

MAEDS 55 ConfigMgr: Community Tools 2019

CHRIS THOMAS

DESKTOP ENGINEER - INGHAM ISD

CTHOMAS@INGHAMISD.ORG

@AUTOMATEMYSUFF



Ingham Intermediate
School District
A Regional Educational Service Agency



Session Description

ConfigMgr has one of the best communities I've ever been a part of! Come attend this whirlwind session of community tools to help you manage your ConfigMgr environment. There will likely be tools you're already familiar with and/or using, but I hope you walk away with a new appreciation of the community that you are a part of and the free tools you have at your disposal. This session was inspired by Jörgen Nilsson and Sherry Kissinger from their "Configuration Manager Community Tools 2019" session at MMSMOA 2019, but has my own spin. I wanted to bring these tools back to our community and share my experiences with those tools I've had a chance to work with.



I have used this and endorse it's use.



I've heard good things, but haven't had time yet.

- OR -

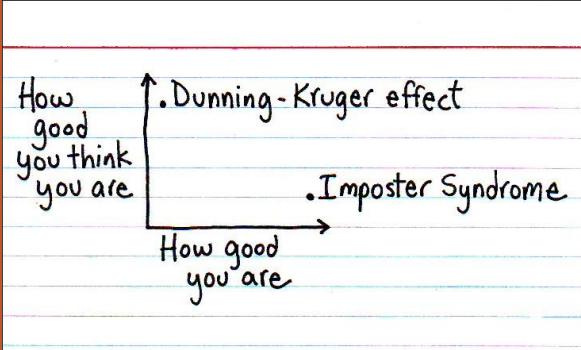
I've used this in the past, but no longer.



This is outside the scope of what I work with.

- OR -

This is something I'm not interested in using.



Who Am I?

- 20 Years In K12 Technology
 - Intern, Tech, Coordinator, Engineer
- Lifelong Learner
 - [/r/sysadmin](#), [/r/k12sysadmin](#), RSS feeds
- Relentlessly Inquisitive
 - Let's Ask The [WinAdmins Chat](#) (currently [Discord](#))
- Problem Solver
 - Professional Googler
- Voracious Reader
 - [docs.microsoft.com](#)
- Community Minded
 - [MAEDS](#), [MISCUG](#), [WMiSMUG](#), [MMS](#)
- **#ImpostorSyndromeBeDamned**
 - Own what you know. Be confident, not arrogant. Ask questions. *Be wrong.* But don't be silent, and don't think you don't belong in the group.

Past Presentations

2013 MAEDS Fall Conference

Attended 'Marketing Yourself' by [Kris Young](#) and [Kevin Galbraith](#)
"Our Name, Reputation and Skill Sets Need to be KNOWN"

2014 MAEDS Spring PD Day

First time presenting and it's a '[ConfigMgr panel](#)' for a half day session.

2014 MAEDS Fall Conference

Presented '[PADT and SCCM](#)'

2015 MAEDS Spring PD Day

Presented '[ConfigMgr panel](#)' for a half day session.

2015 MAEDS Fall Conference

Presented '[Automate ALL THE THINGS with PowerShell App Deployment Toolkit](#)'

2017 MAEDS Fall Conference

Presented '[PowerShell – Intro session for those that have been too afraid to take the plunge](#)'

2018 MAEDS Fall Conference

Presented '[PowerShell - Intermediate Session for Those That Overcame Their Fears and Took the Plunge](#)'

2019 MACUL Pre Con Workshop

Presented '[Office 365 Admin Training](#)'

2019 MISCUG (April)

Presented '[MISCUG PowerShell App Deployment Toolkit](#)'

2019 WMiSMUG (October)

Presented '[WMiSMUG PowerShell App Deployment Toolkit](#)'

PowerShell App Deployment Toolkit Shoutouts

Become the Hero of the Day - Master ConfigMgr 2012 R2 with a Limited Budget and Free Community Tools

System Center Universe 2014 • (47min • mentioned @ 36:00)

Kent Agerlund

- twitter.com/agerlund
- blog.coretech.dk/author/kea
- <https://www.youtube.com/watch?v=9hDFqcPjSA>

Microsoft System Center Configuration Manager Community Jewels

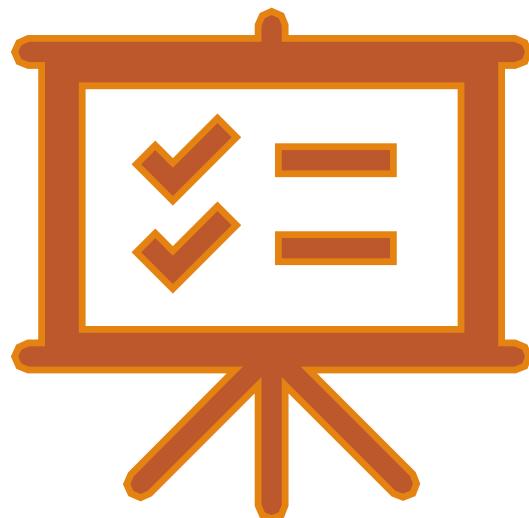
TechEd North America 2014 • (1hr 6min • mentioned @ 18:20)

Jörgen Nilsson

- twitter.com/ccmexec
- ccmexec.com
- channel9.msdn.com/Events/TechEd/NorthAmerica/2014/PCIT-B320#fbid=



Additional Resources



Links from our Configuration Manager Community tools session at MMS 2018

Jörgen Nilsson ([@ccmexec](#))

<https://ccmexec.com/2018/05/links-from-our-configuration-manager-community-tools-session-at-mms-2018/>

Definitive List of SCCM Addons, Tools, Extensions, & Scripts

Seth Coussens ([@SethCoussens](#))

<https://cireson.com/blog/definitive-list-of-sccm-addons-extensions-scripts/>

Top 10 Must-Have Tools for the ConfigMgr Admin

Ami Arwidmark [formerly Casto] ([@aarwidmark](#))

<https://insights.adaptiva.com/2018/configmgr-admin-tools-top-10/>

LIST OF SCCM MUST HAVE TOOLS – 2018 EDITION

Benoit Lecours ([@benoitlecours](#))

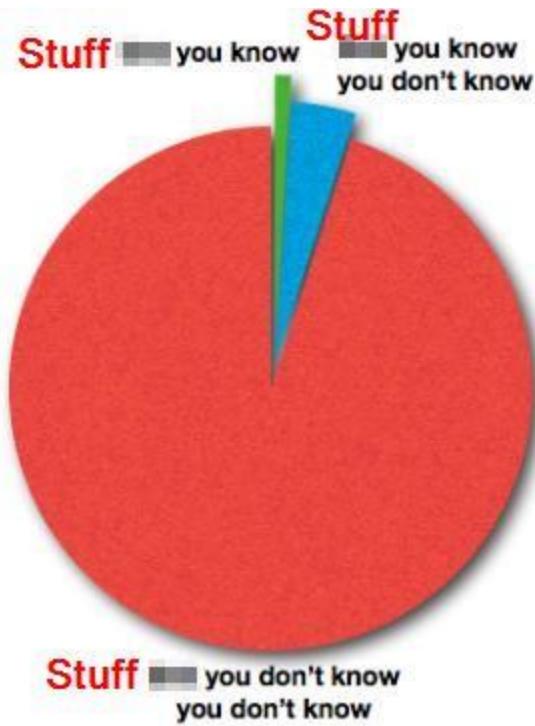
<https://www.systemcenterdudes.com/list-of-sccm-must-have-tools-2018-edition/>



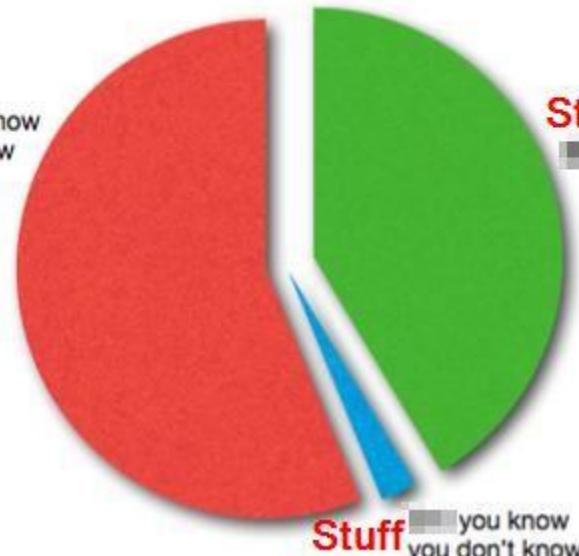
Be The Master

"Teaching does not always feel rewarding. It doesn't need to be. It is a repayment of something that was done for you. It is not a good thing that you do; it is an obligation that you have."

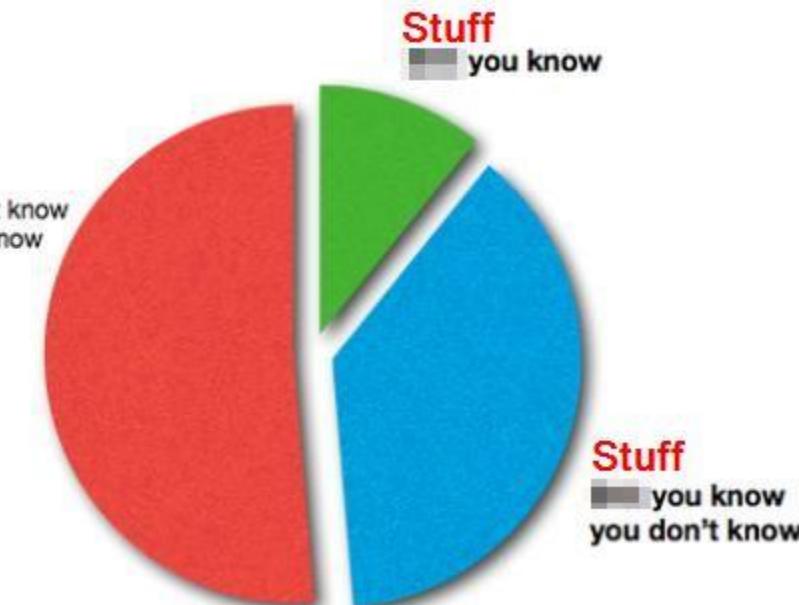
<https://donjones.com/2017/10/19/become-the-master-or-go-away/>



*The goal of education and experience
(as they would lead you to believe)*



The actual goal of education and experience



Wisdom and the Art of Being Not Dangerous

No One Knows What the F*** They're Doing (or "The 3 Types of Knowledge")

Steve Schwartz • May 13, 2010

<https://www.bridge-global.com/blog/3-types-of-knowledge/>



Community Building

WinAdmins Chat

<http://winadmins.chat/>

or

<https://aka.ms/winadmins>

Who are the WinAdmins?

The WinAdmins are a society of engineers interested in discussion, community, and peer support. We do not represent any one specific organization or country. While we started as a primary Microsoft Windows-focused support group (inspiring the name WinAdmins), over the last several years our discussions have branched to include Mac, cloud, and general networking.

Wait, weren't you on Slack?

Although we were a Slack community for quite a long time, in late 2019 we realized that our needs outgrew what Slack was able to provide for free. As we're not corporately sponsored, and attempts to get a discounted rate failed, we moved to the Discord platform. This decision was not taken lightly and was made after several months of testing six different popular platforms.



Twitter

If only to lurk, make a Twitter account and start following community leaders. You'll find that information makes it's way to Twitter before the folks have time to publish a blog post or get it pushed through corporate red tape for official KBs to be published.

ConfigMgr Product Group

<https://twitter.com/JasonSandys/lists/configmgr-pg/members>

List of #MVPs for @MSIntune and @ConfigMgr

<https://twitter.com/CxPCathy/lists/intune-configmgr-mvps/members>

Women who work with Configuration Manager/Intune

<https://twitter.com/CxPCathy/lists/womeninconfigmrintune/members>

<https://twitter.com/jryanwall/lists/deployment/members>

<https://twitter.com/0daydorpher/lists/configmgr-osd-waas>



User Groups

- Attend
 - show your support
 - prove to vendors the meeting is worth sponsoring
- Offer To Speak
 - you know stuff others don't
 - you see things differently
 - you will present things differently
- Offer To Help
 - arrange for presenters
 - arrange for food
 - handle social media



Twitter:
[@MISCUG](https://twitter.com/MISCUG)
Website:
<http://miscug.org>
Location:
Coretek Services
34900 Grand River Ave
Farmington Hills, MI 48335



Twitter:
[@WMiSMUG](https://twitter.com/WMiSMUG)
Website:
<https://wmismug.org/>
Location:
Long Term – TBD
Short Term – Kent ISD



Twitter:
[@mmsmoa](https://twitter.com/mmsmoa)
Website:
<https://mmsmoa.com/>
Location:
Mall of America
Minneapolis, MN

The Midwest Management Summit is a 4-day conference purposely capped to just 750 attendees so that nobody gets lost in the crowd.



Infrastructure Tools

ConfigMgr Prerequisites Tool

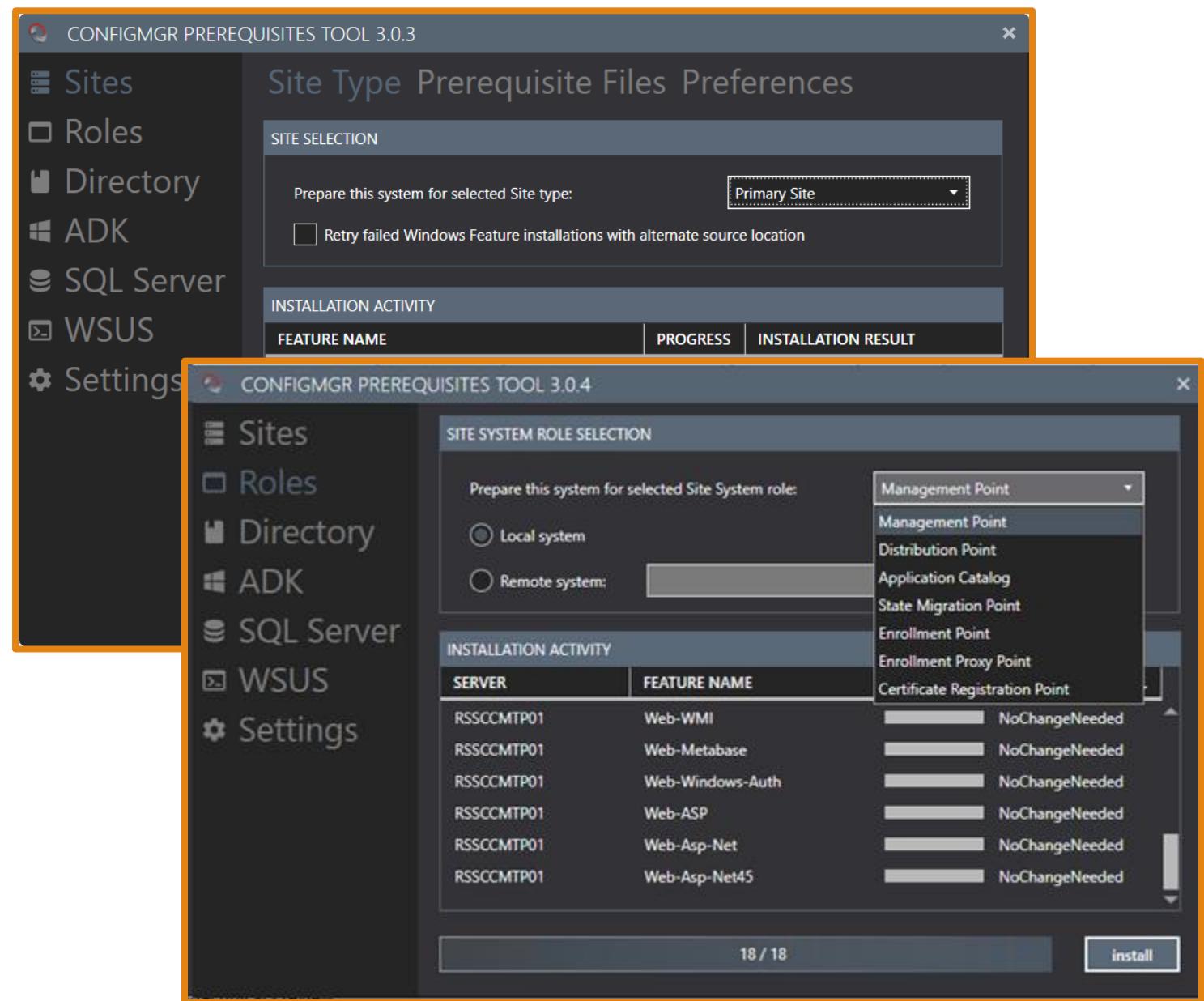
Author:
Nickolaj Andersen ([@NickolajA](#))

Download:
<https://gallery.technet.microsoft.com/ConfigMgr-2012-R2-e52919cd>

~~~~~

Author:  
Donna Ryan ([@TheNotoriousDRR](#))

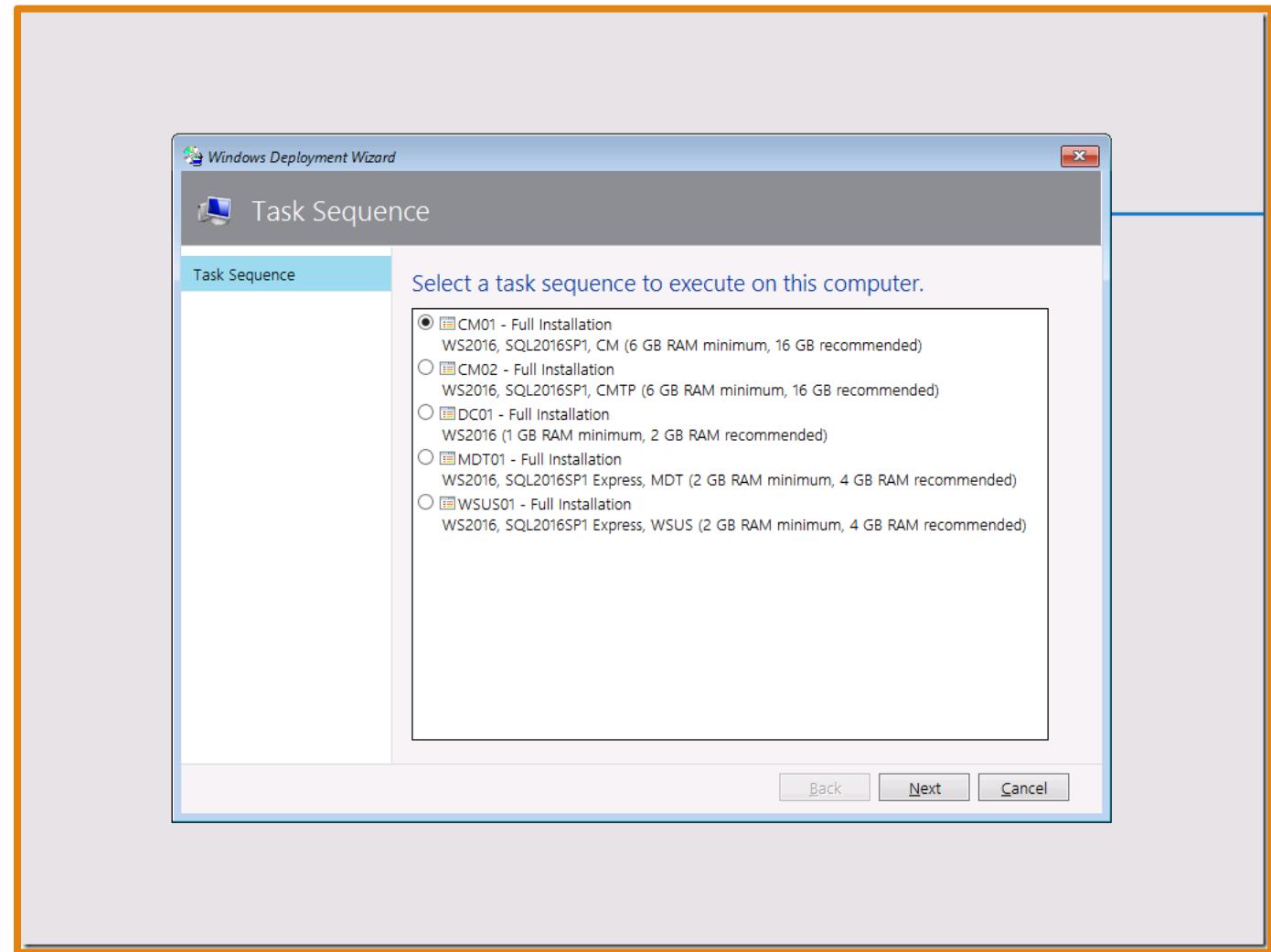
Guide:  
<http://www.thenotoriousdr.com/index.php/2019/02/18/the-scconfigmgr-prerequisite-tool/>



# Hydration Kit

Author:  
Johan Arwidmark ([@jarwidmark](https://twitter.com/jarwidmark))

Download:  
<https://deploymentresearch.com/hydration-kit-for-windows-server-2016-and-configmgr-current-technical-preview-branch/>



# Windows and Office Deployment Lab Kit

Author:  
Microsoft

Download:  
<https://www.microsoft.com/evalcenter/evaluate-lab-kit>

Docs:  
<https://docs.microsoft.com/en-us/microsoft-365/enterprise/modern-desktop-deployment-and-management-lab>

## A complete lab environment

The lab provides you with an automatically provisioned virtual lab environment, including domain-joined desktop clients, domain controller, Internet gateway and a fully configured ConfigMgr instance. The lab contains Evaluation Versions of the following products:

- Windows 10 Enterprise, Version 1903
- Windows 7 Enterprise
- System Center Configuration Manager, Version 1902
- Windows Assessment and Deployment Kit for Windows 10, Version 1903
- Microsoft Deployment Toolkit
- Microsoft Application Virtualization (App-V) 5.1
- Microsoft BitLocker Administration and Monitoring 2.5 SP1
- Windows Server 2019
- Microsoft SQL Server 2017

PLUS, the lab is designed to be connected to trials for:

- Microsoft 365 Enterprise E5
- Or
- Office 365 Enterprise E5
  - Enterprise Mobility + Security

## Step-by-step labs

Detailed lab guides take you through multiple deployment and management scenarios, including:



# ConfigMgr Lab in Azure

Author:  
Microsoft

Docs:  
<https://docs.microsoft.com/en-us/sccm/core/get-started/azure-template>

~~~~~

Author:
Dan Padgett (@danjpadgett)

Guide:
<https://execmgr.net/2018/04/13/building-a-configmgr-lab-in-azure/>

A LAB IN THE CLOUD? NICE!

If you are anything like me and do not have the ability to create a Lab environment at home (those who flat share will understand) but still would like the option to test new ConfigMgr features away from your production environment, there is a quick and easy solution. Azure DevTest Labs.

<https://azure.microsoft.com/en-us/services/devtest-lab/>

'Azure DevTest Labs helps developers and testers quickly create environments in Azure to deploy and test their applications. Easily provision Windows and Linux machines in Labs using reusable templates and artifacts while minimizing waste and controlling cost.'

Before I harp on, take a quick read of the above page. In summary DevTest Labs allow you to quickly provision a lab environment without having to go through monotonous steps you may have done 1000 times (think Domain, SQL, ConfigMgr). As the page states, some of the benefits are;

- Quickly provision development and test environments
- Minimize waste with quotas and policies
- Set automated shutdowns to minimize costs
- Build Windows and Linux environments



SQL Server Maintenance

Author:
Ola Hallengren

Download:
<https://ola.hallengren.com/downloads.html>

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Author:  
Brad McGehee

Guide:  
[Automate and Improve Your Database Maintenance Using Ola Hallengren's Free Script](#)

## Overview

Ola's script is designed to cover the most common database maintenance tasks, which include:

- The ability to perform full, differential, or log backups (as appropriate) of any system and user databases, using either the native SQL Server backup command, or some third-party backup products, such as [SQL Backup](#), or [SQL HyperBac](#). The script also has the ability to automatically remove older backup files from disk that are no longer needed.
- The ability to perform dynamic index optimization by rebuilding indexes online or offline (depending on the edition of SQL Server you have), reorganizing indexes, updating statistics, or doing nothing at all, based on an index's size and fragmentation level.
- The ability to perform database integrity checks using DBCC CHECKDB, DBCC CHECKFILEGROUP, DBCC CHECKTABLE, DBCC CHECKALLOC and/or DBCC CHECKCATALOG. .
- The ability to delete old job and backup history, including the removal of log files created by maintenance jobs as they run.
- The ability to automatically create jobs that implement each of the above tasks. All you have to do is to decide when to run them and schedule them appropriately. Alternatively, you can specify that jobs are not automatically created, so you can create your own.

Each of the above features can be run with default settings, or various parameters can be changed to customize how the maintenance tasks run on your SQL Server instances. As each job is run, the results are logged immediately to log files and/or log tables so you can see exactly what maintenance is being performed (even as it is happening). In addition, Ola's script includes extensive error-checking to make it easier to troubleshoot any potential problems.



# OSD Tools

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# Image Factory

Author:  
Mikael Nystrom ([@mikael\\_nystrom](https://twitter.com/mikael_nystrom))

Download:  
<https://deploymentbunny.com/2018/1/0/19/image-factory-4-0-is-available-for-download/>

DeploymentBunny / IMF4

Code Issues 2 Pull requests 2 Projects 0 Wiki Security Insights

Image Factory 4.0

4 commits 1 branch 0 releases 1 contributor

Branch: master New pull request Create new file Upload files Find File Clone or download

DeploymentBunny Update IMF 4.0 InitSync 11 months ago

Functions/IMFFunctions IMF 4.0 InitSync 11 months ago

MDTApps Scripts Template .gitattributes

IMF.ps1 IMF.xml Image Factory 4.lnk Image.png ReadME.md SampleScript.ps1 deploymentbunny-w1

IMF 4.0

Main Import OS Configuration

Update and distribute the bootimage Run

Remove Reference/Validation VMs Run

Create reference image(s) WU Enable Run

Create reference image(s) WU Disabled Run

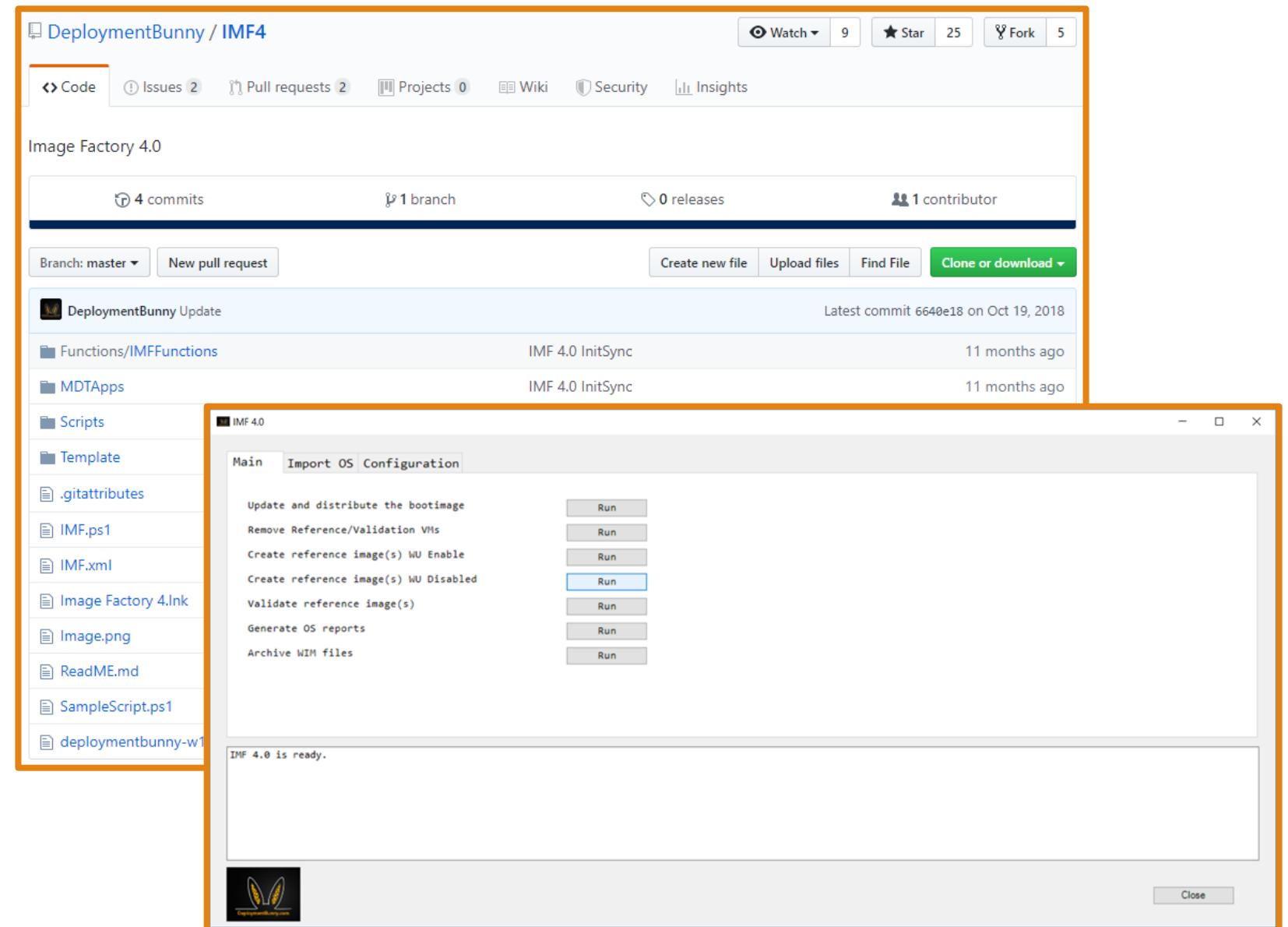
Validate reference image(s) Run

Generate OS reports Run

Archive WIM files Run

IMF 4.0 is ready.

Close



# OSDBuilder

Author:  
David Segura ([@SeguraOSD](https://twitter.com/SeguraOSD))

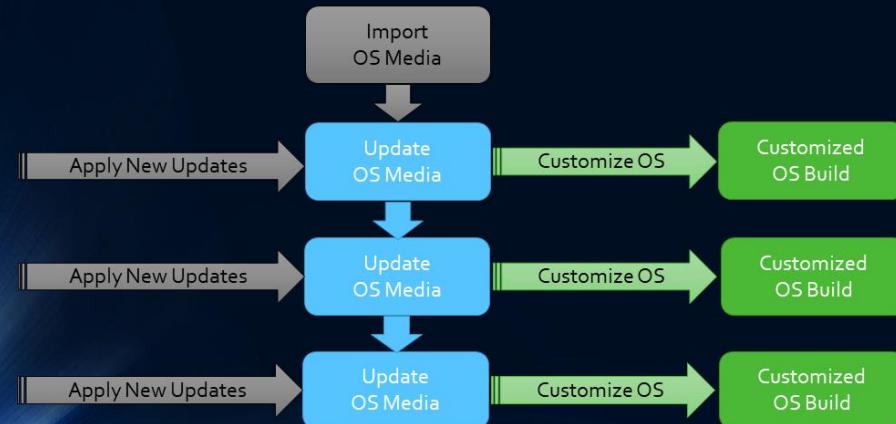
Download:  
<https://osdbuilder.osdeploy.com/>

~~~~~

Author:
Nathan Bridges ([@nathanjbridges](https://twitter.com/nathanjbridges))

Guide:
<https://www.moderndeployment.com/quick-start-guide-windows-10-waas-servicing-updates-via-osdbuilder/>

Monthly OS Update Cycle



High-Level Goals

- Ensure monthly Windows 10 (or Server OS) updates are included in the ISO/WIM image SCCM-MDT packages used by OS deployment.
- Ensure the latest **OneDriveSetup.exe** is included in Windows 10 ISO media (Optional – recommended).
- Enable/Disable Windows 10 or Server OS Features such as .NET 3.5, SMBv1 and more.
- Use OSDBuilder to fully patch and perform offline servicing of the Windows 10 ISO media with the latest .NET, Adobe Flash, Servicing Stack update, Dynamic Update, and Latest Cumulative update.

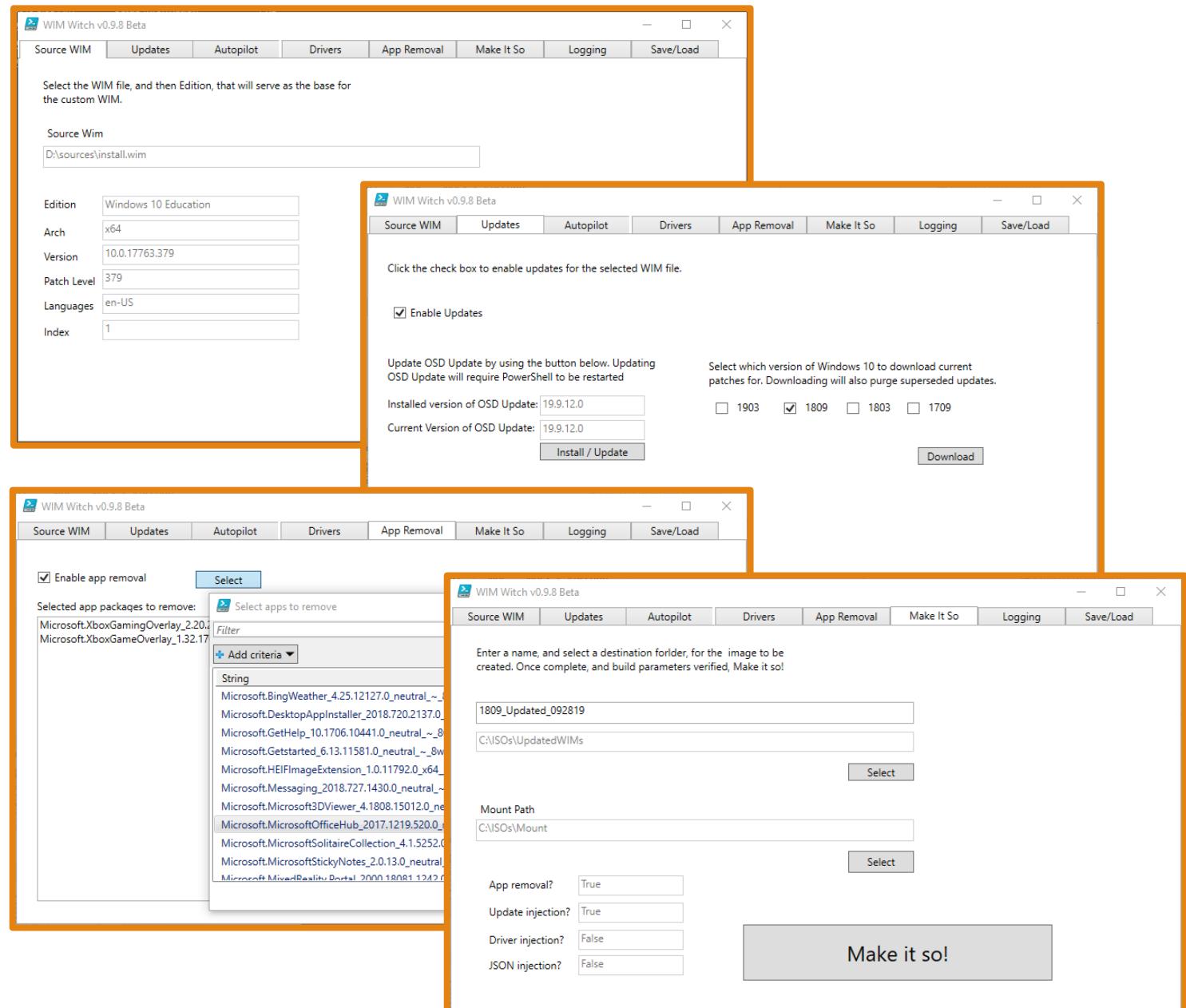


WIM Witch

Author:
Donna Ryan ([@TheNotoriousDRR](https://twitter.com/TheNotoriousDRR))

Download:
<https://github.com/thenotoriousdrr/WIM-Witch>

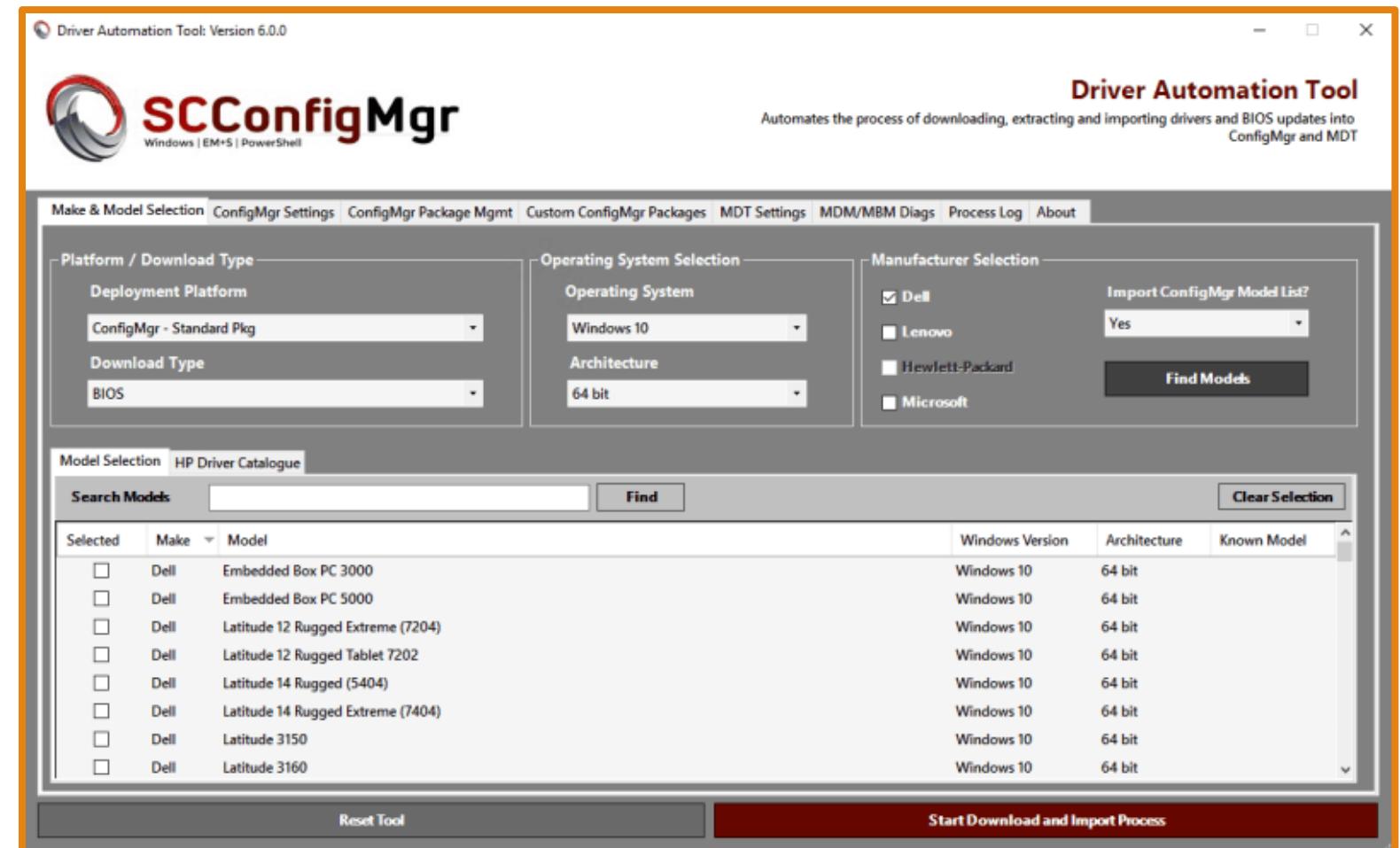
Docs:
<https://www.scconfigmgr.com/2019/1/04/wim-witch-a-gui-driven-solution-for-image-customization/>



Driver Automation Tool

Author:
Maurice Daly ([@modaly_it](https://twitter.com/modaly_it))

Download:
<https://gallery.technet.microsoft.com/scriptcenter/Driver-Tool-Automate-9ddcc010>



ConfigMgr WebService

Author:
Nickolaj Andersen ([@NickolajA](#))

Download:
<https://www.scconfigmgr.com/configmgr-webservice/>

ConfigMgr WebService

Web service for ConfigMgr Current Branch developed by Nickolaj Andersen (v1.4.0)

The following operations are supported. For a formal definition, please review the [Service Description](#).

- [**AddADComputerToGroup**](#)
Add a computer in Active Directory to a specific group
- [**AddCMComputerAssociationForUser**](#)
Add a computer association between a source and destination device for a single user
- [**AddCMComputerToCollection**](#)
Add a computer to a specific device collection (creates a direct membership rule)
- [**AddMDTRoleMember**](#)
Add computer to a given MDT role (supports multiple identification types)
- [**AddMDTRoleMemberByAssetTag**](#)
Add computer identified by an asset tag to a specific MDT role
- [**AddMDTRoleMemberByMacAddress**](#)
Add computer identified by a MAC address to a specific MDT role



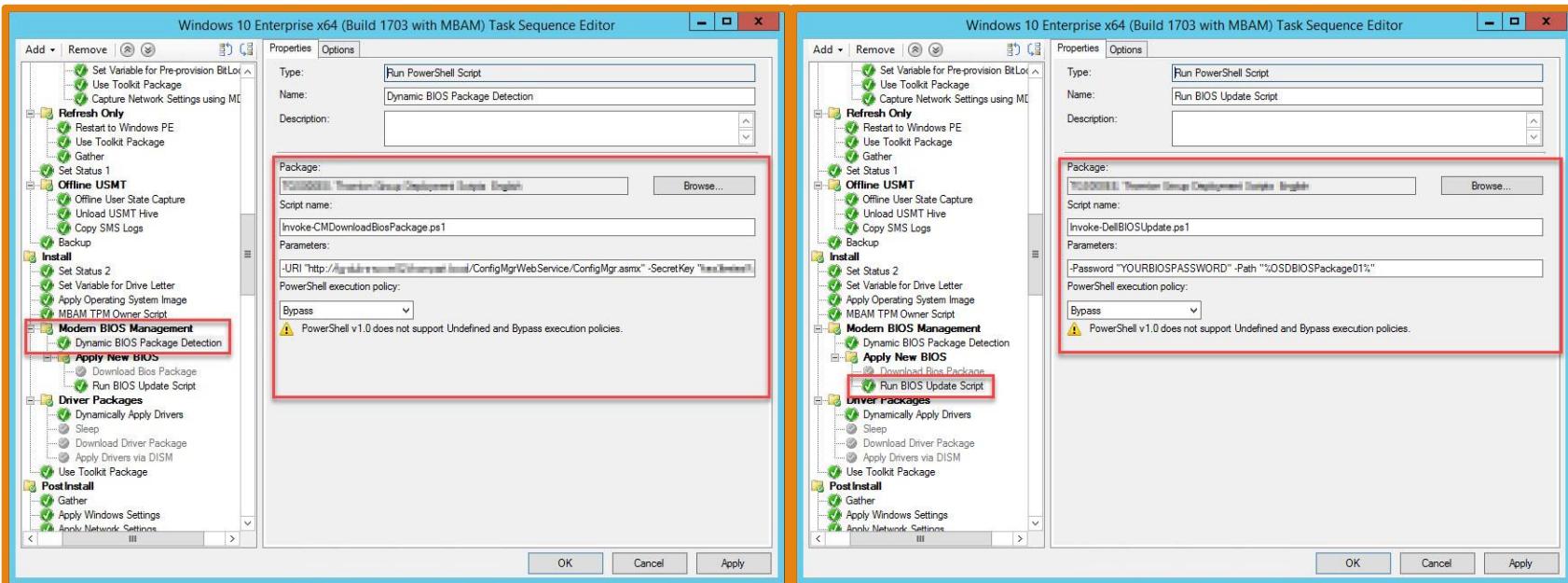
Modern BIOS Management

Author:
Maurice Daly ([@modaly_it](https://twitter.com/modaly_it))
Nickolaj Andersen ([@NickolajA](https://twitter.com/NickolajA))

Download:
<https://www.scconfigmgr.com/modern-bios-management/>

Modern BIOS Management uses a custom built PowerShell script that is invoked during operating system deployment. This script automatically detects the manufacturer, SystemSKU/BaseBoard value (used instead of model), operating system version and architecture being deployed and matches that information against the system being deployed in order to determine the matching BIOS package that should be downloaded.

After successful completion of the `Invoke-CMDDownloadBIOSPackage.ps1` step, a task sequence variable (`OSDBiosPackage`) will be set if a matching update package is found. The next step is to initialise the BIOS update process, this is done using manufacturer specific scripts listed below. Dell, Lenovo and HP are supported.



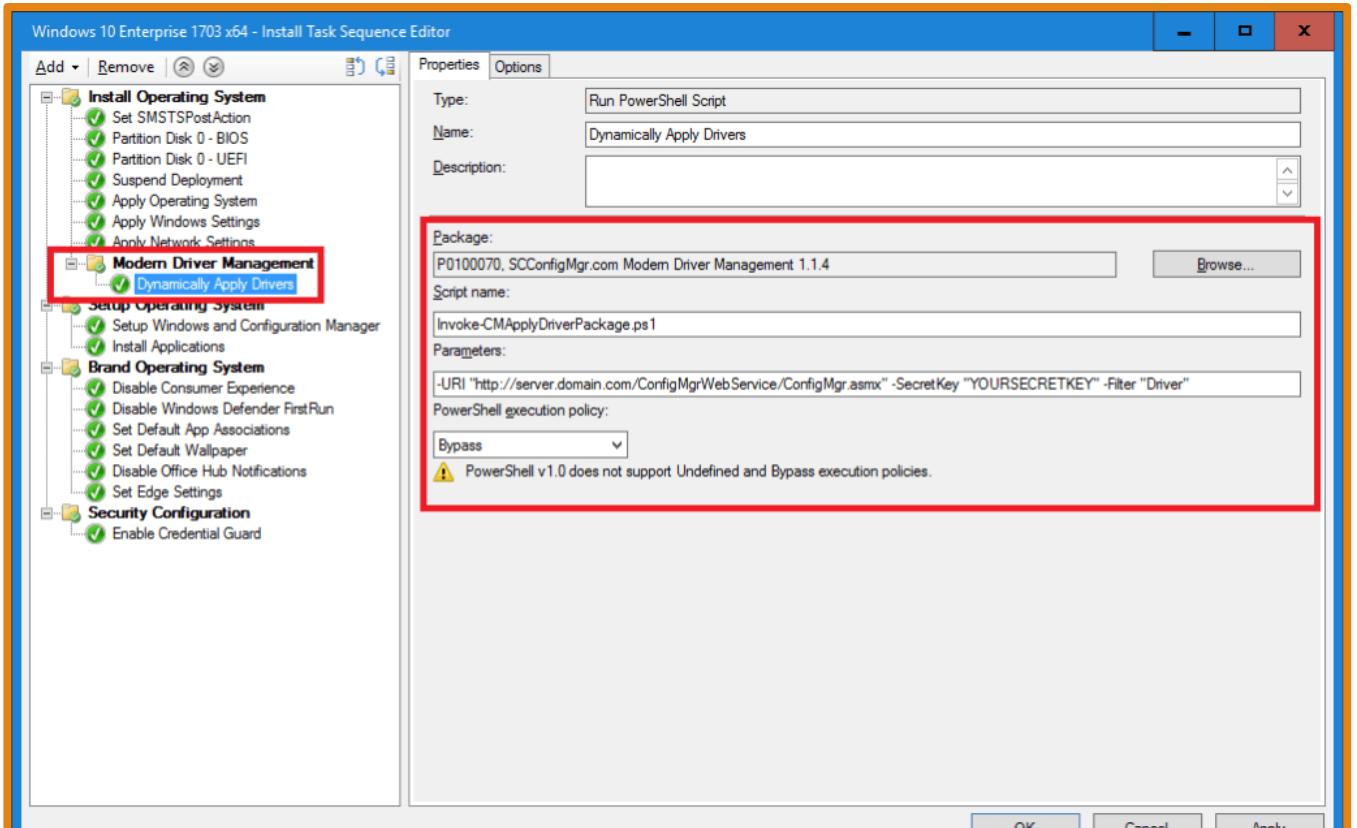
Modern Driver Management

Author:
Maurice Daly ([@modaly_it](https://twitter.com/modaly_it))
Nickolaj Andersen ([@NickolajA](https://twitter.com/NickolajA))

Download:
<https://www.scconfigmgr.com/modern-driver-management/>

Author:
Adam Gross ([@AdamGrossTX](https://twitter.com/AdamGrossTX))

Guide:
<https://www.asquaredozen.com/2018/01/16/modern-driver-management-barely-got-working-lessons-learned/>



The screenshot shows the 'Windows 10 Enterprise 1703 x64 - Install Task Sequence Editor'. The left pane displays a tree view of tasks under 'Install Operating System': 'Install Operating System' (with sub-tasks like Set SMSTSPostAction, Partition Disk 0 - BIOS, Partition Disk 0 - UEFI, Suspend Deployment, Apply Operating System, Apply Windows Settings, Apply Network Settings), 'Modern Driver Management' (with sub-task 'Dynamically Apply Drivers'), 'Setup Operating System' (with sub-tasks like Setup Windows and Configuration Manager, Install Applications), 'Brand Operating System' (with sub-tasks like Disable Consumer Experience, Disable Windows Defender FirstRun, Set Default App Associations, Set Default Wallpaper, Disable Office Hub Notifications, Set Edge Settings), and 'Security Configuration' (with sub-task 'Enable Credential Guard'). The right pane shows the properties for the 'Modern Driver Management' task. It is set to 'Run PowerShell Script' with the name 'Dynamically Apply Drivers'. The 'Package' field is set to 'P0100070, SCConfigMgr.com Modern Driver Management 1.1.4'. The 'Script name' is 'Invoke-CMAApplyDriverPackage.ps1'. The 'Parameters' field contains the PowerShell command: '-URI "http://server.domain.com/ConfigMgrWebService/ConfigMgr.asmx" -SecretKey "YOURSECRETKEY" -Filter "Driver"'. A warning message at the bottom states: 'PowerShell v1.0 does not support Undefined and Bypass execution policies.' The 'PowerShell execution policy' dropdown is set to 'Bypass'. At the bottom right are 'OK', 'Cancel', and 'Apply' buttons.

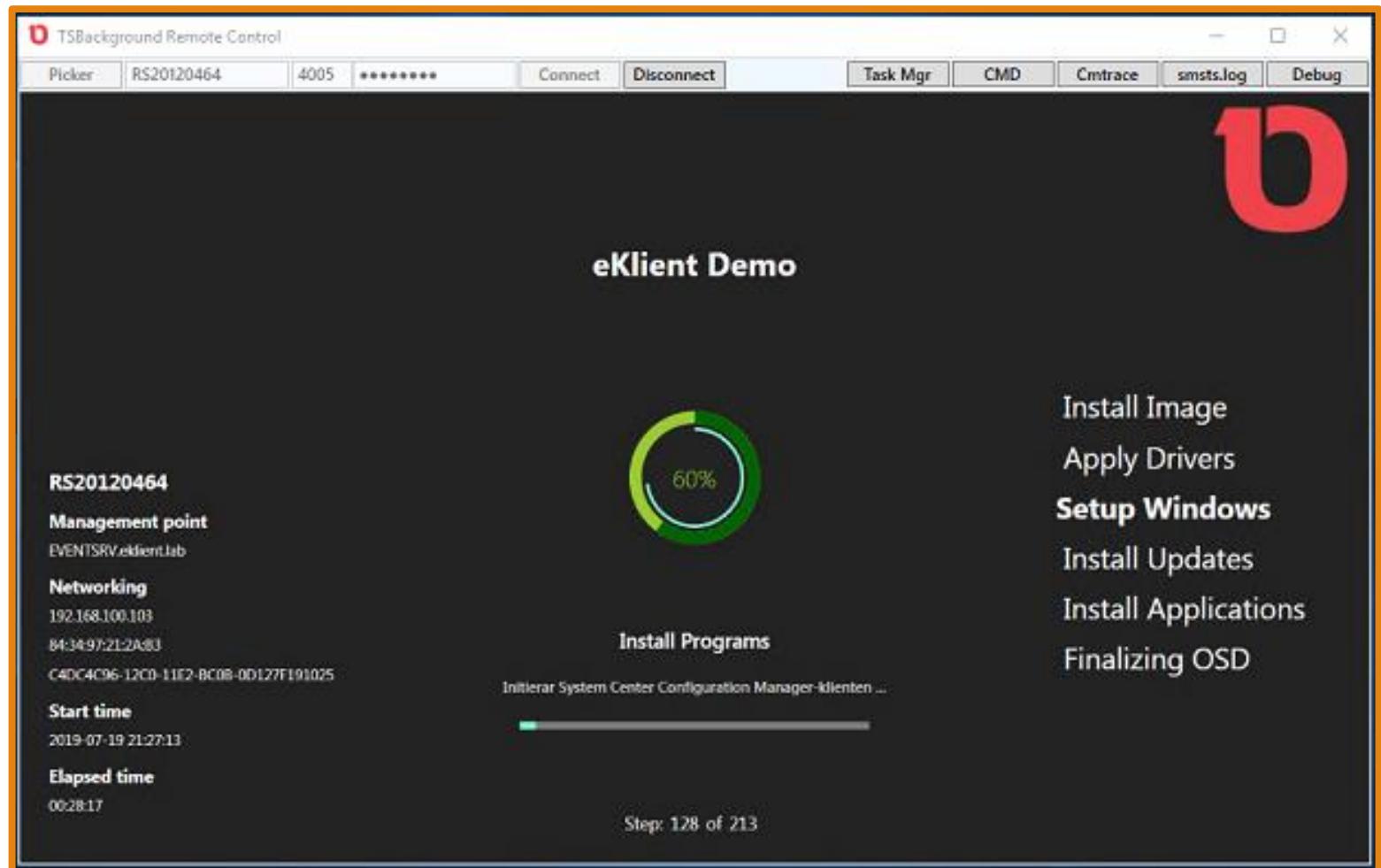
The Driver Automation Tool is a PowerShell GUI which automates the process of downloading, extracting, importing and distributing driver and BIOS packages. At present support is provided for Dell, Lenovo, HP and Microsoft client systems.



OSDBackground

Author:
Johan Schrewelius

Download:
<https://gallery.technet.microsoft.com/Configuration-Manager-Task-6422b6f8>



ConfigMgr Task Sequence Monitor

Author:
Trevor Jones

Download:
<https://gallery.technet.microsoft.com/ConfigMgr-Task-Sequence-fefdc532>

ConfigMgr Task Sequence Monitor

Task Sequence: Windows OS Deployment x64 Time Period (Hours): 24 ComputerName: DEWILDCAT-123 Errors Only: Error Count: 2 Refresh Period (Minutes): 1 Refresh Now!

MDT

MDT Integrated? Deployment Status: Active/Running Current Step: 179 StepName: Gather Deployment Progress:

Start: 2015-11-17 08:06:28.95 End: Elapsed: 5h 5m 41s Percent Complete: 52 Settings Generate Report

ComputerName	ExecutionTime	Step	ActionName	GroupName	LastStatusMsgName
-123	11/17/2015 10:05:49 AM	296	Move Computer to OU	State Restore	The task sequence execution engine successfully completed an action
-123	11/17/2015 10:05:34 AM	295	Set Computer Description in AD	State Restore	The task sequence execution engine successfully completed an action
-123	11/17/2015 10:05:14 AM	294		Encryption	The task sequence execution engine successfully completed execution of a group
-123	11/17/2015 10:05:13 AM	293	Add to Wave AD Group	Encryption	The task sequence execution engine successfully completed an action
-123	11/17/2015 10:04:46 AM	292	Add to OSD_Encryption	Encryption	The task sequence execution engine successfully completed an action
-123	11/17/2015 10:04:21 AM	291		Encryption	The task sequence execution engine started a group
-123	11/17/2015 10:04:20 AM	290	Create Windows Experience Index	State Restore	The task sequence execution engine successfully completed an action
-123	11/17/2015 9:59:57 AM	289	Remove Waves Audio Reg Key	State Restore	The task sequence execution engine successfully completed an action
-123	11/17/2015 9:59:55 AM	288	Disable Dell TouchPad Pointing Stick	State Restore	The task sequence execution engine successfully completed an action
-123	11/17/2015 9:59:54 AM	287	Remove D Drive from Vol 1	State Restore	The task sequence execution engine successfully completed an action
-123	11/17/2015 9:59:54 AM	286	Remove D Drive from Vol 0	State Restore	The task sequence execution engine skipped an action because the condition was evaluated to
-123	11/17/2015 9:59:53 AM	285	Delete Shortcuts and Stuff	State Restore	The task sequence execution engine successfully completed an action
-123	11/17/2015 9:59:53 AM	284	Enable Hibernation	State Restore	The task sequence execution engine successfully completed an action
-123	11/17/2015 9:59:52 AM	283	x64 Latitude E6440 Drivers	State Restore	The task sequence execution engine skipped a disabled action
-123	11/17/2015 9:59:51 AM	282	Restore Groups	State Restore	The task sequence execution engine successfully completed an action
-123	11/17/2015 9:59:44 AM	281	Install Applications		The task sequence execution engine successfully completed execution of a group

Action Output:

```
... ce 300.28 F/s
> Direct3D ALU Performance 121.15 F/s
> Direct3D Texture Load Performance 152.02 F/s
> Direct3D Geometry Performance 360.34 F/s
> Direct3D Geometry Performance518.46 F/s
> Direct3D Constant Buffer Performance 241.32 F/s
> Video Memory Throughput 5305.59 MB/s
> Dshow Video Encode Time 2.34064 s
> Media Foundation Decode Time 0.61654 s
```



OSD Frontends

UI++

Author:
Jason Sandys ([@jasonsandys](https://twitter.com/jasonsandys))

Download:
<http://uiplusplus.configmgrftw.com/>

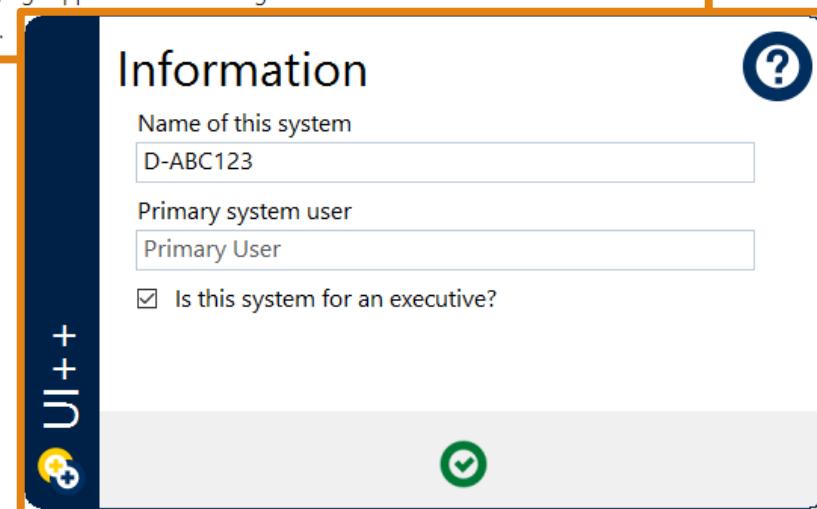
Docs:
<http://uiplusplus.configmgrftw.com/docs/intro/overview.html>

Features

Last Updated: 07-Jul-19

Notable major features in UI++ include the following.

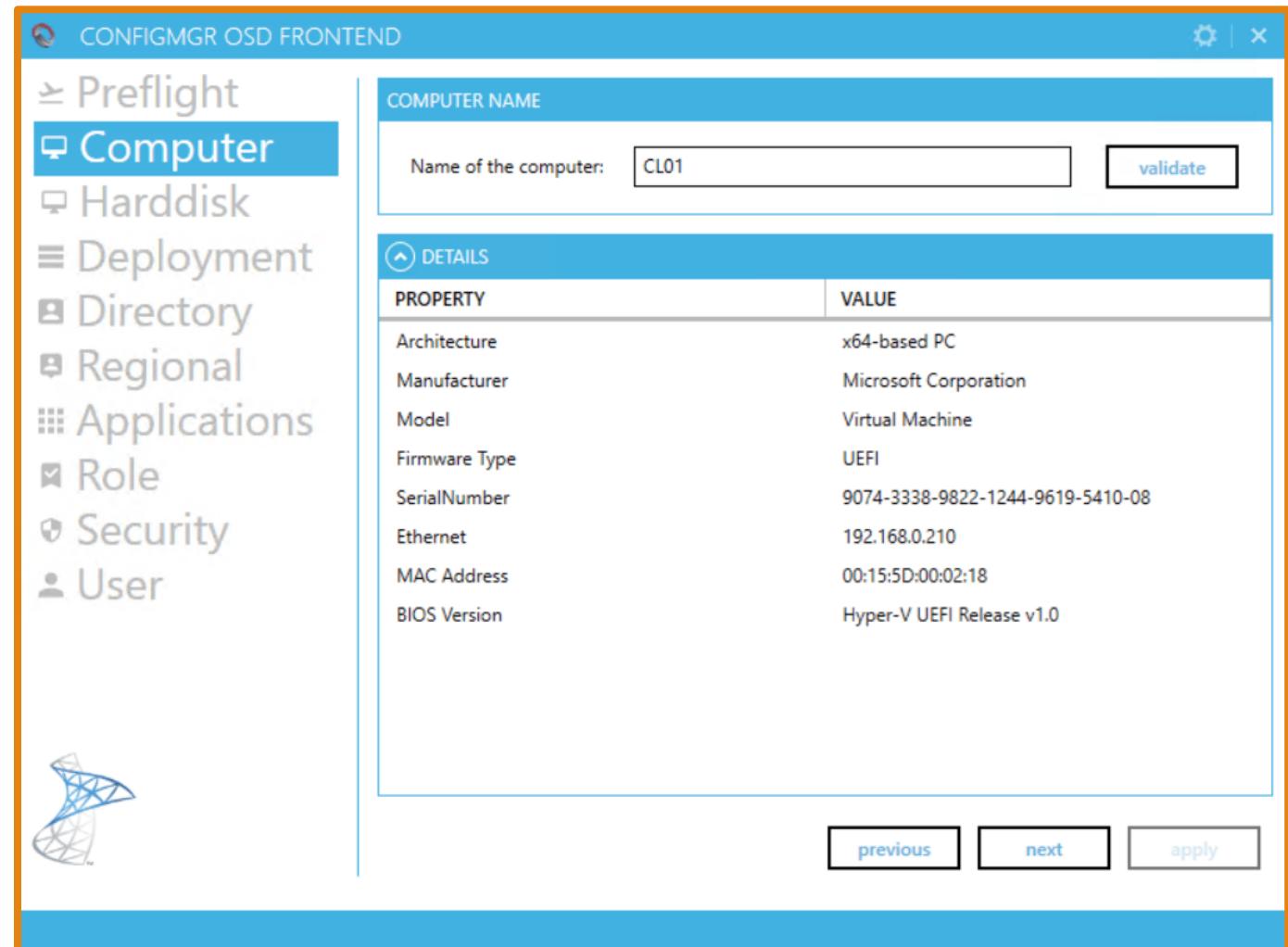
- Customizable look and feel.
- Information displayed using HTML formatting.
- User input in drop-down list boxes, checkboxes, and text boxes validated using regular expressions.
- Automatic variables and system information collection including model, hardware type, TPM, CPU, hypervisor, and more.
- Read from and write to the following:
 - a. WMI
 - b. The Windows registry
 - c. Task sequence variables
- A task sequence variable browser and editor.
- Conditional execution of every element using VBScript expressions.
- Inline variable replacement for any value using task sequence variables.
- Active Directory authentication and authorization.
- Customizable preflight checks and warnings.
- An AppTree that displays and enables selection of both Applications and Packages.
- Software discovery and mapping to ConfigMgr Applications or Packages.
- State save and load to and from a data file.



OSD Frontend

Author:
Nickolaj Andersen ([@NickolajA](#))

Download:
<https://www.scconfigmgr.com/configmgr-osd-frontend/>

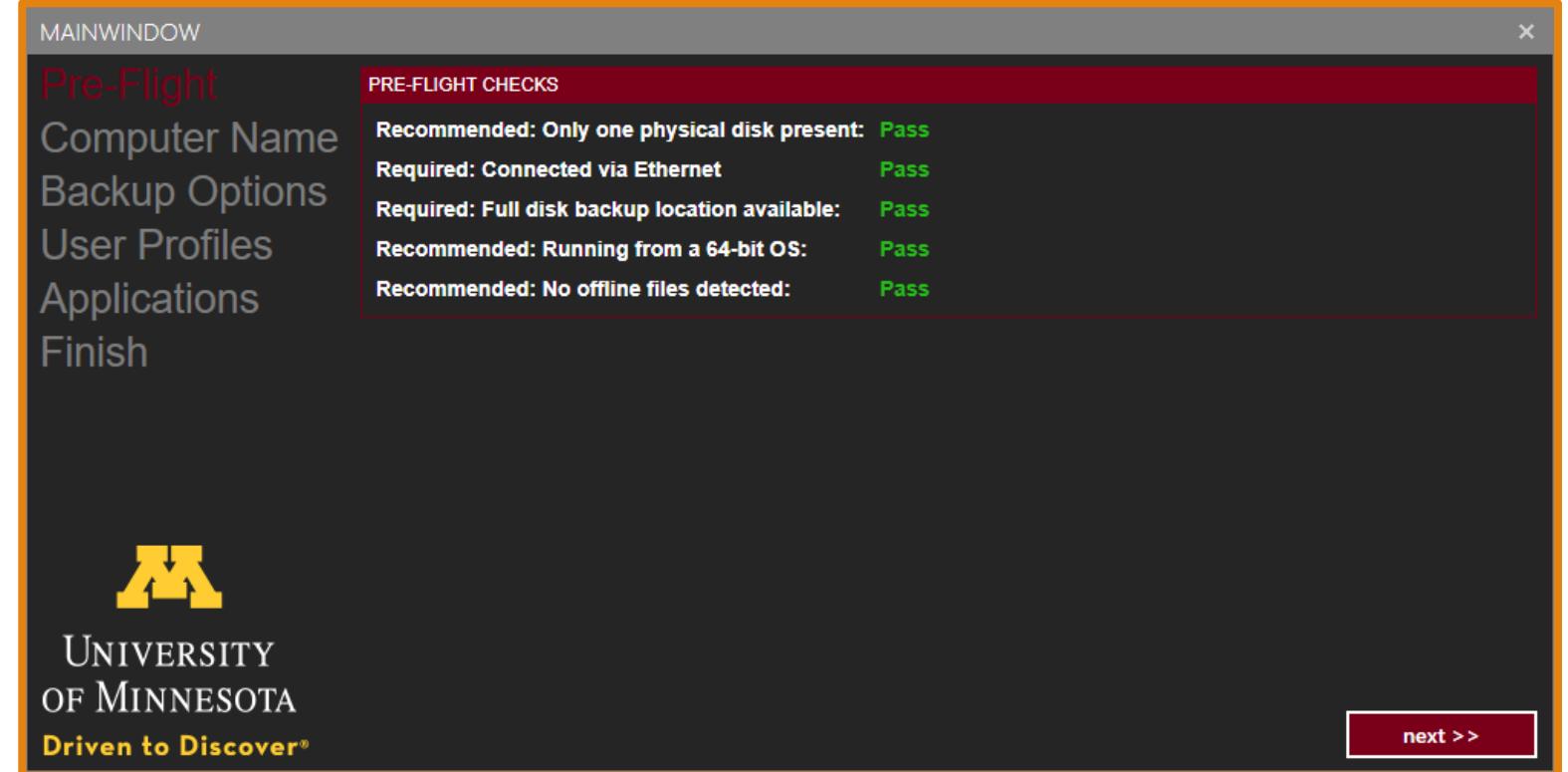


UMN OSD Front End

Jeff Bolduan ([@jbolduan](https://twitter.com/jbolduan))

Download:

<https://winblog.it.umn.edu/2019/04/25/umn-osd-front-end-open-source-first-release/>



Client Health Tools

Client Startup Script

Author:
Jason Sandys ([@JasonSandys](https://twitter.com/JasonSandys))

Download:
<https://home.configmgrftw.com/configmgr-client-startup-script/>

What this script does

- Checks to ensure WMI connectivity
- Checks the running and startup state of identified services
- Remediates running and startup state of identified services
- Checks for the Admin\$ share and enables admin shares if they are disabled in the registry
- Check for identified registry values
- Sets registry values if they do not exist or do not match
- Adds a specified account to the local administrators group
- Checks for an installation of the client agent
- Checks the version of client agent
- Checks to ensure the ConfigMgr agent is set to Automatic startup and is running
- Installs the client agent if it is not installed or if the version is old
- Checks the client agent's cache size and resets it if needed
- Checks the client agent's site assignment and reinstalls the client agent if not assigned (which implies some type of client corruption)
- Drops a file into a shared folder location if there are any uncorrectable issues found for manual review
- Logs all activity to the client

What this script does not do

Fix WMI. Fixing WMI is a “big” task that I could not hope to ever tackle; however, incorporating a WMI fix script is an easy thing to do using the new WMIScript and WMIScriptOptions options. See the **Using WMIDiag** section below for more details on using this script.



ConfigMgr Client Health

Author:
Anders Rödland ([@andersrodland](https://twitter.com/andersrodland))

Download:
<https://www.andersrodland.com/configmgr-client-health/>

~~~~~

Author:  
Bryan Dam ([@bdam55](https://twitter.com/bdam55))

Guide:  
<https://damgoodadmin.com/2018/11/01/how-i-learned-to-love-the-client-health-script/>

## Features

ConfigMgr Client Health detects and fixes following errors:

- ConfigMgr client is not installed.
- ConfigMgr client is assigned the correct site code.
- ConfigMgr client is upgraded to current version if not at specified minimum version.
- ConfigMgr client not able to forward state messages to management point.
- ConfigMgr client stuck in provisioning mode.
- ConfigMgr client maximum log file size.
- ConfigMgr client cache size. Fixed size (MB) or percentage of disk space.
- ConfigMgr client certificate error.
- ConfigMgr client hardware inventory not running.
- ConfigMgr client CcmSQLCE.log exists and client is not in debug mode.
- Corrupt WMI.
- DNS server record matches local IP's
- Drivers – Reports faulty or missing drivers on client.
- Logging to SQL database and / or file share
- Pending reboot check
- User-friendly reboot of computer with 3rd party reboot app when in pending reboot or computer uptime is more than specified in config.
- Services for ConfigMgr client is not running or disabled.
- Other services can be specified to start and run and specific state.
- Windows Update Agent not working correctly, causing client not to receive patches.
- Windows Update Agent missing patches that fixes known bugs.



# Client Health PowerBI Report

Author:  
Jeff Boluan ([@jbolduan](https://twitter.com/jbolduan))

Download:  
<https://winblog.it.umn.edu/2018/05/23/sccm-client-health-powerbi-report-version-1/>



# Application Deployment Tools

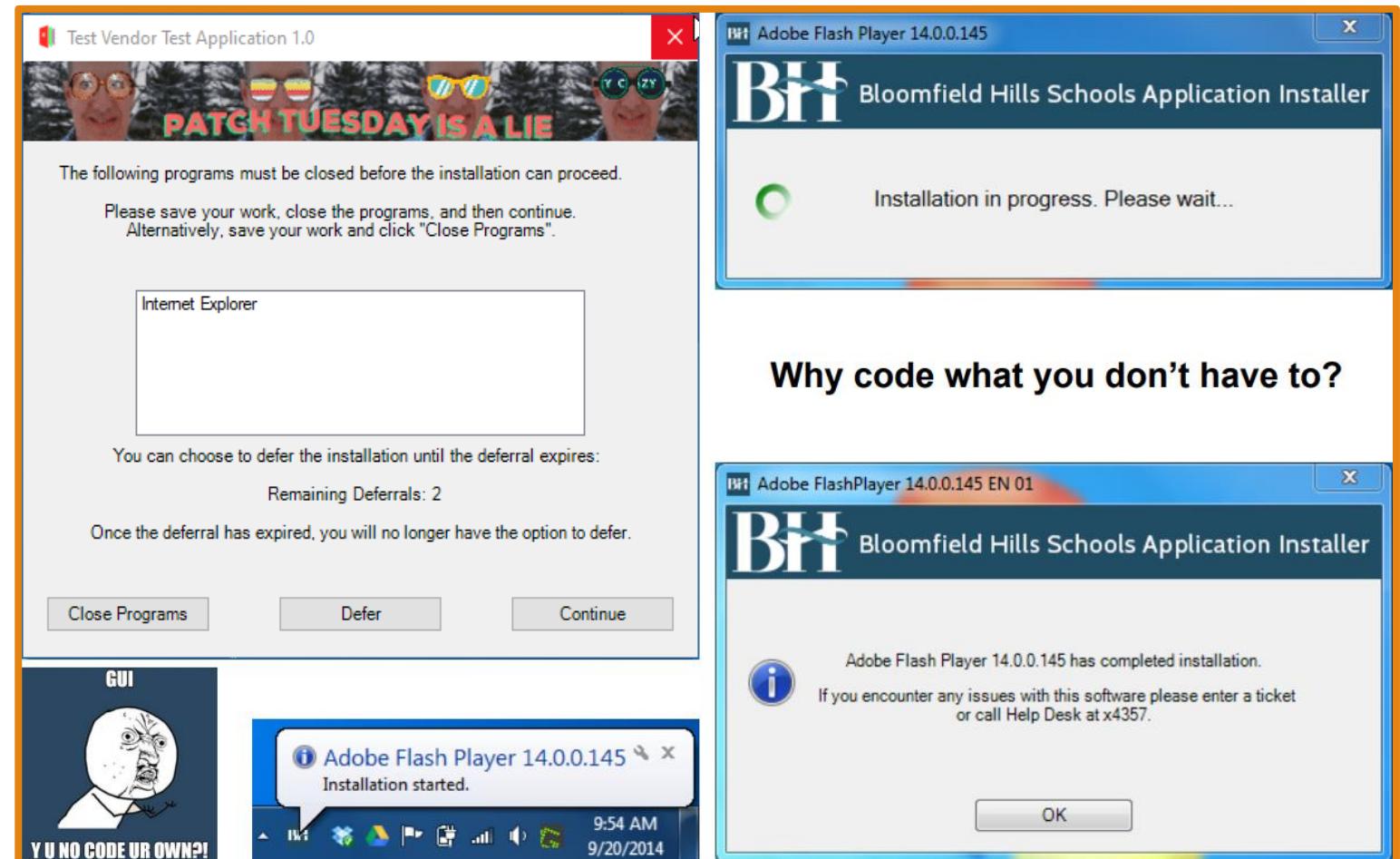
# PowerShell App Deployment Toolkit (PADT)

Author:  
Sean Lillis (@seanel) [Sean Lillis \(@seanel\)](#)  
Dan Cunningham (@sintaxasn) [Dan Cunningham \(@sintaxasn\)](#)

Download:  
<http://psappdeploytoolkit.com/>

~~~~~  
Author:
ReplicaJunction
<https://replicajunction.github.io/2015/04/07/installing-applications-with-psadt-part1/>

<https://replicajunction.github.io/2016/08/18/installing-applications-with-psadt-part2/>



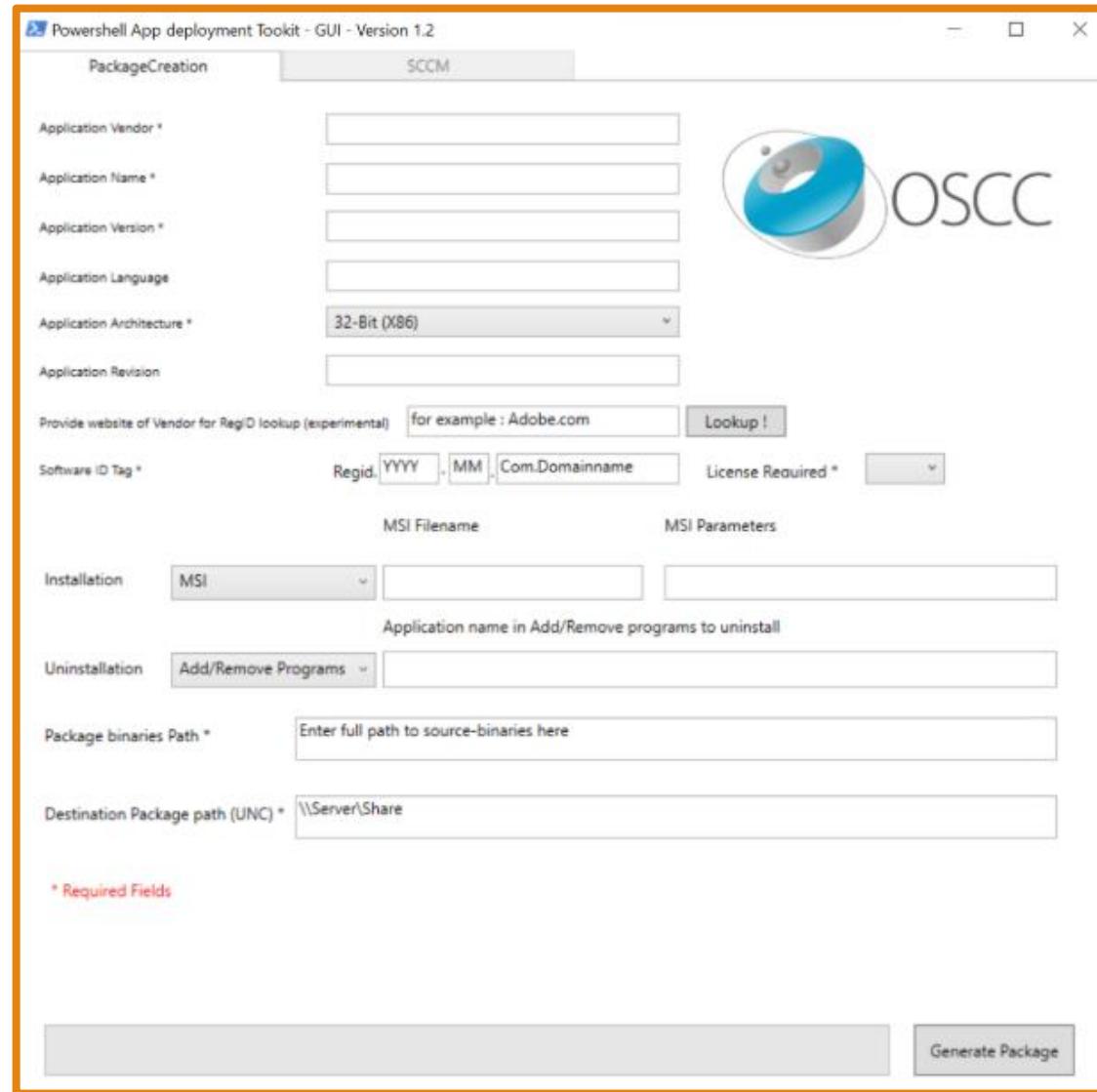
Why code what you don't have to?



PowerShell App Deployment Toolkit GUI

Author:
Tom Degreef ([@TomDegreef](https://twitter.com/TomDegreef))

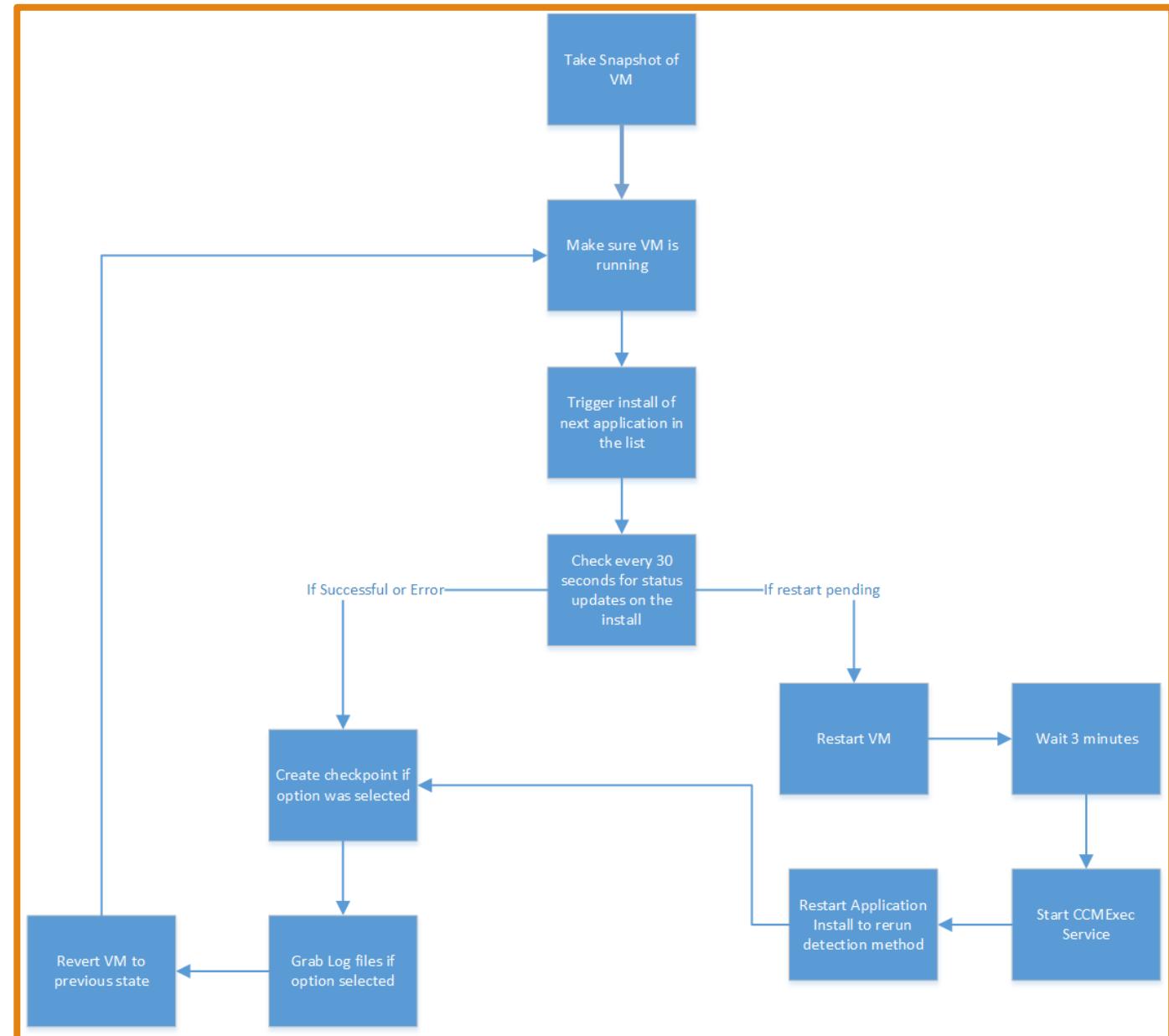
Download:
<http://www.oscc.be/sccm/configmgr/powershell/posh/Powershell-App-deployment-toolkit-GUI/>



Application Tester for Hyper-V or VMWare

Author:
Ryan Ephgrave ([@EphingPosh](#))

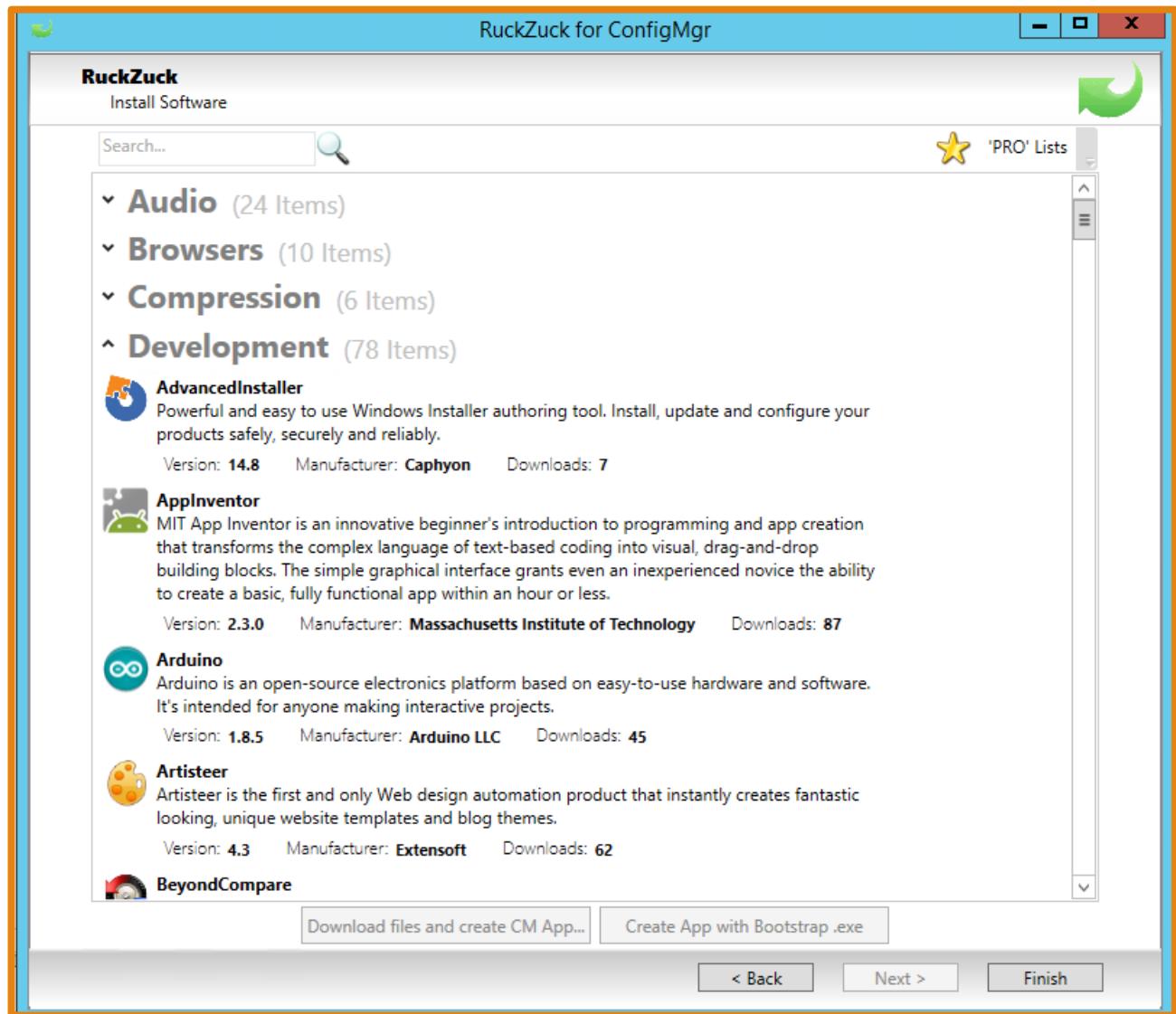
Download:
<https://gallery.technet.microsoft.com/Automatically-test-d96c8ec4>



RuckZuck

Author:
Roger Zander ([@roger_zander](https://twitter.com/roger_zander))

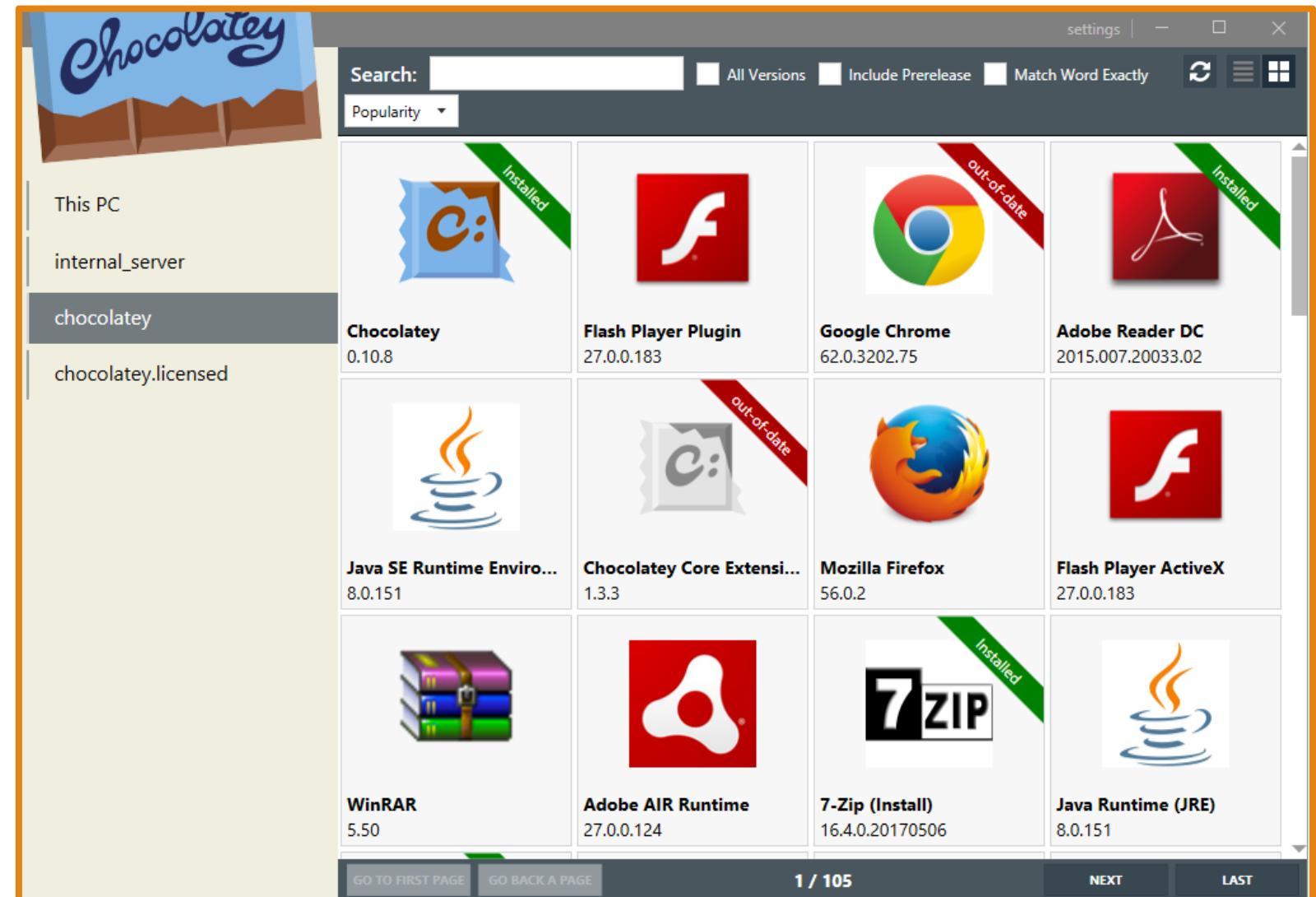
Download:
<http://ruckzuck.tools/>



Chocolatey

Author:
Rob Reynolds ([@ferventcoder](https://twitter.com/ferventcoder))

Download:
<https://chocolatey.org/how-chocolatey-works>



The screenshot shows the Chocolatey application window. On the left, there's a sidebar with navigation links: 'This PC', 'internal_server', 'chocolatey' (which is selected and highlighted in grey), and 'chocolatey.licensed'. The main area displays a grid of package icons and details. Most packages are marked as 'Installed' with green diagonal bars, except for 'Flash Player Plugin' and 'Chocolatey Core Extension' which are marked as 'out-of-date' with red diagonal bars. The packages listed are:

Package	Version	Status
Chocolatey	0.10.8	Installed
Flash Player Plugin	27.0.0.183	out-of-date
Google Chrome	62.0.3202.75	Installed
Adobe Reader DC	2015.007.20033.02	Installed
Java SE Runtime Environment	8.0.151	Installed
Chocolatey Core Extension	1.3.3	out-of-date
Mozilla Firefox	56.0.2	Installed
Flash Player ActiveX	27.0.0.183	Installed
WinRAR	5.50	Installed
Adobe AIR Runtime	27.0.0.124	Installed
7-Zip (Install)	16.4.0.20170506	Installed
Java Runtime (JRE)	8.0.151	Installed

At the bottom, there are navigation buttons: 'GO TO FIRST PAGE', 'GO BACK A PAGE', 'NEXT', and 'LAST'. The page number '1 / 105' is also displayed.





PAID SOLUTION

Patch My PC

Author:
Justin Chalfant

Download:
<https://patchmypc.com/>

~~~~~  
Docs:  
[https://www.reddit.com/r/SCCM/comments/cq8gyi/patchmypc\\_adr\\_strategy\\_ewulwt4/](https://www.reddit.com/r/SCCM/comments/cq8gyi/patchmypc_adr_strategy_ewulwt4/)

The screenshot displays several windows related to Patch My PC and SCCM:

- Base Install Options**: A configuration window for SCCM settings, including SMS Provider Server (SCCM), Source Folder (\\scmSources), and various options for application creation and distribution.
- Google Chrome 75.0.3770.100 (x64) Properties**: A properties dialog for Google Chrome, showing details like Name (Google Chrome 75.0.3770.100 (x64)), Publisher (Google, Inc.), Software version (75.0.3770.100), and Date published (7/ 8/2019).
- Google Chrome 75.0.3770.100 (x64) Properties**: Another properties dialog for Google Chrome, focusing on localized application name (Google Chrome (x64)) and user documentation (https://support.google.com/chrome/?hl=en).
- Third-Party Software Update Catalog - Supported Products**: A message box stating "We currently support 335 third-party updates across 190 unique products".
- Software Center**: The main interface of Patch My PC, showing a list of applications managed by the tool, including Zoom Meetings, XnView, XMind 8 Update 8, Wireshark (x86), Wireshark (x64), and TortoiseHg.

# General Administrative Tools

---

# Dam Good Admin WSUS Script

Author:  
Bryan Dam ([@bdam555](#))

Download:  
<https://damgoodadmin.com/2017/11/05/fully-automate-software-update-maintenance-in-cm/>

~~~~~

Author:
Johan Arwidmark ([@jarwidmark](#))

Guide:
<https://deploymentresearch.com/fixing-wsus-when-the-best-defense-is-a-good-offense/>

What Can it Do?

The script can be used to do any or all of the following:

- Detect if a synchronization is occurring and wait for success before resuming.
- Decline superseded updates.
- Decline updates by a list of titles.
- Decline updates based on external plugin scripts.
- Output a comma-delimited list of declined updates.
- Run the WSUS Cleanup Wizard.
- Initiate a software update synchronization.
- Remove expired and declined updates from software update groups.
- Delete software update groups that have no updates.
- Combine software update groups into yearly groups.
- Set the maximum run time for updates by title.
- Remove unneeded files from the deployment package source folder.
- Update the deployment packages used by ADRs either monthly or yearly.
- Directly call the stored procedures to delete obsolete updates.
- Add crucial indexes that make WSUS run faster overall.
- Delete updates that have been declined from the WSUS database entirely.



Reg2CI/Reg2PS

Author:

Roger Zander ([@roger_zander](https://twitter.com/roger_zander))

Download:

<https://github.com/rzander/Reg2CI/releases>

<https://reg2ps.azurewebsites.net/>

Reg2CI

Reg2CI is a Command-Line Tool to convert .POL (Policy) or .REG Files (Registry) into System Center Configuration Manager CI's (Configuration Items). This Project was moved from <https://reg2ci.codeplex.com/>

Usage

Command-Line Parameters:

```
Reg2CI.exe <Reg File> <Cab File> <Name of the CI> [/X86]  
Reg2CI.exe <POL File> <Cab File> <Name of the CI> [/X86] [/USER]
```

REG2PS WebSite

Convert your .reg Files online to PowerShell scripts: <https://reg2ps.azurewebsites.net/>

Registry to PowerShell converter

Version 1.0.3.5 (4 May 2019)

Registry:

```
Windows Registry Editor Version 5.00  
  
[HKEY_LOCAL_MACHINE\SOFTWARE\InghamISD\ApplicationVerification]  
"3150VideoDriverRepair"="True"  
"District_Start_Menu_Win10"="true"  
"IISD_Set_Screen_Black_Logo_v2"="True"
```

PowerShell:

```
# Reg2CI (c) 2019 by Roger Zander  
if((Test-Path -LiteralPath "HKLM:\SOFTWARE\InghamISD\ApplicationVerification") -ne $true) { New-Item "HKLM:\SOFTWARE\InghamISD\ApplicationVerification" -force -ea SilentlyContinue };  
New-ItemProperty -LiteralPath 'HKLM:\SOFTWARE\InghamISD\ApplicationVerification' -Name '3150VideoDriverRepair' -Value "True" -PropertyType String -Force -ea SilentlyContinue;  
New-ItemProperty -LiteralPath 'HKLM:\SOFTWARE\InghamISD\ApplicationVerification' -Name 'District_Start_Menu_Win10' -Value "true" -PropertyType String -Force -ea SilentlyContinue;  
New-ItemProperty -LiteralPath 'HKLM:\SOFTWARE\InghamISD\ApplicationVerification' -Name 'IISD_Set_Screen_Black_Logo_v2' -Value "True" -PropertyType String -Force -ea SilentlyContinue;
```

[Get check Script](#)

[Get remediation Script](#)

REG2PS on GitHub... Copyright © 2019 by Roger Zander



Operational Collections

Author:
Benoit Lecours (@benoitlecours)

Download:
[https://gallery.technet.microsoft.com/
Set-of-Operational-SCCM-19fa8178](https://gallery.technet.microsoft.com/Set-of-Operational-SCCM-19fa8178)

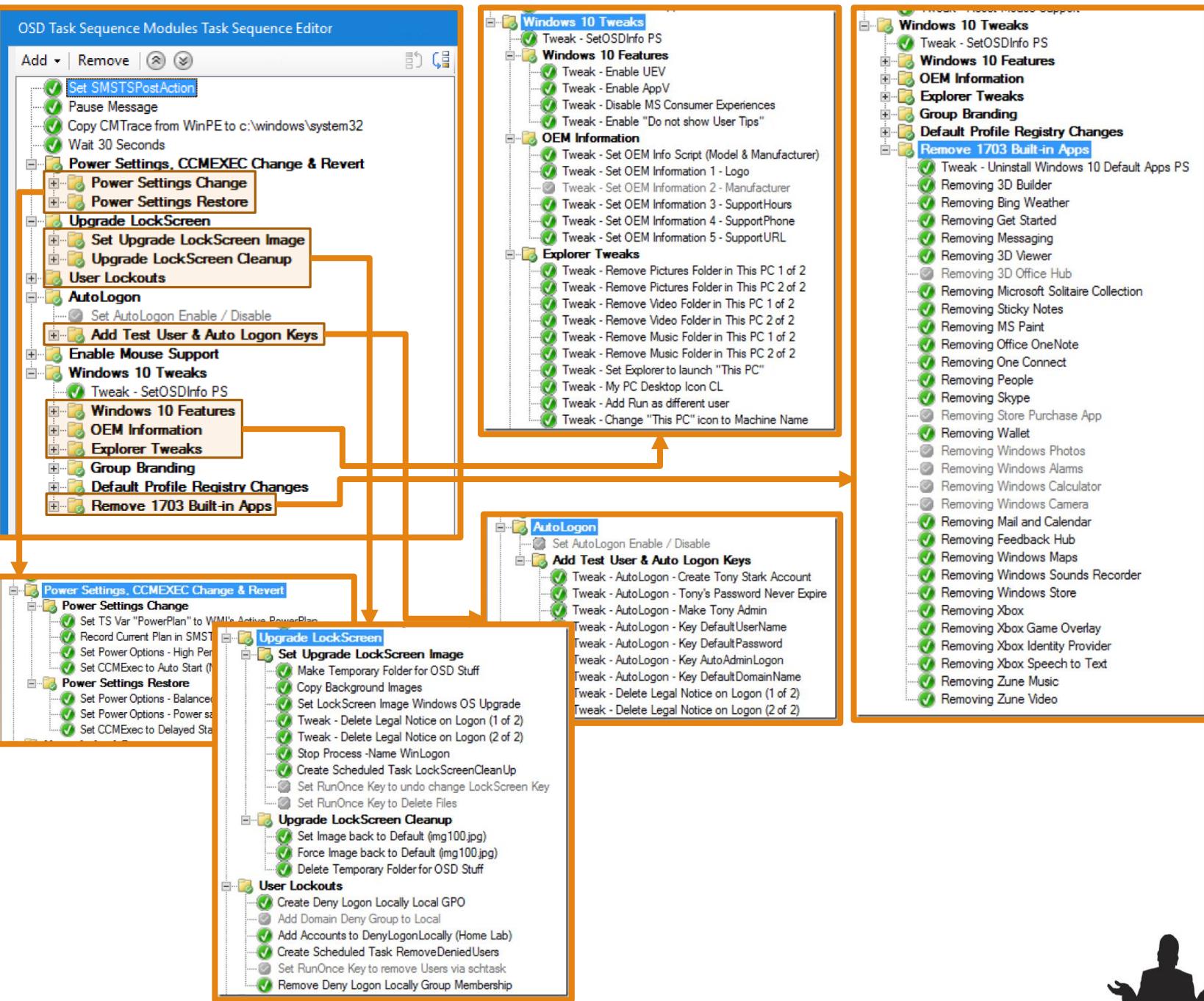
```
Administrator: Windows PowerShell ISE
File Edit View Tools Debug Add-ons Help
Script

*** Collection Clients | All created ***
*** Collection Clients | All moved to Operational folder ***
*** Collection Mobile Devices | Microsoft Surface created ***
*** Collection Mobile Devices | Microsoft Surface moved to Operational folder ***
*** Collection Mobile Devices | Microsoft Surface 3 created ***
*** Collection Mobile Devices | Microsoft Surface 3 moved to Operational folder ***
*** Collection Mobile Devices | Microsoft Surface 4 created ***
*** Collection Mobile Devices | Microsoft Surface 4 moved to Operational folder ***
*** Collection Others | Linux Devices created ***
*** Collection Others | Linux Devices moved to Operational folder ***
*** Collection Others | MAC OSX Devices created ***
*** Collection Others | MAC OSX Devices moved to Operational folder ***
*** Collection SCCM | Console created ***
*** Collection SCCM | Console moved to Operational folder ***
*** Collection SCCM | Site Systems created ***
*** Collection SCCM | Site Systems moved to Operational folder ***
*** Collection SCCM | Distribution Points created ***
*** Collection SCCM | Distribution Points moved to Operational folder ***
*** Collection Servers | All created ***
*** Collection Servers | All moved to Operational folder ***
*** Collection Office 365 Channel | Semi-Annual created ***
*** Collection Office 365 Channel | Semi-Annual moved to Operational folder ***
*** Collection Software Inventory | Clients Not Reporting since 30 Days created ***
*** Collection Software Inventory | Clients Not Reporting since 30 Days moved to Operational folder ***
*** Collection System Health | Disabled created ***
*** Collection System Health | Disabled moved to Operational folder ***
*** Collection System Health | Obsolete created ***
*** Collection System Health | Obsolete moved to Operational folder ***
*** Collection Systems | x86 created ***
*** Collection Systems | x86 moved to Operational folder ***
*** Collection Systems | x64 created ***
*** Collection Systems | x64 moved to Operational folder ***
*** Collection Systems | Created Since 24h created [ ]
*** Collection Systems | Created Since 24h moved to Operational folder ***
*** Collection Workstations | All created ***
*** Collection Workstations | All moved to Operational folder ***
*** Collection Clients Version | 1802 created ***
*** Collection Clients Version | 1802 moved to Operational folder ***
*** Collection Office 365 Build Version | 1802 created ***
*** Collection Office 365 Build Version | 1802 moved to Operational folder ***
*** Collection Office 365 Build Version | 1803 created ***
*** Collection Office 365 Build Version | 1803 moved to Operational folder ***
*** Collection Office 365 Build Version | 1708 created ***
*** Collection Office 365 Build Version | 1708 moved to Operational folder ***
*** Collection Office 365 Build Version | 1705 created ***
*** Collection Office 365 Build Version | 1705 moved to Operational folder ***
*** Collection System Health | Clients Online created ***
*** Collection System Health | Clients Online moved to Operational folder ***
*** Collection Workstations | Windows 10 v1803 created ***
*** Collection Workstations | Windows 10 v1803 moved to Operational folder ***
*** Collection Office 365 Channel | Monthly created ***
*** Collection Office 365 Channel | Monthly moved to Operational folder ***
*** Collection Office 365 Channel | Monthly (Targeted) created ***
*** Collection Office 365 Channel | Monthly (Targeted) moved to Operational folder ***
*** Collection Office 365 Channel | Semi-Annual (Targeted) created ***
*** Collection Office 365 Channel | Semi-Annual (Targeted) moved to Operational folder ***
*** Collection Mobile Devices | Windows Phone 10 created ***
```

Gary Block's Task Sequence Collection

Author:
Gary Block

Download:
<https://garytown.com/configmgr-task-sequence-collection>

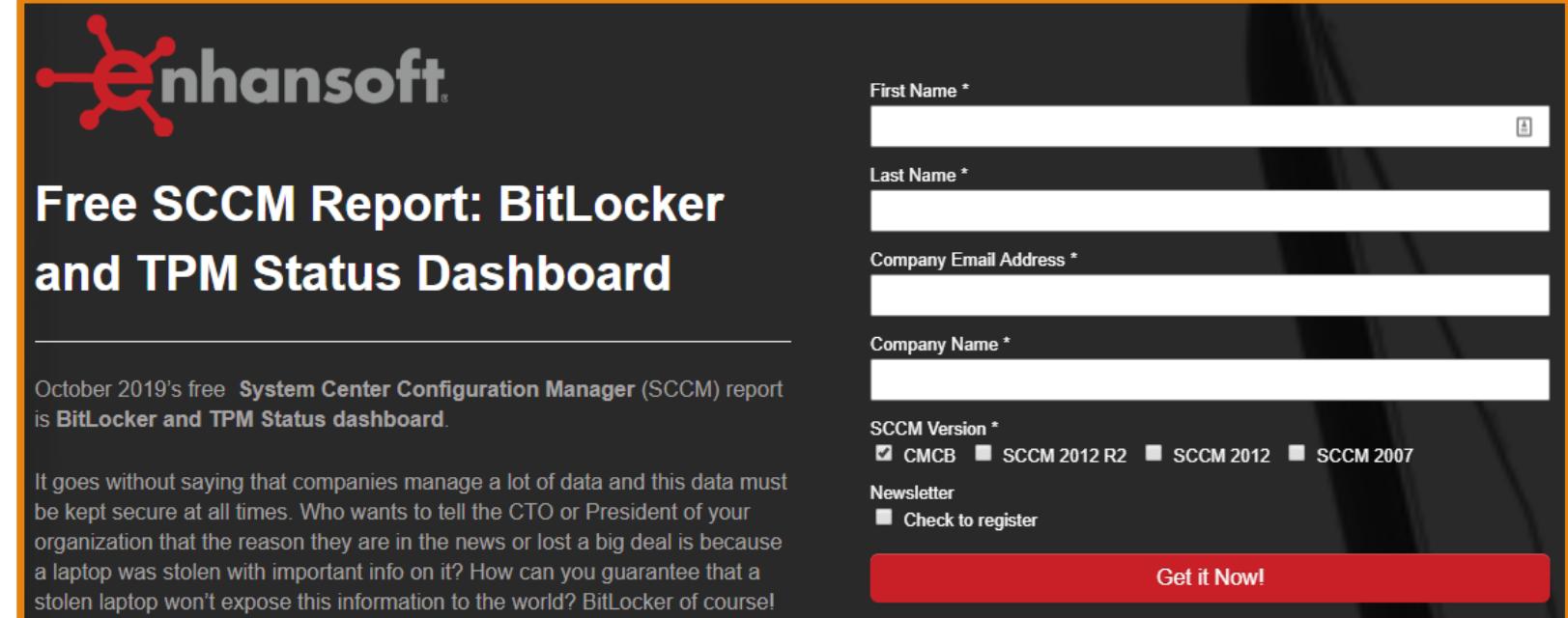


Free Monthly SCCM Reports

Author:
Garth Jones ([@GarthMJ](https://twitter.com/GarthMJ))

Download:
<http://giveaway.enhansoft.com/>

Every month, MVP Garth Jones releases a free ConfigMgr report for download. Published reports are voted on by the community and the one with the most votes is what the community gets. All you need to do is sign up for a free account on the Enhansoft website. This gives you voting access and the ability to download several reports as well as request the download for the current month's report. If you just want the report, you'll need to fill in your information every time using this [link](#).



The image shows a landing page for a free SCCM report. At the top left is the Enhansoft logo, which consists of a red stylized 'e' icon followed by the word 'enhansoft' in a lowercase sans-serif font. To the right is a large, bold title: 'Free SCCM Report: BitLocker and TPM Status Dashboard'. Below the title is a horizontal line. Underneath the line, there is a paragraph of text: 'October 2019's free System Center Configuration Manager (SCCM) report is BitLocker and TPM Status dashboard.' Further down, another paragraph reads: 'It goes without saying that companies manage a lot of data and this data must be kept secure at all times. Who wants to tell the CTO or President of your organization that the reason they are in the news or lost a big deal is because a laptop was stolen with important info on it? How can you guarantee that a stolen laptop won't expose this information to the world? BitLocker of course!'. To the right of the text, there is a form with several input fields: 'First Name *' with a placeholder for a name, 'Last Name *' with a placeholder for a name, 'Company Email Address *' with a placeholder for an email address, 'Company Name *' with a placeholder for a company name, and 'SCCM Version *' with four options: 'CMCB' (checked), 'SCCM 2012 R2', 'SCCM 2012', and 'SCCM 2007'. There is also a 'Newsletter' section with a checkbox for 'Check to register'. At the bottom right is a red button with the text 'Get it Now!'. The background of the page has a dark, abstract graphic.

Right Click Tools

Author:
Recast Software

Download:
<https://www.recastsoftware.com/right-click-tools>

The screenshot shows the 'Assets and Compliance' application interface. On the left, there's a navigation pane with 'Overview', 'Users', 'Devices' (which is selected), 'User Collections', and several other options like 'Add Selected Items' and 'Install Client'. A context menu is open over a device named 'JONTEST'. The menu items include 'Delete', 'Refresh', 'Properties', and 'Recast RCT'. The 'Recast RCT' option has a dropdown menu showing various client actions and cycles. The main pane displays a table of 157 devices with columns for 'Icon', 'Name', 'Client', 'Site Code', and 'Client Activity'. The table includes entries like 'FEDEX-HP', 'GER-PC', and 'NM-ACERLOANER'. At the bottom, there are tabs for 'Assets and Compliance', 'Software Library', 'Monitoring', and 'Administration'. The 'General Information' section for 'JONTEST' shows details like Name: JONTEST, Client Type: Computer, and Client Check Period.

Icon	Name	Client	Site Code	Client Activity
FEDEX-HP	Yes	PS1	Active	
GER-PC	Yes	PS1	Inactive	
JONTEST	Yes	PS1	Inactive	
LABELS	Yes	PS1	Active	
MATTM-DESKTOP	Yes	PS1	Active	
NASFTP	No			
NM-ACERLOANER	Yes	PS1	Inactive	
NM-AJHP	Yes	PS1	Inactive	
NM-ALEXDESKTOP	No			
NM-ALEXE5570	Yes	PS1	Active	
NM-ANDREWFOOLIO	Yes	PS1	Active	
NM-ANDREWLAPTOP	Yes	PS1	Inactive	
NM-APP1	Yes	PS1	Active	
NM-ARMANDO	Yes	PS1	Inactive	
NM-ARMANDOM83	Yes	PS1	Active	
NM-BACKUP1	No			
NM-BLABZ	Yes	PS1	Active	
NM-BLU	No			
NM-BOBLENVO	Yes	PS1	Active	

WMI Explorer

Author:
Vinay Pamnani ([@vinay_pamnani](https://github.com/vinaypamnani))

Download:
https://github.com/vinaypamnani/wm_ie2/releases

WMI Explorer 2.0 (Administrator)

File Launch Help

Computer AWESOME Connect

Mode: Aynchronous Synchronous

Class Enumeration Options: Include System Classes, Include Perf Classes, Include CIM Classes, Include MSFT Classes, Refresh Classes

Namespaces: \AWESOME\ROOT, ROOT\CIMV2, ROOT\DEFAULT

Classes (395) Search: Quick Filter: proces

Instances (140) Properties (45) Methods (7) Query Script Logging

Instance Options: Quick Filter, Show Null Values, Show System Properties, Refresh Instances, Refresh Object

Instances: Win32_Process Handle="1552", Win32_Process Handle="15596", Win32_Process Handle="15660", Win32_Process Handle="15692", Win32_Process Handle="1580", Win32_Process Handle="15952", Win32_Process Handle="1596", Win32_Process Handle="15960", Win32_Process Handle="16108", Win32_Process Handle="1624", Win32_Process Handle="16500", Win32_Process Handle="1672", Win32_Process Handle="16752", Win32_Process Handle="1692", Win32_Process Handle="1712", Win32_Process Handle="17232", Win32_Process Handle="17364", Win32_Process Handle="1768", Win32_Process Handle="17752", Win32_Process Handle="17796", Win32_Process Handle="17804", Win32_Process Handle="17828", Win32_Process Handle="18032", Win32_Process Handle="18036", Win32_Process Handle="1816", Win32_Process Handle="1940"

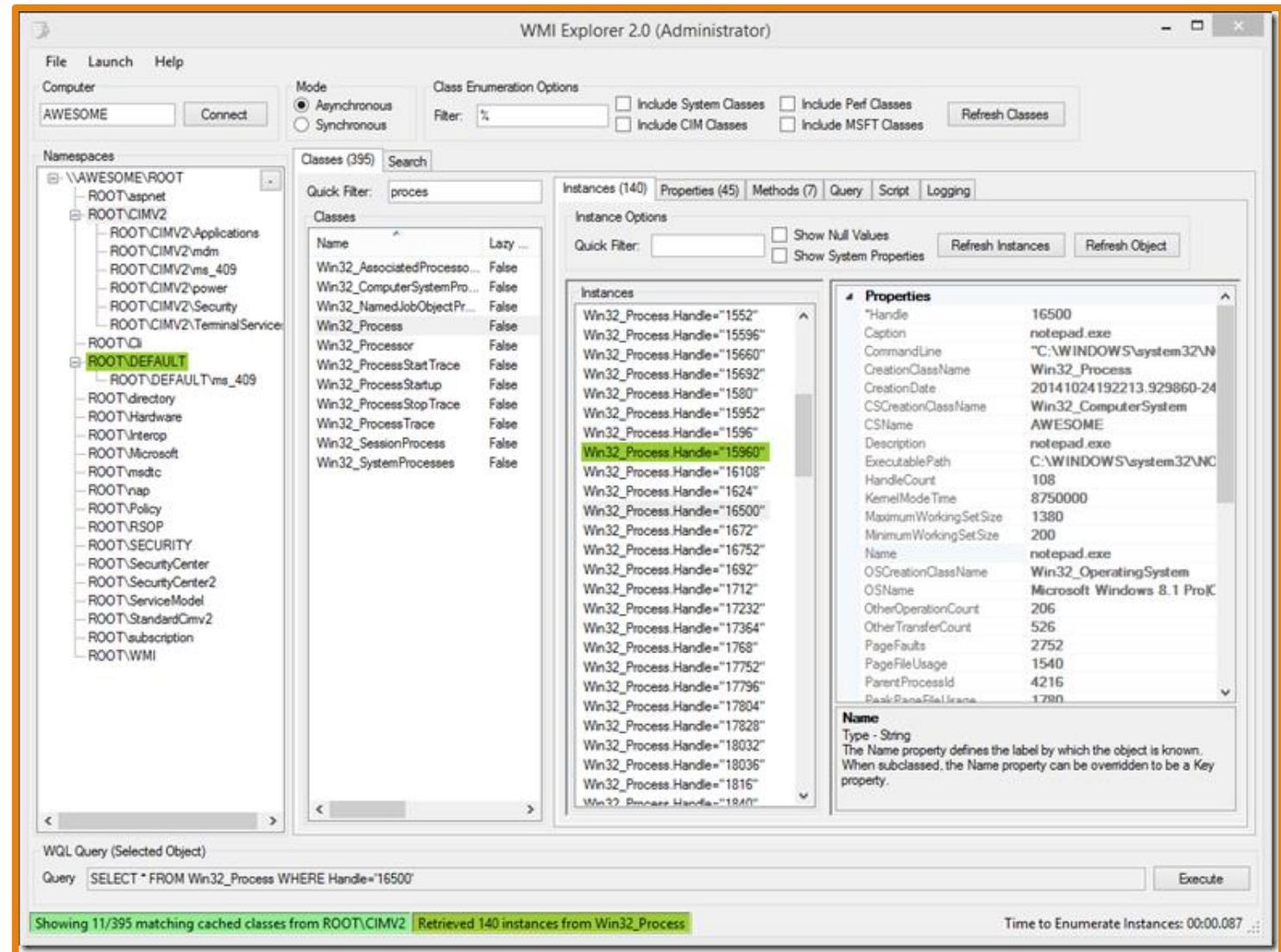
Properties: Handle, Caption, CommandLine, CreationClassName, CreationDate, CSCreationClassName, CSName, Description, ExecutablePath, HandleCount, KernelModeTime, MaximumWorkingSetSize, MinimumWorkingSetSize, Name, OSCreationClassName, OSName, OtherOperationCount, OtherTransferCount, PageFaults, PageFileUsage, ParentProcessId, PeakPinnedFileUsage

Name: Type - String
The Name property defines the label by which the object is known. When subclassed, the Name property can be overridden to be a Key property.

WQL Query (Selected Object): SELECT * FROM Win32_Process WHERE Handle="16500"

Showing 11/395 matching cached classes from ROOT\CIMV2 Retrieved 140 instances from Win32_Process

Time to Enumerate Instances: 00:00:087



PsTools: PsExec

Author:
Mark Russinovich ([@markrussinovich](https://twitter.com/markrussinovich))

Download:
<https://docs.microsoft.com/en-us/sysinternals/downloads/pstools>

~~~~~

Author:  
Adam Bertram ([@adbertram](https://twitter.com/adbertram))

Docs:  
<https://adamtheautomator.com/psexec-ultimate-guide/>

If there was a command-line utility that could compete with [robocopy](#) in terms of usefulness, it's PsExec. The Sysinternals PsExec utility is as ubiquitous as they come in an IT admin arsenal. This tool allows administrators to remotely run commands just as if they were on the local computer.

To cover the PsExec tool in depth, it was fitting to cover this coveted tool in an [ATA Ultimate Guide](#). In this guide, you will learn what psexec is, what it's capable of and many examples of how to use this useful tool.

```
PS51> psexec -s cmd  
PsExec v2.2 - Execute processes remotely  
Copyright (C) 2001-2016 Mark Russinovich  
Sysinternals - www.sysinternals.com  
  
Microsoft Windows [Version 10.0.17134.950]  
(c) 2018 Microsoft Corporation. All rights reserved.  
  
C:\WINDOWS\system32>whoami  
nt authority\system
```

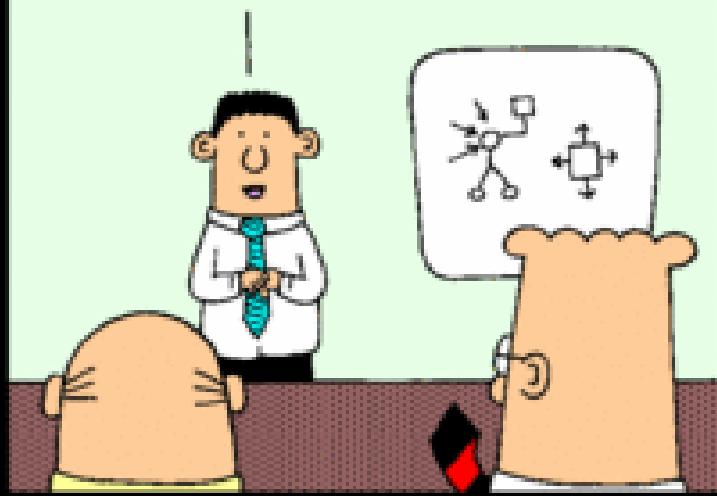
```
C:\>psexec -i \\contosodc1 notepad  
PsExec v2.2 - Execute processes remotely  
Copyright (C) 2001-2016 Mark Russinovich  
Sysinternals - www.sysinternals.com
```

```
C:\>psexec \\contosodc1 hostname  
PsExec v2.2 - Execute processes remotely  
Copyright (C) 2001-2016 Mark Russinovich  
Sysinternals - www.sysinternals.com  
  
CONTOSODC1  
hostname exited on contosodc1 with error code 0.  
  
C:\>
```

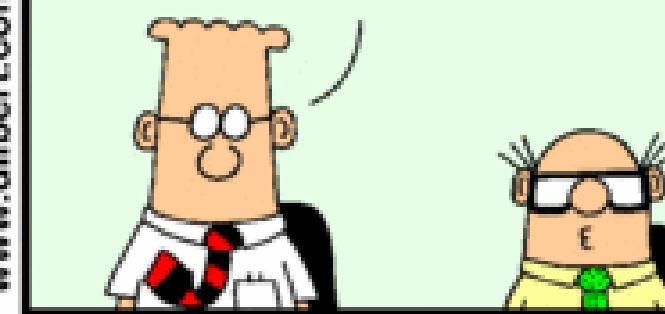
```
C:\>psexec \\contosodc1 cmd  
PsExec v2.2 - Execute processes remotely  
Copyright (C) 2001-2016 Mark Russinovich  
Sysinternals - www.sysinternals.com  
  
Microsoft Windows [Version 10.0.17763.678]  
(c) 2018 Microsoft Corporation. All rights reserved.  
  
C:\windows\system32>
```



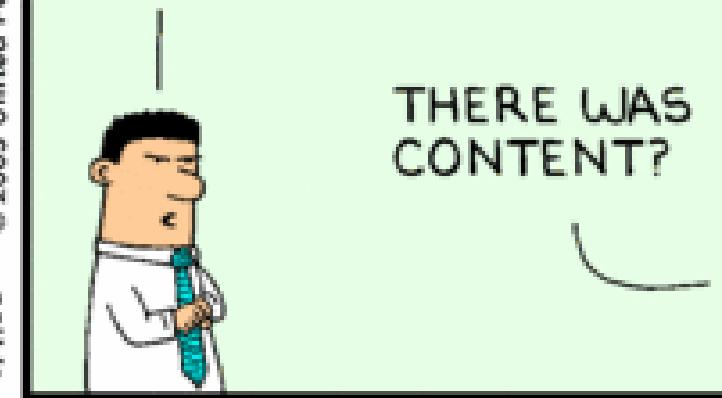
THAT CONCLUDES MY  
TWO-HOUR PRESENTA-  
TION. ANY QUESTIONS?



DID YOU INTEND THE  
PRESENTATION TO BE  
INCOMPREHENSIBLE,  
OR DO YOU HAVE SOME  
SORT OF RARE "POWER-  
POINT" DISABILITY?



ARE THERE  
ANY QUESTIONS  
ABOUT THE  
CONTENT?



THERE WAS  
CONTENT?

# The End

---