



HP COLOR LASERJET CP5220

SERIES PRINTER

Software Technical Reference





HP Color LaserJet CP5220 Series Printer

Software Technical Reference

Copyright and license

©2009 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, 9/2009

Trademark credits

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

Apple and the Apple logo are trademarks of Apple Computer, Inc., registered in the U.S. and other countries.

Corel® is a trademark or registered trademark of Corel Corporation or Corel Corporation Limited.

ENERGY STAR® is a registered mark owned by the U.S. government.

Intel® and Pentium® are trademarks of Intel Corporation in the U.S. and other countries.

Linux is a U.S. registered trademark of Linus Torvalds.

Microsoft®, Windows®, Microsoft® Windows NT®, 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.

Table of contents

1 Document and product basics

Purpose and scope	2
Introduction	2
Software technical reference overview	2
Product overview	4
Documentation availability and localization	5
Software availability and localization	9
Printing-system software on the Web	10
In-box printing-system software CDs	10
CD versions	10
Product walkaround	13
Front and side view	13
Back view	14
Model and serial numbers	14

2 Windows software description

Introduction	15
Windows printing-system software	16
Printing system and installer	16
Animated Getting Started Guide	16
Printing-system CD browser	17
Installer features	19
Driver configuration for Windows	20
HP Printer Update utility	21
HP driver diagnostic printer check tool	22
Advanced color use	23
HP ColorSphere toner	23
HP ImageREt 3600	23
Media selection	23
Color options	23
Standard red-green-blue (sRGB)	23
Manage color	24
Automatic	24
Print in Grayscale	24

Manual color adjustment	25
Manual color options	25
Color themes	25
Match colors	26
Match colors using the Microsoft Office Basic Colors palette	27
Match colors using the HP Basic Color Match tool	27
Match colors using View Custom Colors	27
HP Easy Printer Care	29
HP ToolboxFX	30
HP ToolboxFX overview	30
The HP Embedded Web Server (HP EWS) and HP ToolboxFX	30
Start HP ToolboxFX	31
Structure	31
Opening screen	31
System requirements	31
Key features	31
HP product pop-up alert messages	32
E-mail alert	32
HP ToolboxFX folders	33
Status folder	33
Device Status	34
Supplies Status	35
Device Configuration	35
Network Summary	36
Reports	37
Color Usage Job Log	38
Event Log	39
Alerts folder	40
Set up Status Alerts	41
Set up E-mail Alerts	44
Help folder	45
Troubleshooting	45
Color Printing Tools	46
Animated Demonstrations	47
User Guide	48
System Settings folder	49
Device Information	50
Paper Setup	51
Print Quality	53
Print Density	54
Paper Types	55
Extended Print Modes screen	56
System Setup	59
Save/Restore Settings	60

Product Security	61
Print Settings folder	61
Printing	62
PCL5	64
PostScript	64
Network Settings folder	65
Network Summary	66
IPv4 Configuration	66
IPv6 Configuration	67
Network Identification	68
Advanced	69
SNMP	71
Other screens	72
About HP ToolboxFX	73
Support and Troubleshooting	73
Online HP Offers	73
Product Registration	73
Shop for Supplies	73
HP Embedded Web Server	74
Status tab	74
Device Status	75
Supplies Status	75
Device Configuration	76
Network Summary	78
Reports	79
Color Usage Job Log	79
Event Log	80
System tab	81
Device Information	81
Paper Setup	82
Print Quality	84
Print Density	84
Paper Types	85
Extended Print Modes	86
System Setup	88
Service	88
Product Security	89
Print tab	89
Printing	90
PCL5	91
PostScript	91
Networking tab	91
Network Summary	92
IPv4 Configuration	92

IPv6 Configuration	93
Network Identification	93
Advanced	94
SNMP	96
HP Web Jetadmin	98
HP Customer Participation Program	98
Optional software	99
Universal Print Driver	99
Basic Color Match	99
HP Easy Printer Care	99
HP Smart Web Printing	99
Yahoo! toolbar	100
Font support	101
Basic fonts	101
Default fonts	101

3 Install Windows software and utilities

Introduction	107
Supported operating systems for Windows	108
Windows operating system requirements	108
Installation overview	109
Software installation types for Windows	109
Install drivers using a CD	110
Detailed Microsoft Windows installation instructions	111
Animated Getting Started Guide (GSG)	111
Setup and installation instructions	111
Printing-system software installation for Microsoft Windows	123
Install additional software	136
User uninstall software	141
Uninstall instructions for Windows	141
Uninstall a “full” installation	141
Use the product software Uninstall component (recommended)	141
Use the Windows Add or Remove Programs component	145
Use the printing-system software CD	145
Uninstall a print-driver only installation	146

4 HP PCL 6 print driver and HP UPD PS for Windows

Introduction	147
Open the printer driver	148
Help system	149
“What’s this?” Help	149
Constraint messages	149
Advanced tab features	150

Paper/Output settings	151
Copy Count setting	151
Graphic settings	152
Image Color Management settings	152
TrueType Font settings	152
Document Options	152
Advanced Printing Features	153
PostScript Options (HP UPD PS only)	153
PostScript Output option	153
TrueType Font Download option	153
PostScript Language Level	153
Send PostScript Error Handler	154
Printer Features	154
Print All Text as Black	154
Send TrueType as Bitmap (PCL 6 only)	154
Raster Compression (PCL 6 only)	154
Print Data Optimization (PCL 6 only)	155
HP EasyColor	155
Alternative Letterhead Mode (PCL 6 only)	156
Layout Options	156
Printing Shortcuts tab	157
General Everyday Printing (PCL 6 only)	158
Envelopes (PCL 6 only)	161
Cardstock/Heavy (PCL 6 only)	162
Glossy/Presentation (PCL 6 only)	164
Snapshot Photos (PCL 6 only)	165
Labels (PCL 6 only)	166
Transparencies (PCL 6 only)	167
Factory Defaults	169
User Guide Print Settings (HP UPD PS only)	169
Document preview image	172
Paper/Quality tab features	173
Paper Options	174
Paper size:	175
Custom Paper Size	175
Name	175
Paper Size	176
Units	176
Custom width and height control limits	176
Paper source:	177
Paper type:	178
Special pages	180
Covers	180
Print pages on different paper	180

Document preview image	181
Print Quality group box	181
Print Quality drop-down menu	182
Gloss Level (HP UPD PS only)	182
Gloss Level driver settings	182
Effects tab features	183
Resizing Options group box	183
Actual Size setting	184
Print Document On setting	184
Scale to Fit option	184
% of actual size option	185
Document preview image	185
Watermarks group box	186
Current watermarks	187
Watermark message	187
Message angle	188
Font attributes	188
Name drop-down menu	188
Color drop-down menu	188
Shading drop-down menu	189
Size spin box	190
Style drop-down menu	190
Default settings	190
Finishing tab features	191
Document Options	191
Print on Both Sides check box	192
Print on both sides automatically	192
Manually printing on both sides	193
Flip Pages Up option	194
Booklet layout drop-down menu	195
Book and booklet printing	195
Printing a booklet	195
Printing a book	196
Pages per Sheet drop-down menu	196
Print Page Borders check box	196
Page Order drop-down menu	196
Document preview image	197
Orientation group box	197
Portrait option button	197
Landscape option button	197
Rotate by 180 degrees check box	198
Mirror Image check box (HP UPD PS only)	198
Color tab features	199
Color Options	199

Automatic	200
Manual	200
Print in Grayscale	201
Color Themes	202
Document preview image	202
Services tab features	203
Internet Services	203
Device Settings tab features	205
Form to Tray Assignment	206
Font Substitution Table	207
External Fonts	207
Installing external fonts	208
Removing external fonts	208
Installable Options	209
Allow Manual Duplexing	209
Printer Memory	209
About tab features	210

5 Macintosh software and utilities

Introduction	213
Supported operating systems for Macintosh	214
Macintosh system requirements	214
Hardware requirements	214
Supported print drivers for Macintosh	214
Change print-driver settings for Macintosh	214
Printing-system software	215
Availability	215
Printing-system software on the Web	215
Printing-system software	215
In-box printing-system software CDs	216
Macintosh partition	216
CD versions	216
Macintosh installation instructions	218
Macintosh component descriptions	218
HP LaserJet PPDs	218
PDEs	218
HP EWS Gateway	218
Install notes (Readme file)	219
Install the Macintosh printing system	219
Install the software for Macintosh operating systems	219
Setup instructions	224
Set up the product with Mac OS X v10.5 and v10.6	225
Set up the product with Mac OS X v10.3 and v10.4	226

Troubleshooting the product setup	228
Remove the printing-system software from Macintosh operating systems	230
Supported utilities for Macintosh	230
HP Embedded Web Server	230
Use features in the Macintosh printer driver	231
Create and use printing presets in Macintosh	231
Resize documents or print on a custom paper size	231
Use watermarks	231
Print multiple pages on one sheet of paper in Macintosh	232
Print on both sides of the page (duplex printing)	232
Use the Services menu	233
Macintosh readme	234
Mac OS X printer queue setup for your HP LaserJet printer	234
Troubleshooting notes	234

6 Engineering details

Introduction	237
Firmware updates	238
Supported paper tables	240
Special paper guidelines table	242
Sizes (min & max) and supported paper by tray	243
Media attributes and commands	245
Media types and sizes	245
Custom paper sizes	247
Manual scrubber	248
File to E-mail utility	249
Hewlett-Packard Color LaserJet CP5220 Series Printer Install Notes	250
I. INTRODUCTION	250
PURPOSE OF THIS DOCUMENT	250
WHO NEEDS THIS SOFTWARE?	251
OVERVIEW OF THE PRINTING-SYSTEM COMPONENTS	251
II. LATE-BREAKING INFORMATION	253
KNOWN ISSUES AND WORKAROUNDS	253
III. INSTALLATION INSTRUCTIONS	254
INSTALL SOFTWARE ON XP AND WINDOWS VISTA	254
IV. UNINSTALLATION INSTRUCTIONS	255
WINDOWS UNINSTALLER	255
ADD/REMOVE PROGRAMS	255
V. TECHNICAL ASSISTANCE	255
VI. LEGAL STATEMENTS	256
TRADEMARK NOTICES	256
WARRANTY AND COPYRIGHT	256
Troubleshooting	257

Port communication	257
Overview	257
USB port connections	257
Device conflicts in Windows	257
Open the Windows Device Manager	257
Check for product conflicts	258
Guidelines for troubleshooting and resolving product conflicts	258
Installed product	258
E-mail alerts	259

Index	261
--------------------	------------

List of tables

Table 1-1	Software technical reference overview	2
Table 1-2	User documentation availability and localization	5
Table 1-3	HP Color LaserJet CP5220 Series software components by installation method	9
Table 2-1	Manual color options	25
Table 2-2	Supported pop-up alerts for HP ToolboxFX	42
Table 2-3	Standard print modes	55
Table 2-4	Print Modes — Fusing	56
Table 2-5	Print Modes — Transfer	57
Table 2-6	Print Modes — Duplex Transfer	57
Table 2-7	Print Modes — Toner	57
Table 2-8	Optimize modes	57
Table 2-9	Network Identification screen – Text entries	68
Table 2-10	Advanced Network Settings options and settings	70
Table 2-11	SNMP options and settings	71
Table 2-12	HP ToolboxFX – Other screens	72
Table 2-13	Network Identification screen – Text entries	93
Table 2-14	Advanced Network Settings options and settings	95
Table 2-15	Default fonts	101
Table 2-16	Additional postscript emulation fonts	103
Table 4-1	General Everyday printing options	159
Table 4-2	Envelopes printing options	161
Table 4-3	Cardstock/Heavy printing options	162
Table 4-4	Glossy/Presentation printing options	164
Table 4-5	Snapshot printing options	166
Table 4-6	Labels printing options	166
Table 4-7	Transparencies printing options	167
Table 4-8	User Guide Print Settings – HP UPD PS only	170
Table 4-9	Tray 1 and Tray 2 specifications	176
Table 4-10	Paper type: – Type is: supported paper types and associated engine speeds	178
Table 4-11	Watermark color values	188
Table 4-12	Page orientation	195
Table 4-13	Manual color options	201
Table 5-1	Change print-driver settings for Macintosh	214
Table 5-2	Adding a printer in Macintosh operating systems	224

Table 6-1 Supported paper and print media sizes 240

Table 6-2 Supported envelopes and postcards 241

Table 6-3 Supported paper attributes 245

Table 6-4 Tray 1 and Tray 2 specifications 247

List of figures

Figure 2-1	Animated Getting Started Guide – Main screen	17
Figure 2-2	Software CD browser	18
Figure 2-3	HP product alert – Load Paper pop-up message	32
Figure 2-4	HP ToolboxFX Device Status screen	34
Figure 2-5	HP ToolboxFX Supplies Status screen	35
Figure 2-6	HP ToolboxFX Device Configuration screen	36
Figure 2-7	HP ToolboxFX Network Summary screen – Status folder	37
Figure 2-8	HP ToolboxFX Reports screen	38
Figure 2-9	HP ToolboxFX Color Usage Job Log screen	39
Figure 2-10	HP ToolboxFX Event Log screen	40
Figure 2-11	HP ToolboxFX Alerts folder	41
Figure 2-12	HP ToolboxFX Set up Status Alerts screen	41
Figure 2-13	HP ToolboxFX Set up E-mail Alerts screen	44
Figure 2-14	HP ToolboxFX Troubleshooting screen	46
Figure 2-15	HP ToolboxFX Color Printing Tools screen	47
Figure 2-16	HP ToolboxFX Animated Demonstrations screen	48
Figure 2-17	HP ToolboxFX User Guide screen	49
Figure 2-18	HP ToolboxFX Device Information screen	50
Figure 2-19	HP ToolboxFX Paper Setup screen	51
Figure 2-20	HP ToolboxFX Print Quality screen	53
Figure 2-21	HP ToolboxFX Print Density screen	54
Figure 2-22	HP ToolboxFX Paper Types screen	55
Figure 2-23	HP ToolboxFX Extended Print Modes screen	56
Figure 2-24	HP ToolboxFX System Setup screen	59
Figure 2-25	HP ToolboxFX Save/Restore Settings screen	60
Figure 2-26	HP ToolboxFX Product Security screen	61
Figure 2-27	HP ToolboxFX Printing screen	62
Figure 2-28	HP ToolboxFX PCL5 screen	64
Figure 2-29	HP ToolboxFX PostScript screen	64
Figure 2-30	HP ToolboxFX Network Settings screen	65
Figure 2-31	HP ToolboxFX Network Summary screen – Network Settings folder	66
Figure 2-32	HP ToolboxFX IPv4 Configuration screen	67
Figure 2-33	HP ToolboxFX IPv6 Configuration screen	68
Figure 2-34	HP ToolboxFX Network Identification screen	69

Figure 2-35	HP ToolboxFX Advanced screen	70
Figure 2-36	HP ToolboxFX SNMP screen	71
Figure 2-37	About HP ToolboxFX screen	73
Figure 2-38	HP EWS Device Status screen	75
Figure 2-39	HP EWS Supplies Status screen	76
Figure 2-40	HP EWS Device Configuration screen	77
Figure 2-41	HP EWS Network Summary screen	78
Figure 2-42	HP EWS Reports screen	79
Figure 2-43	HP EWS Color Usage Job Log screen	80
Figure 2-44	HP EWS Event Log screen	80
Figure 2-45	HP EWS Device Information screen	81
Figure 2-46	HP EWS Paper Setup screen	82
Figure 2-47	HP EWS Print Quality screen	84
Figure 2-48	HP EWS Print Density screen	85
Figure 2-49	HP EWS Paper Types screen	86
Figure 2-50	HP EWS Extended Print Modes screen	87
Figure 2-51	HP EWS System Setup screen	88
Figure 2-52	HP EWS Service screen	88
Figure 2-53	HP EWS Product Security screen	89
Figure 2-54	HP EWS Printing screen	90
Figure 2-55	HP EWS PCL5 screen	91
Figure 2-56	HP EWS PostScript screen	91
Figure 2-57	HP EWS IPv4 Configuration screen	92
Figure 2-58	HP EWS IPv6 Configuration screen	93
Figure 2-59	HP EWS Network Identification screen	94
Figure 2-60	HP EWS Advanced screen	95
Figure 2-61	HP EWS SNMP screen	96
Figure 3-1	Welcome screen	112
Figure 3-2	Environmental and space requirements screen	113
Figure 3-3	Instructions for unpacking the box	114
Figure 3-4	Instructions for removing the packing materials	115
Figure 3-5	Instructions for installing the optional 500-sheet tray	116
Figure 3-6	Connection type screen	117
Figure 3-7	Network cable instructions	118
Figure 3-8	Connecting the power cable	119
Figure 3-9	Instructions for loading paper	120
Figure 3-10	Instructions for printing a configuration	121
Figure 3-11	Installer program main screen	122
Figure 3-12	Animated Getting Started Guide main screen	123
Figure 3-13	Installer program main screen	124
Figure 3-14	Installer program progress bar	124
Figure 3-15	Installer program license agreement dialog box	125
Figure 3-16	Connection Type dialog box—USB	126
Figure 3-17	Connection Type dialog box—network	126

Figure 3-18	Connect USB cable screen	127
Figure 3-19	Identify Printer dialog box	128
Figure 3-20	Firewall Notice dialog box	129
Figure 3-21	Printers Found dialog box	130
Figure 3-22	USB installation in progress screen	131
Figure 3-23	Network installation in progress screen	131
Figure 3-24	Language and location dialog box	132
Figure 3-25	HP Printer Update utility dialog box	133
Figure 3-26	Restart dialog box	134
Figure 3-27	Installation complete dialog box	135
Figure 3-28	Welcome Back dialog box	136
Figure 3-29	Allow installation screen	137
Figure 3-30	Installer program license agreement dialog box	138
Figure 3-31	Sign up now dialog box	139
Figure 3-32	Installation complete dialog box	140
Figure 3-33	Uninstall program screen	142
Figure 3-34	Select programs to remove screen	143
Figure 3-35	Instructions screen	143
Figure 3-36	Instructions screen	144
Figure 3-37	Finish screen	145
Figure 3-38	Welcome Back dialog box	146
Figure 4-1	A typical constraint message	149
Figure 4-2	Advanced tab – PCL 6	150
Figure 4-3	Advanced tab – HP UPD PS	151
Figure 4-4	Printing Shortcuts tab – PCL 6	157
Figure 4-5	Printing Shortcuts tab – HP UPD PS	158
Figure 4-6	Document preview image	172
Figure 4-7	Paper/Quality tab – PCL 6	173
Figure 4-8	Paper/Quality tab – HP UPD PS	174
Figure 4-9	Paper Options group box	174
Figure 4-10	Print/Quality tab – Custom Paper Size dialog box	175
Figure 4-11	Type is: box	178
Figure 4-12	Paper/Quality tab – Special pages – Covers	180
Figure 4-13	Special pages – Print pages on different paper	181
Figure 4-14	Paper/Quality tab – Print Quality group box	182
Figure 4-15	Effects tab	183
Figure 4-16	Effects tab – Resizing Options group box	184
Figure 4-17	Preview images – Legal on Letter; Scale to Fit off (left) and on (right)	185
Figure 4-18	Effects tab – Watermarks group box	186
Figure 4-19	Effects tab – Watermark Details box	186
Figure 4-20	Finishing tab	191
Figure 4-21	Finishing tab – Document Options group box	192
Figure 4-22	Finishing tab – Print on Both Sides instruction window	194
Figure 4-23	Page-order preview image	197

Figure 4-24	Finishing tab – Orientation group box	197
Figure 4-25	Color tab	199
Figure 4-26	Color tab – Color Options group box	200
Figure 4-27	Color tab – Color Settings dialog box	200
Figure 4-28	Color tab – Color Themes group box	202
Figure 4-29	Services tab	203
Figure 4-30	Device Settings tab – PCL 6	206
Figure 4-31	Font Substitution Table	207
Figure 4-32	HP Font Installer dialog box	208
Figure 4-33	About tab	211
Figure 5-1	Mac installer program opening dialog	219
Figure 5-2	Mac installer program Introduction dialog	220
Figure 5-3	Mac installer program License dialog	221
Figure 5-4	Mac installer program Installation Type dialog	222
Figure 5-5	Mac installer program progress bar window	223
Figure 5-6	Mac installation notes	223
Figure 5-7	Mac installer program Summary dialog	224
Figure 6-1	Welcome Back dialog box	238
Figure 6-2	Select product for firmware update	239

1 Document and product basics


- [Purpose and scope](#)
- [Product overview](#)
- [Documentation availability and localization](#)
- [Software availability and localization](#)
- [Product workaround](#)

Purpose and scope

Introduction


This Software Technical Reference (STR) provides information about and troubleshooting tips for the printing-system software for the HP Color LaserJet CP5220 Series printers.

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

 **NOTE:** This STR describes software that is shipped on the software CD that comes with the HP Color LaserJet CP5220 Series printers. This STR does *not* describe drivers that will become available on the Web.

The following information is included in this technical reference:

- Overview of software and platforms
- Procedures for installing and uninstalling software components
- Descriptions of problems that can arise with the HP Color LaserJet CP5220 Series printer, and known solutions to those problems

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

Topics:

- [Software technical reference overview](#)

Software technical reference overview

The following table describes the structure of this STR.

Table 1-1 Software technical reference overview

Chapter	Content
Chapter 1, Purpose and scope	<p>This chapter contains basic information about the HP Color LaserJet CP5220 Series printer and its software:</p> <ul style="list-style-type: none">• Overview of the HP Color LaserJet CP5220 Series printer• Printing-system software overview. This includes the following topics:<ul style="list-style-type: none">◦ System requirements◦ Operating-system support◦ Availability• HP LaserJet software documentation

Table 1-1 Software technical reference overview (continued)

Chapter	Content
Chapter 2, Software description	<p>This chapter provides an overview of the printing-system software installer and print drivers.</p> <p>This chapter also contains general information about other software features, including the following topics:</p> <ul style="list-style-type: none">• HP Embedded Web Server (HP EWS)• HP ToolboxFX
Chapter 3, Install Windows printing-system components	<p>This chapter provides instructions for installing the HP Color LaserJet CP5220 Series printer in Microsoft® Windows® operating systems by using various installation methods.</p>
Chapter 4, HP PCL 6 print driver and HP postscript emulation Universal Print Driver (HP UPD PS) for Windows	<p>This chapter provides detailed descriptions of the HP drivers for Microsoft Windows 2000, Windows® XP, Windows Server 2003, and Windows Vista®.</p>
Chapter 5, Macintosh software and utilities	<p>This chapter provides instructions for installing the HP Color LaserJet CP5220 Series printer in Macintosh operating systems and how to use Macintosh features.</p>
Chapter 6, Engineering details	<p>This chapter contains information about the following special topics:</p> <ul style="list-style-type: none">• Troubleshooting• Media attributes• Firmware upgrades• <i>HP Color LaserJet CP5220 Series Printing-System Install Notes</i>

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

Additional detailed information about the HP Color LaserJet CP5220 Series printing-system software is published in an addendum to this STR. The following information is available only in the addendum:

- Lists of installed files
- System-modification information, such as changes to the registry and registry keys

Product overview

Base models

- Prints up to 20 pages per minute (ppm) on letter-size and A4-size media.
- 100-sheet multipurpose tray (Tray 1) and 250-sheet input tray (Tray 2)
- Optional 500-sheet input tray (Tray 3)
- Hi-Speed universal serial bus (USB) 2.0 port

Network models

- Prints up to 20 ppm on letter-size and A4-size media.
- 100-sheet multipurpose tray (Tray 1) and 250-sheet input tray (Tray 2)
- Optional 500-sheet input tray (Tray 3)
- Hi-Speed universal serial bus (USB) 2.0 port
- Built-in 10/100 Base-T network port with IPv4/IPv6

Duplex models

- Prints up to 20 ppm on letter-size and A4-size media.
- 100-sheet multipurpose tray (Tray 1) and 250-sheet input tray (Tray 2)
- Optional 500-sheet input tray (Tray 3)
- Hi-Speed universal serial bus (USB) 2.0 port
- Built-in 10/100 Base-T network port with IPv4/IPv6
- Automatic duplexer

Documentation availability and localization

The documentation in the following table is available for the HP Color LaserJet CP5220 Series printer.

Table 1-2 User documentation availability and localization

Document name	Languages	Location
<i>HP Color LaserJet CP5220 Series Printer User Guide</i>	English	The <i>HP Color LaserJet CP5220 Series Printer User Guide</i> is available in electronic format on the HP Color LaserJet CP5220 Series printer printing-system software CD.
	Arabic	
	Bulgarian	
	Catalan	
	Chinese (Simplified)	
	Chinese (Traditional)	
	Croatian	
	Czech	
	Danish	
	Dutch	
	Estonian	
	Finnish	
	French	
	German	
	Greek	
	Hebrew	
	Hungarian	
	Indonesian (Bahasa)	

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

Document name	Languages	Location
<i>HP Color LaserJet CP5220 Series Printer User Guide (cont)</i>	Italian	The <i>HP Color LaserJet CP5220 Series Printer User Guide</i> is available in electronic format on the HP Color LaserJet CP5220 Series printer printing-system software CD.
	Japanese	
	Kazakh	
	Korean	
	Latvian	
	Lithuanian	
	Norwegian	
	Polish	
	Portuguese (Brazilian)	
	Romanian	
	Russian	
	Serbian	
	Spanish	
	Slovak	
	Slovenian	
	Swedish	
	Thai	
	Turkish	
	Ukrainian	
	Vietnamese	

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


Document name	Languages	Location
<i>HP Color LaserJet CP5220 Series Printer Getting Started Guide</i>	<ul style="list-style-type: none"> English French Italian German Spanish Catalan Portuguese (Brazilian) Dutch Hebrew 	<p>The <i>HP Color LaserJet CP5220 Series Printer Getting Started Guide</i> is available in hard copy and comes in the box with your HP Color LaserJet CP5220 Series printer.</p> <p>The HP Color LaserJet CP5220 Series printing-system software CD also includes an animated version of the <i>HP Color LaserJet CP5220 Series Printer Getting Started Guide</i>.</p>
	English	
	Danish	
	Finnish	
	Norwegian	
	Swedish	
	Lithuanian	
	Latvian	
	Estonian	
	English	
	Arabic	
	Turkish	
	Greek	
	Russian	
	Kazakh	
	Ukrainian	
	Bulgarian	
	French	
	English	
	Polish	
	Hungarian	
	Czech	
	Croatian	
	Romanian	
	Slovenian	
	Slovak	
	Serbian	

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

Document name	Languages	Location
<i>HP Color LaserJet CP5220 Series Printer Getting Started Guide (cont)</i>	<ul style="list-style-type: none"> English Thai Indonesian (Bahasa) Korean Simplified Chinese Traditional Chinese Japanese Vietnamese 	
	Korean	
	Lithuanian	
	Latvian	
	Dutch	
	Norwegian	
	Polish	
	Portuguese (Brazilian)	
	Romanian	
	Russian	
	Slovak	
	Slovenian	
	Serbian	
	Swedish	
	Thai	
	Turkish	
	Ukrainian	
	Vietnamese	
	Simplified Chinese	
	Traditional Chinese	

Software availability and localization

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

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

The following table lists the availability of HP Color LaserJet CP5220 Series printer software components by installation method.

Table 1-3 HP Color LaserJet CP5220 Series software components by installation method

	“Full” Install	“Minimal” Install	Add Printer ¹
Supported Windows operating systems			
Windows XP 32-bit	X	X	X
Windows XP 64-bit	X	X	X
Windows Vista 32-bit	X	X	X
Windows Vista 64-bit		X	X
Windows 2000		X	X
Windows Server 2003 32-bit		X	X
Windows Server 2003 64-bit			X ²
Components installed			
HP PCL 6 print driver	X	X	X
HP UPD PS			X ³
HP ToolboxFX w/Alerts	X		
SNP Alerts		X	X
Screen fonts	X	X	
Shop for HP supplies (desktop shortcut)	X		
HP Customer Participation Program	X	X	
Warranty Reminder (timed pop-up)	X		

¹ An Add-Printer Installation is supported, however, HP recommends using the installer program.

² The 64-bit HP PCL 6 driver can be found on the root of the HP Color LaserJet CP5220 Series software CD.

³ The 32-bit and 64-bit HP UPD PSs found on the following Web site: www.hp.com/go/ljcp5220series_software. A link to this Web site is available on the HP Color LaserJet CP5220 Series software CD under the **Install More Product Software** option.

Available from	Components
----------------	------------

HP.com — links from Install More Product Software button on the HP Color LaserJet CP5220 Series software CD

HP UPD PS

Easy Printer Care

Basic Color Match tool (Windows Vista and XP only)

HP Smart Web Printing (Windows Vista and XP only)

Marketing Resource Software (Windows Vista and XP only)

Topics:

- [Printing-system software on the Web](#)
- [In-box printing-system software CDs](#)

Printing-system software on the Web

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

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

The HP Color LaserJet CP5220 Series printer printing-system software is available for download at the following Web site:

www.hp.com/go/ljcp5220series_software

In-box printing-system software CDs

The software CD for the HP Color LaserJet CP5220 Series printer contains a variety of files for installing the printing-system software on the computer.

The HP Color LaserJet CP5220 Series printing-system software CD is divided into two partitions, one for each of the following operating platforms:

- MS Windows
- Macintosh

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

CD versions

The HP Color LaserJet CP5220 Series printing-system software CD is available in four versions, each of which contains printing-system software in various languages:

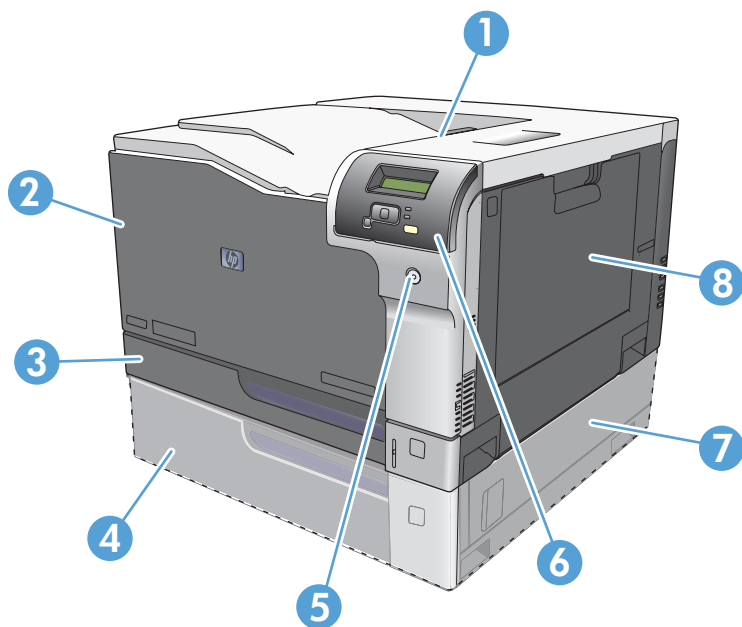
- **Americas/ Western Europe**
 - AR = Arabic
 - BG = Bulgarian (English driver)
 - CA = Catalan (Català)
 - CS = Czech (Cesky)

- DA = Danish (Dansk)
- DE = German (Deutsch)
- EL = Greek
- EN = English
- ES = Spanish (Español)
- ET = Estonian (English driver)
- FI = Finnish (Suomi)
- FR = French (Français)
- HE = Hebrew
- HR = Croatian (English driver)
- HU = Hungarian (Magyar)
- IT = Italian (Italiano)
- KK = Kazakh (English driver)
- LT = Lithuanian (English driver)
- LV = Latvian (English driver)
- NL = Dutch (Nederland)
- NO = Norwegian (Norsk)
- PL = Polish (Polski)
- PT = Brazilian Portuguese (Português)
- RO = Romanian (English driver)
- RU = Russian (Russ)
- SK = Slovak
- SL = Slovenian (English driver)
- SR = Serbian (English driver)
- SV = Swedish (Svenska)
- TR = Turkish (Türkçe)
- UK = Ukrainian (English driver)
- **Asia Pacific**
 - EN = English
 - ID = Indonesia (Bahasa) (English driver)
 - FR = French (Français)

- JA = Japanese
- KO = Korean
- TH = Thai
- VI = Vietnamese (English driver)
- ZHCN = Simplified Chinese
- ZHTW = Traditional Chinese

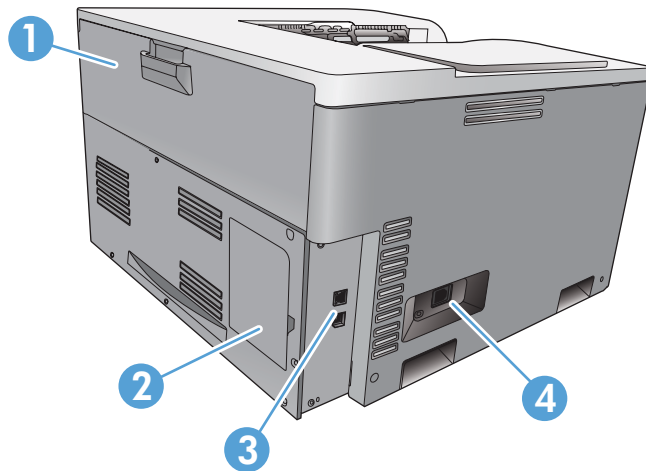
Product walkaround

Front and side view



1	Output bin (holds 250 sheets of standard paper)
2	Front door (provides access to the print cartridges)
3	Tray 2 (holds 250 sheets of standard paper and provides jam access)
4	Optional Tray 3 (holds 500 sheets of standard paper)
5	Power button
6	Control panel
7	Optional Tray 3 right jam access
8	Tray 1 (multipurpose tray—holds 100 sheets of standard paper)

Back view

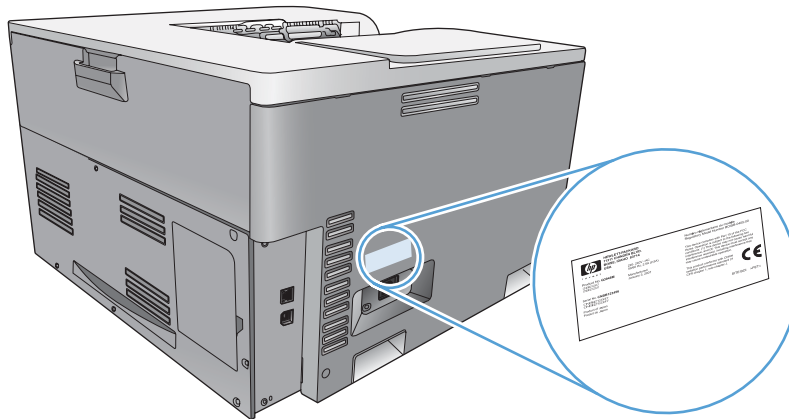


1	Rear door (for toner waste bin access)
2	DIMM door (for adding memory—one additional DIMM slot is available)
3	Hi-Speed USB 2.0 port and network port (network models only)
4	Power connection

Model and serial numbers

The model number and serial number are listed on an identification label located on the left side of the product.

The label contains information about the country/region of origin and the revision level, manufacturing date, production code, and production number of the product. The label also contains power rating and regulatory information.



2 Windows software description

Introduction

The HP Color LaserJet CP5220 Series printer comes with software and installers for Microsoft Windows and Apple Computer, Inc., Macintosh systems. Linux and UNIX® systems also support the HP Color LaserJet CP5220 Series printer, and software is available on the Web. For information about specific system installers, drivers, and components, see the section that corresponds to that system.

- [Windows printing-system software](#)
- [HP Printer Update utility](#)
- [HP driver diagnostic printer check tool](#)
- [Advanced color use](#)
- [HP Easy Printer Care](#)
- [HP ToolboxFX](#)
- [HP Embedded Web Server](#)
- [HP Web Jetadmin](#)
- [HP Customer Participation Program](#)
- [Optional software](#)
- [Font support](#)

Windows printing-system software

Topics:

- [Printing system and installer](#)
- [Driver configuration for Windows](#)

Printing system and installer

Topics:

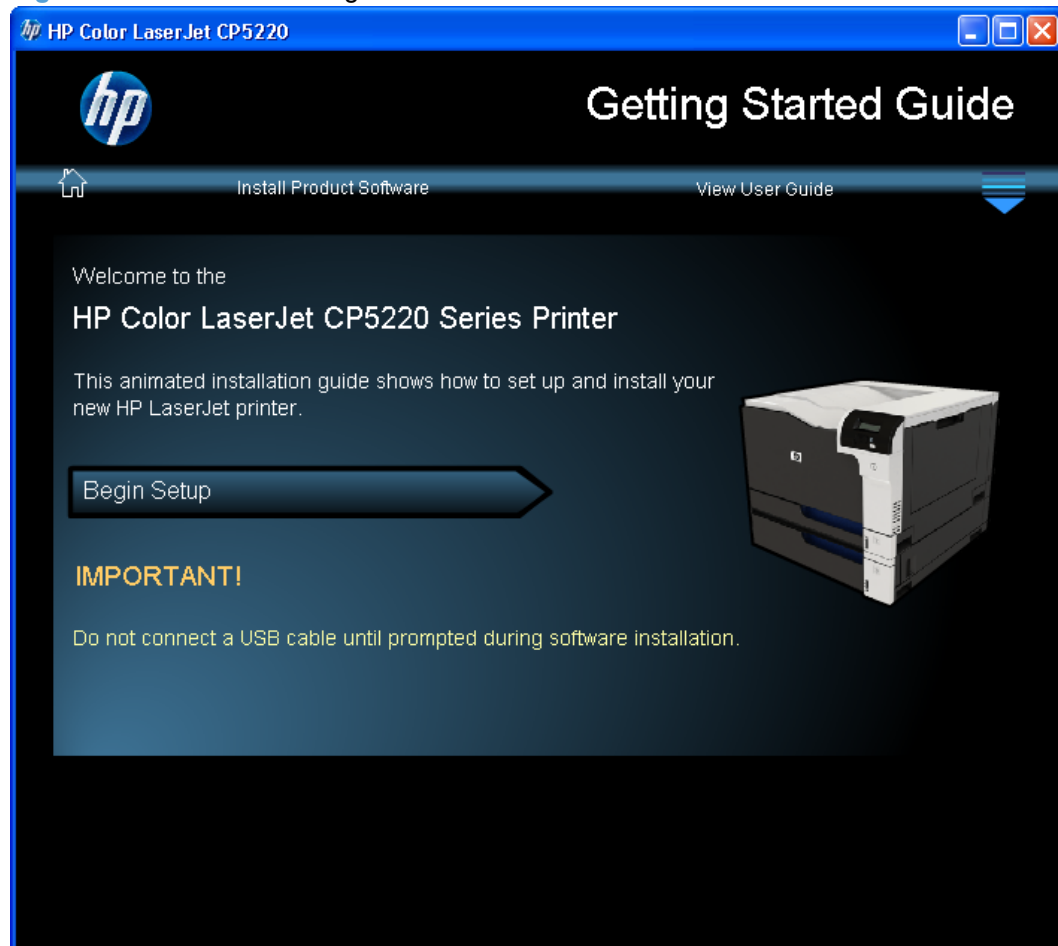
- [Animated Getting Started Guide](#)
- [Printing-system CD browser](#)
- [Installer features](#)

Animated Getting Started Guide

Use the HP Color LaserJet CP5220 Series Animated Getting Started Guide to set up the HP Color LaserJet CP5220 Series printer.

The following figure shows the main screen of the HP Color LaserJet CP5220 Series Animated Getting Started Guide.

Figure 2-1 Animated Getting Started Guide – Main screen



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 **Autorun.exe** file to start the Animated Getting Started Guide.

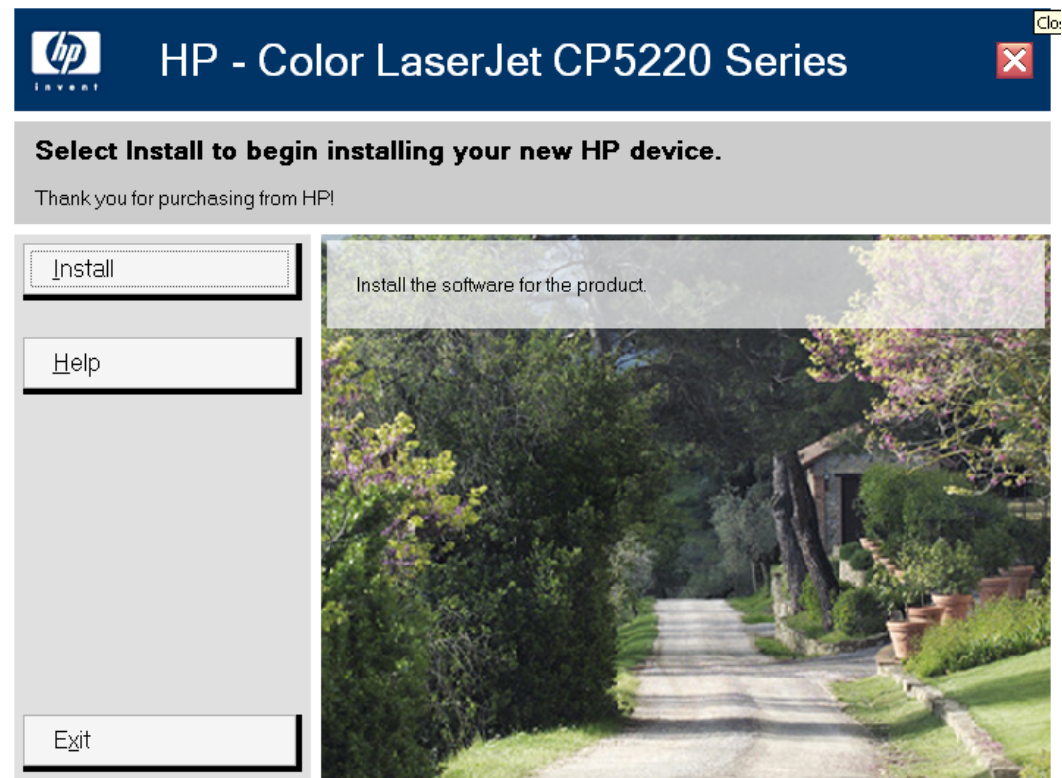
Printing-system CD browser

Use the CD browser to install the drivers and related components, and to gain access to online user documentation, a customization utility, and optional HP software.

To open the CD browser, complete one of the following steps:

- On the animated getting started guide main screen, click the **Install Product Software** button.
- In Windows Explorer, navigate to the root directory of the software CD, and then double-click the **Setup.exe** file.

Figure 2-2 Software CD browser



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



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

CD browser main menu	Description
Install	Install the software for the product, including the user guide. Clicking this option launches the software installer.

Help	<p>Open a help navigation screen that contains the following links:</p> <ul style="list-style-type: none"> • Browse User Guide: Open the product user guide on this CD. The user guide is also available in a print-friendly PDF format. To access the PDF version, either browse this CD, and open the preferred language folder, or go to the product support Web site. <p>NOTE: You must have Adobe Acrobat Reader installed on the computer to read documents in .PDF format. Adobe Acrobat Reader is available as a free download at the following Web site:</p> <p>www.adobe.com</p> <ul style="list-style-type: none"> • Web support: Go to the HP Web site to view troubleshooting help and frequently asked questions. Download software updates. Contact a support specialist through live chat. • SureSupply: Go to the HP SureSupply Web site to order product supplies. • www.hp.com: Go to the HP.com Web site. • Product Specifications: View the product specifications chapter in the online user guide. • Quick Find: Click any of the links in this area to open the corresponding section in the online user guide. • Printer Setup: Open the animated getting started guide in order to see demonstrations of how to properly set up the product. • Everyday Jobs: Click this button, and then click any of the links in this area to open the corresponding section in the online user guide. • Manage & Maintain: View the corresponding chapter in the online user guide to read how to maintain the product and replace supplies. • Solve a Problem: View problem-solving procedures in the online user guide.
Exit	Close this application.

Installer features

The common installer is designed to provide a simple and consistent installation method for the printer. The common installer is available for Microsoft Windows operating systems as listed below:

- Windows Vista (Starter Edition, 32-bit, and 64-bit)
- Windows Server 2008 (32-bit)
- Windows XP (32-bit, Service Pack 2)
- Windows XP (64-bit, Service Pack 1)
- Windows Server 2003 (Service Pack 1)
- Windows 2000 (Service Pack 4)

The common installer offers the following features:

- The HP Color LaserJet CP5220 Series printing-system software CD features an interactive software interface.
- Network connection is integrated so that you can install drivers and connect to a networked printer in a single process.

The HP Color LaserJet CP5220 Series printing-system software CD also includes the following features:

- The HP LaserJet Uninstaller Utility
- Yahoo toolbar option

All of the Windows system components are installed by using the HP Color LaserJet CP5220 Series printing-system installer. The installer automatically detects the language of the operating system. See [Documentation availability and localization on page 5](#).

Driver configuration for Windows

The following printer drivers provide the printing features and communication between the computer and the product

- PCL 6 (on the software CD)
- PCL 5 universal printer driver (HP UPD) (available on the Web)
- HP postscript level 3 emulation universal printer driver (available on the Web)

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

The printer drivers include online Help that has instructions for common printing tasks and also describes the buttons, check boxes, and drop-down lists that are in the printer driver.



NOTE: The PCL 5 and HP postscript level 3 emulation universal printer drivers that support this product are versions of the HP Universal Print Driver (UPD) for Windows. They install and operate in the same manner as previous versions of those drivers, and they do not require any special configuration. For more information about the UPDs, see www.hp.com/go/upd.

HP Printer Update utility

The HP Printer Update utility allows you to update the product firmware from a computer. The utility also enables you to change the product language and country/region settings from the computer, instead of at the product control panel.

This software utility resides on the software CD that comes with the product. The utility runs during install. The utility can also be opened by opening the CD browser (the Welcome Back dialog box opens), and then clicking the **Additional language support** button. For information about running the HP Printer Update utility, see [Firmware updates on page 238](#).

HP driver diagnostic printer check tool

Use the HP driver diagnostic printer check tool, a Web-based diagnostic software program, to determine whether the correct and most current print driver for the HP Color LaserJet CP5220 Series printer is in use. Two methods are available to gain access to the HP driver diagnostic printer check tool:

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

www.hp.com/go/drivercheck.

When the HP driver diagnostic printer check tool runs, the products that are currently installed on the computer appear in a list. The tool gathers information about the product, drivers, and system setup in order to diagnose the software driver configuration and check the print driver.

When the HP driver diagnostic printer check tool is open, select the HP product that you want to check. The tool verifies whether the latest driver is being used, provides feedback if an incorrect driver is being used, and indicates whether an updated driver version is available. Click the latest driver version to download and install it.

The data that the HP driver diagnostic printer check tool gathers is stored anonymously so that HP can analyze and continuously improve its diagnostic tools. No private data is gathered from the computer.

Advanced color use

The product provides automatic color features that generate excellent color results. Carefully designed and tested color tables provide smooth, accurate color rendition of all printable colors.

The product also provides sophisticated tools for the experienced professional.

HP ColorSphere toner

HP designs the print system (printer, print cartridges, toner, and paper) to work together to optimize print quality, product reliability, and user productivity. Original HP print cartridges contain HP ColorSphere toner that is specifically matched to your printer so that it will produce a wide range of brilliant colors. This helps you create professional looking documents that contain sharp, clear text and graphics and realistic printed photos.

HP ColorSphere toner produces print-quality consistency and intensity you can depend on across a wide range of papers. That means you can produce documents that help you make the right impression. Plus, HP professional-quality everyday and specialty papers (including a wide variety of HP paper types and weights) are designed for the way you work.

HP ImageREt 3600

ImageREt 3600 provides 3600 dots-per-inch (dpi) color laser-class quality through a multi-level printing process. This process precisely controls color by combining up to four colors within a single dot and by varying the amount of toner in a given area. ImageREt 3600 has been improved for this product. The improvements offer trapping technologies, greater control over dot placement, and more precise control of toner quality in a dot. These new technologies, coupled with HP's multi-level printing process, result in a 600 x 600 dpi printer that provides 3600-dpi color laser-class quality with millions of smooth colors.

In contrast, the single-level printing process found in the default mode of other color laser printers does not allow the colors to be mixed within a single dot. This process, called dithering, significantly hinders the ability to create a wide range of colors without reduced sharpness or visible dot structure.

Media selection

For the best color and image quality, select the appropriate paper type from the **Paper/Quality** tab in the Printing Preferences of the print driver.


Color options

Color options automatically provide optimal color output. These options use object tagging, which provides optimal color and halftone settings for different objects (text, graphics, and photos) on a page. The print driver determines which objects appear on a page and uses halftone and color settings that provide the best print quality for each object.

In the Windows environment, the **Automatic** and **Manual** color options are on the **Color** tab in the print driver.

Standard red-green-blue (sRGB)

Standard red-green-blue (sRGB) is a worldwide color standard that HP and Microsoft developed as a common color language for monitors, input products (scanners and digital cameras), and output products (printers and plotters). It is the default color space used for HP products, Microsoft operating systems, the World Wide Web, and most office software. The sRGB standard represents the typical Windows monitor and is the convergence standard for high-definition television.

 **NOTE:** Factors such as the type of monitor you use and the room lighting can affect the appearance of colors on your screen. For more information, see [Match colors on page 26](#).

The latest versions of Adobe PhotoShop, CorelDRAW, Microsoft Office, and many other programs use sRGB to communicate color. Because it is the default color space in Microsoft operating systems, sRGB has been adopted broadly. When programs and products use sRGB to exchange color information, typical users experience greatly improved color matching.

The sRGB standard improves your ability to match colors between the product, the computer monitor, and other input products automatically, and eliminates the need to become a color expert.

Use color themes to adjust the **RGB Color** options for the entire page.


Setting description	Setting options
RGB Color	<ul style="list-style-type: none">• The Default (sRGB) option instructs the product to interpret RGB color as sRGB. The sRGB standard is the accepted standard of Microsoft and the World Wide Web Consortium (www.w3.org).• The Vivid option instructs the product to increase the color saturation in the midtones. Less colorful objects are rendered more colorfully. This setting is recommended for printing business graphics.• The Photo option interprets RGB color as if it were printed as a photograph using a digital mini-lab. It renders deeper, more saturated colors differently than Default (sRGB) mode. Use this setting for printing photos.• The Photo (AdobeRGB 1998) option is for digital photos that use the AdobeRGB color space rather than sRGB. When printing from a professional software program that uses AdobeRGB, it is important to turn off the color management in the software program and allow the product to manage the color space.• The None option sets the printer to print RGB data in raw device mode. To render photographs correctly when this option is selected, you must manage color in the program in which you are working or in the operating system.

Manage color

Manage color by changing the settings on the **Color** tab in the printer driver.

Automatic

Setting color options to the **Automatic** option typically produces the best possible print quality for color documents. The **Automatic** color adjustment option optimizes the neutral-gray color treatment, halftones, and edge enhancements for each element in a document. For more information, see the printer driver online Help.

 **NOTE:** The **Automatic** option is the default setting and is recommended for printing all color documents.

Print in Grayscale

Select the **Print in Grayscale** check box from the printer driver to print a color document in black and white. This option is useful for printing color documents that will be photocopied or faxed.

When the **Print in Grayscale** check box is selected, the product uses the monochrome mode, which reduces use of the color cartridges.

Manual color adjustment

Use the **Manual** color adjustment option to adjust the neutral-gray color treatment, halftones, and edge enhancements for text, graphics, and photographs. To gain access to the manual color options, from the **Color** tab, select the **Manual** option, and then click the **Settings** button.

Manual color options

Use manual color options to adjust the **Neutral Grays**, **Halftone**, and **Edge Control** options for text, graphics, and photographs.

Table 2-1 Manual color options

Setting description	Setting options
Neutral Grays The Neutral Grays setting determines the method for creating gray colors used in text, graphics, and photographs.	<ul style="list-style-type: none">• The Black Only option generates neutral colors (grays and black) by using only black toner. This guarantees neutral colors without a color cast. This setting is best for documents and grayscale viewgraphs.• The 4-Color option generates neutral colors (grays and black) by combining all four toner colors. This method produces smoother gradients and transitions to other colors, and it produces the darkest black.
Edge Control The Edge Control setting determines how edges are rendered. Edge control has two components: adaptive halftoning and trapping. Adaptive halftoning increases edge sharpness. Trapping reduces the effect of color-plane misregistration by overlapping the edges of adjacent objects slightly.	<ul style="list-style-type: none">• The Maximum option is the most aggressive trapping setting. Adaptive halftoning is on.• The Normal option sets trapping at a medium level. Adaptive halftoning is on.• The Light option sets trapping at a minimal level. Adaptive halftoning is on.• The Off option turns off both trapping and adaptive halftoning.

Color themes

Use color themes to adjust the **RGB Color** options for the entire page.

Setting description	Setting options
RGB Color	<ul style="list-style-type: none"> The Default (sRGB) option instructs the product to interpret RGB color as sRGB. The sRGB standard is the accepted standard of Microsoft and the World Wide Web Consortium (www.w3.org). The Vivid (sRGB) option instructs the product to increase the color saturation in the midtones. Less colorful objects are rendered more colorfully. This setting is recommended for printing business graphics. The Photo (sRGB) option interprets RGB color as if it were printed as a photograph using a digital mini-lab. It renders deeper, more saturated colors differently than Default (sRGB) mode. Use this setting for printing photos. The Photo (Adobe RGB 1998) option is for digital photos that use the Adobe RGB color space rather than sRGB. When printing from a professional software program that uses Adobe RGB, it is important to turn off the color management in the software program and allow the product to manage the color space. The None option sets the product to print RGB data in raw device mode. To render photographs correctly when this option is selected, you must manage color in the program in which you are working or in the operating system.

Match colors

For most users, the best method for matching colors is to print sRGB colors.

The process of matching printer output color to your computer screen is complex, because printers and computer monitors use different methods of producing color. Monitors *display* colors by using light pixels that use an RGB (red, green, blue) color process, but printers *print* colors by using a CMYK (cyan, magenta, yellow, and black) process.

Several factors can influence your ability to match printed colors to those on your monitor:


- Print media
- Printer colorants (inks or toners, for example)
- Printing process (inkjet, press, or laser technology, for example)
- Overhead lighting
- Personal differences in perception of color
- Software programs
- Printer drivers
- Computer operating systems
- Monitors
- Video cards and drivers
- Operating environment (humidity, for example)

Keep these factors in mind when colors on your screen do not perfectly match your printed colors.

Match colors using the Microsoft Office Basic Colors palette

You can use HP ToolboxFX to print a palette of the Microsoft Office Basic Colors. Use this palette to select the colors that you want to use in printed documents. It shows the actual colors that print when you select these basic colors in a Microsoft Office program.

1. In HP ToolboxFX, select the **Help** folder.
2. In the **Color Printing Tools** section, select **Print Basic Colors**.
3. Adjust color in your document to match the color selection on the printed color palette.

 **NOTE:** HP ToolboxFX installation is supported for any operating systems that support a full install of the product software.

Match colors using the HP Basic Color Match tool


The HP Basic Color Match tool allows you to adjust spot color in your printed output. For example, you can match the color of your company logo on your printed output. You can save and use the new color schemes for specific documents or all printed documents, or you can create multiple color schemes that you can choose from later.

This software tool is available to all users of this product. Before you can use the tool, you must download it from the Web through HP ToolboxFX or the software CD that came with your product.

Use the following procedure to download the HP Basic Color Match tool through the software CD.

1. Insert the CD into your CD-ROM drive. The CD autoruns.
2. Select **Install more software**.
3. Select **HP Basic Color Match**. The tool downloads and installs itself. A desktop icon is also created.

Use the following procedure to download the HP Basic Color Match tool through HP ToolboxFX.


 **NOTE:** HP ToolboxFX installation is supported for any operating systems that support a full install of the product software.

1. Open HP ToolboxFX.
2. Select the **Help** folder.
3. In the **Color Printing Tools** section, select **Basic Color Match**. The tool downloads and installs itself. A desktop icon is also created.

After the HP Basic Color Match tool is downloaded and installed, it can be run from the desktop icon or from HP ToolboxFX (click the **Help** folder, and then **Color Printing Tools**, and then **Basic Color Match**). The tool guides you through selecting colors. All color matches selected are saved as a color theme and can be accessed in the future.

Match colors using View Custom Colors

You can use HP ToolboxFX to print a palette of custom colors. In the **Toolbox Color Printing Tools** section, click **View Custom Colors**. Tab to the color page desired and print the current page. In your document, type the red, green, and blue values in the software's custom color menu to change them to match the color on the palette.

 **NOTE:** HP ToolboxFX installation is supported for any operating systems that support a full install of the product software.

HP Easy Printer Care

HP Easy Printer Care is a standalone software program that manages from 1 to 15 printers. It enables you to view the status of all HP printers, set up printer and status alerts, generate printer usage reports, and reorder supplies.



NOTE: The HP Easy Printer Care Software will be available for the HP Color LaserJet CP5220 Series printer in late 2009 at the following Web site:

www.hp.com/go/easyprintercare


Or, on the printing-system CD, click **Install More Software**, and then click **HP Easy Printer Care** to be redirected to the HP Web site.

HP ToolboxFX

This section provides information about the following topics:

- [HP ToolboxFX overview](#)
- [System requirements](#)
- [Key features](#)
- [HP ToolboxFX folders](#)
- [Other screens](#)

HP ToolboxFX overview

 **NOTE:** HP ToolboxFX is available for Microsoft Windows XP and Windows Vista operating systems only. HP ToolboxFX is only available with a full installation. It is not installed during an minimal Installation.

HP ToolboxFX allows end users to easily communicate with and manage the HP Color LaserJet CP5220 Series printer. HP ToolboxFX provides the following capabilities:

- A view of the current status of the product
- A view of the current status of the product consumables
- Alert functionality, notifying the end user when particular events or conditions occur at the product
- Access to troubleshooting information
- Access to some of the product settings, as an alternative to gaining access through the product control panel

The HP Embedded Web Server (HP EWS) and HP ToolboxFX

The HP Color LaserJet CP5220 Series printer supports the HP Embedded Web Server (HP EWS). The HP EWS handles HP ToolboxFX requests and HTTP requests from a Web browser. Use the HP EWS to set objects in the product, such as default configuration settings, and to simulate button presses.

The HP EWS provides the following functionality:

- The HP EWS is can be opened by typing the printer IP address into the address bar of a browser when the printer is connected to the network.
- HP ToolboxFX performs functions that are similar to the HP EWS . HP EWS is only available for printers with a network connection. HP ToolboxFX is available for all HP Color LaserJet CP5220 Series printers that have had a full installation regardless of whether the installation was performed with a network or USB connection.

For more information about the HP EWS, see [HP Embedded Web Server on page 74](#).

Start HP ToolboxFX

Start the HP ToolboxFX by using any of the following methods:

- Double-click the **HP ToolboxFX** icon in the Microsoft Windows system tray.
- Click **Start**, click **All Programs**, click **HP**, click **HP Color LaserJet CP5220 Series**, and then click **HP ToolboxFX**.
- Right-click the **HP ToolboxFX** icon in the Microsoft Windows system tray. Then click **Open HP ToolboxFX**.

Structure

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

- **Heading banner.** Each screen that is displayed 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 shows 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 products or folders listed in the Devices pane to see information about that product in the main content area of the HP ToolboxFX window.
- **Toolbar.** A toolbar appears at the top of the main content area. The toolbar contains buttons for printing, refreshing the screen, 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** screen for that HP LaserJet product appears when the toolbox is opened. Double-click any of the products listed to go to the **Device Status** screen for that product. If multiple products supported by HP ToolboxFX are installed, they will appear in the **Devices** pane.

System requirements

HP ToolboxFX is currently supported on the following operating systems:

- Microsoft Windows Vista
- Microsoft Windows XP

HP ToolboxFX also requires the installation of Microsoft .NET Framework 2.0 on the client machine, which happens automatically during installation of the HP Color LaserJet CP5220 Series printing-system software (if necessary).

Key features

The following alert messages are available:

- [HP product pop-up alert messages](#)

- [E-mail alert](#)

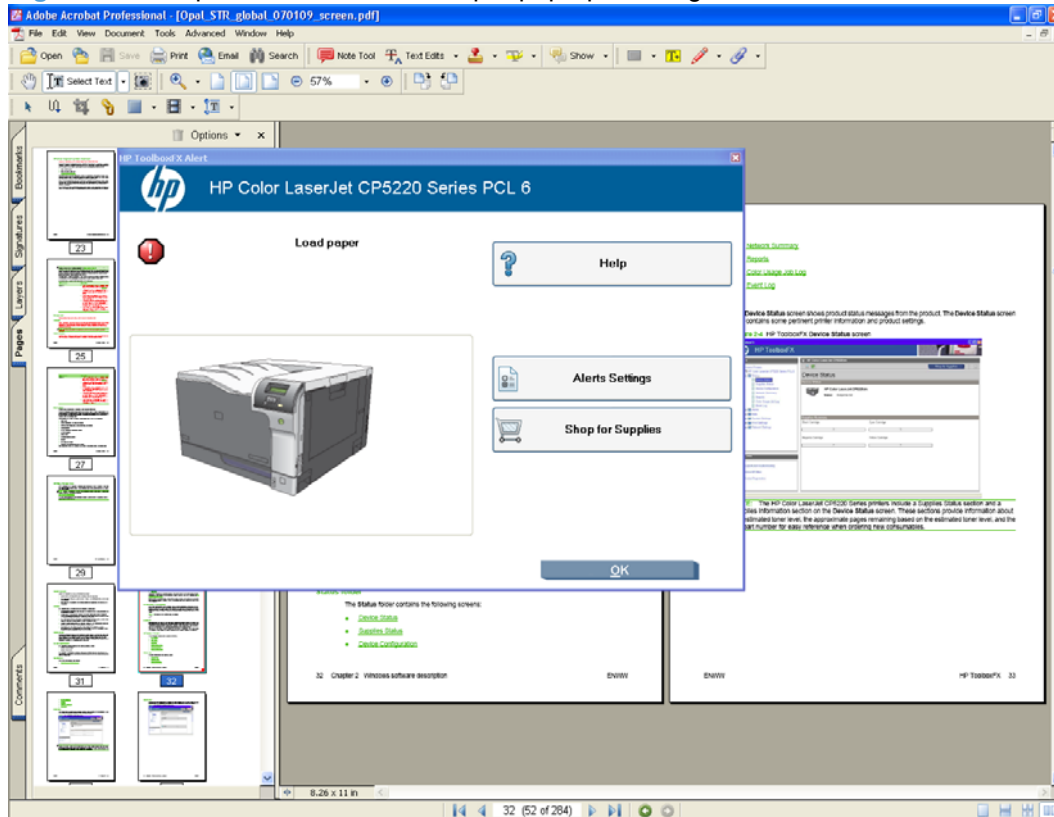
Through HP ToolboxFX, the appropriate person can be alerted when the HP Color LaserJet CP5220 Series printer needs attention. To see a list of the events that generate alerts in HP ToolboxFX, see [Set up Status Alerts on page 41](#).

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.

HP product pop-up alert messages

Pop-up alert messages give instant notification 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.

Figure 2-3 HP product alert – Load Paper pop-up message



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 activate this feature, type the appropriate e-mail address, select the notification events, configure the SMTP e-mail server, and enable the feature in HP ToolboxFX.

HP ToolboxFX folders

The HP ToolboxFX folders section describes the following:

- [Status folder](#)
- [Alerts folder](#)
- [Help folder](#)
- [System Settings folder](#)
- [Print Settings folder](#)
- [Network Settings folder](#)

Status folder

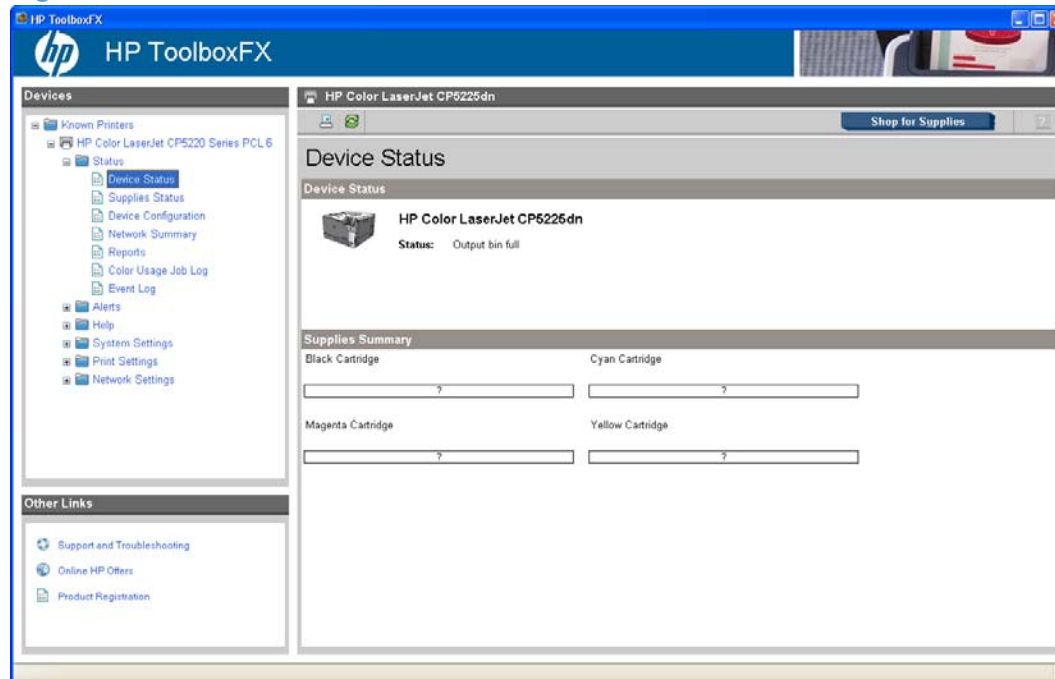
The **Status** folder contains the following screens:

- [Device Status](#)
- [Supplies Status](#)
- [Device Configuration](#)
- [Network Summary](#)
- [Reports](#)
- [Color Usage Job Log](#)
- [Event Log](#)

Device Status

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

Figure 2-4 HP ToolboxFX **Device Status** screen

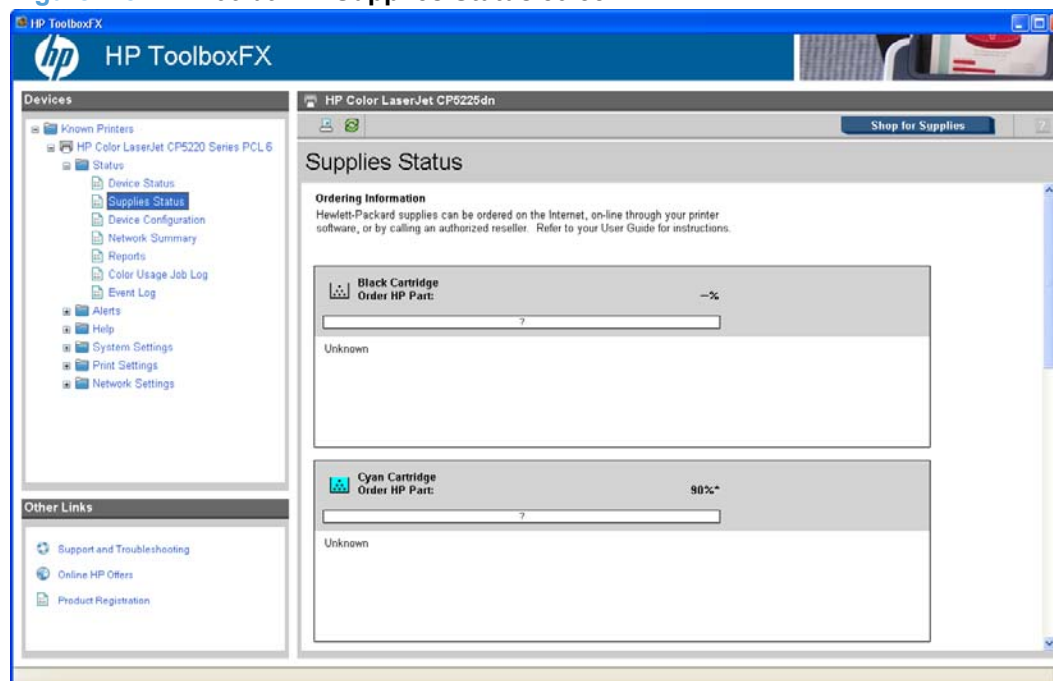


NOTE: The HP Color LaserJet CP5220 Series printers include a Supplies Status section and a Supplies Information section on the **Device Status** screen. These sections provide information about the estimated toner level, the approximate pages remaining based on the estimated toner level, and the HP part number for easy reference when ordering new consumables.

Supplies Status

The **Supplies Status** screen provides detailed information about the cyan, magenta, yellow, and black print cartridges. This information is not available if a non-HP cartridge is installed in the product.

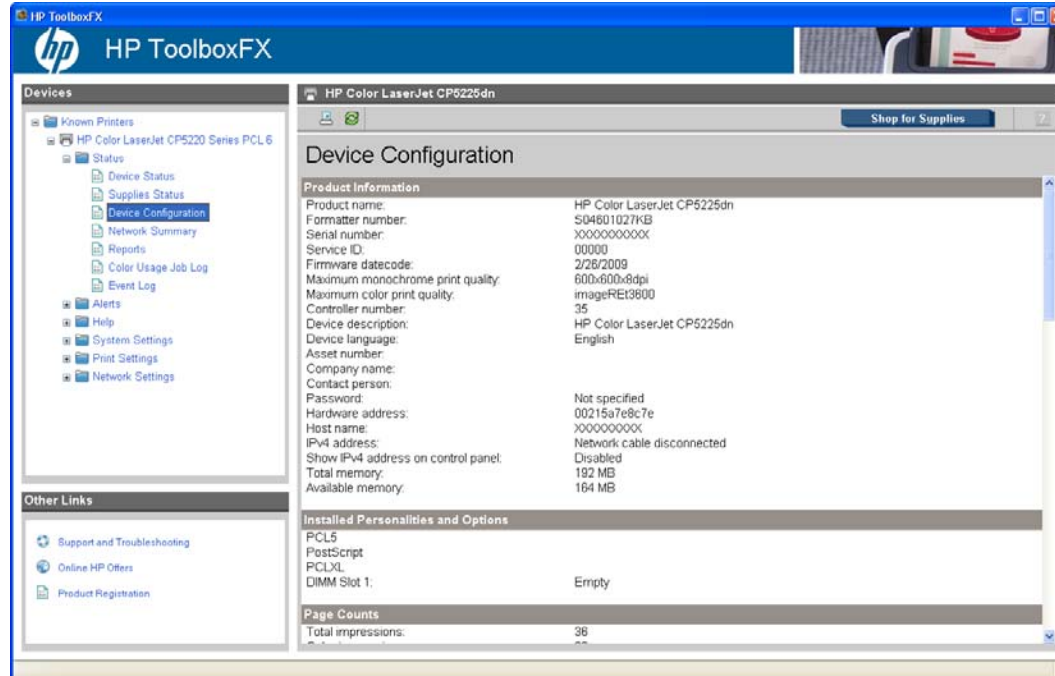
Figure 2-5 HP ToolboxFX **Supplies Status** screen



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 are consistent with the configuration page that the firmware generates.

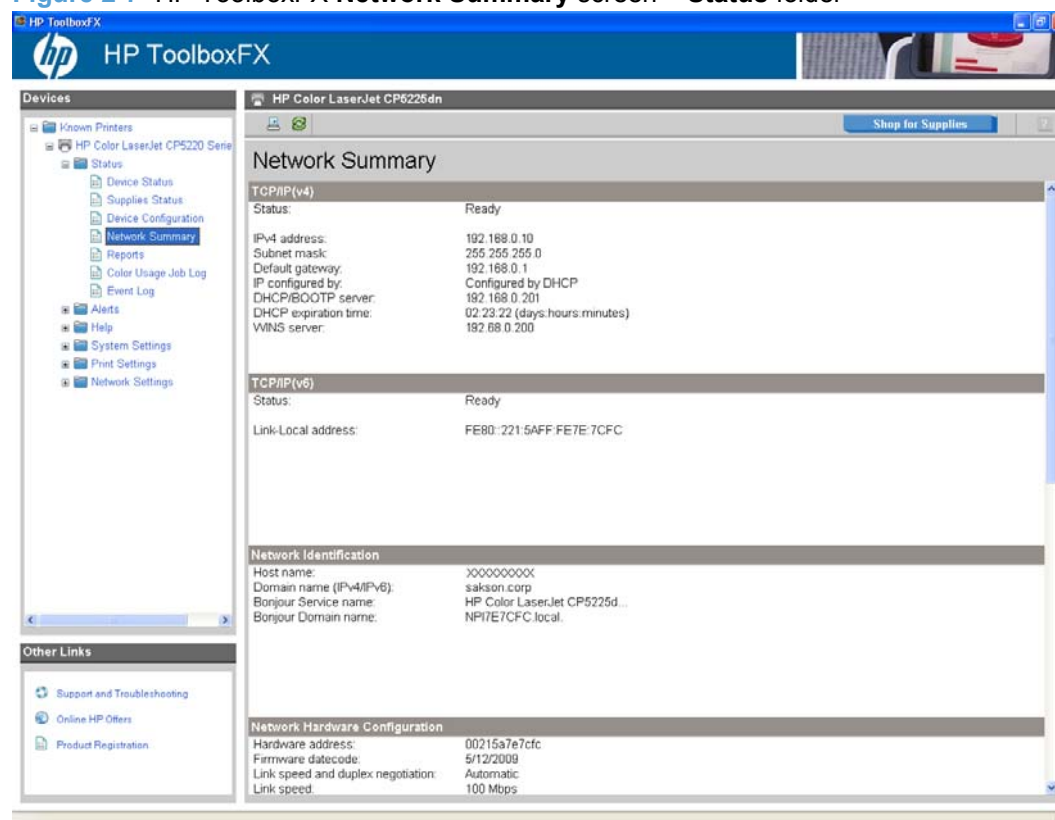
Figure 2-6 HP ToolboxFX Device Configuration screen



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 are consistent with the configuration page that the firmware generates.

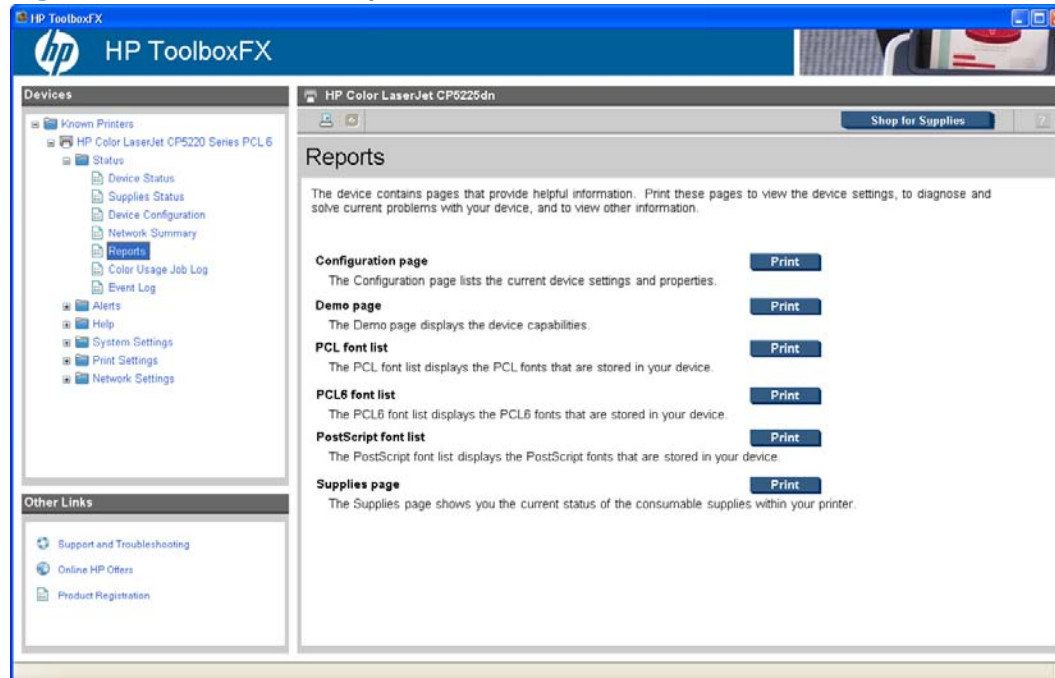
Figure 2-7 HP ToolboxFX **Network Summary** screen – **Status** folder



Reports

Use the **Reports** screen to print the internal special pages that the product generates. The content of these reports is generated by the product firmware, *not* by the HP ToolboxFX. Click **Print** next to the name of the page to be printed.

Figure 2-8 HP ToolboxFX **Reports** screen

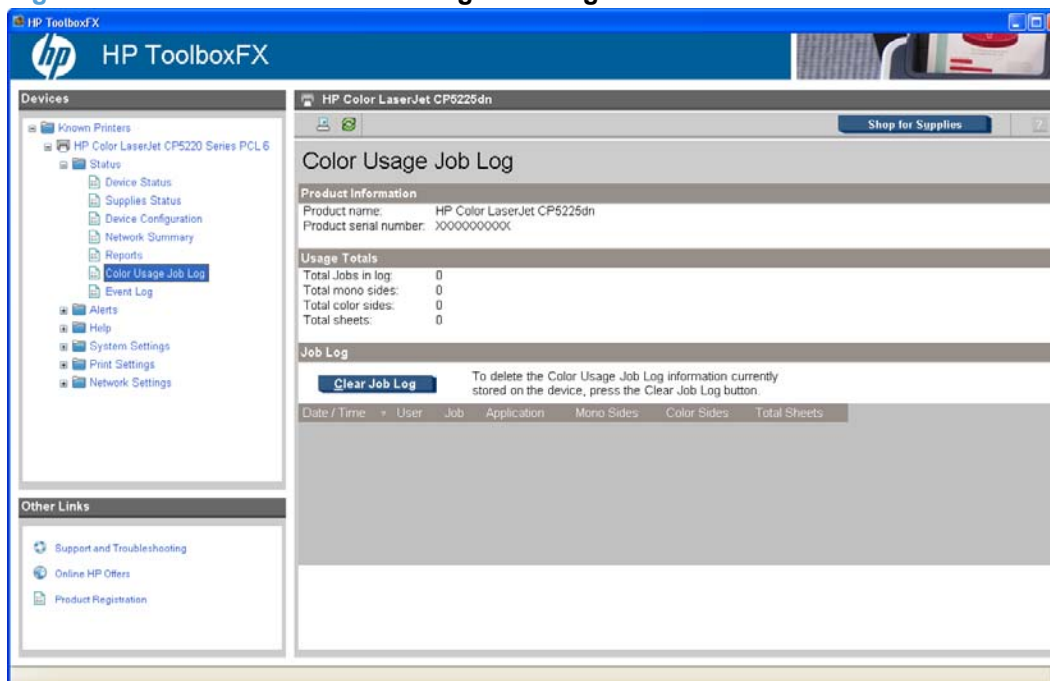


Color Usage Job Log

Use the **Color Usage Job Log** screen to complete the following tasks:

- Find the printer serial number under the **Product Information** subheading.
- Check the number of print jobs stored under the **Usage Totals** subheading. The log also includes information about how much color the printer has used.
- Delete the currently stored Color Usage Job Log information by selecting the **Clear Job Log** option.

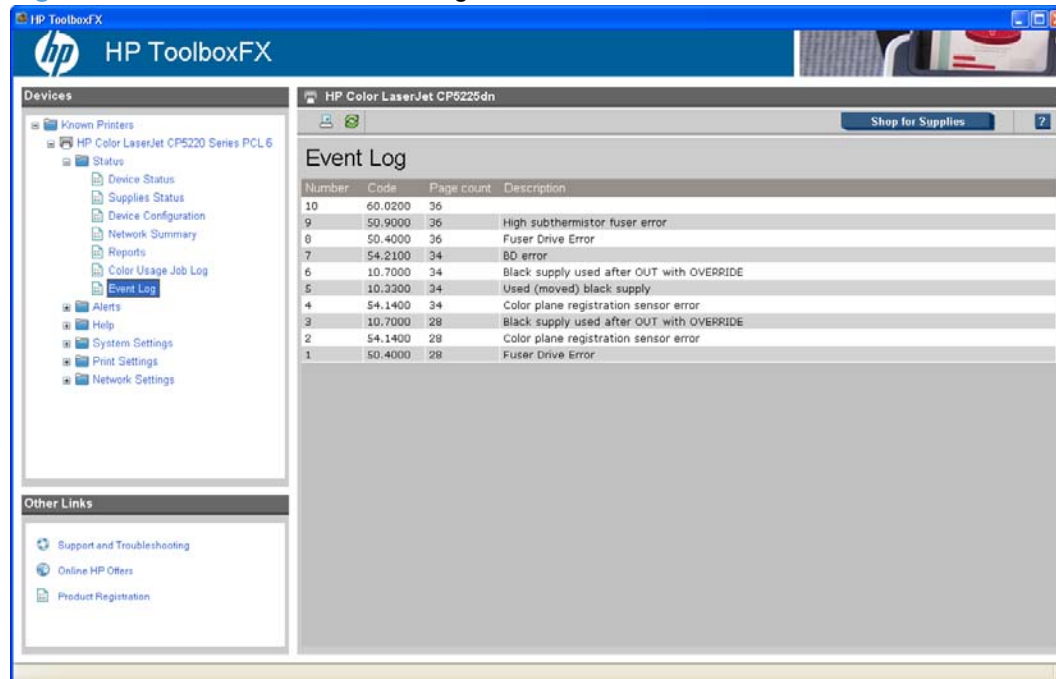
Figure 2-9 HP ToolboxFX **Color Usage Job Log** screen



Event Log

Use the **Event Log** screen to monitor events for the HP Color LaserJet CP5220 Series printer. Up to 10 events can appear on this screen. If this screen is empty, no events have occurred on the printer.

Figure 2-10 HP ToolboxFX Event Log screen

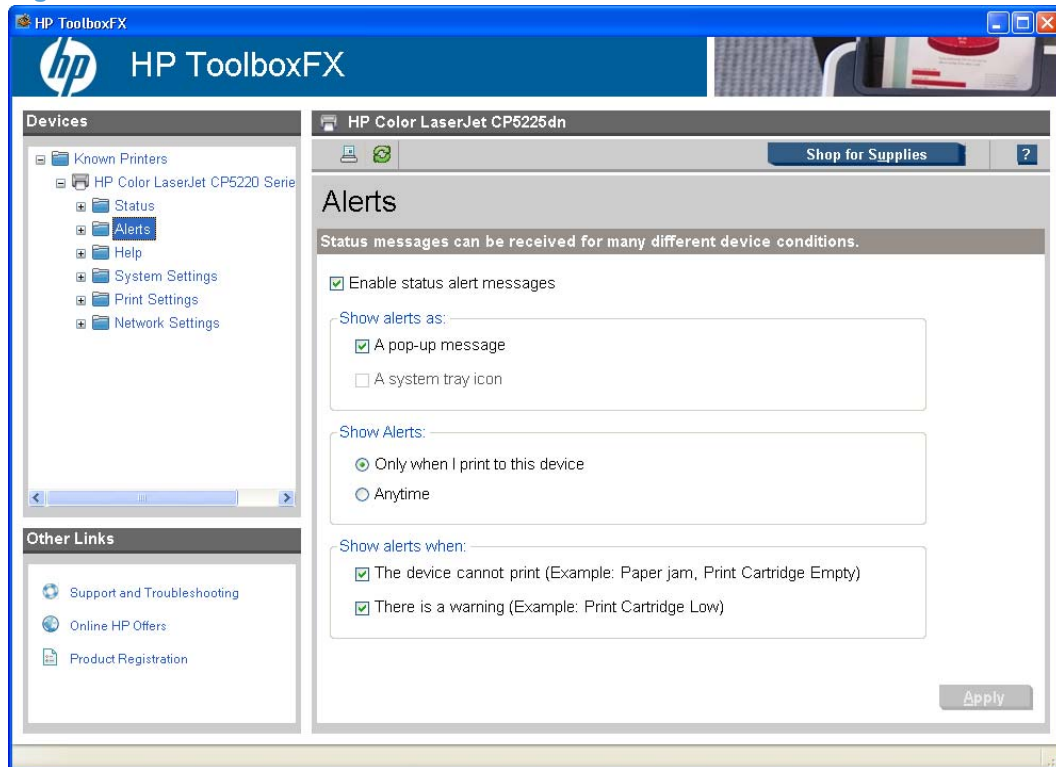


Alerts folder

The **Alerts** folder contains the following screens:

- [Set up Status Alerts](#)
- [Set up E-mail Alerts](#)

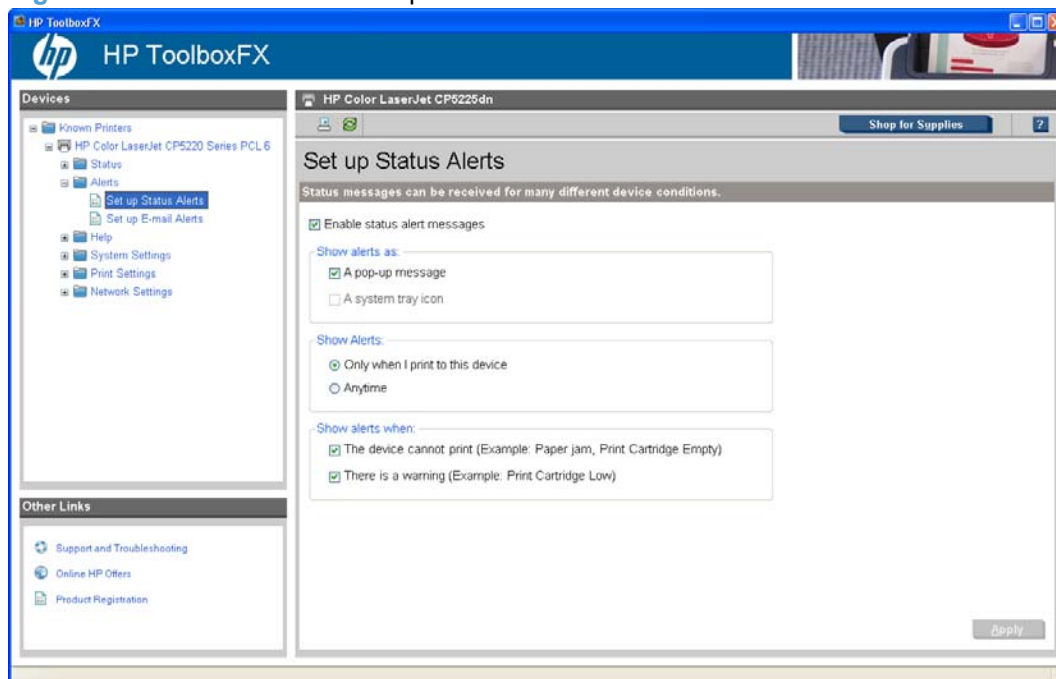
Figure 2-11 HP ToolboxFX Alerts folder



Set up Status Alerts

Use the **Set up Status Alerts** screen to set up status alerts for the HP Color LaserJet CP5220 Series printer. Select the **Turn on alerts** option and then click **Apply** to turn on alerts.

Figure 2-12 HP ToolboxFX Set up Status Alerts screen



Select options under **Show an alert** to receive alerts like those in the following table.

Table 2-2 Supported pop-up alerts for HP ToolboxFX


Pop-up alerts	Event
Printer Alerts	<ul style="list-style-type: none"> • Load Paper Tray 1 [TRAY] [SIZE] • Load Paper Tray 2 [TRAY] [SIZE] • Tray 1 Paper Out • Tray 2 Paper Out • Tray 3 Paper Out • Paper Mispick • Insufficient Memory • Door Cover Open • Manual Feed • Tray 1 Jam • Tray 2 Jam • Tray 3 Jam • Jam In Paper Path • Jam In Cartridge Area • Jam In Output Bin • Invalid Driver • Output Bin Full • Tray 1 Unexpected Size [SIZE] • Tray 2 Unexpected Size [SIZE] • Tray 3 Unexpected Size [SIZE] • Misprint • Top Detect Error • 507Error • 508Error • 509Error • 5120Error • 5121Error • 5122Error • 5123Error
	<ul style="list-style-type: none"> • Yellow Toner Level Sensor Error • Magenta Toner Level Sensor Error • Cyan Toner Level Sensor Error • Black Toner Level Sensor Error • Top Sensor Error • 541 Error • 550 Error • DCC NVRAM Data Error • DCC NVRAM Access Error • DCC Error • 5601Error • 5701Error • 5706Error • 593Error • 594Error • 5950Error • 5953Error • 5960Error • 5963Error • 5973Error • 5983Error • 599Error • T2ClutchError • 59A0Error • 59C0Error • 59F0Error

Table 2-2 Supported pop-up alerts for HP ToolboxFX (continued)

Supplies Warning Alerts	• Order Black Cartridge	• Replace Yellow Printing In Black
	• Order Yellow Cartridge	• Printing In Black Replace Supply
	• Order Magenta Cartridge	• Replace Supplies Override In Use
	• Order Cyan Cartridge	• Replace Black Override In Use
	• Order Supplies	• Replace Cyan Override In Use
	• Replace Cyan Printing In Black	• Replace Magenta Override In Use
	• Replace Magenta Printing In Black	• Replace Yellow Override In Use
Supplies Error Alerts	• BlackElabelError	• NonHPMagentaCartridge
	• BlackElabelMissing	• ReplaceMagenta
	• BlackIncorrect	• UnsupportedMagentaCartridge
	• NonHPBlackCartridge	• UsedMagentaCartridge
	• ReplaceBlack	• UsedMagentaInstalled
	• UnsupportedBlackCartridge	• UnsupportedInstalledMagentaCartridge
	• UsedBlackCartridge	• RemoveMagentaLock
	• UsedBlackInstalled	• IncompatibleMagentaCartridgeError
	• UnsupportedInstalledBlackCartridge	• YellowElabelError
	• RemoveBlackLock	• YellowElabelMissing
	• IncompatibleBlackCartridgeError	• YellowIncorrect
	• CyanElabelError	• NonHPYellowCartridge
	• CyanElabelMissing	• ReplaceYellow
	• CyanIncorrect	• UnsupportedYellowCartridge
	• ReplaceCyan	• UsedYellowCartridge
	• UnsupportedCyanCartridge	• UsedYellowInstalled
	• UsedCyanCartridge	• UnsupportedInstalledYellowCartridge
	• UsedCyanInstalled	• RemoveYellowLock
	• UnsupportedInstalledCyanCartridge	• IncompatibleYellowCartridgeError
	• RemoveCyanLock	
	• IncompatibleCyanCartridgeError	
	• MagentaElabelError	
	• MagentaElabelMissing	
	• MagentaIncorrect	

Select one or more formats for the alert under **Show the alert:**

- A pop-up message
- A system tray icon

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

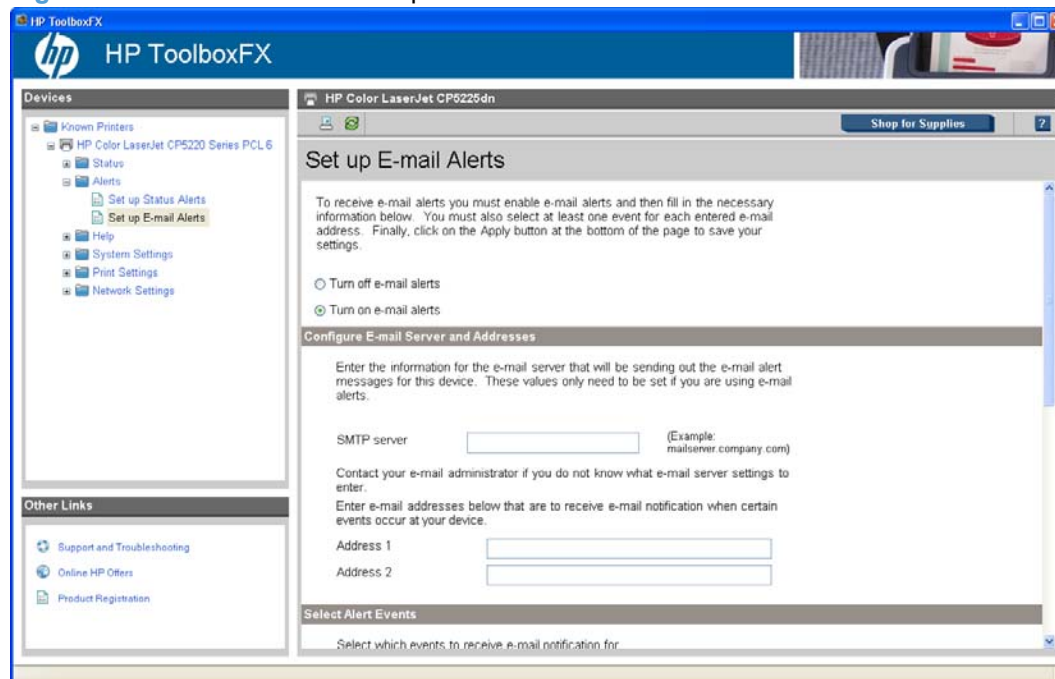
Set up E-mail Alerts

Use the **Set up E-mail Alerts** screen to set up e-mail alerts for the HP Color LaserJet CP5220 Series printer.

The default settings for the **Set up E-mail Alerts** screen are as follows:

- E-mail alerts are turned off by default.
- The SMTP server box and the address boxes are disabled.
- Supplies alert events are selected for both e-mail addresses.

Figure 2-13 HP ToolboxFX Set up E-mail Alerts screen



E-mail messages can be sent about the supplies status or events (such as a jam) related to the HP Color LaserJet CP5220 Series printer. Select the specific events about which you want notification.

The following E-mail Alerts are available:

- Cartridge Low
- Replace Cartridge
- Close doors/covers
- Insufficient memory
- Manual feed

- Non-HP print cartridge installed
- Unauthorized supply installed
- Paper out
- Printer mispick
- Remove paper jam
- Unexpected paper size

Use the following procedure to activate this feature:

1. Click to select the **Turn on e-mail alerts** option.
2. Configure the SMTP e-mail server that will be used to send the e-mail message.
3. Type in a valid e-mail address. Up to two e-mail addresses can be configured to receive messages for each event.
4. Select the events for which you want notification.
5. Click **Apply** to make the changes take effect.

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

Help folder


The **Help** folder contains the following screens:

- [Troubleshooting](#)
- [Color Printing Tools](#)
- [Animated Demonstrations](#)
- [User Guide](#)

Troubleshooting

The following sections appear on the Troubleshooting screen:

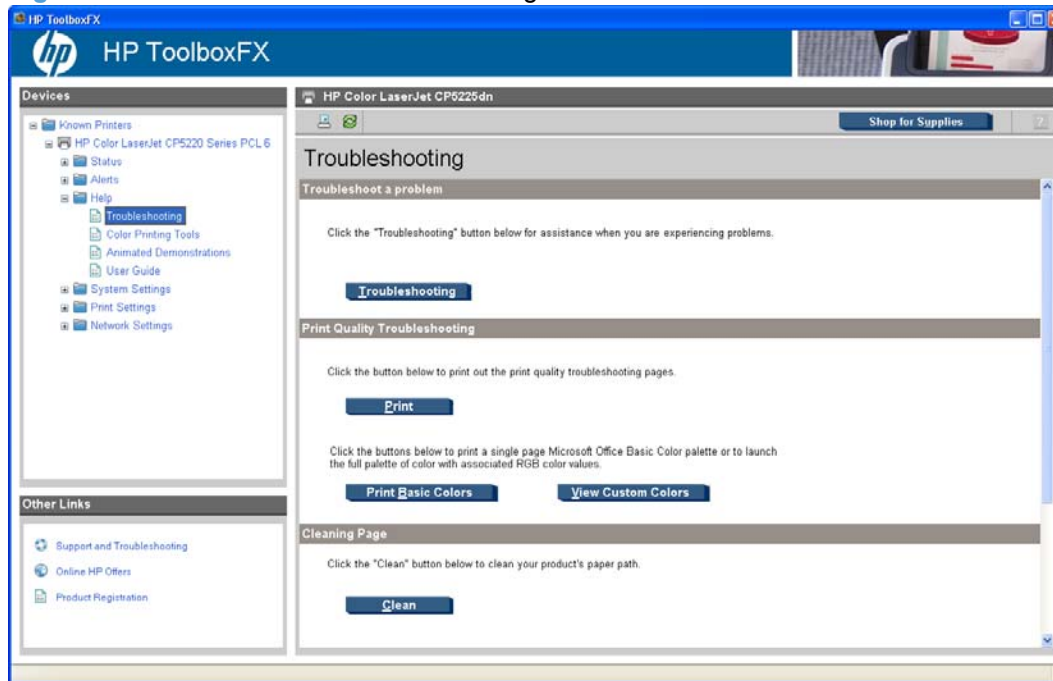
- **Troubleshoot a problem.** Click **Troubleshooting** to open the Troubleshooting chapter of the *HP Color LaserJet CP5220 Series Printer User Guide*.
- **Print Quality Troubleshooting.** The following options are available:
 - **Print.** Click this button to print the Print Quality Troubleshooting pages. Use these pages to troubleshoot page defects.
 - **Print Basic Colors.** Click this button to print a single page of basic color palette options. Use this option to match a specific color.
 - **View Custom Colors.** Click this button to explore the basic and custom printer color palette options. The color samples .PDF file opens in Adobe Acrobat Reader.

 **NOTE:** You must have Adobe Acrobat Reader installed on the computer to read documents in .PDF format. Adobe Acrobat Reader is available as a free download at the following Web site:

www.adobe.com

- **Cleaning Page.** Follow the onscreen directions to clean the printer paper path.
- **Calibration.** Click **Calibrate Now** to calibrate the printer.

Figure 2-14 HP ToolboxFX Troubleshooting screen



Color Printing Tools

Use the **Color Printing Tools** to solve certain color printing problems.

The following options are available on the **Color Printing Tools** screen:

- **Print Basic Colors**
- **View Custom Colors**
- **Basic Color Match**


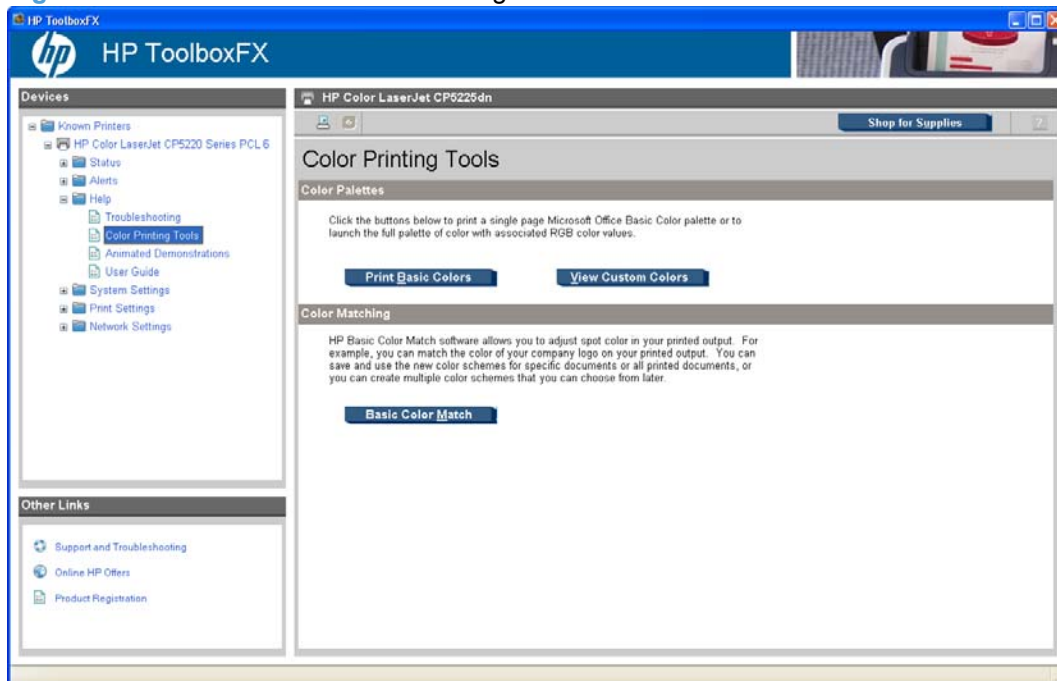
 **NOTE:** Clicking **Basic Color Match** opens the HP Color Match Software if the software is installed. If the software is not installed, the HP Color Match Software Web site opens where you can download the software.

Figure 2-15 HP ToolboxFX Color Printing Tools screen

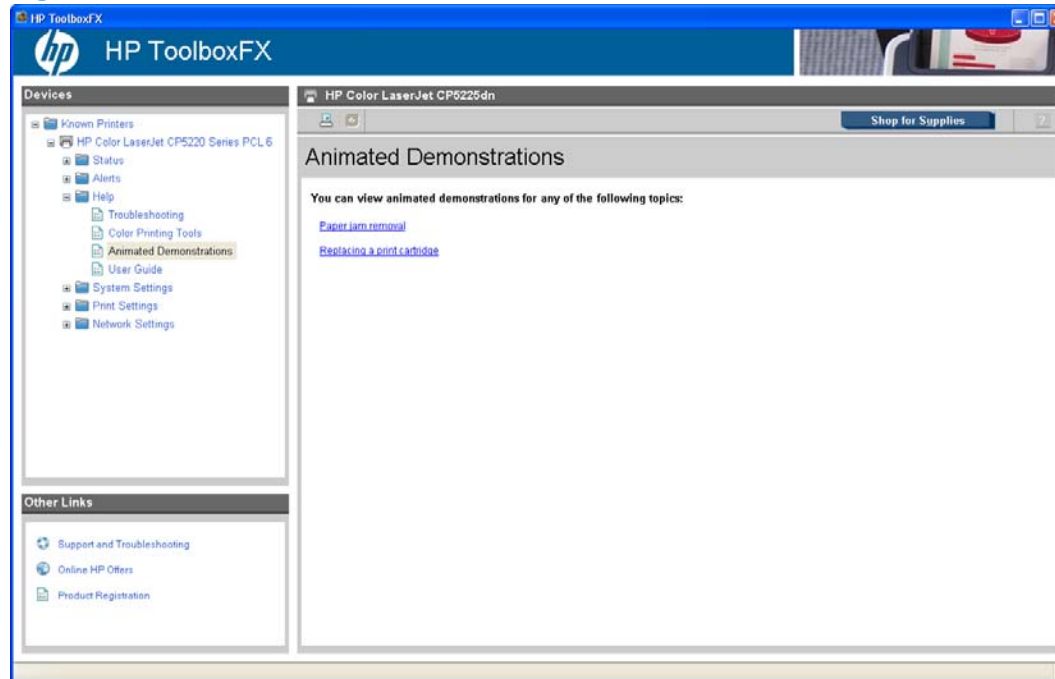


Animated Demonstrations

The following demonstrations are available on the **Animated Demonstrations** screen:

- **Paper jam removal**
- **Replacing a print cartridge**

Figure 2-16 HP ToolboxFX Animated Demonstrations screen

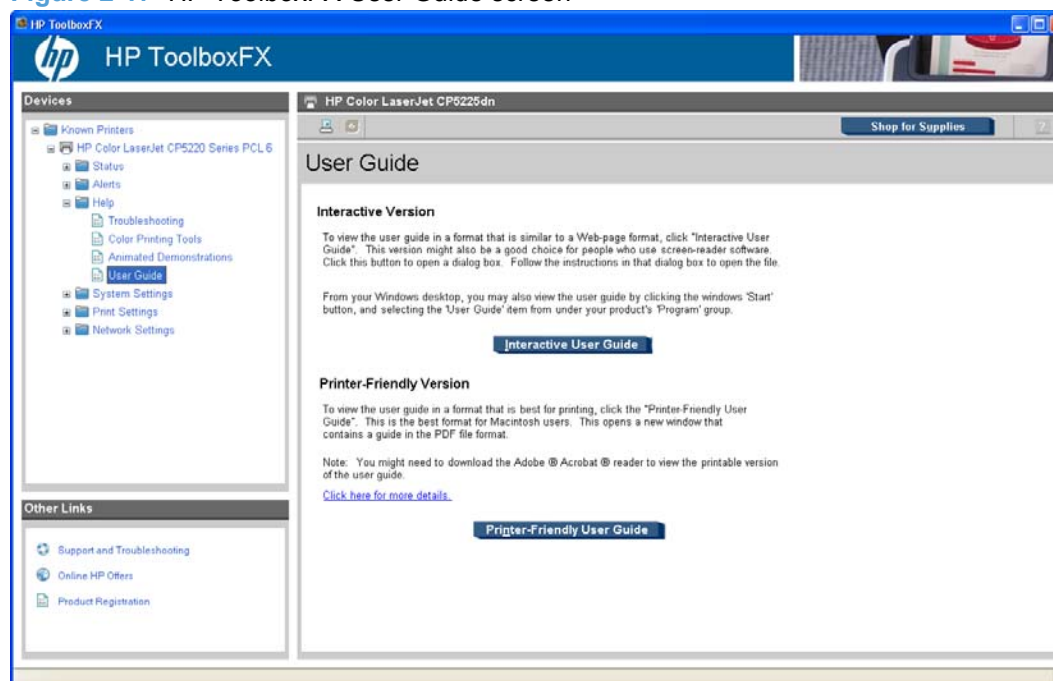


User Guide

The following options are available on the **User Guide** screen:

- **Interactive User Guide.** Click this to open the user guide in a .CHM version. This view is similar to a Web-page format.
- **Printer-Friendly User Guide.** Click this button to open a .PDF version of the user guide. Opening the document in this view might require downloading the Adobe Acrobat reader. For more information, see the following Web site: www.adobe.com

Figure 2-17 HP ToolboxFX User Guide screen



System Settings folder

The **System Settings** folder contains the following screens:

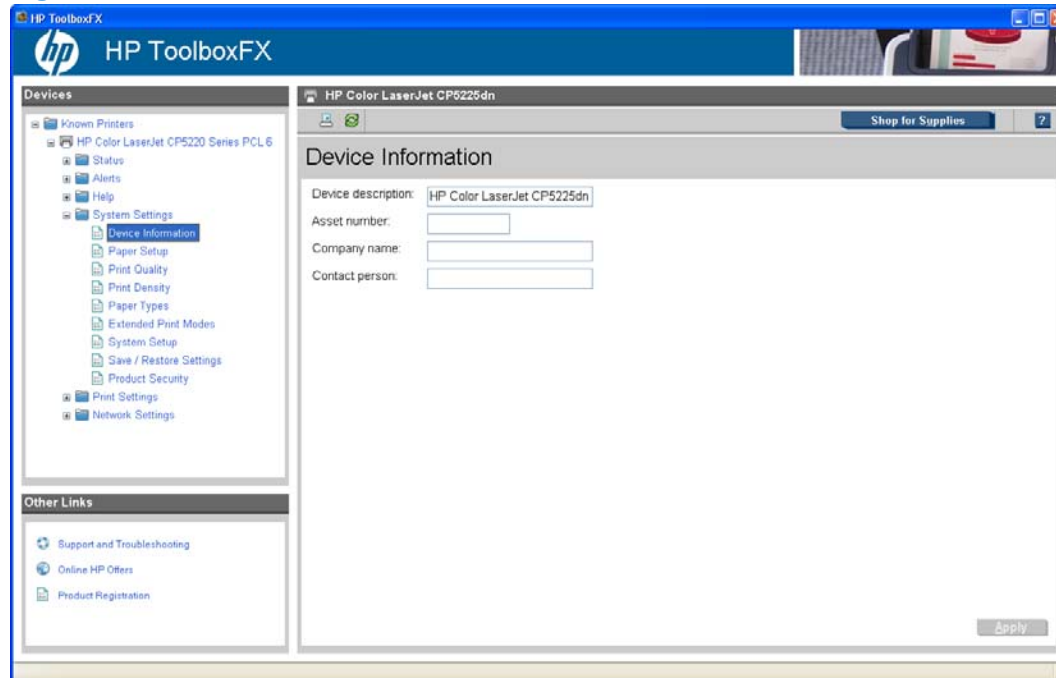
- [Device Information](#)
- [Paper Setup](#)
- [Print Quality](#)
- [Print Density](#)
- [Paper Types](#)
- [Extended Print Modes screen](#)
- [System Setup](#)
- [Save/Restore Settings](#)
- [Product Security](#)


Device Information

The **Device Information** screen contains identifying information about the printer:

- **Device Description.** This field shows the version of the HP Color LaserJet CP5220 Series printer that is installed.
- **Asset Number.** Use this field to assign an identifying asset control number to the printer.
- **Company Name.**
- **Contact Person.**

Figure 2-18 HP ToolboxFX Device Information screen

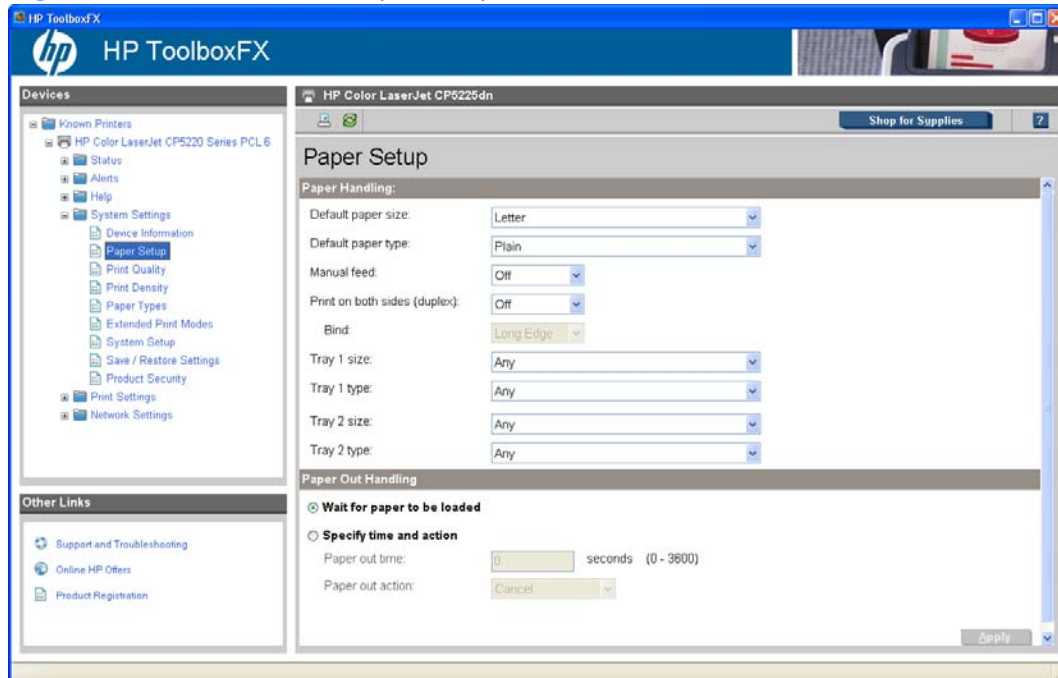


 **NOTE:** Click **Apply** to make any changes take effect.

Paper Setup

Use this screen to configure the paper-handling defaults for the printer. Change the default settings by clicking the blue arrow next to each option and highlighting the selection. Click **Apply** to save the new settings.


Figure 2-19 HP ToolboxFX Paper Setup screen



The following options are available.

- **Default paper size.** This drop-down menu lists all of the supported paper sizes.

Because paper-size settings in most software programs override driver settings, use the driver to set paper size only when printing from software programs that do not include a paper-size setting, such as Notepad, or when producing a book or a booklet that does not require different paper sizes.

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

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

- **Default paper type.** This drop-down menu shows a selection of the paper types that the HP Color LaserJet CP5220 Series printer supports. When you use the default setting, **Unspecified**, the product uses the default paper type, which is usually **Plain**. For more information about paper types, see [Paper type: on page 178](#).
- **Manual feed.** This drop-down menu allows you to set the product to pull paper from Tray 1 only.
- **Print on both sides (duplex).** The duplexing unit in the duplex models prints on two sides of a sheet of paper when the **Print on Both Sides** option is specified in the print job.

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

All paper types support the smart duplexing feature, except for paper types that cannot be printed on both sides (such as labels, transparencies, and envelopes) and the following paper types:

- Prepunched
- Preprinted
- Letterhead

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

For more information about the duplex feature, see [Finishing tab features on page 191](#).

- **Bind.** Binding occurs along either the left edge or the top edge of the page. 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.

For more information about binding, see [Finishing tab features on page 191](#).

- **Tray size and type.** Network administrators can use this feature to specify, in the driver, the paper size that is loaded into each available input tray. The use of forms constrains the choices that are available in the paper-size list on the **Paper/Quality** tab in the **Printing Preferences** driver tab set. This constraint prevents (or reduces the likelihood of) tying up the printer with paper-mount messages that occur when users request sizes or types that are not available.

The trays listed on this screen 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 paper sources on the **Paper/Quality** tab.

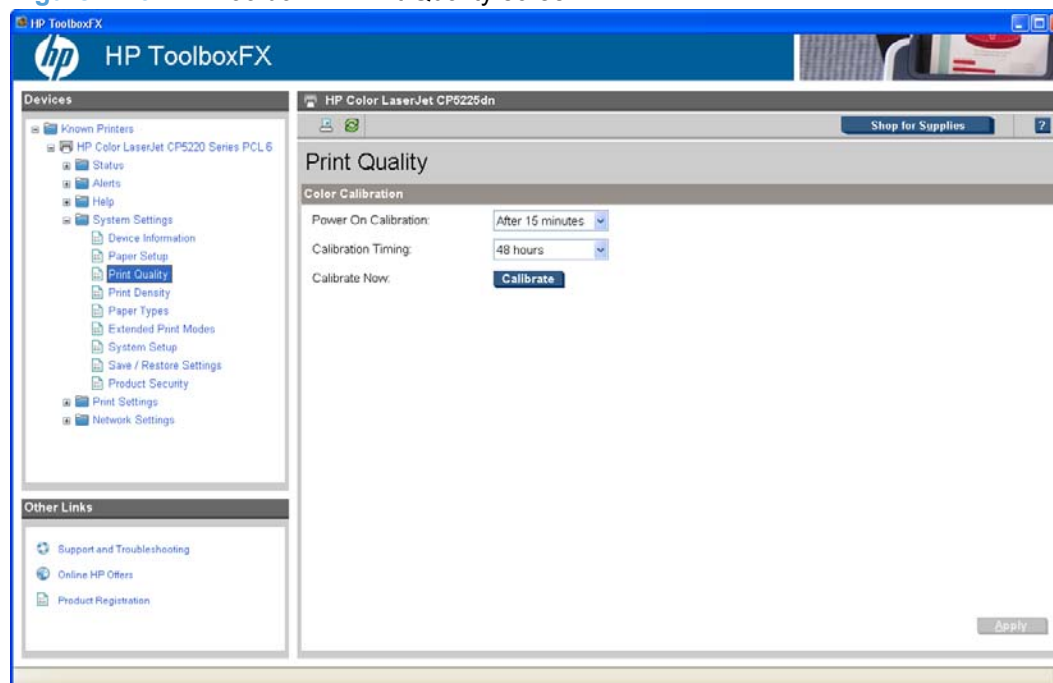
The page also includes two options for when the product is out of paper.

- **Wait for paper to be loaded.**
- **Specify time and action.**

Print Quality

Use the **Print Quality** screen to change when and how often the printer calibrates. You can also use the **Calibrate Now** button on this screen to cause the printer to calibrate.

Figure 2-20 HP ToolboxFX Print Quality screen

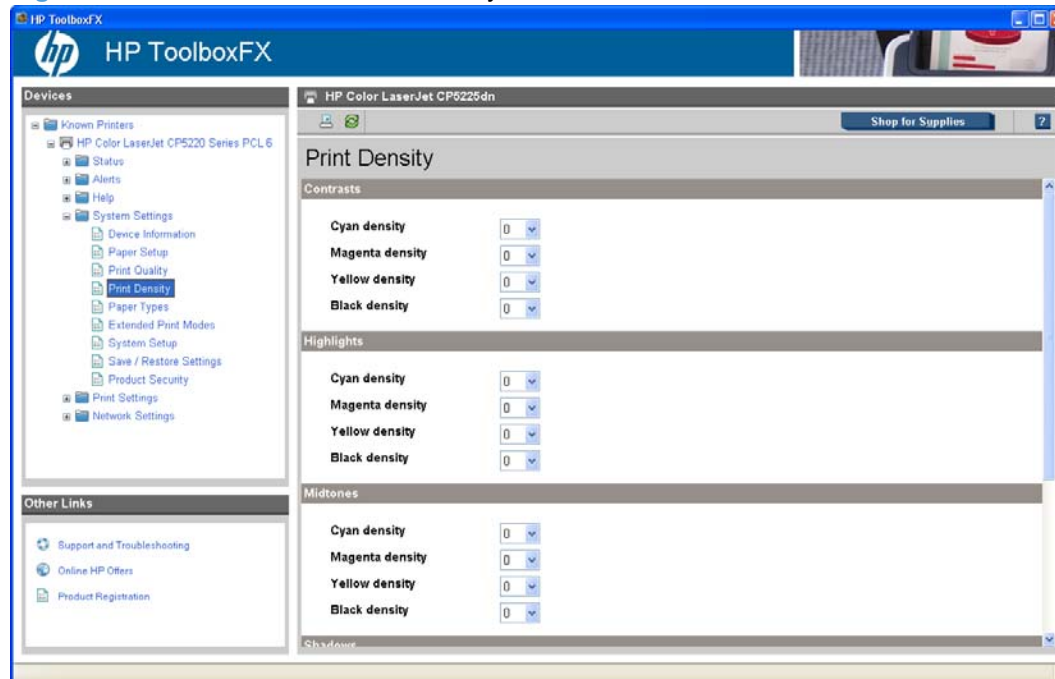


 **NOTE:** Click **Apply** to make the changes take effect.

Print Density

Use the settings on the **Print Density** screen to adjust the amount of toner the printer uses for images, pages, and documents.

Figure 2-21 HP ToolboxFX Print Density screen



The **Print Density** screen contains the following settings:

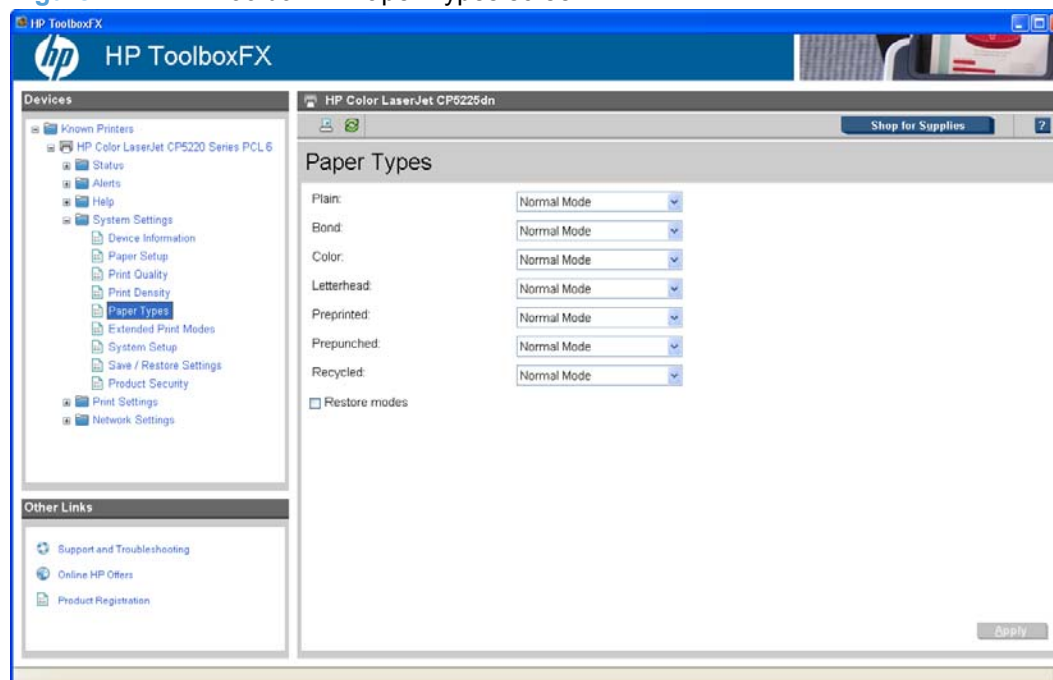
- **Contrasts.** Contrast is the density difference between light (highlight) and dark (shadow) colors. To increase the difference between light and dark colors (equivalent to a negative highlight adjustment and a positive shadow adjustment), use a positive contrast setting. To decrease the difference between light and dark colors (equivalent to a positive highlight adjustment and a negative shadow adjustment), use a negative contrast setting.
- **Highlights.** Highlight colors are colors near white. To make highlight colors darker, use a positive highlight setting. To make highlight colors lighter, use a negative highlight setting. This adjustment does not affect midtone or shadow colors.
- **Midtones.** Midtone colors are about halfway between white and solid density. To make midtone colors darker, use a positive midtone setting, and to make midtone colors lighter, use a negative highlight setting. This adjustment does not affect highlight or shadow colors.
- **Shadows.** Shadow colors are colors near solid density. To make shadow colors darker, use a positive shadow setting. To make shadow colors lighter, use a negative shadow setting. This adjustment does not affect highlight or midtone colors.
- **Restore defaults.** Resets factory defaults for the Print Density settings on the printer.

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

Paper Types

Use the **Paper Types** screen to map the print modes that the printer will use for each paper type.

Figure 2-22 HP ToolboxFX Paper Types screen



The purpose of this menu is to specify the engine print mode for paper types that are non-specific. Also, the Plain paper type can be remapped for workflow reasons. A print mode is a special setting that controls the print speed and the fuser temperature of the printer. The product speed and fuser temperature are adjusted to match the print mode selected, which can result in better print quality when printing on certain paper types.

⚠ WARNING! Printing on heavier paper, such as glossy or photo paper, without setting the correct print mode can cause damage to the printer.

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

Table 2-3 Standard print modes

Standard print modes	Target media/weight	Print speed	Color tables
Normal Mode	75-90 g/m2	Full speed	Plain
Heavy Mode	90-130 g/m2	3/4 speed	Plain
Cardstock Mode	131-175 g/m2	3/4 speed	Plain
Light Mode	60-74 g/m2	Full speed	Plain
Light Glossy Mode	105-130 g/m2	3/4 speed	Glossy
Glossy Mode	131-175 g/m2	3/4 speed	Glossy
Heavy Glossy Mode	176-220 g/m2	3/4 speed	Glossy
Tough Paper Mode	Tough Paper	3/4 speed	Glossy

Table 2-3 Standard print modes (continued)

Standard print modes	Target media/weight	Print speed	Color tables
Transparency Mode	Transparencies	3/4 speed	Overhead Transparency (OHT)
Label Mode	Labels	3/4 speed	Plain

Extended Print Modes screen

Use the **Extended Print Modes** screen to adjust the printing process to optimize print quality for various paper types and sizes.

Figure 2-23 HP ToolboxFX Extended Print Modes screen

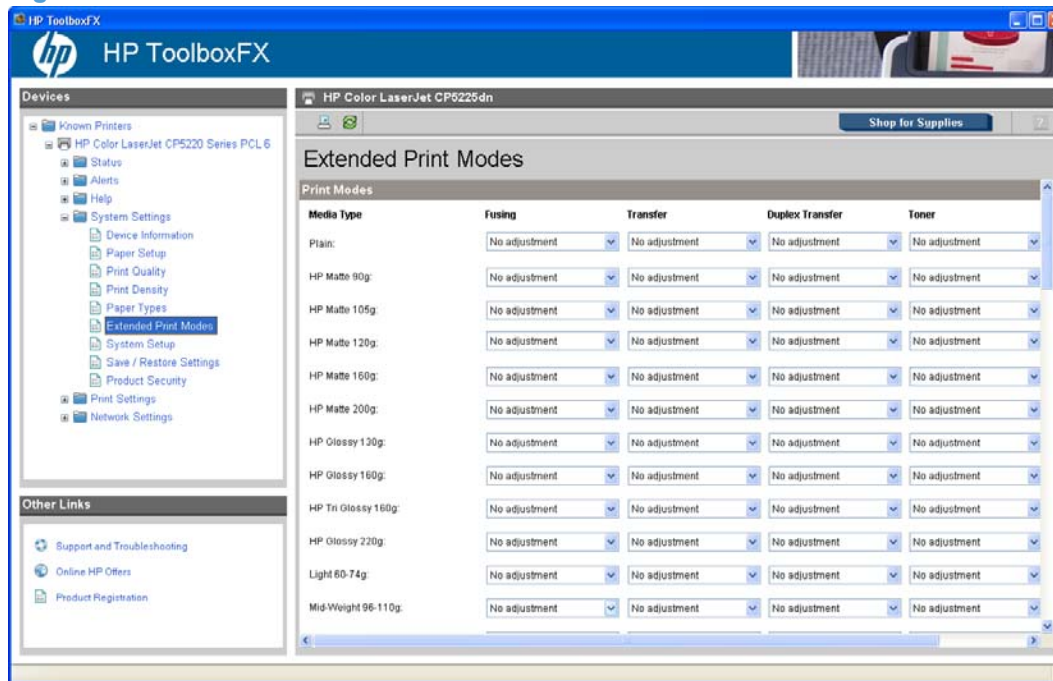


Table 2-4 Print Modes — Fusing

Fusing adjustments	Range (*default)	Description
Paper curl-up	Off*/On	This setting is used for dry climates or light paper. This setting optimizes fuser temperature for paper with the ends curled up in the output tray.
Paper curl-down	Off*/On	This setting optimizes fuser temperature for paper with the ends curled down in the output tray.
Flap sealing	Off*/On	This setting reduces fuser temperature for envelope print modes to reduce flap sealing.
Less/More fusing	Off*/-2 to +2	These settings give four levels of direct control of fuser temperature.

Table 2-5 Print Modes — Transfer

Transfer adjustments (only first side)	Range (*default)	Description
Dry paper	Off*/On	
Humid paper	Off*/On	
Rough paper	Off*/On	
Less/More transfer	Off*/–5 to +5	

Table 2-6 Print Modes — Duplex Transfer

Duplex transfer adjustments (only second side)	Range (*default)	Description
Dry paper	Off*/On	This setting optimizes the transfer voltage (between the transfer belt and paper) for dry conditions or high resistivity paper.
Humid paper	Off*/On	This setting optimizes the transfer voltage for humid conditions.
Rough paper	Off*/On	This setting optimizes the transfer voltage for rough, textured papers.
Less/More transfer	Off*/–5 to +5	These settings give ten levels of direct control of transfer voltage.

Table 2-7 Print Modes — Toner

Less toner adjustments	Range (*default)	Description
Less toner	Off*/–1 to –3	These settings give ten levels of direct control of transfer voltage.

The **Extended Print Modes** screen also contains an **Optimize** section.

Table 2-8 Optimize modes

Adjustment	Range (*default)	Description
Background Toner	Off*/On	Optimize printer settings to reduce background toner. (Glossy paper picks up background toner more readily than plain paper.)
Background Toner 2		This is designated when a background of small vertical lines appears on the image.
Extra Drum Cleaning	Off*/On	Talc from paper with high talc content gets coated on the imaging drums and degrades the image quality. The printer will use extra cleaning rotations when stopping to eliminate this coating on the drums.

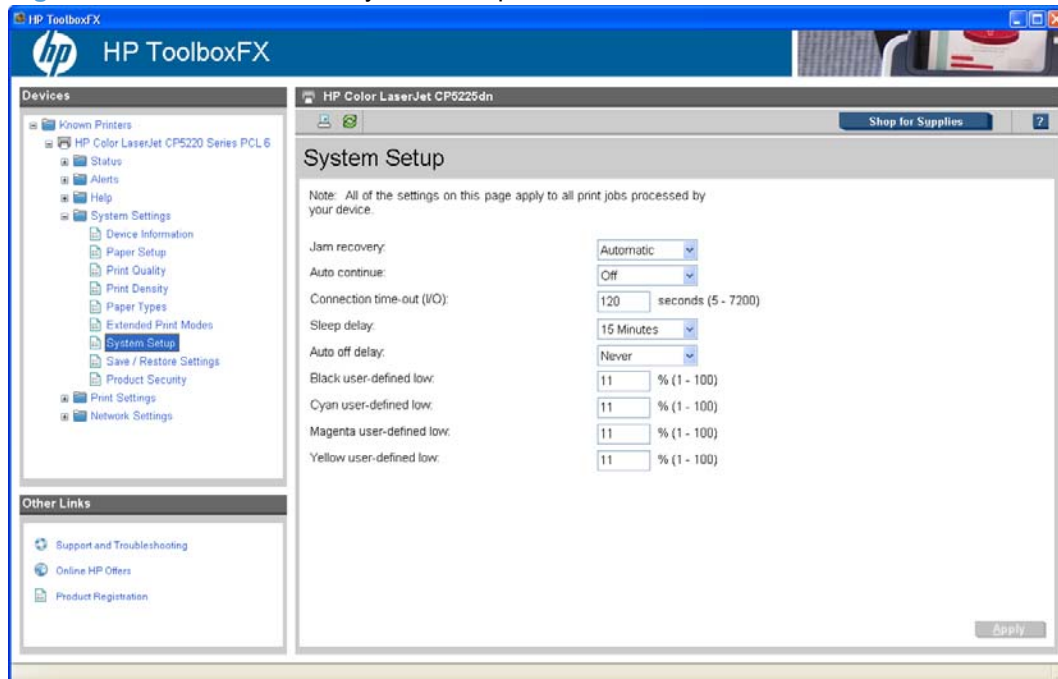
Table 2-8 Optimize modes (continued)

Adjustment	Range (*default)	Description
Drum Banding	Off*/On	This mode reduces the occurrence of sharp lines at the OPC drum pitch (75 mm) by extra prerotations and by jogging the drums slightly after each job. The jogging motion is slightly audible.
Registration		Extends the pre-rotation and post-rotation sequences.
Tray 1		When this option is turned on and a print job is printing from Tray 1 using the universal size command, which is the default, the printer will clean the belt every time the printer spins down.
Re-Transfer		This setting reduces or eliminates re-transfer.
Jam Reduction		When this setting is turned on, the interpage gap is increased. Printing performance is reduced slightly.
Heavy Media Optimization		
Transfer Belt Cleaning	Off*/+1 to +2	This mode increases transfer belt (ITB) cleaning effectiveness by increasing the ICL (ITB Cleaning) roller/brush voltage for the +1 setting, and by increasing cleaning frequency for the +2 setting. This should be used when the ghost of previous heavy coverage pages appears on following pages.
Transfer Belt Cleaning Voltage	Off*/-5 to +5	This adjustment allows fine control of the ICL roller/brush voltage. Decreasing the voltage is better for OPC drum ghosting. Increasing the voltage is better for heavy coverage cleaning.
Transfer Belt Voltage – Y	Off*/-5 to +5	This adjustment allows fine control of the Yellow station OPC-to-ITB transfer voltage. (There is currently no known defect associated with this adjustment.)
Transfer Belt Voltage – M	Off*/-5 to +5	This adjustment allows fine control of the Magenta station OPC-to-ITB transfer voltage. (There is currently no known defect associated with this adjustment.)
Transfer Belt Voltage – C	Off*/-5 to +5	This adjustment allows fine control of the Cyan station OPC-to-ITB transfer voltage. (There is currently no known defect associated with this adjustment.)
Transfer Belt Voltage – K	Off*/-5 to +5	This adjustment allows fine control of the Cyan station OPC-to-ITB transfer voltage. (There is currently no known defect associated with this adjustment.)

System Setup

Use the **System Setup** screen to change settings on the printer such as Jam Recover and Auto Continue.

Figure 2-24 HP ToolboxFX 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 (default is 120).

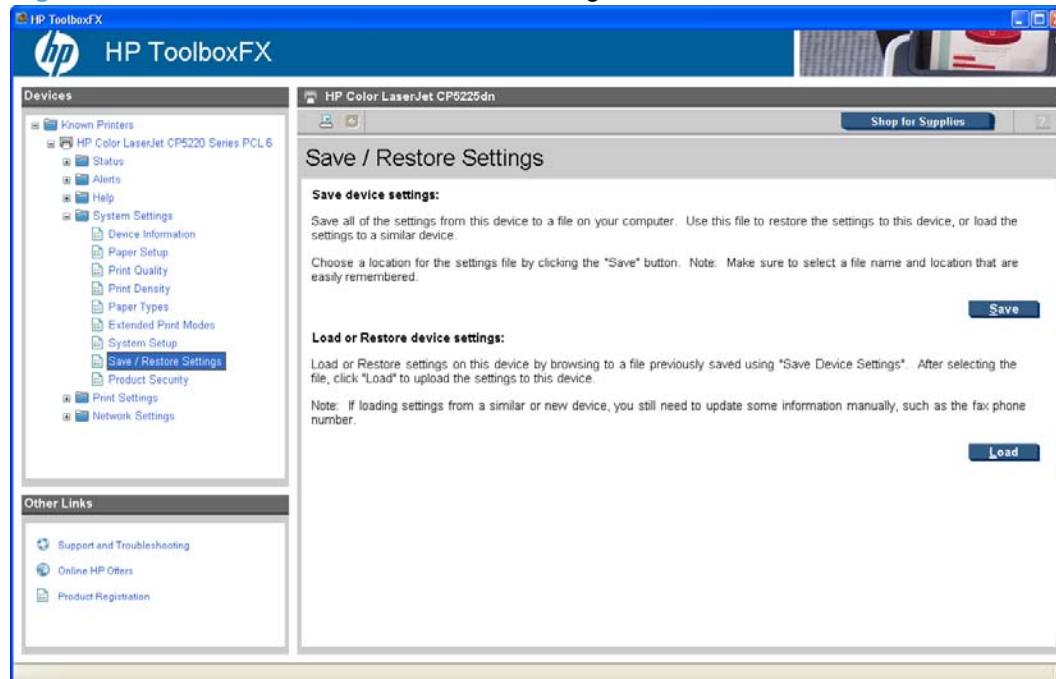
Set the **Cartridge low threshold** setting to any value from 1 to 20% (default is 6%). The **Cartridge low threshold** option sets the percentage threshold that triggers a toner low alert in HP ToolboxFX.

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

Save/Restore Settings

Use the **Save/Restore Settings** screen to save all of the product settings to a file on the computer. The settings that have been saved into the printer can also be loaded from this screen.

Figure 2-25 HP ToolboxFX Save/Restore Settings screen



When you click **Save**, the **Save as** dialog box might be hidden. Look behind the browser window or on the taskbar.

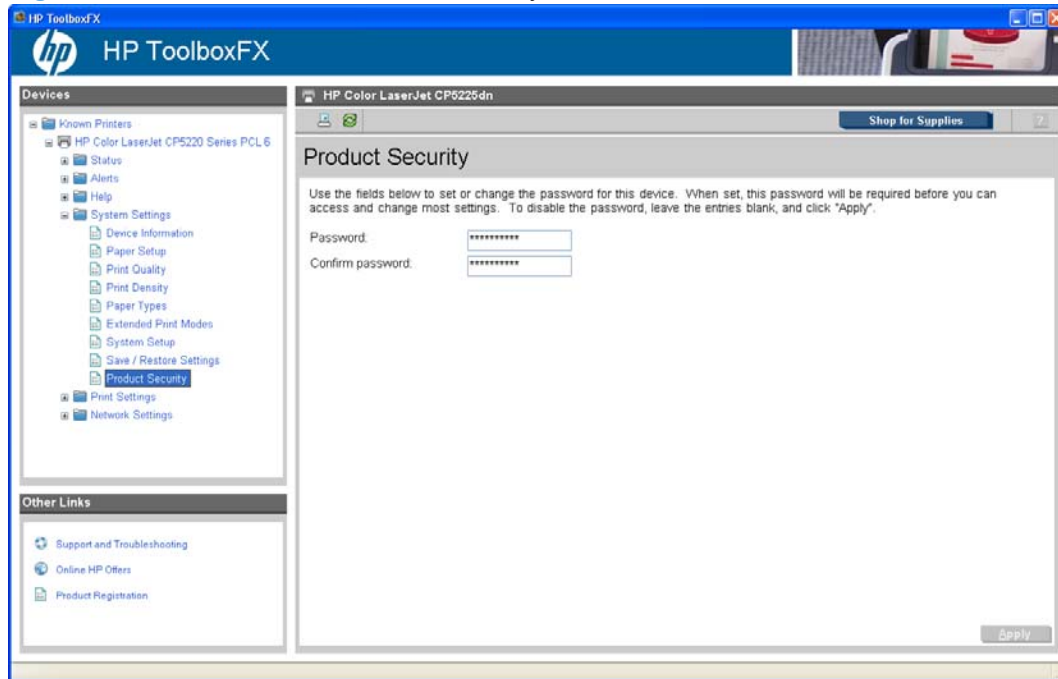
Settings that were saved from a previous HP product cannot be restored. Only settings that were saved from an HP Color LaserJet CP5220 Series printer can be restored.

 **NOTE:** HP ToolboxFX will not function until settings have been fully loaded and the HP Color LaserJet CP5220 Series printer control panel returns to the **Ready** state.

Product Security


Use this screen to set or change the administrator password.

Figure 2-26 HP ToolboxFX Product Security 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 certain screens within HP ToolboxFX. If a password has been set, users are prompted to type the password. If the typed-in password matches the password stored in the printer, users can navigate through the password protected screens and make changes to the settings.

If the password is lost or forgotten, the factory settings for the HP Color LaserJet CP5220 Series printer must be restored and a new password assigned.

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

The following HP ToolboxFX features become locked when a password is set:

- **Shop for Supplies** button
- **HP Instant Support** link
- **System Setup** screens
- **Print settings** screens
- **Network Settings** screens
- **Event Log** screen

 **NOTE:** Setting a password on this screen also sets the password for the HP EWS.

Print Settings folder

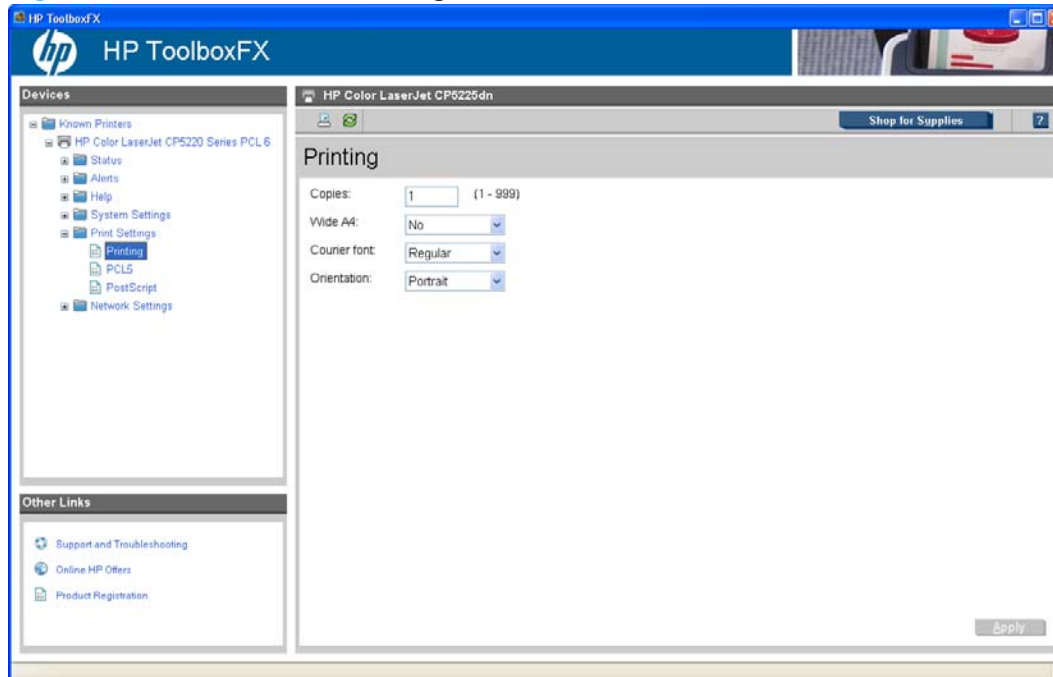
The **Product Information** folder contains the following screen:

- [Printing](#)
- [PCL5](#)
- [PostScript](#)

Printing

Use the **Printing** screen to change the printing defaults for the printer.

Figure 2-27 HP ToolboxFX **Printing** screen



The following options are available.

- **Copies.** This setting 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 **Copies** option. Select the number by typing in the box or by using the up and down arrows on the right side of the text box. For the HP Color LaserJet CP5220 Series printer, valid entries are numbers from 1 to 9999. The copies value will not advance from the maximum number (9999) to 1 when the up arrow is used, or change from 1 to the maximum number (9999) when the down arrow is used.

Invalid entries into the edit box (such as non-numerical input, numbers less than 1, or numbers greater than 9999) change to the last valid value that appeared in the box. The default number of copies is 1.

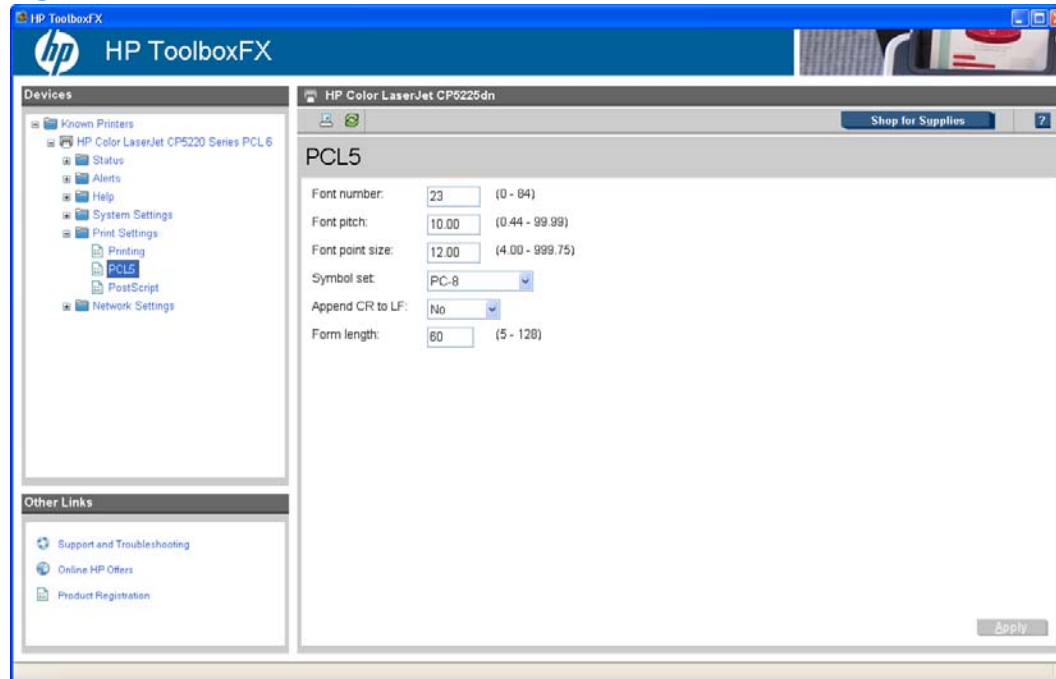
Problems can develop when a software program and the driver it is running on both allow the user to set the number of copies to print. In most cases, the software program and the driver communicate, so that the number of copies set in one location (such as the program) appears in the other (such as the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


- **Orientation.** Use this feature to choose the direction of the print job.
 - **Portrait.** The top edge of the document is the shorter edge of the paper. This is the default setting.
 - **Landscape.** The top edge of the document is the longer edge of the paper.

PCL5

Use the **PCL5** screen to change font information and form length.

Figure 2-28 HP ToolboxFX **PCL5** screen

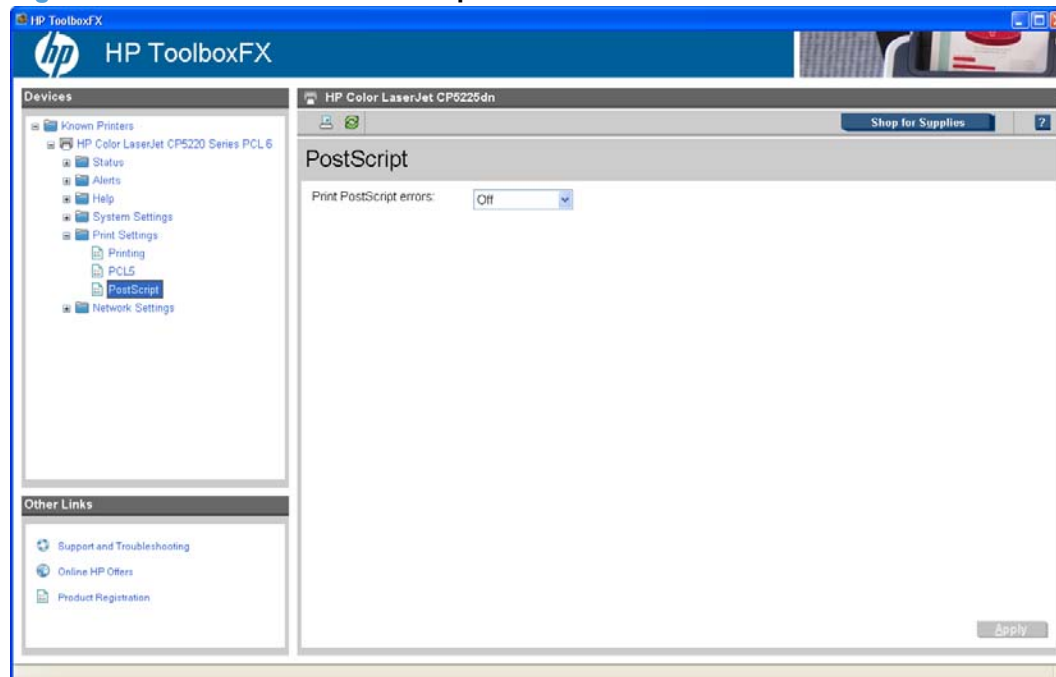



 **NOTE:** Click **Apply** to make any changes take effect.

PostScript

Use the **PostScript** screen to turn postscript error printing on or off.

Figure 2-29 HP ToolboxFX **PostScript** screen



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

The **Print PostScript errors** setting specifies whether a PS error-handler message is sent. To get the printer to print an error page when an error occurs in the print job, click **On**.

Network Settings folder

The **Network Settings** folder is only available with a network installation.

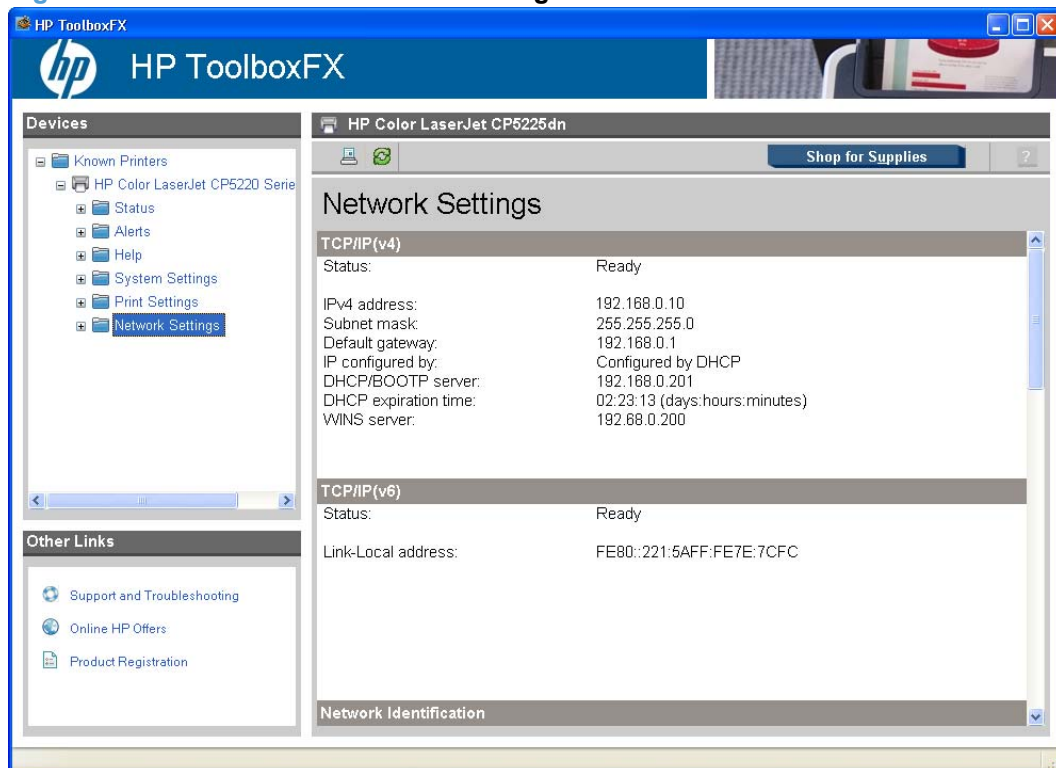
The HP Color LaserJet CP5220 Series printers contain onboard networking support. This printer model does not require the use of an external Jetdirect box for network connectivity. Use **Network Settings** options to configure the network settings for the HP Color LaserJet CP5220 Series printer.

For network installations, HP ToolboxFX communicates with the HP Color LaserJet CP5220 Series printer by using the network settings that appear on the following **Network Settings** screens:

- [Network Summary](#)
- [IPv4 Configuration](#)
- [IPv6 Configuration](#)
- [Network Identification](#)
- [Advanced](#)
- [SNMP](#)

△ **CAUTION:** Changing network settings can cause communication problems between HP ToolboxFX and the HP Color LaserJet CP5220 Series printer.

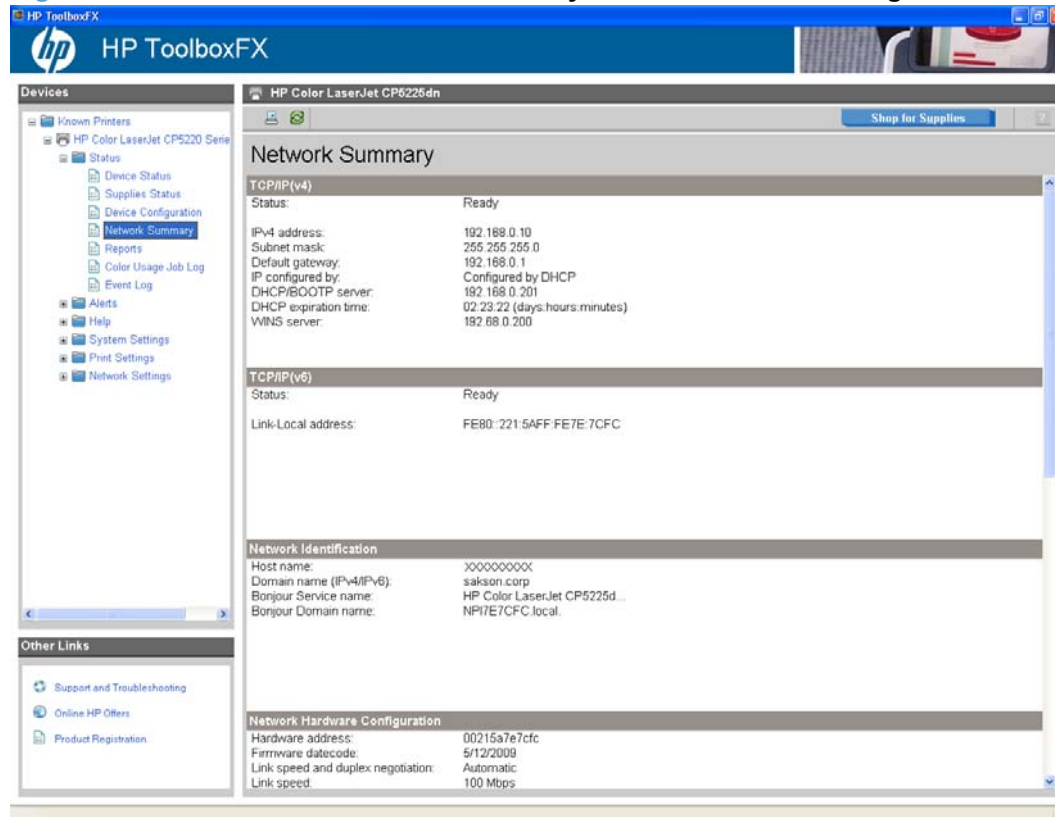
Figure 2-30 HP ToolboxFX **Network Settings** screen



Network Summary

The **Network Summary** screen provides an overview of the network settings that are enabled for the HP Color LaserJet CP5220 Series printer.

Figure 2-31 HP ToolboxFX **Network Summary** screen – **Network Settings** folder



The settings appear under the following headings:

- TCP/IP(v4)
- TCP/IP(v6)
- Network Identification
- Network Hardware Configuration
- SNMP
- Network Statistics
- Enabled Features

IPv4 Configuration

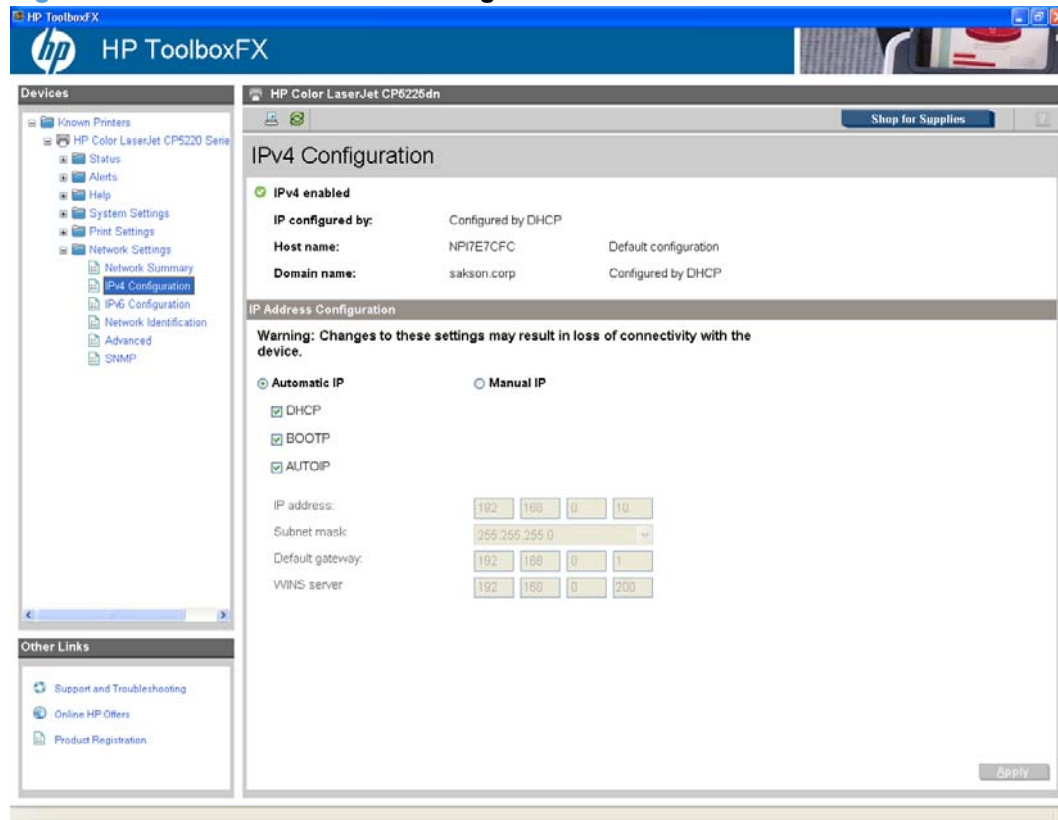
Use the **IPv4 Configuration** screen to modify settings for basic TCP/IPv4 Network configuration.

If **Automatic IP** is configured, the **Manual IP** Address configuration settings are disabled, but the values for these settings are still displayed if they have been set.

If the configuration is switched from **Automatic IP** to **Manual IP**, the **IP Address** fields are cleared, and you must enter the IP address before continuing.

Click **Apply** to keep changes. When **Apply** is clicked, a confirmation dialog box appears for confirmation. Click **Yes** to continue.

Figure 2-32 HP ToolboxFX IPv4 Configuration screen

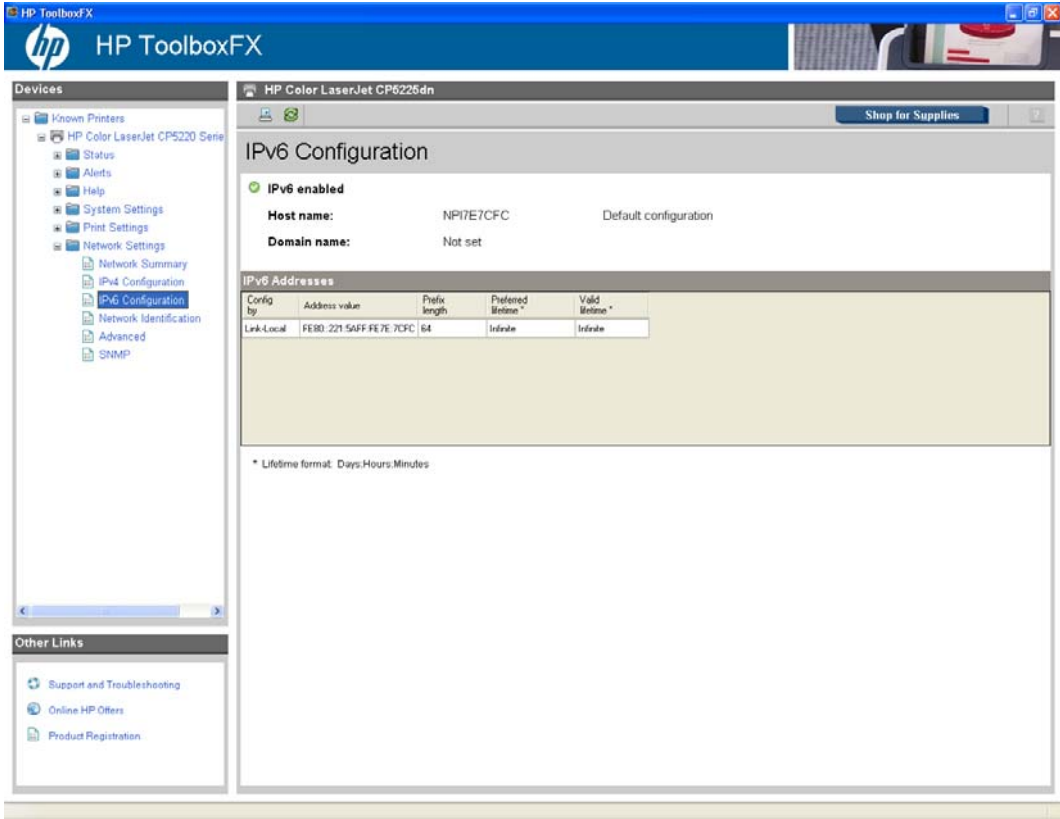


IPv6 Configuration

The **IPv6 Configuration** screen shows the status of the IPv6 Network configuration settings. This screen is read-only and no settings can be modified here.

Up to seven IPv6 addresses can be shown on this screen, depending upon the automatic configuration of the networking firmware. All available IPv6 addresses are shown.

Figure 2-33 HP ToolboxFX IPv6 Configuration screen



Network Identification

Use the **Network Identification** screen to configure the host name and domain name(s) used to identify the product on the network.

The values for host name and domain names are retrieved from the firmware and displayed on this screen. The networking firmware determines the host name and domain name(s) to use. This information cannot be modified.

The text entries are disabled under certain circumstances. The following table defines when the entities are disabled:

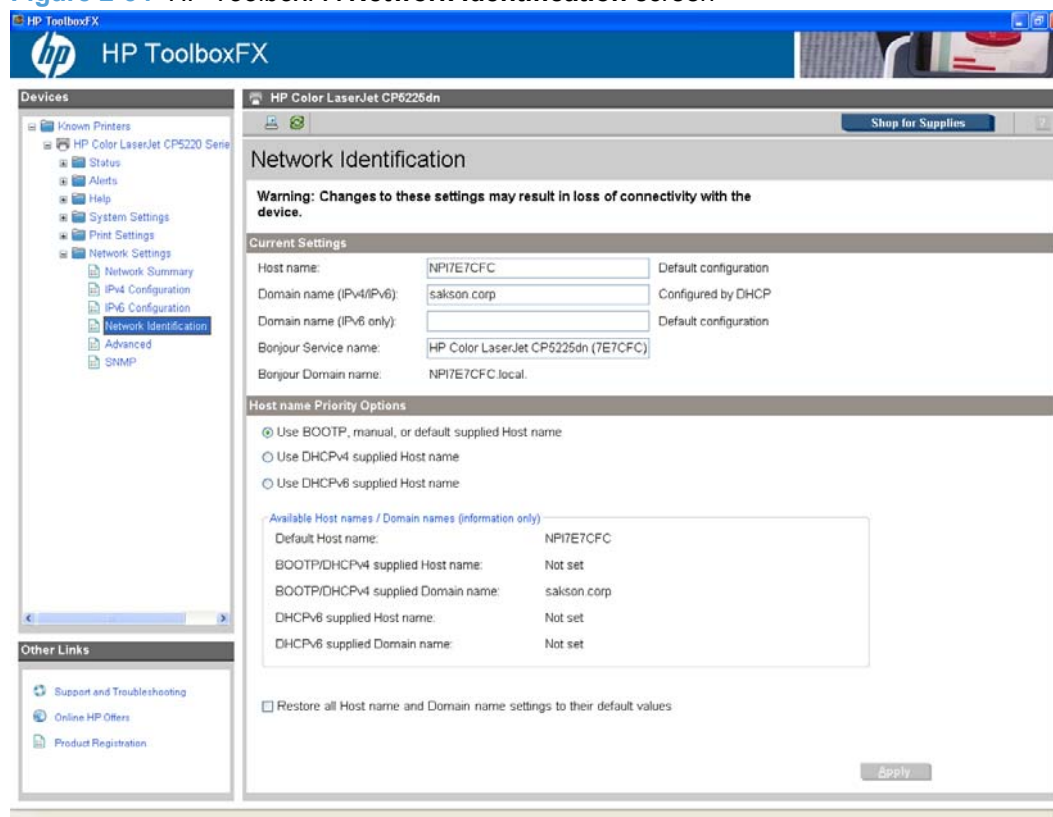
Table 2-9 Network Identification screen – Text entries

Text entry	Disabled status
Host name	Disabled if configured by BOOTP
Domain name (IPv4/IPv6)	Disabled if configured by BOOTP, DHCPv4, or DHCPv6

Table 2-9 Network Identification screen – Text entries (continued)

Text entry	Disabled status
Domain name (IPv6)	Disabled if configured by DHCPv6
Bonjour Service name	Disabled if Bonjour is disabled

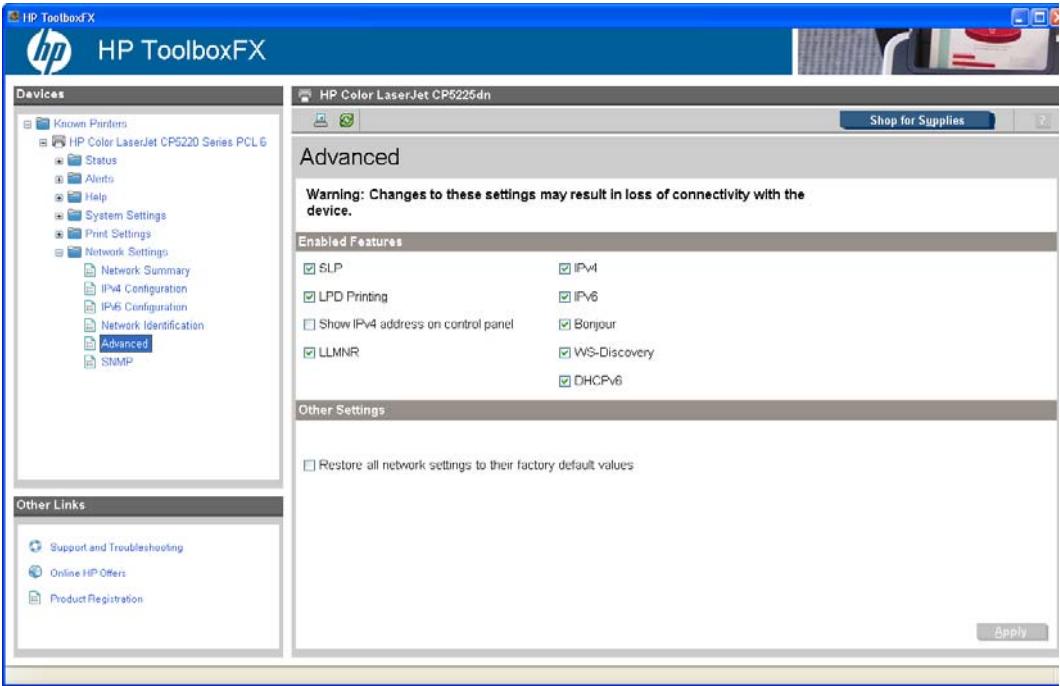
Figure 2-34 HP ToolboxFX Network Identification screen



Advanced

Use the **Advanced** screen to configure the enabled settings and other settings, such as link speed, for the printer.


Figure 2-35 HP ToolboxFX **Advanced** screen



The following table shows the options and settings that are available for the **Advanced** screen.

Table 2-10 Advanced Network Settings options and settings

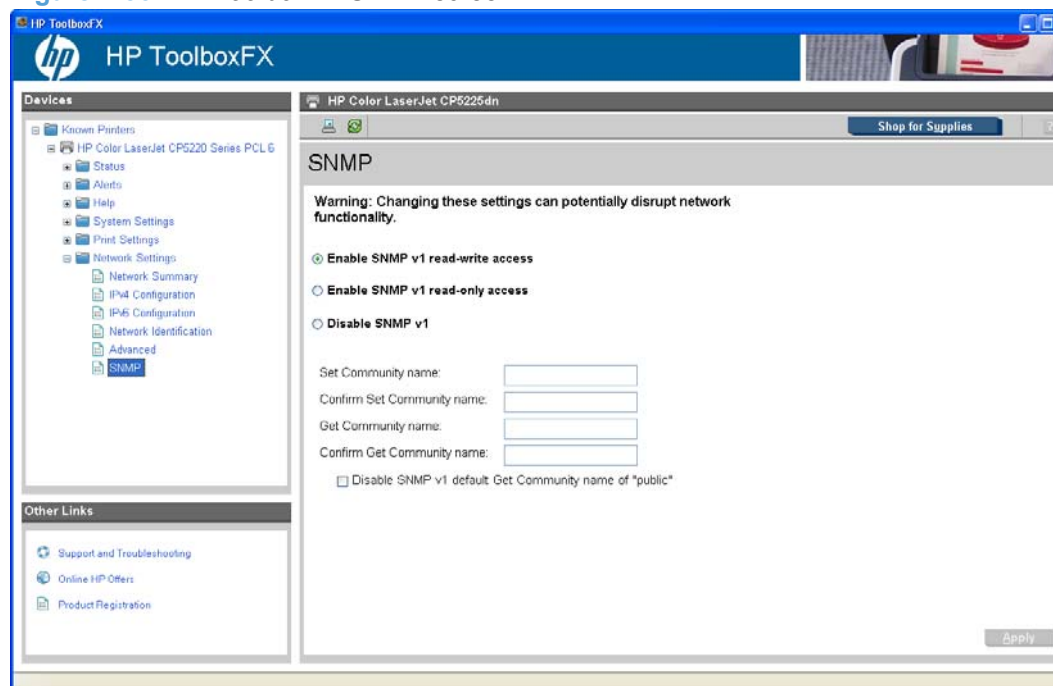
Option	Settings
Enabled Features	<ul style="list-style-type: none">• SLP (enabled by default)• LPD Printing (enabled by default)• Show IPv4 address on control panel• IPv4• IPv6• Bonjour• WS-Discovery• DHCPv6 <p>NOTE: All of these features are enabled by default except for Show IPv4 address on control panel.</p>
Other Settings	Restore all network settings to the factory default values.

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

SNMP

Use this screen to configure the SNMP networking settings for the printer.

Figure 2-36 HP ToolboxFX **SNMP** screen



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

Table 2-11 SNMP options and settings

Options	Description
Enable SNMP v1 read-write access	Select this option to enable SNMP v1 agents on the printer. Custom community names can be configured to control management access to the HP Color LaserJet CP5220 Series printer. These community name settings appear on the lower half of the screen.
Set Community name:	Type the SNMP Set Community Name (password) to allow SNMP information to be configured (or written) on the printer.
Confirm Set Community name:	Retype the SNMP Set Community Name (password) to allow SNMP information to be configured (or written) on the printer.
Get Community name:	Type the SNMP Get Community Name (password) to allow SNMP information to be read from the printer.
Confirm Get Community name:	Retype the SNMP Get Community Name (password) to allow SNMP information to be read from the printer.
Disable SNMP v1 default Get Community name of "public"	Select this option to disable the default Get community name "public". After selecting this option, type the values in the Get Community name and Confirm Get Community name fields.

Table 2-11 SNMP options and settings (continued)

Enable SNMP v1 read-only access (uses "public" for the Get Community value)	Select this option to enable the SNMP v1 agents on the HP Color LaserJet CP5220 Series printer, but limit access to read-only. Write-access is disabled. The default Get Community name "public" is automatically enabled.	
	Set Community name:	Type the SNMP Set Community Name (password) to allow SNMP information to be configured (or written) on the printer.
	Configure Get Community name:	
	Disable SNMP v1 default Get Community name of "public":	Select this option to disable the default Get community name "public". After selecting this option, type the values in the Get Community name and Confirm Get Community name fields.
Disable SNMP v1	Select this option to disable the SNMP v1 agents on the HP Color LaserJet CP5220 Series printer, which is recommended for secure environments. If SNMP v1 is disabled, some port monitors or discovery utilities might not operate properly.	
Apply	Click Apply to make the changes take effect.	

Other screens

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

Table 2-12 HP ToolboxFX – Other screens

Screen	Access
About HP ToolboxFX screen	Click the HP logo that appears in the upper-left corner of the HP ToolboxFX 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.
Online HP Offers screen	Click the Online HP Offers 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.
Shop for Supplies screen	Click the Shop for Supplies link in the upper-right corner of the HP ToolboxFX screens.

About HP ToolboxFX

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 2-37 About HP ToolboxFX screen



Support and Troubleshooting

Select **Support and Troubleshooting** to get to a Web page with links to online support for the HP Color LaserJet CP5220 Series printer.

Online HP Offers

Click **HP Instant Support** to gain access to self-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 HP Color LaserJet CP5220 Series printer.

Product Registration

The **Product Registration** link connects to a Web page to register the printer.

Shop for Supplies

The **Shop for Supplies** link connects to a Web page that can be used to order supplies online. The supplies do not come from HP, but from a choice of resellers. The HP Color LaserJet CP5220 Series printer supplies are preselected. Use the options on this screen to change quantities or order additional items. The selected items are dropped into the shopping cart, ready for checkout. This process ensures that the correct supplies are ordered through the selected reseller.

HP Embedded Web Server

The HP Embedded Web Server (HP EWS) is a Web server in the product that allows users to control settings on the HP Color LaserJet CP5220 Series printer through the Web browser. The HP EWS is available only if the HP Color LaserJet CP5220 Series printer is installed through a network rather than a USB connection.

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

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

1. Press **OK** to open the menus.
2. Press the **Left arrow** or **Right arrow** to navigate to **Main menu/Reports**. Press **OK**.
3. Press the **Left arrow** or **Right arrow** to navigate to **Reports/Config report**. Press **OK**.
4. Find the IP address on the printed sheet beneath the **Product Settings** heading.

The following tabs are available in the HP EWS:

- [Status tab](#)
- [System tab](#)
- [Print tab](#)
- [Networking tab](#)

Status tab

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

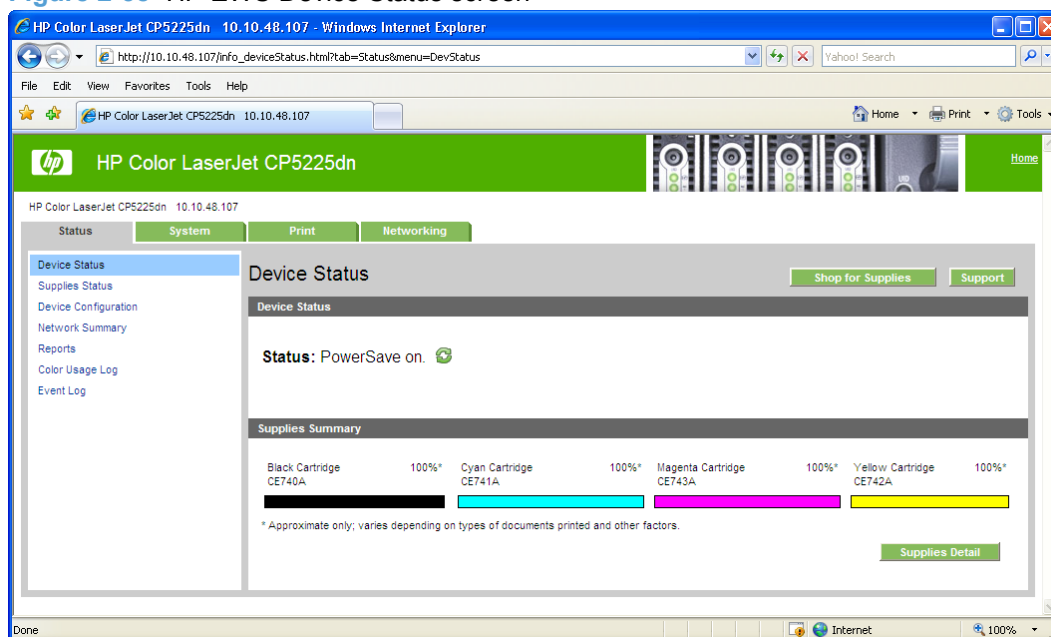
The **Status** tab contains the following screens:

- [Device Status](#)
- [Supplies Status](#)
- [Device Configuration](#)
- [Network Summary](#)
- [Reports](#)
- [Color Usage Job Log](#)
- [Event Log](#)

Device Status

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

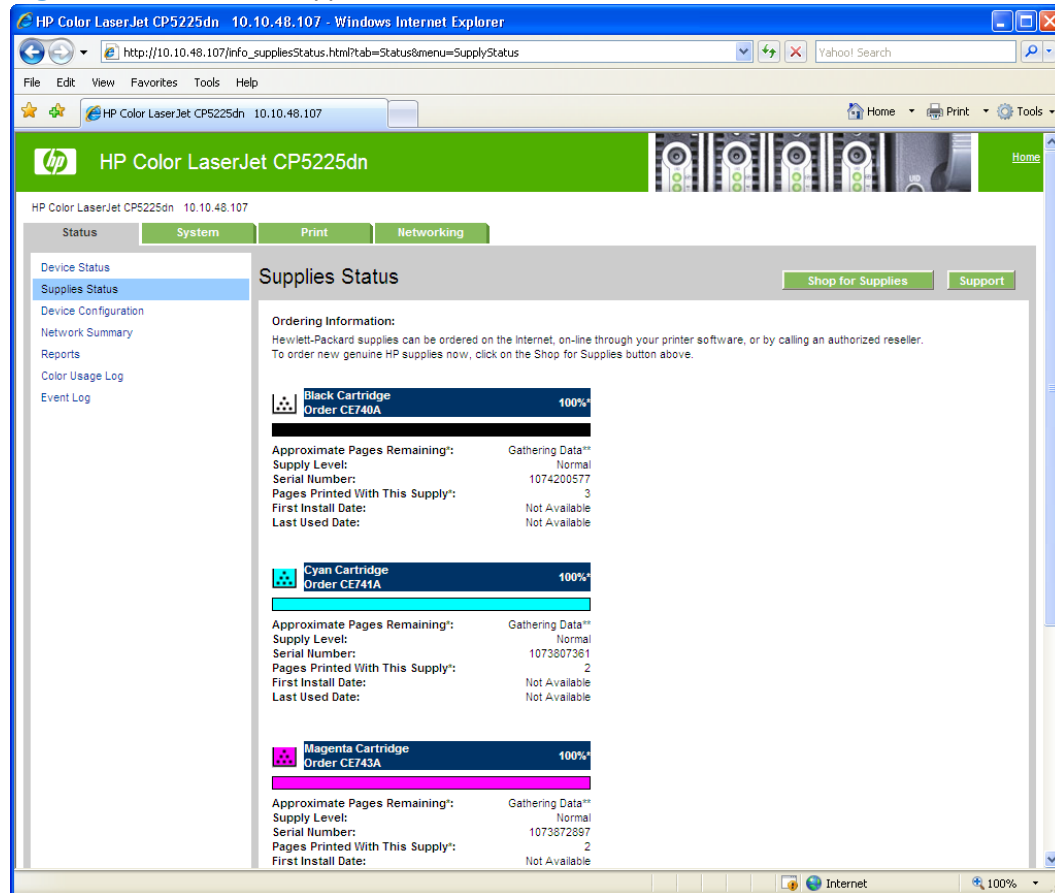
Figure 2-38 HP EWS Device Status screen



Supplies Status

The **Supplies Status** screen provides detailed information about the cyan, magenta, yellow, and black print cartridges. This information is not available if a non-HP cartridge is installed in the product.

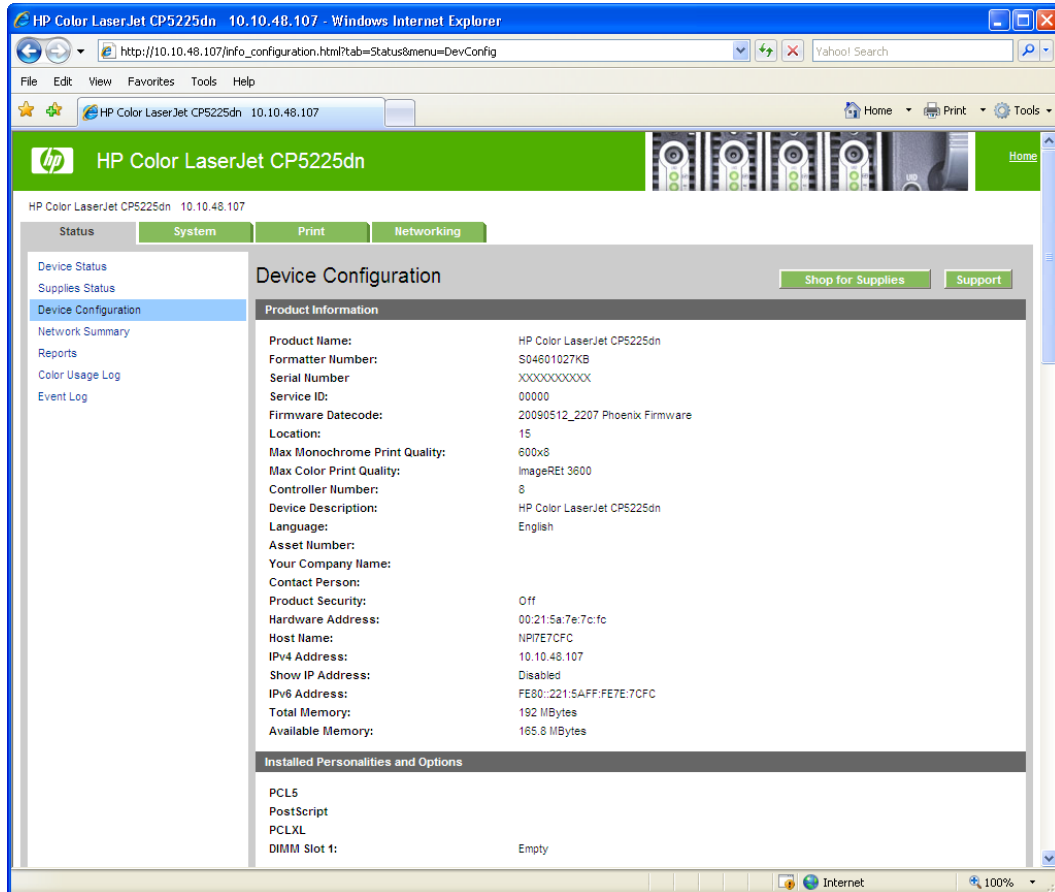
Figure 2-39 HP EWS Supplies Status screen



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 are consistent with the configuration page that the firmware generates.

Figure 2-40 HP EWS 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 are consistent with the configuration page that the firmware generates.

Figure 2-41 HP EWS Network Summary screen

The screenshot shows the HP EWS Network Summary screen in a Windows Internet Explorer browser window. The browser address bar shows the URL `http://10.10.48.107/info_config_network.html?tab=Status&menu=NetConfig`. The page title is "HP Color LaserJet CP5225dn 10.10.48.107". The page has a green header with the HP logo and the product name. Below the header, there are tabs for "Status", "System", "Print", and "Networking". The "Networking" tab is selected. On the left side, there is a navigation menu with links: "Device Status", "Supplies Status", "Device Configuration", "Network Summary" (highlighted), "Reports", "Color Usage Log", and "Event Log". The main content area is titled "Network Summary" and contains three sections: "TCP/IP(v4)", "TCP/IP(v6)", and "Network Identification".

TCP/IP(v4)	
Status:	Ready
IPv4 Address:	10.10.48.107
Subnet Mask:	255.255.255.0
Default Gateway:	10.10.48.1
IP Configured By:	DHCP
DHCP/BOOTP Server:	10.10.48.15
DHCP Expiration Time:	02:22:51 (Days:Hours:Minutes)
WINS Server:	10.10.48.15
Preferred DNS Address:	10.10.48.15
Alternate DNS Address:	10.10.48.34

TCP/IP(v6)	
Status:	Ready
Link-Local Address:	FE80::221:5AFF:FE7E:7CFC
Stateless (from Router):	Not Configured
Stateful (from DHCPv6):	Not Configured

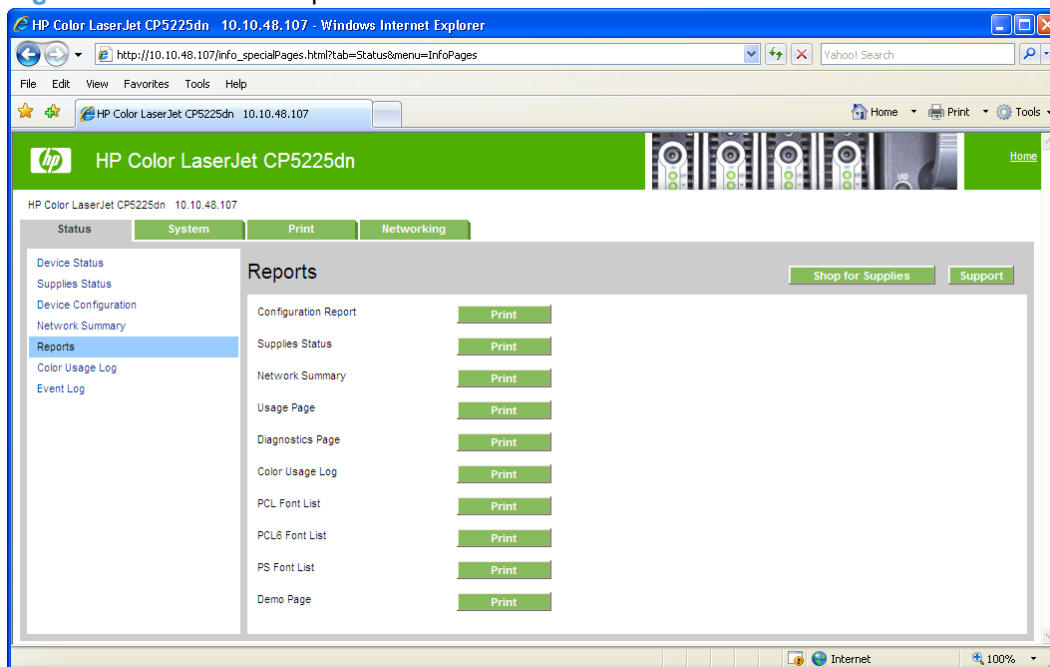
Network Identification	
Host Name:	NP17E7CFC
Domain Name (IPv4/IPv6):	sakson.corp
Domain Name (IPv6 only):	
Bonjour Service Name:	HP Color LaserJet CP5225dn (7E7CFC)
Bonjour Domain Name:	NP17E7CFC.local

Network Hardware Configuration	
Hardware Address:	00:21:5a:7e:7c:fc

Reports

Use the **Reports** screen to print the internal special pages that the product generates. The content of these reports is generated by the product firmware. Click **Print** next to the name of the page to be printed.

Figure 2-42 HP EWS Reports screen

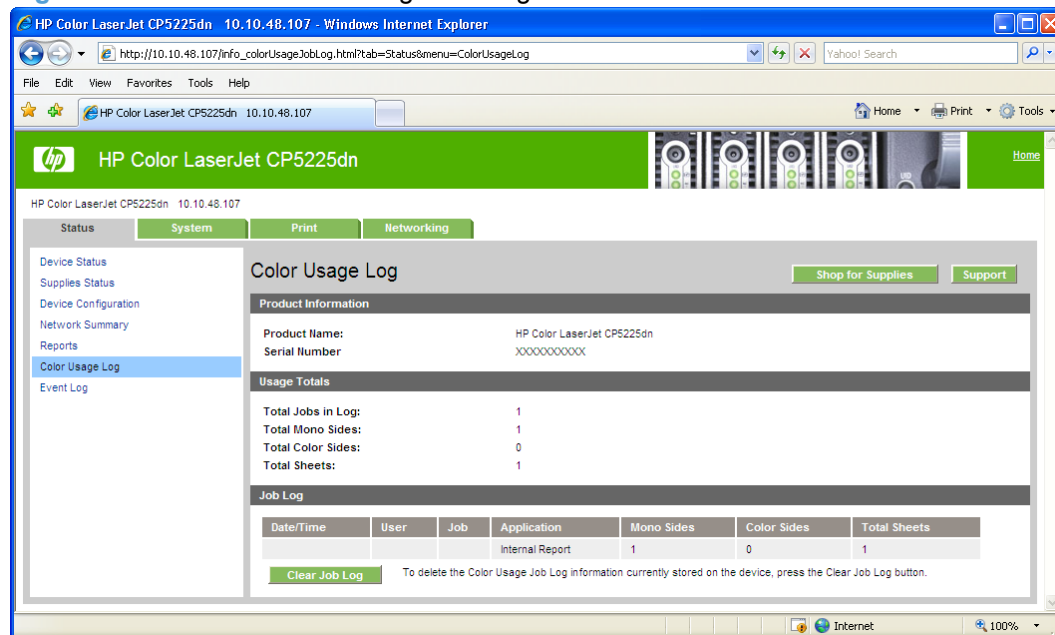


Color Usage Job Log

Use the **Color Usage Job Log** screen to complete the following tasks:

- Find the printer's serial number, which is listed under the **Product Information** subheading.
- Check the number of print jobs stored, which is listed under the **Usage Totals** subheading. The log also includes information about how much color the printer has used.
- Delete the currently stored Color Usage Job Log information by selecting the **Clear Job Log** option.

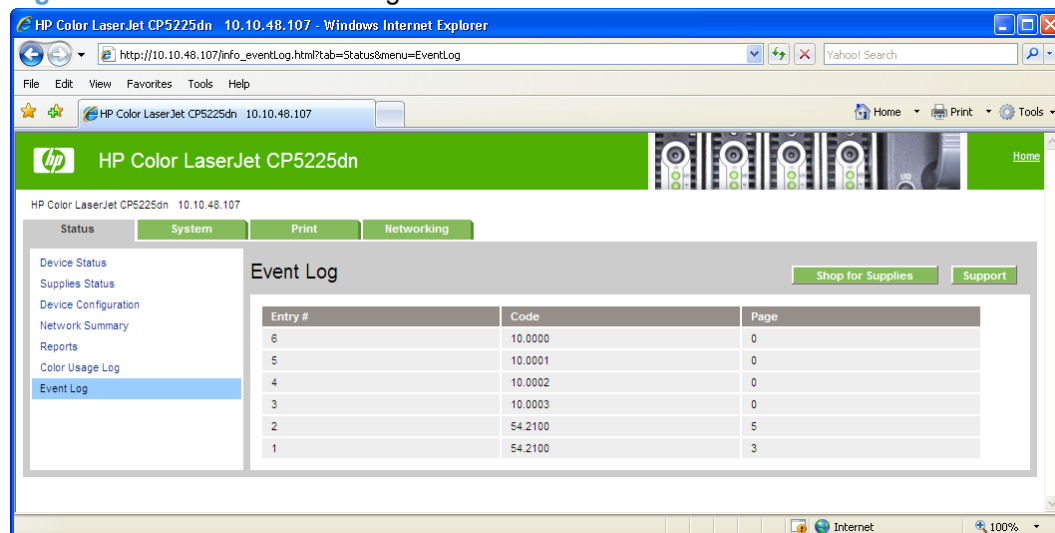
Figure 2-43 HP EWS Color Usage Job Log screen



Event Log

Use the **Event Log** screen to monitor events for the HP Color LaserJet CP5220 Series printer. Up to 10 events can appear on this screen. If this screen is empty, no events have occurred on the printer.

Figure 2-44 HP EWS Event Log screen



System tab

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

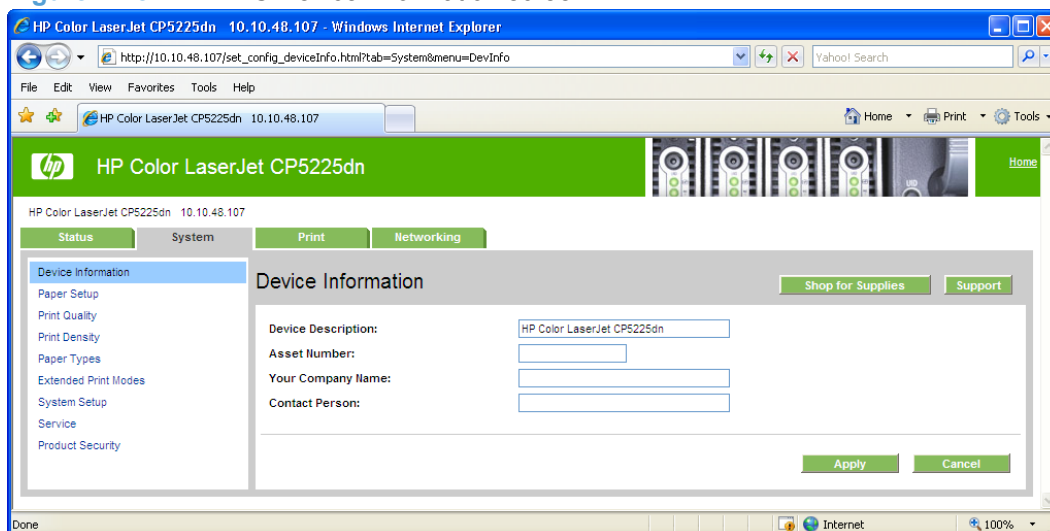
- [Device Information](#)
- [Paper Setup](#)
- [Print Quality](#)
- [Print Density](#)
- [Paper Types](#)
- [Extended Print Modes](#)
- [System Setup](#)
- [Service](#)
- [Product Security](#)

Device Information

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

- **Device Description.** This field shows the version of the HP Color LaserJet CP5220 Series printer that is installed.
- **Asset Number.** Use this field to assign an identifying asset control number to the printer.
- **Company Name.**
- **Contact Person.**

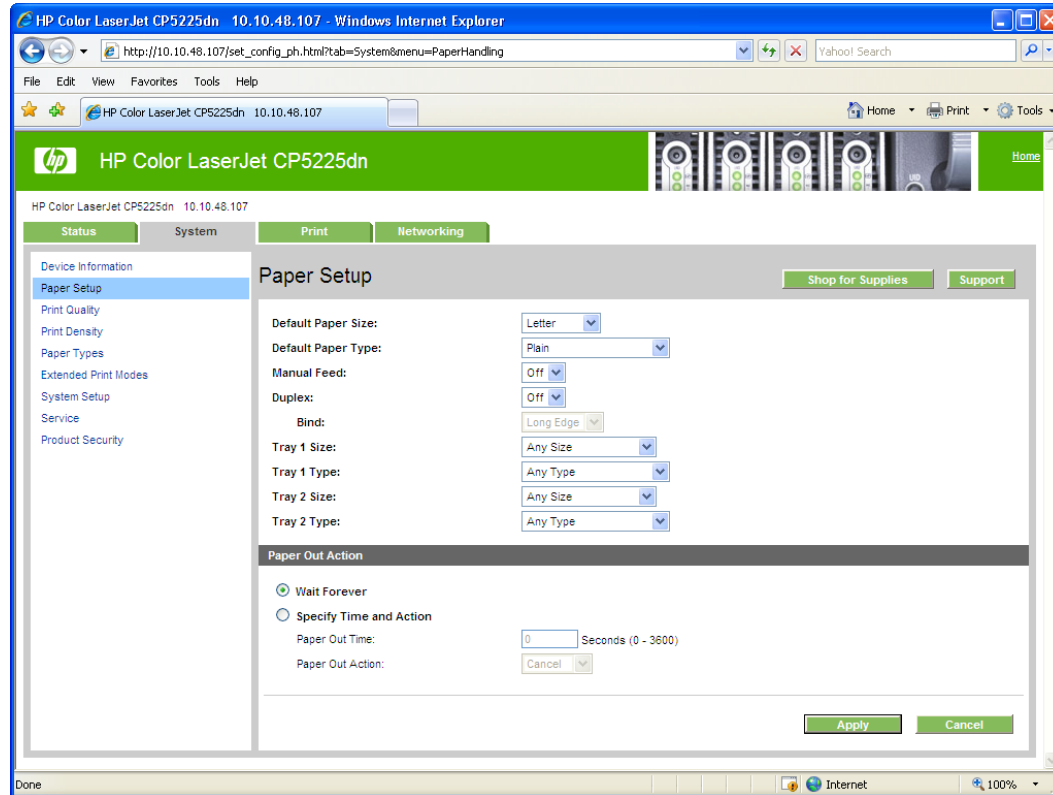
Figure 2-45 HP EWS Device Information screen



Paper Setup

Use this screen to configure the paper-handling defaults for the printer. Change the default settings by clicking the blue arrow next to each option and highlighting the selection. Click **Apply** to save the new settings.


Figure 2-46 HP EWS Paper Setup screen



The following options are available.

- **Default paper size.** This drop-down menu lists all of the supported paper sizes.

Because paper-size settings in most software programs override driver settings, use the driver to set paper size only when printing from software programs that do not include a paper-size setting, such as NotePad, or when producing a book or a booklet that does not require different paper sizes.

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

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

- **Default paper type.** This drop-down menu shows a selection of the paper types that the HP Color LaserJet CP5220 Series printer supports. When you use the default setting, **Unspecified**, the printer uses the default paper type, which is usually **Plain**. For more information about paper types, see [Paper type: on page 178](#).
- **Duplex.** The duplexing unit in the HP Color LaserJet CP5220 Series product prints on two sides of a sheet of paper when the **Print on Both Sides** option is specified in the print job.

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

All paper types support the smart duplexing feature, except for paper types that cannot be printed on both sides (such as labels, transparencies, and envelopes) and the following paper types:

- Prepunched
- Preprinted
- Letterhead

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

For more information about the duplex feature, see [Finishing tab features on page 191](#).

- **Bind.** Binding occurs along either the left edge or the top edge of the page. 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.

For more information about binding, see [Finishing tab features on page 191](#).

- **Tray size and type.** Network administrators can use this feature to specify, in the driver, the paper size that is loaded into each available input tray. The use of forms constrains the choices that are available in the paper-size list on the **Paper/Quality** tab in the **Printing Preferences** driver tab set. This constraint prevents (or reduces the likelihood of) tying up the printer with paper-mount messages that occur when users request sizes or types that are not available.

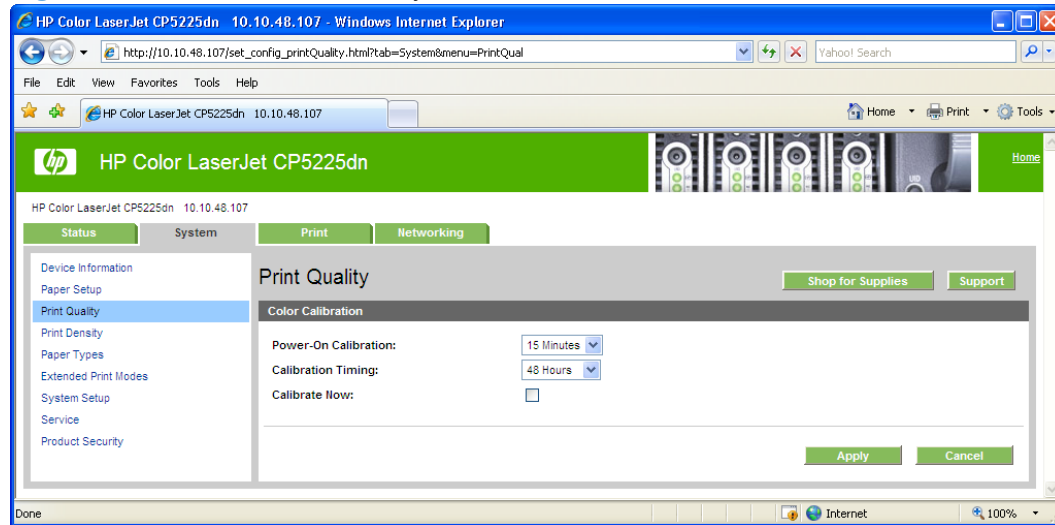
The trays listed on this screen include standard trays and optional accessory trays. Generally, items that are installed separately have a separate **Installable Options** setting.

The input trays listed here are also listed as paper sources on the **Paper/Quality** tab.

Print Quality

Use the **Print Quality** screen to change when and how often the printer calibrates. You can also use the **Calibrate Now** button on this screen to cause the printer to calibrate.

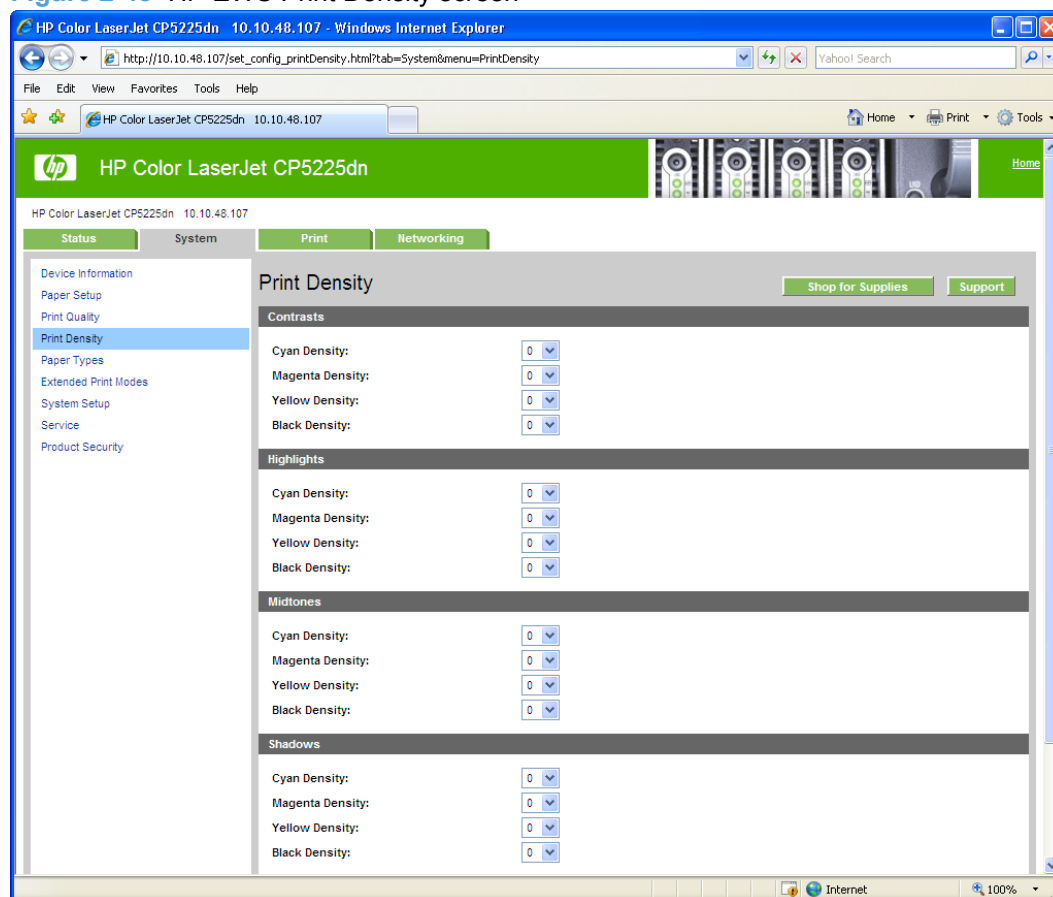
Figure 2-47 HP EWS Print Quality screen



Print Density

Use the settings on the **Print Density** screen to adjust the amount toner the printer uses for images, pages, and documents.

Figure 2-48 HP EWS Print Density screen

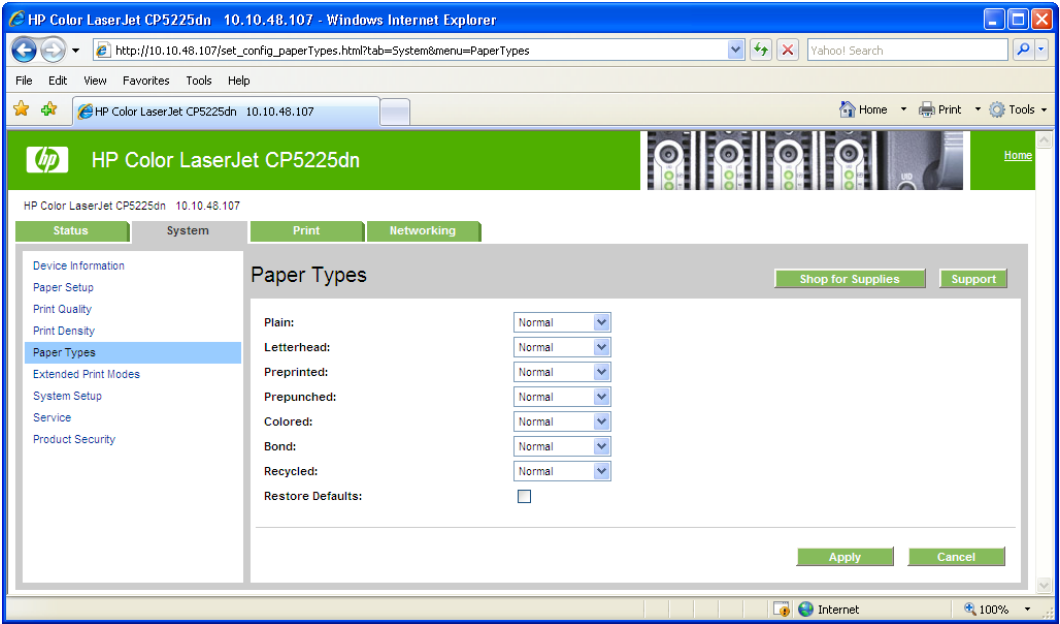


Paper Types

Use the **Paper Types** screen to map the print modes that the printer will use for each paper type.

For more information about Paper Types settings, see [Paper type: on page 178](#).

Figure 2-49 HP EWS Paper Types screen

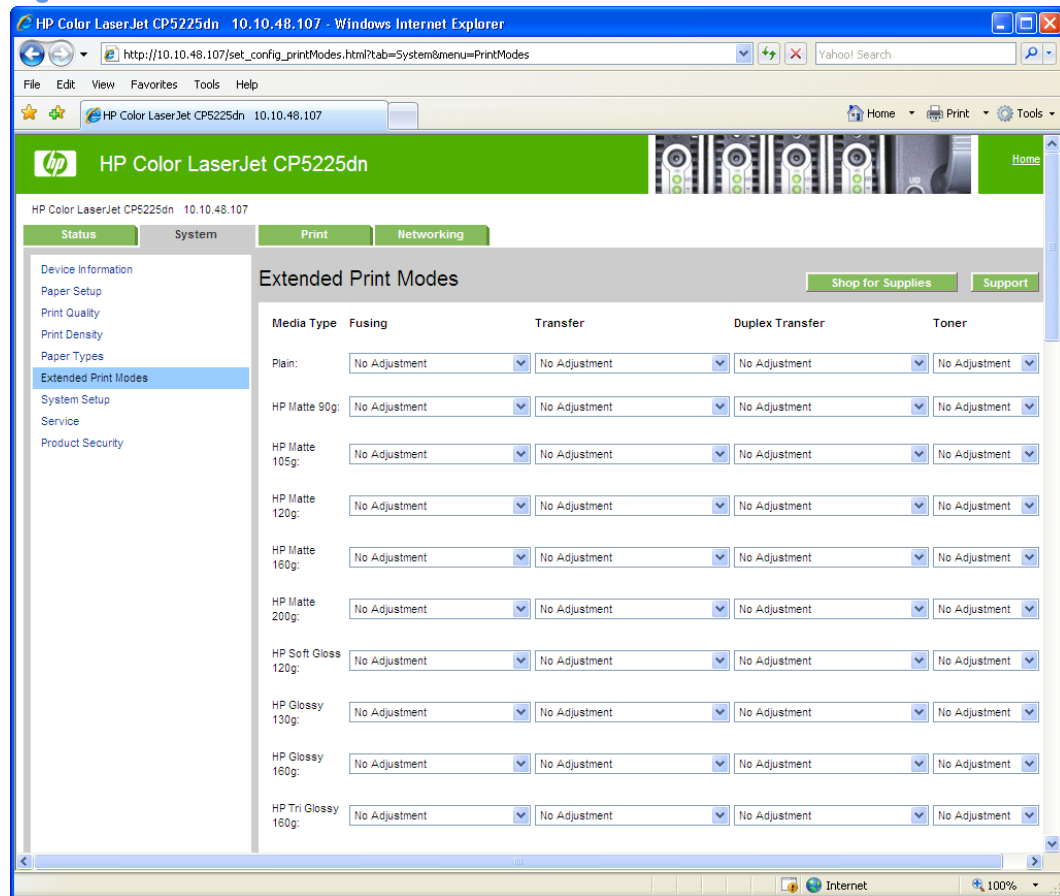


Extended Print Modes

Use the **Extended Print Modes** screen to adjust the printing process to optimize print quality for various paper types and sizes.

For more information about Extended Print Mode settings, see [Extended Print Modes screen on page 56](#).

Figure 2-50 HP EWS Extended Print Modes screen

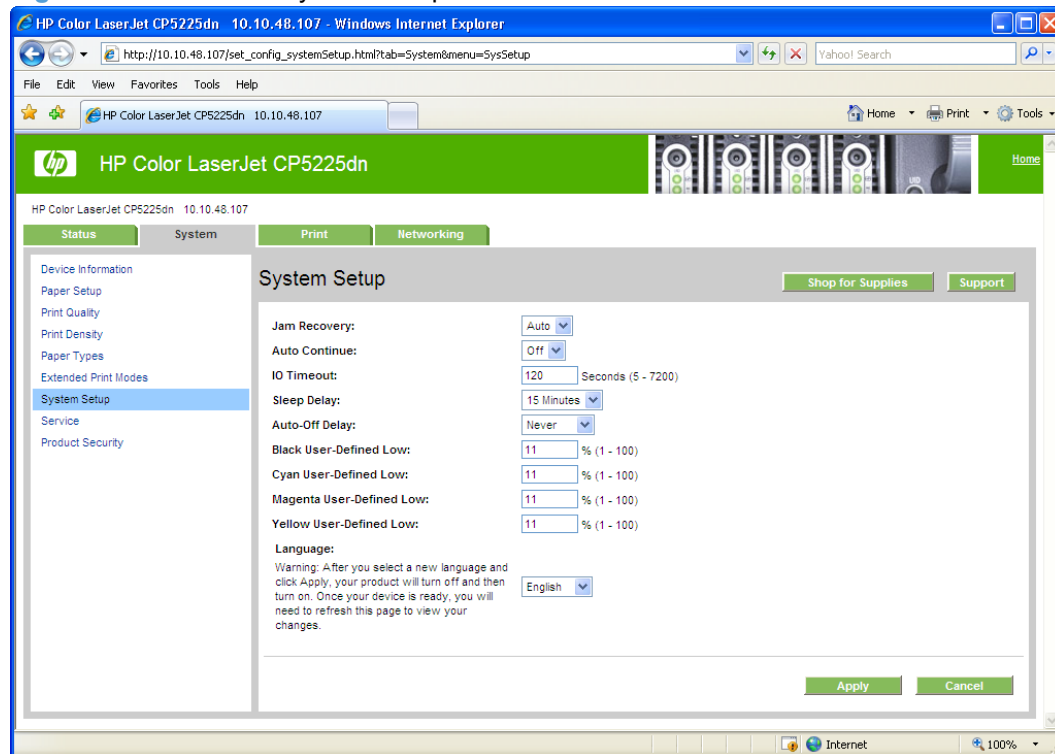


For more information regarding the Optimize menu options, see [Table 2-8 Optimize modes on page 57](#).

System Setup

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

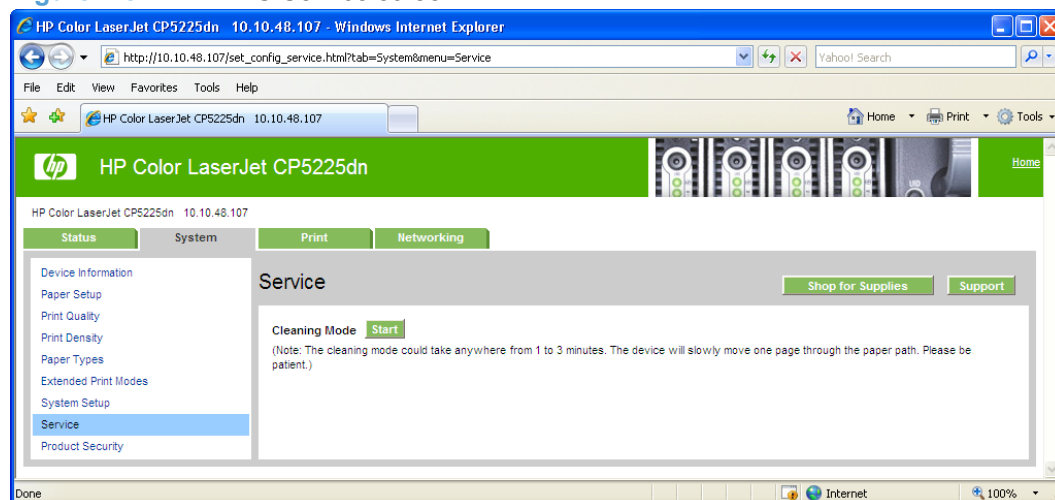
Figure 2-51 HP EWS System Setup screen



Service

Use the **Service** screen to start the cleaning mode procedure on the printer. Follow the instructions on the product control panel to complete the cleaning procedure.

Figure 2-52 HP EWS Service screen

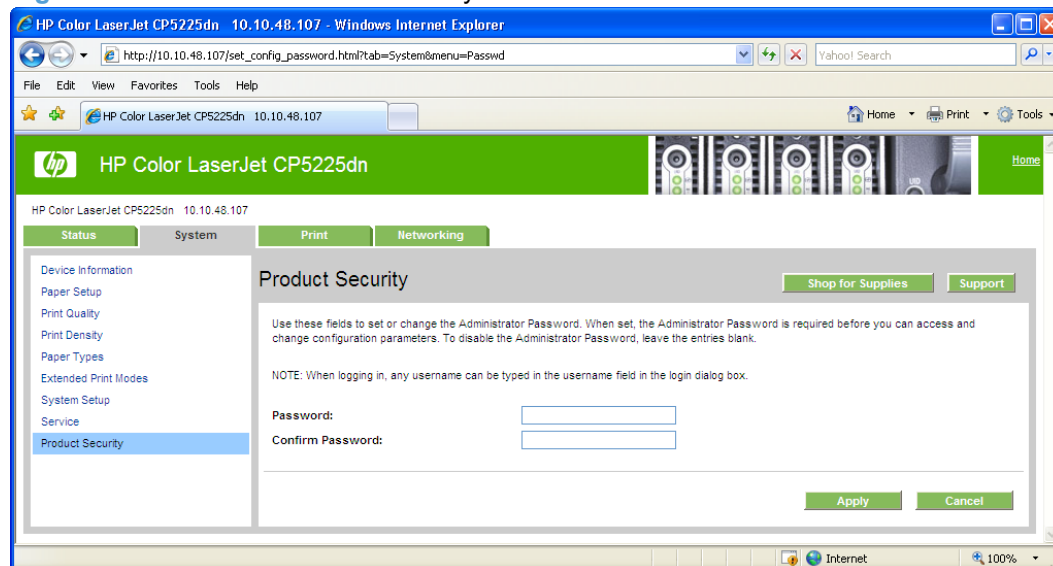


Product Security

Use this screen to set or change the Administrator password.

 **NOTE:** Setting a password on this screen also sets the password for HP ToolboxFX.

Figure 2-53 HP EWS Product Security screen



Print tab

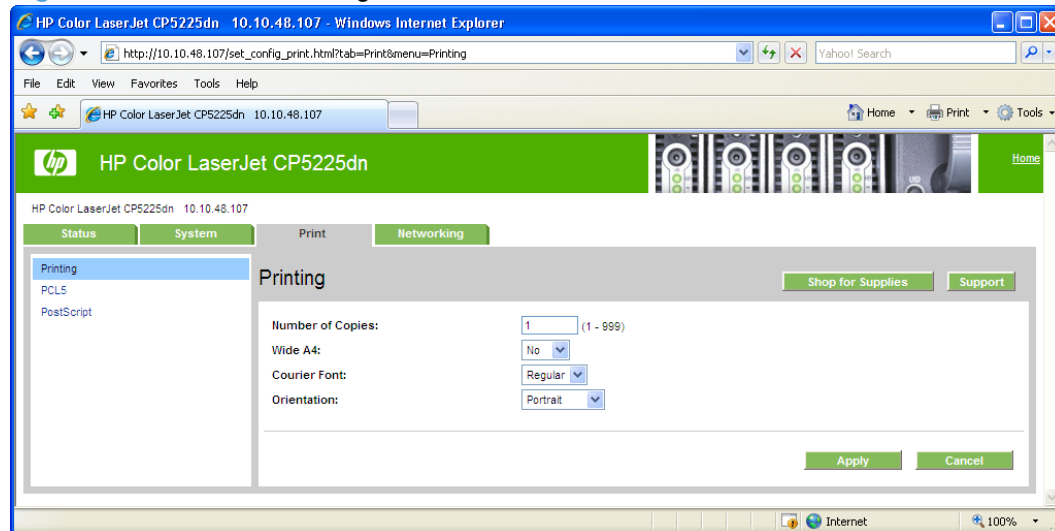
Use the **Print** tab to view and change print settings. The following screens are available:

- [Printing](#)
- [PCL5](#)
- [PostScript](#)

Printing

Use the **Printing** screen to change the printing defaults for the printer.

Figure 2-54 HP EWS Printing screen



- **Copies.** This setting 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 **Copies** option. Select the number by typing in the box or by using the up and down arrows on the right side of the text box. For the HP Color LaserJet CP5220 Series printer, valid entries are numbers from 1 to 9999. The copies value will not advance from the maximum number (9999) to 1 when the up arrow is used, or change from 1 to the maximum number (9999) when the down arrow is used.

Invalid entries into the edit box (such as non-numerical input, numbers less than 1, or numbers greater than 9999) change to the last valid value that appeared in the box. The default number of copies is 1.

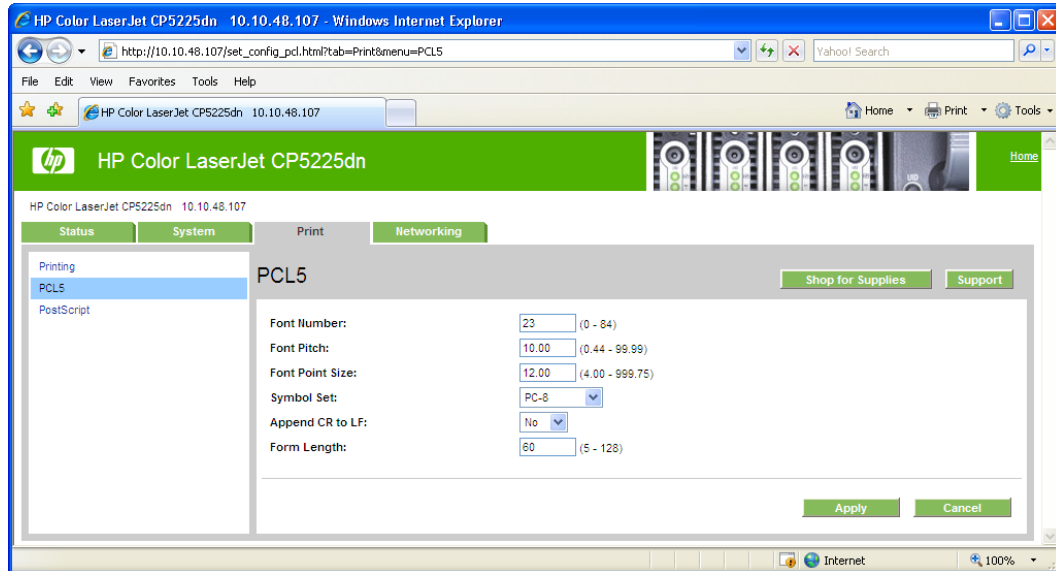
Problems can develop when a software program and the driver it is running on both allow the user to set the number of copies to print. In most cases, the software program and the driver communicate, so that the number of copies set in one location (such as the program) appears in the other (such as the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

- **Orientation.** Use this feature to choose the direction of the print job.
 - **Portrait.** The top edge of the document is the shorter edge of the paper. This is the default setting.
 - **Landscape.** The top edge of the document is the longer edge of the paper.

PCL5

Use the **PCL5** screen to change font information and form length.

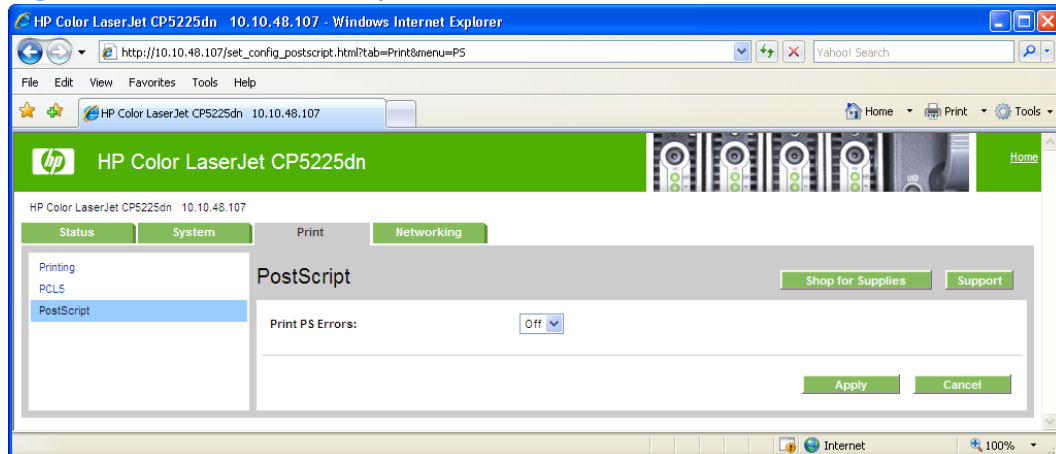
Figure 2-55 HP EWS PCL5 screen



PostScript

Use the **PostScript** screen to turn postscript error printing on or off.

Figure 2-56 HP EWS PostScript screen



The **Print PostScript errors** setting specifies whether a PS error-handler message is sent. To get the printer to print an error page when an error occurs in the print job, click **On**.

Networking tab

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

- [Network Summary](#)
- [IPv4 Configuration](#)

- [IPv6 Configuration](#)
- [Network Identification](#)
- [Advanced](#)
- [SNMP](#)

Network Summary

The **Network Summary** screen that appears on the Networking tab is the same screen that appears on the Status tab. See the [Network Summary on page 78](#) in the Status tab section for more information about this screen.

IPv4 Configuration

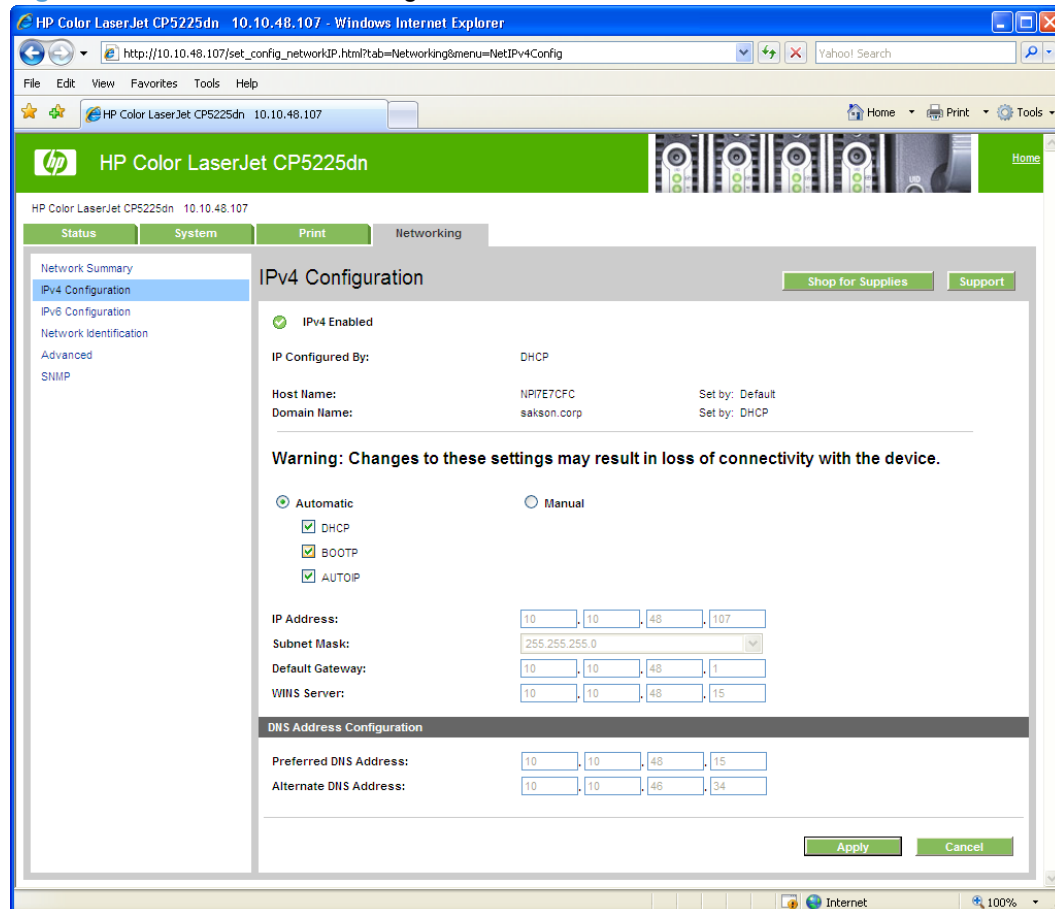
Use the **IPv4 Configuration** screen to modify settings for basic TCP/IPv4 Network configuration.

If **Automatic IP** is configured, the **Manual IP** Address configuration settings are disabled, but the values for these settings are still displayed if they have been set.

If the configuration is switched from **Automatic IP** to **Manual IP**, the IP Address fields are cleared, and the desired IP Address must be entered before continuing.

Click **Apply** to keep changes. When **Apply** is clicked, a confirmation dialog asks for confirmation. Click **Yes** to continue.

Figure 2-57 HP EWS IPv4 Configuration screen

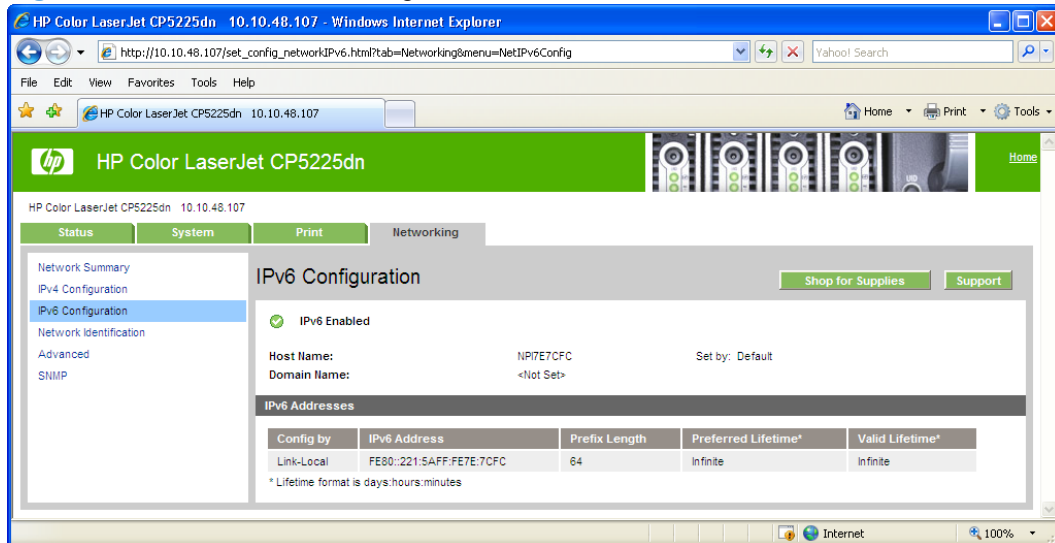


IPv6 Configuration

The **IPv6 Configuration** screen shows the status of the IPv6 Network configuration settings. This screen is read-only and no settings can be modified here.

Up to seven IPv6 addresses can be shown on this screen, depending upon the automatic configuration of the networking firmware. All available IPv6 addresses are shown.

Figure 2-58 HP EWS IPv6 Configuration screen



Network Identification

Use the **Network Identification** screen to configure the host name and domain name(s) used to identify the product on the network.

The values for host name and domain names are retrieved from the firmware and displayed on this screen. The networking firmware determines what host name and domain name(s) to use and cannot be modified.

The text entries are disabled under certain circumstances. The following table defines when the entities are disabled.

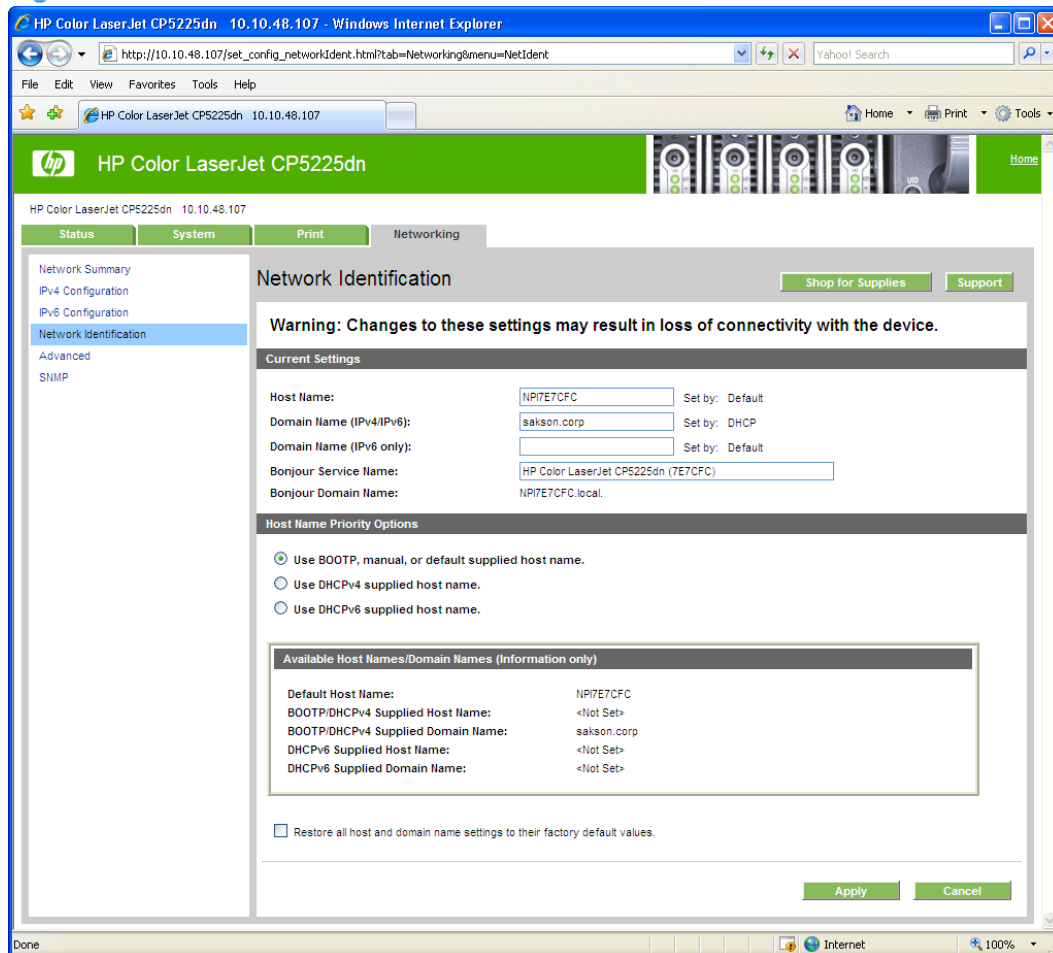
Table 2-13 Network Identification screen – Text entries

Text entry	Disabled status
Host name	Disabled if configured by BOOTP
Domain name (IPv4/IPv6)	Disabled if configured by BOOTP, DHCPv4, or DHCPv6

Table 2-13 Network Identification screen – Text entries (continued)

Text entry	Disabled status
Domain name (IPv6)	Disabled if configured by DHCPv6
Bonjour Service name	Disabled if Bonjour is disabled

Figure 2-59 HP EWS Network Identification screen



Advanced

Use the **Advanced** screen to configure the enabled settings and other settings, such as link speed, for the printer.

Figure 2-60 HP EWS Advanced screen

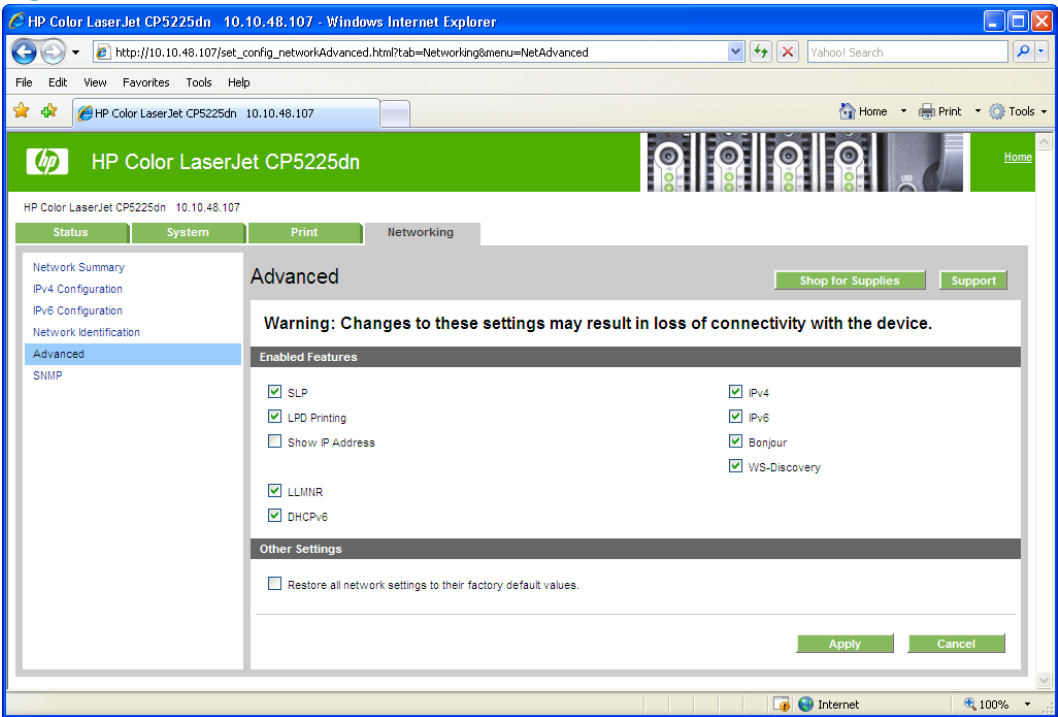


Table 2-14 Advanced Network Settings options and settings

Option	Settings
Enabled Features	<ul style="list-style-type: none">• HP SLP Discovery (enabled by default)• LPD Printing (enabled by default)• Show IPv4 address on control panel• IPv4• IPv6• Bonjour• WS-Discovery• DHCPv6
Other Settings	Restore all network settings to their factory default values.

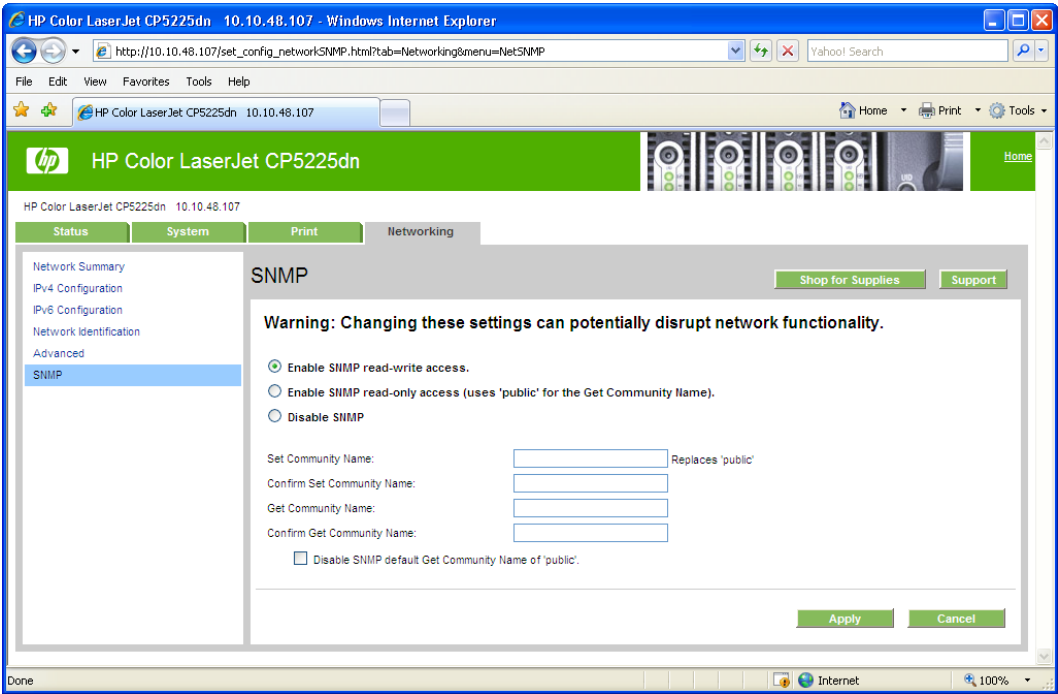


NOTE: Click **Apply** to make the changes take effect.

SNMP

Use this screen to configure the SNMP networking settings for the printer.

Figure 2-61 HP EWS SNMP screen



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

Options	Description
Enable SNMP v1 read-write access	Select this option to enable SNMP v1 agents on the printer. Custom community names can be configured to control management access to the HP Color LaserJet CP5220 Series printer. These community name settings appear on the lower half of the screen.
Set Community name:	Type the SNMP Set Community Name (password) to allow SNMP information to be configured (or written) on the printer.
Confirm Set Community name:	Retype the SNMP Set Community Name (password) to allow SNMP information to be configured (or written) on the printer.
Get Community name:	Type the SNMP Get Community Name (password) to allow SNMP information to be read from the printer.
Confirm Get Community name:	Retype the SNMP Get Community Name (password) to allow SNMP information to be read from the printer.
Disable SNMP v1 default Get Community name of "public"	Select this option to disable the default Get community name "public". After selecting this option, type the values in the Get Community name and Confirm Get Community name fields.

Enable SNMP v1 read-only access (uses “public” for the Get Community value)	Select this option to enable the SNMP v1 agents on the HP Color LaserJet CP5220 Series printer, but limit access to read-only. Write-access is disabled. The default Get Community name “public” is automatically enabled.
Set Community name:	Type the SNMP Set Community Name (password) to allow SNMP information to be configured (or written) on the printer.
Configure Get Community name:	
Disable SNMP v1 default Get Community name of “public”:	Select this option to disable the default Get community name “public”. After selecting this option, type the values in the Get Community name and Confirm Get Community name fields.
Disable SNMP v1	Select this option to disable the SNMP v1 agents on the HP Color LaserJet CP5220 Series printer, which is recommended for secure environments. If SNMP v1 is disabled, some port monitors or discovery utilities might not operate properly.
Apply	Click Apply to make the changes take effect.

HP Web Jetadmin

HP Web Jetadmin is a browser-based management tool for HP Jetdirect-connected printers within your intranet, and it should be installed only on the network administrator's computer.

To download a current version of HP Web Jetadmin and for the latest list of supported host systems, visit www.hp.com/go/webjetadmin.

When installed on a host server, a Windows client can gain access to HP Web Jetadmin by using a supported Java-enabled Web browser (such as Microsoft Internet Explorer or Netscape Navigator) by navigating to the HP Web Jetadmin host.

HP Customer Participation Program

The HP Customer Participation Program is HP's voluntary program for communication between the computer and HP to help HP monitor toner usage. HP Customer Participation Program is installed automatically by the HP Color LaserJet CP5220 Series printing-system software installation.

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

Optional software

The following options are available on the **Install More Software** window on the CD browser after the printing-system software is installed.

Universal Print Driver

Click the **Universal Print Driver** option to go to the following HP Web site to download the universal print driver.

www.hp.com/go/upd

Go to the following Web site to download a universal print driver specific to your product.

www.hp.com/support/ljcp5220series

Basic Color Match

HP Basic Color Match software allows you to adjust spot color in your printed output. For example, you can match the color of your company logo on your printed output. You can save and use the new color schemes for specific documents or all printed documents, or you can create multiple color schemes that you can choose from later.

Click the **Basic Color Match** option to go to the following HP Web site to download the HP Basic Color Match software.

www.hp.com/go/basiccolormatch

HP Easy Printer Care

With HP Easy Printer Care software, you can manage and monitor up to 15 printers from a computer desktop. HP Easy Printer Care software allows you to view the product status, create usage reports, reorder supplies, and troubleshoot and repair products via HP Proactive Support.



NOTE: The HP Easy Printer Care Software will be available for the HP Color LaserJet CP5220 Series printer in late 2009.

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 Smart Web Printing

Click the **HP Smart Web Printing** option to go to the HP Smart Web Printing free download page.

www.hp.com/go/smartwebprinting

HP Smart Web Printing software enhances the browsing experience by fixing problems that are encountered when printing Web pages.

Supported operating systems

- Microsoft Windows 2000
- Microsoft Windows XP
- Microsoft Vista

Requirements

- Internet Explorer 6.0 and higher
- 16 MB of hard disk space
- 800 x 600 monitor with 16-bit or higher color depth

Features

- Automatically scales output to fix right-edge clipping and eliminate wasteful prints containing clipped pages or a few lines of useless text
- Provides a preview with automatic fixes and more control over printed output
- Allows users to select text and graphics easily from any Web site and save a handy list of clips
- Provides a Clip Book pane that can be hidden (similar to IE Favorites, Search, and History panes)
- Provides a Print Clip window to compose and modify clips before printing

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.

Font support

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

Basic fonts

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

- Arial
- Courier New Italic
- Times New Roman Italic
- Arial Italic
- Courier New Bold
- Times New Roman Bold
- Arial Bold
- Courier New Bold Italic
- Times New Roman Bold Italic
- Arial Bold Italic
- Symbol
- Wingdings
- Courier New
- Times New Roman

Default fonts

The following default fonts are installed through an installation of the HP Color LaserJet CP5220 Series printing-system software.

Table 2-15 Default fonts

Font name	Font style	File name
Albertus Extra Bold	Regular	ALBR85W.TTF
Albertus Medium	Regular	ALBR55W.TTF
Antique Olive	Regular	OLVR55W.TTF
Antique Olive	Bold	OLVR75W.TTF
Antique Olive	Italic	OLVR56W.TTF
CG Omega	Regular	CGOR45W.TTF
CG Omega	Bold	CGOR65W.TTF
CG Omega	Bold Italic	CGOR66W.TTF

Table 2-15 Default fonts (continued)

Font name	Font style	File name
CG Omega	Italic	CGOR46W.TTF
CG Times	Regular	CGTR45W.TTF
CG Times	Bold	CGTR65W.TTF
CG Times	Bold Italic	CGTR66W.TTF
CG Times	Italic	CGTR46W.TTF
Clarendon Condensed	Bold	CLAR67W.TTF
Coronet	Regular	CORONET.TTF
CourierPS	Regular	CPSR45W.TTF
CourierPS	Bold	CPSR65W.TTF
CourierPS	Bold Oblique	CPSR66W.TTF
CourierPS	Oblique	CPSR46W.TTF
Garamond	Antiqua	GARR45W.TTF
Garamond	Halbfett	GARR65W.TTF
Garamond	Kursiv	GARR46W.TTF
Garamond	Kursiv Halbfett	GARR66W.TTF
Helvetica®	Regular	HELR45W.TTF
Helvetica	Bold	HELR65W.TTF
Helvetica	Bold Oblique	HELR66W.TTF
Helvetica Narrow	Regular	HELR47W.TTF
Helvetica Narrow	Bold	HELR67W.TTF
Helvetica Narrow	Bold Oblique	HELR68W.TTF
Helvetica Narrow	Oblique	HELR48W.TTF
Helvetica	Oblique	HELR46W.TTF
ITC Avant Garde Gothic	Book	AVGR45W.TTF
ITC Avant Garde Gothic	Book Oblique	AVGR46W.TTF
ITC Avant Garde Gothic Demi	Regular	AVGR65W.TTF
ITC Avant Garde Gothic Demi	Oblique	AVGR66W.TTF
ITC Bookman Light	Regular	BOKR35W.TTF
ITC Bookman Light	Italic	BOKR36W.TTF
ITC Bookman Demi	Regular	BOKR75W.TTF
ITC Bookman Demi	Italic	BOKR76W.TTF
ITC Zapf Chancery	Medium Italic	CHANC____.TTF
ITC Zapf Dingbats	Regular	DINGS____.TTF
Letter Gothic	Regular	LETR45W.TTF

Table 2-15 Default fonts (continued)

Font name	Font style	File name
Letter Gothic	Bold	LETR65W.TTF
Letter Gothic	Italic	LETR46W.TTF
Marigold	Regular	MARIGOLD.TTF
New Century Schoolbook	Bold	NCSR75W.TTF
New Century Schoolbook	Bold Italic	NCSR76W.TTF
New Century Schoolbook	Italic	NCSR56W.TTF
New Century Schoolbook	Roman	NCSR55W.TTF
Palatino	Bold	PALR65W.TTF
Palatino	Bold Italic	PALR66W.TTF
Palatino	Italic	PALR46W.TTF
Palatino	Roman	PALR45W.TTF
SymbolPS	Regular	SYMP5___.TTF
Times*	Bold	TIMR65W.TTF
Times	Bold Italic	TIMR66W.TTF
Times	Italic	TIMR46W.TTF
Times	Roman	TIMR45W.TTF
Univers	Bold	UNVR65W.TTF
Univers	Bold Italic	UNVR66W.TTF
Univers Condensed	Bold	UNVR67W.TTF
Univers Condensed	Bold Italic	UNVR68W.TTF
Univers Condensed	Medium	UNVR57W.TTF
Univers Condensed	Medium Italic	UNVR58W.TTF
Univers	Medium	UNVR55W.TTF
Univers	Medium Italic	UNVR56W.TTF

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

Table 2-16 Additional postscript emulation fonts

Font name	Font style	File name
Albertus MT	Regular	PS_12639.TTF
Albertus MT	Italic	PS_12640.TTF
Albertus MT Lt	Regular	PS_14530.TTF
Antique Olive CompactPS	Regular	PS_11120.TTF
Antique Olive Roman	Regular	PS_11119.TTF
Antique Olive Roman	Bold	PS_11118.TTF

Table 2-16 Additional postscript emulation fonts (continued)

Font name	Font style	File name
Antique Olive Roman	Italic	PS_11846.TTF
Apple Chancery	Italic	PS_24516.TTF
Bodoni Poster	Regular	PS_12704.TTF
Bodoni PosterCompressed	Regular	PS_14508.TTF
BodoniPS	Regular	PS_12581.TTF
BodoniPS	Bold	PS_12585.TTF
BodoniPS	Bold Italic	PS_12586.TTF
BodoniPS	Italic	PS_12582.TTF
Candid	Regular	PS_24517.TTF
Chicago	Regular	PS_24518.TTF
Clarendon Light	Regular	PS_14513.TTF
ClarendonPS	Regular	PS_10269.TTF
ClarendonPS	Bold	PS_12968.TTF
Cooper Black	Regular	PS_10369.TTF
Cooper Black	Italic	PS_10370.TTF
Copperplate32bc	Regular	PS_14514.TTF
Copperplate33bc	Regular	PS_14515.TTF
CoronetPS	Italic	PS_10249.TTF
Eurostile	Regular	PS_10267.TTF
Eurostile Bold	Regular	PS_10268.TTF
Eurostile ExtendedTwo	Bold	PS_14512.TTF
Eurostile ExtendedTwo	Regular	PS_14511.TTF
Geneva	Regular	PS_24509.TTF
GillSans	Regular	PS_13872.TTF
GillSans	Bold	PS_13874.TTF
GillSans	Bold Italic	PS_13875.TTF
GillSans Condensed	Regular	PS_14053.TTF
GillSans Condensed	Bold	PS_14054.TTF
GillSans ExtraBold	Regular	PS_14051.TTF
GillSans	Italic	PS_13873.TTF
GillSans Light	Italic	PS_13871.TTF
GillSans Light	Regular	PS_13870.TTF
Goudy	Bold	PS_12544.TTF
Goudy	Bold Italic	PS_10695.TTF

Table 2-16 Additional postscript emulation fonts (continued)

Font name	Font style	File name
Goudy	Regular	PS_12542.TTF
Goudy ExtraBold	Regular	PS_12545.TTF
Goudy	Italic	PS_12543.TTF
Helvetica Condensed	Regular	PS_14526.TTF
Helvetica Condensed	Bold	PS_14528.TTF
Helvetica Condensed	Bold Italic	PS_14529.TTF
Helvetica Condensed	Italic	PS_14527.TTF
Hoefler Text	Regular	PS_24519.TTF
Hoefler Text Black	Regular	PS_24521.TTF
Hoefler Text Black	Italic	PS_24522.TTF
Hoefler Text	Italic	PS_24520.TTF
Hoefler Text Ornaments	Regular	PS_24523.TTF
Joanna MT	Regular	PS_14503.TTF
Joanna MT	Bold	PS_14505.TTF
Joanna MT	Bold Italic	PS_14506.TTF
Joanna MT	Italic	PS_14504.TTF
Letter Gothic	Italic	PS_13778.TTF
Letter GothicPS	Regular	PS_13777.TTF
Letter GothicPS	Bold	PS_13779.TTF
Letter GothicPS	Bold Italic	PS_13780.TTF
Lubalin Graph	Regular	PS_12675.TTF
Lubalin Graph	Bold	PS_12677.TTF
Lubalin Graph	Bold Italic	PS_12625.TTF
Lubalin Graph	Italic	PS_12623.TTF
MarigoldPS	Regular	PS_94073.TTF
Mona Lisa Recut	Regular	PS_14525.TTF
Monaco	Regular	PS_24524.TTF
New York	Regular	PS_24510.TTF
Optima	Regular	PS_12506.TTF
Optima	Bold	PS_12510.TTF
Optima	Bold Italic	PS_12511.TTF
Optima	Italic	PS_12507.TTF
Oxford	Italic	PS_14072.TTF
StempelGaramond Roman	Italic	PS_11546.TTF

Table 2-16 Additional postscript emulation fonts (continued)

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

3 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 document provides procedures for installing and removing the printing-system software for Windows operating systems.

- [Supported operating systems for Windows](#)
- [Installation overview](#)
- [Detailed Microsoft Windows installation instructions](#)
- [Install additional software](#)
- [User uninstall software](#)

Supported operating systems for Windows

The product supports the following Windows operating systems:

- Windows Vista (Starter Edition, 32-bit, and 64-bit)
- Windows XP (32-bit, Service Pack 2)
- Windows XP (64-bit, Service Pack 1)
- Windows Server 2008 (32-bit)
- Windows Server 2003 (Service Pack 1)
- Windows 2000 (Service Pack 4)

Windows operating system requirements

System requirements for 32-bit operating systems

- Pentium or compatible processor
- Windows Vista: 800 MHz processor with 512 MB RAM
- Microsoft Windows XP: 333 MHz processor with 128 MB RAM
- Microsoft Windows Server 2003: 550 MHz processor with 128 MB RAM (Standard Edition) and 220 MB of available hard drive space
- Microsoft Windows 2000: 333 MHz processor with 64 MB RAM
- Minimum 16-color/grayscale display with 640 x 480 pixel resolution (video graphics array [VGA])
- USB port (USB 1.1 or 2.0), or network connection
- CD-ROM drive or Internet connection

System requirements for 64-bit operating systems

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

Installation overview

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



NOTE: For a list of print drivers and updated HP product software, go to www.hp.com/go/ljcp5220series_software.

The following drivers are not included on the CD, but are available from www.hp.com/go/ljcp5220series_software.

- HP PostScript (PS) Universal Print Driver
- Linux drivers
- UNIX

Installation is similar for all supported Windows operating systems.

For Windows systems, the person installing the software must have administrator rights on the system.

When the HP Color LaserJet CP5220 Series printing-system installer runs, the HP LaserJet uninstaller is added to the system.

- [Software installation types for Windows](#)
- [Install drivers using a CD](#)

Software installation types for Windows

The software installer instructs you when to connect the product to a computer or a network. At that point in the process, the installer determines the operating system and determines whether to perform a “full” installation or a “minimal” installation. Note that, unlike previous products, the installer interface does not provide a means to choose which installation package gets installed. The software makes this decision automatically.

After the initial installation, the user can choose to install more software by clicking the **Install More Product Software** button in the Welcome Back screen.

The following operating systems support the “full” installation of recommended software.

- Windows Vista 32-bit
- Windows Vista 64-bit
- Windows XP, Service Pack 2


The following operating systems support the “minimal” installation, which does not include the recommended software.

- Windows Vista Starter Edition
- Windows Vista Server 2008, 32 bit
- Windows XP 64-bit, Service Pack 1

- Windows Server 2003, Service Pack 1
- Windows 2000, Service Pack 4

Install drivers using a CD


Use the following instructions to install the print driver only.

 **NOTE:** Add Printer installs are not recommended unless the print port already exists. An HP port can be created by installing the HP Install Network Printer Wizard available at www.hp.com.


1. Click the **Start** button, and then do one of the following:
 For Windows 2000: Select **Settings**, and then click **Printers**.
-or-
 For Windows Server 2003 and Windows XP Professional: Click the **Printers and Faxes** menu item.
-or-
 For Windows XP Home: Click the **Control Panel** menu item, and then double-click the **Printers and Faxes** icon.
-or-
 For Windows Vista: Click the **Computer** item, click the **Control Panel** item, and then click the **Hardware and Sound** item.
2. Double-click the **Add Printer** icon, and then click the **Next** button.
3. When asked if the product is a local or network product, select local, and then click **Next**.
4. You might need to first select the product from the list or type a TCP/IP address. If the print driver is not available, the Add Printer Wizard dialog box appears. Click the **Have Disk** option on the wizard screen.
5. Insert the printing-system software CD into the CD-ROM drive.
6. To install the PCL 6 print driver, navigate to the root folder of the CD, and then click the **OK** button. The Install Printer Software dialog box appears. Select the print driver for the product, and then click the **OK** button.
7. Complete the installation. When prompted, print a test page to ensure that the print driver is installed correctly.

Detailed Microsoft 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 the product software is installed.

 **NOTE:** Do *not* connect the USB or network cable until prompted to do so by the installer program.

1. Close out of all other programs.
2. Insert the printing-system software CD into the CD-ROM drive.

 **NOTE:** If the CD does not start automatically, click the **Start** button, click the **Run** menu item, navigate to the CD-ROM root directory, and then double-click the **Autorun.exe** file.

3. The Animated Getting Started Guide starts. Perform one of the following options.
 - Click the **Begin Setup** button to start the Animated Getting Started Guide. Follow the guide instructions to unpack and set up a new product. For detailed information about the guide, see .
 - Click the **Install Product Software**, to continue to the CD browser Welcome window. For detailed information about installing the software, see .

Animated Getting Started Guide (GSG)

The printing-system software CD includes an Animated Getting Started Guide. This guide includes instructions for preparing the product for use and the initial software install.

- [Setup and installation instructions](#)

Setup and installation instructions

This section includes instructions for product setup and steps towards installing the driver software from the CD.

1. Close all programs.

2. Insert the printing-system software CD into the CD-ROM drive. The welcome screen of the Animated Getting Started Guide opens.



 **NOTE:** If the guide does not start automatically, click the **Start** button, click the **Run** menu item, browse to the CD-ROM root directory, and then double-click the **Autorun.exe** file.

Figure 3-1 Welcome screen

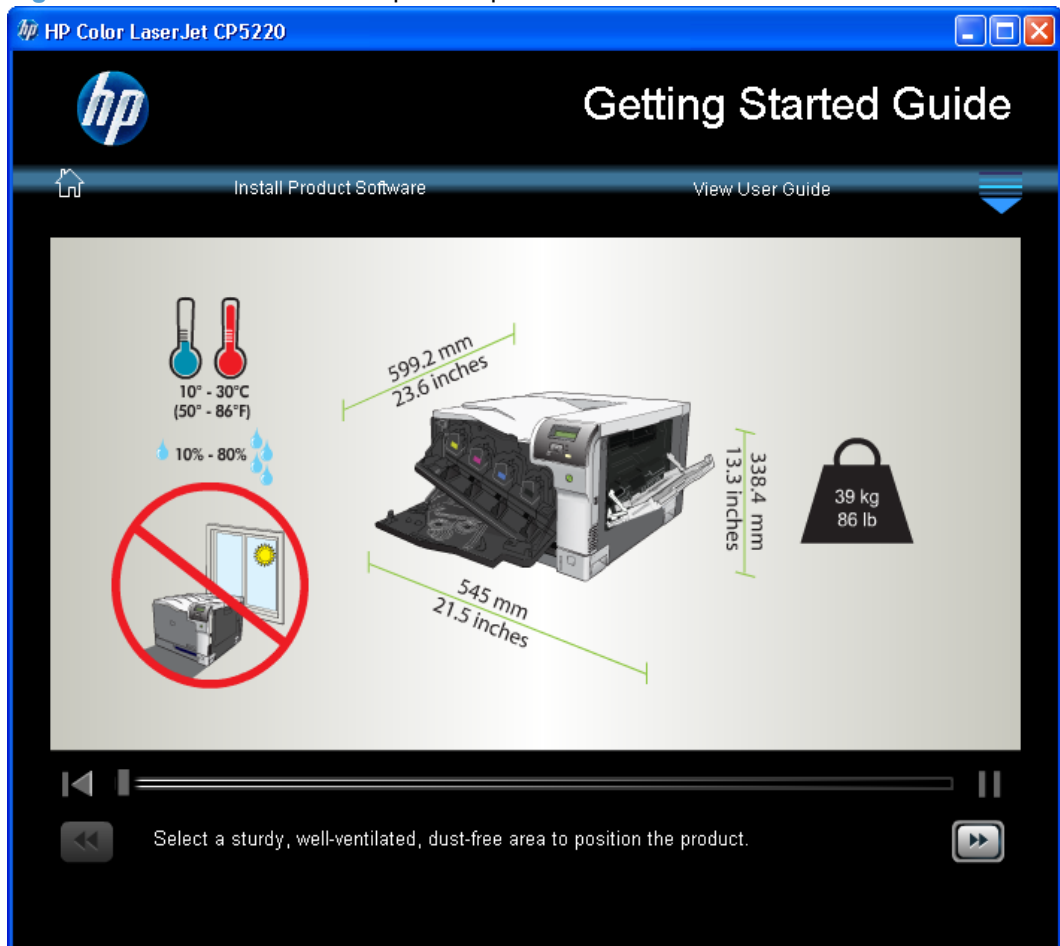


 **NOTE:** Clicking the downward arrow in the upper right-hand corner of the welcome screen opens a navigation menu that allows you to open a particular procedure, rather than click through the entire guide.

3. Click the **Begin Setup** button.

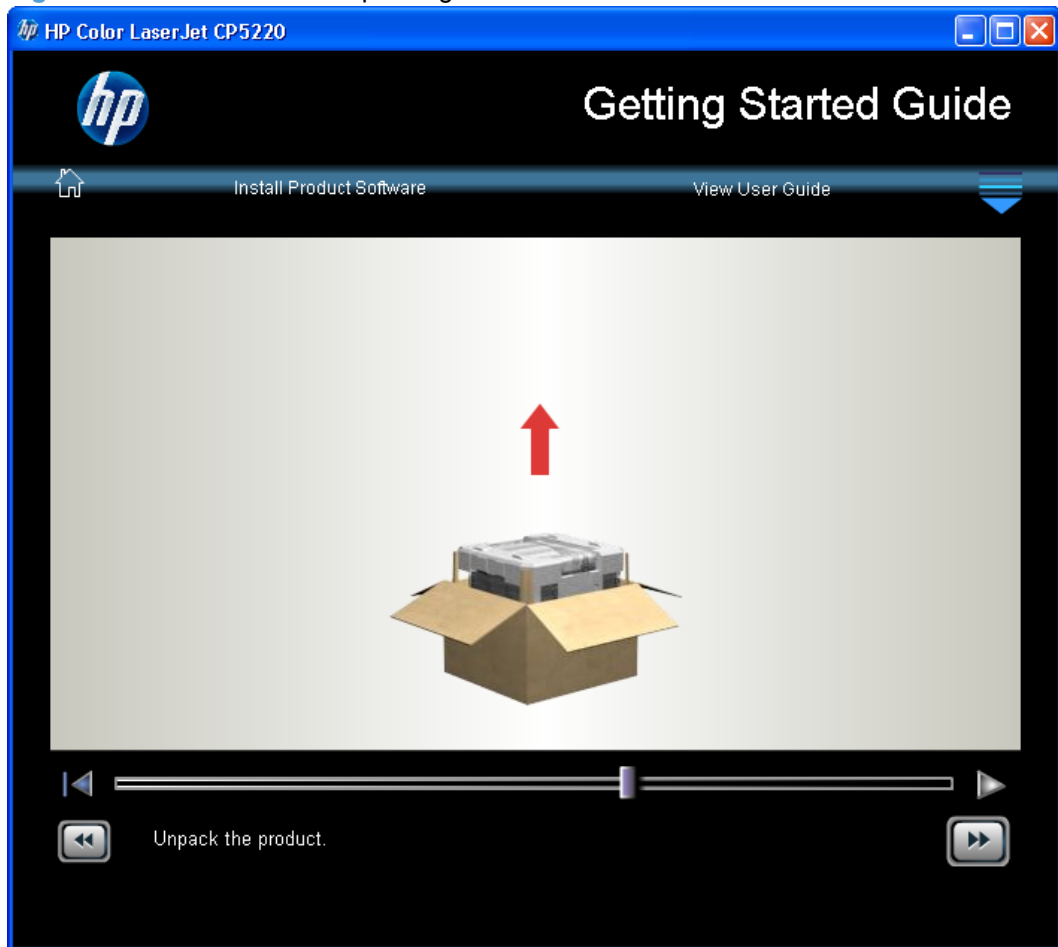
4. View the environmental and space requirements for the product, and then click the arrow button >>.

Figure 3-2 Environmental and space requirements screen



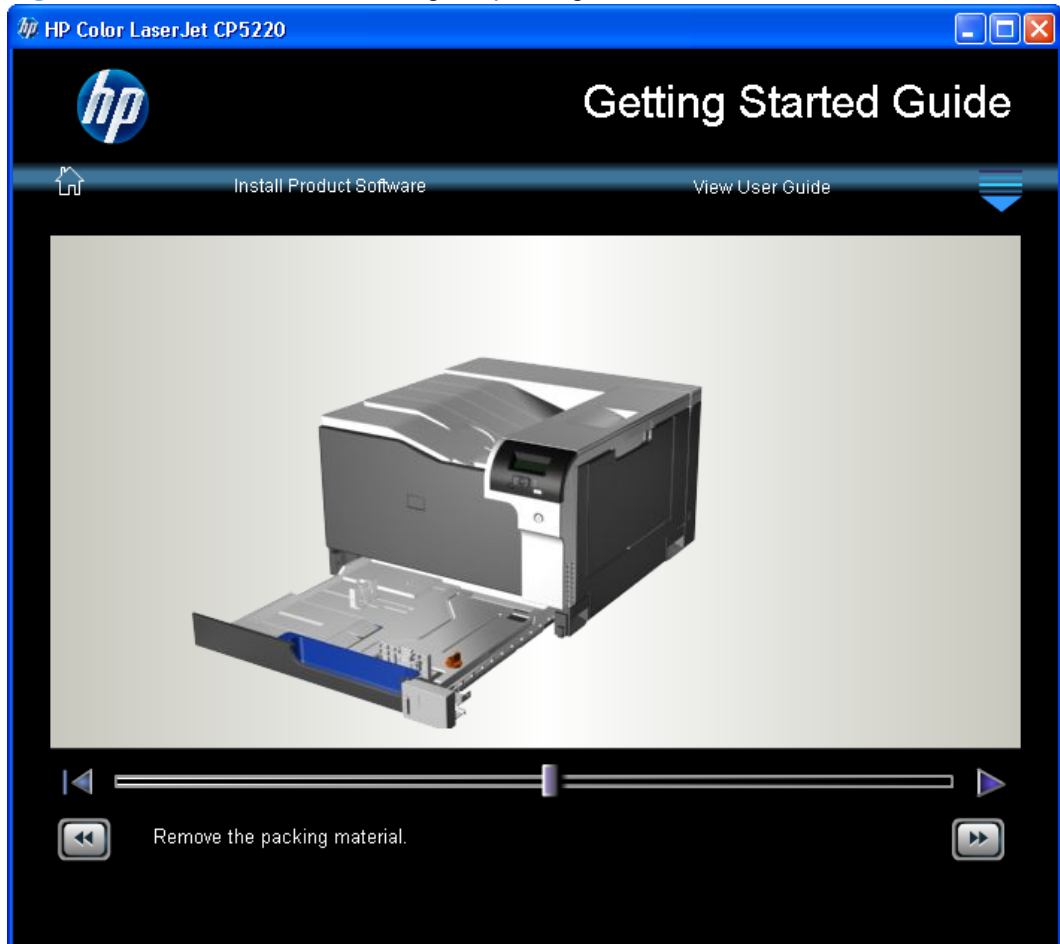
5. Follow the animated instructions for unpacking the box, and then click the arrow button >>.

Figure 3-3 Instructions for unpacking the box



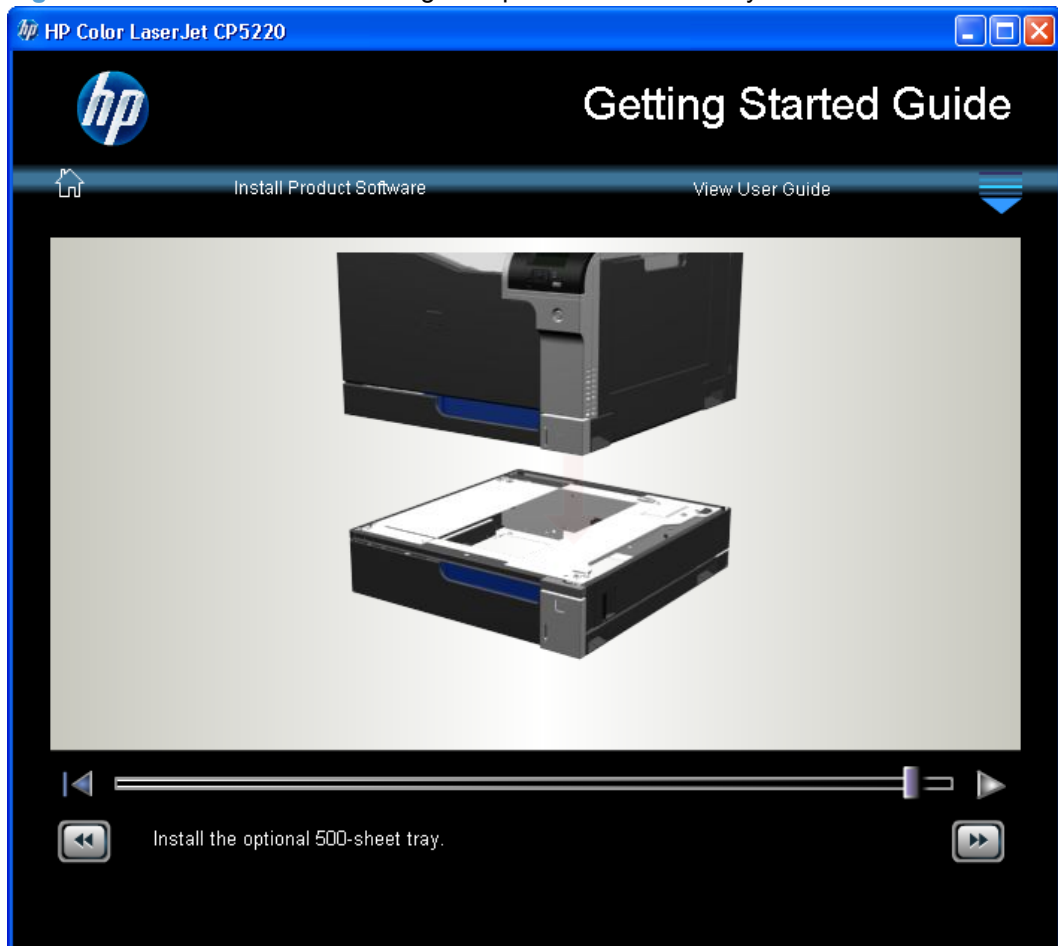
6. Follow the animated instructions for removing the packing materials, and then click the arrow button >>.

Figure 3-4 Instructions for removing the packing materials



7. Follow the animated instructions for installing the optional 500-sheet tray, and then click the arrow button >>.

Figure 3-5 Instructions for installing the optional 500-sheet tray



8. **USB installation:** Click the **USB Connection** button.

Network installation: Click the **Network Connection** button.

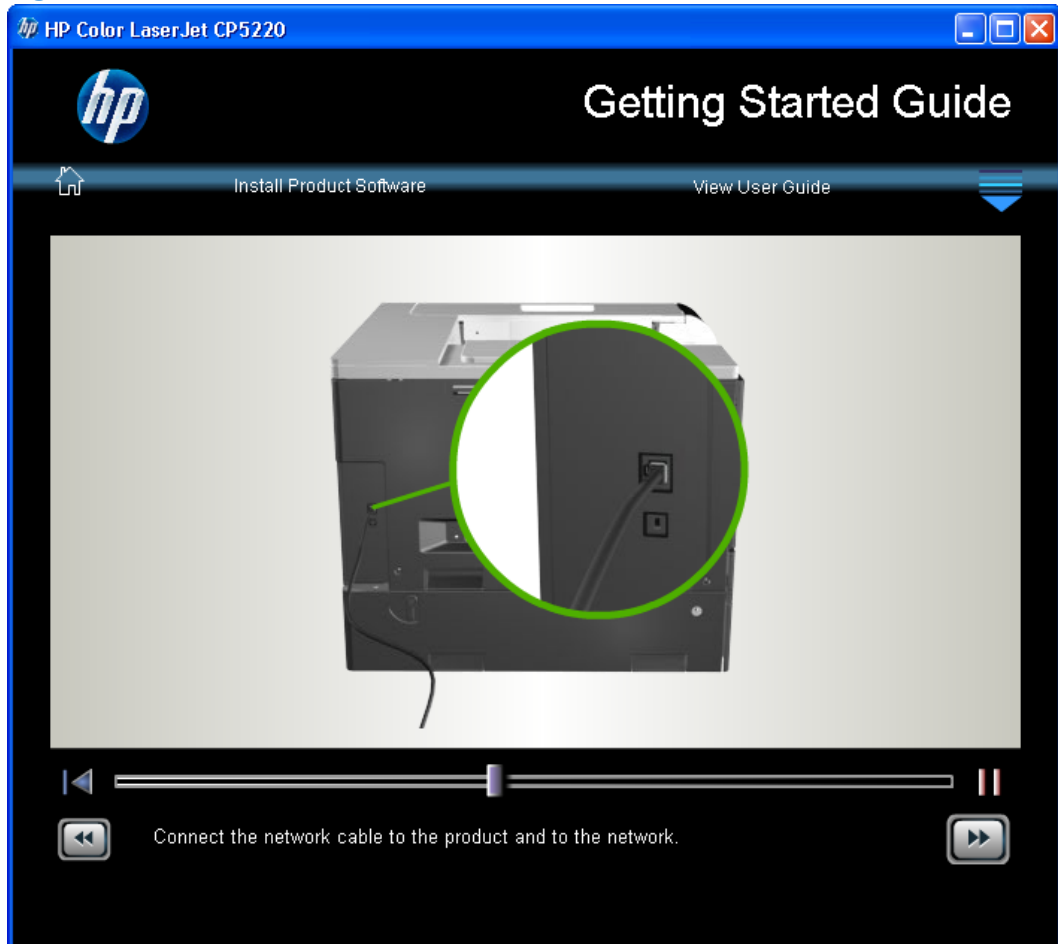
Figure 3-6 Connection type screen



9. **USB installation:** Go to the next step.

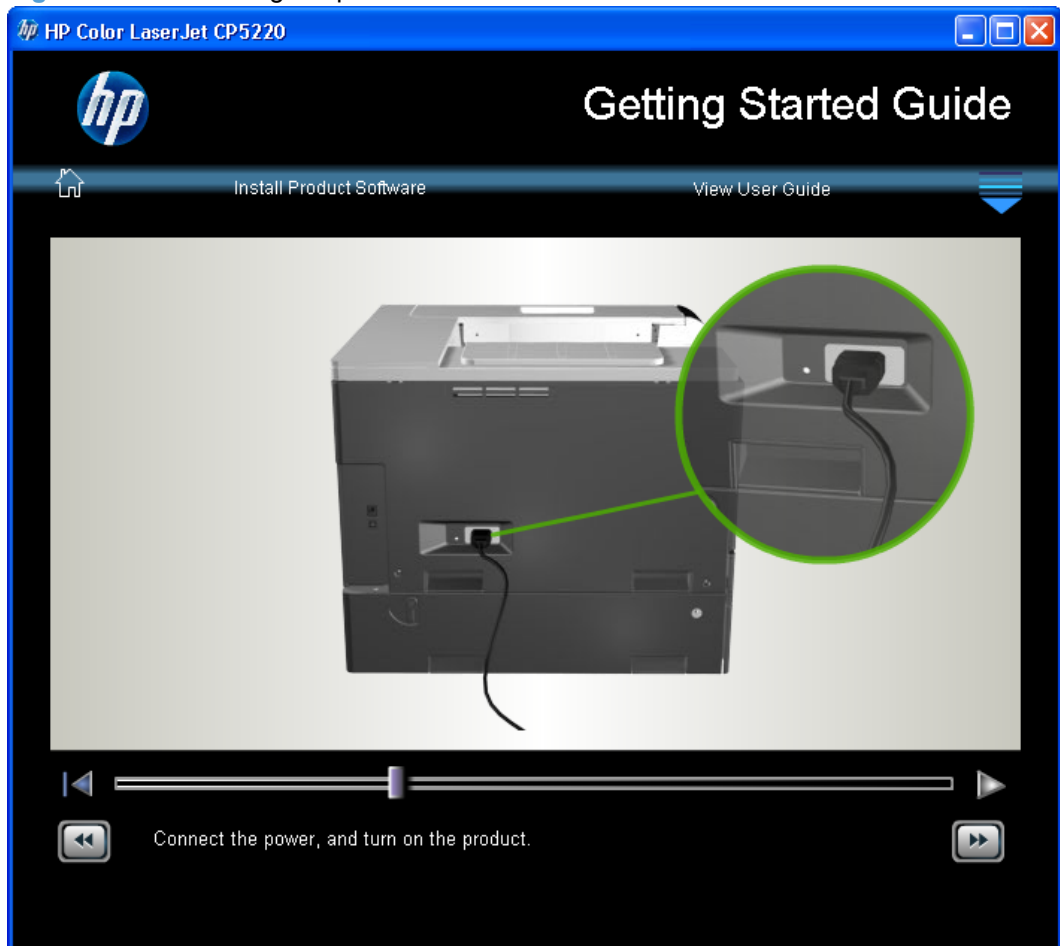
Network installation: Follow the animated instructions for connecting the network cable to the product and to the network, and then click the arrow button >>.

Figure 3-7 Network cable instructions



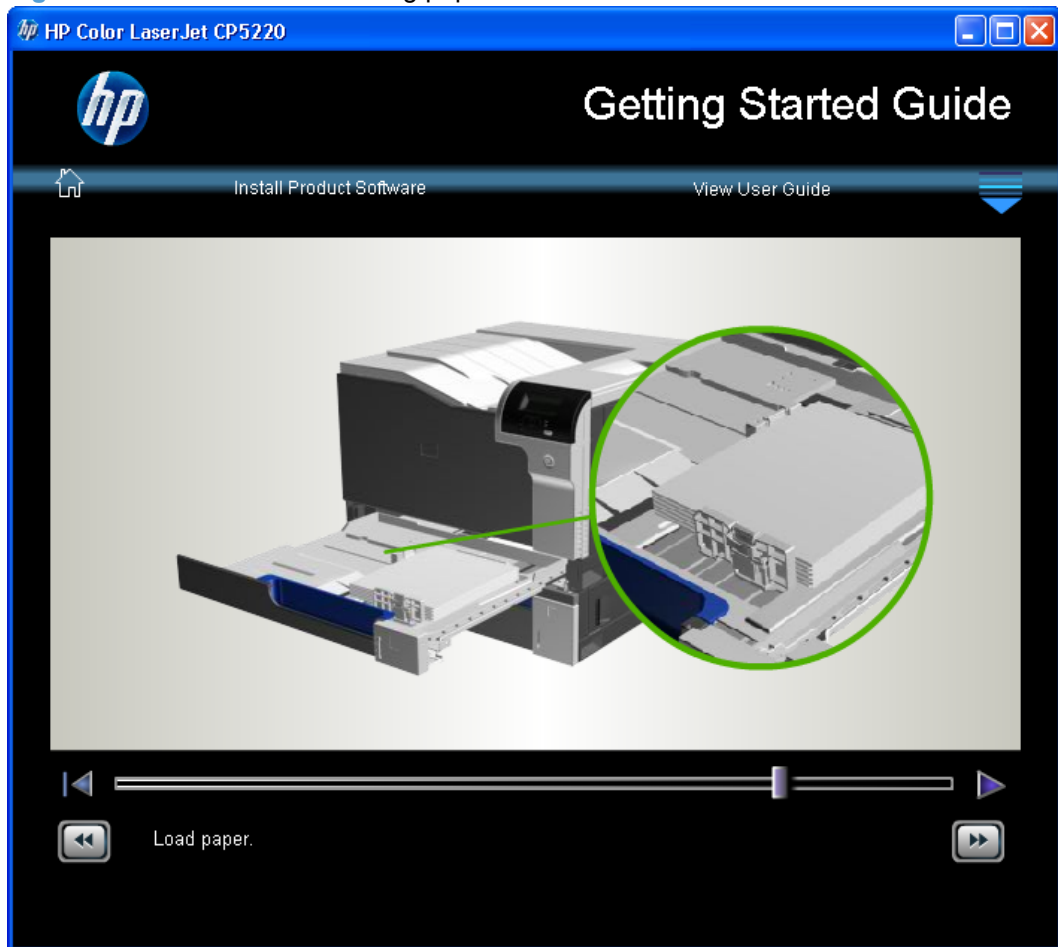
10. Follow the animated instructions for connecting the power cable and turning on the product, and then click the arrow button >>.

Figure 3-8 Connecting the power cable






11. Follow the animated instructions for loading paper, and then click the arrow button >>.

Figure 3-9 Instructions for loading paper

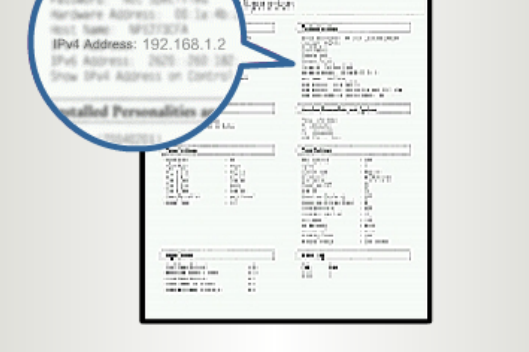





- USB installation:** Go to the next step.


HP Color LaserJet CP5220




Install Product Software
View User Guide


Getting Started Guide



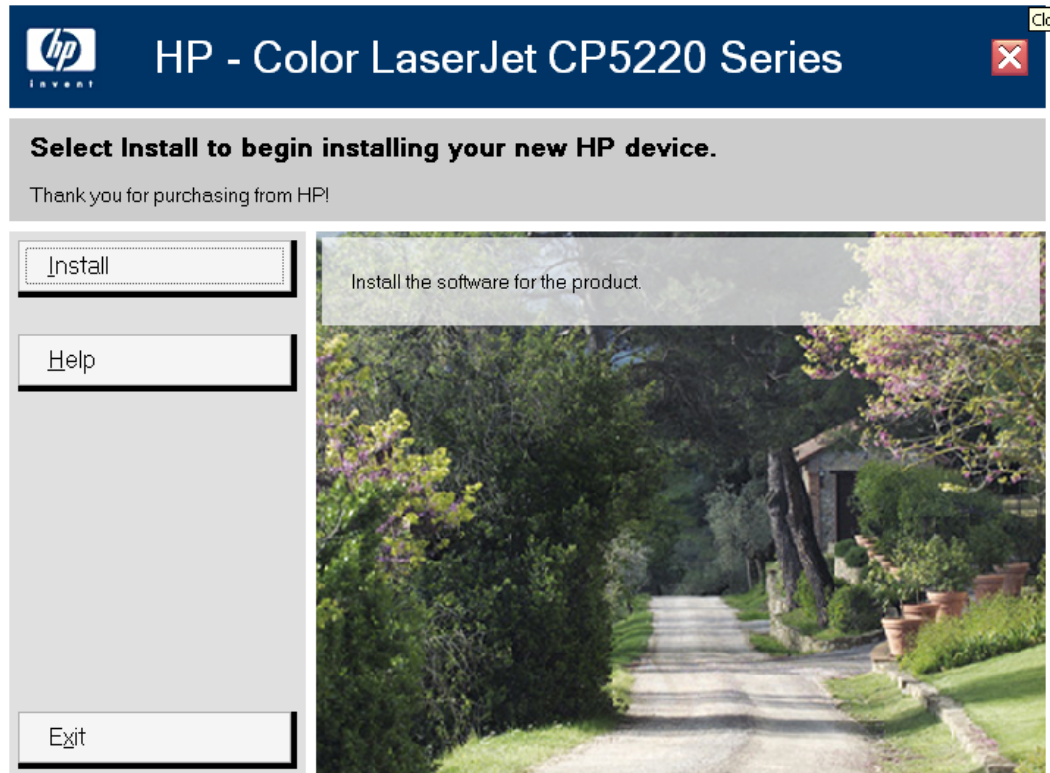




Print a Configuration Report by simultaneously pressing the BACK and CANCEL buttons on the control panel.

13. Click the **Install Product Software** button to open the installer program main screen.

Figure 3-11 Installer program main screen

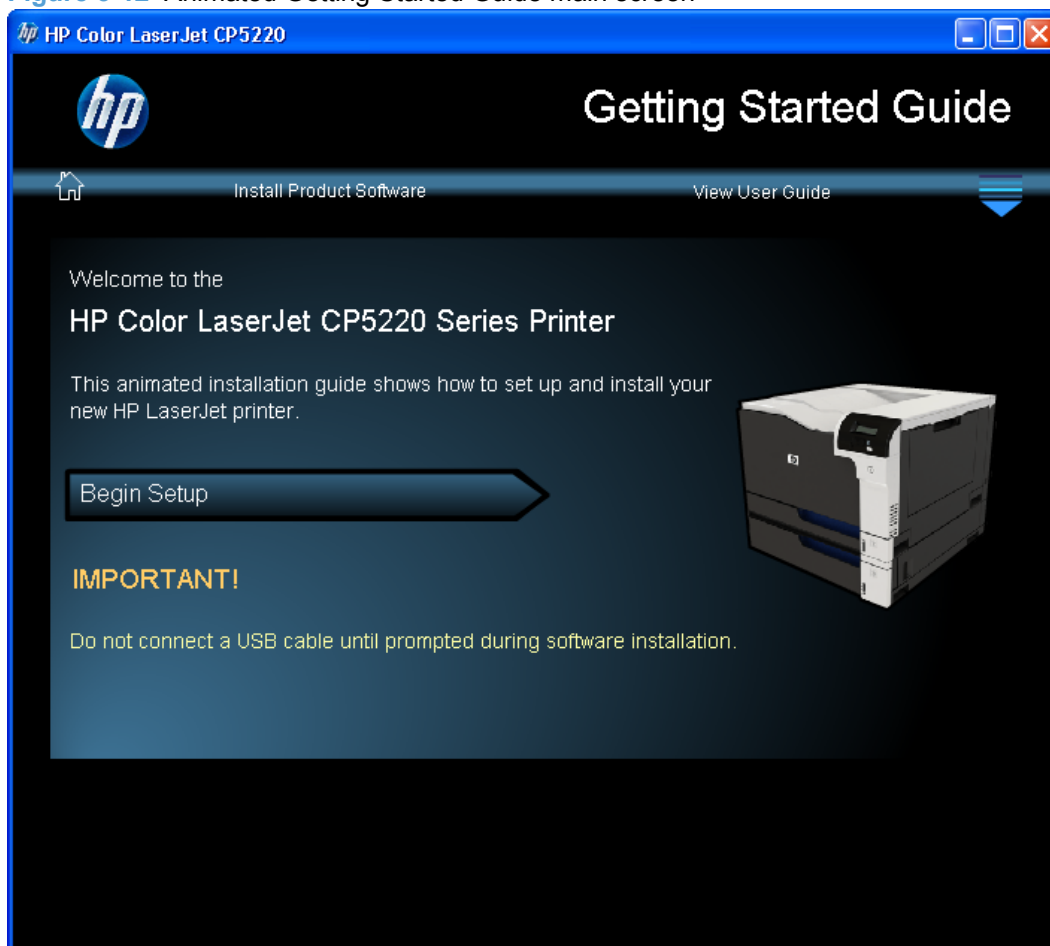


For detailed instructions about using the software installer program, see the following section, [Printing-system software installation for Microsoft Windows on page 123](#).

Printing-system software installation for Microsoft Windows

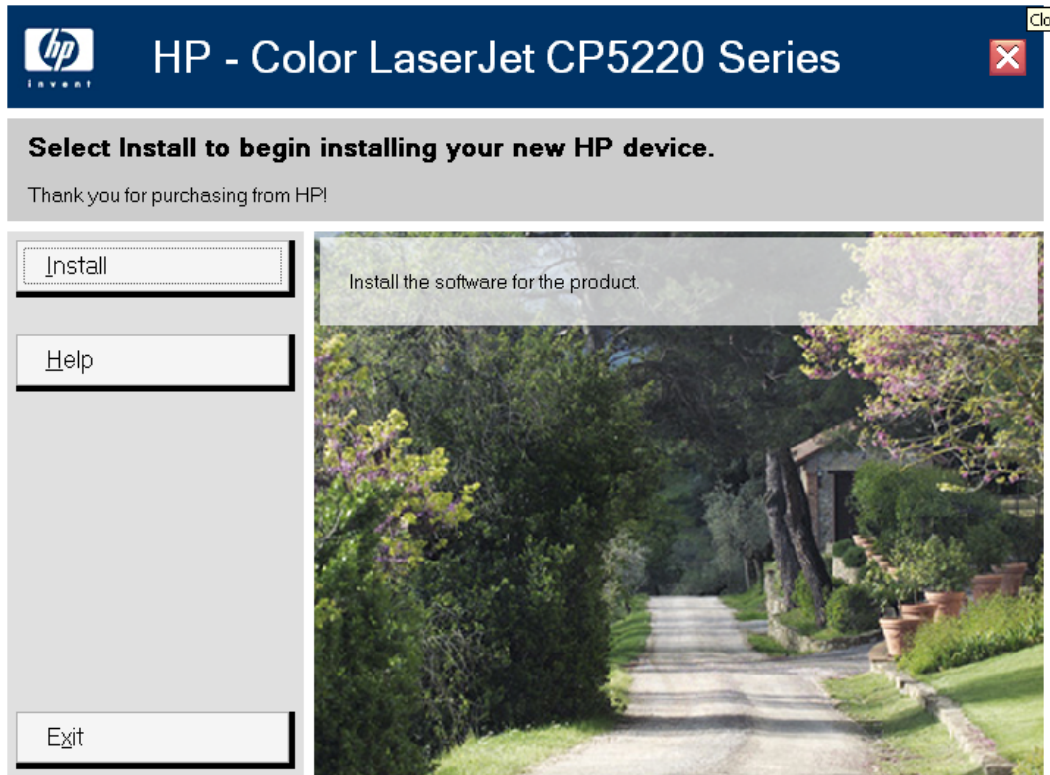
1. Open the installer program by clicking the **Install Product Software** link at the top of the Animated Getting Started Guide.

Figure 3-12 Animated Getting Started Guide main screen



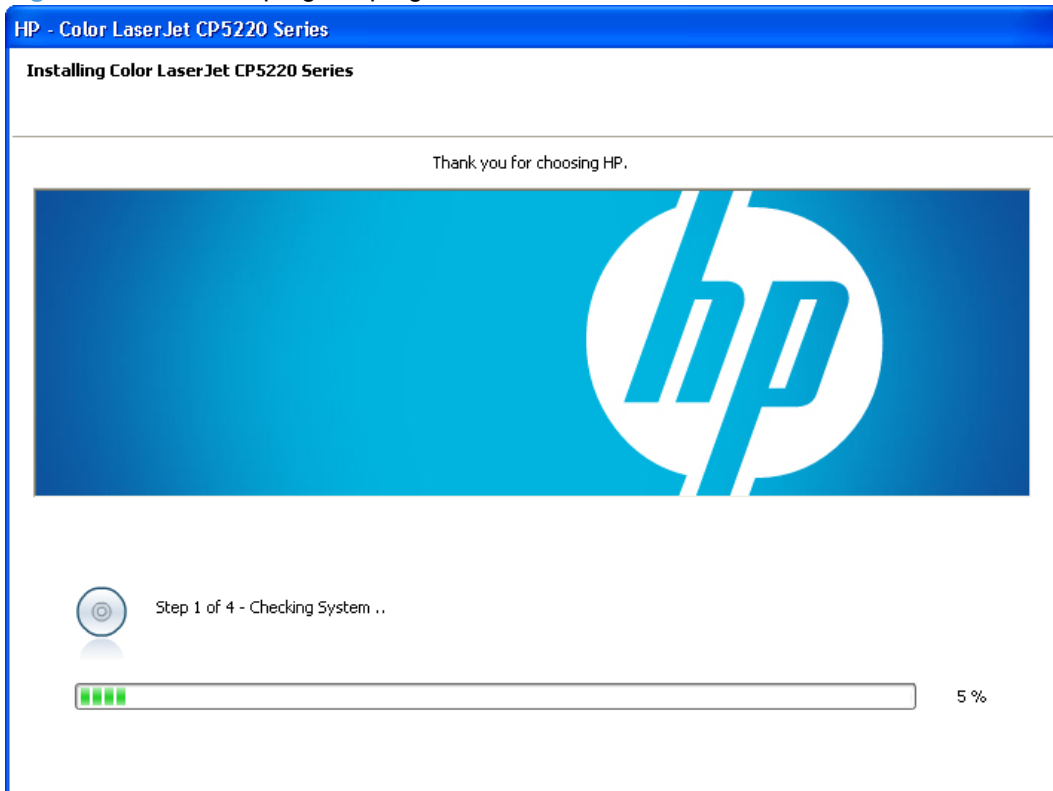
2. In the installer program main screen, click the **Install** button.

Figure 3-13 Installer program main screen



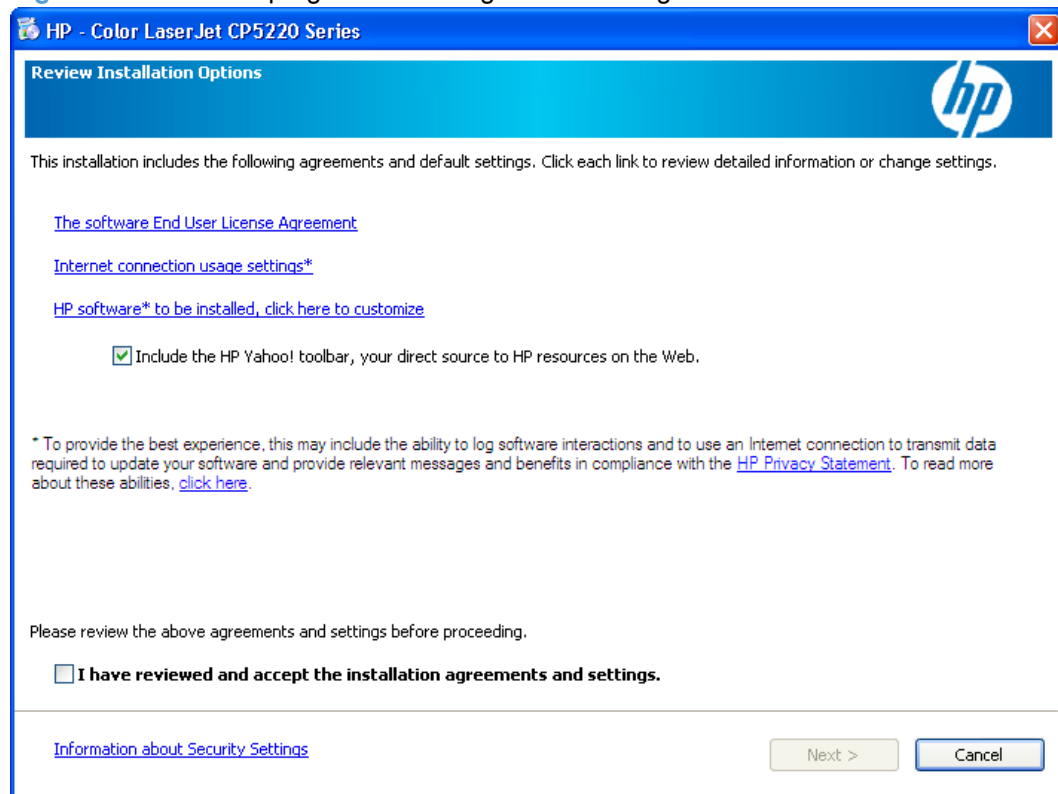
The installer program opens a screen with a progress bar.

Figure 3-14 Installer program progress bar



3. The installer opens a dialog box with a license agreement and installation settings. Click the **I have reviewed and accept the installation agreements and settings** check box, and then click the **Next** button.

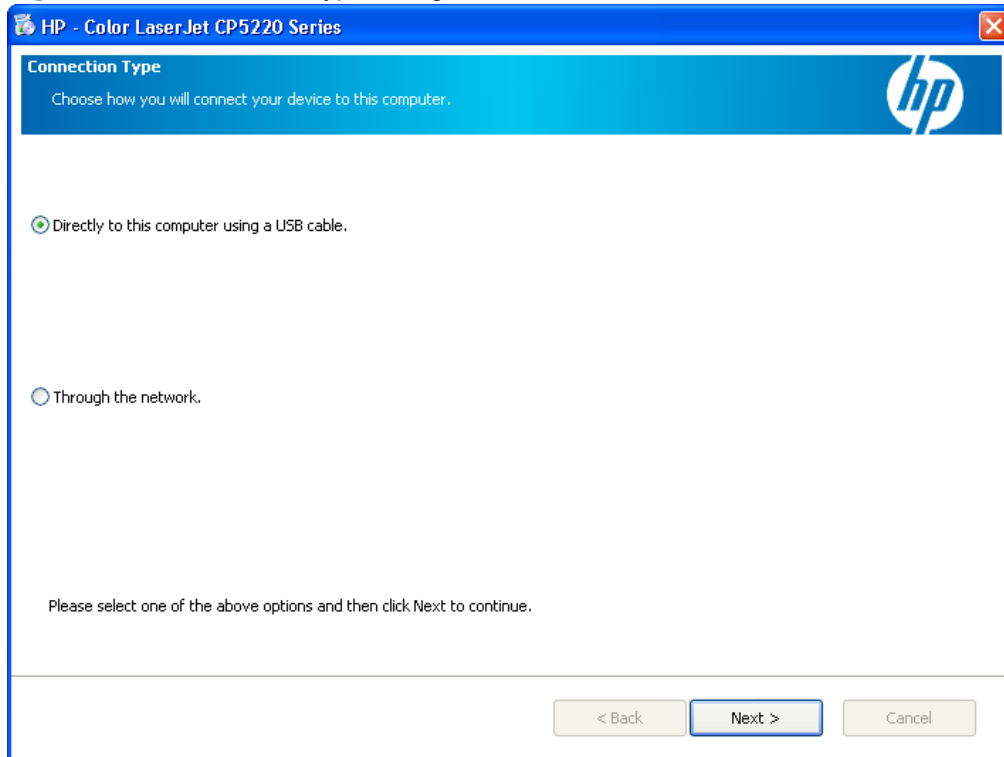
Figure 3-15 Installer program license agreement dialog box



The installer program returns to the progress bar screen, which runs for several minutes before opening the Connection Type dialog box.

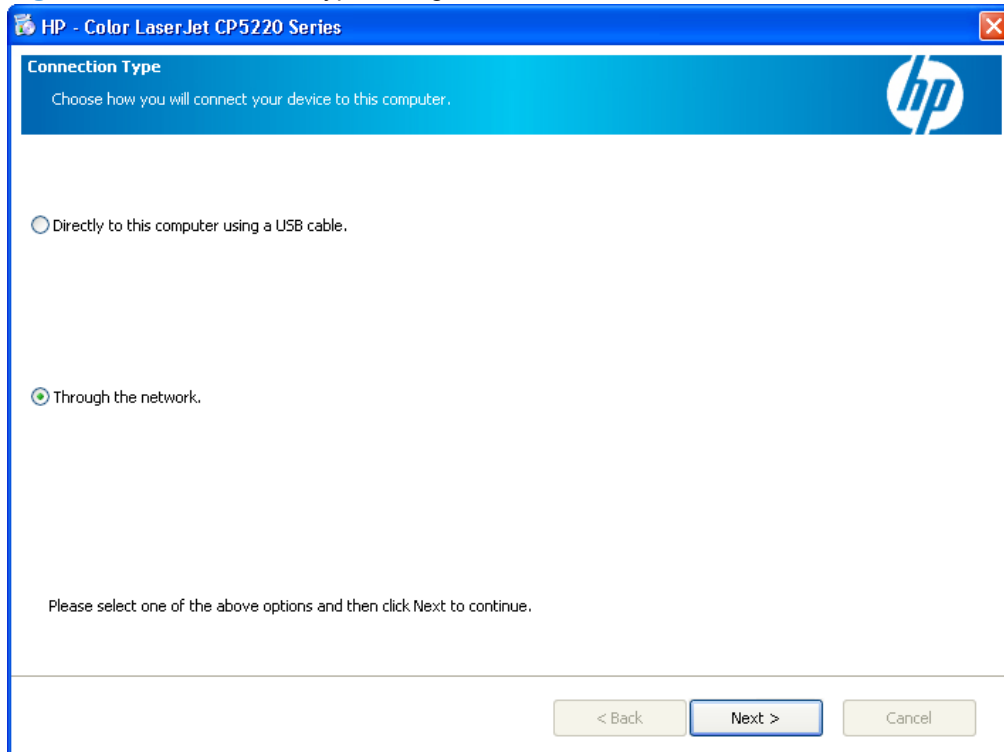
4. **USB installation:** In the Connection Type dialog box, click the **Directly to this computer using a USB cable** option, and then click the **Next** button.

Figure 3-16 Connection Type dialog box—USB



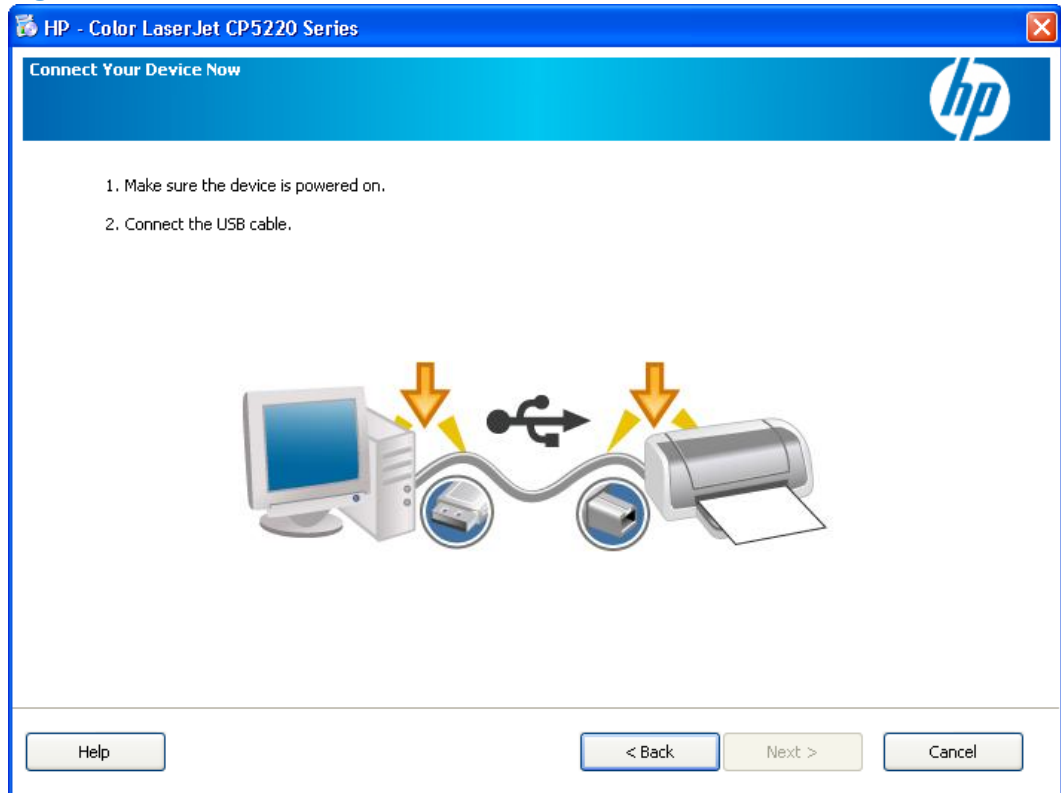
Network installation: In the Connection Type dialog box, click the **Through the network** option, and then click the **Next** button.

Figure 3-17 Connection Type dialog box—network



5. **USB installation:** When prompted by the installer, connect the USB cable to the product and to the computer.

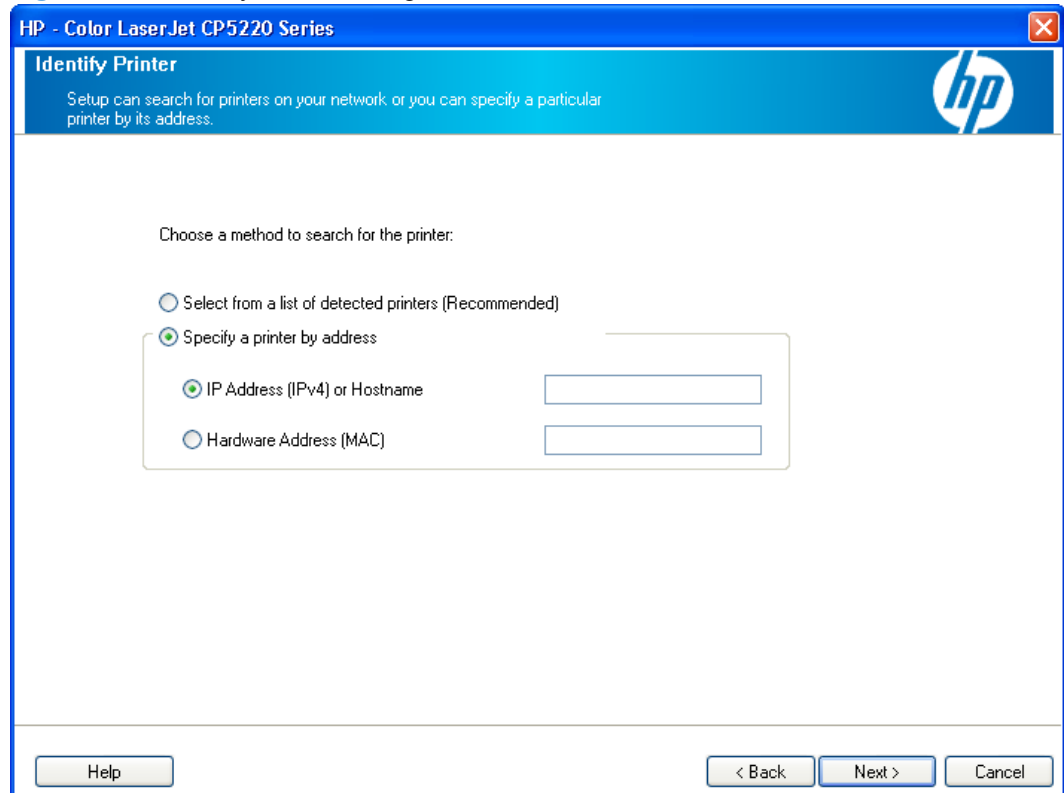
Figure 3-18 Connect USB cable screen



Network installation:

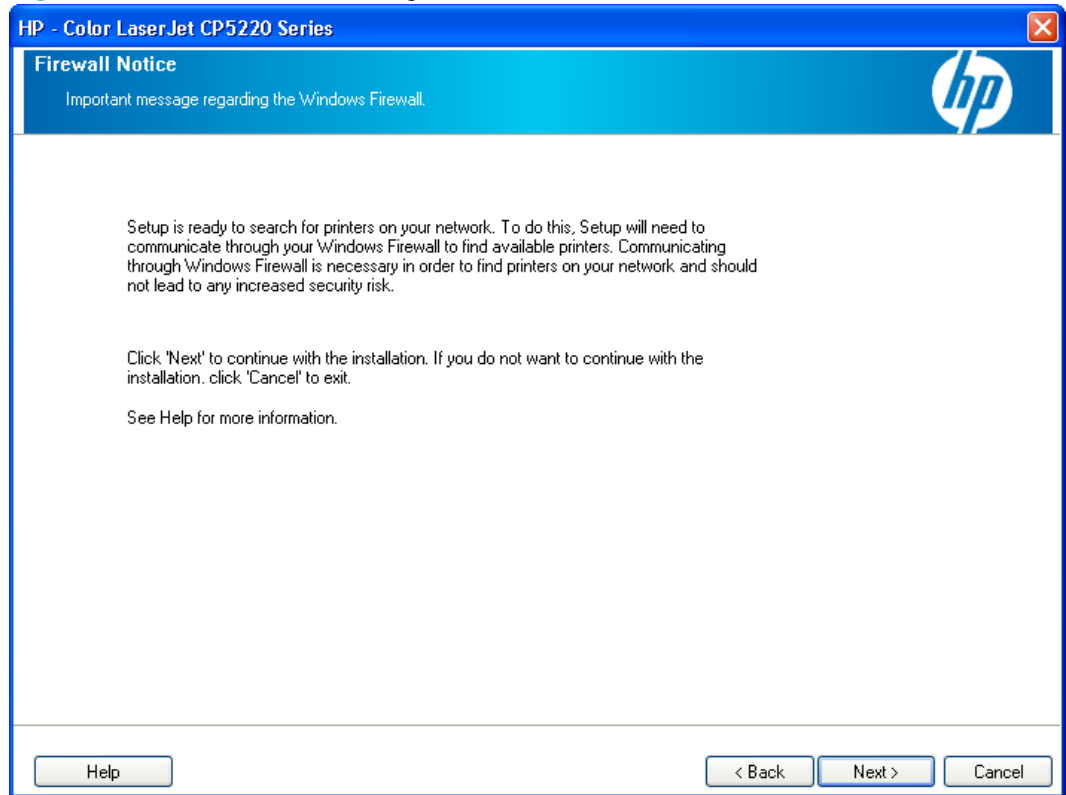
- a. In the Identify Printer dialog box, navigate to the product on the network in one of the following ways, and then click the **Next** button.
 - **Select from a list of detected printers (Recommended):** Use the installer program to automatically detect products on the network
 - **Specify a printer by address:** Provide either the IP address or Mac hardware address that appears on the configuration page that you printed earlier.

Figure 3-19 Identify Printer dialog box



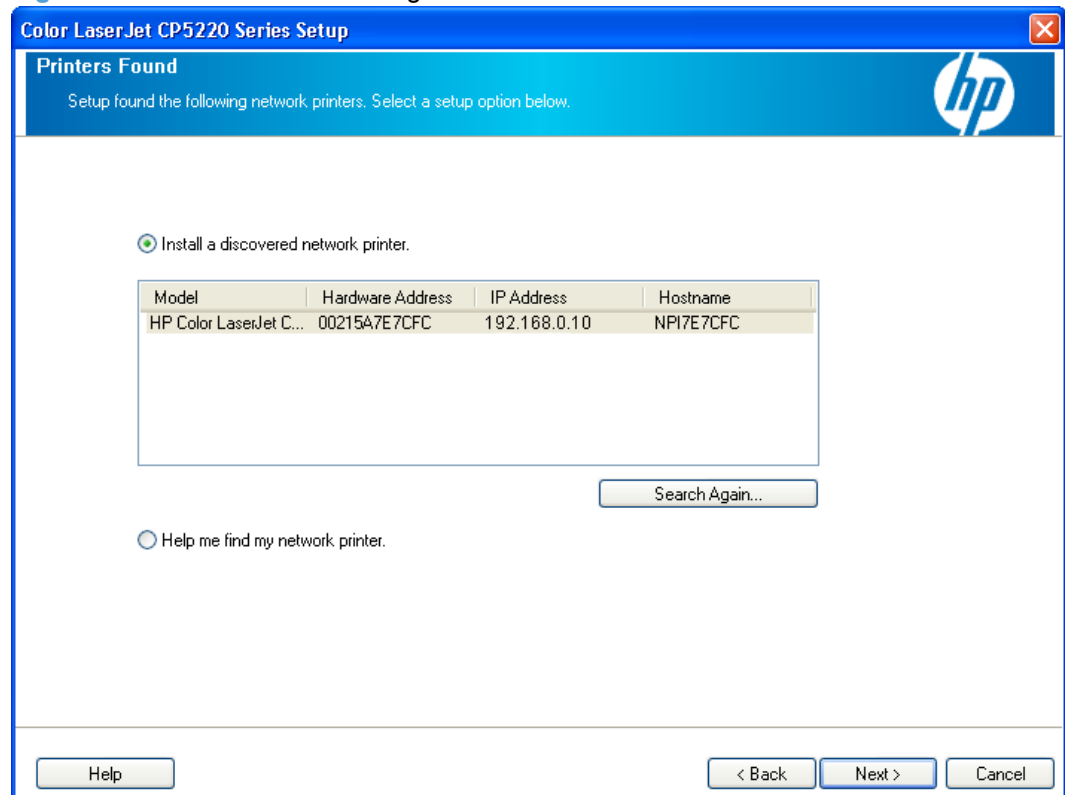
- b. In the Firewall Notice dialog box, click the **Next** button to allow the installer to search the network.

Figure 3-20 Firewall Notice dialog box



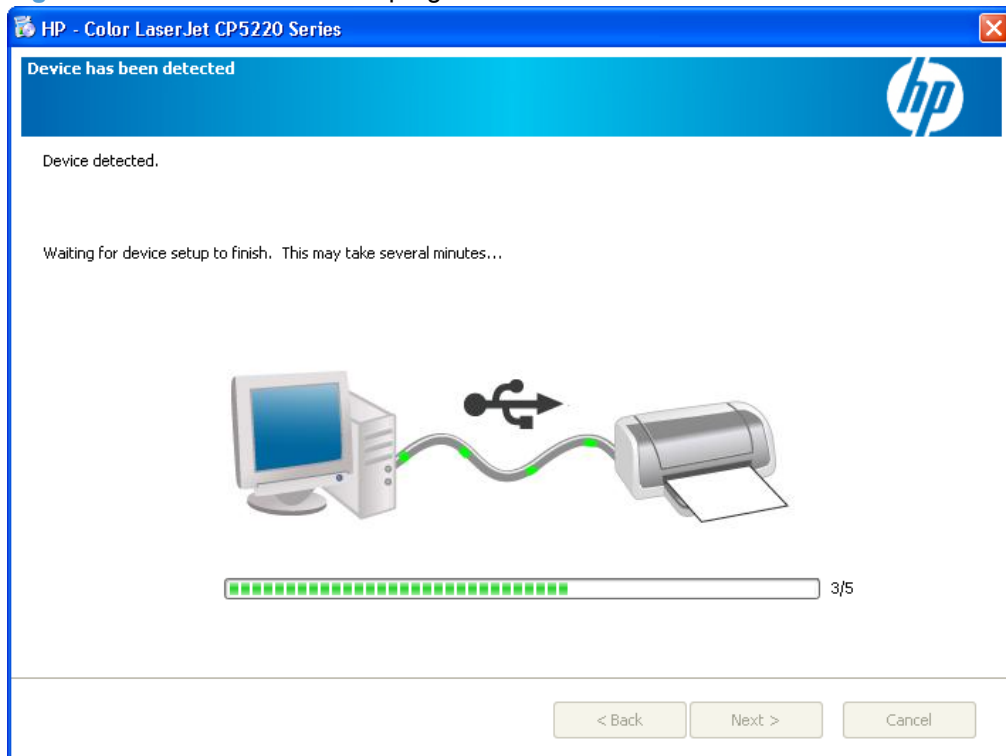
- c. In the Printers Found dialog box, click the product in the list, and then click the **Next** button.

Figure 3-21 Printers Found dialog box



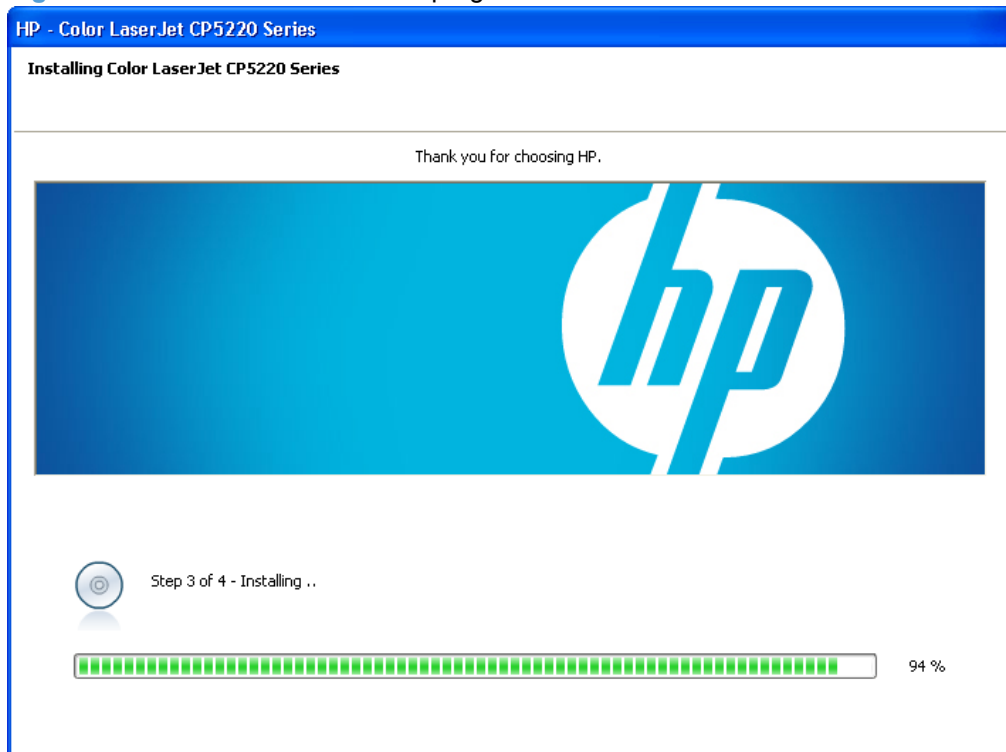
6. **USB installation:** The installer automatically continues the installation process. When prompted, click the **Next** button to open the language and location dialog box. .

Figure 3-22 USB installation in progress screen



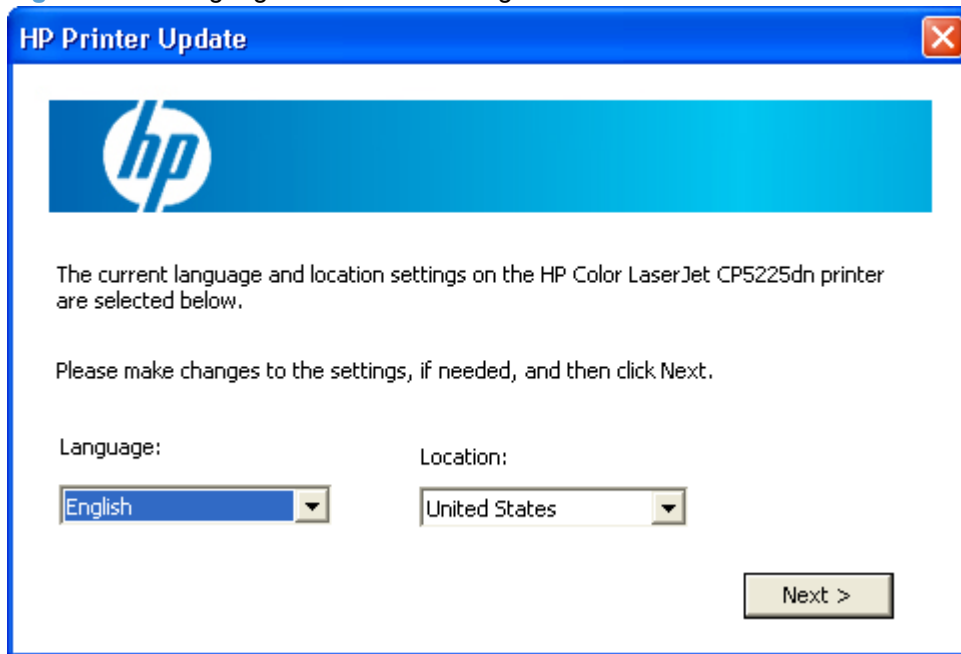
Network installation: The installer continues the installation process, and then opens the language and location dialog box.

Figure 3-23 Network installation in progress screen



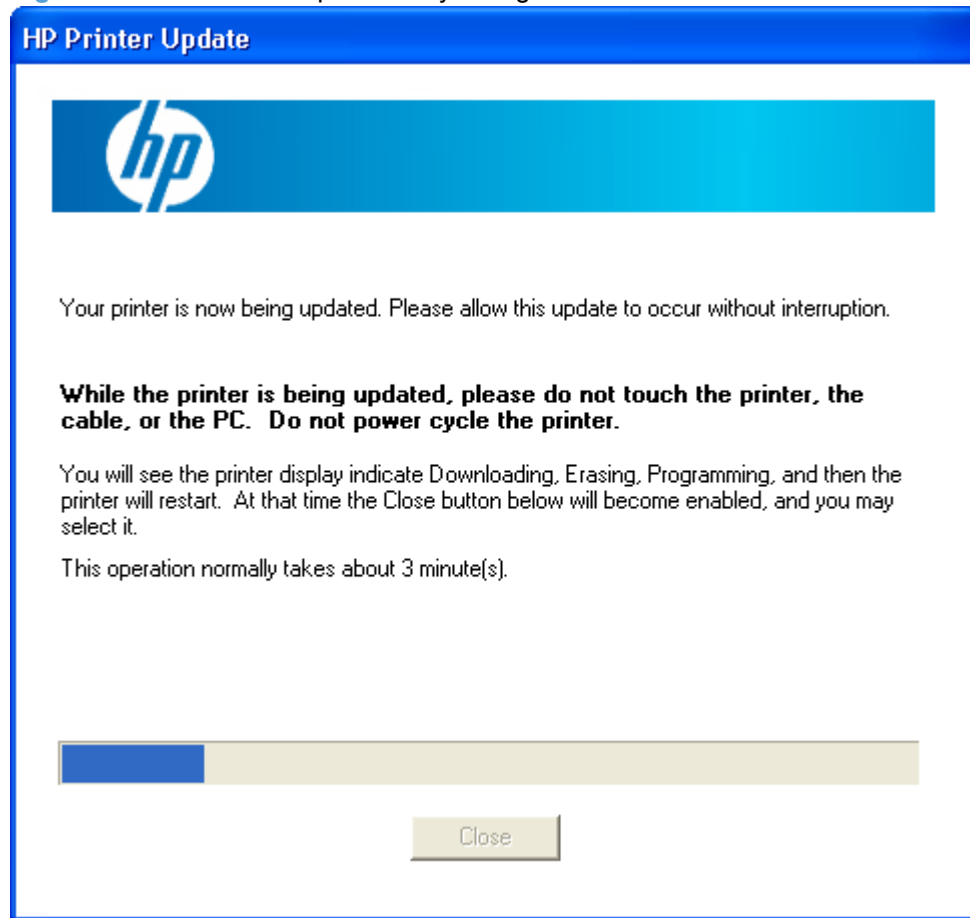
7. Select the product language and location, and then click the **Next** button.

Figure 3-24 Language and location dialog box



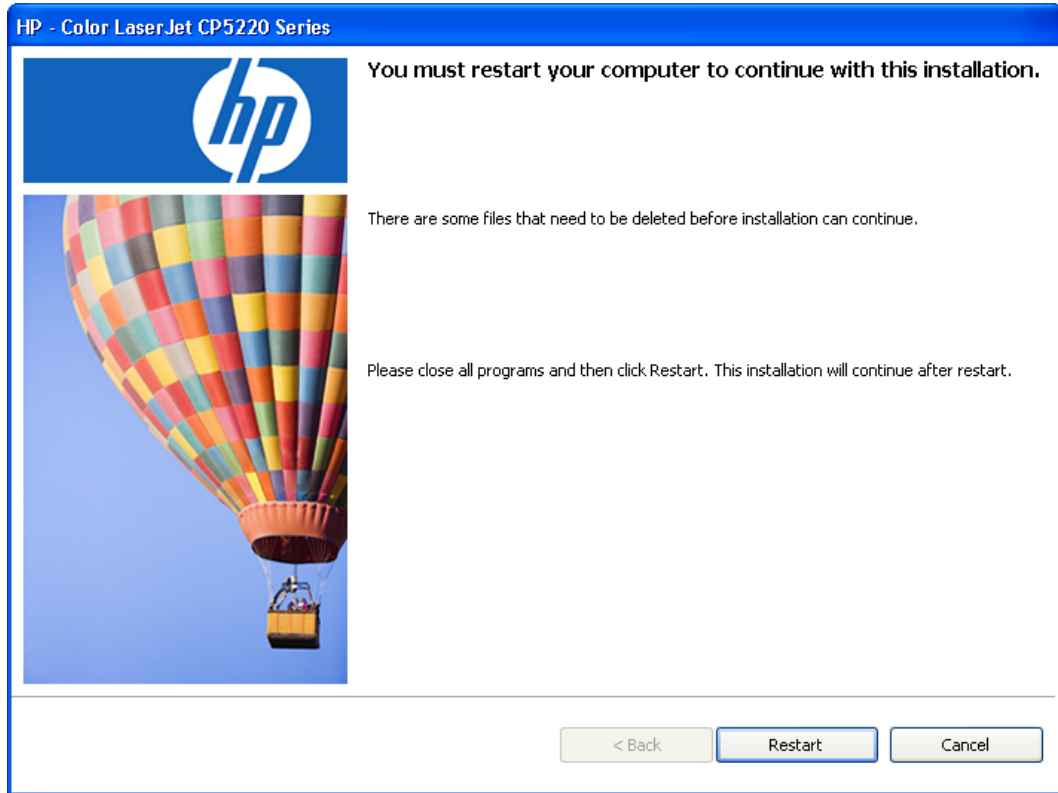
8. The HP Printer Update utility runs for several minutes. When it has finished, click the **Close** button.

Figure 3-25 HP Printer Update utility dialog box



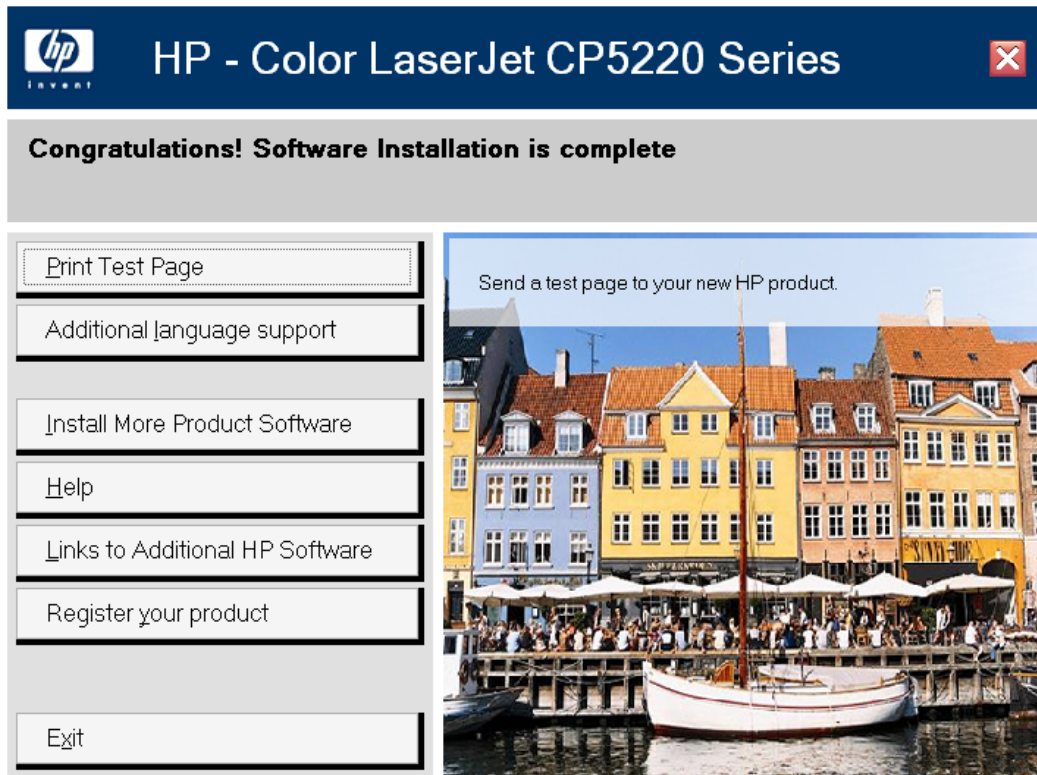
9. If necessary, you might have to restart the computer. Click the **Restart** button.
- If you do not want to restart the computer immediately, click the **Cancel** button.

Figure 3-26 Restart dialog box



10. Once the computer is restarted, the installer configures the product and then opens a screen that indicates that the installation process is complete.

Figure 3-27 Installation complete dialog box



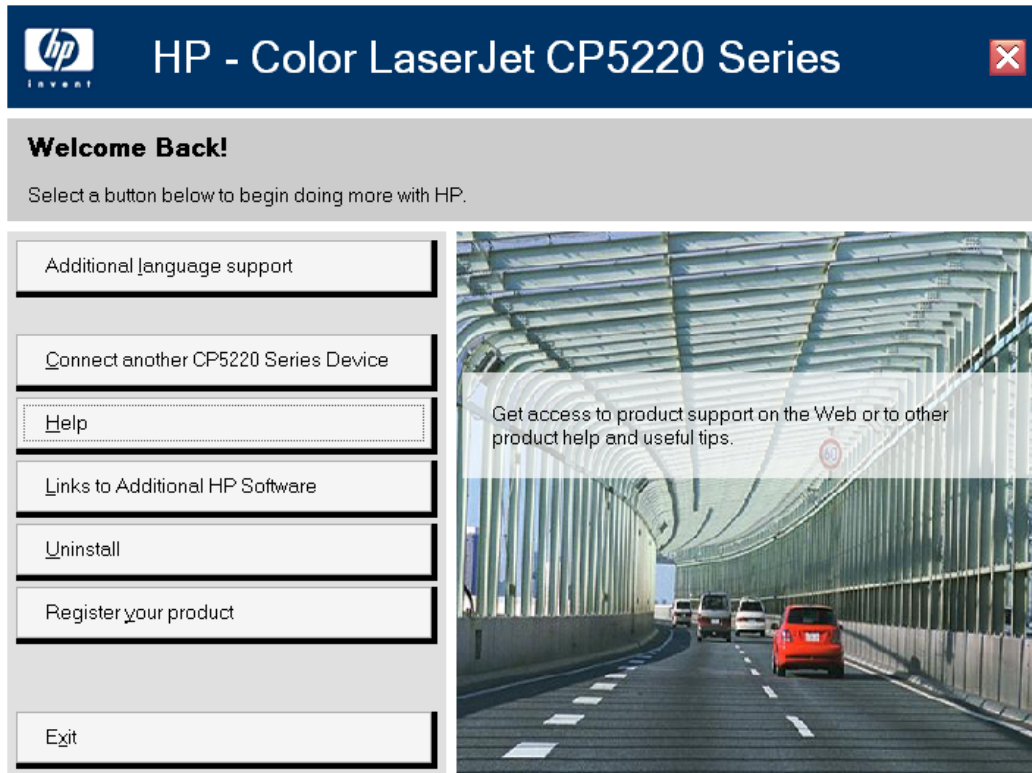
From this screen, you can click the following buttons:

- **Print Test Page:** Prints a product test page.
- **Additional language support:** Updates the product firmware and sets the product language and location.
- **Install More Product Software:** Installs additional product software, including HP ToolboxFX.
- **Help:** Opens a Help application.
- **Links to Additional HP Software:** Opens a screen with links to additional HP software.
- **Register your product:** Opens the HP product registration Web page.
- **Exit:** Closes the installer program.


Install additional software

To install additional software, insert the printing-system CD. If the driver software has already been installed, the Welcome Back dialog box opens.

Figure 3-28 Welcome Back dialog box



The following options are available from this screen.

- **Additional language support.** Updates the product firmware and sets the product language and location.
 - **Install More Product Software:** Installs additional product software, including HP ToolboxFX.
-  **NOTE:** If you have previously clicked this button—for example, in the installation complete screen that opens at the end of the initial installation process—this button does not appear.
- **Connect another CP5220 Series Device.** Adds a print driver other than the one that was added during the previous installation. The installer provides an option to connect directly (USB) or connect via the network.
 - **Help:** Opens a Help application.
 - **Links to Additional HP Software:** Opens a screen with links to additional HP software.
 - **Register your product:** Opens the HP product registration Web page.
 - **Uninstall:** Removes the product software from the computer.
 - **Exit:** Closes the installer program.

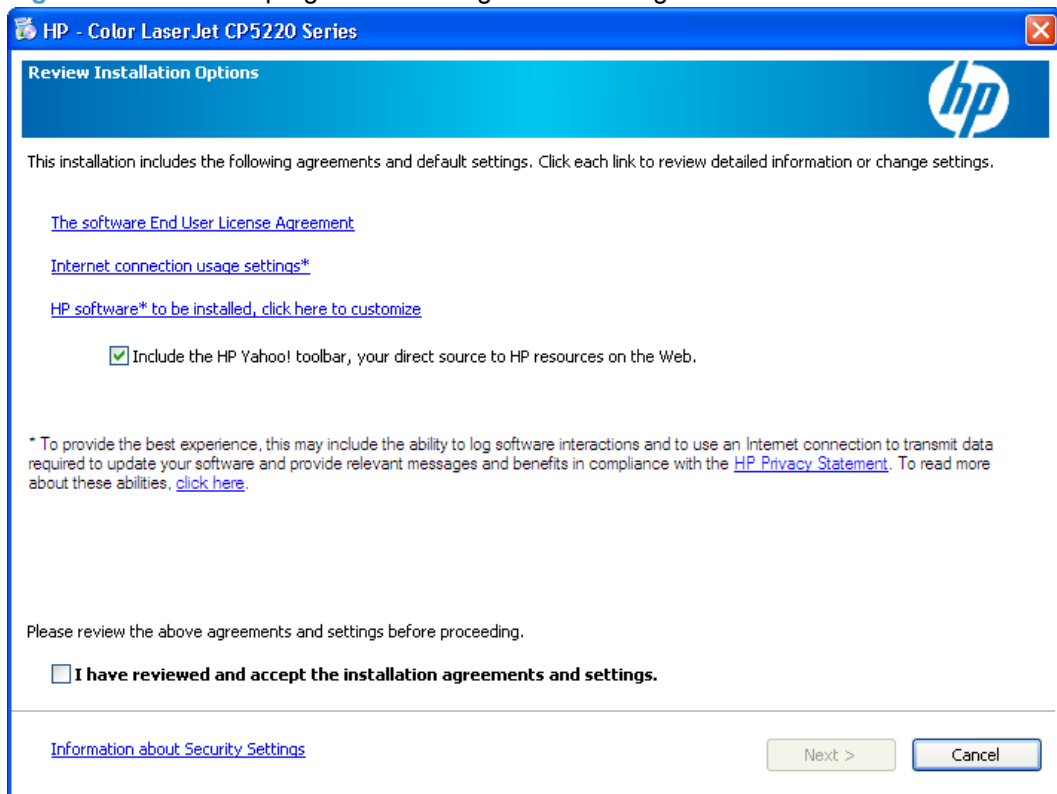
1. Click the **Install More Product Software** button.
2. The screen that opens instructs you to allow the software to be installed by clicking the appropriate buttons in any firewall programs. Click the **Next** button.

Figure 3-29 Allow installation screen



3. The installer opens a dialog box with a license agreement and installation settings. Click the **I have reviewed and accept the installation agreements and settings** check box, and then click the **Next** button.

Figure 3-30 Installer program license agreement dialog box

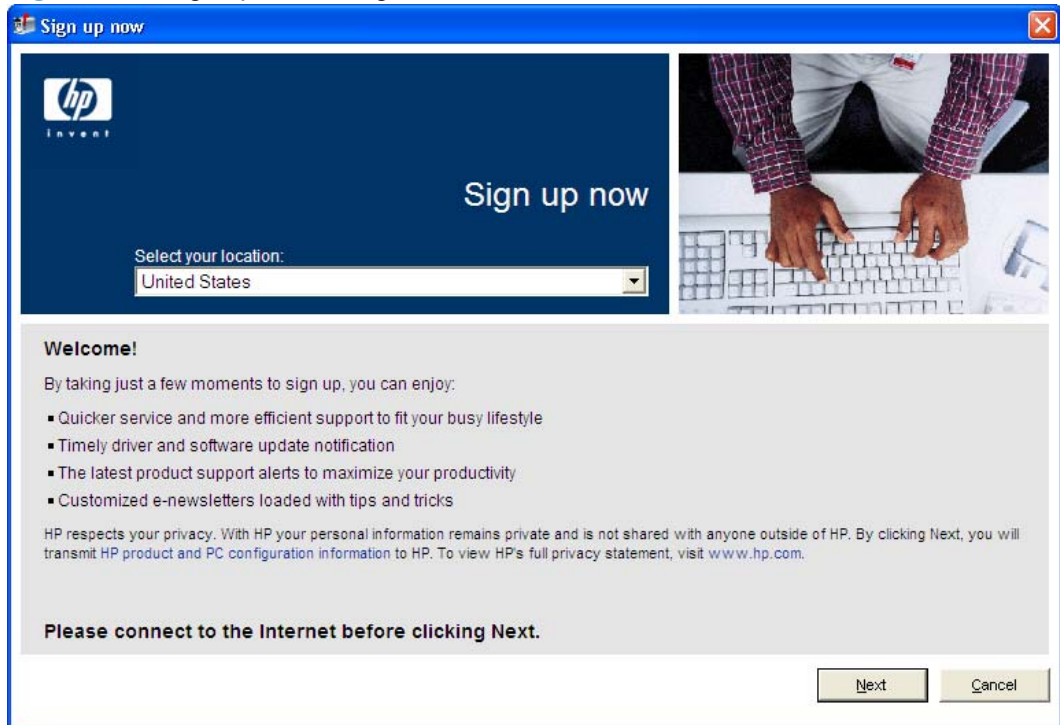


The installer opens a progress bar screen, which runs for several minutes before opening the Connection Type dialog box.

4. In the Sign up now dialog box, you can elect to open the HP product registration Web page by clicking the **Next** button.

To register at a later time, click the **Cancel** button.

Figure 3-31 Sign up now dialog box



5. The installer program opens a screen that indicates that the installation process is complete.

Figure 3-32 Installation complete dialog box



From this screen, you can click the following buttons:

- **Additional language support:** Updates the product firmware and sets the product language and location.
- **Help:** Opens a Help application.
- **Links to Additional HP Software:** Opens a screen with links to additional HP software.
- **Register your product:** Opens the HP product registration Web page.
- **Exit:** Closes the installer program.

User uninstall software


- [Uninstall instructions for Windows](#)

Uninstall instructions for Windows

The product software can be removed through a number of different procedures, depending on the type of installation performed by the installer program.

- [Uninstall a “full” installation](#)
- [Uninstall a print-driver only installation](#)


Uninstall a “full” installation

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

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

Use the product software Uninstall component (recommended)

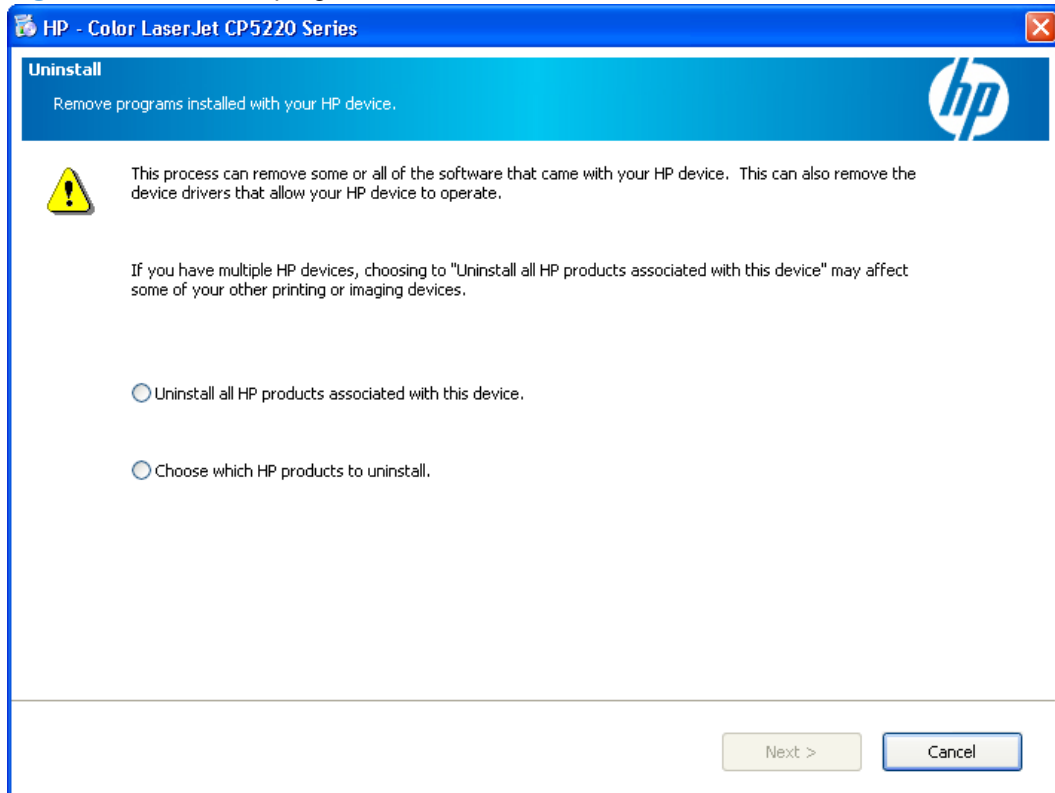
Follow these steps to uninstall the printing-system software by using the **Uninstall** component.

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

1. Quit all open programs, and turn off the product.
2. Click the **Start** button, click the **Programs** or **All Programs** menu item, click the **HP** menu item, click the **HP Color LaserJet CP5220 Series** menu item, and then click the **Uninstall** menu item.


3. The Uninstall dialog box appears.

Figure 3-33 Uninstall program screen



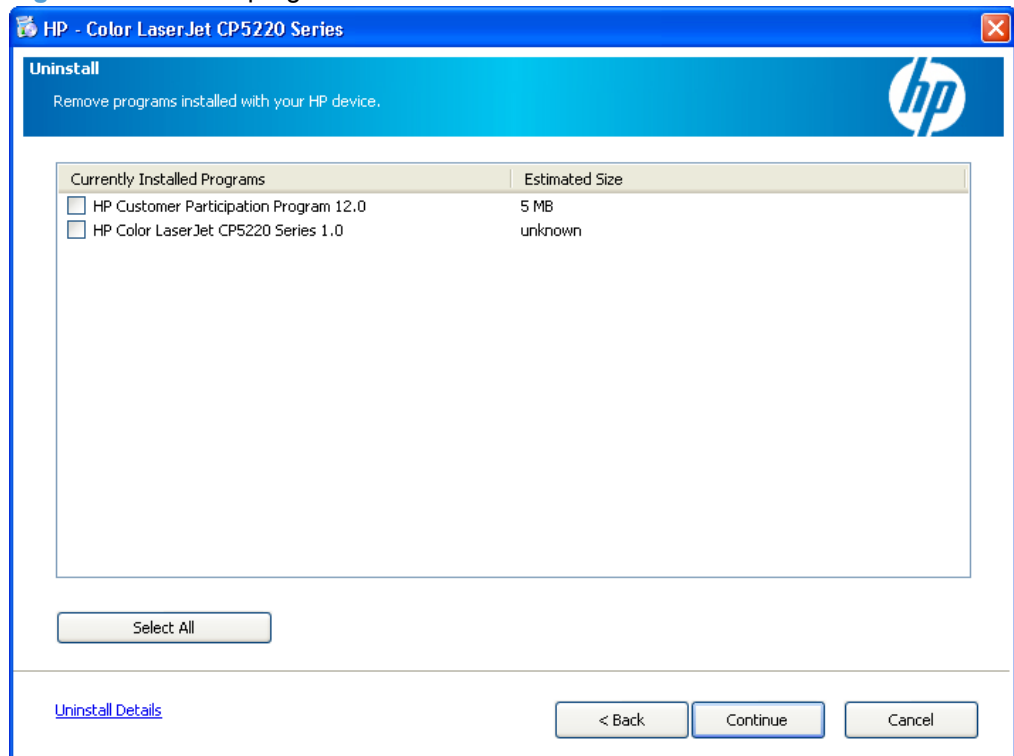
Click one of the following options, and then click the **Next** button.

- **Uninstall all HP products associated with this device.** Deletes all software and any drivers installed on the computer.

 **NOTE:** If the user chose to install the Yahoo toolbar, it will not be removed by the HP uninstaller. It will have a separate ARP entry.

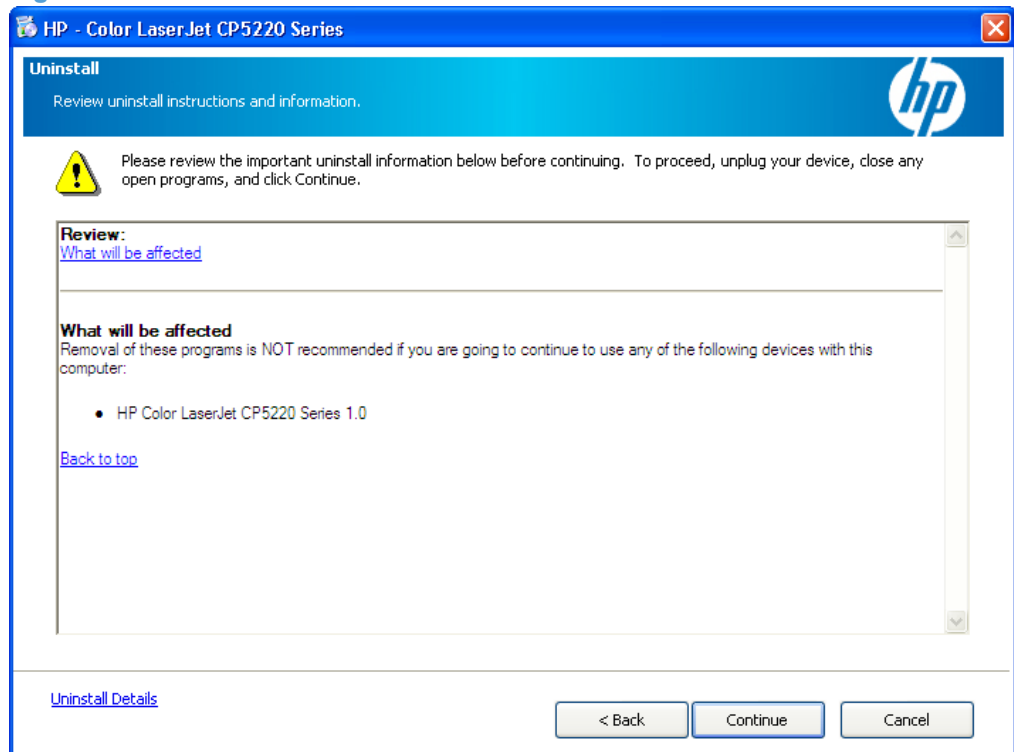
- **Choose which HP products to uninstall.** Deletes only the software components that you choose in the following screen.

Figure 3-34 Select programs to remove screen



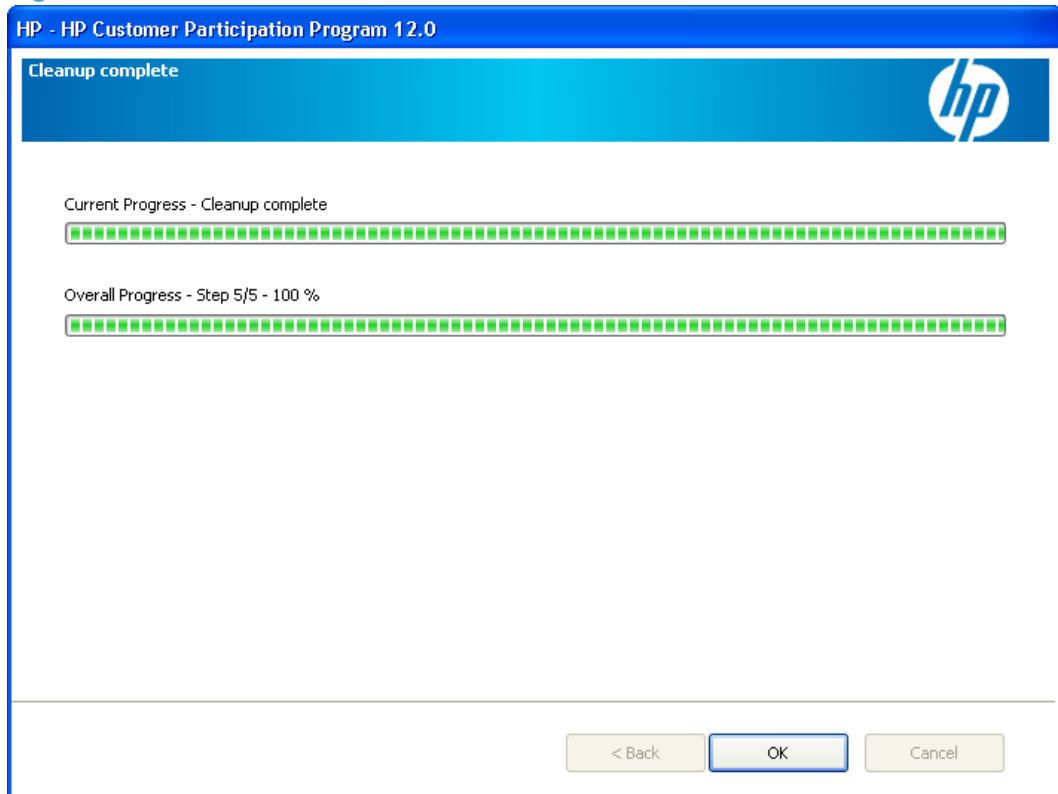
Select the components that you want to remove, and then click the **Continue** button. In the instructions screen that opens, click the **Continue** button to start the uninstall process.

Figure 3-35 Instructions screen



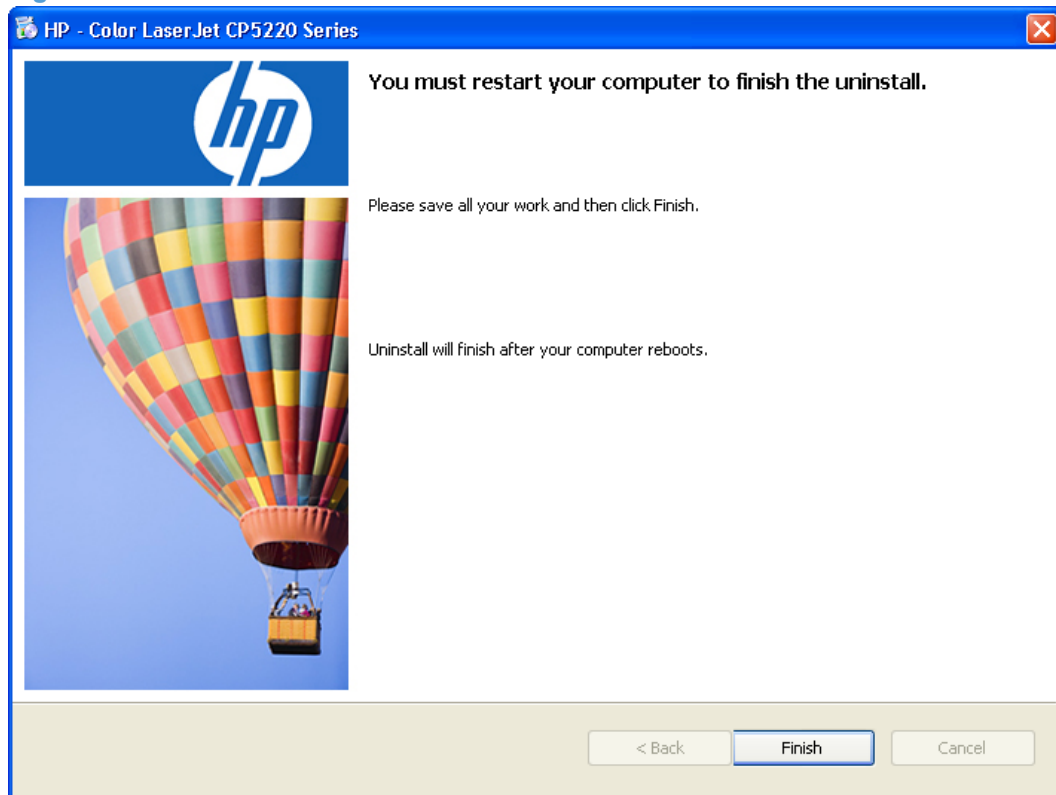
4. A progress dialog box appears. The progress bar reflects the status of the uninstall process. When the process is complete, the Cleanup complete dialog box opens. Click the **OK** button to close the dialog box.

Figure 3-36 Instructions screen




5. When the uninstall process is completed, the finish dialog box appears. Click the **Finish** button to restart the computer and finish the uninstall process.

Figure 3-37 Finish screen



Use the Windows Add or Remove Programs component

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

 **NOTE:** To uninstall the software in Windows operating systems, you must have administrator privileges.

NOTE: The Yahoo toolbar is uninstalled using the following steps.

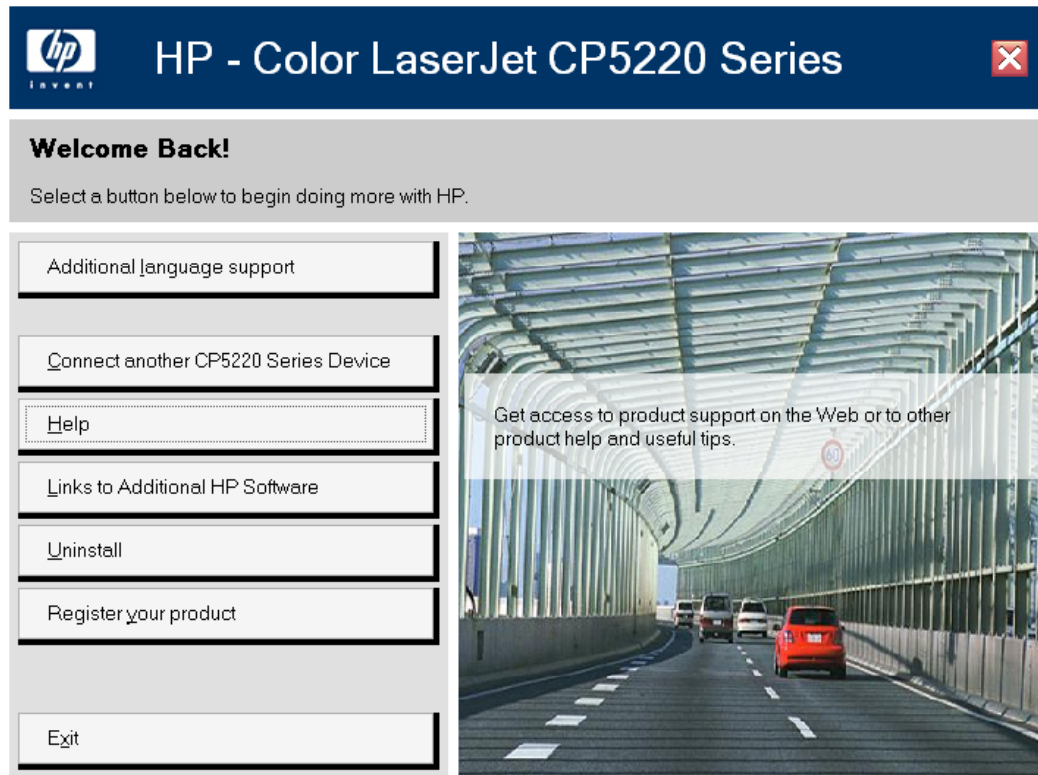
1. Quit all open programs.
2. Click the **Start** button, click the **Settings** menu item, click the **Control Panel** menu item, and then click or double-click the **Add or Remove Programs** item.
3. Click the **Change or Remove programs** item on the left side of the window, and then click the name of the product. Click the **Remove** button.
4. The Important Uninstall Information dialog box appears. Click the **Continue** button.
5. The Cleanup progress dialog box appears. The progress bar reflects the status of the uninstall process. When the uninstall process is completed, the Restart dialog box appears. Click the **Restart** button to restart your computer and finish the uninstall process.

Use the printing-system software CD

1. Quit all open programs.


2. Insert the printing-system software CD into the CD-ROM drive. After the system is checked, the Welcome Back dialog box appears.

Figure 3-38 Welcome Back dialog box



3. Click the **Uninstall** button, and then follow the onscreen prompts.

Uninstall a print-driver only installation

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

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

4 HP PCL 6 print driver and HP UPD PS for Windows

Introduction

The HP Color LaserJet CP5220 Series printer supports the following drivers: the HP PCL 6 print driver and the HP UPD PS.

- [Open the printer driver](#)
- [Help system](#)
- [Advanced tab features](#)
- [Printing Shortcuts tab](#)
- [Paper/Quality tab features](#)
- [Effects tab features](#)
- [Finishing tab features](#)
- [Color tab features](#)
- [Services tab features](#)
- [Device Settings tab features](#)
- [About tab features](#)

Open the printer driver

How do I	Steps to perform
Open the printer driver	On the File menu in the software program, click Print . Select the printer, and then click Properties or Preferences .
Get help for any printing option	Click the ? symbol in the upper-right corner of the printer driver, and then click any item in the printer driver. A pop-up message displays that provides information about the item. Or, click Help to open the online Help.

Help system

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

- [“What's this?” Help](#)
- [Constraint messages](#)

“What's this?” Help

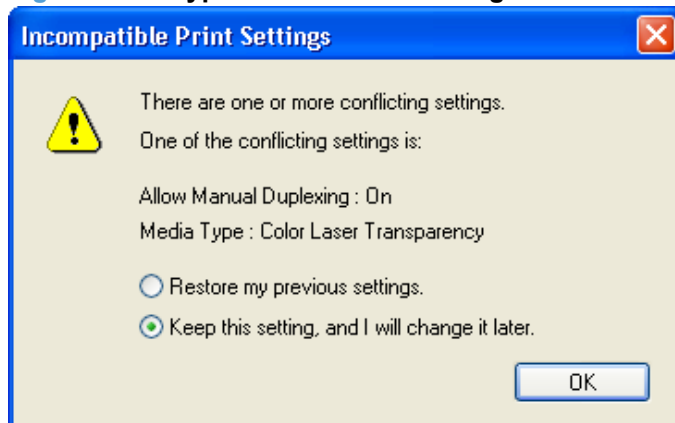
“What's this?” Help is supported in Microsoft Windows 2000 and Windows XP. Access the “What's this?” Help messages in any of the following ways:

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

Constraint messages

Constraint messages are unsolicited messages that appear in response to specific actions 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 with options on how to resolve this conflict.

Figure 4-1 A typical constraint message



Whenever a constraint message appears with **Restore my previous settings** or **Keep this setting, and I will change it later** 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 **Restore my previous settings** and then click **OK**.
- To accept the change that was just made, click **Keep this setting, and I will change it later** and then click **OK**. This brings back the driver settings where the user can resolve the conflict.

Advanced tab features

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

Figure 4-2 Advanced tab – PCL 6

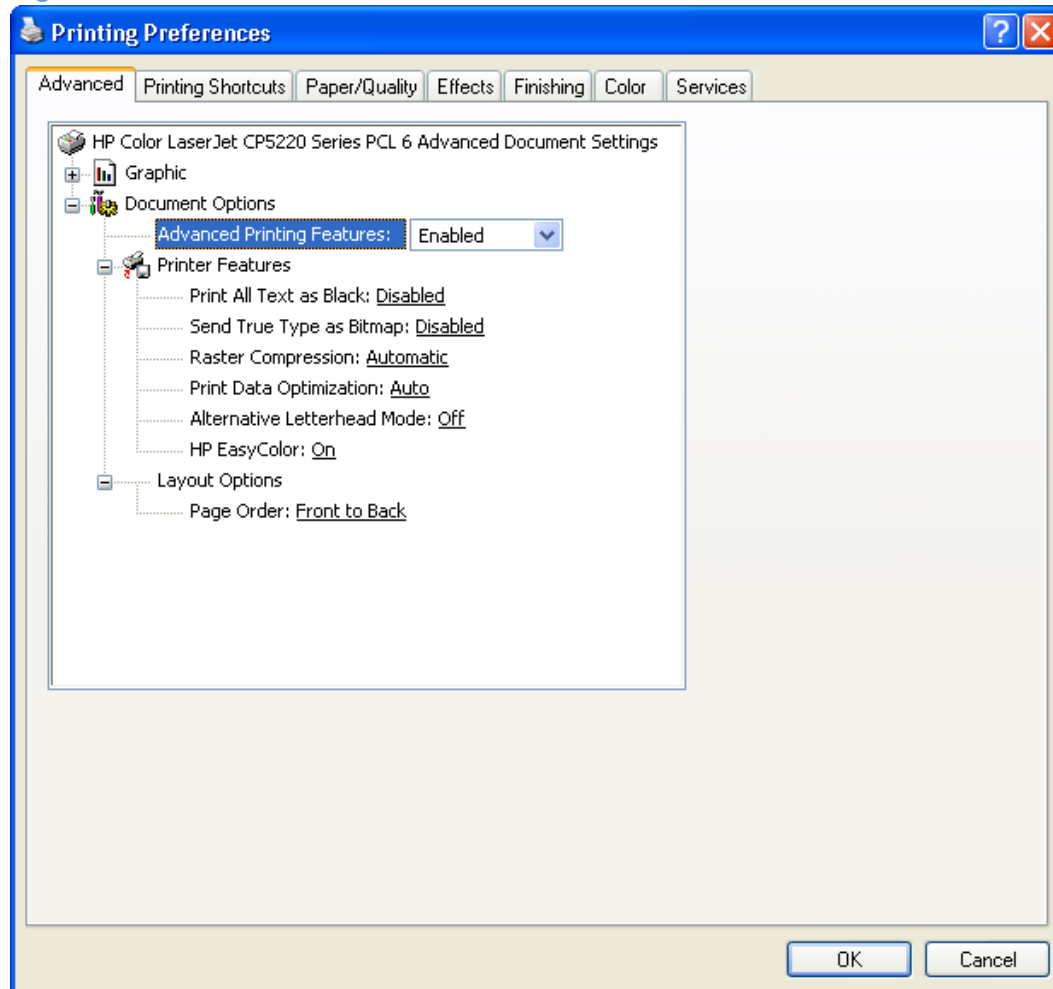
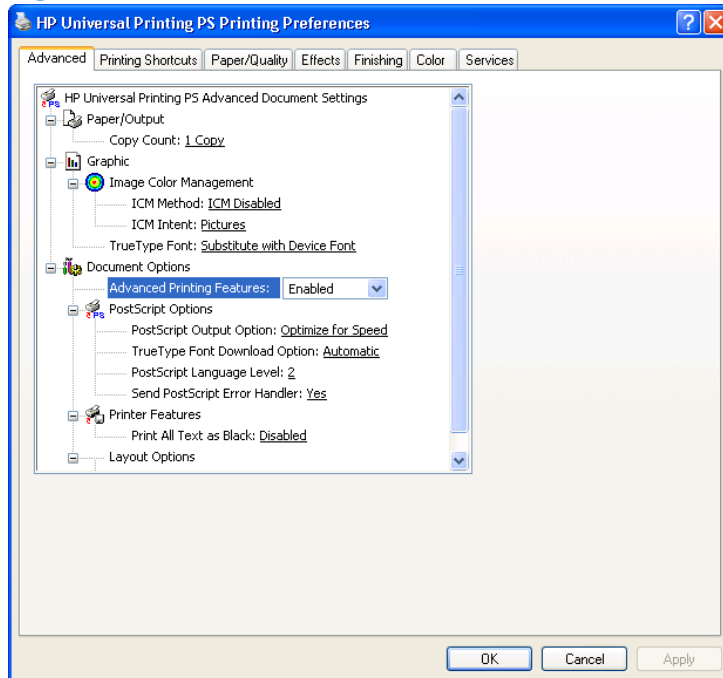


Figure 4-3 Advanced tab – HP UPD PS



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

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

Paper/Output settings

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

Copy Count setting

Copy Count specifies the number of copies to print. This driver setting is useful for software programs that do not provide a copy count. If a copy count is available in the software program, set the copy count in the software program.

The requested number of copies appears in the **Copy Count** option. Select the number by typing in the box or by using the up and down arrows on the right side of the text box. For the HP Color LaserJet CP5220 Series printer, valid entries are numbers from 1 to 9999. The copies value will not advance from the maximum number (9999) to 1 when the up arrow is used, or change from 1 to the maximum number (9999) when the down arrow is used.

When you click another group box or leave the **Advanced** tab, invalid entries into the edit box (such as non-numerical input, numbers less than 1, or numbers greater than 9999) change to the last valid value that appeared in the box. The default number of copies is 1.

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

the driver might result in the product making 100 copies (10 x 10). Set the number of copies in the software program, whenever possible.

Graphic settings

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

- **Image Color Management** settings
- **TrueType Font** settings

Image Color Management settings

Image Color Management (ICM) options are used for printing color graphics. The ICM options make it possible for programs to adjust colors before printing so that the color of images on the screen more closely matches the color of printed images. The following options are available:

- **ICM Method.** The ICM Method setting specifies how to print color graphics. The default setting for **ICM Method** is **ICM Disabled**. Additional options on the **ICM Method** drop-down menu include:
 - **ICM Handled by Host System.** Click this option to perform calculations for color matching on the host computer before sending the document to the product.
 - **ICM Handled by Printer.** Click this option to perform calculations for color matching on the product. A set of rules for mapping the colors is created and downloaded to the product (which must be PostScript language level 2 or higher). The product uses these rules to adjust colors in the document.
- **ICM Intent.** The ICM Intent setting specifies how color images are created to produce the best-looking image on the printed page.
 - If printing a chart or using fully saturated, bright colors, click **Graphics** to achieve the best quality.
 - For photographs or pictures where the colors blend together, click **Pictures** to maximize the contrast.
 - If the document uses a color that you need to match exactly, and you are sending the document to a product that has that specific color of ink, click **Proof**.
 - To preview the color settings from another product, click **Match**.

TrueType Font settings

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

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

Document Options

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

- [Advanced Printing Features](#)

- [PostScript Options \(HP UPD PS only\)](#)
- [Printer Features](#)
- [Layout Options](#)

Advanced Printing Features

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

PostScript Options (HP UPD PS only)

The following PostScript options appear in the HP UPD PS:

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

PostScript Output option

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

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

TrueType Font Download option

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

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

PostScript Language Level

The **PostScript Language Level** option specifies which PS language level to use, from 1 to 3. The highest level supported by the HP Color LaserJet CP5220 Series printer is 3, and this is the default setting. Some products support multiple levels.

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

Send PostScript Error Handler

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

Printer Features

The following **Printer Features** are available:

- [Print All Text as Black](#)
- [Send TrueType as Bitmap \(PCL 6 only\)](#)
- [Raster Compression \(PCL 6 only\)](#)
- [Print Data Optimization \(PCL 6 only\)](#)
- [HP EasyColor](#)
- [Alternative Letterhead Mode \(PCL 6 only\)](#)

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. **Print All Text as Black** remains enabled only for the current print job. When the current print job is completed, **Print All Text as Black** is automatically disabled.

Send TrueType as Bitmap (PCL 6 only)

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

Raster Compression (PCL 6 only)

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

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

Print Data Optimization (PCL 6 only)

Implementation of this feature required changes to both the software (print driver) and the printer's firmware. The benefit of this feature is that files will print faster without any degradation of print quality. Print Data Optimization is a combination of the best of Page Description Language (PDL) printing with the best of host-based printing.

Print Data Optimization printing is possible only with the HP PCL 6 print driver. The Print Data Optimization feature allows the print job to use the host memory to ensure quick and high-quality printing. The print driver can be set to print like a host-based printer all the time (**Optimize for Raster**), a standard PCL printer all the time (**Optimize for Text and Vector**), or a mixture of both (**Auto**) depending upon the application you are printing from. By default, the feature is set to **Auto**. This sends data to the printer like a host-based print driver using the **Optimize for Raster** path for the list of applications below and the **Optimize for Text and Vector** path for all other applications. The feature is set in the **Advanced** tab of the Printing Preferences of the HP PCL 6 print driver.

Applications that cause use of the Raster path

- AutoCad (ACAD.EXE)
- Adobe Acrobat (ACROBAT.EXE)
- Adobe Reader (ACRORD32.EXE)
- CorelDRAW® (CORELDRW.EXE)
- Adobe Illustrator (ILLUSTRATOR.EXE)
- Adobe PhotoShop® (PHOTOSHP.exe or PHOTOSHOP.EXE)
- Microsoft PowerPoint (POWERPOINT.EXE)
- Quark Express (QUARKXPRESS.EXE)

Print Data Optimization is a feature that is only available in Windows printing. When the product is installed in the Windows environment, Print Data Optimization printing is automatically enabled. The Print Data Optimization feature is not available for Mac, Linux, or other operating systems.

The following Print Data Optimization options are available; Auto is selected by default.

- **Auto**. The default mode. In this mode, the driver behaves like a host-based printer only for the applications listed above and behaves like a standard PCL6 print driver for all other applications.
- **Optimize for Raster**. In this mode, the print driver always sends data like a host-based print driver.
- **Optimize for Text and Vector**. In this mode, the print driver always sends data like a standard PCL6 print driver.

The Print Data Optimization feature can be changed from **Auto** to **Optimize for Raster** or **Optimize for Text and Vector**.

Selecting **Optimize for Raster** causes the driver to always use the Raster path when printing; and, selecting **Optimize or Text and Vector** causes the driver to always use the PDL path.

HP EasyColor

The **HP EasyColor** option is enabled by default in the HP PCL 6 printer driver, so you do not need to make manual color adjustments. To disable the option so you can manually adjust the color settings, select **Off** next to **HP EasyColor**.

Alternative Letterhead Mode (PCL 6 only)

When selected, this option eliminates the need to flip or reload letterhead or preprinted paper in a tray, whether you are printing on one or both sides of the sheet. Load the paper as you would for printing on both sides. If the product tray has an icon that indicates whether to load paper either face-up or face-down, load the paper in opposite orientation of that shown.


When this option is selected, you must use one of the following options in the Paper type setting:

- Letterhead
- Preprinted

Layout Options

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

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

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

Printing Shortcuts tab

Use the **Printing Shortcuts** tab in the Printing Properties window to store specific combinations of driver settings for easy use.

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

Figure 4-4 Printing Shortcuts tab – PCL 6

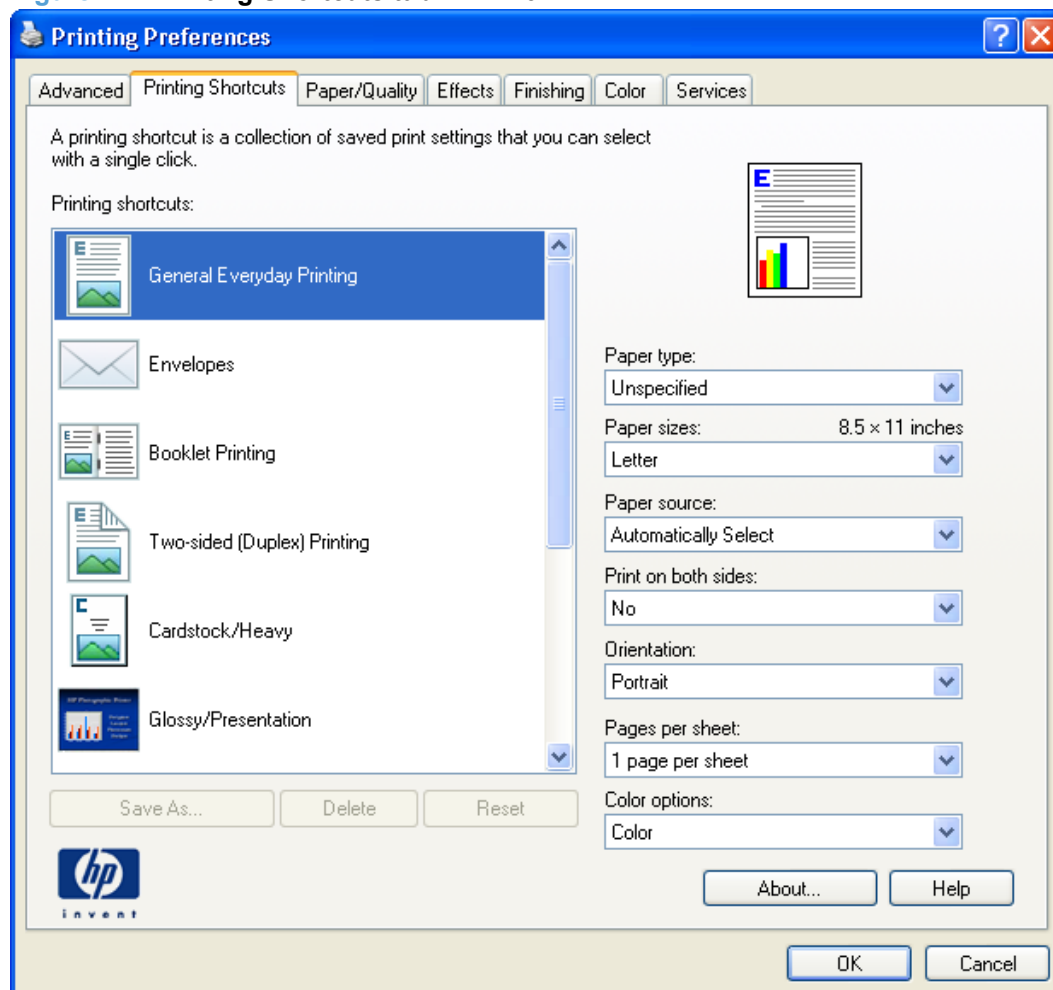
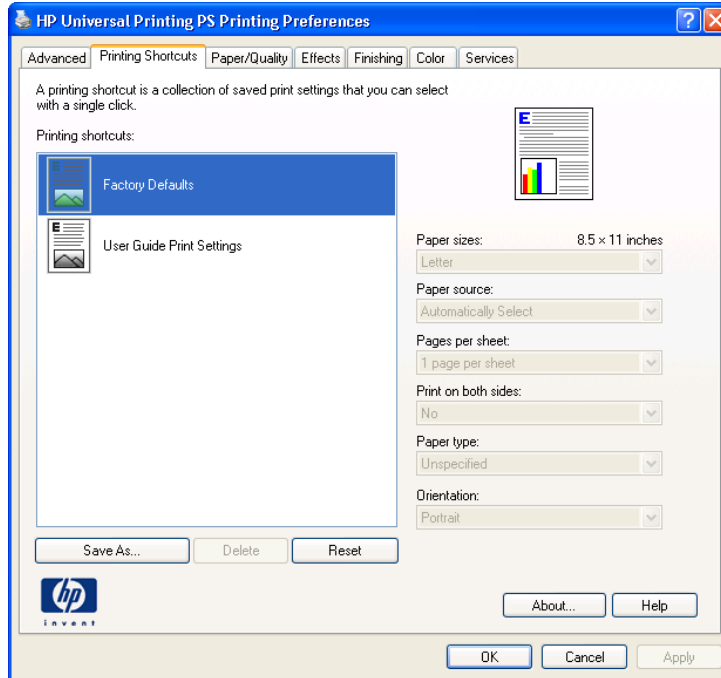


Figure 4-5 Printing Shortcuts tab – HP UPD PS



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

Printing Shortcuts contains the following:

- [General Everyday Printing \(PCL 6 only\)](#)
- [Envelopes \(PCL 6 only\)](#)
- [Cardstock/Heavy \(PCL 6 only\)](#)
- [Glossy/Presentation \(PCL 6 only\)](#)
- [Snapshot Photos \(PCL 6 only\)](#)
- [Labels \(PCL 6 only\)](#)
- [Transparencies \(PCL 6 only\)](#)
- [Factory Defaults](#)
- [User Guide Print Settings \(HP UPD PS only\)](#)
- [Document preview image](#)

General Everyday Printing (PCL 6 only)

When options other than the defaults are selected, the **Save as...** and **Reset** buttons become active.

Click **Save as...** to create a custom printing shortcut.

Click **Reset** to restore the default settings.

Table 4-1 General Everyday printing options

Category	Option
Paper type:	<p>The following options are available:</p> <ul style="list-style-type: none">• Unspecified (default)• Plain• HP LaserJet 90g• HP Color Laser Matte 105g• HP Premium Choice Matte 120g• HP Color Laser Brochure Matte 160g• HP Superior Laser Matte 160g• HP Cover Matte 200g• HP Matte Photo 200g• HP Presentation Glossy 130g• HP Professional Laser Glossy 130g• HP Tri-fold Color Laser Brochure 160g• HP Color Laser Brochure Glossy 160g• HP Superior Laser Glossy 160g• HP Color Laser Photo Glossy 220g• Light 60-74g• Mid-Weight 96-110g• Heavy 111-130g• Extra Heavy 131-175g• Heavy Glossy 111-130g• Extra Heavy Glossy 131-175g• Card Glossy 176-220g• Color Laser Transparency• Labels• Letterhead• Envelope• Heavy Envelope

Table 4-1 General Everyday printing options (continued)

Category	Option
	<ul style="list-style-type: none"> • Preprinted • Prepunched • Colored • Bond • Recycled • Rough • Heavy Rough • HP Tough Paper
Paper size:	<p>The following options are available:</p> <ul style="list-style-type: none"> • Letter (default) • Legal • Executive • 8.5x13 • 4x6 • 10x15cm • 5x8 • A4 • A5 • A6 • B4 (JIS) • B5 (JIS) • 8K 270x390 mm • 16K 195x270 mm • 16K 184xx260 mm • 8K 273x394 mm • 16K 197x273 mm • Postcard (JIS) • Double Postcard (JIS) • Envelope #10 • Envelope Monarch • Envelope B5 • Envelope C5 • Envelope DL

Table 4-1 General Everyday printing options (continued)

Category	Option
Paper source:	The following options are available: <ul style="list-style-type: none">• Automatically Select (default)• Printer auto select• Manual Feed in Tray 1• Tray 1• Tray 2
Print on both sides:	The following options are available: <ul style="list-style-type: none">• No (default)• Yes, Flip Over• Yes, Flip Up
Color Options	The following options are available: <ul style="list-style-type: none">• Color (default)• Black and white

Envelopes (PCL 6 only)

When options other than the defaults are selected, the **Save as...** and **Reset** buttons become active.

Click **Save as...** to create a custom printing shortcut.

Click **Reset** to restore the default settings.

Table 4-2 Envelopes printing options

Category	Options
Paper type:	<ul style="list-style-type: none">• Envelope (default)• Heavy Envelope

Table 4-2 Envelopes printing options (continued)

Category	Options
Paper sizes:	<ul style="list-style-type: none">• Envelope #10 (default)• Envelope Monarch• Envelope B5• Envelope C5• Envelope DL
Paper source:	<ul style="list-style-type: none">• Automatically Select (default)• Printer auto select• Manual Feed in Tray 1• Tray 1• Tray 2

Cardstock/Heavy (PCL 6 only)

When options other than the defaults are selected, the **Save as...** and **Reset** buttons become active.

Click **Save as...** to create a custom printing shortcut.

Click **Reset** to restore the default settings.

Table 4-3 Cardstock/Heavy printing options

Category	Options
Paper type:	<ul style="list-style-type: none">• HP Cover Matte 200g (default)• Heavy 111-130g• Extra Heavy 131-175g• Heavy Glossy 111-130g• Extra Heavy Glossy 131-175g• Card Glossy 176-200g

Table 4-3 Cardstock/Heavy printing options (continued)

Category	Options
Paper sizes:	<p>The following options are available:</p> <ul style="list-style-type: none">• Letter (default)• Legal• Executive• 8.5x13• 4x6• 10x15cm• 5x8• A4• A5• A6• B4 (JIS)• B5 (JIS)• 8K 270x390 mm• 16K 195x270 mm• 16K 184xx260 mm• 8K 273x394 mm• 16K 197x273 mm• Postcard (JIS)• Double Postcard (JIS)• Envelope #10• Envelope Monarch• Envelope B5• Envelope C5• Envelope DL
Paper source:	<ul style="list-style-type: none">• Automatically Select (default)• Printer auto select• Manual Feed in Tray 1• Tray 1• Tray 2

Table 4-3 Cardstock/Heavy printing options (continued)

Category	Options
Print on both sides:	<ul style="list-style-type: none"> • No (default) • Yes, flip over • Yes, flip up
Color options:	<ul style="list-style-type: none"> • Color (default) • Black & White

Glossy/Presentation (PCL 6 only)

When options other than the defaults are selected, the **Save as...** and **Reset** buttons become active.

Click **Save as...** to create a custom printing shortcut.

Click **Reset** to restore the default settings.

Table 4-4 Glossy/Presentation printing options

Category	Options
Paper type:	<ul style="list-style-type: none"> • HP Color Laser Matte 105g • HP Premium Choice Matte 120g • HP Color Laser Brochure Matte 160g • HP Superior Laser Matte 160g • HP Cover Matte 200g • HP Matte Photo 200g • HP Presentation Glossy 130g • HP Professional Laser Glossy 130g • HP Color Laser Brochure Glossy 160g • HP Superior Laser Glossy 160g • HP Color Laser Photo Glossy 220g (default) • Mid-Weight Glossy 96-110g • Heavy Glossy 111-130g • Extra Heavy Glossy 131-175g • Card Glossy 176-220g • Bond • Rough • Heavy Rough • HP Tough Paper

Table 4-4 Glossy/Presentation printing options (continued)

Category	Options
Paper sizes:	<ul style="list-style-type: none">• Letter (default)• Legal• Executive• 8.5x13• A4• B4 (JIS)• B5 (JIS)• 8K 273x394 mm• 16K 197x273 mm
Paper source:	<ul style="list-style-type: none">• Automatically Select (default)• Printer auto select• Manual Feed in Tray 1• Tray 1• Tray 2
Print on both sides:	<ul style="list-style-type: none">• No (default)• Yes, flip over• Yes, flip up
Color theme:	<ul style="list-style-type: none">• Default (sRGB) (default)• Vivid• Photo• Photo (Adobe RGB 1998)• None

Snapshot Photos (PCL 6 only)

When options other than the defaults are selected, the **Save as...** and **Reset** buttons become active.

Click **Save as...** to create a custom printing shortcut.

Click **Reset** to restore the default settings.

Table 4-5 Snapshot printing options

Category	Options
Paper type:	<ul style="list-style-type: none"> • HP Cover Matte 200g • HP Matte Photo 200g) • HP Color Laser Photo Glossy 220g (default)
Paper sizes:	<ul style="list-style-type: none"> • 4x6 (default) • 10x15cm
Paper source:	<ul style="list-style-type: none"> • Automatically Select (default) • Printer auto select • Manual Feed in Tray 1 • Tray 1 • Tray 2
Color theme:	<ul style="list-style-type: none"> • Default (sRGB) • Vivid • Photo (default) • Photo (Adobe RGB 1998) • None

Labels (PCL 6 only)

When options other than the defaults are selected, the **Save as...** and **Reset** buttons become active.

Click **Save as...** to create a custom printing shortcut.

Click **Reset** to restore the default settings.

Table 4-6 Labels printing options

Category	Options
Paper type:	Labels

Table 4-6 Labels printing options (continued)

Category	Options
Paper sizes:	<ul style="list-style-type: none"> • Letter (default) • Legal • Executive • 8.5x13 • A4 • B4 (JIS) • B5 (JIS) • 8K 273x394 mm • 16K 197x273 mm
Paper source:	<ul style="list-style-type: none"> • Automatically Select (default) • Printer auto select • Manual Feed in Tray 1 • Tray 1 • Tray 2
Color options:	<ul style="list-style-type: none"> • Color (default) • Black & White

Transparencies (PCL 6 only)

When options other than the defaults are selected, the **Save as...** and **Reset** buttons become active.

Click **Save as...** to create a custom printing shortcut.

Click **Reset** to restore the default settings.

Table 4-7 Transparencies printing options

Category	Options
Paper type:	Color Laser Transparency

Table 4-7 Transparencies printing options (continued)

Category	Options
Paper sizes:	<ul style="list-style-type: none"> • Letter (default) • Legal • Executive • 8.5x13 • 4x6 • 10x15cm • 5x8 • A4 • A5 • A6 • B4 (JIS) • B5 (JIS) • 8K 270x390 mm • 8K 273x394 mm • 16K 195x270 mm • 16K 184x260 mm • 16K 197x273 mm • Postcard (JIS) • Double Postcard (JIS) • Envelope #10 • Envelope Monarch • Envelope B5 • Envelope C5 • Envelope DL
Paper source:	<ul style="list-style-type: none"> • Automatically Select (default) • Printer auto select • Manual Feed in Tray 1 • Tray 1 • Tray 2
Color options:	<ul style="list-style-type: none"> • Color (default) • Black & White

Factory Defaults

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

The **Factory Defaults** are as follows:

- **Paper type: Unspecified**
- **Page size: Letter**
- **Paper source: Automatically select**
- **Print on both sides: No**
- **Color Options: Color**

User Guide Print Settings (HP UPD PS only)

When options other than the defaults are selected, the **Save as...** and **Reset** buttons become active.

Click **Save as...** to create a custom printing shortcut.

Click **Reset** to restore the default settings.

Table 4-8 User Guide Print Settings – HP UPD PS only

Category	Option
Paper size:	<p>The following options are available:</p> <ul style="list-style-type: none">• Letter (default)• Legal• Executive• Statement• 8.5x13• A4• A5• B5 (JIS)• B4 (JIS)• Executive (JIS)• Double Japan Postcard Rotated• 8K• 16K• Envelope #10• Envelope Monarch• Envelope B5• Envelope C5• Envelope DL• Envelope B5
Paper source:	<p>The following options are available:</p> <ul style="list-style-type: none">• Automatically Select (default)• Printer auto select• Manual Feed in Tray 1• Tray 1• Tray 2
Pages per sheet	<p>The following options are available:</p> <ul style="list-style-type: none">• 1 page per sheet• 2 pages per sheet• 4 pages per sheet• 6 pages per sheet• 9 pages per sheet• 16 pages per sheet

Table 4-8 User Guide Print Settings – HP UPD PS only (continued)

Category	Option
Print on both sides:	<p>The following options are available:</p> <ul style="list-style-type: none">• No (default)• Yes, Flip Over• Yes, Flip Up
Paper type:	<p>The following options are available:</p> <ul style="list-style-type: none">• Unspecified (default)• Plain• HP LaserJet 90g• HP Color Laser Matte 105g• HP Premium Choice Matte 120g• HP Color Laser Brochure Matte 160g• HP Superior Laser Matte 160g• HP Cover Matte 200g• HP Matte Photo 200g• HP Presentation Glossy 130g• HP Professional Laser Glossy 130g• HP Tri-fold Color Laser Brochure 160g• HP Color Laser Brochure Glossy 160g• HP Superior Laser Glossy 160g• HP Color Laser Photo Glossy 220g• Light 60-74g• Mid-Weight 96-110g• Heavy 111-130g• Extra Heavy 131-175g• Heavy Glossy 111-130g• Extra Heavy Glossy 131-175g• Card Glossy 176-220g• Color Laser Transparency• Labels• Letterhead• Envelope• Heavy Envelope

Table 4-8 User Guide Print Settings – HP UPD PS only (continued)

Category	Option
	<ul style="list-style-type: none">• Preprinted• Prepunched• Colored• Bond• Recycled• Rough• Heavy Rough• HP Tough Paper
Orientation	<p>The following options are available:</p> <ul style="list-style-type: none">• Portrait• Landscape

Document preview image

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

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

Figure 4-6 Document preview image



Paper/Quality tab features

Use the **Paper/Quality** tab to specify the size, type, and source of the paper. Also use this tab to specify different paper selections for the front cover, first page, other pages, last page, and back cover of the document.

The following figure shows the **Paper/Quality** tab.

Figure 4-7 Paper/Quality tab – PCL 6

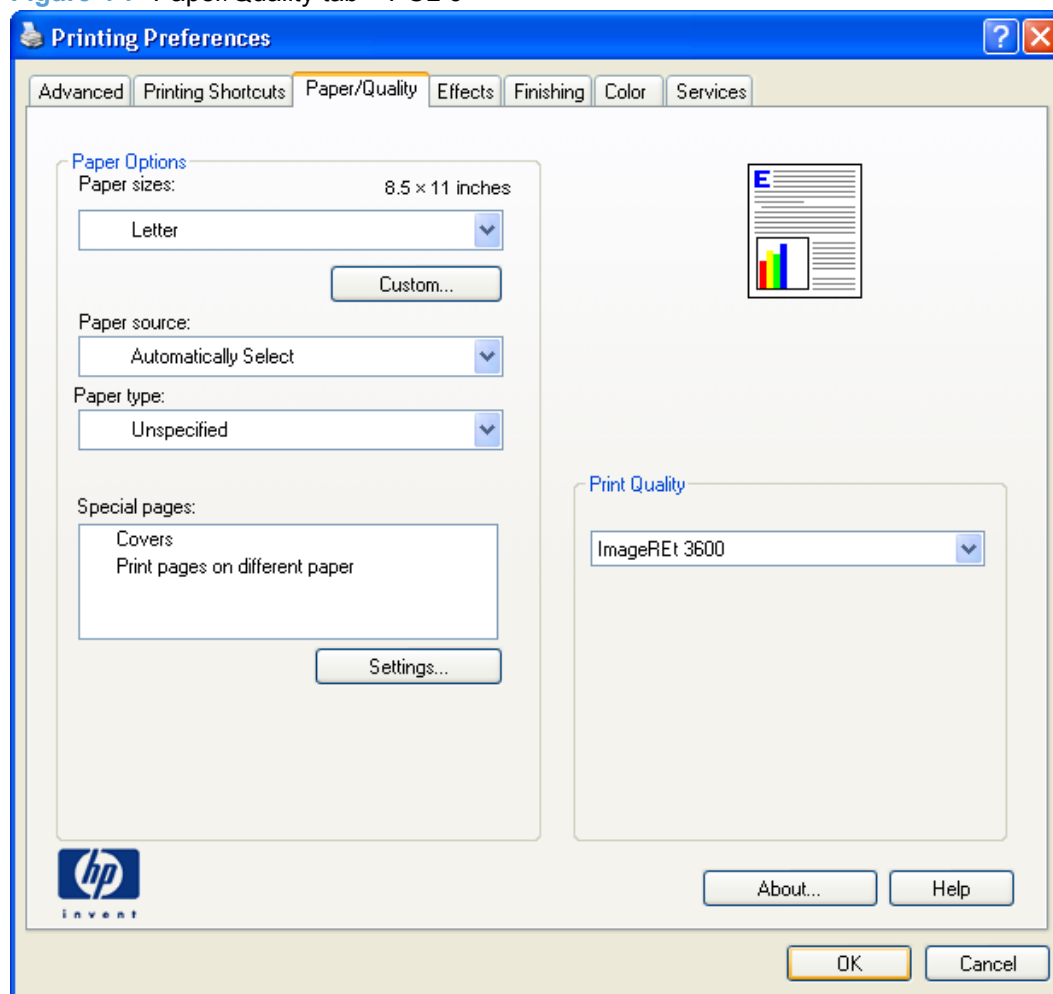
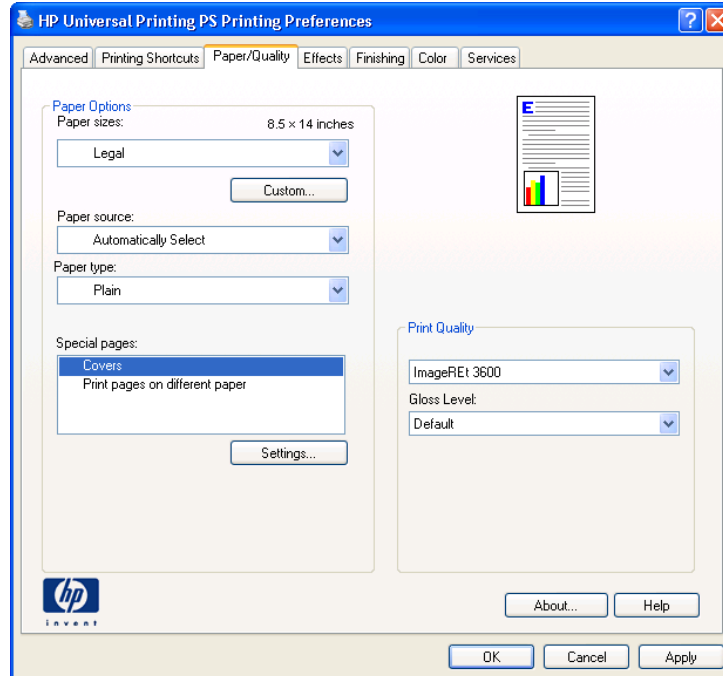


Figure 4-8 Paper/Quality tab – HP UPD PS



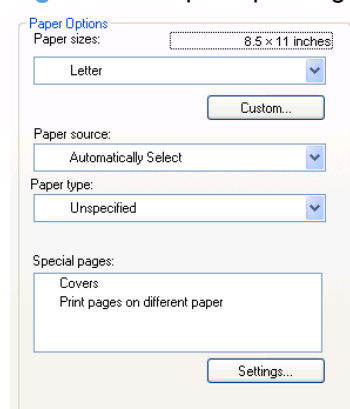
The **Paper/Quality** tab contains the following options:

- [Paper Options](#)
- [Document preview image](#)
- [Print Quality group box](#)

Paper Options

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

Figure 4-9 Paper Options group box



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

- [Paper size: on page 175](#)
- [Custom Paper Size on page 175](#)


- [Paper source: on page 177](#)
- [Paper type: on page 178](#)
- [Special pages on page 180](#)

Paper size:

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

Move the cursor over the dimensions label to change the cursor from an arrow to a gloved hand. Click the dimensions label to toggle between English and metric units.

Because paper-size settings in most software programs override driver settings, use the driver to set paper size only when printing from software programs that do not include a paper-size setting, such as NotePad, or when producing a book or a booklet that does not require different paper sizes.

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

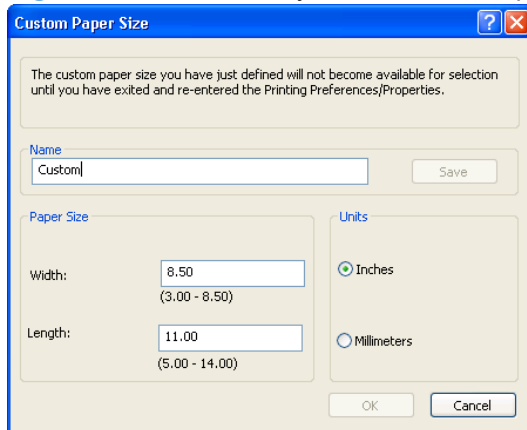
When you change the print-driver setting to a paper size that is not currently loaded in the product, a control-panel message prompts you to load the paper size or select another tray.

Custom Paper Size

The **Custom Paper Size** dialog box appears when you click **Custom...** on the **Paper/Quality** tab.

The following figure shows the initial appearance of the **Custom Paper Size** dialog box.

Figure 4-10 Print/Quality tab – Custom Paper Size dialog box



Name

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

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

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

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

Paper Size

Change the width and height values by typing numeric strings into the edit boxes in the **Paper Size** group box.

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

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

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

Units

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

Custom width and height control limits

The minimum paper size for the HP Color LaserJet CP5220 Series printer is 76.2 x 127 mm (3 x 5 inches) and the maximum is 279 x 431 mm (11 x 17 inches). The following tables summarize paper size limits.

The following table identifies the paper types the HP Color LaserJet CP5220 Series printer supports in trays 1 and 2.

Table 4-9 Tray 1 and Tray 2 specifications

Tray 1 and Tray 2	Dimensions ¹	Weight	Capacity ²
Paper	Minimum: 76 x 127 mm	60 to 163 g/m ² (16 to 43 lb)	Single sheet of 75 g/m ² (20 lb) paper for Tray 1
	(3 x 5 inches)	Up to 176 g/m ² (47 lb) for postcards	
	Maximum: 279 x 431 mm		Up to 250 sheets for Tray 2
	(11 x 17 inches)		

Table 4-9 Tray 1 and Tray 2 specifications (continued)

Tray 1 and Tray 2	Dimensions ¹	Weight	Capacity ²
HP LaserJet glossy paper and HP LaserJet photo paper	Same as the preceding listed minimum and maximum sizes.	75 to 220 g/m ² (20 to 58 lb)	Single sheet of HP LaserJet glossy paper or HP LaserJet photo paper for Tray 1 Up to 25 mm (0.99 inch) stack height for Tray 2
HP Premium Cover Paper ⁴		200 g/m ² (53 lb) cover	Single sheet of HP Cover paper for Tray 1 Up to 25 mm (0.99 inch) stack height for Tray 2
Transparencies and opaque film		Thickness: 0.10 to 0.13 mm (3.9 to 5.1 mils)	Single sheet of transparency or opaque film for Tray 1 Up to 50 sheets for Tray 2
Labels ³		Thickness: up to 0.23 mm (up to 9 mils)	Single sheet of labels for Tray 1 Up to 25 mm (0.99 inch) stack height for Tray 2
Envelopes		Up to 90 g/m ² (up to 24 lb)	Single envelope for Tray 1 Up to ten envelopes for Tray 2

¹ The product supports a wide range of standard and custom sizes of paper. Check the print driver for supported sizes.

² Capacity can vary depending on paper weight and thickness, and environmental conditions.

³ Smoothness: 100 to 250 (Sheffield).

⁴ Hewlett-Packard does not guarantee results when printing with other types of heavy paper.

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:

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

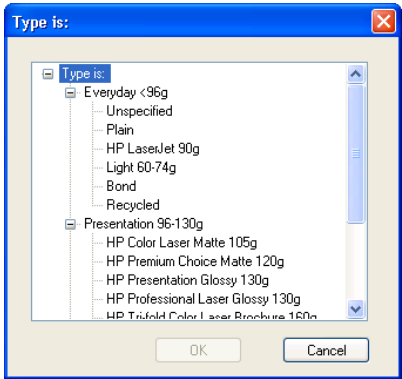
The default setting is **Automatically Select**. When this is selected, the HP Color LaserJet CP5220 Series printer uses the source tray that supports the selected paper size. For the other options, make sure the correct paper size is loaded in the source tray.

Paper type:

The **Paper type:** drop-down menu shows a selection of the paper types that the HP Color LaserJet CP5220 Series printer supports. When you use the default setting, **Unspecified**, the product uses the default paper type, which is usually **Plain**.

To view additional supported paper types, select **More** in the **Paper type:** drop-down menu. The **Type is:** box opens. Select one of the additional paper types and click **OK**. Now this option will be available in the **Paper type:** drop-down menu.

Figure 4-11 Type is: box



The additional supported paper type available via the **Type is:** box are included in the following table.

Table 4-10 Paper type: – Type is: supported paper types and associated engine speeds

Paper category	Paper type	Engine speed
Everyday < 96g	• Unspecified	• Full
	• Plain	• Full
	• HP LaserJet 90g	• 3/4 Speed (6 ppm)
	• Light 60-74g	• Full
	• Bond	• 3/4 Speed (6 ppm)
	• Recycled	• Full
Presentation 96-130g	• HP Color Laser Matte 105g	• 3/4 Speed (6 ppm)
	• HP Premium Choice Matte 120g	• 3/4 Speed (6 ppm)
	• HP Presentation Glossy 130g	• 3/4 Speed (6 ppm)
	• HP Professional Laser Glossy 130g	• 3/4 Speed (6 ppm)
	• HP Tri-fold Color Laser Brochure 160g	• 3/4 Speed (6 ppm)
	• Mid-Weight 96-110g	• 3/4 Speed (6 ppm)
	• Heavy 111-130g	• 3/4 Speed (6 ppm)
	• Heavy Glossy 111-130g	• 3/4 Speed (6 ppm)
		• 3/4 Speed (6 ppm)

Table 4-10 Paper type: – Type is: supported paper types and associated engine speeds (continued)

Paper category	Paper type	Engine speed
Brochure 131-175g	• HP Color Laser Brochure Matte 160g	• 3/4 Speed (6 ppm)
	• HP Superior Laser Matte 160g	• 3/4 Speed (6 ppm)
	• HP Professional Laser Glossy 130g	• 3/4 Speed (6 ppm)
	• HP Tri-fold Color Laser Brochure 160g	• 3/4 Speed (6 ppm)
	• HP Color Laser Brochure Glossy 160g	• 3/4 Speed (6 ppm)
	• HP Superior Laser Glossy 160g	• 3/4 Speed (6 ppm)
	• Extra Heavy 131-175g	• 3/4 Speed (6 ppm)
	• Extra Heavy Glossy 131-175g	• 3/4 Speed (6 ppm)
Photo/Cover 176-200g	• HP Cover Matte 200g	• 3/4 Speed (6 ppm)
	• HP Matte Photo 200g	• 3/4 Speed (6 ppm)
	• HP Color Laser Photo Glossy 200g	• 3/4 Speed (6 ppm)
	• Card Glossy 176-220g	• 3/4 Speed (6 ppm)
Other	• Color Laser Transparency	• 3/4 Speed (6 ppm)
	• Labels	• 3/4 Speed (6 ppm)
	• Letterhead	• Full
	• Envelope	• 3/4 Speed (6 ppm)
	• Heavy Envelope	• 3/4 Speed (6 ppm)
	• Preprinted	• Full
	• Prepunched	• Full
	• Colored	• Full
	• Rough	• 3/4 Speed (6 ppm)
	• Heavy Rough	• 3/4 Speed (6 ppm)
	• HP Tough Paper	• 3/4 Speed (6 ppm)

No mechanism exists for manually adding custom paper types through the driver.

The default setting is **Unspecified**. Before selecting a different setting, make sure that the correct paper type is loaded in the tray that is specified in the **Paper source:** setting.

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

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

Special pages

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

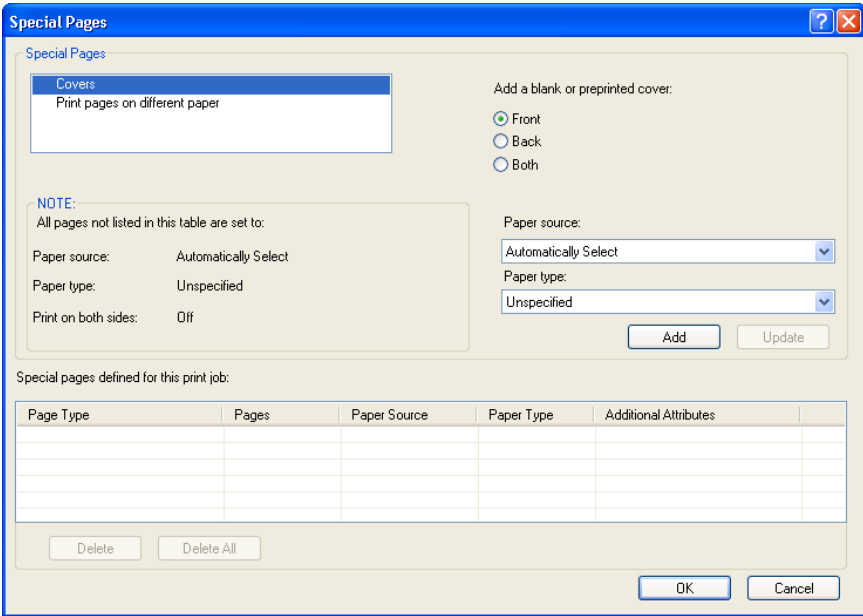
Covers

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

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


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

Figure 4-12 Paper/Quality tab – Special pages – Covers



The following are the **Covers** options:

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

 **NOTE:** The **Back Cover** options are not available when the **Booklet Printing Layout** setting is enabled on the **Finishing** tab. The back cover setting is unavailable, because this page would be printed in the middle of a booklet.

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

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

Print pages on different paper

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

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

Figure 4-13 Special pages – Print pages on different paper

Special Pages

Special Pages

Covers

Print pages on different paper

Pages in document:

☒ First

☐ Last

NOTE:
All pages not listed in this table are set to:

Paper source: Automatically Select

Paper type: Unspecified

Print on both sides: Off

Paper source: Automatically Select

Paper type: Unspecified

Add Update

Special pages defined for this print job:

Page Type	Pages	Paper Source	Paper Type	Additional Attributes

Delete Delete All

OK Cancel

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

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

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

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

Document preview image

See [Document preview image on page 172](#) for information about this feature.

Print Quality group box

The **Print Quality** group box provides options that control resolution and digital imaging settings. The group box includes the following options:

- [Print Quality drop-down menu](#)

- [Gloss Level \(HP UPD PS only\)](#)

Figure 4-14 Paper/Quality tab – Print Quality group box



Print Quality drop-down menu

The **Print Quality** drop-down menu contains the **Image REt 3600** resolution option. This setting produces 3600 dpi color output quality through HP Image Resolution Enhancement Technology (Image REt) 3600. This setting is selected by default.

Gloss Level (HP UPD PS only)

The HP Color LaserJet CP5220 Series is capable of printing exceptionally high gloss levels on a wide range of paper types. However, on some paper types, the gloss level might noticeably decrease from page to page for a particular print job.

The following adjustments can be set by the user in order to maintain exceptionally high gloss level on all printed pages.

Gloss Level driver settings

For users who normally print general office documents where high gloss levels are not critical but need high gloss for particular print jobs. Users can select the appropriate gloss option for their document through the driver

On the **Paper/Quality** tab, the following **Gloss Level** settings are available:

- **Default.** Uses product settings for gloss.
- **Best.** High gloss on all pages.
- **Standard.** Uses the standard gloss setting. This setting provides the fastest print performance, but also produces some gloss variation over time.

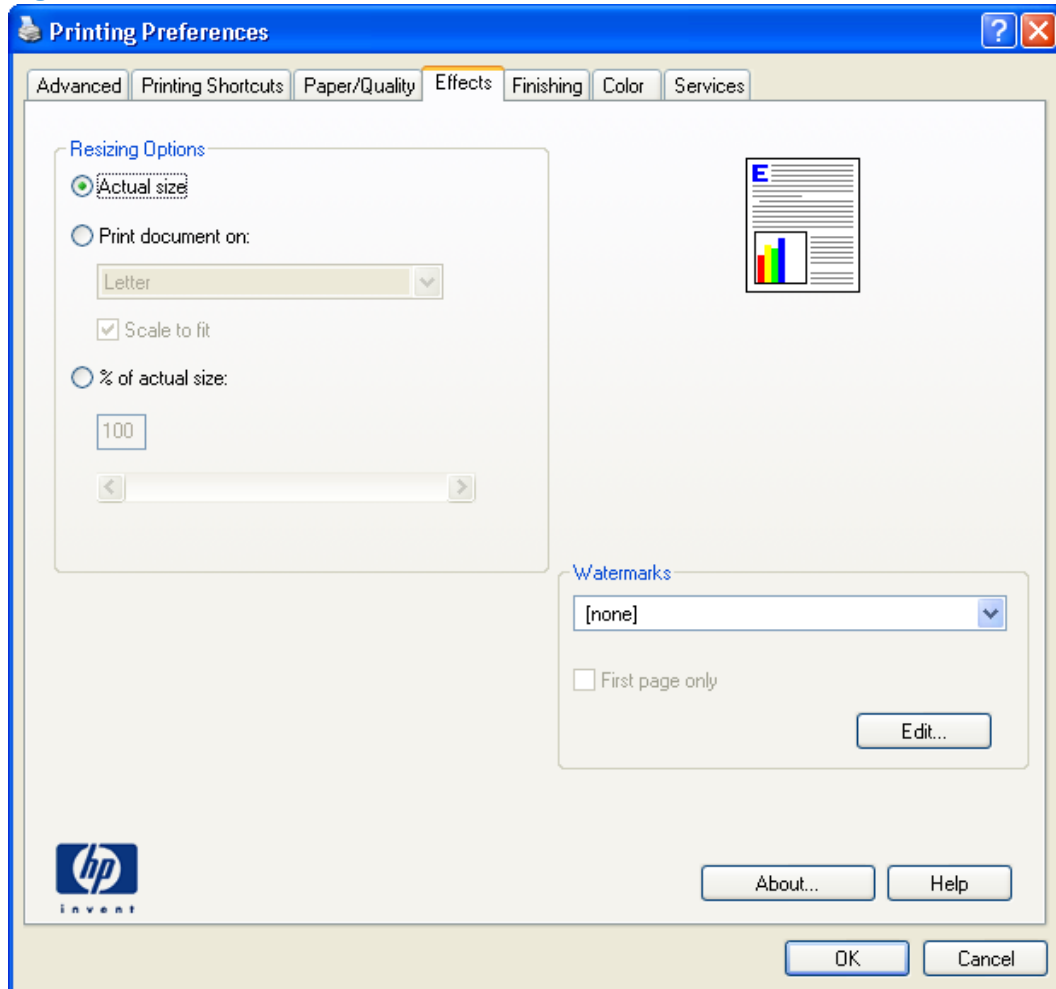
Select **Best** for glossy print jobs such as photos or brochures if the gloss finish decreases after the first page is printed. The **Best** setting reduces printing performance on the print job for which it was selected, but it does not impact product performance for other users.

See the *HP Color LaserJet CP5220 Series User Guide* for control panel options and further information about maintaining high gloss levels.

Effects tab features

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

Figure 4-15 Effects tab



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

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

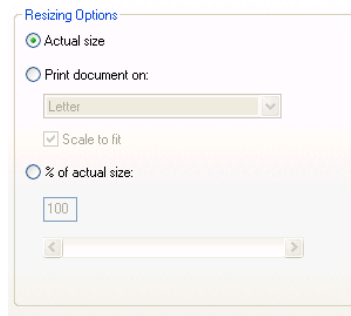
Resizing Options group box

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

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

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

Figure 4-16 Effects tab – Resizing Options group box



Actual Size setting

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

Print Document On setting

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

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

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

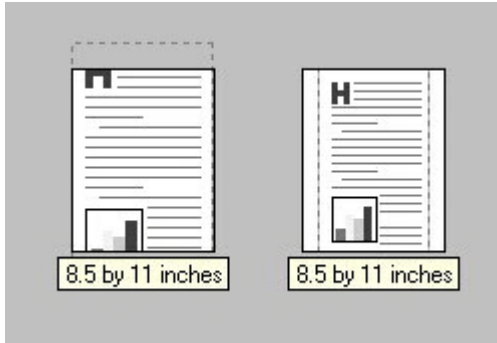
When **Print Document On** is selected, the drop-down menu shows the paper sizes on which you can print. The list contains all of the standard paper sizes that are supported by the selected paper source and any custom sizes that have been created. When **Print Document On** is selected, **Scale to Fit**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

Scale to Fit option

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

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

Figure 4-17 Preview images – Legal on Letter; Scale to Fit off (left) and on (right)



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

% of actual size option

The **% of actual size** option provides a slider bar to use for scaling the percentage setting. The default setting in the entry box is 100% of normal size. Normal size is defined as the paper size that is selected within the driver or what the driver receives from the software program (if the software program does not negotiate the paper size with the driver). The driver scales the page by the appropriate factor and sends it to the 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 scroll bar indicator is dragged, and the preview image is updated to the new image scale. Each click on the scroll bar arrows increases or decreases the scale by 1%. Each click on the slider bar affects the scale by 10%.

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

The following settings disable **% of actual size**:

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

Document preview image

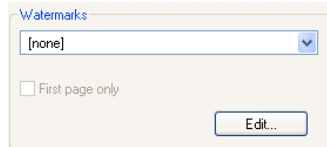
See [Document preview image on page 172](#) for information about this feature.

Watermarks group box

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

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

Figure 4-18 Effects tab – Watermarks group box



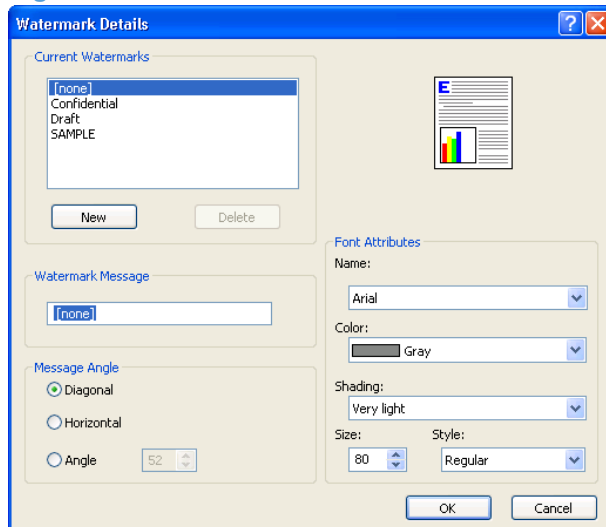
The drop-down menu shows alphabetically sorted watermarks that are currently available on the system plus the string "(none)", which indicates that no watermark is selected. This is the default setting. Any watermark selected from this list appears in the preview image.

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

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

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

Figure 4-19 Effects tab – Watermark Details box



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

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

Current watermarks

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

Creating a new watermark

1. Click **New**.

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

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

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

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



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

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

Deleting a watermark

1. Select the watermark in the **Current Watermarks** list.
2. Click **Delete**.
3. A warning appears asking whether the intent is to delete the selected item.
 - Click **Cancel** to retain the watermark.
 - Click **OK** to delete the selected watermark.

Watermark message

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

Message angle

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

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

Font attributes

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

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

- **Name** drop-down menu
- **Color** drop-down menu
- **Shading** drop-down menu
- **Size** spin box
- **Style** drop-down menu

Name drop-down menu

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

Color drop-down menu

The **Color** drop-down menu provides a fixed, unalterable set of color choices, in palette/color name-pair form, for the watermark. The triplet values for these colors are shown in the following table.

Table 4-11 Watermark color values

Setting	Gray	Red	Yellow	Green	Cyan	Blue	Magenta
Lightest	255	255	255	232	232	232	255
	255	232	255	255	255	232	232
	255	232	232	232	255	255	255
Very Light	224	255	255	224	224	224	255
	224	224	255	255	255	224	224
	224	224	224	224	255	255	255

Table 4-11 Watermark color values (continued)

Setting	Gray	Red	Yellow	Green	Cyan	Blue	Magenta
Light	192	255	255	192	192	192	255
	192	192	255	255	255	192	192
	192	192	192	192	255	255	255
Med Light	160	255	255	160	160	160	255
	160	160	255	255	255	160	160
	160	160	160	160	255	255	255
Medium	128	255	255	128	128	128	255
	128	128	255	255	255	128	128
	128	128	128	128	255	255	255
Med Dark	96	255	255	96	96	96	255
	96	96	255	255	255	96	96
	96	96	96	96	255	255	255
Dark	64	255	255	64	64	64	255
	64	64	255	255	255	64	64
	64	64	64	64	255	255	255
Very Dark	32	255	255	32	32	32	255
	32	32	255	255	255	32	32
	32	32	32	32	255	255	255
Darkest	0	255	255	0	0	0	255
	0	0	255	255	255	0	0
	0	0	0	0	255	255	255

Shading drop-down menu

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

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

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

These values represent the intensity of the gray that is used. A choice of **Light** produces a lightly saturated gray watermark. A choice of **Lightest** produces the lightest shade of watermark; **Darkest** produces a black watermark.

Size spin box

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

Style drop-down menu

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

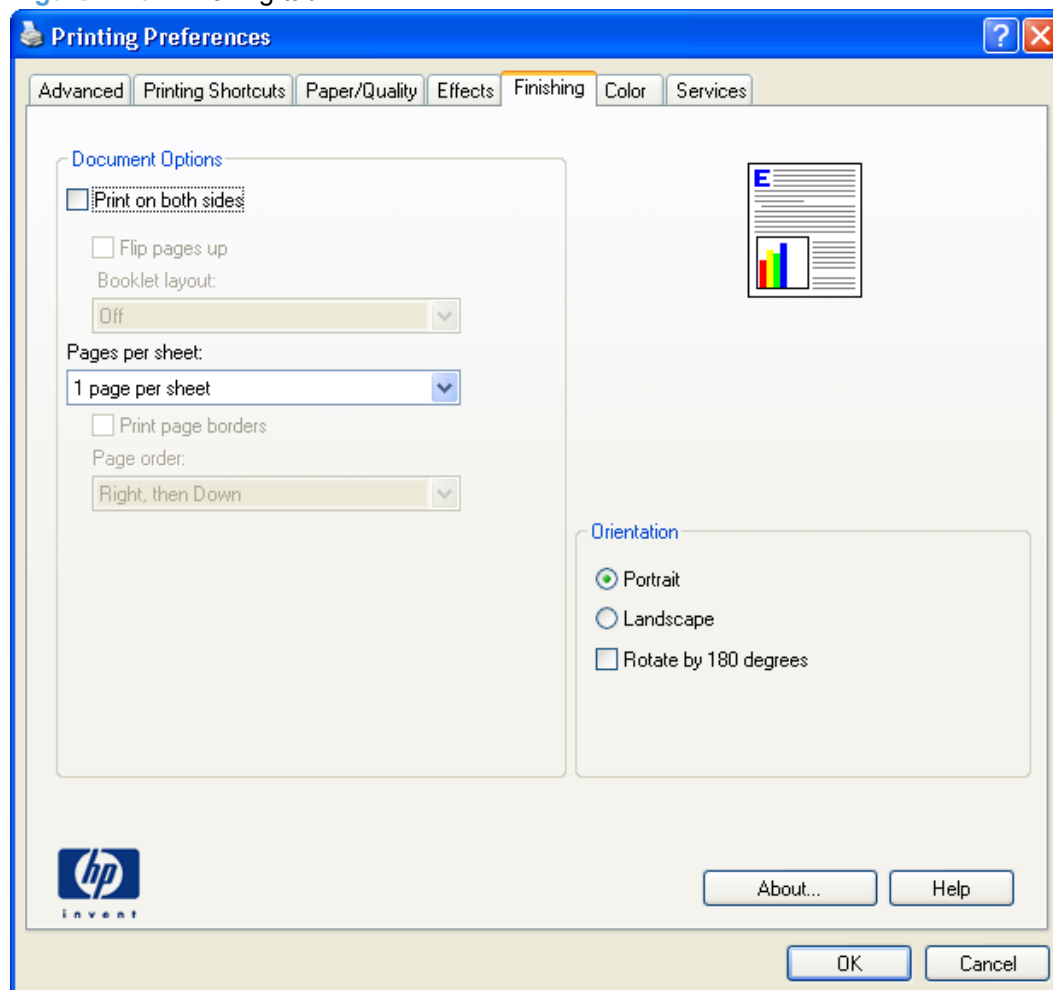
Default settings

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

Finishing tab features

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

Figure 4-20 Finishing tab



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

- [Document Options](#)
- [Document preview image](#)
- [Orientation group box](#)

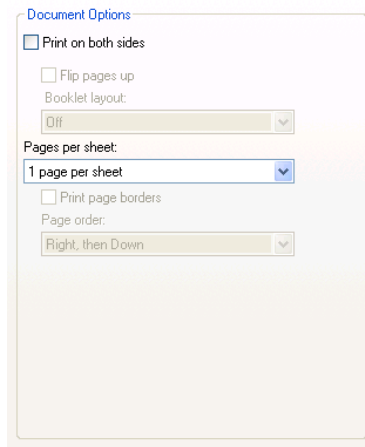
Document Options

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


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

- **Print Page Borders** check box
- **Page Order** drop-down menu

Figure 4-21 Finishing tab – Document Options group box



Print on Both Sides check box

 **NOTE:** This feature is called **Print on Both Sides (manually)** for the base models because these models do not include an automatic duplex unit. For all other product models, this feature is called **Print on Both Sides**.

The **Print on Both Sides** option controls the manual duplexing function of the HP Color LaserJet CP5220 Series printer.

Print on both sides automatically

The duplexing unit in the HP Color LaserJet CP5220 Series product prints on two sides of a sheet of paper when the **Print on Both Sides** option is specified in the print job.

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

All paper types support the smart duplexing feature, except for paper types that cannot be printed on both sides (such as labels, transparencies, and envelopes) and the following paper types:

- Prepunched
- Preprinted
- Letterhead

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

Manually printing on both sides

Select the **Print on Both Sides (Manually)** check box to print on the second side of the paper for the base models. The base models do not have automatic duplexing capability. **Print on Both Sides (Manually)** will also be enabled for duplex models when a paper type is selected that cannot be auto-duplexed.

Make sure to select the correct paper type as selecting a paper type instructs the product to use a group of settings (such as fuser temperature and print speed) to print the paper with the best possible quality. This group of settings is known as print mode. To achieve the best print quality when printing on the second side of the page, the product makes adjustments to its print modes. A different print mode is used with each paper type. Print-mode adjustments for the second side of a duplexed page are automatic.

The following paper types cannot be manually duplexed using the **Print on both sides (Manually)** feature:

- **HP Color Laser Photo Glossy 220g**
- **Labels**
- **Envelope**
- **Heavy Envelope**
- **Color Laser Transparency**

A triangle enclosing an exclamation point icon appears next to the **Color Laser Transparency**, **Envelope**, **Heavy Envelope**, and **Labels** options. This icon indicates that duplex printing is not advised for these paper types.

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

1. In Windows Vista, click **Computer**, click **Control Panel**, and then click **Hardware and Sound**.

In Windows XP Professional and Windows Server 2003, click **Start**, click **Settings**, and then click **Printers and Faxes**.

-or-

In Windows XP Home, click **Start**, click **Control Panel**, and then double-click the **Printers and Other Hardware** icon.

-or-

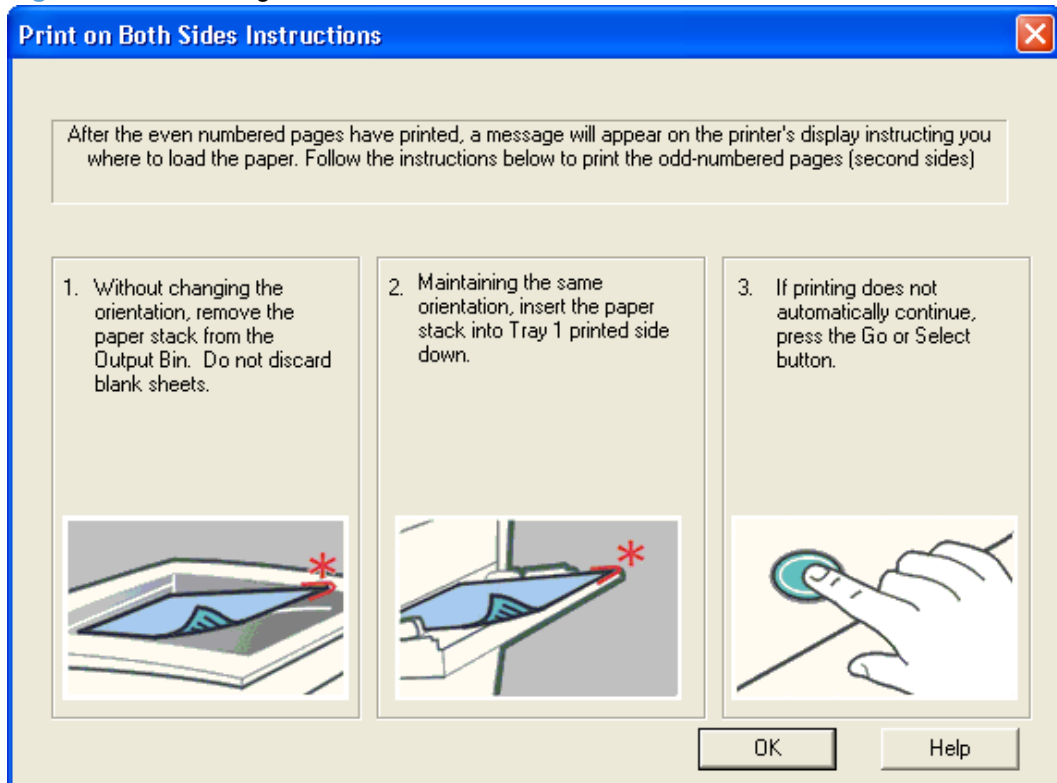
For Windows 2000: Select **Settings**, and then click **Printers**.

2. Right-click the product icon.
3. Click **Properties**.
4. Click **Device Settings** tab.
5. Look for the *Installable Options* section at the bottom of **Device Settings** screen. Select "Enabled" for the "Allow Manual Duplexing" option.

When the **Print on Both Sides (Manually)** check box is available on the **Document Options** section of the **Finishing** tab screen, follow these steps to make the HP Color LaserJet CP5220 Series printer manually print on both sides.

1. Select the **Print on Both Sides (Manually)** check box.
2. Click **OK**.
3. Click **Print**. The even-number pages of the document print.
4. Insert the stack of even-number pages that just printed when the control panel shows the **Manually Feed** message (or it shows the **Load Tray** message), insert the stack of paper (on which the even-numbered pages have been printed).

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



5. Click the **OK** button on the product control panel.
6. The odd numbered pages print on the second side (blank) of the stacked sheets.

Flip Pages Up option

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

Table 4-12 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 drop-down menu

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

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

By selecting **Left Binding** or **Right Binding**, the document preview image changes to show the location of the binding. If the **Pages per Sheet** setting is on the default setting of 1, it automatically changes to **2 pages per sheet**. Manually changing the **Pages per Sheet** setting to 4, 6, 9, or 16 pages per sheet disables the booklet setting. See the [Printing a booklet on page 195](#) section of this chapter for more information.

Book and booklet printing

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

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

Printing a booklet

Complete the following steps to print a booklet.

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

Printing a book

To print a book in which the front cover, first page, other pages, last page, and back cover are printed on different paper types, see the [Paper/Quality tab features on page 173](#) section of this chapter.

Pages per Sheet drop-down menu

On the **Finishing** tab, use the **Pages per Sheet** option to select the number of pages to print on a single sheet of paper. If more than one page per sheet is selected, the pages appear smaller and are arranged on the sheet in the order that they would otherwise be printed. The **Pages per Sheet** drop-down menu provides six settings:

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



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

Print Page Borders check box

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

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

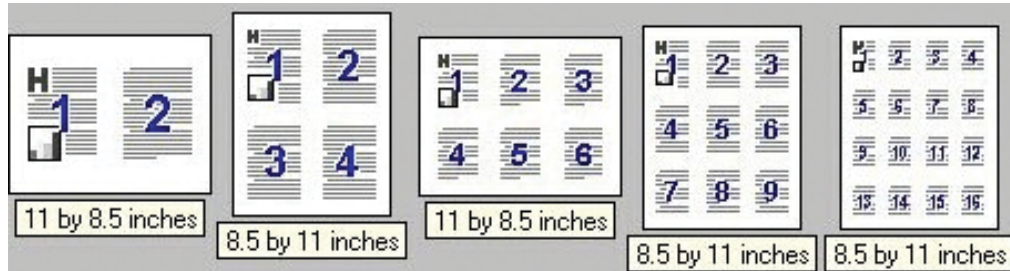
Page Order drop-down menu

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

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

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

Figure 4-23 Page-order preview image



- 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 172](#) for information about this feature.

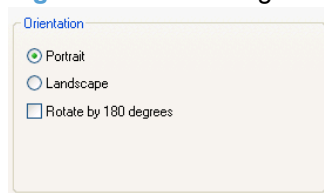
Orientation group box

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

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

- [Portrait option button](#)
- [Landscape option button](#)
- [Rotate by 180 degrees check box](#)
- [Mirror Image check box \(HP UPD PS only\)](#)

Figure 4-24 Finishing tab – Orientation group box



Portrait option button

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

Landscape option button

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

Rotate by 180 degrees check box

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

Mirror Image check box (HP UPD PS only)

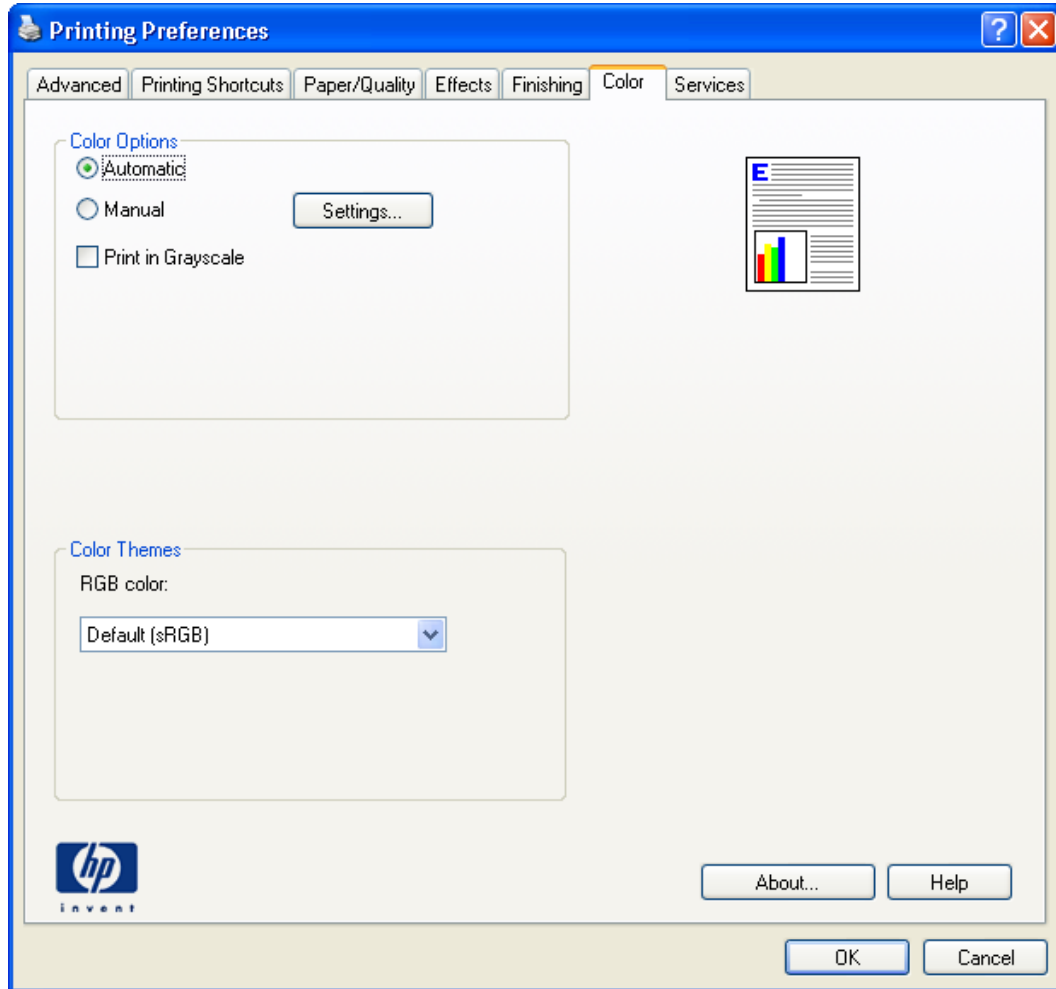
Click the **Mirror Image** check box to reverse the horizontal coordinates of the printed document.

Color tab features

Use the **Color** tab to specify predefined color-option settings or to fine-tune the color treatments and halftoning. Color output can also be converted to grayscale.

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

Figure 4-25 Color tab



The **Color** tab contains the following sets of controls:

- [Color Options](#)
- [Color Themes](#)
- [Document preview image](#)

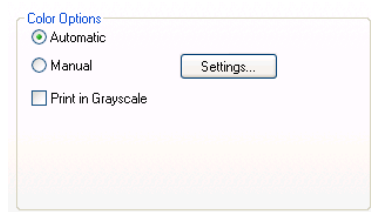
Color Options

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

- **Automatic** option (default)
- **Manual** option


- **Settings** button (that opens the **Color Settings** dialog box)
- **Print in Grayscale** check box

Figure 4-26 Color tab – Color Options group box



Automatic

The **Automatic** color adjustment option optimizes the neutral-gray color treatment, halftones, and edge enhancements for each element in a document. For more information, see your print driver online Help.

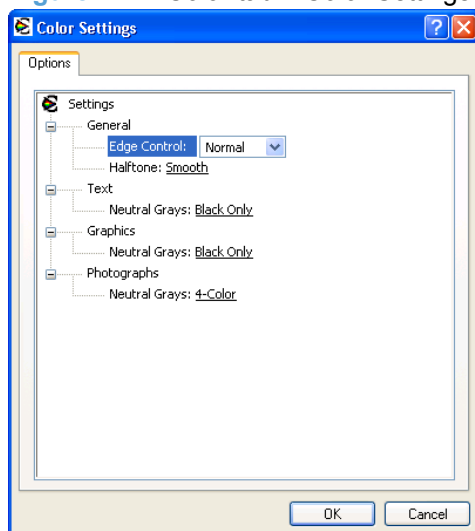
 **NOTE:** **Automatic** is the default setting and is recommended for printing all color documents.

Manual

Use the **Manual** color adjustment option to adjust the neutral-gray color treatment, halftones, and edge enhancements for text, graphics, and photographs. To gain access to the manual color options, from the **Color** tab, select **Manual**, and then select **Settings**.

To change the settings, make your selections by using the drop-down menus in the **Color Settings** dialog box, and then click **OK**. The following figure shows the **Color Settings** dialog box with "Custom" settings.

Figure 4-27 Color tab – Color Settings dialog box



Use manual color options to adjust the **Neutral Grays**, **Halftone**, and **Edge Control** options for text, graphics, and photographs.

Table 4-13 Manual color options

Setting description	Setting options
<p>Halftone</p> <p>Halftone options affect the color output resolution and clarity.</p>	<ul style="list-style-type: none"> • Smooth (2-bits/pixel) provides better results for large, solid-filled print areas and enhances photographs by smoothing color gradations. Select this option when uniform and smooth area fills are the top priority. <ul style="list-style-type: none"> ◦ Cyan – 155 lines per inch (lpi) ◦ Magenta – 155 lpi ◦ Yellow – 212 lpi ◦ Black – 155 lpi • Detail is useful for text and graphics that require sharp distinctions among lines or colors, or images that contain a pattern or a high level of detail. Select this option when sharp edges and details are the top priority. <ul style="list-style-type: none"> ◦ Cyan – 190 lpi ◦ Magenta – 190 lpi ◦ Yellow – 200 lpi ◦ Black – 212 lpi
<p>Neutral Grays</p> <p>The Neutral Grays setting determines the method for creating gray colors used in text, graphics, and photographs.</p>	<ul style="list-style-type: none"> • Black Only generates neutral colors (grays and black) by using only black toner. This guarantees neutral colors without a color cast. • 4-Color generates neutral colors (grays and black) by combining all four toner colors. This method produces smoother gradients and transitions to other colors, and it produces the darkest black.
<p>Edge Control</p> <p>The Edge Control setting determines how edges are rendered. Edge control has two components: adaptive halftoning and trapping. Adaptive halftoning increases edge sharpness. Trapping reduces the effect of color-plane misregistration by overlapping the edges of adjacent objects slightly.</p>	<ul style="list-style-type: none"> • Maximum is the most aggressive trapping setting. Adaptive halftoning is on. • Normal sets trapping at a medium level. Adaptive halftoning is on. • Light sets trapping at a minimal level, Adaptive halftoning is on. • Off turns off both trapping and adaptive halftoning.

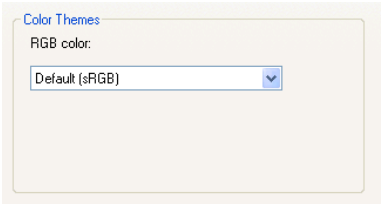
Print in Grayscale

The **Print in Grayscale** option converts all colors to gray and forces the product to use only the black print cartridge.

Color Themes

The **Color Themes** group box contains the **RGB color:** drop-down menu.

Figure 4-28 Color tab – Color Themes group box



Use color themes to adjust the **RGB Color** options for the entire page.

For information about Advanced Color settings, see [Advanced color use on page 23](#) and [Match colors using the HP Basic Color Match tool on page 27](#).

Setting description	Setting options
RGB Color	<ul style="list-style-type: none">Default (sRGB) instructs the product to interpret RGB color as sRGB. The sRGB standard is the accepted standard of Microsoft and the World Wide Web Consortium (www.w3.org).Vivid instructs the product to increase the color saturation in the midtones. Less colorful objects are rendered more colorfully. This setting is recommended for printing business graphics.Photo interprets RGB color as if it were printed as a photograph using a digital mini-lab. It renders deeper, more saturated colors differently than Default (sRGB) mode. Use this setting for printing photos.Photo (AdobeRGB 1998) is for digital photos that use the AdobeRGB color space rather than sRGB. When printing from a professional software program that uses AdobeRGB, it is important to turn off the color management in the software program and allow the product to manage the color space.None sets the product to print RGB data in raw device mode. To render photographs correctly when this option is selected, you must manage color in the program in which you are working or in the operating system. <p>CAUTION: Use this option only if you are familiar with the procedures for managing color in the software program or the operating system; otherwise, color quality can be compromised.</p>

Document preview image

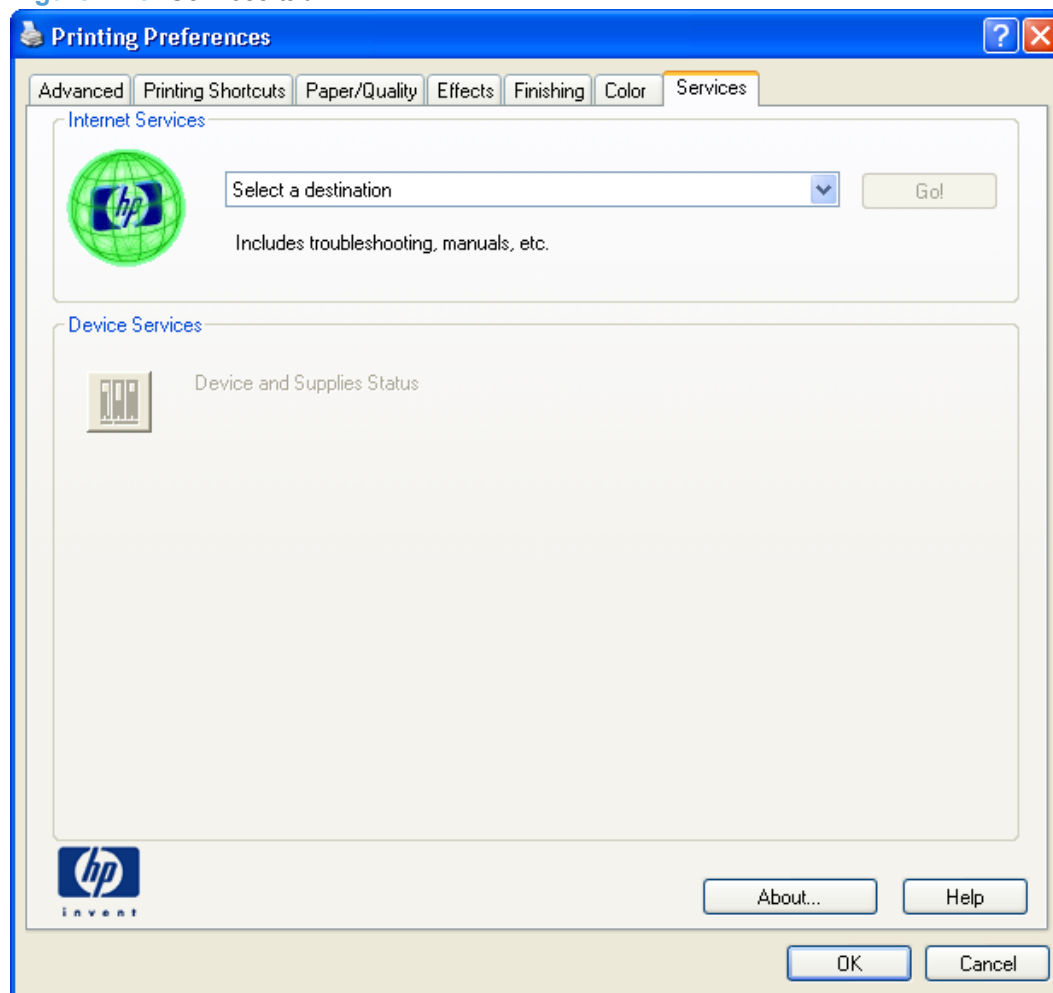
See [Document preview image on page 172](#) for information about this feature.

Services tab features

Use the **Services** tab to access basic service information for the HP Color LaserJet CP5220 Series printer. Connect to the Internet before selecting an option and clicking **Go**.

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

Figure 4-29 Services tab



The **Services** tab contains the following **Internet Services** feature.

Internet Services

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

- **Support and troubleshooting.** Opens the product page for the HP Business Center.
- **Product manuals.** Opens a Web page to view or download HP Color LaserJet CP5220 Series printer manuals.

- **Check for driver updates.** Checks the print drivers to see whether the correct and most up-to-date print drivers are installed.
- **Shop for supplies.** Opens the HP SureSupply Web page and shop online for HP Color LaserJet CP5220 Series printer supplies.

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

Device Settings tab features

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

The **Device Settings** tab is in the Properties window for the print driver. To gain access to the Device Settings tab, follow these steps:

1. In Windows Vista, click **Computer**, click **Control Panel**, and then click **Hardware and Sound**.

In Windows XP Professional and Windows Server 2003, click **Start**, click **Settings**, and then click **Printers and Faxes**.

-or-

In Windows XP Home, click **Start**, click **Control Panel**, and then double-click the **Printers and Other Hardware** icon.

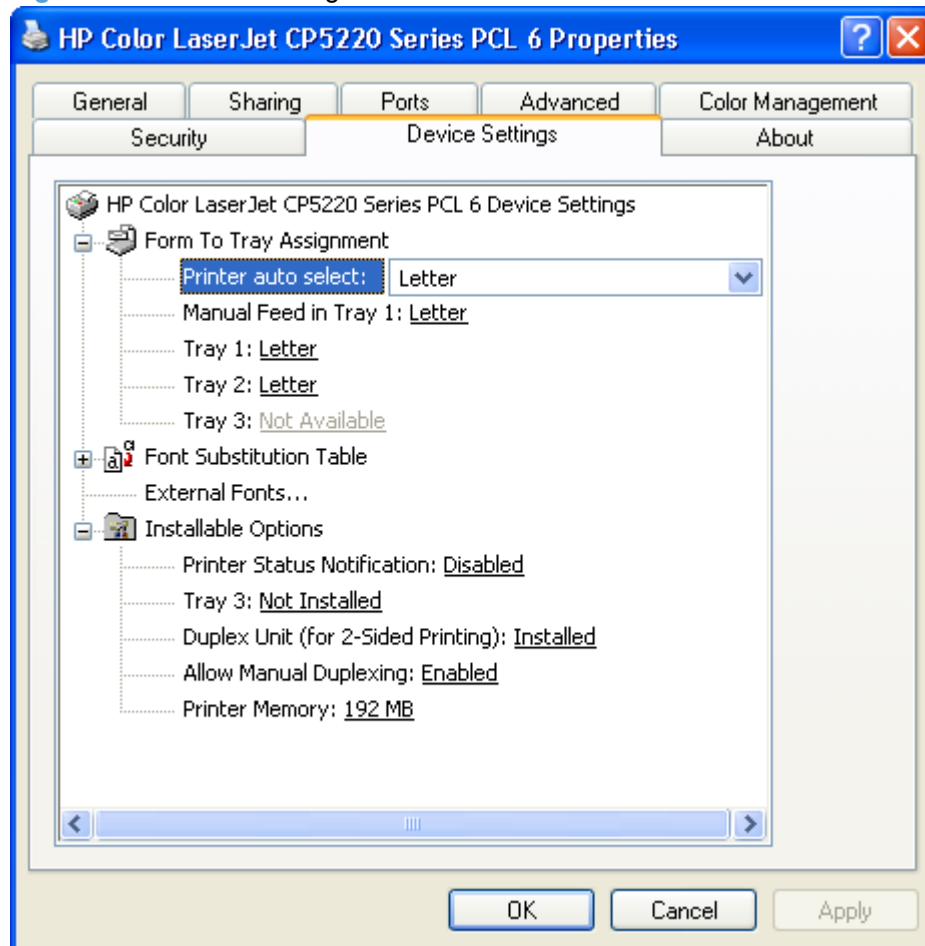
-or-

For Windows 2000: Select **Settings**, and then click **Printers**.

2. Right-click the product icon.
3. Click **Properties**.
4. Click the **Device Settings** tab.

The **Device Settings** tab contains controls for paper-handling products and controls for managing the HP Color LaserJet CP5220 Series printer.

Figure 4-30 Device Settings tab – PCL 6



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

- [Form to Tray Assignment](#)
- [Font Substitution Table](#)
- [External Fonts](#)
- [Installable Options](#)

Form to Tray Assignment

Network administrators can use the **Form to Tray Assignment** setting to specify, in the driver, the paper size that is loaded into each available input tray. The use of forms constrains the choices that are available in the paper-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 paper-mount messages that occur when users request sizes or types that are not available.

The trays listed in the **Form to Tray Assignment** setting include standard trays 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 paper sources on the **Paper/Quality** tab.

Configuring the trays

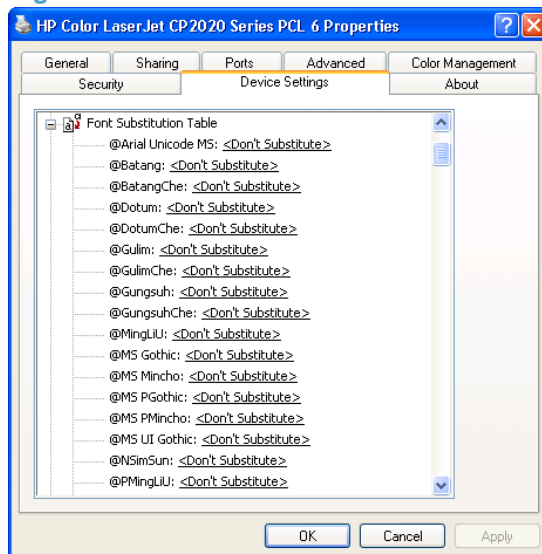
1. Select the appropriate tray in the **Form to Tray Assignment** list.
2. Use the drop-down menu to select the paper size (or form) that is loaded in that tray.
3. Repeat steps 1 and 2 for the remaining trays.
4. Click **OK** to enable the settings, or, if necessary, click **Cancel** to reconfigure 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, as show in the following figure. Use the settings to change the TrueType-to-product font mappings.

Figure 4-31 Font Substitution Table



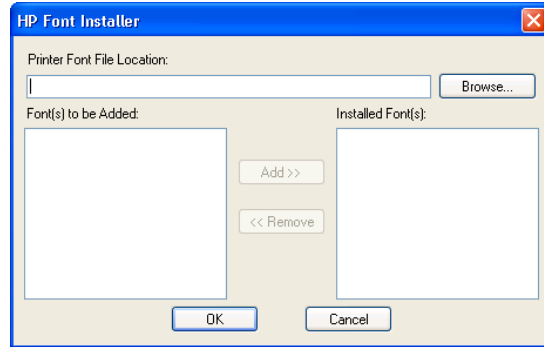
External Fonts

 **NOTE:** The External Fonts option is available only in the HP PCL 6 print driver. It is not available in the HP UPD PS .

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, which is shown in the following figure.

Figure 4-32 HP Font Installer dialog box



Topics:

- [Installing external fonts](#)
- [Removing external fonts](#)

Installing external fonts

Follow these steps to install external fonts.

1. Click **Start**.
2. Select **Settings**.
3. Click **Printers** (Microsoft Windows 2000) or **Printers and Faxes** (Microsoft Windows XP Professional and Windows Server 2003) or **Printers and Other Hardware Devices** (Microsoft Windows XP Home) or **Hardware and Sound** (Windows Vista).
4. Right-click the name of the product.
5. Click **Properties**.
6. Click the **Device Settings** tab.
7. Click the **External Fonts** option. The **Properties** button appears.
8. Click **Properties**. The **HP Font Installer** dialog box appears.
9. Type the name and path of the font metric file in the **Printer Font File Location** text box, or click **Browse** to locate the file on the computer. The font file names appear in the **Font(s) to be Added** window.
10. Select the fonts to add, and then click **Add**. The fonts are installed and the file names appear in the **Installed Font(s)** window.
11. Click **OK** to close the **HP Font Installer** dialog box.

Removing external fonts

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

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

Installable Options

- [Allow Manual Duplexing](#)
- [Printer Memory](#)

Allow Manual Duplexing

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

This setting is enabled by default. For more information about this feature, see [Manually printing on both sides on page 193](#).

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 print driver uses the product memory.

About tab features

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

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

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

1. In Windows Vista, click **Computer**, click **Control Panel**, and then click **Hardware and Sound**.

In Windows XP Professional and Windows Server 2003, click **Start**, click **Settings**, and then click **Printers and Faxes**.

-or-

In Windows XP Home, click **Start**, click **Control Panel**, and then double-click the **Printers and Other Hardware** icon.

-or-

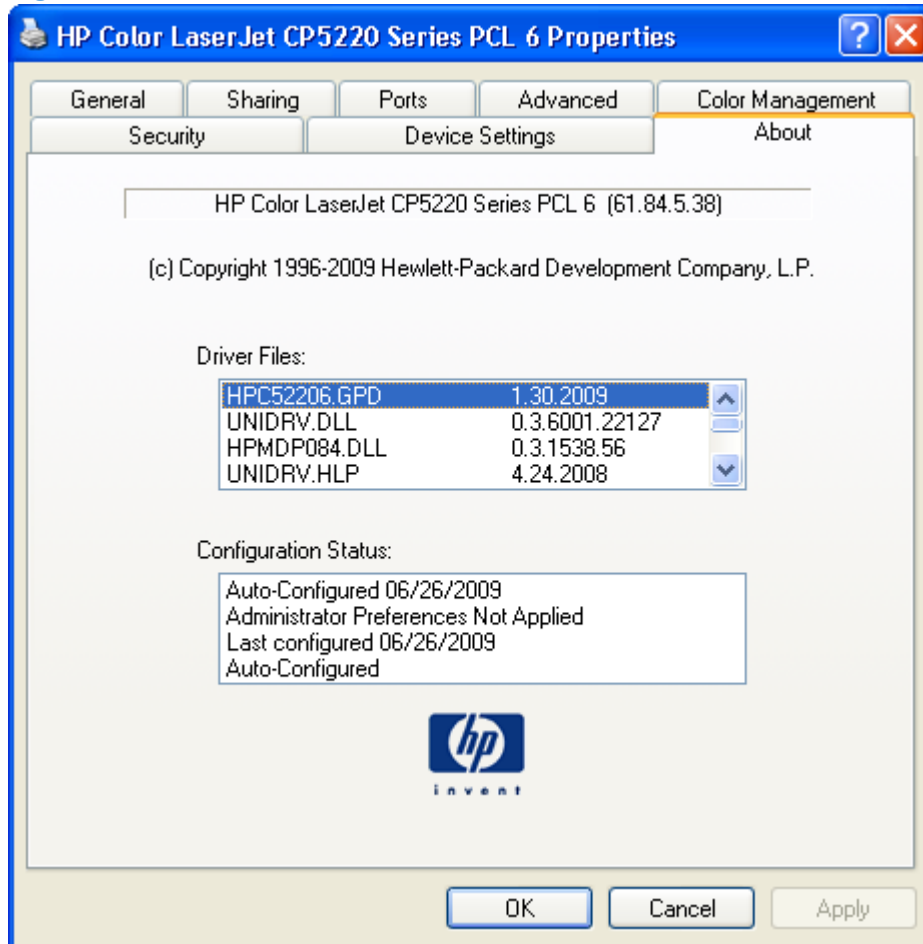
For Windows 2000: Select **Settings**, and then click **Printers**.

2. Right-click the product icon.
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 HP Color LaserJet CP5220 Series printer model number, driver, date, and versions. The **About** tab is shown in the following figure.

Figure 4-33 About tab



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

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

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

5 Macintosh software and utilities

Introduction

The HP Color LaserJet CP5220 Series printer comes with printing software and installers for Apple Computer, Inc., Macintosh operating systems.

- [Supported operating systems for Macintosh](#)
- [Printing-system software](#)
- [Macintosh installation instructions](#)
- [Remove the printing-system software from Macintosh operating systems](#)
- [Supported utilities for Macintosh](#)
- [Use features in the Macintosh printer driver](#)
- [Macintosh readme](#)

Supported operating systems for Macintosh

- Mac OS X v10.4 and v10.5 are supported.
- Mac OS 9 and Mac OS X classic are not supported.

Macintosh system requirements

Hardware requirements

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

Supported print drivers for Macintosh

The HP installer provides PostScript® Print Description (PPD) files, Printer Dialog Extensions (PDEs), and the HP EWS Gateway which allows access to the product's embedded web server.

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

Change print-driver settings for Macintosh

Follow these steps to change the print-driver settings for Macintosh.

Table 5-1 Change print-driver settings for Macintosh

Change the settings for all print jobs until the software program is closed	Change the default settings for all print jobs	Change the product configuration settings
<div>1. On the File menu, click Print.</div> <div>2. Change the settings that you want on the various menus.</div>	<div>1. On the File menu, click Print.</div> <div>2. Change the settings that you want on the various menus.</div> <div>3. On the Presets menu, click Save As and type a name for the preset.</div> <div>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.</div>	<div>Mac OS X V10.4</div> <div>1. From the Apple menu, click System Preferences, and then click Print & Fax.</div> <div>2. Click Printer Setup.</div> <div>3. Click the Installable Options menu.</div> <div>Mac OS X V10.5</div> <div>1. From the Apple menu, click System Preferences, and then click Print & Fax.</div> <div>2. Click Options & Supplies.</div> <div>3. Click the Driver menu.</div> <div>4. Select the driver from the list, and configure the installed options.</div>

Printing-system software

The HP Color LaserJet CP5220 Series printing-system software for Macintosh is composed of an HP-created postscript printer definition file (PPD) and a printer dialog extension (PDE) file that work together with the Macintosh OS print system. These files are used by the Macintosh OS print system to determine default print settings and also allows the user to select between the various print options and settings and are installed by the provided HP LaserJet Installer. Additionally, an HP-supplied Macintosh printer configuration utility is provided, which allows the user to access the product's 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:

- Product PPD
- Product PDE
- HP EWS Gateway

Topics:

- [Availability](#)

Availability

This document provides information about the availability of the HP Color LaserJet CP5220 Series printing-system software and related software and firmware. Printing-system software on a CD is available from HP fulfillment centers.

Topics:

- [Printing-system software on the Web](#)
- [In-box printing-system software CDs](#)

Printing-system software on the Web

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

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



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

Topics:

- [Printing-system software](#)

Printing-system software

The HP Color LaserJet CP5220 Series printer printing-system software is available for download at the following Web site:

In-box printing-system software CDs

The software CD for the HP Color LaserJet CP5220 Series printer contains the files for installing the printing-system software on the computer.

Topics:

- [Macintosh partition](#)
- [CD versions](#)

Macintosh partition

The HP Color LaserJet CP5220 Series printing-system software CD is divided into two partitions, one for each of the following operating systems:

- MS Windows
- Macintosh

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

CD versions

The software CD for the HP Color LaserJet CP5220 Series printer contains the files for installing the printing-system software on the computer.

The HP Color LaserJet CP5220 Series printing-system software CD is available in three versions, each of which contains printing-system software in the following languages:

- English
- Danish
- Dutch
- Finnish
- French
- German
- Italian
- Japanese
- Norwegian
- Swedish
- Spanish
- Portuguese
- Russian

- Simplified Chinese
- Traditional Chinese
- Korean

Macintosh installation instructions

The HP Color LaserJet CP5220 Series printer comes with software and installers for MS Windows and Apple Computer, Inc., Macintosh systems. This document provides procedures for installing and removing the HP Color LaserJet CP5220 Series printing-system software for Macintosh operating systems.

Topics:

- [Macintosh component descriptions](#)
- [Install the Macintosh printing system](#)

Macintosh component descriptions

The HP Color LaserJet CP5220 Series printing-system software CD includes the following software for Macintosh computers:

- [HP LaserJet PPDs](#)
- [PDEs](#)
- [HP EWS Gateway](#)
- [Install notes \(Readme file\)](#)

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 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 Printer Setup Utility and Print & Fax. For more information, see [Table 5-2 Adding a printer in Macintosh operating systems on page 224](#).

PDEs

Printer Dialog Extensions (PDEs) are code plug-ins (for Mac OS X V10.3 or later only) that provide access to product features, such as number of copies, duplexing, and quality settings.

HP EWS Gateway

Mac OS X supports the HP Embedded Web Server (HP EWS). Use the HP EWS Gateway to open the HP EWS for the product. 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 EWS Gateway software allows the Web browser access to the product if the product is connected via USB or network. The HP EWS can also be opened by choosing the **Utility** button in the Macintosh Print Center or Printer Setup Utility.

Install notes (Readme file)

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


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:

- [Install the software for Macintosh operating systems](#)
- [Setup instructions](#)


Install the software for Macintosh operating systems

 **NOTE:** If you are connecting the product to a network, connect the network cable to the product network port. If you are connecting the product to a computer using the USB cable, install the software *before* connecting the USB cable.

1. Close all programs, and then insert the Macintosh printing-system software CD into the CD-ROM drive. The installer program should open automatically.

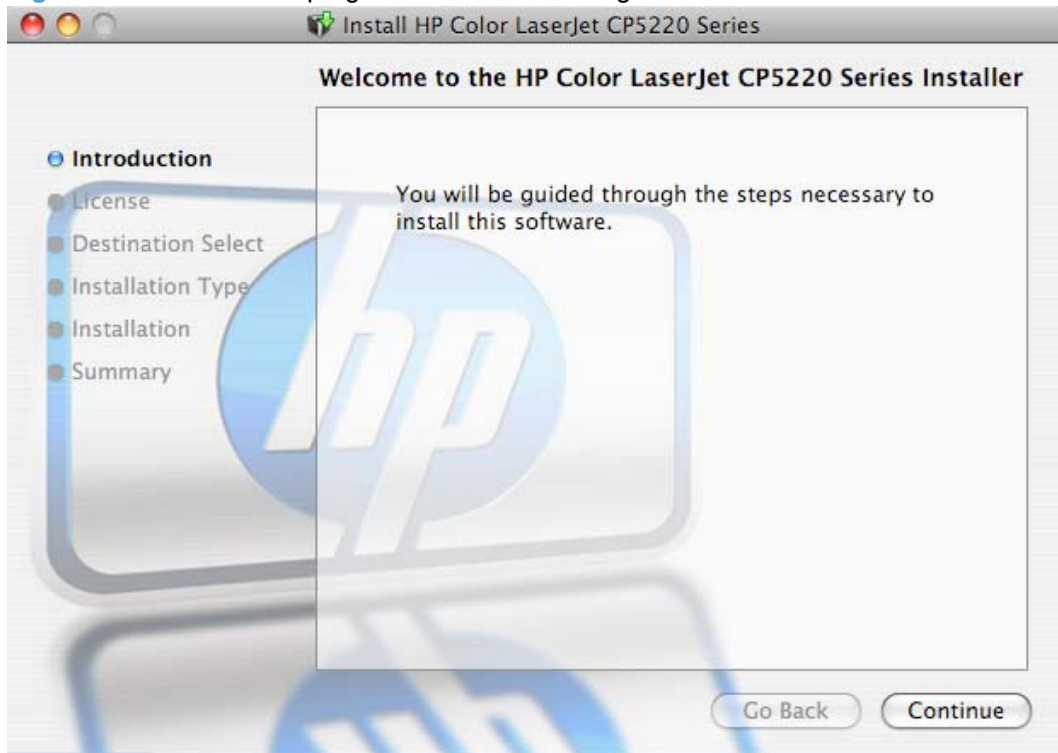
Figure 5-1 Mac installer program opening dialog



 **NOTE:** If the installer program dialog does not open automatically, double-click the product CD-ROM icon on the desktop to open the CD-ROM window.

2. Double-click the HPCLJ 5220 Series. mkpg file. The Introduction dialog opens.


Figure 5-2 Mac installer program Introduction dialog



3. Click the **Continue** button. The License dialog opens.

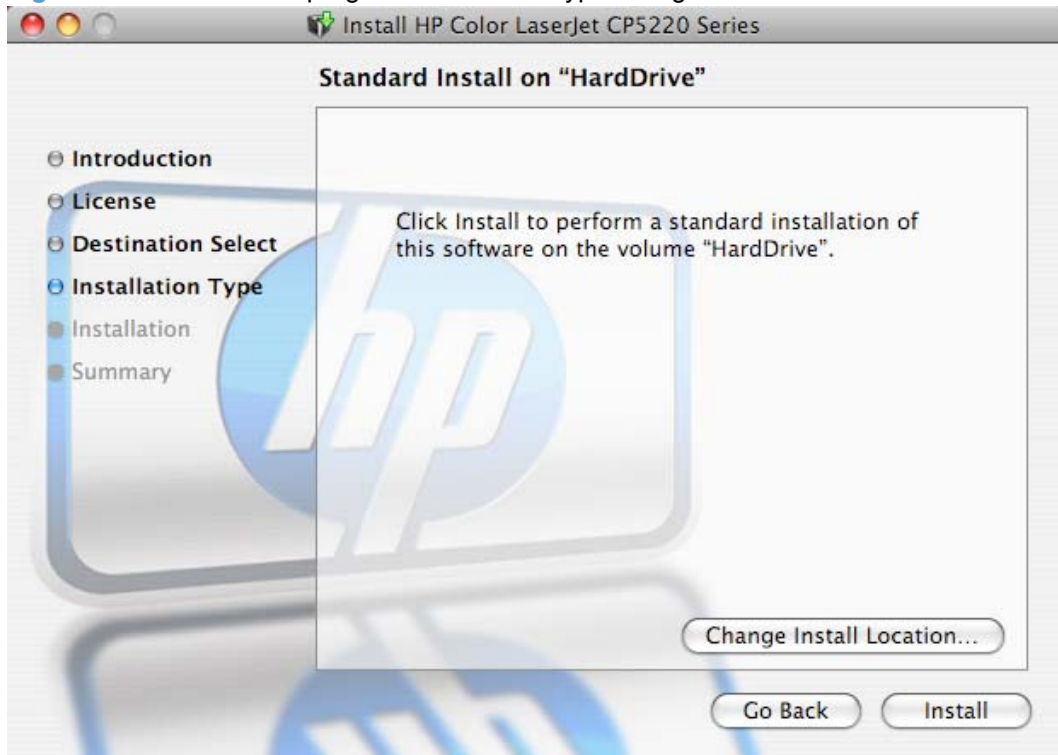
Figure 5-3 Mac installer program License dialog




 **NOTE:** To change the language of the license agreement text, select the appropriate language from the menu.

4. Click the **Continue** button, and then click the **Agree** button. The Installation Type dialog opens.

Figure 5-4 Mac installer program Installation Type dialog



 **NOTE:** To change the default installation location, click the **Change Install Location** button, navigate to the appropriate drive, and then click the **Continue** button.

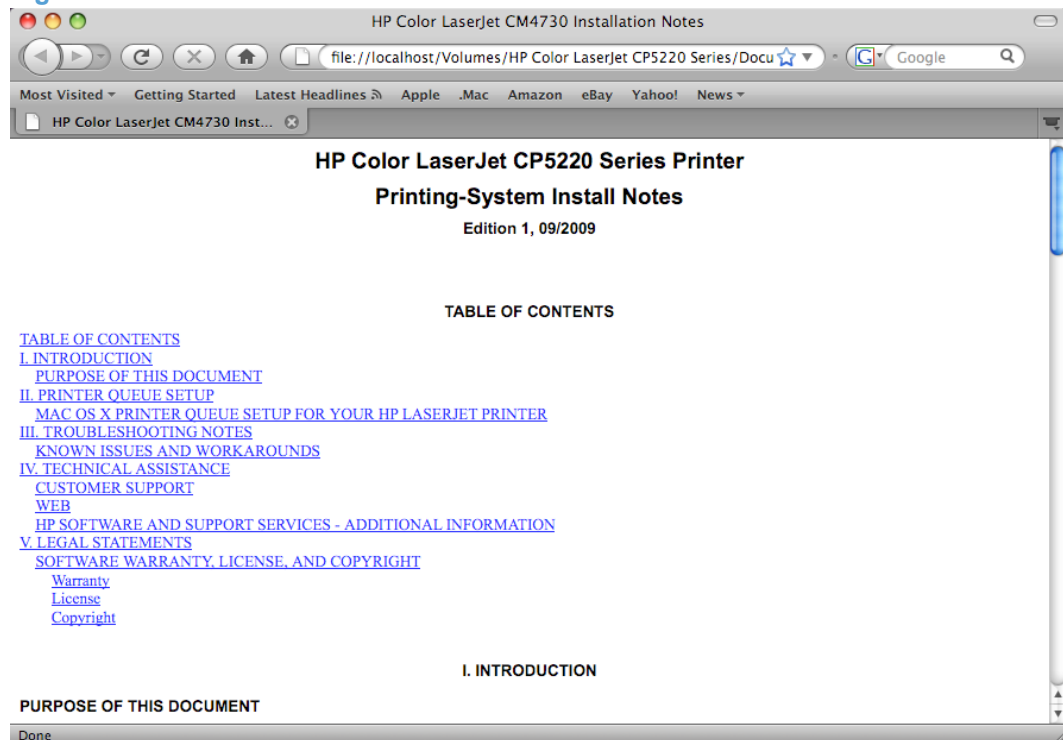
5. Click the **Install** button. A progress bar window opens.

Figure 5-5 Mac installer program progress bar window



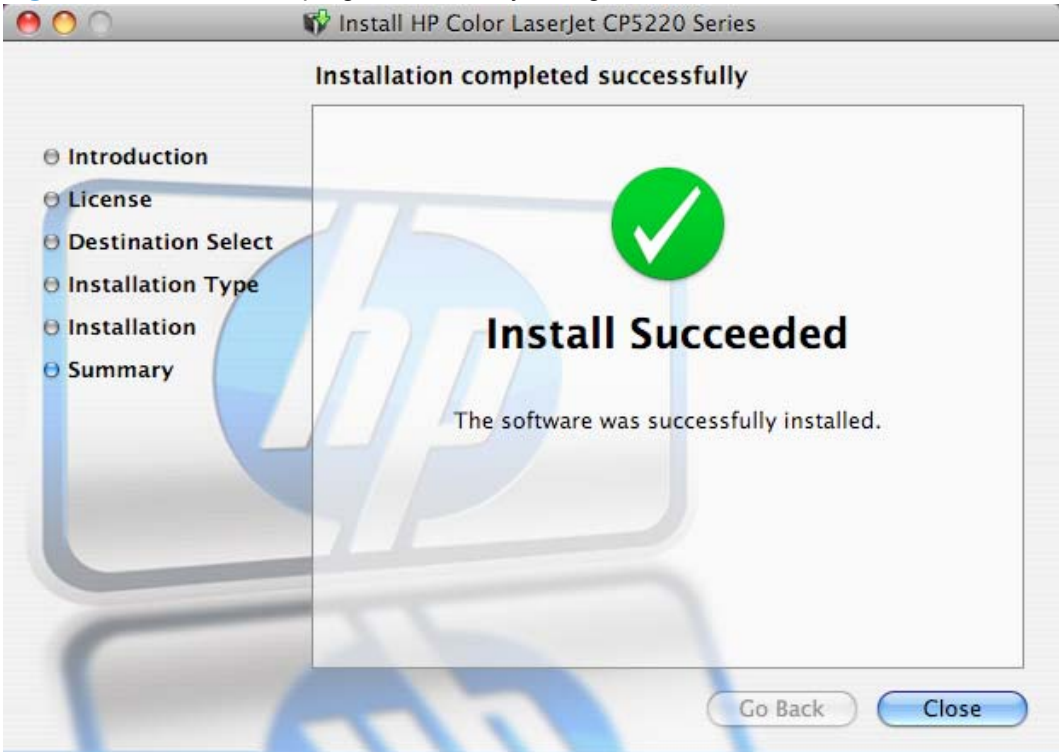
The installer program also opens a Web version of the installation notes.

Figure 5-6 Mac installation notes



6. The Summary dialog opens and indicates that you have successfully installed the product software. Click the **Close** button to end the installation process.

Figure 5-7 Mac installer program Summary dialog



7. The opening dialog also includes the **Documents** icon. Double-click the icon to gain access to the following items.
- Installation notes
 - User guide

Each documentation set resides in the appropriate language folder. Double-click the language folder to browse the documents.

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 5-2 Adding a printer in Macintosh operating systems

Operating System	Printer Setup Utility	Print & Fax
Mac OS X v10.3	x	
Mac OS X v10.4	x	
Mac OS X v10.5		x
Mac OS X v10.6		x

Setup instructions

This section contains information about the following topics:

- [Set up the product with Mac OS X v10.5 and v10.6](#)
- [Set up the product with Mac OS X v10.3 and v10.4](#)
- [Troubleshooting the product setup](#)

Set up the product with Mac OS X v10.5 and v10.6


Complete these steps *after* completing the printing-system software installation.

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 that the product is on.
2. From the Apple menu, click the **System Preferences** menu item and then click the **Print & Fax** icon.
3. If you are installing the product using a USB connection, verify that the product appears in the printer list. The **Name** column in the printer list should display the product name. If this is the case, the USB setup is complete.

If the product does not appear, or if the correct information does not appear in the field, see [Troubleshooting the product setup on page 228](#).

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


4. Click the **+** button below the printer list to open a new dialog.
5. Select either Bonjour (default browser) or IP Printing for the network connection.

 **NOTE:** Bonjour is the easiest method and is the best method to use if the product is installed on your local network.

IP Printing *must* be used if you are installing the product on a different network.

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 you are on a network that has more than one product, print a configuration page and match the Bonjour Printer Name to the name on the list to identify the product that you are installing.

NOTE: If the product 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 228](#).

- c. Click the **Add** button.
- d. Verify or select the appropriate **Installable Options**, and then click **Continue**. Select **Make Default** to set the device as your default.

You are finished with the setup process.

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

- a. Click the **IP Printer** tab.
- b. Choose **HP Jet Direct – Socket** from the **Protocol** pull-down menu. This is the recommended setting for HP products.
- c. Follow these steps to print the configuration pages.

Print a configuration page

- i. Press the **OK** button to open the menus.
 - ii. Use the arrow buttons to select the **Reports** menu, and then press the **OK** button.
 - iii. Use the arrow buttons to navigate the **Configuration Report** menu item, and then press the **OK** button to print a report.
 - d. On the first configuration page, under **IPv4**, find the IP Address. Type this address into the **Address** field on the add printer screen.
 - e. The **Name**, **Location**, and **Print Using** information will automatically be filled in. If the product PPD does not appear in the **Print Using** field, turn the computer off and then on again and restart the setup process.
6. Select the product and click **Add**. The **Installable Options** screen appears.
 7. In the **Optional Trays**: drop-down menu, select the trays that are installed on the product.
 8. In the **Collation in Printer**: drop-down menu, select the amount of memory and hard disk combination that is installed in the product:
 9. If the product has a hard disk, select **Installed** from the **Printer Hard Disk** drop-down menu.
 10. If the product has a duplex unit, select the **Duplex Unit** check box.
 11. In the **Accessory Output Bins**: drop-down menu, select the output bins that are installed on the product.
 12. In the **Paper Matching**: drop-down menu, select one of the following options:
 - **Prompt User for correct size**
 - **Nearest Size & Scale**
 - **Nearest Size & Crop**
 13. After you have selected the settings in the **Installable Options** screen, click **Continue**. The product name appears in the **Printer List** and the setup is complete.

Set up the product with Mac OS X v10.3 and v10.4

Complete these steps *after* completing the printing-system software installation.


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

3. If you are installing the product using a USB connection, verify that the product appears in the printer list. The **Kind** column in the printer list same change as before should display the product name. 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** field, see [Troubleshooting the product setup on page 228](#).

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


4. Click **Add** and then click **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**.


 **NOTE:** Rendezvous is the easiest method and is the best method to use if the product is installed on your local network.


IP Printing *must* be used if you are installing the product on a different network.

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 you are on a network that has more than one product, print a configuration page and match the Rendezvous Printer Name to the name on the list to identify the product that you are installing.

 **NOTE:** If the product does not appear in the list, verify that the product is 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 228](#).


 **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. Choose **Socket/HP Jet Direct** from the **Printer Type** pull-down menu. This is the recommended setting for HP products.
- b. Follow these directions to print the product configuration pages.

Print a configuration page

- i. Press the **OK** button to open the menus.
- ii. Use the arrow buttons to select the **Reports** menu, and then press the **OK** button.
- iii. Use the arrow buttons to navigate the **Configuration Report** menu item, and then press the **OK** button to print a report.

- c. On the first configuration page, under **Product Settings**, find the IP Address. Type this address into the **Printer Address** field on the add printer screen.
 - 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 trays, click **Show Info?** and select **Installable Options** in the drop-down menu.
-
-  **NOTE:** This step is necessary only for network connections and USB connections that use Rendezvous/Bonjour. AppleTalk automatically configures the installable options.
-
8. In the **Optional Trays:** drop-down menu, select the trays that are installed on the product.
 9. In the **Collation in Printer:** drop-down menu, select the amount of memory and hard disk combination that is installed in the product:
 10. If the product has a hard disk, select **Installed** from the **Printer Hard Disk** drop-down menu.
 11. If the product has a duplex unit, select the **Duplex Unit** check box.
 12. In the **Paper Matching:** drop-down menu, select one of the following options:
 - **Prompt User for correct size**
 - **Nearest Size & Scale**
 - **Nearest Size & Crop**
 13. Click **Apply Changes**, and then close the **Printer List** dialog box.

Troubleshooting the product setup

If the product does not appear in the printer list after an installation:

Complete 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.
- Turn the computer off and then back on.
- If you are using a USB hub on the computer, disconnect any other USB devices from the hub.

If the wrong PPD appears in the Kind column in the printer list after installation:

1. Unplug the USB cable.
2. Delete the print queue with the incorrect type (for example, Generic PostScript Printer).
3. Reinstall the printing-system software.

4. Turn the computer off and then on.
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**, choose the product from the list, and then browse manually for the product PPD.

Remove the printing-system software from Macintosh operating systems

1. Browse to the folder containing the PPDs. In Mac OS X V10.3 or later, the PPDs are installed in **Library/Printers/PPDs/Contents/Resources:<lang>.lproj**, where **<lang>** is the appropriate language.
2. Choose the product .GZ file and drag it to the **Trash** icon.
3. Empty the **Trash**.

Supported utilities for Macintosh

HP Embedded Web Server

The HP Embedded Web Server (HP EWS) Gateway is a utility that gives users access to the HP EWS for the product. The HP EWS is a Web server utility that allows users to control settings on the HP Color LaserJet CP5220 Series printer through the Web browser.

For more information about the HP EWS, see [HP Embedded Web Server on page 74](#).

Use features in the Macintosh printer driver

Create and use printing presets in Macintosh

Use printing presets to save the current printer driver settings for reuse.

Create a printing preset

1. On the **File** menu, click **Print**.
2. Select the driver.
3. Select the print settings.
4. In the **Presets** box, click **Save As...**, and type a name for the preset.
5. Click **OK**.

Use printing presets

1. On the **File** menu, click **Print**.
2. Select the driver.
3. In the **Presets** box, select the printing preset that you want to use.



NOTE: To use printer-driver default settings, select **Factory Default**.

Resize documents or print on a custom paper size

You can scale a document to fit on a different size of paper.

1. On the **File** menu, click **Print**.
2. Open the **Paper Handling** menu.
3. In the area for **Destination Paper Size**, select **Scale to fit paper size**, and then select the size from the drop-down list.
4. If you want to use only paper that is smaller than the document, select **Scale down only**.

Use watermarks

A watermark is a notice, such as “Confidential,” that is printed in the background of each page of a document.

1. On the **File** menu, click **Print**.
2. Open the **Watermarks** menu.
3. Next to **Mode**, select the type of watermark to use. Select **Watermark** to print a semi-transparent message. Select **Overlay** to print a message that is not transparent.
4. Next to **Pages**, select whether to print the watermark on all pages or on the first page only.

5. Next to **Text**, select one of the standard messages, or select **Custom** and type a new message in the box.
6. Select options for the remaining settings.

Print multiple pages on one sheet of paper in Macintosh

You can print more than one page on a single sheet of paper. This feature provides a cost-effective way to print draft pages.

1. On the **File** menu, click **Print**.
2. Select the driver.
3. Open the **Layout** menu.
4. Next to **Pages per Sheet**, select the number of pages that you want to print on each sheet (1, 2, 4, 6, 9, or 16).
5. Next to **Layout Direction**, select the order and placement of the pages on the sheet.
6. Next to **Borders**, select the type of border to print around each page on the sheet.

Print on both sides of the page (duplex printing)

Use automatic duplex printing

1. Insert enough paper into one of the trays to accommodate the print job. If you are loading special paper such as letterhead, load it in one of the following ways:
 - For tray 1, load the letterhead paper face-up with the bottom edge feeding into the printer first.
 - For all other trays, load the letterhead paper face-down with the top edge at the back of the tray.
2. On the **File** menu, click **Print**.
3. Open the **Layout** menu.
4. Next to **Two-Sided**, select either **Long-Edge Binding** or **Short-Edge Binding**.
5. Click **Print**.

Print on both sides manually

1. Insert enough paper into one of the trays to accommodate the print job. If you are loading special paper such as letterhead, load it in one of the following ways:
 - For tray 1, load the letterhead paper face-up with the bottom edge feeding into the printer first.
 - For all other trays, load the letterhead paper face-down with the top edge at the back of the tray.

△ **CAUTION:** To avoid jams, do not load paper that is heavier than 105 g/m² (28-lb bond).

2. On the **File** menu, click **Print**.
3. On the **Finishing** menu, click the **Manual Duplex** tab.

4. Click the check box next to **Manual Duplex**.
5. Click **Print**. Follow the instructions in the pop-up window that appears on the computer screen before replacing the output stack in tray 1 for printing the second half.
6. Go to the printer, and remove any blank paper that is in tray 1.
7. Insert the printed stack face-up with the bottom edge feeding into the printer first in tray 1. You *must* print the second side from tray 1.
8. If prompted, press the appropriate control panel button to continue.

Use the Services menu

If the product is connected to a network, use the **Services** menu to obtain product and supply-status information.

1. On the **File** menu, click **Print**.
2. Open the **Services** menu.
3. To open the embedded Web server and perform a maintenance task, do the following:
 - a. Select **Device Maintenance**.
 - b. Select a task from the drop-down list.
 - c. Click **Launch**.
4. To go to various support Web sites for this device, do the following:
 - a. Select **Services on the Web**.
 - b. Select **Internet Services**, and select an option from the drop-down list.
 - c. Click **Go!**.

Macintosh readme

The Macintosh readme contains the following topics:

- [Mac OS X printer queue setup for your HP LaserJet printer](#)
- [Troubleshooting notes](#)

Mac OS X printer queue setup for your HP LaserJet printer

After completing the software installation, perform the following steps to complete your printer setup:

1. Connect your USB or Ethernet LAN cable to your product. Turn on the product.
2. Open the document to print, and then choose File > Print.
3. Choose Add Printer from the bottom of the Printer pop-up menu list. If connecting to a USB or local networked attached product:
4. Select your product from the Default Browser list if the product is connected locally on the network (Bonjour) or if connected by a USB cable. If connecting to an IP Printer or to a product on a different network subnet:
5. Select the IP Printer option.
 - a. Choose Jetdirect - Socket from the Protocol pop-up menu.
 - b. Print a Configuration Report using the product's control panel display and locate the IP address.
 - c. Type the IP address for the printer in the Address field.
6. The correct print driver should automatically be selected.
7. Click Add to create the Printer queue.

Troubleshooting notes

- **Problem:** "I do not see my printer in the Printer Browser list."
Solution: If the printer name does not display in the Printer List, try one or more of the following:
 - For the cable being used (USB or Network), check that it is properly connected to the printer and the connecting device (hub or computer).
 - Check that the product is powered on.
 - Restart the computer and/or the product.
 - The printer may reside on a different network subnet. If this is the case, you must setup the product using the IP Printer option. If more than one product of the same model type is connected to the local Network, select your product using the name that matches the Bonjour Service name found on the product's Network Report Page. Print a Network report page using the product's control panel display to verify.
- **Problem:** "The Generic Postscript Printer driver is automatically selected."

Solution: If the Generic Postscript Printer driver was automatically selected, try one or more of the following:

1. If using USB, manually delete the product from the Printer list then power cycle the product. The product should be added automatically with the correct printer driver.
2. Manually search for the correct printer driver for your product in the Print Using pull down menu in the Print Browser dialog.
3. If your printer driver cannot be found in the pull down list, try rebooting your computer.
4. Re-install the printer software.
5. Open Disk Utility, select your Mac OS X startup volume, click First Aid, and then click Repair Disk Permissions.

6 Engineering details

Introduction

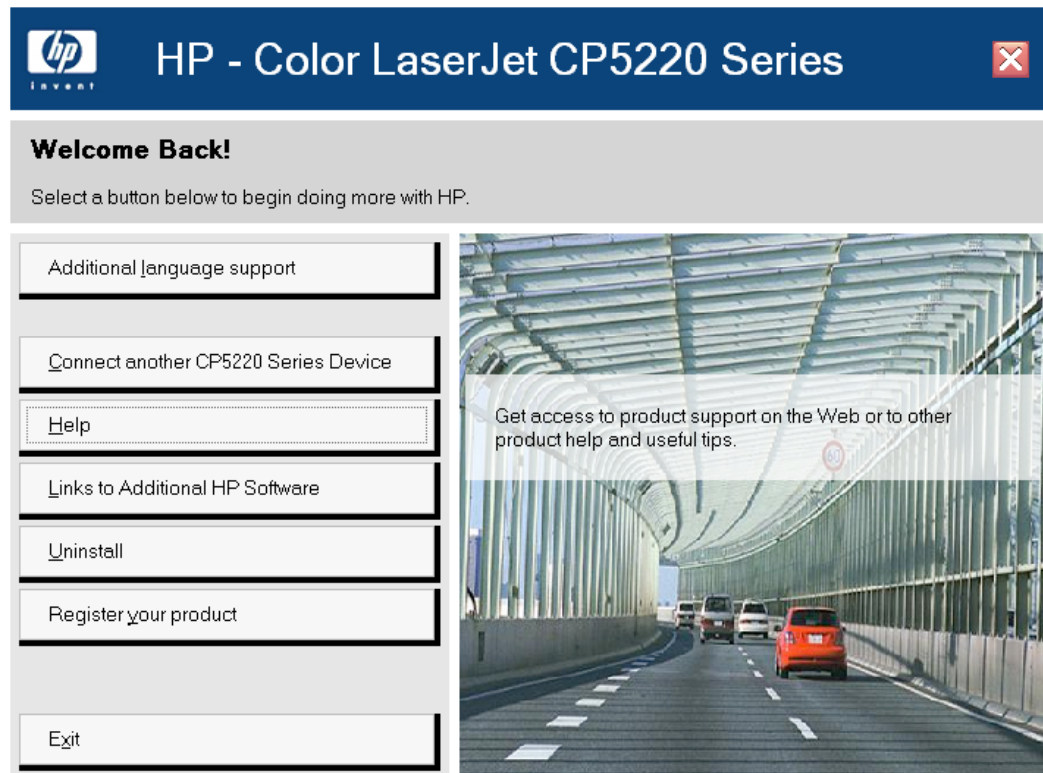
- [Firmware updates](#)
- [Supported paper tables](#)
- [Special paper guidelines table](#)
- [Sizes \(min & max\) and supported paper by tray](#)
- [Media attributes and commands](#)
- [Manual scrubber](#)
- [File to E-mail utility](#)
- [Hewlett-Packard Color LaserJet CP5220 Series Printer Install Notes](#)
- [Troubleshooting](#)

Firmware updates

There are two methods for updating the product software. The method to use is determined by the firmware versions on the product and on the software CD.

- If the firmware on product CD is older than the firmware on the software CD, complete the following steps.
 1. Insert the printing-system CD. The Welcome Back dialog box opens.

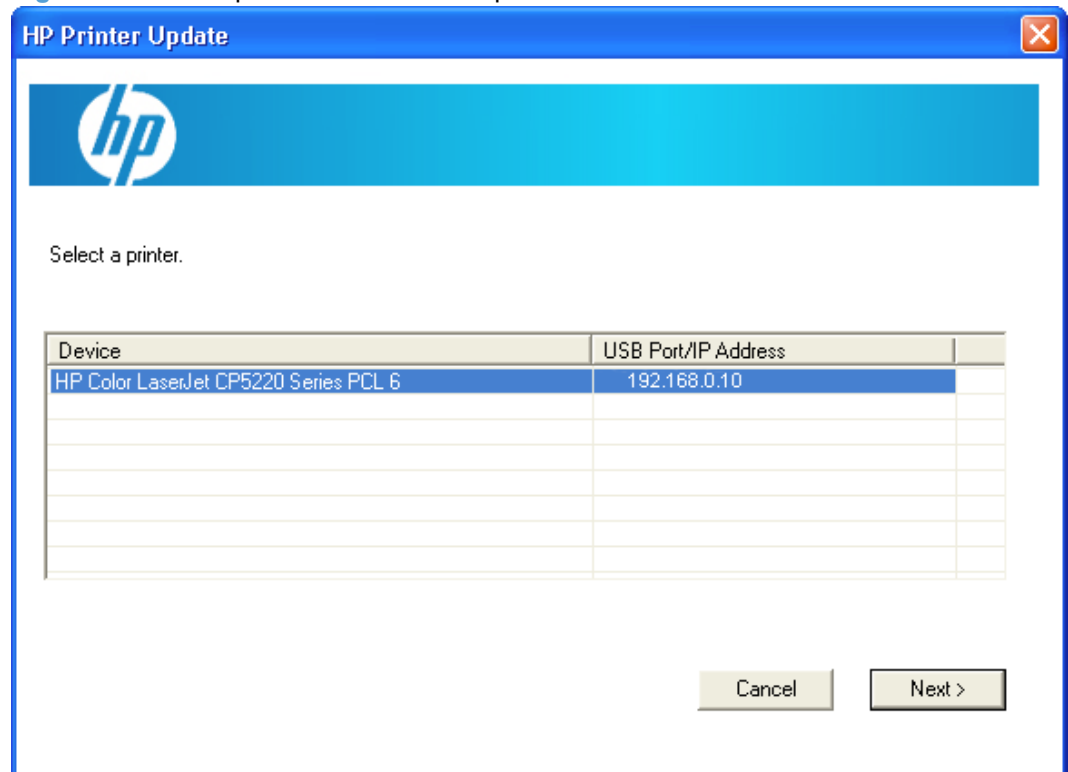
Figure 6-1 Welcome Back dialog box



2. Click the **Additional language support** button.

3. Select the product that you want to upgrade, and then click the **Next** button.

Figure 6-2 Select product for firmware update



4. The program confirms that the firmware on the CD is more current than the product firmware. Click the **Next** button to continue the update process.
 5. The update program opens a progress bar dialog box. When the process is complete, click the **Close** button.
- If the firmware on the software CD is older than the firmware on the product, you will need to download the firmware update file from www.hp.com/go/ljcp5220series_software and save the file to a computer. Refer to the product install notes for instructions on how to install the firmware update file on the product.

 **NOTE:** When you update the firmware, the HP Printer Update utility can no longer run from the CD. It must be updated from the Web: www.hp.com/go/ljcp5220series_software.

Supported paper tables

This product supports a number of paper sizes, and it adapts to various media.


 **NOTE:** To obtain best print results, select the appropriate paper size and type in your print driver before printing.

Table 6-1 Supported paper and print media sizes

Size	Dimensions	Tray 1	Tray 2	Optional Tray 3
Letter	216 x 279 mm (8.5 x 11 in)	✓	✓	✓
Legal	216 x 356 mm (8.5 x 14 in)	✓	✓	✓
A4	210 x 297 mm (8.27 x 11.69 in)	✓	✓	✓
Executive	184 x 267 mm (7.25 x 10.5 in)	✓	✓	✓
A3	297 x 420 mm (11.69 x 16.54 in)	✓	✓	✓
A5	148 x 210 mm (5.83 x 8.27 in)	✓	✓	
A6	105 x 148 mm (4.13 x 5.83 in)	✓		
B4 (JIS)	257 x 364 mm (10.12 x 14.33 in)	✓	✓	✓
B5 (JIS)	182 x 257 mm (7.17 x 10.12 in)	✓	✓	✓
8k	270 x 390 mm (10.6 x 15.4 in)			
	260 x 368 mm (10.2 x 14.5 in)	✓	✓	✓
	273 x 394 mm (10.75 x 15.5 in)			
16k	184 x 260 mm (7.24 x 10.23 in)			
	195 x 270 mm (7.68 x 10.62 in)	✓	✓	
	197 x 273 mm (7.75 x 10.75 in)			
8.5 x 13 (Folio)	216 x 330 mm (8.5 x 13 in)	✓	✓	✓
Index card	76 x 127 mm (3 x 5 in) ¹			
	107 x 152 mm (4 x 6 in)	✓		
	127 x 203 mm (5 x 8 in)			
10 x 15 cm	100 x 150 mm (3.9 x 5.9 in)	✓		
11 x 17 (Tabloid)	279 x 432 mm (11 x 17 in)	✓	✓	✓
12 x 18 (Arch B)	305 x 457 mm (12 x 18 in)	✓		
RA3	305 x 430 mm (12 x 16.9 in)	✓		
SRA3	320 x 450 mm (12.6 x 17.7 in)	✓		

Table 6-1 Supported paper and print media sizes (continued)

Size	Dimensions	Tray 1	Tray 2	Optional Tray 3
Custom	Minimum: 76 x 127 mm (3 x 5 in)	✓		
	Maximum: 320 x 470 mm (12.6 x 18.5 in)			
	Minimum: 148 x 182 mm (5.8 x 7.1 in)		✓	
	Maximum: 297 x 432 mm (11.7 x 17 in)			
	Minimum: 210 x 148 mm (8.3 x 5.8 in)			✓
	Maximum: 297 x 432 mm (11.7 x 17 in)			

¹ This size is not listed in the printer driver or product firmware, but is supported as a custom size.

Table 6-2 Supported envelopes and postcards

Size	Dimensions	Tray 1	Tray 2
Envelope #10	105 x 241 mm (4.13 x 9.49 in)	✓	
Envelope DL	110 x 220 mm (4.33 x 8.66 in)	✓	
Envelope C5	162 x 229 mm (6.93 x 9.84 in)	✓	
Envelope B5	176 x 250 mm (6.7 x 9.8 in)	✓	
Envelope Monarch	98 x 191 mm (3.9 x 7.5 in)	✓	
Postcard	100 x 148 mm (3.94 x 5.83 in)	✓	
Double postcard	148 x 200 mm (5.83 x 7.87 in)	✓	✓

Special paper guidelines table

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 the printer driver to obtain the best results.

- △ **CAUTION:** HP LaserJet products 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 could damage the product.

Media type	Do	Do not
Envelopes	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Do not use envelopes that are wrinkled, nicked, stuck together, or otherwise damaged. • Do not use envelopes that have clasps, snaps, windows, or coated linings. • Do not use self-stick adhesives or other synthetic materials.
Labels	<ul style="list-style-type: none"> • Use only labels that have no exposed backing between them. • Use labels that lie flat. • Use only full sheets of labels. 	<ul style="list-style-type: none"> • Do not use labels that have wrinkles or bubbles, or are damaged. • Do not print partial sheets of labels.
Transparencies	<ul style="list-style-type: none"> • Use only transparencies that are approved for use in laser printers. • Place transparencies on a flat surface after removing them from the product. 	<ul style="list-style-type: none"> • Do not use transparent print media not approved for laser printers.
Letterhead or preprinted forms	<ul style="list-style-type: none"> • Use only letterhead or forms approved for use in laser printers. 	<ul style="list-style-type: none"> • Do not use raised or metallic letterhead.
Heavy paper	<ul style="list-style-type: none"> • Use only heavy paper that is approved for use in laser printers and meets the weight specifications for this product. 	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Use only glossy or coated paper that is approved for use in laser printers. 	<ul style="list-style-type: none"> • Do not use glossy or coated paper designed for use in inkjet products.

Sizes (min & max) and supported paper by tray

Media type	Dimensions ¹	Weight	Capacity ²	Paper orientation
Paper, including the following types: <ul style="list-style-type: none"> • Plain • Letterhead • Color • Preprinted • Prepunched • Recycled 	Tray 1 minimum: 76 x 127 mm (3 x 5 in) Tray 1 maximum: 320 x 470 mm (12.6 x 18.5 in) Tray 2 minimum: 148 x 182 mm (5.8 x 7.1 in) Tray 3 minimum: 210 x 148 mm (8.3 x 5.8 in) Tray 2 or Tray 3 maximum: 297 x 432 mm (11.7 x 17 in)	60 to 105 g/m ² (16 to 28 lb)	Tray 1: up to 100 sheets Tray 2: up to 250 sheets of 75 g/m ² (20 lb bond) Tray 3: up to 500 sheets of 75 g/m ² (20 lb bond)	Tray 1: Side to be printed on face-down, with the top edge at the back of the tray Trays 2 and 3: Side to be printed on face-up, with the top edge at the back of the tray
Heavy paper	Same as for paper	Tray 1: Up to 220 g/m ² (58 lb) Trays 2 and 3: Up to 120 g/m ² (32 lb)	Tray 1: up to 10 mm (0.4 in) Tray 2: up to 25 mm (0.98 in) stack height Tray 3: up to 51 mm (2 in) stack height	Tray 1: Side to be printed on face-down, with the top edge at the back of the tray Trays 2 and 3: Side to be printed on face-up, with the top edge at the back of the tray
Cover paper	Same as for paper	Tray 1: Up to 220 g/m ² (58 lb) Trays 2 and 3: Up to 120 g/m ² (32 lb)	Tray 1: up to 10 mm (0.4 in) Tray 2: up to 25 mm (0.98 in) stack height Tray 3: up to 51 mm (2 in) stack height	Tray 1: Side to be printed on face-down, with the top edge at the back of the tray Trays 2 and 3: Side to be printed on face-up, with the top edge at the back of the tray
Glossy paper	Same as for paper	Tray 1: Up to 220 g/m ² (58 lb) Trays 2 and 3: Up to 160 g/m ² (43 lb)	Tray 1: up to 10 mm (0.4 in) Tray 2: up to 25 mm (0.98 in) stack height Tray 3: up to 51 mm (2 in) stack height	Tray 1: Side to be printed on face-down, with the top edge at the back of the tray Trays 2 and 3: Side to be printed on face-up, with the top edge at the back of the tray
Photo paper				
Transparencies	A4 or Letter	Thickness: 0.12 to 0.13 mm (4.7 to 5.1 mils)	Tray 1: up to 10 mm (0.4 in)	Side to be printed on face-down, with the top edge at the back of the tray
Labels ³	A4 or Letter	Thickness: up to 0.23 mm (9 mils)	Tray 1: up to 10 mm (0.4 in)	Side to be printed on face-down, with the top edge at the back of the tray

Media type	Dimensions ¹	Weight	Capacity ²	Paper orientation
Envelopes	<ul style="list-style-type: none"> • COM 10 • Monarch • DL • C5 • B5 	Up to 90 g/m ² (24 lb)	Tray 1: up to 10 envelopes	Side to be printed on face-down, with the stamp-end at the back of the tray
Postcards or index cards	100 x 148 mm (3.9 x 5.8 in)		Tray 1: up to 10 mm (0.4 in)	Side to be printed on face-down, with the top edge at the back of the tray

¹ The product supports a wide range of standard and custom sizes of print media. Check the printer driver for supported sizes.

² Capacity can vary depending on media weight and thickness, and environmental conditions.

³ Smoothness: 100 to 250 (Sheffield)

Media attributes and commands

This section includes the following information about paper attributes:

- [Media types and sizes](#)
- [Custom paper sizes](#)

Media types and sizes

The tables in this section provide information about paper features, paper attributes, and paper-handling constraints for the HP Color LaserJet CP5220 Series printer.


 **NOTE:** The following table lists the features and attributes of various paper listed under the **Size Is** drop-down menu on the **Paper/Quality** tab. The list order can vary, depending on the operating system. The list will contain all the sizes shown here, and might contain sizes from other drivers.

Table 6-3 Supported paper attributes

Paper sizes	Width	Height
Letter	216 mm (8.5 inches)	279 mm (11.0 inches)
Legal	216 mm (8.5 inches)	355 mm (14.0 inches)
A4	210 mm (8.27 inches)	297 mm (11.69 inches)
Executive	185 mm (7.25 inches)	266 mm (10.5 inches)
B5 (ISO)	176 mm (6.93 inches)	250 mm (9.84 inches)
Envelope #10	105 mm (4.13 inches)	241 mm (9.5 inches)
Envelope Monarch	99 mm (3.88 inches)	190 mm (7.5 inches)
Envelope C5 (ISO)	162 mm (6.38 inches)	229 mm (9.02 inches)
Envelope DL (ISO)	110 mm (4.33 inches)	220 mm (8.66 inches)
Envelope B5 (ISO)	176 mm (6.93 inches)	250 mm (9.84 inches)

Table 6-3 Supported paper attributes (continued)

Paper sizes	Width	Height
Custom	Minimum:	Minimum:
	76 mm	127 mm
	(3.0 inches)	(5.00 inches)
	Maximum:	Maximum:
	216 mm	356 mm
	(8.5 inches)	(14.0 inches)
B5 (JIS)	182 mm	257 mm
	(7.16 inches)	(10.12 inches)
Postcard (JIS)	100 mm	148 mm
	(3.94 inches)	(5.83 inches)
Double Postcard (JIS)	148 mm	200 mm
	(5.83 inches)	(7.87 inches)
A5	148 mm	210 mm
	(5.83 inches)	(8.27 inches)
8.5 x 13 (Foolscap)	216 mm	330 mm
	(8.5 inches)	(13 inches)
16K 7.75 x 10.75	197 mm	273 mm
	(7.75 inches)	(10.75 inches)
16K 184x260mm	184 mm	260 mm
	7.2 inches	10.2 inches
16K 195x270mm	195 mm	270 mm
	7.67 inches	10.6 inches

Custom paper sizes

The following table identifies the paper types the HP Color LaserJet CP5220 Series printer supports in trays 1 and 2.

Table 6-4 Tray 1 and Tray 2 specifications

Tray 1 and Tray 2	Dimensions ¹	Weight	Capacity ²
Paper	Minimum: 76 x 127 mm (3 x 5 inches) Maximum: 216 x 356 mm (8.5 x 14 inches)	60 to 163 g/m ² (16 to 43 lb) Up to 176 g/m ² (47 lb) for postcards	Single sheet of 75 g/m ² (20 lb) paper for Tray 1 Up to 250 sheets for Tray 2
HP LaserJet glossy paper and HP LaserJet photo paper	Same as the preceding listed minimum and maximum sizes.	75 to 220 g/m ² (20 to 58 lb)	Single sheet of HP LaserJet glossy paper or HP LaserJet photo paper for Tray 1 Up to 25 mm (0.99 inch) stack height for Tray 2
HP Premium Cover Paper ⁴		200 g/m ² (53 lb) cover	Single sheet of HP Cover paper for Tray 1 Up to 25 mm (0.99 inch) stack height for Tray 2
Transparencies and opaque film		Thickness: 0.10 to 0.13 mm (3.9 to 5.1 mils)	Single sheet of transparency or opaque film for Tray 1 Up to 50 sheets for Tray 2
Labels ³		Thickness: up to 0.23 mm (up to 9 mils)	Single sheet of labels for Tray 1 Up to 25 mm (0.99 inch) stack height for Tray 2
Envelopes		Up to 90 g/m ² (up to 24 lb)	Single envelope for Tray 1 Up to ten envelopes for Tray 2


¹ The product supports a wide range of standard and custom sizes of paper. Check the print driver for supported sizes.

² Capacity can vary depending on paper weight and thickness, and environmental conditions.

³ Smoothness: 100 to 250 (Sheffield).

⁴ Hewlett-Packard does not guarantee results when printing with other types of heavy paper.

Manual scrubber

 **NOTE:** The scrubber runs automatically as part of the uninstall process. The scrubber can also be run manually.

If the installer fails and troubleshooting efforts have not solved the problem, use the scrubber utility to remove files.

The scrubber utility is located on the printing-system software CD in the following folder:

<CD-ROM drive>util\CCC

File to E-mail utility

The File to E-mail utility collects the data specified in an .INI file and then attaches the data files to an e-mail that can be sent to HP Customer Support to assist troubleshooting. The utility runs on the computer, but does not interact with the product.

The tool is included on the installer CD, but is *not* copied to the computer during the software installation. HP Customer Support can also send the utility by e-mail or by posting it to an HP Web site.

The tool is compatible with Windows 2000, Windows XP, and Windows Vista.

The File to E-mail utility runs with any MAPI-compliant e-mail applications. It does not run with Web-based e-mail services such as Yahoo, Hotmail, or AOL.

Depending on the speed of the computer, it might take a few minutes for the utility to gather the log files and attach them to an e-mail message.

The File to E-mail utility consists of two files that are located in the util folder on the product printing-system software CD:

- <CD-ROM drive>\util\CCC\FiletoEmail\FileToEmail.exe
- <CD-ROM drive>\util\CCC\FiletoEmail\FileToEmail.ini

To use the File to E-mail utility, copy these files to the desktop, navigate to them in Explorer, and double-click **FileToEmail.exe** to open the utility. The utility generates files, opens an e-mail message, and attaches the files so that you can send them to the system administrator.

If the File to E-mail utility is not successful for any reason (for instance, if you cancel the new message or you are using Web-based e-mail software), all the files are copied to a folder on the desktop that is named HpCCC, possibly with strings of zeros attached to the end. You can zip these files and e-mail them separately.

Hewlett-Packard Color LaserJet CP5220 Series Printer Install Notes

Edition 1, 9/2009

Contents

- [I. INTRODUCTION](#)
- [II. LATE-BREAKING INFORMATION](#)
- [III. INSTALLATION INSTRUCTIONS](#)
- [IV. UNINSTALLATION INSTRUCTIONS](#)
- [V. TECHNICAL ASSISTANCE](#)
- [VI. LEGAL STATEMENTS](#)

I. 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. Installation instructions are provided in this document for the following operating systems:

- Windows 2000
- Windows 2003 Server 32-bit
- Windows XP Home 32-bit
- Windows XP Professional 64-bit
- Windows Vista™ 32-bit
- Windows Vista™ 64-bit
- Windows 2008 Server 32-bit

NOTE: The HP Color LaserJet CP5220 Series printer does not support the following operating systems:

- Windows 98
- Windows Millennium Edition (Me)
- Windows NT 4.0
- Windows 3.1x

The HP Color LaserJet CP5220 Series printer has the following features:

- 128-megabyte (MB) random-access memory (RAM)
- Full-color laser printing
- 600 x 600 x 8 bit dots-per-inch (dpi) text and graphics (ImageREt 3600)

- 50-sheet capacity (tray 1)
- 250-sheet capacity universal tray (tray 2)
- Prints 20 pages per minute (ppm) in color and 20 ppm in black & white (letter- and A4-size pages)
- Hi-Speed USB 2.0 port
- Built-in networking to connect to 10Base-T/100Base-TX networks (IPv4 and IPv6)

This file provides specific installation, compatibility, and troubleshooting information. For additional information about product features and driver features, see the product user guide and the online Help that is included with each software component.

WHO NEEDS THIS SOFTWARE?

All users require this printing-system software to operate the HP Color LaserJet CP5220 Series printer.

OVERVIEW OF THE PRINTING-SYSTEM COMPONENTS

The CD-ROM has software for IBM-compatible computer. For more information about a particular driver or software component, see its associated online Help.

To install this software, see section three ([III. INSTALLATION INSTRUCTIONS on page 254](#)).

Drivers

A driver is software that allows software applications to access product features. Typically, you should install drivers for each product. The printing-system software CD-ROM that came with the product includes the following Windows drivers:

- HP Color LaserJet CP5220 Series PCL6 printer driver for Windows 2000, Server 2003, Server 2008, XP, and Vista
- USB Printing Support
- HP Standard TCP/IP Port

Software components

- HP screen fonts
- Help navigation
- Yahoo toolbar (you can choose not to install this by clearing a check box during the installation process)
- HP Customer Participation Program (you can choose not to install this by clearing this option from the Custom install screen)
- HP ToolboxFX
- Print quality tutorial
- WebReg

HP ToolboxFX

You do not have to have Internet access to open and use HP ToolboxFX.

HP ToolboxFX is a program that you can use to complete the following tasks:

- Check the product status.
- Configure the product settings.
- Configure pop-up alert messages.
- View troubleshooting information.
- View online documentation.

You can view HP ToolboxFX when the product is directly connected to your computer or is connected to the network. In the animated getting started guide, click the **Install More Product Software** button to install and use HP ToolboxFX.



NOTE: HP ToolboxFX is not supported for Windows 2000, Server 2003, and XP 64-bit operating systems.

Product documentation

To view the HP Color LaserJet CP5220 Series User Guide, insert the product CD into the CD-ROM drive. When the animated getting started guide appears, click the **View User Guide** at the top of the screen, or open Help and select this option.

The HP Color LaserJet CP5220 Series Printer User Guide and Install Notes are on the HP Color LaserJet CP5220 Series CD at the following location:

- Document: HP Color LaserJet CP5220 Series Printer User Guide
File name: LJCP5220_use_<language code>.pdf
File name: LJCP5220_<language code>.chm
Path: <CD-ROM Drive>:\<Language>\MANUALS\LJCP5220_use_<language code>.pdf
Path: <CD-ROM Drive>:\<Language>\MANUALS\LJCP5220_use_<language code>.chm
- Document: HP Color LaserJet CP5220 Series Printer Install Notes
File name: LJCP5220_install-notes_<language code>.htm
Path: <CD-ROM Drive>:\<Language>\MANUALS\LJCP5220_install-notes_<language code>.htm
- Help navigation
Path: <CD-ROM Drive>:\LJCP5220_help\LJCP5220_help.exe

The latest version of Acrobat Reader is available on the Adobe Web site at www.adobe.com.

II. LATE-BREAKING INFORMATION

KNOWN ISSUES AND WORKAROUNDS

General

- Some Hi-Speed USB 2.0 cards might have unsigned host-controller drivers. If you have purchased a USB 2.0 add-in card and have an unsigned driver, you might experience driver-installation problems or communication problems between the product and HP software. It is recommended that you always use a Microsoft WHQL Certified host-controller driver with your USB hardware.
- Plug and Play print-driver packages are available at the following URL: www.hp.com/support/ljcp5220series.
- Functionality is limited on systems that only meet minimum system requirements. Many images and videos require a system that meets the recommended system requirements for acceptable performance and reliability.
- If your product is not recognized, check the following:
 - Verify that your cable is Hi-Speed USB 2.0 compliant.
 - Ensure that your cable is connected correctly. Remove the USB cable, look at the end of the cable, and then match it to the pattern on the USB port. Make sure that it is not upside-down. Insert one end of the USB cable completely into the USB port on the HP product, and insert the other end into the back of the computer.
 - Verify that the product is turned on. The product cannot be recognized if the power is off.
 - Make sure that the USB cable is not longer than 5 meters (16.4 feet).
 - Verify that the USB port is enabled. Some computers are sold with disabled USB ports.
- On a non-English system, some components might display English text.

Windows Sharing

The printer drivers for this product are supported only for Windows 2000, 2003 Server, 2008 Server, XP and Windows Vista. The product cannot be shared with Windows clients that are running Windows 98, Me, NT 4.0, or earlier versions of the Windows operating system.

Shared Windows clients that are not directly connected to the product will not receive software-alert messages at the computer. Only the computer that is directly connected to the product will receive software-alert messages.

HP ToolboxFX

HP ToolboxFX utilizes Microsoft .Net Framework version 2.0. Depending on the configuration of your computer, you might need to update your system configuration after installation by using Windows Update. If you encounter problems with HP ToolboxFX, install all available critical updates from Windows Update.

Upgrading Windows

HP recommends that you uninstall HP products before upgrading to a newer supported version of Windows. For example, when upgrading from Windows XP to Windows Vista, uninstall your HP product by using the **Uninstall** option found in the HP Color LaserJet CP5220 Series program group, and then upgrade to the new operating system. After the operating system upgrade is complete, re-install your

HP product by using the latest software available at the following URL: www.hp.com/support/ljcp5220series.


III. INSTALLATION INSTRUCTIONS

For Windows operating systems, the CD-ROM setup or installation software detects the version and language of the operating system that you are using.


INSTALL SOFTWARE ON XP AND WINDOWS VISTA

 **NOTE:** Administrator privileges are required to install the printing system.

Recommended installation from a CD-ROM (network and USB)

 **NOTE:** For USB installations, do not connect the USB cable to the product or the computer until instructed.

1. Close all programs.
2. Insert the CD-ROM.
3. If the HP printing system installer program has not started after 30 seconds, complete these steps.
 - a. Select **Run** from the **Start** menu on your taskbar.
 - b. Browse to the root directory on the CD-ROM drive.
 - c. Select the AUTORUN.EXE file, click **Open**, and then click **OK**. When the animated installation guide appears, click **Begin Setup** for help setting up the product.
 - d. Watch the animated installation guide, and then click **Install Software** to start the software installation.
4. Click **Install** when prompted.
5. Follow the on-screen instructions.

 **NOTE:** After installation is complete, you can install more product software (ToolboxFX and WebRegistration) by placing the CD into the CD-ROM drive and then clicking **Install More Product Software**.

Configure Tray 3

To configure your printer driver to use Tray 3

1. Open the Printers and Faxes folder. Typically this is done by clicking **Start**, and then selecting **Printers and Faxes**. (In Windows Vista, click **Start**, click **Control Panel**, click **Hardware and Sound**, and then click **Printers**.)
2. Right-click the product name, and then click **Properties**.
3. Click **Device Settings**, and then select **Installable Options**.
4. Next to **Tray 3**, select **Installed**, and then click **OK**.

Configure automatic two-sided printing

To configure your printer driver to use the automatic two-sided printing (duplexer) as the default setting



NOTE: Two-sided printing is supported on the HP Color LaserJet CP5220dn and HP Color LaserJet CP5220x products.

1. Open the Printers and Faxes folder. Typically this is done by clicking **Start**, and then selecting **Printers and Faxes**. (In Windows Vista, click **Start**, click **Control Panel**, click **Hardware and Sound**, and then click **Printers**.)
2. Right-click the product name, and then click **Properties**.
3. Click **Device Settings**, and then select **Installable Options**.
4. Next to **Duplex Unit (for 2-Sided Printing)**, select **Installed**, and click **OK**.



NOTE: Making this setting change in the printing properties takes priority over what is set at the control panel, but it can be overridden by some software programs.

IV. UNINSTALLATION INSTRUCTIONS

WINDOWS UNINSTALLER

The uninstall link is available in the HP Color LaserJet CP5220 Series program group. It removes all of the printing-system components.

1. From the **Start** menu, click HP.
2. Select the **HP Color LaserJet CP5220 Series** program group.
3. Click **Uninstall**.
4. Follow the on-screen instructions.

ADD/REMOVE PROGRAMS

The printing-system components also can be uninstalled by using the Windows Add/Remove Programs option.

1. Open the Microsoft Windows Control Panel.
2. Double-click Add/Remove Programs. The following items are installed by the HP Color LaserJet CP5220 Series Default install.
 - HP Color LaserJet CP5220 Series
 - HP Customer Participation Program (used by multiple HP products)
 - HPSSupply (used by multiple HP products)

The following items are installed by the HP Color LaserJet CP5220 Series install

- HP Color LaserJet CP5220 Series
3. For each item you want to remove, highlight it in the list and then click **Change/Remove**. Follow the on-screen instructions.

V. TECHNICAL ASSISTANCE

For customer support information, see the product user guide or the in-box support flyer. Or, call your local authorized HP dealer.

You can also go to the following URL for online technical support: www.hp.com/support/ljcp5220series

VI. LEGAL STATEMENTS

TRADEMARK NOTICES

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

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

WARRANTY AND COPYRIGHT

Warranty

See the product user guide for complete warranty and support information.

Copyright

© 2009 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

- [Port communication](#)
- [E-mail alerts](#)

Port communication

- [Overview](#)
- [USB port connections](#)
- [Device conflicts in Windows](#)

Overview

Base models have a USB port. Network models include both a 10/100Base-T TCP/IP network port and a USB port.

The product can be connected with either the 10/100Base-T TCP/IP network port or the USB port. The product does *not* support connection over a parallel port.



NOTE: Do not connect both the 10/100Base-T TCP/IP network port and the USB port at the same time.

USB port connections

Hi-speed USB is an input/output mode that both Windows and Macintosh computers support. A wide variety of consumer products, such as digital cameras and scanners, also support USB. Hi-Speed USB is the current standard. HP LaserJet products are compatible with Hi-Speed USB specifications.

A USB host is distinct from a USB product. HP LaserJet products are USB products. They can connect *only* to a USB host or a powered USB hub.

Device conflicts in Windows

When two-way communication cannot be established with the product, the Windows Device Manager might show a conflict. Conflicts should be resolved immediately, before continuing to troubleshoot two-way communication issues. The following sections contain a few guidelines for identifying and resolving these conflicts.

Open the Windows Device Manager

Follow these steps to open the Windows Device Manager:

1. In Windows 2000, click **Start**, select **Settings**, and then click **Control Panel**.

-or-

In Windows Server 2003, Windows XP, or Windows Vista, click **Start**, and then select **Settings**.

2. Click **Control Panel**.

3. In Windows 2000, Windows Server 2003, and Windows XP, click the **System** icon.

-or-

In Windows Vista, click **Hardware and Sound**.

4. In Windows 2000, Windows Server 2003, and Windows XP, click **Device Manager** on the **Hardware** tab.

-or-

In Windows Vista, click **Device Manager**.

Check for product conflicts


Follow these steps to check for product conflicts:

1. Look for products that appear on the list with a yellow exclamation mark (!) or a red X .
2. Identify port conflicts by double-clicking **Port** or by clicking the plus sign (+). Conflicts here usually interfere with two-way communication.
3. To check the status of a product, click the product name, and then click **Properties**. The **Device Status** appears in the middle of the dialog box.
4. To check the **Conflicting Device** list, click the product name, and then click **Properties**. Click the **Resources** tab, and look at the **Conflicting Device** list at the bottom of the dialog box.
5. Click the plus sign (+) to the left of **Open the Other Devices**. Misidentified or noncategorized products are placed here.

Guidelines for troubleshooting and resolving product conflicts

Follow these steps to resolve product conflicts:

1. If the conflicting product is no longer present in the list of products, click the product name, click **Remove**, and then click **Yes**. Click **Yes** to restart Windows.
2. If the conflicting product is a duplicate (and one of the duplicate listings does not show a conflict), click the name(s) of the product(s) that have a conflict, click **Remove**, and then click **Yes**. Click **Yes** to restart Windows.

 **NOTE:** You might not need to restart the computer, depending on the type of port conflict you are resolving.

3. If a product has a conflict and you have the driver for that product, remove the product and then reinstall it. After removing the product, restart the computer. When Windows reinstalls products, it usually finds nonconflicting resources.

Installed product

Click the **View** menu to see more options:

- Products by Type
- Products by Connection
- Resources by Type
- Resources by Connection
- Hidden Products

E-mail alerts

If e-mail messages fail to be sent, try following these steps:

1. Open Windows Microsoft Explorer or Internet Explorer and navigate to the file.
2. Right-click the file, select **Send To**, and then click **Mail Recipient**.

If this method fails, check the MAPI mail setup. The MAPI setup is a third-party issue.

Index

Symbols/Numerics

% of Normal Size setting
print drivers 185

A

About tab
print driver 210
Adobe Acrobat Reader
installing 19, 46
Advanced Printing Features setting,
print drivers 153
Advanced settings
for networks, HP
ToolboxFX 68
HP EWS (Windows) 95
Advanced tab, print drivers 150
alerts
e-mail 32, 44
pop-up 32
Set up Status Alerts, HP
ToolboxFX 32
Alerts folder, HP ToolboxFX 40
Alternative Letterhead Mode 156
Animated Demonstrations, HP
ToolboxFX 48
animated getting started
guide 16, 111
Auto continue settings 59
Automatic color settings 200

B

Basic Color Match tool 99
bin, output
locating 13
binding settings
HP PCL 6 print driver 194
bins
custom paper sizes 176
bitmaps, sending TrueType fonts as
HP UPD PS 153

black, printing all text as
print drivers 154
booklets
HP PCL 6 print driver
settings 195
print driver settings 195
browsers supported, HP
ToolboxFX 31

C

calibration
HP ToolboxFX 46
cardstock
printing options 162
Cartridge low threshold
settings 59
cartridges, print
Macintosh status 233
CD-ROM
directory structure,
Macintosh 216
directory structure,
Windows 10
installing Macintosh printing-
system software 219
languages, Macintosh 216
languages, Windows 10
cleaning mode
HP EWS (Windows) 88
cleaning page
HP ToolboxFX 46
color
adjusting 25
automatic adjustment 24
Edge Control 25, 201
halftone options 201
HP ColorSphere toner 23
HP ImageREt 3600 23
managing 24
matching 24

Microsoft Office Basic Colors
palette 27
Neutral Grays 25, 201
Print All Text as Black 154
print in grayscale 24
printed vs. monitor 26
settings 152
specify options in a printing
shortcut 157
sRGB 23, 24, 26, 202
troubleshooting with HP
ToolboxFX 46
color options 199
Color tab
print driver 199
Color Themes
print drivers 202
color themes 25
Color Usage Job Log
HP EWS 80
HP ToolboxFX 39
common installer, features 19
components, software
Macintosh 215, 218
Windows 9
conflicts, device 257
Connection time-out (I/O)
settings 59
constraint messages 149
control panel
locating 13
copies, number of
HP ToolboxFX setting 62
print driver settings 151
country/region of origin 14
cover page options, print
driver 175

- custom paper sizes
 - driver settings 174
 - trays that support 247
- custom-size paper settings
 - Macintosh 231
- customer support 73
- Customization Wizard
 - languages, Windows 10

D

- default
 - printing options 169
- density
 - HP EWS 85
 - HP ToolboxFX 54
- Device Configuration
 - HP EWS (Windows) 77
 - HP ToolboxFX 36
- device conflicts 257
- Device Information
 - HP EWS (Windows) 81
 - HP ToolboxFX 50
- Device Settings
 - tab, print driver
 - Properties 205
- Device Status
 - HP EWS (Windows) 75
 - HP ToolboxFX 34
- device status
 - Macintosh Services tab 233
- diagnostics 22, 203
- DIMM door, locating 14
- DIMMs, fonts
 - driver settings 207
- directory structure, CD-ROM
 - Macintosh 216
 - Windows 10
- disk space requirements
 - Macintosh 214
- Document Options
 - print drivers 152, 191
- document preview 172, 197
- document preview image
 - print drivers 181, 202
- documentation
 - animated guides 16
 - languages, Windows 10
 - localized versions xiii
- dots per inch (dpi)
 - HP ImageREt 3600 23

- double-sided printing
 - allow manual 209
 - custom paper sizes 176
 - Macintosh 232
 - print driver settings 192
 - Print on Both Sides (Manually)
 - check box 192
 - specify in a printing
 - shortcut 157
- downloading
 - printing-system software 10
- downloading software
 - Linux 109
- dpi (dots per inch)
 - HP ImageREt 3600 23
- drivers
 - Macintosh settings 231
 - presets (Macintosh) 231
 - Windows, opening 148
- Drum low threshold settings 59
- duplexing. *See* double-sided printing

E

- e-mail
 - alerts 32, 44
 - troubleshooting 259
 - troubleshooting File to E-mail utility 249
- Easy Printer Care 29, 99
- Edge Control 25, 201
- Effects tab
 - print drivers 183
- envelopes
 - printing options 161
- error messages
 - Auto continue settings 59
 - constraint, print drivers 149
 - pop-up alerts 32
- Event Log
 - HP EWS (Windows) 80
 - HP ToolboxFX 40
- EWS. *See* HP EWS (Windows) or HP EWS (Macintosh)
- external fonts
 - installation 208
 - removal 208
- External Fonts settings, print drivers 207

F

- fax driver
 - languages, Windows 10
- features
 - installer 19
- File to E-mail utility 249
- Finishing tab
 - print drivers 153, 52
- firmware
 - about upgrades 21
 - update 21
- first or last page different 180
- Flip Pages Up settings
 - HP PCL 6 print driver 194
- Font Substitution Table, HP UPD PS 207
- fonts
 - DIMM settings, drivers 207
 - External, print drivers 207
 - languages, Windows 10
 - lists, printing 79
 - Send TrueType as Bitmap, HP PCL 6 print driver 154
 - Send TrueType as bitmap, HP UPD PS 153
 - TrueType settings, print drivers 152
 - watermark settings, print drivers 188, 190
 - Windows 101, 103
- Form to Tray Assignment, drivers 206
- formatter
 - number 36
- front door, locating 13
- fuser modes 55

G

- Gloss Level, HP UPD PS 182
- glossy
 - printing options 164
- grayscale printing 24, 201
- grayscale settings 199

H

- halftoning 199
- Help
 - accessing 19
 - folder, HP ToolboxFX 45
 - print drivers 149

- HP Basic Color Match tool 99
- HP ColorSphere toner 23
- HP Customer Participation Program
 - HP EWS 98
- HP Driver Diagnostic Printer Check Tool 22
- HP Easy Printer Care 29, 99
- HP Embedded Web Server (Macintosh). See HP EWS (Macintosh)
- HP Embedded Web Server (Windows). See HP EWS (Windows)
- HP EWS (Macintosh)
 - about 218, 230
- HP EWS (Windows)
 - accessing 74
 - Advanced settings 95
 - Color Usage Job Log 80
 - Device Configuration 77
 - Device Information 81
 - Device Status 75
 - Event Log 80
 - HP ToolboxFX 30
 - Network Summary 78
 - Networking tab 91
 - Paper Setup 82
 - Paper Types 85
 - PCL5 91
 - PostScript settings 91
 - Print Density 85
 - Print Quality 84
 - Print tab 89
 - Printing settings 90
 - Product Security 89
 - Reports 79
 - Service settings 88
 - SNMP 96
 - Status tab 74
 - Supplies Status 76
 - System Setup 88
 - System tab 81
- HP ImageREt 3600 23
- HP Instant Support 73
- HP PCL 6 print driver
 - About tab 210
 - Advanced Printing Features, enabling 153
 - Advanced tab 150

- Alternative Letterhead Mode 156
- booklet printing 195
- Color tab 199
- constraint messages 149
- Copy Count 151
- Device Settings tab 205
- Document Options 152, 191
- Effects tab 183
- Finishing tab 52
- Graphic settings 152
- Help 149
- Image Color Management (ICM) 152
- Layout Options 156
- orientation settings 197
- Pages per Sheet 196
- Paper/Output settings 151
- Paper/Quality tab 173
- Print All Text as Black 154
- Print Data Optimization 155
- Print on Both Sides 192
- Printer Features 154
- Printing Shortcuts tab 157
- Raster Compression 154
- Resizing Options 183
- Send TrueType as
 - Bitmap 154
- Services tab 203
- TrueType font settings 152
- Watermarks settings 186
- HP PCL6 print driver
 - Color Themes 202
- HP Printer Update utility 21
- HP PS Emulation Print Driver
 - Help 149
- HP PS Emulation Universal Printer Driver
 - Document Options 152
- HP Smart Web Printing 99
- HP ToolboxFX
 - Advanced network settings 68
 - Alerts folder 40
 - Animated Demonstrations 48
 - Auto continue settings 59
 - browsers supported 31
 - Color Usage Job Log 39
 - Device Configuration 36
 - Device Information 50
 - Device Status 34

- e-mail alerts 32
- Event Log 40
- features 30
- folders 33
- Help folder 45
- HP EWS 30
- HP Instant Support 73
- Jam recovery settings 59
- key features 31
- Microsoft Office Basic Colors palette, printing 27
- Network Identification settings 70
- Network Settings folder 65
- Network Summary 37
- opening screen 31
- Paper Handling 51
- Paper Types 55
- PCL5 64
- pop-up alert messages 32
- PostScript settings 64
- Print Density 54
- Print Modes 56
- Print Quality 53
- Print Settings folder 61
- Printing settings 62
- Product Registration 73
- Product Security 61
- Reports 38
- Save/Restore settings 60
- sections 31
- Set up E-mail Alerts 44
- Set up Status Alerts 32
- Shop for Supplies 73
- SNMP Configuration settings 71
- starting 31, 32
- Status folder 33
- Supplies Status 35
- Support and Troubleshooting 73
- system requirements 31
- System Settings folder 49
- System Setup 59
- Troubleshooting folder 45
- User Guide 49
- HP UPD PS
 - About tab 210
 - Advanced Printing Features, enabling 153

- Advanced tab 150
- booklet printing 195
- Color tab 199
- Color Themes 202
- constraint messages 149
- Copy Count 151
- Device Settings tab 205
- diagnostics 22
- Document Options 191
- document preview image 181, 202
- Effects tab 183
- Finishing tab 52
- Font DIMM Installer 207
- Font Substitution Table 207
- Form to Tray Assignment 206
- Graphic settings 152
- Image Color Management (ICM) 152
- Installable Options settings 209
- Internet Services 203
- languages, Windows 10
- Layout Options 156
- Mirror Image 198
- orientation settings 197
- Pages per Sheet 196
- Paper Options 174
- Paper/Output settings 151
- Paper/Quality tab 173
- PostScript Options 153
- Print All Text as Black 154
- Print on Both Sides 192
- Printer Features 154
- Printing Shortcuts tab 157
- Resizing Options 183
- Services tab 203
- TrueType font settings 152
- Watermarks settings 186
- HP Web Jetadmin 98
- hybrid printing 155

I

- ICM (Image Color Management) settings 152
- Image Color Management (ICM) settings 152
- image quality
 - HP ImageREt 3600 23
- ImageREt 3600 23

- information pages
 - print from HP EWS (Windows) 79
 - print from HP ToolboxFX 38
- Installable Options
 - HP UPD PS 209
- installation
 - Adobe Acrobat Reader 19, 46
 - detailed Windows instructions 111
 - File to E-mail utility 249
 - Macintosh 218
 - Macintosh printing-system software 219
 - of print drivers by using a CD 110
 - product software 18
 - system requirements for Macintosh 214
 - troubleshooting Macintosh 225
 - types for Windows 109
- installation instructions
 - additional software 136
 - Printing-system software 122
 - Windows 111
- installers
 - common, features 19
- Instant Support, HP 73
- Internet Services 203
- IPv4 Configuration
 - HP EWS 92
 - HP ToolboxFX 66
- IPv6 Configuration
 - HP EWS 93
 - HP ToolboxFX 67

J

- jams
 - recovery settings 59
- Jetadmin, HP Web 98

L

- labels
 - printing options 166
- landscape orientation
 - Flip Pages Up, HP PCL 6 print driver 194
 - print drivers 197

- languages
 - change 21
 - documentation xiii
 - Macintosh CD-ROMs 216
 - Windows CD-ROMs 10
- Layout Options, print drivers 156
- Linux drivers 109
- localized
 - CD-ROMs, Macintosh 216
 - CD-ROMs, Windows 10
 - documentation xiii

M

- Macintosh
 - components, software 218
 - directory structure, CD-ROM 216
 - double-sided printing 232
 - driver settings 231
 - hardware requirements 214
 - HP Embedded Web Server (HP EWS) 230
 - install notes 219
 - installation instructions 218
 - installing printing-system software 219
 - localized software CDs 216
 - PDEs 218
 - PPDs 218
 - printer queue setup 234
 - printer queue
 - troubleshooting 234
 - resize documents 231
 - setup instructions 224
 - software components 215
 - supported operating systems 214
 - supported print drivers 214
- Macintosh driver settings
 - custom-size paper 231
 - Services tab 233
 - watermarks 231
- Macintosh operating systems
 - removing software 230
- Macintosh OS
 - setting up products with Mac OS X 225, 226
 - troubleshooting setup 225
- Manual color settings
 - print drivers 200

- manual features
 - Print on Both Sides (Manually)
 - check box 192
 - scrubber utility 248
- manuals
 - localized versions xiii
- match color
 - Image Color Management (ICM) 152
- matching colors 24
- media
 - custom-size, Macintosh settings 231
 - pages per sheet 232
- memory
 - Device Configuration, HP ToolboxFX 36
 - driver settings 209
 - included 4
 - Macintosh requirements 214
- memory, access 14
- messages
 - Auto continue settings 59
 - constraint, print drivers 149
 - pop-up alerts 32
- Microsoft Office Basic Colors
 - palette, printing 27
- Mirror Image, HP UPD PS 198
- model number 14
- multiple pages per sheet 232

N

- n-up printing 232
- network
 - models supporting 4
- Network Identification settings
 - for networks, HP ToolboxFX 70
- network port
 - locating 14
- Network Settings folder, HP ToolboxFX 65
- Network Summary
 - HP EWS (Windows) 78
 - HP ToolboxFX 37, 66
- Networking tab, HP EWS (Windows) 91
- networks
 - Advanced settings 68
 - HP EWS, accessing 74

- HP ToolboxFX settings 37
- Network Identification
 - settings 70
- password settings 61
- SNMP settings 71
- Neutral Grays 25, 201
- number of copies
 - print driver settings 151

O

- on/off button 13
- online Help
 - HP ToolboxFX 45
 - print drivers 149
- operating systems
 - availability of software components 9
- operating systems
 - requirements 108
- operating systems supported 108
- Optimize for Raster 155
- Optimize for Text and Vector 155
- orientation, page
 - Flip Pages Up, HP PCL 6 print driver 194
 - print drivers 197
- output bin
 - custom paper sizes 176
 - locating 13
- output quality
 - HP ImageREt 3600 23

P

- Page Order menu 196
- page orientation
 - Flip Pages Up, HP PCL 6 print driver 194
 - print drivers 197
- pages per minute 4
- pages per sheet 232
- Pages per Sheet settings
 - print drivers 196
- paper
 - Alternative Letterhead Mode 156
 - custom sizes 174
 - custom sizes supported 247
 - custom-size, Macintosh settings 231

- guidelines for special paper 242
- pages per sheet 232
- Pages per Sheet settings, print drivers 196
- Paper Setup 51
- Print Document On settings, print drivers 184
- print modes 55
- Print on Both Sides, print driver 192
- Size is settings, drivers 174
- sizes supported 245
- Source is settings, drivers 177
- supported 240
- supported sizes 240
- Type is: settings, drivers 51
- types supported 245
- Paper Options
 - drivers 174
- Paper Setup
 - HP EWS (Windows) 82
 - HP ToolboxFX 51
- Paper Types
 - HP EWS (Windows) 85
 - HP ToolboxFX 55
 - specify in a printing shortcut 157
- Paper/Output settings, print drivers 151
- Paper/Quality tab
 - print drivers 173
- parallel port, not supported 257
- part numbers
 - documentation xiii
- Password settings
 - HP EWS (Windows) 89
- password settings
 - HP ToolboxFX 61
- PCL5
 - HP EWS (Windows) 91
 - HP ToolboxFX 64
- PDEs (Printer Dialog Extensions) 218
- PDF files
 - installing Adobe Acrobat Reader 19, 46
- Percent of Normal Size setting
 - print drivers 185

- ul style="list-style-type: none;">
- photos
 - printing options 165
- pop-up alerts 32
- portrait orientation
 - Flip Pages Up, HP PCL 6 print driver 194
 - print drivers 197
- ports
 - connecting 257
 - device conflicts 257
- PostScript
 - HP ToolboxFX 64
- postscript emulation fonts 103
- PostScript Options, HP UPD PS 153
- PostScript settings
 - HP EWS (Windows) 91
- power button 13
- power connection, locating 14
- PPDs (PostScript printer definitions), Macintosh
 - installation 218
- PPDs, Macintosh
 - troubleshooting 228
- presets (Macintosh) 231
- preview image 172
- Print all Text as Black
 - print drivers 154
- print cartridges
 - Macintosh status 233
- print cartridges, accessing 13
- Print Data Optimization 155
- Print Density
 - HP EWS (Windows) 85
 - HP ToolboxFX 54
- Print Document On settings
 - print drivers 184
- print drivers
 - About tab 210
 - Advanced Printing Features, enabling 153
 - Advanced tab 150
 - booklet printing 195
 - Color tab 199
 - Color Themes 202
 - constraint messages 149
 - Copy Count 151
 - Device Settings tab 205
 - diagnostics 22
 - Document Options 152, 191
 - document preview image 181, 202
 - download 99
 - Effects tab 183
 - External Fonts settings 207
 - Finishing tab 52
 - Font DIMM Installer 207
 - Font Substitution table 207
 - Form to Tray Assignment 206
 - Graphic settings 152
 - Help 149
 - Image Color Management (ICM) 152
 - included 20
 - install by using a CD 110
 - Installable Options settings 209
 - Internet Services 203
 - languages, Windows 10
 - Layout Options 156
 - Macintosh 214, 215
 - Macintosh settings 214
 - orientation settings 197
 - Pages per Sheet 196
 - Paper Options 174
 - Paper/Output settings 151
 - Paper/Quality tab 173
 - Print All Text as Black 154
 - Print on Both Sides 192
 - Printer Features 154
 - Printing Shortcuts tab 157
 - Resizing Options 183
 - Services tab 203
 - TrueType font settings 152
 - Watermarks settings 186
- print modes
 - for paper types 55
- Print Modes, HP ToolboxFX 56
- Print on Both Sides
 - print driver settings 192
- Print Page Borders 196
- Print pages on different paper 180
- Print Quality
 - HP EWS (Windows) 84
 - HP ToolboxFX 53
- Print Quality group box 181
- Print Settings folder
 - HP ToolboxFX 61
- Print tab, HP EWS (Windows) 89
- Printer Dialog Extensions (PDEs) 218
- Printer Features 154
- Printing
 - HP ToolboxFX 62
- printing
 - Web pages 99
- Printing settings
 - HP EWS (Windows) 90
- Printing Shortcuts tab
 - print drivers 157
- Printing-system software 122
- Product Registration, HP
 - ToolboxFX 73
- production code 14
- Q**
- quality
 - HP ImageREt 3600 23
 - print settings, HP ToolboxFX 53
 - Quick Sets. See Printing Shortcuts tab
- R**
- Raster Compression
 - HP PCL 6 print driver 154
 - rear door, locating 14
 - regional versions, CD-ROMs
 - Macintosh 216
 - Windows 10
 - registration, product 73
 - remote firmware upgrades
 - about 21
 - removing Macintosh
 - software 230
 - Reports
 - HP EWS (Windows) 79
 - HP ToolboxFX 38
 - reports, printing 38
 - resize documents
 - Macintosh 231
 - Resizing Options, print drivers 183
 - resolution
 - HP ImageREt 3600 23
 - HP ToolboxFX settings 53
 - Print Quality, HP EWS (Windows) 84
 - revision level 14

RGB settings 23, 24, 26, 202
rotation settings 198

S

Save/Restore settings 60
scale documents
 Macintosh 231
Scale to Fit setting
 print drivers 184
scrubber utility 248
send fax driver
 languages, Windows 10
Send TrueType as Bitmap
 HP UPD PS 153
serial number 14, 36
Service ID 36
Service settings
 HP EWS (Windows) 88
Services tab
 Macintosh 233
 print drivers 203
Set up E-mail Alerts, HP
 ToolboxFX 44
Set up Status Alerts, HP
 ToolboxFX 32
settings
 driver presets
 (Macintosh) 231
setup and installation
 detailed for Windows 111
setup instructions
 Macintosh 224
Shop for Supplies, HP
 ToolboxFX 73
shortcuts for print driver
 settings 157
sizes, paper
 driver settings 174
 HP ToolboxFX settings 51
 supported 245
SNMP settings
 HP EWS (Windows) 96
 HP ToolboxFX 71
software
 help 19
 HP Web Jetadmin 98
 installation instructions 111,
 136
 installing 18

operating systems
 requirements 108
 supported operating
 systems 108
 uninstalling Macintosh 230
Source is settings 177
Special Pages 175
special paper
 guidelines 242
specifications
 model and serial number 14
sRGB settings 23, 24, 26, 202
status
 alerts setup, HP
 ToolboxFX 32
 information, HP ToolboxFX 34
 Macintosh services tab 233
 of supplies, HP ToolboxFX 35
 toner monitoring 98
Status folder, HP ToolboxFX 33
Status tab, HP EWS
 (Windows) 74
Supplies Status
 HP EWS (Windows) 76
 HP ToolboxFX 35
supplies, ordering 73
supply-status, Services tab
 Macintosh 233
Support and Troubleshooting, HP
 ToolboxFX 73
support, product 73
system requirements
 HP ToolboxFX 31
System Settings
 HP ToolboxFX folder 49
System Setup
 HP EWS (Windows) 88
 HP ToolboxFX 59
System tab, HP EWS
 (Windows) 81

T

text, printing all as black
 print drivers 154
ToolboxFX. *See* HP ToolboxFX
transparencies
 printing options 167
trapping 25, 201
Tray 1
 locating 13

tray 1 232, 243
 See also trays
Tray 2
 capacity 13
 locating 13
Tray 3
 capacity 13
 jam access 13
 locating 13
trays
 capacities 243
 custom paper sizes 176
 custom paper sizes
 supported 247
 double-sided printing 232
 driver Form to Tray
 Assignment 206
 HP ToolboxFX settings 51
 included 4
 locating 13
 paper types supported 243
 paper weights 243
 Source is settings, drivers 177
troubleshooting
 Animated Demonstrations 48
 constraint messages, print
 drivers 149
 device conflicts 257
 e-mail 259
 File to E-mail utility 249
 HP Driver Diagnostic Printer
 Check Tool 22
 Macintosh setup 225
 pop-up alerts 32
 scrubber utility 248
 Services tab, drivers 203
Troubleshooting folder, HP
 ToolboxFX 45
TrueType fonts
 print driver settings 152
 Send as Bitmaps, HP PCL 6
 print driver 154
 Send as Bitmaps, HP UPD
 PS 153
two-sided printing
 print driver settings 192
Type is settings 51
types, paper
 driver settings 51
 HP ToolboxFX settings 51

- print modes 55
- supported 245

U

- uninstall
 - Macintosh software 230
- uninstallation
 - full 141
 - print-driver only
 - installation 146
 - recommended 141
 - Windows product software 141
- UNIX software downloads 109
- upgrade firmware
 - about 21
- usage log, color
 - HP EWS 80
 - HP ToolboxFX 39
- USB port
 - connecting 257
 - device conflicts 257
 - locating 14
 - products vs. hosts 257
- User Guide
 - print settings 169
- User Guide, HP ToolboxFX 49
- user guides
 - localized versions xiii

W

- watermarks
 - print drivers 186
- Web sites
 - downloading software 10
 - HP Driver Diagnostic Printer Check Tool 22
 - HP Easy Printer Care 29
 - Linux software 109
 - Macintosh software 215
- Windows
 - device conflicts 257
 - installation instructions 111
 - operating systems requirements 108
 - Printing-system software 122
 - supported operating systems 108
 - uninstalling product software 141

- Windows operating systems
 - availability of software components 9
 - directory structure, CD-ROM 10
 - fonts default 101
 - fonts supported 101
 - postscript emulation fonts supported 103
 - software installation types 109

Y

- Yahoo! toolbar 100

