Microsoft® Deployment Toolkit (MDT)

Dell Factory Integration

User Guide August 2023

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Chapter 1
MDT BIF Overview

Introduction to MDT OSD in Dell Factories

Microsoft® Deployment Toolkit (MDT) provides a common console with a comprehensive toolset for Operating System Deployments (OSD). MDT is a recommended process and toolset to create and modify images for client and server systems.

MDT OSD Dell Factory pre-load options include:

1. **MDT Boot in the Factory** - With a slight modification to your task sequence, you can take advantage of **booting and initiating your MDT task sequence during Dell's factory process (before shipment)** - allowing the greatest time savings when systems arrive on-site. The primary focus of this document is option 1, integrating your task sequence with Dell's factory image load process (enabling the task sequence to run within Dell's factory process).

2. **MDT Lite Touch OEM** - Initiate the **task sequence on first boot** (after receiving the system). With no modification to your production task sequence, your MDT OSD can be applied to systems during Dell's factory process. MDT Lite Touch OEM saves time and network bandwidth required to download the OSD to each system on-prem. If you have a production MDT OSD this may be the fastest path to begin loading your OSD in the factory.

Important notice for customers initiating MDT Lite Touch OEM:
This document does not apply if you plan to initiate your task sequence on first boot (after receiving the system). Please contact your Configuration Services Project Manager for instructions on sending your MDT OSD media to Dell to begin your project setup.

Dell Configuration Services simplifies IT for Administrators utilizing Microsoft Deployment Toolkit by enabling a single source provisioning solution for all OS deployment scenarios.

Administrators can also leverage MDT to reduce the number of OS images your company must create and manage. The flexibility of MDT enables Administrators to manage the OS, drivers, applications, and patches within a single distribution.

The intended users of this guide are Dell customers

- IT network administrators or managers using MDT to perform Operating System Deployments within an organization

Requirement	Administrators must have experience: • Creating, deploying and validating images on Dell client systems • Creating and validating standalone media builds from a MDT Task Sequence

Configuration Services MDT OSD Process Overview

The following process outlines the basic steps required to integrate an MDT OSD Task Sequence with the Dell Factory.

Configuration Services Process Overview

Step 1:
Modify your current task sequence to include Configuration Services requirements detailed in this document

Step 2:
Create Standalone media of your task sequence and send it to the Dell Configuration Services team

Step 3:
Dell IMS engineers will work with you to validate your Task Sequence modifications

Step 4:
Dell Configuration Services team imports your stand-alone media for use in the factory on systems you order

Step 5:
Your build is placed on systems you have ordered and they are booted while in the factory to launch the build process

Step 6:
When the factory portion of the build is complete, the systems are shipped directly to your end users

Step 7:
The end user receives their system, connects it to your network and powers it on

Step 8:
The build process continues with any steps that require network connectivity (e.g., joining domain) before allowing the user to logon

Configuration Requirements

MDT Task Sequences must support these requirements to initiate task sequence execution within the Dell Factory

Selection Profiles

Selection Profiles are used to control the content included in any media that is created. Create folders in the Deployment Workbench that contain one or more items for applications, operating systems, device drivers (Out-of-Box Drivers), OS Patches and Language Packs (Packages) as well as task sequences. A selection profile will be used as the basis for creating the MDT deployment media and will help to reduce the size of the iso by not including items that are not needed for the deployment.

Prepare for a New Computer Deployment Scenario

Managed device driver deployments ensure that appropriate device drivers are deployed to the target computer.

- Create a folder structure in the Out-of-Box Drivers node of the Deployment Workbench to organize the device drivers as described in the MDT Documentation Library help file (Managing Device Drivers section).
- Create Folders to Organize Device Drivers for Lite Touch Installation (LTI) Deployments
- Create selection profiles used to select the device drivers for deployment, based on the folder structure you created in the previous step (as described in the MDT Documentation Library help file).
- Create selection profiles to select the Device Drivers for LTI Deployments.
- Configure task sequences to deploy the device drivers in the selection profiles (as described in the MDT Documentation Library help file).
- Configure Task Sequences to deploy device drivers in selection profiles for LTI deployments.

Apply the Stand-Alone Media Build to an offline PC and validate the build process

- Validate your task sequence before adding the steps for Dell Configuration Services.
- After successfully completing the stand-alone media build, validate that the steps you modified are working properly (e.g.: Device driver injection and CS Steps.)

Important

Supported versions of MDT can be found at the Microsoft Support Lifecycle site.

Be sure to spell / type variables and group names correctly.

Be sure to add the spaces and dashes as indicated in the given examples.

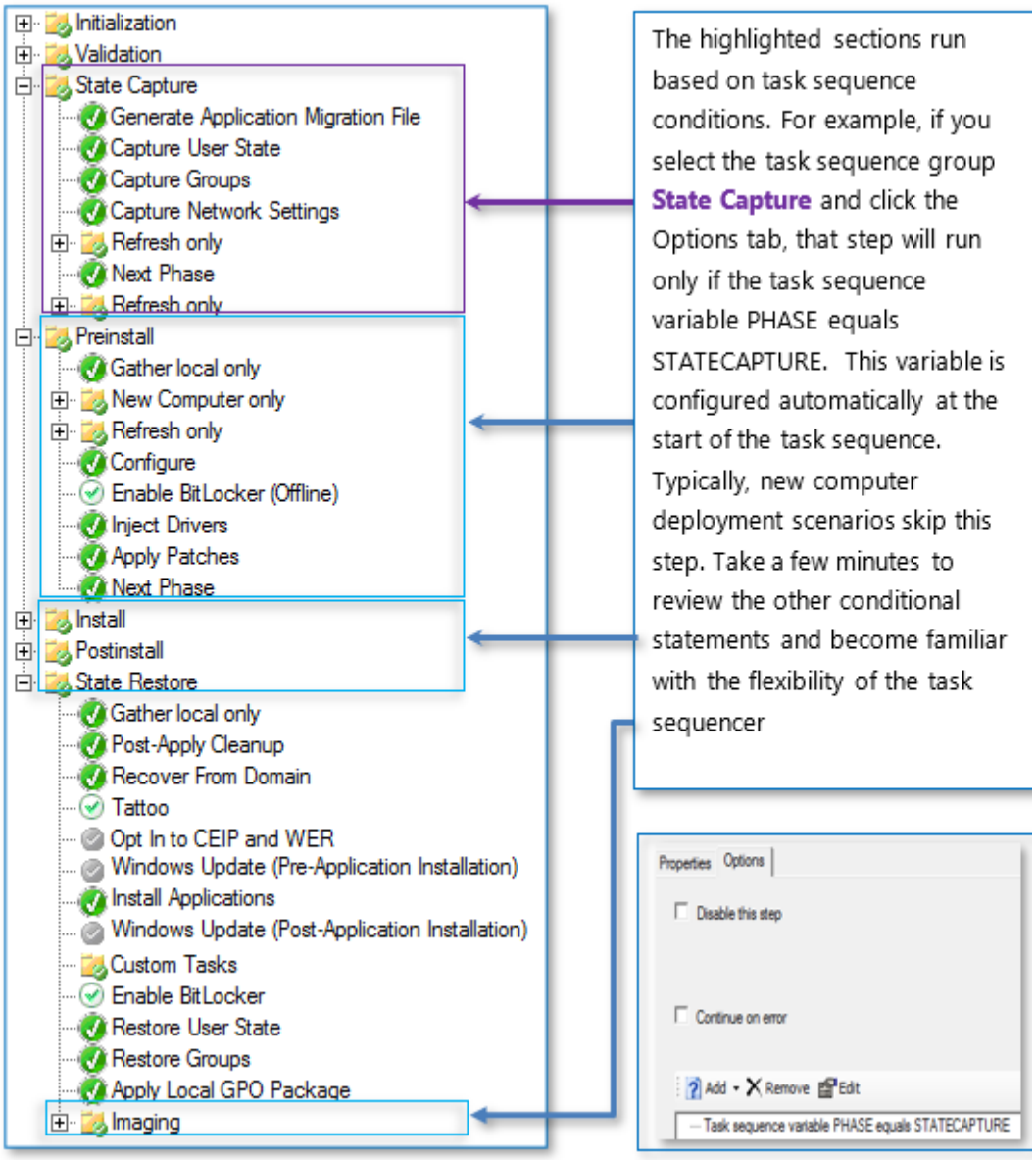
Configuring a Standalone Media Build

For successful factory integration, you need to modify a standard task sequence so that it performs properly in the Dell factories. This section walks you through the basic process of making the necessary modifications to the Task Sequence.

Standard Task Sequence

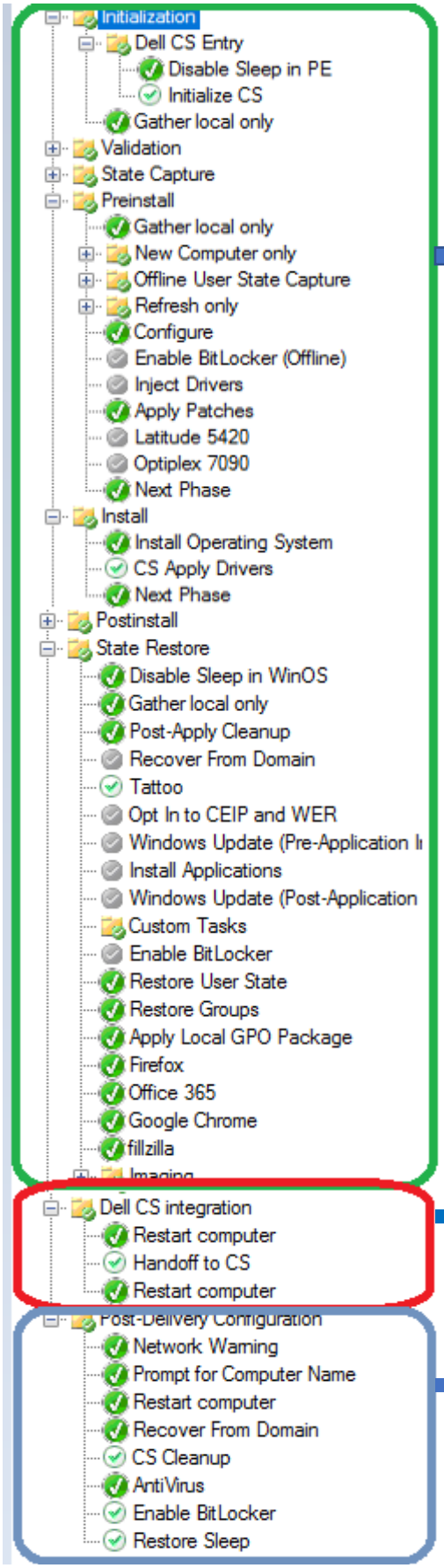
A Standard Task Sequence is created when you select the Standard Client Task Sequence Template to modify your existing task sequence.

Restriction: Using multiple task sequences to deploy the same OS should be avoided because it increases the deployment solution complexity.



Task Sequence Break Down

Standard MDT Task Sequence Divided to run in the Dell Factory and on your Local Network



The Green Area is the part of the task sequence that runs in the factory and is known as the Factory Section. The task sequence will run with the network disabled. And the partitions are created ahead of time. There can't be any prompts or user input during this section as it needs to run completely automated. Encryption needs to be turned off and security or Antivirus should not be active during this stage.

This is the section that will pause the task sequence in the factory, enables network cards, and shutdown the computer to ship it to you. Know as the Handoff Section

This section known as Post Delivery Section will run when you first turn on the system after receiving it from the Dell Factory. The Network cards will be enabled. You can install applications that require the network as well as Anti-Virus, Run BIOS Configuration scripts, Join the Domain, enable encryption like Bit locker, and Prompt the users for Input if needed.

Chapter 2
Modifying the Task Sequence

Dell Toolkit Package

The Dell Tool Kit Package is a group of scripts needed for the Dell Boot in factory process zipped in a easy to download package. You can extract this zip file to a new folder under your deployment share- scripts call dell. We will add tasks to call these files later in the document.

Download Toolkit Here

- Download and extract the mdttoolkit.zip posted on Dell's Tech Center.
- Create a folder under your deployment share scripts folder called dell.
- Copy the scripts to that folder.

Note: We will refer to this package as Dell toolkit package in the document moving forward.

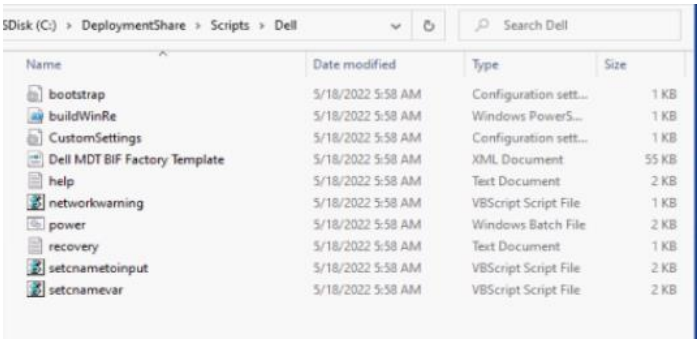
Dell Tool Kit Contents

Required for factory process to work correctly.

- **Power.bat-** Script used to disable modern sleep and set high performance power plans.
- **Networkwarning.vbs -**script used to pause the task sequence to remind operator to connect network cable before proceeding. This task is not required but highly recommend.

Optional scripts to help automate your task sequence.

- **Dell MDT BIF Factory Template.xml**- Sample task sequence template.
- **Recovery.txt-** Disk Part script used to shrink c drive and create a WinRe partition.
- **BuildWinRe.ps1-** setups the WinRe partition.
- **Customsettings.ini-** Sample Rules file with everything you need.
- **Bootstrap.ini-** Sample Boot strap file.
- **Setcnametoinput.vbs-** prompts user for computer name and then changes the machine to match input.
- **Setcnamevar.vbs-** script used in post-delivery to change the computer name on the system to what is in OSDCOMPUTERNAME variable.



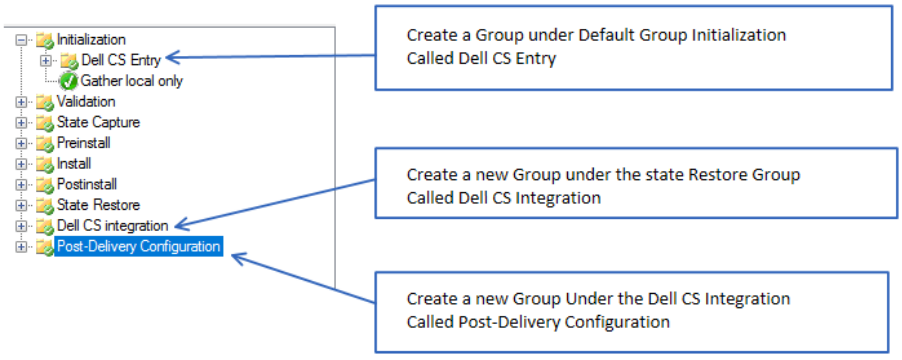
Task sequence Modifications

It is recommend for ease of use to create a copy of the current task sequence you use in production and modify it with the Dell Required tasks. You can use the same task sequence you use in production and not disable tasks by controlling the tasks with a variable Call CFI. We set CFI = True on the Media under the rules section for the Dell Factory so any tasks that should only run in the Dell Factory can be set to CFI = True or any tasks that should only run for onsite imaging should be marked as CFI not equals True the CFI Variable control is only required if you are using the production task sequence. If you use a copy of the task sequence you can disable tasks like outlined in the guide.

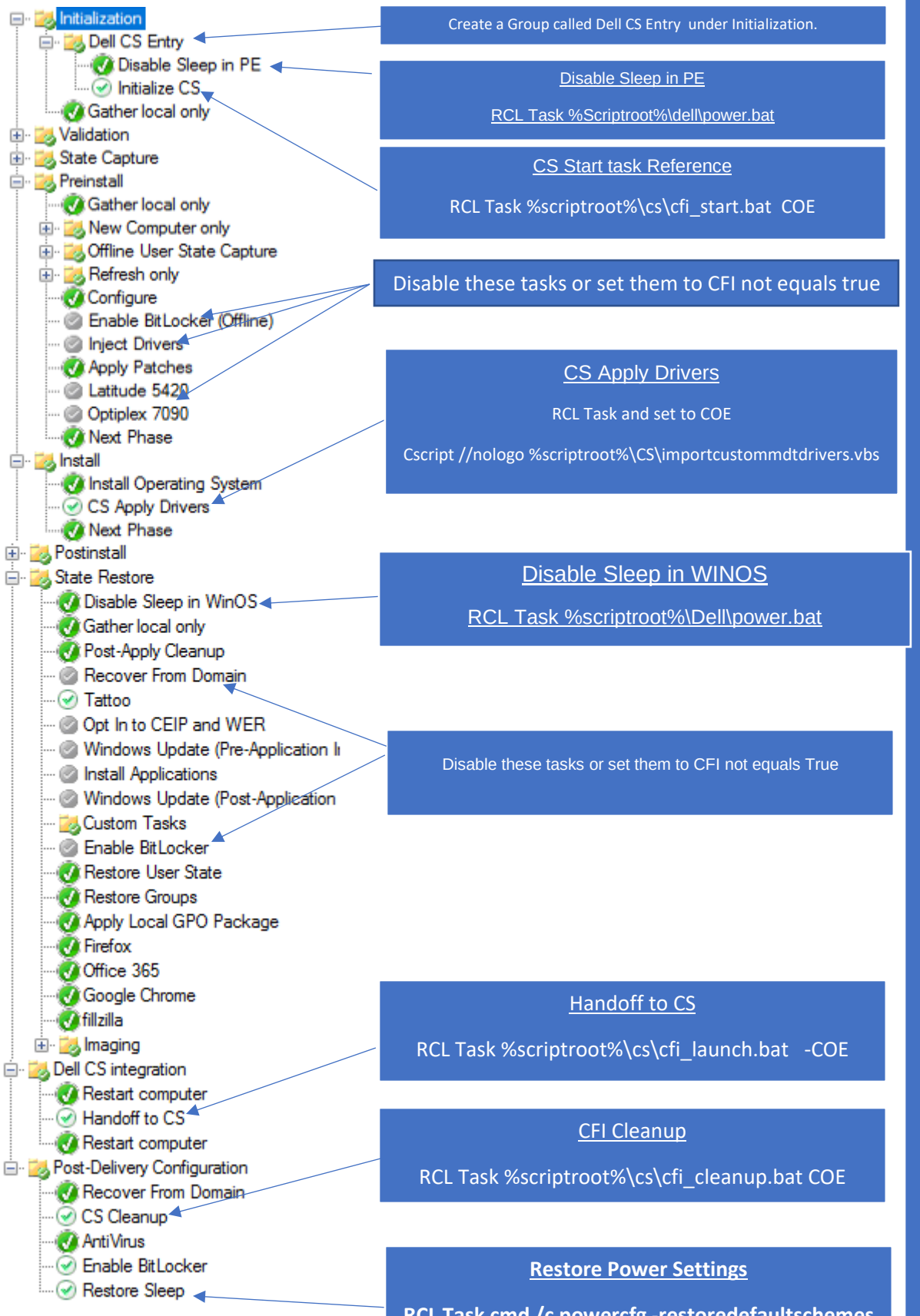
NOTE: If you want to make a copy of the task sequence then create a new Standard Client Task Sequence In MDT once created go to the Deployment share folder and copy the production ts.xml and unattend.xml to the new Task sequence ID folder under Deploy-control-TSID. Once done you can modify that task sequence without affecting your production task sequence. You can also use our template to create a task sequence that has all the required tasks in it already so you only need to add your custom installs and tasks see page 41 for details.

Group Creation Required for Factory Deployment

Add Three New Groups to the Task sequence to Support Factory Processing



MDT BIF Task sequence Map



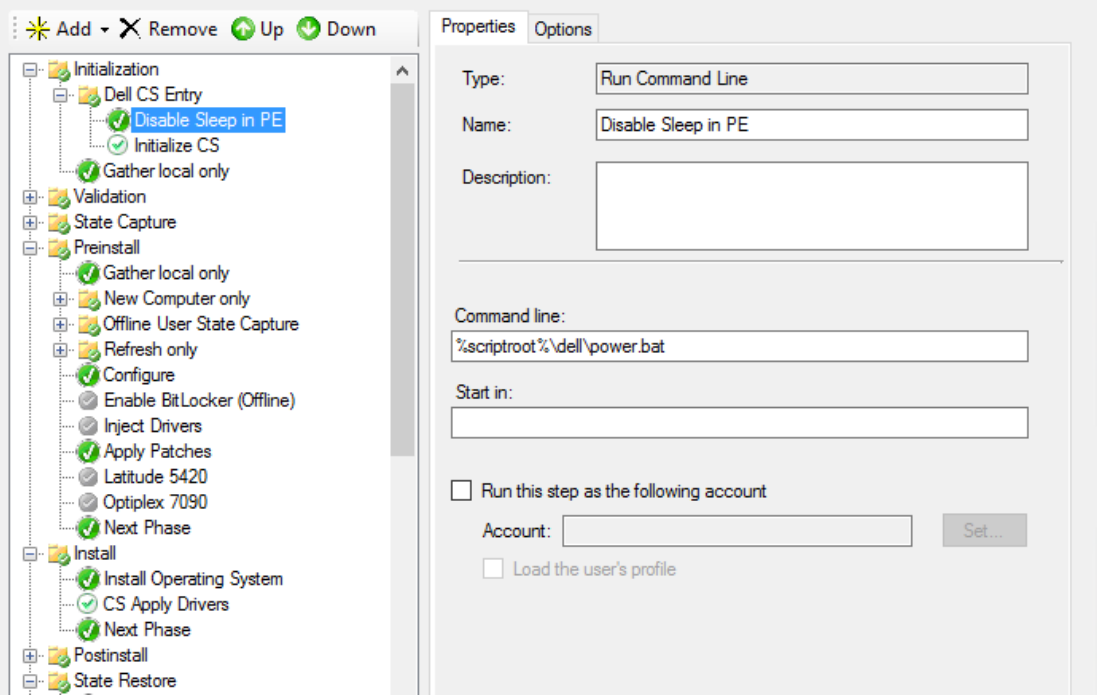
Chapter 3
Detailed Task reference

Disable Sleep In PE

This task will set the power scheme in PE to High performance. As well as change the default options that still turn off with no activity to on and never turn off for AC power. This will keep the system from going to the sleep in the factory while running PE.

Create a new Run Command line Task

- The task must be placed first in the Dell CS Entry Group in the task sequence.
- At **Name**: Disable Sleep In PE
- At **Command Line**: %scriptroot%\dell\power.bat

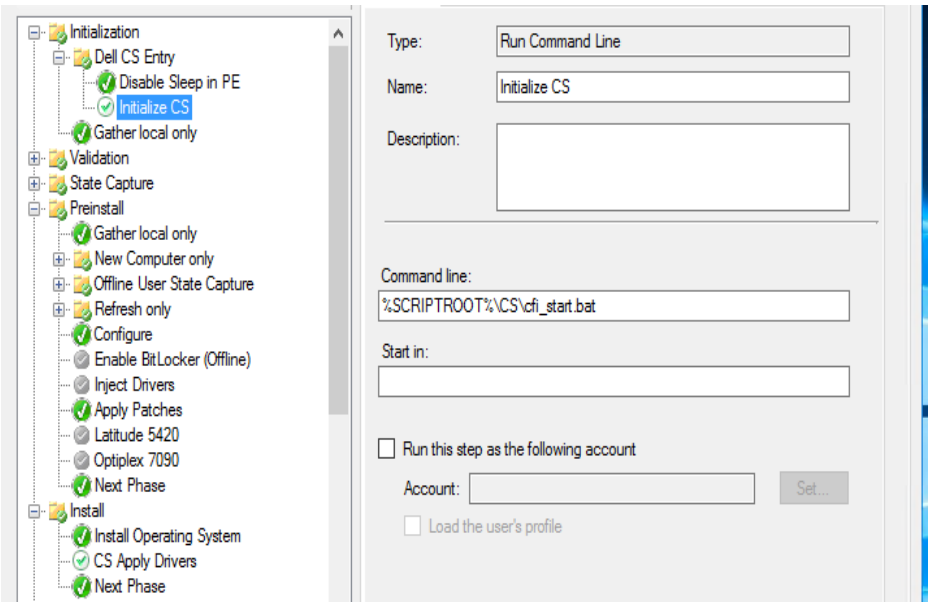


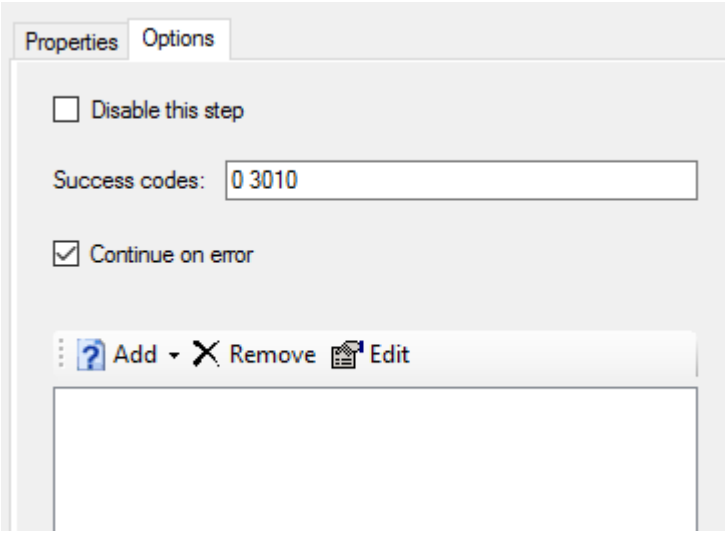
Return to Map

Create Initialize CS Task

This task will start the factory process. Note the cfi_start.bat file will be provided in the factory and is not included in the ISO that is uploaded.

- **Task Type:** Run Command line
- **Task Name:** Initialize CS
- **Command line: %SCRIPTROOT%\CS\cfi_start.bat**
- **Options Check Continue on error**





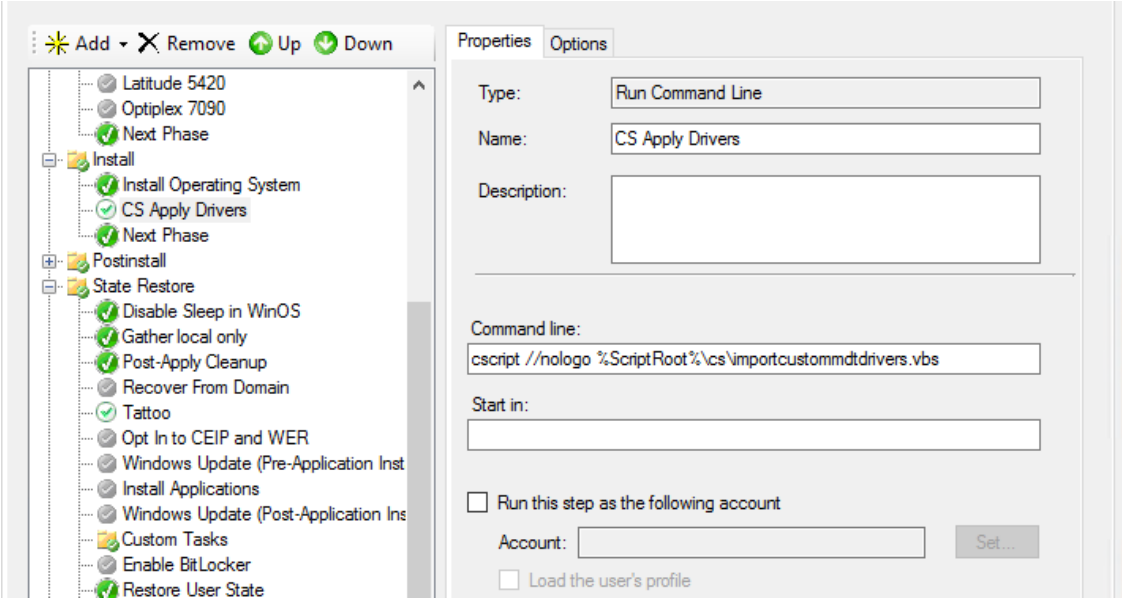
Return to Map

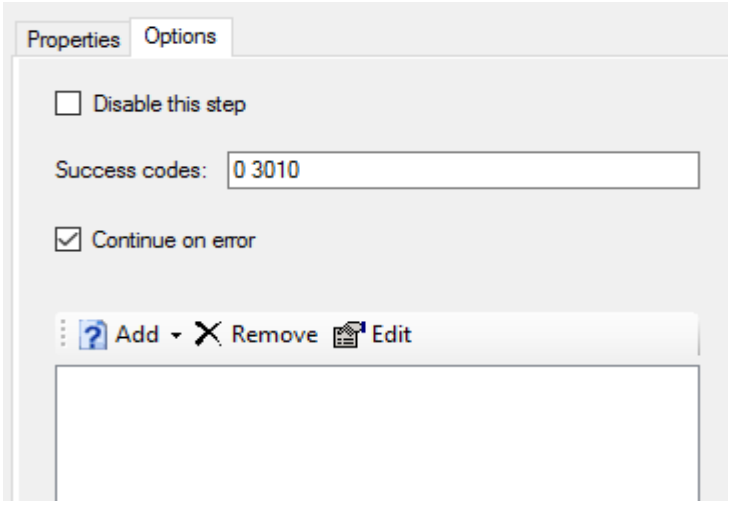
Driver Injection task

This is the driver injection task and will allow the factory to determine the hardware and drivers need machine this will make your task sequence hardware agnostic. The script is provided by the factory and will not be included in the media that is uploaded.

- **Task Type:** Run Command line
- **Task Name:** CS Apply Drivers
- **Command line: cscript //nologo %scriptroot%\cs\importcustommdtdrivers.vbs**
- **Options Check Continue on error**

Note this script is provided by the Factory process.



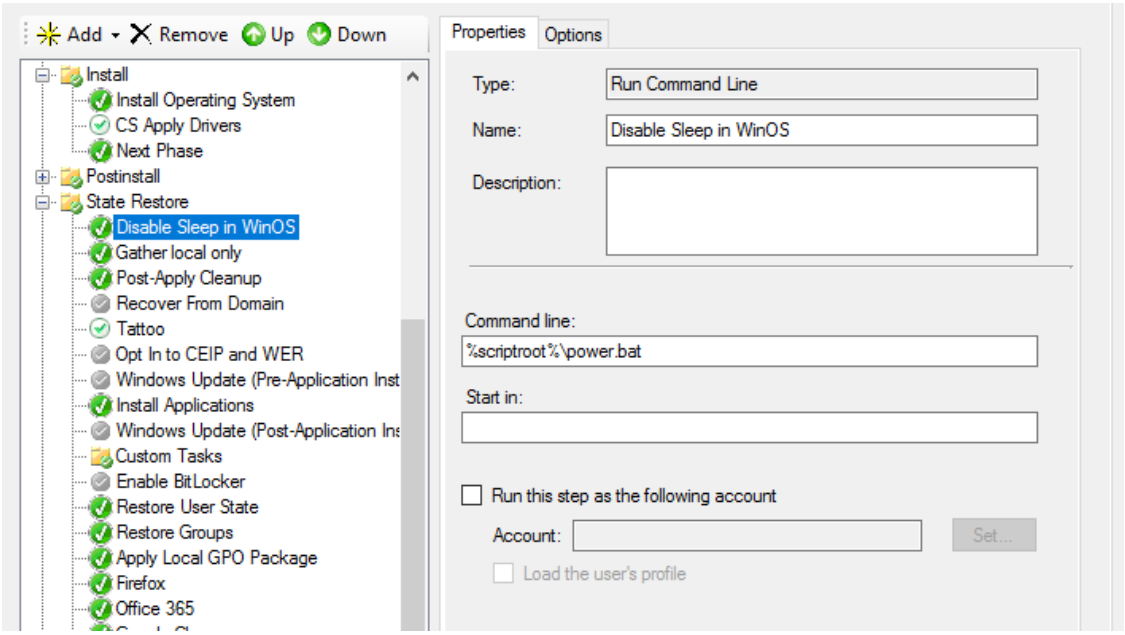


Return to Map

Disable Sleep in Win OS

Same task as the one run in PE but this will affect the Windows OS and will stop the machine from going to sleep while running in the factory. Note at the end of the task sequence there will be a task to reset the power scheme back to default.

- **Task Type:** Run Command line
- **Task Name:** Disable Sleep In WINOS
- **Command line: %scriptroot%\dell\power.bat**

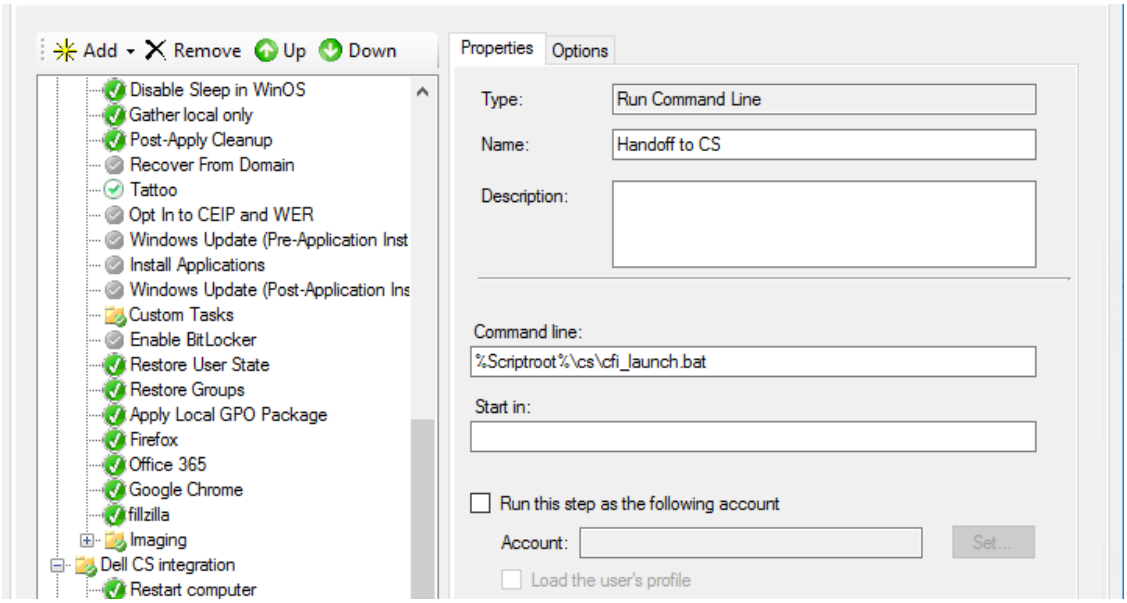


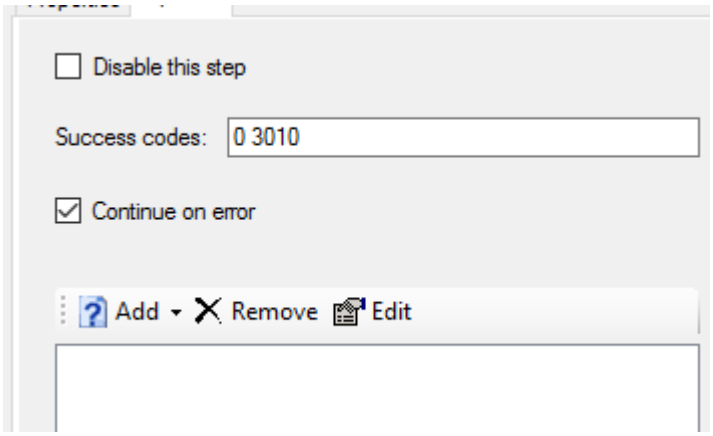
Return to Map

Hand off to CS Task

This is a required factory tasks. This task marks the end of the factory process and will pause the task sequence and shut down the machine so it can be shipped to you. When you turn on the task sequence the Power delivery Group will start running

- **Task Type:** Run Command line
- **Task Name:** Handoff to CS
- **Command line: %scriptroot%\CS\cfi_launch.bat**
- **Option tab Check Continue on error**



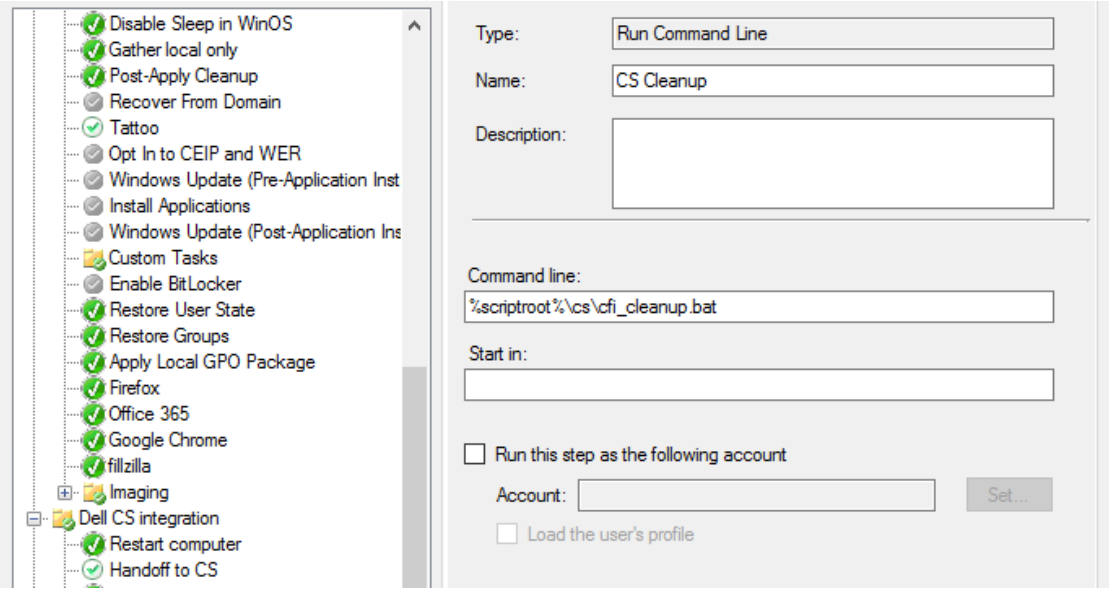


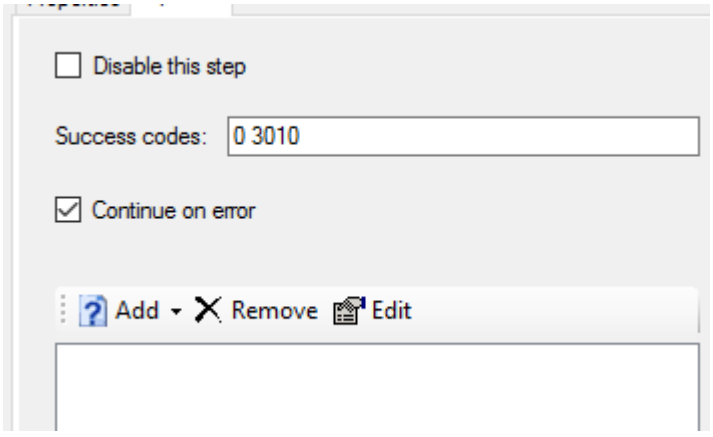
Return to Map

CS Cleanup

This task is the third and final factory task that cleans up the factory process once the machine is on Customer site.

- **Task Type:** Run Command line
- **Task Name:** CS Cleanup
- **Command line: %scriptroot%\CS\cfi_cleanup.bat**
- **Option tab Check Continue on error**



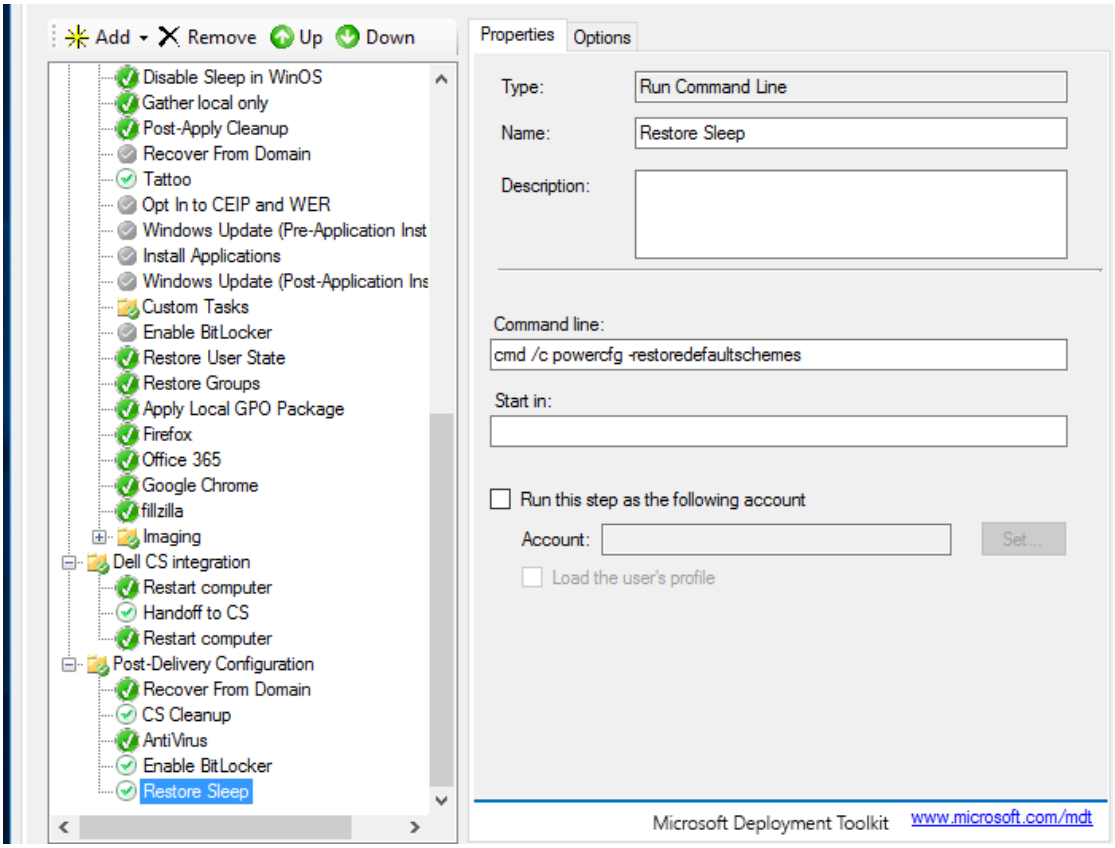


Return to Map

Restore Sleep

This task resets the previously modified power settings back to default settings.

- **Task Type:** Run Command line
- **Task Name:** Restore Sleep
- **Command line: cmd /c powercfg -restoredefaultschemes**



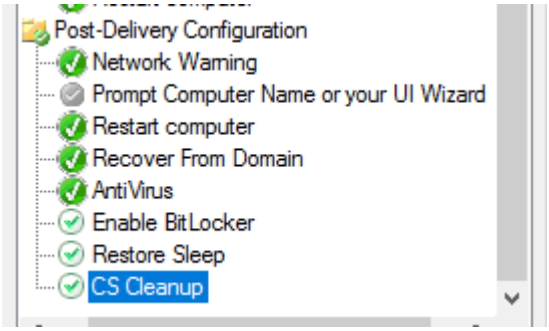
Return to Map

Post-Delivery Configuration

Include in this group any network dependent, user interactive, anti-virus, or security related installation tasks. Make sure all tasks in this group are configured with continue on error on the task not the group.

- **Network Warning:** This will pause the task sequence to verify a network connection.
- **Recover from Domain:** Runs while the system is connected to your network this task requires the following Variables to be set. JoinDomain, DomainAdmin, DomainAdminDomain, DomainAdminPassword.
- **CFI Cleanup:** Cleans up Dell Factory Files.
- Use the Post-Delivery group to install Anti-Virus/Endpoint client software
- Use the post- delivery group to run network required tasks.
- Use the post-delivery group to run tasks requiring user interaction.
- Use the Post-Delivery group to install VPN software
- Use the Post-Delivery group to run CCTK tasks to Modify the BIOS.

Sample Order Listed below. Remember to reboot computer after computer name change.



Chapter 4
Creating Deployment Media

Create a Custom Selection Profile for Dell

Deployment Media created from the MDT Workbench will be in the form of an ISO file. The ISO contains the deployment share's content folder which will be used for deployment in the Dell Factory.

Important

Selection profiles determine what files are included in the media uploaded. The Goal here is to include only files that will be required by the task sequence. To do this you must make sure you Categorize each Section by groups. Example under operating Systems you should have a group for each Version of the OS so you can only Include the group you are deploying in the Offline Media

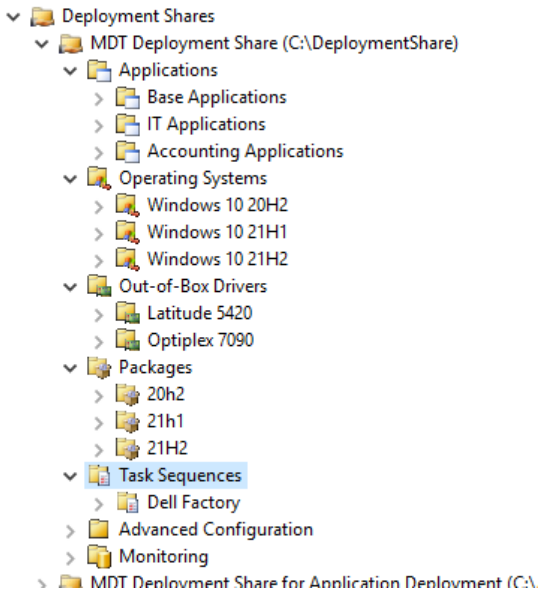
Step 1.

Go thru your Deployment share and create groups for your applications, Operating Systems, Drivers, and Packages. See screen shot below for example.

It is recommend to remove Old Applications or Create a Group and move them into the group so they are not added to the ISO. Example Multi Version of office can make the ISO large which could cause Corruption issues.

Note: Some Customers have just created new Deployment shares with only items that are needed for the Dell ISO so they dont affect there current Production Setup.

If you have any questions Contact your Assigned IMS Archtect to help with this step.

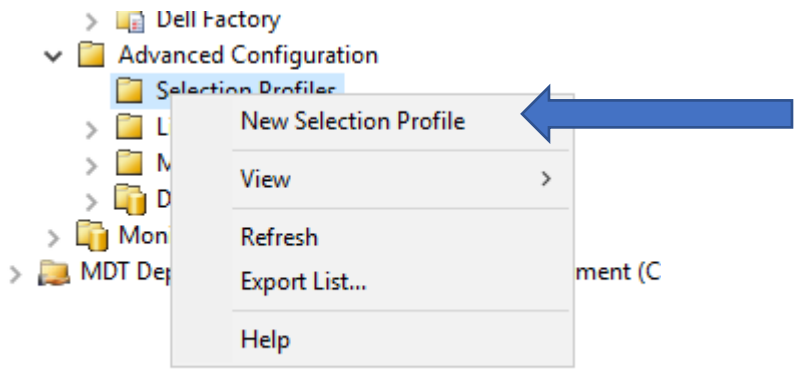


Selection Profile for Dell Step 2

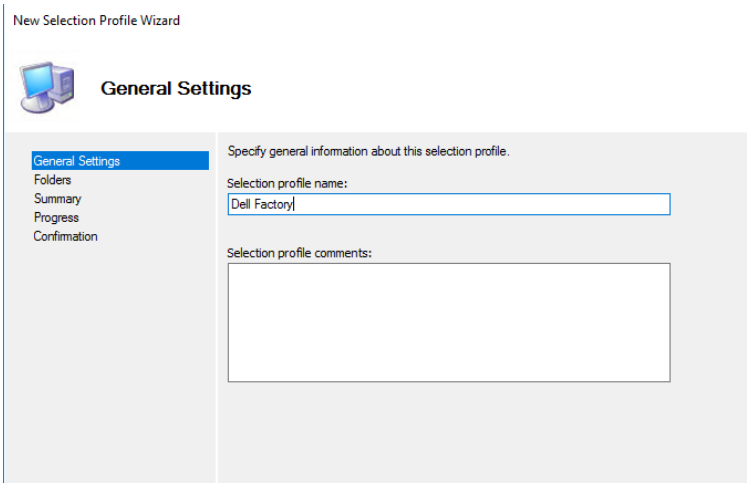
Step 2.

Once Folders are created go to Advanced Configuration and Selection profiles.

Right Click Selection Profile and click on New Selection Profile



Name the Profile Dell Factory and click next.

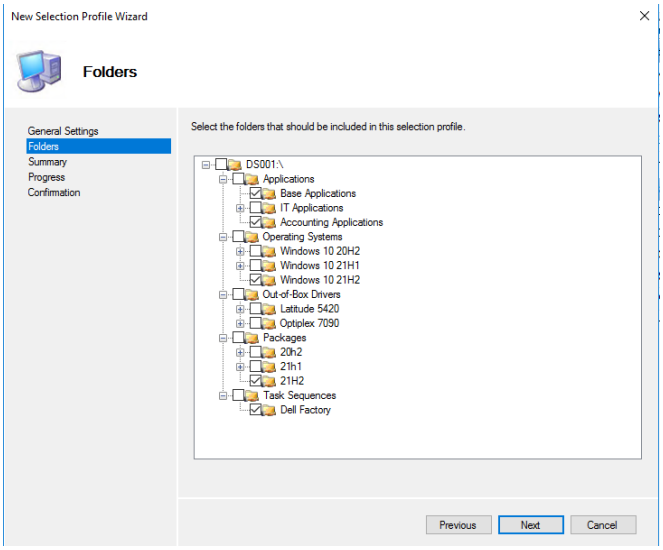


Selection Profile for Dell Step 3

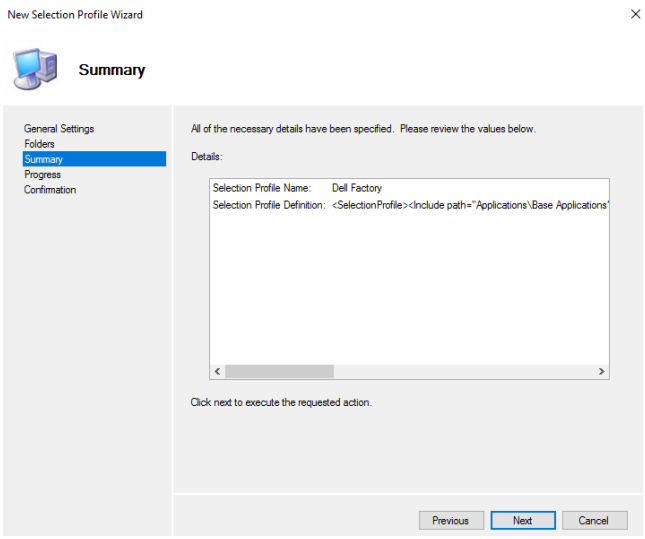
Check only the Items that will be deployed by the task sequence.

Driver injection will inlcude all drivers needed for deployment even PE so make sure no drivers are inlcuded in the Selection profile.

(Note if you want to manage your own drivers which is not recommned you can can choose the driver packages for the systems you are deploying.)

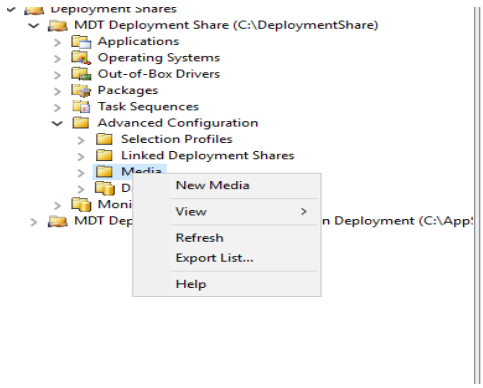


Click next and then Finish once done.



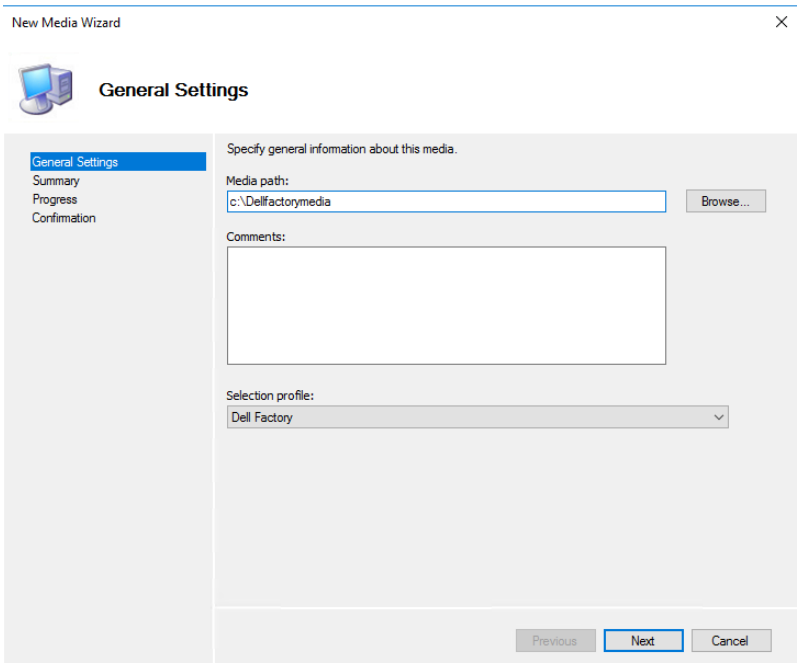
Create Media

To create new media go to Advanced configuration then media right click media and click new Media.



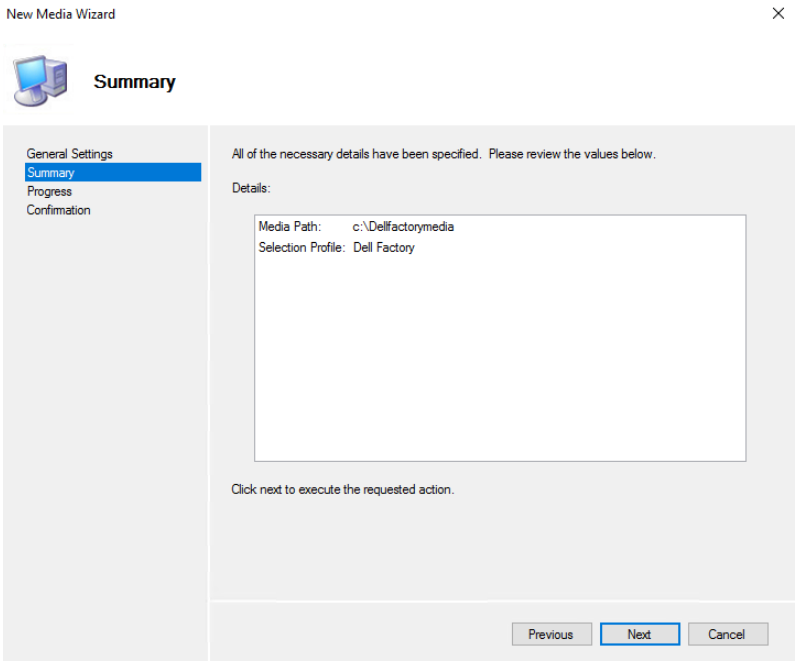
Specify the location were you copy the ISO file this location will contain the folder were the files are and the ISO so make sure you have enough free space .

The Select the Selection profile you created for Dell and then click next.

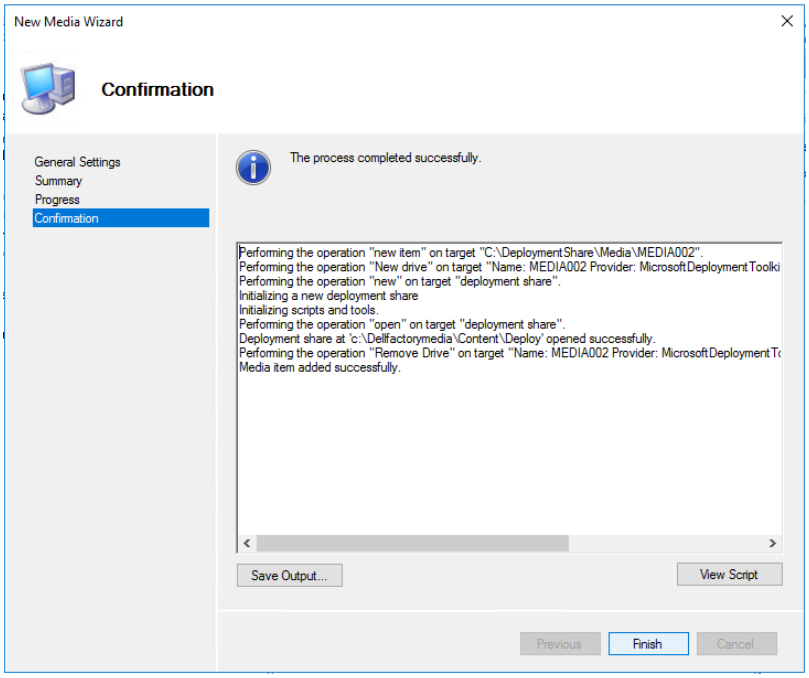


Create Media Step 2

Click next again and wait for the intial setup to complete.



Once Completed Click Finish.



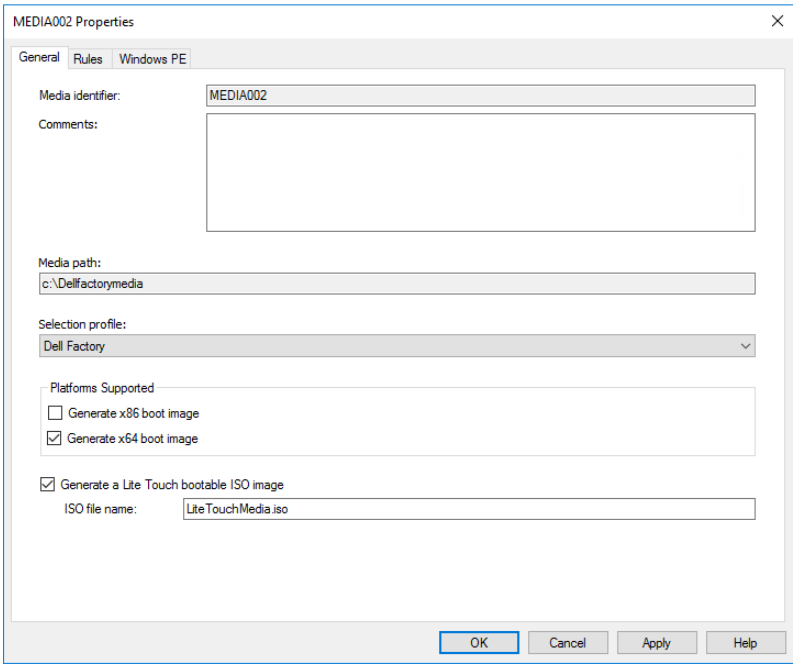
Create Media Step 3

Once the media is created. Go to the scripts\dell folder you created from the MDT Toolkit page and copy the customsettings.ini and Bootstrap.ini file from that folder to the mediapath\content\deploy\Control

Overwrite the files in the folder with the files form the scripts\dell folder.

Right click the media you created under media and click properties.

Remove the x86 boot image check and click the Rules tab.



Click on the Rules tab.

Create Media Step 4

Modify the Rules file with below changes. If you are not using the rules section to set the computer name you need to delete the OSDCOMPUTERNAME= line from below.

The bootstrap.ini is set correctly just confirm its configured the same as below

```
[Settings]
Priority=Default
Properties=MyCustomProperty, CFI

[Default]
OSInstall=Y
SkipWizard=YES
SkipApplications=YES
SkipAppsOnUpgrade=YES
SkipDeploymentType=YES
   DeploymentType=NEWCOMPUTER
SkipCapture=YES
SkipAdminPassword=YES
SkipProductKey=YES
SkipDomainMembership=YES
   JoinDomain=yourdomain.local
   DomainAdmin=Deployment_Account
   DomainAdminDomain=yourdomain
   DomainAdminPassword=PASSWORD
SkipUserData=YES
UserDataLocation=NONE
SkipTaskSequence=YES
   TaskSequenceID=Your_TS_ID
SkipComputerName=YES
   OSDComputerName=Variable if used
SkipPackageDisplay=YES
SkipLocaleSelection=YES
SkipTimeZone=YES
SkipBitLocker=YES
FinishAction=REBOOT
SkipSummary=YES
SkipFinalSummary=YES
CFI=TRUE
SkipBDDWelcome=YES
```

All four variables need to be completed for domain join to work .
This is for the domain join account.

Type in the task sequence id in this field

This will set the computer name you can delete this task if you are setting the name another way.

bootstrap.ini - Notepad

File Edit Format View Help

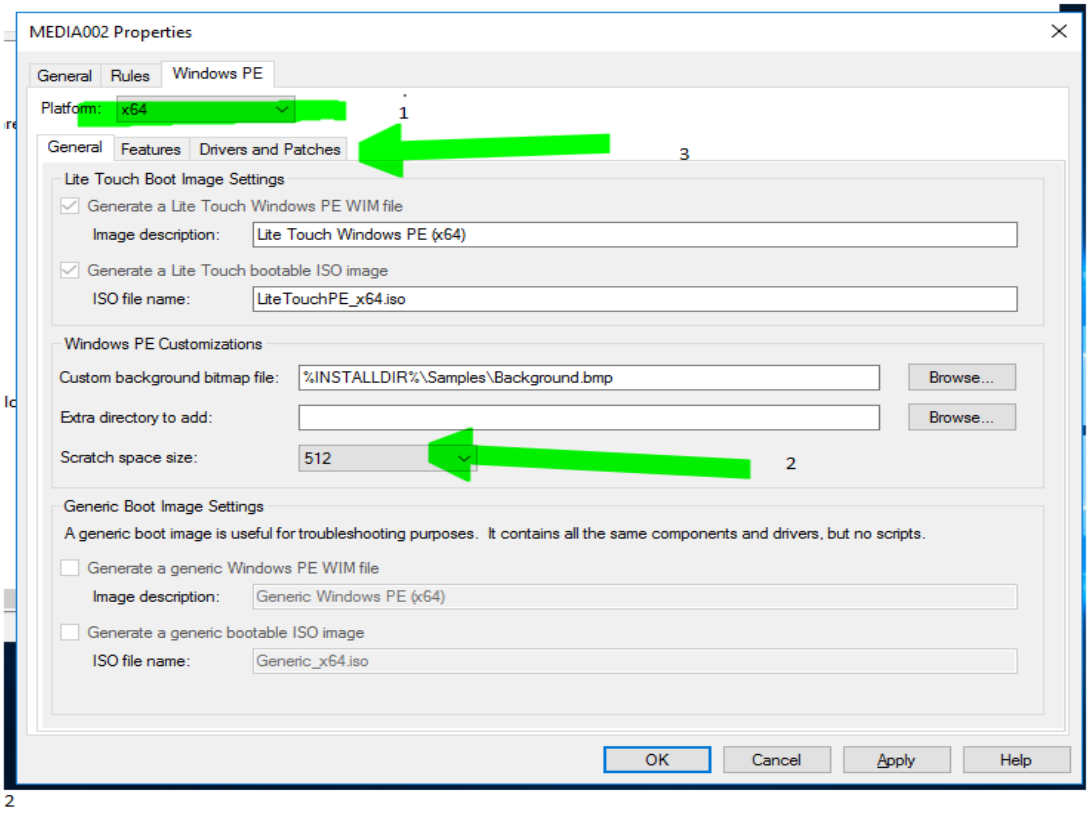
```
[Settings]
Priority=Default

[Default]
SkipBDDWelcome=YES
```

Create Media Step 5

Once done with the rules file click on the Windows PE Tab and select the x64 platform.

Change the scratch space size to largest size available.

Then click on the drivers and Patches tab.



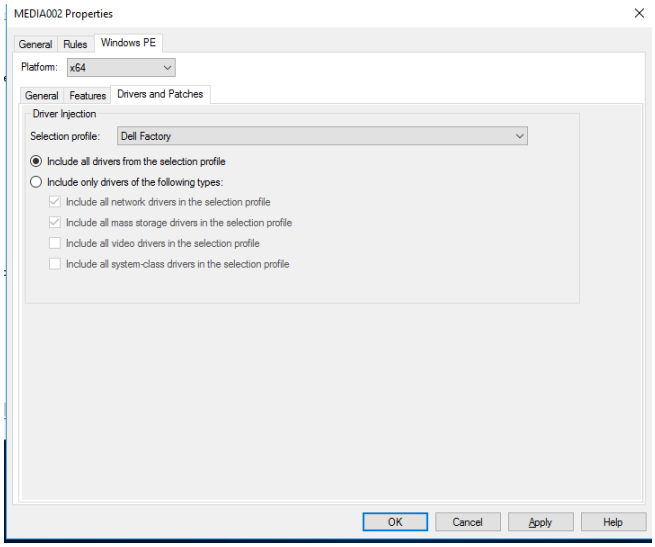
2

Create Media Step 6

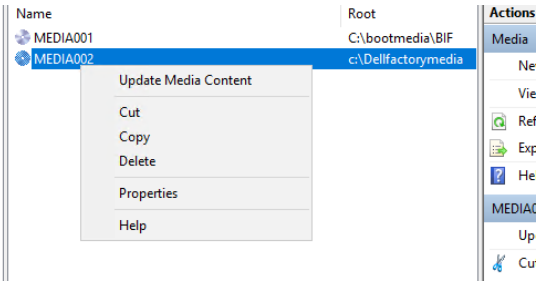
Change the selection profile to the Dell Factory.

Then click the include all drivers from the selection profile radio button.

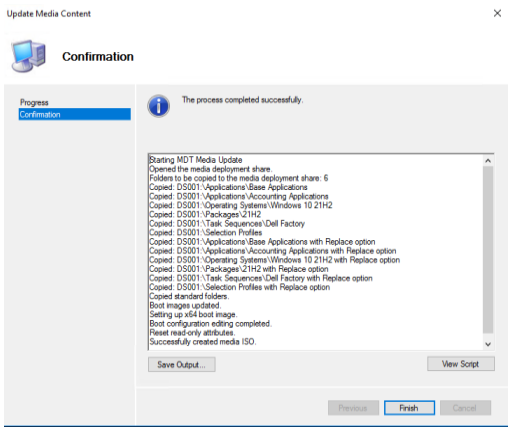
Once done click Apply and then Ok.



Now right click the media again and cilck Update Media Content.



Wait till its successful and you can find the ISO in the Folder you created for the media



Chapter 5
Testing Factory Media

Testing the Stand-alone Media

The Admin cannot replicate the entire Dell Factory process but is able to perform a simulation of the process that will identify potential failures. If the task sequence is like our example, which includes a network dependent post-delivery configuration group, media with a VM with NIC disabled for factory part and enabled on the customers network to test domain join.

Create and Prepare a Virtual Machine

Use the following specifications when creating the Virtual Machine

1) Hyper-V Generation 2 or VMWare Workstation 12+ with UEFI firmware type
2) CPU: 2 Cores
3) RAM: 4 GB
4) Network card enabled and accessible to infrastructure

Prepare the VM's Hard Drive prior to testing the ISO.

1) Boot VM to an instance of WinPE
2) Open a command prompt (F8)
3) Run the following commands:
4) Diskpart.exe
5) select disk 0
6) clean
7) convert gpt
8) create partition efi size=1000
9) format quick fs=fat32 label="System"
10) assign letter="S"
11) create partition msr size=128
12) create partition primary
13) format quick fs=ntfs label="Windows"
14) assign letter="c"
15) exit

Test the CFI Enabled ISO

1) Attach the CFI Enabled ISO to the Virtual Machine
2) Boot the Virtual Machine from the ISO file
3) Confirm that the Task Sequence runs as expected.
4) View the smsts.log, BDD.log and the ztiapplications.log for errors. As well as verify machine is setup successfully and joined to the domain if required and computer name is as expected.

Chapter 6
Optional Task Sequence customizations

Optional Computer Name Option 1

It is recommended you customize the computer name inside the task sequence. This document lists three of the most popular options for changing the computer name. All three scripts are included in the Dell Cfi Toolkit for convenience. Option one for MDT Task sequences is not a script but to modify the Customsettings.ini or Rules section to include Service tag or Asset tag in the computer name a few samples are below.

CustomSettings.ini - Notepad

File Edit Format View Help

```
[Settings]
Priority=Default
Properties=MyCustomProperty,CFI

[Default]
OSInstall=Y
_SMSTSOrgName=Windows 10 21H2  BIF Test Image
SkipWizard=YES
SkipApplicatons=Yes
SkipAppsonupgrade=Yes
SkipDeploymentType=Yes
SkipCapture=Yes
SkipAdminPassword=Yes
SkipProductkey=yes
SkipDomainmembership=Yes
SkipUserData=Yes
SkipTaskSequence=Yes
SkipComputername=Yes
SkipPackageDisplay=Yes
SkipLocaleSelection=Yes
SkipTimezone=Yes
SkipBitlocker=Yes
SkipSummary=Yes
SkipFinalSummary=No
OSDComputername=DELL-#Right("%serialnumber%",5)#
CFI=True
SkipBDDWelcome=Yes
DeploymentType=NEWCOMPUTER
JoinDomain=matt.local
DomainAdmin=administrator
```

CustomSettings.ini - Notepad

File Edit Format View Help

```
[Settings]
Priority=Default
Properties=MyCustomProperty,CFI

[Default]
OSInstall=Y
_SMSTSOrgName=Windows 10 21H2  BIF Test Image
SkipWizard=YES
SkipApplicatons=Yes
SkipAppsonupgrade=Yes
SkipDeploymentType=Yes
SkipCapture=Yes
SkipAdminPassword=Yes
SkipProductkey=yes
SkipDomainmembership=Yes
SkipUserData=Yes
SkipTaskSequence=Yes
SkipComputername=Yes
SkipPackageDisplay=Yes
SkipLocaleSelection=Yes
SkipTimezone=Yes
SkipBitlocker=Yes
SkipSummary=Yes
SkipFinalSummary=No
OSDComputername=DELL-#Right("%AssetTag%",5)#
CFI=True
SkipBDDWelcome=Yes
DeploymentType=NEWCOMPUTER
JoinDomain=matt.local
DomainAdmin=administrator
```

Setting to Asset Tag (note your project needs to be asset tagging systems in the factory for this to work)

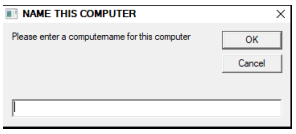
OSDComputerName=DELL-#Right("%AssetTag%",5)# Computername would be Dell-Asssettag

Setting to Service Tag

OSDComputerName=DELL-#Right("%SerialNumber%",5)# Computer name would be Dell- First 5 of Serial number

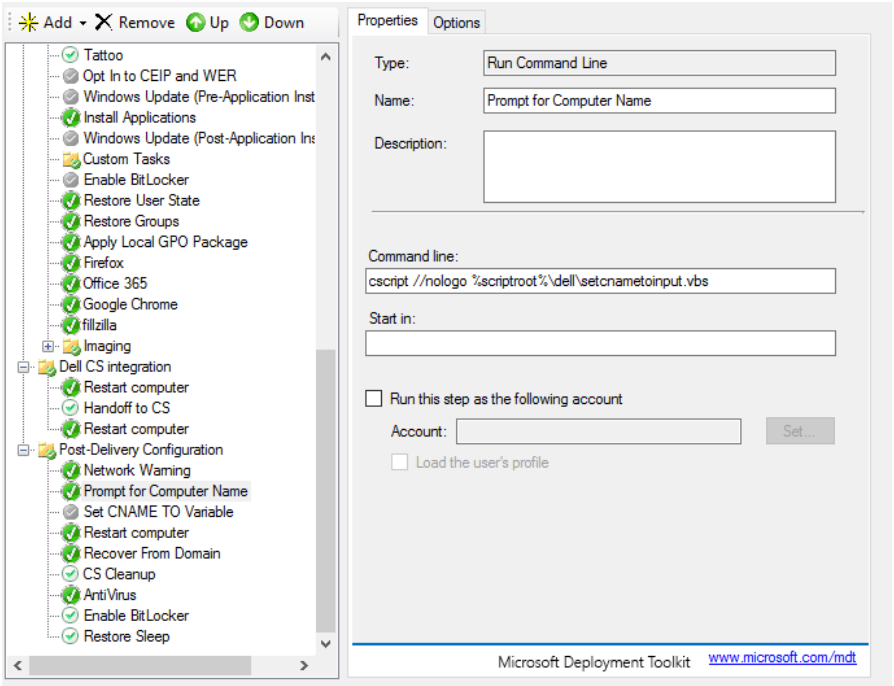
(Optional)Computer Naming Option 2

This script is handy for computer name standards that are too difficult to automate. It needs to run in post delivery and will pop up a box for you to type the computer name in. Once you click ok the task will change the name of the system to what you typed in. You must add a Restart computer task after this task

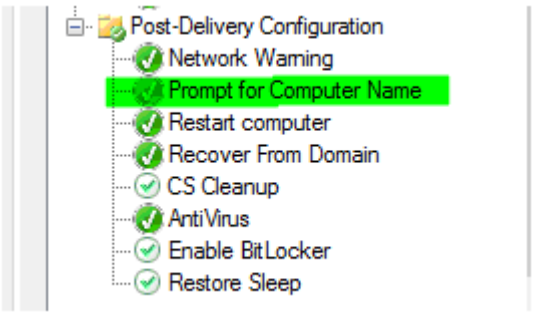


1. **Type:** Run Command Line
2. **Name:** Prompt for Computer Name
3. **Command line:** cscript //nologo %scriptroot%\dell\setcnametoinput.vbs

Note the script is included with the toolkit see page for reference to Toolkit setup.



Place this task in Post Delivery. I would do it right after network warning or close to it but before domain join. Place a restart computer task after this task.

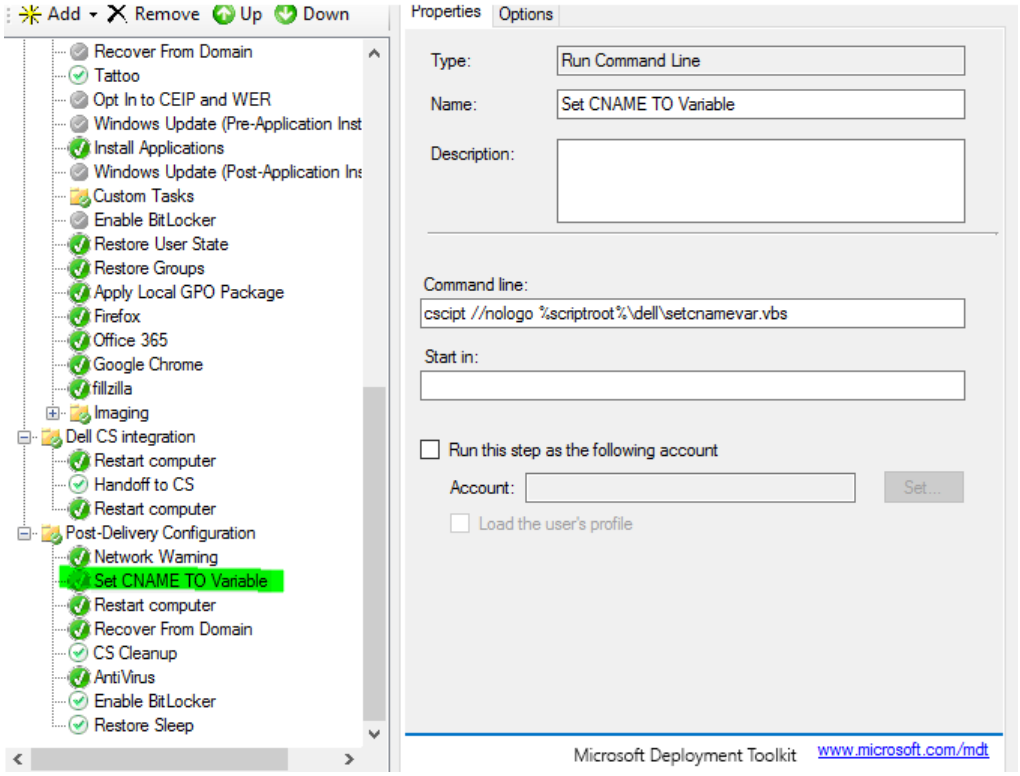


(Optional)Computer Naming Option 3

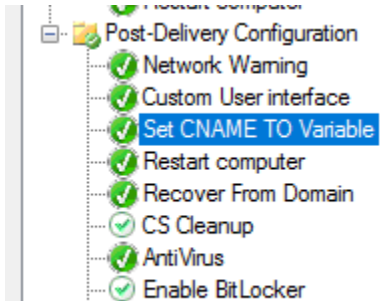
This script is used to change the computer name of the system running the task sequence to what is in the OSDCOMPUTERNAME Variable. Most user interfaces (UI) will run in the beginning of the task sequence and set the OSDCOMPUTERNAME variable and rely on sysprep process to make the change on the computer. Since we need to move the UI to post delivery after sysprep runs in boot in the factory task sequences we can run this script after the user interface task to make the changes for you. This script changes the computer name of the system to what is set in the OSDCOMPUTERNAME Variable. This task needs a restart computer task added after it.

Note: talk to your IMS Solutions Architect for help with building the User interface if need.

1. **Type:** Run Command Line
2. **Name:** change computer name to variable
3. **Command line:** cscript //nologo %scriptroot%\dell\setcnamevar.vbs



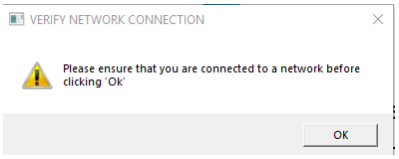
Place this task in Post Delivery Section. And after your User interface. Place a restart computer task after this task .



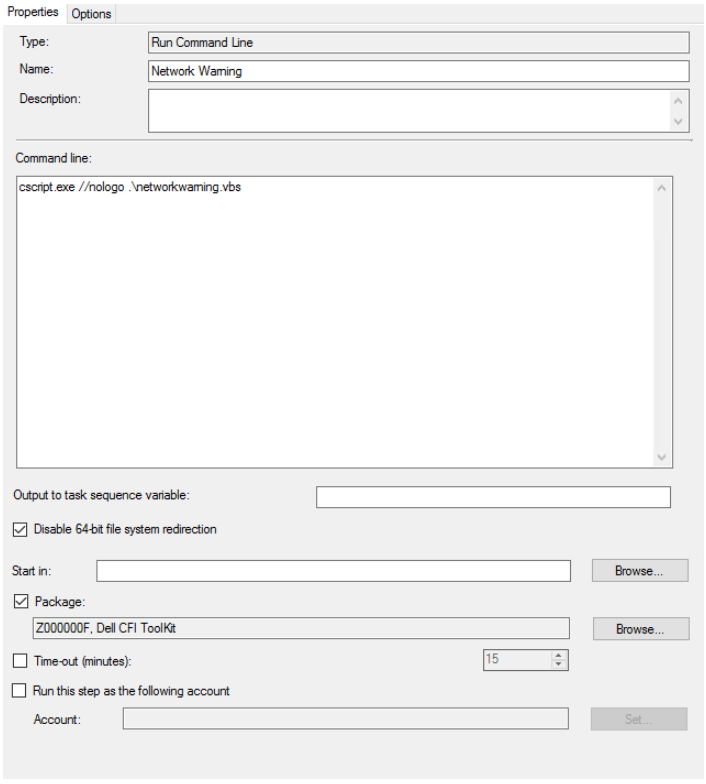
(Optional) Network Warning message

(Optional But recommend)

This task will put a message box on the screen reminding the person turning the machine on to plug a network cable into the machine so the task sequence will not fail and need reimaged. It will sit at this screen till ok button is clicked.



1) **Type:** Create a Run Command line task
2) **Command line:** cscript.exe //nologo .\networkwarning.vbs
3) **Disable in 64 Bit Redirection:** Check this box.
4) **Package: Choose the Dell Tool Kit Package**



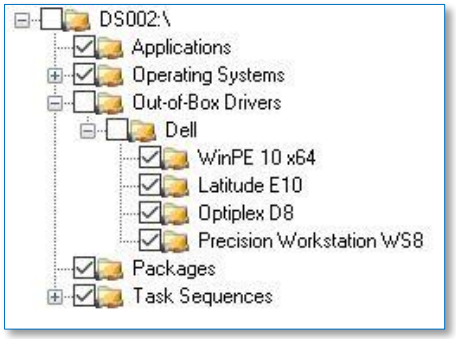
Return to Map

Optional Adding drivers for Dell Factory Use

99% of our customers use Driver injection so Drivers are not needed to be added to the ISO that is uploaded but some customers might prefer to control the driver versions used and this section is for you.

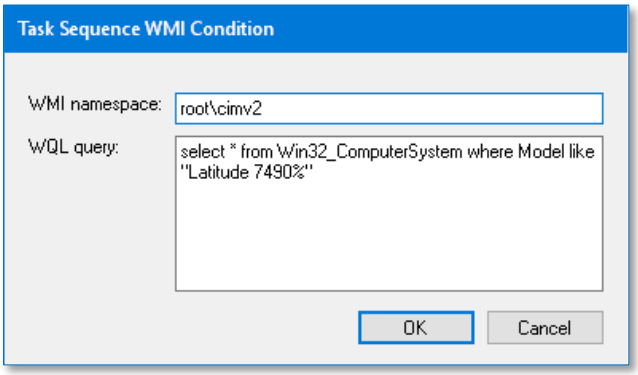
Drivers will be in either the form of a package that contains .INF files or as an application that you must install. Model specific and Family Driver Packs can be obtained here. Refer to the Model Matrix for a list of models supported per Family driver package.

1) Import driver .INF files into the Out-Of-Box Drivers node in the Deployment Workbench
2) Use the MDT install application process for driver MSI or setup.exe files as you would any other application
3) Create selection profiles to select device drivers during deployments
   - » If a higher folder structure is selected, then more device drivers are included but an Admin will have less granular control over device drivers deployed
   - » If a lower folder structure is selected then fewer device drivers are included, giving the Admin more granular control over the device drivers deployed.
4) Use selection profile names that allow you to easily identify the device drivers included in them, such as Dell Latitude E10 Series x64 Family Drivers, Dell Latitude 7480 x64 Drivers and WinPE 10 x64 Drivers.



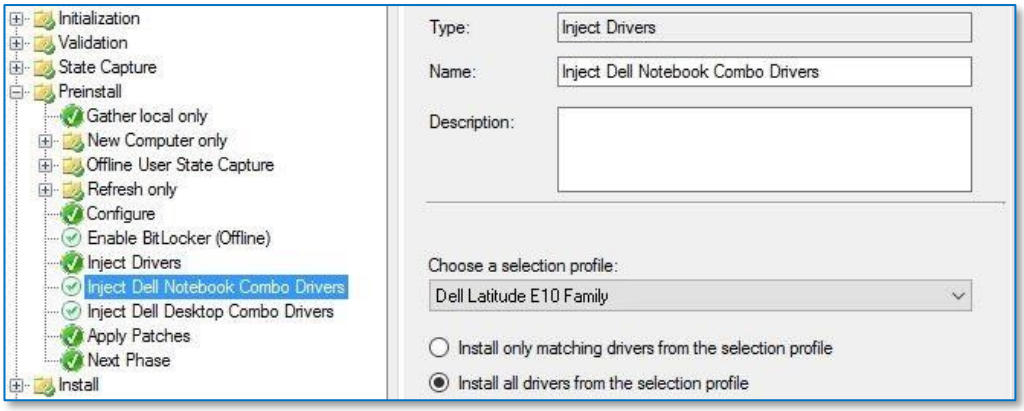
5) Integrate conditions to apply drivers with the use of WMI Queries as shown below:

   - » Select * from **Win32_ComputerSystem** where Model like “Latitude 7490%”



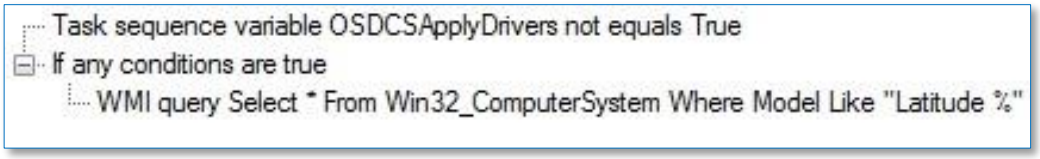
Adding drivers Continued

1) Open the **MDT Deployment Workbench**
2) Expand **Deployment Shares** folder structure
3) Expand the **Deployment Share intended for use** in the Dell Factory
4) Expand the **Task Sequences** folder structure
5) In the main pane, **Right Click** the **Task Sequence intended for use** in the Dell Factory > **Properties** > **Task Sequence tab**
6) Expand the **Pre-Install Group Task** > Select **Configure**
7) Click **Add** > **General** > **Inject Drivers**
8) Click the **Properties** tab, enter the following:
   - » At **Name**, type a description of the model's **Driver Package**
     - Example: **Inject Dell Notebook Combo Drivers**
   - » At **Description**, type the **driver model**
   - » At **Choose a Selection Profile**, Select the **model driver profile** from the **drop-down list created in previous steps**
9) Select **"Install all drivers from the selection profile"**



Apply Conditional Statement

1) Click the **Options Tab**
2) Click **Add** > **Query WMI**
3) At **WQL Input**, type a conditional statement correlating to the model type:
   - » **Select * From Win32_ComputerSystem Where Model Like "Latitude %"**
4) Click the **"Continue on error"** box
5) Click **OK** > **Apply**

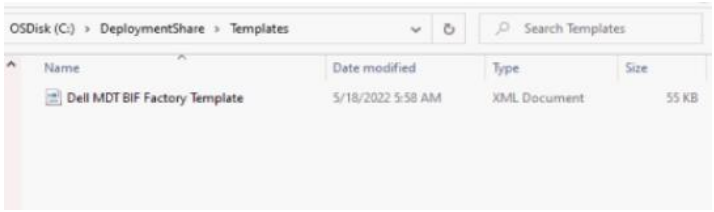


Do not include drivers if you intend to leverage Dell's Dynamic Driver Injection feature. Dell Dynamic Driver Injection instructions can be found on page 18.

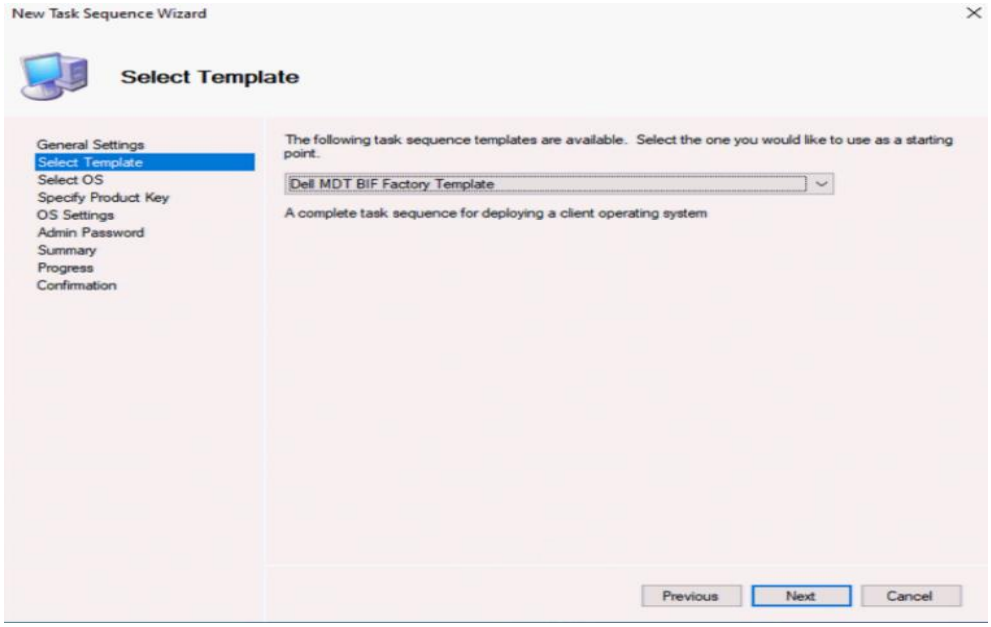
Building a Factory Task sequence from Dell Template

You can build out a New task sequence with all the Dell Tasks already added for you to use as a reference to adjust your customer image or can be modified with your customizations to be used as the task sequence that runs in the Dell Factory.

Copy the Template from the Script\Dell Folder built out by the Toolkit step on page 11. To the DeploymentShare\Templates folder.



Once file is copied You can just build a new task sequence and select Dell MDT BIF Factory Template from the Template Drop down list.



Adding a Recovery partition

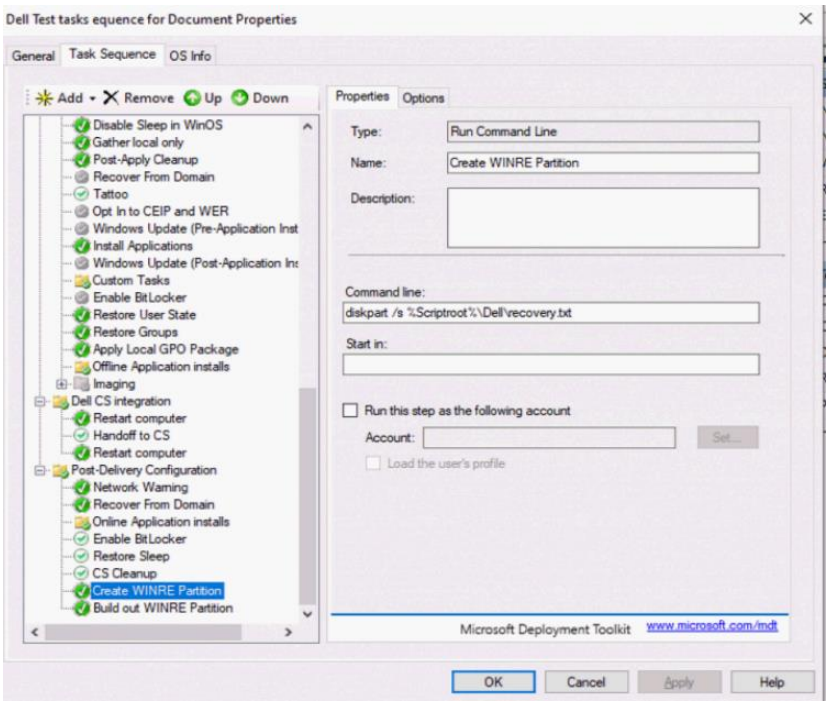
Due to the Dell factory process we can only use a single primary partition solution for all systems shipped out of the factory. You can In the post delivery section add a Windows WinRE partition if your company would like one. All required files need to create this partition are in the Toolkit directory.

Note: This process creates the partition and populates it. This is a Sample of what you can do. You need to test and make sure this is working in your environment and all needed drivers are on the Partition. Any updated to windows could corrupt the initial build.

```
Partition ###  Type              Size     Offset
-------------  ----------------  -------  -------
Partition 1    System            2048 MB  1024 KB
Partition 2    Reserved           128 MB  2049 MB
Partition 3    Primary            463 GB  2177 MB
```

Create a run command line task. Which will shrink the c drive and create the recovery partition.

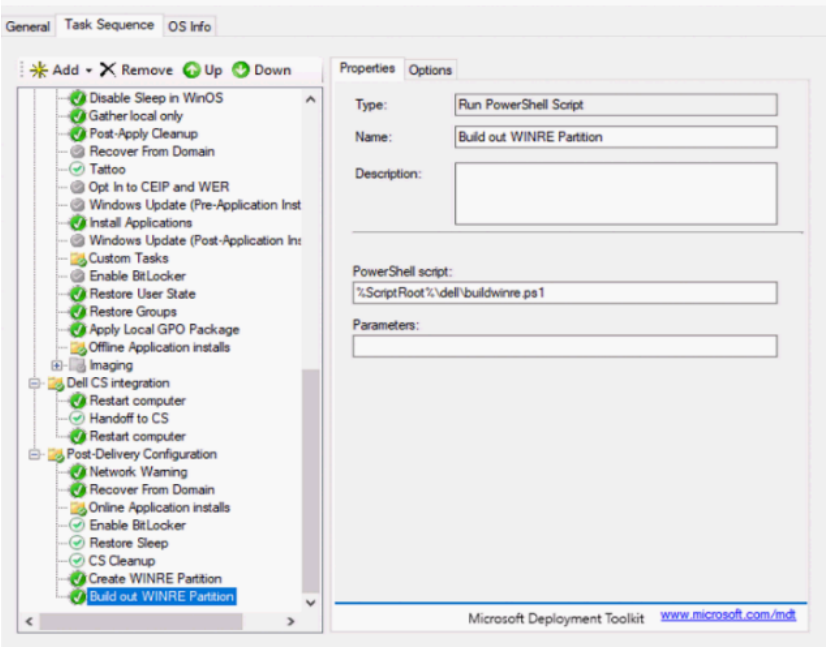
Command line: diskpart /s %scriptroot%\dell\recovery.txt



Recover partition continued

Next add a Run Powershell Script task right after the create partition task.

Command line: %ScriptRoot%\Dell\buildwinre.ps1



Lastly Test the recovery make sure it is working in your environment.

Chapter 7
Final Check List

Dell's Factory Readiness Checklist

The Factory Readiness Checklist is here for final review before scheduling the Meeting with your IMS Engineer to review the task sequence and then Upload.

Please make sure you review this list before uploading to dell.

MDT Boot in the Factory requirements

☐ You established the variable CFI=TRUE in the Media's Deployment rules. (customsetting.ini)
☐ If you require Asset tag to be in bios for computer name script make sure you notify the project manager so they can add it to the project.
☐ Dell Factory only support MDT Version 6.3.8456.1000 and newer.
☐ You set SkipBDDWelcome=YES in both the Media's Deployment rules and Bootstrap.ini.
☐ You created an "Initialize CS" task and set the run command from within the "Dell CS Entry" group.
☐ If your task sequence is joining a domain, then the "Recover from Domain" task is present in the "Post-Delivery Configuration" group. Following Variables are set JoinDomain, DomainAdmin, DomainAdminDomain, DomainAdminPassword.

☐ There is a "Restart Computer" task following and before the "Handoff to CS" task.
☐ There is a "Continue on Error" established **on each individual task** within the "Post-Deployment Configuration" group.
☐ You created selection profiles which included only files you need to be to run in the task sequence.
☐ Your Application installations staged in the "State Restore" group do not require network connectivity.
☐ Your Media's Deployment rules are configured to skip all wizards at the beginning of the deployment.
☐ You used the default naming convention for the MDT WinPE wim file(LiteTouchPE_x64)
☐ Your WinPE Scratch Space is set to 512MB.
☐ You generated a 64bit boot image for a 64bit OS Deployment
☐ Your unattend.xml skips Wireless Setup configuration screen when in OOBE phase (HideWirelessSetupInOOBE=TRUE) This is a default configuration, but good to check.
☐ You have tested your deployment media on a VM Verified Domain join and applications install.
☐ You reviewed the bdd.log and the ztiapplications.log and there are no errors.
☐ Antivirus and Security software is set to install in the Post-Delivery Configuration group and not in the factory.
☐ Encryption is set to activate in Post-Delivery Configuration group
☐ Pre-Provision Bitlocker is disabled.
☐ You are not leveraging utilities to modify the BIOS prior to the "Post Delivery Configuration" group of the Task Sequence
☐ You are running the power.bat (sleep script) in PE and OS Phase in factory.

If you are leveraging Dell's Dynamic Driver Injection process…

☐ You created a "CS Apply Drivers" run command line task in the Install group
☐ Default Driver Injection tasks are disabled or set to CFI not equals True
☐ No drivers are selected in Selection profile.

If you require BitLocker as part of your deployment…

☐ You added a CFI≠TRUE condition to the "Enable BitLocker" task within the State Restore group.
☐ You created an "Enable BitLocker" task as the final task within the "Post-Deployment Configuration" group.
☐ You modified the Media's Deployment rules with the following:

```
SkipBitLocker=YES
BDEInstall=TPM
BDEInstallSuppress=NO
BDEWaitForEncryption=FALSE
BDEDriveSize=500
BDEDriveLetter=S:
BDEKeyLocation=C:
```