Configuring the trays

1. Select the appropriate tray from the **Available Trays** list.
2. Use the **This Tray Contains/Size (Forms)** drop-down menu to select the paper size (or form) that is loaded in that tray.
3. Use the **This Tray Contains/Type** drop-down menu to select the paper type that is configured for the tray.
4. Repeat steps 1 through 3 for the remaining trays.
5. If necessary, click the **Clear All** button to reconfigure all of the the trays, and remove the size and type constraints that have been imposed on the **Paper** tab.

## HP traditional PS driver features

This section provides information about the features of the HP traditional PS printer driver.

### Adobe PostScript (R) 3 (TM) emulation support for the HP Color LaserJet 9500 series printer

A set of 92 Adobe PostScript 3 emulation (PS) soft fonts is included with the printing-system software. If you want to permanently install the fonts in the printer, PS fonts are also available from HP in an optional font DIMM. The PS emulation maintains full compatibility with Adobe PS when PS fonts are purchased from Adobe.

Users of Adobe-licensed programs might also have the right to use the Adobe PS printer drivers from Adobe with the HP LaserJet printer PostScript 3 emulation PPD, available on the HP Color LaserJet 9500 printer software CD-ROM or from the HP Web site. When using the Adobe PS printer driver, users must comply with all Adobe licensing agreements, as stated on the Adobe Web site at:

<http://www.adobe.com/support/downloads/license.html>

See the "Font support" section of this guide for a list of the additional fonts.

#### Note

The driver interface shown in this section is for Windows NT 4.0. The order and appearance of tabs can vary among operating systems.

## What's this Help

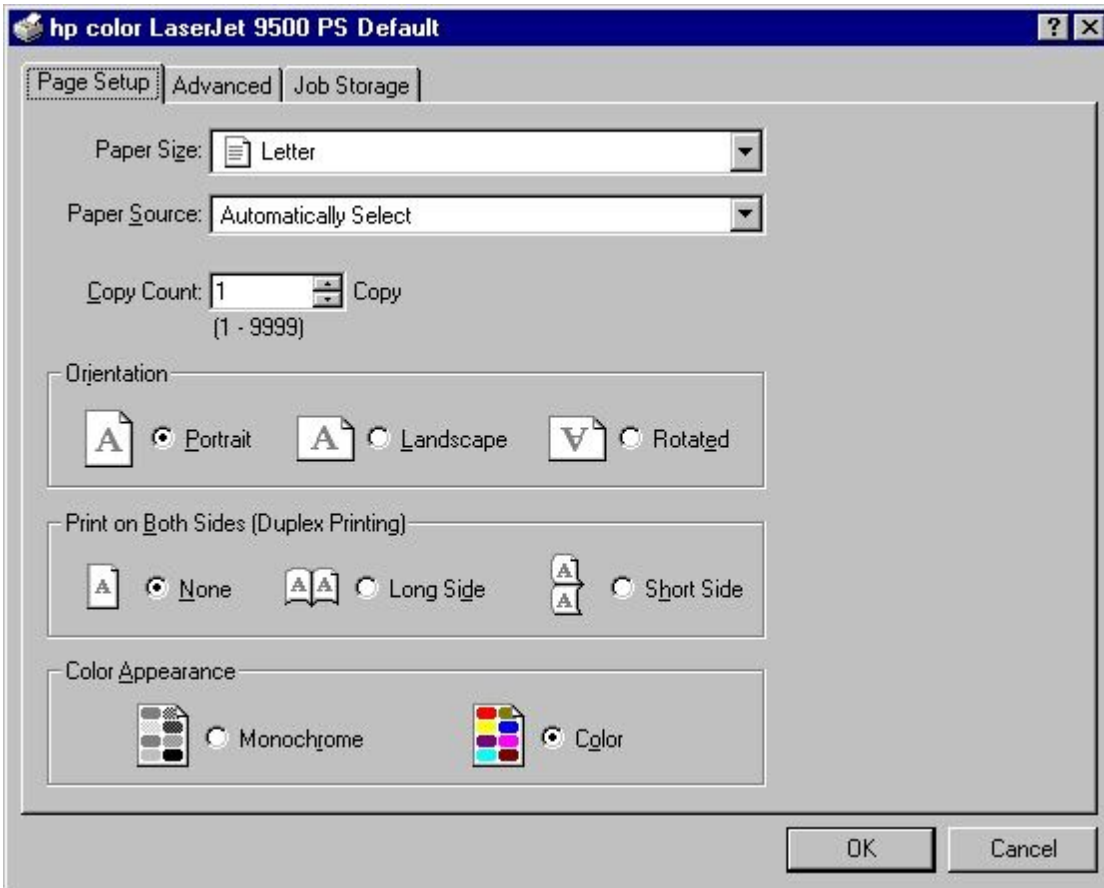
In Windows 95, Windows 98, Windows Me, and Windows NT 4.0, What's this? Help is supported. You can gain access to What's this? Help messages in any of the following ways:

- Right-click a control and click **What's this?**, and a pop-up Help window appears.
- Click the ? button at the upper-right corner of the frame, next to the X, to change the cursor to an arrow with a question mark. Use this special cursor to select a control, and the pop-up Help window for that feature appears.
- Press the F1 key, and the Help window for the currently selected control appears.

## Page Setup tab features

The **Page Setup** tab controls paper and finishing options for the HP traditional PS driver. The following illustration shows the **Page Setup** tab.

Figure 40: Page Setup tab



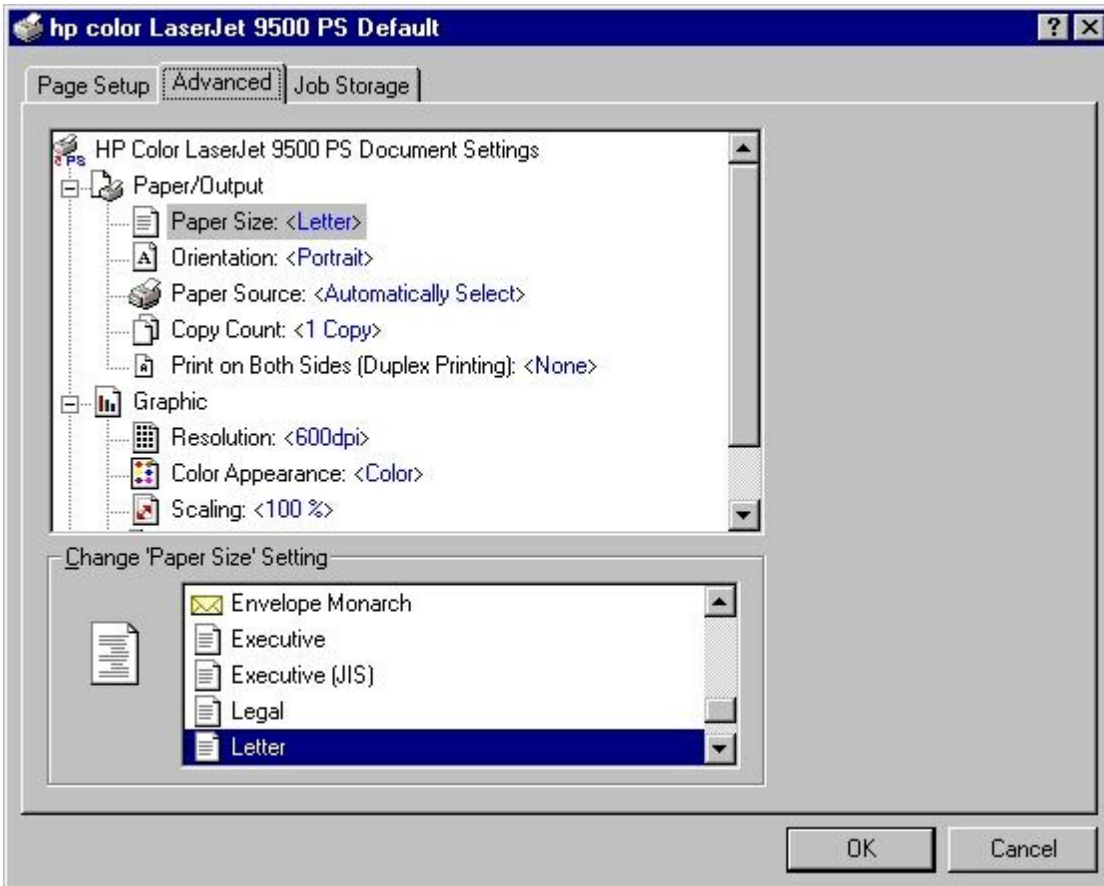
The **Page Setup** tab contains the following controls.

- **Paper Size** drop-down menu
- **Paper Source** drop-down menu
- **Copy Count** spin box
- **Orientation** group box
- **Print on Both Sides (Duplex Printing)** group box (This option appears for the HP Color LaserJet 9500hdn printer by default and for the HP Color LaserJet 9500n printer if you have purchased, installed, and configured the optional Duplexing unit.)
- **Color Appearance** group box

## Advanced tab features

The **Advanced** tab controls settings for output, graphics, and printer features. The following illustration shows the **Advanced** tab.

Figure 41: Advanced tab



The **Advanced** tab contains the following controls.

- **Paper/Output** (advanced control over the options available on the **Page Setup** tab)
- **Graphic** (including resolution, scaling, and TrueType font controls)
- **Document Options** (including printer features and PS options)

## Job Storage tab features

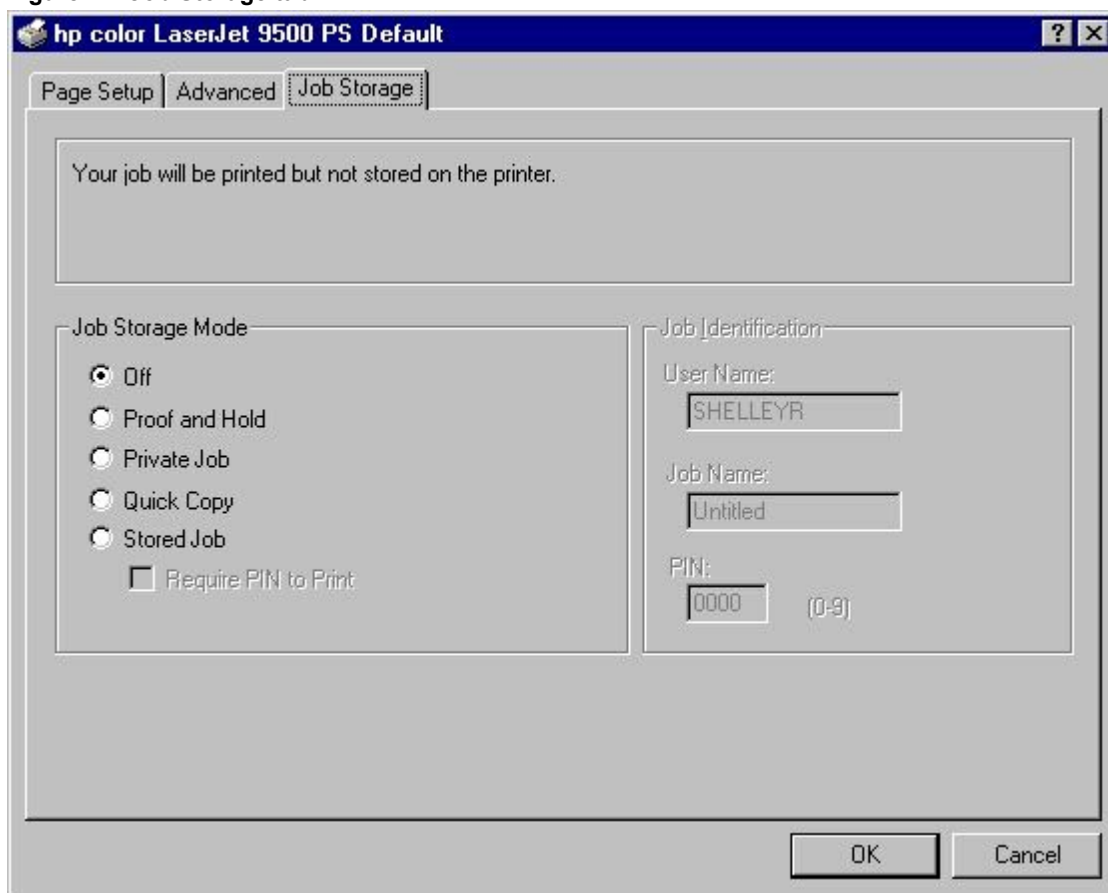
**Note** In order to see the **Job Storage** tab and to use the **Job Storage** options, the printer must have a hard disk installed. A printer hard disk is an optional feature for the HP Color LaserJet 9500n printer and a standard feature of the HP Color LaserJet 9500hdn printer.

In addition to having a hard disk installed, the printer must also have the **Printer Disk** option set to **Installed** and the **Job Storage** option set to **Enabled** in the **Installable Options** section of the **Device Settings** tab in order to use the **Job Storage** options.

**Note** Limited **Job Storage** functions for Windows 95, Windows 98, and Windows Me operating systems are available under **Printer Features** on the PS driver **Advanced** tab.

The **Job Storage** tab is shown in the following figure.

Figure 42: Job Storage tab



The **Job Storage** tab contains the following controls.

- **Job Storage Mode** group box
- **Job Identification** group box

## Job Storage Mode

Use the **Job Storage** feature on the HP Color LaserJet 9500 printer to store documents at the printer, and then control their printing at the printer control panel. This feature is intended to provide greater flexibility, convenience, security, and cost savings.

After the **Job Storage** feature has been enabled, you can use its features by clicking **Settings** on the **Destination** tab of the printer driver.

The HP Color LaserJet 9500 printer offers the following **Job Storage** options:

- **Off**
- **Proof and Hold**
- **Private Job**
- **Quick Copy**
- **Stored Job**

These features and the settings that control them are described below.

### Off

When selected, the **Off** option turns the **Job Storage** feature off (it is disabled), which means that the print job is not stored in the printer.

### Proof and Hold

When selected, the **Proof and Hold** option stores the print job and prints only the first copy of the job, allowing you to check the first copy. If the document prints correctly, you can print the remaining copies of the print job by using the printer control panel. You can set the number of proof-and-hold print jobs that can be stored in the printer at the printer control panel.

After the proof-and-hold print job is released for printing, the print job is immediately deleted from the printer. If more copies are needed, you must reprint the job from the software program. If you send a second proof-and-hold job to the printer with the same user name and job name as an existing proof-and-hold job (and you have not released the original job for printing), the job overwrites the existing job. Proof-and-hold jobs are deleted if you disconnect the power to the printer.

### Private Job

Use the **Private Job** option to send a print job directly to the printer memory. Selecting **Private Job** activates the **PIN** field. The print job can be printed only after you type a four-digit personal identification number (PIN) using the printer control panel. After the job is printed, the printer removes the job from the printer memory. This feature is useful when you are printing sensitive or confidential documents that you do not want to leave in an output bin after printing.

After the private print job is released for printing, the print job is immediately deleted from the printer. If more copies are needed, you must reprint the job from the software program. If you send a second private job to the printer with the same user name and job name as an existing private job (and you have not released the original job for printing), the job overwrites the existing job, regardless of the PIN. Private jobs are deleted if you disconnect the power to the printer.

### Quick Copy

The **Quick Copy** option stores a copy of a printed job on the printer hard disk, after which you can print additional copies of a print job by using the printer control panel. You can set the number of quick-copy print jobs that can be stored in the printer at the printer control panel.

**Note** The printer configuration can be set to hold a maximum of 50 quick-copy or proof-and-hold jobs. The number is set at the printer control panel in the **Configuration** menu, and the default is 32. When this preset limit is reached, a newer document overwrites the oldest. Also, a document that has the same user and job name as one that is already stored on the hard disk overwrites the existing document. **Quick Copy** jobs are deleted if you disconnect the power to the printer.

## Stored Job

Use the **Stored Job** option to send a print job directly to the printer hard disk. The print job is stored in the printer as if the printer is an electronic file cabinet. After the print job is stored in the printer hard disk, you can print the job by using the printer control panel.

The job remains stored on the printer until it is deleted or overwritten by a document with the same user and job names. Stored jobs remain on the printer hard disk when power is interrupted. Use this feature for forms and other common or shared documents.

A stored job can be managed in two ways: as either a private or a public job. Use a private stored job to send a print job directly to the printer memory, which can then be printed only after you type in a PIN using the printer control panel. (You can set the PIN in the **Print** dialog box.) After the job is printed, the job remains in the printer memory and can be printed again by using the printer control panel. This feature is useful when you are printing sensitive or confidential documents that you do not want to leave in an output bin after printing. Private mode is initiated by clicking the **Require PIN to Print** check box. In this mode, a PIN typed at the control panel is required to release the job.

The box labeled **PIN** is usually inactive. The **Require PIN to Print** option is activated if you click **Stored Job**. If selected, you must enter a PIN to make the stored job private.

**Note** A **Stored Job** that has been made private is not the same as a **Private Job**. The **Private Jobs** are deleted from the printer memory after they are printed. The **Stored Jobs** that have been made private are retained in the printer memory after printing, but they require that you type in a PIN each time you want to print a private **Stored Job**.

## Using a PIN for the Private Job option

The **Private Job** option can be secured by a PIN. This number must be typed in the printer control panel before the printer prints the job.

The box labeled **PIN** is usually inactive. Selecting **Private Job** activates the **PIN** box. The Private Job/PIN coupling has a PIN restriction of four ASCII numeric characters (ASCII 0-30 through 0-39). If you type non-numeric characters, they are removed immediately. If you type more than four characters, the characters past the fourth are truncated. The field temporarily accepts fewer than four digits in the string, but when the edit field loses focus, the zeroes pad the left end until there are exactly four digits. The default initialized value for the PIN is 0000 for **Private Job**.

## Job Identification

When you use a **Job Storage** feature, your document is identified at the printer control panel by user name and job name.

## User Name

Use the **User Name** edit box to identify the job at the printer control panel. When the driver is first installed (or when **Default Print Settings** in the **Print Task Quick Sets** drop-down menu is selected), this string initializes to the empty string (""), but the dialog box detects this condition and replaces the string with your login name in Windows 95, Windows 98, and Windows NT 4.0. Restrictions for the **User Name** field are described in the "Job Name" section of this guide.



## Job Name

Use the **Job Name** edit box to specify a name to identify the job at the printer control panel. When the driver is first installed (or when **Default Print Settings** in the **Print Task Quick Sets** drop-down menu is selected), this string initializes to the empty string (""), but the dialog box detects this condition and replaces the string with **Untitled**.

The **Job Name** and the **User Name** fields can contain no more than 16 characters each, and are limited to A through Z and 0 through 9 because the name appears on the printer control panel display. If you try to type a lowercase character, it automatically shifts to uppercase. If you try to type a character with an ASCII code of fewer than 32 or more than 126 characters, the character is removed from the edit field, along with all of the characters that follow it. If you try to type more than 16 characters, any character beyond 16 is truncated.

When the dialog box is closed, or the edit box loses focus, an empty string is replaced with **Untitled**. In those languages for which **Untitled** cannot be translated without the use of invalid characters, the driver uses a string of three dashes. The acceptable characters for **Job Name** and **User Name** vary for each operating system. The string must meet requirements to be able to appear on the printer control panel display.

## Using Job Storage options when printing

You can use **Job Storage** options in the **Destination** tab of the printer driver.

### Note

To use the **Job Storage** features, your printer must have a hard disk installed. The HP Color LaserJet 9500hdn comes with a hard disk. The hard disk is an available option for the HP Color LaserJet 9500n.

In addition to having a hard disk installed, the printer driver must be configured to use the **Job Storage** features. To enable **Job Storage**, click **Start**, click **Settings**, click **Printers**, and right-click the printer icon. Click **Properties**, click the **Configure** tab, and select the **Job Storage Enabled** check box.

1. Click **Print** from the software program. The **Print** dialog box appears.
2. Click **Properties**. The **Properties** dialog box appears.
3. Click the **Device Settings** tab to show the destination options.
4. Click **Job Storage** on the under **Installable Options**.
5. Click **Settings**. The **Change Job Storage Settings** dialog box appears.

You can then select one of the **Job Storage** options by clicking the appropriate option button.

### Note

These instructions are specific to the Windows 95, Windows 98, Windows Me, and Windows NT 4.0 environments when using the latest available HP traditional PS driver. The basic concepts of the **Job Storage** feature are the same for PS print jobs, but significant differences in the driver user interface exist. Also, some limitations in naming and PIN selection exist.

## Releasing private jobs stored at the printer

After you send a private job using the **Job Storage** feature, you can release the job to print by using the printer control panel.

1. Press the select button (the one with the check mark) to open the menus.
2. Press the up and down buttons to scroll to RETRIEVE JOB, and then press the select button.
3. Press the up and down buttons to scroll to the user name, and then press the select button.
4. Press the up and down buttons to scroll to the job name, and then press the select button.
5. Press the up and down buttons to scroll to PRINT. The PRINT selection has an icon next to it indicating that the job is locked and requires a PIN to print. Press the select button.
6. Type in the PIN using the control panel number pad, and then press the select button.
7. Indicate the number of copies you wish to print, and then press the select button. The default is one copy.
8. The private job prints and then is deleted from the hard disk.

## Deleting a print job

Sometimes it is necessary to delete a print job from the printer hard disk. This can be done by using the printer control panel.

1. Press the select button (the one with the check mark) to open the menus.
2. Press the up and down buttons to scroll to RETRIEVE JOB.
3. Press the up and down buttons to scroll to the user name, and then press the select button.
4. Press the up and down buttons to scroll to the job name, and then press the select button.
5. Press the up and down buttons to scroll to DELETE, and then press the select button.

**Note** The DELETE selection might have an icon next to it indicating that the job is locked. If so, type the PIN number, and then press the select button.

6. The stored print job is deleted and the printer returns to the Ready state.

## Device Settings tab features

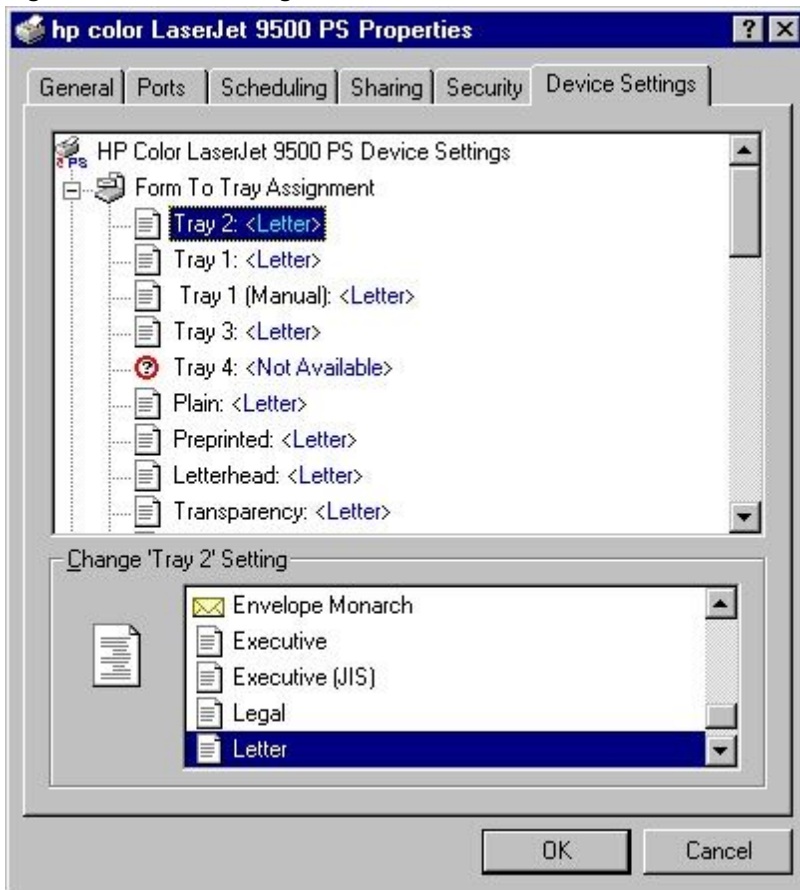
**Note** The **Device Settings** tab can be found in the **Properties** for the printer driver.

To gain access to the printer driver **Properties**, click **Start** on your Window task bar, click **Settings**, and then click **Printers**. Right-click the printer name, and then click **Properties**.

The **Device Settings** tab contains controls for paper-handling devices and controls for managing the HP Color LaserJet 9500 series printer.

When you select features in the **Device Settings** tab that can be changed, a **Change ... Setting** dialog box opens in the bottom of the window. Available options depend on the feature. The following illustration shows the **Device Settings** tab.

**Figure 43: Device Settings tab**



The **Device Settings** tab contains the following controls.

- **Form to Tray Assignment** option
- **Font Substitution Table**
- **Available PostScript Memory** option
- **Output Protocol** option
- **Send Ctrl-D Before Each Job** option
- **Send Ctrl-D After Each Job** option
- **Job Timeout** option
- **Wait Timeout** option
- **Minimum Font Size to Download As Outline** option
- **Maximum Font Size to Download as Bitmap** option

## Form to Tray Assignment

The HP Color LaserJet 9500 printer supports more than one source of paper, with at least three trays on both models and a 2000-sheet tray 4 on the HP Color LaserJet 9500hdn. You can assign a form (which defines the paper size and

margins) to each of your printer paper sources. When a form is matched to a source, you can select the form when you print. The printer prints from the tray to which that form is assigned.

## Font Substitution Table

The **Font Substitution Table** setting shows the font substitution table and presents options for changing TrueType-to-PostScript font mapping.

## Available PostScript Memory

The **Available PostScript Memory** is a subset of the total physical memory of the printer. It is usually best to use the default setting, which is determined by the printer manufacturer.

Driver workspace is reflected in the **Available Postscript Memory** setting of the **Device Settings** tab in the HP traditional PS driver interface.

## Output Protocol

The **Output Protocol** setting specifies the protocol that the printer uses for print jobs. The possible settings are:

- **ASCII**. When data is sent in ASCII (7-bit) format, the print job might take longer to print, but it can be sent through any I/O channel, such as a parallel or a network port.
- **Binary** or **TBCP** (tagged binary communications protocol). When data is sent using these settings, all data except special control characters is sent in binary (8-bit) format. The binary formats can be sent over parallel or serial communications ports, and print jobs are faster than jobs sent with the data in ASCII format.

## Send Ctrl-D Before Each Job

The **Send Ctrl-D Before Each Job** setting specifies whether the printer is reset at the beginning of every PS print job. **No** is the default setting. When you use the Ctrl + D command, your printer is reset to its default setting to ensure that the configuration of jobs previously sent to the printer do not affect the current print job settings. Using Ctrl + D may cause a print job to fail if your printer is connected to a network. If your document fails to print when sent to a printer connected through parallel or serial ports, change **No** to **Yes**.

## Send Ctrl-D After Each Job

The **Send Ctrl-D After Each Job** setting specifies whether the printer is reset at the end of every PS print job. **Yes** is the default setting. When you use the Ctrl + D command, your printer is reset to its default setting to ensure that the configuration of future jobs sent to the printer are not affected by the current print job settings. Using Ctrl + D may cause a print job to fail if your printer is connected to a network. If your document fails to print when sent to a network printer, change **Yes** to **No**.

## Job Timeout

The **Job Timeout** setting specifies how long the document can take to get from the computer to the printer before the printer stops trying to print the document. If you specify **0 seconds** (the default setting), the printer continues trying to print indefinitely.

## Wait Timeout

The **Wait Timeout** setting specifies how long the printer waits to get more PS information from the computer. After the specified time passes, the printer stops trying to print the document and prints an error message. If you are trying to print a very large or complicated document, you might want to increase this value. If you specify **0 seconds**, the printer waits indefinitely.

## Minimum Font Size to Download as Outline

This setting specifies the minimum font size (in pixels) for which the PS driver downloads TrueType fonts as outline (Type 1) fonts. A font smaller than the minimum value is downloaded as a bitmap (Type 3) font.

## Maximum Font Size to Download as Bitmap

This setting specifies the maximum font size (in pixels) for which the PS driver downloads TrueType fonts as bitmap (Type 3) fonts. A font larger than the maximum value is downloaded as an outline (Type 1) font.

## Installable Options

The items listed under **Installable Options** are printer-specific printing options that you can install for use with your printer. The options for the HP Color LaserJet 9500 series printer are:

- **Tray 4** (2000-sheet tray)

### Note

Tray 4 is available for the HP Color LaserJet 9500hdn only.

- **Duplex Unit (for 2-Sided Printing)**
- **Printer Disk**
- **Accessory Output Bins**

### Note

The default setting is **Not Installed**. For the HP Color LaserJet 9500hdn, the following accessory output bins are available: **HP 3000-Sheet Stapler/Stacker**, **HP 3000-Sheet Stacker**, or **Multifunction Finisher**

- **Job Storage**
- **Printer Memory**

## HP PCL 6, PCL 5c, and PS unidriver features

When you install your printer using Windows 2000, Windows XP, and Windows Server 2003, the HP PCL 5c, PCL 6, and PS unidrivers are installed.

This section describes the options available on each tab of the HP unidriver PCL 6 and PCL 5c interfaces.

### Access to drivers

To gain access to driver settings from within most software programs, click **File**, click **Print**, and then click **Properties**. The appearance and names of the driver tabs that appear vary, depending on the printer model and the driver.

You can also control the drivers directly from your computer.

- In Windows 2000, click **Start**, click **Settings**, click **Printers**, right-click the printer name, and then click **Printing Preferences** or **Document Defaults** (depending on the OS and driver), to gain access to the same set of driver tabs that are controlled by the software program.
- In Windows XP and Windows Server 2003, click **Start**, click **Control Panel**, click **Printers and Faxes** (Windows XP Professional) or **Printers and other hardware devices** (Windows XP Home) to gain access to the same set of driver tabs that are controlled by the software program.

If, after right-clicking the printer name, you click **Properties**, you gain access to a different set of tabs that control the driver and driver connections.

### Help system

The HP LaserJet 5c, PCL 6, and PS unidrivers include a full-featured Help system to provide assistance with printing and configuration options.

**Note** Bubble Help, which shows driver constraint messages with an "i" icon, is a feature of the the HP traditional PCL 6 and PCL 5c drivers, and is not used by the HP traditional PS driver or the HP PCL 5c, PCL 6, or PS unidrivers.

### What's this? Help

Windows 2000, Windows XP, and Windows Server 2003 support "What's this?" Help. You can gain access to "What's this?" Help messages in any of the following ways:

- Press the **Help** button in the lower-right corner of the **Paper/Quality**, **Finishing**, **Effects**, **Destination**, or **Color** tabs for a general Help message that describes the use of the driver tabs.
- Right-click a control and click **What's this?**, and a pop-up Help window appears.
- Click the ? button at the upper-right corner of the frame, next to the **X**, to change the cursor to an arrow with a question mark. Use this special cursor to select a control, and the pop-up Help window for that feature appears.
- Press the **F1** key, and the Help window for the currently selected control appears.

### Context-sensitive Help

Press the **Help** button on a driver tab or in a dialog box, and a context-sensitive Help message appears.

### Incompatible Print Settings (constraint) messages

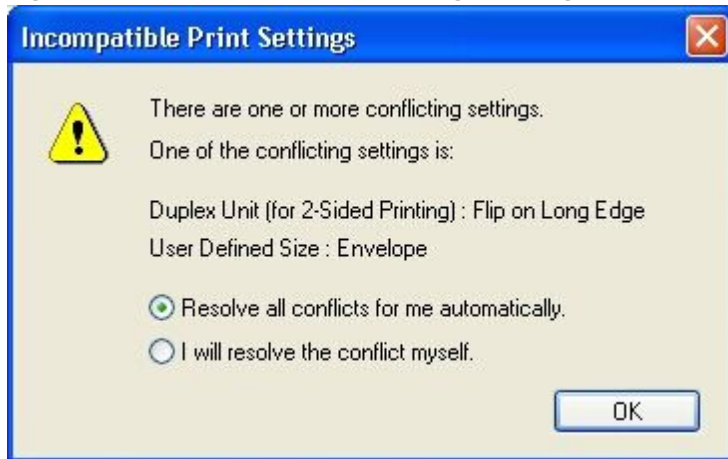
Incompatible print settings (constraint) messages are unsolicited messages that appear in response to specific actions that you take. These messages alert you to the selections that are illogical or impossible given the capabilities of the printer or the current settings of other controls.

In Windows 2000, Windows XP, and Windows Server 2003 operating environments, some technically invalid print-driver configurations can be set without resulting in the appearance of warning messages. Duplexing, for instance, is not possible when the Transparency media type is selected. However, the incompatible print settings message does appear when you try to print with the incompatible settings.

For PCL 6, clicking the **Resolve all conflicts for me automatically** option button, and then clicking **OK** accepts the change that was just made, and the driver then resets the conflicting control to a setting that is compatible with the new value. If you want to keep the conflicting setting, click the **I will resolve the conflict myself** option button, and then click **OK**.

The following illustration shows an **Incompatible Print Settings** message.

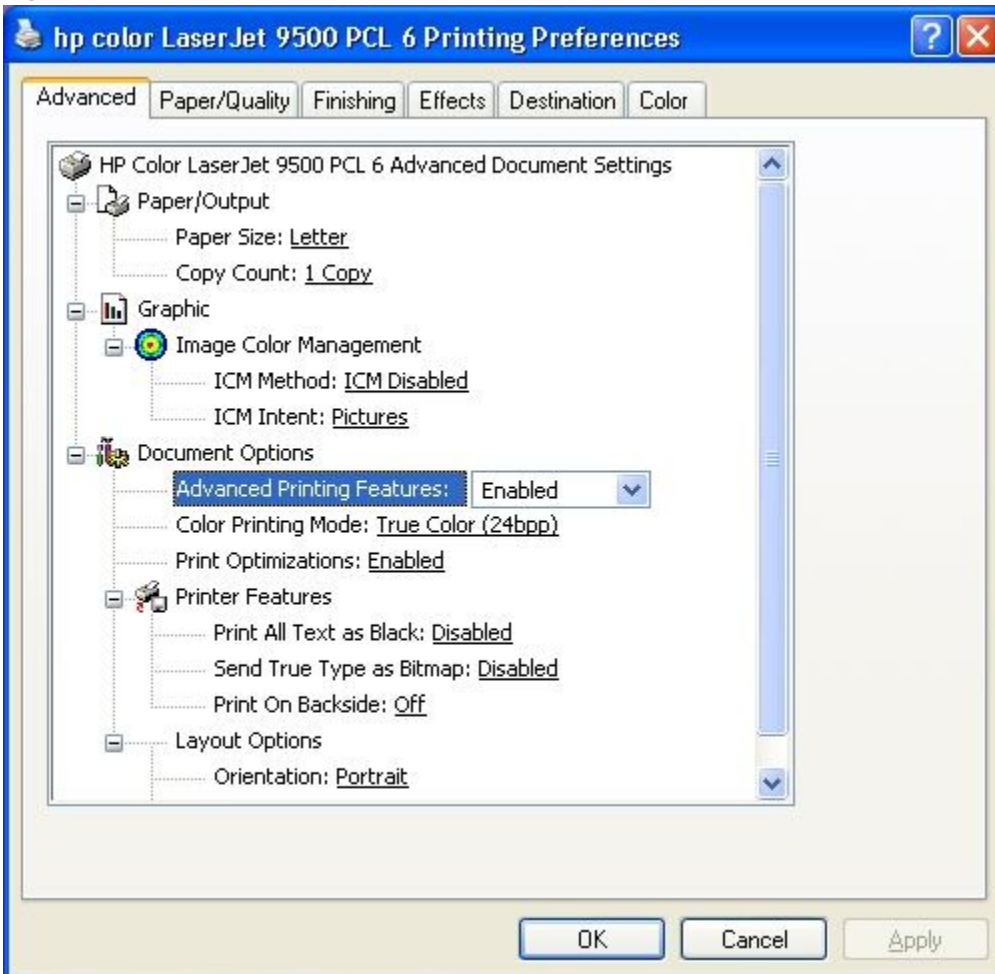
**Figure 44: An Incompatible Print Settings message**



## Advanced tab features

You can use the **Advanced** tab to change the layout of printed pages. Using this tab, you can select items such as paper size and copies in the driver (although most current software programs support these features in the print dialog box or through the software program page settings) or special controls that are not commonly used. The following illustration shows the **Advanced** tab.

Figure 45: The default appearance of the Advanced tab



The **Advanced** tab contains the following controls.

- **Paper/Output** settings
- **Graphic** settings
- **Document Options** settings

### Paper/Output settings

The **Paper/Output** settings contain the following controls.

- **Paper Size** setting
- **Copy Count** setting



## Paper Size

**Paper Size** sets the default paper size that the driver uses if the program does not specify a size. This list contains all of the standard printer-supported forms and any user-defined media sizes that the printer supports, as defined through the server properties. The driver uses this setting to highlight the constraints that features have on paper size.

## Creating custom paper sizes

To create a custom paper size, click **Start**, click **Settings**, and then click **Printers**. Click the **File** menu, click **Server Properties**, and then click **Create a New Form**. Specify a name and dimensions for your paper size, and then click **Save Form**. This new paper size is included in any list of paper sizes in the driver tabs and the tabs within the software program. Print dialog boxes within the software program also often have settings that allow you to create custom paper sizes.

### Note

The driver allows you to define paper sizes that are not supported by the HP Color LaserJet 9500 printer. To prevent this from happening, create custom paper sizes that are within the minimum and maximum paper size dimensions of the input devices. See the "Custom width and height control limits" section of this guide for more information.

## Copy Count

This driver setting is useful for software programs that do not provide a copy count.

## Collated

The **Collated** check box appears beside the **Copy Count** setting when the **Copy Count** setting is greater than 1.

This setting is not synchronized with the collate setting in the software program print dialog box. For instance, when using Microsoft Word, the **Collate** check box in the **Print** dialog box is selected by default, whereas, in the driver, the **Collated** check box in the **Advanced** tab is not selected by default. The software program setting takes precedence over the driver setting, and the printed output is collated by default. To obtain uncollated printed output, the **Collate** setting must not be selected in the driver and in the software program. Similarly, the **Collated** check box might be selected in the driver, but if the **Collate** setting is not enabled in the software program, the printed output is uncollated.

## Graphic settings

The **Graphic** settings contain the following options.

- **Image Color Management** group box
- **TrueType Font** group box (PS only)

## Image Color Management

This option lists the available Image Color Management (ICM) options used for printing color graphics. ICM, a set of calculations for color matching, makes it possible for software programs to adjust colors before printing so that the color of images displayed on the screen more closely match the color of images when printed.

The **Image Color Management** settings contain the following controls.

- **ICM Method** settings
- **ICM Intent** settings

## ICM Method

The **ICM Method** setting specifies how to print your color graphics. The following options are available.

- **Disabled** is the default setting.
- **ICM Handled by Host System** causes the calculations for color matching to be performed on the host computer before it sends the document to the printer.
- **ICM Handled by Printer** calculates the color matching on your printer. In this case, a set of rules for mapping the colors is created and downloaded to the printer (which must be PostScript level 2 emulation or higher). The printer uses these rules to adjust colors in the document.
- **ICM Handled by Printer using printer calibration** (available on the PS driver only) calculates the color matching on your printer. In this case, the set of rules for mapping the colors is already downloaded to the printer (which must be PostScript level 2 emulation or higher), so it is not created or downloaded again.

## ICM Intent

This control specifies how color images are created to produce the best looking image on the printed page.

The following options are available.

- **Graphics** is the best setting to use if you are printing a chart or using fully saturated, bright colors.
- **Pictures** is the default setting. Use this setting to maximize the contrast for photographs or pictures where the colors blend together.
- **Proof** is the setting to use if your document uses a color that you need to match exactly, and you are sending the document to a printer that has that specific color of ink.
- **Match** allows you to preview the color settings from another printer.

## TrueType Font (PS only)

This control specifies the TrueType font options for the PS unidriver. The following options are available.

- **Substitute with Device Font**, which is the default setting, causes the printer to use equivalent printer fonts for printing documents that contain TrueType fonts. This permits faster printing; however, you might lose special characters not supported by the printer font.
- **Download as Softfont** downloads TrueType fonts for printing instead of using printer fonts.

## Document Options

The **Document Options** settings contain the following controls.

- **Advanced Printing Features**
- **Color Printing Mode (PCL 6 and PCL 5c only)**
- **Print Optimizations (PCL 6 and PCL 5c only)**
- **PostScript Options (PS only)**
- **Printer Features**
- **Layout Options**

## Advanced Printing Features

When the **Advanced Printing Features** setting is **Enabled**, metafile spooling is turned on and **Finishing**-tab options such as **Page Order**, **Booklet Layout**, and **Pages per Sheet** are available, depending on your printer. For normal printing, leave the **Advanced Printing Features** setting at the default (**Enabled**). If compatibility problems occur, you can disable the feature. When disabled, metafile spooling is turned off and the printing options might be unavailable.

## Color Printing Mode (PCL 6 and PCL 5c only)

The **Color Printing Mode** specifies whether to print in color or black and white. The color option is **True Color (24 bpp)**, which is the default setting. Use the black and white option, **Monochrome**, to sharpen details in graphics or to speed up the printing of your color document.

## Print Optimizations

The default setting for **Print Optimizations** is **Enabled**. When this feature is enabled and your document contains overlapping text and graphics, text placed on top of a graphic might not print correctly. If the printed output is not correct, you can disable this feature. When disabled, print optimization features, such as substituting device fonts for TrueType fonts and scanning for horizontal and vertical rules, are turned off.

## PostScript Options (PS only)

The following **PostScript Options** are available.

- **PostScript Output Option**
- **TrueType Font Download Option**
- **PostScript Language Level**
- **Send PostScript Error Handler**
- **Mirrored Output**

## PostScript Output Option

The **PostScript Output Option** specifies the output format for PS files. Generally, you use the default setting, **Optimize for Speed**, to print your documents. To create a file that conforms to the Adobe Document Structuring Conventions (ADSC), click **Optimize for Portability**. Each page of the document will be a self-contained object. This is useful if you want to create a PS file and print it on a different printer. If you want to include the file as an image in another document that is printed from a different software program, click **Encapsulated PostScript (EPS)**. **Archive Format** creates a PS file you can use later.

## TrueType Font Download Option

The **TrueType Font Download Option** specifies how TrueType fonts are downloaded. **Automatic**, which is the default setting, allows the PS driver to decide which format is best. If you want to download the TrueType font as a scalable outline font, click **Outline**. To download the TrueType font as a bitmap font, click **Bitmap**. If your printer is a TrueType rasterizer printer, click **Native TrueType** to download the TrueType font as an outline font.

## PostScript Language Level

The **PostScript Language Level** option specifies which PS language level to use, from **1** to **3**, the highest level supported by your printer. The default setting is **3**. Some printers support multiple levels.

It is usually best to select the highest number available, because a higher language level provides more features. In some instances, you should use level 1. For example, if you are printing a file to disk, and that file will be printed by someone with a level 1 printer, you need to select level 1.

## Send PostScript Error Handler

The **Send PostScript Error Handler** setting specifies whether a PS error handler message is sent. If you want the printer to print an error page when an error occurs in the print job, click **Yes**. **Yes** is the default setting.

## Mirrored Output

This control specifies mirrored output. Click **Yes** to print a mirror image of your document by reversing the horizontal coordinates. **No** is the default setting.

## Printer Features

The following **Printer Features** are available.

- **Print All Text as Black**
- **Send True Type as Bitmap (PCL 6 and PCL 5c only)**
- **Graphics Mode (PCL 5c only)**
- **Print on Backside**

### Print All Text as Black

The **Print All Text as Black** feature is **Disabled** by default. When **Enabled**, this option causes the driver to print all text as black regardless of the original document text color. By design, white text remains white as a reliable method of printing reverse typeface against a dark background. This setting does not affect graphic images on the page. **Print all Text as Black** remains enabled only for the current print job. When the current print job is completed, **Print all Text as Black** is automatically disabled.

### Send TrueType as Bitmap (PCL 6 and PCL 5c only)

**Send TrueType as Bitmap:** provides an alternative for those software programs that have trouble dealing with TrueType fonts for special graphic purposes such as shading, rotation, or slanting. The setting is **Disabled** (off) by default. The TrueType fonts are first converted to bitmap soft fonts prior to downloading. The **Enabled** setting causes the driver to send TrueType fonts to the printer as outlines, which retains the standard format (outline) of the fonts.

On PCL 5c drivers, the **Send TrueType as Bitmap:** setting is not available when the **Send Page as Raster** option is selected.

### Graphics Mode (PCL 5c only)

Two settings under **Graphics Mode** (on the HP PCL 5c unidriver only) control the way in which the driver expresses vector graphics on a page:

- Select **Send Graphics as Vector** to send graphics to the printer as a combination of HP-GL/2 and raster images. This setting might produce higher-quality graphics output.
- Select **Send Graphics as Raster** to send all graphics to the printer as images composed of individual dots. This setting might improve printing speed.

### Print on Backside

The default setting for **Print on Backside** is **Off**. Select **On** when you are printing on the second side of the paper. This reduces the paper curl that can occur when paper is printed on twice.

## Layout Options

The following **Layout Options** are available.

- **Orientation**
- **Page Order**

### Orientation

**Orientation** refers to the layout of the image on the page. It does not affect in any way the manner in which the media is fed into the printer. The default orientation is **Portrait**. The other setting is **Landscape**.

#### Note

Nearly all software programs establish the orientation for the printed page, so the page orientation in the driver is useful only for the few software programs that do not set an orientation.

## Page Order

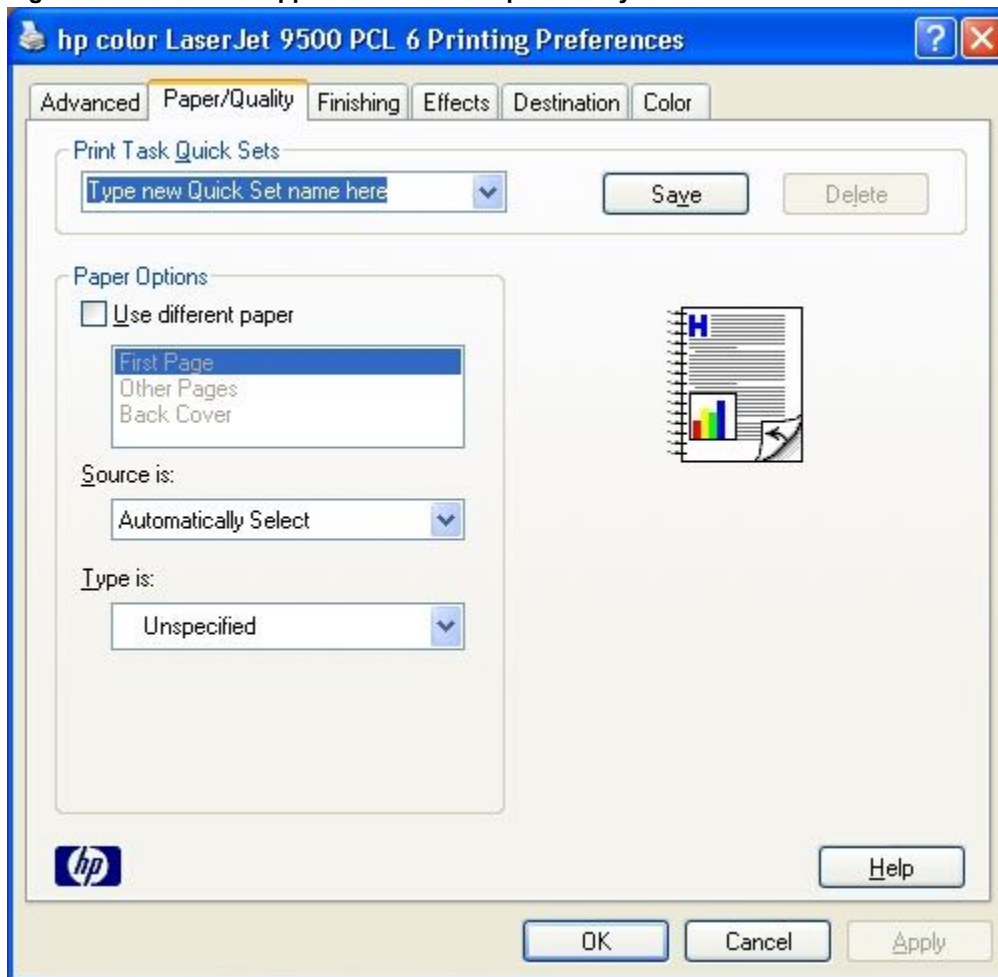
**Page Order** specifies the order in which the pages of your document are printed. **Front to Back** prints the document so that page 1 prints first. **Back to Front** prints the document so that page 1 prints last. The **Back to Front** setting is useful if you are printing to a face-up output bin to achieve output in the correct order.

**Note** The page-ordering operation works on whole sheets of paper rather than on individual logical pages. Accordingly, if you set **N-up** to be greater than one, the ordering of logical pages on a physical sheet of paper does not change.

## Paper/Quality tab features

Use the **Paper/Quality** tab to specify the type and source of your print media, as well as print-quality settings. You can also indicate paper selection choices for the first page of the document that are different from the choices for the other pages. The **Paper/Quality** tab is shown in the following illustration.

**Figure 46: The default appearance of the Paper/Quality tab**



The **Paper/Quality** tab contains the following controls.

- **Print Task Quick Sets** group box
- **Paper Options** group box
- Document preview image

## Print Task Quick Sets

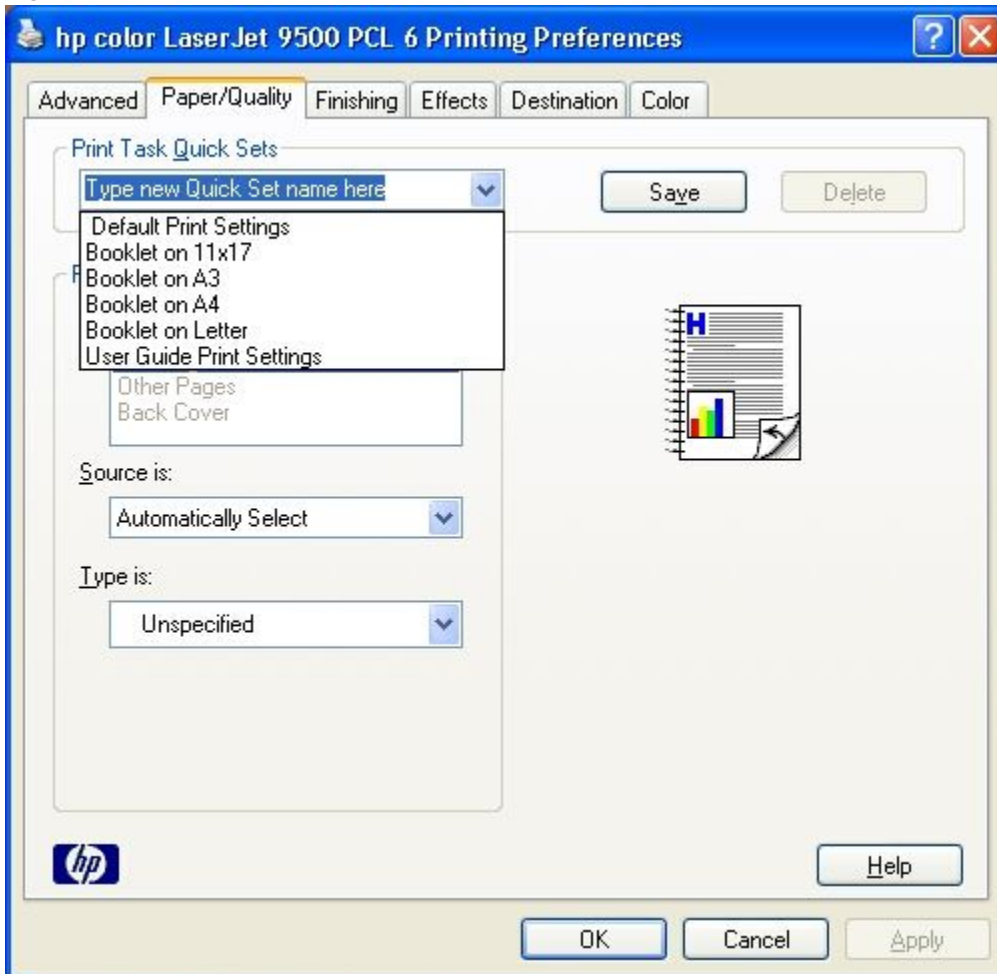
**Print Task Quick Sets** is a feature that is available on the **Paper/Quality**, **Finishing**, **Effects**, and **Destination** tabs. The feature is used to store the current combination of driver settings that are found on all of the other tabs. **Print Task Quick Sets** are either preset or user-defined printing specifications (such as paper size, pages per sheet, and so on).

The following settings are available in the **Print Task Quick Sets** drop-down menu.

- **Default Print Settings**
- **Booklet on 11x17**
- **Booklet on A3**
- **Booklet on A4**
- **Booklet on Letter**
- **User Guide Print Settings**

An illustration of the available Print Task Quick Sets appears below.

Figure 47: The Print Task Quick Sets



## Default Print Settings

When you select **Default Print Settings**, nearly all of the settings are restored to the combination that existed after the driver was installed (the original settings). However, if the attribute combinations that are associated with watermark definitions, custom paper sizes, or the **User Guide Print Settings** quick set have been changed or deleted, the original settings are not restored.

The **Type new Quick Set name here** setting (which has the same settings as **Default Print Settings**) appears automatically if no other driver settings have been changed since the driver was installed. Otherwise, the setting in the **Print Task Quick Sets** menu has the same label that appeared when you last closed the printing **Properties** dialog box by clicking **OK**.

The following table shows the default settings for **Print Task Quick Sets**. See the "HP driver preconfiguration" section of this guide for information about preconfigurable driver settings.

**Table 20: Print Task Quick Set default values for the HP LaserJet 9500 printer**

Driver feature	U.S. English Print Task Quick Sets default values	Other language default setting (if different)	Preconfigurable <sup>1</sup>
Print on both sides	Off		Yes
Flip pages up	Off		Yes
Booklet printing	Off		Yes
Pages per sheet	1		Yes
Print page border	Off		Yes
Page order	Right, then down		Yes
Print quality	Best quality		Yes
Current setting	PCL 6: This is the "Faster Printing" setting PCL 5c: This is the "Best Quality" setting		No
Rendering mode (PCL 5c only)	Automatic		No
Scale patterns (WYSIWYG)	On		Yes
Print text as black	Off		Yes
TrueType (TM) as bitmaps	Off - send TrueType fonts as outlines	On (in Thai only)	Yes (except in Thai)
Print document on	Off - print on the size specified in the <b>Paper</b> tab		Yes
Size to print on	Letter	Default value depends on regional paper size	Yes
Scale to fit	Off		Yes
% of normal size	100		Yes
Watermarks	(none)		Yes
Watermarks first page only	Off		Yes
Current watermarks	(none), Confidential, Draft, SAMPLE		Yes
Watermark message	(none)		Yes
Watermark message angle	Diagonal		Yes
Watermark message custom angle	52		Yes
Watermark font name	Arial (R)	Language dependent	Yes
Watermark font color	Gray		Yes
Watermark font shading	Very Light		Yes

Driver feature	U.S. English Print Task Quick Sets default values	Other language default setting (if different)	Preconfigurable <sup>1</sup>
Watermark font size	140		Yes
Watermark font style	Regular		Yes
Mini pages tab	All pages		No
Use different paper for first page	Off - all of the pages use the same paper		No
All pages and first page size is	Letter	Default value depends on regional paper size	Yes
All pages and first page source is	Auto Select		Yes
All pages and first page type is	Unspecified		Yes
Other pages source is	Auto Select		No
Other pages type is	Unspecified		No
Back cover	No back cover		No
Back cover source is	Auto Select		No
Back cover type is	Unspecified		No
Custom paper size width	8.50 inches	210 mm	No
Custom paper size height	11.0 inches	297 mm	No
Paper size units	Inches	Millimeters	No
Destination features	Job Storage		No
Job storage mode	Off		No
Job storage require PIN to print	Off		No
Job storage user name	User logon name <blank - user must specify>		No
Job storage job name	<blank - user must specify>		No
Job storage PIN to print	0000		No
Output bin	Top bin (face-down)		Yes
Output bin option	(none)		Yes
Copies	1		Yes
Orientation	Portrait		Yes
Rotate by 180 degrees	Off		Yes

1- Preconfigurable by using an HP Preconfiguration tool. For more information, go to:  
<http://www.hp.com/support/clj9500>

## User guide print settings

The **User Guide Print Settings** setting provides a **Print Task Quick Set** for optimal printing of the *User Reference Guide* for the HP Color LaserJet 9500.

## Type new Quick Set name here

When you change any of the default settings on the **Finishing** tab or any of the other tabs, the name in the **Print Task Quick Sets** drop-down menu dynamically changes to **Type new Quick Set name here**. If you want to save this configuration as a print task quick set, highlight the word **Type new Quick Set name here**, type the name you want for your new print task quick set and click **Save**. Print task Quick Sets are saved in the system registry. To delete a print task quick set, select it from the drop-down menu and click **Delete**.



You can store a maximum of 25 user-defined print task quick sets on a particular system. If you attempt to save too many, a message box appears that reads, "There are too many Quick Sets defined. Please delete some before adding new ones."

## Paper options

The following settings are available in the **Paper Options** group box:

- **Use different paper**
- **Source is:**
- **Type is:**

## Use different paper

When you click the **Use different paper** check box, the following options become available.

- **First Page**
- **Other Pages**
- **Back Cover**

## First Page and Other Pages

A cover can have two forms, depending on the type of booklet or book a user is printing:

- For full-size (for example, Letter size, Letter type) books, select a different media for the first page and add an extra blank back page. The front cover can contain print or be a blank page, and can either be pulled from a different paper source or be of another media type. The back cover can be printed on a different media from the front cover.
- For two-page-per-sheet (2-up) booklet printing, obtain a cover by selecting a different media for the first page only. The back cover setting is hidden, because this page would otherwise be printed in the middle of a booklet.

Whenever you make changes to all of the pages (that is, when **Use different paper** is not selected), these changes are reflected in both the **First Page** and **Other Pages** settings.

Use the **Other Pages** option to select an alternative media type or source for the pages that follow the first page of a document. The choices and defaults for **Source is:** and **Type is:** are the same as they are for **First Page**.

## Back cover

Use the **Back Cover** option to select an alternate paper source or media type from which a blank page is drawn and placed after the last page of the document. By default, no back cover is printed.

The settings for **Back Cover** are not retained when the **Use different paper** check box is cleared. If you select **Use different paper**, and then select **Back Cover**, the **Add a blank back cover** check box appears. When you clear the **Use different paper** check box, the source and media type for the first tab overwrites the other paper settings, and the **Add a blank back cover** check box is cleared, and then the option disappears. The setting for **Source is:** is set to **Automatically Select**, and the setting for **Type is:** is **Unspecified**.

## Source is

The **Source Is:** setting specifies the paper source to use for printing a document. The drop-down menu shows the input trays available according to the **Device Settings** tab.

The following options are available.

- **Automatically Select**
- **Manual Feed (Tray 1)**
- **Printer Auto Select** (PCL 6 and PCL 5c only)
- **Tray 1**
- **Tray 2** (500-sheet tray)
- **Tray 3** (500-sheet tray)
- **Tray 4** (2000-sheet tray) - HP Color LaserJet 9500hdn only

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**Note**

**Automatically Select** and **Printer Auto Select** both cause the printer to use the default input tray. However, **Printer Auto Select** sends no input tray information to the printer, while **Automatically Select** allows you to select a tray that is configured in **Form to Tray Assignment**.

The default setting is **Automatically Select**. When this setting is selected, the printer uses the paper tray that supports the media size that you have selected. If you select a paper source other than **Automatically Select**, make sure that the correct paper size is loaded in the paper source.

If a conflict exists among paper source, size, and type, and you choose to keep the conflicting settings, the settings are processed in the following order: paper size, paper type, and then paper source.

For information about media sizes and types, see the “Media attributes” section of this guide.

## Type is

The **Type is**: drop-down menu shows all of the the media types supported by the printer, as well as any user-defined types that have been created by a network administrator using Web JetAdmin. When you use the default setting, **Unspecified**, the printer uses the default media type, usually **Plain**.

No mechanism exists for manually adding custom paper types from the driver. Custom types can only be added with the bidirectional-communication mechanism, and they must already exist in the printer when the bidirectional-communication query occurs. If bidirectional communication is enabled, the information that is returned is used to update the list of paper types. If bidirectional communication is disabled, the driver looks for any custom paper types that it might have saved from a previous bidirectional communication query and use those. Otherwise, no custom paper types are available through the driver.

The following standard types appear in the lists:

- Bond
- Cardstock (> 164 g/m<sup>2</sup>)
- Color
- Glossy (75 - 105 g/m<sup>2</sup>)
- Envelope
- Heavy (106 - 163 g/m<sup>2</sup>)
- HP Heavy Glossy
- Labels
- Letterhead
- Light (< 75 g/m<sup>2</sup>)
- Non-HP Heavy Glossy
- Plain
- Preprinted
- Prepunched
- Recycled
- Tough Paper
- Transparency
- Unspecified

## Document preview image

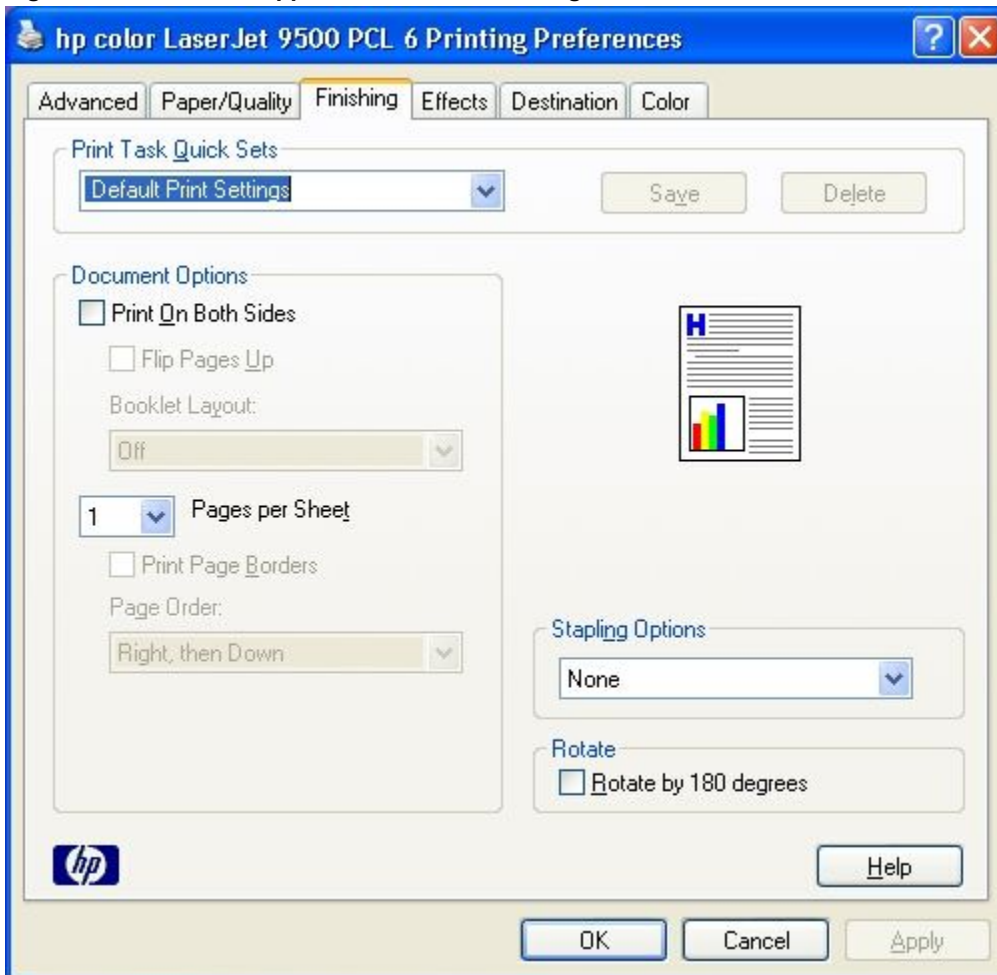
The preview image is a color, line-drawn image of a page that represents graphics and text. The image is always oriented so that the contents of the page are right-side up. The preview image appears in the upper-right corner of the **Paper/Quality, Finishing, Effects, Destination, and Color** tabs.

Switching between tabs does not change the location or appearance of the preview image. When you move the mouse over the preview image, the mouse cursor changes from an arrow to a gloved hand. You can toggle between portrait and landscape page orientation by clicking on the image. The light-yellow dimensions label that appears below the preview image reflects the selected page size. The horizontal dimension is always first, so the order of the numbers reverses when the orientation changes. Click on the label to toggle between English and metric units.

## Finishing tab features

The appearance of the **Finishing** tab differs, depending on the printer model and the installed paper-handling accessories. The following illustration shows the default appearance of the **Finishing** tab.

Figure 48: The default appearance of the Finishing tab



The **Finishing** tab contains the following controls.

- **Print Task Quick Sets** group box
- **Document Options** group box
- Document preview image
- **Stapling Options** group box (activated when the **Accessory Output Bin** setting on the **Device Settings** tab is set to any option other than **Not Installed**)
- **Rotate by 180 degrees** group box

### Print Task Quick Sets

The **Print Task Quick Sets** control is available on the **Paper/Quality**, **Finishing**, **Effects**, and **Destination** tabs. The feature is used to store the current combination of driver settings that are found on all of the other tabs. **Print Task Quick Sets** are either preset or user-defined printing specifications (such as paper size, pages per sheet, and so on). For more information, see the "Print/Quality tab features" section of this guide.

## Document Options

The **Document Options** group box contains the following controls.

- **Print on Both Sides**
- **Flip Pages Up** (available when the **Duplex Unit (for 2-Sided Printing)** setting on the **Device Settings** tab is **Installed**)
- **Booklet Layout** (available when the **Duplex Unit (for 2-Sided Printing)** setting on the **Device Settings** tab is **Installed**)
- **Pages per Sheet**
- **Print Page Borders** (activated when **Pages per Sheet** setting is greater than 1)
- **Page Order** (activated when the **Pages per Sheet** setting is greater than 1)

## Print on Both Sides option

### Note

The **Print on Both Sides** option is available only if the printer has a duplexing unit installed. The HP Color LaserJet 9500hdn comes with a duplexing unit already installed. The duplexing unit is an optional accessory for the HP Color LaserJet 9500n.

In addition to having a duplexing unit installed, it must be correctly configured in the printer driver in order to use the **Print on Both Sides** option. To configure the duplexing unit, click **Start** on the Windows task bar, click **Settings**, and then click **Printers**. Right-click on the printer name, and then click **Properties**. Click the **Device Settings** tab, and click the **Duplex Unit** drop-down menu and select **Enabled**. Then click **Apply**, and close the driver window.

The default setting for the **Print on Both Sides** option is off (not selected). Although the **Print on Both Sides** check box is always available, if you select **Print on Both Sides** along with incompatible settings, an **Incompatible Print Settings** message appears. See the "Incompatible Print Settings" section of this guide for more information.

An **Incompatible Print Settings** message appears if you select **Print on Both Sides** along with any of the following settings.

On the **Paper/Quality** tab

- **Transparency**
- **Labels**
- **Envelope**

On the **Advanced** tab under **Paper Size**

- **Double PostCard (JIS)**
- **Envelope #10**
- **Envelope B5**
- **Envelope C5**
- **Envelope DL**
- **Envelope Monarch**

## Automatically printing on both sides

Use the duplexing unit in the printer to automatically print on two sides of the paper when that option is specified in the job. The HP Color LaserJet 9500hdn comes with a duplexing unit installed. The duplexing unit is an optional accessory for the HP Color LaserJet 9500n printer.

To achieve the best print quality when printing on the second side of the page, the printer needs to make adjustments to its print modes. When you select a media type, you are, in effect, instructing the printer to use a group of printer

settings (such as fuser temperature and print speed) to print the media with the best possible quality. This group of settings is known as a mode or print mode, and a different print mode is associated with each media type. Print-mode adjustments are automatic when the duplexing unit is used.

## Flip Pages Up

The **Flip Pages Up** check box, enabled only when **Print on Both Sides** is selected, is used to specify the duplex-binding option. By default, the **Flip Pages Up** check box is not selected. The following table demonstrates the results of selecting this box, depending on the paper orientation selected on the **Basics** tab.

**Table 21: Page orientation**

Orientation (Basics tab)	Flip Pages Up selected	Flip Pages Up not selected
Portrait	Short-edge binding	Long-edge binding
Landscape	Long-edge binding	Short-edge binding

When **Print on Both Sides** is selected, the document preview image changes to show a spiral binding along either the left or the top edge of the page. In addition, a folded-over corner appears in the lower-right portion of the preview image, indicating that printing will occur on the back side. An arrow on the folded-over corner points in the direction that the pages would be flipped if they were bound together.

## Booklet layout

The **Booklet Layout** drop-down menu, visible when **Print on Both Sides** is selected, offers choices that are based on the current paper size. The default setting for the **Booklet Layout** drop-down menu is **Off**.

- **Left Edge Binding**
- **Right Edge Binding**

When you select **Left Edge Binding** or **Right Edge Binding**, the document preview image changes to show the location of the binding, and, if the **Pages per Sheet** setting is on the default setting of 1, it automatically changes to 2. You may change the **Pages per Sheet** setting manually to 4, 6, 9, or 16. See "Pages per Sheet" in the "HP traditional PCL 5c, PCL 6, and PS unidriver features" section of this document for more information.

## Book and booklet printing

Book and booklet printing are both supported by the HP Color LaserJet 9500 printer.

A book is a print job consisting of at least two pages that can have a different media type for the first page (front cover) or last page (back cover). Use the **First Page** and **Back Cover** options on the **Paper/Quality** tab (available when you select the **Use different paper for first page** check box) to select different media for the first and last pages.

A booklet is a print job that places two pages on each side of a sheet that can be folded into a booklet that is half the size of the media type. Use the **Booklet Layout** drop-down menu on the **Finishing** tab to control booklet settings.

## Printing a Booklet using Booklet Layout

1. In your software program, click **File**, click **Print**, and then click **Properties**.
2. Click the **Finishing** tab. Click the **Print on Both Sides** check box to select it.
3. In the **Booklet Layout** drop-down menu, select the type of booklet printing that you want. The booklet printing type consists of the location of the binding (for example, **Left Edge Binding**).

## Printing a book using Booklet Layout

A book is a print job consisting of at least two pages that can have a different media type of the first page (front cover) or the last page (back cover). The booklet cover must be the same size as the inside sheets. Follow these instructions for book printing.

1. In your software program, click **File**, click **Print**, and then click **Properties**.
2. Click the **Paper/Quality** tab, and then click the **Use different paper** check box to select it.
3. Click the **First Page** option. On the **Source is:** and **Type is:** menus, select the source and type settings for your cover.
4. Click the **Other Pages** option. On the **Source is:** and **Type is:** menus, select the source and type settings for the inside sheets of your print job.
5. Click the **Back Cover** option. The **Add a blank back cover** check box appears. If you select this check box, the **Source Is:** and **Type Is:** menus appear. Select the source and type settings for the back cover.

Whenever you make changes to all of the pages (that is, when **Use different paper** is not selected), these changes are reflected in both the **First Page** and **Other Pages** settings whenever you set **Use different paper**.

### Note

The **Back Cover** option is not available when you select any **Booklet Layout** setting except **Off**, which is the default. When you use this feature, the last page of the print job is folded into the middle of the booklet.

## Pages per Sheet

The **Pages per Sheet** drop-down menu provides six settings: 1 (default), 2, 4, 6, 9 and 16.

Related controls indented beneath the **Pages per Sheet** edit box are **Print Page Borders** and **Page Order**, which become active when the **Pages Per Sheet** setting is greater than 1.

## Print Page Borders

When you select the **Print Page Borders** check box, a line is set around each page image on a printed sheet to help visually define the borders of each logical page.

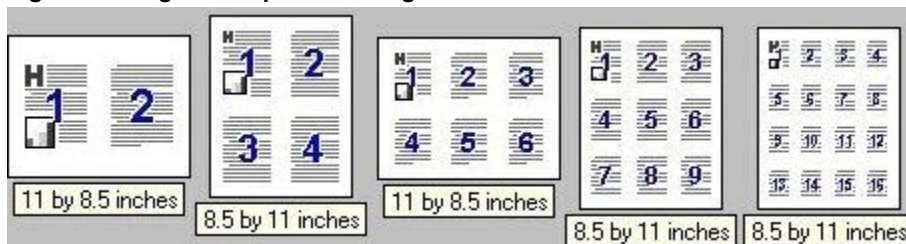
## Page Order

The **Page Order** drop-down menu contains four selections:

- **Right, then Down**
- **Down, then Right**
- **Left, then Down**
- **Down, then Left**

The preview document image changes to reflect alterations in these settings, as shown by the examples in the following illustration.

Figure 49: Page-order preview images



- **2 pages per sheet**
- **4 pages per sheet**
- **6 pages per sheet**
- **9 pages per sheet**
- **16 pages per sheet**

## Document preview image

The preview image is a color, line-drawn image of a page that represents graphics and text. The preview image appears in the upper-right corner of the **Paper/Quality**, **Finishing**, **Effects**, **Destination**, and **Color** tabs. For more information about the document preview image, see the "Paper/Quality tab features" section of this document.

## Stapling options

Use this setting to select the type of stapling options to apply to your document. The **Stapling** options are only available when the Accessory Output Bin installed on your printer has a stapler (for example, the HP 3000-Sheet Stapler/Stacker or the HP Multifunction Finisher). The specific **Stapling** options available are dependent upon which Accessory Output Bin is installed.

The following **Stapling** options are available.

- **None** (default)
- **One Staple**
- **One Staple Angled** (HP 3000-Sheet Stapler/Stacker only)
- **Two Staples**
- **Three Staples** (HP 3000-Sheet Stapler/Stacker only)
- **Six Staples** (HP 3000-Sheet Stapler/Stacker only)
- **Fold/saddle stitch** (HP Multifunction Finisher only)

Use the following guidelines when stapling.

- Each stapler has a maximum number of pages that can be stapled. Consult your stapler documentation to find out your stapler limitations.
- **One Staple Angled** will not work with some paper sizes; in these cases **One Staple** is used.
- If you have selected more than one staple per page and you are printing on both sides, you will not be able to flip your pages up, or to the left or right, depending on which edge of the paper the staples are placed.
- When selecting a stapling option, pages will always be printed to the **Stapler Bin** on the printer.
- For some paper sizes, the printer may assume a specific paper feed orientation (that is, which edge goes into the printer first). If you encounter unexpected results in staple placement, try using a different feed orientation. For example, find a paper tray on your printer where you can insert letter paper with the short edge towards the printer rather than the long edge.
- You might want to avoid some staple positions. For example, if you are printing on both sides of the paper and want to flip your pages up, you should not select more than one staple if the paper is fed from the long edge. Using two or more staples prevents you from flipping the paper up.
- If your stapler head cannot move, then there are some corners on the paper that staples cannot be placed. For portrait orientation, a staple can be placed only on the upper-left or the lower-right corners. For landscape orientation, a staple can be placed only on the lower-left or upper-right corners.

## Rotate by 180 degrees

This feature causes the driver to rotate all of the page images by 180 degrees. The purpose of this feature is to provide more control over the binding edge and for controlling the image on special media. For example, a printer

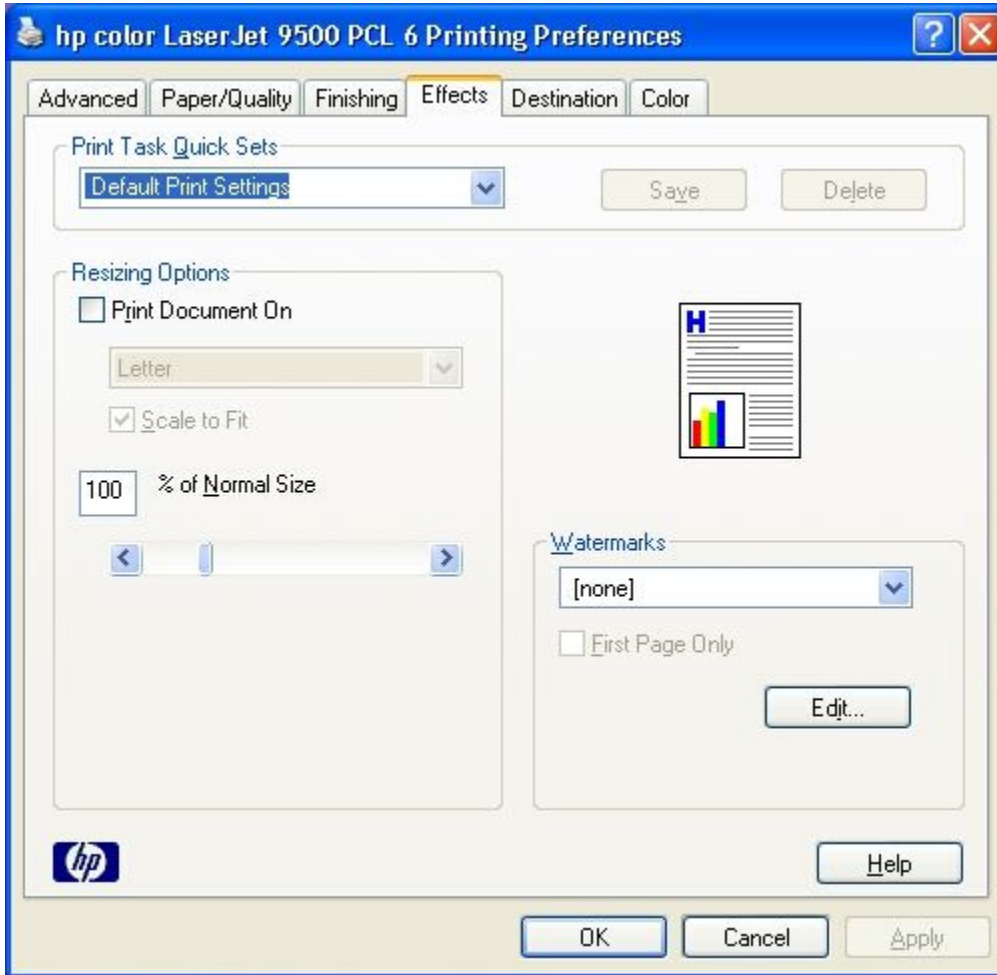


might not fuse toner correctly near the trailing edge of an envelope. To correct this problem, rotate the media 180 degrees in the paper tray and select the **Rotate by 180 degrees** check box.

## Effects tab features

The **Effects** tab is used to create unique paper effects such as scaling and watermarks. The following illustration shows the **Effects** tab.

Figure 50: Effects tab



The **Effects** tab contains the following controls.

- **Print Task Quick Sets** group box
- **Resizing Options** group box
- Document preview image
- **Watermarks** group box

## Print Task Quick Sets

The **Print Task Quick Sets** control is available on the **Paper/Quality**, **Finishing**, **Effects**, **Destination**, and **Color** tabs. The feature is used to store the current combination of driver settings that are found on all of the other tabs. The print task quick sets are either preset or user-defined printing specifications, such as paper size and pages per sheet. For more information, see the "Paper/Quality tab features" section of this guide.

## Resizing Options

The Resizing Options group box contains the following controls.

- **Print Document on** setting
- **Scale to Fit** check box
- **% of Normal Size** setting

## Print Document On setting

Use **Print Document On** to format the document for one paper size, and then print the document on a different paper size, with or without scaling the page image to fit the new paper size.

You can disable the **Print Document On** control by creating of the following conditions:

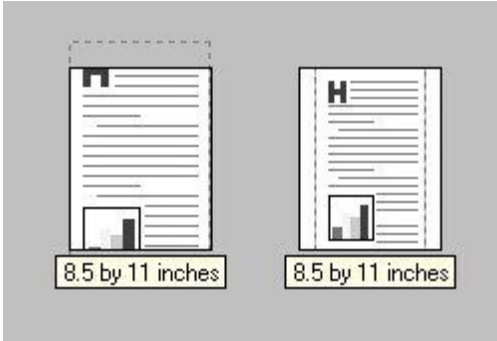
- **Percent of Normal Size** is not 100.
- **Pages per Sheet** (on the **Finishing** tab) is not 1.

When **Print Document On** is selected, the drop-down menu shows the media sizes on which you can print. The list contains all of the standard media sizes supported by the selected media source, and any of the custom sizes that you have created (if the currently selected media source is manual, auto, or any tray). When **Print Document On** is selected, **Scale to Fit** is automatically selected.

## Scale to Fit option

The **Scale to Fit** option specifies whether each formatted document page image is scaled to fit the target paper size. By default, **Scale to Fit** is selected when **Print Document On** is selected. If the setting is turned off, then the document page images are not scaled, and are instead centered at full size on the target paper. If the document size is larger than the target paper size, then the document image is clipped. If the document size is smaller, then it is centered within the target paper. The following illustration shows preview images for a document formatted for Legal paper with the **Print Document On** option selected, and the target size specified as **Letter**.

**Figure 51: Preview images - Legal on Letter; Scale to Fit off (left) and on (right)**



When the size for which the document is formatted (that is, the logical size) differs from the target size, the preview image uses a dashed gray line to show the boundaries of the logical page in relation to the target page size.

## % of Normal Size option

The **% of Normal Size** option provides a slider bar for scaling the percentage setting. The default setting in the entry box is 100 percent of the normal size. The normal size is defined as the paper size that is selected within the driver or what the driver receives from the software program (if the software program does not negotiate the paper size with the driver). The driver scales the page by the appropriate factor and sends it to the printer.

The limits of the range are from 25 percent to 400 percent, and any values outside the range are adjusted to those limits as soon as the focus is removed from the control (that is, when the **Tab** key is pressed or another control is selected).

Any change to the scale also changes the page preview, which increases or decreases from the upper-left corner of the preview.

The slider bar controls the scale directly. The value in the edit box changes as the scroll bar indicator is dragged, and the preview image is updated to the new image scale. Each click on the scroll bar arrows increases or decreases the scale by one percent. Each click on the slider bar affects the scale by 10 percent.

You cannot achieve an exact value by dragging the scroll bar indicator at the default Windows resolution; use the scroll bar indicator to approximate the desired value, and then use the scroll bar arrows to refine the value.

The following settings disable **% of Normal Size**:

- **Print Document On** is selected.
- **Pages per Sheet** is not 1.

## Watermarks

The **Watermarks** group box contains the following controls.

- **Watermarks** drop-down menu
- **First Page Only** check box
- **Edit** button (Opens the **Watermark Details** dialog box)

## Watermarks drop-down menu

Use the **Watermarks** settings to choose a watermark, create your own custom watermarks (text only), or to edit an existing watermark. The following watermarks are preset in the driver:

- **(none)**
- **Confidential**
- **Draft**
- **SAMPLE**

The drop-down menu shows alphabetically sorted watermarks that are currently available on the system, plus the string "(none)", which indicates that no watermark is selected. This is the default setting. Any watermark selected from this list appears in the preview image.

## First Page Only option

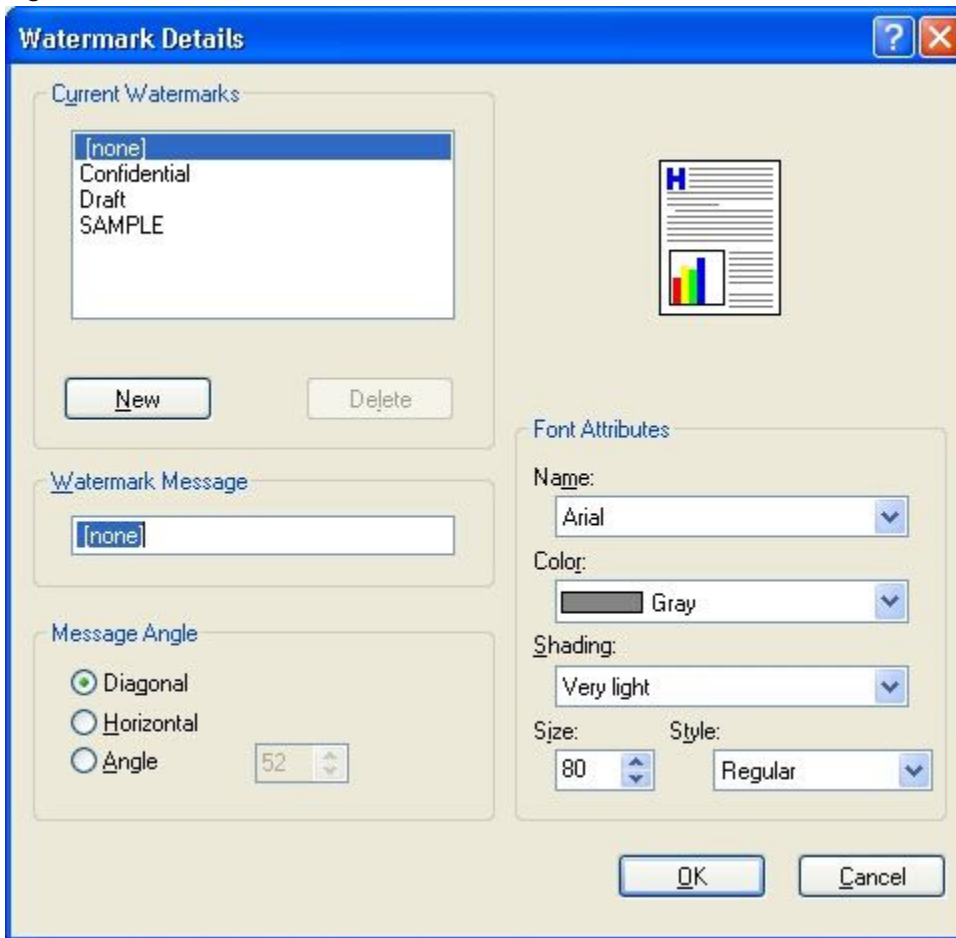
When **First Page Only** is selected, the watermark is printed only on the first page of the document. The **First Page Only** check box is disabled when the current watermark selection is "(none)".

Watermarks are applied to logical pages. For example, when **Pages per Sheet** is set to "4" and **First Page Only** is turned off, four watermarks appear on the physical page (one on each logical page).

## Edit button (Watermark Details)

Click **Edit**, and the **Watermark Details** dialog box appears. The following illustration shows the **Watermark Details** dialog box.

Figure 52: Watermark Details



The dialog box shows a preview image and provides options for creating a new watermark and controlling the message angle and the font attributes.

Click **OK** to accept all of the changes made in the **Watermark Details** dialog box. Clicking **Cancel** does not cancel all of the changes. If you make changes to a watermark, and then select a different watermark or click **New**, all of the changes made to the previous watermark are saved, and only the current, unsaved changes can be canceled.

The **Watermark Details** dialog box contains the following controls.

- **Current Watermarks** group box
- **Watermark Message** text box
- **Message Angle** group box
- **Font Attributes** group box

## Current Watermarks

The **Current Watermarks** group box contains a list of available watermarks, both predefined watermarks made available in the driver and any new watermarks you have created. To create a new watermark, click **New**. The new watermark appears in the **Current Watermarks** list and in the **Watermark Message** edit box as **Untitled** until you name it. To name the new watermark, type the selected watermark text in the **Watermark Message** edit box. To delete a watermark, select the watermark in the **Current Watermarks** list and click **Delete**.

**Note** You can have no more than 30 watermarks in the **Current Watermarks** list at one time. When you reach the limit of 30 watermarks, the **New** button is disabled, and a Bubble Help message appears that explains why the button is disabled and how to enable it.

To edit an existing watermark, select the watermark in the **Current Watermarks** list. If you change the **Watermark Message** for that watermark, you are, in effect, creating a new watermark.

## Watermark Message

The **Watermark Message** is also the name that identifies the watermark in the **Current Watermarks** list, except when more than one watermark has the same message. For example, you might want several different watermarks with the message DRAFT, each with a different font or size. When this occurs, the string is appended with a space, a pound sign, and a number (for example, **Draft #2**). When a number is added, the number two is used first, but if the resulting name is also in the list, then the number increases until the name is unique.

## Message Angle

Use the controls in the **Message Angle** group box to print the watermark in a diagonal, horizontal, or angle (custom) orientation to the text on the page. The default is **Diagonal**. All three settings automatically center the watermark string within the page; the selection of a particular setting affects only the angle of the string placement. **Diagonal** places the text along a line that spans the lower-left to upper-right corners of the page.

## Document preview image

The preview image is a color, line-drawn image of a page that represents graphics and text. The preview image appears in the upper-right corner of the **Paper/Quality**, **Finishing**, **Effects**, **Destination**, and **Color** tabs. For more information about the document preview image, see the "Paper/Quality tab features" section of this document.

## Font Attributes

Use the controls in the **Font Attributes** group box to change the font and the color, shading, size, and style of the font.

The **Font Attributes** group box contains the following controls.

- **Name** drop-down menu
- **Color** drop-down menu
- **Shading** drop-down menu
- **Size** spin box
- **Style** drop-down menu

### Name

The **Name** drop-down menu lists TrueType fonts that are currently installed on the system. The default is language-dependent.

### Color

The **Color** drop-down menu lists the fixed, unalterable color choices for the watermark. The default setting for new and preset watermarks is **Gray**. **Color** options are the following:

- **Gray**
- **Red**
- **Yellow**
- **Green**
- **Cyan**
- **Blue**
- **Magenta**

### Shading

The default **Shading** setting for new and preset watermarks is **Very Light**. The following range of shades is available from the **Shading** drop-down menu.

- **Lightest**
- **Very Light** (default)
- **Light**
- **Medium Light**
- **Medium**
- **Medium Dark**
- **Dark**
- **Very Dark**
- **Darkest**

These values represent the intensity of the color selected in the **Color** attribute setting.

### Size

Font sizes from 1 to 999 points are available from the **Size** menu. The default point size for new watermarks is **80** points. The default point size for preset watermarks is language-dependent.

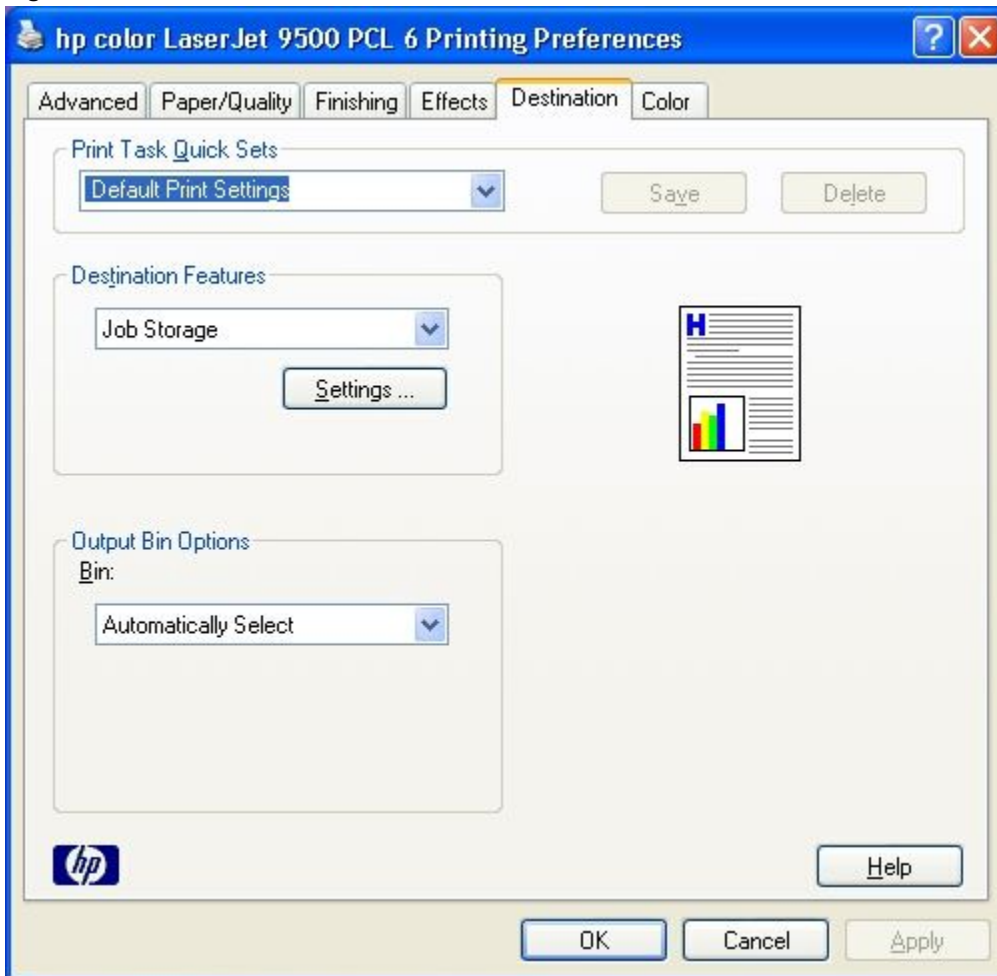
## Style

The choice of **Regular**, **Bold**, **Italic**, and **Bold Italic** is available from the **Style** drop-down menu. The default **Style** setting for new and preset watermarks is **Regular**.

## Destination tab features

The **Destination** tab provides options for job storage and output bins. The **Destination** tab is shown in the following illustration.

Figure 53: Destination tab features



The **Destination** tab contains the following controls.

- **Print Task Quick Sets** group box (Standard for the HP Color LaserJet 9500hdn printer; optional for the HP Color LaserJet 9500n printer)
- **Destination Features** group box
- **Output Bin Options** group box
- Document preview image



## Print Task Quick Sets

The **Print Task Quick Sets** control is available on the **Paper/Quality, Finishing, Effects, Destination, and Color** tabs. The feature is used to store the current combination of driver settings that are found on all of the other tabs. **Print Task Quick Sets** are either preset or user-defined printing specifications, such as paper size and pages per sheet. For more information, see the "Paper/Quality tab features" section of this guide.

## Destination Features group box

### Note

To see the **Destination Features** group box to use the **Job Storage** options, the printer must have a hard disk installed. A printer hard disk is an optional feature for the HP Color LaserJet 9500n printer and a standard feature of the HP Color LaserJet 9500hdn printer. In addition to having a hard disk installed, the printer must also have the **Printer Hard Disk** option set to **Installed** in the **Installable Options** section of the **Device Settings** tab.

The **Destination Features** group box contains a drop-down menu that contains only the **Job Storage** option and a **Settings** button that opens the **Job Storage Settings** dialog box .

The following illustration shows the **Job Storage Settings** dialog box.

Figure 54: Job Storage Settings dialog box



The **Job Storage Settings** dialog box contains the following controls.

- **Job Storage Mode** group box
- **Job Notification Options** group box
- **User Name** group box
- **Job Name** group box
- **PIN** group box

## Job Storage Mode

Using the **Job Storage** feature on your HP Color LaserJet 9500 printer, you can store documents at the printer, and then control their printing at the printer control panel. This feature is intended to provide greater flexibility, convenience, security, and cost savings.

After the **Job Storage** feature has been enabled, you can use its features by clicking **Settings** on the **Destination** tab of the printer driver.

The HP Color LaserJet 9500 printer offers the following **Job Storage** options:

- **Off**
- **Proof and Hold**
- **Private Job**
- **Quick Copy**
- **Stored Job**

### Off

The **Off** option turns the **Job Storage** feature off (disables the feature), which means the print job is not stored in the printer.

### Proof and Hold

The **Proof and Hold** option stores the print job and prints only the first copy of the job, allowing you to check the first copy. If the document prints correctly, you can print the remaining copies of the print job by using the printer control panel. You can set the number of proof-and-hold print jobs that can be stored in the printer at the printer control panel.

After the proof-and-hold print job is released for printing, it is immediately deleted from the printer. If more copies are needed, you must reprint the job from the software program. If you send a second proof-and-hold job to the printer with the same user name and job name as an existing proof-and-hold job (and you have not released the original job for printing), the job overwrites the existing job. Proof-and-hold jobs are deleted if you disconnect the power to the printer.

### Private Job

Use the **Private Job** option to send a print job directly to the printer memory. Selecting the **Private Job** option activates the **PIN** field. The print job can be printed only after you type a PIN in the printer control panel. After the job is printed, the printer removes the job from the printer memory. This feature is useful when you are printing sensitive or confidential documents that you do not want to leave in an output bin after printing. **Private Job** stores the print job in the printer RAM memory.

After the private job is released for printing, it is immediately deleted from the printer. If more copies are needed, you have to reprint the job from the software program. If you send a second private job to the printer with the same user name and job name as an existing private job (and you have not released the original job for printing), the job overwrites the existing job, regardless of the PIN. Private jobs are deleted if you disconnect the power to the printer.

### Using a PIN for Private Job

You can secure the **Private Job** option by using a four-digit personal identification number (PIN). This number must be typed in the printer control panel before the printer prints the job. You can choose a predefined PIN, or you can also create a custom PIN.

The box labeled **PIN** is usually inactive. Selecting **Private Job** along with **Require PIN to Print** activates the **PIN to print:** box. The Private Job/PIN coupling has a PIN restriction of four ASCII numeric characters (ASCII 0-30 through 0-39). If you enter non-numeric characters, they are removed immediately. If you enter more than four characters, the characters past the fourth are truncated. The field temporarily allows fewer than four digits in the string, but when the edit field loses focus, the zeroes pad the left end until there are exactly four digits. The default initialized value for the PIN is 0000 for **Private Job** with **Require PIN to Print** selected.

## Quick Copy

When you select **Quick Copy** option, a copy of the print job is stored on the hard disk, after which you can print additional copies of a print job by using the control panel. The number of quick-copy print jobs that can be stored in the printer is set from the printer control panel.

### Note

The printer configuration can be set to hold a maximum of 50 quick-copy or proof-and-hold jobs. The number is set at the printer control panel in the **Configuration** menu, and the default is 32. When this preset limit is reached, a newer document overwrites the oldest document. Also, a document that has the same user and job name as one that is already stored on the hard disk overwrites the existing document. Quick Copy jobs are deleted if the power to the printer is removed.

## Stored Job

Use the **Stored Job** option to send a print job directly to the printer hard disk. The print job is stored in the printer as if the printer is an electronic file cabinet. After the print job is stored in the printer hard disk, you can print the job by using the printer control panel.

The job remains stored on the printer until it is deleted or overwritten by a document with the same user and job names. Stored jobs remain on the printer hard disk when power is interrupted. Use this feature for forms and other common or shared documents.

## Require PIN to Print option

A stored job can be managed in two ways: as either a private or a public job. Use a private stored job to send a print job directly to the printer memory, which can then be printed only after you type in a PIN at the printer control panel. (You can set the PIN in the **Print** dialog box.) After the job is printed, the job remains in the printer memory and can be printed again by using the printer control panel. This feature is useful when you are printing sensitive or confidential documents that you do not want to leave in an output bin after printing. Private mode is initiated by clicking the **Require PIN to Print** check box. In this mode, a PIN typed at the control panel is required to release the job.

The box labeled **PIN** is usually inactive. The **Require PIN to Print** option is activated if you click **Stored Job**. If selected, you must enter a PIN to make the stored job private.

### Note

A **Stored Job** that has been made private is not the same as a **Private Job**. The **Private Jobs** are deleted from the printer memory after they are printed. The **Stored Jobs** that have been made private are retained in the printer memory after printing, but they require that you type in a PIN each time you want to print a private **Stored Job**.

## Job Notification Options

The only control that appears in the **Job Notification Options** group box is the **Display Job ID When Printing** check box, which is selected by default. Selecting this option causes your document to be identified in the printer control panel by user name and job name when you print using a **Job Storage** feature. Click the **Display Job ID When Printing** check box to clear it if you do not want the user name and job name to appear in the printer control panel.

## Job ID restrictions

The **Job Name** and the **User Name** fields can contain no more than 16 characters each, and are limited to A through Z and 0 through 9, because the name is displayed on the printer control panel. If you try to enter a lowercase character, it automatically shifts to uppercase. If you try to enter a character with an ASCII code of less than 32 or greater than 126 characters, the character is removed from the edit field, along with all of the characters that follow it. If you try to enter more than 16 characters, any character beyond 16 is truncated.

When the dialog box is closed, or as soon as the focus is removed from the edit box (that is, when the Tab key is pressed or another control is selected), an empty string is replaced with "Untitled". In those languages for which "Untitled" cannot be translated without the use of invalid characters, the driver uses a string of three dashes. The acceptable characters for **Job Name** and **User Name** vary for each operating system. The string must meet requirements to be able to appear on the printer control panel display.

## User Name group box

The **User Name** group box allows you to identify the job at the printer control panel. The **User Name** group box contains the following options.

- **Windows User Name** option button (default)
- **Custom** option button and text box

## Windows User Name

The driver uses your **Windows User Name** by default to identify any print jobs that use a Job Storage mode. If you want to use a different user name, click the **Custom** option button.

## Custom

Your **Windows User Name** appears by default in the **Custom** text box when the **Windows User Name** option button is selected. If you wish to use a different user name, click the **Custom** option button, and type your user name into the text box. Take note of the restrictions for user names that are described in the "Job ID restrictions" section of this guide when you are choosing your user name.

## Job Name group box

The **Job Name** field is used for specifying a name to identify the job on the printer control panel. The **Job Name** group box contains the following options.

- **Automatic** option button
- **Custom** option button and text box

## Automatic option button

The driver automatically assigns a job name to your print job. The job name that is automatically assigned by the driver is the file name of your document if it is available to the driver. If the file name is not available, the job name that is automatically assigned by the driver is a time stamp or the name of the software program from which you are printing. If you want to use a different job name, click the **Custom** option button.

## Custom option button and text box

The text string **Automatic** appears in the **Custom Job Name** text box by default when you select the **Automatic** option button. If you want to assign your own job name to your print job, click the **Custom Job Name** option button and type your job name into the text box. Take note of the restrictions for job names described in the "Job ID restrictions" section of this guide when you choose your job name.

## Using Job Storage options when printing

You can use **Job Storage** options in the **Destination** tab of the printer driver.

### Note

To use the **Job Storage** feature, your printer must have a hard disk installed. The HP Color LaserJet 9500hdn comes with a hard disk. The hard disk is an available option for the HP Color LaserJet 9500n.

In addition to having a hard disk installed, the printer driver must be configured to use the **Job Storage** features. To enable **Job Storage**, click **Start**, click **Settings**, click **Printers** (or **Printers and Faxes** in Windows XP and Windows Server 2003), and then right-click the printer icon. Click **Properties**, click the **Device Settings** tab, and scroll down to the **Installable Options** section. Select **Enabled** from the **Job Storage Options** drop-down menu.

1. Click **Print** from the software program. The **Print** dialog box appears.
2. Click **Properties**. The **Properties** dialog box appears.
3. Click the **Destination** tab to display the destination options.
4. Click **Job Storage** on the drop-down menu under **Destination Features**.

5. Click **Settings...** . The **Job Storage Settings** dialog box appears.
6. You can then select one of the **Job Storage** options described above by clicking the appropriate option button.

These instructions are specific to the Windows 95, Windows 98, Windows Me, Windows NT 4.0, Windows 2000, Windows XP, and Windows Server 2003 environments when using the latest available PCL 5c, PCL 6, and PS drivers.

## Releasing private jobs stored at the printer

After you send a print job using the **Job Storage** feature, you can release the job to print by using the printer control panel.

1. Press the select button (the one with the check mark) to enter the menus.
2. Press the up and down buttons to scroll to RETRIEVE JOB, and then press the select button.
3. Press the up and down buttons to scroll to your job and press the select button.
4. Press the up and down buttons to scroll to PRINT. (The PRINT selection might have an icon next to it indicating that the job is locked. If so, type the PIN, and then press the select button.) Press the select button.

## Deleting a print job

Sometimes it is necessary to delete a print job from the printer memory. You can do this from the printer control panel.

1. Press the select button (the one with the check mark) to enter the menus.
2. Press the up and down buttons to scroll to RETRIEVE JOB.
3. Press the up and down buttons to scroll to your job name and press the select button.
4. Press the up and down buttons to scroll to DELETE. (The DELETE selection might have an icon next to it indicating that the job is locked. If so, type the PIN number, and then press the select button.)

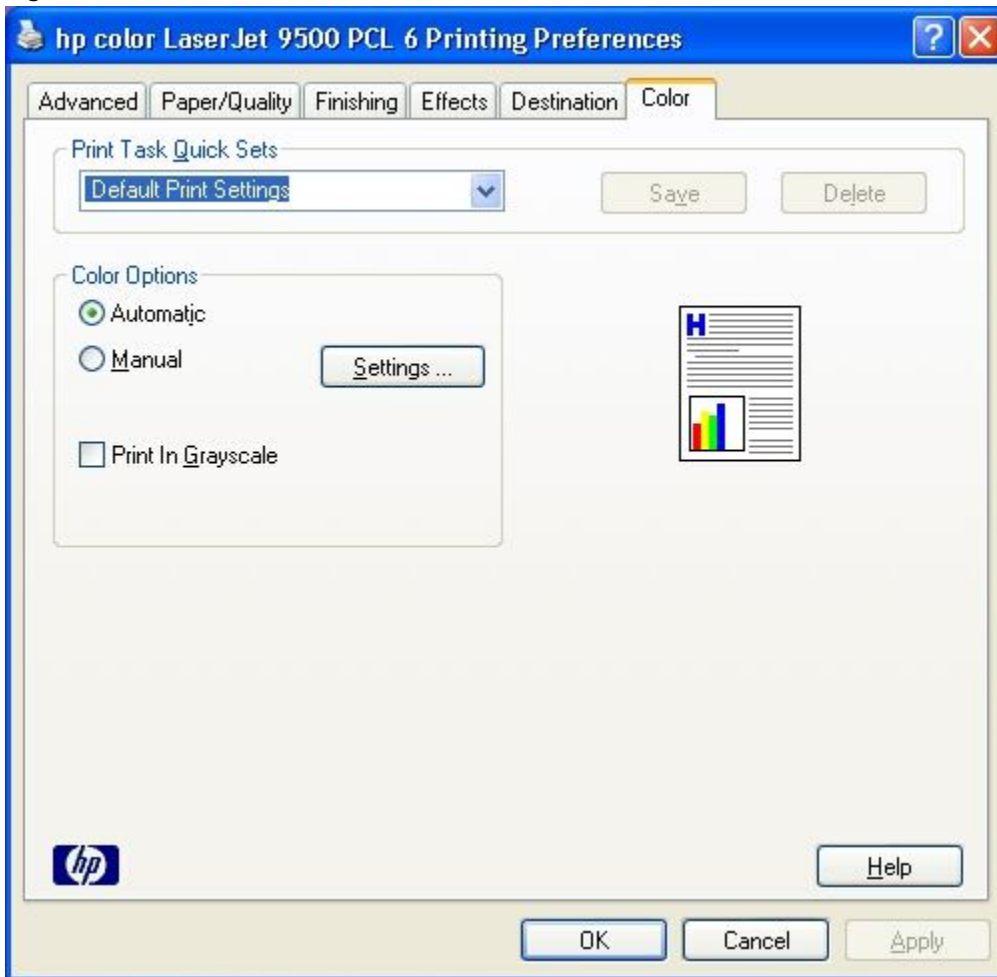
## Document preview image

The preview image is a color, line-drawn image of a page that represents graphics and text. The preview image appears in the upper-right corner of the **Paper/Quality**, **Finishing**, **Effects**, **Destination**, and **Color** tabs. For more information about the document preview image, see the "Paper/Quality tab features" section of this document.

## Color tab features

Use the **Color** tab to specify predefined color-option settings or to fine-tune the color treatments and half-toning. Color output can also be converted to grayscale. The **Color** tab is shown in the following illustration.

Figure 55: Color tab



The **Color** tab contains the following controls:

- **Print Task Quick Sets** group box
- **Color Options** group box
- Document preview image

### Print Task Quick Sets

The **Print Task Quick Sets** control is available on the **Paper/Quality**, **Finishing**, **Effects**, **Destination**, and **Color** tabs. The feature is used to store the current combination of driver settings that are found on all of the other tabs. **Print Task Quick Sets** are either preset or user-defined printing specifications, such as paper size and pages per sheet. For more information, see the "Paper/Quality tab features" section of this guide.

### Color options

Use the **Color Options** group box to adjust the independent color controls. The settings affect the print job color rendering and print quality. The **Color Options** group box contains the following controls:

- **Automatic** option (default)
- **Manual** option
- **Settings** button (that opens the **Color Settings** dialog box)
- **Print in Grayscale** check box

## Automatic color settings

Click the **Automatic** option button to use the default coloration settings that automatically tune your color printer output. The HP **Automatic** default color settings provide high-quality output for most color printing needs.

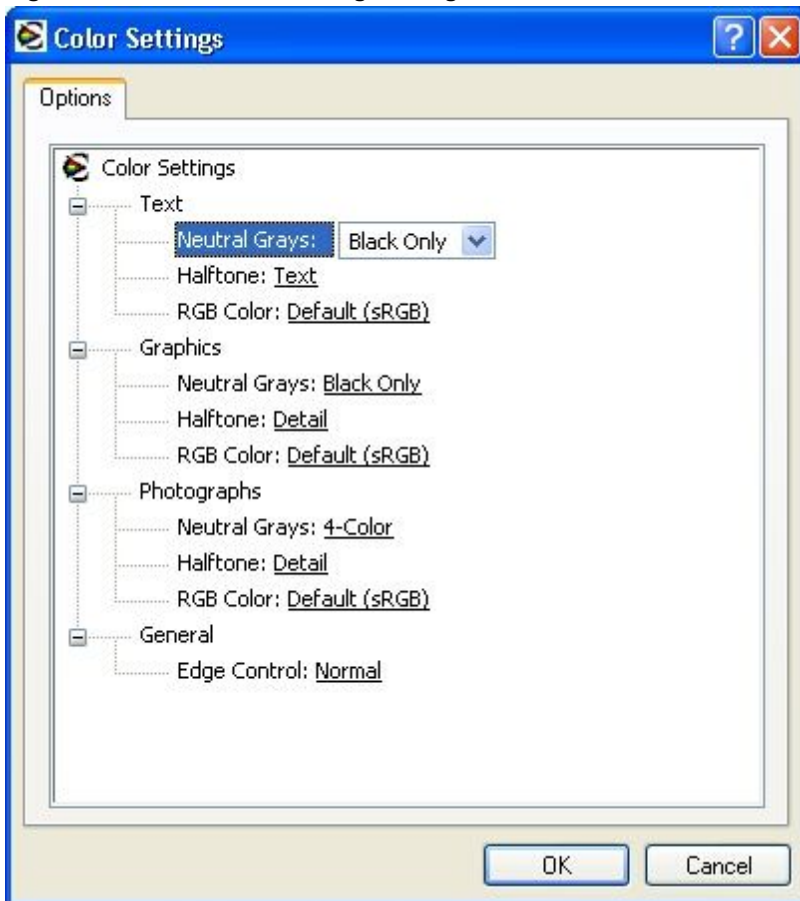
To convert color information to grayscale and print the document in black and white, select the **Print in Grayscale** checkbox.

## Manual color settings

To change the default coloration settings, click the **Manual** option button, and then click the **Settings** button. The **Color Settings** dialog box appears. The default settings are shown in the following illustration.

To change the settings, make your selections using the drop-down menus in the **Color Settings** dialog box, and then click **OK**. You are then prompted to save your selections as Custom or manual settings. The following illustration shows the **Manual Color Settings** dialog box.

**Figure 56: Manual Color Settings dialog box**



The **Manual Color Settings** dialog box gives you independent control of neutral grays and halftone for three major components: **Text**, **Graphics**, and **Photographs**. The **Manual Color Settings** dialog box contains the following controls for each of these components:

- **Neutral Grays**
- **Halftone**
- **RGB Color**

The **Manual Color Settings** dialog box also provides a **General** color setting group that applies to all color printing.

## Neutral Grays

The **Neutral Grays** drop-down menu controls the selection of a device-dependent color table that is embedded in the printer firmware. The options are **Black Only** or **4-Color**. You can adjust the **Neutral Grays** setting independently for text, graphics, or photographs.

- **Black Only**. This option generates neutral colors (grays and blacks) using only black toner, which ensures that neutral colors do not have a color cast. **Black Only** is the default Neutral Grays setting for the **Text**, **Graphics**, and **Photographs** components.
- **4-Color**. This option generates neutral colors by combining all four colors of toner, which produces smoother gradients and transitions to non-neutral colors. It also produces the darkest possible black.

## Halftone

The **Halftone** settings control the selection of a device-dependent halftone algorithm that is embedded in the printer firmware. The **Halftone** options, **Text** and **Detail**, affect the resolution and clarity of your color output. You can independently adjust halftone settings for text, graphics, and photos.

- **Text**. This option is optimized for the best reproduction of normal to small text and graphics that require sharp distinctions among lines or colors. Choose this option when the sharp edges of small objects, especially those that contain secondary colors (such as red, green, and blue), are the top priority. **Text** is the default halftone setting for the **Text** component.
- **Detail**. This option is optimized for the best reproduction of images, graphics, and large, solid-filled print areas. It also enhances photographs by smoothing out fine color gradations. Choose this option when the color fidelity of large objects is the top priority. **Detail** is the default halftone setting for the **Graphics** and **Photographs** components.

## RGB Color

The **RGB Color** settings affect the color treatment for object types and determines how colors are rendered. The options are **Default (sRGB)**, **Device**, and **Vivid**.

- **Default (sRGB)**. This option interprets RGB color as standard default RGB color space (sRGB), which is the accepted standard for many software companies and organizations such as Microsoft and the Worldwide Web Consortium. **Default (sRGB)** is the default RGB color setting for the **Text**, **Graphics**, and **Photographs** components.
- **Device**. This option sets the printer to print RGB data in raw device mode. To render photographs properly when this option is selected, you must manage color in the software program in which you are working or in the operating system.
- **Vivid**. This option sets the printer to increase the color saturation in the midtones. Less colorful objects are rendered more colorfully. This value is recommended for printing business graphics.

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### Note

If your software program converts text and graphics to raster, the **Photographs** settings also control the **Text** and **Graphics** settings.



## General color setting

The only **General** color setting available is **Edge Control**. **Edge Control**, which determines how edges are rendered, consists of two components: **Adaptive halftoning** and **Trapping**. Adaptive halftoning increases the edge sharpness of text and graphics while maintaining the quality of area fills. **Trapping** reduces the effect of color plane misregistration by slightly overlapping the edges of adjacent objects. The following options are available:

- **Off**, which sets **Trapping** and **Adaptive Halftoning** to **Off**.
- **Light**, which provides minimal **Trapping**. **Adaptive Halftoning** is set to **On**.
- **Normal**, which provides the default **Trapping** setting. **Adaptive Halftoning** is set to **On**. **Normal** is the default setting.
- **Maximum**, which provides the most **Trapping**. **Adaptive Halftoning** is set to **On**.

## Document preview image

The preview image is a color, line-drawn image of a page that represents graphics and text. The preview image appears in the upper-right corner of the **Paper/Quality**, **Finishing**, **Effects**, **Destination**, and **Color** tabs. For more information about the document preview image, see the "Paper/Quality tab features" section of this document.

## Device Settings tab features

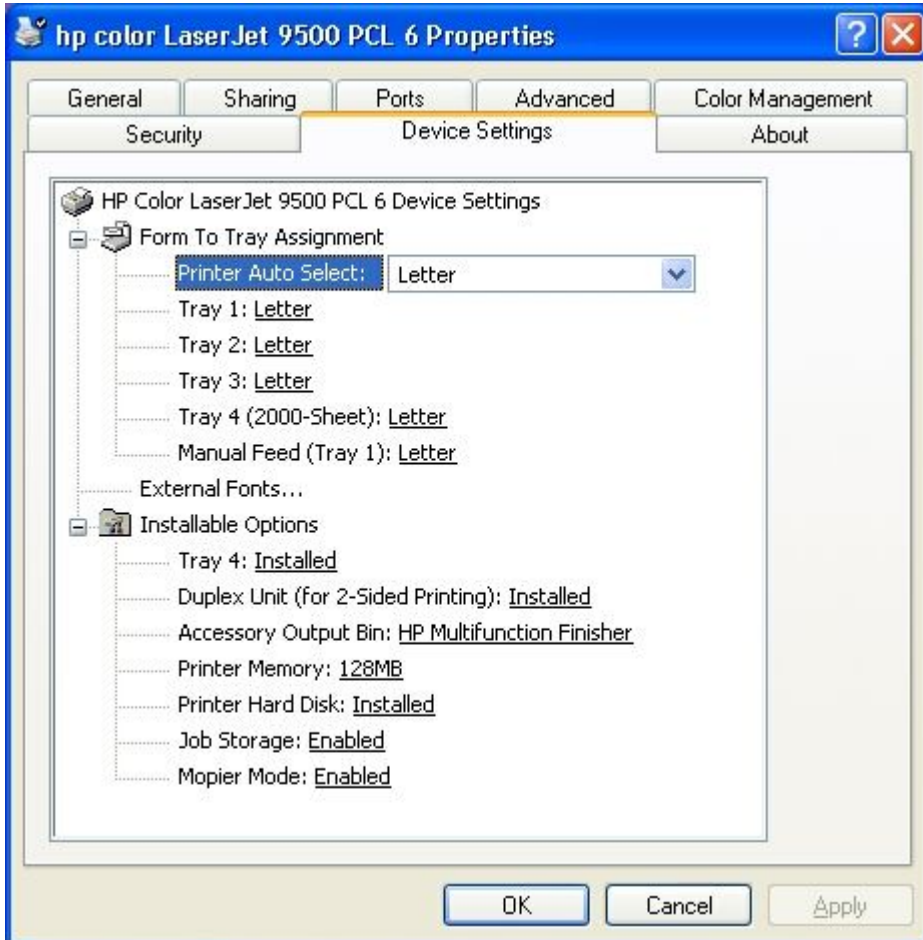
### Note

The **Device Settings** tab can be found in the **Properties** for the printer driver.

To gain access to the printer driver **Properties**, click **Start** on your Window task bar, click **Settings**, and then click **Printers** (for Windows XP and Windows Server 2003, click **Printers and Faxes**). Right-click the printer name, and then click **Properties**.

The **Device Settings** tab communicates the hardware configuration of the printer to the driver. The **Device Settings** tab appears whenever the driver is opened from the **Printers** folder by selecting and right-clicking the printer, and then clicking **Properties...** for the driver. When the driver is opened from within a software program, the **Device Settings** tab is not visible. When opened from the **Printers** folder, the **Device Settings** tab appears, as shown in the following illustration.

**Figure 57: Device Settings tab**



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**Note**

Changes made to the **Device Settings** tab are not reflected in the **Printing Preferences** settings until the modified device settings have been applied. For example, the duplexing unit will not appear until you modify the **Device Settings** tab, apply the settings, and then re-open **Printing Preferences**.

The **Device Settings** tab contains the following options.

- **Form to Tray Assignment**
- **External Fonts** (PCL 6 and PCL 5c only)
- **Font Substitution Table** (PS only)
- **PostScript Device Settings** (PS only)
- **Installable Options**

## Form to Tray Assignment

A network administrator can use **Form to Tray Assignment** to specify the paper size in each paper tray.

Many printers support more than one source of paper, such as upper and lower trays. You can assign a form (which defines the paper size and margins) to each of your printer paper sources. When a form is matched to a source, you can select the form when you print from your software programs. The printer prints from the tray to which that form is assigned.

The **Form to Tray Assignment** setting allows network administrators to specify, in the driver, the media size that is loaded into each available paper tray. The use of forms constrains the choices that are available in the media-size list on the **Advanced** tab in the **Printing Preferences** driver tabs. This constraint prevents (or reduces the likelihood of) tying up the printer with paper-mount messages that occur when users request sizes or types that are not available.

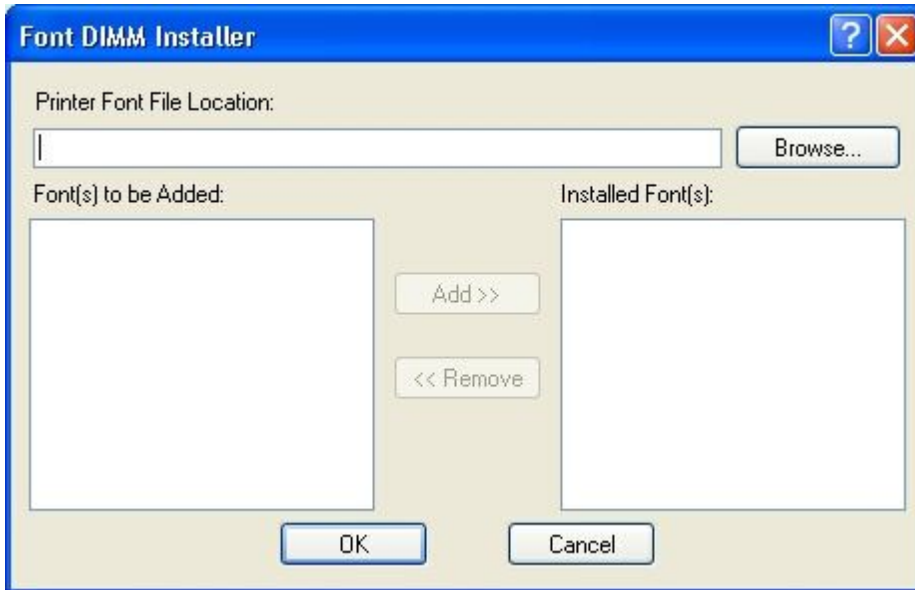
The trays listed in the **Form to Tray Assignment** setting include standard trays, high-capacity input trays, configurable sized paper trays (XY trays), and envelope feeders. Generally, items that are installed separately have a separate **Installable Options** setting. For example, for the HP Color LaserJet 9500hdn printer, tray 4 is a high-capacity (2000-sheet) tray that is listed in both the **Form to Tray Assignment** setting and the **Installable Options** setting. The input trays listed here are also listed as paper sources on the **Paper/Quality** tab.

## External Fonts (PCL 6 and PCL 5c only)

The **External Fonts** option allows you to install and remove external fonts for the printer. External fonts can be soft fonts or cartridge fonts.

Clicking the **External Fonts** option causes the **Properties** button to appear. Clicking the **Properties** button opens the **Font DIMM Installer** dialog box, which is shown in the following illustration.

Figure 58: Font DIMM Installer dialog box



## Installing external fonts

Follow these steps to install external fonts.

1. Click **Start, Settings, Printers (Printers and Faxes** in Windows XP and Windows Server 2003), right-click on the name of the printer, and then click **Properties**.
2. Click the **Device Settings** tab.
3. Click the **External Fonts** setting. The **Properties** button appears.
4. Click the **Properties** button. The **Font DIMM Installer** dialog box appears.
5. Type the name and path of the font metric file in the **Printer Font File Location** text box or click **Browse** to locate the file on your computer. The font file names appear in the **Font(s) to be Added** window.
6. Select the fonts you want to add, and then click **Add**. The fonts are installed and the file names appear in the **Installed Font(s)** window.
7. Click **OK** to close the **Font DIMM Installer** dialog box.

## Removing external fonts

1. Click **Start, Settings, Printers (Printers and Faxes** in Windows XP and Windows Server 2003), right-click on the name of the printer, and then click **Properties**.
2. Click the **Device Settings** tab.
3. Click the **External Fonts** setting. The **Properties** button appears.
4. Click the **Properties** button. The **Font DIMM Installer** dialog box appears.

5. The external fonts that are installed appear in the **Installed Fonts** window. Select the fonts you want to remove, and then click **Remove**. The fonts are removed.
6. Click **OK** to close the **Font DIMM Installer** dialog box.

## Font Substitution Table (PS only)

Clicking this option displays the font substitution table and options for changing the TrueType-to-printer font mapping.

## PostScript Device Settings (PS only)

The following controls are available and appear only in the PS driver.

### Available PostScript Memory

This control specifies the amount of available PS memory and provides a spin box for changing this value. The available PS memory is a subset of the printer total physical memory. It is usually best to use the default setting, which is determined by your printer manufacturer. The default PS memory setting for the HP Color LaserJet 9500 series printers is 5859 Kb.

### Output Protocol

This control specifies the protocol the printer will use for print jobs. The following options are available:

- **ASCII** (default)
- **TBCP**
- **Binary**

When you click **ASCII**, data is sent in ASCII format (7-bit), which may take longer to print but can be sent through any I/O channel, such as a serial, parallel, or network port. When you click **TBCP** (Tagged Binary Communications Protocol), all data except special control characters is sent in binary (8-bit) format. The binary formats can be sent over parallel or serial communications ports and are faster than sending data in ASCII format.

### Send Ctrl + D Before Each Job

This control specifies whether the printer will be reset at the beginning of every PS document. **No** is the default setting. Ctrl + D resets the printer to its default setting to ensure that previous print jobs do not affect the current print job. Ctrl + D might cause a print job to fail if the printer is connected through a network. If your document fails to print when sent to a printer connected through parallel or serial ports, change **No** to **Yes**.

### Send Ctrl + D After Each Job

This control specifies whether the printer will be reset at the end of every PS document. **Yes** is the default setting. Ctrl + D resets the printer to its default setting to ensure that future print jobs are not affected by the current print job. Ctrl + D might cause a print job to fail if the printer is connected through a network. If your document fails to print when sent to a network printer, change **Yes** to **No**.

### Convert Gray Text to PostScript Gray

This control specifies whether to convert the true gray (RGB value) in text to the gray provided by the PS driver. The default setting is **No**.

## Convert Gray Graphics to PostScript Gray

This control specifies whether to convert the true gray (RGB value) in graphics to the gray provided by the PS driver. The default setting is **No**.

## Add Euro Currency Symbol to PostScript Fonts

This control specifies whether to augment the device fonts with the Euro character. The default setting is **Yes**.

## Job Timeout

This control specifies how long the document can take to get from the computer to the printer before the printer stops trying to print the document. If you specify **0 seconds**, the printer continues trying to print indefinitely. The default setting is **0 seconds**. You can use the spin box to change this value to a maximum of **32,767 seconds**.

## Wait Timeout

This control specifies how long the printer waits to get more PS information from the computer. After the specified time passes, the printer stops trying to print the document and prints an error message. If you are trying to print a very complicated document, you may want to increase this value. If you specify **0 seconds**, the printer waits indefinitely. The default setting is **300 seconds**. You can use the spin box to change this value to a maximum of **32,767 seconds**.

## Minimum Font Size to Download as Outline

This control specifies the minimum font size (in pixels) for which the PS driver downloads TrueType fonts as outline (Type 1) fonts. A font smaller than the minimum setting is downloaded as a bitmap (Type 3) font. This option lets you fine-tune the **Automatic** setting for the **TrueType Font Download** option on the **Advanced** tab in **Printing Preferences**. The default setting is **100 pixels**. You can use the spin box to change this value to a maximum of **32,767 pixels**.

## Maximum Font Size to Download as Outline

This control specifies the maximum font size (in pixels) for which the PS driver will download TrueType fonts as bitmap (Type 3) fonts. A font larger than the maximum setting will be downloaded as an outline (Type 1) font. This option lets you fine-tune the **Automatic** setting or override the **Send TrueType as Bitmap** setting for the **TrueType Font Download** option on the **Advanced** tab in **Printing Preferences**. The default setting is **600 pixels**. You can use the spin box to change this value to a maximum of **32,767 pixels**.

## Installable Options

This section allows you to configure the printer-specific printing options that you can install for the HP Color LaserJet 9500 series printers. The following controls are available:

- **Tray 4** (HP Color LaserJet 9500hdn only)
- **Duplex Unit (for 2-Sided Printing)**
- **Accessory Output Bin** (HP Color LaserJet 9500hdn only)
- **Printer Memory**
- **Printer Hard Disk**
- **Job Storage**
- **Mopier Mode**

## Tray 4

This control specifies whether you have a high-capacity, 2000-sheet **Tray 4** installed on your printer. This tray is standard with the HP Color LaserJet 9500hdn printer. The default setting is **Not Installed**. In order to use **Tray 4**, you must change this setting to **Installed**.

## Duplex Unit (for 2-Sided Printing)

If a duplexing unit is installed in the printer, select **Duplex Unit (for 2-Sided Printing)**, and then click **Installed**. The HP Color LaserJet 9500hdn printer comes with a duplex unit installed. The duplex unit is an optional accessory for the HP Color LaserJet 9500n printer. When the duplex unit is installed, the **Print on Both Sides** control appears in the **Finishing** tab, allowing you to turn on the duplex feature and select the type of binding for the print job, or to turn off the duplex feature.

## Accessory Output Bin

Use this setting to indicate that an accessory output bin is installed on your printer. The following settings are available:

- **Not Installed** (default)
- **HP 3000-Sheet Stacker**
- **HP 3000-Sheet Stapler/Stacker**
- **HP Multifunction Finisher**

The HP Color LaserJet 9500hdn printer comes with one of these accessories. When an accessory output bin is installed, you can tell the printer to send printed pages to a particular output bin. If you have the HP 3000-Sheet Stapler/Stacker or the HP Multifunction Finisher, you can also select stapling and folding options.

To select a default output bin, right-click the printer icon in the **Printers** folder, select **Printer Preferences**, click the **Destination** tab, and select the bin you want to use. To select an output bin for each print job, click **Print** from the **File** menu of your software program, click **Properties**, click on the **Destination** tab, and then choose the bin you want to use.

## Printer Memory

This option matches the setting to the amount of memory installed in the printer. The driver generates ranges of memory that can be selected, up to the maximum that the printer can accept. The driver can use this information to manage how the driver uses the printer memory.

## Printer Hard Disk

You can use the **Printer Hard Disk** option to specify whether the printer has a hard disk installed. The default setting is **Uninstalled**. Installation of a printer hard disk allows you to use the **Job Storage** functions. For more information, see the "Job Storage" section of this guide.

### Note

The HP Color LaserJet 9500hdn comes with a hard disk already installed. The hard disk is an available option for the HP Color LaserJet 9500n.

## Storage

You can use the **Job Storage** option to specify whether **Job Storage** is enabled. The default setting is **Disabled**. **Job Storage** is automatically enabled if the printer has a hard disk installed. If **Job Storage** is **Enabled**, then **Job Storage** appears as a feature on the **Destination** tab. For more information, see the "Job Storage" section of this guide.

**Note**

The HP Color LaserJet 9500hdn comes with a hard disk already installed. The hard disk is an available option for the HP Color LaserJet 9500n.

## Mopier Mode

A mopier is an HP-designed printer that produces multiple, collated copies from a single print job. Multiple-original printing (mopying) increases printer performance and reduces network traffic by transmitting the job to the printer once, then storing it in the printer hard disk. The remainder of the copies are printed at the fastest speed. All documents can be created, controlled, managed, and finished from the desktop, which eliminates the extra step of using a photocopier.

Both HP Color LaserJet 9500 printer models support the transmit-once mopying feature if the printer has a hard disk installed (the hard disk is standard on the HP Color LaserJet 9500hdn printer and is an available option for the HP Color LaserJet 9500n printer). The **Mopier Mode** setting in the **Device Settings** tab is **Enabled** by default for the HP Color LaserJet 9500hdn printer.

The driver determines whether the printer has mopying capability by detecting the presence of a collation feature in a PPD/GPD along with any constraints that might apply (for example, requiring that the **Job Storage** setting be **Enabled** in the printer driver). The driver automatically performs collation by selecting the **Collate** check box in the software program **Print** dialog box. If the printer is properly configured, the printer performs the collation; otherwise, the spooler collates the print job. Similarly, if you clear the **Collate** check box in the software program's **Print** dialog box, the copies are not collated. The following table shows the results of various driver **Mopier Mode** and collation settings.

## Mopier mode and collation

**Table 22: Driver Mopier mode and collation settings**

Mopier mode	Application collation	Driver collation	Expected result
Disabled	Not selected	Not selected	3 copies uncollated
Disabled	Clear	Selected	3 copies uncollated
Disabled	Selected	Not selected	3 copies collated by OS
Disabled	Selected	Selected	3 copies collated by OS
Enabled	Clear	Not selected	3 copies uncollated
Enabled	Clear	Selected	3 copies uncollated
Enabled	Selected	Not selected	3 copies collated by Printer
Enabled	Selected	Selected	3 copies collated by Printer



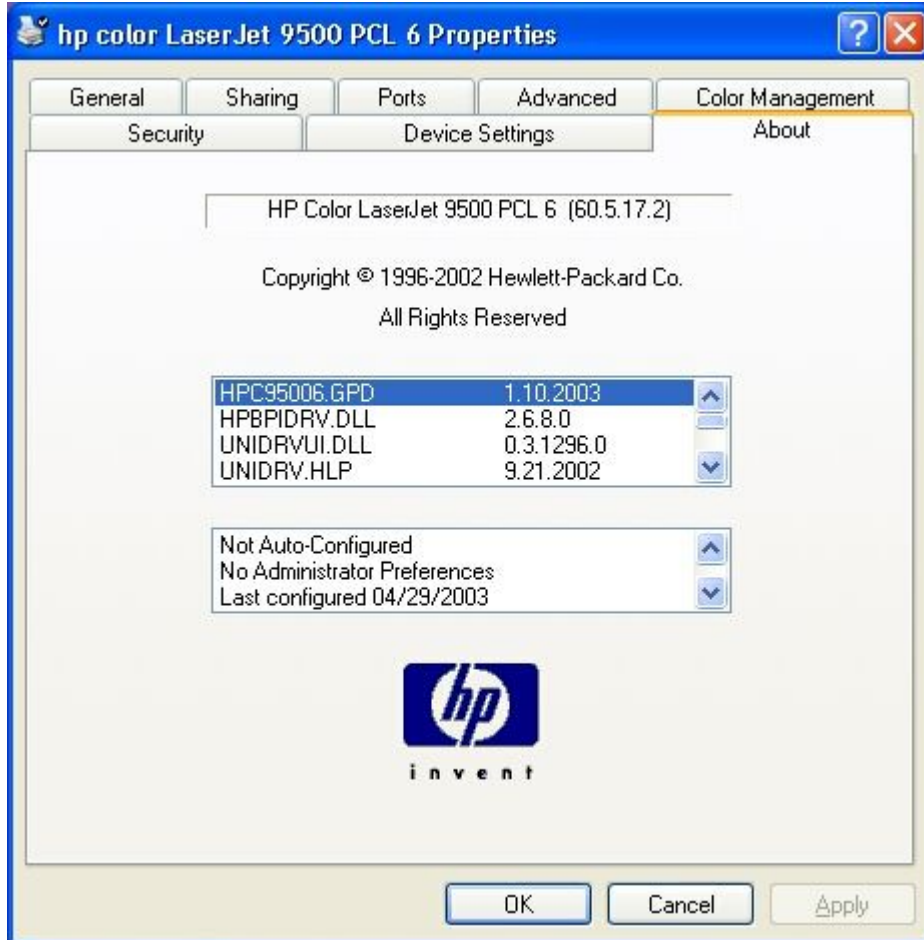
## About tab

**Note** The **About** tab can be found in the **Properties** for the printer driver.

To gain access to the printer driver **Properties**, click **Start** on your Window task bar, click **Settings**, and then click **Printers** (for Windows XP and Windows Server 2003, click **Printers and Faxes**). Right-click the printer name, and then click **Properties**.

The **About** tab provides detailed information about the driver. It contains an overall build number (in parenthesis after the model name) along with specific information about each of the components. The information varies according to HP Color LaserJet 9500 model number, driver, date, and versions. The **About** tab is shown in the following illustration.

Figure 59: About tab



The **About** tab lists driver installation file names and their version numbers. The **About** tab also indicates whether the driver was autoconfigured, whether administrator preferences were set, the date the driver was last configured, and whether the configuration is default or user-defined.

## Structure and availability of the software CD-ROM

### In-box file layout

The HP Color LaserJet 9500 printer system consists of two partitions: one for installation using Windows operating systems, the other for Macintosh operating systems. The files include documentation files and files that are required to install and uninstall the printing-system components.

### HP LaserJet software CD-ROM, Windows partition

The root directory in the Windows partition of the printing-system CD-ROM contains the AUTORUN.EXE file and the SETUP.EXE file, as well as the following directories:

- Fonts
- Setup
- XP\_2000

**Note** This is also where the files reside for Windows Server 2003.

- Other directories for the languages that are on the printing-system software CD-ROM

The printing-system files for each language reside in the following directories:

- Drivers directory
- Manuals directory
- Reader directory

File layouts differ by language for the European and Asian versions of the software CD-ROM.

To view the files, insert the HP Color LaserJet 9500 printing-system software CD-ROM, right-click **Start**, click **Explore**, and then select the CD-ROM drive.

### HP LaserJet software CD-ROM, Macintosh partition

The files contained in the Macintosh partition of the HP LaserJet software CD-ROM are grouped by language and reside in the following directories:

- Root directory
- HP LASERJET INSTALLERS (for Macintosh operating systems)
- PDF (for guides and manuals)

File layouts differ by language for the European and Asian versions of the software CD-ROM.

### Availability and fulfillment

This section provides information about the availability of the HP Color LaserJet 9500 printing-system software and related software and firmware. Printing-system software on CD-ROM is available from HP fulfillment centers or can be downloaded from:

[http://www.hp.com/go/clj9500\\_software](http://www.hp.com/go/clj9500_software)

## In-box CD-ROMs

The HP Color LaserJet 9500 software CD-ROM is available in three regional versions. The following table lists the three versions of the software CD-ROM, along with the languages each version supports.

**Table 23: CD-ROM versions**

CD-ROM version	Languages supported
Americas	Dutch (Nederland) English French (Français) German (Deutsch) Hebrew Italian (Italiano) Portuguese (Português) - Brazilian Spanish (Español)
Asian	Chinese (Simplified) Chinese (Traditional) English Japanese Korean Thai (Windows OSs only)
Rest of world	Arabic (Windows OSs only) Czech (Cesky) (Windows OSs only) Danish (Dansk) English Finnish (Suomi) Greek (Documentation only) Hungarian (Magyar) (Windows OSs only) Norwegian (Norsk) Polish (Polski) (Windows OSs only) Russian (Russ) (Windows OSs only) Swedish (Svenska) Turkish (Turkçe)

## Web ordering

The HP Color LaserJet 9500 software CD-ROM and related software CD-ROMs can be ordered from:  
[http://www.hp.com/go/clj9500\\_software](http://www.hp.com/go/clj9500_software)

The links for ordering the CD-ROMs appear on these pages.

## Web deployment

Software to support HP Color LaserJet 9500 series printers is available for download from:  
[http://www.hp.com/go/clj9500\\_software](http://www.hp.com/go/clj9500_software)

This is the preferred method for obtaining the latest software. The Web site offers a notification option for automatic e-mail notification about new software releases.

## Printing-system software

The HP Color LaserJet 9500 printing-system software is available for download from:  
[http://www.hp.com/go/clj9500\\_software](http://www.hp.com/go/clj9500_software)

The software supports the following operating systems:

- Windows 95, Windows 98, Windows Me, and Windows NT 4.0
- Windows 2000, Windows XP, and Windows Server 2003

## Standalone drivers

The HP LaserJet PCL 5c, PCL 6, and PS drivers are available individually to support the following operating systems:

- Windows 95, Windows 98, and Windows Me
- Windows NT 4.0
- Windows 2000
- Windows XP and Windows Server 2003
- Mac 8.6 to 9.x
- Mac OS X (10.1 or later)

### Note

PCL 5c is not supported in Asian languages.

## Point-and-print bundles

Point and Print is a Microsoft term that describes a two-step driver installation process. The first step is to install a shared driver on a network print server. The second step is to "point" to the print server from a network client so that the client can use the print driver.

The HP LaserJet PCL 6 driver is available in a point-and-print bundle to support the Windows operating environments.

## Other operating systems

Drivers and related software are available for these additional operating environments:

- Macintosh OS (PPDs and Universal Installer)
- OS/2 (PCL 5c and PS)
- UNIX
- Linux

## Software component availability

The following table lists the availability of HP LaserJet software components by operating system.

### Note

In the following table, "9x/Me" refers to Windows 95, Windows 98, and Windows Me; "2K" refers to Windows 2000; "4.0" refers to Windows NT 4.0; and "XP" refers to Windows XP.

**Table 24: Software component availability for HP Color LaserJet 9500 printer**

Component	9x/Me	4.0	2K/XP <sup>3</sup>	Mac	UNIX	Linux
<b>Drivers</b>						
PCL 5c	X	X	X			
HP traditional PCL 6 driver	X	X				
HP traditional PS driver	X	X				
HP PCL 6 unidriver			X			
HP PCL 5c unidriver			X			
HP PS unidriver			X			
PS Driver and PostScript Printer Description (PPD)	X	X	X			
Mac PPD				X		
UNIX Model Script					X	
Linux printing drivers and model script						X
<b>Installers</b>						
Common Windows Installer	X	X	X			
CD-ROM Browser	X	X	X			
Customization Utility	X	X	X			
Fonts	X	X	X	X		
INF File (Add Printer)	X	X	X			
Font Installer <sup>1</sup>	X	X	X	X		
Macintosh Installer for OSs 8 and 9				X		
Macintosh Installer for OS X				X		
Web Registration	X	X	X			
<b>Bidirectional communication</b>						
Network Bidirectional Communications	X	X	X	X		
Direct Connect Bidirectional Communications						
Enterprise Autoconfiguration	X	X	X			
Macintosh AppleTalk				X		
<b>Remote management and status</b>						
Web JetAdmin		X	X		X	X
Applet for Web JetAdmin		X	X		X	X
Macintosh LJ Utility				X		
Printer Status and Alerts	X	X	X			
Driver Autoconfiguration	X	X	X <sup>2</sup>			
<b>Online Documentation</b>						
Adobe Acrobat Reader	X	X	X	X		
<i>User Guide</i> for the HP Color LaserJet 9500	X	X	X	X		
<i>User Reference Guide</i> for the HP Color LaserJet 9500	X	X	X	X		
HP Color LaserJet 9500 series printer Install Notes	X	X	X	X		
HP Jetdirect Guide	X	X	X	X		

Component	9x/Me	4.0	2K/XP <sup>3</sup>	Mac	UNIX	Linux
Mac PS Driver Help (for Mac OS 8.6 and Mac OS 9.x only)				X		
Help systems	X	X	X	X		
<b>Other</b>						
PS Fonts	X	X	X	X	X	

1- Supported as a standalone utility.

2- The Windows 2000, Windows XP, and Windows Server 2003 HP unidrivs have no **Update Now** button, but autoconfiguration is supported over the network using TCP/IP and IP/IPX protocols.

3- This information also applies to Windows Server 2003.

## Software component localization

The following table provides localization information about the HP Color LaserJet 9500 printing-system software. The information in this table does not necessarily reflect in-box solutions.

Components that are not available in any given language are supported in English.

**Table 25: Software component localization by language, A-I**

Component <sup>1</sup>	Operating system	AR	CS	DA	NL	EN	FI	FR	DE	EL	HE	HU	IT
PS PPD	9x, 4.0, 2000, XP, 2003	X	X	X	X	X	X	X	X		X	X	X
Printer Status and Alerts	9x, 4.0, 2000, XP, 2003	3	X	X	x	x	x	x	x	x	3	x	x
Macintosh PS PPD	Mac			x	x	x	x	x	x				x
Macintosh LJ Utility	Mac			x	x	x	x	x	x				x
Macintosh Install Notes	Mac			x	x	x	x	x	x				x
PCL 6	9x, 4.0, 2000, XP, 2003	x	x	x	x	x	x	x	x		x	x	x
PCL 5c	9x, 4.0, 2000, XP, 2003	x	x	x	x	x	x	x	x		x	x	x
Printing System Install Notes	9x, 4.0, 2000, XP, 2003	x	x	x	x	x	x	x	x		x	x	x
Common Windows Installer	9x, 4.0, 2000	x	x	x	x	x	x	x	x		x	x	x
Web JetAdmin	4.0, 2000, UNIX		x	x	x	x	x	x	x			x	x
Web JetAdmin Help	4.0, 2000, UNIX		x	x	x	x	x	x	x			x	x
HP Embedded Web Server	9x, 4.0, 2000, XP, 2003			x	x	x	x	x	x				x
Online manuals (PDF)	9x, 4.0, 2000, XP, 2003	2	x	x	x	x	x	x	x	x	2	x	x
Standard fonts	9x, 4.0, 2000, XP, 2003		x	x	x	x	x	x	x			x	x
PS 3 fonts	9x, 4.0, 2000, XP, 2003		x	x	x	x	x	x	x			x	x

1- Check the following web site for current information about localized IBM OS/2 drivers:

**<http://www.ibm.com>**

2- The English manuals are used.

3- The English Printer Status and Alerts is used.

Language key:

AR = Arabic  
CS = Czech  
DN = Danish  
NL = Dutch  
EN = English  
FI = Finnish  
FR = French  
DE = German  
EL = Greek  
HE = Hebrew  
HU = Hungarian  
IT = Italian



**Table 26: Software component localization by language, J-Z**

Component <sup>1</sup>	Operating system	JA	KO	NO	PT	PL	RU	SC	ES	SV	TC	TH	TR
PS PPD	9x, 4.0, 2000, XP, 2003	x	x	x	x	x	x	x	x	x	x	x	x
Printer Status and Alerts	9x, 4.0, 2000, XP, 2003	X	x	x	x	x	x	x	x	x	x	X	x
Macintosh PS PPD	Mac	x	x	x	x			x	x	x	x		x
Macintosh LJ Utility	Mac		x	x	x				x	x			
Macintosh Install Notes	Mac	x	x	x	x			x	x	x	x		
PCL 6	9x, 4.0, 2000, XP, 2003	x	x	x	x	x	x	x	x	x	x	x	x
PCL 5c	9x, 4.0, 2000, XP, 2003			x	x	x	x		x	x			x
Printing System Install Notes	9x, 4.0, 2000, XP, 2003	x	x	x	x	x	x	x	x	x	x	x	x
Common Windows Installer	9x, 4.0, 2000	x	x	x	x	x	x	x	x	x	x	X	x
Web JetAdmin	4.0, 2000, UNIX	x	x	x	x	x	x	x	x	x	x		x
Web JetAdmin Help	4.0, 2000, UNIX	x	x	x	x	x	x	x	x	x	x		x
HP Embedded Web Server <sup>2</sup>	9x, 4.0, 2000, XP, 2003			x	x				x	x			
Online manuals (PDF)	9x, 4.0, 2000, XP, 2003	x	x	x	x	x	x	x	x	x	x	X	x
Standard fonts	9x, 4.0, 2000, XP, 2003	x		x	x	x	x		x	x			x
PS 3 fonts	9x, 4.0, 2000, XP, 2003	x		x	x	x	x		x	x			x

1- Check the following web site for current information about localized IBM OS/2 drivers:  
<http://www.ibm.com>

2- The **Networking** tab in the Embedded Web Server appears in English, French, Italian, German, and Spanish only.

Language key:

JA = Japanese

KO = Korean

NO = Norwegian

PT = Portuguese

PL = Polish  
RU = Russian  
SC = Simplified Chinese  
SV = Swedish  
ES = Spanish  
TC = Traditional Chinese  
TH = Thai  
TR = Turkish

## Driver feature comparison in various operating systems

The following tables detail the software features available for each driver type and for each supported operating system that the HP Color LaserJet 9500 series printers support. The printing system driver for Windows 2000, Windows XP, and Windows Server 2003 is the new HP unidriver, with a user interface look and feel that is consistent across the PCL 5c, PCL 6, and PS drivers. The printing-system drivers for Windows 95, Windows 98, Windows Me, and Windows NT 4.0 are the HP traditional PCL 6 and PCL 5c drivers and the HP traditional PS driver.

### Job stream output

**Table 27: Driver support for job stream output feature**

Operating system	Windows XP <sup>1</sup> (32-bit), Windows 2000			Windows NT 4.0			Windows 95, 98, Me			Mac
Driver type	HP unidriver			HP traditional driver			HP traditional driver			Mac
Driver	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PS
PCL 6 support	X			X			X			
PCL 5c support		X			X			X		
PCL 6 pass-through support		X		X			X			
PS 3			X			X			X	X
PS 2			X			X			X	X
UTF-8 encoding for PCL	X	X	X	X			X			

1- This information also applies to Windows Server 2003.

### Stream output modes

**Table 28: Driver support for stream output modes feature**

Operating system	Windows XP <sup>1</sup> (32-bit), Windows 2000			Windows NT 4.0			Windows 95, 98, Me			Mac
Driver	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PS
RAW output	X	X	X	X	X		X	X		
MS EMF output	X	X	X							
EPS			X			X			X	X

1- This information also applies to Windows Server 2003.

### Connectivity

**Table 29: Driver support for connectivity features**

Operating system	Windows XP <sup>1</sup> (32-bit), Windows 2000			Windows NT 4.0			Windows 95			Windows 98, Me			Mac
Driver	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PS
Parallel	X	X	X	X	X	X	X	X	X	X	X	X	X
Network	X	X	X	X	X	X	X	X	X	X	X	X	X
USB													

1- This information also applies to Windows Server 2003.

## Bidirectional communication

Table 30: Driver support for bidirectional communication features

Operating System	Windows XP <sup>1</sup> (32-bit), Windows 2000			Windows NT 4.0			Windows 95			Windows 98, Me			Mac
	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PS
Driver	X	X	X	X	X		X	X		X	X		X
Parallel	X	X	X	X	X		X	X		X	X		X
Network	X	X	X	X	X		X	X		X	X		X
USB													

1- This information also applies to Windows Server 2003.

## HP Driver Preconfiguration

Table 31: Driver support for HP Driver Preconfiguration

Operating system	Windows XP <sup>1</sup> (32-bit), Windows 2000			Windows NT 4.0			Windows 95, 98, Me			Mac
	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PS
HP Driver Preconfiguration	X	X	X	X	X		X	X		
Feature lockout	X	X	X	X	X		X	X		
Enterprise Autoconfiguration (EAC)	X	X	X	X	X		X	X		

1- This information also applies to Windows Server 2003.

## UI features

Table 32: Driver support for UI features

Operating system	Windows XP <sup>1</sup> (32-bit), Windows 2000			Windows NT 4.0			Windows 95, 98, Me			Mac
	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PS
UI tabs	X	X	X	X	X	X	X	X	X	X
UI extensions	X	X	X			X				X
Page preview images	X	X	X	X	X		X	X		
Printer image bitmaps with hot spots				X	X		X	X		
Paper size dimensions	X	X	X	X	X	X	X	X	X	
Page layout graphical representation	X	X	X	X	X	X	X	X	X	
About . . .	X	X	X	X	X	X	X	X	X	X
Update now . . .				X	X		X	X		X
Printer bundle setting				X	X		X	X		
Accessibility/disability	X	X	X	X	X		X	X		

1- This information also applies to Windows Server 2003.

## Help features


**Table 33: Driver support for Help features**

Operating system	Windows XP <sup>1</sup> (32-bit), Windows 2000			Windows NT 4.0			Windows 95, 98, Me			Mac	
	Driver	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PS
What's this Help (F1)	X	X	X	X	X	X	X	X	X		
Help button	X	X	X	X	X		X	X			
Bubble Help				X	X		X	X			
MS Windows "?" Help	X	X	X	X	X	X	X	X	X		

1- This information also applies to Windows Server 2003.

## Constraint support

**Table 34: Driver support for constraints**

Operating system	Windows XP <sup>1</sup> (32-bit), Windows 2000			Windows NT 4.0			Windows 95, 98, Me			Mac	
	PS	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PS
Constraint messages	X <sup>2</sup>	X <sup>2</sup>	X <sup>2</sup>	X	X	X	X	X	X	X	X
Unavailable (gray-out) options	X	X	X	X	X		X	X			X
Driver											
Constraint warnings by symbol 	X	X	X			X				X	

1- This information also applies to Windows Server 2003.

2- Limited set of constraints.

## Document layout

**Table 35: Driver support for document layout features**

Operating system	Windows XP <sup>1</sup> (32-bit), Windows 2000			Windows NT 4.0			Windows 95, 98, Me			Mac	
	Driver	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PS
Print on both sides	X	X	X	X	X	X	X	X	X	X	X
Manual duplex											
Flip pages up	X	X	X	X	X	X	X	X	X	X	X
Booklet printing	X	X	X	X	X		X	X			
Pages per sheet (N-up)	X	X	X	X	X	X	X	X	X	X	X
Page borders on/off	X	X	X	X	X		X	X			X
Page order	X	X	X	X	X		X	X			

Operating system	Windows XP <sup>1</sup> (32-bit), Windows 2000			Windows NT 4.0			Windows 95, 98, Me			Mac	
	Driver	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PS
Print document on (alternative size)	X	X	X	X	X		X	X			
Scale to fit	X	X	X	X	X	X	X	X	X	X	X
Allow scaling from large paper	X	X	X								
% of normal size	X	X	X	X	X	X	X	X	X	X	X
Portrait	X	X	X	X	X	X	X	X	X	X	X
Landscape	X	X	X	X	X	X	X	X	X	X	X
Rotated by 180 degrees	X	X	X	X	X	X	X	X	X	X	X
Number of copies . . .	X	X	X	X	X	X	X	X	X	X	X
Ignore application collation				X	X		X	X			
Mopy	X	X	X	X	X	X	X	X	X	X	X

1- This information also applies to Windows Server 2003.

## Job storage

**Table 36: Driver support for job storage features**

Operating system	Windows XP <sup>1</sup> (32-bit), Windows 2000			Windows NT 4.0			Windows 95, 98, Me			Mac <sup>2</sup>	
	Driver	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PS
Proof and hold	X	X	X	X	X	X	X	X	X	X	X
Private job	X	X	X	X	X	X	X	X	X	X	X
Job name	X	X	X	X	X	X	X	X			X
User name	X	X	X	X	X	X	X	X	X	X	X
PIN	X	X	X	X	X	X	X	X	X	X	X

1- This information also applies to Windows Server 2003.

2- Job Storage features are available only in Mac OS 8.6 through Mac OS 9.x. They are not available for Mac OS X.

## Custom preference storage/recall

**Table 37: Driver support for custom preference storage/recall features**

Operating system	Windows XP <sup>1</sup> (32-bit), Windows 2000			Windows NT 4.0			Windows 95, 98, Me			Mac	
	Driver	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PS
Print task quick sets	X	X	X	X	X		X	X			X
Print quality	X	X	X	X	X		X	X			
Color options	X	X	X	X	X	X	X	X	X	X	X

1- This information also applies to Windows Server 2003.

# Print controls

**Table 38: Driver support for print controls**

Operating system	Windows XP <sup>1</sup> (32-bit), Windows 2000			Windows NT 4.0			Windows 95, 98, Me			Mac
	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PS
EconoMode										
DWS	X	X	X	X	X		X	X		
Mopier enable	X	X	X	X	X	X	X	X	X	X
Print optimizations	X	X								
Halftoning auto select										
Halftoning dither 6x6										
Halftoning dither 8x8										
Rendering mode (automatic)					X			X		
Send graphics as vector		X			X			X		
Send graphics as raster		X			X			X		
Send page as raster					X			X		
Resolution (ProRes 1200 180 lpi)										
Resolution (ProRes 1200 212 lpi)										
Resolution (FastRes 1200)										
Resolution (600 dpi)	X	X	X	X	X	X	X	X	X	X
Resolution (300 dpi)										
RET										
Scale patterns (WYSIWYG)	X	X	X	X	X		X	X		
Font DIMM (on/off)	X	X		X	X		X	X		
Send TrueType as bitmaps	X	X		X	X		X	X		
TrueType fonts			X			X			X	
Levels of gray										
Edge to edge										
Print text as black	X	X	X	X	X		X	X		

1- This information also applies to Windows Server 2003.

## Watermarks

Table 39: Driver support for watermarks feature

Operating system	Windows XP <sup>1</sup> (32-bit), Windows 2000			Windows NT 4.0			Windows 95, 98, Me			Mac	
	Driver	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PS
First page only	X	X	X	X	X	X	X	X	X	X	X
Custom watermark definition	X	X	X	X	X	X	X	X	X	X	X
Watermark angle	X	X	X	X	X	X	X	X	X	X	X
Watermark font name	X	X	X	X	X	X	X	X	X	X	X
Watermark font color	X	X	X	X	X	X	X	X	X	X	X
Watermark font shading	X	X	X	X	X	X	X	X	X	X	X
Watermark font size	X	X	X	X	X	X	X	X	X	X	X
Watermark font style	X	X	X	X	X	X	X	X	X	X	X

1- This information also applies to Windows Server 2003.

## Paper sizes

Table 40: Driver support for paper sizes

Operating system	Windows XP <sup>1</sup> (32-bit), Windows 2000			Windows NT 4.0			Windows 95, 98, Me			Mac	
	Driver	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PS
Letter	X	X	X	X	X	X	X	X	X	X	X
Legal	X	X	X	X	X	X	X	X	X	X	X
Executive	X	X	X	X	X	X	X	X	X	X	X
A4	X	X	X	X	X	X	X	X	X	X	X
A5	X	X	X	X	X	X	X	X	X	X	X
B5 (ISO)	X	X	X	X	X	X	X	X	X	X	X
B5 (JIS)	X	X	X	X	X	X	X	X	X	X	X
A3	X	X	X	X	X	X	X	X	X	X	X
11x17	X	X	X	X	X	X	X	X	X	X	X
8K	X	X	X	X	X	X	X	X	X	X	X
16K	X	X	X	X	X	X	X	X	X	X	X
B4 (JIS)	X	X	X	X	X	X	X	X	X	X	X
Executive (JIS)	X	X	X	X	X	X	X	X	X	X	X
Double Postcard (JIS)	X	X	X	X	X	X	X	X	X	X	X
Envelope #10	X	X	X	X	X	X	X	X	X	X	X
Envelope Monarch	X	X	X	X	X	X	X	X	X	X	X
Envelope C5	X	X	X	X	X	X	X	X	X	X	X
Envelope DL	X	X	X	X	X	X	X	X	X	X	X
Envelope B5	X	X	X	X	X	X	X	X	X	X	X
Custom	X	X	X	X	X	X	X	X	X	X	X
Custom paper size definition	X	X	X	X	X	X	X	X	X	X	X



1- This information also applies to Windows Server 2003.

## Paper types

**Table 41: Driver support for paper types**

Operating system	Windows XP <sup>1</sup> (32-bit), Windows 2000			Windows NT 4.0			Windows 95, 98, Me			Mac	
	Driver	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PS
Unspecified	X	X	X	X	X	X	X	X	X	X	X
Plain	X	X	X	X	X	X	X	X	X	X	X
Preprinted	X	X	X	X	X	X	X	X	X	X	X
Letterhead	X	X	X	X	X	X	X	X	X	X	X
Transparency	X	X	X	X	X	X	X	X	X	X	X
Prepunched	X	X	X	X	X	X	X	X	X	X	X
Labels	X	X	X	X	X	X	X	X	X	X	X
Bond	X	X	X	X	X	X	X	X	X	X	X
Recycled	X	X	X	X	X	X	X	X	X	X	X
Color	X	X	X	X	X	X	X	X	X	X	X
Light <75g/m <sup>2</sup>	X	X	X	X	X	X	X	X	X	X	X
Heavy 106-163 g/m <sup>2</sup>	X	X	X	X	X	X	X	X	X	X	X
Cardstock > 164 g/m <sup>2</sup>	X	X	X	X	X	X	X	X	X	X	X
Rough	X	X	X	X	X	X	X	X	X	X	X
Envelope	X	X	X	X	X	X	X	X	X	X	X
User type 1				X	X		X	X			
User type 2				X	X		X	X			
User type 3				X	X		X	X			
User type 4				X	X		X	X			
User type 5				X	X		X	X			
Show media types as sources	X	X	X	X	X		X	X			

1- This information also applies to Windows Server 2003.

## Paper sources

**Table 42: Driver support for paper sources**

Operating system	Windows XP <sup>1</sup> (32-bit), Windows 2000			Windows NT 4.0			Windows 95, 98, Me			Mac	
	Driver	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PS
Autoselect	X	X	X	X	X	X	X	X	X	X	X
Manual feed	X	X	X	X	X	X	X	X	X	X	X
Tray 1	X	X	X	X	X	X	X	X	X	X	X
Tray 2	X	X	X	X	X	X	X	X	X	X	X
Tray 3	X	X	X	X	X	X	X	X	X	X	X
Assign paper size to tray	X	X	X	X	X	X				X	X
Assign paper type to tray			X	X	X						

1- This information also applies to Windows Server 2003.

## Alternative source/paper type

Table 43: Driver support for alternate source/paper type feature

Operating system	Windows XP <sup>1</sup> (32-bit), Windows 2000			Windows NT 4.0			Windows 95, 98, Me			Mac
	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PS
All pages the same	X	X	X	X	X	X	X	X	X	X
Other pages	X	X	X	X	X		X	X		X
Back cover	X	X	X	X	X		X	X		

1- This information also applies to Windows Server 2003.

## Printing destination

Table 44: Driver support for printing destination feature

Operating system	Windows XP <sup>1</sup> (32-bit), Windows 2000			Windows NT 4.0			Windows 95, 98, Me			Mac
	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PS
Top bin (face down)	X	X	X	X	X	X	X	X	X	X
Straight paper path	X	X	X	X	X		X	X		

1- This information also applies to Windows Server 2003.

## Installable options

Table 45: Driver support for installable options

Operating system	Windows XP <sup>1</sup> (32-bit), Windows 2000			Windows NT 4.0			Windows 95, 98, Me			Mac
	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PCL 6	PCL 5c	PS	PS
Duplexing unit	X	X	X	X	X	X	X	X	X	X
Printer hard disk	X	X	X	X	X	X	X	X	X	X
Total memory	X	X	X	X	X	X	X	X	X	X
Additional source trays	X	X	X	X	X	X	X	X	X	X
Additional destination bins	X	X	X	X	X	X	X	X	X	X
Font DIMM	X	X		X	X		X	X		

1- This information also applies to Windows Server 2003.

## PS-specific features

Table 46: Driver support for PS-specific features

Operating system	Windows XP <sup>1</sup>	Windows NT 4.0	Windows 95, 98, Me	Mac
Driver	PS	PS	PS	PS
Font substitution	X	X	X	X
PS memory	X	X	X	

<b>Operating system</b>	<b>Windows XP<sup>1</sup></b>	<b>Windows NT 4.0</b>	<b>Windows 95, 98, Me</b>	<b>Mac</b>
<b>Driver</b>	<b>PS</b>	<b>PS</b>	<b>PS</b>	<b>PS</b>
Output protocol	X	X	X	
Send CTRL-D before each job	X	X	X	
Send CTRL-D after each job	X	X	X	
Convert gray text to PS gray	X			
Convert gray graphics to PS gray				
Add euro currency symbol				
Job timeout		X	X	
Wait timeout	X	X	X	
Minimum font size to download as outline	X	X		
Minimum font size to download as bitmap	X	X		
PS language level	X	X	X	X
Send error handler	X	X	X	
Mirrored output	X	X	X	
Negative output	X	X	X	
<b>Output options</b>				
Optimize for speed	X	X	X	
Optimize for portability	X	X	X	
Encapsulated (EPS)	X	X	X	X <sup>2</sup>
Archive format	X	X	X	
<b>TrueType font download option</b>				
Outline	X	X	X	
Bitmap	X	X	X	
Native TrueType	X	X	X	

1- This information also applies to Windows Server 2003.

1- Mac OS 8.6 through 9.2.2; not supported on Mac OS X or later.



# 4 Installing Windows printing system components

## Introduction

The information that follows discusses these topics:

- Supported operating systems
- System requirements
- Font support
- General Windows installation instructions
- Detailed Windows installation instructions
- Setting a default printer

## Supported operating systems

The HP Color LaserJet 9500 printing-system software supports the following Windows operating systems:

- Windows 95 (parallel and networked only)
- Windows 98
- Windows Me
- Windows NT 4.0 (parallel and networked only)
- Windows 2000
- Windows XP
- Windows Server 2003

### Note

The HP Color LaserJet 9500 series printer has not been tested with and does not support Windows 3.1x.

## System requirements

The following are the system requirements for installing and using the HP Color LaserJet 9500 printing-system software on each of the supported operating systems.

- Pentium (R) processor
- Minimum 16-color/grayscale display with 640-by-480 pixel resolution (video graphics array [VGA])
- Same amount of RAM as the minimum requirements for the operating system
- 93 MB of available hard-disk space (on the same partition as the operating system) for full installation
- Onboard parallel port, USB port, or network connection

## Font support

### Basic fonts

Microsoft Windows software includes these basic fonts, which can be used with any HP printer:

- Arial
- Courier New Italic
- Times New Roman Italic
- Arial Italic
- Courier New Bold
- Times New Roman Bold
- Arial Bold
- Courier New Bold Italic
- Times New Roman Bold Italic
- Arial Bold Italic
- Symbol
- Wingdings
- Courier New
- Times New Roman

### Default fonts

The following default fonts are installed through a typical installation of the HP Color LaserJet 9500 printing-system software.

**Table 47: Default fonts**

File name	Font name
ALBR85W.TTF	Albertus Extra Bold
ALBR55W.TTF	Albertus Medium
OLVR55W.TTF	Antique Olive
OLVR75W.TTF	Antique Olive Bold
OLVR56W.TTF	Antique Olive Italic
CGOR45W.TTF	CG Omega
CGOR65W.TTF	CG Omega Bold
CGOR66W.TTF	CG Omega Bold Italic
CGOR46W.TTF	CG Omega Italic
CGTR45W.TTF	CG Times
CGTR65W.TTF	CG Times Bold
CGTR66W.TTF	CG Times Bold Italic
CGTR46W.TTF	CG Times Italic
CLAR67W.TTF	Clarendon Condensed Bold
CORONET.TTF	Coronet
CPSR45W.TTF	CourierPS
CPSR65W.TTF	CourierPS Bold
CPSR66W.TTF	CourierPS Bold Oblique
CPSR46W.TTF	CourierPS Oblique
GARR45W.TTF	Garamond
GARR65W.TTF	Garamond Bold

File name	Font name
GARR46W.TTF	Garamond Italic
GARR66W.TTF	Garamond Kursiv Halbfett
HELR45W.TTF	Helvetica*
HELR65W.TTF	Helvetica Bold
HELR66W.TTF	Helvetica Bold Oblique
HELR47W.TTF	Helvetica Narrow
HELR67W.TTF	Helvetica Narrow Bold
HELR68W.TTF	Helvetica Narrow Bold Oblique
HELR48W.TTF	Helvetica Narrow Oblique
HELR46W.TTF	Helvetica Oblique
AVGR45W.TTF	ITC Avant Garde Gothic Book
AVGR46W.TTF	ITC Avant Garde Gothic Book Oblique
AVGR65W.TTF	ITC Avant Garde Gothic Demi
AVGR66W.TTF	ITC Avant Garde Gothic Demi Oblique
BOKR75W.TTF	ITC Bookman Demi
BOKR76W.TTF	ITC Bookman Demi Italic
BOKR35W.TTF	ITC Bookman Light
BOKR36W.TTF	ITC Bookman Light Italic
CHANC___.TTF	ITC Zapf Chancery Medium Italic
DINGS___.TTF	ITC Zapf Dingbats
LETR45W.TTF	Letter Gothic
LETR65W.TTF	Letter Gothic Bold
LETR46W.TTF	Letter Gothic Italic
MARIGOLD.TTF	Marigold
NCSR75W.TTF	New Century Schoolbook Bold
NCSR76W.TTF	New Century Schoolbook Bold Italic
NCSR56W.TTF	New Century Schoolbook Italic
NCSR55W.TTF	New Century Schoolbook Roman
PALR65W.TTF	Palatino Bold
PALR66W.TTF	Palatino Bold Italic
PALR46W.TTF	Palatino Italic
PALR45W.TTF	Palatino Roman
SYMPS___.TTF	SymbolPS
TIMR65W.TTF	Times* Bold
TIMR66W.TTF	Times Bold Italic
TIMR46W.TTF	Times Italic
TIMR45W.TTF	Times Roman
UNVR65W.TTF	Univers Bold
UNVR66W.TTF	Univers Bold Italic
UNVR67W.TTF	Univers Condensed Bold
UNVR68W.TTF	Univers Condensed Bold Italic
UNVR57W.TTF	Univers Condensed Medium
UNVR58W.TTF	Univers Condensed Medium Italic
UNVR55W.TTF	Univers Medium
UNVR56W.TTF	Univers Medium Italic

Ninety-two additional PostScript 3 emulation (PS) fonts are also available on the CD-ROM.

**Table 48: Additional PS 3 fonts**

File name	Font name
PS_12639.TTF	Albertus MT
PS_12640.TTF	Albertus MT Italic

File name	Font name
PS_14530.TTF	Albertus MT Light
PS-11120.TTF	Antique Olive CompactPS
PS_11119.TTF	Antique Olive Roman
PS_11118.TTF	Antique Olive Roman Bold
PS_11846.TTF	Antique Olive Roman Italic
PS_24516.TTF	Apple Chancery Italic
PS_12704.TTF	Bodoni Poster
PS_14508.TTF	Bodoni PosterCompressed
PS_12581.TTF	BodoniPS
PS_12585.TTF	BodoniPS Bold
PS_12586.TTF	BodoniPS Bold Italic
PS_12582.TTF	BodoniPS Italic
PS_24517.TTF	Candid
PS_24518.TTF	Chicago
PS_14513.TTF	Clarendon Light
PS_10269.TTF	ClarendonPS
PS_12968.TTF	ClarendonPS Bold
PS_10369.TTF	Cooper Black
PS_10370.TTF	Cooper Black Italic
PS_14514.TTF	Copperplate32bc
PS_14515.TTF	Copperplate33bc
PS_10249.TTF	Coronet
PS_10267.TTF	Eurostile
PS_10268.TTF	Eurostile Bold
PS_14512.TTF	Eurostile Bold ExtendedTwo
PS_14511.TTF	Eurostile ExtendedTwo
PS_10267.TTF	Eurostile Medium
PS_24509.TTF	Geneva
PS_13872.TTF	GillSans
PS_13874.TTF	GillSans Bold
PS_13875.TTF	GillSans Bold Italic
PS_14053.TTF	GillSans Condensed
PS_14054.TTF	GillSans Condensed Bold
PS_14051.TTF	GillSans ExtraBold
PS_13873.TTF	GillSans Italic
PS_13870.TTF	GillSans Light
PS_13871.TTF	GillSans Light Italic
PS_12542.TTF	Goudy
PS_12544.TTF	Goudy Bold
PS_10695.TTF	Goudy Bold Italic
PS_12545.TTF	Goudy ExtraBold
PS_12543.TTF	Goudy Italic
PS_14526.TTF	Helvetica Condensed
PS_14528.TTF	Helvetica Condensed Bold
PS_14529.TTF	Helvetica Condensed Bold Italic
PS_14527.TTF	Helvetica Condensed Italic
PS_24519.TTF	Hoefler Text
PS_24521.TTF	Hoefler Text Black
PS_24522.TTF	Hoefler Text Black Italic
PS_24520.TTF	Hoefler Text Italic
PS_24523.TTF	Hoefler Text Ornaments
PS_14503.TTF	Joanna MT



File name	Font name
PS_14505.TTF	Joanna MT Bold
PS_14506.TTF	Joanna MT Bold Italic
PS_14504.TTF	Joanna MT Italic
PS_13778.TTF	Letter Gothic Italic
PS_13777.TTF	Letter GothicPS
PS_13779.TTF	Letter GothicPS Bold
PS_13780.TTF	Letter GothicPS Bold Italic
PS_12675.TTF	Lubalin Graph
PS_12677.TTF	Lubalin Graph Bold
PS_12625.TTF	Lubalin Graph Bold Italic
PS_12623.TTF	Lubalin Graph Italic
PS_94073.TTF	Marigold
PS_14525.TTF	Mona Lisa Recut
PS_24524.TTF	Monaco
PS_24510.TTF	New York
PS_12506.TTF	Optima
PS_12510.TTF	Optima Bold
PS_12511.TTF	Optima Bold Italic
PS_12507.TTF	Optima Italic
PS_14072.TTF	Oxford Italic
PS_11546.TTF	Stempel Garamond Roman Italic
PS_11545.TTF	StempelGaramond Roman
PS_11547.TTF	StempelGaramond Roman Bold
PS_11548.TTF	StempelGaramond Roman Bold Italic
PS_14507.TTF	Taffy
PS_13501.TTF	Univers 45 Light
PS_14023.TTF	Univers 45 Light Bold
PS_14024.TTF	Univers 45 Light Bold Italic
PS_13502.TTF	Univers 45 Light Italic
PS_14030.TTF	Univers 47 Condensed Light Bold
PS_14040.TTF	Univers 47 CondensedLight Bold Italic
PS_14021.TTF	Univers 55
PS_14022.TTF	Univers 55 Italic
PS_14029.TTF	Univers 57 Condensed
PS_14039.TTF	Univers 57 Condensed Italic
PS_13548.TTF	Univers Extended Italic
PS_13547.TTF	Univers ExtendedPS
PS_14481.TTF	Univers ExtendedPS Bold Italic
PS_14480.TTF	Univers ExtendedPS Italic

## Installation instructions

### General installation for Windows 95, 98, Me, NT 4.0, 2000, XP, and 2003

General installation instructions for the Windows 95, Windows 98, Windows Me, Windows NT 4.0, Windows 2000, Windows XP, and Windows Server 2003 operating systems are similar.

If the HP Color LaserJet 9500 series printer is connected through a file or print server, the HP Color LaserJet 9500 printing-system software must first be installed on the server before being installed on any client systems. If the HP LaserJet printing-system software is not first installed on the server, then bidirectional communication, some Driver Autoconfiguration methods, and Printer Status and Alerts are not available to the client systems.

For Windows NT 4.0, Windows 2000, Windows XP, and Windows Server 2003, administrator rights on the system are necessary to install the software.

When the HP Color LaserJet 9500 printing system installer runs, the HP LaserJet uninstaller is always added to the system.

### Installing from the printing-system CD-ROM

Follow these instructions to install the HP Color LaserJet 9500 printing system from the CD-ROM that came with your printer.

1. Close all programs that are open on your computer.
2. Insert the CD-ROM in the CD-ROM drive.

#### Note

If your CD-ROM does not start automatically, click **Start**, click **Run**, and then browse to and double-click the SETUP.EXE file in the root directory of the CD-ROM.

3. Click **Install Printer** and follow the onscreen prompts.

### Installing from a network or from downloaded files

Follow these instructions if you downloaded the files from the Web, or if you are installing the printing system files from a network. You might need to see your network administrator for the location of the printing-system software file.

1. Browse to the location of the SETUP.EXE file.
2. Double-click the SETUP.EXE file.
3. Click **Install Printer** and continue to follow the instructions until the printer is installed. For detailed installation instructions, see the "Detailed Windows installation" section of this guide.

## Detailed Windows installation

This section provides information about the installation dialog box sequence for installing the HP Color LaserJet 9500 printing-system software in Microsoft Windows environments. You can choose to install the software by using either a typical installation or a custom installation.

### Typical Installation dialog box sequence

#### Note

The dialog boxes shown here appear in the Windows NT 4.0 installation sequence. The order and appearance of dialog boxes can vary among operating systems.

The typical installation includes the following components:

- HP Color LaserJet 9500 PCL 6 driver.
- Screen fonts.
- Driver Autoconfiguration (in environments that support bidirectional communication). This option does not appear in unsupported bidirectional communications environments.

**Note** The components of a typical installation might vary from printer to printer.

When you select the **Install Printer** option from the HP Color LaserJet 9500 software CD-ROM, the **Choose Setup Language** dialog box appears. This dialog box does not appear when the setup language is Hebrew or Arabic.

**Figure 61: Choose Setup Language dialog box**



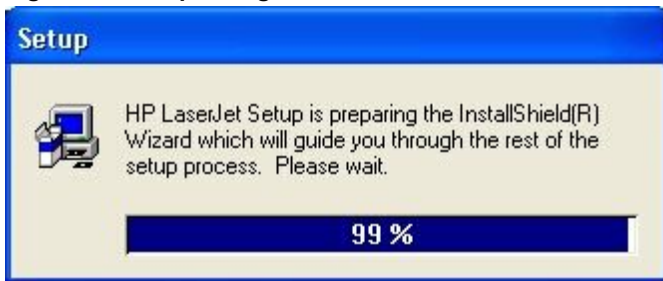
**Note** The **Choose Setup Language** dialog box lists only the languages that are available on the HP Color LaserJet 9500 software CD-ROM.

**Table 49: Choose Setup Language dialog box text strings**

Title of dialog box	Text in dialog box	User options and descriptions
<b>Choose Setup Language</b>	Select the language for this installation from following the choices: (Drop-down menu lists available languages for installation.)	The installer automatically detects the language that your computer system uses and presents this choice as the default. You can select another language that is available on the CD-ROM by clicking the down arrow of the drop-down menu. Clicking <b>OK</b> initiates the printing system setup. Clicking <b>Cancel</b> takes you to the <b>Exit Setup</b> dialog box.

Next, the **Setup** dialog box appears.

**Figure 62: Setup dialog box**



**Note** While the **Setup** dialog box appears, the installer is decompressing files into the system **Temp** directory. The elapsed time to complete this action depends upon the performance of your system.

**Table 50: Setup dialog box text strings**

Title of dialog box	Text in dialog box	User options and descriptions
Setup	HP Color LaserJet 9500 Series Printing System Setup is preparing the InstallShield (R) Wizard that will guide you through the rest of the setup process. Please wait.	No user options. This is an information-only dialog box.

Figure 63: Welcome dialog box

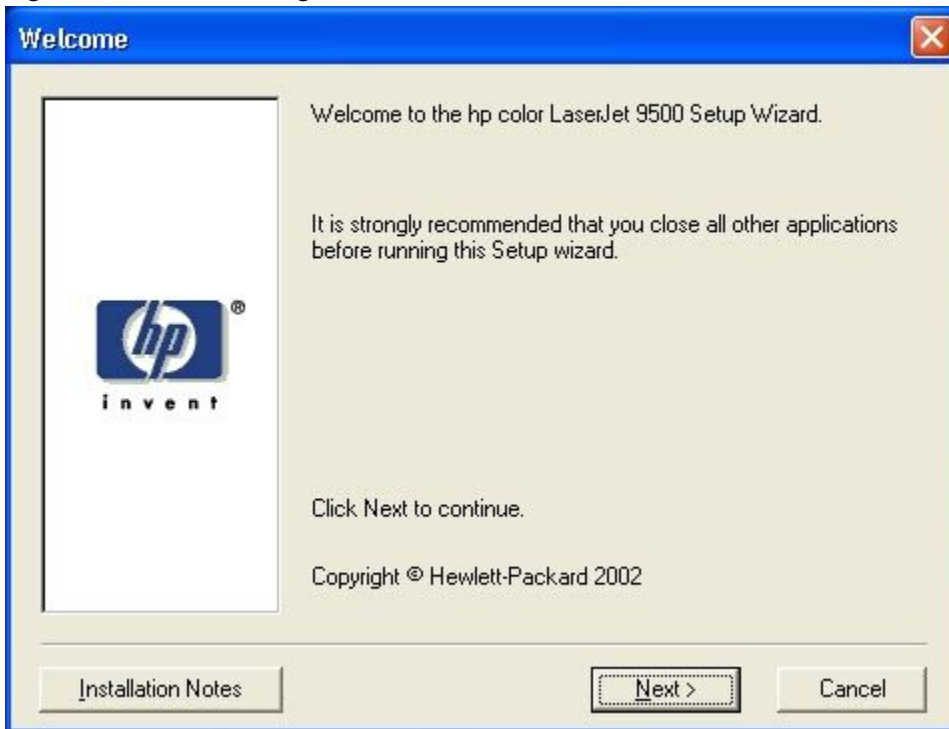


Table 51: Welcome dialog box text strings

Title of dialog box	Text in dialog box	User options and descriptions
Welcome	Welcome to the HP Color LaserJet 9500 Printing System Setup Wizard. It is strongly recommend that you close all other programs before running this Setup wizard. Click Next to continue. Copyright Hewlett-Packard XXXX	Clicking <b>Next</b> takes you to the <b>HP Software License Agreement</b> dialog box. Clicking <b>Installation Notes</b> opens the file READXXXX.RTF. Clicking <b>Cancel</b> takes you to the <b>Exit Setup</b> dialog box.

Figure 64: HP Software License Agreement dialog box

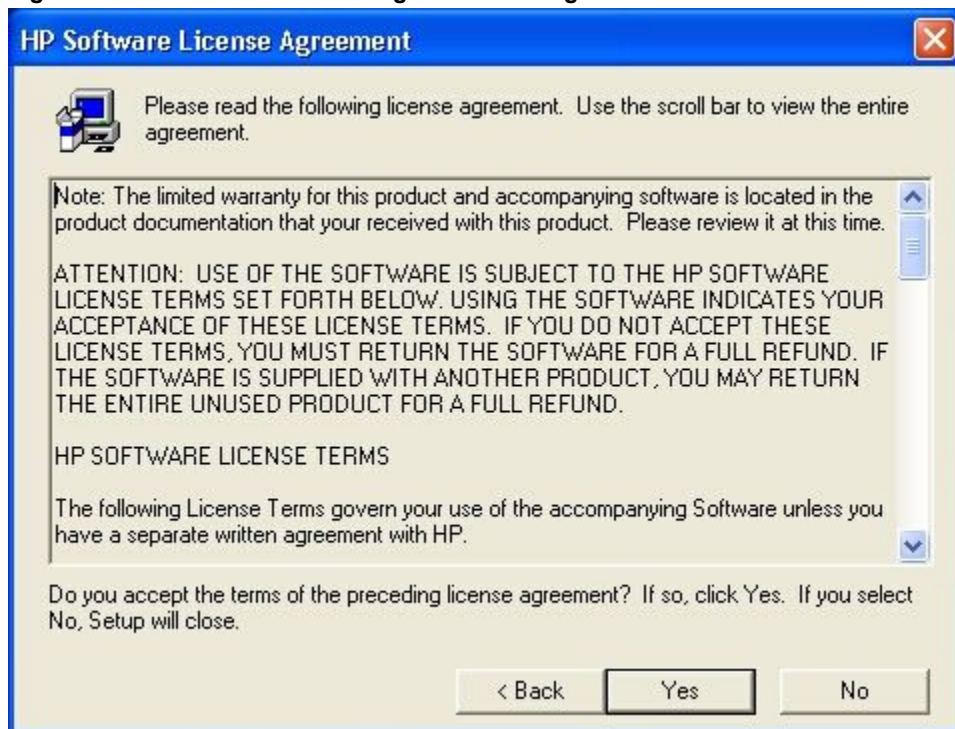


Table 52: HP Software License Agreement dialog box text strings

Title of dialog box	Text in dialog box	User options and descriptions
HP Software License Agreement	<p>Please read the following license agreement. Use the scroll bar to view the entire agreement.</p> <p>(Scrolling fields with text of license agreement)</p> <p>Do you accept the terms of the preceding license agreement? If so, click Yes. If you select No, Setup will close.</p>	<p>Clicking <b>Yes</b> takes you to the <b>Web Update</b> dialog box.</p> <p>Clicking <b>Back</b> returns you to the <b>Welcome</b> dialog box.</p> <p>Clicking <b>No</b> takes you to the <b>Exit Setup</b> dialog box.</p>

Figure 65: Web Update dialog box

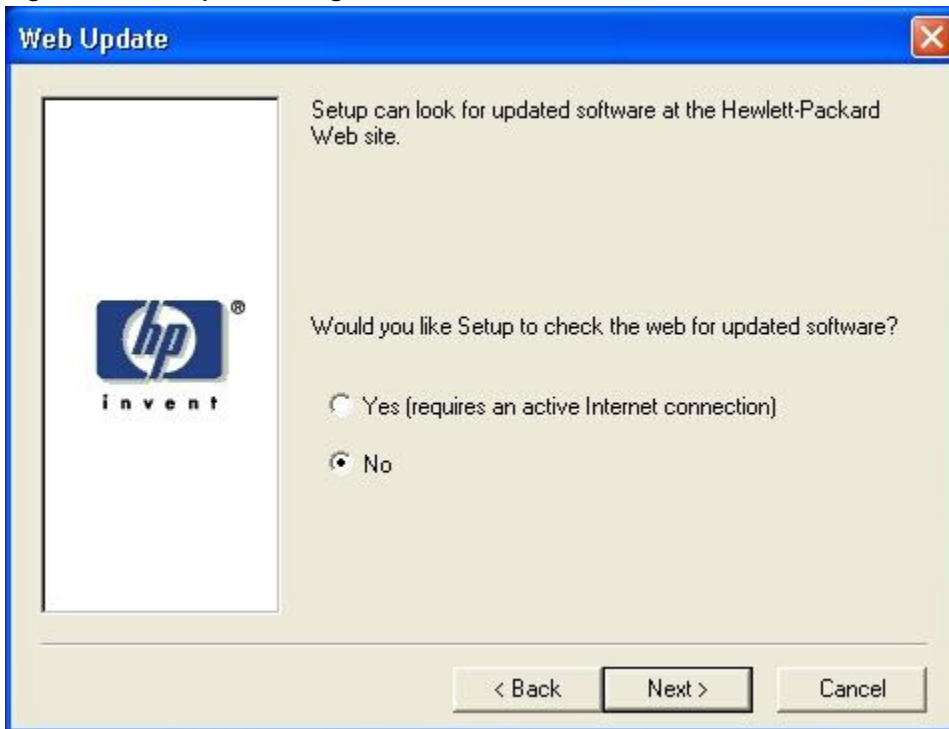


Table 53: Web Update dialog box text strings

Title of dialog box	Text in dialog box	User options and descriptions
<p><b>Web Update</b></p>	<p>Setup can look for updated software at the Hewlett-Packard Web site.</p> <p>Would you like Setup to check the Web for updated software?</p> <p>Yes (requires an active Internet connection) (option button)</p> <p>No (option button)</p>	<p>This is a conditional dialog box; that is, it appears only if the Setup program determines that an Internet connection might be available.</p> <p>If you select <b>No</b>, clicking <b>Next</b> takes you to the <b>Type of Connection</b> dialog box. This is the default option.</p> <p>If you select <b>Yes</b>, clicking <b>Next</b> starts the Web Update. Details of the Internet installation are not covered in this document. The Web Update requires Internet Explorer 4.0 or later.</p> <p>Clicking <b>Back</b> returns you to the <b>HP Software License Agreement</b> dialog box.</p> <p>Clicking <b>Cancel</b> takes you to the <b>Exit Setup</b> dialog box.</p>

Figure 66: Type of Connection dialog box

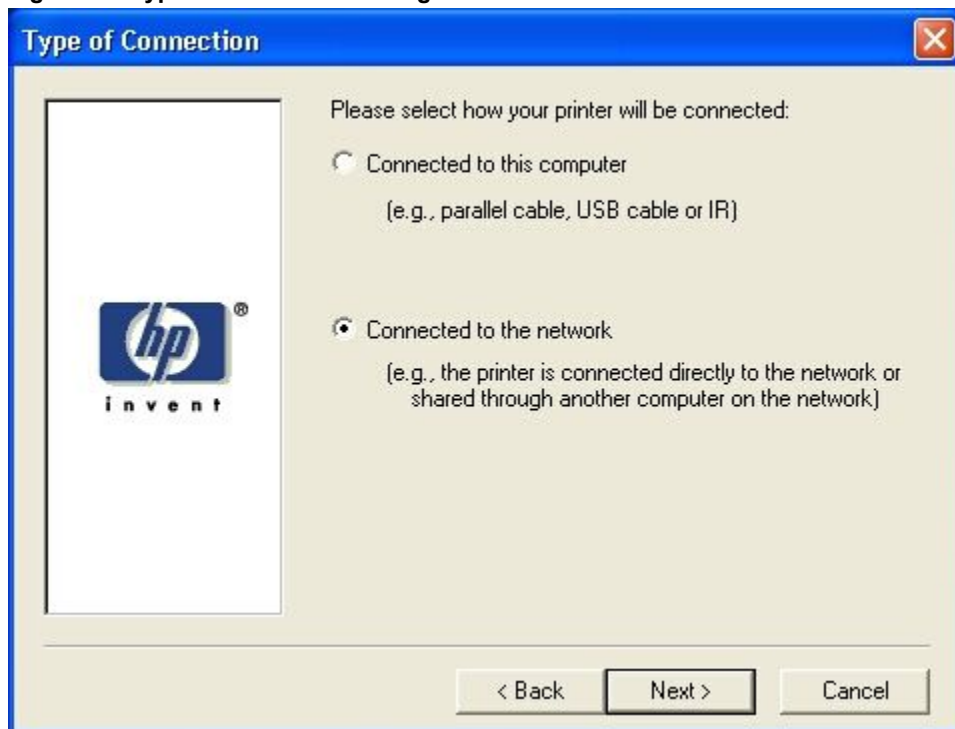


Table 54: Type of Connection dialog box text strings

Title of dialog box	Text in dialog box	User options and descriptions
Type of Connection	<p>Please select how your printer will be connected:</p> <p>Connected to this computer (e.g., parallel cable, USB cable or IR) (option button)</p> <p>Connected to the network (e.g., the printer is connected directly to the network or shared through another computer on the network) (option button)</p>	<p>If you select <b>Connected to this computer</b> (a "direct connection" using a parallel cable, universal serial bus cable, or infrared connection), clicking <b>Next</b> takes you to the <b>Select Port</b> dialog box. This is the default option.</p> <p>If you select <b>Connected to the network</b>, clicking <b>Next</b> takes you to the <b>Network Setup</b> dialog box.</p> <p>Clicking <b>Back</b> returns you to the <b>HP Software License Agreement</b> dialog box.</p> <p>Clicking <b>Cancel</b> takes you to the <b>Exit Setup</b> dialog box.</p>



Figure 67: Select Port dialog box

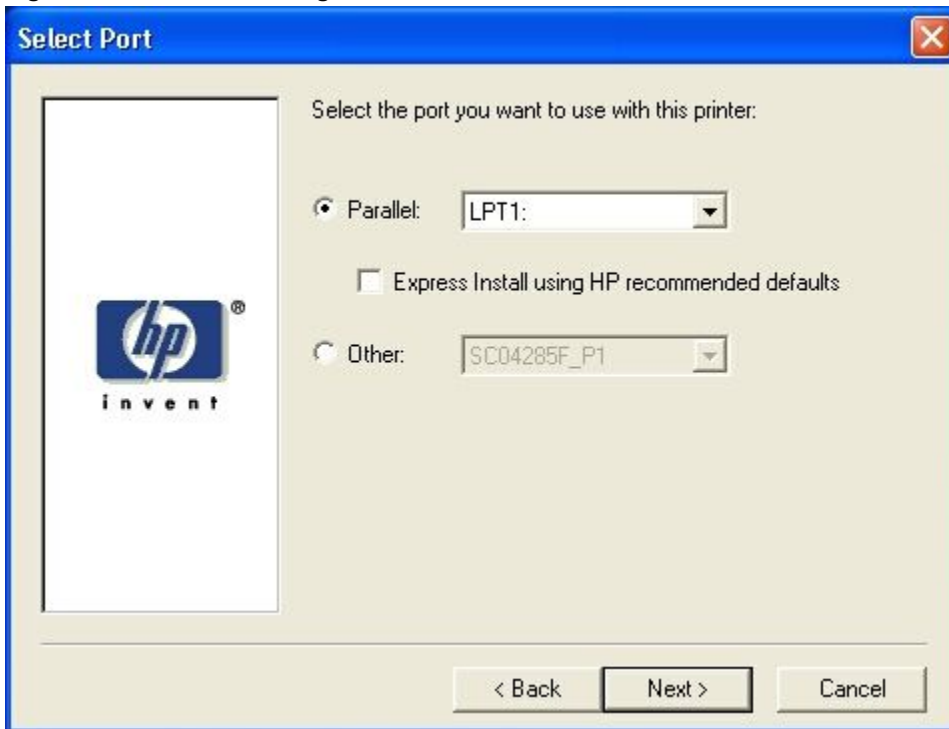


Table 55: Select Port dialog box text strings

Title of dialog box	Text in dialog box	User options and descriptions
<p><b>Select Port</b>                      (This dialog box appears if <b>Connected to this computer</b> was selected in the <b>Type of Connection</b> dialog box )</p>	<p>Select the port you want to use with this printer:</p> <p>Parallel (option button and drop-down menu)                      (Default. When selected, a pull-down list of parallel ports is available.)</p> <p>Express Install using HP recommended defaults (check box)</p> <p>Other (option button)                      (When selected, a pull-down list of other port types is available)</p> <p>Other (option button)</p> <p>USB (option button)</p>	<p>Regardless of the port that you select (Parallel, Other, or USB), clicking <b>Next</b> takes you to the printer <b>Model</b> dialog box.</p> <p>Clicking <b>Back</b> returns you to the <b>Type of Connection</b> dialog box.</p> <p>Selecting the <b>Express Install</b> check box, which is also selected by default, installs the PCL 6 driver.</p> <p>Clicking <b>Cancel</b> takes you to the <b>Exit Setup</b> dialog box.</p>

Figure 68: Network Setup dialog box

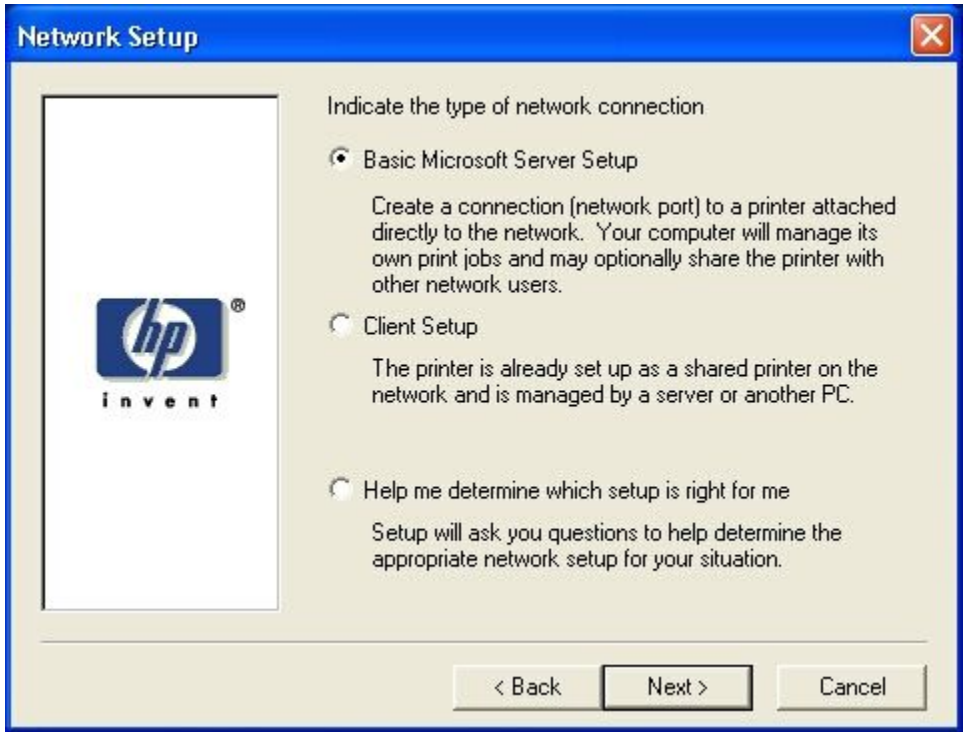


Table 56: Network Setup dialog box text strings

Title of dialog box	Text in dialog box	User options and descriptions
<p><b>Network Setup</b> (If <b>Connected to the network</b> was selected in the <b>Type of Connection</b> dialog box), <b>Next</b> takes you to the <b>Network Printer Configuration</b> dialog box.</p>	<p>Indicate the type of network connection</p> <p>Basic Microsoft Server Setup (option button)</p> <p>Create a connection (network port) to a printer attached directly to the network. Your computer will manage its own print jobs and may optionally share the printer with other network users.</p> <p>Client Setup (option button)</p> <p>The printer is already set up as a shared printer on the network and is managed by a server or another PC.</p> <p>Help me determine which setup is right for me (option button)</p> <p>Setup will ask you questions to help you determine the appropriate network setup for your situation.</p>	<p>If you select <b>Client Setup</b>, clicking <b>Next</b> takes you to the <b>Specify Network Path</b> dialog box, and then to the <b>Installation Type</b> dialog box.</p> <p>If you select <b>Help me</b>, clicking <b>Next</b> initiates a series of question dialog boxes that help you determine the best connection-type option to follow. This series begins with the <b>Cable Type Selection</b> dialog box.</p> <p>Clicking <b>Back</b> returns you to the <b>Type of Connection</b> dialog box.</p> <p>Clicking <b>Cancel</b> takes you to the <b>Exit Setup</b> dialog box.</p>

Figure 69: Network Printer Configuration dialog box

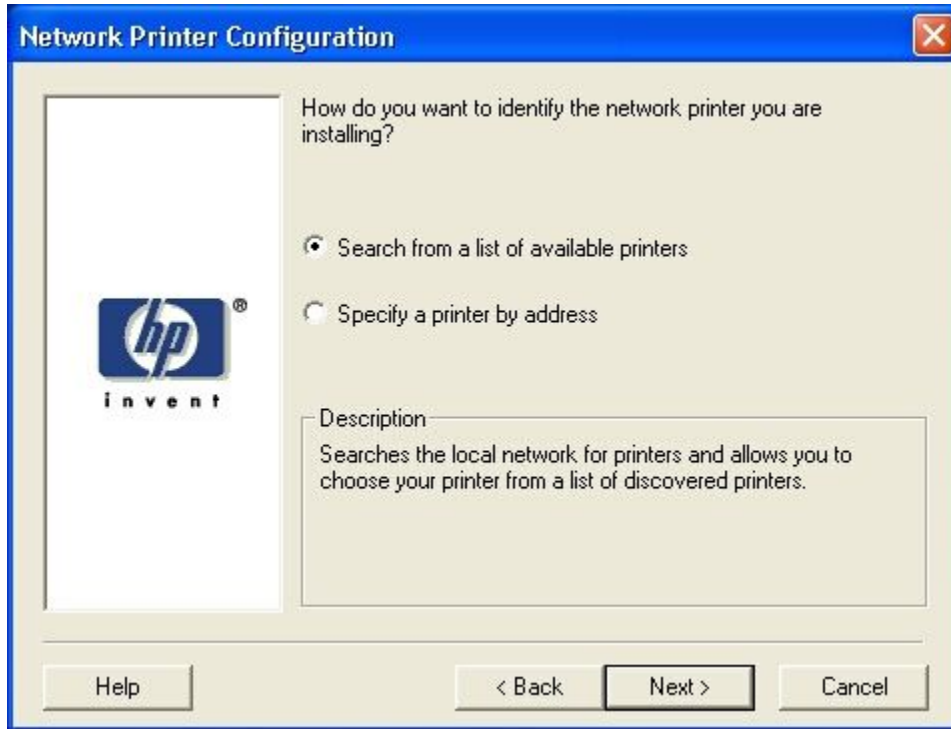


Table 57: Network Printer Configuration dialog box text strings

Title of dialog box	Text in dialog box	User options and descriptions
Network Printer Configuration	<p>How do you want to identify the network printer you are installing?</p> <p>Search from a list of available printers (option button)</p> <p>(Description) Searches the local network for printers and allows you to choose your printer from a list of discovered printers.</p> <p>Specify a printer by address (option button)</p> <p>(Description) Allows you to specify your printer by entering one of the following attributes: Hardware Address, IP Address, IP Hostname, or IPX Address.</p> <p>Description (Conditional text)</p>	<p>If you select <b>Search from a list of available printers</b>, clicking <b>Next</b> takes you to the <b>Identify Printer</b> dialog box.</p> <p>If you select <b>Specify a printer by address</b>, clicking <b>Next</b> takes you to the <b>Identify Printer</b> dialog box.</p> <p>Always select <b>Specify a printer by address</b> when the printer address is available. On large networks, selecting <b>Search from a list of available printers</b> might not reveal the location of a specific printer.</p> <p>Clicking <b>Back</b> returns you to the <b>Network Setup</b> dialog box.</p> <p>Clicking <b>Cancel</b> takes you to the <b>Exit Setup</b> dialog box.</p>

Figure 70: Identify Printer dialog box (1 of 2)

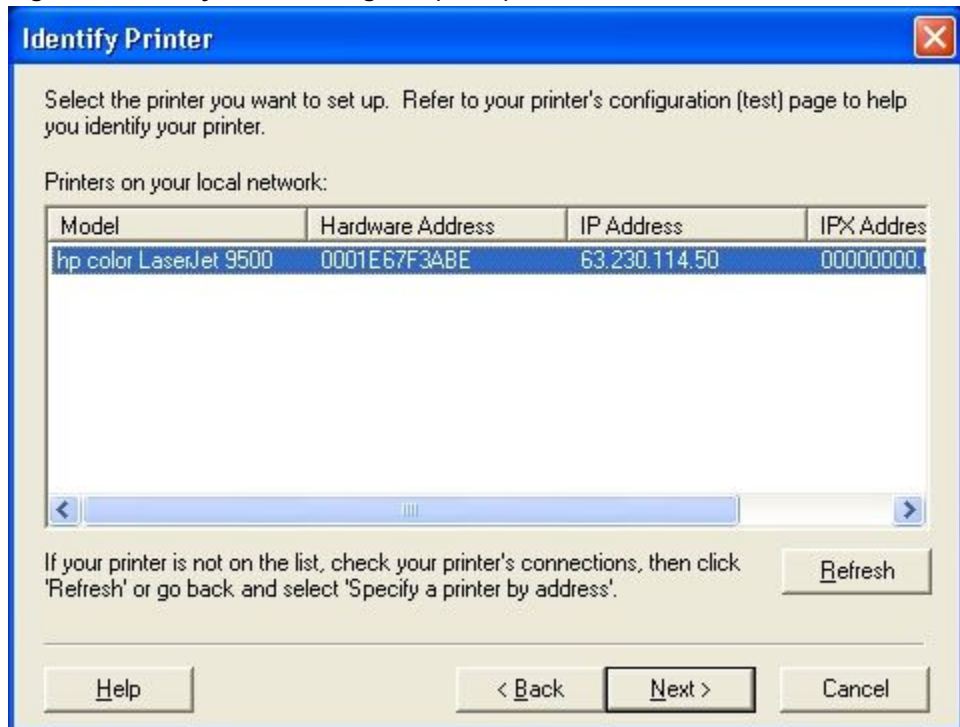
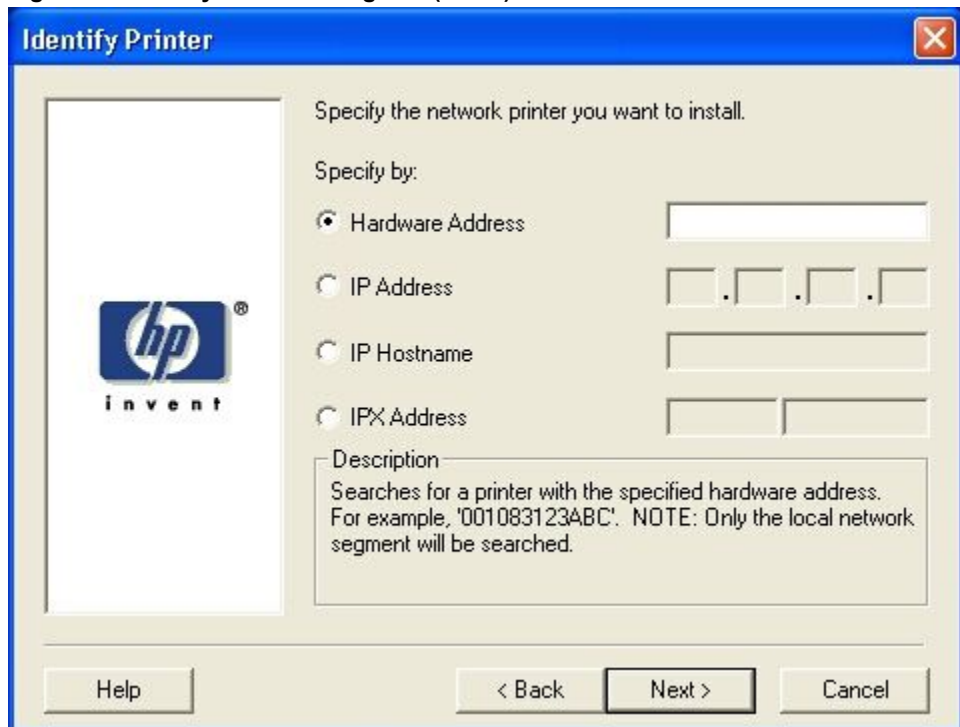


Figure 71: Identify Printer dialog box (2 of 2)



**Table 58: Identify Printer dialog box text strings**

Title of dialog box	Text in dialog box	User options and descriptions
<p><b>Identify Printer</b></p>	<p>(dialog box 1)</p> <p>Select the network printer you want to install.</p> <p>Printers on your local network: (List, with attributes of Hardware Address, IP Address, and IPX Address listed, if available)</p> <p>If your printer is not found on the list, click '<b>Refresh</b>', or go back and click '<b>Specify a printer by address</b>'.</p> <p>(OR dialog box 2)</p> <p>Specify the network printer you want to install.</p> <p>Specify by:</p> <p>Hardware Address. (option button) (text field)</p> <p>IP Address (option button) (text fields)</p> <p>IP Hostname (option button) (text field)</p> <p>IPX Address (option button) (text fields)</p> <p>Description (Conditional text)</p>	<p>If you identify the printer by selecting the HP Color LaserJet 9500 from the list, clicking <b>Next</b> takes you to the <b>Set Network Communication Mode</b> dialog box.</p> <p>If your HP Color LaserJet 9500 series printer is not found on the network, click <b>Refresh</b> or go back to the <b>Network Printer Configuration</b> dialog box to specify the device by address.</p> <p>Clicking <b>Refresh</b> updates the list of network printers.</p> <p>If you identify the printer by specifying a specific network address, clicking <b>Next</b> takes you to the <b>Set Network Communication Mode</b> dialog box.</p> <p>Clicking <b>Back</b> returns you to the <b>Network Printer Configuration</b> dialog box.</p> <p>Clicking <b>Cancel</b> takes you to the <b>Exit Setup</b> dialog box.</p>

Figure 72: Specify Network Path dialog box

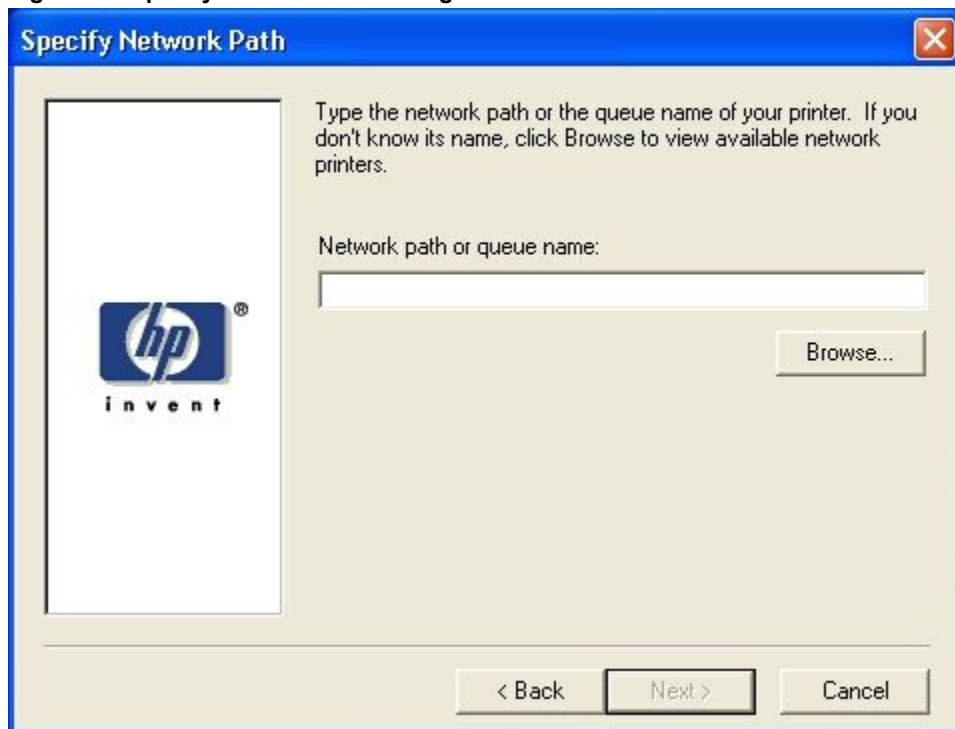


Table 59: Specify Network Path dialog box text strings

Title of dialog box	Text in dialog box	User options and descriptions
Specify Network Path	<p>Type the network path or the queue name of your printer. If you don't know its name, click <b>Browse</b> to view the available network printers.</p> <p>Network path or queue name: (text field)</p> <p>Browse ...(button)</p>	<p>If you type a network path or queue name, clicking <b>Next</b> takes you to the <b>Cable Type Selection</b> dialog box.</p> <p><b>NOTE:</b> If you reached this dialog box from the <b>Connected to Selection</b> dialog box, clicking <b>Next</b> takes you to the <b>Installation Type</b> dialog box.</p> <p>Clicking <b>Browse</b> brings up a list of devices that are available on the network.</p> <p>Clicking <b>Back</b> returns you to the <b>Network Setup</b> dialog box.</p> <p>Clicking <b>Cancel</b> takes you to the <b>Exit Setup</b> dialog box.</p>

Figure 73: Set Network Communication Mode dialog box

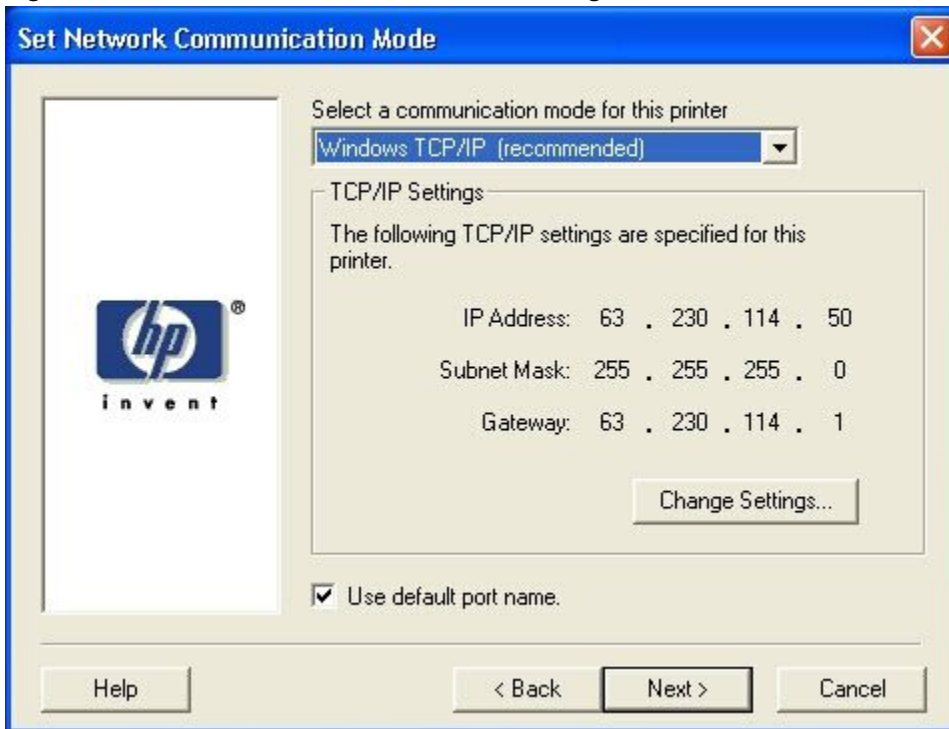


Table 60: Set Network Communication Mode dialog box text strings

Title of dialog box	Text in dialog box	User options and descriptions
<b>Set Network Communication Mode</b>	<p>Select a communication mode for this printer.</p> <p>(drop-down menu)</p> <p>(Conditional text)</p> <p>TCP/IP Settings</p> <p>The following TCP/IP settings are specified for this printer.</p> <p>(Conditional fields showing TCP/IP or other address information)</p> <p>Change Settings... (button)</p> <p>Use default port name. (check box)</p>	<p>Select a communication mode.</p> <p><b>Windows TCP/IP (recommended)</b> is the default setting.</p> <p>Click <b>Change Settings...</b> to change the TCP/IP address, subnet mask, or gateway.</p> <p>After you have specified a communications mode, clicking <b>Next</b> takes you to the <b>Model</b> dialog box.</p> <p>Clicking <b>Back</b> returns you to the <b>Identify Printer</b> dialog box.</p> <p>Clicking <b>Cancel</b> takes you to the <b>Exit Setup</b> dialog box.</p>

Figure 74: Model dialog box

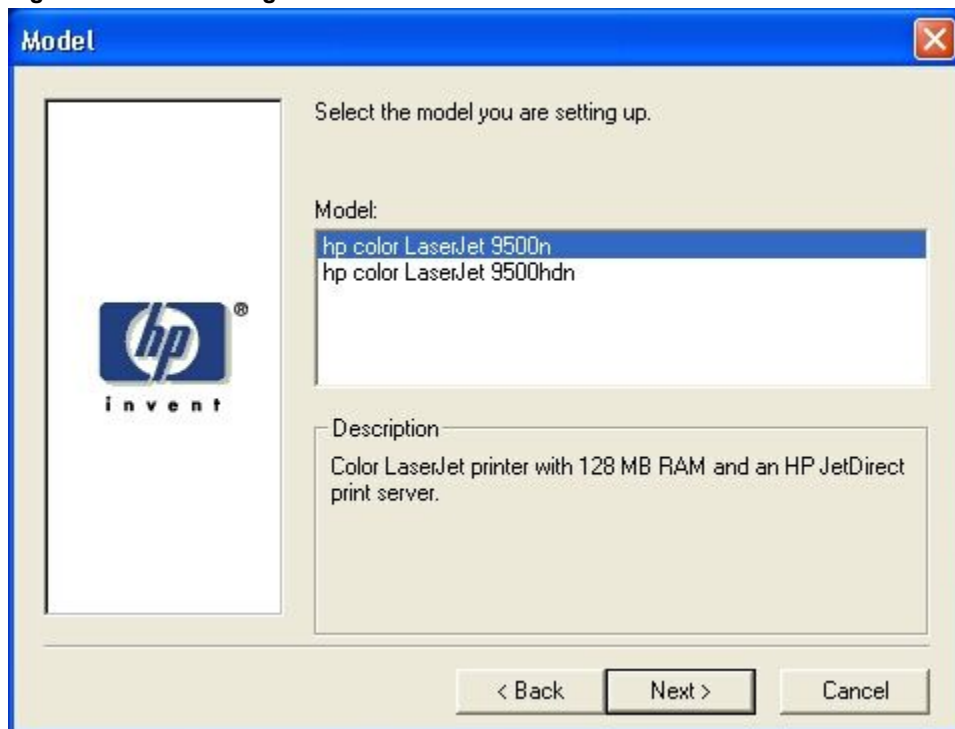
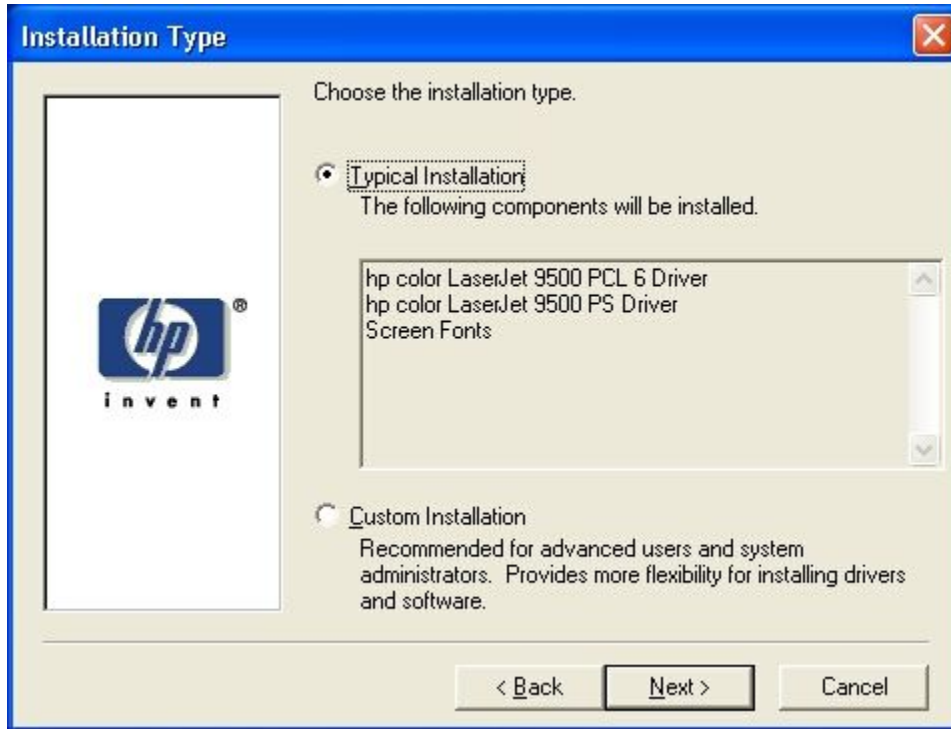


Table 61: Model dialog box text string

Title of dialog box	Text in dialog box	User options and descriptions
Model	Select the model you are setting up. Model: (List of HP Color LaserJet 9500 models) Description (Conditional text, depending upon which model is chosen in the list)	Clicking <b>Next</b> takes you to the <b>Installation Type</b> dialog box. Clicking <b>Back</b> returns you to the <b>Select Port</b> dialog box when you are performing a direct connection installation, or to the <b>Set Network Communication Mode</b> dialog box when you are performing a network installation. Clicking <b>Cancel</b> takes you to the <b>Exit Setup</b> dialog box.



**Figure 75: Installation Type dialog box**



**Note** The components of a Typical Installation might vary from printer to printer.

**Table 62: Installation Type dialog box text strings**

Title of dialog box	Text in dialog box	User options and descriptions
Installation Type	Choose the installation type. Typical Installation (option button) Custom Installation (option button) Recommended for advanced users and system administrators. Provides more flexibility for installing drivers and software.	If you select <b>Typical Installation</b> , clicking <b>Next</b> takes you to the <b>Printer Name</b> dialog box. If you select <b>Custom Installation</b> , clicking <b>Next</b> takes you to the <b>Components</b> dialog box. Clicking <b>Back</b> returns you to the printer <b>Model</b> dialog box. Clicking <b>Cancel</b> takes you to the <b>Exit Setup</b> dialog box.

Figure 76: Printer Name dialog box

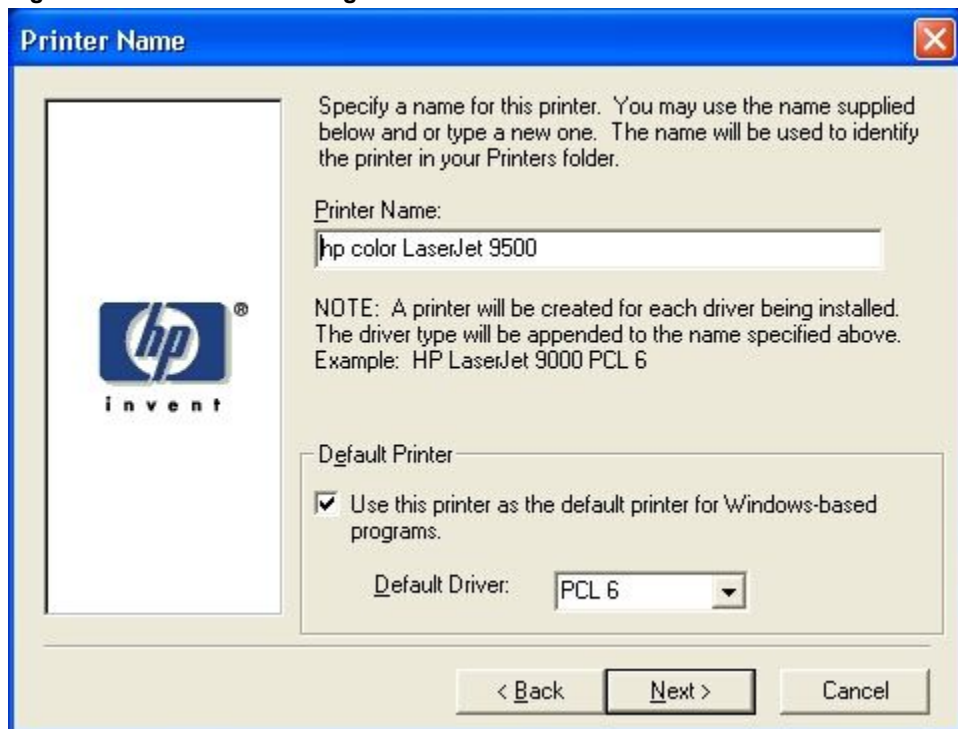
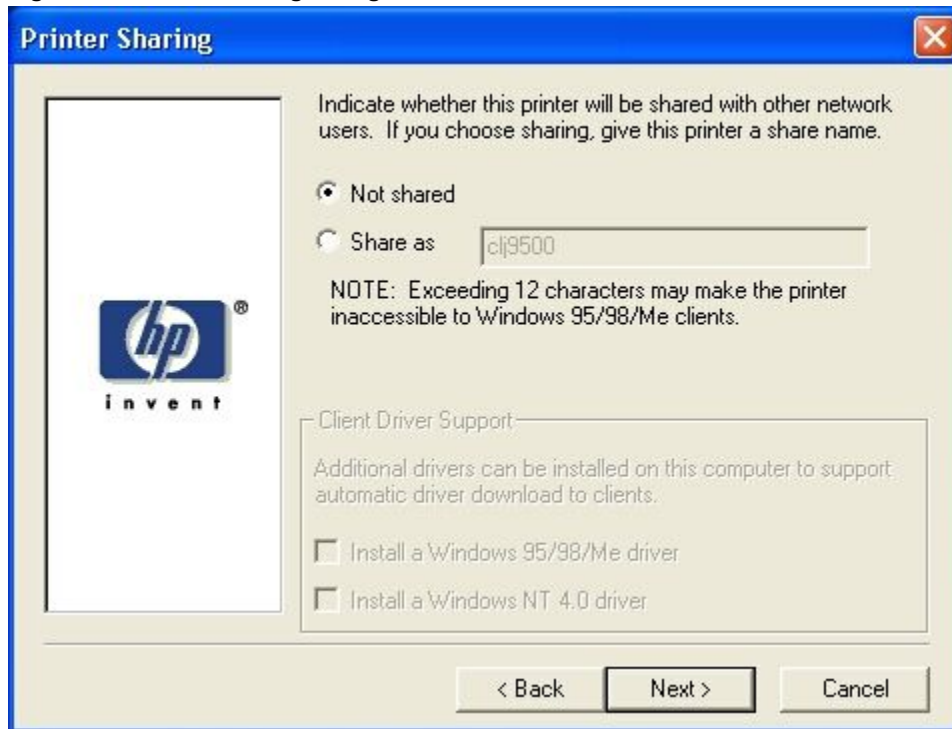


Table 63: Printer Name dialog box text strings

Title of dialog box	Text in dialog box	User options and descriptions
Printer Name	<p>Specify a name for this printer. You may use the name supplied below or type a new one. The name will be used to identify the printer in your Printers folder.</p> <p>Printer Name: (text entry field)</p> <p>Do you want your Windows-based programs to use this as the default printer?</p> <p>Yes (option button)</p> <p>No (option button)</p>	<p>Clicking <b>Next</b> takes you to the <b>Printer Sharing</b> dialog box.</p> <p>The default printer name in the text field is <b>HP Color LaserJet 9500 PCL 6</b>.</p> <p><b>NOTE:</b> A printer name is created for each driver that is installed. The driver type is appended to the name specified in the <b>Printer Name:</b> field (for example, HP Color LaserJet 9500 PCL 6).</p> <p>Clicking <b>Back</b> returns you to the <b>Installation Type</b> dialog box.</p> <p>Clicking <b>Cancel</b> takes you to the <b>Exit Setup</b> dialog box.</p>

**Figure 77: Printer Sharing dialog box**



**Note** When you do not share the printer, additional driver support is not available. If you share the printer on Windows NT 4.0, Windows 2000, Windows XP, or Windows Server 2003 operating systems by selecting **Share as**, you must type a name. You can also provide additional printer driver support for other operating systems.

**Table 64: Printer Sharing dialog box text strings**

Title of dialog box	Text in dialog box	User options and descriptions
Printer Sharing	<p>Indicate whether this printer will be shared with other network users. If you choose sharing, give the printer a share name.</p> <p>Not shared (option button)</p> <p>Share as (option button and text box)</p> <p>NOTE: Exceeding 12 characters may make the printer inaccessible to Windows 95/98/Me clients.</p> <p>Client Driver Support (available if the printer is shared)</p> <p>Additional drivers can be installed on this computer to support automated driver download to clients.</p> <p>Install a Windows 95/98/Me driver. (check box)</p>	<p>Clicking <b>Next</b> starts the file copy process.</p> <p>Clicking <b>Back</b> returns you to the <b>Printer Name</b> dialog box.</p> <p>Clicking <b>Cancel</b> takes you to the <b>Exit Setup</b> dialog box.</p>

Figure 78: Finish dialog box

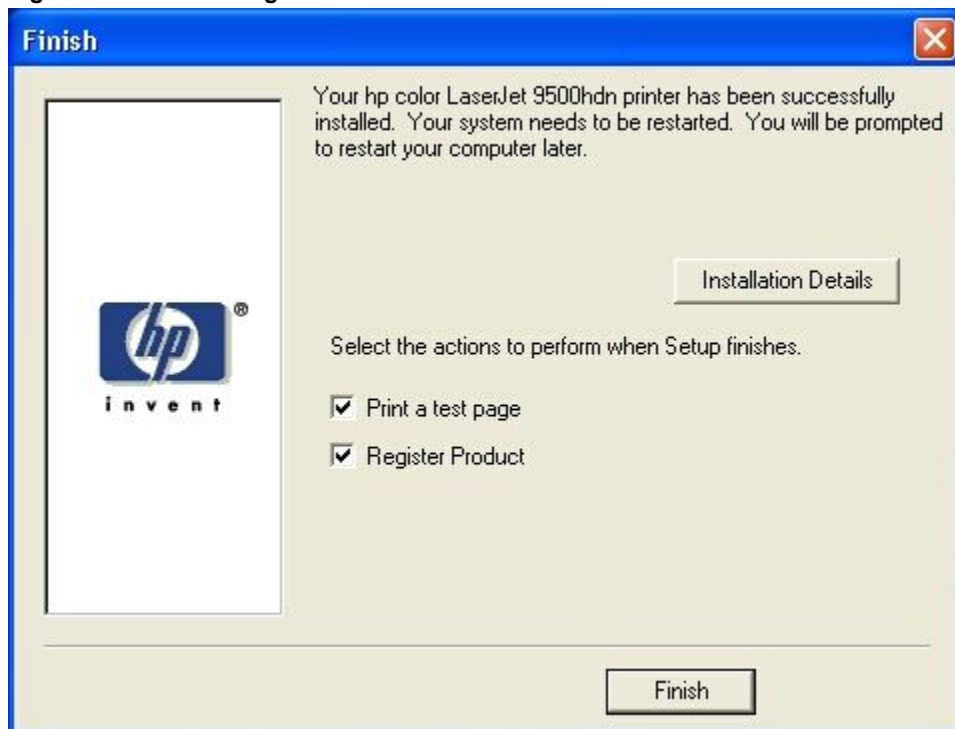
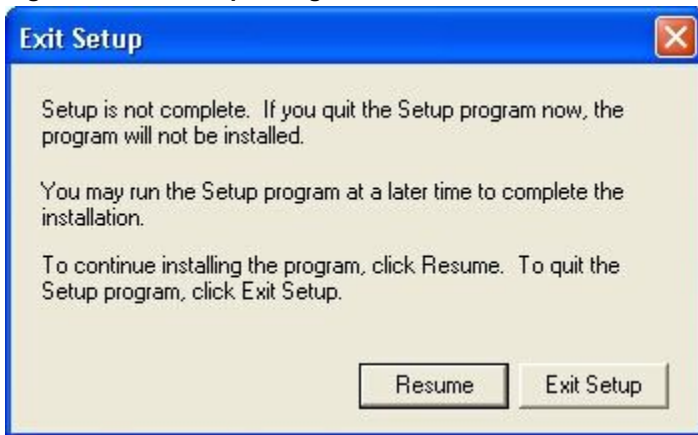


Table 65: Finish dialog box text strings

Title of dialog box	Text in dialog box	User options and descriptions
Finish	<p>Your hp LaserJet printer has been successfully installed. Your system needs to be restarted. You will be prompted to restart your computer later.</p> <p>Installation Details (button)</p> <p>Select the actions to perform when Setup finishes.</p> <p>Print a test page (check box)</p> <p>Web Registration (check box)</p>	<p>Clicking <b>Finish</b> completes the installation process and initiates test-page printing and Web-page registration if those options are selected.</p> <p>Clicking <b>Installation Details</b> opens a dialog box that shows installation details.</p> <p><b>NOTE:</b> If the computer must be restarted, the <b>Print a test page</b> and <b>Web registration</b> functions occur after the computer is restarted.</p>

**Figure 79: Exit Setup dialog box**



**Table 66: Exit Setup dialog box text strings**

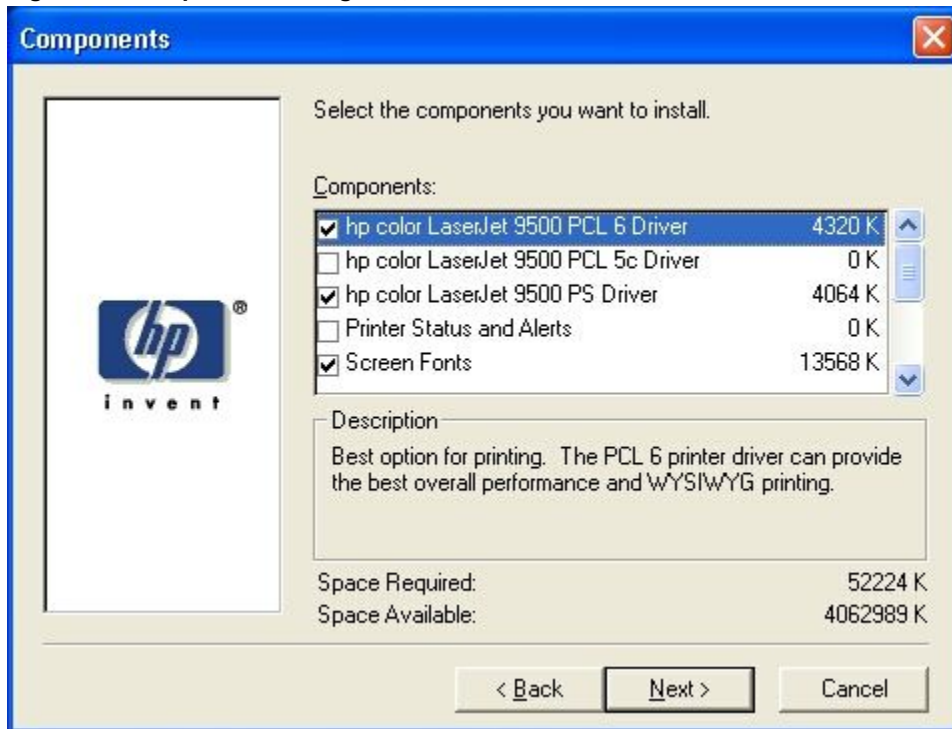
Title of dialog box	Text in dialog box	User options and descriptions
<b>Exit Setup</b> (when <b>Cancel</b> is selected during installation)	Setup is not complete. If you quit the Setup program now, the program will not be installed. You may run the Setup program at a later time to complete the installation. To continue installing the program, click <b>Resume</b> . To quit the Setup program, click <b>Exit Setup</b> .	Clicking <b>Exit Setup</b> closes the Installer program. Clicking <b>Resume</b> takes you to the dialog box that you most recently canceled.

## Custom Installation

The Custom Installation gives you the option of installing the following components:

- HP Color LaserJet 9500 PCL 6 Driver (for direct-connect and network installations)
- HP Color LaserJet 9500 5c Driver (for direct-connect and network installations)
- HP Color LaserJet 9500 PS Driver (for direct-connect and network installations)
- Printer Status and Alerts (for direct-connect (for Job Status only) and for network installations)
- Screen fonts (for direct-connect and network installations)
- User Guide (the *User Reference Guide* for the HP Color LaserJet 9500, for direct-connect and network installations)

**Figure 80: Components dialog box, Custom Installation**



**Note** The components of a Custom Installation might vary from printer to printer.

Windows NT 4.0, Windows 2000, Windows XP, Windows Server 2003 computers running a terminal server do not support the **Printer Status and Alerts** option.

The appearance of the **Components** dialog box might vary, depending on printer and connection type.

**Table 67: Custom Installation dialog box text strings**

Title of dialog box	Text in dialog box	User options and descriptions
<b>Components</b>	Select the components you want to install. Components: (list with check boxes) Description (Conditional text, according to the item currently highlighted in the list) Space Required (Specifies disk space required to install components in currently selected in list) Space Available (Specifies disk space available on disk drive specified in <b>Choose Destination Location</b> dialog box)	Clicking <b>Next</b> takes you to the <b>Printer Name</b> dialog box. Clicking <b>Back</b> returns you to the <b>Installation Type</b> dialog box. Clicking <b>Cancel</b> takes you to the <b>Exit Setup</b> dialog box. <b>NOTE:</b> Custom Installation automatically selects the options that are available in the Typical Installation. You can also select from among the following components: PCL 6 driver PCL 5c driver PS driver Printer Status and Alerts Screen Fonts User Guide

## Product registration (HP WebReg)

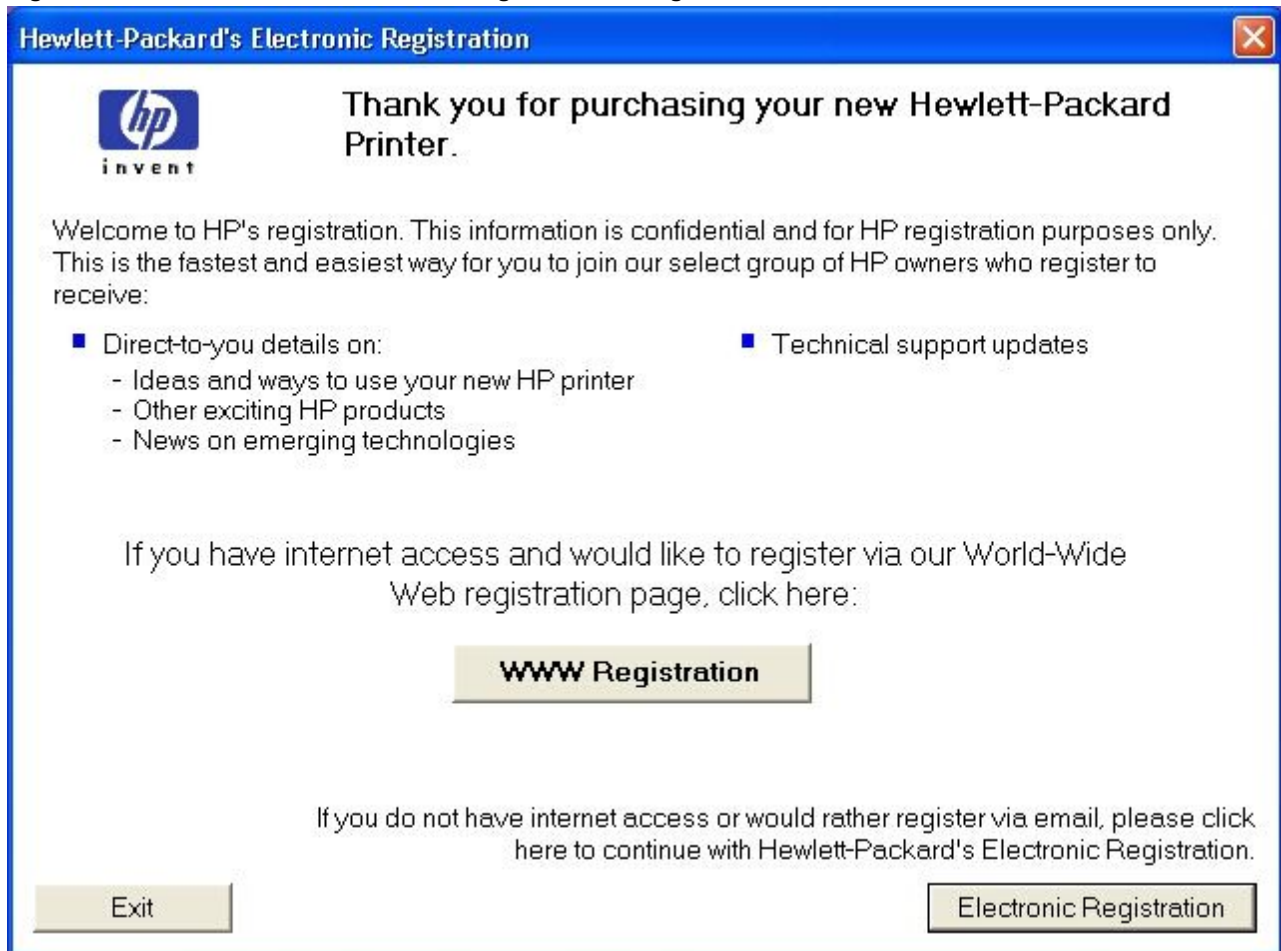
The HP Color LaserJet 9500 software CD-ROM browser provides two options for registering the HP Color LaserJet 9500 series printer:

- registration through the Internet at:  
**http://register.hp.com**
- registration by e-mail

**Note** Web registration for Hebrew and Arabic is in English.

To gain access to the product-registration options, go to the main menu of the HP Color LaserJet 9500 software CD-ROM browser and click **Register Product**. This starts the HP WebReg utility and opens the following window.

**Figure 81: Hewlett-Packard's Electronic Registration dialog box**



**Table 68: Hewlett-Packard's Electronic Registration text strings**

Title of dialog box	Text in dialog box	User options and descriptions
<p><b>Hewlett-Packard's Electronic Registration</b></p>	<p>Welcome to HP's registration. This information is confidential and for HP registration purposes only. This is the fastest and easiest way for you to join our select group of HP owners who register to receive:</p> <p>Direct-to-you details about:</p> <ul style="list-style-type: none"> <li>• Ideas and ways to use your new HP printer.</li> <li>• Other exciting HP products.</li> <li>• News on emerging technologies.</li> </ul> <p>Technical support updates.</p> <p>If you have internet access and would like to register via our World Wide Web registration page, click here:</p> <p>WWW Registration(button) (default option)</p> <p>If you do not have internet access or would rather register via email, please click here to continue with Hewlett-Packard's Electronic Registration.</p> <p>Exit(button)</p> <p>Electronic Registration (button)</p>	<p>Clicking <b>WWW Registration</b> opens the default Web browser and connects to the product registration page at:  <b>http://register.hp.com</b></p> <p>Clicking <b>Electronic Registration</b> opens the <b>Welcome to Hewlett-Packard's Registration</b> dialog box.</p> <p>Clicking <b>Exit</b> opens the <b>Exiting Registration!</b> dialog box.</p>



Figure 82: Welcome to Hewlett-Packard's Registration dialog box

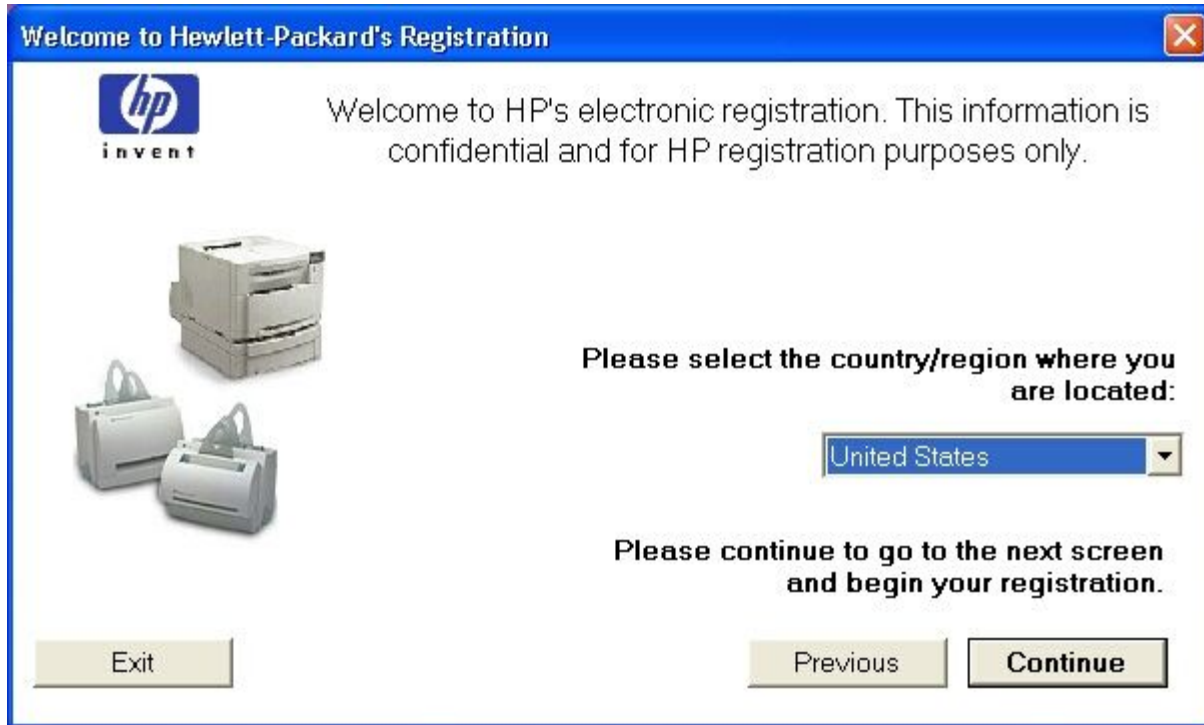


Table 69: Welcome to Hewlett-Packard's Registration dialog box text strings

Title of dialog box	Text in dialog box	User options and descriptions
<b>Welcome to Hewlett-Packard's Registration</b>	<p>Welcome to HP's electronic registration. This information is confidential and for HP registration purposes only.</p> <p>Please select the country/region where you are located: (drop-down menu)</p> <p>Please continue to go to the next screen and begin your registration</p> <p>Exit (button)</p> <p>Previous (button)</p> <p>Continue (button) (default option)</p>	<p>Clicking <b>Previous</b> returns you to the <b>Hewlett-Packard's Electronic Registration</b> dialog box.</p> <p>Clicking <b>Continue</b> starts a sequence of three dialog boxes. The first dialog box provides fields for typing your registration information. The second dialog box prompts you for information about your HP Color LaserJet 9500 series printer. The third dialog box gives you the option of sending the e-mail message to register the printer.</p> <p>Clicking <b>Exit</b> takes you to the <b>Exiting Registration!</b> dialog box.</p>

Figure 83: Hewlett-Packard's Electronic Registration dialog box (1 of 3)

**Hewlett-Packard's Electronic Registration**

✱ Please complete the following (required fields are denoted by a blue asterisk):

✱ First Name: Jane Middle Initial: Building/Dept. ✱ Last Name: Doe

Company/Organization Name: Building/Mail Stop/Dept.:

✱ Mailing Address: P.O. Box 100

✱ City/Town: Boise ✱ State: IA ✱ Zip Code: 83650

E-mail Address: Telephone Number: Extension:

Occasionally HP communicates information on products and/or programs that may be relevant to you. Please select the method(s) of communication HP may use to contact you. (check all that apply)

E-mail    Mail    Telephone

Please don't contact me unless I specifically request it


Exit   Previous   **Continue**

**Table 70: Hewlett-Packard's Electronic Registration dialog box text strings (1 of 3)**

Title of dialog box	Text in dialog box	User options and descriptions
<p><b>Hewlett-Packard's Electronic Registration</b> (This is the first of three dialog boxes.)</p>	<p>Please complete the following (required fields are denoted by a blue asterisk): (The following items are fields unless otherwise noted.)</p> <p>First name* Middle Initial Last Name* Company/Organization Name* Building/Mail Stop/Dept. Mailing Address* City/Town* State* (drop-down menu) Zip Code* E-mail Address Telephone Number Extension</p> <p>Occasionally HP communicates information on products and/or programs that may be relevant to you. Please select the method(s) of communication HP may use to contact you. (check all that apply)</p> <p>E-mail (check box) Mail (check box) Telephone (check box)</p> <p>Please don't contact me unless I specifically request it (check box)</p> <p>Exit (button) Previous (button) Continue (button)</p>	<p>Clicking <b>Previous</b> returns you to the <b>Welcome to Hewlett-Packard's Registration</b> dialog box.</p> <p>Clicking <b>Continue</b> takes you to the second screen in this sequence.</p> <p>Clicking <b>Exit</b> takes you to the <b>Exiting Registration!</b> dialog box.</p>

Figure 84: Hewlett-Packard's Electronic Registration dialog box (2 of 3)

**Hewlett-Packard's Electronic Registration**

 **Please tell us about the Hewlett-Packard product that you purchased:**

\* Where will your new Hewlett-Packard product primarily be used?

\* Which Hewlett-Packard product did you purchase?

\* When did you purchase your Hewlett-Packard product?

\* Serial Number:

Approximately how many employees work at your... site?

Worldwide?

What is your job responsibility as it relates to HP products?

**Table 71: Hewlett-Packard's Electronic Registration dialog box text strings (2 of 3)**

Title of dialog box	Text in dialog box	User options and descriptions
<p><b>Hewlett-Packard's Electronic Registration</b> (This is the second of three dialog boxes.)</p>	<p>Please tell us about the Hewlett-Packard product you purchased:</p> <p>Where will your new Hewlett-Packard product primarily be used? * (drop-down menu)</p> <p>Which Hewlett-Packard product did you purchase?* (drop-down menu)</p> <p>When did you purchase your Hewlett-Packard product?* (text box)</p> <p>Serial Number* (text box)</p> <p>Approximately how many employees work at your...site? Worldwide?</p> <p>What is your job responsibility as it relates to HP products?</p> <p>Exit (button)</p> <p>Previous (button)</p> <p>Continue (button)</p>	<p>Clicking <b>Previous</b> returns you to the first dialog box in this sequence.</p> <p>Clicking <b>Continue</b> takes you to the third dialog box in this sequence.</p> <p>Clicking <b>Exit</b> takes you to the <b>Exiting Registration!</b> dialog box.</p> <p>Type the date that you purchased your Hewlett-Packard printer.</p> <p>Type the printer serial number.</p> <p>The questions about the number of employees and your job responsibility appear only if you answered that you plan to use your HP Color LaserJet 9500 series printer primarily for business or telecommuting. Drop-down menus that contain possible answers are provided for your convenience. (Answering these questions is optional in the registration process.)</p>

Figure 85: Hewlett-Packard's Electronic Registration dialog box (3 of 3)



Table 72: Hewlett-Packard's Electronic Registration dialog box text strings (3 of 3)

Title of dialog box	Text in dialog box	User options and descriptions
<b>Hewlett-Packard's Electronic Registration</b> (This is the third of three dialog boxes.)	Please send your registration to Hewlett-Packard via e-mail. E-mail (button) (default option) Exit (button) Previous (button)	Click the <b>E-mail</b> button to send an e-mail to HP that contains the registration information that you specified. A thank-you dialog box appears when the e-mail is sent. Clicking <b>Previous</b> returns you to the second dialog box in this sequence. Clicking <b>Exit</b> takes you to the <b>Exiting Registration!</b> dialog box.

Figure 86: Exiting registration! dialog box



Table 73: Exiting registration text strings

Title of dialog box	Text in dialog box	User options and descriptions
Exiting Registration!	<p>You have selected to exit Hewlett-Packard's registration.</p> <p>If you would like to continue with registration, please press the continue button to return to the place where you exited.</p> <p>Continue (button) (default option)</p> <p>Otherwise, you may go to the URL below to register your product at any time.</p> <p><a href="http://register.hp.com/go/register">http://register.hp.com/go/register</a></p> <p>Thank you for your valuable time!</p> <p>Exit (button)</p>	<p>Clicking <b>Continue</b> returns you to the dialog box where you were when you clicked the <b>Exit</b> button.</p> <p>Clicking <b>Exit</b> closes the HP WebReg utility.</p>

## Customization Utility for Windows

Use the **Customization Utility** button to create your own customized installation of printing-system components. To start the utility, click **Customization Utility** on the main menu of the HP LaserJet software CD-ROM browser. The following are available options for creating a customized installation.

- **Create Customized Installer.** Using this option, you can create either an interactive or silent (unattended) installer that has been customized by any of the following selections:
  - Language
  - Operating System
  - Printer Model
  - Components
- **Copy Entire Printing System installer.** Using this option, you can copy the HP Color LaserJet 9500 printing-system installer to a selected form of high-capacity media, such as a network drive. The customization utility prompts these choices:
  - Language
  - Operating System
  - Destination Path

## Silent installer

You can use the HP Color LaserJet 9500 printing-system software to create a silent installer that runs the installation program without user interaction. This installation method is useful when you want to use the default selections that the installer provides or when you want to run the installation without being prompted. You also have the option of creating a custom disk image that contains specific drivers and utilities, which allows you to run the installer without further interaction.

You can perform the silent installation in two ways:

- customized silent installer
- command-line silent installer

## Customized silent installer

Use this option to select the printing-system components to include in the silent installation. You can select the operating system, language, printer models, drivers, utilities, and documentation to install.

## HP preconfiguration

HP preconfiguration is a software architecture and set of tools that you can use to customize HP and third-party software and distribute the software within managed corporate printing environments. Network administrators can use HP preconfiguration to preconfigure printer drivers and other printing software, and to manage that software on client workstations remotely. With HP preconfiguration, you can retain customized printer settings during driver updates, rather than replace those settings with the default settings of the new driver.

## Command-line silent install

This method cannot be customized. It installs only the printing-system components that are included in the Typical Installation.

### Note

Values that follow an equal sign ( = ) in a command line must not contain intervening spaces.



## Method 1: Command line

Type the following at the command line (do not type the beginning and ending quotation marks):

```
"<CD-ROM-ROOT>/SETUP/SETUP.EXE /U /PORT=XXXX /PRINTER=N /PD=N"
```

## Method 2: SETUP.LST

Use the SETUP.LST file to specify command-line arguments to the installer for an unattended installation. You can send command-line arguments in one of the following ways:

- Send the command directly to the installer.
- Send the command using the SETUP.LST file located in the setup directory.
- Use a combination of the two methods.

For example, this file contains two options: **/port** and **/printer**. The installer operates normally because the **/u** option has not been specified. If you use **setup /u** for the installer, it operates in the unattended mode and uses the two values specified in the defaults section of the SETUP.LST file. If you use **setup /u /printer=1** for the installer, it operates in the unattended mode and chooses the HP Color LaserJet 9500hdn. The options specified on the command line override the options that are specified in the SETUP.LST file

The available options can also include the **/u** option. Using this option key makes the installer always operate in the unattended mode. The following descriptions explain the available options:

- **/u** signals the installer to use the specified port and printer that are given on the command line (or in this file), and to use all of the of the default selections. Installation then proceeds without prompting you.
- **/port=xxxx** specifies the default port when performing an unattended installation. The value that is specified by xxxx should be a valid port and should contain no spaces; for example, **LPT1**.
- **/printer=n** specifies the default printer when performing an unattended installation. The value specified by "n" is an integer that references the list of available printers. For example, the following printers are available for the HP Color LaserJet 9500 series printer installation:

0 = HP Color LaserJet 9500n printer

1 = HP Color LaserJet 9500hdn printer

- **/pd=n** specifies whether the selected printer is the default printer when you have multiple printers connected to your network. The value specified by n is an integer (that is, 0 or 1). For this argument, typing a 1 sets the selected printer as the default printer. Typing a 0, or not specifying a value at all, sets the printer as a non-default printer.

You can preset these options in the SETUP.LST file that is located in the root directory of the HP Color LaserJet 9500 software CD-ROM. In the defaults section, add the following syntax:

(Defaults)

```
Options= /port=<value> /printer=<number> /pd=<number>
```

For example, <value> = LPT1,

## Driver-only installation

1. Close all software programs.
2. In Windows 95, Windows 98, Windows Me, Windows NT 4.0, and Windows 2000 OSs, click **Start**, click **Settings**, and then click **Printers**. In Windows XP and Windows Server 2003, click **Start**, click **Control Panel**, click **Printers and Faxes** (Windows XP Professional) or **Printers and other hardware devices** (Windows XP Home).
3. Double-click **Add Printer**.
4. Answer the questions in the **Add Printer Wizard** dialog box until you reach the screen that shows the printer manufacturer list.

5. Click **Have Disk**.
6. Browse to the driver location by using one of these options: With **Inbox CD-ROM**, browse to the appropriate directory for your language, then browse to the operating system, and the driver. With **Internet download**, browse to the folder where the Web files were downloaded and decompressed.

**Note** Navigating to the operating system before the language (when using the **Inbox CD-ROM** option) leads you to the incorrect .INF file.

7. Select the appropriate information (.INF) file.
8. Click **Open**, and then click **OK**.
9. Select the appropriate printer.
10. Follow the remaining instructions on the screen to complete the printer installation. At this point, the driver has been copied to your hard disk and is included with the list of installed printers.

## Point and Print installation for Windows 95, 98, Me, NT 4.0, 2000, XP, and 2003

The following information helps you install a printer driver by using the Microsoft Point and Print function when you cannot see the printer on the network.

Point and Print is a Microsoft term that describes a two-step driver installation process. The first step is to install a shared driver on a network print server. The second step is to "point" to the print server from a network client so that the client can use the print driver.

**Note** This section outlines the procedures for installing print drivers by using Point and Print. If these procedures are not successful, contact Microsoft.

Hewlett-Packard provides drivers that are compatible with the Point and Print feature, but this is a function of the Microsoft operating systems, not of HP print drivers. Windows NT 4.0, Windows 2000, Windows XP, and Windows Server 2003 drivers from HP are supported only on Intel X86 processor types. Any other processor types must use Windows NT 4.0 drivers from Microsoft.

To install the printer driver on a Windows NT 4.0, Windows 2000, Windows XP, Windows Server 2003 server, you must have administrator privileges. To completely install the Windows NT 4.0 printer driver on the Windows NT 4.0 server (or the Windows 2000 printer driver on the Windows 2000 server), you must have administrator privileges on the server. The Windows NT 4.0 Printer .INF file (or the Windows 2000 Printer .INF file) must contain the same printer name as the Windows 95, Windows 98, or Windows Me printer .INF file.

Point and Print installation of a PS driver is supported only with a Microsoft Windows 95, Windows 98, or Windows Me PS driver version 4.0 or later.

In a homogenous operating system environment (one with all of the clients and servers running the same operating system), the same printer driver version that is vended from the server to the clients in a Point and Print environment also runs and controls the print queue configuration on the server.

However, in a mixed operating system environment (one in which servers and clients might run on different operating systems), conflicts can occur when client computers run a different version of the printer driver than the one on the print server. For more information, see the "Point and Print in a mixed operating system environment" section.

For all operating systems, use the Add Printer Wizard to install the appropriate operating system driver on the server and client machines, as shown in the following table.

**Table 74: Windows servers with Windows clients**

Computer function	Steps
Server and clients	1. Click <b>Start</b> , click <b>Settings</b> , and then click <b>Printers</b> .
Server and clients	2. In the <b>Printers</b> folder, double-click the <b>Add Printer</b> icon to start the Add Printer Wizard.
Server only	3. Click <b>Next</b> , and then click <b>Local Printer</b> . Click <b>Next</b> . If your operating system is Windows 95, Windows 98, or Windows Me, go to step 6.
Server and clients	4. Select the appropriate port in the list of ports, or click <b>Add Port</b> to connect to a network port that is not in the list of available ports.

Computer function	Steps
Server and clients	5. Select the printer model in the list of available printers, or click <b>Have Disk</b> if you are installing the driver from an alternative source, such as disk, CD-ROM, or software download. If you are installing from a software download, you must know the path to where the software has been downloaded.
Server only	6. After the installation is complete, highlight the <b>Printer</b> icon and click <b>File</b> , and then click <b>Properties</b> . In the <b>Printer Properties</b> window, click the <b>Sharing</b> tab.
Server only	7. You must enable the File and Print Sharing service for either Microsoft networks or Novell networks on the server.
Server only	8. To exit <b>Properties</b> , click <b>OK</b> . A hand appears beneath the <b>Printer</b> icon in the <b>Printers</b> folder, indicating that the printer is shared.
Client only	9. You can install the driver using Point and Print in one of the following four ways: <ul style="list-style-type: none"> <li>• In Network Neighborhood, locate the server and double-click the printer share name.</li> <li>• In Network Neighborhood, locate the server, and then drag and drop the icon for the shared printer into your <b>Printers</b> folder.</li> <li>• In the <b>Printers</b> folder, open the Add Printer Wizard. The next action depends on the operating system: <ul style="list-style-type: none"> <li>• For Windows 95, Windows 98, and Windows Me, click <b>Network Printer</b>.</li> <li>• For Windows NT 4.0, Windows 2000, Windows XP, and Windows Server 2003, click <b>Network printer server</b>.</li> </ul> </li> </ul>
Client only	10. Click <b>Next</b> . Type the network path or queue name, or select <b>Browse</b> to search the network to locate the appropriate path.
Client only	11. In Network Neighborhood, locate the server and double-click. Then locate the printer share name and right-click.
Client only	12. Click <b>Install</b> to complete the installation through the Add Printer Wizard.

## Setting a default printer

This section applies to the Windows 95, Windows 98, Windows Me, Windows NT 4.0, Windows 2000, Windows XP, and Windows Server 2003 operating systems.

1. In Windows 95, Windows 98, Windows Me, Windows NT 4.0, and Windows 2000 OSs, click **Start**, click **Settings**, and then click **Printers**. In Windows XP and Windows Server 2003, click **Start**, click **Control Panel**, click **Printers and Faxes** (Windows XP Professional) or **Printers and other hardware devices** (Windows XP Home).
2. Select the printer that you want to set as the default printer.
3. From the **File** menu, click **Set As Default**. A check mark appears next to the menu option.
4. Click **Close**.

## Windows 3.1x

The HP Color LaserJet 9500 series printer has not been tested with and is not supported in Windows 3.1x.



# 5 Installation for Macintosh, IBM OS/2, and Linux operating systems

## Introduction

This section provides system requirements and procedures for installing and removing the HP Color LaserJet 9500 printing-system software for supported operating systems other than Windows. It also provides information about font support and system modifications. Supported operating systems:

- Macintosh
- IBM OS/2
- Linux

## System requirements

The following are system requirements for installing and using the HP Color LaserJet 9500 printing-system software on each of these supported operating systems.

### Macintosh

- 68 Kb processor
- Macintosh OS 8.6 or later
- 16 MB RAM
- 20 MB available disk space

### IBM OS/2

- Pentium processor
- 32 MB RAM (required for OS/2)
- 5 MB available disk space (required for driver)

### Linux

For information about Linux support for the printer, see:

- the HP Linux support home page at:  
<http://hp.sourceforge.net>
- the HP Linux Web site at:  
<http://www.hp.com/go/linux>

## Macintosh

### Macintosh component descriptions

The printer includes the following software for Macintosh computers:

- PPDs for Mac OS 8.6 to 9.x and Mac OS X (10.1 and later)
- PDEs for Mac OS X only (10.1 and later)

### HP LaserJet PPDs

In Mac OS 8.6 to 9.x, these PS printer-definition files for the HP Color LaserJet 9500 series printer are installed to the **Printer Descriptions** folder, which is in the **Extensions** folder within the **System** folder. In Mac OS X, the PPDs are installed in **Library:Printers:PPDs:Contents:Resources:<lang>.lproj** where **<lang>** is the appropriate localized folder.

PPDs, in combination with the driver, provide access to the printer features and allow the computer to communicate with the printer. An installation program for the PPDs is provided on the printing software CD-ROM.

For Mac OS 8.6 to 9.x, the Apple LaserWriter 8 driver must be installed to use the PPD file. Use the Apple LaserWriter 8 driver that came with your Macintosh. For Mac OS X, use **Print Center** to print.

### PDEs (Mac OS X only, 10.1 and later)

Printer Dialog Extensions (PDEs) are code plug-ins that provide access to printer features, such as number of copies, duplexing, and quality settings.

### HP LaserJet Utility

This Hewlett-Packard printer utility is installed to the HP LaserJet folder in Macintosh OS 8.6 to 9.x operating systems. It provides configuration and management support for PS.

Use the HP LaserJet Utility to control features that are not available in the driver. The illustrated screens make selecting printer features from the Macintosh computer easy. Use the HP LaserJet Utility to do the following:

- customize the printer control panel messages.
- name the printer, assign it to a zone on the network, download files and fonts, and change most of the printer settings.
- set a password for the printer.
- from the computer, lock out functions on the printer control panel to prevent unauthorized access. (See the printer software help.)

### Install notes

This text file contains important information about printer features, instructions for installing the printing-system software, and technical assistance.

### ColorSync profiles

These text files contain color-matching information for the Macintosh system and HP LaserJet color printers.

### Online help

This HTML-based help system replaces the Apple Guide help system that was provided with Mac OS 8.6 to 9.x HP printers. The help system can be viewed through a browser or in the Macintosh OS Help Center.

### Screen fonts (Mac OS classic)

These screen fonts are available only for Macintosh computers and Macintosh-compatible computers. Because the screen fonts match your printer fonts, you can see onscreen how your printed page looks.

## Font support

To ensure that you can use all of the installed fonts with the HP Color LaserJet 9500 series printers, the Macintosh printing system includes the standard 35 screen fonts in 11 families:

- Avant Garde
- Helvetica Narrow
- Times
- Bookman
- New Century Schoolbook
- Zapf Chancery
- Courier
- Palatino
- Zapf Dingbats
- Helvetica
- Symbol

The Macintosh printing system also includes the HP 45 XPS font families:

- Clarendon Condensed Bold
- Symbol
- Albertus Medium
- Coronet
- Times New Roman
- Antique Olive
- Courier
- Univers
- Arial
- Garamond
- Univers Condensed
- CG Omega
- Letter Gothic
- Wingdings
- CG Times
- Marigold

The following bitmap screen fonts reside on the HP Color LaserJet 9500 series printers:

- ITC Avant Garde Gothic Book
- Helvetica
- Palatino
- ITC Avant Garde Gothic Book Oblique
- Helvetica Bold
- Palatino Bold
- ITC Avant Garde Gothic Demi

- Helvetica Bold Oblique
- Palatino Bold Italic
- ITC Avant Garde Gothic Demi Oblique
- Helvetica Oblique
- Palatino Italic
- ITC Bookman Demi
- Helvetica Narrow
- Symbol
- ITC Bookman Demi Italic
- Helvetica Narrow Bold
- Times Bold
- ITC Bookman Light
- Helvetica Narrow Bold Oblique
- Times Bold Italic
- ITC Bookman Light Italic
- Helvetica Narrow Oblique
- Times Italic
- Courier
- New Century Schoolbook Bold
- Times Roman
- Courier Bold
- New Century Schoolbook Bold Italic
- ITC Zapf Chancery Medium Italic
- Courier Bold Oblique
- New Century Schoolbook Italic
- ITC Zapf Dingbats
- Courier Oblique
- New Century Schoolbook Roman

The following fonts are resident on the HP Color LaserJet 9500 series printers, but can be used by Macintosh platforms only if you install additional screen fonts. You can either use these screen fonts directly from the HP Color LaserJet 9500 software CD-ROM, or obtain them from:

**<http://www.hp.com/support/clj9500>**

- Albertus Extra Bold
- CG Times Italic
- Marigold
- Albertus Medium
- Clarendon Condensed Bold
- Symbol
- Antique Olive
- Coronet



- Times New Roman
- Antique Olive Bold
- Courier
- Times New Roman Bold
- Antique Olive Italic
- Courier Bold
- Times New Roman Bold Italic
- Arial Courier Bold Oblique
- Times New Roman Italic
- Arial Bold
- Courier Italic
- Univers Bold
- Arial Bold Italic
- Garamond Antiqua
- Univers Bold Italic
- Arial Italic
- Garamond Halbfett
- Univers Condensed Bold Italic
- CG Omega
- Garamond Kursiv
- Univers Condensed Medium
- CG Omega Bold
- Garamond Kursiv Halbfett
- Univers Condensed Medium Italic
- CG Omega Bold Italic
- Letter Gothic
- Univers Medium
- CG Omega Italic
- Letter Gothic Bold
- Univers Medium Italic
- CG Times
- Letter Gothic Italic
- Univers Italic
- CG Times Bold
- CG Times Bold Italic
- Wingdings
- CG Times Bold Italic

## Installing the Macintosh printing system

On a Macintosh-compatible computer, the installation procedures are the same for a network administrator, a network client, and a single user. Install the software on any computer that has access rights to the printer.

**Note** If the computer is connected to the printer by a LocalTalk (printer port) or EtherTalk connection, you must configure the AppleTalk (or network) control panel for the correct connection to communicate with the printer. You must set up the HP Color LaserJet 9500 series printers, connect them to the computer, and turn them on before the software is installed. Macintosh OS systems do not support parallel connections. You can use either a USB cable or a cross-over Ethernet cable for a direct connection to a computer running the Macintosh OS. In the following instructions, "XXXX" represents the HP Color LaserJet 9500 printer model number.

The Macintosh partition contains an installer program for each language. Find the language appropriate for the operating system being used, and then use the installer program for that language.

### To install the HP LaserJet printer software for the Macintosh OS

1. Insert the CD-ROM that came with the Macintosh printer software into the CD-ROM drive.

**Note** If the CD screen does not open automatically, double-click the **CD-ROM** icon on the desktop to open the CD-ROM window.

2. Open the **HP LaserJet Installers** folder. Find the **Installer** icon for the appropriate language. Double-click the **Installer** icon to launch the Installer. In the opening dialog, click **Continue**.

**Note** The **Continue** button appears only after you type the "Admin" password in the **Authenticate** dialog box (OS X, versions 10.1 and later only).

3. The main **Installer** dialog box appears. Click **Install** and then follow the onscreen instructions to complete the software installation.

**Note** If you are installing the printer software on a Macintosh OS X system, please be patient. The installer must perform an initial search of the computer for up to 1 minute. During this time the installer might appear to be stalled.

**Note** If you want to use the HP LaserJet utility (Mac OS 8.6 through 9.x only) by using a USB connection to configure Apple Talk Zone or to name your printer, you must select **Custom Install** and then select **HP USB** and all of the other applicable components. Installing the **HP USB** components requires that you restart your computer. If you do not want to use the HP LaserJet utility, continue with the following **Easy Install** instructions.

4. When software installation is complete, click **Quit**. Choose one of the following options to finish setting up your printer:
  - Set up a USB direct printer connection with Mac OS 8.6 through 9.x
  - Set up an AppleTalk networked printer with Mac OS 8.6 through 9.x
  - Set up a printer with Mac OS X

### To set up an AppleTalk networked printer with Mac OS 8.6 through 9.x

1. Open the **Chooser** from within the **Apple Menu**.
2. Click **LaserWriter 8** on the left side of the **Chooser** dialog box.
3. Click the appropriate **Zone** to select it, if required.
4. Click your printer name from the list that appears on the right side of the **Chooser** dialog box, and then click **Create**.

## To set up a printer with Mac OS X

1. In the **Applications** folder, open the **Utilities** folder, and then run the **Print Center**.
2. Click **Add** (in Mac OS X 10.2) or **Add Printer** (in Mac OS X 10.1).
3. From the top pop-up menu, select the appropriate connection type for your printer.
4. Select or type in any other information as indicated for the type of connection for your printer. For example, if you are using an AppleTalk connection, select your printer zone; or if you are using IP Printing, type in an IP address.

### Note

If the automatic selection fails, or if you want to manually select a PPD file, click the **Printer Model** pop-up menu, select **HP**, and then click **Color LaserJet 9500**.

5. Click **Add**.
6. To configure installable options in Mac OS X 10.2, such as a duplexing unit or optional paper trays, click the appropriate printer icon in the **Print Center Printer List** window. Select **Show Info** from the **Printers** menu, and then select the appropriate options from the **Installable Options** popup menu.
7. Configure the options, and then click **Apply Changes**.

## To set up an IP/LPR networked printer with Mac OS 8.6 through 9.x

1. Run the Apple Desktop Printer utility.
2. Click **Printer (LPR)**, and then click **OK**.
3. Click **Change** in the LPR Printer Selection area.
4. Click the appropriate **IP address** and **Queue**, and then click **OK**.
5. Click **Change** and scroll through the list of printers.
6. Click **HP Color LaserJet 9500**, and then click **Select**.
7. Click **Create**.

## To set up a USB direct printer connection with Mac OS 8.6 through 9.x

1. Run the Apple Desktop Printer utility.
2. Select **HP Printer (USB)** if you installed this component during a Custom Install and intend to use the HP LaserJet utility for configuration.  
**- OR -**  
Select **Printer (USB)**, and then click **OK**.
3. Click **Change** in the USB Printer Selection area.
4. Select the USB printer in the **Printer Selection** window, and then click **OK**.
5. Click **Auto Setup** to attempt to match a PPD file and USB driver to your printer. If **Auto Setup** fails, click **Change**. Scroll through the list of printers, select **HP Color LaserJet 9500**, and then click **Select**.
6. Click **Create**.

## Uninstalling the Macintosh printing system

To uninstall the Macintosh Printing System, drag the PPDs and the unwanted component(s) to **Trash**. See the tables in the following sections for a list of new folders and files added when the HP Color LaserJet 9500 printing-system software is installed in Macintosh OSs.

## In-box disk layout

The Macintosh Printing System consists of one file: the HP LaserJet Installer - Integrated installer program.

## Folders and files added through installation of the HP Color LaserJet 9500 software (Mac OS)

The tables in the following sections detail the changes to your system as new folders and files are added when the HP Color LaserJet 9500 printing-system software is installed on Macintosh OS systems.

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**Note**

This listing does not include temporary directories and files that are created, and then deleted, during the installation process.

In the following listing, "MACINTOSH HD" indicates the drive on which the software was installed.

## Mac OS Classic installation

This section provides information about the various installation dialog box sequences for the Mac OS Classic.

### Main Install dialog box sequence

This subsection provides information about the Macintosh installation dialog box sequence for the Easy Install (the typical installation option).

Figure 87: HP LaserJet for Macintosh installer splash screen dialog box



Table 75: HP LaserJet for Macintosh installer splash screen dialog box text strings

Title of dialog box	Text in dialog box	User options and descriptions
Splash screen (This title does not appear in the dialog box.)	hp LaserJet for Macintosh Continue... (button)	Click <b>Continue</b> to open the <b>HP LaserJet Installer</b> dialog box.

Figure 88: HP LaserJet Installer dialog box (easy install)



Table 76: HP LaserJet Installer dialog text strings (easy install)

Title of dialog box	Text in dialog box	User options and descriptions
hp LaserJet Installer	<p>Easy Install (drop-down menu)</p> <p>Click the <b>Install</b> button to install:</p> <ul style="list-style-type: none"> <li>· Printer Descriptions (Classic)</li> <li>· hp LaserJet Utility (Classic)</li> <li>· Installation Notes (Classic)</li> <li>· hp LaserJet Help (Classic)</li> </ul> <p>Disk space available: (conditional)</p> <p>Approximate disk space needed: (conditional)</p> <p>Items will be installed on the disk "Macintosh HD" (name can be customized)</p> <p>Quit (button)</p> <p>Install (button) (default option)</p>	<p>If you want to install the files in a location other than the default "Macintosh HD," click <b>Install Location:</b> to specify a location.</p> <p>You can also choose the <b>Custom installation</b> option from the drop-down menu at upper left. <b>Easy Install</b> is the default.</p> <p>Click <b>Read Me</b> to open the Installer readme file.</p> <p>Click <b>Install</b> to start the installation on the selected disk</p> <p>Click <b>Quit</b> to quit the Installer without making changes to the system.</p> <p><b>NOTE:</b> A <b>Read Me...</b> button appears on each Macintosh installation screen.</p>

Figure 89: HP LaserJet Installer dialog box (custom install)

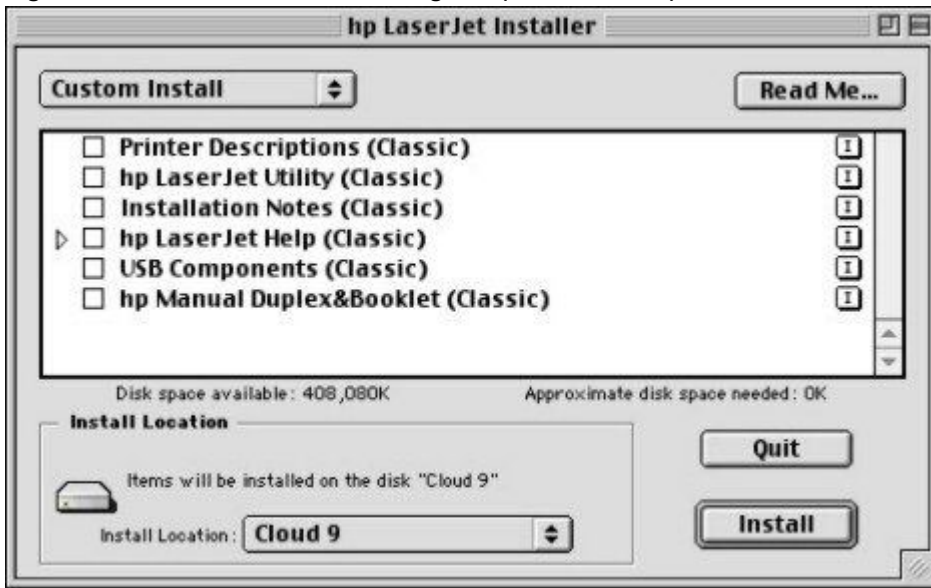


Table 77: HP LaserJet Installer dialog text strings (custom install)

Title of dialog box	Text in dialog box	User options and descriptions
hp LaserJet Installer	Custom Install (drop-down menu) Printer Descriptions (Classic) hp LaserJet Utility (Classic) Installation Notes (Classic) hp LaserJet Help (Classic) USB Components (Classic) hp Manual Duplex&Booklet (Classic) Disk space available: (conditional) Approximate disk space needed: (conditional) Items will be installed on the disk "Macintosh HD" (name can be customized) Quit (button) Install (button) (default option)	If you want to install the files in a location other than the default "Macintosh HD," click <b>Install Location:</b> to specify a location. Select which of the available components to install by using the check boxes in the list. Click the <b>Read Me</b> to open the Installer readme file. Click <b>Install</b> to start the installation on the selected disk. Click <b>Quit</b> to quit the Installer without making any changes to the system.

Figure 90: Installing dialog box

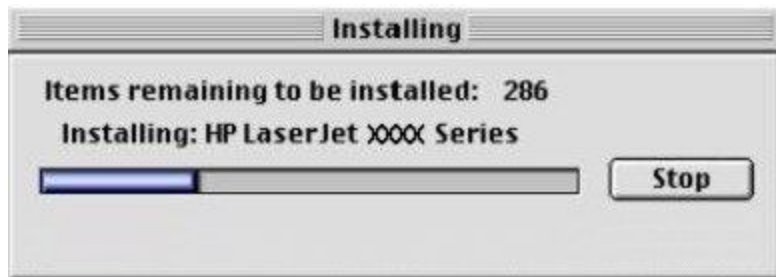


Table 78: Installing dialog text strings

Title of dialog box	Text in dialog box	User options and descriptions
Installing	Items remaining to be installed: (conditional number) Installing: HP LaserJet XXXX Series Stop (button)	This dialog box shows installation progress. No action is required unless you want to stop the installation. Click <b>Stop</b> to interrupt the install file copy process.

Figure 91: Installation was successful dialog box

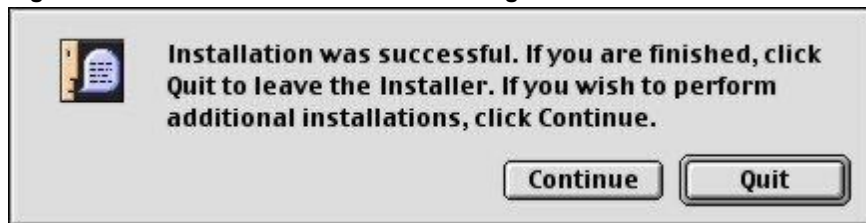


Table 79: Installation successful dialog text strings

Title of dialog box	Text in dialog box	User options and descriptions
(This untitled dialog box begins with the words "Installation was successful.")	Installation was successful. If you are finished, click <b>Quit</b> to leave the Installer. If you wish to perform additional installations, click <b>Continue</b> .	Click <b>Quit</b> to exit the Installer. The Printer Setup Assistant opens. Click <b>Continue</b> to return to the HP LaserJet Installer.



## HP LaserJet Screen Fonts Installer dialog box sequence

This section provides information about the installation dialog box sequence for the HP Screen Font Installer.

Figure 92: HP LaserJet Screen Fonts splash screen dialog box



Table 80: HP LaserJet Screen Fonts splash screen dialog text strings

Title of dialog box	Text in dialog box	User options and descriptions
HP LaserJet Screen Fonts	HP LaserJet Screen Fonts (The phrase "Screen Fonts" is repeated in multiple scripts and languages.) Continue (button)	Click <b>Continue</b> to open the <b>HP LaserJet Screen Fonts</b> dialog box.

Figure 93: HP LaserJet Screen Fonts installer dialog box



Table 81: HP LaserJet Screen Fonts installer dialog text strings (1 of 2)

Title of dialog box	Text in dialog box	User options and descriptions
HP LaserJet Screen Fonts	Click the <b>Install</b> button to install: Screen Fonts Install Location Items will be installed on the disk "Apple External HD" Quit (button) Install (button) (default option)	Click <b>Install</b> to start the installation. Click <b>Quit</b> to quit the Installer without making changes to the system.

When you click **Install**, an installation progress bar dialog box briefly appears. The following table details the contents of that dialog box.

Table 82: HP LaserJet Screen Fonts installer dialog text strings (2 of 2)

Title of dialog box	Text in dialog box	User options and descriptions
Installing	Items remaining to be installed: (conditional number) Stop (button)	Click <b>Stop</b> to interrupt the install file copy process.

Figure 94: Installation was successful dialog box

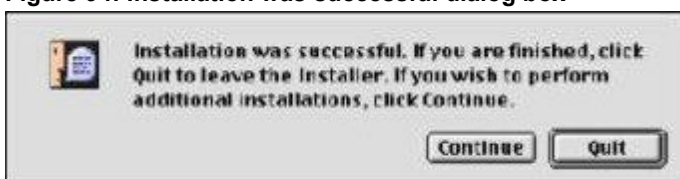


Table 83: Installation was successful dialog text strings

Title of dialog box	Text in dialog box	User options and descriptions
(This untitled dialog box begins with the words "Installation was successful.")	Installation was successful. If you are finished, click <b>Quit</b> to leave the Installer. If you wish to perform additional installations, click Continue.	Click <b>Quit</b> to exit the Installer. Click <b>Continue</b> to return to the HP LaserJet Screen Fonts installer.

## Mac OS X installation

This section provides information about the various installation dialog box sequences for the Mac OS X operating system.

### Main Install dialog box sequence

This section provides information about the Macintosh installation dialog box sequence for the Easy Install (the typical installation option).

**Figure 95: HP LaserJet for Macintosh installer splash screen dialog box**



**Table 84: HP LaserJet for Macintosh installer splash screen dialog box text strings**

Title of dialog box	Text in dialog box	User options and descriptions
Splash screen (This title does not appear in the dialog box.)	hp LaserJet for Macintosh Continue... (button)	Click <b>Continue</b> to open the <b>HP LaserJet Installer</b> dialog box.

Figure 96: HP LaserJet Installer dialog box (easy install)



Table 85: HP LaserJet Installer dialog text strings (easy install)

Title of dialog box	Text in dialog box	User options and descriptions
hp LaserJet Installer	<p>Easy Install (drop-down menu)</p> <p>Click the <b>Install</b> button to install:</p> <ul style="list-style-type: none"> <li>· Printer Dialog Extensions (OS X)</li> <li>· Printer Descriptions (OS X)</li> <li>· Printer Descriptions (Classic)</li> <li>· hp LaserJet Utility (Classic)</li> <li>· Install Notes (Classic)</li> <li>· ColorSync Profiles</li> </ul> <p>Disk space available: (conditional)</p> <p>Approximate disk space needed: (conditional)</p> <p>Install location: Items will be installed on the disk "Mac"</p> <p>Install Location (drop-down menu)</p> <p>Quit (button)</p> <p>Install (button) (default option)</p>	<p>If you want to install the files in a location other than the default "Mac," click the <b>Install Location</b> drop-down menu to specify a location.</p> <p>You can also choose a <b>Custom installation</b> option from the drop-down menu at upper left.</p> <p>Click <b>Read Me</b> to open the Installer readme file.</p> <p>Click <b>Install</b> to start the installation on the selected disk</p> <p>Click <b>Quit</b> to quit the Installer without making changes to the system.</p>

Figure 97: HP LaserJet Installer dialog box (custom install)



Table 86: HP LaserJet Installer dialog text strings (custom install)

Title of dialog box	Text in dialog box	User options and descriptions
hp LaserJet Installer	Custom Install (drop-down menu) Printer Dialog extensions (OS X) Printer Descriptions (OS X) Printer Descriptions (Classic) hp LaserJet Utility (Classic) Install Notes (Classic) hp LaserJet Help (Classic) Disk space available: (conditional) Approximate disk space needed: (conditional) Install Location: Items will be installed on the disk "Mac" Install Location (drop-down menu) Quit (button) Install (button) (default option)	Select the install location using the <b>Install Location</b> drop-down menu (if the desired location is different from "Mac"). Select which of the available components to install by using the check boxes in the list. Click <b>Read Me</b> to open the Installer readme file. Click <b>Install</b> to start the installation on the selected disk. Click <b>Quit</b> to quit the Installer without making any changes to the system.

Figure 98: Installing dialog box

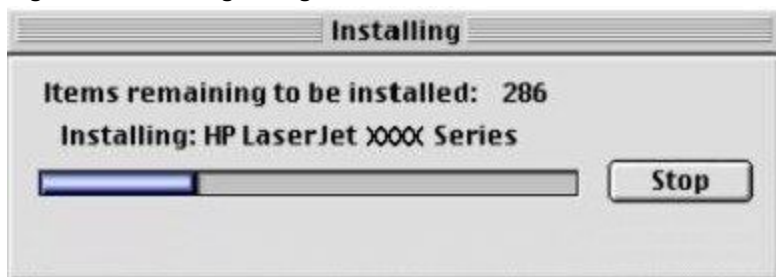


Table 87: Installing dialog text strings

Title of dialog box	Text in dialog box	User options and descriptions
Installing	Items remaining to be installed: (conditional number) Installing: HP LaserJet XXXX Series Stop (button)	This dialog box shows installation progress. No action is required unless you want to stop the installation. Click <b>Stop</b> to interrupt the install file copy process.

## IBM OS/2 Warp 3.0 and later

### OS/2 installation instructions

Installation procedures differ depending upon whether or not a printer object exists on the OS/2 desktop. Use the instructions that match the desktop.

#### Installing a printer in OS/2 when the printer object is missing

Use this procedure when a printer object does not appear on the computer desktop. To create a printer object and install a printer driver, follow these steps:

##### Note

Use this procedure if the OS/2 desktop does not have a printer object. A system can have this configuration if no printer was selected during OS/2 installation, or if all of the print objects have been deleted from the desktop.

1. Open the **Templates** folder that is located in the **OS/2 system** folder after OS/2 installation.
2. Click the **Printer** template. Press and hold the right mouse button.
3. Drag the template to the desktop.
4. Release the right mouse button.
5. Type a name for the printer in the **Name** field.
6. Select the port to which the printer is connected.
7. Click **Install new printer driver**. A window appears that contains a list of the printer drivers that are shipped with OS/2.
8. Click **Other printer driver**.
9. Point to the downloaded printer drivers.
10. Click **Refresh**. Wait until the window fills with printer drivers.
11. Click the driver that you want.
12. Click **Install**.

#### Installing a printer in OS/2 with a pre-existing printer object on desktop

To install a new printer driver using an existing printer object, use the following procedure:

##### Note

If the 16-bit HP LaserJet driver is installed on a system, delete it before installing this driver.

Use these directions if a printer object exists on the OS/2 desktop, but you do not have the correct printer driver installed on the system. This could happen if a different printer has been added to the system.

1. Right-click the **Printer** object.
2. Click **Settings**.
3. Click the **Printer Driver** tab.
4. Right-click one of the **Printer Driver** objects.
5. Click **Install**.
6. Click **Other OS/2 printer driver**.
7. Point to the downloaded printer drivers.
8. Click the **Refresh** button. Wait until the window fills with printer drivers.
9. Click the driver that you want.
10. Click **Install**.

Additional information about the OS/2 drivers is included in the readme files that come with each driver.

## Font support

### Note

Fonts can be downloaded to the printer by using the Font Installer feature of the printer driver.

- Albertus
- CG Times Italic
- Symbol
- Albertus Extra Bold
- Clarendon Condensed
- Times New Roman
- Antique Olive - Coronet
- Times New Roman Bold
- Antique Olive Bold
- Courier
- Times New Roman Bold Italic
- Antique Olive Italic
- Courier Bold
- Times New Roman Italic
- Arial
- Courier Bold Italic
- Univers
- Arial Bold
- Courier Italic
- Univers Bold
- Arial Bold Italic
- Garamond Antiqua
- Univers Bold Italic
- Arial Italic
- Garamond Halbfett
- Univers Italic
- CG Omega
- Garamond Kursiv
- Univers Condensed
- CG Omega Bold
- Garamond Kursiv Halbfett
- Univers Condensed Bold
- CG Omega Bold Italic
- Letter
- Univers Condensed Bold Italic
- CG Omega Italic



- Letter Bold
- Univers Condensed Medium Italic
- CG Times
- Letter Italic
- Wingdings
- CG Times Bold
- Line Printer
- CG Times Bold Italic
- Marigold

## Changing a printer driver in the printer object

After both the printer object and the printer driver have been installed, the correct printer driver should be selected in the print object. This might also be necessary if you are using different printer drivers with a single print object. To change to a different printer driver:

1. Right-click the **Printer** object.
2. Click **Settings**.
3. Click the **Printer Driver** tab.
4. Double-click the **Titlebar** icon.

The printer object is now set up to use a different printer driver. To customize the settings for this printer driver, see the "Changing the printer properties" or the "Changing the job properties" sections of this guide.

## Changing the printer properties

Printer properties describe how a particular printer is physically set up. Examples of printer properties include the amount of memory in a printer, printer-defined forms, forms associated with the printer paper trays, and installed printer patterns.

To set or change printer properties:

1. Right-click the **Printer** object.
2. Click **Settings**.
3. Click the **Printer Driver** tab.
4. Right-click the correct printer driver.
5. Click **Settings**.
6. Change the properties to match the printer setup.
7. Double-click the **Titlebar** icon.

The printer object is now set up to print a job. For information about how to print a job, see the OS/2 tutorial or the information folder.

## Changing the job properties

Job properties describe how a particular print job is printed. Examples of job properties include number of copies, print resolution, print quality, and orientation (portrait or landscape). Programs generally have you select a printer object, and let you change the job properties associated with a particular job by selecting setup or options buttons. Under certain conditions, it is appropriate to change job properties outside of a software program, such as when performing drag-and-drop printing.

To change the default job properties associated with a printer object outside of a software program:

1. Right-click the **Printer** object.
2. Click **Settings**.
3. Click the **Job Properties** tab.
4. Change the properties.
5. Click **Save**.

The default job properties associated with a printer object are now set up. For more information about how to print a job, see the OS/2 tutorial or the information folder.

# 6

## Engineering Detail

### Introduction

This section presents engineering detail for the following topics:

- Media attributes
- Print server operating system migration

### Media attributes

This section includes the following information about media attributes:

- paper sources and destinations
- paper-tray configurations
- paper-source commands
- media types and sizes
- PCL 6 and PCL 5c custom paper sizes

### Paper sources and destinations

The following table indicates the standard and optional paper sources and destinations for the HP Color LaserJet 9500 series printers.

**Table 88: HP Color LaserJet 9500 series printers paper sources and destinations**

Paper sources	multipurpose tray (tray 1)	standard
	500-sheet paper tray (tray 2)	standard
	500-sheet paper tray (tray 3)	standard
	2000-sheet paper tray (tray 4)	standard with the HP Color LaserJet 9500hdn only
Paper destinations	top output bin	standard
	left output bin	standard
	HP 3000-Sheet Stacker accessory	one of these accessories is standard for the HP Color LaserJet 9500hdn
	HP 3000-Sheet Stapler/Stacker accessory	
HP Multifunction Finisher accessory		

## Paper-tray configurations

The HP Color LaserJet 9500 series printers come with a standard multipurpose tray (tray 1), and two 500-sheet trays (trays 2 and 3). In addition, the HP Color LaserJet 9500hdn printer includes a 2000-sheet tray (tray 4).

The following table indicates the paper tray configurations that are possible for the HP Color LaserJet 9500 series printers.

**Table 89: Paper tray configurations for the HP Color LaserJet 9500 series printers**

Configurations	Tray number	Tray type	Standard/optional
HP Color LaserJet 9500n	Tray 1	multipurpose tray	standard
	Tray 2	500-sheet tray	standard
	Tray 3	500-sheet tray	standard
HP Color LaserJet 9500hdn	Tray 1	multipurpose tray	standard
	Tray 2	500-sheet tray	standard
	Tray 3	500-sheet tray	standard
	Tray 4	2000-sheet tray	standard

Note: A duplexing unit is standard for the HP Color LaserJet 9500hdn and optional for the HP Color LaserJet 9500n.

## Paper-source commands

The PCL 5c escape sequence for paper source is "Esc&l#H" (the "l" is a lowercase "L" rather than the numeral "1"). See the following table for values of #. For example, "Esc&l1H" is the command for tray 2.

The PCL 6 escape sequence for paper source is "ubyte # MediaSource". See the following table for values of #. For example, "ubyte 4 MediaSource" is the command for tray 2.

**Table 90: Paper-source commands**

Paper source	PCL 5c Esc&l#H	PCL 6 MediaSource #	PS MediaPosition #
Tray 1	4	3	3
Tray 2 (500-sheet)	1	4	0
Tray 3 (500-sheet)	5	5	1
Tray 4 <sup>1</sup> (2000-sheet)	20	8	4
Auto Select	7	1	-
Manual feed	2	2	3

1- Tray 4 is available on the HP Color LaserJet 9500hdn only.

## Media types and sizes

The tables in this section provide information about media features, media attributes, and paper-handling constraints for the HP Color LaserJet 9500 series printers.

**Note** The following table lists the features and attributes of various media listed under the **Size Is**: drop-down menu on the **Paper** tab. The list order can vary, depending on the printer and operating system. The list contains all of the following sizes, and might contain sizes from other drivers.

**Table 91: Supported features and attributes by driver**

Paper sizes	Width	Height	PCL 5 escape value <sup>1</sup>	PCL 6 <sup>2</sup>	PCL 5 margin x,y portrait	PCL 5 margin x,y landscape	PCL 6 margins	PS commands <sup>5</sup>
Letter	216 mm (8.5 inches)	279 mm (11.0 inches)	2	"LETTER"	150,100	120,100	100,100	"Letter"

Paper sizes	Width	Height	PCL 5 escape value <sup>1</sup>	PCL 6 <sup>2</sup>	PCL 5 margin x,y portrait	PCL 5 margin x,y landscape	PCL 6 margins	PS commands <sup>5</sup>
Legal	216 mm (8.5 inches)	356 mm (14.0 inches)	3	"LEGAL"	150,100	120,100	100,100	"Legal"
Executive	184 mm (7.25 inches)	267 mm (10.5 inches)	1	"EXEC"	150,100	120,100	100,100	"Executive"
Executive (JIS)	216 mm (8.5 inches)	330 mm (12.99 inches)	18	"JISEXEC"	150,100	120,100	100,100	"W612h936"
A5	148 mm (5.83 inches)	210 mm (8.27 inches)	25	"A5"	150,100	120,100	100,100	"A5"
A4	210.0 mm (8.27 inches)	297 mm (11.69 inches)	26	"A4"	142,100	118,100	100,100	"A4"
Envelope Commercial #10	105 mm (4.12 inches)	241 mm (9.5 inches)	81	"COM10"	150,100	120,100	100,100	"Env10"
Envelope DL (ISO)	110 mm (4.3 inches)	220 mm (8.66 inches)	90	"DL"	142,100	118,100	100,100	"EnvDL"
Envelope C5 (ISO)	162 mm (6.38 inches)	229 mm (9.01 inches)	91	"C5"	142,100	118,100	100,100	"EnvC5"
Envelope B5 (ISO)	176 mm (6.93 inches)	250 mm (9.84 inches)	100	"B5 ENV"	142,100	118,100	100,100	"EnvISOB5"

Paper sizes	Width	Height	PCL 5 escape value <sup>1</sup>	PCL 6 <sup>2</sup>	PCL 5 margin x,y portrait	PCL 5 margin x,y landscape	PCL 6 margins	PS commands <sup>5</sup>
Envelope Monarch	98 mm (3.87 inches)	190 mm (7.5 inches)	80	"MONARCH H"	150,100	120,100	100,100	"EnvMonarch"
B5 (ISO) <sup>3</sup>	176 mm (6.93 inches)	250 mm (9.84 inches)	65	"ISOB5"	142,100	118,100	100,100	"ISOB5"
B5 (JIS)	182 mm (7.16 inches)	257 mm (10.12 inches)	45	"JIS B5"	142,100	142,100	100,100	"B5"
Double Postcard	148 mm (5.83 inches)	199 mm (7.87 inches)	72	"JPOSTD"	100,100	100,100	100,100	"DoublePostcard"
16K <sup>3</sup>	197 mm (7.75 inches)	273 mm (10.75 inches)	17	"ROC16K"	150,100	120,100	100,100	"W558h774"
8.5x13	216 mm (8.5 inches)	330 mm (13.0 inches)	10	"FOOLSCAP"				
11x17	279 mm (11.0 inches)	431 mm (17.0 inches)	6	"LEDGER"	100,100	100,100	100,100	"Ledger"
12x18	304 mm (12.0 inches)	457 mm (18.0 inches)	none	none				none
B4 (JIS)	257 mm (10.12 inches)	363 mm (14.33 inches)	46	10	100,100	100,100	100,100	"B4"

Paper sizes	Width	Height	PCL 5 escape value <sup>1</sup>	PCL 6 <sup>2</sup>	PCL 5 margin x,y portrait	PCL 5 margin x,y landscape	PCL 6 margins	PS commands <sup>5</sup>
A3	296 mm (11.69 inches)	419 mm (16.53 inches)	27	"A3"	142,100	118,100	100,100	"A3"
8K	273 mm (10.75 inches)	393 mm (15.50 inches)	19	"ROC8K"	100,100	100,100	100,100	"w774h1116"
Custom (leading edge) (other edge)	Minimum: 98 mm (3.86 inches) Maximum: 311 mm (12.28 inches)	Minimum: 191 mm (7.5 inches) Maximum: 469 mm (18.5 inches)	101	4	4	4	4	true

1- The PCL escape sequence for paper size is Esc&1#A. The values in this column are for #.

2- The PCL 6 command for paper size is ubyte array(String)MediaSize. The values in this column are the values for "String".

3- In Windows NT 4.0, this paper size is treated as a custom size.

4- For custom sizes, the HP traditional PCL 6 driver specifies actual dimensions - for example, for 8-inch by 9-inch custom size, "real32\_8.000000 9.000000 CustomMediaSize".

5- The PS command for paper size is "PageSize".

**Table 92: Supported input media types**

Input media types (PS string)	Tray 1	Tray 2 (500-sheet)	Tray 3 (500-sheet)	Tray 4 <sup>1</sup> (2000-sheet)	Duplexing unit
Plain	Y	Y	Y	Y	Y
Preprinted	Y	Y	Y	Y	Y
Letterhead	Y	Y	Y	Y	Y
Transparency	Y	Y	Y	N	N
Prepunched	Y	Y	Y	Y	Y
Labels	Y	N	N	N	N
Bond	Y	Y	Y	Y	Y
Recycled	Y	Y	Y	Y	Y
Color	Y	Y	Y	Y	Y
Cardstock <sup>2</sup>	Y	Y	Y	Y	Y
Rough	Y	Y	Y	Y	Y

Input media types (PS string)	Tray 1	Tray 2 (500-sheet)	Tray 3 (500-sheet)	Tray 4 <sup>1</sup> (2000-sheet)	Duplexing unit
Envelope	Y	N	N	N	N
Light	Y	Y	Y	Y	Y
Heavy	Y	Y	Y	Y	Y
Gloss	Y	Y	Y	Y	Y
Heavy Gloss	Y	Y	Y	Y	Y
Non-HP Heavy Gloss	Y	Y	Y	Y	Y
Tough Paper (Gloss Film)	Y	Y	Y	Y	Y

1- Tray 4 is available for the HP Color LaserJet 9500hdn only.

2- Tray 1 accepts card stock at a maximum weight of 164 g/m<sup>2</sup> (45 lb).

## PCL 6 and PCL 5c custom paper sizes

**Note** The PS driver does not support user-defined media sizes.

The following table shows custom paper sizes that are available for the HP Color LaserJet 9500 series printers.

**Table 93: PCL 6 and PCL 5c custom paper sizes**

Tray	Dimensions	Minimum	Maximum
Tray 1	Width	98 mm (3.9 inches)	306 mm (12.0 inches)
	Height	191 mm (7.5 inches)	469 (18.50 inches)
Tray 2 (500-sheet)	Width	148 mm (5.8 inches)	296 mm (11.69 inches)
	Height	210 mm (8.2 inches)	432 mm (17.0 inches)
Tray 3 (500-sheet)	Width	148 mm (5.8 inches)	297 mm (11.7 inches)
	Height	210 mm (8.2 inches)	432 mm (17.0 inches)
Tray 4 <sup>1</sup> (2000-sheet)	Width	182 mm (7.17 inches)	296 mm (11.69 inches)
	Height	210 mm (8.27 inches)	432 mm (17.01 inches)
Duplexing unit	Width	148 mm (5.83 inches)	311 mm (12.28 inches)
	Height	210 mm (8.27 inches)	469 mm (18.5 inches)

1- Tray 4 is available for the HP Color LaserJet 9500hdn only.



## Paper type commands

The PCL 5c escape sequence for paper type is "Esc&n#Wdpapertype", where "n#" is the number of characters in the paper type plus 1. For example, in the sequence "Esc&n6WdPlain", "Plain" has 5 letters plus 1, for a total of 6.

For the command to work properly, at least one of the paper trays in the printer must be configured at the control panel for the paper type that is used in the command.

**Note** Some paper type options listed in the following table might not be defined in the printer driver.

**Table 94: Paper-type commands**

Esc& <sup>1</sup>	n#	Wd	Paper type
Esc&	5	Wd	Bond
Esc&	10	Wd	Cardstock <sup>1</sup>
Esc&	6	Wd	Color
Esc&	5	Wd	Gloss
Esc&	5	Wd	Heavy
Esc&	11	Wd	Heavy Gloss
Esc&	10	Wd	Gloss Film <sup>2</sup>
Esc&	7	Wd	Labels
Esc&	11	Wd	Letterhead
Esc&	5	Wd	Light
Esc&	15	Wd	NHP Heavy Gloss
Esc&	6	Wd	Plain
Esc&	11	Wd	Preprinted
Esc&	11	Wd	Prepunched
Esc&	9	Wd	Recycled
Esc&	6	Wd	Rough
Esc&	13	Wd	Transparency <sup>2, 3</sup>
Esc&	9	Wd	Envelope

1- The correct command for card stock is "Esc&n11WdCard Stock", with a space between the "d" and the "S", and with an uppercase "S".

2- You must spell out the term "Gloss Film" in the string, although it is shown as TOUGH PAPER on the printer control panel.

3- You must spell out the word "Transparency" in the string, although it is abbreviated as TRANSPRNCY on the printer control panel.

## Print server operating system migration

The large installed base of printers and print servers in corporate environments, combined with the large user-base for these printers, implies that an operating system migration takes an extended period of time, often months or even years, to complete. Because of this, it is unavoidable that the corporate environment ends up operating with a mix of Windows NT 4.0 and newer operating systems (Windows 2000, Windows XP and Windows Server 2003) for an extended period of time.

A number of printer driver issues related to operating in a mixed-OS environment must be considered when planning a print server operating system migration from Windows NT 4.0 to Windows 2000 or later. This section explores these issues and outlines several strategies that HP recommends to support a mixed OS environment with respect to printer drivers.

This discussion is not intended to make specific procedural recommendations for executing a print server OS migration. This discussion is intended to help system administrators and IT managers understand the printer driver

issues related to operating in a mixed-OS environment so that the requirements resulting from the recommendations outlined in this document can be factored into migration planning.

The topics discussed here apply to IT environments that are currently running Windows NT 4.0 on the print servers and clients, and are migrating to future operating systems for both print servers and clients. The Windows 9x family of operating systems is not discussed in this document because Windows 9x clients can be supported with Point and Print equally well from any server platform. A basic working knowledge of shared printing through Microsoft Windows Point and Print is assumed.

While much of this discussion is general in nature, all of the specific driver recommendations in this document apply to HP LaserJet and Business InkJet printers and printer drivers.

## Background information and terminology

### Version 2 driver

With Windows NT 4.0, printer drivers were considered, generally, to be a class of graphics drivers. Due to the performance requirements of some types of graphics drivers, like display drivers, these drivers executed in kernel mode. A kernel mode process runs in a specially privileged part of the operating system that gives the process access to all of the system resources. Due to the nature of the privileges granted to kernel mode processes, a misbehaving driver can cause serious system stability problems, including operating system crashes. Microsoft refers to these kernel mode printer drivers as Version-2 drivers and this is the term used throughout this section.

### Version 3 driver

In an effort to increase operating system stability, Microsoft determined that starting with Windows 2000, continuing with all future operating systems, printer drivers would run as user-mode processes. User-mode drivers execute in a protected part of the operating system just like all of the normal end-user processes and software programs. This protected part of the operating system restricts access to critical system resources to prevent processes from corrupting these resources, which results in an increase in overall operating system stability. A user-mode printer driver that misbehaves is only capable of crashing the process in which it is running, and cannot crash the whole operating system. Usually this is the spooler process or an application process, both of which can be restarted without having to restart the whole operating system. Microsoft refers to user-mode printer drivers as Version-3 drivers, and this is the term that is used throughout this section.

Version-3 printer drivers are the native or preferred printer driver for Windows 2000, Windows XP, and Windows Server 2003; however, all of these operating systems are also capable of running version-2 printer drivers. Many older Windows NT 4.0 version-2 printer drivers are blocked in Windows 2000, Windows XP, and Windows Server 2003 because they are known to cause operating system stability problems with these newer operating systems. These newer operating systems identify these older drivers and do not allow them to be installed. Refer to *Microsoft Knowledge Base* article 247196 for more information about determining whether a particular printer driver is blocked in newer operating systems. None of HP's current version-2 drivers are blocked in these newer operating systems.

Windows NT 4.0 is capable of running only version-2 printer drivers.

The following table shows the driver versions that are supported by Microsoft for each operating system.

**Table 95: Operating system and driver version support**

Operating system	Version 2	Version 3
Windows NT 4.0	x	
Windows 2000	x	x
Windows XP	x	x
Windows Server 2003	x <sup>1</sup>	x

<sup>1</sup>Windows 2003 Server does not officially support kernel-mode printer drivers by default. This feature must be turned on in the registry and is not officially supported by Microsoft.

## Point and Print in a mixed operating system environment

When using Point and Print, the print queue configuration is stored on, and managed from, the print server. Client computers get the print queue configuration and the printer driver from the print server. Changes to the printer driver on the server, or its configuration, are automatically replicated to the client.

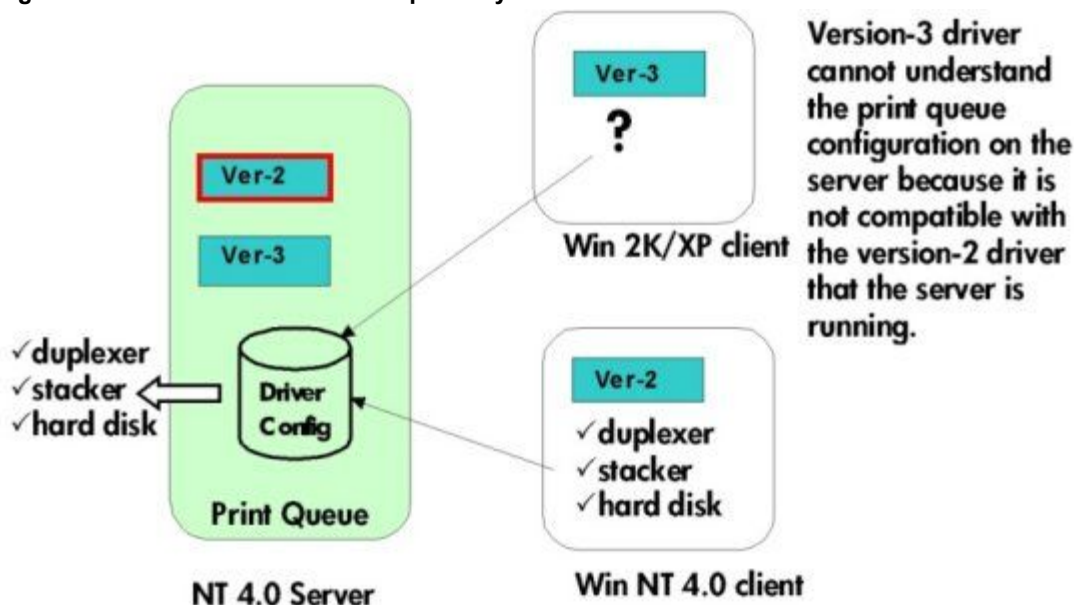
In a homogenous operating system environment (all of the clients and servers are running the same operating system), the printer driver that is vended from the server to the clients in a Point and Print environment is the same printer driver that is running and controlling the print queue configuration on the server. In this case, there is no doubt that the client computer can correctly interpret the print queue configuration and printing behaves as expected.

However, in a mixed operating system environment that typically occurs during an operating system migration, there are situations in which client computers could be running a different version of the printer driver than the one that is running on the print server. In order for this situation to work correctly, the printer driver that is running on the client must be capable of correctly interpreting the configuration that was created by the printer driver running on the print server. (Microsoft refers to the data structure in which this configuration is stored as the DEVMODE, but for the purposes of this section, we refer to this as the print queue configuration.)

The following figure illustrates a situation involving a Windows NT 4.0 print server that is supporting a mixed client base of Windows NT 4.0 and Windows 2000, XP, or 2003 clients. Because the server is running Windows NT 4.0, it is running a version-2 driver and the print queue configuration is created by this driver. A version-3 driver has been added to this server for vending to Windows 2000, XP, or 2003 clients (Microsoft documents a special procedure to accomplish this which is discussed later).

When Windows NT 4.0 clients make a connection to this shared printer on the Windows NT 4.0 print server, it is vended the same version-2 printer driver that is running on the print server. Because this is the same printer driver that created the print queue configuration, there is no problem reading this configuration and all of the print jobs functions as expected. However, when a Windows 2000, Windows XP, or Windows Server 2003 client makes a connection to this shared printer on the Windows NT 4.0 print server, it is vended the added version-3 printer driver. In this illustration, the version-3 printer driver is not written to be able to correctly interpret the data structure which stores the print queue configuration and this does have an impact on printing functionality because the version-3 printer driver on the Windows 2000, Windows XP, or Windows Server 2003 client does not “see” all of the installed options as they are configured in the version-2 printer driver on the print server.

Figure 99: Mixed driver-version compatibility



## Symptoms of driver incompatibility in a mixed OS environment

There is no single set of symptoms to be seen when client and server printer drivers are not compatible, but common symptoms include the clients not being able to see the proper queue configuration with respect to installed device options and default settings. Other problems in functionality can include the inability to print in landscape or from a specific paper tray.

When an incompatible mix of version-2 and version-3 printer drivers is present in the environment, unexpected behavior can occur due to some of the more subtle behaviors of Point and Print that are not obvious. The following figures illustrate an environment that contains incompatible version-2 and version-3 printer drivers. This section examines examples of how incompatible drivers can affect printing functionality.

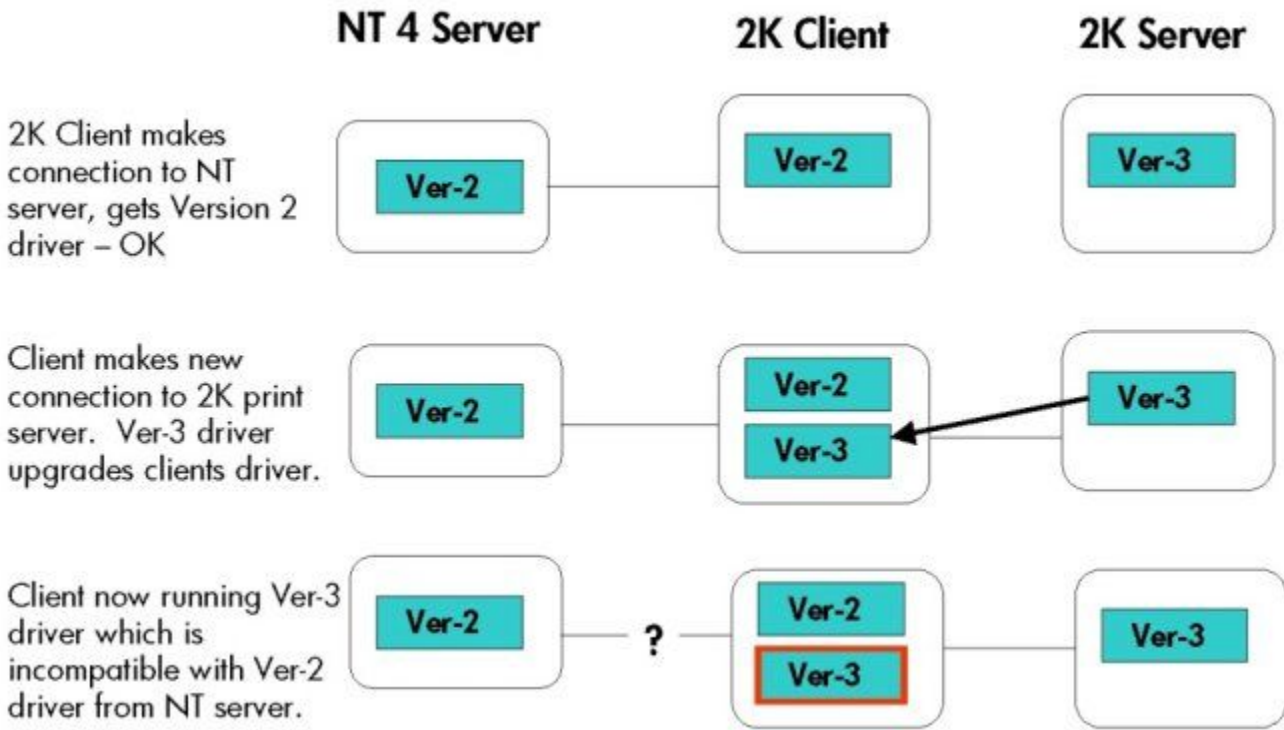
In the example illustrated in the following figure, there is a Windows NT 4.0 print server and a Windows 2000 print server. The Windows 2000 client illustrated in this figure is a laptop computer user who occasionally travels between different office locations for business.

In Event #1, at the home office, the Windows 2000 client makes a connection to the local print server. This local print server is running Windows NT 4.0 and contains only a version-2 driver for the printer in question. Suppose, for example, that this is the “HP LaserJet 4000 Series PCL 6” version-2 driver. The Windows 2000 client is vended this version-2 printer driver and because client and server are both running the same printer driver, printing works as expected.

In Event #2, the client takes a business trip to a remote site. While at the remote site, the client user needs to print and makes a connection to a shared printer. The server for this shared printer at the remote site is hosted from a print server that has been migrated to Windows 2000 and contains a version-3 driver, which is also the “HP LaserJet 4000 Series PCL 6” printer driver. Now, the client computer already has a printer driver named “HP LaserJet 4000 Series PCL 6”, but it is a version-2 driver and Windows 2000 prefers to use a version-3 printer driver when it is available. So in this case, because the print server at the remote site has a matching driver, which is version-3, the Windows 2000 client downloads this version-3 driver and now runs this printer driver.

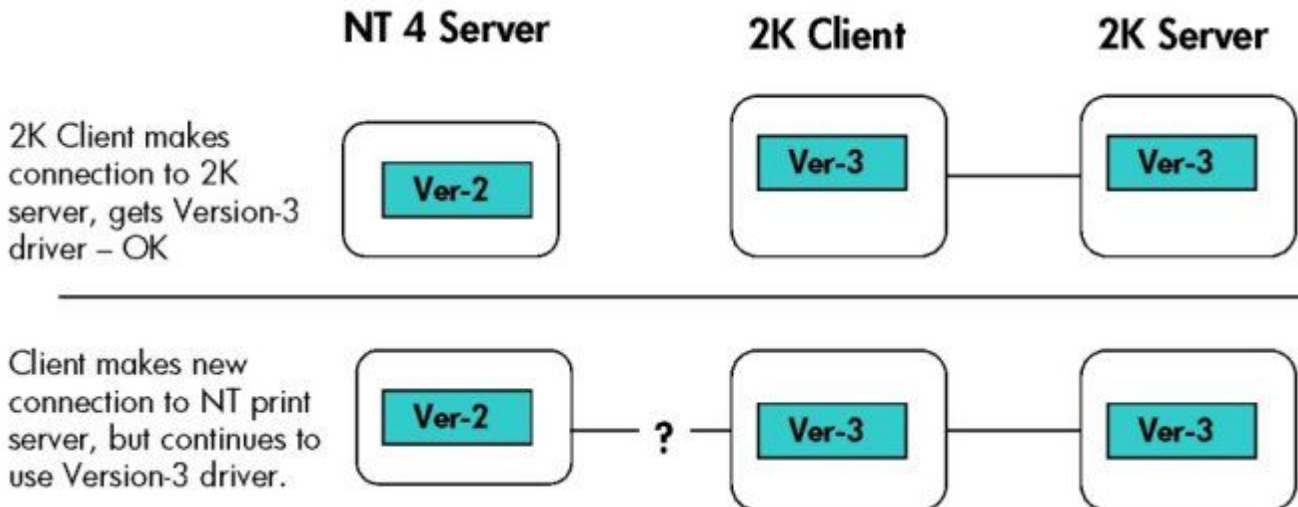
The connection to the remote print server silently upgraded the client computers printer driver to a version-3 driver. While still at the remote site, the client and server are both running the same printer driver and printing works as expected. However at Event #3, when the client returns to the home office and tries to print, problems occur because the printer driver being used on the client is not the same as that being used on the server and these two printer drivers are incompatible with each other.

Figure 100: Introduction of incompatible printer drivers through a silent driver upgrade



The example illustrated in the following figure is similar, except in this scenario the client first makes a connection to a Windows 2000 server with the version-3 “HP LaserJet 4000 Series PCL 6” printer driver. Initially, because client and server are both running the same printer driver, printing works as expected. However, in Event #2, the client makes a connection to a printer that also uses a “HP LaserJet 4000 Series PCL 6” printer driver. But the printer driver on this NT 4.0 server is a version-2 printer driver. Because the client already has a matching printer driver that is version-3, it just continues to use this printer driver. If these version-2 and -3 printer drivers are not compatible, then printing problems occur when trying to print to this second printer.

Figure 101: Native printer driver preference with incompatible version-2 and version-3 drivers



## Migration strategies

What follows is the exploration of three different strategies for being able to support Point and Print in a mixed operating-system environment. The three strategies are not necessarily mutually exclusive but can in some cases be combined or partially used concurrently to ensure that all of the client computers are served with a supportable printer driver configuration. Formulating a solution based on these strategies involves examining the list of printers to be supported and the list of page description languages required for use on these printers along with other site-specific migration requirements, and drafting a plan by which all of the client computers can be served with a supported driver configuration.

### Strategy 1: Use Windows NT 4.0 drivers to support all clients

In this approach we seek to avoid printer driver compatibility issues altogether by isolating the Windows NT 4.0, clients and servers, from newer operating systems, thus running a dual printing environment temporarily. This is accomplished by leaving existing Windows NT 4.0-based print servers in place to serve the existing legacy Windows NT 4.0 client base and deploying new Windows 2000 or .NET print servers to support the migrated client base running Windows 2000, Windows XP, or Windows Server 2003. As clients are migrated, they are reconnected to the new print queues hosted on the new Windows 2000 or Windows 2003 Server print servers. At the end of the migration when there are no more Windows NT 4.0 clients, the Windows NT 4.0 print servers can be retired.

This approach ensures that the print servers and clients are always running the same correct printer drivers, thus avoiding any incompatibilities that may otherwise exist.

Advantages of this approach include not having to do any additional work to the legacy NT 4.0 clients and servers and ending up with the proper version-3 drivers for all of the products at the end of the migration, and most importantly, all printer models and drivers can be supported using this approach.

### Strategy 2: Use Windows NT 4.0 drivers to support all clients

Because Windows 2000, Windows XP, and Windows Server 2003 are capable of running Version-2 printer drivers, a simple approach might be to use Version-2 printer drivers to support all of the servers and clients. In this way version-2 and version-3 printer driver compatibility issues are avoided because only version-2 printer drivers are deployed in the solution. In fact, this is the recommendation Microsoft makes if driver incompatibility issues arise.

In general, this is a safe recommendation to make for version-2 PS printer drivers which are based on Microsoft's PS driver core. However, caution is advised because, while HP's version-2 PCL drivers are compatible with Windows 2000, they are not all compatible with Windows XP or Windows 2003 Server. The HP version-2 PCL printer drivers should not be installed on Windows Server 2003 servers, nor should Windows XP clients connect to print queues hosted from Windows NT 4.0 print servers that have only version-2 PCL printer drivers installed. "Installed" means that the printer driver running the queue on .NET server should not be a version-2 PCL driver. It is acceptable to create a printer on .NET using a version-3 driver, and then add the compatible version-2 driver for NT clients, however, as described in Strategy 3.

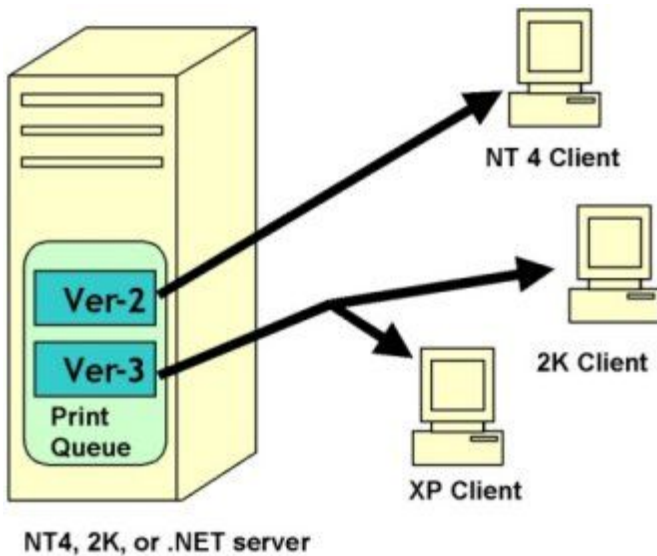
While this strategy has the advantage of simplicity, there are several disadvantages. Because of the restriction for version-2 PCL printer drivers described previously, not all printer products and page description languages can be supported. Another disadvantage of this strategy is the inherent risk associated with running version-2 printer drivers. Finally, at the end of the migration period when all of the clients and servers have been migrated to newer operating systems, the printer drivers being used are all version-2 Windows NT printer drivers; this would definitely lead to further work to upgrade all of the version-2 printer drivers to their version-3 counterparts.

Also note that many older version-2 printer drivers cannot be used with this strategy because they are incompatible with Windows 2000, XP, and 2003, and are blocked from installation by those operating systems. Therefore, it is necessary to update existing version-2 printer drivers prior to deploying to migrated servers or clients.

### Strategy 3: Use a mix of version-2 and version-3 drivers to support all clients

In this approach, all of the version-2 and version-3 printer drivers are installed on the print server that are necessary to support a mixed client base during the migration as is illustrated graphically in the following figure. As mentioned previously, these printer drivers must be compatible with one another in such a way that they store the driver configuration in a format that is common to both drivers. HP has compatible printer driver pairs available for most printers and page description languages, as described in the following tables. The information in the tables describes the printers and specific printer driver versions that can be installed together on a server in this manner.

Figure 102: Using version-2 and version-3 drivers to support a mixed client base



Adding version-2 printer drivers for NT 4.0 clients to existing print queues hosted on Windows 2000 or .NET Server is typically accomplished by accessing the **Sharing** tab on the printers **Properties** dialog box and clicking on the **Additional Drivers** button.

Adding version-3 drivers for 2000, XP, or 2003 clients to existing print queues hosted on a Windows NT 4.0 Server is possible but requires a special workaround that is contained in the *Microsoft Knowledge Base* article 263090 at: <http://support.microsoft.com/default.aspx?scid=KB;en-us;263090&>

Please note that it is necessary to follow the steps outlined in the following referenced article ( *Microsoft Knowledge Base* article, 318577) to accomplish adding version 3 drivers to Windows NT 4.0: <http://support.microsoft.com/default.aspx?scid=KB;en-us;318577&>

If Windows NT 4.0 Server is to be used as a print server for this strategy, it might be necessary to update the existing version-2 printer drivers to conform to the printer driver version numbers listed in the following tables, "Compatible PCL 5 and PCL 6 drivers" and "Compatible PS drivers".

For the newer LaserJet printer models, the version-2 and version-3 PCL drivers that are contained on the product CD and on the HP web site are based on completely different printer driver architectures and are incompatible for the purposes of strategy #3. As is noted in the following tables, it is necessary to obtain a special version-3 printer driver for these products. These special version-3 printer drivers are compatible with the version-2 printer drivers that ship with these printers. To obtain these drivers go to: <http://www.hp.com/pond/pnp>

Table 96: Compatible PCL 5 and PCL 6 drivers

Printer series <sup>1</sup>	PCL 5 driver	PCL 6 driver
HP LaserJet 1100	4.3.2.201	None
HP LaserJet 1200/1220	4.3.2.208	4.3.2.208
HP LaserJet 2100	4.3.2.201	4.3.2.201
HP LaserJet 2200	4.3.2.192	4.3.2.192
HP Color LaserJet 2500	4.14.0.18	4.14.0.18
HP LaserJet 3200	4.3.2.208	4.3.2.208
HP LaserJet 3300	4.19.3300.3	4.19.3300.3
HP LaserJet 4	4.3.2.200	None
HP LaserJet 4 plus	4.3.2.200	None
HP LaserJet 4si	4.3.2.200	None
HP LaserJet 4V	4.3.2.200	None

Printer series <sup>1</sup>	PCL 5 driver	PCL 6 driver
HP LaserJet 4000	4.3.2.201	4.3.2.201
HP LaserJet 4050	4.3.2.201	4.3.2.201
HP LaserJet 4100	4.20.4100.420	4.20.4100.420
HP LaserJet 4200	2	2
HP LaserJet 4300	2	2
HP Color LaserJet 4500	4.3.2.201	4.3.2.201
HP Color LaserJet 4550	4.3.2.207	4.3.2.207
HP Color LaserJet 4600	4.20.4600.430	4.20.4600.430
HP LaserJet 5	4.3.2.200	None
HP LaserJet 5N	4.3.2.200	None
HP LaserJet 5si	4.3.2.200	None
HP LaserJet 5000	4.3.2.201	4.3.2.201
HP LaserJet 5100	4.20.5100.430	4.20.5100.430
HP Color LaserJet 5500	4.18.5500.420	4.18.5500.420
HP LaserJet 8000	4.3.2.201	4.3.2.201
HP LaserJet 8100	4.3.2.201	4.3.2.201
HP LaserJet 8150	4.3.2.207	4.3.2.207
HP Color LaserJet 8550	4.3.2.201	None
HP LaserJet 9000	4.20.9000.430	4.20.9000.430

<sup>1</sup>No compatible drivers are available for printer series that are not listed.

<sup>2</sup>Compatible PCL 5 and PCL 6 drivers are available for these printers on an HP Web site. To download these drivers, go to:

<http://www.hp.com/pond/pnp>



**Table 97: Compatible PS drivers**

Printer series <sup>1</sup>	PS driver <sup>2</sup>	PS 4 driver <sup>2,3,4</sup>	PS 5 driver <sup>4</sup>
HP LaserJet 1200/1220	4.3.2.172	None	4.3.2.172
HP LaserJet 2100	1.0	None	None
HP LaserJet 2200	None	2.0.0.0	2.0.0.0
HP Color LaserJet 2500	None	1.0.0.0	1.0.0.0
HP LaserJet 3300	4.19.3300.3	None	4.19.3300.3
HP LaserJet 4	1.0	None	02.12.01
HP LaserJet 4 plus	1.0	None	02.12.01
HP LaserJet 4si	1.0	None	02.12.01
HP LaserJet 4V	1.0	None	02.12.01
HP LaserJet 4000	4.0	None	None
HP LaserJet 4050	4.0_1.30	None	None
HP LaserJet 4100	None	3.08	3.08
HP Color LaserJet 4500	4.1.1	None	None
HP Color LaserJet 4550	None	5.00.2195.2307	5.00.2195.2307
HP Color LaserJet 4600	None	1.0.0.0	1.0.0.0
HP LaserJet 5	4.0	None	02.12.01
HP LaserJet 5N	4.0	None	02.12.01
HP LaserJet 5si	4.0	None	02.12.01
HP LaserJet 5000	4.0	4.3.2.201	None
HP LaserJet 5100	None	1.0.0.0	1.0.0.0
HP Color LaserJet 5500	None	2.0.0.0	60.03.14.02
HP LaserJet 8000	4.0	None	None
HP LaserJet 8100	4.0	None	None
HP LaserJet 8150	None	2.05	2.05
HP LaserJet 9000	None	2.0.14	2.0.14

<sup>1</sup>No compatible drivers are available for printer series that are not listed.

<sup>2</sup>Version-2 drivers.

<sup>3</sup>Compatible only on Windows NT 4.0 and Windows 2000.

<sup>4</sup>PS 4 drivers can coexist with PS 5 drivers and are compatible with Windows NT 4.0, Windows 2000, Windows XP, and Windows Server 2003.

## Frequently asked questions

### What drivers do I have installed?

To determine which versions of a particular printer driver are installed on a computer, you can open the printer **Properties** dialog box for a printer that uses that driver and click on the **Sharing** tab and then click on the **Additional Drivers** button. Printer drivers listed with a check mark in the **Environment** column are installed on this computer. Printer drivers listed as “Windows NT 4.0” or “Windows NT 4.0 or 2000” are version-2 printer drivers. Those listed as “Windows 2000”, “Windows 2000 or XP” or “Windows 2000, XP or 2003” are version-3 printer drivers. The following illustrations show examples from the Windows 2000, Windows XP, and Windows Server 2003 operating systems.

Figure 103: Additional Drivers dialog box in Windows 2000

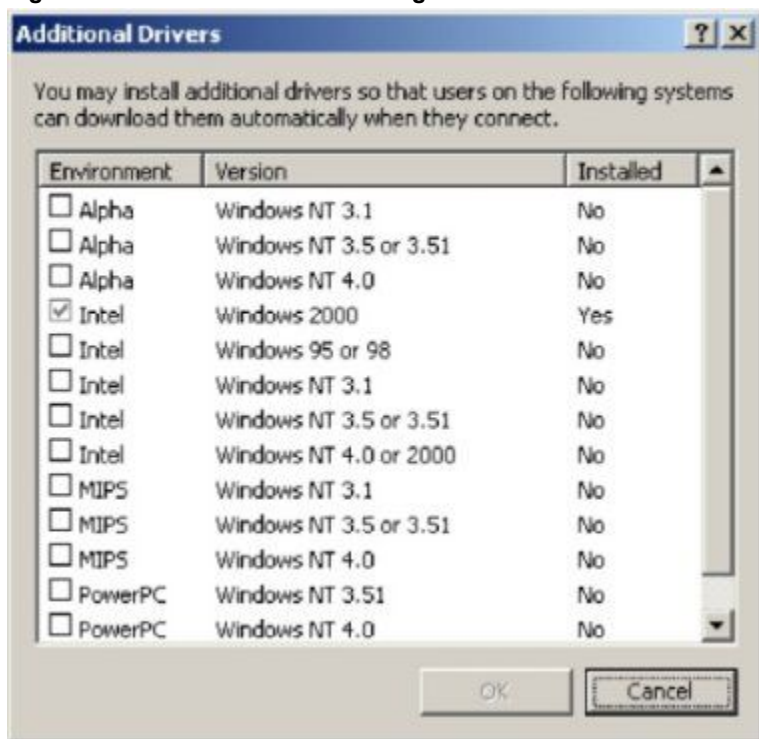
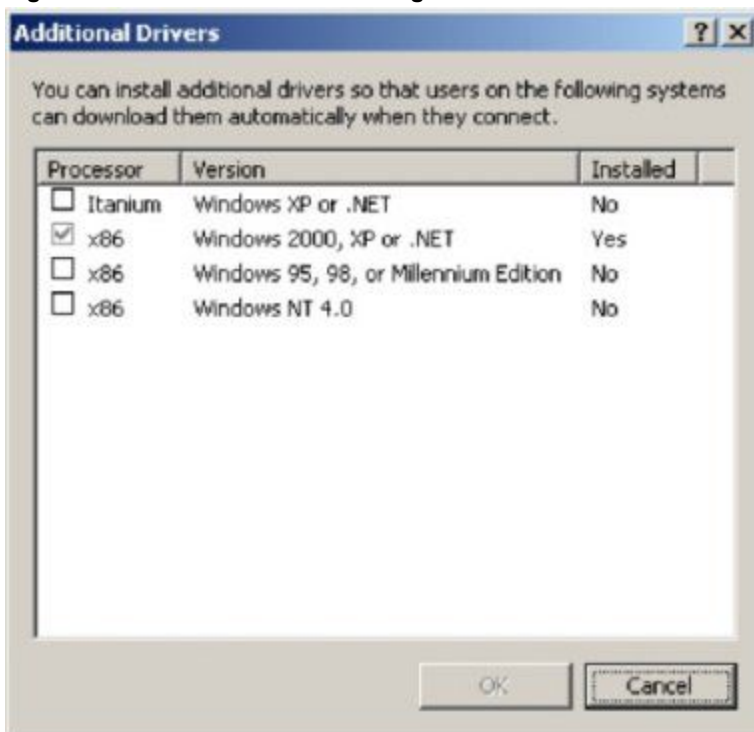


Figure 104: Additional Drivers dialog box in Windows XP



Figure 105: Additional Drivers dialog box in Windows Server 2003



The **Additional Drivers** dialog box shows which printer drivers are installed for a particular print queue. To determine which types of printer drivers are installed for all printer drivers, open the **Server Properties** dialog box from the

**Printers** folder (**File** -> **Server Properties**) and click the **Drivers** tab. Using **Server Properties** is useful because it lists the printer driver names along with the **Environment** and **Version** information.

Windows NT 4.0 does not have a **Drivers** tab in its **Server Properties** dialog box. Information about installed printer drivers can be obtained on Windows NT 4.0 by examining the following registry keys (for Intel x86 architectures):

- HKLM\System\CurrentControlSet\Control\Print\Environments\Windows NT x86\Version-2
- HKLM\System\CurrentControlSet\Control\Print\Environments\Windows NT x86\Version-3

**I used *Microsoft Knowledge Base* article 263090 to add version-3 printer drivers to my Windows NT 4.0 print server, but my Windows 2000 clients are having printing problems.**

It may be necessary to update the existing version-2 printer drivers on the NT 4.0 print server to versions that are compatible with the version-3 printer drivers. Refer to the tables in the "Migration strategies" section of this guide.

If no compatible version-3 printer driver is available, consider using a Windows NT 4.0 PS-based printer driver.

**XP or 2003 clients connected to print queues hosted on our NT 4.0 print servers and the clients experience intermittent hangs/crashes.**

HP's version-2 PCL printer drivers are not compatible with Windows XP and Windows Server 2003. If a compatible version-3 printer driver is listed in the tables in the "Migration strategies" section of this guide, add this driver to the print server using the technique described in *Microsoft Knowledge Base* article 263090.

## Reference

For more information about operating system migration and related topics, visit the following Web sites:

- Point and Print Technical Overview document:  
<http://www.microsoft.com/windows2000/technologies/fileandprint/print/pointprint.asp>
- Print Server Upgrade, Migration, and Interoperability document:  
<http://www.microsoft.com/windows2000/technologies/fileandprint/print/miginterop.asp>
- Print Migrator Utility – backup/restore print queues; move print queues between servers:  
<http://www.microsoft.com/windows2000/technologies/fileandprint/print/download.asp>
- Fixprnsv.exe – used to identify Win2K blocked printer drivers on qn NT 4 server:  
<http://support.microsoft.com/default.aspx?scid=KB;en-us;247196&>
- MS Knowledge-base article for installing version-3 printer drivers on Windows NT 4.0 Server:  
[http://support.microsoft.com/default.aspx?scid=kb;\[LN\];Q263090](http://support.microsoft.com/default.aspx?scid=kb;[LN];Q263090)

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