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# Enterprise Install for HP Officejet Pro 8500A and 8600 Printers

This document provides information to enterprise administrators about how to customize the install of HP Officejet Pro 8500A and 8600 printers. It includes how to select what gets installed and how to deploy to target PCs using a script to control the install.

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This document provides information to enterprise administrators about how to customize the install of HP Office jet Pro 8500A and 8600 printers. It includes how to select what gets installed and how to deploy to target PCs using a script to control the install. It also includes instructions for reducing the size of the deployed package and information about firewall requirements and other technical details.

#### Install Overview

Customizing the install requires building an install image, deploying it to target PCs, and installing the printer. The key steps are:

- Step 1. Copy the driver and software files into a folder so you can work on them. (See <u>Bundle Files for Installing on Client</u> <u>PCs.</u>)
- Step 2 (optional). Eliminate unwanted files. (See <u>Creating a Smaller Install Image.</u>)
- Step 3. Create a command to select features and customize the installation. (See <u>Feature Selection</u> and <u>Configuring</u> <u>the Install</u>.)
- **Step 4.** Collect the files for distribution.
- Step 5. Install the software and drivers on client PCs. (See <u>Installing Drivers on Client</u> <u>PCs</u>.)
- Step 6. Connect client PCs to the printer. (See <u>Installing a USB Connected Printer</u> and <u>Installing a Networked Printer</u>.)

#### Bundle Files for Installing on Client PCs

The first step in customizing the install is to create a folder for the install files and then copy the files into it so you can work on them. You can find the files on the CD that came with the printer. You can also download the driver from hp.com then extract files using a file decompression program such as 7-Zip. To find the driver, go to <u>HP.com</u>, search for the printer, select "Software & drivers downloads", and then select "HP Officejet Pro Full Feature Software and Driver." To install the software that supports the printer, the appropriate MSI must be installed. The MSI will install all supporting software and preinstall the drivers for the printer, so that drivers will be available when the printer is plugged into the PC or a network printer is installed.

There are two MSIs at the root of the CD image, one with an x86 suffix and one with an x64 suffix. The MSI will have the product's model number as the name of the MSI, for example A910nx86.msi and A910nx64.msi. The x86 MSI is to be installed on 32 bit versions of Windows and the x64 MSI is for x64 versions of Windows.

#### Creating a Smaller Install Image

This section describes how to remove files from the release image. Create a batch file in your development system to do the customization. The easiest way is to copy the script in <u>Appendix A</u>, paste it into a file, and name the file "custom.bat". Open a command prompt to the folder containing the release image and run the batch file from that directory. The batch file will ask a few questions and then delete any files that are not necessary. For an English only image, use 1033 as the language ID. See <u>Appendix B</u> to learn what the files are if you would like to customize the CD image without using the batch file.

#### Using Msiexec to Install a MSI

You may use your favorite tool to install the MSI onto client PCs. However, if you choose to use msiexec.exe, we have provided common command parameters that may be helpful.

Installing an MSI may be done by passing the path to msiexec with the /i parameter:

msie xec.e xe /i D:\A910nx86.msi (where D is the path to the msie xec file)

The following sections, summarized in <u>Appendix</u> <u>C</u>, describe common parameters that may be helpful.

- To set the language of the shortcuts that are installed to something other than English, see <u>Language Section</u>.
- To turn off certain features in the software so they are not installed, see <u>Feature Selection</u>.
- To make it easier to customize the install, see <u>Configuring the Install</u>.

Microsoft's website provides more thorough documentation at <u>http://technet.microsoft.com/en-</u> us/library/cc759262(WS.10).aspx.

Please refer to the Microsoft documentation for further questions. In the event that anything described in this paper conflicts with Microsoft documentation, it should be assumed that the Microsoft documentation is correct.

#### Language Selection

Almost all of the files that are installed support MUI and therefore have all language resources included. However, the shortcuts that are installed are language specific. By default, the shortcuts are installed in English. To change the language, use <u>Appendix D</u> to determine the language id and include it on the command line when installing the MSI. The transforms are named the same filename as the MSI followed by an underscore and the language id. For example, to change the language to Spanish use:

msiexec.exe /i A910nx86.msi /qn TRANSFORMS=A910nx86\_1034.mst

#### **Feature Selection**

This section describes properties that can be set when installing the MSI that will turn off certain features in the software so that they are not installed. To see parameters that make it easier to configure the install of the HP MSIs, see <u>Common</u> <u>Msiexec Command Line Parameters</u>. All MSI properties are summarized in Appendix C.

#### **Enterprise or Full Install**

By default, the MSI will install all of the software that is available. A minimum set of software and

drivers has been selected for deployment in enterprise environments. To enable the minimum software solution, set the ENTERPRISE property to "YES" during the install. For example, if using msiexec.exe:

#### msiexec.exe /i A910nx86.msi /qn ENTERPRISE=YES

By default, the Fax driver (to support print-to-fax) will be installed. To turn off this feature (and instead install a small driver that will not create a fax printer), set the FAX property to "NO" during the install. For example, if using msiexec.exe:

msiexec.exe /i A910nx86.msi /qn ENTERPRISE=YES **FAX=NO** 

#### Uninstall Shortcut in the Start Menu

By default, a shortcut will be created in the Windows Start menu to uninstall the software and drivers. To disable this shortcut, set the UNINSTALL\_SHORTCUT property to "NO" during the install. For example, if using msiexec.exe:

msiexec.exe /i A910nx86.msi /qn ENTERPRISE=YES **UNINSTALL\_SHORTCUT=NO** 

#### "Connect a New Printer" Shortcut in the Start Menu

By default, a shortcut will be created in the Windows Start menu to allow the user to add a new printer. This shortcut can be disabled by setting the

CONNECT\_NEW\_PRINTER\_SHORTCUT to "NO" during the install. For example, if using msiexec.exe:

msie xec.e xe /i A910n x86.msi /qn ENTERPRISE=YES **CONNECT\_NEW\_PRINTER\_SHORTCUT=NO** 

#### Hide the Scan to PC Activation Option

By default, and during a Network installation, the user will have the option to activate the "Scan to Computer" option (also known as "Walk up Scan"). This will allow users to push the scan button on the printer and direct the scan to a computer. With "Scan to Computer" enabled, a process runs on the PC that registers the PC with the printer, so that computer is available as a scan destination when the user hits the scan button from the printer's front panel. The process on the PC stays running and listening for scan requests from the printer.

The SCANTOPC command exists for administrators who don't want the HP Scan Activation process running on the client PCs and don't want their users to have to make the choice whether to allow the app to run. This activation option may be disabled by setting the SCANTOPC parameter to "NO" during install. For example, if using msiexec.exe:

#### msiexec.exe /i A910nx86.msi /qn SCANTOPC=NO

#### Configuring the Install

This section documents some useful common msiexec.exe parameters that make it easier to configure the install of the HP MSIs. These parameters are summarized in <u>Appendix C.</u>

The following document at Microsoft's website provides more thorough documentation of msiexec: <u>http://technet.microsoft.com/en-</u> us/library/cc759262(WS.10).aspx.

Please refer to the Microsoft documentation for further questions. In the event that anything described in this section conflicts with Microsoft documentation, it should be assumed that the Microsoft documentation is correct.

#### Specifying Logging

Logging can be enabled on the command line by passing the /l parameter followed by the logging options and then the log filename:

msiexec.exe /i A910nx86.msi /**I\*v** C:\Logs\A910\_Install.log

\*v as the log level will give a full, verbose log. For more detailed explanations of the log levels, please see the following Microsoft web page: <u>http://technet.microsoft.com/en-</u> <u>us/library/cc759262(WS.10).aspx</u>

#### Specifying the UI Level

The UI level can be specified using the /q parameter. This will determine whether any UI is shown and whether Windows Installer will show any prompts to the user (for reboots or error messages, for example). There is no authored UI in the HP MSIs, so the basic UI will be used without specifying any value. This parameter can still be used to suppress all UI and any prompts.

#### msiexec.exe /i A910nx86.msi /qn

#### Common UI Levels:

| Parameter | Description             |  |
|-----------|-------------------------|--|
| qn        | No UI and no prompts    |  |
| qb        | Basic UI (progress bar) |  |
| qb-       | Basic UI and no prompts |  |

#### **Reboot Suppression**

Use the REBOOT property to specify how Windows Installer deals with reboots at the end of install. Use REBOOT=ReallySuppress to suppress all reboot requests. Msiexec.exe will still return 3010 if a reboot is required.

msie xec.e xe /i A910n x86.msi **REBOOT=ReallySuppress** 

#### **Plug and Play Suppression**

The installer will support adding a registry value that will instruct Windows to ignore the serial number when plug and playing a USB printer (for the printer model being installed). This will allow an enterprise to service a USB printer at a user's desk and return a printer with a different serial number which, when connected to the PC, will appear as if it were the same printer to the user.

To enable this feature, set the property IGNORE\_SERIALNUM to YES. For example, if using msiexec.exe:

msiexec.exe /i A910nx86.msi /qn ENTERPRISE=YES **IGNORE\_SERIALNUM=YES** 

#### Installing Drivers on Client PCs

Create a zipped script and files to deploy to client PCs. The following is an example of a script: msiexec.exe /i A910nx86.msi /qn /l\*v C:\A910\_Install.log ENTERPRISE=YES FAX=NO SCANTOPC=NO REBOOT=ReallySuppress

This script will:

- Suppress the UI and all prompts (/qn)
- Create an install log file at C:\A910\_Install.log
- Install a minimum set of software and drivers (ENTERPRISE=YES)
- Not create fax printers (FAX=NO)
- Hide the scan to PC option
- Suppress all reboot requests (REBOOT=ReallySuppress

#### Installing on Windows Servers

If installing on Windows Server 2003 or 2008, some of the software and driver features may not function properly without configuring the features of the server.

If the device being installed supports scanning, then the following must be considered for scanning to work. Otherwise, the "Scan" icon on the desktop will appear to do nothing.

- On Windows Server 2003, the Windows Image Acquisition (WIA) service is installed but is disabled by default. For scanning to work, the WIA service must be enabled.
- On Windows Server 2003 R2, the Windows Image Acquisition (WIA) service is installed but is disabled by default. For scanning to work, the WIA service must be enabled.
- On Windows Server 2008, the Windows Image Acquisition (WIA) service is not installed by default. For scanning to work you must install the "Desktop Experience"

feature. The WIA service will then be enabled by default.

 On Windows Server 2008 R2, the "Desktop Experience" feature must be installed before plug and playing a USB

#### Log Files for DeviceSetup.exe

DeviceSetup.exe is the application that sets up and maintains the information about installed printers. DeviceSetup.exe can run from a command line or be scripted.

Each execution of DeviceSetup.exe generates a new log file. These logs pertain to everything DeviceSetup does, so they can be useful for troubleshooting.

For Vista and Win 7, the log file is at

C:\Users\<NTUserAccount>\AppData\Local \HP\AtInstall\<execution#>\DeviceSetup.lo g

For XP the log file is at

C:\Documents and Settings\<NTUserAccount>\Local Settings\Application Data\HP\AtInstall\<execution#>\DeviceSetu p.log

#### Installing a USB Connected Printer

Connecting a printer to a USB port is relatively straightforward. After the driver is installed, connect the printer to a USB port and turn on the printer to start Plug and Play.

#### Installing a Networked Printer

This section describes the steps to install a network device on a client PC.

- Step 1. Ensure the software package (MSI) has been installed on the client PC.
- Step 2. Make sure the device you want to install is already on the network and has a valid IP address. For WiFi devices, this

should have been done by the Wireless Wizard on the front panel, or could have been configured using the Embedded Web Server (EWS) with an Ethernet cable plugged into the unit.

- Step 3. Write down the IP address or hostname of the network device that you want to install.
- Step 4. Using an administrator account, run the following command on the target PC to start the network install process:

START /WAIT /D"C:\Program Files\HP\<Product Name>\Bin" DeviceSetup.exe /networkaddress <ip address or hostname>

NOTE: On Vista and Windows 7, the above command must run from an elevated process when UAC is enabled.

This starts a process that attempts to find and install the network device using the specified IP address or hostname. The entire process is done silently without displaying any UI. If the install is successful, it will return a value of 0; otherwise, it will return a non-zero error code.

#### **Potential Issues**

The following is a list of potential issues that might cause the install to fail:

- A firewall could be blocking the installer from communicating with the network device. If the target PC is running a firewall, make sure the firewall allows the installer process (DeviceSetup.exe) to establish a TCP connection to the network device. See the <u>Firewall Requirements</u> section that describes which processes need to be allowed access through a firewall.
- The hostname may not be resolving to a valid IP address. If you are using the device hostname to install, make sure there is a name resolution service (e.g., DNS, WINS) running on the network that can resolve the hostname to a valid IP address.

- DeviceSetup.exe could be failing on Vista/Windows7 due to UAC. Make sure you run DeviceSetup.exe in elevated mode when UAC is enabled.
- You may have entered an incorrect IP address or hostname. Make sure you specify the correct IP address or hostname in the command line.
- The printer may be turned off or off the network. Check that the printer is plugged in and turned on. If the printer is connected to the network over Ethernet cable, check the cable and its connection. If the printer is connected wirelessly, ensure that the printer is still connected to the network.

#### **Multicast Discovery**

The normal behavior for HP printer software is that it discovers (and rediscovers) printers on the network using web services discovery, which sends multicast UDP packets. In the enterprise release, the software will use only unicast UDP or TCP packets to attempt to relocate the printer after it has been installed. This will enable the software to function properly on a network where multicast is disabled. This also results in the software being unable to find and use the device if the IP address changes and the printer's hostname won't resolve the IP address.

Multicast rediscovery can be re-enabled in the software by changing the config.ini file that gets installed to C: \Program Files\HP\<Model Name>\config.ini. In that file you will find a section like the following:

[Discovery] Multicast=false

Changing the "multicast" value to "true" will allow the software to relocate the device whenever the IP address changes by using multicast discovery. However, the software will no longer function on a network with multicast disabled or if a firewall is blocking outgoing multicast packets or incoming responses. At install time, this value can be changed by setting the MULTICAST property to YES (the default is NO).

#### **Off-Subnet Devices**

The process described in the section <u>Installing a</u> <u>Network Printer</u> is the same process to install a printer that is on a different subnet than the PC on which it is being installed. Follow those instructions to install such a printer. However, since the printer is installed on a different subnet than the PC, the client PC cannot rediscover the printer if the IP address or hostname of the printer changes. The section below describes how to update the client PC if the IP or hostname of the printer is changed.

#### Updating the Software to Use a New IP Address

The IP address or host name of a network device can change after the device has been installed on the PC. In the case of an off-subnet device, the software cannot always detect the new IP address or host name of the device. This section describes the steps on how the user can update the IP address or host name for an installed device.

A shortcut to the tool is in the start menu:

# Start -> Programs -> HP -> [device model name] -> Update IP Address

Clicking on this shortcut will open the tool. If there are multiple instances of the device installed you may be presented with a dialog asking you to choose which device you want to update the IP for. After you choose the device you want to update, you will be presented with the screen to the right.

Entering an IP in the field will enable the "Search" button which can be used to make sure the IP is correct. The "Save" button will also be enabled once an IP is entered. Clicking on this button will save the IP in the field and the installed software will then use the new IP. Please note, searching and not saving will not update the IP. You must click "Save" to actually update the IP address.

#### Command Line Tool to Update IP Address of Installed Printer

Instead of launching the shortcut from the Start menu and using the UI to update the IP address, DeviceSetup.exe can be run from a command line or scripted to update the IP address of an installed printer. Using an administrator account, run the following command on the target PC to change the IP address of a network installed device:

START /WAIT /D"C:\Program Files\HP\<Product Name>\Bin" DeviceSetup.exe /serialnumber <device serial number> /changeip <new ip address>

NOTE: On Vista and Windows 7, the above command must run from an elevated process when UAC is enabled.

This starts a process that attempts to find the network installed device with the given serial number and change it to use the new IP address. The entire process is done silently without displaying any UI. If the operation is successful, it will return a value of 0; otherwise, it will return a non-zero error code.

| Update HP Software with Printer IP Address   |              |  |
|--|--------------|--|
| If the IP address of your printer has changed, your HP software may not work properly.<br>Enter your printer's current IP address below, and click Save to update your software. To<br>test your printer connection, click Search. |              |  |
| Printer's previous IP address: 192.168.1.110<br>Printer's current IP address:  |              |  |
|  | · · · Search |  |
|  |              |  |
|  | Save Cancel  |  |

#### Command Line Tool to Update Hostname of Installed Printer

Using an administrator account, run the following command on the target PC to change the host name of a network installed device:

START /WAIT /D"C:\Program Files\HP\<Product Name>\Bin" DeviceSetup.exe /serialnumber <device serial number> /changehostname <new hostname>

NOTE: On Vista and Windows 7, the above command must run from an elevated process when UAC is enabled.

This starts a process that attempts to find the network installed device with the given serial number and change it to use the new host name. The entire process is done silently without displaying any UI. If the operation is successful, it will return a value of 0; otherwise, it will return a non-zero error code.

#### **Potential Issues**

The following are potential issues that might cause the update to fail:

#### DeviceSetup.exe could be failing on

**Vista/Windows7 due to UAC**. Make sure you run Device Setup.exe in elevated mode when UAC is enabled.

You may have entered an incorrect serial number. Make sure you specify the correct serial number for the network device in the command line.

#### **Firewall Requirements**

When installing a network device, the HP software and drivers must communicate with the printer over the network. Firewall software may interfere with this communication. If so, rules must be added to any fire wall software to allow the following applications to communicate with devices on the local subnet:

{Program Files}\HP\{Model
 Name}\bin\HPNetworkCommunicator.exe

Most of the data transfer between the computer and the device will be done over HTTP (typically port 80 or port 8080). Printing also uses a TCP connection on ports 3910 and 9100. In most cases firewall will allow this type of traffic through without any problems. If your firewall software does not, then a rule must be created for our software to communicate to the device.

We use Web Services Discovery to find and establish communication with our devices.

Other parts of our solution communicate with the device via HTTPS (this will usually be port 443 or 8443). In most cases firewalls will let this type of traffic through without any problem. The applications that will be affected if this traffic was blocked are:

- {Program Files}\HP\{Model
   Name}\bin\DigitalFaxWizard.exe (if using print to fax)
- {Program Files}\HP\{Model
   Name}\bin\ScanToFolderWizard.exe
- {Program Files}\HP\{Model
   Name}\bin\ScanToEmailWizard.exe

#### **Technical Details**

#### Web Services Discovery (WSD)

The HPNetworkCommunicator.exe uses Web Services Discovery (WSD) to communicate with our devices during and after installation. When searching for a device we send either multicast or unicast UDP packets. Once the device receives the probe it will respond to the software on a port in Microsoft Windows's ephemeral port range 49152-65535 with pertinent information.

#### Search Protocols (UDP/TCP)

When searching for a list of device, WSD initiates a multicast (UDP) probe to IP 239.255.255.250 at port 3702. Once the device is installed and before every device operation, for example, print, scan, or fax, we check to see if communication can be established. We call this action "rediscovery"; to do the rediscovery WSD sends a multicast UDP packet to resolve the IP address of the device. When searching for a device using the IP address WSD creates a TCP socket over port 80. This is usually on done under specific circumstances. See below.

#### Windows XP Users.

Windows XP does not support the standard WSD protocol. We have developed an internal solution that operates almost identically to the way it's implemented for Windows Vista and Windows 7. The main difference is when you are searching for a device by IP address. For an IP address initiated search under XP we will send out unicast UDP probes.

#### Installing by Providing an IP Address.

If you are installing via the command line and you provide an IP address to the command line we will use the IP address to find your device. However, for rediscovery purposes we will attempt a unicast UDP probe or a TCP connection (to port 80). Your firewall software may block this type of activity. You will have to create a rule for the HPNetworkCommunicator.exe for it to establish communication.

If you are installing via the graphical user interface and your device cannot be discovered through the multicast probe method, you will have the option to install the device by providing the IP address. If you get the option of installing by IP this means that either your firewall is blocking the traffic or your network does not support multicasting. From the software's perspective it's the same thing. If it is a firewall issue and your device is on the same subnet as the computer we recommend creating rules in your firewall software to allow for multicast probes from the HPNetworkCommunicator.exe. See Multicast Discovery for more information.

#### Compatibility with the Full Software Solution

The software solution for enterprises is simply a configuration of the full software, so the software installer behaves as if the enterprise software is the same as the normal software solution, specifically, if either is already installed, the software will believe that the software is already installed.

<u>Appendix E</u> shows some specific scenarios and describes the behavior of the software that is deployed in enterprises when an end user also has a full software solution for a printer.

#### Appendix A: Batch File for Creating a Small Release Image

@echo off echo Creating Enterprise Release echo This will delete files in the current directory to create the release. echo Press Ctrl+C now if this is not what you want to do pause SET /P FAX="Indude FAX? [Y | N] " SET /P PLATFORM="32 bit, 64 bit, or Both? [32 | 64 | Both] " SET /P LANGUAGE="Specify Language ID or All? [{LanguageID} |All] " rmdir /Q/S Optional rmdir /Q/SHP rmdir /Q /S Microsoft rmdir /Q /S Toolbar rmdir /Q /S Required rmdir /Q /S licensing del /F /Q Full \*.cab del /F Setup.exe del /F HP-DQEX5.exe del /F autorun.inf del /F ReadMe.chm if "%FAX%"=="N" ( pushd Drivers rmdir /Q /S Fax popd del /F /Q HP\*\_fax.inf del /F /Q HP\*\_fax\*.cat ) ELSE ( REM The nullfax driver might be inside of the MSI in K3.5/K4, but we'll try to remove it anyway del /F /Q HP\*\_nullfax\*.inf del /F /Q HP\*\_nullfax\*.cat ) if "%PLATFORM%"=="32" ( del /F /Q \*x64.msidel /F /Q \*x64.cab del /F /Q  $*x64_*$ .mst if "%PLATFORM%"=="64" ( del /F /Q \*x86.msidel /F /Q \*x86.cab del /F /Q \*x86\_\*.mst ) if "%LANGUAGE%"=="All" GOTO :SKIP\_LANGUAGES FOR %%F in (\*%LANGUAGE%\*.mst) DO ren "%%F" "%%~nF.\_mst" del /F/Q \*.mst FOR %%F in (\* .\_mst) DO ren "%%F" "%%~nF.mst" :SKIP LANGUAGES echo All Done!

#### Appendix B: CD Image File Descriptions

The following tables describe the files that are on the CD image and when they are required. This will allow an administrator to set up an image that contains only the files necessary for the specified install. See <u>Creating a Smaller Install Image</u> if you would rather use a batch file to remove unnecessary files.

| File                     | Description   |
|--------------------------|---|
| i386 (folder)            | Folder containing 32 bit print driver files (required for installs on all PCs –64 bit & 32 bit computers) |
| AMD64 (folder)           | Folder containing 64 bit print driver files (required for installs on all PCs –64 bit & 32 bit computers) |
| Hp_*.gpd                 | Print driver file   |
| HPMACRONAMES.gpd         | Print driver file   |
| Hpvpl04.inf              | Print driver file   |
| Hpvpl04.ini              | Print driver file   |
| Hpvpl04.cat              | Print driver file   |
| Hpvplargb.icc            | Print driver file   |
| Locale.gpd               | Print driver file   |
| Pl.bmp                   | Print driver file   |
| STDNAMES.gpd             | Print driver file   |
| Drivers\Scanner (folder) | Folder containing scan driver files   |
| HPScanMiniDrv_*.inf      | Scan driver file  |
| HPScanMiniDrv_*.cat      | Scan driver file  |
| Drivers \Fax (folder)    | Folder containing fax drivers (required if installing fax)  |
| HP*_fax.inf              | Fax driver file (required if installing fax)  |
| HP*_fax*.cat             | Fax driver file (required if installing fax)  |
| HP*_nullfax.inf          | Replacement driver for Fax (required if <u>NOT</u> installing fax)  |
| HP*_nullfax*.cat         | Replacement driver for Fax (required if <u>NOT</u> installing fax)  |

#### Software Installer (MSI)

| Name               | Description   |  |
|--------------------|---|--|
| Utils (folder)     | Folder containing required utilities  |  |
| HP (folder)        | Folder containing Solution Center packages ( <b>required if installing full software and/or installing on Windows XP or Vista</b> ) |  |
| Microsoft (folder) | Folder containing Device Stage packages (only required if installing full software)   |  |

| Name                                       | Description  |  |
|--|--|--|
| <modelnumber>[x86 x64].msi</modelnumber>   | Software installer MSI, cab, and language transforms                     |  |
| <modelnumber>[x86 x64].cab</modelnumber>   | x86 – for 32 bit versions of Windows                                     |  |
| <modelnumber>[x86 x64]_*.mst</modelnumber> | x64 – for x64 versions of Windows  |  |
| Full_[x86 x64].cab                         | Software install cab file for full solution (only required if installing |  |
|  | full software)   |  |
|  | x86 – for 32 bit versions of Windows                                     |  |
|  | x64 – for x64 versions of Windows  |  |
| ErrorReporter.exe                          | Required utility files   |  |
| HPCommunication.dll                        |  |  |
| HPCommunication.X.manifest                 |  |  |
| HPeDiag.dll                                |  |  |
| HPeDiag.X.manifest                         |  |  |
| HPeSupport.dll                             |  |  |
| HPeSupport.X.manifest                      |  |  |
| HPScripting.dll                            |  |  |
| HPScripting.X.manifest                     |  |  |
| InstallMetrics.dll                         |  |  |
| InstallMetrics.X.manifest                  |  |  |
| InternetUtil.dll                           |  |  |
| InternetUtil.X.manifest                    |  |  |
| RulesEngine.dll                            |  |  |
| RulesEngine.X. manifest                    |  |  |

## **Optional Files**

| Name  | Description   |  |
|---|---|--|
| Toolbar (folder)                                    | Folder containing the Microsoft Live Toolbar installer  |  |
| Required\lp <modelnumber>*</modelnumber>            | Installer for Product Help  |  |
| Optional \ <modelnumber>U[x86   x64]*</modelnumber> | "Product Improvement Study" MSI, cab, and language<br>transforms (x86 is 32 bit version, x64 is 64 bit version) |  |
| Optional\HP Update*<br>Optional\Data1.cab           | HP Update MSI, cab, and language transforms   |  |
| Optional \IrisOCR*                                  | Optical Character Recognition software (for scanning text)  |  |
| Optional\Marketsplash_setup.msi                     | Marketsplash installer  |  |
| Readme.chm  | Readme documentation  |  |
| Setup.exe   | Installer (not required when installing the MSI without UI)   |  |
| HP-DQEX5.exe  | Installer (not required when installing the MSI without UI)   |  |

#### Appendix C: MSI Property Reference Table

This reference table summarizes the properties that are described in more detail in the sections <u>Feature</u> <u>Selection</u> and <u>Configuring the Install</u>.

The following Microsoft website provides more thorough documentation of msiexec: <u>http://technet.microsoft.com/en-us/library/cc759262(WS.10).aspx</u>. Please refer to the Microsoft documentation for further questions. In the event that anything described in this section conflicts with Microsoft documentation, it should be assumed that the Microsoft documentation is correct.

| Property Name                    | Values   | Description   | Default<br>Value |
|----------------------------------|--|---|------------------|
| CONNECT_NEW_PRINTER_<br>SHORTCUT | YES<br>NO  | Selects whether to install the Start menu shortcut to add a new printer   | YES              |
| ENTERPRISE                       | YES<br>NO  | Selects whether to install the full software<br>(NO) or the minimum software for<br>enterprise (YES)  | NO               |
| FAX                              | YES<br>NO  | Selects whether to install the print-to-fax<br>driver or not.<br>If FAX=YES and ENTERPRISE=NO, the fax<br>software is also installed. Otherwise, fax<br>software is not installed.  | YES              |
| IGNORE_SERIALNUM                 | YES<br>NO  | Selects whether Windows should ignore<br>the serial number when plug and playing<br>the printer   | NO               |
| MULTICAST                        | YES<br>NO  | Sets whether multicast discovery should be<br>used to rediscover installed printers. (See<br><u>Multicast Discovery</u> section)  | NO               |
| REBOOT                           | Force<br>Suppress<br>ReallySuppress                  | Sets the behavior for what should happen<br>if Windows Installer requires a reboot to<br>complete the install.  | [None]           |
| SCANTOPC                         | YES<br>NO  | If this property is set then the option to<br>activate the scan to computer software will<br>be hidden and the user will have to initiate<br>scans from their computer instead of from<br>the device. If the option is set to anything<br>other than NO the option to activate the<br>scan to pc software will be displayed. If<br>the property is not set we default to<br>showing the option. | YES              |
| TRANSFORMS                       | Transform file<br>name, ex:<br>A910nx86_10<br>55.mst | The filename or path to the transform file to apply   | [None]           |
| UNINSTALL_SHORTCUT               | YES<br>NO  | Selects whether to install the Start menu shortcut to uninstall the software  | YES              |

### Appendix D: Languages and Language IDs

The following table shows languages and language IDs to simplify choosing the correct transform to use as described in the <u>Language Selection</u> section.

| Language            | Language ID |
|---------------------|-------------|
| Arabic              | 1025        |
| Traditional Chinese | 1028        |
| Czech               | 1029        |
| Danish              | 1030        |
| German              | 1031        |
| Greek               | 1032        |
| English             | 1033        |
| Spanish             | 1034        |
| Finnish             | 1035        |
| French              | 1036        |
| Hebrew              | 1037        |
| Hungarian           | 1038        |
| Italian             | 1040        |
| Japanese            | 1041        |
| Korean              | 1042        |
| Dutch               | 1043        |
| Norwegian           | 1044        |
| Polish              | 1045        |
| Portuguese          | 1046        |
| Russian             | 1049        |
| Swedish             | 1053        |
| Turkish             | 1055        |
| Simplified Chinese  | 2052        |

#### Appendix E: Compatibility with Full Software Solution

The table below shows some specific scenarios and describes the behavior of the software that is deployed in enterprises when an end user also has a full software CD from one of the printers. See <u>Compatibility with</u> <u>Full Software Solution</u> for an overview.

| Scenario  | Actions Taken  | Outcome   |
|---|--|---|
| Installing Enterprise First                       | <ol> <li>Install Enterprise v2.0</li> <li>Run Software CD v2.0 or<br/>earlier (v1.0)</li> </ol>  | The software CD will tell the user<br>that the software is already<br>installed. Any other MSI<br>packages that are not yet installed<br>(Help, Customer Experience<br>Program, MS Toolbar) will be<br>offered to the user. |
| Upgrading to Full Solution                        | <ol> <li>Install Enterprise v2.0</li> <li>Run Software CD v3.0</li> </ol>  | The software CD will allow the<br>user to upgrade the solution and<br>will install the full software<br>solution  |
| Installing Full Solution First                    | <ol> <li>Install full Software from CD<br/>v2.0</li> <li>Run Enterprise install v2.0<br/>(assume simply running<br/>msie xec /i <msi>)</msi></li> </ol>  | The Enterprise install will return<br>success and will not change what<br>was installed (the full solution will<br>remain installed).   |
| Attempting to Install Older<br>Enterprise Release | <ol> <li>Install full Software from CD<br/>v2.0</li> <li>Run Enterprise install v1.0<br/>(assume simply running<br/>msie xec /i <msi>)</msi></li> </ol>  | The Enterprise install will fail<br>because a newer version is<br>already installed.  |
| Upgrading to Enterprise Solution                  | <ol> <li>Install full Software from CD<br/>v2.0</li> <li>Run Enterprise install v3.0<br/>(assume simply running<br/>msie xec /i <msi>).</msi></li> </ol> | The Enterprise install will<br>successfully upgrade the software<br>and will remove the full solution<br>and install only what is<br>configured for the enterprise<br>install.  |

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