HP Driver Preconfiguration
Support Guide

HP Driver Preconfiguration Support Guide

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1 Introduction

The HP Driver Preconfiguration Support Guide describes HP Driver Preconfiguration, the tools to use it, and the printing environments in which it can be used. Four distinct tools for using HP Driver Preconfiguration are described in detail:

- HP Driver Configuration Editor
- HP Web Jetadmin V8.1 Driver Configuration Plug-in
- HP Customization Utility/Silent Installer
- HP Driver Deployment Utility

HP Driver Preconfiguration is a software architecture and set of tools that information technology (IT) administrators in corporate and enterprise environments can use to preconfigure the printing and device defaults for HP printer drivers before installing the drivers in a network environment.

For example, a company has purchased several HP Color LaserJet printers that are to be shared among several workgroups. To keep printing costs to a minimum, management wants all of the print queues to print on both sides of the paper (duplex) by default. To save costs further, they want to restrict the ability of certain groups to print in color to minimize toner consumption. Several different print servers are in use, each of which has one or more queues to the new devices. Some users can print directly to the new printers over the network, but IT wants to apply the same driver configuration to those print queues.

In the past, the printers in such a scenario would have to be installed on each print server and then manually configured for the required settings. The printers would also have to be manually configured in accordance with the required specifications on each direct-print workstation. By taking advantage of HP's preconfiguration technology this process can be greatly simplified. The following examples show how the various preconfiguration tools can be used to support different corporate environments:

- If the company uses HP Web Jetadmin V8.1 or V10.0, its queue management capability can be used to preconfigure and create the queue on each specific Windows printer server in one step. The configuration can be saved and used for later deployments of the same product (regardless of which specific driver will be used for that product). Each print server can then supply properly configured drivers to all Windows clients. HP Web Jetadmin V8.1 can also be installed directly on workstations.
- If the company has an internally developed printer and driver deployment process, HP Driver Preconfiguration can be used to define the proper driver settings before the driver enters that process. After the driver is configured, every subsequent deployment of the driver is installed with the same settings.
- If the company uses Novell or the HP Printer Server Appliance, HP Driver Preconfiguration can be used before drivers are loaded to the servers, thereby ensuring that clients are using properly configured drivers when they connect to the shared print queues.
- If the company wants a silent executable file that users can run to create printers on their workstations, the HP Installer Customization Utility can be used to create a silent, executable package that contains preconfigured drivers.
- If the company has Windows print servers or workstations, then any of the four tools can be used to preconfigure the drivers that are installed. Both Web Jetadmin V8.1 or V10.0 and the HP Installer Customization Utility handle both the configuration and the installation of the printers. The HP Driver

Configuration Editor only modifies the driver so that it reflects the specified settings when it is installed (through any method).

2 HP Driver Preconfiguration overview

Network administrators can use the HP Driver Preconfiguration solution to preconfigure a print driver before deploying and installing it in an operating environment. It is most beneficial when configuring print drivers for multiple workstations or print servers for print queues that share the same configuration. Two classes of features can be configured: printer accessories and driver feature settings. The driver is configured to match the printer hardware so that access to all of the printer accessories through the driver is enabled appropriately (for example, for duplexing units and additional input trays and output bins). Most driver feature settings can also be configured.

The preconfiguration process consists of three steps:

- driver acquisition
- driver preconfiguration
- driver installation and deployment

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

Driver acquisition

Software acquisition takes place in one of the following ways:

- by getting drivers-only from the CD-ROM that came with the printer
- by downloading drivers from the HP Web site
- by using drivers that are already in the organization (for example, using a driver that has been certified by internal testing procedures for use within the organization)

Driver preconfiguration

The process of configuring drivers and other software occurs before installation. This allows the driver to be configured once and installed on any number of server or client systems.

File format

The driver configuration information is stored in a small configuration file. The configuration file is separate from the 'standard' driver files (dynamic link libraries [DLLs] that are used to render and present a user interface [UI]). Although it is maintained as a separate file, the driver configuration information is included in the driver package and referenced in the driver .INF file. The configuration process involves reading the default information from this file and allowing an administrator to select new default settings for existing features. The file is then saved and used when the associated driver is installed.

The configuration file is in XML format. The file contains a list of features and their available options on a product-specific basis. The file structure is quite specific, and one purpose of HP Driver Preconfiguration is to maintain the specific structure. HP Driver Preconfiguration maintains consistency in the configuration file through dynamic constraint checking. Before setting a value, the utility determines whether the proposed setting is valid within the pre-established constraints that were placed upon the device at the factory. The utility also ensures consistency by preserving the correct structure

of the configuration file. This structure is assumed by the device that uses the configuration information, and must therefore be strictly maintained.

The configuration file has an extension of .CFG. It is typically compressed in the driver package supplied with the driver, so it is not generally editable except with a tool specifically designed for the task. When one of the HP tools is used to preconfigure driver settings, the contents of the .CFG file are modified to reflect the settings, which become the default settings for any printer that uses the preconfigured driver.

Lockable features

Although the developers of each individual product define the feature set that is configurable, the general rule is that all driver features are supported. This means that both the device settings (such as Optional Paper Sources and Duplex Unit) and the printing preferences (such as default Paper Source and default Output Bin) are customizable in advance of installation. In addition, a number of features can be locked to a particular state if an IT administrator wants greater control over the way compatible devices are used. These are the 'lockable' settings:

- **Print on Both Sides (Duplex)**
- **Print in Grayscale**
- **Media Type**
- **Paper Source**
- **Output Bin**

Constraints

To ensure that an invalid configuration is not applied to the driver when it is installed, the .CFG file defines the valid relationships between specific settings included in the file. For example, the .CFG file prohibits having the media type set to **Transparency** when **Print on Both Sides** is selected. The prohibition ensures that when the driver is installed it can successfully integrate the settings into its internal settings format.

Applying the configuration

When a preconfigured driver is installed, the modified .CFG file is accessed and the settings are applied to the driver's own internal settings format. When installation is complete, the printer's default settings reflect the settings selected in the CFG file. From this point forward, the printer and driver behave like any printer, in terms of settings management. Users can modify the printer's settings through the Printers folder and modify jobs within applications. By creating and installing two differently configured driver packages administrators can install multiple printers using differently configured instances of the same driver.

Driver installation and deployment

The process of deploying and installing printer software varies across organizations. While some companies have tightly controlled client and server software configurations, others have an informal distribution network of software not under the control of a centralized IT department. For HP Driver Preconfiguration to be usable within a wide range of computing environments, it must be compatible with the standard deployment and installation methods used by corporate and enterprise customers. This means that HP Driver Preconfiguration must be compatible with any installation process that uses the system application program interfaces (APIs) defined by Microsoft to install drivers and printers.

Product/driver coverage

Driver preconfiguration is a feature available on all current HP LaserJet and Business InkJet products.

HP PCL5, PCL6, and PS discrete and UPD drivers are supported on Windows 2000, Windows XP, Windows Server 2003, Windows Server 2008, and Windows Vista operating systems.

3 Environmental support

Hewlett-Packard has gone to great lengths to ensure that driver configuration supports the most common corporate and enterprise printing environments. This chapter provides detailed information about specific workflow requirements for these environments, as well as limitations that they might impose on the preconfiguration solution.

Direct installation - workstation/Windows print server

Direct installation is the common method used when a printer is being created on either a Windows workstation or print server by using almost any installation method (such as Add Printer Wizard, HP Installer Customization Utility, HP Web Jetadmin V8.1 or V10.0, and other “homegrown” installation applications). As long as the driver for the printer being installed has been preconfigured by using one of the tools described in this document, and the installation method follows the standard Microsoft process for printer creation, the printer will reflect the defined settings when installation is complete.

Windows Point and Print

True connect

In Windows environments, when the preconfigured server-side driver is installed, the settings are stored so that all connecting clients receive them when they connect. All server-side settings are vended to the clients.

Windows Point and Print configuration scenarios

The following table shows various server-client configuration scenarios for Windows Point and Print environments.

Table 3-1 True-connect and false-connect environments

Server	Client	Configure Printer Properties	Configure Printer Preferences
Windows 2000	Windows 2000	Yes	Yes
	Windows XP	Yes	Yes
Windows Server 2003	Windows 2000	Yes	Yes
	Windows XP	Yes	Yes
Windows Server 2008	Windows 2000	Yes	Yes
	Windows XP	Yes	Yes
Windows Vista	Windows 2000	Yes	Yes
	Windows XP	Yes	Yes

Novell Point and Print

There are three main categories for preconfiguration in Novell environments:

- NetWare Directory Services (NDS)
- ZenWorks
- Novell Distributed Print Services (NDPS)

In the case of NDS and ZenWorks, at most one preconfiguration definition is available per product (that is, one preconfiguration definition for each HP printer model). This is because Novell stores all printer drivers to be vended in the same physical directory on the server. Driver preconfiguration uses the same file name for all drivers for a given product to store the configuration information, thus making the file both portable and consistent across all drivers for a particular product. For this reason, only one configuration can be stored at a time.

In the case of NDPS printer objects, multiple instances of the same driver can be stored on the server, each with its own preconfiguration data. These resources can then be associated with the appropriate NDPS print queues and vended to printing clients accordingly. If multiple configurations for the same driver model (for instance, the HP LaserJet 4200 PCL6 driver for Windows 2000) are required on the server, the Novell Resource Manager allows each new instance of the driver to be used with a different name. See Novell documentation for step-by-step instructions for adding drivers in this manner.

Regardless of the queue type, all Windows client platforms are supported in terms of using the configurations that are defined on the server.

HP Printer Server Appliance Point and Print

The HP Printer Server Appliance (PSA) provides limited support for preconfigured drivers. The PSA is restricted to cases in which a single instance of a driver and its associated setting information are on the server at any given point in time. This means that only a single preconfiguration can be stored for each driver.

Windows Terminal Server

Driver preconfiguration is supported in the Windows Terminal Server environment for Windows 2000, Windows XP, Windows Server 2003, Windows Server 2008 and Windows Vista. When a preconfigured driver is installed on the server, all terminal clients receive that configuration when they connect to the server. The only limitation in this scenario is that as printers are being added, the server administrator must be working on the server directly, not working from a terminal session. This limitation is related to the Distributed Component Object Model (DCOM) infrastructure in the Terminal Server environment.

Windows Terminal Server (Citrix Metaframe Printer Auto-Create)

Citrix Metaframe provides a feature allowing the workstation, on which the terminal clients for a server are running, to install a local printer and gain access to the printer within the context of a terminal session. This allows terminal users to print to locally defined printers even when they are working from within a terminal session. The feature is called Printer Auto-Create because the Citrix environment creates a server side printer for the printers that are dynamically installed on the terminal workstation (that is, when the user logs on to the server during a terminal session). The client workstation and server must both have the same driver installed for the client-side printer.

If the driver installed on the client workstation is preconfigured, then the preconfigured settings will be applied to the server-side printer when the terminal session is started.

NOTE: This functionality is available only on Metaframe 1.8 and later versions that run in a Windows 2000, Windows 2003, Windows 2008, Windows Vista, and Windows XP Terminal Server environment.

Windows Cluster Server

Driver preconfiguration is not supported in Windows Cluster Server environment.

4 Tools

The process for driver preconfiguration is accomplished using four software applications. All four software applications are designed with the same basic UI controls for interacting with the .CFG file, but are packaged differently, either to support established printer installation workflows or to leave the deployment and installation of the driver entirely up to the user. These software applications are:

- HP Driver Configuration Editor, a standalone tool for Windows operating system environments
- HP Web Jetadmin V8.1 Driver Configuration Plug-in, a Web-based tool
- HP Customization Utility/Silent Installer
- HP Driver Deployment Utility

NOTE: It is strongly recommended that .CFG files be modified only with the editing tools that are provided. Manual editing of the XML can result in both invalid XML and incompatible settings within the file.

HP Driver Configuration Editor

Description

The HP Driver Configuration Editor is a small Windows application used to edit the configuration file associated with a particular driver. The configuration file controls the print driver settings and takes effect when the driver is installed.

The HP Driver Configuration Editor does not handle any part of the deployment or installation of the driver. Rather, the configuration file is modified and saved back to the same driver directory in which it was opened. The HP Driver Configuration Editor is intended for use in environments where there is an established process for deploying drivers or where the server platform is not Windows-based. To support any Novell or PSA Point and Print environments, this is the preconfiguration tool of choice.

Access/installation

The HP Driver Configuration Editor can be downloaded from hp.com at the following URL:

http://www.hp.com/go/hpdpc_sw

The compressed package can be expanded into a local or network directory after download. No formal installation process is required; as soon as the package has been expanded, it is ready to be run. The application can be run by double-clicking HPBCFGAP.EXE in the destination directory.

This application shares functional features and user interface with the Customization Utility and Web-based versions of the HP Driver Preconfiguration.

Procedure

In order to use the HP Driver Configuration Editor, the driver (s) to be configured must be in their standard .INF-file driver packages that are obtained from HP (either from the HP Web site or from the product in-box CD-ROM). The driver (s) must be stored in a location for which the user of the tool has

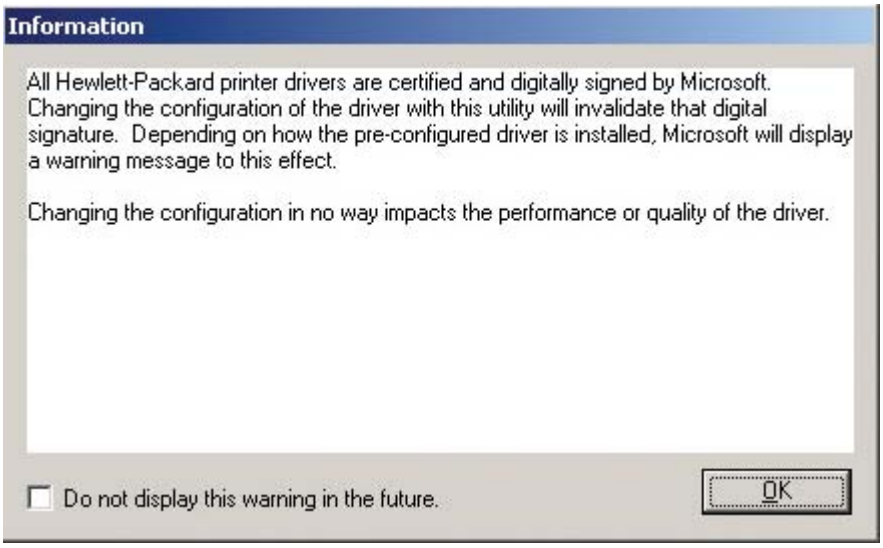
write-access. The driver must also support driver preconfiguration. If the tool is used to browse to a driver directory and there is no .CFG or .CFM file, the driver cannot be preconfigured.

1. Run HPBCFGAP.EXE from the download directory

   To run the HP Driver Configuration Editor, double-click HPBCFGAP.EXE.

2. The **Information** dialog box displays.

Figure 4-1 Information dialog box



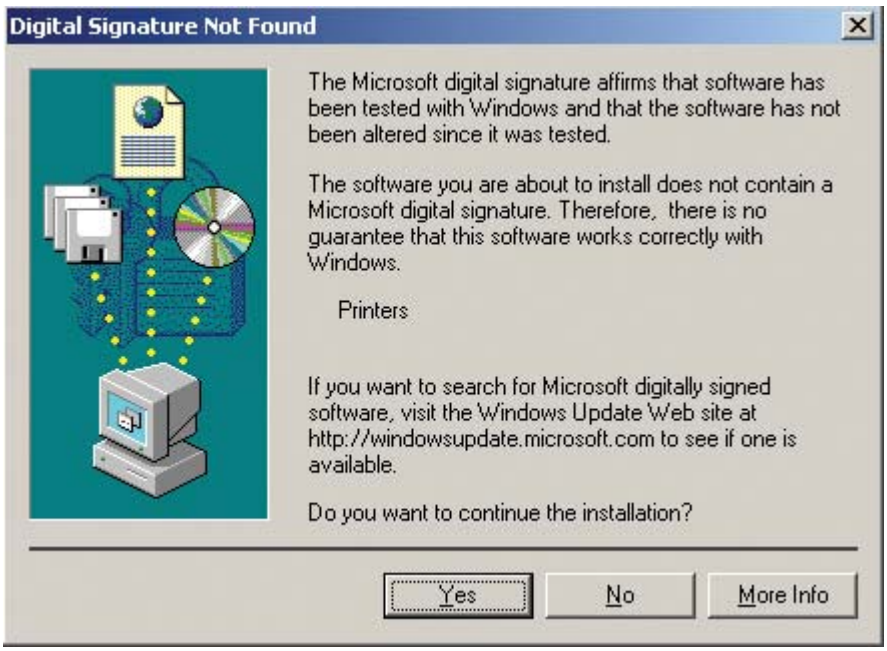
This dialog box warns users that, depending on how the driver is installed, a Windows Hardware Quality Labs (WHQL) Digital Signature Warning will appear.

Because the .CFG file shipped with the drivers is part of the .INF-file package (and referenced in the .INF file as a dependent file of the driver), modifying this file invalidates the digital signature that Microsoft provides when the driver is WHQL-certified.

NOTE: To prevent the WHQL Digital Signature warning from appearing during driver installation, save the driver configuration file as a Modified Config File (.CFM) and store it with the driver files.

The **Digital Signature Not Found** dialog box shows the Microsoft warning dialog that displays at install time.

Figure 4-2 Digital Signature Not Found dialog box



3. Open a configuration file and modify it to meet your requirements. A configuration file can be a .CFG or a .CFM file. The .CFG file is the standard configuration file that is part of the driver installation package. The .CFM file is a special file that can be used to configure a driver without triggering the WHQL Digital Signature warning during driver installation. The .CFM file is not a part of the driver and cannot be installed as a part of a standard network installation.

   The UI consists of two tabs: **Device Settings** and **Printing Preferences**.

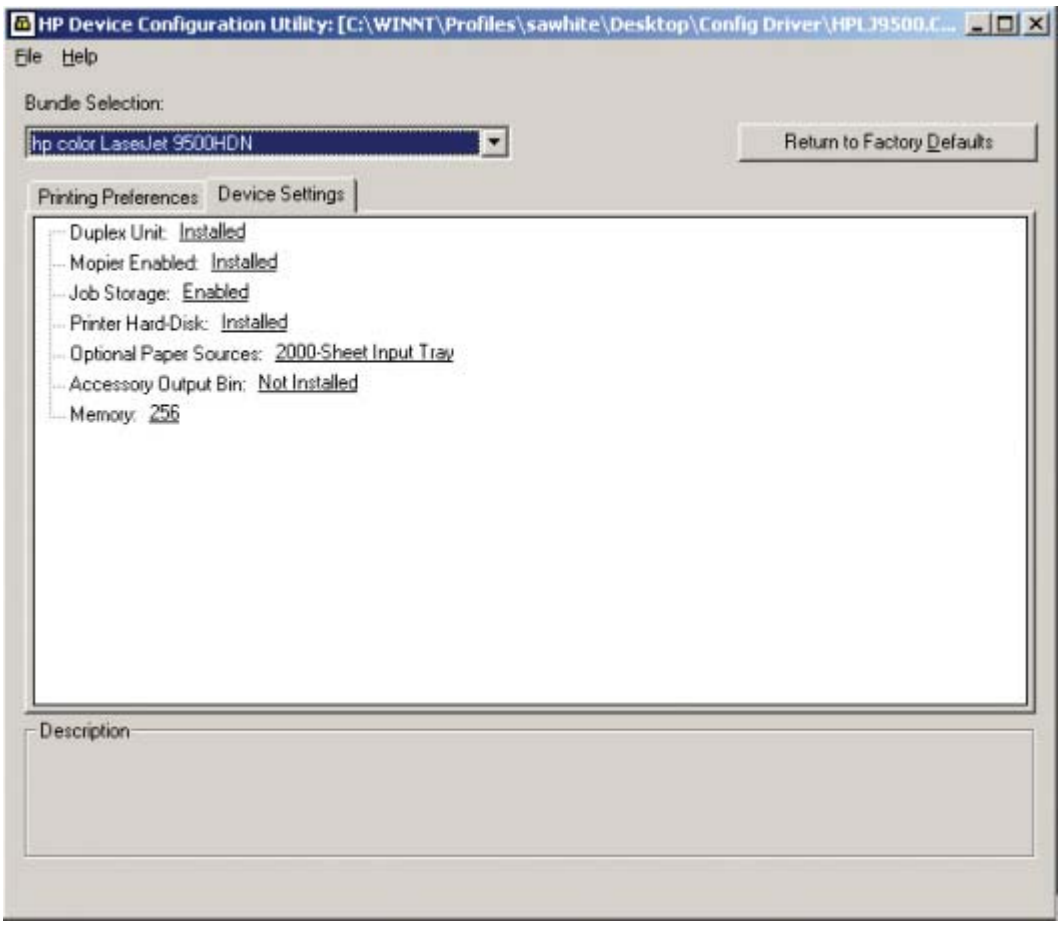
   Device Settings tab

   The settings in the **Device Settings** tab, illustrated in Figure 4-3 Device Settings tab on page 12, are related to the installed hardware on the device. Certain features on the **Printing Preferences** tab rely on the installation of various hardware accessories in order to be used.

   Bundle Selection

   The **Bundle Selection** field lists the various hardware bundles available for the product and, when changed, modifies the individual settings to reflect the bundle contents.

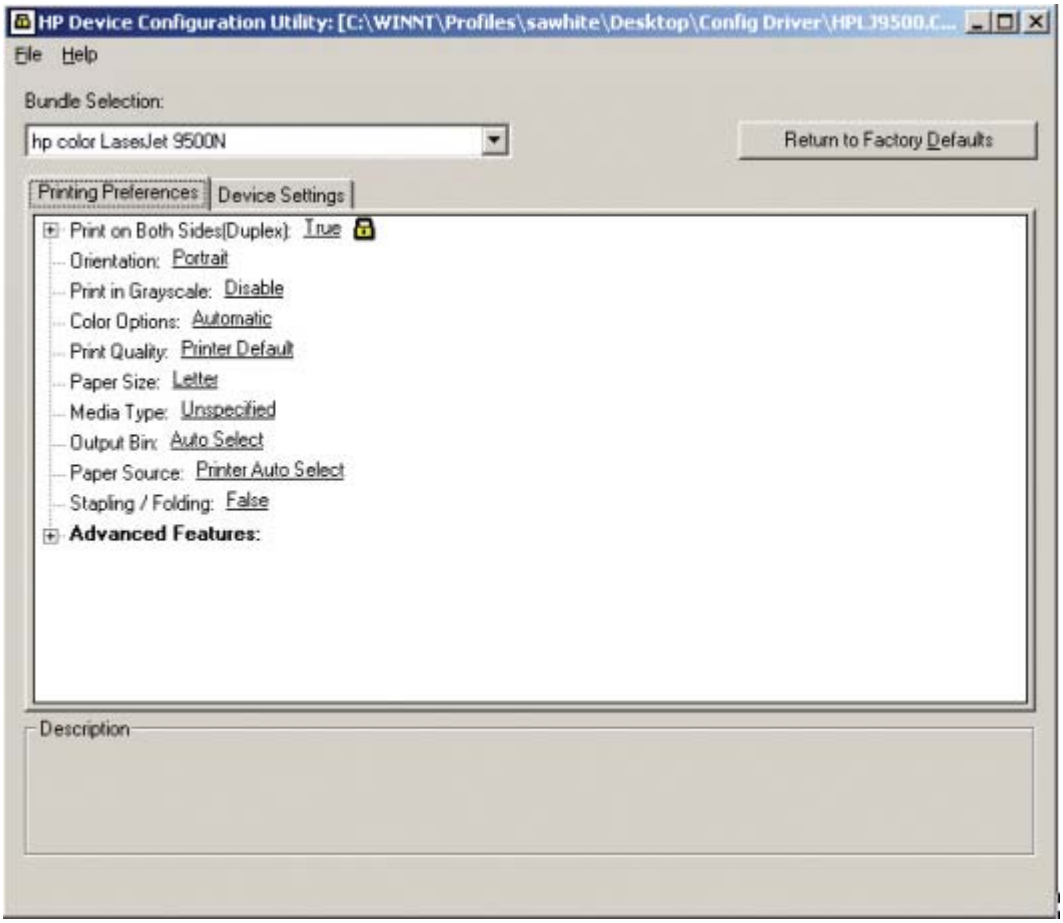
   Figure 4-3 Device Settings tab



   Printing Preferences tab

   Settings in the **Printing Preferences** tab are related to the actual formatting of documents as they are printed. By modifying the feature settings, the default behavior of the driver is altered. For example, if **Media Type** is changed to **Letterhead**, then every job printed will default to being printed on Letterhead paper. The user can modify this setting both on a per-document and a per-printer basis.

Figure 4-4 Printing Preferences tab



Feature locking

HP Driver Preconfiguration supports the ability to lock five settings:

- **Print on Both Sides (Duplex)**
- **Print in Grayscale**
- **Media Type**
- **Paper Source**
- **Output Bin**

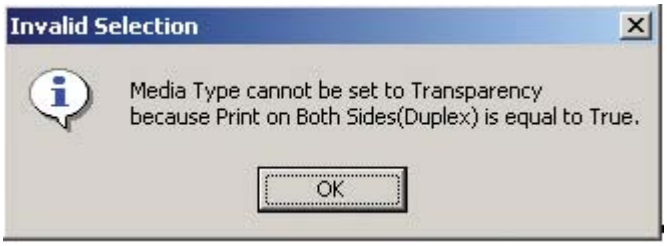
When a feature is locked, the selected default option is the only option available to users. In the preceding figure (Figure 4-4 Printing Preferences tab on page 13), the **Print on Both Sides (Duplex)** setting has been locked to **True**. A small icon showing a padlock displays next to the setting in the UI. As a result, the user is unable to print from this driver on only one side of the page. If the driver is installed on a server, clients connecting to that printer are also unable to print on only one side of the page.

Constraints

The .CFG/.CFM file is encoded with all of the same constraints that the drivers enforce. If the user of the HP Driver Configuration Editor attempts to set features to an invalid combination, a warning dialog box displays, and the feature change that triggered the warning is returned to its original

state. For example, if the **Media Type** option is set to **Transparency** when **Print on Both Sides (Duplex)** is set to **True**, an **Invalid Selection** dialog box displays.

Figure 4-5 Invalid Selection - duplexing for transparencies



4. Save the altered configuration file and place it back in the driver directory.
   - If the file was opened from the driver directory, simply click **File > Save**.
   - Otherwise, click **File > Save As** and browse to the driver directory to save the file.
   - To prevent the WHQL Digital Signature warning from appearing during installation, save the configuration file as a .CFM file by clicking **File > Save As** CFM. A .CFM file is created in the same directory as the original configuration (.CFG) file.

NOTE: If you create a .CFM file, it must be copied manually to the driver installation directory. It is not deployed as a part of a normal driver installation.

Once the file is saved, the driver package is ready to be installed with the new settings.

5. Install the driver and create a printer using any preferred method.

   Driver preconfiguration using a modified .CFG file is compatible with any installation method that relies on the published Microsoft procedures for installing a printer. See the Microsoft Developer Network documentation for details about the published methods. All commercially available installation methods, including driver vending from Novell and Samba servers, adhere to these guidelines. For more information, see the Microsoft Developer Network Web site at: http://msdn.microsoft.com/default.asp

   Driver preconfiguration using a .CFM file is not compatible with any remote installation methods. The .CFM file must be copied to the driver installation directory on the local machine in order to take effect.

NOTE: If both a .CFG and .CFM file reside in the printer installation directory, the .CFM file takes priority for print driver configuration.

6. Exit the HP Driver Configuration Editor.
7. Install the driver on a server or workstation.

   At this point the driver can be installed on a Windows workstation, or a Point and Print server (Windows, Novell, or HP Printer Server Appliance). All queues that use the driver default to the settings that were selected within the configuration editor. Any features that were set to Locked are locked for all users, regardless of how they gain access to the driver (whether through the server or the client).

Copying a .CFM file to the driver directory

Before you can use a .CFM file, it must be copied to the Windows print driver directory of the local machine. You can manually copy the file or use the copyconfig.exe utility.

On Windows 2000, Windows XP, and Windows 2003 Server 32 bit systems, the driver directory is located at:

%systemroot%\system32\spool\drivers\w32x86\3

On Intel/AMD 64 bit systems, the driver directory is located at:

%systemroot%\system32\spool\drivers\x64\3

1. Locate the copyconfig.exe file in the same directory as the Driver Configuration Editor and double-click on it.
2. Click **Browse** and locate the .CFM file.
3. Click **Copy**. The file is copied to the Windows print driver folder.
4. Repeat steps 2 and 3 for each .CFM file you wish to copy.

The .CFM file can be copied to the driver installation directory before or after driver installation. Once the .CFM file has been copied, it takes precedence over any other .CFG files for the driver. Be sure to edit the .CFM file instead of the .CFG file when making driver configuration modifications.

HP Web Jetadmin V8.1 Driver Configuration Plug-in

HP Web Jetadmin V8.1 provides a queue creation application that can be used to create printers on any Windows 2000, Windows 2003, or Windows XP server or workstation. The HP Web Jetadmin V8.1 Driver Configuration Plug-in adds a number of screens to the existing queue creation workflow. The drivers that are being installed for the queues can be customized during this process.

IT administrators can also use the plug-in to manage the configurations that are created for specific queues by allowing them to be saved (with a name) and used in subsequent installations.

The HP Web Jetadmin V8.1 Driver Configuration Plug-in uses ActiveX to deliver some of its functionality (in a fully signed and certified ActiveX control). This requires that the client browser security be set to accept third-party ActiveX content.

The plug-in is also limited to Internet Explorer browsers.

Access/installation

The HP Web Jetadmin V8.1 Driver Configuration Plug-in is available as part of the Web Jetadmin Product Update -> Install wizard dialog. After you select the HP Web Jetadmin V8.1 Driver Configuration Plug-in and select the installation command, Web Jetadmin V8.1 continues automatically.

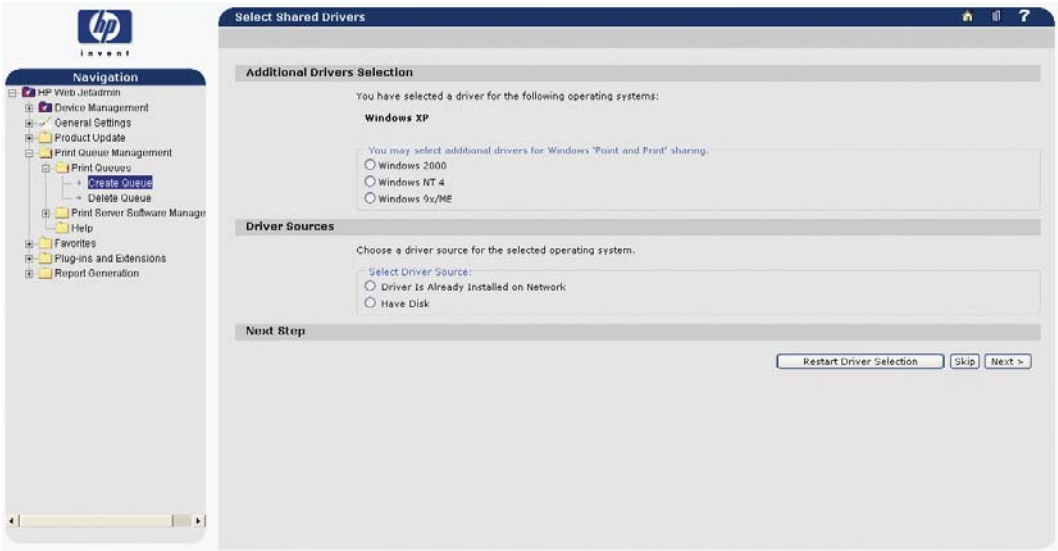
To use the plug-in, you must follow the Web Jetadmin V8.1 queue-creation workflow and install a driver that can be preconfigured.

Procedure

1. Open Web Jetadmin V8.1 Queue Creation.

   Follow the Web Jetadmin V8.1 queue-creation workflow through the driver selection pages. When driver selection is complete, use the **Skip** button to continue. If more than one driver is selected and all the drivers support preconfiguration, they will all be configured in the same way through the following process.

   Figure 4-6 Driver Selection

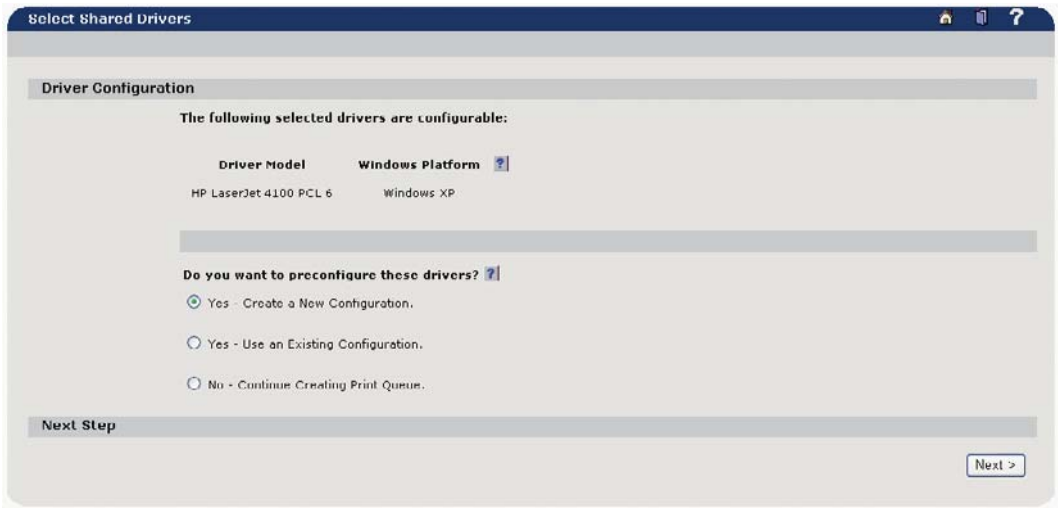


   At this point, the Driver Configuration Plug-in examines the selected drivers to determine whether they can be preconfigured. If they cannot, then the Web Jetadmin V8.1 queue creation workflow continues as if the Driver Configuration Plug-in were not installed.

Driver Configuration - configuration options

If the drivers can be preconfigured, then the Driver Configuration Plug-in is launched. The first page lists the selected drivers that are configurable. The user can then decide whether to preconfigure the drivers.

Figure 4-7 Configurable drivers



2. Make the configuration selection.

This page lists the selected drivers that support preconfiguration. Depending on the drivers that are selected for installation, some might not support preconfiguration (specifically, Windows NT 4.0 and Windows 95, Windows 98, and Windows Me PostScript [PS] drivers).

The user is offered either two or three configuration options. If the Driver Configuration Plug-in has been used for the same product previously, and the configuration that was created as part of that workflow was saved, then the user will have the following options:

- **Yes - Create a New Configuration**
- **Yes - Use an Existing Configuration** (this option displays only if a configuration has been saved previously)
- **No - Continue Creating Print Queue** (select this option to skip driver configuration)

3. If existing configurations are available for the product being installed and the user selects the **Use an Existing Configuration** setting, the dialog box shown in Figure 4-8 Driver Configuration - Select an Existing Configuration on page 17 displays.

   When the user selects an existing configuration the appropriate configuration file is loaded into the Configuration Editor pages. This allows changes to be made to that configuration, but does not require them.

   When the existing configuration has been selected, the configuration page displays, and the remainder of the flow is the same as when a new configuration is being created.

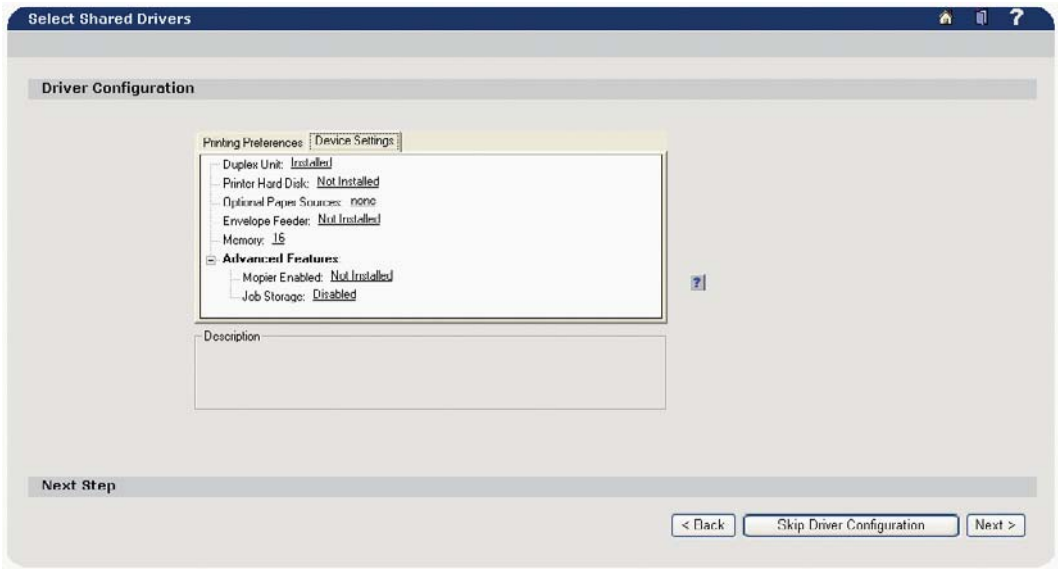
Figure 4-8 Driver Configuration - Select an Existing Configuration

4. If the user selects **Yes - Create a New Configuration**, the **Driver Configuration** dialog box displays.

   The onscreen user interface consists of two separate tabs: **Device Settings** (see Figure 4-9 Driver Configuration - Device Settings on page 18) and **Printing Preferences** (see Figure 4-10 Driver Configuration - Printing Preferences on page 18).

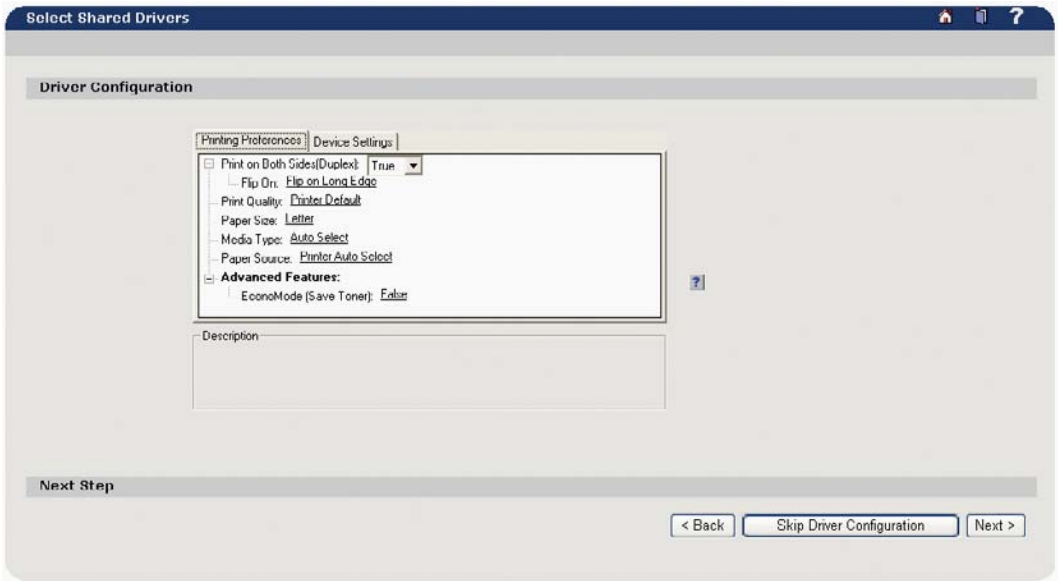
Driver Configuration - Device Settings

Figure 4-9 Driver Configuration - Device Settings



Settings on the **Device Settings** tab are related to the installed hardware on the device. Certain features on the **Printing Preferences** tab rely on various hardware accessories that must be installed in order to be used.

Figure 4-10 Driver Configuration - Printing Preferences



Settings on the **Printing Preferences** tab are related to the actual formatting of documents as they are printed. By modifying the feature settings the default behavior of the driver will be altered. For example, if the **Media Type** setting is changed to **Letterhead**, then every job printed will default to being printed on Letterhead paper. The user can modify this setting both on a per-document or per-printer basis.

Feature locking

HP Driver Preconfiguration supports the ability to lock five settings:

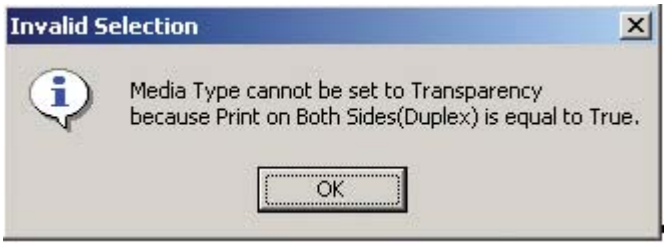
- **Print on Both Sides (Duplex)**
- **Print in Grayscale**
- **Media Type**
- **Paper Source**
- **Output Bin**

When a feature is locked, the selected default option is the only option available to users. In Figure 4-10 Driver Configuration - Printing Preferences on page 18, for example, the **Print on Both Sides (Duplex)** setting has been locked to **True**. As a result, the user is unable to print from this driver on only one side of the page. If the driver is installed on a server, clients connecting to that printer are also unable to print on only one side of the page.

Constraints

The .CFG file is encoded with all of the same constraints that the drivers enforce. As a result, if the user of the HP Driver Configuration Editor attempts to set features to an invalid combination, a warning dialog box displays, and the feature change that triggered the warning is returned to its original state. For example, if the **Media Type** option is set to **Transparency** when **Print on Both Sides (Duplex)** is set to **True**, an **Invalid Selection** dialog box displays, as shown in Figure 4-11 Invalid selection - duplexing for transparencies on page 19.

Figure 4-11 Invalid selection - duplexing for transparencies



5. Save the configuration.

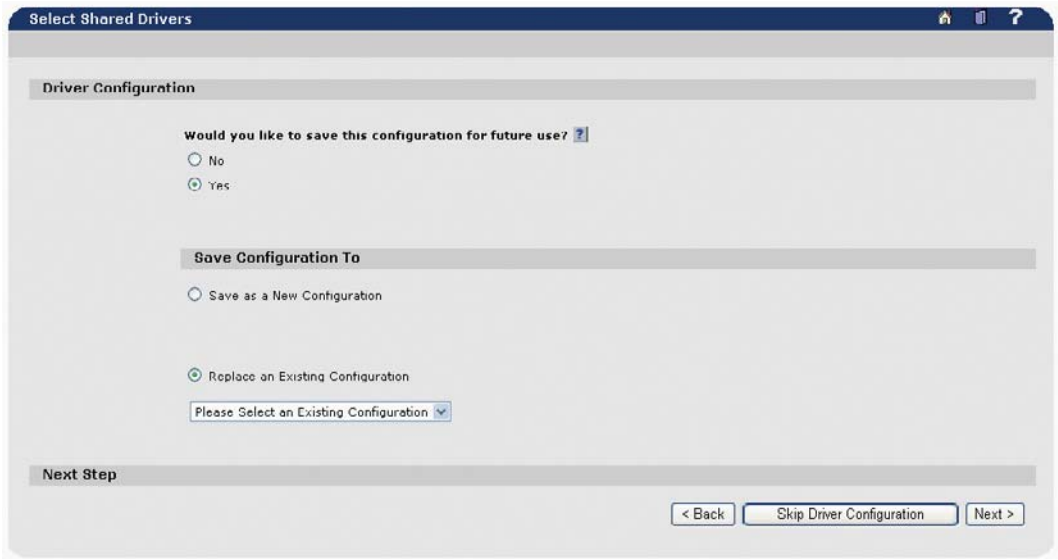
   Customers often have a set of standard configurations that are used for a given product. The Driver Configuration Plug-in allows these configurations to be saved within Web Jetadmin V8.1 for future use.

   Configurations are saved on a product-by-product basis. Therefore, a saved configuration for an HP Color LaserJet 5500, for example, is available only when the queue creation is installing a driver for the HP Color LaserJet 5500.

   Each configuration is saved with a unique name. If an existing name is reused, the old configuration is replaced.

   Figure 4-12 Driver Configuration - Replace an Existing Configuration on page 20 is displayed to save or replace the configuration for future use.

   Figure 4-12 Driver Configuration - Replace an Existing Configuration



6. Complete queue creation.

   After the configuration has been modified, clicking the **Next** button sends Web Jetadmin V8.1 to the summary screen for the queue (s) to be created. From this point, the standard Web Jetadmin V8.1 queue creation workflow continues in the same manner as when driver preconfiguration is not present. For detailed information about the queue creation process, see Web Jetadmin V8.1 documentation at the following Web site:

   http://hp.com/go/webjetadmin

HP Product Installation Software - Customization Utility/ Silent Installer

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

Description

You can use the HP LaserJet printing system software to create a silent installer that runs the SETUP.EXE program without user interaction. This installation method is useful when you want to use

the default selections that the installer provides or when you want to run the installation without being prompted. You also have the option of creating a custom disk image that contains specific drivers and utilities, which allows users to run the installer without further interaction.

Installation

Silent installation can be performed in one of two ways:

- customized silent installer
- command-line silent installer

Customized silent installer

Use the customized silent installer to select the printing-system components to include in the silent installation. You can select the operating system, language, printer models, drivers, utilities, and documentation to install.

Command-line silent install

Command-line silent installation cannot be customized. It installs only the printing-system components that are included in the Typical Installation.

Values that follow equal signs (=) in a command line must not contain intervening spaces.

Method 1: Command line

Type the following at the command line (do not type the beginning and ending quotation marks):

"<CD-ROM-ROOT>/SETUP/SETUP.EXE /U /PORT=XXXX /PRINTER=N /PD=N"

Method 2: SETUP.LST

Use the SETUP.LST file to specify command-line arguments to the installer for an unattended installation. You can send command-line arguments in one of the following ways:

- Send the command directly to the installer.
- Send the command using the SETUP.LST file located in the setup directory.
- Use a combination of the two methods.

  For example, this file contains two options: /port and /printer. The installer operates as normal because the /u option has not been specified. If you use setup /u for the installer, it operates in unattended mode and uses the two values that are specified in the defaults section of the SETUP.LST file. If you use setup /u /printer=4 for the HP Color LaserJet 5500 installer, for example, it operates in unattended mode and selects the HP LaserJet 5500hdn. The options specified on the command line override the options specified in the SETUP.LST file.

The options available can also include the /u option. Using this option key makes the installer always operate as unattended. The following descriptions explain the available options:

- /u signals the installer to use the specified port and printer that are identified in the command line (or in this file), and to use all default selections. Installation then proceeds without prompting the user.
- /port=xxxx is used to specify the default port when performing an unattended installation. The value specified by xxxx should be a valid port and should contain no spaces (for example, LPT1).
- /printer=n is used to specify the default printer when performing an unattended installation. The value specified by n is an integer that references the list of available printers. For example, the following printers are available for the HP Color LaserJet 5500 series printer installation:
- 0 = HP LaserJet 5500 printer
- 1 = HP LaserJet 5500dn printer
- 2 = HP LaserJet 5500dtn printer
- 3 = HP LaserJet 5500 printer
- 4 = HP LaserJet 5500hdn printer
- 5 = HP LaserJet 5500n printer

- /pd=n is used to specify whether the selected printer is the default printer when you have multiple printers connected to your network. The value specified by n is an integer (that is, 0 or 1). For this argument, using 1 (one) sets the selected printer as the default printer. Using zero (0) or not specifying a value at all sets the printer as a non-default printer.

You can preset these options in the SETUP.LST file located in the root directory of the HP LaserJet software CD-ROM. In the defaults section, add the following syntax:

[Defaults]

Options= /port=<value> /printer=<number> /pd=<number>

For example, <value> = LPT1,

Procedure

Use this procedure for all HP products shown in the following list. If your HP product is not listed, use the installation procedure described in Method 2 on page 35.

NOTE: Older HP products that are not in the following list might not be supported by HP Driver Preconfiguration.

Table 4-1 HP Driver Preconfiguration supported printers

HP LaserJet 1010 printer	HP LaserJet 1012 printer	HP LaserJet 1015 printer
HP LaserJet 1020 printer	HP LaserJet 1022 printer	HP LaserJet 1150 printer
HP LaserJet 1160 printer	HP LaserJet 1300 printer	HP LaserJet 1320 printer
HP LaserJet 2280 printer	HP LaserJet 2300 printer	HP LaserJet 2400 printer
HP LaserJet 3000 printer	HP LaserJet 3015 printer	HP LaserJet 3020 printer
HP LaserJet 3380 printer	HP LaserJet 3500 printer	HP LaserJet 3550 printer
HP LaserJet 3700 printer	HP LaserJet 4100 printer	HP LaserJet 4200 printer

Table 4-1 HP Driver Preconfiguration supported printers (continued)

HP LaserJet 4200L printer	HP LaserJet 4250 printer	HP LaserJet 4300 printer
HP LaserJet 4345 printer	HP LaserJet 4350 printer	HP LaserJet 4600 printer
HP LaserJet 4600n printer	HP LaserJet 4610n printer	HP LaserJet 4650 printer
HP LaserJet 5500 printer	HP LaserJet 5550 printer	HP LaserJet 8150 printer
HP LaserJet 9000 printer	HP LaserJet 9000L printer	HP LaserJet 9040 printer
HP LaserJet 9050 printer	HP LaserJet 9055 printer	HP LaserJet 9065 printer
HP LaserJet 9085 printer	HP LaserJet 9200 printer	HP LaserJet 9500 printer
HP LaserJet 9500mfp		

To enable HP Driver Preconfiguration, use either of the following two methods during installation:

Method 1

1. In the software **CD Browser** screen, click **Installer Customization Wizard**.

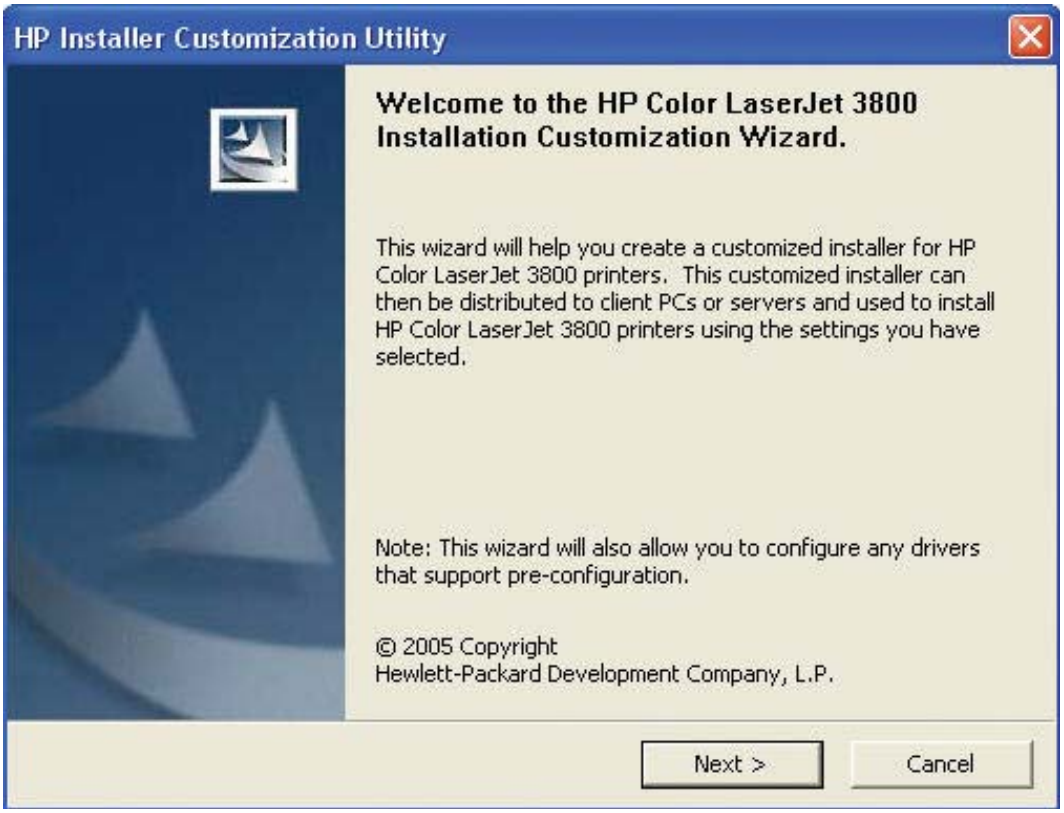
Figure 4-13 CD Browser window

2. In the **Language Selection** dialog box, select the language of your choice, and then click **OK**.

Figure 4-14 Language Selection dialog box

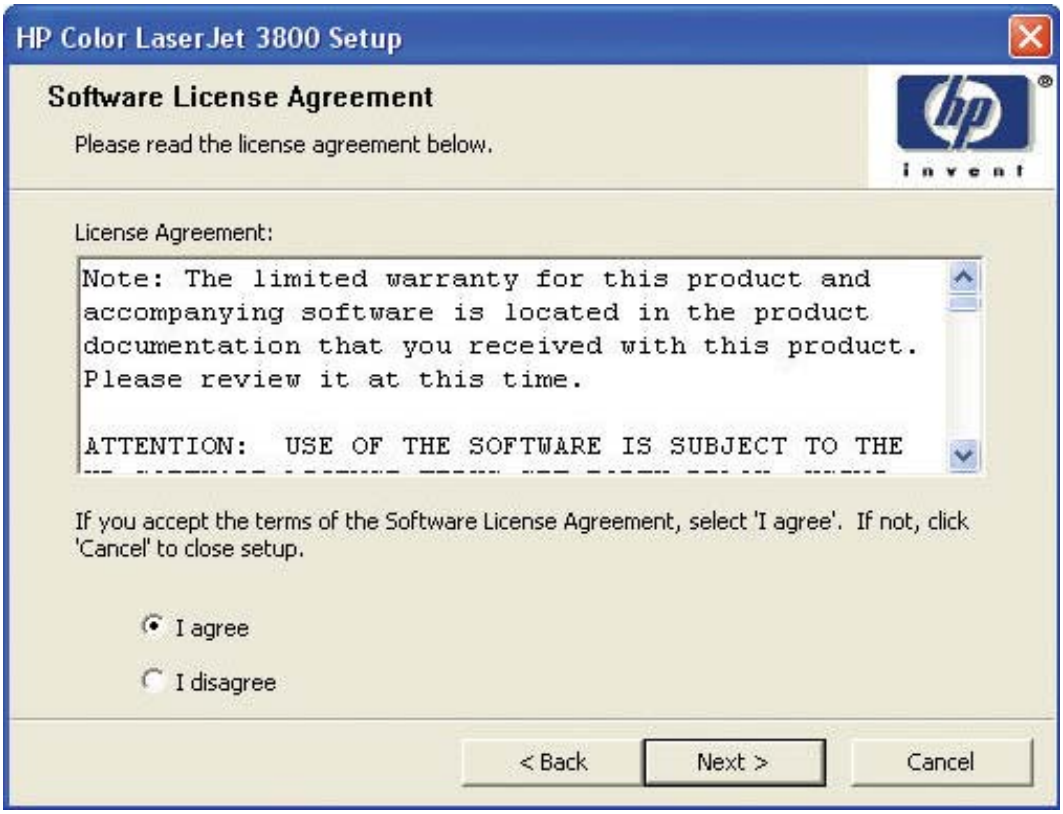
3. In the **HP Installer Customization Utility** - **Welcome** dialog box, click **Next** to begin the installation.

Figure 4-15 HP Installer Customization Utility - **Welcome** dialog box



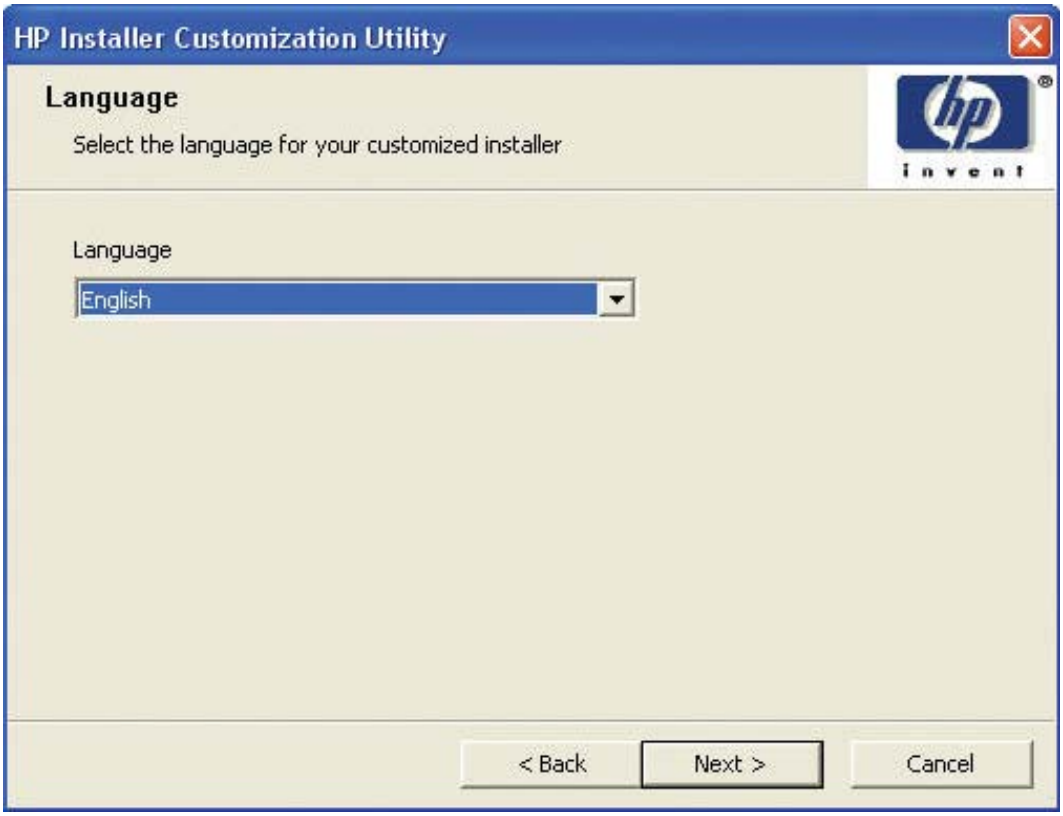
4. In the **Software License Agreement** dialog box, select **I agree**, and then click **Next**.

Figure 4-16 Software License Agreement



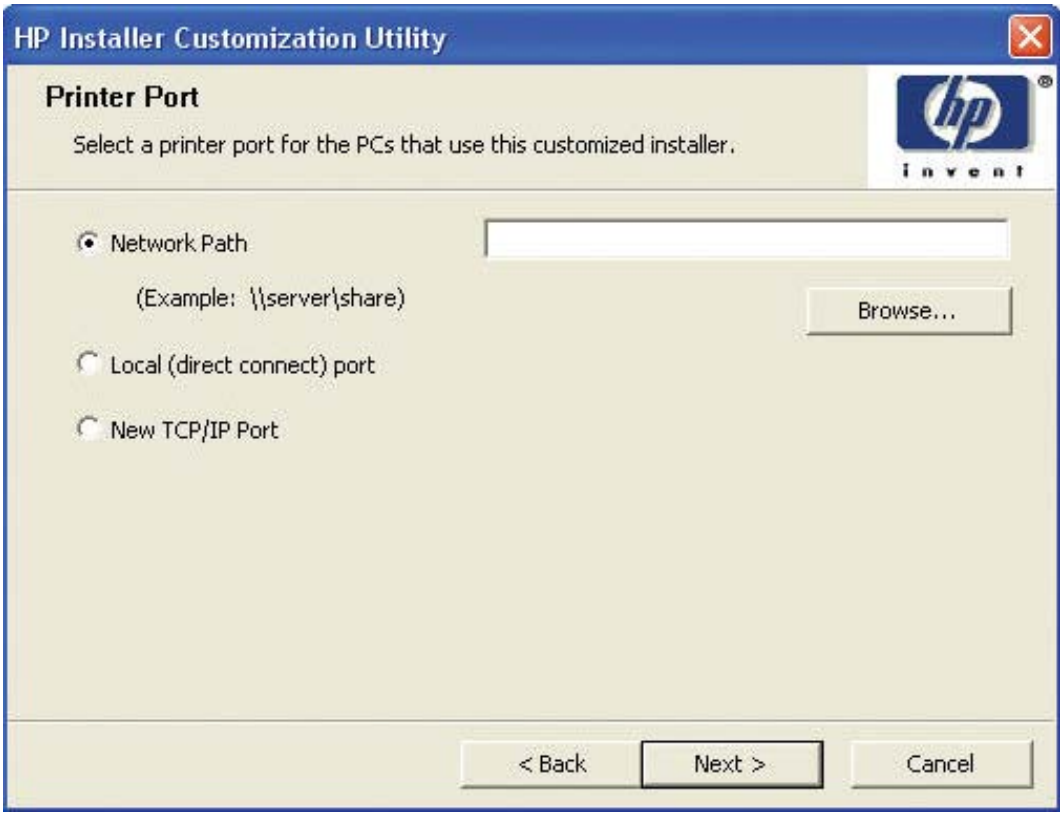
5. In the **Language** dialog box, select the language of your choice, and then click **Next**.

Figure 4-17 Language dialog box



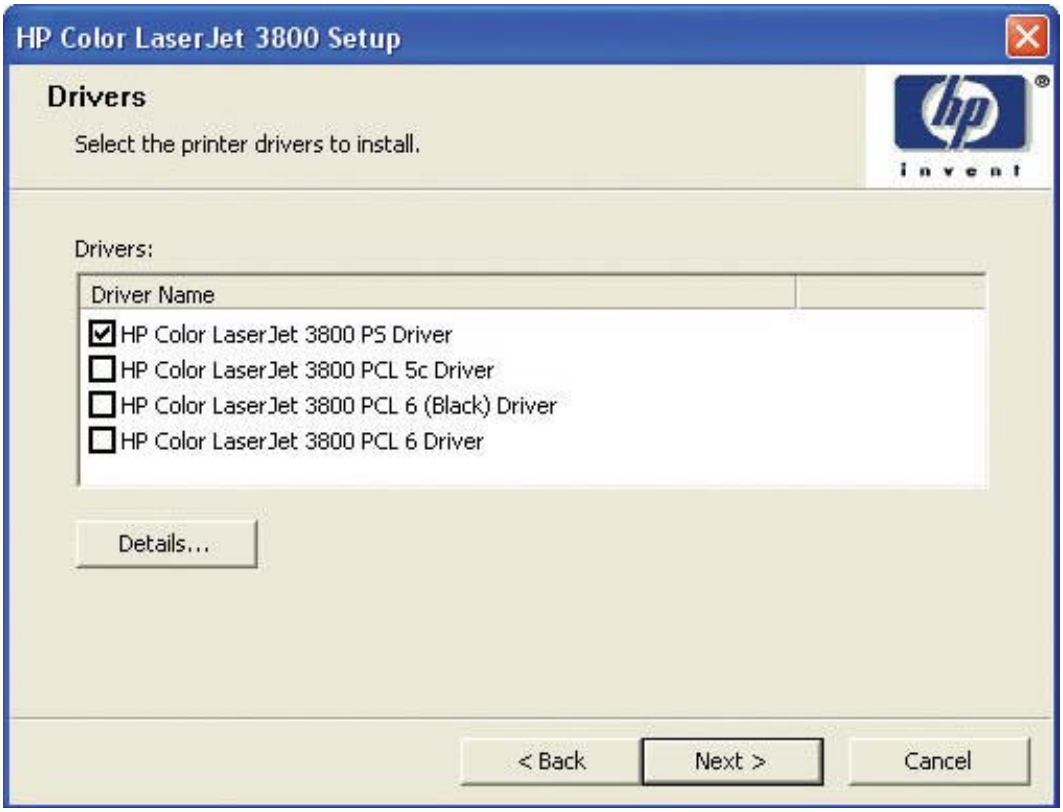
6. In the **Printer Port** dialog box, select the printer port, and then click **Next**.

Figure 4-18 Printer Port dialog box



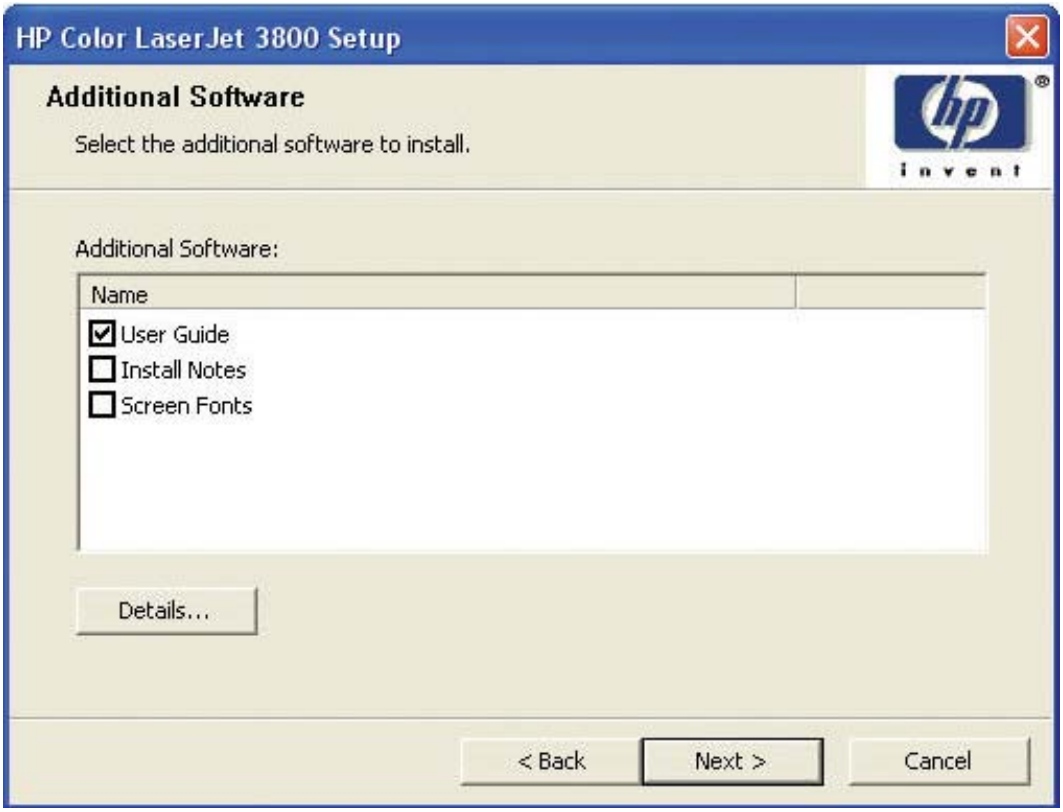
7. In the **Drivers** dialog box, select the printer drivers to install, and then click **Next**.

Figure 4-19 Drivers dialog box



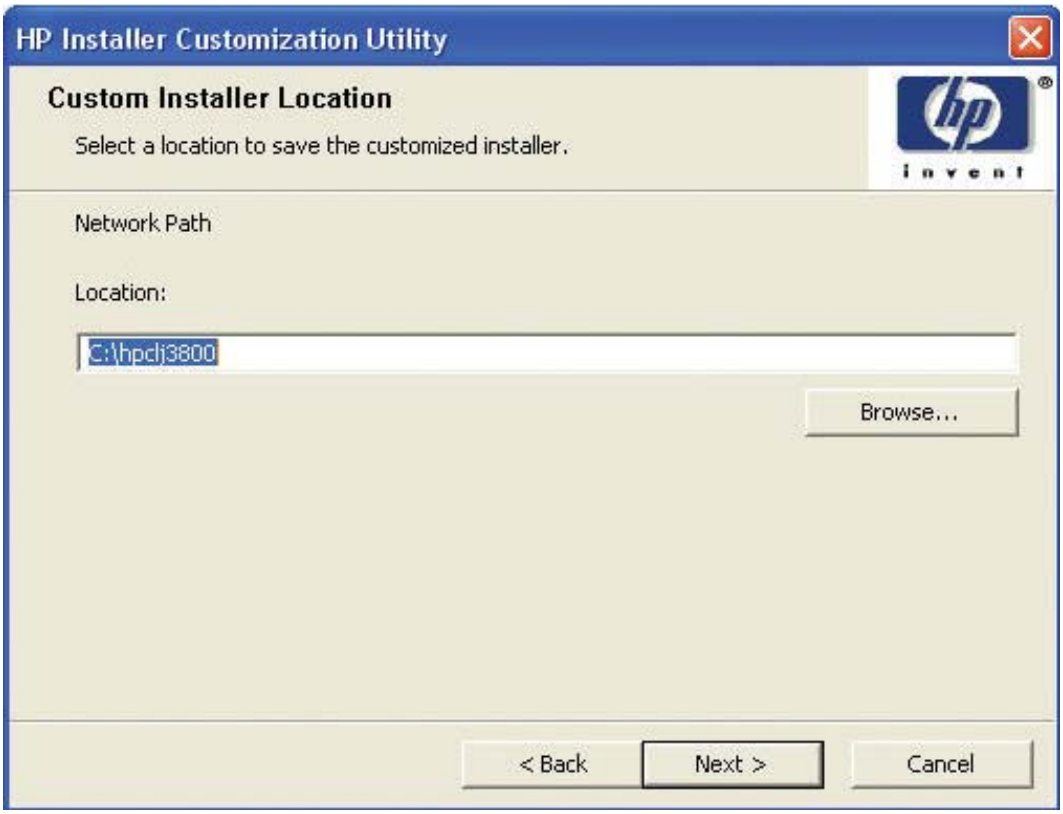
8. In the **Additional Software** dialog box, select any additional software you would like to install, and then click **Next**.

Figure 4-20 Additional Software dialog box



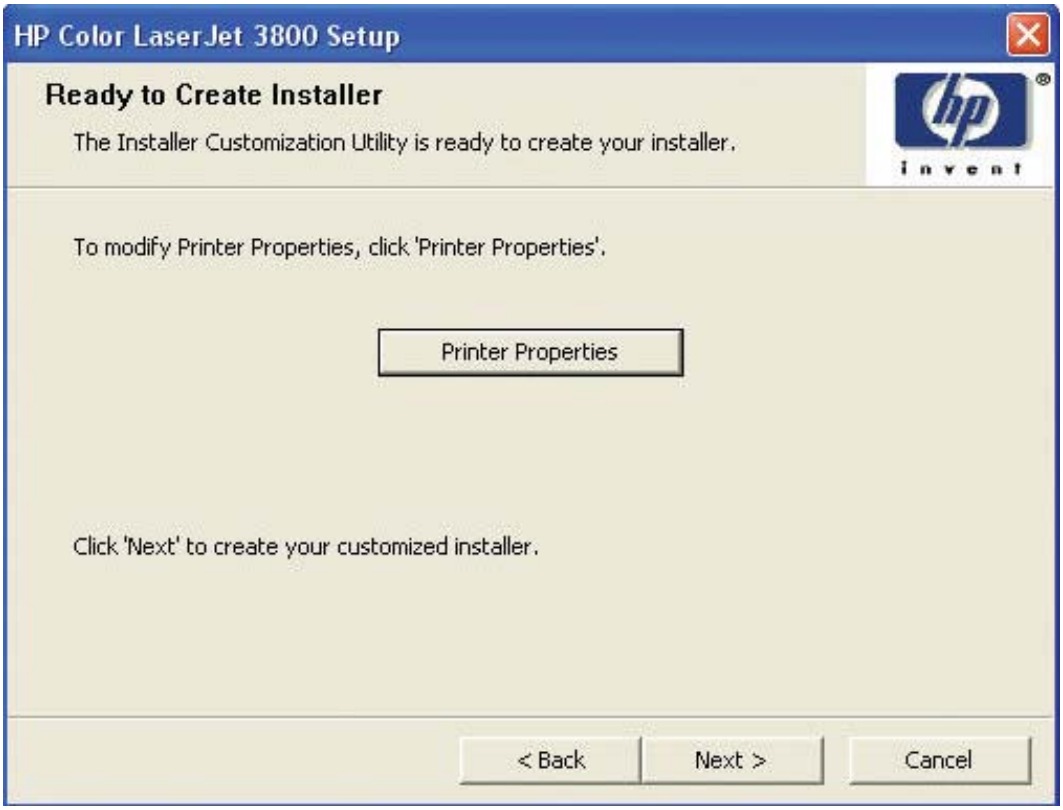
9. In the **Custom Installer Location** dialog box, select a location to save the customized installer, and then click **Next** to proceed with the installation.

Figure 4-21 Custom Installer Location dialog box



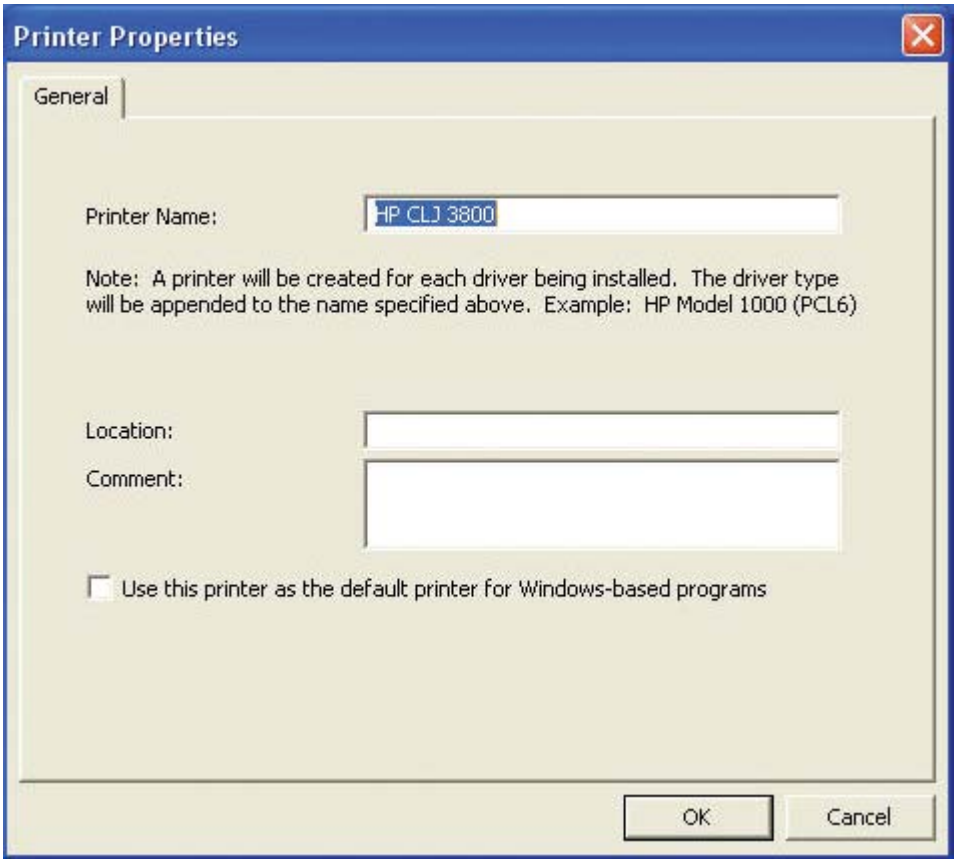
10. In the **Ready to Create Installer** dialog box, click **Printer Properties** to modify properties of the printer. The **Printer Properties** dialog box displays.

Figure 4-22 Ready to Create Installer dialog box



11. In the **Printer Properties** dialog box, type in an optional printer name, location, and comment, and then click **Next** to return to the **Ready to Create Installer** dialog box.

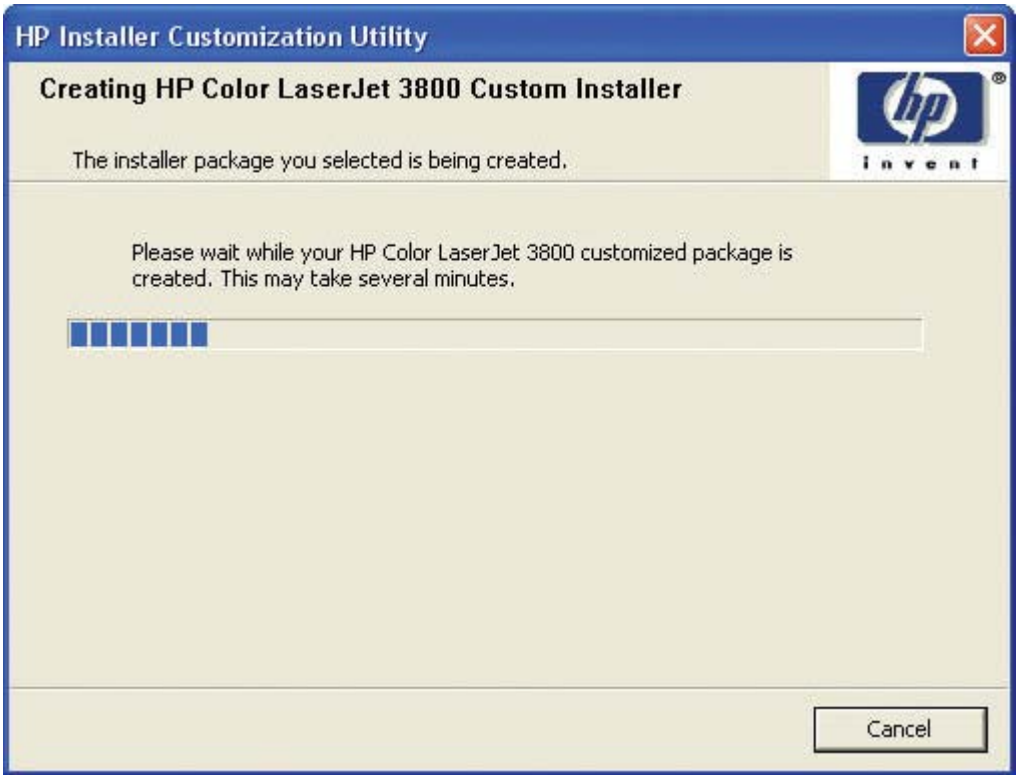
Figure 4-23 **Printer Properties** dialog box - **General** tab



12. In the **Ready to Create Installer** dialog box, click **Next** to proceed with the installation.

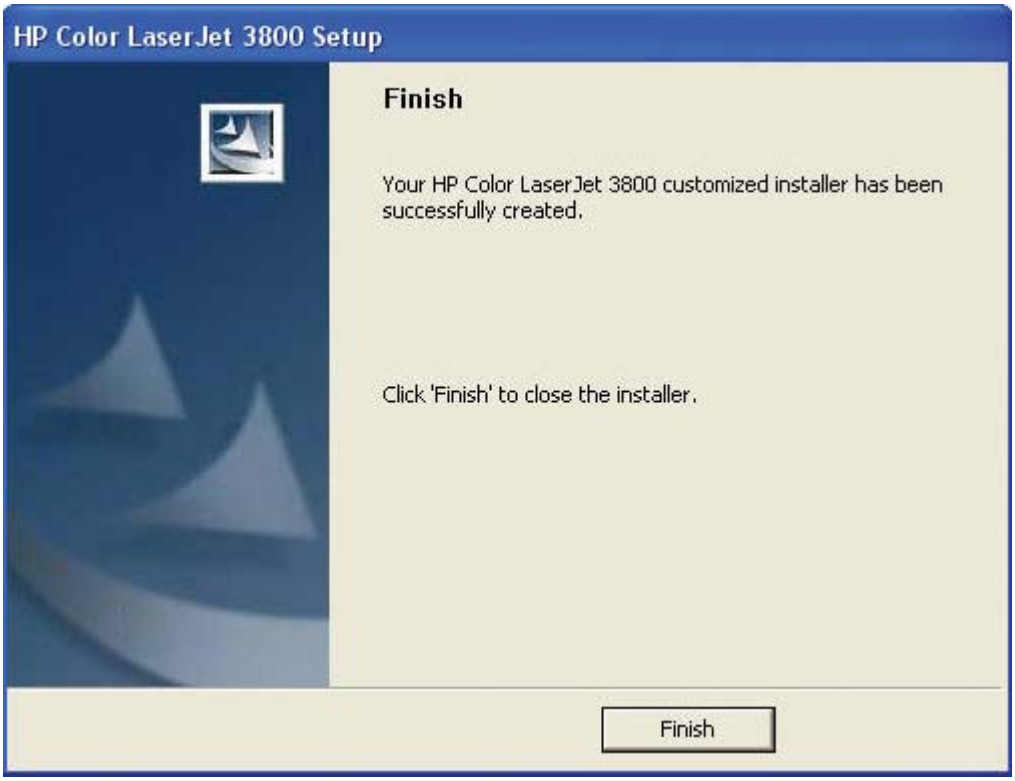
13. The **HP Color LaserJet Custom Installer** dialog box displays, indicating the progress of the installation.

Figure 4-24 **HP Color LaserJet Custom Installer** progress bar



14. The **HP Color LaserJet Setup** - **Finish** dialog box displays, indicating that the customized installer was successfully installed. Click **Finish**.

Figure 4-25 HP Color LaserJet Setup - Finish dialog box



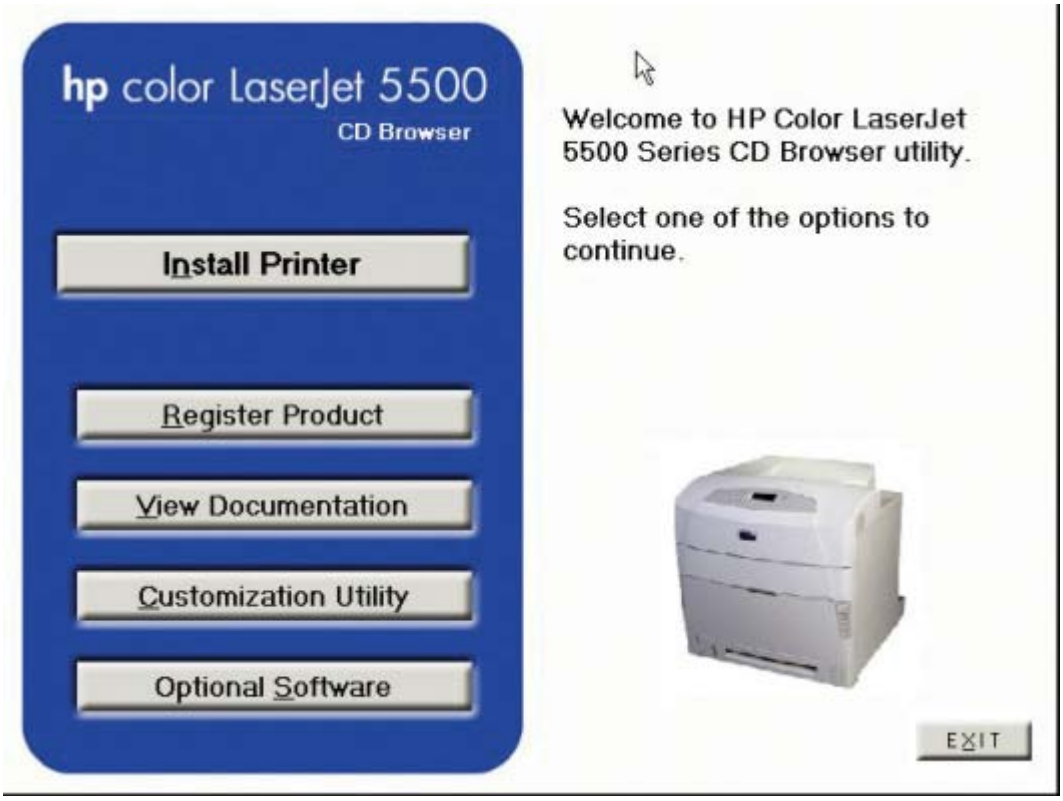
The software creates a custom installation file.

The installation file is now available to install using the silent installer. To install the driver, navigate to the directory where the installation file is located, click SETUP.EXE, and proceed with the installation.

Method 2

1. In the software **CD Browser** screen, click **Customization Utility**.

Figure 4-26 CD Browser window

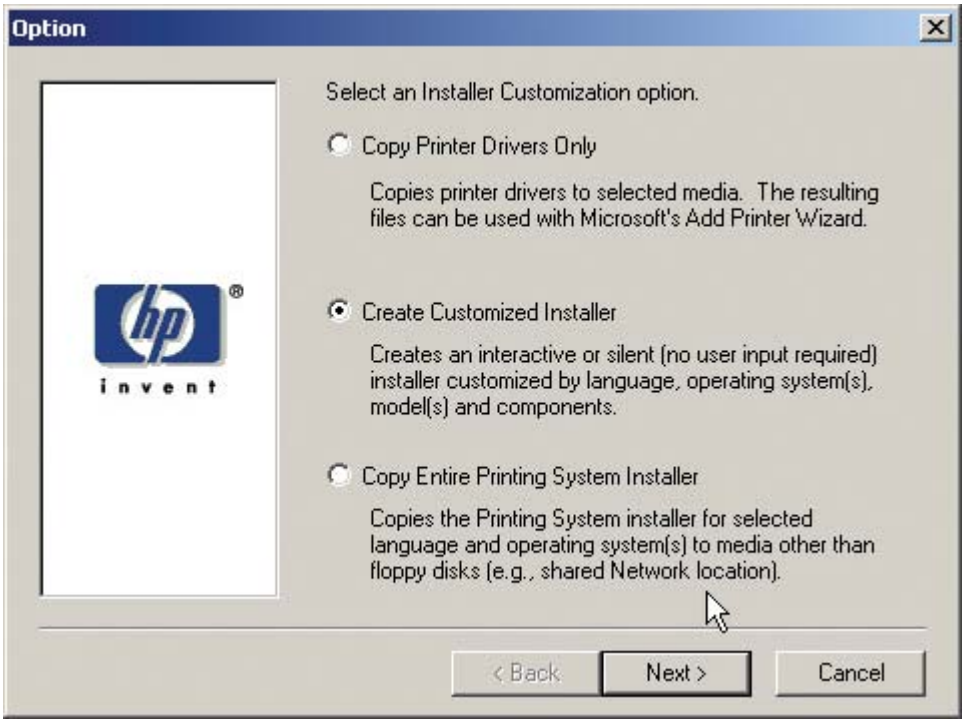


2. In the **Choose Setup Language** dialog box, select the language of your choice, and then click **OK**.

Figure 4-27 Choose Setup Language dialog box

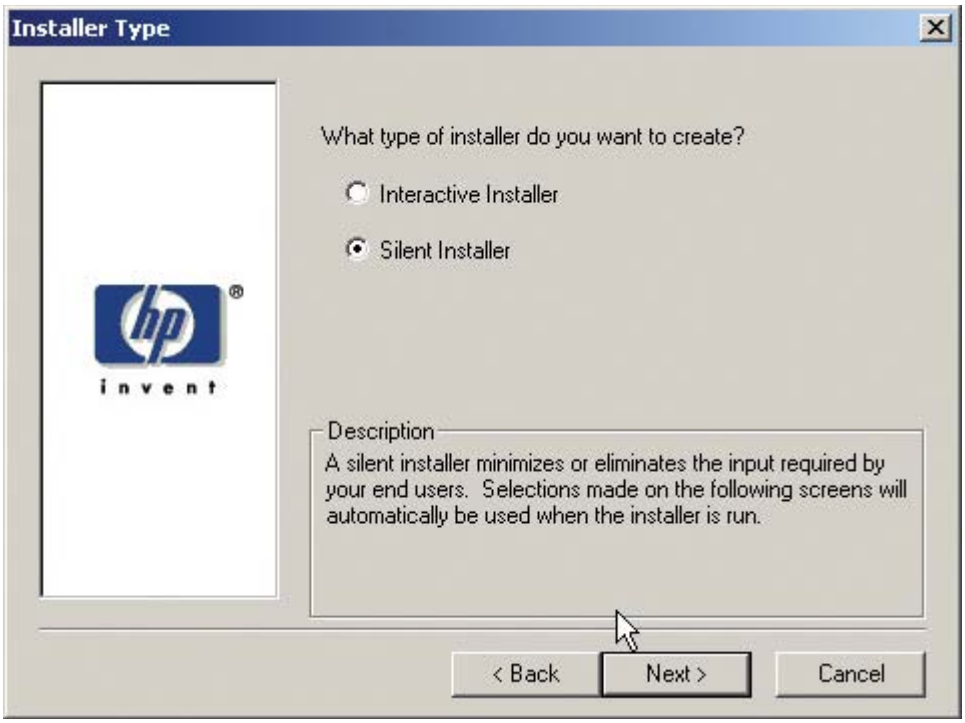
3. In the **Option** dialog box, click the **Create Customized Installer** option button, and then click **Next**.

Figure 4-28 Option dialog box - **Create Customized Installer**



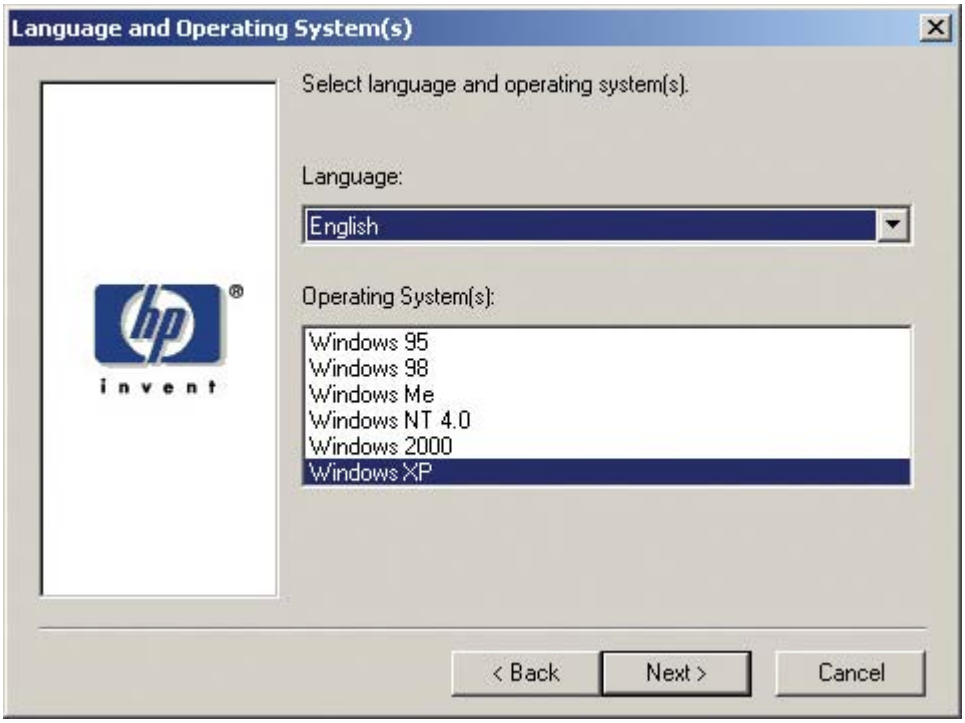
4. In the **Installer Type** dialog box, click **Silent Installer**.

Figure 4-29 Installer Type - **Silent Installer**



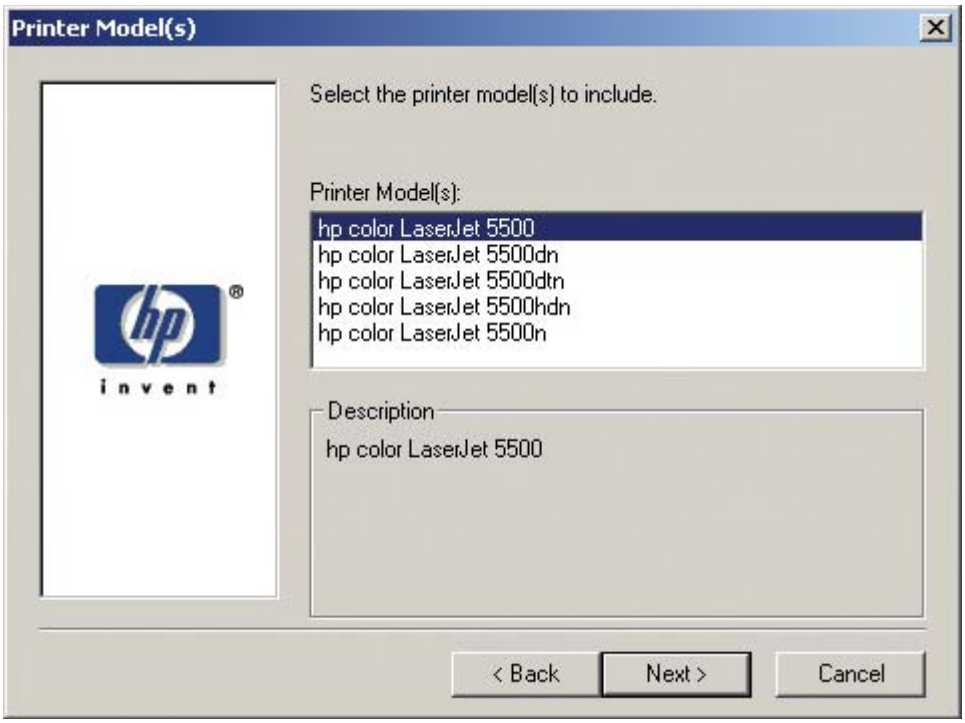
5. In the **Language and Operating System(s)** dialog box, select the language and operating systems of your choice, and then click **Next**.

Figure 4-30 Language and Operating System(s) dialog box



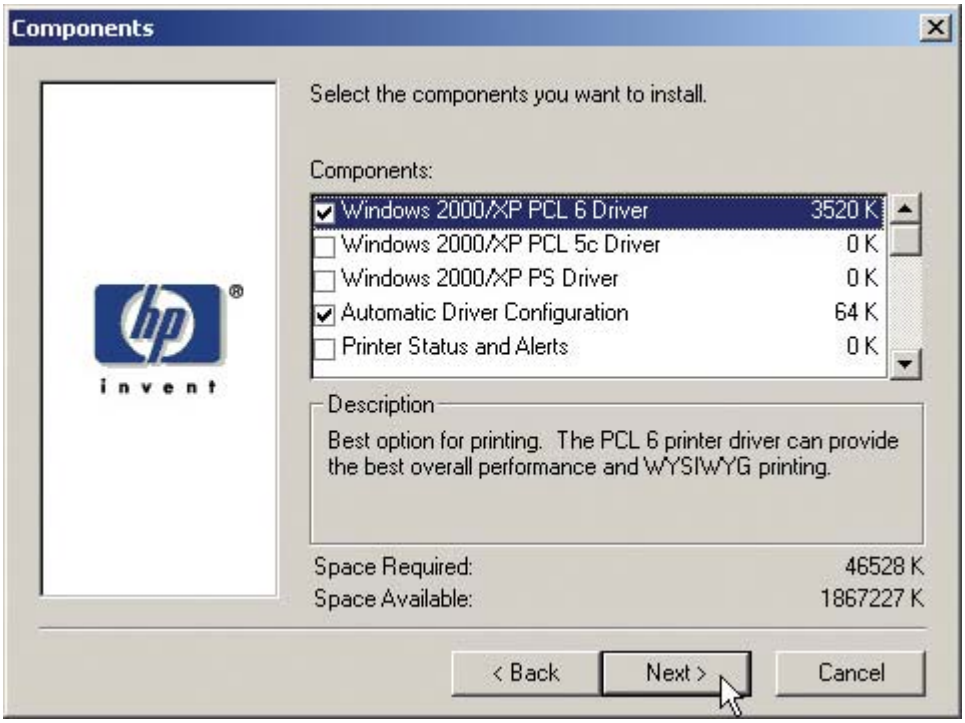
6. In the **Printer Model(s)** dialog box, select the printer model (s) to include, and then click **Next**.

Figure 4-31 Printer Model(s) dialog box



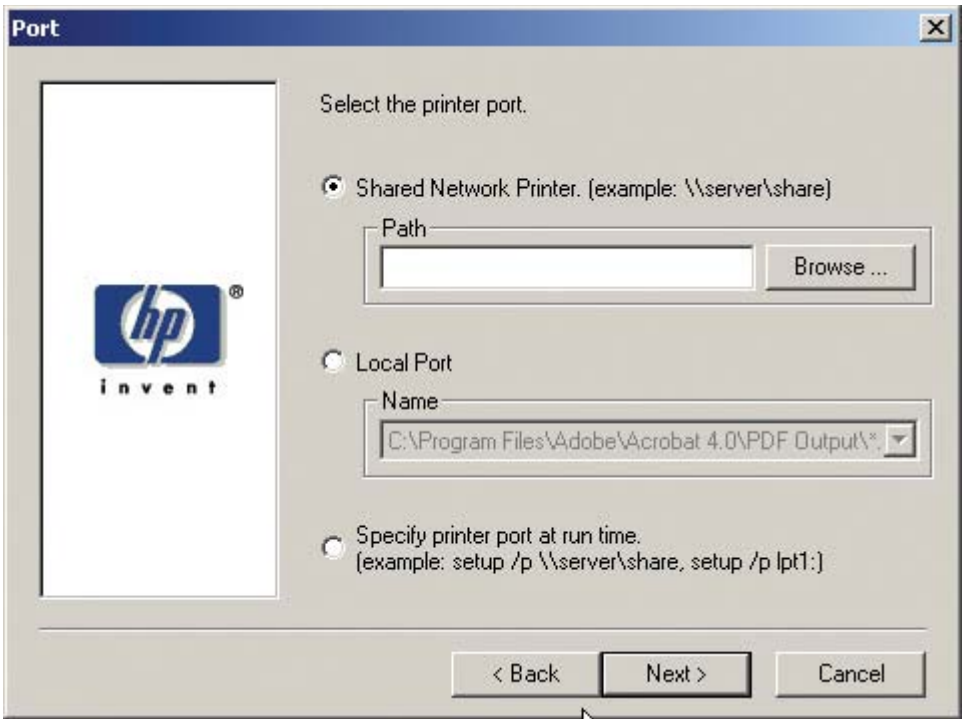
7. In the **Components** dialog box, select the components that you want to install, and then click **Next**.

Figure 4-32 Components dialog box



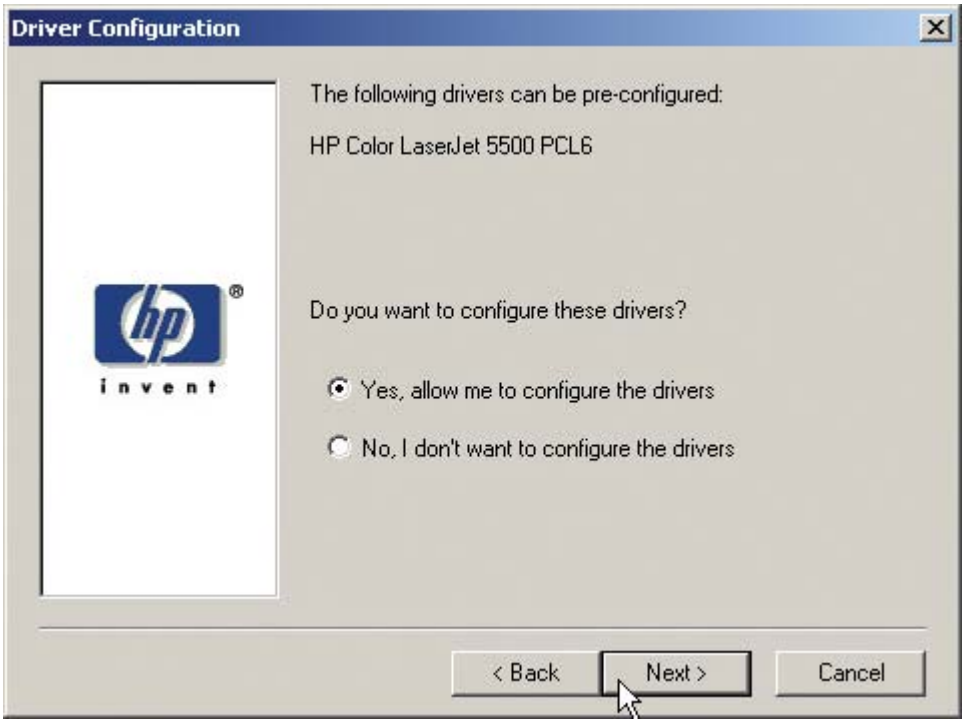
8. In the **Port** dialog box, select the printer port, and then click **Next**.

Figure 4-33 Port selection dialog box



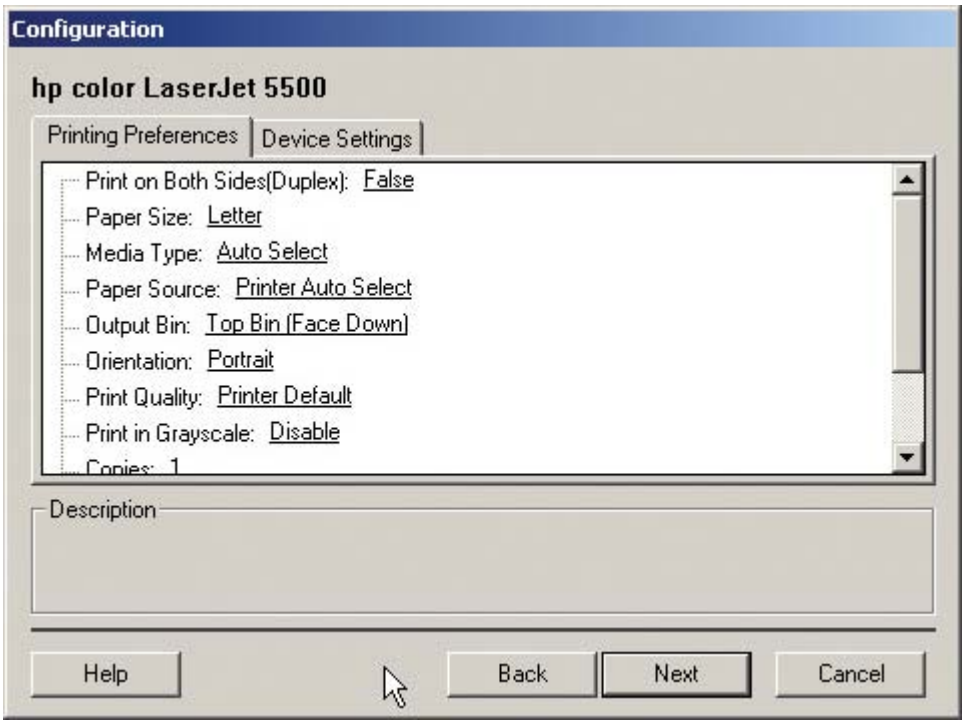
9. In the **Driver Configuration** dialog box, select the **Yes, allow me to configure the drivers** option button, and then click **Next** to proceed with the installation.

Figure 4-34 Driver Configuration dialog box



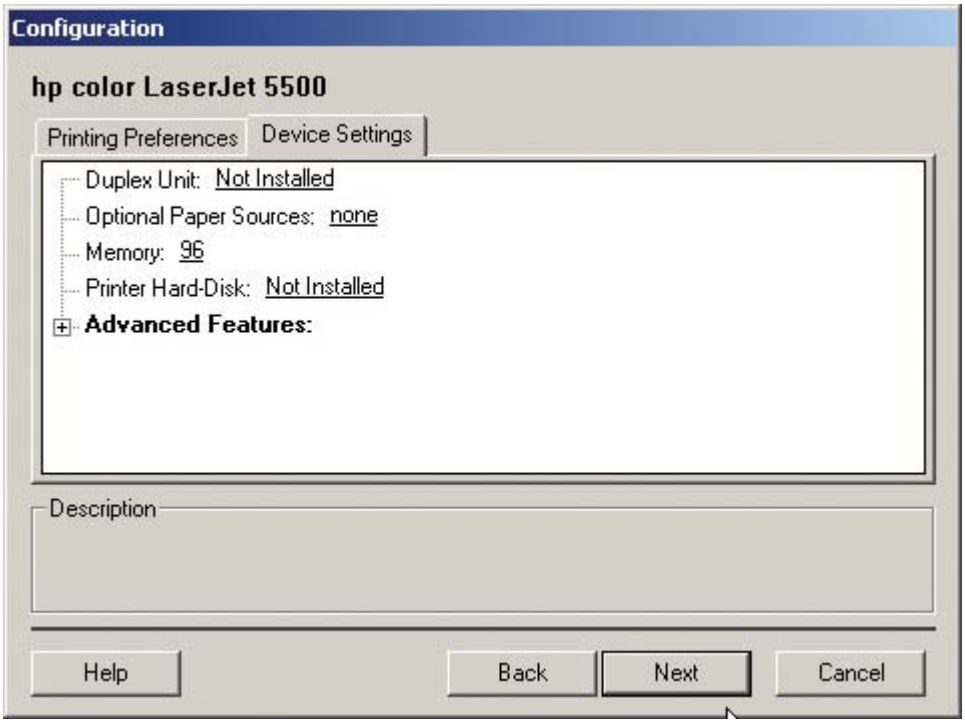
10. In the **Configuration** dialog box, click the **Printing Preferences** tab. Scroll through the list and select the settings that you want.

Figure 4-35 Configuration dialog box - **Printing Preferences** tab



11. Click the **Device Settings** tab. Scroll through the list and select the features that you want. When you are finished, click **Next**.

Figure 4-36 Configuration dialog box - **Device Settings** tab



Feature locking

HP Driver Preconfiguration provides the ability to lock five settings:

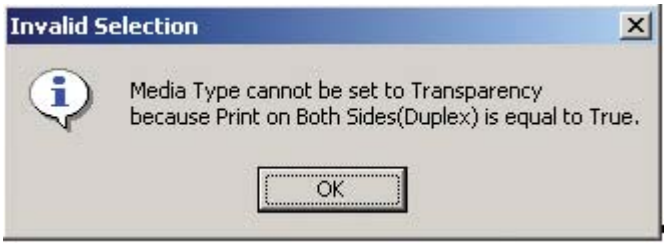
- **Print on Both Sides (Duplex)**
- **Print in Grayscale**
- **Media Type**
- **Paper Source**
- **Output Bin**

When a feature is locked, the selected default option is the only option available to users. In **Driver Configuration** - **Printing Preferences**, for example, the **Print on Both Sides (Duplex)** setting has been locked to **True**. A small icon showing a padlock displays next to the setting in the UI. As a result, the user is unable to print from this driver on only one side of the page. If the driver is installed on a server, clients connecting to that printer are also unable to print on only one side of the page.

Constraints

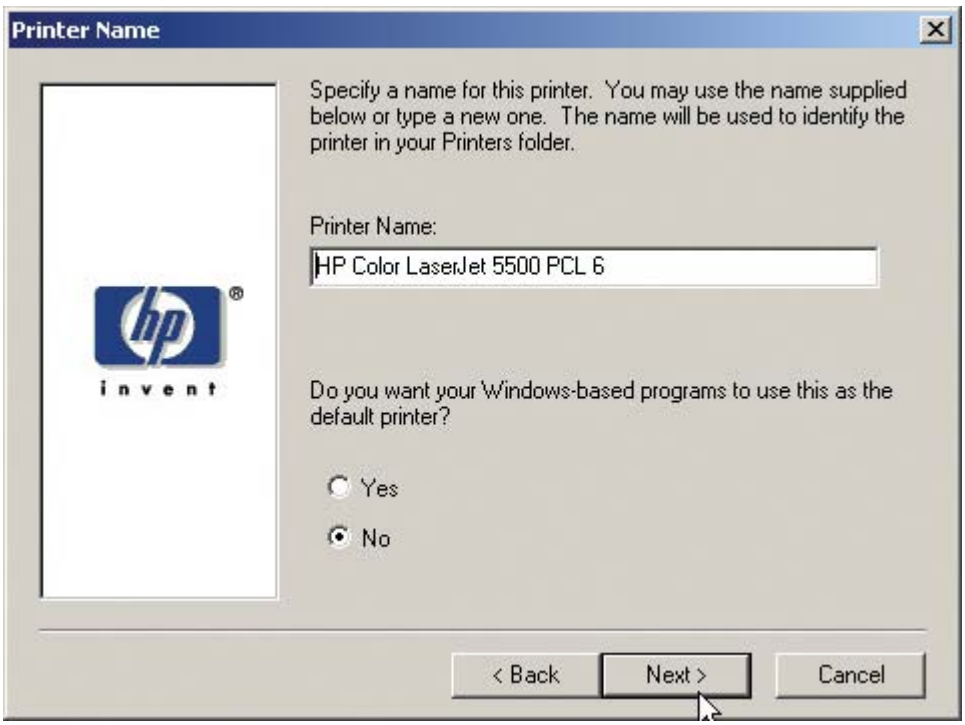
The .CFG file is encoded with all of the same constraints that the drivers enforce. As a result, if the user attempts to set features to an invalid combination, a warning dialog box displays, and the feature change that triggered the warning is returned to its original state. For example, if the **Media Type** option is set to **Transparency** when **Print on Both Sides (Duplex)** is set to **True**, an **Invalid Selection** dialog box displays, as shown in Figure 4-37 Invalid Selection dialog box on page 41.

Figure 4-37 **Invalid Selection** dialog box



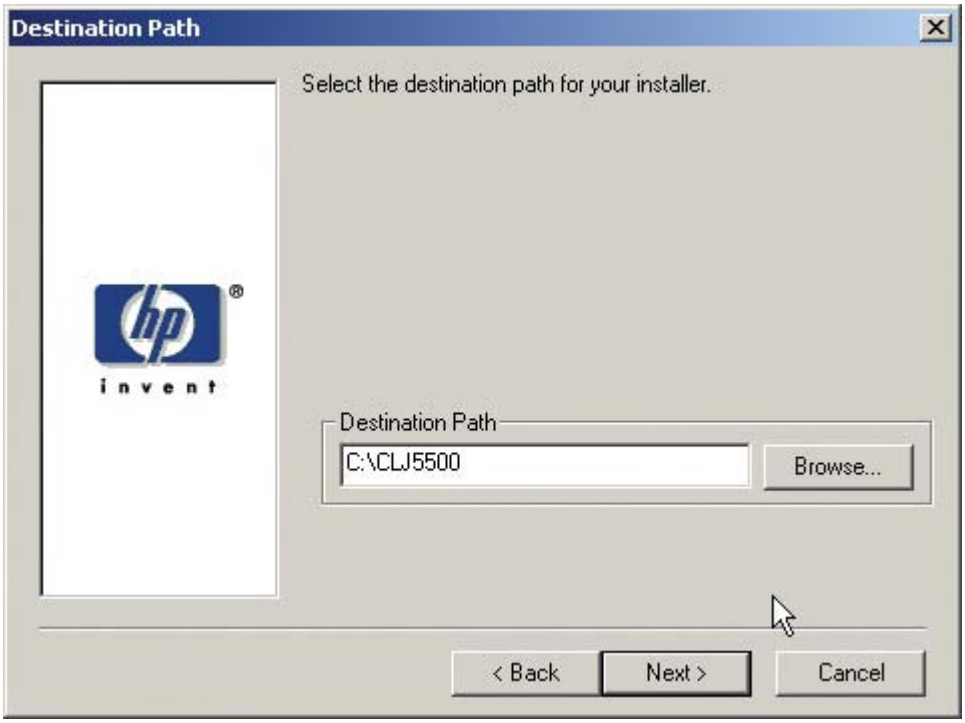
12. In the **Printer Name** dialog box, type a printer name (or use the default name), and then click **Next**.

Figure 4-38 **Printer Name** dialog box



13. In the **Destination Path** dialog box, select a destination path (or use the default path), and then click **Next**.

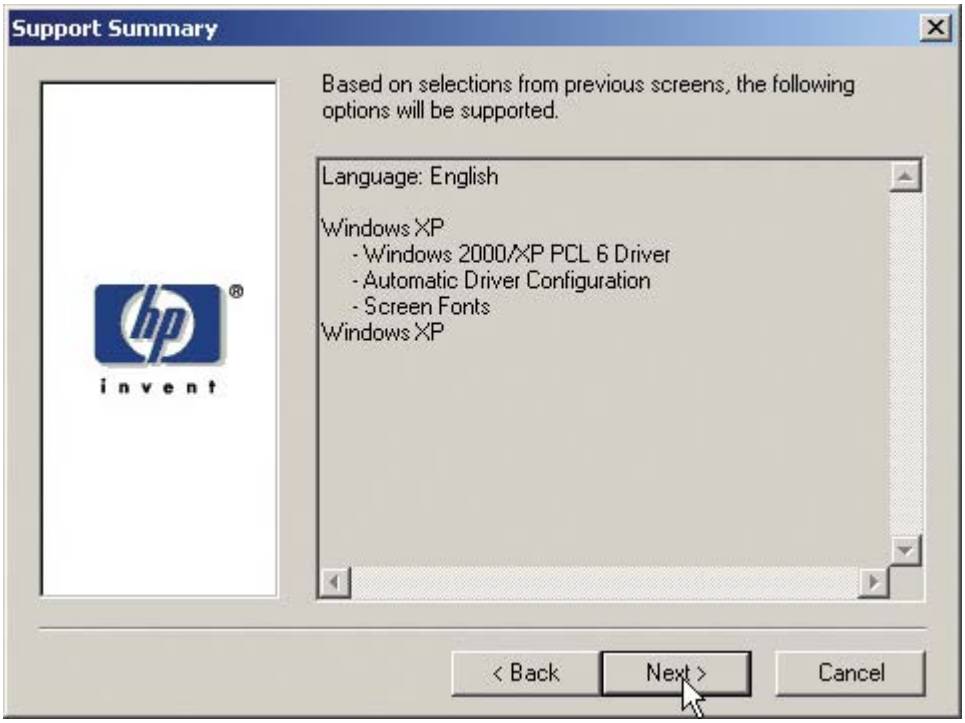
Figure 4-39 Destination Path dialog box



14. Review the information in the **Support Summary** dialog box. If the information is incorrect, click the **Back** buttons until you reach the screen where you can select the options you want, and then continue with the installation sequence. If the information is correct, click **Next**.

NOTE: The information varies, depending on the language, your operating system, and the features that you selected.

Figure 4-40 **Support Summary** dialog box



The software creates a custom installation file. Note the location of the file.

15. Click **Finish**.

The installation file is now available to install using the silent installer. To install the driver, navigate to the directory where the installation file is located, click SETUP.EXE, and proceed with the installation.

HP Driver Deployment Utility

The HP Driver Deployment Utility (DDU) was created to simplify the deployment of printer drivers onto a client PC. It is a simple utility that packages the driver files, and the code needed to deploy them, into 2 files: a .exe and a .cab. These files are run on the client PC to copy the driver files to the Windows driver store, and for network packages, to install the printer.

The DDU will work with printer drivers that can be installed by an inf. It is designed to work with printer drivers that have their files contained in one directory structure. Because this utility is generic, it does not have knowledge of how specific drivers are packaged. It will package up all files in the directory (and subdirectories) where the driver inf was found. The driver must be expanded so that the DDU can process the inf files. If you download an .exe with the driver files, you will need to run it first to unpack all the files. Then you run the DDU to package it for deployment on the client system.

If you need the ability to configure unique settings for your driver deployment, the UPD installer may be a better choice as an install tool. The UPD installer allows the configuration of settings from the command line.

The DDU can be used with the UPD installer, but the UPD command line will not be accessible. The DDU is designed to package and stage/install printer drivers. Driver specific features, like those found in the UPD installer are specific to the UPD installer and not supported by the DDU.

Examples of where the DDU installer could be used are to deploy a direct connect driver in traditional mode or a network install in traditional mode.

NOTE: Administrative rights are necessary on the client system where the install is being performed. For a direct connect, administrative rights are only required to run the .exe package. The user can then connect the printer without administrative rights. For a network connection, the exe package will copy files to the driver store, create the port, install the driver and finally create the printer object.

Supported operating systems

- Microsoft Windows 2000 Service Pack 4
- Microsoft Windows XP
- Microsoft Windows XP 64-Bit Edition
- Microsoft Windows Server 2003
- Microsoft Windows Server 2003 64-Bit Edition
- Microsoft Windows Vista
- Microsoft Windows Vista (64-bit)

Install and run the DDU

Install the DDU

Copy the files to your administrative PC. If using the self-extracting exe, just copy it to your administrative PC, then double click – it will expand the files into the proper directory structure.

DDU does not require an installation program. All the files are contained in the “Driver Deployment Utility” directory. DDU does not require any registry entries.

Run the DDU

1. Create the printer driver package to deploy by opening the DDU application. This can be done by double clicking hpddu.exe found in the “Driver Deployment Utility” root directory. This utility packages the driver and the code needed to stage/install the driver into a .exe and a .cab. An informational .xml file is also created and can be used to identify the package selections.
2. Run the new driver package (created in step 1) on the client PC. It can be copied to the client PC and run by double clicking, or it can be run from a server by pointing to it and double clicking. The package can also be run in a batch file.

For a direct connect package, the DDU will silently copy the driver files into the Windows driver store and exit. Prior to exiting, an optional dialog can be shown to prompt the user to connect their printer after the files are copied. Upon completion of the package executable, when the user connects the printer to the PC, the OS will install the printer using plug and play software.

NOTE: If the printer is never connected to the PC, the printer will not be installed.

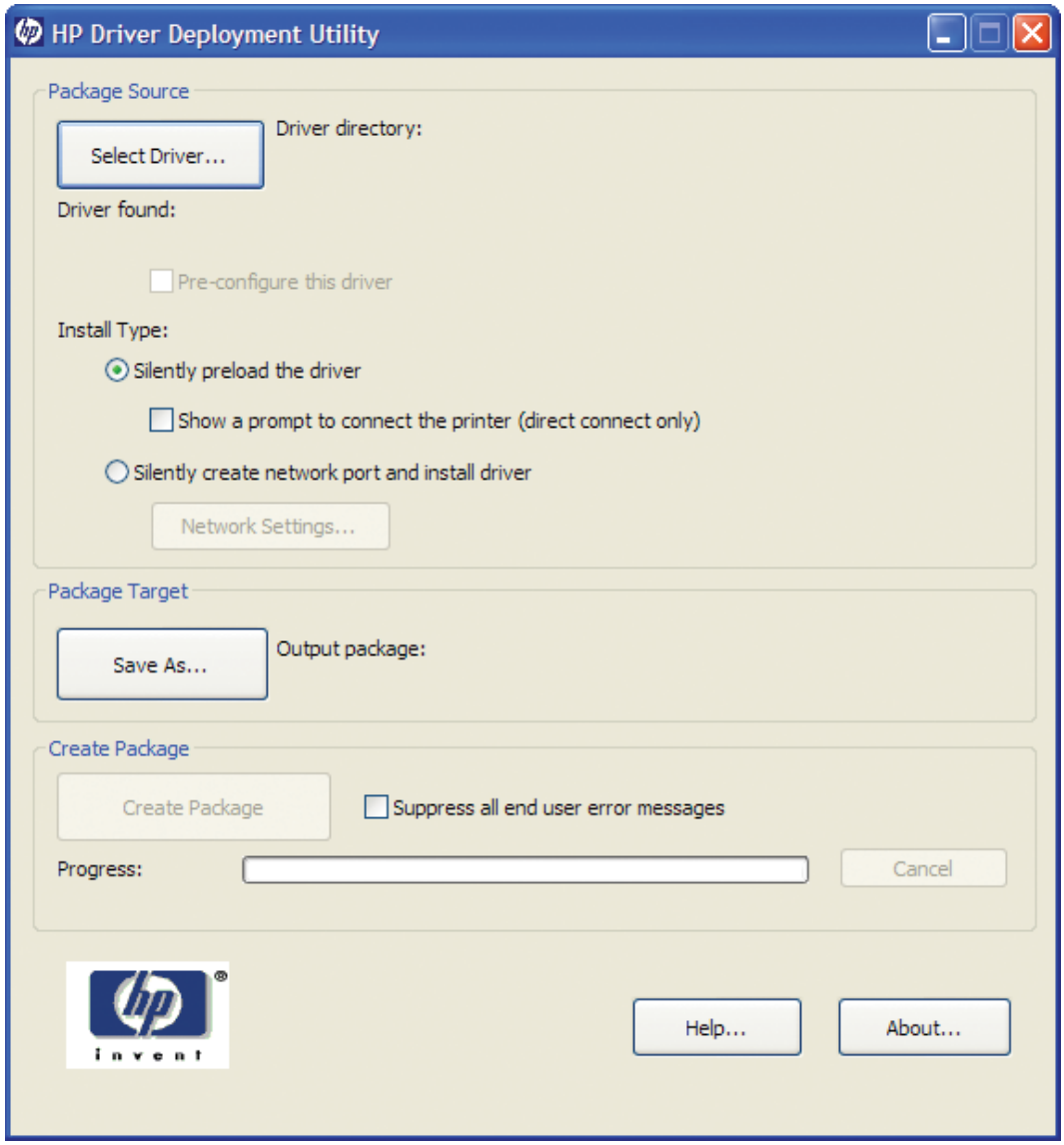
For a network package, the DDU will silently copy the driver files into the Windows driver store, and then install the printer using the network information entered by the administrator.

Use the DDU

The DDU user interface is divided into 3 sections:

- **Package Source** describes the package type and driver location you want to create.
- **Package Target** identifies the name and location of the installation package.
- **Create Package** initiates the package creation process.

Figure 4-41 DDU main screen



Package Source

Driver Directory—Use the **Select Driver** button to enter the directory where your driver resides by browsing or typing it in. You should only have one driver package in this directory because this utility will package all the files found in this directory (and sub directories) into the executable. If you have downloaded a compressed driver package, you must expand it before using this utility.

In some cases, you may have multiple driver inf files in the directory (sometimes one is for color and another for mono printers). In this case, an additional dialog will allow you to select which driver to package.

You will also get a warning if your directory is large. This is to help prevent packaging more than one driver. You may choose to continue at this point or not.

Once the driver directory is selected, and one driver has been found, the driver information is displayed below the directory selection box.

For drivers that support preconfiguration, the checkbox below will be enabled. Selecting this will run a configuration dialog after the **Create Package** button is selected.

Install Type—**Silently preload the driver** is the option to select for users that will be using a direct connection, like a USB cable. A future Plug and Play event will be necessary to install the driver, but all the files will be installed in the Windows driver store by this package for future use.

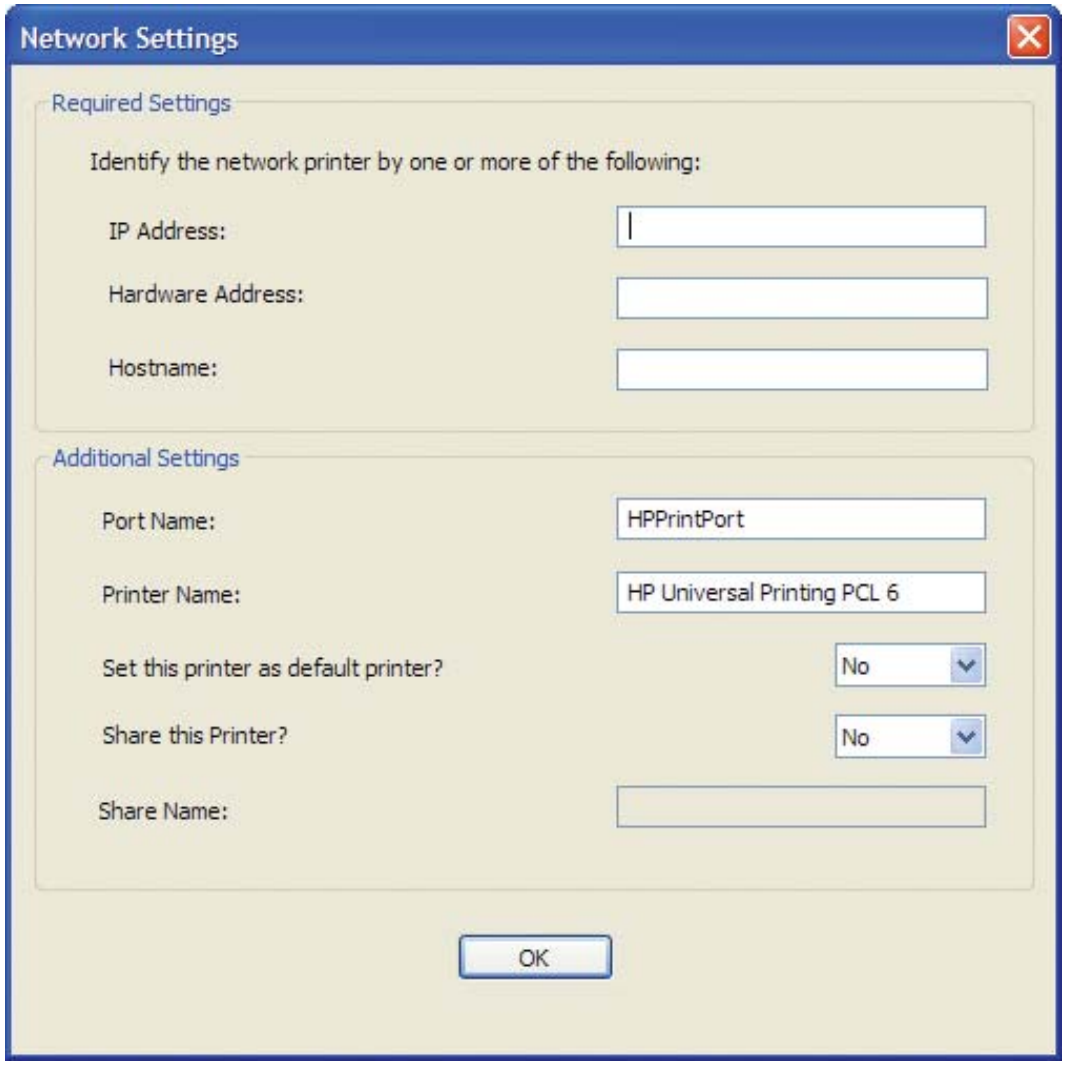
By default the executable runs silently. If you would like to prompt the end user to connect the printer at the end of the install, then select the checkbox **Show a prompt to connect the printer**.

For printers using a network connection, select the **Silently create the network port and install driver** option. The **Network Settings** button will become enabled, and you should click on it to enter the required network settings.

NOTE: If you don't select your driver first, you'll get an error dialog. You must select your driver first so that the printer name can be derived from the driver name.

Network Settings

Figure 4-42 DDU **Network Settings**



You must identify the network printer by one of the following methods. This utility does not communicate with the device to determine if the settings are valid, but does perform syntax checking. The administrator is responsible for identifying the printer with the correct IP address, Hardware address, or Hostname.

- **IP Address** — enter the IPv4 or IPv6 address of the printer.
- **Hardware Address** — enter the hardware address of the printer.
- **Hostname** — enter the hostname of the printer.

The following network settings are additional. You may accept the default values pre-entered or change any of them.

- **Port Name**:This is the network port name that will be created. If the name already exists, a number will be appended to make it unique.
- **Printer Name**: This is the printer name that will appear in the printers' folder. If the name already exists, a number will be appended to make it unique.

- **Set this printer as default**:
  - **Yes** - will make this printer the default when printing from other applications.
  - **No** - will retain the current default, unless this is the only printer installed.
- **Share this printer**: **Yes** - will allow others to use this printer.
- **Share Name**: Share name for the printer. Only enabled if **Share this printer** is **Yes**. If the name already exists, a number will be appended to make it unique.

To exit the Network Settings dialog without saving, use the Windows close button in the upper corner.

Package Target

Use the **Save as** button to enter the name and location for the output package by browsing or typing it in. The utility will create the package in the temp directory and then move it to the final location.

Create Package

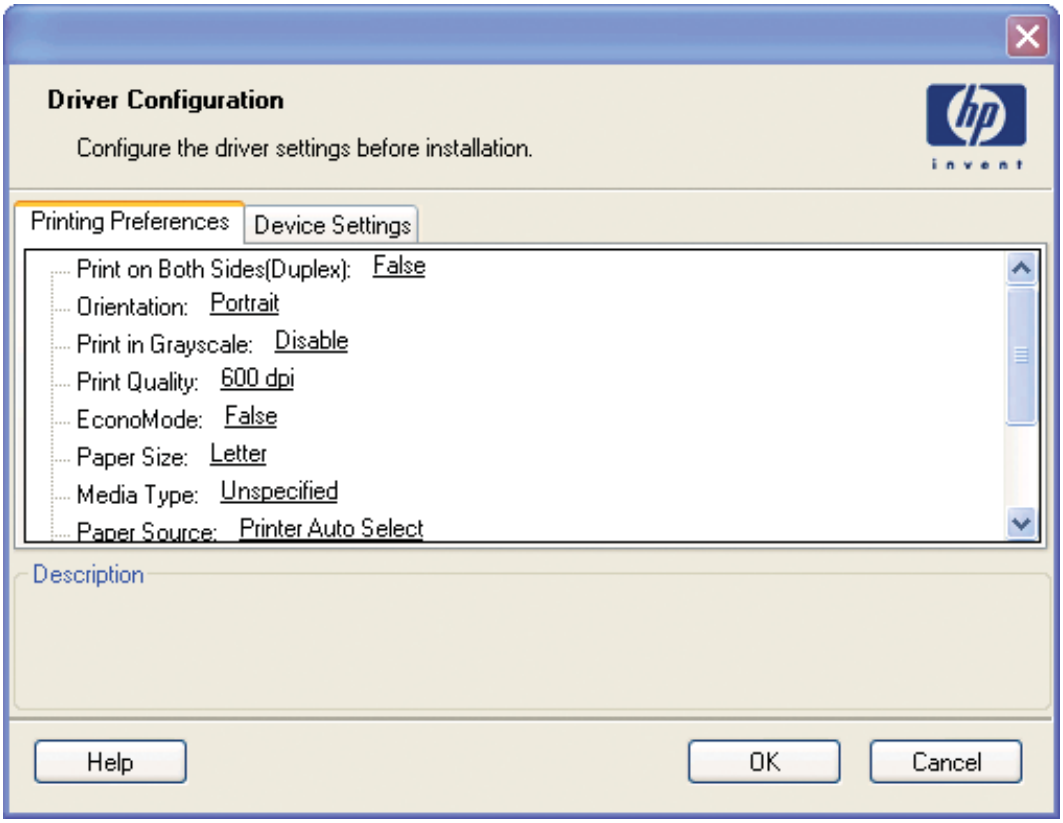
Select the **Create Package** button when you have entered all the above information. This button will be disabled until you have entered the required information. Once selected, the **Cancel** button and Progress bar will be enabled.

To stop the package creation, select the **Cancel** button.

The executable will run silently, unless a user prompt was requested for a direct connect printer. If an error is encountered during execution, an error dialog will appear. To suppress the error dialog, select the **Suppress all end user error messages** checkbox.

If you selected the **Pre-configure this driver** checkbox, the driver configuration dialog will open when you select the **Create Package** button. Once you have configured the driver, select **OK** to save the new configuration settings and continue package creation. Selecting **Cancel** will cancel the entire package creation process.

Figure 4-43 DDU **Driver Configuration** settings



DDU Frequently Asked Questions

How do I use the DDU to deploy a direct connect driver with preconfiguration?

If you load multiple pdls for one printer, the OS will determine which one satisfies the Plug and Play event. The OS will create one printer object for that pdl.

1. Run hpddu.exe to create the package.
2. From Package Source section:
   a. Select the driver to package by browsing to an inf file in the directory.
   b. Select the **Pre-configuration** checkbox. This checkbox is enabled only for drivers that support preconfiguration.
   c. Select the **Silently preload the driver** Install Type.
   d. Select the **Show a prompt to connect the printer** checkbox if you want to prompt the user after the files are copied
3. From **Package Target** section:
   - Three files will be written here: an .exe, a .cab and an .xml with information about the package created.

4. From Create Package section:

   a. If you want to suppress any error messages select the **Suppress all end user error messages** checkbox.

   b. Select the **Create Package** button

   c. The configuration dialog will open and allow you to set configuration details for this driver. After accepting the configuration changes, the package will be created.

5. Run the new .exe from the client machine. You must have administrator rights to run the exe because it will be copying files into the Windows driver store. Now the driver files are on the system, and any user can connect the printer to trigger the plug and play event.

NOTE: The printer object isn't created until the printer is connected.

NOTE: If you deploy multiple direct connect drivers, with preconfiguration, and they all use a pre-config file with the same name, the first one connected will be the only one configured properly. This might happen if you deploy the PCL6 and PCL5 drivers for the same printer. The reason is that the config file is copied to the \3 directory awaiting the printer being connected. Each deployment will just copy over the same config file since they all use the same name. Once the printer is connected, this config file gets consumed and deleted. Future Plug and Play events will not have the config file available.

How do I use the DDU to deploy a network printer with preconfiguration?

1. Run hpddu.exe to create the package.
2. From **Package Source** section:

   a. Select the driver to package by browsing to an inf file in the directory.

   b. Select the **Pre-configuration** checkbox. This checkbox is enabled only for drivers that support preconfiguration.

   c. Select the **Silently create network port and install driver** Install Type.

   d. Select the **Network Settings** button to enter the network settings.

3. From **Network Settings** dialog:

   a. From the **Required Settings** section, enter at least one way of identifying the printer (IP address, Hardware address, or Hostname).

   b. Make any changes to the **Additional Settings** section (port name, printer name, default printer, sharing and share name). You can leave the default settings if you don't need to make changes.

4. From **Package Target** section:

   - Three files will be written here: an .exe, a .cab and an .xml with information about the package created.

5. From **Create Package** section:

    a. If you want to suppress any error messages select the **Suppress all end user error messages** checkbox.

    b. Select the **Create Package** button.

    c. The configuration dialog will open and allow you to set configuration details for this driver. After accepting the configuration changes, the package will be created.

6. Run the new .exe from the client machine. You must have administrator rights to run the exe because it will be copying files into the Windows driver store. A port and printer object will be created with the information provided above.

Common Problems

I get a warning when I select the driver

If we find too many files in the driver directory, or the directory is really large, we display a warning so that the user doesn't accidentally package up something they didn't intend to (like the root directory). Some drivers are really large, and you can choose to ignore this warning and continue.

To minimize package size, each driver should be in its own directory. This is usually the default behavior when you expand a driver.

I get an error when I try to open the "Network Settings" dialog

You need to first select a driver before opening the "Network Settings" dialog. This allows us to fill the printer name field based on the driver name.

The Create Package button is not enabled

This button will not be enabled until you have:

1. Selected the driver.
2. If network connect – filled out one of the required network settings.
3. Selected the **Save as** name and directory.

How do I exit the DDU?

Use the Windows close button in the upper corner.

The Network Settings dialog keeps displaying an error, and I just want out

If you do not want to save settings, or change your mind and don't want a network install, you need to close the network settings dialog with the Windows close button in the upper corner. Using the **OK** button, will try to validate the settings, and that is what is causing an error.

How do I uninstall DDU?

Delete all the files in the root DDU directory.

5 Print queue and print driver management using Web Jetadmin V10.0

Introduction

HP Web Jetadmin V10.0 is a software application for managing print queues and print drivers on remote servers and workstations. Administrators can create, edit, and delete print queues and install or update print drivers by using the Print Management features in HP Web Jetadmin V10.0. HP Web Jetadmin V10.0 can act as a driver repository for deploying new HP drivers on remote systems. HP Web Jetadmin V10.0 Print Management features use HP's Universal Print Drivers.

Overview

Administrators use HP Web Jetadmin V10.0 Print Management to locate a server or workstation on a network. Once a host is located, the administrator adds credentials and can manage the print queues and print drivers on the remote host. Existing print queues on the remote host can have their settings and driver changed and queues can be added or removed.

Support requirements

Supported operating systems

- Windows XP Professional SP2
- Windows Server 2003 Enterprise or R3
- Windows 2000 Server and Professional SP4

NOTE: 64 bit operating systems are not supported at this time.

NOTE: HP Web Jetadmin Print Management features are not supported for managing print queues, print settings or print drivers on a Vista host.

NOTE: HP Web Jetadmin Print Management features are not supported when HP Web Jetadmin is running on a Vista host.

Supported Drivers

- HP device specific drivers
- .INF install
- HP Universal Print Driver (UPD) packaged for HP Web Jetadmin V10.0 (installed through product update)

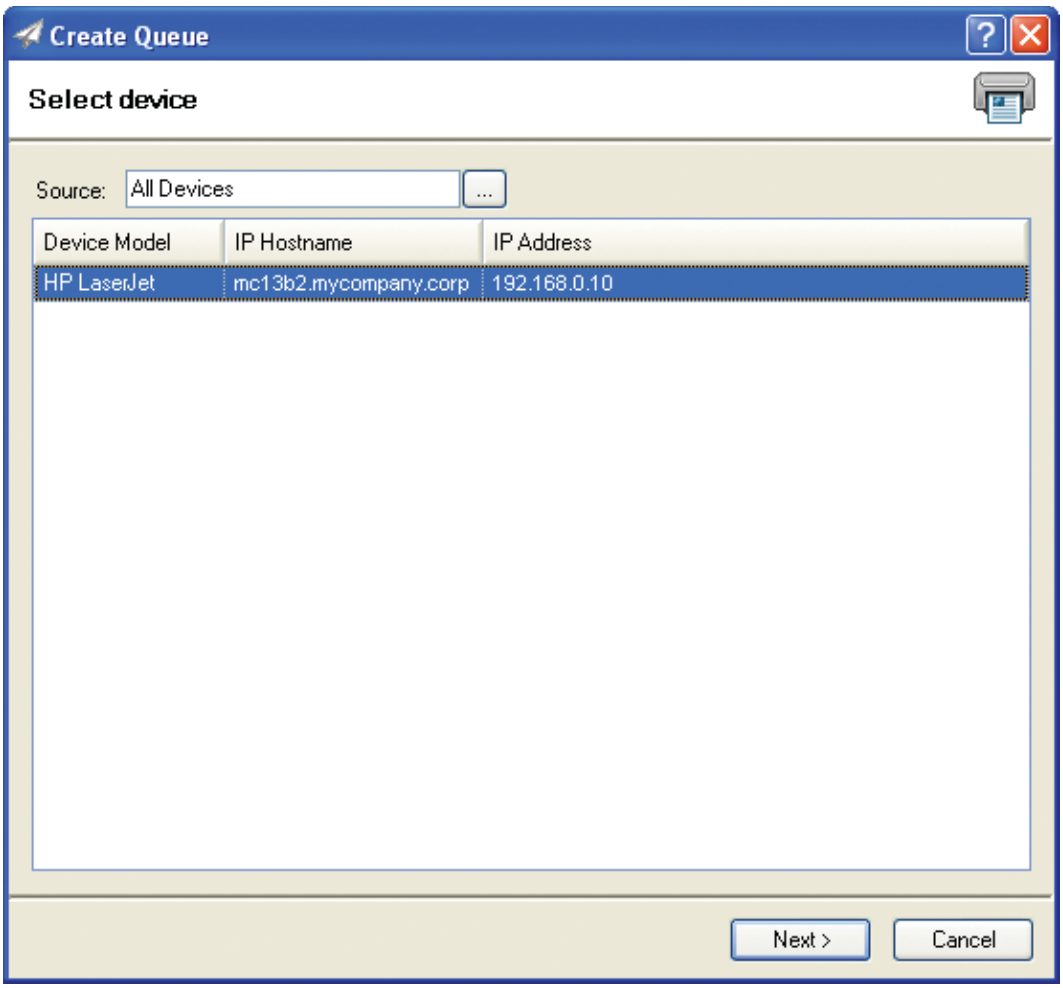
Create a print queue

Local administrator credentials are required on hosts managed by HP Web Jetadmin V10.0 **Print Management** features. You can have these rights in a number of ways.

- You are a domain administrator
- Your user domain account exists in the local Administrator group on the remote host
- You belong to a domain group that exists in the local Administrator group on the remote host. File and printer sharing must be enabled at the remote host where the print queue is to be created

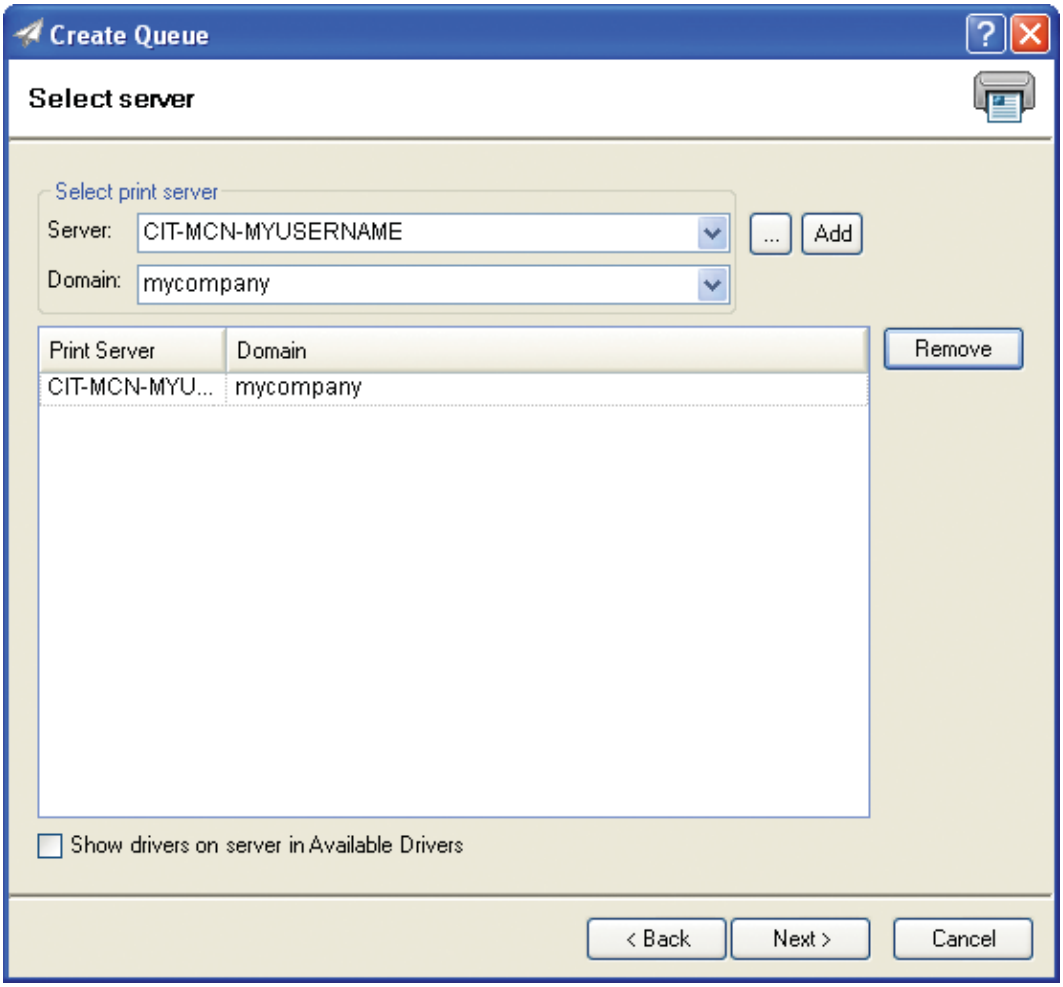
1. In the left navigation pane, click **Print Management** at the bottom of the screen. In the **Print Management - Print Queues** task module, click **New**. The **Create Queue** wizard is started with the **Select device** page displayed.

Figure 5-1 Select device page



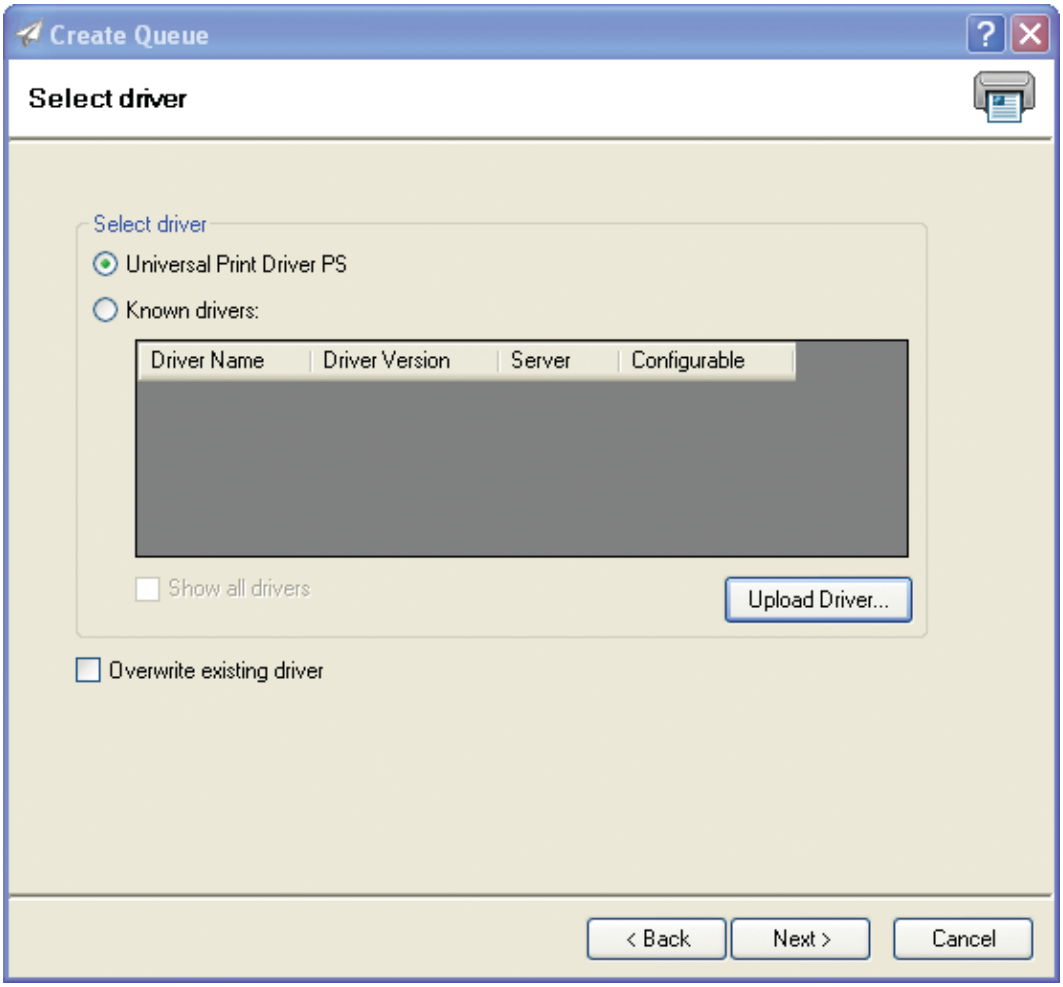
2. Select a device from the list (only one device can be selected). Click **Next**. The **Select server** page is displayed.

Figure 5-2 Select server page



3. Select a server name and a domain. Select **Add** (more than one computer name can be selected). Click **Next**. The **Select driver** page is displayed.

Figure 5-3 Select driver page



4. The **Credentials** wizard is started if there is only one server selected, if the **Show drivers on server in Available Drivers** is checked, and if you have not entered credentials for that server already. Select the print server and then type your credentials and password. Click **Set** and then click **Finish**. The **Select driver** page is displayed.
5. Select the driver:
   - **Universal Print Driver** - an embedded INF installer for the Universal Print Driver is a resident part of the Print Management solution. The Universal Print Driver Post Script is available here as an installed feature. Other Universal Print Drivers can be obtained and installed through the Application Update feature.
   - **Known Drivers** - drivers that are already installed on the remote host or drivers that exist on the HP Web Jetadmin V10.0 server (INF driver install base). These drivers, when identified for use with the print queue, are added to the queue as it is being installed. **Show all drivers**, when checked, enables the display of all drivers, not just the ones that are specific to the selected device.
   - **Upload Driver** - provides a browse path to INF driver installers on the local HP Web Jetadmin V10.0 client host. These driver files must all exist together in the same directory.

6. Type the printer name using Windows naming conventions for print queues. This name must be a unique name on the server.
7. Type the port name. This defaults to the printer's IP Address preceded by IP; it is recommended to leave this as the default but you can change it if necessary.
8. If you want to share this printer click **Share this printer**.
9. The share name defaults to the printer name.
10. You can add a location and any comments. Then click **Next**. The **Confirm** page is displayed.
11. Click **Next**. The **Results** page is displayed.

    If the printer was shared, you can print a test page.
12. Click **Done**. The **Print Management** page is displayed.

Fleet management of print queues

Within the **Print Management** view, HP Web Jetadmin V10.0 has the capability of installing queues and drivers onto multiple remote hosts. This fleet queue creation can be done remotely from the HP Web Jetadmin V10.0 client interface and in a configuration session.

Users of the **Print Management** feature could be IT personnel in school districts. These personnel may have responsibility over desktop print functionality and print devices in remote and wide geographic distribution. On top of the remote distribution problem, large numbers of workstations and different restrictions apply. Consider this problem:

- Each school in the district has obtained a color MFP.
- A dozen to several hundred student workstations could exist in each school.
- Staff are allowed to print color but students are not.
- IT has full administrative access to all of the workstations.

HP Web Jetadmin V10.0 could result in substantial savings in an environment like this one. Preconfiguration could be used on drivers deployed to student workstations. All drivers and queues could be deployed through the **Create Print Queue** tool in a few configuration sessions. Travel to each of the schools could be reduced to a bare minimum.

Create a fleet of print queues

1. Open the **Create Queue** wizard by either right-clicking in the **Print Management** tree or by selecting **Create Print Queue** from the **Print Management - Common Tasks** task module.
2. Select a device from either a group or the All devices listing. Only one device selection is possible. Click **Next**.
3. Select one or more remote hosts using the **Select Server** screen.
4. Select the driver and preconfiguration if it exists.
5. Enter a name for the queue and supply any necessary share information.
6. Click **Confirm**.

Edit a print queue

1. In the left navigation pane, click **Print Management** at the bottom of the screen.

   In the **Print Management - Print Queues** task module, select the print queue and click **Edit**. The **Edit Print Queue** wizard is started with the **Select driver** page displayed.

2. Select the driver:

   To display all drivers (not just the ones that are specific to the selected device), click **Show all drivers**.

   Click **Next**. The **Specify print queue** options page is displayed.

3. If you want to share the printer click **Share this printer**.

4. Click **Next**. The **Results** page is displayed.

5. Click **Done**. The **Print Management** page is displayed.

Delete a print queue

1. In the left navigation pane, click **Print Management** at the bottom of the screen.

   In the **Print Management - Print Queues** task module, click **Delete**. The **Delete Print Queue** wizard is started.

2. Select one of the following to delete:

   - **Driver associated with the print queue**: removes the driver that this queue used.

   NOTE: When selecting **Driver associated with the print queue**, the driver might not actually be removed; this is due to known problems with Microsoft's Spooler system.

   - **Port associated with the print queue**: removes the port that this queue used.

   NOTE: When selecting **Port associated with the print queue**, the port might not actually be removed; this is due to known problems with Microsoft's Spooler system.

   - **Purge jobs associated with the print queue**: removes any queued jobs associated with the queue.

3. Click **Next**. The **Confirm** page is displayed.

4. Click **Next**. The **Results** page is displayed. Click **Done** to display the **Print Management** page.

Driver management

HP Web Jetadmin V10.0 facilitates driver management. Drivers can be added to the HP Web Jetadmin V10.0 host which acts as a driver repository. These drivers are installed on remote hosts where queue management is being performed. The drivers can be removed when they are no longer the latest revision or no longer needed. Drivers, once they are listed in **Available Drivers**, can be preconfigured to contain settings such as duplex-on or grey-scale. Some of these features can be locked. Preconfigured drivers can be applied during print queue management operations or exported to disk as stand-alone INF driver install file sets.

All drivers installed onto remote hosts by HP Web Jetadmin V10.0 are installed using INF driver install file sets. They are not installed with any additional software such as utilities or toolboxes.

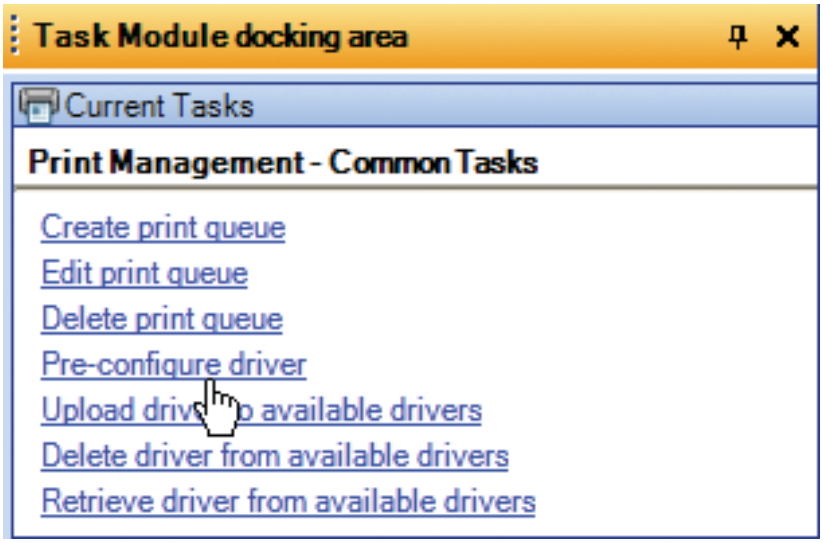
Adding a driver

This functionality can be found in the **Print Management** view in the **Available Drivers** task module. From here, drivers INF install file sets can be uploaded into the HP Web Jetadmin V10.0 host. These drivers can then be installed onto remote hosts through either a print queue **Edit**… or **New**… within the **Print Queues** task module or, through the **Create Print Queue** wizard.

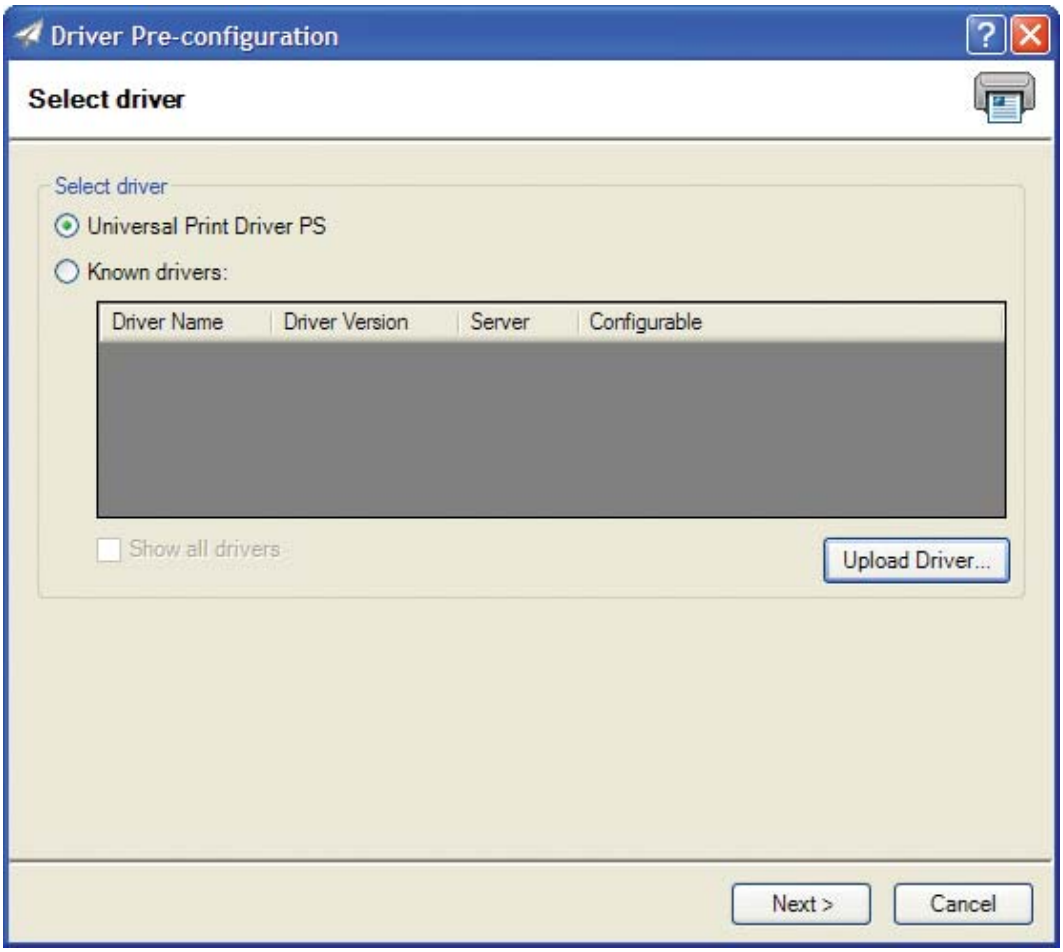
Preconfiguring a driver

1. In the left navigation pane, click **Print Management** at the bottom of the screen.

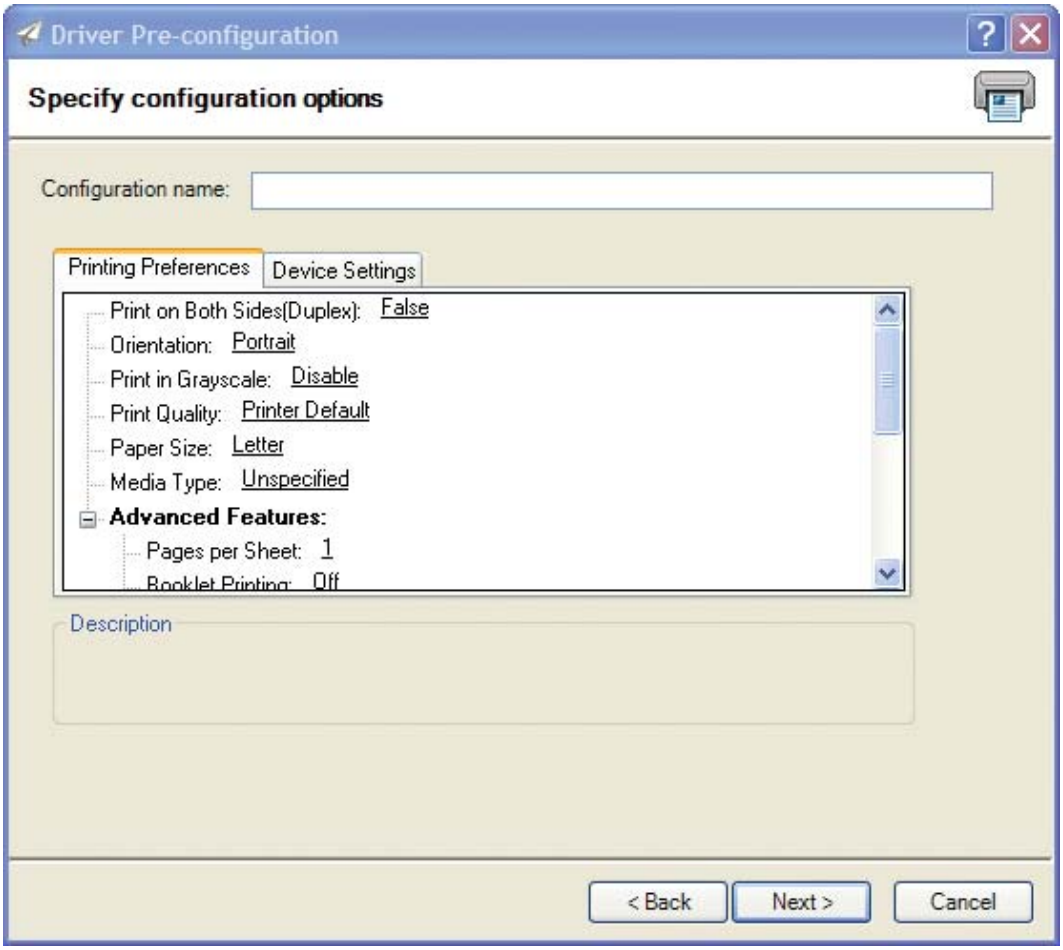
   In the **Print Management - Common Tasks** task module, click **Pre-configure driver**.



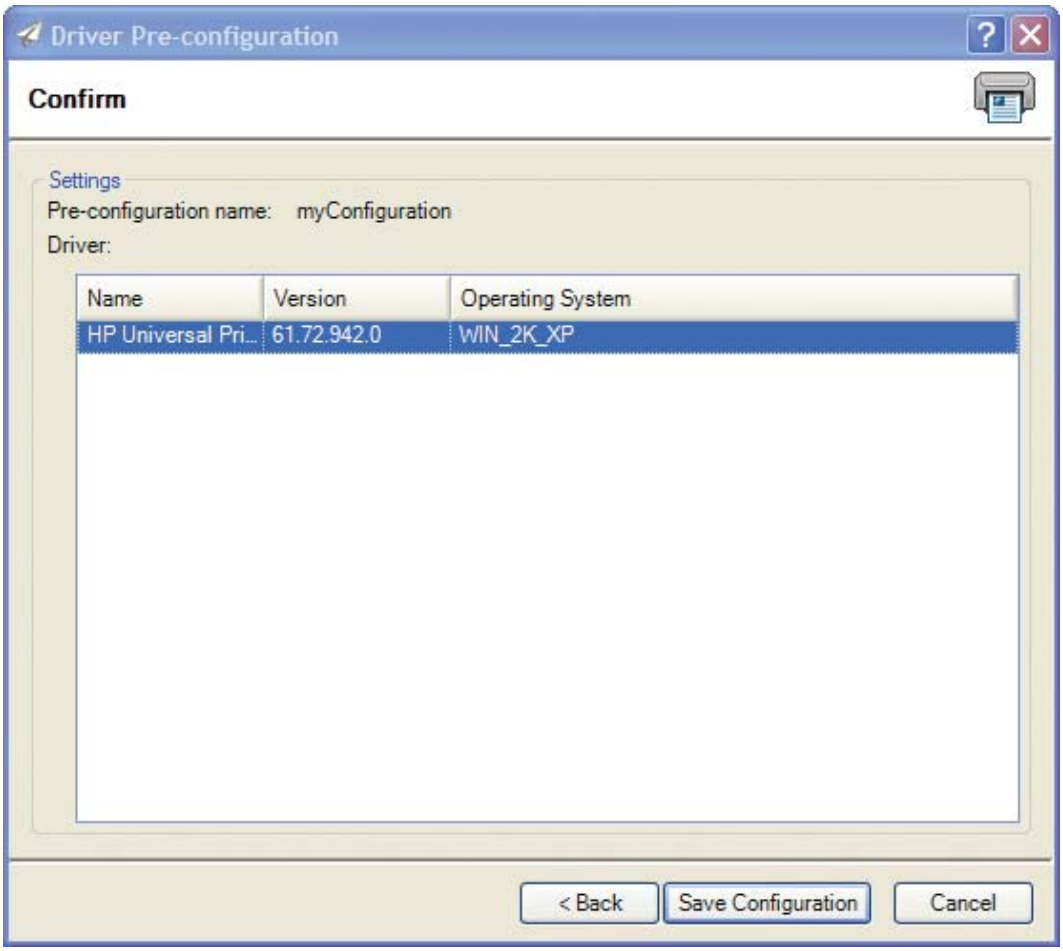
   The **Driver Pre-configuration** wizard is started with the **Select driver** page displayed.



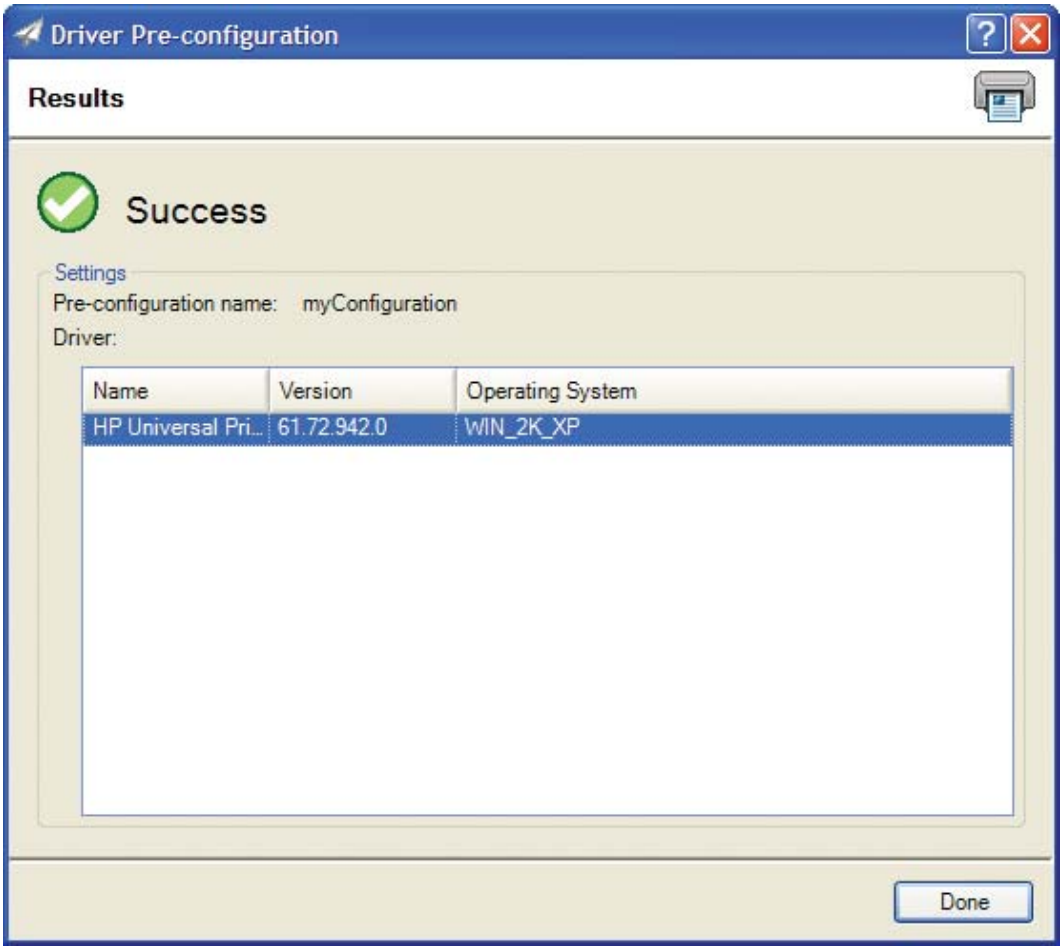
2. Select the driver and click **Next**. The **Specify Configuration Options** page is displayed.



3. Configure the driver settings and name the preconfiguration for the driver; notice that some settings might be locked in which cases you cannot edit them. Click **Next**. The **Confirm** page is displayed.



4. Click **Save Configuration**. The **Results** page is displayed.



5. Click **Done**. The **Print Management** page is displayed.

   The new preconfiguration and the default configuration now exist and can either be exported to an INF driver install file set or used in managing print queues.

Using preconfigured drivers

Within any of the **Edit**…, **New**… or **Create Queue** interfaces, a preconfigured driver selection can be made for HP Web Jetadmin V10.0 host driver selections that have had the preconfiguration performed. When one of these drivers is selected from the **Select Driver, Known Drivers** listing, the **Next** button will advance the tool to the **Select driver pre-configuration** interface. Here the user can choose from either **Default** or any previously stored preconfiguration. This preconfiguration will be applied to the host where print queue management is targeted.

HP Universal Print Driver (UPD)

The HP Universal Print Driver Postscript (UPD-PS) is bundled with HP Web Jetadmin V10.0 software and can be installed from any create or edit queue interface. HP Universal Print Drivers PCL5 and PCL6 can be added to HP Web Jetadmin V10.0 through Product Update in Application Management. The HP Universal Print Driver has preconfigure capability which allows you to specify print defaults such as duplex or grayscale. Some of these defaults can be locked so that users must always use certain features such as duplex. When HP Web Jetadmin V10.0 creates a queue using the HP Universal Print Driver, the driver and printer (specified in HP Web Jetadmin V10.0) are installed in traditional mode. This means that the printer and driver have none of the special HP Universal Print Driver features that are available when this driver is installed from install.exe when downloaded from http://www.hp.com.

Retrieving a print driver

1. In the left navigation pane, click **Print Management** at the bottom of the screen.

   In the **Print Management - Available Drivers** task module, click **Retrieve**. The **Get Driver** wizard is started with the **Select driver** page displayed.

2. Select the driver:

   - **Universal Print Driver**
   - **Known Drivers**: drivers that are already installed on the remote host or drivers that exist on the HP Web Jetadmin 10.0 server (INF driver install base). These drivers, when identified for use with the print queue, are added to the queue as it is being installed.

   To display all drivers (not just the ones that are specific to the selected device), click **Show all drivers**.

   Click **Next**.

3. Select the driver and the pre-configuration for the driver and click **Next**. The **Specify destination settings** page is displayed.
4. Select a folder for the driver and click **Next**. The **Confirm** page is displayed.
5. Click **Start**. The selected driver is copied to the destination specified in the preceding step.
6. Click **Done**. The **Print Management** page is displayed.

www.hp.com