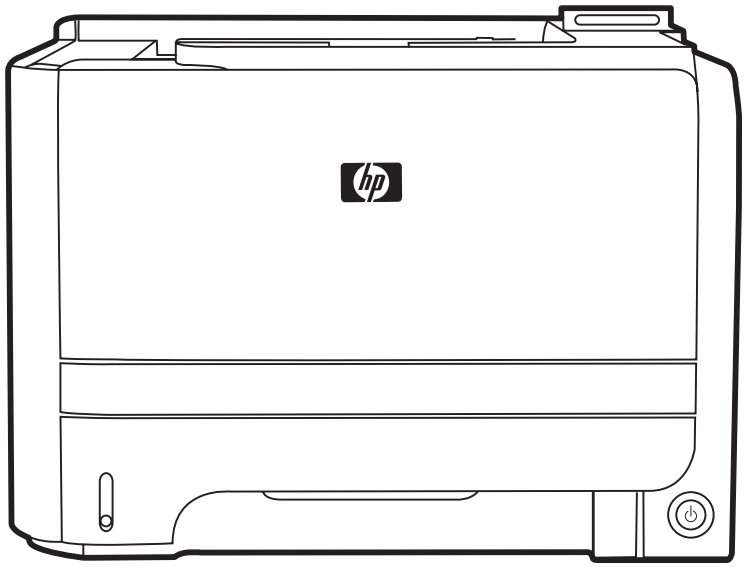
HP LaserJet P2050 Series Printer

Software Technical Reference



HP LaserJet P2050 Series Printer
Software Technical Reference

Copyright and License

© 2008 Copyright Hewlett-Packard Development Company, L.P.

Reproduction, adaptation, or translation without prior written permission is prohibited, except as allowed under the copyright laws.

The information contained herein is subject to change without notice.

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

Edition 1, 10/2008

Trademark Credits

Adobe®, Acrobat®, and PostScript® are trademarks of Adobe Systems Incorporated.

Intel® Core™ is a trademark of Intel Corporation in the U.S. and other countries.

Java™ is a US trademark of Sun Microsystems, Inc.

Microsoft®, Windows®, and Windows®XP are U.S. registered trademarks of Microsoft Corporation.

Windows Vista® is either a registered trademark or trademark of Microsoft Corporation in the United States and/or other countries.

UNIX® is a registered trademark of The Open Group.

ENERGY STAR and the ENERGY STAR mark are registered U.S. marks.

Table of contents

1 Document and product basics

Purpose and scope 1
Product overview 2
Product features 2
Product comparison 4
HP LaserJet P2050 Series models 4
Documentation availability 5
Software availability 8
Product walkaround 13
Front view 13
Rear view 14
Interface ports 15
Model and serial-number label location 15

2 Windows software description

Introduction 17
Windows printing-system software 18
Printing system and installer 18
HP LaserJet print drivers 19
HP Easy Printer Care 19
HP ToolboxFX 20
Overview of HP ToolboxFX 20
Starting HP ToolboxFX 20
Structure 20
Opening screen 21
HP ToolboxFX system requirements 21
Key features 21
Receive alert messages for product events 21
Pop-up alert messages 21
System-tray icon alert 22
E-mail alert 22
The HP ToolboxFX folders 22
Status folder 22
Device Status 23

Supplies Status 24
Device Configuration 24
Network Summary 25
Print Info Pages 26
Event Log 28
Alerts folder 28
Set up Status Alerts 29
Set up E-mail Alerts 30
Help folder 31
Troubleshooting 31
User Guide 32
Device Settings folder 32
Device Information 33
Paper Handling 34
Printing 34
PCL5 35
PostScript 37
Print Quality 38
Paper Types 38
System Setup 40
Password 41
Network Settings folder 42
Network Summary 42
IPv4 Configuration 44
IPv6 Configuration 45
Network Identification 46
Advanced 47
SNMP 48
Other screens 49
About HP ToolboxFX dialog box 49
HP Instant Support 49
Support and Troubleshooting 50
Product Registration 50
Supplies Ordering 50
HP Embedded Web Server 51
Status tab 51
Device Status 52
Supplies Status page 52
Device Configuration page 53
Network Configuration page 54
Print Information Pages 55
Event Log page 55
Settings tab 55
Device Configuration page 56

Paper Handling page 56
Printing page 57
PCL5e page 57
PostScript page 57
Print Quality page 58
Paper Types page 58
System Setup page 59
Service page 59
Networking tab 59
TCP/IP Settings page 60
Network Settings page 61
Other Settings page 61
Language page 62
Settings page 63
Authorization page 63
Mgmt. Protocols page 64
802.1X Authentication page 64
Firewall Policy page 65
Network Statistics page 65
Protocol Info page 66
Jetdirect Configuration Page 67
HP Web Jetadmin 68
HP Customer Participation Program 68
Optional software 68
HP SureSupply 68
Yahoo! toolbar 68

3 Install Windows software and utilities

Introduction 69
Supported operating systems for Windows 70
Full-solution software 70
Printer driver support in other operating systems 70
Operating system requirements 71
Windows 71
Installation overview 72
Windows software installation options 73
Animated getting started guide (eGSG) 73
Windows installation for direct connections 74
Windows installation for computers on a network 75
Install the printer drivers by using the add-printer wizard 75
Modify an existing installation 76
Detailed Windows installation instructions 77
Printing-system software installation for Windows 77

USB installation dialog-box options for Windows 78
Network installation dialog box options for Windows 86
Set a default printer 98
Uninstall the software 99
Uninstall component list 99
Uninstall methods 99
Program group uninstall tool 99
Add or Remove Programs function on the Windows Control Panel 105

4 HP printer driver for Windows
Introduction 107
Change the Windows printer driver settings 108
Software-program print-dialog box 108
Print-driver user interface 108
Printing Preferences driver tabs 108
Properties driver tabs 109
Help system 110
What's this? Help 110
Context-sensitive Help 110
Constraint messages 110
Advanced tab features 111
Paper/Output setting 112
Graphic setting 112
Document Options setting 112
Advanced Printing Features 112
Printer Features 113
Layout Options 113
Printing Shortcuts tab features 114
Use defined printing shortcuts 116
Create a custom printing shortcut 116
Paper/Quality tab features 117
Paper Options 118
Paper sizes 118
Custom Paper Size 119
Name 119
Paper size 120
Units 120
Custom width and height control limits 120
Paper source 120
Paper type 121
Special pages 122
Document preview image 122
Print Quality 123

Print Quality drop-down menu 123
EconoMode 123
Effects tab features 125
Resizing Options 126
Actual Size 126
Print document on 126
Scale to fit 126
% of actual size 126
Document preview image 127
Watermarks 127
Current watermarks 128
Watermark Message 129
Message Angle 129
Font Attributes 129
Default watermark settings 130
Finishing tab features 131
Document Options 132
Correct Order for Straight Paper Path 132
Print on both sides 132
Automatically print on both sides 133
Flip pages up 133
Booklet layout 134
Book and Booklet Printing 134
Print a booklet from a software program 134
Pages per sheet 135
Print page borders 135
Page order 135
Document preview image 136
Orientation 136
Services tab features 137
Device Settings tab features 139
Form to Tray Assignment 140
Font Substitution Table 140
External Fonts 140
Installing external fonts 141
Removing external fonts 142
Installable Options 142
Tray 3 142
Duplex Unit (for 2-Sided Printing) 142
Allow Manual Duplexing 142
Printer Memory 143
About tab features 144

5 Macintosh software and utilities

Introduction 145
Supported operating systems for Macintosh 146
Macintosh operating system requirements 146
Change printer-driver settings for Macintosh 146
Macintosh printing-system software 148
Supported printer drivers for Macintosh 148
Supported software components for Macintosh 148
Software component availability for Macintosh 149
Macintosh software component descriptions 149
HP LaserJet PPDs 149
PDEs 150
Install notes (Readme file) 150
Online help 150
Order software for Macintosh 150
Install the Macintosh printing system 151
General installation for Macintosh operating systems 151
Detailed Mac OS X installation 151
Main installation sequence 152
Product setup 158
Set up a product with Mac OS X v10.5 158
Set up a product with Mac OS X v10.4 160
Set up a product with Mac OS X v10.3 161
Troubleshooting the product setup 162
Uninstall the Macintosh printing system 163
Supported utilities for Macintosh 163
HP Embedded Web Server (EWS) 163
HP Printer Utility 163
Open the HP Printer Utility 164
Supplies Status 167
Device Information 170
File Upload 171
Update Firmware 172
Upload Fonts 172
HP Support 174
Duplex mode 176
Economode 177
Resolution 178
Trays Configuration 179
Lock Resources 180
Stored Jobs 181
Releasing a job-storage print job 181
Deleting a job-storage print job 182
E-mail Alerts 182

Network Settings 183
Bonjour Settings 184
Additional Settings 186

6 Engineering details

Media attributes 188
Supported paper and print media sizes 188
Special paper or print media guidelines 189
Supported paper and print media types 190
Tray and bin capacity 191
Custom paper sizes 192
Windows install notes 193
Introduction 193
Purpose of this document 193
System requirements 193
Overview of the printing system components 193
Network administrator software components 194
End-user software components 194
Installation instructions for Windows 195
Installation options for Windows 195
Install software on Windows XP, Windows Server 2003, and Windows Vista systems 195
Uninstaller 196
Technical assistance 196
Customer support 196
Web 196
HP software and support services—additional information 197
Legal statements 197
Trademark notices 197
Software warranty, license, and copyright 197
Warranty 197
License 197
Copyright 197
Macintosh install notes 198
Introduction 198
Purpose of this document 198
System requirements 198
Overview of the printing system components 198
Network administrator software components 198
Installation instructions for Macintosh operating systems 199
Install Macintosh software for a USB connection 199
Install Macintosh software for a network connection 199
Technical assistance 200
Customer support 200

Web 200
HP software and support services—additional information 200
Legal statements 200
Trademark notices 200
Software warranty, license, and copyright 200
Warranty 200
License 200
Copyright 200
Troubleshooting checklist 201

Index 203

List of tables

Table 1-1 Software technical reference overview 1
Table 1-2 User documentation availability and localization 5
Table 1-3 Available languages on the printing-system CD 8
Table 1-4 Software installer available languages 9
Table 1-5 Software languages 11
Table 2-1 Standard print modes 39
Table 4-1 PCL 6 custom media sizes 120
Table 4-2 Font Attribute settings for new and preset watermarks 130
Table 4-3 Page orientation 133
Table 5-1 Software components for Macintosh 148
Table 5-2 Software component availability for Macintosh 149
Table 5-3 Adding a product in Macintosh operating systems 151
Table 6-1 Supported paper and print media sizes 188
Table 6-2 Troubleshooting checklist 201

List of figures

Figure 2-1 Installation software CD browser 18
Figure 2-2 Device Status screen 23
Figure 2-3 Supplies Status screen 24
Figure 2-4 Device Configuration screen 25
Figure 2-5 Network Summary screen 26
Figure 2-6 Print Info Pages screen 27
Figure 2-7 Event Log screen 28
Figure 2-8 Set up Status Alerts screen 29
Figure 2-9 Set up E-mail Alerts screen – 1 of 2 30
Figure 2-10 Set up E-mail Alerts screen – 2 of 2 30
Figure 2-11 Troubleshooting sub-folder 31
Figure 2-12 User Guide sub-folder 32
Figure 2-13 Device Information screen 33
Figure 2-14 Paper Handling screen 34
Figure 2-15 Printing screen 35
Figure 2-16 PCL5 screen 36
Figure 2-17 PostScript screen 37
Figure 2-18 Print Quality screen 38
Figure 2-19 Paper Types screen 39
Figure 2-20 System Setup screen 40
Figure 2-21 Password screen 41
Figure 2-22 Network Summary screen (1 of 3) 42
Figure 2-23 Network Summary screen (2 of 3) 43
Figure 2-24 Network Summary screen (3 of 3) 43
Figure 2-25 IPv4 Configuration screen 44
Figure 2-26 IPv6 Configuration screen 45
Figure 2-27 Network Identification screen 46
Figure 2-28 Advanced screen 47
Figure 2-29 SNMP screen 48
Figure 2-30 About HP ToolboxFX dialog box 49
Figure 2-31 HP EWS–Device Status page 52
Figure 2-32 HP EWS–Supplies Status page 52
Figure 2-33 HP EWS–Device Configuration page (1 of 2) 53
Figure 2-34 HP EWS–Device Configuration page (2 of 2) 53

Figure 2-35 HP EWS–Network Configuration page (1 of 2) 54
Figure 2-36 HP EWS–Network Configuration page (2 of 2) 54
Figure 2-37 HP EWS–Print Information Pages page 55
Figure 2-38 HP EWS–Event Log page 55
Figure 2-39 HP EWS–Device Configuration page 56
Figure 2-40 HP EWS–Paper Handling page 56
Figure 2-41 HP EWS–Printing page 57
Figure 2-42 HP EWS–PCL5e page 57
Figure 2-43 HP EWS–PostScript page 57
Figure 2-44 HP EWS–Print Quality page 58
Figure 2-45 HP EWS–Paper Types page 58
Figure 2-46 HP EWS–System Setup page 59
Figure 2-47 HP EWS–Service page 59
Figure 2-48 HP EWS–TCP/IP Settings page 60
Figure 2-49 HP EWS–Network Settings page 61
Figure 2-50 HP EWS–Other Settings page 62
Figure 2-51 HP EWS–Language page 62
Figure 2-52 HP EWS–Settings page 63
Figure 2-53 HP EWS–Authorization page 63
Figure 2-54 HP EWS–Mgmt. Protocols page 64
Figure 2-55 HP EWS–802.1X Authentication page 64
Figure 2-56 HP EWS–Firewall Policy page 65
Figure 2-57 HP EWS–Network Statistics page 66
Figure 2-58 HP EWS–Protocol Info page 66
Figure 2-59 HP EWS–Jetdirect Configuration Page 67
Figure 3-1 Animated installation guide—Welcome screen 73
Figure 3-2 Install Product Software screen 74
Figure 3-3 Welcome Back! screen 76
Figure 3-4 CD Browser screen 77
Figure 3-5 USB installation—Select Install to begin installing your new HP device dialog box 78
Figure 3-6 USB installation—Express Install dialog box 79
Figure 3-7 USB installation—Sample screen showing current progress 80
Figure 3-8 USB installation—Please Allow All HP Install Wizard Processes dialog box 81
Figure 3-9 USB installation—Choose Easy Install or Advanced Install dialog box 82
Figure 3-10 USB installation—Connection Type dialog box 83
Figure 3-11 USB installation—Connect Your Device Now dialog box 84
Figure 3-12 USB installation—Sign up now screen 85
Figure 3-13 USB installation–Congratulations! Software Installation is complete dialog box 86
Figure 3-14 Network installation—Install Product Software dialog box 87
Figure 3-15 Network installation—Sample screen showing current progress 88
Figure 3-16 Network installation—Installation options dialog box 89
Figure 3-17 Network installation—Please Allow All HP Install Wizard Processes dialog box 90
Figure 3-18 Network installation—Choose Easy Install or Advanced Install dialog box 91
Figure 3-19 Network installation—Connection Type dialog box 92

Figure 3-20 Network installation—Identify Printer dialog box 93
Figure 3-21 Network installation—Firewall Notice dialog box 94
Figure 3-22 Network installation—Searching dialog box 95
Figure 3-23 Network installation—Printers Found dialog box 96
Figure 3-24 Network installation—Sign up now screen 97
Figure 3-25 Network installation—Congratulations! Software Installation is complete dialog box 98
Figure 3-26 Remove programs installed with your HP device dialog box 100
Figure 3-27 Review uninstall instructions and information dialog box 101
Figure 3-28 Review uninstall instructions and information dialog box 102
Figure 3-29 Cleanup progress dialog box 103
Figure 3-30 Cleanup complete dialog box 104
Figure 3-31 You must restart your computer to finish the uninstall dialog box 105
Figure 4-1 A typical constraint message 110
Figure 4-2 The default appearance of the Advanced tab 111
Figure 4-3 Printing Shortcuts tab 115
Figure 4-4 Paper/Quality tab 117
Figure 4-5 Paper Options group box 118
Figure 4-6 Custom Paper Size dialog box 119
Figure 4-7 Special Pages dialog box 122
Figure 4-8 Effects tab 125
Figure 4-9 Watermark Details dialog box 128
Figure 4-10 Finishing tab 131
Figure 4-11 Page-order preview images 136
Figure 4-12 Services tab 137
Figure 4-13 Device Settings tab 139
Figure 4-14 HP Font Installer dialog box 141
Figure 4-15 About tab 144
Figure 5-1 Opening screen 152
Figure 5-2 Introduction screen 153
Figure 5-3 Read Me screen 154
Figure 5-4 License screen 155
Figure 5-5 License pop-up 155
Figure 5-6 Installation Type screen 156
Figure 5-7 Installation screen progress bar 157
Figure 5-8 Summary screen 158
Figure 5-9 Select Printer screen (OS X v10.4) 164
Figure 5-10 Connection Type screen 165
Figure 5-11 Select Printer screen – printer selected 166
Figure 5-12 Printer Status screen 166
Figure 5-13 Current Supplies Levels screen 167
Figure 5-14 Supplies Information screen 167
Figure 5-15 Transfer printer information to HP SureSupply? screen 168
Figure 5-16 Welcome to HP SureSupply Web page 168
Figure 5-17 HP privacy statement 169

Figure 5-18 Paper Status screen 169
Figure 5-19 Device Information screen 170
Figure 5-20 File Upload screen 171
Figure 5-21 Update Firmware screen 172
Figure 5-22 Upload Fonts screen 172
Figure 5-23 Upload Fonts dialog 173
Figure 5-24 Add System Fonts screen 173
Figure 5-25 HP Online Support screen 174
Figure 5-26 HP Instant Support link 174
Figure 5-27 HP Registration Web page 175
Figure 5-28 Duplex Mode screen 176
Figure 5-29 Economode & Toner Density screen 177
Figure 5-30 Default Resolution screen 178
Figure 5-31 Trays Configuration screen 179
Figure 5-32 Lock Resources screen 180
Figure 5-33 Enable Job Storing screen 181
Figure 5-34 E-mail Alerts screen 183
Figure 5-35 Network Settings screen 183
Figure 5-36 Networking screen 184
Figure 5-37 Bonjour Settings screen 185
Figure 5-38 Additional Settings screen 186

1 Document and product basics

Purpose and scope

This Software Technical Reference (STR) provides information about and troubleshooting tips for the printing-system software for the product.

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 product. 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 while using the product, and known solutions to those problems

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

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 product and its software:
	• Overview of the product
	• Printing-system software overview, including the following topics:
	  ◦ System requirements
	  ◦ Operating-system support
	  ◦ Availability
	• LaserJet software documentation

Chapter 2, Software description	This chapter provides an overview of the printing-system software installer and printer drivers.

Table 1-1 Software technical reference overview (continued)

Chapter	Content
	This chapter also contains general information about other software features, including the following topics: • Driver configuration for Microsoft® (MS) Windows® • HP Embedded Web Server (network models only) • HP ToolboxFX • HP Web Jetadmin
Chapter 3, Install Windows printing-system components	This chapter provides instructions for installing the product in Windows operating systems by using various installation methods.
Chapter 4, HP printer driver for Windows	This chapter provides detailed descriptions of the PCL 6 printer driver for Windows 2000, Windows XP, Windows Vista, and Windows Server 2003.
Chapter 5, Macintosh	This chapter provides instructions for installing and uninstalling the product in Macintosh operating systems and for using Macintosh features.
Chapter 6, Engineering details	This chapter contains information about the following special topics: • Troubleshooting information • Media attributes • Firmware updates • Readme file

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

Topics:

- Product overview
- Documentation availability
- Software availability
- Product walkaround

Product overview

Product features

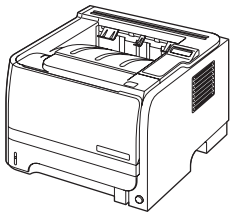
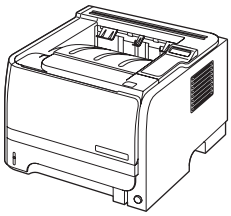
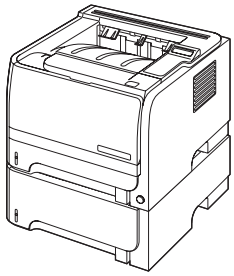
The following table contains descriptions of the product features that are discussed in this STR. Product configurations might vary among countries/regions.

Feature	Description
Performance	• 600 MHz processor
User interface	• Two-line display • HP ToolboxFX (a status-reporting and problem-solving software application)

Feature	Description
	• Windows and Macintosh printer drivers • Embedded Web server (for network-connected models only)
Printer drivers	• HP PCL 5 Universal Print Driver for Windows (HP UPD PCL 5) (available for download from the Web) • HP PCL 6 • HP postscript emulation Universal Print Driver for Windows (HP UPD PS) (available for download from the Web) • XPS (XML Paper Specification) Driver (available for download from the Web)
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
Fonts	• 45 internal scalable fonts available for PCL and 35 for HP postscript emulation • 80 device-matching screen fonts in TrueType format available with the software solution
Accessories	• HP 500-sheet input tray • HP Jetdirect external print server (base models only)
Connectivity	• Hi-Speed USB 2.0 connection • RJ.45 network connection
Supplies	• The supplies status page contains information about toner level, page count, and approximate pages remaining. • The product checks for an authentic HP print cartridge at installation. • Integration with HP Sure Supply Web site for easy replacement-cartridge reordering
Supported operating systems	• Microsoft Windows 2000, Windows Server 2003, Windows XP, and Windows Vista • Macintosh OS X v10.3, v10.4, and v10.5 • Unix® • Linux • Citrix
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.

Product comparison

HP LaserJet P2050 Series models

HP LaserJet P2055d printer CE457A	HP LaserJet P2055dn printer CE459A	HP LaserJet P2055x printer CE460A
		
• Prints up to 35 pages per minute (ppm) on Letter size paper and 33 ppm on A4 size paper • Contains 64 megabytes (MB) of random access memory (RAM) and is expandable to 320 MB. • HP print cartridge, rated for up to 2,300 pages • Tray 1 holds up to 50 sheets • Tray 2 holds up to 250 sheets • 125-sheet face-down output bin • Straight-through output path • Two-line control-panel display • Hi-Speed USB 2.0 port • One open dual inline memory module (DIMM) slot	Has the same features as the HP LaserJet P2055d model, plus the following: • HP Jetdirect Standard Gigabit Ethernet embedded print server • Contains 128 MB RAM and is expandable to 384 MB.	Has the same features as the HP LaserJet P2055dn model, plus the following: • 500-sheet tray (Tray 3)

Documentation availability

The documentation in the following table is available for the product.

Table 1-2 User documentation availability and localization

Document name	Languages	Part number	Location
User Guide	English	CE457-90902	The user guide is available in electronic format on the product software CD.
	Arabic	CE457-90903	
	Bulgarian	CE457-90904	
	Catalan	CE457-90905	
	Chinese (Simplified)	CE457-90937	
	Chinese (Traditional)	CE457-90938	
	Croatian	CE457-90915	
	Czech	CE457-90906	
	Danish	CE457-90907	
	Dutch	CE457-90923	
	Estonian	CE457-90911	
	Finnish	CE457-90912	
	French	CE457-90913	
	German	CE457-90908	
	Greek	CE457-90909	
	Hebrew	CE457-90914	
	Hungarian	CE457-90916	
	Indonesian (Bahasa)	CE457-90917	
	Italian	CE457-90918	
	Kazakh	CE457-90919	
	Korean	CE457-90920	
	Latvian	CE457-90922	
	Lithuanian	CE457-90921	
	Norwegian	CE457-90924	
	Polish	CE457-90925	
	Portuguese (Brazilian)	CE457-90926	
	Romanian	CE457-90927	
	Russian	CE457-90928	

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

Document name	Languages	Part number	Location
	Serbian	CE457-90931	
	Slovak	CE457-90929	
	Slovenian	CE457-90930	
	Spanish	CE457-90910	
	Swedish	CE457-90932	
	Thai	CE457-90933	
	Turkish	CE457-90934	
	Ukrainian	CE457-90935	
	Vietnamese	CE457-90936	

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

Document name	Languages	Part number	Location
Getting Started Guide	• Arabic • Bulgarian • Croatian • Czech • Danish • Dutch • English • Estonian • French • German • Greek • Italian • Latvian • Lithuanian • Polish • Portuguese (Brazilian) • Romanian • Russian • Serbian • Slovenian • Spanish • Turkish • Ukrainian	CE457-90976	The getting started guide is available in hard copy and comes in the box with the product.
	• English • Hebrew	CE457-90977	

Software availability

The following table presents the part numbers and language groups on the software CDs for the product.

Table 1-3 Available languages on the printing-system CD

CD part number	Languages
CE457-14001	• English • Arabic • Catalan • Danish • Dutch • Estonian • Finnish • French • German • Italian • Latvian • Lithuanian • Norwegian • Portuguese (Brazilian) • Spanish • Swedish
CE457-14002	• English • Bulgarian • Croatian • Czech • French • Greek • Hebrew • Hungarian • Kazakh • Polish • Romanian • Russian • Serbian • Slovak

Table 1-3 Available languages on the printing-system CD (continued)

CD part number	Languages
	• Slovenian • Turkish • Ukrainian
CE457-14004	• English • Chinese (Simplified) • Chinese (Traditional) • Indonesian (Bahasa) • Korean • Thai • Vietnamese

The software installers are available in the following languages.

Table 1-4 Software installer available languages

Windows installer	Macintosh installer
• English	• English
• Arabic	• Chinese (Simplified)
• Bulgarian	• Chinese (Traditional)
• Catalan	• Danish
• Chinese (Simplified)	• Dutch
• Chinese (Traditional)	• Finnish
• Croatian	• French
• Czech	• German
• Danish	• Italian
• Dutch	• Korean
• Estonian	• Norwegian
• Finnish	• Portuguese (Brazilian)
• French	• Russian
• German	• Spanish
• Greek	• Swedish
• Hebrew	
• Hungarian	
• Indonesian (Bahasa)	
• Italian	

Table 1-4 Software installer available languages (continued)

Windows installer	Macintosh installer
• Kazakh	
• Korean	
• Latvian	
• Lithuanian	
• Norwegian	
• Polish	
• Portuguese (Brazilian)	
• Romanian	
• Russian	
• Serbian	
• Slovak	
• Slovenian	
• Spanish	
• Swedish	
• Thai	
• Turkish	
• Ukrainian	
• Vietnamese	

The printer drivers are available for the following languages.

- English
- Arabic
- Bulgarian
- Catalan
- Chinese (Simplified)
- Chinese (Traditional)
- Croatian
- Czech
- Danish
- Dutch
- Estonian
- Finnish

- French
- German
- Greek
- Hebrew
- Hungarian
- Indonesian (Bahasa)
- Italian
- Kazakh
- Korean
- Latvian
- Lithuanian
- Norwegian
- Polish
- Portuguese (Brazilian)
- Romanian
- Russian
- Serbian
- Slovak
- Slovenian
- Spanish
- Swedish
- Thai
- Turkish
- Ukrainian
- Vietnamese

The following software programs are available in the following languages.

Table 1-5 Software languages

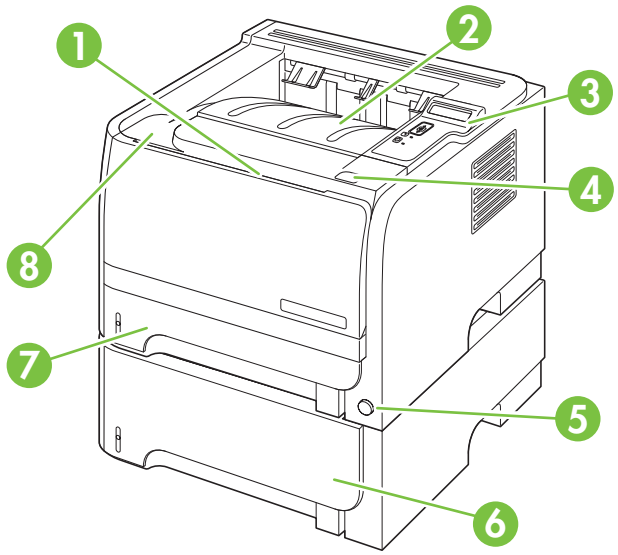
HP ToolboxFX	HP SureSupply
• English	• English
• Arabic	• Arabic
• Bulgarian	• Bulgarian
• Catalan	• Catalan

Table 1-5 Software languages (continued)

HP ToolboxFX	HP SureSupply
Chinese (Simplified)	Chinese (Simplified)
Chinese (Traditional)	Chinese (Traditional)
Croatian	Croatian
Czech	Czech
Danish	Danish
Dutch	Dutch
Estonian	Estonian
Finnish	Finnish
French	French
German	German
Greek	Greek
Hebrew	Hebrew
Hungarian	Hungarian
Indonesian (Bahasa)	Indonesian (Bahasa)
Italian	Italian
Kazakh	Kazakh
Korean	Korean
Latvian	Latvian
Lithuanian	Lithuanian
Norwegian	Norwegian
Polish	Polish
Portuguese (Brazilian)	Portuguese (Brazilian)
Romanian	Romanian
Russian	Russian
Serbian	Serbian
Slovak	Slovak
Slovenian	Slovenian
Spanish	Spanish
Swedish	Swedish
Thai	Thai
Turkish	Turkish
Ukrainian	Ukrainian
Vietnamese	Vietnamese

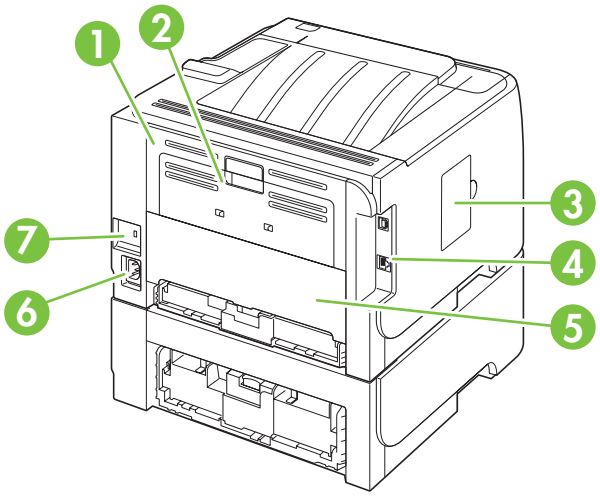
Product walkaround

Front view



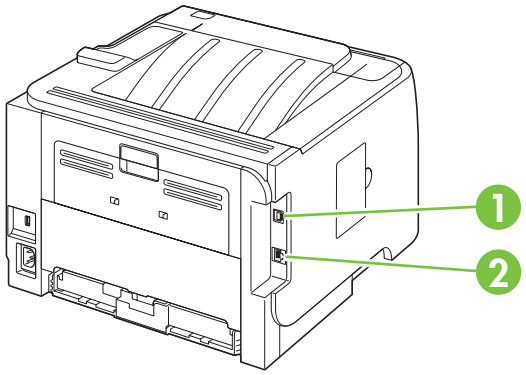
1	Tray 1 (pull to open)
2	Top output bin
3	Control panel
4	Print-cartridge-door release button
5	On/off switch
6	Optional Tray 3 (included with the HP LaserJet P2055x)
7	Tray 2
8	Print-cartridge door

Rear view



1	Jam-release door (pull the green handle to open)
2	Straight-through paper path (pull to open)
3	DIMM cover (provides access to the DIMM slot)
4	Interface ports
5	Rear duplex jam-release door
6	Power connection
7	Slot for a cable-type security lock

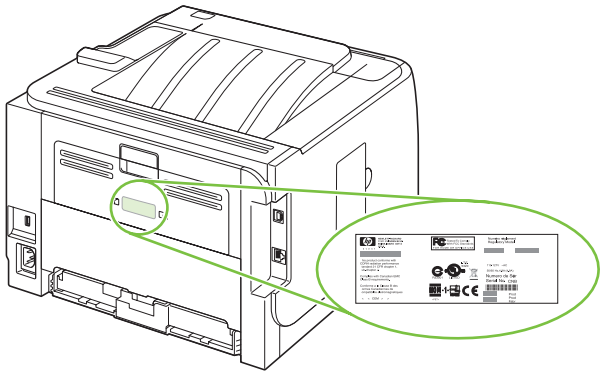
Interface ports



1	Hi-speed USB 2.0 connection, for connecting directly to a computer
2	RJ.45 network connection (network models only)

Model and serial-number label location

The label that contains the model and serial numbers is on the outside of the rear output (straight-through paper path).



2 Windows software description

Introduction

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

Topics:

- Windows printing-system software
- HP Easy Printer Care
- HP ToolboxFX
- HP Embedded Web Server
- HP Web Jetadmin
- HP Customer Participation Program
- Optional software

Windows printing-system software

Topics:

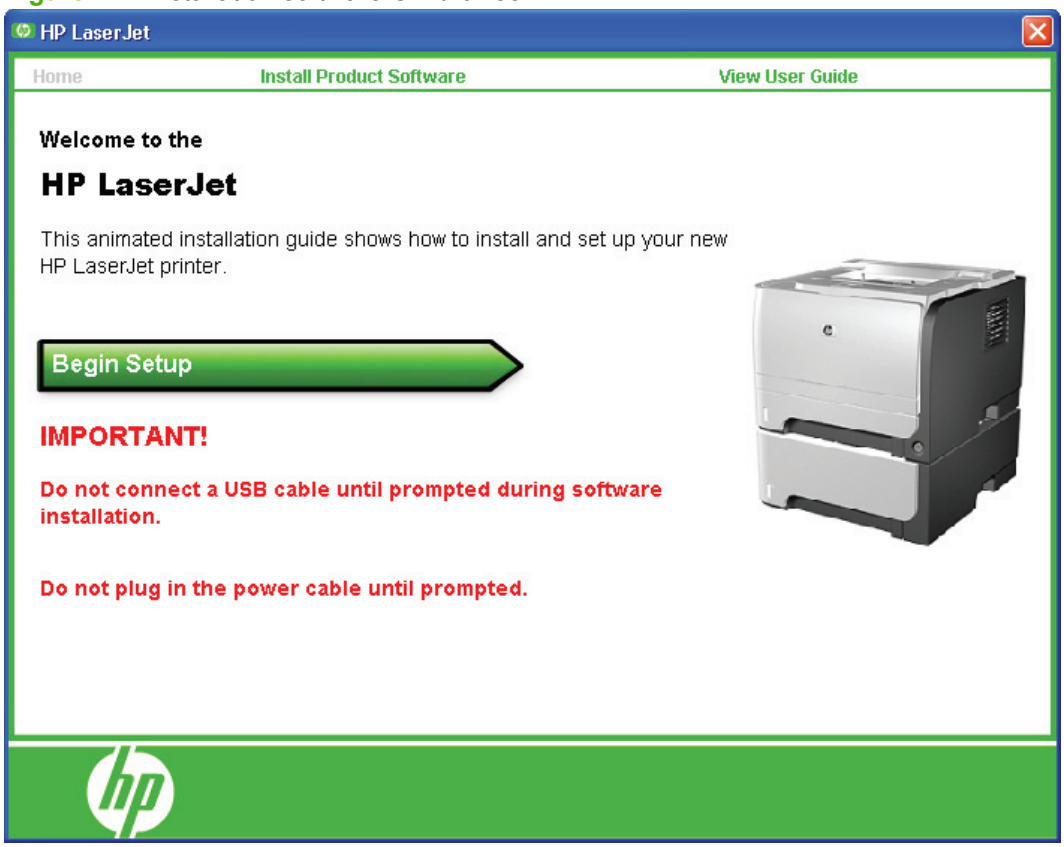
- Printing system and installer
- HP LaserJet print drivers

Printing system and installer

In Windows XP and Windows Vista systems, insert the printing-system software CD to open an interactive CD browser. Use the CD browser to install the print driver and related components, and to gain access to online user documentation, a customization utility, and Adobe Acrobat Reader software.

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

Figure 2-1 Installation software CD browser



NOTE: The options on some products might differ from the illustration.

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.

Install Printer Software. The installation wizard guides users through the printing-system software installation.

View User Guide. Use this option to view the user guide.

NOTE: If Adobe Acrobat Reader 4.0 or later is not installed, clicking the user guide link opens it in a version of Adobe Acrobat Reader that runs from the 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 run only while the printing-system software CD is in the CD-ROM drive. Adobe Acrobat Reader is also available at the following Web site: www.adobe.com

HP LaserJet print drivers

The HP PCL 6 driver is supported in Microsoft XP and Vista 32-bit and 64-bit operating systems. For other operating systems, drivers can be downloaded from the following HP Web site: www.hp.com/go/ljp2050series_software. These drivers include the PCL 5 UPD and the HP postscript level 3 emulation (PS) UPD.

HP Easy Printer Care

With HP Easy Printer Care software, you can 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 the **HP Easy Printer Care** option to go to the HP Easy Printer Care free software download page.

www.hp.com/go/easyprintercare

HP ToolboxFX

This section provides information about the following topics:

- Overview of HP ToolboxFX
- HP ToolboxFX system requirements
- Key features
- The HP ToolboxFX folders
- Other screens

Overview of HP ToolboxFX

HP ToolboxFX allows end users to easily communicate with and manage their product. HP ToolboxFX provides the following capabilities:

- Provides a view of the current status of the product
- Provides a view of the current status of the product consumables
- Provides Device Alert functionality, notifying the end user when particular events or conditions occur at the product.
- Provides access to troubleshooting information
- Provides access to some of the product settings, as an alternative to using the product control panel

Starting HP ToolboxFX

Start HP ToolboxFX by using any of the following methods.

- Double-click the **HP ToolboxFX** icon in the Windows system tray.
- Click **Start**, click **Programs**, click **HP**, click **HP LaserJet P2050 Series**, and then click **HP ToolboxFX**.
- Click **Utilities** or click **Settings**, and then click **Status** in the HP Solution Center.

Structure

HP ToolboxFX consists of a single framework divided into several sections.

- **Heading banner.** Each page that appears in HP ToolboxFX has a heading banner at the top that includes the HP logo.
- **Devices pane.** The Devices pane is always visible on the left-hand side of the HP ToolboxFX window. The Devices pane lists the HP products that are available to the host computer system and folders for the types of information available about each product.
- **Main content area.** Click any of the devices or folders listed in the Devices pane to see information about the product in the main content area.

- **Toolbar.** A toolbar appears at the top of the Main content area. The toolbar contains controls for printing, refreshing the page, ordering supplies, and getting help.
- **Other Links pane.** The Other Links pane is always visible in the lower-left corner of the HP ToolboxFX window. The **Other Links** pane contains links to the HP Instant Support, Product Support, and Product Registration pages on the HP Web site.

Opening screen

The opening screen that appears in the HP ToolboxFX section depends on the installed configuration of HP ToolboxFX. If HP ToolboxFX is installed for a single HP LaserJet product, the **Device Status** page for that HP LaserJet product appears when you open the toolbox. If HP ToolboxFX is installed for multiple products, a product summary page appears that contains a brief summary of each product available to HP ToolboxFX. Double-click any of the products listed to go to the **Device Status** page for that product.

HP ToolboxFX system requirements

HP ToolboxFX is currently supported on the following operating systems:

- Windows XP (32-bit and 64-bit)
- Windows Vista (32-bit and 64-bit)

HP ToolboxFX also requires the Microsoft .NET Framework 1.1 on the client machine, which happens automatically during installation of the printing-system software.

Key features

This section provides information about the product alert features.

Receive alert messages for product events

Through HP ToolboxFX, the appropriate person can be alerted when certain events occur at the products. Receive pop-up dialogs (Status Alerts) or automatically generated e-mail messages (E-mail Alerts) for certain events. Alerts can also appear as a taskbar icon or as a desktop message. To see a list of the events that generate alerts in HP ToolboxFX, see the Set up Status Alerts on page 29 section.

For status alerts, a group of errors or a group of print-cartridge warnings can be selected, but not specific items within those groups. To configure alerts, use the **Set up Status Alerts** screen in the **Alerts** folder in HP ToolboxFX.

The following alert messages are available:

- Pop-up alert messages
- System-tray icon alert
- E-mail alert

Pop-up alert messages

Pop-up alert messages notify you immediately when an error or print-cartridge warning occurs in the product. An error, such as a jam, halts product operation and requires correction before the product continues operation. The alert condition can be corrected at any time. Alerts are sent only to the specific computer that prints to the product. This feature is provided through HP ToolboxFX and is turned *on* by default.

System-tray icon alert

The system-tray icon feature shows information about all of the current alert conditions for the product. An **HP Device Alert** icon appears in the Windows system tray when an alert condition occurs. This feature is turned *on* by default.

E-mail alert

E-mail alert messages notify up to two users when a specific alert condition occurs in the product. The alert condition can be a specific error alert or print-cartridge warning. This feature can be used to alert administrators or service providers that the product requires attention. For instance, when the toner low alert occurs, the person in charge of ordering print cartridges can be notified by e-mail.

This feature is turned *off* by default. To use this feature, specify the appropriate e-mail address, select the notification events, configure the SNMP e-mail server, and enable the feature in HP ToolboxFX.

The HP ToolboxFX folders

- Status folder
- Alerts folder
- Help folder
- Device Settings folder
- Network Settings folder

Status folder

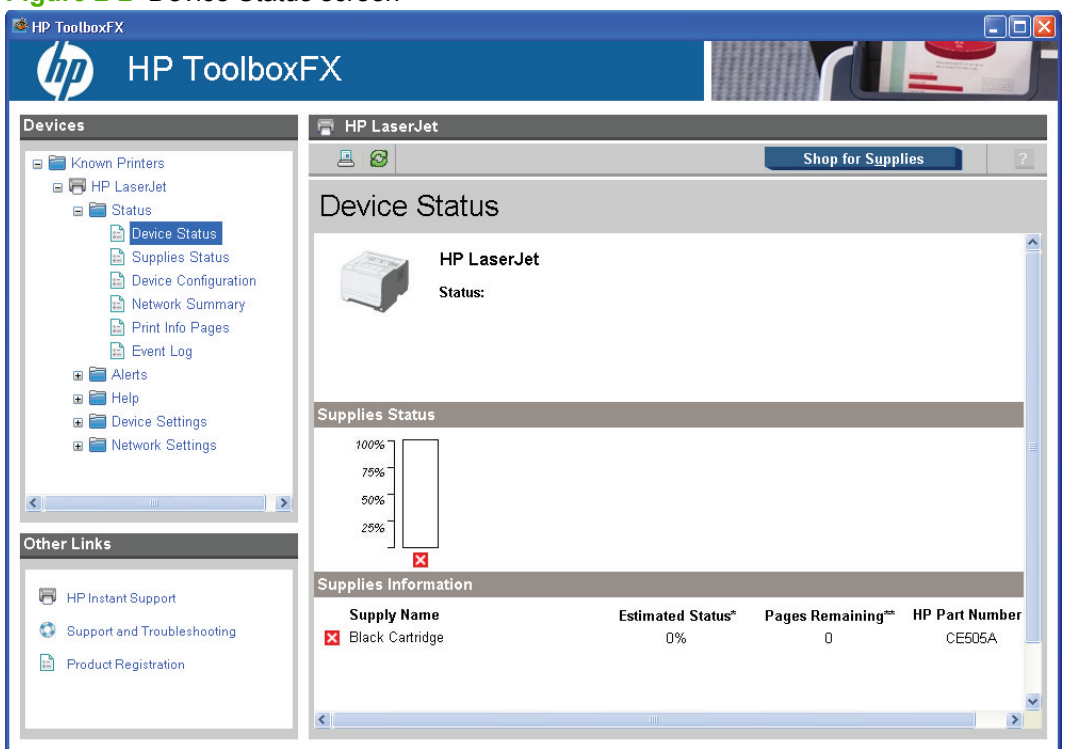
The **Status** folder contains the following sub-folders:

- Device Status
- Supplies Status
- Device Configuration
- Network Summary
- Print Info Pages
- Event Log

Device Status

The **Device Status** screen shows status messages from the product.

Figure 2-2 Device Status screen

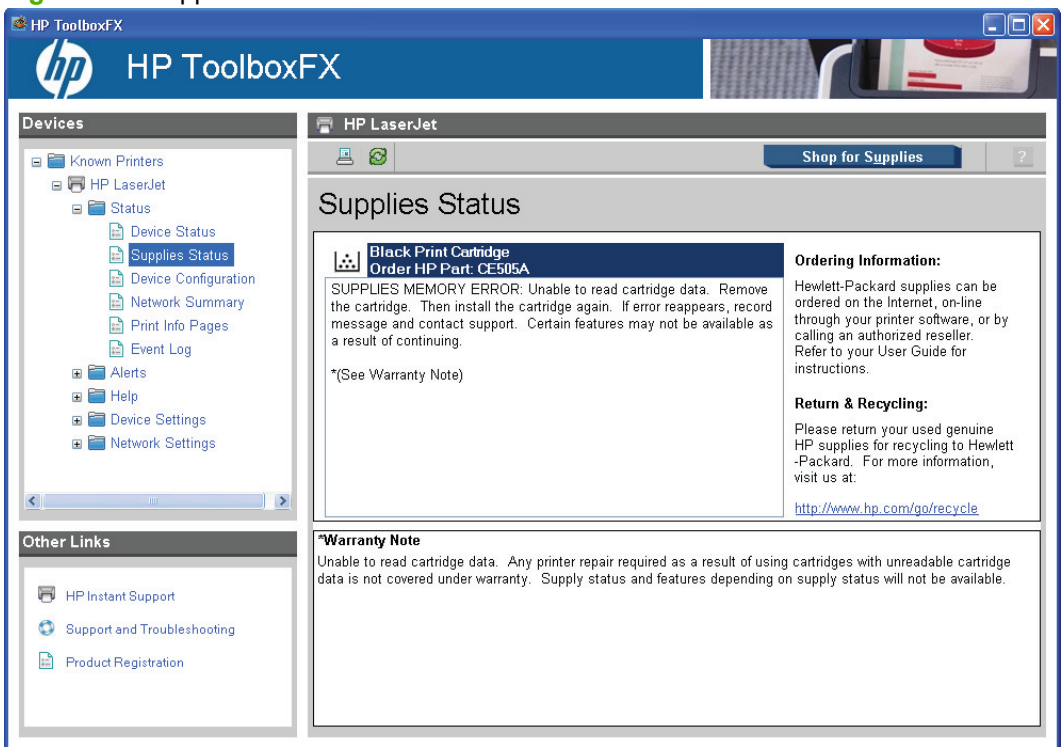


NOTE: The products include a Supplies Status section and a Supplies Information section on the **Device Status** screen, which provide information about the estimated toner level, the approximate pages remaining based on the estimated toner level, and the HP part number for easy reference when ordering new consumables.

Supplies Status

The **Supplies Status** screen provides detailed information about the print cartridge. This information is not available if a non-HP cartridge is installed in the product.

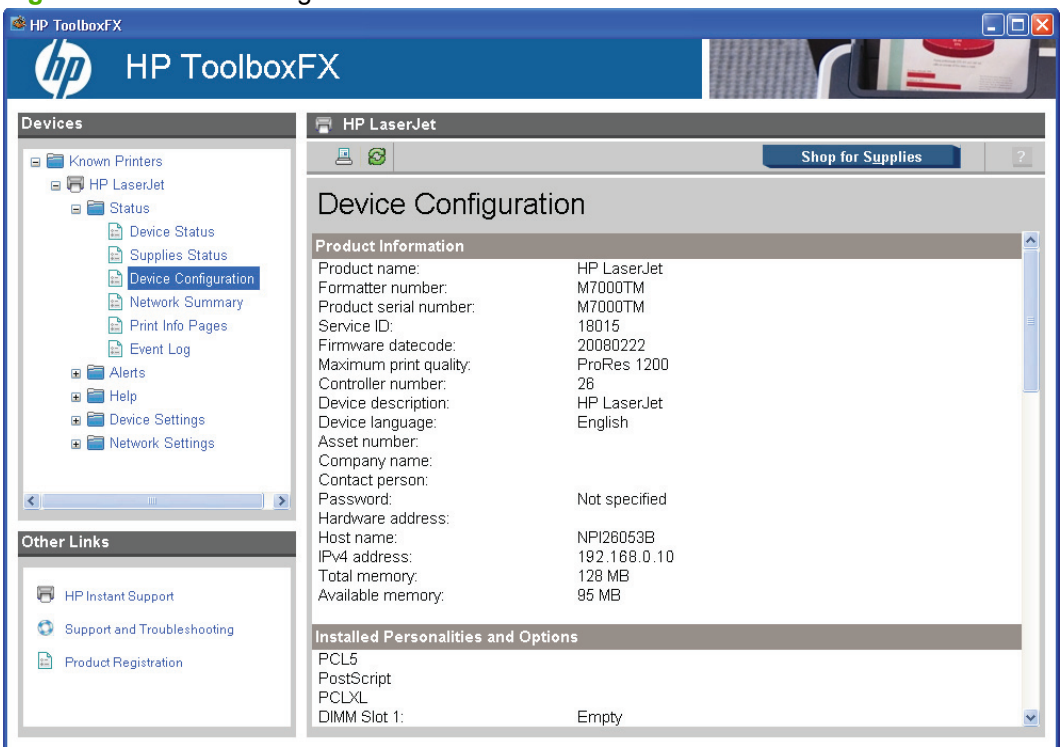
Figure 2-3 Supplies Status screen



Device Configuration

The **Device Configuration** screen shows the values for all of the settings available for the product and other configuration items, such as installed DIMMs, personalities, and page counts. The contents of this screen should be consistent with the configuration page that the product generates.

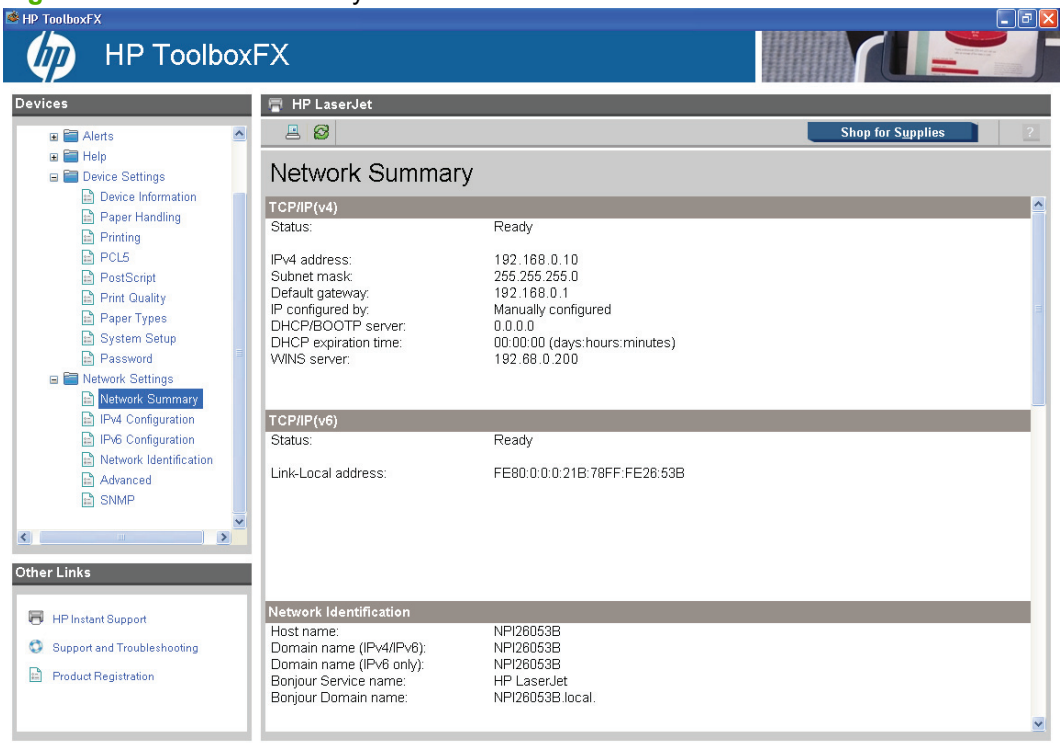
Figure 2-4 Device Configuration screen



Network Summary

The **Network Summary** screen shows the values for all of the network settings that are available for the product. The contents of this screen should be consistent with the configuration page that the product generates.

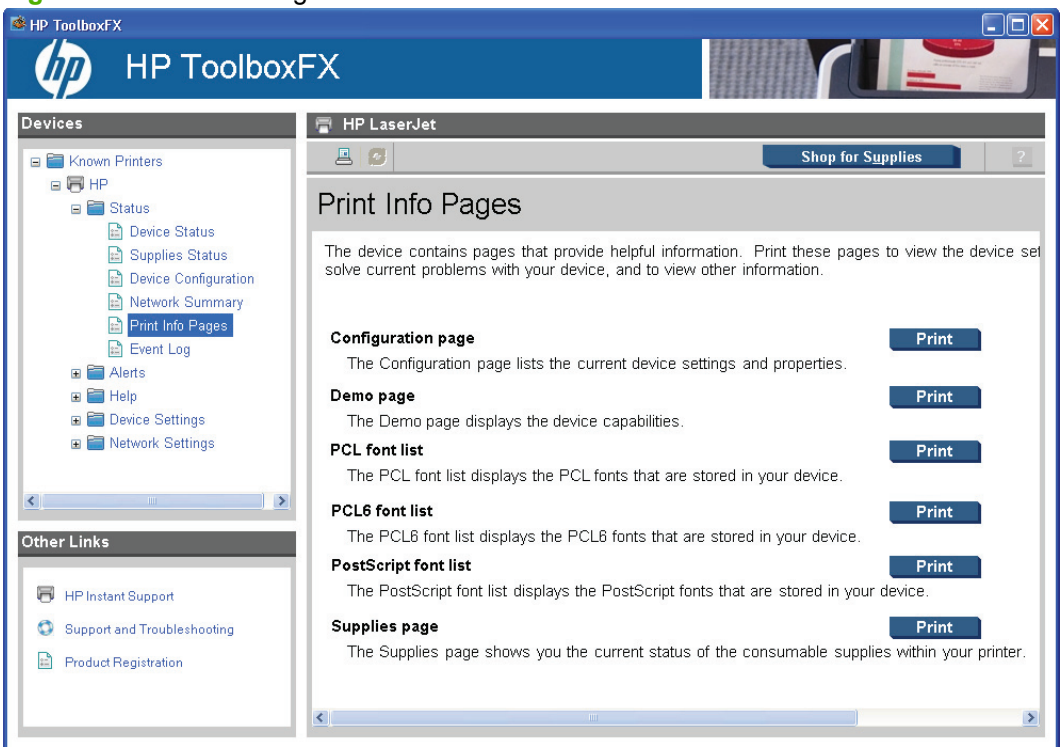
Figure 2-5 Network Summary screen



Print Info Pages

Use the **Print Info Pages** screen to print out the internal special pages that the product generates. Click **Print** next to the name of the page that you want to print.

Figure 2-6 Print Info Pages screen

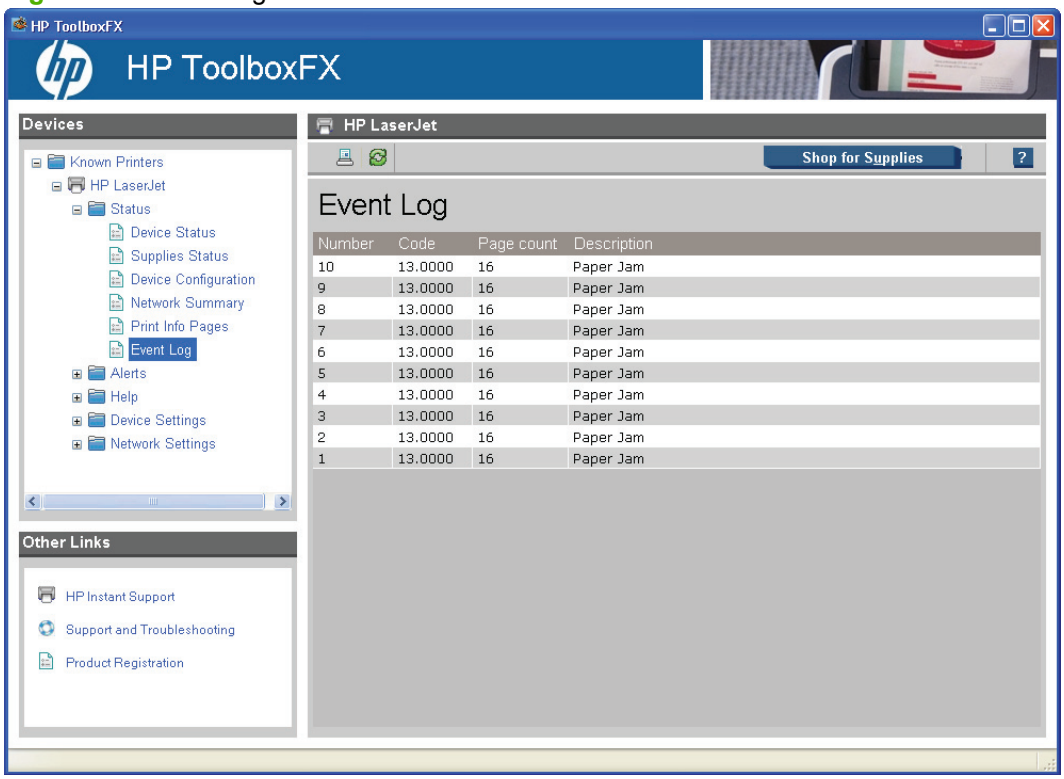


The contents of these reports are generated by the product firmware, *not* by HP ToolboxFX.

Event Log

Use the **Event Log** screen to monitor events for the product. Up to 10 events can appear on this screen. If this screen is empty, no events have occurred on the product.

Figure 2-7 Event Log screen



Alerts folder

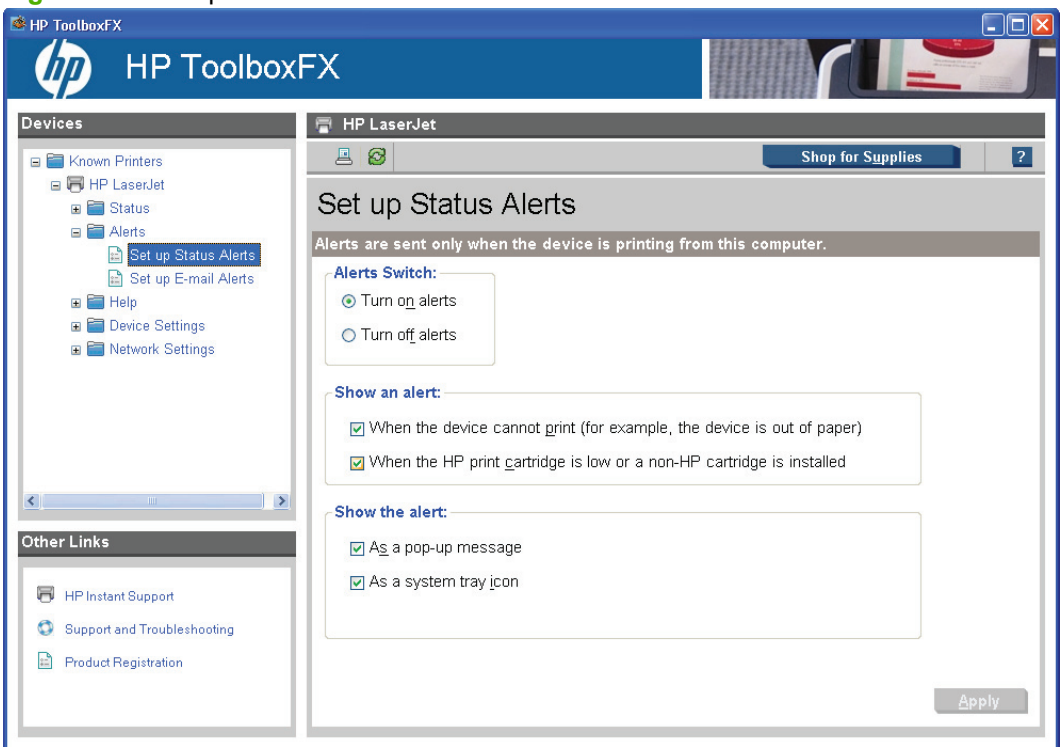
The **Alerts** folder contains the following sub-folders:

- Set up Status Alerts
- Set up E-mail Alerts

Set up Status Alerts

Use the **Set up Status Alerts** screen to set up status alerts for the product. Select the **Turn on alerts** option, and then click **Apply** to turn on alerts.

Figure 2-8 Set up Status Alerts screen



Select the options under **Show an alert** to receive alerts for product or print cartridge issues.

Select one or more alert formats under **Show the alert**.

- Pop-up message
- System tray icon

NOTE: Click **Apply** to make the changes take effect.

Set up E-mail Alerts

Use the **Set up E-mail Alerts** screen to set up e-mail alerts for the product.

Figure 2-9 Set up E-mail Alerts screen – 1 of 2

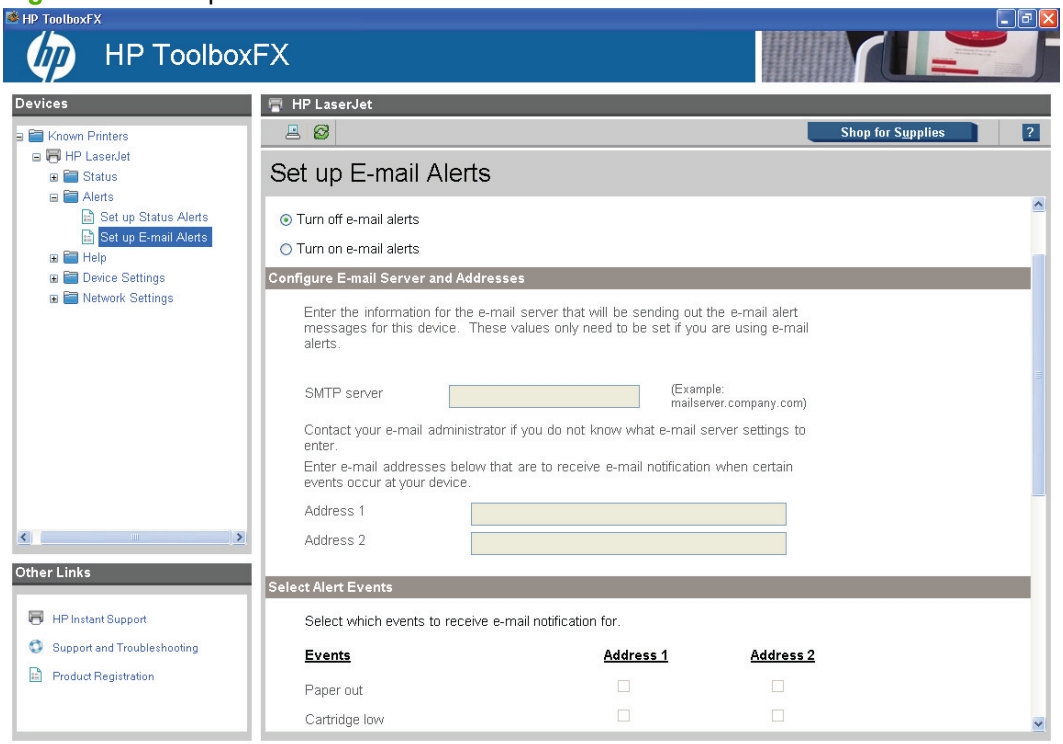
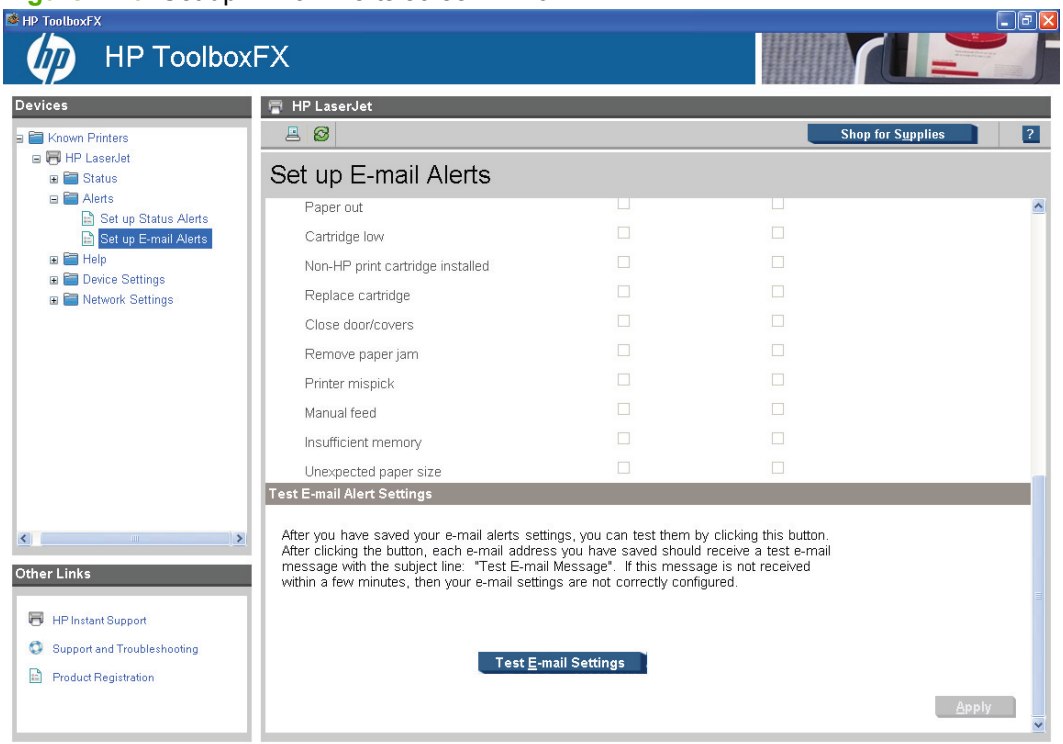


Figure 2-10 Set up E-mail Alerts screen – 2 of 2



E-mail messages can be sent when certain events occur at the product. Select the specific events for which you want notification.

To use this feature, use a valid e-mail address, select the events for which you want notification, configure the SNMP e-mail server that will be used to send the e-mail message, and then click **Apply** to save the settings.

Up to two e-mail addresses can be configured to receive separate e-mail messages for separate events.

To ensure that the correct e-mail addresses have been used and that the SNMP server information is valid, click the **Test E-mail Settings** button.

NOTE: Click **Apply** to make the changes take effect.

Help folder

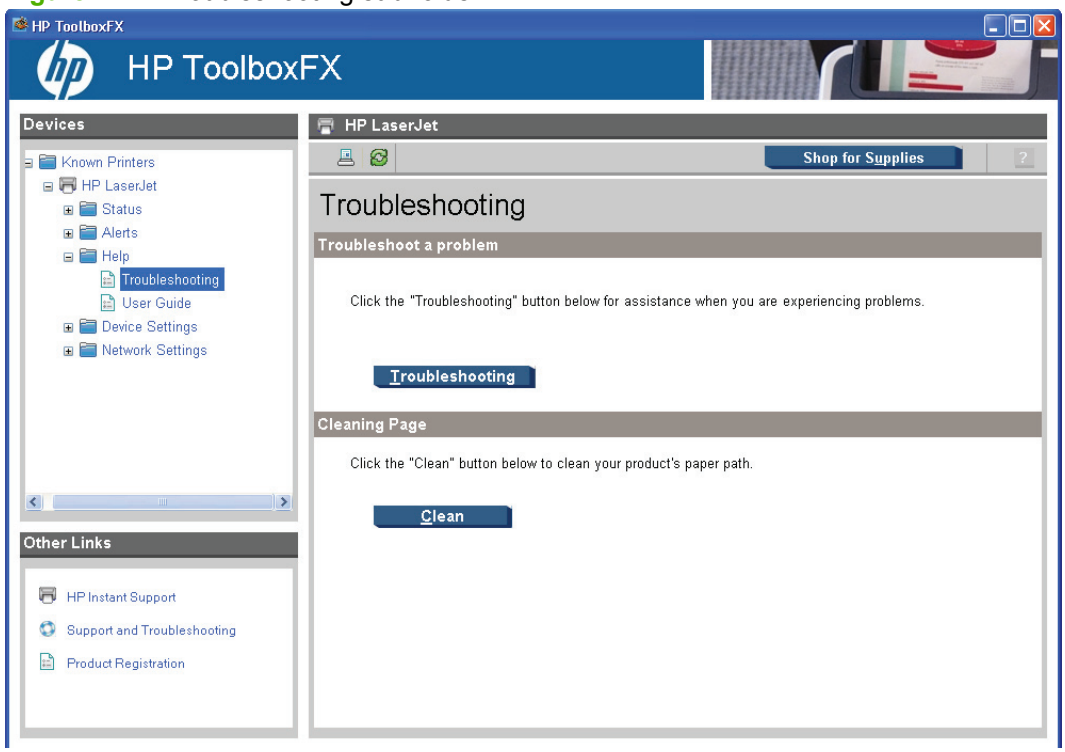
The **Help** folder contains the following sub-folders:

- Troubleshooting
- User Guide

All of the content in the **Help** folder is static HTML content, except for the animated demonstrations. This content contains hyperlinks, and **Next** and **Previous** buttons that can be used to navigate through the various sections of the Help content.

Troubleshooting

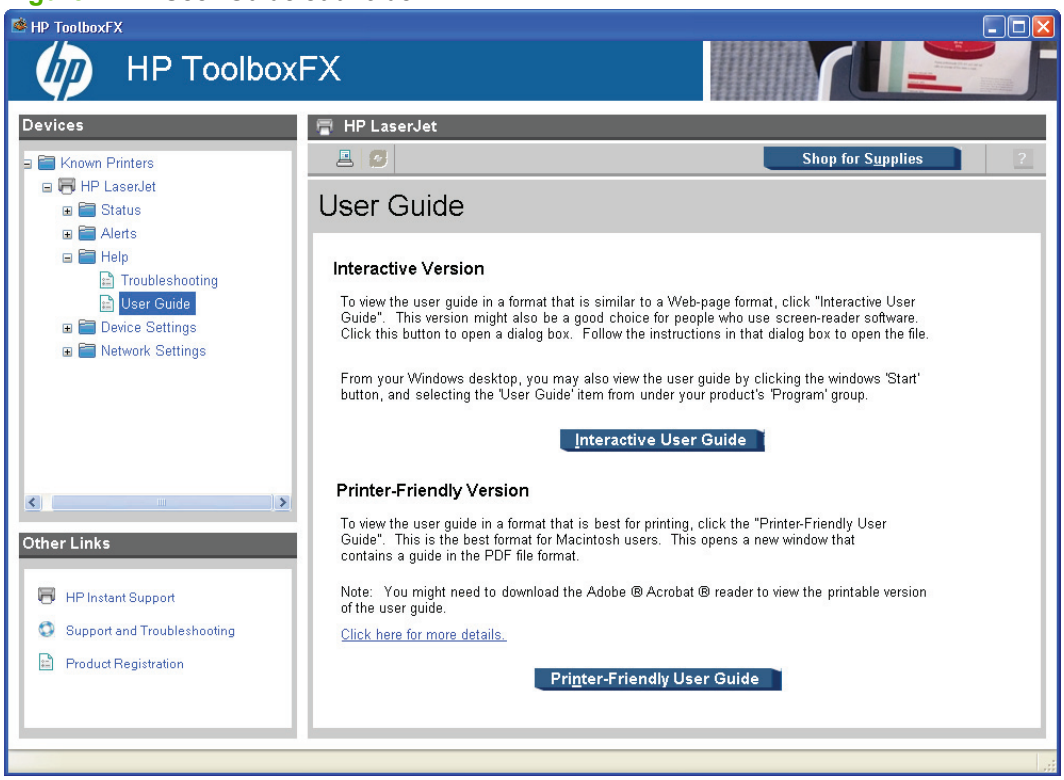
Figure 2-11 Troubleshooting sub-folder



Click **Troubleshooting** on the **Troubleshooting** screen to gain access to the “Solve problems” chapter of the user guide.

User Guide

Figure 2-12 User Guide sub-folder



Use the **User Guide** screen to open the product user guide in either a Web-based format or in the PDF file format.

Device Settings folder

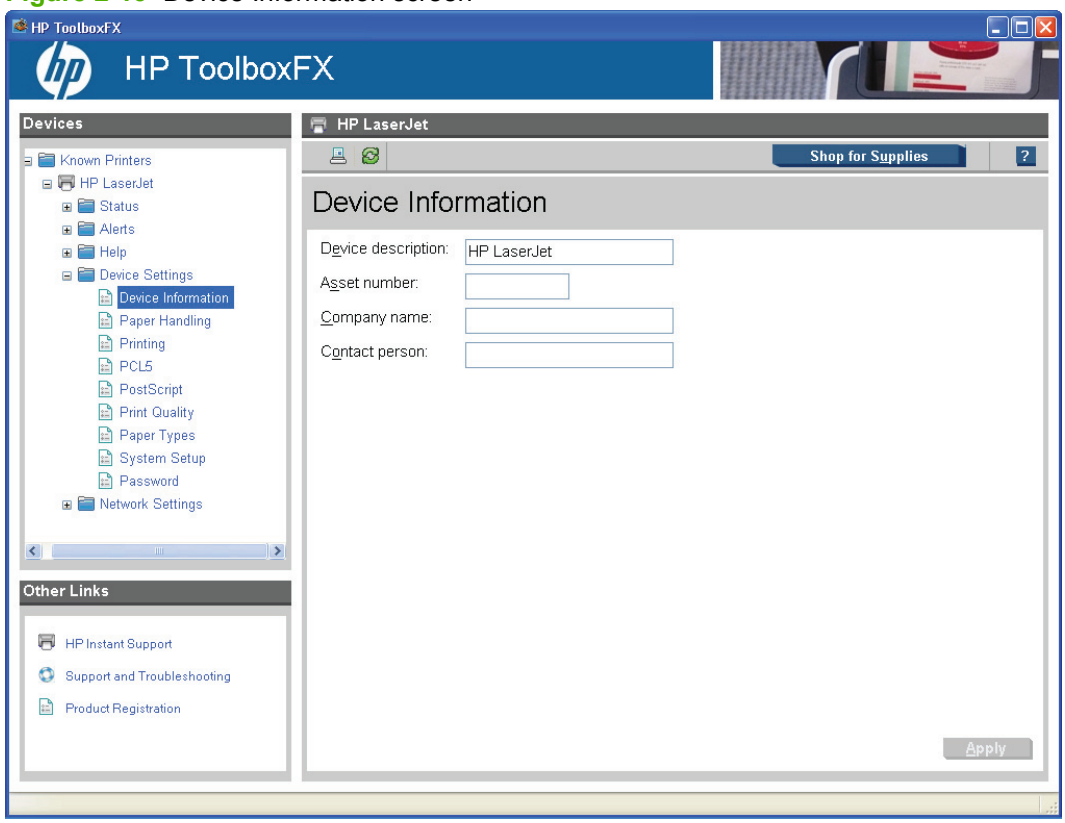
The **Device Settings** folder contains the following sub-folders:

- Device Information
- Paper Handling
- Printing
- PCL5
- PostScript
- Print Quality
- Paper Types
- System Setup
- Password

Device Information

Use the **Device Information** screen to add or change information about the product.

Figure 2-13 Device Information screen

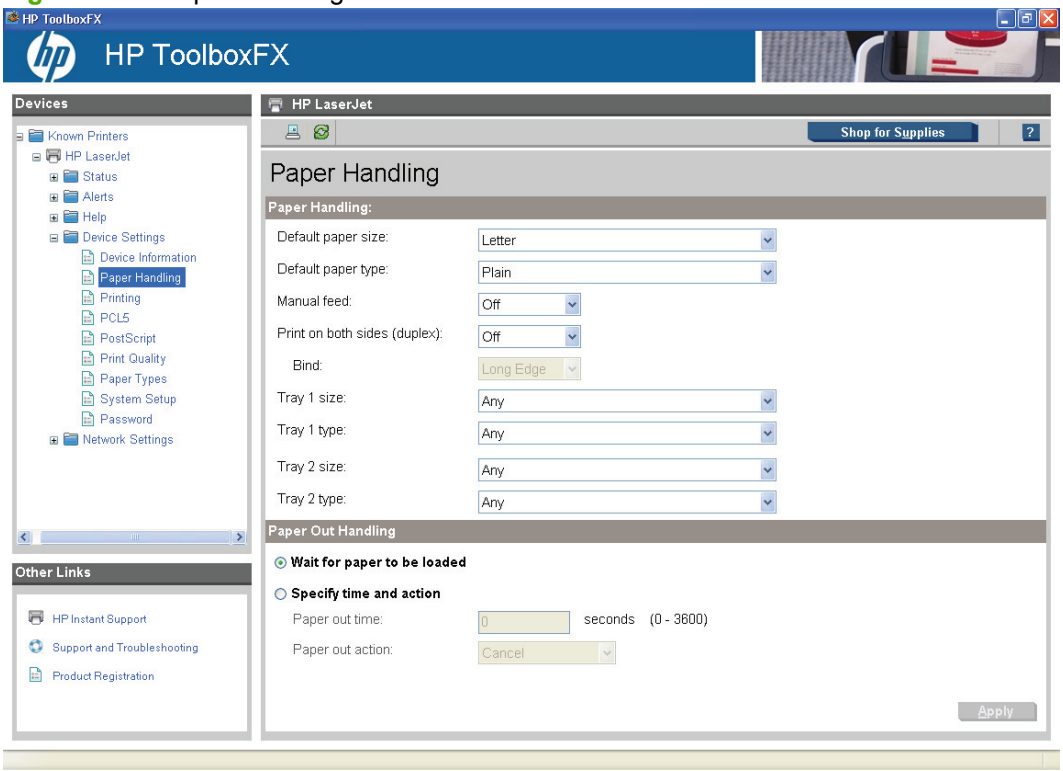


NOTE: Click **Apply** to make the changes take effect.

Paper Handling

Use the **Paper Handling** screen to change the paper-handling defaults for the product.

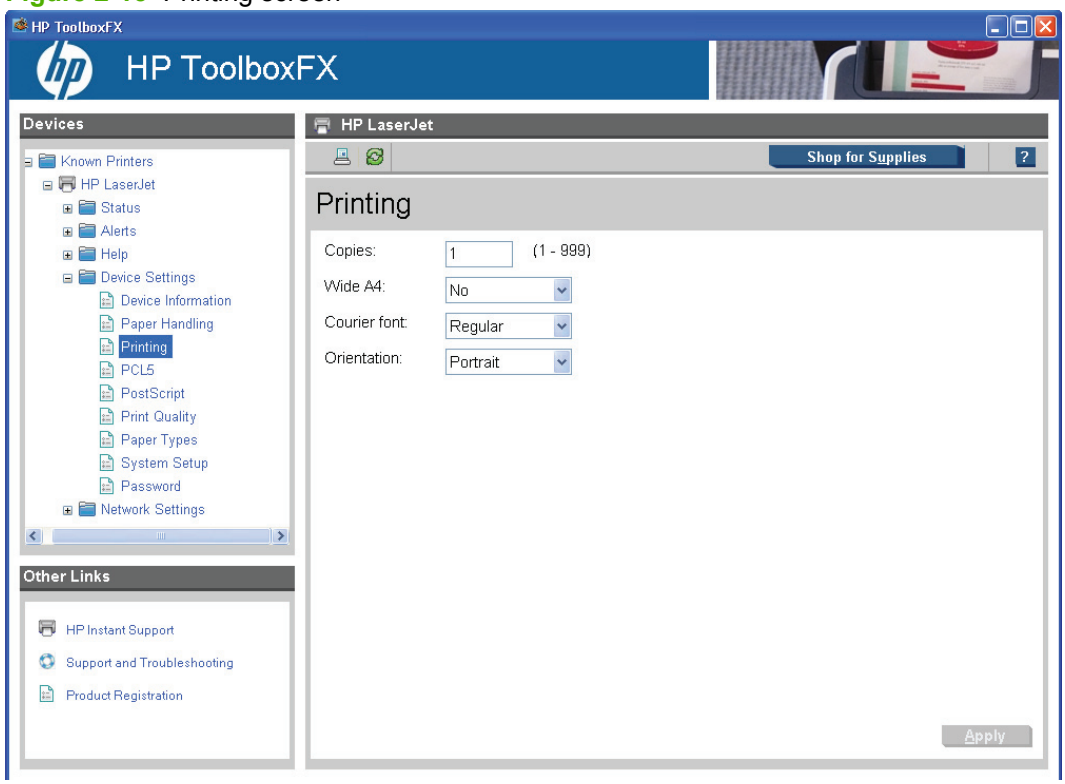
Figure 2-14 Paper Handling screen



Printing

Use the **Printing** screen to change the product printing defaults.

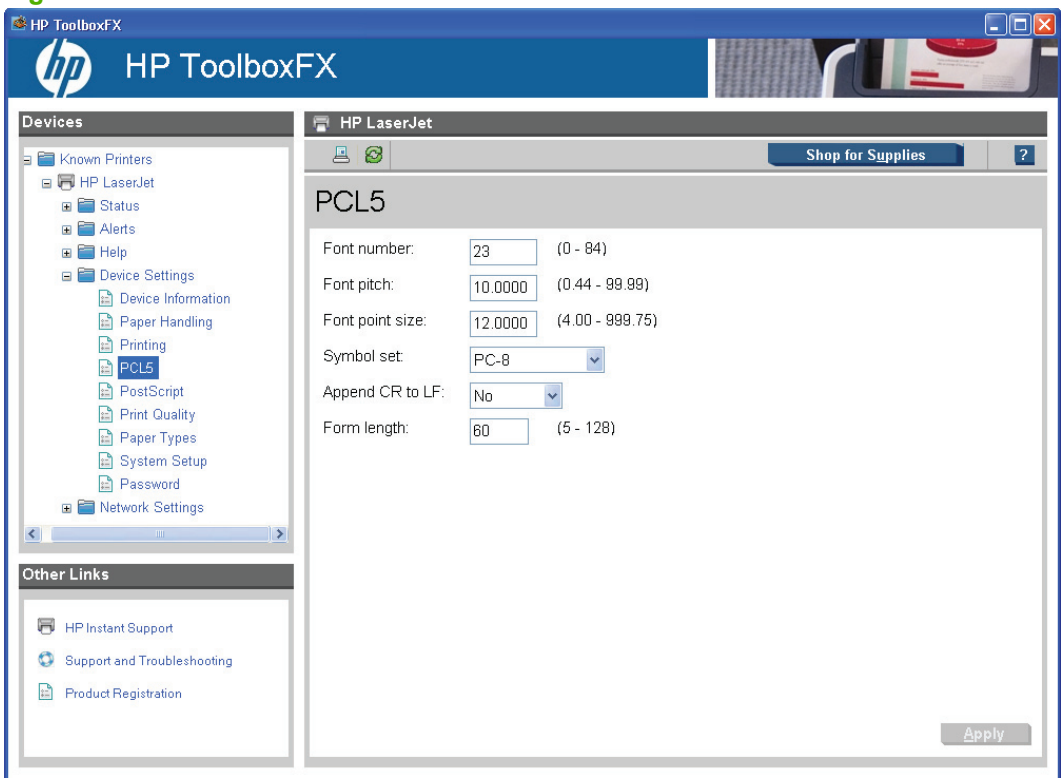
Figure 2-15 Printing screen



PCL5

Use the **PCL5** screen to change the PCL defaults for the product.

Figure 2-16 PCL5 screen

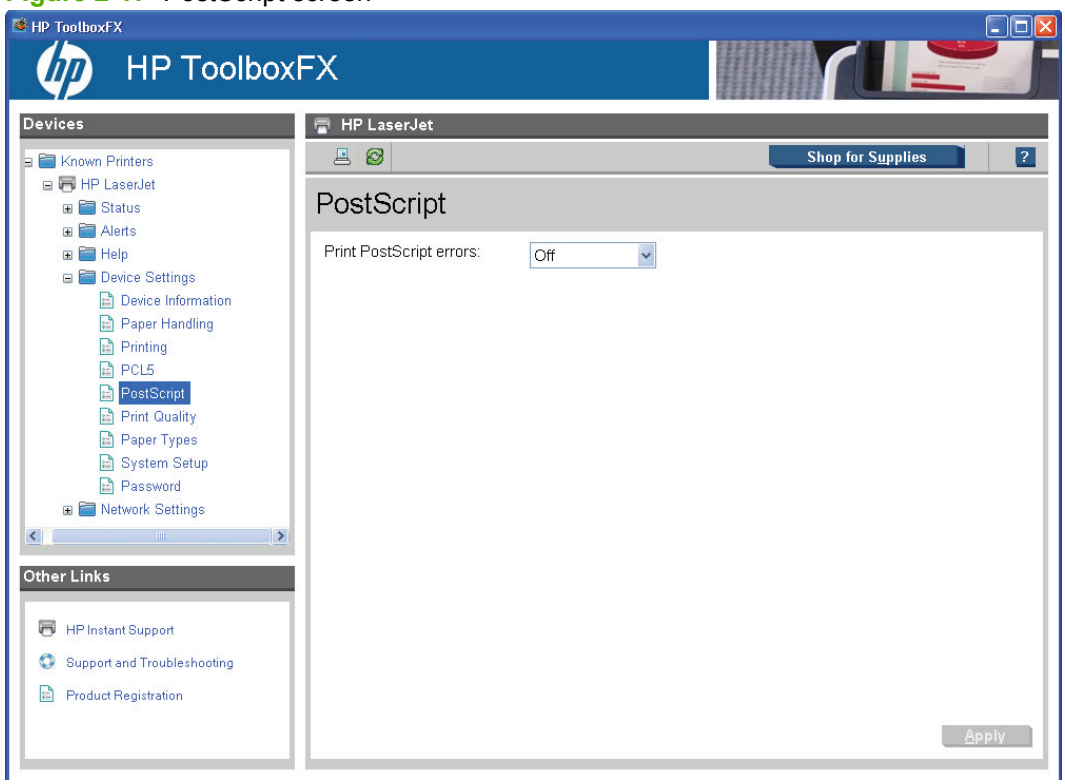


NOTE: Click **Apply** to make the changes take effect.

PostScript

Use the **PostScript** screen to change the PostScript defaults for the product.

Figure 2-17 PostScript screen

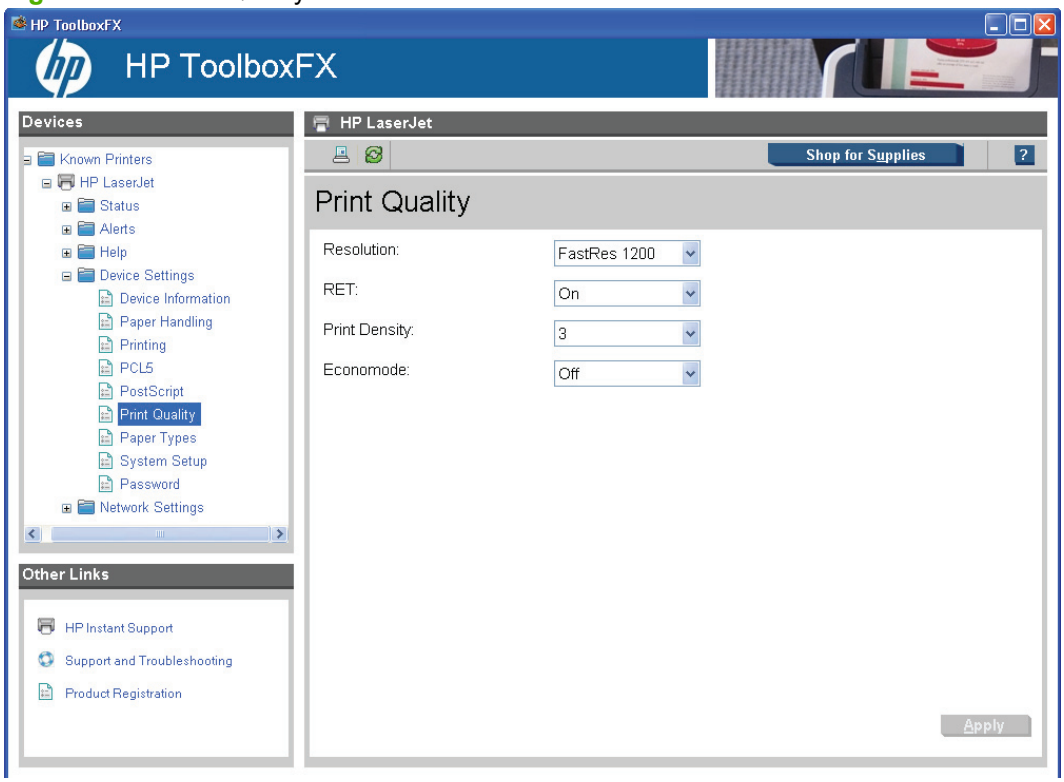


NOTE: Click **Apply** to make the changes take effect.

Print Quality

Use the **Print Quality** screen to change the print-quality defaults for the product.

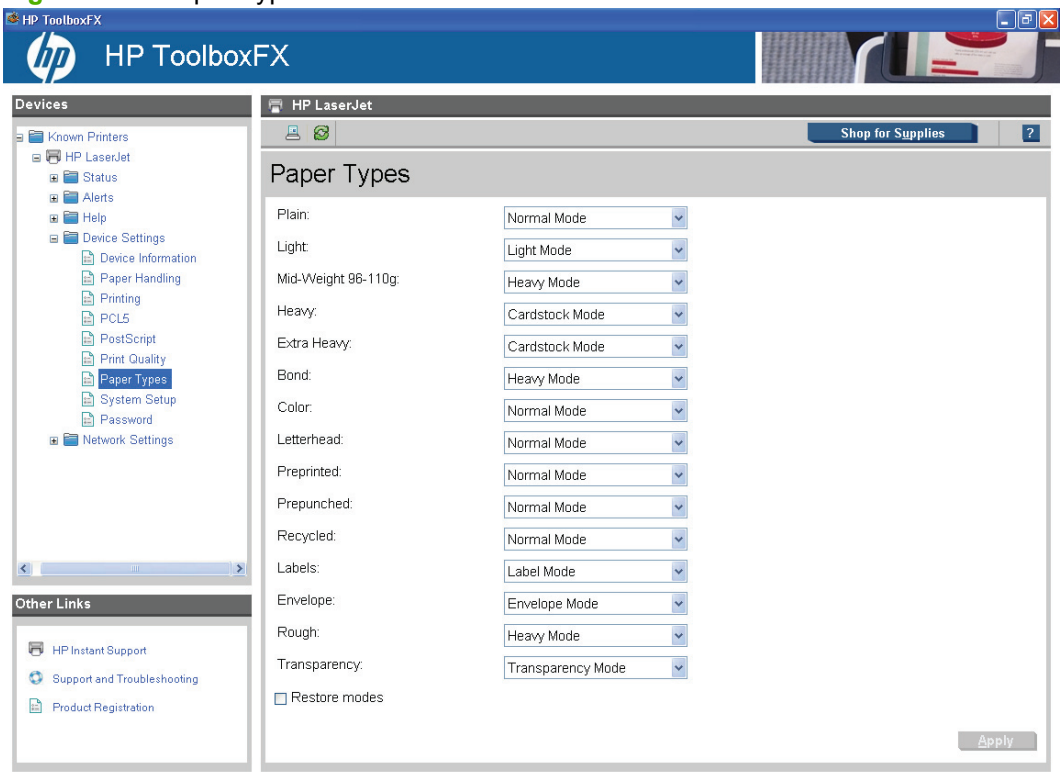
Figure 2-18 Print Quality screen



Paper Types

Use the **Paper Types** screen to configure the standard print modes that correspond to the various paper types.

Figure 2-19 Paper Types screen



NOTE: Not all of the paper types listed in the driver can be adjusted on the **Paper Types** screen.

The following table shows the paper types that the product supports, and the default fuser mode for each type.

Table 2-1 Standard print modes

Standard print modes	Extended print modes	Sensor correlation prefix	Default paper types
Normal Mode	None	PlainFull	Plain, Light, Bond, Color, Letterhead, Preprinted, Prepunched, Recycled
Heavy Mode	None	PlainHalf	Mid-Weight, Heavy, Extra Heavy, Bond, Color, Letterhead, Preprinted, Prepunched, Recycled, Labels, Envelope, Rough
Cardstock Mode	None	PlainHalf	Plain, Mid-Weight, Heavy, Extra Heavy, Bond, Color, Letterhead, Preprinted, Prepunched, Recycled, Labels, Rough
Light Mode	None	PlainFull	Plain, Light, Color, Letterhead, Preprinted, Prepunched, Recycled, Transparency

Table 2-1 Standard print modes (continued)

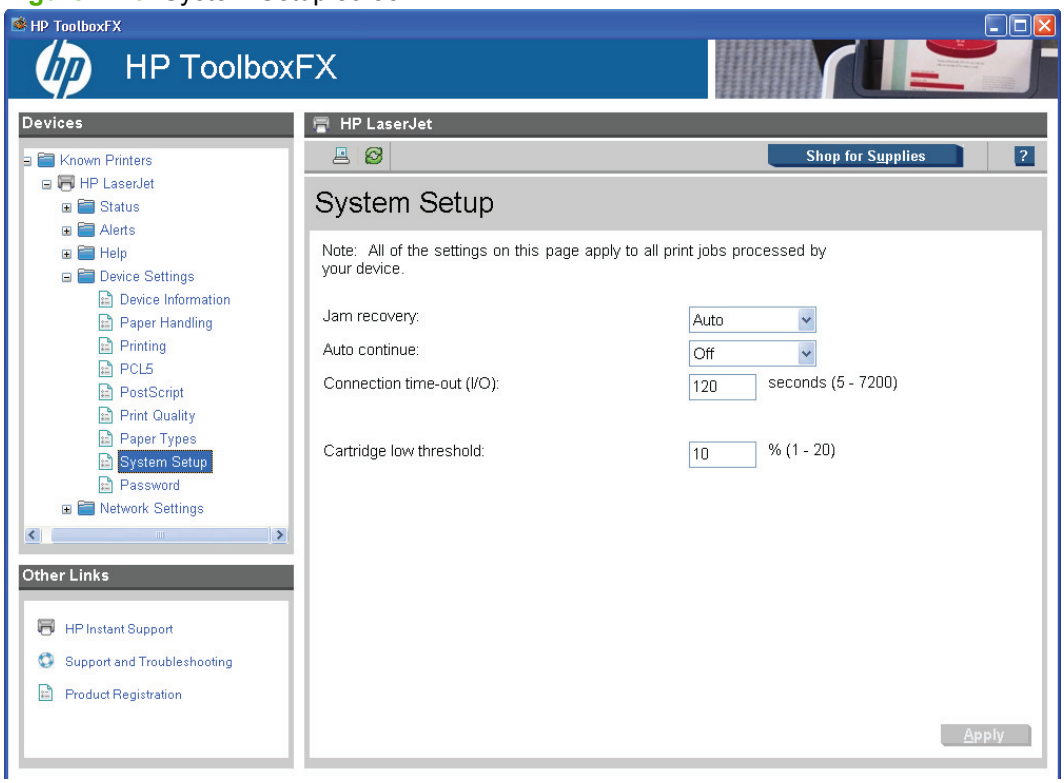
Standard print modes	Extended print modes	Sensor correlation prefix	Default paper types
Transparency Mode	None	Glossy	Plain, Light, Color, Letterhead, Preprinted, Prepunched, Recycled, Transparency
Label Mode	None	PlainHalf	Plain, Color, Letterhead, Preprinted, Prepunched, Recycled, Labels
Envelope Mode	None	PlainHalf	Plain, Color, Letterhead, Preprinted, Prepunched, Recycled, Envelope

A print mode is a special setting that controls the print speed and the product fuser temperature. The product speed and fuser temperature are adjusted to match the selected print mode, which can result in better print quality when printing on certain media types.

System Setup

Use the **System Setup** screen to change the system defaults for the product.

Figure 2-20 System Setup screen



The following **Jam recovery** settings are available:

- Auto (default)
- On
- Off

The following **Auto continue** settings are available:

- On
- Off (default)

Set the **Connection time-out (I/O)** setting to any value from 5 to 7200 seconds.

Set the **Cartridge low threshold** setting to any value from 1% to 20%. The **Cartridge low threshold** option sets the percentage threshold that triggers a toner-low alert in HP ToolboxFX.

NOTE: Click **Apply** to make the changes take effect.

Password

Use the **Password** screen to set a password for the product.

Figure 2-21 Password screen

Network administrators can set user passwords to protect network settings. After a password is set, only users who know the password have access to the **Network Settings** folder. If a password has been set, users are prompted to type the password. If the typed-in password matches the password stored in the product, users can navigate through the **Network Settings** screens and make changes to the settings. Users who do not type the correct password within three attempts are not allowed access to the **Network Settings** screens.

If the password is lost or forgotten, the factory settings for the product must be restored and a new password assigned.

NOTE: Click **Apply** to make the changes take effect.

Network Settings folder

Network models contain onboard networking support. They do not require the use of an external Jetdirect box for network connectivity. Use the **Network Settings** options to configure the network settings for the product.

For network installations, HP ToolboxFX communicates with the product by using the network settings that appear on the following **Network Settings** sub-folder screens:

- Network Summary
- IPv4 Configuration
- IPv6 Configuration
- Network Identification
- Advanced
- SNMP

△ **CAUTION:** Changing network settings can cause communication problems between HP ToolboxFX and the product.

Network Summary

The **Network Summary** screen shows the overall network settings, which can be adjusted on the **Network Settings** sub-folders.

Figure 2-22 Network Summary screen (1 of 3)

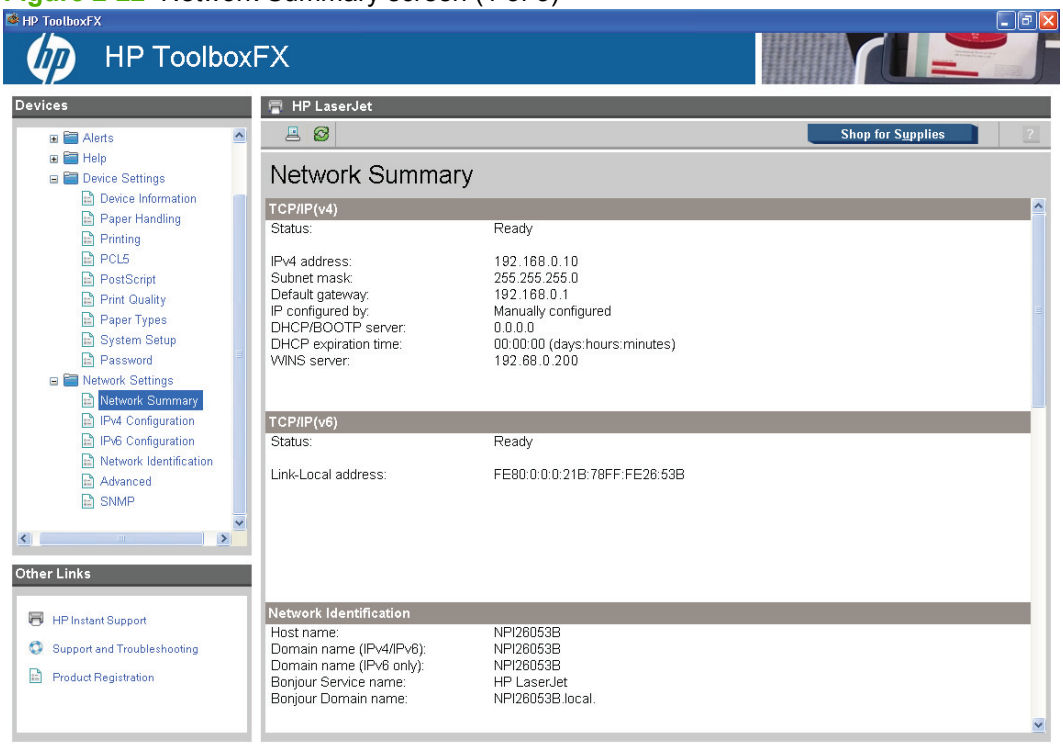


Figure 2-23 Network Summary screen (2 of 3)

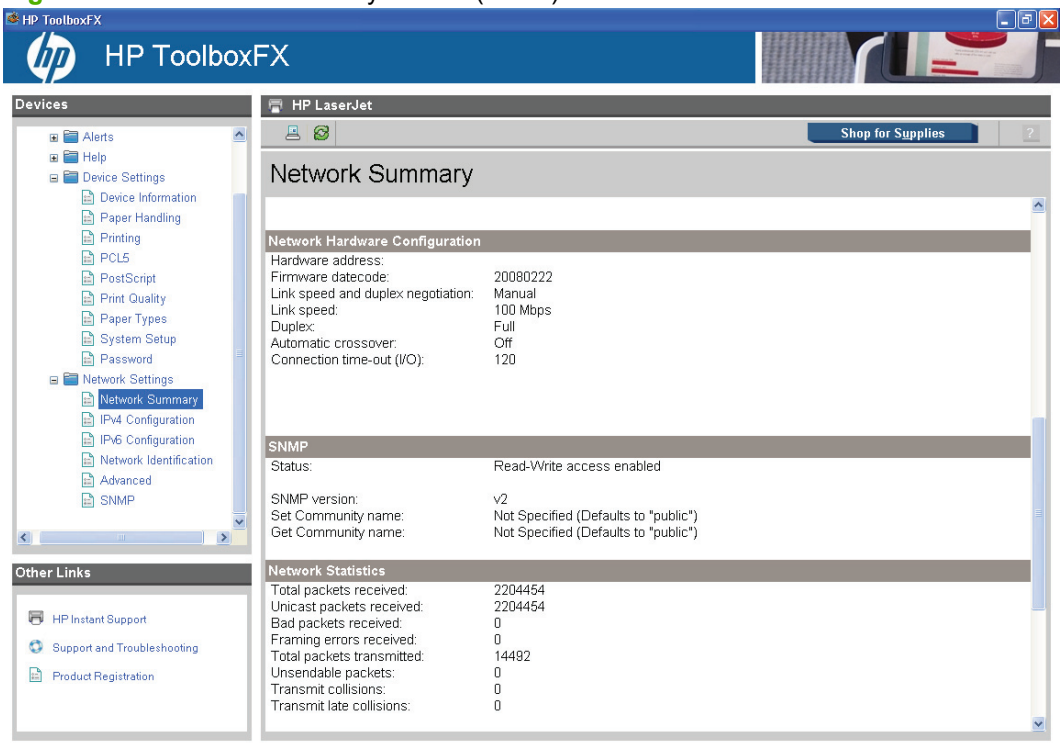
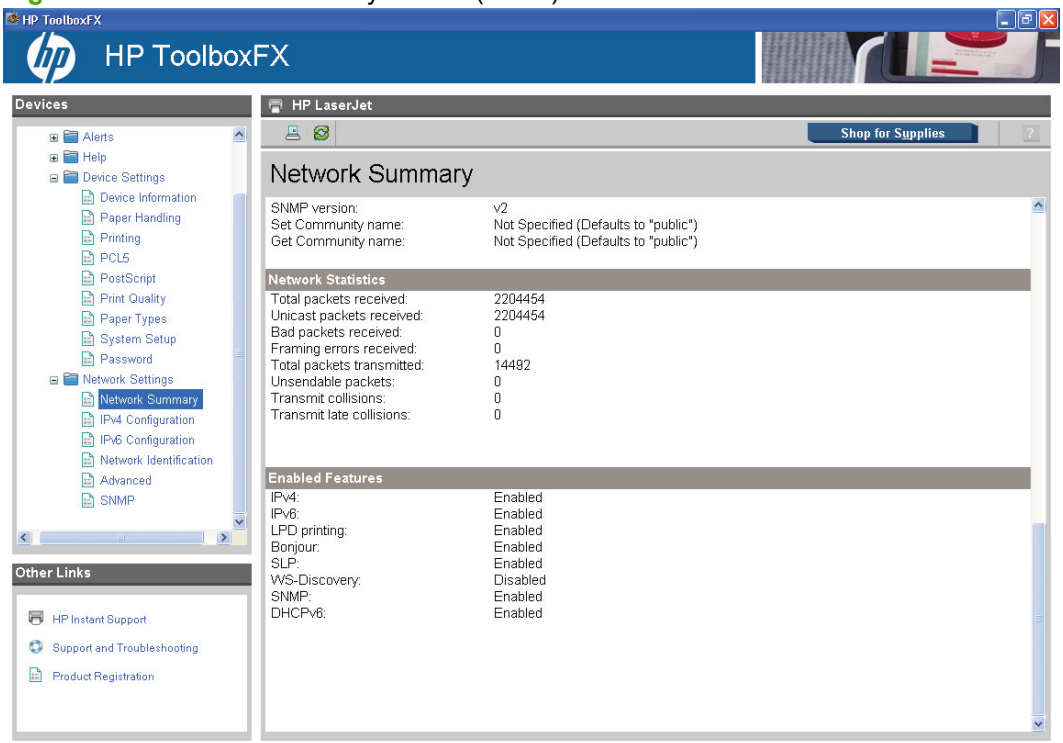


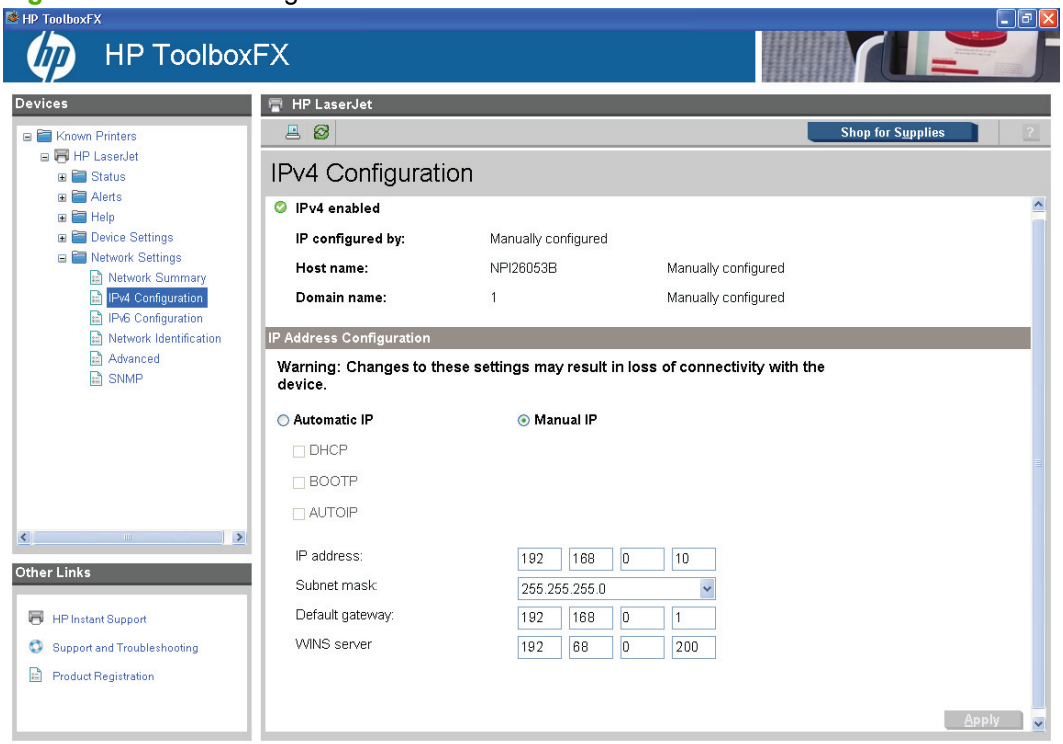
Figure 2-24 Network Summary screen (3 of 3)



IPv4 Configuration

The **IPv4 Configuration** screen shows the settings for IPv4 network configuration. After changing these settings, click **Apply** to save the changes. The product is restarted after the settings are changed.

Figure 2-25 IPv4 Configuration screen



The **IPv4 Configuration** screen shows the product host name and domain. By default, the product uses automatic IP configuration. Use this screen to configure the IP address manually.

The following **IP Address Configuration** options are available:

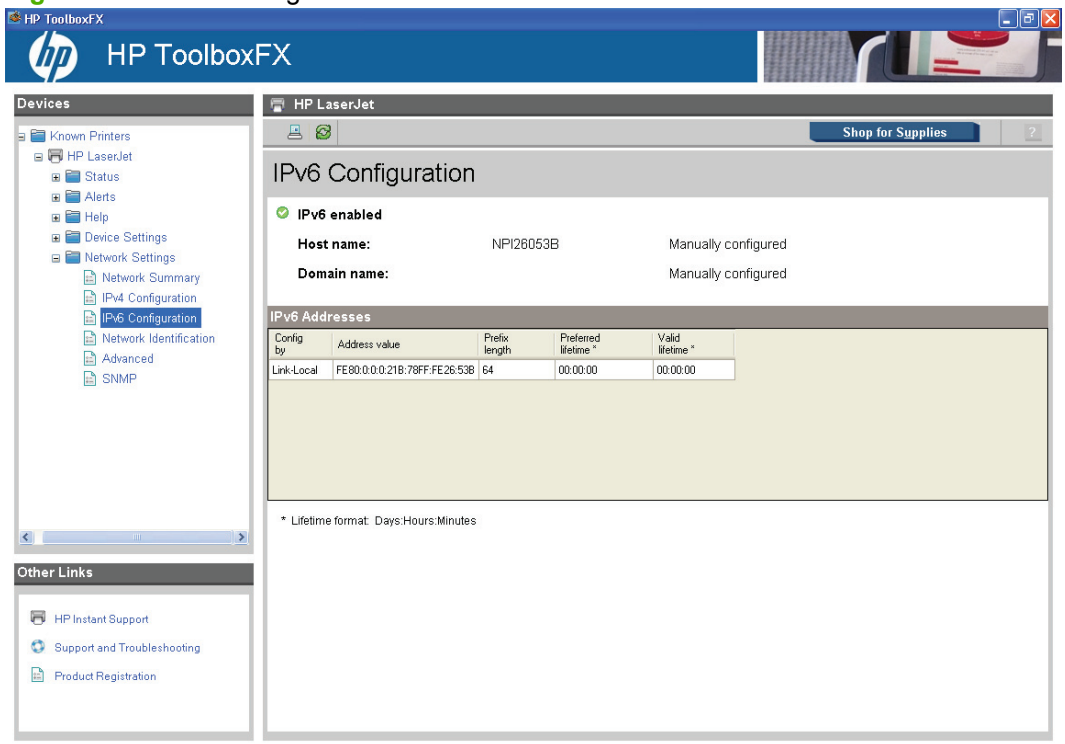
- **Automatic IP**. This option is selected by default. It causes the product to obtain a TCP/IP address from a Dynamic Host Configuration Protocol (DHCP) server, BOOTP server, or AUTOIP.
- **Manual IP**. Select Manual IP to manually specify an Internet Protocol (IP) address (also known as a static IP address). If you select this option, specify an IP address in the **IP address**, **Subnet mask**, **Default gateway**, and **WINS server** fields.

NOTE: Click **Apply** to make the changes take effect.

IPv6 Configuration

The **IPv6 Configuration** screen shows the settings for IPv6 network configuration.

Figure 2-26 IPv6 Configuration screen

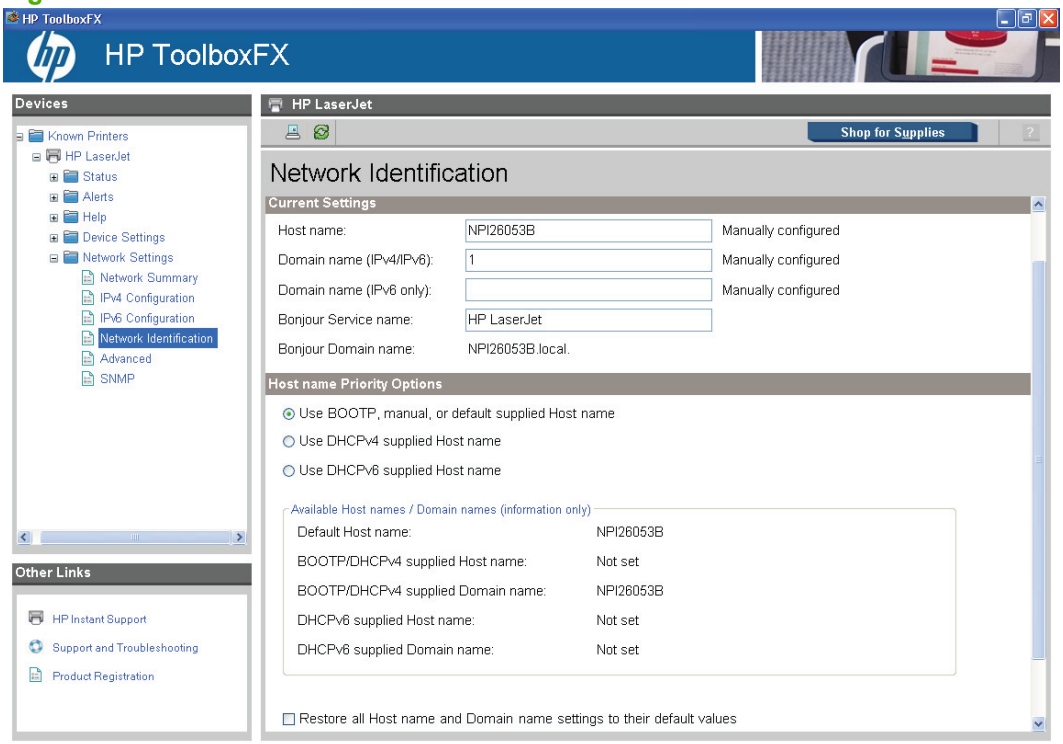


The **IPv6 Configuration** screen shows the product host name and domain. By default, the product uses automatic IP configuration.

Network Identification

The **Network Identification** screen shows the settings for IPv6 network configuration.

Figure 2-27 Network Identification screen



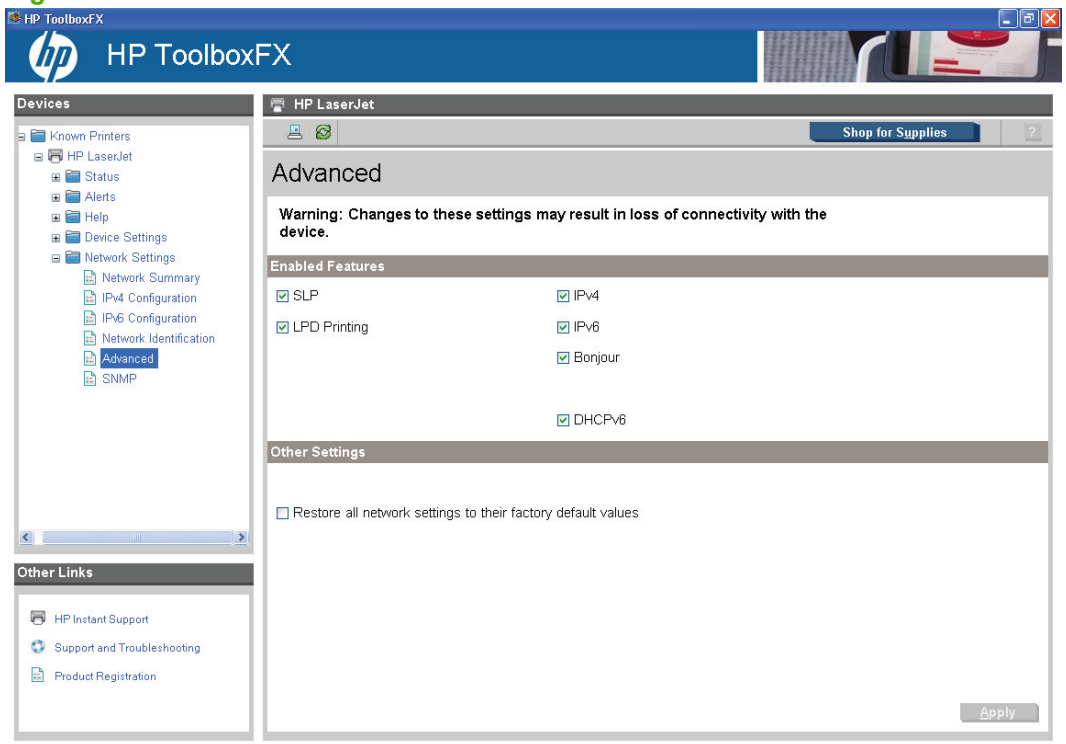
The **Network Identification** screen shows the product host and domain name settings.

Click **Apply** to make the changes take effect.

Advanced

Use the **Advanced** screen to set advanced networking features for the product.

Figure 2-28 Advanced screen



The following options and settings are available on the **Advanced** screen.

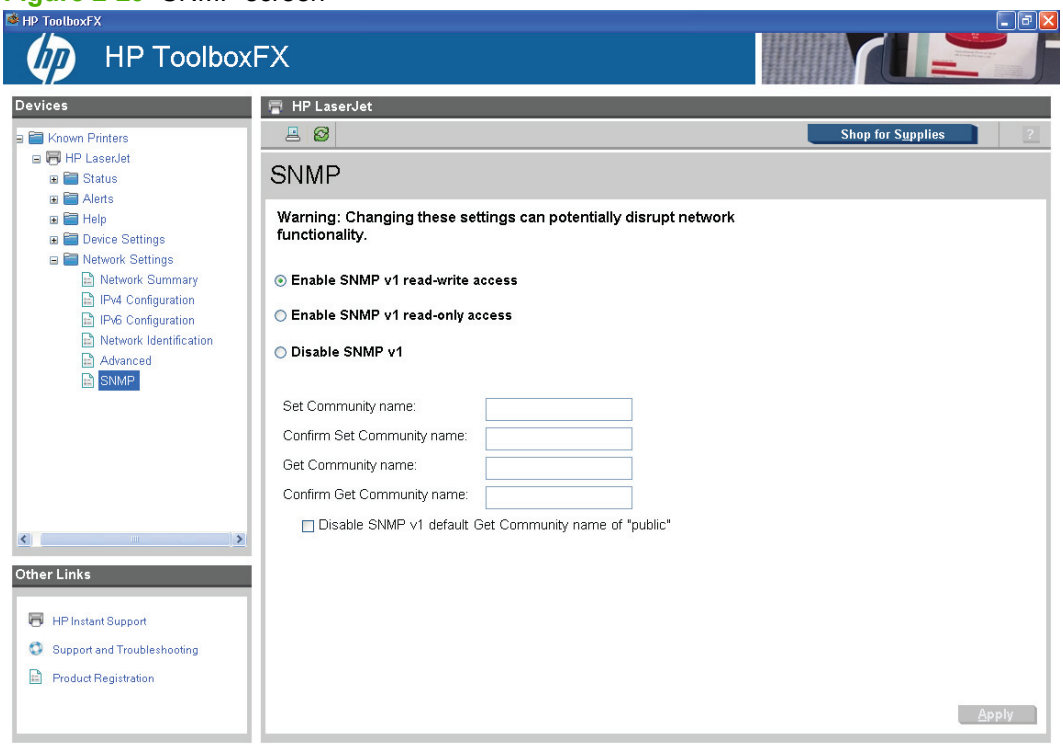
- HP SLP Discovery (enabled by default)
- LPD Printing (enabled by default)
- IPv4
- IPv6
- Bonjour
- DHCPv6

Click **Apply** to make the changes take effect.

SNMP

Use the **SNMP** screen to set SNMP networking features for the product.

Figure 2-29 SNMP screen



The following options are available on the **SNMP** screen:

- **Enable SNMP v1 read-write access**. Select this option to enable SNMP V1 agents on the product. Custom community names can be configured to control management access to the product.
    - **Set Community name:** Type the SNMP Set Community Name (password) to allow SNMP information to be configured (or written) on the product.
    - **Confirm Set Community name:** Retype the SNMP Set Community Name (password) to allow SNMP information to be configured (or written) on the product.
    - **Get Community name:** Type the SNMP Get Community Name (password) to allow SNMP information to be read from the product.
    - **Confirm Get Community name:** Retype the SNMP Get Community Name (password) to allow SNMP information to be read from the product.
    - **Disable SNMP v1 default Get Community name of "public"**. Select this option to disable the default Get community name "public". If you select this option, type the appropriate values into the **Get Community name** and **Confirm Get Community name** fields.
- **Enable SNMP v1 read-only access**. Select this option to enable the SNMP V1 agents on the product, but limit access to read-only. Write-access is disabled. The default **Get Community name** "public" is automatically enabled.
- **Disable SNMP v1**. Select this option to disable the SNMP V1 agents on the product, which is recommended for secure environments. If SNMP V1 is disabled, some port monitors or discovery utilities might not operate properly.

NOTE: Click **Apply** to make the changes take effect.

Other screens

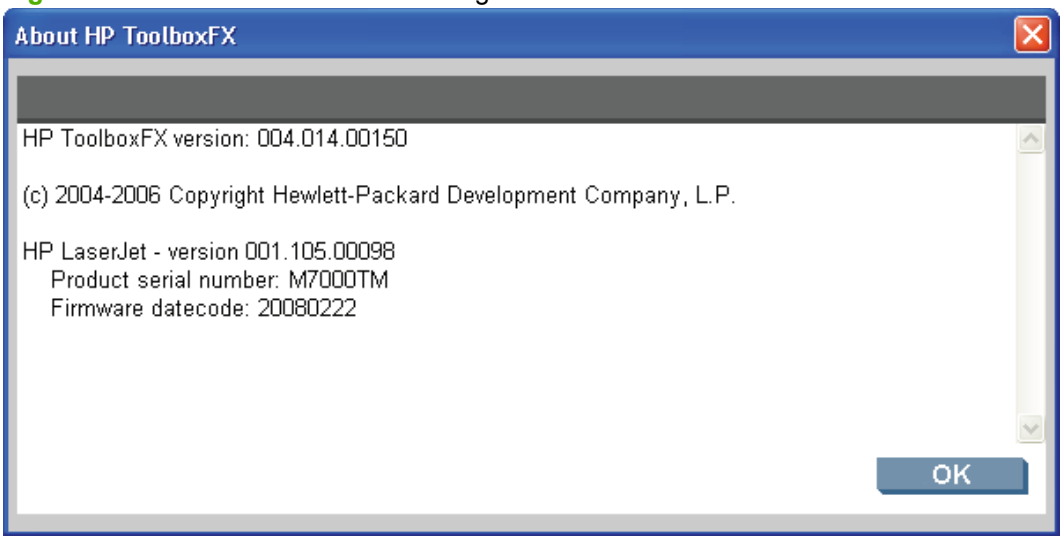
The following table lists screens that are also available through HP ToolboxFX.

Screen	Access
About HP ToolboxFX screen	Click the HP logo that appears in the upper-left corner of HP ToolboxFX screens.
HP Instant Support	Click the **HP Instant Support** link in the **Other Links** box that appears on all HP ToolboxFX and HP EWS screens.
Support and Troubleshooting screen	Click the **Support and Troubleshooting** link in the **Other Links** box that appears on all HP ToolboxFX and HP EWS screens.
Product Registration screen	Click the **Product Registration** link in the **Other Links** box that appears on all HP ToolboxFX and HP EWS screens.
Supplies Ordering screen	Click the **Shop for Supplies** button in the upper-right corner of the HP ToolboxFX screens.

About HP ToolboxFX dialog box

Click the HP logo in the HP ToolboxFX heading banner on any HP ToolboxFX screen to gain access to the **About HP ToolboxFX** dialog box. This dialog box shows the software version number and a copyright notice. This dialog box also shows the version number for each HP ToolboxFX product that is installed.

Figure 2-30 About HP ToolboxFX dialog box



HP Instant Support

Click **HP Instant Support** to open help based on information sent from the product to the HP Web site. The help includes recommendations for troubleshooting, firmware upgrades, and reference documentation that is customized to respond to the most recent events that have occurred on the product.

Support and Troubleshooting

The **Support and Troubleshooting** link connects you to a Web page that contains links to online support for the product.

Product Registration

The **Product Registration** link connects you to a Web page where you can register the product.

Supplies Ordering

The **Supplies Ordering** link connects to a Web page that helps you order supplies online from a reseller of your choice. The product supplies are pre-selected. Change quantities or select additional items. The items are dropped into the shopping cart, ready for checkout, ensuring that the correct supplies are ordered through the selected reseller.

HP Embedded Web Server

The HP Embedded Web Server (HP EWS) is a Web-based application that allows users to control settings on the network-connected product through a Web browser. To open the HP EWS, open a Web browser and type the product IP address in the address bar. The product IP address appears on the **Network Configuration** screen in HP ToolboxFX.

NOTE: If the product is connected to the computer through the USB port, you do not have access to the HP EWS interface. However, most of the information that appears in HP EWS can be viewed by using the HP ToolboxFX interface. For more information, see HP ToolboxFX on page 20.

The following tabs are available in the HP EWS:

- Status tab
- Settings tab
- Networking tab

Status tab

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

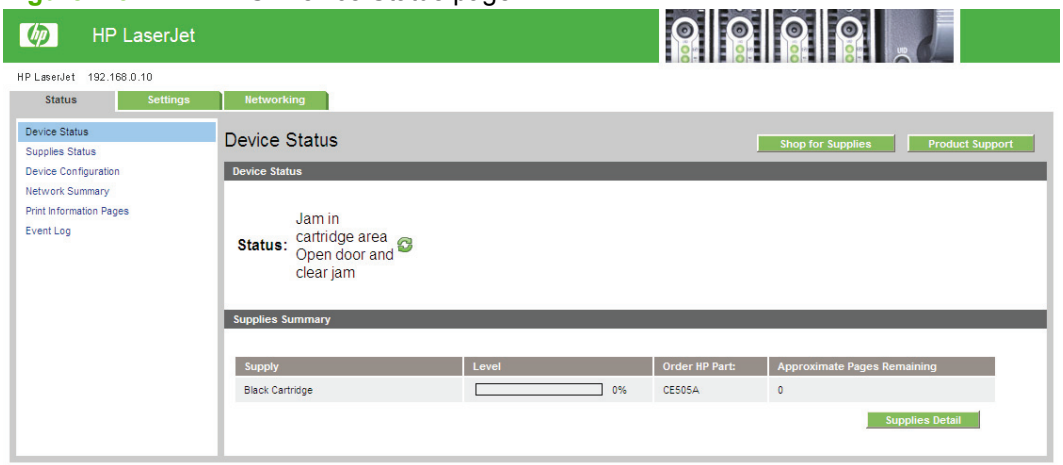
The **Status** tab contains the following pages:

- Device Status
- Supplies Status page
- Device Configuration page
- Network Configuration page
- Print Information Pages
- Event Log page

Device Status

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

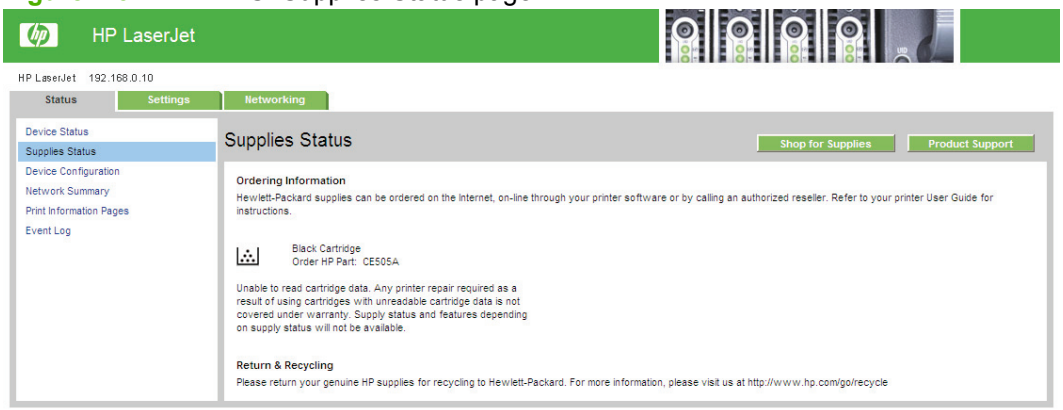
Figure 2-31 HP EWS–Device Status page



Supplies Status page

The **Supplies Status** page shows the status of all of the product supplies, including the print cartridges.

Figure 2-32 HP EWS–Supplies Status page



Device Configuration page

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

Figure 2-33 HP EWS–Device Configuration page (1 of 2)

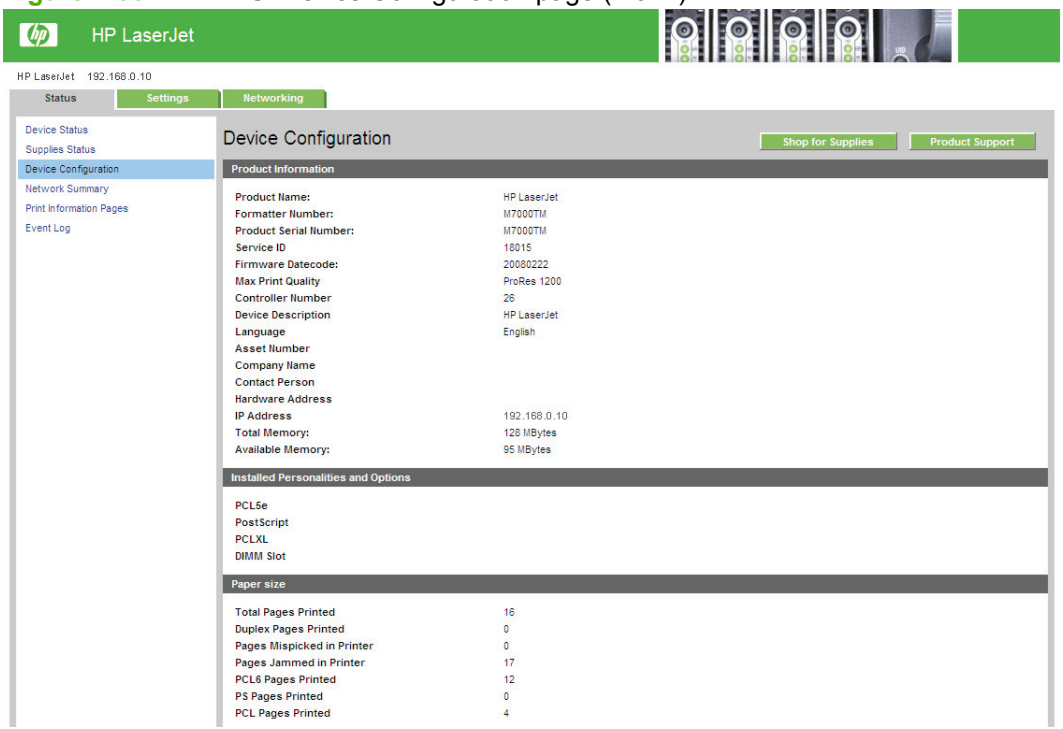
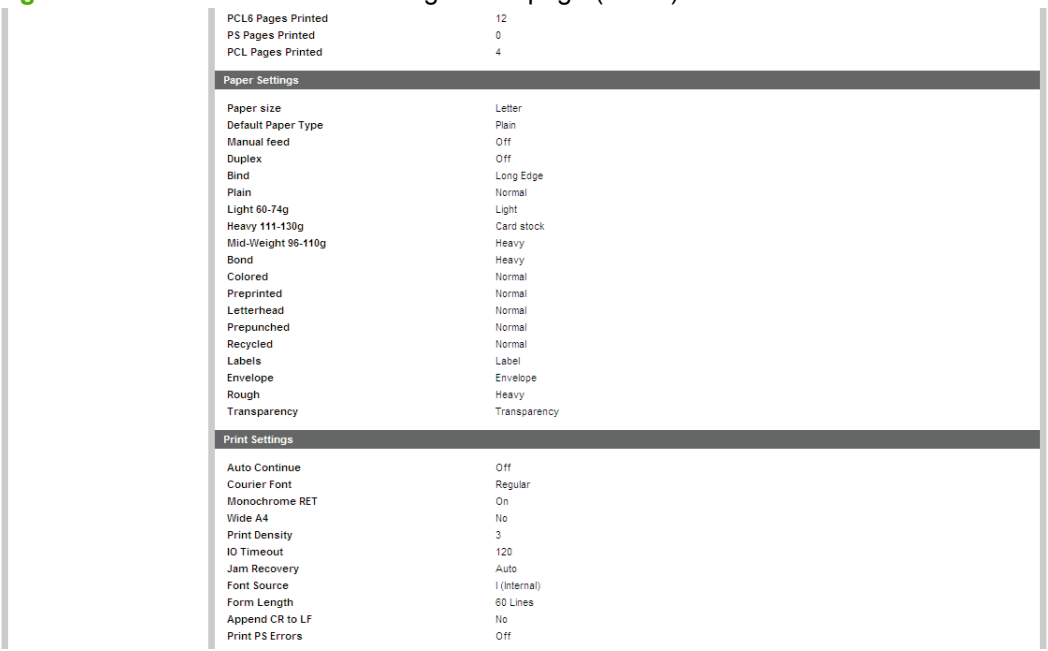


Figure 2-34 HP EWS–Device Configuration page (2 of 2)



Network Configuration page

The **Network Configuration** page contains information about the network and its enabled features.

Figure 2-35 HP EWS–Network Configuration page (1 of 2)

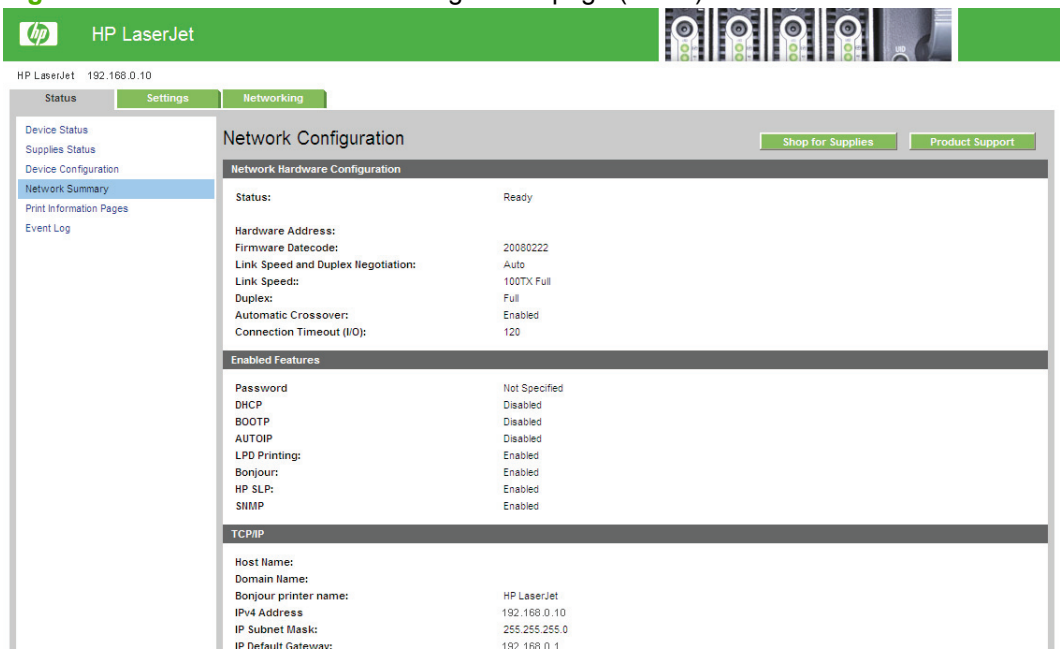
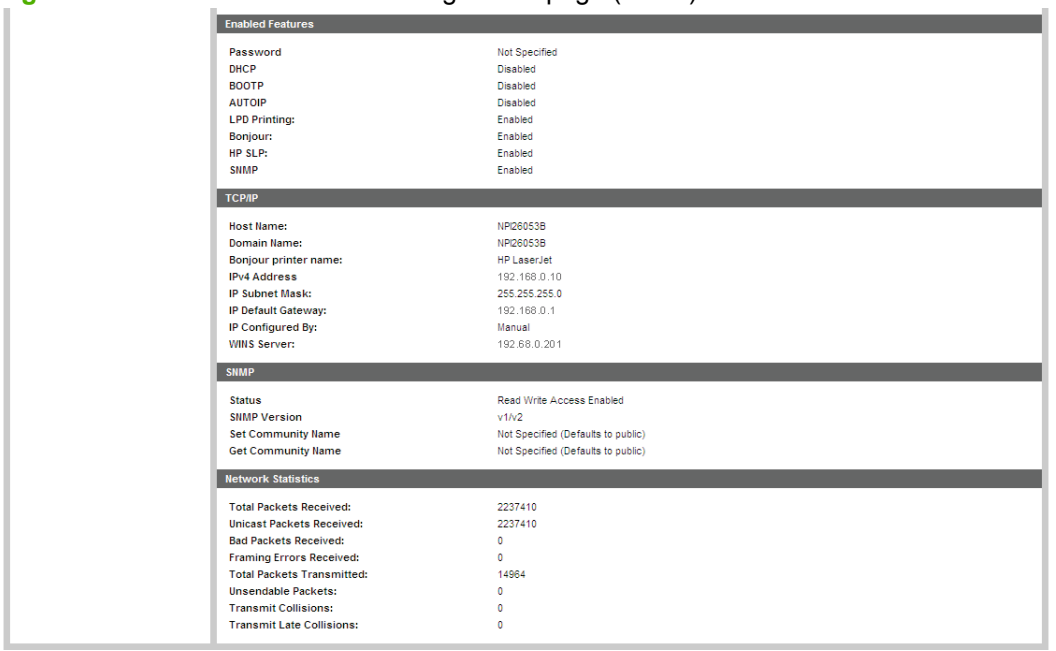


Figure 2-36 HP EWS–Network Configuration page (2 of 2)

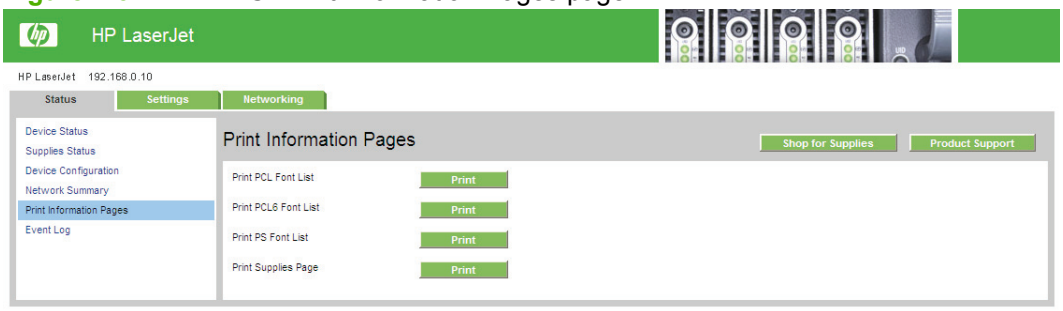


Print Information Pages

Use the **Print Information Pages** page to print the internal pages that the product generates. The following information pages are available:

- PCL Font List
- PCL6 Font List
- PS Font List
- Supplies Page

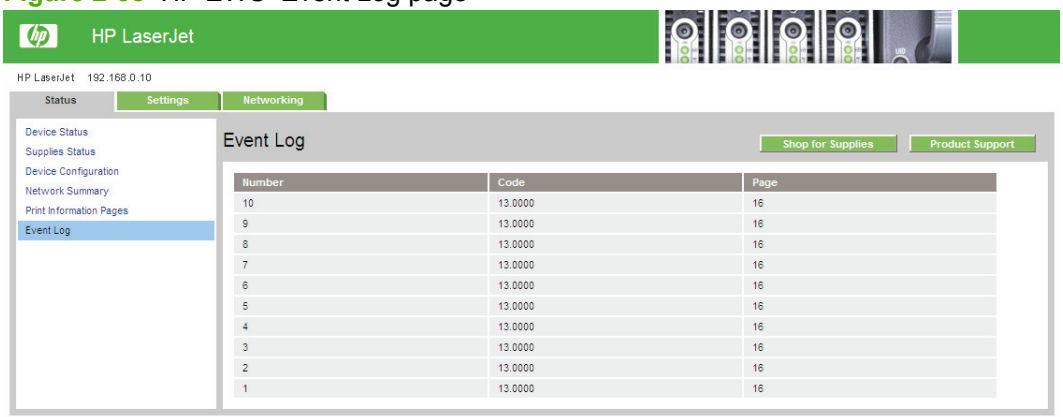
Figure 2-37 HP EWS–Print Information Pages page



Event Log page

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

Figure 2-38 HP EWS–Event Log page



Settings tab

Use the **Settings** tab to view and change settings for the following features:

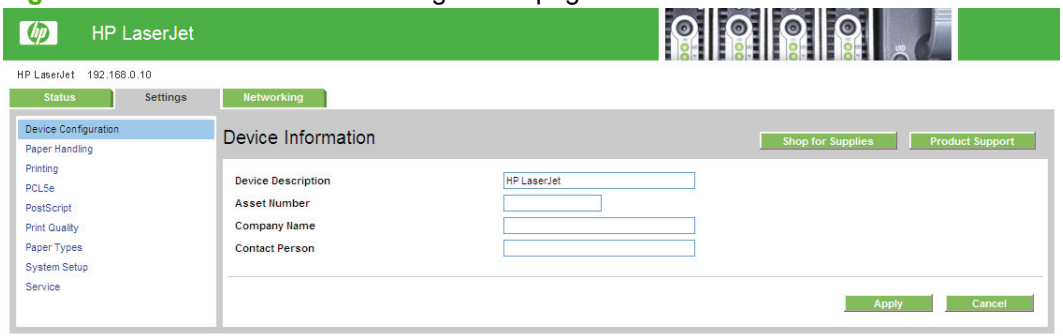
- Device Configuration page
- Paper Handling page
- Printing page
- PCL5e page
- PostScript page

- Print Quality page
- Paper Types page
- System Setup page
- Service page

Device Configuration page

The **Device Configuration** page contains identifying information about the product.

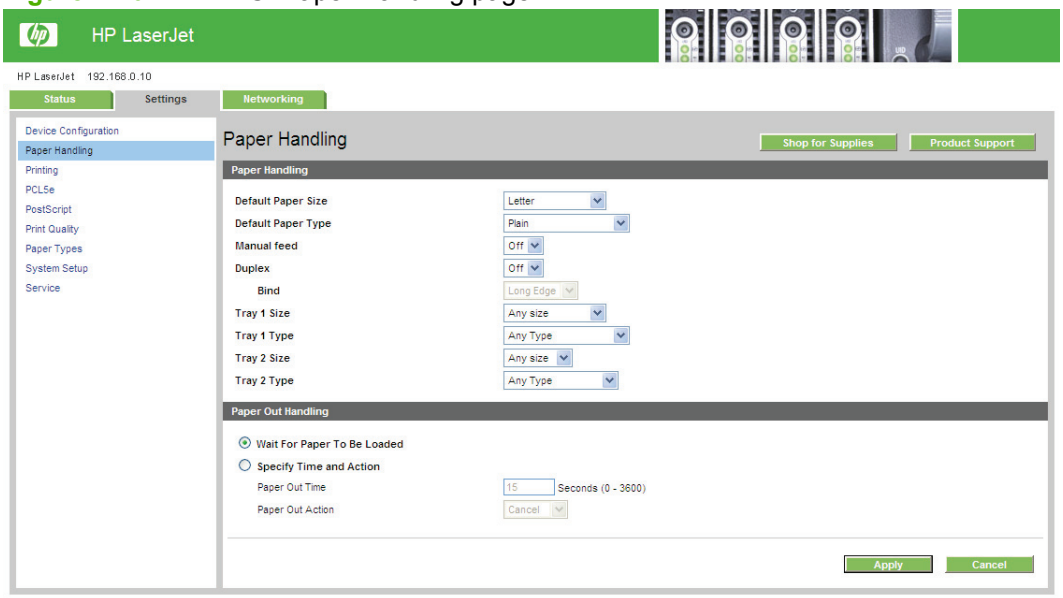
Figure 2-39 HP EWS–Device Configuration page



Paper Handling page

Use this page to configure the paper-handling settings for the product.

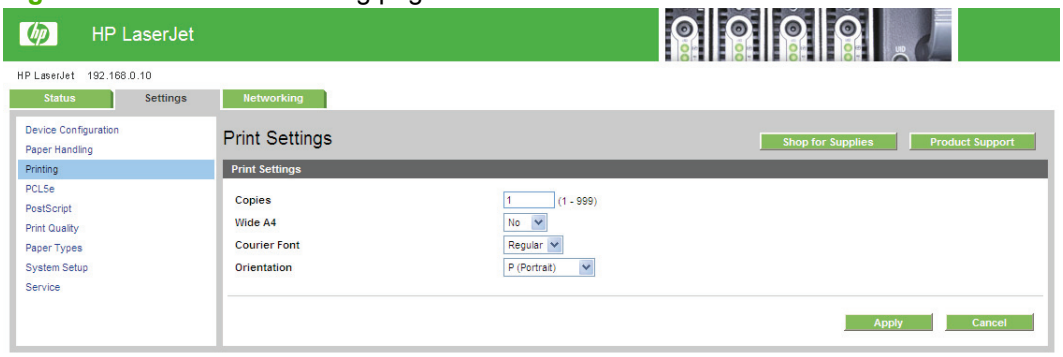
Figure 2-40 HP EWS–Paper Handling page



Printing page

Use this page to change the printing defaults for the product.

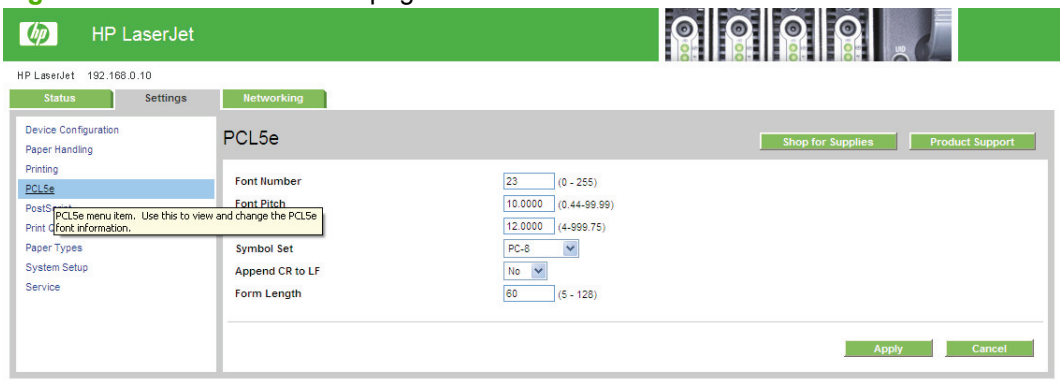
Figure 2-41 HP EWS–Printing page



PCL5e page

Use the **PCL5e** page to change font information and form length.

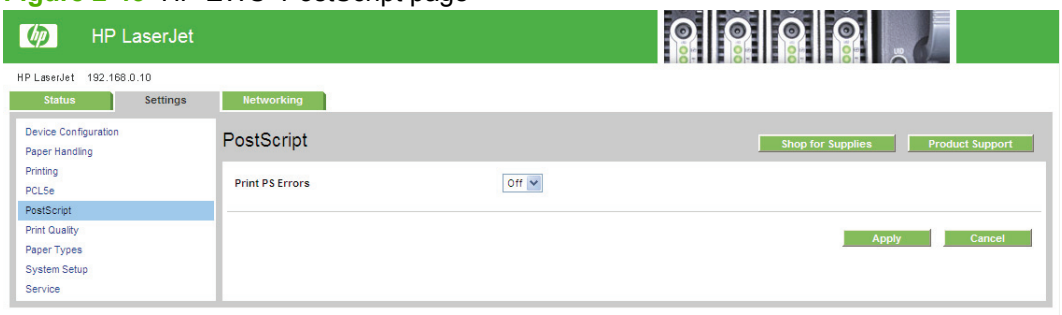
Figure 2-42 HP EWS–PCL5e page



PostScript page

Use the **PostScript** page to change the **Print PS Errors** option.

Figure 2-43 HP EWS–PostScript page



Print Quality page

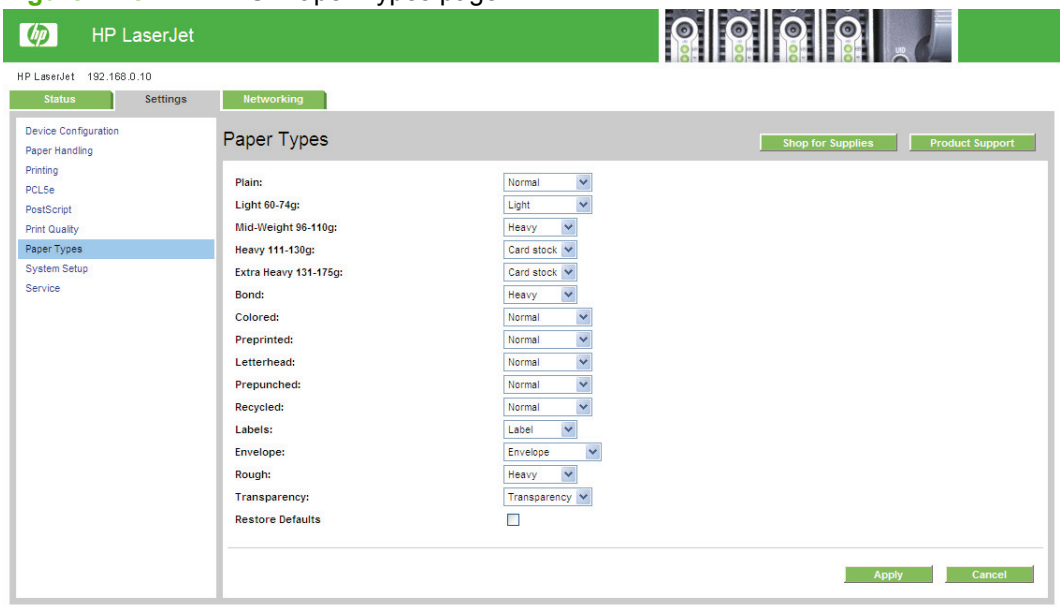
Use the **Print Quality** page to change the print quality defaults for the product.

Figure 2-44 HP EWS–Print Quality page

Paper Types page

Use the **Paper Types** page to set the default paper type settings for the product.

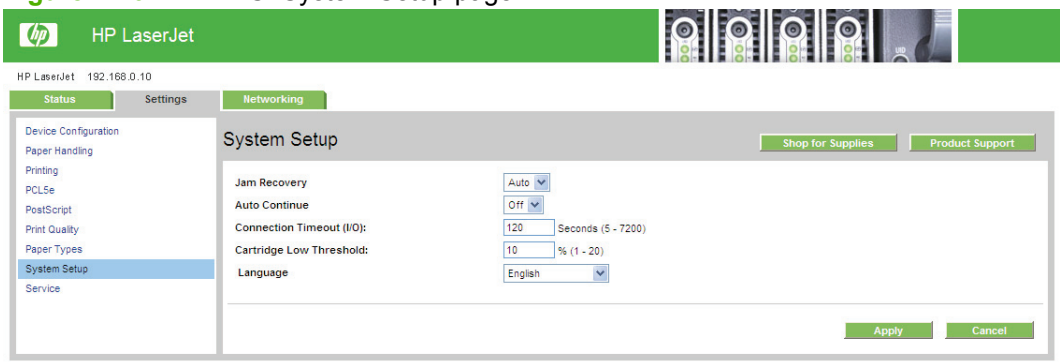
Figure 2-45 HP EWS–Paper Types page



System Setup page

Use the **System Setup** page to change settings on the product such as **Jam Recovery** and **Auto Continue**.

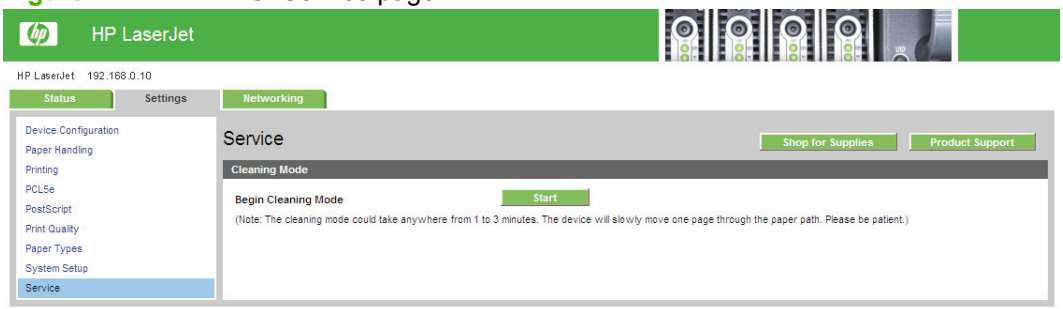
Figure 2-46 HP EWS–System Setup page



Service page

Use the **Service** page to initiate the cleaning mode on the product.

Figure 2-47 HP EWS–Service page



Networking tab

Use the **Networking** tab to view and change settings for the network connection and communication with the product. The following pages are available:

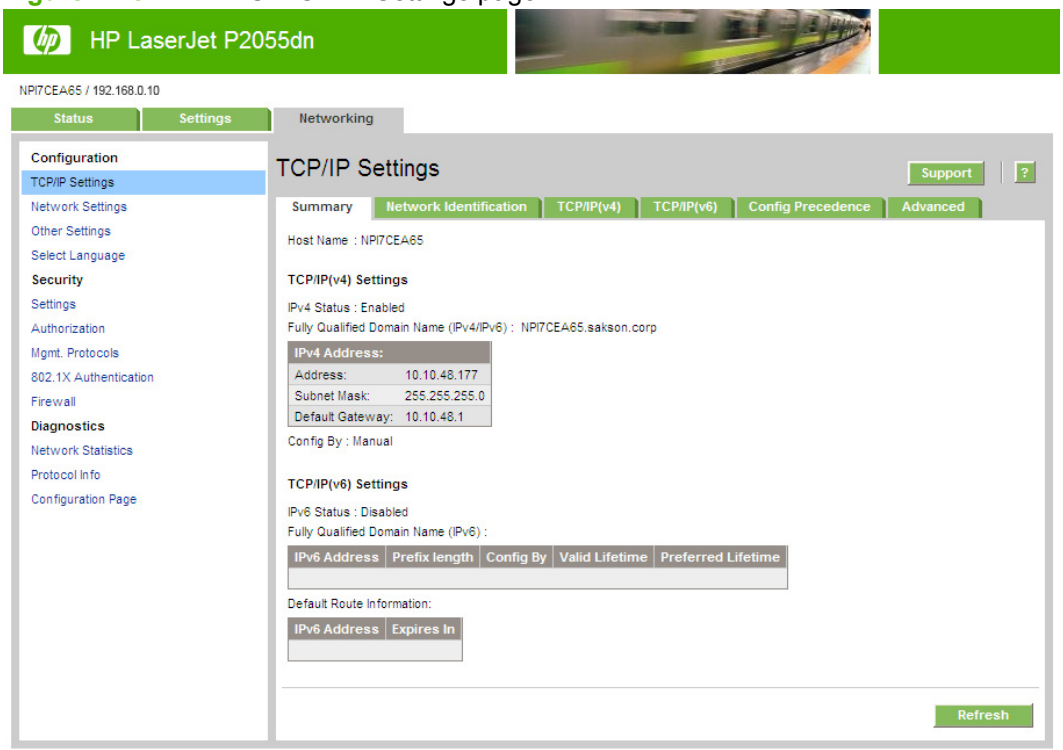
- TCP/IP Settings page
- Network Settings page
- Other Settings page
- Language page
- Settings page
- Authorization page
- Mgmt. Protocols page
- 802.1X Authentication page
- Firewall Policy page

- Network Statistics page
- Protocol Info page
- Jetdirect Configuration Page

TCP/IP Settings page

Use the **TCP/IP Settings** page to configure the IP address and host and domain names for the product.

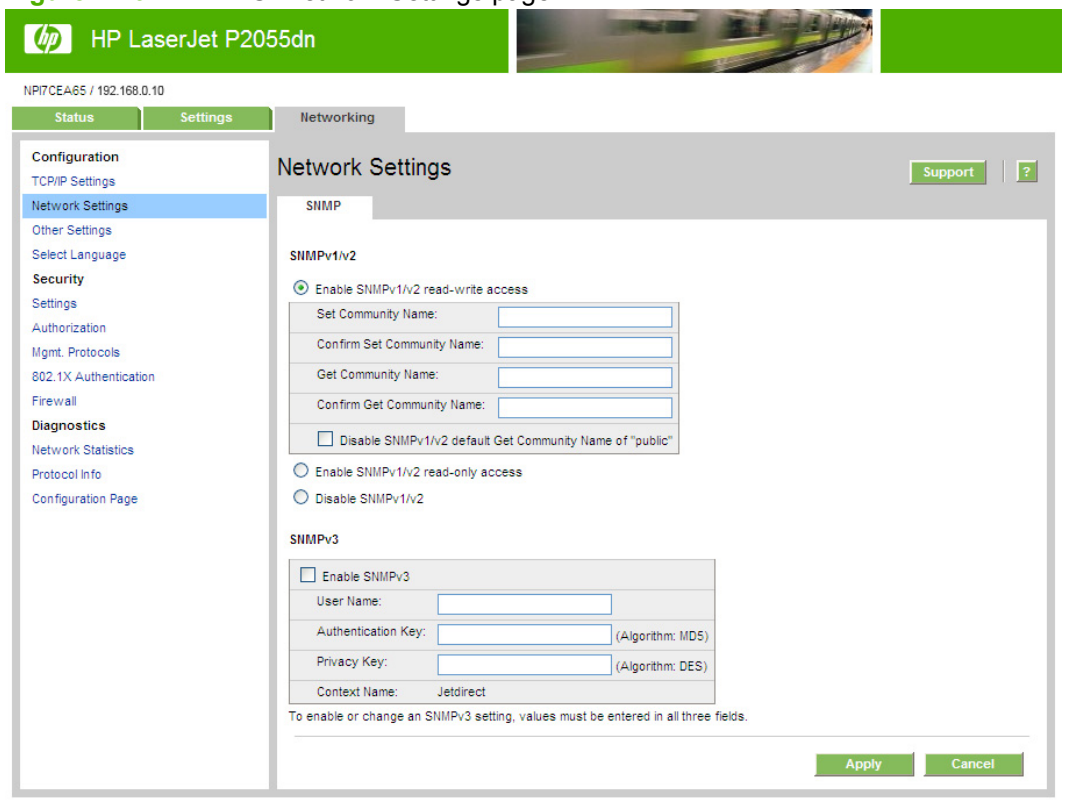
Figure 2-48 HP EWS–TCP/IP Settings page



Network Settings page

Use the **Network Settings** page to configure the SNMP settings, such as read-write access, for the product.

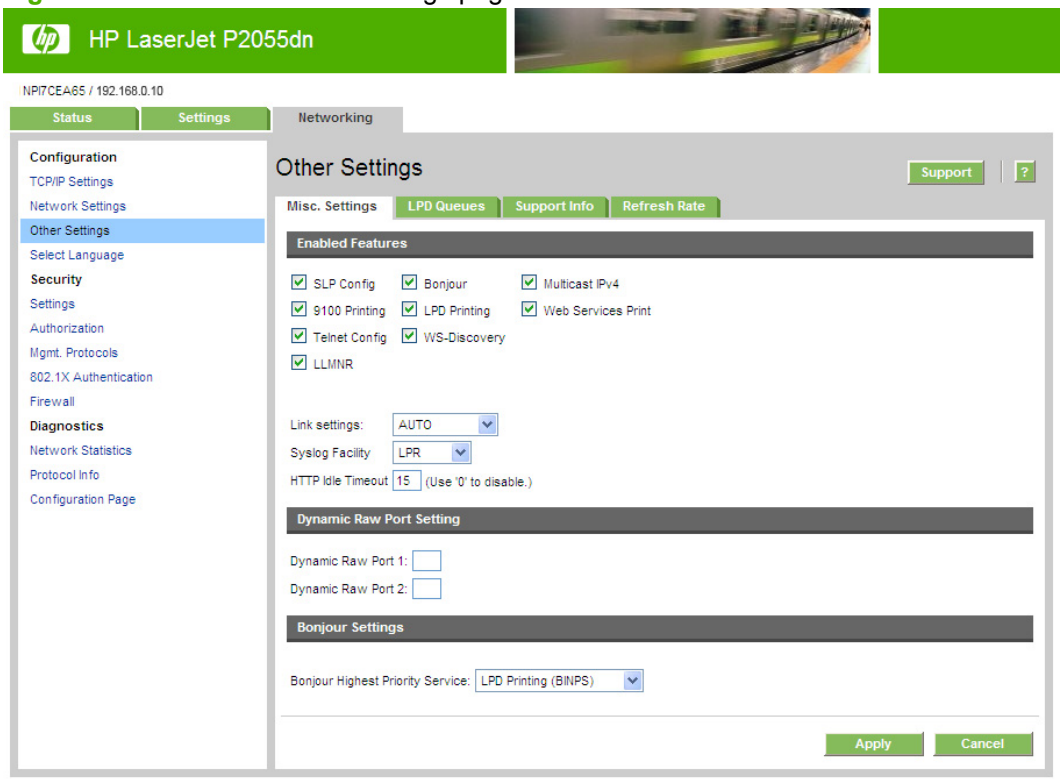
Figure 2-49 HP EWS–Network Settings page



Other Settings page

Use the **Other Settings** page to enable or disable the other settings for the product.

Figure 2-50 HP EWS–Other Settings page



Language page

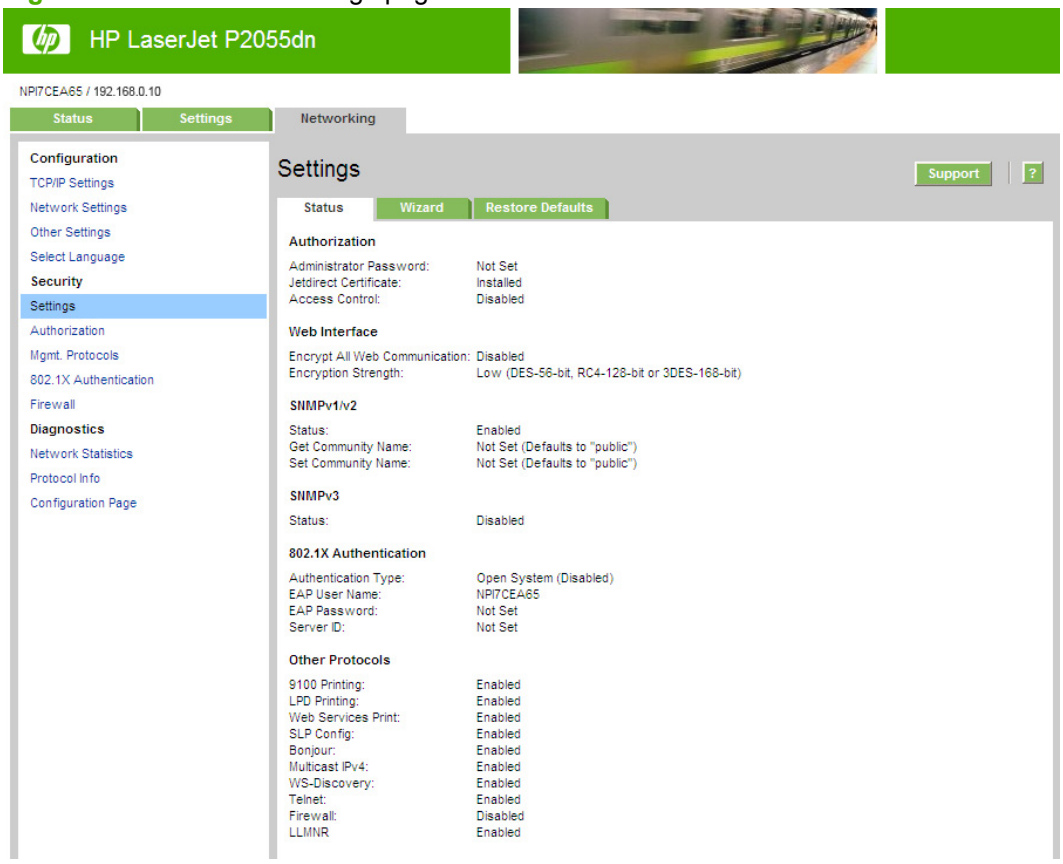
Use this page to set the EWS language.

Figure 2-51 HP EWS–Language page

Settings page

Use this page to view, configure, or reset the security settings for the product.

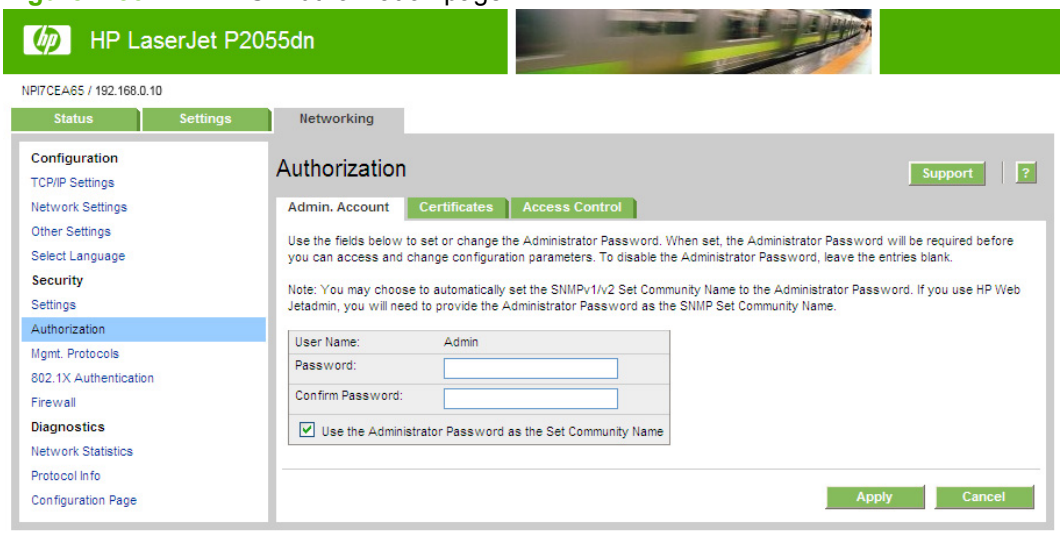
Figure 2-52 HP EWS–Settings page



Authorization page

Use the **Authorization** page to set the administrator account password, manage certificates, and set access control settings.

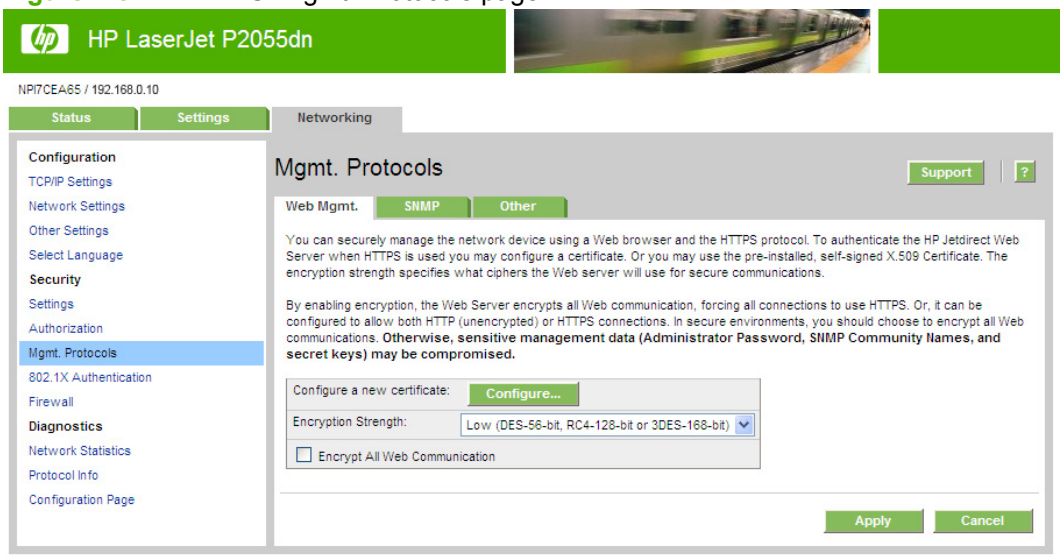
Figure 2-53 HP EWS–Authorization page



Mgmt. Protocols page

Use the **Mgmt. Protocols** page to manage Web protocols, SNMP protocols, and other network protocols and services.

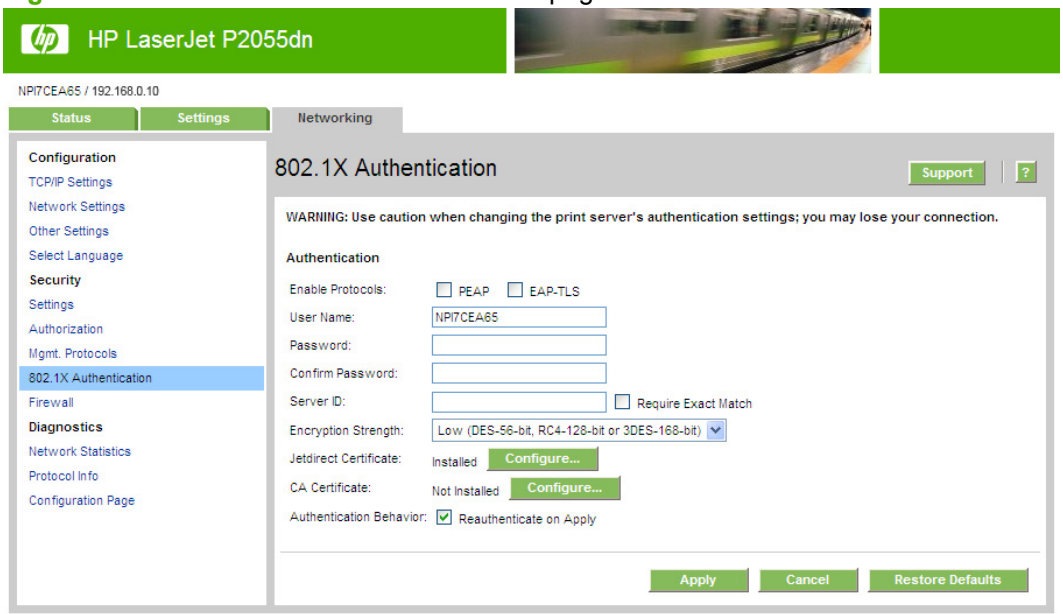
Figure 2-54 HP EWS–Mgmt. Protocols page



802.1X Authentication page

Use the **802.1X Authentication** page to set the network 802.1X authentication settings.

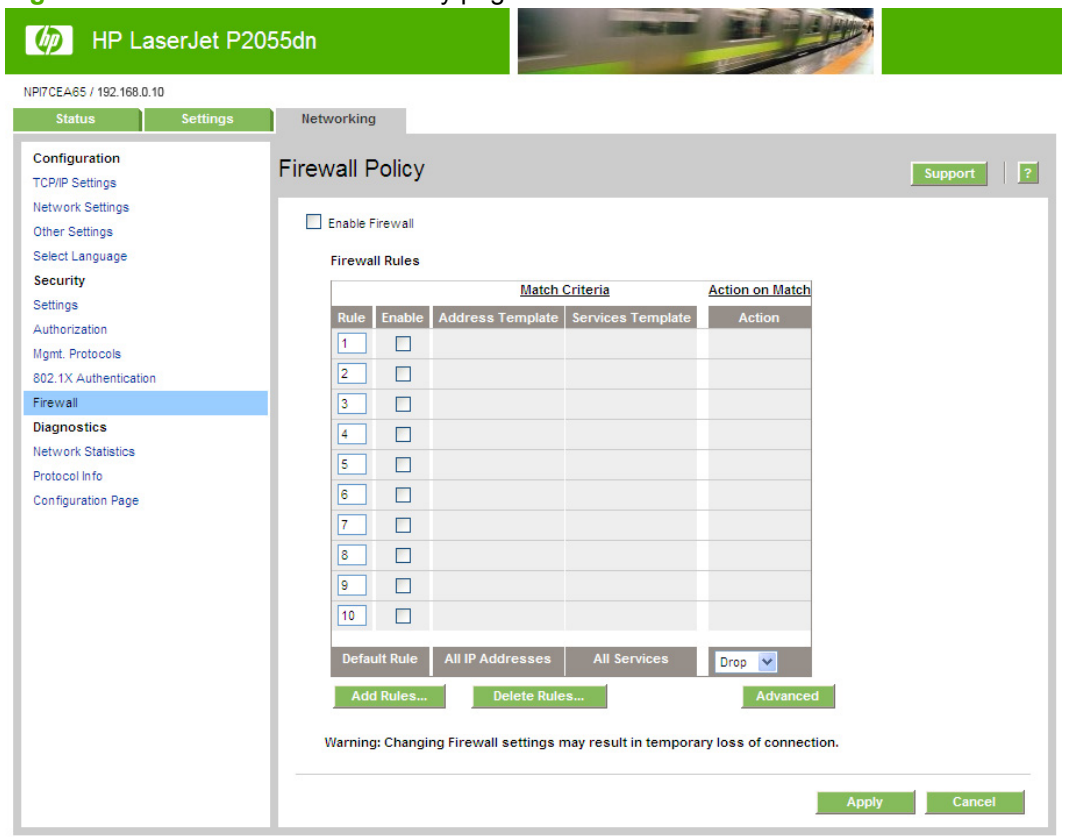
Figure 2-55 HP EWS–802.1X Authentication page



Firewall Policy page

Use the **Firewall Policy** page to set the network firewall rules.

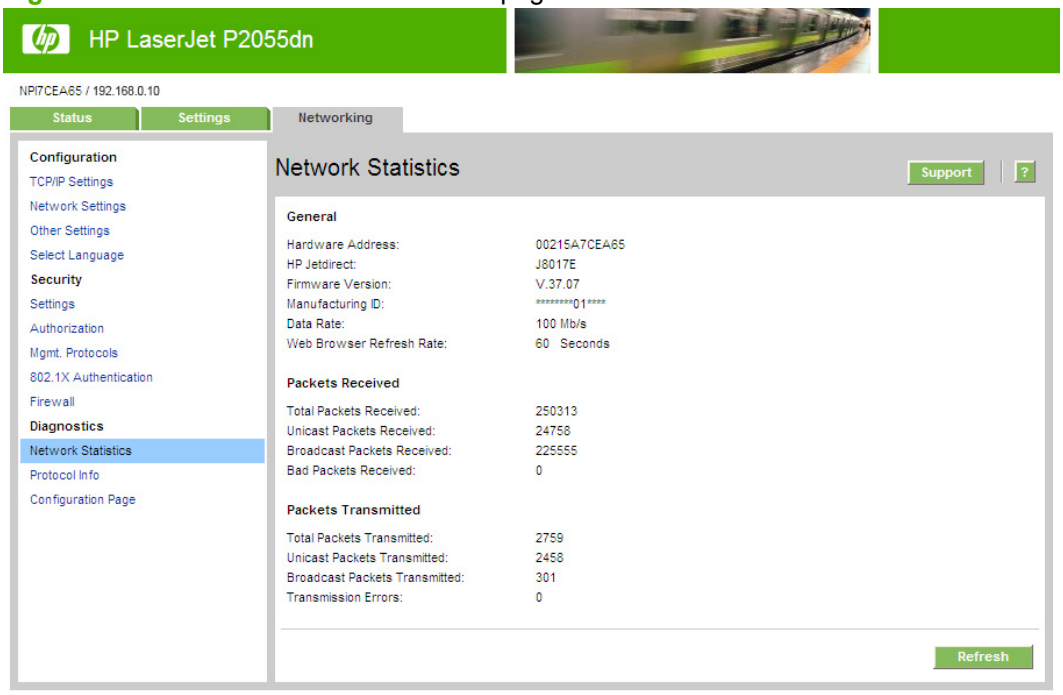
Figure 2-56 HP EWS–Firewall Policy page



Network Statistics page

Use the **Network Statistics** page to view diagnostic information for the network.

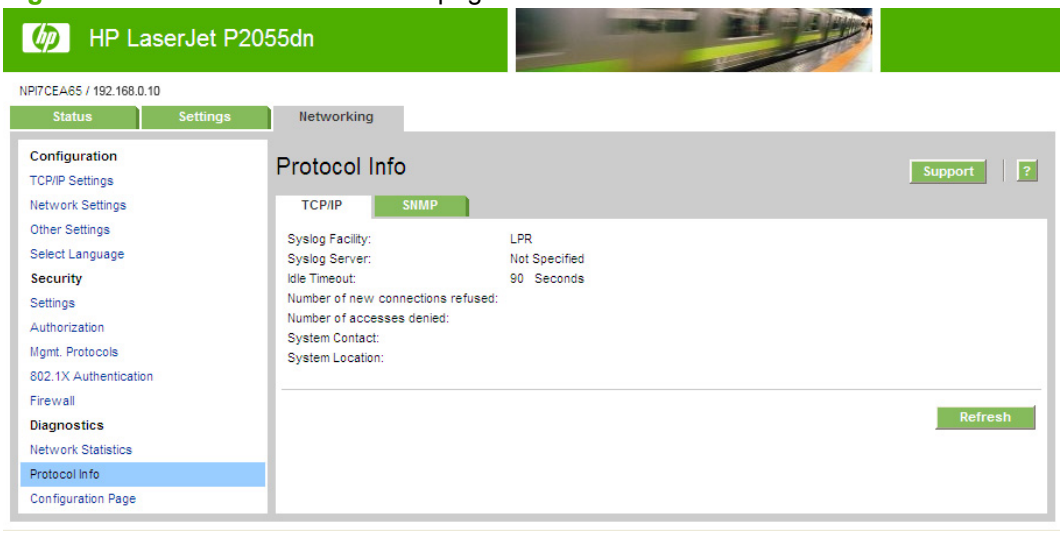
Figure 2-57 HP EWS–Network Statistics page



Protocol Info page

Use the **Protocol Info** page to view network protocol information.

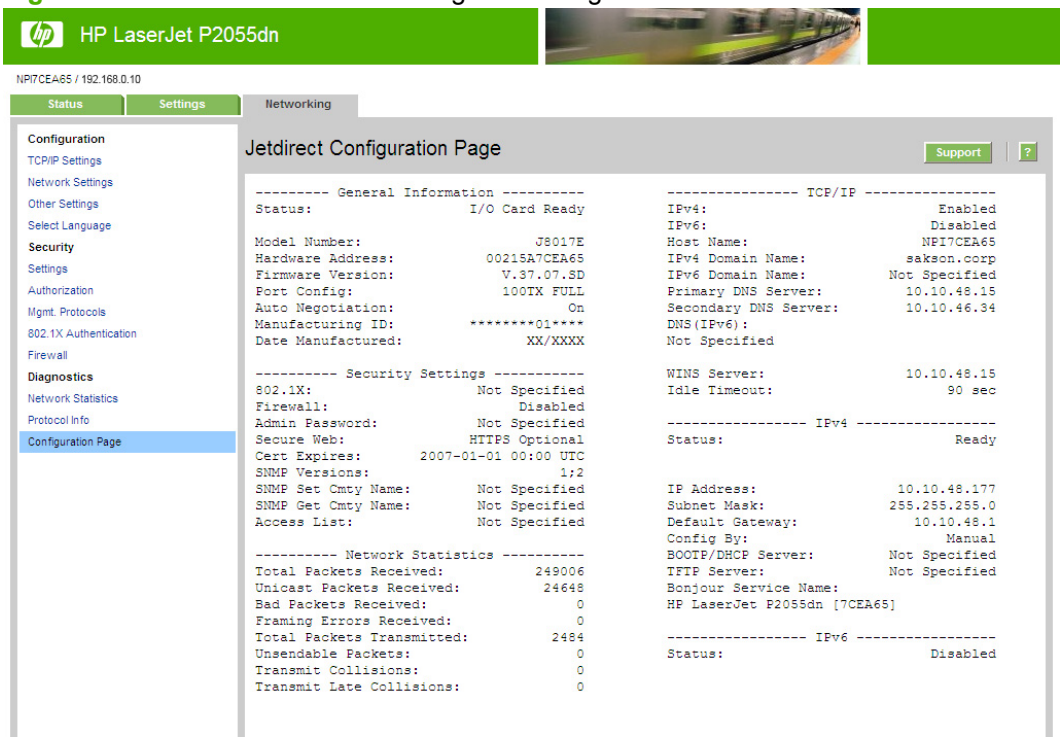
Figure 2-58 HP EWS–Protocol Info page



Jetdirect Configuration Page

Use the **Jetdirect Configuration Page** to view the network settings.

Figure 2-59 HP EWS–Jetdirect Configuration Page



HP Web Jetadmin

Use the HP Web Jetadmin and a browser to manage network-connected products within an intranet. HP Web Jetadmin is a browser-based management tool that 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 Customer Participation Program

When installing the printing-system software, you have the option of participating in HP's voluntary program for communication between your system and HP. This feature, available through software that is included on the printing-system software CD, helps HP monitor toner usage.

If you select the option to participate, you receive an invitation about two weeks later. It contains full disclosure of the information to be communicated. Participation is entirely voluntary, and the impact on processing and connecting speed is negligible. Personal information is never sent to HP without permission. Network addresses are used only to enable the connection and for security purposes.

If you decline the invitation, the dialog box does not appear again later, and no data is gathered.

Optional software

HP SureSupply

HP SureSupply is a tool found in most HP products that helps you keep up with your print supplies. When an HP product sends you a low-ink or low-toner alert, HP SureSupply lets you immediately order the correct supplies online—often with free shipping—either from a participating retailer or from HP.

HP SureSupply works with the product, genuine HP printing supplies, built-in software, and the Internet. Supplies use is monitored, and you are alerted when supplies are running low. Depending on the product model, the alert can be either a pop-up message on the desktop or a message sent to an e-mail address.

Yahoo! toolbar

During the software installation, you can elect to install the Yahoo! toolbar. The Yahoo! toolbar provides easy access to HP support, product supplies and accessories, special offers, and a Web search function powered by the Yahoo! search engine.

3 Install Windows software and utilities

Introduction

The product comes with software and installers for Windows and Apple Computer, Inc., Macintosh systems. LINUX and UNIX systems support the product, and software is available on the Web. This chapter provides procedures for installing and removing the product software for MS Windows operating systems.

NOTE: If the computer is running a 64-bit Windows operating system, install the corresponding 64-bit printer driver. For instructions, see Detailed Windows installation instructions on page 77.

Topics:

- Supported operating systems for Windows
- Installation overview
- Windows software installation options
- Detailed Windows installation instructions
- Uninstall the software

Supported operating systems for Windows

NOTE: For information about the product-system software for Macintosh operating systems, see Macintosh software and utilities on page 145.

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

For more information about the product, go to the following Web site:

www.hp.com/support/ljp2050series

Topics:

- Full-solution software
- Printer driver support in other operating systems
- Operating system requirements

Full-solution software

The following Windows operating systems fully support the product through the software installer, and drivers for these operating systems are available on the printing-system software CD that comes with the product.

- Windows XP (32-bit and 64-bit)
- Windows Vista (32-bit and 64-bit)

Printer driver support in other operating systems

The following operating systems support plug-and-play or add-printer-wizard installations.

- Windows 2000
- Windows Server 2003 (32-bit and 64-bit)

Use a plug-and-play installation or the Add Printer Wizard to install the printer driver for this operating system. The printer driver is available at the following HP support Web site:

www.hp.com/support/ljp2050series

NOTE: For information and printer drivers for Linux, go to the following Web site:

www.hp.com/go/linuxprinting

NOTE: For information and printer drivers for UNIX, go to the following Web site:

www.hp.com/go/unixmodelscripts

Operating system requirements

Windows

The product-system software has the following minimum system requirements.

- Windows 2000, Windows Server 2003, Windows XP, or Windows Vista operating system
- 512 MB RAM
- 350 MB of available hard disk space
- A 2x or faster CD-ROM drive (required for installation)
- A USB port

NOTE: If the USB port has another device attached to it, such as an external storage device, the device must be disconnected or an additional USB port must be added. You can add an additional USB port by using a hub, or by installing an additional USB card.

Installation overview

The software for the product comes on one CD. The CD includes printer drivers and all of the necessary software for the product.

The product includes an installer that supports a software-first installation, which is the recommended installation method. A minimum installation option is available, which consists of only the printer drivers.

On computers running Windows XP or Windows Vista, the setup program installs the printing-system software from the CD onto the hard disk and updates Windows files.

The setup program is *not* supported for Windows Server 2003 or Windows 2000. A plug-and-play or add-printer-wizard installation must be used for this operating system. .

For all of the supported platforms, each installation option presents a series of query dialog boxes that move through the installation process. Different dialog boxes are presented for a directly-connected or networked product.

NOTE: The printing-system software uses Microsoft USB printing support (USB00X) rather than DOT4 printing support.

Windows software installation options

The printing-system software can be used with the product in the following configurations:

- **Direct Connection.** Install the printing-system software on a computer that is directly connected to the product through a USB port and running Windows 2000, Windows Server 2003, Windows XP, or Windows Vista.

  In this configuration, the product is not shared. A single user has complete physical control over the product. In this configuration, access is available to all of the product features.

- **Network connection using onboard networking.** Install the printing-system software on a computer that is running Windows 2000, Windows Server 20003, Windows XP, or Windows Vista and that has access to a local area network (LAN) to which the product is also connected . Network models have onboard networking that connects to a LAN through a RJ-45 port.

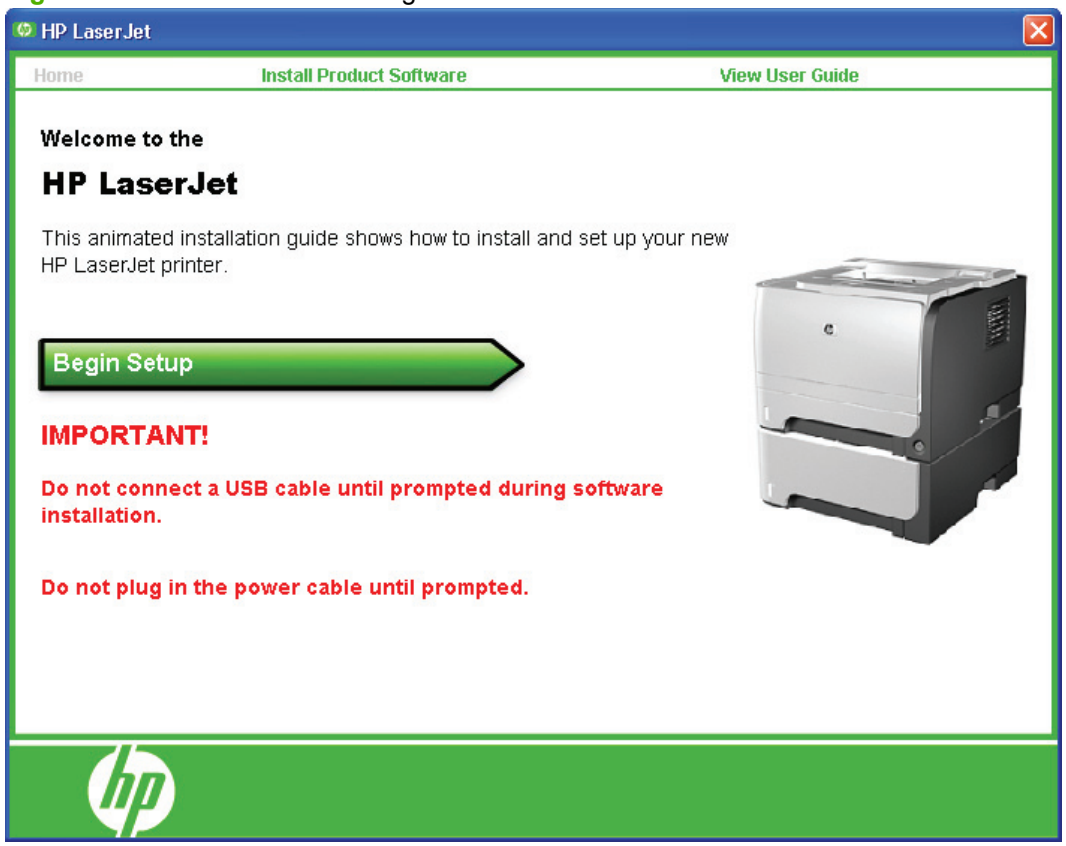
  The following elements are required for a networked product:

  - An installed network that uses the TCP/IP network protocol
  - A cable for the type of network connection (not included)

Animated getting started guide (eGSG)

When you insert the printing-system software CD into the CD-ROM drive, the animated installation guide starts automatically. The **Begin Setup** screen appears.

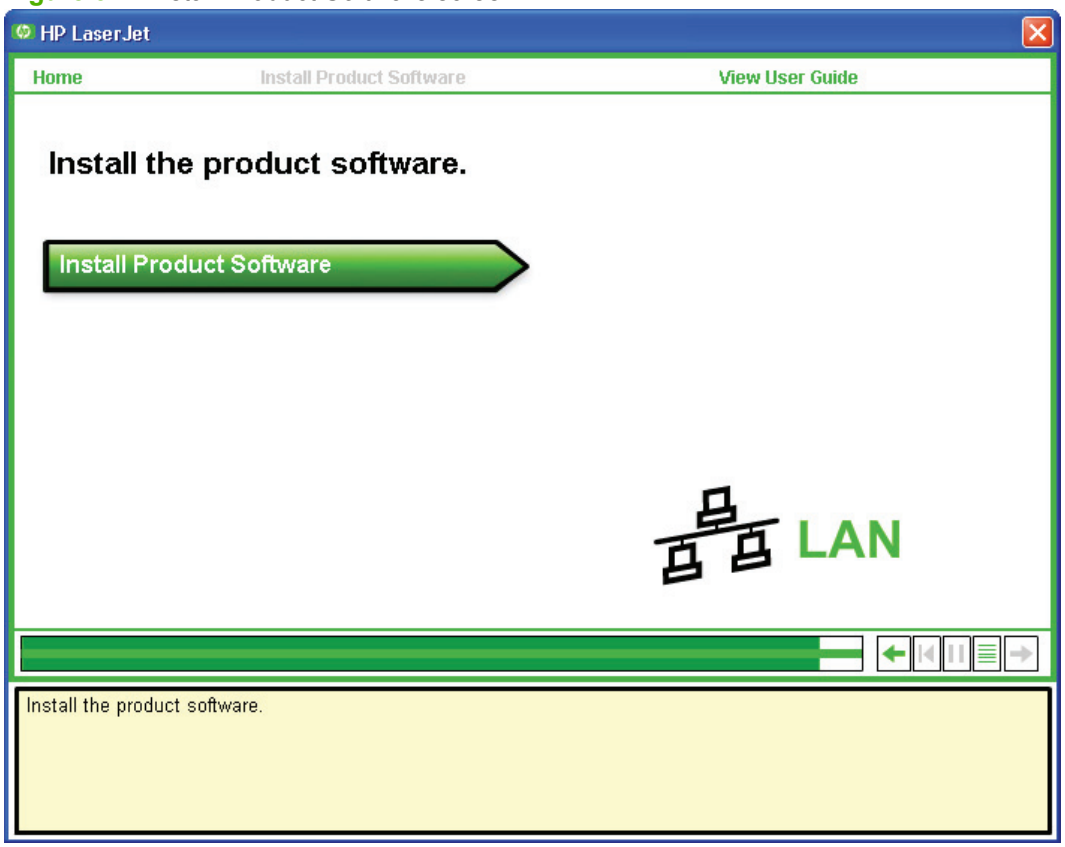
Figure 3-1 Animated installation guide—Welcome screen



Click **Begin Setup** to initiate a series of screens that show how to prepare the product for software installation. Click the arrows in the lower-right corner of the screen to view animated illustrations of each step.

When setup is complete, the **Install Product Software** screen appears.

Figure 3-2 Install Product Software screen



Click **Install Product Software** to install the printer drivers and other software features.

Windows installation for direct connections

Use the following instructions to install the product software on a computer that is running Windows XP or Windows Vista.

NOTE: Set up and turn on the product before installing the printing-system software. Do not connect the product to the computer until the software prompt appears.

NOTE: You must have administrator privileges to install the printing-system software.

1. Quit all open programs.
2. Insert the printing-system 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.

3. Follow the onscreen prompts to install the software.

4. When the installation is nearly complete, the **Finish** dialog box appears and you can print a test page. Click the **Print a test page** check box, and then click **Finish** to finish the installation and print a test page.

5. If prompted to restart the computer, click **Yes**.

Windows installation for computers on a network

Each networked computer that has the printing-system software installed has access to all of the product features over a network connection. This access is through on-board networking that comes standard on the network models.

To install the printing-system software on networked computers running Windows XP or Windows Vista, follow these steps.

NOTE: You must have administrator privileges to install the software.

1. Quit all open programs.

2. Insert the printing-system 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.

3. Follow the onscreen prompts to install the software.

4. When the Installer software prompts you to select how the product will be connected, select **Through the network**, and then click **Next**. Follow the onscreen instructions.

5. When the installation is completed, a setup dialog box appears that asks whether or not you want to print a test page. Click **Yes**.

6. If prompted to restart the computer, click **Yes**.

Install the printer drivers by using the add-printer wizard

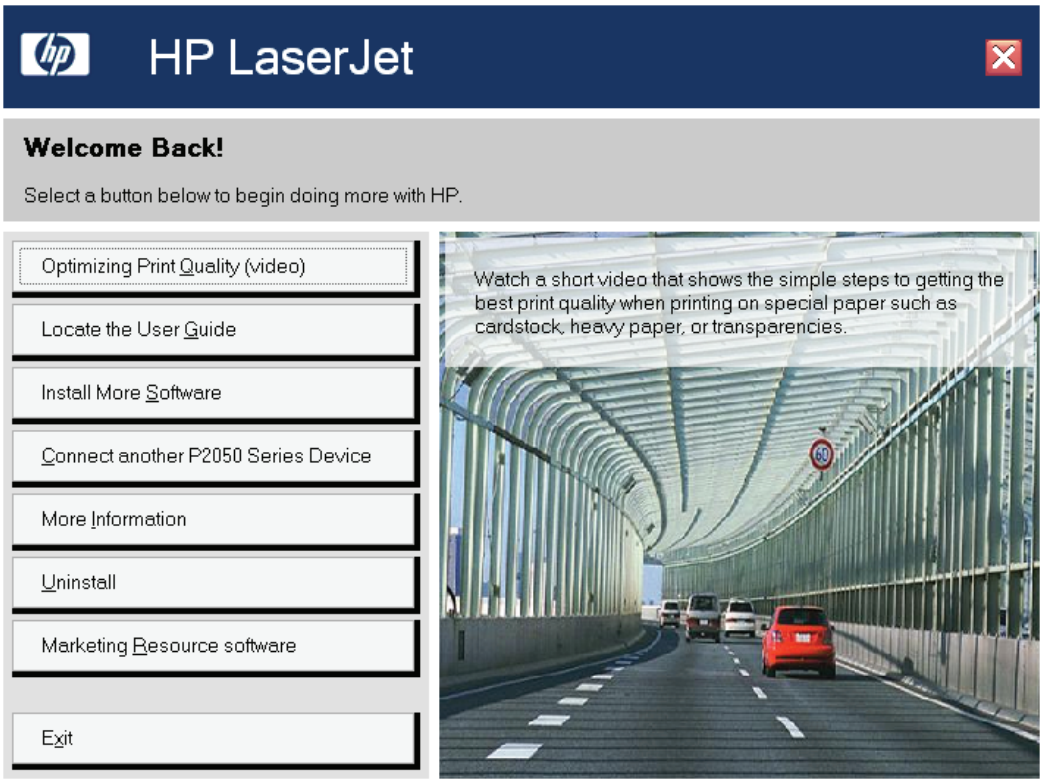
The printing-system software installer does *not* support Windows 2000 or Windows Server 2003. To install the printer drivers on computers running one of these operating systems, use a plug-and-play installation for direct USB product connections, or an add-printer-wizard installation for network-connected products.

Download the appropriate driver from www.hp.com/support/ljp2050series. Use the Plug and Play Package for a direct USB connection. Use the Print Driver Only Package for a network connection. Follow the installation instructions on the Web.

Modify an existing installation

If an HP LaserJet P2050 Series printer has been installed, the initial CD browser screen on the printing system installation CD changes to the **Welcome Back!** screen. A pre-existing installation also changes the sequence of installation screens.

Figure 3-3 Welcome Back! screen



The **Welcome Back!** screen contains the following buttons.

- **Optimizing Print Quality (video)**: Click this button to open online videos that demonstrate how to create high-quality documents.
- **Locate the User Guide**: Click this button to open the user guide on the CD. To access the user guide in the future, re-insert the CD. Product manuals are also available on the HP product support Web site.
- **Install More Software**: Click this button to install HP Easy Printer Care software.
- **Connect another P2050 Series Device**: Click this button to quickly install another HP product using software that is already loaded on the computer.
- **More Information**: Click this button to access product support on the Web, or other product help and useful tips.
- **Uninstall**: Click this button to uninstall the printing-system software.
- **Marketing Resources software**: Click this button to open the Web site for the HP Marketing Resources software.
- **Exit**: Click this button to close the CD browser.

Detailed Windows installation instructions

The following section shows the dialog box options that appear during the printing-system software installation on Windows Vista and Windows XP operating systems.

NOTE: HP recommends installing the software before connecting the product to the computer (software-first installation). These instructions are for a software-first installation.

Use these instructions the first time you install the printing-system software .

Topics:

- Printing-system software installation for Windows
- Set a default printer

Printing-system software installation for Windows

The following sections describe the dialog-box options that appear during the product software installation on Windows operating systems.

Figure 3-4 CD Browser screen

The first dialog box contains the following links:

Install Printer Software. This link takes you to the initial command for installing the software. Click this link to close the CD Browser and the initial installation wizard and open the **Welcome to the Install Wizard** screen. For information about installing the printing-system software over a USB connection, see USB installation dialog-box options for Windows on page 78. For information about installing the

printing-system software over a network connection, see Network installation dialog box options for Windows on page 86

View User Guide. Click this option to go to the user guide.

USB installation dialog-box options for Windows

NOTE: For USB installations, HP recommends installing the software before connecting the product to the computer (software-first installation). These instructions are for a software-first installation.

Use these instructions the first time you install the product software.

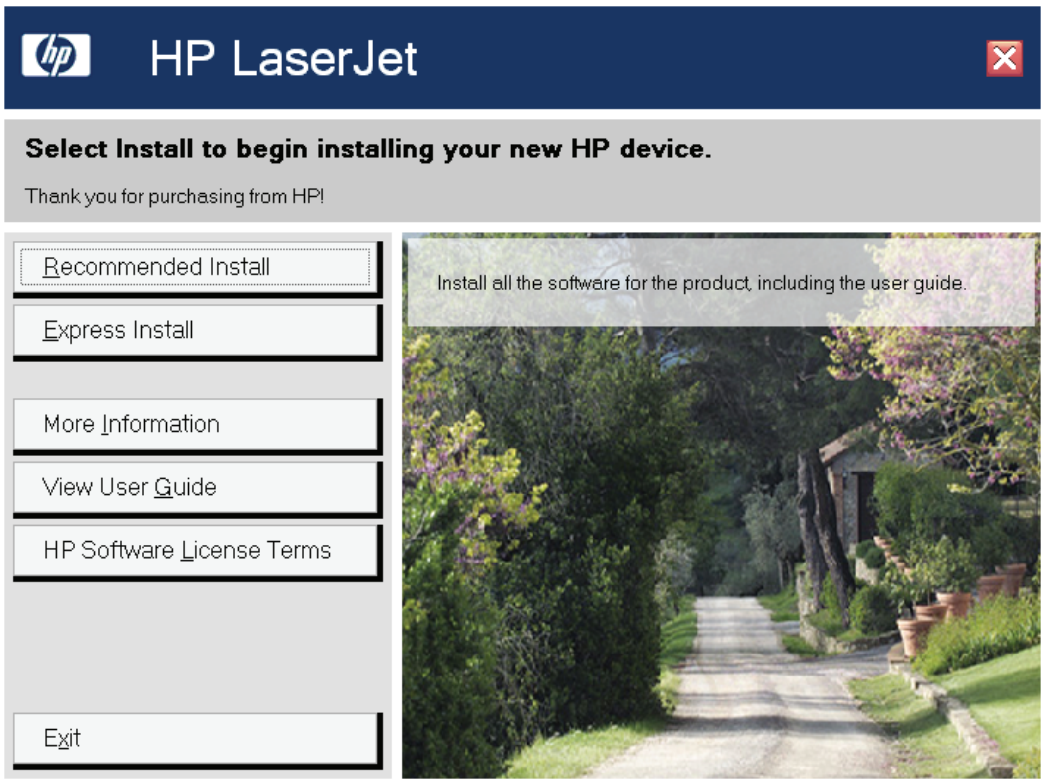
In any dialog box where it is available, click the **Back** button, to return to the previous dialog box, or click the **Cancel** button to cancel the installation.

NOTE: The sequence of dialog boxes might differ from what is shown here, depending on the product and the selected options.

Click **Next** to continue. Between dialog boxes, a current-progress screen appears. This screen shows the progress of the installation and provides information about the number of subtasks that have been completed in each step. The current-progress screen appears throughout the installation, but is sometimes covered by a new dialog box that contains the next option in the installation sequence.

1. Once you have clicked **Install Product Software** in the welcome screen, the **Select Install to begin installing your new HP device** dialog box appears.

Figure 3-5 USB installation—Select Install to begin installing your new HP device dialog box



- Click **Recommended Install** to install the complete printing-system software.

  If you click **Recommended Install**, a progress dialog box appears and then closes, and then the **Please Allow All HP Install Wizard Processes** dialog box appears.

- Click **Express Install** to install only limited software.

  If you click **Express Install**, the **Express Install** dialog box appears.

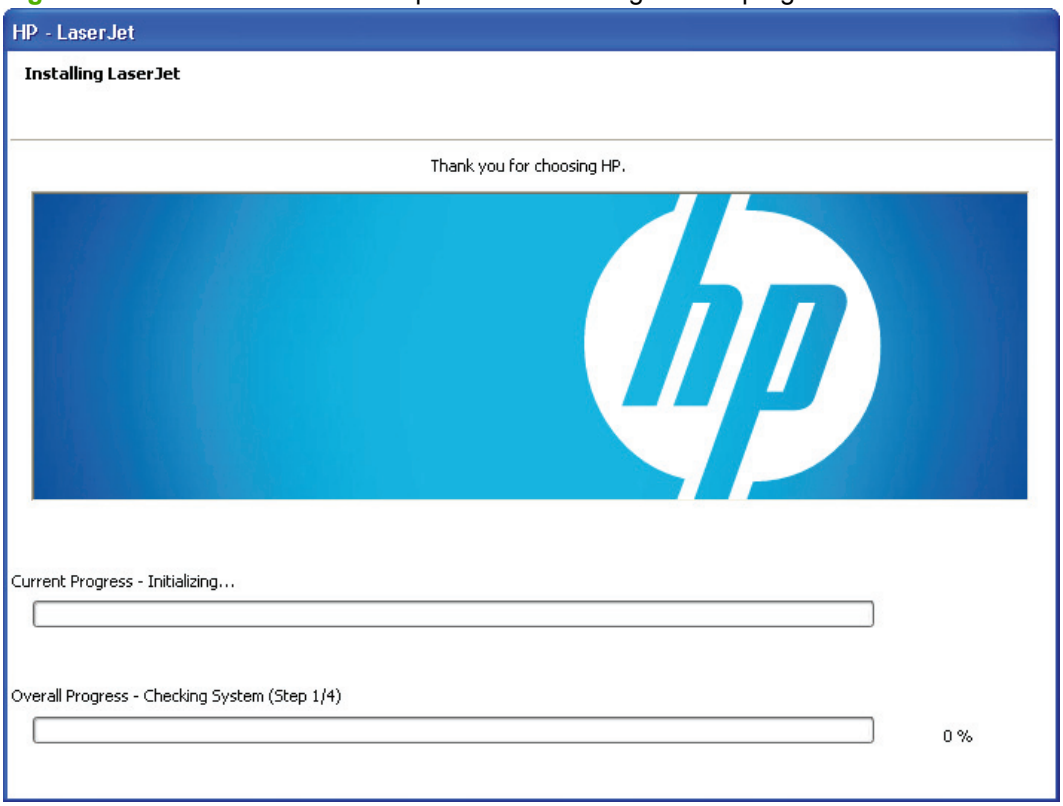
  Figure 3-6 USB installation—Express Install dialog box

  - Click **USB Install**. After a progress screen appears and then closes, the **Connect Your Device Now** dialog box opens. Go to step 5.

- Click **More Information**, and then click **Read Me First** to open the installation notes Web page for information about the installations and to find out if your system meets the recommended installation requirements. Close the notes, and then click **Back** to return to the installation choices.

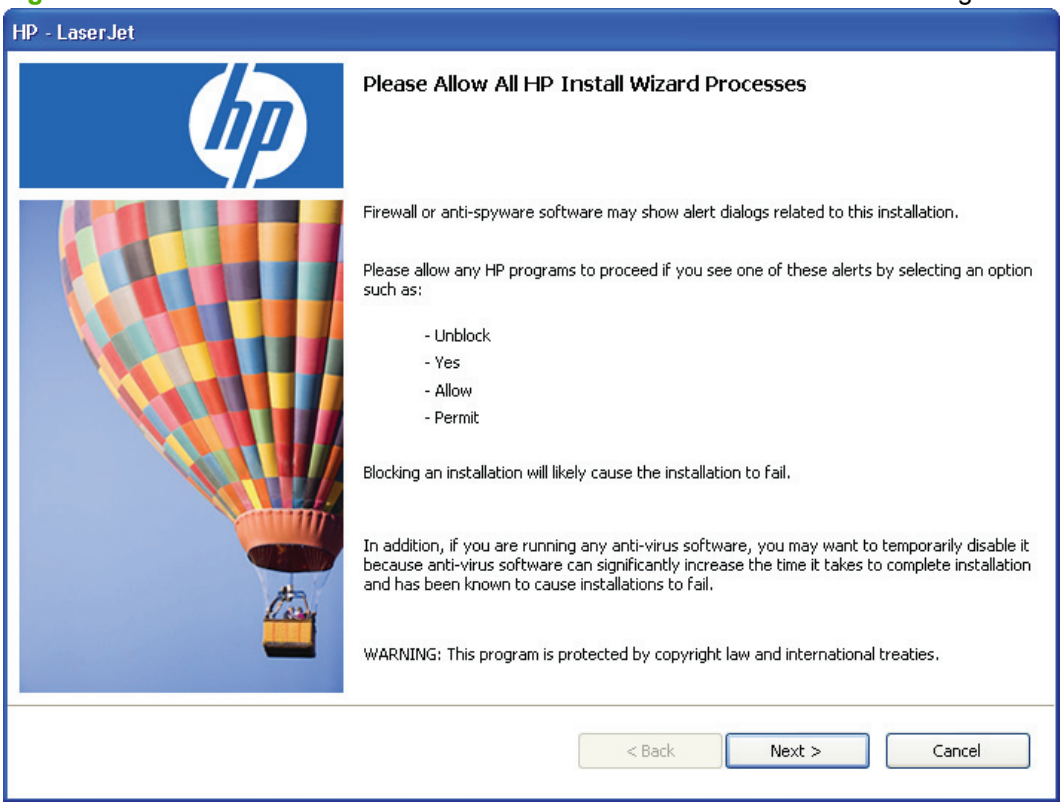
NOTE: Between dialog boxes, a current-progress screen appears. This screen shows the progress of the installation and provides information about the number of subtasks that have been completed in each step. The current-progress screen appears throughout the installation, but is sometimes covered by a new dialog box that contains the next option in the installation sequence.

Figure 3-7 USB installation—Sample screen showing current progress



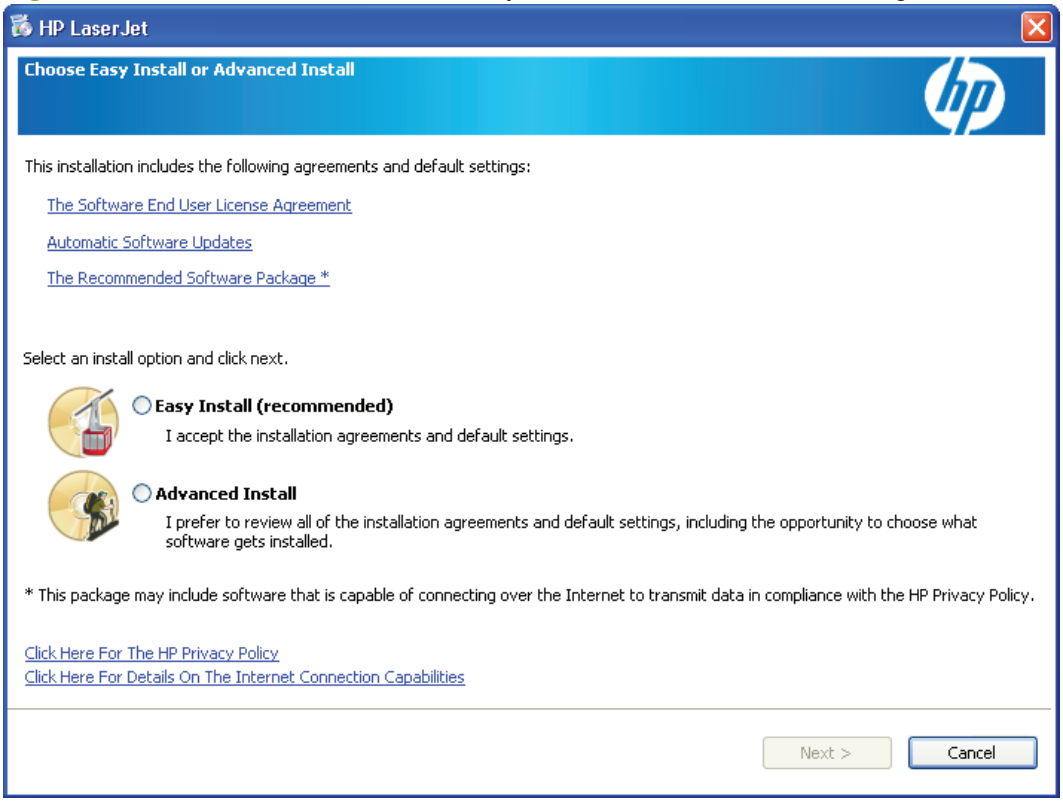
2. The **Please Allow All HP Install Wizard Processes** instructs you to permit the installation process to continue if firewall or anti-spyware programs generate alert messages. In the **Please Allow All HP Install Wizard Processes** dialog box, click **Next**.

Figure 3-8 USB installation—Please Allow All HP Install Wizard Processes dialog box



3. The **Choose Easy Install or Advanced Install** dialog box appears.

Figure 3-9 USB installation—Choose Easy Install or Advanced Install dialog box

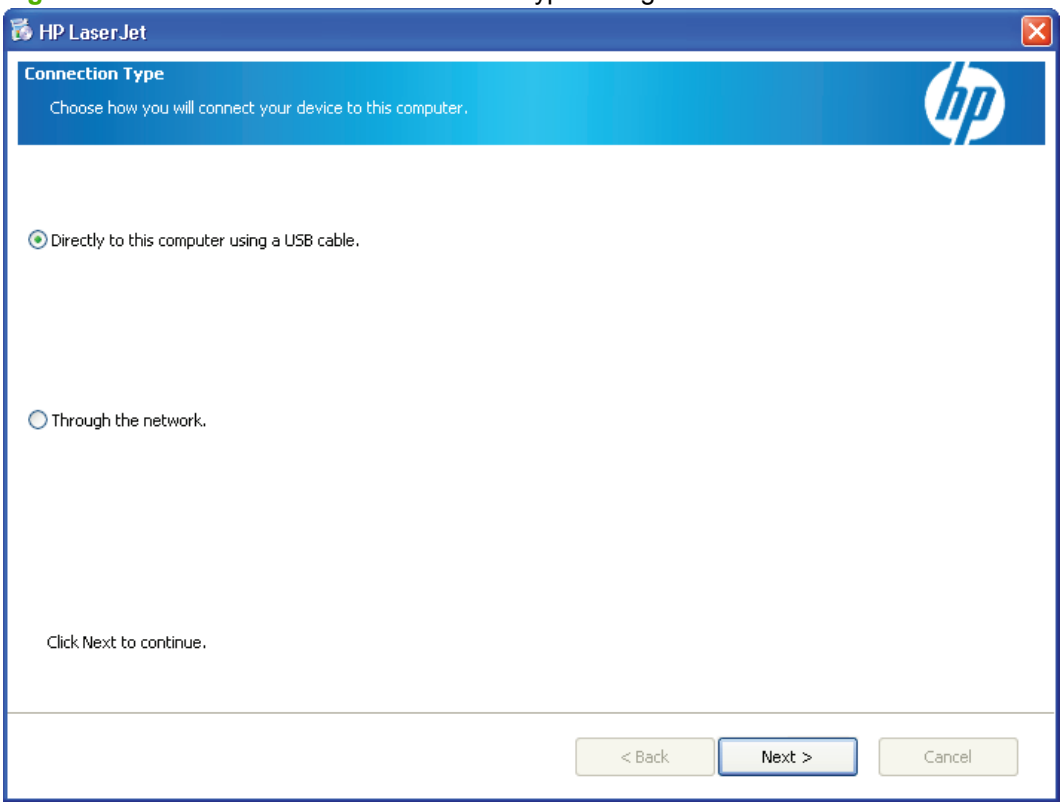


Select an installation type, and then click **Next** to open the **Connection Type** dialog box.

- If you select **Advanced Install** and then click **Next**, several dialog boxes appear. These screens allow you to customize your installation process.

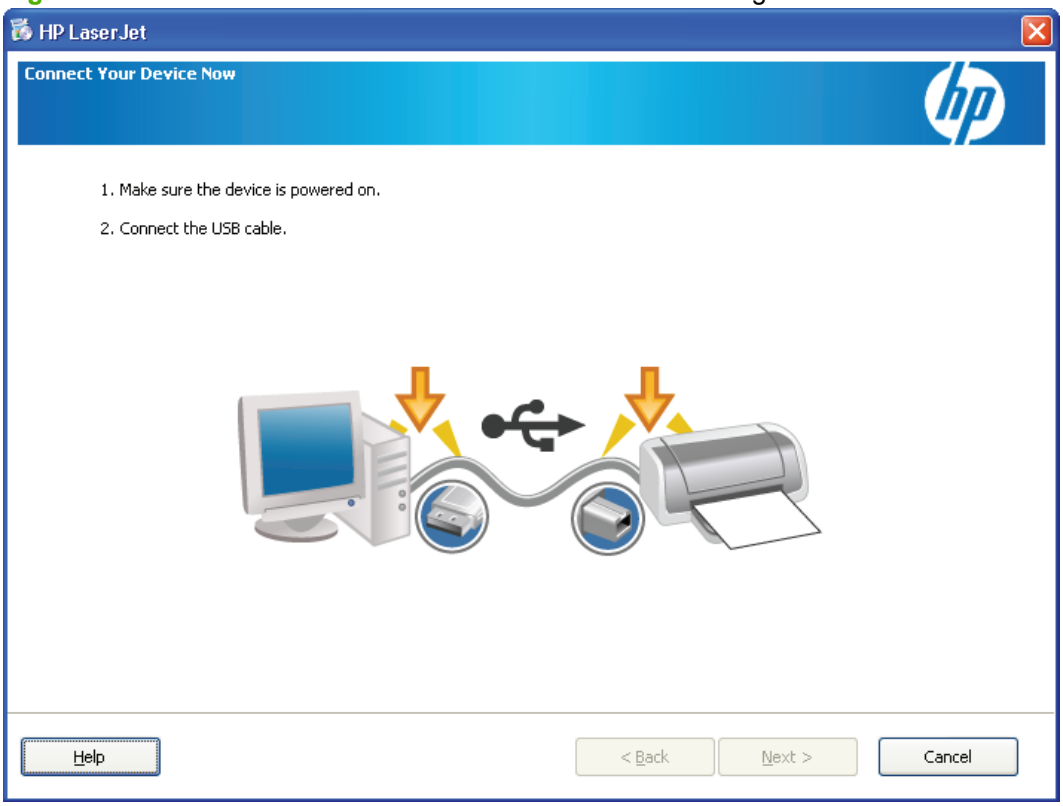
4. The program begins installing the software, and then the **Connection Type** dialog box appears. Select **Directly to this computer using a USB cable**, and then click **Next**.

Figure 3-10 USB installation—Connection Type dialog box



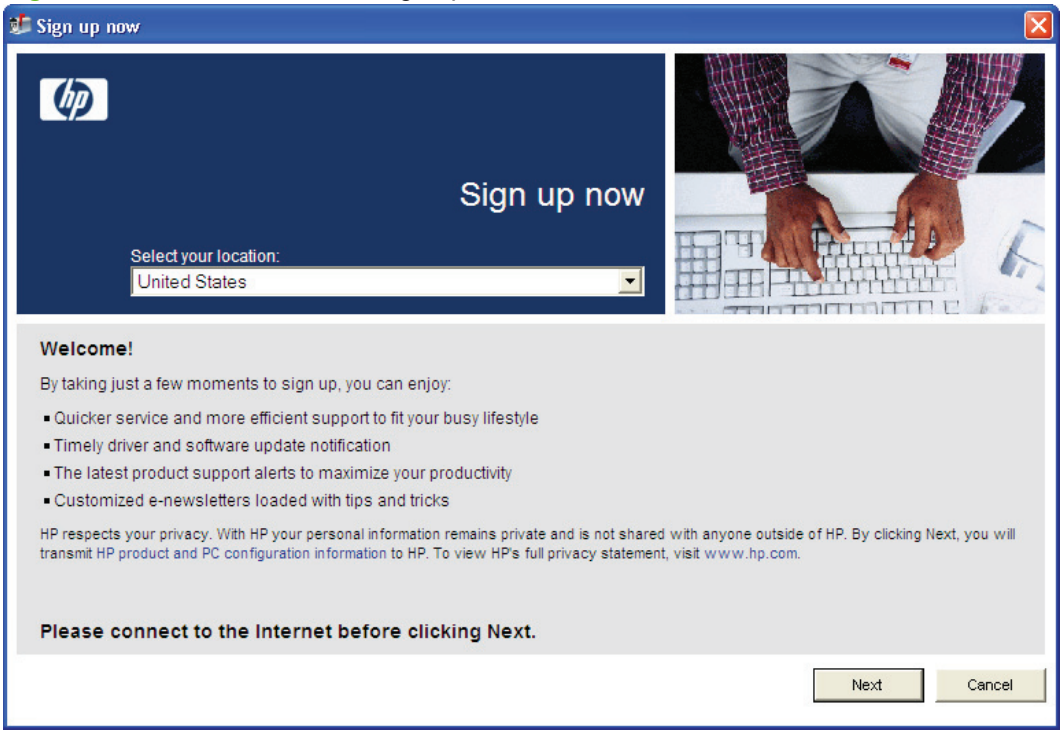
5. The **Connect Your Device Now** dialog box appears. Turn on the product, connect the USB cable to your computer and the product, and then click **Next** if the installer does not start the process automatically. It might take an extended period of time for the installation to finish on Windows XP.

Figure 3-11 USB installation—Connect Your Device Now dialog box



6. The **Sign up now** screen appears.

Figure 3-12 USB installation—Sign up now screen



- If you have Web access, you can sign up to receive information from HP. On the **Sign up now** screen, click **Next** to open the **HP Registration** Web page. Follow the onscreen instructions to register.
- If you do not want to register at this time, click **Cancel**.

7. The **Congratulations! Software Installation is complete** dialog box appears. Click **Exit** to finish the installation.

Figure 3-13 USB installation–Congratulations! Software Installation is complete dialog box

The product will print a test page to confirm the installation.

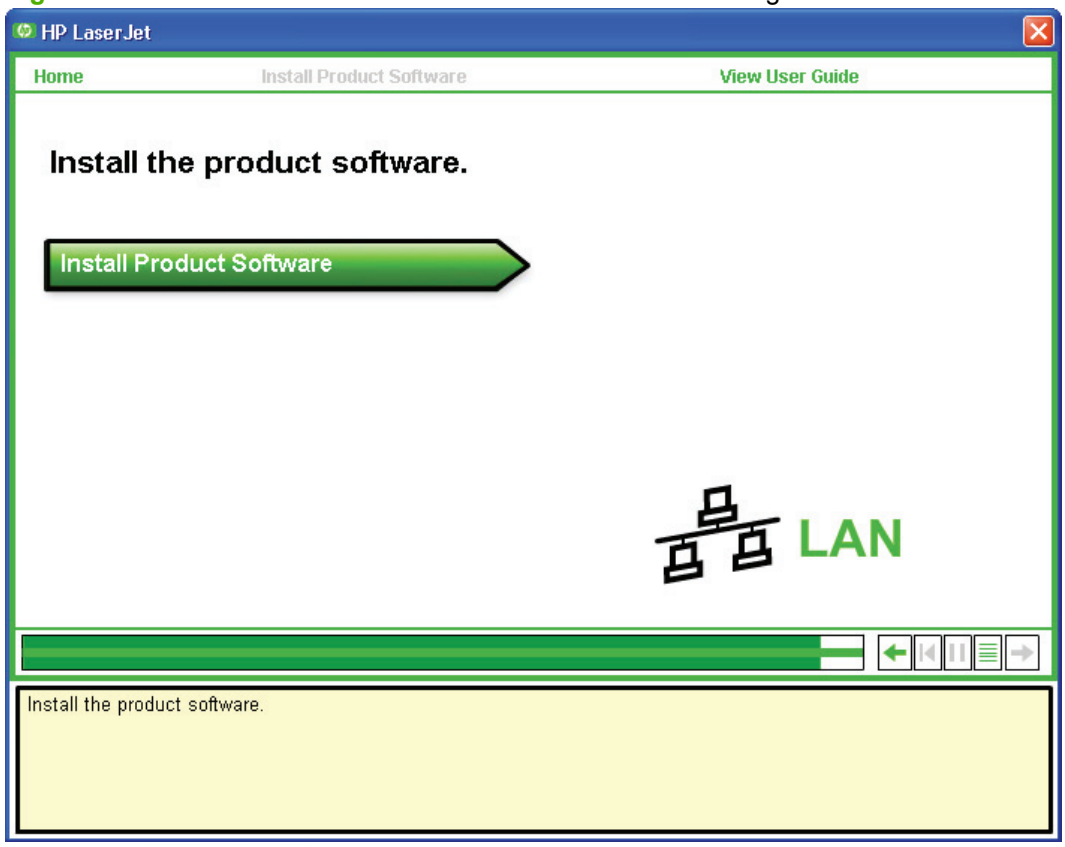
Network installation dialog box options for Windows

This section shows the dialog boxes that appear when you install the product over a network connection.

In any dialog box where it is available, click the **Back** button to return to the previous dialog box, or click the **Cancel** button to cancel the installation.

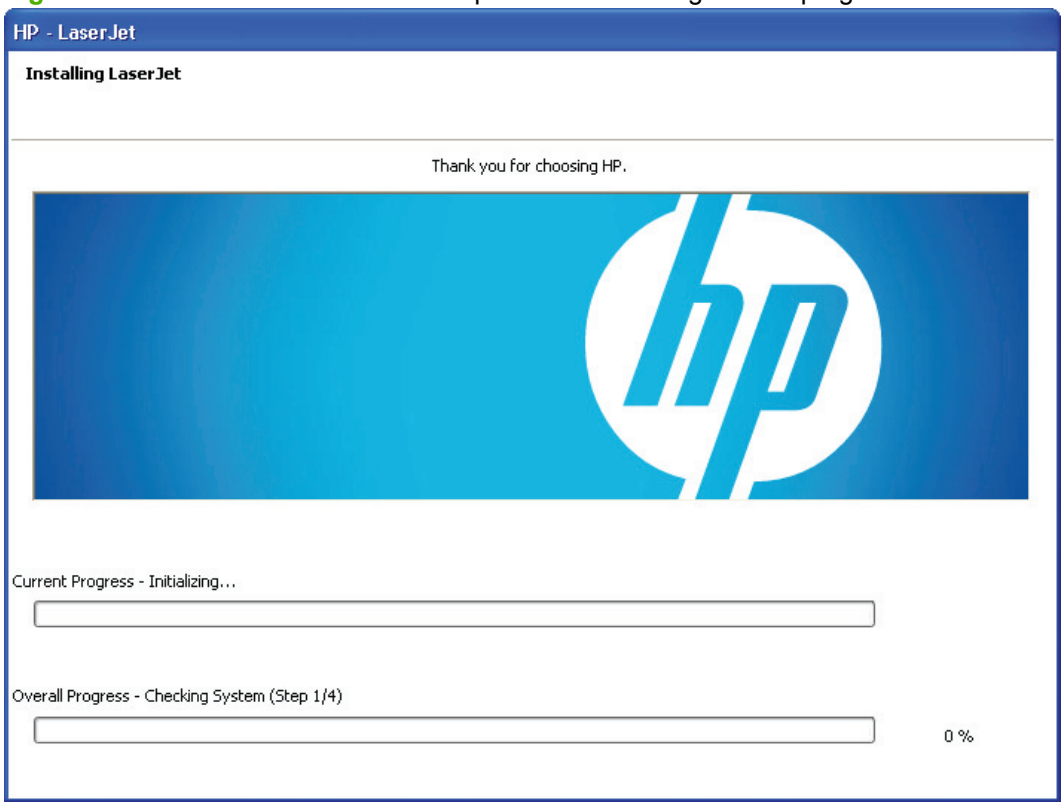
NOTE: The sequence of dialog boxes might differ from what is shown here, depending on the product, the network configuration, and the selected options.

Figure 3-14 Network installation—Install Product Software dialog box



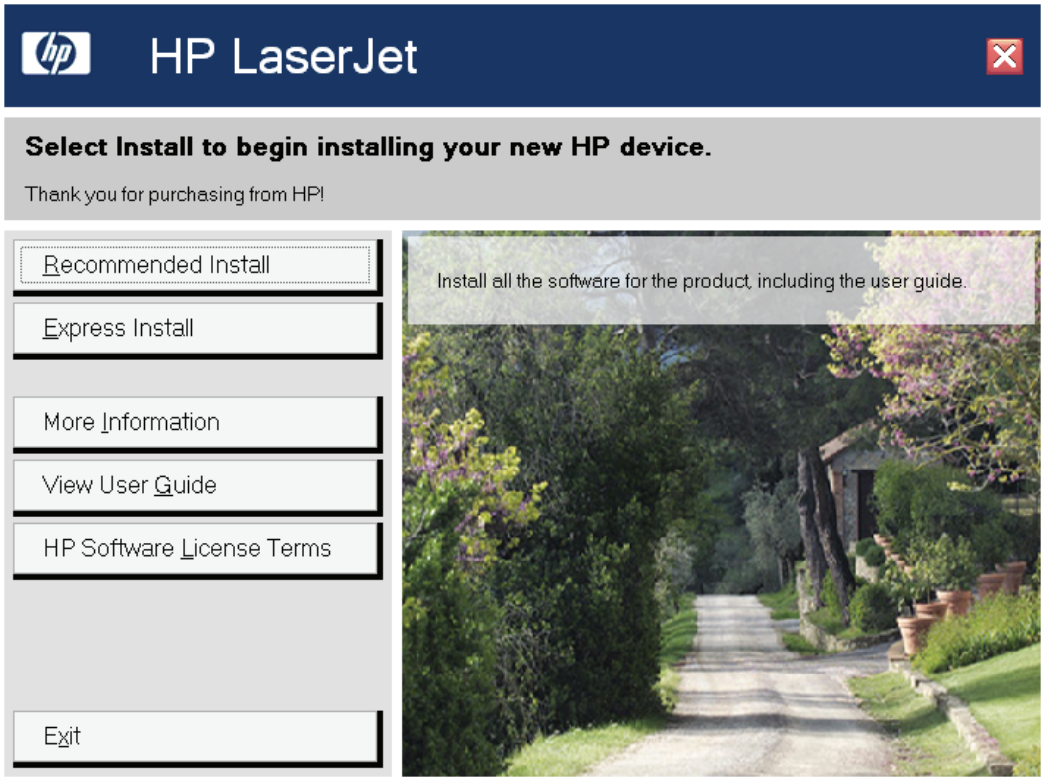
Click **Install Product Software** to continue. Between dialog boxes, a current-progress screen appears. This screen shows the progress of the installation and provides information about the number of subtasks that have been completed in each step. The current-progress screen appears throughout the installation, but is sometimes covered by a new dialog box that contains the next option in the installation sequence.

Figure 3-15 Network installation—Sample screen showing current progress



Once you have clicked **Install Product Software** in the welcome screen, the **Select Install to begin installing your new HP device** dialog box appears.

Figure 3-16 Network installation—Installation options dialog box



Click **Recommended Install** to install the complete printing-system software.

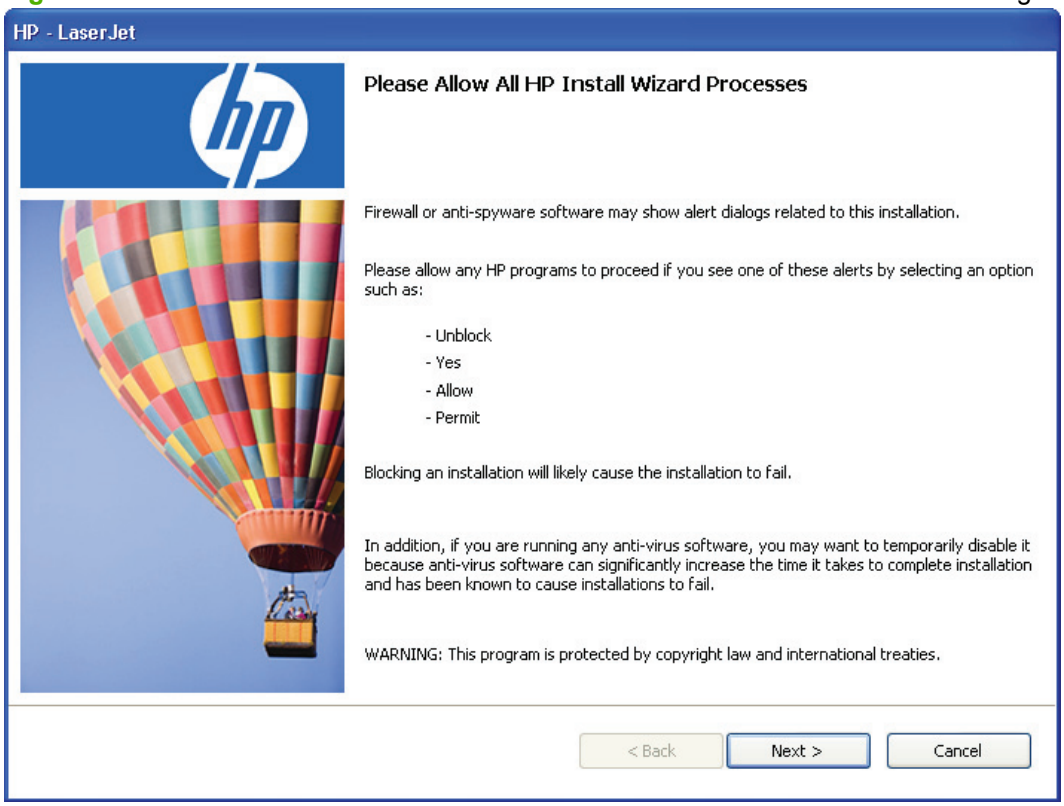
Click **Express Install** to install only limited software.

Click **More Information**, and then click **Read Me First** to open the installation notes Web page for information about the installations and to find out if your system meets the recommended installation requirements. Close the notes, and then click **Back** to return to the installation choices.

Between dialog boxes, a progress screen appears. This screen shows the progress of the installation and provides information about the number of subtasks that have been completed in each step. This screen disappears, and the **Please Allow All HP Install Wizard Processes** dialog box appears.

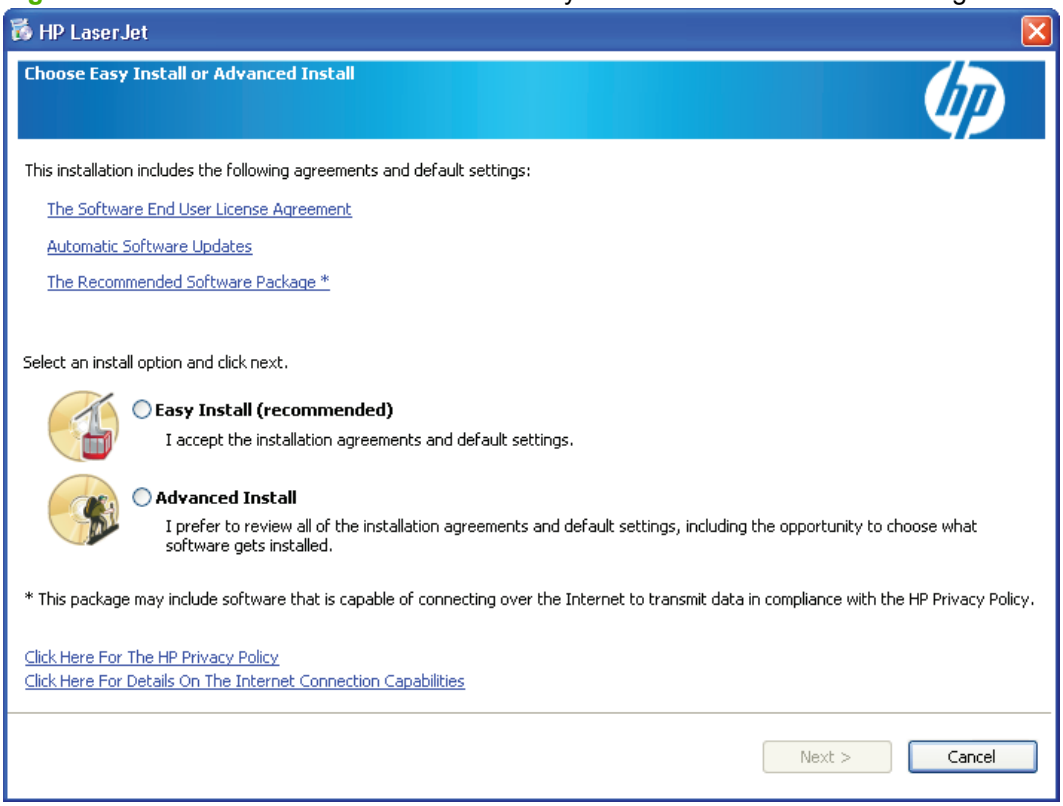
The **Please Allow All HP Install Wizard Processes** instructs you to permit the installation process to continue if firewall or anti-spyware programs generate alert messages.

Figure 3-17 Network installation—Please Allow All HP Install Wizard Processes dialog box



Click **Next** to open the **Choose Easy Install or Advanced Install** dialog box.

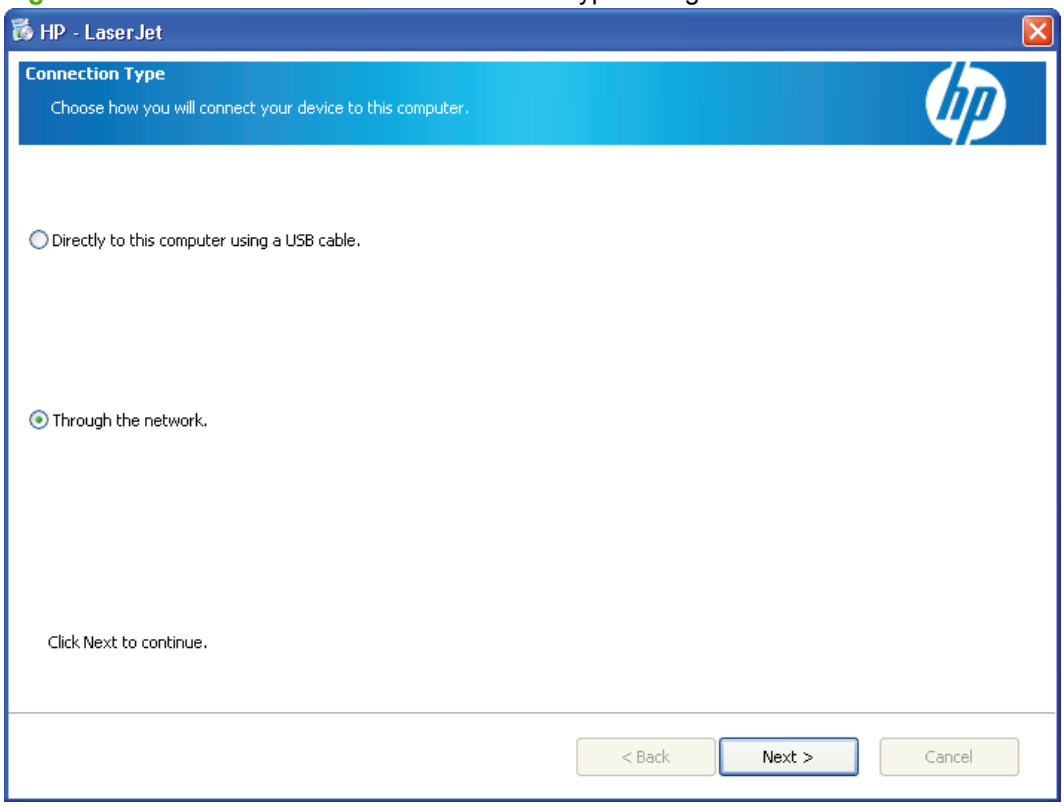
Figure 3-18 Network installation—Choose Easy Install or Advanced Install dialog box



Select an installation type, and then click **Next** to open the **Connection Type** dialog box.

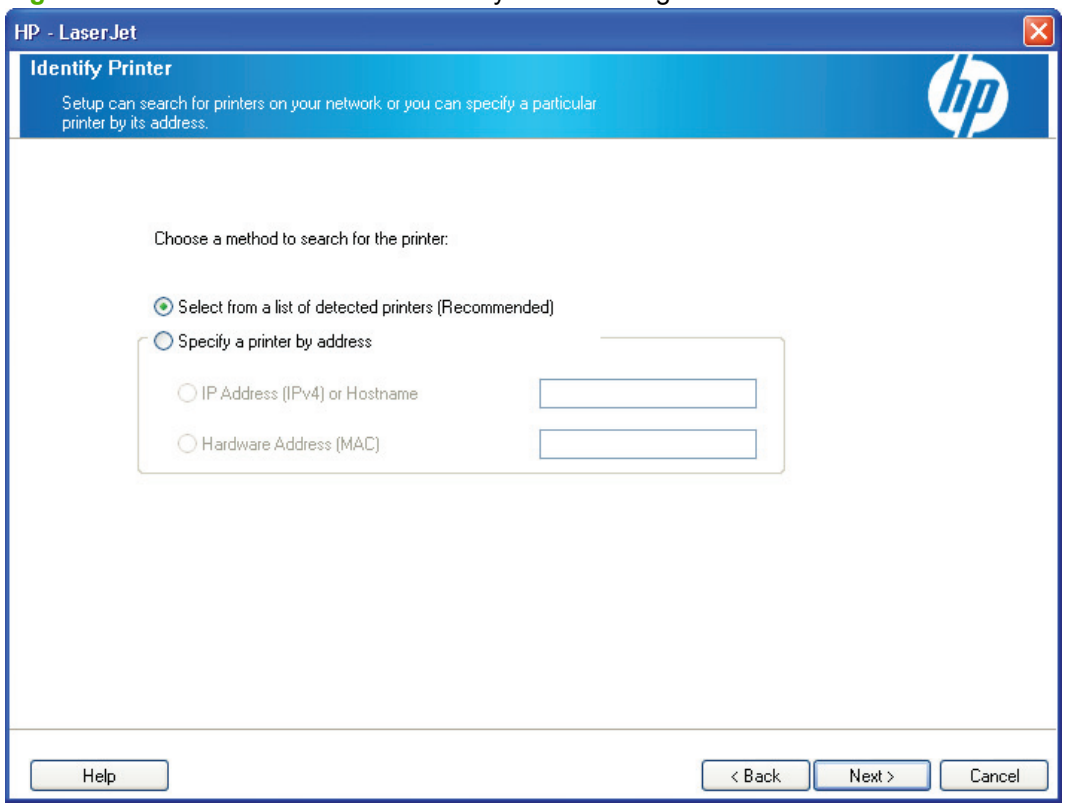
- If you select **Advanced Install** and then click **Next**, several dialog boxes appear. These screens allow you to customize your installation process.

Figure 3-19 Network installation—Connection Type dialog box



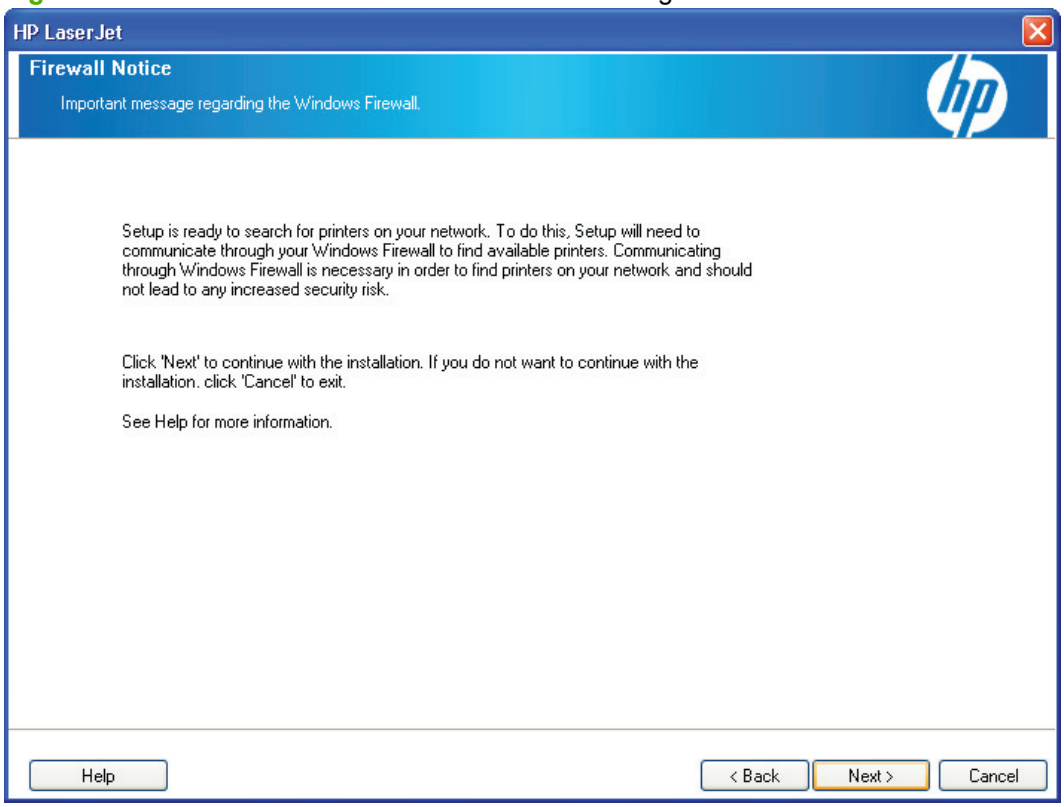
Select the **Through the network** option and then click **Next** to continue the installation. The **Identify Printer** dialog box appears.

Figure 3-20 Network installation—Identify Printer dialog box



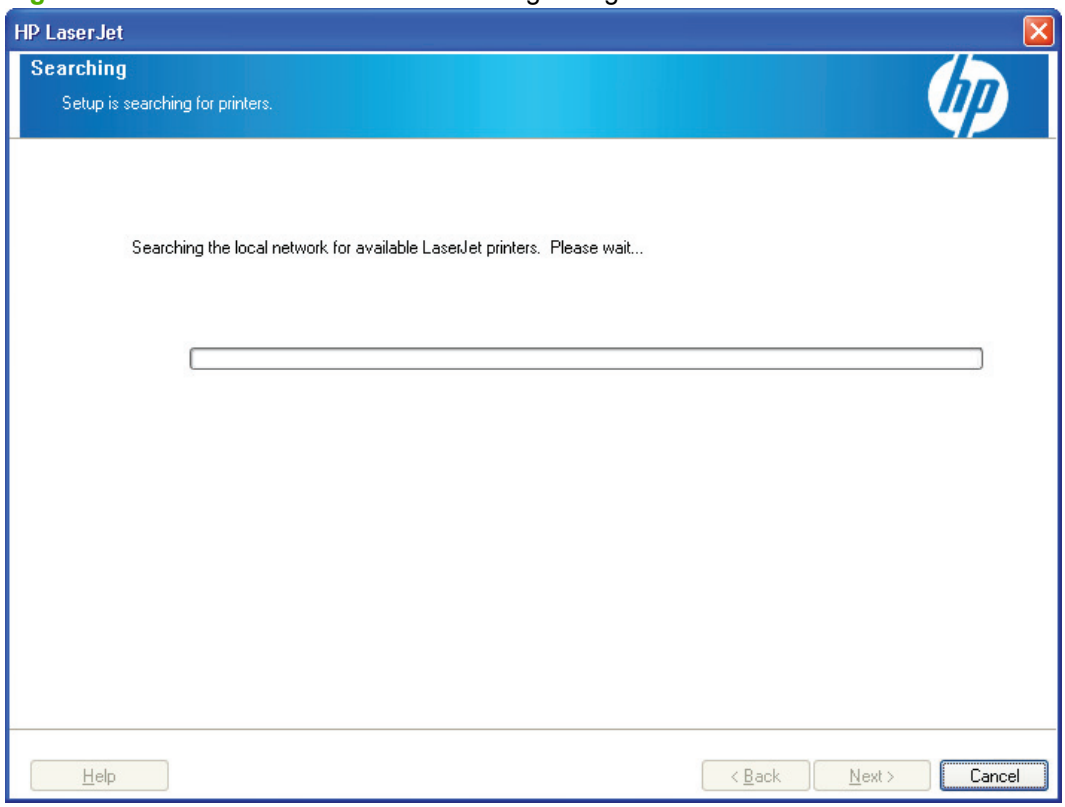
If you select **Select from a list of detected printers (Recommended)**, the **Firewall Notice** dialog box appears. Click **Next** to continue the process.

Figure 3-21 Network installation—Firewall Notice dialog box



The **Searching** dialog box appears as the software searches the network for the product.

Figure 3-22 Network installation—Searching dialog box

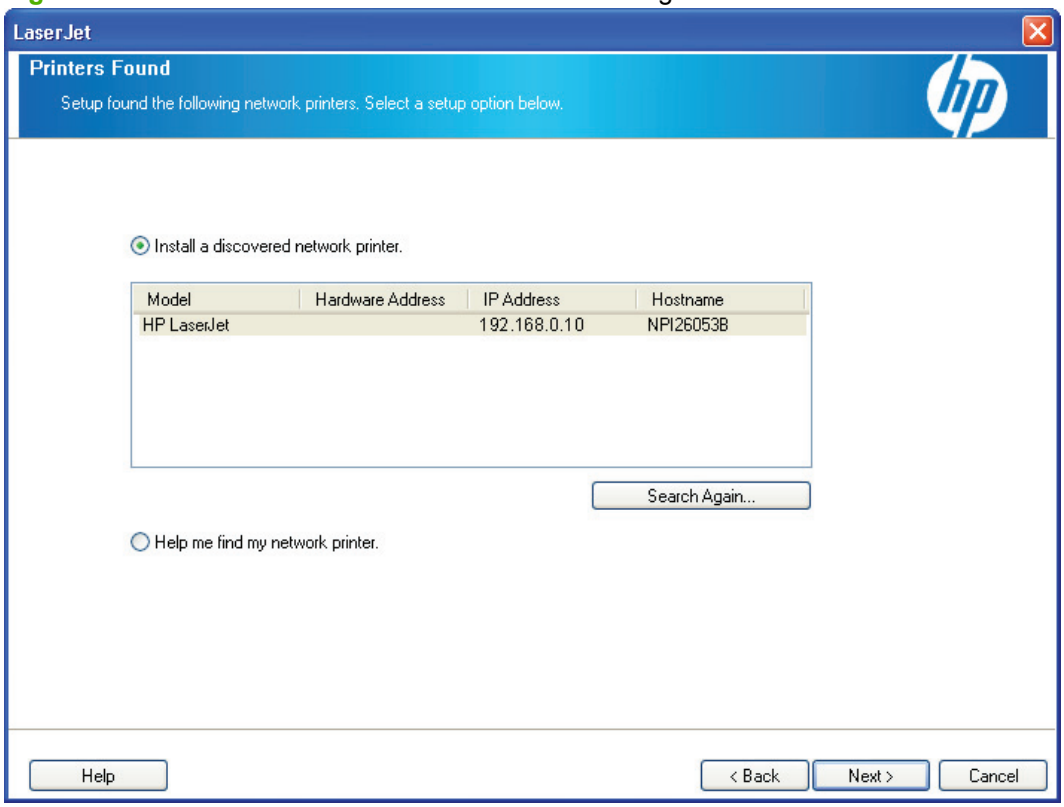


If you select the **Specify a printer by address** option on the **Identify Printer** dialog box, the **IP Address (IPv4) or Hostname** and **Hardware Address (MAC)** boxes are activated.

Specify the product by hardware address (MAC), TCP/IP address, or IP Hostname. After typing one of these options in the appropriate field, click **Next** to continue.

The **Printers Found** dialog box appears either after the software completes its search for the product, or after you specify the product.

Figure 3-23 Network installation—Printers Found dialog box

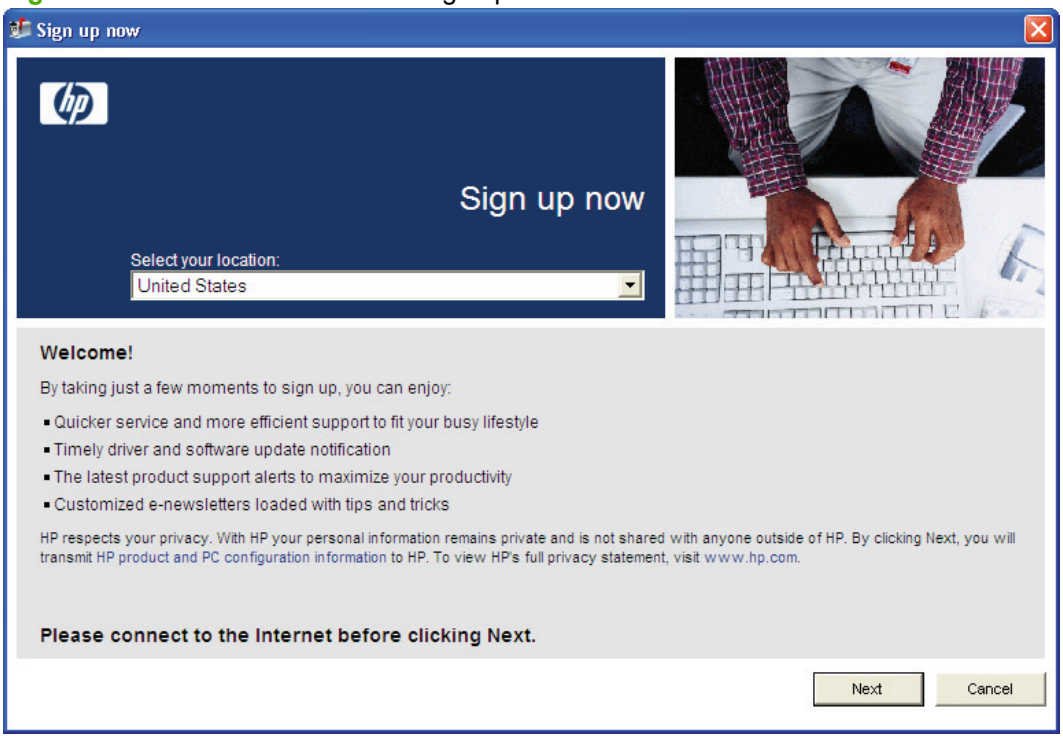


The **Install a discovered network printer** option is selected by default.

- To install a different product, select a different printer in the list, click **Search Again**, or select **Help me find my network printer**, and then click **Next**.
- To continue installing the product, leave **Install a discovered network printer** selected, and then click **Next**. It might take as long as 35 minutes for this step to finish the installation process.

The **Sign up now** screen appears.

Figure 3-24 Network installation—Sign up now screen



- If you have Web access, you can sign up to receive information from HP. On the **Sign up now** screen, click **Next** to open the **HP Registration** Web page. Follow the onscreen instructions to register.
- If you do not want to register at this time, click **Cancel**.

When the process is completed, the **Congratulations! Software Installation is complete** dialog box appears. Click **Exit** to finish the installation.

Figure 3-25 Network installation—Congratulations! Software Installation is complete dialog box

The product will print a test page to confirm the installation.

Set a default printer

Use the following steps to set up a product as your default printer.

1. In Windows Vista, click the **Start** button, click **Control Panel**, and then click **Hardware and Sound**. Under the **Printers** section, click **Change default printer**.

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

   In Windows 2000 operating systems, click **Start**, click **Settings**, and then click **Printers**.

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

3. Click **Set As Default Printer**. A check mark appears next to the product.

Uninstall the software

This section provides information about the following topics:

- Uninstall component list
- Uninstall methods

Uninstall component list

The uninstaller removes the following components from the computer:

- Drivers
- HP ToolboxFX
- User guides

The uninstaller does *not* remove the following components from the computer:

- HP Update
- HP Shop for Supplies

You must remove these components using Windows Add or Remove Programs feature. A warning screen appears if any other HP products are still using the components you want to remove.

Uninstall methods

The following methods exist for removing the printing-system software from the computer:

- **Program group**. Click **Uninstall** from the product program group from the **Programs** menu on the computer. This is the preferred method.
- **Add or Remove programs**. Click **Add or Remove Programs** from the Windows Control Panel, and then click the software components that you want to remove.

Program group uninstall tool

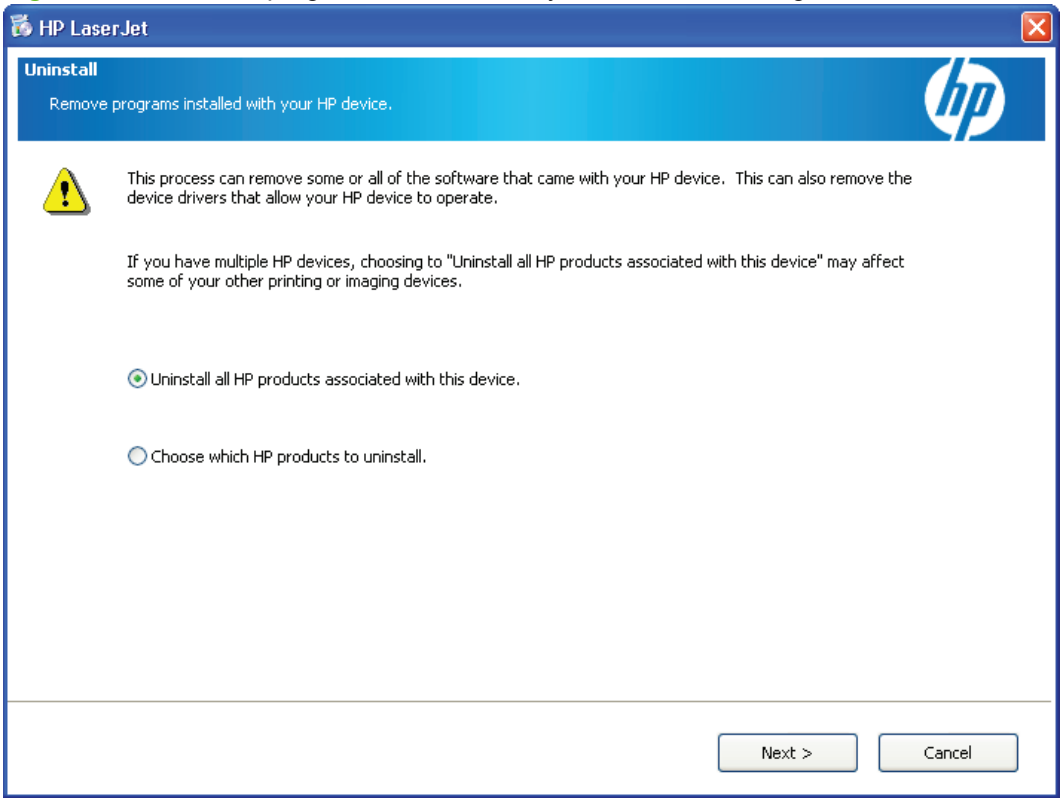
This is the recommended method for end users.

1. Close all open programs.
2. In Windows Vista, click **Start**, click **All Programs**, click **HP LaserJet P2050 Series**, and then click **Uninstall**.

   In Windows XP and Windows Server 2003, click **Start**, click **Programs**, click **HP**, click **HP LaserJet P2050 Series**, and then click **Uninstall**.

3. The **Remove programs installed with your HP device** dialog box appears.

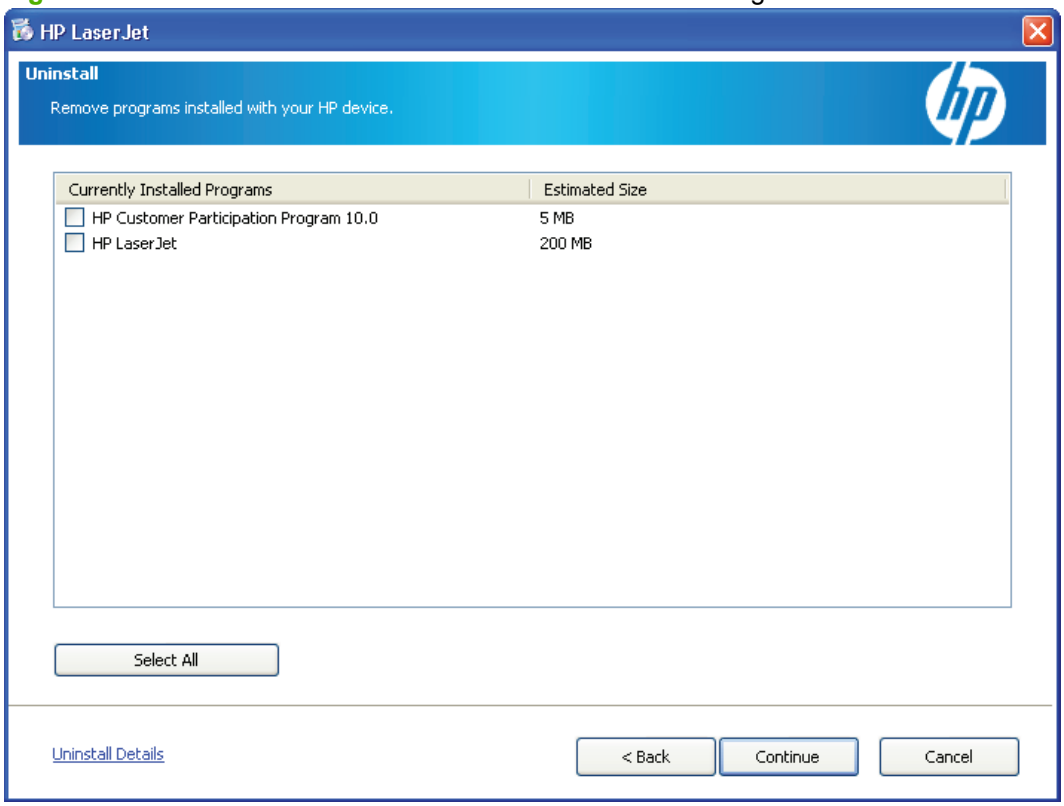
Figure 3-26 Remove programs installed with your HP device dialog box



- Select **Uninstall all HP products associated with this device** to perform a complete removal. Selecting this option and clicking **Next** opens the **Review uninstall instructions and information** dialog box.

- Select **Choose which HP products to uninstall** to select what programs to remove. Selecting this option and clicking **Next** opens a list of currently installed programs.

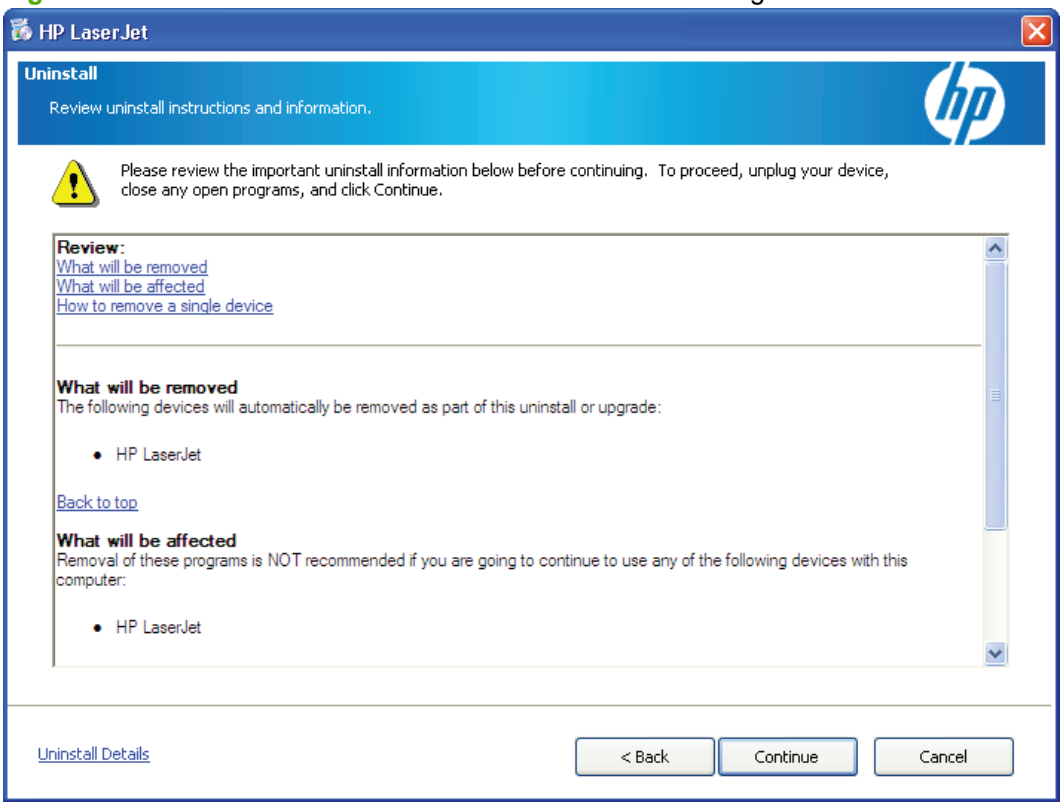
Figure 3-27 Review uninstall instructions and information dialog box



Select the programs to remove, and then click **Continue** to open the **Review uninstall instructions and information** dialog box.

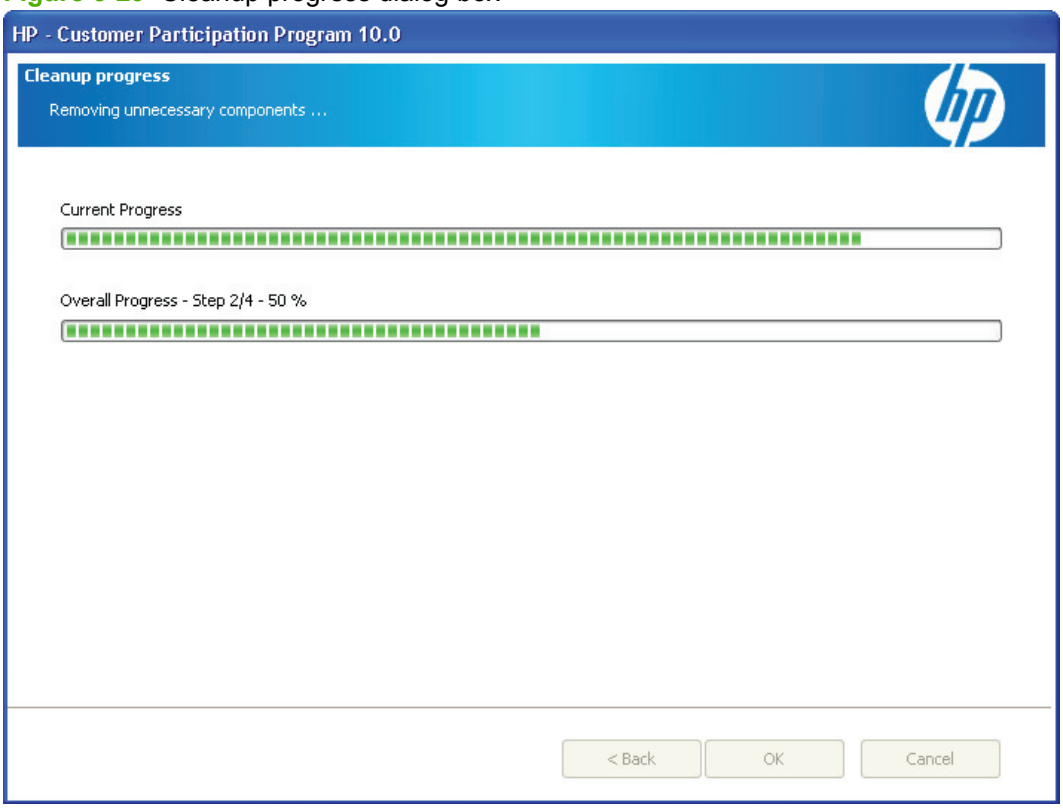
4. In the **Review uninstall instructions and information** dialog box, review the information, and then click **Continue** to proceed.

Figure 3-28 Review uninstall instructions and information dialog box



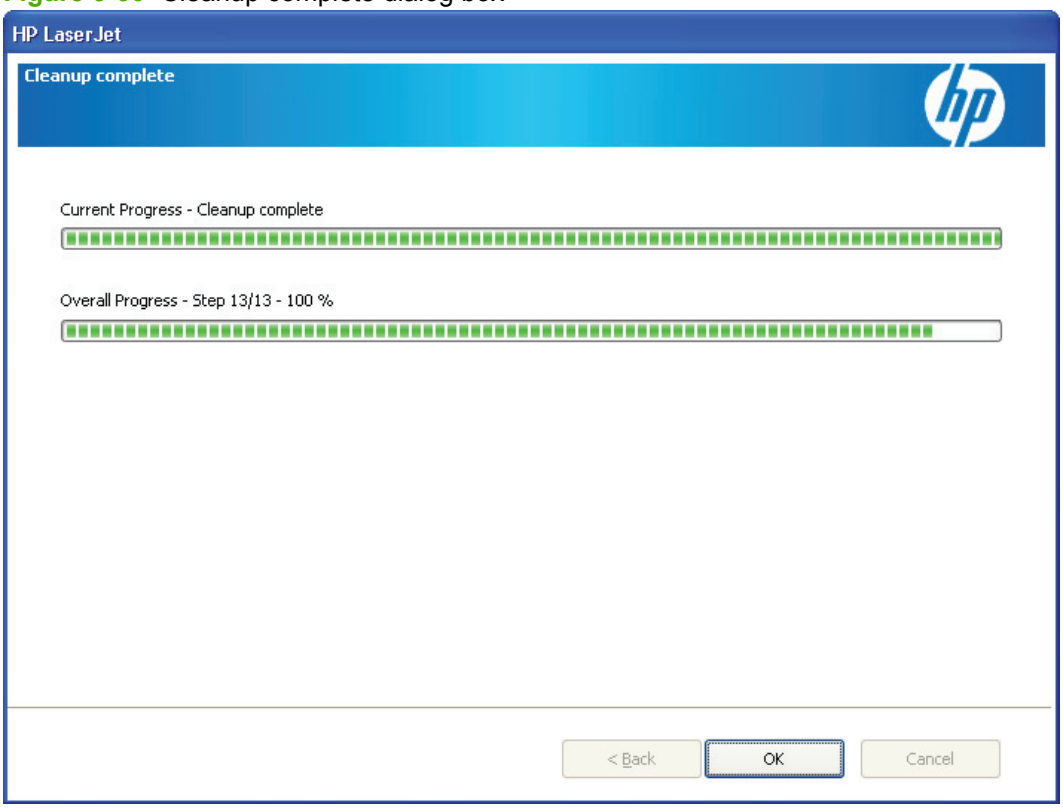
5. The **Cleanup progress** dialog box appears. Progress bars show the status of the removal process.

Figure 3-29 Cleanup progress dialog box



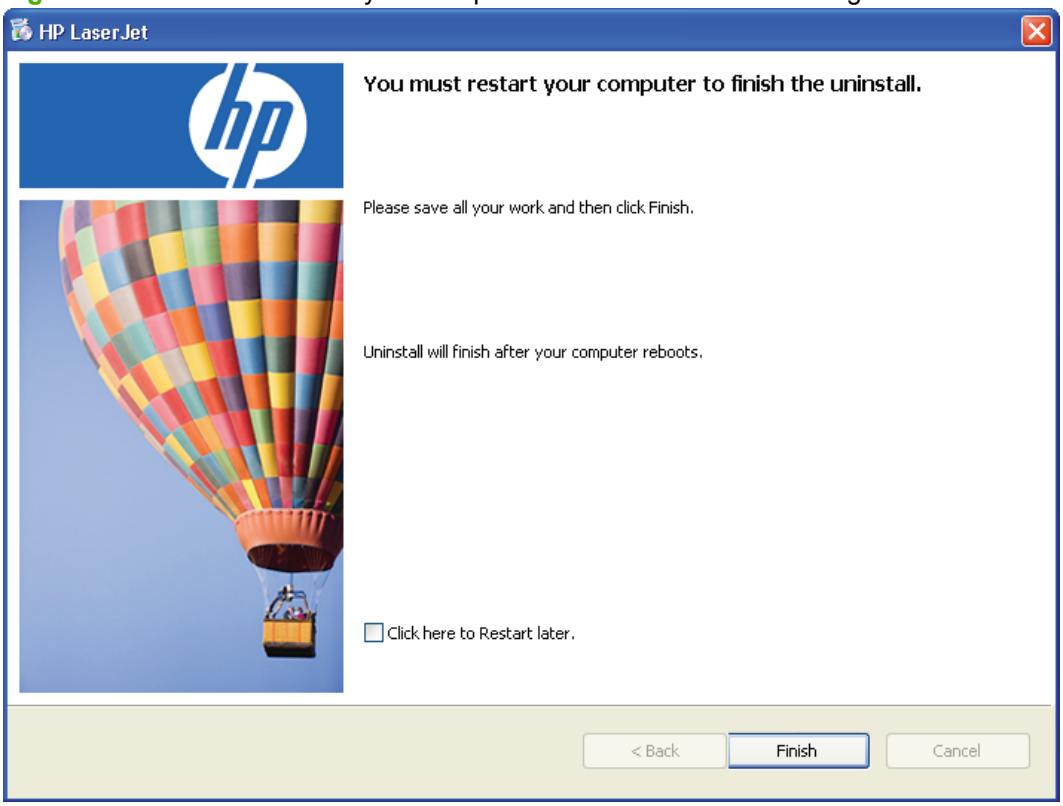
6. When the removal process is complete, the **Cleanup complete** dialog box appears. Click **OK**.

Figure 3-30 Cleanup complete dialog box



7. The **You must restart your computer to finish the uninstall** dialog box appears. Select **Click here to Restart later** if you want to restart the computer at a later time, and then click **Finish**. Or, click **Finish** to restart the computer and finish the uninstall process.

Figure 3-31 You must restart your computer to finish the uninstall dialog box



Add or Remove Programs function on the Windows Control Panel

Use the Windows Add or Remove Programs feature on the Windows Control Panel to remove the printing-system software.

1. In Windows Vista, click **Start** , click **Control Panel**, and then under **Programs** click **Uninstall a program**.

   In Windows XP and Windows Server 2003, click **Start**, click **Settings**, click **Control Panel**, and then open **Add or Remove Programs**.

2. In Windows Vista, right-click the product software program, and then click **Uninstall**.

   In Windows XP and Windows Server 2003, select the product software program, and then click the **Remove** button.

3. Repeat step 2 for HP Update and HP Shop for Supplies if necessary.

4 HP printer driver for Windows

Introduction

This document describes the features of the PCL 6 printer driver for Windows 2000, Windows XP (32-bit and 64-bit), Windows Server 2003 (32-bit and 64-bit), and Windows Vista (32-bit and 64-bit).

When installing the print-system software from the software CD in Windows Vista or Windows XP, the PCL 6 printer driver is installed by default. The PCL 5 Universal Print Driver (UPD) and the PS UPD can be downloaded from the Web: www.hp.com/go/ljp2050series_software.

The following sections describe the options that are available on each tab of the PCL 6 printer driver

Topics:

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

Change the Windows printer driver settings

Depending on the operating system on which the printer drivers are installed, access to the printer drivers and different print-driver interfaces is available in several ways:

- Software-program print-dialog box
- Print-driver user interface

Software-program print-dialog box

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

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

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

Print-driver user interface

Control the drivers directly from the **Printers** folder for access to two sets of driver tabs: the **Printing Preferences** tabs and the **Properties** tabs. The settings on the **Printing Preferences** driver tabs control the default driver settings for each user's profile. The settings on the **Properties** driver tabs control installable options configurations.

Printing Preferences driver tabs

The **Printing Preferences** driver tabs change the default settings that are used across all software programs. To gain access to these tabs, follow these steps:

1. For Windows XP and Windows Server 2003 (using the default **Start** menu view), click **Start**, click **Settings** (Windows XP), and then click **Printers and Faxes**.

   For Windows Vista, click **Start**, click **Control Panel**, and then under **Hardware and Sound** click **Printer**.
2. Right-click the product name.
3. Click **Printing Preferences**.

The following **Printing Preferences** print-driver tabs are available:

- **Advanced**
- **Printing Shortcuts**
- **Paper/Quality**
- **Effects**
- **Finishing**
- **Services**

All of these tabs are product-specific.

Properties driver tabs

This set of tabs controls the driver behavior and driver connections. To gain access to the **Properties** tabs, follow these steps:

1. For Windows XP and Windows Server 2003 (using the default **Start** menu view), click **Start**, click **Settings** (Windows XP), and then click **Printers and Faxes**.

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

2. Right-click the product name.

3. Click **Properties**.

The following **Properties** print-driver tabs are available:

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

Only product-specific driver tabs are described in this document; the other driver tabs are part of the operating system. The following **Properties** driver tabs are described in this document:

- **Device Settings**
- **About**

Help system

The PCL 6 printer driver includes 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 Windows 2000, Windows XP, and Windows Vista. Gain access to "What's this?" Help messages in any of the following ways:

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

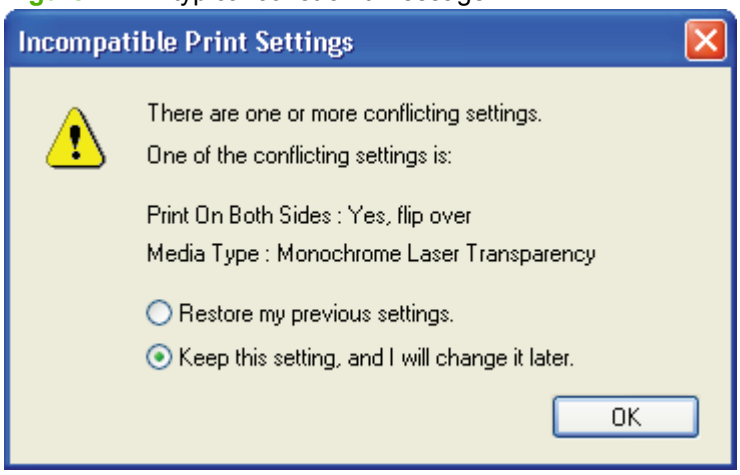
Context-sensitive Help

Press the **Help** button on a printer-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. These messages appear in response to selections that are illogical or impossible given the capabilities of the product 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 asking you to resolve this conflict.

Figure 4-1 A typical 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 and return to the driver settings to resolve the conflict, click **I will resolve the conflict myself** and then click **OK**.

Advanced tab features

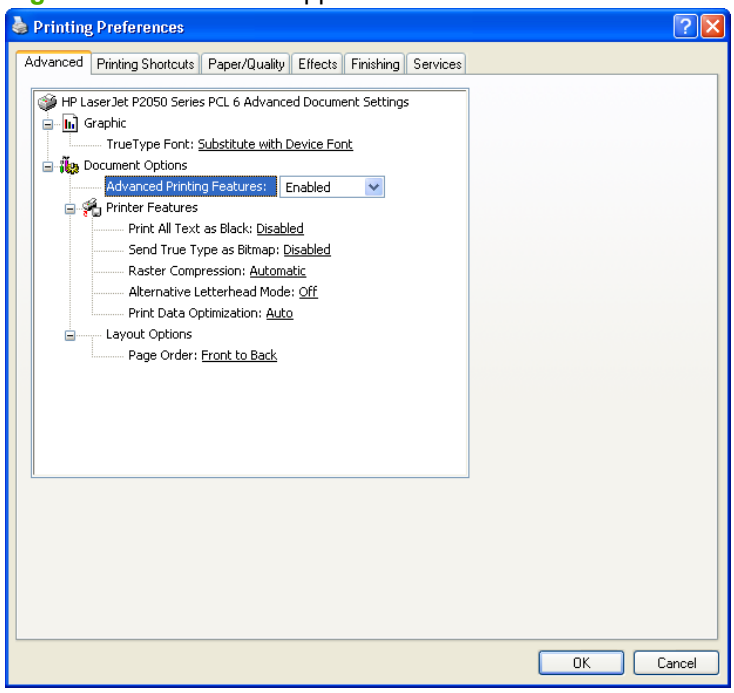
To gain access to the **Advanced** tab, follow these steps:

1. For Windows XP and Windows Server 2003 (using the default **Start** menu view), click **Start**, click **Settings** (Windows XP), and then click **Printers and Faxes**.

   For Windows Vista, click **Start**, click **Control Panel**, and then under **Hardware and Sound** click **Printer**.
2. Right-click the product name.
3. Click **Printing Preferences**.
4. Click the **Advanced** tab.

Use the **Advanced** tab to change the layout of printed pages and to configure special controls that are not commonly used. Also use this tab to control features such as media size and copies in the driver (although most current software programs support these features in the print dialog box or through the page settings in the software program). The following figure shows the **Advanced** tab.

Figure 4-2 The default appearance of the Advanced tab



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

- Paper/Output setting

- Graphic setting
- Document Options setting

Paper/Output setting

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

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 to the right of the text box. Valid entries are numbers from 1 to 9999. The copies value will not advance from the maximum number (9999) to 1 when the up arrow is used, or change from 1 to the maximum number (9999) when the down arrow is used.

When you click another group box or leave the **Advanced** tab, invalid entries into the edit box (such as non-numerical input, numbers less than 1, or numbers greater than the maximum allowed) are changed to the last valid value that appeared in the box. The default number of copies is 1.

Because the number of copies can be set in some software programs, conflicts between the software program and the driver can arise. In most cases, the software program and the driver communicate so that the number of copies set in one location (such as the software program) 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 will result in 100 copies (10 x 10) being printed. Set the number of copies in the software program, wherever possible.

Graphic setting

The **Graphic** setting contains the **TrueType Font** control.

The **TrueType Font** option can be set either to **Substitute with Device Font** or **Download as Softfont**.

- Click **Substitute with Device Font** to use equivalent printer fonts for printing documents that contain TrueType fonts.
- Click **Download as Softfont** to download TrueType fonts for use instead of using the product fonts.

Document Options setting

The **Document Options** setting contains the following controls:

- **Advanced Printing Features**
- **Printer Features**
- **Layout Options**

Advanced Printing Features

When the **Advanced Printing Features** setting is **Enabled**, metafile spooling is turned on and **Finishing** tab options such as **Page order**, **Booklet Layout**, and **Pages per Sheet** are available, depending on the product. 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 printer driver, even if they have been disabled. Selecting an advanced printing feature in the printer driver that has been disabled on the **Advanced** tab automatically makes the feature available.

Printer Features

The **Printer Features** setting contains the following controls:

- **Print All Text as Black**

  The **Print All Text as Black** feature is **Disabled** by default. When **Enabled** is selected, the driver prints all text as black regardless of the original document text color. Color text is printed as black, except for white text, which remains white. (White text is a reliable method of printing reverse typeface against a dark background.) This setting does not affect graphic images on the page, nor does it affect any text that is part of a graphic.

- **Send True Type as Bitmap**

  This feature provides an alternative for those software programs that encounter problems when using TrueType fonts for special graphic purposes such as shading, rotation, or slanting. The setting is **Disabled** by default. The TrueType fonts are converted to bitmap soft fonts before downloading. The **Enabled** setting causes the printer driver to send TrueType fonts to the product as outlines, which retains the standard format (outline) of the fonts.

- **Raster Compression**

  Use this 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).

- **Alternative Letterhead Mode**

  Use this feature to load letterhead or preprinted paper into the tray the same way for all jobs, whether printing on one side or both sides of the sheet. When this option is enabled, load the paper the same as for printing on both sides. See the user documentation that came with the product for instructions about loading letterhead for printing on both sides.

  When this option is selected, the product speed slows to the speed required for printing on both sides.

- **Print Data Optimization**

  Use this feature to achieve optimal print results for either raster images or text and vector images.

Layout Options

The **Layout Options** setting contains the **Page order** setting.

Page order specifies the order in which the pages of the document are printed. **Front to Back** prints the document so that page 1 prints first. **Back to Front** prints the document so that page 1 prints last.

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

Printing Shortcuts tab features

- Use defined printing shortcuts
- Create a custom printing shortcut

To open the **Printing Shortcuts** tab, follow these steps:

1. For Windows XP and Windows Server 2003 (using the default **Start** menu view), click **Start**, click **Settings** (Windows XP), and then click **Printers and Faxes**.

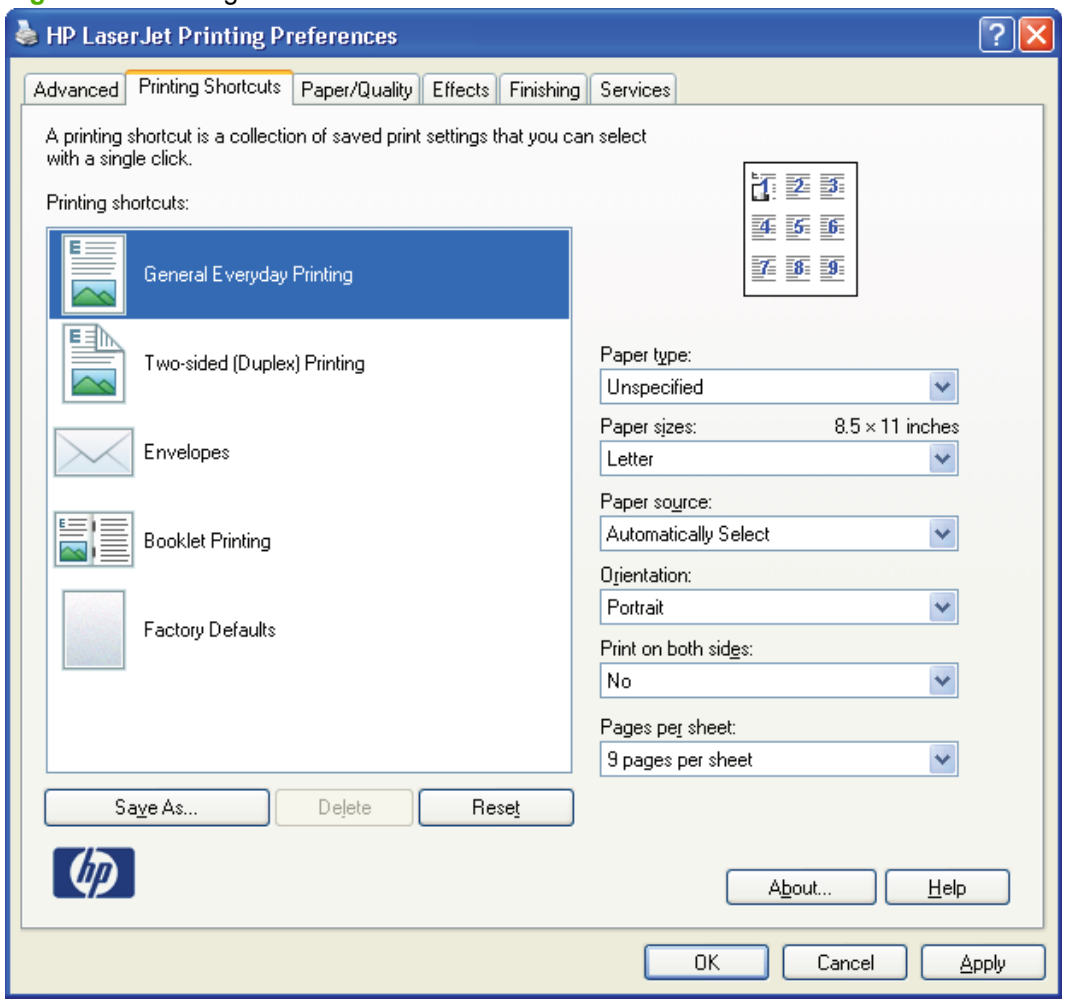
   For Windows Vista, click **Start**, click **Control Panel**, and then under **Hardware and Sound** click **Printer**.

2. Right-click the product name.

3. Click **Printing Preferences**.

4. Click the **Printing Shortcuts** tab.

Figure 4-3 Printing Shortcuts tab



Use the **Printing Shortcuts** tab to print jobs with specific printer-driver settings. The available settings depend on the product configuration. Select one of the defined shortcuts or create custom printing shortcuts.

Select one of the defined shortcuts or custom printing shortcuts, and then click **OK** to print the job with the specific printer-driver settings.

The driver can store a maximum of 25 custom printing shortcuts on a particular system.

Select any defined shortcut or custom printing shortcut and then click **Delete** to delete it.

Click **Reset** to set the default options for all features of the selected shortcut.

Use defined printing shortcuts

The following defined printing shortcuts are available:

- **General Everyday Printing**: Select this option to print using typical settings.
- **Two-sided (Duplex) Printing**: Select this option to print using typical settings for duplex printing.
- **Envelopes**: Select this option to print using typical settings for printing on envelopes.
- **Booklet Printing**: Select this option to print using typical settings for booklet printing.
- **Factory Defaults**: Select this option to print with the default printer-driver settings.

NOTE: If you change any of the settings for a defined printing shortcut, the **Save As** and **Reset** buttons become active. Click **Save As** to save the new settings as a custom printing shortcut. Click **Reset** to set the default options for all features of the selected shortcut.

Create a custom printing shortcut

1. Select one of the defined shortcuts as a base.
2. Select the appropriate print settings on the **Printing Shortcuts** tab, or by using the settings on any of the **Printing Preferences** tabs.
3. On the **Printing Shortcuts** tab, click **Save As**. The **Printing Shortcuts** box appears.
4. Type a name for the custom printing shortcut, and then click **OK**. The custom printing shortcut appears in the **Printing shortcuts** list.

Paper/Quality tab features

To gain access to the **Paper/Quality** tab, follow these steps:

1. For Windows XP and Windows Server 2003 (using the default **Start** menu view), click **Start**, click **Settings** (Windows XP), and then click **Printers and Faxes**.

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

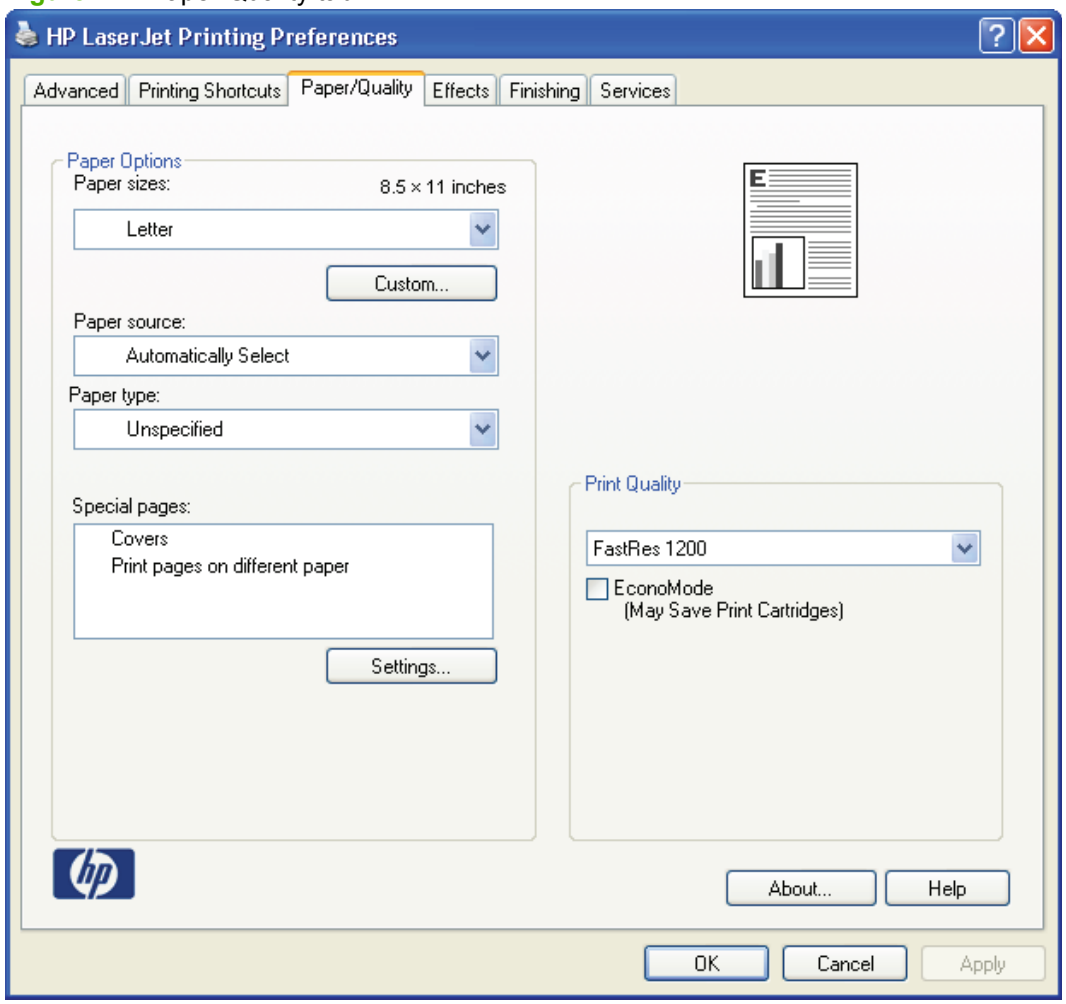
2. Right-click the product name.

3. Click **Printing Preferences**.

4. Click the **Paper/Quality** tab.

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 4-4 Paper/Quality tab



The **Paper/Quality** tab contains the following control sets:

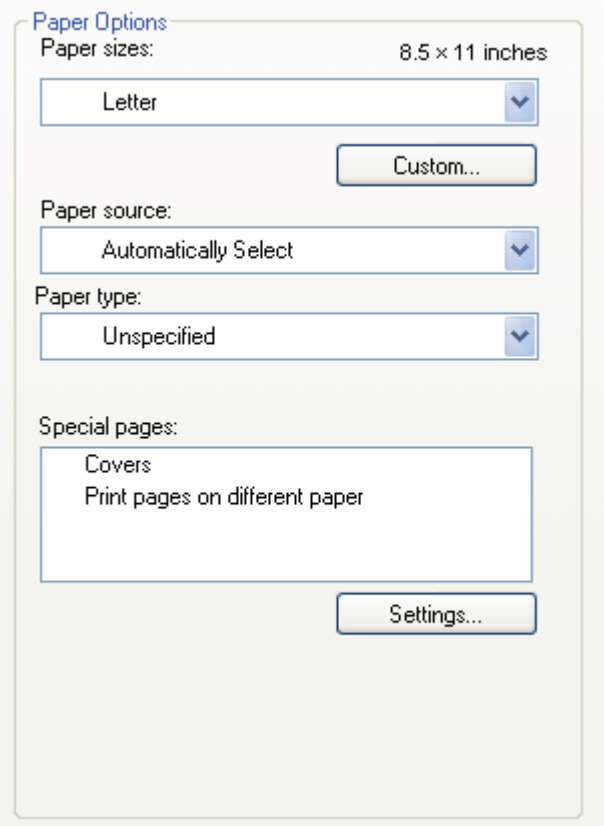
- Paper Options

- Special pages
- Document preview image
- Print Quality

Paper Options

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

Figure 4-5 Paper Options group box



Paper sizes

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

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

Because media-size settings in most software programs override driver settings, it is generally best to use the driver to set media size only when 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.

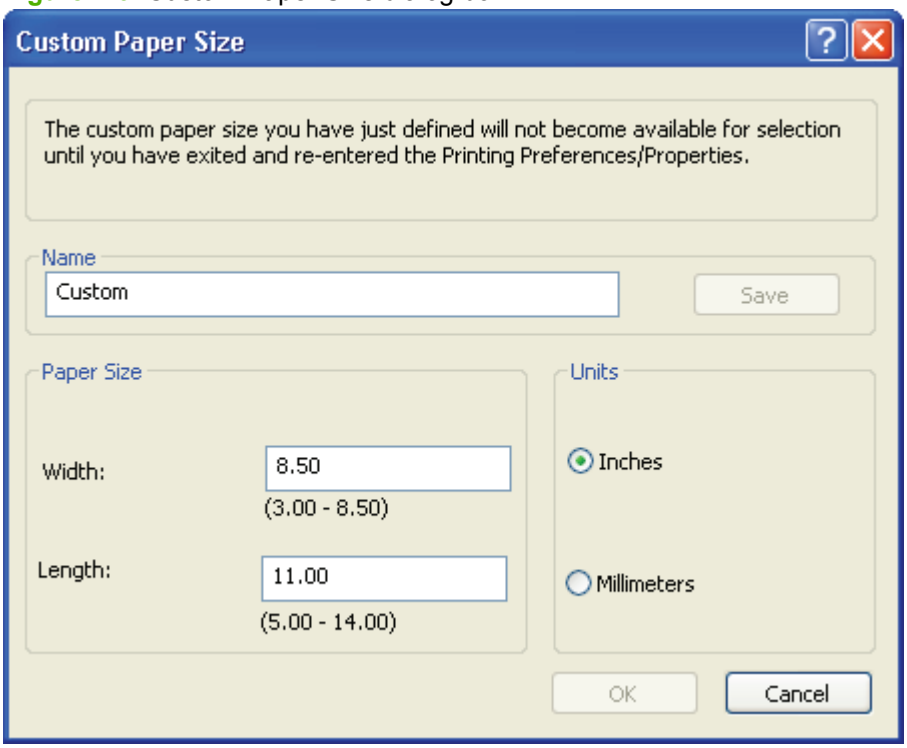
When you change the print-driver setting to a media size that is not currently loaded in the product, a control-panel message appears that prompts you to load the media size or select another tray.

For information about media sizes, see Media attributes on page 188.

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 4-6 Custom Paper Size dialog box



Name

Use the **Name** text box to type a new name for a custom media size.

The name that appears in the **Name** text box depends on the following conditions:

- If a saved custom media size has been selected from the drop-down menu on the **Paper/Quality** tab, then the **Name** text box shows the name of the selected custom media size.
- If a standard media size has been selected on the **Paper/Quality** tab, then the **Name** text box shows the default name of "Custom."
- If a new name has been typed into the **Name** text box for the purpose of saving a new size or renaming an existing size, then that new name will remain in the text box until the new size is saved or the dialog box is closed.

If you type a new name into the **Name** text box, but then do not click **Save**, you can change the width and height values without losing the name. However, if you close the dialog box without clicking **Save**, any unsaved name or size values are lost without warning.

Paper size

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 control is rounded down to the maximum valid entry, while any entry that is smaller than the minimum limits of the width and height control is rounded up to the minimum valid entry.

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

The resolution of each control is 1 millimeter or 1/10 of an inch, depending on the current measurement units.

Units

To change measurement units, click one of the options in the **Units** group box (either **Inches** or **Millimeters**).

Custom width and height control limits

The minimum media size for the product is 76.2 x 127 mm (3 x 5 in) and the maximum is 215.9 x 355.6 mm (8.5 x 14 in). The following table summarizes media size limits for each media-handling device.

Table 4-1 PCL 6 custom media sizes

Tray	Dimensions	Minimum	Maximum
Tray 1 (100-sheet multipurpose)	Width	76 mm (3.0 in)	312 mm (12.28 in)
	Height	127 mm (5.0 in)	470 mm (18.5 in)
Tray 2 (250-sheet)	Width	148.0 mm (5.83 in)	297 mm (11.7 in)
	Height	210 mm (8.26 in)	432 mm (17 in)
Tray 3 (250-sheet, optional)	Width	148.0 mm (5.83 in)	297 mm (11.7 in)
	Height	210 mm (8.26 in)	432 mm (17 in)
Duplexing unit	Width	148.0 mm (5.83 in)	297 mm (11.7 in)
	Height	210.0 mm (8.26 in)	432 mm (17 in)

Paper source

The **Paper source** setting specifies the source tray to use for printing a document. The list of source trays depends on the product 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, depending on what has been installed on the product:

- **Automatically select**
- **Printer auto select**

- **Manual Feed in Tray 1**
- **Tray 1** (50-sheet multipurpose tray)
- **Tray 2** (250-sheet tray)
- **Tray 3** (optional 500-sheet tray)

The default setting is **Automatically select**. When this setting is selected, the product uses the source tray that supports the selected media size. If you select a source tray other than **Automatically select**, make sure that the correct media size is loaded in the source tray. For information about media sources, see Media attributes on page 188.

Paper type

The **Paper type** drop-down menu shows all of the media types that the product supports. When you use the default setting, **Unspecified**, the product uses the default media type, which is usually **Plain**.

No mechanism exists for manually adding custom media types through the driver. Custom types can be added only by using the bidirectional communication mechanism, so they must already exist in the product when the bidirectional query occurs. If bidirectional communication is enabled, then the information an updated list of media types is returned. If bidirectional communication is not enabled, then the driver looks for custom media types that have been saved from a previous bidirectional communication query, and uses those. Otherwise, no custom media types are available through the driver.

The following standard types appear in the list:

- **Unspecified**
- **Plain**
- **Light 60-75 g/m2**
- **Mid-Weight 96-110g**
- **Heavy 111-130g**
- **Extra-Heavy 131-175g**
- **Cardstock 176-220g**
- **Monochrome Laser Transparency**
- **Labels**
- **Letterhead**
- **Envelope**
- **Heavy Envelope**
- **Preprinted**
- **Prepunched**
- **Colored**
- **Bond**

- **Recycled**
- **Rough**

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 type** setting.

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

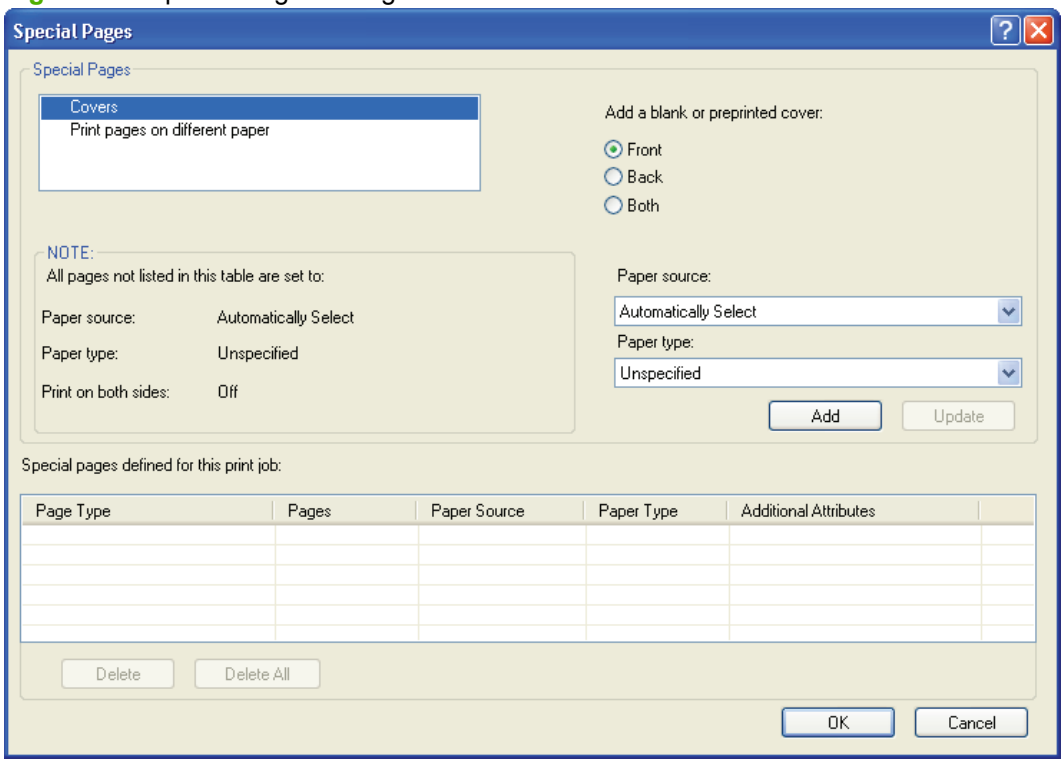
Special pages

Print books that include different media types by using the **Special pages** options.

Use the **Special pages** list box to select different trays loaded with different types of paper for different parts of the print job. For example, you can have covers printed on different paper, or you can insert preprinted pages at designated places to print books.

Select an option in the **Special pages** list box, and then click **Settings**. Use the **Special pages** dialog box to control the settings for the covers or special pages of the print job.

Figure 4-7 Special Pages dialog box



NOTE: Options available in the **Special Pages** dialog box change depending on the selection made in the **Special Pages** list box.

Document preview image

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

document preview image appears in the upper-right corner of the following **Printing Preferences** driver tabs:

- **Printing Shortcuts**
- **Paper/Quality**
- **Effects**
- **Finishing**

Switching between tabs does not change the location or appearance of the document preview image. When the mouse cursor moves over the document preview image, the cursor changes from an arrow to a gloved hand. Toggle between portrait and landscape page orientation by clicking the image.

Print Quality

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

- Print Quality drop-down menu
- EconoMode

Print Quality drop-down menu

The **Print Quality** drop-down menu contains the following controls in the PCL 6 printer driver:

- **ProRes 1200 (156 lpi)**
- **ProRes 1200 (180 lpi)**
- **FastRes 1200**
- **600 dpi**
- **ProRes 1200**

NOTE: When a **ProRes1200** setting is selected, documents are printed using a resolution of 1200 x 1200 dpi. This is the best print quality, but printing speed is slower than for documents printed on the FastRes 1200, which uses a resolution of 1200 x 600 dpi.

EconoMode

Select the **EconoMode** check box in conjunction with any of the print quality settings. When using EconoMode, the product uses less toner on each page. Using this option might extend the life of the print cartridge and can lower the cost per page, but also reduces print quality. Using the EconoMode feature with non-HP print cartridges can result in toner spillage or product damage.

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 print cartridge is installed. Print cartridges can measure the life of the mechanical parts as well as the quantity of toner. If the **EconoMode** setting is used frequently, the mechanical parts can wear out before the supply of toner is depleted, increasing the risk of toner leaking. Use genuine parts to avoid this problem.

The **EconoMode** option can be activated from the product control panel, from the **Print Quality** tab in the software application properties, or from the **Print Quality** area on the **Paper/Quality** tab in the driver. If the **EconoMode** option is selected from the control panel, and if the product has a genuine HP cartridge, the ON setting overrides any setting made in the application or driver, as shown in the following table.

Driver EconoMode setting for print job	HP Cartridge	Product control panel reports	EconoMode setting takes effect
Selected	Yes	On	Yes
Selected	No	Off	No
Not selected	Yes	On	Yes
Not selected	No	Off	No
Selected	Yes	Off	Yes
Selected	No	Off	No
Not selected	Yes	Off	No
Not selected	No	Off	No

Effects tab features

To gain access to the **Effects** tab, follow these steps:

1. For Windows XP and Windows Server 2003 (using the default **Start** menu view), click **Start**, click **Settings** (Windows XP), and then click **Printers and Faxes**.

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

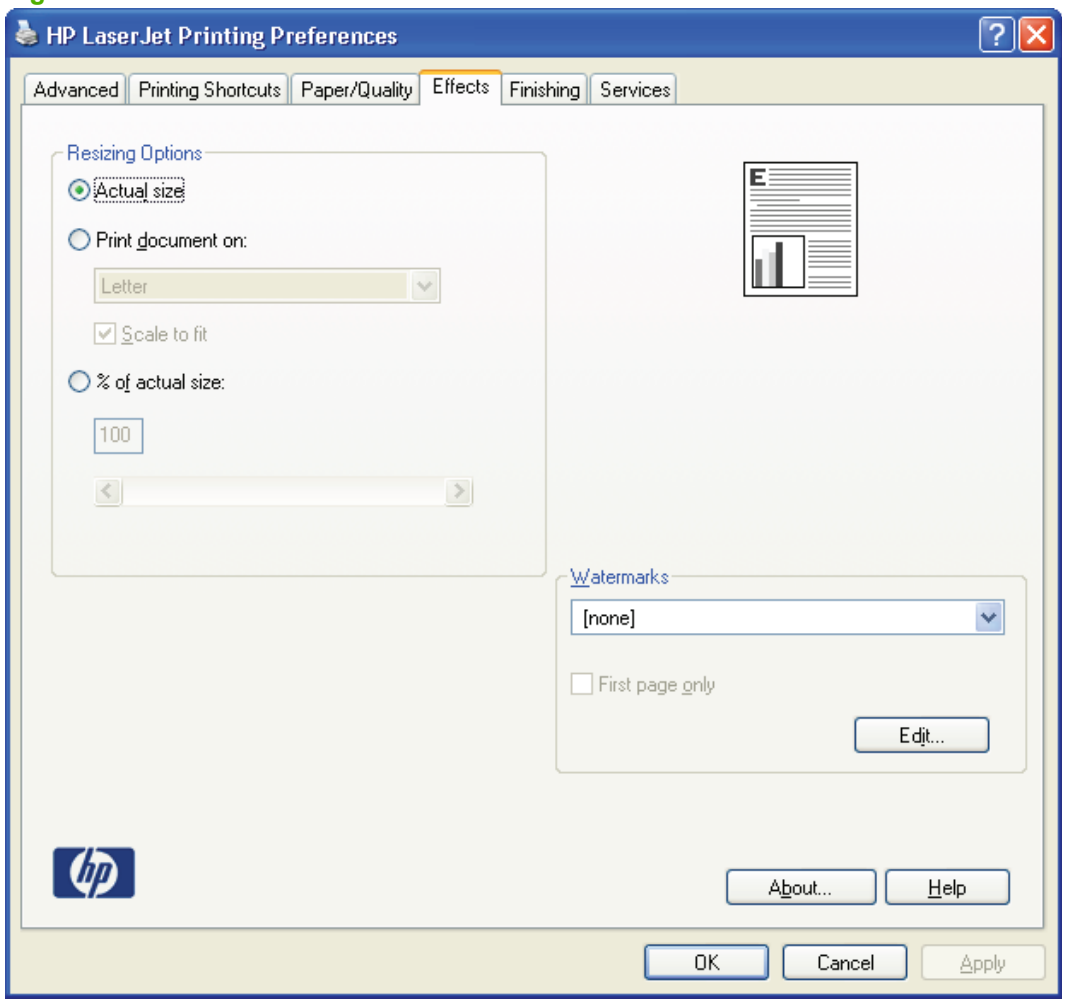
2. Right-click the product name.

3. Click **Printing Preferences**.

4. Click the **Effects** tab.

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

Figure 4-8 Effects tab



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

- Resizing Options
- Document preview image

- Watermarks

Resizing Options

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

- **Actual Size** (default)
- **Print document on** setting
- **Scale to Fit** option
- **% of actual size** setting

Actual Size

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

Print document on

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

The **Print document on** control is disabled by either of the following conditions:

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

Scale to fit

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

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

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 printer driver or what the printer driver receives from the software program, if the software program does not negotiate the paper size with the printer driver. The printer driver scales the page by the appropriate factor and sends it to the product.

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

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

The slider bar controls the scale directly. The value in the edit box changes as the slider-bar indicator is dragged, and the document preview image is updated to the new image scale. Each click on the arrows increases or decreases the scale by 1%. Each click on the slider bar affects the scale by 10%.

Dragging the slider-bar indicator does not yield an exact value. Instead, either use the slider-bar indicator to approximate the value and then use the arrows to refine the value, or type the value into the entry box.

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

See Document preview image on page 122.

Watermarks

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

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

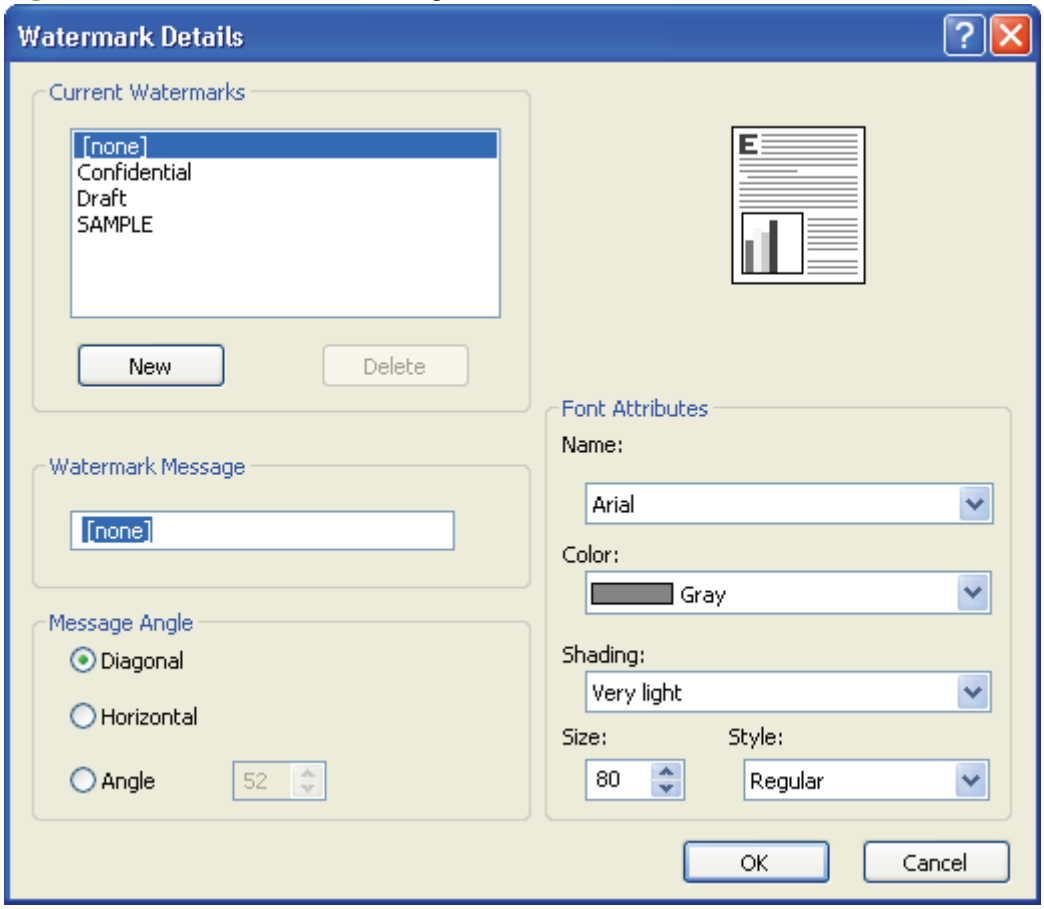
The drop-down menu shows alphabetically sorted watermarks that are currently available on the system, plus the string **(none)**, which indicates that no watermark is selected. This is the default setting. Any watermark that is selected from this list appears in the preview image.

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

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

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

Figure 4-9 Watermark Details dialog box



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

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

Current watermarks

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

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

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

To delete a watermark, select the watermark in the **Current Watermarks** list and click **Delete**. A warning appears asking whether you are sure you want to delete the selected item. Click **Cancel** if you want to keep the watermark. Click **OK** to delete the selected watermark.

NOTE: You can have no more that 30 watermarks in the **Current Watermarks** list at one time. When you reach the limit of 30 watermarks, the **New** button is disabled.

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

Watermark Message

The **Watermark Message** is also the name that identifies the watermark in the **Current Watermarks** list, except when more than one watermark has the same message. For example, you might want several different watermarks with the message DRAFT, each with a different typeface or font size. When this occurs, the string is appended with a space, a pound sign, and a number (for example, **Draft #2**). When a number is added, the number two is used first, but if the resulting name is also in the list, then the number increases until the name is unique (**Draft #3**, **Draft #4**, and so on).

Message Angle

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

- **Diagonal**. This is the default setting. Select this setting to place the text along a line that spans the lower-left to upper-right corners of the page.
- **Horizontal**. Select this setting to place the text along a line that spans the mid-left and mid-right edges of the page.
- **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**

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

- **Color**

  The **Color** drop-down menu contains only one option: **Gray**.

- **Shading**

  The default **Shading** setting for new and preset watermarks is **Very Light**. The following range of shades is available from the **Shading** drop-down menu:

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

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

These values represent the intensity of the gray that is used. Select **Light** to produce a lightly saturated gray watermark. Select **Lightest** to produce the lightest shade of watermark. Select **Darkest** to produce a black watermark.

- **Size**

  Font sizes from 1 to 999 points are available from the **Size** menu. The default point size is language-dependent.

- **Style**

  The following settings are available:

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

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

Default watermark settings

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

Table 4-2 Font Attribute settings for new and preset watermarks

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

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

Finishing tab features

To gain access to the **Finishing** tab, follow these steps:

1. For Windows XP and Windows Server 2003 (using the default **Start** menu view), click **Start**, click **Settings** (Windows XP), and then click **Printers and Faxes**.

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

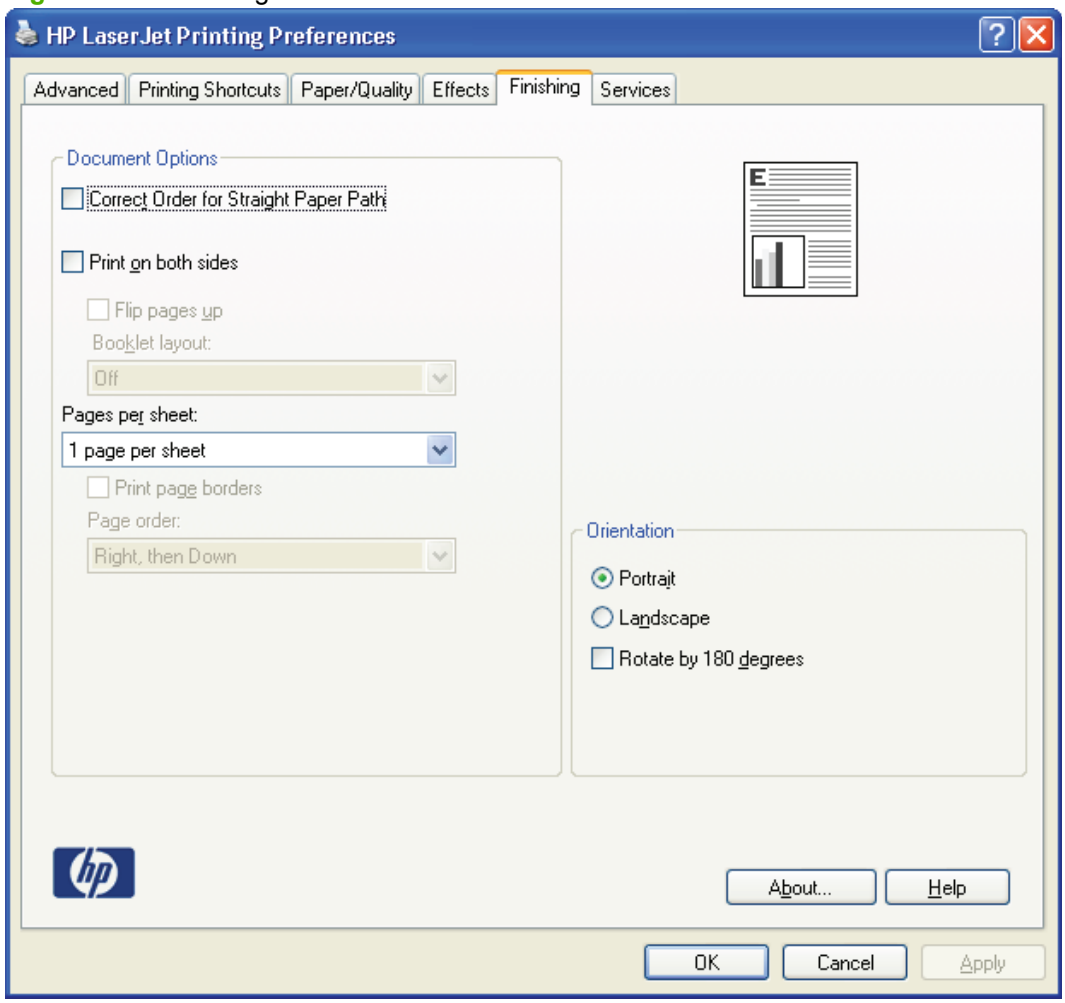
2. Right-click the product name.

3. Click **Printing Preferences**.

4. Click the **Finishing** tab.

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

Figure 4-10 Finishing tab



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

- Document Options
- Document preview image

- Orientation

Document Options

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

- Correct Order for Straight Paper Path
- Print on both sides
- Flip pages up
- Booklet layout
- Pages per sheet
- Print page borders
- Page order

Correct Order for Straight Paper Path

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

Print on both sides

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

- **Paper type** on the **Paper/Quality** tab is set to any media type *except for* the following types:
  - **Labels**
  - **Transparency**
  - **Envelope**
  - **Cardstock**
  - **Rough**
- **Paper size** on the **Paper/Quality** tab is set to any media size *except for* the following sizes:
  - **Envelope #10**
  - **Envelope DL**
  - **Envelope C5**
  - **Envelope B5**
  - **Envelope Monarch**

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

Topics:

- Automatically print on both sides

Automatically print on both sides

The duplexing unit in the product prints on two sides of a sheet of paper when the **Print on both sides** option is specified in the print job.

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

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

NOTE: 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 product needs to make adjustments to its print modes. When you select a media type, you are, in effect, instructing the product to use a group of settings (such as fuser temperature and print speed) to print the media with the best possible quality. This group of settings is known as print mode. A different print mode is used with each media type. Print-mode adjustments for the second side of a duplexed page are automatic.

Flip pages up

Use the **Flip pages up** check box is used to specify the duplex-binding option. By default, the **Flip pages up** check box is available only when **Print on both sides** is selected.

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

Table 4-3 Page orientation

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

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

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

Booklet layout

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

- **Left binding**
- **Right binding**

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

Topics:

- Book and Booklet Printing
- Print a booklet from a software program

Book and Booklet Printing

The product supports book and booklet printing.

A book is a print job that consists of at least two pages. It can have a different paper type for the front cover, first page, other pages, last page, or back cover. Use the **Special pages** settings on the **Paper/Quality** tab to specify settings for blank or preprinted pages to be inserted in the print job.

- **Front**
- **Back**
- **Both**
- **First**
- **Last**

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

Print a booklet from a software program

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

1. Click **File**.
2. Click **Print**.
3. Click **Properties**.
4. Click the **Finishing** tab.
5. Select the **Print on both sides** check box.
6. In the **Booklet layout** drop-down menu, select the type of booklet printing that you want (for example, **Right binding**).

7. Click **OK** in the printer driver.

8. Click **OK** in the print dialog box to print.

Pages per sheet

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

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

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

NOTE: Selecting an option other than **2 pages per sheet** makes booklet printing unavailable.

Print page borders

Related controls indented beneath the **Pages per sheet** edit box are **Print page borders** and **Page order**, which become active when **Pages per sheet** is greater than 1.

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

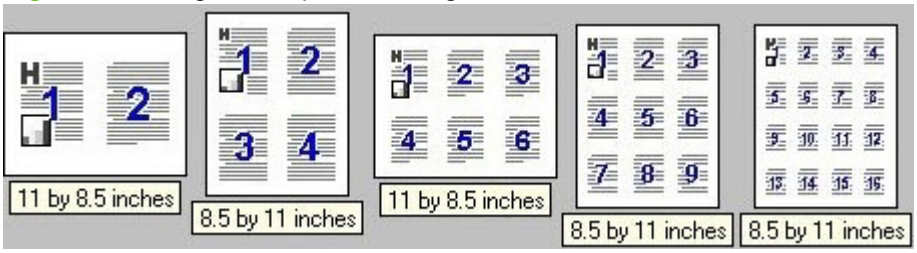
Page order

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

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

The preview document image changes to reflect alterations in these settings.

Figure 4-11 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

See Document preview image on page 122.

Orientation

Orientation refers to the layout of the image on the page, and does not affect the way that media feeds into the product. You can specify the orientation of the print job. The three available orientations are portrait, landscape, and rotated. The default orientation is **Portrait**.

NOTE: Nearly all software programs establish the orientation for the printed page, so the page orientation in the driver is useful only for the few software programs that do not set an orientation.

The **Orientation** group box contains three options:

- **Portrait**. The top edge of the document is the shorter edge of the media.
- **Landscape**. The top edge of the document is the longer edge of the media.
- **Rotate by 180 degrees**. This creates a landscape or portrait orientation in which the image is rotated 180°. This setting is useful for printing prepunched media.

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

Services tab features

To open the **Services** tab, follow these steps:

1. For Windows XP and Windows Server 2003 (using the default **Start** menu view), click **Start**, click **Settings** (Windows XP), and then click **Printers and Faxes**.

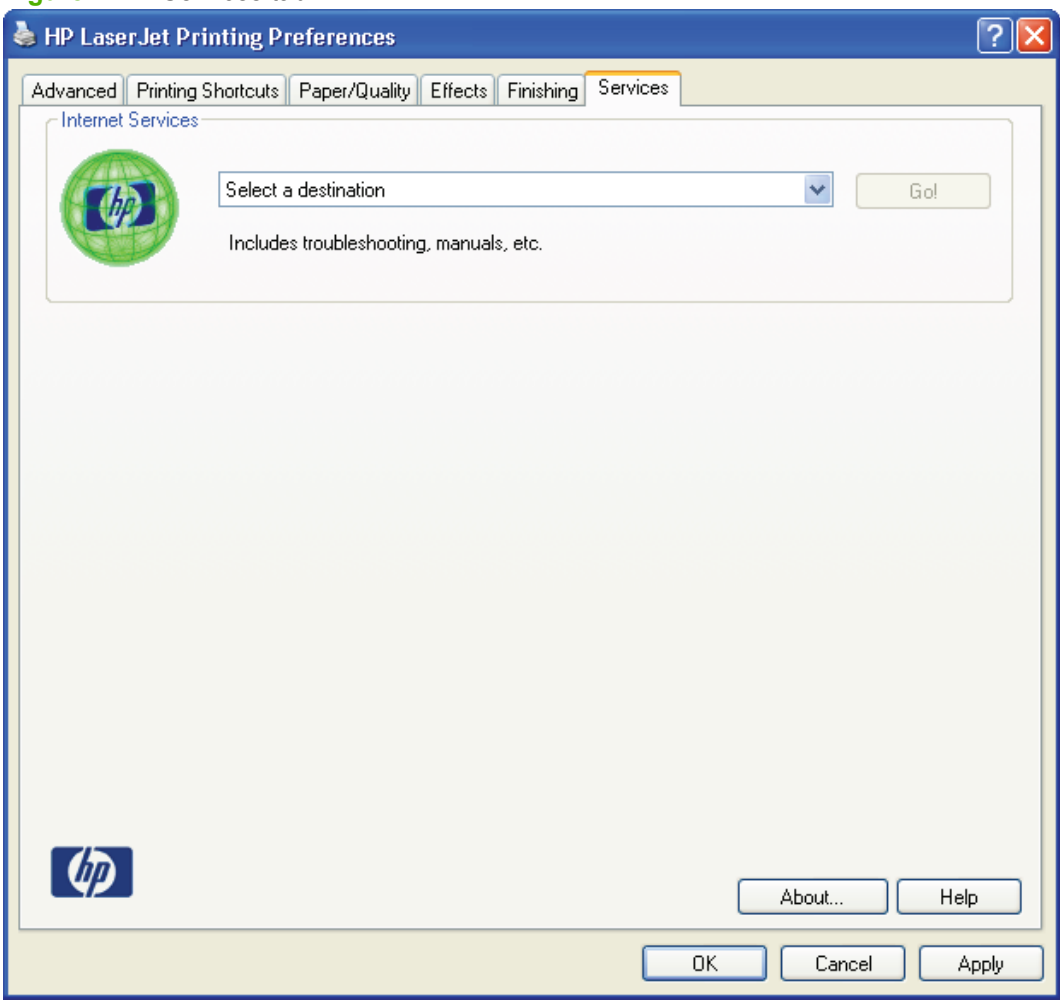
   For Windows Vista, click **Start**, click **Control Panel**, and then under **Hardware and Sound** click **Printer**.

2. Right-click the product name.

3. Click **Printing Preferences**.

4. Click the **Services** tab.

Figure 4-12 Services tab



The **Internet Services** group box contains the **Select a destination** drop-down menu with the following selections:

- **Online diagnostic tools**: Open the Instant Support Web site, where you can find interactive tools and contacts for troubleshooting.
- **Support and troubleshooting**: Open the product page for the HP Business Center.

- **Product manuals**: Open a Web page from which you can view or download product manuals.
- **Check for driver updates**: Automatically check the printer drivers to see whether the correct and most up-to-date printer drivers are installed.
- **Shop for supplies**: Open the HP SureSupply Web page and shop online for product supplies.
- **Show me how**: Open the Show Me How Help pages for the product.

If you have Internet access, select any of these items, and then click **Go!** to open the corresponding Web page.

Device Settings tab features

The **Device Settings** tab is in the Properties window for the printer driver. To open the tab, follow these steps:

1. For Windows XP and Windows Server 2003 (using the default **Start** menu view), click **Start**, click **Settings** (Windows XP), and then click **Printers and Faxes**.

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

2. Right-click the product name.

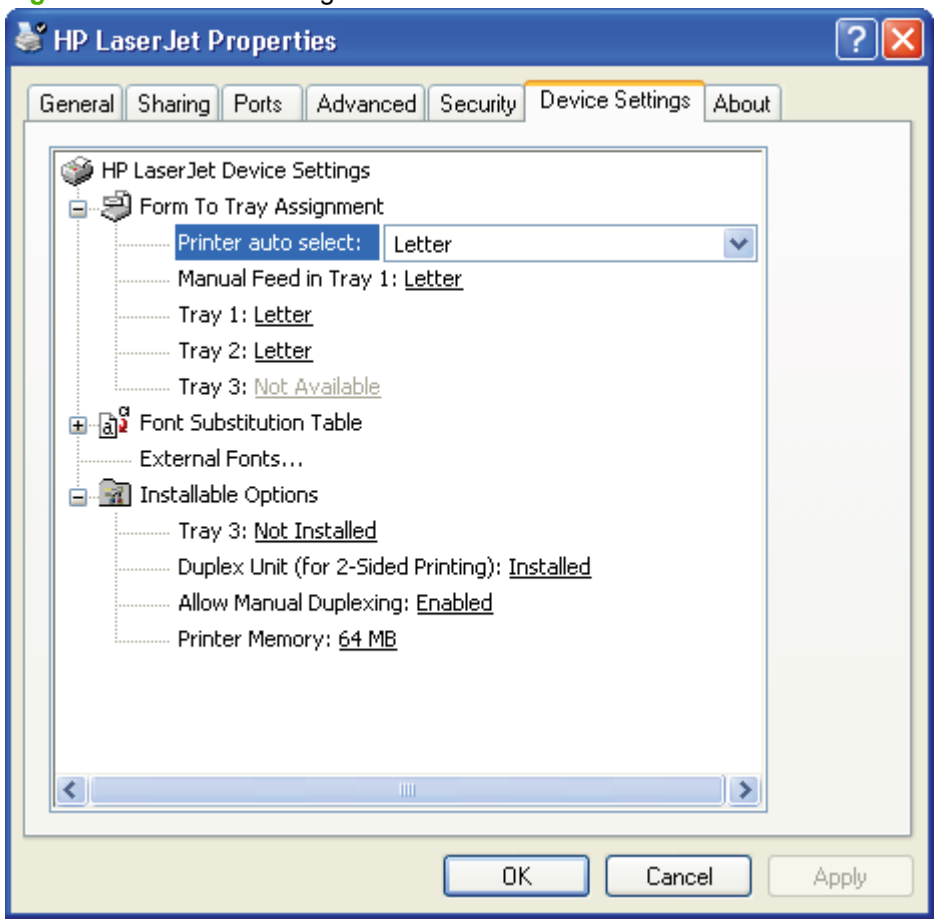
3. Click **Properties**.

4. Click the **Device Settings** tab.

The **Device Settings** tab contains controls for media-handling devices and controls for managing the product.

Available options depend on the driver and the particular feature. The following figure shows the **Device Settings** tab.

Figure 4-13 Device Settings tab



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

- Form to Tray Assignment

- Font Substitution Table
- External Fonts
- Installable Options

Form to Tray Assignment

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

The product supports more than one source of media. You can assign a form (which defines the media size and margins) to each media source. When a form is matched to a source, you can select the form when you print. The product prints from the tray to which that form is assigned.

Network administrators can use the **Form To Tray Assignment** setting to specify, in the driver, the media size that is loaded into each available input tray. The use of forms constrains the choices that are available in the media-size list on the **Paper/Quality** tab in the **Printing Preferences** driver tabs. This constraint prevents (or reduces the likelihood of) tying up the product 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 product. External fonts can be soft fonts or DIMM fonts.

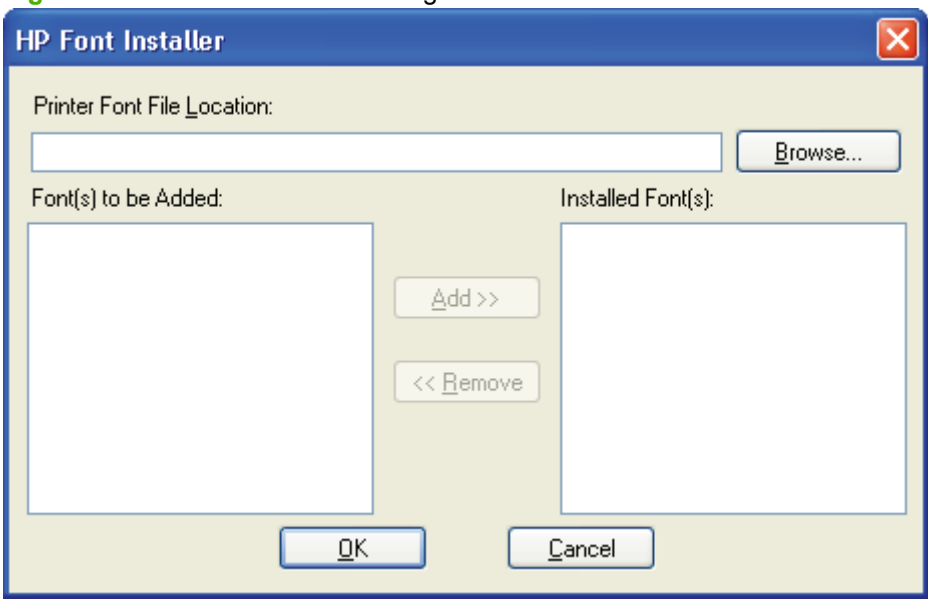
Click the **Font Substitution Table** option to open a list of fonts. Use the settings to change the TrueType-to-printer font mappings.

External Fonts

Use the **External Fonts** option to install and remove external fonts for the product. 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.

Figure 4-14 HP Font Installer dialog box



Topics:

- Installing external fonts
- Removing external fonts

Installing external fonts

Follow these steps to install external fonts.

1. For Windows XP and Windows Server 2003 (using the default **Start** menu view), click **Start**, click **Settings** (Windows XP), and then click **Printers and Faxes**.

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

2. Right-click the name of the product.
3. Click **Properties**.
4. Click the **Device Settings** tab.
5. Click the **External Fonts** option. The **Properties** button appears.
6. Click **Properties**. The **HP Font Installer** dialog box appears.
7. 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.
8. Select the fonts that you want to add, and then click **Add**. The fonts are installed and the file names appear in the **Installed Font(s)** window.
9. Click **OK** to close the **HP Font Installer** dialog box.

Removing external fonts

1. For Windows XP and Windows Server 2003 (using the default **Start** menu view), click **Start**, click **Settings** (Windows XP), and then click **Printers and Faxes**.

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

2. Right-click the name of the product.
3. Click **Properties**.
4. Click the **Device Settings** tab.
5. Click the **External Fonts** option. The **Properties** button appears.
6. Click **Properties**. The **HP Font Installer** dialog box appears. The external fonts that are installed appear in the **Installed Font(s)** window.
7. Select the fonts that you want to remove, and then click **Remove**. The fonts are removed.
8. Click **OK** to close the **HP Font Installer** dialog box.

Installable Options

Topics:

- Tray 3
- Duplex Unit (for 2-Sided Printing)
- Allow Manual Duplexing
- Printer Memory

Tray 3

This control specifies whether you have Tray 3, an optional 500-sheet tray, installed on the product. The default setting is **Not Installed**.

Duplex Unit (for 2-Sided Printing)

The product comes with a duplex unit installed. This setting is enabled (**Installed**) by default.

NOTE: The product supports smart duplexing. The product uses the smart duplexing feature to detect information on both sides of the print job pages and runs the pages through the duplexing unit only if there is printable information on the second side of the page.

Allow Manual Duplexing

Select **Allow Manual Duplexing** to print on both sides of any size and most types of media (except transparencies, envelopes, and labels). To use this feature, reinsert the media stack into the input tray to print the second side. The product pauses while you make this adjustment.

This setting is enabled by default.

Printer Memory

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

About tab features

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

1. For Windows XP and Windows Server 2003 (using the default **Start** menu view), click **Start**, click **Settings** (Windows XP), and then click **Printers and Faxes**.

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

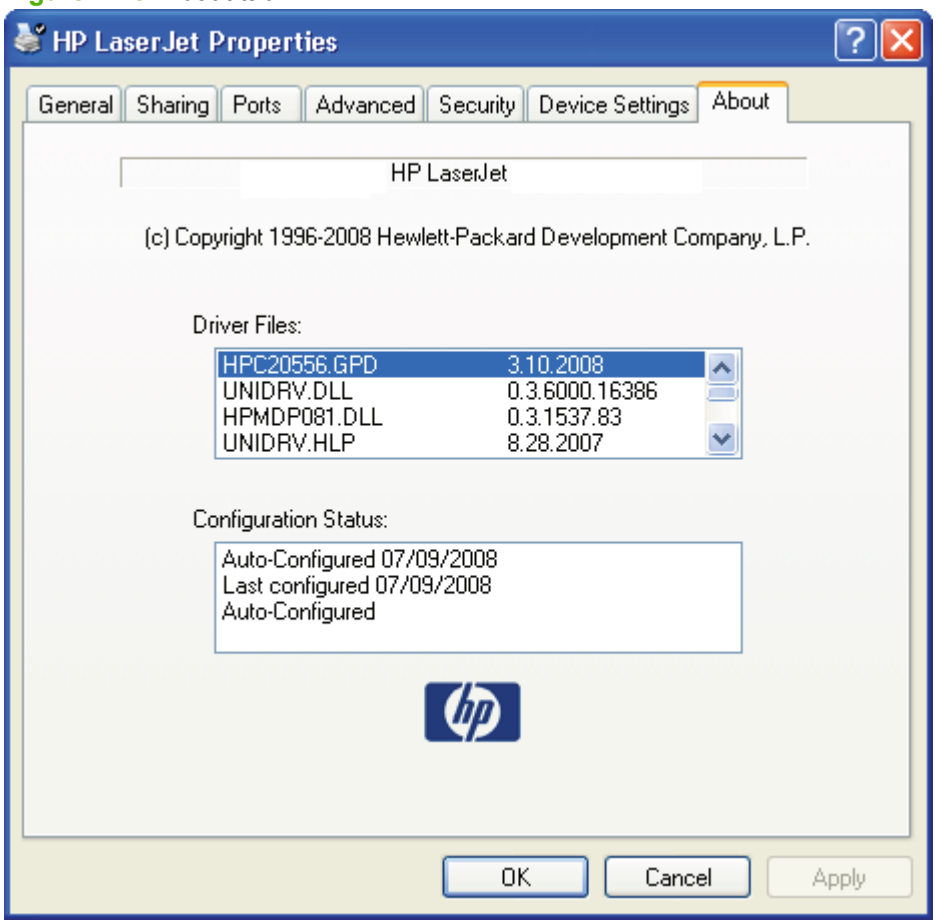
2. Right-click the product name.

3. Click **Properties**.

4. Click the **About** tab.

The **About** tab provides detailed information about the driver. It contains an overall build number (in parentheses after the model name) together with specific information about each of the components. The information varies according to the product model number, driver, date, and versions.

Figure 4-15 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.

5 Macintosh software and utilities

Introduction

The product comes with printing software and installers for Apple Computer, Inc., Macintosh operating systems.

Topics:

- Supported operating systems for Macintosh
- Macintosh printing-system software
- Install the Macintosh printing system
- Uninstall the Macintosh printing system
- Supported utilities for Macintosh

Supported operating systems for Macintosh

Mac OS X v10.3, v10.4, and v10.5 are supported.

For more information about the product, go to the following Web site:

www.hp.com/support/ljp2050series

Topics:

- Macintosh operating system requirements
- Change printer-driver settings for Macintosh

Macintosh operating system requirements

The product-system software has the following minimum system requirements.

- PowerPC G3, G4, G5 or Intel Core processor
- 256 MB RAM
- 150 MB of available hard-disk space
- CD-ROM
- USB port

Change printer-driver settings for Macintosh

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 product configuration settings
1. On the **File** menu, click **Print**. 2. Change the settings that you want on the various pop-up menus.	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.	**Mac OS X v10.3 or Mac OS X v10.4** 1. In the Finder, on the **Go** menu, click **Applications**. 2. Open **Utilities**, and then open **Printer Setup Utility**. 3. Click on the print queue. 4. On the **Printers** menu, click **Show Info**. 5. Click the **Installable Options** menu. **NOTE:** Configuration settings might not be available in Classic mode. **Mac OS X v10.5** 1. From the Apple menu, click **System Preferences**. 2. Under **Hardware**, click **Print & Fax**.

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 product configuration settings
		3. Select the product, and then click **Options & Supplies**. 4. Click the **Driver** menu. 5. Select the driver from the list, and then configure the installed options.

Macintosh printing-system software

The printing system 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 device configuration utility is provided, which allows the user to access the product embedded Web server (EWS) to allow for additional configuration and product 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 P2050 PPD
- HP LaserJet P2050 PDE
- HP USB EWS Gateway
- HP Device Configuration Utility
- HP Uninstaller for the HP Device Configuration Utility and HP USB EWS Gateway

Topics:

- Supported printer drivers for Macintosh
- Supported software components for Macintosh
- Software component availability for Macintosh
- Macintosh software component descriptions
- Order software for Macintosh

Supported printer drivers for Macintosh

The HP installer provides PostScript® Printer 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 printer drivers, provide access to device features. Use the Apple PostScript printer driver that comes with the computer.

Supported 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 with the computer and the product. This software includes the following components: • The PostScript Printer Description (PPD) file for printing through HP postscript level 3 emulation

Table 5-1 Software components for Macintosh (continued)

Component	Description
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
Bidirectional communication	
Network Bidirectional Communications	X
Direct Connect Bidirectional Communications	X
Online Documentation	
HP LaserJet P2050 Series Printer User Guide	X
Help systems	X
Other	
HP Printer Utility	X
HP Embedded Web Server	X

Macintosh software component descriptions

The product includes the following software for Macintosh computers:

- HP LaserJet P2050 Series PPD
- HP LaserJet P2050 Series PDE
- HP Embedded Web Server
- HP Printer Utility
- HP Uninstaller

HP LaserJet PPDs

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 printer driver, provide access to the product 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.

PDEs

Printer Dialog Extensions (PDEs) are code plug-ins that provide access to product features, such as number of copies, duplexing, and quality settings.

Install notes (Readme file)

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

Online help

The help system can be viewed through a browser or in the Macintosh OS Help Center.

Order software for Macintosh

To order the software if the CD is damaged or missing, contact HP Support at the following Web site:

www.hp.com/go/ljp2050series_software

To request the printing-system software CD by phone, see the following Web site for the correct contact number for your country/region:

welcome.hp.com/country/us/en/wwcontact.html

NOTE: If you need a replacement printing-system CD or newer version of the software than what came with the product, go to the product Web site and click **CD-ROM Order Page** to order the CD, or click **Download drivers and software** to download the software update.

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 product. 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
- Product setup

General installation for Macintosh operating systems

1. If you are connecting the product to a network, connect the network cable to the product network port (network models only). If you are connecting the product 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 CD-ROM icon on the desktop to open the CD-ROM window.

3. Double-click the **hplj P2055 v8.3.0mpkg** icon.
4. The **Introduction** dialog appears. Click **Continue**, and then follow the onscreen instructions to complete the software installation.

NOTE: The installer might prompt the user for a password. Enter the password, and then click **OK**.

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 **Close**.
6. Continue with the steps for setting up a product.

The software program that you use to finish setting up the product varies by operating system. The following table shows the print setup tools that are available.

Table 5-3 Adding a product in Macintosh operating systems

Operating System	Printer Setup Utility	Print & Fax
Mac OS X v10.3 and v10.4	x	x
Mac OS X v10.5		x

Detailed Mac OS X installation

Topics:

- Main installation sequence

Main installation sequence

This section provides information about the Macintosh installation dialog-box sequence.

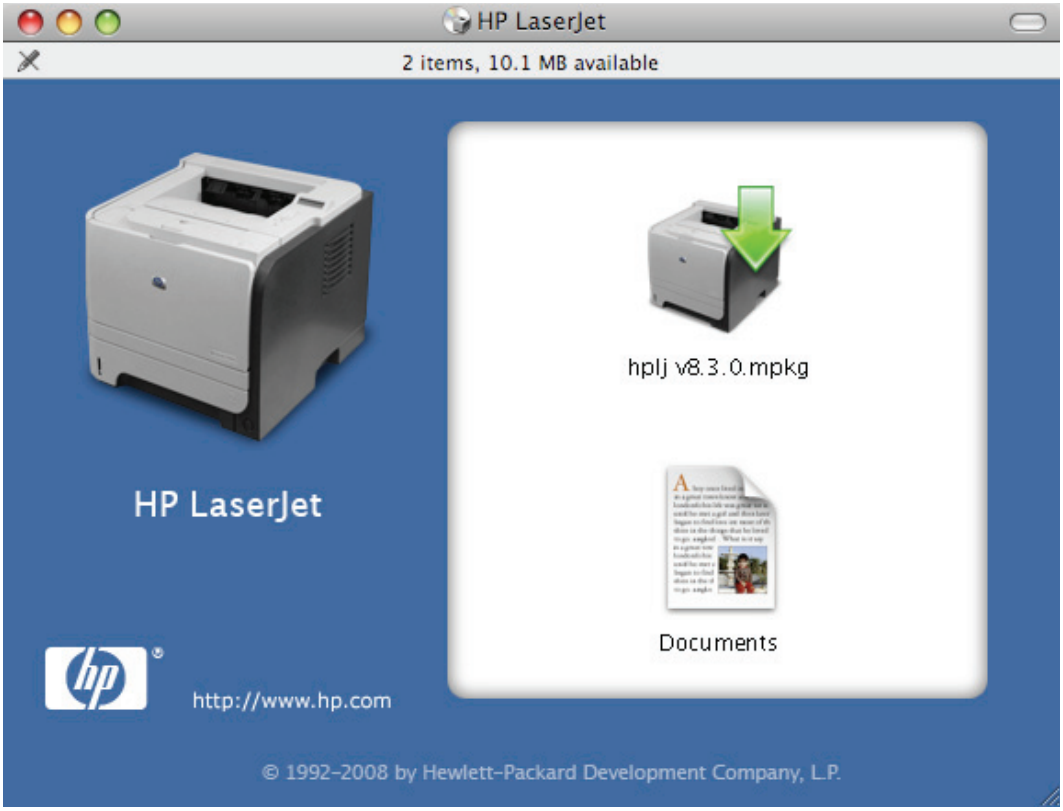
NOTE: If you are installing the product using a network connection, you can connect the product to the network before installing the software, but if you are installing the product using a USB connection, install the software *before* connecting the USB cable.

1. Insert the printing-system software CD in the CD-ROM drive.

   If the CD screen does not open automatically when the CD is put into the CD-ROM drive, double-click the CD-ROM icon on the desktop to open the installer.

2. The opening screen appears.

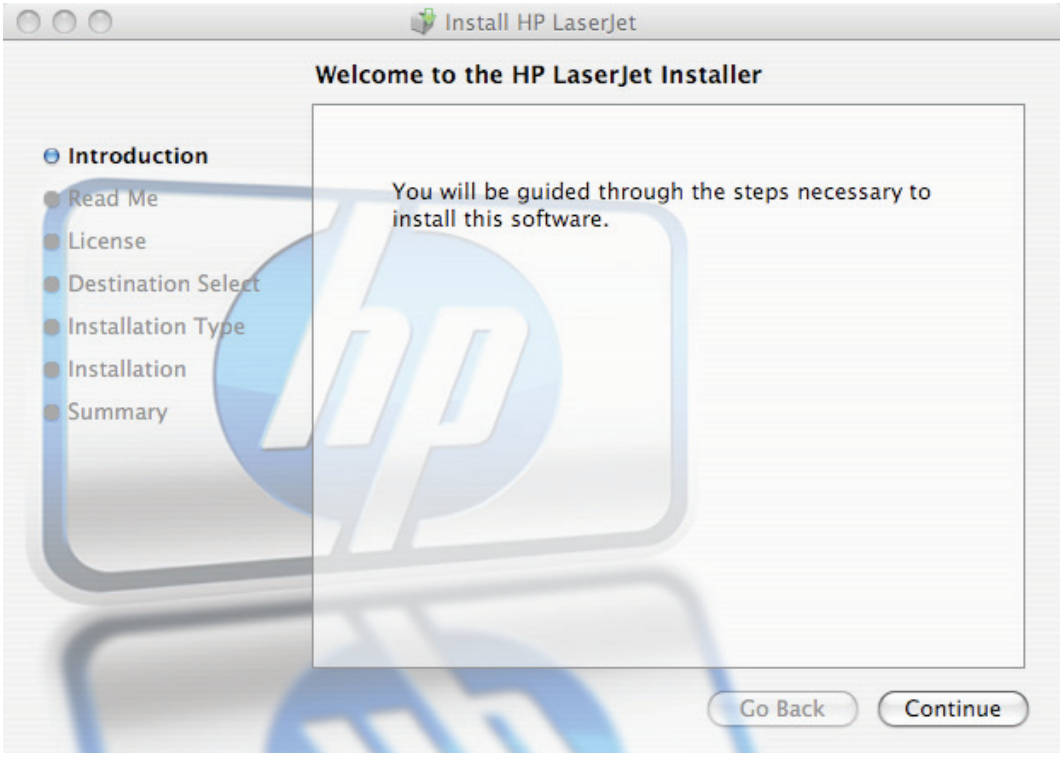
Figure 5-1 Opening screen



Double-click the **hplj P2055 v8.3.0mpkg** icon to begin the installation process.

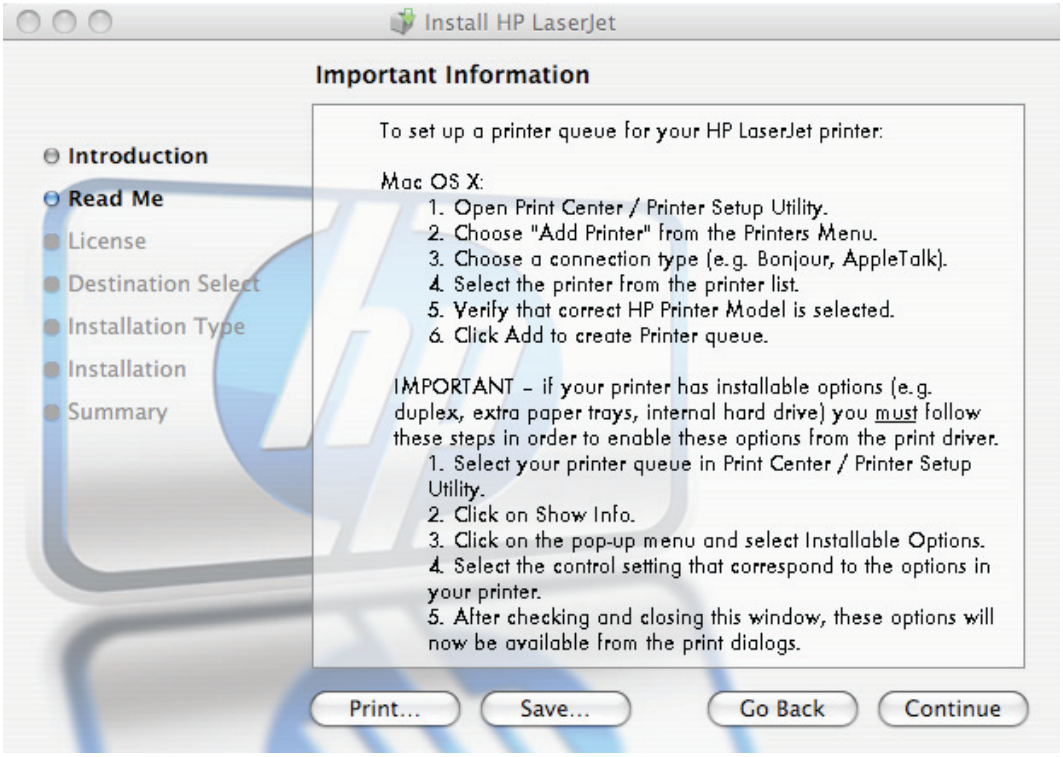
3. The **Introduction** screen appears. Click **Continue**.

Figure 5-2 Introduction screen



4. The **Read Me** screen appears. Read the installation information, and then click **Continue**.

Figure 5-3 Read Me screen



- Click **Print** to open the **Page Setup** dialog for the default printer and print a copy of the installation notes.
- Click **Save** to open the system **Save** dialog and save the installation notes to disk.

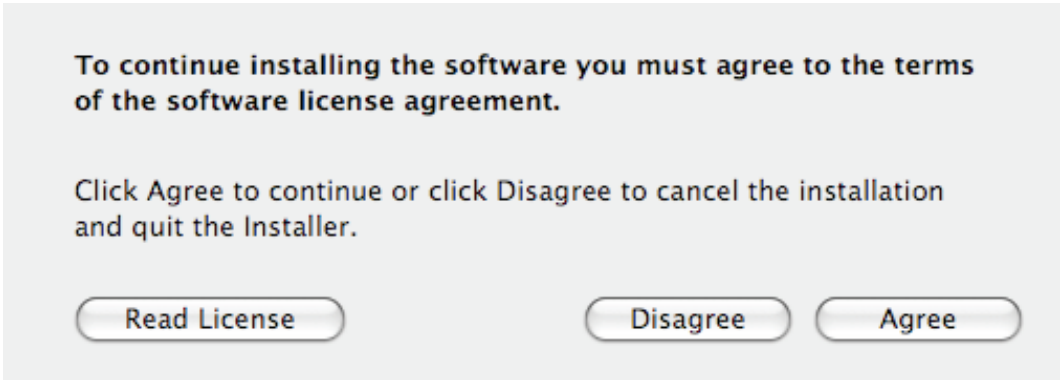
5. The **License** screen appears. Click **Continue**.

Figure 5-4 License screen

- To read the screen in another language, click the drop-down box at the top of the screen, and then select a language.
- Click **Print** to open the **Page Setup** dialog for the default printer and print a copy of the license agreement.
- Click **Save** to open the system **Save** dialog and save the license agreement to disk.

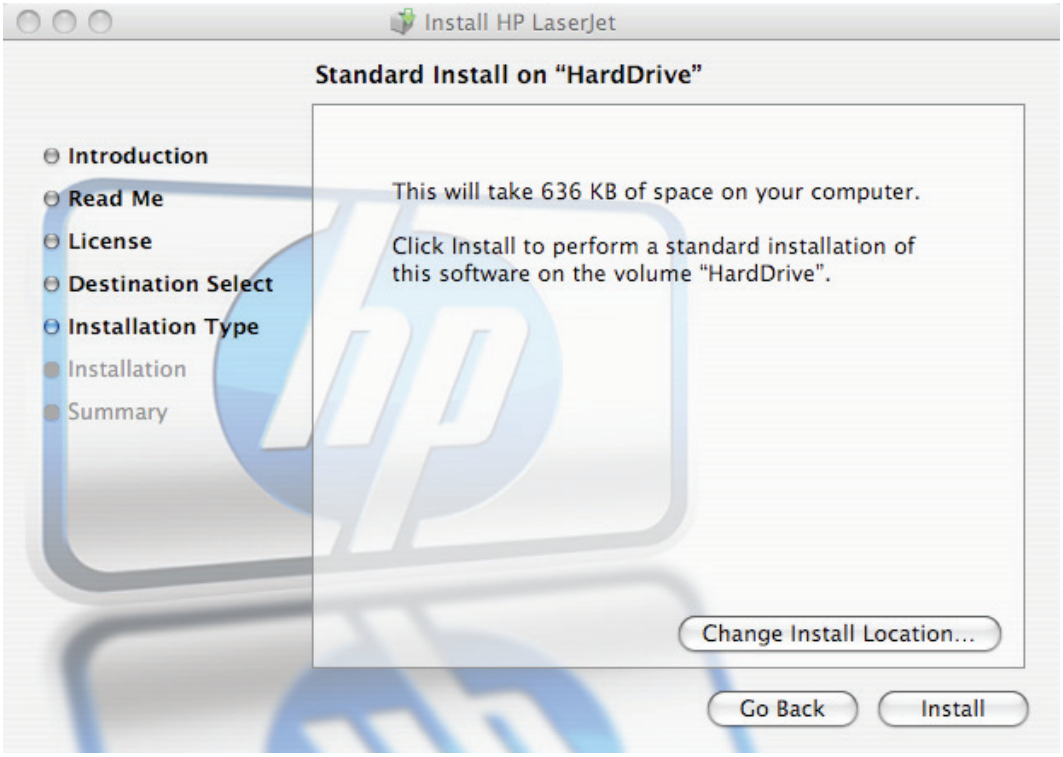
6. Click **Agree** in the license pop-up to continue the installation process.

Figure 5-5 License pop-up



7. On the **Installation Type** screen, if the default installation location is acceptable, click **Install**.

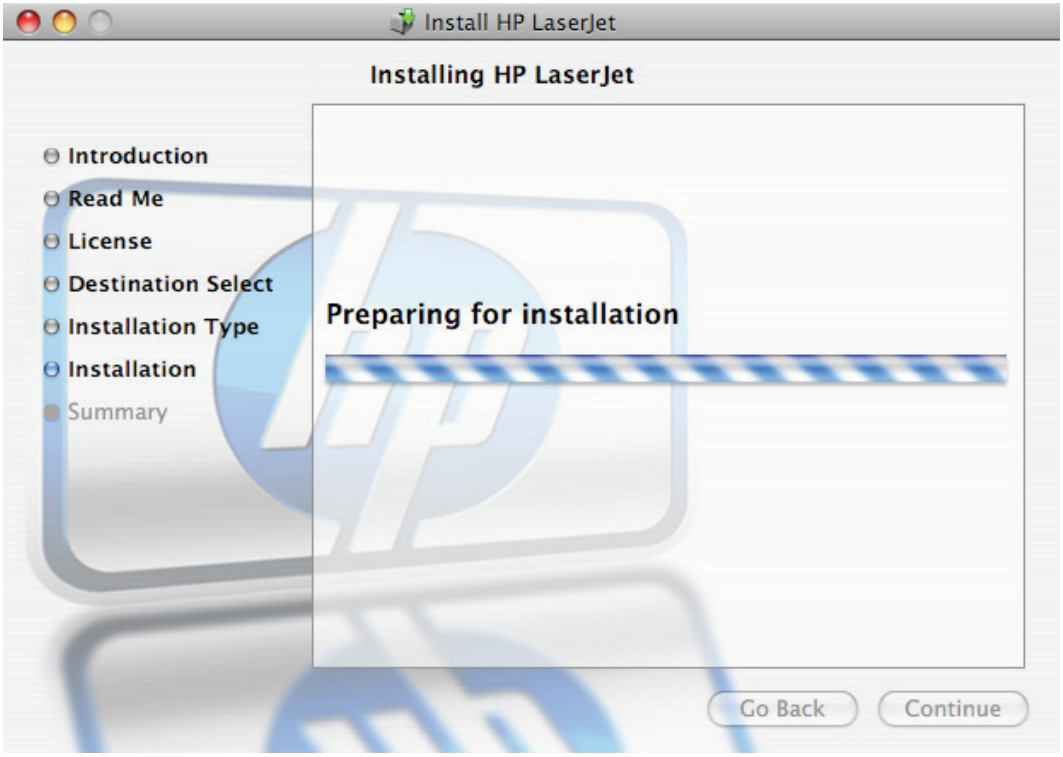
Figure 5-6 Installation Type screen



- To change the installation location, click **Change Install Location**, and then navigate to the correct location.
- The installer might prompt you for a password. Enter the password, and then click **OK**.

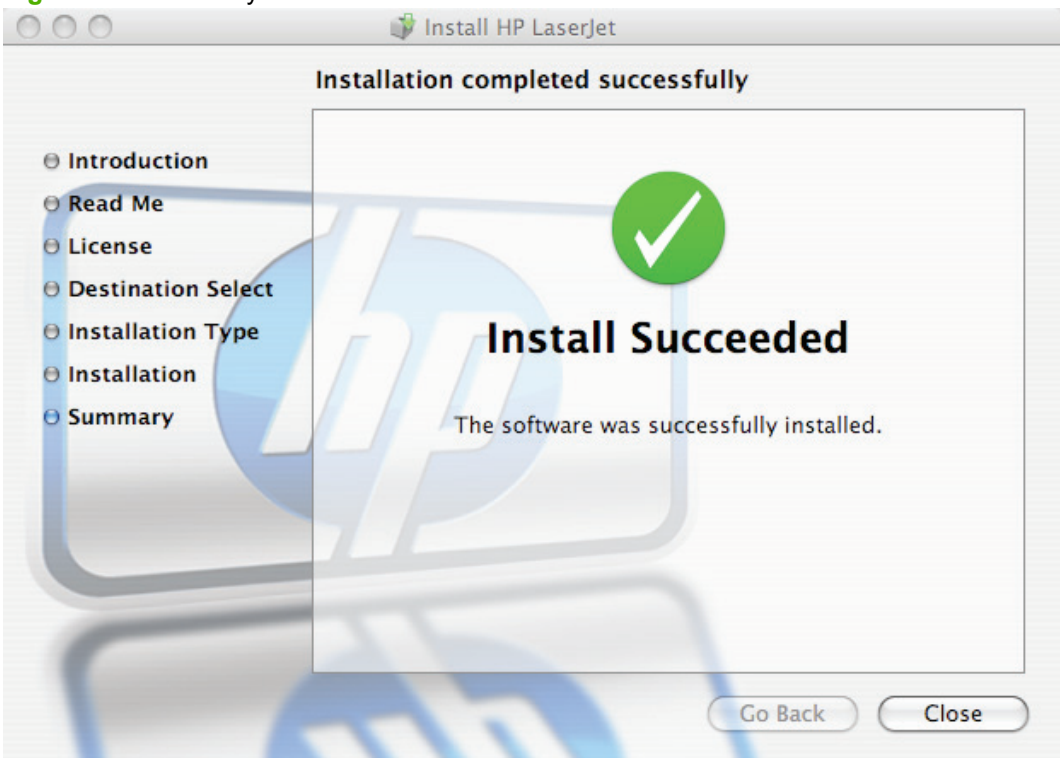
8. On the **Installation** screen, a progress bar appears as the installer loads the software.

Figure 5-7 Installation screen progress bar



9. When the installation is complete, the **Summary** screen shows that the installation was successful, and the installation notes open in the default computer Web browser. Click **Close** in the **Summary** screen to end the process.

Figure 5-8 Summary screen



NOTE: The Macintosh install notes also are available in this software technical reference guide. See Macintosh install notes on page 198.

Product setup

After installing the printing-system software in Macintosh operating systems, the product must be set up.

Topics:

- Set up a product with Mac OS X v10.5
- Set up a product with Mac OS X v10.4
- Set up a product with Mac OS X v10.3
- Troubleshooting the product setup

Set up a product with Mac OS X v10.5

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

1. If you are installing the product using a USB connection, connect the USB cable between the product and the computer. Turn on the product. If you are installing using a network connection, verify that the network cable is connected to the product and the product is on.
2. From the Apple menu, click **System Preferences**.

3. In the **Hardware** area, click **Print & Fax**.
4. If you are installing the product using a USB connection, verify that the product appears on the **Printers** list.

   If the product does not appear, or if the correct information does not appear in the **Kind** column, see Troubleshooting the product setup on page 162.

   If you are installing the product using a network connection, continue with the following steps.
5. Click the **+** button to open a printer browser screen that lists detected network products.
6. Use either Bonjour or IP Printing for the network connection.
   - **Bonjour**
     a. If it is not already active, click the **Default** tab.
     b. Select the product from the list. The software verifies that the product is connected to the network and the **Print Using** field is automatically populated with the correct PPD for the product.
     c. If the name does not appear in the list, verify that the product is on and connected to the network, then try turning the product off and then on again. If the product 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 product setup on page 162.
   - **IP Printing**
     a. Click the **IP** tab.
     b. Select **HP Jet Direct – Socket** from the **Protocol** pull-down menu. This is the recommended setting for HP products.
     c. Print the product configuration page from the product control panel, and then find the product IP address.
     d. Type the IP address into the **Address** field.
     e. he **Name**, **Location**, and **Print Using** information will automatically be filled in. If the product PPD does not appear in the **Print Using** field, turn the computer off and then on again and restart the setup process.
7. Click **Add**. The product is added to the **Printers** list.
8. Select the product in the list, and then click **Options & Supplies**.
9. Click **Drivers**, and then change any installable options as necessary.
   - If the product has the optional Tray 3, select **Tray 3**.
   - Select the **Duplex Unit** check box.
10. Click **OK** to save the changes.

Set up a product with Mac OS X v10.4

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

1. If you are installing the product using a USB connection, connect the USB cable between the product and the computer. Turn on the product. If you are installing using a network connection, verify that the network cable is connected to the product and the product is on.

2. In the **Applications** folder, open the **Utilities** folder, and then run the **Printer Setup Utility**. The **Printer List** appears.

> **NOTE:** You can also configure the product using the **Print & Fax** pane of **System Preferences** (see Set up a product with Mac OS X v10.5 on page 158).

3. If you are installing the product using a USB connection, verify that the product appears on the **Printer List**. The **Kind** column in the printer list should display **Device Series**. If this is the case, the setup is complete.

   If the product does not appear, or if the correct information does not appear in the **Kind** column, see Troubleshooting the product setup on page 162.

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

4. Click **Add** (or the **+** button in the Print & Fax utility) to open the **Printer Browser** screen.

5. You can use either Bonjour or IP Printing for the network connection.

   If you are using Bonjour, carry out the following steps:

   a. Click the **Default Browser** tab.

   b. Select the product from the list. The software verifies that the product is connected to the network and the **Print Using** field is automatically populated with the correct PPD for the product.

   > **NOTE:** If the name does not appear in the list, verify that the product is on and connected to the network, then try turning the product off and then on again. If the **Device 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 product setup on page 162.

   If you want to use the IP Printing method, carry out the following steps:

   a. Click the **IP Printer** tab.

   b. Select **HP Jet Direct – Socket** from the **Protocol** pull-down menu. This is the recommended setting for HP products.

   c. Print the product configuration page from the product control panel, and then find the product IP address.

   d. Type the IP address into the **Address** field.

   e. The **Name**, **Location**, and **Print Using** information will automatically be filled in. If the product 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 **Installable Options** screen appears.

7. If the product has the optional Tray 3, select **Tray 3**.

8. Select the **Duplex Unit** check box.

9. After selecting the installable options, click **Continue**. The product name appears in the **Printer List** and the setup is complete.

Set up a product with Mac OS X v10.3

1. If you are installing the product using a USB connection, connect the USB cable between the product and the computer. Turn on the product. If you are installing using a network connection, verify that the network cable is connected to the product and the product is on.

2. In the **Applications** folder, open the **Utilities** folder, and then run the **Printer Setup Utility**.

   You can also configure the product using the **Print & Fax** pane of **System Preferences** (see Set up a product with Mac OS X v10.5 on page 158).

3. If you are installing the product using a USB connection, verify that the product appears on the printer list. The **Kind** column in the printer list should display **Series**. If this is the case, the setup is complete.

   If the product does not appear, or if the correct information does not appear in the **Kind** column, see Troubleshooting the product setup on page 162.

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

4. Click **Add** (or the **Set Up Printers...** button in the Print & Fax screen, and then **Add**) to open the add printer screen.

5. Select the network connection protocol in the top pull-down menu. The two supported protocols are **Rendezvous** and **IP Printing**.

   If you are using Rendezvous, carry out the following step:

   ☐ Select the product in the **Name** list. The **Printer Model** and **Model Name** are selected automatically.

   NOTE: If the product does not appear in the list, verify that the product is powered on and connected to the network. If it still does not appear, try turning the product off and then on again. Finally, turn the computer off and then on again, then restart the setup process. For more troubleshooting information, see Troubleshooting the product setup on page 162.

   NOTE: If the automatic selection fails, or if you want to manually select a .PPD file, click the **Printer Model** pull-down menu, select **HP**, and then select the .PPD file that you want to add. If the product PPD does not appear in the **Model Name** list, turn the computer off and then on again and restart the setup process.

   If you are using IP Printing, carry out the following steps:

   a. Select **Socket/HP Jet Direct** from the **Printer Type** pull-down menu. This is the recommended setting for HP products.

   b. Print the product configuration page, and then find the IP address on the page.

   c. Type the IP address into the **Printer Address** field.

   d. Select the **Printer Model** and select the product in the **Model Name** list. If the product PPD does not appear in the **Model Name** list, turn the computer off and then on again and restart the setup process.

6. Click **Add**. The product appears in the **Printer List**.
7. To configure installable options such as a duplexing unit or optional paper tray, click **Show Info?** on the printer list and select **Installable Options** in the pull-down menu.
8. If the product has the optional Tray 3, select **Tray 3**.
9. Select the **Duplex Unit** check box.
10. Click **Apply Changes**, and then close the **Printer List** dialog.

Troubleshooting the product setup

If the product 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 product and the computer and that the product 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 product 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 product software.
4. Turn the computer off and then on again.
5. Reconnect the USB cable from the computer to the product.

If these steps do not resolve the problem, delete the incorrect print queue, click **Add**, select the product from the list, and then browse manually for the product PPD.

Uninstall the Macintosh printing system

Follow these instructions to uninstall the Macintosh printing system.

1. Browse to the folder containing the PPDs—**Library/Printers/PPDs/Contents/Resources:<lang>.lproj**—where **<lang>** is the appropriate language.
2. Select the product .gz file and drag it to **Trash**.
3. Empty the **Trash**.
4. To remove the HP Device Configuration application and supporting files, go to Applications/HP EWS Device Configuration and run the HP Uninstaller application.

Supported utilities for Macintosh

HP Embedded Web Server (EWS)

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

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

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

For more information about this feature, see HP Embedded Web Server on page 51.

HP Printer Utility

The HP Printer Utility is a software program that gives you access to the product in Mac OS X.

Topics:

- Open the HP Printer Utility
- Supplies Status
- Device Information
- File Upload
- Update Firmware
- Upload Fonts
- HP Support
- Duplex mode

- Economode
- Resolution
- Trays Configuration
- Lock Resources
- Stored Jobs
- E-mail Alerts
- Network Settings
- Bonjour Settings
- Additional Settings

Open the HP Printer Utility

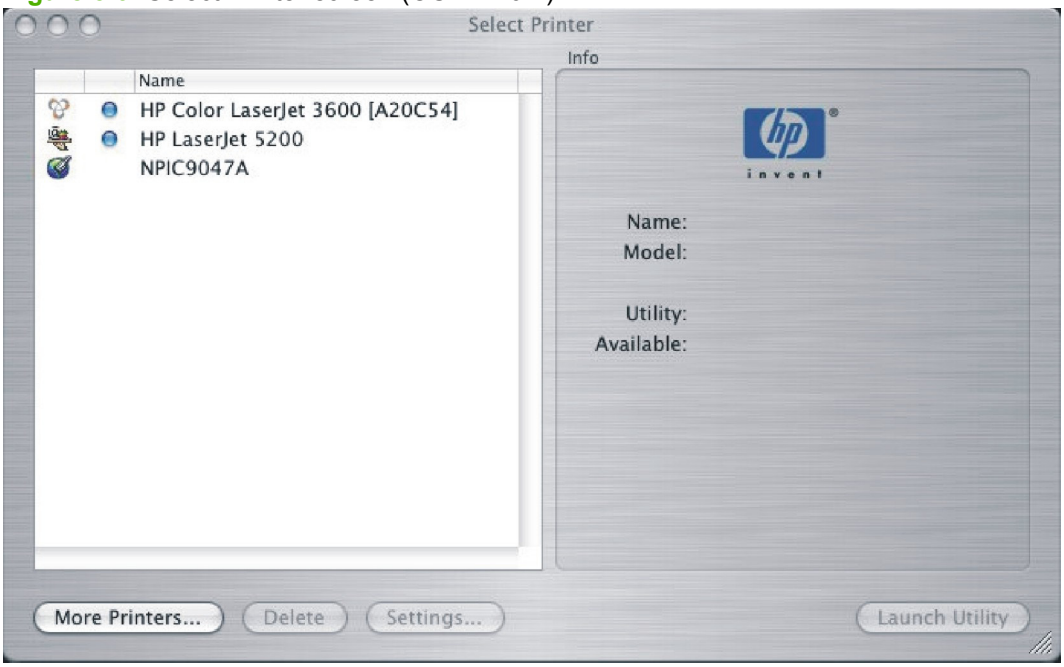
In Mac OS X v10.3, follow these steps to open the HP Printer Utility:

1. Open the Finder.
2. Find and double-click **Printers**. The **Select Printer** screen appears.

In Mac OS X v10.4, follow these steps to open the HP Printer Utility:

1. Click **Go**.
2. Click **Utilities**.
3. Double-click **HP Printer Selector**. The **Select Printer** screen appears.

Figure 5-9 Select Printer screen (OS X v10.4)

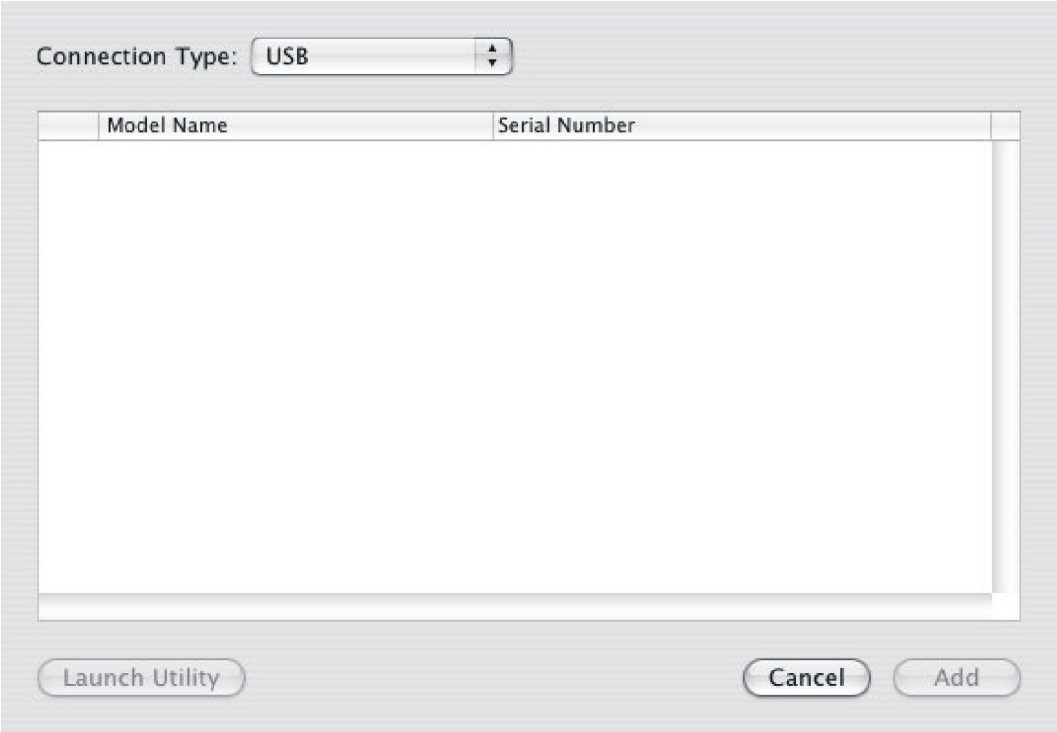


In Mac OS X v10.5, follow these steps to open the HP Printer Utility:

1. Open the Finder.
2. Click **Applications**.
3. Click **Utilities**.
4. Double-click **HP Printer Utility**. The **Printer Selector** screen appears.

If the product does not appear, click **More Printers…**. The **Connection Type** screen appears, as shown in the following figure.

Figure 5-10 Connection Type screen

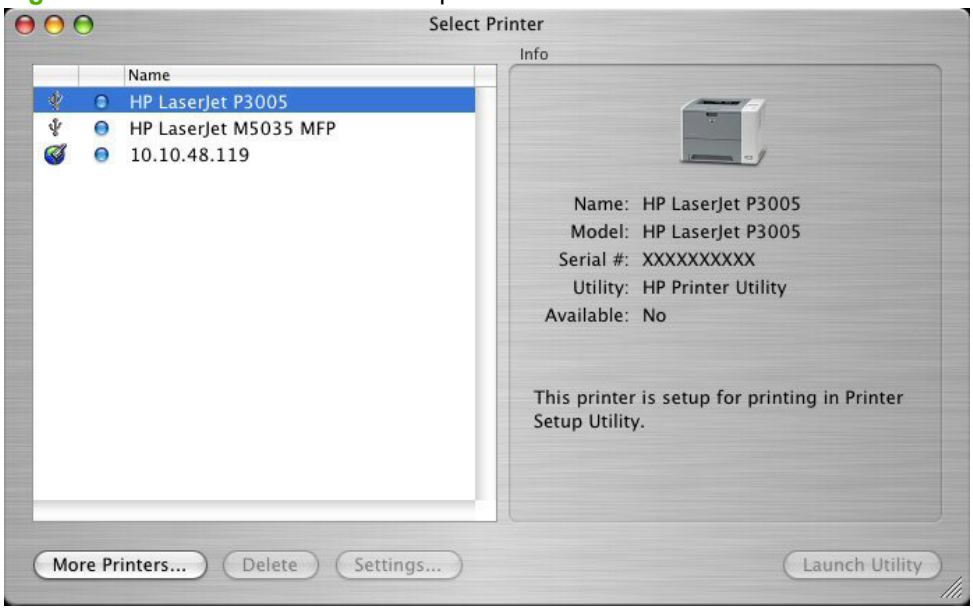


Choose the connection type (**USB**, or **TCP/IP**). The product name appears under **Model Name**, as shown in the preceding figure.

On the **Connection Type** screen, click **Add**. The **Select Printer** screen appears, showing product information.

To open the HP Printer Utility directly, select the product, and then click **Launch Utility**.

Figure 5-11 Select Printer screen – printer selected

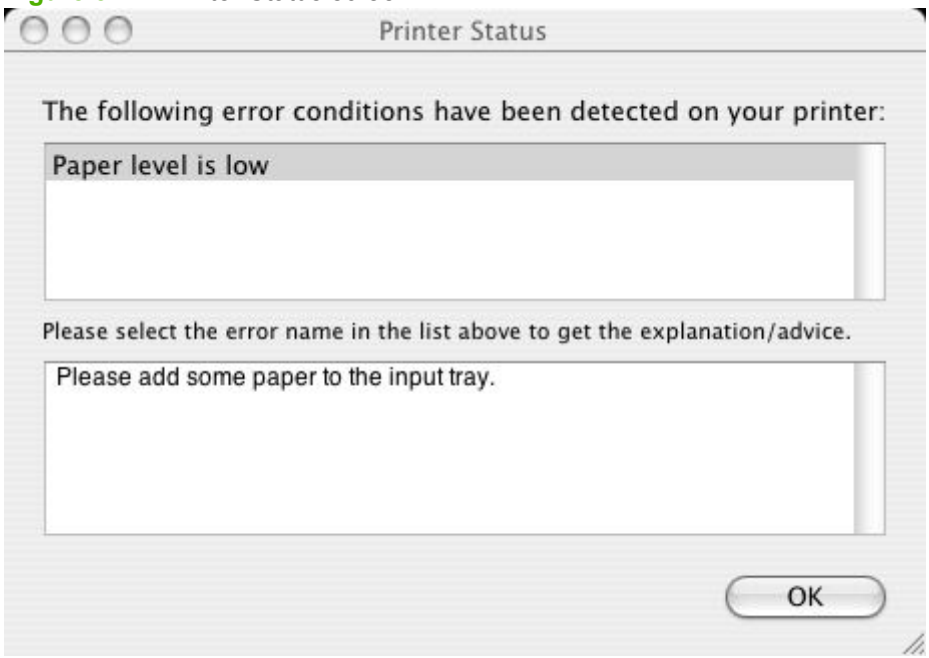


On the **Select Printer** screen, click **Settings** to open the **Device Status** screen in the HP Printer Utility.

To open the HP Printer Utility, select the product and click **Launch Utility**.

If the HP Printer Utility software detects a condition that might need attention, the **Printer Status** screen appears.

Figure 5-12 Printer Status screen



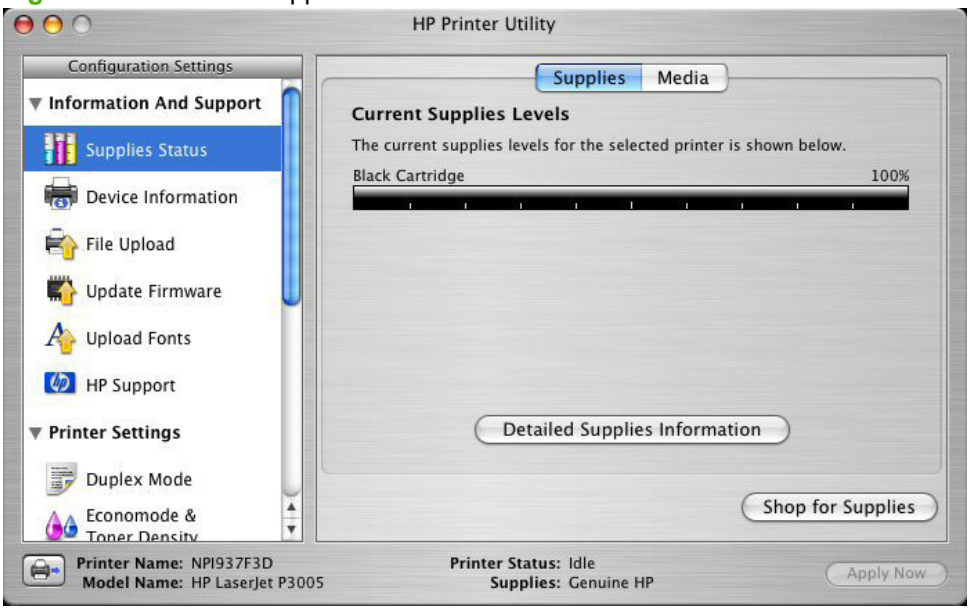
Address the condition and click **OK** to close the screen. The HP Printer Utility opens.

The following sections describe the screens and features that are available in the HP Printer Utility.

Supplies Status

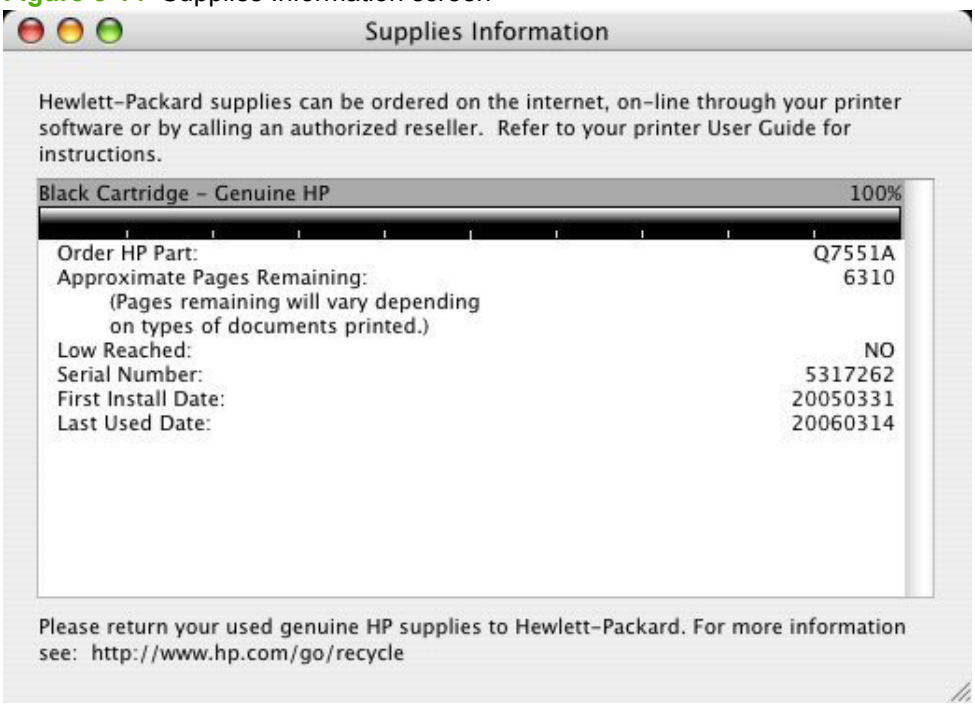
The HP Printer Utility opens to the **Current Supplies Levels** screen.

Figure 5-13 Current Supplies Levels screen



Click **Detailed Supplies Information…** to open the **Supplies Information** screen.

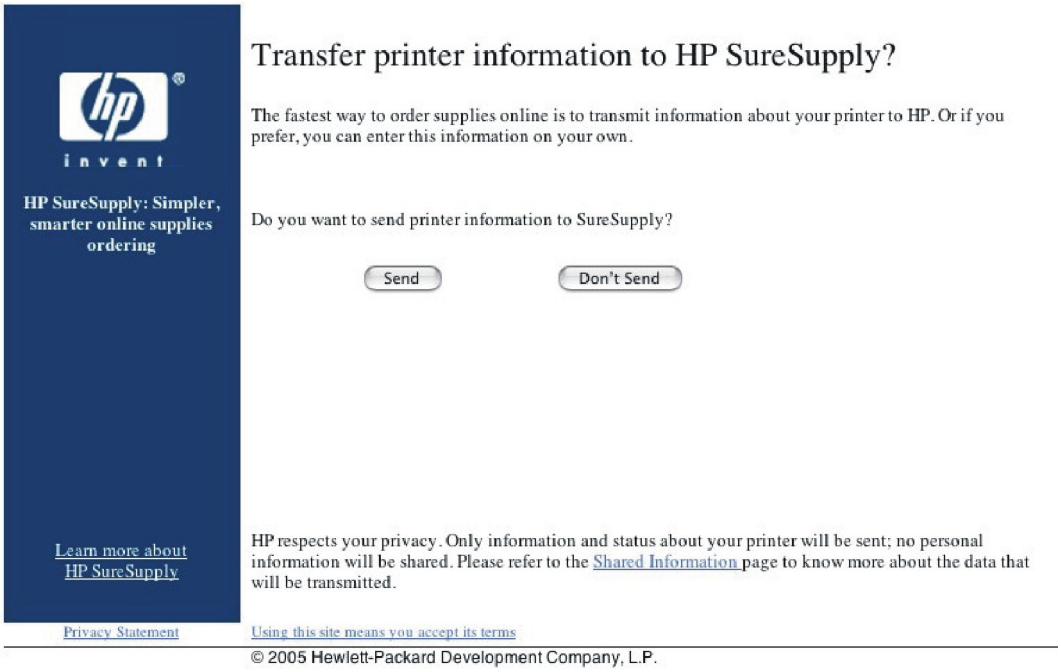
Figure 5-14 Supplies Information screen



Use the scroll button to see information about the print cartridges.

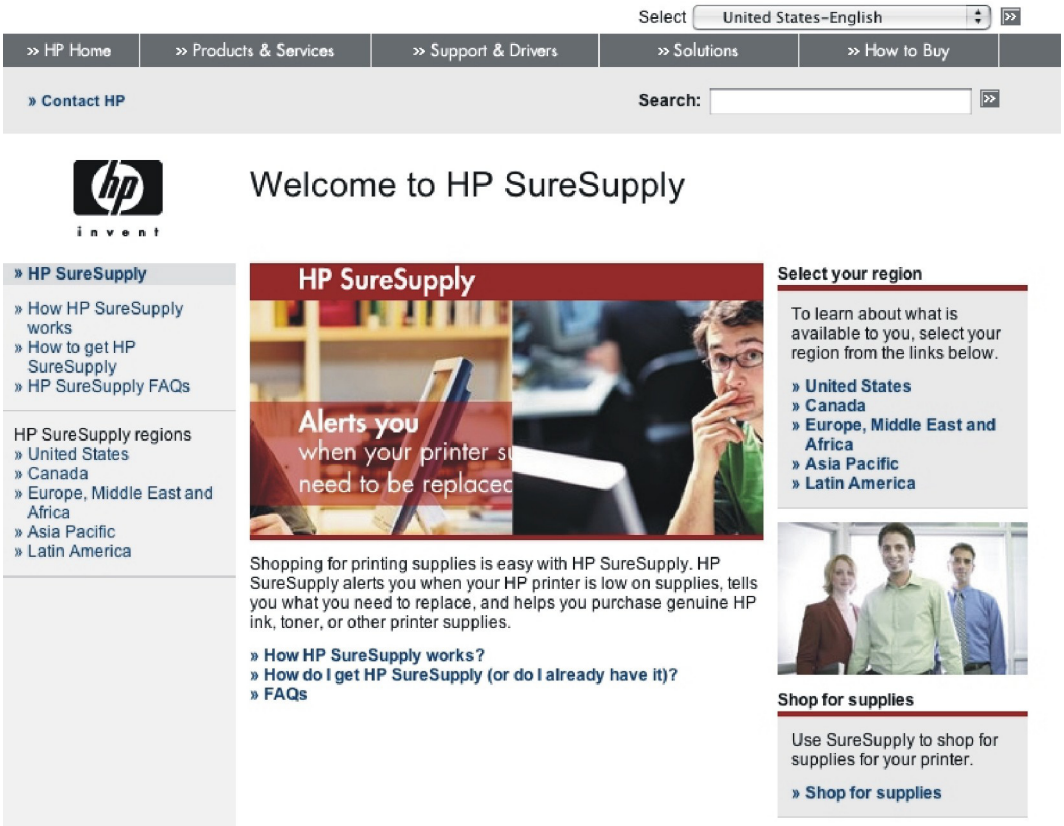
If you have Internet access and click **Shop for Supplies**(see Figure 5-13 Current Supplies Levels screen on page 167), a screen appears that explains the ordering process and describes the kind of information that can be sent about your product to facilitate the ordering of supplies.

Figure 5-15 Transfer printer information to HP SureSupply? screen



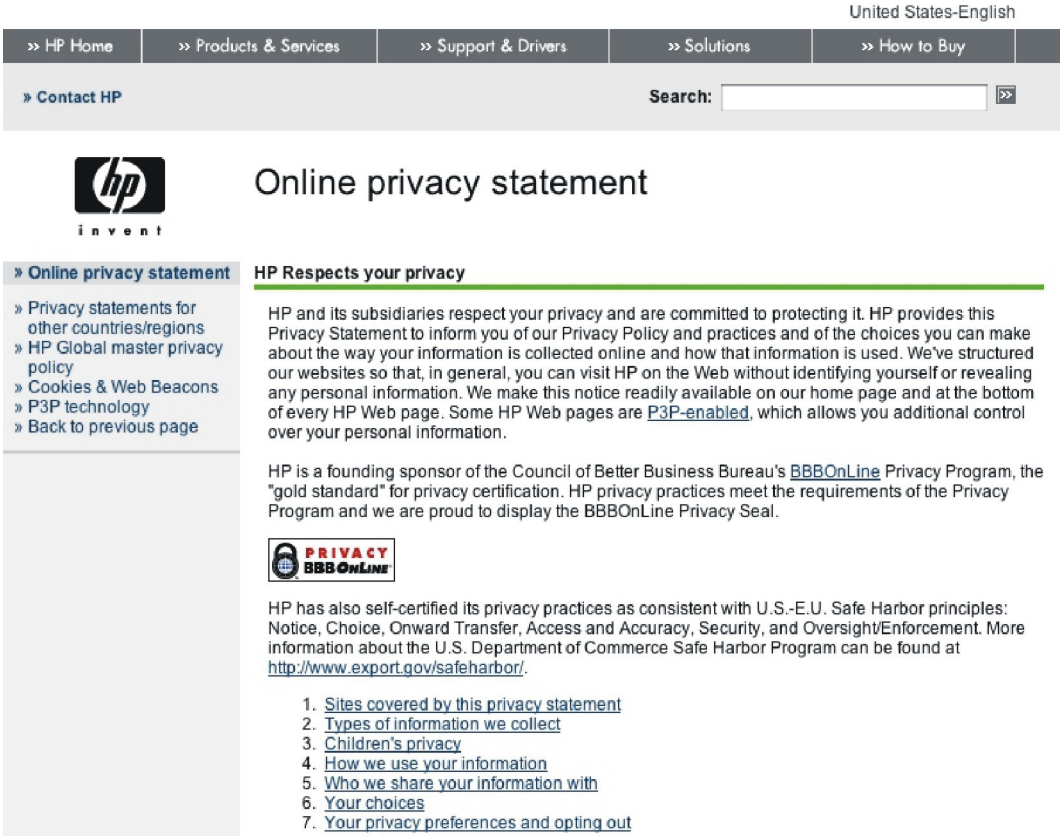
After either option is selected (**Send** or **Don't Send**), the Welcome to HP SureSupply Web page opens.

Figure 5-16 Welcome to HP SureSupply Web page



On the **Transfer printer information to HP SureSUpply?** page, click the **Shared Information** link to open a screen that shows the HP privacy statement.

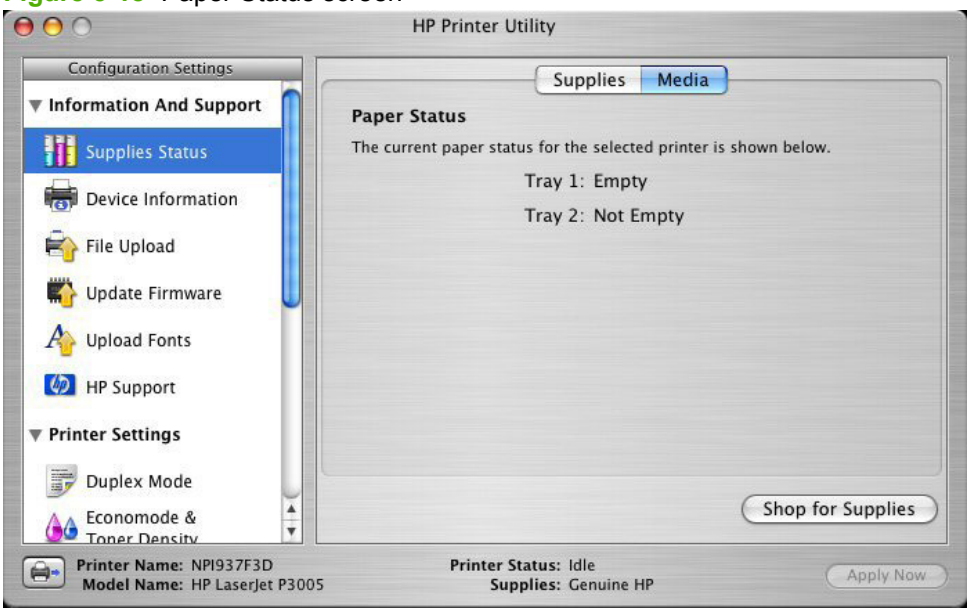
Figure 5-17 HP privacy statement



You can continue ordering supplies without sending product information by clicking the **Don't Send** link.

On the **Supplies Status** screen, click **Media** to see the status of the trays.

Figure 5-18 Paper Status screen

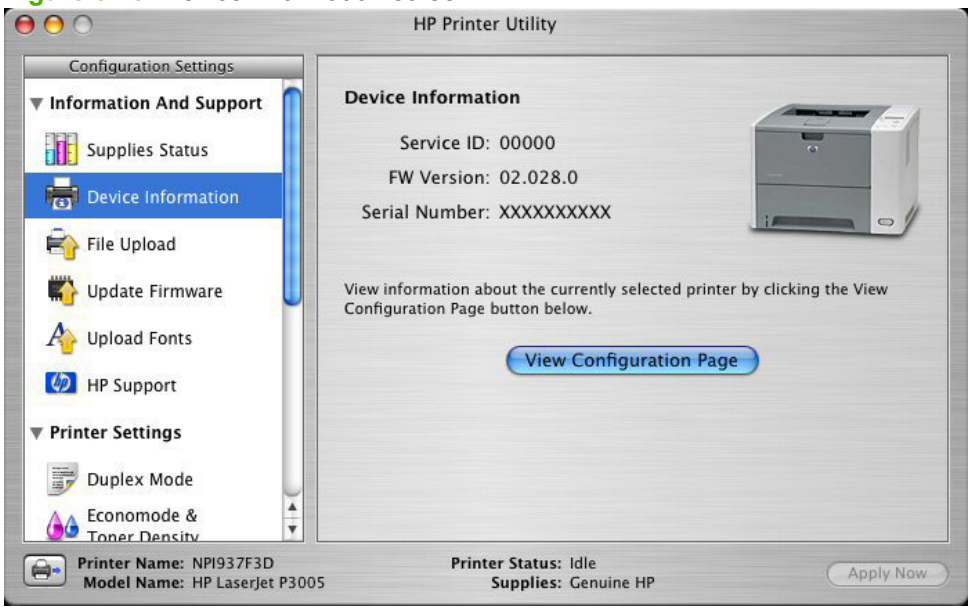


You can also order supplies from this screen by clicking **Shop for Supplies**.

Device Information

Click **Device Information** in the menu on the left to find the product service ID (if assigned), the firmware version, and the serial number.

Figure 5-19 Device Information screen



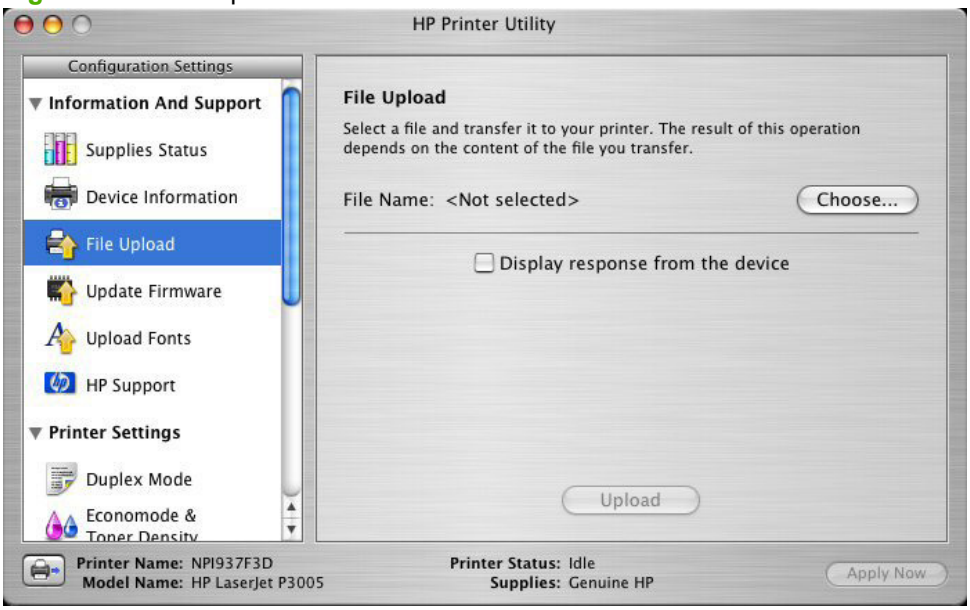
The product configuration page shows other settings; click **View Configuration Page** to see it.

Click the product icon in the lower-left corner to see information about another installed devices. This action relaunches the HP Printer Utility so that you can select another device.

File Upload

On the **Configuration Settings** menu, click **File Upload** to open the **File Upload** screen.

Figure 5-20 File Upload screen



The **File Upload** command is supported for file types that can be sent directly to the product without first being opened through a software program. Some files can be uploaded to the product, but some cannot.

Documents in the following file formats can be printed by using a command line. That is, they do not need to be opened in a software program that supports the file format (such as the Adobe Acrobat or Acrobat Reader programs for PDF files), but can be sent directly to the product by using the **File Upload** command.

- HP LaserJet printer command language (PCL)
- Portable document format (PDF)
- Postscript (PS)
- Text (TXT)

On the **File Upload** screen, click **Choose…** to open a navigation screen. Locate the file you want to upload and click **Open**.

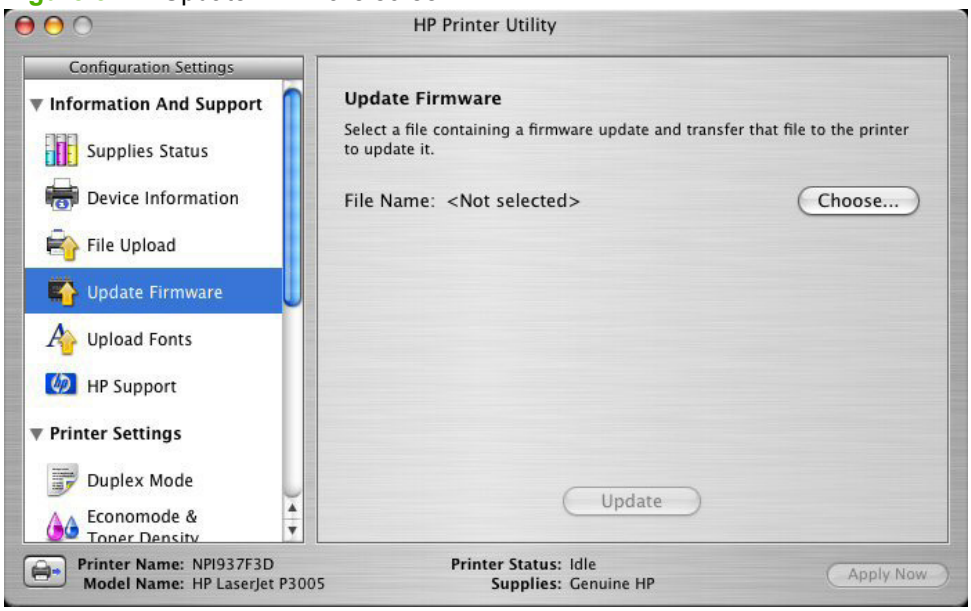
On the **File Upload** screen, click **Display response from the device** to see whether the upload was successful. If the file loads successfully, no message appears.

On the navigation screen, select the file and click **Open**. The file name appears in the **File Upload** screen of the HP Printer Utility. Click **Upload**.

Update Firmware

Choose **Update Firmware** to locate a firmware upgrade file and install it on the product. The **Update Firmware** screen is shown in the following figure.

Figure 5-21 Update Firmware screen

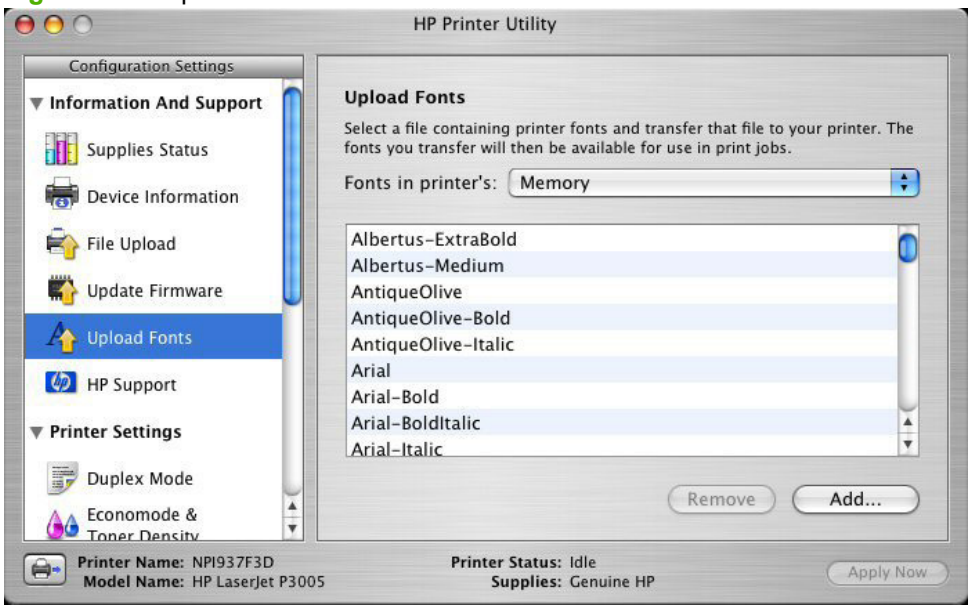


Click **Choose** to open a navigation screen. Browse to the firmware file and click **Open**. The **Update Firmware** screen shows the file name. Click **Update**.

Upload Fonts

In the **Information and Support** menu, click **Upload Fonts** to gain access to fonts that you can upload to the product.

Figure 5-22 Upload Fonts screen



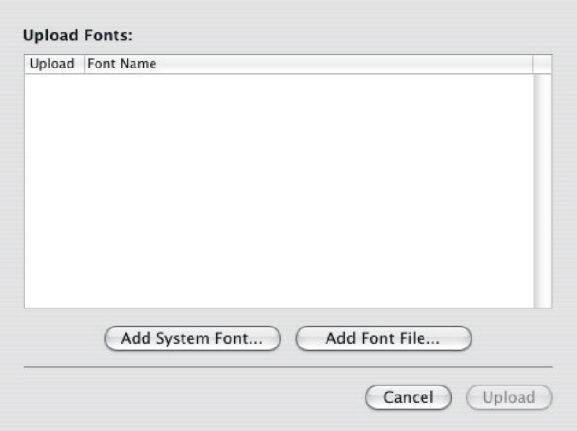
The drop-down menu in the **Upload Fonts** pane has the following option:

- **Memory**. Fonts that are available in the product memory are listed.

To remove a font, choose it, and then click **Remove**.

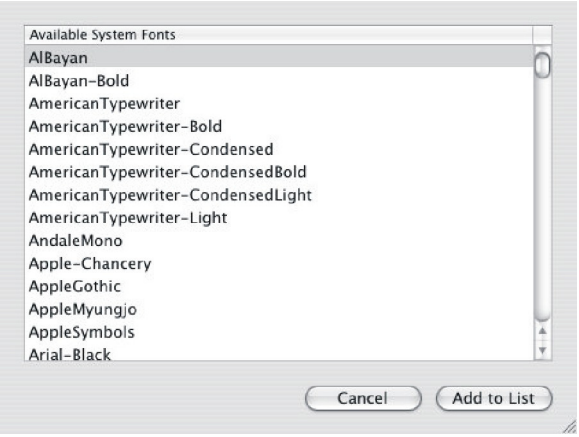
To add a font, click **Add...** . The **Upload Fonts** screen appears, as shown in the following figure.

Figure 5-23 Upload Fonts dialog



To add a system font, click **Add System Font...** . The Add System Fonts screen appears, as shown in the following figure.

Figure 5-24 Add System Fonts screen



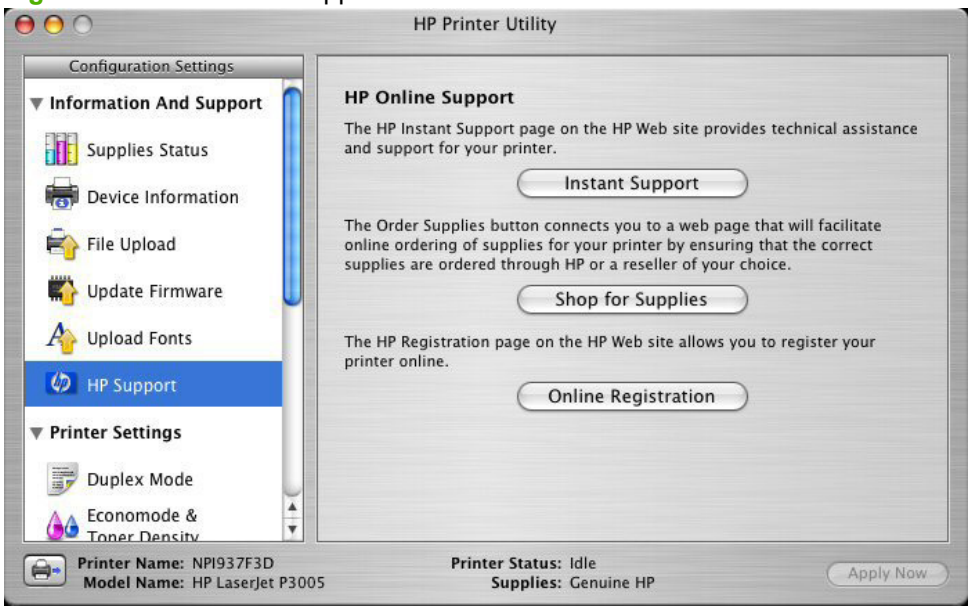
To add a font, click **Add to List**. To close the screen, click **Cancel**.

To add a font file, click **Add Font File** in the **Upload Fonts** screen. A navigation screen opens. Navigate to the font file and click **Open**. To close the screen, click **Cancel**.

HP Support

Click **HP Support** to open the **HP Online Support** screen.

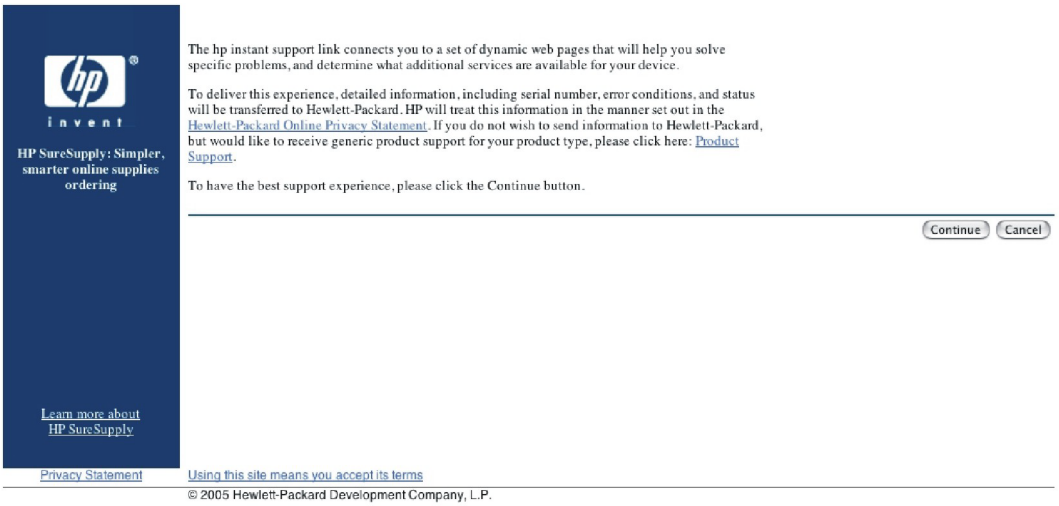
Figure 5-25 HP Online Support screen



If you have Internet access, you can connect to HP support pages over the Web from this screen.

Click the **Instant Support** link to open the HP Instant Support Web page.

Figure 5-26 HP Instant Support link



Click the **Hewlett-Packard Online Privacy Statement** link to open a screen that shows the HP privacy statement.

Click the **Product Support** link if you do not want to send information to HP but would like to receive generic product support.

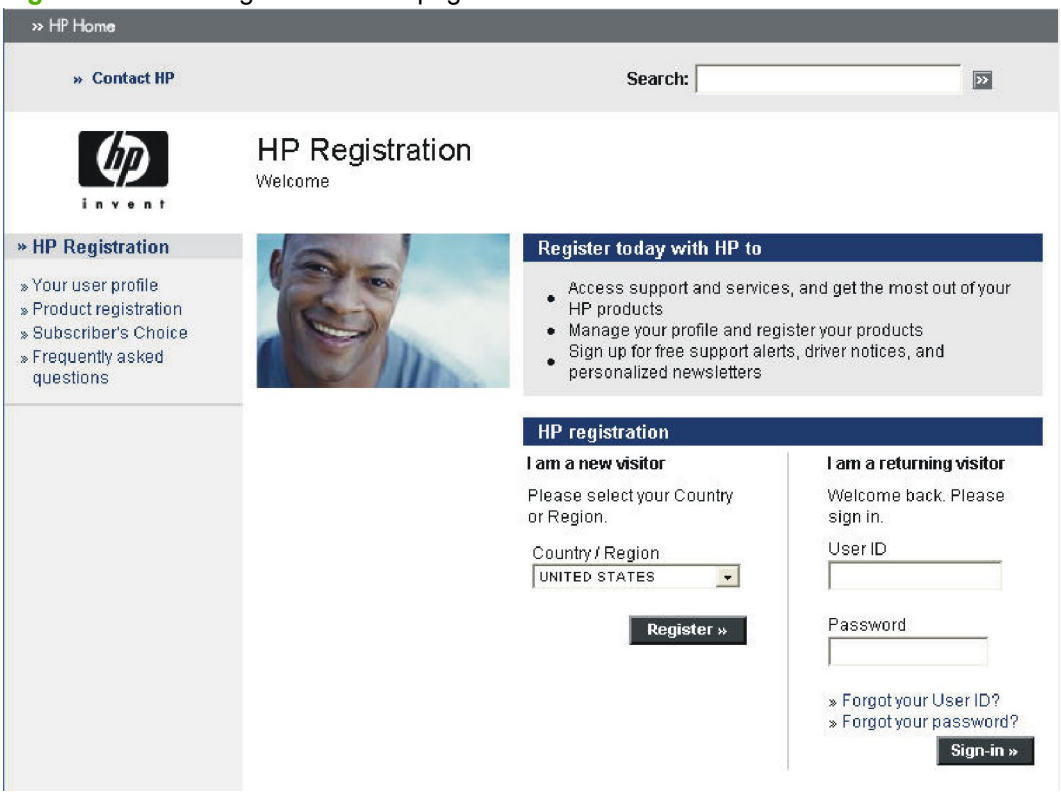
Click **Continue** to open a page where you can select the product and find further information about product support.

Click **Cancel** to return to the **HP Online Support** screen in the HP Printer Utility.

Click **Shop for Supplies** to open the Order Supplies Web page (see Figure 5-16 Welcome to HP SureSupply Web page on page 168).

Click **Online Registration** to open the HP Registration Web page and register the product.

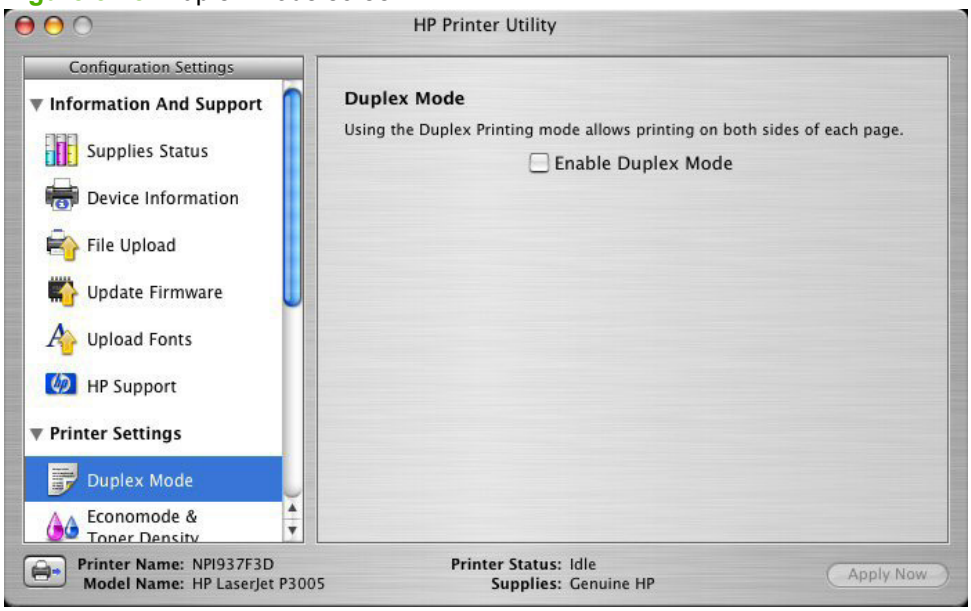
Figure 5-27 HP Registration Web page



Duplex mode

If a duplex unit is installed, the **Configuration Settings** menu includes a **Duplex Mode** setting. Click this setting to open the **Duplex Mode** screen, as shown in the following figure.

Figure 5-28 Duplex Mode screen

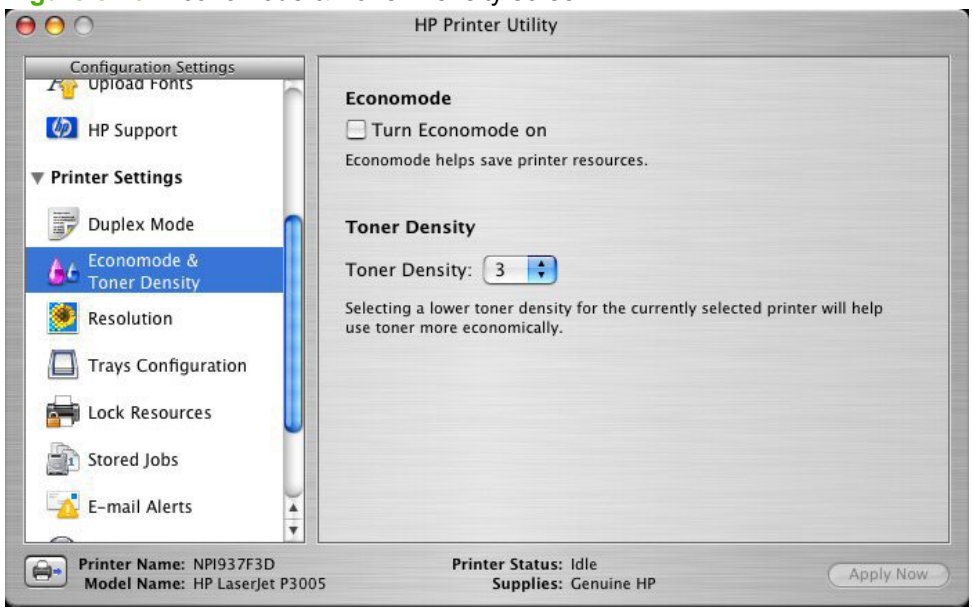


1. Choose **Duplex Mode** to open the **Duplex Mode** screen.
2. Select the **Enable Duplex Mode** check box. This box is clear by default.
3. Click **Apply Now** to enable printing on both sides of the page.

Economode

Under **Printer Settings**, choose the **Economode and Toner Density** menu item to open the Economode screen, as shown in the following figure.

Figure 5-29 Economode & Toner Density screen



Selecting this option extends the life of the toner supply and reduces cost per page. However, it also reduces print quality. The printed image is lighter, but it is adequate for printing drafts or proofs.

HP does not recommend the full-time use of Economode. If Economode is used full-time when the average toner coverage is significantly less than 5%, it is possible that the toner supply will outlast the mechanical parts in the print cartridge. If print quality begins to degrade under these circumstances, you must install a new print cartridge, even if toner remains in the cartridge.

NOTE: The **Turn Economode On** setting might work only if a genuine HP print cartridge is installed. HP print cartridges can measure the life of the mechanical parts as well as the quantity of toner. If the **Turn Economode On** setting is used frequently, the mechanical parts can wear out before the supply of toner is depleted, increasing the risk of toner leaking. Use genuine HP parts to avoid this problem.

Change the settings in the **Toner Density** drop-down menu to save on toner use. The following settings are available:

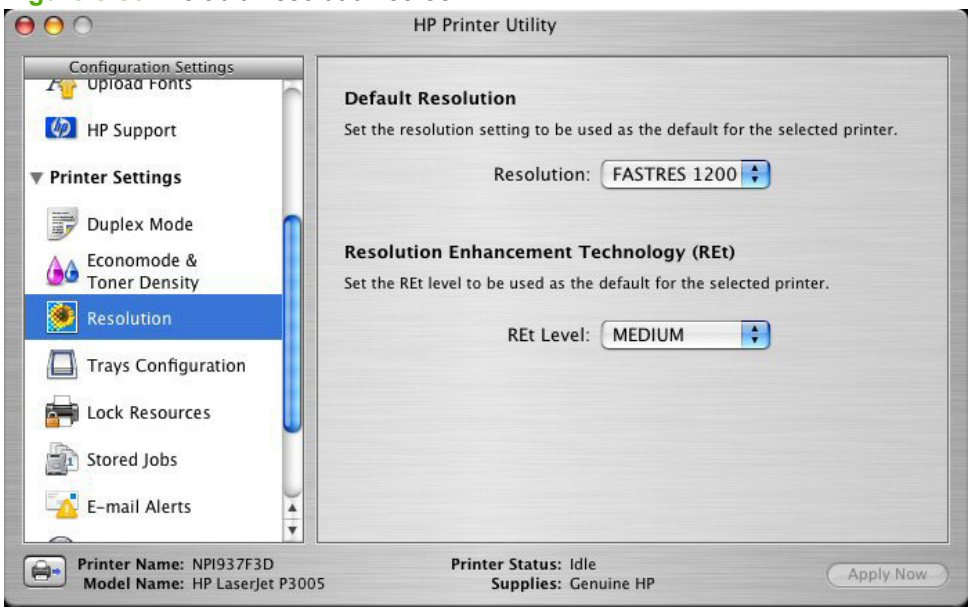
- **1**
- **2**
- **3**
- **4**
- **5**

Lower settings result in slightly reduced printing quality, but save on toner usage.

Resolution

Under **Printer Settings**, choose **Resolution** to open the **Default Resolution** screen, as shown in the following figure.

Figure 5-30 Default Resolution screen



The following dots-per-inch (dpi) settings are available in the **Default Resolution** drop-down menu:

- **300**
- **600**
- **FASTRES 1200**
- **PRORES 1200**

NOTE: When a **PRORES1200** setting is selected, documents are printed using a resolution of 1200 x 1200 dpi. This is the best print quality, but printing speed is slower than for documents printed on the **FASTRES 1200** setting, which uses a resolution of 1200 x 600 dpi.

When the **PRORES 1200** setting is selected, documents are printed using a resolution of 1200 x 1200 dpi. This is the best print quality, but printing speed is slower than for documents printed on the **FASTRES 1200** setting, which uses a resolution of 1200 x 600 dpi

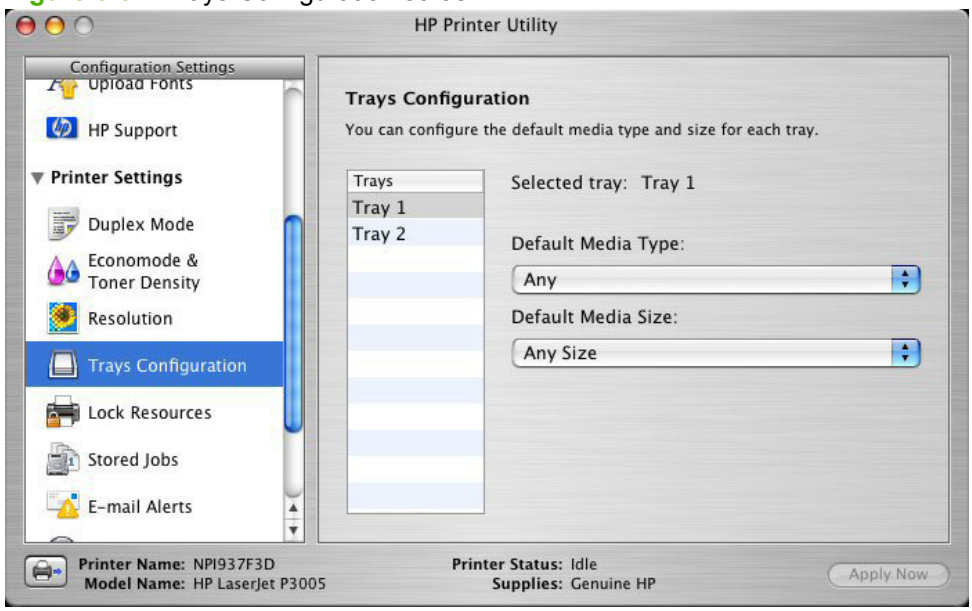
The following settings are available in the **Resolution Enhancement Technology (REt)** drop-down menu:

- **OFF**
- **LIGHT**
- **MEDIUM**
- **DARK**

Trays Configuration

Under **Printer Settings**, choose **Trays Configuration** to open the **Trays Configuration** screen, as shown in the following figure.

Figure 5-31 Trays Configuration screen

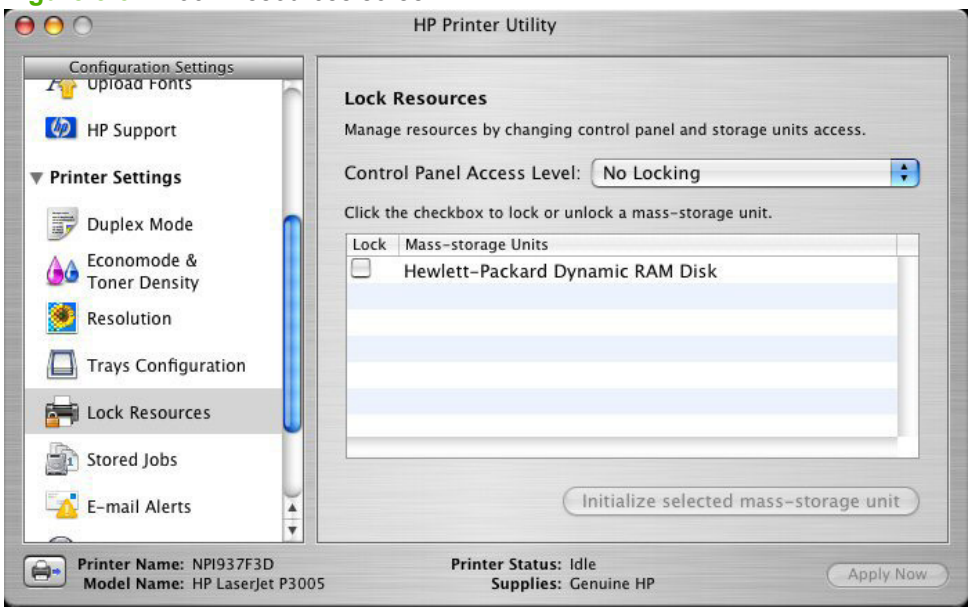


1. Choose **Trays Configuration** to change media size and type for each of the trays installed on your product.
2. To change the media type, select a tray and then choose a different media type in the **Default Media Type** drop-down menu.
3. To change the media size, select a tray and then choose a different media size in the **Default Media Size** drop-down menu.
4. Click **Apply Now** to save the settings.

Lock Resources

Select **Lock Resources** to lock certain features of the product. The **Lock Resources** screen is shown in the following figure.

Figure 5-32 Lock Resources screen



In **Control Panel Access Level**, choose one of the following settings:

- **No Locking** provides full control of the product.
- **Minimal Locking** provides control over paper-handling features.
- **Moderate Locking** blocks changes in the product configuration.
- **Maximal Locking** prevents users from changing product control-panel settings.

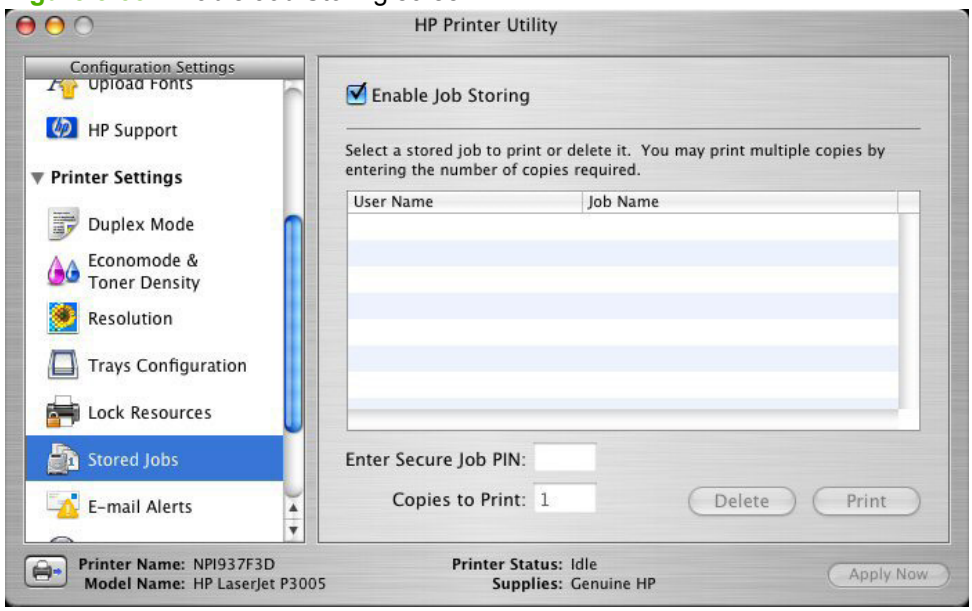
In the lower pane, select the **Lock** check box for the mass-storage unit that you want to lock.

⚠ **WARNING!** Click **Initialize selected mass-storage unit** *only* if you want to erase all data that is currently stored on the hard drive. *You cannot undo this action*.

Stored Jobs

Choose **Stored Jobs** to change the **Enable Job Storing** setting. This setting is selected by default. Click to clear the check box to disable the job-storing feature.

Figure 5-33 Enable Job Storing screen



You can type a PIN for your job in the **Enter Secure Job PIN** field.

Select the number of copies in the **Copies to Print** field.

Select a stored job and click **Print** to print the job.

Select a stored job and click **Delete** to delete the job.

Job-storage print jobs can also be released or deleted at the product control panel.

Topics:

- Releasing a job-storage print job
- Deleting a job-storage print job

Releasing a job-storage print job

After you send a print job that uses the job-storage feature, you can release the job to print from the product control panel.

1. Press theMenu button to open the menus.
2. Use the arrow buttons to select **RETRIEVE JOB**, and then press OK.
3. Use the arrow buttons to select your user name, and then press OK.
4. Use the arrow buttons to select the job name, and then press OK.
5. Use the arrow buttons to select **PRINT**, and then press OK.
6. Press OK.

7. If a PIN number is assigned to the job, use the arrow buttons to select the first digit of the PIN, and then press OK. The number in the product 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. Use the arrow buttons to select the number of copies to print.

9. Press OK to print the job.

Deleting a job-storage print job

Sometimes it is necessary to delete a print job from the product memory. You can do this from the product control panel.

1. Press theMenu button to open the menus.

2. Use the arrow buttons to select **RETRIEVE JOB**, and then press OK.

3. Use the arrow buttons to select your user name, and then press OK.

4. Use the arrow buttons to select the job name, and then press OK.

5. Use the arrow buttons to select **DELETE**, and then press OK.

6. Press OK.

7. If a PIN number is assigned to the job, use the arrow buttons to select the first digit of the PIN, and then press OK. The number in the product 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 OK to delete the job.

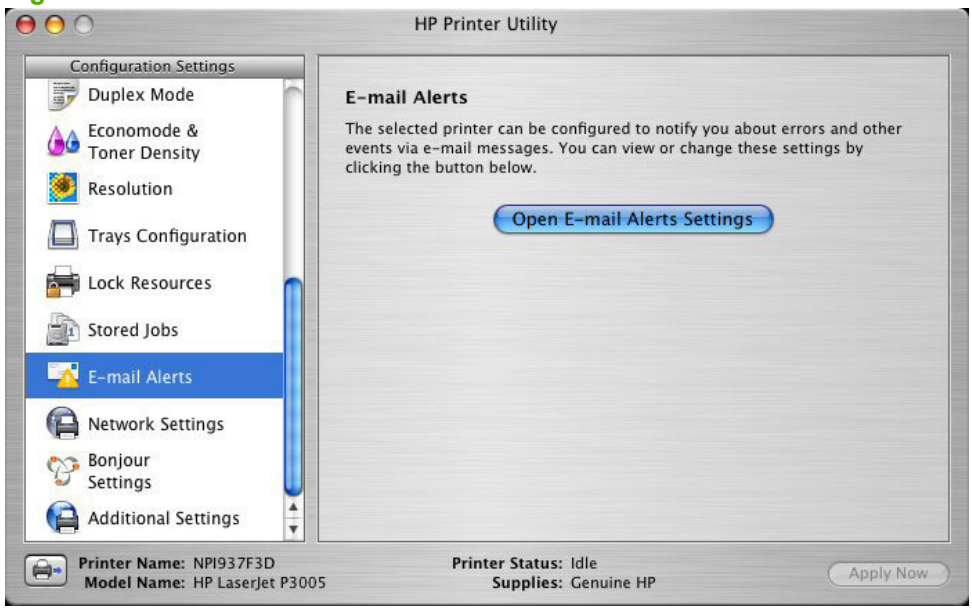
E-mail Alerts

The **E-mail Alerts** screen is available if the product is installed over a network connection. It is not available when the product is installed over a USB connection.

Choose **E-mail Alerts** to configure the product to send e-mail notifications to users.

If a user name and password have been set, you might need to obtain them from the IT administrator. For more information, see the HP EWS user guide.

Figure 5-34 E-mail Alerts screen

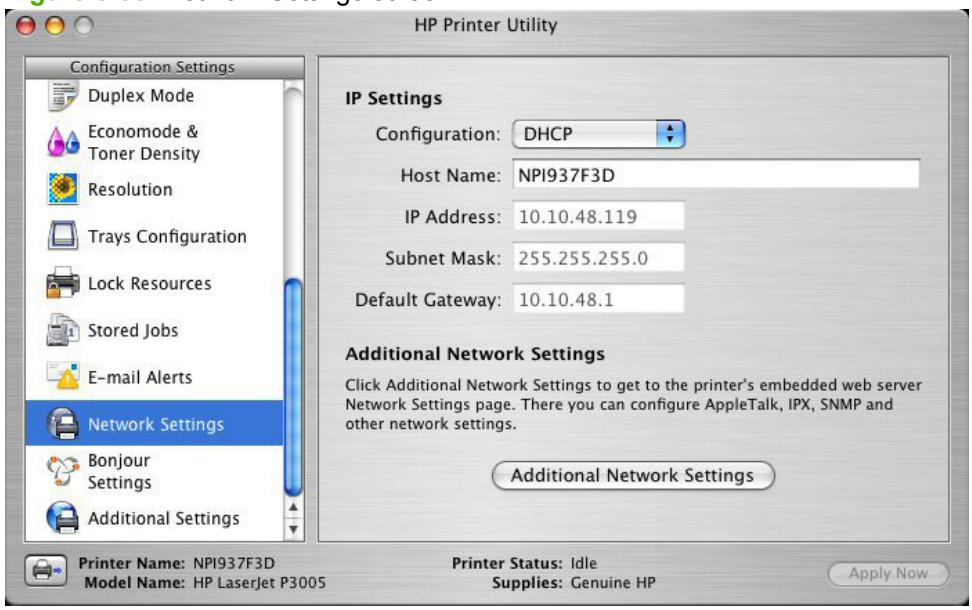


Click **Open E-mail Alerts Settings** to open the HP EWS. The HP EWS opens to the **Alerts** screen on the **Settings** tab, where you can set notifications to manage the product.

Network Settings

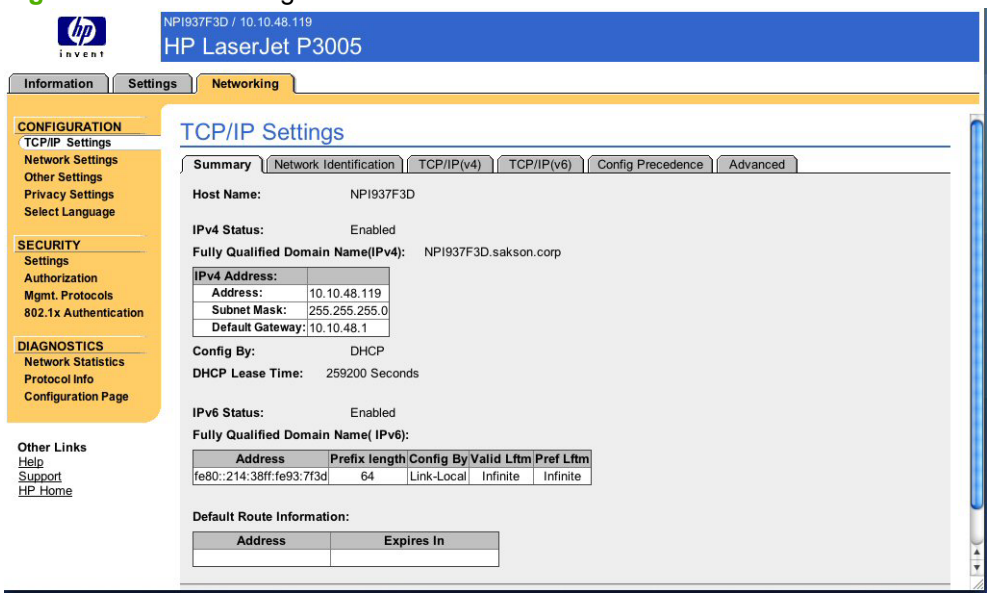
The **Network Settings** screen is available if the product is installed over a network connection. It is not available when the product is installed over a USB connection.

Figure 5-35 Network Settings screen



Choose **Additional Network Settings** to open the **TCP/IP Settings** page of the HP EWS **Networking** screen.

Figure 5-36 Networking screen



Choose one of the following options in the **Configuration** drop-down menu:

- **DHCP**
- **BootP**
- **Manual**

You can also use this screen to modify the following settings:

- **Host Name**
- **IP Address**
- **Subnet Mask**
- **Default Gateway**

To save new settings, click **Apply Now**.

To view and change other network settings, click **Additional Network Settings**.

If a user name and password have been set, you might need to obtain them from your IT administrator. For more information, see the HP EWS user guide.

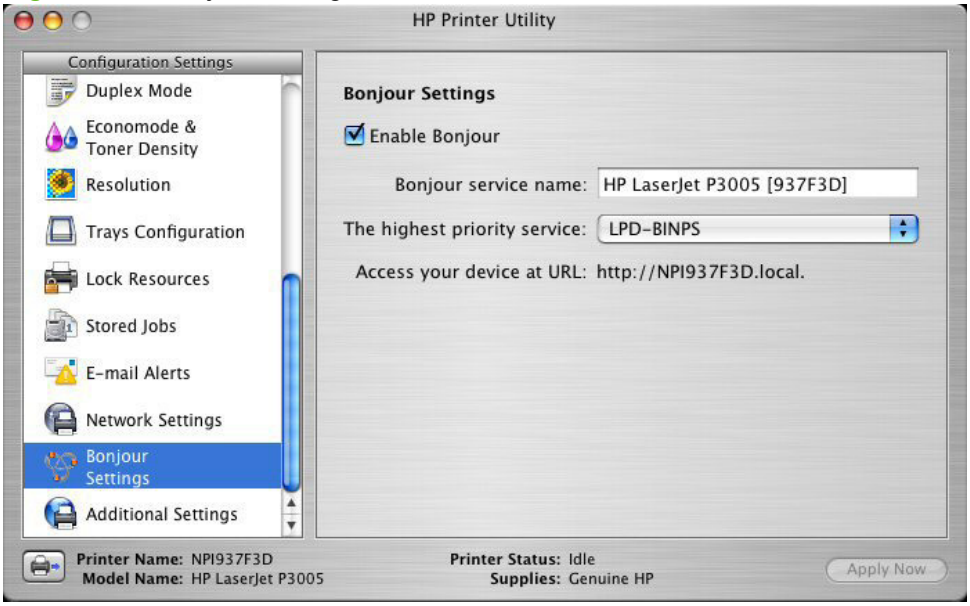
The HP EWS opens to the **Network Settings** screen. For information about this screen, see Network Settings on page 183 in this STR.

Bonjour Settings

The **Bonjour Settings** screen is available if the product is installed over a network connection. It is not available when the product is installed over a USB connection.

Choose **Bonjour Settings** to open the **Bonjour Settings** screen. Bonjour is enabled by default.

Figure 5-37 Bonjour Settings screen



To disable Bonjour, click to clear the **Enable Bonjour** check box, and then click **Apply Now**.

The following options are available in the **The highest priority service** drop-down menu:

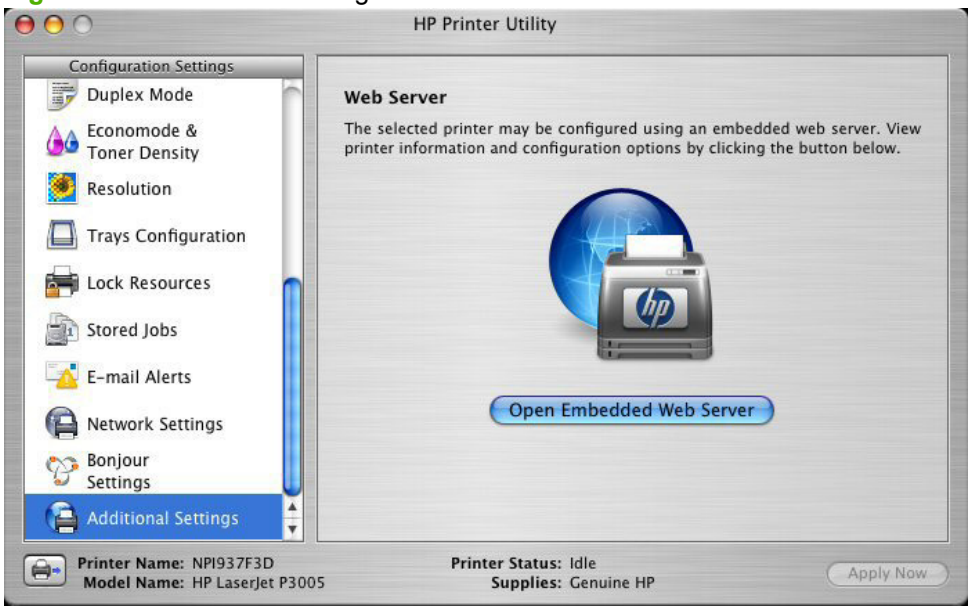
- **Port 9100** (default)
- **IPP**
- **LPD-RAW**
- **LPD-TEXT**
- **LPD-AUTO**
- **LPD-BINPS**
- **LPD-Queue5**
- **LPD-Queue6**
- **LPD-Queue7**
- **LPD-Queue8**
- **LPD-Queue9**
- **LPD-Queue10**

After you select a new setting, click **Apply Now** to save it.

Additional Settings

Choose **Additional Settings** to open the HP EWS.

Figure 5-38 Additional Settings screen



To open the HP EWS, click **Open Embedded Web Server**.

For information about HP EWS settings, see HP Embedded Web Server on page 51 or consult the HP EWS user guide.

6 Engineering details

Topics:

- Media attributes
- Windows install notes
- Macintosh install notes
- Troubleshooting checklist

Media attributes

This section includes the following information about media attributes:

- Supported paper and print media sizes
- Special paper or print media guidelines
- Supported paper and print media types
- Tray and bin capacity
- Custom paper sizes

Supported paper and print media sizes

This product supports a number of paper sizes, and it adapts to various media.

NOTE: To obtain best results, select the correct paper size and type in the printer driver before printing.

Table 6-1 Supported paper and print media sizes

Size and dimensions	Tray 1	Tray 2	Optional 500-sheet Tray 3	Duplexer
Letter 216 x 279 mm (8.5 x 11 inches)	✓	✓	✓	✓
Legal 216 x 356 mm (8.5 x 14 inches)	✓	✓	✓	✓
A4 210 x 297 mm (8.27 x 11.69 inches)	✓	✓	✓	✓
A5 148 x 210 mm (5.83 x 8.27 inches)	✓	✓	✓	
A6 105 x 148 mm (4.1 x 5.8 inches)	✓	✓	✓	
B5 (JIS) 182 x 257 mm (7.17 x 10.12 inches)	✓	✓	✓	
Executive 184 x 267 mm (7.24 x 10.51 inches)	✓	✓	✓	
Postcard (JIS) 100 x 148 mm (3.9 x 5.8 inches)	✓			
Double Postcard (JIS) 148 x 200 mm (5.8 x 7.9 inches)	✓			
16K 184 x 260 mm (7.2 x 10.2 inches)	✓			

Table 6-1 Supported paper and print media sizes (continued)

Size and dimensions	Tray 1	Tray 2	Optional 500-sheet Tray 3	Duplexer
16K 195 x 270 mm (7.7 x 10.6 inches)	✓			
16K 197 x 273 mm (7.8 x 10.8 inches)	✓			
8.5 x 13 216 x 330 mm (8.5 x 13 inches)	✓	✓	✓	✓
Envelope Commercial #10 105 x 241 mm (4.13 x 9.49 inches)	✓			
Envelope B5 ISO 176 x 250 mm (6.7 x 9.8 inches)	✓			
Envelope C5 ISO 162 x 229 mm (6.93 x 9.84 inches)	✓			
Envelope DL ISO 110 x 220 mm (4.33 x 8.66 inches)	✓			
Envelope Monarch 98 x 191 mm (3.9 x 7.5 inches)	✓			
Custom 76 x 127 mm to 216 x 356 mm (3.0 x 5.0 inches to 8.5 x 14 inches)	✓			

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.

Media type	Do	Do not
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.

Supported paper and print media types

For a complete list of specific HP-brand paper that this product supports, go to www.hp.com/support/ljp2050series.

Paper type (control panel)	Paper type (printer driver)	Tray 1	Tray 2	Optional 500-sheet Tray 3	Duplexer
PLAIN 75–95 G	**Plain**	✓	✓	✓	✓
LIGHT 60-74 G	**Light 60-74g**	✓	✓	✓	✓
MID-WEIGHT	**Mid-weight**	✓	✓	✓	✓
HEAVY 111–130 G	**Heavy 111–130g**	✓	✓	✓	
EXTRA HEAVY 131–175 G	**Extra heavy 131–175g**	✓			
TRANSPARENCY	**Monochrome Laser Transparency**	✓	✓	✓	
LABELS	**Labels**	✓			
LETTERHEAD	**Letterhead**	✓	✓	✓	✓
PREPRINTED	**Preprinted**	✓	✓	✓	✓
PREPUNCHED	**Prepunched**	✓	✓	✓	✓
COLOR	**Colored**	✓	✓	✓	✓

Paper type (control panel)	Paper type (printer driver)	Tray 1	Tray 2	Optional 500-sheet Tray 3	Duplexer
ROUGH	**Rough**	✓	✓	✓	
BOND	**Bond**	✓	✓	✓	✓
RECYCLED	**Recycled**	✓	✓	✓	✓
ENVELOPE	**Envelope**	✓			

Tray and bin capacity

Tray or bin	Paper type	Specifications	Quantity
Tray 1	Paper	Range: 60 g/m^2 (16 lb) bond to 200 g/m^2 (54 lb) bond	Maximum stack height: 5 mm (0.3 inch) Equivalent to 50 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: 5 mm (0.3 inch)
	Transparencies	Minimum 0.13 mm (0.005 inch) thick	Maximum stack height: 5 mm (0.3 inch)
Tray 2	Paper	Range: 60 g/m^2 (16 lb) bond to 135 g/m^2 (36 lb) bond	Equivalent to 250 sheets of 75 g/m^2 (20 lb) bond Maximum stack height for A6 paper: 15 mm (0.59 inch)
	Transparencies	Minimum 0.13 mm (0.005 inch) thick	Maximum stack height: 26 mm (1.0 inch)
Optional 500-sheet Tray 3	Paper	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 Maximum stack height for A6 paper: 40 mm (1.6 inches)
	Transparencies	Minimum 0.13 mm (0.005 inch) thick	Maximum stack height: 54 mm (2.1 inches)
Standard top bin	Paper		Up to 125 sheets of 75 g/m^2 (20 lb) bond

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.

Windows install notes

- Introduction
- Installation instructions for Windows
- Technical assistance
- Legal statements

Introduction

Purpose of this document

This document provides specific installation instructions and other information you should know before you install and use the printing-system software. The installation instructions are for the following operating systems:

- Windows 2000 (printer driver only)
- Windows XP (32-bit and 64-bit)
- Windows Server 2003 (32-bit and 64-bit)
- Windows Vista™ (32-bit and 64-bit)

For instructions for other systems, see the associated install notes, readme files, or other product information for that system. For more information about the product and printer-driver features, see the *HP LaserJet P2050 Series Printer User Guide* and the online help included with each software component.

System requirements

The following are compatible system requirements for Windows and Macintosh:

- Windows 2000: 333 MHz processor with 64 MB RAM
- Windows XP: 333 MHz processor with 128 MB RAM
- Windows Server 2003: 550 MHz processor with 128 MB RAM (Standard Edition)
- 220 MB of available hard-disk space
- CD-ROM drive or Internet connection
- Dedicated universal serial bus (USB 2.0) connectivity port or network connection

Overview of the printing system components

The CD that is included with the product has software for Windows operating systems and Apple Macintosh operating systems. For more information about a particular printer driver or software component, see the associated online help.

Network administrator software components

The CD that is included with the product has software for Windows operating systems and Apple Macintosh operating systems. For more information about a particular printer driver or software component, see the associated online help.

HP Web Jetadmin

Network administrators can use HP Web Jetadmin software to configure and manage HP products across a variety of operating systems.

NOTE: HP Web Jetadmin is not included on the software CD. Network administrators can download the HP Web Jetadmin software at the following Web site: www.hp.com/go/webjetadmin.

Update Now

If you have modified the product configuration after installation, you can automatically update the driver with the new configuration in environments that support bidirectional communication. Click the **Update Now** button to automatically reflect the new configuration in the driver.

End-user software components

Printer drivers

A printer driver is a software program that other software programs use to gain access to the product features. Typically, you install a printer driver on each computer that will use the product.

The printing-system software CD that came with the product includes the following printer driver: HP PCL 6.

The most recent printer drivers and printing-system software are available at the following Web site: www.hp.com/support/ljp2050series.

Additional printer drivers might be available from an HP distributor or from online sources. See Technical assistance on page 196 or see the user guide for more information about obtaining printer drivers and other HP software.

HP ToolboxFX for Microsoft Windows

HP ToolboxFX software is a software program used to perform the following tasks: check the product status, configure the product settings, view troubleshooting information, and view online documentation.

Product documentation

The user guide is located in the following places:

- On the printing-system software CD
- From within the HP LaserJet printer program group

Some documents are not available in all languages on the CD. See the following Web site for more documentation and information: www.hp.com/support/ljp2050series.

Uninstaller software for Microsoft Windows

Use the uninstaller utility to remove the Windows HP printing-system components. See Uninstaller on page 196 for more instructions.

Installation instructions for Windows

In a Windows environment, the CD setup or installation software detects the version of the operating system that you are running. The software is installed in the language that you select. For example, if you are running an English version of Windows and have the language preference set to Spanish, the installation utility installs the Spanish version of the printing software for the appropriate Windows version.

Installation options for Windows

The following methods are available for installing printer drivers and software components.

Recommended Install. This method installs the full set of drivers and software, including status, alerting, and troubleshooting tools. This method is recommended for computers in a direct-connect or a home/small network environment.

Express Install. This method installs the minimum set of drivers and software. This method is recommended for servers or computers in a network environment.

Install software on Windows XP, Windows Server 2003, and Windows Vista systems

NOTE: Connecting the product to the computer before installing software, also called “Plug and Play,” is not recommended. See the getting started guide for more information.

NOTE: Administrator privileges are required to install the printing system onto a Windows 2000, Windows XP, Windows Server 2003, or Windows Vista operating system.

Printing-system installation from the CD or Internet download (Recommended)

1. Quit all programs.
2. Insert the CD.
3. When the main menu appears, click **Install Product Software**.
4. Follow the onscreen instructions.
5. If the HP printing-system installer program has not started after 30 seconds, complete steps 6 through 10.
6. On the **Start** menu, select **Run**.
7. Browse to the root directory for the CD drive.
8. Select the SETUP.EXE file. Click **Open** and click **OK**.
9. When the main menu appears, click Recommended Install or Express Install.
10. Follow the onscreen instructions.

NOTE:

Network connection

If a computer on the network already has the product software installed, no additional software installation is necessary when adding a new product to the network. Otherwise, install the product software on one of the networked computers as directed below.

1. Insert the software installation CD into the computer CD-ROM drive.
2. If the installation program does not start automatically, browse the CD contents and run the SETUP.EXE file.
3. Follow the on-screen instructions.

NOTE: If you download the printing-system electronically and are using Web files, you need to first run the EXE file(s). If SETUP.EXE does not run automatically, browse to its root location, double-click the file, and follow the onscreen instructions.

Port selection

When the installation process is complete, you might need to assign the product to a port on your network if you did not assign a port during setup. Perform the following procedure:

1. Click **Start**, select **Settings**, and then select **Printers and Faxes**.
2. Select the product that you just installed.
3. On the toolbar, click **File**.
4. Click **Properties**.
5. Click the **Port** tab to change the port information.

Uninstaller

To remove the HP printing-system components, click the uninstall icon in the HP LaserJet P2050 Series printer program group.

Start the uninstaller

1. In the HP LaserJet P2050 Series program group, click the uninstall icon.
2. Follow the onscreen instructions to remove some or all of the printing-system components.

NOTE: For printer-driver-only (Add Printer) installations, delete the product icon from the **Printers and Faxes** folder.

Technical assistance

Some of the following services are provided only for the United States. Similar services are available in other countries/regions.

Customer support

See the user guide or the in-box flyer, or call your local authorized HP dealer.

Web

Online technical support is available at the following Web site: www.hp.com/support/ljp2050series.

HP software and support services—additional information

See either the user guide or the in-box flyer for additional methods of obtaining software and support information, such as printer-driver distribution centers, other online services, fax services, and other online support.

Legal statements

Trademark notices

Adobe®, Acrobat®, and PostScript® are trademarks of Adobe Systems.

Microsoft® and Windows are U.S. registered trademarks of Microsoft Corporation.

Windows Vista® is either a registered trademark or trademark of Microsoft Corporation in the United States and/or other countries.

Software warranty, license, and copyright

Reproduction, adaptation, or translation without prior written permission is prohibited, except as allowed under the copyright laws.

The information contained in this document is subject to change without notice.

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

Warranty

See the user guide for complete warranty and support information.

License

See the user guide for complete information about HP software license terms.

Copyright

© 2008 Copyright Hewlett-Packard Development Company, L.P.

Reproduction, adaptation or translation without prior written permission is prohibited, except as allowed under the copyright laws.

The information contained herein is subject to change without notice.

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

Macintosh install notes

- Introduction
- Installation instructions for Macintosh operating systems
- Technical assistance
- Legal statements

Introduction

Purpose of this document

This document provides specific installation instructions and other information you should know before you install and use the printing-system software. The installation instructions are for operating systems including Mac OS X v10.3, v10.4, and v10.5.

For instructions for other systems, see the associated install notes, readme files, or other product information for that system. For more information about the product and printer-driver features, see the *HP LaserJet P2050 Series Printers User Guide* and the online help included with each software component.

System requirements

The following are compatible system requirements for Macintosh:

- Mac OS X v10.3 and later: Macintosh G3, G4, G5, or Intel® Core™ processor with 128 MB RAM (256 MB RAM recommended)
    - 150 MB of free hard disk space
- CD-ROM drive or Internet connection
- Dedicated universal serial bus (USB 2.0) connectivity port or network connection

Overview of the printing system components

The CD that is included with the product has software for Windows operating systems and Apple Macintosh operating systems. For more information about a particular printer driver or software component, see the associated online help.

Network administrator software components

HP Printer Utility for Mac OS X

Network administrators can use the HP Printer Utility for Mac OS X v10.3 and later to configure and manage HP products from the computer. The printing-system software CD-ROM includes the HP Printer Utility as part of the driver installation.

Installation instructions for Macintosh operating systems

Install Macintosh software for a USB connection

1. Insert the CD into the optical drive. If the CD does not run automatically, double-click the CD icon on the desktop.
2. Double-click the Installer icon in the HP LaserJet P2050 Series Installer folder.
3. Follow the instructions on the computer screen. It is recommended that you restart the computer after the software installation is complete.
4. Connect a USB cable between the product USB port and the computer USB port. Turn on the product. Use a standard 2-meter (6.56-foot) USB cable.
5. Depending on your version of Mac OS X, click **System Preferences** and open **Print & Fax**, or click **Applications**, click **Utilities**, and open **Print Center** or **Printer Setup Utility**. Check if the product name is in the **Printer List**.
6. If the printer name is in the **Printer List**, the setup is complete. If the product name is not in the **Printer List**, proceed with following steps.
7. Click the **Add** or **+** button, and then select **USB** from the drop-down list. View the list of available printers in the **Printer Browser** list.
8. Select the USB-connected HP LaserJet P2050 Series printer that is shown, and then click **Add**. The product name is added to the **Printer List**, and the setup is complete.

Install Macintosh software for a network connection

1. Connect the product to a network port with a local area network (LAN) cable.
2. Insert the CD into the optical drive. If the CD does not run automatically, double-click the CD icon on the desktop.
3. Double-click the Installer icon in the HP LaserJet P2050 Series Installer folder.
4. Follow the instructions on the computer screen. It is recommended that you restart the computer after the software installation is complete.
5. At the product control panel, print the Network Configuration Page, and locate the Bonjour Printer Name. You will need the Bonjour Printer Name in step 8.
6. Depending on your version of Mac OS X, click **System Preferences** and open **Print & Fax**, or click **Applications**, click **Utilities**, and open **Print Center** or **Printer Setup Utility**.
7. Click the **Add** or **+** button. View the list of available printers in the **Printer Browser** list.
8. Select the HP LaserJet P2050 Series printer name that matches the Bonjour Printer name from step 5.
9. Click **Add**. Then configure installable options in the **Printer Browser** window.
10. The product is added to the **Printer List**, and the setup is complete.

Technical assistance

Some of the following services are provided only for the United States. Similar services are available in other countries/regions.

Customer support

See the user guide or the in-box flyer, or call your local authorized HP dealer.

Web

Online technical support is available at the following Web site: www.hp.com/support/ljp2050series.

HP software and support services—additional information

See either the user guide or the in-box flyer for additional methods of obtaining software and support information, such as printer-driver distribution centers, other online services, fax services, and other online support.

Legal statements

Trademark notices

Intel® Core™ is a trademark of Intel Corporation in the U.S. and other countries.

Software warranty, license, and copyright

Warranty

See the user guide for complete warranty and support information.

License

See the user guide for complete information about HP software license terms.

Copyright

© 2008 Copyright Hewlett-Packard Development Company, L.P.

Reproduction, adaptation or translation without prior written permission is prohibited, except as allowed under the copyright laws.

The information contained herein is subject to change without notice.

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

Troubleshooting checklist

Use the following steps when trying to solve a problem with the product.

Table 6-2 Troubleshooting checklist

Step number	Verification step	Possible problems	Solutions
1	**Is the power on?** When the product is connected to a grounded power source, amber lights on the top of the product will show that it is warming up. When the product is ready to print, only the green light will be on.	No power due to failed power source, cable, switch, or fuse.	1. Verify that the product is plugged in. 2. Verify that the power cable is functional and that the power switch is on. 3. Check the power source by plugging the product directly into the wall or into a different outlet. 4. Test the outlet or connect another device to the outlet to verify that the outlet is functioning.
2	**Does the product print from the computer?** Use a word-processing application to send a print job to the product.	Software is not installed correctly or an error occurred during software installation.	Uninstall and then reinstall the product software. Verify that you are using the correct installation procedure and the correct port setting.
		The cable is not connected correctly.	Reconnect the cable.
		An incorrect driver is selected.	Select the proper driver.
		Other devices are connected to the USB port.	Disconnect the other devices and try again to print.
		There is a port driver problem in Microsoft Windows.	Uninstall and then reinstall the product software. Verify that you are using the correct installation procedure and the correct port setting.
	If the error persists, contact HP Customer Contact Center.		

Index

Symbols/Numerics

% of actual size setting
  printer drivers 126

A

About tab
  HP ToolboxFX 49
  Properties, printer driver 144
accessibility features 3
accessories
  available 3
Add or Remove Programs function 105
Add Printer Wizard
  installation 75
Adobe Acrobat Reader
  installing 19
Advanced
  network settings, HP toolboxFX 47
  Printing Features setting, printer drivers 112
  tab, Printing Preferences 111
alerts
  e-mail 22, 30
  e-mail, Macintosh 182
  pop-up 21
  Receive alert messages for product events 21
  Setup Status Alerts screen, HP ToolboxFX 29
  system-tray icons 22
Alerts folder, HP ToolboxFX 28
Alternative Letterhead Mode
  printer driver 113
animated installation guide 73
Authorization
  page, HP EWS 63
Auto continue settings 41
autorun CD-ROM, Windows 19

B

Back Cover settings
  printer drivers 122
Back to Front printing, printer drivers 113
Basic Installation
  choosing 19
bidirectional communications 149
binding settings
  printer drivers 133
bins, output
  capacity 191
  custom paper sizes 120
  locating 13
black, printing all text as
  printer drivers 113
Bonjour
  Settings, Macintosh 184
book printing
  about 134
  special pages 122
Booklet layout settings
  printer drivers 134
booklet printing
  from a software program 134
  layout settings 134
both sides, printing on. *See* duplexing unit
browsers supported, HP ToolboxFX 21

C

Cartridge low threshold settings 41
cartridges
  EconoMode printer driver setting 123
  features 3
CD Browser screen 77
CD-ROM
  documentation 19
  installer, Windows printing-system software 18
  installing Macintosh printing-system software 151
CDs, order
  Macintosh 150
Choose Easy Install or Advanced Install screen
  Windows network installation 91
  Windows USB installation 82
collation settings
  printer drivers 112
components, software
  Macintosh 148
Congratulations Software Installation is complete
  Windows network installation 98
  Windows USB installation 86
Connection
  time-out (I/O) settings 41
  Type screen (USB Windows installation) 83
  Type screen (Windows network installation) 92
connectivity
  connection types supported 3
constraint messages
  printer drivers 110
control panel
  locating 13
  settings, printer drivers 107
Copy Count settings
  printer drivers 112
covers, use different paper settings
  printer drivers 122

Current Progress screen
Windows network installation 88
Windows USB installation 80
Custom Installation
choosing 19
custom paper sizes
printer driver settings 119
customer support 49

D
default
printer, set 98
deleting job-storage jobs
drivers 182
Device
Configuration page, HP EWS 53, 56
Configuration screen, HP ToolboxFX 25
Information screen, HP ToolboxFX 33
Settings folder, HP ToolboxFX 32
Settings tab, printer drivers 139
Status page, HP EWS 52
Status screen, HP ToolboxFX 23
diagnostics 137
dialog boxes, printing-system software installation
Mac OS X 151
dialog boxes, Windows installation
CD Browser 77
Choose Easy Install or Advanced Install (network) 91
Choose Easy Install or Advanced Install (USB) 82
Congratulations Software installation complete (network) 98
Congratulations Software installation is complete (USB) 86
Connection Type (network) 92
Connection Type (USB) 83
Current Progress (network) 88
Current Progress (USB installation) 80
Firewall Notice (network) 94
Identify Printer (network) 93
Install Product Software (network) 87
network 86
Please Allow All HP Install Wizard Processes (network) 90
Printer Found (network) 96
Searching (network) 95
Sign Up Now (network) 97
Welcome (USB) 78
DIMMs
accessing 13
fonts, printer driver settings 141
direct connections, Windows installation 74
disk space requirements
Windows 71
Document Options
printer drivers 112, 132
document preview image
printer drivers 122, 127, 136
documentation
localized versions 5
operating systems supported 149
Readme, Macintosh 198
Readme, Windows 193
uninstalling 99
viewing 19
double-sided printing. *See* duplexing unit
drivers
included 19
paper types 190
See also printer drivers
Drum low threshold settings 41
Duplex
mode, HP Printer Utility 176
duplexing unit
custom paper sizes 120
printer driver configuration 142
printer driver settings 132
testing Macintosh 176
duplexing, manual 142

E
e-mail
alerts 22, 30
alerts, Macintosh 182
Economode
HP Printer Utility, Macintosh 177
EconoMode, printer drivers 123
Effects tab
printer drivers 125
error messages
Auto continue settings 41
e–mail alerts 22
pop-up alerts 21
printer drivers 110
Receive alerts for product events 21
Event Log
HP EWS 55
HP ToolboxFX 28
Extended Capabilities
uninstalling 99
External Fonts settings, printer drivers 140

F
FastRes 3
features
HP ToolboxFX 20
File Upload, Macintosh 171
Finishing tab
printer drivers 131
Firewall Notice screen (Windows network installation) 94
firmware
Macintosh updates 172
Flip pages up
printer driver settings 133
font
controls, printer driver 112
Font Substitution Table 140
fonts
DIMM fonts, printer drivers 141
External, print drivers 140
HP Font Installer 141
included 3
install external 141
lists, printing 55

remove external 142
Upload Fonts, HP Printer Utility 172
Form to Tray Assignment, printer drivers 140
formatter
number 25
Front Cover settings
printer drivers 122
fulfillment centers
Macintosh 150
Full Installation
choosing 19
full installation
Windows 79
full-installation software, operating systems 70
fuser
modes for paper types 39

H

Help
HP ToolboxFXHP ToolboxFX 31
Macintosh 149, 150
operating systems supported 149
printer drivers 110
host-based driver
network installation, Windows 75
HP Customer Participation Program 68
HP Director 149
HP Easy Printer Care 19
HP Embedded Web Server (HP EWS)
Authorization page 63
Device Configuration page 53, 56
Device Status page 52
Event Log page 55
HP Printer Utility, accessing from 186
Language page 62
Macintosh, about 163
Network Configuration page 54
Network Settings page 61
Networking tab 59
Other Settings page 62
Paper Handling page 56
Paper Types page 58
PCL5e page 57
PostScript page 57
Print Information Pages 55
Print Quality page 58
Printing page 57
Service page 59
Settings page 63
Settings tab 55
Status tab 51
Supplies Status page 52
System Setup page 59
TCP/IP Settings page 60
HP Extended Capabilities
uninstalling 99
HP Font Installer 141
HP Instant Support 49
HP Marketing Assistant
uninstalling 99
HP PCL 6 printer driver
About tab 144
Advanced Printing Features 112
Advanced tab, Printing Preferences 111
booklets 134
constraint messages 110
Copy Count settings 112
Device Settings tab 139
Document Options 112, 132
duplexing 132
Effects tab 125
External Fonts settings 140
features 107
Finishing tab 131
Flip pages up 133
font controls 112
Font Installer 141
Form to Tray Assignment 140
Help 110
Installable Options settings 142
Layout Options 113
Pages per sheet 135
Paper Options 118
Paper/Output settings 112
Paper/Quality tab 117
Print Quality settings 123
Printer Features setting 113
Printing Preferences tab 108
Printing Shortcuts tab 114
Properties tabs 109
Resizing Options settings 126
Scale to fit 126
Services tab 137
Watermarks settings 127
HP Photosmart Premier
uninstalling 99
HP Printer Utility, Macintosh
about 163
Bonjour Settings 184
Device Information 170
Duplex mode 176
E-mail Alerts 182
Economode 177
Embedded Web Server access 186
File Upload 171
HP Support 174
Lock Resources 180
Network Settings 183
opening 164
Supplies Status 167
Tray Configuration 179
Update Firmware 172
Upload Fonts 172
HP Solution Center
uninstalling 99
HP SureSupply 68
HP ToolboxFX
About 49
Advanced network settings 47
Alerts folder 28
Auto continue settings 41
browsers supported 21
Device Configuration screen 25
Device Information screen 33
Device Settings 32
Device Status screen 23
e-mail alerts 22
Event Log screen 28
features 20
Help folder 31
HP Instant Support 49
IPv4 Configuration settings 44
IPv6 Configuration settings 45
Jam recovery settings 40

Network Identification screen 46
Network Settings folder 42
Network Summary screen 26
opening screen 21
Order Supplies screen 50
Paper Handling screen 34
Paper Types screen 39
Password settings 41
PCL5 screen 36
pop-up alert messages 21
PostScript screen 37
Print Info Pages screen 27
Print Quality screen 38
Printing screen 35
Product Registration screen 50
Receive alert messages for product events 21
sections 20
Set up E-mail Alerts screen 30
Setup Status Alerts screen 29
SNMP Configuration settings 48
starting 20
Status folder 22
Supplies Status screen 24
Support and Troubleshooting screen 50
system requirements 21
System Setup screen 40
Troubleshooting folder 31
uninstalling 99
User Guide screen 32
HP Web Jetadmin
downloading 68

I
Identify Printer screen (Windows network installation) 93
information pages, printing
HP EWS 55
Install Product Software screen (Windows network installation) 87
Installable Options
printer driver 142
installation
Add Printer Wizard 75
Adobe Acrobat Reader 19
Animated installation guide 73
detailed instructions, Windows 77
dialog boxes, Mac OS X 151
Macintosh printing-system software 151
modify existing 76
system requirements for Windows 71
Windows software 72, 74
installers
included 149
new features 72
Windows 18
Instant Support, HP 49
IPv4 Configuration settings 44
IPv6 Configuration settings 45
IPX/SPX protocols 73

J
jams
recovery settings 40
job storage
Macintosh 181

L
landscape orientation settings
and binding 133
printer drivers 136
Language
page, HP EWS 62
languages, localized versions
documentation 5
Macintosh CDs 150
product software 8
Layout Options
printer drivers 113
Linux operating systems
printer drivers 70
local connections, Windows
installation 74
localized versions
documentation 5
Macintosh CDs 150
product software 8
Lock Resources feature 180

M
Macintosh operating systems
Bonjour Settings 184
components, software 148, 149
Device Information 170
dialog boxes, Mac OS X printing-system software installation 151
e-mail alerts 182
File Upload command 171
HP EWS 163
HP Printer Utility 163
install notes 150, 198
installers 149
installing printing-system software 151
locking driver features 180
network settings 183
online Help 150
operating systems supported 21
PDEs 150
PPDs 149
printer driver settings, change 146
product setup, Mac OS X V10.3 161
product setup, Mac OS X V10.4 160
product setup, Mac OS X V10.5 158
product setup, troubleshooting 162
software components 148
stored jobs 181
supplies status 167
support 146
tray configuration 179
uninstalling printing-system software 163
Update Firmware 172
Upload Fonts 172
manuals
localized versions 5
operating systems supported 149
Marketing Assistant
uninstalling 99
media
supported sizes 188

memory
Device Configuration screen, HP ToolboxFX 25
installation requirements for Windows operating systems 71
printer driver settings 143
messages
alerts, receiving 21
Auto continue settings 41
constraint, printer drivers 110
e-mail alerts 22
pop-up alerts 21
minimum installation
Windows 79, 89
models, feature comparison 4

N
Network
Configuration page, HP EWS 54
Identification settings, HP ToolboxFX 46
Settings folder, HP ToolboxFX 42
Summary screen, HP ToolboxFX 26
Network Settings page
HP EWS settings 61
Networking tab
HP EWS 59
networks
Advanced settings 47
connection types supported 3
HP ToolboxFX settings 26
HP Web Jetadmin, downloading 68
installation dialog boxes, Windows 86
IPv4 Configuration settings 44
IPv6 Configuration settings 45
Macintosh settings 183
Network Identification settings 46
Password settings 41
SNMP settings 48
Windows software installation 75
number of copies, setting
printer drivers 112

O
on/off switch, locating 13
online Help
HP ToolboxFX 31
Macintosh 149
printer drivers 110
operating systems
full-installation software 70
supported 3
order software
Macintosh 150
Order Supplies screen, HP ToolboxFX 50
orientation settings
and binding 133
printer drivers 136
Other Settings
page, HP EWS 62

P
Page order settings
printer drivers 113, 135
page orientation settings
and binding 133
printer drivers 136
Pages per sheet settings
printer drivers 135
Paper
Handling, HP EWS settings 56
Handling, HP ToolboxFX settings 34
Options, printer drivers 118
Output settings, printer driver 112
Quality tab, printer drivers 117
source settings, printer drivers 120
type settings, printer drivers 121
Types, HP EWS settings 58
Types, HP ToolboxFX settings 39
paper
attributes list 188
custom sizes 192
custom sizes, printer driver settings 119
fuser modes 39
Pages per sheet settings, printer drivers 135
Paper Handling screen 34
Paper source settings, printer drivers 120
Paper type settings, printer drivers 121
Print document on settings, printer drivers 126
Print on both sides settings, printer drivers 132
Size is settings, printer drivers 118
supported sizes 188
supported types 190
types, change within a print job 122
part numbers
documentation 5
Macintosh software CDs 150
product software 8
Password
screen, HP ToolboxFX 41
PCL5 screen, HP ToolboxFX 36
PCL5e page
HP EWS 57
PDEs 150
PDF files
installing Adobe Acrobat Reader 19
Macintosh, File Upload command 171
Percentage of actual size setting
printer drivers 126
Photosmart Premier
uninstalling 99
Please Allow All HP Install Wizard Processes screen (Windows network installation) 90
pop-up alerts 21
portrait orientation settings
and binding 133
printer drivers 136
ports
supported 3
PostScript page
HP EWS 57
PostScript screen, HP ToolboxFX 37

power
switch, locating 13
PPD files 149
preview image, document
printer drivers 136
Print
All Text as Black, printer drivers 113
document on settings, printer drivers 126
Info Pages screen, HP ToolboxFX 27
Information Pages, HP EWS 55
on both sides, printer driver settings 132
page borders setting, printer drivers 135
Quality screen, HP ToolboxFX 38
Quality, HP EWS settings 58
Quality, printer driver settings 123
print
cartridges, features 3
modes for paper types 39
Print on both sides
with Booklet layout 134
with Flip pages up 133
printer drivers
availability by operating system, Macintosh 149
included with product 3
Macintosh 148
Printer Features setting, printer driver 113
Printer Found screen (Windows network installation) 96
Printing
HP EWS settings 57
HP ToolboxFX settings 35
Preferences tabs 108
Shortcuts tab, printer drivers 114
processor speed 2
product
comparison 4
Product Registration screen, HP ToolboxFX 50
Properties tabs
printer drivers 109
ProRes 3
protocols
network 73

Q

quality. *See* Quality under Print

R

Raster Compression
printer driver 113
Readme file
Macintosh 198
Windows 193
rear output
bin, locating 13
Receive alert messages for product events 21
registration, product 50
release notes 149
releasing job-storage jobs
drivers 181
remote firmware updates
Macintosh 172
removing software
component list 99
methods 99
reports, printing
HP EWS 55
Resizing Options
printer driver settings 126
resolution
features 3
HP ToolboxFX settings 38
Print Quality page, HP EWS 58
printer driver settings 123
settings, HP Printer Utility, Macintosh 178
right-side panel, locating 13
rotate an image, printer driver 136

S

Scale to fit setting
printer drivers 126
Searching screen (Windows network installation) 95
serial number 25
Service ID 25
Service page
HP EWS 59
Services tab 137
Set up E-mail Alerts screen, HP ToolboxFX 30
set up product, Macintosh
Mac OS X V10.3 161
Mac OS X V10.4 160
Mac OS X V10.5 158
troubleshooting 162
Settings
page, HP EWS 63
Settings tab
HP EWS 55
Setup Status Alerts screen, HP ToolboxFX 29
Sign Up Now screen
Windows network installation 97
Windows USB installation 85
sizes, paper
HP ToolboxFX settings 34
Print on both sides settings, printer drivers 132
printer driver settings 118
smart duplexing 132
SNMP
settings, HP ToolboxFX 48
software, product
localized versions 8
Macintosh 150
Solution Center
uninstalling 99
special media
guidelines 189
Special pages, printer drivers 122
special paper
guidelines 189
specifications
features 2
speed, processor 2
Status
folder, HP ToolboxFX 22
tab, HP EWS 51
status
alerts setup, HP ToolboxFX 29
product information, HP ToolboxFX 23

supplies information, HP ToolboxFX 24
supplies, Macintosh 167
storage, job
Macintosh 181
supplies
HP SureSupply 68
Macintosh status 167
ordering, HP ToolboxFX 50
Supplies Status
HP EWS 52
HP ToolboxFX 24
Support
and Troubleshooting screen, HP ToolboxFX 50
tab, HP Printer Utility 174
support, product 49, 50
supported media 188
supported operating systems 3
system requirements
HP ToolboxFX 21
Macintosh 146
Windows 71
System Setup
HP EWS settings 59
HP ToolboxFX settings 40
system-tray icon alerts 22

T
TCP/IP protocols 73
TCP/IP Settings page
HP EWS 60
text
print all as black 113
ToolboxFX. *See* HP ToolboxFX
top output bin
capacity 191
locating 13
Tray 1
capacity 191
Tray 2
capacity 191
Tray 3
capacity 191
trays
capacity 191
custom paper sizes 120
Form to Tray Assignment 140
HP ToolboxFX settings 34
locating 13
Macintosh configuration 179
Paper source settings, printer drivers 120
printer driver configuration 142
troubleshooting
alerts, receiving for product events 21
checklist 201
constraint messages, printer drivers 110
duplexing unit, Macintosh 176
e-mail alerts 22
pop-up alerts 21
Services tab, printer drivers 137
Troubleshooting folder, HP ToolboxFX 31
TrueType font settings
printer driver 112, 113
two-sided printing. *See* duplexing unit
types, paper
fuser modes 39
HP ToolboxFX settings 34
Print on both sides settings, printer drivers 132
printer driver settings 121
typical installation
Windows 89

U
uninstalling software
component list 99
Macintosh printing system 163
methods for 99
UNIX operating systems
printer drivers 70
USB port
supported 3
Windows installation dialog boxes 78
User Guide screen, HP ToolboxFX 32
user guides
localized versions 5
operating systems supported 149

W
Watermarks settings
printer drivers 127
Web sites
HP Web Jetadmin, downloading 68
Linux drivers 70
order Macintosh software 150
UNIX drivers 70
Welcome screen (USB Windows installation) 78
Windows operating systems
Animated installation guide 73
CD-ROM, print system 18
install notes 193
installation options 72
installing software 74
network software installation 75
printer driver features 107
support 70
system requirements 71
uninstallation component list 99
uninstallation methods 99

Y
Yahoo! toolbar 68

© 2008 Hewlett-Packard Development Company, L.P.

www.hp.com