



Adding baseWIMs, Language Packs and Features on Demand

WimAsAService

Pascal Berger
02.05.2018
Version 2.0

baseVISION

Table of contents

1	Purpose of this document	2
2	Overview	2
2.1	What to do first	2
2.2	How to store your ISO' files.....	3
2.3	Required scripts.....	3
3	Important Information for Windows 10 1803 (10.0.17134)	4
3.1	Update to at least Version 2.0.4.2	4
3.2	Merge the .iso Files of the Features on demand	4
4	Usage of the scripts	4
4.1	AutoImportBaseWIM.ps1	4
4.2	AutoImporterLanguagePacks.ps1	7
4.3	AutoImporterFeaturesOnDemand.ps1	11
5	Version history	13

1 Purpose of this document

This document will explain how to add different content to WimAsAService for our OnPremise customer. The topics covered in this document are:

- baseWIMs
- Language Packs
- Features on Demand

2 Overview

2.1 What to do first

Bevor you can add anything to WimAsAService you need to download it from Microsoft. We recommend that you use your Volume Licensing Portal as the source for your downloads.

Attention: When it comes to Language Packs, we recommend that you download the ISO file that contains both architectures, even if you use only one.

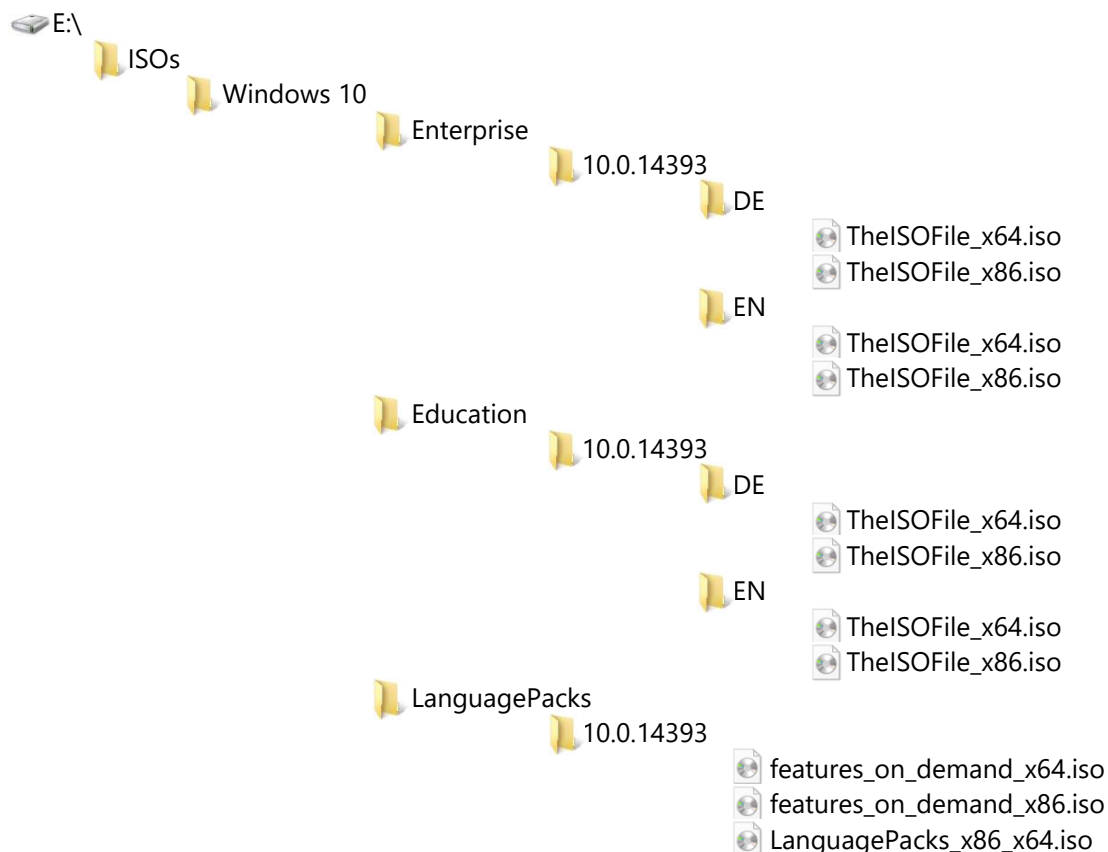
Features on Demand, are used to add support for speech recognition, handwriting recognition, text-to-speech, optical character recognition, spell checking, text prediction, word breaking, and hyphenation if available for the language.

Read more here:

<https://msdn.microsoft.com/en-us/windows/hardware/commercialize/manufacture/desktop/features-on-demand-v2--capabilities>

2.2 How to store your ISO' files

This structure is just an example how we do it. But you are free to store them however you like. There is no technical dependence on that structure model.



2.3 Required scripts

The Required scripts are stored in the WimAsAServiceLogic folder.
Usually under E:\WimAsAServiceLogic.

The following scripts are provided, to help adding the ISO files to WimAsAService. When importing Files for a new Windows Version, you need to follow the order described below.

Order	Name	Description
1	AutoImportBaseWIM.ps1	Adds Multiple ISO files of the selected folder and its subfolders to MDT.
2	AutoImporterLanguagePacks.ps1	Adds the cab files from the selected ISO to a folder for the selected baseWIM.
3	AutoImporterFeaturesOnDemand.ps1	Adds the cab files from the selected ISO to a folder for the selected baseWIM.

3 Important Information for Windows 10 1803 (10.0.17134)

3.1 Update to at least Version 2.0.4.2

Attention: It is very Important that you first update to at least the Version 2.0.4.2. Because in this Version we made fixes to the AutoImportBaseWIM.ps1 and the AutoImporterFeaturesOnDemand.ps1 so that they support Windows 10 1803.

3.2 Merge the .iso Files of the Features on demand

The Features on Demand for Windows 10 1803 are delivered in 2 parts for each OS Architecture (x64 and x86). So, you have to merge these two ISO Files to import the Features on Demand. You need a tool like 7-zip to extract the ISO to the same Folder. If both ISOs, for Example x64 Part1 and Part 2, were extracted to the same folder, you have to make a new ISO out of this folder. We did that with the Tool Folder2ISO. If the ISO File has been created you can use the normal FeaturesOnDemand Importer Skript to Import the ISO file, which has been merged.

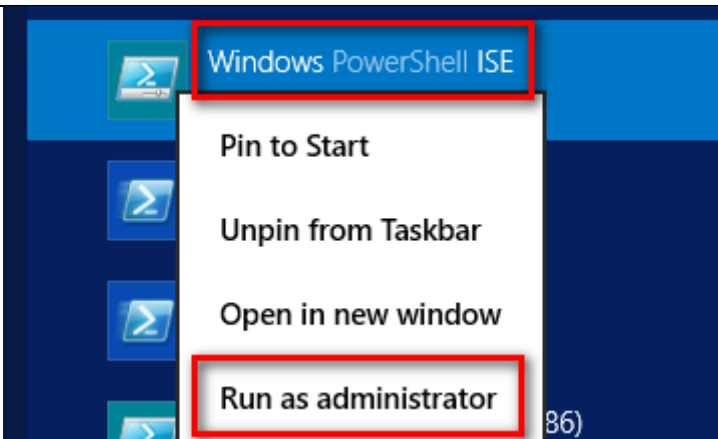

4 Usage of the scripts

Attention: All those scripts need to be opened in a PowerShell ISE that is running with administrator rights.

4.1 AutoImportBaseWIM.ps1

Attention: This script imports the baseWIM ISOs stored in the selected folders and all of its subfolders. The choice of the folder should be well-considered and double importing of the same WIM should be prevented.

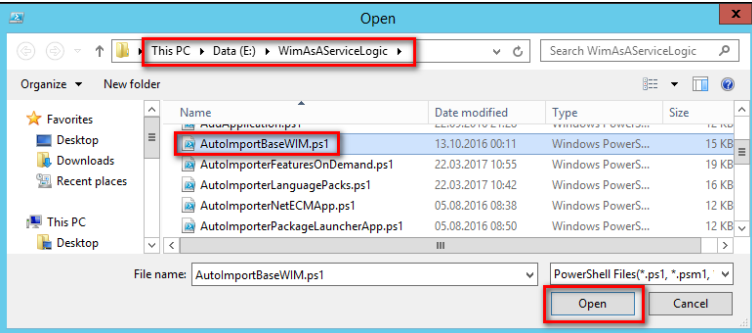
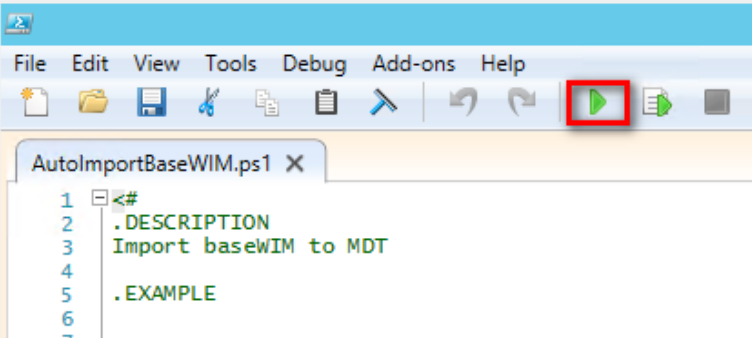
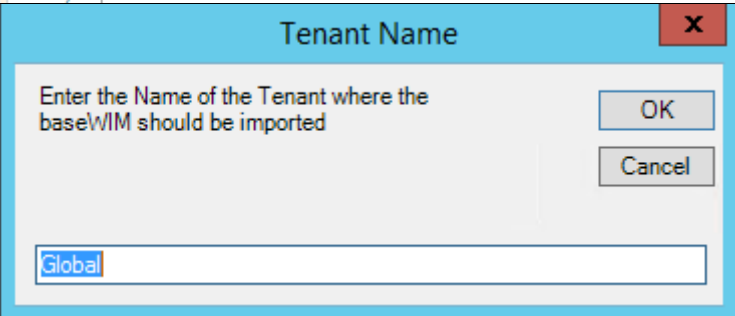
This script writes to the following logfile:
"E:\WimAsAServiceLogic\Loggs\AutoImportBaseWIM.log"

Step	Screenshot	Task
1.		Open PowerShell ISE with administrator privileges.
2.		Click on the "Open" button.

Adding baseWIMs, Language Packs and Features on Demand

baseVISION AG

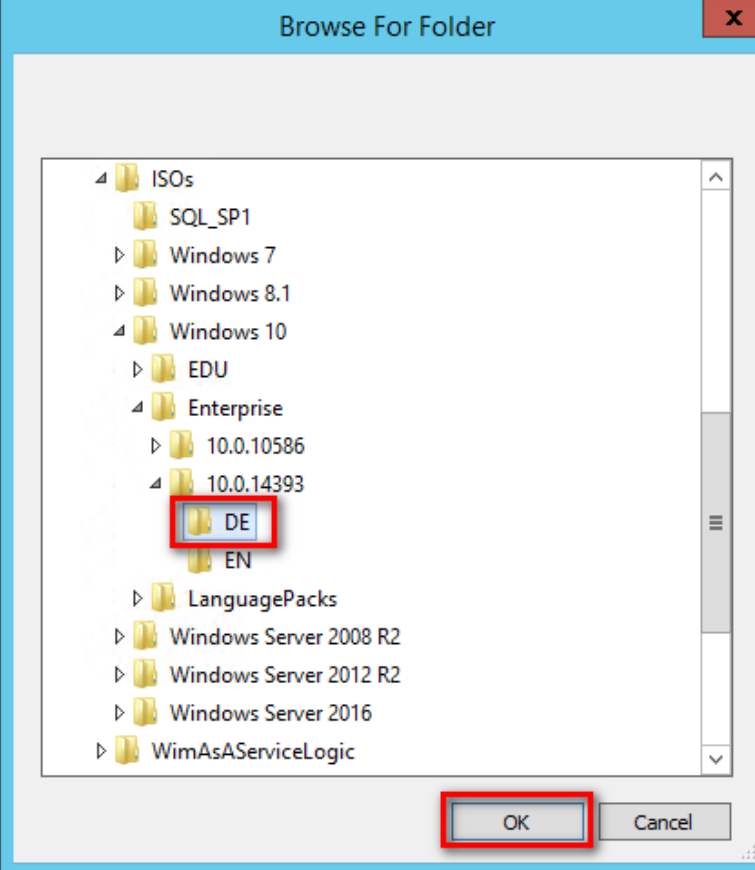
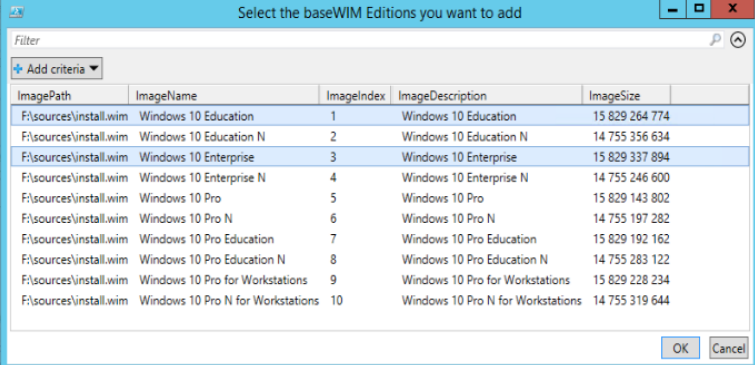
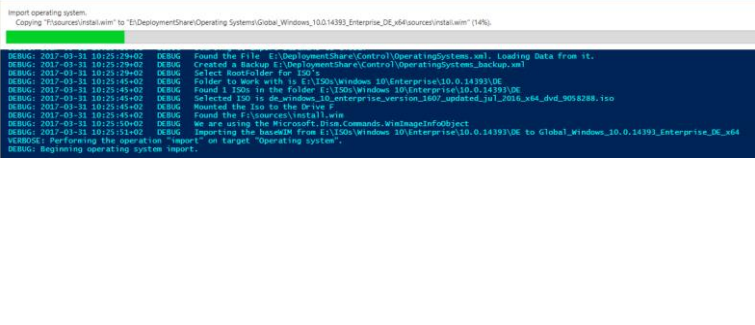
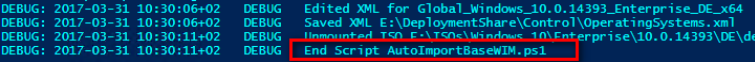
Datum: 02.05.2018
Autor: Pascal Berger
Version: 2.0

3.		<p>Browse to your WimAsAServiceLogic folder and select "AutoImportBaseWIM.ps1".</p> <p>Click on the "Open" button.</p>
4.		<p>Click on the "Play" button.</p>
5.		<p>Here you can tell the script for which Tenant it should import the WIM files.</p> <p>"Global" grants all Tenants access to that baseWIM.</p> <p>If you want to restrict that baseWIM to one Tenant, enter its name here.</p> <p>When you're ready to continue click on "OK".</p> <p>Attention: On your screen this window/pop up could be covered by the ISE Window.</p>

Adding baseWIMs, Language Packs and Features on Demand

baseVISION AG

Datum: 02.05.2018
 Autor: Pascal Berger
 Version: 2.0

6.		<p>Now browse to the folder that contains all the ISO files for all the basWIMs you want to add.</p> <p>When you're ready to continue click on "OK".</p> <p>Attention: The script will also work with ISO files in subfolder of the selected folder. Not only with files in the directly selected folder.</p>
7.		<p>If your ISO contains multiple Windows Editions, you must select all the baseWIM files you want to Add.</p> <p>You can select multiple Lines at once. (You need to press the "Ctrl" Key)</p> <p>When you selected what you need, press the "OK" Button.</p>
8.		<p>Next, the script imports all the install WIMs to MDT. This will take some time please be patient.</p> <p>Additional information: The script is automatically mounting each ISO to a virtual CD-ROM Drive and is unmounting it again once it has imported the WIMs from it.</p>
9.		<p>Once the script is finished it will tell you.</p>

Adding baseWIMs, Language Packs and Features on Demand

baseVISION AG

Datum: 02.05.2018
Autor: Pascal Berger
Version: 2.0

10.		<p>You can now log on to the WimAsAService website and add a new image type. Under "Select base WIM" you should now be able to find the WIM files you just added.</p> <p>Make sure that the unwanted Versions are not visible in the selection.</p>
-----	--	---

4.2 AutoImporterLanguagePacks.ps1

Attention: The Language Packs are the same for different Windows SKU's (e.g. Enterprise and Education) but they are different between Builds (Example 1607 and 1703) and OS Architectures (x64 and x86). So, make sure you have the right Language Pack ISO for your **Build** and for your **Architectures**.

Windows Server and Windows Clients also need different ISO files, because they are different Builds even if the Build numbers are identical.

We recommend that for Windows Clients you always download the ISO that contains the Language Packs for both Architectures, even if only one is required.

You must repeat the following steps for every Build (remember Server and Client are different Builds) and every Architecture Language Packs are required for. But you don't need to repeat it for different SKU's (e.g. Enterprise and Education)

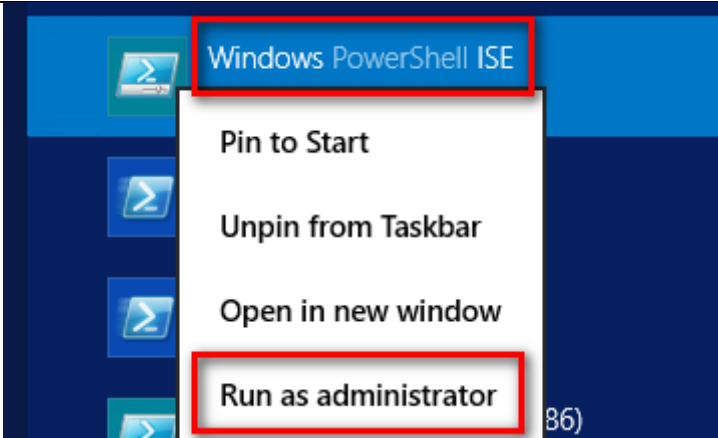
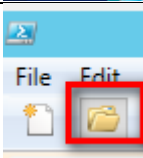
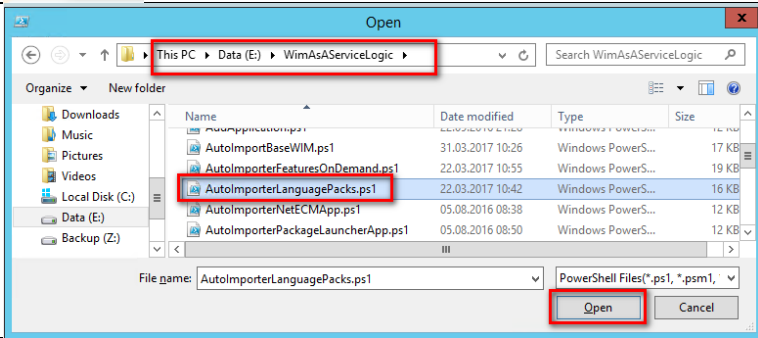
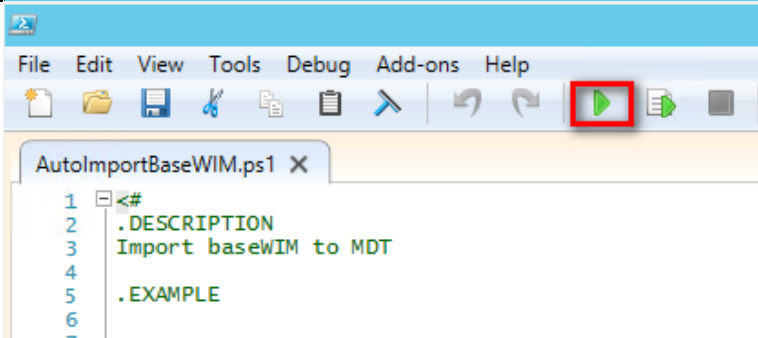
This script writes to the following logfile:

"E:\WimAsAServiceLogic_Logs\AutoImporterLanguagePacks.log"

Adding baseWIMs, Language Packs and Features on Demand

baseVISION AG

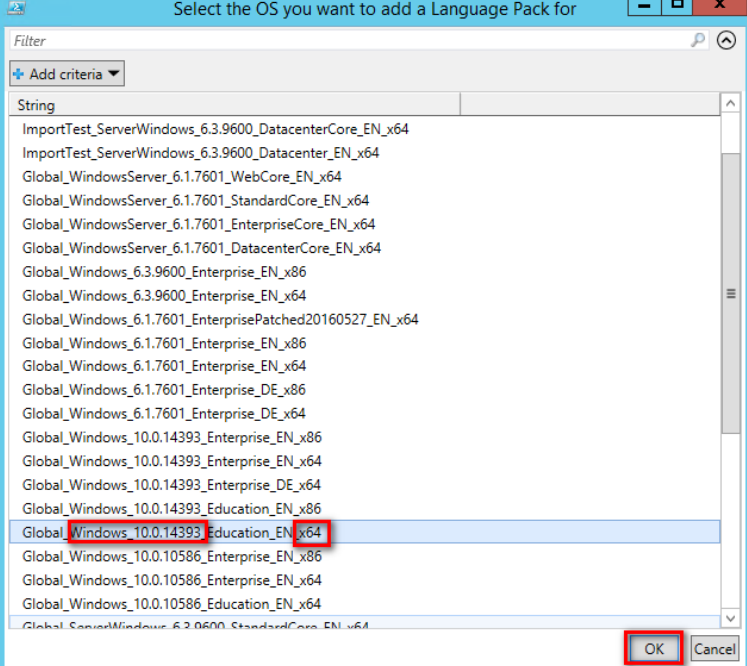
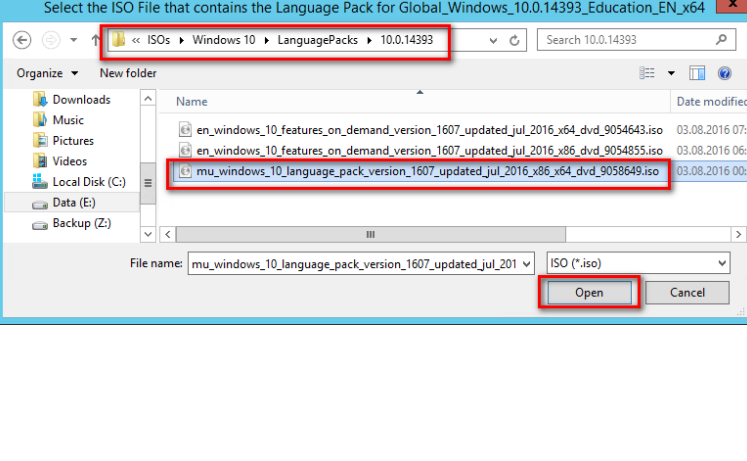
Datum: 02.05.2018
Autor: Pascal Berger
Version: 2.0

Step	Screenshot	Task
1.		Open PowerShell ISE with administrator privileges.
2.		Click on the "Open" button.
3.		Browse to your WimAsAServiceLogic Folder and select the "AutolImporterLanguagePacks.ps1" Click on the "Open" Button.
4.		Click on the "Play" button.

Adding baseWIMs, Language Packs and Features on Demand

baseVISION AG

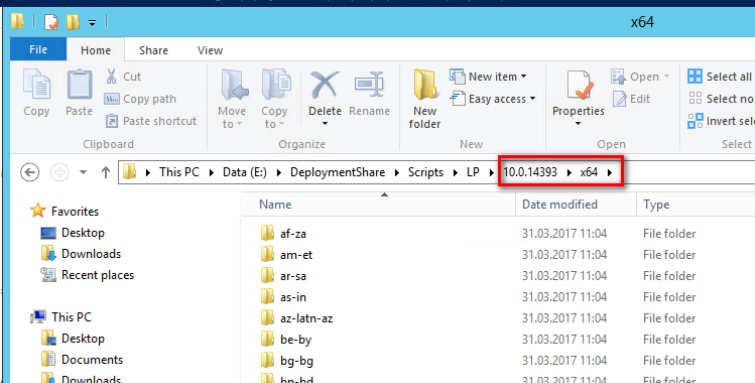
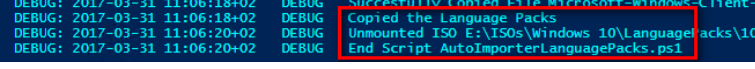
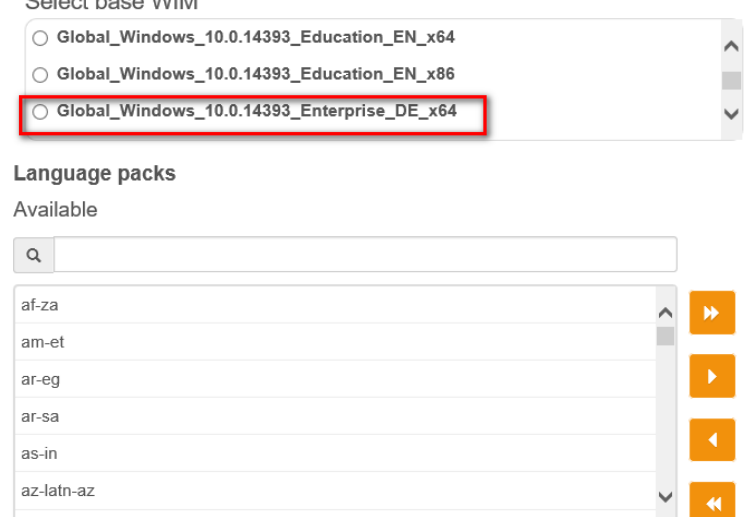
Datum: 02.05.2018
Autor: Pascal Berger
Version: 2.0

5.		<p>Select the Build matching the Windows Version and Architecture to import the Language Packs for.</p>
6.		<p>Now browse to the folder that contains the rights Language Pack.ISO matching Build and your Architecture.</p> <p>Select the correct ISO and click on the "Open" button.</p> <p>Attention: The script cannot validate if you have selected the correct ISO. The choice of ISO should be well-considered, because otherwise your WIM generation process will fail.</p>

Adding baseWIMs, Language Packs and Features on Demand

baseVISION AG

Datum: 02.05.2018
Autor: Pascal Berger
Version: 2.0

7.	<pre>2017-03-31 11:04:28+02 DEBUG Creating E:\DeploymentShare\Scripts\LP\10.0.14393\x64\to-la\ 2017-03-31 11:04:28+02 DEBUG Successfully Copied File Microsoft-Windows-Client-Language-Interface-Pack_x64-to-la.cab to E:\DeploymentShare 2017-03-31 11:04:28+02 DEBUG Found the File Microsoft-Windows-Client-Language-Interface-Pack_x64-mi-nz.cab for the Language mi-nz 2017-03-31 11:04:28+02 DEBUG Creating E:\DeploymentShare\Scripts\LP\10.0.14393\x64\mi-nz\ 2017-03-31 11:04:28+02 DEBUG Successfully Copied File Microsoft-Windows-Client-Language-Interface-Pack_x64-mi-nz.cab to E:\DeploymentShare 2017-03-31 11:04:28+02 DEBUG Found the File Microsoft-Windows-Client-Language-Interface-Pack_x64-mk-mk.cab for the Language mk-mk 2017-03-31 11:04:28+02 DEBUG Creating E:\DeploymentShare\Scripts\LP\10.0.14393\x64\mk-mk\ 2017-03-31 11:04:29+02 DEBUG Successfully Copied File Microsoft-Windows-Client-Language-Interface-Pack_x64-mk-mk.cab to E:\DeploymentShare 2017-03-31 11:04:29+02 DEBUG Found the File Microsoft-Windows-Client-Language-Interface-Pack_x64-mi-in.cab for the Language mi-in 2017-03-31 11:04:29+02 DEBUG Creating E:\DeploymentShare\Scripts\LP\10.0.14393\x64\mi-in\ 2017-03-31 11:04:29+02 DEBUG Successfully Copied File Microsoft-Windows-Client-Language-Interface-Pack_x64-mi-in.cab to E:\DeploymentShare 2017-03-31 11:04:29+02 DEBUG Found the File Microsoft-Windows-Client-Language-Interface-Pack_x64-mm-mm.cab for the Language mm-mm 2017-03-31 11:04:29+02 DEBUG Creating E:\DeploymentShare\Scripts\LP\10.0.14393\x64\mm-mm\ 2017-03-31 11:04:29+02 DEBUG Successfully Copied File Microsoft-Windows-Client-Language-Interface-Pack_x64-mm-mm.cab to E:\DeploymentShare 2017-03-31 11:04:30+02 DEBUG Found the File Microsoft-Windows-Client-Language-Interface-Pack_x64-mr-in.cab for the Language mr-in 2017-03-31 11:04:30+02 DEBUG Creating E:\DeploymentShare\Scripts\LP\10.0.14393\x64\mr-in\ 2017-03-31 11:04:31+02 DEBUG Successfully Copied File Microsoft-Windows-Client-Language-Interface-Pack_x64-mr-in.cab to E:\DeploymentShare 2017-03-31 11:04:31+02 DEBUG Found the File Microsoft-Windows-Client-Language-Interface-Pack_x64-ms-my.cab for the Language ms-my 2017-03-31 11:04:31+02 DEBUG Creating E:\DeploymentShare\Scripts\LP\10.0.14393\x64\ms-my\ 2017-03-31 11:04:31+02 DEBUG Successfully Copied File Microsoft-Windows-Client-Language-Interface-Pack_x64-ms-my.cab to E:\DeploymentShare 2017-03-31 11:04:31+02 DEBUG Found the File Microsoft-Windows-Client-Language-Interface-Pack_x64-nt-et.cab for the Language nt-et 2017-03-31 11:04:31+02 DEBUG Creating E:\DeploymentShare\Scripts\LP\10.0.14393\x64\nt-et\</pre> 	<p>Next the script is mounting the selected ISO as a virtual CD-ROM.</p> <p>It is then copying the CAB files for the Language Packs to the folder: "E:\DeploymentShare\Scripts\LP\%YourSelectedBuild%\%YourSelectedArchitecture%"</p>
8.	<pre>DEBUG: 2017-03-31 11:06:18+02 DEBUG Successfully Copied File Microsoft-Windows-Client- DEBUG: 2017-03-31 11:06:18+02 DEBUG Copied the Language Packs DEBUG: 2017-03-31 11:06:20+02 DEBUG Unmounted ISO E:\ISOs\Windows 10\LanguagePacks\10 DEBUG: 2017-03-31 11:06:20+02 DEBUG End Script AutoImporterLanguagePacks.ps1</pre> 	<p>Once the script is fished, it will tell you.</p> <p>Attention: Remember, if you also need Language Packs for the same Build, but in a different Architecture you must repeat the Steps 4 to 8 again and select a WIM with the matching Architecture in Step 5 and the correct ISO in step 6.</p>
9.		<p>You can now log on to the WimAsAService website and add a new image type. Select the base WIM you added the Language Packs for. Then scroll down to the Language Pack section. You should now be able to find the Language Packs you just added.</p>

4.3 AutoImporterFeaturesOnDemand.ps1

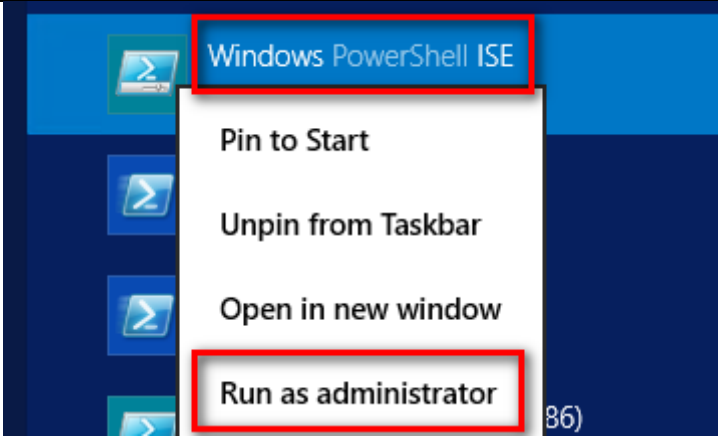
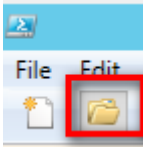
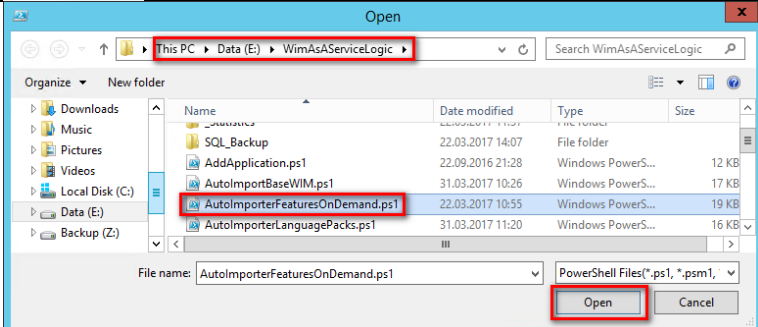
Attention: The Features on Demand are the same for different Windows SKU's (e.g. Enterprise and Education) but they are different between **Builds** (e.g. 1607 and 1703) and **OS Architectures** (x64 and x86). So, make sure you have the right Language Pack ISO for your Build and Architectures.

Windows server and Windows clients also require different ISO files, because they are different Builds, even if the Build numbers are identical.

You will have to repeat the following steps for every Build (remember Server and Client are different Builds) and every Architecture you need features on demand for. But you don't need to repeat it for different SKU's (e.g. Enterprise and Education)

This Script writes to the following logfile:

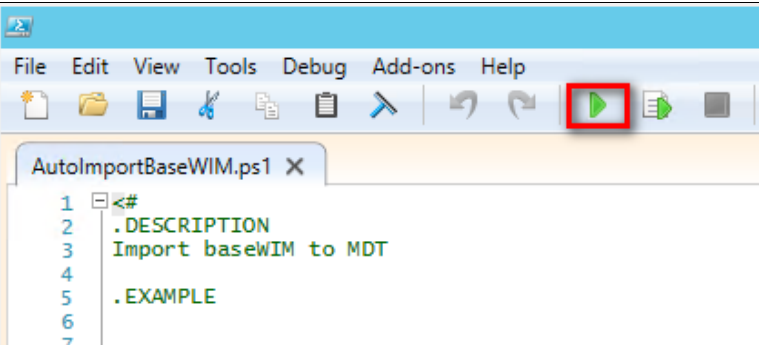
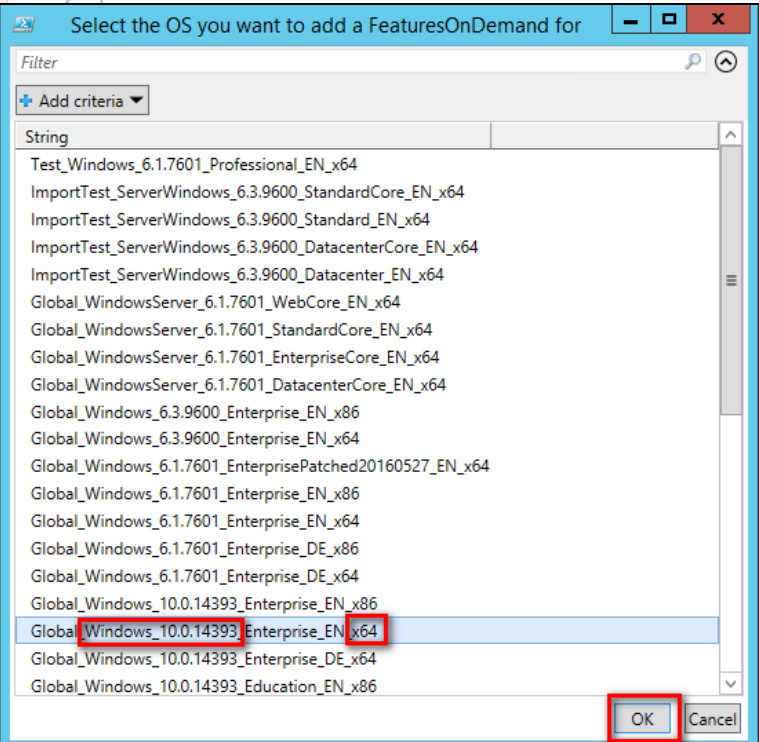
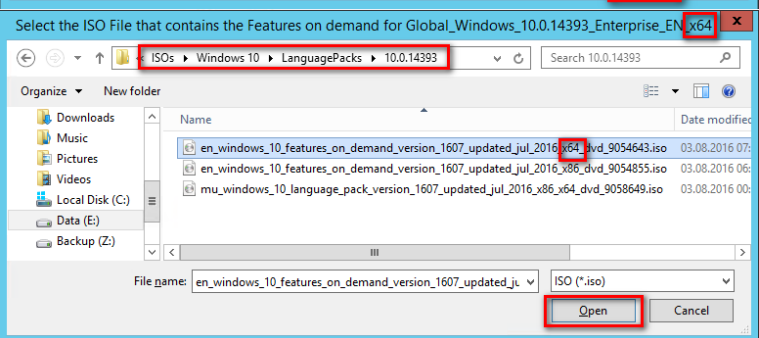
"E:\WimAsAServiceLogic\Logos\AutoImporterFeaturesOnDemand.log"

Step	Screenshot	Task
1.		Open the PowerShell ISE with administrator privileges.
2.		Click on the "Open" button.
3.		Browse to your WimAsAServiceLogic Folder and select the "AutolImporterFeaturesOnDemand.ps1" Click on the "Open" Button.

Adding baseWIMs, Language Packs and Features on Demand

baseVISION AG

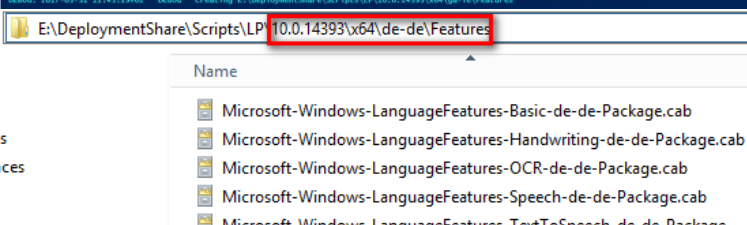
Datum: 02.05.2018
Autor: Pascal Berger
Version: 2.0

4.		Click on the "Play" button.
5.		Select the Build matching the Windows Version and Architecture to import the FeaturesOnDemand for.
6.		<p>Now browse to the folder that contains the right FeaturesOnDemand.iso matching the Build and your Architecture.</p> <p>Select the correct ISO and click on "Open".</p> <p>Attention: The script cannot validate if you have selected the correct ISO. The choice of ISO should be well-considered, because otherwise your WIM generation process will fail.</p>

Adding baseWIMs, Language Packs and Features on Demand

baseVISION AG

Datum: 02.05.2018
Autor: Pascal Berger
Version: 2.0

7.	<pre>DEBUG: 2017-03-31 11:43:14:02 DEBUG Creating E:\DeploymentShare\Scripts\LP\10.0.14393\de-de-no-Features DEBUG: 2017-03-31 11:43:14:02 DEBUG Successfully Copied File Microsoft-Windows-LanguageFeatures-Basic-es-mx-Package.cab to E:\DeploymentShare\Scripts\LP\10.0.14393\de-de-no-Features DEBUG: 2017-03-31 11:43:14:02 DEBUG Found the File Microsoft-Windows-LanguageFeatures-Basic-es-mx-Package.cab For the Language es-mx DEBUG: 2017-03-31 11:43:14:02 DEBUG Creating E:\DeploymentShare\Scripts\LP\10.0.14393\de-de-et-en-Features DEBUG: 2017-03-31 11:43:14:02 DEBUG Successfully Copied File Microsoft-Windows-LanguageFeatures-Basic-et-en-Package.cab to E:\DeploymentShare\Scripts\LP\10.0.14393\de-de-et-en-Features DEBUG: 2017-03-31 11:43:14:02 DEBUG Found the File Microsoft-Windows-LanguageFeatures-Basic-et-en-Package.cab For the Language et-en DEBUG: 2017-03-31 11:43:14:02 DEBUG Creating E:\DeploymentShare\Scripts\LP\10.0.14393\de-de-es-Features DEBUG: 2017-03-31 11:43:14:02 DEBUG Successfully Copied File Microsoft-Windows-LanguageFeatures-Basic-es-es-Package.cab to E:\DeploymentShare\Scripts\LP\10.0.14393\de-de-es-Features DEBUG: 2017-03-31 11:43:14:02 DEBUG Found the File Microsoft-Windows-LanguageFeatures-Basic-es-es-Package.cab For the Language es-es DEBUG: 2017-03-31 11:43:14:02 DEBUG Creating E:\DeploymentShare\Scripts\LP\10.0.14393\de-de-fr-Features DEBUG: 2017-03-31 11:43:14:02 DEBUG Successfully Copied File Microsoft-Windows-LanguageFeatures-Basic-fr-fr-Package.cab to E:\DeploymentShare\Scripts\LP\10.0.14393\de-de-fr-Features DEBUG: 2017-03-31 11:43:14:02 DEBUG Found the File Microsoft-Windows-LanguageFeatures-Basic-fr-fr-Package.cab For the Language fr-fr DEBUG: 2017-03-31 11:43:14:02 DEBUG Creating E:\DeploymentShare\Scripts\LP\10.0.14393\de-de-fi-fi-Features DEBUG: 2017-03-31 11:43:14:02 DEBUG Successfully Copied File Microsoft-Windows-LanguageFeatures-Basic-fi-fi-Package.cab to E:\DeploymentShare\Scripts\LP\10.0.14393\de-de-fi-fi-Features DEBUG: 2017-03-31 11:43:14:02 DEBUG Found the File Microsoft-Windows-LanguageFeatures-Basic-fi-fi-Package.cab For the Language fi-fi DEBUG: 2017-03-31 11:43:14:02 DEBUG Creating E:\DeploymentShare\Scripts\LP\10.0.14393\de-de-fr-ca-Features DEBUG: 2017-03-31 11:43:14:02 DEBUG Successfully Copied File Microsoft-Windows-LanguageFeatures-Basic-fr-ca-Package.cab to E:\DeploymentShare\Scripts\LP\10.0.14393\de-de-fr-ca-Features DEBUG: 2017-03-31 11:43:14:02 DEBUG Found the File Microsoft-Windows-LanguageFeatures-Basic-fr-ca-Package.cab For the Language fr-ca DEBUG: 2017-03-31 11:43:14:02 DEBUG Creating E:\DeploymentShare\Scripts\LP\10.0.14393\de-de-fr-fr-Features DEBUG: 2017-03-31 11:43:14:02 DEBUG Successfully Copied File Microsoft-Windows-LanguageFeatures-Basic-fr-fr-Package.cab to E:\DeploymentShare\Scripts\LP\10.0.14393\de-de-fr-fr-Features DEBUG: 2017-03-31 11:43:14:02 DEBUG Found the File Microsoft-Windows-LanguageFeatures-Basic-fr-fr-Package.cab For the Language fr-fr DEBUG: 2017-03-31 11:43:14:02 DEBUG Creating E:\DeploymentShare\Scripts\LP\10.0.14393\de-de-he-Features DEBUG: 2017-03-31 11:43:14:02 DEBUG Successfully Copied File Microsoft-Windows-LanguageFeatures-Basic-he-he-Package.cab to E:\DeploymentShare\Scripts\LP\10.0.14393\de-de-he-Features DEBUG: 2017-03-31 11:43:14:02 DEBUG Found the File Microsoft-Windows-LanguageFeatures-Basic-he-he-Package.cab For the Language he-he</pre> 	<p>The script is now mounting the selected ISO as a virtual CD-ROM.</p> <p>It is then copying the CAB files for the Language Packs to the folder: "E:\DeploymentShare\Scripts\LP\%YourSelectedBuild%\%YourSelectedArchitecture%\TheLanguage%\Features"</p>
8.	<pre>DEBUG: 2017-03-31 11:53:07:02 DEBUG Found the File Microsoft-Windows-LanguageFeatures DEBUG: 2017-03-31 11:53:07:02 DEBUG E:\DeploymentShare\Scripts\LP\10.0.14393\x86 DEBUG: 2017-03-31 11:53:09:02 DEBUG Successfully Copied File Microsoft-Windows-LanguageFeatures DEBUG: 2017-03-31 11:53:10:02 DEBUG Unmounted ISO E:\ISOs\Windows 10\LanguagePacks DEBUG: 2017-03-31 11:53:11:02 DEBUG End Script AutoImporterFeaturesOnDemand.ps1</pre>	<p>Once the script has finished, it will tell you.</p> <p>Attention: Remember if you also need FeaturesOnDemand for the same Build, but in a different Architecture, you must repeat the steps 4 to 8 again and select a WIM with the other Architecture in Step 5 and the correct ISO in step 6.</p>

5 Version history

Wann	Version	Wer	Beschreibung
31.03.0217	1.00	PBE	First Version
02.05.2018	2.00	PBE	Added Information for Windows 10 1803