AutoUpgradeUPD.exe - Release Notes

AutoUpgradeUPD.exe simplifies the process of creating clean print queues on a print server. This is useful when upgrading the UPD driver version, upgrading an older non-UPD print queue to use UPD, or resetting existing print queues to factory or preconfigured installation defaults. This tool prevents existing queues from carrying forward unknown, incompatible and unstable configurations during driver upgrade.

Disclaimer

Acknowledgements

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Version

AutoUpgradeUPD.exe version 13.11.26.1

AutoUpgradeWizard.hta version 13.02.13.1

Release Notes version 8 – September 2017

Supersedes

Version history of HP AutoUpgradeUPD.exe releases

AutoUpgrade UPD.exe	Release Date	New Features	Required UPD versions
13.11.26.1	Nov 2013	-v (verbose) mode works in –test mode - UPD Dynamic mode printers are detected and skipped	
13.07.25.2	Aug 2013	- On cluster server, clean up old printer settings after printer is deleted - Display printer name instead of old driver when –p option is specified	
12.03.27.01	Jun 2012	- Delete AutoUpgrade-temp printer if it exists - Save and restore DACL (security) settings - Added logging option	
11.10.7.2		Initial Supported release	

Description

AutoUpgradeUPD.exe simplifies the process of creating clean print queues on a print server. This is useful when upgrading the UPD driver version, upgrading an older non-UPD print queue to use UPD, or resetting existing print queues to factory or preconfigured installation defaults. This tool prevents existing queues from carrying forward unknown, incompatible and unstable configurations during driver upgrade. The utility accomplishes this by deleting the existing print queue and creates a new print queue using the same printer name, comments, location and assigned port while applying the specified new driver.

During the print queue deletion and recreation process completed by the tool, only the print queue name, port, location, comments, share name and share state will be retained. All the other settings on the print queues will be set to factory default. To have the print queues preconfigured to specific settings (e.g. duplex or grayscale) refer to the section *Pre-configuring print queues* below.

Update recommendation

Recommended/Advised – Includes new enhancements, features, and/or minor bug fixes. HP recommends all customers to update.

Product Models

Supports the HP Universal Print Driver (UPD)

Devices Supported

Refer to the specifications tab at www.hp.com/go/upd for a list of devices, which are supported by the HP UPD.

Operating Systems

- Microsoft Windows 7 SP1*
- Microsoft Windows 8 / 8.1
- Windows 10
- Microsoft Windows Server 2008 R2 SP1
- Microsoft Windows Server 2012 / 2012 R2
- Microsoft Windows Server 2016

*Microsoft has ended mainstream support for this operating system.

Languages

English (International)

Enhancements/Features

A 64 bit command line version, AutoUpgradeUPD64.exe, has been added for use on 64-bit operating systems.

Fixes/Fixes History

See the Supersedes section of this document

Issues and Workarounds

When using the –p option for a print queue that is using the non-version specific driver and upgrading to a newer non-version specific driver, **ALL** printers using the non-version specific driver will be upgraded. This will occur even when a single printer has been specified with the –p option.

See the following table for the upgrade results with the –p option

	New printer with version specific driver (example: HP Universal Printing PCL 6 (v5.9.0))	New printer with non-version specific driver (example: HP Universal Printing PCL 6)
Old printer with version specific driver (example: HP Universal Printing PCL 6 (v5.8.0))	Only the targeted printer will be upgraded as intended	Only the targeted printer will be upgraded as intended
Old printer with non-version specific driver (example: HP Universal Printing PCL 6)	Only the targeted printer will be upgraded as intended	**ALL** printers using the non-version specific driver will be upgraded to a new non-version specific driver

Installation instructions

No installation is necessary. Copy the AutoUpgradeUPD.exe, AutoUpgradeWizard.hta and Install.ico files (32-bit systems), or AutoUpgradeUPD64.exe, AutoUpgradeWizard.hta and Install.ico (64-bit systems) to the desired directory on the hard drive of the client computer.

Caution: This utility modifies your system. You are strongly advised to make a system backup before using this utility. In the unlikely event that the upgrade should fail, having a backup will allow you to return to a stable state.

Usage

A training video for this utility is available on YouTube.   Use the following link to access this training: http://youtu.be/mYCVx1RBp9w

AutoUpgrade Wizard:

1. Open the folder where the files were previously copied
2. Double click AutoUpgradeWizard.hta to start the Wizard
3. Cluster only: Mark "Failover Cluster virtual Node" when upgrading drivers on a virtual cluster node and type in the Node Name of the Cluster
4. Select the Old Driver Name, New Driver inf file (hpcuxxx.inf) and New Driver Name (version specific or non-version specific)
5. Optional: select Test Mode. When this is selected, no printer will be upgraded. Instead, only a log file, called "AutoUpgrade.log" will be created in the same directory as the AutoUpgradeWizard.

Command line version:

1. Open a command prompt with Administrator privileges
2. Change to the directories where the files were previously copied.
3. Enter AutoUpgradeUPD -o "<old-driver>" -n "<new-driver>" -f "<inf file>" [-s "<server-name>"] (32-bit operating systems)

Or:

4. Enter AutoupgradeUPD64 -o "<old-driver>" -n "<new-driver>" -f "<inf file>" [-s "<server-name>"]

Command	Description
-o "*old driver*"	Utility will attempt to upgrade all print queues that are using this driver **NOTE:** Driver names are case sensitive.
-n "*new driver*"	Name of the new driver. It is recommended that this driver be pre-installed and tested. **NOTE:** If the name of the new driver is the same as the name of the old driver, e.g. *HP Universal Printing PCL 6*, the new driver must be installed prior to running this utility.
-f "*inf file*"	Full path to the new driver .inf file
-s "*server name*"	Specifies the name of the failover cluster virtual node to be upgraded. If a server is not specified, the local computer is upgraded. **NOTE:** This option is **not** designed for upgrading remote servers. The utility is designed to be run directly from the print server, or in the case of a failover cluster, from one of the physical nodes.
-l "*log file name*"	Enables logging, and saves the information in <log file name>
-v	Verbose mode. Displays the printui commands, and other information useful for diagnostic purposes
-q	Quiet mode. When this option is enabled, error and status dialog boxes are not displayed. **NOTE:** In some cases, the use of this option will cause the Microsoft printui.dll commands that are used by this utility to fail unexpectedly. If these failures occur, try re-running the utility without this option.
-test	Enumerates printers, outputs messages, but does not perform the upgrade.
-p<printer name> See also issues and workarounds	This option allows the administrator to upgrade only one printer when using a version specific driver, like "HP Universal Printing PCL 6 (v5.9.0)". Required parameters are –n <new driver name> and –f <inf path>. The old driver name, if specified is ignored. The intent of this option is to allow the creation of scripts to upgrade specific printers. **NOTE:** Server name is not required in printer name **WARNING:** It is not possible to upgrade only one printer, which is using a non-version specific driver (such as, "HP Universal Printing PCL6") to a newer non-version specific driver, as this will automatically upgrade *all* printers with the non-version specific driver.
-?	Displays help

Example: `AutoUpgradeUPD.exe -o "HP Universal Printing PCL 6 (v5.7.0)" -n "HP Universal Printing PCL 6 (v5.9.0)" -f " C:\HP Universal Print Driver\pcl6-x64-5.9.0.18326\hpcu170u.inf" > Upgrade.log`

This example will upgrade all the printers that are using HP Universal Printing PCL 6 version 5.7.0 to HP Universal Printing PCL 6 version 5.9.0, and will log all messages and results into the file upgrade.log

Theory of Operation

The following steps outline the process the utility uses to upgrade the print queues on the server.

1. Performs a check to verify that the required input parameters have been specified.
2. Performs a check to verify that the new driver is a HP driver. Non HP drivers are not supported.
3. List all the print queues on the server
4. Compare the name of the driver for each print queue with the supplied old driver name. The comparison is case sensitive.
5. If there is a match, the utility will do the following:
   a. Check to see if there are any jobs waited to be printed. Print queues that are busy cannot be upgraded, and these print queues will be skipped.
   b. Create a temporary printer queue named *AutoUpgradeUPD-temp* using the new version of UPD. The design of the utility is to create a new print queue before deleting the old print queue as a safeguard. If for some reason print queues cannot be created, no current print queues will be lost. The port used by this temporary print queue is the same as the existing print queue.
   c. Check to see if the temporary print queue was created successfully. If the create fails, the utility halts.
   d. Delete the old print queue.   If the delete fails, the utility halts.
   e. Rename the temporary print queue to the name of the print queue just deleted. Check to see that the rename was successful. If the rename failed, the utility halts.
   f. Restore the location and comments information from the old queue.
   g. Restore the share name and share the print queue if it was previously shared.
   h. Re-publish the printer in Active Directory if the printer was previously published.
   i. Verify that UPD auto configuration was successful.
   j. Read the current printer settings, and then write them back unchanged. It has been observed that clients will sometimes download the new driver, but will not download the new settings for the upgraded printer. Writing the settings will serve to notify the client that it needs to download the new settings.

   NOTE: This utility is designed to use the existing driver if possible. If the new driver has the same name as the old driver, the old driver will be used and no upgrade will take place

Pre-configuring Print Queues

Use the following steps to configure the upgraded print queues for administrator-defined settings.

- Use the Driver Configuration Utility with the new driver to select the desired settings, and create a test print queue on print server.

  NOTE: Refer to the UPD System Administrator's Guide available at www.hp.com/go/upd for more information on using the DCU.

- Verify that the settings on the test print queue are correct.

- Upgrade the rest of the print queues using the AutoUpgradeUPD utility. This utility is designed to use the settings in this test print queue for all the print queues that it re-creates.

Error and Information Messages

Printer: ___ ignored, there are ___ jobs waiting to print
Printers that are busy cannot be upgraded, and are bypassed

Printer: ___ ignored, the driver ___ does not match driver __
This message indicates that this printer is using a driver other than the driver name specified in the old name parameter. If you intended to upgrade this printer but it was bypassed, a likely cause is that the printer driver name was typed incorrectly. Printer driver names are case sensitive.

WARNING: Auto-configuration failed for printer "_____", verify that the device is turned on and connected

This warning is displayed when the HP Universal Print Driver cannot communicate with the device to determine its features and options.   Typical reasons for communications failures are as follows:

- The device is turned off or disconnected.
- SNMP v2 GET is turned off at the device or disabled on the network.
- The SNMP community name is not the default name of "public".
- Auto-configuration has been disabled on the system.

For information on how to diagnose and correct this error, please refer to the HP UPD System Administrator's Guide.

ERROR: inf file ___ is incorrect or missing

The utility verifies that the .inf file exists and the path specified on the command line is correct.

ERROR: bad or missing parameter

The utility checks to make sure that all the required parameters have been specified.   It is also a good practice to enclose the driver names and inf path in double quotes, especially if there are spaces in the names.

ERROR: Create temporary printer AutoUpgradeUPD-temp failed

- Wrong path to the .inf file
- New driver name incorrect (driver names are case sensitive)
- New driver is not installed. Best practice to pre-install UPD, create a test print queue, and verify basic operation.
- There might be a problem with the Microsoft printui.dll commands that this utility is executing. Try re-running the utility without the –q option.

ERROR: Temporary printer could not be renamed

The most likely cause is that a print job was submitted between the time that the temporary printer was created and the time the rename operation took place. Upgrades must be performed only on quiet servers where no printing is taking place.

ERROR: Old printer could not be deleted

This message indicates that for some reason the old printer could not be deleted. When this occurs, the utility halts.

ERROR ___, GetPrinter failed for Printer: ____

The settings from the current printer could not be read.

ERROR ___, SetPrinter failed for Printer: ____

The settings from the current printer could not be written.

Execution stopped due to error

The utility encountered an unrecoverable error and halted.

Frequently Asked Questions

What happens if a printer is in use at the time of the upgrade?

Printers that are in use cannot be upgraded, and will be bypassed.

Can this utility be used with non UPD drivers, like model specific drivers?

There is no check made to determine if the old or new driver names are UPD. However, use with non UDP drivers has not been tested.

Can I use this utility to convert print queues that are using non-UPD drivers to UPD?

Yes. There is no check made to determine if the device that is using the non-UPD driver is supported by UPD. It is up to the administrator to determine if UPD is suitable for a particular device.

Can this utility be used with non hp drivers?

No. The tool does a check to verify that the new driver is an HP driver.

Why can't this utility be used with non hp drivers?
There is no way for HP to predict how a non-HP driver will or will not behave, so the tool excludes non-HP drivers rather than risk making the print server unstable.

Why are the printer queue "Comments" truncated for the newly created printer?
This typically happens when the comments consist of multiple lines. The utility will only handle the first line. The other lines are removed.

Why do I need to specify the path to the driver .inf file?
The path to the .inf file is required, because the tool does a fresh installation of UPD driver.

I ran the utility and it completed without any errors, but no driver upgrade took place. What happened?
This utility is designed to use the existing driver if possible. If the new driver has the same name as the old driver, the old driver will be used and no upgrade will take place. To avoid this, you must either install the new driver prior to running the utility, or specify a different name (version specific name) for the new driver.

Are there any other steps I should take to have a successful result after running AutoUpgradeUPD.exe?
  A. **Point and Print Clients:** When printer driver files are upgraded on the print server, it might be necessary to synchronize the client printer driver files with the print server to ensure that the client can print properly and utilize all new features provided by the upgraded print driver. HP created the PRNCON.EXE tool to automate the process of remotely removing and reestablishing a network point-and-print connection and logging the results. PRNCON.EXE is available in the HP Printer Administrator Resource Kit

  B. **Printer Automatic Configuration:** UPD queries the device for its configuration at the time the print queue is created. In some situations, this automatic configuration can fail --for example if the device was turned off at the time AutoUpgradeUPD.exe was run. In these cases it is necessary to perform an "Update Now" to enable the driver to correctly display full capabilities of the target device (installable trays, Duplexer, Accessory Output Bin, HP Easy Color, etc). Options exist using the command line or the UPD user interface. Consult the UPD System Administrator's Guide for additional details.

  Command Line: Two methods exist for command line operation
     1. Open a command prompt: START-RUN-CMD.EXE [enter]
        C:\> rundll32 %systemroot%\system32\spool\drivers\w32x86\
        3\hpmux115.dll,UpdateStaticModePrinter "HP Universal Printing PCL 6 (v5.9)" /q

        NOTE: command line will be different between UPD releases. Consult the UPD System Administrator's Guide for additional details.

     2. UpdateNow.exe: located in the Printer Administrator Resource Kit.

  Driver User Interface: Printer Properties-Device Settings tab-Installable Options-Automatic Configuration-Update Now.

Why are there event 22 errors listed in the event log on the client?
Occasionally, a point and print on the client will notice that the driver has changed and download the new driver, but the download will fail. The tool is designed to do a read/write of the printer settings as a second hint to the client to download the driver settings. There is no cause for concern if you see event 22 followed by event 20.

What port is used when the temporary printer is created?
When the temporary printer is created, it is assigned to the same port as the printer that will eventually be deleted. No additional ports are created by the utility.

When the old printer is deleted, is the port associated with it also deleted?
The operating system will not delete the port, because the temporary printer is also using that port at the time the old printer is deleted.