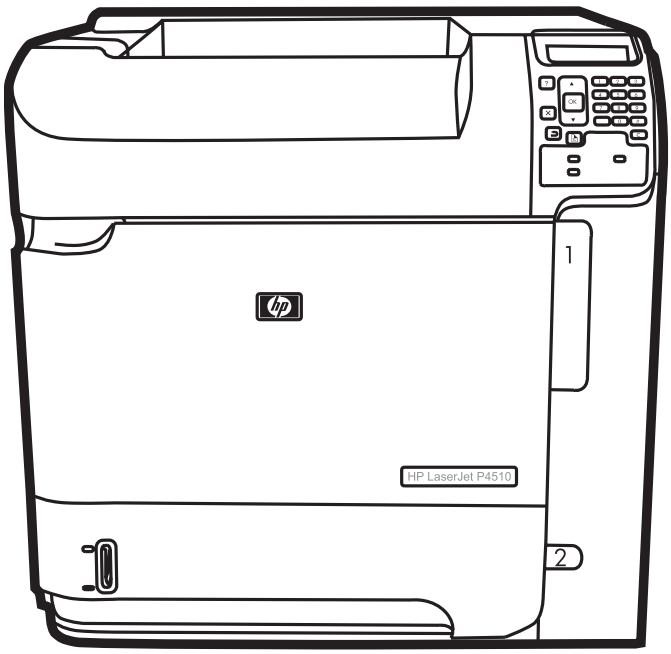
HP LaserJet P4010 and P4510 Series Printer

Software Technical Reference



HP LaserJet P4010 and P4510 Series 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 printing-system software for the HP LaserJet P4010 and P4510 Series printers.

This document is prepared in an electronic format to serve as a quick-reference tool for Customer Care Center (CCC) agents, support engineers, system administrators, Management Information Systems (MIS) personnel, and end users, as appropriate.

NOTE: This STR describes software that is shipped on the software CD that comes with the HP LaserJet P4010 and P4510 Series printers. This STR does *not* describe drivers that will become available on the Web.

The following information is included in this technical reference:

- Overview of software and platforms
- Procedures for installing and uninstalling software components
- Descriptions of problems that can arise with the HP LaserJet P4010 and P4510 Series printer, and known solutions to those problems

NOTE: An addendum to this STR describes system modification information, including file lists and changes to registry keys.

Topics:

- Software technical reference overview
- Product comparison
- Documentation availability and localization
- Software availability and localization

Software technical reference overview

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 P4010 and P4510 Series printer and its software: • Overview of the HP LaserJet P4010 and P4510 Series printer • Printing-system software overview. This includes 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: • HP Embedded Web server (HP EWS)
Chapter 3, Install Microsoft Windows printing-system components	This chapter provides instructions for installing the HP LaserJet P4010 and P4510 Series printer in Microsoft Windows operating systems by using various installation methods.
Chapter 4, HP PCL 6, PCL 5, and PS emulation print driver for MS Windows	This chapter provides detailed descriptions of the HP drivers for Microsoft Windows 2000, Windows XP, Windows Server 2003, and Windows Vista.
Chapter 5, Macintosh	This chapter provides instructions for installing the HP LaserJet P4010 and P4510 Series printer in Macintosh operating systems and how to use Macintosh features.
Chapter 6, Engineering details	This chapter contains information about the following special topics: • Troubleshooting • Uninstall • Media attributes • Firmware upgrades • HP LaserJet P4010 and P4510 Series Printer Printing System Install Notes

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

Additional detailed information about the HP LaserJet P4010 and P4510 Series printer 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

Product comparison

HP LaserJet P4014 models

HP LaserJet P4014 printer CB506A	HP LaserJet P4014n printer CB507A
• Prints up to 45 pages per minute (ppm) on Letter size paper and 43 ppm on A4 size paper • Contains 96 megabytes (MB) of random access memory (RAM). Expandable to 608 MB. • HP print cartridge, rated for up to 10,000 pages • Tray 1 holds up to 100 sheets • Tray 2 holds up to 500 sheets • 500-sheet face-down output bin • 100-sheet face-up output bin • 4-line graphical control-panel display • Hi-speed USB 2.0 port • Enhanced input/output (EIO) slot • One open dual inline memory module (DIMM) slot	Has the same features as the HP LaserJet P4014 printer, plus the following: • Embedded HP Jetdirect networking • Contains 128 MB RAM. Expandable to 640 MB.

HP LaserJet P4015 models

HP LaserJet P4015n printer CB509A	HP LaserJet P4015tn printer CB510A	HP LaserJet P4015x printer CB511A
• Prints up to 52 pages per minute (ppm) on Letter size paper and 50 ppm on A4 size paper • Embedded HP Jetdirect networking • Contains 128 megabytes (MB) of random access memory (RAM). Expandable to 640 MB. • HP print cartridge, rated for up to 10,000 pages • Tray 1 holds up to 100 sheets • Tray 2 holds up to 500 sheets • 500-sheet face-down output bin • 100-sheet face-up output bin • 4-line graphical control-panel display • Numeric keypad • Hi-speed USB 2.0 port • Enhanced input/output (EIO) slot • One open dual inline memory module (DIMM) slot	Has the same features as the HP LaserJet P4015n printer, plus the following: • One additional 500-sheet input tray (Tray 3)	Has the same features as the HP LaserJet P4015n printer, plus the following: • One additional 500-sheet input tray (Tray 3) • Duplex-printing accessory for automatic printing on both sides

HP LaserJet P4515 models

HP LaserJet P4515n printer CB514A	HP LaserJet P4515tn printer CB515A	HP LaserJet P4515x printer CB516A	HP LaserJet P4515xm printer CB517A
• Prints up to 62 pages per minute (ppm) on Letter size paper and 60 ppm on A4 size paper • Embedded HP Jetdirect networking • Contains 128 megabytes (MB) of random access memory (RAM). Expandable to 640 MB. • HP print cartridge, rated for up to 10,000 pages • Tray 1 holds up to 100 sheets • Tray 2 holds up to 500 sheets • 500-sheet face-down output bin • 100-sheet face-up output bin • 4-line graphical control-panel display • Numeric keypad • Hi-speed USB 2.0 port • Enhanced input/output (EIO) slot • One open dual inline memory module (DIMM) slot	Has the same features as the HP LaserJet P4515n printer, plus the following: • One additional 500-sheet input tray (Tray 3)	Has the same features as the HP LaserJet P4515n printer, plus the following: • One additional 500-sheet input tray (Tray 3) • Duplex-printing accessory for automatic printing on both sides	Has the same features as the HP LaserJet P4515n printer, plus the following: • One additional 500-sheet input tray (Tray 3) • Duplex-printing accessory for automatic printing on both sides • One 500-sheet, 5-bin mailbox for sorting jobs

Product features

Feature	Description
Performance	• 400 MHz processor
User interface	• Control-panel help • 4-line graphical display with numeric keypad. (The keypad is not included for the HP LaserJet P4014 models.) • HP Easy Printer Care software (a Web-based status and problem-solving tool)

Feature	Description
	• Windows® and Macintosh printer drivers • Embedded Web server to access support and order supplies (for network-connected models only)
Printer drivers	• HP PCL 5 Universal Print Driver for Windows (HP UPD PCL 5) • HP PCL 6 • HP postscript emulation Universal Print Driver for Windows (HP UPD PS)
Resolution	• FastRes 1200—produces 1200-dots-per-inch (dpi) print quality for fast, high-quality printing of business text and graphics • ProRes 1200—produces 1200-dpi printing for the best quality in line art and graphic images • 600 dpi—provides the fastest printing
Storage features	• Fonts, forms, and other macros • Job retention
Fonts	• 103 internal scalable fonts available for PCL and 93 for HP UPD postscript emulation • 80 device-matching screen fonts in TrueType format available with the software solution • Additional fonts can be added through USB
Accessories	• HP 500-sheet input tray (up to four additional trays) • HP 1,500-sheet high-capacity input tray • HP LaserJet 75-sheet envelope feeder • HP LaserJet printer stand • HP LaserJet automatic duplexer • HP LaserJet 500-sheet stacker • HP LaserJet 500-sheet stapler/stacker • HP LaserJet 500-sheet 5-bin mailbox **NOTE:** Each model can accept up to four optional 500-sheet input trays or up to three 500-sheet input trays and one 1,500-sheet high-capacity input tray. If a 1,500-sheet high-capacity input tray is installed, it must always be below the other trays.
Connectivity	• Hi-Speed USB 2.0 connection • HP Jetdirect full-featured embedded print server (optional for the HP LaserJet P4014 printer) with IPv4, IPv6, and IP Security. • HP Web Jetadmin software • Enhanced input/output (EIO) slot
Supplies	• The supplies status page contains information about toner level, page count, and estimated pages remaining. • The product checks for an authentic HP print cartridge at installation. • Internet-enabled supply-ordering capabilities (using HP Easy Printer Care)

Feature	Description
Supported operating systems	• Microsoft® Windows® 2000, Windows® XP, and Windows Vista™ • Macintosh OS X, V10.2.8 , V10.3, V10.4, V10.5, and later • Novell NetWare • Unix® • Linux
Accessibility	• The online user guide is compatible with text screen-readers. • The print cartridge can be installed and removed by using one hand. • All doors and covers can be opened by using one hand. • Paper can be loaded in Tray 1 by using one hand.

Documentation availability and localization

The documentation in the following table is available for the HP LaserJet P4010 and P4510 Series printer.

Table 1-2 User documentation availability and localization

Document name	Languages	Part number	Location
HP LaserJet P4010 and P4510 Series Printer User Guide	English	CB506–90901	The *HP LaserJet P4010 and P4510 Series Printer User Guide* is available in electronic format on the HP LaserJet P4010 and P4510 Series printer printing-system software CD.
	Arabic	CB506–90902	
	Bulgarian	CB506–90903	
	Catalan	CB506–90904	
	Chinese (Simplified)	CB506–90937	
	Chinese (Traditional)	CB506–90938	
	Croatian	CB506–90914	
	Czech	CB506–90905	
	Danish	CB506–90906	
	Dutch	CB506–90923	
	Estonian	CB506–90910	
	Finnish	CB506–90911	
	French	CB506–90912	
	German	CB506–90907	
	Greek	CB506–90908	
	Hebrew	CB506–90913	
	Hungarian	CB506–90915	

Table 1-2 User documentation availability and localization (continued)

Document name	Languages	Part number	Location
HP LaserJet P4010 and P4510 Series Printer User Guide (cont)	Indonesian (Bahasa)	CB506–90916	The *HP LaserJet P4010 and P4510 Series Printer User Guide* is available in electronic format on the HP LaserJet P4010 and P4510 Series printer printing-system software CD.
	Italian	CB506–90917	
	Japanese	CB506–90918	
	Kazakh	CB506–90919	
	Korean	CB506–90920	
	Latvian	CB506–90922	
	Lithuanian	CB506–90921	
	Norwegian	CB506–90924	
	Polish	CB506–90925	
	Portuguese (Brazilian)	CB506–90926	
	Romanian	CB506–90927	
	Russian	CB506–90928	
	Serbian	CB506–90931	
	Spanish	CB506–90909	
	Slovak	CB506–90929	
	Slovenian	CB506–90930	
	Swedish	CB506–90932	
	Thai	CB506–90933	
	Turkish	CB506–90934	
	Ukranian	CB506–90935	
	Vietnamese	CB506–90936	

Table 1-2 User documentation availability and localization (continued)

Document name	Languages	Part number	Location
HP LaserJet P4010 and P4510 Series Printer Getting Started Guide	• English • French • Italian • German • Spanish • Catalan • Portuguese (Brazilian) • Dutch • Hebrew	CB506–90939	The *HP LaserJet P4010 and P4510 Series Printer Getting Started Guide* is available in hard copy and comes in the box with your HP LaserJet P4010 and P4510 Series printer.
	• English • Danish • Finnish • Norwegian • Swedish • Lithuanian • Latvian • Estonian	CB506–90940	
	• English • Arabic • Turkish • Greek • Russian • Kazakh • Ukranian • Bulgarian • French	CB506–90941	

Table 1-2 User documentation availability and localization (continued)

Document name	Languages	Part number	Location
HP LaserJet P4010 and P4510 Series Printer Getting Started Guide (cont)	• English • Polish • Hungarian • Czech • Croatian • Romanian • Slovenian • Slovak • Serbian	CB506–90942	The *HP LaserJet P4010 and P4510 Series Printer Getting Started Guide* is available in hard copy and comes in the box with your HP LaserJet P4010 and P4510 Series printer.
	• English • Thai • Indonesian (Bahasa) • Korean • Simplified Chinese • Traditional Chinese • Japanese • Vietnamese	CB506–90943	
500-sheet Input Tray and Feeder Accessory Install Guide		CB518–90901	
400-sheet Custom Media Tray Accessory Install Guide		CB527–90901	
1500-sheet High Capacity Input Tray Accessory Install Guide		CB523–90901	
75-sheet Envelope Feeder Accessory install Guide		CB524–90901	
500-sheet Stacker/Stapler Accessory Install Guide		CB521–90901	
500-sheet 5-bin Mailbox Accessory Install Guide		CB520–90901	
Printer Maintenance Kit 110 Volt Install Guide		CB388–90901	
Printer Maintenance Kit 220 Volt Install Guide		CB389–90901	
Duplexer Accessory Install Guide		CB519–90901	

Table 1-2 User documentation availability and localization (continued)

Document name	Languages	Part number	Location
Printer Stand Accessory Install Guide		CB525–90901	
Formatter/Cage Replacement Install Guide		CB506–90944	

Software availability and localization

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 P4010 and P4510 Series printer software components by operating system.

Table 1-3 Software component availability for the HP LaserJet P4010 and P4510 Series printer

Component	Microsoft Windows 2000, Windows Server 2003, Windows XP, and Windows Vista (32-bit)	Microsoft Windows XP, Windows Server 2003, and Windows Vista (64-bit)
Drivers		
HP PCL 6	x	x
PS Emulation	x	x
Installer		
Common MS Windows Installer	x	x
Installer Customization Wizard	x	x
CD Browser	x	x
Add Printer Wizard install	x	x
Other software		
Web Registration	x	x
Easy Printer Care Software	x	x
Enterprise Autoconfiguration	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 P4010 and P4510 Series printing-system software is available for download at the following Web site:

www.hp.com/go/ljp4010series_software or www.hp.com/go/ljp4510series_software

In-box printing-system software CDs

The software CD for the HP LaserJet P4010 and P4510 Series contains a variety of files for installing the printing-system software on the computer.

The HP LaserJet P4010 and P4510 Series printing-system software CD is divided into two partitions, one for each of the following operating systems:

- MS Windows
- Macintosh

Each partition includes the necessary software 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, support files, and the following directories.

- Autorun
- CCC
- Drivers
- DTSS
- Fonts
- HP Easy Printer Care
- HP TCP Port Monitor
- HPSU
- Inst Eng
- Manuals
- Web Registration

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 P4010 and P4510 Series printing-system software CD, right-click **Start**, click **Explore**, and then select the CD-ROM drive.

CD versions

The HP LaserJet P4010 and P4510 Series printing-system software CD is available in four versions, each of which contains printing-system software in various languages:

- **Americas/ Western Europe:**
  - EN = English
  - CA = Catalan (Català)
  - HE = Hebrew
  - IT = Italian (Italiano)
  - ES = Spanish (Español)
  - NL = Dutch (Nederland)
  - FR = French (Français)
  - DE = German (Deutsch)
  - PT = Brazilian Portuguese (Português)
- **Northern Europe:**
  - EN = English
  - ET = Estonian (English driver)
  - DA = Danish (Dansk)
  - LV = Latvian (English driver)
  - LT = Lithuanian (English driver)
  - SV = Swedish (Svenska)
  - FI = Finnish (Suomi)
  - NO = Norwegian (Norsk)
- **Eastern Europe:**
  - EN = English
  - AR = Arabic
  - BG = Bulgarian (English driver)
  - CS = Czech (Cesky)
  - HR = Croatian (English driver)
  - FR = French (Français)
  - EL = Greek
  - HU = Hungarian (Magyar)
  - KK = Kazakh (English driver)

- PL = Polish (Polski)
- RO = Romanian (English driver)
- RU = Russian (Russ)
- SR = Serbian (English driver)
- SK = Slovak
- SL = Slovenian (English driver)
- TR = Turkish (Turkçe)
- UK = Ukrainian (English driver)

- **Asia Pacific:**
  - EN = English
  - JA = Japanese
  - ID = Indonesia (Bahasa) (English driver)
  - KO = Korean
  - ZHCN = Simplified Chinese
  - ZHTW = Traditional Chinese
  - TH = Thai
  - VI = Vietnamese (English driver)

2 Software Description

Introduction

The HP LaserJet P4010 and P4510 Series printer comes with software and installers for Microsoft Windows and Apple Computer, Inc., Macintosh systems. Linux and Unix systems also support the HP LaserJet P4010 and P4510 Series printer, and software is available on the Web. For information about specific system installers, drivers, and components, see the section that corresponds to that system.

- Windows printing-system software
- HP driver diagnostic printer check tool
- HP Easy Printer Care
- HP Embedded Web Server
- HP Customer Participation Program
- Optional software
- Font support

Windows printing-system software

Topics:

- Printing system and installer
- HP LaserJet P4010 and P4510 Series print drivers

Printing system and installer

Topics:

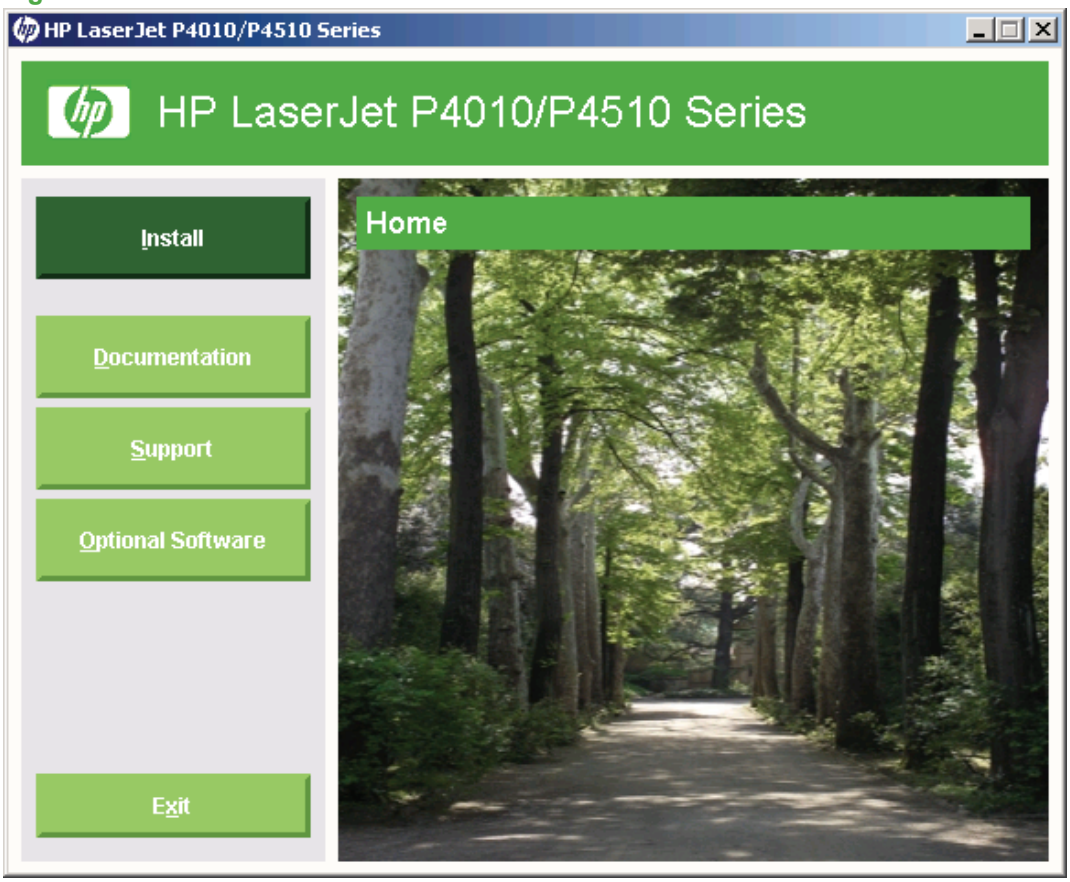
- HP LaserJet P4010 and P4510 Series printer printing-system software CD for MS Windows systems
- Installer features

HP LaserJet P4010 and P4510 Series printer printing-system software CD for MS Windows systems

In the MS Windows environment (Microsoft Windows 2000, Windows XP, Windows Server 2003, and Windows Vista), insert the HP LaserJet P4010 and P4510 Series printing-system software CD in the CD-ROM drive to open an interactive CD browser. Use the CD browser to install the drivers and related components, and to gain access to online user documentation, a customization utility, and optional HP software.

The following figure shows the main screen of the HP LaserJet P4010 and P4510 Series printing-system software CD.

Figure 2-1 Installation software CD browser



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.

The main screen of the software CD browser contains installation and documentation options in the left panel. Move the cursor over each option to see a description of the option in the right panel.

NOTE: The options available for each device might differ from those in the figure.

CD browser main menu	Description
Install	The installation wizard guides the HP LaserJet P4010 and P4510 Series printing-system software installation. Select 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, select the components that you want to install.

Documentation	View the HP LaserJet P4010 and P4510 Series printer documentation. The following options are available: • **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 P4010 and P4510 Series 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 Adobe Web site.
Support	**Support**. Click the following links to obtain optional software programs for the HP LaserJet P4010 and P4510 Series printer and find support information on other HP Web sites: • **Product Registration**. Use this option to register the device 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. • Click **Supplies** for information about ordering HP LaserJet P4010 and P4510 Series printer supplies. • Click **Product Information** to open the HP Instant Support Web page for support information and updates for the HP LaserJet P4010 and P4510 Series printer. • Click **hp.com** to go to the HP home Web page for information about products and services, support, drivers, and HP online stores.
Optional Software	• **HP Universal Print Driver PCL 5**. Use to download the HP Universal Print Driver PCL 5 from the HP web site. • **HP Universal Print Driver PostScript**. Use to download the HP Universal Print Driver PostScript from the HP web site. • **Installer Customization Wizard**. Use this wizard to customize the HP LaserJet P4010 and P4510 Series installer by presetting the installation options in a response file. The resulting customized installer can then be used for silent, unattended installation. • **HP Web Jetadmin**. Use download HP Web Jetadmin software from the Web for a Web browser-based network-management tool. • **HP Easy Printer Care**. Use this option to install the HP Easy Printer Care from the Web in a downloadable installation file. This device maintenance tool helps track and maintain the devices by providing information about status, alert notifications, usage, and supplies for one or more devices.
Exit	Close this application.

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 Microsoft Windows 2000 and Windows XP operating systems.

The common installer offers the following features:

- The HP LaserJet P4010 and P4510 Series 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 (Microsoft Windows XP, Windows 2000, Windows Server 2003 only). Use the installer to select any of the languages on the HP LaserJet P4010 and P4510 Series printing-system software CD.

The HP LaserJet P4010 and P4510 Series printing-system software CD also includes the following features:

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

All of the MS Windows system components are installed by using the HP LaserJet P4010 and P4510 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 P4010 and P4510 Series print drivers

HP LaserJet P4010 and P4510 Series print drivers provide the printing features and communication between the computer and the printer. The printing system includes software for end users and network administrators who are working in the following operating environments:

- Microsoft Windows 2000, Windows XP (32-bit and 64-bit), Windows Server 2003 (32-bit and 64-bit), Windows Vista (32-bit and 64-bit)

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

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

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 *HP LaserJet P4010 and P4510 Series Printer Install Notes* on the printing-system software CD.

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

Topics:

- Select the best print driver
- HP print drivers
- Driver version numbers for MS Windows operating systems

Select the best print driver

HP print drivers are designed for different environments and uses. See the print driver Help for available features.

Topics:

- Complete LaserJet printing system
- PCL 6
- PCL 5
- PS Emulation
- HP universal print driver (optional)
- HP LaserJet printing system

Complete LaserJet printing system

Use the printing-system software CD to install the full set of drivers and other software for the HP LaserJet P4010 and P4510 Series printer.

PCL 6

Overall, the PCL 6 provides the best performance, print quality, and printer-feature support for most users. The driver aligns with MS Windows graphic device interface (GDI) for best performance in MS Windows environments.

The PCL 6 may not be fully compatible with third party and custom solutions that are based on PCL 5.

Print Optimization mode printing is possible only with the HP PCL 6 print driver. For a large print job, Print Optimization mode printing allows the print job to use the host memory to ensure quick and quality printing. The print driver can be set to print each print job in Print Optimization mode within the driver Printing Preferences; however, Print Optimization mode printing is used automatically for the following applications:

- AutoCad (acad.exe)
- Adobe Acrobat (acrobat.exe)
- Adobe Reader (acrord32.exe)
- Corel Draw (coreldrw.exe)
- Adobe Illustrator (illustrator.exe)
- Adobe PhotoShop (photoshp.exe or photoshop.exe)
- Microsoft PowerPoint (powerpoint.exe)
- Quark Express (quarkxpress.exe)

PCL 5

The PCL 5 is recommended for general office monochrome printing in MS Windows environments. The driver is compatible with previous version of PCL and legacy HP LaserJet printers.

The PCL 5 is the best choice for:

- Any third-party or home-grown custom solutions that use forms, fonts, and SAP programs.
- Any environment with mixed operating-systems (such as UNIX, Linux, and mainframe)

PS Emulation

The PS Emulation is recommended for printing with Adobe or other graphics-rich software programs. The driver is compatible with postscript level-3 and supports postscript font DIMMs.

Use the PS Emulation in primarily postcript-specific software programs such as Adobe and Corel.

HP universal print driver (optional)

The universal print drivers are designed for corporate or IT-managed Microsoft Windows environments. These drivers provide a single-driver solution for use with multiple printer models.

The HP universal print drivers are recommended when printing to multiple printer models or from a mobile MS Windows computer.

- Provides a single-driver solution for use with multiple printer models — Designed for corporate or IT-managed Windows environments
- Preferred when printing in an enterprise or managed print server environment to multiple printer models in either a static or mobile print environment

HP LaserJet printing system

Use this for the complete set of drivers, installer software and other administrative tools that are found on the printer's software CD.

HP print drivers

The following drivers are available on the HP LaserJet P4010 and P4510 Series printing-system software CD:

- PCL 6 for Microsoft Windows 2000, Windows XP, Windows Server 2003, and Microsoft Windows Vista
- The HP Postscript emulation (PS Emulation) for Microsoft Windows 2000, Windows XP, Windows Server 2003, and Microsoft Windows Vista

NOTE: During a CD browser install of the printing-system software, the PCL 6 driver is installed by default. See the following table for detailed information regarding which driver versions are available using each install method and operating system.

Table 2-1 Print drivers included with the HP LaserJet P4010 and P4510 Series printer

Operating System[1]	PCL 6	PCL 5	PS emulation
Windows 2000	X	X	X
Windows XP	X	X	X
Windows Server 2003	X	X	X
Windows Vista	X	X	X

Table 2-1 Print drivers included with the HP LaserJet P4010 and P4510 Series printer (continued)

Operating System[1]	PCL 6	PCL 5	PS emulation
Macintosh OS			X

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

Driver version numbers for MS Windows operating systems

Access to driver version numbers varies, depending on the operating system in which the HP LaserJet P4010 and P4510 Series printer is installed.

NOTE: For a list of HP LaserJet P4010 and P4510 Series printer drivers, updated HP printing-system software, and product-support information, go to:

www.hp.com/support/hpljp4010series or www.hp.com/support/hpljp4510series

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

1. Click **Start**.
2. Select **Settings**.
3. Click **Printers and Faxes** (in Microsoft 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.

To determine the latest version, view the overall build number (in parenthesis after the model name).

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 P4010 and P4510 Series 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/drivercheck

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 devices up and running in small and large business groups. You can view the status of up to 15 supported HP LaserJet devices, set up device 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 Web-based program that allows users to control settings on the HP LaserJet P4010 and P4510 Series printer through the Web browser. The HP EWS can only be accessed if the HP LaserJet P4010 and P4510 Series printer is installed through a network rather than a USB connection.

To access the HP EWS, open a Web browser and type the printer IP address in the address bar.

The printer IP address is documented on a configuration page. Print a configuration page by following these steps on the printer control panel.

1. Press Menu,
2. Press the down arrow to highlight **INFORMATION**, and then press Select.
3. Press the down arrow to highlight **PRINT CONFIGURATION**, and then press Select to print the configuration pages.

The following tabs are available in the HP EWS:

- Information tab
- Settings tab
- Networking tab

NOTE: The **Networking** tab appears only for the HP LaserJet P4010 and P4510 Series printer, which comes standard with onboard networking capabilities.

Information tab

Use the **Information** tab to access and print detailed information regarding device and supply status, device configuration, network configuration, and usage.

The **Information** tab contains the following pages.

- Device Status
- Configuration Page
- Supplies Status
- Event Log
- Usage Page
- Device Information
- Control Panel
- Print

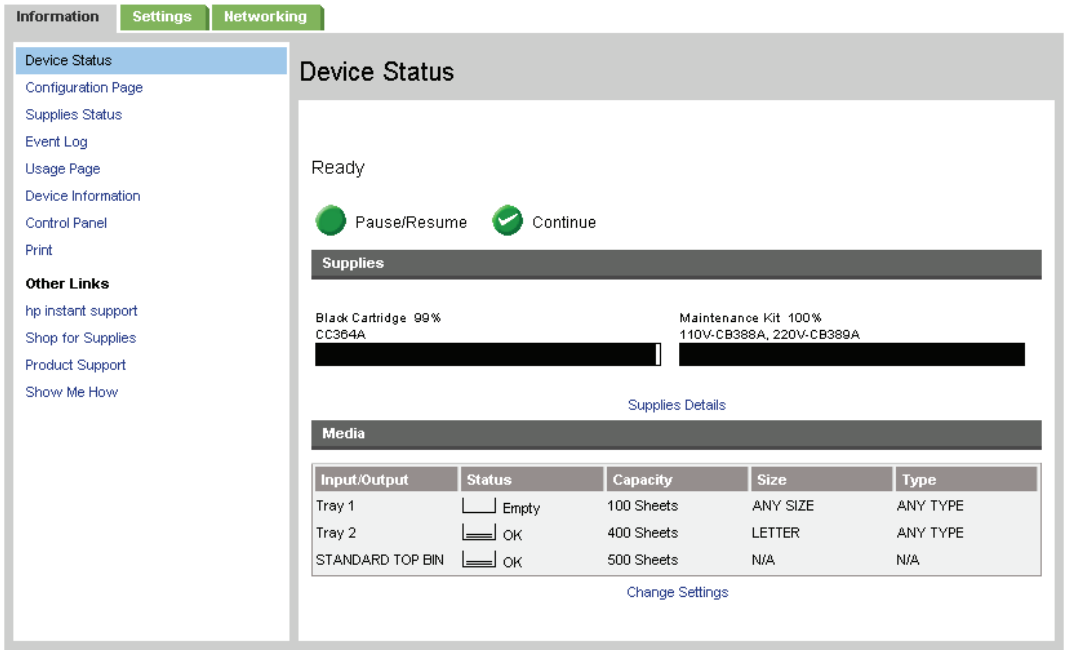
Device Status

The **Device Status** page shows device status messages from the device. The **Device Status** page also contains some pertinent printer information and device settings.

The **Device Status** page contains the following two links:

- **Supplies Details**. Click this link to open the **Supplies Status** page on the HP EWS **Information** tab.
- **Change Settings**. Click this link to open the **Configure Device** page on the HP EWS **Settings** tab

Figure 2-2 Information tab – Device Status page



Configuration Page

The **Configuration Page** shows the values of all of the settings that are available in the printer. The contents of this paper are consistent with the configuration page that the firmware generates.

Figure 2-3 Information tab – Configuration Page (1 of 3)

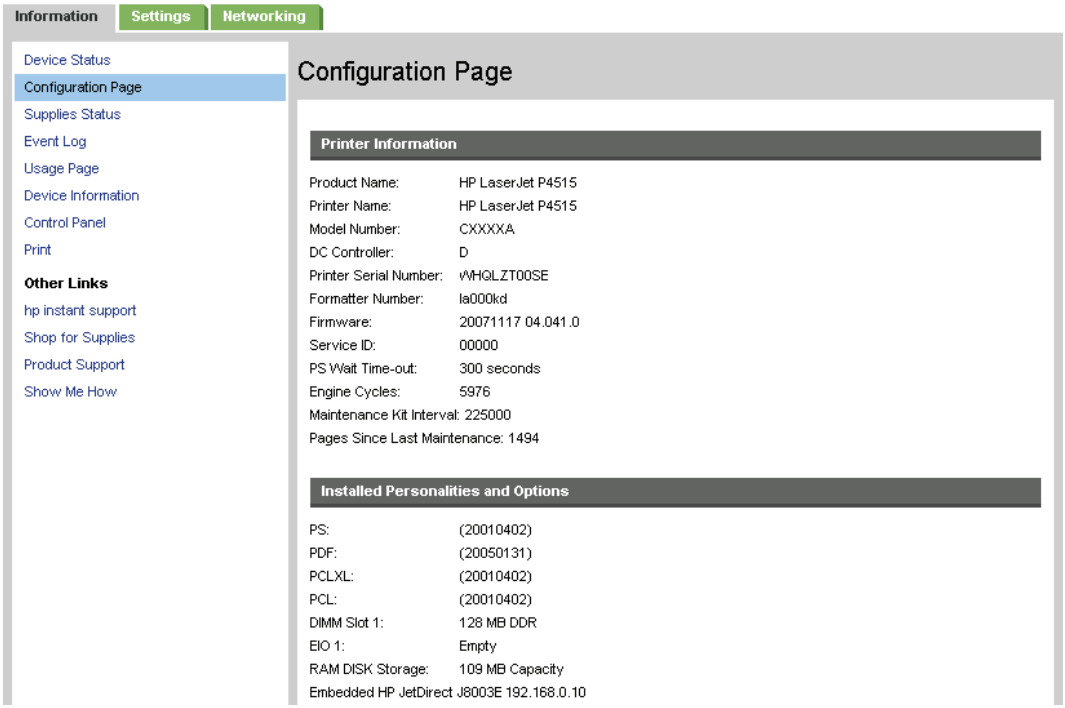
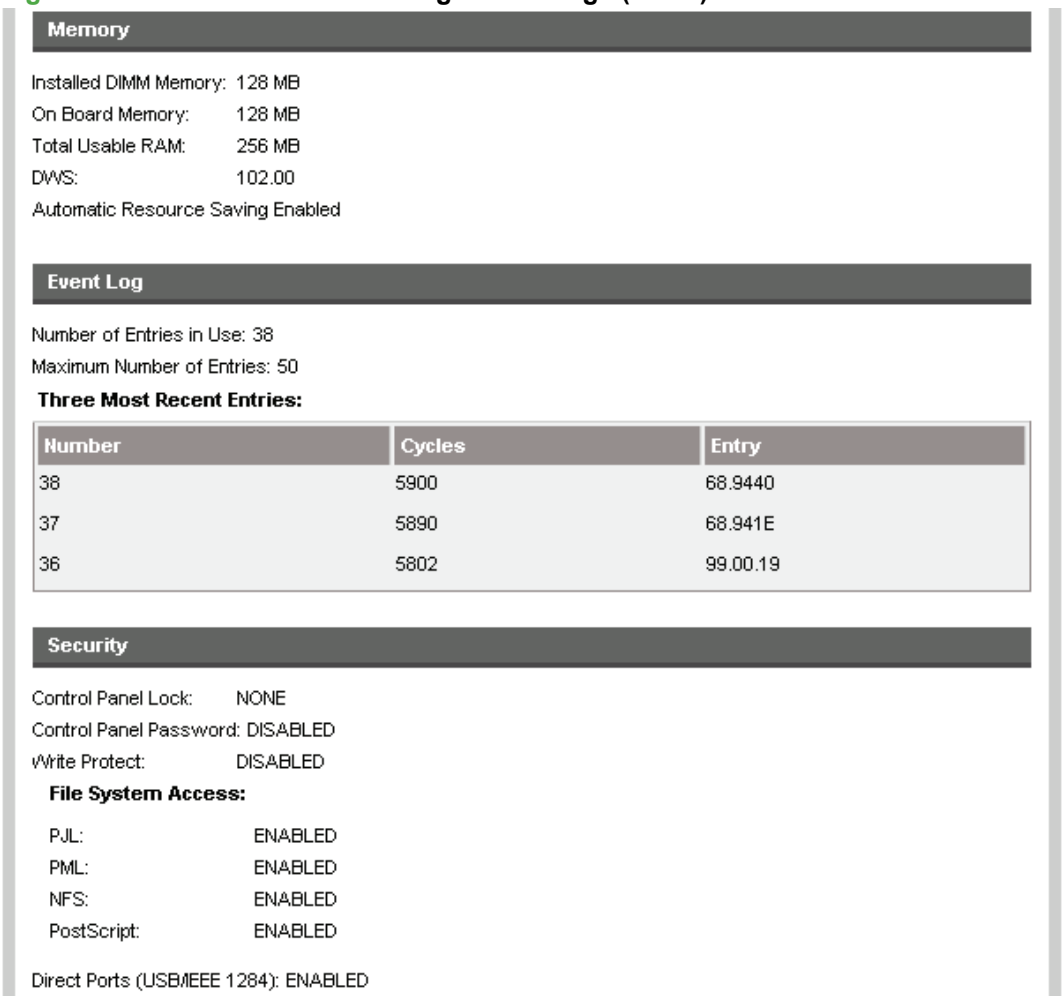


Figure 2-4 Information tab – Configuration Page (2 of 3)



Memory

Installed DIMM Memory: 128 MB
On Board Memory: 128 MB
Total Usable RAM: 256 MB
DWS: 102.00
Automatic Resource Saving Enabled

Event Log

Number of Entries in Use: 38
Maximum Number of Entries: 50

Three Most Recent Entries:

Number	Cycles	Entry
38	5900	68.9440
37	5890	68.941E
36	5802	99.00.19

Security

Control Panel Lock: NONE
Control Panel Password: DISABLED
Write Protect: DISABLED

File System Access:

PJL: ENABLED
PML: ENABLED
NFS: ENABLED
PostScript: ENABLED

Direct Ports (USB/IEEE 1284): ENABLED

Figure 2-5 Information tab – Configuration Page (3 of 3)

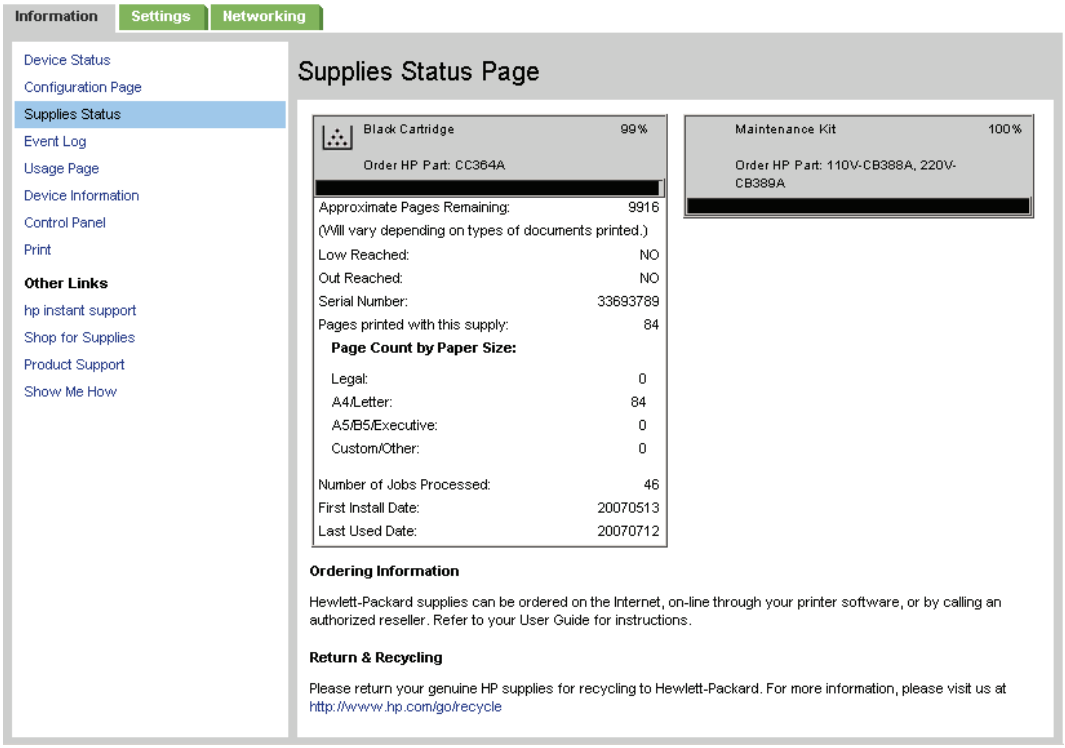
Paper Trays and Options

Default Paper Size: LETTER
Tray 1 Size: ANY SIZE
Tray 1 Type: ANY TYPE
NORMAL
Tray 2 Size: LETTER
Tray 2 Type: ANY TYPE
NORMAL
Tray 2 Custom Cassette
Duplex Unit

Supplies Status

The **Supplies Status** page shows the status of all of the printer supplies, including the black print cartridge.

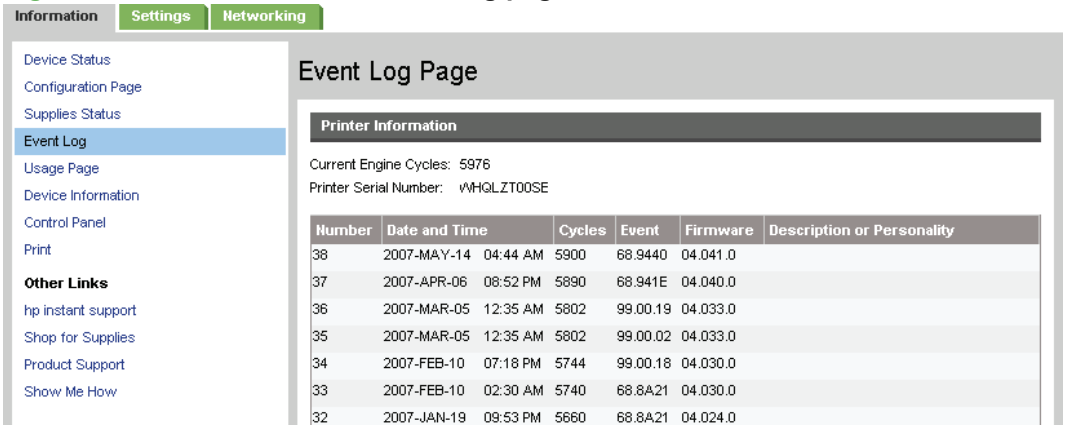
Figure 2-6 Information tab – Status page



Event Log

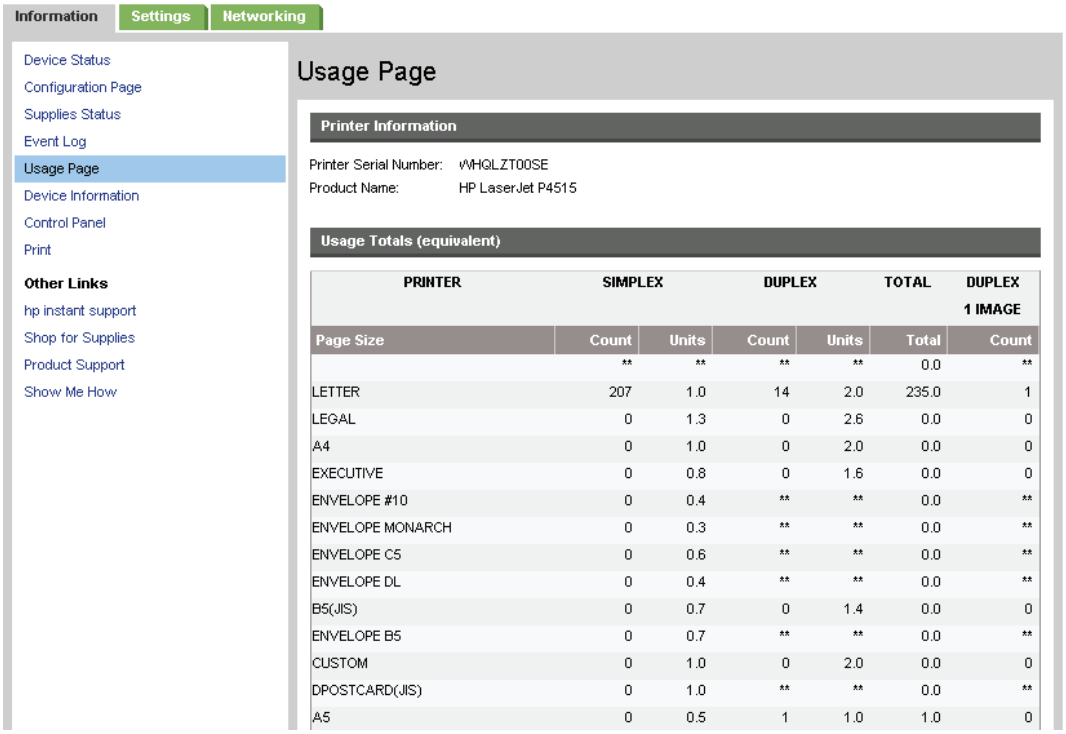
Use the **Event Log** page to track the events that occur on the printer.

Figure 2-7 Information tab – Event Log page



Usage Page

Figure 2-8 Information tab – Usage Log page (1 of 3)



Information | Settings | Networking

- Device Status
- Configuration Page
- Supplies Status
- Event Log
- Usage Page
- Device Information
- Control Panel
- Print

Other Links

- hp instant support
- Shop for Supplies
- Product Support
- Show Me How

Usage Page

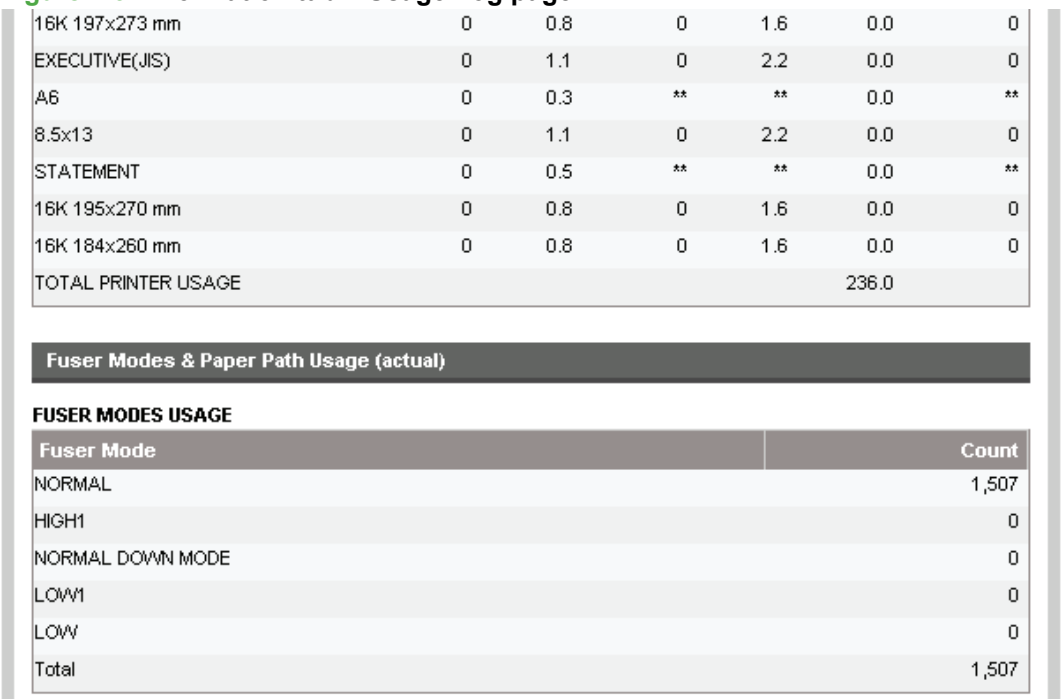
Printer Information

Printer Serial Number: VNHQLZT00SE
Product Name: HP LaserJet P4515

Usage Totals (equivalent)

PRINTER	SIMPLEX		DUPLEX		TOTAL	DUPLEX 1 IMAGE
Page Size	Count	Units	Count	Units	Total	Count
	**	**	**	**	0.0	**
LETTER	207	1.0	14	2.0	235.0	1
LEGAL	0	1.3	0	2.6	0.0	0
A4	0	1.0	0	2.0	0.0	0
EXECUTIVE	0	0.8	0	1.6	0.0	0
ENVELOPE #10	0	0.4	**	**	0.0	**
ENVELOPE MONARCH	0	0.3	**	**	0.0	**
ENVELOPE C5	0	0.6	**	**	0.0	**
ENVELOPE DL	0	0.4	**	**	0.0	**
B5(JIS)	0	0.7	0	1.4	0.0	0
ENVELOPE B5	0	0.7	**	**	0.0	**
CUSTOM	0	1.0	0	2.0	0.0	0
DPOSTCARD(JIS)	0	1.0	**	**	0.0	**
A5	0	0.5	1	1.0	1.0	0

Figure 2-9 Information tab – Usage Log page



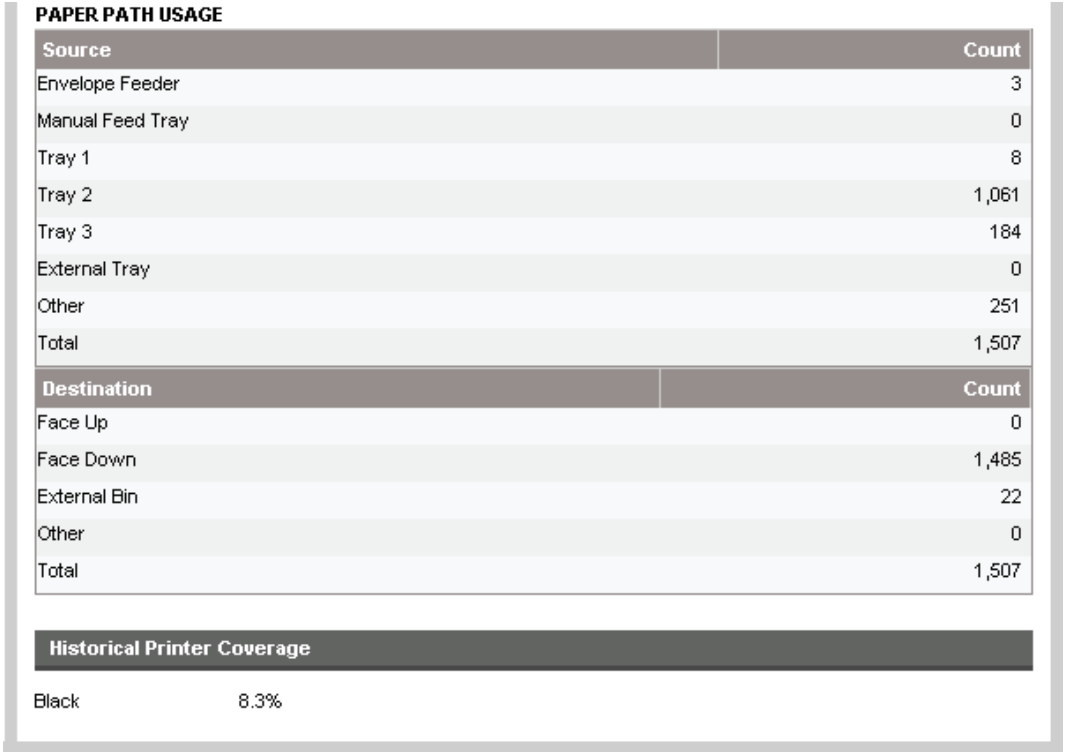
16K 197x273 mm	0	0.8	0	1.6	0.0	0
EXECUTIVE(JIS)	0	1.1	0	2.2	0.0	0
A6	0	0.3	**	**	0.0	**
8.5x13	0	1.1	0	2.2	0.0	0
STATEMENT	0	0.5	**	**	0.0	**
16K 195x270 mm	0	0.8	0	1.6	0.0	0
16K 184x260 mm	0	0.8	0	1.6	0.0	0
TOTAL PRINTER USAGE					236.0	

Fuser Modes & Paper Path Usage (actual)

FUSER MODES USAGE

Fuser Mode	Count
NORMAL	1,507
HIGH1	0
NORMAL DOWN MODE	0
LOW1	0
LOW	0
Total	1,507

Figure 2-10 Information tab – Usage Page log (3 of 3)



PAPER PATH USAGE

Source	Count
Envelope Feeder	3
Manual Feed Tray	0
Tray 1	8
Tray 2	1,061
Tray 3	184
External Tray	0
Other	251
Total	1,507

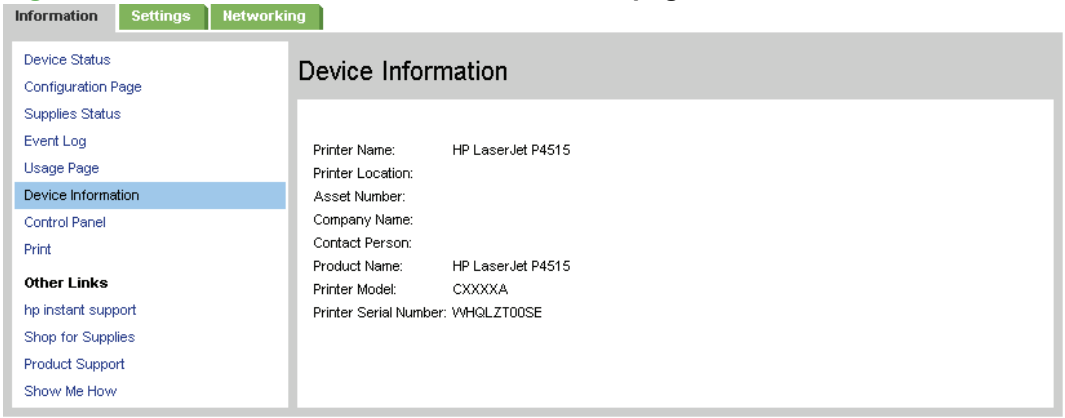
Destination	Count
Face Up	0
Face Down	1,485
External Bin	22
Other	0
Total	1,507

Historical Printer Coverage	
Black	8.3%

Device Information

The **Device Information** page contains identifying information about the printer.

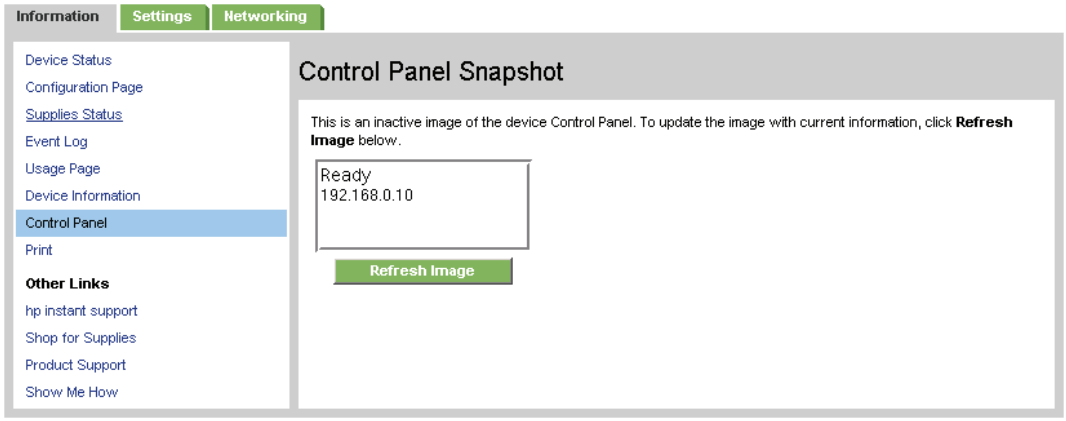
Figure 2-11 Information tab – Device Information page



Control Panel

The **Control Panel** page shows the current status of the printer. Click **Refresh** to update the current status of the printer control panel.

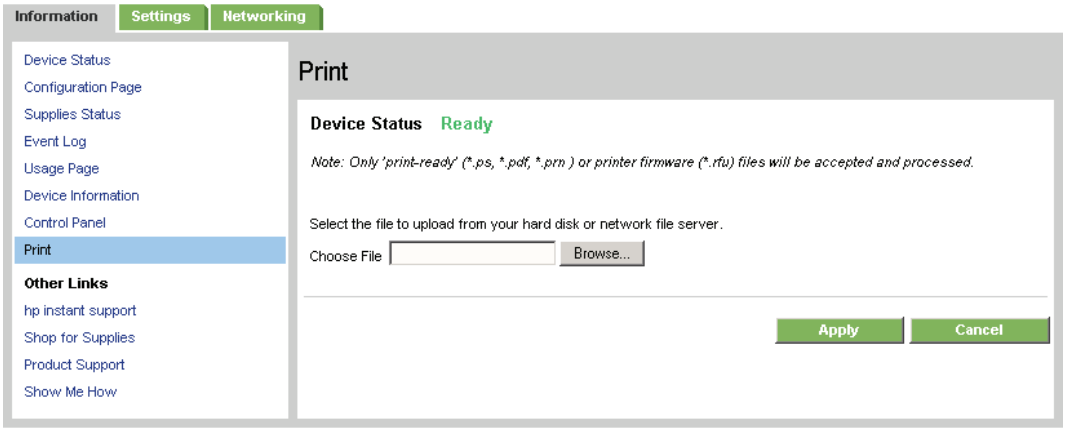
Figure 2-12 Information tab – Control Panel page



Print

Use the **Print** page to print a file on the printer.

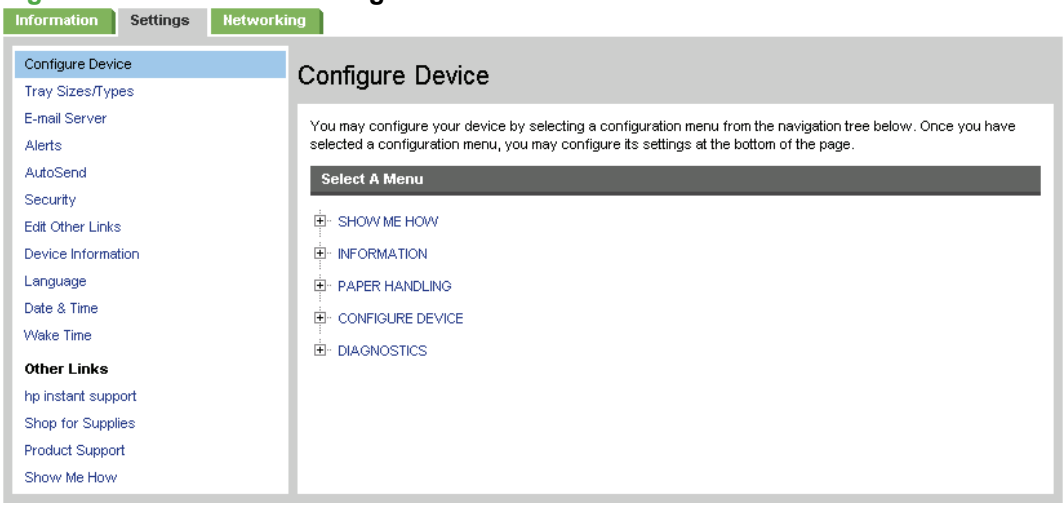
Figure 2-13 Information tab – Print page



Settings tab

Use the screens on the **Settings** tab to configure the device from the computer.

Figure 2-14 HP EWS – Settings tab



- Configure Device
- Tray Sizes/Types
- E-mail Server
- Alerts
- AutoSend
- Security
- Edit Other Links
- Device Information
- Language
- Date & Time
- Wake Time

Configure Device

Use the **Configure Device** screen to print device information pages and configure the device remotely.

The menus on this screen are similar to the menus that are available on the device control panel. Some of the device control-panel menus are not available from the HP EWS.

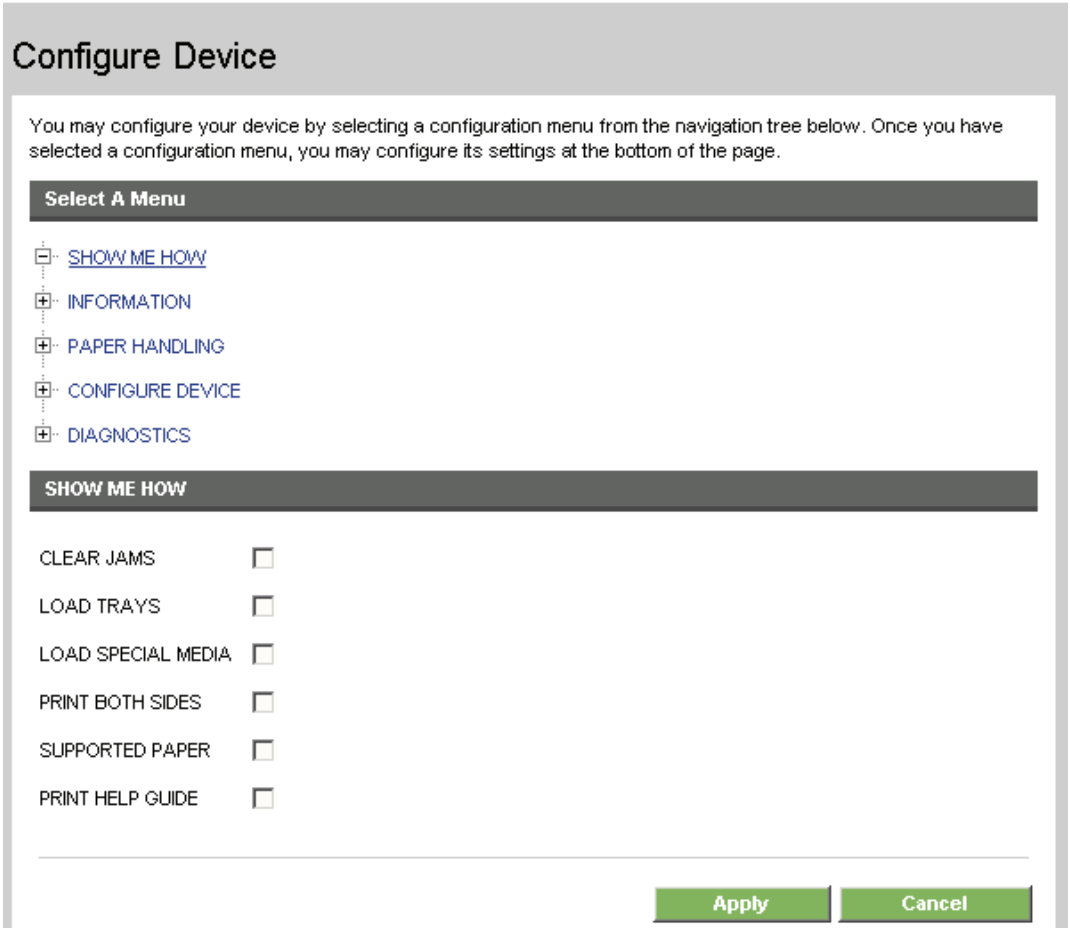
- Show Me How
- Information
- Paper Handling
- Configure Device

- Diagnostics

Show Me How

Use the **Show Me How** menu to print out instructions for various print tasks.

Figure 2-15 Settings tab – Configure Device Page – Show Me How menu options



The following print task instructions are available:

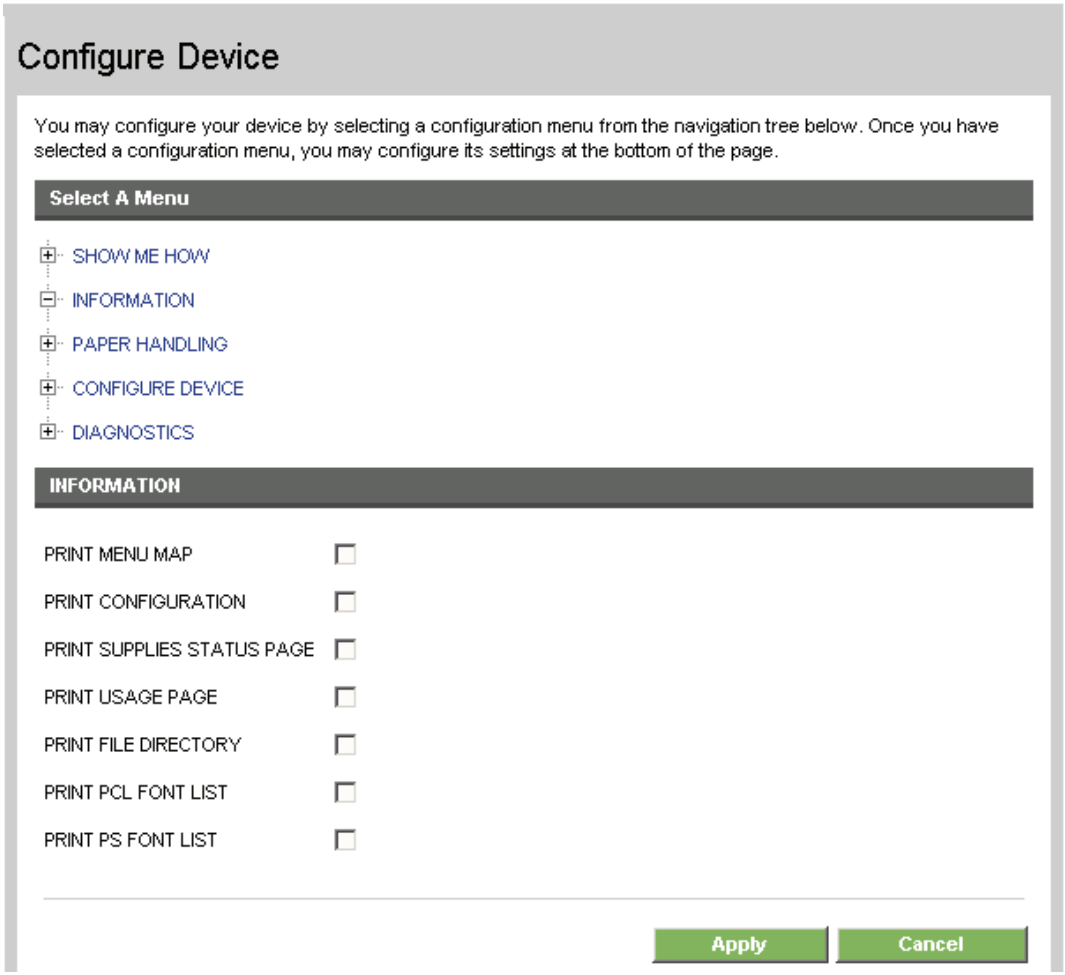
- Clear Jams
- Load Trays
- Load Special Media
- Print Both Sides
- Supported Paper
- Print Help Guide

Select the desired option and click **Apply**. The desired option prints.

Information

Use the **Information** menu to print device information pages.

Figure 2-16 Settings tab – Device Configuration page – Information menu options



The following options are available:

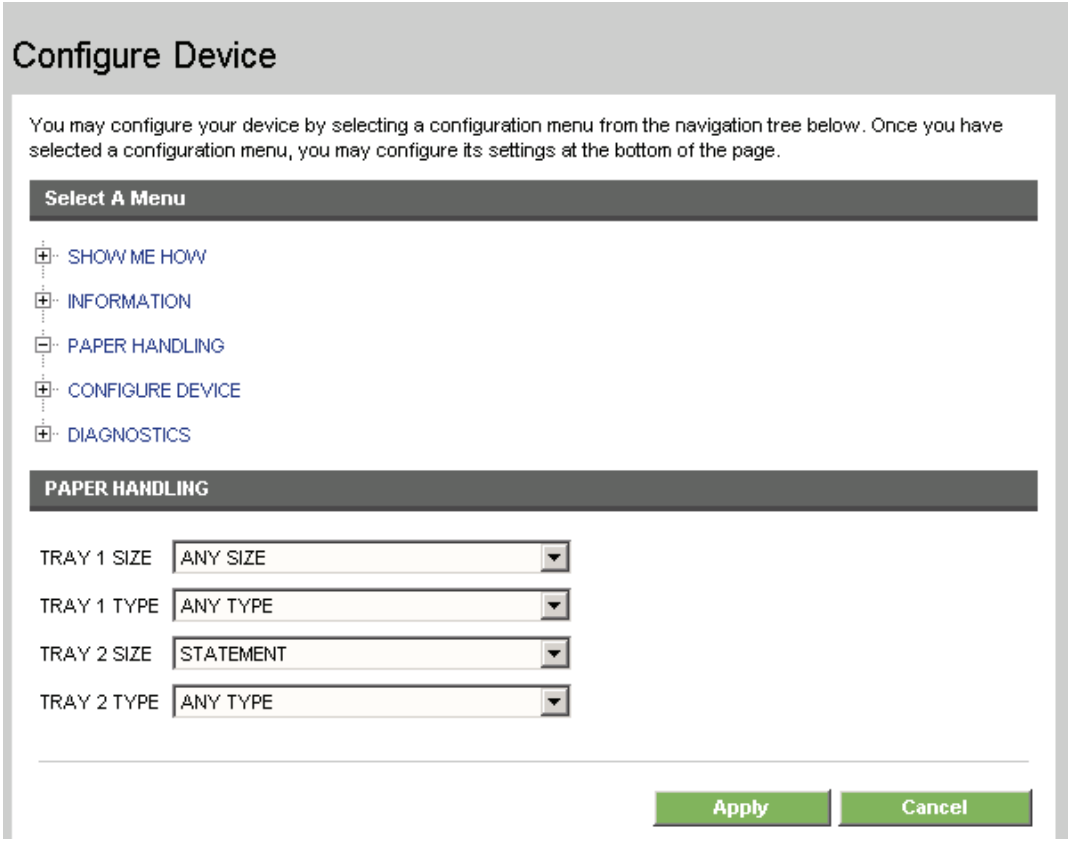
- PRINT MENU MAP
- PRINT CONFIGURATION
- PRINT SUPPLIES STATUS PAGE
- PRINT USAGE PAGE
- PRINT FILE DIRECTORY
- PRINT PCL FONT LIST
- PRINT PS FONT LIST

Select the desired option and click **Apply**. The desired option prints.

Paper Handling

Use the **Paper Handling** menu to set the type of media for each tray.

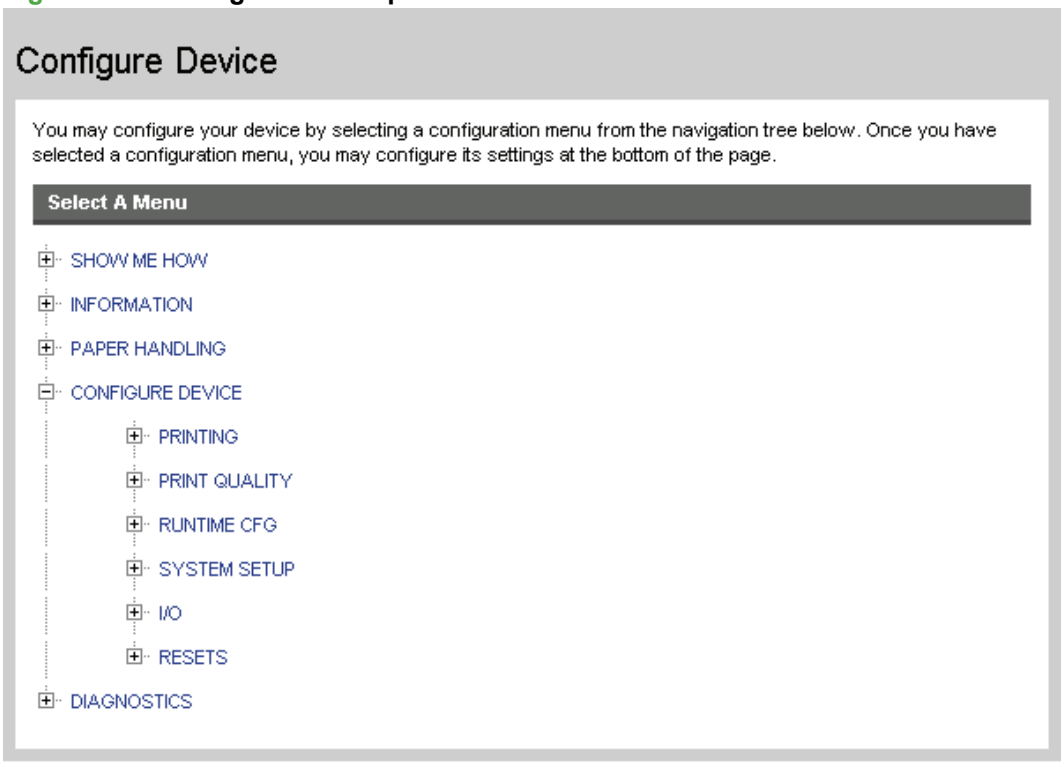
Figure 2-17 Settings tab – Configure Device page – Paper Handling menu options



Configure Device

Use the **Configure Device** menu to configure the device and control device behavior.

Figure 2-18 Configure Device pane



The following submenus are available.

- Printing
- Print Quality
- Runtime CFG
- System Setup
- I/O
- Resets

Printing

The **Printing** option consist of a main menu and two submenus. The two submenus include the following:

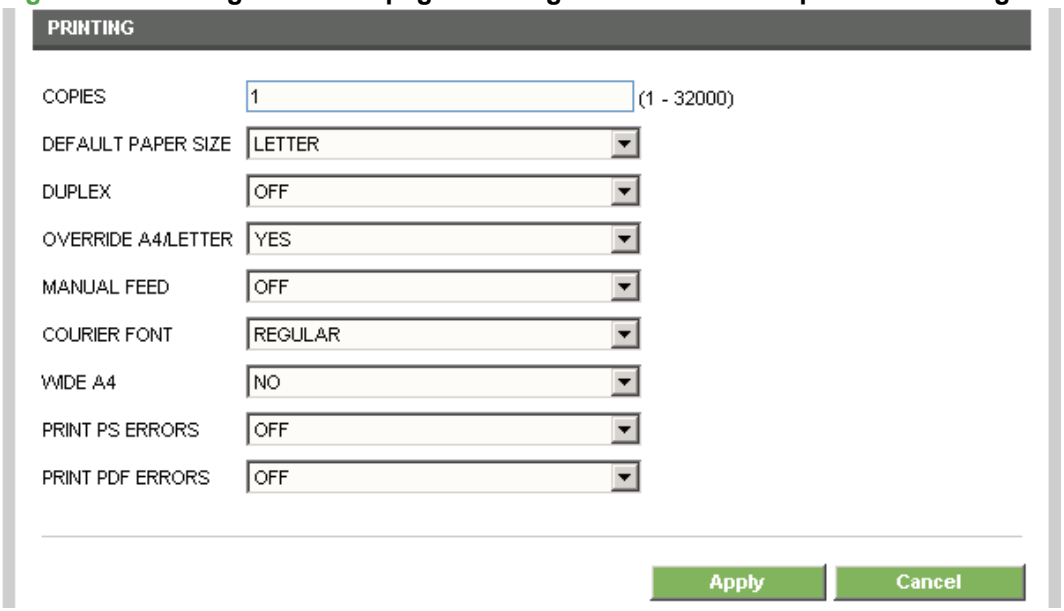
- **Default Custom Paper Size**
- **PCL**

Use the main **Printing** option menu to modify general printing options.

Use the submenu **Printing** options to modify specific printing options regarding default paper sizes and PCL printing options.

An example of the **Printing** option main menu is as follows. The options and available options may vary depending on printer model.

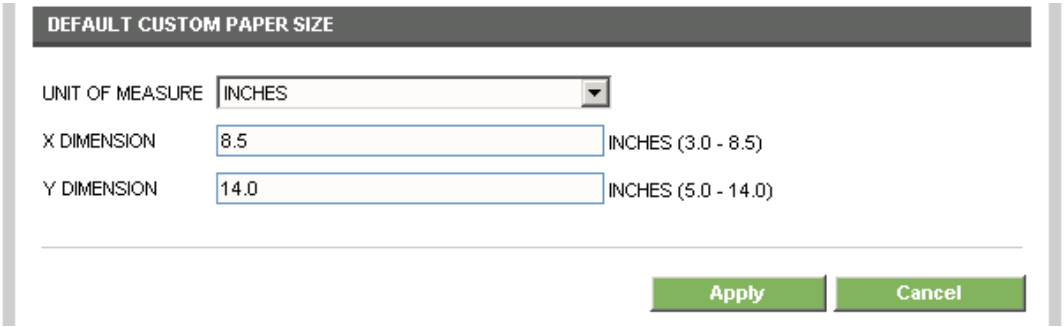
Figure 2-19 Configure Device page – Configure Device menu options – Printing



Default Custom Paper Size

The **Default Custom Page Size** submenu provides options for modify the default custom paper size for the printer.

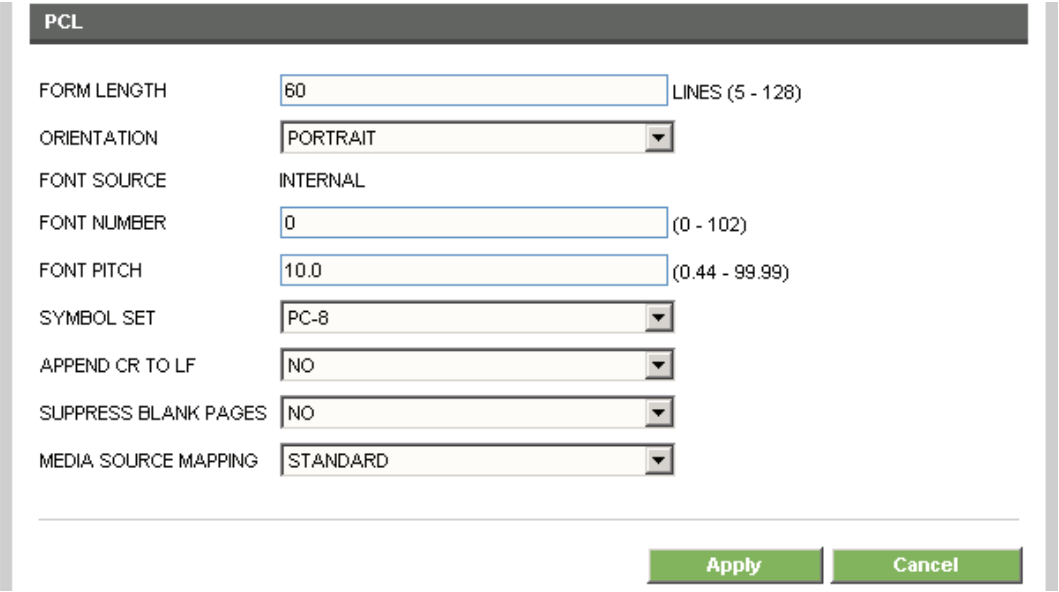
Figure 2-20 Printing menu option – Default Custom Paper Size submenu options



PCL

Use the **PCL** submenu options to modify PCL options on the printer.

Figure 2-21 Printing menu option – PCL submenu options



Print Quality

The **Print Quality** menu consists of a main menu and three submenus. The three submenus include the following:

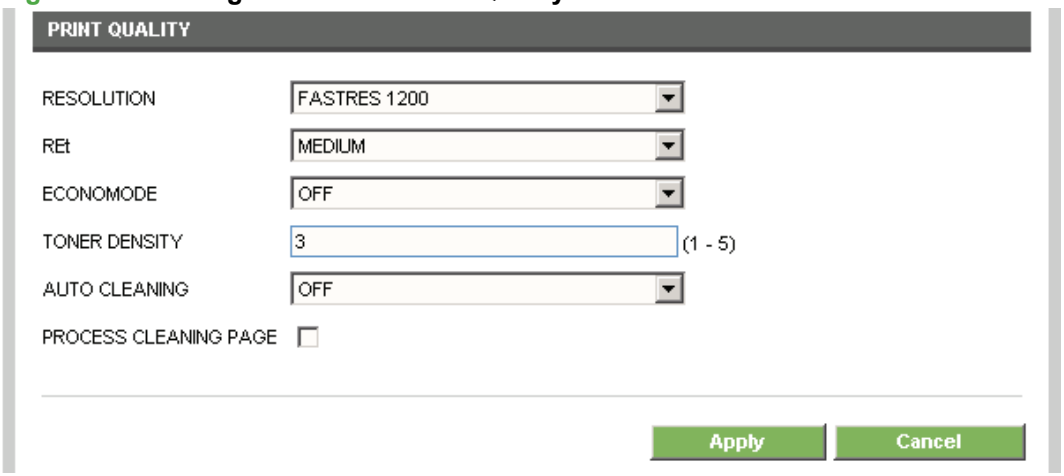
- **Set Registration**
- **Fuser Modes**
- **Optimize**

Use the main **Print Quality** option menu to set default printing options.

Use the submenu **Print Quality** options to set specific default printing options.

An example of the **Print Quality** option main menu is as follows. The options and available options may vary depending on printer model.

Figure 2-22 Configure Device – Print Quality menu

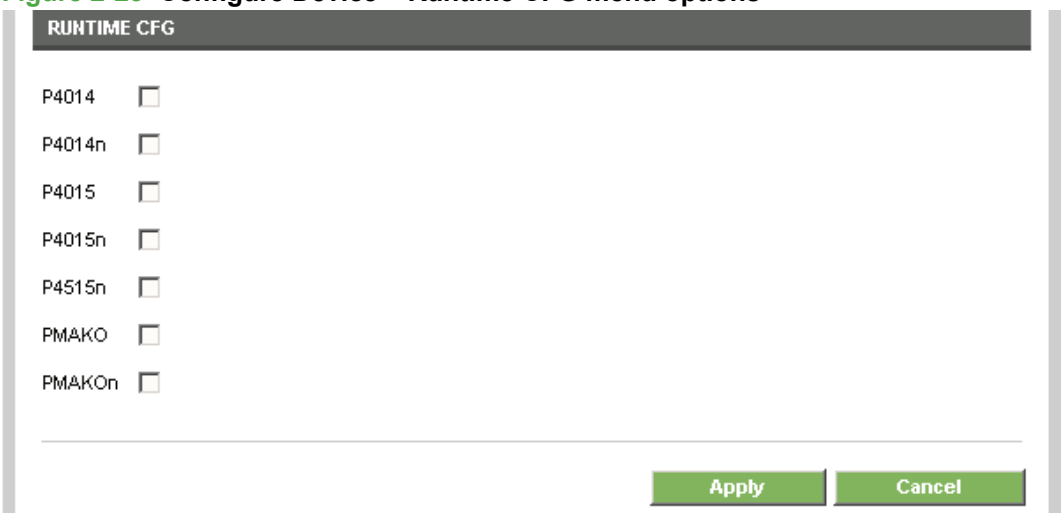


Runtime CFG

The **Runtime CFG** menu contains the following options:

- P4014
- P4014n
- P4015
- P4015n
- P4515n
- PMAKO
- PMAKOn

Figure 2-23 Configure Device – Runtime CFG menu options

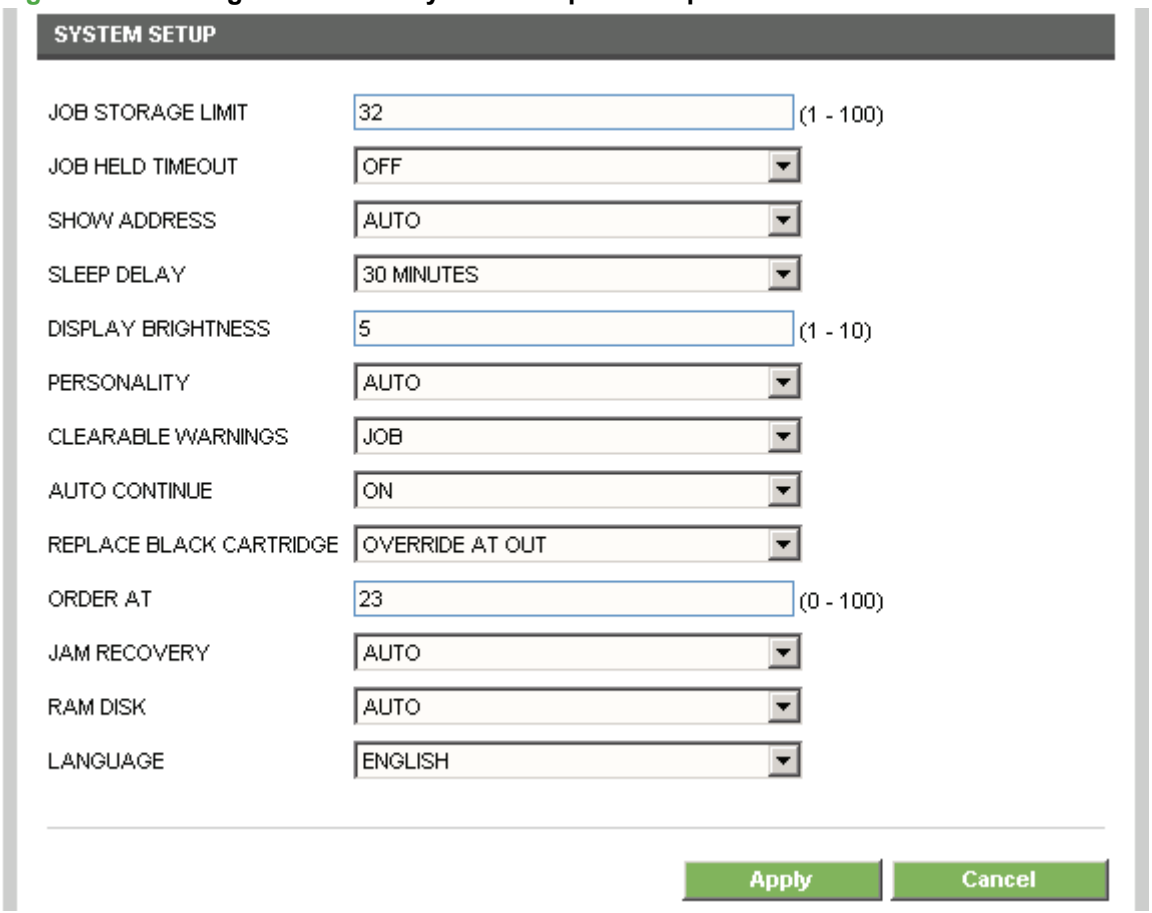


System Setup

The **System Setup** menu option consists of a main menu and two submenus. The submenus are as follows:

- **Date/Time**
- **Tray Behaviors**

Figure 2-24 Configure Device – System Setup menu options

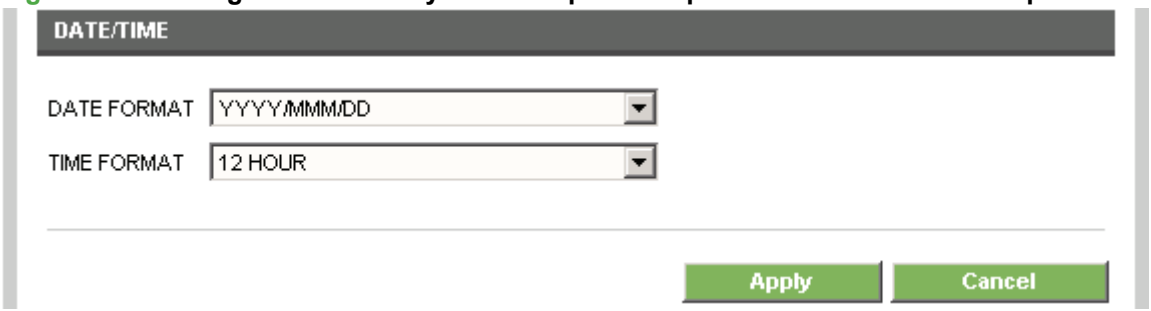


Date/Time

The **Date/Time** menu option consists of a main menu and two submenus:

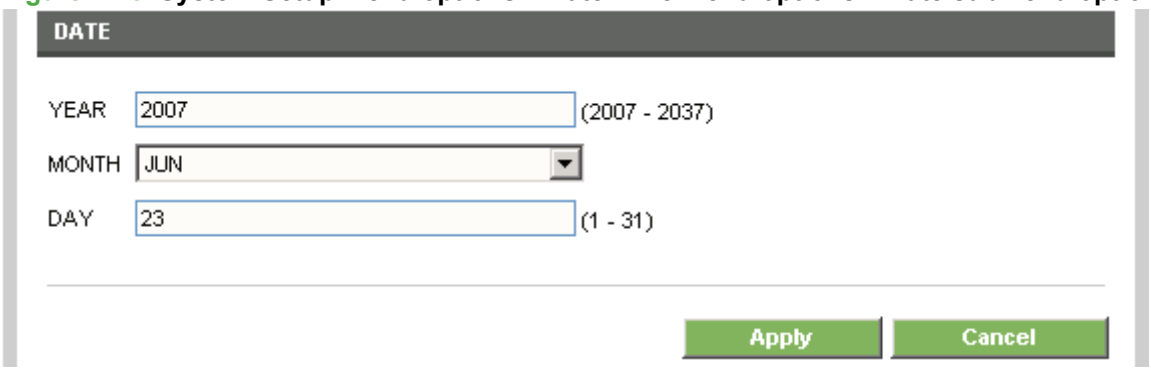
- **Date**
- **Time**

Figure 2-25 Configure Device – System Setup menu options – Date/Time menu options



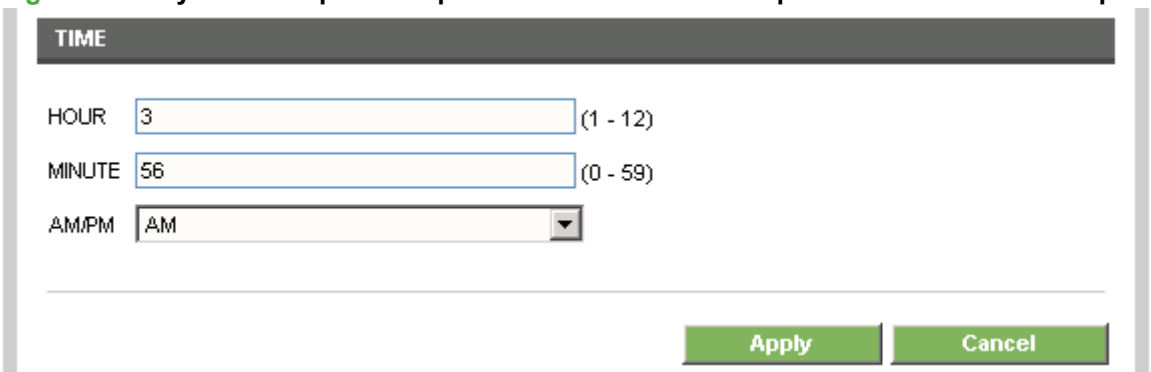
Date

Figure 2-26 System Setup menu options – Date/Time menu options – Date submenu options



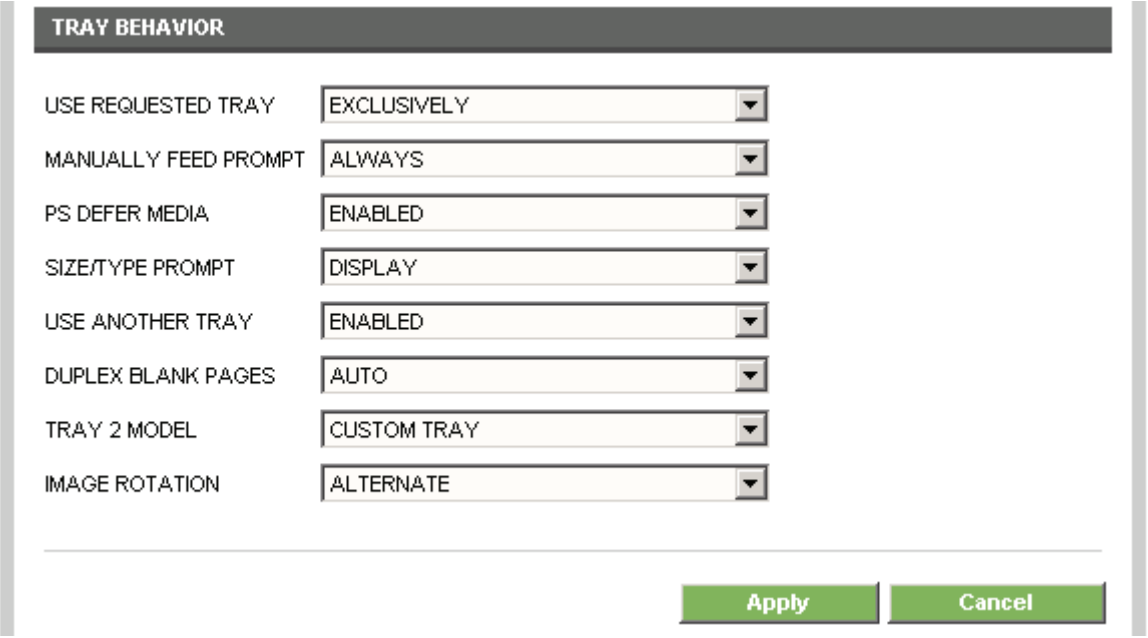
Time

Figure 2-27 System Setup menu options – Date/Time menu options – Time submenu options



Tray Behavior

Figure 2-28 Configure Device – System Setup menu options – Tray Behavior menu options

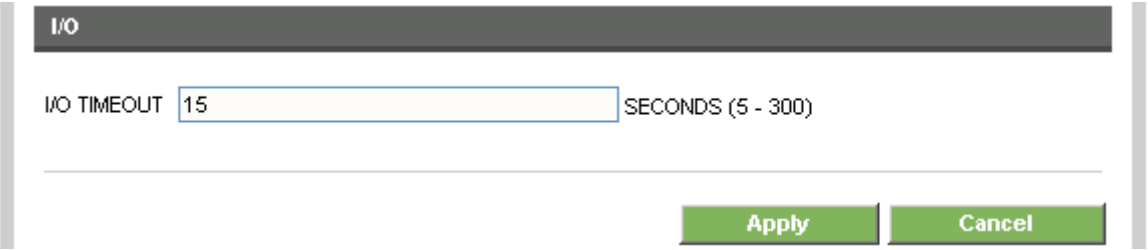


I/O

The **I/O** option includes a main menu and the **Embedded Jetdirect Menu** submenu.

An example of the **I/O** main menu is as follows.

Figure 2-29 Configure Device – I/O menu options



Embedded Jetdirect Menu

The **Embedded Jetdirect Menu** submenu includes a main menu and the following submenus:

- TCP/IP
- IPX/SPX
- APPLETALK
- DLC/LLC
- SECURITY
- DIAGNOSTICS

An example of the **Embedded Jetdirect Menu** main menu is as follows.

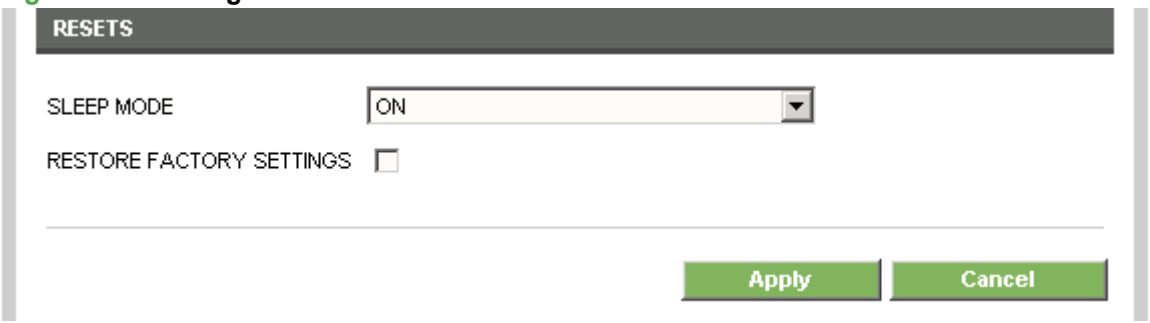
Figure 2-30 Configure Device – I/O menu options – Embedded Jetdirect menu

Resets

The **Resets** menu allows you to Restore Factory Default Settings and also allows you to enable or disable Sleep Mode.

An example of the **Resets** menu is as follows.

Figure 2-31 Configure Device – Resets menu



Diagnostics

Use the **Diagnostics** menu to preform basic troubleshooting procedures.

The **Diagnostics** menu consists of a main menu and the**Paper Path Test** submenu.

An example of the **Diagnostics** main menu is as follows.

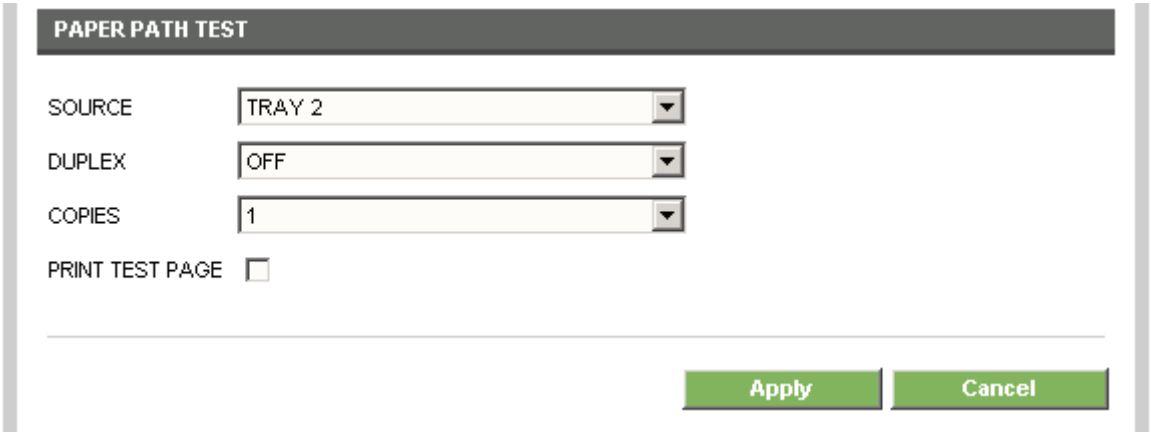
Figure 2-32 Settings tab – Diagnostics menu

Paper Path Test

Use the **Paper Path Test** submenu to select options for and to complete a paper path test.

An example of the **Paper Path Test** submenu is as follows:

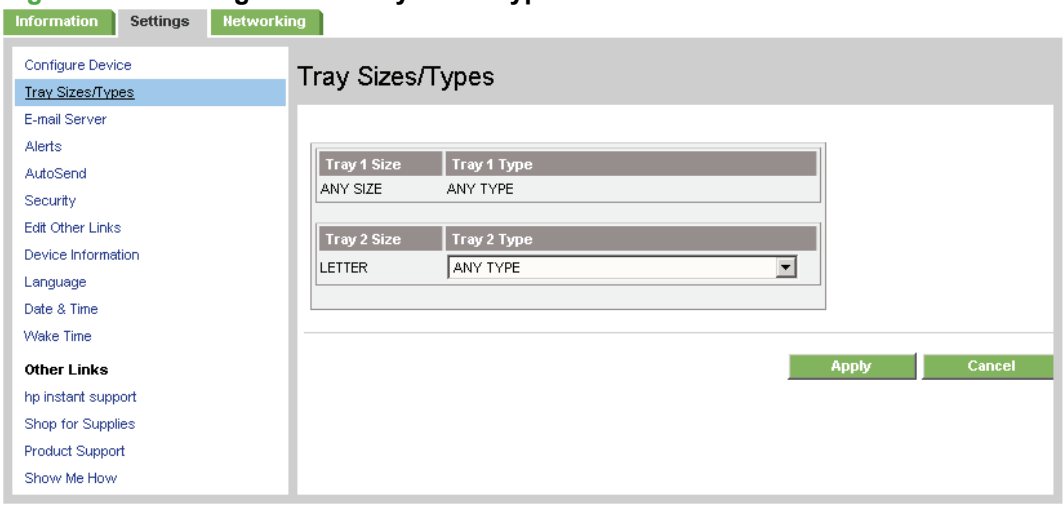
Figure 2-33 Diagnostics menu – Paper Path Test submenu



Tray Sizes/Types

Use the **Tray Sizes/Types** screen to assign paper sizes and paper types for each tray on the product.

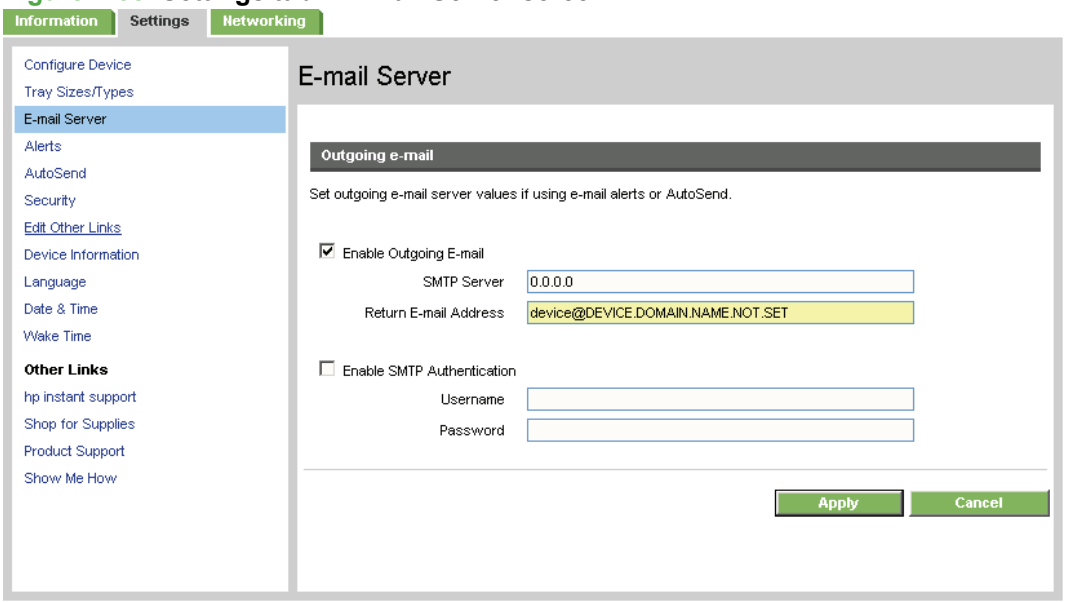
Figure 2-34 Settings tab — Tray Sizes/Types



E-mail Server

Use the **E-mail Server** screen to configure e-mail settings for outgoing e-mail. Use the settings on this screen to send and receive e-mail messages, including product alerts.

Figure 2-35 Settings tab – E-mail Server screen



Alerts

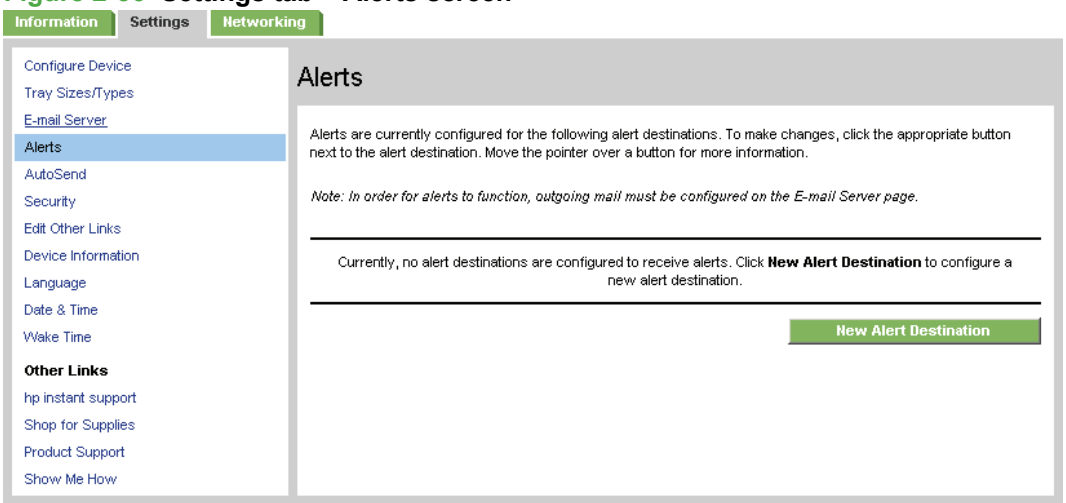
Use the **Alerts** screen to configure the product to send problem and status alerts to anyone through e-mail messages. When this function is configured, alerts are automatically triggered about supplies, paper-path status, and other service and advisory information. More than one individual can receive alerts, with each person receiving only specific alerts.

NOTE: Create up to four different destination lists with up to 20 recipients on each list if the product has a permanent storage device installed.

If there is no permanent storage device installed, only four e-mail addresses can be configured.

NOTE: To use e-mail alerts, ensure outgoing e-mail is enabled.

Figure 2-36 Settings tab – Alerts screen

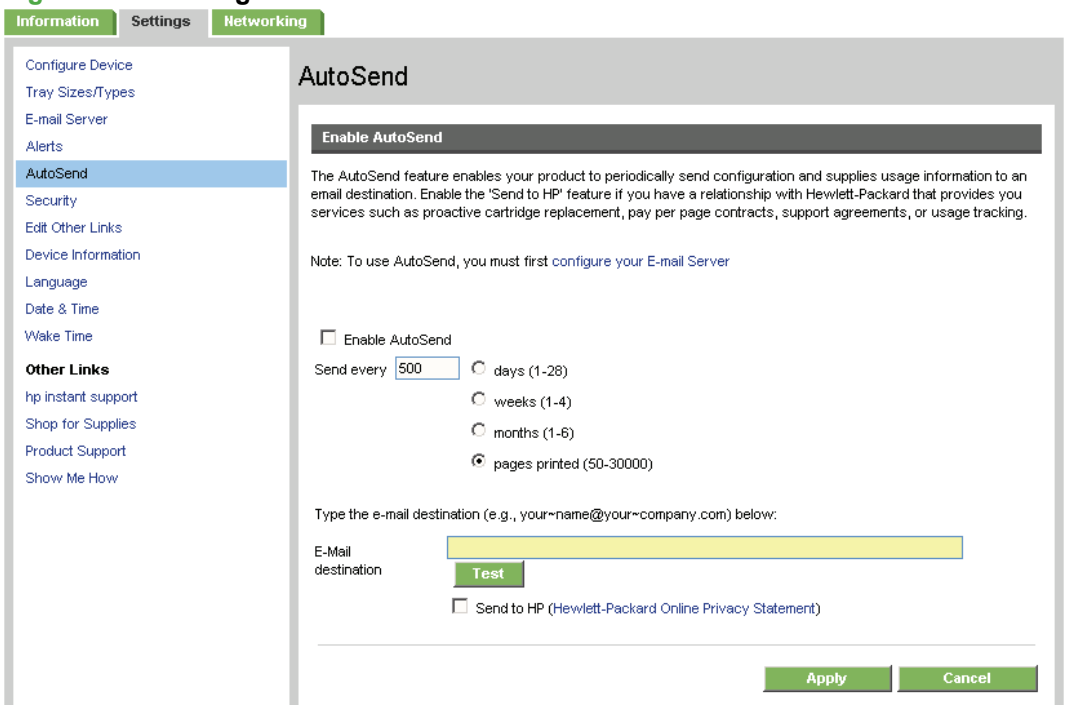


AutoSend

Use the **AutoSend** screen to send product-configuration and supplies-usage information periodically to e-mail destinations of your choice, such as service providers.

Add up to 20 AutoSend destinations.

Figure 2-37 Settings tab – AutoSend screen



Security

Use the **Security** screen to configure security settings for the product.

The **Security** screen also contains a **Configure Security Settings** button. Click this button to configure advanced security settings, such as desired levels of security.

Figure 2-38 Settings tab – Security screen (1 of 2)

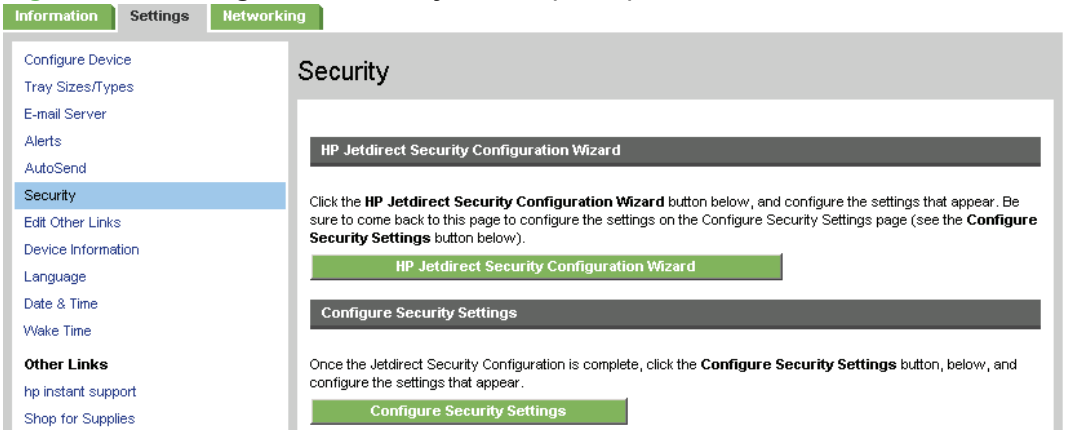
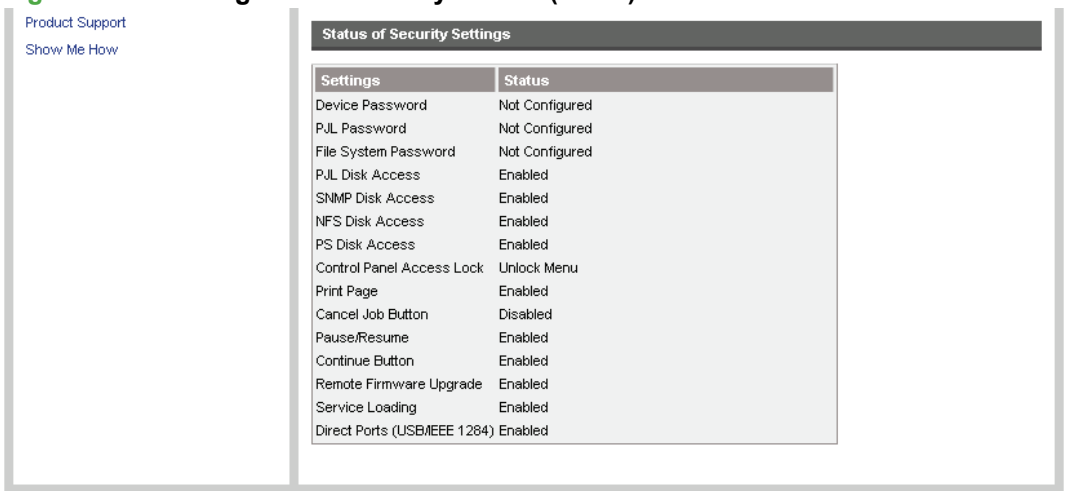


Figure 2-39 Settings tab – Security screen (2 of 2)



Configure Security Settings

Use the **Configure Security Settings** screen to set the desired levels of security.

Figure 2-40 Security screen – Configure Security Settings screen (1 of 4)

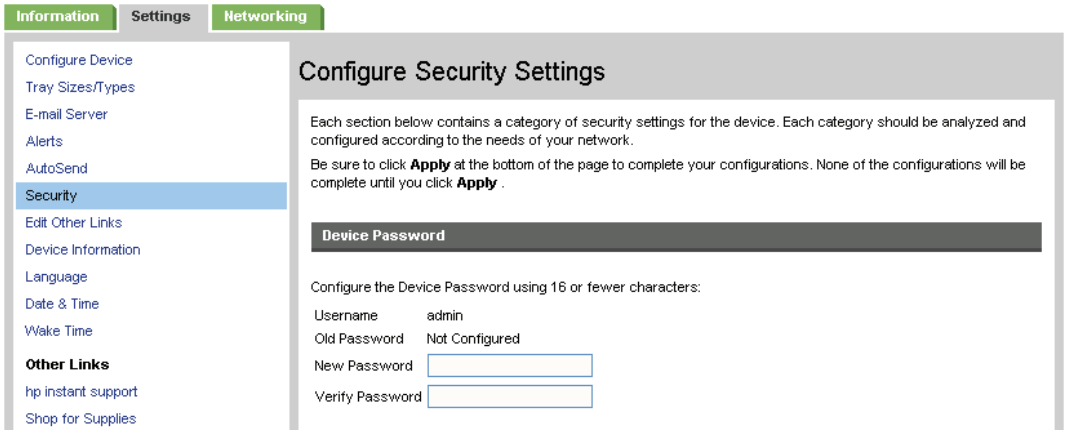


Figure 2-41 Security screen – Configure Security Settings screen (2 of 4)

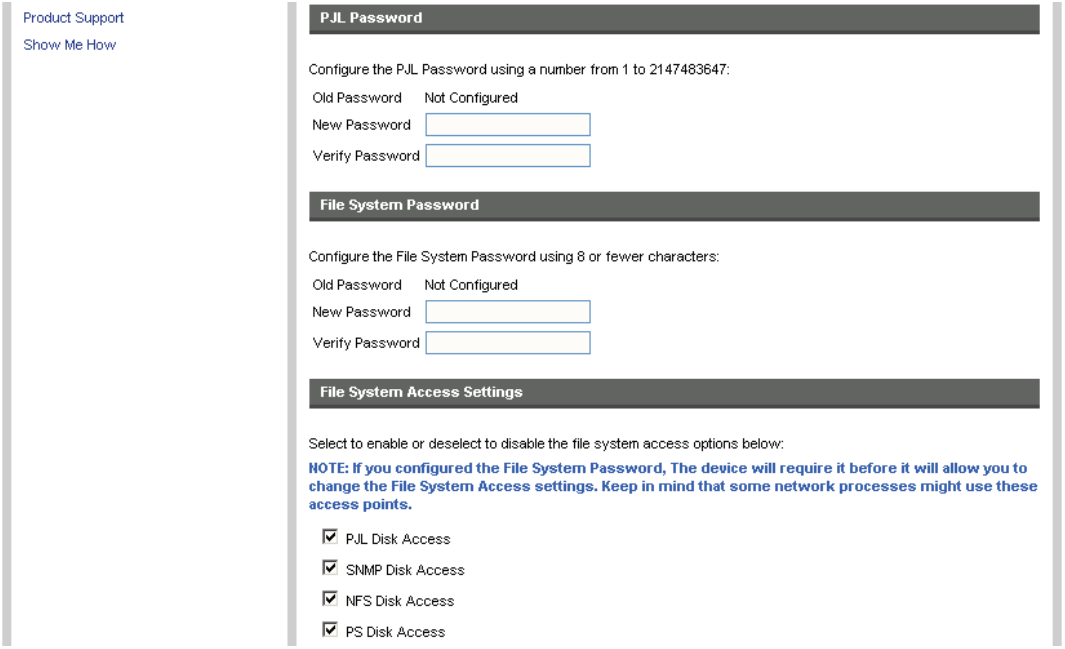


Figure 2-42 Security screen – Configure Security Settings screen (3 of 4)

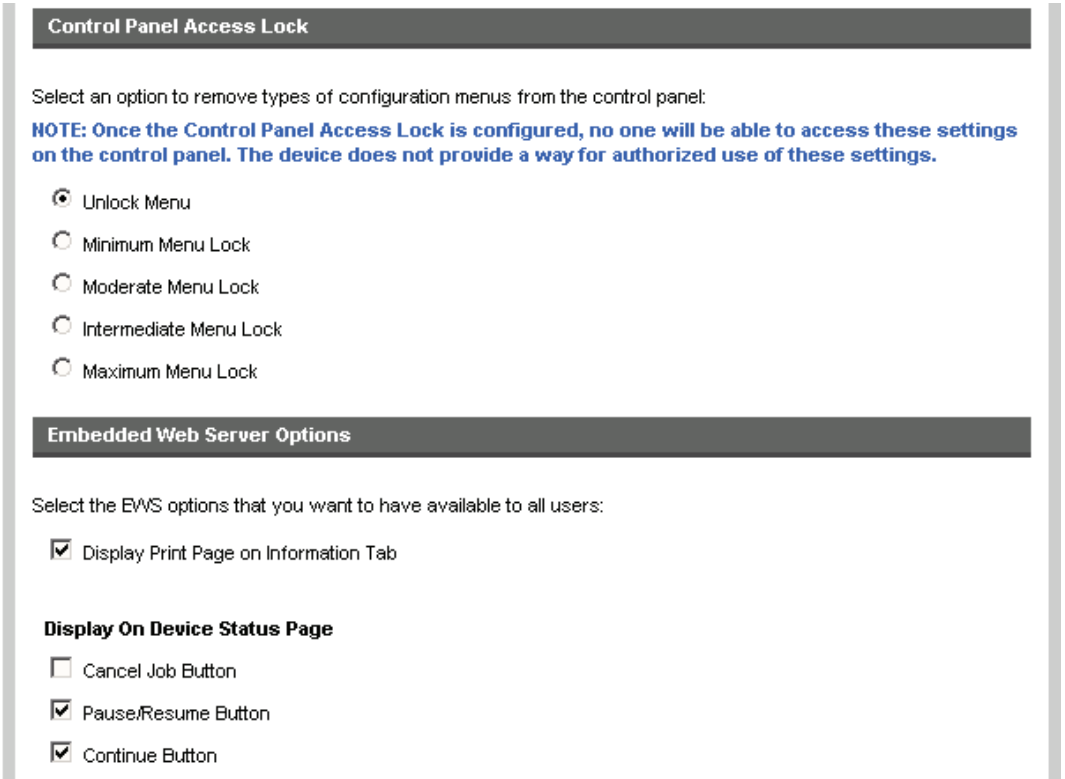
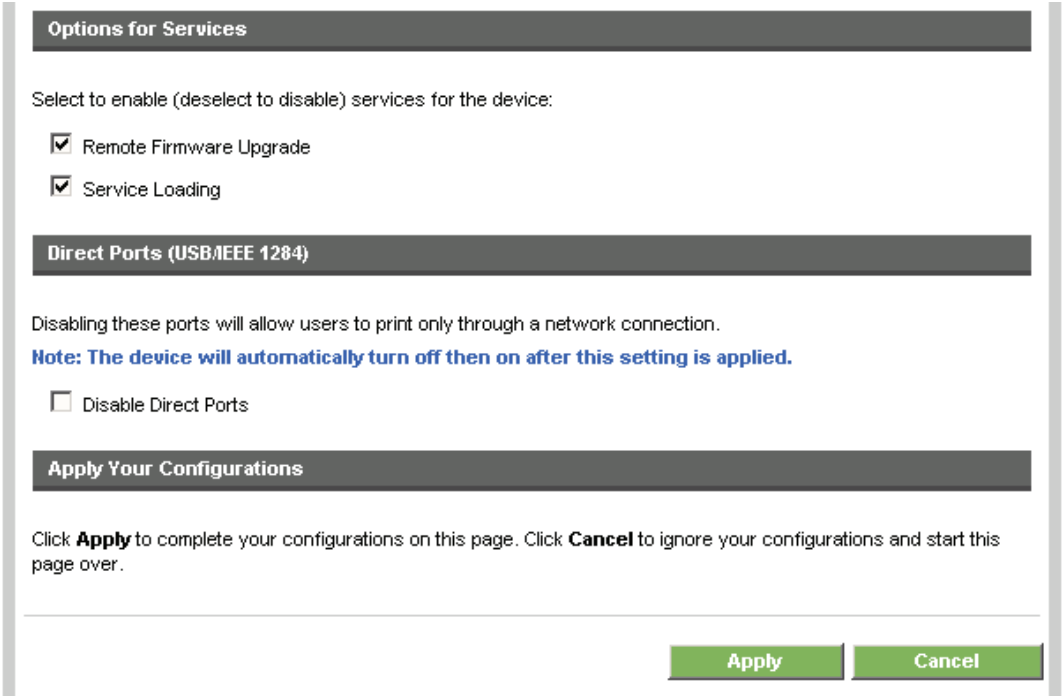


Figure 2-43 Security screen – Configure Security Settings screen (4 of 4)

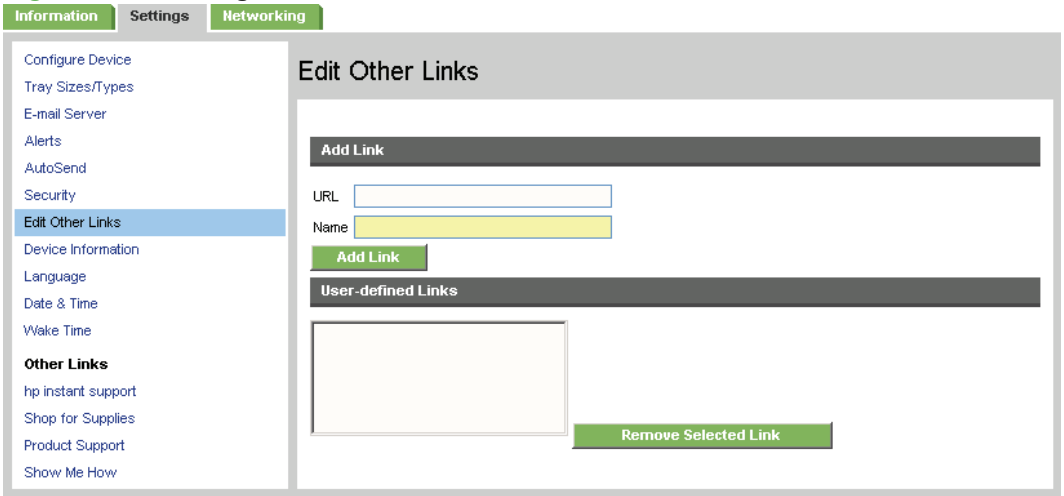


Edit Other Links

Use the **Edit Other Links** screen to add or customize up to five links to the Web sites of your choice. These links appear throughout the HP EWS screen in the **Other Links** box beneath the left navigation bar. Four permanent links (**hp instant support**, **Shop for Supplies**, **Product Support**, and **Show Me How** have already been established.

NOTE: With a permanent storage device installed, you can add up to five additional links; without the extra storage, you can add one additional link.

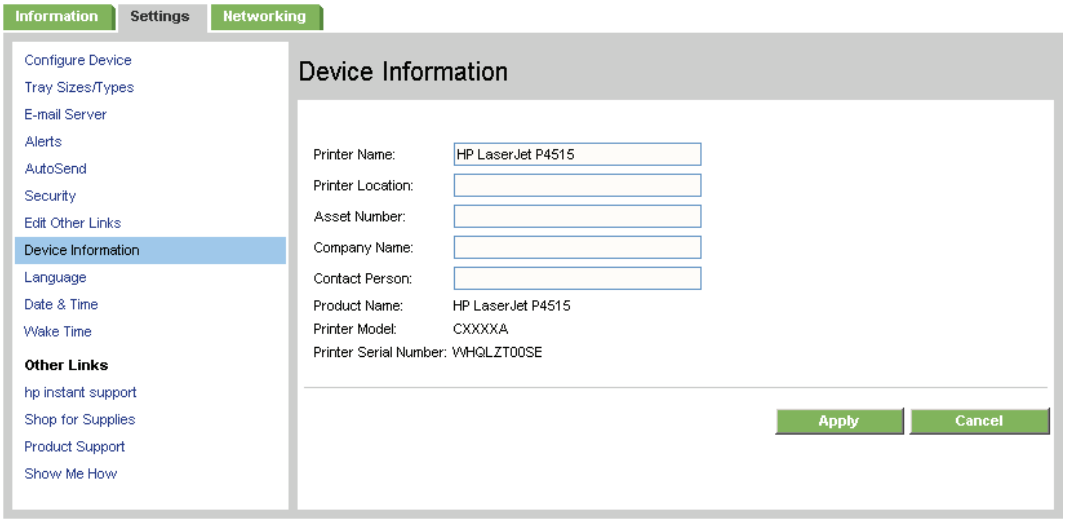
Figure 2-44 Settings tab – Edit Other Links screen



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. The device TCP/IP address, device name, device model, and the serial number are also available on this screen.

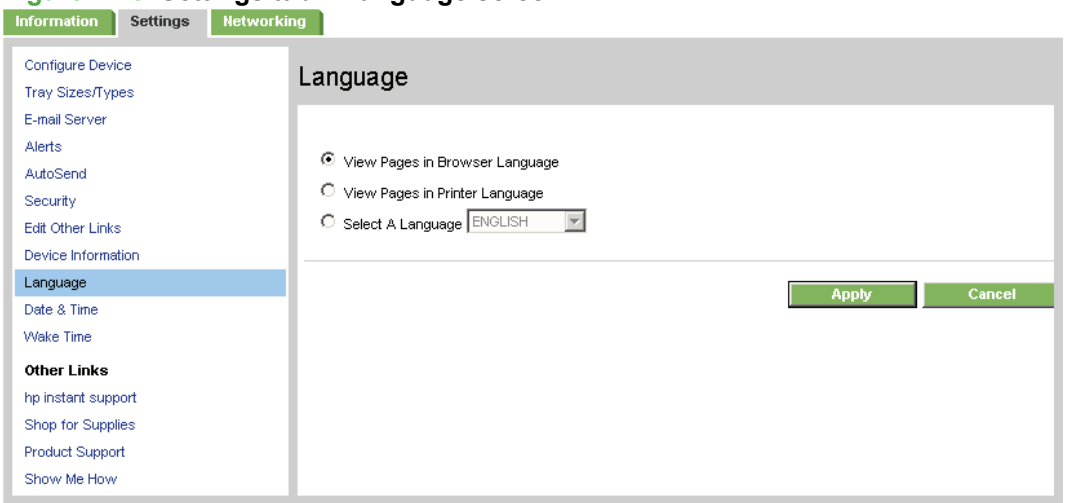
Figure 2-45 Settings tab – Device Information screen



Language

Use the **Language** screen to select the language in which the HP EWS screens appear.

Figure 2-46 Settings tab – Language screen



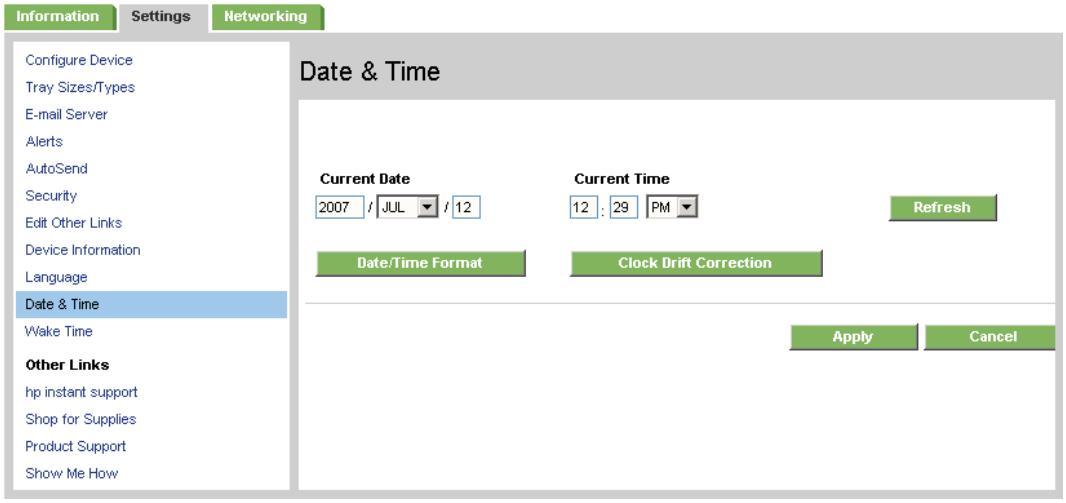
Date & Time

Use the **Date & Time** screen to update the product time.

The **Date & Time** screen provide access to two advanced time settings: **Date/Time Format** and **Clock Drift Correction**. See the following sections for more information regarding these two specific screens.

The following graphic shows the **Date & Time** screen.

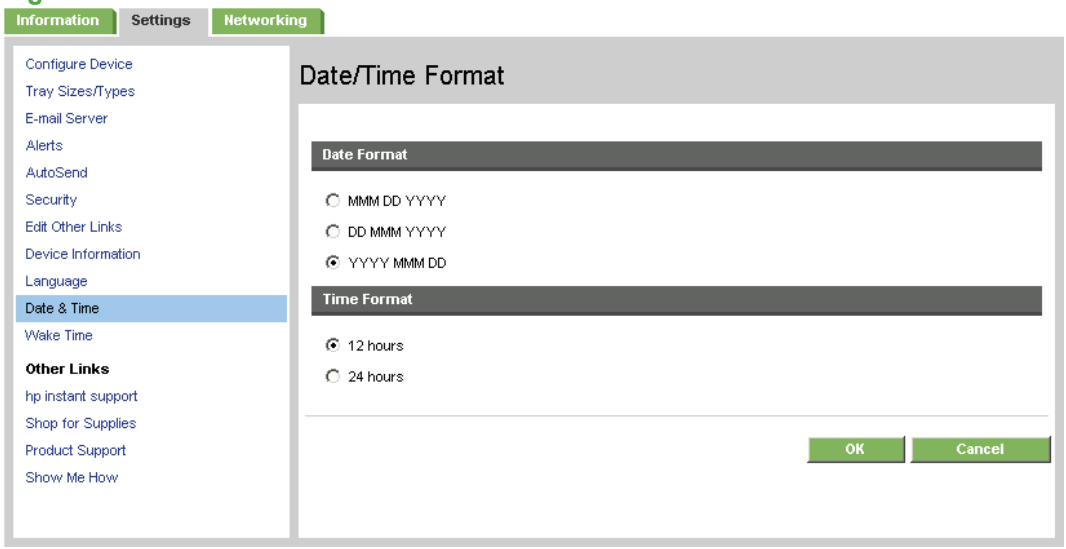
Figure 2-47 Settings tab – Date & Time screen



Date/Time Format

Use the **Date/Time Format** screen to select the date and time format.

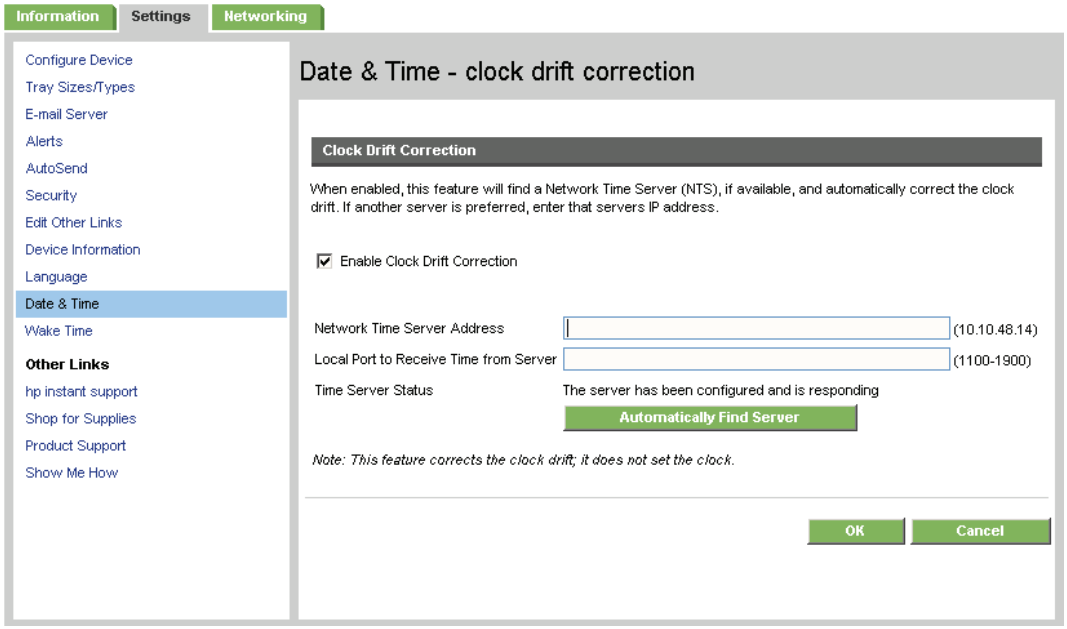
Figure 2-48 Date & Time screen – Date/Time Format screen



Clock Drift Correction

Use the **Clock Drift Correction** screen to configure a network time server. This corrects clock drift by using a network time server of your choice.

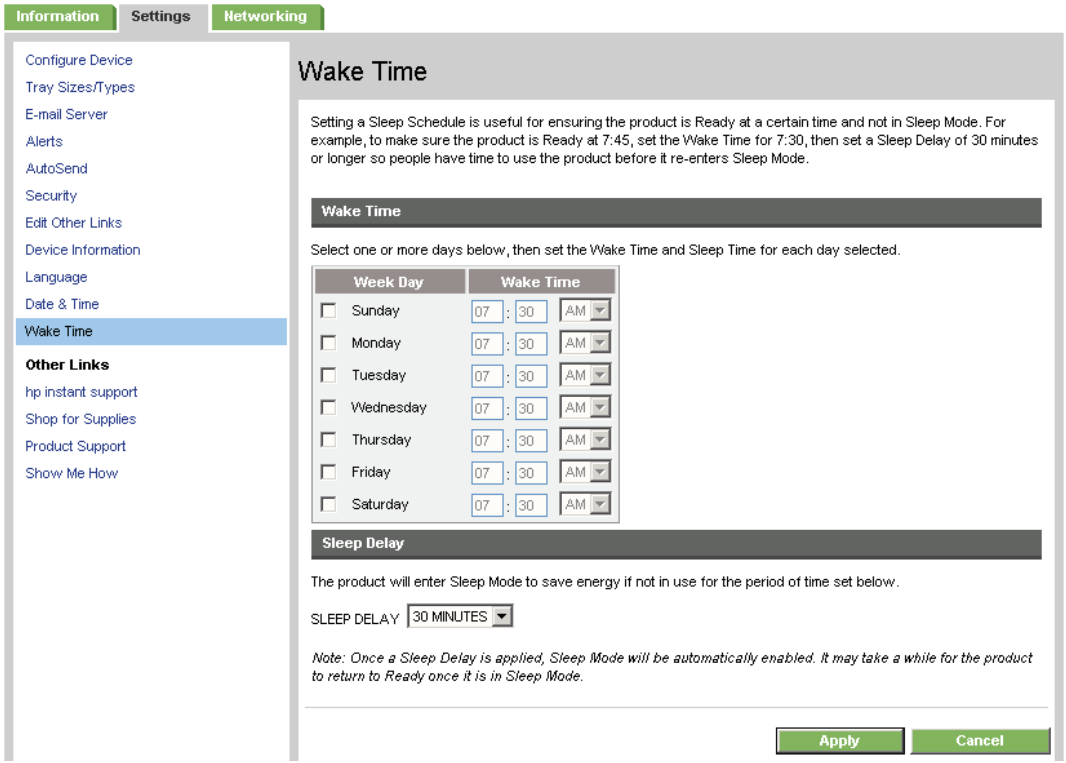
Figure 2-49 Date & Time screen – Clock Drift Correction screen



Wake Time

Use the **Wake Time** screen to schedule product wakeups on a daily basis. In addition, to save energy, the sleep delay can be set to turn the product off after a specific period of inactivity.

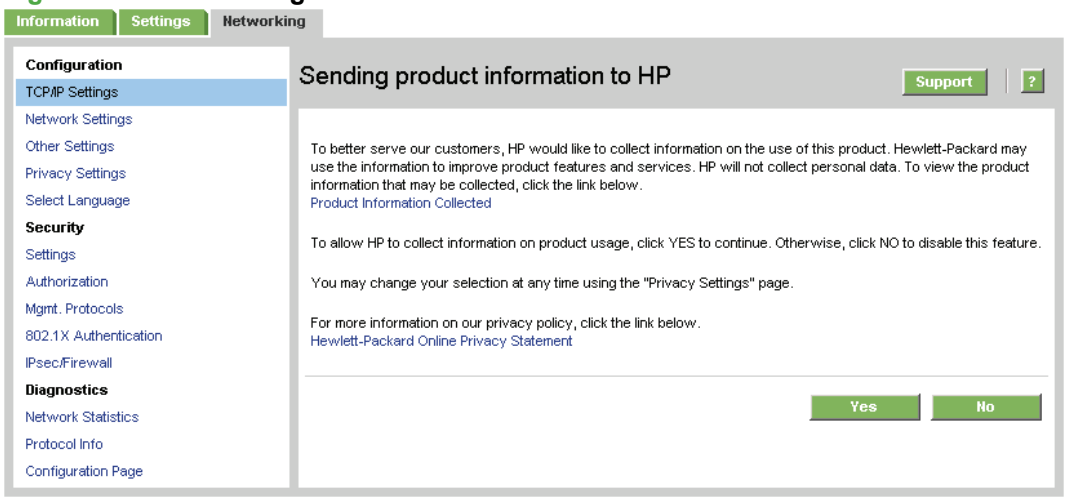
Figure 2-50 Settings tab – Wake Time screen



Networking tab

Use the **Networking** tab to configure and manage your product on your network. The appearance and features of the screens available differ depending on the model and version of your HP Jetdirect print server. The following screen is similar to what you might see when you click **Networking**.

Figure 2-51 Networking tab



HP Customer Participation Program

The HP Customer Participation Program is HP's voluntary program for communication between the computer and HP to help HP monitor toner usage. HP Customer Participation Program is installed automatically by selecting the **Easy Install** method of the HP LaserJet P4010 and P4510 Series printing-system software installation, and is an option when selecting the **Advanced Install** method.

About two weeks after installation, an option appears on the computer screen allowing users to discontinue participation in the program. The message contains full disclosure of the information that is communicated. Participation is entirely voluntary, and the impact on processing and connecting speed is negligible. Personal information is never sent without permission. TCP/IP addresses are used only to enable the connection and for security purposes.

Optional software

The following options are available on the **Optional Software** window.

- **HP Universal Print Driver PCL 5**
- **HP Universal Print Driver PostScript**
- **Installer Customization Wizard**
- **HP Web Jetadmin**
- **HP Easy Printer Care**

Universal Print Driver

Get a universal print driver. Click this button to go to the HP Web site to download a universal print driver for your device.

Installer Customization Wizard

Administrators can use the **Installer Customization Wizard** utility to customize a silent, unattended device installer by pre-setting the installation options in a response file. The installer is customized with settings for the following options:

- Language
- Operating system
- Print drivers
- Components

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

HP Easy Printer Care

With HP Easy Printer Care software, manage and monitor up to 15 printers from your desktop. HP Easy Printer Care software allows you to view the printer status, create printer usage reports, reorder supplies, and troubleshoot and repair printers via HP Proactive Support. Click this button to go to the HP Easy Printer Care free software download page.

Font support

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

Basic fonts

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

- 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 an installation of the HP LaserJet P4010 and P4510 Series printing-system software.

Table 2-2 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
CG Omega	Regular	CGOR45W.TTF
CG Omega	Bold	CGOR65W.TTF
CG Omega	Bold Italic	CGOR66W.TTF

Table 2-2 Default fonts (continued)

Font name	Font style	File name
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
ITC Zapf Chancery	Medium Italic	CHANC___.TTF
ITC Zapf Dingbats	Regular	DINGS___.TTF
Letter Gothic	Regular	LETR45W.TTF

Table 2-2 Default fonts (continued)

Font name	Font style	File name
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 2-3 Additional PS emulation fonts

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

Table 2-3 Additional PS emulation fonts (continued)

Font name	Font style	File name
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
GillSans Light	Italic	PS_13871.TTF
GillSans Light	Regular	PS_13870.TTF
Goudy	Bold	PS_12544.TTF
Goudy	Bold Italic	PS_10695.TTF

Table 2-3 Additional PS emulation fonts (continued)

Font name	Font style	File name
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
Optima	Bold Italic	PS_12511.TTF
Optima	Italic	PS_12507.TTF
Oxford	Italic	PS_14072.TTF
StempelGaramond Roman	Italic	PS_11546.TTF

Table 2-3 Additional PS emulation fonts (continued)

Font name	Font style	File name
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

3 Installing Windows printing-system components

Introduction

The HP LaserJet P4010 and P4510 Series printer comes with software and installers for Microsoft Windows and Apple Computer, Inc., Macintosh systems. Linux and UNIX systems support the HP LaserJet P4010 and P4510 Series printer, and software is available on the Web. This document provides procedures for installing and removing the HP LaserJet P4010 and P4510 Series printing-system software for Microsoft Windows operating systems.

- Supported operating systems for Windows
- Install Overview
- Detailed Microsoft Windows installation instructions
- Install optional software
- User uninstall software

Supported operating systems for Windows

The product uses the PCL 6, PCL 5, and HP postcript level 3 emulation PDL drivers.

Operating system[1]	Network support	PCL 6	PCL 5	HP postcript level 3 emulation
Windows 2000	X	X	X	X
Windows XP Home/ Professional	X	X	X	X
Windows Server 2003	X	X	X	X
Windows Vista	X	X	X	X
Mac OS X V10.28 and later	X			X

[1] Not all product features are available from all drivers or operating systems.

Windows operating system requirements

System requirements for 32-bit operating systems

- Pentium® or compatible processor
- Windows Vista: 800-MHz processor with 512 MB RAM, 15 GB available hard disk space
- 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
- Windows 2000: 333-MHz processor with 64 MB RAM
- Minimum 16-color/grayscale display with 640 x 480 pixel resolution (video graphics array [VGA])
- USB port (USB 1.1 or 2.0), or network connection
- CD-ROM drive or Internet connection

System requirements for 64-bit operating systems

- Pentium or compatible processor (Itanium not supported)
- Windows Vista: 800-MHz processor with 512 MB RAM, 15 GB available hard disk space
- 256 MB RAM or higher
- 1.5 GB of available hard-drive space
- CD-ROM or DVD drive
- Super VGA (800 x 600) or higher-resolution video adapter and monitor

Install Overview

The printing-system software is included with the product. See the getting started guide for installation instructions.

The printing system includes software for end users and network administrators, and printer drivers for access to the product features and communication with the computer.

NOTE: For a list of printer drivers and updated HP product software, go to www.hp.com/go/ljp4010series_software or www.hp.com/go/ljp4510series_software.

The following drivers are not included on the CD, but are available from www.hp.com/go/ljp4010series_software or www.hp.com/go/ljp4510series_software.

- Linux drivers
- UNIX model scripts

Microsoft Windows general installation overview

Installation is similar for all supported Windows operating systems.

If the HP LaserJet P4010 and P4510 Series printer is connected through a file or print server, the printing-system software must be installed on the server before it is installed on any client systems. If the printing-system software is not first installed on the server, bidirectional communication and some driver autoconfiguration methods are not available to the client systems.

For Microsoft Windows 2000, Microsoft Windows XP, and Windows Vista, the person installing the software must have administrator rights on the system.

When the HP LaserJet P4010 and P4510 Series printing-system installer runs, the HP LaserJet uninstaller is added to the system.

- Unsupported operating system dialog box
- Microsoft Windows installation for direct connections
- Microsoft Windows installation for computers on a network
- Install drivers using a CD
- Install drivers using the Microsoft Windows Add-Printer Wizard
- Plug and play driver install packages
- Point and print installation for Windows
- Modify an existing installation
- Installer Customization Wizard for Windows

Unsupported operating system dialog box

The Microsoft Windows NT and Windows 98 operating systems do not support the HP LaserJet P4010 and P4510 Series printer. When attempting to install the software in these environments, an **Unsupported Operating System** dialog box appears.

Microsoft Windows installation for direct connections

The printing-system software should be installed *before* the HP LaserJet P4010 and P4510 Series printer is connected to the computer through a USB or parallel port connection and turned on. During the installation process, the software generates a prompt to connect the device.

Microsoft Windows installation for computers on a network

Follow these instructions when installing printing-system files downloaded from the Web, or when installing files from a network. See your network administrator for the location of the printing-system software files.

1. Browse to the location of the **SETUP.EXE** file.
2. Double-click the **SETUP.EXE** file.
3. Click **Install** and continue to follow the instructions until the device is installed.

Install drivers using a CD

Follow these instructions to install the HP LaserJet P4010 and P4510 Series printing-system software from the CD that came with the device.

1. Quit all unnecessary 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.

Test drivers

For testing or backup purposes, you can install printing-system software that was developed for another HP LaserJet product and create a port to print to the HP LaserJet P4010 and P4510 Series printer.

Set a default printer

This section applies to the Microsoft Windows 2000, Windows XP, Windows Server 2003, and Windows Vista operating systems.

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

   -or-

   In Microsoft 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** (Window XP Home).

   -or-

   In Windows Vista, click **Start**, click **Control Panel**, click **Hardware and Sound**, and then click **Printer**.

2. Right-click the device to set as the default.
3. Click **Set As Default**. A check mark appears next to the menu option.

Install drivers using the Microsoft Windows Add-Printer Wizard

1. Quit all open programs.
2. Insert the HP LaserJet P4010 and P4510 Series printing-system CD into the CD-ROM drive on the computer.

   NOTE: If the CD starts automatically, click **Exit** to exit the installation program and continue with the next step.

3. Click **Printers and Faxes**, then click **Add a Printer**.
4. Click **Next** on the **Welcome** dialog box.
5. On the **Local or Network Printer** dialog box, click **Local printer attached to this computer**, and then click **Next**.
6. On the **Select a Printer Port** dialog box, click **Create a new port**. From the **Type of port** drop-down menu, select **HP Standard TCP/IP Port**. Click **Next**.
7. The **Welcome to the Add Standard TCP/IP Port Wizard** dialog box appears. Click **Next**.
8. The **Add Port** dialog box appears. Type the printer's IP address in the **Printer Name or IP Address** text box. The **Port Name** fills automatically. Click **Next** to continue.

   To find the printer IP address, run a configuration page from the printer control panel. Make sure the control panel heading reads **Ready**.

   a. Press Menu,

   b. Press the down arrow to highlight **INFORMATION**, and then press Select.

   c. Press the down arrow to highlight **PRINT CONFIGURATION**, and then press Select to print the configuration pages

      Find the IP address on the printed sheet beneath the **Product Settings** heading.

9. On the **Completing the Add Standard TCP/IP Printer Port Wizard** screen, click **Finish** to continue with the installation.
10. On the **Install Printer Software** screen, click **Have Disk**. Click **Next**.
11. On the **Install from Disk** dialog box, click Browse and navigate to the following path:.<CD ROM drive>:\Drivers\Win2000_XP. Click **Open**. Click **OK** to continue.
12. On the **Install Printer Software** dialog box, click **Printers** to select the driver to install, and then click **Next**.

    NOTE: Microsoft Windows Server 2003 uses the same print driver as Microsoft Windows 2000 and Windows XP.

13. On the **Name Your Printer** screen, type a name for the printer or accept the default name. Click **Yes** to make this printer the default printer. Click **Next** to continue.
14. On the **Printer Sharing** screen, determine sharing for this printer, and then click on the **Print Test Page** dialog box.
15. Click **Yes** to print a test page or **No** to decline, and then click **Next**.

16. Click **Finish** to continue the installation.

17. The **Completing the Add Printer Wizard** dialog box appears. Click **Finish** to complete the installation.

Plug and play driver install packages

Instead of using Microsoft Windows Add-Printer Wizard to install print drivers on computers directly connected to the printer, HP recommends using either a **Minimum installation** from the printing-system CD or a **Plug-and-Play** installation.

Minimum installation of print drivers from the printing-system CD

A Minimum installation from the printing-system CD installs everything on your computer needed for the HP LaserJet P4010 and P4510 Series printer to print.

Perform a Minimum installation with a direct connection using the following procedure:

1. Quit all open programs. Insert the HP LaserJet P4010 and P4510 Series printer software CD into 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.

2. The **Thank You for Purchasing from HP!** screen appears. Click **Install** and an **Installing** screen briefly appears, which automatically leads to the **Welcome** dialog box.

3. Click **Next** to get to the **Do Not Block HP Install Wizard Processes** screen. Click **Next** to continue.

4. The **Check for Recommended Updates** screen appears. If you have Web access, click **Yes** to check for HP LaserJet P4010 and P4510 Series printer installation updates and to continue with installation of the printing-system software. This step is optional. Click any of the links to open a screen that provides further information.

5. The **Installing** screen appears and automatically leads to the **Installation Options** screen. Select **Minimum** and click **Next** to continue.

6. After an **Installing** screen, the **License Agreement** screen appears. Review this agreement and if you accept the terms, select the **I accept the terms in the license agreement** option. Click **Next** to continue.

7. Another **Installing** screen appears and automatically leads to the **Thank you for buying another HP product!** screen. This screen shows the destination folder where the printing-system software files are installed. The default option creates an **HP** program group, which is accessed by clicking **Start** and then selecting **Programs** or **All Programs**.

8. Click **Next** to go to the **Ready to Install** dialog box .

9. Click **Next** to go to an **Installing** screen, which automatically leads to the **Connection Type** dialog box. Select the **Directly through this computer using a USB cable** option and then click **Next**.

10. The **Connect Your Device Now** screen appears. Follow the instructions and click **Next**.

11. The **Device has been detected** screen appears. After the device setup has finished, the **Product connected successfully!** message appears on the screen. Click **Next** to continue.

12. An **Installing** screen appears and automatically leads to the **Congratulations! Software installation complete** screen. Click **Finish** to complete the installation. Print a **Test page** when

prompted by the dialog box to confirm that the HP LaserJet P4010 and P4510 Series printer is connected and running properly.

Plug-and-Play Installation for installing print drivers

Use this method to install the print drivers on a computer running the MS Windows XP x64 Edition operating system.

△ **CAUTION:** Do *not* attach the USB cable to the printer until prompted during the EZInstall program.

The HP LaserJet P4010 and P4510 Series printer must be properly set up before starting the Plug-and-Play installation. Follow these instructions to set up the computer:

1. Close all software programs running on the computer.
2. Open your Web browser and go to the following Web site: www.hp.com/go/ljp4010series_software or www.hp.com/go/ljp4510series_software
3. Click the **Download drivers and software**.
4. Click to select the model number for the printer driver you want to install.
5. Click to select the operating system you are using.
6. In the **Driver** section, find the **Plug and Play** package for the driver you want to install, then click **Download**.
7. Select **Save** and a **Save As** dialog box appears.
8. Select a directory to save the file in and click **Save**. Write down and remember the location of the saved file.
9. Locate the file using Windows Explorer when the download has completed.
10. Double-click on the file. This extracts all the driver files into a directory on the computer hard-drive. The default directory is:

    :
    `c:\Program Files\Hewlett-Packard\LaserJet CP1510 Drivers`

    However, the path and directory name can be changed when the file is extracted.
11. Click **Next** after the file extraction is complete and follow the instructions presented by the EZInstall program. Attach the USB cable only when prompted by the EZInstall program.
12. Delete the file:

    `clj2700-PCL6-pnp-winx64-<language abbreviation>.exe`

Point and print installation for Windows

Use the following information to install a print driver through the Microsoft Point and Print function when you do not connect directly to 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 the feature is a function of the Windows operating systems, not of HP print drivers.

Administrator privileges are necessary to install a print driver on a Microsoft Windows 2000, Windows XP, Windows Server 2003, and Windows Vista operating system.

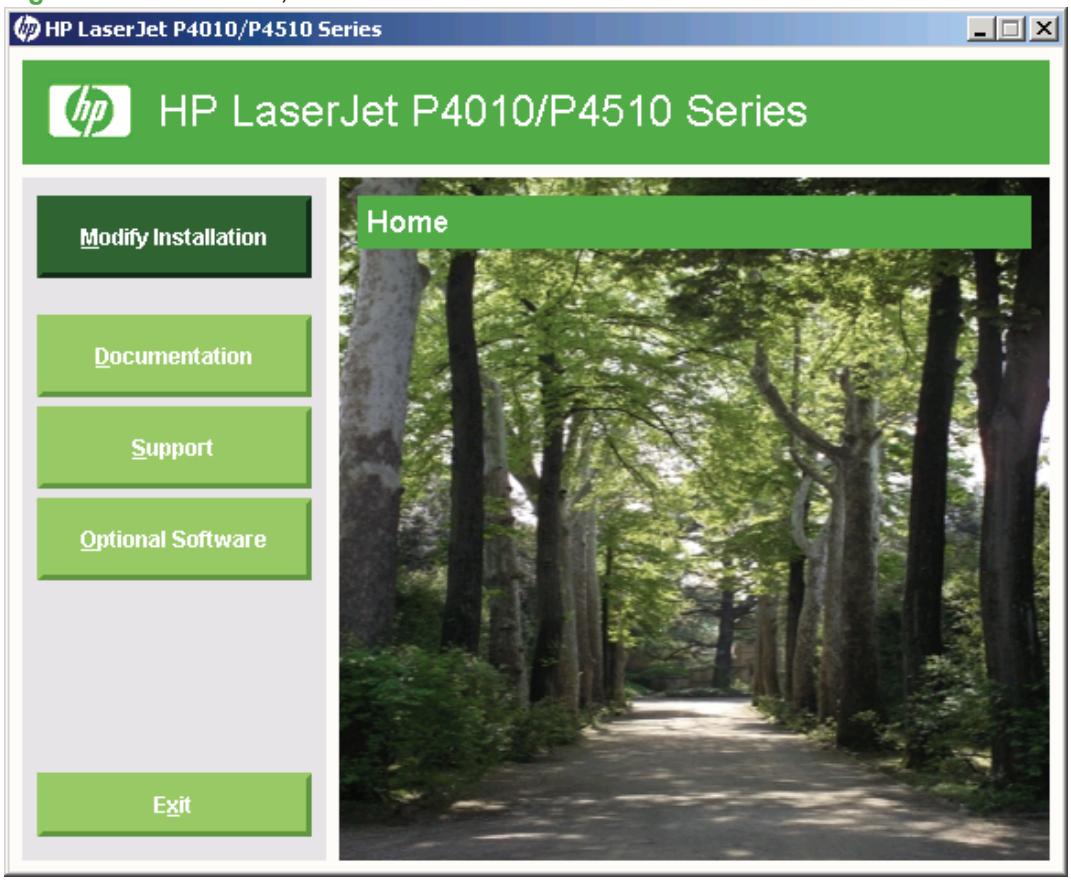
In a homogenous operating system environment (one in which all of the clients and servers are running in the same operating system), the same print driver version that is vended from the server to the clients in a Point and Print environment also runs and controls the print queue configuration on the 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 Microsoft 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.

Modify an existing installation

If an HP LaserJet P4010 and P4510 Series printer has been previously installed, the appearance of the main installation screen changes on the CD Browser. A pre-existing installation also changes the sequence of installation screens.

Figure 3-1 After Install, CD browser Home screen



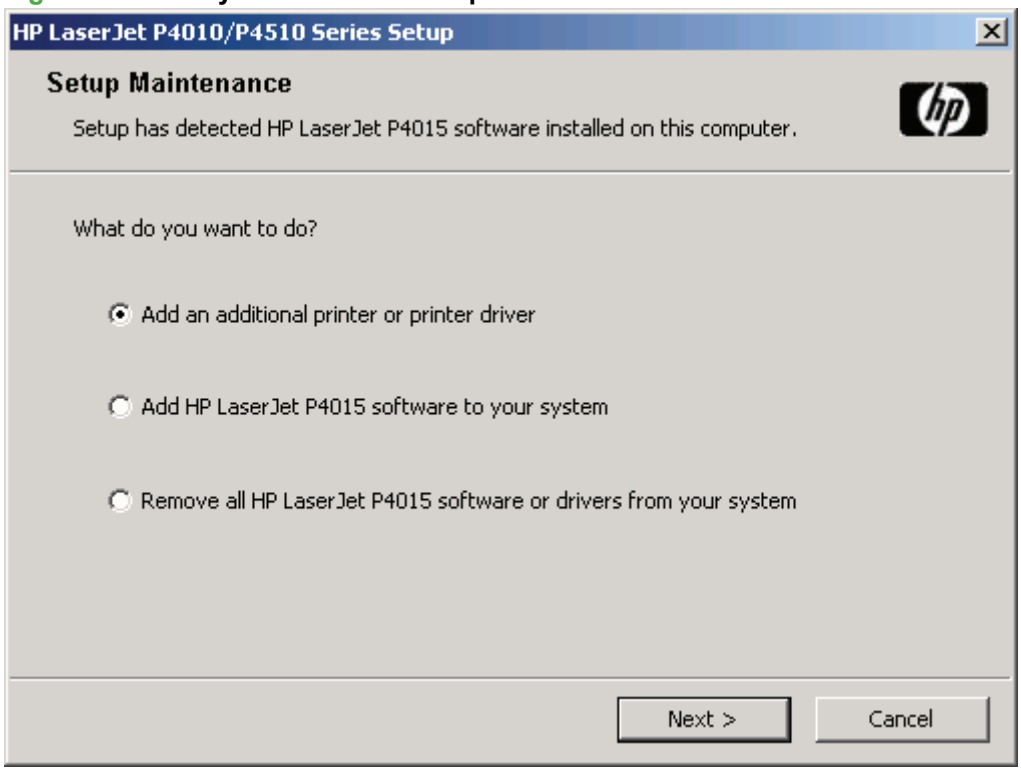
The following options are available on the Home screen of the CD browser after installation of software:

- **Modify Installation**. Select **Modify Installation** to add drivers, to modify a current install, or to remove drivers.
- **Documentation**. Select **Documentation** to view the available documentation. These include the following:
  - **User Guide (Interactive)**
  - **User Guide (Printer Friendly)**
  - **Install Notes**
  - **Embedded Web Server Guide**
  - **HP Jetdirect Guide**
- **Support**. Select **Support** to view links to available support sites for the product. These include the following:
  - **Product Registration**
  - **Supplies**
  - **Product Information**
  - **hp.com**
- **Optional Software**. Select **Optional Software** to view links to additional software available for the product. These include the following:
  - **HP Universal Print Driver PCL 5**
  - **HP Universal Print Driver PostScript**
  - **Installer Customization Wizard**
  - **HP Web Jetadmin**
  - **HP Easy Printer Care**
- **Exit**.

Modify Installation

When **Modify Installation** is selected, the **Setup Maintenance** window opens.

Figure 3-2 Modify Installation – Setup Maintenance window



The following options are available on the **Setup Maintenance** window:

- **Add an additional printer or printer driver**
- **Add HP LaserJet P4010_P4510 Series software to your system**
- **Remove all HP LaserJet P4010_P4510 Series software or drivers from your system**

Select the desired option, then click **Next**. Follow all subsequent dialog boxes to complete the desired result.

Installer Customization Wizard for Windows

Administrators can use the **Installer Customization Wizard** to customize the HP LaserJet P4010 and P4510 Series printer installer by preconfiguring the installation options in a response file. To start the utility, from the main menu, click **Option Software**, then click **Installer Customization Wizard**. 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 Administrator's Guide*.

Topics:

- The Installer Customization Wizard
- Dialog boxes
- Distribution

The Installer Customization Wizard

The Installer Customization Wizard runs from the CD. It can be started from the CD browser, depending on device-specific installation. It runs separately from the common Microsoft Installer (MSI), and has 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.

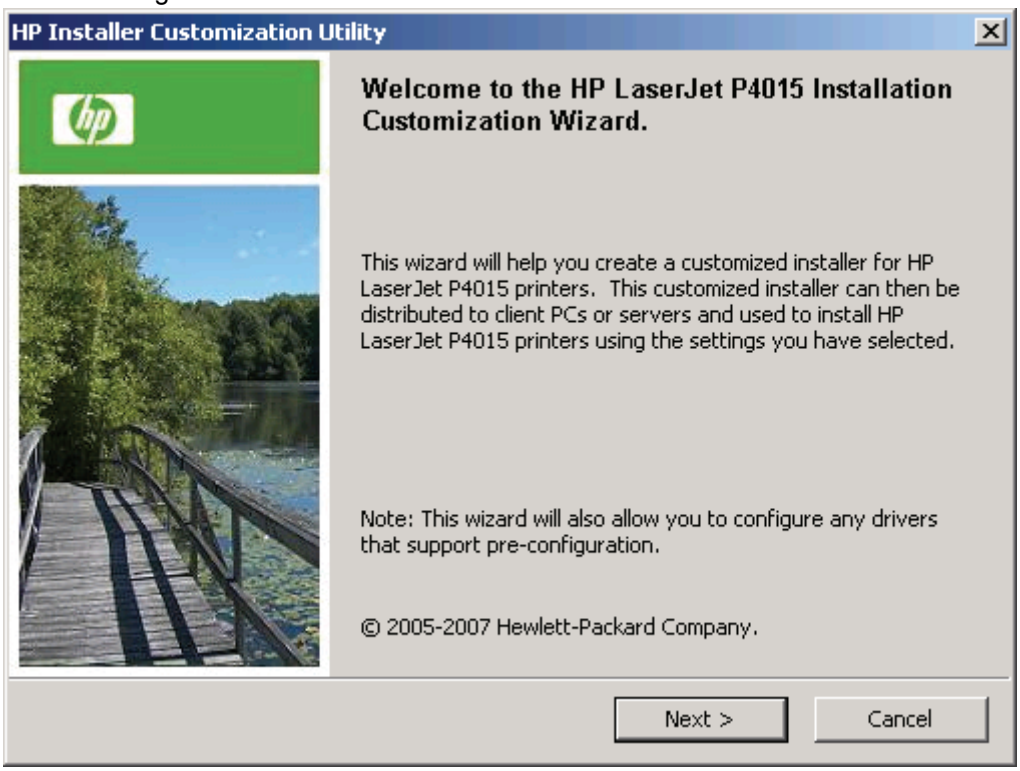
For the exact text with which to replace entries in the RESPONSE.INI file, see the *HP Device Installer Customization Wizard Administrator's Guide*.

Run the Installer Customization Wizard

1. Insert the HP LaserJet P4010 and P4510 Series printer printing-system software CD in the CD-ROM drive.
2. In the CD browser main screen, click **Optional Software**.
3. Click **Installer Customization Wizard**.
4. Follow the instructions in the dialog boxes to complete the installation.

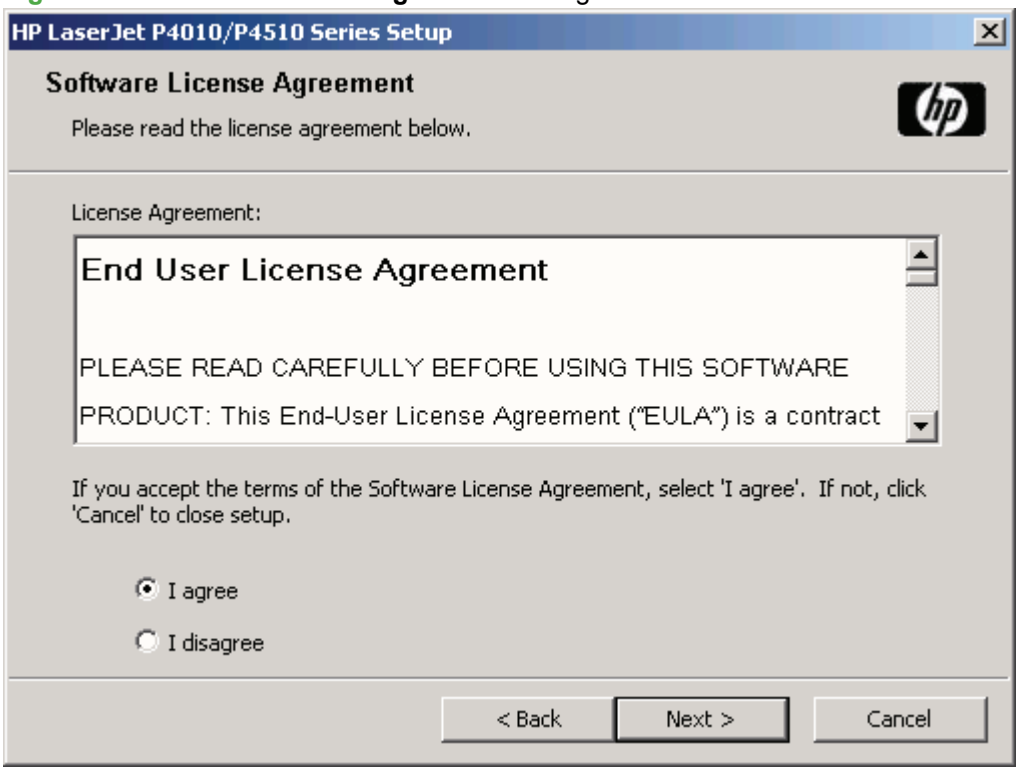
The **Welcome** dialog box appears, as shown in the following figure.

Figure 3-3 Welcome to the HP LaserJet P4010 and P4510 Series Installation Customization Wizard dialog box



Click **Next** to open the **Software License Agreement** dialog box, as shown in the following figure.

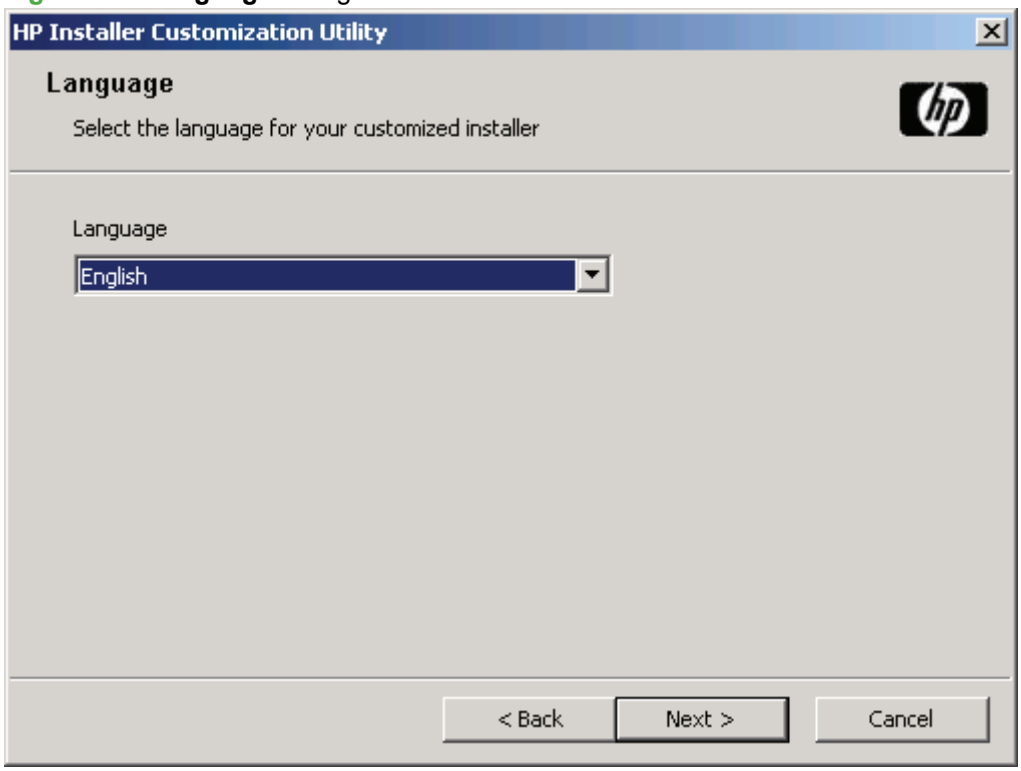
Figure 3-4 Software License Agreement dialog box



To cancel the installation, click **Cancel** on this or any other screen where it appears (see Help, Back, Next, and Cancel buttons on page 92).

Read the software license agreement, click **I agree**, and then click **Next** to open the **Language** dialog box, as shown in the following figure.

Figure 3-5 Language dialog box



This is the language for the customized installer. The language selected is installed on the computer regardless of the language of the text in the wizard dialog boxes.

NOTE: After installation, the language used in the driver is limited to the one that is selected in this dialog box. Maintenance mode does *not* provide options for changing the language.

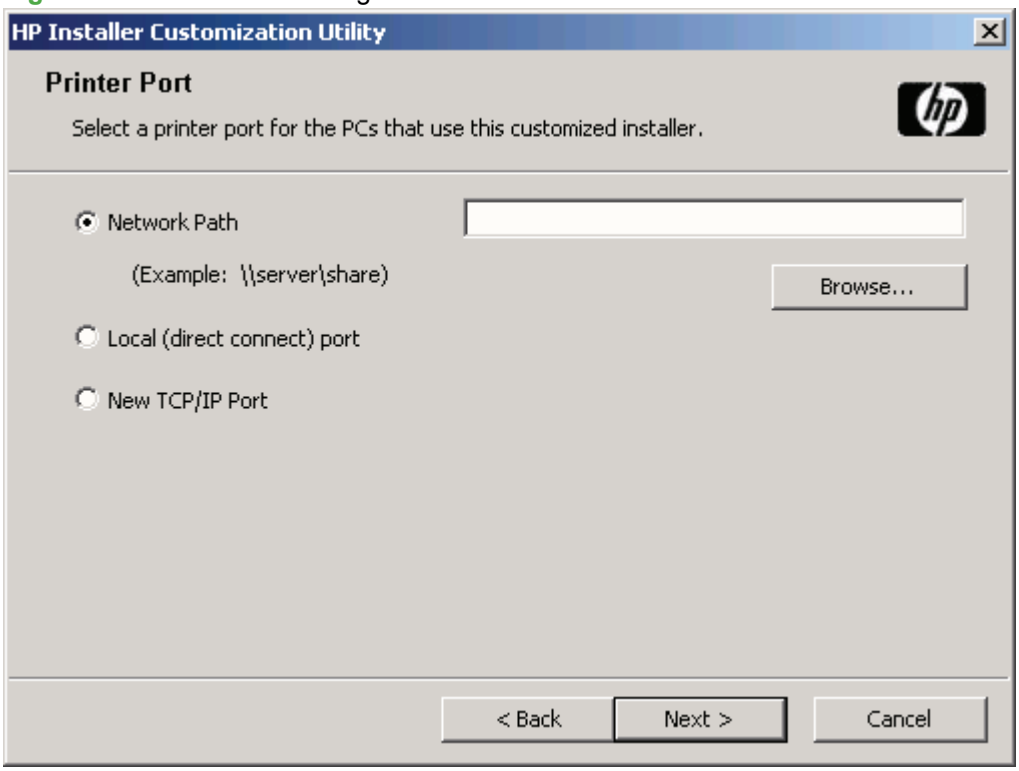
To change the language on a system that used an customized installer, uninstall the software, and then install a new device in order to restore the option to install other languages.

Select a language from the drop-down menu, and then click **Next**.

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

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

Figure 3-6 Printer Port dialog box



Click **Network Path** to make the text field available for a queue-name entry. Type the path, or click **Browse** to open the **Browse for Printer** dialog box.

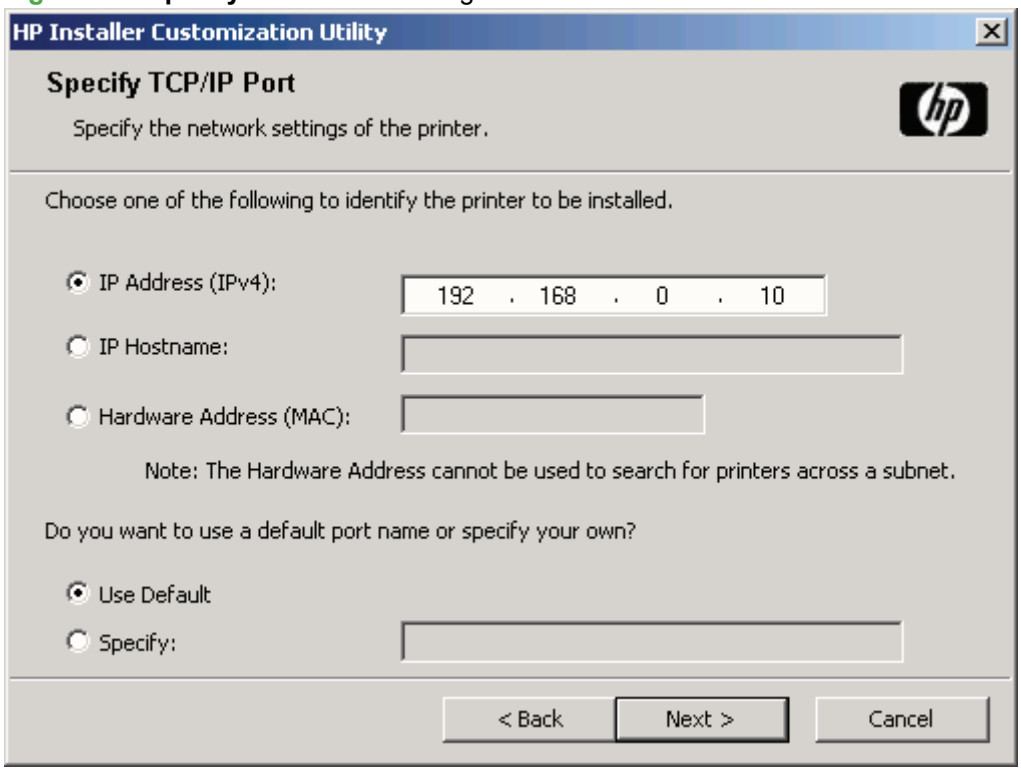
Navigate to a device and click **OK** to record the path in the **Network Path** field in the **Printer Port** dialog box. Click **Cancel** to close the **Browse for Printer** dialog box.

In the **Printer Port** dialog box, click **Local (direct connect) port**, and then click **Next** to open the **Drivers** dialog box (see Figure 3-11 Drivers dialog box on page 82).

In the **Printer Port** dialog box, click **New TCP/IP Port**, and then click **Next** to open the **Specify TCP/IP Port** dialog box, as shown in the following figure.

The **Printer 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 3-7 Specify TCP/IP Port dialog box



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

Click **IP Hostname** to make the field available for typing the IP hostname for the device. Any characters are allowed, but no spaces. You must type at least one character in the field to prevent an error message from prompting for a valid IP hostname.

Click **Hardware Address** to make the field available for typing the hardware address of the MAC device. Any characters are allowed, but the entry is limited to 12 characters. You must type at least one character in the field to prevent an error message from prompting for a valid hardware address.

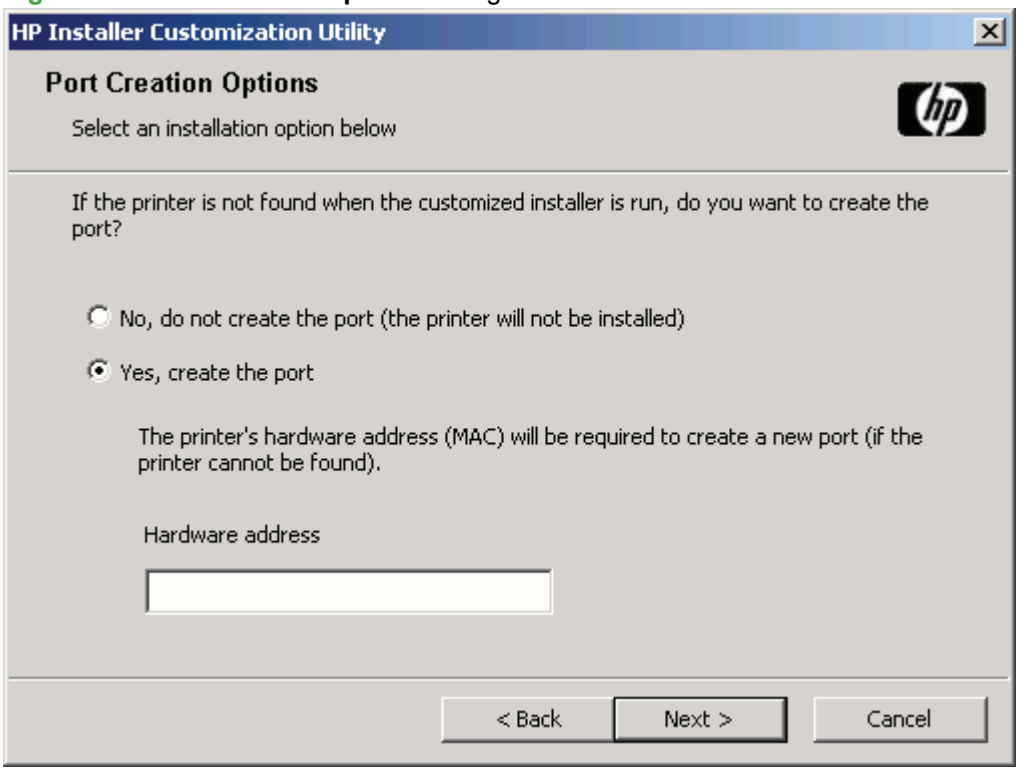
After selecting any of the options, type the appropriate name or address and then click **Next**. The **Drivers** dialog box opens. (See Figure 3-11 Drivers dialog box on page 82.)

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

To use the default port name, select **Use Default** and click **Next**.

To specify a different name, click **Specify**, type a port name of your choice, and then click **Next**. The **Port Creation Options** dialog box appears, as shown in the following figure.

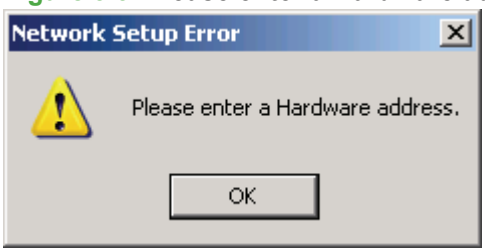
Figure 3-8 Port Creation Options dialog box



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

If you click **Next** without typing a hardware address, a network setup error message appears, as shown in the following figure.

Figure 3-9 Please enter a Hardware address — Network Setup Error dialog box

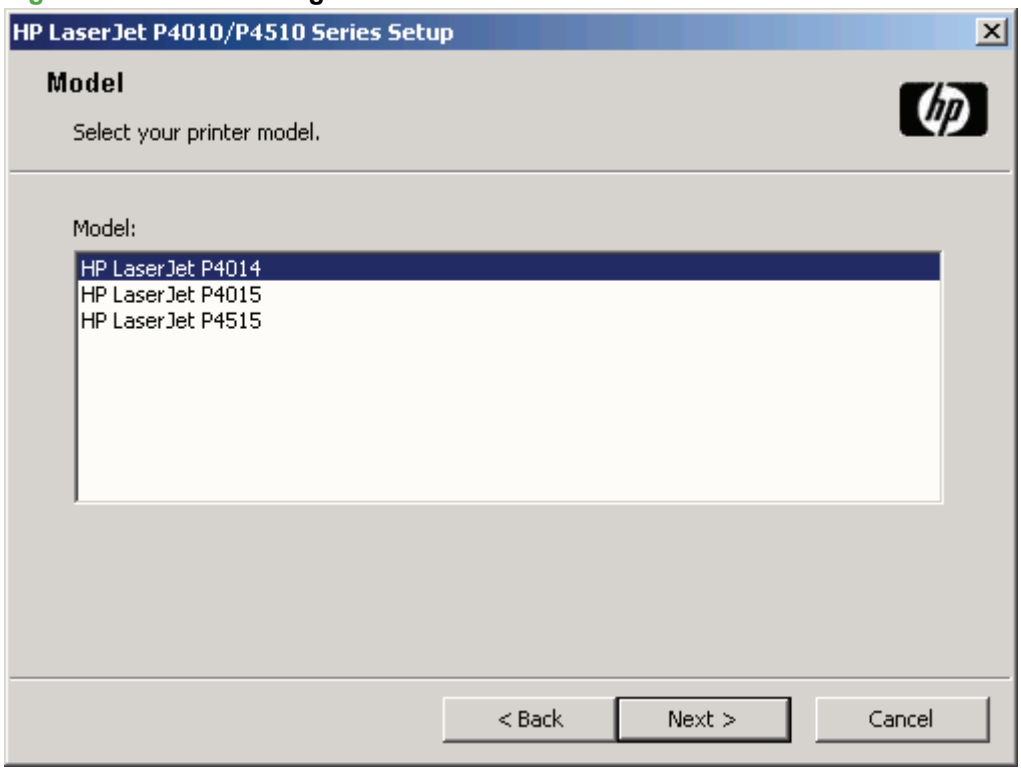


NOTE: To print a configuration page to see the hardware address, see Print a configuration page on page 242.

If you click **Yes, create the port**, type the device hardware address in the **Hardware Address** field, and then click **Next**.

The **Model** dialog box opens. Click the applicable product model and click **Next**.

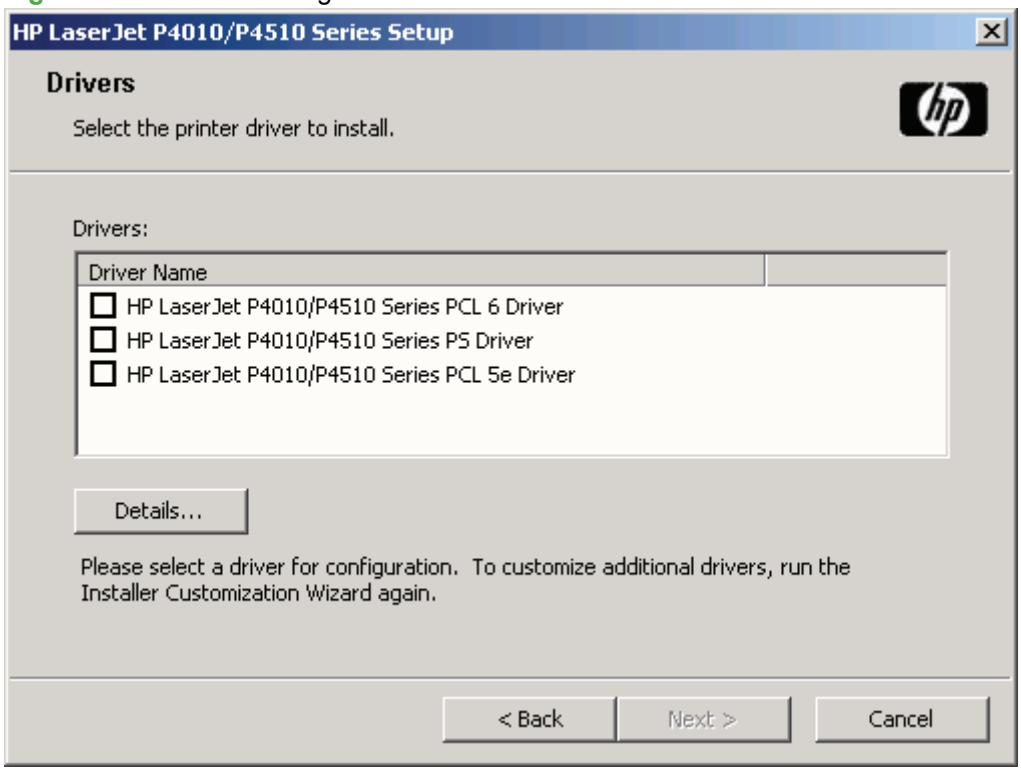
Figure 3-10 Model dialog box



The **Drivers** dialog box opens.

The **Drivers** dialog box is shown in the following figure.

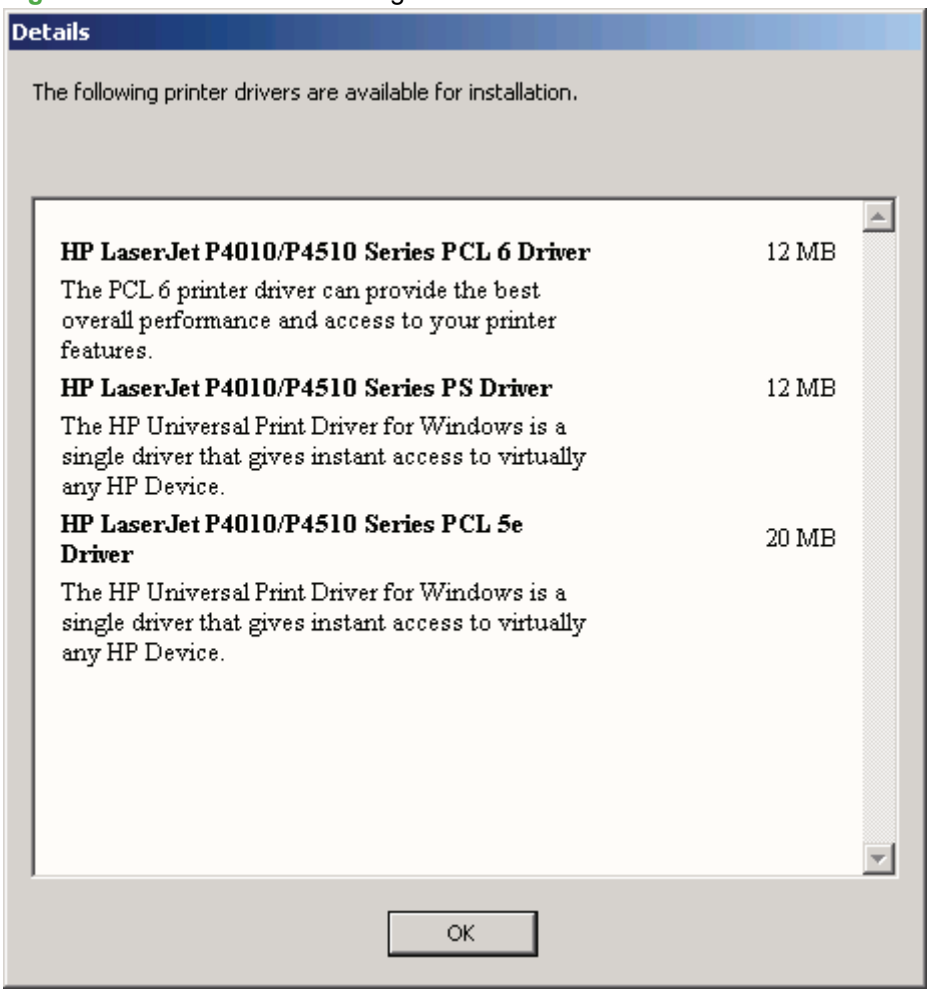
Figure 3-11 Drivers dialog box



Any combination of features can be selected for the installer, and none depends on any other selection. You can create a custom installer that installs features without including a print driver. Select the drivers to install.

To view details about the drivers, click **Details…**. The driver **Details** dialog box appears, as shown in the following figure.

Figure 3-12 Driver **Details** dialog box

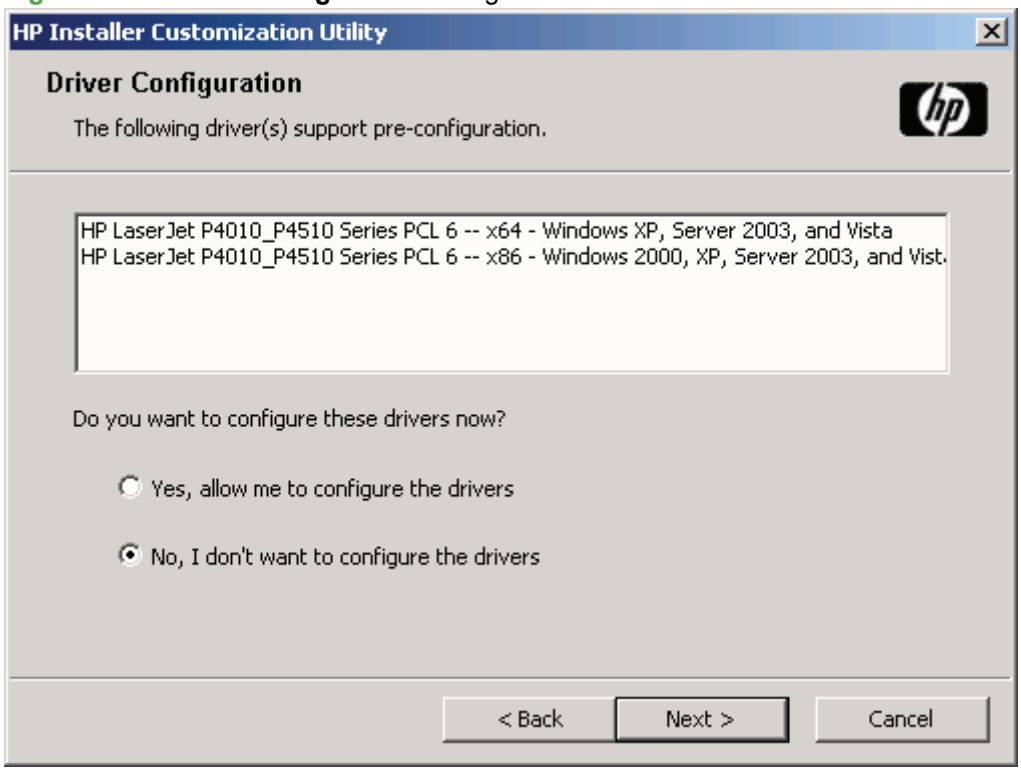


All the drivers that are available on the **Drivers** dialog box are described in the **Details** dialog box. Click **OK** to return to the **Drivers** dialog box.

On the **Drivers** dialog box, select one or more drivers, and click **Next** to continue the wizard.

The **Driver Configuration** dialog box appears, as shown in the following figure.

Figure 3-13 **Driver Configuration** dialog box



To preconfigure the driver settings, select **Yes, allow me to configure the drivers**, and then click **Next**. The **Driver Configuration** dialog box changes to show two tabs:

- **Printing Preferences**
- **Device Settings**

These tabs are shown in the following figures.

Figure 3-14 Driver Configuration — Printing Preferences tab

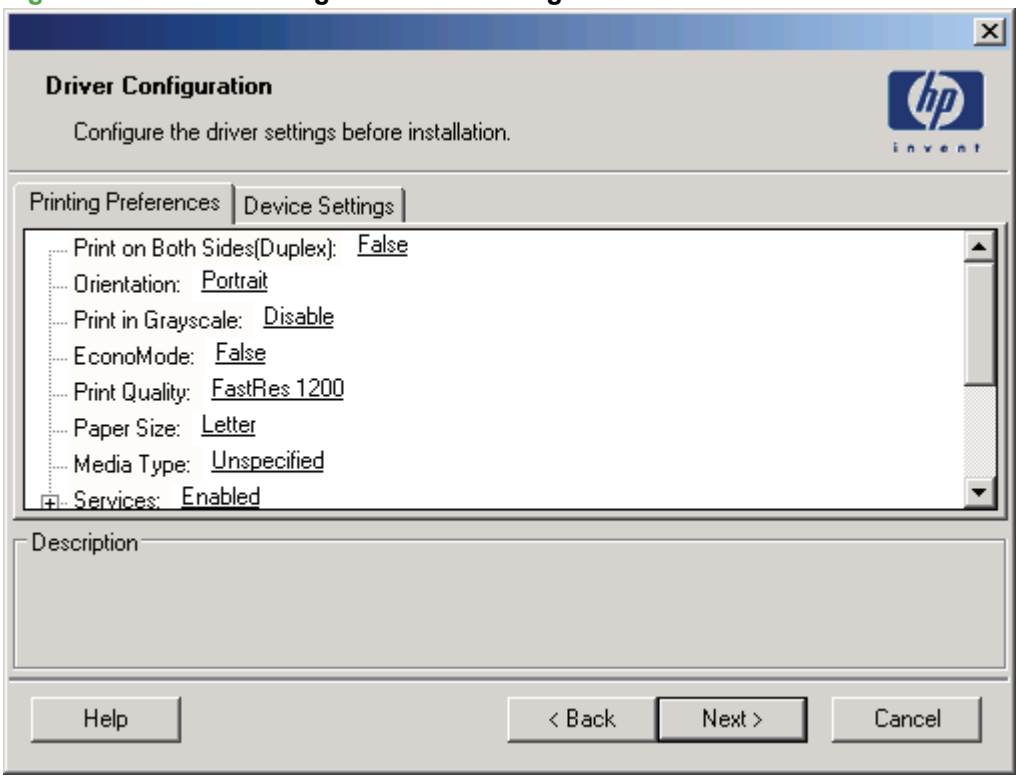
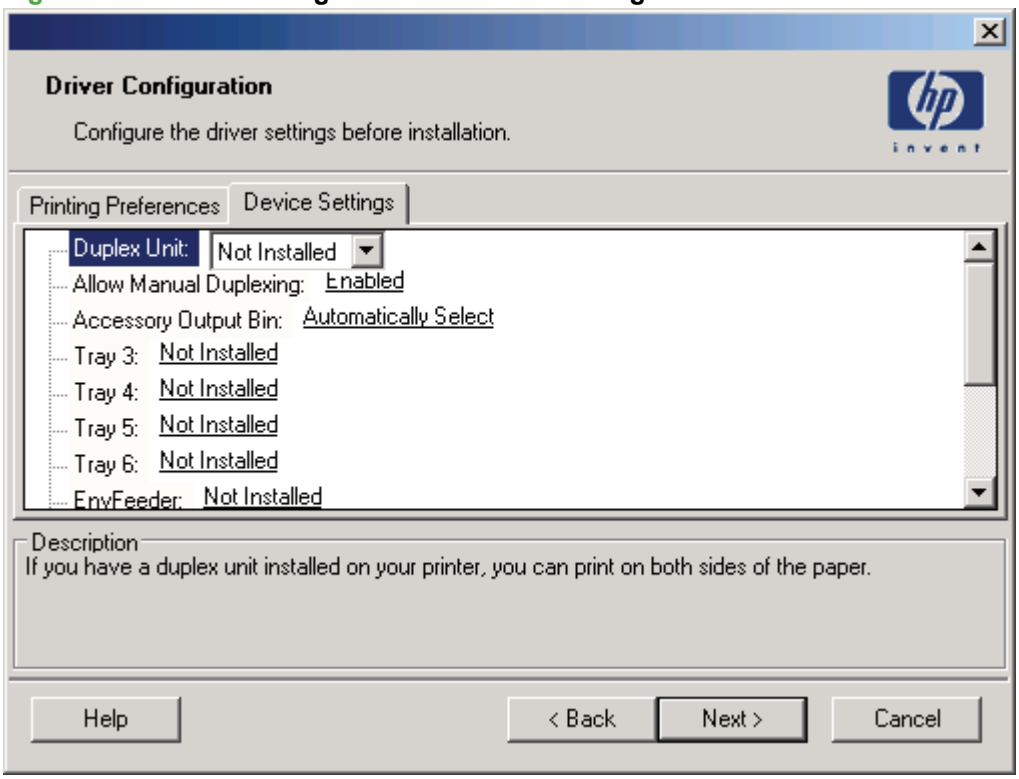


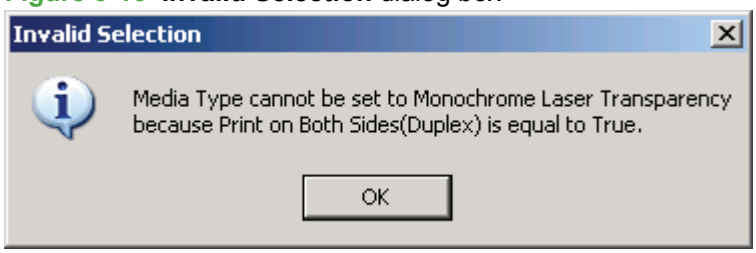
Figure 3-15 Driver Configuration — Device Settings tab



Select the settings on each tab. For each setting, a drop-down menu appears that lists the options. If the setting can be locked, a Lock check box appears beside the drop-down arrow. For example, the **Print on Both Sides (Duplex)** setting can be locked to ensure that users use double-sided printing.

In some instances, an **Invalid Selection** message might appear. For example, when **Duplex** is selected and **Transparency** is selected as the Media Type, an error message appears, as shown in the following figure.

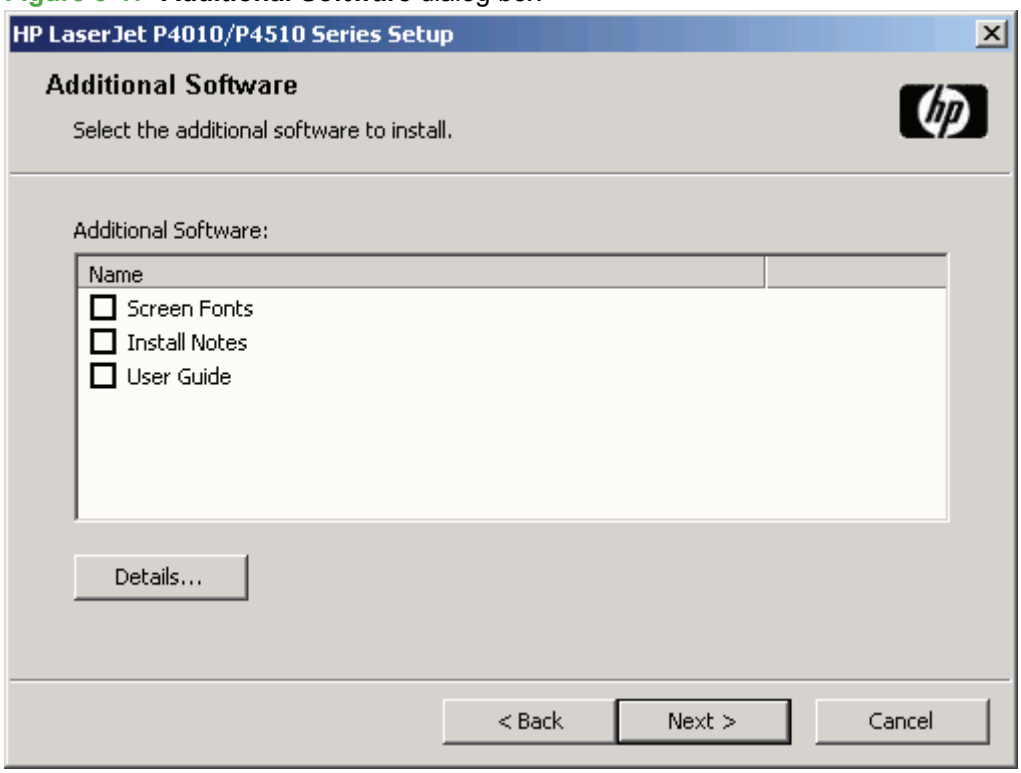
Figure 3-16 Invalid Selection dialog box



When the settings have been selected, click **Next**.

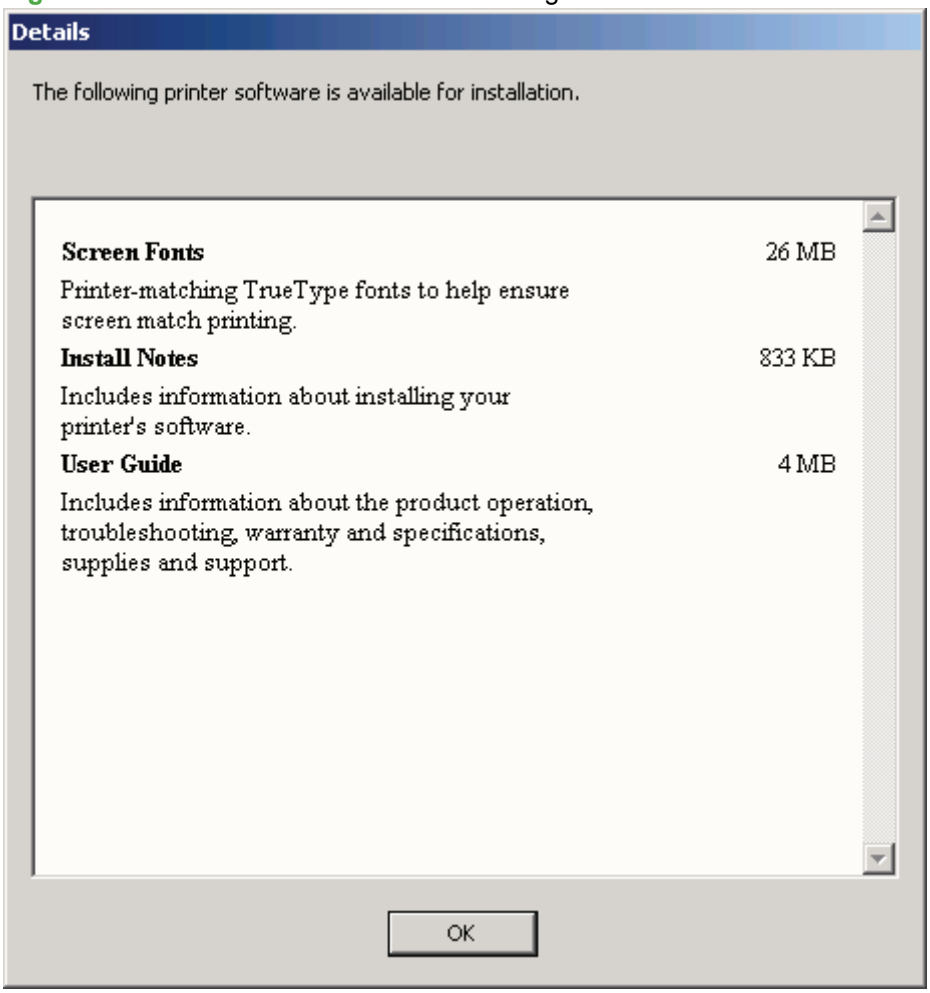
The **Additional Software** dialog box appears, as shown in the following figure.

Figure 3-17 Additional Software dialog box



Clicking **Details** opens the additional software **Details** dialog box, as shown in the following figure.

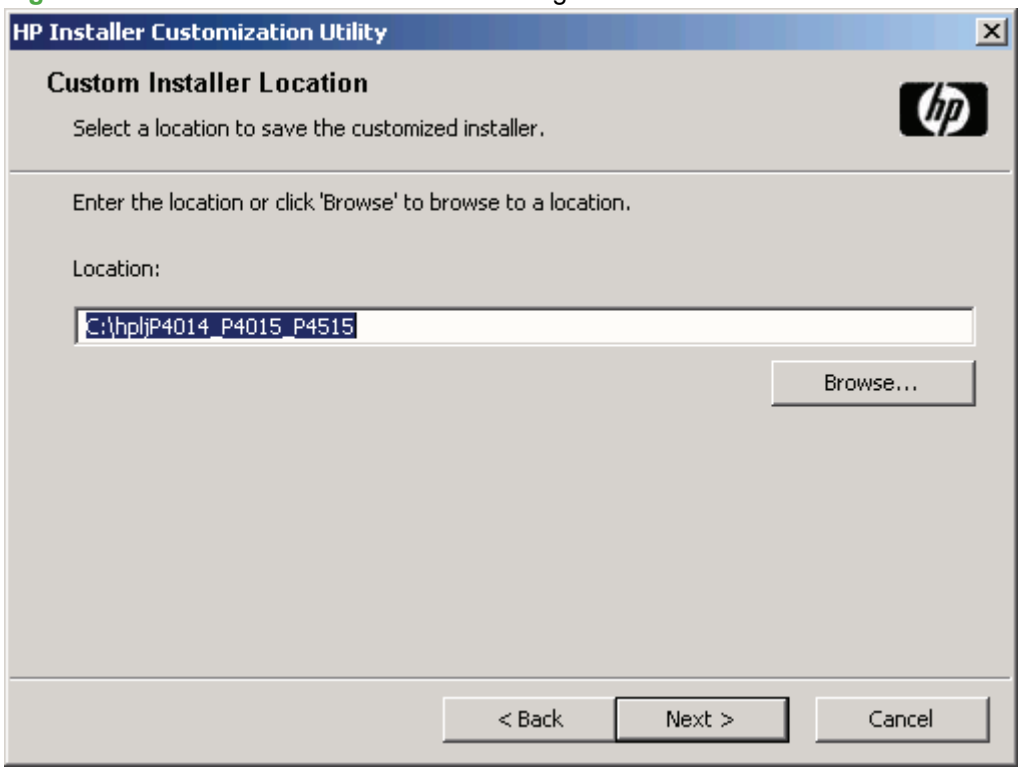
Figure 3-18 Additional software **Details** dialog box



All the software 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, as shown in the following figure.

Figure 3-19 **Custom Installer Location** dialog box



In the **Location:** text field, type the directory for the custom installer. The field is large, but is limited as to the number of characters that it can accommodate.

To change the directory for the custom installer, click **Browse…**, navigate to the appropriate folder, and then click **OK** to return to the **Custom Installer Location** dialog box.

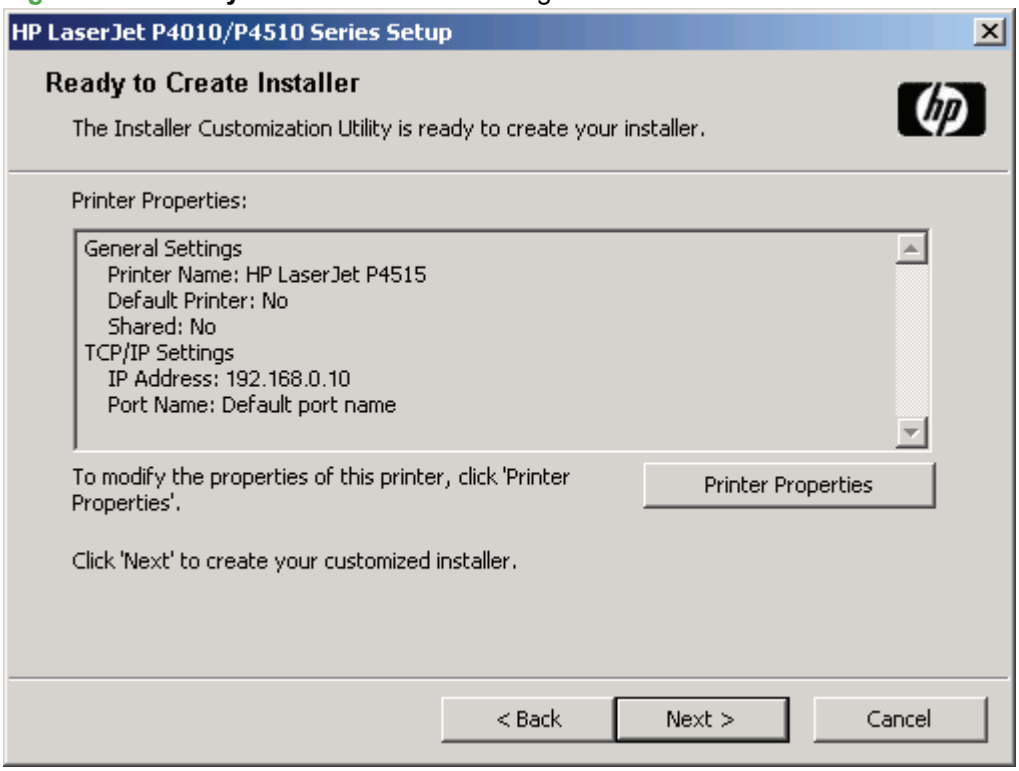
Click **Next** to open the **Ready to Create Installer** dialog box, as shown in the following figure.

NOTE: The location for the installer package defaults to `c:\<NAME OF PRINTER>`

.

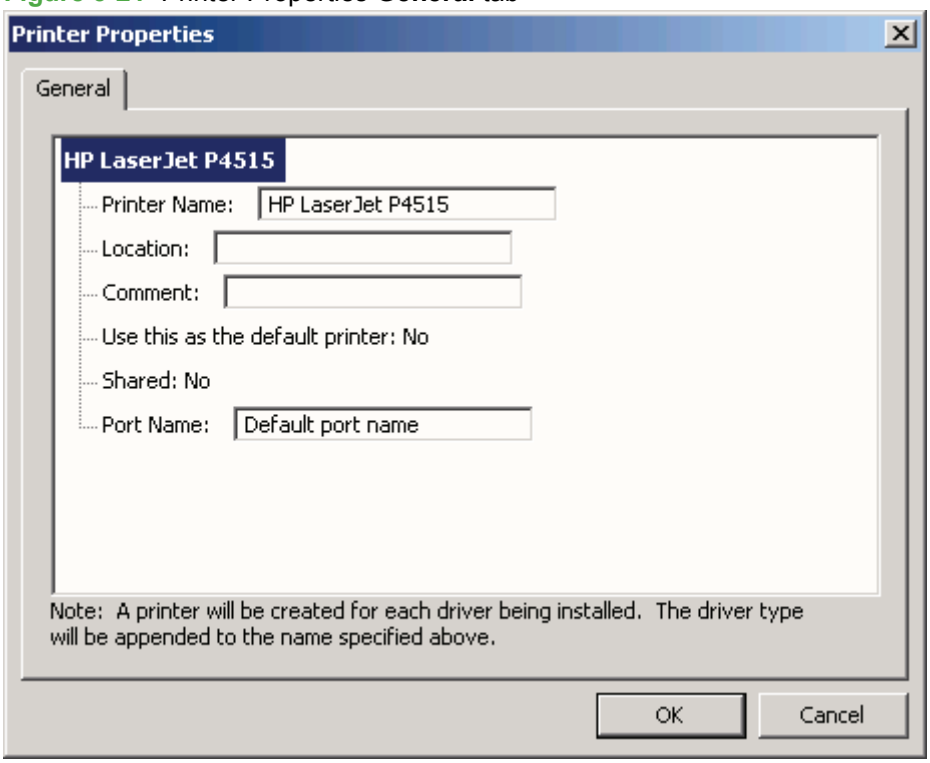
NOTE: During installation, several files, including system files, are placed at the root of the directory that appears in the **Location** field. Be sure that enough space is available on the directory before continuing.

Figure 3-20 **Ready to Create Installer** dialog box



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

Figure 3-21 Printer Properties **General** tab



To change the device name, type a new name in the **Printer Name** field.

Use the **Location** and **Comment** fields to describe the device, or leave these fields blank.

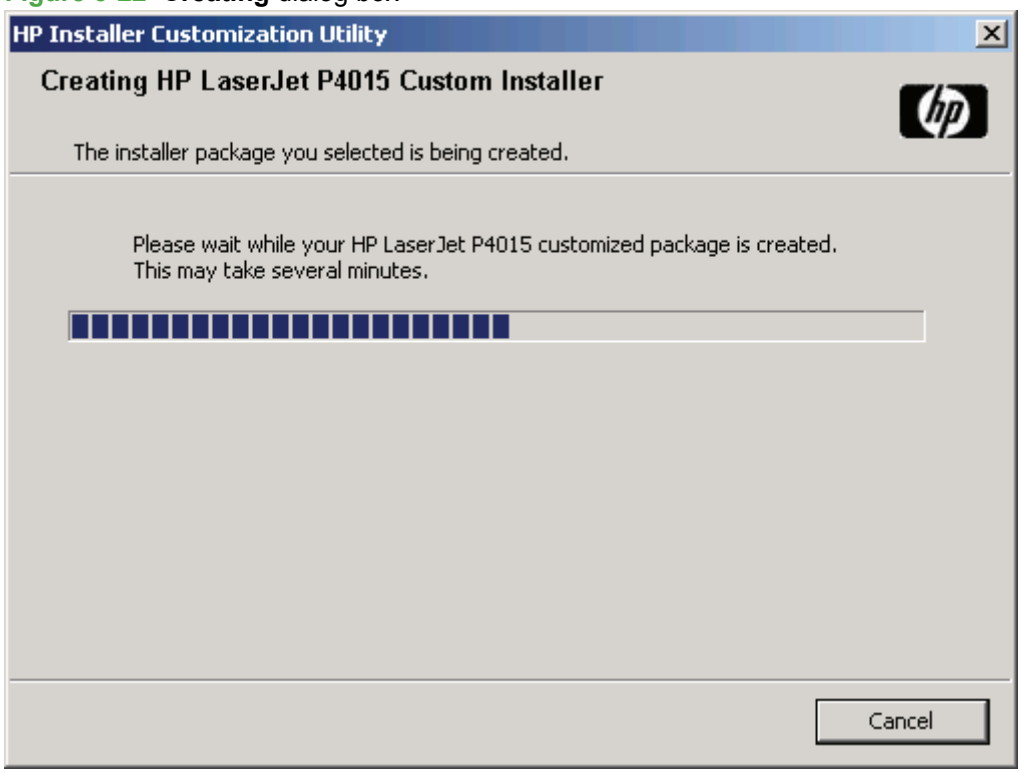
To use the HP LaserJet P4010 and P4510 Series printer as your default device, click **Use this as the default printer**, and then select **Yes** drop-down menu.

To share the device over a network, click **Shared**, and then select **Yes** in the drop-down menu. The default setting is **No**.

Click **OK** to return to the **Ready to Create Installer** dialog box.

In the **Ready to Create Installer** dialog box, click **Next** to begin the process of creating the custom installer package. The **Creating** dialog box is shown in the following figure.

Figure 3-22 Creating dialog box

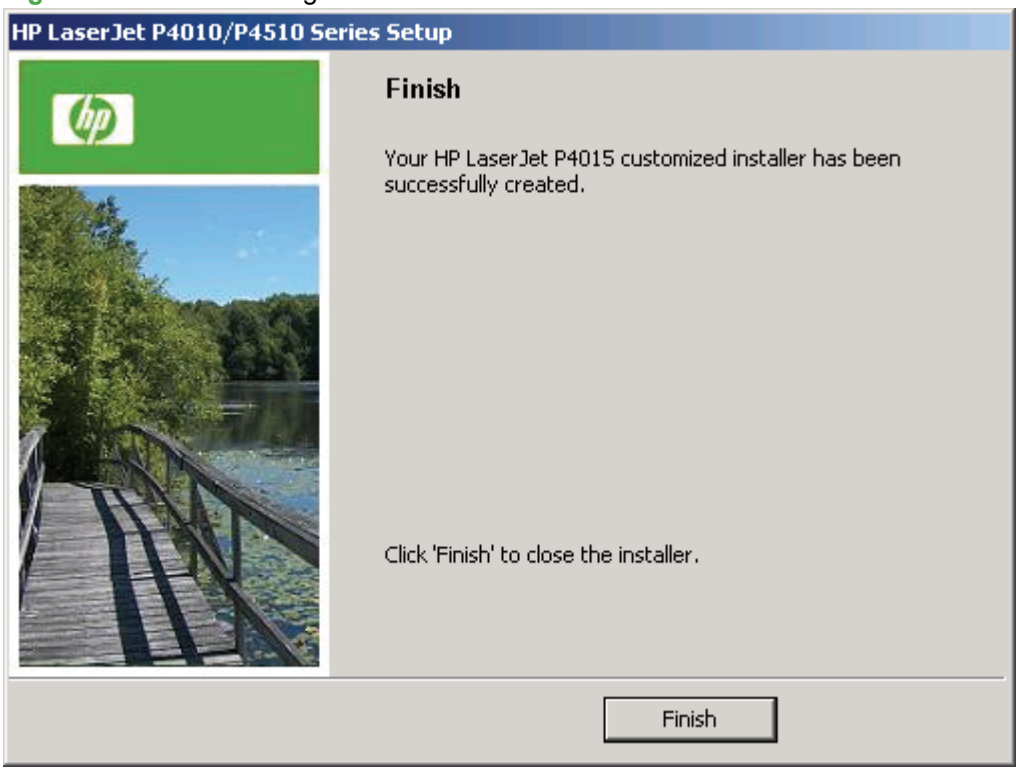


This dialog box remains on the screen until the status bar fills.

Click **Cancel** to close the Installer Customization Wizard without creating the customized installer package.

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

Figure 3-23 **Finish** dialog box



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

Distribution

The custom 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 selected features and options. The installation package is run silently so that it requires no user interaction. This installation method is useful when using the default selections that the installer provides or when running 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, because 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 specified during package creation.

For more information (including the exact content for replacing entries in the RESPONSE.INI file), see the *HP Device Installer Customization Wizard Administrator's Guide*.

Detailed Microsoft Windows installation instructions

A series of dialog boxes appear during installation of the HP LaserJet P4010 and P4510 Series 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

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.

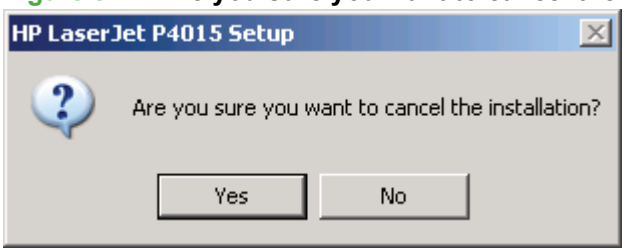
Click the **Back** button on any installation dialog box to return to the previous dialog box. The specific dialog box depends on your previous selections.

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.

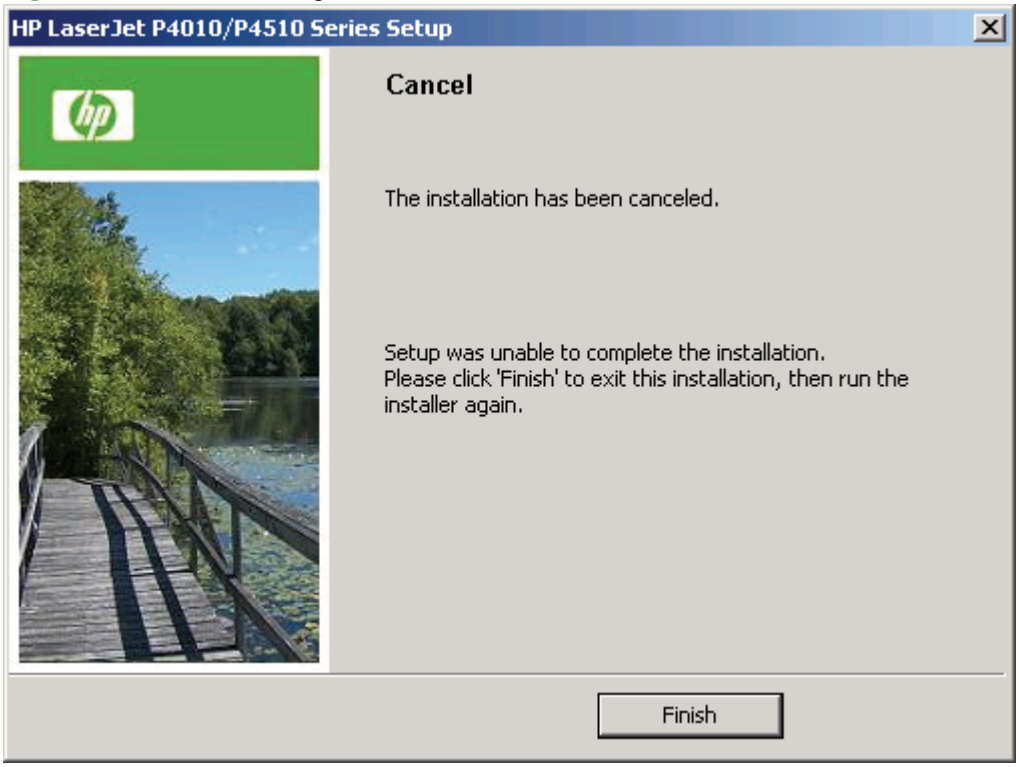
1. Click **Cancel**. A dialog box opens that prompts you with this question: “Are you sure you want to cancel the installation?”

Figure 3-24 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 3-25 Cancel dialog box



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

Modify a pre-existing installation

If an HP LaserJet P4010 and P4510 Series 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

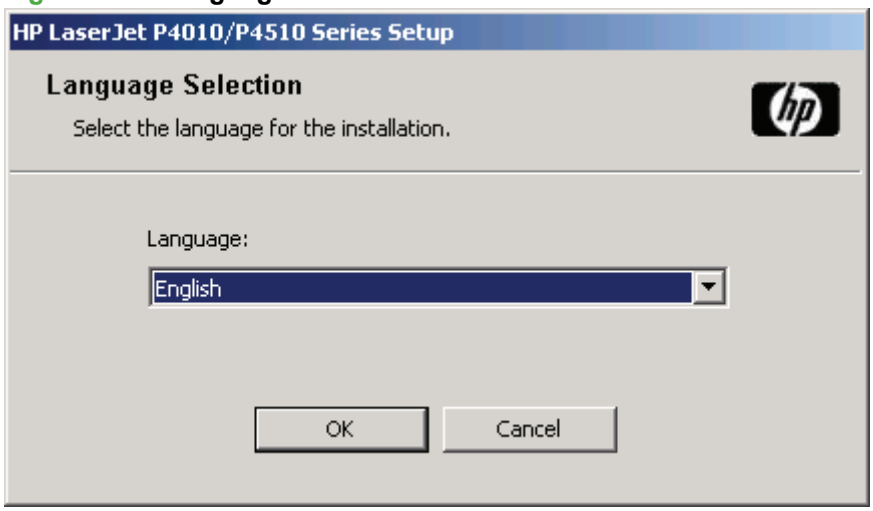
The printing-system software should be installed *before* the HP LaserJet P4010 and P4510 Series printer is connected to the computer through a parallel or USB connection and turned on. During the installation process, the software will prompt you to connect the device.

Basic, Full, and Custom Installation dialog box sequence

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

When you select the **Install** option from the HP LaserJet P4010 and P4510 Series printing-system software CD browser screen, the **Language Selection** dialog box appears.

Figure 3-26 Language Selection



Select a location from the **Location:** drop-down menu.

NOTE: The **Language Selection** dialog box lists only the languages that are available on the HP LaserJet P4010 and P4510 Series printing-system software CD.

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

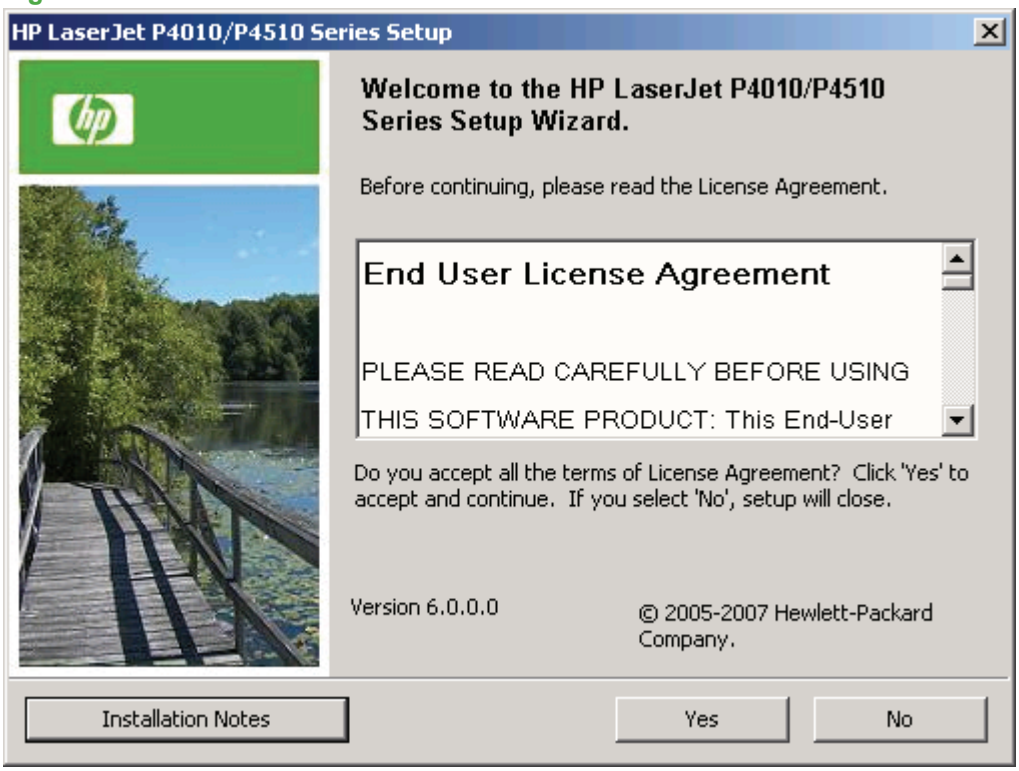
Select any other language that is available on the CD by clicking the down arrow in the drop-down menu.

Click **OK** to initiate the printing-system setup.

The **Welcome** screen opens. This screen also contains the **License Agreement**. Click **Yes** to continue with the installation.

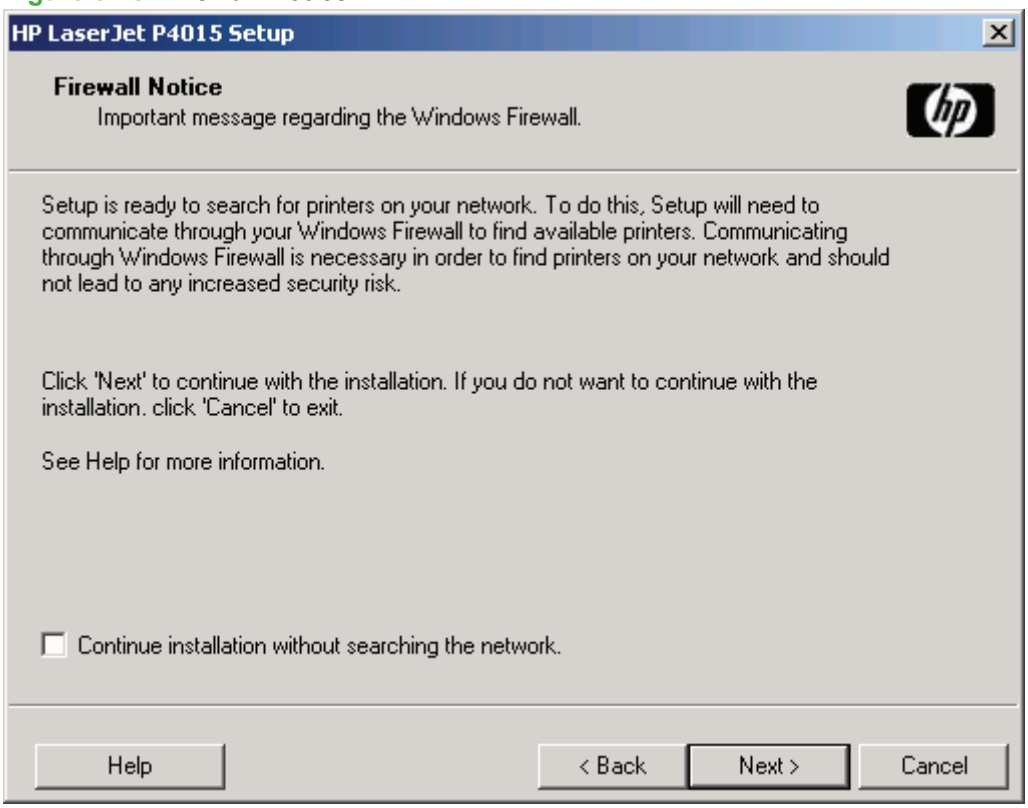
NOTE: Click **Installation Notes** on this screen to view the HP LaserJet P4010 and P4510 Series Install Notes.

Figure 3-27 Welcome screen



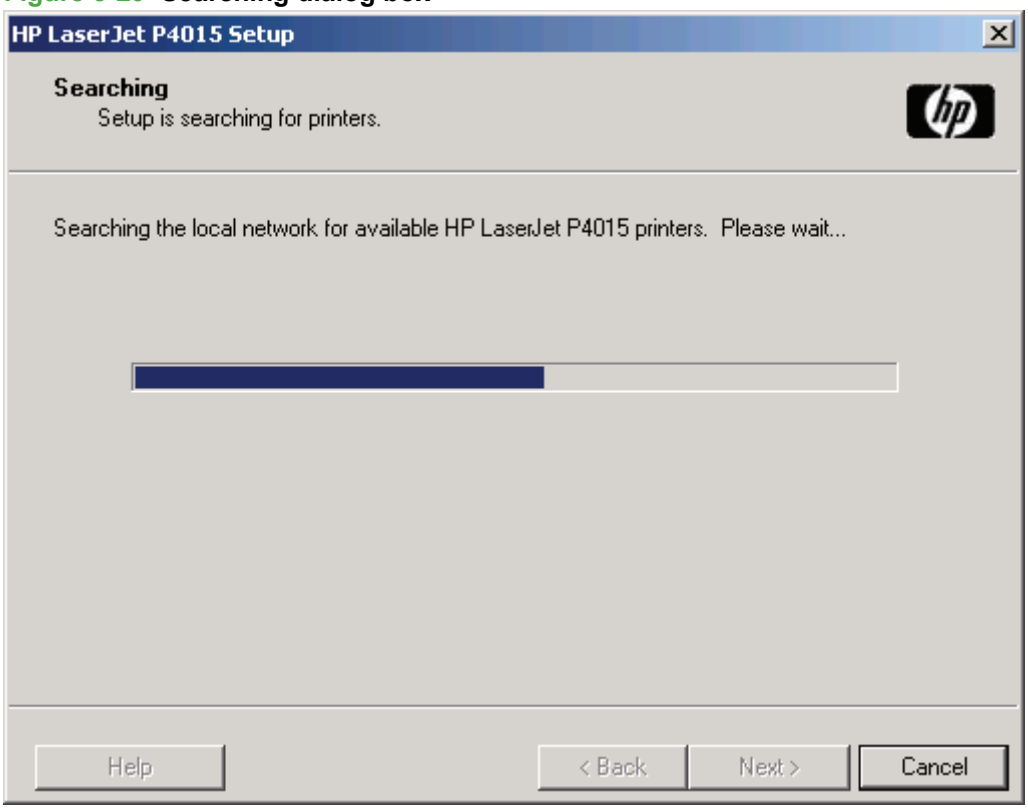
The **Firewall Notice** window opens. Click **Next** to proceed.

Figure 3-28 Firewall Notice



The **Searching** dialog opens. Wait for the Searching progress bar to complete.

Figure 3-29 Searching dialog box



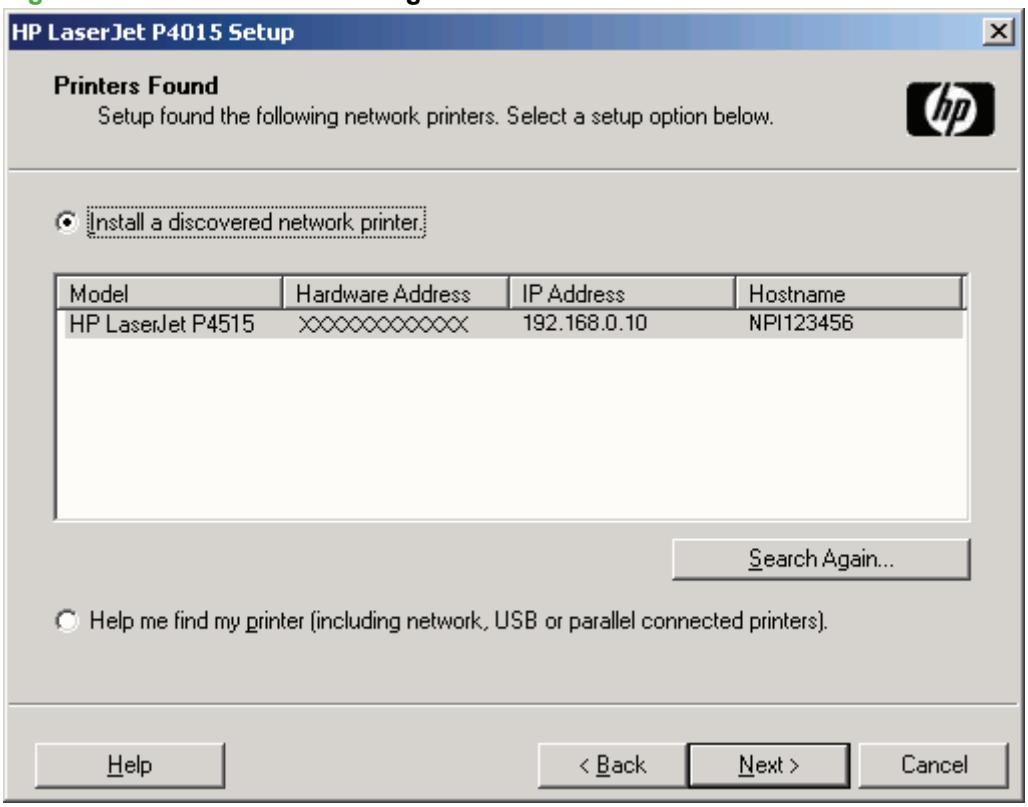
The **Printers Found** dialog opens listing those printers discovered on the network.

If the desired printer is listed in the Printer Model field, select the printer, select the **Install a discovered network printer** option, and click **Next**. The **Installation Type** window opens. (See Figure 3-36 Installation Type window on page 102 to continue.)

If the desired printer is not listed, ensure the printer is connected, and click **Search Again...** to attempt to discover the printer again.

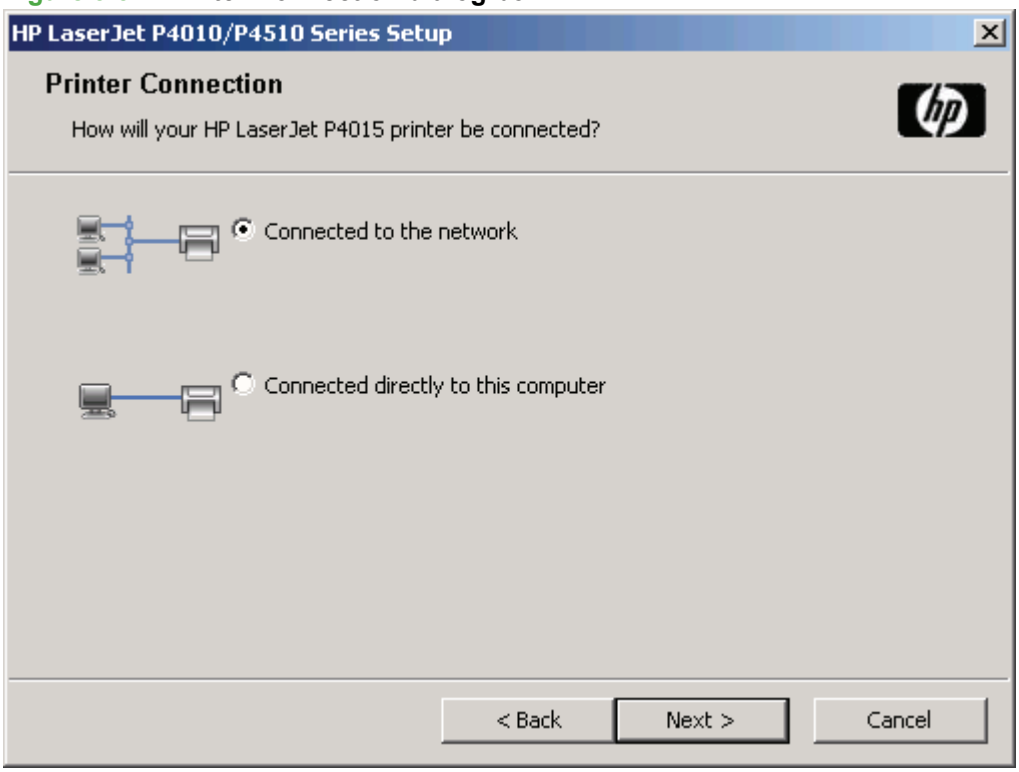
The **Printers Found** dialog opens. If the printer is still not listed, select the **Help me find my printer (including network, USB or parallel connected printers).** option. Use this option if you are installing the software via USB or if you are installing the software via the network and you know the printer address.

Figure 3-30 Printer Found dialog box



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

Figure 3-31 Printer Connection dialog box



NOTE: The HP LaserJet P4010 and P4510 Series printer does not support infrared connections.

If you select **Connect to the network** (using a parallel cable), and then click **Next**, the **Identify a printer** dialog box opens. (See Figure 3-34 Identify a printer dialog box on page 100.)

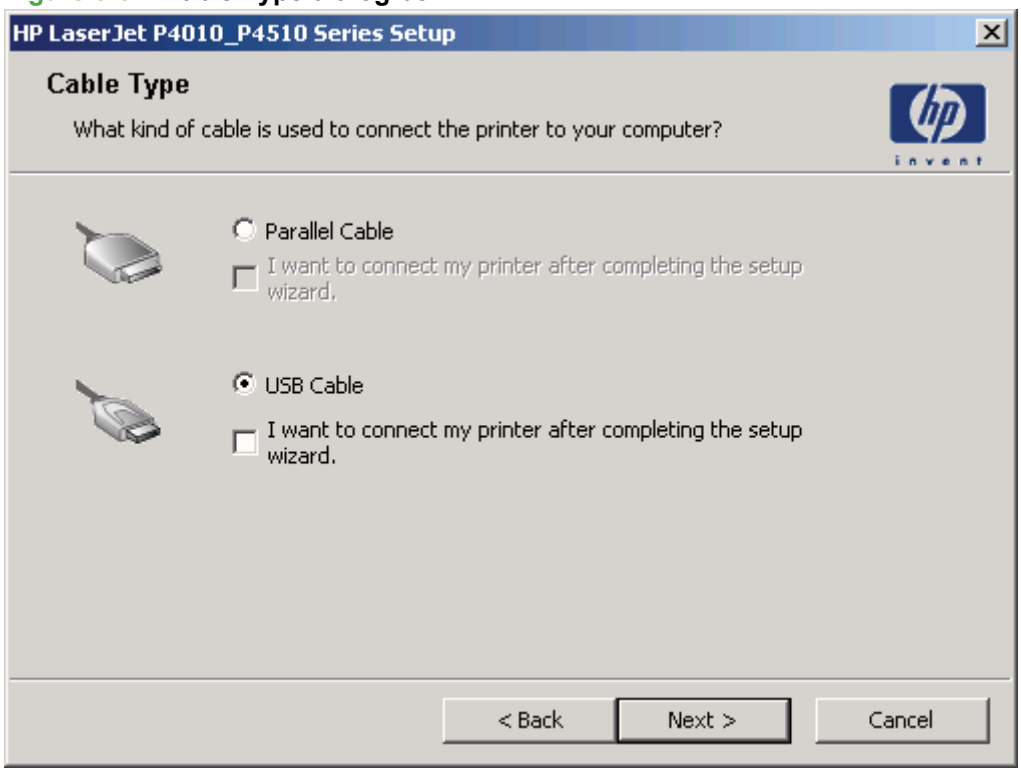
For a network installation, the HP LaserJet P4010 and P4510 Series printer must be connected to the network and turned on before the printing-system software is installed so that the software can detect the device.

If you select **Connect directly to this computer** (using a USB 2.0 cable), and then click **Next**, the **Cable Type** dialog box opens.

NOTE: The printing-system software should be installed *before* the HP LaserJet P4010 and P4510 Series 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.

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.

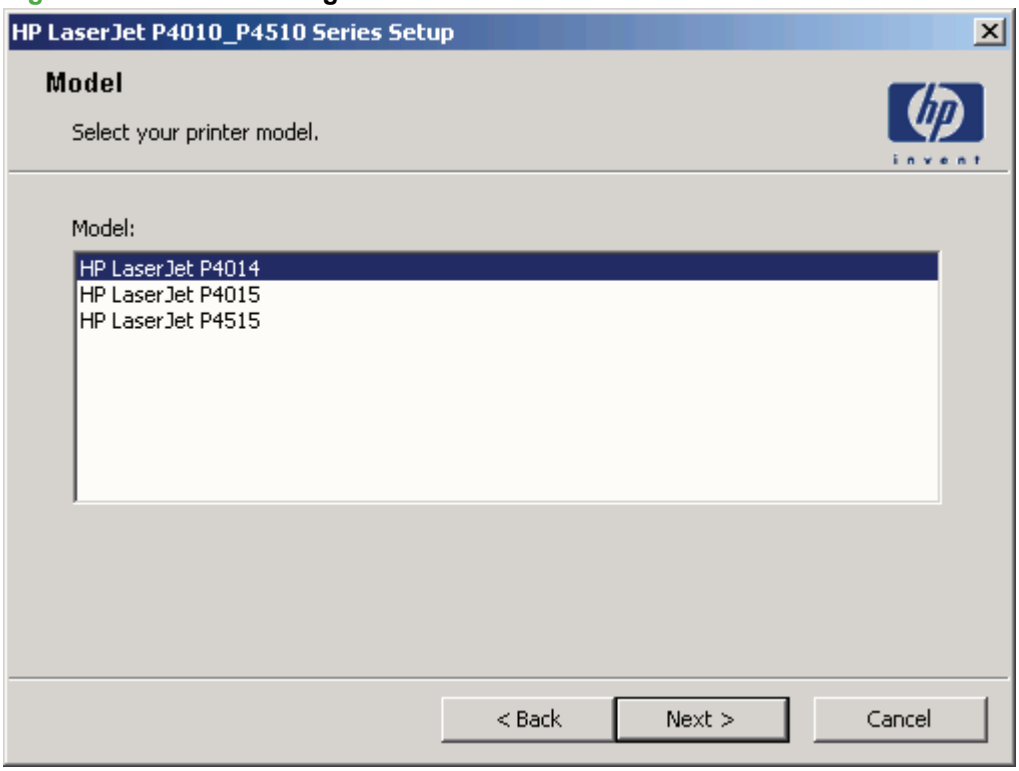
Figure 3-32 Cable Type dialog box



Click the preferred connection type: **USB Cable** or **Parallel Cable**.

The **Models** dialog box opens.

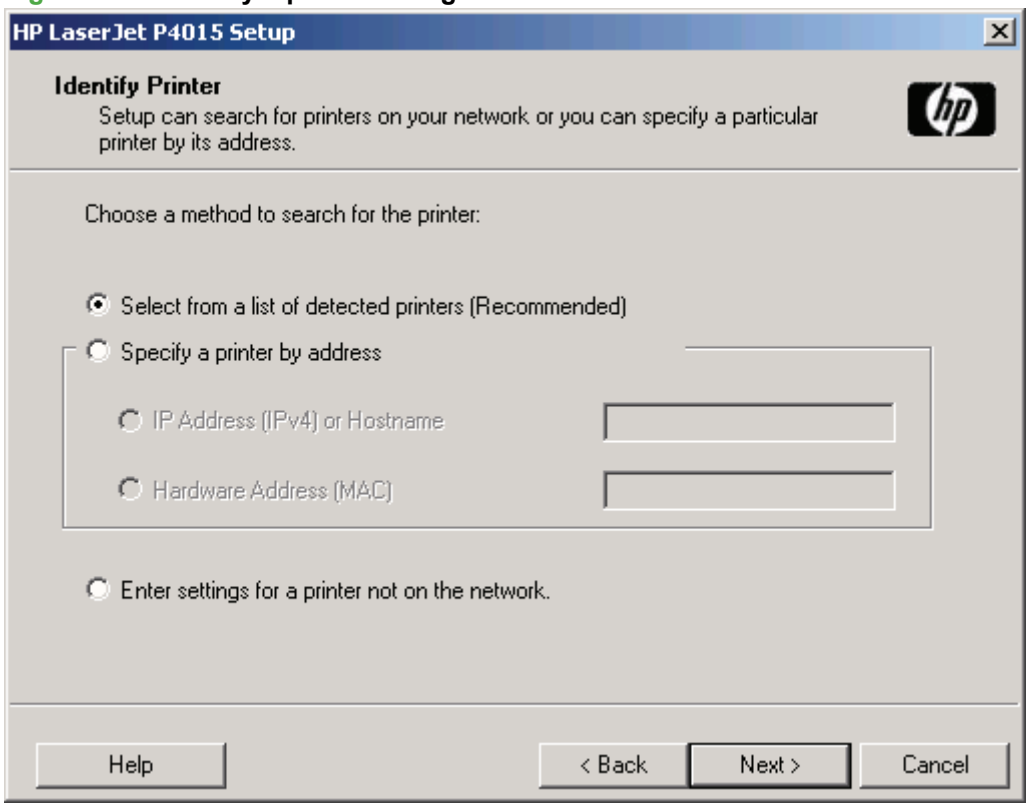
Figure 3-33 Models dialog box



Select the appropriate product model, then click **Next**. The **Installation Type** dialog box opens. See the Figure 3-36 Installation Type window on page 102 to continue.

The **Identify a printer** dialog box opens.

Figure 3-34 Identify a printer dialog box

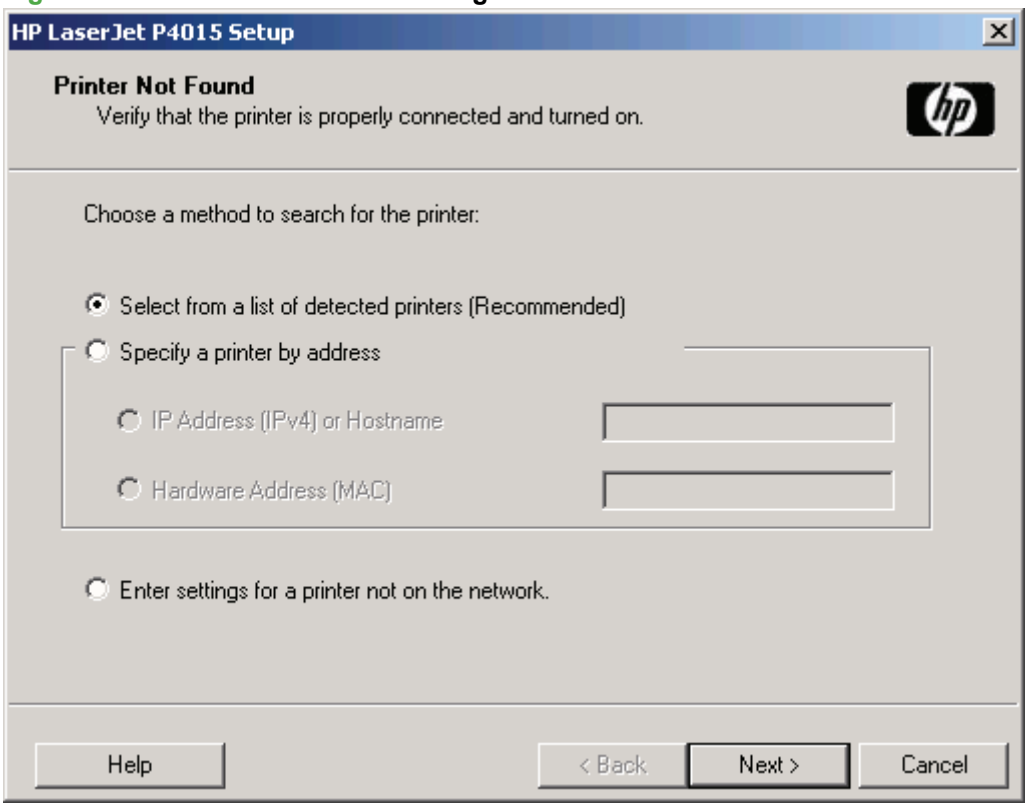


NOTE: If you are installing the device over a network, you must let the search for the first subnet in the network finish in order to find all available printers. After the first subnet is scanned for available HP LaserJet P4010 and P4510 Series printers, the results appear in the **Printer Found** dialog 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 **Printer Found** dialog box (see Figure 3-30 Printer Found dialog box on page 97), depending on the configuration of the network.

NOTE: The installation process includes the option of using the TCP/IP address for the HP LaserJet P4010 and P4510 Series printer, which might be preferable to waiting for the installer to finish the search.

When performing a network installation and no printer is found, the **Printers Not Found** dialog box appears, as shown in the following figure.

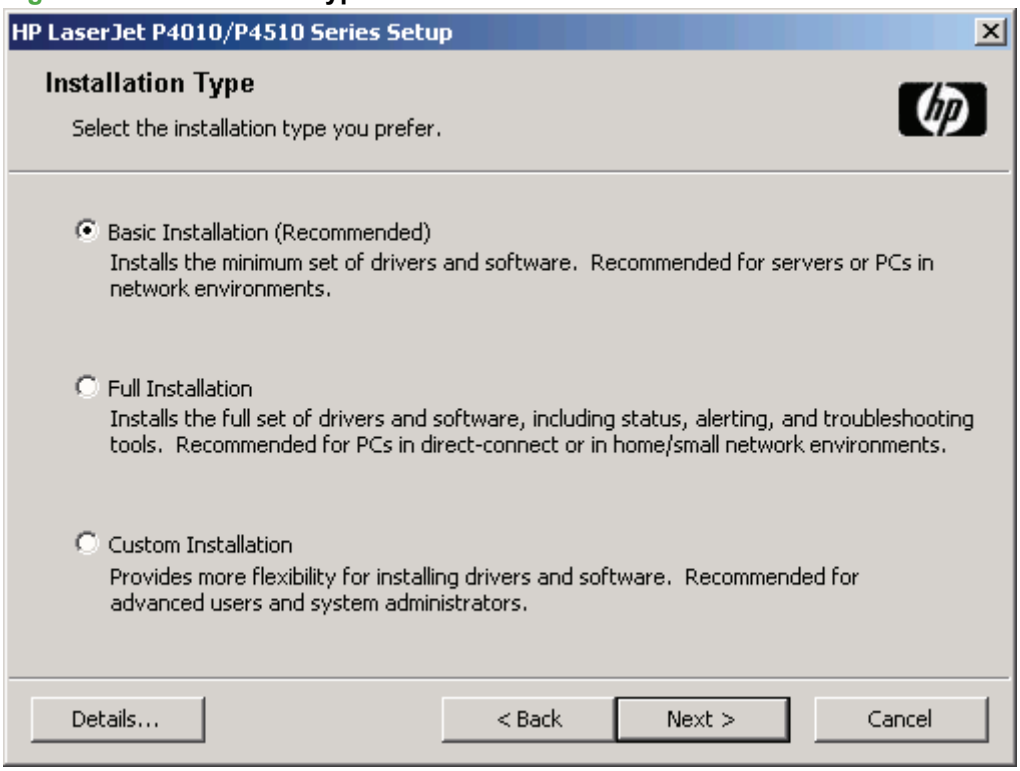
Figure 3-35 Printers Not Found dialog box



The device might not be connected to the network. Ensure that the device is connected and is turned on.

The **Installation Type** window opens.

Figure 3-36 Installation Type window

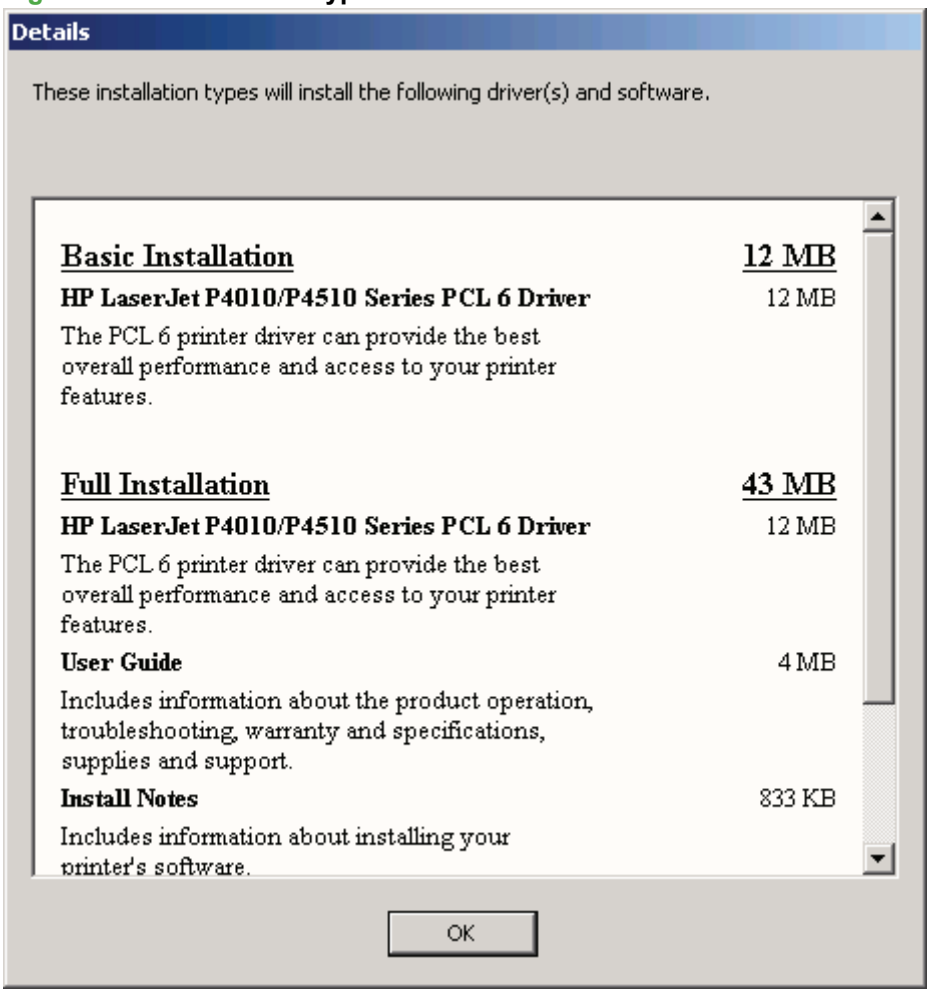


Click one of the following **Installation types** and then click **Next**.

- **Basic Installation (Recommended)**
- **Full Installation**
- **Custom Installation**

Click **Details** to see detailed information about each installation option.

Figure 3-37 Installation Types Details window

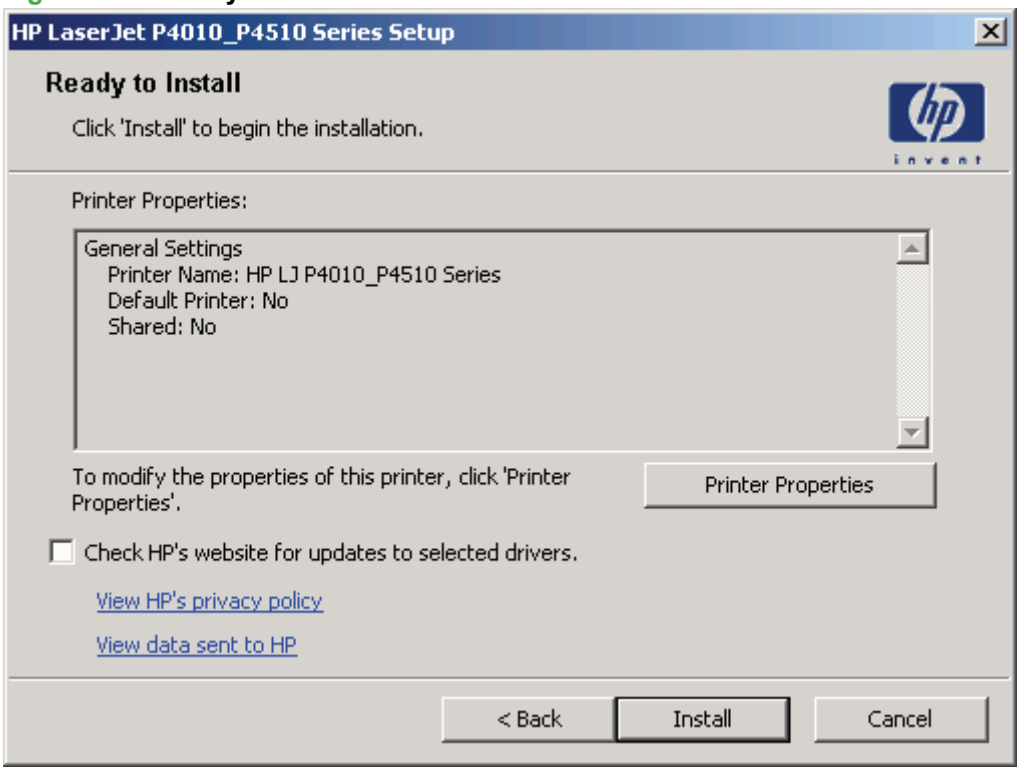


Click **OK** to close the **Details** window.

Select the installation type and click **Next**.

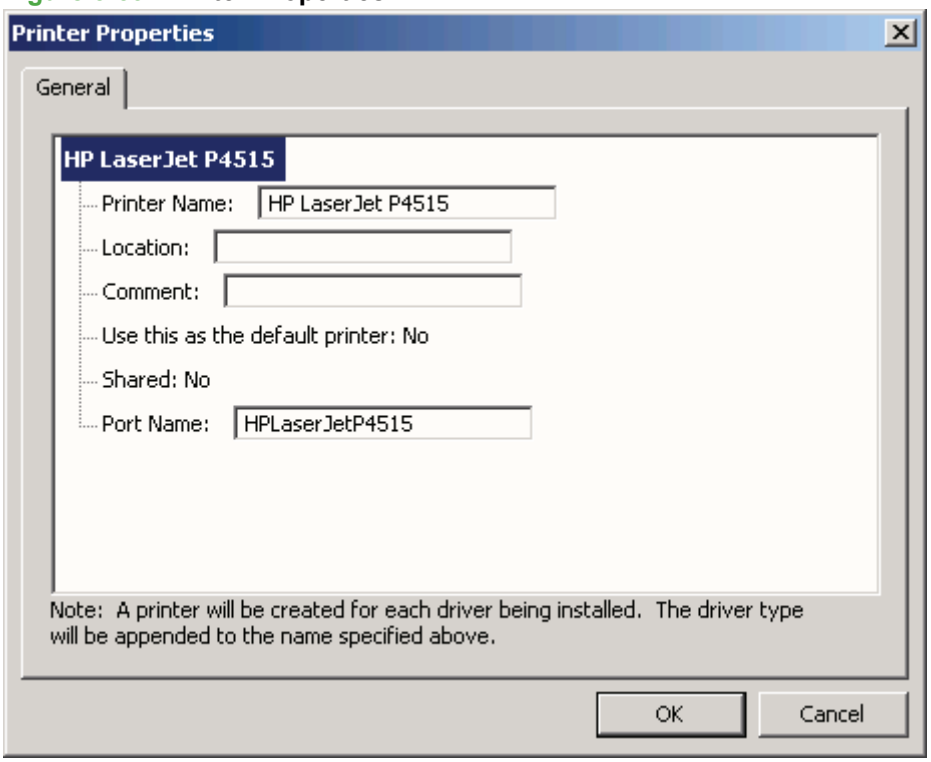
The **Ready to Install** window opens.

Figure 3-38 Ready to Install window



Click the **Printer Properties** button to view the Printer Properties.

Figure 3-39 Printer Properties

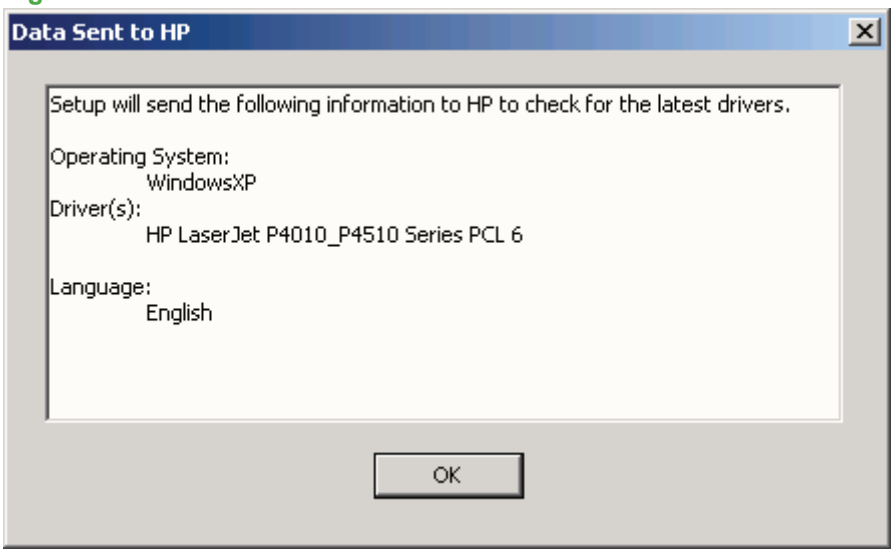


Click **OK** or **Cancel** to return to the **Ready to Install** window.

Click **View HP's privacy policy** link to view the **HP privacy policy** on the HP Web site.

Click the **View data sent to HP** link to open the **Data sent to HP** window.

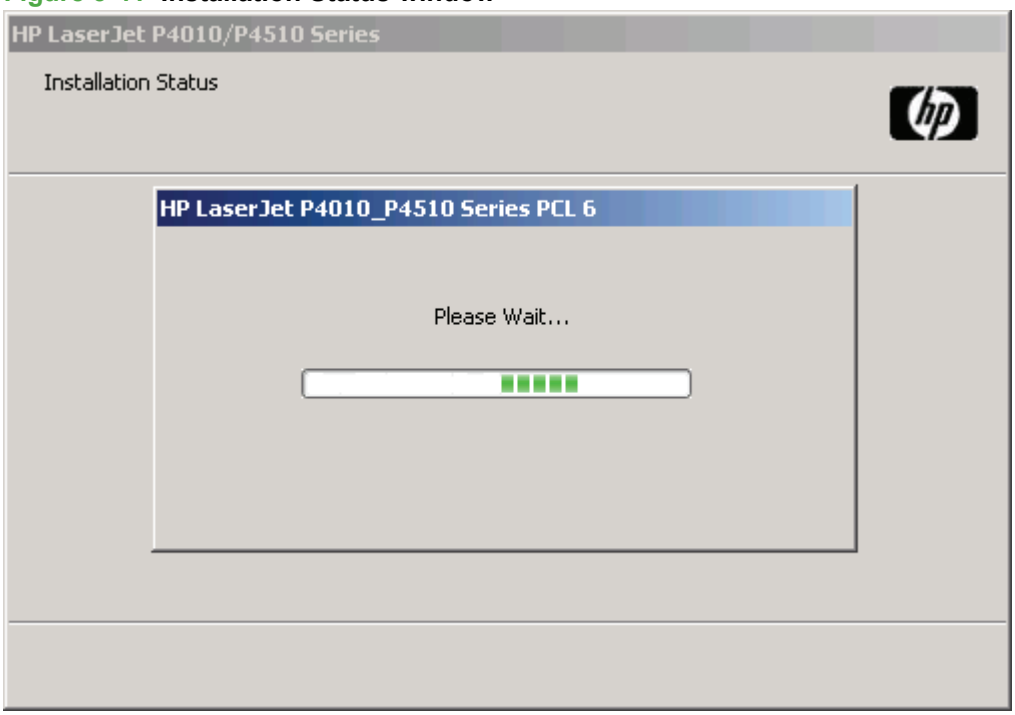
Figure 3-40 Data sent to HP window



Click **OK** to return to the **Ready to Install** window. Then, click **Install** to continue with the installation.

The **Installation Status** window opens.

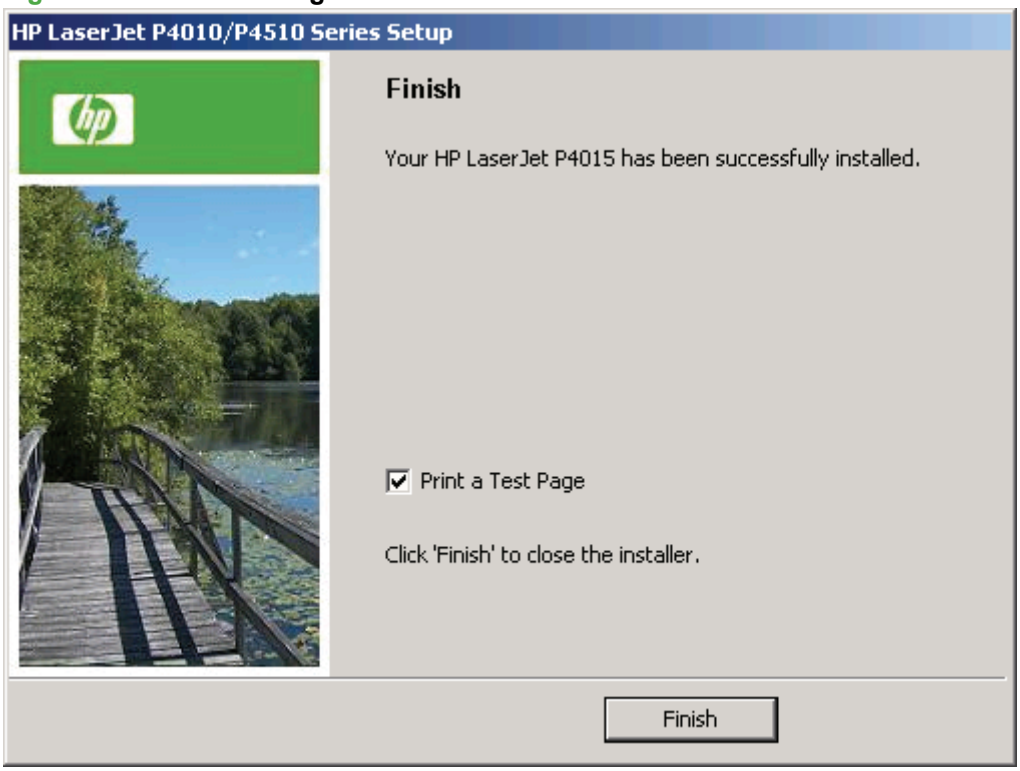
Figure 3-41 Installation Status window



The dialog remains on the screen until the installation is complete.

When the installation is complete, the **Finish** dialog box opens.

Figure 3-42 Finish dialog box

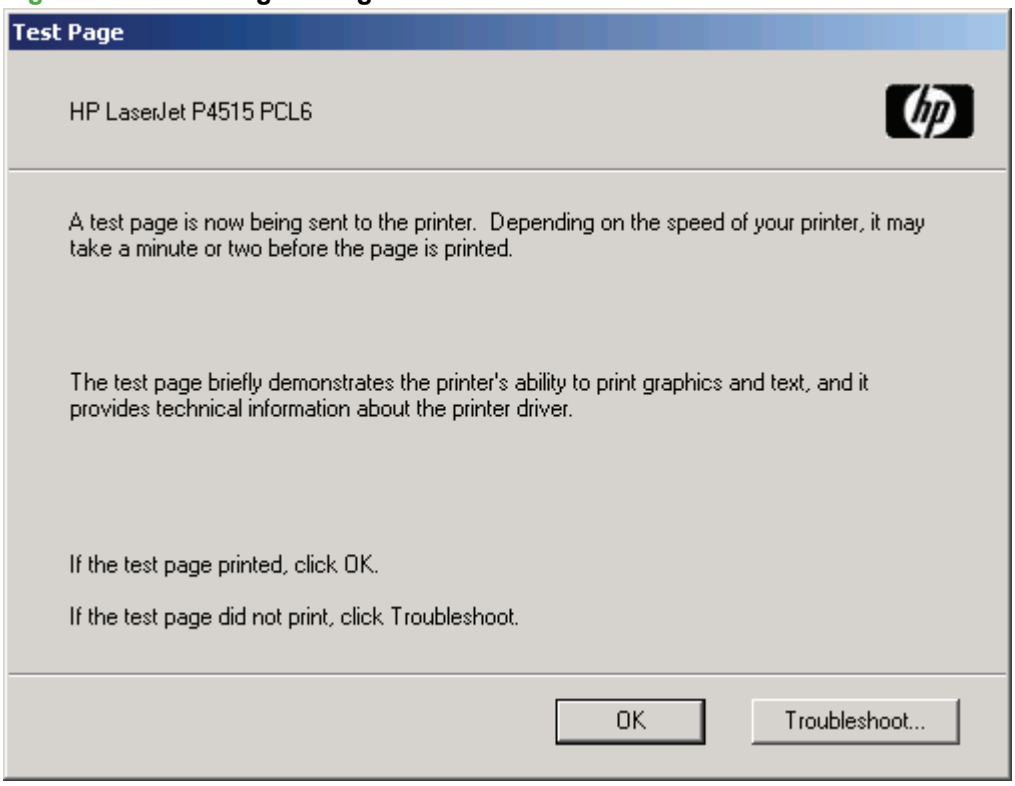


Click **Finish** to close the **Finish** dialog box and exit the installer.

NOTE: Depending on the type of installation and selected options, additional steps might appear after you click **Finish**.

To verify that the device is connected, click **Print Driver Test page**. The **Test Page** dialog box opens.

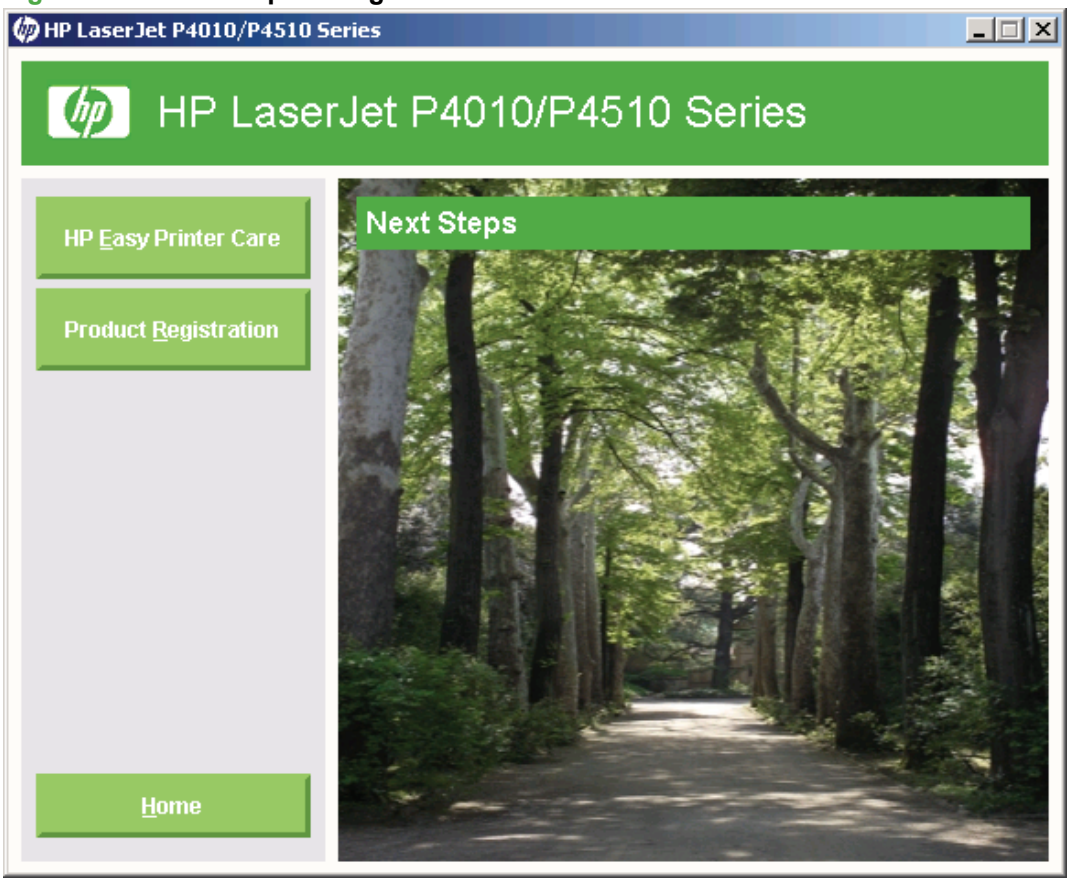
Figure 3-43 Test Page dialog box



If the test page prints correctly, click **OK** to continue. The **Next Steps** dialog box opens.

If it does not print, open the **Printer Properties** tab and try to print another test page, or click **Troubleshoot**.

Figure 3-44 Next Steps dialog box



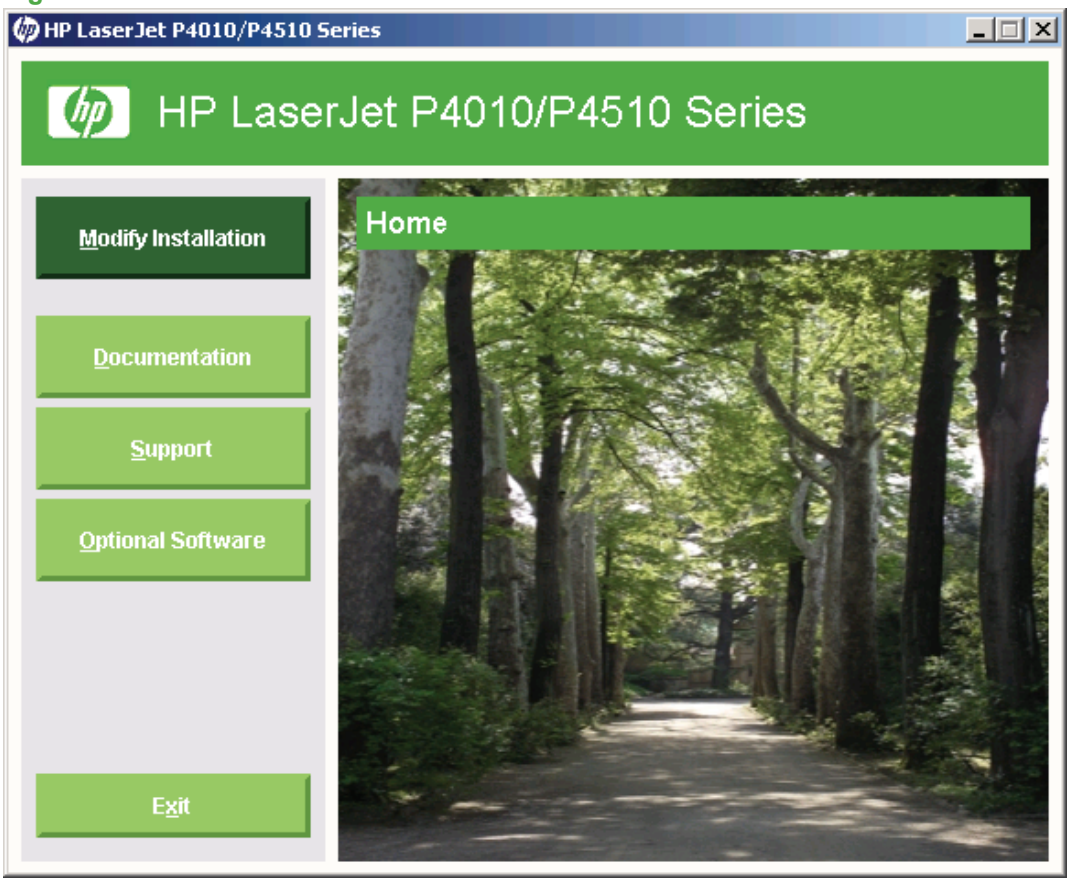
The following options are available:

- **HP Easy Printer Care**
- **Product Registration**

Install optional software

To install additional software, insert the HP LaserJet P4010 and P4510 Series printing-system CD. If the driver software has already been installed, the CD browser main window opens. This window includes the following options:

Figure 3-45 CD browser window



Click the **Optional Software** to view additional software options. These options include the following:

- **HP Universal Print Driver PCL 6**
- **HP Universal Print Driver PCL 5**
- **Installer Customization Wizard**
- **HP Web Jetadmin**
- **HP Easy Printer Care**

User uninstall software

- Uninstall instructions for Windows

Uninstall instructions for Windows

The uninstall procedures vary according to the type of installation that you used.

- Uninstall a Recommended or Express installation
- Uninstall a printer-driver only installation

Uninstall a Recommended or Express installation

NOTE: If you uninstall the software for troubleshooting purposes, try uninstalling only a specific printer. The shared software programs might not uninstall successfully, and are unlikely to be the cause of product-specific problems. These shared software programs should not need to be uninstalled, especially if they are being used by another HP product.

- Use the product software Uninstall component (recommended)
- Use the Windows Add or Remove Programs component
- Use the printing-system software CD

Use the product software Uninstall component (recommended)

Follow these steps to uninstall the printing-system software by using the **Uninstall** component.

NOTE: To uninstall the software you must have administrator privileges.

1. Quit all open programs.
2. Click **Start**, select **Programs** or **All Programs**, select **HP**, select **HP LaserJet P4010 or P4510**, and then click **Uninstall**.
3. The **Important Uninstall Information** dialog box appears. Click **Continue**.
4. The **Cleanup progress** dialog box appears. The progress bar reflects the status of the uninstall process.
5. When the uninstall process is completed, the **Restart** dialog box appears. Click **Restart** to restart the computer and finish the uninstall process.

Use the Windows Add or Remove Programs component

Follow these steps to uninstall the printing-system software by using the Windows **Add/Remove programs** component.

NOTE: To uninstall the software in Windows 2000 or Windows XP, you must have administrator privileges.

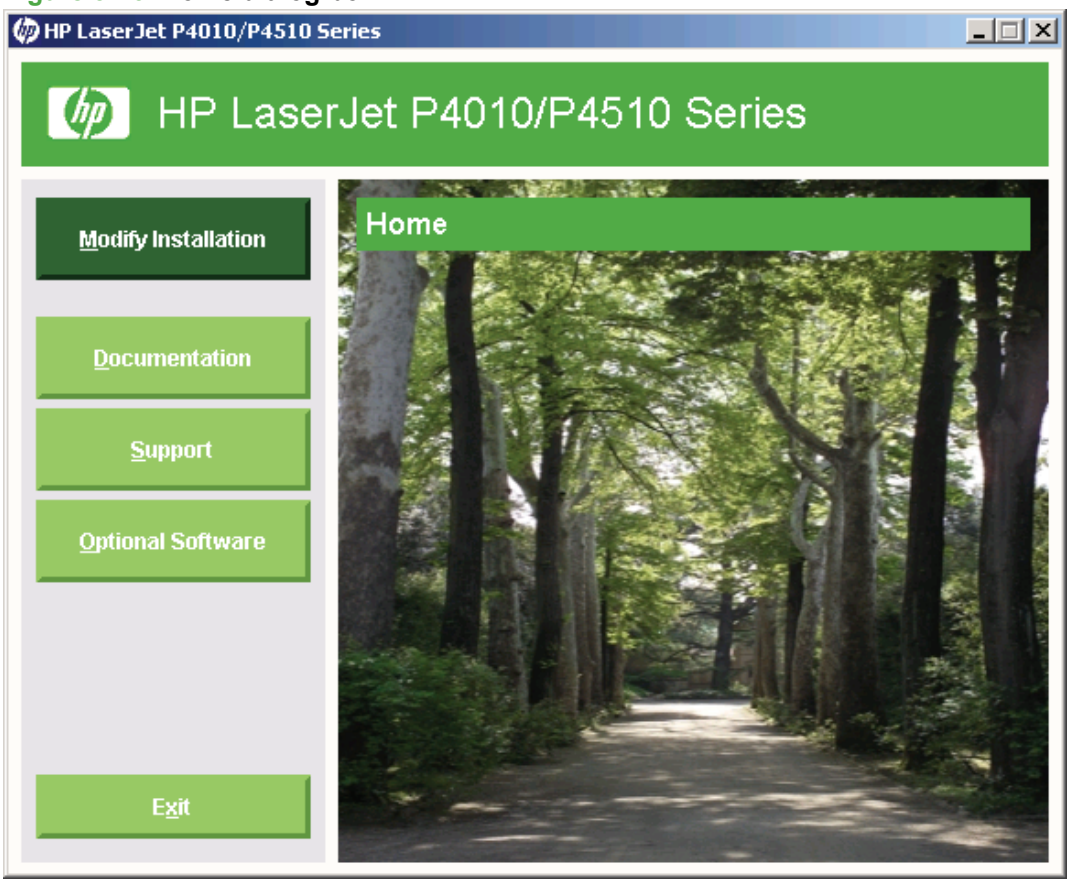
1. Quit all open programs.
2. Click **Start**, click **Control Panel**, double-click **Add or Remove Programs**.
3. Click **Change or Remove programs** on the left side of the window, and then click the name of the product. Click **Remove**.

4. The **Important Uninstall Information** dialog box appears. Click **Continue**.
5. The **Cleanup progress** dialog box appears. The progress bar reflects the status of the uninstall process.
6. When the uninstall process is completed, the **Restart** dialog box appears. Click **Restart** to restart your computer and finish the uninstall process.

Use the printing-system software CD

1. Quit all open programs.
2. Insert the printing-system software CD into the CD-ROM drive. After the system is checked, the **Home** dialog box appears.

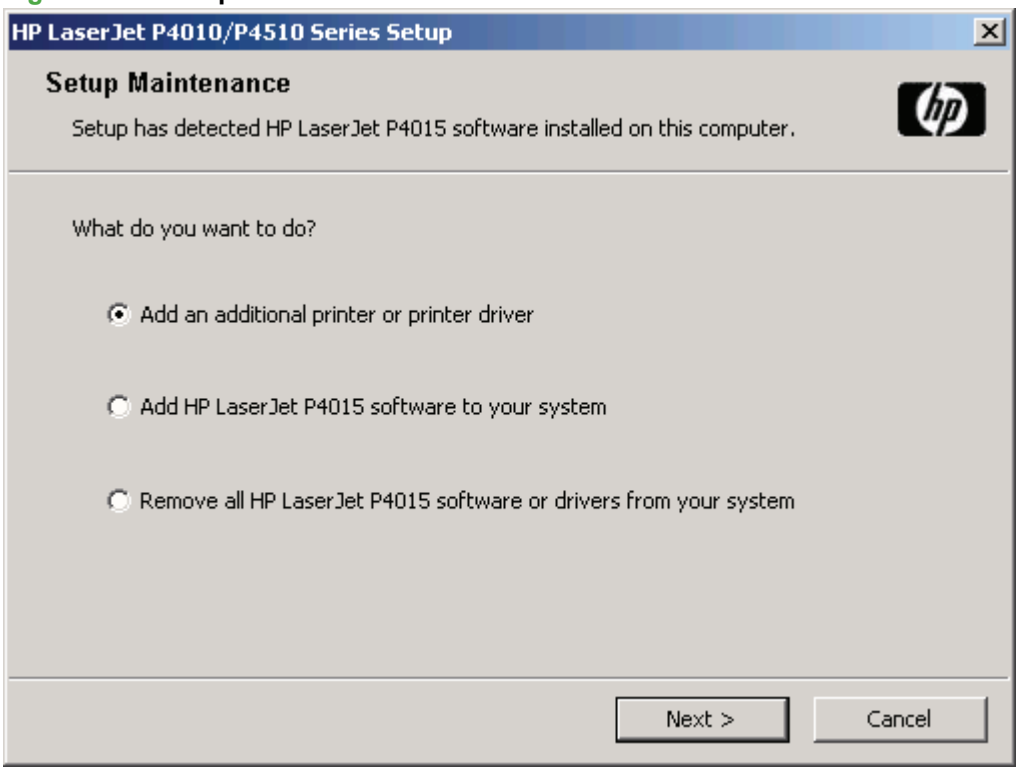
Figure 3-46 Home dialog box



3. Click **Modify Installation**.

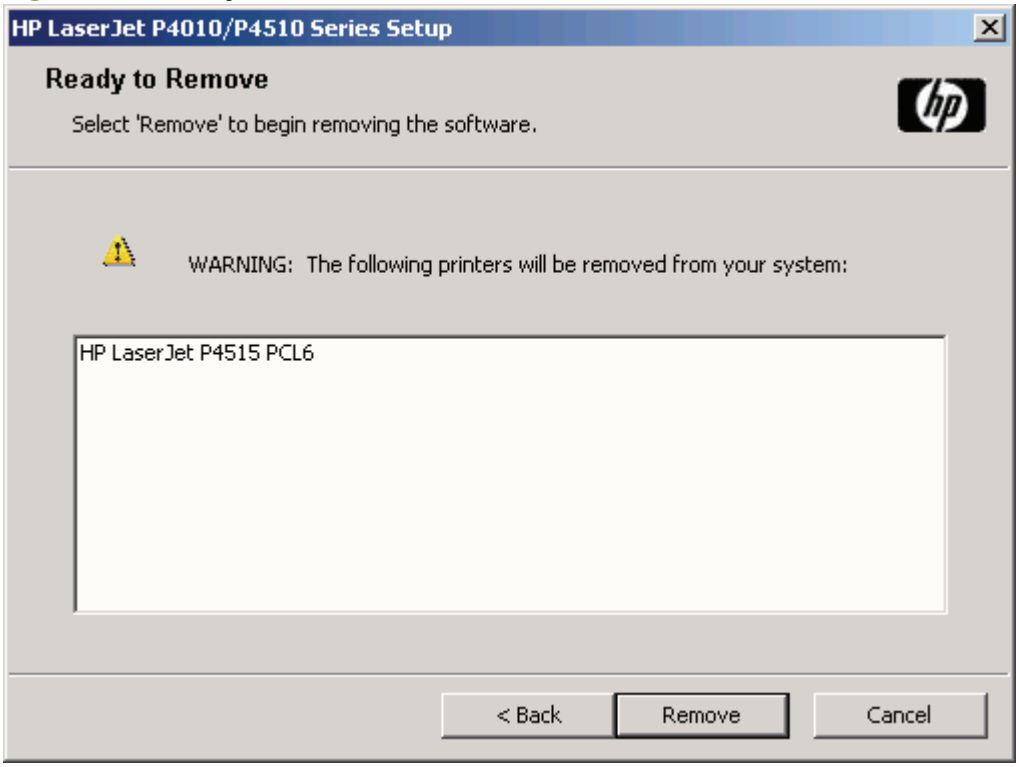
4. The **Setup Maintenance** window opens. Click **Remove all HP LaserJet P4015_P4510 software or drivers from your system** and click **Next**.

Figure 3-47 Setup Maintenance window



5. The **Ready to Remove** window opens. Click **Remove**.

Figure 3-48 Ready to Remove window



6. The **Un-installation Status** window opens. A progress bar indicates the progression of the install.

   The **Finish** dialog box opens. Click **Finish**. The uninstall is complete.

Uninstall a printer-driver only installation

NOTE: To uninstall the software, you must have administrator privileges.

1. Click **Start**, click **Settings**, and then click **Printers**.

   NOTE: For Windows XP and Windows Vista, click **Start**, and then click **Printers and Faxes**.

2. Right-click the icon for the product and then click **Delete**. This removes the icon for the product only, but it does not remove the associated files.
3. To remove the associated files, click **File** from inside the **Printers** folder, and then click **Server Properties**.
4. Click the **Driver** tab, click the name of the product, and then click **Remove**. When you are prompted to confirm the deletion, click **Yes**.
5. Click **Close** to close the **Server Properties** dialog box, and then close the **Printers** folder.

4 HP PCL 5, PCL 6, and PS emulation drivers for Windows

Introduction

The HP LaserJet P4010 and P4510 Series printer includes the following drivers: the PCL 6, the PCL 5, and the PS emulation drivers.

- Change the printer driver settings for Windows
- Help system
- Advanced tab features
- Printing Shortcuts tab
- Paper/Quality tab features
- Effects tab features
- Finishing tab features
- Output tab features
- Job Storage tab features
- Services tab features
- Device Settings tab features
- About tab features

Change the printer driver settings for Windows

Operating System	To change the settings for all print jobs until the software program is closed	To change the default settings for all print jobs	To change the device configuration settings
Windows 2000, XP, Server 2003, and Vista	1. On the **File** menu in the software program, click **Print**. 2. Select the driver, and then click **Properties** or **Preferences**. The steps can vary; this procedure is most common.	1. Click **Start**, click **Settings**, and then click **Printers** (Windows 2000) or **Printers and Faxes** (Windows XP Professional and Server 2003) or **Printers and Other Hardware Devices** (Windows XP Home). For Windows Vista, click **Start**, click **Control Panel**, and then click **Printer**. 2. Right-click the driver icon, and then select **Printing Preferences**.	1. Click **Start**, click **Settings**, and then click **Printers** (Windows 2000) or **Printers and Faxes** (Windows XP Professional and Server 2003) or **Printers and Other Hardware Devices** (Windows XP Home). For Windows Vista, click **Start**, click **Control Panel**, and then click **Printer**. 2. Right-click the driver icon, and then select **Properties**. 3. Click the **Device Settings** tab.
Mac OS X V10.28 and later	1. On the **File** menu, click **Print**. 2. Select the driver, and then click **Properties** or **Preferences**. The steps can vary; this procedure is most common.	1. On the **File** menu, click **Print**. 2. Change the settings that you want on the various pop-up menus. 3. On the **Presets** pop-up menu, click **Save as** and type a name for the preset. These settings are saved in the **Presets** menu. To use the new settings, you must select the saved preset option every time you open a program and print.	1. Open **System Preferences**. 2. Select **Print & Fax**. 3. Select the product from the printer list. 4. Select **Printer Setup**.

Printing Preferences driver tabs

The **Printing Preferences** driver tabs change the default settings that are used across all software programs. Access the **Printing Preferences** tabs by clicking **Start** and then follow the next steps according to which version of Microsoft Windows is installed.

- For Microsoft Windows 2000, click **Settings**, click **Printers**, right-click the printer name, and then select **Printing Preferences**
- For Microsoft Windows XP Professional and Windows Server 2003, click **Printers and Faxes**, right-click the printer name, and then select **Printing Preferences**.
- For Microsoft Windows XP Home, click **Printers and Other Hardware Devices**, right-click the printer name, and then select **Printing Preferences**.

The following **Printing Preferences** tabs are available:

- **Advanced**
- **Paper/Quality**
- **Effects**
- **Finishing**
- **Output**
- **Job Storage**
- **Services**
- **Printing Shortcuts**

Properties driver tabs

The **Properties** driver tabs control the driver behavior and driver connections. To open the **Properties** tabs, click **Start** and then proceed according to which version of Microsoft Windows is installed.

- For Microsoft Windows 2000, click **Settings**, click **Printers**, right-click the printer name, and then select **Properties**.
- For Microsoft Windows XP Professional and Windows Server 2003, click **Printers and Faxes**, right-click the printer name, and then select **Properties**.
- For Microsoft Windows XP Home, click **Printers and Other Hardware Devices**, right-click the printer name, and then select **Properties**.

The following **Properties** tabs are available:

- **General**
- **Sharing**
- **Ports**
- **Advanced**
- **Security**
- **Device Settings**
- **About**

The **Device Settings** and **About** tabs are HP driver tabs and are described in this guide. The other **Properties** tabs are Microsoft Windows tabs. For information about those tabs, see the documentation that came with the computer.

Help system

The PCL 6, PCL 5, and the PS Emulation print driver include a full-featured Help system to provide assistance with printing and configuration options. The following Help options are available.

- "What's this?" Help
- Context-sensitive Help
- Constraint messages

"What's this?" Help

"What's this?" Help is supported in Microsoft Windows 2000 and Windows XP. Access the "What's this?" Help messages in any of the following ways:

- Right-click a control button on a screen. For example, on the **Properties** tab screen, right-click either the **Printing Preferences** control or the **Print Test Page** control. A small **What's this?** box appears. Right-click on the **What's this?** box and a pop-up Help window appears.
- Click the **?** button in the upper-right corner of the screen frame, next to the **X**, to change the cursor to an arrow with a question mark. Use this special cursor to select a control, and the pop-up Help window for that feature appears.
- Press the F1 key, and the Help window for the currently selected control appears.

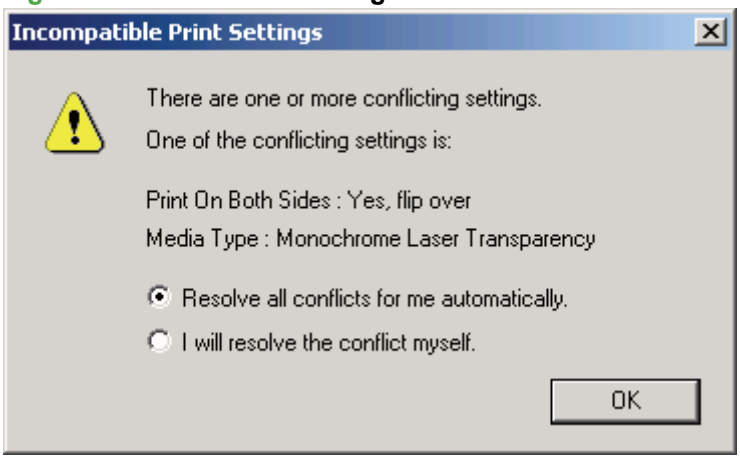
Context-sensitive Help

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

Constraint messages

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

Figure 4-1 Constraint message



Whenever a constraint message appears with **Resolve all conflicts for me automatically** or **I will resolve the conflict myself** buttons, the action of the buttons is as follows:

- To reject the change that was just made, returning the control to its previous value, click **Resolve all conflicts for me automatically** and then click **OK**.
- To accept the change that was just made, click **I will resolve the conflict myself** and then click **OK**. This brings back the driver settings where the user can resolve the conflict.

Advanced tab features

Use the **Advanced** tab to change the layout of printed pages, to configure special controls that are not commonly used, and to change other settings such as the media size and number of copies. Many software programs also enable control of some **Advanced** tab features when accessed through the print dialog box or page settings.

Figure 4-2 Advanced tab (PCL 6)

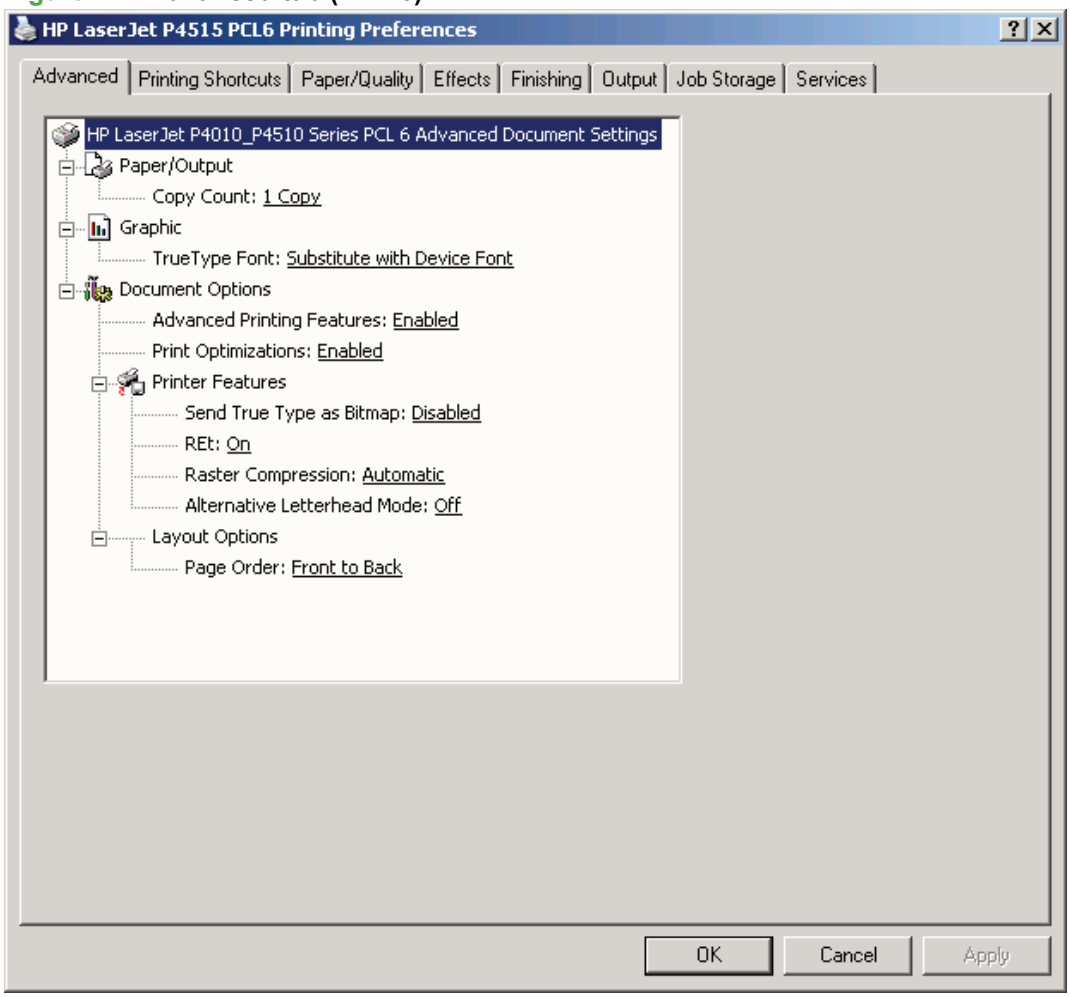
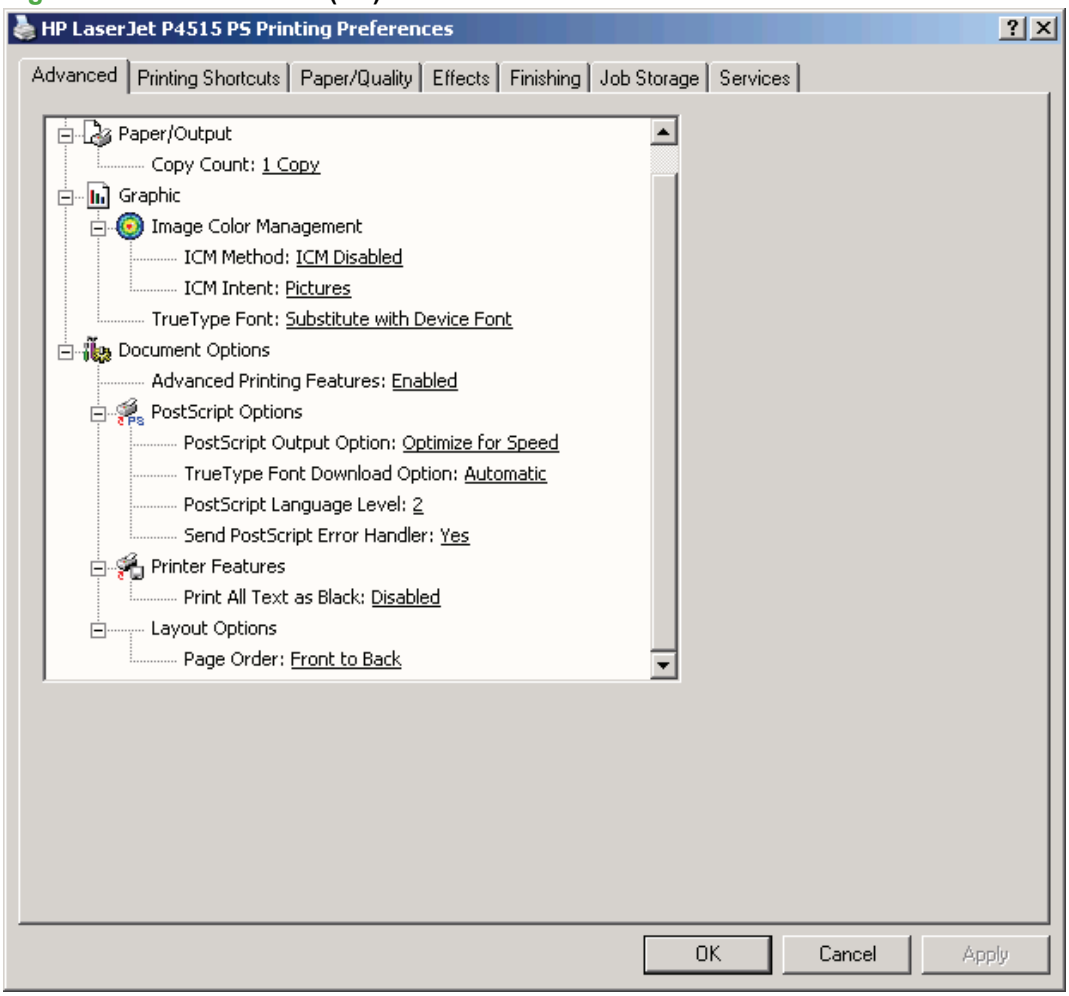


Figure 4-3 **Advanced tab (PS)**



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

- **Paper/Output** settings
- **Graphic** settings
- **Document Options** settings

Paper/Output settings

The **Paper/Output** setting contains the **Copy Count** settings.

Copy Count setting

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 requested number of copies appears in the **Copy Count** option. Select the number by typing in the box or by using the up and down arrows on the right side of the text box. For the HP LaserJet P4010 and P4510 Series printer, 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 9999) change to the last valid value that appeared in the box. The default number of copies is 1.

Problems can develop when a software program and the driver it is running on both allow the user to set the number of copies to print. In most cases, the software program and the driver communicate, so that the number of copies set in one location (such as the program) appears in the other (such as the driver). For some software programs, this communication does not take place, and the copies values are treated independently. For example, setting 10 copies in the program and then setting 10 copies in the driver might result in the printer making 100 copies (10 x 10). Set the number of copies in the software program, whenever possible.

Graphic settings

The **Graphic** settings contain the following controls.

- **TrueType Font** settings

TrueType Font settings

This option specifies the TrueType Font settings. The following settings are available:

- **Substitute with Device Font**. This setting causes the printer to use equivalent fonts for printing documents that contain TrueType fonts. This permits faster printing; however, special characters that the printer font does not support might be lost. This is the default setting.
- **Download as Softfont**. This setting causes TrueType fonts to be downloaded and used for printing, instead of the fonts installed through the printer.

Document Options

The **Document Options** settings contain the following controls:

- Advanced Printing Features
- Print optimizations
- PostScript Options (PS Emulation only)
- Printer Features
- Layout Options

Advanced Printing Features

When the **Advanced Printing Features** setting is **Enabled**, metafile spooling is turned on and the **Finishing** tab options such as **Page Order**, **Booklet Layout**, and **Pages per Sheet** are available, depending on the printer. For normal printing, leave the **Advanced Printing Features** setting at the default (**Enabled**). If compatibility problems occur, disable the feature. However, some advanced printing features might still be available in the print driver, even if 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 turned on again.

Print optimizations

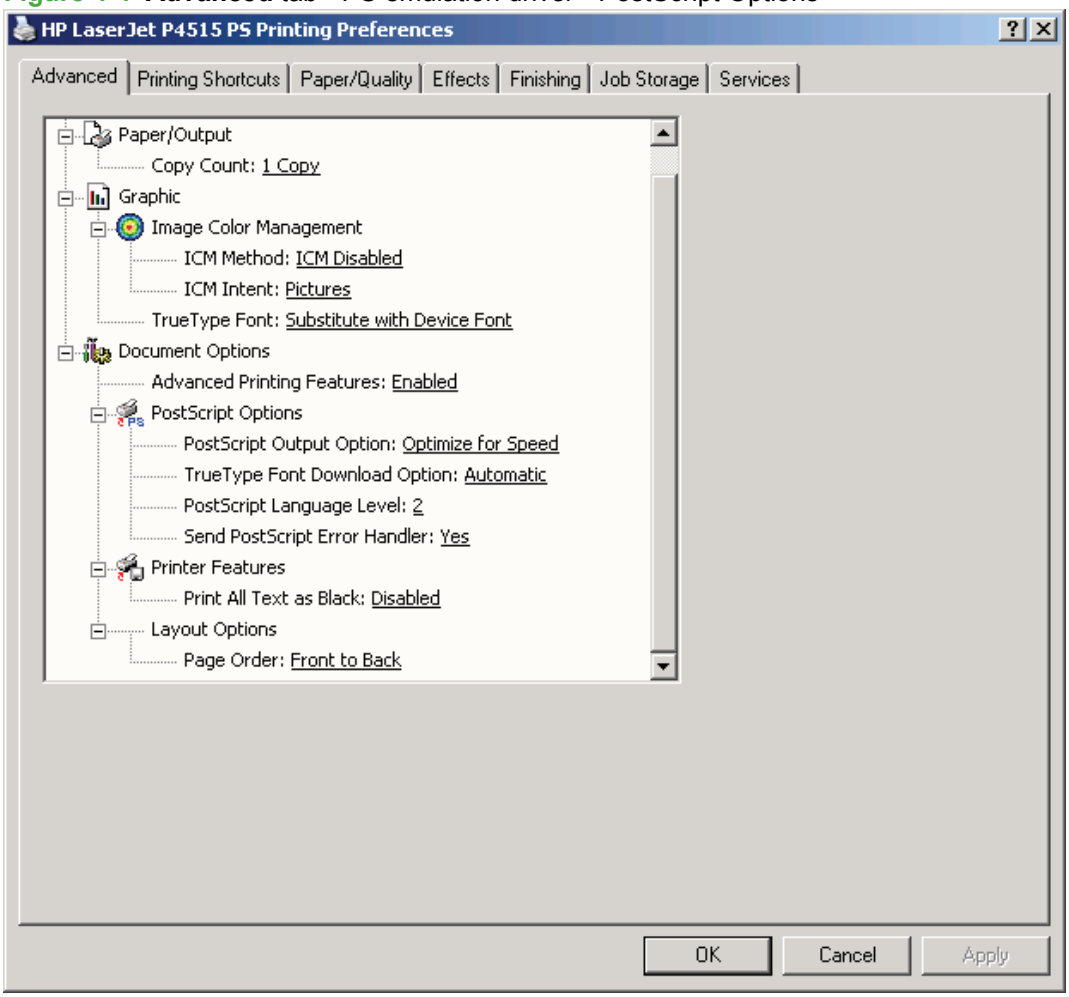
NOTE: Print Optimization settings are available only in the HP PCL 6 and HP PCL 5 drivers. They are not available in the PS emulation.

The default setting for **Print Optimizations** is **Enabled**. When this feature is enabled and the 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, 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 (PS Emulation only)

The following PostScript options appear in the PS emulation driver:

Figure 4-4 **Advanced** tab - PS emulation driver - PostScript Options



- **PostScript Output Option**
- **TrueType Font Download Option**
- **PostScript Language Level**
- **Send PostScript Error Handler**

PostScript Output option

The **PostScript Output Option** specifies the output format for PS files. Generally, use the default setting, **Optimize for Speed**, to print the documents.

To create a file that conforms to the Adobe Document Structuring Conventions (ADSC), click **Optimize for Portability**. Each page of the document will be a self-contained object. This is useful when creating a PS file and print it on a different printer. To include the file as an image in another document that is printed from a different software program, click **Encapsulated PostScript (EPS)**. The **Archive Format** creates a PS file that can be used later.

TrueType Font Download option

The **TrueType Font Download Option** specifies how TrueType fonts are downloaded. The default setting of **Automatic** allows the PS driver to decide which format is best.

- To download the TrueType font as a scalable outline font, click **Outline**.
- To download the TrueType font as a bitmap font, click **Bitmap**.
- If the printer is a TrueType rasterizer printer, click **Native TrueType** to download the TrueType font as an outline font.

PostScript Language Level

The **PostScript Language Level** option specifies which PS language level to use, from 1 to 3. The highest level supported by the HP LaserJet P4010 and P4510 Series printer is 3, and this is the default setting. Some printers support multiple levels.

It is usually best to select the highest number available, because a higher language level provides more features. In some instances level 1 should be used, such as when printing a file to disk, and that file will be printed by someone who uses a level-1 printer.

Send PostScript Error Handler

The **Send PostScript Error Handler** setting specifies whether a PS error-handler message is sent. To get the printer to print an error page when an error occurs in the print job, click **Yes**. The default setting is **Yes**.

Printer Features

The following **Printer Features** are available:

- Send TrueType as Bitmap (HP PCL 6 only)
- Resolution Enhancement technology (REt)
- Raster Compression (PCL 6 only)
- Alternative Letterhead Mode

Send TrueType as Bitmap (HP PCL 6 only)

Send TrueType as Bitmap provides an alternative for those software programs that encounter problems when TrueType fonts are used for special graphic purposes such as shading, rotation, or slanting. The setting is **Disabled** (off) by default. The TrueType fonts are first converted to bitmap soft fonts 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.

Resolution Enhancement technology (REt)

The **REt** feature is **Enabled** by default. Resolution Enhancement technology (REt) refines the print quality of characters by smoothing jagged edges that can occur on angles and curves of a printed image. Select **Disabled** if graphics, particularly scanned images, are not printing clearly.

Raster Compression (PCL 6 only)

Use the **Raster Compression** feature to select the graphics compression method:

- **Automatic**. The software determines the best compression method to use.
- **Best Quality**. Forces the software to use a lossless compression method. (Lossless means that no data is lost during compression.)
- **Maximum Compression**. Where applicable, requires the software to always use a lossy compression method (some data is lost). Choosing this option increases the print speed performance, but does decrease print image quality.

Alternative Letterhead Mode

When selected, this option eliminates the need to flip or reload letterhead or preprinted paper in a tray, whether printing on one or both sides of the sheet. Load the paper the same as 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, use one of the following options in the **Type is** setting:

- **Letterhead**
- **Preprinted**

Layout Options

The **Layout Options** setting offers different ways of setting up the **Page Order**.

- **Front to Back**. Prints the document so that page 1 prints first.
- **Back to Front**. Prints the document so that page 1 prints last; useful to achieve output in the correct order when printing to a face-up page output bin.

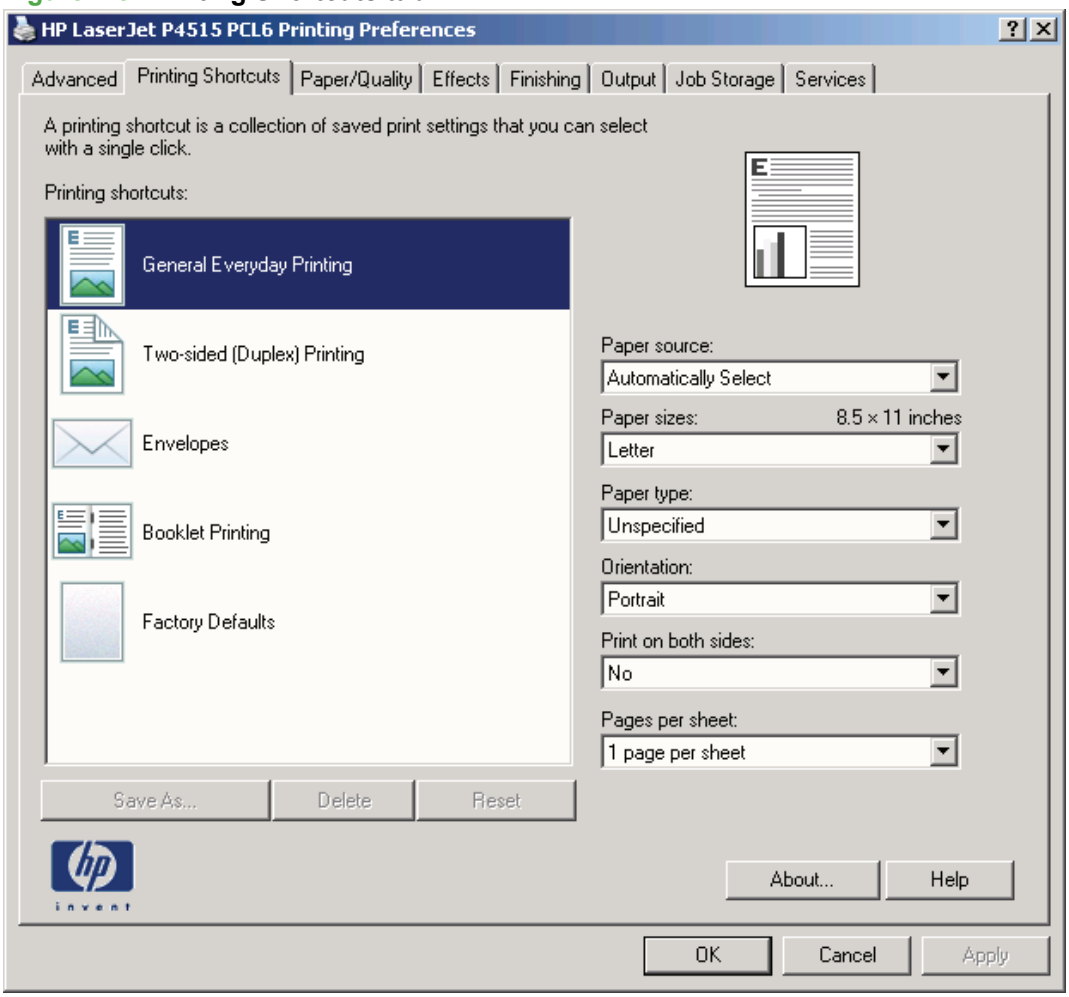
NOTE: The page-ordering operation works on whole sheets of paper rather than on individual logical pages. Accordingly, if by setting **Pages per Sheet** (on the **Finishing** tab) to be greater than one, the ordering of logical pages on a physical sheet of paper does not change.

Printing Shortcuts tab

Use the **Printing Shortcuts** tab to store specific combinations of driver settings for easy use. The **Printing Shortcuts** tab is available on the driver Printing Preferences.

The following figure shows the **Printing Shortcuts** tab.

Figure 4-5 Printing Shortcuts tab



The **Printing Shortcuts** tab is a new tab that appears on the PCL 6, PCL 5, and PS emulation drivers beginning with the HP Color LaserJet CM4730 MFP. In previous drivers, the Print Task Quick Sets appeared in most of the driver tabs, and was used to capture commonly used driver settings. Like Quick Sets, the **Printing Shortcuts** tab saves commonly used driver settings under a shortcut name.

Printing Shortcuts contains the following:

- General Everyday Printing
- Two-sided (Duplex) Printing
- Envelopes
- Booklet Printing

- Factory Defaults
- Document preview image

General Everyday Printing

Category	Option
Paper source:	• Automatically Select • Printer auto select • Manual feed in Tray 1 • Tray 1 • Tray 2 • Tray 3 • Tray 4 • Tray 5 • Tray 6
Paper sizes:	• Letter • Legal • Executive • Statement • 8.5x13 • A4 • A5 • A6 • B5 (JIS) • B6 (JIS) • 16K 195x270 mm • 16K 184x260 mm • 16K 197x273 mm • Postcard (JIS) • Double postcard (JIS) • Envelope #10 • Envelope Monarch • Envelope B5 • Envelope C5

Category	Option
	• Envelope DL • Custom — Web
Paper type:	• Unspecified • Plain • Light 60-74g • Bond • Recycled • Cardstock 176-220g • Labels • Letterhead • Envelope • Preprinted • Prepunched • Colored • Rough
Orientation:	• Portrait • Landscape
Print on both sides:	• No • Yes, flip over • Yes, flip up
Pages per sheet:	• 1 page per sheet • 2 pages per sheet • 4 pages per sheet • 6 pages per sheet • 9 pages per sheet • 16 pages per sheet

Two-sided (Duplex) Printing

Category	Option
Paper source:	• Automatically Select • Printer auto select • Manual feed in Tray 1

Category	Option
	• Tray 1 • Tray 2 • Tray 3 • Tray 4 • Tray 5 • Tray 6
Paper sizes:	• Letter • Legal • Executive • Statement • 8.5x13 • A4 • A5 • A6 • B5 (JIS) • B6 (JIS) • 16K 195x270 mm • 16K 184x260 mm • 16K 197x273 mm • Postcard (JIS) • Double postcard (JIS) • Custom — Web
Paper type:	• Unspecified • Plain • Light 60-74g • Bond • Recycled • Letterhead • Preprinted • Prepunched • Colored • Rough

Category	Option
Orientation:	• Portrait • Landscape
Print on both sides:	• No • Yes, flip over • Yes, flip up
Pages per sheet:	• 1 page per sheet • 2 pages per sheet • 4 pages per sheet • 6 pages per sheet • 9 pages per sheet • 16 pages per sheet

Envelopes

Category	Option
Paper source:	• Automatically Select • Printer auto select • Manual feed in Tray 1 • Tray 1 • Envelope Feeder
Paper sizes:	• Envelope #10 • Envelope Monarch • Envelope B5 • Envelope C5 • Envelope DL
Paper type:	• Envelope
Orientation:	• Portrait • Landscape

Booklet Printing

Category	Option
Paper source:	• Automatically Select • Printer auto select • Manual feed in Tray 1 • Tray 1 • Tray 2 • Tray 3 • Tray 4 • Tray 5 • Tray 6
Paper sizes:	• Letter • Legal • Executive • Statement • 8.5x13 • A4 • B5 (JIS) • B6 (JIS) • 16K 197x273 mm
Paper type:	• Unspecified • Plain • Light 60-74g • Bond • Recycled • Letterhead • Preprinted • Prepunched • Colored • Rough
Orientation:	• Portrait • Landscape

Category	Option
Booklet Layout:	• Left binding • Right binding
Print document on:	• Off • Letter • Legal • Executive • Statement • 8.5x13 • A4 • A5 • A6 • B5 (JIS) • B6 (JIS) • 16K 195x270 mm • 16K 184x260 mm • 16K 197x273 mm • Japanese Postcard • Double Postcard (JIS)

Factory Defaults

When **Factory Defaults** is selected, the customizable options are grayed out, locking in those default options.

The **Factory Defaults** are as follows:

- **Paper source: Automatically select**
- **Staple: None**
- **Page size: Letter**
- **Orientation: Portrait**
- **Print on both sides: No**

Document preview image

The document preview image is a line-drawn image of a page that represents graphics and text. It is always oriented so that the contents of the page are right-side-up.

Move the cursor over the document preview image to change the cursor from an arrow to a gloved hand. Toggle between portrait and landscape page orientation by clicking the image.

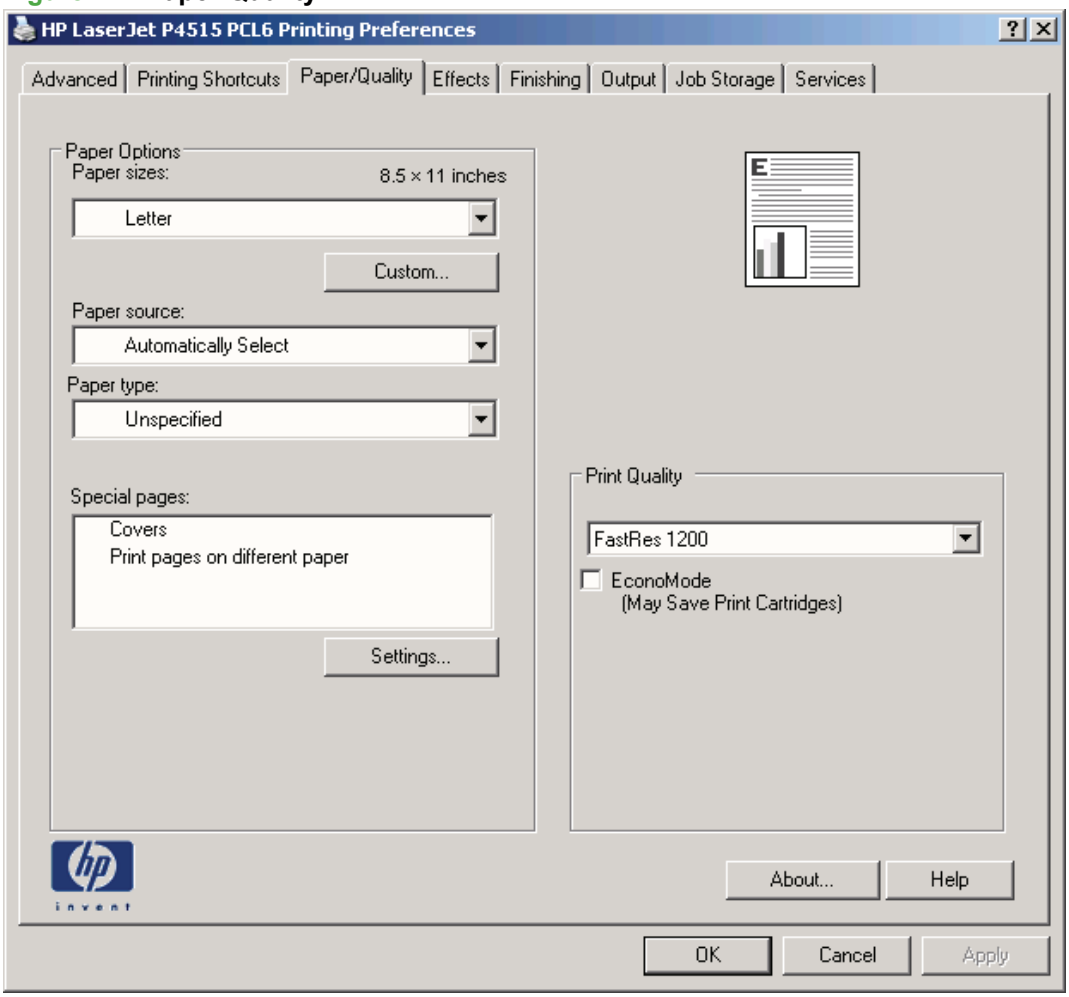
Figure 4-6 Document preview image

Paper/Quality tab features

Use the **Paper/Quality** tab to specify the size, type, and source of the media. 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 4-7 Paper/Quality



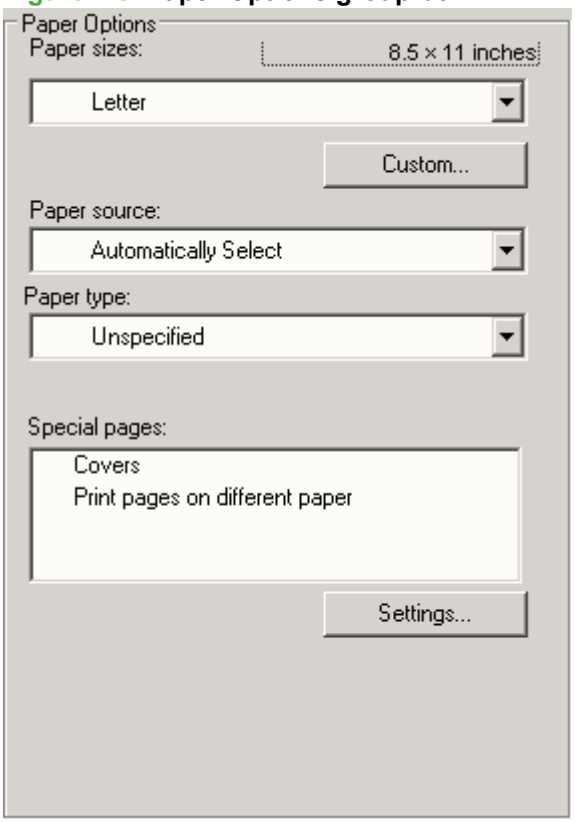
The **Paper/Quality** tab contains the following options:

- Paper Options
- Document preview image
- Print Quality group box

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 default selections.

Figure 4-8 Paper Options group box



The settings in the **Paper Options** group box are described in the following order:

- Paper sizes: on page 135
- Custom Paper Size on page 136
- Paper source: on page 138
- Paper type: on page 139
- Special pages:

Paper sizes:

Paper sizes: is a drop-down menu that lists all of the supported media sizes.

Move the cursor over the dimensions label to change the cursor 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, use the driver to set media size only when printing from software programs that do not include a media-size setting, such as NotePad, or when 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.

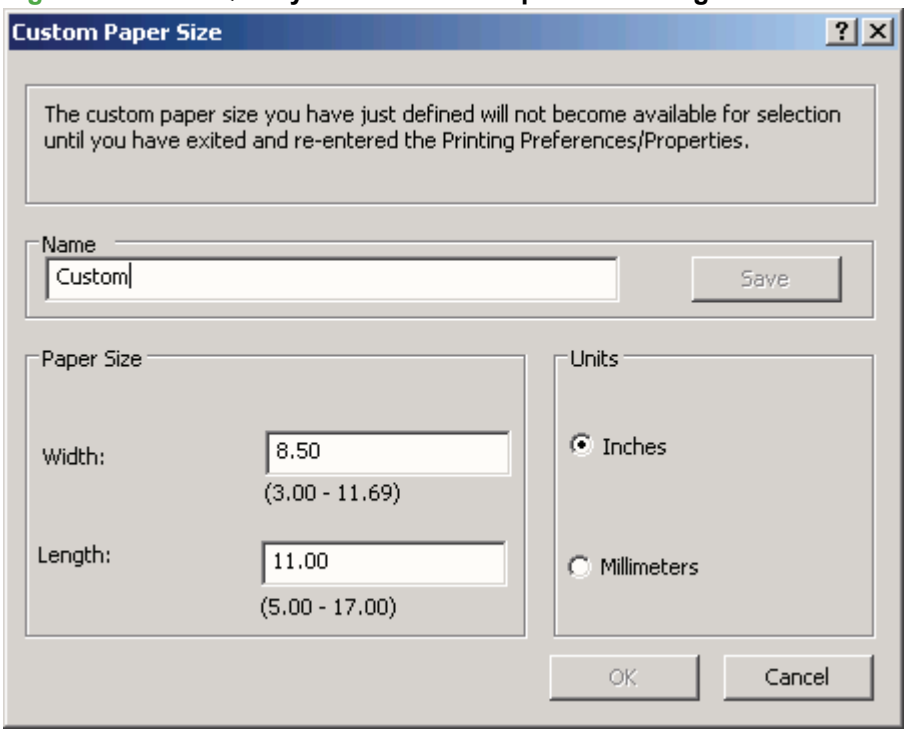
When you change the print-driver setting to a media size that is not currently loaded in the printer, a control-panel message prompts you to load the media size or select another tray.

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 4-9 Print/Quality tab – 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, 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, 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

Change the width and height values 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 edit box is rounded down to the maximum valid entry, while any entry that is smaller than the minimum limits of the width and height edit box 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 edit box 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 P4010 and P4510 Series 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.

Tray or bin	Paper type	Specifications	Quantity
Tray 1	Paper and cardstock	Range: 60 g/m^2 (16 lb) bond to 200 g/m^2 (54 lb) bond	Maximum stack height: 10 mm (0.6 inch) Equivalent to 100 sheets of 75 g/m^2 (20 lb) bond
	Envelopes	Less than 60 g/m^2 (16 lb) bond to 90 g/m^2 (24 lb) bond	Up to 10 envelopes
	Labels	Maximum 0.23 mm (0.009 inch) thick	Maximum stack height: 10 mm (0.6 inch)
	Transparencies	Minimum 0.13 mm (0.005 inch) thick	Maximum stack height: 10 mm (0.6 inch)
Tray 2 and the optional 500-sheet trays	Paper and cardstock	Range: 60 g/m^2 (16 lb) bond to 135 g/m^2 (36 lb) bond	Equivalent to 500 sheets of 75 g/m^2 (20 lb) bond
	Labels	Maximum 0.13 mm (0.005 inch) thick	Maximum stack height: 54 mm (2.1 inch)
	Transparencies	Minimum 0.13 mm (0.005 inch) thick	Maximum stack height: 54 mm (2.1 inch)
Optional 1,500-sheet tray	Paper	Range: 60 g/m^2 (16 lb) bond to 135 g/m^2 (36 lb) bond	Equivalent to 1,500 sheets of 75 g/m^2 (20 lb) bond

Tray or bin	Paper type	Specifications	Quantity
Optional envelope feeder	Envelopes	Less than 60 g/m^2 (16 lb) bond to 90 g/m^2 (24 lb) bond	Up to 75 envelopes
Standard top bin	Paper		Up to 500 sheets of 75 g/m^2 (20 lb) bond
Rear bin	Paper		Up to 100 sheets of 75 g/m^2 (20 lb) bond
Optional duplexer	Paper	Range: 60 g/m^2 (16 lb) bond to 120 g/m^2 (32 lb) bond	
Optional stacker	Paper		Up to 500 sheets of 75 g/m^2 (20 lb) bond
Optional stapler/stacker	Paper		Stapling: Up to 20 print jobs of up to 15 pages each Stacking: Up to 500 sheets of 75 g/m^2 (20 lb) bond
Optional 5-bin mailbox	Paper		Up to 500 sheets of 75 g/m^2 (20 lb) bond

Paper source:

The **Paper source:** setting specifies the source tray to use for printing a document. The list of source trays depends on the printer accessories that are installed. Any optional source trays that are installed through the **Device Settings** tab also appear here.

The **Paper source:** drop-down menu can contain the following options:

- **Automatically Select**
- **Printer auto select**
- **Manual Feed in Tray 1**
- **Tray 1**
- **Tray 2**
- **Tray 3**
- **Tray 4**
- **Tray 5**
- **Tray 6**

The default setting is **Automatically Select**. When this is selected, the HP LaserJet P4010 and P4510 Series printer uses the source tray that supports the selected media size. For the other options, make sure the correct media size is loaded in the source tray.

Paper type:

The **Paper type:** drop-down menu shows a selection of the media types that the HP LaserJet P4010 and P4510 Series printer supports. When you use the default setting, **Unspecified**, the printer uses the default media type, which is usually **Plain**.

Supported media includes the following:

- **Unspecified**
- **Plain**
- **Light 60-74g**
- **Bond**
- **Recycled**
- **Cardstock 176-220g**
- **Monochrome Laser Technology**
- **Labels**
- **Letterhead**
- **Envelope**
- **Preprinted**
- **Colored**
- **Rough**

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 printer when the bidirectional query occurs. If bidirectional communication is enabled, an updated list of media types is returned. If bidirectional communication is not enabled, 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 default setting is **Unspecified**, and the program selects the media type. Before selecting a different setting, make sure that the correct media type is loaded in the tray that is specified in the **Paper source:** setting.

If the print-driver setting is changed to a media type that is not currently loaded in the printer, a control-panel message prompts you to load the media type or select another tray.

Caution symbols may appear next to some paper types in the selection list. This means that there is another setting that may be in conflict with the selected paper size. For example, if “print on both sides” is selected in the Finishing tab, then the Transparency paper type will have a Caution sign next to it because transparencies can only be printed on a single side.

Special pages

To specify special pages to be used, click the **Settings** button under **Special Pages**.

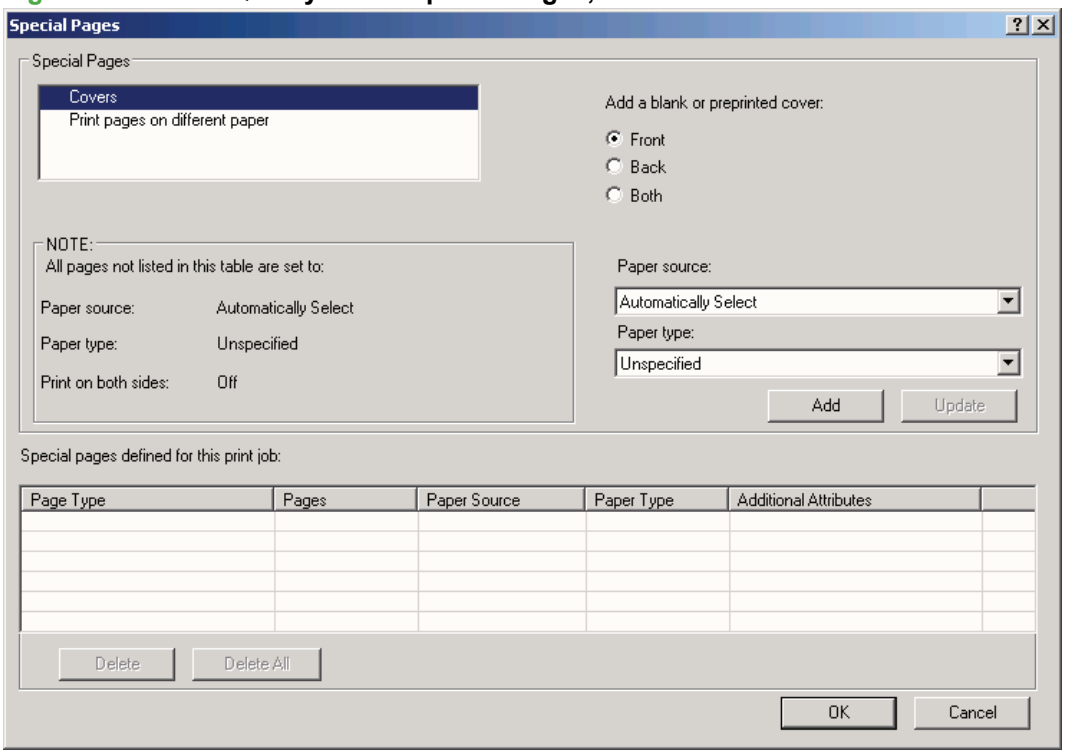
Covers

To use specify cover settings, click **Covers** on the **Special Pages** window.

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

The following figure shows the **Covers** setting and options.

Figure 4-10 Print/Quality tab — Special Pages, Covers



The following are the **Covers** options:

- **Cover type.** Select which cover is customized: **Front**, **Back**, or **Both**
- **Paper source.** The **Paper Source** setting specifies the source tray to use for adding a front and/or back cover to the document.
- **Paper type.** The **Paper Type** setting specifies the media size to use for front and/or back covers. Changes made to the **Paper Type** setting here override any previous **Paper Type** settings using the same paper source.

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 be printed in the middle of a booklet.

NOTE: The same size of media will be used for the entire print job.

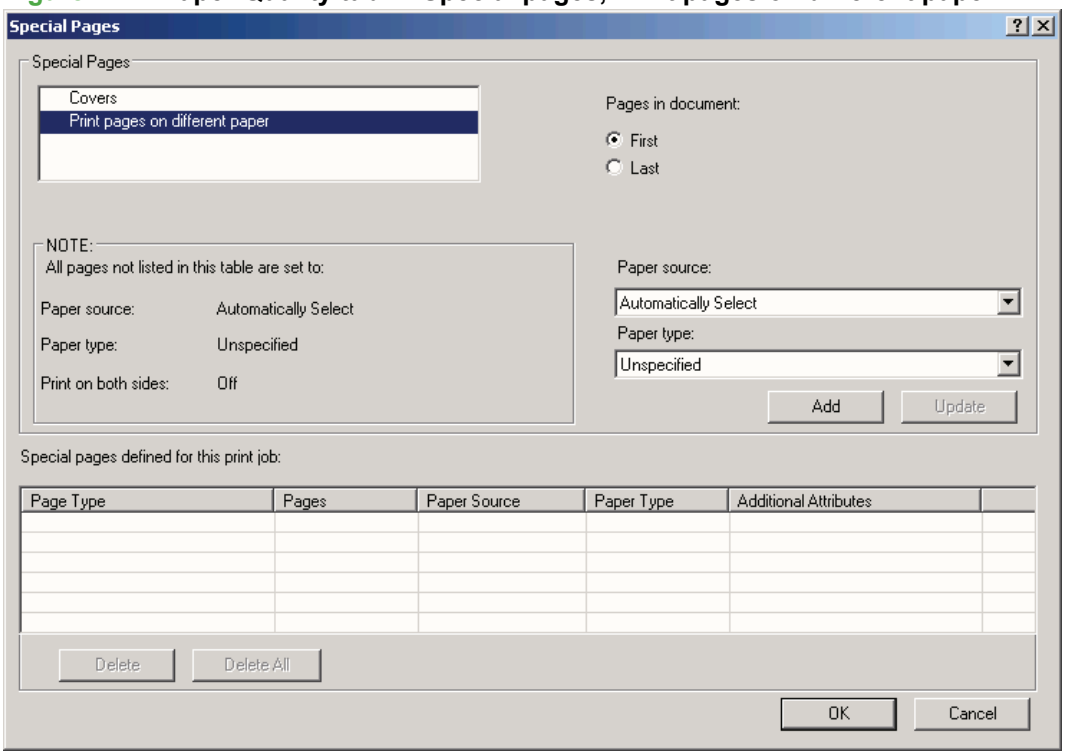
When you change the type and source of the media and covers, the settings remain configured until you close the software program.

Print pages on different paper

Use the **Print pages on different paper** options to select an alternative media type or source for the first or last page of a document.

The following figure shows the **Print pages on different paper** settings and options.

Figure 4-11 Paper/Quality tab — Special pages, Print pages on different paper



The following are the **Print pages on different paper** options:

- **Pages in document.** Select which pages are customized: the **First** page, or the **Last** page.
- **Paper source.** The **Paper source** setting specifies the source tray to use for printing a document.
- **Paper type.** The **Paper type** drop-down menu shows all of the media types that the printer supports.

NOTE: The same type of media is used for the entire print job.

When you change the type and source of the media and covers, the settings 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. It is always oriented so that the contents of the page are right-side-up.

Move the cursor over the document preview image to change the cursor from an arrow to a gloved hand. Toggle between portrait and landscape page orientation by clicking the image.

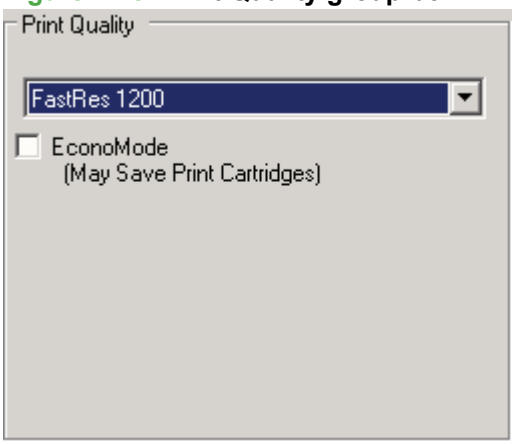
Figure 4-12 Document preview image

Print Quality group box

The **Print Quality** group box contains the following controls:

- Print Quality drop-down menu
- EconoMode

Figure 4-13 Print Quality group box



Print Quality drop-down menu

The **Print Quality** drop-down menu contains the following:

- **ProRes 1200 (180 dpi)**
- **ProRes 1200 (132 dpi)**
- **FastRes 1200** (default)
- **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.

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, 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 and 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.

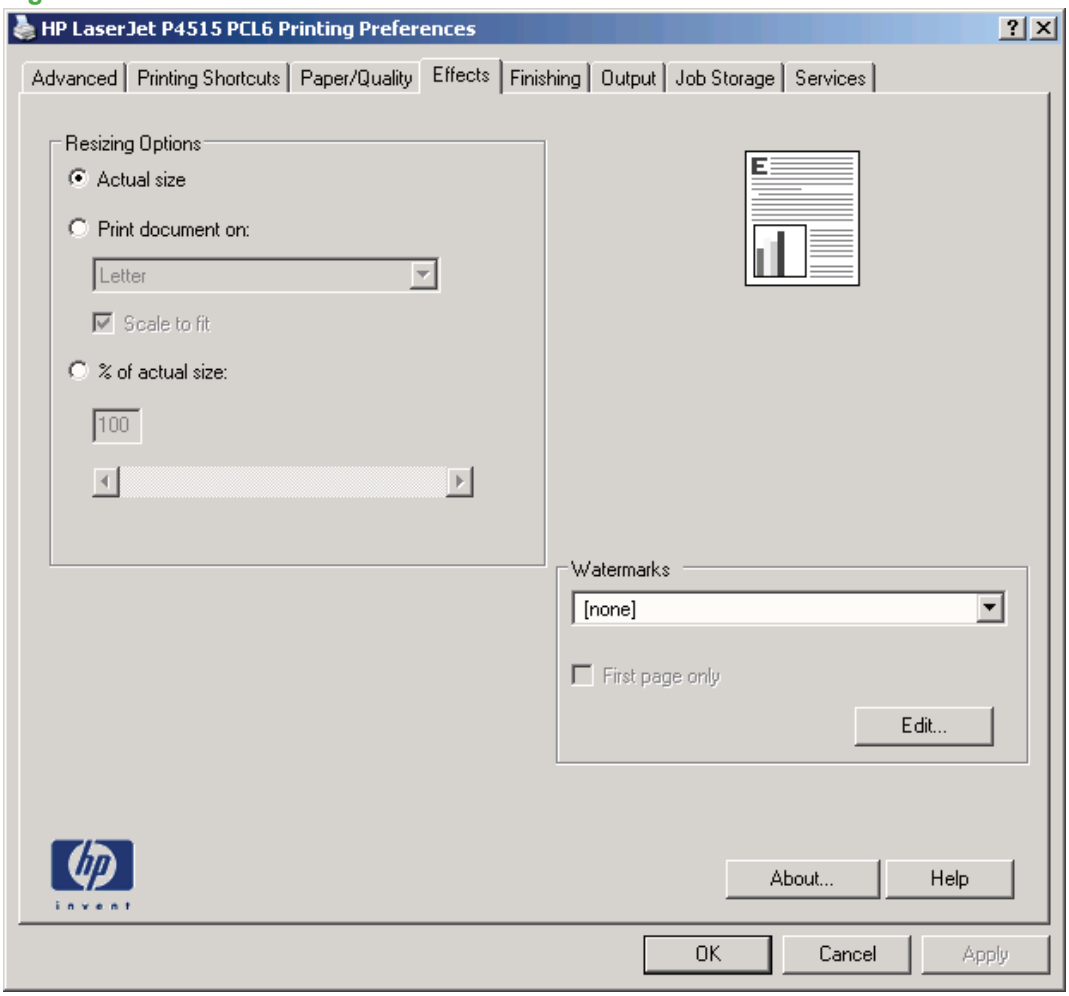
The **EconoMode** option can be activated from the printer control panel, from the **Print Quality** tab in the software program properties, or from the Print Quality dialog box on the **Paper-Quality** tab in the driver. If the **EconoMode** option is selected from the control panel, and if the printer has a genuine HP cartridge, the ON setting overrides any setting made in the program 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

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

Figure 4-14 Effects tab



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

- **Resizing Options** group box
- Document preview image
- **Watermarks** group box

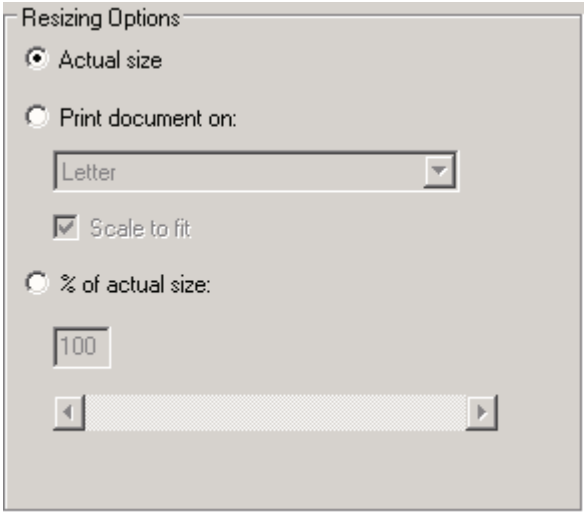
Resizing Options group box

The **Resizing Options** group box consists of the following controls:

- **Actual Size** (default)
- **Print Document On** setting

- **Scale to Fit** option
- **% of actual** setting

Figure 4-15 Effects tab – Resizing Options group box



Actual Size setting

Actual Size is the default setting. It prints the document without changing the document size.

Print Document On setting

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

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

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

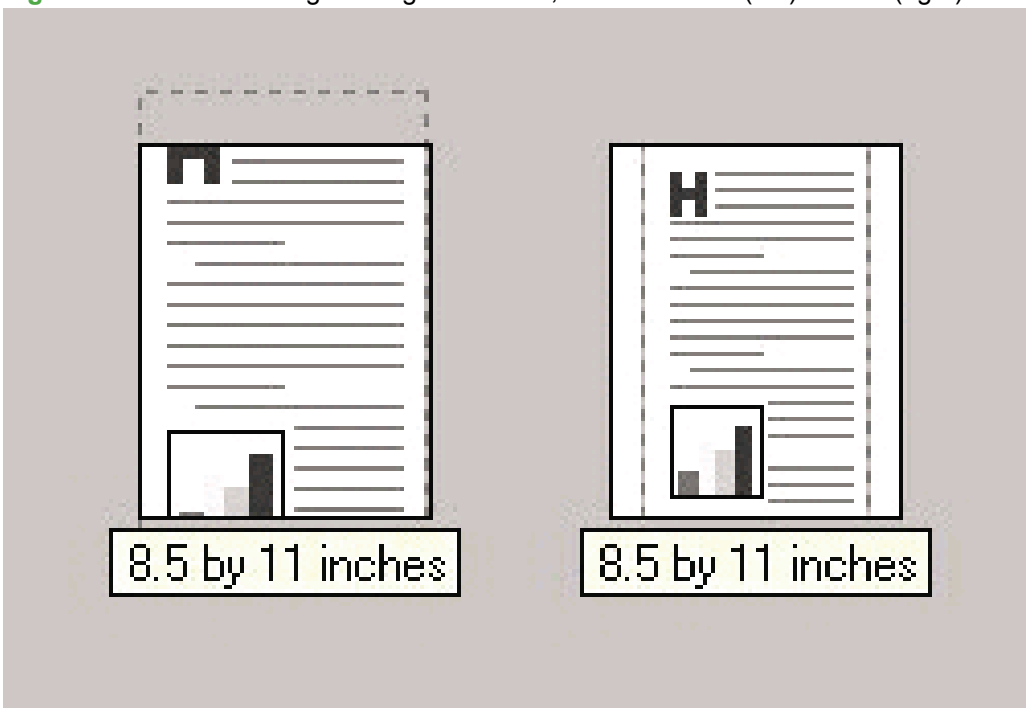
When **Print Document On** is selected, the drop-down menu shows the media sizes on which you can print. The list contains all of the standard media sizes that are supported by the selected media source and any custom sizes that have been created. When **Print Document On** is selected, **Scale to Fit** is automatically selected. Clear this check ox if you do not want the document reduced or enlarged to fit on the selected media.

Scale to Fit option

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

preview images for a document that is formatted for legal-size paper and where the **Print Document On** check box is selected and the target size is specified as **Letter**.

Figure 4-16 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 actual size option

The **% of actual 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 paper size that is selected within the driver or what the driver receives from the software program (if the software program does not negotiate the paper size with the driver). The driver scales the page by the appropriate factor and sends it to the printer.

The limits of the range are from 25 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 scroll bar indicator is dragged, and the preview image is updated to the new image scale. Each click on the scroll bar arrows increases or decreases the scale by 1%. Each click on the slider bar affects the scale by 10%.

An exact value is not achieved by dragging the scroll bar indicator at the default Microsoft Windows resolution; use the scroll bar indicator to approximate the appropriate value, and then use the scroll bar arrows to refine the value.

The following settings disable **% of actual 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. It is always oriented so that the contents of the page are right-side-up.

Move the cursor over the document preview image to change the cursor from an arrow to a gloved hand. Toggle between portrait and landscape page orientation by clicking the image.

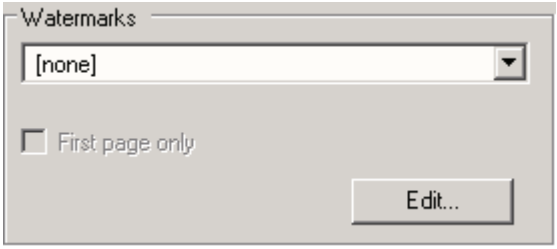
Figure 4-17 Document preview image

Watermarks group box

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

- **(none)**
- **Confidential**
- **Draft**
- **SAMPLE**

Figure 4-18 Effects tab – Watermarks group box



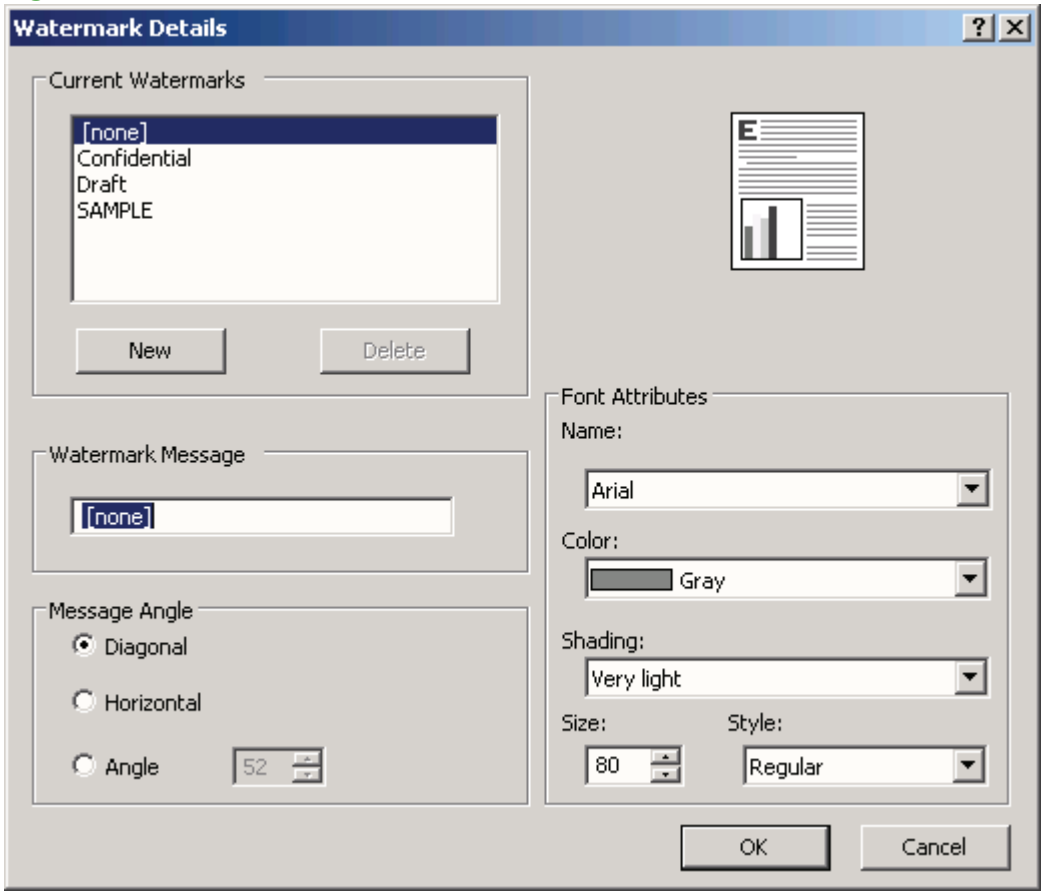
The drop-down menu shows alphabetically sorted watermarks that are currently available on the system plus the string "(none)", which indicates that no watermark is selected. This is the default setting. Any watermark selected from this list appears in the preview image.

When 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 4-19 Effects tab – Watermark Details 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 made to the previous watermark are saved, and only the current, unsaved changes can be canceled.

Current watermarks

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

Creating a new watermark

1. Click **New**.

   The new watermark appears in the **Current Watermarks** list and in the **Watermark Message** edit box as "Untitled" until it is named.

2. To name the new watermark, type the selected watermark text in the **Watermark Message** edit box.

The typed name in the **Watermark Message** field appears in the following locations:

- In the **Current Watermarks** group box in the **Watermark Details** dialog box
- In the **Watermarks** group box on the **Effects** tab

NOTE: No more that 30 watermarks can exist in the **Current Watermarks** list at one time. When the limit of 30 watermarks is reached , the **New** button is disabled. The **(none)** setting is one of the 30 definable watermarks; the names for the other 29 watermarks can be customized.

To edit an existing watermark, select the watermark in the **Current Watermarks** list. Changing the **Watermark Message** for that watermark is, in effect, creates a new watermark.

Deleting a watermark

1. Select the watermark in the **Current Watermarks** list.
2. Click **Delete**.
3. A warning appears asking whether the intent is to delete the selected item.
   - Click **Cancel** to retain the watermark.
   - Click **OK** to delete the selected 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, several different watermarks can contain 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; 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.
- **Angle**. 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** drop-down menu
- **Color** drop-down menu
- **Shading** drop-down menu
- **Size** spin box
- **Style** drop-down menu

Name drop-down menu

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

Color drop-down menu

The **Color** drop-down menu provides a default option: gray.

Shading drop-down menu

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. A choice of **Light** produces a lightly saturated gray watermark. A choice of **Lightest** produces the lightest shade of watermark; **Darkest** produces a black watermark.

Size spin box

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

Style drop-down menu

The **Style** drop-down menu has the following setting choices: **Regular**, **Bold**, **Italic**, and **Bold Italic**. The **Regular** setting is the default for new and preset watermarks.

Default settings

The default settings for new watermarks are **Arial** font, **Gray** color, **Very Light** shading, **80** points, and **Regular** style. The default settings for preset watermarks are **Arial** font, **Very Light** shading, and **Bold** style. The default point size for preset watermarks is language-dependent, and varies.

Default watermark settings

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

Table 4-1 Font Attribute settings for new and preset watermarks

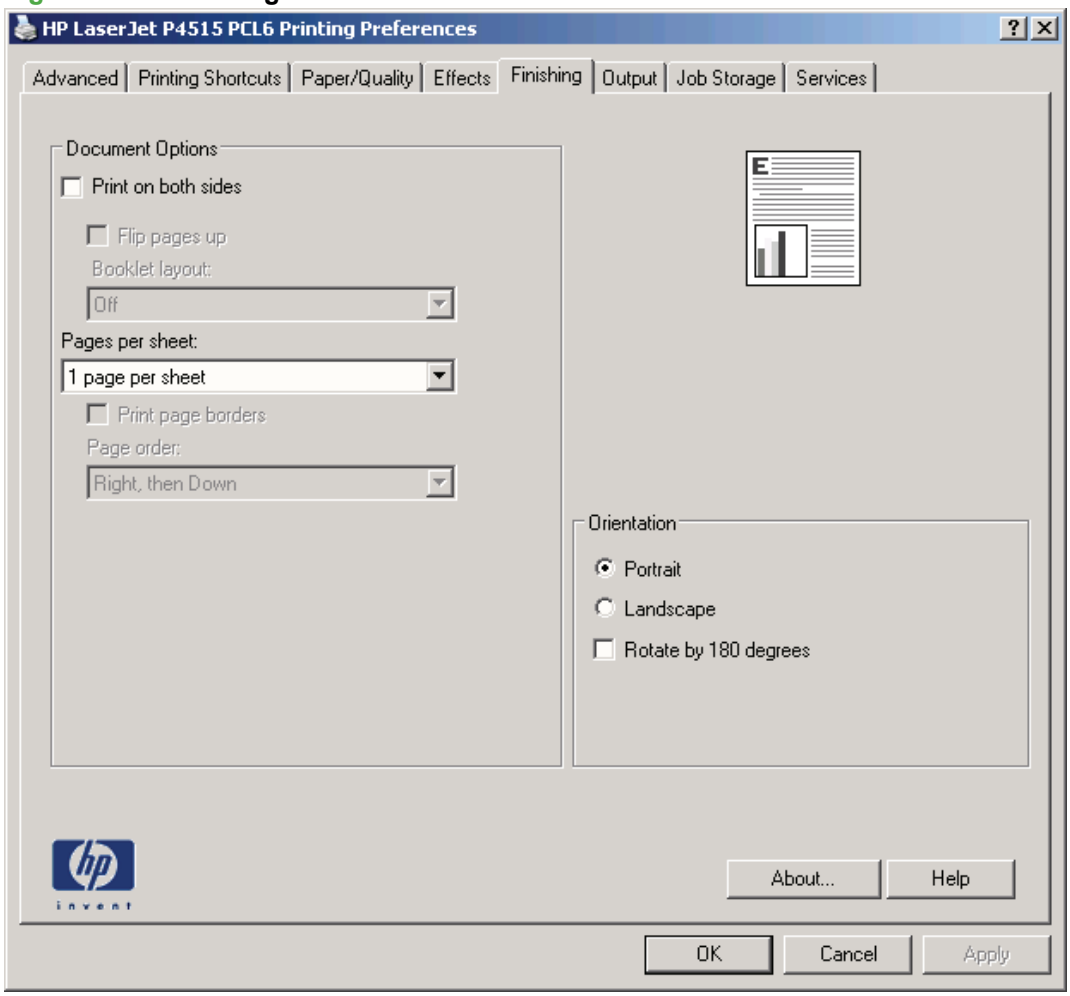
Setting	New watermark	Preset watermark
Name	**Arial**	Varies by language
Color	**Gray**	**Gray**
Shading	**Very Light**	**Very Light**
Size	**80**	Varies by language
Style	**Regular**	**Regular**

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

Use the **Finishing** tab to print booklets and control the media output.

Figure 4-20 Finishing tab



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

- Document Options
- Document preview image
- Orientation group box

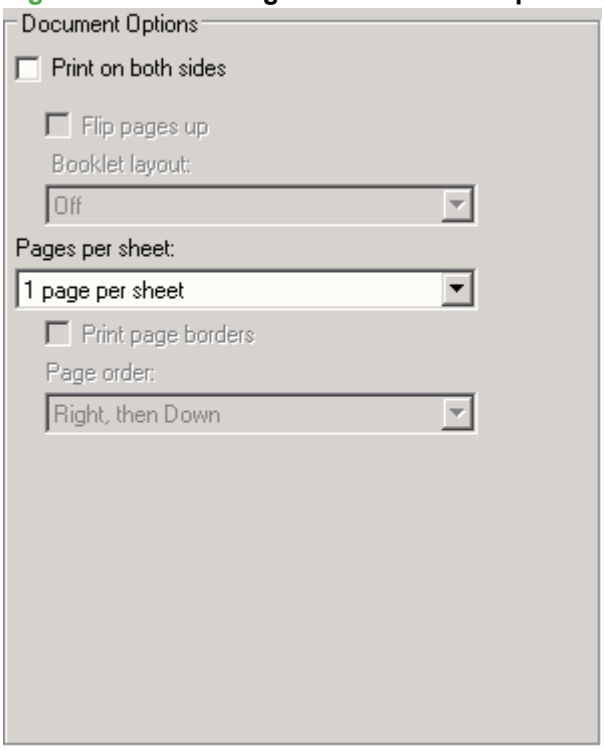
Document Options

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

- **Print on Both Sides** or **Print on Both Sides (Manually)** check box
- **Flip Pages Up** option
- **Booklet Layout** drop-down menu
- **Pages per sheet** drop-down menu

- **Print page borders** check box
- **Page order** drop-down menu

Figure 4-21 Finishing tab – Document Options group box



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:

- **Paper size:** is set to any media size *except for* the following sizes: on the **Paper/Quality** tab:
  - **Envelope #10**
  - **Envelope Monarch**
  - **Envelope BS**
  - **Envelope C5**
  - **Envelope DL**
- **Paper type:** is set to any media type *except for* the following types:
  - **Labels**
  - **Monochrome Laser Transparency**
  - **Envelope**

NOTE: As a rule, extra memory is not needed on the [x] 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 printer comes with a duplexing unit installed in the following models:

- HP LaserJet P4015x
- HP LaserJet P4515x

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 makes adjustments to its print modes. Selecting a media type in effect instructs the printer to use a group of settings (such as fuser temperature and print speed) to create an image that has the best possible quality for that media. 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 because the HP LaserJet P4014, P4014n, P4015n, P4015tn, P4515n and P4515tn printer models do not have a duplexing unit installed. Use this setting on the other HP LaserJet P4010 and P4510 Series printer models for media types that the automatic duplexing unit does not support, such as cardstock and thick media.

Manually printing on the second side of a page is available in the HP PCL 6, PCL 5, or PS emulation driver. 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 8.5x13 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** option on the **Device Settings** tab in the Properties print-driver tabs.

To print on both sides manually while using media that is supported for automatic duplexing, select and apply the **Not Installed** setting on the **Duplex Unit (for 2-Sided Printing)** option on the **Device Settings** 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:

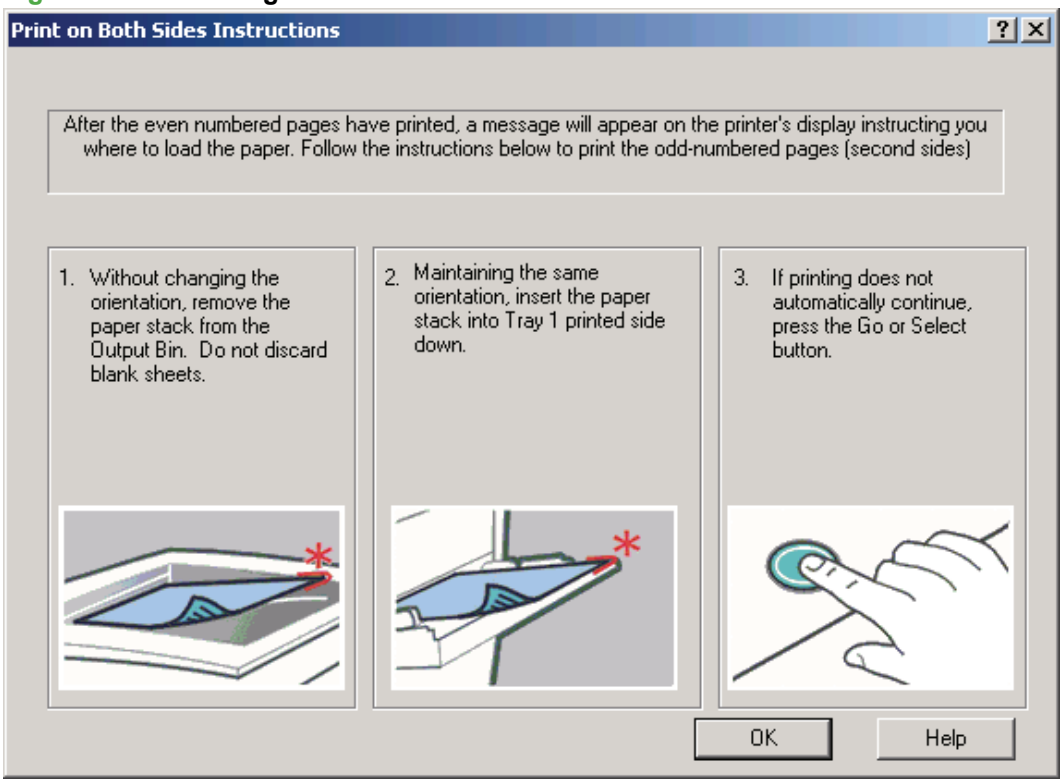
- Plain
- Preprinted
- Letterhead
- Prepunched
- Bond
- Recycled
- Color
- Rough

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 **MANUALLY FEED**, insert the stack of media (on which the even-number pages have been printed) as indicated in the following figure.

Figure 4-22 Finishing tab – Print on Both Sides instruction window



When you have completed the steps in the dialog box, the second half of the print job prints on the back side of the sheets in 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 option

Select the **Flip Pages Up** check box to specify the duplex-binding option. (The **Flip Pages Up** option is only available when **Print on Both Sides (Manually)** is selected.) By default, the **Flip Pages Up** check box is *not* selected. The following table shows the results of selecting this box, depending on the paper orientation selected on the **Finishing** tab.

Table 4-2 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 (Manually)** 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 drop-down menu

The **Booklet Layout** drop-down menu, visible when **Print on Both Sides Manually** is selected, offers choices that are based on the current paper size. The default setting for the **Booklet Layout** drop-down menu is **Off**.

- **Left Binding**
- **Right Binding**

By selecting **Left Binding** or **Right 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**. Manually changing the **Pages per Sheet** setting to 4, 6, 9, or 16 pages per sheet disables the booklet setting. See the Printing a booklet on page 157 section of this chapter for more information.

Book and booklet printing

A book is a print job consisting of at least two pages that can have a different media type for the front cover, first page, other pages, last page, or back cover. Use the **Front Cover**, **First Page**, **Other Pages**, **Last Page**, and **Back Cover** settings on the **Paper/Quality** tab (available by selecting the **Use Different Paper/Covers** check box) to select different media for these pages.

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

Printing a booklet

Complete the following steps to print a booklet.

1. In the **Finishing** tab, select the **Print on Both Sides Manually** check box.
2. In the **Booklet Layout** drop-down menu, select the preferred type of booklet printing (for example, **Right Edge Binding**).
3. Click **OK** in the print driver.
4. Click **OK** in the **Print** dialog box to print.

Printing a book

To print a book in which the front cover, first page, other pages, last page, and back cover are printed on different media types, see the Paper/Quality tab features on page 134 section of this chapter.

Pages per sheet drop-down menu

On the **Finishing** tab, use the **Pages per sheet** option to select the number of pages to print on a single sheet of media. If more than one page per sheet is selected, 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: Selecting an option other than **2 pages per sheet** makes booklet printing unavailable.

Print page borders check box

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.

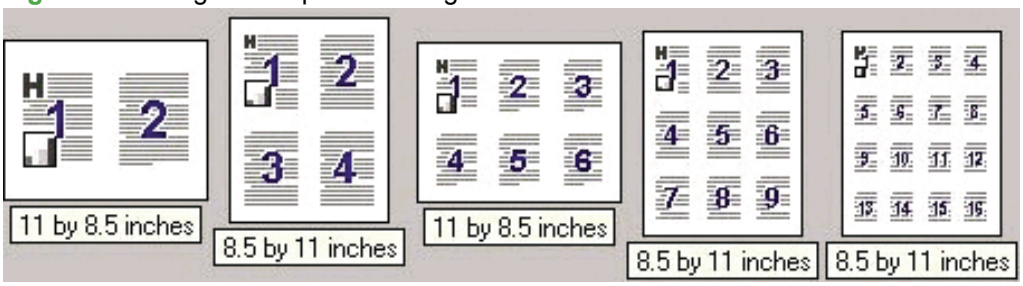
Page order drop-down menu

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

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

The document preview image reflects any changes made in the **Page order** settings. The following figure shows the different document preview configurations.

Figure 4-23 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. It is always oriented so that the contents of the page are right-side-up.

Move the cursor over the document preview image to change the cursor from an arrow to a gloved hand. Toggle between portrait and landscape page orientation by clicking the image.

Figure 4-24 **Document preview image**

Orientation group box

Use the **Orientation** setting to establish different layouts of the image on the page. This setting does not affect the way that media feeds into the printer.

The **Orientation** group box contains the following options:

- Portrait option button
- Landscape option button
- Rotate by 180 degrees check box

- Mirror Image check box (PS Emulation only)

Figure 4-25 Finishing tab – Orientation group box (PCL 6)

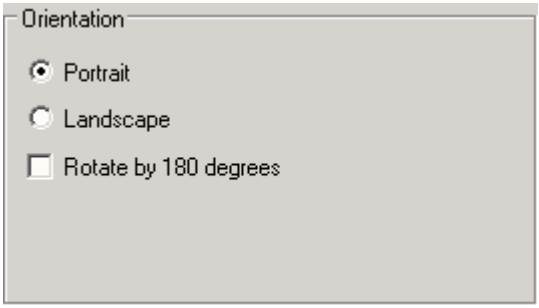


Figure 4-26 Finishing tab – Orientation group box (PS)

Portrait option button

Select this feature to print the document in **Portrait** orientation, which is when the top edge of the document is the shorter edge of the paper. This is the default setting.

Landscape option button

Select this feature to print the document in **Landscape** orientation, which is when the top edge of the document is the longer edge of the paper.

Rotate by 180 degrees check box

Select this feature to rotate the document image on the paper 180°. For example: If the return address on an envelope is smudged, select this setting and then feed the envelope into the printer so the return address area goes in first.

Mirror Image check box (PS Emulation only)

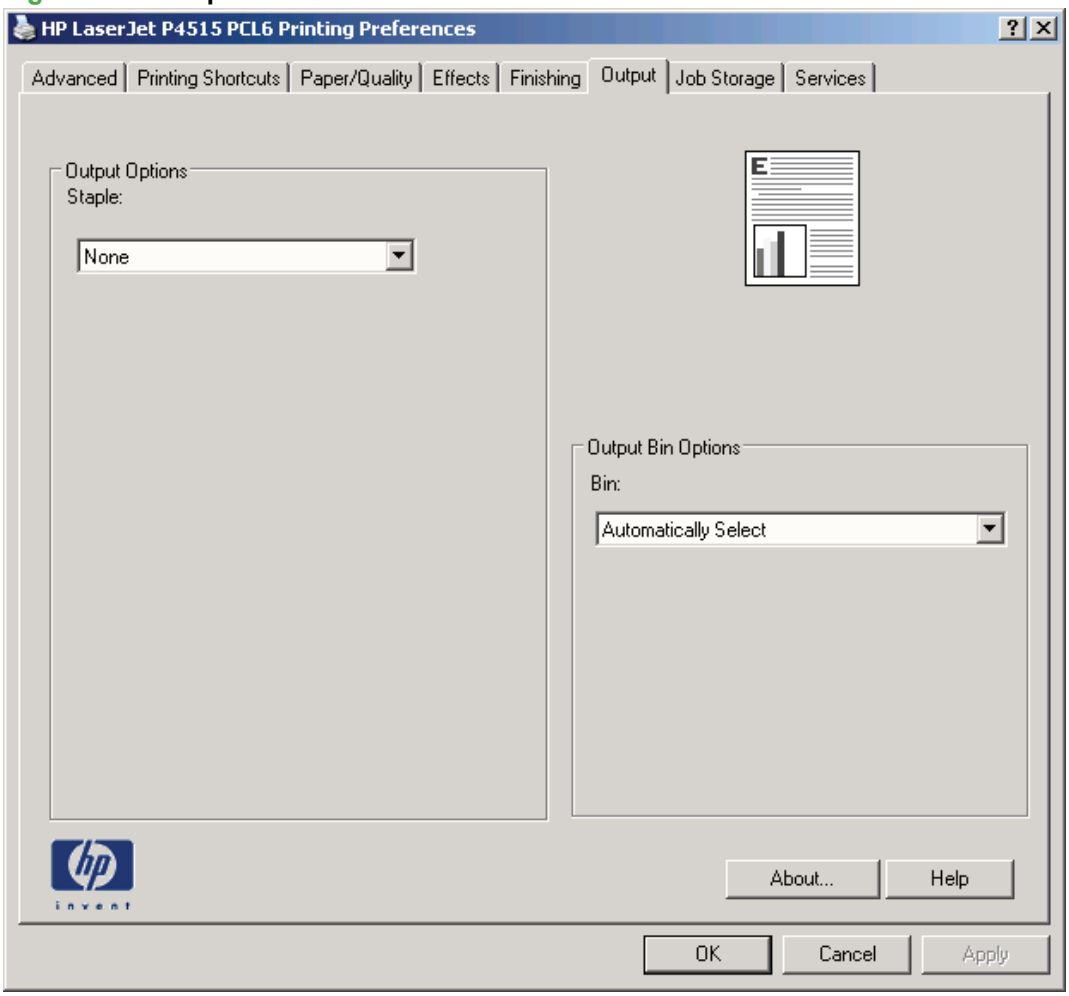
Click the **Mirror Image** check box to reverse the horizontal coordinates of the printed document.

Figure 4-27 Document preview image — Mirror Image

Output tab features

Use the **Output** tab to configure the HP LaserJet P4010 and P4510 Series printer features for print jobs. The **Output** tab options vary depending on the features installed.

Figure 4-28 Output tab



The **Output** tab contains the following options:

- Output Options
- Output Bin Options
- Document preview image

Output Options

The **Output Options** group box contains the following:

Staple:

- **None** (default)
- **One Staple Angled (max 15 sheets)**

Output Bin Options

The **Output Bin Options** group box contains the following:

- **Automatically Select** (default)
- **Output Bin 1**
- **Output Bin 2**
- **Output Bin 3**
- **Output Bin 4**
- **Output Bin 5**

Document preview image

The document preview image is a line-drawn image of a page that represents graphics and text. It is always oriented so that the contents of the page are right-side-up.

Move the cursor over the document preview image to change the cursor from an arrow to a gloved hand. Toggle between portrait and landscape page orientation by clicking the image.

Figure 4-29 Document preview image

Job Storage tab features

Use the job-storage feature to store print jobs in theHP LaserJet P4010 and P4510 Series 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 printer 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.

   NOTE: The HP LaserJet P4010 and P4510 Series printer can be configured for a maximum of 320 MB.

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.

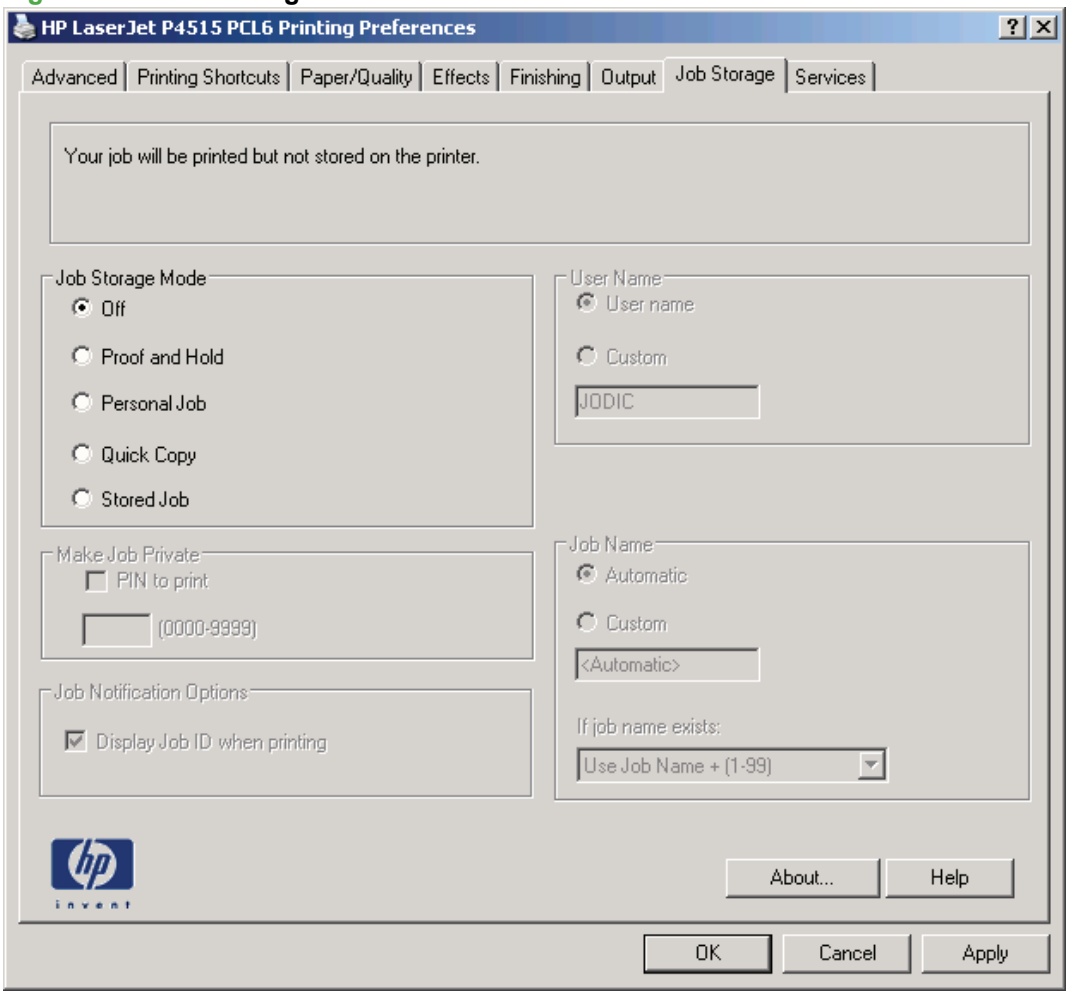
To disable the job-storage feature, follow these steps:

1. Click **Start**.
2. Select **Settings**.
3. Click **Printers** (Microsoft Windows 2000) or **Printers and Faxes** (Windows XP Professional and Windows Server 2003) or **Printers and Other Hardware Devices** (Windows XP Home) or **Hardware and Sound** (Windows Vista).
4. Right-click the printer 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.

The following figure shows the **Job Storage** tab.

Figure 4-30 Job Storage tab



The **Job Storage** tab contains the following options:

- Status group box on page 163
- Job Storage Mode on page 164
- Make Job Private on page 166
- Job Notification Options on page 166
- User Name on page 166
- Job Name on page 167

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 P4010 and P4510 Series printers to store documents at the device and then control their printing at the device control panel.

If the job-storage feature is enabled (with at least 80 MB of total memory), three **Job Storage Mode** settings are available on the **Job Storage** tab:

- **Off**
- **Proof and Hold**
- **Private Job**

Two additional **Job Storage Mode** settings become available on the **Job Storage** tab if a hard disk is installed:

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

Off

When selected, job storage is disabled. 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.

Proof and Hold 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, print the remaining copies at the control panel. 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, reprint the job from the software program. If you send a second proof-and-hold job that has the same user name and job name as an unreleased proof-and-hold job, the second job overwrites the existing one. Proof-and-hold jobs are deleted when the device is turned off.

The device configuration holds a maximum of 500 proof-and-hold jobs, and the default is 32. When this preset limit is reached, the new document overwrites the longest-held document. 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.

The Quick Copy Job Limit setting affects all temporary jobs (those that will be lost if the device is power cycled). The Quick Copy Job Limit is a maximum for all of these jobs in any combination, but not individually. The Quick Copy Job Limit range is 1 to 300 with a default of 32.

Personal Job

To use the **Personal Job** option, the Job Storage feature must be enabled.

When **Personal Job** is selected, the print job is sent to the device but is not printed until a selection is made on the device control panel. Selecting **Personal Job** activates the **PIN** group box. The print job can be printed only after the correct PIN is typed at the control panel. After the job prints, it is immediately deleted from the device. This feature is useful when printing sensitive or confidential documents should not remain in an output bin after printing.

The Personal Job/PIN coupling has a PIN restriction of four ASCII numeric characters (0 though 9). When more than four characters are typed, the characters past the fourth are truncated. Any non-numeric characters are removed immediately. The field temporarily accepts fewer than four digits in the string, but when the edit field loses focus, zeroes pad the left end until the PIN contains exactly four digits. The default initialized value for the PIN is 0000 for **Personal Job**.

After it is released for printing, the private job is immediately deleted from the device. If more copies are needed, reprint the job from the software program. Sending a second private job that has the same user name and job name as an existing private job (when the original job has not been released for printing) overwrites the existing job, regardless of the PIN. Private jobs are deleted when the device is turned off.

The Quick Copy Job Limit setting affects all temporary jobs (those that will be lost if the device is power cycled). The Quick Copy Job Limit is a maximum for all of these jobs in any combination, but not individually. The Quick Copy Job Limit range is 1 to 300 with a default of 32.

Quick Copy

To use the **Quick Copy** option, the job-storage feature must be enabled.

After the job prints, use the device control panel to print more copies of the job without scanning.

Quick Copy Jobs are lost if the device is turned off. Quick Copy Jobs are not pin protected.

The Quick Copy Job Limit setting affects all temporary jobs (those that will be lost if the device is power cycled). The Quick Copy Job Limit is a maximum for all of these jobs in any combination, but not individually. The Quick Copy Job Limit range is 1 to 300 with a default of 32.

Stored Job

To use the **Stored Job** option, the job-storage feature must be enabled.

Use the **Stored Job** option to send a print job directly to the device hard disk without printing it. The job is stored in the device and is printed when the job is requested from the device control panel. After the job prints, a copy remains in storage that can be reprinted. Use this storage for forms and other common or shared documents.

The job remains stored in the device until it is deleted. Stored jobs remain on the device hard disk when the device is turned off. Use this feature for forms and other common or shared documents.

A stored job can be managed in two ways: as either a private or a public job. Use a private stored job to send a print job directly to the device, which can then be printed only after you type a PIN at the device control panel. (You can set the PIN in the PIN group box.) After the job is printed, the job remains in the device and can be printed again at the device control panel. The private mode is initiated by selecting the **PIN to Print** check box. In this mode, a PIN that is typed at the device control panel is required in order to release the job.

The box labeled **Make Job Private** is usually inactive. The **PIN to Print** option becomes available when you select **Stored Job**. If you select the **PIN to Print** box, you must type a PIN to make the stored job private.

The **PIN to print** option can be used to assign a PIN to access the stored jobs. These jobs are stored on the device hard disk and will not be lost if the device is turned off. Stored jobs remain on the device until deleted at the device control panel.

The maximum number of stored jobs is limited by device memory. No more than 300 jobs is recommended.

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

Make Job Private

A PIN is required when **Personal Job** is selected.

The **PIN to print** check box is selected, but not available. Type a four-digit PIN number in the box provided. The stored job is sent to the printer, where the user must type the four-digit PIN on the control panel to retrieve the stored job.

Job Notification Options

Clicking a **Job Storage Mode** option activates the **User Name** and **Job Name** options.

Click the **Display Job ID when printing** option to open a pop-up dialog box on the desktop when the stored 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 printer name, port, and location.

User Name

Use the **User Name** settings to help identify the job at the printer control panel. The following are the **User Name** settings:

- **Windows User Name.** This option associates the Windows user name with the stored print job. The 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. Clicking **Custom** makes the text field below the option available. The **Custom** 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 printer control-panel display. Any typed character in an ASCII code of fewer than 32 or more than 126 characters is removed from the edit field, along with all of the characters that follow it. Any character beyond 16 is removed.

Job Name

Use the **Job Name** options to specify a name to identify the job at the printer 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.
- **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 printer 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 printer control-panel display. Any typed character in an ASCII code of fewer than 32 or more than 126 characters is removed from the edit field, along with all of the characters that follow it. 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>**.

If Job Name Exists. When storing a print job, create a print-job name or allow the printer software to assign one automatically. If a print job that has the same name already exists, the new print job overwrites 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 + (1-99)**. When the print-job name exists, the printer software assigns a number between 1 and 99 to the end of the print job name to make it unique. Select **Replace Existing File** to always have the printer software overwrite an existing print job that has the same print job name.

Using job-storage features when printing

Clicking the print icon in the software program toolbar prints the job without using job-storage features.

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.
2. Click **Properties**. The document **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 sending a print job that uses the job-storage feature, release the job to print from the device control panel.

1. Press theMenu button.
2. Press the up or down arrow until **RETRIEVE JOB** is highlighted on the device control panel, and then press Select.
3. Press theup or down arrow to scroll to your user name, and then press Select.
4. Press the up or down arrow to scroll to the job name, and then press Select.
5. Press theup or down arrow 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 the up or down arrow 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 the up or down arrow 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. Do this from the device control panel.

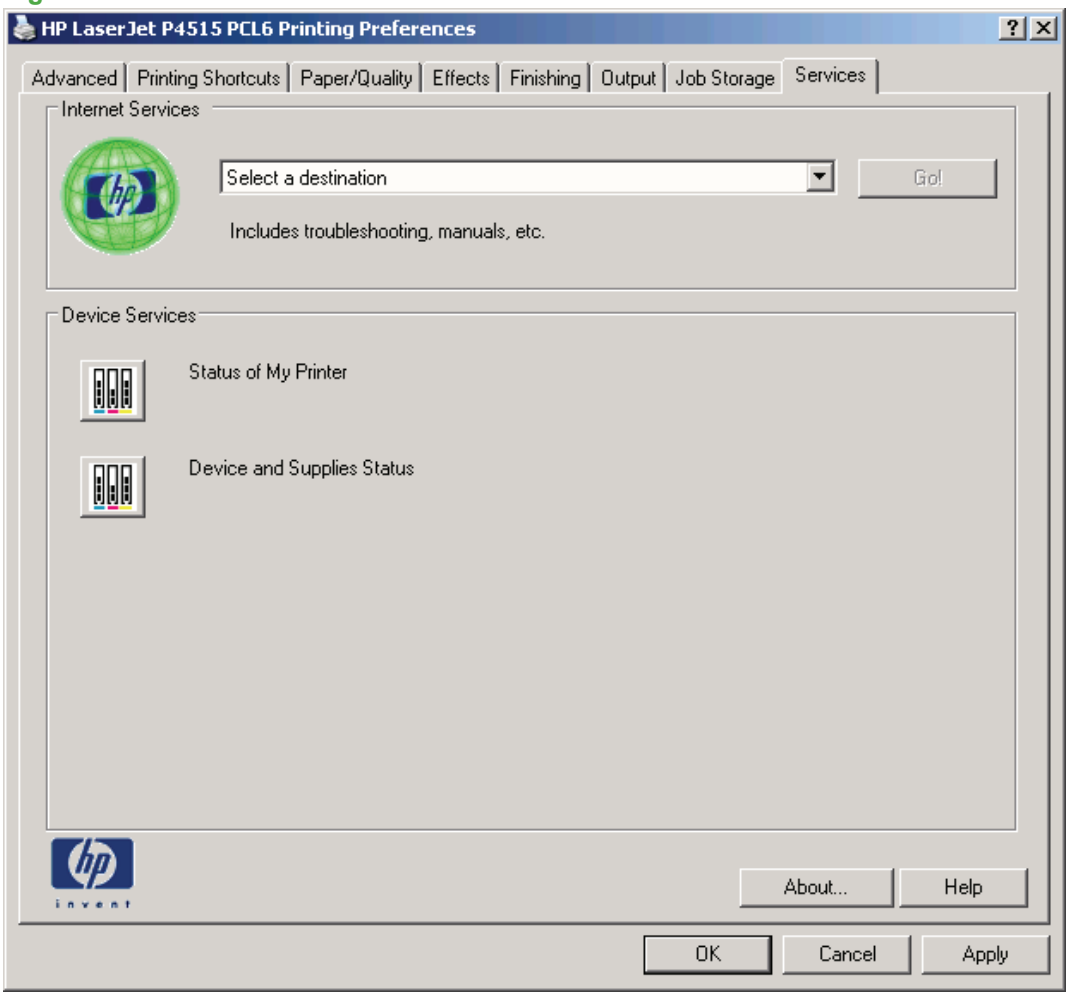
1. Press theMenu button to open the menus.
2. Press the up or down arrow until **RETRIEVE JOB** is highlighted on the device control panel, and then press Select.
3. Press up or down arrow to scroll to your user name, and then press Select.
4. Press up or down arrow to scroll to the job name, and then press Select.
5. Press up or down arrow 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 or down arrow 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

Use the **Services** tab to access support and supplies Web sites for the printer.

Figure 4-31 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 to 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 to view or downloadHP LaserJet P4010 and P4510 Series printer manuals.

- **Check for driver updates**. Automatically check the 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 P4010 and P4510 Series 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 the computer has Internet access, select any of these items and click **Go!** to open the corresponding HP Web page.

Device Services

The **Device Services** group box contains the following options.

- **Status of My Printer**. Click this option to open the **Status** pane in the HP EWS for the printer.
- **Device and Supplies**. Click this option to open the **Device Status** pane in the HP EWS for the printer.

Device Settings tab features

On the printer Properties, only the **Device Settings** tab and **About** tab are unique to the device; all other tabs are part of the operating system.

The **Device Settings** tab is in the Properties window for the print driver.

The **Device Settings** tab contains controls for media-handling devices and controls for managing the HP LaserJet P4010 and P4510 Series printer.

Available options depend on the driver and the particular feature.

The following figure shows the **Device Settings** tab for the PCL 6.

Figure 4-32 Device Settings tab (1 of 2)

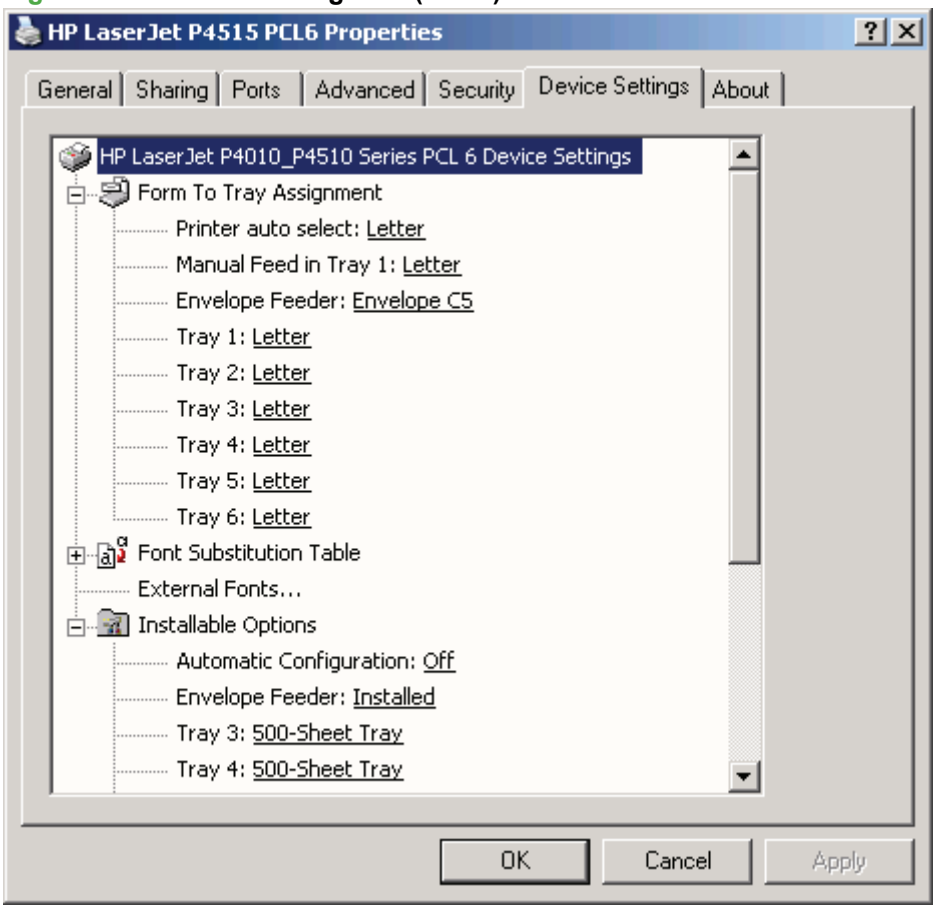
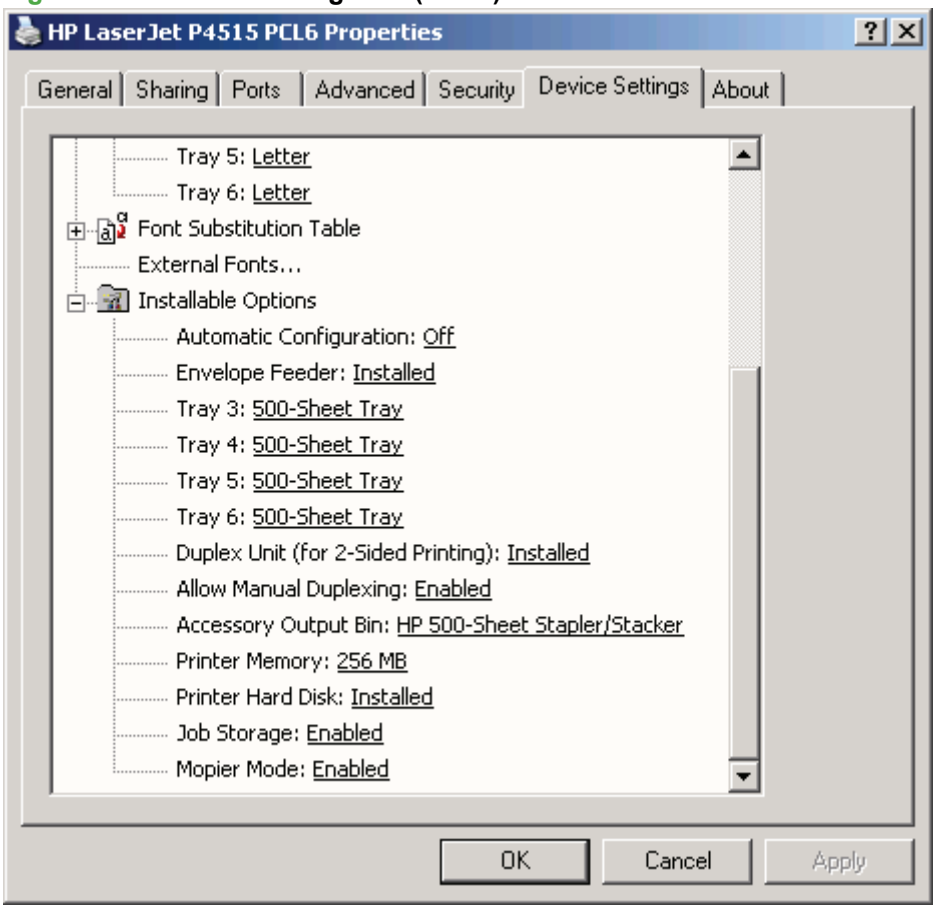


Figure 4-33 Device Settings tab (2 of 2)



The following figures shows the **Device Settings** tab for the PS Emulation driver.

Figure 4-34 Device Settings tab (PS)

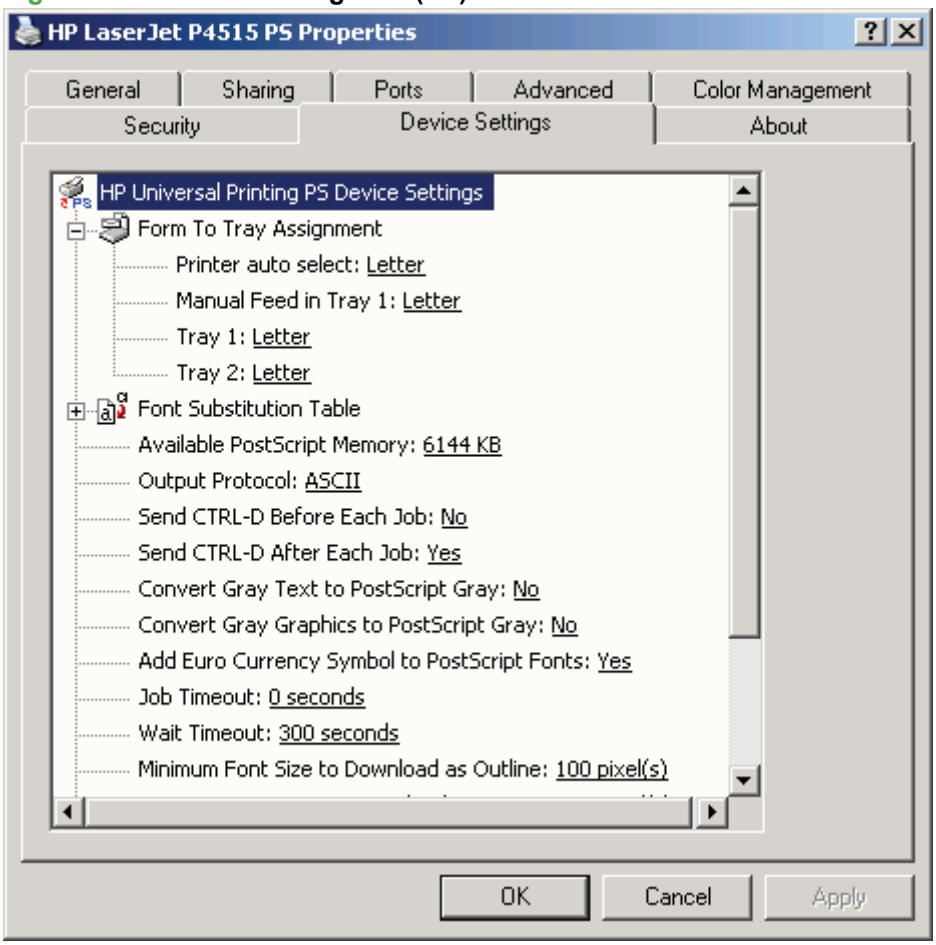
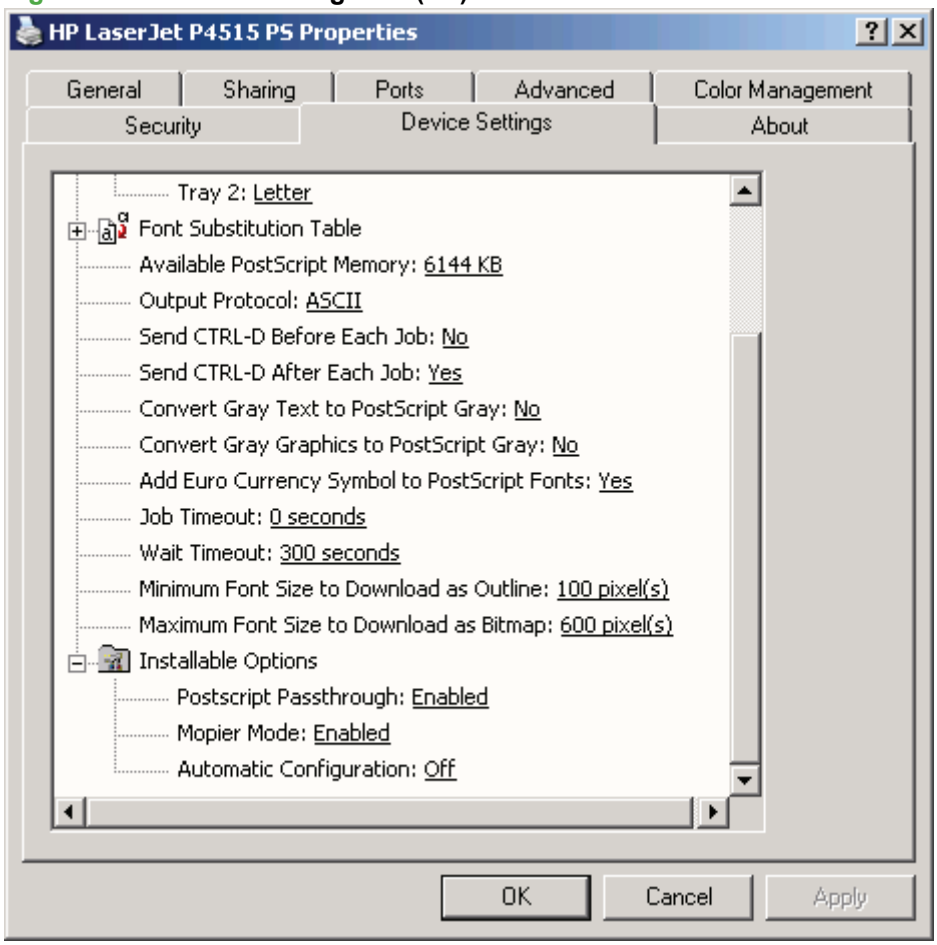


Figure 4-35 Device Settings tab (PS)



The **Device Settings** tab contains the following controls:

- Form to Tray Assignment on page 174
- Font Substitution Table on page 175
- External Fonts on page 175
- Installable Options on page 177

Form to Tray Assignment

A network administrator can use **Form to Tray Assignment** to specify the media size in each input tray.

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

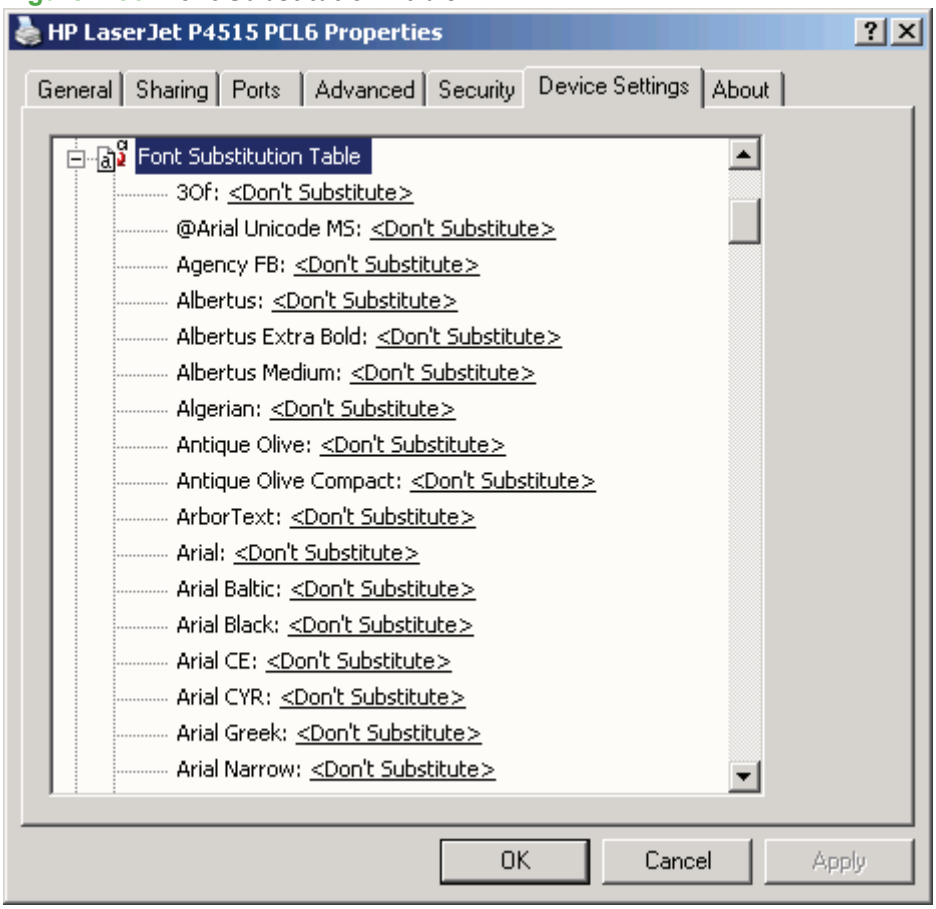
1. Select the appropriate tray in the **Form to Tray Assignment** list.
2. Use the drop-down menu to select the media size (or form) that is loaded in that tray.
3. Repeat steps 1 and 2 for the remaining trays.
4. Click **OK** to enable the settings, or, if necessary, click **Cancel** to reconfigure 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 printer. 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 4-36 Font Substitution Table



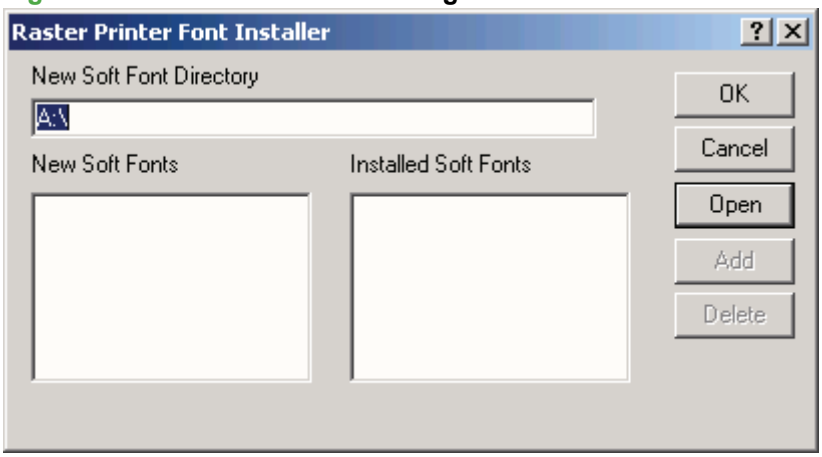
External Fonts

NOTE: The External Fonts option is available only in the HP PCL 6 and PCL 5 print driver. It is not available in the ES Emulation print driver.

Use the **External Fonts** option to install and remove external fonts for the printer. 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 4-37 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** (Microsoft Windows 2000) or **Printers and Faxes** (Windows XP Professional and Windows Server 2003) or **Printers and Other Hardware Devices** (Windows XP Home) or **Hardware and Sound** (Windows Vista).
4. Right-click the name of the printer.
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 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** (Microsoft Windows 2000) or **Printers and Faxes** (Windows XP Professional and Windows Server 2003) or **Printers and Other Hardware Devices** (Windows XP Home) or **Hardware and Sound** (Windows Vista).
4. Right-click the name of the printer.
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 to remove, and then click **Remove**. The fonts are removed.
10. Click **OK** to close the **HP Font Installer** dialog box.

Installable Options

Topics:

- **Automatic Configuration**
- **Envelope Feeder**
- **Tray 3, 4, 5, 6**
- **Duplex Unit (for 2-sided Printing)**
- **Allow Manual Duplexing**
- **Accessory Output Bin**
- **Printer Memory**
- **Printer Hard Disk**
- **Job Storage**
- **Mopier Mode**

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 and the PCL 5), 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.

Envelope Feeder

This control specifies whether the envelope feeder is installed on the device. The default setting is **Not Installed**.

Tray 3, 4, 5, 6

This control specifies whether Tray 3, 4, 5, and 6 are installed on the device. The default setting is **Not Installed**.

Duplex Unit (for 2-sided Printing)

The HP LaserJet P4015x, P4515x, and P4515n printer models come with a duplex unit installed. This setting is enabled (**Installed**) by default.

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 printable information appears on the second side of the page.

TheHP LaserJet P4010 and P4510 Series 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, reinsert the media stack into the input tray to print the second side. The printer pauses while the user makes this adjustment.

This setting is enabled by default.

Accessory Output Bin

This control specifies whether Tray 3, 4, 5, and 6 are installed on the device. The default setting is **Not Installed**.

Printer Memory

This option matches the setting to the amount of memory that is installed in the printer. The driver generates ranges of memory that can be selected, up to the maximum that the printer can accept. The driver can use this information to manage how the print driver uses the printer memory.

Printer Hard Disk

A printer hard disk is optional for the HP LaserJet P4010 and P4510 Series printers. Do *not* select the **Installed** setting unless a hard disk is installed.

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 hard disk is required for the printer to perform most tasks. The check box is available only for troubleshooting purposes.

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.

NOTE: The **Mopier Mode** function is not available without a hard disk.

The HP LaserJet P4010 and P4510 Series printers support the transmit-once mopying feature when the **Mopier Mode:** setting on the **Device Settings** tab is **Enabled**.

Use the PCL 6, PCL 5, or PS Emulation to perform mopying 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 the mopier is disabled, mopying is *not* necessarily disabled. The driver can perform mopying through the software rather than the device hardware (the mopying path that is disabled when you change the **Mopy Mode** setting to **Disabled**). However, sending a multiple-copy print job when the mopier is disabled eliminates the advantage of transmitting the print job once, because the job is sent through the network for each copy.

PS Emulation Device Settings

The following controls are available and appear only in the PS Emulation **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 Bitmap
- Postscript Passthrough
- JPEG Passthrough

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 printer's total physical memory. It is usually best to set the postscript memory to match the total RAM that appears on the configuration page.

To print a configuration page from the printer control panel, follow these steps:

1. Press theMenu button to open the menus.
2. Press the up or down arrow to scroll to **INFORMATION**, and then press OK.
3. Press up or down arrow to scroll to **PRINT CONFIGURATION**.
4. Press OK to print the configuration pages.

Output Protocol

This control specifies the protocol that the printer uses for print jobs. The following options are available:

- **ASCII** (default)
- **TBCP**
- **Binary**

Click **ASCII** to send data in ASCII format (7-bit), which might take longer to print but can be sent through any I/O channel, such as a serial or network port.

Click **TBCP** (Tagged Binary Communications Protocol) to send all data except special control characters in binary (8-bit) format. The binary formats can be sent over serial communications ports and are faster than sending data in ASCII format.

Click **Binary** to send all data except special control characters in binary (8-bit) format. The binary formats can be sent over serial communications ports and are faster than sending data in ASCII format.

Send Ctrl-D Before Each Job

This control specifies whether the printer is reset at the beginning of every postscript document. The default setting is **No**. Pressing Ctrl-D resets the printer 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 printer is connected through a network. If the document fails to print when sent to a printer connected through serial ports, change **No** to **Yes**.

Send Ctrl-D After Each Job

This control specifies whether the printer is reset at the end of every postscript document. The default setting is **Yes**. Pressing Ctrl-D resets the printer 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 printer is connected through a network. If the 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 that the driver provides. The following settings are available:

- **Yes**
- **No** (default)

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 driver. The following settings are available:

- **Yes**
- **No** (default)

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** (default)
- **No**

Job Timeout

This control specifies how long the document can take to get from the computer to the printer before the printer stops trying to print the document. If you specify **0 seconds**, the printer continues trying to print indefinitely. The default setting is **0 seconds**. Use the spin box to change this value, up to a maximum of **32,767 seconds**.

Wait Timeout

This control specifies how long the printer waits to get more postscript information from the computer. After the specified time passes, the printer stops trying to print the document and prints an error message. When printing a very complicated document, increase this value. If you specify **0 seconds**, the printer waits indefinitely. The default setting is **300 seconds**. Use the spin box to change this value, up 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. Any 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)**. Use the spin box to change this value, up to a maximum of **32,767** pixels.

Maximum Font Size to Download as Bitmap

This control specifies the maximum font size (in pixels) for which the driver will download TrueType fonts as bitmap (Type 3) fonts. Any 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)**. Use the spin box to change this value, up to a maximum of **32,767** pixels.

Postscript Passthrough

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**, **Pages per sheet** and **Booklet Printing** might not print correctly from some software programs with **Postscript Passthrough** enabled, because such programs send postscript information that the driver cannot control. 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

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.** (This is the default.) When this option is selected, the printer connection type is automatically detected. For network (TCP/IP) connections, JPEG passthrough is disabled. For DOT4 and USB connections, JPEG passthrough is enabled.

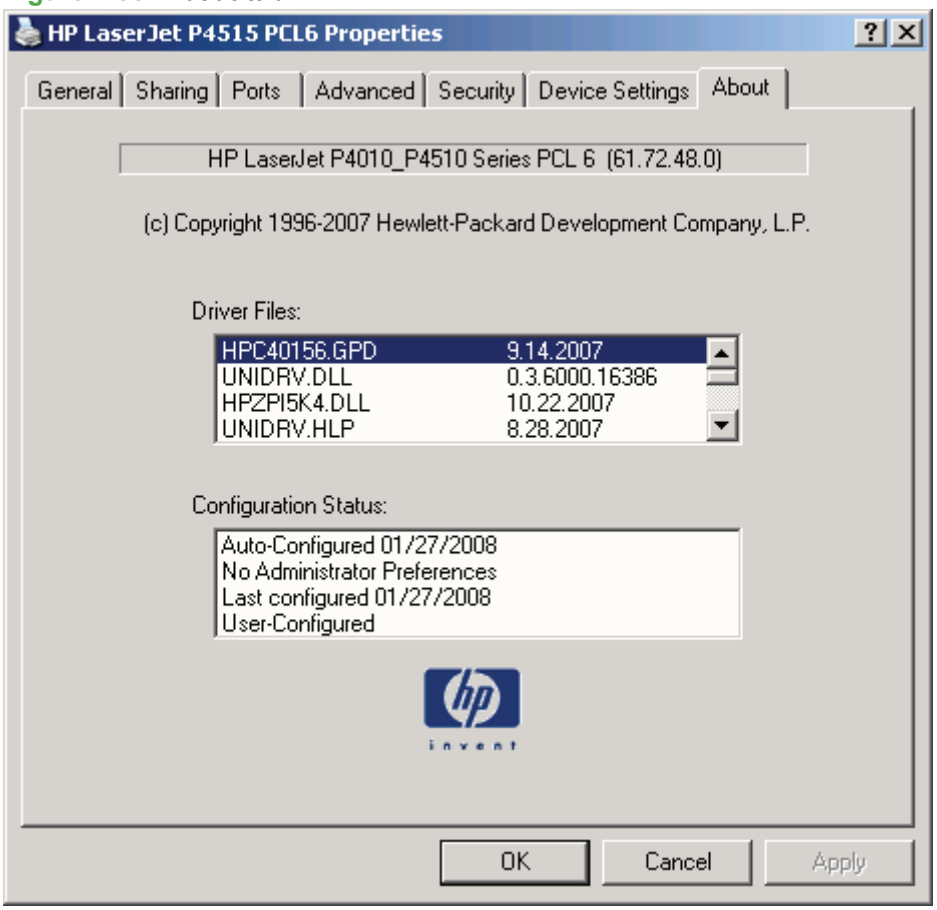
About tab features

On the printer Properties, only the **Device Settings** tab and **About** tab are unique to the device; all other tabs are part of the operating system.

The **About** tab is in the **Properties** for the print driver.

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 P4010 and P4510 Series printer model number, driver, date, and versions. The **About** tab is shown in the following figure.

Figure 4-38 About tab



The **About** tab lists driver installation file names and their version numbers. The **About** tab also indicates whether the driver was autoconfigured, whether administrator preferences were set, the date the driver was last configured, and whether the configuration is default or user-defined.

To determine the latest version, compare the overall build number (in parenthesis after the model name) and the GPD number (in the Driver Files: field). If the overall build number has increased, this is the latest version of the driver.

If the overall build number is the same, check the version number of the GPD file. The driver that has the highest GPD version number is the latest driver.

5 Macintosh Software and Utilities

Introduction

The HP LaserJet P4010 and P4510 Series printer comes with printing software and installers for Apple Computer, Inc., Macintosh operating systems.

- Supported operating systems for Macintosh
- Supported software components for Macintosh
- Software component availability for Macintosh
- Printing-system software
- Macintosh installation instructions
- Supported utilities for Macintosh

Supported operating systems for Macintosh

- Mac OS X v10.2.8, v10.3, v10.4 and later are supported.
- Mac OS 9 and Mac OS X classic are not supported.

Macintosh system requirements

Hardware requirements

- PowerPC G3, G4, G5 or Intel Core processor
- 256 MB RAM
- 32 MB of available hard-disk space
- CD-ROM drive or Internet connection

Supported print drivers for Macintosh

The HP installer provides PostScript ® Print Description (PPD) files, Printer Dialog Extensions (PDEs), and the HP Printer Utility for use with Macintosh computers.

The PPDs, in combination with the Apple PostScript print drivers, provide access to device features.

Change printer-driver settings for Macintosh

Change the settings for all print jobs until the software program is closed	Change the default settings for all print jobs	Change the product configuration settings
1. On the **File** menu, click **Print**. 2. Change the settings that you want on the various menus.	1. On the **File** menu, click **Print**. 2. Change the settings that you want on the various menus. 3. On the **Presets** menu, click **Save as** and type a name for the preset. These settings are saved in the **Presets** menu. To use the new settings, you must select the saved preset option every time you open a program and print.	**Mac OS X V10.2.8** 1. In the Finder, on the **Go** menu, click **Applications**. 2. Open **Utilities**, and then open **Print Center**. 3. Click on the print queue. 4. On the **Printers** menu, click **Configure**. 5. Click the **Installable Options** menu. **NOTE:** Configuration settings might not be available in Classic mode. **Mac OS X V10.3 or Mac OS X V10.4** 1. From the Apple menu, click **System Preferences** and then **Print & Fax**. 2. Click **Printer Setup**. 3. Click the **Installable Options** menu. **Mac OS X V10.5**

Change the settings for all print jobs until the software program is closed	Change the default settings for all print jobs	Change the product configuration settings
		1. From the Apple menu, click **System Preferences** and then **Print & Fax**. 2. Click **Options & Supplies**. 3. Click the **Driver** menu. 4. Select the driver from the list, and configure the installed options.

Supported software components for Macintosh

- Software components for Macintosh

Software components for Macintosh

Table 5-1 Software components for Macintosh

Component	Description
Installer software	Installs all of the printing-system software.
Driver software	Allows printing, copying, and scanning with the computer and the product. This software includes the following components: • The PostScript Printer Description (PPD) file for printing through PostScript Level 3 emulation
HP embedded Web server	Provides a user interface to configure the product.
Online Help	Provides help for using the product software. The user documentation for these products is included on the installation CD in Adobe Acrobat .PDF format. You must have Adobe Acrobat Reader installed on your computer to read the .PDF files.

Software component availability for Macintosh

Table 5-2 Software component availability for Macintosh

Component	Macintosh
Drivers	
Mac PostScript Printer Description PPD	X
Installers	
Macintosh Installer for OS X	X
Online Documentation	
HP LaserJet P4010 and P4510 Series Printer User Guide	X
Help systems	X
Other	
HP EWS Gateway	X

Printing-system software

The HP LaserJet P4010 and P4510 Series printing-system software for Macintosh is composed of an HP-created postscript printer definition file (PPD) and a printer dialog extension (PDE) file that work together with the Macintosh OS print system. These files are used by the Macintosh OS print system to determine default print settings and also allows the user to select between the various print options and settings and are installed by the provided HP LaserJet Installer. Additionally, an HP-supplied Macintosh printer configuration utility is provided, which allows the user to access the printer's embedded Web server (EWS) to allow for additional configuration and printer status monitoring. The following are provided on the installation CD:

- The HP LaserJet Installer for Macintosh
- Install notes (Readme file)

The following major components are installed by the HP LaserJet Installer for Mac:

- HP LaserJet P4010 or P4515 PPD
- HP LaserJet P4010 or P4515 PDE
- HP EWS Gateway

Topics:

- Availability

Availability

This document provides information about the availability of the HP LaserJet P4010 and P4510 Series 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 P4010 and P4510 Series printer printing-system software is available for download at the following Web site:

www.hp.com/go/ljp4010series_software or www.hp.com/go/ljp4510series_software

Software component availability

The following HP LaserJet software components are installed:

- HP LaserJet P4010 or P4515 PPD
- HP LaserJet P4010 or P4515 PDE
- HP EWS Gateway

In-box printing-system software CDs

The software CD for the HP LaserJet P4010 and P4510 Series printer contains the files for installing the printing-system software on the computer.

Topics:

- Macintosh partition
- CD versions

Macintosh partition

The HP LaserJet P4010 and P4510 Series printing-system software CD is divided into two partitions, one for each of the following operating systems:

- MS Windows
- Macintosh

The HP Macintosh printing-system software files all reside in the Macintosh partition. The HP LaserJet Installer for Macintosh is at the root of the Macintosh CD Partition. The user manuals (in PDF format) are grouped by language and are in the Manuals directory on the Macintosh partition of the printing-system software CD.

CD versions

The software CD for the HP LaserJet P4010 and P4510 Series printer contains the files for installing the printing-system software on the computer.

The HP LaserJet P4010 and P4510 Series printing-system software CD is available in four versions, each of which contains printing-system software in the same languages:

- English
- Danish
- Dutch
- Finnish
- French

- German
- Italian
- Japanese
- Norwegian
- Swedish
- Spanish
- Portuguese
- Russian
- Simplified Chinese
- Traditional Chinese
- Korean

Macintosh installation instructions

The HP LaserJet P4010 and P4510 Series printer comes with software and installers for MS Windows and Apple Computer, Inc., Macintosh systems. This document provides procedures for installing and removing the HP LaserJet P4010 and P4510 Series printing-system software for Macintosh operating systems.

Topics:

- Macintosh component descriptions
- Install the Macintosh printing system

Macintosh component descriptions

The HP LaserJet P4010 and P4510 Series printing-system software CD includes the following software for Macintosh computers:

- HP LaserJet P4010 or P4510 PPD
- HP LaserJet P4010 or P4510 PDE
- HP EWS Gateway

Topics:

- HP LaserJet PPDs
- PDEs
- HP Embedded Web Server (HP EWS)
- Install notes (Readme file)
- Online help

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 printer configuration settings and installable options. These settings are usually configured during the installation process by using Apple Mac OS X tools such as Print Center, Printer Setup Utility, and Print & Fax. For more information, see Table 5-3 Adding a printer in Macintosh operating systems on page 195.

PDEs

Printer Dialog Extensions (PDEs) are code plug-ins (for Mac OS X V10.2.8 or later only) that provide access to printer features, such as number of copies, duplexing, and quality settings.

HP Embedded Web Server (HP EWS)

Mac OS X supports the HP Embedded Web Server (HP EWS). Use the HP EWS to perform the following tasks:

- View the printer status and change device settings.
- View and change network settings for the printer.
- Print information pages for the printer.
- View the printer event log.

The HP EWS is accessed by using a Web browser such as Safari. The HP EWS Gateway software allows the Web browser access to the printer if the printer is connected via USB or network. The HP EWS can also by opened by choosing the **Utility** button in the Macintosh Print Center or Printer Setup Utility, or through the HP Device Configuration utility.

Install notes (Readme file)

This text file contains information about basic printer installation and OS support.

Online help

The help system is in English only, and can be viewed through a browser or in the Macintosh OS Help Center.

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. The computer user must also have administrative rights on the computer in order to install the software.

Topics:

- General installation for Macintosh operating systems
- Detailed Mac OS X installation
- Printer setup

General installation for Macintosh operating systems

1. If you are connecting the printer to a network, connect the network cable to the printer network port. If you are connecting the printer to a computer using the USB cable, install the software *before* connecting the USB cable.
2. 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 LJ P4010 or P4510 Series** CD-ROM icon on the desktop to open the CD-ROM window.

3. Double-click the **hp lj P4010_P4510.mpkg** icon.

> **NOTE:** The **Continue** button appears only after you type the "admin" password in the **Authenticate** dialog.

4. The main **Installer** dialog 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.

5. When software installation is complete, click **Quit**.

6. 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 5-3 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		x
Mac OS X V10.4		x
Mac OS X V10.5		x

Detailed Mac OS X installation

Topics:

- Main Install dialog sequence

Main Install dialog sequence

This section provides information about the Macintosh installation dialog-box sequence for the Easy Install (the typical installation option).

NOTE: If you are installing the printer using a network connection, you can connect the printer to the network before installing the software, but if you are installing the printer using a USB connection, install the software *before* connecting the USB cable.

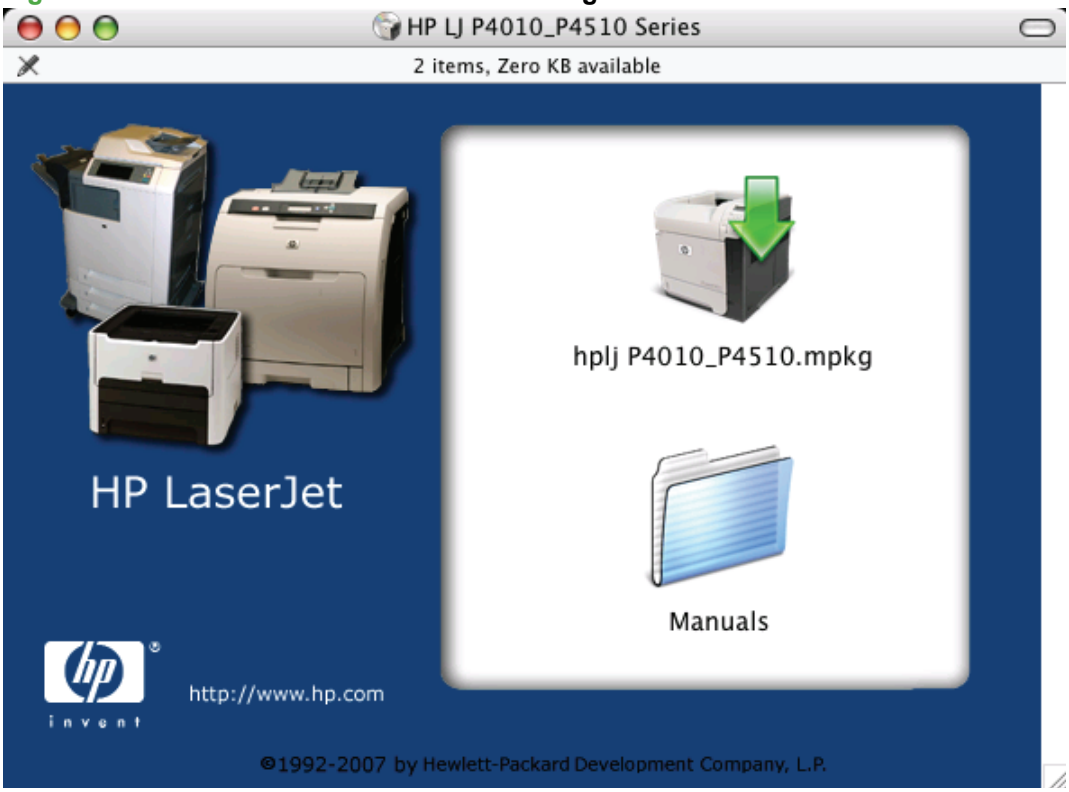
1. Insert the HP LaserJet P4010 and P4510 Series printing-system software CD in the CD-ROM drive.

2. If the CD screen does not open automatically when the CD is put into the CD-ROM drive, double-click the **HP LJ P4010 or P4510 Series** CD-ROM icon on the desktop to open the installer folder.

Figure 5-1 HP LJ P4010 or P4510 Series CD-ROM icon

The **HP LJ P4010 or P4510 Series** dialog opens.

Figure 5-2 HP LJ P4010 or P4510 Series dialog

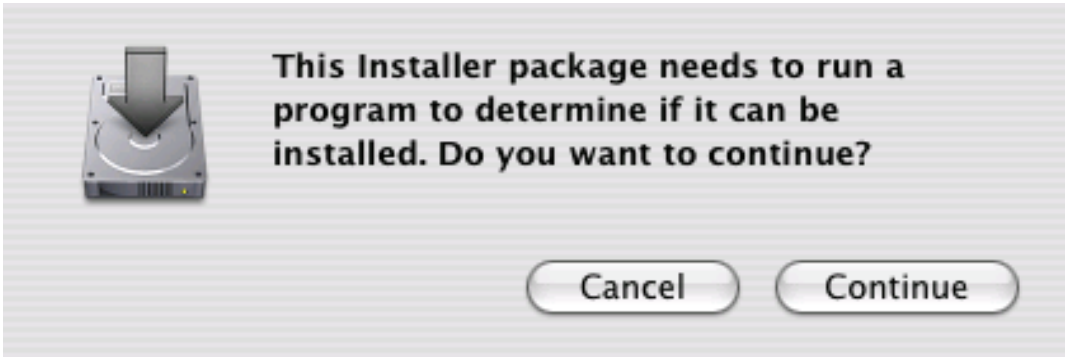


3. In the **HP LJ P4010 or P4510 Series** software screen, double-click the **hp lj P4010_P4510.mpkg** icon. This begins the install process.

Figure 5-3 hp lj P4010_P4510.mpkg

4. The **Installer Dialog** opens with the following message: **This installer package needs to run a program to determine if it can be installed. Do you want to continue?** Click **Continue**.

Figure 5-4 Installer package message

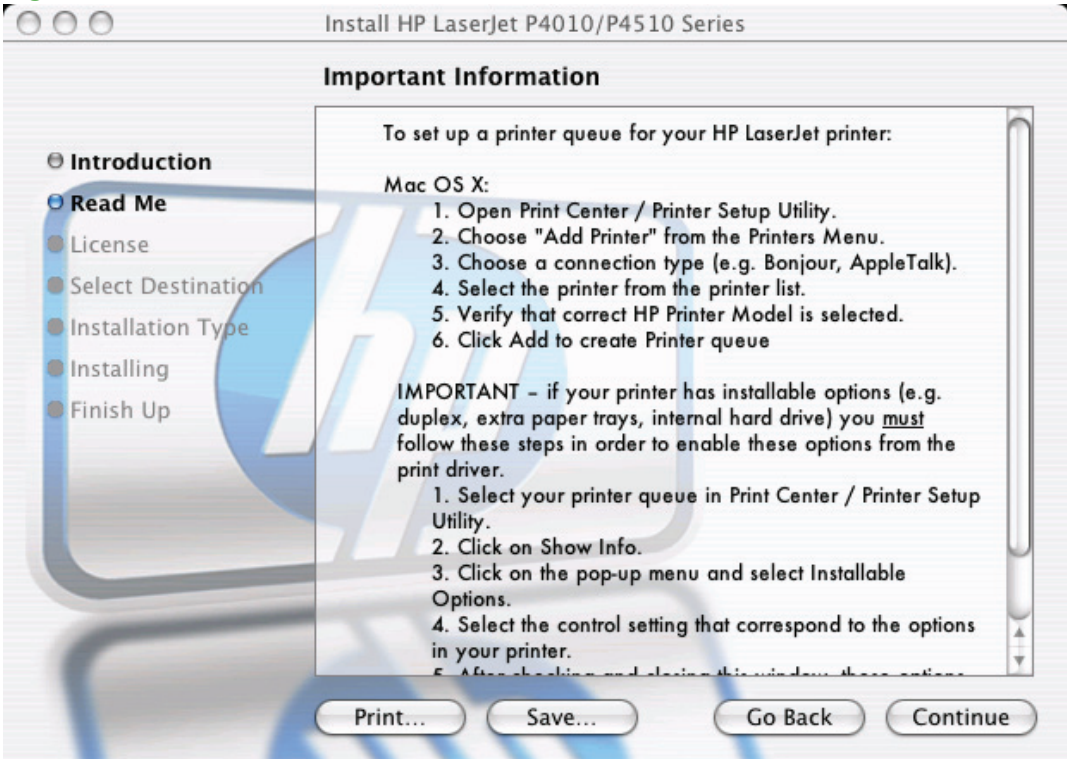


5. On the **Introduction** screen of the installer, click **Continue**.

Figure 5-5 Introduction screen

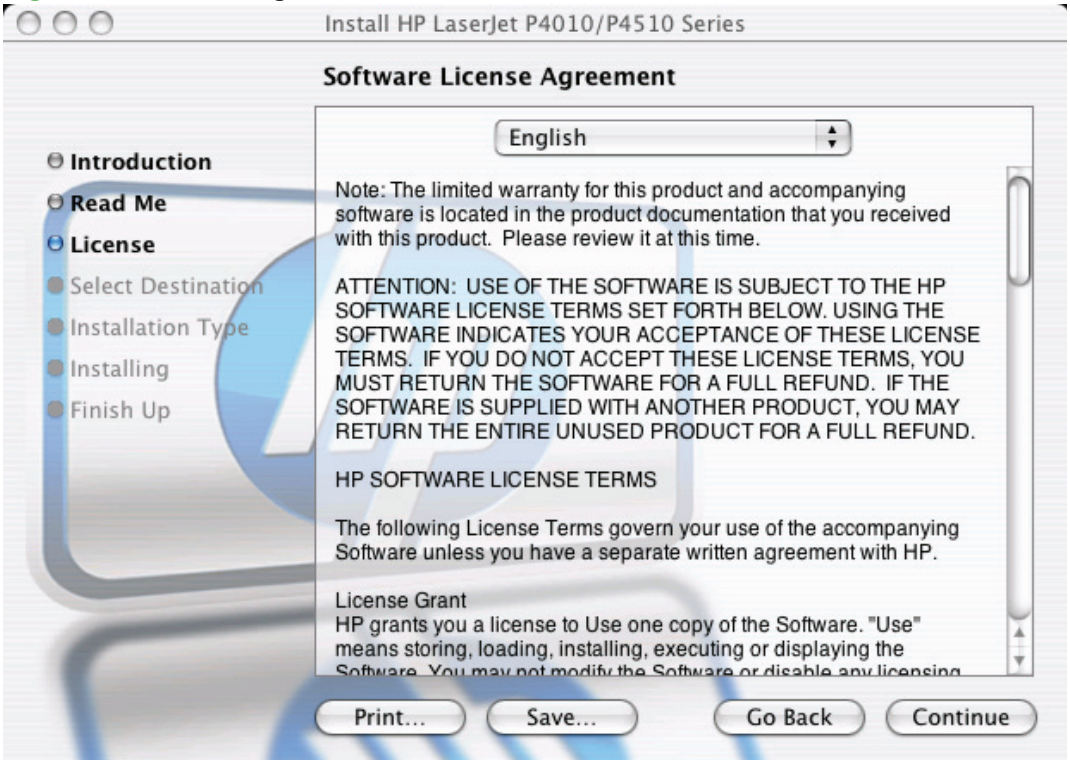
6. The **Readme/Install Notes** window opens. Click **Continue**.

Figure 5-6 Readme/Install Notes window



7. The **License Agreement** dialog opens. Click **Continue**.

Figure 5-7 License Agreement

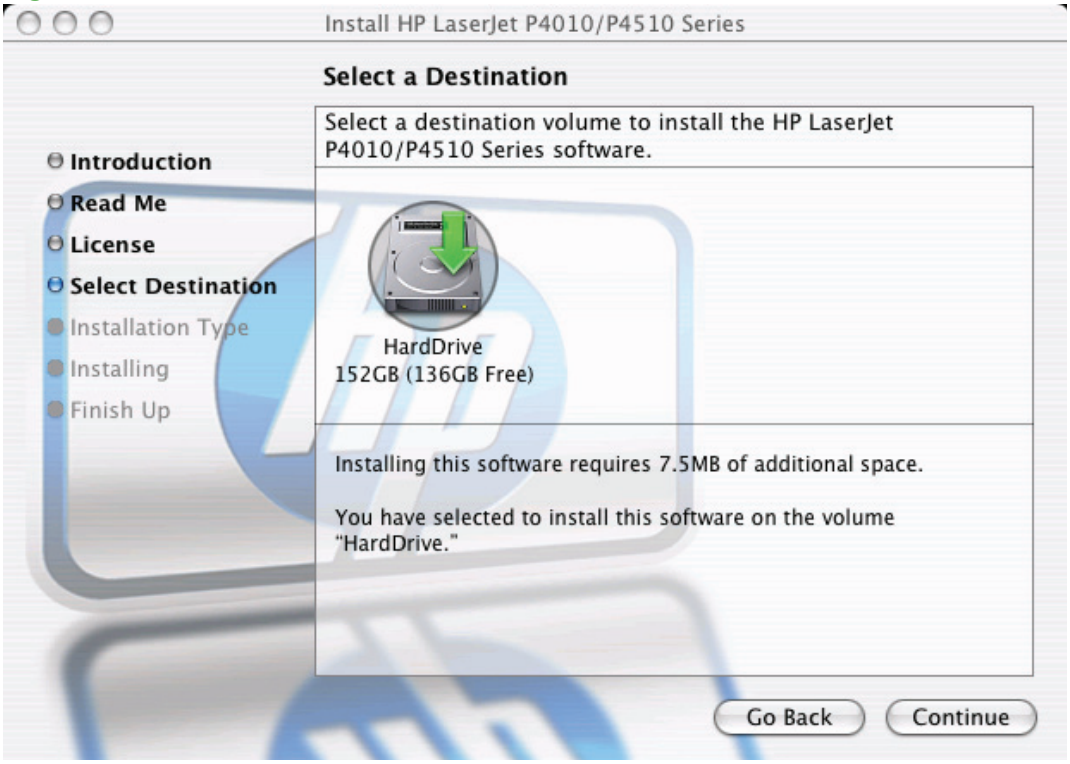


8. The **Agree or Disagree** dialog opens. Click **Agree** to continue.

Figure 5-8 Agree or Disagree dialog

9. The **Select a Destination** window opens. Click **Continue**.

Figure 5-9 Select a Destination window

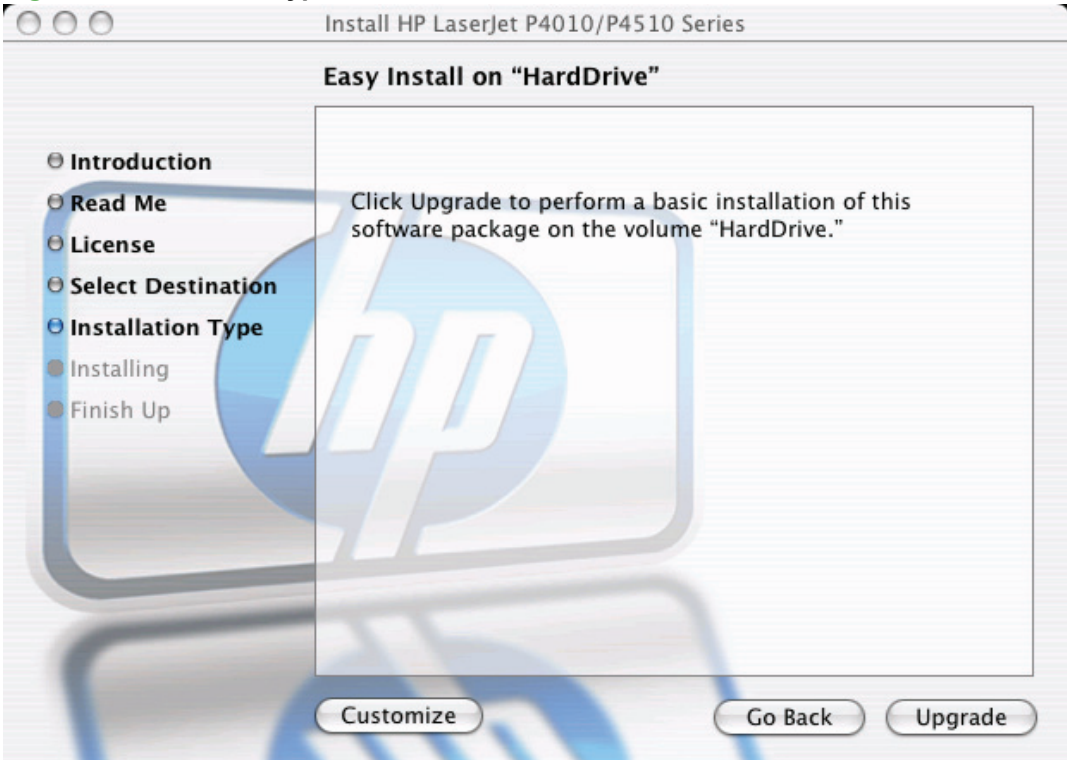


10. The **Installer Type** window opens.

    Click **Customize** to customize the install.

    Click **Upgrade** to complete an Easy Install.

Figure 5-10 Installer Type window



11. The **Authenticate** dialog appears.

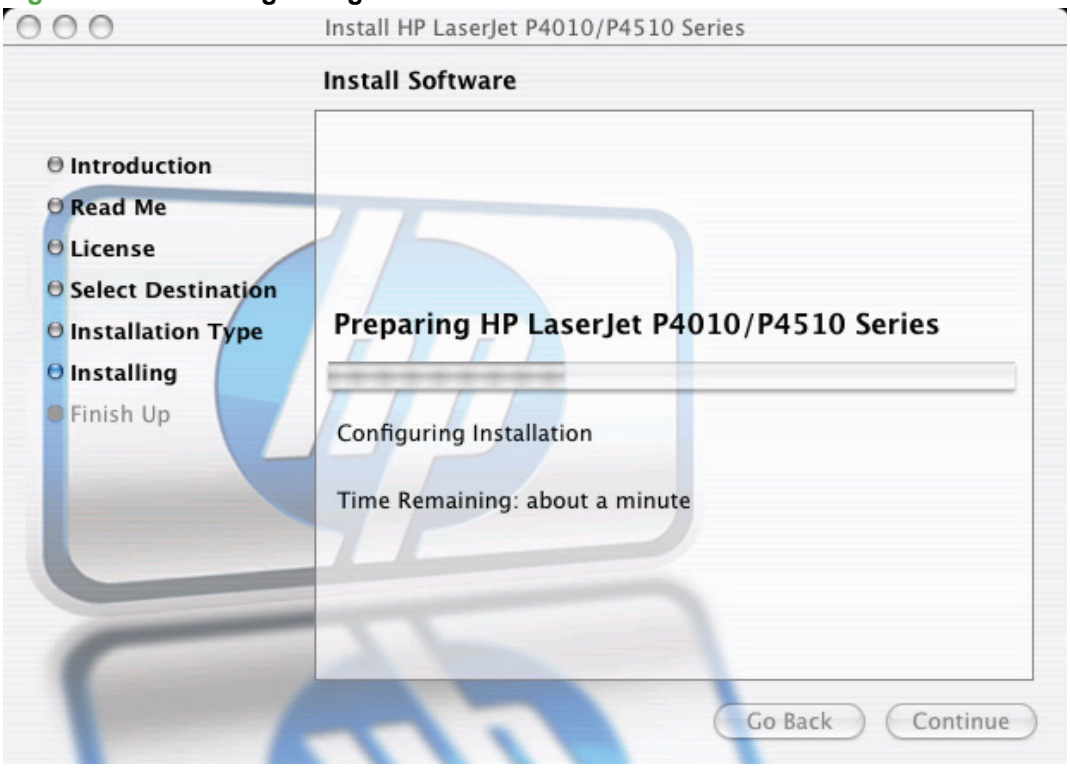
Figure 5-11 Authenticate dialog

Type the correct “admin” name and password and click **OK** to continue.

NOTE: Click **Cancel** to exit the installation.

12. The **Installing** dialog opens indicating the progress of the install. Wait for the install to complete.

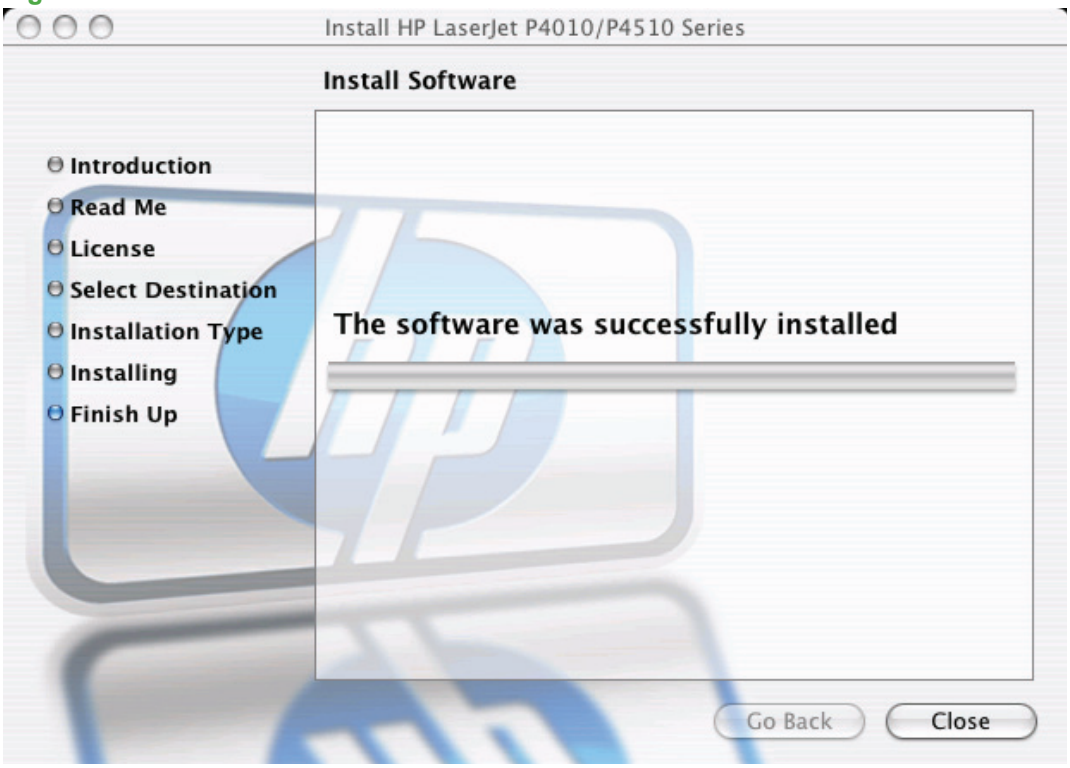
Figure 5-12 Installing dialog



13. The **Install Software Finished** window opens.

    Click **Close**.

Figure 5-13 Install Software Finished window



The installation is complete. Continue to printer setup.

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 V10.2.8 or later
- Troubleshooting the printer setup

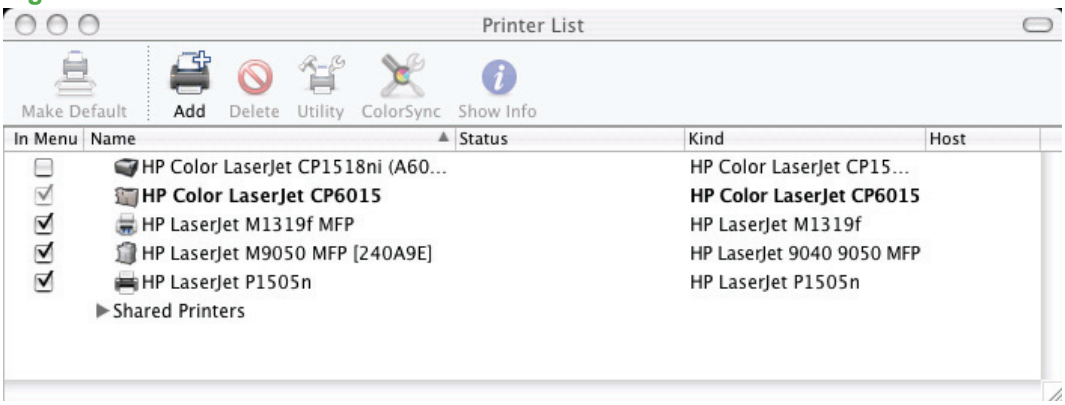
Set up a printer with Mac OS X V10.2.8 or later

Carry out these steps *after* the software installation is complete.

1. If you are installing the printer using a USB connection, connect the USB cable between the HP LaserJet P4010 and P4510 Series printer and the computer. Turn on the printer. If you are installing using a network connection, verify that the network cable is connected to the printer and the printer is on.

2. In the **Applications** folder, open the **Utilities** folder, and then run the **Printer Setup Utility**. The **Printer List** appears. It looks similar to the one shown in the following figure.

Figure 5-14 Printer List window



You can also configure the printer using the **Print & Fax** pane of **System Preferences** (from the Apple menu, choose **System Preferences...**, then choose **Print & Fax**).

3. Proceed with the following based on preferred connection method:

Proceed with the following based on preferred connection method:

- **USB:**

  If you are installing the printer using a USB connection, verify that the printer appears on the printer list. The **Kind** column in the printer list, or the **Kind** field in the **Print & Fax** screen, should display **HP LaserJet P4010 and P4510 Series**. If this is the case, the setup is complete.

  If the device does not appear, or if the correct information does not appear in the **Kind** field, see Troubleshooting the printer setup on page 208.

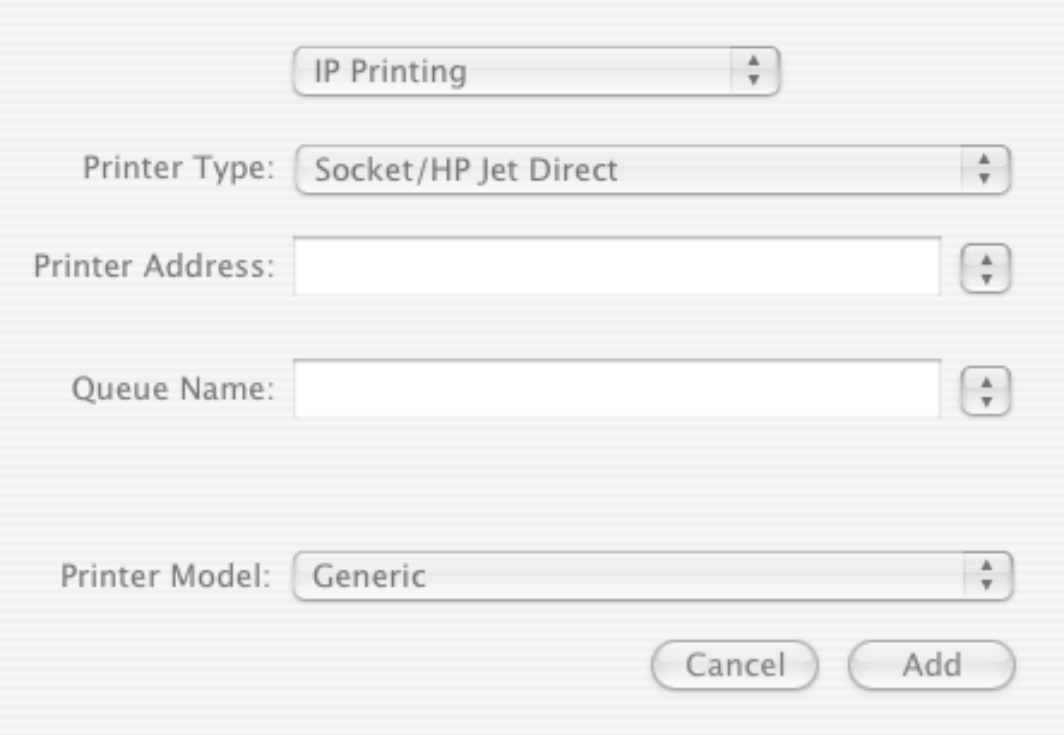
- **Network:**

  If you are installing the printer using a network connection, continue with the following steps.

4. Click **Add** in the **Printer List** (or the **+** button in the Print & Fax utility) to open the **Printer Browser** screen.

   In **Print & Fax** window, clicking **Setup Printer** opens the **Printer List** window.

Figure 5-15 Printer Browser screen



5. You can use either Bonjour or IP Printing for the network connection.

NOTE: Bonjour is the easiest method and is the best method to use if the printer is installed on your local network.

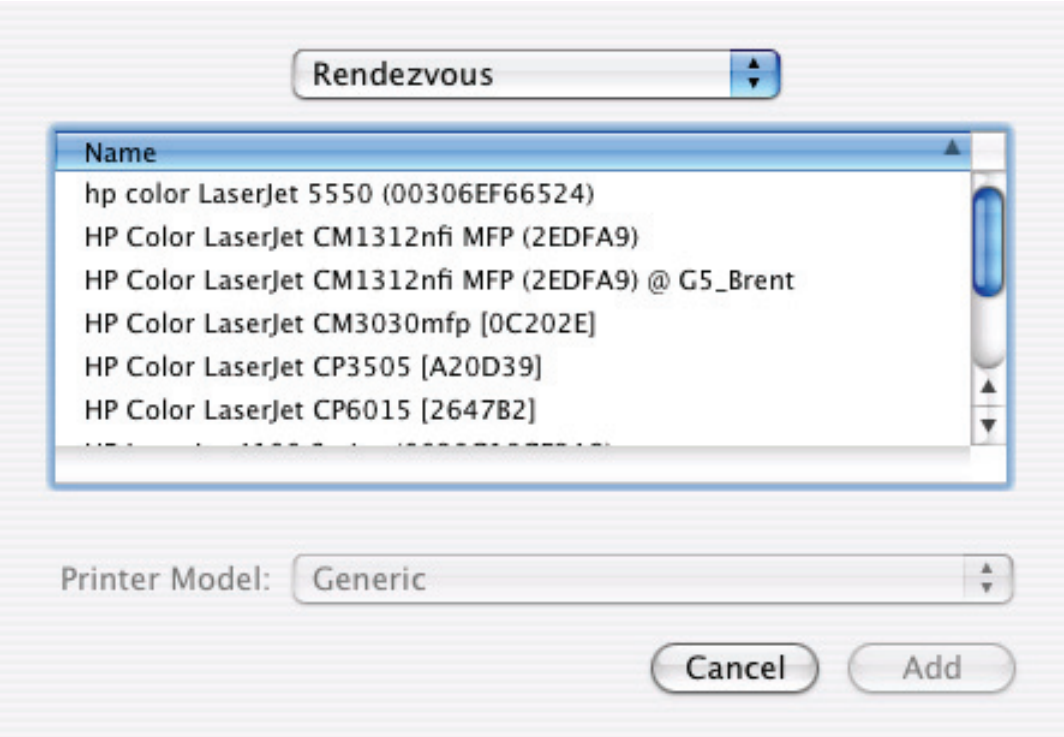
IP Printing *must* be used if you are installing the printer on a different subnet.

If you are using Bonjour/Rendevous, carry out the following steps:

a. Select **Bonjour/Rendevous** from the drop-down menu.

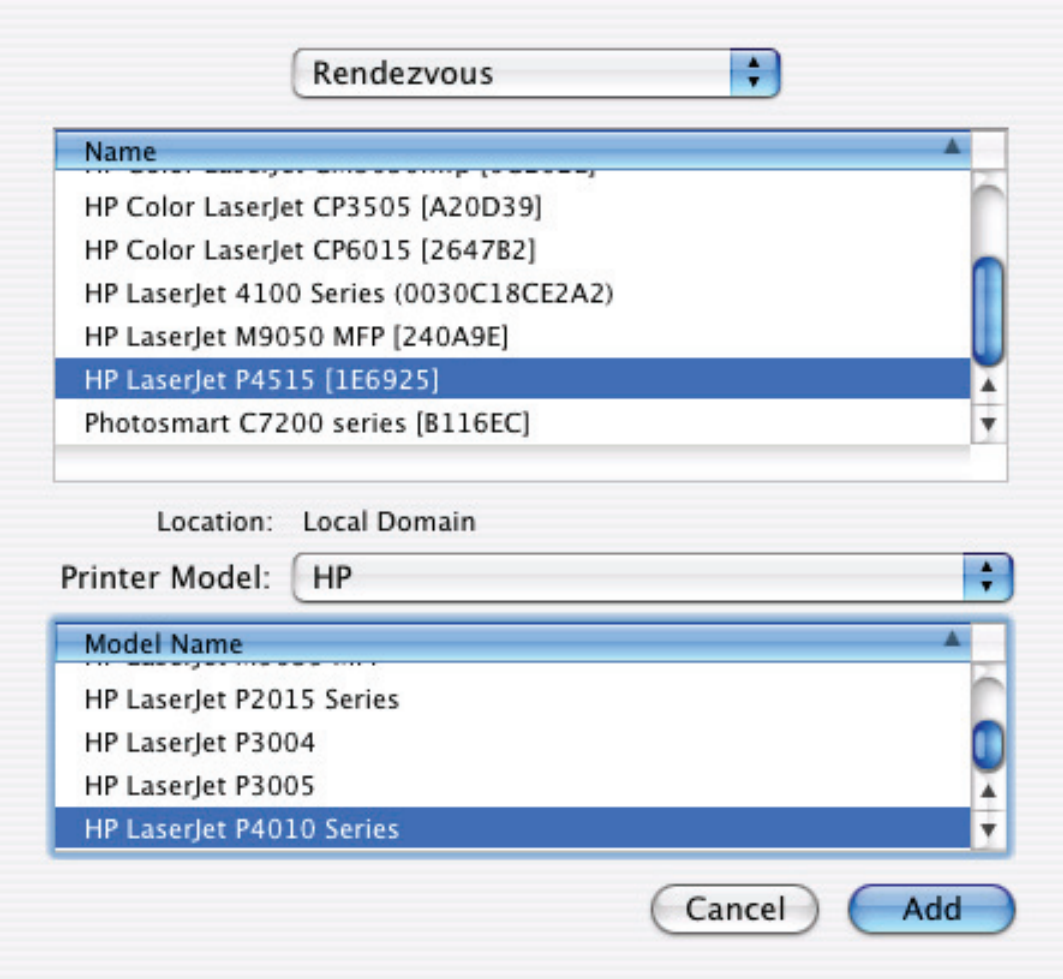
   The **Bonjour/Rendevous** printer browser opens.

Figure 5-16 Bonjour/Rendevous printer browser



b. Select the HP LaserJet P4010 and P4510 Series printer from the list. The software verifies that the printer is connected to the network and the **Print Using** field is automatically populated with the correct PPD for the device.

Figure 5-17 Print Using field



NOTE: If you are on a network that has more than one HP LaserJet P4010 and P4510 Series printer, print a configuration page and match the Bonjour Printer Name to the name on the list to identify the printer you are installing.

NOTE: If the HP LaserJet P4010 and P4510 Series printer does not appear in the list, verify that the printer is on and connected to the network, then try turning the printer off and then on again. If the **HP LaserJet P4010 and P4510 Series** PPD does not appear in the **Print Using** pull-down list, turn the computer off and then on again, then restart the setup process. For more troubleshooting information, see Troubleshooting the printer setup on page 208.

If you want to use the IP Printing method, carry out the following steps:

a. Click the **IP Printer** tab.

b. Choose **HP Jet Direct – Socket** from the **Protocol** pull-down menu. This is the recommended setting for HP printer.

c. Print the configuration pages.

To print a configuration page, follow these instructions.

i. Press Menu,

ii. Press the down arrow to highlight **INFORMATION**, and then press OK.

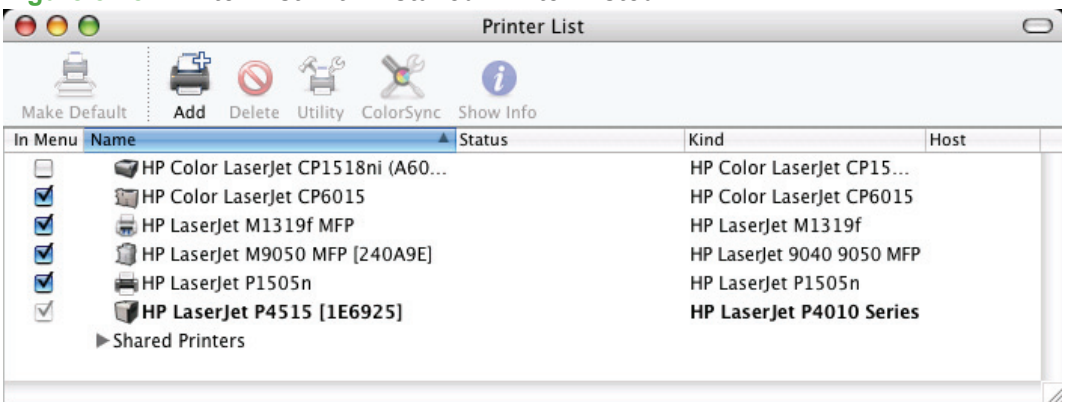
iii. Press the down arrow to highlight **PRINT CONFIGURATION**, and then press OK to print the configuration pages.

d. On the first configuration page, under **IPv4**, find the IP Address. Type this address into the **Address** field on the add printer screen.

e. The **Name**, **Location**, and **Print Using** information will automatically be filled in. If the **HP LaserJet P4010 and P4510 Series** PPD does not appear in the **Print Using** field, turn the computer off and then on again and restart the setup process.

6. Click **Add**. The printer is now listed in the Printer List.

Figure 5-18 Printer List with Installed Printer Listed



Troubleshooting the printer setup

If the printer does not appear in the printer list after an installation:

Carry out each one of these solutions in the order given, and restart the setup process after each one to see if the issue has been resolved.

- Verify that the USB or network cable is connected between the printer and the computer and that the printer is powered on.
- Try disconnecting and reconnecting the cable. If the computer has more than one USB port, try a different USB port.
- Turn the printer off and then back on again.
- Turn the computer off and then back on again.
- If you are using a USB hub on the computer, disconnect the other USB devices from the hub.

If the wrong PPD appears in the Kind column in the printer list after an installation:

1. Unplug USB cable.
2. Delete the print queue with the incorrect type (for example, Generic PostScript Printer).
3. Reinstall the printer software.

4. Turn the computer off and then on again.

5. Reconnect the USB cable from the computer to the printer.

If these steps do not resolve the problem, delete the incorrect print queue, click **Add**, choose the printer from the list, and then browse manually for the **HP LaserJet P4010 and P4510 Series** PPD.

Supported utilities for Macintosh

- HP Embedded Web Server Device Configuration

HP Embedded Web Server Device Configuration

The HP Embedded Web Server (HP EWS) is a Web server in the device that allows users to control settings on the HP LaserJet P4010 and P4510 Series printer through the Web browser. The HP EWS can only be accessed if the HP LaserJet P4010 and P4510 Series printer is installed through a network rather than a USB connection.

To access the HP EWS, open a Web browser and type the printer IP address in the address bar.

The printer IP address is documented on a configuration page. Print a configuration page by following these steps on the printer control panel.

1. Press Menu,
2. Press the down arrow to highlight **INFORMATION**, and then press OK.
3. Press the down arrow to highlight **PRINT CONFIGURATION**, and then press OK to print the configuration pages.

The following tabs are available in the HP EWS:

- Access to the HP EWS
- Information tab
- Settings tab
- Networking tab

Access to the HP EWS

Use any one of the following methods to gain access to the HP EWS:

Using the Mac OS Print Center, Printer Setup Utility, or Print & Fax screen:

1. In the **Applications** folder, open the **Utilities** folder, and then run the **Printer Setup Utility** or the **Print Center** utility. You can also access the HP EWS using the **Print & Fax** pane of **System Preferences** (from the Apple menu, choose **System Preferences...**, then choose **Print & Fax**).
2. Select the HP LaserJet P4010 and P4510 Series printer, and then click **Utility** (Mac OS X V10.3 or later). The Web browser opens and the **Device Status** screen appears. In the **Print & Fax** screen, select the HP LaserJet P4010 and P4510 Series printer, click the **Print Queue...** button, then click **Utility**.

Using a Web browser:

NOTE: This method can only be used if the printer is using a network connection.

1. On the printer control panel, print a configuration page.

To print a configuration page, follow these instructions.

a. Press Menu,

b. Press the down arrow to highlight **INFORMATION**, and then press OK.

c. Press the down arrow to highlight **PRINT CONFIGURATION**, and then press OK to print the configuration pages.

The printer prints the configuration page.

2. On the first configuration page, under **Product Settings**, find the IP Address. Type this address into a Web browser such as Safari. The **Device Status** screen appears.

Information tab

Use the **Information** tab to access and print detailed information regarding device and supply status, device configuration, network configuration, and usage.

The **Information** tab contains the following pages.

- Device Status
- Configuration Page
- Supplies Status
- Event Log
- Usage Page
- Device Information
- Control Panel
- Print

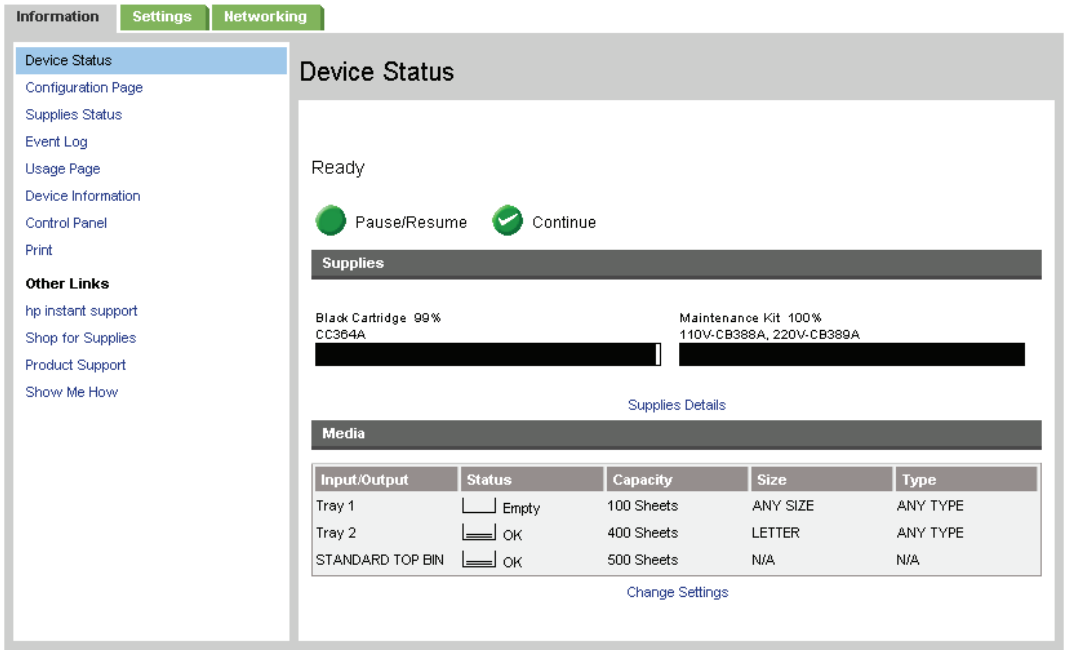
Device Status

The **Device Status** page shows device status messages from the device. The **Device Status** page also contains some pertinent printer information and device settings.

The **Device Status** page contains the following two links:

- **Supplies Details**. Click this link to open the **Supplies Status** page on the HP EWS **Information** tab.
- **Change Settings**. Click this link to open the **Configure Device** page on the HP EWS **Settings** tab

Figure 5-19 Information tab – Device Status page



Configuration Page

The **Configuration Page** shows the values of all of the settings that are available in the printer. The contents of this paper are consistent with the configuration page that the firmware generates.

Figure 5-20 Information tab – Configuration Page (1 of 3)

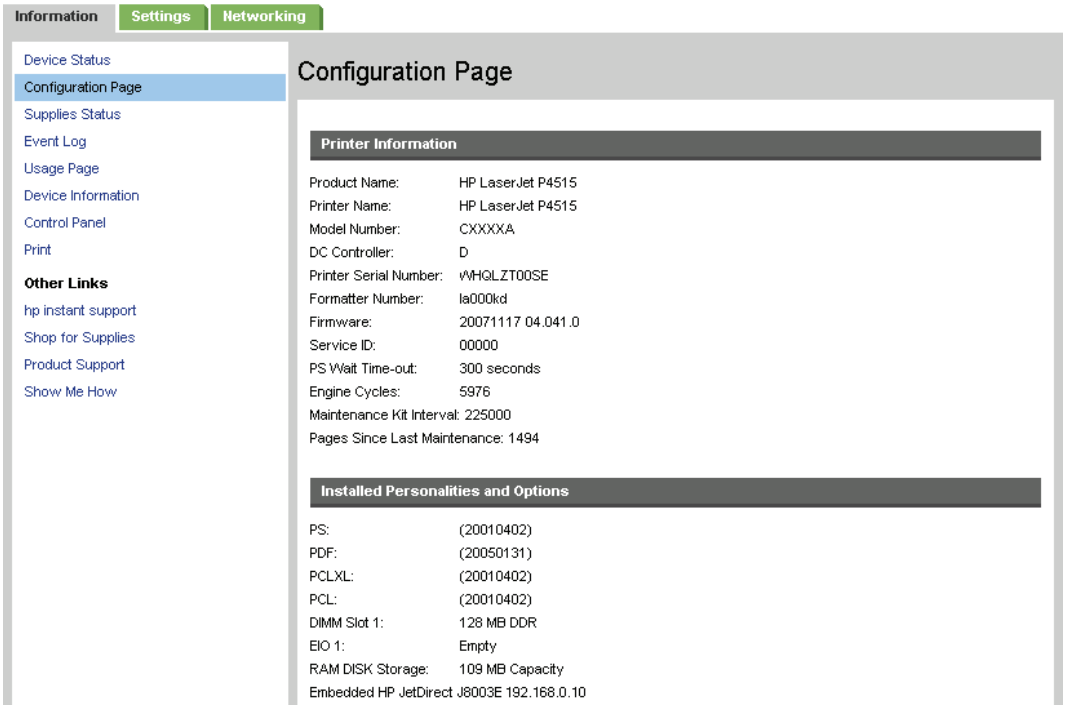
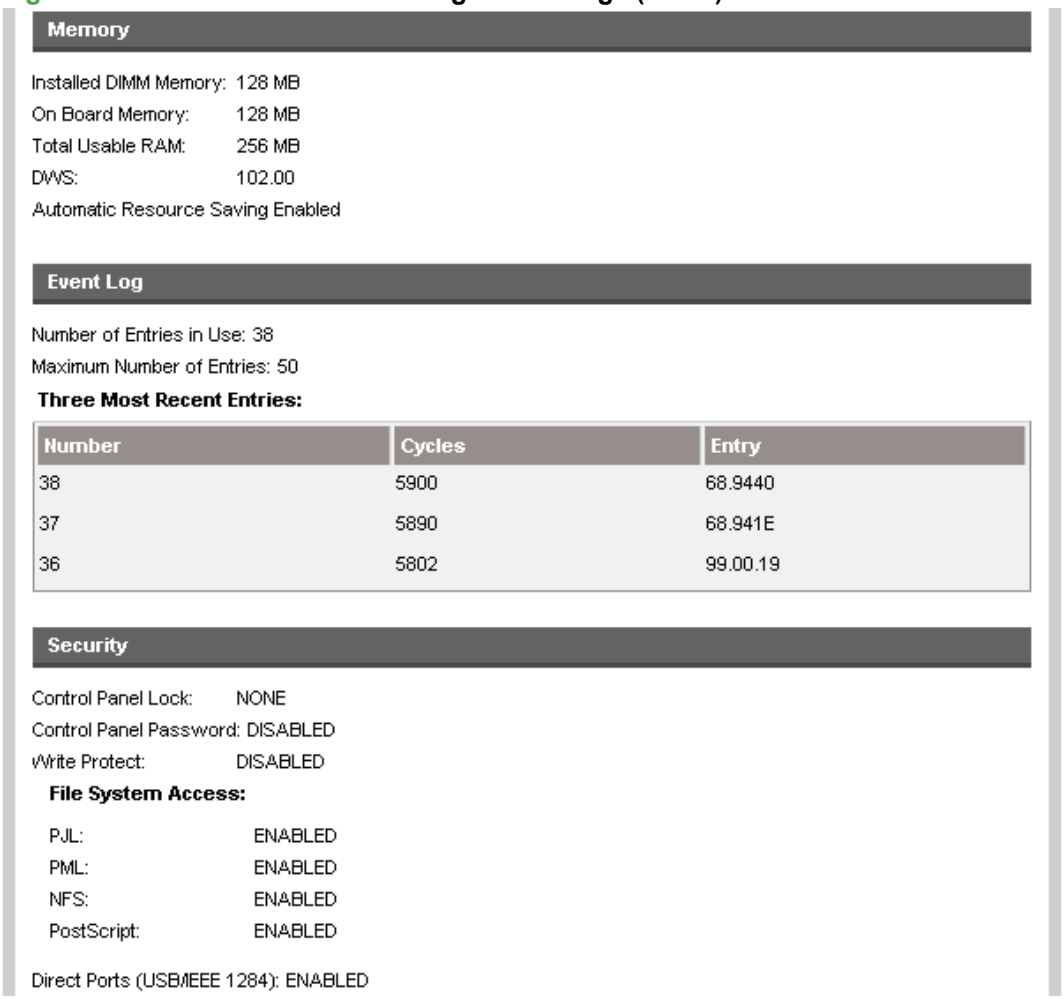


Figure 5-21 Information tab – Configuration Page (2 of 3)



Memory

Installed DIMM Memory: 128 MB
On Board Memory: 128 MB
Total Usable RAM: 256 MB
DWS: 102.00
Automatic Resource Saving Enabled

Event Log

Number of Entries in Use: 38
Maximum Number of Entries: 50

Three Most Recent Entries:

Number	Cycles	Entry
38	5900	68.9440
37	5890	68.941E
36	5802	99.00.19

Security

Control Panel Lock: NONE
Control Panel Password: DISABLED
Write Protect: DISABLED

File System Access:

PJL: ENABLED
PML: ENABLED
NFS: ENABLED
PostScript: ENABLED

Direct Ports (USB/IEEE 1284): ENABLED

Figure 5-22 Information tab – Configuration Page (3 of 3)

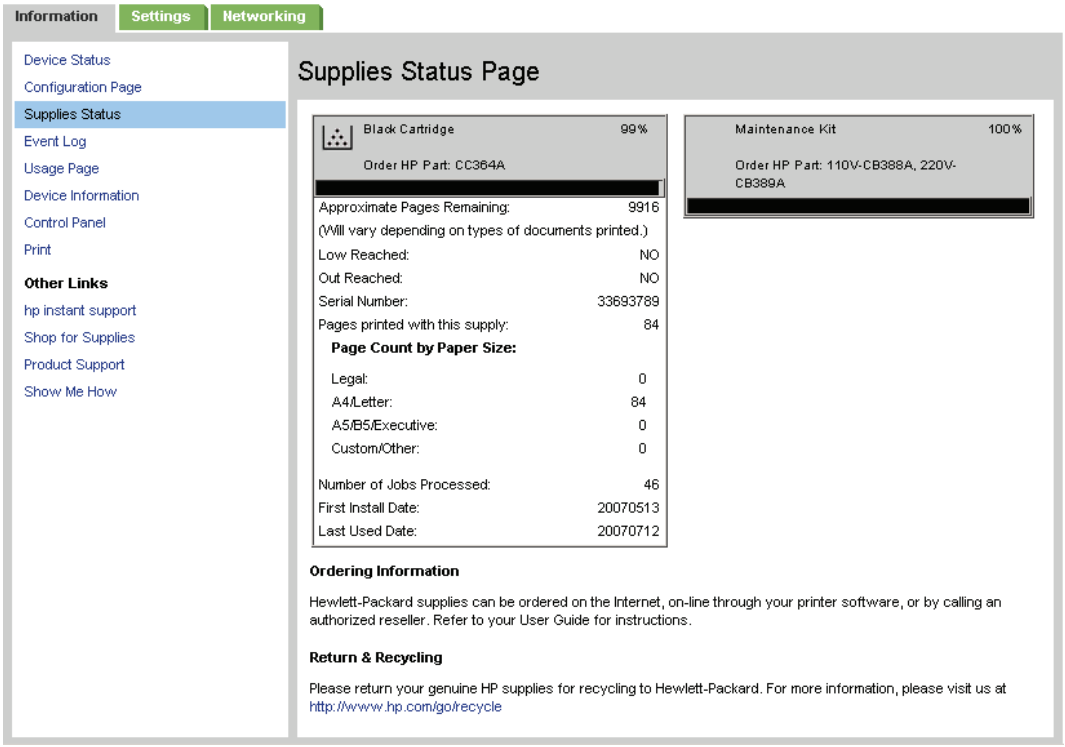
Paper Trays and Options

Default Paper Size: LETTER
Tray 1 Size: ANY SIZE
Tray 1 Type: ANY TYPE
NORMAL
Tray 2 Size: LETTER
Tray 2 Type: ANY TYPE
NORMAL
Tray 2 Custom Cassette
Duplex Unit

Supplies Status

The **Supplies Status** page shows the status of all of the printer supplies, including the black print cartridge.

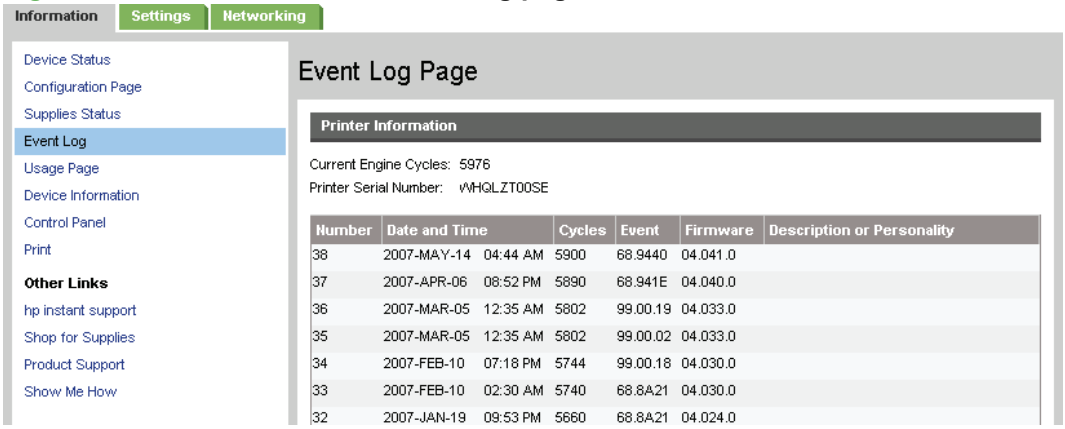
Figure 5-23 Information tab – Status page



Event Log

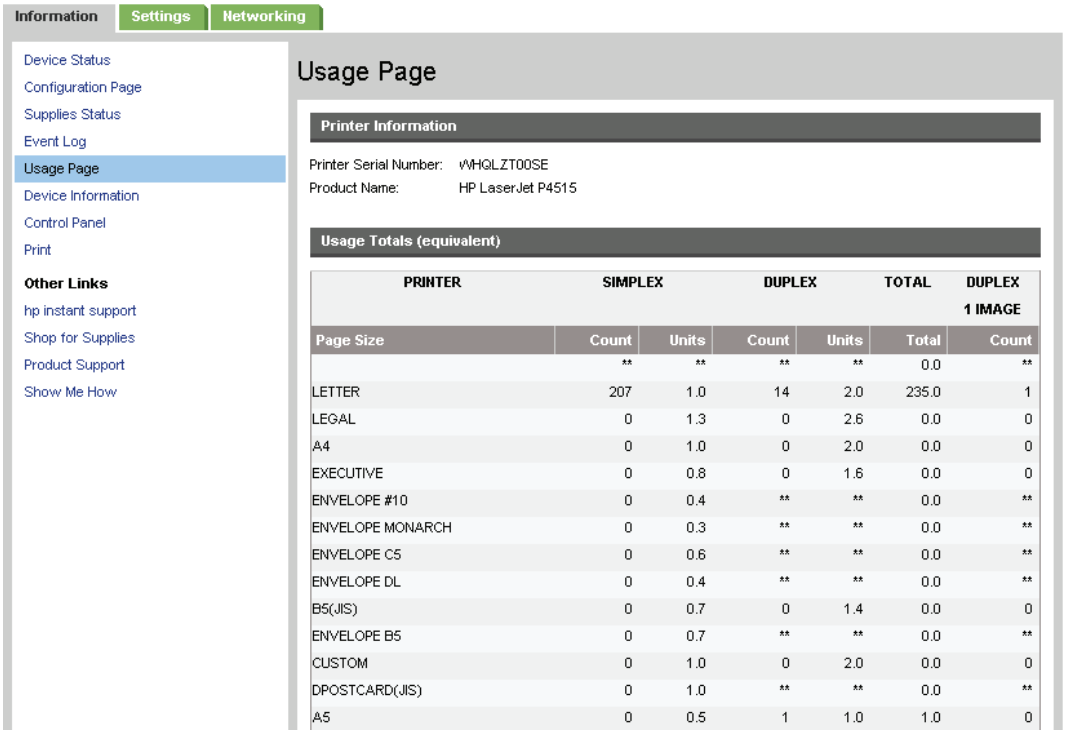
Use the **Event Log** page to track the events that occur on the printer.

Figure 5-24 Information tab – Event Log page



Usage Page

Figure 5-25 Information tab – Usage Log page (1 of 3)



PRINTER	SIMPLEX		DUPLEX		TOTAL	DUPLEX 1 IMAGE
Page Size	Count	Units	Count	Units	Total	Count
	**	**	**	**	0.0	**
LETTER	207	1.0	14	2.0	235.0	1
LEGAL	0	1.3	0	2.6	0.0	0
A4	0	1.0	0	2.0	0.0	0
EXECUTIVE	0	0.8	0	1.6	0.0	0
ENVELOPE #10	0	0.4	**	**	0.0	**
ENVELOPE MONARCH	0	0.3	**	**	0.0	**
ENVELOPE C5	0	0.6	**	**	0.0	**
ENVELOPE DL	0	0.4	**	**	0.0	**
B5(JIS)	0	0.7	0	1.4	0.0	0
ENVELOPE B5	0	0.7	**	**	0.0	**
CUSTOM	0	1.0	0	2.0	0.0	0
DPOSTCARD(JIS)	0	1.0	**	**	0.0	**
A5	0	0.5	1	1.0	1.0	0

Figure 5-26 Information tab – Usage Log page

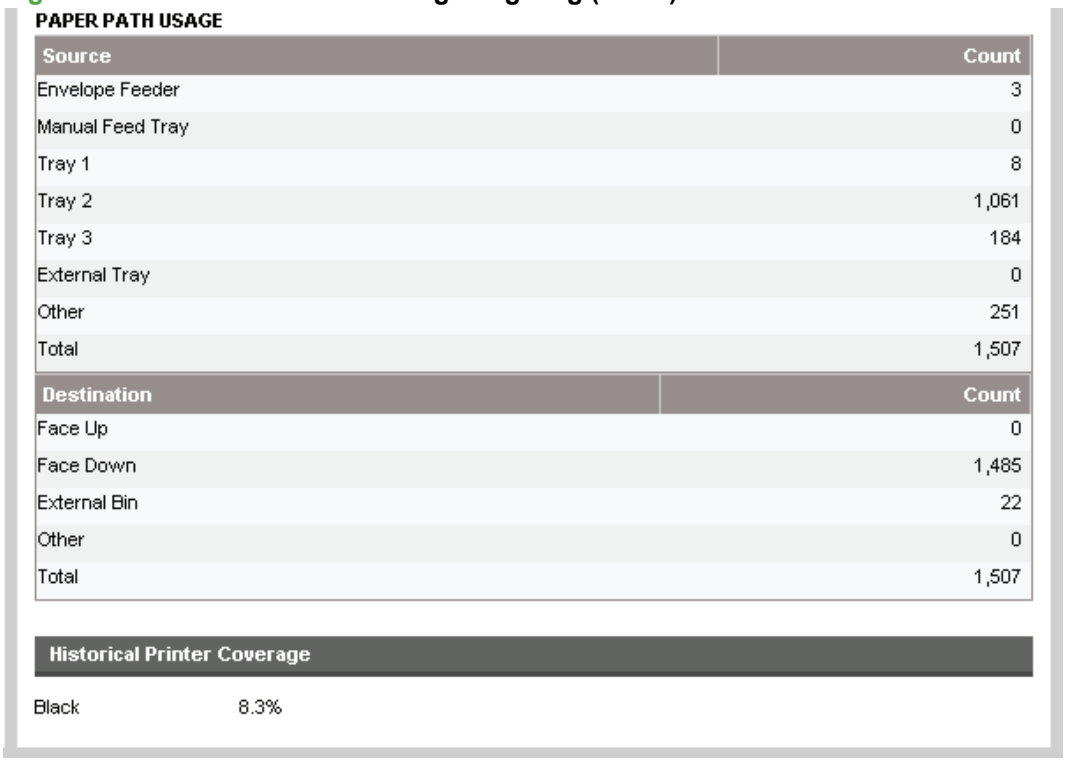
16K 197x273 mm	0	0.8	0	1.6	0.0	0
EXECUTIVE(JIS)	0	1.1	0	2.2	0.0	0
A6	0	0.3	**	**	0.0	**
8.5x13	0	1.1	0	2.2	0.0	0
STATEMENT	0	0.5	**	**	0.0	**
16K 195x270 mm	0	0.8	0	1.6	0.0	0
16K 184x260 mm	0	0.8	0	1.6	0.0	0
TOTAL PRINTER USAGE					236.0	

Fuser Modes & Paper Path Usage (actual)

FUSER MODES USAGE

Fuser Mode	Count
NORMAL	1,507
HIGH1	0
NORMAL DOWN MODE	0
LOW1	0
LOW	0
Total	1,507

Figure 5-27 Information tab – Usage Page log (3 of 3)



PAPER PATH USAGE

Source	Count
Envelope Feeder	3
Manual Feed Tray	0
Tray 1	8
Tray 2	1,061
Tray 3	184
External Tray	0
Other	251
Total	1,507

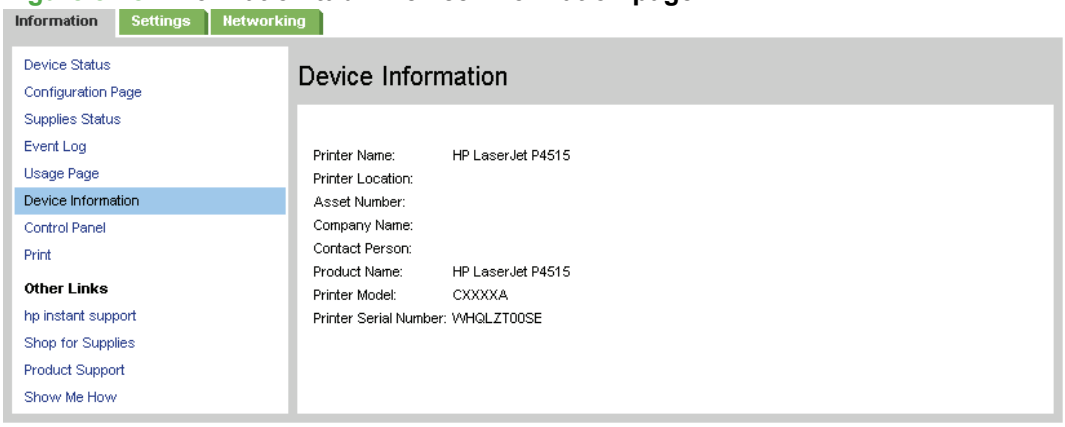
Destination	Count
Face Up	0
Face Down	1,485
External Bin	22
Other	0
Total	1,507

Historical Printer Coverage	
Black	8.3%

Device Information

The **Device Information** page contains identifying information about the printer.

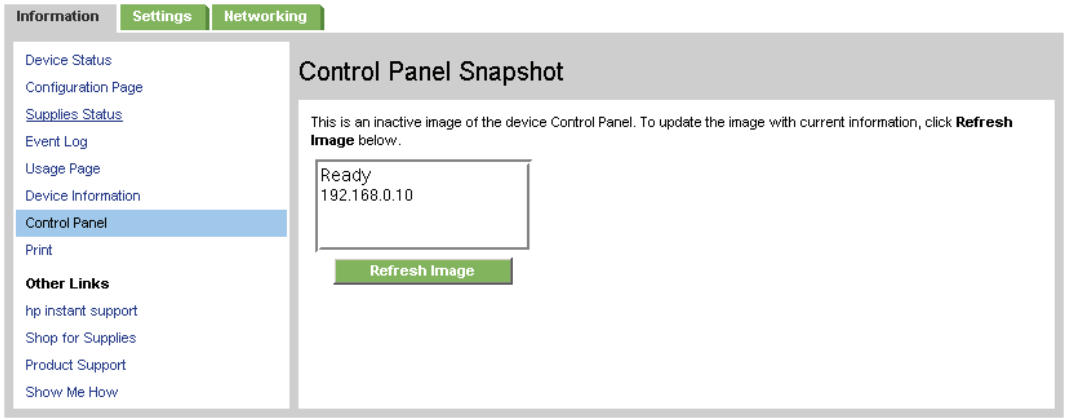
Figure 5-28 Information tab – Device Information page



Control Panel

The **Control Panel** page shows the current status of the printer. Click **Refresh** to update the current status of the printer control panel.

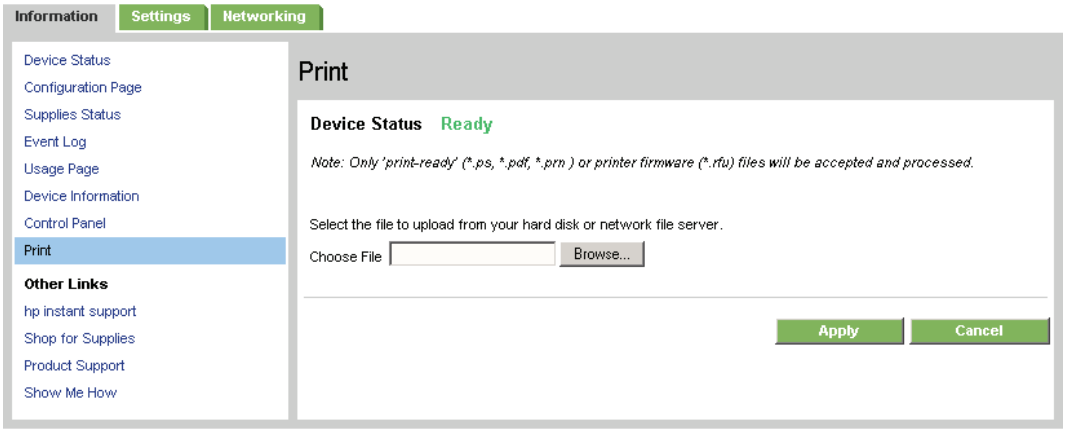
Figure 5-29 Information tab – Control Panel page



Print

Use the **Print** page to print a file on the printer.

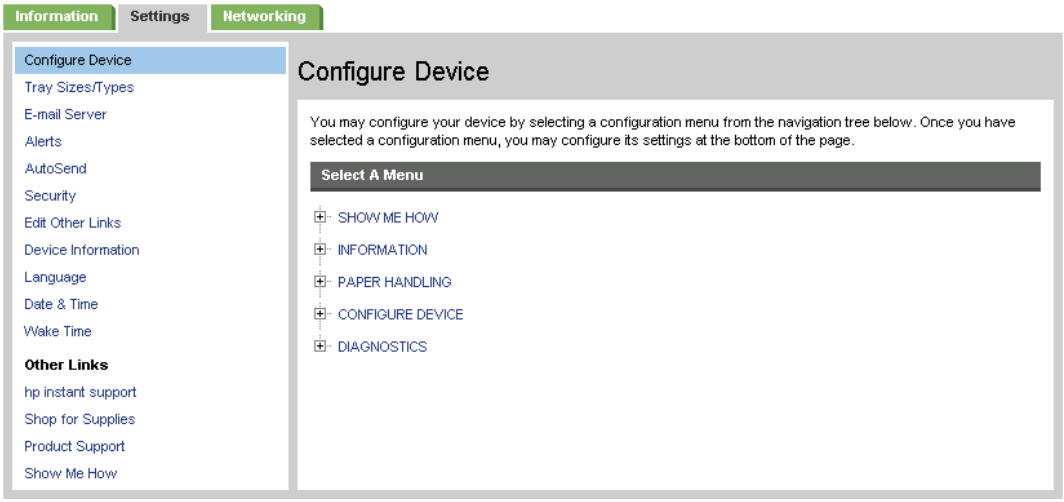
Figure 5-30 Information tab – Print page



Settings tab

Use the screens on the **Settings** tab to configure the device from the computer.

Figure 5-31 HP EWS – Settings tab



- Configure Device
- Tray Sizes/Types
- E-mail Server
- Alerts
- AutoSend
- Security
- Edit Other Links
- Device Information
- Language
- Date & Time
- Wake Time

Configure Device

Use the **Configure Device** screen to print device information pages and configure the device remotely.

The menus on this screen are similar to the menus that are available on the device control panel. Some of the device control-panel menus are not available from the HP EWS.

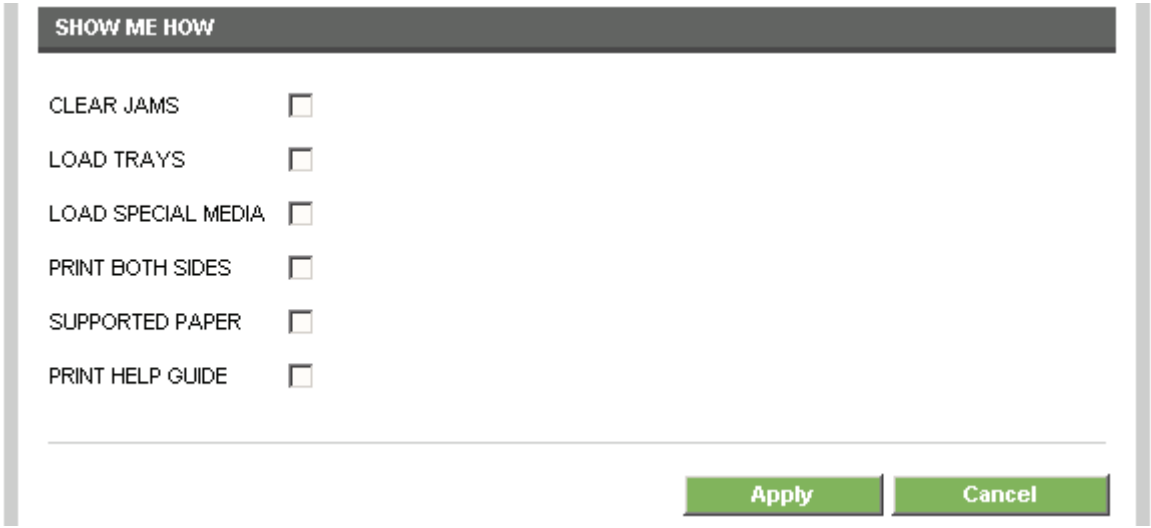
- Show Me How
- Information
- Paper Handling
- Configure Device

- Diagnostics

Show Me How

Use the **Show Me How** menu to print out instructions for various print tasks.

Figure 5-32 Settings tab – Configure Device Page – Show Me How menu options



The following print task instructions are available:

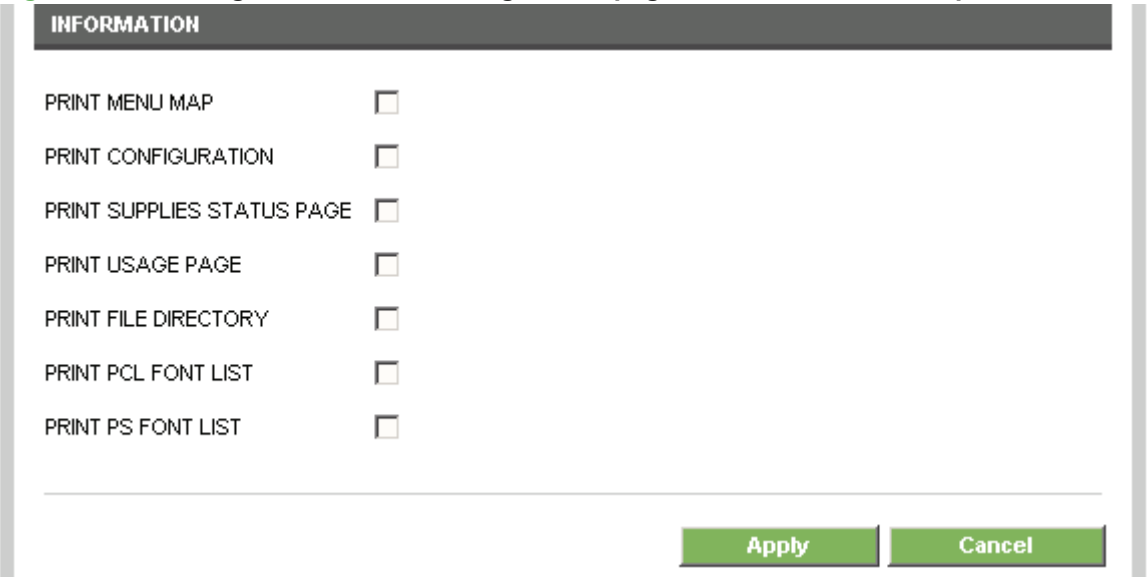
- Clear Jams
- Load Trays
- Load Special Media
- Print Both Sides
- Supported Paper
- Print Help Guide

Select the desired option and click **Apply**. The desired option prints.

Information

Use the **Information** menu to print device information pages.

Figure 5-33 Settings tab – Device Configuration page – Information menu options



The following options are available:

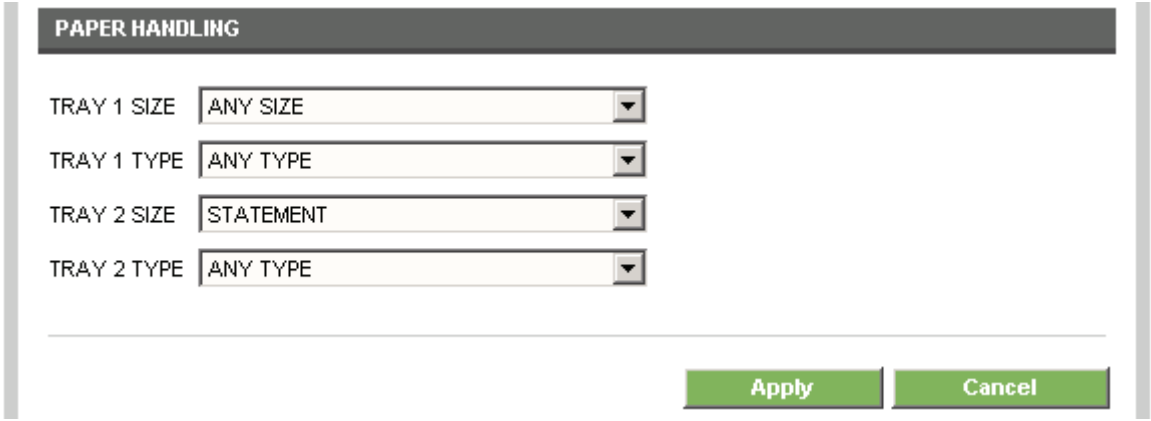
- PRINT MENU MAP
- PRINT CONFIGURATION
- PRINT SUPPLIES STATUS PAGE
- PRINT USAGE PAGE
- PRINT FILE DIRECTORY
- PRINT PCL FONT LIST
- PRINT PS FONT LIST

Select the desired option and click **Apply**. The desired option prints.

Paper Handling

Use the **Paper Handling** menu to set the type of media for each tray.

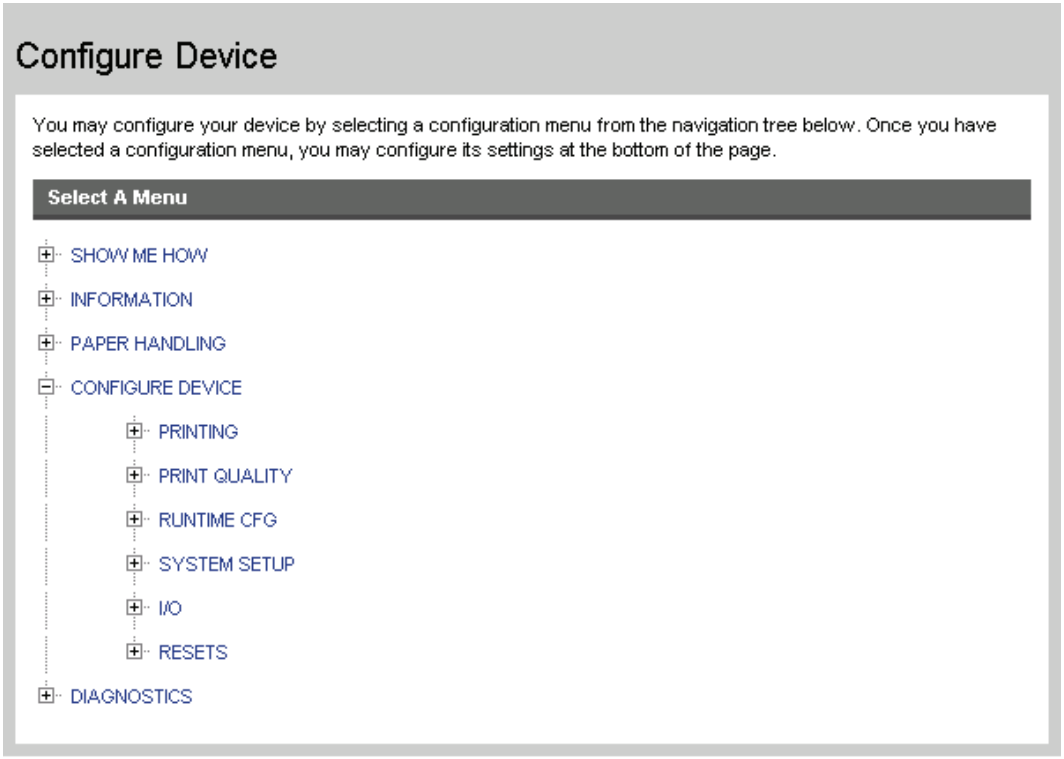
Figure 5-34 Settings tab – Configure Device page – Paper Handling menu options



Configure Device

Use the **Configure Device** menu to configure the device and control device behavior.

Figure 5-35 Configure Device pane



The following submenus are available.

- Printing
- Print Quality
- Runtime CFG

- System Setup
- I/O
- Resets

Printing

The **Printing** option consist of a main menu and two submenus. The two submenus include the following:

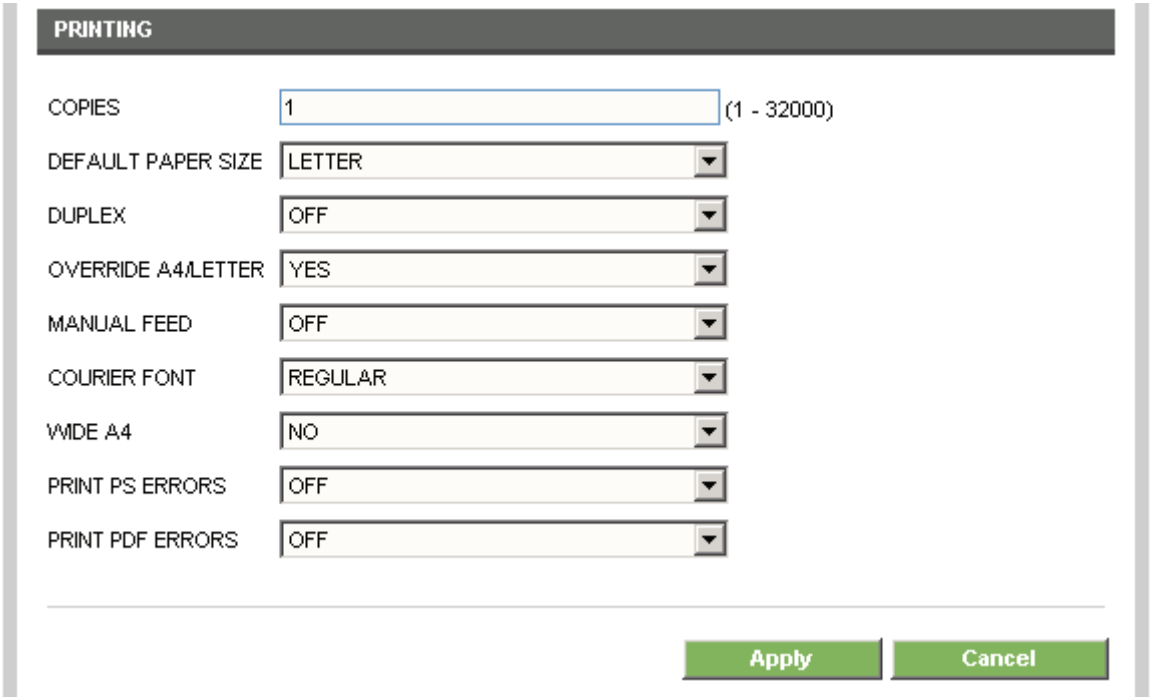
- **Default Custom Paper Size**
- **PCL**

Use the main **Printing** option menu to modify general printing options.

Use the submenu **Printing** options to modify specific printing options regarding default paper sizes and PCL printing options.

An example of the **Printing** option main menu is as follows. The options and available options may vary depending on printer model.

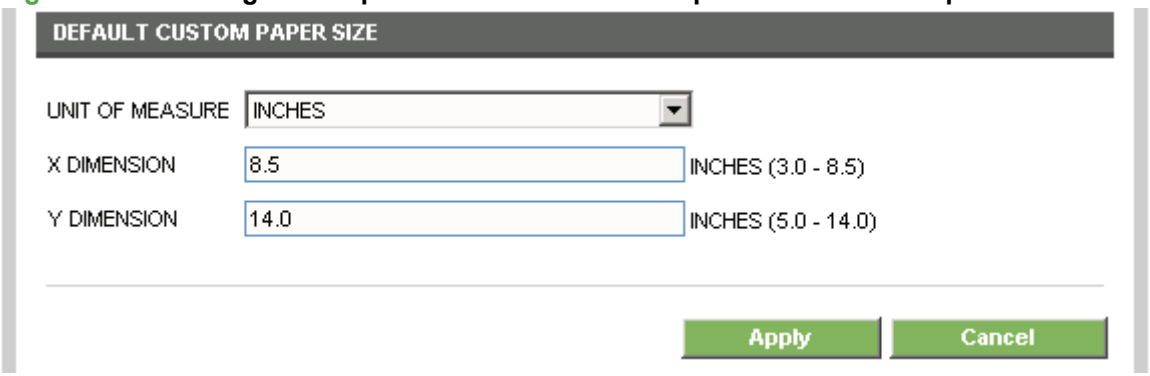
Figure 5-36 Configure Device page – Configure Device menu options – Printing



Default Custom Paper Size

The **Default Custom Page Size** submenu provides options for modify the default custom paper size for the printer.

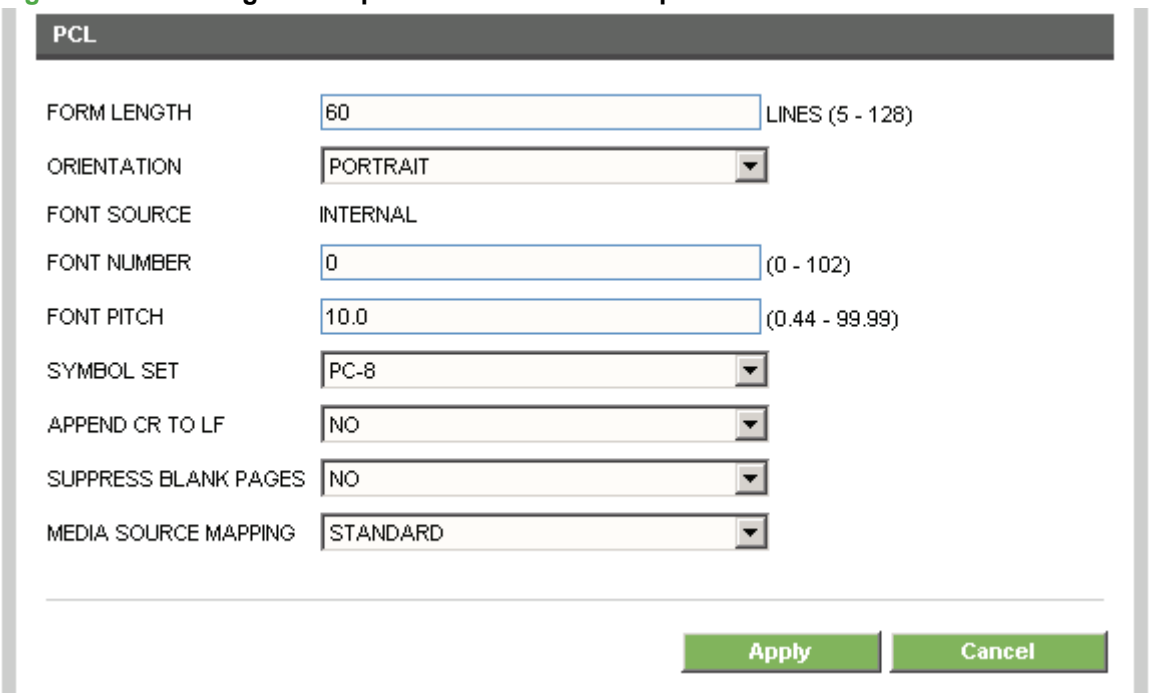
Figure 5-37 Printing menu option – Default Custom Paper Size submenu options



PCL

Use the **PCL** submenu options to modify PCL options on the printer.

Figure 5-38 Printing menu option – PCL submenu options



Print Quality

The **Print Quality** menu consists of a main menu and three submenus. The three submenus include the following:

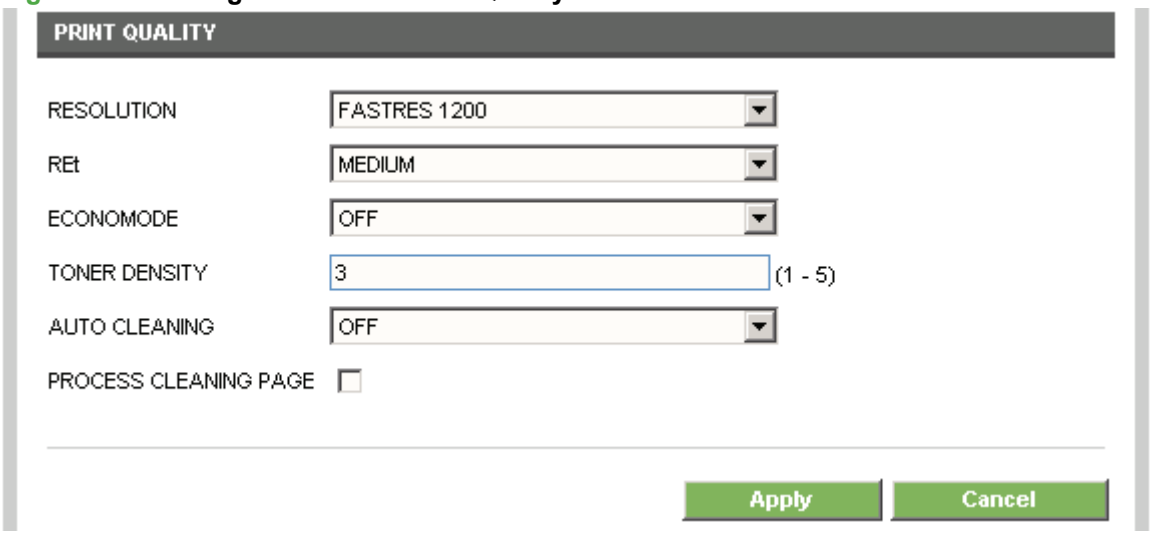
- **Set Registration**
- **Fuser Modes**
- **Optimize**

Use the main **Print Quality** option menu to set default printing options.

Use the submenu **Print Quality** options to set specific default printing options.

An example of the **Print Quality** option main menu is as follows. The options and available options may vary depending on printer model.

Figure 5-39 Configure Device – Print Quality menu



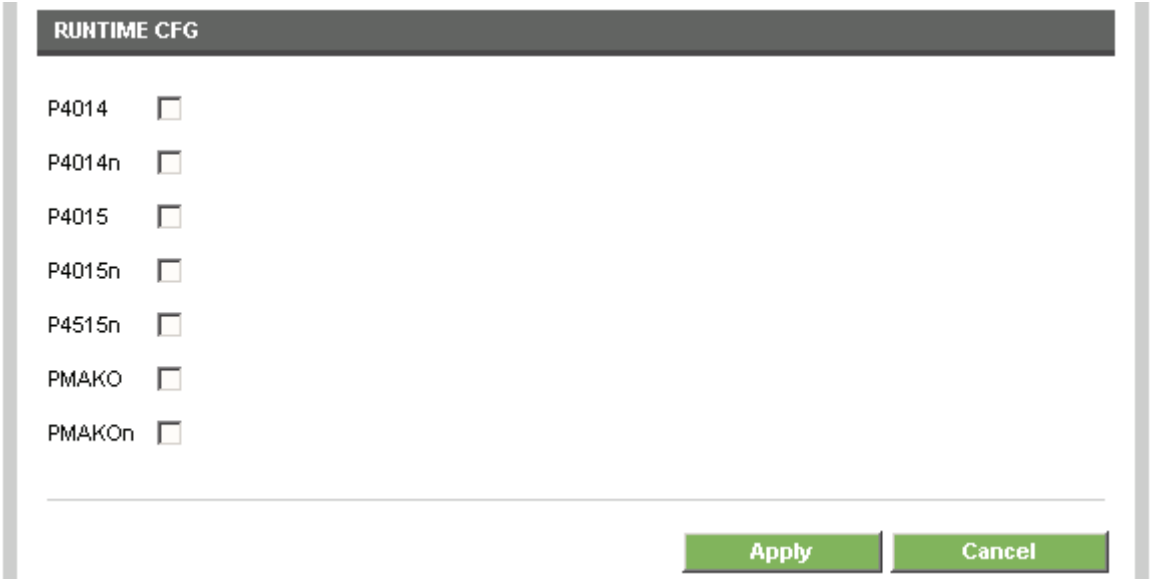
Runtime CFG

The **Runtime CFG** menu contains the following options:

- P4014
- P4014n
- P4015
- P4015n
- P4515n

- PMAKO
- PMAKOn

Figure 5-40 Configure Device – Runtime CFG menu options

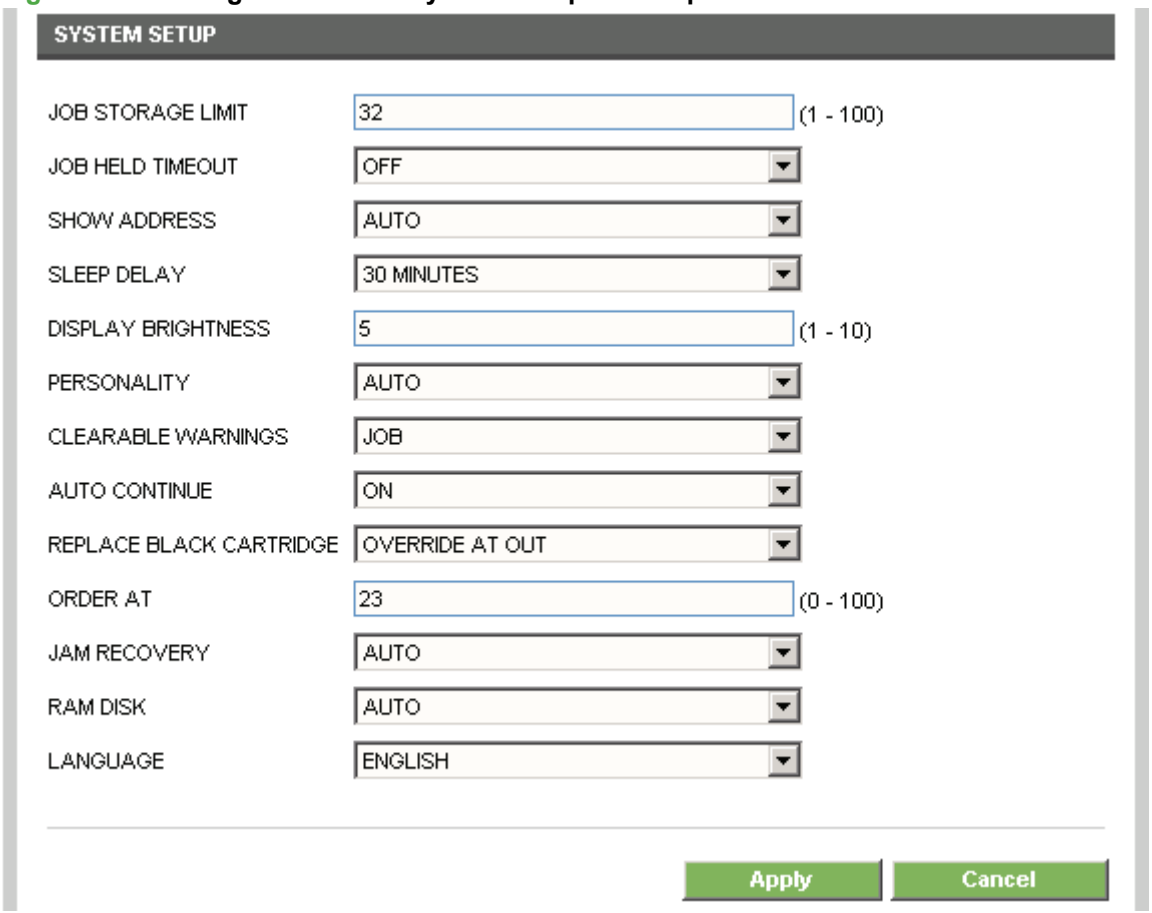


System Setup

The **System Setup** menu option consists of a main menu and two submenus. The submenus are as follows:

- **Date/Time**
- **Tray Behaviors**

Figure 5-41 Configure Device – System Setup menu options

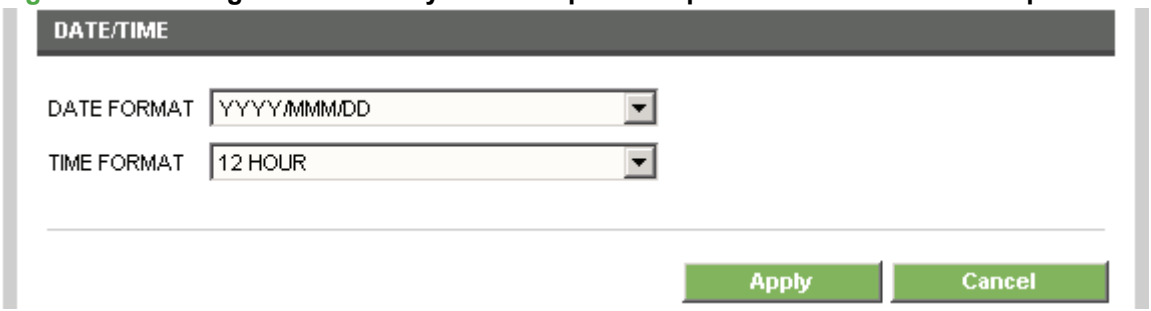


Date/Time

The **Date/Time** menu option consists of a main menu and two submenus:

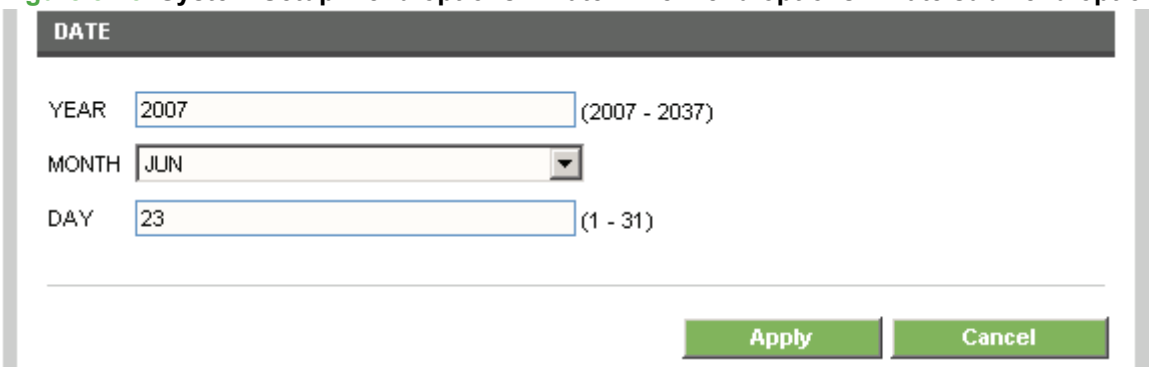
- **Date**
- **Time**

Figure 5-42 Configure Device – System Setup menu options – Date/Time menu options



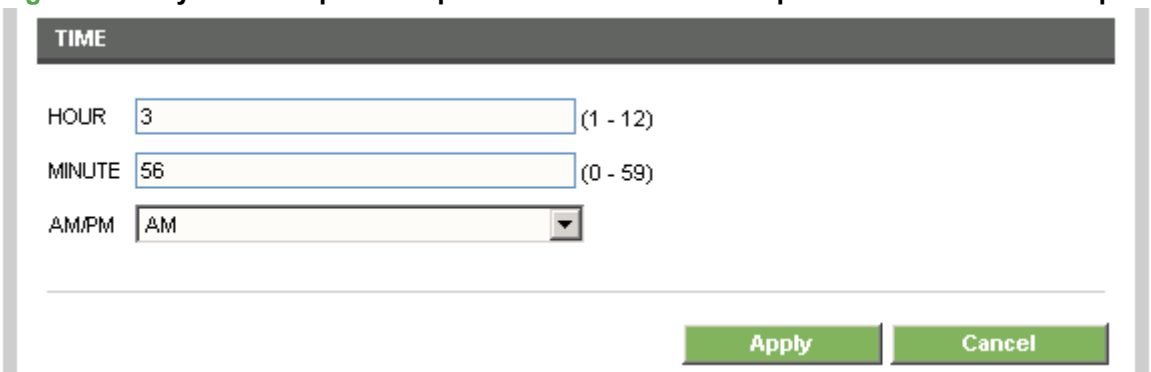
Date

Figure 5-43 System Setup menu options – Date/Time menu options – Date submenu options



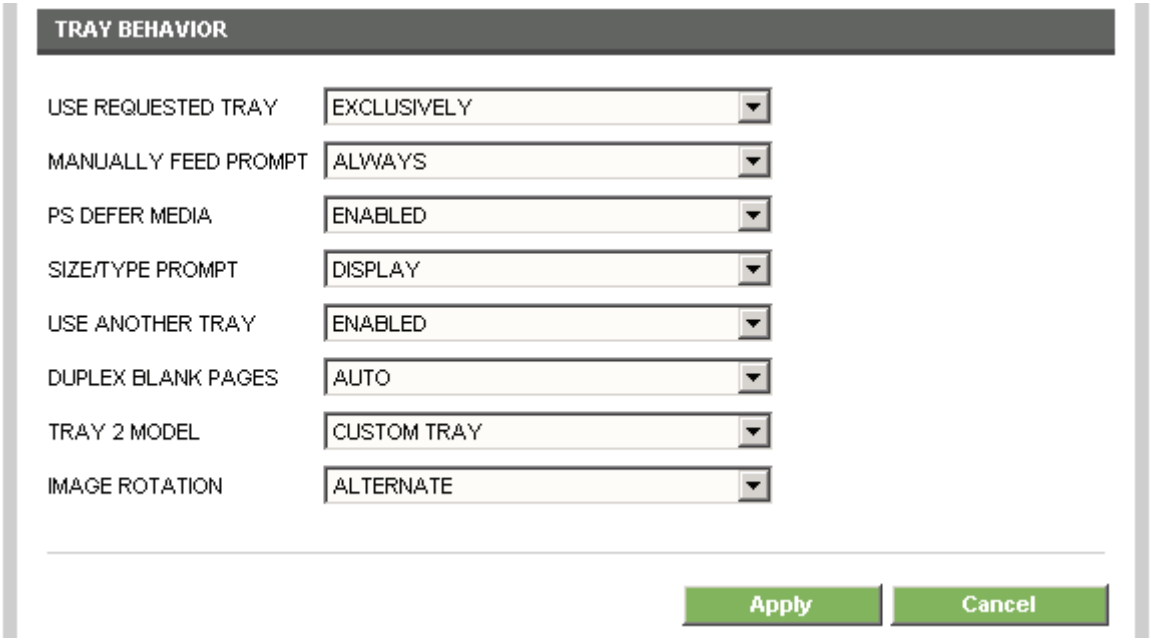
Time

Figure 5-44 System Setup menu options – Date/Time menu options – Time submenu options



Tray Behavior

Figure 5-45 Configure Device – System Setup menu options – Tray Behavior menu options

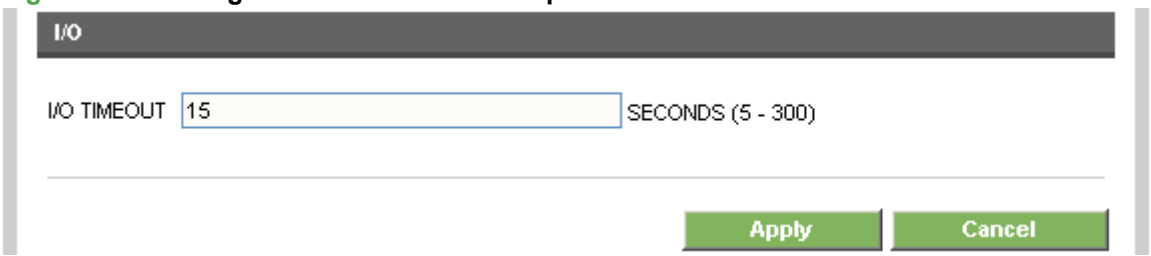


I/O

The **I/O** option includes a main menu and the **Embedded Jetdirect Menu** submenu.

An example of the **I/O** main menu is as follows.

Figure 5-46 Configure Device – I/O menu options



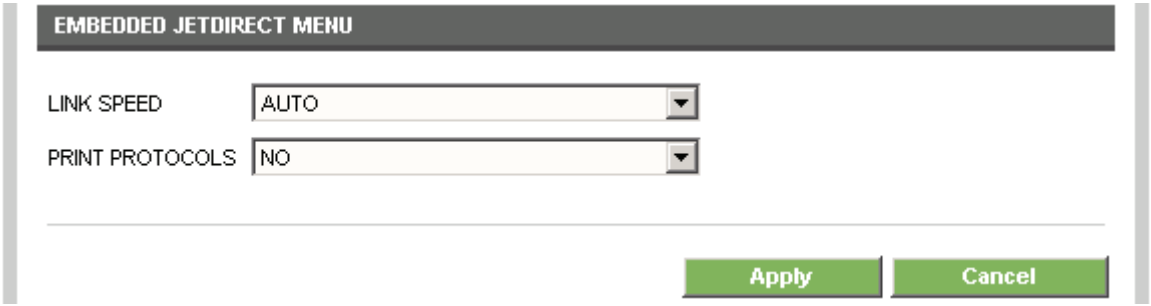
Embedded Jetdirect Menu

The **Embedded Jetdirect Menu** submenu includes a main menu and the following submenus:

- TCP/IP
- IPX/SPX
- APPLETALK
- DLC/LLC
- SECURITY
- DIAGNOSTICS

An example of the **Embedded Jetdirect Menu** main menu is as follows.

Figure 5-47 Configure Device – I/O menu options – Embedded Jetdirect menu

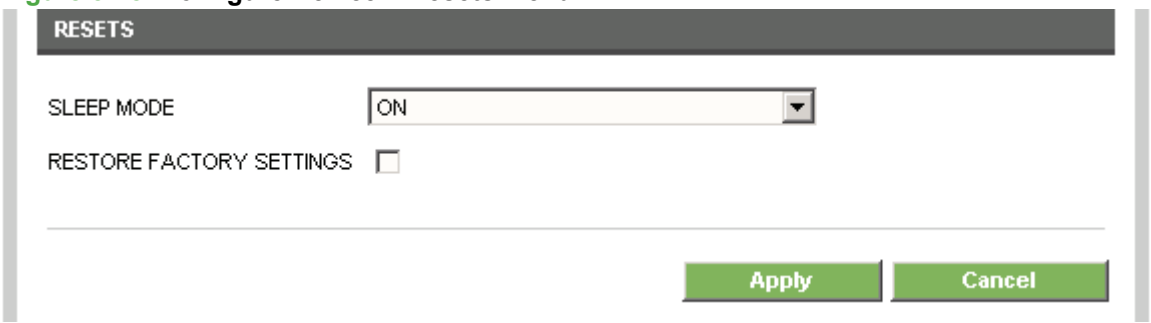


Resets

The **Resets** menu allows you to Restore Factory Default Settings and also allows you to enable or disable Sleep Mode.

An example of the **Resets** menu is as follows.

Figure 5-48 Configure Device – Resets menu



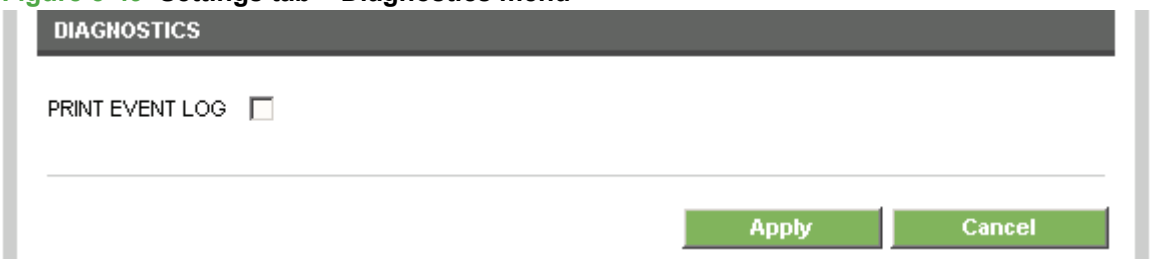
Diagnostics

Use the **Diagnostics** menu to preform basic troubleshooting procedures.

The **Diagnostics** menu consists of a main menu and the**Paper Path Test** submenu.

An example of the **Diagnostics** main menu is as follows.

Figure 5-49 Settings tab – Diagnostics menu

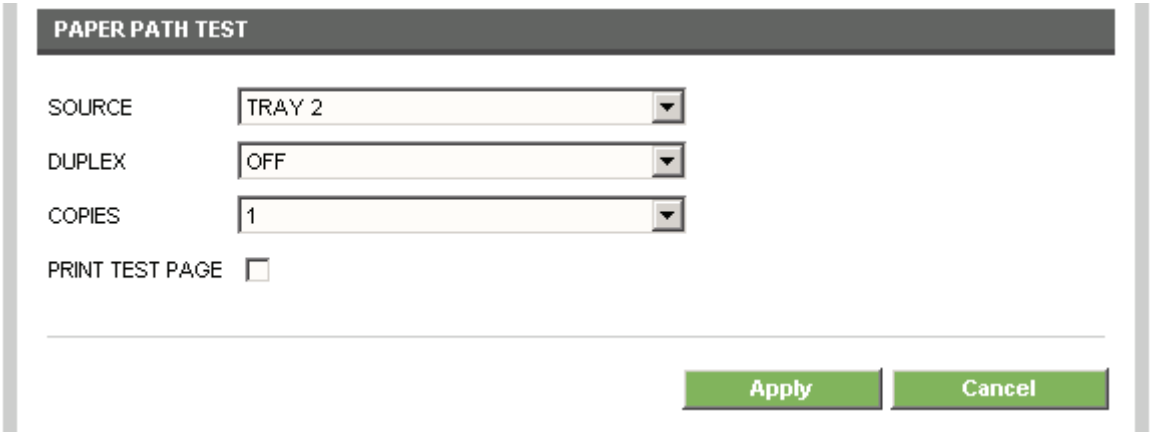


Paper Path Test

Use the **Paper Path Test** submenu to select options for and to complete a paper path test.

An example of the **Paper Path Test** submenu is as follows:

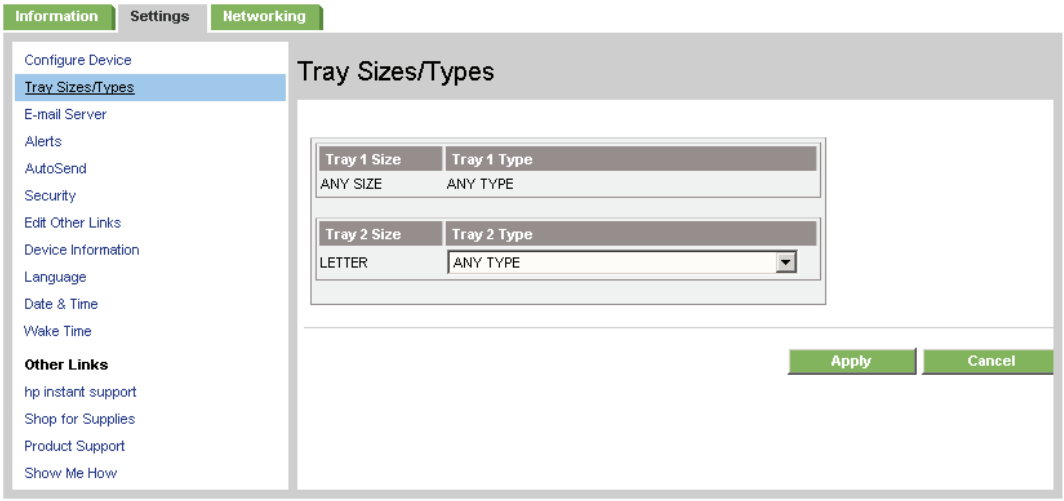
Figure 5-50 Diagnostics menu – Paper Path Test submenu



Tray Sizes/Types

Use the **Tray Sizes/Types** screen to assign paper sizes and paper types for each tray on the product.

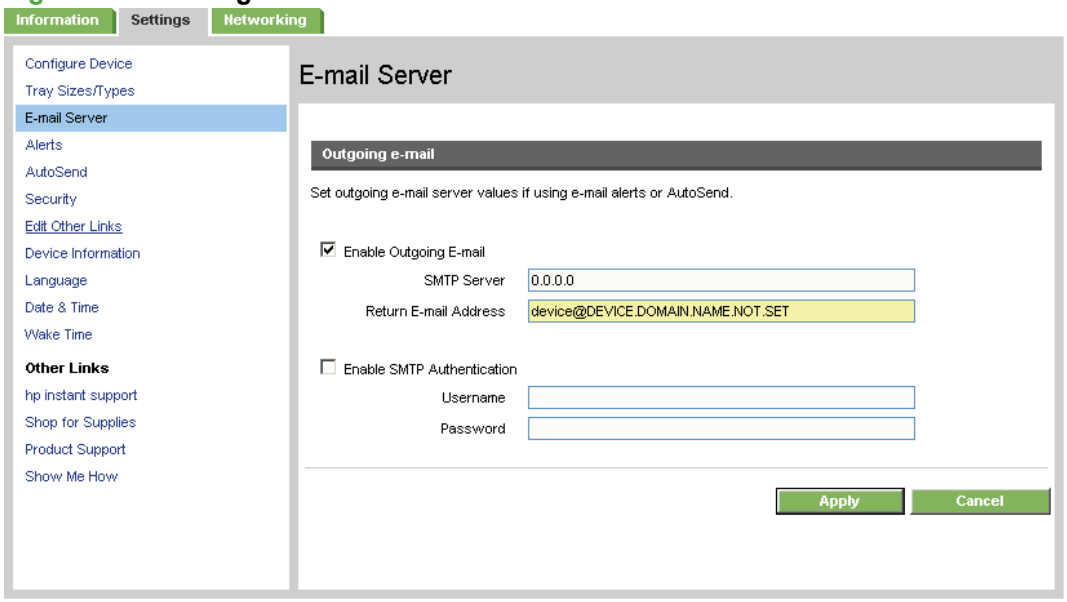
Figure 5-51 Settings tab — Tray Sizes/Types



E-mail Server

Use the **E-mail Server** screen to configure e-mail settings for outgoing e-mail. Use the settings on this screen to send and receive e-mail messages, including product alerts.

Figure 5-52 Settings tab – E-mail Server screen



Alerts

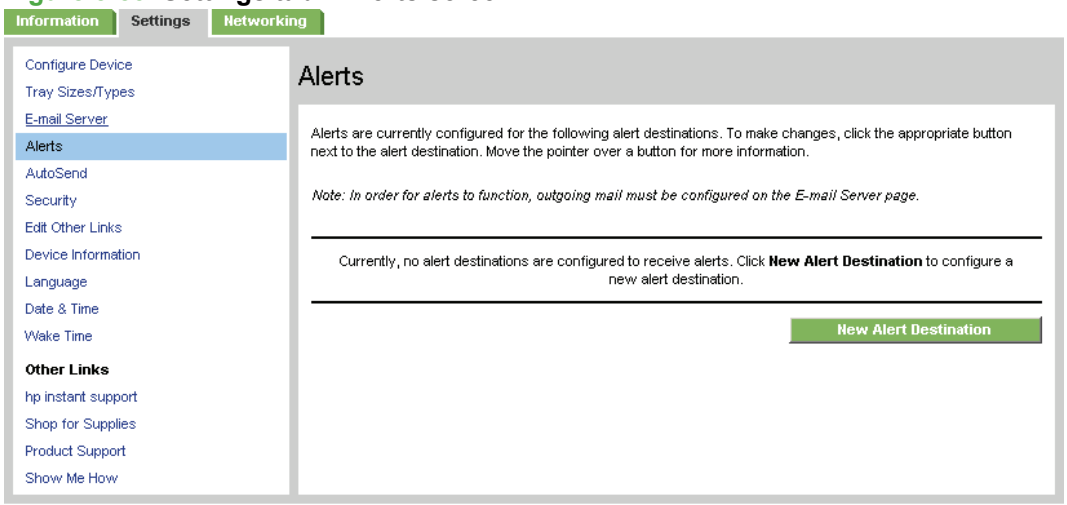
Use the **Alerts** screen to configure the product to send problem and status alerts to anyone through e-mail messages. When this function is configured, alerts are automatically triggered about supplies, paper-path status, and other service and advisory information. More than one individual can receive alerts, with each person receiving only specific alerts.

NOTE: Create up to four different destination lists with up to 20 recipients on each list if the product has a permanent storage device installed.

If there is no permanent storage device installed, only four e-mail addresses can be configured.

NOTE: To use e-mail alerts, ensure outgoing e-mail is enabled.

Figure 5-53 Settings tab – Alerts screen

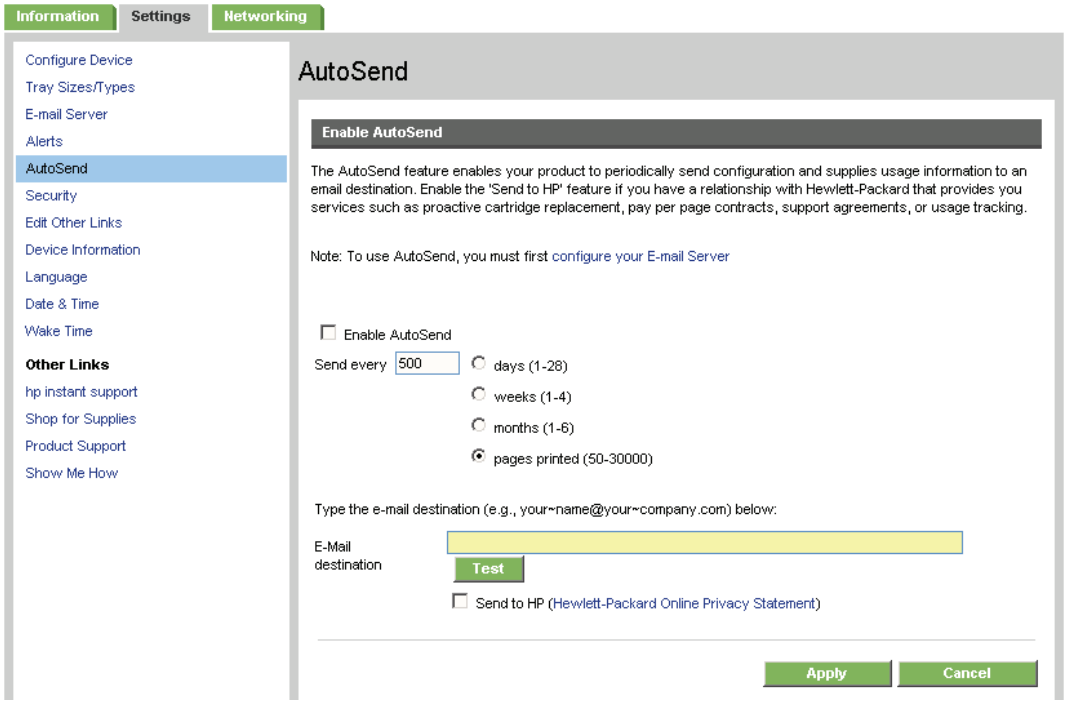


AutoSend

Use the **AutoSend** screen to send product-configuration and supplies-usage information periodically to e-mail destinations of your choice, such as service providers.

Add up to 20 AutoSend destinations.

Figure 5-54 Settings tab – AutoSend screen



Security

Use the **Security** screen to configure security settings for the product.

The **Security** screen also contains a **Configure Security Settings** button. Click this button to configure advanced security settings, such as desired levels of security.

Figure 5-55 Settings tab – Security screen (1 of 2)

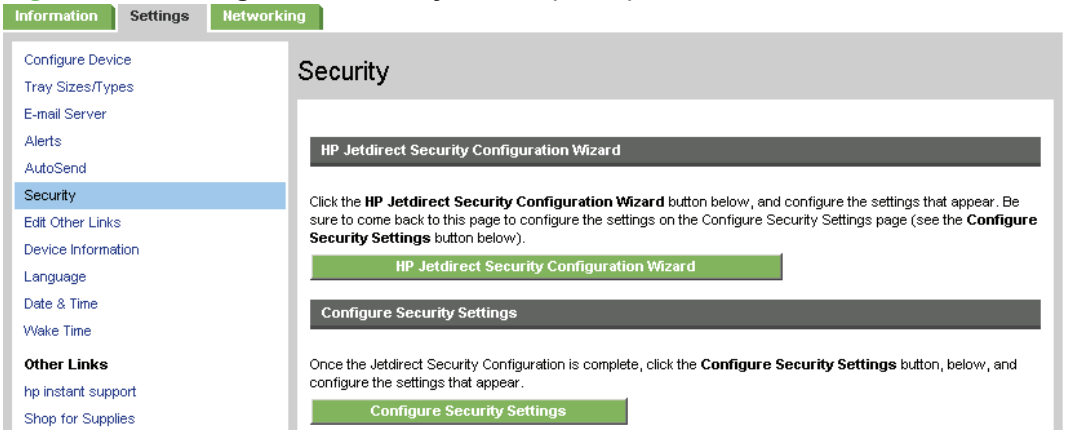


Figure 5-56 Settings tab – Security screen (2 of 2)

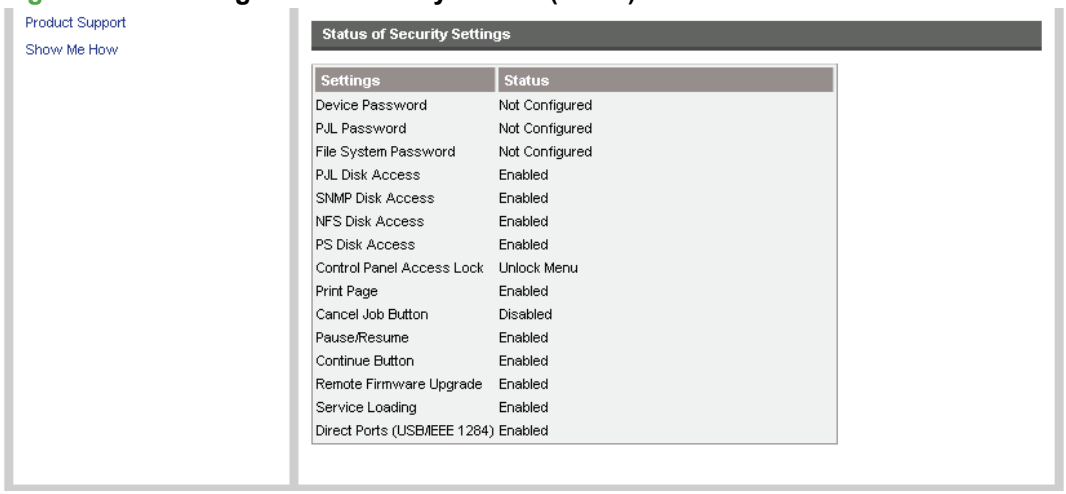


Figure 5-57

Configure Security Settings

Use the **Configure Security Settings** screen to set the desired levels of security.

Figure 5-58 Security screen – Configure Security Settings screen (1 of 4)

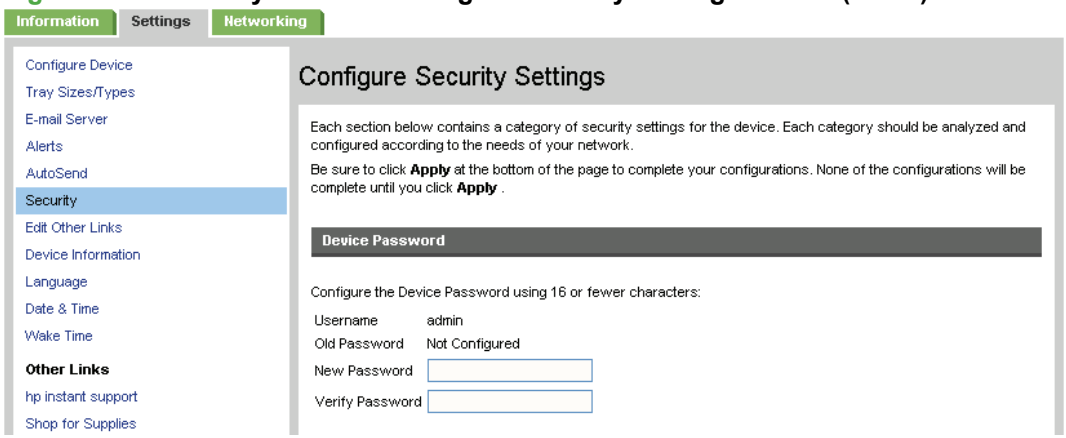


Figure 5-59 Security screen – Configure Security Settings screen (2 of 4)

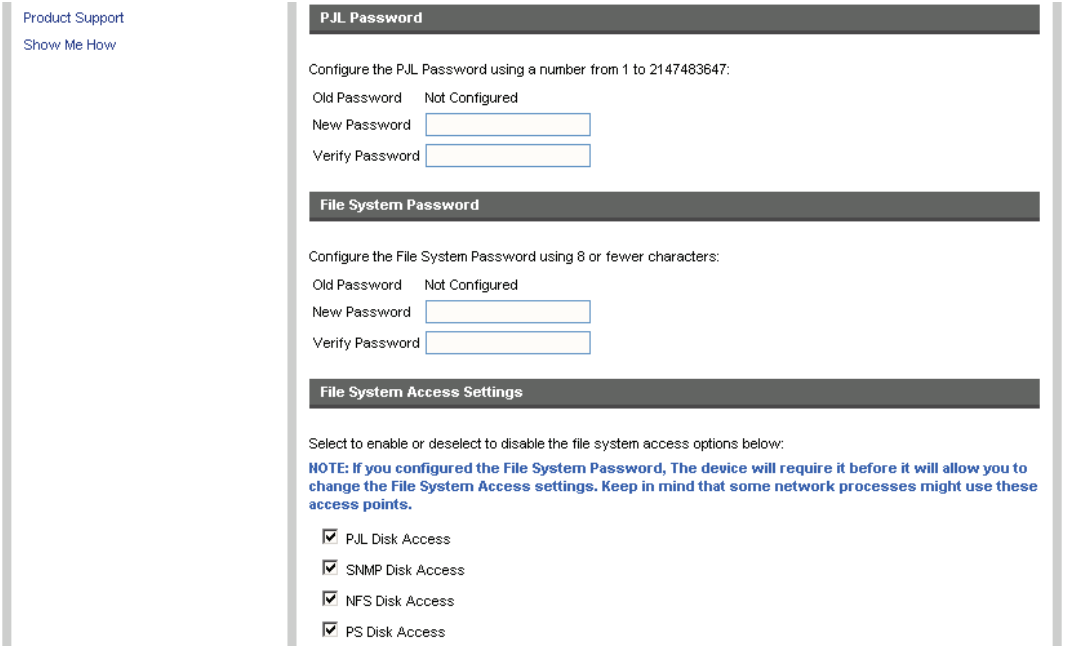


Figure 5-60 Security screen – Configure Security Settings screen (3 of 4)

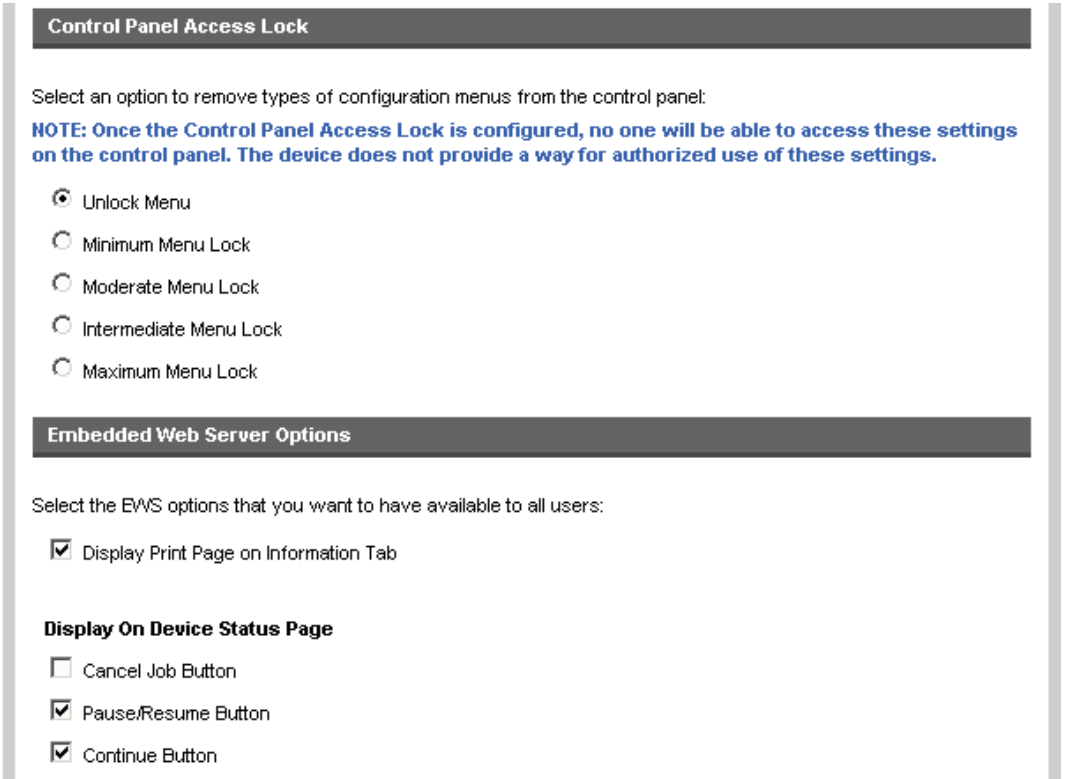
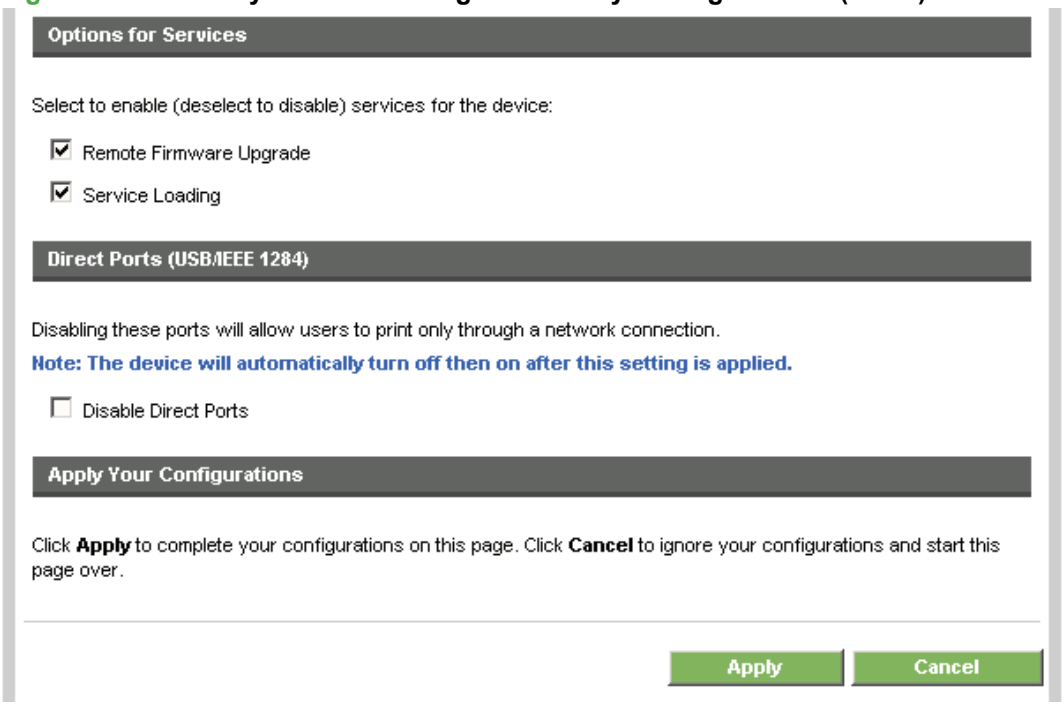


Figure 5-61 Security screen – Configure Security Settings screen (4 of 4)

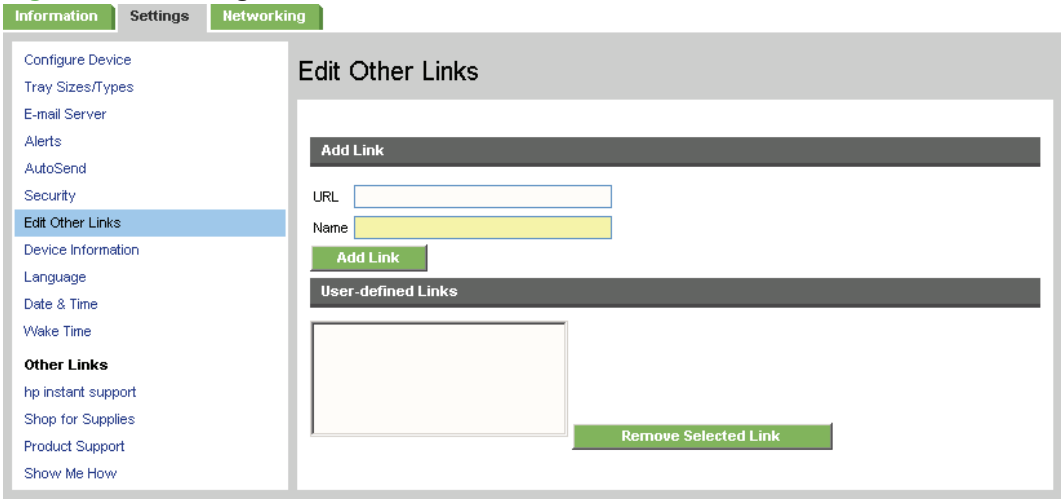


Edit Other Links

Use the **Edit Other Links** screen to add or customize up to five links to the Web sites of your choice. These links appear throughout the HP EWS screen in the **Other Links** box beneath the left navigation bar. Four permanent links (**hp instant support**, **Shop for Supplies**, **Product Support**, and **Show Me How** have already been established.

NOTE: With a permanent storage device installed, you can add up to five additional links; without the extra storage, you can add one additional link.

Figure 5-62 Settings tab – Edit Other Links screen

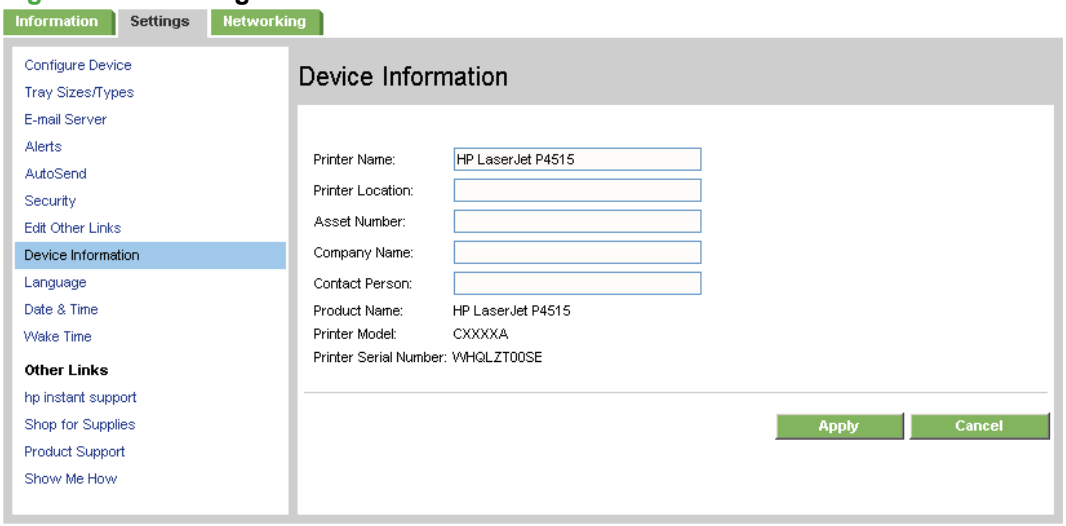


Device Information

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. The device TCP/IP address, device name, device model, and the serial number are also available on this screen.

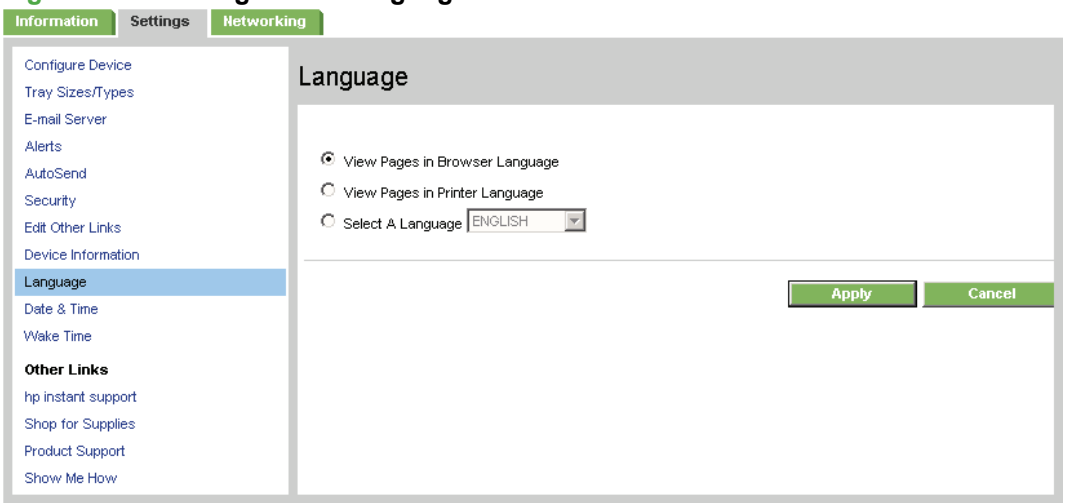
Figure 5-63 Settings tab – Device Information screen



Language

Use the **Language** screen to select the language in which the HP EWS screens appear.

Figure 5-64 Settings tab – Language screen



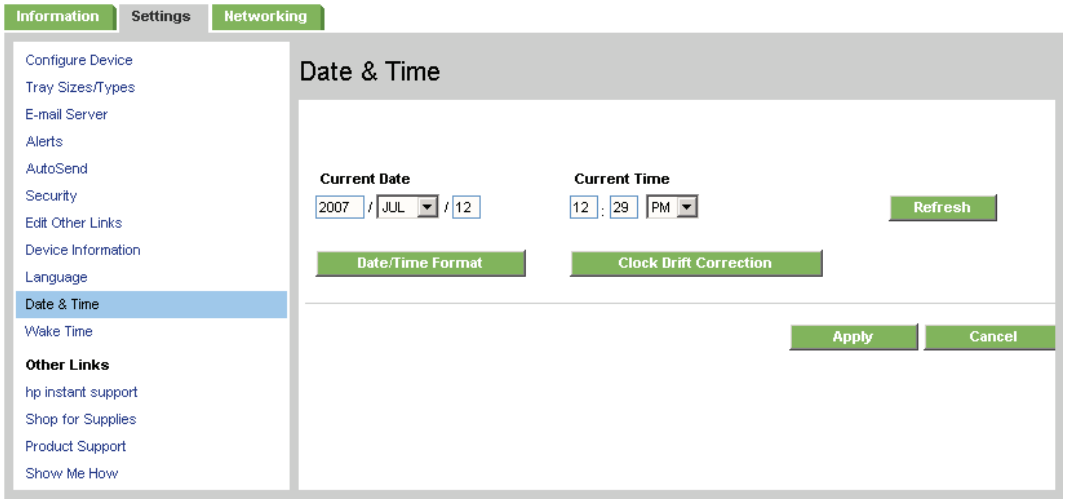
Date & Time

Use the **Date & Time** screen to update the product time.

The **Date & Time** screen provide access to two advanced time settings: **Date/Time Format** and **Clock Drift Correction**. See the following sections for more information regarding these two specific screens.

The following graphic shows the **Date & Time** screen.

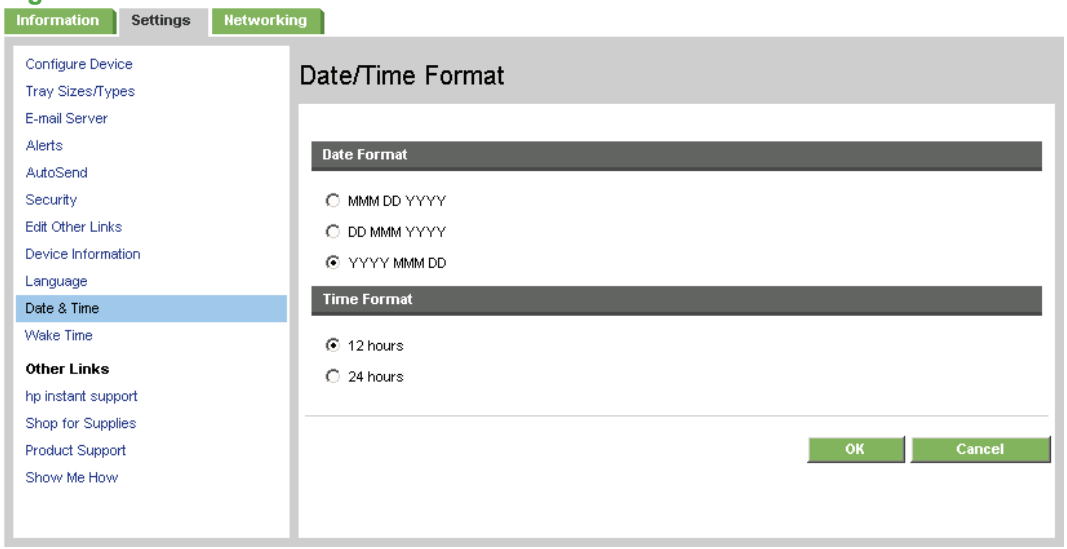
Figure 5-65 Settings tab – Date & Time screen



Date/Time Format

Use the **Date/Time Format** screen to select the date and time format.

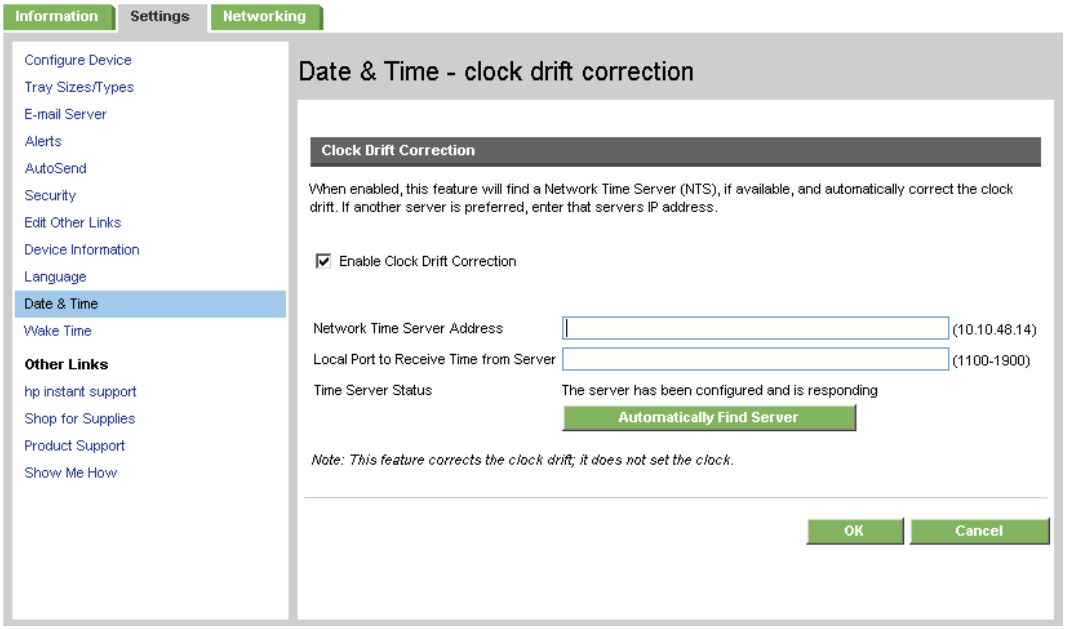
Figure 5-66 Date & Time screen – Date/Time Format screen



Clock Drift Correction

Use the **Clock Drift Correction** screen to configure a network time server. This corrects clock drift by using a network time server of your choice.

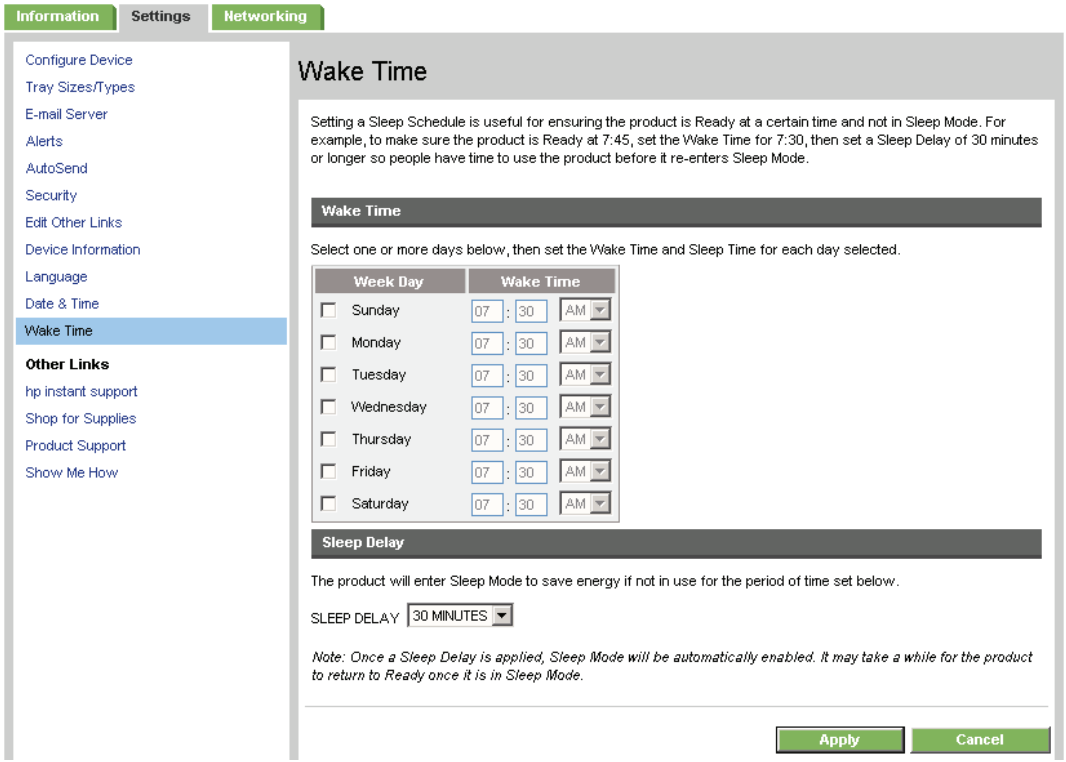
Figure 5-67 Date & Time screen – Clock Drift Correction screen



Wake Time

Use the **Wake Time** screen to schedule product wakeups on a daily basis. In addition, to save energy, the sleep delay can be set to turn the product off after a specific period of inactivity.

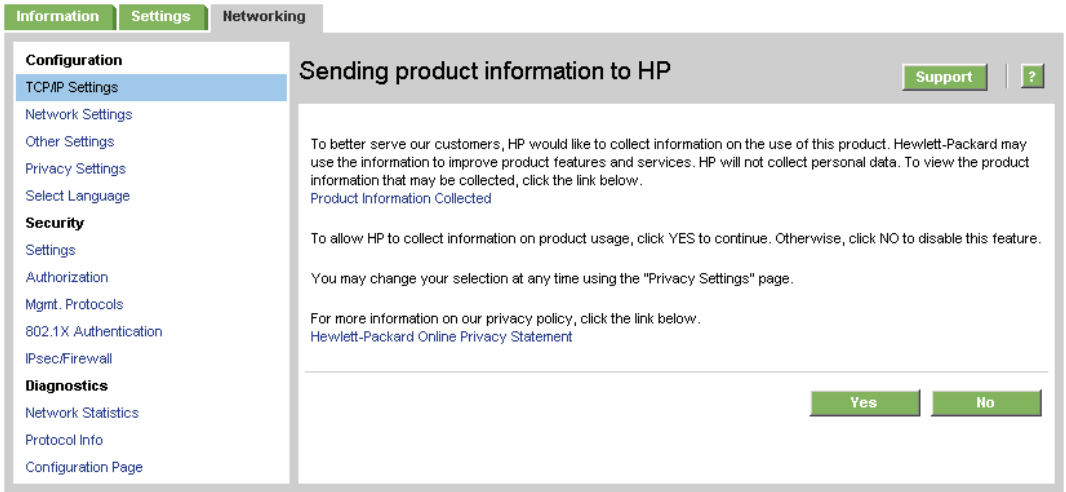
Figure 5-68 Settings tab – Wake Time screen



Networking tab

Use the **Networking** tab to configure and manage your product on your network. The appearance and features of the screens available differ depending on the model and version of your HP Jetdirect print server. The following screen is similar to what you might see when you click **Networking**.

Figure 5-69 Networking tab



6 Engineering details

Introduction

- Remote firmware updates
- Printing print-ready documents
- Supported paper and print media tables
- Custom paper sizes
- Special paper or print media guidelines
- Sizes (min & max) and supported paper by tray
- Media attributes and commands
- File to E-mail utility
- HP Driver Deployment Utility (DDU)

Remote firmware updates

The HP LaserJet P4010 and P4510 Series 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:

- Print a configuration page
- 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

Print a configuration page

To determine the current level of firmware, view the configuration page. To print a configuration page, follow these instructions.

1. Press Menu,
2. Press the down arrow to highlight **INFORMATION**, and then press OK.
3. Press the down arrow to highlight **PRINT CONFIGURATION**, and then press OK to print the configuration pages.

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 one of the following URLs:

www.hp.com/go/ljp4010series_firmware www.hp.com/go/ljp4510series_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/go/ljp4010series_software or www.hp.com/go/ljp4510series_software.

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 6-1 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 6-2 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/ljp4010series_firmware and www.hp.com/go/ljp4510series_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/ljp4010series_firmware and www.hp.com/go/ljp4510series_firmware.
The upgrade was interrupted.	See Table 6-3 Update messages on page 244.
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; others (RESEND UPGRADE and RFU LOAD ERROR) appear only if the update process does not succeed.

Table 6-3 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.
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 Print a configuration page on page 242
2. Open a Web 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 on page 243 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 P4010 and P4510 Series printer 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 Print a configuration page on page 242

   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\P4510FW.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\P4510fw.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 on page 243 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:

- Microsoft Windows 2000, Windows XP, or Windows Server 2003

Microsoft 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.

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:\P4510fw.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\P4510fw.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 on page 243 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\P4510fw.rfu" \ \your_computer\clj3000`

2. Press Enter on the keyboard. The messages described in the section Printer messages during the firmware update on page 243 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 on page 243 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:\P4510fw.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\P4510fw.rfu" \ \your_server\your_computer`

2. Press Enter on the keyboard. The messages described in the section Printer messages during the firmware update on page 243 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 on page 243 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 on page 243 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 Microsoft 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 on page 243 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 on page 243 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 on page 243 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 P4010 and P4510 Series printer without first opening the original software program:

- HP LaserJet printer control language (PCL)
- Portable document format (PDF)
- Postscript (PS)
- Text (TXT)

NOTE: The examples that are used in this section are for printing PDF documents. However, any print-ready file type can be substituted.

Use one of the following methods to send print-ready files to your product:

- 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 Print a configuration page on page 242.
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 P4010 and P4510 Series printer 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 Print a configuration page on page 242.
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\P4510FW.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\P4510FW.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:

- Microsoft Windows 2000, Wiindows XP, or Windows Server 2003

Microsoft Windows 2000, Wiindows 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:\P4510FW.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\P4510FW.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:\P4510FW.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\P4510FW.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 Microsoft 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 Print a configuration page on page 242.

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.

Supported paper and print media tables

For a complete list of specific HP-brand paper that this product supports, go to www.hp.com/support/hpljp4010series or www.hp.com/support/hpljp4510series.

Supported paper types for input options

Paper type (control panel)	Paper type (printer driver)	Tray 1	Tray 2	Optional 500-sheet trays	Optional 1,500-sheet tray	Optional envelope feeder
ANY TYPE	Unspecified	X	X	X	X	X
PLAIN	Plain	X	X	X	X	
LIGHT 60-75 G/M2	Light 60-75g	X	X	X	X	
CARDSTOCK >163 G/M2	Cardstock 176-220g	X	X	X		
TRANSPARENCY	Monochrome Laser Transparency	X	X	X		
LABELS	Labels	X	X	X		
LETTERHEAD	Letterhead	X	X	X	X	
PREPRINTED	Preprinted	X	X	X	X	
PREPUNCHED	Prepunched	X	X	X	X	
COLOR	Colored	X	X	X	X	
ROUGH	Rough	X	X	X	X	
BOND	Bond	X	X	X	X	
RECYCLED	Recycled	X	X	X	X	
ENVELOPE	Envelope	X				X

Supported paper types for output options

Paper type (control panel)	Paper type (printer driver)	Standard top bin (face-down)	Rear bin (face-up)	Optional duplexer	Optional stacker or stapler/ stacker	Optional 5-bin mailbox
ANY TYPE	Unspecified	X	X	X	X	X
PLAIN	Plain	X	X	X	X	X
LIGHT 60-75 G/M2	Light 60-75g	X	X	X	X	X
CARDSTOCK >163 G/M2	Cardstock 176-220g	X	X			
TRANSPARENCY	Monochrome Laser Transparency	X	X			
LABELS	Labels	X	X			
LETTERHEAD	Letterhead	X	X	X	X	X
PREPRINTED	Preprinted	X	X	X	X	X
PREPUNCHED	Prepunched	X	X	X	X	X
COLOR	Colored	X	X	X	X	X
ROUGH	Rough	X	X	X	X	X
BOND	Bond	X	X	X	X	X
RECYCLED	Recycled	X	X	X	X	X
ENVELOPE	Envelope	X	X			

Custom paper sizes

This product supports a variety of custom paper sizes. Supported custom sizes are sizes that are within the minimum- and maximum-size guidelines for the product but are not listed in the supported paper sizes table. When using a supported custom size, specify the custom size in the print driver, and load the paper in a tray that supports custom sizes.

Special paper or print media guidelines

This product supports printing on special media. Use the following guidelines to obtain satisfactory results. When using special paper or print media, be sure to set the type and size in your print driver to obtain the best print results.

△ **CAUTION:** HP LaserJet printers use fusers to bond dry toner particles to the paper in very precise dots. HP laser paper is designed to withstand this extreme heat. Using inkjet paper not designed for this technology could damage your printer.

Media type	Do	Do not
Envelopes	• Store envelopes flat. • Use envelopes where the seam extends all the way to the corner of the envelope. • Use peel-off adhesive strips that are approved for use in laser printers.	• Do not use envelopes that are wrinkled, nicked, stuck together, or otherwise damaged. • Do not use envelopes that have clasps, snaps, windows, or coated linings. • Do not use self-stick adhesives or other synthetic materials.
Labels	• Use only labels that have no exposed backing between them. • Use Labels that lie flat. • Use only full sheets of labels.	• Do not use labels that have wrinkles or bubbles, or are damaged. • Do not print partial sheets of labels.
Transparencies	• Use only transparencies that are approved for use in laser printers. • Place transparencies on a flat surface after removing them from the product.	• Do not use transparent print media not approved for laser printers.
Letterhead or preprinted forms	• Use only letterhead or forms approved for use in laser printers.	• Do not use raised or metallic letterhead.
Heavy paper	• Use only heavy paper that is approved for use in laser printers and meets the weight specifications for this product.	• Do not use paper that is heavier than the recommended media specification for this product unless it is HP paper that has been approved for use in this product.
Glossy or coated paper	• Use only glossy or coated paper that is approved for use in laser printers.	• Do not use glossy or coated paper designed for use in inkjet products.

Sizes (min & max) and supported paper by tray

Tray or bin	Paper type	Specifications	Quantity
Tray 1	Paper and cardstock	Range: 60 g/m^2 (16 lb) bond to 200 g/m^2 (54 lb) bond	Maximum stack height: 10 mm (0.6 inch) Equivalent to 100 sheets of 75 g/m^2 (20 lb) bond
	Envelopes	Less than 60 g/m^2 (16 lb) bond to 90 g/m^2 (24 lb) bond	Up to 10 envelopes
	Labels	Maximum 0.23 mm (0.009 inch) thick	Maximum stack height: 10 mm (0.6 inch)
	Transparencies	Minimum 0.13 mm (0.005 inch) thick	Maximum stack height: 10 mm (0.6 inch)
Tray 2 and the optional 500-sheet trays	Paper and cardstock	Range: 60 g/m^2 (16 lb) bond to 135 g/m^2 (36 lb) bond	Equivalent to 500 sheets of 75 g/m^2 (20 lb) bond
	Labels	Maximum 0.13 mm (0.005 inch) thick	Maximum stack height: 54 mm (2.1 inch)
	Transparencies	Minimum 0.13 mm (0.005 inch) thick	Maximum stack height: 54 mm (2.1 inch)
Optional 1,500-sheet tray	Paper	Range: 60 g/m^2 (16 lb) bond to 135 g/m^2 (36 lb) bond	Equivalent to 1,500 sheets of 75 g/m^2 (20 lb) bond
Optional envelope feeder	Envelopes	Less than 60 g/m^2 (16 lb) bond to 90 g/m^2 (24 lb) bond	Up to 75 envelopes
Standard top bin	Paper		Up to 500 sheets of 75 g/m^2 (20 lb) bond
Rear bin	Paper		Up to 100 sheets of 75 g/m^2 (20 lb) bond
Optional duplexer	Paper	Range: 60 g/m^2 (16 lb) bond to 120 g/m^2 (32 lb) bond	
Optional stacker	Paper		Up to 500 sheets of 75 g/m^2 (20 lb) bond
Optional stapler/stacker	Paper		Stapling: Up to 20 print jobs of up to 15 pages each Stacking: Up to 500 sheets of 75 g/m^2 (20 lb) bond
Optional 5-bin mailbox	Paper		Up to 500 sheets of 75 g/m^2 (20 lb) bond

Media attributes and commands

This section includes the following information about media attributes:

- Media types and sizes
- Custom paper sizes

Media types and sizes

The tables in this section provide information about media features, media attributes, and paper-handling constraints for the HP LaserJet P4010 and P4510 Series printer.

NOTE: The following table lists the features and attributes of various media listed under the **Size Is** drop-down menu on the **Paper/Quality** tab. The list order can vary, depending on the operating system. The list will contain all the sizes shown here, and might contain sizes from other drivers.

Table 6-4 Supported media attributes

Paper sizes	Width	Height
Letter	216 mm (8.5 inches)	279 mm (11.0 inches)
Legal	216 mm (8.5 inches)	355 mm (14.0 inches)
A4	210 mm (8.27 inches)	297 mm (11.69 inches)
Executive	185 mm (7.25 inches)	266 mm (10.5 inches)
B5 (ISO)	176 mm (6.93 inches)	250 mm (9.84 inches)
Envelope #10	105 mm (4.13 inches)	241 mm (9.5 inches)
Envelope Monarch	99 mm (3.88 inches)	190 mm (7.5 inches)
Envelope C5 (ISO)	162 mm (6.38 inches)	229 mm (9.02 inches)
Envelope DL (ISO)	110 mm (4.33 inches)	220 mm (8.66 inches)
Envelope B5 (ISO)	176 mm (6.93 inches)	250 mm (9.84 inches)
Custom	Minimum: 76 mm	Minimum: 127 mm

Table 6-4 Supported media attributes (continued)

Paper sizes	Width	Height
	(3.0 inches)	(5.00 inches)
	Maximum:	Maximum:
	216 mm	356 mm
	(8.5 inches)	(14.0 inches)
B5 (JIS)	182 mm	257 mm
	(7.16 inches)	(10.12 inches)
Postcard (JIS)	100 mm	148 mm
	(3.94 inches)	(5.83 inches)
Double Postcard (JIS)	148 mm	200 mm
	(5.83 inches)	(7.87 inches)
A5	148 mm	210 mm
	(5.83 inches)	(8.27 inches)
8.5 x 13 (Foolscap)	216 mm	330 mm
	(8.5 inches)	(13 inches)
16K 7.75 x 10.75	197 mm	273 mm
	(7.75 inches)	(10.75 inches)
16K 184x260mm	184 mm	260 mm
	7.2 inches	10.2 inches
16K 195x270mm	195 mm	270 mm
	7.67 inches	10.6 inches

Custom paper sizes

The following table identifies the media types the HP LaserJet P4010 and P4510 Series printer supports in trays 1 and 2.

Table 6-5 Tray 1 and Tray 2 specifications

Tray 1 and Tray 2	Dimensions[1]	Weight	Capacity[2]
Paper	Minimum: 76 x 127 mm (3 x 5 inches) Maximum: 216 x 356 mm (8.5 x 14 inches)	60 to 163 g/m^2 (16 to 43 lb) Up to 176 g/m^2 (47 lb) for postcards	Single sheet of 75 g/m^2 (20 lb) paper for Tray 1 Up to 250 sheets for Tray 2
HP LaserJet glossy paper and HP LaserJet photo paper	Same as the preceding listed minimum and maximum sizes.	75 to 220 g/m^2 (20 to 58 lb)	Single sheet of HP LaserJet glossy paper or HP LaserJet photo paper for Tray 1 Up to 25 mm (0.99 inch) stack height for Tray 2
HP Premium Cover Paper[3]		200 g/m^2 (53 lb) cover	Single sheet of HP Cover paper for Tray 1 Up to 25 mm (0.99 inch) stack height for Tray 2
Transparencies and opaque film		Thickness: 0.10 to 0.13 mm (3.9 to 5.1 mils)	Single sheet of transparency or opaque film for Tray 1 Up to 50 sheets for Tray 2
Labels[4]		Thickness: up to 0.23 mm (up to 9 mils)	Single sheet of labels for Tray 1 Up to 25 mm (0.99 inch) stack height for Tray 2
Envelopes		Up to 90 g/m^2 (up to 24 lb)	Single envelope for Tray 1 Up to ten envelopes for Tray 2

1 The printer supports a wide range of standard and custom sizes of print media. Check the printer driver for supported sizes.

2 Capacity can vary depending on media weight and thickness, and environmental conditions.

3 Smoothness: 100 to 250 (Sheffield).

4 Hewlett-Packard does not guarantee results when printing with other types of heavy paper.

Table 6-6 Optional Tray 3 specifications

Optional Tray 3 (250-sheet tray)	Dimensions[1]	Weight	Capacity[2]
Plain paper	Minimum: 76 x 127 mm (3 x 5 inches) Maximum: 216 x 356 mm (8.5 x 14 inches)	60 to 163 g/m^2 (16 to 43 lb)	Up to 200 sheets

1 The printer supports a wide range of standard and custom sizes of print media. Check the printer driver for supported sizes.

2 Capacity can vary depending on the media weight and thickness, and environmental conditions.

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 Microsoft Windows 2000, Windows Server 2003, Windows XP, and Windows Vista.

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 P4010 and P4510 Series printer software CD:

- <CD-ROM drive>CCC\FiletoEmail\FiletoEmail.exe
- <CD-ROM drive>CCC\FiletoEmail\FileToEmail.ini

To use the File to E-mail utility, copy these files to the desktop, 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.

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.

HP Driver Deployment Utility (DDU)

The HP Driver Deployment Utility (DDU) enables an administrator to create a driver install package for silent, unattended installation by end users. This utility supports adding drivers to the Windows driver store and creating entries in the Printer's folder.

The UI is divided into three sections:

- **Package Source**. Describes package type and driver location you want to create.
- **Package Target**. Identifies the name and location of the installation package.
- **Create Package**. Initiates the package creation process.

Supported OS

- Microsoft Windows 2000
- Microsoft Windows XP
- Microsoft Windows XP 64-Bit Edition
- Microsoft Windows Server 2003
- Microsoft Windows Server 2003 64-Bit Edition
- Microsoft Windows Vista
- Microsoft Windows Vista (64-bit)

Package Source

Use the **Select Driver** button to select an INF file in the driver directory by browsing or typing it in. You should only have one driver package in this directory because this utility will package all the files found in this directory (and sub directories) into the executable. If you have downloaded a compressed driver package, you must expand it before using this utility.

In some cases, you may have multiple driver inf files in the directory (sometimes one is for color and another for mono printers). In this case, an additional dialog will allow you to select which driver to package.

You will also get a warning if your directory is large. This is to help prevent packaging more than one driver. You may choose to continue at this point or not.

Once the driver directory is selected, and one driver has been found, the directory and driver information is displayed.

For drivers that support pre-configuration, the checkbox below will be enabled. Selecting this will run a configuration dialog after the '**Create Package**' button is selected.

Install Type

Silently preload the driver' - is the option to select for users that will be using a direct connection, like a USB cable. A future Plug and Play event will be necessary to install the driver, but all the files will be installed in the Windows driver store by this package for future use.

By default the executable runs silently. If you would like to prompt the end user to connect the printer at the end of the install, then select the checkbox 'Show a prompt to connect the printer'.

For printers using a network connection, select the ‘Silently create the network port and install driver’ option. The ‘Network Settings’ button will become enabled, and you should click on it to enter the required network settings.

Network Settings

You must identify the network printer by one of the following methods. This utility does not communicate with the device to determine if the settings are valid, but does do syntax checking.

- **IP Address**. Enter the IPv4 or IPv6 address of the printer.
- **Hardware Address**. Enter the hardware address of the printer.
- **Hostname**. Enter the hostname of the printer.

The following network settings are additional. You may accept the default values pre-entered or change any of them.

- **Port Name**. This is the network port name that will be created. If the name already exists, a number will be appended to make it unique.
- **Printer Name**. This is the printer name that will appear in the printers’ folder. If the name already exists, a number will be appended to make it unique.
- **Set this printer as default**.

  Yes - will make this printer the default when printing from other applications.

  No - will retain the current default, unless this is the only printer installed.
- **Share this printer**.

  Yes - will allow others to use this printer.
- **Share Name**. Share name for the printer. Only enabled if ‘Share this printer’ is Yes. If the name already exists, a number will be appended to make it unique.

Package Target

Select the **Save As…** button to enter the name and location for the output package. The utility will create the package in the temp directory and then move it to the final location.

A matching xml file containing the package details will also be copied to the final location.

Create Package

Select the **Create Package** button when you have entered all the above information. This button will be disabled until you have entered the required information. Once selected, the **Cancel** button and Progress bar will be enabled.

To stop the package creation, select the **Cancel** button.

The executable will run silently, unless a user prompt was requested for a direct connect printer. If an error is encountered during execution, an error dialog will appear. To suppress the error dialog, you should select the **Suppress all end user error messages** checkbox.

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