‘Run-OSBuilder’ Script Execution

Create a Windows 10 Enterprise Installation ISO from Microsoft Media with current servicing updates applied

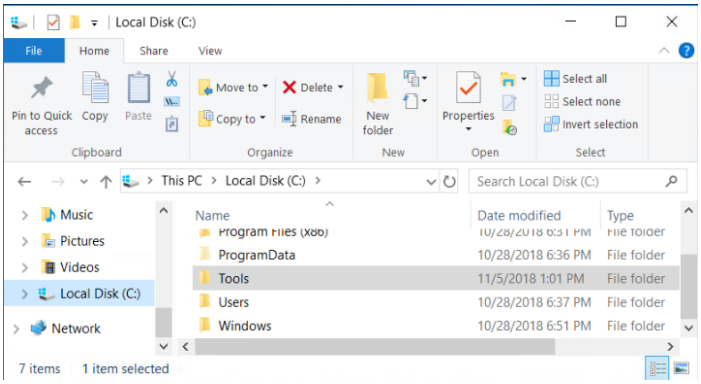
Requirements:

- Virtual Machine running Windows 10 Enterprise (64bit preferred)
    - Can be domain joined or stand-alone
- Administrator rights on the Virtual Machine
- Script must be run in PowerShell with Admin rights
- Correct version of the Windows Assessment and Deployment Kit installed or downloaded for later installation.
    - https://docs.microsoft.com/en-us/windows-hardware/get-started/adk-install
- Windows 10 Business Edition ISO downloaded from Microsoft or MSDN
    - ISO contains multiple Windows 10 editions (Enterprise, Professional, Enterprise N, etc.)
- Approximately 30GB of HDD free space

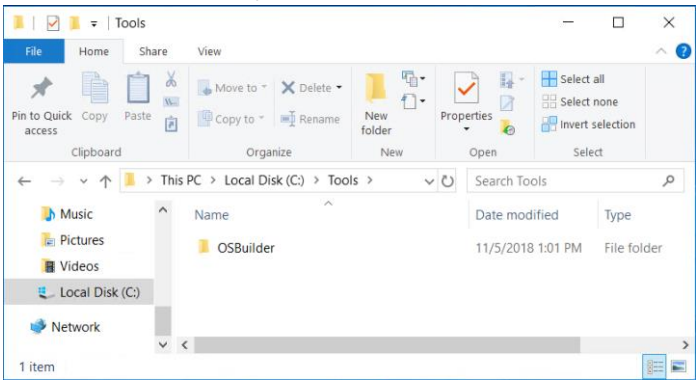
Instructions:

Demo video for v1.0.5 is located on YouTube here. Video run-time approximately 16 minutes.

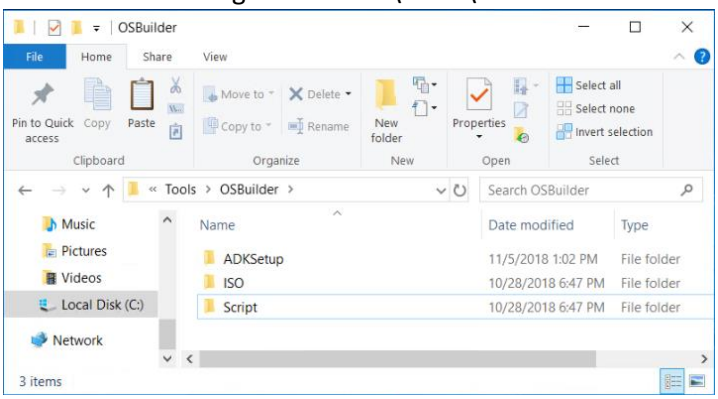
1) Log onto the Virtual Machine with an account that has local administraor rights.
2) Create a folder on the root of drive ‘C:’ called “Tools”



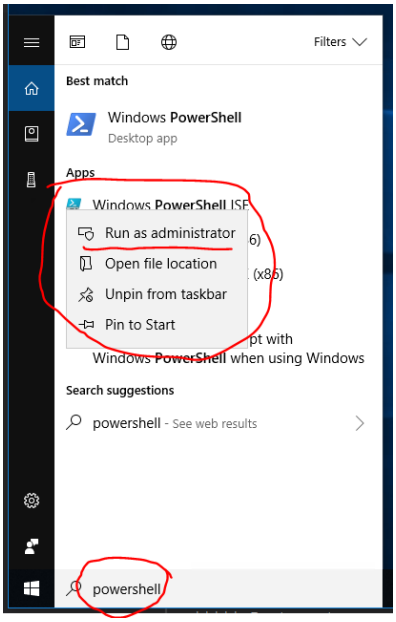
3) Create a folder in ‘C:\Tools’ called “OSBuilder”



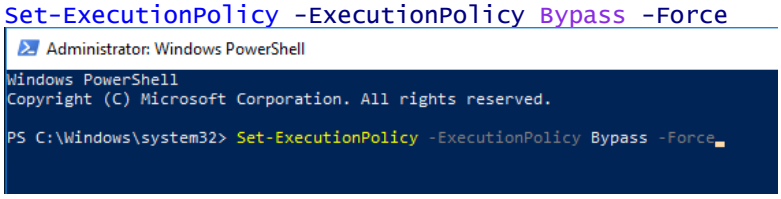
4) Create the following folder in ‘C:\Tools\OSBuilder’:



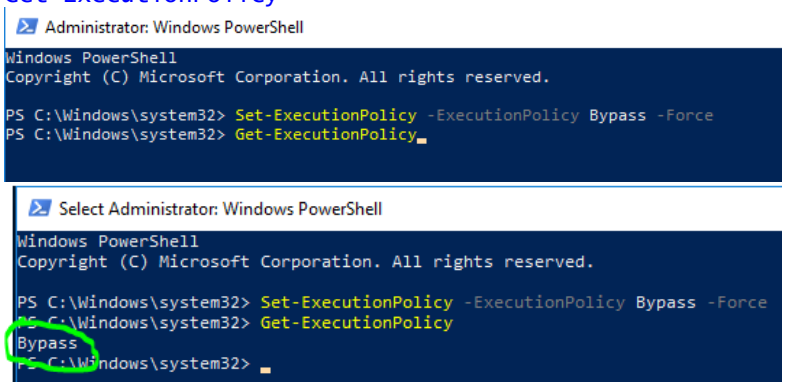
   a. ISO = “C:\Tools\OSBuilder\ISO”
   b. Script = “C:\Tools\OSBuilder\Script”
   c. ADKSetup = “C:\Tools\OSBuilder\ADKSetup”
5) Copy the Windows 10 ISO file from Microsoft to “C:\Tools\OSBuilder\ISO”.
6) Copy the ‘Run-OSBuilder.ps1’ script file to “C:\Tools\OSBuilder\Script”.
7) Copy the downloaded ADK Setup files to “C:\Tools\OSBuilder\ADKSetup” if it has not already been installed.
8) Open powershell as administrator by clicking on the start menu or in the Cortana search box and typing “PowerShell”.
   a. Right-Click on the PowerShell icon and select “Run as Administrator”



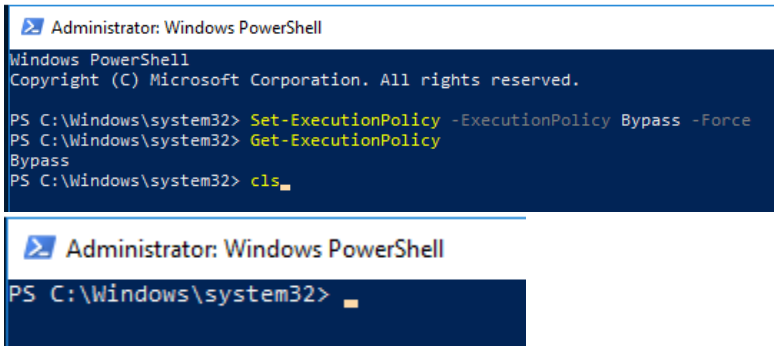
9) At the PowerShell prompt, type the following commands and press the enter key on your keyboard:
    a. To set the execution policy for running scripts to “Bypass”
        i. `Set-ExecutionPolicy -ExecutionPolicy Bypass -Force`



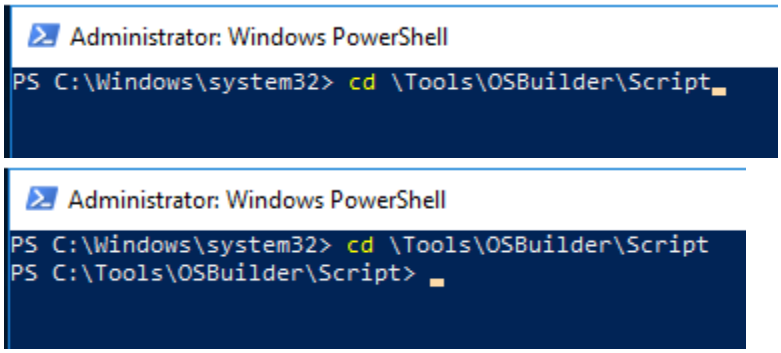
    b. To verify that the execution policy is set to “Bypass”
        i. `Get-ExecutionPolicy`



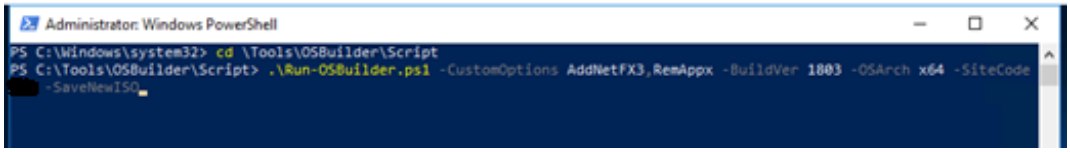
    c. To clear the screen
        i. CLS



10) At the PowerShell prompt type the following commands and press the enter key on your keyboard
    a. To change working directory to where the script is located
        i. cd \Tools\OSBuilder\Script

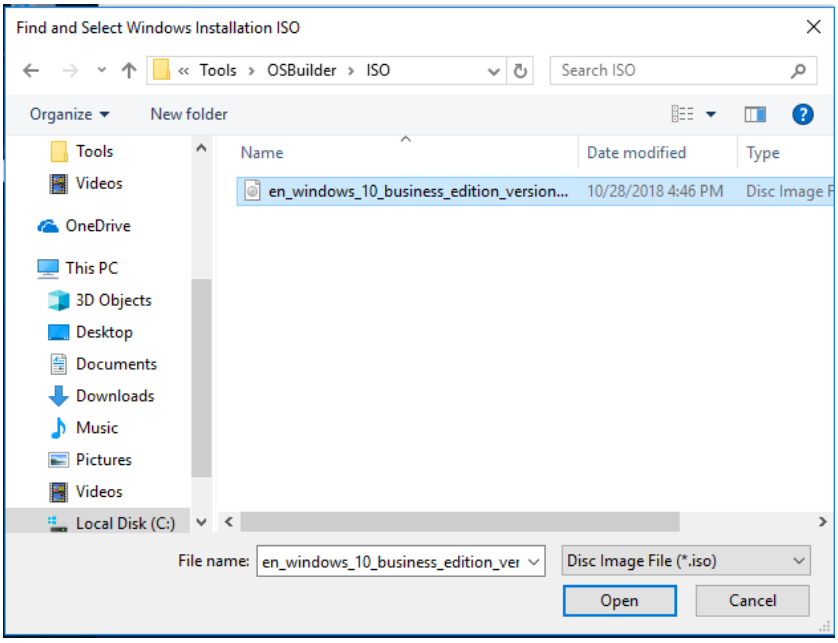


11) Run the script by typing the following command and press the enter key on your keyboard.
    a. .\Run-OSBuilder.ps1 -CustomOptions AddNetFX3,RemAppx -BuildVer 1803 -OSArch x64 -SiteCode <SITECODE> -SaveNewISO

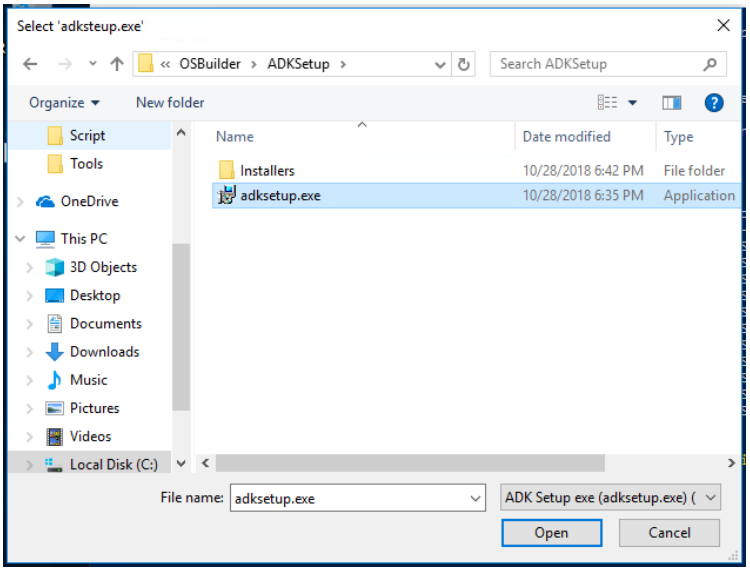


NOTE:
Additional options for the 'CustomOptions' script argument are available. See the "Script Information" section at the end of this document for details.

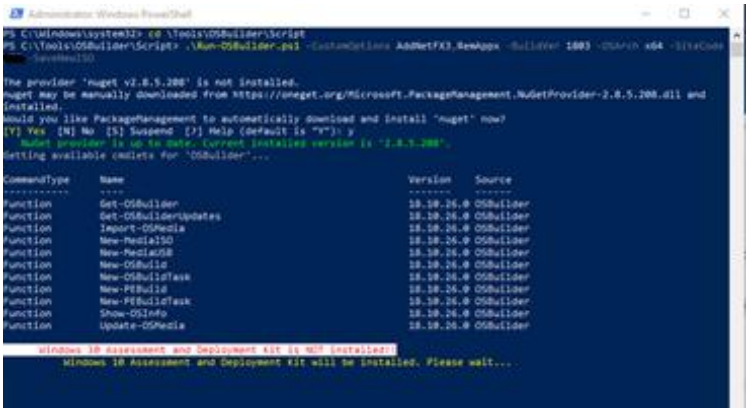
12) When prompted, browse to the location of the Windows 10 ISO from Microsoft, then click "OPEN"



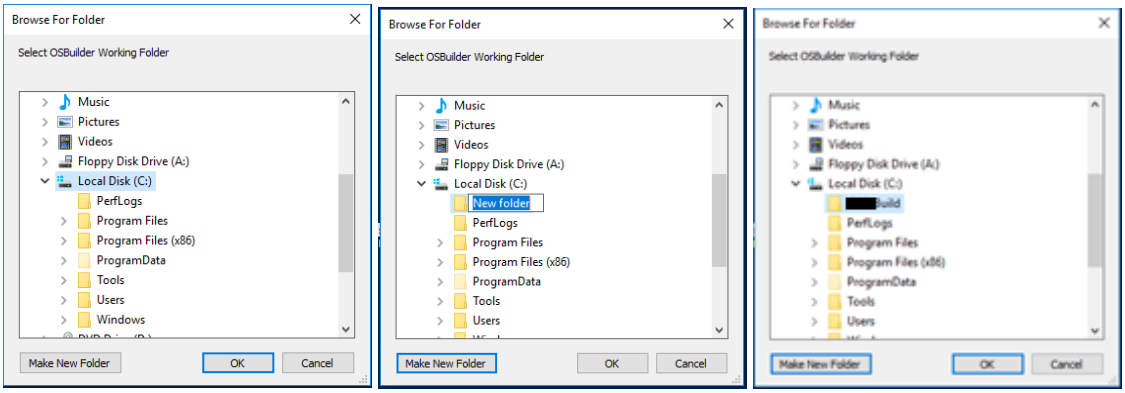
13) When/ if prompted for the ADKSetup.exe file, browse to ‘C:\Tools\OSBuilder\ADKSetup’. Select the file “adksetup.exe” and then click “OPEN”



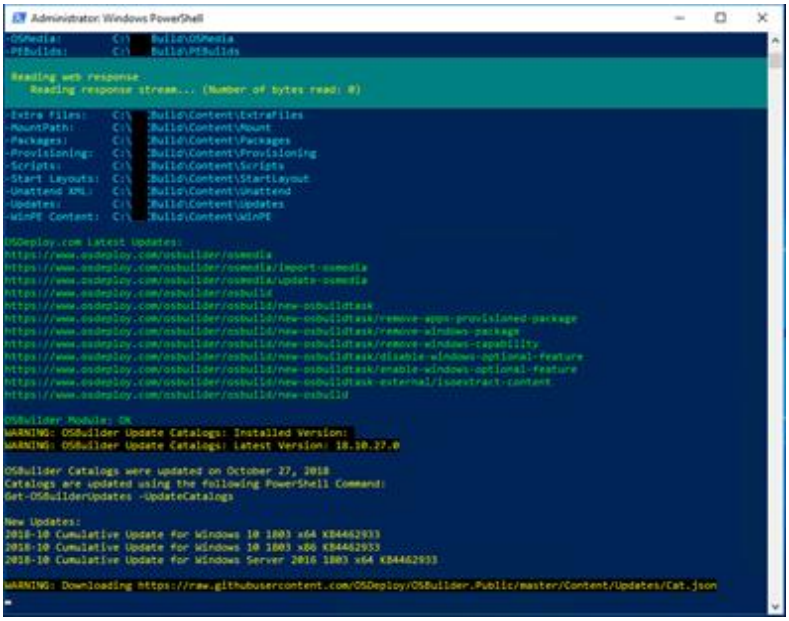
This will install the Windows 10 ADK if it is not already installed.



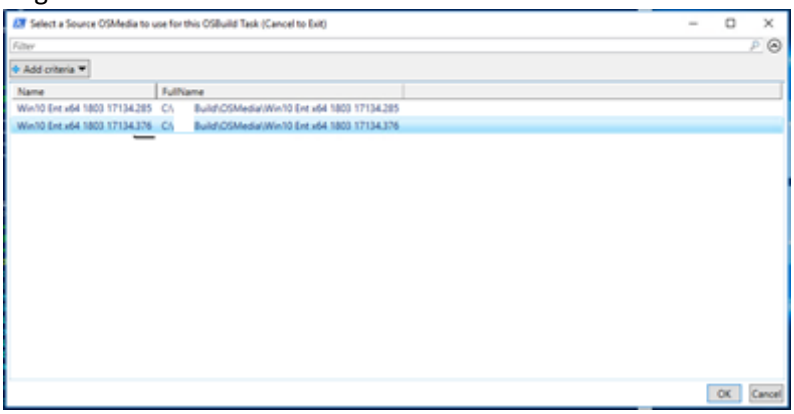
14) When prompted with the ‘Browse for folder’ dialog, browse to the ‘C:’ drive on your VM and create a new folder called “W10Build”, select the folder, then click “OK”.



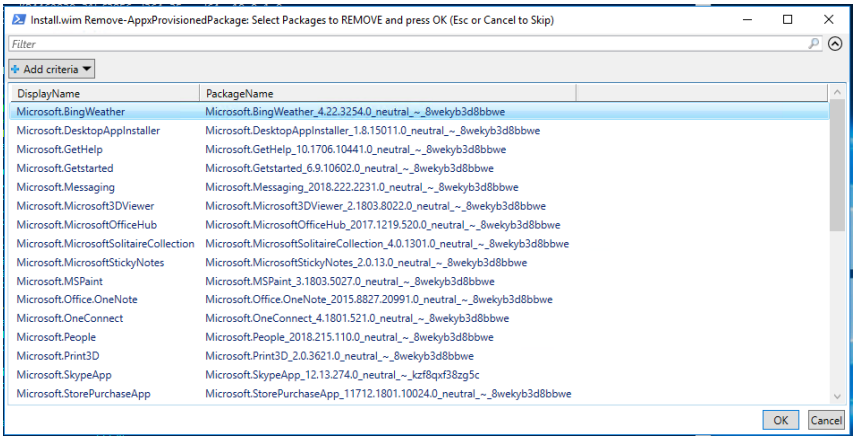
15) The script will then create the needed working folders for the ISO build, import the media and download/ apply the servicing updates to it. This process can take up to 2 hours to complete.



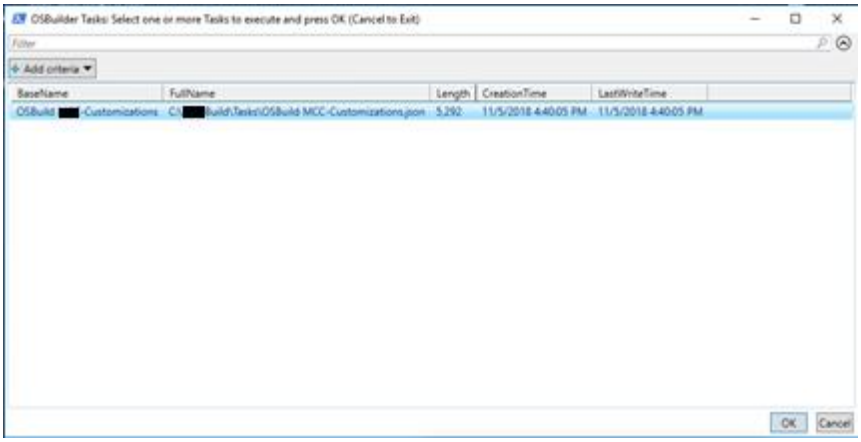
16) When prompted to select the Source OSMedia to use for the Build Task, select the item with the larger version number at the end of the name. Then click “OK”.



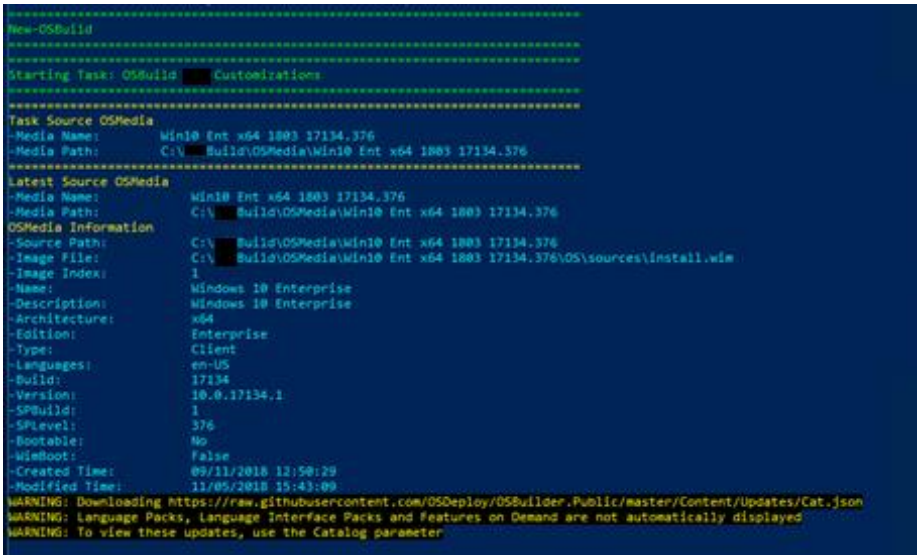
17) When prompted for the AppX packages to be removed from the image, click the first on in YOUR list to be removed, then hold the CTRL key on your keyboard and select all of those that you want removed. Then click “OK”.



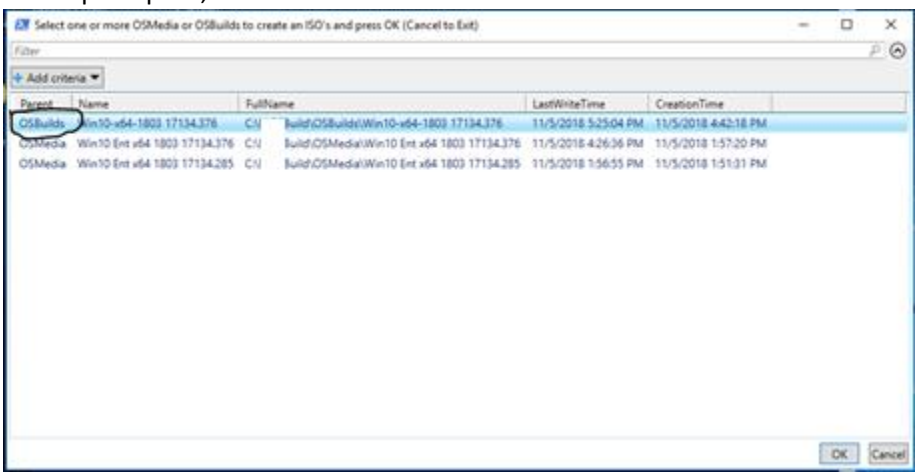
18) When prompted, select the Build Task that was just created and then click “OK”



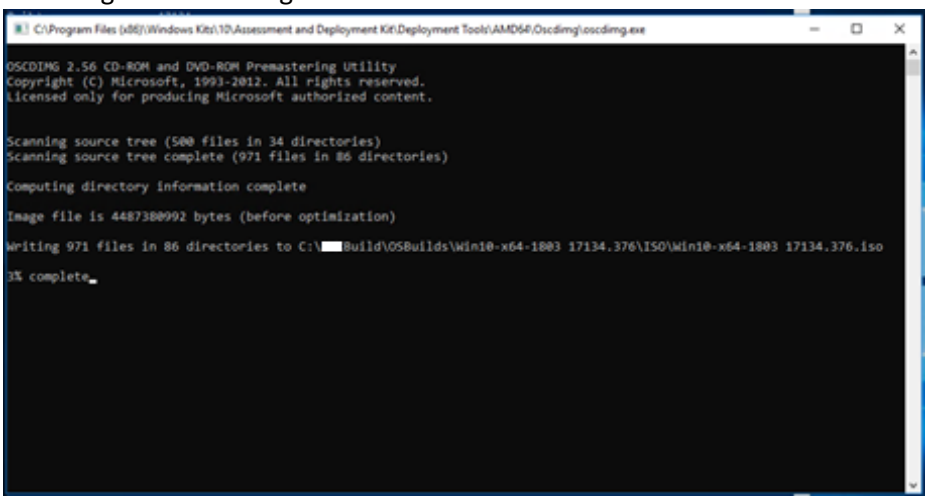
You should see something similar to the following on screen.



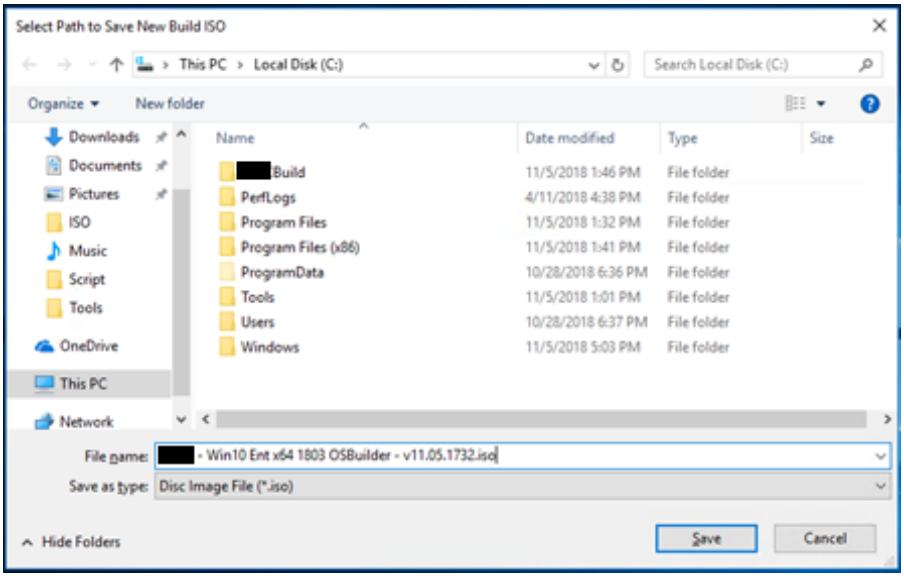
19) When prompted, select the OS Build in the list and then click “OK”.



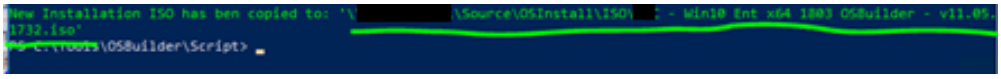
OSCDImg.exe will then generate the ISO from the OS Build.



20) When prompted for the location to save the new Windows 10 Enterprise 64bit Installation ISO file, browse to the desired foler and then click “SAVE”. (The path can be either locally on the virtual machine or on the SCCM server).



If you chose to save the new ISO to the SCCM server, you should see something similar to the following.



21) Your updated Windows 10 installation ISO is ready to use.

Script Information

Current Stable Script File

- Run-OSBuilder_v1.0.6.ps1 - Created by Phil Pritchett (special thanks to @skatterbrainzz for his assistance)

Previous Version Script Files

- Run-OSBuilder_v1.0.3.ps1 - Created by Phil Pritchett
- Run-OSBuilder_v1.0.4.ps1 - Created by Phil Pritchett
- Run-OSBuilder_v1.0.5.ps1 - Created by Phil Pritchett

Description

Wrapper script used to run OSBuilder module v10.10.26.0 (from David Segura) commands to build Windows 10 installation media that is patched and has only the apps and features desired.

Compatibility

'Run-OSBuilder' only works with Windows 10 Enterprise at this time.

Script Download

Run-OSBuilder script can be downloaded from - https://github.com/packerphil/OSBuilder/blob/Script-1/Script%20Files/Run-OSBuilder_v1.0.6.ps1

Script Parameters

BuildVer

(REQUIRED) - Microsoft Windows 10 Build Number

Valid values are:

- 1511
- 1607
- 1703
- 1709
- 1803
- 1809

SiteCode

(OPTIONAL) - Specifies the Configuration Manager Site Code

OSArch

(REQUIRED) - Specifies the processor architecture of the OS Media you are building.

Valid values are:

- x64
- x86

ImageBuildName

(OPTIONAL) - Specifies the Build Name of the OS Media you are building.

Default is 'Win10-x64-1803'

SaveNewISO

(OPTIONAL) – Switch parameter that when specified, tellsthe script to save the new ISO to a specific folder at the end of the run using a dialog. If not specified, the script will store the ISO within the working folders created in step #14.

CustomOptions

(OPTIONAL) - If specified, a new build task will be created with the options chosen.

Values are comma separated (EXAMPLE - 'AddNetFX3,RemAppx')

Minimum options = 1

Maximum options = 6

Valid values are:

- AddNetFX3 = EnableNetFX3
- AddWinOpt = EnableWindowsOptionalFeature
- RemAppx = RemoveAppxProvisionedPackage
- RemWinOpt = DisableWindowsOptionalFeature
- RemWinPkg = RemoveWindowsPackage
- RemWinCap = RemoveWindowsCapability

Script Usage Examples

Example #1

Runs OSBuilder for Windows 10 Enterprise, Build 1803, 64bit, adds customization job for enabling .NET35 and removal of Appx Packages, specified SCCM Site Code 'LAB'

.\Run-OSBuilder.ps1 -CustomOptions AddNetFX3,RemAppx -BuildVer 1803 -OSArch x64 -SiteCode LAB

Example #2

Runs OSBuilder for Windows 10 Enterprise, Build 1709, 64bit, names the build 'LAB-WIn10Ent-x64-1709'

.\Run-OSBuilder.ps1 -BuildVer 1709 -OSArch x64 -ImageBuildName "LAB-WIn10Ent-x64-1709"

Example #3

Runs OSBuilder for Windows 10 Enterprise, Build 1803, 64bit, specifies to enable .NET35, and save the ISO using the dialog.

.\Run-OSBuilder.ps1 -BuildVer 1803 -OSArch x64 -CustomOptions AddNetFX3 -SaveNewISO