



Driver Automation Tool 6.0.4

DRIVER AUTOMATION TOOL

Release 6.0.4

Driver Automation Tool: Version 6.0.0

SCConfigMgr
Windows | EMS | PowerShell

Driver Automation Tool
Automates the process of downloading, extracting and importing drivers and BIOS updates into ConfigMgr and MDT

Make & Model Selection | ConfigMgr Settings | ConfigMgr Package Mgmt | Custom ConfigMgr Packages | MDT Settings | MDM/MBM Diags | Process Log | About

Platform / Download Type

Deployment Platform: ConfigMgr - Standard Pkg

Download Type: Drivers

Operating System Selection

Operating System: Windows 10

Architecture: 64 bit

Manufacturer Selection

☒ Dell
☒ Lenovo
☐ Hewlett-Packard
☒ Microsoft

Import ConfigMgr Model List? Yes

Find Models

Model Selection | HP Driver Catalogue

Search Models: Find Clear Selection

Selected	Make	Model	Windows Version	Architecture	Known Model
<input checked="" type="checkbox"/>	Dell	Embedded Box PC 3000	Windows 10	64 bit	
<input type="checkbox"/>	Dell	Embedded Box PC 5000	Windows 10	64 bit	
<input type="checkbox"/>	Dell	Latitude 12 Rugged Extreme (7204)	Windows 10	64 bit	
<input type="checkbox"/>	Dell	Latitude 12 Rugged Tablet 7202	Windows 10	64 bit	
<input type="checkbox"/>	Dell	Latitude 14 Rugged (5404)	Windows 10	64 bit	
<input type="checkbox"/>	Dell	Latitude 14 Rugged Extreme (7404)	Windows 10	64 bit	
<input type="checkbox"/>	Dell	Latitude 3150	Windows 10	64 bit	
<input type="checkbox"/>	Dell	Latitude 3160	Windows 10	64 bit	

Reset Tool Start Download and Import Process



TABLE OF CONTENTS

1	INTRODUCTION	3
2	PREREQUISITES	3
3	RUNNING THE SCRIPT	4
3.1	COMMAND LINE SWITCHES	4
4	GUI MODE	5
4.1	CONNECTING TO YOUR SCCM ENVIRONMENT	6
4.2	DEPLOYMENT PLATFORM	6
4.3	OPERATING SYSTEM SELECTION	7
4.4	MANUFACTURER SELECTION	8
4.5	HP DRIVER SELECTION	9
4.6	DRIVER STORAGE SELECTION	10
4.7	DISTRIBUTION	11
4.8	DRIVER CLEAN UP OPTIONS	11
4.9	PACKAGE LOCATION OPTIONS	12
4.10	DRIVER MANAGEMENT	13
4.11	CUSTOM PACKAGES	14
4.12	DRIVER FALLBACK PACKAGES	15
4.13	MDT SETTINGS	16
5	MODERN DRIVER/BIOS MANAGEMENT DIAGNOSTICS	17
5.1	ERROR CODES/MESSAGES	18
6	NORMAL / SILENT OPERATION	19
6.1	NORMAL OPERATION	19
6.2	SILENT OPERATION	20
APPENDIX A		21
	CUSTOM HARDWARE CLASSES	21
1.	DEFAULT CLIENT SETTINGS	21
2.	SET HARDWARE INVENTORY CLASSES	22



1 INTRODUCTION

The Driver Automation Tool is an open source PowerShell script which uses WinForms to render an intuitive graphical user interface for downloading driver and BIOS packages into Systems Center Configuration Manager and MDT.

The script uses source feeds from many vendors including Dell, HP, Lenovo and Microsoft to present a list of their client systems. Once model selection has taken place and the OS has been picked, the script automates the following processes:

- Driver/BIOS file download(s)
- Driver/BIOS file extraction
- Packaging of the extracted files
- Importation of the package into Configuration Manager / MDT
- Distribution of the package to distribution points (Configuration Manager)

2 PREREQUISITES

- PowerShell v4.0 or greater
- Internet access
- Security rights to the Systems Center Configuration Manager environment
- Remote access to your SCCM site server
- SCCM PowerShell module for SCCM downloads
- MDT PowerShell module for MDT downloads



3 RUNNING THE SCRIPT

Simply extract the entire contents of the ZIP file to a folder and launch the included exe or alternatively launch the DriverAutomationTool.ps1 script directly. Note that when launching the script directory it should be run from an elevated PowerShell window using the -ExecutionPolicy Bypass switch to avoid security warnings, example;

```
PowerShell.exe -ExecutionPolicy Bypass -File C:\Tools\DriverAutomationTool.ps1
```

3.1 COMMAND LINE SWITCHES

When running the script, the following command line options are available:

- **-NoXMLOutput**
Variable type: Boolean
This option allows you to skip the XML settings export process for ad-hoc operations
- **-RunSilent**
Variable type: Boolean
This option allows for a once off silent running of the script without scheduling

Note: The Run-DriverAutomationToolSVC.ps1 file requires configuration output from the GUI so it should not be run directly.



Driver Automation Tool 6.0.4

4 GUI MODE

By default, when you run the DriverAutomationTool.ps1 script it will launch in full GUI mode. This is where the process of connecting to your SCCM environment begins, except for using the tool for MDT/download only.

On the initial launch, you will have a GUI like the one pictured below;

Driver Automation Tool: Version 6.0.0

SCConfigMgr
Windows | EM+S | PowerShell

Driver Automation Tool
Automates the process of downloading, extracting and importing drivers and BIOS updates into ConfigMgr and MDT

Make & Model Selection | ConfigMgr Settings | ConfigMgr Package Mgmt | Custom ConfigMgr Packages | MDT Settings | MDM/MBM Diags | Process Log | About

Platform / Download Type

Deployment Platform
ConfigMgr - Standard Pkg

Download Type
Drivers

Operating System Selection

Operating System
Windows 10

Architecture
64 bit

Manufacturer Selection

☒ Dell
☒ Lenovo
☐ Hewlett-Packard
☒ Microsoft

Import ConfigMgr Model List?
Yes

Find Models

Model Selection | HP Driver Catalogue

Search Models: **Find** **Clear Selection**

Selected	Make	Model	Windows Version	Architecture	Known Model
<input checked="" type="checkbox"/>	Dell	Embedded Box PC 3000	Windows 10	64 bit	
<input type="checkbox"/>	Dell	Embedded Box PC 5000	Windows 10	64 bit	
<input type="checkbox"/>	Dell	Latitude 12 Rugged Extreme (7204)	Windows 10	64 bit	
<input type="checkbox"/>	Dell	Latitude 12 Rugged Tablet 7202	Windows 10	64 bit	
<input type="checkbox"/>	Dell	Latitude 14 Rugged (5404)	Windows 10	64 bit	
<input type="checkbox"/>	Dell	Latitude 14 Rugged Extreme (7404)	Windows 10	64 bit	
<input type="checkbox"/>	Dell	Latitude 3150	Windows 10	64 bit	
<input type="checkbox"/>	Dell	Latitude 3160	Windows 10	64 bit	

Reset Tool **Start Download and Import Process**



Driver Automation Tool 6.0.4

4.1 CONNECTING TO YOUR SCCM ENVIRONMENT

To connect to your SCCM environment you must specify details on the ConfigMgr Settings tab.

The screenshot shows the Driver Automation Tool 6.0.4 interface. The title bar reads "Driver Automation Tool: Version 6.0.0". The main window has a menu bar with "Make & Model Selection", "ConfigMgr Settings", "ConfigMgr Package Mgmt", "Custom ConfigMgr Packages", "MDT Settings", "MDM/MBM Diags", "Process Log", and "About". The "ConfigMgr Settings" tab is active. It contains two main sections: "Site Server Settings" and "Package Storage Location". In "Site Server Settings", the "Site Server" text box contains "LAB-SCCM.SCCConfigMgrLab.local" and the "Site Code" dropdown is set to "SCP". A "Connect to ConfigMgr" button is next to the Site Code. In "Package Storage Location", the "Download Path" text box contains "\\localhost\\sources\\" and the "Package Path" text box contains "\\localhost\\packages". Below these are three checkboxes: "Clean Up Unused Drivers", "Remove Superseded Driver Packages", and "Remove Driver Source Packages". On the right side, there is a "Distribution Options" panel with tabs for "Distribution Points" and "Distribution Point Groups". The "Distribution Points" tab is active, showing a table with columns "Selected" and "Distribution Point Name". The table has one row with a checked checkbox and the name "LAB-SCCM.SCCConfigMgrLab.local". Below the table are checkboxes for "Enable Binary Differential Replication" (checked) and a "Priority" dropdown set to "Low". At the bottom of the window, there are two buttons: "Reset Tool" and "Start Download and Import Process".

The name of your site server in the site server text box and click on the “Connect to ConfigMgr” button. When you do so, several processes will take place in the background to ensure that you have access to the required PS cmdlets and the site server, while also attempting to discover the site code.

4.2 DEPLOYMENT PLATFORM

After connecting to your SCCM environment or alternatively if you are just using this tool for MDT, you can progress to making selections for the import process, such as the type of download and the OS which to match model listings against.

- **Deployment Platform**

- **ConfigMgr – Driver Pkg**

- In this mode driver imports will use the Driver Package method, with each of the INF's being individually imported and presented in the GUI

- **ConfigMgr – Standard Pkg**

- In this mode driver imports will use the standard program type package method. This method can then be used with our Modern Driver Management process and our Web Service for dynamic deployment of drivers

- **ConfigMgr – Standard Pkg (Pilot)**

- In this mode it provides the same functionality as the Standard Pkg option but names the packages with a “Pilot” naming scheme. The package can then be used for testing purposes before moving out to production



Driver Automation Tool 6.0.4

- **MDT**
Used for MDT import jobs
- **Both – SCCM Driver / Standard Pkg**
Used for imports both into SCCM and MDT
- **Download Only**
Drivers will be downloaded but not imported

4.3 OPERATING SYSTEM SELECTION

You must select an operating system and architecture for the script to run in either normal or silent mode.

Driver Automation Tool: Version 6.0.0

SCConfigMgr
Windows | EM+S | PowerShell

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Make & Model Selection | ConfigMgr Settings | ConfigMgr Package Mgmt | Custom ConfigMgr Packages | MDT Settings | MDM/MBM Diags | Process Log | About

Platform / Download Type

Deployment Platform
ConfigMgr - Standard Pkg

Download Type
Drivers

Operating System Selection

Operating System
Windows 10

Architecture
64 bit

Manufacturer Selection

☒ Dell
☒ Lenovo
☐ Hewlett-Packard
☒ Microsoft

Import ConfigMgr Model List?
Yes

Find Models

Model Selection | HP Driver Catalogue

Search Models: **Find** **Clear Selection**

Selected	Make	Model	Windows Version	Architecture	Known Model
<input checked="" type="checkbox"/>	Dell	Embedded Box PC 3000	Windows 10	64 bit	
<input type="checkbox"/>	Dell	Embedded Box PC 5000	Windows 10	64 bit	
<input type="checkbox"/>	Dell	Latitude 12 Rugged Extreme (7204)	Windows 10	64 bit	
<input type="checkbox"/>	Dell	Latitude 12 Rugged Tablet 7202	Windows 10	64 bit	
<input type="checkbox"/>	Dell	Latitude 14 Rugged (5404)	Windows 10	64 bit	
<input type="checkbox"/>	Dell	Latitude 14 Rugged Extreme (7404)	Windows 10	64 bit	
<input type="checkbox"/>	Dell	Latitude 3150	Windows 10	64 bit	
<input type="checkbox"/>	Dell	Latitude 3160	Windows 10	64 bit	

Reset Tool **Start Download and Import Process**



Driver Automation Tool 6.0.4

4.4 MANUFACTURER SELECTION

The manufacturer selection is dynamic and based upon OS support from each of the supported vendors. For example, HP is the only manufacturer supporting Windows 10 build numbers within their XML feed, hence HP will be greyed out if the Operating System selected is “Windows 10”, and all other vendors will be greyed out where “Windows 10 xxxx” is selected as the Operating System.

The screenshot shows the Driver Automation Tool interface. The 'Manufacturer Selection' section is highlighted with a red box. It contains checkboxes for Dell, Lenovo, Hewlett-Packard, and Microsoft. The 'Find Models' button is also highlighted. A red arrow points to the 'Find Models' button.

Platform / Download Type
Deployment Platform: ConfigMgr - Standard Pkg
Download Type: Drivers

Operating System Selection
Operating System: Windows 10
Architecture: 64 bit

Manufacturer Selection
☒ Dell
☒ Lenovo
☐ Hewlett-Packard
☒ Microsoft
Import ConfigMgr Model List?: Yes
Find Models

Model Selection: HP Driver Catalogue
Search Models: [Search Box] Find Clear Selection

Selected	Make	Model	Windows Version	Architecture	Known Model
<input checked="" type="checkbox"/>	Dell	Embedded Box PC 3000	Windows 10	64 bit	
<input type="checkbox"/>	Dell	Embedded Box PC 5000	Windows 10	64 bit	
<input type="checkbox"/>	Dell	Latitude 12 Rugged Extreme (7204)	Windows 10	64 bit	
<input type="checkbox"/>	Dell	Latitude 12 Rugged Tablet 7202	Windows 10	64 bit	
<input type="checkbox"/>	Dell	Latitude 14 Rugged (5404)	Windows 10	64 bit	
<input type="checkbox"/>	Dell	Latitude 14 Rugged Extreme (7404)	Windows 10	64 bit	
<input type="checkbox"/>	Dell	Latitude 3150	Windows 10	64 bit	
<input type="checkbox"/>	Dell	Latitude 3160	Windows 10	64 bit	

Reset Tool Start Download and Import Process

Simply select the vendor you wish to download files from and click on the “Find Models” button for a full list of models matching support on the Operating System selected.

ConfigMgr Import

When using the tool with ConfigMgr, you have the option to allow the tool to automatically import Dell, HP and Lenovo models known in WMI. This option can be turned off and on to prevent your selected models list re-populating.

The screenshot shows the Model Selection table. A red arrow points to the 'Known Model' column. The table lists various Dell models and their status in the Known Model column.

Model Selection: HP Driver Catalogue
Search Models: [Search Box] Find Clear Selection

Selected	Make	Model	Windows Version	Architecture	Known Model
<input checked="" type="checkbox"/>	Dell	XPS 13 9350	Windows 10	64 bit	Yes
<input checked="" type="checkbox"/>	Dell	Optiplex 7040	Windows 10	64 bit	Yes
<input checked="" type="checkbox"/>	Dell	Latitude E5540	Windows 10	64 bit	Yes
<input checked="" type="checkbox"/>	Dell	Optiplex 3020M	Windows 10	64 bit	Yes
<input checked="" type="checkbox"/>	Dell	Optiplex 9020	Windows 10	64 bit	Yes
<input checked="" type="checkbox"/>	Dell	Optiplex 9020M	Windows 10	64 bit	Yes
<input checked="" type="checkbox"/>	Dell	Latitude E7440	Windows 10	64 bit	Yes
<input checked="" type="checkbox"/>	Dell	Latitude E5470	Windows 10	64 bit	Yes
<input type="checkbox"/>	Dell	Latitude 3160	Windows 10	64 bit	No



Driver Automation Tool 6.0.4

4.5 HP DRIVER SELECTION

New in version 6.0.0 is the ability to select individual HP drivers based on the OS you have selected. The drivers are displayed in a new tab called “HP Driver Catalogue” and will only display if Hewlett-Packard is selected from the manufacturer list.

The list like the model selection is now also searchable. Enter a keyword and click on the Find button. The matching entries will be moved to the top of the list and a text confirmation of the number of items will appear.

Example of HP Drivers found using key word “Hotkey”:

Driver Automation Tool: Version 6.0.0

SCConfigMgr
Windows | EM+S | PowerShell

Driver Automation Tool
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Make & Model Selection | ConfigMgr Settings | ConfigMgr Package Mgmt | Custom ConfigMgr Packages | MDT Settings | MDM/MBM Diags | Process Log | About

Platform / Download Type

Deployment Platform: ConfigMgr - Standard Pkg

Download Type: BIOS

Operating System Selection

Operating System: Windows 10 1709

Architecture: 64 bit

Manufacturer Selection

☐ Dell ☐ Lenovo ☒ Hewlett-Packard ☐ Microsoft

Import ConfigMgr Model List? Yes

Find Models

Model Selection | **HP Driver Catalogue**

Search Catalogue: hotkey **Find** Found (23) matches **Clear Selection**

Selected	SoftpaqTitle	URL	Severity	Description
<input type="checkbox"/>	HP Hotkey Support [6.2.5.1.A1]	http://ftp.hp.com/pub/softpaq/...	Low	[6.2.5.1.A1] Provides support for ...
<input type="checkbox"/>	HP Hotkey Support 5 [5.0.28.1.A1]	http://ftp.hp.com/pub/softpaq/...	Low	[5.0.28.1.A1] Provides support fo...
<input type="checkbox"/>	HP Hotkey Support [6.2.38.1.A1]	http://ftp.hp.com/pub/softpaq/...	Important	[6.2.38.1.A1] Provides support fo...
<input type="checkbox"/>	HP Hotkey Support [6.2.36.1.A1]	http://ftp.hp.com/pub/softpaq/...	Important	[6.2.36.1.A1] Provides support fo...
<input type="checkbox"/>	HP Hotkey Support [6.2.37.1.A1]	http://ftp.hp.com/pub/softpaq/...	Important	[6.2.37.1.A1] Provides support fo...
<input type="checkbox"/>	HP Hotkey Support [6.2.32.1.A1]	http://ftp.hp.com/pub/softpaq/...	Low	[6.2.32.1.A1] Provides support fo...
<input type="checkbox"/>	HP Hotkey Support [6.2.34.1.A1]	http://ftp.hp.com/pub/softpaq/...	Important	[6.2.34.1.A1] Provides support fo...
<input type="checkbox"/>	HP Hotkey Support [6.2.30.1.A1]	http://ftp.hp.com/pub/softpaq/...	Important	[6.2.30.1.A1] Provides support fo...
<input type="checkbox"/>	HP Hotkey Support [6.2.31.1.A1]	http://ftp.hp.com/pub/softpaq/...	Important	[6.2.31.1.A1] Provides support fo...

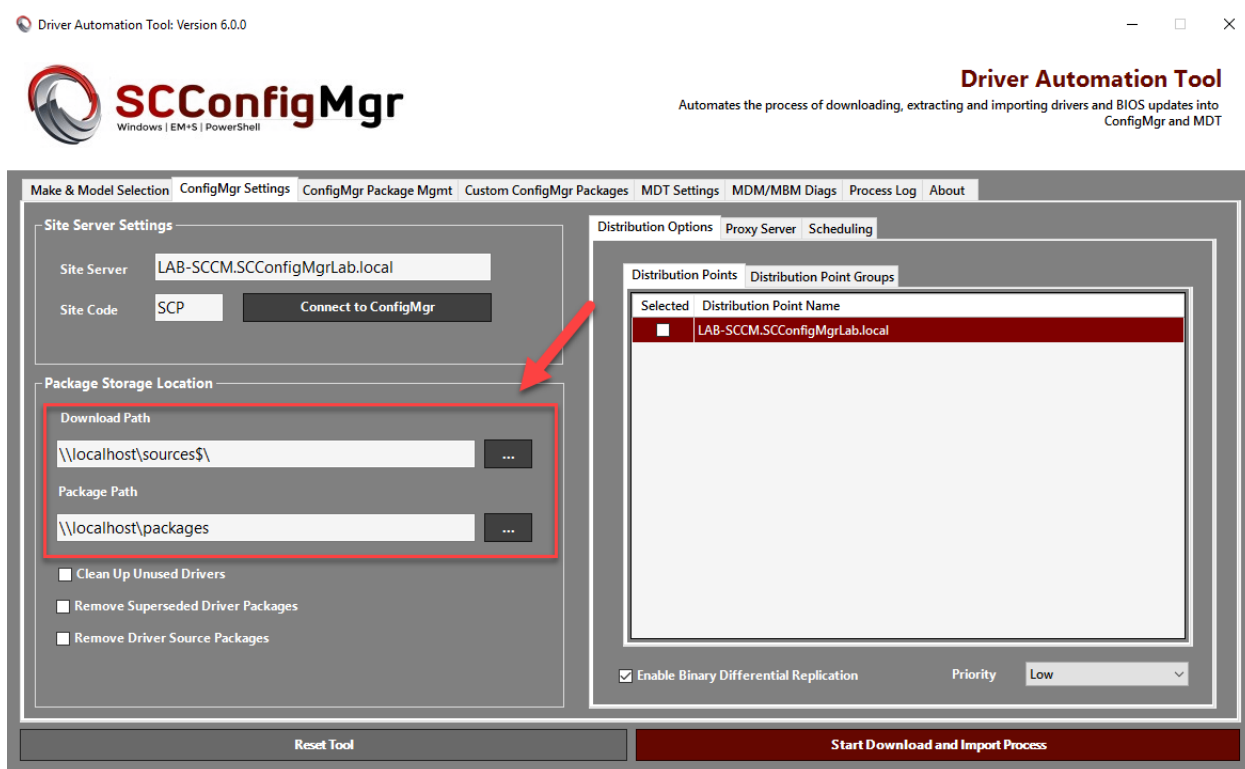
Reset Tool **Start Download and Import Process**



Driver Automation Tool 6.0.4

4.6 DRIVER STORAGE SELECTION

On the ConfigMgr Settings tab you will see two fields for storage location info;



- **Download Path**
This path is used for temporary storage of packages and driver download cabs / extracted drivers
- **Package Path**
This path is used for the storage of BIOS and driver packages post extraction

Important

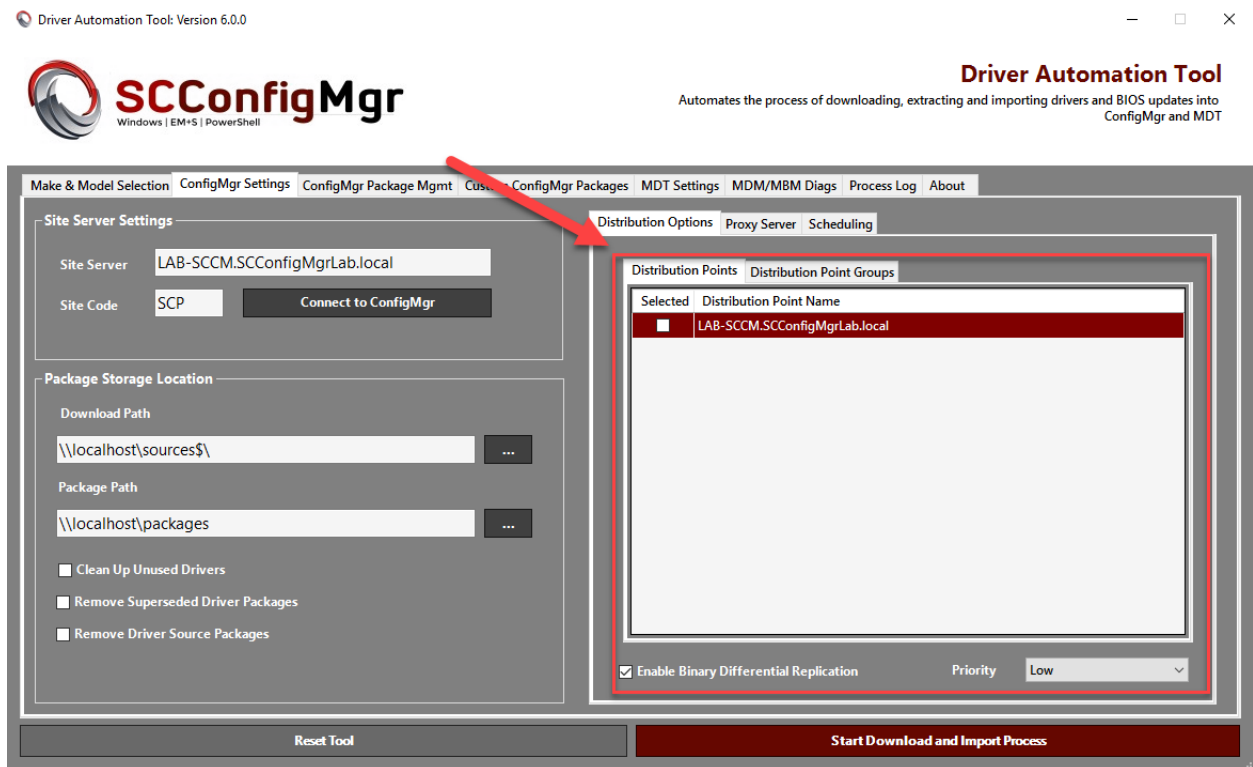
Both the Repository and Package paths should be specified and in different share locations. There is no need to create subfolders within the UNC share for the manufacturers or models as this is undertaken by the script at run time.



Driver Automation Tool 6.0.4

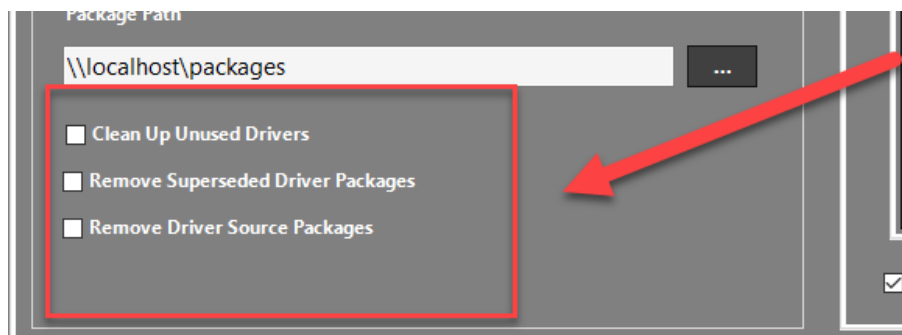
4.7 DISTRIBUTION

Selection of individual SCCM distribution points or distribution point groups is available on the ConfigMgr Settings tab. You also have the option of enabling Binary Differential Replication for your packages and the ability to set the distribution priority of the package.



4.8 DRIVER CLEAN UP OPTIONS

On the ConfigMgr Settings tab you will find various options to clean up content post run time.





4.9 PACKAGE LOCATION OPTIONS

New in 6.0.4 is the ability to specify a custom path for the packages created in the tool. You will see this on the ConfigMgr Settings tab and under the Package Options sub-tab.

You now have the option to create in the root packages folder, specify a folder structure or let the tool use the Package Type\Manufacturer default folder structure.



Driver Automation Tool 6.0.4

4.10 DRIVER MANAGEMENT

New in version 5.0.0 is the ability to manage driver and BIOS package deployments for piloting and production deployment states.

- **Production**

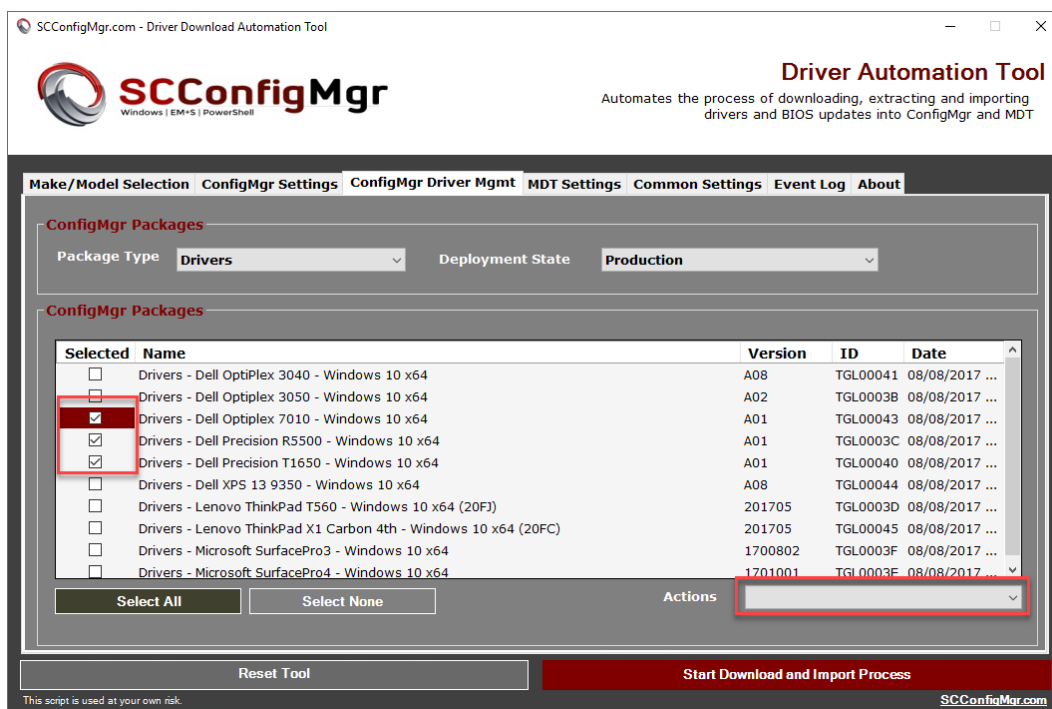
The production state is self-explanatory, here you will find packages which you have deemed suitable for mass deployment in your environment

- **Pilot**

The pilot state is for pre-production testing. Combined with the filter option on our MDM solution you can specify “Drivers Pilot” or “BIOS Update Pilot” to return packages in this state for test purposes

- **Retire**

The retire state simply allows you to flag packages which are retired and can be removed by your ConfigMgr admin, or to make it easier to bulk remove these packages via PowerShell

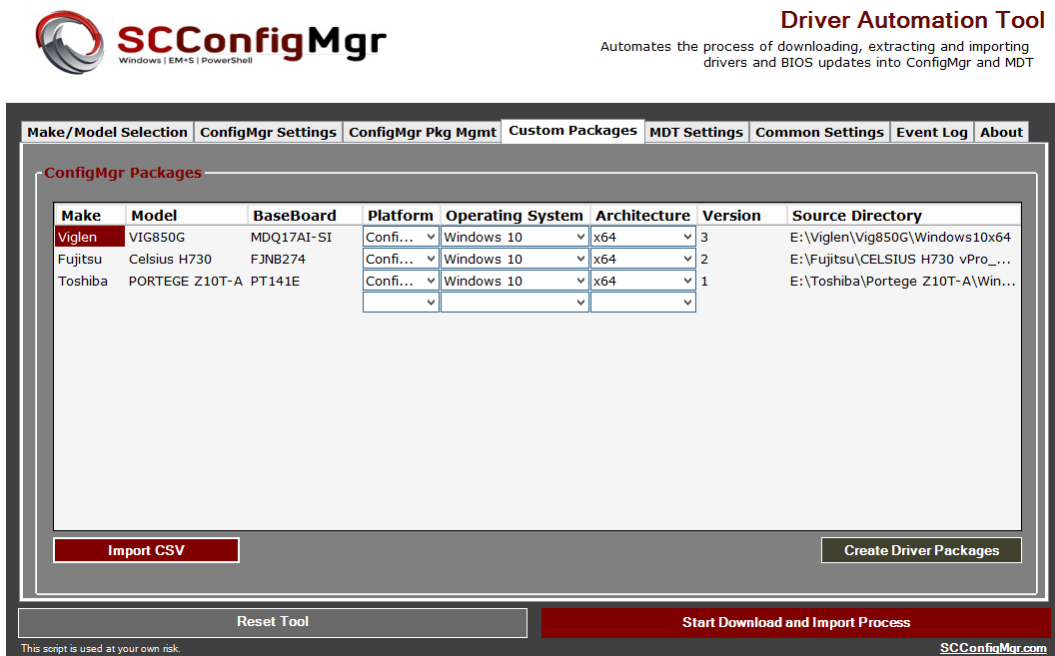


Packages can be moved between any of these states by selecting the packages and using the “Actions” drop down list.



Driver Automation Tool 6.0.4

4.11 CUSTOM PACKAGES



New to 5.0.1 is the ability to create driver packages for any make or model, allowing for use with our modern driver management solution.

To create a package, you will first of all need to download and extract the vendor drivers. After you have extracted the drivers you will need to obtain the baseboard product value from WMI, this will be used as the unique identifier to match packages.

To obtain the baseboard product value, you can use the following single line of PowerShell code:

(Get-CIMInstance -ClassName MS_SystemInformation -Namespace root\WMI).BaseBoardProduct

Example – Fujitsu Celsius H730 - FJNB274

Alternatively, you could also report on these values in ConfigMgr by extending the hardware collection values. To do so follow the process in Appendix A at the end of this document.

Connecting to ConfigMgr / MDT Environments

As the import process allows for a mix of MDT and ConfigMgr imports, you must connect to these environments using the ConfigMgr Settings and MDT Settings tabs prior to pressing the “Create Driver Packages” button.

Adding / Importing Custom Makes / Models

There are two options when adding custom makes/models, you can either input all of the details manually or you can use a CSV file and import the contents. Included in the ZIP download is a blank CSV for editing.



Driver Automation Tool 6.0.4

Field Values

Below is a list of the value types accepted:

FIELD NAME	TYPE	OPTIONS
MAKE	Text	
MODEL	Text	
BASEBOARD	Text	
PLATFORM	List – Single Select	ConfigMgr MDT
OPERATING SYSTEM	List – Single Select	Windows 10 1709 Windows 10 1703 Windows 10 1610 Windows 10 Windows 8.1 Windows 8 Windows 7
ARCHITECTURE	List – Single Select	x86 x64
VERSION	Text	
SOURCE DIRECTORY	Text	

CSV Format Example

Make,Model,BaseBoard,Platform,Operating System,Architecture,Version,Source Directory

Toshiba,PORTEGE Z10T-A,PT141E,ConfigMgr,Windows 10,x64,1,E:\Toshiba\Portege Z10T-A\Win1064

Creating Driver Packages

Once you have filled in all of the required values or imported your completed CSV, clicking the **Create Driver Packages** will start the process of creating ConfigMgr packages or importing drivers into MDT.

If ConfigMgr is the selected platform packages will also distribute according to the selected distribution point(s) / distribution point group(s) on the ConfigMgr Settings tab.

4.12 DRIVER FALLBACK PACKAGES

Driver fallback packages are intended for generic ad-hoc deployments where a number of driver files can be placed into a fallback package and called at deployment time.

Driver Fallback Packages
Driver fallback packages can be used as a fallback mechanism when using Modern Driver Management.
Simply create a fallback package for your specified OS and refer to the Modern Driver Management page for full documentation.

Operating System
Windows 10
Architecture
64 bit
Create Fallback Package

Packages are created on a per operating system basis, based on the OS version and architecture. Drivers should then be extracted and dropped into the package source location.



Driver Automation Tool 6.0.4

4.13 MDT SETTINGS

Added in 5.0.0 is the ability to specify an alternative location for your MDT installation without having to edit the script source. Simply browse or paste in the path and click the “Import PS Module” button to verify the PowerShell cmdlets are imported.

 | DS001 | F:\DeploymentShare | MDT Deployment Share | | ☐ | DS002 | F:\DeploymentShare-Pilot | MDT Deployment Share - Pilot | 3. 'Folder Structure Options' with a 'Driver Structure' dropdown menu and an example: 'Total Control Method Naming Example: \\\$\ Structure: Lenovo\T460S\Windows 10 x64\A08\'. At the bottom are 'Reset Tool' and 'Start Download and Import Process' buttons. A footer note says 'This script is used at your own risk.' and the SCCConfigMgr.com logo is in the bottom right."/>

Other MDT additions include;

- **Deployment Share Selection**

Now you can select single or multiple deployment shares to distribute content to during the download and import process

- **Driver Structure**

Here you can select different folder naming structures for your MDT total control method. At present two are included;

OperatingSystemDir\Make\Model\DriverRevision
Make\Model\OperatingSystemDir\DriverRevision



5 MODERN DRIVER/BIOS MANAGEMENT DIAGNOSTICS

For those of you who are using the full Modern Driver/BIOS Management solution, in version 5.1.1 a new tab has been added to provide quick diagnostic information when querying the ConfigMgr WebService.

The screenshot shows the Driver Automation Tool interface with the 'MDM/MBM Diags' tab selected. The interface includes a header with the SCCConfigMgr logo and a description of the tool's function. Below the header is a navigation bar with tabs: Make/Model Selection, ConfigMgr Settings, ConfigMgr Pkg Mgmt, Custom Packages, MDT Settings, Common Settings, MDM/MBM Diags, Event Log, and About. The main content area is divided into two sections: 'ConfigMgr Web Service - Server Details' and 'ConfigMgr Web Service - Returned Packages'.

ConfigMgr Web Service - Server Details

Here you can test obtaining package information from the ConfigMgr Web Service, used to match driver and BIOS downloads.

Enter the ConfigMgr web service URL and secret key, then click on the "Connect ConfigMgr Web Service" button. The results are displayed in the below section.

ConfigMgr Web Service URL:

Secret Key:

Connect ConfigMgr Web Service

ConfigMgr Web Service - Returned Packages

WebService Version:	Package Name	Package Version	Package ID
v1.3.0	Drivers - Dell Latitude 3330 - Windows 10 x64	A03	TGC00449
Status Code: 200	Drivers - Dell Latitude E5470 - Windows 10 x64	A09	TGC0041F
Status Description: OK	Drivers - Dell Latitude E5540 - Windows 10 x64	A02	TGC0039B
Response Time: 108ms	Drivers - Dell Latitude E6400 - Windows 7 x64	A05	TGC0044B
Driver Package Count: 65	Drivers - Dell Latitude E7440 - Windows 10 x64	A03	TGC0039D
BIOS Package Count: 38	Drivers - Dell Latitude E7440 - Windows 10 x86	A03	TGC003FE
	Drivers - Dell Latitude E7450 - Windows 10 x64	A05	TGC0039F

Reset Tool **Start Download and Import Process**

This script is used at your own risk. SCCConfigMgr.com

On the "MDM/MBM Diags" tab simply enter the ConfigMgr WebService URL and Secret Key, then press the "Connect ConfigMgr Web Service" button to attempt communications.

Upon successful connection to the ConfigMgr WebService the following details will be displayed;

- **WebService Version**
- **Status Code**
- **Status Description**
- **Response Time**
- **Driver Package Count**
- **BIOS Package Count**
- **Returned Package List**



Driver Automation Tool 6.0.4

5.1 ERROR CODES/MESSAGES

Should any issues occur during the communication process, exception details will be included both in the GUI and log file so you can troubleshoot issues further.

Example:

The screenshot shows the Driver Automation Tool interface. The title bar reads "Driver Automation Tool". The main header features the "SCConfigMgr" logo with the text "Windows | EM+S | PowerShell" and the title "Driver Automation Tool" with the subtitle "Automates the process of downloading, extracting and importing drivers and BIOS updates into ConfigMgr and MDT".

The navigation tabs include: Make/Model Selection, ConfigMgr Settings, ConfigMgr Pkg Mgmt, Custom Packages, MDT Settings, Common Settings, MDM/MBM Diags, Event Log, and About.

The "ConfigMgr Web Service - Server Details" section contains the following information:

- Here you can test obtaining package information from the ConfigMgr Web Service, used to match driver and BIOS downloads.
- ConfigMgr Web Service URL:
- Secret Key:
- Connect ConfigMgr Web Service button

The "ConfigMgr Web Service - Returned Packages" section displays the following details:

- WebService Version: v1.3.0
- Status Code: 200
- Status Description: OK
- Response Time: 102ms
- Driver Package Count: 65
- BIOS Package Count: 39

The returned packages are listed in a table:

Package Name	Package Version	Package ID
Drivers - Dell OptiPlex 3020M - Windows 10 x64	A03	TGC003A0
Drivers - Dell OptiPlex 3050 - Windows 10 x64	A05	TGC00491
Drivers - Dell OptiPlex 3050 AIO - Windows 10 x64	A05	TGC00493
Drivers - Dell OptiPlex 7040 - Windows 10 x64	A09	TGC003A1
Drivers - Dell OptiPlex 9020 - Windows 10 x64	A04	TGC003A5
Drivers - Dell OptiPlex 9020M - Windows 10 x64	A03	TGC003E6
Drivers - Dell XPS 13 9350 - Windows 10 x64	A09	TGC00420

At the bottom, there is a "Reset Tool" button and a "Start Download and Import Process" button. A footer note states "This script is used at your own risk." and the website "SCConfigMgr.com" is listed.

Service Unavailable



6 NORMAL / SILENT OPERATION

After the initial selection of your models, operating system, import type etc you have the option to either commence the download process by clicking on the “**Start Download and Import Process**” button or opt to schedule the job for silent running.

6.1 NORMAL OPERATION

By clicking on the “Start Download and Import Process” button, all output will be passed through to the Job Process Log, keeping you up to date with the various processes running.

Job Process Log

```
===== Downloading Dell Driver Catalog =====
Info: Downloading Dell Driver Catalog Cabinet File from http://downloads.dell.com/catalog/CatalogPC.cab
Info: Expanding Dell Driver Pack Cabinet File: CatalogPC.cab
Info: Latest available BIOS version is A20
Info: BIOS Download URL Found: http://downloads.dell.com/FOLDER04331220M/1/Latitude_E6320_A20.exe
Info: Creating \\LOCALHOST\SOURCES$DellLatitude E6320\BIOSA20\ folder
Info: Downloading Latitude_E6320_A20.exe BIOS update file
```

Contained inside the folder from which the script is launched you will notice there is now a “Logs” directory. Within you will find a verbose output log file (**DriverAutomationTool.log**) which can view with your preferred log viewer, CMTrace for example.

CMTrace is part of the Systems Center 2012 R2 Configuration Manager Toolkit and downloadable from the following URL - <https://www.microsoft.com/en-us/download/details.aspx?id=50012>

Below is an example of the contents of the log file generated;

Configuration Manager Trace Log Tool - [op\DriverDownloadTool\Logs\DriverAutomationTool.log]

File Tools Window Help

Log Text	Component	Date/Time	Thread
Pre-Check: Respository Path Set To \\LOCALHOST\SOURCES\$	DriverAutomationToo	08/08/2017 11:46:24	5660 (0x161C)
===== Starting Download Processes =====	DriverAutomationToo	08/08/2017 11:46:24	5660 (0x161C)
Info: Models selected: Microsoft SurfacePro4	DriverAutomationToo	08/08/2017 11:46:24	5660 (0x161C)
Info: Operating System specified: Windows 10	DriverAutomationToo	08/08/2017 11:46:24	5660 (0x161C)
Info: Operating System architecture specified: x64	DriverAutomationToo	08/08/2017 11:46:24	5660 (0x161C)
Info: Site Code specified: TGL	DriverAutomationToo	08/08/2017 11:46:24	5660 (0x161C)
Info: Respository Path specified: \\LOCALHOST\SOURCES\$	DriverAutomationToo	08/08/2017 11:46:25	5660 (0x161C)
Info: Package Path specified: \\LOCALHOST\DEVICEDRIVERS	DriverAutomationToo	08/08/2017 11:46:25	5660 (0x161C)
===== Processing Microsoft SurfacePro4 Downloads =====	DriverAutomationToo	08/08/2017 11:46:25	5660 (0x161C)
Info: Starting Download, Extract And Import Processes For Microsoft Model: SurfacePro4	DriverAutomationToo	08/08/2017 11:46:25	5660 (0x161C)
Info: Setting Microsoft Variables	DriverAutomationToo	08/08/2017 11:46:25	5660 (0x161C)
Info: Attempting Microsoft Link Download Discovery	DriverAutomationToo	08/08/2017 11:46:25	5660 (0x161C)
Info: Driver Extract Location Set - \\LOCALHOST\SOURCES\$Microsoft\SurfacePro4\Windows10-x64-1701001	DriverAutomationToo	08/08/2017 11:46:26	5660 (0x161C)
Date/Time: 08/08/2017 15:24:07 Component: DriverAutomationTool			
Thread: 12956 (0x329C) Source:			
Info: Found 188 Dell Model Driver Packs for			

Elapsed time is 5h 10m 35s 788ms (18635.788 seconds)



Driver Automation Tool 6.0.4

6.2 SILENT OPERATION

For silent operation, you will need to specify a location for the script to run from along with a starting time and service account details. The service account specified should have rights to your SCCM environment.

Manufacturer **Driver Storage Locations** **Distribution** **Driver Clean Up Options** **Scheduling Options**

Time: 00:00

Script Location: [Text Box] ...

Username: [Text Box]

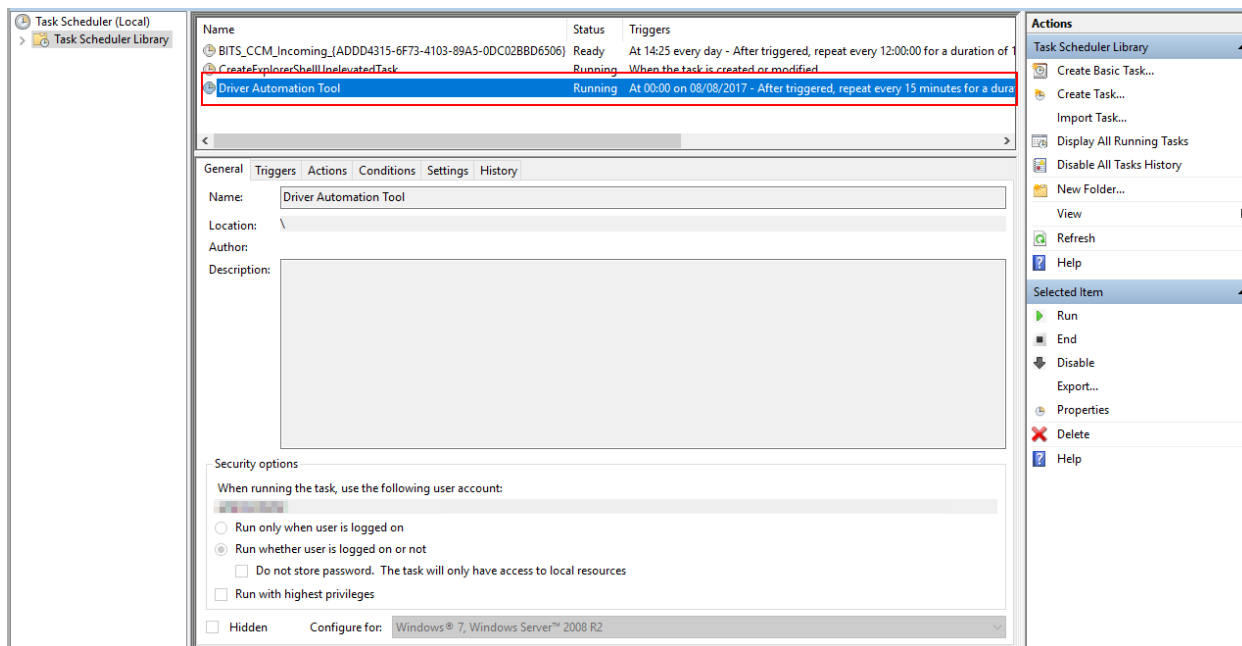
Password: [Text Box]

Schedule Job

Silent Running Scheduling Options

In this section you can schedule daily automated running of the driver automation tool. Note that the user account should have rights to ConfigMgr and run as a service rights

When you click on the Schedule Job button, the script will run a function to validate your credentials against Active Directory. Once the account is valid, it will copy the Run-DriverAutomationToolSvc.ps1 script to the directory specified and set the scheduled start time.



By default, the script will run every 15 minutes, this is to cater for any time outs that occur with XML feeds, downloads etc. You can of course modify this by changing the settings in the task scheduler.

Logging of the operations is provided in a log file located in the Logs subfolder.



APPENDIX A

CUSTOM HARDWARE CLASSES

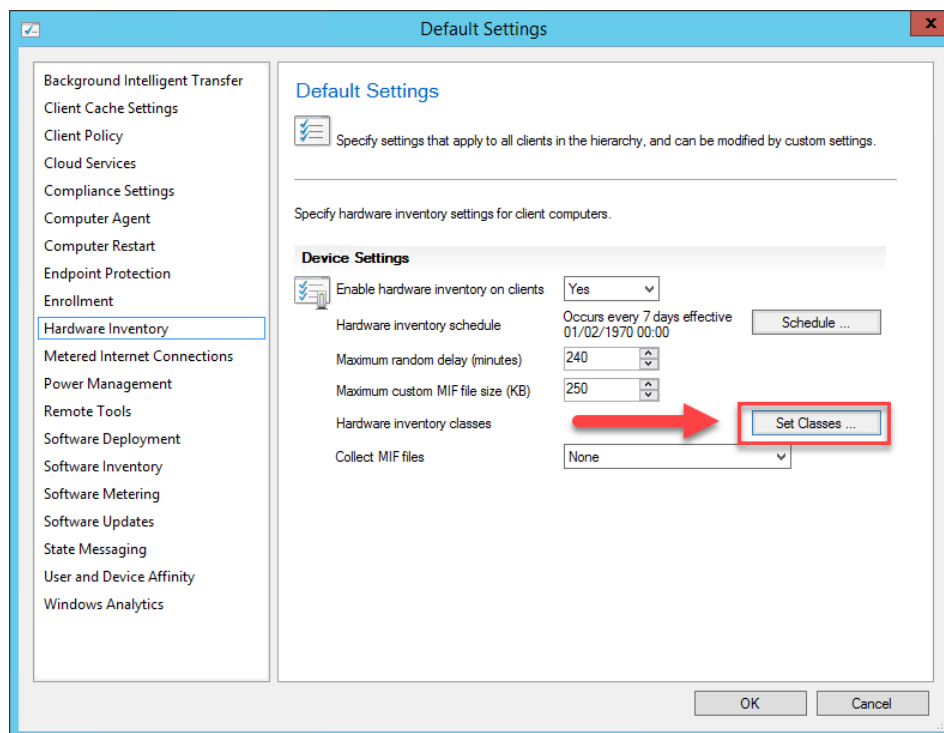
To identify unknown / unsupported manufacturer models when using our Modern Driver Management solution, the baseboard product value is used. This hardware inventory class is not collected by default, so it will need to be added in if you want to run reports on your environment to obtain this class information.

Simply follow the below process to perform the required steps in the Default Client Settings and then apply as required in any custom client settings you have set up.

1. DEFAULT CLIENT SETTINGS

Open the client settings in the ConfigMgr console (Administration – Client Settings – Default Settings).

Once open click on the “Hardware Inventory” section and then click on the “Set Classes” button.

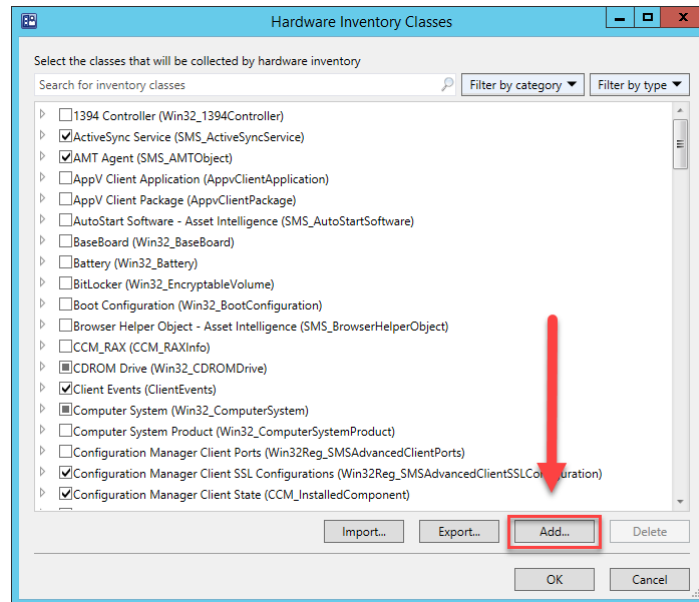




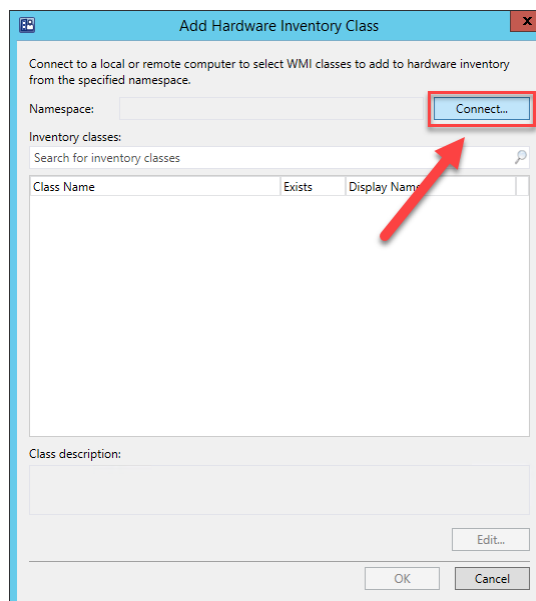
Driver Automation Tool 6.0.4

2. SET HARDWARE INVENTORY CLASSES

With the Hardware Inventory Classes screen open, click on the “**Add**” button.



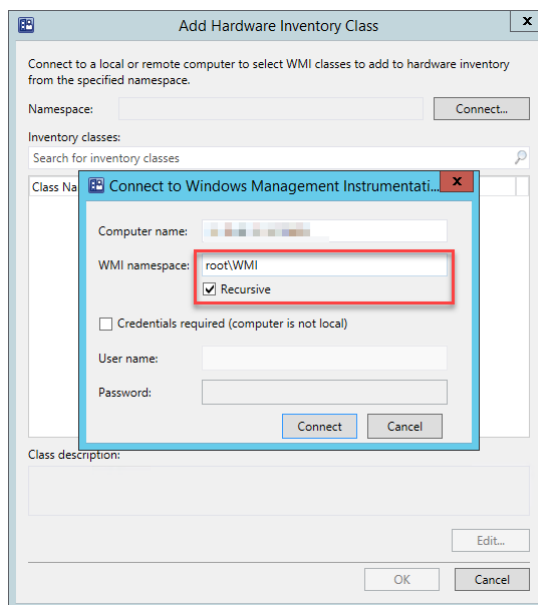
Click on the “**Connect**” button





Driver Automation Tool 6.0.4

Enter a client **Computer Name** and **WMI namespace** (Root\WMI), then tick the **Recursive** tickbox before clicking on the **Connect** button



Finally enter **MS_SystemInformation** as the filter and select both the BaseBoardProduct

