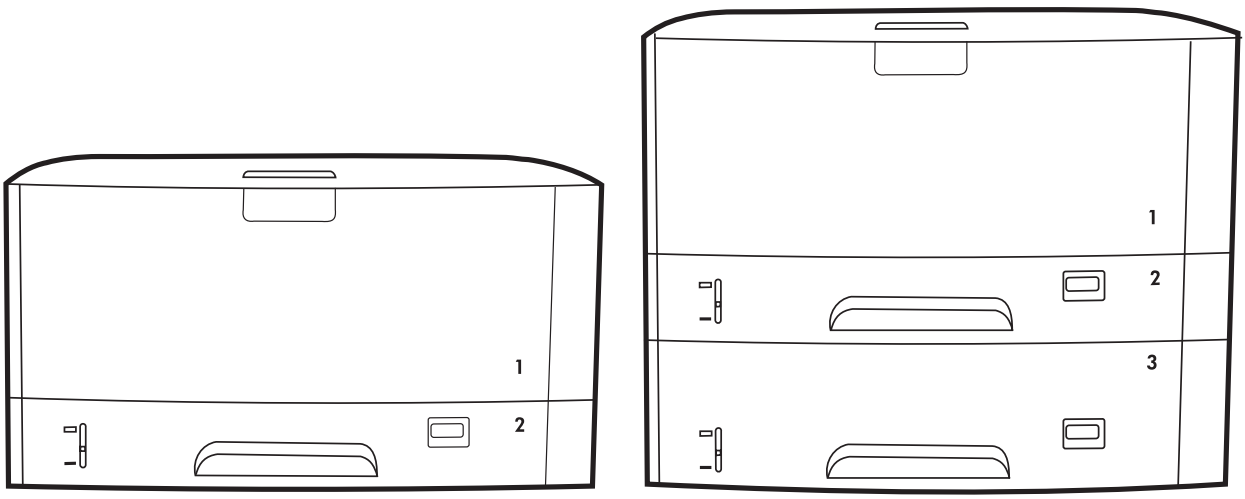
HP LaserJet 5200/5200L Printer
Software Technical Reference



invent

HP LaserJet 5200/5200L printer

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 HP LaserJet 5200 printing-system software.

This STR 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 LaserJet 5200 printer end users, as appropriate.

The following information is included in this STR:

- Descriptions of drivers and platforms, with system modifications
- Procedures for installing and uninstalling software components
- Descriptions of various topics that are associated with the HP LaserJet 5200 printer, including engineering details

The following table describes the structure of this STR.

Table 1-1 Software technical reference overview

Chapter	Content

Chapter 1, Purpose and scope	This chapter contains basic information about the HP LaserJet 5200 printer and its software:
	• Overview of the HP LaserJet 5200 printer
	• Printing-system software overview, including the following topics:
	  ◦ System requirements
	  ◦ Operating-system support
	  ◦ Availability
	• HP LaserJet software documentation

Chapter 2, Software description	This chapter provides an overview of the printing-system software installer and print drivers. This chapter also contains general information about other software features, including the following topics: • Driver configuration for Microsoft (MS) Windows® • HP Driver Diagnostic Printer Check Tool

Table 1-1 Software technical reference overview (continued)

Chapter	Content
	• HP Embedded Web Server • HP Web Jetadmin
Chapter 3, Install MS Windows printing-system components	This chapter provides instructions for installing the HP LaserJet 5200 printer in MS Windows operating systems by using various installation methods.
Chapter 4, HP traditional print drivers for MS Windows	This chapter provides detailed descriptions of the HP traditional PCL 6, PCL 5, and PS emulation print drivers for Windows 98 and MS Windows Millennium Edition (Windows Me). This chapter also contains information about using job-storage features when printing, including the following topics: • Releasing a job-storage print job • Deleting a job-storage print job
Chapter 5, HP PCL 6, PCL 5, and PS emulation unidrivers for MS Windows	This chapter provides detailed descriptions of the HP traditional PCL 6, PCL 5, and postscript emulation print unidrivers for Windows 2000, Windows XP, and Windows Server 2003. This chapter also contains information about using job-storage features when printing, including the following topics: • Releasing a job-storage print job • Deleting a job-storage print job
Chapter 6, Macintosh	This chapter provides instructions for installing and uninstalling the HP LaserJet 5200 printer in Macintosh operating systems and for using Macintosh features.
Chapter 7, Engineering details	This chapter contains information about the following special topics: • File to E-mail utility • Media attributes • Remote firmware update • Printing print-ready documents • Driver-feature comparison in various operating systems

For additional information about the location of information within these chapters, see the table of contents. An index is provided in the back of this STR.

Additional detailed information about the HP LaserJet 5200 printing-system software is published in an addendum to this STR. The following information is available only in the addendum:

- Lists of installed files
- System-modification information, such as changes to the registry and registry keys
- Descriptions of known software issues and solutions

Topics:

- Device features
- Printing-system software

- HP LaserJet documentation

Device features

The following table contains descriptions of the HP LaserJet 5200 printer features that are discussed in this STR. Device configurations might vary among countries/regions.

Table 1-2 HP LaserJet 5200 printer features

Models	• Base model: HP LaserJet 5200 printer (part number Q7543A) • HP LaserJet 5200n printer (part number Q7544A) • HP LaserJet 5200tn printer (part number Q7545A) • HP LaserJet 5200dtn printer (part number Q7546A) • HP LaserJet 5200L (part number Q7547A)
Performance	• Prints up to 35 pages per minute (ppm) for Letter-size media. The HP LaserJet 5200L prints up to 25 ppm for Letter-size media. • First page out in 10 seconds or less from the PowerSave mode. • Sleep mode • Wake-time setting available

Memory	• Standard base memory:
	  ◦ 48 MB for the HP LaserJet 5200 printer; expandable to 512 MB
	  ◦ 48 megabytes (MB) of memory for the HP LaserJet 5200L printer; expandable to 128 MB
	  ◦ 64 MB for the HP LaserJet 5200n printer; expandable to 512 MB
	  ◦ 64 MB for the HP LaserJet 5200tn printer; expandable to 512 MB
	  ◦ 128 MB for the HP LaserJet 5200dtn printer; expandable to 512 MB
	• One open EIO slot on all HP LaserJet 5200 printer models (except the HP LaserJet 5200L)
	• The HP LaserJet 5200 printer uses 100-pin 133 MHz dual inline memory modules (DIMMs) that support 128 or 256 MB of random-access memory (RAM).
	• Memory can be expanded to 512 MB (128 MB for the HP LaserJet 5200L) of double data-rate synchronous random access memory (DDR-SRAM) plus 32 MB of memory on the formatter board.

User interface	• Two-line back-lit graphical display on control panel • Enhanced Help with animated graphics • Embedded Web server to gain access to support and order supplies (network-connected printers)

Table 1-2 HP LaserJet 5200 printer features (continued)

Supported printer personalities	• HP PCL 6 • HP PCL 5e • PostScript® (PS) 3 emulation • Portable-document format (PDF)

Job-storage features	• Job-storage features include:
	  ◦ Proof and hold
	  ◦ Private jobs
	• Personal-identification number (PIN) printing

Environmental features	• Sleep-mode setting • High content of recyclable components and materials • **Energy Star**® compliant • Restrictions of Hazardous Substances (RoHS) Directive compliant
Fonts	• Internal fonts are available for both printer command language (PCL) and postscript emulation. • Printer-matching screen fonts in TrueType® format are available on the printing-system software CD. • HP Web Jetadmin-supported forms and fonts are on the disk.
Paper handling	• Prints on media sizes from 148 millimeters (mm) x 210 mm (5.83 inches x 8.27 inches) up to 216 mm x 356 mm (8.5 inches x 14 inches; Legal size) • Tray 1 can process heavy-weight media from 60 g/m^2 to 200 g/m^2 (16 lb to 53 lb), as well as standard 80-lb cover stock. • Tray 2 and the optional trays can process media up to 120 g/m^2 (32 lb) in weight. • Prints on a wide range of media types, including HP photo media, glossy papers, transparencies, heavy stock, labels, and envelopes. • Features adjustable gloss level on page by choosing the appropriate glossy-media type. • Standard 100-sheet multipurpose paper tray (tray 1) supports Letter, Legal, Executive, 8.5 x 13, B5 (JIS), Executive (JIS), A4, and custom media. • Standard 250-sheet paper feeder (tray 2) supports Letter, Legal, Executive, 8.5 x 13, B5 (JIS), Executive (JIS), A4, and custom media. • Optional 500-sheet paper feeder (tray 3; standard in the HP LaserJet 5200tn and HP LaserJet 5200dtn printer models) supports Letter, Legal, Executive, 8.5 x 13, B5 (JIS), Executive (JIS), A4, and custom media. • Standard 250-sheet face-down output bin

Table 1-2 HP LaserJet 5200 printer features (continued)

	• Standard duplexing unit for automatic two-sided (duplex) printing on the HP LaserJet 5200dtn printer • Automatic duplexing at up to 30 sides (15 sheets) per minute for 120-g/m^2 (32-lb) paper
Accessories	• Dual inline memory modules (DIMM) • Flash memory slot for additional memory or additional fonts • Additional 500-sheet paper feeder (tray 3)
Connectivity	• Enhanced input/output (EIO) card slots for optional connectivity (Network connection through an HP Jetdirect embedded print server are standard on the HP LaserJet 5200n, HP LaserJet 5200tn, and HP LaserJet 5200dtn models.) • Universal serial bus (USB) 2.0 connection • HP Jetdirect embedded print server for network connectivity without using an EIO slot • Bidirectional parallel cable interface (IEEE 1284B-compliant); available with the optional 1284B parallel EIO card (part number J7972G)
Supplies	• The supplies status page contains information about toner level, page count, and estimated pages remaining for genuine HP cartridges. • High-capacity no-shake cartridge with automatic toner-seal removal feature • The printer checks for authentic HP print cartridges when a cartridge is installed. • Internet-enabled supply-ordering capabilities through the HP Embedded Web Server

Printing-system software

Topics:

- System requirements
- Operating-system support
- Availability

System requirements

The following operating systems support the HP LaserJet 5200 printing-system software:

- Windows
- Linux
- UNIX

Windows

- Pentium® or compatible processor
- Windows 98, Windows Me, or Windows 2000: 333-MHz processor with 64 MB RAM
- Windows XP: 333-MHz processor with 128 MB RAM
- Windows Server 2003: 550-MHz processor with 128 MB RAM (Standard Edition) and 220 MB of available hard-disk space
- Minimum 16-color/grayscale display with 640 x 480 pixel resolution (video graphics array [VGA])
- Onboard parallel port, USB port, or network connection
- CD-ROM drive or internet connection

Linux

For information about Linux support for the printer, see the following HP Linux Web site:

- www.hp.com/go/linuxprinting

UNIX

For information about UNIX® support for the printer, see the following Web sites:

- www.hp.com/go/jetdirectunix_software
- www.hp.com/go/unixmodelscripts

Operating-system support

MS Windows operating systems provide full-featured support for the HP LaserJet 5200 printer. Operating systems that are not described in this document provide varying levels of functionality.

Throughout this document, Windows XP is used to denote Windows XP Home Edition, Windows XP Professional, and Windows Server 2003 unless noted otherwise.

Information relating to networking functions is specific to devices that have network capabilities.

If the computer is running a 64-bit MS Windows operating system, install the corresponding 64-bit print driver by using the MS Windows Add Printer feature.

The HP LaserJet 5200 printer has *not* been tested with and is not supported in the MS Windows 3.1*x* or MS Windows 95 operating systems.

The MS Windows NT® 4.0 operating system does *not* support the HP LaserJet 5200 printer. Print drivers for the device are not included on the printing-system software CD and are not available on the Web. Other drivers might work on the printer, but some print-driver features and functions might not be available.

For more information about the HP LaserJet 5200 printer, go to the following Web site:

www.hp.com/support/lj5200

Topics:

- Standalone drivers
- Print driver support in other operating systems

Standalone drivers

The following operating systems support the HP LaserJet 5200 printing-system software, including the HP traditional PCL 6, PCL 5, and PS emulation drivers and unidrivers:

- Windows 98
- Windows Me
- Windows 2000 (Service packs 1 and 2)
- Windows XP Home Edition (32-bit)
- Windows XP Professional (Service Pack 1 and later; 32-bit and 64-bit)
- Windows Server 2003 (32-bit and 64-bit)

Print drivers are supported by the following 64-bit operating systems:

- Itanium-based systems
- AMD Athlon 64, AMD Opteron, Intel Xeon, and Pentium 4 with EMT64)

Print driver support in other operating systems

The HP LaserJet 5200 printer is also supported in the following operating environments:

- Mac OS X (V10.2.8 or later)
- Linux. For more information, go to the following Web site:

  www.hp.com/go/linuxprinting
- UNIX. For more information, go to the following Web site:

  www.hp.com/go/jetdirectunix_software

- UNIX model scripts. Available *only* on the Web at the following Web site:

  www.hp.com/go/unixmodelscripts
- MS Windows Terminal Server
- Citrix Terminal Server. For more information, go to the following Web site:

  h20000.ww2.hp.com/bizsupport/TechSupport/Document.jsp

  Alternatively, go to the HP.com Web site and search for “c00213455”.
- MS Windows Cluster Server 8
- HP OpenVMS. For more information, go to the following Web site:

  h71000.www7.hp.com/openvms/print/
- Tru64 UNIX printing. For more information, go to the following Web site:

  h30097.www3.hp.com/printing/
- SAP printing. For more information, go to the following Web site:

  www.hp.com/go/sap/print
- HP Install Network Printer Wizard (INPW). Available *only* on the Web at the following Web site:

  www.hp.com/go/inpw_software

Availability

Download the printing-system software from the Web, or order it on a CD from HP fulfillment centers.

NOTE This document describes drivers that are shipped with the printing-system software CD. This document does *not* describe any drivers that might be released for use by support personnel.

The following table lists the availability of HP LaserJet software components by operating system.

NOTE Windows XP and Windows Server 2003 64-bit drivers and components are available *only* on the Web. All other drivers and components listed in the following table are available on the Web *and* on the printing-system software CD.

Table 1-3 Software component availability for HP LaserJet 5200 printer

Component	Windows 98 and Windows Me	Windows 2000, Windows Server 2003, and Windows XP (32-bit)	Windows XP and Windows Server 2003 (64-bit)
Drivers			
HP Traditional PCL 5 Driver and HP Traditional PCL 6 Driver	x		
HP PCL 6 Unidriver and HP PCL 5 Unidriver		x	x
PS Emulation Unidriver		x	x
PS Emulation Driver	x		

Table 1-3 Software component availability for HP LaserJet 5200 printer (continued)

Component	Windows 98 and Windows Me	Windows 2000, Windows Server 2003, and Windows XP (32-bit)	Windows XP and Windows Server 2003 (64-bit)
Installer			
Common MS Windows Installer	x	x	
Installer Customization Wizard	x	x	
CD Browser	x	x	
Add Printer Wizard install	x	x	x
Other software			
Web Registration	x	x	
HP Driver Preconfiguration	x	x	x
Easy Printer Care Software		x	x

Topics:

- Printing-system software on the Web
- In-box printing-system software CDs

Printing-system software on the Web

All software that is contained on the installation CD is also available on the Web.

Web deployment is the preferred method for obtaining the latest software. The HP Web site offers an option for automatic e-mail notification about new software releases.

The HP LaserJet 5200 printing-system software is available for download at the following Web site:

www.hp.com/go/lj5200_software

NOTE Only 32-bit print drivers are available on the printing-system software CD. If the computer is running a 64-bit operating system, you must install a 64-bit print driver. The 64-bit print drivers for Windows XP and Windows Server 2003 are available at the following Web site:

www.hp.com/go/lj5200_software

In-box printing-system software CDs

The software CD for the HP LaserJet 5200 printer contains a variety of files for installing the printing-system software on the computer.

The HP LaserJet 5200 printing-system software CD is divided into two partitions, one for each of the following operating systems:

- MS Windows
- Macintosh

Each partition includes documentation files and files that are required to install and uninstall the printing-system components.

Topics:

- Windows partition
- CD versions

Windows partition

The root directory in the MS Windows partition of the software CD contains the AUTORUN.EXE file, the SETUP.EXE file, and the following directories and support files:

- Autorun
- Drivers
- Fonts
- hw
- Manuals
- PortMonitor
- System32
- Temp
- WebReg

The printing-system files for each language reside in the following directories:

- Drivers
- Manuals

NOTE File layouts differ by language for each regional version of the software CD.

To view the files, insert the HP LaserJet 5200 printing-system software CD, right-click **Start**, click **Explore**, and then select the CD-ROM drive.

CD versions

The HP LaserJet 5200 printing-system software CD is available in five versions, each of which contains printing-system software in various languages, as follows:

- **CD AM – Americas and Europe (part number Q7533-60101):**
  - CA = Catalan (Català)
  - DE = German (Deutsch)
  - EN = English
  - ES = Spanish (Español)
  - FR = French (Français)
  - IT = Italian (Italiano)

  - NL = Dutch (Nederland)
  - PT = Brazilian Portuguese (Português)
- **CD WE – Western Europe (part number Q7533-60102):**
  - DA = Danish (Dansk)
  - EN = English
  - FI = Finnish (Suomi)
  - HE = Hebrew
  - NO = Norwegian (Norsk)
  - SV = Swedish (Svenska)
- **CD NE – Northern Europe, Arabic, and Russian (part number Q7533-60103):**
  - AR = Arabic
  - EN = English
  - EL = Greek
  - FR = French (Français)
  - RU = Russian (Russ)
  - TR = Turkish (Turkçe)
- **CD EE – Eastern Europe (part number Q7533-60104):**
  - CS = Czech (Cesky)
  - EN = English
  - HU = Hungarian (Magyar)
  - PL = Polish (Polski)
  - SK = Slovak
- **CD AS – Asia (part number Q7533-60105):**
  - EN = English
  - ID = Indonesian (Bahasa)
  - JA = Japanese
  - KO = Korean
  - TH = Thai
  - ZHCN = Simplified Chinese
  - ZHTW = Traditional Chinese

Each of the following tables lists one of the software CD versions, along with the printing-system software components that are supported in each language.

NOTE Drivers for various languages do not necessarily correspond to geographic countries/regions. European languages, for instance, are distributed on three CDs.

Table 1-4 CD AM – Americas and Europe

Component	CA	DE	EN	ES	FR	IT	NL	PT
HP Traditional Postscript 3 Emulation Driver		x	x	x	x	x	x	x
HP Traditional PCL 6 Driver		x	x	x	x	x	x	x
HP Traditional PCL 5 Driver		x	x	x	x	x	x	x
HP PCL 6 Unidriver	x	x	x	x	x	x	x	x
HP PCL 6 (Black) Unidriver	x	x	x	x	x	x	x	x
HP PCL 5 Unidriver	x	x	x	x	x	x	x	x
PS Emulation Unidriver	x	x	x	x	x	x	x	x
Common MS Windows Installer	x	x	x	x	x	x	x	x
Add Printer Wizard Installer		x	x	x	x	x	x	x
Installer Customization Wizard		x	x	x	x	x	x	x
CD Browser	x	x	x	x	x	x	x	x
HP Easy Printer Care		x	x	x	x	x	x	x
Printer Usage Report		x	x	x	x	x	x	x
HP Driver Preconfiguration		x	x	x	x	x	x	x
Fonts		x	x	x	x	x	x	x
HP Web Registration		x	x	x	x	x	x	x
HP LaserJet 5200 User Guide (.PDF file)		x	x	x	x	x	x	x
HP LaserJet 5200 User Guide (.CHM file)		x	x	x	x	x	x	x
HP Jetdirect Administrator's Guide		x	x	x	x	x	x	x
Hewlett-Packard LaserJet 5200 Printing-System Install Notes	x	x	x	x	x	x	x	x
HP Embedded Web Server User Guide		x	x	x	x	x	x	x

Table 1-5 CD WE – Western Europe

Component	DA	EN	FI	HE	NO	SV
HP Traditional Postscript 3 Emulation Driver	x	x	x	x	x	x
HP Traditional PCL 6 Driver	x	x	x	x	x	x
HP Traditional PCL 5 Driver	x	x	x	x	x	x

Table 1-5 CD WE – Western Europe (continued)

Component	DA	EN	FI	HE	NO	SV
HP PCL 6 Unidriver	x	x	x	x	x	x
HP PCL 5 Unidriver	x	x	x	x	x	x
PS Emulation Unidriver	x	x	x	x	x	x
Common MS Windows Installer	x	x	x	x	x	x
Add Printer Wizard Installer	x	x	x	x	x	x
Installer Customization Wizard	x	x	x	x	x	x
CD Browser	x	x	x	x	x	x
HP Easy Printer Care	x	x			x	x
Printer Usage Report	x	x			x	x
HP Driver Preconfiguration	x	x	x	x	x	x
Fonts	x	x	x		x	x
HP Web Registration	x	x	x	x	x	x
HP LaserJet 5200 User Guide (.PDF file)	x	x	x	x	x	x
HP LaserJet 5200 User Guide (.CHM file)	x	x	x	x	x	x
HP Jetdirect Administrator's Guide	x	x	x		x	x
Hewlett-Packard LaserJet 5200 Printing-System Install Notes	x	x	x	x	x	x
HP Embedded Web Server User Guide	x	x	x		x	x

Table 1-6 CD NE – Northern Europe, Arabic, and Russian

Component	AR	EN	EL	FR	RU	TR
HP Traditional Postscript 3 Emulation Driver	x	x	x	x	x	x
HP Traditional PCL 6 Driver	x	x	x	x	x	x
HP Traditional PCL 5 Driver	x	x	x	x	x	x
HP PCL 6 Unidriver	x	x	x	x	x	x
HP PCL 6 (Black) Unidriver	x	x	x	x	x	x
HP PCL 5 Unidriver	x	x	x	x	x	x
PS Emulation Unidriver	x	x		x	x	x
Common MS Windows Installer	x	x	x	x	x	x
Add Printer Wizard Installer		x	x	x	x	x
Installer Customization Wizard	x	x	x	x	x	x
CD Browser	x	x	x	x	x	x
HP Easy Printer Care		x		x		
Printer Usage Report		x		x		

Table 1-6 CD NE – Northern Europe, Arabic, and Russian (continued)

Component	AR	EN	EL	FR	RU	TR
HP Driver Preconfiguration	x	x	x	x	x	x
Fonts		x		x	x	x
HP Web Registration	x	x	x	x	x	x
HP LaserJet 5200 User Guide (.PDF file)	x	x	x	x	x	x
HP LaserJet 5200 User Guide (.CHM file)	x	x	x	x	x	x
HP Jetdirect Administrator's Guide		x		x	x	x
Hewlett-Packard LaserJet 5200 Printing-System Install Notes	x	x	x	x	x	x
HP Embedded Web Server User Guide		x		x		

Table 1-7 CD EE – Eastern Europe

Component	CS	EN	HU	PL	SK
HP Traditional Postscript 3 Emulation Driver	x	x	x	x	
HP Traditional PCL 6 Driver	x	x	x	x	x
HP Traditional PCL 5 Driver	x	x	x	x	x
HP PCL 6 Unidriver	x	x	x	x	x
HP PCL 5 Unidriver	x	x	x	x	x
PS Emulation Unidriver	x	x	x	x	x
Common MS Windows Installer	x	x	x	x	x
Add Printer Wizard Installer	x	x	x	x	
Installer Customization Wizard	x	x	x	x	
CD Browser	x	x	x	x	x
HP Easy Printer Care		x			x
Printer Usage Report		x			x
HP Driver Preconfiguration	x	x	x	x	x
Fonts	x	x	x	x	
HP Web Registration	x	x	x	x	x
HP LaserJet 5200 User Guide (.PDF file)	x	x	x	x	
HP LaserJet 5200 User Guide (.CHM file)	x	x	x	x	
HP Jetdirect Administrator's Guide	x	x	x	x	

Table 1-7 CD EE – Eastern Europe (continued)

Component	CS	EN	HU	PL	SK
Hewlett-Packard LaserJet 5200 Printing-System Install Notes	x	x	x	x	x
HP Embedded Web Server User Guide		x			

Table 1-8 CD AS – Asia

Component	EN	ID	JA	KO	TH	ZHCN	ZHTW
HP Traditional Postscript 3 Emulation Driver	x		x	x	x	x	x
HP Traditional PCL 6 Driver	x		x	x	x	x	x
HP Traditional PCL 5 Driver	x						
HP PCL 6 Unidriver	x		x	x	x	x	x
HP PCL 6 (Black) Unidriver	x		x	x	x	x	x
HP PCL 5 Unidriver	x		x	x	x	x	x
PS Emulation Unidriver	x		x	x	x	x	x
Common MS Windows Installer	x		x	x	x	x	x
Add Printer Wizard Installer	x		x	x	x	x	x
Installer Customization Wizard	x		x	x	x	x	x
CD Browser	x		x	x	x	x	x
HP Easy Printer Care	x						
Printer Usage Report	x						
HP Driver Preconfiguration	x			x		x	x
Fonts	x						
HP Web Registration	x		x	x	x	x	x
HP LaserJet 5200 User Guide (.PDF file)	x	x	x	x	x	x	x
HP LaserJet 5200 User Guide (.CHM file)	x	x	x	x	x	x	x
HP Jetdirect Administrator's Guide	x		x	x		x	x
Hewlett-Packard LaserJet 5200 Printing-System Install Notes	x		x	x	x	x	x
HP Embedded Web Server User Guide	x						

HP LaserJet documentation

On the main screen of the printing-system software CD Browser, click **Printer Documentation** to open HP LaserJet 5200 Printer Documentation screen, as shown in the following figure.

On the main screen of the printing-system software CD Browser, click **Printer Documentation** to open the HP LaserJet 5200 Printer Documentation screen, as shown in the following example.

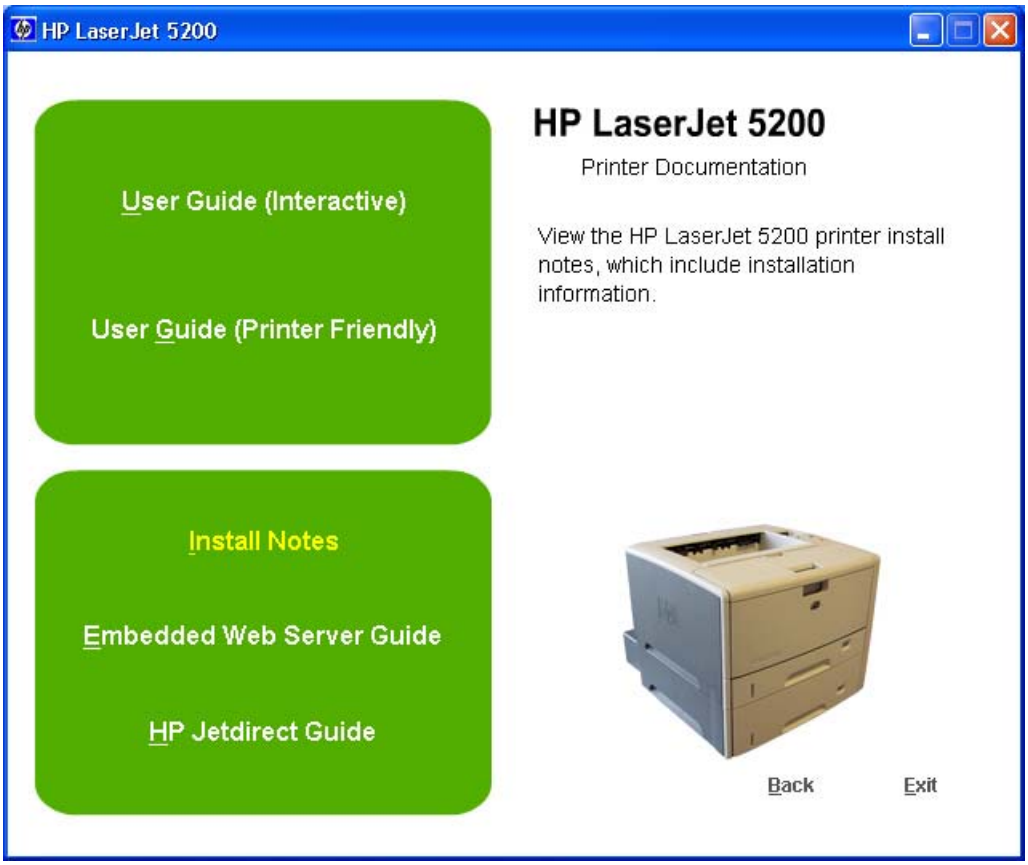


Figure 1-1 Installation software CD printer-documentation screen

The following table lists HP LaserJet 5200 printer documents that are available for each operating system.

Table 1-9 Documentation availability

Document	Windows 98/ Me	Windows 2000/XP/ Server 2003	Macintosh
HP LaserJet 5200 User Guide (.PDF file)	x	x	x
HP LaserJet 5200 User Guide (.CHM file)	x	x	
Hewlett-Packard LaserJet 5200 Printing-System Install Notes	x	x	
HP Embedded Web Server User Guide	x	x	x
HP Jetdirect Administrator's Guide	x	x	x

Access to HP LaserJet documents depends on the type of document and its location:

- Some documents can be opened from the CD Browser.
- Some documents appear on the software CD and can be opened by navigating to the folder where they reside.
- Some documents are available on the Web through links in the CD Browser or CD folders.

Documents are available in the following file formats:

- **Portable document Format (.PDF)**. The HP LaserJet 5200 printing-system software CD includes Adobe® Acrobat® Reader for viewing online documentation.
- **Compiled HTML (.CHM)**. When you click a documentation link to a .CHM document, a Microsoft HTML Viewer opens the file on the computer screen.
- **Hypertext markup (.HTM)**. When you click a documentation link to an .HTM document, a Web browser opens the file on the computer screen.

The following documents are available:

- HP LaserJet 5200 User Guide
- Hewlett-Packard LaserJet 5200 Printing-System Install Notes
- HP Embedded Web Server User Guide
- HP Jetdirect Administrator's Guide

HP LaserJet 5200 User Guide

The *HP LaserJet 5200 User Guide* describes the basic device features.

To view this guide from the software CD, follow these steps:

1. In the main screen of the CD browser, click **Printer Documentation**.
2. Click **User Guide (Interactive)**.

The guide opens as an MS Windows Help file (.CHM file). This readable, onscreen version of the guide is provided in accordance with the Americans with Disabilities Act (ADA).

You can also gain access to the file by following these steps:

1. Insert the software CD into the CD-ROM drive.
2. Navigate to the **Manuals\<language>** folder.
3. Open the file that has the appropriate file name:

   CLJ5200_USE_XXWW.CHM

NOTE The "XX" in the file name corresponds to the language. For instance, the file name for the French version of the guide is LJ5200_USE_FRWW.CHM

The *HP LaserJet 5200 User Guide* is provided as a printable .PDF file. To print the guide, follow these steps:

1. In the CD Browser, click **Printer Documentation**.
2. Click **User Guide (Printer Friendly)**. The guide opens.
3. Print the guide.

You can also gain access to the file by following these steps:

1. Insert the software CD into the CD-ROM drive.
2. Navigate to the **Manuals\<language>** folder.
3. Open the file that has the appropriate file name:

   LJ5200_USE_XXWW.PDF

NOTE The "XX" in the file name corresponds to the language. For instance, the file name for the French version of the guide is LJ5200_USE_FRWW.PDF

When the file is open, click **File** and then click **Save As** to save a copy of the file to another location.

Hewlett-Packard LaserJet 5200 Printing-System Install Notes

The *Hewlett-Packard LaserJet 5200 Printing-System Install Notes* (in .HTM format) contains important information about device features, instructions for installing the printing-system software, and technical assistance.

To view this guide from the software CD, follow these steps:

1. In the main screen of the CD browser, click **Printer Documentation**.
2. Click **Install Notes**.

You can also gain access to the file by following these steps:

1. Insert the software CD into the CD-ROM drive.
2. Navigate to the **Manuals\<language>** folder.
3. Open the file that has the appropriate file name:

   LJ5200_INSTALL-NOTE_XXWW.HTM

NOTE The "XX" in the file name corresponds to the language. For instance, the file name for the French version of the document is LJ5200_INSTALL-NOTE_FRWW.HTM.

HP Embedded Web Server User Guide

The *HP Embedded Web Server User Guide* (in .PDF format) provides information about device status, settings, and networking for the HP LaserJet 5200 printer.

To view this guide from the software CD, follow these steps:

1. In the main screen of the CD browser, click **Printer Documentation**.
2. Click **Embedded Web Server Guide**.

You can also gain access to the file by following these steps:

1. Insert the software CD into the CD-ROM drive.
2. Navigate to the **Manuals\<language>** folder.
3. Open the file that has the appropriate file name:

   LJ5200_EWS_XXWW.PDF

NOTE The "XX" in the file name corresponds to the language. In French, the file name is LJ5200_EWS_FRWW.PDF.

When the file is open, click **File** and then click **Save As** to save a copy of the file to another location.

HP Jetdirect Administrator's Guide

The *HP Jetdirect Administrator's Guide* is a network administrator's guide (in .PDF format) that contains information about connecting the device directly to a network.

To view this guide from the software CD, follow these steps:

1. In the main screen of the CD browser, click **Printer Documentation**.
2. Click **HP Jetdirect Guide**.

You can also gain access to the file by following these steps:

1. Insert the software CD into the CD-ROM drive.
2. Navigate to the **Manuals\<language>** folder.
3. Open the file that has the appropriate file name:

   HPJDIAG_XXWW.PDF

NOTE The "XX" in the file name corresponds to the language. In French, the file name is HPJDIAG_FRWW.PDF.

When the file is open, click **File** and then click **Save As** to save a copy of the file to another location.

2 Software description

Introduction

The HP LaserJet 5200 printer comes with software and installers for MS Windows and Apple Computer, Inc., Macintosh systems. Linux and UNIX systems also support the HP LaserJet 5200, and software is available on the Web. For information about specific system installers, drivers, and components, see the section that corresponds to that system.

NOTE The HP Toolbox is not available on the HP LaserJet 5200 printer.

Topics:

- MS Windows printing-system software
- MS Windows driver configuration
- HP Driver Diagnostic Printer Check Tool
- HP Easy Printer Care
- HP Embedded Web Server
- HP Web Jetadmin

MS Windows printing-system software

Topics:

- Printing system and installer
- HP LaserJet print drivers

Printing system and installer

Topics:

- HP LaserJet 5200 printing-system software CD for MS Windows systems
- Installer features

HP LaserJet 5200 printing-system software CD for MS Windows systems

In the MS Windows environment (Windows 98, Windows Millennium Edition [Windows Me], Windows 2000, Windows XP, and Windows Server 2003), insert the HP LaserJet 5200 printing-system software CD in the CD-ROM drive to open an interactive CD browser. Use the CD browser to install the print drivers and related components, and to gain access to online user documentation, a customization utility, Adobe Acrobat Reader software, and optional HP software.

The following figure shows the main screen of the HP LaserJet 5200 printing-system software CD.

If the screen does not appear when you insert the software CD into the CD-ROM drive, follow these steps to open the CD browser:

1. Click **Start**.
2. Click **Run**.
3. Click **Browse…**. and navigate to the root directory of the software CD.
4. Double-click the SETUP.EXE file to start the installer.

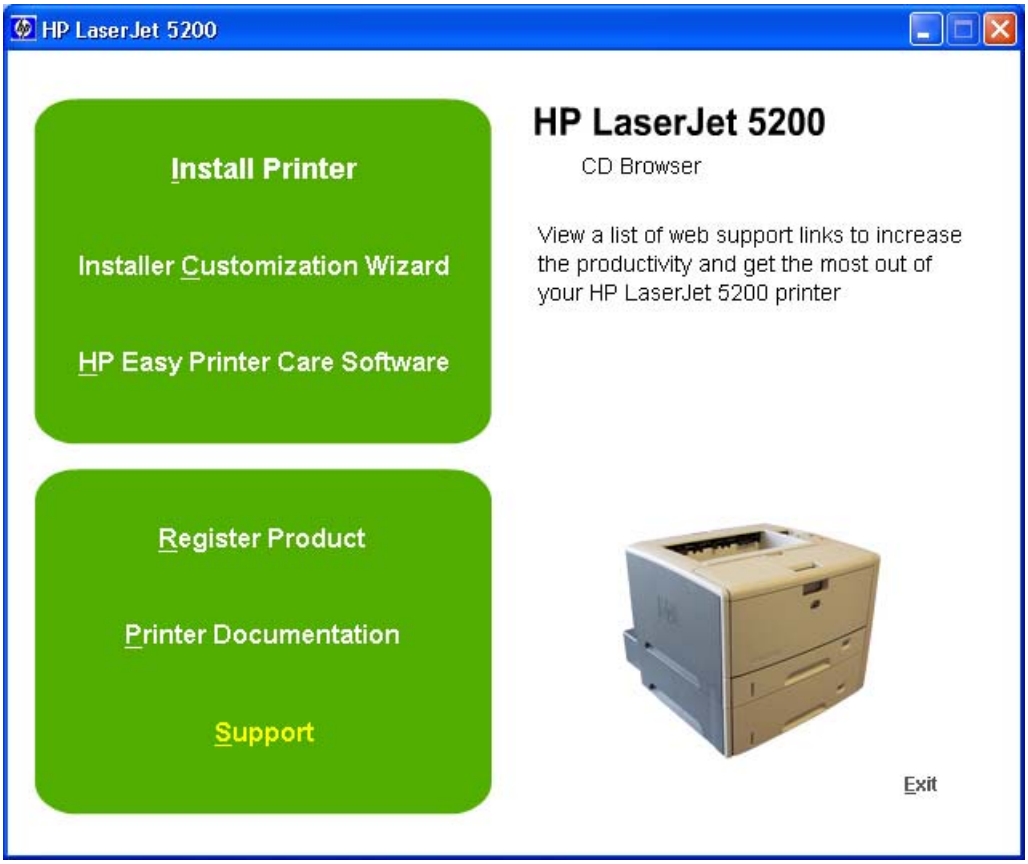


Figure 2-1 Installation software CD browser

The main screen of the software CD contains installation options in the upper-left panel and documentation options in the lower-left panel. As you move the cursor over each option, a description of the option appears above the device image.

NOTE The options on devices might differ from the illustration.

Install Printer. The installation wizard guides you through the HP LaserJet 5200 printing-system software installation. You are given the choice of performing a Basic Installation, a Full Installation, or a Custom Installation. If you select Basic Installation, only the necessary software is installed. If you select Custom Installation, you can select the components that you want to install.

Installer Customization Wizard. Use this wizard to customize the HP LaserJet 5200 installer by presetting the installation options in a response file. The resulting customized installer can then be used for silent, unattended installation.

HP Easy Printer Care Software. Use this option to install the HP Easy Printer Care from a downloadable installation file from the Web. This printer maintenance tool helps track and maintain the printers by providing information about status, alert notifications, usage, and supplies for one or more printers.

Register Product. Use this option to register your product online. After Web registration, you can gain access to support and services, manage your profile, and sign up for free support alerts, driver notices, and personalized newsletters.

Printer Documentation. Use this option to view the HP LaserJet 5200 user documentation. The following document options are available when you click this option:

- **User Guide (Interactive)**
- **User Guide (Printer Friendly)**
- **Install Notes**
- **Embedded Web Server Guide**
- **HP Jetdirect Guide**

NOTE If Adobe Acrobat Reader 4.0 or later is not installed, click any of the links to a portable document format (.PDF) document to open it in a version of Adobe Acrobat Reader that runs from the HP LaserJet 5200 printing-system software CD. The CD browser version of Acrobat Reader is in English only, but can be used to open localized versions of .PDF documents. The Adobe Acrobat Reader software is *not* installed on the computer and can only run while the printing-system software CD is in the CD-ROM drive. Adobe Acrobat Reader is also available at the following Web site:

www.adobe.com

Support. Click the following links to obtain optional software programs for the HP LaserJet 5200 printer and find support information on other HP Web sites:

- Click **HP Web Jetadmin** to download HP Web Jetadmin software from the Web for a Web browser-based network-management tool.
- Click **Supplies** for information about ordering HP LaserJet 5200 printer supplies.
- Click **Product Information** to open the HP Instant Support Web page for support information and updates for the HP LaserJet 5200 printer.
- Click **hp.com** to go to the HP home Web page for information about 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 device. The common installer is available for the Windows 98, Windows Me, Windows 2000, Windows XP, and Windows Server 2003 operating systems.

The common installer offers the following features:

- The HP LaserJet 5200 printing-system software CD features an interactive software interface. .
- Network connection is integrated so that you can install drivers and connect to a networked device in a single process.
- The selection dialog box sets the operating-system language as the default language (for Windows 98, Windows Me, Windows 2000, Windows XP, and Windows Server 2003 only). You can use the installer to select any of the languages on the HP LaserJet 5200 printing-system software CD.

The HP LaserJet 5200 printing-system software CD also includes the following features:

- The HP LaserJet Uninstaller Utility
- The HP Customization Utility for custom installations

All of the MS Windows system components are installed by using the HP LaserJet 5200 series printing-system installer. The installer automatically detects the language of choice and the operating system. Select from the following types of installation:

- Basic Installation
- Full Installation
- Custom Installation

HP LaserJet print drivers

HP LaserJet 5200 print drivers provide the printing features and communication between the computer and the device. The printing system includes software for end users and network administrators who are working in the following operating environments:

- Windows 98 and Windows Me
- Windows 2000, Windows XP (32-bit and 64-bit), and Windows Server 2003 (32-bit and 64-bit)

  MS Windows 64-bit drivers for Windows XP and Windows Server 2003 are available for the following systems:

  - Itanium
  - AMD Athlon 64, AMD Opteron, Intel Xeon, or Pentium 4 with EMT64
- Apple Mac OS X (V10.2.8 or later)

In MS Windows operating systems, the following features are available with the HP LaserJet 5200 printer:

- Automatic configuration
- Driver updates after a new configuration
- Preconfiguration

NOTE For the latest information about the printing-system software components, see the readme files on the CD. For additional information about installing the printing-system software, see the Hewlett-Packard LaserJet 5200 Printing-System Install Notes on the printing-system software CD.

All of the drivers provide access to paper-handling and print-quality features.

Topics:

- HP PCL 6, PCL 5, and PS emulation drivers
- Print-driver version numbers for MS Windows operating systems

HP PCL 6, PCL 5, and PS emulation drivers

All of the MS Windows drivers are supported by Microsoft 32-bit operating systems. Separate versions of the HP PCL 6, PCL 5, and PS emulation unidrivers are available for Windows XP and Windows Server 2003 64-bit operating systems. These 64-bit drivers are not included on the printing-system software CD, but they can be downloaded from the following HP Web site:

www.hp.com/go/lj5200_software

The following drivers are available on the HP LaserJet 5200 printing-system software CD:

- The HP PCL 6 Unidriver for Windows 2000, Windows XP, and Windows Server 2003
- HP PCL 6 (Black) Unidriver for Windows 2000, Windows XP, and Windows Server 2003
- HP PCL 5 Unidriver for Windows 2000, Windows XP, and Windows Server 2003
- The HP Postscript 3 Emulation Unidriver (the PS Emulation Unidriver) for Windows 2000, Windows XP, and Windows Server 2003
- The HP Traditional PCL 6 Driver for Windows 98 and Windows Me
- The HP Traditional PCL 5 Driver for Windows 98 and Windows Me
- The HP Traditional Postscript 3 Emulation Driver (the PS Emulation Driver) for Windows 98 and Windows Me

NOTE During a Basic Installation or Full Installation of the printing-system software, the HP PCL 6 Unidriver is installed by default for Windows 2000, Windows XP, and Windows Server 2003. The HP Traditional PCL 6 Driver is installed by default for Windows 98 and Windows Me.

Table 2-1 Print drivers included with the HP LaserJet 5200 printer

Operating System[1]	PCL 6	PCL 5	PS emulation
Windows 98 and Windows Me	X	X	X
Windows 2000	X	X	X
Windows XP	X	X	X
Windows Server 2003	X	X	X
Macintosh OS			X

[1] Not all device features are available from all drivers or operating systems. See the online Help in your driver for information about the features that are available.

Print-driver version numbers for MS Windows operating systems

Access to print-driver version numbers varies, depending on the operating system in which the HP LaserJet 5200 printer is installed.

NOTE For a list of HP LaserJet 5200 print drivers, updated HP printing-system software, and product-support information, go to:

www.hp.com/go/lj5200_software

The Windows 2000, Windows XP, and Windows Server 2003 operating systems support the HP PCL 6, PCL 5, and PS emulation unidrivers. If you are using an HP unidriver in a Windows 2000, Windows XP, or Windows Server 2003 environment, follow these steps to find driver-version information:

1. Click **Start**.
2. Select **Settings**.
3. Click **Printers and Faxes** (in Windows XP and Windows Server 2003) or **Printers** (in Windows 2000).
4. Right-click the printer icon.
5. Click **Properties**.
6. Click the **About** tab.

The Windows 98 and Windows Me operating systems support the HP LaserJet 5200 PCL 6 and PCL 5 traditional print drivers and the PS Emulation Driver.

Follow these steps to gain access to an HP traditional PCL driver:

1. Click **Start**.
2. Select **Settings**.
3. Click **Printers**.
4. Right-click the device name.
5. Click **Properties** to gain access to all print-driver tabs.
6. Click the HP logo in the lower-left corner of the following HP Traditional PCL 6 Driver or HP Traditional PCL 5 Driver tabs:
   - **Finishing**
   - **Effects**
   - **Paper**
   - **Job Storage**
   - **Basics**
   - **Configure**

The PS Emulation Driver software provides postscript feature support for the HP LaserJet 5200 printer. Follow these steps to gain access to the print-driver version number:

1. Click **Start**.
2. Select **Settings**.
3. Click **Printers**.
4. Right-click the device name.
5. Click **Properties** to gain access to all print-driver tabs.
6. Click **About**.

MS Windows driver configuration

The HP LaserJet PCL 6 and PCL 5 traditional drivers for MS Windows and the HP PCL 6, PCL 5, and PS emulation unidrivers feature bidirectional communication technology which, in environments that support the drivers, provide automatic discovery and driver configuration for device accessories at the time of installation.

Some accessories that are automatically discovered and configured include the duplexing unit, optional paper trays, and dual inline memory modules (DIMMs).

Topics:

- Driver autoconfiguration
- Bidirectional communication
- Enterprise AutoConfiguration
- Update Now
- HP Driver Preconfiguration

Driver autoconfiguration

Automatic discovery and driver configuration through bidirectional communication occurs in the following circumstances:

- When a print driver is installed by using Enterprise AutoConfiguration (EAC)
- When using the Update Now feature for a driver that is already installed

However, as shown in the following table, driver autoconfiguration and EAC are *not* available in Windows 2000, Windows XP, or Windows Server 2003 operating systems over a direct connection when the HP LaserJet 5200 printer is installed by using the Add Printer Wizard.

Table 2-2 Availability of automatic discovery and driver configuration through bidirectional communication in Windows 2000, Windows XP, or Windows Server 2003

Connection type	Add Printer Wizard install	Common installer
Network	Yes	Yes
Direct connection	No	Yes

Bidirectional communication

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

Bidirectional communication is the capability of the device to respond to data inquiries from the computer and report information back, such as what type of print media is available or what accessories are connected to the device. Bidirectional communication depends on the network operating system and on the type of connection that exists between the computer and the HP LaserJet 5200. If the connection does not have this capability (that is, if it has no bidirectional mode), it can only accept commands from the host and cannot report information back to the host computer.

Enterprise AutoConfiguration

Enterprise AutoConfiguration (EAC) uses bidirectional communication to provide autoconfiguration functionality for installation of the print driver over a network, whether you use the installer on the printing-system software CD or the Add Printer wizard to install the driver. Driver 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 pre-existing bidirectional-communication software is used to configure the print driver.

If bidirectional communication software has not been installed, EAC installs bidirectional-communication software that allows it to communicate with the device and automatically match the print driver with the actual device configuration. EAC is activated during installation of the driver or whenever the Update Now feature is used.

If the HP LaserJet 5200 printer configuration changes after installation, the driver can be automatically updated with the new configuration in environments that support bidirectional communication by using the Update Now feature.

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

Table 2-3 EAC availability in MS Windows and Microsoft Share

Method	Connection type			MS Windows					Microsoft Share[1]	
				98	Me	NT 4.0	2000	XP	2000/XP host with 2000/XP client	NT 4.0 host with NT 4.0 client
Installer	Direct connect	Parallel								
		USB								
	Network	Jetdirect	TCP/IP	x	x	x	x	x	x	x[2]
			IPX/SPX	x	x	x	x	x	x	x[2]
		Standard	TCP/IP (HP)	x	x	x	x	x	x	x[2]
			TCP/IP (MS)	x	x	x	x	x	x	x[2]
			IPX/SPX (HP)	x	x	x	x	x	x	x[2]

Table 2-3 EAC availability in MS Windows and Microsoft Share (continued)

Method	Connection type			MS Windows					Microsoft Share[1]	
				98	Me	NT 4.0	2000	XP	2000/XP host with 2000/XP client	NT 4.0 host with NT 4.0 client
Add Printer	Direct connect	Parallel								
		USB								
	Network	Jetdirect	TCP/IP	x	x	x	x	x	x	
			IPX/SPX	x	x	x	x	x	x	x[2]
		Standard	TCP/IP (HP)	x	x	x	x	x	x	x[2]
			TCP/IP (MS)				x	x	x	x[2]
			IPX/SPX (HP)	x	x	x	x	x	x	x[2]

[1] This column represents the following Microsoft Share configurations: 1. Windows 2000, Windows XP, or Windows Server 2003 Server host with Windows NT 4.0, Windows 98, or Windows Me client. 2. Windows NT 4.0 host with Windows 2000, Windows XP, Windows Server 2003, Windows 98, or Windows Me client. 3. Windows 98 or Windows Me host with any client.

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

Table 2-4 EAC 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	Parallel					
		USB					
	Network	Jetdirect	TCP/IP	x	x	x	x
			IPX/SPX				
		Standard	TCP/IP (HP)				
			TCP/IP (MS[1])				
			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.

Update Now

If the HP LaserJet 5200 printer configuration has been modified since installation, the driver can be automatically updated with the new configuration in environments that support bidirectional communication. Use the Update Now feature to automatically reflect the new configuration in the driver.

For example, if the device is installed and an optional paper-handling accessory is added later, use the Update Now feature to query the device and update the settings to match the new device configuration.

The feature automatically updates the registry and changes the configuration information that appears on the **Configure** tab of the HP Traditional PCL 6 Driver or HP Traditional PCL 5 Driver, and on the **Device Settings** tab of the HP PCL 6, PCL 5, or PS emulation unidriver.

NOTE The Update Now feature is not available with the HP Traditional Postscript 3 Emulation Driver.

To activate the Update Now feature for the HP PCL 6, PCL 5, or PS emulation unidriver, follow these steps:

1. Click **Start**.
2. Select **Settings**.
3. Click **Printers** (Windows 2000) or **Printers and Faxes** (Windows XP Professional and Windows Server 2003) or **Printers and Other Hardware Devices** (Windows XP Home).
4. Right-click the device name.
5. Click **Printing Preferences**.
6. Click **Device Settings**.
7. If necessary, click **Installable Options** to expand it and show the options.
8. In the **Automatic Configuration** drop-down menu, select **Update Now**.
9. Click **OK** to save the setting.

NOTE The Update Now feature is not supported in environments where shared Windows 2000 or Windows XP clients are connected to Windows 2000 or Windows XP hosts.

To activate the Update Now feature for the HP traditional PCL 6 or PCL 5 driver, follow these steps:

1. Click **Start**.
2. Select **Settings**.
3. Click **Printers**.
4. Right-click the device name.
5. Click **Properties** to gain access to all print-driver tabs.
6. Click **Device Settings**.
7. Click the **Configure** tab.
8. In the **Automatic Configuration** group box, click **Update Now**.
9. Click **OK** to save the setting.

HP Driver Preconfiguration

HP Driver Preconfiguration is a software architecture and set of tools that permits HP printing-system 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 print drivers before installing the drivers in the network environment.

HP Driver Preconfiguration is most beneficial when configuring print drivers for multiple workstations or print servers for print queues that share the same configuration. Two types of features can be configured:

- Device settings
- Printing-preferences settings

The driver is configured to match the device hardware so that access to all of the device accessories through the driver is enabled correctly (for example, for duplexing units and additional input trays). Most driver feature settings can also be configured.

HP Driver Preconfiguration configures the driver to match the accessories that are installed on the device, or to match the settings that IT administrators make in the configuration .CFG) file (for example, optional trays, total amount of memory, or job-storage settings).

The preconfiguration process consists of three basic steps:

- Driver acquisition
- Driver preconfiguration
- Driver installation and deployment

These steps can be accomplished in different ways, depending on the tool that is being used to define the configuration.

The configuration process for driver preconfiguration is supported through three distinct tools. All three are designed with the same basic user-interface (UI) controls for interacting with the .CFG file, but are packaged differently, either to support established device installation workflows or to leave the deployment and installation of the driver entirely up to the user. The following tools support driver preconfiguration:

- **HP Driver Configuration Editor**. The HP Driver Configuration Editor is a small standalone MS Windows software program that the administrator can use to open the .CFG file that is associated with a particular driver and make modifications that are applied when that driver is installed on the target computer. It is intended for use in environments that have an established process for deploying drivers. This is the preconfiguration tool of choice to support any Novell or HP Print Server Appliance (PSA) Point and Print environments. It is used in the way that any ordinary MS Windows software program is used.

  The HP Driver Configuration Editor is available at the following Web site:

  www.hp.com/go/hpdpc_sw

- **The HP Web Jetadmin Driver Configuration Plugin**. HP Web Jetadmin provides a queue-creation program that can be used to create printer queues on any Windows 2000, Windows XP, or Windows Server 2003 or workstation. The HP Web Jetadmin Driver Configuration Plugin adds a number of screens to the existing queue-creation workflow from which the drivers that are being installed for the queues can be customized as part of the process. The plug-in is limited to Internet Explorer browsers. Netscape Navigator is not supported.

  The HP Web Jetadmin Driver Configuration Plugin is available at the following Web site:

  www.hp.com/sbso/tpm/web_jetadminplugin.html

- **HP Customization Utility/Silent Installer**. The Customization Utility features an install-time mode of HP Driver Preconfiguration. IT administrators can use the utility to preconfigure the drivers for a printing-system software driver installation that uses the silent installer.

For detailed information about gaining access to and installing these tools, download the HP Driver Configuration Utility software from the following Web site:

www.hp.com/go/hpdpc_sw

The *HP Driver Preconfiguration Support Guide* is included in the download.

Topics:

- Lockable features
- Continuous export

Lockable features

The following driver features can be locked to prevent end-users from changing settings:

- **Print on Both Sides** (duplex). The options are **True** or **False**.
- **Print in Grayscale**. The options are **Disable** or **Enabled**.
- **Media Type**. The options include all the media types that the HP LaserJet 5200 printer supports.
- **Paper Source**. The options are **Printer Auto Select**, **Manual Feed (Tray 1)**, **Tray 1**, or **Tray 2**.

When a feature is locked, the selected default option is the only option that is available to users. Generally, the feature is unavailable in the driver UI after it has been locked.

Continuous export

The term "continuous export" refers to the ability of the driver to copy the latest driver settings back to the working copy of the preconfiguration file. Using this feature, the exported values can be transferred when a compatible version of the driver is used to upgrade the print driver. For instance, if the orientation is set to **Landscape** in a driver originally installed in Windows 2000, then the orientation setting automatically remains **Landscape** when the operating system is upgraded to Windows XP or Windows Server 2003. The continuous export feature functions transparently from the user's perspective and works only between drivers of identical device models.

NOTE Not all of the driver parameters can be exported; however, the exportable components are always the same as the components that can be preconfigured.

The following table shows drivers and operating systems that support HP Driver Preconfiguration.

Table 2-5 Operating systems that support HP Driver Preconfiguration

Driver	Windows 98	Windows Me	Windows 2000	Windows XP	Windows Server 2003
HP Traditional PCL 6 Driver	Yes	Yes	N/A[1]	N/A	N/A
HP Traditional PCL 5 Driver	Yes	Yes	N/A	N/A	N/A
PS Emulation Driver	No	No	N/A	N/A	N/A
HP PCL 6 Unidriver	N/A	N/A	Yes	Yes	Yes

Table 2-5 Operating systems that support HP Driver Preconfiguration (continued)

Driver	Windows 98	Windows Me	Windows 2000	Windows XP	Windows Server 2003
HP PCL 5 Unidriver	N/A	N/A	Yes	Yes	Yes
PS Emulation Unidriver	N/A	N/A	Yes	Yes	Yes

[1] N/A: Not applicable; the driver is not supported in this operating system.

HP Driver Diagnostic Printer Check Tool

Use the HP Driver Diagnostic Printer Check Tool, a Web-based diagnostic software program, to determine whether the correct and most current print driver for the HP LaserJet 5200 printer is in use. Two methods are available to gain access to the HP Driver Diagnostic Printer Check Tool:

1. Open a Web browser.
2. Go to the following Web site:

   www.hp.com/go/drivercheck

Alternatively:

1. Open an Internet browser.
2. Go to the HP Business Support Center (BSC) at the following Web site:

   www.hp.com/go/bsc

3. Click the **self-help resources** link on the left navigation bar.
4. Click **automatic driver checker** to run the HP Driver Diagnostic Printer Check Tool.

When the HP Driver Diagnostic Printer Check Tool runs, the devices that are currently installed on the computer appear in a list. The tool gathers information about the device, drivers, and system setup in order to diagnose the software driver configuration and check the print driver.

When the HP Driver Diagnostic Printer Check Tool is open, select the HP device that you want to check. The tool verifies whether the latest driver is being used, provides feedback if an incorrect driver is being used, and indicates whether an updated driver version is available. Click the latest driver version to download and install it.

The data that the HP Driver Diagnostic Printer Check Tool gathers is stored anonymously so that HP can analyze and continuously improve its diagnostic tools. No private data is gathered from the computer.

HP Easy Printer Care

HP Easy Printer Care software is designed for end users and for those who keep printers up and running in small and large business groups. You can view the status of up to 15 supported HP LaserJet printers, set up printer and supply alerts, generate printer-usage reports, and reorder supplies from HP or a choice of resellers.

The HP Easy Printer Care Software is available through a link in the printing-system software CD, or on the Web at the following Web site:

www.hp.com/go/easyprintercare

HP Embedded Web Server

The HP Embedded Web Server (HP EWS) is a standard feature on the following HP LaserJet 5200 printer models when they are connected through a network:

- HP LaserJet 5200n
- HP LaserJet 5200tn
- HP LaserJet 5200dtn

The base model, the HP LaserJet 5200 printer, can use the HP EWS if an optional EIO Jetdirect card is installed.

The HP EWS provides a simple, easy-to-use solution for one-to-one device management. Instead of installing management software, such as HP Web Jetadmin, use HP EWS for remote management in offices that have a limited number of devices. The only requirement is that the management console must have a supported Web browser.

In environments that have a larger number of devices, in which one-to-one management is impractical, the HP Embedded Web Server and HP Web Jetadmin work together to provide scalable remote device management. Use HP Web Jetadmin to consolidate management tasks and perform operations on a selected set of devices. . For such environments, HP provides hooks between the HP EWS and HP Web Jetadmin to allow configuration of HP EWS features on multiple devices in one operation. For example, you can set the security password for the HP EWS simultaneously on a cluster of devices.

For additional information and a copy of the *HP Embedded Web Server User Guide*, go to: www.hp.com/support/lj5200.

Topics:

- Access to the HP EWS
- The HP EWS frame
- Information tab
- Links to off-product solutions
- Device Status screen
- Configuration Page
- Settings tab
- Configure device
- Alerts
- Security
- Networking tab

Access to the HP EWS

To open the HP EWS and view information about the HP LaserJet 5200 printer, open a supported Web browser and type the device transmission control protocol/internet protocol (TCP/IP) address or host name in the address field.

To find the device TCP/IP address, look for **IP Address** on the Embedded Jetdirect page, in the **TCP/IP** section. To find the host name of the device, look for **Host Name** in the **TCP/IP** section.

The TCP/IP address also appears on the device configuration page (the Embedded Jetdirect page), which can be printed from the device control-panel display. Follow these steps to print an Embedded Jetdirect page:

1. Press ✓ (the select button; the one with the check mark) to open the menus.
2. Press ▲ (the up arrow) and ▼ (the down arrow) to scroll to **INFORMATION**, and then press ✓ (select).
3. Press ▲ (up) and ▼ (down) to scroll to **PRINT CONFIGURATION**.
4. Press ✓ (select) to print the configuration page.

The HP EWS frame

Each screen in the HP EWS has a frame that contains a top banner, three category tabs, a left-aligned navigation menu bar, and a main-content area. Selecting one of the category tabs causes the corresponding left-aligned navigation bar to appear. The left-aligned navigation menu includes links to content that is appropriate for that tab. The main-content area shows information and opens options in response to navigation-tab selections and menu-bar selections.

Information tab

The following information is available on the HP EWS **Information** tab. Click the menu items on the left side of the HP EWS **Information** tab to view the information.

NOTE If an HP EWS password has been set, the **Information** tab is the only visible tab until the user logs in. See Security for more information.

Not all of the screens on the tab are included in this document. For more information, see the *HP Embedded Web Server User Guide*.

- **Device Status**. This screen provides current status information about the device.
- **Configuration Page**. This screen provides information about the device configuration.
- **Supplies Status**. This screen provides information about the print cartridge and the total pages that have been printed, and the serial number of the device.
- **Event log**. This screen provides information about reported printer errors.
- **Usage page**. This screen provides a page count for each size of media that has passed through the device, as well as the number of duplexed pages that have been printed.
- **Device Information**. This screen shows device information, such as the device TCP/IP address and serial number.
- **Control Panel**. This screen shows the device control panel.
- **Print**. Use this screen to print documents that are print-ready, such as those generated by a "print to file" driver option, .PCL documents, .PS documents, .PDF files, and text (.TXT) files.

Links to off-product solutions

Links on the HP EWS screens provide an easy way to locate information or complete tasks.

- **hp instant support**. This link connects to a set of dynamic Web resources that help you solve specific problems and determine additional services that might be available for the device. Specific status and configuration information about the device 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 HP product supplies screen from which you can order genuine HP supplies for the device.
- **Product Support**. This link connects to an HP product-support screen from which to search for information, contact the HP customer care home page, or find additional resources for the device.

Device Status screen

Status information, such as whether the device is online or the toner is low, is available through a Web browser on a computer that is linked directly to the device. You can view this information without going to the device to identify the status. The following figure shows how this information is presented on the device Web page.

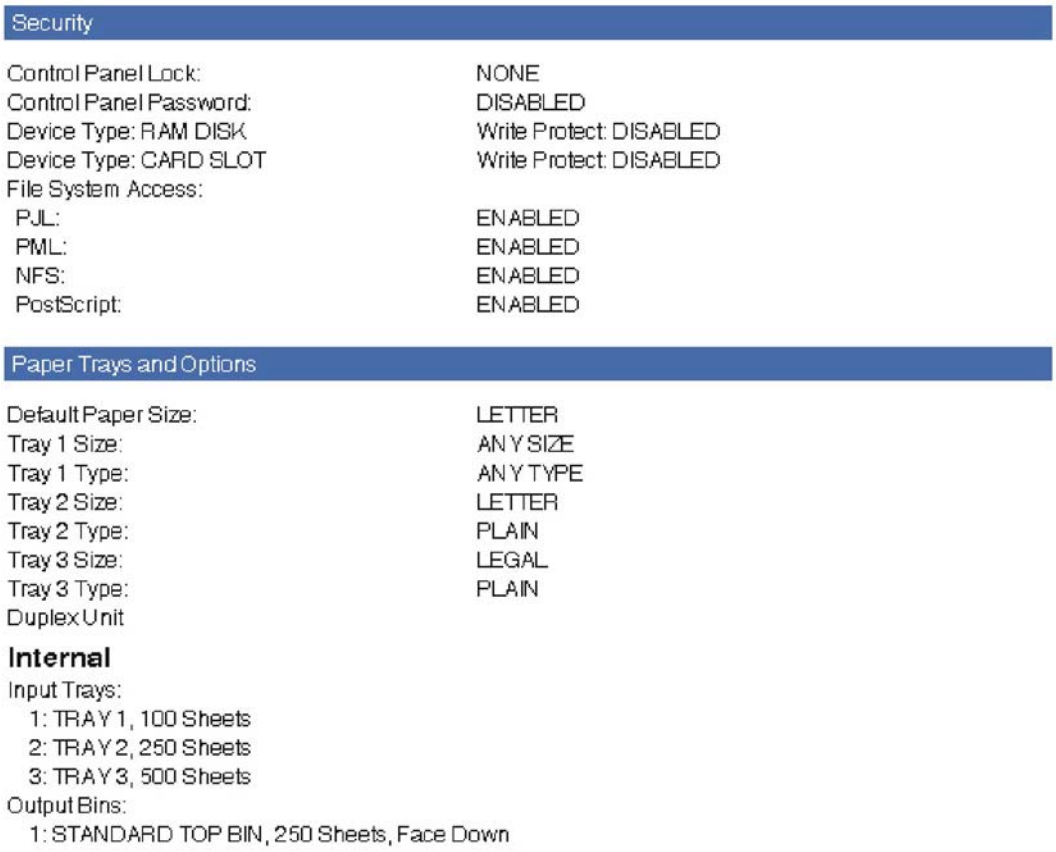
Figure 2-2 HP EWS **Information** tab – **Device Status** screen

Configuration Page

You can gain access to the HP LaserJet 5200 configuration page remotely through the HP EWS. The HP EWS **Configuration Page** screen provides configuration information about the device in the same way as the configuration page that is printed from the device. The following figures show an example of a configuration page viewed remotely through the HP EWS.

Figure 2-3 HP EWS **Information** tab – **Configuration Page** screen, 1 of 3

NOTE This figure is provided only as an example.



Security

Control Panel Lock:	NONE
Control Panel Password:	DISABLED
Device Type: RAM DISK	Write Protect: DISABLED
Device Type: CARD SLOT	Write Protect: DISABLED
File System Access:	
PJL:	ENABLED
PML:	ENABLED
NFS:	ENABLED
PostScript:	ENABLED

Paper Trays and Options

Default Paper Size:	LETTER
Tray 1 Size:	ANY SIZE
Tray 1 Type:	ANY TYPE
Tray 2 Size:	LETTER
Tray 2 Type:	PLAIN
Tray 3 Size:	LEGAL
Tray 3 Type:	PLAIN
Duplex Unit	

Internal

Input Trays:
1: TRAY 1, 100 Sheets
2: TRAY 2, 250 Sheets
3: TRAY 3, 500 Sheets

Output Bins:
1: STANDARD TOP BIN, 250 Sheets, Face Down

Figure 2-4 HP EWS **Information** tab – **Configuration Page** screen, 2 of 3

NOTE This figure is provided only as an example.

Settings tab

The following information is available on the HP EWS **Settings** tab. Click the menu items on the left side of the HP EWS **Settings** tab to view the information. The **Settings** tab is shown in the Configure device section.

Not all of the screens on the tab are shown in this document. For more information, see the *HP Embedded Web Server User Guide*.

- **Configure Device**. Use the **Configure Device** screen to print device information pages and configure the device remotely.
- **E-mail Server**. Use the **E-mail Server** screen to configure e-mail settings for outgoing e-mail.
- **Alerts**. IT administrators can configure the device to send alerts in e-mail messages to anyone.
- **AutoSend**. Use the **AutoSend** screen to send device configuration and supplies-usage information periodically to your service provider.
- **Security**. Use the **Security** screen to manage security for the device.
- **Edit Other Links**. Use the **Edit Other Links** screen to add or customize up to five links to the Web sites of your choice.

- **Device Information**. Use the **Device Information** screen to provide a name of your choice for the device, assign an asset number, and configure the company name, the person to contact about the device, and the physical location of the device.
- **Language**. Use the **Language** screen to select the language in which the HP EWS screens appear.
- **Date & Time**. Use this page to set the correct date and time for the device.
- **Wake Time**. Wake time can be set to turn on the device at a certain time on a daily basis. Only one wake-time setting can be established per day; however, each day can have a different wake time. The sleep-mode delay can also be set on this page.

Configure device

You can obtain device configuration information through a Web browser by opening the HP EWS screen and changing the basic configuration information on the **Settings** tab. Security and password controls give management information systems (MIS) managers the level of control that they require within their network environments. The following figure shows an example of device options that can be configured remotely.

Figure 2-5 HP EWS **Settings** tab – **Configure Device** screen

Alerts

The device can automatically send e-mail alerts about printing problems or job status to specified e-mail addresses. For example, if toner is low, the device can notify the person who is responsible for ordering or changing the print cartridge. If a device failure occurs, the device 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 uniform resource locators (URLs) for expanded notification.

Figure 2-6 HP EWS **Settings** tab – **Alerts** screen, 1 of 2

NOTE This figure is provided only as an example.

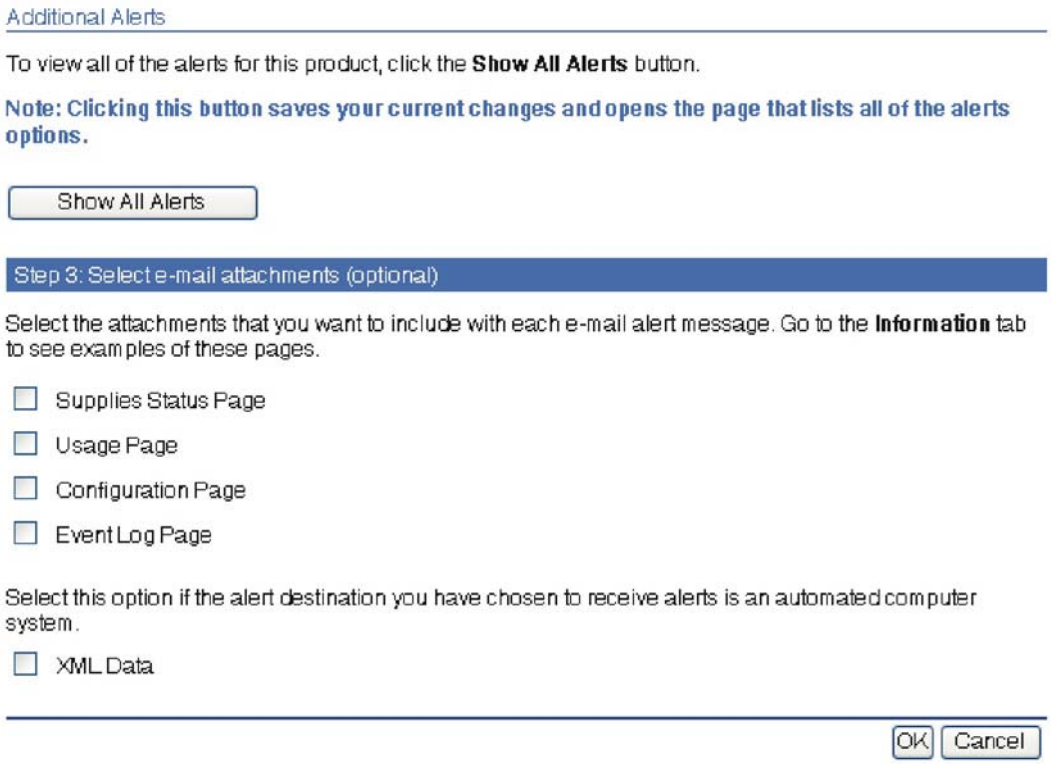


Figure 2-7 HP EWS **Settings** tab – **Alerts** screen, 2 of 2

NOTE This figure is provided only as an example.

Security

The HP EWS screens that appear, and the settings on them, vary according to the HP EWS is accessed. Three modes of user access are possible:

- General user
- IT administrator
- Service provider

To control access to the HP EWS screens, set a password on the **Security** page.

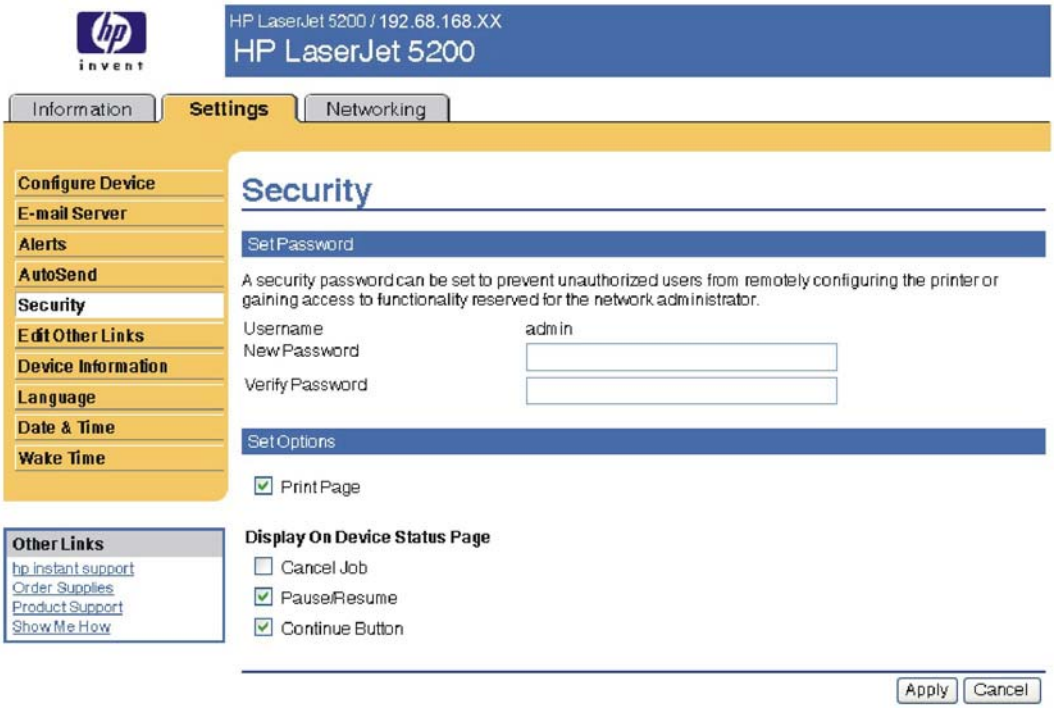


Figure 2-8 HP EWS **Settings** tab – **Security** screen

In a password-protected HP EWS, only the **Information** tab is available to users who do not log in by using the password. If no password is set (which is the default configuration), all of the tabs are visible.

If a password has been set, you must log on as an IT administrator or a service provider to gain access to the protected HP EWS tabs (**Settings** and **Networking**).

Networking tab

The HP EWS **Networking** tab is shown in the following figure.

NOTE Not all of the screens on the tab are shown in this document. For more information, see the *HP Jetdirect Administrator's Guide*.

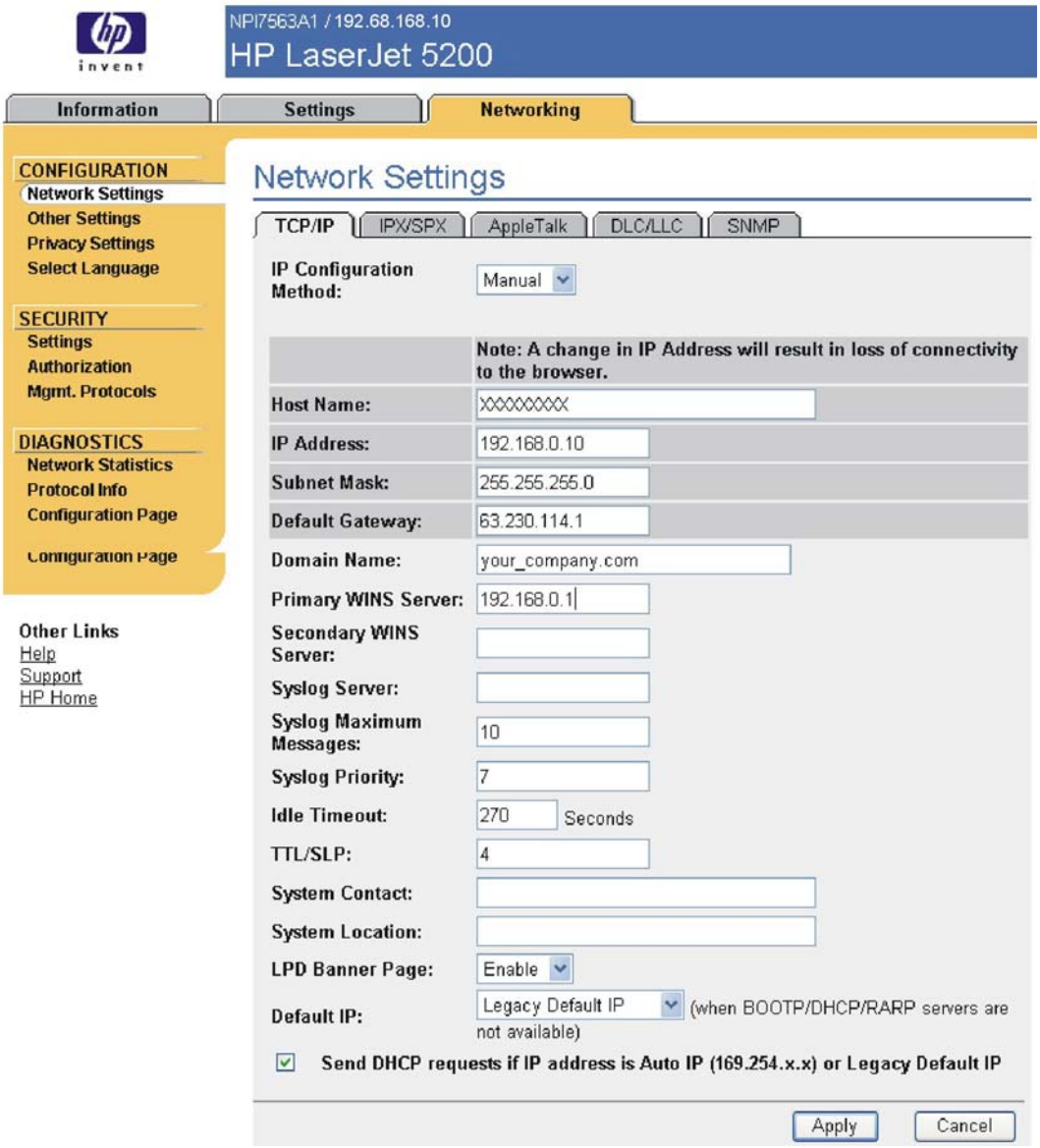


Figure 2-9 HP EWS **Networking** tab – **Network Settings** screen

The menu on the left side of the screen contains other networking options under three categories:

- Configuration
- Security section
- Diagnostics section

Configuration

- **Network Settings** From the Network Settings screen, enable and configure the following network protocols:
  - TCP/IP
  - Internetwork packet exchange/Sequenced packet exchange (IPX/SPX)

    - AppleTalk
    - Data link control/logical link control (DLC/LLC)
    - Simple network management protocol (SNMP)
- **Other Settings**
- **Privacy Settings**
- **Select Language**

Security section

- Settings
- Authorization
- Mgmt. Protocols

Diagnostics section

- Network Statistics
- Protocol Info
- Configuration Page

HP Web Jetadmin

Use the HP Web Jetadmin and a browser to manage HP Jetdirect-connected devices within an intranet. HP Web Jetadmin is a browser-based management tool, and should be installed only on a single network-administration server.

To download a current version of HP Web Jetadmin, and for the latest list of host systems that support HP Web Jetadmin, go to the following Web site:

www.hp.com/go/webjetadmin

3 Install MS Windows printing-system components

Introduction

The HP LaserJet 5200 printer comes with software and installers for MS Windows and Apple Computer, Inc., Macintosh systems. Linux and UNIX systems support the HP LaserJet 5200, and software is available on the Web. This document provides procedures for installing and removing the HP LaserJet 5200 printing-system software for MS Windows operating systems.

NOTE If the computer is running a 64-bit MS Windows operating system, you must install the corresponding 64-bit print driver. For instructions, see Install print drivers by using Add Printer.

Topics:

- Font support
- Print-driver install instructions

Font support

The following sections list the fonts that are included with MS Windows software, and the fonts that are available on the CD that came with the device.

Topics:

- Basic fonts
- Default fonts

Basic fonts

MS Windows software includes these basic fonts, which can be used with any HP printing device:

- 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 Full Installation of the HP LaserJet 5200 printing-system software.

Table 3-1 Default fonts

Font name	Font style	File name
Albertus Extra Bold	Regular	ALBR85W.TTF
Albertus Medium	Regular	ALBR55W.TTF
Antique Olive	Regular	OLVR55W.TTF
Antique Olive	Bold	OLVR75W.TTF
Antique Olive	Italic	OLVR56W.TTF

Table 3-1 Default fonts (continued)

Font name	Font style	File name
CG Omega	Regular	CGOR45W.TTF
CG Omega	Bold	CGOR65W.TTF
CG Omega	Bold Italic	CGOR66W.TTF
CG Omega	Italic	CGOR46W.TTF
CG Times	Regular	CGTR45W.TTF
CG Times	Bold	CGTR65W.TTF
CG Times	Bold Italic	CGTR66W.TTF
CG Times	Italic	CGTR46W.TTF
Clarendon Condensed	Bold	CLAR67W.TTF
Coronet	Regular	CORONET.TTF
CourierPS	Regular	CPSR45W.TTF
CourierPS	Bold	CPSR65W.TTF
CourierPS	Bold Oblique	CPSR66W.TTF
CourierPS	Oblique	CPSR46W.TTF
Garamond	Antiqua	GARR45W.TTF
Garamond	Halbfett	GARR65W.TTF
Garamond	Kursiv	GARR46W.TTF
Garamond	Kursiv Halbfett	GARR66W.TTF
Helvetica®	Regular	HELR45W.TTF
Helvetica	Bold	HELR65W.TTF
Helvetica	Bold Oblique	HELR66W.TTF
Helvetica Narrow	Regular	HELR47W.TTF
Helvetica Narrow	Bold	HELR67W.TTF
Helvetica Narrow	Bold Oblique	HELR68W.TTF
Helvetica Narrow	Oblique	HELR48W.TTF
Helvetica	Oblique	HELR46W.TTF
ITC Avant Garde Gothic	Book	AVGR45W.TTF
ITC Avant Garde Gothic	Book Oblique	AVGR46W.TTF
ITC Avant Garde Gothic Demi	Regular	AVGR65W.TTF
ITC Avant Garde Gothic Demi	Oblique	AVGR66W.TTF
ITC Bookman Light	Regular	BOKR35W.TTF
ITC Bookman Light	Italic	BOKR36W.TTF
ITC Bookman Demi	Regular	BOKR75W.TTF
ITC Bookman Demi	Italic	BOKR76W.TTF

Table 3-1 Default fonts (continued)

Font name	Font style	File name
ITC Zapf Chancery	Medium Italic	CHANC___.TTF
ITC Zapf Dingbats	Regular	DINGS___.TTF
Letter Gothic	Regular	LETR45W.TTF
Letter Gothic	Bold	LETR65W.TTF
Letter Gothic	Italic	LETR46W.TTF
Marigold	Regular	MARIGOLD.TTF
New Century Schoolbook	Bold	NCSR75W.TTF
New Century Schoolbook	Bold Italic	NCSR76W.TTF
New Century Schoolbook	Italic	NCSR56W.TTF
New Century Schoolbook	Roman	NCSR55W.TTF
Palatino	Bold	PALR65W.TTF
Palatino	Bold Italic	PALR66W.TTF
Palatino	Italic	PALR46W.TTF
Palatino	Roman	PALR45W.TTF
SymbolPS	Regular	SYMPS__.TTF
Times*	Bold	TIMR65W.TTF
Times	Bold Italic	TIMR66W.TTF
Times	Italic	TIMR46W.TTF
Times	Roman	TIMR45W.TTF
Univers	Bold	UNVR65W.TTF
Univers	Bold Italic	UNVR66W.TTF
Univers Condensed	Bold	UNVR67W.TTF
Univers Condensed	Bold Italic	UNVR68W.TTF
Univers Condensed	Medium	UNVR57W.TTF
Univers Condensed	Medium Italic	UNVR58W.TTF
Univers	Medium	UNVR55W.TTF
Univers	Medium Italic	UNVR56W.TTF

Ninety-two additional PS emulation fonts are also available on the CD.

Table 3-2 Additional PS emulation fonts

Font name	Font style	File name
Albertus MT	Regular	PS_12639.TTF
Albertus MT	Italic	PS_12640.TTF

Table 3-2 Additional PS emulation fonts (continued)

Font name	Font style	File name
Albertus MT Lt	Regular	PS_14530.TTF
Antique Olive CompactPS	Regular	PS_11120.TTF
Antique Olive Roman	Regular	PS_11119.TTF
Antique Olive Roman	Bold	PS_11118.TTF
Antique Olive Roman	Italic	PS_11846.TTF
Apple Chancery	Italic	PS_24516.TTF
Bodoni Poster	Regular	PS_12704.TTF
Bodoni PosterCompressed	Regular	PS_14508.TTF
BodoniPS	Regular	PS_12581.TTF
BodoniPS	Bold	PS_12585.TTF
BodoniPS	Bold Italic	PS_12586.TTF
BodoniPS	Italic	PS_12582.TTF
Candid	Regular	PS_24517.TTF
Chicago	Regular	PS_24518.TTF
Clarendon Light	Regular	PS_14513.TTF
ClarendonPS	Regular	PS_10269.TTF
ClarendonPS	Bold	PS_12968.TTF
Cooper Black	Regular	PS_10369.TTF
Cooper Black	Italic	PS_10370.TTF
Copperplate32bc	Regular	PS_14514.TTF
Copperplate33bc	Regular	PS_14515.TTF
CoronetPS	Italic	PS_10249.TTF
Eurostile	Regular	PS_10267.TTF
Eurostile Bold	Regular	PS_10268.TTF
Eurostile ExtendedTwo	Bold	PS_14512.TTF
Eurostile ExtendedTwo	Regular	PS_14511.TTF
Geneva	Regular	PS_24509.TTF
GillSans	Regular	PS_13872.TTF
GillSans	Bold	PS_13874.TTF
GillSans	Bold Italic	PS_13875.TTF
GillSans Condensed	Regular	PS_14053.TTF
GillSans Condensed	Bold	PS_14054.TTF
GillSans ExtraBold	Regular	PS_14051.TTF
GillSans	Italic	PS_13873.TTF

Table 3-2 Additional PS emulation fonts (continued)

Font name	Font style	File name
GillSans Light	Italic	PS_13871.TTF
GillSans Light	Regular	PS_13870.TTF
Goudy	Bold	PS_12544.TTF
Goudy	Bold Italic	PS_10695.TTF
Goudy	Regular	PS_12542.TTF
Goudy ExtraBold	Regular	PS_12545.TTF
Goudy	Italic	PS_12543.TTF
Helvetica Condensed	Regular	PS_14526.TTF
Helvetica Condensed	Bold	PS_14528.TTF
Helvetica Condensed	Bold Italic	PS_14529.TTF
Helvetica Condensed	Italic	PS_14527.TTF
Hoefler Text	Regular	PS_24519.TTF
Hoefler Text Black	Regular	PS_24521.TTF
Hoefler Text Black	Italic	PS_24522.TTF
Hoefler Text	Italic	PS_24520.TTF
Hoefler Text Ornaments	Regular	PS_24523.TTF
Joanna MT	Regular	PS_14503.TTF
Joanna MT	Bold	PS_14505.TTF
Joanna MT	Bold Italic	PS_14506.TTF
Joanna MT	Italic	PS_14504.TTF
Letter Gothic	Italic	PS_13778.TTF
Letter GothicPS	Regular	PS_13777.TTF
Letter GothicPS	Bold	PS_13779.TTF
Letter GothicPS	Bold Italic	PS_13780.TTF
Lubalin Graph	Regular	PS_12675.TTF
Lubalin Graph	Bold	PS_12677.TTF
Lubalin Graph	Bold Italic	PS_12625.TTF
Lubalin Graph	Italic	PS_12623.TTF
MarigoldPS	Regular	PS_94073.TTF
Mona Lisa Recut	Regular	PS_14525.TTF
Monaco	Regular	PS_24524.TTF
New York	Regular	PS_24510.TTF
Optima	Regular	PS_12506.TTF
Optima	Bold	PS_12510.TTF

Table 3-2 Additional PS emulation fonts (continued)

Font name	Font style	File name
Optima	Bold Italic	PS_12511.TTF
Optima	Italic	PS_12507.TTF
Oxford	Italic	PS_14072.TTF
StempelGaramond Roman	Italic	PS_11546.TTF
StempelGaramond Roman	Regular	PS_11545.TTF
StempelGaramond Roman	Bold	PS_11547.TTF
StempelGaramond Roman	Bold Italic	PS_11548.TTF
Taffy	Regular	PS_14507.TTF
Univers 45 Light	Regular	PS_13501.TTF
Univers 45 Light	Bold	PS_14023.TTF
Univers 45 Light	Bold Italic	PS_14024.TTF
Univers 45 Light	Italic	PS_13502.TTF
Univers 47 CondensedLight	Bold	PS_14030.TTF
Univers 47 CondensedLight	Bold Italic	PS_14040.TTF
Univers 55	Regular	PS_14021.TTF
Univers 55	Italic	PS_14022.TTF
Univers 57 Condensed	Regular	PS_14029.TTF
Univers 57 Condensed	Italic	PS_14039.TTF
Univers ExtendedPS	Bold	PS_13548.TTF
Univers ExtendedPS	Regular	PS_13547.TTF
Univers ExtendedPS	Bold Italic	PS_14481.TTF
Univers ExtendedPS	Italic	PS_14480.TTF

Print-driver install instructions

Topics:

- General MS Windows install instructions
- Detailed MS Windows install instructions
- Set a default printer

General MS Windows install instructions

Installation is similar for the Windows 98, Windows Me, Windows 2000, and Windows XP operating systems. The Windows NT 4.0 operating system does *not* support the HP LaserJet 5200 printer.

NOTE The HP Traditional PCL 6 Driver, the HP Traditional PCL 5 Driver, and the PS Emulation Driver are available on the printing-system software CD.

If the HP LaserJet 5200 printer is connected through a file or print server, the 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 and some driver autoconfiguration methods are not available to the client systems.

For Windows 2000, and Windows XP, administrator rights on the system are necessary to install the software.

When the HP LaserJet 5200 printing-system installer runs, the HP LaserJet uninstaller is always added to the system.

Topics:

- Install from the printing-system CD
- Install from a network or from downloaded files

Install from the printing-system CD

Follow these instructions to install the HP LaserJet 5200 printing system from the CD that came with the device.

1. Quit all software programs.
2. Insert the CD in the CD-ROM drive.

   NOTE If the CD 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.

3. Click **Install Printer** and follow the onscreen prompts.

Install 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 device is installed. For detailed installation instructions, see Detailed MS Windows install instructions.

Detailed MS Windows install instructions

A series of dialog boxes appear during installation of the HP LaserJet 5200 printing-system software in MS Windows environments.

Topics:

- Help, Back, Next, and Cancel buttons
- Modify a pre-existing installation
- Direct-connect installation through a USB or parallel port
- Basic, Full, and Custom Installation dialog box sequence
- Install print drivers by using Add Printer
- Installer Customization Wizard for Windows
- Point and Print installation for Windows 98, Windows Me, Windows 2000, Windows XP, and Windows Server 2003

Help, Back, Next, and Cancel buttons

Click the **Help** button on any screen where it appears to find suggestions for and explanations about the installation process.

Click the **Back** button on any installation dialog box to return to the previous dialog box. The specific dialog box depends on your previous selections.

Select any options on a given screen and click the **Next** button to proceed to the next step in the installation sequence.

To exit the installation sequence without installing the device, follow these steps from any dialog box where the **Cancel** button appears.

1. Click **Cancel**. A dialog box opens that prompts you with this question: “Are you sure you want to cancel the installation?”

Figure 3-1 **Are you sure you want to cancel the installation?** dialog box

2. Click **Yes**. The **Cancel** dialog box opens, stating that the setup was interrupted.

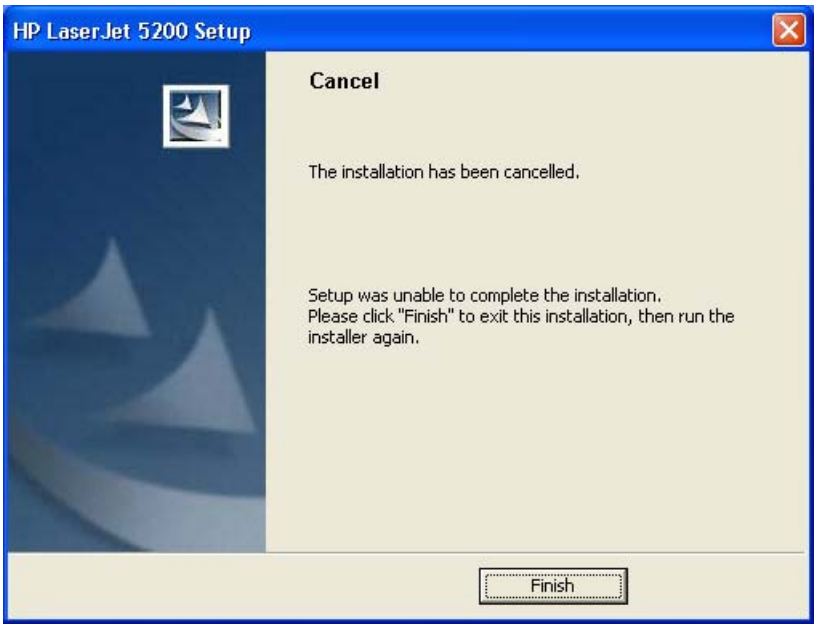


Figure 3-2 **Cancel** dialog box

3. Click **Finish** to close the installation screens.

Modify a pre-existing installation

If an HP LaserJet 5200 printer has been previously installed, the appearance of the main install screen changes on the CD Browser, and the install-printer setting changes to **modify installation**. A pre-existing installation also changes the sequence of installation screens that are presented, depending on the selections that are made.

Direct-connect installation through a USB or parallel port

The printing-system software should be installed *before* the HP LaserJet 5200 printer is connected to the computer through a parallel or USB connection and turned on. During the installation process, the software will prompt you to connect the device during installation.

Basic, Full, and Custom Installation dialog box sequence

NOTE The dialog boxes shown in this document appear in the Windows XP Professional installation sequence. The order and appearance of dialog boxes can vary among operating systems.

The Full Installation includes the following components:

- HP LaserJet 5200 PCL 6 Driver
- Screen Fonts
- Install Notes
- User Guide

When you select the **Install Printer** option from the HP LaserJet 5200 printing-system software CD, the **Language Selection** dialog box appears.

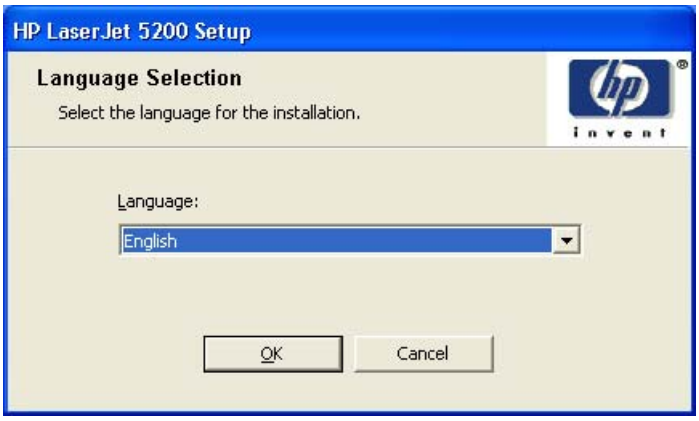


Figure 3-3 **Language Selection** dialog box

NOTE The **Language Selection** dialog box lists only the languages that are available on the HP LaserJet 5200 printing-system software CD.

The installer automatically detects the language that the computer system uses and presents this selection as the default.

Select any other language that is available on the CD by clicking the down arrow in the drop-down menu.

Click **OK** to initiate the printing-system setup. The **Welcome** dialog box appears.

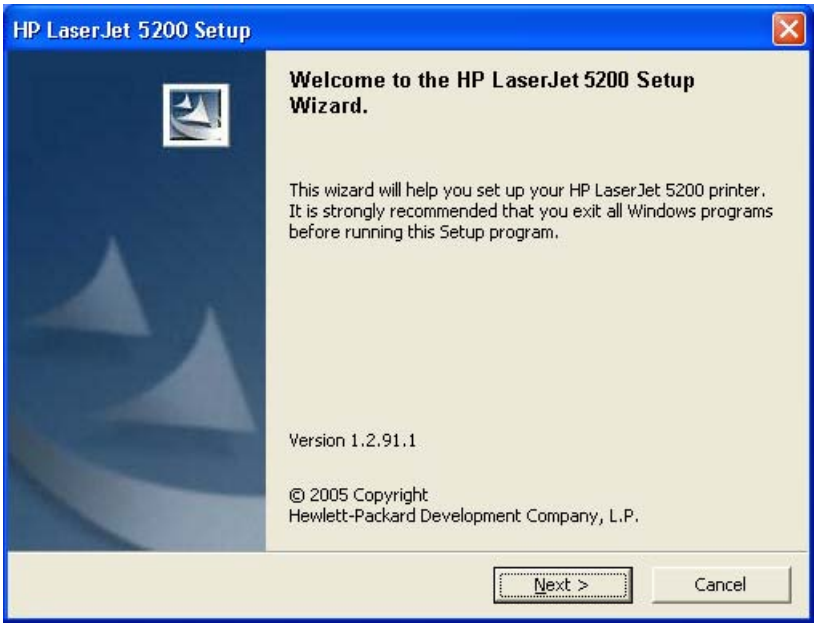


Figure 3-4 **Welcome to the HP LaserJet 5200 Setup Wizard** dialog box

NOTE The Windows NT 4.0 operating system does not support the HP LaserJet 5200 printer. If you try to install the printer in a Windows NT 4.0 environment, the following screen appears.

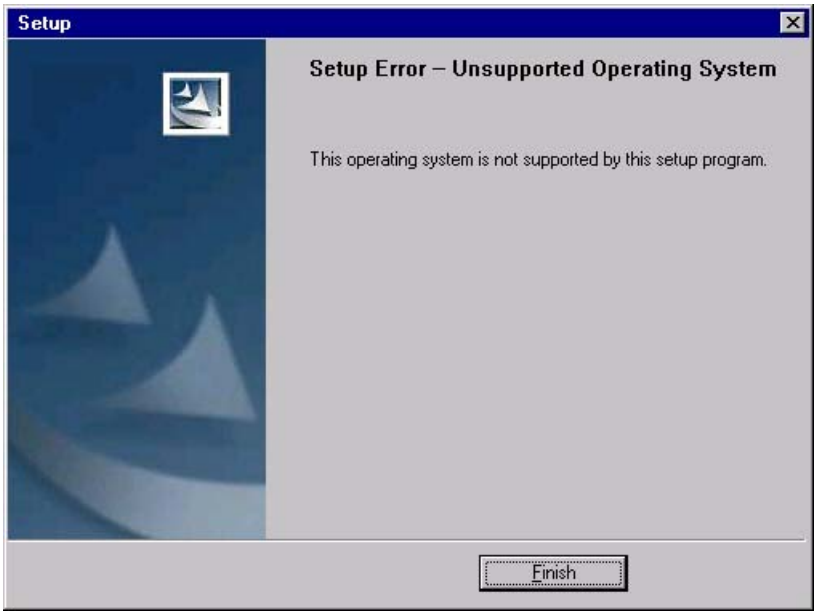


Figure 3-5 Setup Error – Unsupported Operating System

When installing the device on a supported operating system, click **Next** on the **Welcome** screen to continue the installation. The **Software License Agreement** dialog box appears, as shown in the following figure.

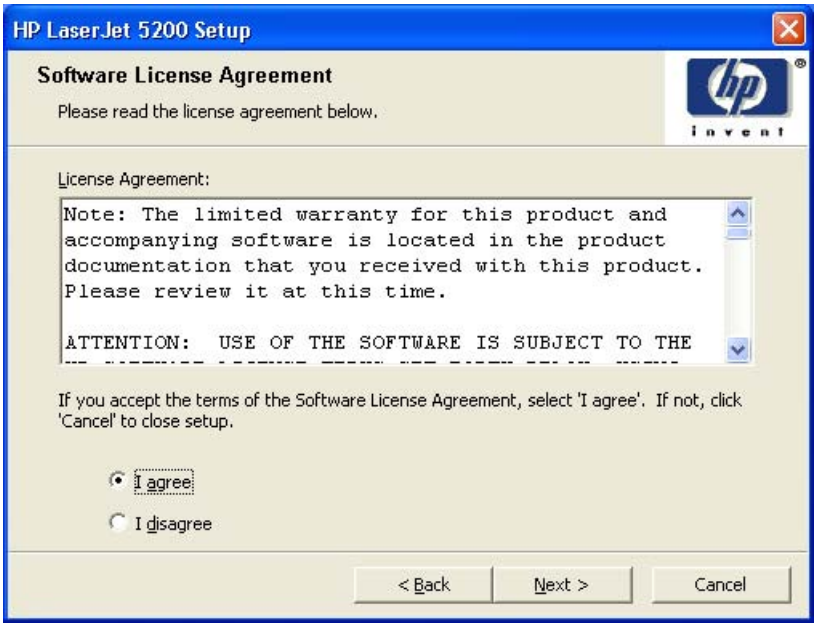


Figure 3-6 **Software License Agreement** dialog box

The **I disagree** option is selected by default. Read the software-license agreement, click **I agree**, and then click **Next** to proceed with the installation.

The **Printer Connection** dialog box opens, as shown in the following figure.

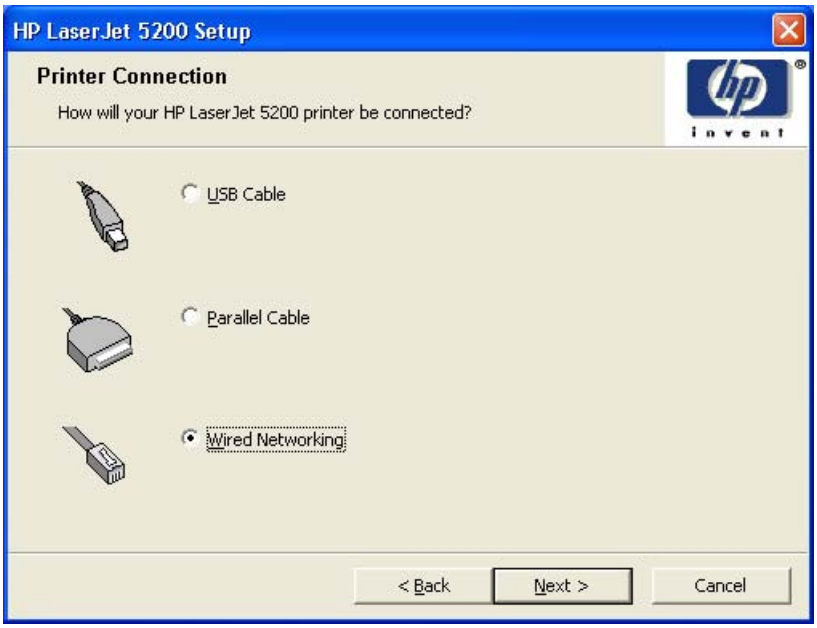


Figure 3-7 **Printer Connection** dialog box

NOTE The HP LaserJet 5200 printer does not support infrared connections.

If you click **USB Cable** (a "direct connection" using a USB 2.0 cable), and then click **Next**, the **Installation Type** dialog box opens. This is the default option.

If you click **Parallel Cable** (a "direct connection" using a parallel cable), and then click **Next**, the **Installation Type** dialog box opens.

To continue with the default installation sequence, see Figure 3-20 Installation Type dialog box.

NOTE The printing-system software should be installed *before* the HP LaserJet 5200 printer is connected to the computer through a parallel or USB connection and turned on. During the installation process, the software will prompt you to connect the device during installation.

If you are installing the HP LaserJet 5200 printer over the network, click **Wired Networking** in the **Printer Connection** dialog box.

For a network installation, the HP LaserJet 5200 printer must be connected to the network and turned on before the printing-system software is installed so that the software can detect the printer.

NOTE For wireless installation instructions using an HP Jetdirect ew2400 802.11g Wireless Print Server or an HP Direct 380x802.11B wireless print server, consult the documentation that comes with the print server.

Click **Next** to continue. The **Searching** dialog box opens, as shown in the following figure.

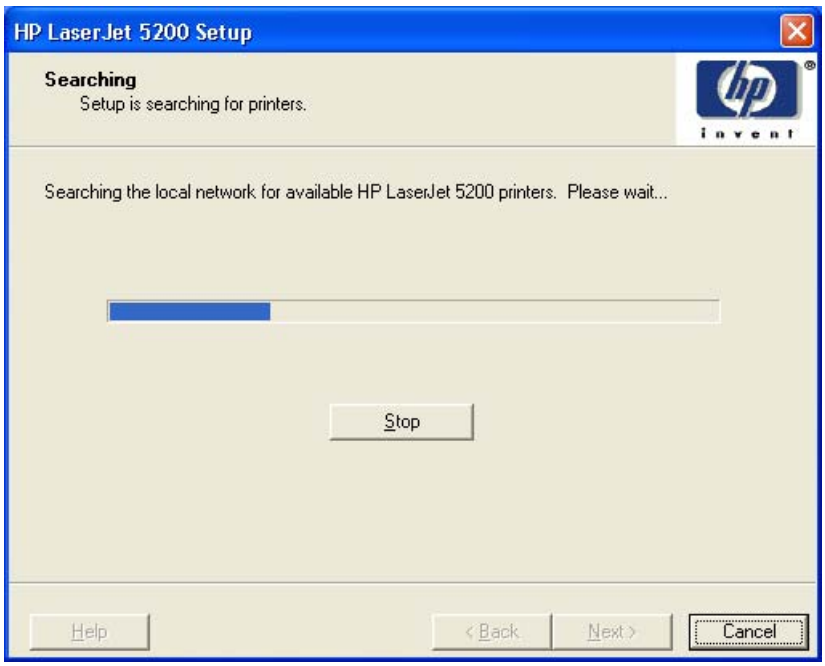


Figure 3-8 Searching dialog box

NOTE If you are installing the device over a network, you must let the search for the first subnet in the network finish in order to find all available printers. After the first subnet is scanned for available HP LaserJet 5200 printers, the results appear in the **Printers Found** dialog box. However, the installer continues to search the network for additional printers after the first results appear. The results of searching the first subnet usually takes place within about 20 seconds. It might take some time for the installer to search the other subnets and for the full list of printers to appear in the **Printers Found** dialog box (see Figure 3-11 Printers Found dialog box), depending on the configuration of the network.

NOTE The installation process includes the option of using the TCP/IP address for the HP LaserJet 5200 printer, which might be preferable to waiting for the installer to finish the search.

If the network has a firewall that is blocking the installation, the **Firewall Detected** dialog box appears, as shown in the following figure.

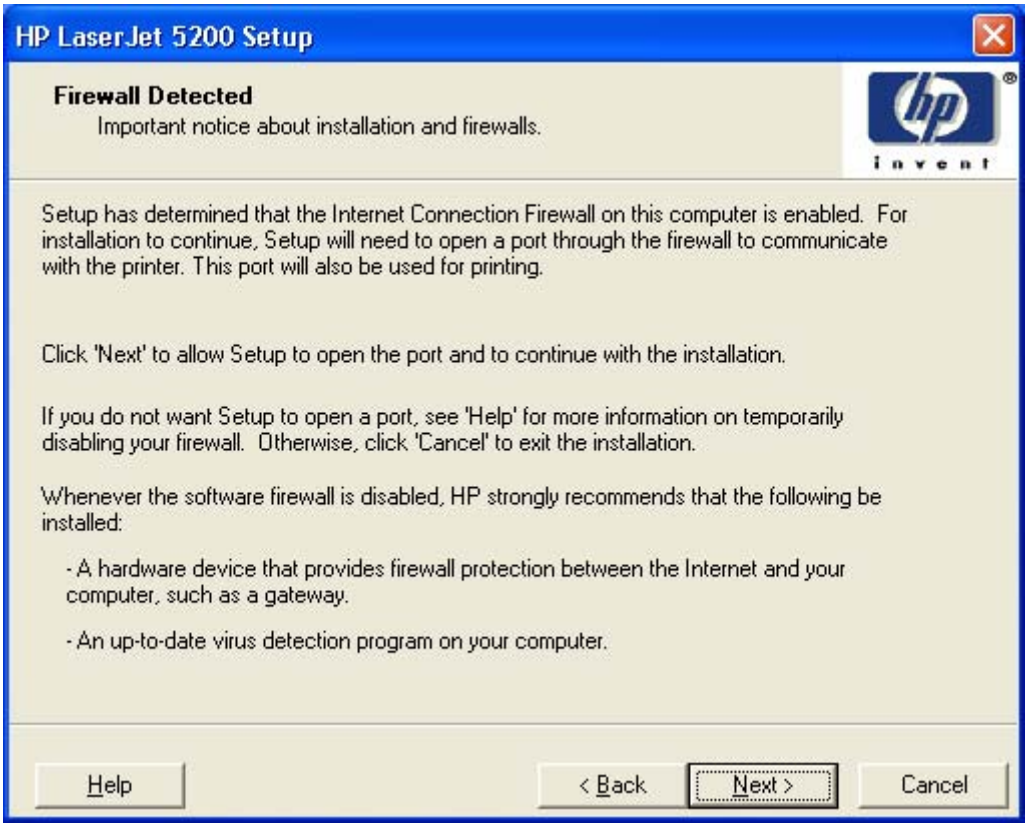


Figure 3-9 Firewall Detected dialog box

If you are performing a network installation and no printer is found, the **Printer Not Found** dialog box appears, as shown in the following figure.

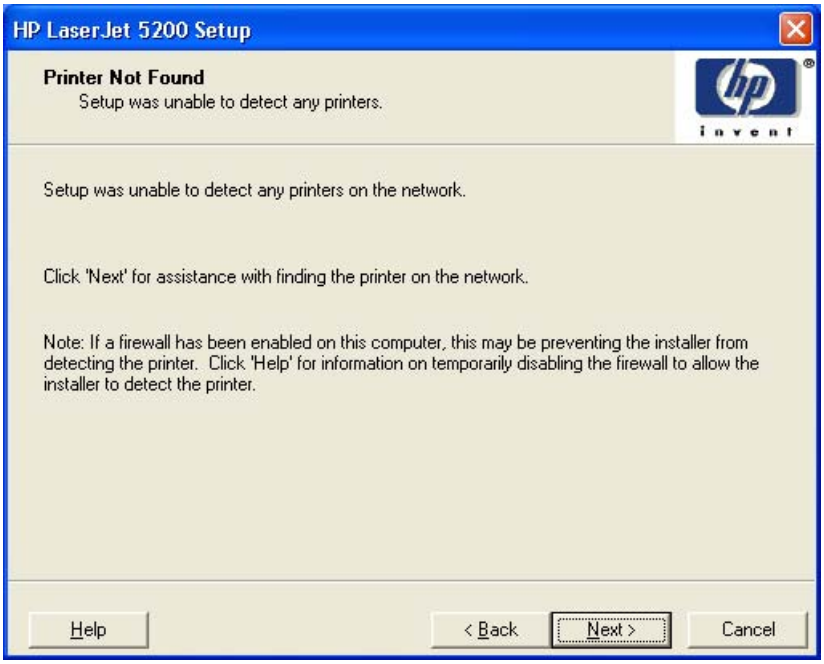


Figure 3-10 Printer Not Found dialog box

The device might not be connected to the network. Ensure that the printer is connected and is turned on. If a firewall is blocking the installation and you want the installer to open a port through the firewall, click **Next**.

The **Searching** dialog box appears (see Figure 3-8 Searching dialog box).

If a printer is found, the **Printers Found** dialog box appears, with a list of matching devices that have been found on the network. The **Printer Found** dialog box is shown in the following figure.

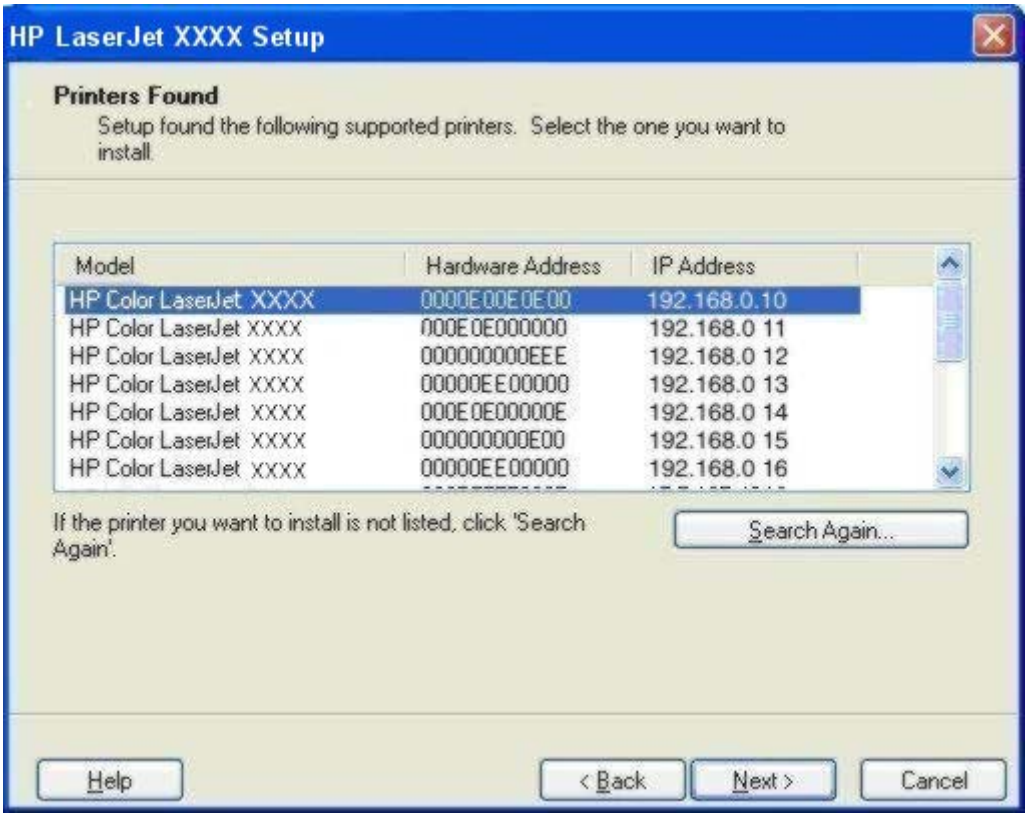


Figure 3-11 **Printers Found** dialog box

Select the printer that you want to install and click **Next**. The **Confirm Network Settings** dialog box opens (see Figure 3-13 Confirm Network Settings dialog box).

If the printer is that you want to install is not listed and you want the installer to continue searching network subnet masks, click **Search Again…**. The **Check Printer Connection** screen appears (see Figure 3-15 Check Printer Connection dialog box). Select a search option and click **Next** to perform another search.

If the printer that you want to install is not listed and you know its TCP/IP address, click **Next**. The **Confirm Network Settings** dialog box opens. See Figure 3-13 Confirm Network Settings dialog box and follow the instructions for changing the TCP/IP address.

If a single printer is found, the **Printer Found** dialog box appears, with a list of matching devices that have been found on the network. The **Printer Found** dialog box is shown in the following figure.

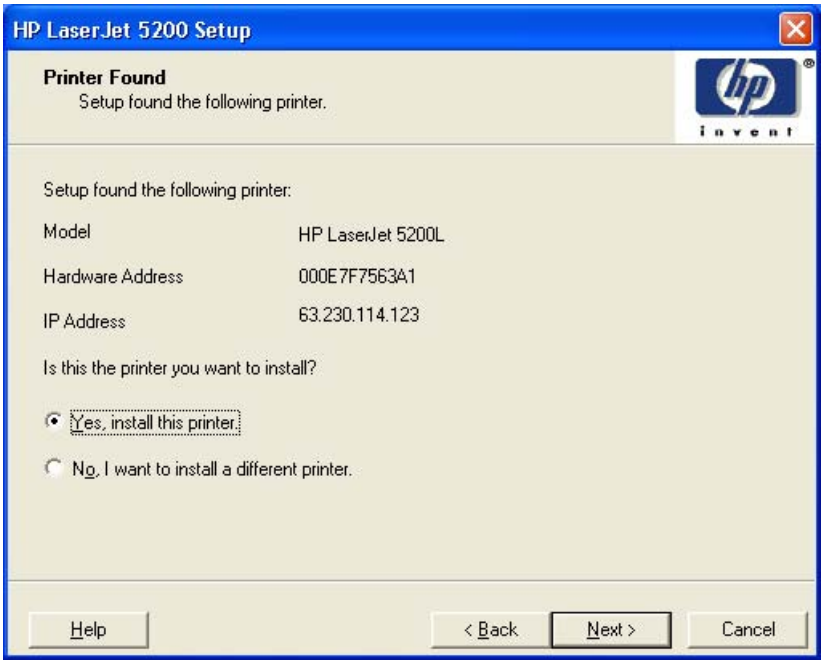


Figure 3-12 **Printer Found** dialog box

If you click **No, I want to install a different printer** and then click **Next**, the **Check Printer Connection** dialog box opens, advising you to make sure the cable is properly connected, and giving you the option of searching again for a network printer or specifying a printer by address (see Figure 3-15 Check Printer Connection dialog box).

If you click **Yes, install this printer** and then click **Next**, the **Confirm Network Settings** dialog box opens, as shown in the following figure.

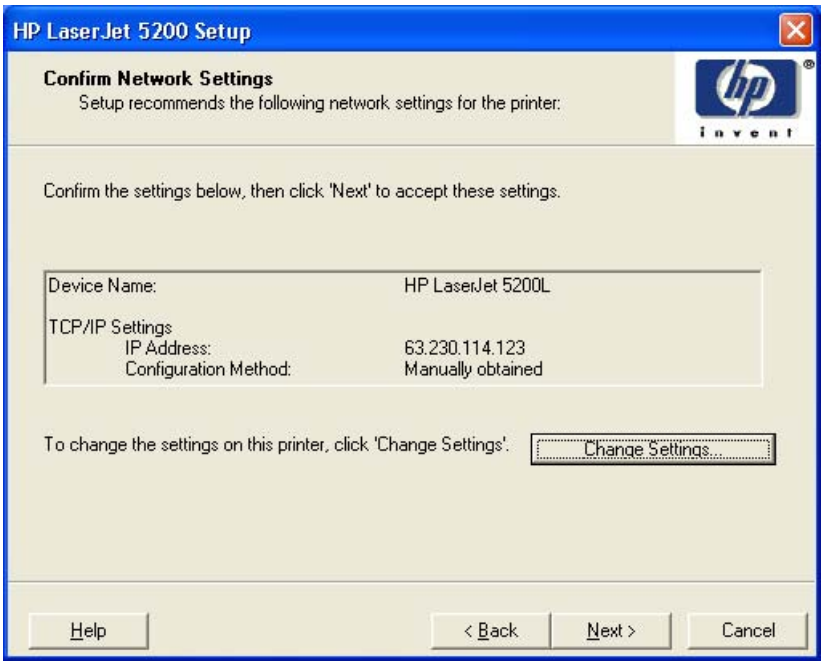


Figure 3-13 **Confirm Network Settings** dialog box

In the **Confirm Network Settings** dialog box, click **Next** to continue the installation. The **Installation Type** dialog box opens (see Figure 3-20 Installation Type dialog box).

If you click **Change Settings…**, the **Confirm Change Setting** dialog box opens, as shown in the following figure.

WARNING! When you change the TCP/IP configuration by using the **Change Settings** button, you change the actual settings in the device Jetdirect card. You should make changes to these settings only with the advice of your network administrator.

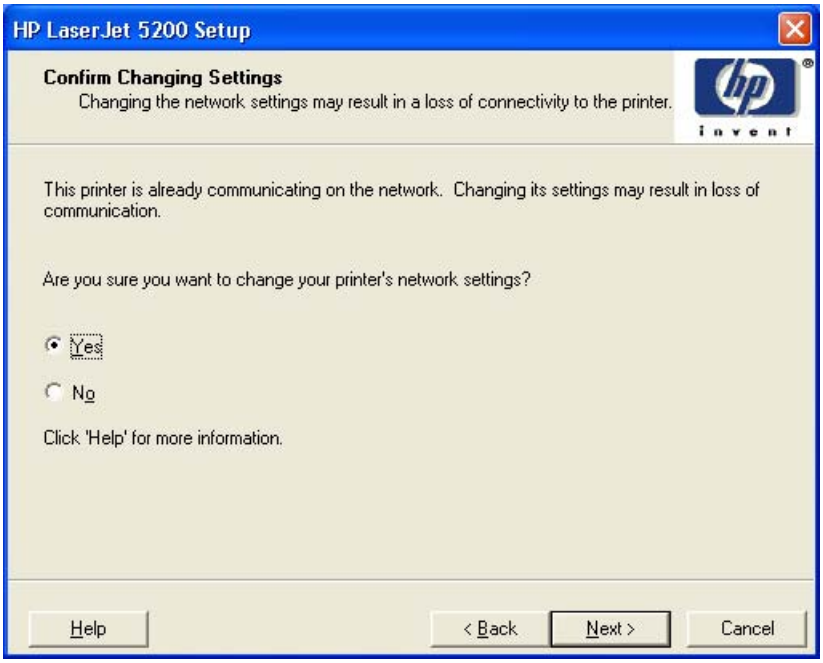


Figure 3-14 Confirm Changing Setting dialog box

If you click **No**, the **Installation Type** dialog box opens (see Figure 3-20 Installation Type dialog box).

If you click **Yes**, the **Change TCP/IP Settings** dialog box opens (see Figure 3-19 Change TCP/IP Settings dialog box).

The **Check Printer Connection** dialog box, which appears if you selected **No, I want to install a different printer** in the **Printer Found** dialog box or if the system failed to detect the device over the network, is shown in the following figure.

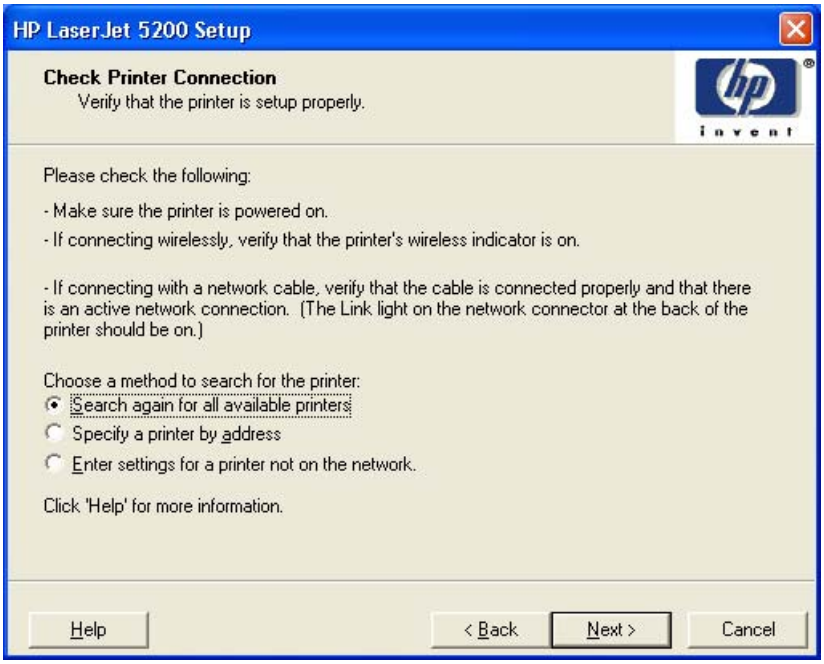


Figure 3-15 Check Printer Connection dialog box

If you click **Search again for all available printers** and then click **Next**, the **Searching** dialog box opens (see Figure 3-8 Searching dialog box).

If you click **Specify Printer by address** and then click **Next**, the **Specify Printer** dialog box opens. The **Specify Printer** dialog box is shown in the following figure.

If you click **Enter settings for a printer not on the network** and then click **Next**, the **Printer Settings** dialog box opens (see Figure 3-17 Printer Settings dialog box).

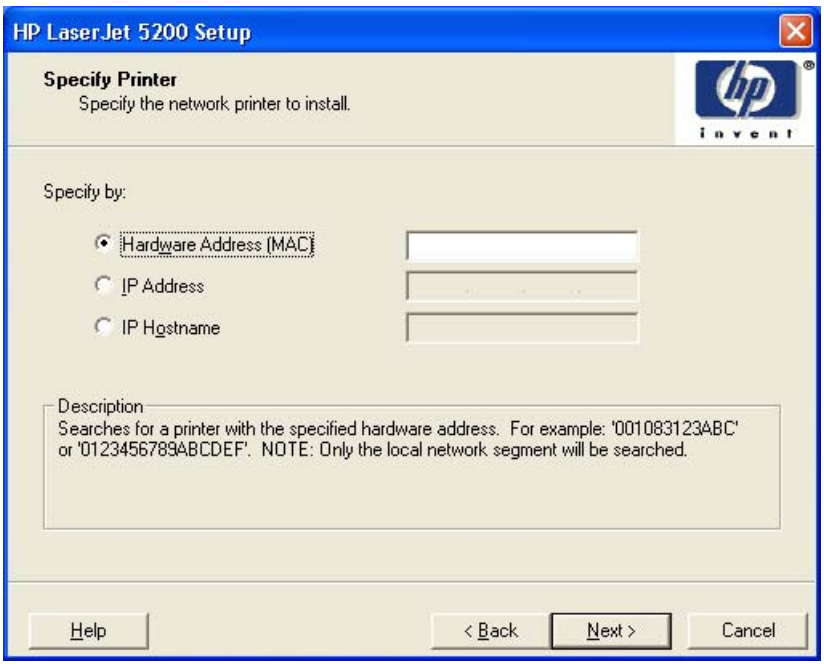


Figure 3-16 Specify Printer dialog box

You can specify a printer by clicking one of the following options and typing in the required information:

- **Hardware Address (MAC)**
- **IP Address**
- **IP Hostname**

When you click **Next**, the **Searching** dialog box opens. When the search is finished, the **Printer Found** dialog box opens (see Figure 3-11 Printers Found dialog box).

If you clicked **Enter settings for a printer not on the network** in the **Check Printer Connection** dialog box and then clicked **Next**, the **Printer Settings** dialog box opens, as shown in the following figure.

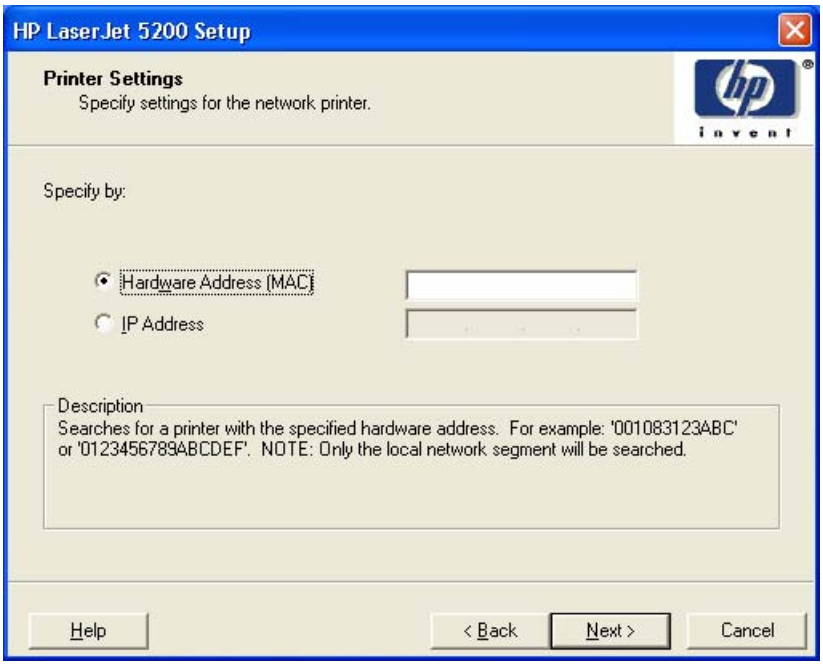


Figure 3-17 Printer Settings dialog box

To install the printer by using the hardware address, click **Hardware Address (MAC)**, type the device hardware address in the field, and then click **Next** to continue the installation. The **Set Port Name** dialog box opens, as shown in the following figure.

To install the printer using the TCP/IP address, click **IP Address**, type the device TCP/IP address in the field, and then click **Next** to continue the installation. The **Set Port Name** dialog box opens, as shown in the following figure.

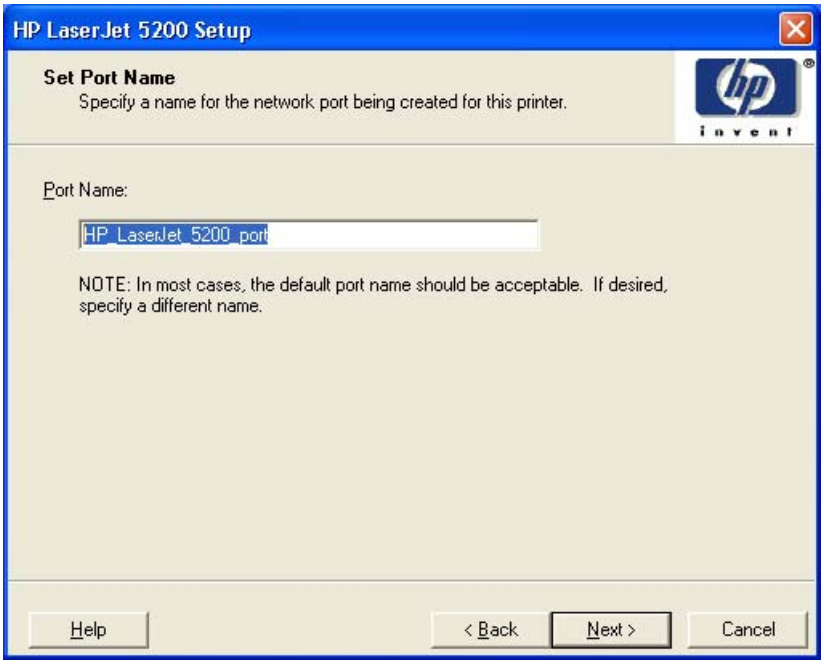


Figure 3-18 **Set Port Name** dialog box

Type a port name in the **Port Name:** field and click **Next** to open the **Installation Type** dialog box (see Figure 3-20 Installation Type dialog box).

Click **Next** to proceed with the installation. The **Installation Type** dialog box opens (see Figure 3-20 Installation Type dialog box).

NOTE If you selected **Yes** in the **Confirm Changing Setting** dialog box (see Figure 3-14 Confirm Changing Setting dialog box), the **Change TCP/IP Settings** dialog box opens, as shown in the following figure.

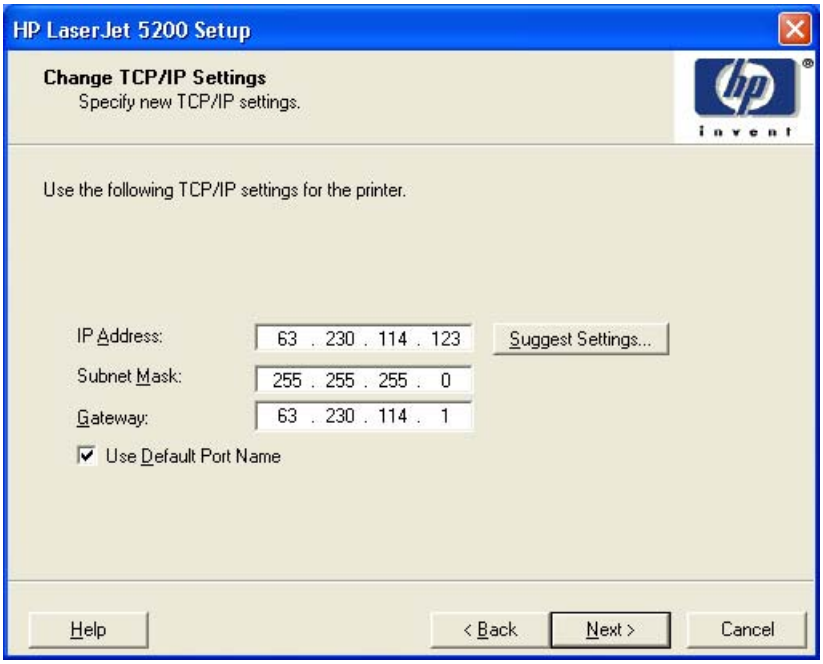


Figure 3-19 **Change TCP/IP Settings** dialog box

If you make a change in the **IP Address:**, **Subnet Mask:**, or **Gateway:** fields (without clicking **Next**) and then click **Suggest Settings…**, the fields refresh with information that was found by the installer and reported in the **Printer Found** screen.

Type a different TCP/IP Address, Subnet Mask, or Gateway address and then click **Next** to open the **Confirm Network Settings** dialog box (see Figure 3-13 Confirm Network Settings dialog box).

If you clear the **Use Default Port Name** check box and click **Next**, the **Set Port Name** dialog box opens (see Figure 3-18 Set Port Name dialog box).

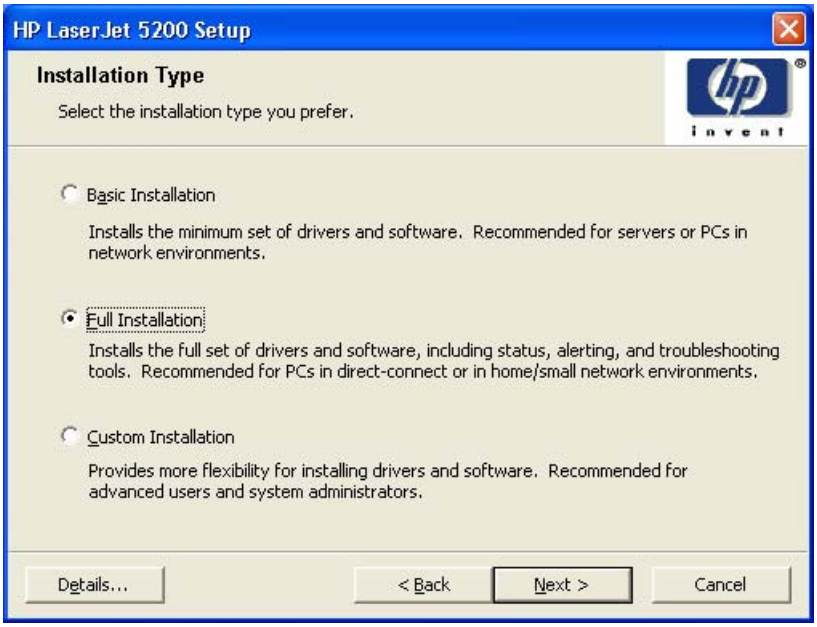


Figure 3-20 **Installation Type** dialog box

NOTE The components of a Full Installation might vary from device to device.

Click **Basic Installation** to install only the HP PCL 6 Unidriver (Windows 2000, Windows XP, and Windows Server 2003) or the HP Traditional PCL 6 Driver (Windows 98 and Windows Me) screen fonts. If you click **Basic Installation** and then click **Next**, the **Ready to Install** dialog box opens (see Figure 3-25 Ready to Install dialog box).

If you select **Custom Installation** and then click **Next**, the **Drivers** dialog box opens, as shown in the following figure.

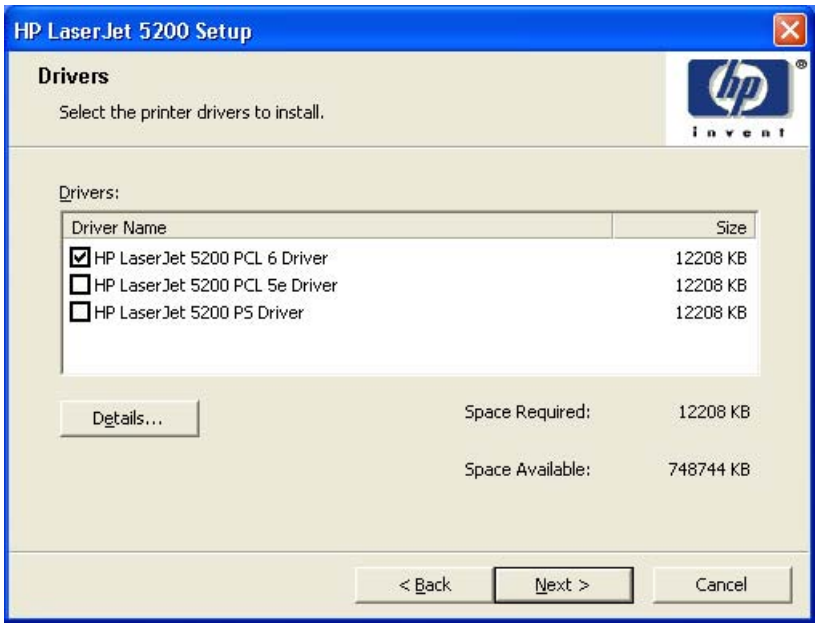


Figure 3-21 Drivers dialog box

An empty check box indicates that the feature is not installed. A check mark appears when you select an install state for that feature.

Information about the space required and the space available on your hard drive appears in the dialog box.

Any combination of features can be selected for the installer, and none depends on any other selection. It is possible to create a custom installer that installs features without including a print driver. Select the drivers you want to install (or select none of them if you are not installing a driver).

Click **Next** to proceed with the installation. The **Additional Software** dialog box opens.

To view details about the drivers, click **Details…**. The driver **Details** dialog box appears.

Figure 3-22 Driver **Details** dialog box

All the drivers that are available in the **Drivers** dialog box are described in the **Details** dialog box. Click **OK** to return to the **Drivers** dialog box.

In the **Drivers** dialog box, click **Next** to continue the installation. The **Additional Software** dialog box appears.

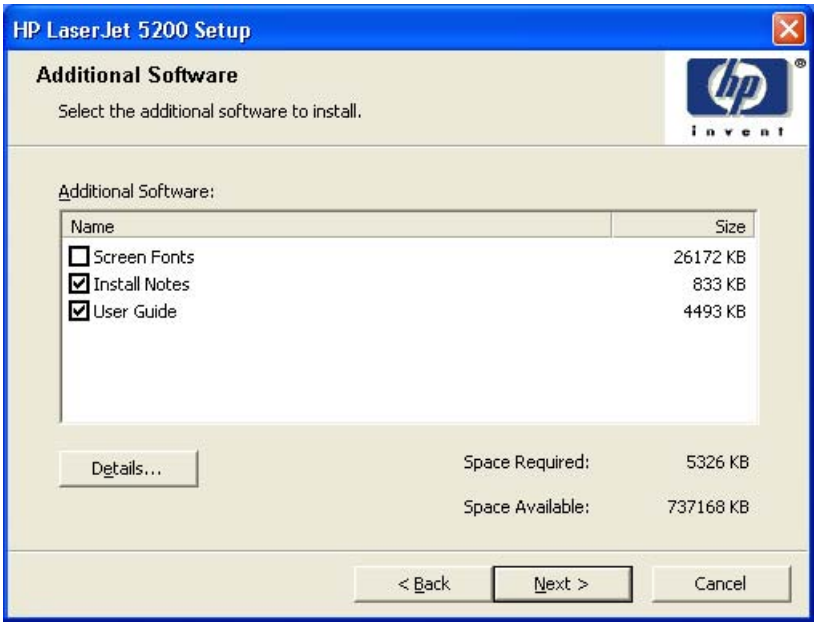


Figure 3-23 **Additional Software** dialog box

To view details about the additional software, click **Details**. The additional software **Details** dialog box appears.

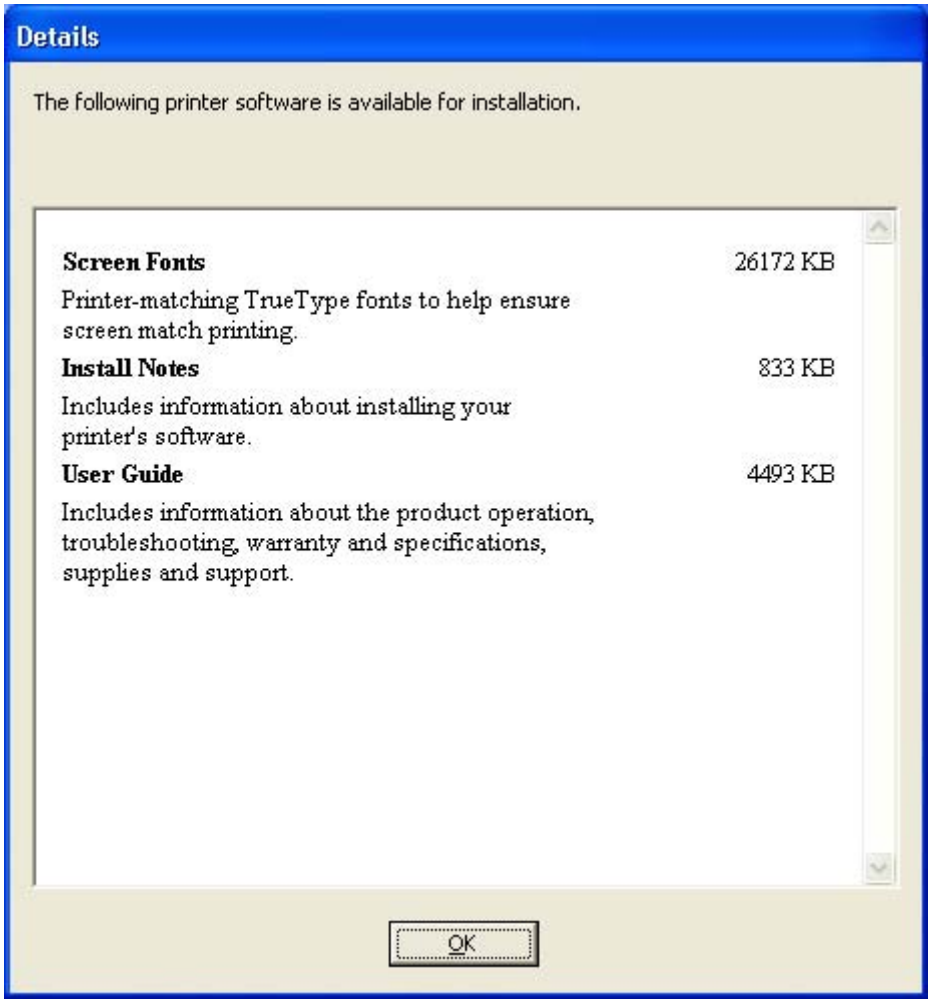


Figure 3-24 Additional software **Details** dialog box

All the software that is available in the **Additional Software** dialog box is described in the **Details** dialog box. Click **OK** to return to the **Additional Software** dialog box.

Click **Next** to open the **Ready to Install** dialog box.

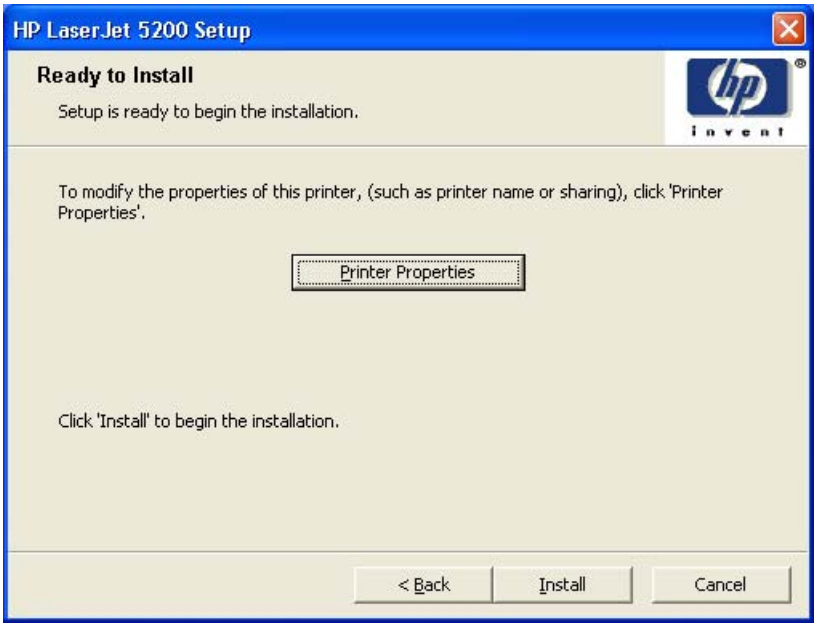


Figure 3-25 Ready to Install dialog box

Click **Install** to start the installation process.

Click **Printer Properties** to open the **Printer Properties** dialog box. This dialog box has two tabs:

- **General**
- **Sharing**

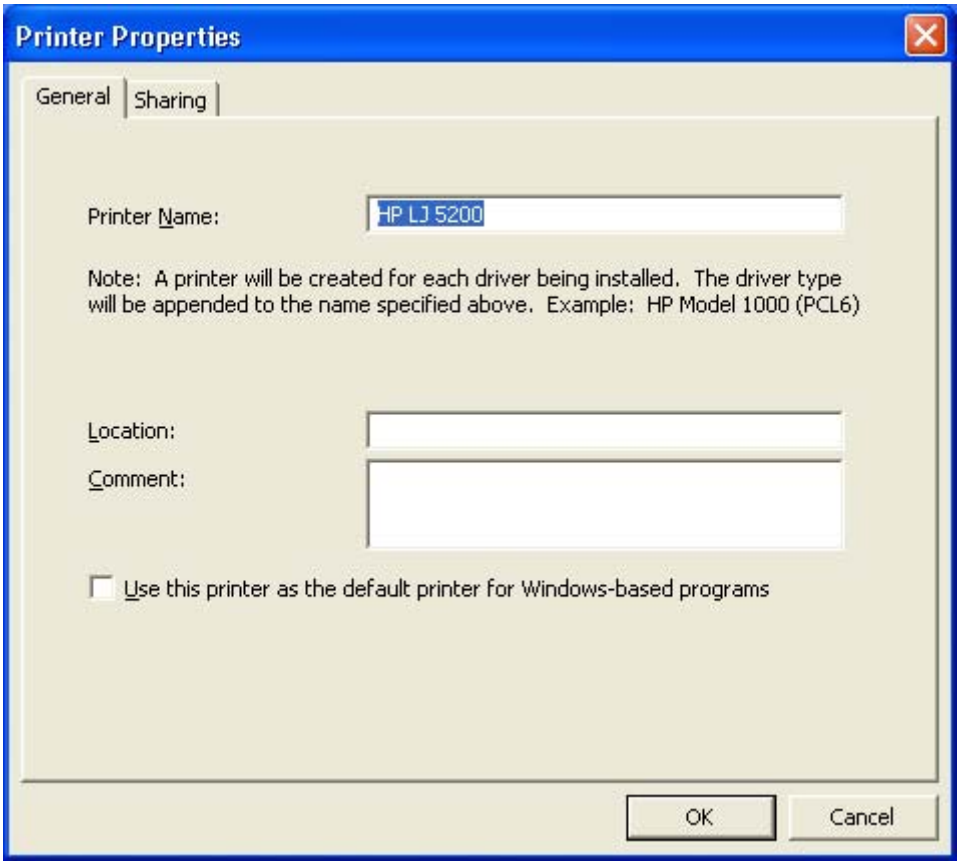


Figure 3-26 Printer Properties**General**tab

On the **General** tab, you can change the printer name by typing a new name in the **Printer Name** field.

Use the **Location:** and **Comment:** fields to describe the printer. You can also leave these fields blank.

If you want to use the HP LaserJet 5200 printer as your default printer, select the **Use the printer as the default printer for Windows-based programs** check box.

Click **OK** to return to the **Ready to Install** dialog box, or click the **Sharing** tab to share the printer over a network.

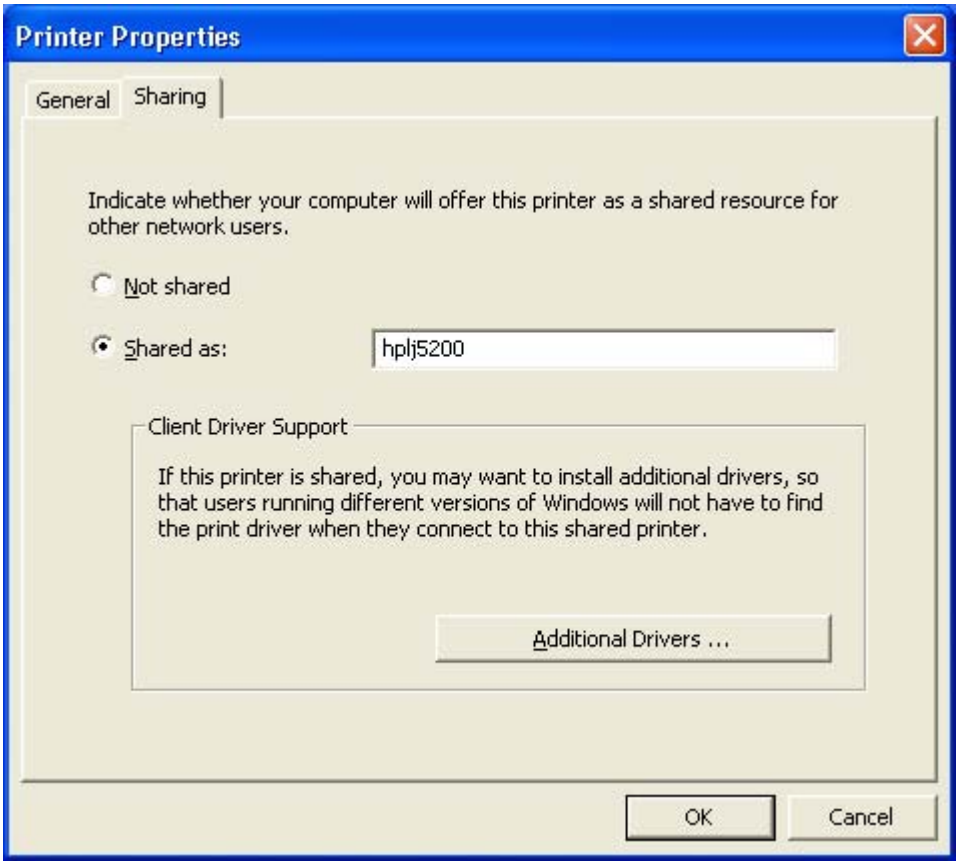


Figure 3-27 Printer Properties **Sharing** tab

On the **Sharing** tab, **Not Shared** is the default setting. To share the printer, click the **Shared as:** option and type the printer name in the text field.

NOTE When you do not share the printer, additional driver support is not available. If you share the printer on Windows 2000, Windows XP, or Windows Server 2003 operating systems by clicking **Shared as**, you must type a name. You can also provide additional print driver support for other operating systems.

If you click **Shared as** in the **Sharing** tab of the **Printer Properties** dialog box, the text box becomes available. Type the share name and then click **Next**. The **Ready to Install** dialog box opens.

NOTE To allow sharing across all operating systems, the share name should not exceed 7 characters. The share name is restricted to a maximum of 80 characters for a single page-description language (PDL), or 72 characters for multiple PDLs.

If you want to select additional drivers to support automatic driver downloads, click **Additional Drivers**. The **Additional Drivers** dialog box appears.

If you are installing the printer in a Windows 2000, Windows XP, or a Windows Server 2003 operating environment and you want to install additional drivers for Windows 98 or Windows Me, click **Additional Drivers**. The **Additional Drivers** dialog box appears.

Figure 3-28 **Additional Drivers** dialog box

NOTE If you want to support automatic driver downloads to clients from the computer that you are using to install the printer, select the **Windows 98 and Me** check box and click **OK**.

The **Additional Drivers** dialog box does not appear if the computer is running Windows 98 or Windows Me.

In the **Ready to Install** dialog box, click **Next** to begin the process of copying and installing the printing-system software folders and files. The **Installing HP LaserJet 5200** dialog box is shown in the following figure.

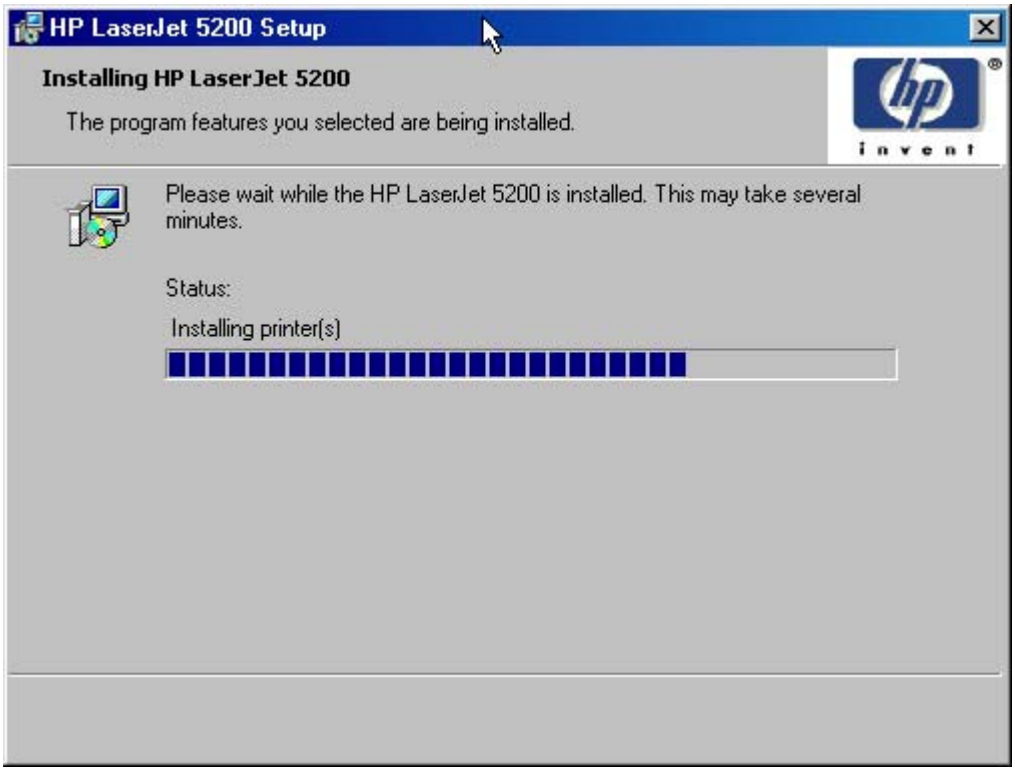


Figure 3-29 **Installing** dialog box

This dialog box remains on the screen until the status bar fills.

Click **Cancel** to close the Installer Customization Wizard without installing the printing-system software. At a certain point, the **Cancel** button disappears and the process cannot be revoked.

When the installation is complete, the **Finish** dialog box appears, as shown in the following figure.

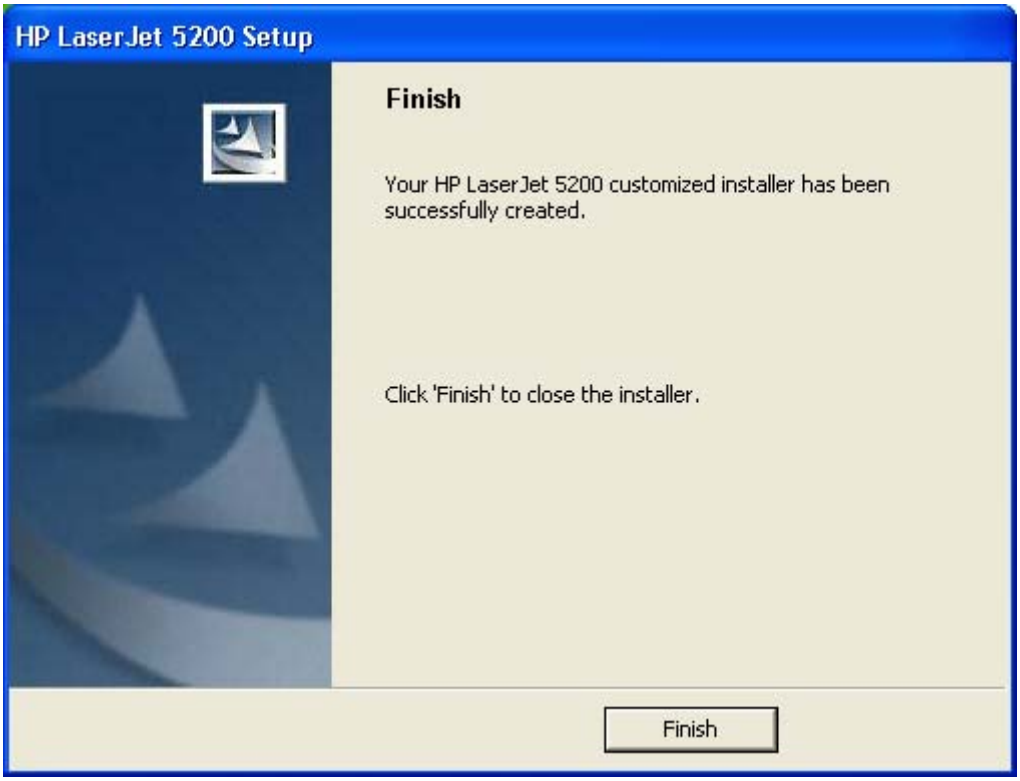


Figure 3-30 **Finish** dialog box

Click **Finish** to close the **Finish** dialog box and exit the Installer Customization Wizard.

NOTE Depending on the type of installation and selected options, you might or might *not* be presented with some additional steps after you click **Finish**.

The **HP LaserJet 5200 Next Steps** dialog box appears.

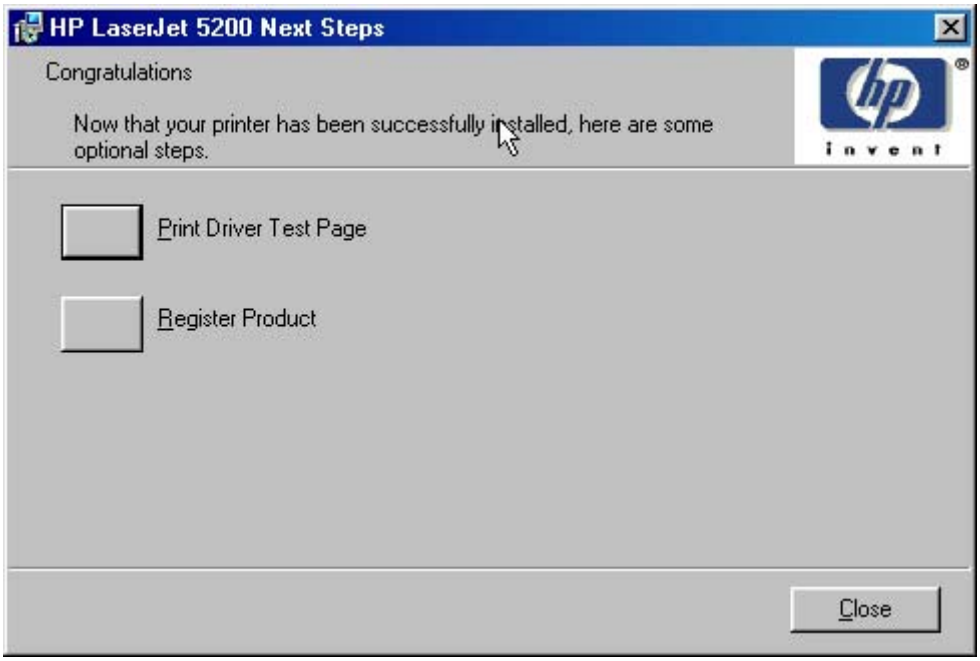


Figure 3-31 **HP LaserJet 5200 Next Steps** dialog box

To verify that the printer is connected, click **Print Driver Test Page**.

Figure 3-32 **Test Page** dialog box

If the test page prints correctly, click **OK** to continue. If it does not print, open the printer properties tab and try to print another test page.

If you have access to the Internet, you can register your device online. In the **Congratulations** dialog box, click **Register Product** to open the HP Registration Web site.

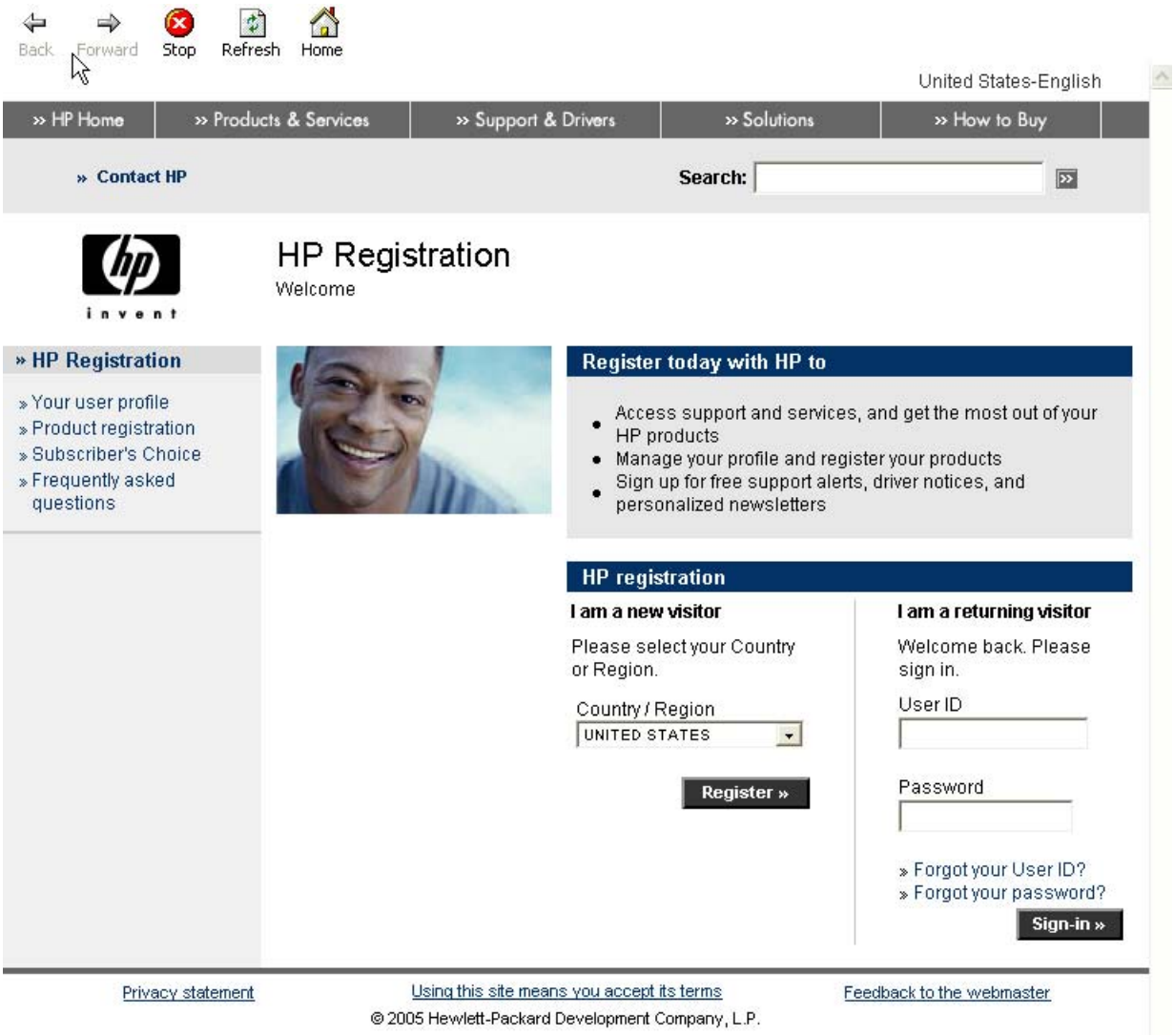


Figure 3-33 **HP Registration** screen

Install print drivers by using Add Printer

Use the following steps to install the print drivers by using the MS Windows Add Printer tool:

1. Insert the CD in the CD-ROM drive.
2. Go to the Add a printer feature in MS Windows.

   In Windows XP, click **Start** on the desktop, click **Settings**, and then click **Printers and Faxes**. The **Printers and Faxes** window appears. Click **Add a printer**. The **Add a printer** wizard screen appears.

   In Windows 98, Windows Me, and Windows 2000, click **Start** on the desktop, click **Settings**, click **Printers**, and then click **Add a printer**. The **Add a printer** wizard screen appears.
3. Use the **Add a printer** wizard to find and connect to the printer. The print drivers are loaded as a part of this process.

If the computer is running a 64-bit MS Windows operating system, you must install the corresponding 64-bit print driver. The 64-bit print drivers are included on the software CD-ROM. Use the following steps to install a print driver by using the Add Printer feature.

1. Insert the CD in the CD-ROM drive.
2. Click **Start** on the desktop, click **Settings**, click **Printers and Faxes**, and then click **Add a printer**. The **Add a printer** wizard screen appears.
3. Use the **Add a printer** wizard to find and connect to the device. The print drivers are loaded as a part of this process.
4. Select the **Have disk** option and navigate to one of the print-driver files on the software CD, as shown in the following lists:

   Windows 2000, Windows XP, or Windows Server 2003

   - To install the HP PCL 6 Unidriver, select the following file:

     \Drivers\(your operating system)\PCL6\hpc5200c.inf

   - To install the HP PCL 5 Unidriver, select the following file:

     \Drivers\(your operating system)\PCL5\hpc5200b.inf

   - To install the PS Emulation Unidriver, select the following file:

     \Drivers\(your operating system)\PS\hpc5200d.inf

   Windows 98 or Windows Me

   - To install the HP Traditional PCL 6 Driver, select the following file:

     Drivers\<language>\pcl6\hp3dusb.inf (for a USB connection)

     Drivers\<language>\pcl6\hp5200p6.inf (for a network connection)

   - To install theHP Traditional PCL 5 Driver, select the following file:

     Drivers\<language>\pcl5\hp3dusb.inf (for a USB connection)

     Drivers\<language>\pcl5\hp5200p5.inf (for a network connection)

   - To install the PS Emulation Driver, select the following file:

     Drivers\<language>\ps\usbprint.inf (for a USB connection)

     Drivers\<language>\pcl6\hp5200f.inf (for a network connection)

5. Complete the wizard steps. The print driver will be installed as part of the wizard process.

Installer Customization Wizard for Windows

Administrators can use the **Installer Customization Wizard** option to customize the HP LaserJet 5200 installer by pre-setting the installation options in a response file. To start the utility, click **installer**

customization wizard on the main menu of the software CD browser. Using this option, administrators can create a silent (unattended) installer that is customized with any of the following selections:

- Language
- Operating system
- Print drivers
- Components

NOTE For detailed information about the Installer Customization Wizard, see the *HP Device Installer Customization Wizard*, which is available at the following Web site:

www.hp.com/support/lj5200

Topics:

- Run the Installer Customization Wizard
- Dialogs
- Distribution

Run the Installer Customization Wizard

The Installer Customization Wizard runs from the CD. It can be started from the CD browser, depending on device-specific instantiation. It runs separately from the common Microsoft Installer (MSI), with its own interface.

Running the Installer Customization Wizard produces one installation package and a response file (RESPONSE.INI) for a single system installation. The installation package might work for multiple systems that have the same response information, or the RESPONSE.INI file can be directly edited for system-configuration differences. The *HP Device Installer Customization Wizard* which provides the exact text for replacing entries in the RESPONSE.INI file, is available at the following Web site:

www.hp.com/support/lj5200

To run the Installer Customization Wizard

1. Insert the HP LaserJet 5200 software CD in the CD-ROM drive.
2. In the CD browser main screen, click **Installer Customization Wizard**.

To complete the installation, follow the instructions in the dialog boxes.

Dialogs

The **Language Selection** dialog box appears.

Figure 3-34 **Language Selection** dialog box

Select a language and click OK. The **Welcome** dialog box appears, as shown in the following figure.

Figure 3-35 **Welcome to the HP LaserJet 5200 Installation Customization Wizard** screen

Click **Next** in the **Welcome to the HP LaserJet 5200 Installation Customization Wizard** dialog box.

The **Software License Agreement** dialog box appears.

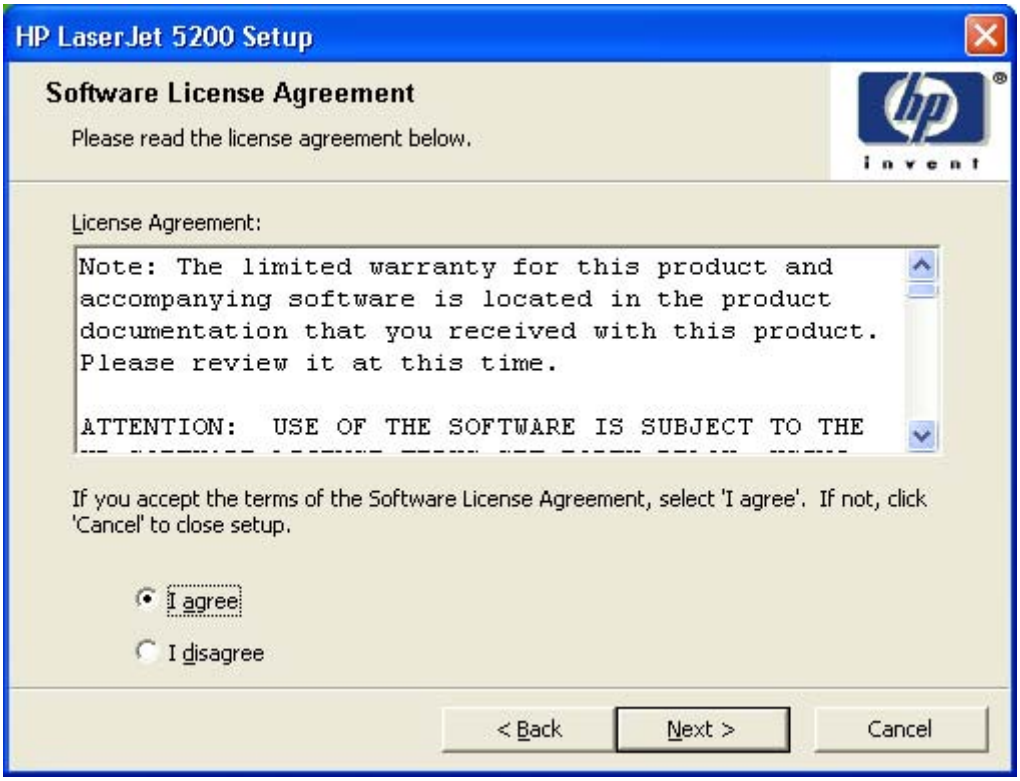


Figure 3-36 Installer Customization Wizard Welcome dialog box

To cancel the installation, click **Cancel** on this or any other screen where it appears (see Help, Back, Next, and Cancel buttons).

Read the software-license agreement, click **I agree**, and then click **Next** to open the **Language** dialog box.

Figure 3-37 **Language** dialog box

NOTE The customized installer limits all system installations of the device to the language that is selected in the **Language** dialog box. Maintenance mode on systems where installation has been completed by using the customized installer does not provide options for changing the language. To change the language on a system that used an Installer Customization Wizard installation, the customized installation must be uninstalled, and a new device must be installed in order to restore the option to install other languages.

The language that you selected is installed on users' computers regardless of the language of the text in the dialog boxes (as specified in the **Language Selection** dialog box earlier). The **Language** dialog box defaults to the language that was selected in the **Language Selection** dialog box, but any language that is available on the CD can be selected for the customized installer. The language selection is recorded in the response file.

Click **Next** to open the **Printer Port** dialog box, as shown in the following figure.

Click **Back** on this or any screen where it appears to return to a previous screen.

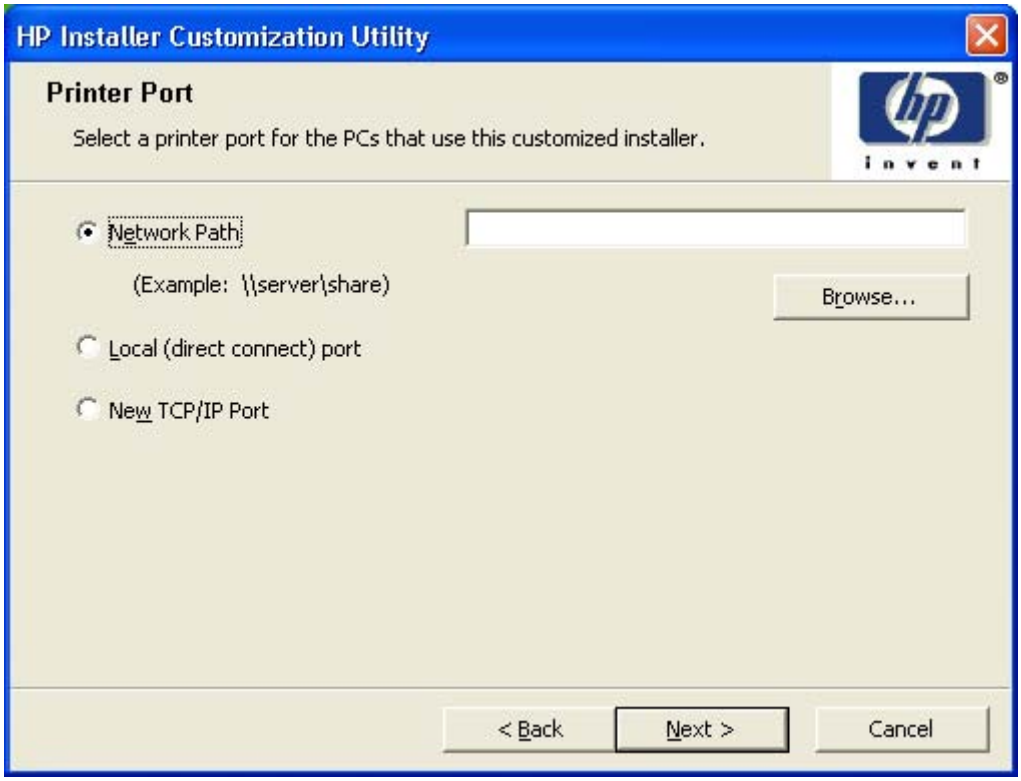


Figure 3-38 **Printer Port** dialog box

Click **Network Path** to make the text field available for a queue name entry. If you click **Network Path** and click the **Browse**, the **Browse for Printer** dialog box opens.

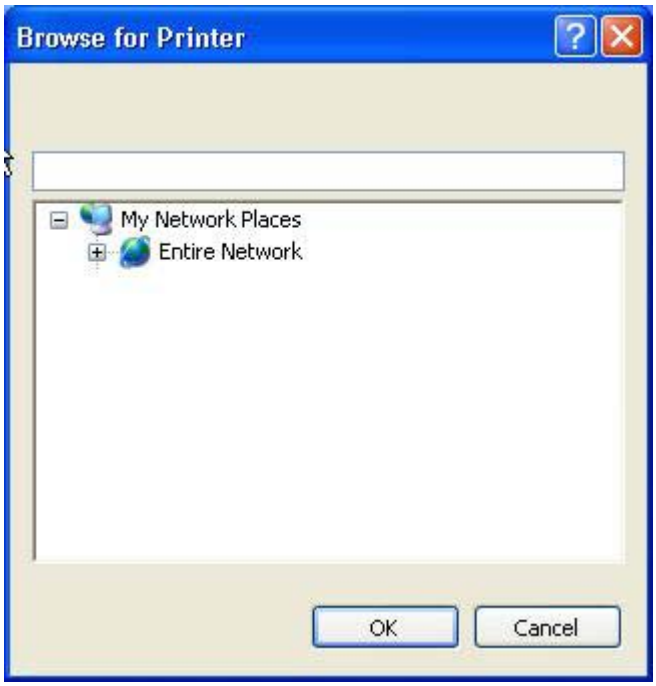


Figure 3-39 **Browse for Printer** dialog box

Navigate to a printer and click **OK** to record the path in the **Network Path** field in the **Printer Port** dialog box. Click **Cancel** to close the **Browse for Printer** dialog box.

Select **Local Port** and then click **Next** to open the **Connector Type** dialog box. The **Connector Type** dialog box includes all types of local ports regardless of local support. It also includes all custom network ports that are available on the local system. To use any custom network port for the customized installer, the port must be created identically on the system where it will be used.

In the **Printer Port** dialog box, click **Local (direct connect) port** and then click **Next** to open the **Printer Connection** dialog box. The **Printer Connection** dialog box includes all types of local ports regardless of local support.

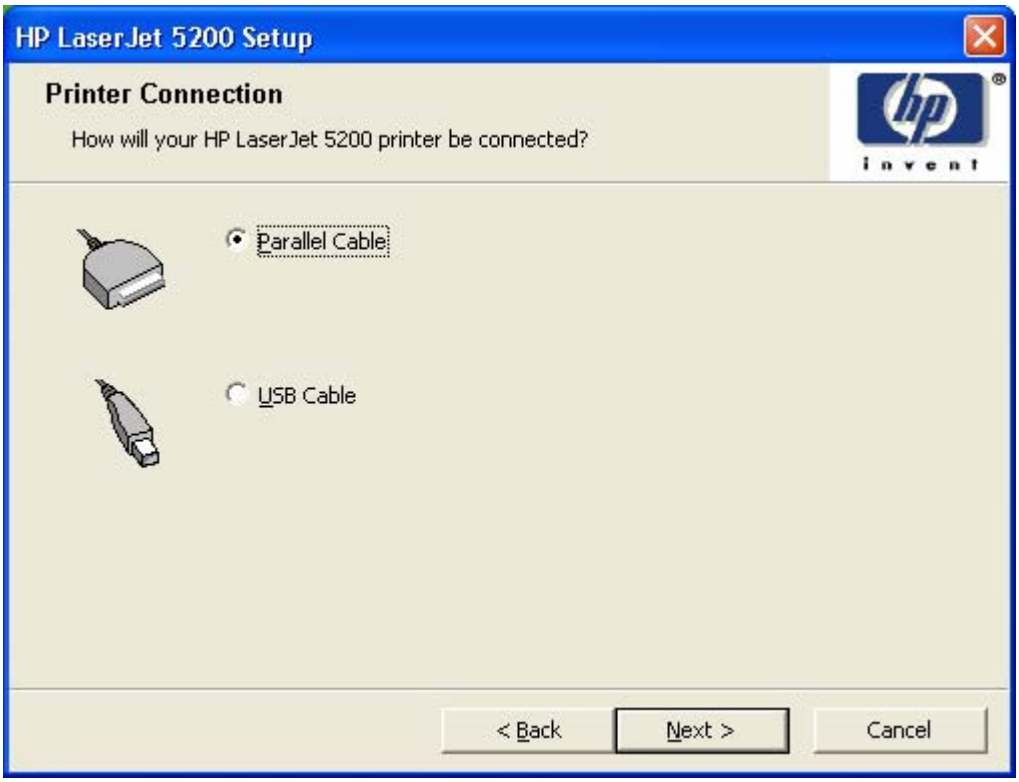


Figure 3-40 **Printer Connection** dialog box

Click the type of connection that you are using and then click **Next** to open the **Drivers** dialog box. See Figure 3-43 Drivers dialog box.

In the **Printer Port** dialog box, click **New TCP/IP Port** and then click **Next** to open the **Specify TCP/IP Port** dialog box. The **Specify TCP/IP Port** dialog box includes all custom network ports that are available on the local system. To use any custom network port for the customized installer, the port must be created identically on the system where it will be used.

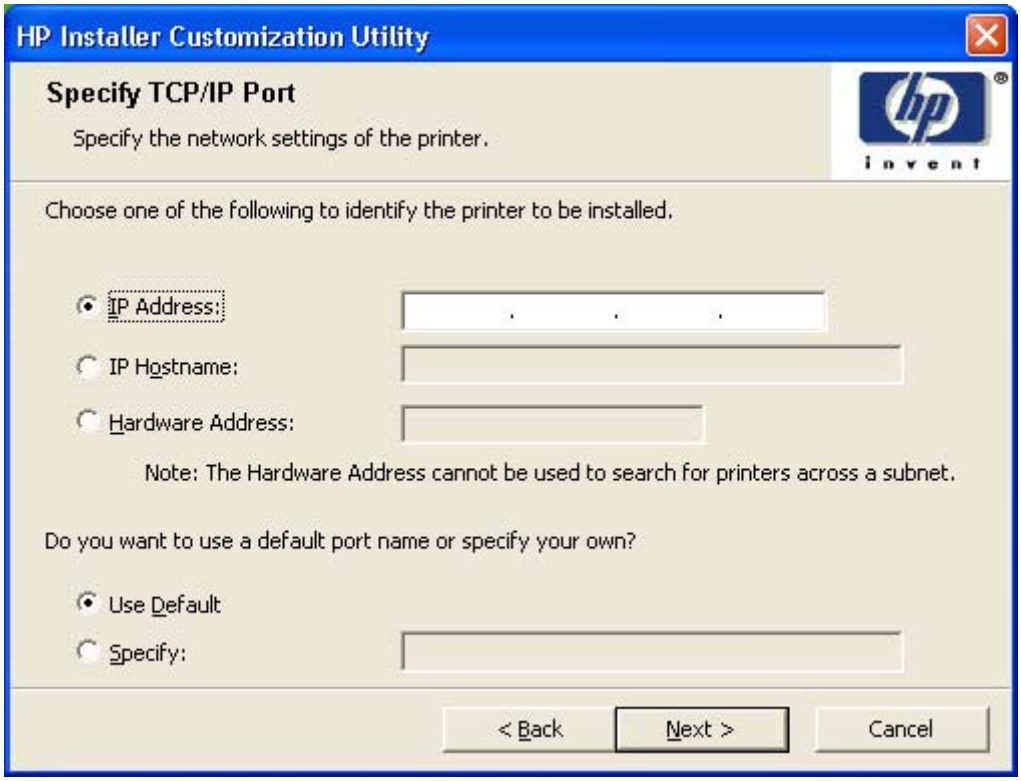


Figure 3-41 **Specify TCP/IP Port** dialog box

Click **IP Address** to make the field available for typing the TCP/IP address for the printer. Only numerals are allowed in this field. If this option is selected, you must type at least one digit in the **IP Address** field to prevent an error message from appearing and prompting you for a valid IP address.

Click **IP Hostname** to make the field available for typing the IP hostname for the printer. Any characters are allowed in this field, but an error message appears if spaces are included in the field. If this option is selected, you must type at least one character in the **IP Hostname** field to prevent an error message from appearing and prompting you for a valid IP hostname.

Click **Hardware Address** to make the field available for typing the hardware address of the printer. It accepts any characters but limits the entry to 12 characters. If this option is selected, you must type at least one character in the **Hardware Address:** field to prevent an error message from appearing and prompting you for a valid hardware address.

After you select any the options, type the appropriate name or address, and then click **Next**, the **Drivers** dialog box opens (see Figure 3-43 Drivers dialog box).

For each of the options in the **Specify TCP/IP Port** dialog box, you can either use the default port name (as specified in each of the three options) or specify a different name.

If you click **Use Default** and click **Next**, the **Drivers** dialog box opens. See Figure 3-43 Drivers dialog box.

To specify a different name, click **Specify:** and click **Next** to open the **Port Creation Options** dialog box.

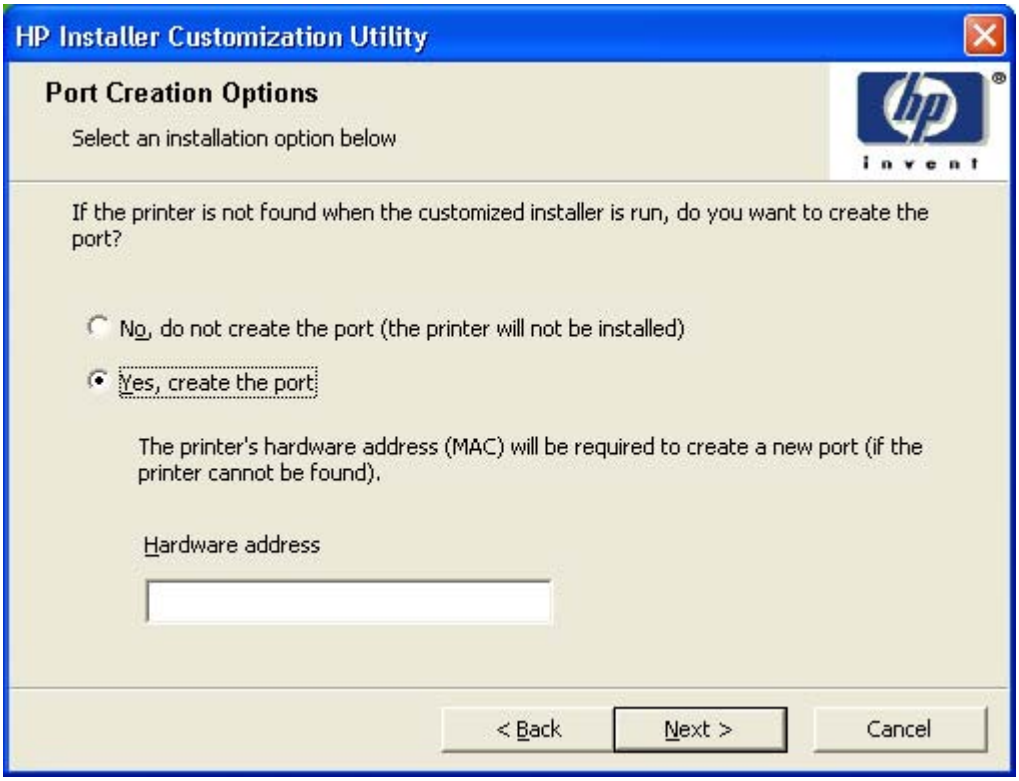


Figure 3-42 Port Creation Options dialog box

Click **No, do no create the port (the printer will not be installed)** if you do not want to create a port.

Click **Yes, create the port** and click **Next** to open the **Drivers** dialog box, as shown in the following figure.

If the printer cannot be found, type the printer hardware address in the **Hardware Address** field and click **Next**.

NOTE To print a configuration page where the printer hardware address is listed, see Determining the current level of firmware .

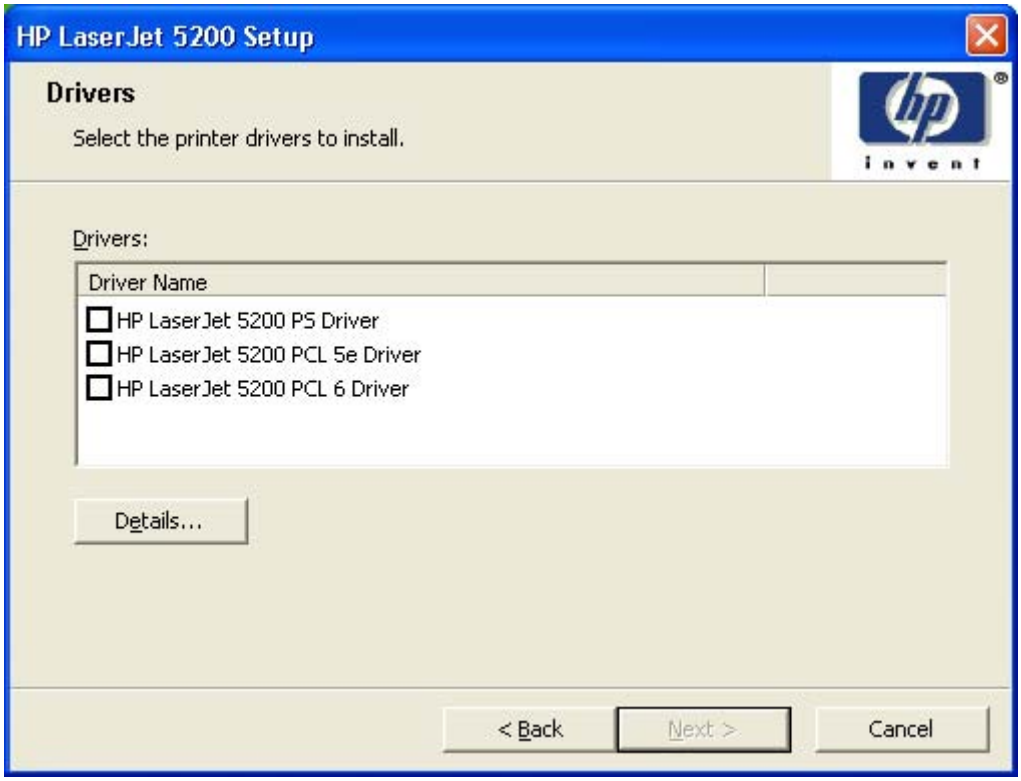


Figure 3-43 **Drivers** dialog box

Any combination of features can be selected for the installer, and none depends on any other selection. It is possible to create a custom installer that installs features without including a print driver. Select the drivers you want to install (or select none of them if you are not installing a driver).

To view details about the drivers, click **Details…**. The driver **Details** dialog box appears.

Figure 3-44 Driver **Details** dialog box

All the drivers that are available on the **Drivers** dialog box are described in the **Details** dialog box. Click **OK** to return to the **Drivers** dialog box.

On the **Drivers** dialog box, click **Next** to continue the installation. The **Additional Software** dialog box appears.

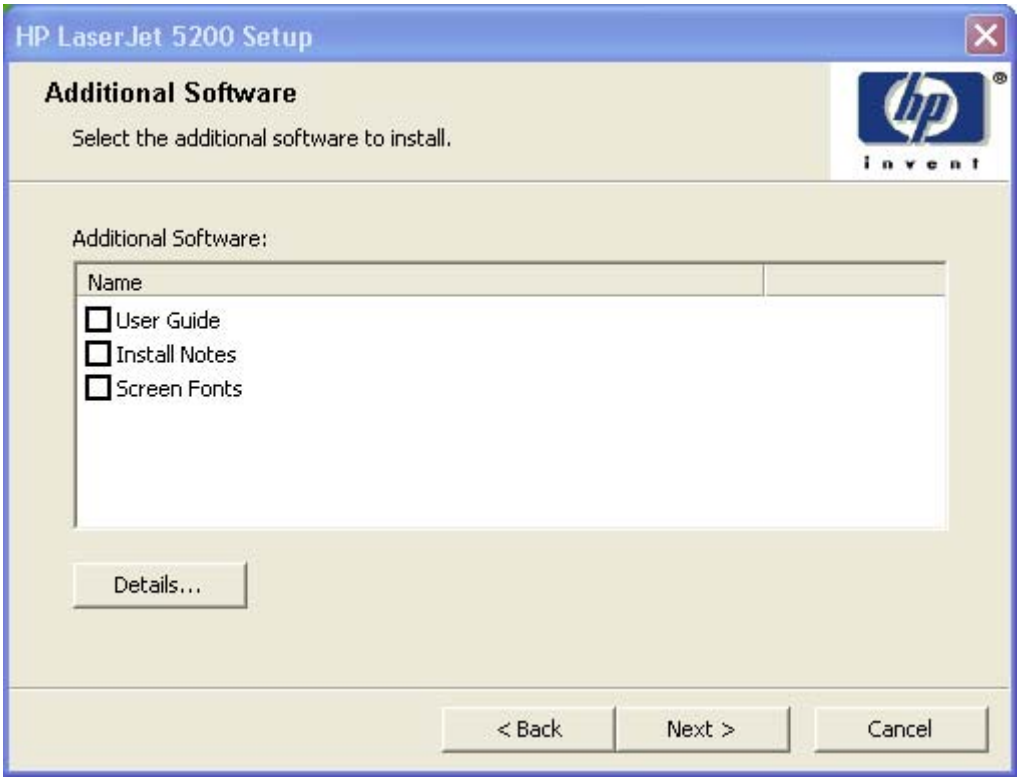


Figure 3-45 **Additional Software** dialog box

To view details about the additional software, click **Details**. The additional software **Details** dialog box appears.

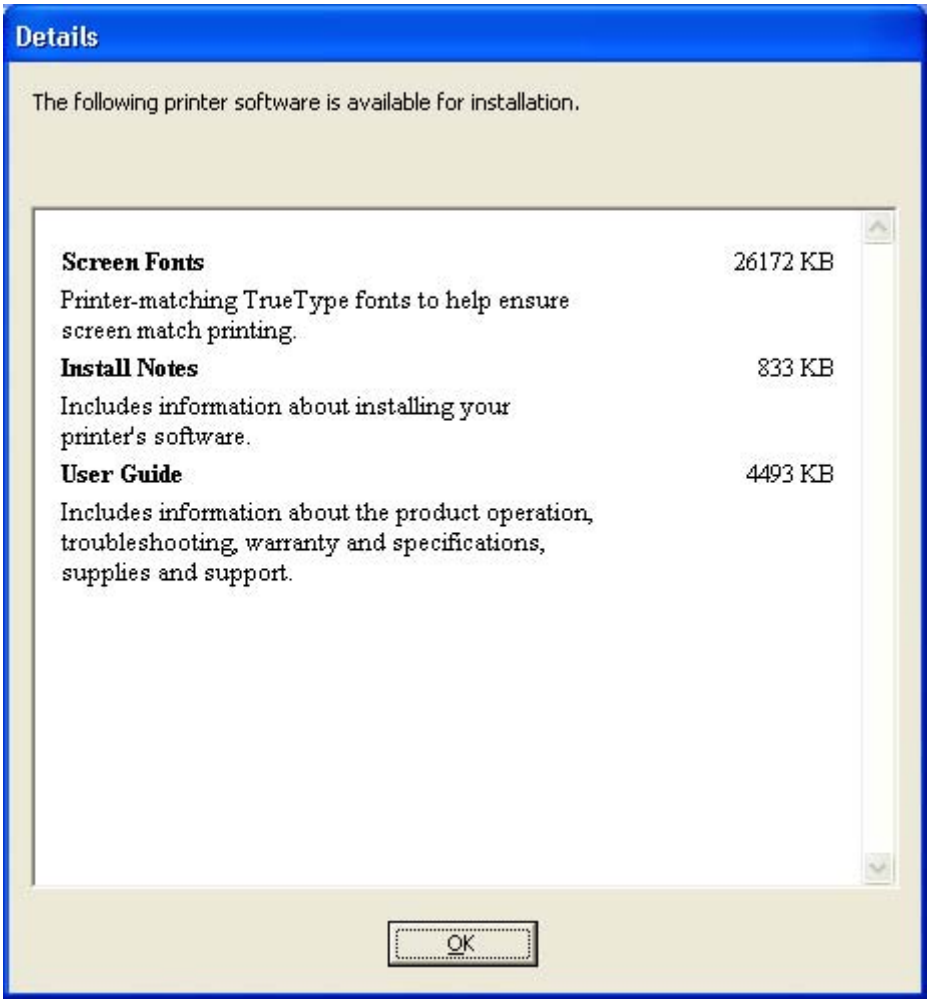


Figure 3-46 Additional software **Details** dialog box

All the software that you selected in the **Additional Software** dialog box is described in the **Details** dialog box. Click **OK** to return to the **Additional Software** dialog box.

In the **Additional Software** dialog box, click **Next** to open the **Custom Installer Location** dialog box, which is shown in the following figure.

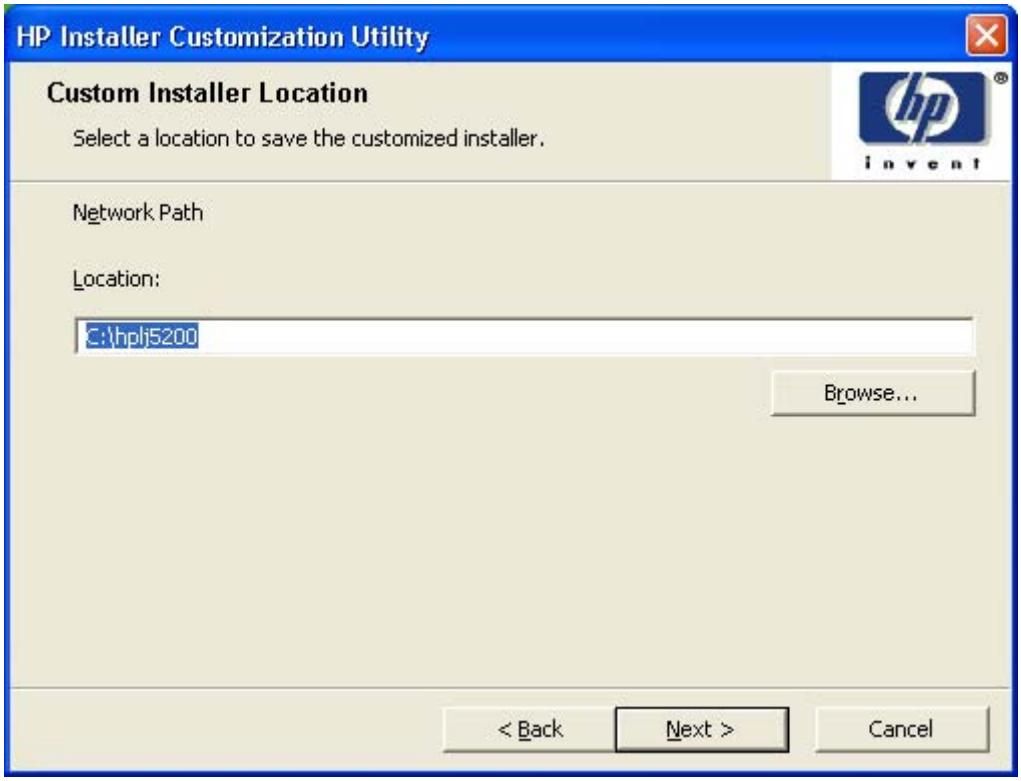


Figure 3-47 **Custom Installer Location** dialog box

Use the **Location:** text field to type a description of the physical location of the printer. The field is large, but is limited as to the number of characters that it can accommodate.

To change the physical location of the printer, click **Browse…**, navigate to the folder that you want, and click **OK** to return to the **Custom Installer Location** dialog box.

Click **Next** to open the **Ready to Create Installer** dialog box, which is shown in the following figure.

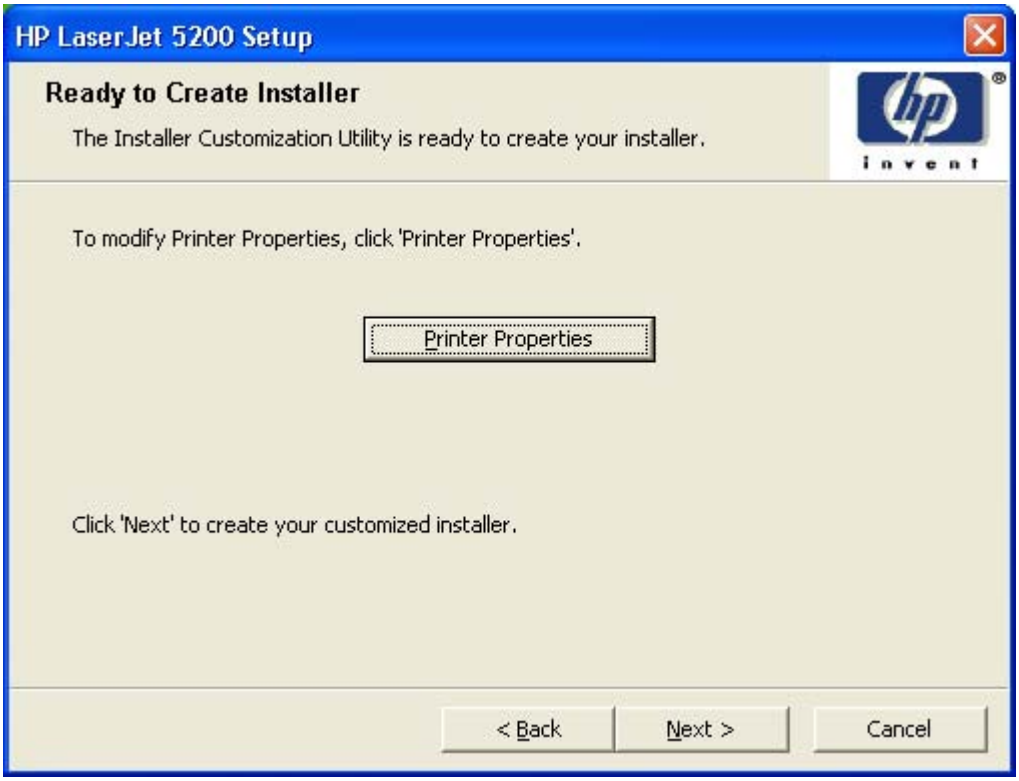


Figure 3-48 **Ready to Create Installer** dialog box

NOTE The location for the installer package defaults to `c:\<name of printer>`.

NOTE During installation, several files, including system files, are placed at the root of the directory that appears in the **Location** field. Be sure that enough space is available on the directory before continuing.

Click **Printer Properties** to open the **Printer Properties** dialog box. This dialog box has two tabs:

- **General**
- **Sharing**

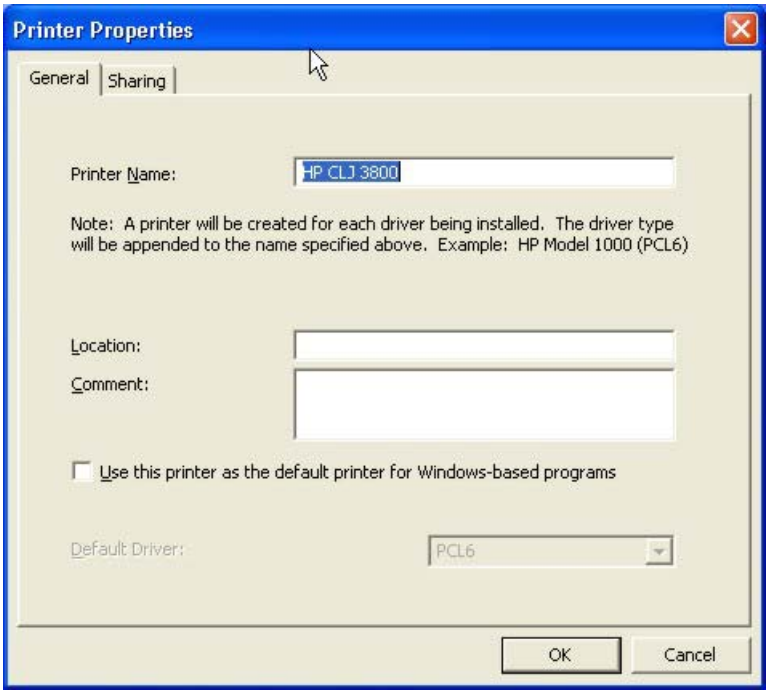


Figure 3-49 Printer Properties **General** tab

On the **General** tab, you can change the printer name by typing a new name in the **Printer Name:** field.

Use the **Location:** and **Comment:** fields to describe the printer. You can also leave these fields blank.

If you want to use the HP LaserJet 5200 printer as your default printer, select the **Use the printer as the default printer for MS Windows-based programs** check box.

Click **OK** to return to the **Ready to Create Installer** dialog box, or click the **Sharing** tab to share the printer over a network.

The **Sharing** tab is shown in the following figure.

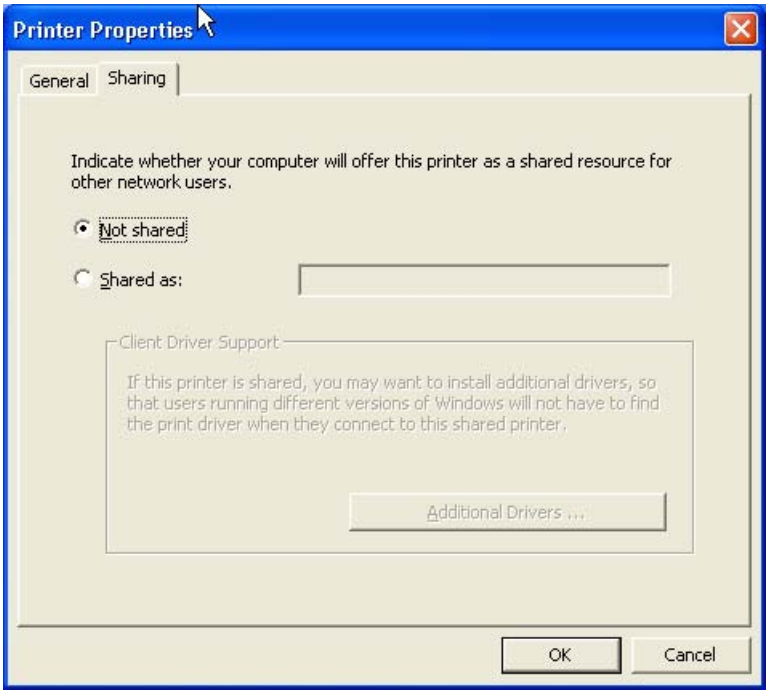


Figure 3-50 Printer Properties **Sharing** tab

On the **Sharing** tab, **Not Shared** is the default setting. To share the printer, click **Shared as:** and type the printer name in the text field.

NOTE To allow sharing across all operating systems, the share name should not exceed 7 characters. The share name is restricted to a maximum of 80 characters for a single page-description language (PDL), or 72 characters for multiple PDLs.

If you want to select additional drivers to support automatic driver downloads, click **Additional Drivers**. The **Additional Drivers** dialog box appears.

Figure 3-51 **Additional Drivers** dialog box

If you want to support automatic driver downloads to clients from the computer that you are using to install the printer, select the **Windows 98 and Me** check box and click **OK**.

In the **Ready to Create Installer** dialog box, click **Next** to begin the process of copying and installing the printing-system software folders and files. The **Installing** dialog box is shown in the following figure.

Figure 3-52 Installing dialog box

This dialog box remains on the screen until the status bar fills.

Click **Cancel** to close the Installer Customization Wizard without installing the printing-system software. At a certain point, the **Cancel** button disappears and the process cannot be revoked.

When the installation is complete, the **Finish** dialog box appears, as shown in the following figure.

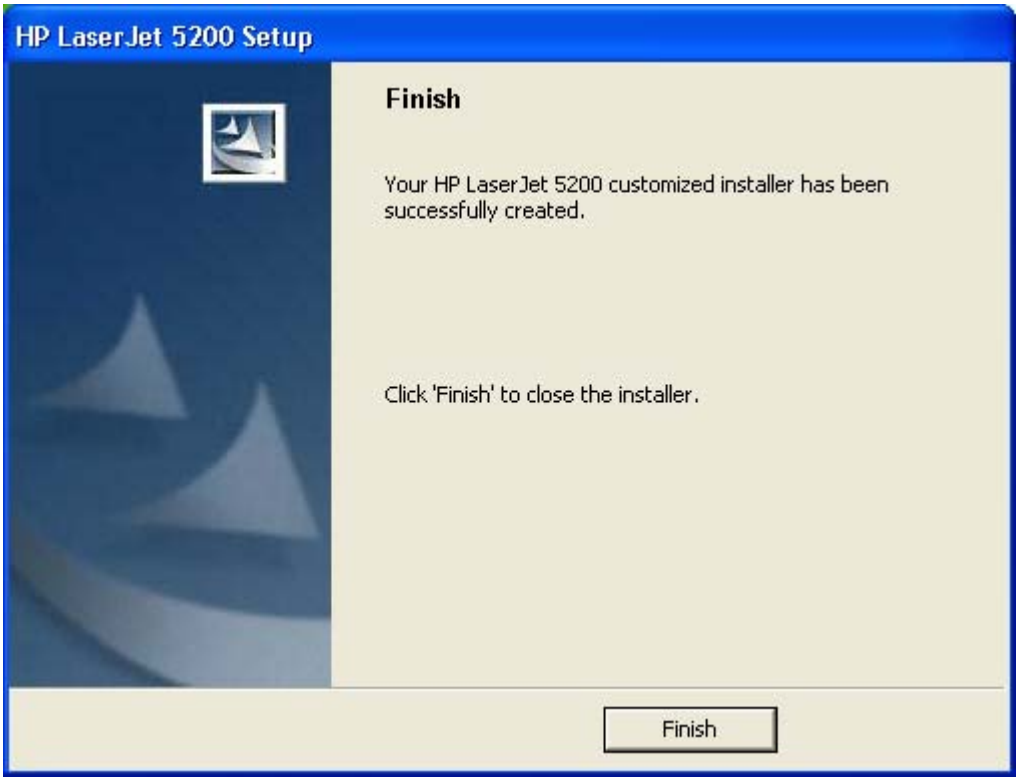


Figure 3-53 **Finish** dialog box

Click **Finish** to close the **Finish** dialog box and exit the Installer Customization Wizard.

NOTE Depending on the type of installation and selected options, you might or might *not* be presented with some additional steps after you click **Finish**.

Distribution

The installation package is now ready for distribution. It is the same as the package on the CD, except that it is limited to one language, and it contains the features and options that you selected. The installation package is run silently so that it requires no 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 can perform the silent installation in two ways:

- Customized silent installer
- Command-line silent installer

The response file can be renamed, but it must be in the root directory of the installer package. The name cannot contain spaces; spaces prevent the SETUP.EXE file from passing to the installer package.

The end-user cannot customize the command-line silent installer. It installs the printing-system components that are included in the Full Installation.

The *HP Device Installer Customization Wizard* which provides the exact text for replacing entries in the RESPONSE.INI file, is available at the following Web site:

www.hp.com/support/lj5200

Point and Print installation for Windows 98, Windows Me, Windows 2000, Windows XP, and Windows Server 2003

The following information helps you install a print driver by using the Microsoft Point and Print function when you cannot see the device 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.

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 MS Windows operating systems, not of HP print drivers. Windows 2000, Windows XP, and Windows Server 2003 drivers from HP support only Intel *X*86 processor types.

To install the print driver on a Windows 2000,Windows XP, or Windows Server 2003 operating system, you must have administrator privileges. To completely install the Windows 2000 print driver on the Windows 2000 server, you must have administrator privileges on the server. The Windows 2000 Printer .INF file must contain the same device name as the Windows 98 or Windows Me printer .INF file.

Point and Print installation of a postscript driver is supported only with a Windows 98 or Windows Me PS Driver V4.0 or later.

In a homogenous operating system environment (one in which all of the clients and servers are running in the same operating system), the same print 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 version of the print driver that is different from the one on the print server.

In an effort to increase operating system stability, Microsoft determined that, starting with Windows 2000 and continuing with all future operating systems, print drivers would run as *user*-mode processes. User-mode drivers run in a protected part of the operating system, as do all of the normal end-user processes and software programs. A user-mode print driver that functions incorrectly can terminate (or “crash”) only the process in which it is running—not the whole operating system. Because access to critical system resources is restricted, overall operating system stability is increased.

www.techweb.boi.hp.com

Set a default printer

This section applies to the Windows 98, Windows Me, Windows 2000, Windows XP, and Windows Server 2003 operating systems.

1. In Windows 98, Windows Me, and Windows 2000, click **Start**, click **Settings**, and then click **Printers**.

   In Windows XP and Windows Server 2003, click **Start**, click **Control Panel**, and then click **Printers and Faxes** (Windows XP Professional) or **Printers and other hardware devices** (Windows XP Home).

2. Right-click the device that you want to set as the default printer.

3. Click **Set As Default**. A check mark appears next to the menu option.

4 HP traditional print drivers for MS Windows

Introduction

This document describes the features of the traditional print drivers for the HP LaserJet 5200 in Windows 98 and Windows Me.

NOTE For a comparison of features between the HP unidrivers and HP traditional print drivers in various operating systems, see Driver-feature comparison in various operating systems.

You can control print jobs from several places:

- the device control panel
- the software program print dialog box
- the driver user interface

Generally, for features that are duplicated in more than one location (for instance, you can select the media input tray from any of them), settings that are established in the software program take precedence over print-driver settings. Print-driver settings, in turn, override device control-panel settings.

When you install the print drivers by using the printing-system installer in Windows 98 or Windows Me, the HP Traditional PCL 6 Driver is installed by default. You can install the HP Traditional PCL 5 Driver by performing a Custom Installation.

NOTE Windows NT 4.0 does not support the HP LaserJet 5200 print drivers, but you can use print drivers for legacy HP devices whose feature sets closely match the HP LaserJet 5200 printer feature set. For instance, you can use the HP LaserJet 2400-series drivers, but some print-driver features might be missing and print quality might be compromised. HP does not support the use of any print driver other than the driver that is supplied for the device. When you install the print drivers in Windows NT 4.0, you must use the Add Printer installation method to install the HP Traditional PCL 6 Driver and the HP Traditional PCL 5 Driver.

This document describes the options that are available on each tab of the HP Traditional PCL 6 Driver and HP Traditional PCL 5 Driver **Properties** print-driver interface for Windows 98 and Windows Me.

This document also describes differences between the HP Traditional PCL 6 Driver and the HP Traditional PCL 5 Driver.

Topics:

- Access to print drivers in Windows 98 and Windows Me

- Help system
- Finishing tab features
- Effects tab features
- Paper tab features
- Job Storage tab features
- Basics tab features
- Configure tab features
- HP Traditional Postscript 3 Emulation Driver features

Access to print drivers in Windows 98 and Windows Me

Depending on the operating system on which you are installing the print drivers, you can gain access to the print drivers and different print-driver interfaces in several ways:

- Device control panel
- Software-program print-dialog box
- Print-driver user interface

Device control panel

For information about controlling print jobs from the device control panel, see the *HP LaserJet 5200 User Guide* that came with the device, or download it from following Web site:

www.hp.com/go/lj5200_software

Software-program print-dialog box

To gain access to the print-driver settings from within most software programs, follow these steps:

1. Click **File**.
2. Click **Print**.
3. Click **Properties**.

The appearance and names of the driver tabs can vary, depending on the operating system. These driver settings apply only while that software program is open.

Print-driver user interface

To gain access to the print-driver user interface in Windows 98 and Windows Me, follow these steps:

1. Click **Start**.
2. Select **Settings**.
3. Click **Printers**.
4. Right-click the device name.
5. Click **Properties** to gain access to all print-driver tabs.

The settings that you make on these driver tabs control print-job output and become the default settings for all software programs. The following print-driver tabs are available in Windows 98 and Windows Me:

- **General** tab
- **Details** tab
- **Color Management** tab
- **Sharing** tab
- **Finishing** tab
- **Effects** tab

- **Paper** tab
- **Job Storage** tab
- **Basics** tab
- **Configure** tab

Only device-specific HP driver tabs are described in this STR; the other driver tabs are part of the operating system. The following tabs are described:

- **Finishing**
- **Effects**
- **Paper**
- **Job Storage**

NOTE The **Job Storage** tab is available only when the **Job Storage Enable** setting is selected on the tab. The settings take effect only after you click **OK** on the **Configure** tab.

- **Configure**
- **Basics**
- **Configure**

Help system

The HP Traditional PCL 6 Driver and the HP Traditional PCL 5 Driver include a full-featured Help system to provide assistance with printing and configuration options.

Topics:

- What's this? Help
- Context-sensitive Help
- Incompatible Options messages
- Bubble Help

What's this? Help

Windows 98 and Windows Me support What's this? Help. You can gain access to What's this? Help messages in any of the following ways:

- Right-click a control and then click **What's this?**. 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. When you use this special cursor to select a control, 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

When you click the **Help** button on a driver tab or in a dialog box, a context-sensitive Help message appears.

Incompatible Options messages

Incompatible Options settings (constraint) messages are unsolicited messages that appear in response to specific print-driver selections. These messages alert you to selections that are illogical or impossible given the device capabilities or the current settings of other controls. For example, if you click **Print on Both Sides** and then change the media type to **Transparency**, a message appears asking you to resolve this conflict.

NOTE Constraint messages are limited, and the underlying software architecture might accept some settings that are illogical or impossible for the device to perform. Sending a job with incompatible settings can lead to unexpected results. If print jobs do not print as expected, check the device documentation to ensure that the device has the expected capabilities.

Figure 4-1 A typical constraint message with an **OK** button

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

- Click **OK** to accept the change that was just made. The driver then resets the conflicting control to a setting that is compatible with the new value.
- Click **Cancel** to reject the change that was just made. 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 figure shows a Bubble Help icon on a driver tab.

Figure 4-2 A typical page with a **Bubble Help** icon

The bubble typically appears next to a control that is unavailable, although it can also accompany an available control if an important note concerning its use is available within the Help. 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 that you should be aware of when using that particular feature.

Finishing tab features

To gain access to the **Finishing** tab in Windows 98 or Windows Me, follow these steps:

1. Click **Start**.
2. Select **Settings**.
3. Click **Printers**.
4. Right-click the device name.
5. Click **Properties**.
6. Click the **Finishing** tab.

Use the **Finishing** tab to print on both sides of the page, to control the printed output on the page, and to print booklets. The following figure shows the **Finishing** tab.

Figure 4-3 The default **Finishing** tab

The **Finishing** tab contains the following controls:

- Print Task Quick Sets
- Document Options
- Document preview image
- Print Quality

Print Task Quick Sets

The first group box in the upper portion of the **Finishing** tab is **Print Task Quick Sets**. Because they are all the same control, any change to the **Print Task Quick Sets** group box that is made on the tab affects the **Print Task Quick Sets** group boxes on all of the **Properties** driver tabs that have the **Print Task Quick Sets** settings:

- **Finishing**
- **Effects**
- **Paper**
- **Job Storage**
- **Basics**

Use the **Print Task Quick Sets** setting to store the current combination of driver settings that appear on all of the other print driver tabs. **Print Task Quick Sets** are either preset by network-administrator settings or user-defined printing specifications (such as media size, pages per sheet, and so on).

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

NOTE Administrators can predefine Print Task Quick Sets for their users. These administrator Print Task Quick Sets are defined on the server and are available to users, but usually cannot be modified by users. Users can also define Print Task Quick Sets for their own use.

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

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

- Default Print Settings
- User Guide Print Settings

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 media sizes, or the other quick sets have been changed or deleted, the original settings for those items are *not* restored.

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

Table 4-1 Print Task Quick Set default values for the HP LaserJet 5200 printer

Driver feature	Feature setting location	U.S. English Print Task Quick Sets for Default values	Preconfigurable[1]
Print on Both Sides	**Finishing** tab, **Document Options** group box	Available, not selected	Yes
Flip Pages Up	**Finishing** tab, **Document Options** group box	Unavailable, not selected	Yes
Booklet Printing	**Finishing** tab, **Document Options** group box	Unavailable, Off	Yes
Pages per Sheet	**Finishing** tab, **Document Options** group box	1	Yes
Print Page Borders	**Finishing** tab, **Document Options** group box	Unavailable	Yes
Page Order	**Finishing** tab, **Document Options** group box	Unavailable	Yes
Print Quality	**Finishing** tab, **Print Quality** group box	Default	Yes
Current Setting	**Finishing** tab, **Print Quality Details** dialog box (Click **Details** on **Finishing** tab.)	This is the “Default” setting	
Raster Compression (HP Traditional PCL 6 Driver only)	**Finishing** tab, **Print Quality Details** dialog box (Click **Details** on **Finishing** tab.)	Automatic	
Rendering Mode (HP Traditional PCL 5 Driver only)	**Finishing** tab, **Print Quality Details** dialog box (Click **Details** on **Finishing** tab.)	Automatic	
Send TrueType as Bitmaps	**Finishing** tab, **Print Quality Details** dialog box (Click **Details** on **Finishing** tab.)	Available, not selected	Yes
Output Settings	**Finishing** tab, **Print Quality Details** dialog box (Click **Details** on **Finishing** tab.)	Scale Patterns (WYSIWIG) selected	
Print Document On	**Effects** tab, **Fit to Page** group box	Off; print on the size that is specified on the **Paper** tab	Yes
Size to print on	**Effects** tab, **Fit to Page** group box	Actual size specified on the **Paper** tab	Yes[2]
Scale to Fit	**Effects** tab, **Fit to Page** group box	Unavailable, selected	Yes
Watermarks	**Effects** tab, **Watermarks** dialog box	(none)	Yes
First Page Only (watermark)	**Effects** tab, **Watermark** dialog box	Unavailable	Yes
Current Watermarks	**Effects** tab, **Watermark Details** dialog box (Click **Edit** for **Watermark Details**.)	(none)	Yes[2]
Watermark Message	**Effects** tab, **Watermark Details** dialog box (Click **Edit** for **Watermark Details**.)	(none)	Yes[2]
Message Angle (watermark)	**Effects** tab, **Watermark Details** dialog box (Click **Edit** for **Watermark Details**.)	Diagonal	Yes[2]

Table 4-1 Print Task Quick Set default values for the HP LaserJet 5200 printer (continued)

Driver feature	Feature setting location	U.S. English Print Task Quick Sets for Default values	Preconfigurable[1]
Watermark message angle (angle)	**Effects** tab, **Watermark Details** dialog box (Click **Edit** for **Watermark Details**.)	Unavailable unless **Angle** option is selected, **52** degrees	Yes
Name (watermark font)	**Effects** tab, **Watermark Details** dialog box, **Font Attributes** group box	Arial	Yes[2]
Color (watermark font)	**Effects** tab, **Watermark Details** dialog box, **Font Attributes** group box	Gray	Yes
Shading (watermark font)	**Effects** tab, **Watermark Details** dialog box, **Font Attributes** group box	Very Light	Yes[2]
Size (watermark font)	**Effects** tab, **Watermark Details** dialog box, **Font Attributes** group box	80	No
Style (watermark font)	**Effects** tab, **Watermark Details** dialog box, **Font Attributes** group box	Regular	Yes
Use Different Paper/ Covers	**Paper** tab, **Paper Options** group box	Off (All of the pages use the same media.)	No
Size is:	**Paper** tab, **Paper Options** group box	Letter	Yes
Source is:	**Paper** tab, **Paper Options** group box	Automatically Select	Yes
Type is:	**Paper** tab, **Paper Options** group box	Unspecified	Yes
Unlabeled group box	**Job Storage** tab	Status message about the destination of the job	No
Job Storage Mode	**Job Storage** tab, **Job Storage Mode** group box	Off	No
Proof and Hold	**Job Storage** tab, **Job Storage Mode** group box	Available, not selected	No
Private Job	**Job Storage** tab, **Job Storage Mode** group box	Available, not selected	No
Quick Copy	**Job Storage** tab, **Job Storage Mode** group box	Available, not selected	No
Stored Job	**Job Storage** tab, **Job Storage Mode** group box	Available, not selected	No
Require PIN to print option	**Job Storage** tab, **Job Storage Mode** group box	Unavailable, not selected	No
PIN to Print	**Job Storage** tab, **Job Storage Mode** group box	Unavailable, blank	
MS Windows User Name	**Job Storage** tab, **User Name** group box	Unavailable, selected	No
Job Name	**Job Storage** tab, **Job Name** group box	Unavailable, **Automatic** selected	No
Display Job ID when printing	**Job Storage** tab, **Job Notification Options** group box	Unavailable	No
Copy	**Basics** tab, **Copies** group box	1	Yes
Orientation	**Basics** tab, **Orientation** group box	Portrait	Yes

Table 4-1 Print Task Quick Set default values for the HP LaserJet 5200 printer (continued)

Driver feature	Feature setting location	U.S. English Print Task Quick Sets for Default values	Preconfigurable[1]
Landscape	**Basics** tab, **Orientation** group box	Available, not selected	Yes
Rotate by 180 degrees	**Basics** tab, **Orientation** group box	Available, not selected	Yes

[1] Preconfigurable by using one of the HP Preconfiguration tools. For more information, see HP Driver Preconfiguration, or go to: www.hp.com/go/hpdpc_sw.

[2] Not supported in 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 *HP LaserJet 5200 User Guide*.

When you select **User Guide Print Settings**, all of the settings are restored to the default settings, except for the following settings:

- **Print on Both Sides** is set to **ON**
- **Flip Pages Up** is set to **ON**
- **Booklet Printing** is set to **OFF** and is unavailable
- **Pages per Sheet** is set to **2**
- **Page Order** is set to **Right then Down**

Document Options

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

- Correct Order for Rear Bin
- Print on Both Sides
- Flip Pages Up
- Booklet Printing
- Pages per Sheet
- Print Page Borders
- Page Order

Correct Order for Rear Bin

The HP LaserJet 5200 has a door in the back that can be opened to make the paper go straight out the back of the printer. Use this bin or slot to minimize curl and avoid jams with heavier paper, such as cardstock. You may also need to feed the paper from the multipurpose tray for best results. The paper is delivered printed side up. Use this feature to order your pages correctly for this bin or slot. If you click this check box and also click **Print on Both Sides**, the printer prints the first side of each page, pauses for you to reload the paper, and then prints the second side of each page. Other documents cannot be printed while the printer is paused. Follow the onscreen instructions.

Print on Both Sides

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 of the following media types except for the following types:
  - **Labels**
  - **Transparency**
  - **Envelope**
  - Cardstock
  - **Tough Paper**
- **Size is:** is set to any media size except for the following sizes:
  - **Statement**
  - **Envelope #10**
  - **Envelope DL**
  - **Envelope C5**
  - **Envelope B5**
  - **Envelope Monarch**
  - **Double Japan Postscard Rotated**

NOTE As a rule, extra memory need not be installed on the HP LaserJet 5200 printer in order to print on both sides. However, very complex double-sided print jobs might require additional memory.

Selecting **Print on Both Sides** makes the **Flip Pages Up** and **Booklet Printing** options available when **Paper Size** is set to the following media sizes:

- **Letter**
- **Legal**
- **A4**

Topics:

- Automatically print on both sides
- Manually printing on both sides

Automatically print on both sides

The duplexing unit in the device prints on two sides of a sheet of paper when the **Print on Both Sides** option is specified in the print job. The HP LaserJet 5200 printer comes with a duplexing unit installed in the following models:

- HP LaserJet 5200tn
- HP LaserJet 5200dtn

The HP LaserJet 5200 printer supports smart duplexing. The smart duplexing feature increases printing performance by preventing one-page print jobs or single-sided pages of a duplexed print job from going through the duplexing unit even when the duplexing feature has been selected in the driver.

The smart duplexing feature is available for all media types, except for those that cannot be printed on both sides and certain others. Media types that are not supported are shown in the following list:

- Labels
- Envelopes
- Transparency
- Prepunched
- Preprinted
- Letterhead

When the media type is set to **Unspecified**, the smart duplexing feature is disabled.

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 settings, such as fuser temperature and print speed, to produce the best possible quality. This group of settings is known as a mode or print mode, and a different print mode is used with each media type. Print-mode adjustments are automatic when the duplexing unit is used.

Manually printing on both sides

Select the **Print on Both Sides (Manually)** check box to print on the second side of the media for the HP LaserJet 5200 and HP LaserJet 5200n printer models, which do not have a duplexing unit installed. Also select **Print on Both Sides (Manually)** on the other HP LaserJet 5200 printer models for media types that are not available when using the automatic duplexing unit, such as cardstock and thick media.

Manually printing on the second side of a page is available when you are using the HP Traditional PCL 6 Driver or the HP Traditional PCL 5 Driver. (The PS Emulation Driver does not support this feature.) If a duplexing unit is installed and manual duplexing is enabled in the driver, the device automatically prints on both sides of media types that are supported for automatic duplexing (Letter, A4, Legal, and 8.5 x 13, only), and forces manual printing on both sides for media types that are not supported.

To make the **Print on Both Sides (Manually)** check box available in the document options, select the **Allow Manual Duplexing** check box on the **Configure** tab in the Properties print-driver tabs.

If you want to print on both sides manually while using media that is supported for automatic duplexing, you must click to clear the **Duplexing Unit** check box on the **Configure** tab.

Select the media type that corresponds to the media that you are using for the print job. The following media types have a different print modes when you manually print on the second side:

- Plain
- Preprinted
- Letterhead
- Prepunched
- Bond
- Recycled
- Colored
- Rough

Cardstock media can be manually printed on the second side, but no change occurs to the print mode. Transparencies and labels should not be manually printed on the second side.

To print a multiple-page document, follow these steps:

1. Select the **Print on Both Sides (Manually)** check box.
2. Click **OK**. The even-number pages of the document print.
3. When the control panel shows the MANUALLY FEED message, insert the stack of media (on which the even-number pages have been printed) as indicated in the following figure.

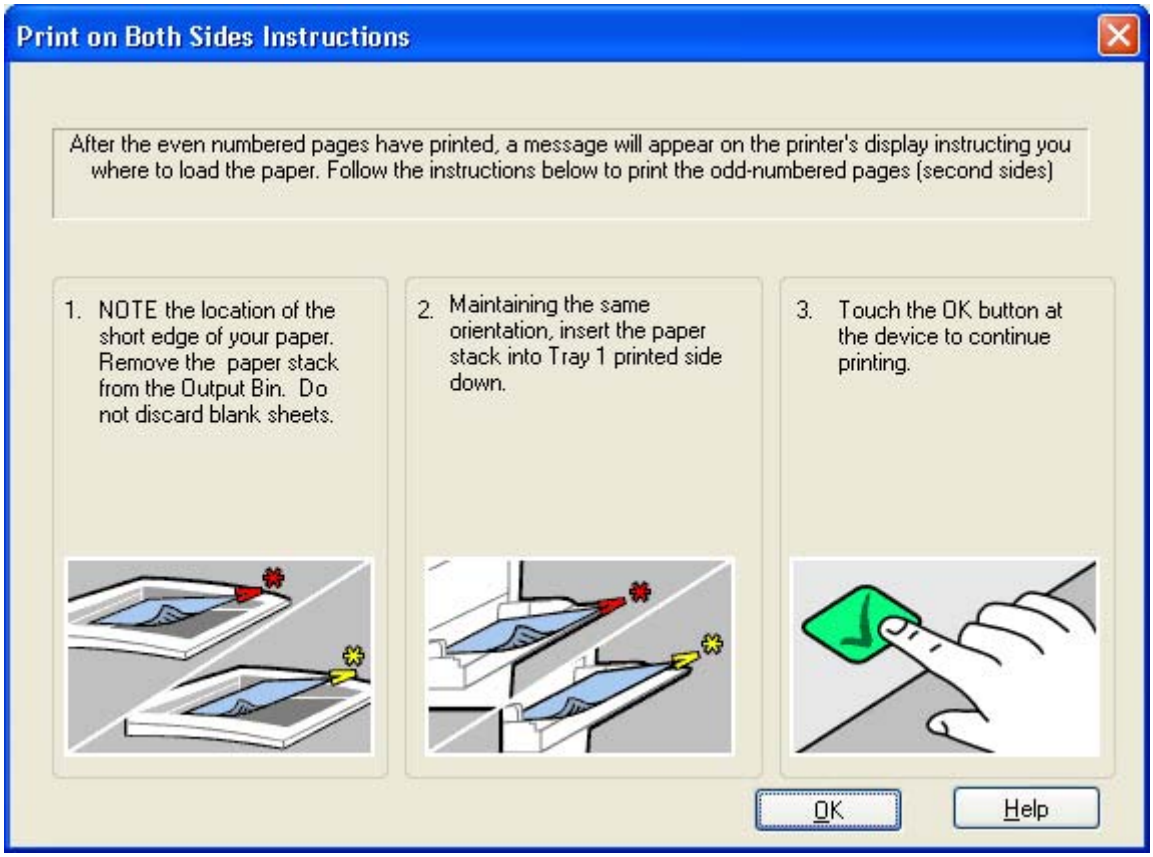


Figure 4-4 **Print on Both Sides Instructions** dialog box

When you have completed the steps that appear in the dialog box, the second half of the print job prints on the back side of the stack of media. The driver does not require the program to specifically support odd- and even-page printing, because the driver coordinates this function.

Flip Pages Up

Use the **Flip Pages Up** check box, which is available only when **Print on Both Sides** is selected, to specify the duplex-binding option. By default, the **Flip Pages Up** check box is not available.

The following table demonstrates the results of selecting this check box, depending on the media orientation that is selected on the **Basics** tab.

Table 4-2 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.

Short-side binding is for print jobs with pages that read by flipping over like the pages of a calendar. Long-side binding is for print jobs with pages that read by turning like the pages of a book.

Booklet Printing

The **Booklet Printing** drop-down menu is visible when **Print on Both Sides** is selected and a supported media size is selected in the **Size is:** drop-down menu on the **Paper** tab.

The **Booklet Printing** drop-down menu offers choices that are based on the current media size. The default setting is **Off**. The other settings have the following format, where **[paper size]** depends on the media size that is 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.

If you change the **Pages per Sheet** setting manually to 4, 6, 9, or 16 pages per sheet, the booklet setting is disabled.

Booklet printing is disabled when unsupported media sizes (such as envelopes) are selected as the media size, and an incompatibility error message appears when you click **OK** to close the driver.

The **Booklet Printing** drop-down menu appears only when the following conditions exist:

- **Print on Both Sides** (on the **Finishing** tab) is selected.
- **% of Normal Size** (on the **Effects** tab) is 100.
- **Pages per Sheet** (on the **Finishing** tab) is 1.
- **Size is:** (on the **Paper** tab) is set to Letter, Legal, or A4.

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.

Topics:

- Book and Booklet Printing
- Print a booklet

Book and Booklet Printing

The HP LaserJet 5200 printer supports both book and booklet printing.

A book is a print job that consists of at least two pages. It can have a different media type for the front cover, first page, other pages, last page, or back cover. Use the settings on the **Paper** tab (available when you select the **Use Different Paper/Covers** check box) to select the following printing options for the book:

- **Front Cover**
- **First Page**
- **Other Pages**

- **Last Page**
- **Back Cover**

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.

Print a booklet

Complete the following steps to print a booklet in most software programs.

1. In the software program, click **File**, click **Print**, and then click **Properties**.
2. Click the **Finishing** tab.
3. Select the **Print on Both Sides** check box.
4. 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]**).
5. Click **OK** in the print driver.
6. Click **OK** in the print dialog box to print.

Pages per Sheet

Use the **Pages per Sheet** option to select the number of pages that you want to print on a single sheet of media.

If you choose to print more than one page per sheet, the pages appear smaller and are arranged on the sheet in the order that they would otherwise be printed. The **Pages per Sheet** drop-down menu provides six settings:

- **1 page per sheet** (default)
- **2 pages per sheet**
- **4 pages per sheet**
- **6 pages per sheet**
- **9 pages per sheet**
- **16 pages per sheet**

When you select an option other than **1 page per sheet**, booklet printing is unavailable.

Print Page Borders

Related controls that are 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 the following selections:

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

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

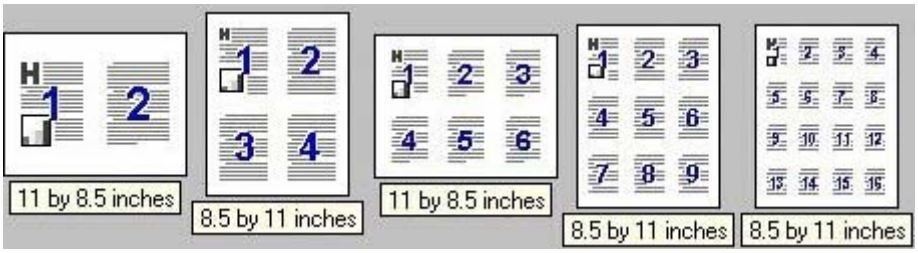


Figure 4-5 Page-order preview images

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

Document preview image

The document preview image is a line-drawn image of a page that represents graphics and text. The document preview image is always oriented so that the contents of the page are right-side up. The document preview image appears in the upper-right corner of the following **Properties** driver tabs:

- **Finishing**
- **Effects**
- **Paper**
- **Basics**

Switching between tabs does not change the location or appearance of the document preview image. When you move the mouse cursor over the document preview image, the cursor changes from an arrow to a gloved hand.

You can toggle between portrait and landscape page orientation by clicking the image. The 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 the dimensions label to toggle between English and metric units.

Print Quality

The HP LaserJet 5200 print-driver **Print Quality** group box provides options that control output settings and font settings.

The following options are available in the **Print Quality** group box: The **Print Quality Details** dialog box opens. The **Print Quality Details** dialog box has different options, depending on the driver that you are using. Changing resolution might change the formatting of the printed document.

- **Best Quality** setting
- **Faster Printing** setting
- **Economode** check box
- **Details** button

Best Quality

Select this option to print documents at the optimal resolution of the printer. This option provides the best quality.

Faster Printing

Select this option to print faster than with the **Best Quality** setting, but with slightly lower quality. This setting uses 300 dpi for the HP Traditional PCL 5 Driver and 600 dpi for the HP Traditional PCL 6 Driver.

Print Quality Details for the HP Traditional PCL 6 Driver

The **Print Quality Details** dialog box provides the options for print-quality settings in the HP Traditional PCL 6 Driver as shown in the following figure.

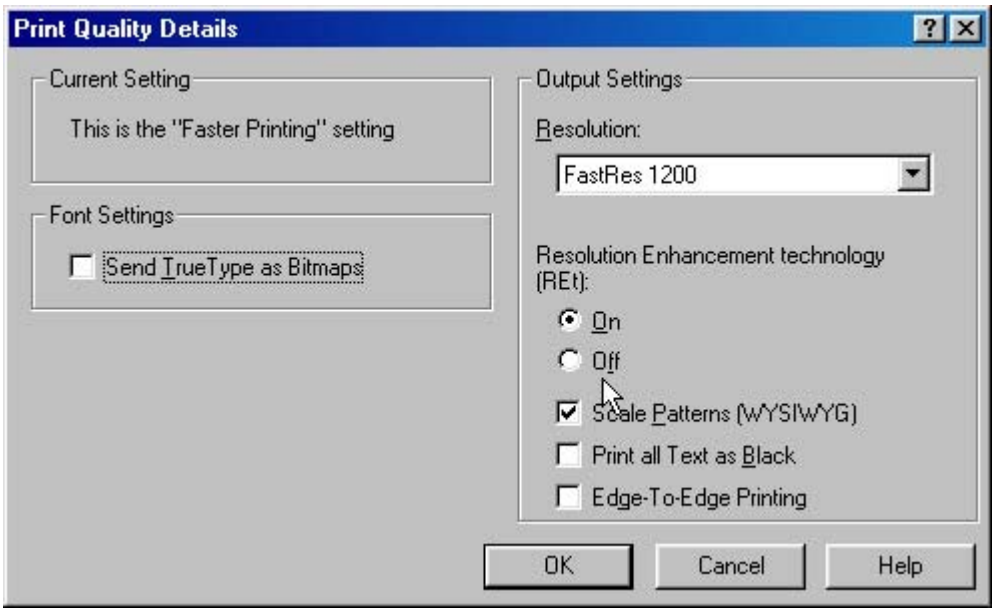


Figure 4-6 **Print Quality Details** dialog box for the HP Traditional PCL 6 Driver

The following options are available:

- Current Setting

- Font Settings
- Output Settings

Current Setting

The **Current Setting** group box has two settings in the HP Traditional PCL 6 Driver. When you make a change in the **Print Quality Details** dialog box, the setting changes to reflect the current print-quality setting:

- This is the “Best Quality” setting
- This is the “Faster Printing” setting
- This is a “Custom” setting

Font Settings

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 fonts for special graphic purposes, such as shading, rotation, or slanting.

The **Send TrueType as Bitmaps** check box is not selected (clear) 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.

Output Settings

The **Output Settings** group box contains the following controls and default settings:

- **ProRes 1200 (170 lpi)**
- **ProRes 1200 (141 lpi)**
- **FastRes 1200**
- **600 dpi**
- **Resolution**. The options are:
  - **ProRes 1200 (170 lpi)**
  - **ProRes 1200 (141 lpi)** (default)
  - **FastRes 1200**. This is the default setting.
  - **600 dpi**
-

  NOTE When a “ProRes” setting is selected, documents are printed using a resolution of 1200 x 1200 dpi. This is the best print quality, but printing speed is slower than for documents printed on a “FastRes” setting. The “FastRes” setting emulates 1200-dpi printing, but places fewer dots on the page and uses less toner, and printing speed is faster than for documents printed on a “ProRes” setting.

  The **Resolution Enhancement technology (REt)** feature is enabled by default. The options are **On** or **Off** (rather than the “Light,” “Medium,” “Dark,” or “Off” settings in some print drivers). The **On** setting corresponds to the “Medium” setting found in other HP printer drivers.

- Use the **Scale Patterns (WYSIWYG)** feature to address the moiré effect that is 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 selected by default.
- The **Print All Text as Black** feature is *not* selected by default. When the feature is selected, the driver prints all text as black regardless of the original document text color. Color text is printed as black, except for white text, which remains white. (White text is a reliable method of printing reverse typeface against a dark background.) This setting does not affect graphic images on the page, nor does it affect any text that is part of a graphic.
- **Edge-to-Edge Printing**. Select this check box to allow near edge-to-edge printing on the media size specified. For example, to achieve “edge-to-edge” printing for Letter-size media, use a larger-than-letter-size media, select the **Edge-to-Edge Printing** option, and trim the margin so that the printed image extends to the edge of the page.

Print Quality Details for the HP Traditional PCL 5 Driver

The **Print Quality Details** dialog box provides the options for print-quality settings in the HP Traditional PCL 5 Driver as shown in the following figure.

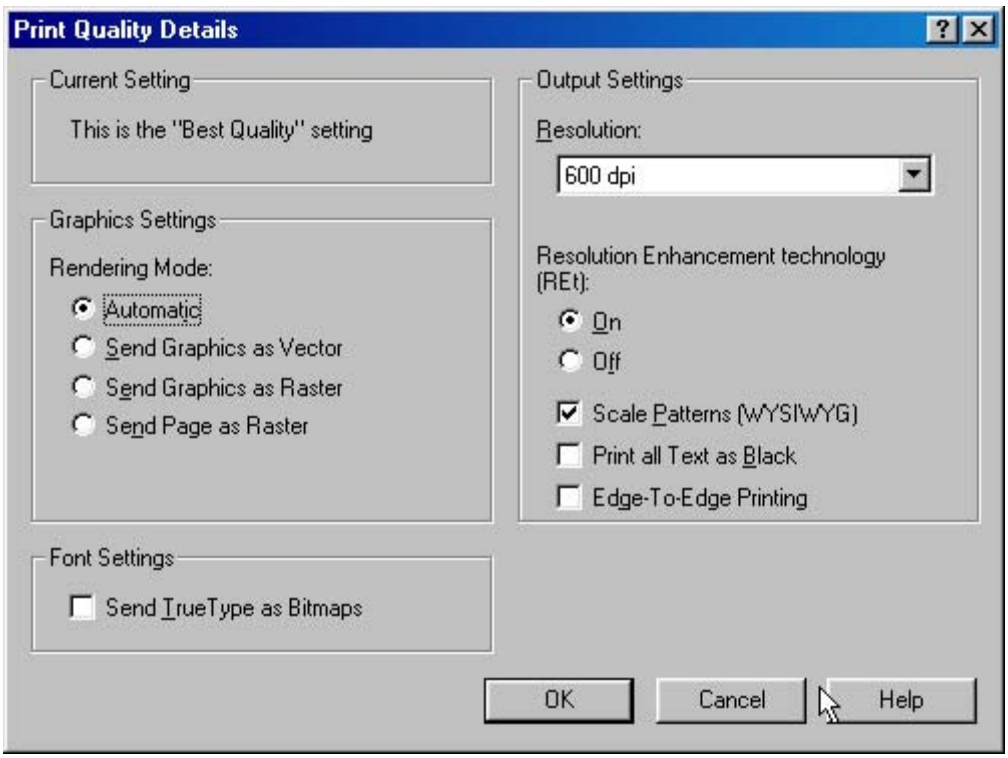


Figure 4-7 **Print Quality Details** dialog box for the HP Traditional PCL 5 Driver

The following options are available:

- Current Setting
- Graphic Settings
- Font Settings
- Output Settings

Current Setting

The **Current Setting** group box has two settings in the HP Traditional PCL 5 Driver. When you make a change in the **Print Quality Details** dialog box, the setting changes from the setting on the Finishing tab (for instance, **This is the “Best Quality” setting** [the default setting] or **This is the “Faster Printing” setting**) to **This is a "Custom" setting**.

Graphic Settings

The **Graphics Settings** group box in the HP Traditional PCL 5 Driver has settings for the graphics rendering mode. The following **Rendering Mode:** options 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, V2 (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.

Font Settings

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 fonts for special graphic purposes, such as shading, rotation, or slanting. The **Send TrueType as Bitmaps** check box is not selected (clear) 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.

Output Settings

The **Output Settings** group box contains the following controls and default settings:

- **Resolution**. The options are:
  - **600 dpi** (default)
  - **300 dpi**
- The **Resolution Enhancement technology (REt)** feature is enabled by default. The options are **On** or **Off** (rather than the “Light,” “Medium,” “Dark,” or “Off” settings in some print drivers). The **On** setting corresponds to the “Medium” setting found in other HP printer drivers.
- Use the **Scale Patterns (WYSIWYG)** feature to address the moiré effect that is 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 selected by default.
- The **Print All Text as Black** feature is *not* selected by default. When the feature is selected, the driver prints all text as black regardless of the original document text color. Color text is printed as black, except for white text, which remains white. (White text is a reliable method of printing reverse

typeface against a dark background.) This setting does not affect graphic images on the page, nor does it affect any text that is part of a graphic.

- **Edge-to-Edge Printing**. Select this check box to allow near edge-to-edge printing on the media size specified. For example, to achieve “edge-to-edge” printing for Letter-size media, use a larger-than-letter-size media, select the **Edge-to-Edge Printing** option, and trim the margin so that the printed image extends to the edge of the page.

Effects tab features

To gain access to the **Effects** tab in Windows 98 or Windows Me, follow these steps:

1. Click **Start**.
2. Select **Settings**.
3. Click **Printers**.
4. Right-click the device name.
5. Click **Properties**.
6. Click the **Effects** tab.

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

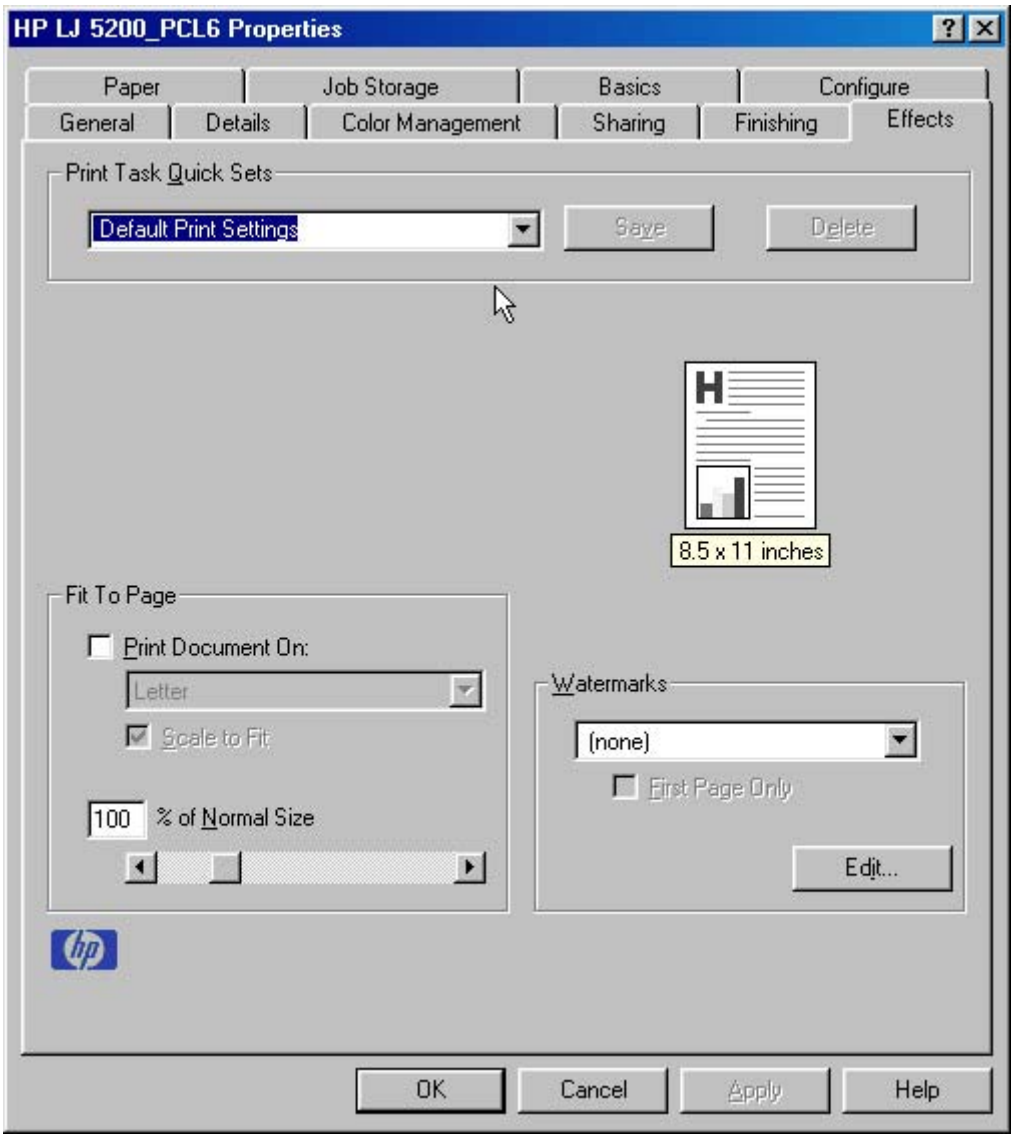


Figure 4-8 **Effects** tab

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

- Print Task Quick Sets
- Fit To Page
- Document preview image
- Watermarks

Print Task Quick Sets

Use the **Print Task Quick Sets** control to store the current combination of driver settings that appear on all other **Properties** driver tabs. Print Task Quick Sets are either preset (by the administrator) or user-defined printing specifications, such as media size and pages per sheet.

Fit To Page

The **Fit To Page** group box contains the following controls:

- Print Document On
- Scale to Fit
- % of Normal Size

Print Document On

Use **Print Document On** to format the document for one media size, and then print the document on a different media size, with or without scaling the page image to fit the new media size.

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

- **% 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 that the selected media source supports and any custom size that you have created. When **Print Document On** is selected, **Scale to Fit** is automatically selected. Clear this check box if you do not want your document reduced or enlarged to fit on the selected media size.

Scale to Fit

The **Scale to Fit** option specifies whether each formatted document page image is scaled to fit the target media 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 media. If the document size is larger than the target media size, then the document image is clipped. If the document size is smaller, then it is centered within the target media. The following figure shows preview images for a document formatted for Legal-size media with the **Print Document On** option selected and the target size specified as **Letter**.

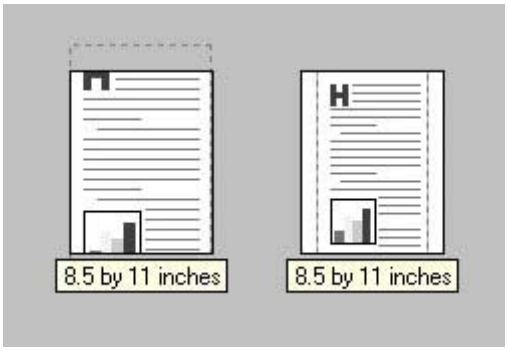


Figure 4-9 Preview images – Legal on Letter; **Scale to Fit** off (left) and on (right)

When the size for which the document is formatted (that is, the logical size) differs from the target size, the document 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

The **% of Normal Size** option provides a slider bar for scaling the percentage setting. The default setting in the entry box is 100% of the normal size. The normal size is defined as the media size that is selected within the driver or what the driver receives from the software program (if the software program does not negotiate the media 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% to 400%, 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 document preview image, 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 slider-bar indicator is dragged, and the document preview image is updated to the new image scale. Each click on the arrows increases or decreases the scale by 1%. Each click on the slider bar affects the scale by 10%.

You cannot achieve an exact value by dragging the slider-bar indicator. Instead, either use the slider-bar indicator to approximate the value that you want and then use the arrows to refine the value, or type the value into the entry box.

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

- **Print Document On** (on the **Effects** tab) is selected.
- **Pages per Sheet** (on the **Finishing** tab) is not 1.

Document preview image

The document preview image is a line-drawn image of a page that represents graphics and text. The document preview image appears in the upper-right corner of the following **Properties** driver tabs:

- **Finishing**
- **Effects**

- **Paper**
- **Basics**

Watermarks

Use the **Watermarks** feature to select a watermark, create your own custom watermarks (text only), or edit an existing watermark.

The **Watermarks** group box contains the following controls:

- Current Watermarks
- First Page Only
- Edit…

Current Watermarks

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 that is selected from this list appears in the document preview image.

First Page Only

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 not available 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…

Click **Edit…**, and the **Watermark Details** dialog box appears. The following figure shows the **Watermark Details** dialog box.

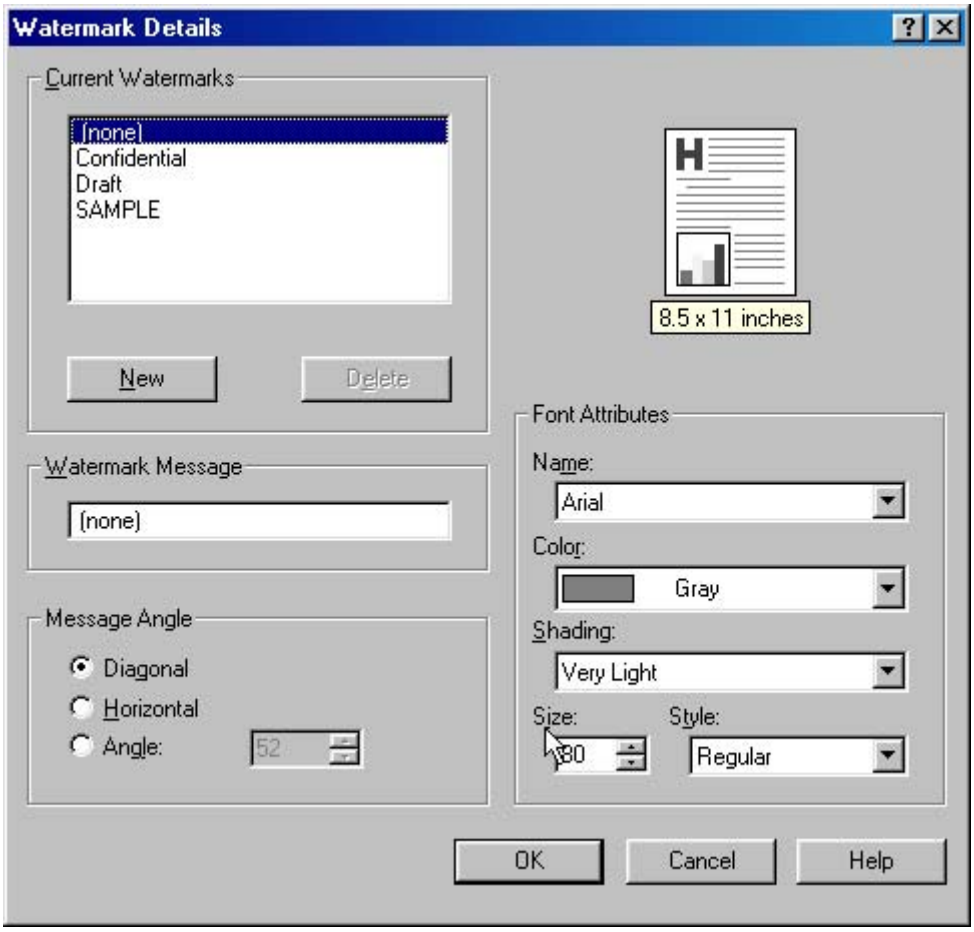


Figure 4-10 **Watermark Details** dialog box

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

The **Watermark Details** dialog box contains the following controls:

NOTE This section also contains information about default watermark settings.

- Current Watermarks
- Watermark Message
- Message Angle
- Document preview image
- Font Attributes
- Default watermark settings

Current Watermarks

The **Current Watermarks** group box contains a list of available watermarks, both predefined watermarks that are available in the driver and any new watermarks that 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 that 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 make it available.

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 in 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 (**Draft #3**, **Draft #4**, and so on).

Message Angle

Use the controls in the **Message Angle** group box to print the watermark in different orientations on the page. All settings center the watermark string within the page; the selection of a particular setting affects only the angle of the string placement. The following settings are available:

- **Diagonal**. This is the default setting. Select this setting to place the text along a line that spans the lower-left to upper-right corners of the page.
- **Horizontal**. Select this setting to place the text along a line that spans the mid-left and mid-right edges of the page.
- **Custom**. Select this setting to place the text at the specified angle across the page. Use the numeric spin box to select the angle.

Document preview image

The document preview image is a line-drawn image of a page that represents graphics and text. The document preview image appears in the upper-right corner of the **Watermark Details** dialog box. The document preview image changes to reflect the modifications that you make in the **Watermark Details** dialog box.

Font Attributes

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

The **Font Attributes** group box contains the following controls:

- **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 contains only one option: **Gray**.

- **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 gray that is used. Select **Light** to produce a lightly saturated gray watermark. Select **Lightest** to produce the lightest shade of watermark. Select **Darkest** to produce 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 default point size for preset watermarks is language-dependent.

- **Style**

  The following settings are available:

  - **Regular**
  - **Bold**
  - **Italic**
  - **Bold Italic**

    The default **Style** setting for new and preset watermarks is **Regular**.

Default watermark settings

The following table shows **Font Attribute** settings for new and preset watermarks.

Table 4-3 Font Attribute settings for new and preset watermarks

Setting	New watermark	Preset watermark
Name	**Arial**	Varies by language
Color	**Gray**	**Gray**
Shading	**Very Light**	**Very Light**
Size	**80**	Varies by language
Style	**Regular**	**Regular**

Click **OK** to accept all of the changes that have been 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 are saved, and only the current, unsaved changes can be canceled.

Paper tab features

To gain access to the **Paper** tab in Windows 98 or Windows Me, follow these steps:

1. Click **Start**.
2. Select **Settings**.
3. Click **Printers**.
4. Right-click the device name.
5. Click **Properties**.
6. Click the **Paper** tab.

Use the **Paper** tab to specify the size, type, and source of the media. You can also use this tab to specify different media selections for the front cover, first page, other pages, last page, and back cover of the document. The following figure shows the **Paper** tab.

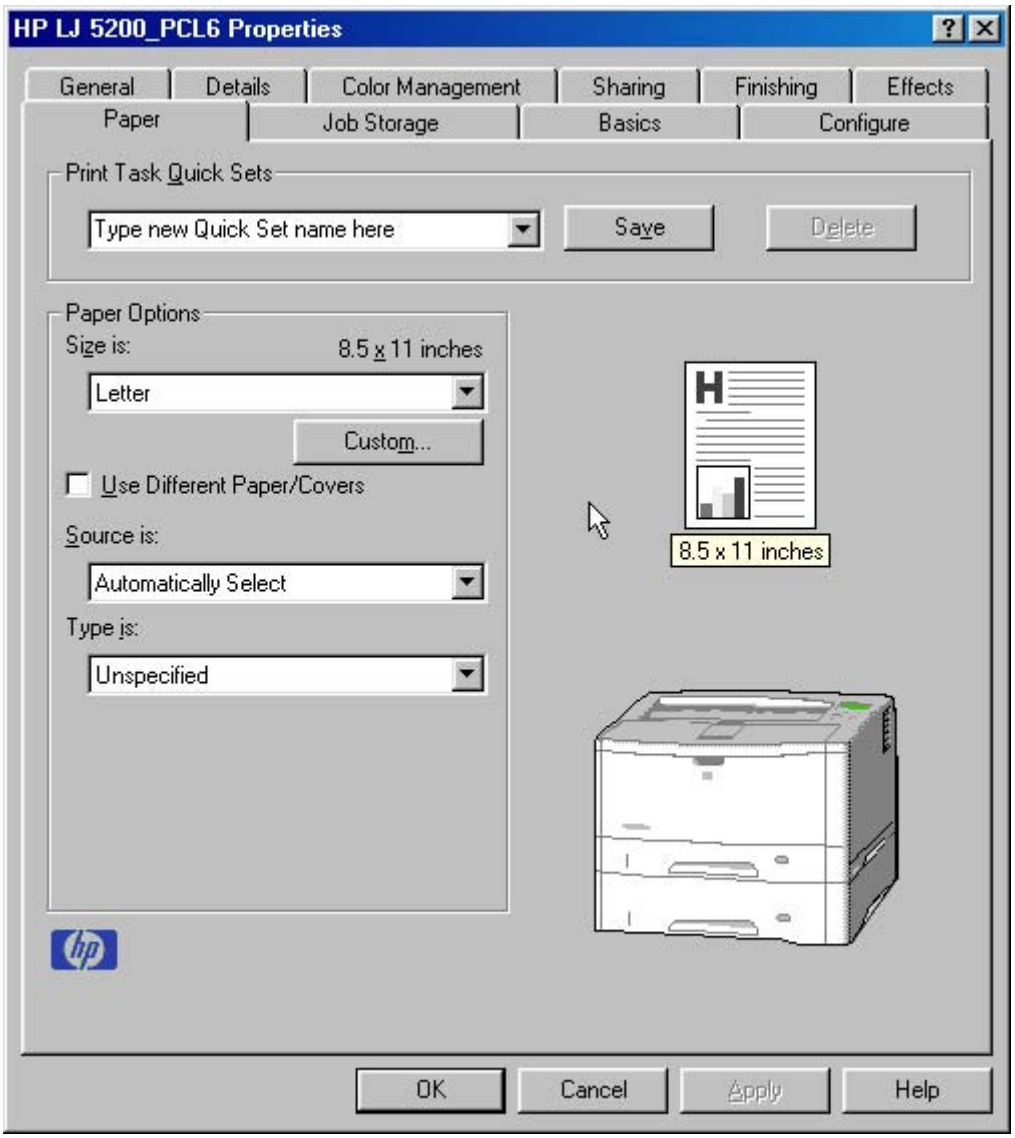


Figure 4-11 **Paper** tab

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

- Print Task Quick Sets
- Paper Options
- Document preview image
- Device image

Print Task Quick Sets

Use the **Print Task Quick Sets** control to store the current combination of driver settings that appear on all other **Properties** driver tabs. Print Task Quick Sets are either preset (by the administrator) or user-defined printing specifications, such as media size and pages per sheet.

Paper Options

The settings specified in the **Paper Options** group box on the **Paper** tab apply to all of the pages of the document. The following figure shows the **Paper Options** group box and the selections available by default.

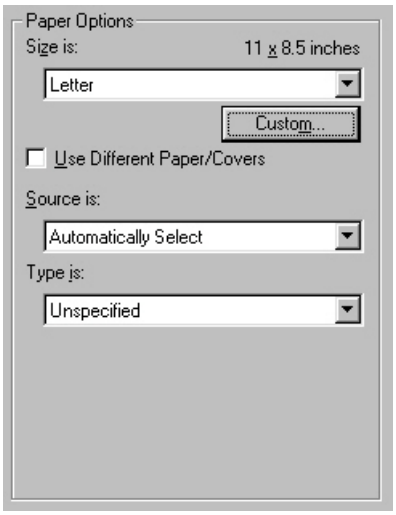


Figure 4-12 **Paper Options** group box (default)

The appearance of the **Paper Options** group box changes when the **Use Different Paper/Covers** check box is selected. For convenience, the settings in the **Paper Options** group box are described in the following order:

- Size is
- Source is
- Type is
- Use Different Paper/Covers
- Custom

Size is

The **Size is:** setting is a drop-down menu that lists all of the supported media sizes.

NOTE When you move the mouse cursor over the dimensions label, the cursor changes from an arrow to a gloved hand. Click the dimensions label to toggle between English and metric units.

You can specify size for all of the settings in the **Paper Options** group box. When you set the media size in the driver, the entire print-job output uses that media size. That is, if the print job uses Letter-size media, any option that you select from the available **Use Different Paper/Covers** options must also use Letter-size media.

Because print-driver settings are overridden by media-size settings in most software programs, it is generally best to use the print driver to set media size only for software programs that lack a media-size setting, such as NotePad, or when you are producing a book or a booklet that does not require different media sizes.

NOTE Certain software programs can override the size command and specify different media sizes within a single document.

When you change the print-driver setting to a media size that is not currently loaded in the device, a control-panel message appears that prompts you to load the media size or select another tray.

For information about media sizes, see Media attributes.

When the **Use Different Paper/Covers** check box is selected and different options are configured, the **Size is:**, **Source is:**, and **Type is:** menus change, offering a variety of options.

Custom

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

NOTE The **Custom** button is not available when **Use Different Paper/Covers** is selected *and* any setting other than **First Page** is also selected.

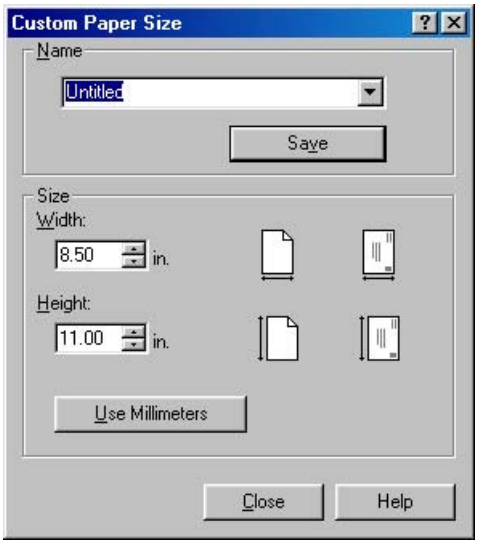


Figure 4-13 **Custom Paper Size** dialog box

When the **Custom Paper Size** dialog box appears, the drop-down menu in the **Name** group contains one of two things, depending on the current paper-size selection on 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 media size, then the drop-down menu shows the default name **Untitled** (plus a number sign [**#**] and a numerical value) for a custom media size.

NOTE In 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 media measuring 8.4 inches x 11 inches).

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

The complete set of titles for this button and the specific characteristics that determine its title and capabilities are discussed in the Save, Delete, or Rename section.

Name

The **Name** drop-down menu shows the name of the custom media size that was selected most recently. Use the **Name** drop-down menu to select from the list of currently defined custom media sizes, or to type a new name for a custom media size.

The name that appears in the **Name** drop-down menu is one of three things, depending on the following conditions:

- If a saved custom media 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 media size.
- If the width or height controls have been changed since a custom size was selected or saved, or if a saved media 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 will remain in the drop-down menu until a saved custom media size has been selected from the drop-down menu.

If you type a new name into the **Name** drop-down menu, but then do not click **Save**, you can change the width and height values without losing the name. However, if a saved media-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 media size.

Save, Delete, or Rename

The dynamic command button located under 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 most recent save action or since the selection of an existing custom media 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 media names, and not against the standard media-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 media size appears in the **Name** drop-down menu, such as immediately after selecting an item from the drop-down menu or clicking **Save**. Clicking **Delete** causes the saved custom media 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 media size from the drop-down menu. If no duplicate is found, then the name of the stored custom media size changes to match the contents of the **Name** drop-down menu.

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

Table 4-4 Name drop-down menu text strings

State	Drop-down menu contents	Button label	Action	Next state
1	Untitled	Save	Click **Save**.	3
			Type something into the **Name** 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 **Save**.	3
			Type something into the **Name** 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 **Delete**.	1
			Type something into the **Name** drop-down menu.	4
			Change the width or height values.	1
			Select a saved item from the drop-down menu.	3

Table 4-4 Name drop-down menu text strings (continued)

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

Custom size (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. The paper and envelope icons visually define width and height.

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 Custom width and height control limits.

If units are in millimeters, the custom media-size range minimum is the limit rounded up to the nearest whole millimeter. The custom media-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 1 millimeter or 1/10 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 dynamic measurement units button (either **Use Inches** or **Use Metric**).

Custom width and height control limits

The minimum media size for the HP LaserJet 5200 is 76.2 x 127 mm (3 x 5 inches) and the maximum is 312 x 470 mm (12.28 x 18.5 inches). The following table summarizes media size limits for each media-handling device.

Table 4-5 PCL 6 custom media sizes

Tray	Dimensions	Minimum	Maximum
Tray 1 (100-sheet multipurpose)	Width	76 mm (3.0 inches)	312 mm (12.28 inches)
	Height	127 mm (5.0 inches)	470 mm (18.5 inches)
Tray 2 (250-sheet)	Width	148.0 mm (5.83 inches)	297 mm (11.7 inches)
	Height	210 mm (8.26 inches)	432 mm (17 inches)
Tray 3 (500-sheet, optional)	Width	148.0 mm (5.83 inches)	297 mm (11.7 inches)
	Height	210 mm (8.26 inches)	432 mm (17 inches)

Table 4-5 PCL 6 custom media sizes (continued)

Tray	Dimensions	Minimum	Maximum
Duplexing unit	Width	148.0 mm (5.83 inches)	297 mm (11.7 inches)
	Height	210.0 mm (8.26 inches)	432 mm (17 inches)

Dynamic measurement units

Use the dynamic measurement units button to toggle the unit of measurement between standard (inches) and metric (millimeters) units of measurement. The label on this button is dynamic, depending on the measurement units that are in use. If the custom size currently shows the measurements in inches, the button is labeled **Use Millimeters**. If the custom size currently shows the measurements in millimeters, the button is labeled **Use Inches**. Click the button to switch measurement-unit types.

Close

When you click the **Close** button, the **Custom Paper Size** dialog box closes according to the logic in the following table. In all cases, any custom media sizes that are successfully saved (and not renamed or deleted) while the dialog box is open remains in the **Size is:** drop-down menu on the **Paper** tab. The following table lists options that appear when you click the **Close** button.

Table 4-6 **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 media size remains the same as it was when you clicked the **Custom** button.
<user-typed text>	Save	The dialog box closes, but you lose the changes that were not saved. The current media size remains the same as it was when you clicked the **Custom** button.
<name of saved item>	Delete	The dialog box closes, and the current media size is set to the size that last appeared in the drop-down menu.
<user-typed text>	Rename	The dialog box closes, but you lose the changes that were not saved. The current media size remains the same as it was when you clicked the **Custom** button.

Source is

The **Source is:** setting specifies the source tray to use for printing a document. The list of source trays depends on the device accessories that are installed. Any optional source trays that are installed through the **Configure** tab also appear here.

The **Source is:** drop-down menu can contain the following options, depending on what has been installed on the device:

- **Automatically select**
- **Manual Feed in Tray 1**
- **Tray 1** (100-sheet multipurpose tray)
- **Tray 2** (250-sheet tray)
- **Tray 3** (optional 500-sheet tray)

The default setting is **Automatically Select**. When this setting is selected, the HP LaserJet 5200 uses the source tray that supports the media size that you have selected. If you select a source tray other than **Automatically select**, make sure that the correct media size is loaded in the source tray.

Type is

The **Type is:** drop-down menu shows all of the media types that the HP LaserJet 5200 supports. When you use the default setting, **Unspecified**, the printer uses the default media type, which is usually **Plain**.

The following standard types appear in the list:

- **Unspecified**
- **Plain**
- **Preprinted**
- **Letterhead**
- **Transparency**
- **Prepunched**
- **Labels**
- **Bond**
- **Recycled**
- **Color**
- **Cardstock 164-200 g/m2** (45–53 lb)
- **Rough**
- Vellum
- **Envelope**
- **Light 60-75 g/m2** (16–20 lb)
- Tough Paper (Glossy Film)

The default setting is **Unspecified**, and the program selects the media type. If you select a different setting, make sure that the correct media type is loaded in the tray that you selected in the **Source is:** setting.

When you change the print-driver setting to a media type that is not currently loaded in the device, a control-panel message appears that prompts you to load the media type or select another tray.

Use Different Paper/Covers

You can print books that are comprised of different media types using the **Use Different Paper/Covers** options.

When you select the **Use Different Paper/Covers** check box, the following settings can appear in the group box, along with associated options:

- **Front Cover**
- **First Page**
- **Other Pages**
- **Last Page**
- **Back Cover**

NOTE When you change the **Source Is** and **Type is** settings for any of the covers or pages, the settings remain configured until you close the software program from which you are printing. For example, if you select **First Page** and change the media source or type, and then select **Back Cover** to change the media source or type, the check mark remains beside **Front Cover** and the selected source and type settings remain in effect. The settings are cleared only when you close the software program.

Front Cover

Use the **Front Cover** options to include a blank or preprinted front cover on a document, or to include a front cover from a source tray that is different from the one that is used for the remainder of the document.

The **Front Cover** setting and options are shown in the following figure.

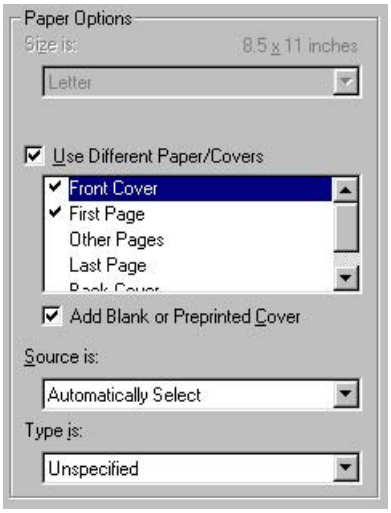


Figure 4-14 **Front Cover** options

The following are the **Front Cover** options:

- **Add a Blank or Preprinted Cover** check box
- **Source is:** drop-down menu
- **Type is:** drop-down menu

When you select **Front Cover**, you must also select the **Add a Blank or Preprinted Cover** check box to enable the setting. When you select this check box, the **Source is:** and **Type is:** drop-down menus become available and a check mark appears next to the **Front Cover** option.

The **Source is:** setting specifies the source tray to use for adding a front cover to the document. The list of source trays depends on the device accessories that are installed. Any optional trays that are installed through the **Configure** tab also appear here.

The **Type is:** drop-down menu shows all of the media types that the device supports.

First Page

Use the **First Page** option to select an alternative media size, type, or source for the first page of a document. The following figure shows the appearance of the **Paper Options** group box when you select the **Use Different Paper/Covers** check box. The **First Page** setting is selected by default.

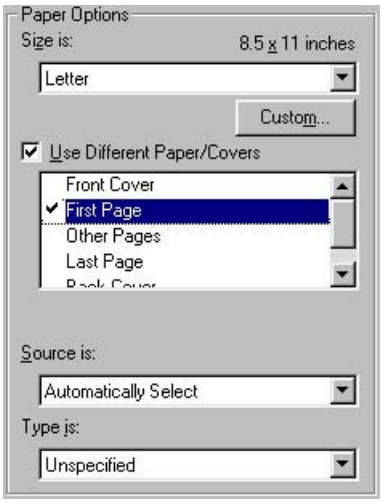


Figure 4-15 **First Page** options

The following are the **First Page** options:

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

The **Size is:** driver setting for the first page applies to the entire print job. When this is set, the setting becomes unavailable for all the other **Use Different Paper/Covers** options.

The **Source is:** setting specifies the source tray to use for printing a document. The list of source trays depends on the device accessories that are installed. Any optional trays that are installed through the **Configure** tab also appear here.

The **Type is:** drop-down menu shows all of the media types that the device supports.

Other Pages

Use the **Other Pages** options to select an alternative media source (or the same source as **First Page**) for the other pages of the document.

The **Other Pages** setting and options are shown in the following figure.

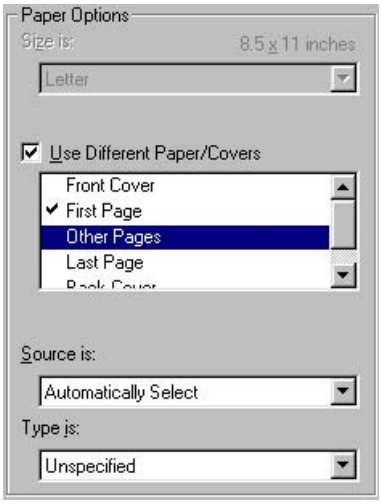


Figure 4-16 Other Pages options

The following are the **Other Pages** options:

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

The **Source is:** setting specifies the source tray to use for printing a document. The list of source trays depends on the device accessories that are installed. Any optional trays that are installed through the **Configure** tab also appear here.

The **Type is:** drop-down menu shows all of the media types that the device supports.

Last Page

Use the **Last Page** options to select an alternative media type or source for the last page of a document.

The **Last Page** setting and options are shown in the following figure.

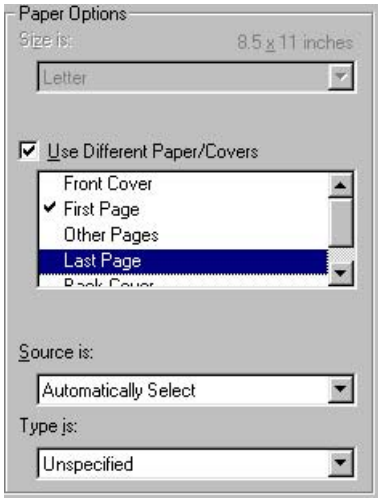


Figure 4-17 **Last Page** options

The following are the **Last Page** options:

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

The **Source is:** setting specifies the source tray to use for printing a document. The list of source trays depends on the device accessories that are installed. Any optional trays that are installed through the **Configure** tab also appear here.

The **Type is:** drop-down menu shows all of the media types that the device supports.

Back Cover

Use the **Back Cover** options to include a blank or preprinted back cover on a document.

The **Back Cover** setting and options are shown in the following figure.

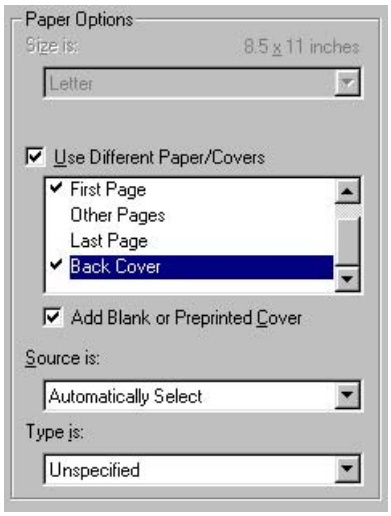


Figure 4-18 **Back Cover** setting

The following are the **Back Cover** options:

- **Add a Blank or Preprinted Cover** check box
- **Source is:** drop-down menu
- **Type is:** drop-down menu

When you select **Back Cover**, you must also select the **Add a Blank or Preprinted Cover** check box to enable the setting. When you select this check box, the **Source is:** and **Type is:** drop-down menus become available and a check mark appears next to the **Back Cover** option.

NOTE The **Back Cover** options are not available when the **Booklet Printing Layout** setting is enabled on the **Finishing** tab. The back cover setting is unavailable, because this page would otherwise be printed in the middle of a booklet.

The **Source is:** setting specifies the source tray to use for adding a back cover to the document. The list of source trays depends on the device accessories that are installed. Any optional trays that are installed through the **Configure** tab also appear here.

The **Type is:** drop-down menu shows all of the media types that the device supports.

Document preview image

The document preview image is a line-drawn image of a page that represents graphics and text. The document preview image appears in the upper-right corner of the following **Properties** driver tabs:

- **Finishing**
- **Effects**
- **Paper**
- **Basics**

Device image

The bitmap image in the lower-right portion of the **Paper** tab represents the current physical configuration of the device and corresponds to its configuration data. It should look the same as the image that appears in the same location on the **Configure** tab in the **Printer Properties**.

On the **Paper** tab, the device image contains hot spots where you can select a media source. When you use the mouse to move the pointer over a hot spot, the arrow reverts to a gloved hand. The current media source tray, whether selected from the drop-down menu or from a device-image hot spot, is highlighted on the printer image. The following points are worth noting:

- The **Automatically Select** setting in the **Source is:** drop-down menu does not have a corresponding area to highlight in the device image. Selecting other settings in this menu highlights the corresponding part in the printer image.
- Selecting the area that represents a tray in the image always selects the corresponding tray in the **Source is:** option. **Manual Feed in Tray 1**, which is available from the **Source is:** drop-down menu, cannot be selected by selecting the image.
- On the **Paper** tab, only source trays have device-image hot spots and can be highlighted.

Job Storage tab features

To gain access to the **Job Storage** tab, follow these steps:

1. Click **Start**.
2. Select **Settings**.
3. Click **Printers**.
4. Right-click the device name.
5. Click **Properties**.
6. Click the **Job Storage** tab.

NOTE The **Job Storage** tab appears only when at least 80 MB of total memory is installed and configured.

Use the job-storage features to store print jobs in the HP LaserJet 5200 printer memory for printing at a later time. These job-storage features are described in the following sections.

The **Job Storage** tab appears among the driver tabs *only* if the job-storage feature is enabled. To support job-storage features for complex jobs, or if you often print complex graphics, print postscript (.PS) documents, or use many downloaded fonts, HP recommends that you install additional memory. Added memory also gives you more flexibility in supporting job-storage features. A minimum total memory of 80 MB is required to use the job-storage features.

After additional memory is installed, the driver must be configured to reflect the changes in the device. If bidirectional communication is enabled in your environment, the Update Now feature can be used to update the drivers.

To configure the drivers manually after installing additional memory, follow these steps:

1. Click **Start**.
2. Select **Settings**.
3. Click **Printers**.
4. Right-click the device name.
5. Click **Properties**.
6. Click the **Configure** tab.
7. Under **Other Options**, click **More…**.
8. If additional memory has been installed, change the setting in the **Total Memory:** drop-down menu. If you select at least 80 MB of total installed memory, this also selects the **Job Storage Enabled** check box.
9. Click **OK** to make the job-storage features available.

To disable the job-storage feature, follow these steps:

1. Click **Start**.
2. Select **Settings**.

3. Click **Printers**.
4. Right-click the device name.
5. Click **Properties**.
6. Click the **Configure** tab.
7. Click **More…**.
8. Click to clear the **Job Storage Enabled** check box in the **More Configuration Options** box.

NOTE When the job-storage features are disabled (that is, when the **Job Storage Enabled** check box is not selected and the settings are saved), the **Job Storage** tab is not visible.

If the job-storage feature is enabled (with at least 80 MB of total memory), two **Job Storage Mode** settings are available on the **Job Storage** tab:

- **Proof and Hold**
- **Private Job**

The following figure shows the **Job Storage** tab.

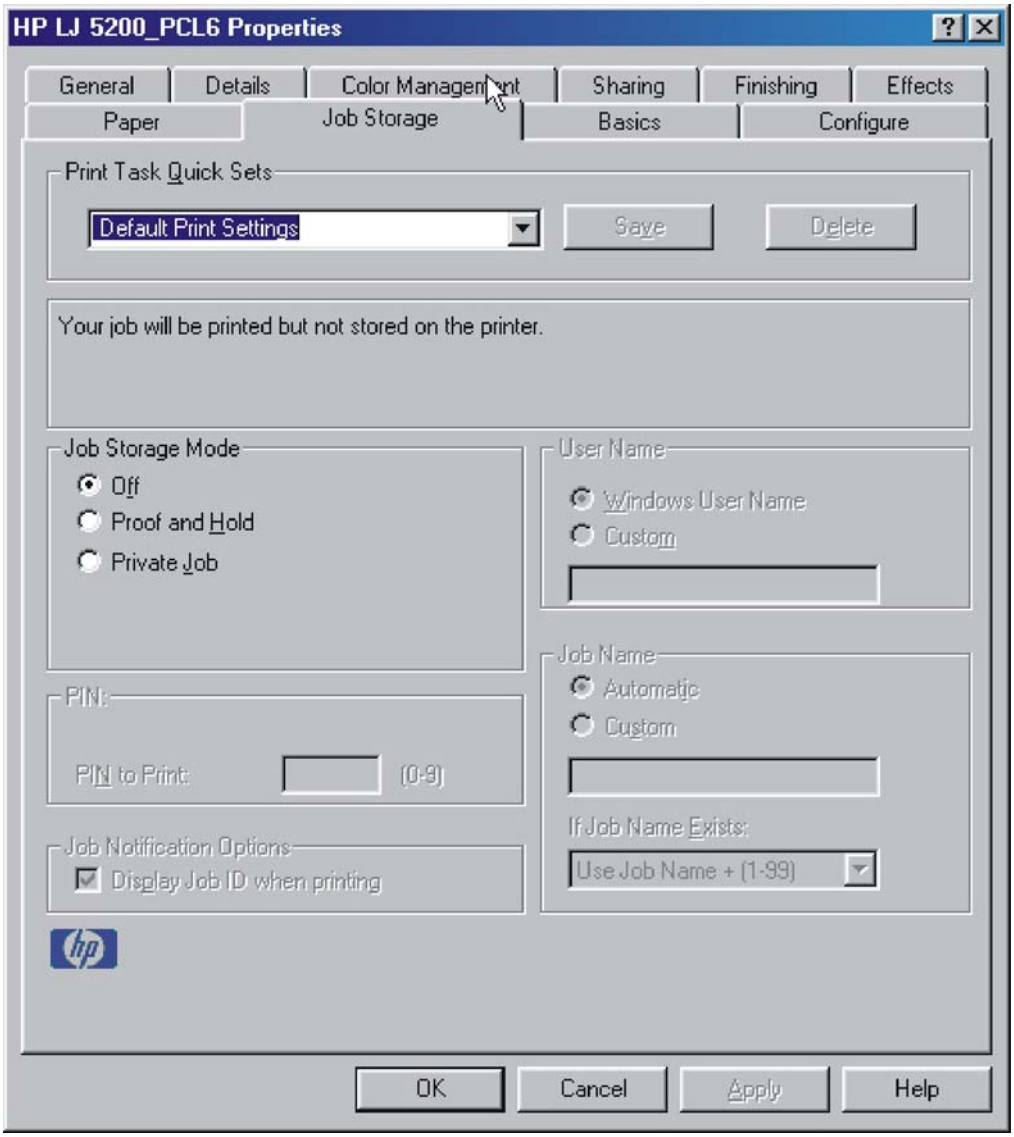


Figure 4-19 **Job Storage** tab

Topics:

- Print Task Quick Sets
- Status dialog box
- Job Storage Mode
- PIN
- Job Notification Options
- User Name
- Job Name
- Using job-storage features when printing

Print Task Quick Sets

Use the **Print Task Quick Sets** control to store the current combination of driver settings that appear on all other **Properties** driver tabs. Print Task Quick Sets are either preset (by the administrator) or user-defined printing specifications, such as media size and pages per sheet.

Status dialog box

The unlabeled dialog box on the **Job Storage** tab contains a status message about the destination of a print job. The status information changes depending on the selections that are made on the **Job Storage** tab.

Job Storage Mode

Use the **Job Storage Mode** options on the HP LaserJet 5200 printer to store documents at the device and then control their printing at the device control panel.

The HP LaserJet 5200 printer offers the following **Job Storage Mode** options:

- Off
- Proof and Hold
- Private Job

These options and the settings that control them are described in the following sections.

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 device.

Proof and Hold

To use the **Proof and Hold** option, the job-storage feature must be enabled, and the device must have a minimum total memory of 80 MB.

When selected, this option stores the print job in memory 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 device control panel. You can set the number of proof-and-hold print jobs that can be stored in the device at the control panel.

After it is released for printing, the proof-and-hold job is immediately deleted from the device. 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 device 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 turn off the device.

NOTE The device configuration can be set to hold a maximum of 50 quick-copy or proof-and-hold jobs. The number is set at the device control panel in the **CONFIGURATION** menu, and the default is 32. When this preset limit is reached, the new document overwrites the oldest held document. Also, a document that has the same user name and job name as one that is already stored on the device memory will overwrite the existing document.

Private Job

To use the **Private Job** option, the job-storage feature must be enabled, and the device must have a minimum total memory of 80 MB.

When you select **Private Job**, the print job is sent to the device, but is not printed until you request the job at the device control panel. Selecting **Private Job** activates the **PIN** group box. The print job can be printed only after you type the correct PIN at the control panel. After the job is printed, the job is immediately deleted from the device. 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. If more copies are needed, you must reprint the job from the software program. Private jobs are deleted if you turn off the device.

The Private Job/PIN coupling has a PIN restriction of four ASCII numeric characters (0 though 9). If you type non-numeric characters, they are removed immediately. The text field does not allow you to type more than four characters. 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 the PIN contains exactly four digits. The default initialized value for the PIN is 0000 for **Private Job**.

PIN

The **PIN** group box is usually inactive. The option within the PIN group box, **PIN to Print**, is activated if you select either of the following options:

- Select **Private Job**. If selected, you must type the PIN number at the device control panel in order to print the job.
- Select **Stored Job**, and then select the **Require PIN to Print** check box. If the **Require PIN to Print** check box is selected, you must type a PIN in order to make the stored job private.

Job Notification Options

Clicking a job-storage mode selection causes the **Job Notification Options** group box to become available. The **Display Job ID when printing** check box is selected by default. The **Display Job ID when printing** option causes a pop-up dialog box to appear when the job-storage print job is printed. The dialog box shows the user name and job name that are associated with the stored print job, as well as the device name, port, and location.

User Name

Use the **User Name** settings to help identify the job at the device control panel. The following are the **User Name** settings:

- **Windows User Name.** This option associates your MS Windows user name with the stored print job. The MS Windows user name automatically appears in the text field below the **User Name** options.
- **Custom.** Use this option to type a custom name for the stored print job. When you click the **Custom** option, the text field below the option becomes available. The **User Name** field can contain no more than 16 characters.

Job Name

Use the **Job Name** options to specify a name to identify the job at the device control panel. The following are the **Job Name** settings:

- **<Automatic>** This option, which is the default selection, automatically generates the job name that is associated with the stored print job. The file name of the print job is used if it is available to the print driver. Otherwise, the software program name or a time stamp is used for the job name. The file name of the print job is used if it is available to the print driver. Otherwise, the software program name or a time stamp is used for the job name.
- **Custom**. Use this to type a custom job name for the stored print job. When you click the **Custom**, the text field below the option becomes available. In those languages for which **<Automatic>** 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 device control-panel display.

The **Job Name** field can contain no more than 16 characters, and is limited to A through Z (uppercase or lowercase) and 0 through 9 so that the name can appear on the device control-panel display. If you try to type a character in 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 **<Automatic>**. 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 device control-panel display.

If Job Name Exists. When you store a print job, you can create a print-job name or the device software can assign one automatically. If a print job with the same name already exists, the new print job will overwrite the existing print job. To eliminate the chances of a new print job overwriting an old print job because both have the same name, select **Use Job Name + (1-999)**. After you create the print job name, or when one is created automatically, the device software assigns a number between 1 and 999 to the end of the print job name to make the name unique. Select **Replace Existing File** if you always want the device software to overwrite an existing print job with the same print job name.

Using job-storage features when printing

To use job-storage features when printing, follow these steps:

1. Click **File** and then click **Print** from the software program. The **Print** dialog box appears.

   NOTE Clicking the print icon in the software program toolbar prints the job without using job-storage features.

2. Click **Properties**. The **Properties** dialog box appears.
3. Click the **Job Storage** tab.
4. Select the job-storage options by clicking the appropriate option button, and then complete any required fields.
5. Click **OK**.

Releasing a job-storage print job

After you send a print job that uses the job-storage feature, you can release the job to print from the device control panel.

1. Press ✓ (the select button; the one with the check mark) to open the menus.
2. Press ▲ (the up arrow) and ▼ (the down arrow) until **RETRIEVE JOB** is highlighted on the device control panel, and then press ✓ (select).
3. Press ▲ (up) and ▼ (down) to scroll to your user name, and then press ✓ (select).
4. Press ▲ (up) and ▼ (down) to scroll to the job name, and then press ✓ (select).
5. Press ▲ (up) and ▼ (down) until **PRINT** is highlighted on the device control panel, and then press ✓ (select).
6. Press ✓ (select).
7. If a PIN number is assigned to the job, press ▲ (up) and ▼ (down) to select the first digit of the PIN, and then press ✓ (select). The number in the device control-panel display changes to an asterisk. Repeat this step for each of the remaining three digits of the PIN number.

   If no PIN number is assigned to the job, continue with step 8.
8. Press ▲ (up) and ▼ (down) to select the number of copies to print.
9. Press ✓ (select) to print the job.

Deleting a job-storage print job

Sometimes it is necessary to delete a print job from the device memory. You can do this from the device control panel.

1. Press ✓ (the select button; the one with the check mark) to open the menus.
2. Press ▲ (the up arrow) and ▼ (the down arrow) until **RETRIEVE JOB** is highlighted on the device control panel, and then press ✓ (select).
3. Press ✓ (select).
4. Press ▲ (up) and ▼ (down) to scroll to your user name, and then press ✓ (select).
5. Press ▲ (up) and ▼ (down) to scroll to the job name, and then press ✓ (select).
6. Press ▲ (up) and ▼ (down) until **DELETE** is highlighted on the device control panel, and then press ✓ (select).
7. Press ✓ (select).
8. If a PIN number is assigned to the job, press ▲ (up) and ▼ (down) to select the first digit of the PIN, and then press ✓ (select). The number in the device control-panel display changes to an asterisk. Repeat this step for each of the remaining three digits of the PIN number.

   If no PIN number is assigned to the job, continue with the next step.
9. Press ✓ (select) to delete the job.

The stored print job is deleted and the device returns to the **READY** state.

Basics tab features

To gain access to the **Basics** tab in Windows 98 or Windows Me, follow these steps:

1. Click **Start**.
2. Select **Settings**.
3. Click **Printers**.
4. Right-click the device name.
5. Click **Properties**.
6. Click the **Basics** tab.

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 it to retrieve information about the driver.

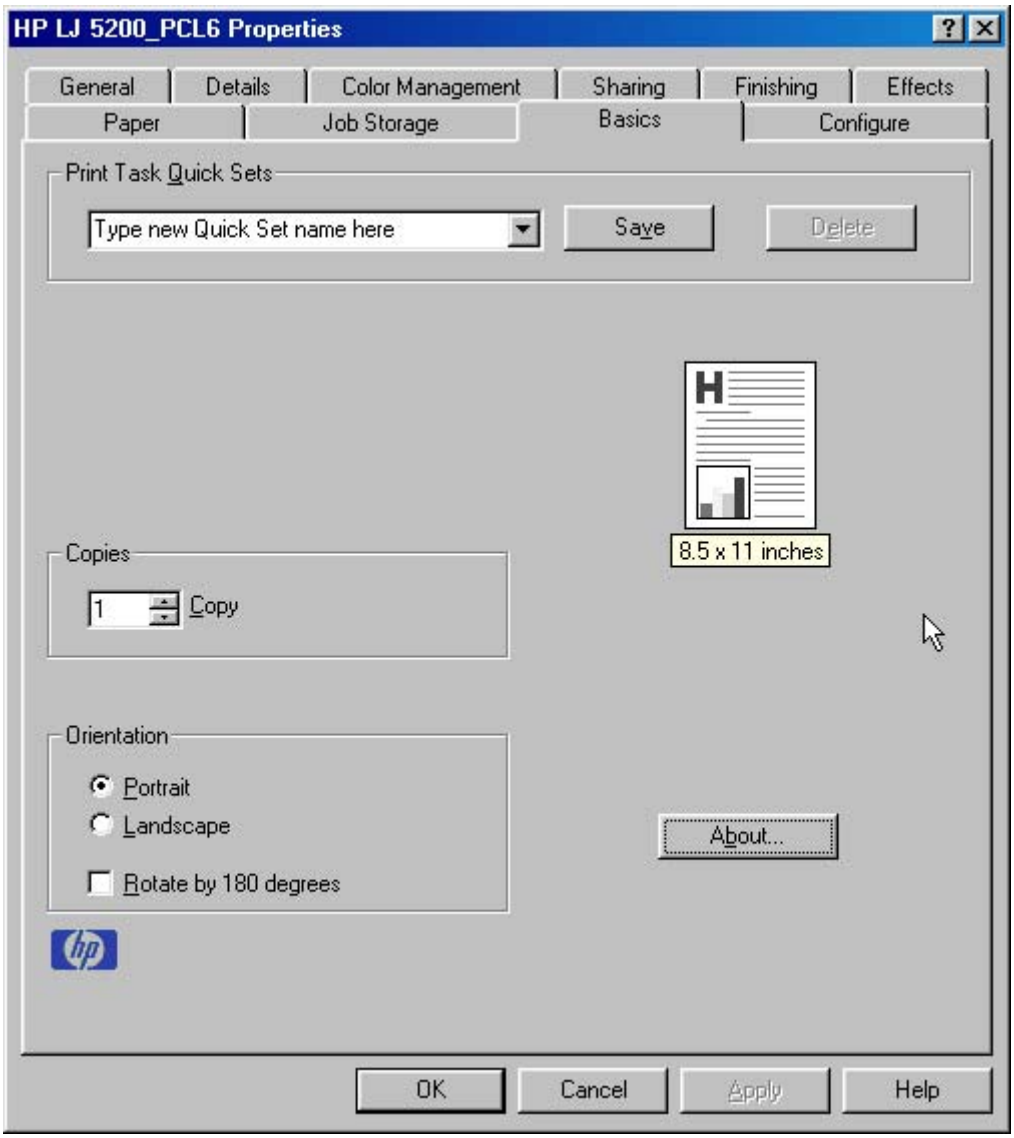


Figure 4-20 **Basics** tab

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

- Print Task Quick Sets
- Copies
- Orientation
- Document preview image
- About…

Print Task Quick Sets

Use the **Print Task Quick Sets** control to store the current combination of driver settings that appear on all other **Properties** driver tabs. Print Task Quick Sets are either preset (by the administrator) or user-defined printing specifications, such as media size and pages per sheet.

Copies

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

The number of copies that you request appears in the **Copies** group box. You can select the number by typing in the box or by using the up and down arrows to the right of the text box. Valid entries are numbers from 1 to 9999. The copies value will 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.

Because you can set the number of copies that you want from some software programs, conflicts between the software program that you are using and the driver can arise. 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) will appear in the other (such as the driver).

NOTE 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 program and then setting 10 copies in the driver will result in 100 copies (10 x 10) being printed. It is recommended that you set the number of copies in the software program, wherever possible.

Orientation

Orientation refers to the layout of the image on the page, and does not affect the way that media feeds 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**.

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.

The **Orientation** group box contains three options:

- **Portrait**. The top edge of the document is the shorter edge of the media.
- **Landscape**. The top edge of the document is the longer edge of the media.
- **Rotate by 180 degrees**. This creates a landscape or portrait orientation in which the image is rotated 180°. This setting is useful for printing prepunched media.

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

Document preview image

The document preview image is a line-drawn image of a page that represents graphics and text. The document preview image appears in the upper-right corner of the following **Properties** driver tabs:

- **Finishing**
- **Effects**
- **Paper**
- **Basics**

About…

When you click **About** on the **Basics** tab, or you click the HP logo on any of the driver **Properties** tabs, the **About This Driver** dialog box appears. To close it, perform any of the following actions:

- Click **OK**.
- Press Esc.
- Press **Alt** + F4.
- Press Enter.

The following figure shows the **About This Driver** dialog box. The information that it contains varies according to driver, date, and version.

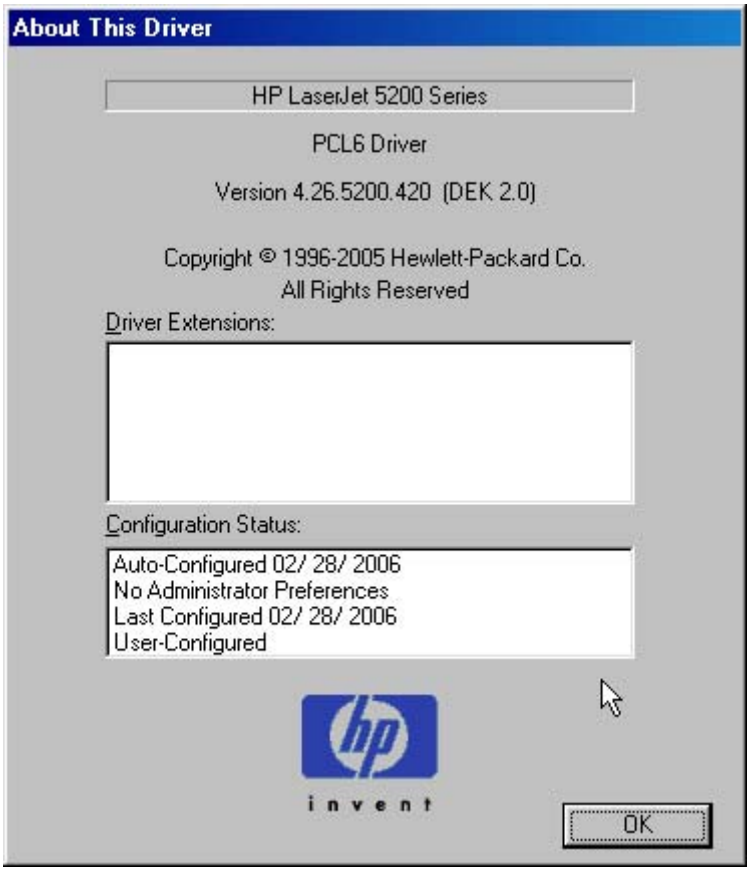


Figure 4-21 **About This Driver** dialog box

The **About This Driver** dialog box provides the following information:

- Printer name
- Driver name
- Print driver version number
- Copyright information
- Driver Extensions (if any)
- Configuration Status

The printer name, the driver name, the print driver version number, and the copyright information appear at the top of the **About This Driver** dialog box.

The **Driver Extensions** group box lists the driver extensions, if any.

The **Configuration Status** group box 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.

Configure tab features

To gain access to the **Configure** tab in Windows 98 or Windows Me, follow these steps:

1. Click **Start**.
2. Select **Settings**.
3. Click **Printers**.
4. Right-click the device name.
5. Click **Properties**.
6. Click the **Configure** tab.

Use the **Configure** tab to tell the driver about the device hardware configuration. If bidirectional communication is enabled in a supported environment, set up this tab by clicking **Update Now**. 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 program, the **Configure** tab is not visible (with a few exceptions, such as when using Excel 5.0 or Corel® Chart 4.0). When opened from the **Printers** folder, the **Configure** tab looks like the following figure.

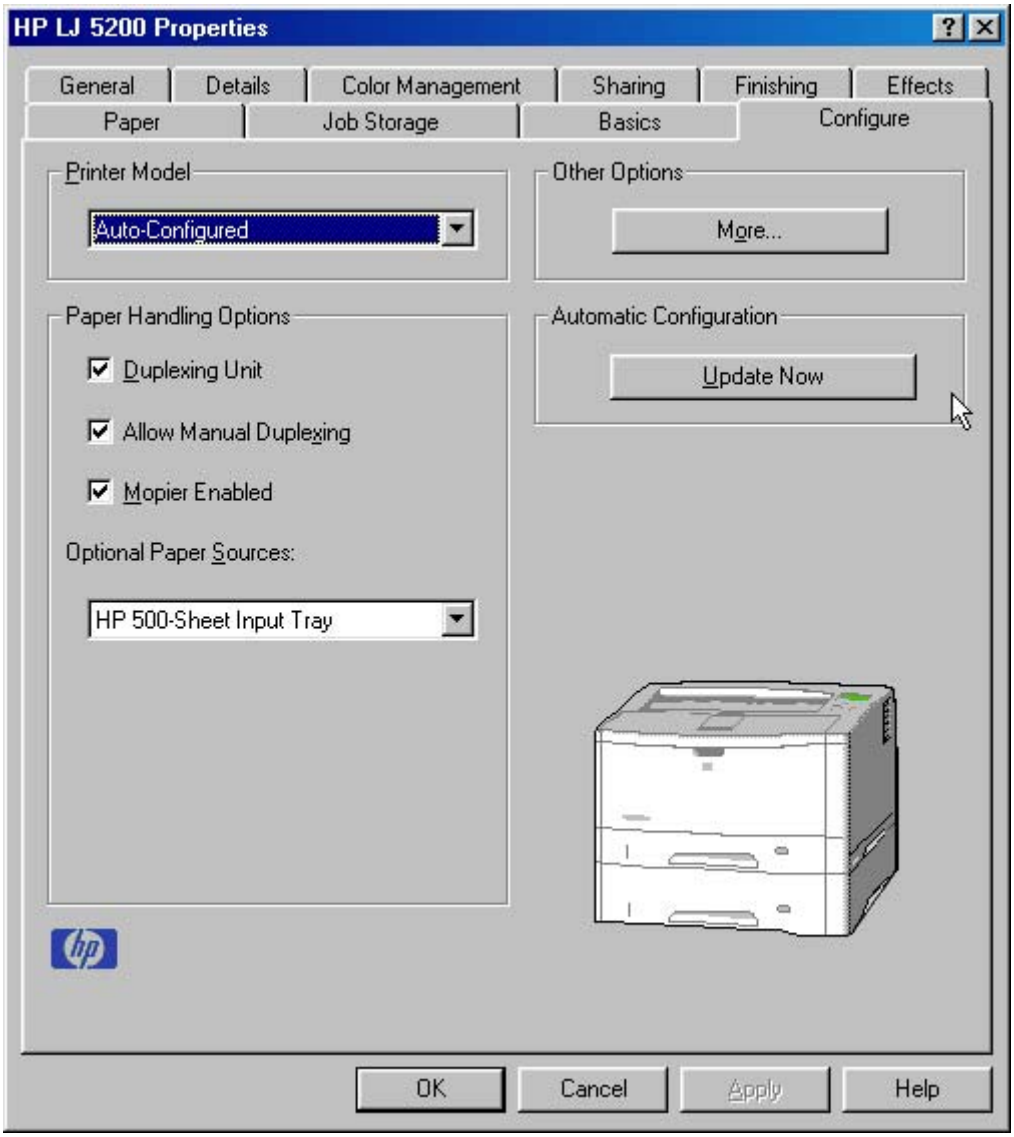


Figure 4-22 **Configure** tab

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

- Printer Model
- Paper Handling Options
- Other Options
- Automatic configuration
- Printer image

Printer Model

In the **Printer Model** group box, the driver title depends on the printer model that is being used. Selection of any model in the drop-down menu makes the appropriate changes to other configuration options on the tab.

The **Printer Model** setting automatically changes to **User Configured** whenever you change any of the device configuration settings on the tab.

The list of models and the changes they produce are described in the following table. The models are as follows:

- 5200: HP LaserJet 5200
- 5200n: HP LaserJet 5200n
- 5200tn: HP LaserJet 5200tn
- 5200dtn: HP LaserJet 5200dtn

Table 4-7 Printer-model configuration settings

Driver location	Setting	5200	5200n	5200tn	5200dtn
Configuration tab	**Duplexing Unit**	Available, not selected	Available, not selected	Available, not selected	Selected
	Allow Manual Duplexing	Selected	Selected	Selected	Selected
	Mopier Enabled	Unavailable	Unavailable	Unavailable	Selected
	Optional Paper Sources	(None)	(None)	(None)	HP 500-Sheet Input Tray
More Configuration Options dialog box	**Printer Hard Disk**	Available, not selected (and not supported by the HP LaserJet 5200 printer)	Available, not selected (and not supported by the HP LaserJet 52 00 printer)	Available, not selected (and not supported by the HP LaserJet 5 200 printer)	Available, not selected (and not supported by the HP LaserJet 5 200 printer)
	Job Storage Enabled	Unavailable	Unavailable	Unavailable	Selected
	Font Card(s)	Available, not selected	Available, not selected	Available, not selected	Available, not selected
	Alternative Letterhead Mode	Unavailable	Unavailable	Unavailable	Available, not selected
	Ignore Application Collation	Unavailable	Unavailable	Unavailable	Available, not selected
	Total Memory	48 MB	64 MB	64 MB	128 MB
	Driver work space **(DWS)**	6.0 MB	14.0 MB	14.0 MB	46.0 MB
	Include Types in Applications Source List	Selected	Selected	Selected	Selected

If it is installed and working, the bidirectional mechanism will detect the correct model and update the configuration accordingly, either during installation or when you select **Update Now** on the **Configure** tab. However, the printer-model name that appears in the **Printer Model** text box is set to **Autoconfigured**.

Paper Handling Options

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

- Duplexing unit
- Allow Manual Duplexing
- Mopier Enabled
- Optional Paper Sources

Duplexing unit

The HP LaserJet 5200tn and HP LaserJet 5200dtn printer models are equipped with automatic 2-sided printing (duplexing), which you can use to print on both sides of supported media. Automatic 2-sided printing is not supported for the following media types:

- Transparency
- Labels
- Cardstock
- Tough Paper
- Envelope

NOTE These printer models support smart duplexing. The device uses the smart duplexing feature to detect information on both sides of the print job pages and runs the pages through the duplexing unit only if there is printable information on the second side of the page.

Allow Manual Duplexing

Select **Allow Manual Duplexing** to print on both sides of any size and most types of media (except transparencies, envelopes, and labels). To use this feature, you must reinsert the media stack into the input tray to print the second side. The device pauses while you make this adjustment.

Mopier Enabled

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

The HP LaserJet 5200 printer supports the transmit-once mopying feature when the device has a minimum total memory of 80 MB, and the **Mopier Enabled** setting on the **Configure** tab is on.

Mopier mode and collation

Mopying and collating print jobs are independent but closely related functions. The print driver performs mopying, which is the ability to send multiple original print jobs to the device. Collating is controlled by using either the print driver or the document software program. Click to clear the **Mopier Enabled** selection on the **Configure** tab to disable the feature.

Control collation through the print driver by selecting or clearing the **Ignore Application Collation** check box in the **More Configuration Options** dialog box that appears when you click **More…** on the **Configure** tab. You can clear the check box, which is available only when the **Mopier Enabled** setting on the **Configure** tab is selected, to allow the software program to control collation.

To receive uncollated multiple copies of a print job with the mopier enabled, you must clear the **Ignore Application Collation** check box *and* make sure that the software program collation feature is not selected.

The following table shows the relation between **Mopier Enabled** settings and collation settings in the software program and the driver. The first three columns show the settings; the last column, "Expected result," shows how a three-page print job would appear.

Table 4-8 Driver Mopier mode and collation settings

Mopier Enabled	Application collation	Ignore Application Collation	Expected result
Not selected	Not selected	Not available	3 copies uncollated
Not selected	Selected	Not available	3 copies collated
Selected	Not selected	Not selected	3 copies uncollated
Selected	Not selected	Selected	3 copies uncollated
Selected	Selected	Not selected	3 copies collated by printer
Selected	Selected	Selected	3 copies collated by printer

Optional Paper Sources

The **Optional Paper Sources** drop-down menu lists optional media source trays for the HP LaserJet 5200 printer. The list of available source trays varies depending on the printer, its input accessories, and the printer configuration settings on the **Configure** tab.

For the HP LaserJet 5200 printer, the following settings are available in the **Optional Paper Sources** drop-down menu:

- **(None)**. This is the default setting for the HP LaserJet 5200 printer.
- **HP 500-Sheet Input Tray**

Other Options

The **Other Options** group box contains a single **More…** command button. Click **More…** to open the **More Configuration Options** dialog box.

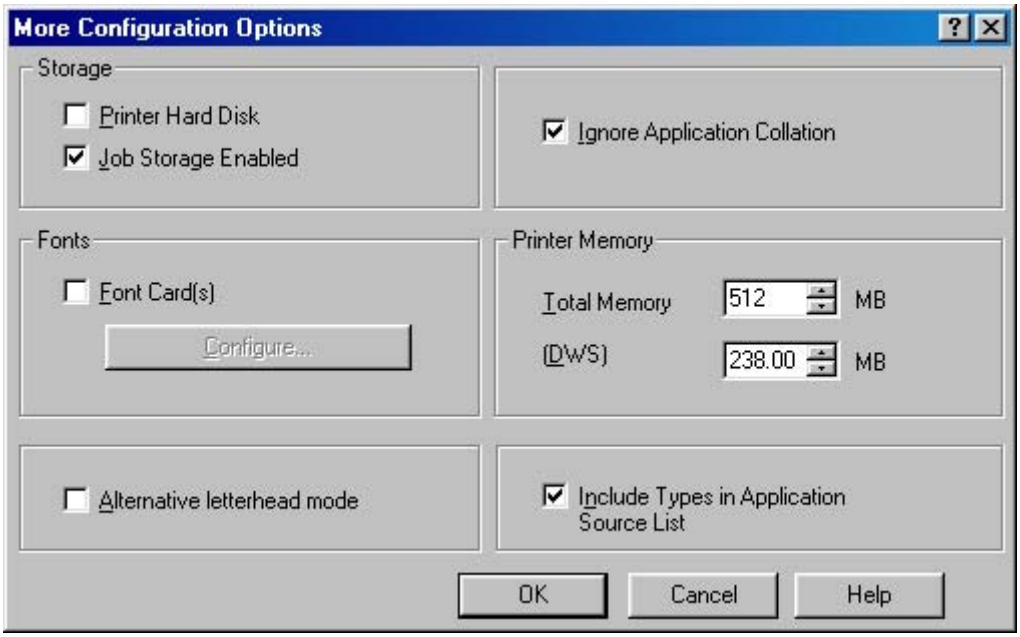


Figure 4-23 **More Configuration Options** dialog box

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

- Storage
- Fonts
- Alternative Letterhead Mode
- Ignore Application Collation
- Printer Memory
- Include Types in Application Source List

Storage

The **Storage** group box contains the **Printer Hard Disk** and **Job Storage Enabled** check boxes.

NOTE A printer hard disk is not available for the HP LaserJet 5200 printer. Do *not* select the **Printer Hard Disk** setting.

If your HP LaserJet 5200 printer does *not* have a minimum of 80 MB of memory, job-storage options are not available. When the job-storage feature is enabled, the device can store print jobs so that you can gain access to those print jobs later at the device control panel.

Fonts

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

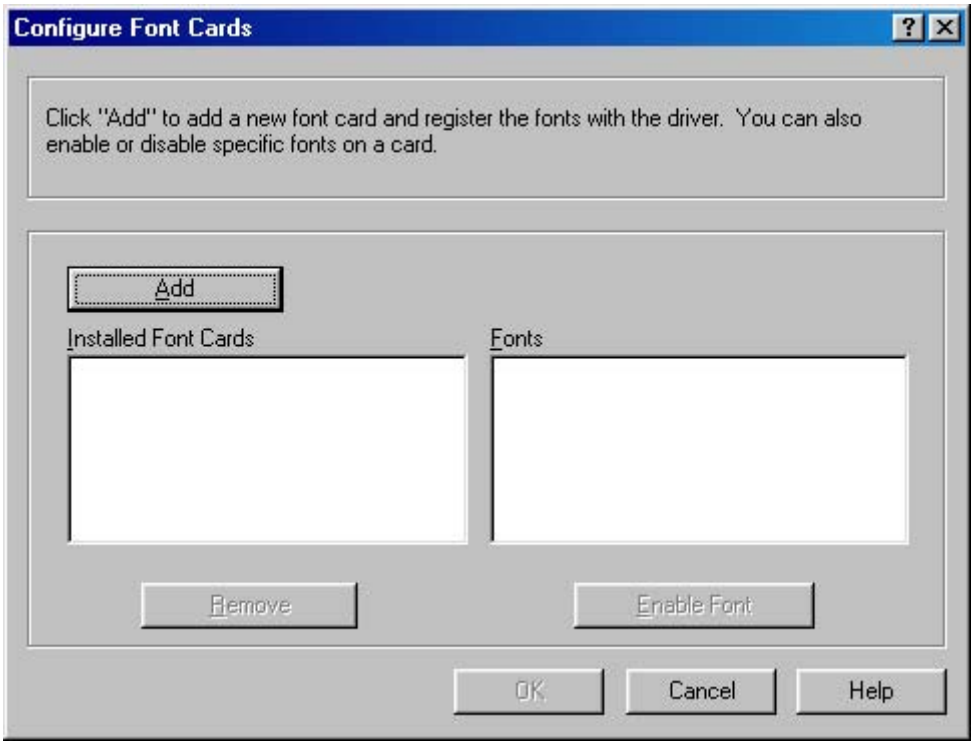


Figure 4-24 **Configure Font Cards** dialog box

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

- Add up to four font cards by clicking the **Add** button.
- Specify a unique font-card name.
- Select specific font card data files that contain lists of fonts on specified cards.
- Select one or more installed cards in the **Installed Font Cards** list. The list to the right (**Fonts**) shows all of the fonts that are available on the selected card(s).
- Enable or disable one or more of the selected font(s).

Complete the following steps to configure a font card:

1. Make sure that the font card is installed correctly.
2. Click **Add**. The **Add Font Card** dialog box appears.
3. Click **Browse**. The **Font Card Files** dialog box appears.
4. Find and select the appropriate Printer Cartridge Metrics (PCM) file that came with the font card.
5. Click **OK**.
6. Specify a font-card name in the **Add Font Card** dialog box, if necessary.
7. Click **OK**. The selected .PCM file appears in the **Installed Font Cards** list. Select the .PCM file to see a list of available fonts in the **Fonts** list.
8. Click **OK** to close the **Add Font Card** dialog box. The fonts on the card should now be available on the system.

NOTE When using font cards with the HP Traditional PCL 6 Driver and HP Traditional PCL 5 Driver: To install screen fonts that match the font card, use the .HPB file that is specifically designed to work with that card. If no screen fonts exist for the card, use the .PCM file that is specifically designed to work with that card.

Alternative Letterhead Mode

When selected, this option eliminates the need to flip or reload letterhead or preprinted paper in a tray, whether you are printing on one or both sides of the sheet. Load the paper as you would for printing on both sides. If the printer tray has an icon that indicates whether to load paper either face-up or face-down, load the paper in opposite orientation of that shown.

When this option is selected, you must select one of the following options in the **Type is** setting:

- **Letterhead**
- **Preprinted**

Ignore Application Collation

This setting overrides collation options that are selected in the print options of a software program. When **Ignore Application Collation** is selected, the print driver collates in the most appropriate way for the print job. The performance of this feature depends on the software program that you are using.

Printer Memory

The **Total Memory** value shows the total amount of memory that is physically installed in the printer. The **Total memory** value is a dynamic value that varies depending on the specific configuration of the printer. The default values for total printer memory are specified on the **Configuration** tab.

The Driver Work Space **(DWS)** value shows the amount of memory that is available for keeping track of 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 specific configuration of the printer. Use the **(DWS)** option to specify the amount of work-space memory that is available to the printer. An accurate **(DWS)** value optimizes driver performance.

The HP traditional PCL 6 and PCL 5 drivers automatically configure the **Total Memory** and **(DWS)** values in Windows 98 and Windows Me environments that support bidirectional communication. To manually set the **Total Memory** and **(DWS)** values, print a configuration page and find the Total Memory and DWS values in the Memory section of the page. Then, click **More…** on the **Configuration** tab, and either use the up and down arrows to select the appropriate values or type the Total Memory and DWS values in the **Total Memory** and **(DWS)** fields of the **More Configuration Options** dialog box.

Include Types in Application Source List

When the **Include Types in Application Source List** check box is selected, all media types (such as heavy media 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**.

Automatic configuration

If you have modified the configuration of the HP LaserJet 5200 printer since installation, click **Update Now** to automatically reflect the new configuration in the driver.

If the **Update Now** button is not available, select the appropriate configuration options on the **Configure** tab.

If you have more than one driver installed on your device (for example, the default HP Traditional PCL 6 Driver and the HP Traditional PCL 5 Driver), the Update Now feature works automatically only on the driver on which it is activated. The other driver will not be updated, and might show the default setting for your device model.

Printer image

The bitmap image in the lower-right portion of the **Configure** tab represents the current physical configuration of the device according to the driver configuration data. It should have the same appearance as the image in the same location on the **Paper** tab.

NOTE The device image shown on the **Configure** tab might differ from the HP LaserJet 5200 printer, depending on the accessories that are installed.

HP Traditional Postscript 3 Emulation Driver features

When you install the printing-system software in Windows 98 or Windows Me, the HP Traditional PCL 6 Driver is installed by default. The HP Traditional PCL 5 Driver and the HP Traditional Postscript 3 Emulation Driver (PS Emulation Driver) can be installed by performing a Custom Installation.

NOTE Windows NT 4.0 does not support the HP LaserJet 5200 print drivers, but you can use print drivers for legacy HP devices whose feature sets closely match the HP LaserJet 5200 printer feature set. For instance, you can use the HP LaserJet 5100 drivers, but some print-driver features might be missing and print quality might be compromised. HP does not support the use of any print driver other than the driver that is supplied for the device. When you install the print drivers in Windows NT 4.0, you must use the Add Printer installation method to install the PS Emulation Driver.

This section describes the options that are available on each tab of the PS Emulation Driver **Properties** interface. It also shows the tabs that are available on the PS Emulation Driver interface for Windows 98 and Windows Me.

Access to print drivers in Windows 98 and Windows Me

In Windows 98 and Windows Me, you have access to a single set of driver tabs. To gain access to the print drivers, follow these steps:

1. Click **Start**.
2. Select **Settings**.
3. Click **Printers**.
4. Right-click the device name.
5. Click **Properties** to gain access to all print-driver tabs.

The settings that you make on these driver tabs control print-job output and become the default settings for all software programs. The following print-driver tabs are available in Windows 98 and Windows Me:

- **Graphics**
- **Fonts**
- **Device Options**
- **PostScript**
- **General**
- **Details**
- **Sharing**
- **Paper**

Only device-specific HP driver tabs are described in this STR; the other driver tabs are part of the operating system. The following tabs are described:

- **Paper**
- **Graphics**

- **Fonts**
- **Device Options**
- **PostScript**

PS 3 emulation support for the HP LaserJet 5200

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

Users of Adobe-licensed programs might also have the right to use the Adobe PostScript print drivers from Adobe with the HP LaserJet PostScript 3 emulation PPD, which is available on the HP LaserJet 5200 printing-system software CD or from the HP Web site. When using the Adobe PostScript print driver, users must comply with all Adobe licensing agreements, as stated on the Adobe Web site at the following Web site:

www.adobe.com/support/downloads/license.html

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

Help system

The PS Emulation Driver includes the following Help systems to provide assistance with printing and configuration options.

NOTE Bubble Help, a feature of HP traditional PCL drivers, is not available in the PS Emulation Driver.

What's this Help

Windows 98 and Windows Me support What's this? Help. You can gain access to What's this? Help messages in any of the following ways:

- Right-click a control and then click **What's this?**. 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. When you use this special cursor to select a control, 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

When you press the **Help** button on a driver tab or in a dialog box, a context-sensitive Help message appears.

Paper tab features

To gain access to the **Paper** tab, follow these steps:

1. Click **Start**.
2. Select **Settings**.

3. Click **Printers**.
4. Right-click the device name.
5. Click **Properties**.
6. Click the **Paper** tab.

The **Paper** tab controls media and finishing options for the HP PS Emulation Driver. The following figure shows the **Paper** tab.

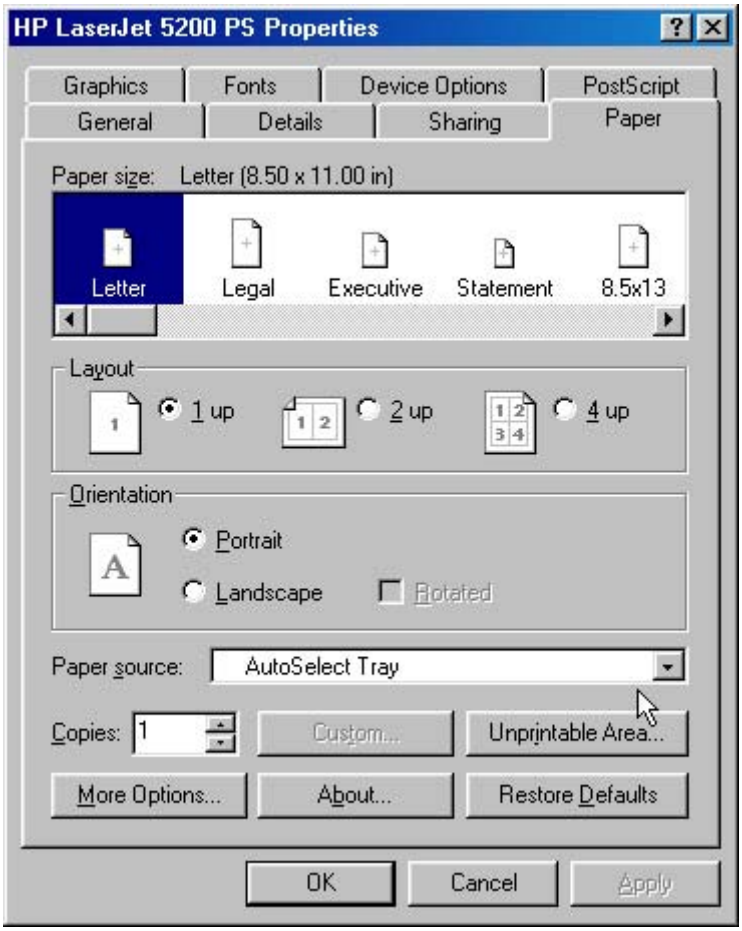


Figure 4-25 Paper tab

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

- Paper size
- Layout
- Orientation
- Paper source
- Copies
- Unprintable Area…

- More Options…
- About …
- Restore Defaults

Paper size

The **Paper size** selection area lists the paper or envelope sizes that the HP LaserJet 5200 printer supports. Use the scroll bar to scroll through the list of supported media sizes (forms), and then click the icon to specify the media that you want.

A red circle with a line through any of the paper icons means that paper size is available, but you must change a driver setting before you can print on that media size. The setting might be on the **Paper** tab, such as the **Paper source** setting, or it might be a setting on the device control panel.

Clicking **Custom page 1**, **Custom page 2**, or **Custom page 3** makes the **Custom** button available at the bottom of the **Paper** tab. Clicking **Custom** opens the **Custom-defined size** dialog box that you can use to define a custom paper size.

The following figure shows the **Custom-defined size** dialog box.

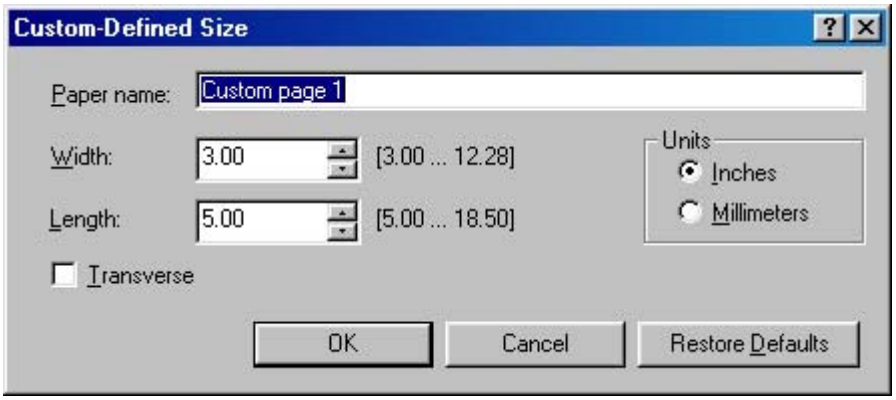


Figure 4-26 Custom-designed size dialog box

The following controls appear on the **Custom-defined size** dialog box:

- **Paper name** text box. Use this option to type a name for this custom media size. You can define up to three custom sizes at one time.
- **Width** spin box. Use this control to specify the width for this custom media size.
- **Length** spin box. Use this control to specify the length for this custom media size.
- **Units** group box. Click **Inches** or **Millimeters** to specify the measurement unit for this custom media size.
- **Transverse** check box. Clicking this check box rotates the document 90° when it is printed on a roll-fed device. Depending on the size of the printed page, you might save media` if you rotate the page when printing.
- **Restore defaults** button. Click this button to restore the settings in the **Custom-defined size** dialog box to their original values.

Layout

Use the settings in this group box to specify how many pages of the document print on a single sheet. For example, clicking **1 up** prints one page of the document on each sheet. Clicking **2 up** prints two pages on each sheet of paper, dividing the sheet in half. The **Layout** group box values are ignored if you print an EPS file.

The following options are available in the **Layout** group box:

- **1 up**
- **2 up**
- **4 up**

Orientation

The settings in this group box specify how the document is positioned on the page. The following options are available:

- **Portrait** option button. Use this button to print your document in portrait mode. When you click this button, the page icon shows an example of the portrait orientation.
- **Landscape** option button. Use this button to print your document in landscape mode. When you click this button, the page icon shows an example of the landscape orientation.
- **Rotated** check box. The **Rotated** check box becomes available when you click the **Landscape** option. Select the **Rotate** check box to rotate the image on the page.

To see the current dimensions of the page, such as the paper size and the unprintable margins, point to the page icon, and then press and hold down the mouse button. The **Orientation** group box is replaced by the **Page dimensions in inches** group box as seen in the following figure. Releasing the mouse button restores the **Orientation** group box.

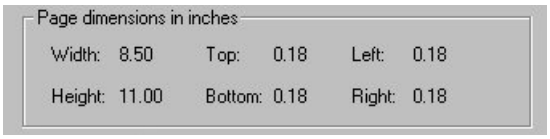


Figure 4-27 Page dimensions in inches

Paper source

This setting specifies where the media that you want to use is located in the printer. The default setting is **Auto Select Tray**, which causes the printer to use the tray that supports the paper size that you have chosen.

The following options are available:

- **Auto Select Tray**
- **Printer Auto Select**
- **Manual Feed in Tray 1**

- **Tray 1** through **Tray 3**, if installed on the device. If any of these trays are not installed, a red circle with a slash through it appears next to the tray name.
- Each of the paper types that the HP LaserJet 5200 printer supports, such as **Plain**, **Preprinted**, and **Letterhead**. For a full list of supported paper types see Driver-supported media types.

Copies

Use this box to specify the number of copies to print. You can print from 1 to 999 copies. This option is ignored when printing an .EPS file. Some software programs override this setting.

Unprintable Area…

Click **Unprintable Area …** to open the **Unprintable Area** dialog box, which is shown in the following figure.

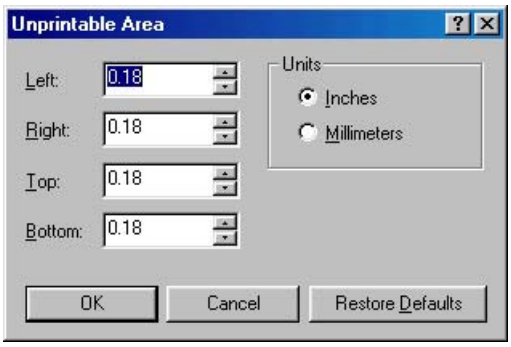


Figure 4-28 Unprintable Area dialog box

The area of the page that cannot be printed appears in the **Unprintable Area** dialog box. Changing these settings to exceed the built-in page margins can cause the text in your document to be cut off when printed.

More Options…

Click **More Options …** to open the **More Paper Options** dialog box, shown in the following figure.

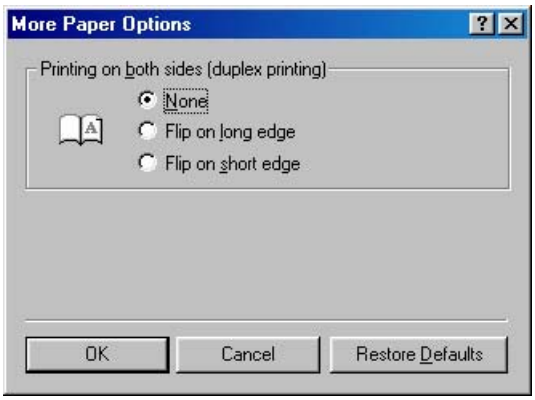


Figure 4-29 More Paper Options dialog box

The single control on this dialog box is the **Printing on both sides (duplex printing)** group box.

NOTE As a rule, extra memory need not be installed on the HP LaserJet 5200 printer in order to print on both sides. However, very complex double-sided print jobs might require additional memory.

Use the settings in this group box to specify how you want to turn the page if you print on both sides. When you print on two sides of the page, the document can be read differently depending on the way it is printed. For example, you could have the pages of the document turn like a book or like a calendar.

When you click **Flip On Long Edge** or **Flip On Short Edge**, the page icon changes to illustrate how the printed document will look.

About …

Click **About…** to open a dialog box that contains copyright and version information about the print driver. The following figure shows the **About** dialog box.

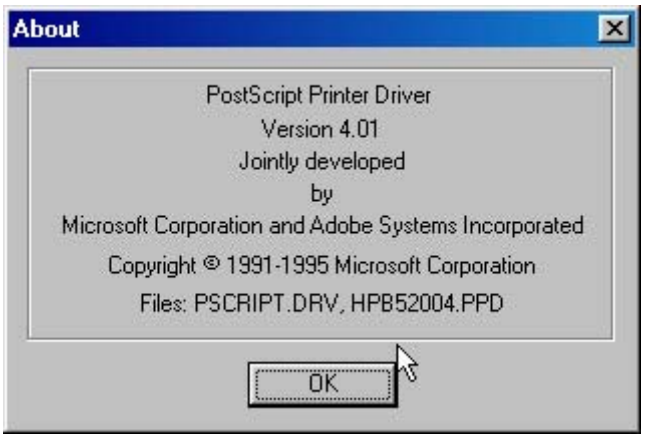


Figure 4-30 **About** dialog box

Restore Defaults

Click **Restore Defaults** to reset the values on the **Paper** tab to their original values.

Graphics tab features

To gain access to the **Graphics** tab, follow these steps:

1. Click **Start**.
2. Select **Settings**.
3. Click **Printers**.
4. Right-click the device name.
5. Click **Properties**.
6. Click the **Graphics** tab.

The **Graphics** tab specifies the resolution, halftoning, and scaling settings for the device. The following figure shows the **Graphics** tab.

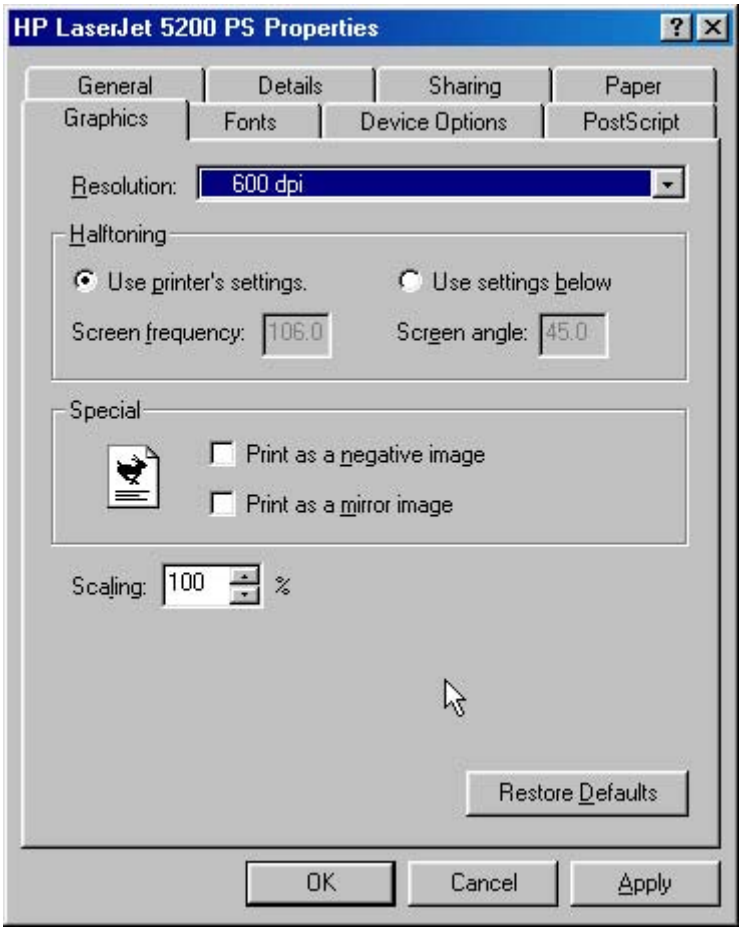


Figure 4-31 **Graphics** tab

The **Graphics** tab contains the following controls:

- Resolution
- Halftoning
- Special
- Scaling
- Restore Defaults

Resolution

Use the **Resolution** drop-down menu to specify the resolution for printing. Resolution is measured in dots per inch (dpi). The following options are available: The dpi setting for the HP LaserJet 5200 printer is 600 dpi.

- **1200**
- **600 dpi**. This is the default setting.
- **300 dpi**

Halftoning

The **Halftoning** options specify values for the number of lines per inch (frequency) and angle of the pattern that you want to use for halftone screens.

If print jobs have a moiré pattern when you print graphics such as photographs or detailed images, you might want to adjust these settings. However, the default printer settings should work in most cases. Do not change these settings unless you have experience using halftones. To return to the default settings after you have made changes, click **Use printer's settings**.

Special

The **Special** group box contains the following options:

- **Print as a negative image**. Selecting this option prints a negative of the image by complementing the RGB values or reversing the black and white values. Click this option to see the page icon change to reflect this setting.
- **Print as a mirror image**. Selecting this option prints a mirror image of your document by reversing the horizontal coordinates. Click this option to see the page icon change to reflect this setting.

Scaling

Use the **Scaling** control to specify the size of the image to print. You can specify from 25% to 400% of the original size. A setting of 400%, for example, prints an image four times larger than the original.

When you enlarge a document, only the portion of the document that fits on the page prints. The default setting is **100%**.

Restore Defaults

Click **Restore Defaults** to reset the values on the **Graphics** tab to their original values.

Fonts tab features

The **Fonts** tab controls the fonts for the HP PS Emulation Driver. The following figure shows the **Fonts** tab.

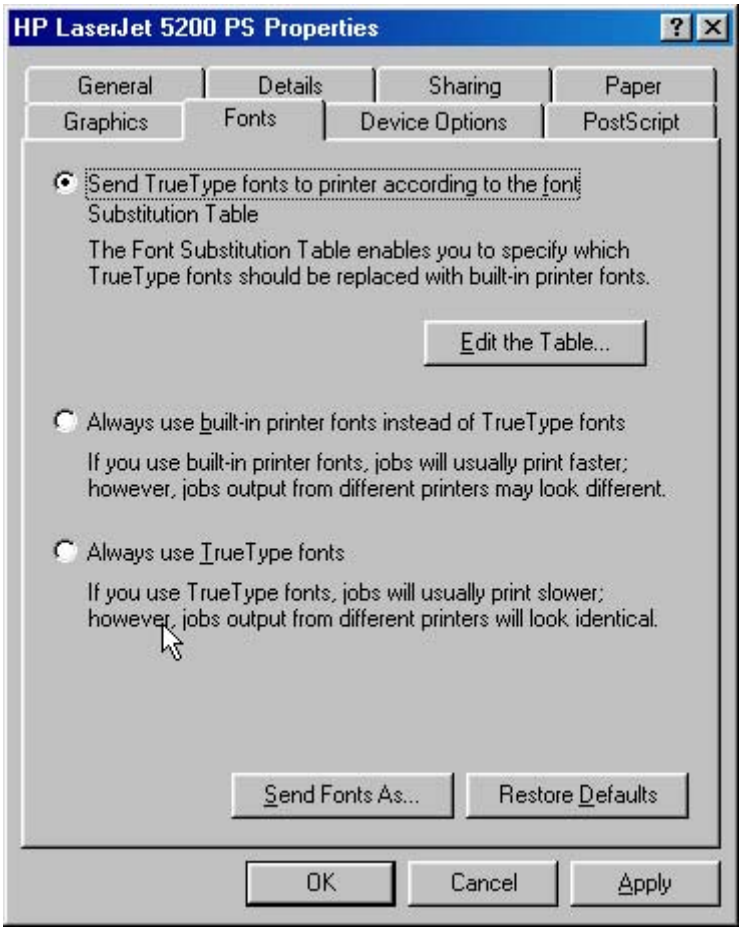


Figure 4-32 **Fonts** tab

The following options are available:

- Send TrueType fonts to printer according to the Font Substitution Table
- Always use built-in printer fonts instead of TrueType fonts
- Always use TrueType fonts

Send TrueType fonts to printer according to the Font Substitution Table

Use this option to substitute a postscript printer font for the common TrueType fonts in a document. This can speed up printing because the TrueType fonts do not have to be downloaded. By default, common TrueType fonts are substituted when printing, but uncommon ones are downloaded to the device. If you substitute a printer font for a TrueType font, the printed document might not match the look of the document on the screen.

Click **Edit the Table…** to customize which TrueType fonts are downloaded and which printer fonts should be substituted for TrueType fonts.

Font Substitution Table

Click this option to open the **Font Substitution Table** dialog box, which makes available the options for changing the TrueType-to-postscript font mapping. The following figure shows the **Font Substitution Table** dialog box.

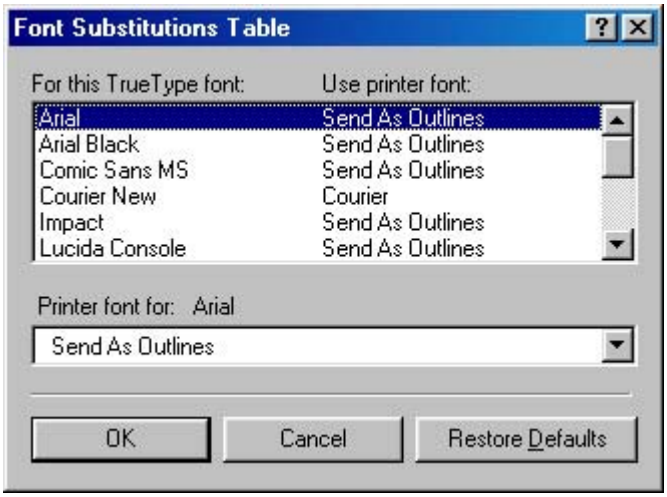


Figure 4-33 Font Substitution Table

Always use built-in printer fonts instead of TrueType fonts

Click this option to use font-matching rules to find the best printer font to substitute for TrueType fonts in your document. TrueType fonts are not downloaded when the document is printed. This can speed up printing, but the printed fonts might not exactly match the fonts on the screen.

Always use TrueType fonts

Click this option to download TrueType fonts to the device when your document is printed. This ensures that the printed document looks the same as it does on the screen, but printing might take longer. Click **Send Fonts As…** to specify the format in which the TrueType fonts are sent to the device.

Send Fonts As…

Use this option to specify how TrueType fonts are downloaded.

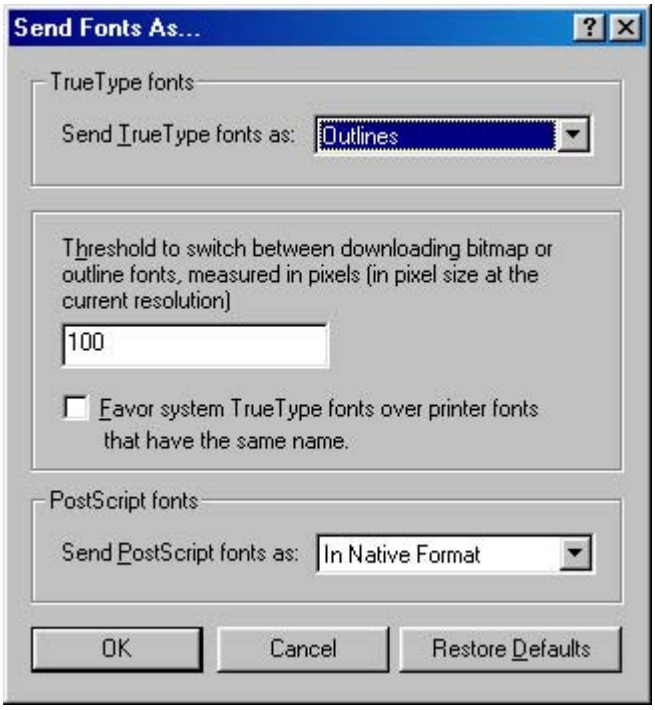


Figure 4-34 Send Fonts As… dialog box

The following options are available:

- **Send TrueType fonts as**. This control offers the following settings:
  - **Outlines**. Use this setting for scalable outlines.
  - **Bitmaps**. Use this setting for bitmaps.
  - **Type 42**. Type 42 fonts are TrueType fonts with headers that enable them to be rendered by the PS Emulation Driver.
  - **Don't Send**. Use this setting if you do not want any TrueType fonts to be downloaded.
- **Threshold to switch between downloading bitmap or outline fonts, measured in pixels (in pixel size at the current resolution)**. Use this control to specify the size of the font (in pixels) at which the PS Emulation Driver driver should switch from downloading TrueType fonts as bitmap (Type 3) fonts to downloading them as outline (Type 1) fonts.

  The most efficient threshold value varies depending on the printing resolution. For example, at 300 dpi, downloading TrueType fonts as outlines becomes efficient when fonts are about 25 points or larger. If this value is 0, outline (Type 1) fonts are always sent.
- **Favor system TrueType fonts over printer fonts that have the same name**. Use this option to specify whether to use system TrueType fonts instead of printer fonts when the same font is found on both the computer and the printer. Printer fonts are the default.

Using printer fonts can speed up printing because the TrueType fonts do not have to be downloaded. However, the fonts in the printed document might not exactly match the fonts on the screen.

- **Send PostScript fonts as**. Use this option to specify whether to download PostScript fonts to the printer. The following options are available:
  - **In Native Format**. Click this option to download the PostScript font files to the device before the document prints.
  - **Don't Send**. If you click this option, no fonts are downloaded. This does not affect downloading of TrueType fonts.

Restore Defaults

Click **Restore Defaults** to reset the values on the **Fonts** tab to their original values.

Device Options tab features

To gain access to the **Device Options** tab, follow these steps:

1. Click **Start**.
2. Select **Settings**.
3. Click **Printers**.
4. Right-click the device name.
5. Click **Properties**.
6. Click the **Device Options** tab.

The **Device Options** tab communicates information about the hardware configuration to the print driver.

When the driver is opened from within a software program, the **Device Options** tab includes only the **Printer features** controls. When opened from the **Printers** folder, the **Device Options** tab appears as shown in the following figure.

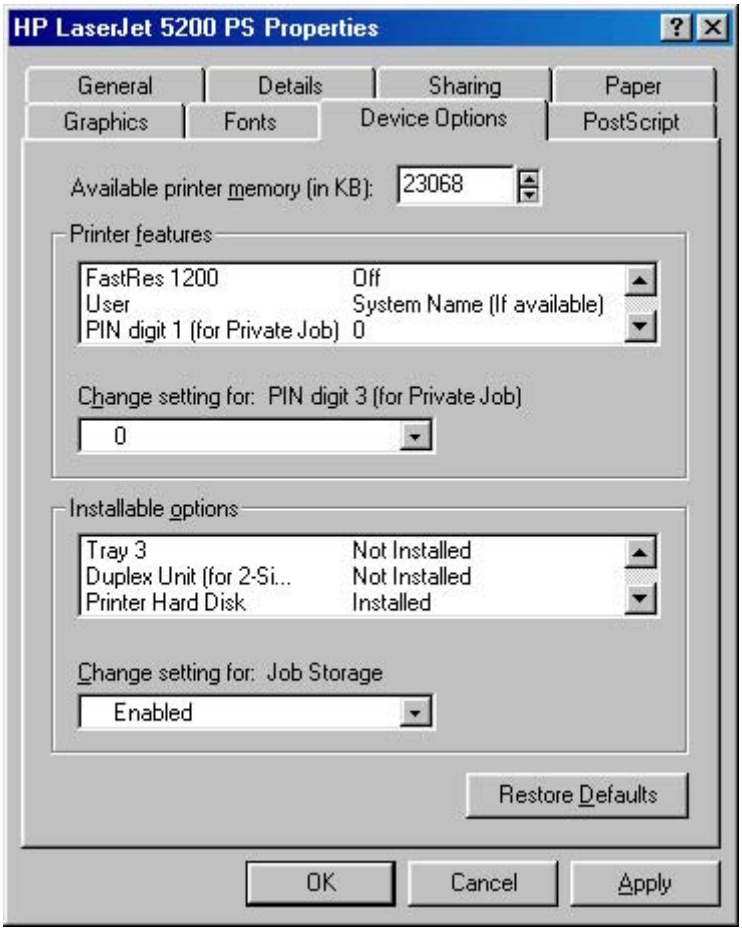


Figure 4-35 **Device Options** tab

Changes that you make to the **Device Options** tab are not reflected in the **Properties** settings until the modified device settings have been applied and the **Properties** tabs have been re-opened. For example, the duplexing unit will not appear until you modify the **Device Options** tab, click **Apply**, close the **Properties** tabs, and then re-open the **Properties** tabs.

The **Device Options** tab contains the following options:

- Available printer memory
- Printer features
- Installable options
- Restore Defaults

This section also contains information about using job-storage features.

NOTE Use the dynamic **Change settings for:** control in the **Printer features** and the **Installable options** sections of the **Device Options** tab to change the setting for the feature or option that you have selected.

Available printer memory

The **Available printer memory** control specifies the amount of memory in the device. If the value in this control does not match the amount of memory in the printer model, use the spin box to specify the correct amount of memory.

Printer features

The **Printer features** group box shows settings that are specific to the printer. You can change the settings by selecting the setting you want to change and then specifying a new value in the **Change setting for** list.

The following printer-feature settings are available on this tab:

- FastRes 1200
- User
- PIN digit 1 (for Private Job)
- PIN digit 2 (for Private Job)
- PIN digit 3 (for Private Job)
- PIN digit 4 (for Private Job)
- HPPJLEncoding
- Economode
- Job storage
- Collate
- Fit to Page
- Print Quality
- Watermark
- Watermark (Pages per Sheet)
- Watermark Font
- Watermark Size
- Watermark Angle
- Watermark Style
- Watermark Intensity
- Print Watermark

FastRes 1200

The **FastRes 1200** setting contains the following options:

- **On**
- **Off**. This is the default setting.

User

The default value for this setting is **System Name (if available)**. Additional values for this setting include numbers 1 through 20.

PIN digit 1 (for Private Job)

The default value for the **PIN digit 1 (for Private Job)** setting is **0**.

PIN digit 2 (for Private Job)

The default value for the **PIN digit 2 (for Private Job)** setting is **0**.

PIN digit 3 (for Private Job)

The default value for the **PIN digit 3 (for Private Job)** setting is **0**.

PIN digit 4 (for Private Job)

The default value for the **PIN digit 4 (for Private Job)** setting is **0**.

HPPJLEncoding

The **HPPJLEncoding** feature contains the control for the **UTF8** feature.

Economode

The **Economode** feature contains the following options:

- **False** (default)
- **True**

Selecting this option extends the life of the toner supply and reduces cost per page. However, it also reduces print quality. The printed image is lighter, but it is adequate for printing drafts or proofs.

HP does not recommend the full-time use of EconoMode. If EconoMode is used full-time when the average toner coverage is significantly less than 5%, it is possible that the toner supply will outlast the mechanical parts in the print cartridge. If print quality begins to degrade under these circumstances, you must install a new print cartridge, even if toner remains in the cartridge.

NOTE The **EconoMode** setting might work only if a genuine HP print cartridge is installed. HP print cartridges can measure the life of the mechanical parts as well as the quantity of toner. If the **EconoMode** setting is used frequently, the mechanical parts can wear out before the supply of toner is depleted, increasing the risk of toner leaking. Use genuine HP parts to avoid this problem.

Job storage

The default value for this setting is **Off**, which means that the print job will not be stored in the device.

NOTE The job-storage feature requires at least 80 MB of total memory.

If the job-storage feature is enabled (with at least 80 MB of total memory), two **Job Storage Mode** settings are available on the **Job Storage** tab:

- **Proof and Hold**
- **Private Job**

To use job-storage features when printing, follow these steps:

1. Click **File** and then click **Print** from the software program. The **Print** dialog box appears.

   NOTE Clicking the print icon in the software program toolbar prints the job without using job-storage features.

2. Click **Properties**. The **Properties** dialog box appears.
3. Click the **Device Options** tab.
4. In the **Printer features** setting, select the job-storage options by clicking the appropriate option button, and then complete any required fields.
5. Click **OK**.

After you send a print job that uses the job-storage feature, you can release the job to print from the device control panel.

1. Press ✓ (the select button; the one with the check mark) to open the menus.
2. Press ▲ (the up arrow) and ▼ (the down arrow) until **RETRIEVE JOB** is highlighted on the device control panel, and then press ✓ (select).
3. Press ▲ (up) and ▼ (down) to scroll to your user name, and then press ✓ (select).
4. Press ▲ (up) and ▼ (down) to scroll to the job name, and then press ✓ (select).
5. Press ▲ (up) and ▼ (down) until **PRINT** is highlighted on the device control panel, and then press ✓ (select).
6. Press ✓ (select).
7. If a PIN number is assigned to the job, press ▲ (up) and ▼ (down) to select the first digit of the PIN, and then press ✓ (select). The number in the device control-panel display changes to an asterisk. Repeat this step for each of the remaining three digits of the PIN number.

   If no PIN number is assigned to the job, continue with the next step.
8. Press ▲ (up) and ▼ (down) to select the number of copies to print.
9. Press ✓ (select) to print the job.

Sometimes it is necessary to delete a print job from the device memory. You can do this from the device control panel.

1. Press ✓ (the select button; the one with the check mark) to open the menus.
2. Press ▲ (the up arrow) and ▼ (the down arrow) until **RETRIEVE JOB** is highlighted on the device control panel, and then press ✓ (select).
3. Press ▲ (up) and ▼ (down) to scroll to your user name, and then press ✓ (select).

4. Press ▲ (up) and ▼ (down) to scroll to the job name, and then press ✓ (select).
5. Press ▲ (up) and ▼ (down) until **DELETE** is highlighted on the device control panel, and then press ✓ (select).
6. Press ✓ (select).
7. If a PIN number is assigned to the job, press ▲ (up) and ▼ (down) to select the first digit of the PIN, and then press ✓ (select). The number in the device control-panel display changes to an asterisk. Repeat this step for each of the remaining three digits of the PIN number.

   If no PIN number is assigned to the job, continue with the next step.
8. Press ✓ (select) to delete the job.

Collate

The **Collate** feature contains the following options:

- **On (turn off in application)**
- **Off**

Fit to Page

The **Fit to Page** feature contains the following options:

- **Prompt User for correct size** (default)
- **Nearest Size and Scale**
- **Nearest Size and Crop**
- **Letter**
- **A4**

Print Quality

The **Print Quality** drop-down menu contains the following controls in the PS Emulation Unidriver:

- **1200 dpi**
- **FastRes 1200**
- **600 dpi**
- **300 dpi**

Watermark

The **Watermark** feature contains the following options:

- **None** (default)
- **Draft**
- **Company Confidential**
- **Company Proprietary**

- **Company Private**
- **Confidential**
- **Copy**
- **Copyright**
- **File Copy**
- **Final**
- **For Internal Use Only**
- **Preliminary**
- **Proof**
- **Review Copy**
- **Sample**
- **Top Secret**
- **Urgent**
- **Custom**

Watermark (Pages per Sheet)

The **Watermark (Pages per Sheet)** feature contains the following options:

- **1** (default)
- **> = 2**

Watermark Font

The **Watermark Font** feature contains the following options:

- **Courier Bold**
- **Helvetica Bold** (default)
- **Times Bold**

Watermark Size

Watermark Size. Settings for the watermark size range from 24 points to 90 points. The default is 48 points.

Watermark Angle

Watermark Angle. Settings for the watermark angle range from 90° to -90° in 15° intervals. The default is a 45° angle.

Watermark Style

The **Watermark Style** feature contains the following options:

- **Narrow Outline**
- **Medium Outline** (default)
- **Wide Outline**
- **Wide Halo Outline**
- **Filled**

Watermark Intensity

The **Watermark Intensity** feature contains the following options:

- **Darkest**
- **Darker**
- **Dark**
- **Medium Dark**
- **Medium**
- **Medium Light**
- **Light**
- **Lighter**
- **Lightest**

Print Watermark

The **Print Watermark** feature contains the following options:

- **No** (default)
- **All Pages**
- **First Page Only**

Installable options

This section provides information to configure the printing options that you can install for the HP LaserJet 5200 printer. The following controls are available:

- Tray 3
- Duplex Unit (for 2-sided Printing)
- Printer Hard Disk
- Mopier Mode
- Job Storage

- VMOption

Tray 3

This control specifies whether you have an optional 500-sheet feeder tray (**Tray 3**) installed on the printer. The default setting is **Uninstalled**.

Duplex Unit (for 2-sided Printing)

The HP LaserJet 5200 printer is equipped with automatic two-sided printing (duplexing), which allows you to print on both sides of supported media. Automatic two-sided printing is not supported for the following media types:

- Transparency
- Labels
- Cardstock
- Tough Paper
- Envelope

NOTE The HP LaserJet 5200 printer supports smart duplexing. The printer detects information on both sides of the print job pages and runs the pages through the duplexing unit only if printable information appears on the second side of the page.

Printer Hard Disk

When this option is enabled, the **Job Storage** option and the **Mopier Mode** option are enabled in the print driver. Use the **Job Storage** option to store print jobs and then print them later from the control panel. The multiple-original print (mopy) function is an HP-designed feature that produces multiple, collated copies from a single print job.

NOTE A printer hard disk is not available for the HP LaserJet 5200 printer. Do *not* select the **Installed** setting.

Mopier Mode

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

The HP LaserJet 5200 printer supports the transmit-once mopying feature when the **Mopier Mode:** setting on the **Device Options** tab is **Enabled**.

Job Storage

When the job-storage feature is enabled, the device can store print jobs so that you can gain access to those print jobs later at the control panel.

VMOption

This option shows the amount of virtual memory (RAM) in the device. The following options are available:

- **48 MB**
- **64 MB** (default)
- **80 MB**
- **96 MB**
- **112 MB**
- **128 MB**
- **176 MB**
- **192 MB**
- **304 MB**
- **320 MB**
- **512 MB**

Restore Defaults

Click **Restore Defaults** to reset the values on the **Device Options** tab to their original values.

PostScript tab features

To gain access to the **PostScript** tab, follow these steps:

1. Click **Start**.
2. Select **Settings**.
3. Click **Printers**.
4. Right-click the device name.
5. Click **Properties**.
6. Click the **PostScript** tab.

The **PostScript** tab controls the PostScript functions for the PS Emulation Driver. The following figure shows the **PostScript** tab.

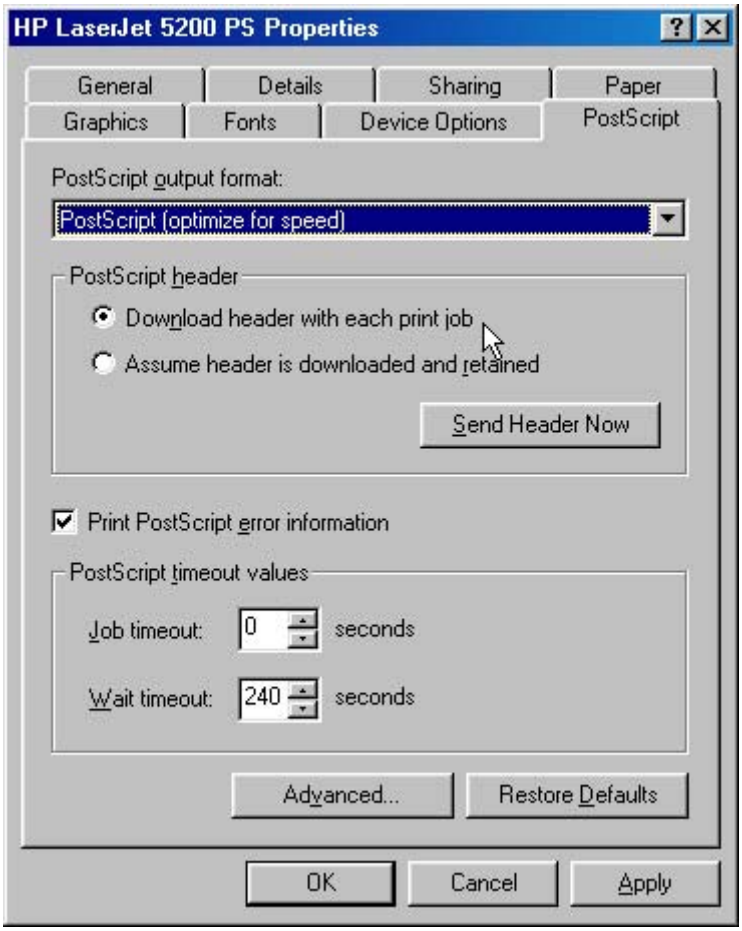


Figure 4-36 PostScript tab

The **PostScript** tab contains the following controls and options:

- PostScript output format
- PostScript header
- Print PostScript error information
- PostScript timeout values
- Advanced…
- Restore Defaults

PostScript output format

Use the **PostScript output format** list to specify the format for PostScript files. The following options are available:

- **PostScript (optimize for speed)**. Use this setting for printing most documents.
- **Optimize for Portability**. Use this setting to create a file that conforms to the Adobe Document Structuring Conventions (ADSC). Each page of the document will be a self-contained object. This is useful, for instance, if you want to create a PostScript file and print it on a different printer.

- **Encapsulated PostScript (EPS)**. Use this setting to include the file as an image in another document that is to be printed from a different program.
- **Archive Format**. Use this setting to create a PostScript file that you can use later.
- **PJL archive format**. This setting notifies the printer that the document is being printed in a different printer language.

PostScript header

Use the **PostScript header** options to specify whether to send header information to the device each time you print a document. The following options are available:

- **Download header with each print job**. This is the default setting and is sufficient or most types of printing. Use this setting if you print to a shared network device or to a file on a disk.
- **Assume header is downloaded and retained**. If you print to a local printer, you can save printing time by sending the header information to the device only once.
- **Send Header Now**. Click this button to send header information to the device. This option is ignored when you specify **EPS**, **Archive**, or **PJL Archive** formats.

Print PostScript error information

Use the **Send PostScript error information** option to print postscript error messages after the document has been printed. The PS Emulation Driver can detect certain errors that MS Windows cannot. If you are having printing problems, click this option. This information can help you, a system administrator, or a device-support representative determine what caused the problem. The error message information is not included in EPS format.

PostScript timeout values

Use the following options to specify the postscript timeout values for the printer.

- **Job timeout**. This control specifies how long the document can take to get from the computer to the device before the device stops trying to print the document. If you specify **0 seconds**, the device 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 device waits to get more postscript information from the computer. After the specified time passes, the device stops trying to print the document and prints an error message. If you are trying to print a very complicated document, you might want to increase this value. If you specify **0 seconds**, the device 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**.

Advanced…

Click **Advanced …** to open the **Advanced PostScript Options** dialog box, which appears in the following figure.

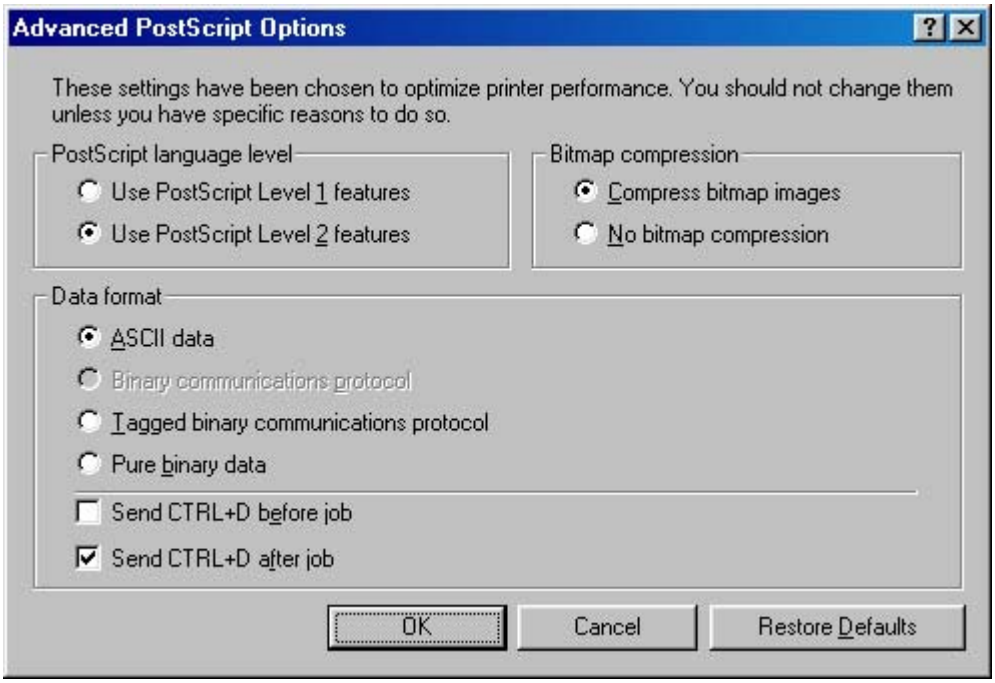


Figure 4-37 Advanced PostScript Options dialog box

The following options are available on the **Advanced PostScript Options** dialog box:

- PostScript Language Level
- Bitmap compression
- Data format
- Send CTRL+D before job
- Send CTRL+D after job

PostScript Language Level

The **PostScript Language Level** specifies which PostScript language level to use, from 1 to the highest level that the device supports. Some devices support multiple levels. It is usually best to select the highest level that is available, because a higher language-level provides more features. In some instances, however, you would still use level 1. For example, if you are printing a file to disk and that file will be printed by someone who has a level-1 device, you would need to select level 1.

You can choose between PostScript Level 1 and PostScript Level 2 features for the HP LaserJet 5200.

Bitmap compression

Use this control to specify whether to compress graphics before sending your document to the device. If you are using PostScript level 2, or if you are using PostScript level 1 and a device connected to a serial port, click **Compress bitmap images**. If you are using PostScript level 1 and a device connected to a parallel port or if you are using a network device, click **No bitmap compression**.

Data format

This control specifies the protocol that the device uses for print jobs. The following options are available:

- **ASCII data**. This is the default setting. When you click **ASCII data**, data is sent in ASCII format (7-bit), which might take longer to print but can be sent through any I/O channel, such as a serial, parallel, or network port.
- **Binary communications protocol**. When you click **Binary communications protocol**, the device sends all data except special control characters in binary (8-bit) format. This format can be sent over parallel or serial communications ports and is faster than sending data in ASCII format. If you select this option, click **Send Mode** to switch the device to Binary Communications Protocol (BCP) for future print jobs.

  NOTE This option is available only if the computer is connected to the device through a direct connection (a USB or parallel cable).

- **Tagged binary communications protocol**. When you click **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.
- **Pure binary data**. When you click **Pure binary data**, 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 job

This control specifies whether the device is reset at the beginning of every postscript document. The default setting is off (unselected). Pressing Ctrl-D resets the device to its default setting to ensure that previous print jobs do not affect the current print job. Using Ctrl-D might cause a print job to fail if the device is connected through a network. If your document fails to print when sent to a device that is connected through parallel or serial ports, select the **Send CTRL+D before job** check box.

Send CTRL+D after job

This control specifies whether the device will be reset at the end of every postscript document. The default setting is off (unselected). Ctrl-D resets the device 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 device is connected through a network. If your document fails to print when sent to a network device, click to select the **Send CTRL+D before job** check box.

Restore Defaults

Click **Restore Defaults** to reset the values on the **PostScript** tab to their original values.

5 HP PCL 6, PCL 5, and PS emulation unidrivers for MS Windows

Introduction

This document describes the features of the HP LaserJet 5200 unidrivers. The unidrivers are the HP PCL 6 Unidriver, the HP PCL 5 Unidriver, and the HP Postscript 3 Emulation Unidriver (PS Emulation Unidriver) for Windows 2000, Windows XP (32-bit and 64-bit), and Windows Server 2003 (32-bit and 64-bit).

NOTE For a comparison of features between the HP unidrivers and HP traditional print drivers in various operating systems, see Driver-feature comparison in various operating systems.

You can control print jobs from several places:

- Device control panel
- Software-program print-dialog box
- Driver user interface

Generally, for features that are duplicated in more than one location (for instance, you can select the media input tray from any of them), settings that are established in the software program take precedence over print-driver settings. Print-driver settings, in turn, override device control-panel settings.

When you install the print-system software in Windows 2000, Windows XP, and Windows Server 2003, the HP PCL 6 Unidriver is installed by default. The HP PCL 5 Unidriver and the PS Emulation Unidriver can be installed by performing a Custom Installation.

The following sections describe the options that are available on each tab of the HP PCL 6 Unidriver, the HP PCL 5 Unidriver, and the PS Emulation Unidriver.

This document also describes differences between the HP PCL 6 Unidriver, the HP PCL 5 Unidriver, and the PS Emulation Unidriver. Unless otherwise noted, features described here apply to all three.

The following topics are addressed in this document:

- Access to print drivers in Windows 2000, Windows XP, and Windows Server 2003
- Help system
- Advanced tab features
- Paper/Quality tab features

- Effects tab features
- Finishing tab features
- Job Storage tab features
- Services tab features
- Device Settings tab features
- About tab features

Access to print drivers in Windows 2000, Windows XP, and Windows Server 2003

Depending on the operating system on which you are installing the print drivers, you can gain access to the print drivers and different print-driver interfaces in several ways:

- Device control panel
- Software-program print-dialog box
- Print-driver user interface

Device control panel

For information about controlling print jobs from the device control panel, see the *HP LaserJet 5200 User Guide* that came with the device, or download it from following Web site:

www.hp.com/go/lj5200_software

Software-program print-dialog box

To gain access to the print-driver settings from within most software programs, follow these steps:

1. Click **File**.
2. Click **Print**.
3. Click **Properties**.

The appearance and names of the driver tabs can vary, depending on the operating system. These driver settings apply only while that software program is open.

Print-driver user interface

You can control the drivers directly from the **Printers** folder. Here you have access to two sets of driver tabs: the **Printing Preferences** tabs and the **Properties** tabs. The settings that you make on the **Printing Preferences** driver tabs control the driver default settings for each user's profile. Installable options can be configured in the **Properties** driver tabs.

Printing Preferences driver tabs

The **Printing Preferences** driver tabs change the default settings that are used across all software programs. To gain access to these tabs, follow these steps:

1. Click **Start**.
2. Select **Settings**.
3. Click **Printers** (Windows 2000) or **Printers and Faxes** (Windows XP Professional and Windows Server 2003) or **Printers and Other Hardware Devices** (Windows XP Home).
4. Right-click the device name.
5. Click **Printing Preferences**.

The following **Printing Preferences** print-driver tabs are available:

- **Advanced**
- **Paper/Quality**
- **Effects**
- **Finishing**
- **Job Storage**
- **Services**

All of these tabs are device-specific, and are therefore described in detail in this document.

The **Job Storage** tab is available only when the **Job Storage** setting is **Enabled** on the tab. The settings take effect only after you click **OK** on the **Device Settings** tab.

Properties driver tabs

This set of tabs controls the driver behavior and driver connections. To gain access to the **Properties** tabs, follow these steps:

1. Click **Start**.
2. Select **Settings**.
3. Click **Printers** (Windows 2000) or **Printers and Faxes** (Windows XP Professional and Windows Server 2003) or **Printers and Other Hardware Devices** (Windows XP Home).
4. Right-click the device name.
5. Click **Properties**.

The following **Properties** print-driver tabs are available:

- **General**
- **Sharing**
- **Ports**
- **Advanced**
- **Security**
- **Device Settings**
- **About**

Only device-specific HP driver tabs are described in this document; the other driver tabs are part of the operating system. The following **Properties** driver tabs are described in this document:

- Device Settings`
- About

Help system

The HP PCL 6 Unidriver, the HP PCL 5 Unidriver, and the PS Emulation Unidriver include a full-featured Help system to provide assistance with printing and configuration options.

NOTE Bubble Help, a feature of HP traditional PCL 6 and PCL 5 drivers, is not available in the HP PCL 6 Unidriver, HP PCL 5 Unidriver, and PS Emulation Unidriver.

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:

- Right-click a control and then click **What's this?**. A pop-up Help window appears.
- Click the **?** button in the upper-right corner of the frame, next to the **X**, to change the cursor to an arrow with a question mark. When you use this special cursor to select a control, 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

When you click the **Help** button on a driver tab or in a dialog box, a context-sensitive Help message appears.

Incompatible Print Settings messages

Incompatible Print Settings (constraint) messages are unsolicited messages that appear in response to specific print-driver selections. These messages alert you to selections that are illogical or impossible given the device capabilities or the current settings of other controls.

NOTE Constraint messages are limited, and the underlying software architecture might accept some settings that are illogical or impossible for the device to perform. Sending a job with incompatible settings can lead to unexpected results. If print jobs do not print as expected, check the device documentation to ensure that the device has the expected capabilities.

In Windows 2000, Windows XP, and Windows Server 2003 operating environments, some technically invalid print-driver configurations result in warning messages. Duplexing, for example, is not possible when the Transparency media type is selected. The following figure shows an **Incompatible Print Settings** message.

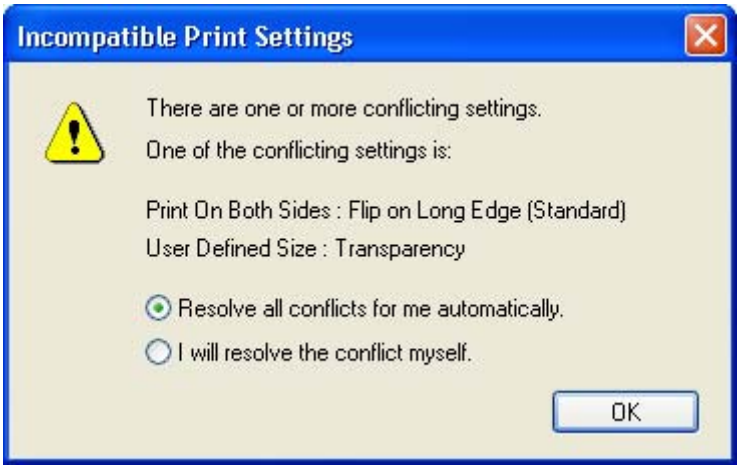


Figure 5-1 An Incompatible Print Settings message

To accept the change that was just made, click the **Resolve all conflicts for me automatically** option and then click **OK**. The driver resets the conflicting control to a setting that is compatible with the new value.

If you want to keep the conflicting setting, click **I will resolve the conflict myself** and then click **OK**.

NOTE In this example, the conflict can be resolved manually. If the conflict is not resolved when the driver is closed, then the same dialog appears again when a print job is sent to the device.

Advanced tab features

To gain access to the **Advanced** tab, follow these steps:

1. click **Start**.
2. Select **Settings**.
3. Click **Printers** (Windows 2000) or **Printers and Faxes** (Windows XP Professional and Windows Server 2003) or **Printers and Other Hardware Devices** (Windows XP Home).
4. Right-click the device name.
5. Click **Printing Preferences**.
6. Click the **Advanced** tab.

Use the **Advanced** tab to change the layout of printed pages. Use this tab to configure special controls that are not commonly used, as well as to control features such as media size and copies in the driver (although most current software programs support these features in the print dialog box or through the page settings in the software program). The following figure shows the **Advanced** tab.

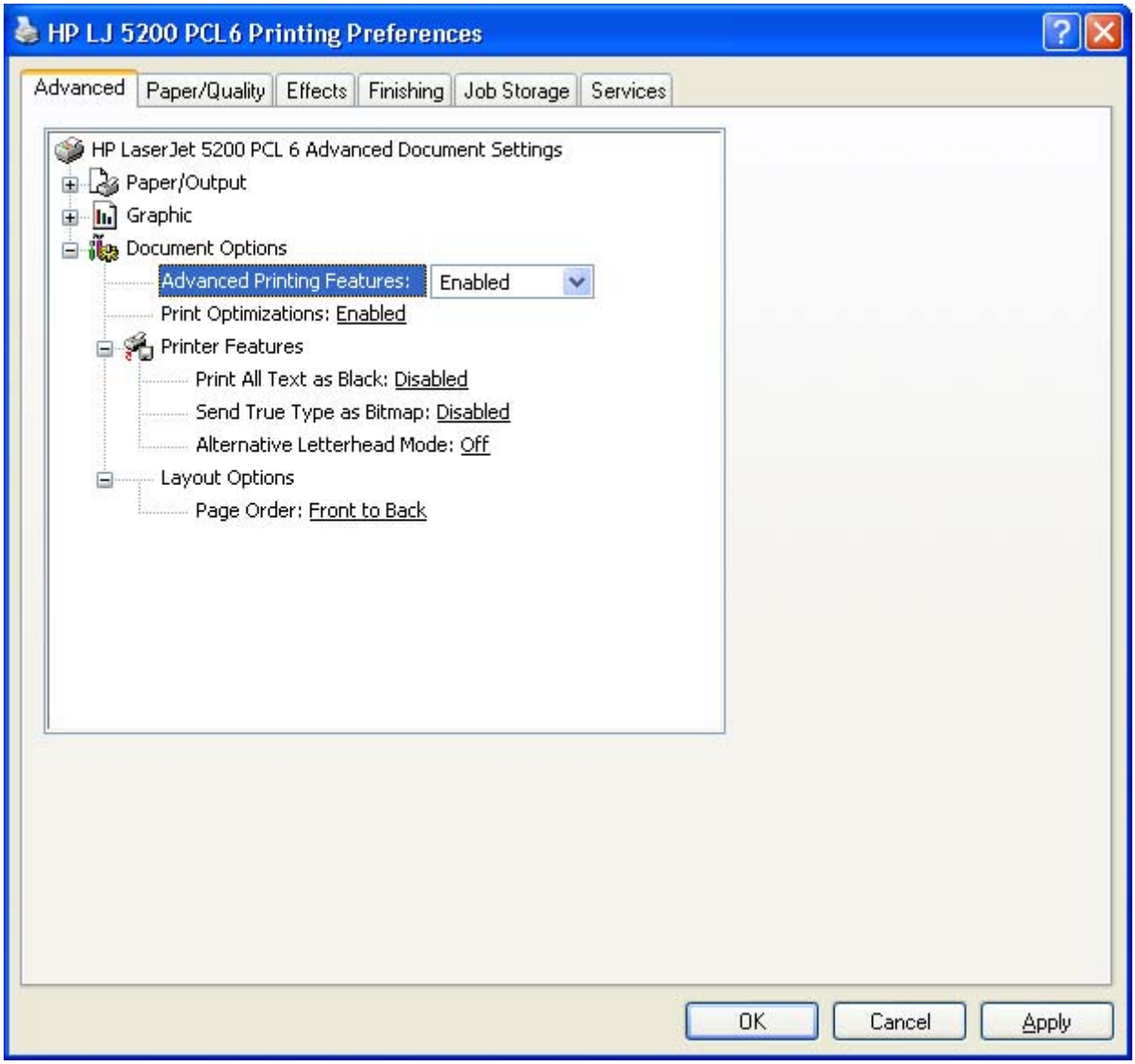


Figure 5-2 The default appearance of the **Advanced** tab

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

- Paper/Output
- Graphic
- Document Options

Paper/Output

The **Paper/Output** settings contain the following controls:

- **Copy Count** setting
- **Collated** check box (appears when you select **Copy Count**)

Copy Count

Copy Count specifies the number of copies to print. This driver setting is useful for software programs that do not provide a copy count. If a copy count is available in the software program, set the copy count in the software program.

The number of copies that you request appears in the **Copy Count** option. You can select the number by typing in the box or by using the up and down arrows to the right of the text box. Valid entries are numbers from 1 to 9999. The copies value will 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 **Advanced** 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.

Because you can set the number of copies that you want from some software programs, conflicts between the software program that you are using and the driver can arise. 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) will appear in the other (such as the driver).

NOTE 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 program and then setting 10 copies in the driver will result in 100 copies (10 x 10) being printed. It is recommended that you set the number of copies in the software program, wherever possible.

Collated

The **Collated** check box is visible when the **Copy Count** setting is selected. The check box becomes available and can be changed when the **Copy Count** setting is greater than 1.

When collated, pages print consecutively for each copy of the document. When not collated, copies of each page print together.

This setting is not synchronized with the collate setting in the software program **Print** dialog box. Settings in the software program override settings in the print driver. For instance, when using Microsoft Word, the **Collate** check box in the **Print** dialog box is selected by default. However, in the print 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, clear the **Collate** setting in both the driver and the software program. Similarly, if the **Collated** check box is selected in the driver, but the **Collate** setting is not enabled in the software program, the printed output is uncollated.

Graphic

The **Graphic** setting contains the following control:

- **True Type Font** settings

True Type Font

Use **Substitute with Device Font** (the default setting) to print documents that contain TrueType fonts by using equivalent printer fonts. This permits faster printing; however, you might lose special characters that the equivalent printer font does not support. Select **Download as Softfont** to download TrueType fonts for printing instead of using printer fonts.

Document Options

The **Document Options** setting contains the following controls:

- **Advanced Printing Features**
- **Print Optimizations**

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 device. For normal printing, leave the **Advanced Printing Features** setting at the default (**Enabled**). If compatibility problems occur, you can disable the feature. However, some advanced printing features might still be available in the print driver, even though they have been disabled. If you select an advanced printing feature in the print driver that has been disabled on the **Advanced** tab, the feature is automatically re-enabled.

Print Optimizations

NOTE Print Optimization settings are available only in the HP PCL 6 Unidriver and HP PCL 5 Unidriver. They are not available in the PS Emulation Unidriver.

The default setting for **Print Optimizations** is **Enabled**. When this feature is enabled and your document contains overlapping text and graphics, the text that is placed on top of a graphic might not print correctly. If the printed output is not correct, you can disable this feature. When this feature is disabled, print optimization-features, such as substituting device fonts for TrueType fonts and scanning for horizontal and vertical rules, are turned off.

PostScript Options

NOTE Print Optimization settings are available only in the PS Emulation Unidriver. They are not available in the HP PCL 6 Unidriver and HP PCL 5 Unidriver.

Select one of the following settings in the **PostScript Output Options** drop-down menu:

- **Optimize for Speed**. This is the default setting.
- **Optimize for Portability**. Use this setting to create a file that conforms to the Adobe Document Structuring Conventions (ADSC). Each page of the document is a self-contained object. This option is useful if you want to create a postscript file and print it on a different printer.
- **Encapsulated PostScript (EPS)**. Use this setting to include the file as an image in another document that is to be printed from another program.
- **Archive format**. Use this option to create a postscript file that you can use later.

Select one of the following settings in the **TrueType Font Download** drop-down menu:

- **Automatic**. This is the default setting. The PS Emulation Driver determines which format is best.
- **Outline**. Select this option if you want to download the TrueType font as a scalable outline font.
- **Bitmap**. Select this option to download the TrueType font as a bitmap font.
- **Native TrueType**If the printer is a TrueType rasterizer printer; select this option to download the TrueType font as an outline font.

Select one of the following settings in the **PostScript Language Level** drop-down menu:

- **3**
- **2**
- **1**

The default setting is **3**. It is usually better to select the highest number available, because it provides more features. In some instances, lower numbers might be necessary. For example, if you are printing a file to disk and that file is to be printed by someone with a level-1 printer, select **1**.

Select one of the following settings in the **Send PostScript Error Handler** drop-down menu:

- **Yes**. This is the default setting. When an error occurs in the print job, an error page is sent to the printer.
- **No**. Select this setting if you do not want an error page to be printed when an error occurs.

Select one of the following settings in the **Negative Output** drop-down menu:

- **Yes**. Select this option to print a negative of the image by reversing the values for black and white.
- **No**. Print the image without reversing the values for black and white. This is the default setting.

Printer Features

The **Printer Features** setting contains the following controls:

- **Print All Text as Black**

  The **Print All Text as Black** feature is **Disabled** by default. When **Enabled** is selected, the driver prints all text as black regardless of the original document text color. Color text is printed as black, except for white text, which remains white. (White text is a reliable method of printing reverse typeface against a dark background.) This setting does not affect graphic images on the page, nor does it affect any text that is part of a graphic.

- **Send True Type as Bitmap**

  NOTE The **Send TrueType as Bitmap** option is available only in the HP PCL 6 and HP PCL 5 unidrivers. It is not available in the PS Emulation Unidriver.

  Send True Type as Bitmap provides an alternative for software programs that have trouble using TrueType fonts for special graphic aspects such as shading, rotation, or slanting. The setting is **Disabled** (off) by default. The TrueType fonts are converted to bitmap soft fonts before 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.

- **Graphics Mode**

  NOTE The **Graphics Mode** option is available only in the HP PCL 5 Unidriver. It is not available in the HP PCL 6 Unidriver or the PS Emulation Unidriver.

Use the **Graphics Mode** feature to select one of the following settings:

- **Send Graphics as Vector**. Select this setting to send graphics to the device as a combination of HP Graphics Language, version 2 (HP-GL/2), and raster images. This setting might produce higher-quality output. It is the default setting.
- **Send Graphics as Raster**. Select this setting to send all graphics to the device as images composed of individual dots. This setting might improve printing speed in some cases.

- **Alternative Letterhead Mode**

  When selected, this option eliminates the need to flip or reload letterhead or preprinted paper in a tray, whether you are printing on one or both sides of the sheet. Load the paper as you would for printing on both sides. If the printer tray has an icon that indicates whether to load paper either face-up or face-down, load the paper in opposite orientation of that shown.

  When this option is selected, you must use one of the following options in the **Type is** setting:

  - Letterhead
  - Preprinted

  NOTE **Alternative Letterhead Mode** is available only if the printer is equipped with an automatic duplexing unit.

Layout Options

The **Layout Options** setting contains the **Page Order** setting.

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.

NOTE The page-ordering operation works on whole sheets of media rather than on individual logical pages. Accordingly, if you set **Pages per Sheet** (on the **Finishing** tab) to be greater than one, the ordering of logical pages on a physical sheet of media does not change.

Paper/Quality tab features

To gain access to the **Paper/Quality** tab, follow these steps:

1. click **Start**.
2. Select **Settings**.
3. Click **Printers** (Windows 2000) or **Printers and Faxes** (Windows XP Professional and Windows Server 2003) or **Printers and Other Hardware Devices** (Windows XP Home).
4. Right-click the device name.
5. Click **Printing Preferences**.
6. Click the **Paper/Quality** tab.

Use the **Paper/Quality** tab to specify the size, type, and source of the media. You can also use this tab to specify different media selections for the front cover, first page, other pages, last page, and back cover of the document. The following figure shows the **Paper/Quality** tab.

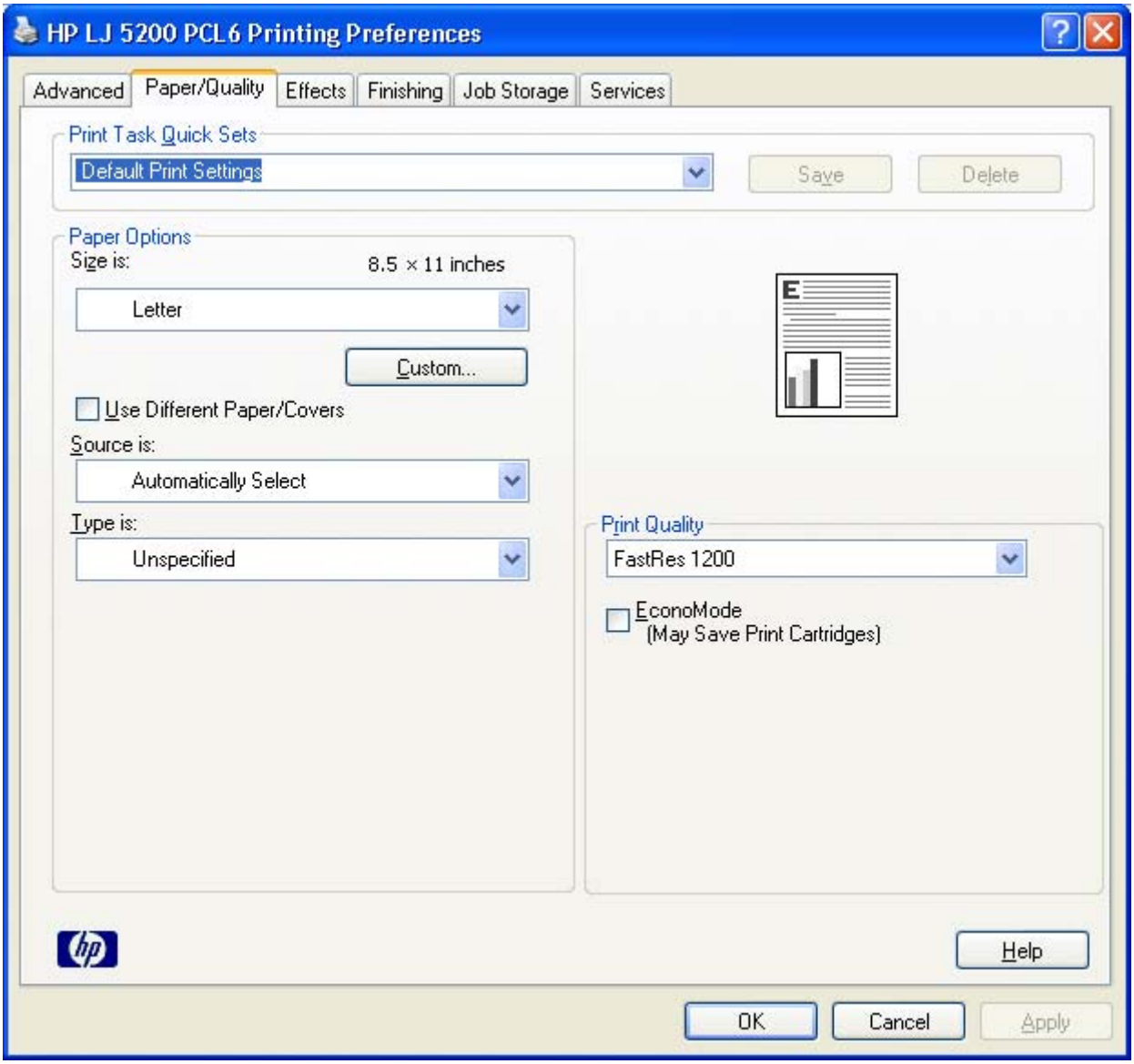


Figure 5-3 **Paper/Quality** tab

The **Paper/Quality** tab contains the following control sets:

- Print Task Quick Sets
- Paper Options
- Use Different Paper/Covers
- Document preview image
- Print Quality

Print Task Quick Sets

The first group box in the upper portion of the **Paper/Quality** tab is **Print Task Quick Sets**. Because they are all the same control, any change to the **Print Task Quick Sets** group box that is made on

the **Paper/Quality** tab affects all the **Printing Preferences** driver tabs that have the **Print Task Quick Sets** setting:

- **Paper/Quality**
- **Effects**
- **Finishing**
- **Job Storage**

Use the **Print Task Quick Sets** setting to store the current combination of driver settings that appear on all of the other print driver tabs (except the **Advanced** tab, where the setting is not available). **Print Task Quick Sets** are either preset by network-administrator settings or user-defined printing specifications (such as media size, pages per sheet, and so on). The **Print Task Quick Sets** control does *not* appear on the driver **Properties** tabs.

NOTE Administrators can predefine Print Task Quick Sets for their users. These administrator Print Task Quick Sets are defined on the server and are available to users, but usually cannot be modified by users. Users can also define Print Task Quick Sets for their own use.

The following selections are available in the **Print Task Quick Sets** drop-down menu:

- **Default Print Settings**
- **User Guide Print Settings**

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 media sizes, or the other quick sets have been changed or deleted, the original settings for those items 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 for information about preconfigurable driver settings.

Table 5-1 Print Task Quick Set default values for the HP LaserJet 5200 printer

Driver feature	Feature setting location	Default values for U.S. English Print Task Quick Sets	Preconfigurable[1]
Print on Both Sides	**Finishing** tab, **Document Options** group box	Available, not selected	Yes
Flip Pages Up	**Finishing** tab, **Document Options** group box	Unavailable, not selected	Yes
Booklet Layout	**Finishing** tab, **Document Options** group box	Unavailable, Off	Yes
Pages per Sheet	**Finishing** tab, **Document Options** group box	1 page per sheet	Yes

Table 5-1 Print Task Quick Set default values for the HP LaserJet 5200 printer (continued)

Driver feature	Feature setting location	Default values for U.S. English Print Task Quick Sets	Preconfigurable[1]
Print Page Borders	**Finishing** tab, **Document Options** group box	Unavailable	Yes
Page Order	**Finishing** tab, **Document Options** group box	Unavailable	Yes
Orientation	**Finishing** tab, **Orientation** group box	Portrait	Yes
Rotate by 180 degrees	**Finishing** tab, **Orientation** group box	Available, not selected	Yes
Resizing Options	**Effects** tab, **Resizing Options** group box	Actual Size	Yes
Print document on	**Effects** tab, **Resizing Options** group box	Available, not selected	Yes
Size to print on	**Effects** tab, **Resizing Options** group box	Actual Size	Yes
Scale to Fit	**Effects** tab, **Resizing Options** group box	Unavailable, selected	Yes
% of Normal Size	**Effects** tab, **Resizing Options** group box	Available, not selected	Yes
Watermarks	**Effects** tab	(none)	Yes
Watermarks First Page Only	**Effects** tab, **Watermark Details** dialog box	Unavailable, not selected	Yes
Current watermarks	**Effects** tab, **Watermark Details** dialog box (Click **Edit** for **Watermark Details**.)	(none)	Yes
Watermark Message	**Effects** tab, **Watermark Details** dialog box (Click **Edit** for **Watermark Details**.)	(none)	Yes[2]
Message Angle (watermark)	**Effects** tab, **Watermark Details** dialog box (Click **Edit** for **Watermark Details**.)	Diagonal	Yes[2]
Watermark message angle (angle)	**Effects** tab, **Watermark Details** dialog box (Click **Edit** for **Watermark Details**.)	Unavailable unless the **Angle** option is selected, **52** degrees	Yes
Name (watermark font)	**Effects** tab, **Watermark Details** dialog box, **Font Attributes** group box	Arial	Yes[2]
Color (watermark font)	**Effects** tab, **Watermark Details** dialog box, **Font Attributes** group box	Gray	Yes[2]
Shading (watermark font)	**Effects** tab, **Watermark Details** dialog box, **Font Attributes** group box	Very Light	Yes[2]
Size (watermark font)	**Effects** tab, **Watermark Details** dialog box, **Font Attributes** group box	80	No
Style (watermark font)	**Effects** tab, **Watermark Details** dialog box, **Font Attributes** group box	Regular	Yes[2]
Size is:	**Paper/Quality** tab, **Paper Options** group box	Letter	Yes
Use Different Paper	**Paper/Quality** tab, **Paper Options** group box	Available, not selected	No
Source is:	**Paper/Quality** tab, **Paper Options** group box	Automatically Select	Yes

Table 5-1 Print Task Quick Set default values for the HP LaserJet 5200 printer (continued)

Driver feature	Feature setting location	Default values for U.S. English Print Task Quick Sets	Preconfigurable[1]
Type is:	**Paper/Quality** tab, **Paper Options** group box	Unspecified	Yes
Economode	**Paper/Quality** tab, **Print Quality** dialog box	Available, unselected	Yes
Unlabeled group box	**Job Storage** tab	Status message: for example, **Your job will be printed but not stored on the printer**	No
Job Storage Mode	**Job Storage** tab, **Job Storage Mode** group box	Off is selected	No
Proof and Hold	**Job Storage** tab, **Job Storage Mode** group box	Available, not selected	No
Private Job	**Job Storage** tab, **Job Storage Mode** group box	Available, not selected	No
Quick Copy	**Job Storage** tab, **Job Storage Mode** group box	Available, not selected	No
Stored Job	**Job Storage** tab, **Job Storage Mode** group box	Available, not selected	No
Require PIN to Print	**Job Storage** tab, **Job Storage Mode** group box	Unavailable, not selected	No
MS Windows User Name	**Job Storage** tab, **User Name** group box	Unavailable, selected (**Windows User Name** appears in field)	No
PIN to Print	**Job Storage** tab, **Require PIN** group box	Unavailable, not selected	No
Display Job ID when printing	**Job Storage** tab, **Job Notification Options** group box	Unavailable, selected	No
Job Name	**Job Storage** tab, **Job Name** group box	Unavailable, Automatically selected	No

[1] These features can be preconfigured by using one of the HP driver preconfiguration tools. For more information, See HP Driver Preconfiguration, or go to: www.hp.com/go/hpdpc_sw.

[2] Not supported in 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 *HP LaserJet 5200 User Guide*.

When you select **User Guide Print Settings**, all of the settings are restored to the default settings, except for the following settings:

- On the **Paper/Quality** tab, **Type Is:** is set to **Unspecified**.
- On the **Finishing** tab, the **Print on Both Sides** check box is selected.
- On the **Finishing** tab, **Flip Pages Up** check box is selected.

- On the **Finishing** tab, **Pages per Sheet** is set to **2 pages per sheet**.
- On the **Finishing** tab, **Page Order** is set to **Right then Down**.

Default Print Settings

By default, the **Print Task Quick Sets** menu is set to **Default Print Settings**. When you change any of the default settings on any of the **Printing Preferences** driver tabs and you want to save the configuration as a Print Task Quick Set, highlight the words **Default Print Settings**, type the name you want for your new Print Task Quick Set, and then 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**.

NOTE Administrators can predefine Print Task Quick Sets for their users. These administrator Print Task Quick Sets are defined on the server and are available to users, but usually cannot be modified by users. Users can also define Print Task Quick Sets for their own use.

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

Paper Options

The settings specified in the **Paper Options** group box on the **Paper/Quality** tab apply to all of the pages of the document. The following figure shows the **Paper Options** group box and the selections that are available by default.

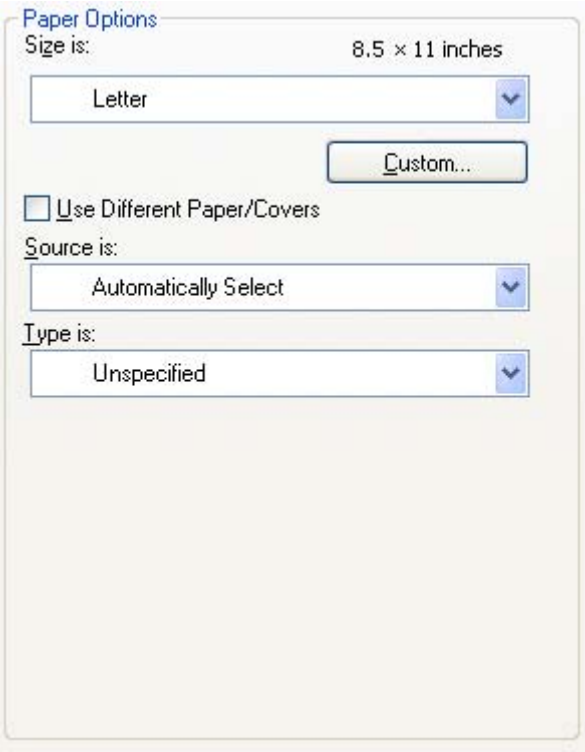


Figure 5-4 **Paper Options** group box

The appearance of the **Paper Options** group box changes when the **Use Different Paper/Covers** check box is selected. The settings in the **Paper Options** group box are described in the following order:

- Size is
- Custom Paper Size
- Source is
- Type is
- Use Different Paper/Covers

Size is

The **Size is:** setting is a drop-down menu that lists all of the supported media sizes.

When you move the mouse cursor over the dimensions label, the cursor changes from an arrow to a gloved hand. Click the dimensions label to toggle between English and metric units.

Because media-size settings in most software programs override driver settings, it is generally best to use the driver to set media size only when you are printing from software programs that do not include a media-size setting, such as NotePad, or when you are producing a book or a booklet that does not require different media sizes.

NOTE Certain software programs can override the size command and specify different media sizes within a single document.

When you change the print-driver setting to a media size that is not currently loaded in the device, a control-panel message appears that prompts you to load the media size or select another tray.

For information about media sizes, see the Media attributes section of this STR.

When the **Use Different Paper/Covers** check box is selected and different options are configured, the **Size is:**, **Source is:**, and **Type is:** menus change, offering a variety of options.

Custom Paper Size

The **Custom Paper Size** dialog box appears when you click **Custom…** on the **Paper/Quality** tab. The following figure shows the initial appearance of the **Custom Paper Size** dialog box.

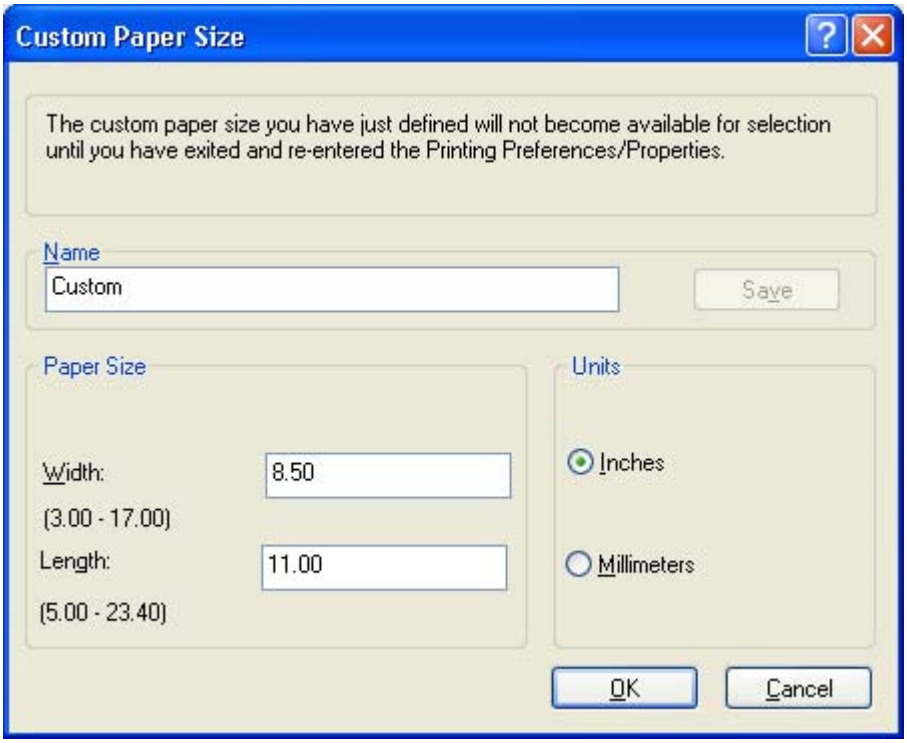


Figure 5-5 **Custom Paper Size** dialog box

Name

Use the **Name** text box to type a new name for a custom media size.

The name that appears in the **Name** text box depends on the following conditions:

- If a saved custom media size has been selected from the drop-down menu on the **Paper/Quality** tab, then the **Name** text box shows the name of the selected custom media size.
- If a standard media size has been selected on the **Paper/Quality** tab, then the **Name** text box shows the default name of "Custom."
- If a new name has been typed into the **Name** text box for the purpose of saving a new size or renaming an existing size, then that new name will remain in the text box until the new size is saved or the dialog box is closed.

If you type a new name into the **Name** text box, but then do not click **Save**, you can change the width and height values without losing the name. However, if you close the dialog box without clicking **Save**, any unsaved name or size values are lost without warning.

Paper size

The width and height values can be changed by typing numeric strings into the edit boxes in the **Paper Size** group box.

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.

If units are in millimeters, the custom media-size range minimum is the limit rounded up to the nearest whole millimeter. The custom media-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 1 millimeter or 1/10 of an inch, depending on the current measurement units.

Units

To change measurement units, click one of the options in the **Units** group box (either **Inches** or **Millimeters**).

Custom width and height control limits

The minimum media size for the HP LaserJet 5200 printer is 76.2 x 127 mm (3 x 5 inches) and the maximum is 215.9 x 355.6 mm (8.5 x 14 inches). The following table summarizes media size limits for each media-handling device.

Table 5-2 PCL 6 custom media sizes

Tray	Dimensions	Minimum	Maximum
Tray 1 (100-sheet multipurpose)	Width	76 mm (3.0 inches)	312 mm (12.28 inches)
	Height	127 mm (5.0 inches)	470 mm (18.5 inches)
Tray 2 (250-sheet)	Width	148.0 mm (5.83 inches)	297 mm (11.7 inches)
	Height	210 mm (8.26 inches)	432 mm (17 inches)
Tray 3 (500-sheet, optional)	Width	148.0 mm (5.83 inches)	297 mm (11.7 inches)
	Height	210 mm (8.26 inches)	432 mm (17 inches)
Duplexing unit	Width	148.0 mm (5.83 inches)	297 mm (11.7 inches)
	Height	210.0 mm (8.26 inches)	432 mm (17 inches)

Source is

The **Source is:** setting specifies the source tray to use for printing a document. The list of source trays depends on the device accessories that are installed. Any optional source trays that are installed through the **Device Settings** tab also appear here.

The **Source is:** drop-down menu can contain the following options, depending on what has been installed on the device:

- **Automatically select**
- **Printer Auto Select**
- **Manual Feed in Tray 1**
- **Tray 1** (100-sheet multipurpose tray)
- **Tray 2** (250-sheet tray)
- **Tray 3** (optional 500-sheet tray)

The default setting is **Automatically Select**. When this setting is selected, the HP LaserJet 5200 uses the source tray that supports the media size that you have selected. If you select a source tray other

than **Automatically select**, make sure that the correct media size is loaded in the source tray. For information about media sources, see the Media attributes section of this STR.

Type is

The **Type is:** drop-down menu shows all of the media types that the HP LaserJet 5200 supports. When you use the default setting, **Unspecified**, the printer uses the default media type, which is usually **Plain**.

No mechanism exists for manually adding custom media types through the driver. Custom types can be added only by using the bidirectional communication mechanism, so they must already exist in the device when the bidirectional query occurs. If bidirectional communication is enabled, then the information an updated list of media types is returned. If bidirectional communication is not enabled, then the driver looks for custom media types that have been saved from a previous bidirectional communication query, and uses those. Otherwise, no custom media types are available through the driver.

The following standard types appear in the list:

- **Unspecified**
- **Plain**
- **Preprinted**
- **Letterhead**
- **Transparency**
- **Prepunched**
- **Labels**
- **Bond**
- **Recycled**
- **Color**
- **Light 60-75 g/m2** (16–20 lb)
- **Cardstock 164-200 g/m2** (45–53 lb)
- **Rough**
- Tough Paper (Glossy Film)
- **Envelope**

The default setting is **Unspecified**, and the program selects the media type. If you select a different setting, make sure that the correct media type is loaded in the tray that you selected in the **Source is:** setting.

When you change the print-driver setting to a media type that is not currently loaded in the device, a control-panel message appears that prompts you to load the media type or select another tray.

Use Different Paper/Covers

You can print books that include different media types by using the **Use Different Paper/Covers** options.

When you select the **Use Different Paper/Covers** check box, the following settings can appear in the group box, along with the associated options:

- **Front Cover**
- **First Page**
- **Other Pages**
- **Last Page**
- **Back Cover**

NOTE When you change the **Source Is** and **Type is** settings for any of the covers or pages, the settings remain configured until you close the software program from which you are printing. For example, if you select **First Page** and change the media source or type, and then select **Back Cover** to change the media source or type, the check mark remains beside **Front Cover** and the selected source and type settings remain in effect. The settings are cleared only when you close the software program.

Front Cover

Use the **Front Cover** options to include a blank or preprinted front cover on a document, or to include a front cover from a source tray that is different from the one used for the remainder of the document.

The following figure shows the **Front Cover** setting and options.

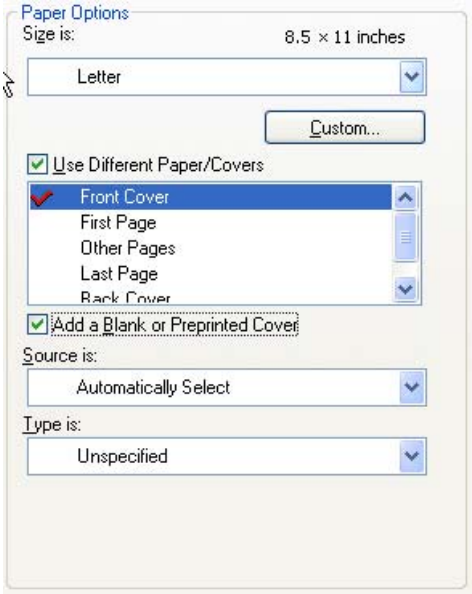


Figure 5-6 Front Cover options

The following are the **Front Cover** options:

- **Size is:** drop-down menu
- **Add a Blank or Preprinted Cover** check box
- **Source is:** drop-down menu
- **Type is:** drop-down menu

The **Size is:** setting specifies the media size to use for the entire print job. Changes made to the **Size is:** setting here override any previous **Size is:** settings in other **Use Different Paper/Covers** options.

When you select **Front Cover**, you must also select the **Add a Blank or Preprinted Cover** check box to enable the setting. When you select this check box, the **Source is:** and **Type is:** drop-down menus become available and a check mark appears next to the **Front Cover** option.

The **Source is:** setting specifies the source tray to use for adding a front cover to the document. The list of source trays depends on the device accessories that are installed. Any optional trays that are installed through the **Device Settings** tab also appear here.

The **Type is:** drop-down menu shows all of the media types that the device supports.

NOTE You must use the same size of media for the entire print job. All **Use Different Paper/Covers** options use the last **Size is:** setting that you select in *any one* of the **Use Different Paper/Covers** options.

When you change the type and source of the media and covers, the settings you select remain configured until you close the software program.

First Page

Use the **First Page** options to select an alternative media type or source for the first page of a document. The following figure shows the appearance of the **Paper Options** group box when you select the **Use Different Paper/Covers** check box.

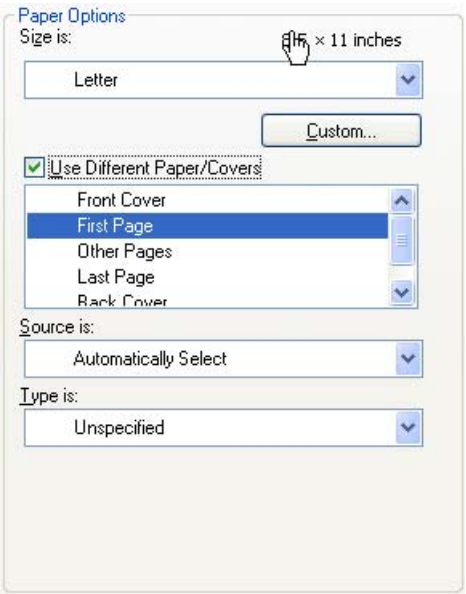


Figure 5-7 First Page options

The following are the **First Page** options:

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

The **Size is:** setting specifies the media size to use for the entire print job. Changes made to the **Size is:** setting here override any previous **Size is:** settings in other **Use Different Paper/Covers** options.

The **Source is:** setting specifies the source tray to use for printing a document. The list of source trays depends on the device accessories that are installed. Any optional trays that are installed through the **Device Settings** tab also appear here.

The **Type is:** drop-down menu shows all of the media types that the device supports.

NOTE You must use the same size of media for the entire print job. All **Use Different Paper/Covers** options use the last **Size is:** setting that you select in *any one* of the **Use Different Paper/Covers** options.

When you change the type and source of the media and covers, the settings that you select remain configured until you close the software program.

Other Pages

Use the **Other Pages** options to select an alternative media type or source for the other pages of the document. The following figure shows the appearance of the Paper Options group box when you select the **Use Different Paper/Covers** check box.

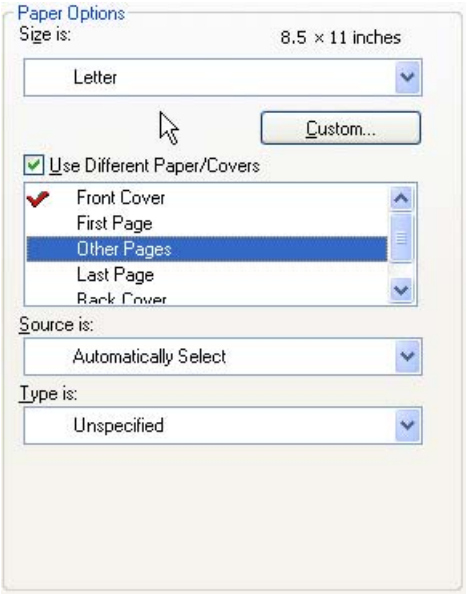


Figure 5-8 Other Pages options

The following are the **Other Pages** options:

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

The **Size is:** setting specifies the media size to use for the entire print job. Changes made to the **Size is:** setting here override any previous **Size is:** settings made in other **Use Different Paper/Covers** options.

The **Source is:** setting specifies the source tray to use for printing a document. The list of source trays depends on the device accessories that are installed. Any optional trays that are installed through the **Device Settings** tab also appear here.

The **Type is:** drop-down menu shows all of the media types that the device supports.

NOTE You must use the same size of media for the entire print job. All **Use Different Paper/Covers** options use the last **Size is:** setting that you select in *any one* of the **Use Different Paper/Covers** options.

When you change the type and source of the media and covers, the settings that you select remain configured until you close the software program.

Last Page

Use the **Last Page** options to select an alternative media size, type, or source for the last page of a document. The following figure shows the appearance of the **Paper Options** group box when you select the **Use Different Paper/Covers** check box.

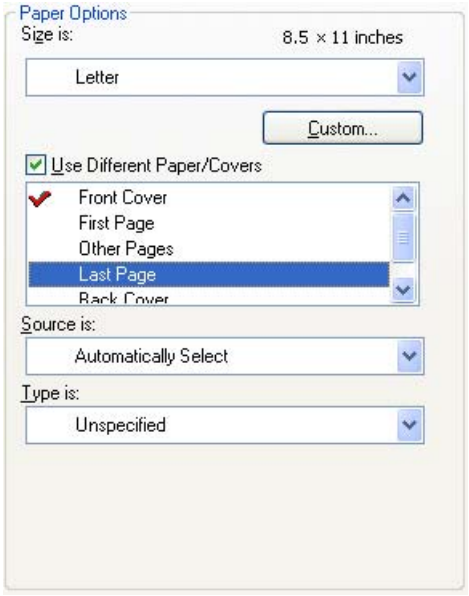


Figure 5-9 Last Page options

The following are the **Last Page** options:

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

The **Size is:** setting specifies the media size to use for the entire print job. Changes made to the **Size is:** setting here override any previous **Size is:** settings in other **Use Different Paper/Covers** options.

The **Type is:** drop-down menu shows all of the media types that the device supports.

NOTE You must use the same size of media for the entire print job. All **Use Different Paper/Covers** options use the last **Size is:** setting that you select in *any one* of the **Use Different Paper/Covers** options.

When you change the type and source of the media and covers, the settings that you select remain configured until you close the software program.

Back Cover

Use the **Back Cover** options to include a blank or preprinted back cover on a document, or to include a back cover from a source tray that is different from the one used for the remainder of the document.

The following figure shows the **Back Cover** setting and options.

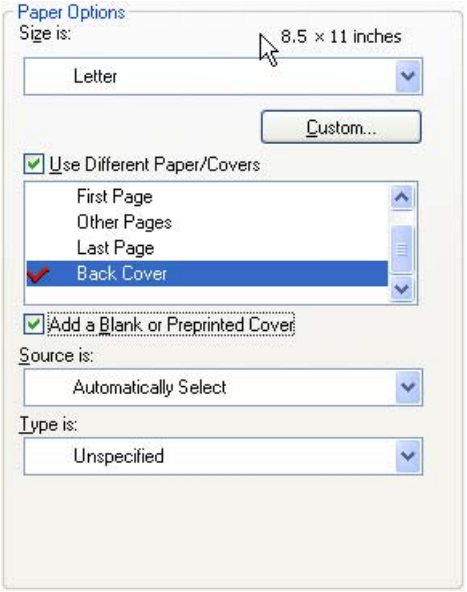


Figure 5-10 Back Cover options

The following are the **Back Cover** options:

- **Size is:** drop-down menu
- **Add a Blank or Preprinted Cover** check box

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

The **Size is:** setting specifies the media size to use for the entire print job. Changes made to the **Size is:** setting here override any previous **Size is:** settings in other **Use Different Paper/Covers** options.

When you select **Back Cover**, you must also select the **Add a Blank or Preprinted Cover** check box to enable the setting. When you select this check box, the **Source is:** and **Type is:** drop-down menus become available and a check mark appears next to the **Back Cover** option.

NOTE The **Back Cover** options are not available when the **Booklet Printing Layout** setting is enabled on the **Finishing** tab. The back cover setting is unavailable, because this page would otherwise be printed in the middle of a booklet.

The **Source is:** setting specifies the source tray to use for adding a back cover to the document. The list of source trays depends on the device accessories that are installed. Any optional trays that are installed through the **Device Settings** tab also appear here.

The **Type is:** drop-down menu shows all of the media types that the device supports.

NOTE You must use the same size of media for the entire print job. All **Use Different Paper/Covers** options use the last **Size is:** setting that you select in *any one* of the **Use Different Paper/Covers** options.

When you change the type and source of the media and covers, the settings that you select remain configured until you close the software program.

Document preview image

The document preview image is a line-drawn image of a page that represents graphics and text. The document preview image is always oriented so that the contents of the page are right-side-up. The document preview image appears in the upper-right corner of the following **Printing Preferences** driver tabs:

- **Paper/Quality**
- **Effects**
- **Finishing**

Switching between tabs does not change the location or appearance of the document preview image. When you move the mouse cursor over the document preview image, the cursor changes from an arrow to a gloved hand. You can toggle between portrait and landscape page orientation by clicking the image.

Print Quality

The **Print Quality** group box contains the following controls:

- Print Quality drop-down menu
- EconoMode

Print Quality drop-down menu

The **Print Quality** drop-down menu contains the following controls in the HP PCL 6 Unidriver:

- **ProRes 1200 (170 lpi)**
- **ProRes 1200 (141 lpi)**
- **FastRes 1200**
- **600 dpi**

NOTE When a **ProRes1200** setting is selected, documents are printed using a resolution of 1200 x 1200 dpi. This is the best print quality, but printing speed is slower than for documents printed on the FastRes 1200, which uses a resolution of 1200 x 600 dpi.

The **Print Quality** drop-down menu contains the following controls in the HP PCL 5 Unidriver:

- **600 dpi**
- **300 dpi**

The **Print Quality** drop-down menu contains the following controls in the PS Emulation Unidriver:

- **1200 dpi**
- **FastRes 1200**
- **600 dpi**
- **300 dpi**

NOTE When a “ProRes” setting is selected, documents are printed using a resolution of 1200 x 1200 dpi. This is the best print quality, but printing speed is slower than for documents printed on a “FastRes” setting. The “FastRes” setting emulates 1200-dpi printing, but places fewer dots on the page and uses less toner, and printing speed is faster than for documents printed on a “ProRes” setting.

EconoMode

Select the **EconoMode** check box to reduce the amount of toner on each printed page.

Selecting this option extends the life of the toner supply and reduces cost per page. However, it also reduces print quality. The printed image is lighter, but it is adequate for printing drafts or proofs.

HP does not recommend the full-time use of EconoMode. If EconoMode is used full-time when the average toner coverage is significantly less than 5%, it is possible that the toner supply will outlast the mechanical parts in the print cartridge. If print quality begins to degrade under these circumstances, you must install a new print cartridge, even if toner remains in the cartridge.

NOTE The **EconoMode** setting might work only if a genuine HP print cartridge is installed. HP print cartridges can measure the life of the mechanical parts as well as the quantity of toner. If the **EconoMode** setting is used frequently, the mechanical parts can wear out before the supply of toner is depleted, increasing the risk of toner leaking. Use genuine HP parts to avoid this problem.

The **EconoMode** option can be activated from the printer control panel, from the **Print Quality** tab in the software application properties, or from the Print Quality dialog on the **Paper-Quality** tab in the driver. If the **EconoMode** option is selected from the control panel, and if the printer has a genuine HP cartridge, the ON setting overrides any setting made in the application or driver, as shown in the following table.

Driver EconoMode setting for print job	HP Cartridge	Device control panel reports	EconoMode setting takes effect
Selected	Yes	On	Yes
Selected	No	Off	No
Not selected	Yes	On	Yes
Not selected	No	Off	No
Selected	Yes	Off	Yes
Selected	No	Off	No
Not selected	Yes	Off	No
Not selected	No	Off	No

Effects tab features

To gain access to the **Effects** tab, follow these steps:

1. Click **Start**.
2. Select **Settings**.
3. Click **Printers** (Windows 2000) or **Printers and Faxes** (Windows XP Professional and Windows Server 2003) or **Printers and Other Hardware Devices** (Windows XP Home).
4. Right-click the device name.
5. Click **Printing Preferences**.
6. Click the **Effects** tab.

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

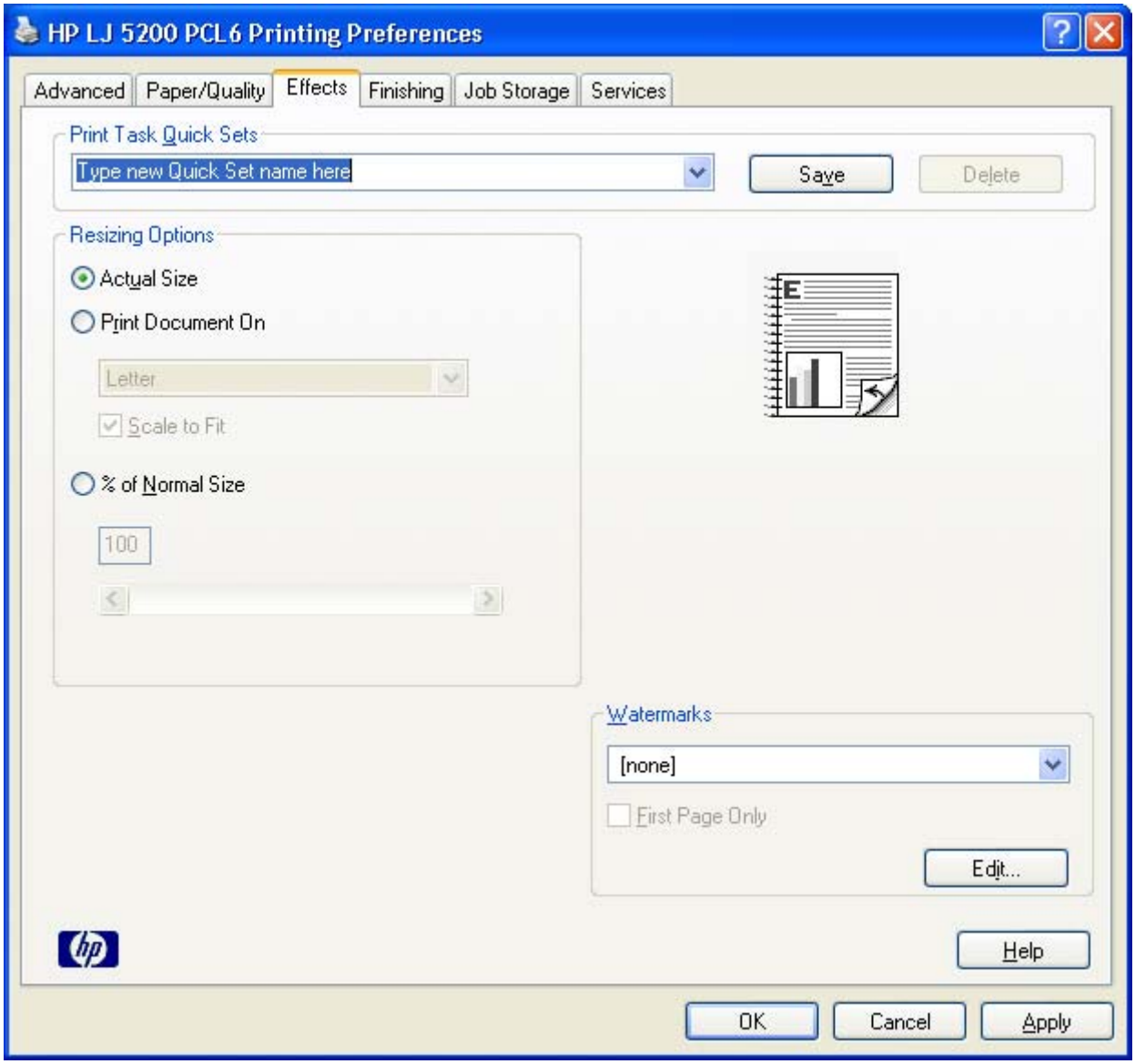


Figure 5-11 **Effects** tab

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

- Print Task Quick Sets
- Resizing Options
- Document preview image
- Watermarks

Print Task Quick Sets

Use the **Print Task Quick Sets** control to store the current combination of driver settings that appear on all other **Printing Preferences** driver tabs. Print task quick sets are either preset or user-defined printing specifications, such as media size and pages per sheet.

Resizing Options

The **Resizing Options** group box consists of the following controls:

- **Actual Size** (default)
- **Print Document On** setting
- **Scale to Fit** option
- **% of Normal Size** setting

Actual Size

Actual Size is the default setting. It prints the document without changing the document size.

Print Document On

Click the **Print Document On** option to format the document for one media size and then print the document on a different media size, with or without scaling the image to fit the new media 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 standard media sizes that the selected media source supports and any custom sizes that you have created. When **Print Document On** is selected, **Scale to Fit** is automatically selected. Clear this check box if you do not want your document reduced or enlarged to fit on the selected media.

Scale to Fit

The **Scale to Fit** option box specifies whether each formatted document page image is scaled to fit the target media 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 media. If the document size is larger than the target media size, then the document image is clipped. If it is smaller, then it is centered within the target media. The following figure shows preview images for a document formatted for Legal-size media with the **Print Document On** check box selected, and the target size specified as **Letter**.

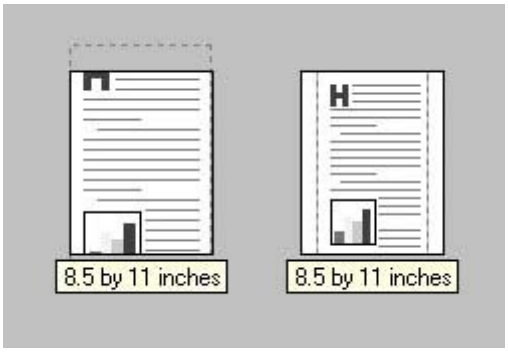


Figure 5-12 Preview images – Legal on Letter; **Scale to Fit** off (left) and on (right)

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

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% of normal size. Normal size is defined as the media size that is selected within the driver or what the driver receives from the software program (if the software program does not negotiate the media 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% to 400%, 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 slider-bar indicator is dragged, and the document preview image is updated to the new image scale. Each click on the arrows increases or decreases the scale by 1%. Each click on the slider bar affects the scale by 10%.

You cannot achieve an exact value by dragging the slider-bar indicator. Instead, either use the slider-bar indicator to approximate the value that you want and then use the arrows to refine the value, or type the value into the entry box.

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

- **Print Document On** (on the **Effects** tab) is selected
- **Pages per Sheet** (on the **Finishing** tab) is not 1

Document preview image

The document preview image is a line-drawn image of a page that represents graphics and text. The document preview image is always oriented so that the contents of the page are right-side-up. The document preview image appears in the upper-right corner of the following Printing Preferences driver tabs:

- **Paper/Quality**
- **Effects**
- **Finishing**

Switching between tabs does not change the location or appearance of the document preview image. When you move the mouse cursor over the document preview image, the cursor changes from an arrow to a gloved hand. You can toggle between portrait and landscape page orientation by clicking the image.

Watermarks

Use the **Watermarks** feature to select 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 that is selected from this list appears in the preview image.

When the **First Page Only** check box 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.

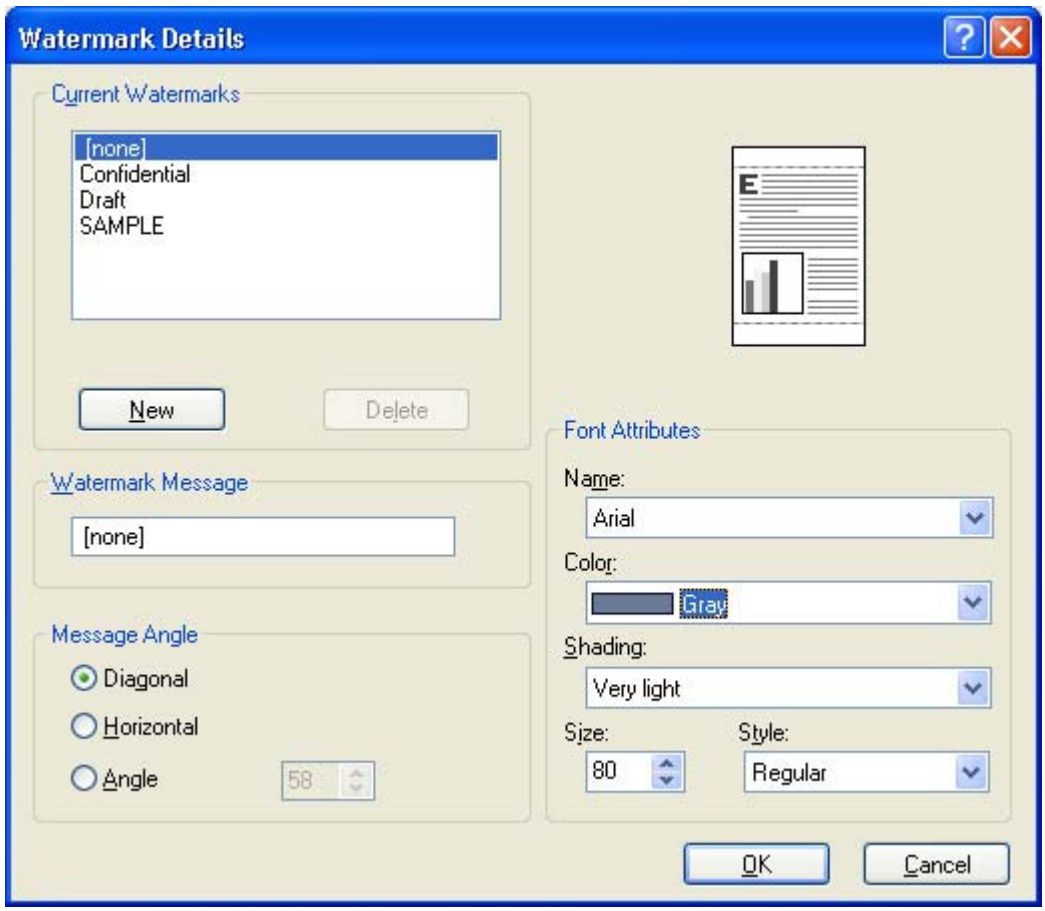


Figure 5-13 **Watermark Details** dialog box

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 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 that are available in the driver and any new watermarks that 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 that 30 watermarks in the **Current Watermarks** list at one time. When you reach the limit of 30 watermarks, the **New** button is disabled.

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 typeface or font 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 (**Draft #3**, **Draft #4**, and so on).

Message Angle

Use the controls in the **Message Angle** group box to print the watermark in different orientations on the page. All settings center the watermark string within the page; the selection of a particular setting affects only the angle of the string placement. The following settings are available:

- **Diagonal**. This is the default setting. Select this setting to place the text along a line that spans the lower-left to upper-right corners of the page.
- **Horizontal**. Select this setting to place the text along a line that spans the mid-left and mid-right edges of the page.
- **Custom**. Select this setting to place the text at the specified angle across the page. Use the numeric spin box to select the angle.

Font Attributes

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

The **Font Attributes** group box contains the following controls:

- **Name**

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

- **Color**

  The **Color** drop-down menu contains only one option: **Gray**.

- **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 gray that is used. Select **Light** to produce a lightly saturated gray watermark. Select **Lightest** to produce the lightest shade of watermark. Select **Darkest** to produce a black watermark.

- **Size**

  Font sizes from 1 to 999 points are available from the **Size** menu. The default point size is language-dependent.

- **Style**

  The following settings are available:

  - **Regular**
  - **Bold**
  - **Italic**
  - **Bold Italic**

    The default **Style** setting for new and preset watermarks is **Regular**.

Default watermark settings

The following table shows **Font Attribute** settings for new and preset watermarks.

Table 5-3 Font Attribute settings for new and preset watermarks

Setting	New watermark	Preset watermark
Name	**Arial**	Varies by language
Color	**Gray**	**Gray**
Shading	**Very Light**	**Very Light**
Size	**80**	Varies by language
Style	**Regular**	**Regular**

Click **OK** to accept all of the changes that have been 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 are saved, and only the current, unsaved changes can be canceled.

Finishing tab features

To gain access to the **Finishing** tab, follow these steps:

1. Click **Start**.
2. Select **Settings**.
3. Click **Printers** (Windows XP) or **Printers and Faxes** (Windows XP Professional and Windows Server 2003) or **Printers and Other Hardware Devices** (Windows XP Home).
4. Right-click the device name.
5. Click **Printing Preferences**.
6. Click the **Finishing** tab.

Use the **Finishing** tab to print booklets and control the media output. The following figure shows the **Finishing** tab.

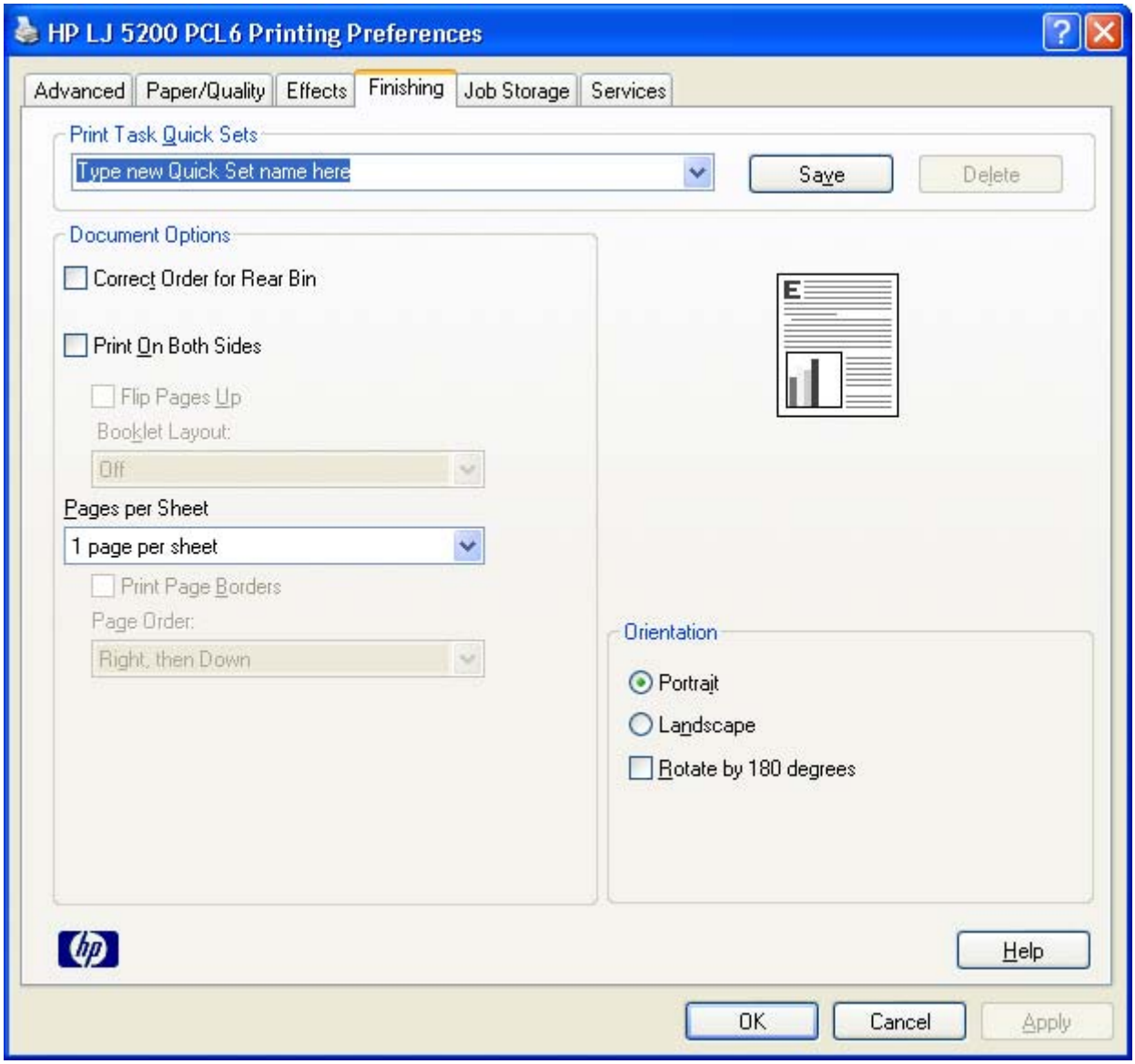


Figure 5-14 **Finishing** tab

The **Finishing** tab contains the following controls:

- Print Task Quick Sets
- Document options
- Document preview image
- Orientation

Print Task Quick Sets

Use the **Print Task Quick Sets** control to store the current combination of driver settings that appear on all other **Printing Preferences** driver tabs. Print task quick sets are either preset or user-defined printing specifications, such as media size and pages per sheet.

Document options

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

- Correct Order for Rear Bin
- Print on Both Sides
- Flip Pages Up
- Booklet layout
- Pages per Sheet
- Print Page Borders
- Page Order

Correct Order for Rear Bin

The HP LaserJet 5200 has a door in the back that can be opened to make the paper go straight out the back of the printer. Use this bin or slot to minimize curl and avoid jams with heavier paper, such as cardstock. You may also need to feed the paper from the multipurpose tray for best results. The paper is delivered printed side up. Use this feature to order your pages correctly for this bin or slot. If you click this check box and also click **Print on Both Sides**, the printer prints the first side of each page, pauses for you to reload the paper, and then prints the second side of each page. Other documents cannot be printed while the printer is paused. Follow the onscreen instructions.

Print on Both Sides

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 media type *except for* the following types:
  - **Labels**
  - **Transparency**
  - **Envelope**
  - Cardstock
  - Tough Paper
- **Size is:** is set to any media size *except for* the following sizes:
  - **Statement**
  - **Envelope #10**
  - **Envelope DL**
  - **Envelope C5**
  - **Envelope B5**
  - **Envelope Monarch**

NOTE As a rule, extra memory need not be installed on the HP LaserJet 5200 printer in order to print on both sides. However, very complex double-sided print jobs might require additional memory.

Topics:

- Automatically print on both sides
- Manually print on both sides

Automatically print on both sides

The duplexing unit in the device prints on two sides of a sheet of paper when the **Print on Both Sides** option is specified in the print job. The HP LaserJet 5200 printer comes with a duplexing unit installed in the following models:

- HP LaserJet 5200tn
- HP LaserJet 5200dtn

These printer models support smart duplexing. The smart duplexing feature increases printing performance by preventing one-page print jobs or single-sided pages of a duplexed print job from going through the duplexing unit even when the duplexing feature has been selected in the driver.

All media types support the smart duplexing feature, except for media types that cannot be printed on both sides (such as labels, transparencies, and envelopes) and the following media types:

- Prepunched
- Preprinted
- Letterhead

When the media type is set to **Unspecified**, the smart duplexing feature is disabled.

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 settings (such as fuser temperature and print speed) to print the media with the best possible quality. This group of settings is known as print mode. A different print mode is used with each media type. Print-mode adjustments for the second side of a duplexed page are automatic.

Manually print on both sides

Select the **Print on Both Sides (Manually)** check box to print on the second side of the media for the HP LaserJet 5200 and HP LaserJet 5200n printer models, which do not have a duplexing unit installed. Also select Print on Both Sides (Manually) on the other HP LaserJet 5200 printer models for media types that are not available when using the automatic duplexing unit, such as cardstock and thick media.

Manually printing on the second side of a page is available when you are using the HP PCL 6, PCL 5, or PS emulation unidriver. If a duplexing unit is installed and manual duplexing is enabled in the driver, the printer automatically prints on both sides of media types that are supported for automatic duplexing (Letter, A4, Legal, and 8.5 x 13 only), and forces manual printing on both sides for media types that are not supported.

Select the media type that corresponds to the media that you are using for the print job. The following media types have a different print modes when you manually print on the second side:

- Plain
- Preprinted
- Letterhead
- Prepunched
- Bond
- Recycled
- Color
- Rough

NOTE To make the **Print on Both Sides (Manually)** check box available in the document options, select the **Allow Manual Duplexing** option on the **Device Settings** tab in the Properties print-driver tabs.

If you want to print on both sides manually while using media that is supported for automatic duplexing, you must select and apply the **Not Installed** setting on the **Duplex Unit (for 2-Sided Printing)** option on the **Device Settings** tab.

Cardstock media can be manually printed on the second side, but no change occurs to the print mode. Transparencies and labels should not be manually printed on the second side.

To print a multiple-page document, follow these steps:

1. Select the **Print on Both Sides (Manually)** check box.
2. Click **OK**. The even-number pages of the document print.
3. When the control panel shows the MANUALLY FEED message, insert the stack of media (on which the even-number pages have been printed) as indicated in the following figure.

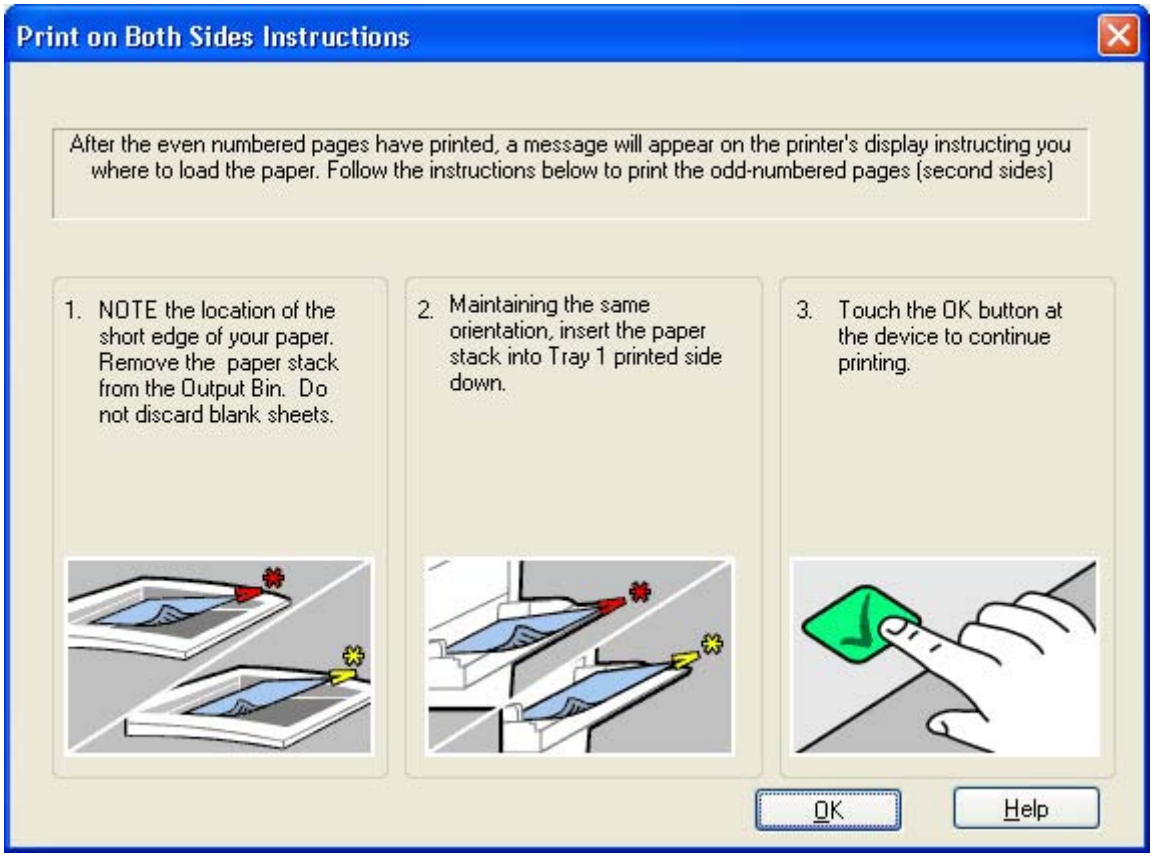


Figure 5-15 **Print on Both Sides Instructions** dialog box

When you have completed the steps that appear in the dialog box, the second half of the print job prints on the back side of the stack of media. The driver does not require the program to specifically support odd- and even-page printing, because the driver coordinates this function.

Flip Pages Up

Use the **Flip Pages Up** check box is used to specify the duplex-binding option. By default, the **Flip Pages Up** check box is available only when **Print on Both Sides** is selected.

The following table demonstrates the results of selecting this check box, depending on the media orientation selected on the **Finishing** tab.

Table 5-4 Page orientation

Orientation (Finishing 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.

Short-side binding is for print jobs with pages that read by flipping over like the pages of a calendar. Long-side binding is for print jobs with pages that read by turning like the pages of a book.

Booklet layout

The **Booklet Layout** drop-down menu, visible when **Print on Both Sides** is selected, offers choices that are based on the current media 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 media size that is set on the **Paper/Quality** tab:

- **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. If the **Pages per Sheet** setting is on the default setting of 1, it automatically changes to **2 pages per sheet**. If you change the **Pages per Sheet** setting manually to 4, 6, 9, or 16 pages per sheet, the booklet setting is disabled.

Topics:

- Book and Booklet Printing
- Print a booklet

Book and Booklet Printing

The HP LaserJet 5200 supports book and booklet printing.

A book is a print job that consists of at least two pages. It can have a different media type for the front cover, first page, other pages, last page, or back cover. Use the settings on the **Paper** tab (available when you select the **Use Different Paper/Covers** check box) to select the following printing options for the book:

- **Front Cover**
- **First Page**
- **Other Pages**
- **Last Page**
- **Back Cover**

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

Print a booklet

Complete the following steps to print a booklet in most software programs.

1. Click **File**.
2. Click **Print**.
3. Click **Properties**.
4. Click the **Finishing** tab.

5. Select the **Print on Both Sides** check box.
6. In the **Booklet Layout** drop-down menu, select the type of booklet printing that you want (for example, **Right Edge Binding**).
7. Click **OK** in the print driver.
8. Click **OK** in the print dialog box to print.

Pages per Sheet

Use the **Pages per Sheet** option to select the number of pages that you want to print on a single sheet of media.

If you choose to print more than one page per sheet, the pages appear smaller and are arranged on the sheet in the order that they would otherwise be printed. The **Pages per Sheet** drop-down menu provides six settings:

- **1 page per sheet** (this is the default)
- **2 pages per sheet**
- **4 pages per sheet**
- **6 pages per sheet**
- **9 pages per sheet**
- **16 pages per sheet**

NOTE When you select an option other than **1 page per sheet**, booklet printing is unavailable.

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 figure.

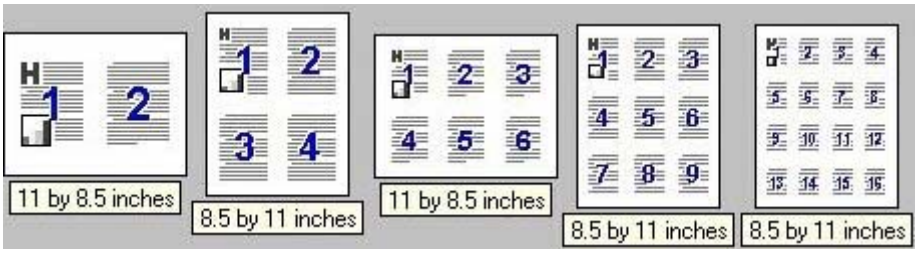


Figure 5-16 Page-order preview images

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

Document preview image

The document preview image is a line-drawn image of a page that represents graphics and text. The document preview image is always oriented so that the contents of the page are right-side-up. The document preview image appears in the upper-right corner of the following **Printing Preferences** driver tabs:

- **Paper/Quality**
- **Effects**
- **Finishing**

Switching between tabs does not change the location or appearance of the document preview image. When you move the mouse cursor over the document preview image, the cursor changes from an arrow to a gloved hand. You can toggle between portrait and landscape page orientation by clicking the image.

Orientation

Orientation refers to the layout of the image on the page, and does not affect the way that media feeds 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**.

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.

The **Orientation** group box contains three options:

- **Portrait**. The top edge of the document is the shorter edge of the media.
- **Landscape**. The top edge of the document is the longer edge of the media.
- **Rotate by 180 degrees**. This creates a landscape or portrait orientation in which the image is rotated 180°. This setting is useful for printing prepunched media.

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

Job Storage tab features

To gain access to the **Job Storage** tab, follow these steps:

1. Click **Start**.
2. Select **Settings**.
3. Click **Printers** (Windows 2000) or **Printers and Faxes** (Windows XP Professional and Windows Server 2003) or **Printers and Other Hardware Devices** (Windows XP Home).
4. Right-click the device name.
5. Click **Printing Preferences**.
6. Click the **Job Storage** tab.

NOTE The **Job Storage** tab appears only when at least 80 MB of total memory is installed and configured.

Use the job-storage feature to store print jobs in the HP LaserJet 5200 printer memory for printing at a later time. These job-storage features are described in the following sections.

The **Job Storage** tab appears among the driver tabs only if job-storage feature is enabled. To support job-storage features for complex jobs, or if you often print complex graphics, print postscript (.PS) documents, or use many downloaded fonts, HP recommends that you install additional memory. Added memory also gives you more flexibility in supporting job-storage features. A minimum total memory of 80 MB is required to use the job-storage features.

After additional memory is installed, the driver must be configured to reflect the changes in the device. If bidirectional communication is enabled in your environment, the Update Now feature can be used to update the drivers.

To configure the drivers manually after installing additional memory, follow these steps:

1. Click **Start**.
2. Select **Settings**.
3. Click **Printers** (Windows 2000) or **Printers and Faxes** (Windows XP Professional and Windows Server 2003) or **Printers and Other Hardware Devices** (Windows XP Home).
4. Right-click the device name.
5. Click **Properties**.
6. Click the **Device Settings** tab.
7. If additional memory has been installed, select **Printer Memory:** under **Installable Options**, and then select either **96 MB**, **128 MB**, **160 MB**, **192 MB**, **256 MB**, **288 MB**, **320 MB**, **384 MB**, or **512 MB**, depending on the total amount of memory currently installed.
8. Click **OK** to make the job-storage features available.

NOTE The **Job Storage** tab appears among the driver tabs *only* if the job-storage feature is enabled.

To disable the job-storage feature, follow these steps:

1. Click **Start**.
2. Select **Settings**.
3. Click **Printers** (Windows 2000) or **Printers and Faxes** (Windows XP Professional and Windows Server 2003) or **Printers and Other Hardware Devices** (Windows XP Home).
4. Right-click the device name.
5. Click **Properties**.
6. Click the **Device Settings** tab.
7. Select **Job Storage**.
8. Select **Disabled** in the **Change 'Job Storage' Setting** dialog box that appears.

NOTE When the job-storage feature is disabled, the **Job Storage** driver tab is not visible.

If the job-storage feature is enabled (with at least 80 MB of total memory), two **Job Storage Mode** settings are available on the **Job Storage** tab:

- **Proof and Hold**
- **Private Job**

The following figure shows the **Job Storage** tab.

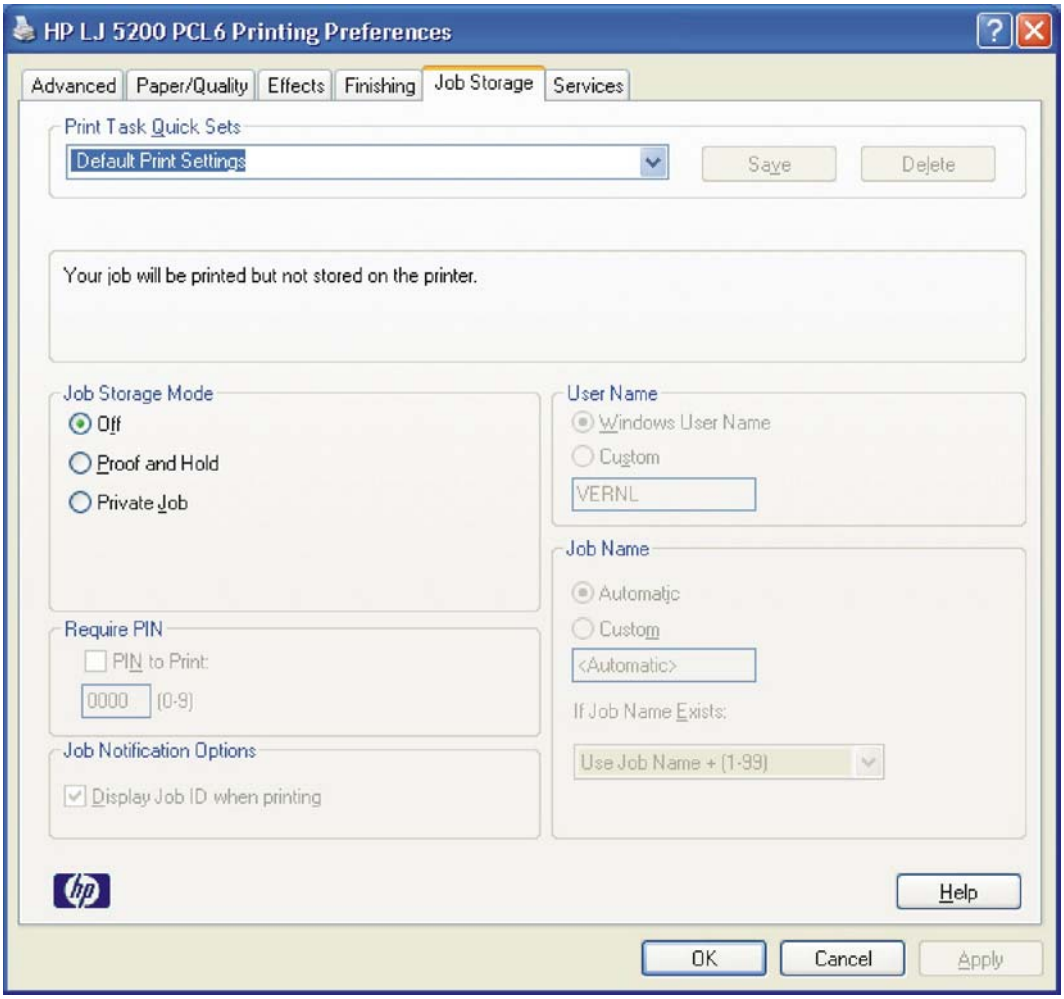


Figure 5-17 **Job Storage** tab

NOTE This section also contains information about using the job-storage feature when printing.

The **Job Storage** tab contains the following controls:

- Print Task Quick Sets
- Status group box
- Job Storage Mode
- Require PIN
- Job Notification Options
- User Name
- Job Name
- Using job-storage features when printing

Print Task Quick Sets

Use the **Print Task Quick Sets** control to store the current combination of driver settings that appear on all other **Printing Preferences** driver tabs. Print task quick sets are either preset or user-defined printing specifications, such as media size and pages per sheet.

Status group box

The unlabeled group box on the **Job Storage** tab contains a status message about the destination of a print job. The status information changes depending on the selections that are made on the **Job Storage** tab.

Job Storage Mode

Use the **Job Storage Mode** options on the HP LaserJet 5200 printer to store documents at the device and then control their printing at the device control panel.

The HP LaserJet 5200 printer offers the following **Job Storage Mode** options:

- **Off**
- **Proof and Hold**
- **Private Job**

Topics:

- Off
- Proof and Hold
- Private Job

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 device.

Proof and Hold

To use the **Proof and Hold** option, the job-storage feature must be enabled.

When selected, this option stores the print job in memory 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 control panel. You can set the number of proof-and-hold print jobs that can be stored in the device at the control panel.

After it is released for printing, the proof-and-hold job is immediately deleted from the device. 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 device 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 turn off the device.

NOTE The device configuration can be set to hold a maximum of 50 quick-copy or proof-and-hold jobs. The number is set at the device control panel in the **CONFIGURATION** menu, and the default is 32. When this preset limit is reached, the new document overwrites the oldest held document. Also, a document that has the same user name and job name as one that is already stored on the device memory will overwrite the existing document.

Private Job

To use the **Private Job** option, the job-storage feature must be enabled.

When you select **Private Job**, the print job is sent to the device, but is not printed until you request the job at the device control panel. Selecting **Private Job** activates the **PIN** group box. The print job can be printed only after you type the correct PIN at the control panel. After the job is printed, the job is immediately deleted from the device. 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.

The Private Job/PIN coupling has a PIN restriction of four ASCII numeric characters (0 though 9). 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 the PIN contains exactly four digits. The default initialized value for the PIN is 0000 for **Private Job**.

After it is released for printing, the private job is immediately deleted from the device. If more copies are needed, you must reprint the job from the software program. If you send a second private job that has 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 turn off the device.

Require PIN

Require PIN is available when **Stored Job** is selected. Select the **PIN to Print** box, then type a 4-digit PIN number in the box provided. The stored job is sent to the device, where you must enter the 4-digit PIN on the control panel to retrieve the stored job.

The **PIN to Print** box is selected, but not available, when **Private Job** is selected. Type a 4-digit PIN number in the box provided. The stored job is sent to the device, where you must type the 4-digit PIN on the control panel to retrieve the stored job.

Job Notification Options

Clicking a **Job Storage Mode** selection causes the **User Name** and **Job Name** options to become available. The **Display Job ID when printing** check box is selected by default. The **Display Job ID when printing** option causes a pop-up dialog box to appear when the job-storage print job is printed. The dialog box shows the user name and job name that are associated with the stored print job, as well as the device name, port, and location.

User Name

Use the **User Name** settings to help identify the job at the device control panel. The following are the **User Name** settings:

- **Windows User Name.** This option associates your MS Windows user name with the stored print job. The MS Windows user name automatically appears in the text field below the **Windows User Name** options.
- **Custom.** Use this option to type a custom name for the stored print job. When you click **Custom**, the text field below the option becomes available. The **User Name** field can contain no more than 16 characters, and is limited to A through Z and 0 through 9 because the name appears on the device control-panel display. If you try to type a lowercase character, it automatically shifts to uppercase. If you try to type a character in 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.

Job Name

Use the **Job Name** options to specify a name to identify the job at the device control panel. The following are the **Job Name** settings:

- **<Automatic>** This option, which is the default selection, automatically generates the job name that is associated with the stored print job. The file name of the print job is used if it is available to the print driver. Otherwise, the software program name or a time stamp is used for the job name. The file name of the print job is used if it is available to the print driver. Otherwise, the software program name or a time stamp is used for the job name.
- **Custom**. Use this to type a custom job name for the stored print job. When you click the **Custom**, the text field below the option becomes available. In those languages for which **<Automatic>** 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 device control-panel display.

The **Job Name** field can contain no more than 16 characters, and is limited to A through Z (uppercase or lowercase) and 0 through 9 so that the name can appear on the device control-panel display. If you try to type a character in 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 **<Automatic>**. 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 device control-panel display.

If Job Name Exists. When you store a print job, you can create a print-job name or the device software can assign one automatically. If a print job with the same name already exists, the new print job will overwrite the existing print job. To eliminate the chances of a new print job overwriting an old print job because both have the same name, select **Use Job Name + (1-999)**. After you create the print job name, or when one is created automatically, the device software assigns a number between 1 and 999 to the end of the print job name to make the name unique. Select **Replace Existing File** if you always want the device software to overwrite an existing print job with the same print job name.

Using job-storage features when printing

To use job-storage features when printing, follow these steps:

1. Click **File** and then click **Print** from the software program. The **Print** dialog box appears.

   NOTE Clicking the print icon in the software program toolbar prints the job without using job-storage features.

2. Click **Properties**. The **Properties** dialog box appears.
3. Click the **Job Storage** tab.
4. Select the job-storage options by clicking the appropriate option button, and then complete any required fields.
5. Click **OK**.

Topics:

- Releasing a job-storage print job
- Deleting a job-storage print job

Releasing a job-storage print job

After you send a print job that uses the job-storage feature, you can release the job to print from the device control panel.

1. Press ✓ (the select button; the one with the check mark) to open the menus.
2. Press ▲ (the up arrow) and ▼ (the down arrow) until **RETRIEVE JOB** is highlighted on the device control panel, and then press ✓ (select).
3. Press ▲ (up) and ▼ (down) to scroll to your user name, and then press ✓ (select).
4. Press ▲ (up) and ▼ (down) to scroll to the job name, and then press ✓ (select).
5. Press ▲ (up) and ▼ (down) until **PRINT** is highlighted on the device control panel, and then press ✓ (select).
6. Press ✓ (select).
7. If a PIN number is assigned to the job, press ▲ (up) and ▼ (down) to select the first digit of the PIN, and then press ✓ (select). The number in the device control-panel display changes to an asterisk. Repeat this step for each of the remaining three digits of the PIN number.

   If no PIN number is assigned to the job, continue with the next step.
8. Press ▲ (up) and ▼ (down) to select the number of copies to print.
9. Press ✓ (select) to print the job.

Deleting a job-storage print job

Sometimes it is necessary to delete a print job from the device memory. You can do this from the device control panel.

1. Press ✓ (the select button; the one with the check mark) to open the menus.
2. Press ▲ (the up arrow) and ▼ (the down arrow) until **RETRIEVE JOB** is highlighted on the device control panel, and then press ✓ (select).
3. Press ▲ (up) and ▼ (down) to scroll to your user name, and then press ✓ (select).
4. Press ▲ (up) and ▼ (down) to scroll to the job name, and then press ✓ (select).
5. Press ▲ (up) and ▼ (down) until **DELETE** is highlighted on the device control panel, and then press ✓ (select).
6. Press ✓ (select).
7. If a PIN number is assigned to the job, press ▲ (up) and ▼ (down) to select the first digit of the PIN, and then press ✓ (select). The number in the device control-panel display changes to an asterisk. Repeat this step for each of the remaining three digits of the PIN number.

   If no PIN number is assigned to the job, continue with the next step.
8. Press ✓ (select) to delete the job.

Services tab features

To gain access to the **Services** tab, follow these steps:

1. Click **Start**.
2. Select **Settings**.
3. Click **Printers** (Windows 2000) or **Printers and Faxes** (Windows XP Professional and Windows Server 2003) or **Printers and Other Hardware Devices** (Windows XP Home).
4. Right-click the device name.
5. Click **Printing Preferences**.
6. Click the **Services** tab.

The **Services** tab is shown in the following figure.

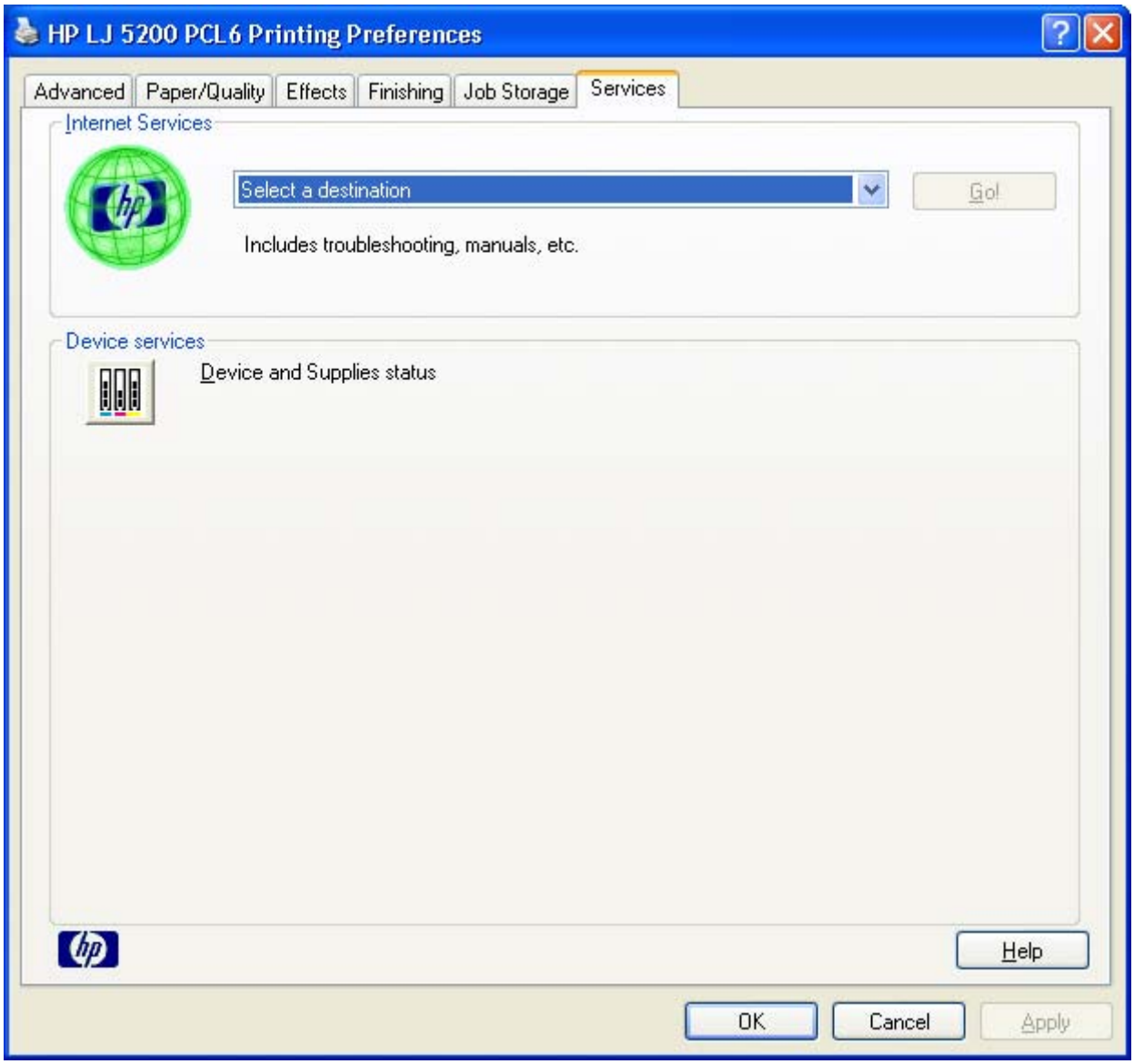


Figure 5-18 **Services** tab

The **Services** tab contains the following features:

- Internet Services
- Device services

Internet Services

The **Internet Services** group box contains the **Select a destination** drop-down menu with the following selections:

- **Online diagnostic tools**. Open the HP Instant Support Web site, where you can find interactive tools and contacts for troubleshooting.
- **Support and troubleshooting**. Open the product page for the HP Business Center.
- **Product manuals**. Open a Web page from which you can view or download HP LaserJet 5200 printer manuals.
- **Check for driver updates**. Automatically check your print drivers to see whether the correct and most up-to-date print drivers are installed.
- **Order supplies**. Open the HP SureSupply Web page and shop online for HP LaserJet 5200 printer supplies.
- **Show me how**. Connect to a Web page that provides step-by-step instructions for performing specific tasks. The following information is available:
    - Clear jams
    - Load trays
    - Load special media
    - Print both sides
    - Supported paper
    - More Help

If you have Internet access, select any of these items and click **Go!** to open the corresponding HP Web page.

Device services

Click the **Device and Supplies** status icon to open the **Device Status** screen of the HP EWS.

Device Settings tab features

The **Device Settings** tab is in the Properties window for the print driver. To gain access to the Device Settings tab, follow these steps:

1. Click **Start**.
2. Select **Settings**.
3. Click **Printers** (Windows 2000) or **Printers and Faxes** (Windows XP Professional and Windows Server 2003) or **Printers and Other Hardware Devices** (Windows XP Home).
4. Right-click the device name.
5. Click **Properties**.
6. Click the **Device Settings** tab.

The **Device Settings** tab contains controls for media-handling devices and controls for managing the HP LaserJet 5200 printer.

Available options depend on the driver and the particular feature. The following figure shows the **Device Settings** tab for the HP PCL 6 Unidriver.

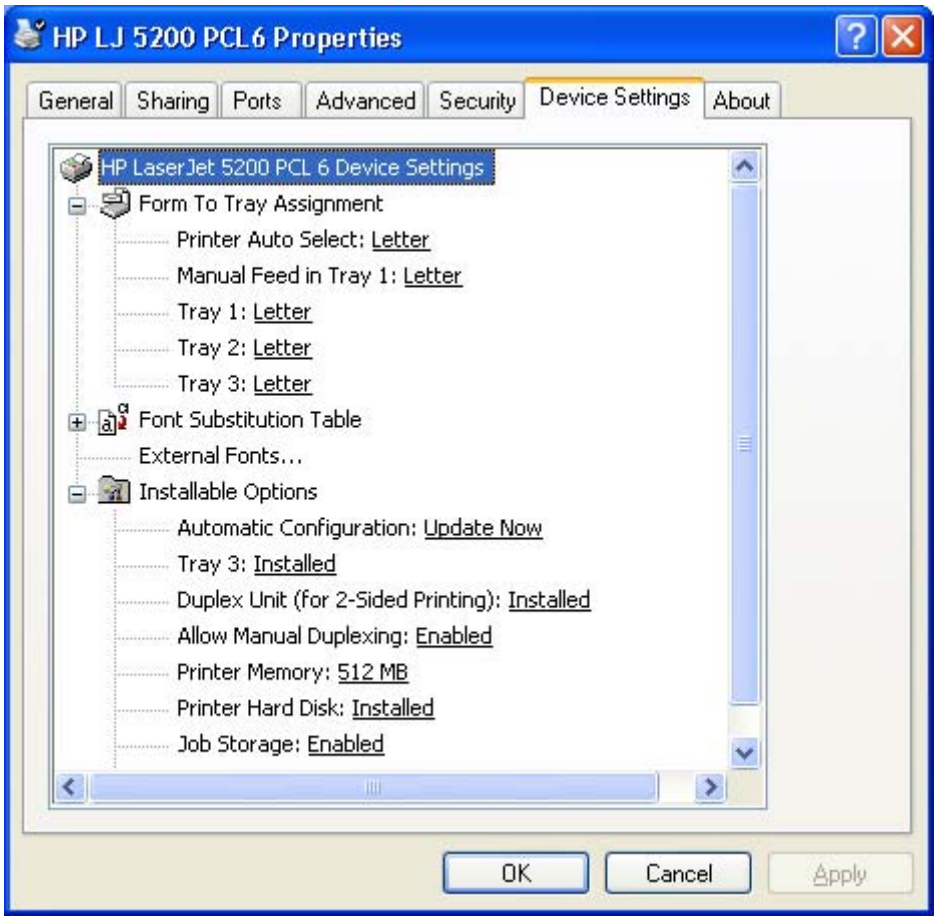


Figure 5-19 HP PCL 6 Unidriver Device Settings tab

The following figure shows the **Device Settings** tab for the PS Emulation Unidriver.

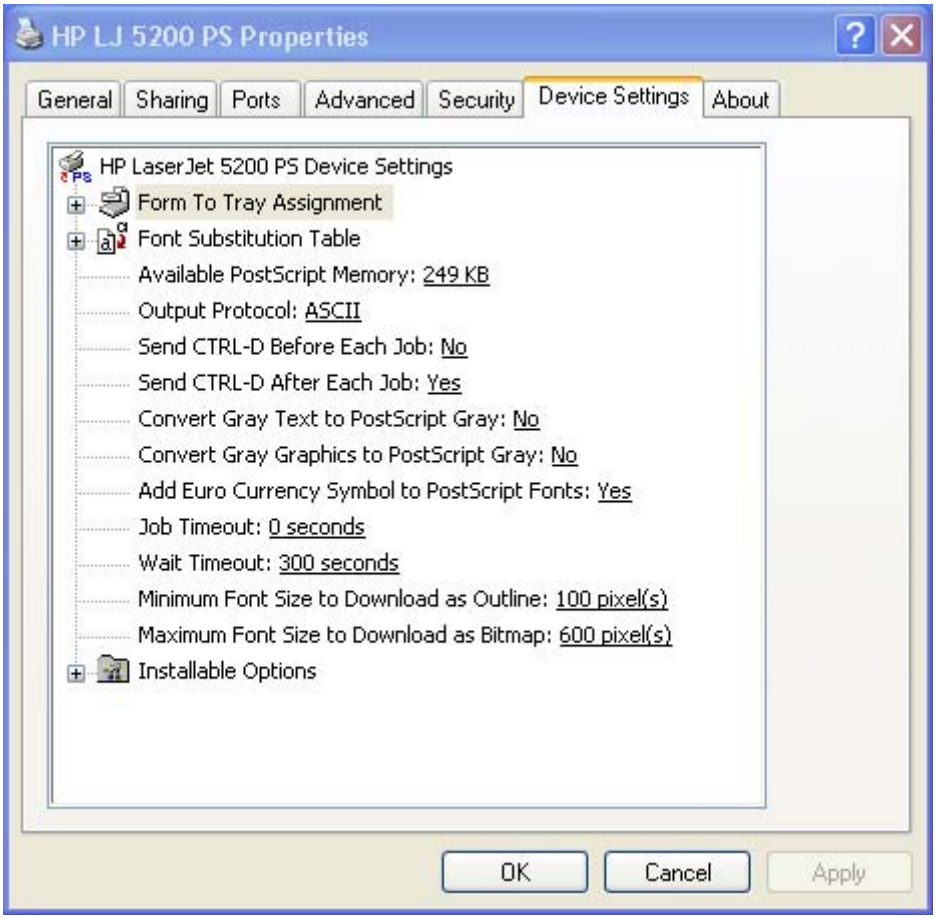


Figure 5-20 PS Emulation Unidriver **Device Settings** tab

The **Device Settings** tab contains the following controls:

- Form to Tray Assignment
- Font Substitution Table
- External Fonts
- PS Emulation Unidriver Device Settings
- Installable Options

Form to Tray Assignment

A network administrator can use **Form to Tray Assignment** to specify the media size in each input tray.

The HP LaserJet 5200 printer supports more than one source of media. You can assign a form (which defines the media size and margins) to each media source. When a form is matched to a source, you can select the form when you print. The device prints from the tray to which that form is assigned.

Network administrators can use the **Form to Tray Assignment** setting to specify, in the driver, the media size that is loaded into each available input tray. The use of forms constrains the choices that are available in the media-size list on the **Paper/Quality** tab in the **Printing Preferences** driver tabs. This constraint prevents (or reduces the likelihood of) tying up the printer with media-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 and optional accessory trays. Generally, items that are installed separately have a separate **Installable Options** setting.

The input trays listed here are also listed as media sources on the **Paper/Quality** tab.

Configuring the trays

1. Select the appropriate tray in the **Form to Tray Assignment** list.
2. Use the drop-down menu to select the media size (or form) that is loaded in that tray.
3. Repeat steps 1 and 2 for the remaining trays.
4. Click **OK** to enable your settings, or, if necessary, click **Cancel** to reconfigure all the trays, and remove the size and type constraints that have been imposed on the **Paper/Quality** tab.

Font Substitution Table

Use the **Font Substitution Table** settings to install and remove external fonts for the device. External fonts can be soft fonts or DIMM fonts.

Click the **Font Substitution Table** option to open a list of fonts, as show in the following figure. Use the settings to change the TrueType-to-printer font mappings.

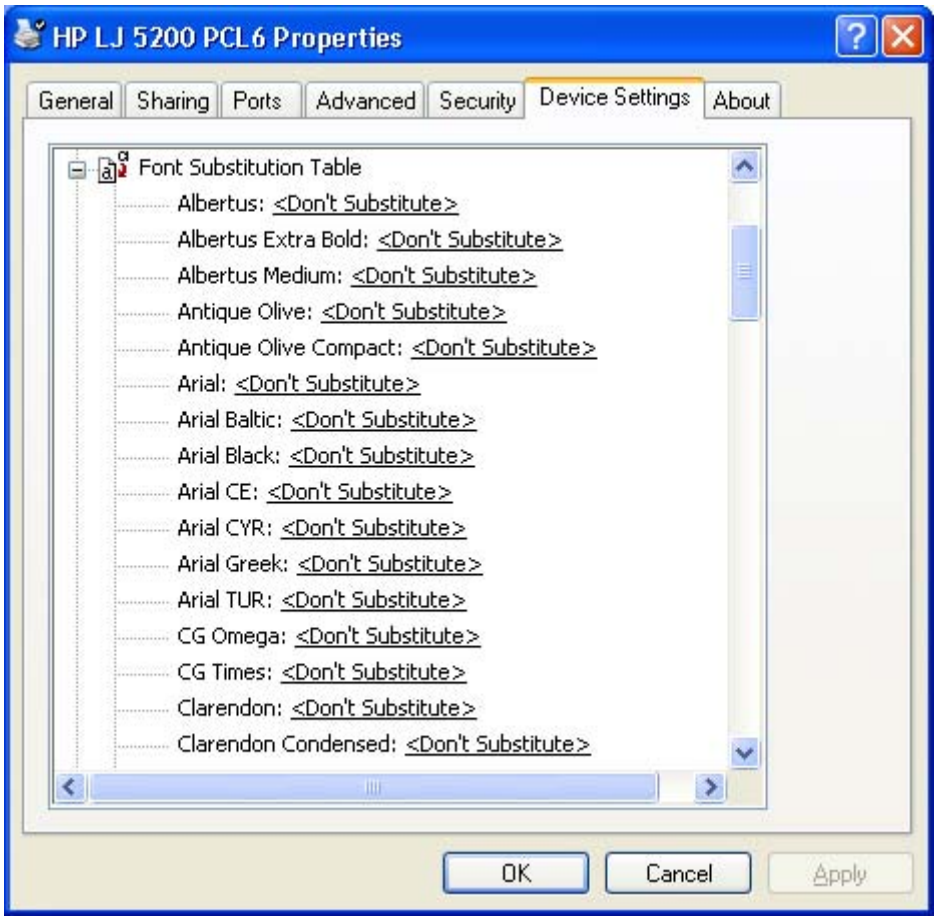


Figure 5-21 Font Substitution Table

External Fonts

NOTE The External Fonts option is available only in the HP PCL 6 and PCL unidrivers. It is not available in the PS Emulation Unidriver.

Use the **External Fonts** option to install and remove external fonts for the device. External fonts can be soft fonts or DIMM fonts.

Click the **External Fonts** option to make the **Properties** button available. Click **Properties** to open the **HP Font Installer** dialog box, which is shown in the following figure.

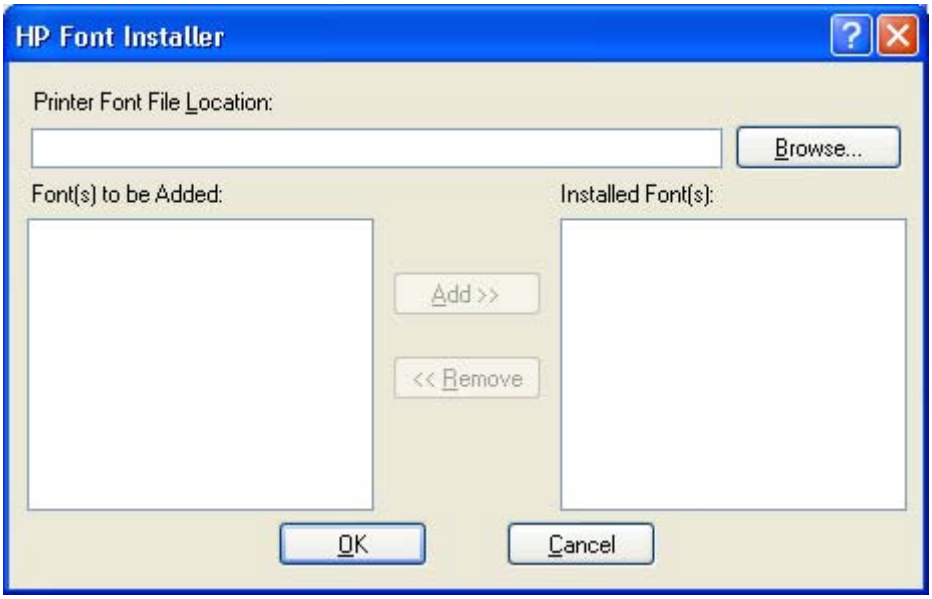


Figure 5-22 HP Font Installer dialog box

Topics:

- Installing external fonts
- Removing external fonts

Installing external fonts

Follow these steps to install external fonts.

1. Click **Start**.
2. Select **Settings**.
3. Click **Printers** (Windows 2000) or **Printers and Faxes** (Windows XP Professional and Windows Server 2003) or **Printers and Other Hardware Devices** (Windows XP Home).
4. Right-click the name of the device.
5. Click **Properties**.
6. Click the **Device Settings** tab.
7. Click the **External Fonts** option. The **Properties** button appears.

8. Click **Properties**. The **HP Font Installer** dialog box appears.
9. 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 the computer. The font file names appear in the **Font(s) to be Added** window.
10. Select the fonts that you want to add, and then click **Add**. The fonts are installed and the file names appear in the **Installed Font(s)** window.
11. Click **OK** to close the **HP Font Installer** dialog box.

Removing external fonts

1. Click **Start**.
2. Select **Settings**.
3. Click **Printers** (Windows 2000) or **Printers and Faxes** (Windows XP Professional and Windows Server 2003) or **Printers and Other Hardware Devices** (Windows XP Home).
4. Right-click the name of the device.
5. Click **Properties**.
6. Click the **Device Settings** tab.
7. Click the **External Fonts** option. The **Properties** button appears.
8. Click **Properties**. The **HP Font Installer** dialog box appears. The external fonts that are installed appear in the **Installed Fonts** window.
9. Select the fonts that you want to remove, and then click **Remove**. The fonts are removed.
10. Click **OK** to close the **HP Font Installer** dialog box.

PS Emulation Unidriver Device Settings

The following controls are available and appear only in the PS Emulation Unidriver **Device Settings** tab:

- Available PostScript Memory
- Output Protocol
- Send Ctrl-D Before Each Job
- Send Ctrl-D After Each Job
- Convert Gray Text to PostScript Gray
- Convert Gray Graphics to PostScript Gray
- Add Euro Currency Symbol to PostScript Fonts
- Job Timeout
- Wait Timeout
- Minimum Font Size to Download as Outline

- Maximum Font Size to Download as Outline

Available PostScript Memory

This control specifies the amount of available postscript memory and provides a spin box for changing this value. The available postscript memory is a subset of the device total physical memory. It is usually best to set the postscript memory to match the total RAM that is shown on the configuration page. To print a configuration page from the device control panel, follow these steps:

1. Press ✓ (the select button; the one with the check mark) to open the menus.
2. Press ▲ (the up arrow) and ▼ (the down arrow) to scroll to **INFORMATION**, and then press ✓ (select).
3. Press ▲ (up) and ▼ (down) to scroll to **PRINT CONFIGURATION**.
4. Press ✓ (select) to print the configuration page.

Output Protocol

This control specifies the protocol that the device uses 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 might 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.

When you click **Binary**, 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 device will be reset at the beginning of every postscript document. The default setting is **No**. Pressing Ctrl-D resets the device to its default setting to ensure that previous print jobs do not affect the current print job. Using Ctrl-D might cause a print job to fail if the device is connected through a network. If your document fails to print when sent to a device connected through parallel or serial ports, change **No** to **Yes**.

Send Ctrl-D After Each Job

This control specifies whether the device will be reset at the end of every postscript document. The default setting is **Yes**. Pressing Ctrl-D resets the device to its default setting to ensure that future print jobs are not affected by the current print job. Using Ctrl-D might cause a print job to fail if the device 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 value (RGB) in text to the gray provided by the PS Emulation Driver. The following settings are available:

- **Yes**
- **No**. This is the default setting.

Convert Gray Graphics to PostScript Gray

This control specifies whether to convert the true gray value (RGB) in graphics to the gray provided by the PS Emulation Driver. The following settings are available:

- **Yes**
- **No**. This is the default setting.

Add Euro Currency Symbol to PostScript Fonts

This control specifies whether to add the Euro symbol to the printer fonts. The following settings are available:

- **Yes**. This is the default setting.
- **No**

Job Timeout

This control specifies how long the document can take to get from the computer to the device before the device stops trying to print the document. If you specify **0 seconds**, the device 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 device waits to get more postscript information from the computer. After the specified time passes, the device stops trying to print the document and prints an error message. If you are trying to print a very complicated document, you might want to increase this value. If you specify **0 seconds**, the device 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 driver downloads TrueType fonts as outline (Type 1) fonts. A font smaller than the minimum setting is downloaded as a bitmap (Type 3) font. Use this option to fine-tune the **Automatic** setting for the **TrueType Font Download** option on the **Advanced** tab in **Document Defaults**. The default setting is **100 pixel(s)**. 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 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. Use this option to fine-tune the **Automatic** setting or override the **Send TrueType as Bitmap** setting for the **TrueType Font Download** option on the **Advanced** tab in **Document Defaults**. The

default setting is **600 pixel(s)**. You can use the spin box to change this value to a maximum of **32,767** pixels.

Installable Options

Topics:

- Automatic Configuration
- Tray 3
- Duplex Unit (for 2-Sided Printing)
- Allow Manual Duplexing
- Printer Memory
- Printer Hard Disk
- Job storage
- Mopier Mode
- Mopier mode and collation
- Postscript Passthrough (PS Emulation Unidriver only)
- JPEG Passthrough (PS Emulation Unidriver only)

Automatic Configuration

Use the **Device Settings** tab to tell the driver about the hardware configuration of the device. If bidirectional communication is enabled in a supported environment, set up this tab by selecting the **Update Now** setting in the **Automatic Configuration** setting. The default setting is **Off**. After an automatic configuration, the setting returns to **Off** after the changes are made.

If your environment does not support bidirectional communication, the **Update Now** setting is unavailable, so you must manually configure the options on this tab.

If you have more than one driver installed for the device (for example, the default HP PCL 6 Unidriver and the HP PCL 5 Unidriver), the Update Now feature works automatically only on the driver on which it is activated. The other driver will not be updated, and might show the default setting for the specific device model.

Tray 3

This control specifies whether you have tray 3, an optional 500-sheet tray, installed on the device. The default setting is **Not Installed**.

Duplex Unit (for 2-Sided Printing)

The HP LaserJet 5200tn and the HP LaserJet 5200dtn printer models come with a duplex unit installed. This setting is enabled (**Installed**) by default.

NOTE These printer models support smart duplexing. The device uses the smart duplexing feature to detect information on both sides of the print job pages and runs the pages through the duplexing unit only if there is printable information on the second side of the page.

The HP LaserJet 5200 printer supports smart duplexing. The device uses the smart duplexing feature to detect information on both sides of the print job pages and only runs the pages through the duplexing unit if printable information appears on the second side of the page.

Allow Manual Duplexing

Select **Allow Manual Duplexing** to print on both sides of any size and most types of media (except transparencies, envelopes, and labels). To use this feature, you must reinsert the media stack into the input tray to print the second side. The device pauses while you make this adjustment.

This setting is enabled by default.

Printer Memory

This option matches the setting to the amount of memory that is installed in the device. The driver generates ranges of memory that can be selected, up to the maximum that the device can accept. The driver can use this information to manage how the print driver uses the device memory.

Printer Hard Disk

When this option is enabled, the **Job Storage** option and the **Mopier Mode** are enabled in the print driver. Use the **Job Storage** option to store print jobs and then print them later from the control panel. The multiple-original print (mopy) function is an HP-designed feature that produces multiple, collated copies from a single print job.

NOTE A printer hard disk is not available for the HP LaserJet 5200 printer. Do *not* select the **Installed** setting.

Job storage

When **Job Storage** is enabled, the device can store print jobs so that you can gain access to those print jobs later at the control panel.

Mopier Mode

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

The HP LaserJet 5200 supports the transmit-once mopying feature when the **Mopier Mode:** setting on the **Device Settings** tab is **Enabled**.

When you use the HP PCL 6 Unidriver, HP PCL 5 Unidriver, or PS Emulation Unidriver, mopying is performed in one of two ways: either through the software or through the device hardware. When the mopier is enabled, mopying takes place through the device hardware by default. One copy of a multiple-page print job is transmitted once through the network to the device, together with a printer job language (PJL) command directing the device to make the specified number of copies.

When you disable the mopier, you are not necessarily disabling mopying, which the driver can still perform through the software rather than the device hardware (the mopying path that is disabled when you change the **Mopy Mode** setting to **Disabled**). However, a multiple-copy print job that is sent when the mopier is disabled loses the advantage of transmitting the print job once, because the job is sent through the network for each copy.

Mopier mode and collation

Mopying and collating print jobs are independent but closely related functions. Mopying, the ability to send original print jobs to the device, is performed by the print driver. Collating can be controlled by either the print driver or the document software program. The mopying mode is selected by default in the driver, and can be disabled by changing the **Mopier Mode** setting on the **Device Settings** tab to **Disabled**.

Control collation through the print driver by selecting or clearing the **Collated** check box on the **Advanced** tab. You can clear the check box, which is available only when the **Copy Count** option is set to more than 1 copy, to allow the software program to control collation.

To receive uncollated multiple copies of a print job, you must clear the **Collated** check box *and* make sure that the software program collation feature is not selected.

The following table shows the relation between mopier mode settings and collation settings in the software program and the driver. The first three columns show the settings; the last column, "Expected result", shows how a 3-page print job would appear.

Table 5-5 Driver mopier mode and collation settings

Mopier mode	Application collation	Driver collation	Expected result
Disabled	Not selected	Not selected	3 copies uncollated
Disabled	Not selected	Selected	3 copies uncollated
Disabled	Selected	Not selected	3 copies collated
Disabled	Selected	Selected	3 copies collated
Enabled	Not selected	Not selected	3 copies uncollated
Enabled	Not selected	Selected	3 copies uncollated
Enabled	Selected	Not selected	3 copies collated
Enabled	Selected	Selected	3 copies collated

Postscript Passthrough (PS Emulation Unidriver only)

Postscript Passthrough is enabled by default, and must be enabled for most print jobs. Postscript passthrough provides additional capabilities for some software programs when printing to a postscript driver. Options such as **Watermarks**, **n-up** and **Booklet Printing** might not print correctly from some software programs with **Postscript Passthrough** enabled, because such programs send postscript information to the printer that cannot be controlled by the driver. Other programs might print using these options without problems. Select **Disabled** and print the document again if you encounter problems.

NOTE In some cases, disabling **Postscript Passthrough** can cause unexpected results within a software program.

JPEG Passthrough (PS Emulation Unidriver only)

The JPEG Passthrough setting contains the following options:

- **Disable**. When this option is selected, images sent as JPEG are printed as bitmaps, resulting in faster printing.
- **Enable**. When this option is selected, images sent as JPEG are printed as JPEG (JPEG passthrough).
- **Auto**. When this option is selected, the printer connection type is automatically detected. For network (TCP/IP) connections, JPEG passthrough is disabled. For parallel (LTP), DOT4, and USB connections, JPEG passthrough is enabled.

About tab features

The **About** tab is in the **Properties** for the print driver. To gain access to the print driver **Properties**, click **Start** on the MS Window task bar, select **Settings**, and then click **Printers** (Windows 2000) or **Printers and Faxes** (Windows XP Professional and Windows Server 2003) or **Printers and Other Hardware Devices** (Windows XP Home).

1. Click **Start**.
2. Select **Settings**.
3. Click **Printers** (Windows 2000) or **Printers and Faxes** (Windows XP Professional and Windows Server 2003) or **Printers and Other Hardware Devices** (Windows XP Home).
4. Right-click the device name.
5. Click **Properties**.
6. Click the **About** tab.

The **About** tab provides detailed information about the driver. It contains an overall build number (in parentheses after the model name) together with specific information about each of the components. The information varies according to the HP LaserJet 5200 model number, driver, date, and versions. The **About** tab is shown in the following figure.

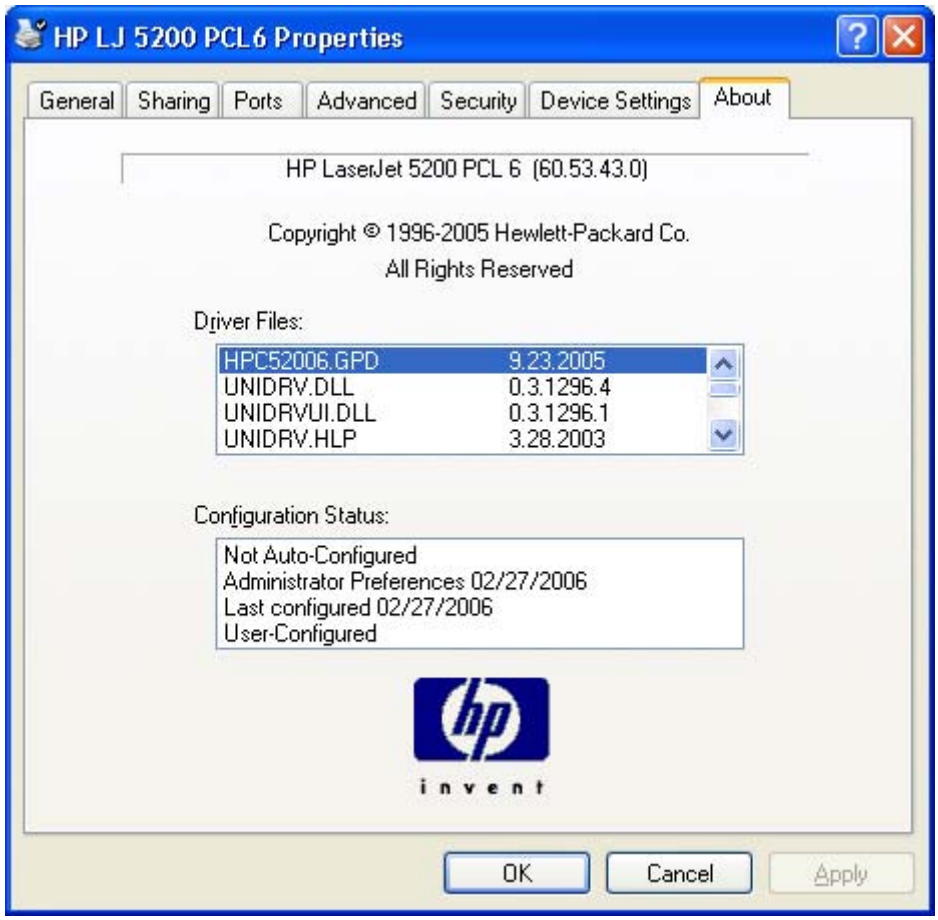


Figure 5-23 About tab

The **About** 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.

6 Macintosh

Introduction

The HP LaserJet 5200 comes with printing software and installers for Apple Computer, Inc., Macintosh operating systems.

Topics:

- Macintosh printing-system software
- Macintosh install and uninstall instructions
- Macintosh HP Printer Utility
- Macintosh remote firmware updates
- Macintosh, print print-ready documents

Macintosh printing-system software

The HP LaserJet 5200 printing system for Macintosh is composed of the Print Center (Mac OS X V10.2.8) or the Printer Setup Utility (Mac OS X V10.3 or later) and HP-created postscript printer definition (PPD) and printer dialog extension (PDE) files. The driver uses these files to determine the features and postscript commands that the device supports. Bidirectional support in Bonjour/Rendezvous connections supports autoconfiguration of the software. The following are components that can be installed:

- The HP LaserJet Installer for Mac OS X V10.2.8 or later
- LIBRARY/PRINTERS/PPDS/CONTENTS/RESOURCES/LANGUAGE.LPROJ (for Mac OS X)
- The HP Printer Selector (for Mac OS X V10.2.8 or later)
- Install notes

Topics:

- System requirements
- Operating-system support
- Availability

System requirements

- PowerPC processor
- Mac OS X V10.2.8 or later, with 128 MB RAM and 160 MB of available hard-disk space
- CD-ROM drive or internet connection

Operating-system support

Topics:

- Mac OS X
- Mac OS X Classic (Mac OS 9)

Mac OS X

The HP LaserJet 5200 is supported by Mac OS X V10.2.8 or later.

Mac OS X Classic (Mac OS 9)

Mac OS X Classic (Mac OS 9) does not support the HP LaserJet 5200 printer.

Availability

This document provides information about the availability of the HP LaserJet 5200 printing-system software and related software and firmware. Printing-system software on a CD is available from HP fulfillment centers.

Topics:

- Printing-system software on the Web

- In-box printing-system software CDs

Printing-system software on the Web

All software that is contained on the installation CD is also available on the Web.

Web deployment is the preferred method for obtaining the latest software. The Web site offers an option for automatic e-mail notification about new software releases.

NOTE This document describes drivers that are shipped with the printing-system software CD. This document does *not* describe any drivers that might be released for use by support personnel.

Topics:

- Printing-system software
- Software component availability

Printing-system software

The HP LaserJet 5200 printing-system software is available for download at the following Web site:

www.hp.com/go/lj5200_software

Software component availability

The following HP LaserJet software components are available:

- PPD files for Mac OS X V10.2.8 or later
- PDE files for Mac OS X V10.2.8 or later
- HP Printer Utility

In-box printing-system software CDs

The software CD for the HP LaserJet 5200 printer contains the files for installing the printing-system software on the computer.

Topics:

- Macintosh partition
- CD versions

Macintosh partition

The HP LaserJet 5200 printing-system software CD is divided into two partitions, one for each of the following operating systems:

- MS Windows
- Macintosh

The Macintosh printing-system software files are grouped by language and reside in the following directories:

- Mac OS X (the HP LaserJet Installer)
- PDF (manuals)

CD versions

The software CD for the HP LaserJet 5200 contains the files for installing the printing-system software on the computer.

NOTE File layouts differ by language for each regional version of the software CD.

The HP LaserJet 5200 printing-system software CD is available in five versions, each of which contains printing-system software in various languages, as follows:

- **CD AM – Americas and Europe (part number Q7533-60101):**
  - CA = Catalan (Català)
  - DE = German (Deutsch)
  - EN = English
  - ES = Spanish (Español)
  - FR = French (Français)
  - IT = Italian (Italiano)
  - NL = Dutch (Nederland)
  - PT = Brazilian Portuguese (Português)
- **CD WE – Western Europe (part number Q7533-60102):**
  - DA = Danish (Dansk)
  - EN = English
  - FI = Finnish (Suomi)
  - HE = Hebrew
  - NO = Norwegian (Norsk)
  - SV = Swedish (Svenska)
- **CD NE – Northern Europe, Arabic, and Russian (part number Q7533-60103):**
  - AR = Arabic
  - EN = English
  - EL = Greek
  - FR = French (Français)

- RU = Russian (Russ)
- TR = Turkish (Turkçe)

- **CD EE – Eastern Europe (part number Q7533-60104):**
  - CS = Czech (Cesky)
  - EN = English
  - HU = Hungarian (Magyar)
  - PL = Polish (Polski)
  - SK = Slovak
- **CD AS – Asia (part number Q7533-60105):**
  - EN = English
  - ID = Indonesian (Bahasa)
  - JA = Japanese
  - KO = Korean
  - TH = Thai
  - ZHCN = Simplified Chinese
  - ZHTW = Traditional Chinese

Macintosh install and uninstall instructions

The HP LaserJet 5200 printer comes with software and installers for MS Windows and Apple Computer, Inc., Macintosh systems. Linux and UNIX systems support the HP LaserJet 5200 printer, and software is available on the Web. This document provides procedures for installing and removing the HP LaserJet 5200 printing-system software for Macintosh operating systems.

Topics:

- Macintosh component descriptions
- Install the Macintosh printing system
- Uninstall the Macintosh printing system

Macintosh component descriptions

The device includes the following software for Macintosh computers:

- PPDs for Mac OS X V10.2.8 or later
- PDEs for Mac OS X V10.2.8 or later)

Topics:

- HP LaserJet PPDs
- PDEs
- HP Embedded Web Server
- Install notes
- Online help
- Screen fonts

HP LaserJet PPDs

In Mac OS X V10.2.8 or later, the PPDs are installed in **Library/Printers/PPDs/Contents/Resources:<lang>.lproj**, where **<lang>** is the appropriate localized folder.

The PPDs, in combination with the driver, provide access to the device features and allow the computer to communicate with the device. A print setup tool for the PPDs is provided on the printing-system software CD. For information about the print setup tools in various Macintosh operating systems, see Table 6-1 Adding a printer in Macintosh operating systems.

PDEs

Printer Dialog Extensions (PDEs) are code plug-ins (for Mac OS X V10.2.8 or later only) that provide access to device features, such as number of copies, duplexing, and quality settings.

HP Embedded Web Server

Mac OS X supports the HP Embedded Web Server (HP EWS). Use the HP Printer Utility to control the features that are not available in the driver. Use the HP EWS to perform the following tasks:

- Name the device, assign it to a zone on the network, and change device settings.
- Set a password for the device.
- From the computer, lock out functions on the device control panel to prevent unauthorized access (see the printing-software help).

Install notes

This text file contains important information about device features, instructions for installing the printing-system software, and technical assistance.

Online help

This HTML-based help system replaces the Apple Guide help system that was provided with Mac OS 9.*x* HP devices. The help system is in English only, and can be viewed through a browser or in the Macintosh OS Help Center.

Screen fonts

The printing-system software for Macintosh operating systems no longer includes a font installer. The HP LaserJet 5200 printer uses previously installed system fonts when it is installed on a Macintosh computer.

Install the Macintosh printing system

On a Macintosh computer, the installation procedures are basically 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 an EtherTalk connection, use Bonjour/ Rendezvous (or AppleTalk) to configure the network control panel for the correct connection to communicate with the device. You must set up the HP LaserJet 5200, connect it to the computer or network, and turn it on *before* the software is installed. Macintosh operating systems do not support parallel connections.

The Macintosh partition contains an installer program for each language. Find the appropriate language for the operating system that is being used, and then use the installer program for that language.

Topics:

- General installation for Macintosh operating systems
- Detailed Mac OS X installation
- Printer setup

General installation for Macintosh operating systems

1. Insert the Macintosh printing-system software CD into the CD-ROM drive.

   NOTE If the CD screen does not open automatically, double-click the **hp LaserJet 5200** CD-ROM icon on the desktop to open the CD-ROM window.

2. Double-click the Mac OS X icon.

   NOTE The **Continue** button appears only after you type the "admin" password in the **Authenticate** dialog box.

3. The main **Installer** dialog box appears. Click **Install** and then follow the onscreen instructions to complete the software installation.

   NOTE When you are installing the printing-system software, 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.

4. When software installation is complete, click **Quit**.

5. Continue with the steps for setting up a printer.

The software program that you use to finish setting up the printer varies by operating system. The following table shows the print setup tools that are available.

Table 6-1 Adding a printer in Macintosh operating systems

Operating System	Print Center	Printer Setup Utility
Mac OS X V10.2.8	x	
Mac OS X V10.3.9		x
Mac OS X V10.4.1	x	x

Detailed Mac OS X installation

Topics:

- Main Install dialog box sequence

Main Install dialog box sequence

This section provides information about the Macintosh installation dialog-box sequence for the Easy Install (the typical installation option).

Insert the HP LaserJet 5200 printing-system software CD in the CD-ROM drive.

If the CD screen does not open automatically when the CD is put into the CD-ROM drive, double-click the **hp LaserJet 5200** CD-ROM icon on the desktop to open the installer folder.

Figure 6-1 **hp LaserJet 5200** CD-ROM icon

The **hp LaserJet Software** dialog box opens.

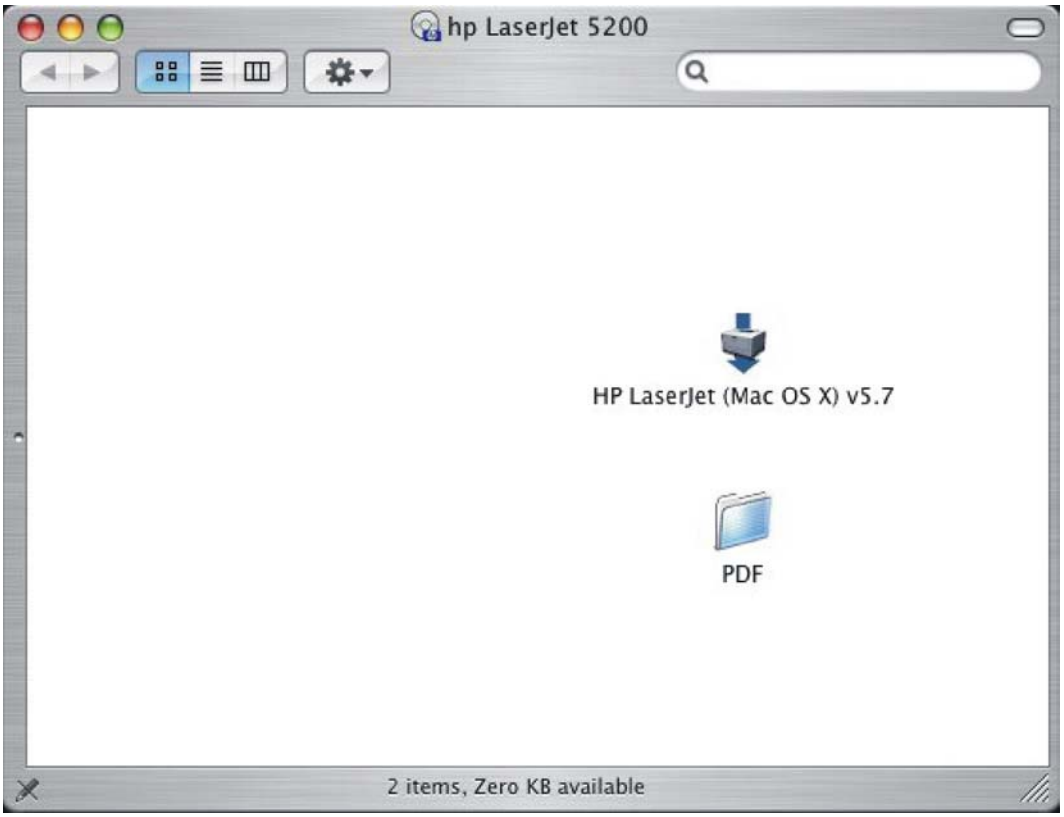


Figure 6-2 **hp LaserJet Software** screen

In the **hp LaserJet Software** pane, double-click the Mac OS X folder to open it.

In the Mac OS X folder, double-click the **HP LaserJet v.5.5.0.040** icon. This begins the install process.

Figure 6-3 **HP LaserJet v.5.7** icon

The **Authenticate** dialog box appears.

Figure 6-4 **Authenticate** dialog box

Type the correct “admin” password and click **OK** to continue. The installer startup screen appears.

Click **Cancel** to exit the installation.

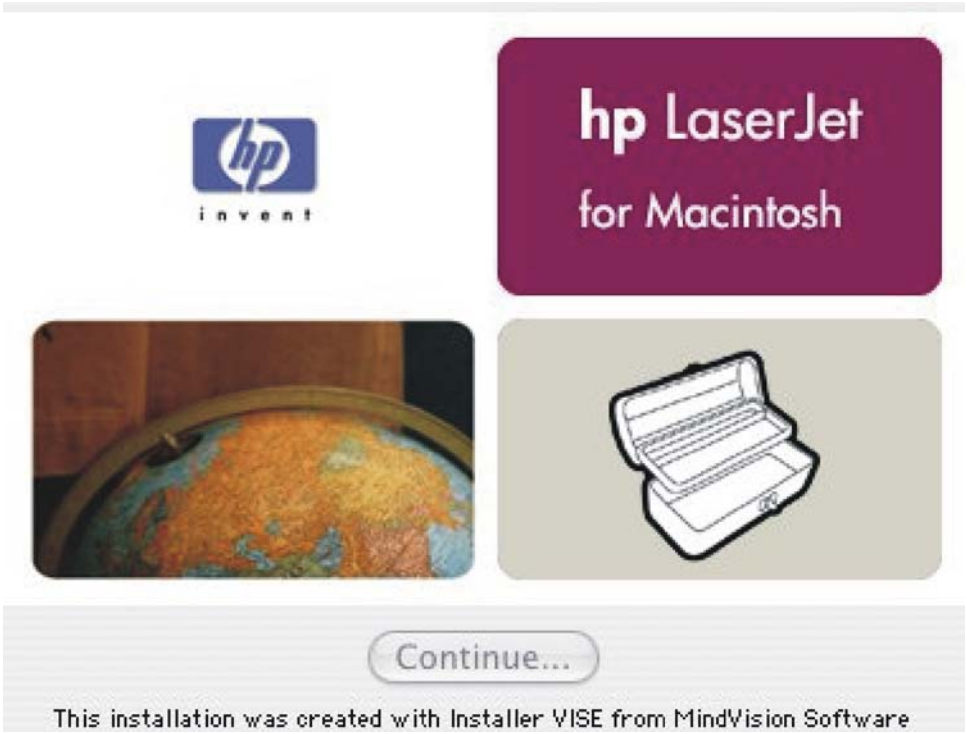


Figure 6-5 HP LaserJet for Macintosh installer startup-screen dialog box

Click **Continue**. The **License** dialog box appears.

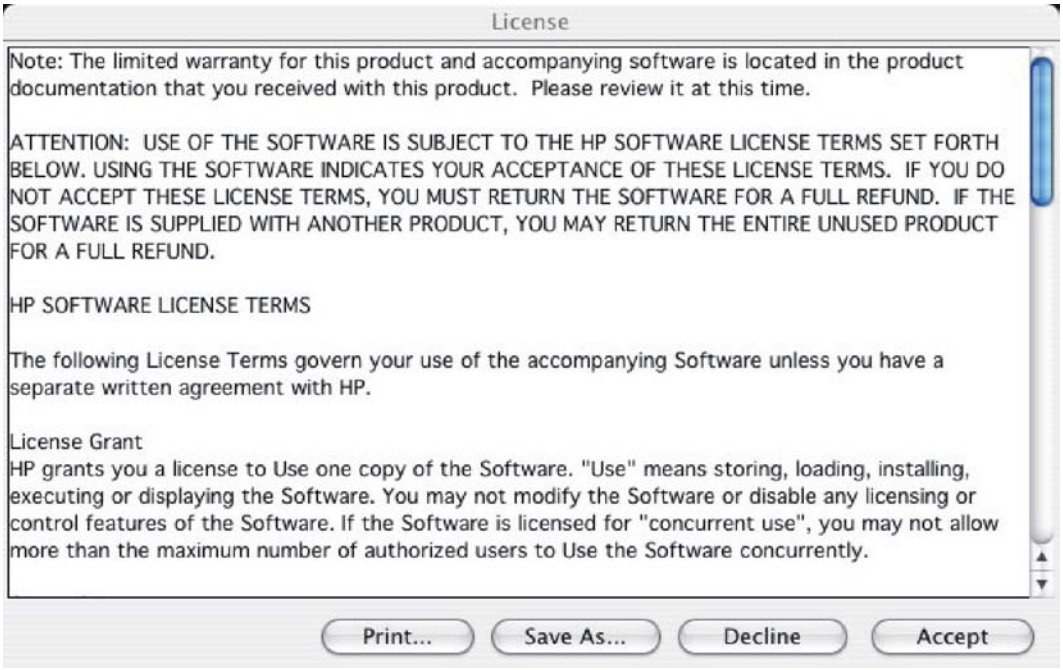


Figure 6-6 **License** dialog box

Click **Print…** to open the **Page Setup** dialog box for your default printer and print a copy of the license agreement.

Click **Save As…** to open the system **Save** dialog box and save the license agreement to disk.

Click **Decline** to end the installation process and close the installer.

Read the software-license agreement and then click **Accept** to continue the installation. The **Easy Install** dialog box appears.

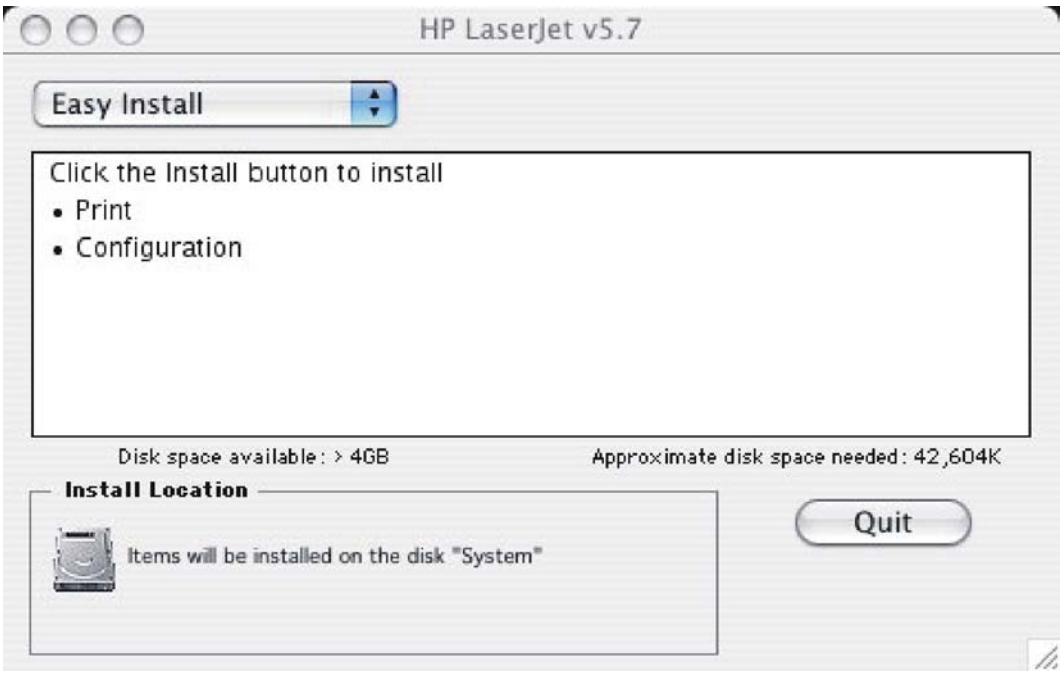


Figure 6-7 **Easy Install** dialog box

The default option in the drop-down menu at the top of the screen is **Easy Install**. You can also select **Custom Install** in the same menu.

Click **Install** to start the installation on the selected disk

Click **Quit** to quit the Installer without making changes to the system.

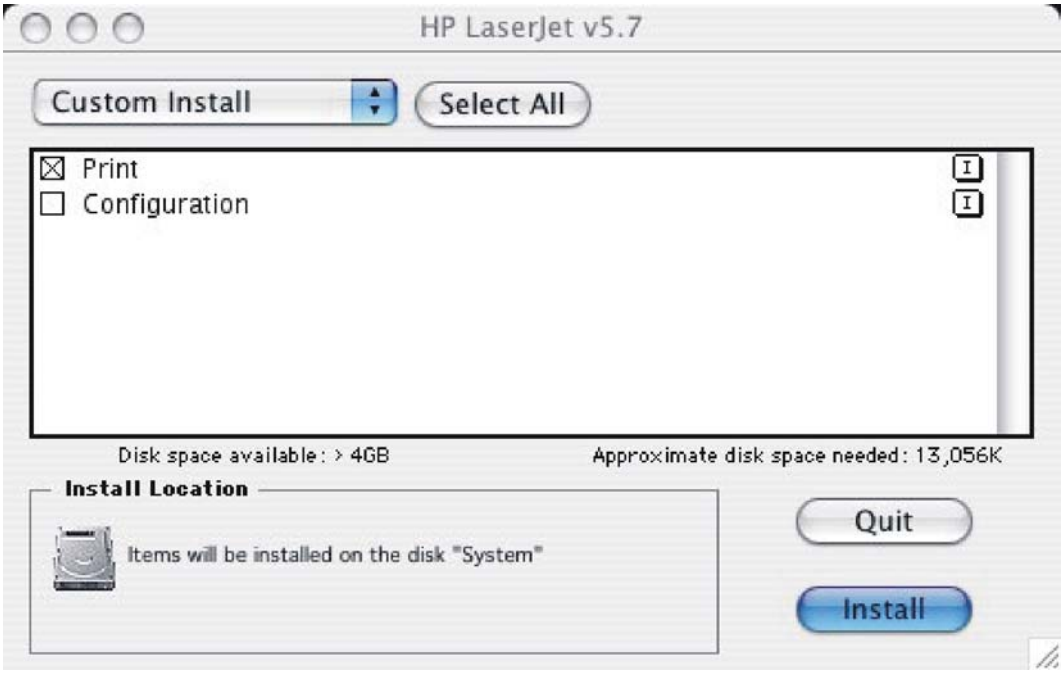


Figure 6-8 **HP LaserJet Installer** dialog box (custom install)

Click **Select All** to install all of the options that are available on the printing-system software CD, or use the check boxes on the list to install the components that you want to install.

Click the **I** icon to the right of each item in the list to open a pop-up screen that describes the component.

Click **Install** to start the installation on the selected disk. The files are installed in the Library folder on the Macintosh CD.

Click **Quit** to quit the Installer without making any changes to the system.

Figure 6-9 **Installing** dialog box

The **Installing** dialog box shows installation progress. No action is required unless you want to stop the installation.

Click **Stop** to interrupt the install file copy process.

When installation is complete, the LASERJET README.RTF file opens and the **LaserJet ReadMe.rtf** icon appears on the desktop. Follow these instructions to set up a printer queue for your HP LaserJet 5200 printer.

Figure 6-10 **LaserJet ReadMe** icon

A pop-up message stating that the installation was successful also appears.

Figure 6-11 Installation success message

Click **Quit** to exit the installer.

Click **Continue** to return to the HP LaserJet Installer.

Printer setup

After installing the printing-system software in Macintosh operating systems, the printer must be set up.

Topics:

- Set up a printer with Mac OS X V10.4
- Set up a printer with Mac OS X V10.3

Set up a printer with Mac OS X V10.4

1. In the **Applications** folder, open the **Utilities** Folder, and then run the **Print Center** or the **Printer Setup Utility**.
2. The **Printer List** appears, as shown in the following figure.

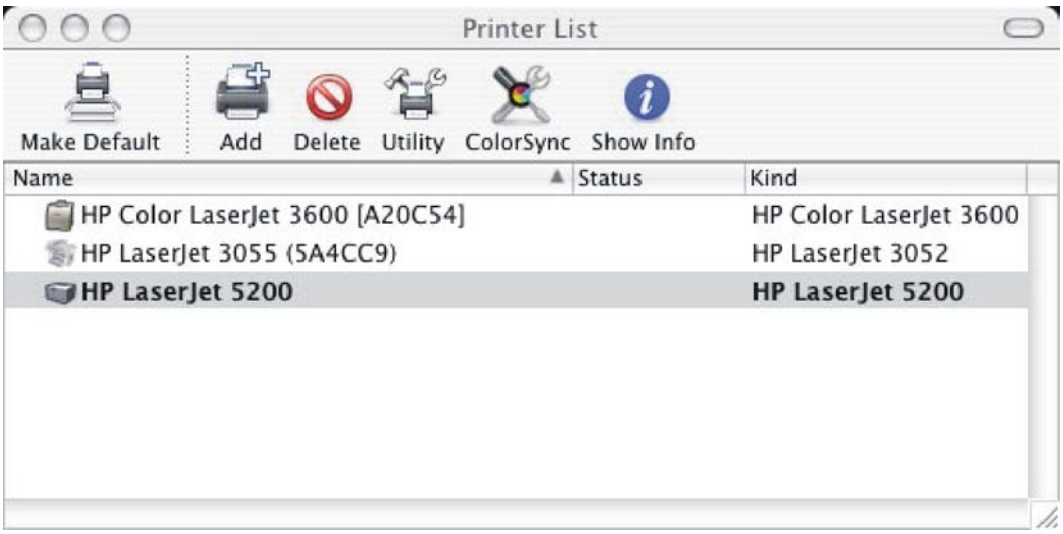


Figure 6-12 **Printer list** screen

3. Select the device and click **Add**. The **Printer Browser** screen appears, as shown in the following figure.

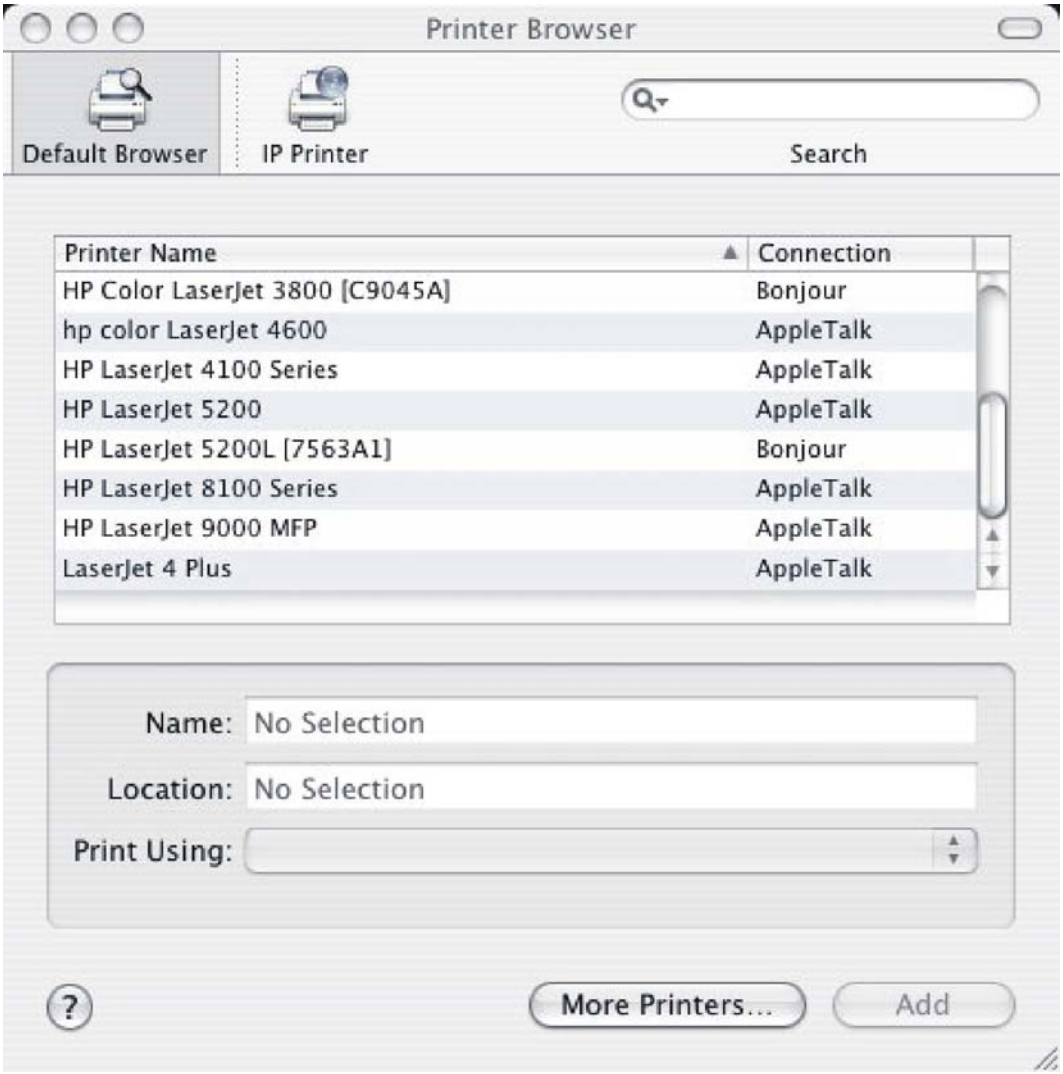


Figure 6-13 **Printer Browser** screen

4. Click **IP Printer** to see printer information. The **Printer Info** screen appears.

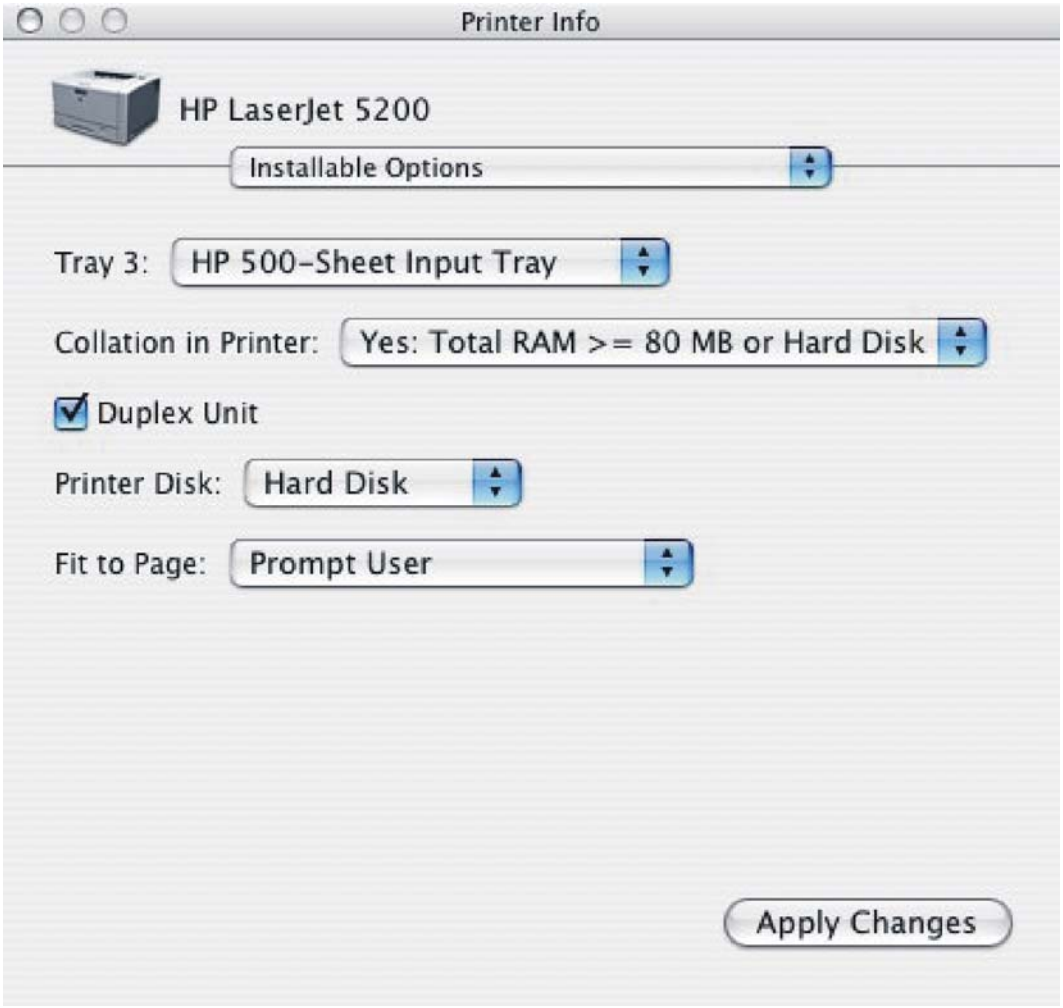


Figure 6-14 **Installable Options** screen

5. If the device has the optional 500-sheet tray 3, select **HP 500-Sheet Input Tray** in the **Tray 3** drop-down menu.
6. In the **Collation in Printer** drop-down menu, select one of the following options, depending on your device configuration:
   - Yes – Total RAM > 80 MB or Hard Disk

     NOTE A hard disk is not available for the HP LaserJet 5200 printer.

   - No – Total RAM < 80 MB and No Hard Disk
7. If the device has a duplex unit (a standard feature on the HP LaserJet 5200tn and the HP LaserJet 5200dtn models), select the **Duplex Unit** check box.
8. In the **Printer Disk:** drop-down menu, select the appropriate option:
   - **None**
   - **RAM Disk**

NOTE A printer hard disk is not available for the HP LaserJet 5200 printer. Do not select the **RAM Disk** setting.

9. Select the **Name & Location** setting. The Name and Location screen appears, as shown in the following figure.

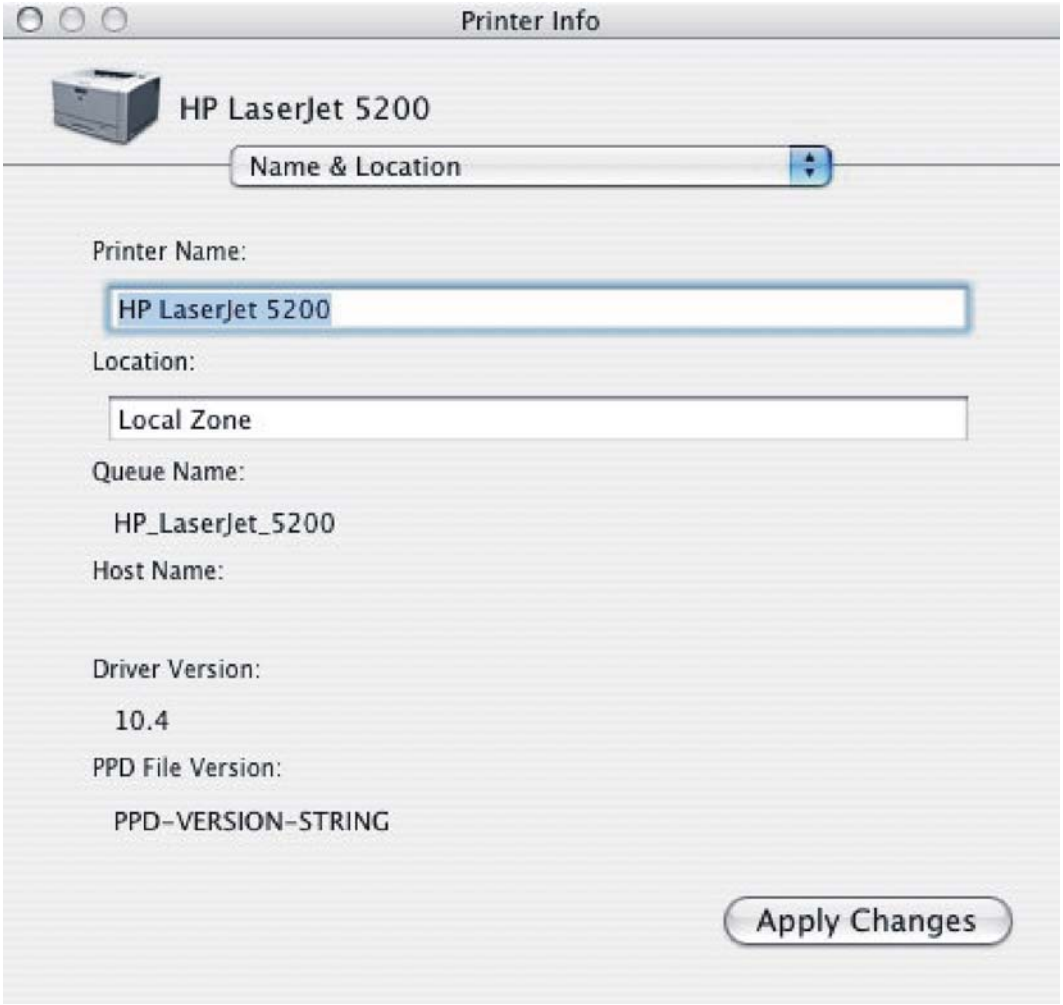


Figure 6-15 Name & Location screen

10. In the **Printer Name** field, type a name for the device.
11. In the **Location** field, type a name for the device.
12. Click **Apply Changes** to save the information in the **Name & Location** screen.
13. After you have selected the settings in the **Installable Options** screen, click **Continue**. The **Printer Browser** screen shows the following tabs:
    - **Default Browser**
    - **IP Printer**

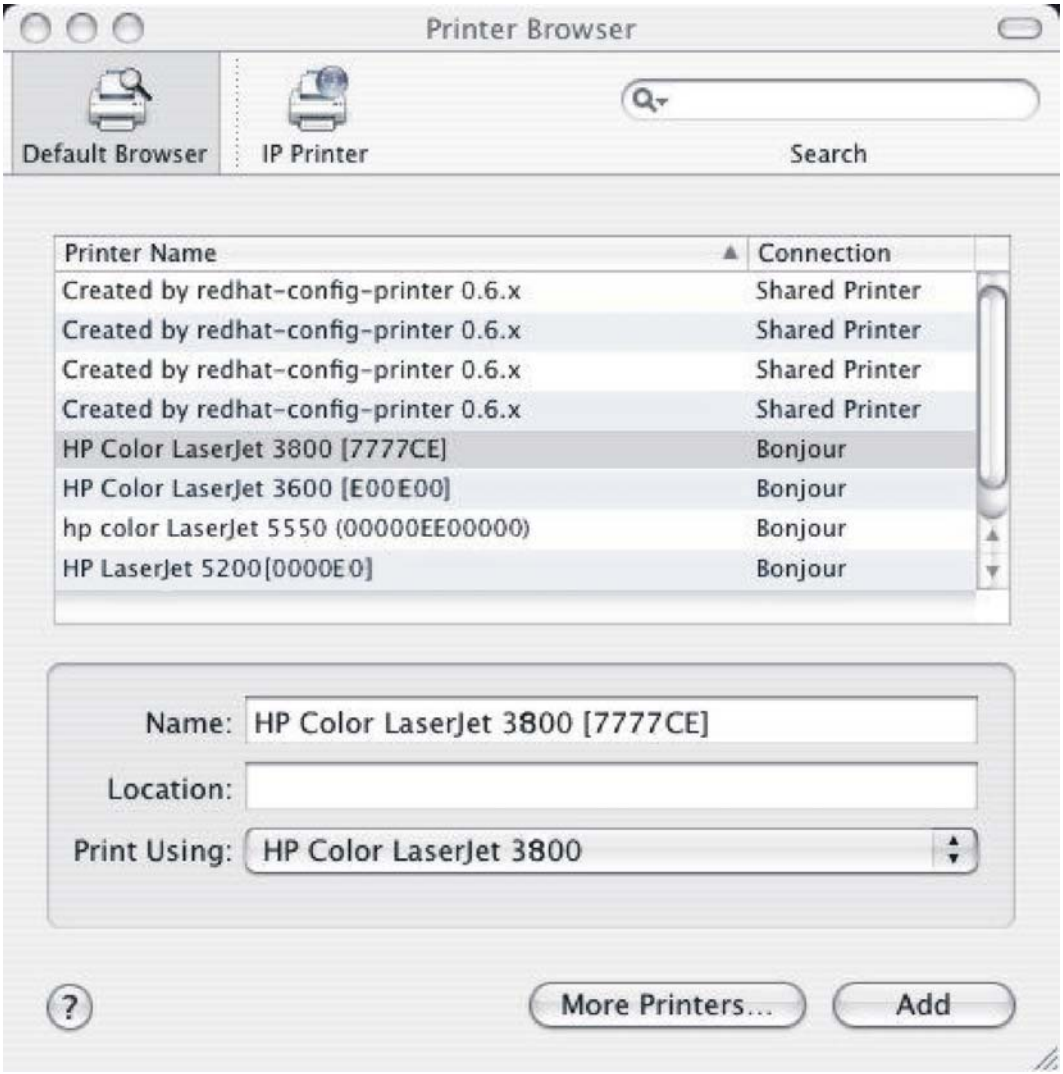


Figure 6-16 **Printer Browser** screen – Default Browser tab

14. In the **Name:** field, type a name for the HP LaserJet 5200 printer.
15. In the **Location:** field, type the device location.
16. In the **Print Using:** field, select one of the following options:
    - **Auto Select** (This is the default setting.)
    - **Generic PostScript Printer**
    - **Other** (Select the appropriate brand name.)
17. Click **Add** to save the settings.

18. If you want to search for additional printers, click **More Printers**. The **Printer Browser** search dialog box opens.

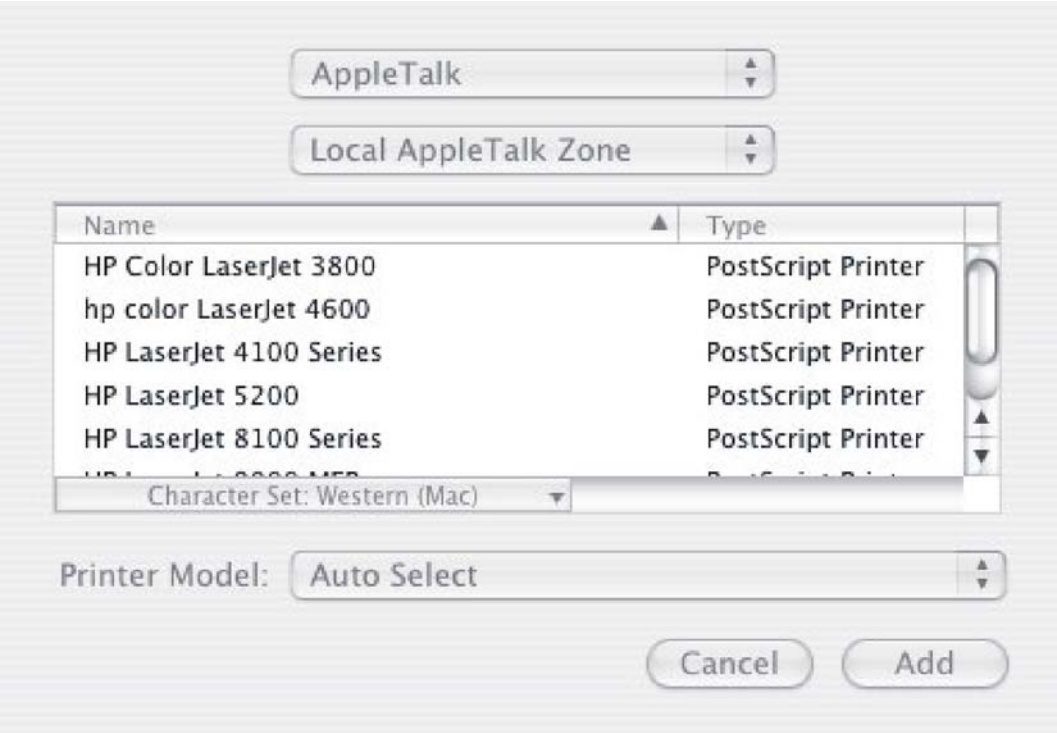


Figure 6-17 **More Printers** screen

19. Use the drop-down menus to change the search settings. Select the printer that you want to install and click **Add**.

    To cancel the search, click **Cancel**.

20. To connect the printer through its TCP/IP address, click the **IP Printer** tab.

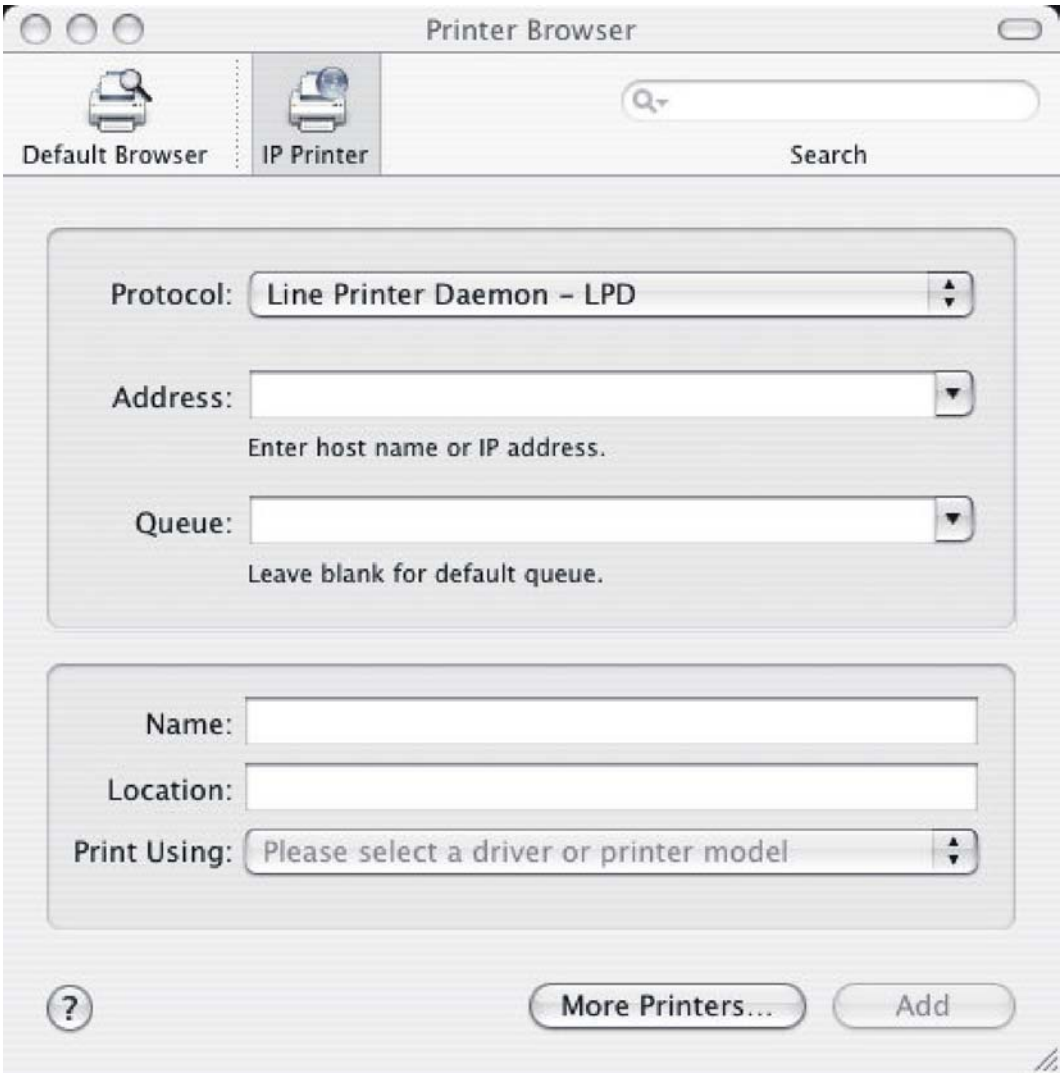


Figure 6-18 **IP Printer** tab

21. In the **Search** field in the upper-right corner, select one of the following options:

- **All** (this is the default setting)
- **AppleTalk**
- **Bonjour**
- **FireWire®**.

  NOTE This feature is not supported in the Macintosh environment.

- **Open Directory**

  NOTE This feature is not supported in the Macintosh environment.

- **Shared**
- **USB**

22. In the **Protocol:** drop-down menu, select one of the following options:

    - **Internet Printing Protocol – IPP**

      NOTE This feature is not supported in the Macintosh environment.

    - **Line Printer Daemon – LPD**
    - **HP Jet Direct – Socket**

      NOTE This feature is not supported in the Macintosh environment.

23. If you know the host name or TCP/IP address of the device, type it in the **Address:** field. (It might also be available on the drop-down menu.)
24. If you know the queue path of the printer, type it in the **Queue:** field.

    NOTE The queue name for a TCP/IP address in the Macintosh environment should be specified as a binary postscript (BINPS) queue.

25. In the **Name:** field, type a name for the HP LaserJet 5200 printer.
26. In the **Location:** field, type the device location.
27. In the **Print Using:** field, select one of the following options:

    - **Auto Select** (This is the default setting.)
    - **Generic PostScript Printer**

      NOTE If this setting is selected instead of the device-specific setting, the driver might not provide full functionality.

    - **Other** (Select the appropriate brand name.)

28. Click **Add** to save the settings. The device name appears in the **Printer List**.

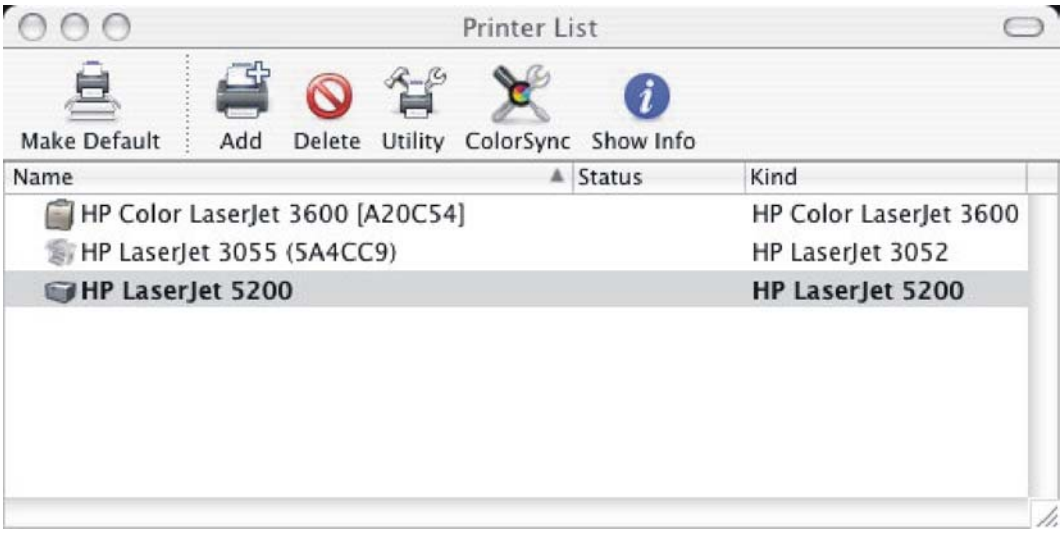


Figure 6-19 **Printer List** screen

29. Highlight the printer name and click the **Utility** icon to open the **Select Printer** screen and verify that the device has been installed.

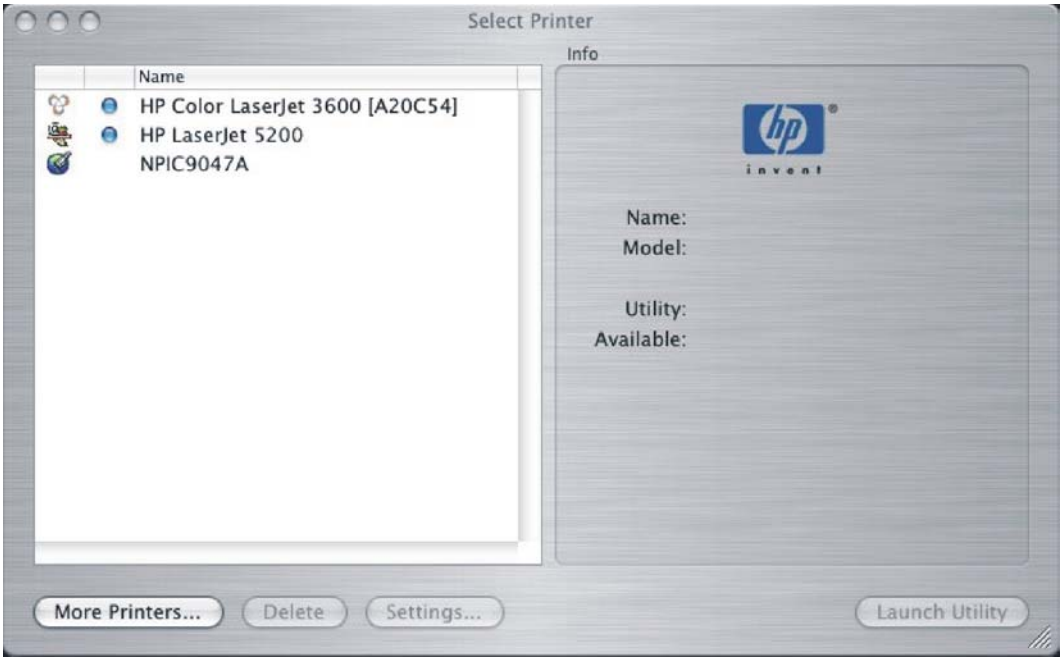


Figure 6-20 **Select Printer** screen

Set up a printer with Mac OS X V10.3

1. In the **Applications** folder, open the **Utilities** folder, and then run the **Printer Setup Utility**.
2. Click **Printers**, and then click **Add Printer** (Mac OS X V10.2.8 or later).
3. When the **New Printer drivers detected** pop-up box appears, click **OK**.
4. From the top pop-up menu, select the appropriate connection type for the device.

5. Select or type in any other information as indicated for the type of connection for the device. For example, if you are using an AppleTalk connection, select the device zone; or if you are using IP Printing, type a TCP/IP address in the **Printer Address** field. In the **Printer Model** drop-down menu, select HP. In the **Model Name** drop-down menu, select **HP LaserJet 5200**.

   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 select the .PPD file that you want to add.

6. Click **Add**. The HP LaserJet 5200 printer appears in the **Printer List**.

7. To configure installable options in Mac OS X V10.2.8 or later, such as a duplexing unit or optional paper trays, click **Show Info?** and select **Installable Options** in the drop-down menu.

   NOTE This step is necessary only for USB connections and Rendezvous/Bonjour network connections. AppleTalk automatically configures the installable options.

8. Configure the options, click **Apply Changes**, and then close the **Printer List** dialog box.

Uninstall the Macintosh printing system

To uninstall the Macintosh Printing System, drag the PPDs and the unwanted component(s) to **Trash**.

Macintosh HP Printer Utility

The HP Printer Utility is a software program that gives you access to the device in Mac OS X.

The HP Printer Utility is available only in Mac OS X V10.2.8 or later. The HP Printer Utility does not work when it is installed by using the AppleTalk protocol. Use IP, Bonjour or Rendezvous to enable the HP Printer Utility.

Topics:

- Access to the HP Printer Utility
- Supplies Status
- Device Information
- File Upload
- Update Firmware
- Upload Fonts
- HP Support
- Duplex mode
- Economode
- Resolution
- Trays Configuration
- Lock Resources
- Stored Jobs
- E-mail Alerts
- Network Settings
- Bonjour Setting
- Additional Settings

Access to the HP Printer Utility

In Mac OS X V10.3, follow these steps to gain access to the HP Printer Utility:

1. Open the Finder.
2. Find and double-click **Printers**. The **Select Printer** screen appears.

In Mac OS X V10.4, follow these steps to gain access to the HP Printer Utility:

1. Click **Go**.
2. Click **Utilities**.
3. Double-click **HP Printer Selector**. The **Select Printer** screen appears.

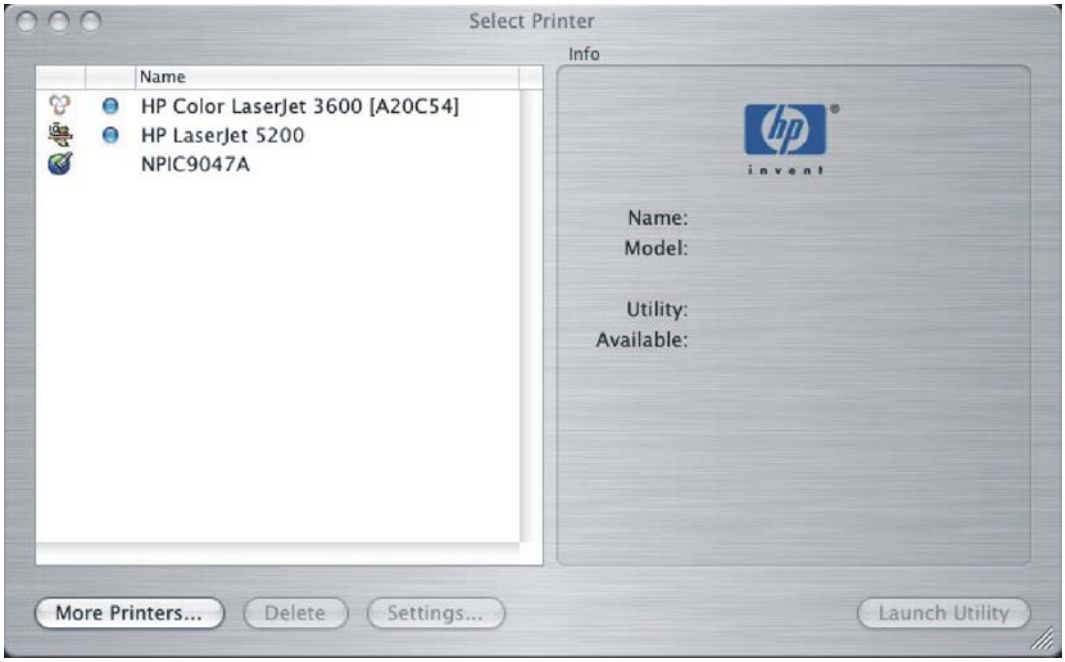


Figure 6-21 **Select Printer** screen – printer not selected

If the device does not appear, click **More Printers…**. The **Connection Type** screen appears, as shown in the following figure.

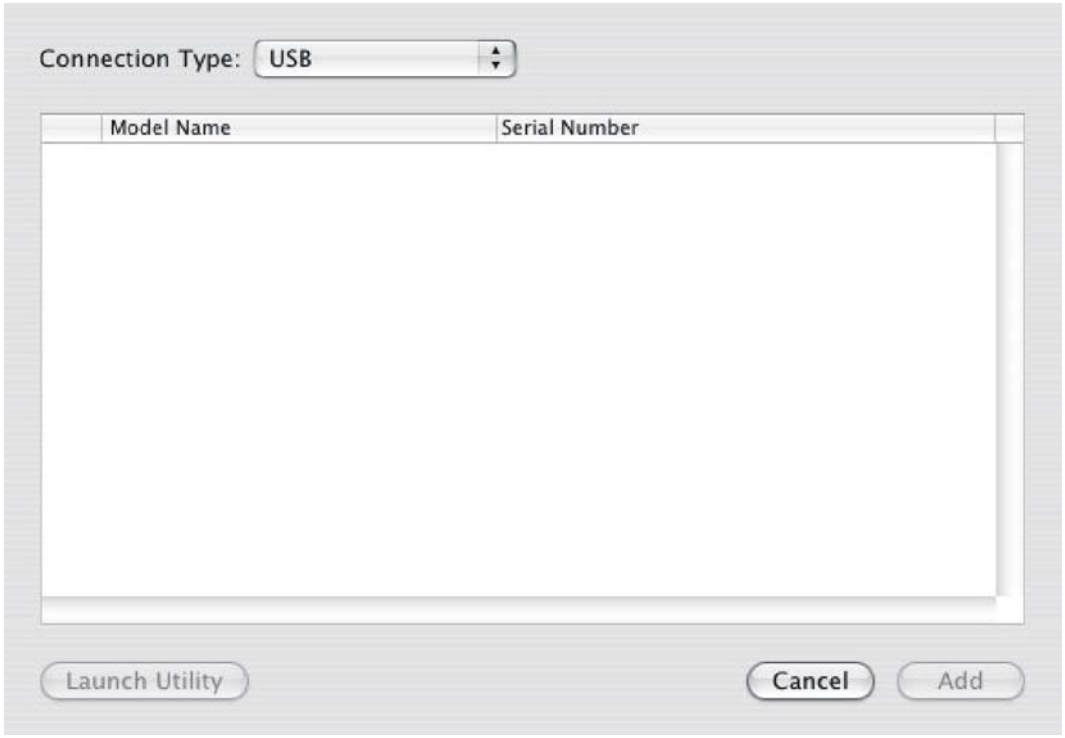


Figure 6-22 **Connection Type** screen

Select the connection type (USB, TCP/IP, or AppleTalk). The device name appears under **Model Name**, as shown in the preceding figure.

On the **Connection Type** screen, click **Add**. The **Select Printer** screen appears, showing printer information.

To open the HP Printer Utility directly, select the printer and click **Launch Utility**.

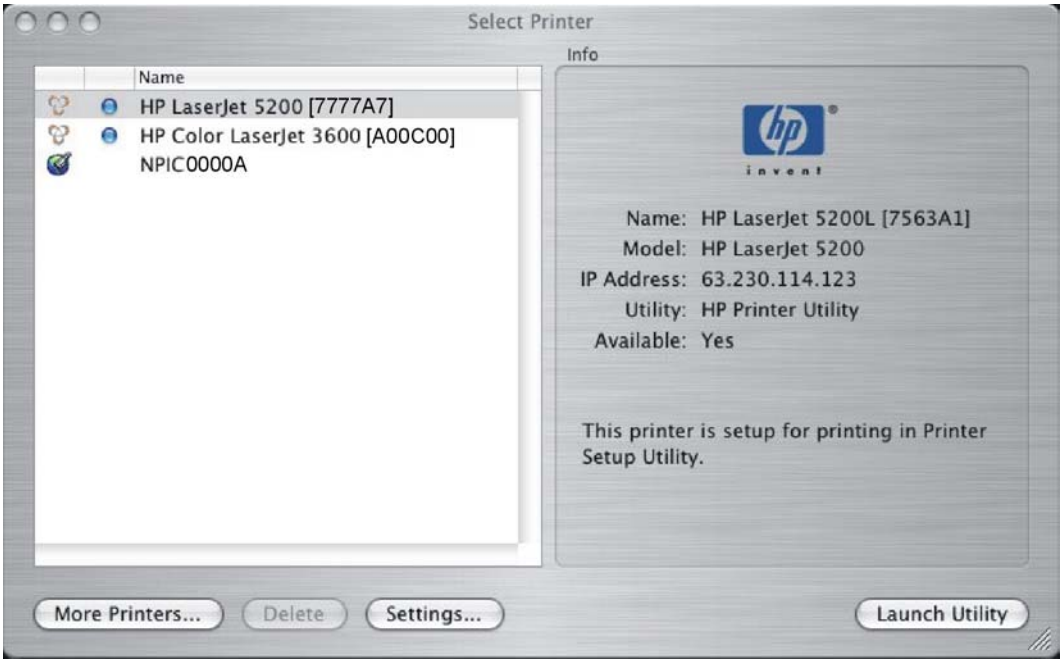


Figure 6-23 **Select Printer** screen – printer selected

On the **Select Printer** screen, click **Settings…** to open the **Device Status** screen in the HP EWS.

To open the HP Printer Utility, select the device and click **Launch Utility**.

If the HP Printer Utility software detects a condition that might need attention, the **Printer Status** screen appears.

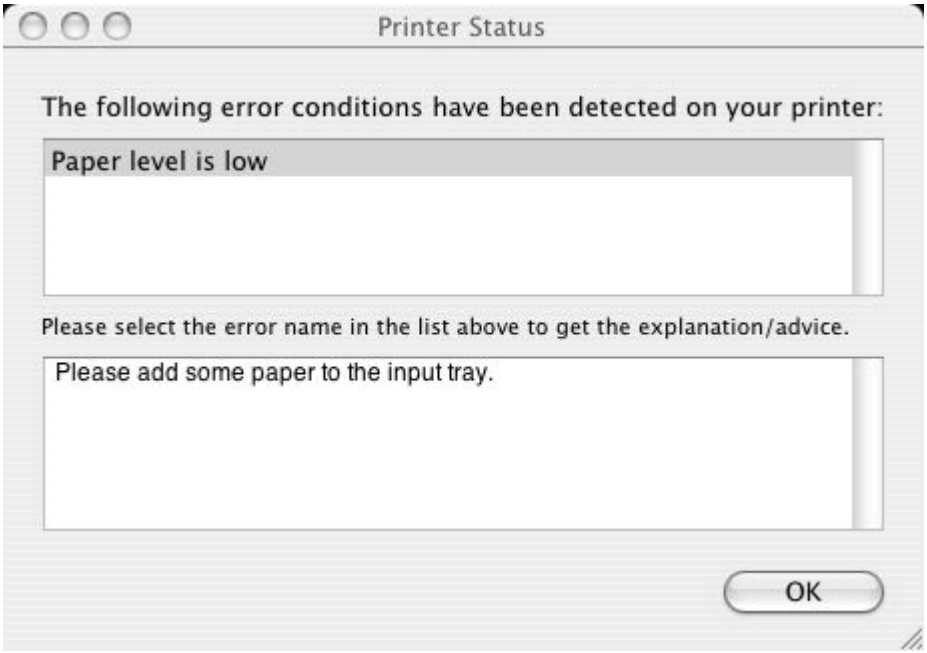


Figure 6-24 **Printer Status** screen

Address the condition and click **OK** to close the screen. The HP Printer Utility opens.

The following sections describe the screens and features that are available in the HP Printer Utility.

Supplies Status

The HP Printer Utility opens to the **Current Supplies Levels** screen.

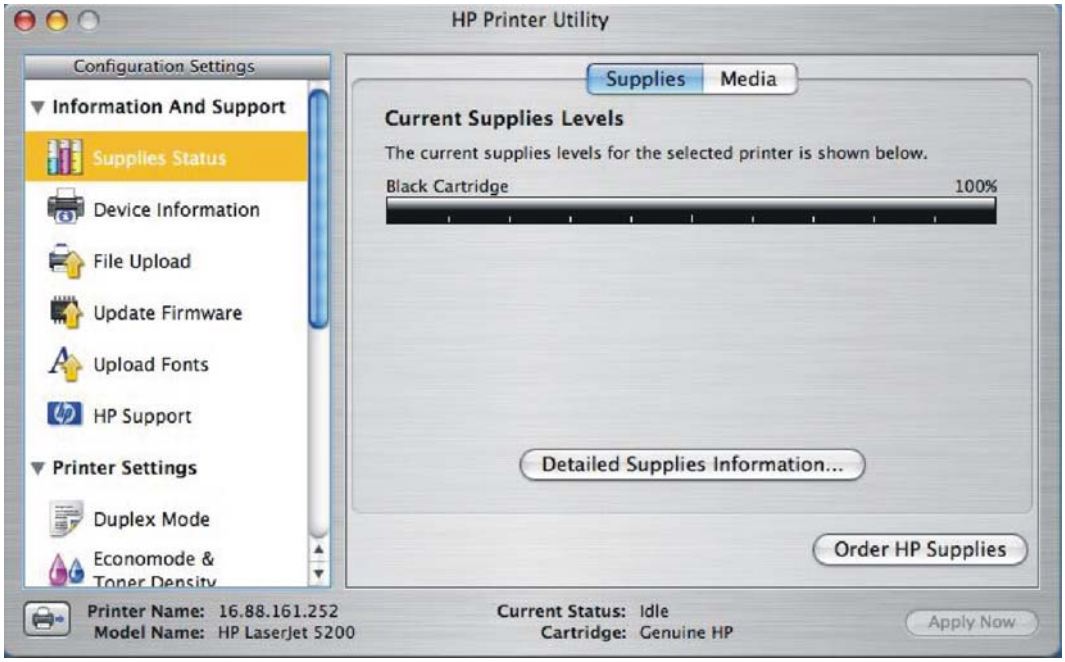


Figure 6-25 Current Supplies Levels screen

Click **Detailed Supplies Information…** to open the **Supplies Information** screen.

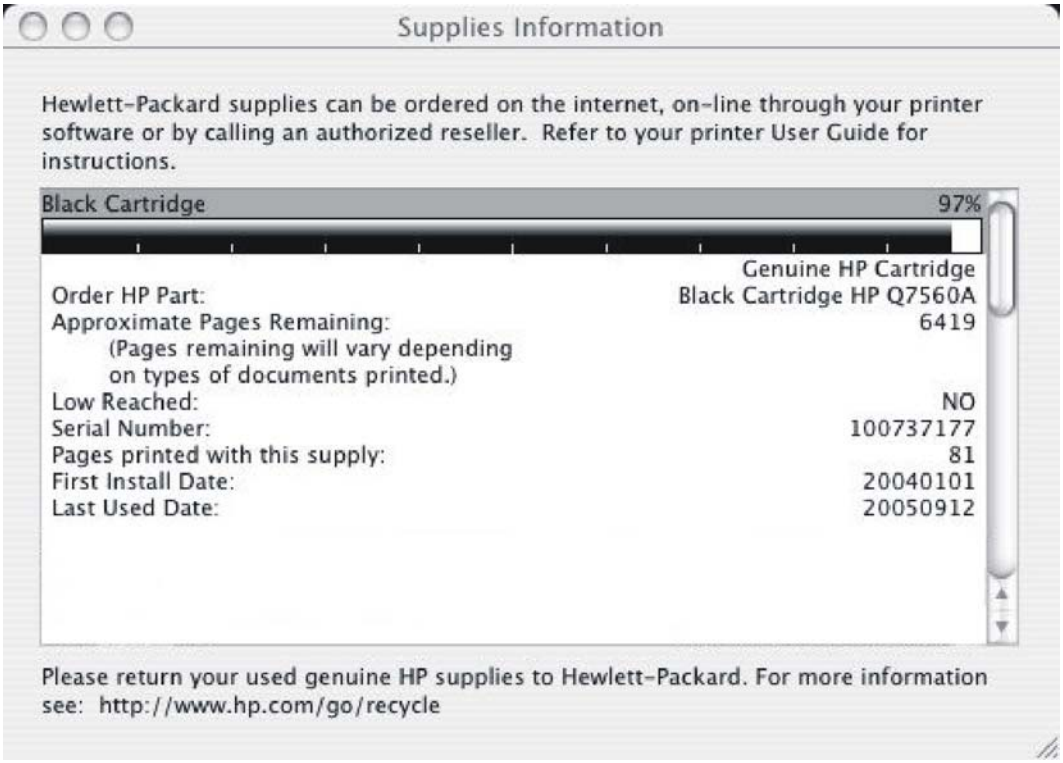


Figure 6-26 Supplies Information screen

Use the scroll button to see information about the print cartridges.

If you have Internet access and click **Order HP Supplies**(see Figure 6-25 Current Supplies Levels screen), a screen appears that explains the ordering process and describes the kind of information that can be sent about your device to facilitate the ordering of supplies.

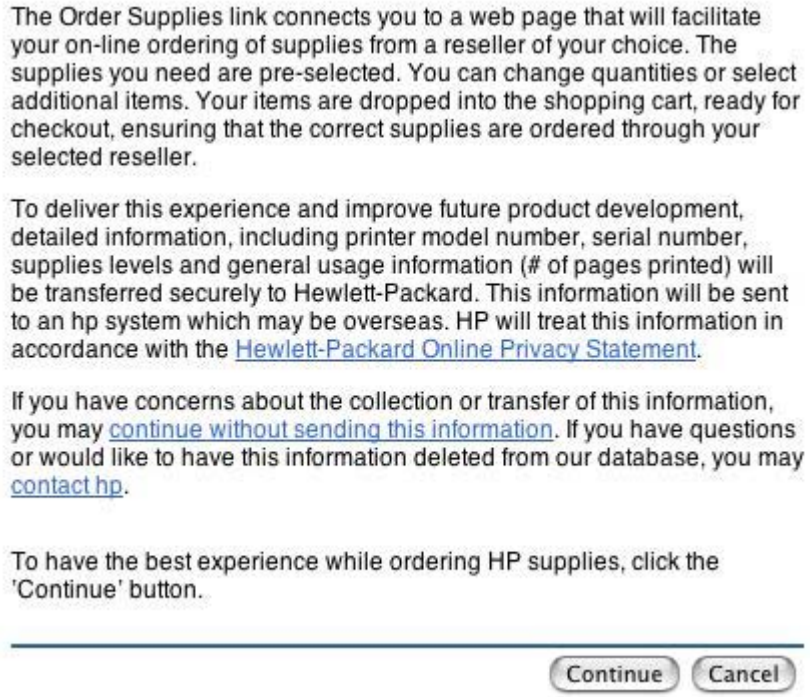


Figure 6-27 **Order Supplies** link

Click the **Hewlett-Packard Online Privacy Statement** link to open a screen that shows the HP privacy statement.

You can continue ordering supplies without sending device information by clicking the **continue without sending this information** link.

To send a message to HP, click the **contact hp** link.

On the **Supplies Status** screen, click **Media** to see the status of the trays.

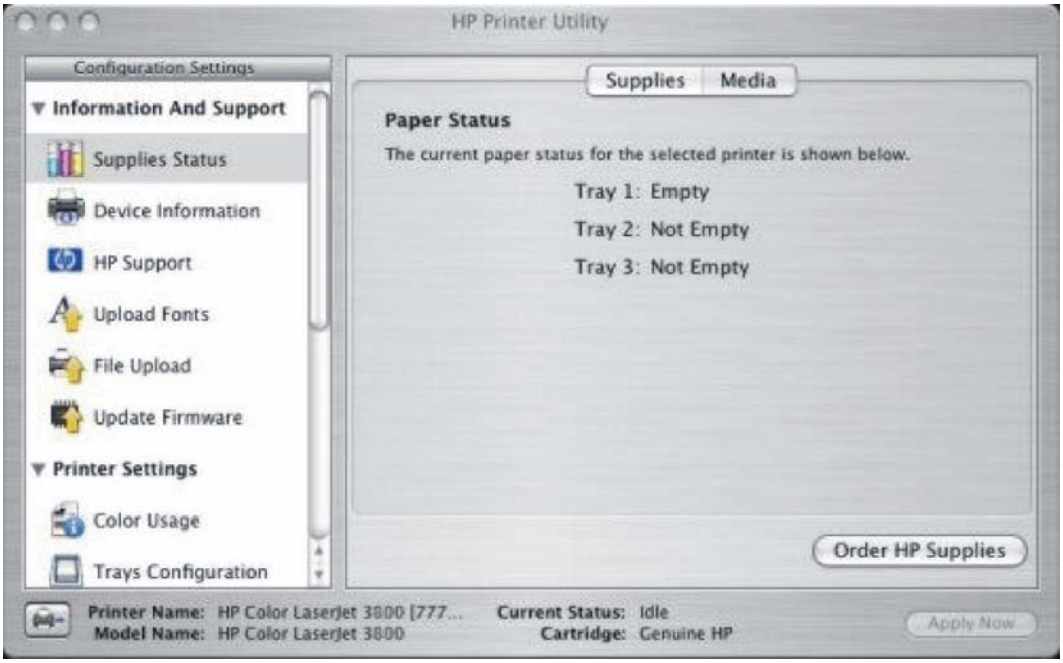


Figure 6-28 **Paper Status** screen

You can also order supplies from this screen by clicking **Order HP Supplies**.

Device Information

Click **Device Information** in the menu on the left to find the device service ID (if assigned), the firmware version, and the serial number.

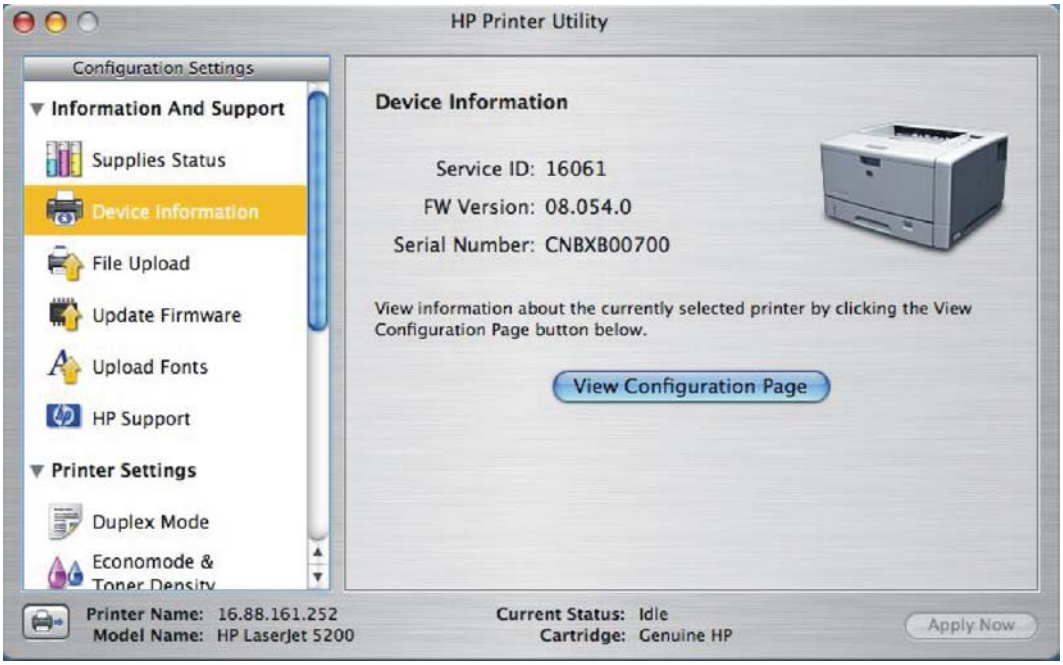


Figure 6-29 **Device Information** screen

The device configuration page shows other settings; click **View Configuration Page** to see it.

Click the printer icon in the lower-left corner to see information about another installed printer. This action relaunches the HP Printer Utility so that you can select another printer (see Figure 6-21 Select Printer screen – printer not selected).

File Upload

On the **Configuration Settings** menu, click **File Upload** to open the **File Upload** screen.

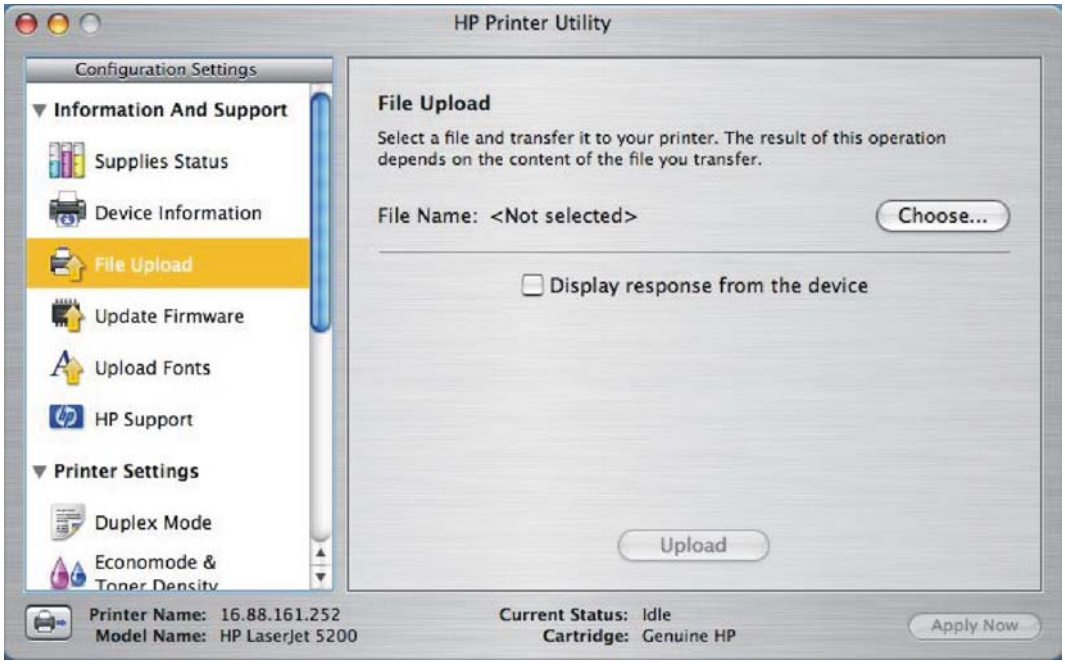


Figure 6-30 File Upload screen

The **File Upload** command is supported for file types that can be sent directly to the printer without first being opened through a software program. Some files can be uploaded to the device, but some cannot.

Documents in the following file formats can be printed by using a command line. That is, they do not need to be opened in a software program that supports the file format (such as the Adobe Acrobat or Acrobat Reader programs for .PDF files), but can be sent directly to the device by using the **File Upload** command.

- HP LaserJet printer command language (.PCL)
- Portable document format (.PDF)
- Postscript (.PS)
- Text (.TXT)

On the **File Upload** screen, click **Choose…** to open a navigation screen. Locate the file you want to upload and click **Open**.

On the **File Upload** screen, click **Display response from the device** to see whether the upload was successful. If the file loads successfully, no message appears.

On the navigation screen, select the file and click **Open**. The file name appears in the **File Upload** screen of the HP Printer Utility. Click **Upload**.

Update Firmware

Select **Update Firmware** to locate a firmware upgrade file and install it on the device. The **Update Firmware** screen is shown in the following figure.

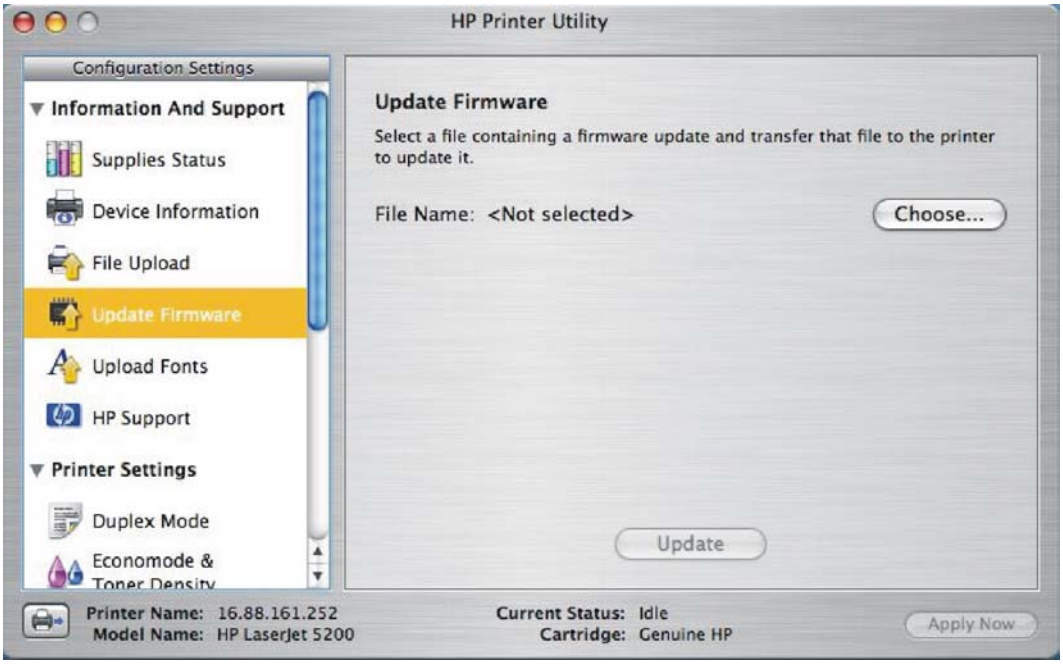


Figure 6-31 Update Firmware screen

Click **Choose** to open a navigation screen. Browse to the firmware file and click **Open**. The **Update Firmware** screen shows the file name. Click **Update**.

Upload Fonts

In the **Information and Support** menu, click **Upload Fonts** to gain access to fonts that you can upload to the HP LaserJet 5200 printer.

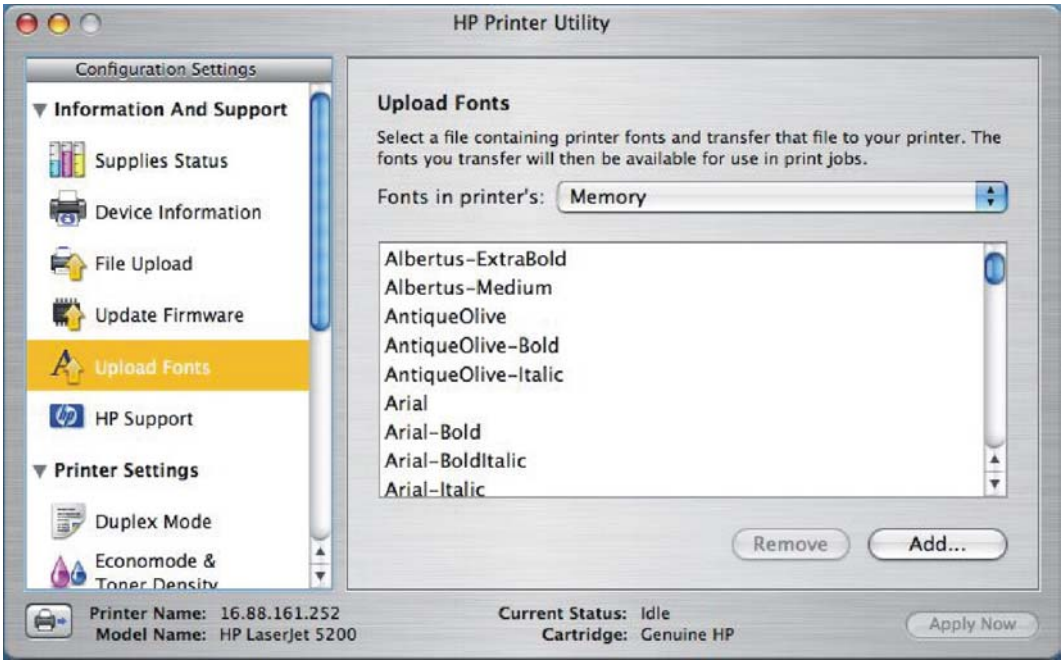


Figure 6-32 Upload Fonts screen

The drop-down menu in the **Upload Fonts** pane has the following options:

- **Memory**. Fonts that are available in the printer memory are listed.
- **Disk**. Select this option to shows any fonts that are installed on a flash disk. By default, no fonts are stored on either of these disks. To upload fonts, select the font name and click **Add**

HP Support

Click **HP Support** to open the **HP Online Support** screen.

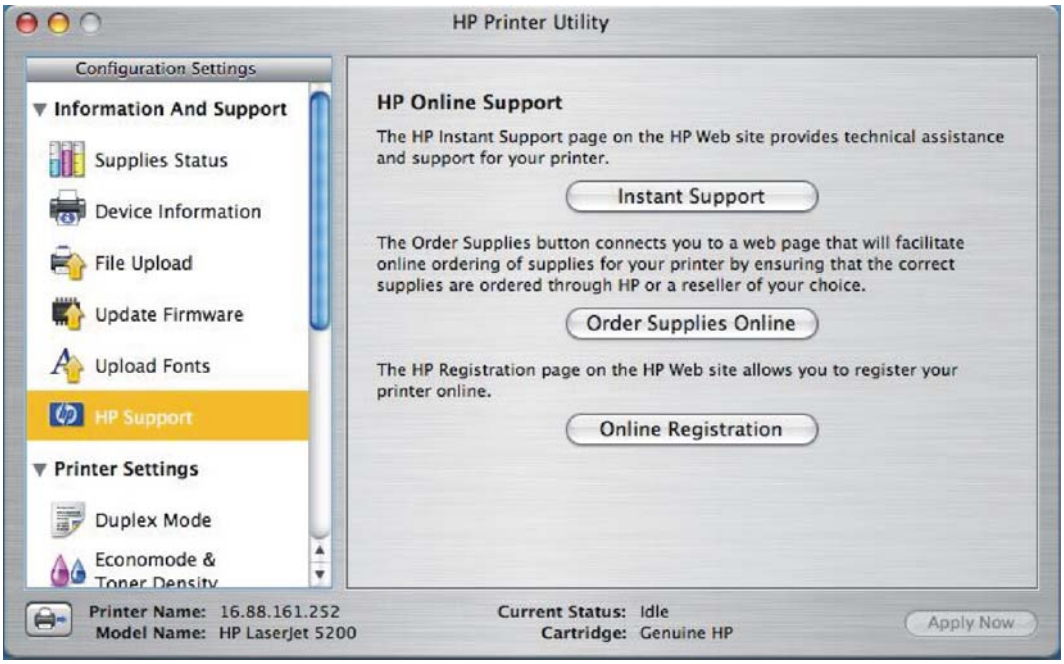


Figure 6-33 HP Online Support screen

If you have Internet access, you can connect to HP support pages over the Web from this screen.

Click the Instant Support screen to open the HP Instant Support Web page.

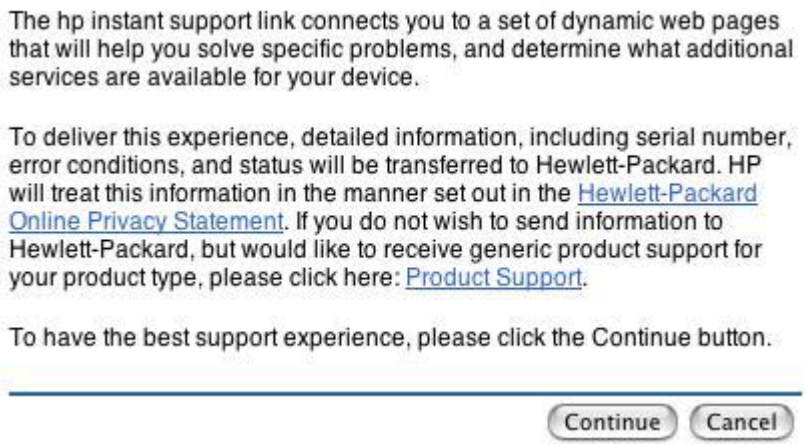


Figure 6-34 HP Instant Support link

Click the **Hewlett-Packard Online Privacy Statement** link to open a screen that shows the HP privacy statement.

Click the **Product Support** link if you do not want to send information to HP but would like to receive generic product support.

Click **Continue** to open a page where you can select the device and find further information about product support.

Click **Cancel** to return to the **HP Online Support** screen in the HP Printer Utility.

On the **HP Online Support** screen, click **Order Supplies Online** to open the Order Supplies Web page (see Figure 6-27 Order Supplies link).

The **Online Registration** link is not available at this time.

Duplex mode

For the HP LaserJet 5200tn and HP LaserJet 5200dtn printer models, the **Configuration Settings** menu includes a **Duplex Mode** setting. Click this setting to open the **Duplex Mode** screen, as shown in the following figure.

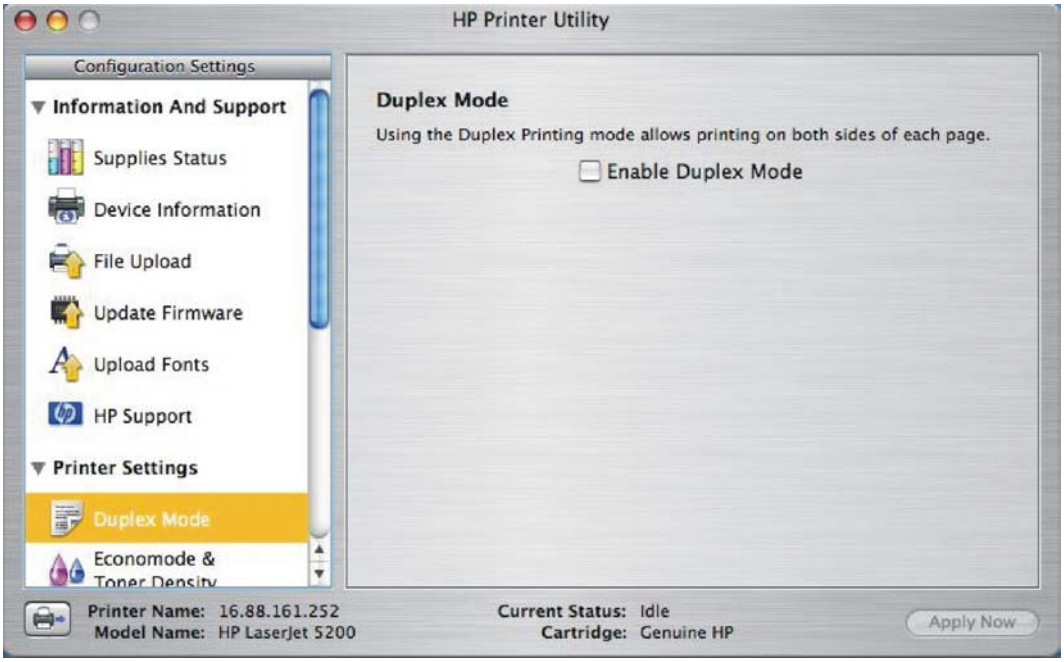


Figure 6-35 Duplex Mode screen

Select the **Enable Duplex Mode** check box to print internal diagnostic and test pages on both sides of the page.

1. Select **Duplex Mode** to open the **Duplex Mode** screen.
2. Select the **Enable Duplex Mode** check box. This box is clear by default.
3. Click **Apply Now** to enable printing on both sides of the page.

Economode

Under **Printer Settings**, Select the **Economode and Toner Density** menu item to open the Economode screen, as shown in the following figure.

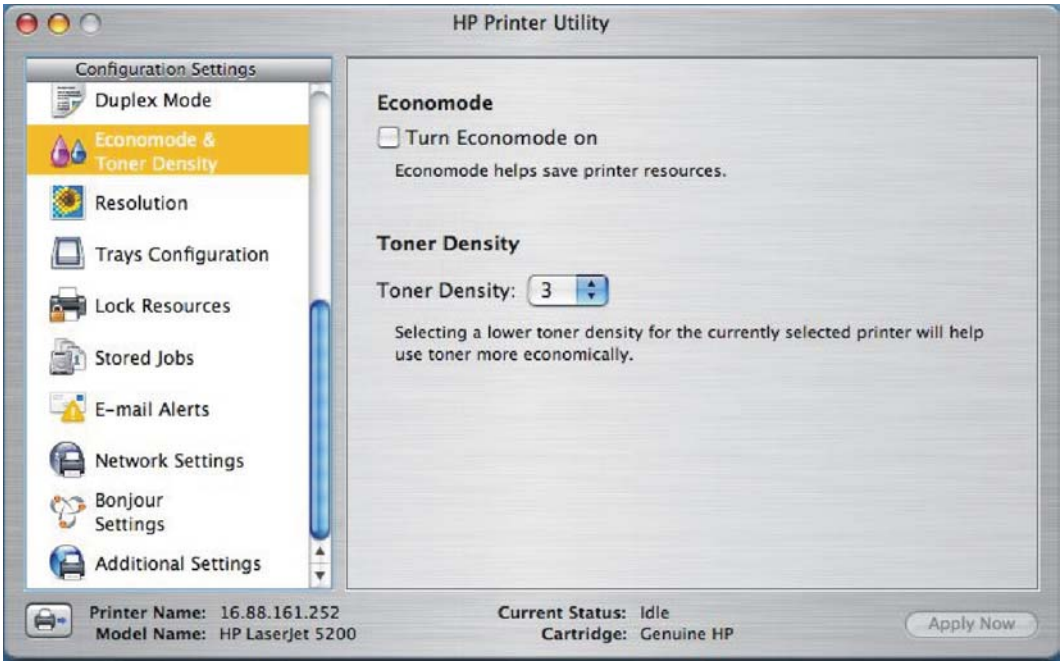


Figure 6-36 **Economode** screen

Selecting this option extends the life of the toner supply and reduces cost per page. However, it also reduces print quality. The printed image is lighter, but it is adequate for printing drafts or proofs.

HP does not recommend the full-time use of Economode. If Economode is used full-time when the average toner coverage is significantly less than 5%, it is possible that the toner supply will outlast the mechanical parts in the print cartridge. If print quality begins to degrade under these circumstances, you must install a new print cartridge, even if toner remains in the cartridge.

NOTE The **EconoMode** setting might work only if a genuine HP print cartridge is installed. HP print cartridges can measure the life of the mechanical parts as well as the quantity of toner. If the **Economode** setting is used frequently, the mechanical parts can wear out before the supply of toner is depleted, increasing the risk of toner leaking. Use genuine HP parts to avoid this problem.

Change the settings in the **Toner Density** drop-down menu to save on toner use. The following settings are available:

Lower settings result in slightly reduced printing quality, but save on toner usage.

Resolution

Under Printer Settings, select **Resolution** to open the **Resolution** screen, as shown in the following figure.

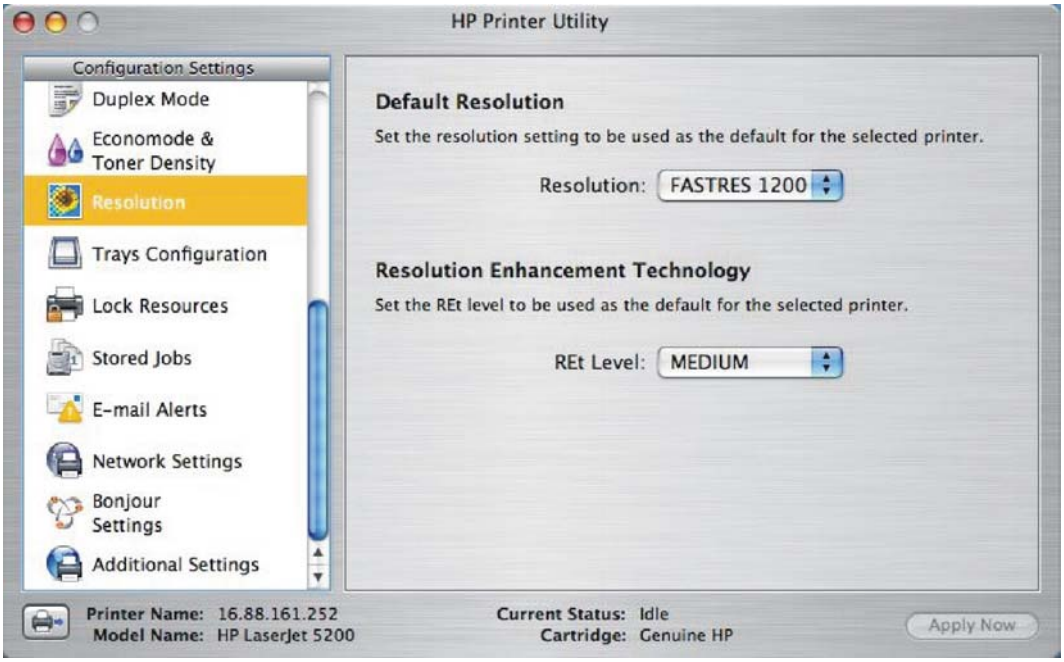


Figure 6-37 Resolution screen

The following dots-per-inch (dpi) settings are available in the **Resolution** drop-down menu:

- **300**
- **600**
- **FASTRES 1200**
- **PRORES 1200**

NOTE When a **PRORES1200** setting is selected, documents are printed using a resolution of 1200 x 1200 dpi. This is the best print quality, but printing speed is slower than for documents printed on the **FASTRES 1200** setting, which uses a resolution of 1200 x 600 dpi.

When the **PRORES 1200** setting is selected, documents are printed using a resolution of 1200 x 1200 dpi. This is the best print quality, but printing speed is slower than for documents printed on the **FASTRES 1200** setting, which uses a resolution of 1200 x 600 dpi

The following settings are available in the **REt Level** drop-down menu:

- **OFF**
- **LIGHT**
- **MEDIUM**
- **DARK**

Trays Configuration

Under Printer Settings, select **Trays Configuration** to open the **Trays Configuration** screen, as shown in the following figure.

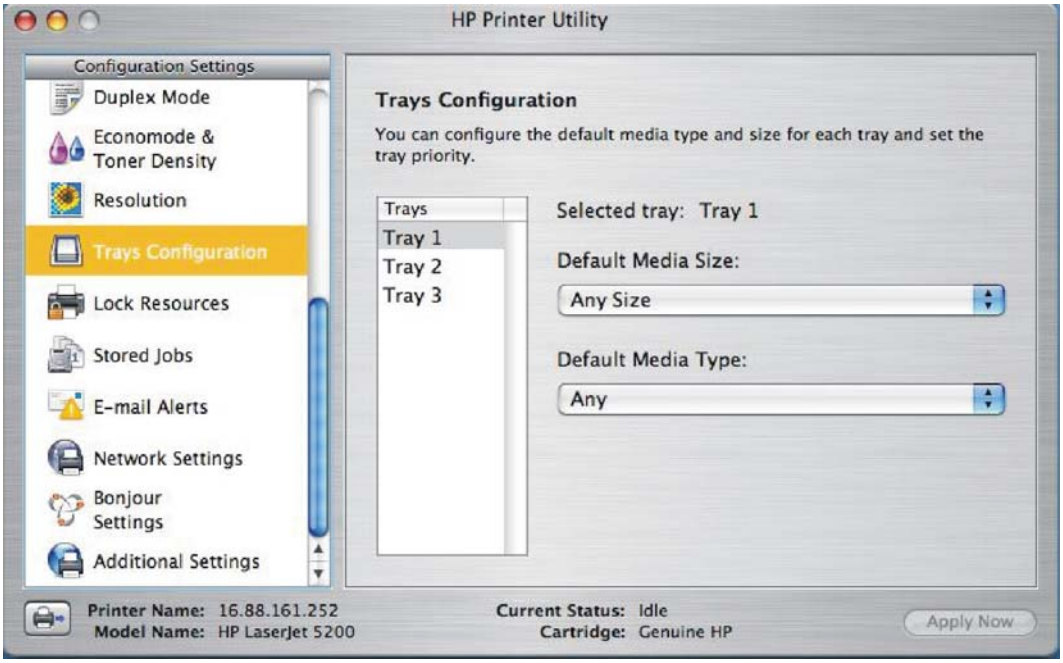


Figure 6-38 Trays Configuration screen

1. Select **Trays Configuration** to change media size and type for each of the trays installed on your device.
2. To change the media size, select a tray and then select a different media size in the **Default Media Size** drop-down menu.
3. To change the media type, select a tray and then select a different media type in the **Default Media Type** drop-down menu.
4. Click **Apply Now** to save the settings.

Lock Resources

Select **Lock Resources** to lock certain features of the HP LaserJet 5200 printer. The **Lock Resources** screen is shown in the following figure.

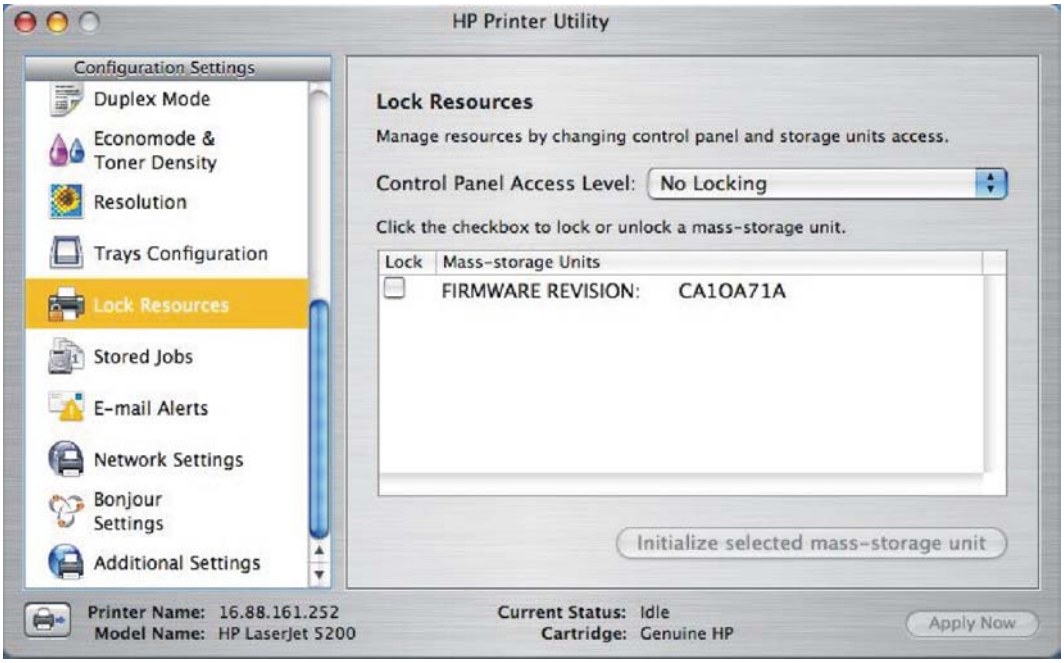


Figure 6-39 Lock Resources screen

In **Control Panel Access Level**, select one of the following settings:

- **No Locking** provides full control of the device.
- **Minimal Locking** provides control over paper-handling features.
- **Moderate Locking** blocks changes in the device configuration.
- **Maximal Locking** prevents users from changing device control-panel settings.

In the lower pane, select the **Lock** check box for the mass-storage unit that you want to lock.

WARNING! Click **Initialize selected mass-storage unit** *only* if you want to erase all data that is currently stored on the hard drive. *You cannot undo this action*.

Stored Jobs

Select **Stored Jobs** to change the **Enable Job Storing** setting. This setting is selected by default. Click to clear the check box to disable the job-storing feature.

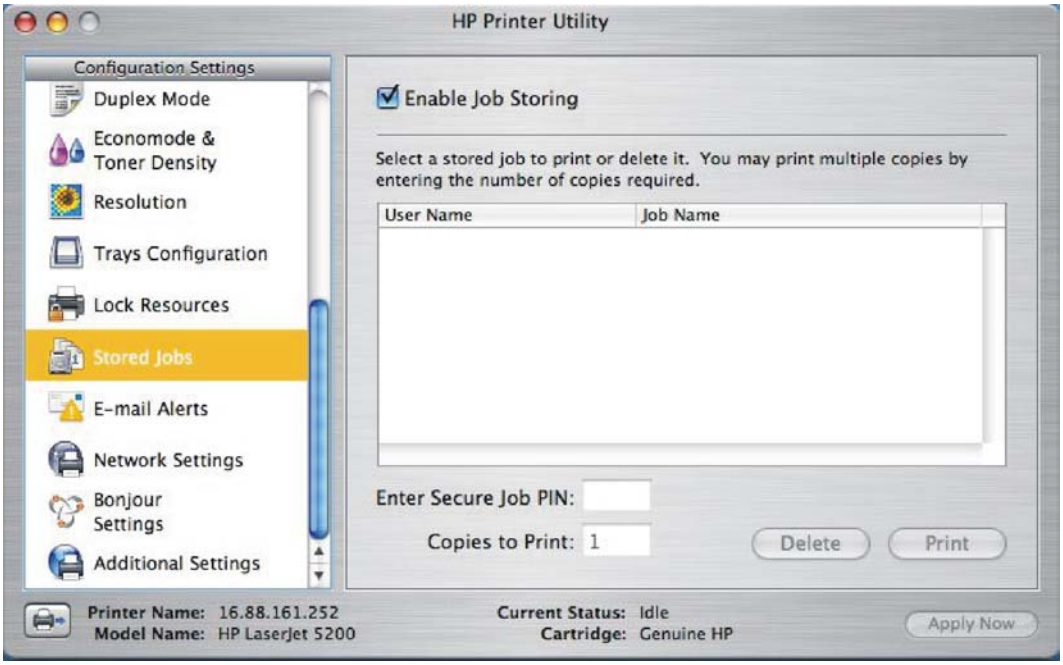


Figure 6-40 Enable Job Storing screen

You can type a PIN for your job in the **Enter Secure Job PIN** field.

Select the number of copies in the **Copies to Print** field.

Select a stored job and click **Print** to print the job.

Select a stored job and click **Delete** to delete the job.

For information about releasing and deleting stored jobs at the device control panel, see Releasing a job-storage print job.

E-mail Alerts

Select **E-mail Alerts** to configure the HP LaserJet 5200 printer to send e-mail notifications to users.

If a user name and password have been set, you might need to obtain them from the IT administrator. For more information, see the *HP Embedded Web Server User Guide*.

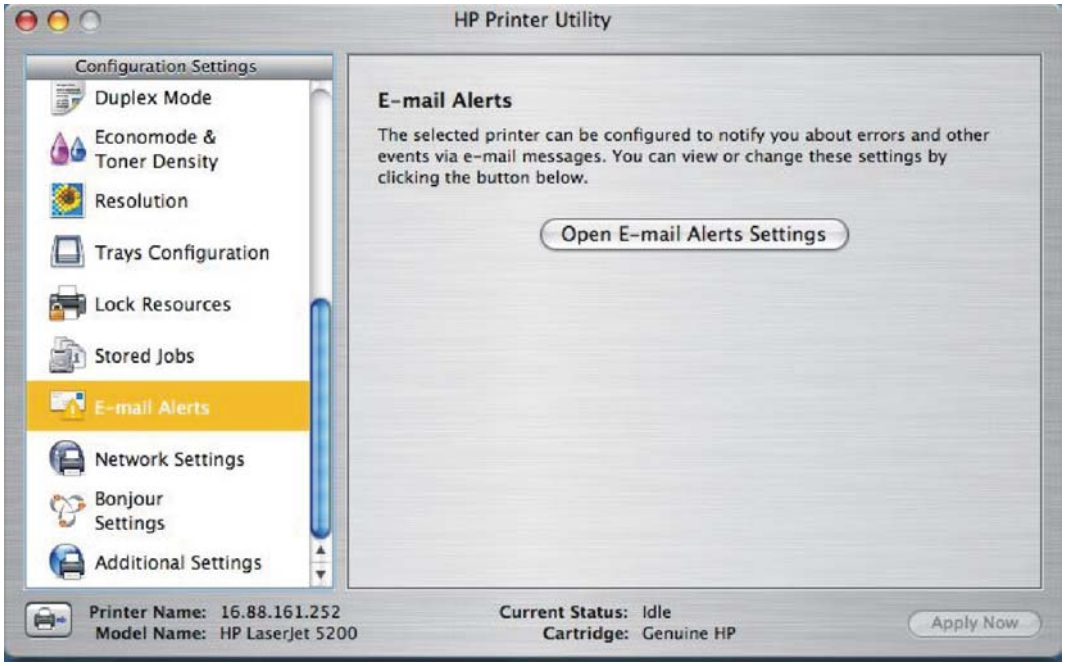


Figure 6-41 **E-mail Alerts** screen

Click **Open E-mail Alerts Settings** to open the HP EWS. The HP EWS opens to the **Setup** screen on the **Alerts** tab, where you can set notifications to manage the HP LaserJet 5200 printer.

Network Settings

Select **Network Settings** to open the **IP Settings** screen.

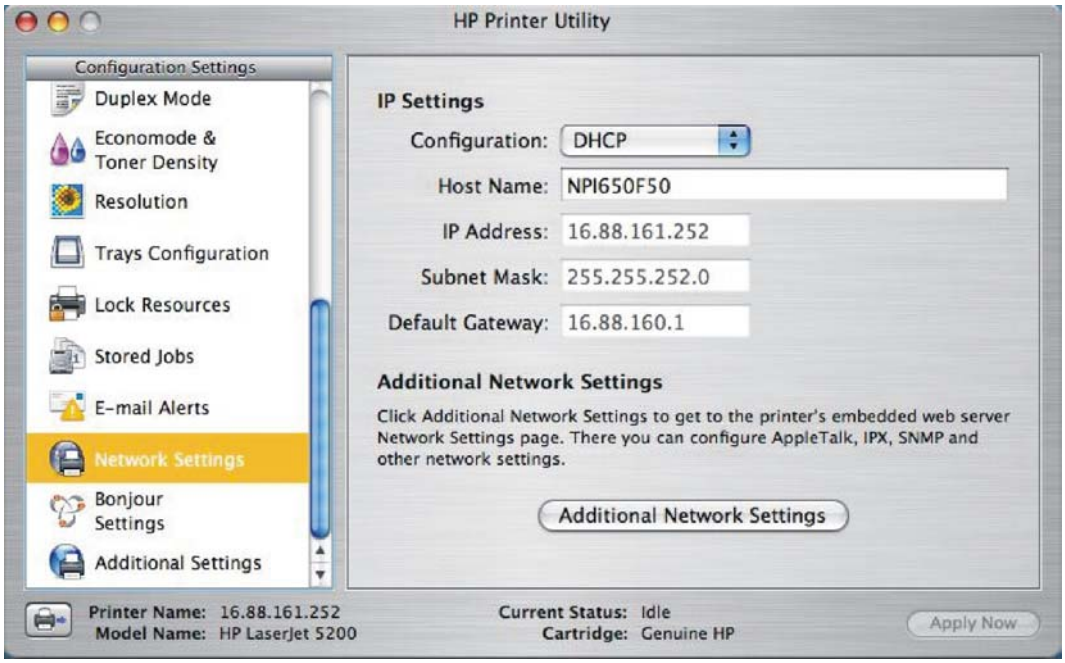


Figure 6-42 **IP Settings** screen

Select one of the following options in the **Configuration** drop-down menu:

- **DHCP**
- **BootP**
- **Manual**

You can also use this screen to modify the following settings:

- **Host Name**
- **IP Address**
- **Subnet Mask**
- **Default Gateway**

To save new settings, click **Apply Now**.

To view and change other network settings, click **Additional Network Settings**.

If a user name and password have been set, you might need to obtain them from your IT administrator. For more information, see the *HP Embedded Web Server User Guide*.

The HP EWS opens to the **Network Settings** screen. For information about this screen, see Networking tab in this STR.

Bonjour Setting

Select **Bonjour Settings** to open the **Bonjour Settings** screen. Bonjour is enabled by default.

To disable Bonjour, click to clear the **Enable Bonjour** check box and then click **Apply Now**.

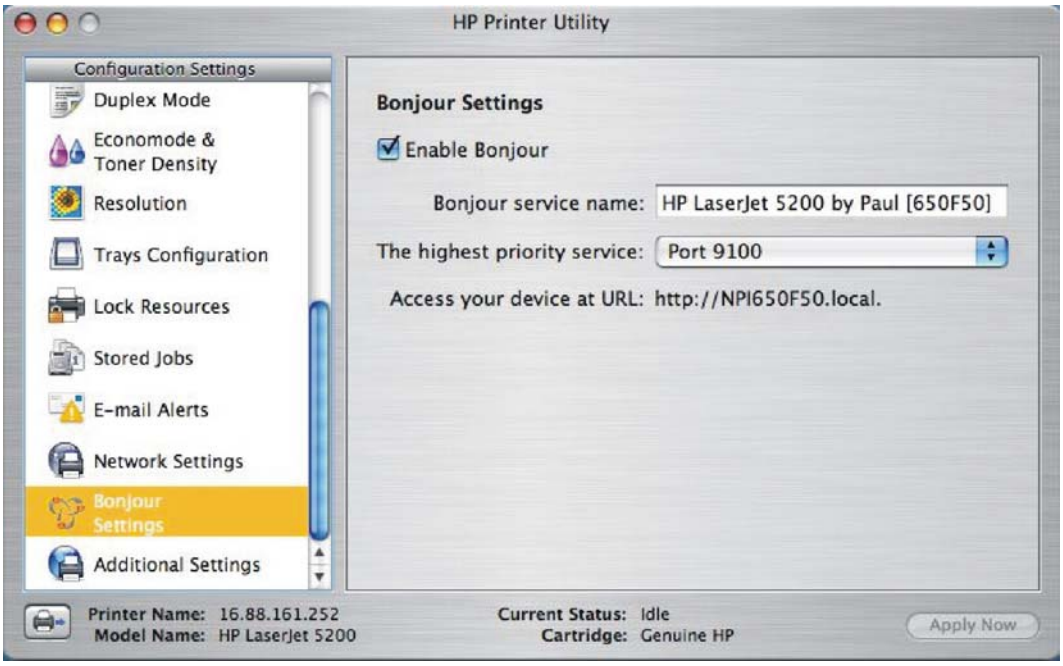


Figure 6-43 **Bonjour Settings** screen

The following options are available in the **The highest priority service** drop-down menu:

- **Port 9100** (default)
- **IPP**
- **LPD-RAW**
- **LPD-TEXT**
- **LPD-AUTO**
- **LPD-BINPS**
- **LPD-Queue5**
- **LPD-Queue6**
- **LPD-Queue7**
- **LPD-Queue8**
- **LPD-Queue9**
- **LPD-Queue10**

After you select a new setting, click **Apply Now** to save it.

Additional Settings

Select **Additional Settings** to gain access to the HP EWS.

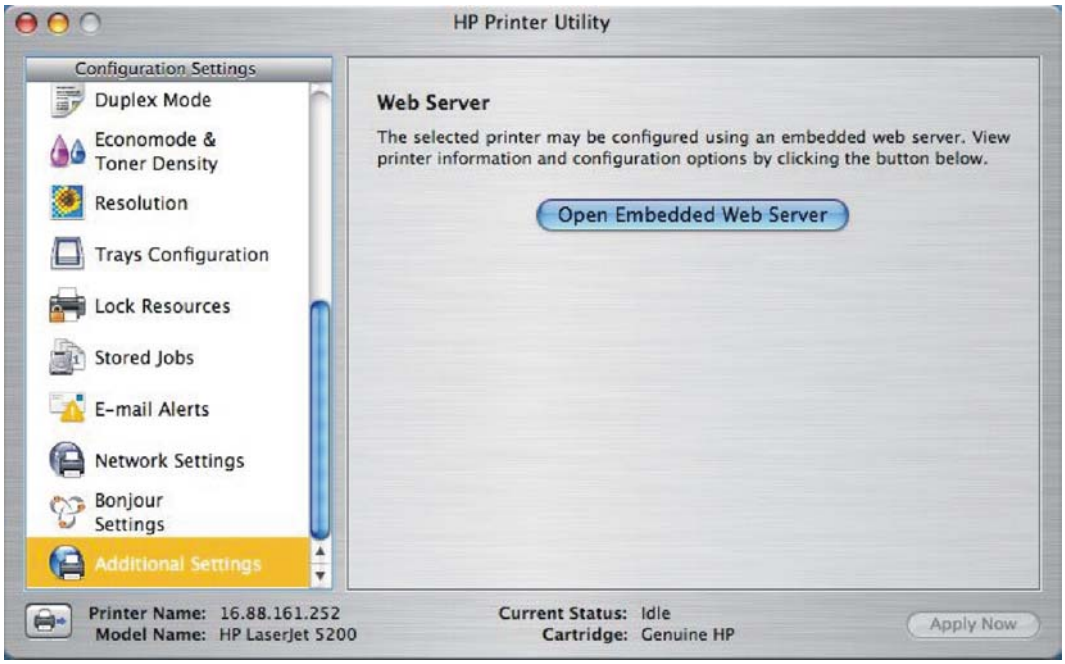


Figure 6-44 **Additional Settings** screen

To open the HP EWS, click **Open Embedded Web Server**.

For information about HP EWS settings, see HP Embedded Web Server or consult the *HP Embedded Web Server User Guide*.

Macintosh remote firmware updates

Topics:

- Remote firmware update by using FTP on a direct network connection
- Remote firmware update by using the HP Printer Utility

Remote firmware update by using FTP on a direct network connection

If the HP LaserJet 5200 uses a direct network connection, use file transfer protocol (FTP) to update the firmware. Complete the following steps:

1. Make a note of the TCP/IP address on the EIO-Jetdirect page. The EIO-Jetdirect page is the second page of the configuration page printout. To print a configuration page, see Determining the current level of firmware .
2. Open a Terminal window on the computer. You can find the Terminal program on the computer hard drive in 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/5200fw.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/5200FW.RFU".`

   To ensure that the entire path to the .RFU file is placed in the `put` command, type `put` and a space, and then drag and drop the .RFU file onto the terminal window. The complete path to the file is automatically placed after the `put` command.

7. The download process begins and the firmware is updated on the device. This can take several minutes. Let the process finish without further interaction with the device or the computer. The messages described in the section Printer messages during the firmware update appear on the control panel.

   NOTE The device automatically turns off and then on again to activate the update; this can happen more than once. At the end of the update process, the **READY** message appears on the control panel. Do *not* turn off the device or interfere with the update until you see this message.

8. Print a configuration page and verify that the firmware revision number matches the revision of the current update.

Remote firmware update by using the HP Printer Utility

Make sure that you have the tools and files that are necessary for the update. You will need the HP Printer Utility and the 5200FW.RFU file, which is the firmware file for the device. The HP Printer Utility is a software program that is available only for Mac OS X V10.2.8 or later.

The HP Printer Utility can be found on the HP LaserJet 5200 printing-system software CD-ROM that came with the device. If you do not have the CD-ROM, you can obtain the HP Printer Utility by downloading the latest device installer from www.hp.com/go/lj5200_software.

The firmware file (5200FW.RFU) can be downloaded from the following Web site:

www.hp.com/go/lj5200_firmware

After you have the firmware file and the HP Printer Utility, you are ready to begin the update process. Complete the following steps:

1. Open the HP Printer Utility.
2. Select **Update Firmware**, click **Choose**, browse to firmware upgrade file, and then click **Open**.
3. On the **Update Firmware** screen, click **Update**.

   NOTE You might receive an error message on the screen indicating that the printer is offline. Verify that the printer is turned on. If it is, ignore the message. The **Updating** screen appears and the update proceeds as expected.

4. The update process can take several minutes. Let the process finish without further interaction with the device or the computer. The messages described in the section Printer messages during the firmware update appear on the control panel.

   NOTE The device automatically turns off and then on again to activate the update; this can happen more than once. At the end of the update process, the **READY** message appears on the control panel. Do *not* turn off the device or interfere with the update until you see this message.

5. Print a configuration page and verify that the firmware revision number matches the revision of the current update.

Macintosh, print print-ready documents

If the HP LaserJet 5200 uses a direct network connection, use file transfer protocol (FTP) to print a print-ready file. Complete the following steps:

1. Make note of the TCP/IP address on the Embedded Jetdirect page. The HP Embedded Jetdirect page is the second page of the configuration page printout. To print a configuration page, see Determining the current level of firmware .
2. Open a Terminal window on your Macintosh. You can find the Terminal program on the computer hard drive in the following folder:

   System/Applications/Utilities/Terminal
3. Type `FTP <TCP/IP printer ADDRESS>`. For example, if the TCP/IP address is 192.168.0.90, type the following:

   ```
   FTP 192.168.0.90
   ```
4. Press Enter on the keyboard.
5. When prompted for a user name and password, press Enter.
6. You can drag and drop the print-ready file into the Terminal folder (System/Applications/Utilities/Terminal). Alternatively, you can type `put <path>`, where <path> is the location where the print-ready file was downloaded from the Web. For example, type the following:

   ```
   put /username/desktop/5200FW.PDF
   ```

   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/5200FW.PDF"`

   To ensure that the entire path to the print-ready file is placed in the `put` command, type `put` and a space, and then click and drag the print-ready file onto the terminal window. The complete path to the file is automatically placed after the `put` command.
7. Press Enter to print the document.

7 Engineering Details

Introduction

Topics:

- File to E-mail utility
- Media attributes
- Remote firmware updates
- Printing print-ready documents
- Driver-feature comparison in various operating systems

File to E-mail utility

The File to E-mail utility is a standalone Microsoft Foundation Class (MFC) program that reads an .INI file to detect where the HP LaserJet device software is installed. The program then attaches relevant log or history files to an e-mail that can be sent to HP Customer Support to assist troubleshooting. The utility runs on the computer, but does not interact with your HP LaserJet device.

The tool is included on the installer CD, but is *not* copied to the computer during the software installation. HP Customer Support can also send the utility to you through e-mail or by posting it to an HP web page.

The tool is compatible with Windows 98, Windows Me, Windows 2000, and Windows XP.

The File to E-mail utility runs with any MAPI-compliant e-mail programs. It does not run with Web-based e-mail services such as Yahoo, Hotmail, or AOL.

Depending on the speed of the computer, it might take several seconds for the utility to gather the log files and attach them to an e-mail message.

The File to E-mail utility consists of two files that are located on the HP LaserJet 5200 software CD:

- <CD-ROM drive>util\CCC\FiletoEmail\FileToEmail.exe
- <CD-ROM drive>util\CCC\FiletoEmail\FileToEmail.ini

To use the File to E-mail utility, copy these files to the desktop, navigate to them in Explorer, and then double-click **FileToEmail.exe** to open the utility. The utility generates files, opens an e-mail message, and attaches the files so that you can send them to an IT administrator, as shown in the following figure.

NOTE The figure is provided as an example only. The actual files attached will vary, depending on your device.

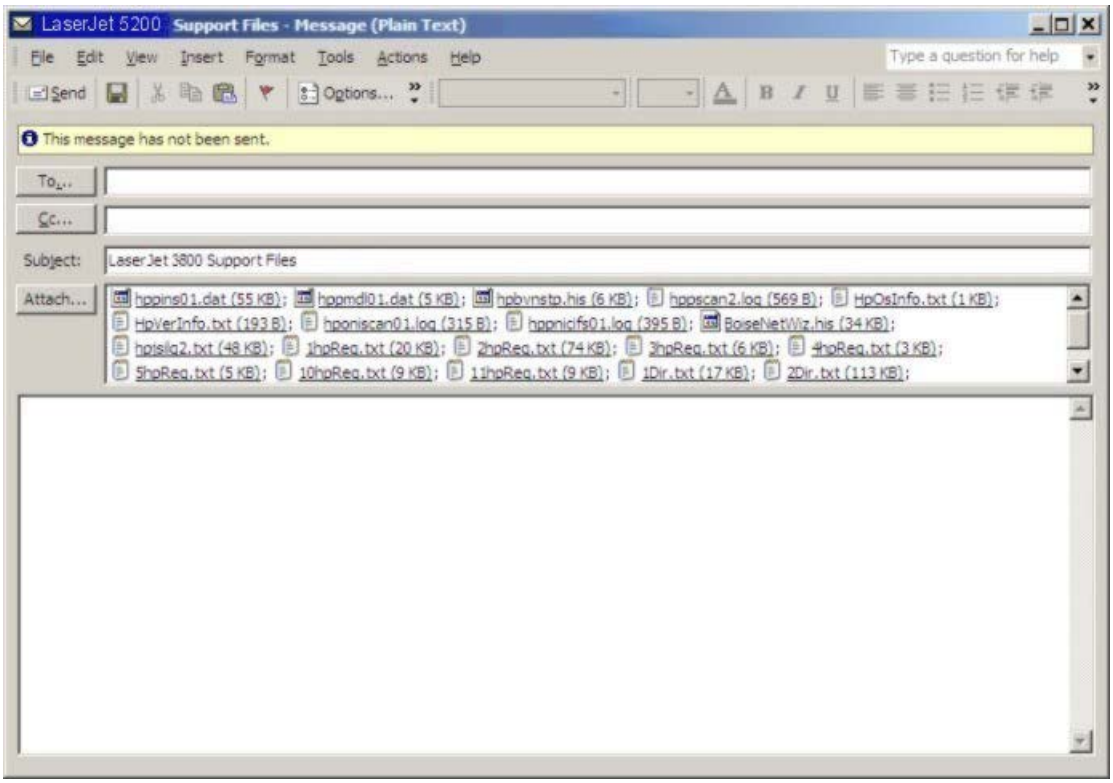


Figure 7-1 File to E-mail – sample e-mail message with files attached

If the File to E-mail utility fails for any reason (for instance, if you cancel the new message), all the files are copied to a folder on the desktop that is named CCC, possibly with strings of 0's attached to the end. You can zip these files and e-mail them separately.

Media attributes

Topics:

- Media sources and destinations
- Media-source commands
- Driver-supported media sizes
- Driver-supported media types
- Custom paper sizes
- Media-type commands

Media sources and destinations

The following table indicates the standard and optional media sources and destinations for the HP LaserJet 5200 printer.

Table 7-1 HP LaserJet 5200 media sources and destinations

Media sources	100-sheet multipurpose tray (tray 1)	Standard
	250-sheet paper tray (tray 2)	Standard
	500-sheet paper tray (tray 3)	Optional; standard on the HP LaserJet 5200dtn printer model
Media destinations	Standard 250-sheet top bin	Standard

Media-source commands

The PCL 6 attribute for paper source is `ubyte # MediaSource` or `ubyte_array "string" MediaSource`. See the following table for values of #. For example, "`ubyte 4 MediaSource`" is the command for tray 2.

The PCL 5 escape sequence for media 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 fortray 2.

Table 7-2 Media-source commands

Media source	PCL 6 `ubyte # MediaSource` or `ubyte_array "string" MediaSource`[1]	PCL 5 `Esc&l#H`	PostScript `/MediaPosition # / ManualFeed true | false` or null
Manual feed in tray 1	2	2	3 true
Tray 1 (100-sheet)	3	4	3 false
Tray 2 (250-sheet)	4	1	0 false
Tray 3 (500-sheet)	5	5	1 false
Automatically Select (HP unidrivers)	NA	NA	NA

Table 7-2 Media-source commands (continued)

Media source	PCL 6 `ubyte # MediaSource or ubyte_array "string" MediaSource`[1]	PCL 5 `Esc&l#H`	PostScript `/MediaPosition # / ManualFeed true | false or null`
Automatically Select (HP traditional PCL drivers) or Printer Auto Select (HP unidrivers)	7	1	null false

[1] For the string value, you must use include the quotation marks around the variable. For example, `ubyte_array "TRAY2" MediaSource` is the PCL 6 command for tray 2.

Driver-supported media sizes

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 device and operating system. The list contains all of the following sizes, and might contain sizes from other drivers.

Table 7-3 Supported media sizes and attributes

Paper sizes[1]	Width	Height	PCL 6 [2]
Letter	216 mm (8.5 inches)	279 mm (11.0 inches)	"LETTER"
Letter-R	279 mm (11 inches)	216 mm 8.0 inches	
Statement	140 mm (5.5 inches)	216 mm (8.5 inches)	"STATEMENT"
8K	269 mm (10.6 inches)	391 mm (15.4 inches)	
8K	259 mm (10.2 inches)	368 mm (14.5 inches)	
8K	273 mm (10.75 inches)	394 mm (15.5 inches)	“ROC8K”
16K	184 mm (7.24 inches)	260 mm 10.24 inches)	
16K	195 mm (7.68 inches)	197 mm (7.75 inches)	
16K	273 mm (10.75 inches)	197 mm (7.75 inches)	"ROC16K"
8.5 x 13	216 mm (8.5 inches)	330 mm (13 inches)	"8.5x13"

Table 7-3 Supported media sizes and attributes (continued)

Paper sizes[1]	Width	Height	PCL 6 [2]
11 x 17	279 mm (11.0 inches)	432 mm (17.0 inches)	“LEDGER”
12 x 18	305 mm 12.0 inches)	457 mm (18.0 inches)	“12x18”
A3	297 mm (11.7 inches)	419 mm (16.5 inches)	“A3”
A4	211 mm (8.3 inches)	297 mm (11.69 inches)	"A4"
A5	147 mm (5.8 inches)	211 mm (8.3 inches)	"A5"
A6	105 mm (4.14 inches)	148 mm (5.83 inches)	“A6”
B4 (JIS)	257 mm (10.1 inches)	363 mm (14.3 inches)	“JIS B4”
B5 (JIS)	183 mm (7.2 inches)	257 mm (10.1 inches)	"JIS B5"
B6	128 mm (5.1 inches)	182 mm (7.2 inches)	“B6”
RA3	305 mm (12.0 inches)	430 mm (16.93 inches)	“RA3”
S Postcard (JIS)	100 mm (3.94 inches)	148 mm (5.83 inches)	
D Postscard (JIS)	100 mm (3.94 inches)	200 mm (7.87 inches)	"JPOSTD"
D Postscard (JIS)	148 mm (5.83 inches)	200 mm (7.87 inches)	“Double Postcard (JIS)”
Envelope #10	105 mm (4.13 inches)	241 mm (9.5 inches)	"COM10"
Envelope B5	176 mm (6.93 inches)	250 mm (9.84 inches)	"B5 ENV"
Envelope C5	162 mm (6.38 inches)	229 mm (9.02 inches)	"C5"
Envelope DL	110 mm (4.33 inches)	220 mm (8.66 inches)	"DL"

Table 7-3 Supported media sizes and attributes (continued)

Paper sizes[1]	Width	Height	PCL 6 [2]
Envelope Monarch	99 mm (3.88 inches)	190 mm (7.5 inches)	"MONARCH"
Executive	185 mm (7.3 inches)	267 mm (10.5 inches)	"EXEC"
Executive (JIS)	216 mm (8.5 inches)	330 mm (13.0 inches)	"JISEXEC"
Legal	216 mm (8.5 inches)	356 mm (14.0 inches)	"LEGAL"
Custom	Minimum: 127 mm (5.0 inches) Maximum: 215.9 mm (8.5 inches)	Minimum: 76.2 mm (3.0 inches) Maximum: 355.6 mm (14.0 inches)	[3]

[1] For all paper sizes, the PCL 6 margins are 100 dots, at 600 dots per inch.

[2] The PCL 6 command for paper size is ubyte_array “String” MediaSize. The values in this column are the values for "String."

[3] For custom sizes, the PCL 6 Driver specifies actual dimensions, for example, for 8 by 9 inch custom size, "real32_xy 8.0 9.0 CustomMediaSize ubyte eInch CustomMediaSizeUnits."

Driver-supported media types

The following table shows the media types that the HP LaserJet 5200 print-drivers support.

Table 7-4 Supported input media types

Media types (command string)	Tray 1/top bin/stacker bin	Tray 2 (250-sheet)	Trays 3 (500-sheet)	Duplexing unit	Manual duplexing
Unspecified	Y	Y	Y	Y	Y
Plain (60–199 g/m^2, or 16–53 lb)	Y	N	N	N	Y
Plain (60–120 g/m^2, or 16–32 lb)	Y	Y	Y	Y	Y
Preprinted (60–120 g/m^2, or 16–32 lb)	Y	Y	Y	Y	Y
Letterhead (60–120 g/m^2, or 16–32 lb)	Y	Y	Y	Y	Y
Transparency (0.10–0.14 mm thick, or 4.7 to 5 mils thick)	Y	Y	Y	N	N
Prepunched (60–120 g/m^2, or 16–32 lb)	Y	Y	Y	Y	Y

Table 7-4 Supported input media types (continued)

Media types (command string)	Tray 1/top bin/stacker bin	Tray 2 (250-sheet)	Trays 3 (500-sheet)	Duplexing unit	Manual duplexing
Postcard (135–176 g/m², or 36–47 lb)	Y	N	N	N	Y
Labels (0.10–0.14 mm thick, or 4.7 to 5 mils thick)	Y	Y	Y	N	N
Bond (60–120 g/m², or 16–32 lb)	Y	Y	Y	Y	Y
Recycled (60–120 g/m², or 16–32 lb)	Y	Y	Y	Y	Y
Color (60–120 g/m², or 16–32 lb)	Y	Y	Y	Y	Y
Light (60–75 g/m², or 16–20 lb)	Y	N	N	N	Y
Cardstock (135–176 g/m², or 36–47 lb)	Y	Y	N	N	Y
Rough	Y	N	N	N	N
Tough Paper[1] (Glossy Film) (0.10–0.14 mm thick, or 4.7 to 5 mils thick)	Y	N	N	N	N
Envelope (75–90 g/m², or 20–24 lb)	Y	N	N	N	N
Vellum (60–120 g/m², or 16–32 lb)	Y	N	N	N	N
Custom (60–199 g/m², or 16–53 lb)	Y	Y	Y	Y	Y

[1] Use *only* HP *LaserJet* glossy media. Using HP *Inkjet* glossy media can cause permanent damage to the printer.

Custom paper sizes

The following table shows custom paper sizes that are available for the HP LaserJet 5200 printer.

Table 7-5 PCL 6 custom media sizes

Tray	Dimensions	Minimum	Maximum
Tray 1 (100-sheet multipurpose)	Width	76 mm (3.0 inches)	312 mm (12.28 inches)
	Height	127 mm (5.0 inches)	470 mm (18.5 inches)
Tray 2 (250-sheet)	Width	148.0 mm (5.83 inches)	297 mm (11.7 inches)
	Height	210 mm (8.26 inches)	432 mm (17 inches)
Tray 3 (500-sheet, optional)	Width	148.0 mm (5.83 inches)	297 mm (11.7 inches)
	Height	210 mm (8.26 inches)	432 mm (17 inches)

Table 7-5 PCL 6 custom media sizes (continued)

Tray	Dimensions	Minimum	Maximum
Duplexing unit	Width	148.0 mm (5.83 inches)	297 mm (11.7 inches)
	Height	210.0 mm (8.26 inches)	432 mm (17 inches)

Media-type commands

The PCL 5 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.

Table 7-6 Media-type commands

Esc&	n#	Wd	Paper type
Esc&	6	Wd	Plain
Esc&	11	Wd	Preprinted
Esc&	11	Wd	Letterhead
Esc&	13	Wd	Transparency[1]
Esc&	11	Wd	Prepunched
Esc&	7	Wd	Labels
Esc&	5	Wd	Bond
Esc&	9	Wd	Recycled
Esc&	6	Wd	Color
Esc&	6	Wd	Light
Esc&	13	Wd	Intermediate
Esc&	6	Wd	Heavy
Esc&	11	Wd	Cardstock[2]
Esc&	6	Wd	Rough
Esc&	12	Wd	Tough Paper
Esc&	9	Wd	Envelope

[1] You must spell out the word "Transparency" in the string, although it is abbreviated as TRNSPRNCY on the control panel.

[2] The correct command for cardstock is "Esc&n11WdCard Stock", with a space between the "d" and the "S", and with an uppercase "S".

Remote firmware updates

The HP LaserJet 5200 printer features remote firmware update (RFU) 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 print drivers.

The process for remotely upgrading firmware involves three steps:

1. Determine the current level of firmware that is installed on the device.
2. Go to the HP Web site and download the latest firmware to the computer.
3. Download the new firmware to the device.

Topics:

- Determining the current level of firmware
- Downloading the new firmware from the HP Web site
- Downloading the new firmware to the device
- Printer messages during the firmware update
- Remote firmware update by using FTP through a browser
- Remote firmware update by using FTP on a direct network connection
- Remote firmware update through a local MS Windows port
- Remote firmware update through a USB port
- Remote firmware update through an MS Windows network
- Remote firmware update for UNIX systems
- Remote firmware update by using the LPR command
- Remote firmware update through HP Web Jetadmin

Determining the current level of firmware

To determine the current level of firmware, view the configuration page. To print a configuration page, follow these instructions.

1. Press ✓ (the select button; the one with the check mark) to open the menus.
2. Press ▲ (the up arrow) and ▼ (the down arrow) to scroll to **INFORMATION**, and then press ✓ (select).
3. Press ▲ (up) and ▼ (down) to scroll to **PRINT CONFIGURATION**.
4. Press ✓ (select) to print the configuration page.
5. Look in the "Printer Information" section on the configuration page for the firmware date code. The firmware date code looks something like this: 20051002 07.000.0.

Downloading the new firmware from the HP Web site

The remote firmware update (.RFU) file and an associated readme file are packaged together as a self-extracting .EXE file. For detailed instructions about how to download the .EXE file, go to the following URL:

www.hp.com/go/lj5200_firmware

The .EXE file consists of a readme file and the .RFU file.

NOTE For UNIX systems, the remote firmware update file is a .TAR file.

Downloading the new firmware to the device

For support information about downloading new firmware from the Web, go to www.hp.com/support/lj5200.

The device can receive an RFU update when the device is in a **READY** state. The device waits for all of the I/O channels to become idle before performing the update.

NOTE If 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 will return to default settings. The settings must be changed again if you want them to be 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 device 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 (parallel or network). The reinitialization time depends on the specific hardware configuration of the device, such as the number of EIO devices installed, the presence of external paper-handling devices, and the amount of memory that is installed.

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

Use one of the methods described in this manual to update the printer firmware.

Printer messages during the firmware update

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

Table 7-7 Troubleshooting a firmware update

Cause	Result
The job was cancelled from the 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 the **RECEIVING UPGRADE** process.	No update has occurred.
A power cycle occurred during the **PERFORMING UPGRADE** process.	No update has occurred. Resend the update through a parallel port.
A power cycle occurred during the **INITIALIZING** process.	The update has been completed.

Print jobs that are sent to the device while an update is in process do not interrupt the update.

All HP LaserJet devices leave the factory with the most recent firmware version installed. If a remote firmware update fails in an MS Windows operating system, the .RFU file must be resent.

If a remote firmware update fails in a Macintosh operating system, contact support from an HP Customer Care Center.

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

Table 7-8 Troubleshooting a firmware update failure

Reason for firmware update failure	Corrective action
The .RFU file is corrupted.	The device recognizes that the file is corrupted and rejects the update. Download the file again and send the new file to the device. Download the file from www.hp.com/go/lj5200_firmware.
The wrong device is contained in the .RFU file.	The device recognizes the printer mismatch and rejects the update. Download the correct file and send it to the device. Download the file from www.hp.com/go/lj5200_firmware.
The upgrade was interrupted.	See Table 7-9 Update messages.
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 device for a local telephone support list).

Three messages appear during a normal update process; a fourth (RESEND UPGRADE) appears only if the update process does not succeed.

Table 7-9 Update messages

Printer message	Explanation
RECEIVING UPGRADE	This message appears from the time the device recognizes the beginning of an .RFU update until the time the device has verified the validity and integrity of the .RFU update. **NOTE** 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. No message appears on the device control panel to indicate that the update was interrupted.
PERFORMING UPGRADE	This message appears while the device is actually reprogramming the firmware. **NOTE** If power is lost during the flash DIMM update (while **PERFORMING UPGRADE** appears on the control-panel display), the update is interrupted and the message **RESEND UPGRADE** appears on the control-panel display.
INITIALIZING	This message appears from the time the device has finished reprogramming the DIMM until the device reinitializes.

Table 7-9 Update messages (continued)

Printer message	Explanation
RESEND UPGRADE	This message appears (in English only) if the firmware update fails because the RFU process is interrupted. It can also occur if firmware for accessories (such as the duplex unit or an output device becomes is corrupted. Perform another update by any means that is supported by the printer, regardless of the connection (network, parallel, or USB).
RFU LOAD ERROR **SEND RFU UPGRADE** **ON PARALLEL PORT**	This message appears (in English only) if the firmware update fails because the print-engine firmware is corrupted. If this message appears, the update must now be sent only by a computer that is attached to the parallel port of the device.

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

Remote firmware update by using FTP through a browser

Complete the following steps to update the printer firmware by using file transfer protocol (FTP) through a browser.

NOTE The following instructions can be used on MS Windows or Macintosh operating systems.

1. Make note of the TCP/IP address on the EIO-Jetdirect page. The EIO-Jetdirect page is the second page of the configuration page printout. To print a configuration page, see Determining the current level of firmware
2. Open a browser window.
3. In the address line of the browser, type `ftp://<IPADDRESS>`, where <IPADDRESS> is the TCP/IP address of your device. For example, if the TCP/IP address is 192.168.0.90, type `FTP://192.168.0.90`
4. Locate the downloaded .RFU file for the device.
5. Drag and drop the .RFU file onto the **PORT1** icon or onto any open space in the browser window.

   NOTE If the **PORT1** icon does not appear as a folder name, you might have to enable folder viewing for FTP sites in your Web browser. In Microsoft Internet Explorer, use the following procedure to enable the folder view.

   a. Select **Tools**, then select **Internet Options**, and then select the **Advanced** tab.

   b. Select the **Enable folder view for FTP sites**.

   c. Click **OK** to save the setting.
6. The download process begins and the firmware is updated on the device. This can take several minutes. Let the process finish without further interaction with the device or the computer. The messages described in the section Printer messages during the firmware update appear on the control panel.

NOTE The device automatically turns off and then on again to activate the update; this can happen more than once. At the end of the update process, the **READY** message appears on the control panel. Do *not* turn off the device or interfere with the update until you see this message.

7. Print a configuration page and verify that the firmware revision number matches the revision of the current update.

Remote firmware update by using FTP on a direct network connection

If the HP LaserJet 5200 uses a direct network connection, use file transfer protocol (FTP) to update the firmware. Complete the following steps:

1. Make note of the TCP/IP address on the Embedded Jetdirect page. The HP Embedded 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 device, make sure that the device 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 the 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 Type 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\5200FW.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 the following path:

   ```
   put "c:\My Documents\LJ\5200fw.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

After these messages appear, a message containing transfer-speed information appears.

10. The download process begins and the firmware is updated on the device. This can take several minutes. Let the process finish without further interaction with the device or the computer. The messages described in the section Printer messages during the firmware update appear on the control panel.

    NOTE The device automatically turns off and then on again to activate the update; this can happen more than once. At the end of the update process, the **READY** message appears on the control panel. Do *not* turn off the device or interfere with the update until you see this message.

11. Print a configuration page and verify that the firmware revision number matches the revision of the current update.

12. At the command prompt, type `bye` to exit the FTP command.

13. At the command prompt, type `exit` to return to the MS Windows interface.

Remote firmware update through a local MS Windows port

If the device is connected through a local port (parallel), then you can send the .RFU file directly to the device by using a `COPY` command from a command prompt or an MS-DOS window.

Topics:

- Windows 98 or Windows Me
- Windows NT 4.0, Windows 2000, Windows XP, or Windows Server 2003

Windows 98 or Windows Me

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

   ```
   Mode lpt1:,,p
   ```

   NOTE If the device is attached to a parallel port other than LPT1, then substitute the correct 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 `copy /b <FILENAME> <PORTNAME>`, where <FILENAME> is the name of the .RFU file (including the path) and <PORTNAME> is the name of the appropriate device port (such as LPT1). For example, type the following:

   ```
   C:\>copy /b c:\5200fw.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\5200fw.rfu" lpt1`

4. Press Enter on the keyboard.
5. The download process begins and the firmware is updated on the device. This can take several minutes. Let the process finish without further interaction with the device or the computer. The messages described in the section Printer messages during the firmware update appear on the control panel.

   NOTE The device automatically turns off and then on again to activate the update; this can happen more than once. At the end of the update process, the **READY** message appears on the control panel. Do *not* turn off the device or interfere with the update until you see this message.

6. Print a configuration page and verify that the firmware revision number matches the revision of the current update.
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 device by typing a **copy** command at a command prompt or in an MS-DOS window.

Windows NT 4.0 does not support the HP LaserJet 5200 printer *drivers*, but it is possible to update the printer firmware in Windows NT 4.0.

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, type the following:

   ```
   C:\>copy /b c:\5200fw.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\5200fw.rfu" lpt1`

2. Press Enter on the keyboard.
3. The download process begins and the firmware is updated on the device. This can take several minutes. Let the process finish without further interaction with the device or the computer. The messages described in the section Printer messages during the firmware update appear on the control panel.

   NOTE The device automatically turns off and then on again to activate the update; this can happen more than once. At the end of the update process, the **READY** message appears on the control panel. Do *not* turn off the device or interfere with the update until you see this message.

4. Print a configuration page and verify that the firmware revision number matches the revision of the current update.
5. At the command prompt, type `exit` to close the command window.

Remote firmware update through a USB port

If the device is connected over a USB connection, 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 device is being shared, and <SHARENAME> is the device share name. For example, type the following:

   ```
   copy /b 3000fw.rfu\\your_computer\clj3000
   ```

   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\5200fw.rfu" \\your_computer\clj3000`

2. Press Enter on the keyboard. The messages described in the section Printer messages during the firmware update appear on the control panel. The message **1 file(s) copied** appears on the computer screen.

3. The download process begins and the firmware is updated on the device. This can take several minutes. Let the process finish without further interaction with the device or the computer. The messages described in the section Printer messages during the firmware update appear on the control panel.

   NOTE The device automatically turns off and then on again to activate the update; this can happen more than once. At the end of the update process, the **READY** message appears on the control panel. Do *not* turn off the device or interfere with the update until you see this message.

4. Print a configuration page and verify that the firmware revision number matches the revision of the current update.

Remote firmware update through an MS Windows network

If the device is shared on an MS 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 device is being shared, and <SHARENAME> is the device share name. For example, type the following:

   ```
   C:\>copy /b c:\5200fw.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\5200fw.rfu" \\your_server\your_computer`

2. Press Enter on the keyboard. The messages described in the section Printer messages during the firmware update appear on the control panel. The message **1 file(s) copied** appears on the computer screen.

3. The download process begins and the firmware is updated on the device. This can take several minutes. Let the process finish without further interaction with the device or the computer. The messages described in the section Printer messages during the firmware update appear on the control panel.

NOTE The device automatically turns off and then on again to activate the update; this can happen more than once. At the end of the update process, the **READY** message appears on the control panel. Do *not* turn off the device or interfere with the update until you see this message.

4. Print a configuration page and verify that the firmware revision number matches the revision of the current update.

Remote firmware update for UNIX systems

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

1. At the command prompt, type `cp /home/yourmachine/FILENAME /dev/parallel>`, where </home/yourmachine/FILENAME> is the location of the .TAR file.
2. The download process begins and the firmware is updated on the device. This can take several minutes. Let the process finish without further interaction with the device or the computer. The messages described in the section Printer messages during the firmware update appear on the control panel.

NOTE The device automatically turns off and then on again to activate the update; this can happen more than once. At the end of the update process, the **READY** message appears on the control panel. Do *not* turn off the device or interfere with the update until you see this message.

3. Print a configuration page and verify that the firmware revision number matches the revision of the current update.

Remote firmware update by 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.

Complete the following steps to update the firmware by 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 device, 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 messages described in the section Printer messages during the firmware update appear on the control panel.
3. The download process begins and the firmware is updated on the device. This can take several minutes. Let the process finish without further interaction with the device or the computer. The messages described in the section Printer messages during the firmware update appear on the control panel.

NOTE The device automatically turns off and then on again to activate the update; this can happen more than once. At the end of the update process, the **READY** message appears on the control panel. Do *not* turn off the device or interfere with the update until you see this message.

4. Print a configuration page and verify that the firmware revision number matches the revision of the current update.
5. Type `exit` at the command prompt to close the command window.

Remote firmware update through HP Web Jetadmin

This procedure requires that you install HP Web Jetadmin V7.8 or later on the computer. Complete the following steps to update a single device 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 device in the **Quick Device Find** field, and then click **Go**. The device Status window opens.
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 device that you want to update in the list of devices, 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** dialog box, click **Browse** in the **Upload New Firmware Image** dialog box and navigate to the location of the .RFU file that 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 device.
11. The download process begins and the firmware is updated on the device. This can take several minutes. Let the process finish without further interaction with the device or the computer. The messages described in the section Printer messages during the firmware update appear on the control panel.

NOTE The device automatically turns off and then on again to activate the update; this can happen more than once. At the end of the update process, the **READY** message appears on the control panel. Do *not* turn off the device or interfere with the update until you see this message.

12. Print a configuration page and verify that the firmware revision number matches the revision of the current update.

HP Web Jetadmin V7.8 and later can also be used to perform multiple or unattended installations. Complete the following steps for 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**, and then click **All Devices**.

   -or-

   b. Shift-click to select devices that are to be included in the group, and then click **OK**.

   -or-

   c. When prompted, type a name for the new device group, and then click **OK.**
3. To modify several products in a group, click the group name, and then click **Open**.
4. The drop-down menu for **Device Group Tools** appears on the right side of the window. Scroll if necessary to view it.
5. In the **Device Group Tools** drop-down box, select an action. Type the appropriate information. Click **Return to Device Group** when finished.

Printing print-ready documents

Several methods are available for printing documents independently of the original software program that was used to create the document. Normally, the document is printed by opening the original application and printing it to a file, or is printed by means of a distribution method such as internet downloading. The following print-ready file formats can be sent directly to the HP LaserJet 5200 printer without first opening the original software program:

- HP LaserJet printer control language (.PCL)
- Portable document format (.PDF)
- Postscript (.PS)
- Text (.TXT)

Use one of the following methods to send print-ready files to your product.

NOTE The examples that are used in this section are for printing .PDF documents. However, any print-ready file type can be substituted.

Topics:

- Print-ready file printing by using FTP through a browser
- Print-ready file printing by using FTP on a direct network connection
- Print-ready printing by using a local MS Windows port
- Print-ready file printing in an MS Windows network
- Print-ready file printing in UNIX systems
- Print-ready file printing by using the LPR command

Print-ready file printing by using FTP through a browser

Complete the following steps to print print-ready files directly by using FTP through a browser.

NOTE The following instructions can be used on MS Windows or Macintosh operating systems.

1. Make note of the TCP/IP address on the Embedded Jetdirect page. The HP Embedded Jetdirect page is the second page of the configuration page printout. To print a configuration page, see Determining the current level of firmware .
2. Open a browser window.
3. In the address line of the browser, type `ftp://<IPADDRESS>`. For example, if the TCP/IP address of your product is 192.168.0.90, type the following:

   `FTP:// 192.168.0.90`
4. Locate the print-ready file for the product.
5. Drag and drop the print-ready file onto the **PORT1** icon in the browser window.

NOTE If the **PORT1** icon does not appear as a folder name, you might have to enable folder viewing for FTP sites in your Web browser. In Microsoft Internet Explorer, use the following procedure to enable the folder view.

1. Select **Tools**, then select **Internet Options**, and then select the **Advanced** tab.
2. Select the **Enable folder view for FTP sites**.
3. Click **OK** to save the setting.

Print-ready file printing by using FTP on a direct network connection

If the HP LaserJet 5200 uses a direct network connection, use file transfer protocol (FTP) to print a print-ready file. Complete the following steps for the operating system:

1. Take note of the TCP/IP address on the Embedded Jetdirect page. The HP Embedded Jetdirect page is the second page of the Configuration page printout. To print a configuration page, see Determining the current level of firmware .
2. Open a command window on the computer.
3. Type `ftp <TCP/IP printer ADDRESS>`. For example, if the TCP/IP address is 192.168.0.90, type the following:

   ```
   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 print-ready file to be printed, including the path. For example, type the following:

   ```
   put C:\LJ\5200FW.PDF
   ```

   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\5200FW.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

10. Press Enter on the keyboard.

11. The print-ready file prints.
12. At the command prompt, type `bye` to exit the FTP command.
13. At the command prompt, type `exit` to return to the MS Windows interface.

Print-ready printing by using a local MS Windows port

The procedure for printing directly by using a local MS Windows port depends on the operating system.

Topics:

- Windows 98 or Windows Me
- Windows NT 4.0, Windows 2000, Windows XP, or Windows Server 2003

Windows 98 or Windows Me

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

   ```
   Mode lpt1:,,p
   ```

   NOTE If the product is attached to a parallel port other than LPT1, then substitute the correct 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 `copy /b <FILENAME> <PORTNAME>`, where <FILENAME> is the name of the print-ready file (including the path) and <PORTNAME> is the name of the appropriate printer port (such as LPT1). For example, at the `c:\>` command prompt, type the following:

   ```
   copy /b c:\5200FW.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\5200FW.PDF"`

4. Press Enter on the keyboard. The message **PROCESSING JOB** appears on the control panel, and the job prints.
5. At the command prompt, type `exit` to close the command window.

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

The print-ready file can be sent directly to the product 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 print-ready file (including the path) and <PORTNAME> is the name of the appropriate printer port (such as LPT1). For example, type the following:

   ```
   C:\>copy /b c:\5200FW.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\5200FW.PDF"`. The message **PROCESSING JOB** appears on the control panel, and the job prints.

3. At the command prompt, type `exit` to close the command window.

Print-ready file printing in an MS Windows network

If the product is shared on an MS Windows network, complete the following steps.

1. From a command prompt or in an MS-DOS window, type `copy /b <FILENAME> \\<COMPUTERNAME>\<SHARENAME>`, where <FILENAME> is the name of the print-ready file (including the path), <COMPUTERNAME> is the name of the computer from which the product is being shared, and <SHARENAME> is the product share name. For example, type the following:

   ```
   C:\>copy /b c:\5200FW.PDF \\your_server\sharename
   ```

   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\5200FW.PDF" \\your_server\sharename`

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

Print-ready file printing in UNIX systems

For UNIX systems, any command method that delivers the print-ready file to the product is acceptable, including the following:

- At the command prompt, type `cp </home/yourmachine/FILENAME/ dev/parallel>`, where </home/yourmachine/FILENAME> is the location of the print-ready file.

Print-ready file printing by using the LPR command

NOTE This direct printing method is for use in Windows NT 4.0, Windows 2000, Windows XP, and Windows Server 2003.

Complete the following steps to print a print-ready file by using the LPR command.

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

2. From a command window, type the following:

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

   where IPADDRESS can be either the TCP/IP address or the host name of the product, and where FILENAME is the file name of the print-ready 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.

3. The file prints, but no messages appear in the command prompt window.

4. Type `exit` at the command prompt to close the command window.

Driver-feature comparison in various operating systems

The following tables detail the software features that are available for each driver type and for operating system that supports the HP LaserJet 5200 printer. The printing-system drivers for Windows 98 and Windows Me are the HP Traditional PCL 6 Driver, HP Traditional PCL 5 Driver, and PS Emulation Driver. The printing-system drivers for Windows 2000, Windows XP, and Windows Server 2003 are the new HP unidrivers, with a user interface look and feel that is consistent across the HP PCL 6 Unidriver, HP PCL 5 Unidriver, and PS Emulation Unidriver.

NOTE HP LaserJet 5200 print driver features are supported in Windows XP (both 32-bit and 64-bit) and Windows XP (both 32-bit and 64-bit) operating systems.

HP LaserJet 5200 print driver features are supported in Mac OS X V10.2.8 or later, except as otherwise noted.

Topics:

- Job-stream output
- PJL/PJL Encoding
- Job tracking
- Connectivity/Printing
- Bidirectional communication
- HP Driver Preconfiguration
- Bundle support
- Tray and paper assignment
- Installable options
- Printer services
- UI features
- Help features
- Print Task Quick Sets
- Media sizes
- Media types
- Job storage
- Print quality and resolution
- Reordering Options
- Resizing options
- Color settings
- Watermarks
- Alternative source/paper type

- Printing destination
- Finishing options and duplexing
- Other document options
- Font support
- Postscript-specific features

Job-stream output

Table 7-10 Driver support for the job-stream output feature

Operating system	Windows XP, Windows 2000, Windows Server 2003			Windows 98, Me			Macintosh
Driver type	HP unidriver			HP traditional driver			Macintosh
Driver	PCL6	PCL 5	PS Emulation	PCL 6	PCL 5	PS Emulation	Postscript
PCL 5 support		x			x		
PCL 6 support	x			x			
PCL 6 pass-through support	x			x			
Postscript 3			x				x
Postscript 1, 2						x	x

PJL/PJL Encoding

Table 7-11 Printer Job Language (PJL) and PJL encoding

Operating system	Windows XP, Windows 2000, Windows Server 2003			Windows 98, Me			Macintosh
Driver type	HP unidriver			HP traditional driver			Macintosh
Driver	PCL 6	PCL 5	PS Emulation	PCL 6	PCL 5	PS Emulation	Postscript
PJL support	x	x	x	x	x	x	
UTF-8 encoding for PJL (Unicode to 8-bit)	x	x	x	x	x	x	

Job tracking

Table 7-12 Driver support for job tracking

Operating system	Windows XP, Windows 2000, Windows Server 2003			Windows 98, Me			Macintosh
Driver type	HP unidriver			HP traditional driver			Macintosh
Driver	PCL 6	PCL 5	PS Emulation	PCL 6	PCL 5	PS Emulation	Postscript
.PRN file driver identification	x	x	x	x	x		x

Table 7-12 Driver support for job tracking (continued)

Operating system	Windows XP, Windows 2000, Windows Server 2003			Windows 98, Me			Macintosh
Driver type	HP unidriver			HP traditional driver			Macintosh
Driver	PCL 6	PCL 5	PS Emulation	PCL 6	PCL 5	PS Emulation	Postscript
Job accounting information	x	x	x	x	x		
Job accounting enhancements (UUID)	x	x	x	x	x		x
Job accounting enhancements (color)	x	x	x				
Reliable Time Services – born on date (PJL DMINFO)	x	x	x	x	x		
Job Timestamp – born on date (PJL TIMESTAMP)	x	x	x	x	x		
Born on date (PJL DMINFO)	x	x	x	x	x		
Sending user name with every job	x	x	x	x	x		
Driver hooks for job ticket consumption	x	x	x				
Driver hooks for event extensions for UI control data	x	x	x				

Connectivity/Printing

Table 7-13 Driver support for connectivity features

Operating system	Windows XP, Windows 2000, Windows Server 2003			Windows 98, Me			Macintosh
Driver type	HP unidriver			HP traditional driver			Macintosh
Driver	PCL 6	PCL 5	PS Emulation	PCL 6	PCL 5	PS Emulation	Postscript
Parallel (direct connect)	x	x	x	x	x	x	
Network – TCP/IP (wired)	x	x	x	x	x	x	x
Network – TCP/IP (wireless	x	x	x	x	x	x	x
USB (Direct Connect) through 7.1.2 Port Monitor (MS USB Print) (bidirectional)	x	x	x	x	x		
USB (Direct Connect) through 1284.4 Port Monitor (HP DOT4 / 7.1.3) (bidirectional)	x	x	x	x	x		
USB (Direct Connect) through 1284.4 Port Monitor (MS DOT4 / 7.1.3) (bidirectional) – Windows XP only	x	x	x				

Table 7-13 Driver support for connectivity features (continued)

Operating system	Windows XP, Windows 2000, Windows Server 2003			Windows 98, Me			Macintosh
Driver type	HP unidriver			HP traditional driver			Macintosh
Driver	PCL 6	PCL 5	PS Emulation	PCL 6	PCL 5	PS Emulation	Postscript
USB (Direct Connect) through 7.1.2 (Apple USB Print) (bidirectional)							x
USB (Direct Connect) through 1284.4 (HP CIA DOT4 / 7.1.3) (bidirectional)							x
Rendezvous							x

Bidirectional communication

Table 7-14 Driver support for the bidirectional communication features

Operating System	Windows XP, Windows 2000, Windows Server 2003			Windows 98, Me			Macintosh
Driver type	HP unidriver			HP traditional driver			Macintosh
Driver	PCL 6	PCL 5	PS Emulation	PCL 6	PCL 5	PS Emulation	Postscript
Autoconfiguration through EAC	x	x	x	x	x		
Autoconfiguration through direct connect – parallel - LPT - DOT4 stack	x	x	x	x	x		
Network – TCP/IP	x	x	x	x	x		
Automatic Configuration (other than EAC)							x
Autoconfiguration through EAC over USB (DOT4)	x	x	x	x	x		
Update Now	x	x	x	x	x		
Language Monitor[1]				x	x		

[1] MasterMon is a pseudo-language monitor that is used for all HP LaserJet devices for the duplex communication channel with bidirectional communication devices. It inserts PJL commands into the job stream. It loads TCPMON for TCP/IP ports.

HP Driver Preconfiguration

Table 7-15 Driver support for HP Driver Preconfiguration

Operating system	Windows XP, Windows 2000, Windows Server 2003			Windows 98, Me			Macintosh
Driver type	HP unidriver			HP traditional driver			Macintosh
Driver	PCL 6	PCL 5	PS Emulation	PCL 6	PCL 5	PS Emulation	Postscript
HP Driver Preconfiguration	x	x	x	x	x		

Table 7-15 Driver support for HP Driver Preconfiguration (continued)

Operating system	Windows XP, Windows 2000, Windows Server 2003			Windows 98, Me			Macintosh
Driver type	HP unidriver			HP traditional driver			Macintosh
Driver	PCL 6	PCL 5	PS Emulation	PCL 6	PCL 5	PS Emulation	Postscript
Feature lockout	x	x	x	x	x		
Continuous export	x	x	x	x	x		

Bundle support

Table 7-16 Bundle support

Operating system	Windows XP, Windows 2000, Windows Server 2003			Windows 98, Me			Macintosh
Driver type	HP unidriver			HP traditional driver			Macintosh
Driver	PCL 6	PCL 5	PS Emulation	PCL 6	PCL 5	PS Emulation	Postscript
Printer bundle in driver UI				x	x		
Bundle support through installer	x	x	x	x	x		

Tray and paper assignment

Table 7-17 Tray and paper assignment

Operating system	Windows XP, Windows 2000, Windows Server 2003			Windows 98 and Windows Me			Macintosh
Driver type	HP unidriver			HP traditional driver			Macintosh
Driver	PCL 6	PCL 5	PS Emulation	PCL 6	PCL 5	PS Emulation	Postscript
Assign paper size to tray	x	x	x			x	

Installable options

Table 7-18 Driver support for installable options

Operating system	Windows XP, Windows 2000, Windows Server 2003			Windows 98, Me			Macintosh
Driver type	HP unidriver			HP traditional driver			Macintosh
Driver	PCL 6	PCL 5	PS Emulation	PCL 6	PCL 5	PS Emulation	Postscript
Duplexing unit	x	x	x	x	x	x	x
Manual duplex enable	x	x	x	x	x		x
Total memory	x	x	x	x	x	x	x

Table 7-18 Driver support for installable options (continued)

Operating system	Windows XP, Windows 2000, Windows Server 2003			Windows 98, Me			Macintosh
Driver type	**HP unidriver**			**HP traditional driver**			**Macintosh**
Driver	**PCL 6**	**PCL 5**	**PS Emulation**	**PCL 6**	**PCL 5**	**PS Emulation**	**Postscript**
DWS (available memory)				x	x	x	
Additional source trays	x	x	x	x	x	x	x
Font DIMM/compact flash support	x	x		x	x		
Font DIMM Installer				x			
Mopier enabled	x	x	x	x	x	x	x
Job-storage feature enabled	x	x	x	x	x	x	x
Postscript passthrough			x				x

Printer services

Table 7-19 Printer services (**Services** tab)

Operating system	Windows XP, Windows 2000, Windows Server 2003			Windows 98, Me			Macintosh
Driver type	**HP unidriver**			**HP traditional driver**			**Macintosh**
Driver	**PCL 6**	**PCL 5**	**PS Emulation**	**PCL 6**	**PCL 5**	**PS Emulation**	**Postscript**
Internet Services Links/Launch product support Web site	x	x	x				x
Launch HP EWS features through TCP/IP port	x	x	x				x

UI features

Table 7-20 Driver support for UI features

Operating system	Windows XP,Windows 2000, Windows Server 2003			Windows 98, Me			Macintosh
Driver type	**HP unidriver**			**HP traditional driver**			**Macintosh**
Driver	**PCL 6**	**PCL 5**	**PS Emulation**	**PCL 6**	**PCL 5**	**PS Emulation**	**Postscript**
UI tabs ("Panels" in Macintosh)	x	x	x	x	x	x	x
UI extensions	x	x	x				x
Page preview images	x	x	x	x	x		x
Printer image bitmaps with hot spots				x	x		
Paper size dimensions				x	x		x

Table 7-20 Driver support for UI features (continued)

Operating system	Windows XP,Windows 2000, Windows Server 2003			Windows 98, Me			Macintosh
Driver type	HP unidriver			HP traditional driver			Macintosh
Driver	PCL 6	PCL 5	PS Emulation	PCL 6	PCL 5	PS Emulation	Postscript
Device settings notification	x	x	x	x	x		
About …	x	x	x	x	x		x
Accessibility/Disability (JAWS)	x	x	x	x	x		x
Accessibility architecture	x	x	x	x	x		

Help features

Table 7-21 Driver support for Help features

Operating system	Windows XP, Windows 2000, Windows Server 2003			Windows 98, Me			Macintosh
Driver type	HP unidriver			HP traditional driver			Macintosh
Driver	PCL 6	PCL 5	PS Emulation	PCL 6	PCL 5	PS Emulation	Postscript
What's this? Help (F1)	x	x	x	x	x	x	
Help button	x	x	x	x	x		
Bubble Help				x	x		
MS Windows "?" Help	x	x	x	x	x	x	
Constraint Help	x	x	x	x	x	x	

Print Task Quick Sets

Table 7-22 Driver support for Print Task Quick Sets

Operating system	Windows XP, Windows 2000, Windows Server 2003			Windows 98, Me			Macintosh
Driver type	HP unidriver			HP traditional driver			Macintosh
Driver	PCL 6	PCL 5	PS Emulation	PCL 6	PCL 5	PS Emulation	Postscript
Print Task Quick Sets	x	x	x	x	x		
User Defined Quick Sets	x	x	x	x	x		x

Media sizes

Table 7-23 Driver support for media sizes

Operating system	Windows XP, Windows 2000, Windows Server 2003			Windows 98, Me			Macintosh
Driver type	HP unidriver			HP traditional driver			Macintosh
Driver	PCL 6	PCL 5	PS Emulation	PCL 6	PCL 5	PS Emulation	Postscript
Media Size selection	x	x	x	x	x	x	x
User-defined custom media	x	x	x	x	x	x	x
Custom media-size dialog through driver UI	x	x	x	x	x	x	x

Media types

Table 7-24 Driver support for media types

Operating system	Windows XP, Windows 2000, Windows Server 2003			Windows 98, Me			Macintosh
Driver type	HP unidriver			HP traditional driver			Macintosh
Driver	PCL 6	PCL 5	PS Emulation	PCL 6	PCL 5	PS Emulation	Postscript
Media types appear in one list	x	x	x	x	x	x	x
User Defined Media Types	x	x	x	x	x		
Combined Media Types & Sources in program. (Always ON, NO driver UI switch)	x	x	x			x	
Combined Media Types and sources in program (optional, driver UI switch)				x	x		
Combined Media Types and sources in program (in driver UI)						x	x
Alternative Letterhead mode	x	x	x	x	x		

Job storage

Table 7-25 Driver support for the job-storage features

Operating system	Windows XP, Windows 2000, Windows Server 2003			Windows 98, Me			Macintosh
Driver type	HP unidriver			HP traditional driver			Macintosh
Driver	PCL 6	PCL 5	PS Emulation	PCL 6	PCL 5	PS Emulation	Postscript
Proof and hold	x	x	x	x	x	x	x
Private job	x	x	x	x	x	x	x

Table 7-25 Driver support for the job-storage features (continued)

Operating system	Windows XP, Windows 2000, Windows Server 2003			Windows 98, Me			Macintosh
Driver type	**HP unidriver**			**HP traditional driver**			**Macintosh**
Driver	**PCL 6**	**PCL 5**	**PS Emulation**	**PCL 6**	**PCL 5**	**PS Emulation**	**Postscript**
Quick Copy	x	x	x	x	x	x	x
Stored Job							
Job name	x	x	x	x	x		x
User name	x	x	x	x	x	x	x
PIN to print (for private jobs)	x	x	x	x	x	x	x
Job-storage pop-up	x	x		x	x		
Automatic job and user name	x	x	x	x	x		x
Job-storage override	x	x	x	x	x	x	x

Print quality and resolution

Table 7-26 Print-quality and resolution features

Operating system	Windows XP,Windows 2000, Windows Server 2003			Windows 98, Me			Macintosh
Driver type	**HP unidriver**			**HP traditional driver**			**Macintosh**
Driver	**PCL 6**	**PCL 5**	**PS Emulation**	**PCL 6**	**PCL 5**	**PS Emulation**	**Postscript**
Print-quality options	x	x	x	x	x	x	x
Print-quality – custom options recall				x	x		
Print optimizations	x	x					
Rendering mode (automatic)					x		
Send graphics as vector		x			x		
Send graphics as raster		x			x		
Send page as raster					x		
Scale Patterns (WYSIWYG)				x	x		
PCL 5 Immediate Graphics Mode			x			x	

Reordering Options

Table 7-27 Driver support for the reordering options

Operating system	Windows XP, Windows 2000, Windows Server 2003			Windows 98, Me			Macintosh
Driver type	HP unidriver			HP traditional driver			Macintosh
Driver	PCL 6	PCL 5	PS Emulation	PCL 6	PCL 5	PS Emulation	Postscript
Page order (based on output bin)	x	x	x	x	x		x
Page order (reordering for job)	x	x	x				x

Resizing options

Table 7-28 Resizing options

Operating system	Windows XP, Windows 2000, Windows Server 2003			Windows 98, Me			Macintosh
Driver type	HP unidriver			HP traditional driver			Macintosh
Driver	PCL 6	PCL 5	PS Emulation	PCL 6	PCL 5	PS Emulation	Postscript
Print Document On	x	x	x	x	x		
Scale to Fit	x	x	x	x	x		x
% of Normal Size	x	x	x	x	x		x
Rotate by 180 degrees	x	x	x	x	x	x	x

Color settings

Table 7-29 Color settings

Operating system	Windows XP, Windows 2000, Windows Server 2003			Windows 98, Me			Macintosh
Driver type	HP unidriver			HP traditional driver			Macintosh
Driver	PCL 6	PCL 5	PS Emulation	PCL 6	PCL 5	PS Emulation	Postscript
Print in Grayscale	x	x	x	x	x	x	x

Watermarks

Table 7-30 Driver support for watermarks feature

Operating system	Windows XP, Windows 2000, Windows Server 2003			Windows 98, Me			Macintosh
Driver type	HP unidriver			HP traditional driver			Macintosh
Driver	PCL 6	PCL 5	PS Emulation	PCL 6	PCL 5	PS Emulation	Postscript
Watermarks on/off	x	x	x	x	x	x	
First page only	x	x	x	x	x	x	
Custom watermark definition	x	x	x	x	x	x	
Watermark angle	x	x	x	x	x	x	
Watermark font name	x	x	x	x	x	x	
Watermark font color	x	x	x	x	x	x	
Watermark font shading	x	x	x	x	x	x	
Watermark font size	x	x	x	x	x	x	
Watermark font style	x	x	x	x	x	x	
Locally defined watermarks	x	x	x	x	x		

Alternative source/paper type

Table 7-31 Driver support for the alternate source/paper type feature

Operating system	Windows XP, Windows 2000, Windows Server 2003			Windows 98, Me			Macintosh
Driver type	HP unidriver			HP traditional driver			Macintosh
Driver	PCL 6	PCL 5	PS Emulation	PCL 6	PCL 5	PS Emulation	Postscript
All pages the same	x	x	x	x	x	x	x
Use different paper (UI control)	x	x	x	x	x		x
Front Cover (Blank Front Cover Inserted)	x	x	x	x	x		
First Page	x	x	x	x	x		x
Other pages	x	x	x	x	x		x
Last Page	x	x	x	x	x		
Back Cover – Blank Back Cover Inserted	x	x	x	x	x		

Printing destination

Table 7-32 Driver support for the printing-destination feature

Operating system	Windows XP, Windows 2000, Windows Server 2003			Windows 98, Me			Macintosh
Driver type	HP unidriver			HP traditional driver			Macintosh
Driver	PCL 6	PCL 5	PS Emulation	PCL 6	PCL 5	PS Emulation	Postscript
Paper Destinations	x	x	x	x	x		x

Finishing options and duplexing

Table 7-33 Duplexing

Operating system	Windows XP, Windows 2000, Windows Server 2003			Windows 98, Me			Macintosh
Driver type	HP unidriver			HP traditional driver			Macintosh
Driver	PCL 6	PCL 5	PS Emulation	PCL 6	PCL 5	PS Emulation	Postscript
Auto duplex/print on both sides	x	x	x	x	x	x	x
Manual duplex	x	x	x	x	x		x
Mixed duplex and simplex in single job	x	x	x	x	x		
Long Edge/Short Edge (Flip On)	x	x	x	x	x	x	x
Pages per sheet (N-up)	x	x	x	x	x	x	x
Page borders on/off	x	x	x	x	x		x
Page order (N-Up)	x	x	x	x	x		x
Booklet Printing (layout through software)	x	x	x	x	x		x
Booklet Target Size	x	x	x	x	x		

Other document options

Table 7-34 Other document options

Operating system	Windows XP, Windows 2000, Windows Server 2003			Windows 98, Me			Macintosh
Driver type	HP unidriver			HP traditional driver			Macintosh
Driver	PCL 6	PCL 5	PS Emulation	PCL 6	PCL 5	PS Emulation	Postscript
Orientation (portrait/landscape)	x	x	x	x	x	x	x
Number of copies	x	x	x	x	x	x	x

Table 7-34 Other document options (continued)

Operating system	Windows XP, Windows 2000, Windows Server 2003			Windows 98, Me			Macintosh
Driver type	HP unidriver			HP traditional driver			Macintosh
Driver	PCL 6	PCL 5	PS Emulation	PCL 6	PCL 5	PS Emulation	Postscript
Ignore application collation				x	x		
Collate	x	x	x	x	x	x	x
Collate – feature in driver UI						x	x
Collate through mopy	x	x	x	x	x	x	x
Advanced printing features	x	x	x				
Mirror image/mirror output			x			x	x

Font support

Table 7-35 Font support

Operating system	Windows XP, Windows 2000, Windows Server 2003			Windows 98, Me			Macintosh
Driver type	HP unidriver			HP traditional driver			Macintosh
Driver	PCL 6	PCL 5	PS Emulation	PCL 6	PCL 5	PS Emulation	Postscript
General device font support			x	x	x	x	x
Font substitution	x	x	x			x	x
Font DIMM (on/off)	x	x		x	x		
Send TrueType as Bitmap	x	x		x	x		
TrueType Fonts (UI option)			x			x	
Print Text as Black	x	x	x	x	x		

Postscript-specific features

Table 7-36 Driver support for postscript-specific features

Operating system	Windows XP	Windows 98, Me	Macintosh
	HP unidriver		Postscript
Driver	PS Emulation Unidriver	PS Emulation Driver	Postscript
Postscript memory	x	x	
Output protocol	x	x	
Send CTRL-D before each job	x	x	
Send CTRL-D after each job	x	x	
Convert gray text to postscript gray	x		

Table 7-36 Driver support for postscript-specific features (continued)

Operating system	Windows XP	Windows 98, Me	Macintosh
	HP unidriver		Postscript
Driver	PS Emulation Unidriver	PS Emulation Driver	Postscript
Convert gray graphics to postscript gray	x		
Add euro currency symbol	x		
Job timeout	x	x	
Wait timeout	x	x	
Minimum font size to download as outline	x		
Minimum font size to download as bitmap	x		
Printing Preferences			
Postscript Language Level	x	x	
Send postscript error handler	x	x	
Fit to Page		x	
Output options			
Optimize for speed	x	x	
Optimize for portability	x	x	
Encapsulated postscript (EPS)	x	x	
Archive format	x	x	
Fit to Page	x	x	
TrueType font download option			
Automatic	x	x	
Outline	x	x	
Bitmap	x	x	
Native TrueType	x	x	

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