Building a better working world

IT Services

EY PCBuild Caddy Documentation

V1.7 IT Services – Software Delivery

Automation

Contents

Version History

Version	Change Owner	Date	Comments
1.0	Scott Hammett	2017-03-14	Initial Version
1.1	Joaquin Alvarez	2017-07-24	Share path to download updated
1.2	Joaquin Alvarez	2017-10-24	Americas share updated
1.3	Joaquin Alvarez	2018-05-16	Sync Tool steps added
1.4	Juan Lenatz	2018-09-11	Document adapted for PCBuild@Loadset
1.5	Paul Jacob	2019-02-28	Document updated
1.6	Gonzalo Barrio	2018-09-11	Document adapted for PCBuild@Loadset
1.7	Paul Jacob	2020-02-19	Document updated

Overview

1 Overview

This document describes how to build a new caddy by downloading a specially formatted Windows Image (WIM) file and setting up the PC to perform a one-time boot from the WIM file to start WinPE and launch EYSyncTool as usual.

EYBuildCaddy

NOTE: While this process works on any PC, because it modifies the boot configuration, we strongly recommend that you avoid running the EYBuildCaddy application on your production PC. You should always make every effort to run this application on a secondary PC.

The EYBuildCaddy application downloads a modified WIM file onto the local PC and sets up the boot environment to boot the PC from the downloaded WIM file. The process starts with the user downloading the EYBuildCaddy application files from the server to the local PC where they want to build the caddy (as previously noted, preferably not their production PC).
Executing the application allows the user to select the type of caddy they want to create. Once the user selects the type of caddy, they can start the process and the application downloads a WIM file containing the files required to build the specified type of caddy. The application then modifies the Boot Configuration files on the PC so the PC boots from the downloaded WIM file on the next reboot.
The application is finished at this point and the user must manually reboot the PC to start the process of building a caddy. On the next reboot, the PC boots from the WIM file into the WinPE environment and starts the EYStartBuild.WPF application. From the EYStartBuild application, the user can start the EYSyncTool and create a caddy in the normal way.

2 EYBuildCaddy

The EYBuildCaddy application is stored in a zip file (EYBuildCaddyPCB.zip) located in three different shares. To use the application, copy the zip file to the PC where you intend to run the application and unzip it into a folder named 'EYBuildCaddyPCB'.

Shares:
\\DEVIDVAPFL01.ey.net\01EM3072\D\Desktop Delivery
\\SGSINVAPFL20.ey.net\20AP0602\P\Desktop Delivery
\\USSECAPPFL100.ey.net\100AMA00040\E\EYWIN10OfflineBuildContent\Desktop Delivery

The EYBuildCaddy application consists of four files:

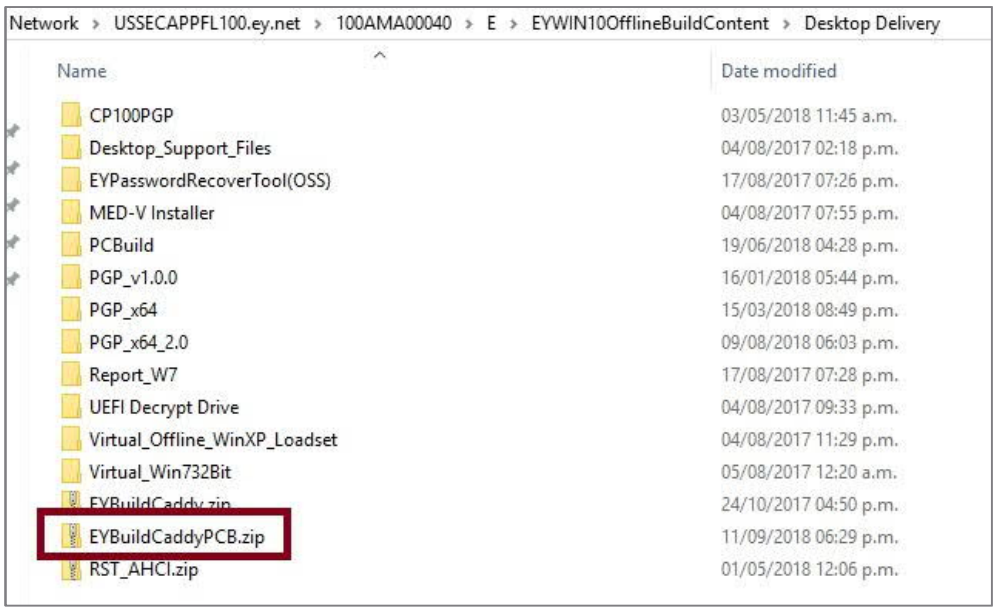
1. EYBuildCaddy.exe
2. EYBuildCaddy.exe.config
3. EYBCDEditConfig.xml
4. EYBootWIMConfig.xml

2.1 Requirements

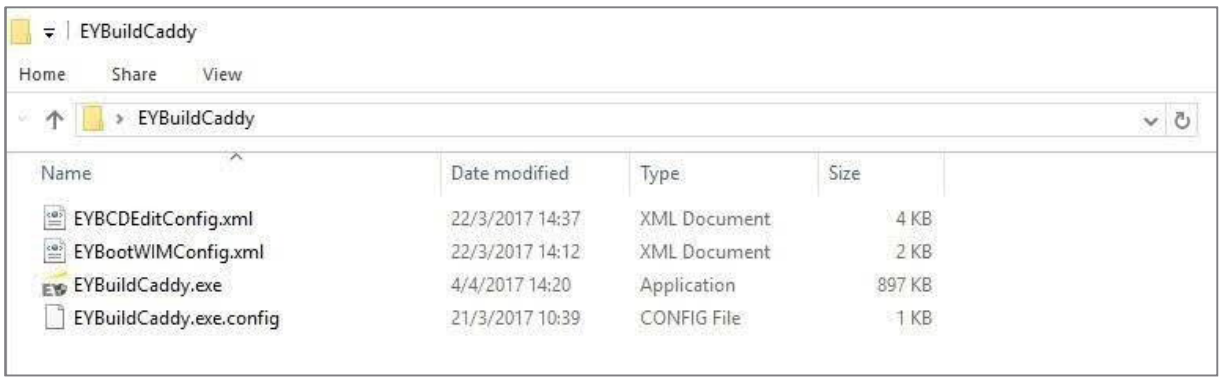
1- Local PC must be a Windows personalized machine.
2- Windows logged in user must have read permissions for OfflineBuildContent shares (all TES operators have the necessary rights).

2.2 Instructions

The first step is to create a folder (EYBuildCaddy) on the local PC to hold the files. Next, download the EYBuildCaddyPCB.zip file from the appropriate share path to the local computer and unzip the files into the EYBuildCaddy folder previously created.
NOTE: In case of using a removable media to copy EYBuildCaddyPCB.zip, make sure Symantec Endpoint Encryption does not encrypt it.

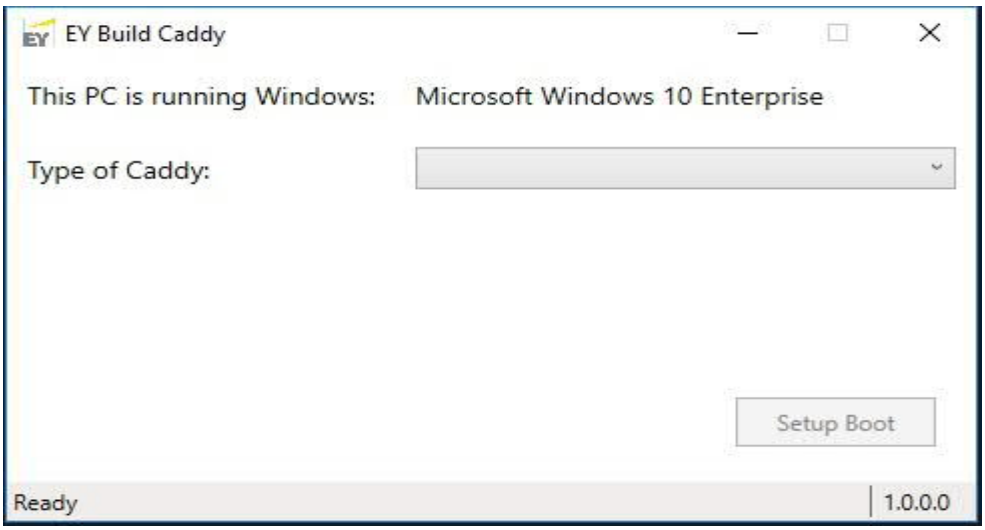


After copying and unzipping the files to the local PC, you should have the following folder structure on your PC:

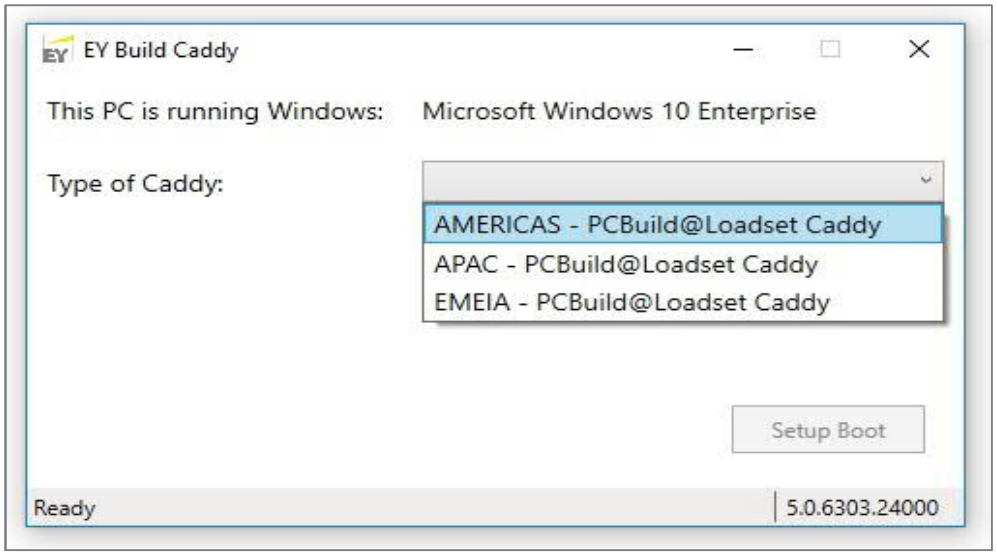


NOTE: This application needs elevated rights to execute so the first step is to provide your credentials to elevate the application.

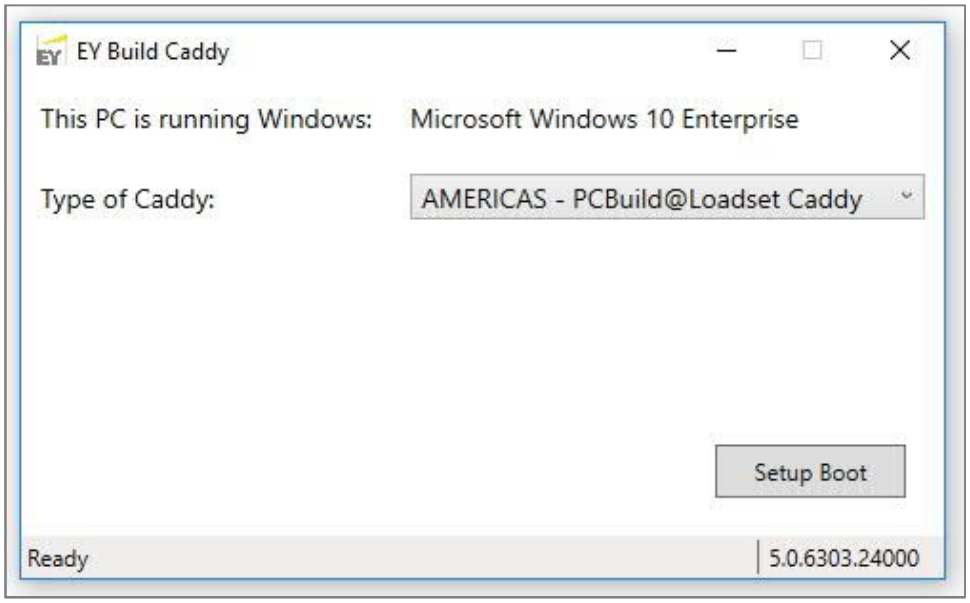
When the application starts, the main screen appears:



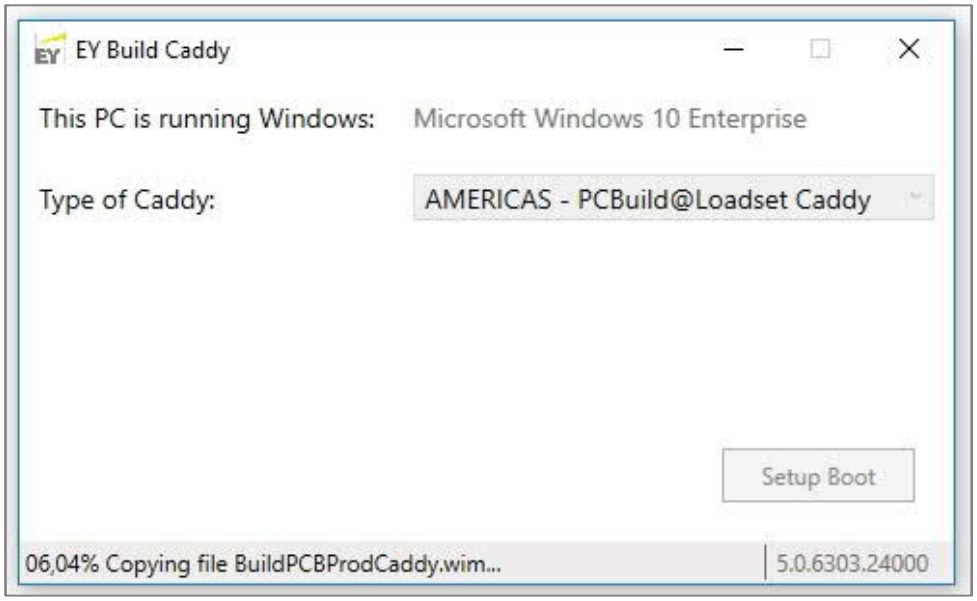
Click on the 'Type of Caddy' drop down to select the right region and the type caddy you want to create:



Once you select the type of caddy you want to build, the application enables the 'Setup Boot' button:

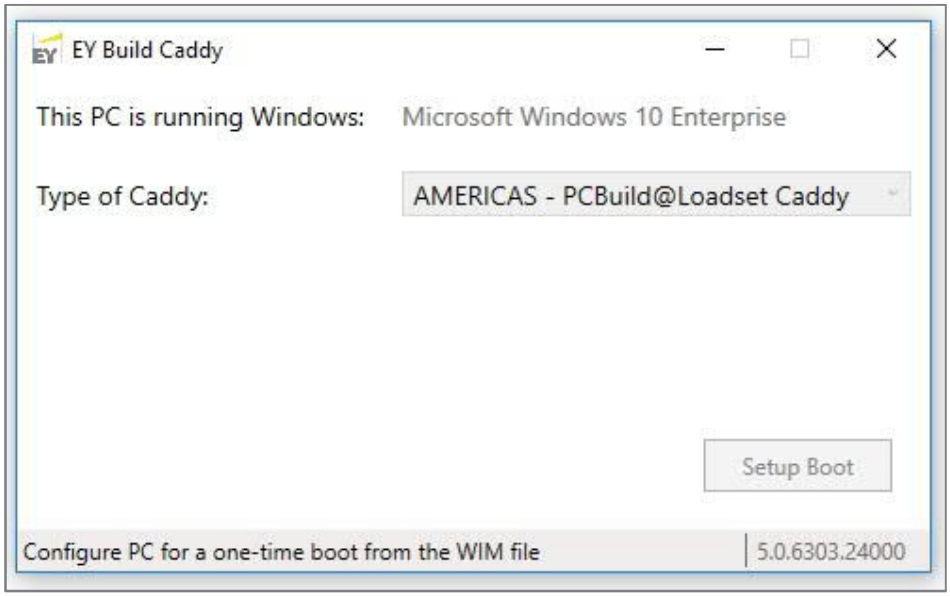


Pressing the ‘Setup Boot’ button starts the download of the correct WIM file for the selected caddy type:

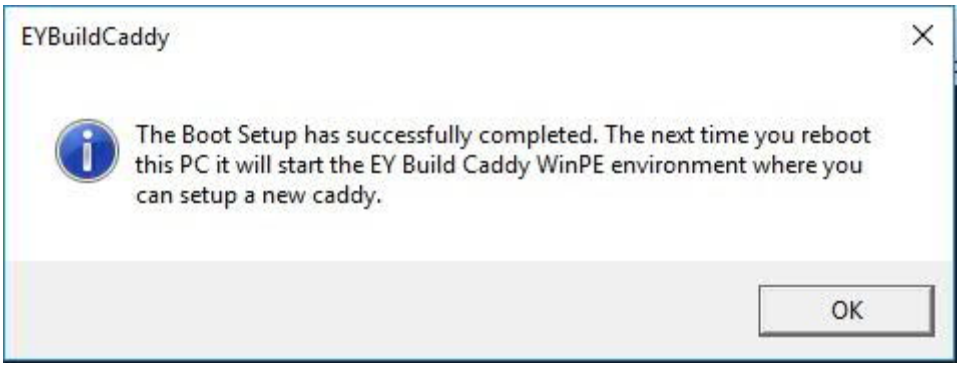


The WIM files are quite large, so the download may take some time. The application displays the percentage of the file copied so far in the status bar.

Once the WIM file download completes, the application executes the commands for the PC to perform a one-time boot from the WIM file the next time the PC is booted:



When the boot configuration process finishes, the application displays this message:



In case you want to build a different type of caddy from the one originally selected in the ‘Type of Caddy’ drop down, you will have to restart the whole process again because only the WIM files for the selected caddy were downloaded.

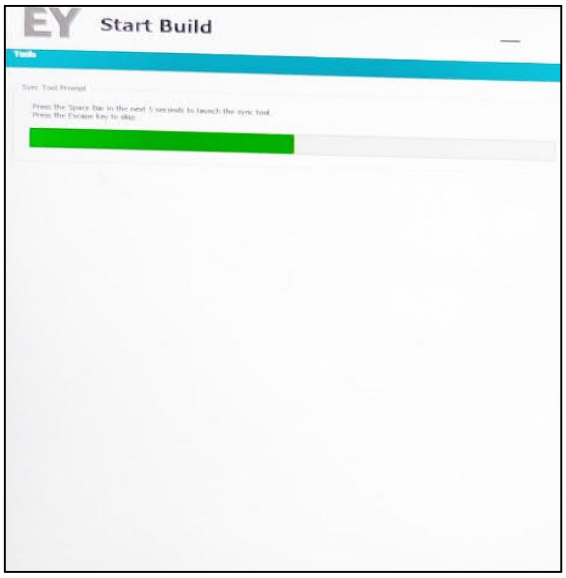
NOTE: The application does not automatically reboot the PC; the user must reboot the PC manually. Be aware the next time the computer is rebooted, it will boot from the WIM file and start the WinPE environment. Booting from the WIM file is a one-time only process, if anything in the process goes wrong, the next reboot boots the PC normally and you have to start over again.

3 EY SYNC TOOL:

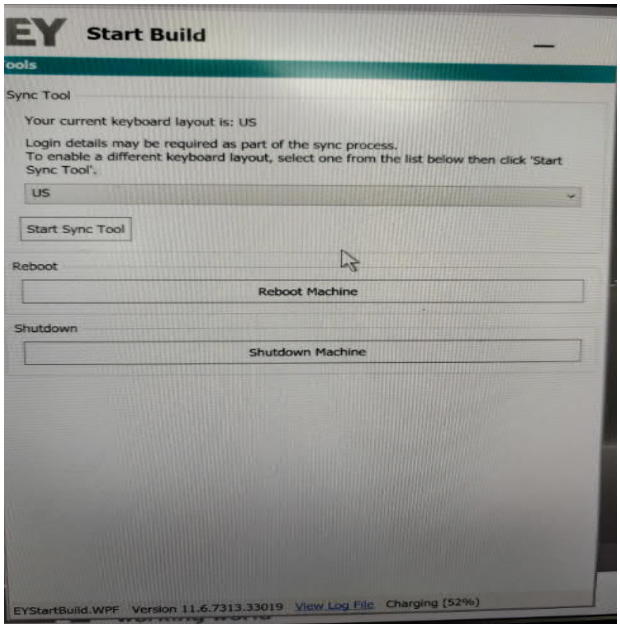
EYSyncTool is by design developed to create or update PCB caddies and it allows the operator full control over different phases. The tool is intended to run in the WinPE environment to so is not affected by any encryption software.

3.1 Starting WinPE:

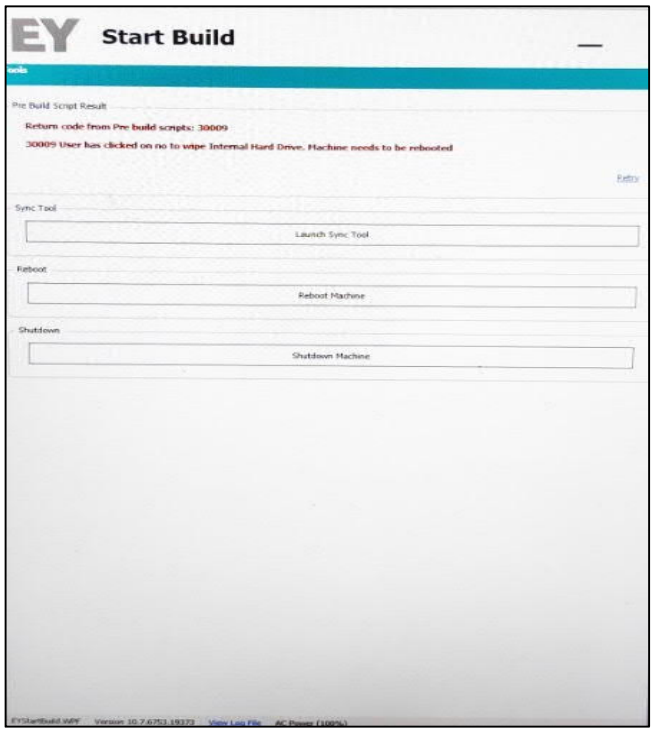
To start WinPE you will need to boot the computer from the USB device with the WinPE environment installed. Once the boot process has begun you will see the below screen and you need to press the spacebar to launch the Sync Process.



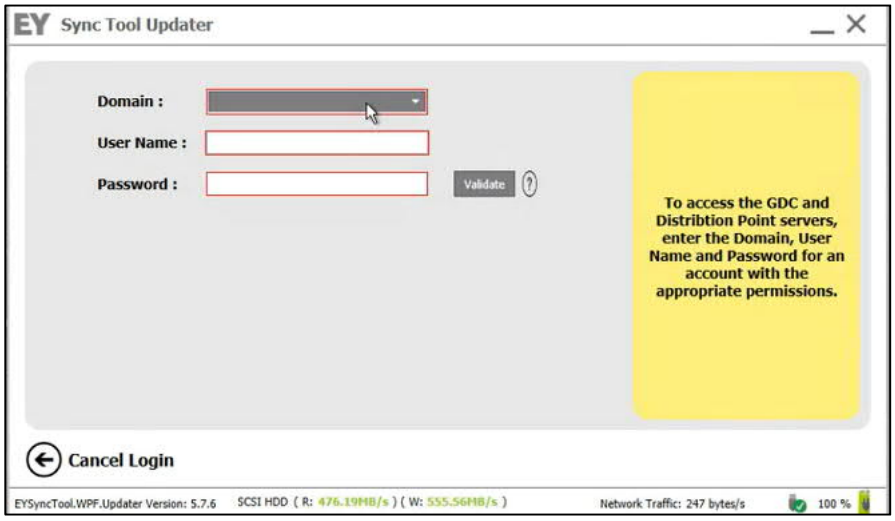
The next screen prompts you to select the keyboard layout that matches your physical keyboard. This is particularly important if your password uses special characters that are not mapped to the same key as the default US Keyboard layout.



If you have missed pressing the spacebar within the allotted time you will see the following message.

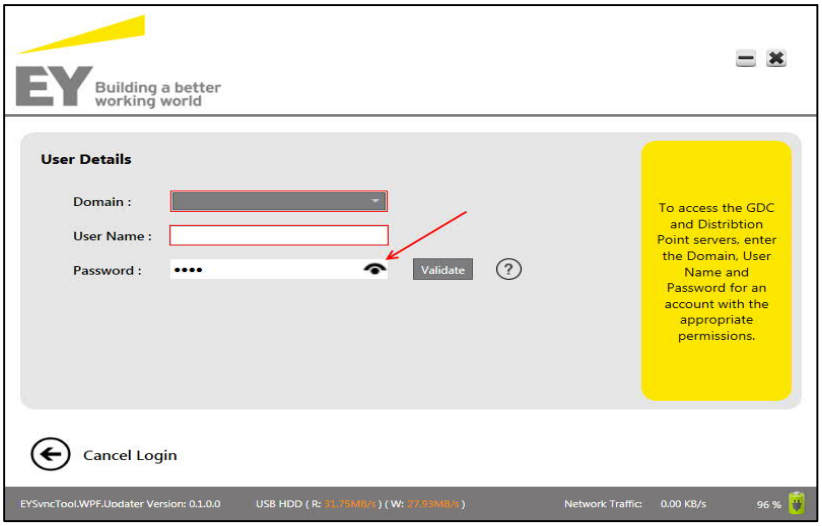


Press the ‘Start Sync Tool” button and the next screen prompts you to log in with credentials that have access to the GDC server(s).

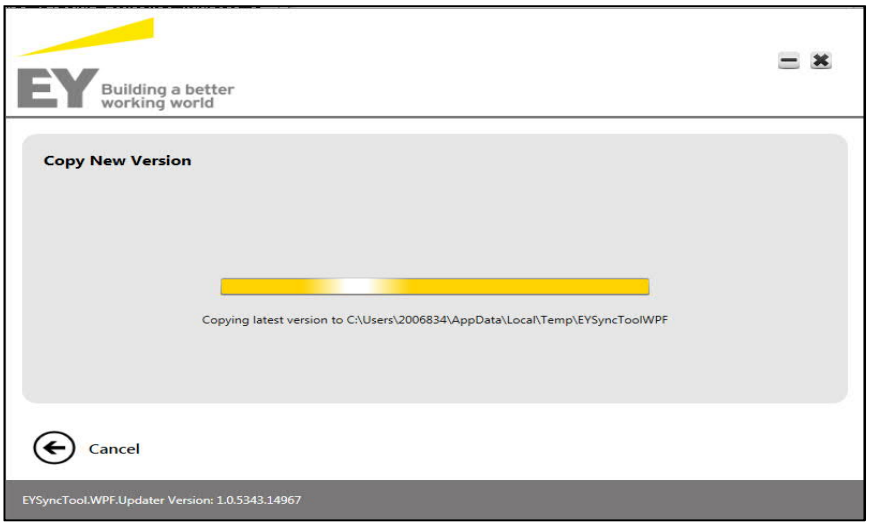


Select your primary account subdomain from the drop-down list and enter your User Name and Password.

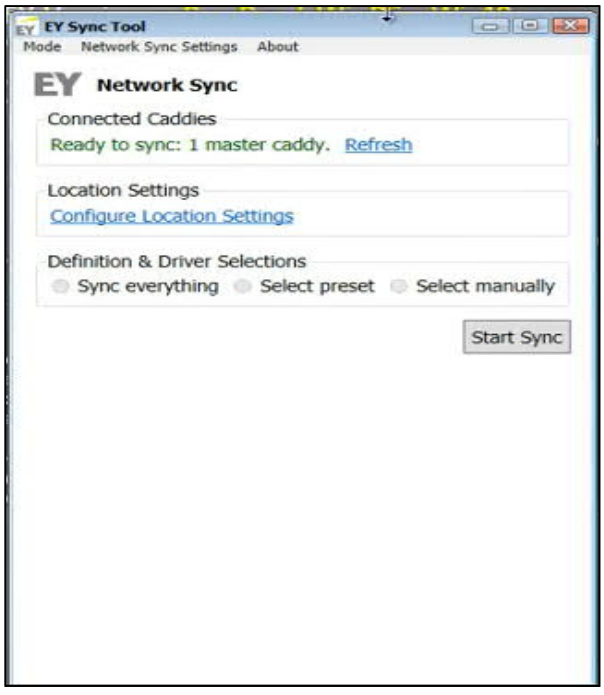
NOTE: If you did not select the correct keyboard for your location when the application started, you need to be aware the WinPE environment uses a US keyboard layout by default. This means the mappings between it and your physical keyboard might not match. This is particularly important if the password you enter contains any special characters, which may be mapped to different keys. If you are experiencing any difficulties logging in and you are sure you are entering the correct name and password, you can press on the ‘show password; button that appears once you start entering characters in the password box:



Once the application verifies you have access to the source servers it locates the latest copy of the EYSyncTool and updates the caddy if it is newer and runs the newest version of the application.



Once credentials are validated, you will be taken to the New Sync tool window as below



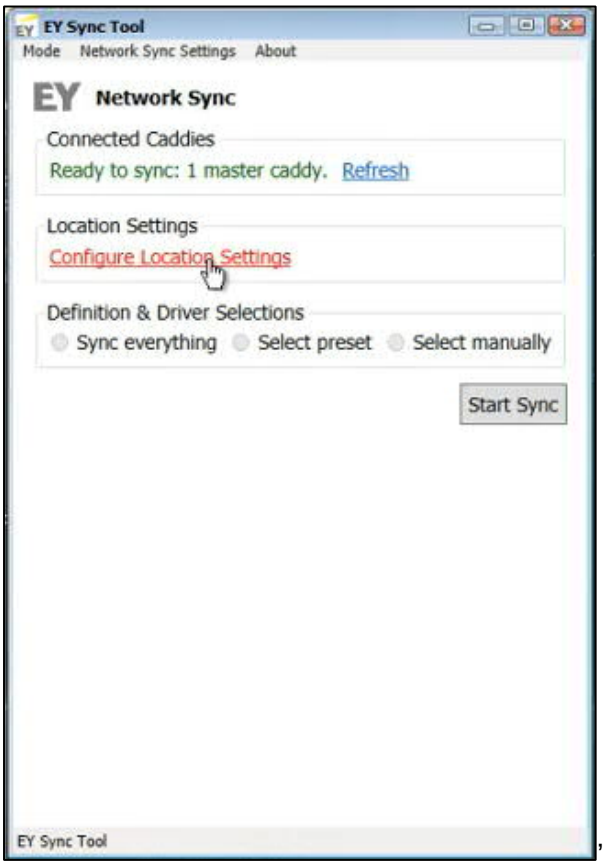
It should pick up your caddy automatically if the caddy is connected, and it shows whether it is a Master caddy or Replica. You need to configure the location settings under “Location Settings” for the first time before we a sync with caddy. Otherwise you will see the following error message

And you will not be able to configure the definitions and driver selections.

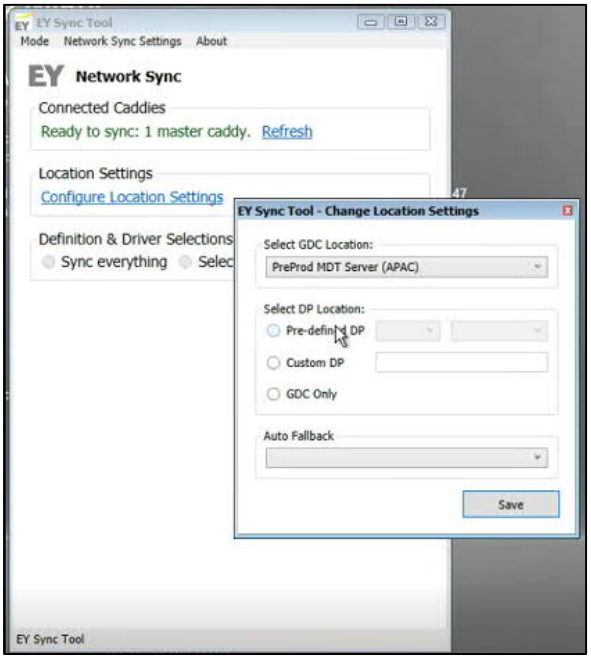
3.2 Configuration and Location Settings:

Under this setting you will be storing the DP location details for the Sync.

This setting will be remembered the next time the sync tool is launched (configuration files are stored in the caddy with our last selections), so that there is no need for you to setup these settings every time the sync tool is launched unless you create multiple sync presets.

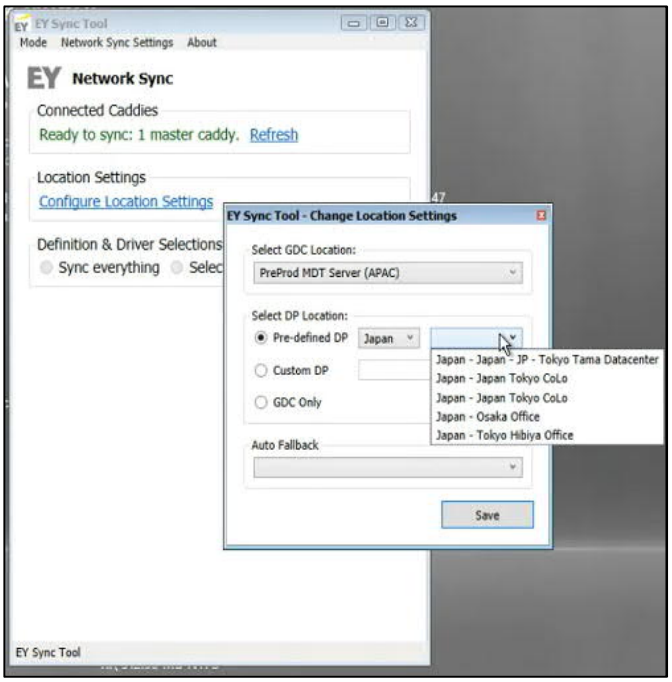


Click on the Configure Location settings and you will be taken to below screen, where you will have to select the SCCM Distribution Points (DP) and Shares from which the sync has to happen.



First you need to select the GDC location and the appropriate DP location.

The new Sync tool provides an option to choose nearest DP which is listed under the “Pre-defined DP” tab. You just need to select respective region and the nearest DP.



Situations where you are not able to select a pre-defined DP or enter a new DP for your office, you can use the custom DP option.

Custom share locations are accessible using \\sharedpath\.

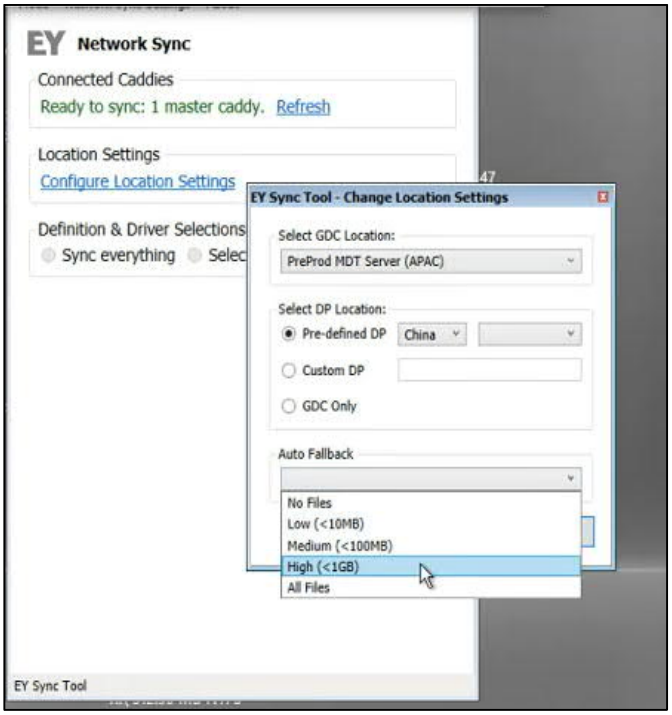
Or you can use the “GDC only” option.

To request a DP to be added to the pre-defined list, please submit a request to EUTX - Software Delivery Automation team

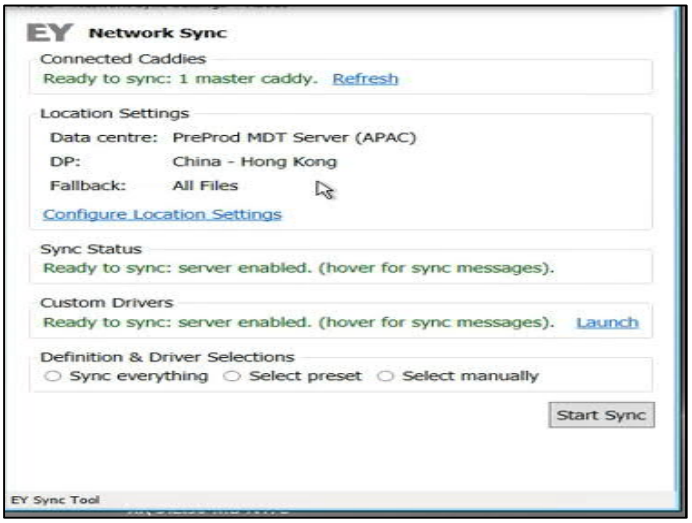
3.3 Auto Fall Back:

If there is a mismatch in the package content between the local DP and the GDC shares, the sync will fail. The “Auto Fall Back” option will pull from the shares any missing or mismatch content from the DPs automatically. Depending on your location bandwidth you can set the sizes of the packages which can be pulled from the GDC shares.

If your office has a good connection, you can choose “All Files”. If not it can be limited to a specific amount.



Once all options are selected, click on Save.



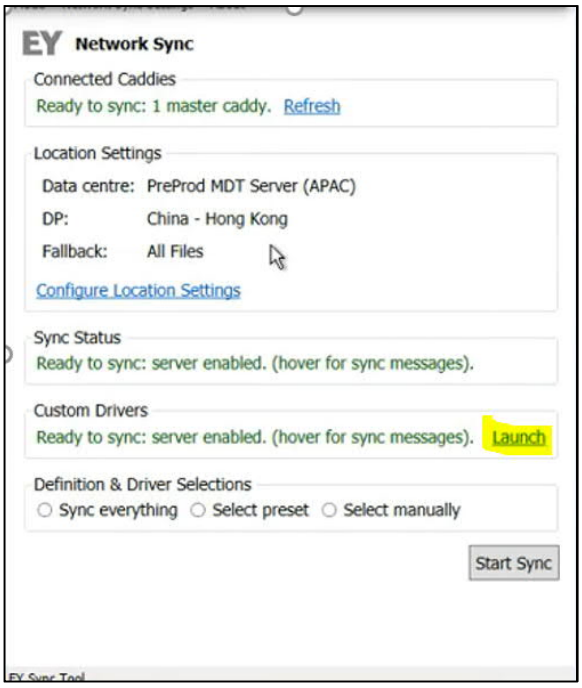
Sync Status:

Sync status will display messages indicating that the sync is either enabled or disabled for maintenance and definition updates.

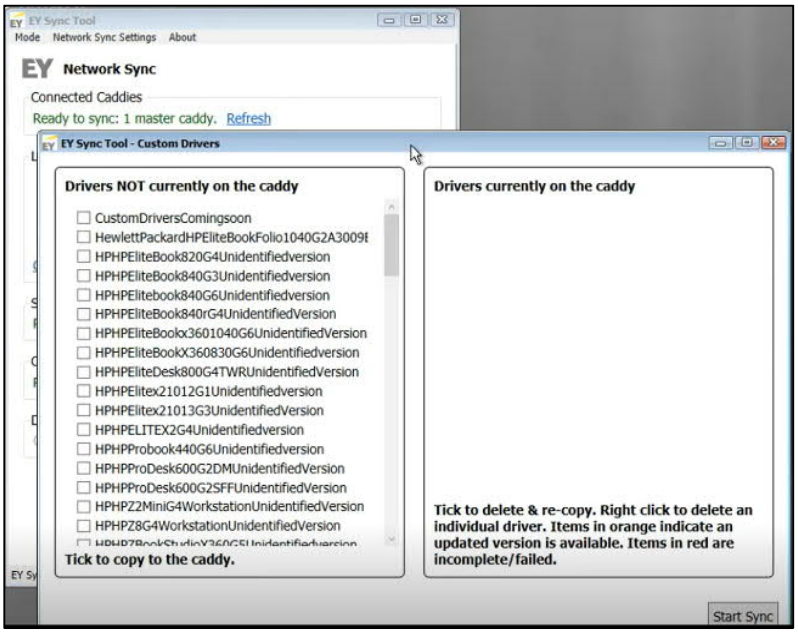
3.4 Custom Drivers:

Custom Drivers is a new feature in this Sync tool which allows you to sync custom drivers even if the production sync is disabled.

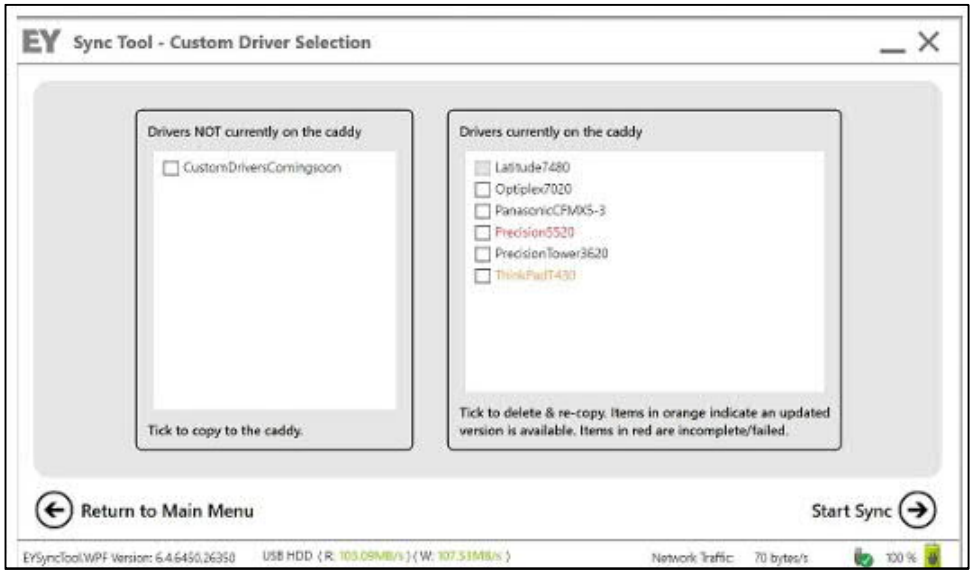
Click on the “Launch” Link in the custom driver’s section.



The left pane lists drivers that are available on the GDC, but are not currently on the caddy
The right pane lists the Custom Drivers that are currently on the caddy



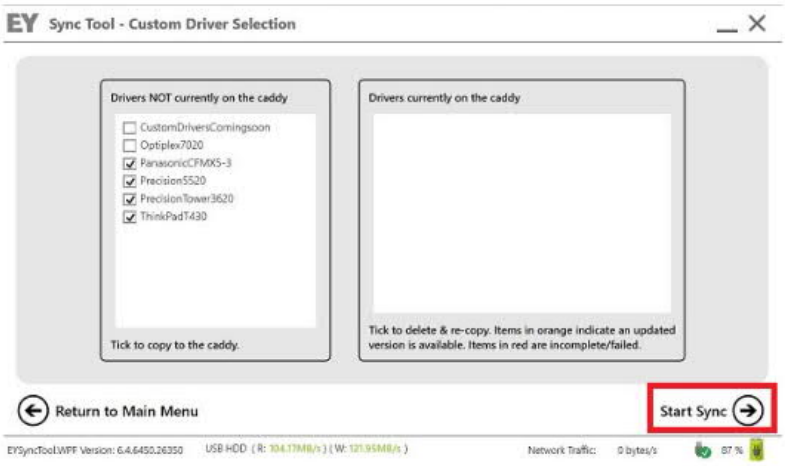
When you launch the sync tool for Custom Drivers, you will see one or more of the following colour codes that represent driver status



- Black – Present on both server and caddy
- Orange – Update available on server
  - This will happen when the driver on the server has been updated
  - You should update the driver to the latest version
  - Check the driver and select Start Sync
- Red – Incomplete or failed sync
  - Check the failed driver and select Start Sync
- Grey – Driver is present on caddy, but no matching folder was found on the server

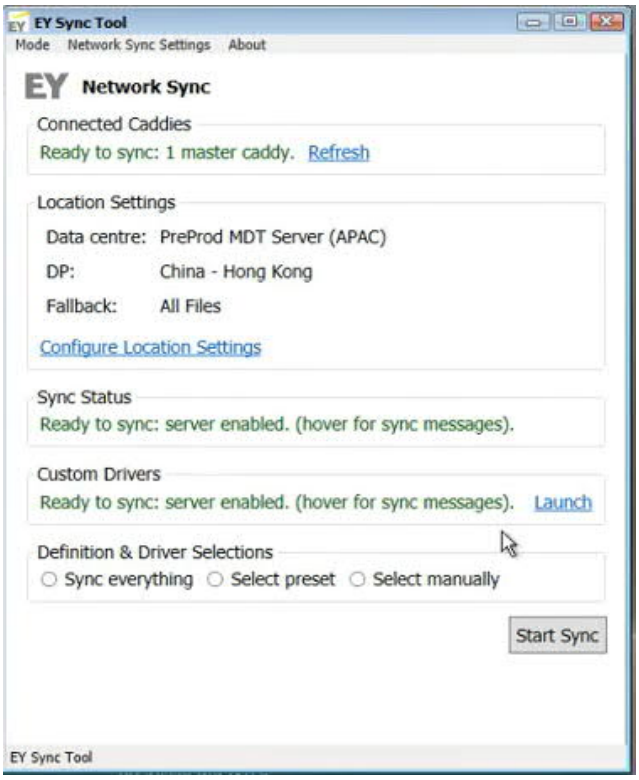
This will occur if the driver was added to production or no longer supported

To add a driver to your caddy, click the driver from the left side and select Start Sync



To delete a driver that is copied to your caddy, right click the driver from the right side and select Delete

3.5 Definition and Driver selections:

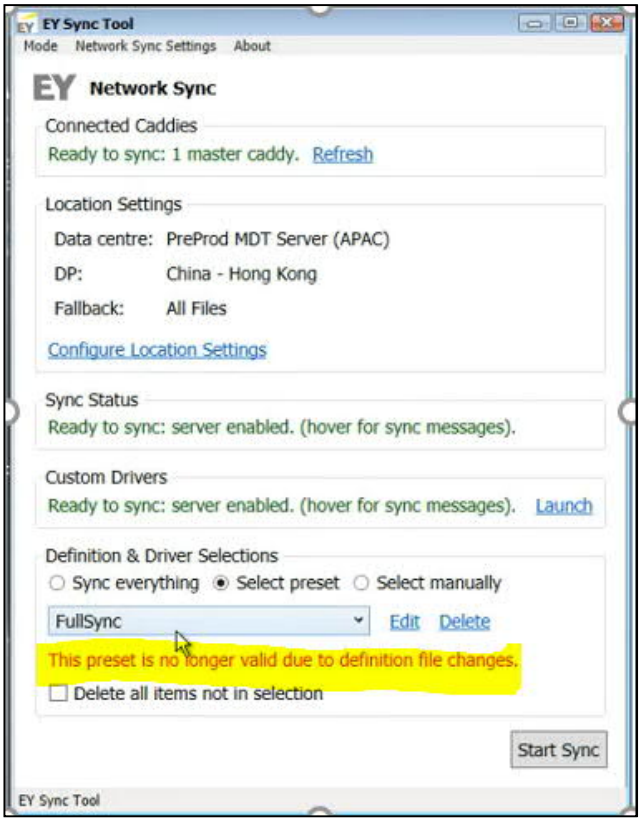


Here you have three options.

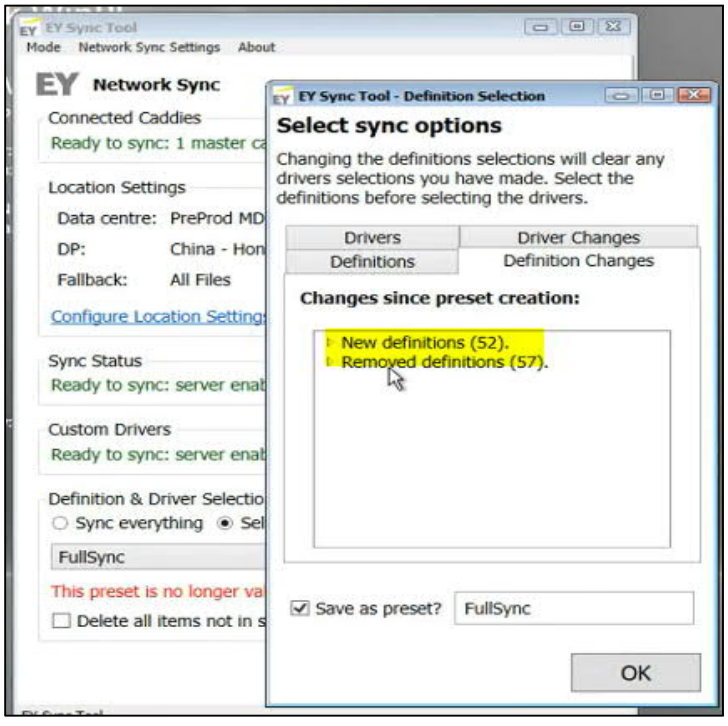
1. Sync everything - This option syncs all countries, all Business Units, and Drivers for all machine models.
1. Select Preset – This is a new feature added to the tool. Selects saved country sync settings.
2. Select Manually - Manually select the country definitions, Business units, and drivers which needs to be synced.

The “Select manually” option allows you to select Countries, Business units and drivers and save it as a preset which can be used again on the next sync.

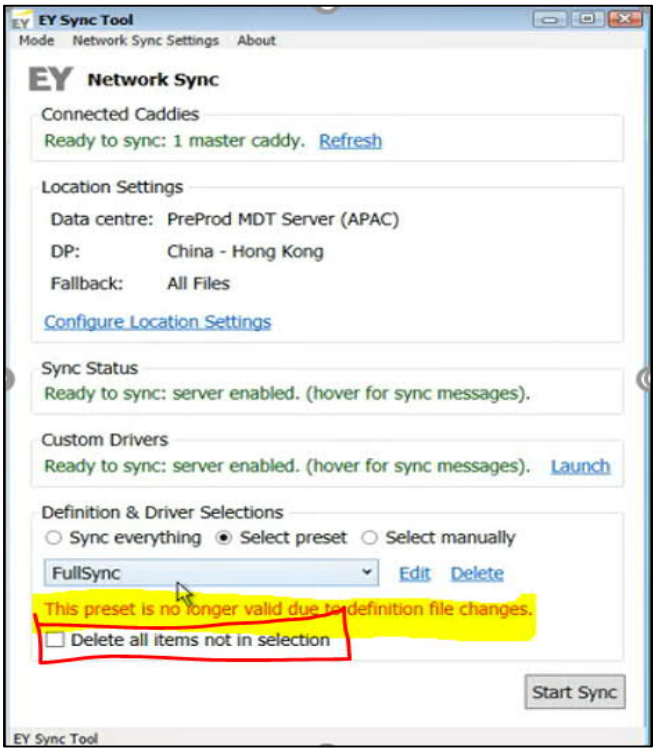
If there are any changes to the drivers or definitions on a saved preset, a warning message will be displayed when the preset is selected.



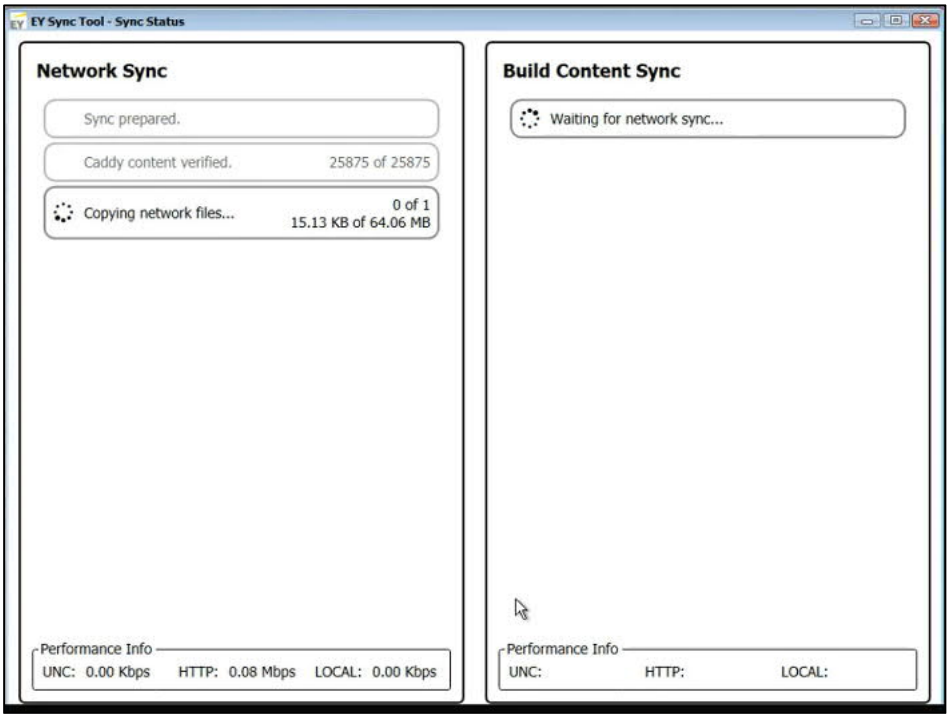
Selecting the edit button shows you the changes that were made to the definition or the drivers.



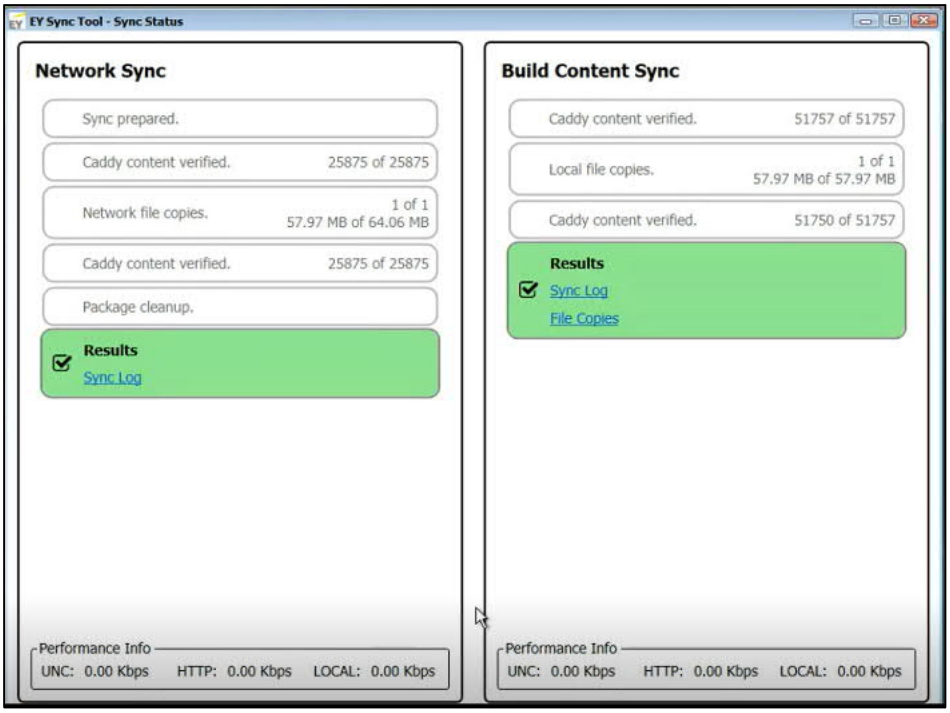
Suppose that you have global a caddy build by choosing the “Sync everything” option and you want the caddy to be limited to a country specific caddy, you can select the preset which is country specific (if country specific preset is already saved) and tick mark “Delete all items not in selection” and start the sync. This will bring a global caddy to a country specific caddy.



Once all options are selected, you can proceed with “Start Sync”.

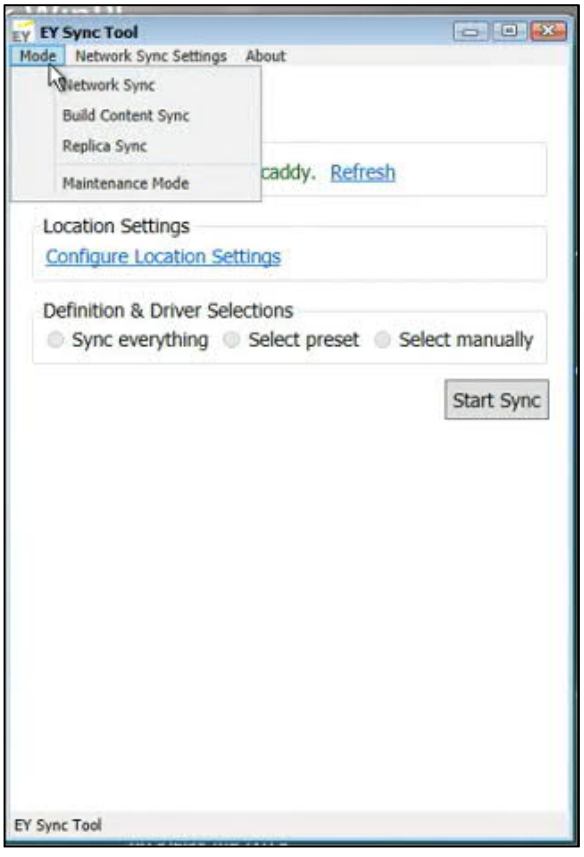


Once sync is completed, you will see below screen. You can access the logs from results.



3.6 Sync Tool Modes

All Sync Tool Modes have a new view. The mode selection is located under Mode tab. Once Mode tab is selected you will get options as below.



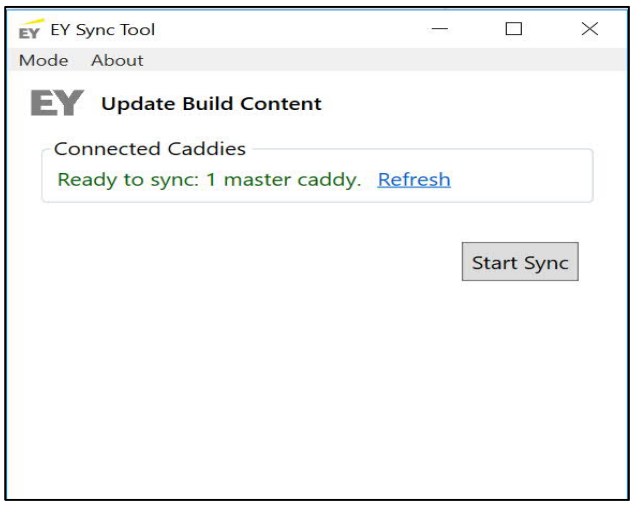
3.7 Network Sync:

This mode is for updating the caddies packages and defintions, from network content from GDC shares and SCCM DPs. It is enabled by default which means your sync tool will open in Network Sync mode. How to use this mode was detailed in previous sections.

3.8 Build Content Sync:

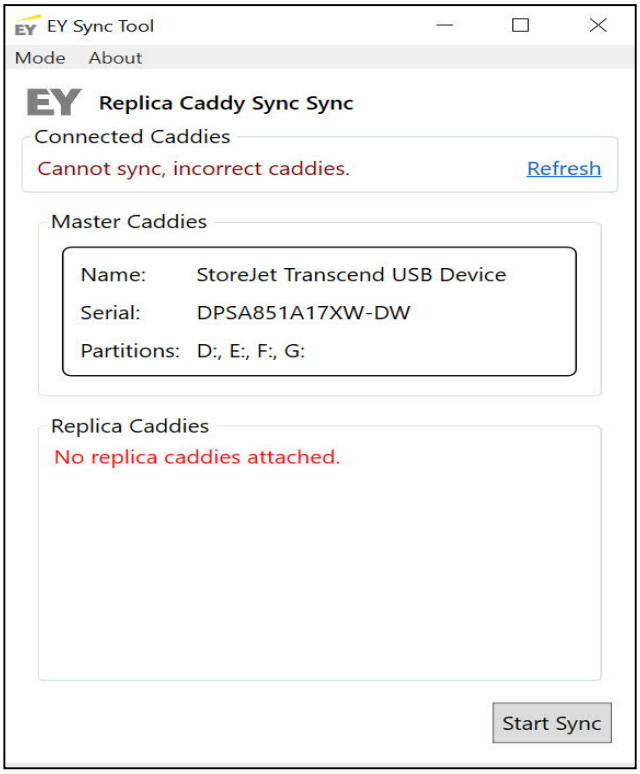
This mode updates the Caddy partitions from the USB media cache. All the content downloaded from Network Sync will be cache on one of the caddy partitions. What this mode will do is to compare the downloaded content and compare with the current content on the caddy partitions.

Also this mode is ran automatically right after network sync if there was no issues in the process.



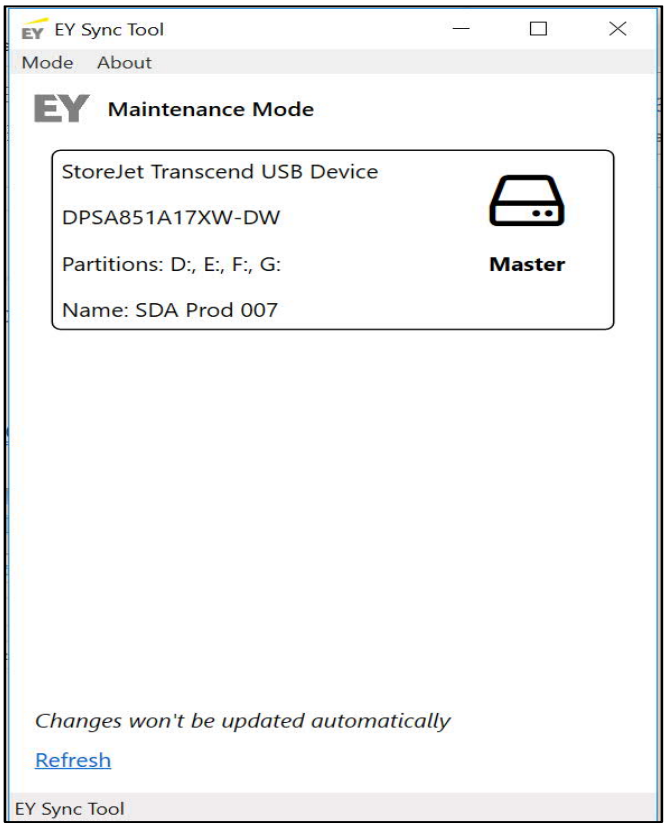
3.9 Replica Sync:

This option is used when you require to create/sync a replica caddy from a master caddy. Connect both caddies and once ready click on Start Sync.

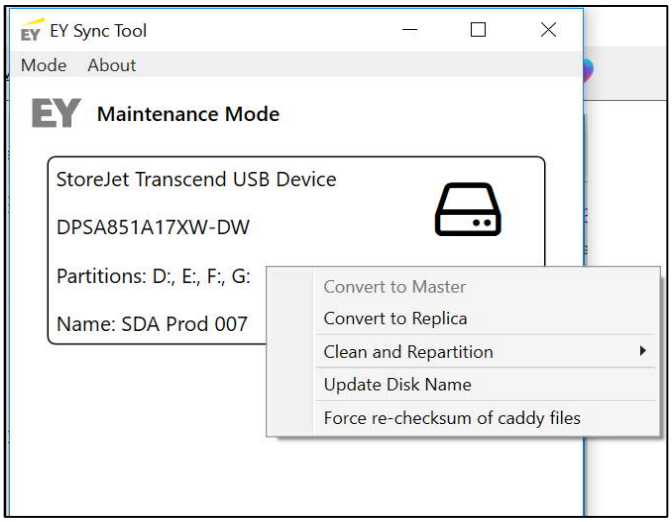


4 Maintenance Mode:

Selecting ‘Maintenance Mode’ shows you all disk drives currently connected to the machine, and if you plug in or unplug any disk drives then the screen will update to show this.



By Right clicking on the window you will have access to different options.

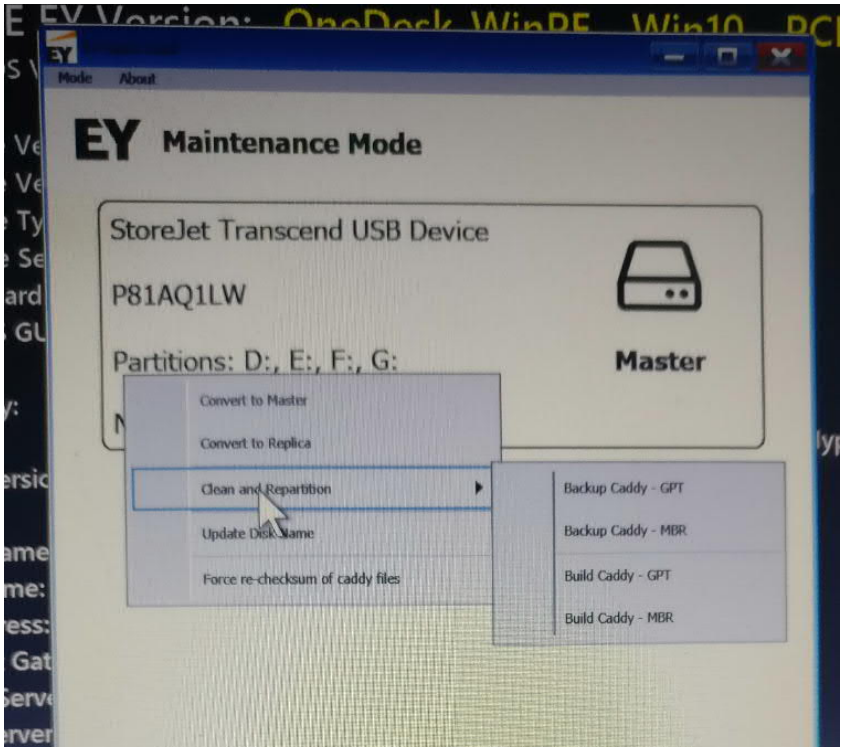


4.1 Convert to Master/Replica:

It is possible to convert a master caddy to replica – Select the convert to replica option and you will notice the caddy Replica. Same is the case if you want to convert a replica to Master.

4.2 Clean and Repartition

This option is used to build up an all-new caddy. There are multiple caddy build options depending on your caddy hardware.



The MBR, short for **Master Boot Record**, is an old and commonly-used disk layout. The GPT, **short for Globally Unique Identifier Partition** Table, is a new disk layout associated with UEFI. The two different styles of disk own different schemes to manage the partitions on a disk. GPT also allows for a nearly unlimited number of partitions but with MBR only 4 partitions are possible.

At this point you will need to select the drive you would like to provision. Extra care needs to be taken at this stage to ensure the correct disk is selected as the disk you select will be completely wiped and repartitioned as part of the provisioning process. The internal drive of the machine should be excluded from the list to prevent accidental deletion, but please check to make sure before continuing.

To avoid any confusion between USB drives here we recommend unplugging all external disk drives and USB keys from the machine except for the caddy you would like to provision. This should make it obvious which one you should select and should minimize the opportunity for an incorrect selection to occur.

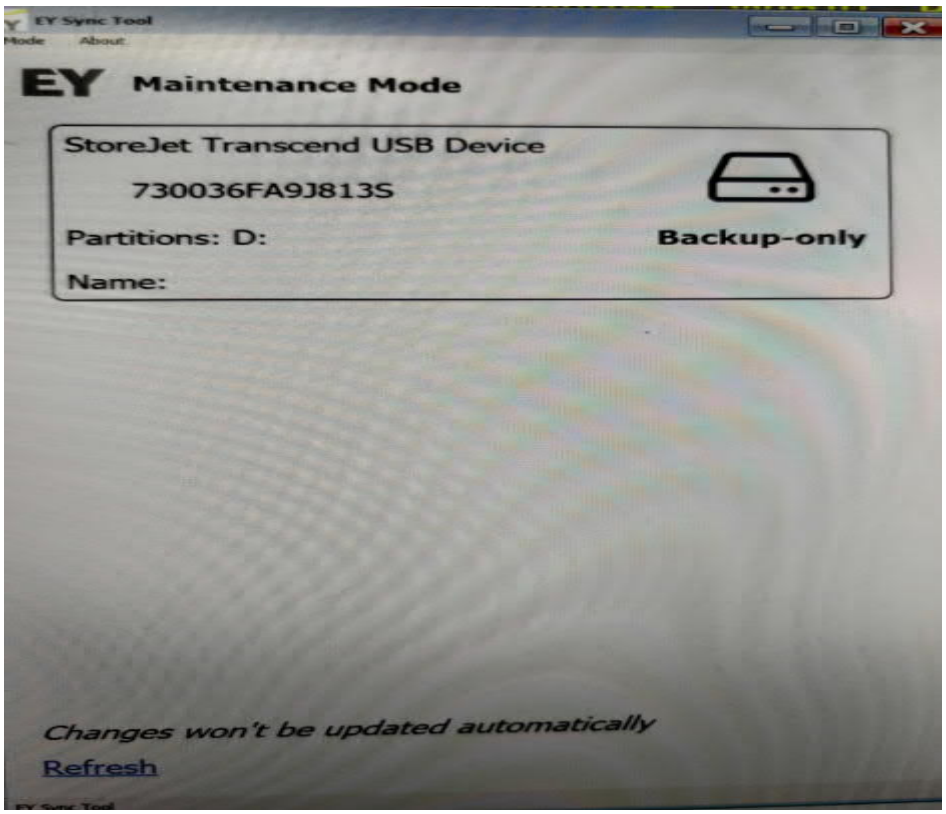
Right Click on the External Drive and click Clean and Repartition and then click Build Caddy. Once completed then Right Click on the Drive again and select Convert to Master.

Now that the caddy is provisioned with the correct partitions our build tools will now recognise it as a valid caddy.

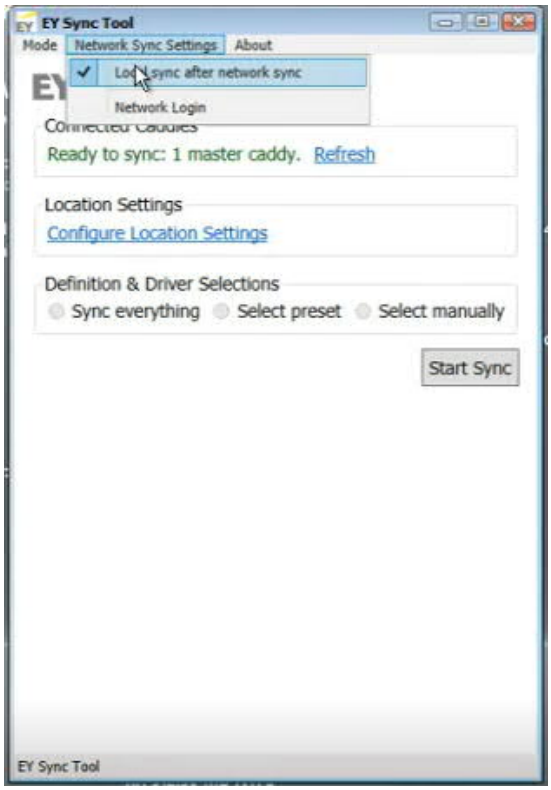
4.3 Backup Caddy GPT/ MBR

Use MBR disk format when your caddy size is up to 2 TB. Anything with more than 2 TB will need to be created with the GPT partition format.

Right Click on the External Drive and click Clean and Repartition and then click Backup caddy



4.4 Network Sync Settings:



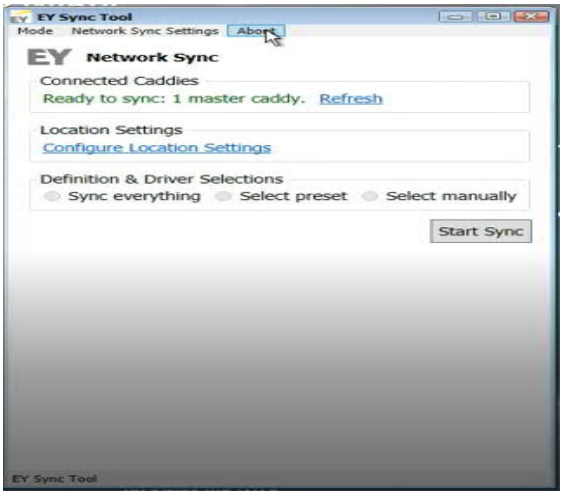
Local Sync after Network Sync Enable/Disable:

Enable this option to synchronize the USB media cache automatically with the caddy partitions right after the network sync finished, if it finished successfully

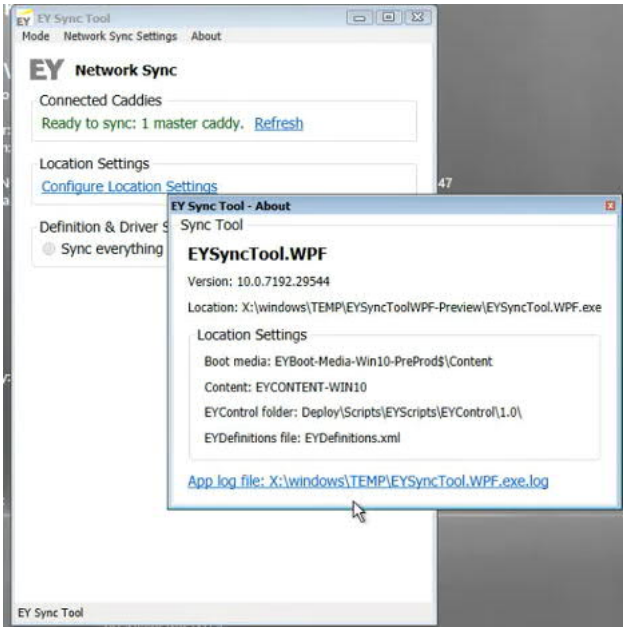
Network Login:

By clicking in here will force a new network authentication by using different or the same credentials.

4.5 About Tab:



Log files for troubleshooting are located under “About” tab as show below.



5 Master Caddy Testing

There is no pilot process for PCBuild.

Once you have updated your PCBuild master caddy, you should do several test builds. We recommend at least two to three builds using your country’s BU definitions to ensure that the released updates or packages does not affect any of the items in your configuration. All builds should be done to completion.

Please remember that you can still utilise your other master or replica caddies during this time to apply the Pre-Load or OEM content.

Machines that have been pre-loaded are valid for up to 28 days starting when that content was first loaded onto the device.

The current guideline is when you first synch your caddy that content will be valid from the date of release plus 1 week and 28 days for a total of 35 days.

Once you have completed the testing phase you can then replicate this caddy to the other caddies using the Master to Replica functionality in the EYSyncTool. Remember if you have a USB hub adapter, you can replicate up to 3 caddies at one time, alternatively you can do the single master to replica caddy on a pc using the WinPE environment.

6 Synching Master Caddies

In your environment you should not be synching multiple master caddies over the network. The maximum any site should be synching over the network is 2 to 3 masters and then use those caddies to create other caddies.

We generate reports that shows when issues occur during the sync process. This is a proactive effort by SDA to reduce sync issues. Issues should be reported to SDA to rectify and not just bypassed by using “GDC Only” option.

Based on further functionality due to be implemented in the EYSyncTool, we will be adding the ability to report on successful syncs, so along with the current functionality we will be monitoring this reporting to ensure that we have compliance on this.

Please use the toolset as designed to reduce overhead on network resources.