Migrate Server Tools - Release Notes

Migrate Server Tools are a set of scripts and other tools to assist in automating the migration of print queues from an old server to a new server or to upgrade the print queues on a server.

Disclaimer

Disclaimer of Warranty and Support

Limitation of Liability

Acknowledgements

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Version

Migrate Server Tools version 20.09.20.1

Release Notes version 1, September 2020

Supersedes

Version History of Migrate Server Tools

Version	Release Date	New Features
20.09.20.1	September 2020	• Updated driver mapping to include UPD 7.0.0 release
19.12.20.1	December 2019	• Updated driver mapping to include UPD 6.9.0 release
19.06.20.1	June 2019	• Updated driver mapping to include UPD 6.8.0 release
19.03.11.1	March 2019	• Updated driver mapping to include UPD 6.7.0 release
19.09.24.1	September 2018	• Updated driver mapping to include UPD 6.6.5 release
18.03.28.1	March 2018	• Updated driver mapping to include UPD 6.6.0 release
17.09.25.1	September 2017	• Updated driver mapping to include UPD 6.5.0 release
17.03.28.1	April 2017	• Updated driver mapping to include UPD 6.4.1 release • Removed Windows Server 2008 from operating system list
16.10.01.1	Oct 2016	• Updated driver mapping to include UPD 6.3.0 release • Removed XP and Vista from operating system list
16.01.25.1	Feb 2016	• Updated driver mapping to include UPD 6.2.0 release • Removed XP and Vista from operating system list
15.11.03.1	Nov 2015	• Updated driver mapping to include UPD 6.1.0 release
12.10.04.1	Dec 2014	• Updated driver mapping to include UPD 6.0.0 release
12.10.04.1	July 2014	• Updated driver mapping to include latest UPD releases
12.07.17.7	July 2012	• Improved Handling of European Characters
12.05.11.1	May 2012	• Added saving and restoring Discretionary Access Control Lists (DACLs) • Added ability to configure color and duplex settings • Added output of duplex hardware available • Added support for failover cluster virtual nodes • Support for 32 and 64 bit source and target servers
11.11.02.1	Nov 2011	• Initial Release

Description

Migrate Server Tools are a set of scripts and other tools to assist in automating the migration of print queues from an old server to a new server or to upgrade the print queues on a server. This utility will create only UPD traditional mode queues.

Support Policy

This tool is not eligible for HP Support. Before using this tool, please review the sections "Disclaimer of Warranty and Support" and "Limitation of Liability" in this document. Feedback about the tool (enhancement requests and bug reports) can be sent via email to upd_park@hp.com.

Update recommendation

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

Product Models

Migrate Server Tools are compatible with 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 Windows Server 2019

*Microsoft has ended mainstream support for this operating system.

Languages

English (International)

Enhancements/Features

N/A

Fixes/Fixes History

See the Supersedes section of this document.

Installation

Copy the package files to the server local hard drive.

NOTE: Do not try to run Migrate-Server.bat directly from the shared folder, e.g. \\<server>\<share-name>$\Migrate-Server.bat. This will generate file not found errors.

Download the Microsoft setprinter.exe utility separately, and copy it to the folder that contains the Migrate Server tool set. This utility is part of the Microsoft Server Resource Kit tools, and can be downloaded at:

http://www.microsoft.com/download/en/details.aspx?id=17657.

Current Limitations

This release has certain limitations that may be addressed in future releases.

- No support for printer pooling
- Does not handle creating printers using in-box drivers
- Will only create TCP/IP ports. LPR ports and printers pointing to LPT or COM ports will not be created.

Usage

In a typical migration, there will be two servers: The old or *source server*, and the new or *target server*. In the case of an upgrade, the source and target server can be the same server.

There will also need to be an editing workstation, which has Microsoft Excel or equivalent installed for editing the .csv files that are created. The editing workstation can be a standalone workstation or the source or target server.
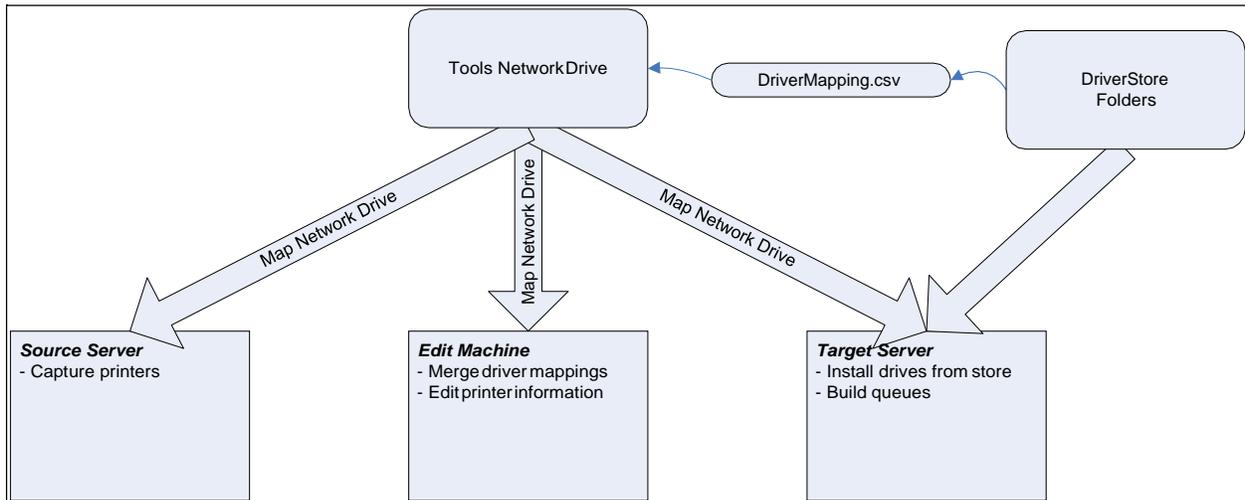
Using the tool from a shared network drive

Preparing the Driver Store

- Make a list of all the drivers currently in use.
  - Use the Microsoft Print Management console
- Determine if those drivers are supported by the target system operating system (refer to manufacturer's web site)
- Determine if these drivers are available in both 32 and 64 bit versions.
- Download and catalog the new drivers that are needed.
  - Driver name
  - Path to inf file
  - 32 or 64 bit
- Decide what new driver(s) will replace the currently used driver(s)
- Save this information as a comma separated value (CSV) file named *DriverMapping.csv* that has the following information:
  - Old Driver Name
  - New Driver Name
  - Path to new driver 64 bit .inf file
  - Path to new driver 32 bit .inf file
- Refer to Appendix A for information about the required format for the driver store file.

Using the Migrate Server Toolset
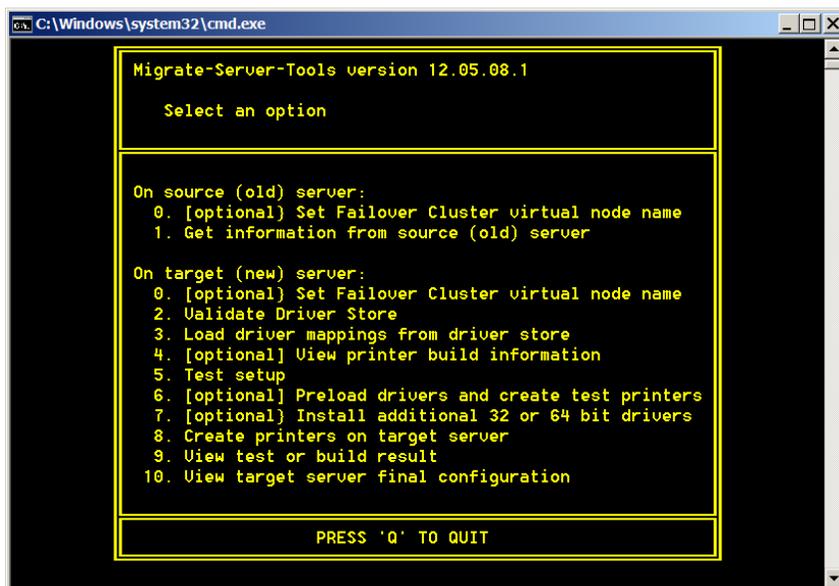
```
C:\Windows\system32\cmd.exe

    Migrate-Server-Tools version 12.05.08.1

        Select an option


On source (old) server:
    0. [optional] Set Failover Cluster virtual node name
    1. Get information from source (old) server

On target (new) server:
    0. [optional] Set Failover Cluster virtual node name
    2. Validate Driver Store
    3. Load driver mappings from driver store
    4. [optional] View printer build information
    5. Test setup
    6. [optional] Preload drivers and create test printers
    7. [optional] Install additional 32 or 64 bit drivers
    8. Create printers on target server
    9. View test or build result
   10. View target server final configuration


                    PRESS 'Q' TO QUIT
```

Step 0: [optional] Set Failover Cluster virtual node name.

The default source and target server is physical node. When the source and/or target server is a failover cluster virtual node, this option must be used to specify the name of the virtual node before performing the following steps

Step 1: Get the print queue information from the source (old) server

- Log on to the source (old) server.
- Copy the tools set to the source server, or map the shared folder that contains the tools as a network drive.

NOTE: Do not try to run *Migrate-Server.bat* directly from the shared folder, e.g. *\\<server>\<share-name>$\Migrate-Server.bat*. This will generate file not found errors.

- Double-click the file *Migrate-Server.bat*
- Select option: *Gather information from source (old) server*.
  This operation will enumerate all the printers on the server, and save information about those printers into a file named *<computer name>.csv*.
- Copy all the files in the \Archive folder on the source server to the folder on the Target server that contains the migrate-server tools files.

Step 2: Validate the driver store.

- Log on to the target server as an **administrator**.
- Copy the tools set to the source server, or map the shared folder that contains the tools as a network drive.
- If necessary, copy the driver store information file, *DriverMapping.csv,* to the target server.
- Double-click the file *Migrate-Server.bat*
- Select option: *Validate Driver Store.* The tool will perform the following basic checks:
  - o Verify that the inf files listed in columns C and D exist.
  - o Verify that the driver name listed in column B exists in the .inf file.

NOTE: The tool does not verify that the driver is compatible with the target operating system.

Step 3: Load driver mappings from driver store
- Select option: *Load driver mappings from driver store.*
  This step will automatically load the new driver mapping choices into the *<computer name>.csv*
  file. Refer to Appendix A for information about the required format for the driver store file.

Step 4: View printer build information
This step is optional. This step is used to verify that the new driver information has been filled in correctly.

- Select option: View printer build information
- Verify that the new driver information has been filled in correctly.

Step 4a [optional]: Editing the printer build information
If it is necessary to add/delete printers or change the configuration of the printers to be created, copy the
<server name>.csv file to a system that has Microsoft Excel (or another .csv editor) installed.

Refer to **Appendix B** for information about how to edit this file, and the meaning of the columns.

Be aware of the following when adding, sorting or deleting rows in the .csv file:

- Do not add or delete columns.
- Do not delete the header row.
- Do not change the order of the columns.

  NOTE: Missing or reordered columns will cause the build process script to fail.

Use the following sorting guidelines when editing the .csv file

- Sort the rows by Printer Name to make the following steps easier.
  - Delete the rows for printers that no longer exist.
  - Delete the rows for printers that are out of scope for the migration.
- Sort the rows by Current Driver to make the following steps easier.
  - Delete the rows for printers that do not have a supported driver available.
  - Add in the name and inf path information for any additional new drivers into the New
    Driver and Options columns.
- Sort the rows by Source Name.
  - Find every printer that is NOT using the HP UPD and is using a paper source other than
    the default paper source. These printers need to be manually configured after the build
    process.
- Sort the rows by Form Name.
  - Find every printer that is NOT using the HP UPD and is using a form name other than the
    region default of letter or A4. These printers need to be manually configured after the
    build process.
- Sort the rows by Media Name.
  - Find every printer that is NOT using the HP UPD, and is using a media name other than
    the unspecified or Auto. These printers need to be manually configured after the build
    process.
- For more information about the columns and their meanings, refer to Appendix A.

Step 5: Test the setup to verify everything is setup correctly
- Select option: *Test setup*
- This operation will:
  - Make sure that the path to the .inf file is correct.
  - Make sure that the driver name exists in the .inf
- Select option: *View test or build result*
- Search for the phrase "ERROR"
- Fix the errors, and re-run option: *Test setup.*

Step 6: Preload drivers and create test printers

This step is optional, but is recommended to verify that printers can be created correctly. In some cases the creation of printers will be faster if all the necessary drivers are pre-installed.

Pre-configuring UPD with the Driver Configuration Utility (DCU)

If it is desired to pre-configure the UPD printers on the target server using DCU, follow these steps before running the option to *preload drivers and create test printers*.

- Create a .cfm file with the desired settings using the Driver Configuration Utility (DCU), following the instructions in the UPD System Administrator's Guide.
- Manually create test printers using the .cfm file just created, following the instructions in the UPD System Administrator's Guide.
- Verify that the pre-configured settings are correct.

Installing drivers with default settings

- Select option: *Preload drivers and create test printers.* This step will create a list of all the unique drivers referenced in the *<computer name>.csv* file.
- If desired, you can edit the information for the test printers. This file is named *<source name>-test-printrs.csv*. You may want to change the port information to a device that is physically closer to the build location.
- Enter Y to continue to build the test printers, or any other key to cancel. This step will not overwrite any previously installed and pre-configured drivers.
- When the previous step is complete, select option: *View test or build results*
- Search for the phrase "ERROR"
- Print a test page to verify basic operation.
- Once the testing is done, you can delete the test printers if desired. Do NOT delete the drivers.

Step 7: Install the additional 32 or 64 bit drivers

- Select option: *Install additional 32 or 64 bit drivers.* This step will create a list of all the unique drivers referenced in the *<source server>.csv* file.
- Enter Y to continue to install the drivers, or any other key to cancel.
- When the previous step is complete, select option: *View test or build results*
- Search for the phrase "ERROR"

Step 8: Create printers on target

- Select option: Create printers on target server

Step 9: Verify the print queue building has succeeded

- Select option: View test or build results
- Search the log file for the word "ERROR"
- Fix the errors, and re-run option to Create printers on target server.
  - o Printers that already exist will be skipped.

Step 10: Verify that the printer configuration is correct, and auto configure has succeeded for all printers

- Select option: View target server configuration
- If desired you can copy the file *<target name>-target.csv* to a system that has Microsoft Excel installed in order to open it, to sort the entries, search, etc.
- For each printer, verify that the specified options such as Paper Source and Media Type are as specified in the *<computer name>.csv* file.
- Verify that there is a model name displayed for every printer that is has UPD listed as the *Current Driver*. If the model name is not there:
  - o Use the ping command to verify that the printer is turned on and connected to the network.

o   Verify that SNMP v2 GET traffic is enabled on the network and the device.

Information and Error Messages

Migrate_Server.bat messages
- ERROR: Printer information file "_____" is missing
  Most likely cause is that either step 1 was not run, or the file generated by step 1 was not copied over to the editing computer, or not typed in correctly

- ERROR: File "_____.vbs" is missing
- ERROR: File "_____.exe" is missing
  Necessary components of the tool package are missing. Verify that the tool package was extracted and copied correctly.

ValidateDriverStore.vbs messages
- ERROR: Open file failed, _____
  Failed to open the driver store file, *DriverMapping.csv*, or the .inf file referenced in the *DriverMapping.vbs* file.

- ERROR: 64 bit inf file: "___ _" is missing "
- ERROR: 32 bit inf file: "___ _" is missing "
  The .inf file specified in columns C or D in the DriverMapping.csv file is missing

- ERROR: "_____" does not contain driver name "_____"
  The .inf file specified in columns C and/or D in the DriverMapping.csv file does not contain the driver name specified in column B. Perhaps the .inf file is not the correct one for this printer.

LoadFromDriverStore.vbs messages
- ERROR: Open file failed, _ ____
- ERROR: "Unable to open file "_____"
  Failed to open either the driver store file, DriverMapping.csv, or one of the .inf files referenced in the DriverMapping.vbs file.

CreateTestPrinters.vbs messages
- ERROR: Open file failed, _____
  Failed to open the printer list file, *<server name>.csv.*

InstallFromCSV.vbs messages
- ERROR: Error creating log file <log file name>
  Verify that the user has write access to the folder containing tools.

- ERROR: <printer list>.csv Row: __ Printer:_____- Printer name and IP address are required parameters
  Verify that the cells for Printer Name and IP address are filled in for every row in the <printer list>.csv file

- Printer_____already exists
  Information message. Once a printer is created, a copy will not be created.

- ERROR: <printer list>.csv Row: __ Driver name and inf path are required parameters"
- ERROR: <printer list>.csv Row: __ Printer:_____- Driver name and inf path are required parameters"
  Verify that the cells for Printer Name and IP address are filled in for every row in the <printer list>.csv file

- ERROR: Inf file path is incorrect, or file is missing _____
- ERROR: Inf file does not contain driver name: _____

Verify that the .inf file specified does exist, and that it is the correct .inf file for the driver name specified.

- ERROR: Cannot open document <printer list>.csv
  Verify that the <printer list>*.csv* file specified is correct, and that the file exists*.*

  ERROR: File EnumPrinters3.exe is missing
  Trying to run the migrate-server.bat file from a network folder. You need to either copy the files to the local disk, or share the remote folder and map it as a local drive.
  Necessary components of the tool package are missing. Verify that the tool package was extracted and copied correctly.

- ERROR: Add Comments Printer:_____ Failed.
- ERROR: Share Printer:_____Failed.
- ERROR: Publish Printer: _____Failed.
  The printui.dll commands used to perform these operations did not complete successfully.

  - o   Run option 4, test mode.
  - o   Copy the printui.dll commands from the log file.
  - o   Open a command prompt window with Administrator privileges
  - o   Paste these commands into the command prompt window to see if they will execute outside the context of the script.
  - o   Verify that the printui.dll command syntax is correct.
  - o   Make the changes manually.

- ERROR: Setprinter.exe is missing, ConfigureDevMode failed"
  The file setprinter.exe is part of the Microsoft 2003 resource kit, and must be downloaded separately.

- ERROR: Create port:_____failed
  Likely causes are the account being used does not have the permissions to create TCP/IP ports, or the hostname or IP address specified is invalid.

- ERROR: Create Printer:_____Failed.
- ERROR: CreatePrinterEx Failed:_____
  Likely causes are the information such as printer name, location, comments, etc is invalid, or the driver specified is incorrect or corrupt.

- ERROR: CreateObject wscript.shell Failed:
- ERROR:1 Unable to create file system object
- ERROR:2 Unable to create file system object
  Internal script errors

Known Issues

- Spaces are not allowed in file names or computer names.
- The *Install additional 32 and 64 bit drivers* step does not check to see if the driver is installed before performing the installation.

Frequently Asked Questions

Test printers are not being created and/or alternate drivers are not being installed
The most likely cause is that the new driver and inf information fields in the <servername>.csv files are empty. Try running option 2 again.

I am getting errors like 0x6ba or 0x5 when I run EnumPrinters3, or when trying to create ports.
These are error codes that are returned by the various Microsoft system calls used in the tool. For a complete listing of system error codes, please refer to the following Microsoft article.

http://msdn.microsoft.com/en-us/library/ms681381(v=vs.85).aspx

Some of the more common errors are:

Error 5: Access is denied. This may mean that the login account that you are using on the client does not have access rights on the server. This typically occurs when either you have logged in on the client as a non-admin, or the client or server are not on the same domain.

Error 0x6ba: The RPC server is unavailable. Machine to machine communications are done via Remote Procedure Calls (RPC). There is a service on the target system that receives these calls from the network and processes them. If the server is busy, RPC calls may fail. This error may also occur if the network is busy.

I am getting "The publisher could not be verified. Are you sure you want to run this software?"
This error typically occurs when running the tools from a shared network drive, and is due to a security policy that does not allow an .exe to be run from a network drive. The solution is to copy the tool files to a local disk.

Appendix A: Driver store CSV file format

The driver store file is a CSV (comma separated value) format file that is used to tell the tool what driver and what new driver you want to use to replace a current old driver.

- If the old and new driver names are the same (upgrade), then copy the name of the driver from column A to column B.
- The path to the .inf file must be the full path starting with the drive letter.
- The inf file specified must be the correct inf file for the server architecture.

Column	Data	Notes
A	Old driver name	All entries must be unique. Duplicates will be ignored
B	New driver name	Inf files typically contain multiple driver names or device models. This is the *exact* name of the driver or model as copied from the .inf file.
C	Path to 64 bit driver .inf file	This is an absolute path
D	Path to 32 bit driver .inf file	This is an absolute path

Example DriverMapping.csv file for upgrading previous versions of UPD to UPD 5.3.1

The example file DriverMapping.csv, which is provided in the package, contains mapping for various versions of UPD. The data in this example file assumes that the UPD was extracted to the default locations on C:\HP Universal Print Driver. If UPD was extracted to another location, the DriverMapping.csv file will need to be edited to reflect the current location.

Appendix B: Printer information file format and editing instructions

EnumPrinters3 lists out the following information for each printer on the computer, if the information is available:

Column	Notes
Current Driver	Driver currently used with this print queue
Version	Version number, or 0.0.0.0 if no version information is available
New Driver Name	For driver upgrades, specifies the name of the upgrade driver
Inf/Options	Driver inf file path and name, or install.exe command line options
Printer Name	The name of the print queue
Device Model	Displays the actual device model information if available
IP Address	IP address or hostname of the device, or "pooled" if printer pooling is enabled.
Port Name	
Location	
Comment	
Share Name	
Build #	Future extensibility
Print Processor	
Attributes	All attributes in hexadecimal format. See chart below for explanation
Shared	Printer is shared
Published	Printer is published in Active Directory
Bi-Di	Spooler bidi support is enabled
Color	0 = unknown, 1 = monochrome, 2 = color
Copies	
Default Source	See WinGDI.h for details. Values over 256 are driver specific
Source Name	Driver/vendor specific paper source name.
Duplex	0 = unknown, 1 = simplex, 2 = duplex
Paper Size	
Form Name	
Media Type	See WinGDI.rtf for details. Values over 256 are driver specific
Media Name	Driver/vendor specific media type name.
Duplex HW	Unknown(2), Duplex Hardware(3 or 4), Simplex(5) Manual duplex, or no duplex(6400)
Orientation	1 = portrait, 2 = landscape
Quality	Print quality in DPI
Spare 1, 2	Future extensibility
Security Descriptor	Discretionary Access Control List (security) information
Serial #	Future extensibility

Attribute Value	Hex	Meaning
QUEUED	0001	If set, the printer spools and starts printing after the last page is spooled. If not set and PRINTER_ATTRIBUTE_DIRECT is not set, the printer spools and prints while spooling.
DIRECT	0002	Job is sent directly to the printer (it is not spooled).
DEFAULT	0004	Default printer
SHARED	0008	Printer is shared.
NETWORK	0010	Printer is a network printer connection.
HIDDEN	0020	Reserved.
LOCAL	0040	Printer is a local printer.
DEVQ	0080	If set, DevQueryPrint is called. DevQueryPrint may fail if the document and printer setups do not match. Setting this flag causes mismatched documents to be held in the queue.
KEEP PRINTED JOBS	0100	If set, jobs are kept after they are printed. If unset, jobs are deleted.
DO COMPLETE FIRST	0200	If set and printer is set for print-while-spooling, any jobs that have completed spooling are scheduled to print before jobs that have not completed spooling.
WORK OFFLINE	0400	Indicates whether the printer is currently connected. If the printer is not currently connected, print jobs will continue to spool.
ENABLE BIDI	0800	Indicates whether bidirectional communications are enabled for the printer.
RAW ONLY	1000	Indicates that only raw data type print jobs can be spooled.
PUBLISHED	2000	Indicates whether the printer is published in the directory service.
FAX	4000	printer is a fax printer.
TERMINAL SERVICES	8000	Indicates the printer is currently connected through a terminal server.
PUSHED USER	20000	The printer was installed by using the Push Printer Connections user policy.
PUSHED MACHINE	40000	The printer was installed by using the Push Printer Connections computer policy.
MACHINE	80000	Printer is a per-machine connection.
FRIENDLY NAME	100000	A computer has connected to this printer and given it a friendly name.

Examples:

> 0x2A48 – 2000: Published + 800: Enable bidi + 200: do complete first + 40: local + 8: shared
> 0x2248 – 2000: Published + 200: do complete first + 40: local + 8: shared
> 0x2218 – 2000: Published + 200: do complete first + 10: network + 8: shared
> 0xa48 – 800: Enable bidi + 200: do complete first + 40: local + 8: shared
> 0xa40 – 800: Enable bidi + 200: do complete first + 40: local
> 0x840 – 800: Enable bidi +40: local
> 0x248 – 200: do complete first + 40: local + 8: shared
> 0x240 – 200: do complete first + 40: local
> 0x040 – Local

Reserved Characters:

There are certain characters that are reserved, because they will cause problems if they appear in the IP address, location, or comments fields. When these characters appear, EnumPrinters will replace the reserved character with another, non-reserved character. Below is a list of the reserved characters and the substitutions.

- A colon ':' is replaced by semicolon ';'
- A comma ',' is replaced by an underscore '_'
- Multiple lines are combined into a single line separated by an underscore.

Editing the printer information

The Old Driver Name and Version information are provided for the convenience of identifying printers, but these fields are not used to create new printers. Delete the lines for any printers that you do not want to create on the target server. To add printers that were not on the source server, enter the relevant printer information. Ensure that the required fields are properly filled in.

WARNING: Do not add or delete columns. Do not delete the header row. Do not change the order of the columns. Missing or moved columns will cause the build process script to fail.

Fields used in creating new UPD and non-UPD printers

Field	Required	Notes
New Driver Name	Yes	Name of the driver, can be pre-installed, or from the .inf
Inf/Options	Yes	Full path to the driver .inf file
Printer Name	Yes	The name of the print queue
IP Address	Yes	IP address or hostname of the device **NOTE:** Ports are created with the default settings of: • Protocol: RAW • Port: 9100 • SNMP Status: Enabled • Community name: *public* • SNMP Device Index: 1
Port Name	No	If not specified, port name is generated automatically by pre-pending "IP_" to the IP address
Location	No	
Comment	No	
Share Name	No	If not specified, the printer name will be used as the share name
Published	No	
Color (1)	No	Requires Microsoft setprinter.exe utility
Duplex (1)	No	Requires Microsoft setprinter.exe utility
Source Name (1)	No	Requires Microsoft setprinter.exe utility See Appendix C for details
Paper Size (1)	No	Requires Microsoft setprinter.exe utility See Appendix C for details
Media Name (1)	No	Requires Microsoft setprinter.exe utility See Appendix C for details
Security Descriptor	No	Requires Microsoft setprinter.exe utility

NOTES:

1. These settings take precedence over any settings configured through the Driver Configuration Utility (DCU)

Saving your work

Select File->Save. If you see the following message,
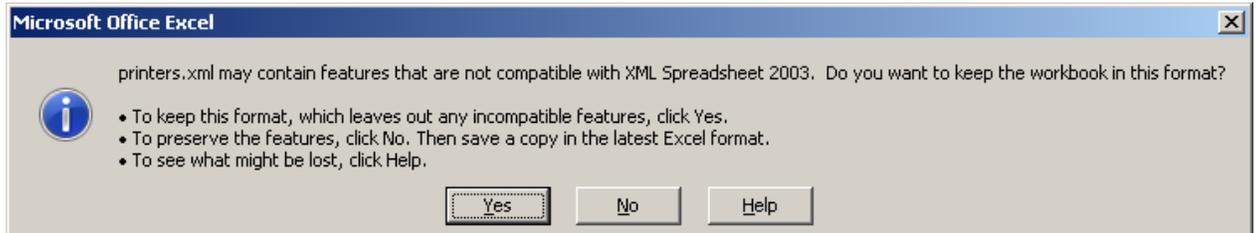
Click Yes. Any information that may be lost will not affect the outcome of the migration.

Appendix C: Paper Source, Paper Size and Media type mapping

NOTE: This feature applies to the UPD PCL 6 driver ONLY. Using this feature with the PCL 5 or PostScript drivers will result in incorrect results.

NOTE: This feature requires that the Microsoft setprinter.exe utility be downloaded separately, and copied to the folder that contains the tool set. This utility is part of the Microsoft Server Resource Kit tools, and can be downloaded from Microsoft at:

http://www.microsoft.com/download/en/details.aspx?id=17657

Different drivers use different nomenclature for paper source and media type. The following mappings are used to convert non-UPD paper source and media type settings to UPD settings. If the driver is not the UPD, the default settings for that driver are used.

The Source Name field and the Media Name field in the .csv file are searched for specific substrings, and if the substring is found, the appropriate matching to a UPD setting is done. For example, if a search was done for the string "Auto", Source Name fields contained the string "Automatically Select", "Auto Tray Select", "Auto", etc would all match.

Paper source mappings for UPD

Source Name contains:	UPD paper source configured to this or the localized equivalent:
"Manual"	Manual Feed in Tray 1
"Tray 1"	Tray 1
"Tray 2"	Tray 2
"Tray 3"	Tray 3
"Tray 4"	Tray 4
"Tray 5"	Tray 5
"Tray 6"	Tray 6
"Tray 7"	Tray 7
"Tray 8"	Tray 8
"Envelope"	Envelope Feeder

If no match is found for paper source, the default setting of *Automatically Select* is used.

Media Name contains:	UPD media type configured to this or the localized equivalent:
"Plain"	Plain
"Envelope"	Envelope
"Cardstock"	Cardstock 176-220g
"Heavy"	Heavy 111-130g
"Color"	Colored
"Bond"	Bond
"Label"	Labels
"Prepunchedx"	Prepunched
"Letterhead"	Letterhead
"Preprinted"	Preprinted

If no match is found for media name, the default setting of *Unspecified* is used.

Instructions for non-English systems

The tool does the string comparisons in English only. If the target system is non-English, follow these additional steps.

- If the source name cell contains the local equivalent of "Auto", these fields can be ignored. The UPD default is automatically select.

- If the media type cell contains the local equivalent of "Auto" or "Unspecified", these fields can be ignored. The UPD default is unspecified.

- For all other Source Name or Media Type cells, substitute the English phrase listed in the left column in the tables above. When the printers are created, the source names and media types will be configured using the language setting of the local system.

Appendix D: Tool set files

Files included in the tool set

Name	Purpose
Release Notes-Migrate-Server-Tools.doc	This file
MIGRATE-SERVER.bat	Tool set menu file
EnumPrinters3.exe	Enumerates the printers
HpPrnPort.exe	Utility to create TCP/IP ports
CreateTestPrinters.vbs	Script to create test printers
CsvToHtml.vbs	Script to convert .CSV file to html for viewing with web browser
InstallFromCSV.vbs	Installs drivers, creates and configures printers
LoadFromDriverStore.vbs	Merges driver store information into Source_Printers.csv
ScanForErrors.vbs	Script to parse log files for errors
ValidateDriverStore.vbs	Script to Validate the driver store.
DriverMapping.csv	Sample driver mapping file.

Optional files (not included in download package)

Name	Purpose
SetPrinter.exe	Microsoft utility used to configure print queues. Must be downloaded directly from Microsoft at: http://www.microsoft.com/download/en/details.aspx?id=17657

Files created during the process

Name	Purpose
DriverStore.log	Created by step 2: Results from the driver store validation process.
<source server>.csv	Created by step 1: Information about printers and drivers on the *source* (old) server
<source server>-temp.csv	Created by step 2: Temporary printer list file used for backup prior to merging in the new driver information.
Archive*<source server>*.csv	Created by step 2: Archive copy of source server printer list after merging in new driver information.
.log, Archive.log	See Appendix F for list of log files created
<source server>-test-printers.csv	Created by step 7: List of test printers that were created on the *target* (new) server.
<target server>-Target.csv	Created by step 10: Information about printers and drivers on the *target* (new) server.
Archive*<target server>*-Target.csv	Created by step 10: Archive copy of information about newly build printers and drivers on the *target* (new) server.
<source server>-Drivers.csv	Step 9: List of additional (32 or 64 bit) drivers that were installed on the target (new) server.
<target server>.html	Temporary html file for displaying configuration data

File Cleanup

The following files can be deleted after the server build process is complete:

- <source server>*.*
- <target-server>*.*

Appendix E: Build Log File Format

Sample Log File

```
1. InstallFromCSV.vbs version 12.01.23.1  1/24/2012  10:04:38 AM
2. Reading from file: USAADSV0GMDEV07.csv
3. Running script: Pre-Process.vbs
4. Pre-Process.vbs ver 12.01.23.4 is running
5.    Server Name :
6.    Printer Name: HP LaserJet P2015 PS (v5.3)
7.    Copying *.cfm to \\LocalHost\Print$\x64\3
8.
9. Pre-Process.vbs returned: 1
10.
11.       Server Name    :
12.       Current Driver  : HP Universal Printing PS (v5.4)
13.       Version         : 61.118.1.11744
14.       New Driver Name : HP Universal Printing PS (v5.4)
15.       INF path        : C:\HP UPD\64-bit UPD PS v5.4\hpcu118v.inf
16.       Printer Name    : HP LaserJet P2015 PS (v5.3)
17.       Device Model    : HP LaserJet P2015 Series
18.       IP Address      : 130.175.138.12
19.       Port Name       : 130.175.138.12
20.       Location        :
21.       Comment         :
22.       Is Shared       : X
23.       Share Name      : HP LaserJet P2015 PS (v5.3)
24.       Is Published    : X
25.       Build Number    :
26.       Print Processor : hpcpp118
27.       Color           : 1
28.       Copies          : 1
29.       Paper Source    : 15
30.       Source Name     :  Automatically Select
31.       Duplex          : 1
32.       Paper Size      : 1
33.       Form Name       :
34.       Media Type      : 256
35.       Media Name      : Unspecified
36.       Orientation     : 1
37.       Quality         : 600
38.       Spare 1         :
39.       Spare 2         :
40.       Serial Number   : 000000
41.
42.       Creating port: 130.175.138.12
43.       Successfully created port: 130.175.138.12
44.       Creating printer: HP LaserJet P2015 PS (v5.3)
45.       Successfully created printer: HP LaserJet P2015 PS (v5.3)
46.       Configuring printer: HP LaserJet P2015 PS (v5.3)
47.       Configuring printer settings: HP LaserJet P2015 PS (v5.3)
48.       1/24/2012  10:05:57 AM
```

Sample Log File Explanation:

Line 1:	Version of the build script, build start date and time
Line 2:	Name of the printer build information file
Lines 3-8:	Information returned by the optional pre-process.vbs script
Line 9:	Result returned by optional pre-process script. If this script returns 0, the rest of the build process for this printer is skipped.
Lines 11-41:	Information about the printer that is about to be built
Line 42-43:	Information about the creation of the TCP/IP port
Lines 44-45:	Information about the printer installation
Line 46:	Adding location, comments information, sharing and publishing
Line 47:	Setting paper source and type, duplex and color
Line 48:	Date and time printer build operation was completed