

Welcome to the Lexmark

Universal Driver version 2



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Introduction

This document introduces the Lexmark™ *Universal Print Driver* (UPD), describes its capabilities, and provides an overview of the devices it supports. This edition applies to the Lexmark Universal Print Drivers version 2 for Windows.

Notes:

- The Universal Print Driver version 2 can be installed along with Universal Print Driver version 1.0 or later.
- To obtain a copy of the documentation for the Universal Print Driver version 1.0 or later, visit our Web site.
- For more information on the driver version numbering format, see “What is the UPD version numbering format?” on page 29.

What are the Universal Print Drivers?

The Lexmark Universal Print Drivers provide users and administrators with a standardized, one-driver solution for their printing needs. Instead of installing and managing individual drivers for each printer model, administrators can install the Lexmark Universal Print Drivers for use with a variety of both mono and color printers.

Benefits

Allows versatility

The Lexmark Universal Print Drivers are available in more than 20 languages, supporting more than 120 printer models, whether attached locally or over a network. All packages have been tested in cluster server environments, Microsoft Terminal Servers, and Citrix Presentation Server environments, and are Microsoft WHQL certified (digitally signed), PCL 5, PCL XL, and PostScript 3 emulations are available for Windows XP or later.

Enables bidirectional communication

Bidirectional capability automatically detects and updates the installed options both at install time and upon user request. This allows the driver to adapt to the various capabilities of our different printers, but unlike other universal print drivers, the network traffic is minimal.

Reduces cost for system support

With only one package to manage, testing and internal certification of print drivers is simplified by the use of the Lexmark Universal Print Drivers. Time spent on installation, both on servers and workstations, is greatly reduced, and hard drive space formerly occupied by many product-specific drivers is now diminished significantly.

Enables increased user efficiency

The Lexmark Universal Print Drivers use the same graphical user interface as the product-specific drivers the users are accustomed to. Now all queues will share that same interface, decreasing calls to the help desk. Users can create and save profiles for their most frequently used settings, or use profiles that were created for them by system support.

Facilitates corporate sustainability initiatives

Administrators can use the Lexmark Universal Print Drivers to promote their organization's environmental policies. The default queue settings can be modified to include duplex, multiple page printing (N-Up), toner darkness, and other resource-saving measures.

New Features

New user interface

The new user interface of the Universal Print Driver provides a more consistent look and feel across all printer models. The controls and settings have been modified to provide better language support and overall customer experience.

The Universal Print Driver is available in more languages. The user interface matches the language of your operating system. Administrators can also manually choose a specific language from the Configuration tab in the Printer Properties dialog.

Custom installation package

With the new Universal Print Driver installer, administrators can choose to create preconfigured installation packages that include only the software and drivers that meet their needs. Combining the custom installation package with Driver Configuration Files (DCFs) lets administrators create a deployment package that best suits their environment.

Job Accounting

The Job Accounting option lets you track print jobs for accounting purposes by associating the print job with specific account information, including a user name or ID, an account code, and a department code. This lets you keep track of the number of print jobs from different users or departments and bill those print jobs to a specific account. By associating print jobs with specific account information, you can enforce quotas on the print jobs that users can submit. Quotas can be set on the printer, and then associated with a specific account.

Note: This feature is available only in select printer models with a printer hard disk installed.

Dynamic driver configuration

The Universal Print Driver version 2 has the ability to update itself to reflect the features and options of any supported printer model. When the driver is connected to a printer through USB or over a network, the driver automatically updates its configuration, showing only the features and functions of a chosen printer model. Connecting the driver to a specific printer automatically updates the driver settings to show only the paper sizes, trays, types, finishing options, and other options that the printer supports.

You can configure the driver to determine a printer model automatically. Administrators can also manually choose a specific printer model from the Configuration tab in the Printer Properties dialog.

Printer Driver Configuration Utility

Use the Printer Driver Configuration Utility to create driver configurations. A driver configuration is a group of saved printer driver settings and other data that is stored in a Driver Configuration File (DCF). A driver configuration contains settings such as print orientation and pages per sheet (Document Settings), and installation status of a duplex unit or an exit bin (Printer Options). You can also create driver configurations that work across printer models.

The Printer Driver Configuration lets you:

- Configure a printer object when installing it.
- Configure multiple printer objects, each with unique settings, for the same printer driver (also referred to as the creation of virtual printer objects).
- View or edit an existing configuration.

Note: The DCF name must have an extension of .ldc.

Change History

Lexmark Universal Print Driver version 2.x.5

- **Addition of color and mono laser printers**—Added support for color and mono laser printers. For a complete list of supported printers, see “Device compatibility” on page 8.
- **Addition of supported operating systems**—Added support for Windows 8 and Windows Server 2012. For a complete list of supported operating systems, see “Operating system support” on page 8.
- **Addition of supported language**—Added Arabic in the supported languages. For a complete list of supported languages, see “Language support” on page 15.
- **Package Builder utility**—Use the utility to create customized installer packages that you can launch without user input, and integrate into your deployment solution.

Lexmark Universal Print Driver version 2.x.4

- **Addition of color laser printers**—Added support for color laser printers. For a complete list of supported printers, see “Device compatibility” on page 8.
- **Addition of supported operating system**—Added operating system support. For a complete list of supported operating systems, see “Operating system support” on page 8.

Lexmark Universal Print Driver version 2.x.3

- **Addition of color inkjet printers**—Added support for color inkjet printers. For a complete list of supported printers, see “Device compatibility” on page 8.
- **Addition of paper sizes supported in inkjet printers**—Added supported paper sizes for borderless printing in select inkjet printers. For more information, see “Supported paper sizes” on page 13.

Lexmark Universal Print Driver version 2

- **Driver version numbering**—The driver version number increments whenever there are major or minor functional modifications.
- **New user interface**—The new user interface of the Universal Print Driver provides a more consistent look and feel across all printer models.
- **Custom installation package**—Administrators can now choose to create preconfigured installation packages that include only the software and drivers that meet their needs.
- **Job Accounting**—The Job Accounting option lets you track print jobs for accounting purposes by associating the print job with specific account information, including a user name or ID, an account code, and a department code.

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- **Dynamic driver configuration**—The Universal Print Driver now has the ability to update itself to reflect the features and options of any specific printer model.
 - **Printer Driver Configuration Utility**—Use the utility to create driver configurations, which are saved printer driver settings and other data stored in a Driver Configuration File (DCF).

Before you begin

Operating system support

The Lexmark Universal Print Drivers are available for the following operating systems in 32-bit and 64-bit versions (where available):

- Windows 8
- Windows Server 2012
- Windows 7
- Windows Server 2008
- Windows Server 2008 R2
- Windows Vista
- Windows Server 2003
- Windows XP

The Universal Print Drivers are also compatible with the following Citrix implementations in 32-bit and 64-bit versions (where available):

- Windows Server 2008 R2 with Citrix XenApp 6.5
- Windows Server 2008 R2 with Citrix XenApp 6.0
- Windows Server 2008 with Citrix XenApp 5.0
- Windows Server 2003 with Citrix Presentation Server 4.5
- Windows Server 2003 with Citrix Presentation Server 4.0
- Windows Server 2003 with Citrix Presentation Server 3.0
- Windows Server 2003 with Citrix XenApp 5.0

Device compatibility

The Lexmark Universal Print Drivers are compatible with the following devices:

Device	PCL 5 emulation	PCL XL emulation	PS emulation
Mono Laser Printers			
E120n ¹	√	√	
E220 ¹	√		
E230, E232, E234, E234n	√		
E238, E240	√	√	
E240n, E340, E342n	√	√	√
E250d, E250dn, E350d, E352dn, E450dn	√	√	√
E260, E260d, E260dn	√	√	√

¹ The duplex function is not supported.

² Custom forms, collation, booklet printing, and most print quality controls are not available.

Device	PCL 5 emulation	PCL XL emulation	PS emulation
E330, E332	✓		✓
E360d, E360dn	✓	✓	✓
E460dn, E460dw, E462dtn	✓	✓	✓
E320, E322	✓		✓
E321 ¹ , E323 ¹	✓		✓
T420	✓		✓
T430	✓		✓
T520, T522	✓		✓
T620, T622	✓		✓
T630, T632, T634	✓		✓
T640, T642, T644	✓	✓	✓
T650, T652, T654, T656	✓	✓	✓
W820	✓		✓
W840	✓	✓	✓
W850	✓	✓	✓
Optra T612, Optra T614	✓		✓
Optra S 1625	✓		
Optra S 1855	✓		
Optra S 2420	✓		
Optra S 2450, Optra S 2455	✓		
M1100 Series (M1145)	✓	✓	✓
M3100 Series (M3150)	✓	✓	✓
M5100 Series (M5155, M5163, M5170)	✓	✓	✓
MS310 Series (MS310d, MS310dn)	✓	✓	✓
MS410 Series (MS410d, MS410dn)	✓	✓	✓
MS510 Series (MS510dn)	✓	✓	✓
MS610 Series (MS610dn, MS610de)	✓	✓	✓
MS710 Series (MS710, MS711)	✓	✓	✓
MS810 Series (MS810, MS811, MS812)	✓	✓	✓
Mono Laser Multifunction Printers			
X203n, X204n	✓	✓	✓
X264dn, X363dn, X364dn, X364dw	✓	✓	✓

¹ The duplex function is not supported.

² Custom forms, collation, booklet printing, and most print quality controls are not available.

Device	PCL 5 emulation	PCL XL emulation	PS emulation
X340n ² , X342n ²	✓	✓	
X422	✓		✓
X463de, X464de, X466dte, X466dtwe	✓	✓	✓
X642e	✓	✓	✓
X644e, X646e	✓	✓	✓
X646ef	✓	✓	✓
X651de, X652de, X654dte, X656de, X658de	✓	✓	✓
6500e	✓	✓	✓
X820e	✓	✓	✓
X830, X832	✓		✓
X850e, X852e, X854e	✓	✓	✓
X860e, X862e, X864e	✓	✓	✓
MX310 Series (MX310dn)	✓	✓	✓
MX410 Series (MX410de)	✓	✓	✓
MX510 Series (MX510de, MX511de, MX511dhe)	✓	✓	✓
MX610 Series (MX610de, MX611de, MX611dhe)	✓	✓	✓
MX710 Series (MX710, MX711)	✓	✓	✓
MX810 Series (MX810, MX811, MX812)	✓	✓	✓
XM1100 Series (XM1145)	✓	✓	✓
XM3100 Series (XM3150)	✓	✓	✓
XM5100 Series (XM5163, XM5170)	✓	✓	✓
XM7100 Series (XM7155, XM7163, XM7170)	✓	✓	✓
Color Laser Printers			
C510	✓		✓
C520, C522, C524	✓	✓	✓
C530, C532, C534	✓	✓	✓
C540, C543, C544, C546	✓	✓	✓
C734, C736	✓	✓	✓
C746n, C746dn, C746dtn, C748e, C748de, C748dte	✓	✓	✓
C750	✓		✓
C752	✓		✓
C760, C762	✓	✓	✓

¹ The duplex function is not supported.

² Custom forms, collation, booklet printing, and most print quality controls are not available.

Device	PCL 5 emulation	PCL XL emulation	PS emulation
C770, C772	✓	✓	✓
C780, C782, C782 XL	✓	✓	✓
C790, C792	✓	✓	✓
C912	✓		✓
C920	✓	✓	✓
C925	✓	✓	✓
C935	✓	✓	✓
C950de	✓	✓	✓
CS310 Series (CS310n, CS310dn)	✓	✓	✓
CS410 Series (CS410n, CS410dn)	✓	✓	✓
CS510 Series (CS510de)	✓	✓	✓
Color Laser Multifunction Printers			
X543, X544, X546	✓	✓	✓
X548, X548e	✓	✓	✓
X734de, X736de, X738de	✓	✓	✓
X746de, X748de, X748dte	✓	✓	✓
X762e	✓	✓	✓
X772e	✓	✓	✓
X782e, X782e XL	✓	✓	✓
X790, X792	✓	✓	✓
X912	✓		✓
X925, XS925	✓	✓	✓
X940e, X945e	✓	✓	✓
X950de, X952de, X954de	✓	✓	✓
CX310 Series (CX310n, CX310dn)	✓	✓	✓
CX410 Series (CX410e, CX410de)	✓	✓	✓
CX510 Series (CX510de)	✓	✓	✓
XC2100 Series (XC2132)	✓	✓	✓
Color Inkjet Printers			
Pro710 Series (Pro715, Pro719)	✓	✓	✓
Pro910 Series (Pro915, Pro919, Pro912)	✓	✓	✓
Pro4000 Series (Pro4000, Pro4000c)	✓	✓	✓
¹ The duplex function is not supported. ² Custom forms, collation, booklet printing, and most print quality controls are not available.			

Device	PCL 5 emulation	PCL XL emulation	PS emulation
Pro5500 Series (Pro5500, Pro5500t)	√	√	√
S310 Series (S315, S319)	√	√	√
S410 Series (S415, S419)	√	√	√
S510 Series (S515, S519)	√	√	√
¹ The duplex function is not supported. ² Custom forms, collation, booklet printing, and most print quality controls are not available.			

Connectivity

The Lexmark Universal Print Drivers support direct printing to IP ports, USB ports, and Web Services ports in all supported operating systems.

Note: Bidirectional communication is available with standard IP ports, Lexmark Enhanced TCP/IP ports, USB connections, Web Services ports, and Novell iPrint ports.

Standard IP ports

Printing to standard IP ports is supported through the Windows native TCP port monitor and Port 9100 in all supported operating systems.

Lexmark Enhanced TCP/IP ports

Lexmark Enhanced TCP/IP ports are not included as part of the Lexmark Universal Print Driver package.

If enhanced port capability is installed separately on the host system, then printing to an enhanced port is supported in Lexmark Universal Print Drivers.

LPR ports

LPR ports are supported if available in the operating system.

USB ports

USB ports are supported.

Web Services ports

Web Services ports are supported if available in the operating system.

Travel Print

The Travel Print feature allows users who travel frequently and/or change printers on a regular basis to switch easily between multiple devices. Users can then designate up to 10 frequently used printers as favorites, providing easy access to the ones they use most.

Travel Print users can also search for printers using the printer host name or IP address, or by searching a subnet. The printer search results include essential information about each printer, including, among other things, its model name, current operational state, IP address, and color and duplex capabilities.

Users can also use the Travel Print feature to access the Embedded Web Server for a selected device, allowing access to even more detailed printer information and configuration options.

Paper sizes and types supported by the Universal Print Driver

Available paper sizes and types may vary, depending on printers and printer drivers.

Supported paper sizes

- 4 x 6 inches
- 4 x 8 inches
- 5 x 7 inches
- 12 x 18 inches
- 10 x 15 cm
- 10 x 20 cm
- 13 x 18 cm
- 2L (127 x 178 mm)
- A3 (297 x 420 mm)
- A4 (210 x 297 mm)
- A5 (148 x 210 mm)
- A6 (105 x 148 mm)
- B4 (257 x 364 mm)
- B5 (182 x 257 mm)
- Banner 1 (216 x 914 mm)
- Banner 2 (216 x 1219 mm)
- Banner 3 (297 x 914 mm)
- Banner 4 (297 x 1219 mm)
- Envelope (Monarch) 7 3/4 (3.9 x 7.5 inches)
- Envelope 9 (3.9 x 8.9 inches)
- Envelope 10 (4.1 x 9.5 inches)
- Envelope B5 (176 x 250 mm)
- Envelope C5 (162 x 229 mm)
- Envelope DL (110 x 220 mm)
- Executive (7.3 x 10.5 inches)
- Folio (8.5 x 13 inches)
- Hagaki (100 x 148 mm)
- Index card (3 x 5 inches)
- L (89 x 127 mm)

- Legal (8.5 x 14 inches)
- Letter (8.5 x 11 inches)
- Oficio (México) (216 x 340 mm)
- Photo (3.5 x 5 inches)
- Postcard (4 x 6 inches)
- SRA3 (320 x 450 mm)
- Statement (5.5 x 8.5 inches)
- Tabloid (11 x 17 inches)
- Universal (216 x 360 mm)

Note: Some paper sizes may be supported for borderless printing, depending on your printer model.

Supported paper types

- Bond
- Business card
- Card stock
- Colored
- ColorLok Certified Plain
- Envelope
- Glossy brochure
- Glossy photo
- Heavy glossy
- Heavy plain
- Iron-on transfer
- Labels
- Letterhead
- Lexmark PerfectFinish Photo
- Lexmark Photo
- Light
- Matte brochure
- Matte photo
- Photo greeting cards
- Plain
- Premium plain
- Preprinted
- Recycled
- Rough/Cotton
- Rough Envelope
- Transparency
- Vinyl labels

Notes:

- The Universal Print Driver may support custom paper types, depending on your printer model.
- Available paper types may vary, depending on printers and printer drivers.

Language support

The Lexmark Universal Print Drivers support the following languages.

- Arabic
- Chinese (simplified)
- Chinese (traditional)
- Czech
- Danish
- Dutch
- English
- Finnish
- French
- German
- Greek
- Hungarian
- Italian
- Japanese
- Korean
- Norwegian
- Polish
- Portuguese (Brazilian)
- Romanian
- Russian
- Spanish
- Swedish
- Turkish

Installing the Universal Print Driver

Depending on the needs of the individual administrator, the Universal Print Driver may be installed through the Windows Add Printer Wizard or through the system administrator installation package available on the Lexmark Web site.

Updating previous versions of the Universal Print Driver

The Universal Print Driver (UPD) version 2 is designed to work in parallel with UPD version 1. This gives administrators or end users the ability of having both versions installed at once. When upgrading from UPD version 1 to 2, switching the driver from the Advanced tab of the Printer Properties dialog is not supported. Administrators should delete the existing UPD version 1 print queues, and then create new print queues using UPD version 2.

Downloading the Universal Print Driver

- 1 Go to www.lexmark.com.
- 2 Mouse over **SOFTWARE**, and then click **Universal Print Driver**.
- 3 From the Download tab, click **DOWNLOAD** for the system administrator package.

Notes:

- If you download an emulation-specific Universal Print Driver, then the Phone Book and Travel Print applications must be downloaded separately. Both applications automatically install with the administrator package.
- For more information on the full list of packages, click **Additional Download Options**, or see the Universal Printer Driver section.

- 4 Follow the instructions on the screen to download the Lexmark Universal Print Driver.

Updating installed options

- 1 From the Printer Properties dialog, click the **Configuration** tab.
- 2 Click **Update Now-Ask Printer** > **OK**.

Note: The printer driver updates the status of all printer options. If bidirectional communication is not active or is unavailable for the printer, then the printer driver cannot perform this operation and will display an error.

What is a Package Builder?

Package Builder lets you create customized installer packages that you can launch without user input, and integrate into your deployment solution. It is a tool that generates driver installation packages which automate the installation of printer drivers with preconfigured connectivity and print options.

Using Travel Print

The Travel Print feature lets you search and select a network printer when printing or faxing from the host computer.

If you travel frequently and must regularly change printers, then you no longer need to install several print queues to support printers at multiple locations.

When Travel Print is used, a printer selection dialog appears when you:

- Send a print job to the printer driver from a Windows print dialog.
- Access Printing Preferences from a Windows print dialog.
- Access either Printing Preferences or Printer Properties from the printer driver.

From the printer selection dialog, you can designate up to 10 frequently used printers in the Favorites tab. You can also search for printers in the Search tab using the printer host name or IP address, or by searching a subnet. The search results display important printer information, such as the printer status, IP address, and color and duplex capabilities. You can also access the embedded Web page for a selected printer to view more detailed printer information and configuration options.

Notes:

- You must have administrator rights to be able to install and enable Travel Print. To install, run the Travel Print installation package or the Universal Print Driver system administrator installation package. For information on obtaining a copy of the installation packages, visit our Web site.
- Travel Print is not intended for server-based printing. The printer driver and Travel Print should be installed locally on host computers.
- If you want Travel Print to update the printer model and configuration options, then enable the "Update Configuration from Printer" feature.

Enabling the Travel Print feature

Travel Print is enabled by associating the print driver with the Travel Print port.

Note: The Travel Print port will be available only if Travel Print is installed. To install Travel Print, run the Travel Print installation package or the Universal Print Driver system administrator installation package. For information on obtaining a copy of the installation packages, contact your printer manufacturer.

To associate the print driver with the Travel Print port:

- 1** Open the Printer Properties for the print driver.
- 2** Select the **Ports** tab.
- 3** Select **Travel Print port** as the port for the print driver.

To disable the Travel Print feature, change the print driver port to any other printer port.

Understanding the Universal Print Driver

Using the Layout tab

The Layout tab controls the organizational attributes of each print job.

Use	To
Copies	<p>Specify the number of copies to be printed and how each copy is organized.</p> <ul style="list-style-type: none"> • Number of Copies—Select the number of copies to be printed. • Collate—Select the order in which pages are printed when printing multiple copies of a document. For example, if you are printing two copies of a five-page document, then the collated output is 1, 2, 3, 4, 5, 1, 2, 3, 4, 5. The non-collated output is 1, 1, 2, 2, 3, 3, 4, 4, 5, 5. If the installed memory is insufficient to collate the document, then the collated output is generated for each page that is already stored in the memory, so the output might be 1, 2, 3, 1, 2, 3, 4, 5, 4, 5. • Reverse page order—Print the pages of a document in reverse order so that in the finished output, the last page appears on top. If you want the output back in normal page order, then manually reverse the pages.
Page Orientation	<p>Specify the alignment of the paper or form when it is printed.</p> <ul style="list-style-type: none"> • Portrait—Select the vertical page orientation, where the page is taller than it is wide. • Landscape—Select the horizontal page orientation, where the page is wider than it is tall. • Rotate 180°—Rotate the page image to 180 degrees. This setting can be used with the other orientation options.
Print on Both Sides (Duplex)	<p>Specify which settings to use when printing on both sides of the page. Select a two-sided (duplex) printing method from the list. Long Edge and Short Edge specify which edge of the printed document will be used as the binding edge.</p> <p>Notes:</p> <ul style="list-style-type: none"> • You can print instructions for manual duplex in select printer models. • You can use the Dry Time Delay menu in select printer models to specify how long it takes before the printer prints on the opposite side of a freshly printed page. <p>Dry Time Delay menu settings include the following:</p> <ul style="list-style-type: none"> • Normal (Default)—This uses the standard drying time. • Medium—This partially extends the drying time. • Extended—This uses the maximum drying time.

Use	To
Page Layouts	Select Page Layout section options. <ul style="list-style-type: none"> • Normal—Page Layout options are not applied to the print job. • Multiple pages per side (N-Up)—Print multiple pages on each sheet of paper. • Booklet—Print a document as a booklet. • Poster—Print a document in a larger format. • Mirror—Print a mirror image of the document. Note: Some options are available only in select printer models.
Document Reading Order Preset	Select the reading order of the document you are printing. <ul style="list-style-type: none"> • Left to right • Right to left Note: The reading order changes the preset value of the “Page order” option in the “N-Up settings” dialog, “Binding edge” option in the “Booklet settings” dialog, and “Near” and “Far” alignment positions when editing watermarks.

Notes:

- Some options shown on the Layout tab are available only in select printer models and drivers. For more information, see the *User's Guide*.
- The settings specified in the Layout tab may be independent from the options that are selected in the print dialog of a Windows program. Program settings typically override the settings in the Layout tab.
- Specifying multiple number of copies on both the Layout tab and the Windows program print dialog may produce unpredictable results.
- To save the Collate setting, select **Use printer-based** in the Configuration tab of the Printer Properties dialog.

Using the Paper/Finishing tab

The Paper/Finishing tab controls the paper and finishing attributes of each print job.

Use	To
Paper	<p>Select paper handling options.</p> <ul style="list-style-type: none"> • Paper Size—Select the size of paper to be used for the print job. • Resizing Options—Select “Fit to paper size,” which automatically scales the page image to match a specific paper size, or manually scale the document image by a certain percentage. <p>Notes:</p> <ul style="list-style-type: none"> – Some Windows programs offer a scaling option. Using the two options simultaneously may produce unexpected results. – The scaling option is available only in the PostScript driver. <ul style="list-style-type: none"> • Manage Custom Sizes—Add, edit, or delete a custom paper size. Once a custom paper size is created or modified, it is available for selection in the Paper Size menu. • Use full printable area—The page image prints as close to the edge of the page as the printer allows. The full printable area on the page may vary from printer to printer. • Paper Type—Select the type of paper to be used. • Paper Source/Tray—Select the paper tray to be used. • Use multiple input options—Use paper or other media from different paper trays in the same print job. <p>Note: This option may not be available in some drivers.</p>
Finishing	<p>Select available finisher options installed for use with the printer.</p> <ul style="list-style-type: none"> • Output Bin—Select the output bin to use. <p>Note: Supported output bins may vary for different printers. See your printer documentation for a list of available output bins.</p> <ul style="list-style-type: none"> • Offset—Stack print jobs in staggered sets in an output bin. • Staple—Specify the number and placement of staples in a finished print job. • Hole Punch—Specify the location and number of holes to be punched in the finished print job. • Fold—Specify how the finished print job will be folded.

Notes:

- Some finishing options are available only on select printers. For more information on the available finishing options, see the *User's Guide* documentation.
- Finisher options must be installed for them to be available in the Paper/Finishing tab.

Using the Quality tab

The Quality tab controls the print and image quality settings of a print job.

Use	To
Print Quality settings	<p>Optimize the print quality of the print job.</p> <p>For color printers:</p> <ul style="list-style-type: none"> • Text—Print the document using settings optimized for text. • Text/Photo—Print the document using settings optimized for text and photos. • Photo—Print the document using settings optimized for photos. • Custom—Print the document using settings specified by the user. <p>For monochrome printers and inkjet printers:</p> <ul style="list-style-type: none"> • Draft—Print the document using the lowest resolution for faster printing. • Normal—Print the document using the standard print quality settings. • Best—Print the document using the best possible resolution. • Custom—Print the document using settings specified by the user. <p>Note: For inkjet printers, you can also choose Auto to let the printer automatically select the appropriate print resolution settings.</p>
Sharpen	<p>Sharpen the detail of the print image by increasing the contrast around the edges of text and images.</p> <p>Notes:</p> <ul style="list-style-type: none"> • This option is available only in inkjet printers. • When printing images that have already had a sharpening effect applied by another application, using the Sharpen feature in the driver can produce unintended results.
Resolution	<p>Specify the printed output resolution.</p> <p>Note: This option is available only in laser printers.</p>
Enhance fine lines	<p>Print the document with finer detail.</p> <ul style="list-style-type: none"> • Use printer settings—The printer applies this setting as configured in the printer. • On—Enable the “Enhance fine lines” feature and provide fine detail on print jobs. • Off—Disable the “Enhance fine lines” feature. <p>Note: This option is available only in laser printers.</p>
Color Preference	<p>Change the intensity of the colors on the printed page.</p> <ul style="list-style-type: none"> • Auto—The printer automatically selects the color preference. • Natural—Apply a moderate degree of intensity to printed colors. • Vivid—Apply the highest degree of intensity to the printed colors. <p>Note: This option is available only in inkjet printers.</p>
Advanced Color Options	<p>Determine the print mode for the job.</p> <ul style="list-style-type: none"> • Auto—The printer automatically determines the print mode. • Use ICC test Chart Process—Use a special print mode based on ICC profiles. <p>Note: This option is available only in inkjet printers.</p>

Use	To
Gray Correction	<p>Specify detail control of Brightness and Contrast settings when printing in black and white.</p> <ul style="list-style-type: none"> • Use printer settings—The printer applies this setting as configured in the printer. • Off—Disable the Gray Correction feature. • Manual—Enable the Gray Correction, Brightness and Contrast controls. <p>Note: This option is available only in monochrome laser printers.</p>
Pixel Boost	<p>Enhance image and text detail in a print job by increasing pixel density according to the selected setting.</p> <ul style="list-style-type: none"> • Use printer settings—The printer driver applies this setting as configured in the printer. • Off—Disable Pixel Boost. • Fonts—Darken text within the print job. This setting only affects font data. • Horizontally—Darken horizontal lines of text and images within the print job. • Vertically—Darken vertical lines of text and images within the print job. • Both directions—Darken both horizontal and vertical lines of text and images within the print job. <p>Note: This option is available only in monochrome laser printers.</p>
Color Output	<p>Specify whether a document is printed in color or black and white, and what ink combinations are used to complete the job.</p> <p>Note: This option is available only in inkjet printers.</p>
Send color to printer	<p>Print color images in grayscale.</p> <p>Notes:</p> <ul style="list-style-type: none"> • This option is available only in monochrome printers. • When a print job is sent to the printer, the printer converts colored images to monochrome grayscale. • This option may enhance grayscale images but may result in a slightly slow printing performance.
Print Color Text as Black	<p>Print all color text using black ink only.</p> <p>Note: This option is available only in monochrome printers.</p>
Print text as black	<p>Print text in black, but print images in color.</p> <p>Notes:</p> <ul style="list-style-type: none"> • This option may be available only in select printer drivers. • This option is available only in color printers.
Print in black and white	<p>Print the document in black and white.</p> <p>Note: This option is available only in color printers.</p>
Toner Darkness	<p>Lighten or darken the image in your print jobs and maximize your toner supply.</p> <p>Note: This option is available only in laser printers.</p>

Use	To
ColorSaver™	<p>Reduce the amount of toner that the printer uses when printing graphics and images in color. Text continues to be printed using the default amount of toner.</p> <p>Note: This option is available only in laser printers.</p>
Edit Color Correction	<p>Adjust the printed color to better match the colors of other output devices or standard color systems.</p> <ul style="list-style-type: none"> • Use printer settings—The printer applies the default color correction settings used by the printer. • Off—Disable color correction. • Auto—Apply a different color conversion table to each object on the printed page, depending on the type of object and how the color for each object is specified. • Manual—Customize the color conversion table that is applied to each object on the printed page, depending on the type of object and how the color for each object is specified. Selecting the Manual Color Correction setting enables the RGB and CMYK Manual Color Correction options. <p>Note: This option is available only in color laser printers.</p>
RGB Correction	<p>Provide fine detail control of Brightness, Contrast, and Saturation settings when printing in color.</p> <ul style="list-style-type: none"> • Use printer settings—The printer applies this setting as configured in the printer. • Manual—Enable the RGB Correction Brightness, Contrast, and Saturation controls. <p>Note: This option is available only in color laser printers.</p>
Edit Color Balance	<p>Apply subtle color adjustments to printed outputs by individually increasing or decreasing the amount of toner used for each color plane.</p> <ul style="list-style-type: none"> • Use printer settings—The printer applies the default color balance settings used by the printer. • Manual—Customize the amount of cyan, magenta, yellow, and black toner used in the printed document. <p>Note: This option is available only in color laser printers.</p>
Edit Color Matching	<p>Match the colors in the printed document to the colors on the monitor.</p> <ul style="list-style-type: none"> • Contrast (for images)—Apply color matching for photographs and images. • Saturation (for business graphics)—Apply color matching for charts or when using bright colors. • Colorimetric (for closest colors)—Apply color matching for a document that has a color that needs an exact match and a printer that can reproduce the specified color. <p>Note: This option is available only in color laser printers.</p>

Use	To
Rich Black	<p>Make black objects richer.</p> <ul style="list-style-type: none"> • On—Uses composite black for black or gray objects during RGB-CMYK color conversion. • Off—Uses either pure or composite black for black or gray objects depending on the color correction mode selected. <p>Note: This option is available only in select printer drivers.</p>

Using the Fax preferences tab

The Fax tab in the Printing Preferences dialog controls which fax options are used with each job.

Use	To
Enable fax	Turn on the fax option in the driver.
Always display settings prior to faxing	Display the Send Fax dialog before the fax is sent. This allows you to verify that all recipient fax numbers are correct, and helps to prevent faxes from being sent to an incorrect recipient. If the “Always display settings prior to faxing” check box is not selected, then the recipient fax number must be verified in the Fax Settings section of the Fax tab.
Fax Settings	<p>Specify the dialing and page information associated with the fax.</p> <p>Fax Settings include:</p> <ul style="list-style-type: none"> • Fax number(s)—These are the numbers that the fax will be sent to. Fax numbers can be entered manually or selected from the phone book. • Dialing prefix—This is the dialing prefix needed to access an outside line. If no dialing prefix is required, leave this field blank. • Fax name—This is the Windows user ID of the computer from which the fax is being sent. • Paper size—This designates the paper size the fax will be formatted for. • Orientation—This specifies the orientation of the fax image.
Cover Page	<p>Add a cover page with the associated information to the outgoing fax.</p> <ul style="list-style-type: none"> • Include cover page with fax—This adds a cover page to the fax. • Include recipient information/comments—This lets you add specific recipient names and comments if the fax needs to be directed to the attention of a specific person or department. • Include sender information—This adds information, such as the sender's name, company, address, and contact information. You can specify this information in the Fax Cover Settings dialog by clicking the Settings button.

Notes:

- The Fax option is available only with the PostScript driver. For information on installing the PostScript driver, see the *Software and Documentation CD*.
- If the Fax tab is not available, then the fax option is not installed.

Using the Watermark tab

The Watermark tab controls the use of watermarks in a print job.

Note: This feature may not be available in some drivers.

Use	To
Do not use watermarks	Exclude watermarks from the print job.
Use the same watermark on all pages	Print the selected watermark on all pages of the printed document.
Use a different watermark on the first page	Specify a watermark for the first page, as well as a different watermark, to display on all other pages. Note: If two-sided printing (Duplex) is enabled, then the specified watermark is used on the front side of the first sheet.
Use a different watermark on odd/even pages	Specify different watermarks for odd and even pages.
Edit Watermarks	Open the Edit Watermarks dialog.

Using the Overlays tab

The Overlays tab in the Printing Preferences dialog controls which overlays are used with a print job and how the overlays are displayed.

Notes:

- The Overlays tab is available only in PCL and PCL XL drivers.
- Overlays are not available in all printers.

Use	To
Do not use overlays	Exclude overlays from the print job.
Use the same overlay on all pages	Select an overlay to print on all pages of the printed document.
Use a different overlay on the first page	Specify an overlay to print on the first page, and a different overlay to print on all subsequent pages.
Use a different overlay on odd/even pages	Specify which overlays will print on odd and even pages of the document.
Overlay placement	Specify the placement of the overlay in relation to the page images. <ul style="list-style-type: none"> • Over the page's images—Print the overlay on top of the text or graphic. • Under the page's images—Print the text or graphic on top of the overlay.

Using the Print and Hold tab

The Print and Hold tab provides extra controls for how and when a job is printed. When using the Print and Hold tab, you can submit a print job to the printer, but the printer will hold the print job until the user releases it at the printer control panel. The Print and Hold tab provides varying levels of security for held jobs. Refer to the table below to determine the appropriate Print and Hold tab option.

The Print and Hold tab is available in the Printing Preferences dialog.

Note: The Print and Hold feature is available only on select printer models.

Use	To
Use Print and Hold	Enable the Print and Hold tab feature.
Use logged-in user name	Query the operating system for the user's Windows ID and submit the ID as the default user name associated with the held print job.
User Name	Associate a user name with a held print job.
Keep duplicate documents	Allow print jobs having the same user and job names to remain in the printer memory without being overwritten.
Confidential print	<p>Password-protect confidential print jobs with a four-digit personal identification number (<i>PIN</i>). The PIN is four digits, 0–9 or 1–6. For more information on the allowed digits for the PIN, see your printer <i>User's Guide</i>.</p> <p>A confidential print job does not print until the PIN is entered in the PIN field and a user name is selected on the printer control panel.</p>
Verify print	Print the first copy of a complex multiple-copy print job for inspection. The remaining copies are held until they are released for printing or canceled.
Reserve print	Store a print job in the printer memory for printing at a later time.
Repeat print	Print the job immediately and store a copy in the printer memory so that more copies may be printed at a later time.

Notes:

- Not all features are available on all printer models.
- For more information on releasing held jobs from the printer control panel, see your printer *User's Guide*.

Using the Other Options tab

The Other Options tab controls the remaining printer driver options not associated with a feature-specific tab.

Note: Some options are available only in select printer models.

Use	To
TrueType Fonts	<p>Determine how TrueType fonts are printed, which character set to display, and whether to send information about printer-resident fonts to the application or not.</p> <p>Settings include:</p> <ul style="list-style-type: none"> • Bitmaps (each character)—This creates and sends a bitmap to the printer for each different TrueType font character and point size in the document. • Bitmaps (full page)—This specifies that each page of the text and graphics in a document is saved as a bitmap and sent to the printer. • Outlines—This creates and sends an outline to the printer for each different TrueType font character in a document. • Automatically select (PostScript driver only)—This allows the printer driver to select a setting for the print job. • Adobe Type 1 fonts (PostScript driver only)—This prints smaller TrueType fonts as bitmapped fonts, and prints larger TrueType fonts as Adobe Type 1 outline fonts. • Adobe Type 42 fonts (PostScript driver only)—This prints TrueType fonts as Adobe Type 42 hinted outline fonts. Compared to Adobe Type 1 outline fonts, Type 42 fonts may appear smoother and less jagged, especially at larger point sizes. <p>Note: This selection is unavailable if the printer does not have a TrueType rasterizer.</p>
Edit Job Accounting	<p>Open the Job Accounting preferences dialog and modify the Job Accounting settings that will be associated with the print job.</p> <p>Settings include:</p> <ul style="list-style-type: none"> • Keep history for last 5 entries—This retains the last five unique entries for each Job Accounting setting. The settings are available in a drop-down menu under each setting in the Job Accounting dialog at print time. • Prompt for account information at print time—This prompts the user for job accounting information at print time. • Do not prompt at print time. Use the following job accounting settings—This uses the Job Accounting settings specified in the following fields: <ul style="list-style-type: none"> – Use logged-in user name—This queries the Windows login ID of the current user and updates the User Name/ID field with the retrieved information. – User Name/ID—This is the user name or user ID associated with the print job. – Account Code—This is the account code associated with the print job. – Department Code—This is the department code associated with the print job. <p>Note: Some settings are available only in select printer models.</p>
Metafile spooling	<p>Specify the format in which to store printing information on your disk while a print job is waiting to be printed.</p> <ul style="list-style-type: none"> • Automatic—The printer driver determines which format will result in the fastest overall print time for each job. • On—The printer driver spools all jobs in metafile format. • Off—All print processor functions are disabled and the printer driver no longer spools jobs in metafile (EMF) format.

Use	To
PostScript	<p>Control how the printer driver produces the PostScript data that is sent to the printer.</p> <p>Settings include:</p> <ul style="list-style-type: none">• Optimize output format—This optimizes the PostScript data stream that the printer driver produces based on the selected format. Output formats include Speed, Portability, Encapsulated PostScript, and Archive.• Language level—This specifies the level of PostScript to be used for the print job. Levels 1, 2, and 3 are available.• Print error information—This prints information about any PostScript language errors encountered during printing.• Generate PostScript in driver—This prompts the driver to generate the PostScript language for the print job, rather than the software program the document is being printed from. <p>Notes:</p> <ul style="list-style-type: none">• This option is available only in the PostScript driver.• Some functions are not available for use with the Encapsulated PostScript option in the PostScript driver when Fax is enabled.• When Encapsulated PostScript is selected as the output format, any printer-specific setting would then be removed. This allows the output file to be imported into other PostScript applications easily.
PCL	<p>Access the PCL options for both PCL 5 and PCL XL printer emulations.</p> <ul style="list-style-type: none">• Graphic Mode—This controls how the printer processes and prints text and graphics in a document. This option is exclusive to PCL 5 emulations.

Frequently asked questions

What are the benefits of using the Universal Print Driver (UPD)?

The main benefit is the amount of time saved in deploying and administering a large fleet of printers. The UPD can be used to print to multiple devices, therefore minimizing the number of drivers in the network environment.

Does the UPD support Plug'n'Play with devices?

Plug'n'Play is available on all supported devices. For a list of supported devices, see “Device compatibility” on page 8.

Is the UPD Microsoft certified?

The UPD version 2 for Windows XP or later is certified for all Windows operating systems for which Microsoft offers certification programs.

Is Point and Print available with this driver?

Point and Print works the same way with the UPD as with any other product-specific driver.

What is a version number?

A version number is a unique number or set of numbers assigned to a specific release of a program, file, firmware, hardware, driver, or software.

What is the UPD version numbering format?

The UPD version number is divided into sets of numbers, separated by decimal points.

Example: **2.1.1.0**

where:

2 is the major version

1 is the data stream

1 is the minor version

0 is the revision number

Part	Description
Major version	This is the primary level of the UPD release and it increments whenever there are major functional and architectural modifications.
Data stream	The data stream value varies depending on the emulations: <ul style="list-style-type: none">• PCL=1• PS = 2• PCL XL = 3
Minor version	This indicates the secondary level of the UPD release and it increments whenever there are minor functional modifications.
Revision number	This indicates bug fixes and special builds.

Where can I find the version number of the print driver?

The version number can be found in the About tab of the Printer Properties dialog.

Will model-specific drivers remain available?

There are no plans for the UPD to replace model-specific drivers. While the drivers are essentially equivalent to model-specific drivers, certain features—such as manual duplex—behave differently between the two.

When should I use a model-specific print driver instead of the UPD?

Use a model-specific driver if your printer is not in the list of supported printers.

What printing modes are supported with the PCL Emulation UPD?

Raster and GL/2 modes are supported. Host-based printing is not supported.

Why is the Resource Administration tab missing in Printer Properties?

The Resource Administration tab was available in the previous versions of UPD, but the functionality of this tab for the UPD version 2 is now replaced by the Printer Driver Configuration Utility.

Is the Printer Driver Configuration Utility supported?

The Printer Driver Configuration Utility is supported when using the Lexmark Universal Print Driver System Installation package. The Lexmark Universal Print Driver System Administrator package is available at www.lexmark.com.

Is the UPD based on Microsoft system driver technology?

The UPD version 2 for Windows XP or later is based on Microsoft system driver technology.

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