



PRE-INSTALLING USING THE HP SMART DEVICE AGENT BASE FOR USB PLUG AND PLAY

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OVERVIEW

This document explains how to install the HP Smart Device Agent Base for USB Plug and Play included with the following HP UPD 6.4.1 software:

- usb-pcl6-usb-setup-x32-6.4.1.22169
- usb-pcl6-usb-setup-x64-6.4.1.22169
- usb-ps-usb-setup-x32-6.4.1.22169
- usb-ps-usb-setup-x64-6.4.1.22169

NOTE: The actual HP UPD version number may vary.

In addition, the document covers how the HP Smart Device Agent Base is installed with the Software Installer and driver only web packs for the HP Product Specific drivers including the following drivers:

- HP PCL.6 print driver
- HP PCL 6 print driver
- HP PCL-6 V4 print driver

HP UNIVERSAL PRINT DRIVERS (HP UPD)

Introduction

Starting with UPD 6.4.1, installations of the UPD for USB using the following files will install a Windows Local Service named “HP Smart Device Agent Base”. The HP Smart Device Agent Base service will only install on systems running .Net version 4.5 or later. There will be no noticeable impact to driver installation package size, driver installation time, RAM consumption, or CPU usage.

- usb-pcl6-usb-setup-x32-6.4.1.22169
- usb-pcl6-usb-setup-x64-6.4.1.22169
- usb-ps-usb-setup-x32-6.4.1.22169
- usb-ps-usb-setup-x64-6.4.1.22169

For customers whose printing environment is being managed by a Managed Print Service (MPS) provider using HP Smart Device Services enabled software, the HP Smart Device Agent Base service enables the MPS provider to easily manage your USB connected printers in the same way they manage your networked printers. Please contact your MPS provider for more information.

For customers who are not currently being managed by a MPS provider but might be considering a move to MPS in the future, having the Smart Device Agent Base already installed on your clients will make a future transition to MPS seamless. Until then, the HP Smart Device Agent Base will have minimal impact on your system, performing the following functions and nothing more:

- On first install of the HP Smart Device Agent Base service and each reboot:
 - The service checks for USB attached printers. If none are found, the service sleeps for one hour then tries again.
 - If and only if one or more USB attached printers are found, the service tries to establish a connection to a securely verified instance of HP Smart Device Services enabled software on the network as follows:
 - The service performs a local DNS lookup for the hostname “hp-print-mgmt”.
 - If and only if the local DNS lookup fails, the service performs a UDP Multicast discovery (using ports 49001-49008, maximum of 4 hops).
 - If no HP Smart Device Services enabled software is found, the service shuts itself down completely and does not check again until the computer is rebooted.

If you wish to uninstall the HP Smart Device Agent Base, it can be uninstalled from the “Add or Remove Programs” console. It is not automatically uninstalled when the HP UPD is uninstalled.

Description

Pre-installing using the HP Smart Device Agent Base for USB Plug and Play software:

- Integrates an SDA “base” component for USB connected printers
- Enables customers to move from self-managed to MPS with ease
- Installs the Windows Local Service HPSmartDeviceAgentBase
- Installs silently (no UI) by executing a separate msi as a step in the USB driver install
- Simple and secure

NOTE: The HP Smart Device Agent Base does not collect any data from the PC or from connected printers or mfps. The service does not communicate with the cloud or listen on any ports. It cannot be used by anything except a verified JetAdvantage Management Connector (JAMc) instance.

During the install process, the HP Smart Device Agent Base software performs the following items:

- Installs the HP Smart Device Agent Base
- Pre-stages the HP UPD in the Windows driver store

Once installed:

- The HP Smart Device Agent Base searches for USB connected printers. If none are found, the service goes into sleep mode for one hour and then checks again, repeating this sequence.
- If the service determines that a USB-connected printer is present, the service does a DNS query to see if JAMc is available. If it does not find JAMc, the service checks to see if JAMc is available through a UDP multicast over ports 49001-49008.
- If no JAMc is found, the service does not check again until the computer is rebooted.

To install the HP Smart Device Agent Base for USB Plug and Play

NOTE: To pre-configure the HP Smart Device Agent Base for USB for a Software first, plug and play installation, use the HP Driver Deployment Utility (HP DDU) available as part of the HP Print Administrators Resource Kit (HP PARK), and select the Preload the Driver option. This method creates a package with a setup.exe utility that is easy to deploy interactively or via scripting. See

Pre-configure the HP UPD default settings using HP Driver Deployment Utility in chapter 4 of the *HP System Administrator's Guide* for more information.

1. Go to www.hp.com/go/upd and click **Download now**. Verify your language, and then click your operating system. Expand the section **Driver – Universal Print Driver for Managed Services** and click **Download** to the left of one of the following packages:
 - HP Universal Print Driver for Windows PCL6 (32-bit) for USB connected printers
 - HP Universal Print Driver for Windows PCL6 (64-bit) for USB connected printers
 - HP Universal Print Driver for Windows PostScript (32-bit) for USB connected printers
 - HP Universal Print Driver for Windows PostScript (64-bit) for USB connected printers

NOTE: The actual HP UPD version number may vary.

2. Click **Save**
3. Unzip the HP UPD download file.
 - a. Double-click the downloaded file or click **Run**
 - b. Uncheck the box to the left of **When done unzipping open: \install.exe**.
 - c. Click the **Unzip** button.
 - d. When the unzip process completes, click **OK**, and then click **Close**.
4. To install using the default settings, open the directory c:\HP Universal Printer Driver
 - a. Open one of the following folders:
 - pcl6-usb-setup-x32-6.4.1.22169
 - pcl6-usb-setup-x64-6.4.1.22169
 - ps-usb-setup-x32-6.4.1.22169
 - ps-usb-setup-x64-6.4.1.22169

NOTE: This software installation requires .NET 4.5 or higher to install.

- b. Double click **Setup**
- c. If a prompt appears asking, “Do you want to allow the following program from an unknown publisher to make changes to this computer?”, click **Yes**

NOTE: This removes the existing UPD packages in driver store, performs the HP UPD driver staging with notification, and installs the HP Smart Device Agent Base.

- d. When the message “Removal Completed...” appears, click **OK**
 - e. When the message “Driver Pre-Staging Completed Successfully” is displayed, click **OK**.
 - Microsoft Services will list **HPSmartDeviceAgentBase** as running in Services.msc
 - A driver prestaging log and service execution log is saved and available in the package directory
 - For example, c:\HP Universal Print Driver\pcl6-usb-setup-x64-6.4.1.22169\Installer\ExecutionLogs
5. To install from the command prompt, click **Start, All Programs, Accessories**, and then right click **Command Prompt** and select **Run as administrator**.

NOTE: If you do not run the command prompt as administrator, a popup requesting the admin password might be displayed. If you do not enter the password, “Access is denied.” is listed after the command prompt.

- a. If prompted, “Do you want to allow the following program to make changes to this computer?” click **Yes**.

- b. Change to the directory where you extracted the files. For example, C:\HP Universal Print Driver\pcl6-usb-setup-x64-6.4.1.22169.
- c. Type `Setup -m help` and press **Enter** to view the available install options. The following options are available:
 - `stgn` – Stages the driver with notification.
 - `stgq` – Stages the driver in quiet mode.
 - `remstgn` – Removes the existing UPD packages in driver store and stages the driver with notification.
 - `renstgq --` Removes the existing UPD packages in driver store and stages the driver in quiet mode.
 - `remn` – Removes the existing UPD packages in driver store with notification.
 - `remq` – Removes the existing UPD packages in driver store in quiet mode.

To install using one of the optional methods, type `Setup -m <optionName>`.

NOTE: By default, `Setup` removes the existing UPD packages in driver store and performs driver staging with notification.

- d. Type `Setup` with the appropriate options. For example, to remove the existing UPD packages in driver store and perform driver staging with notification type `Setup -m remstgn`.
- e. Press **Enter** to start the install process.
 - If notification is enabled, a message appears stating “Driver Pre-Staging Initiated...”
- f. If the message “Removal Completed...” appears, click **OK**
- g. If the message “*Driver Pre-Staging Completed Successfully*” is displayed, click **OK**.

NOTE: If you are running in quiet mode, *Driver Pre-Staging Completed Successfully* appears in the command prompt.

- Microsoft Services will list **HPSmartDeviceAgentBase** as running in Services.msc
 - A driver prestaging log and service execution log is saved and available in the package directory
 - For example, `c:\HP Universal Print Driver\pcl6-usb-setup-x64-6.4.1.22169\Installer\ExecutionLogs`
6. Verify the product is turned on and in the Ready state.
 7. Connect a USB cable between the product and the computer.
 8. Click the window in the lower right-hand corner that indicates the software is installing.
 9. When the Plug and Play event finishes, click **Close**.

To Uninstall the HP Smart Device Agent Base Service

1. Click **Start** and then **Control Panel**.
2. In Category view, click **Uninstall a program**.
3. Select **HPSmartDeviceAgentBase**.
4. Click **Uninstall**.
5. Click **Yes**.
6. If prompted, “Do you want to allow the following program to update software on this computer?” click **Yes**.
7. Close the **Programs and Features** dialog.

Additional Information

For the latest information on installing using the HP Smart Device Agent Base, see the current HP UPD release notes.

For additional information on configuring the HP UPD, see the HP System Administrator's Guide which provides information about the HP Universal Print Driver (HP UPD) and the available HP UPD PARK tools. The System Administrator's Guide can be downloaded from www.hp.com/go/upd.

HP PRODUCT SPECIFIC PRINT DRIVERS

The Smart Device Agent Base performs the same service for HP Product Specific Print Drivers as it does for the HP UPD, which is to check for printers connected via USB once an hour. It can be uninstalled the same way as the HP UPD. See *TO UNINSTALL THE HP SMART DEVICE AGENT BASE SERVICE* above.

The HP Product Specific Print drivers include the following drivers:

- HP PCL.6 print driver
- HP PCL 6 print driver
- HP PCL-6 V4 print driver

Depending on the Windows operating system, one of these three drivers will be installed. For each operating system on hp.com, only drivers that are supported by that operating system are listed and available for download. There are three ways to install HP product specific drivers.

- HP Easy Start - type in a browser www.123.hp.com/LaserJet. Download the HP Easy Start application. This application supports Windows 7 clients and newer Windows client operating systems. It does not support Windows server operating systems. The application will automatically sense the Windows operating system and then run the Software Installer for that operating system. **The Smart Device Agent Base service is installed during the install process.**
- Software Installer – the Software Installer can be download from the hp.com product page. This installer supports Windows 7 clients and newer Windows client operating systems. It does not support Windows server operating systems. Run the Software Installer and follow the instructions to install the print driver. **The Smart Device Agent Base service is installed during the install process.**
- Driver only Web Packs – Driver only web packs are available for download from the hp.com product page as well and are a listed with the Software Installer downloads. They support Windows clients and servers. For Windows 8 and newer operating systems, both the HP PCL 6 version 3 print driver and the HP PCL-6 V4 print driver are offered. These driver only web packs can be downloaded and then installed with Microsoft's Add Printer Wizard install method. **The Smart Device Agent Base service will NOT be installed during the install process.**

Product Specific Print Drivers Additional Information

See the printer's user guide on hp.com for more information regarding Product Specific Print Drivers.

