Microsoft® Deployment Toolkit 2013
Dell Factory Integration

User Guide December 2015

Introduction to MDT 2013 OSD in Dell Factories

Microsoft® Deployment Toolkit 2013 (MDT) provides a common console with a comprehensive toolset for Operating System Deployments (OSD). MDT 2013 is a recommended process and toolset to create and modify images for client and server systems.

MDT OSD Dell Factory pre-load options include:

- **Initiate task sequence during Dell's Factory process** (before shipment). Reduces deployment time by pre-loading the OSD and by running most of the task sequence within the Dell factory. PC deployment network bandwidth usage is also greatly reduced. This document focuses on this option, how to integrate your task sequence with Dell's factory process (enabling the task sequence to run within Dell's factory process).

- **Initiate task sequence on first boot** (after receiving the system). Saves time and network bandwidth required to download the OSD to each system on-site. 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 Task Sequence Execution on first boot:
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 2013 (including Update 1) by enabling a single source provisioning solution for all Windows 7, 8 and 10 OS deployment scenarios.

Administrators can also leverage MDT 2013 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 2013 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 stand-alone media builds from an MDT 2013 Task Sequence

Configuration Services MDT 2013 OSD Process Overview

The following process outlines the basic steps required to integrate an MDT 2013 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 2013 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 2013 deployment media.

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 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

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

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

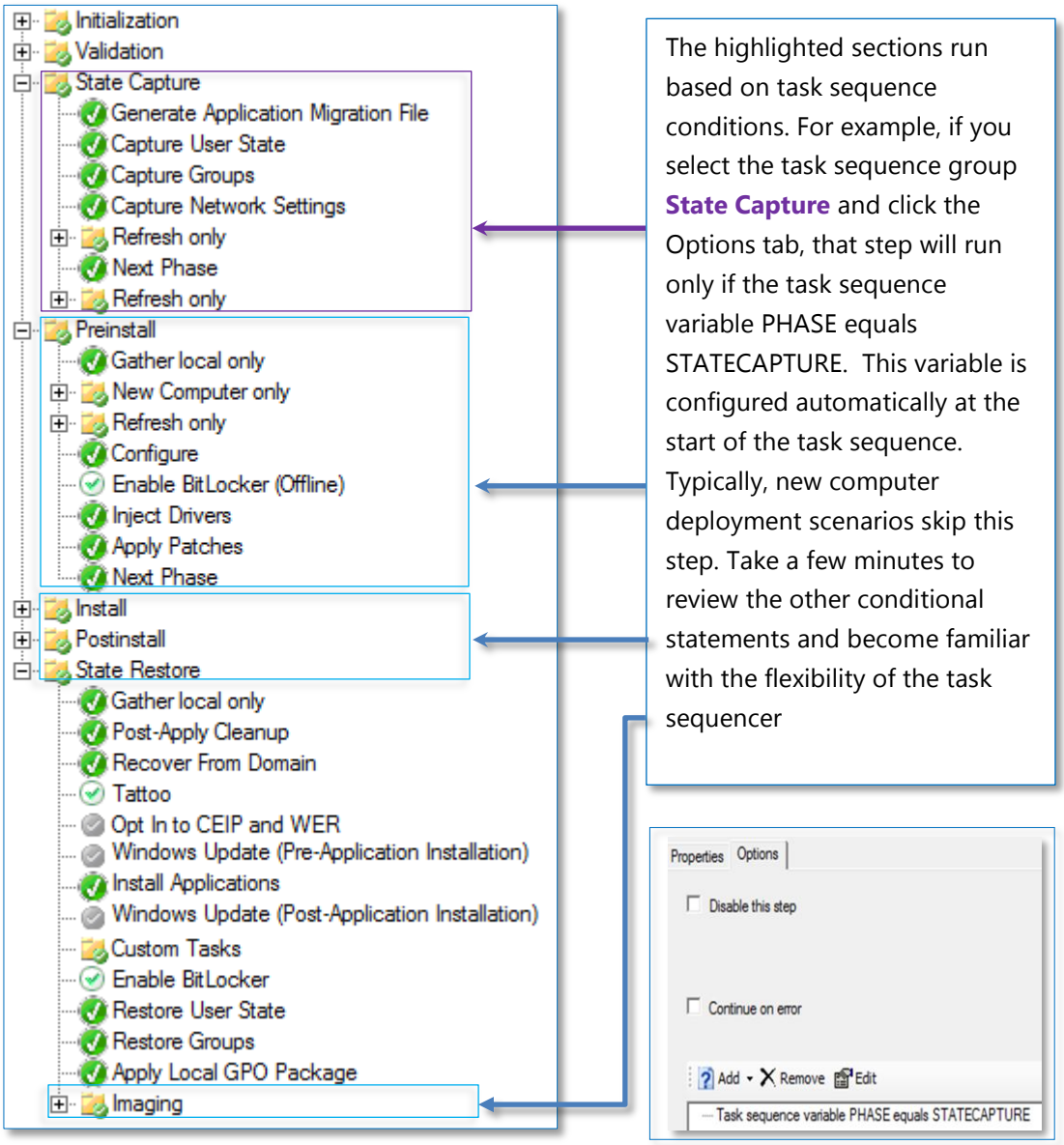
Configuring a Standalone Media Build

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

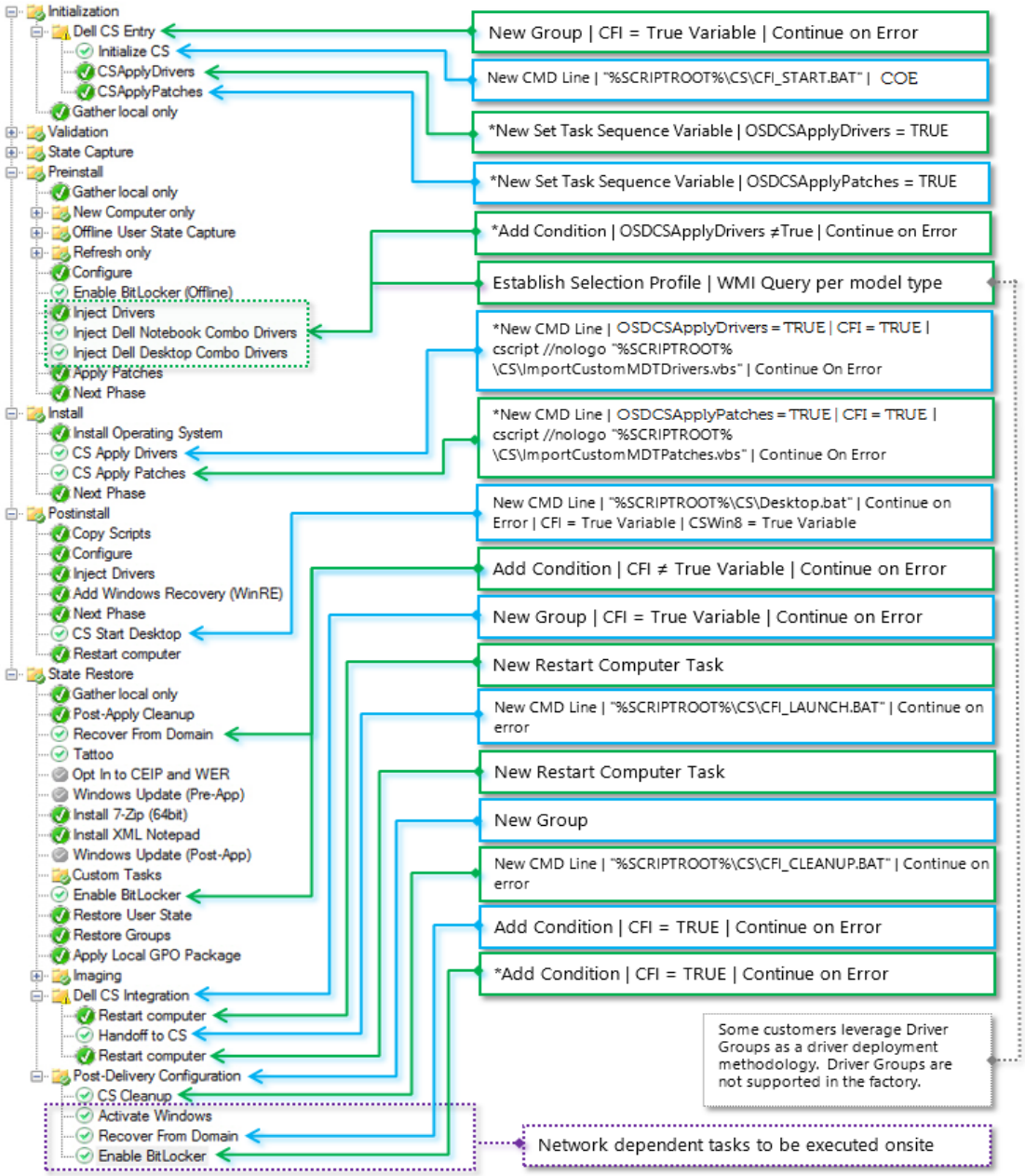
A Standard Task Sequence is created when you select the Standard Client Task Sequence Template to modify your existing task sequence.

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



The highlighted sections run based on task sequence conditions. For example, if you select the task sequence group **State Capture** and click the Options tab, that step will run only if the task sequence variable PHASE equals STATECAPTURE. This variable is configured automatically at the start of the task sequence. Typically, new computer deployment scenarios skip this step. Take a few minutes to review the other conditional statements and become familiar with the flexibility of the task sequencer

CS Enabled MDT 2013 OS Deployment Map



This map illustrates what actions are required in order to enable a current OSD task sequence for Dell factory integration. The map should be used as a quick reference when configuring a task sequence with the Dell factory process.

Admins are not required to implement tasks noted with an asterisk. The asterisk represents optional factory features for dynamic factory capabilities. These capabilities will be detailed in the "Advanced Features section of this White Paper. Dell recommends that the Admin establishes a task sequence variable "CFI" to control when tasks will be run, and when tasks will be skipped (e.g., skip these tasks when CFI ≠ TRUE).

All software packages must be enabled for offline deployment during the factory process. The system will be running the Task Sequence in the factory without network connectivity. If you have a package that requires connectivity to your network infrastructure then simply move the task to the "Post-Delivery Configuration" group. This task group will execute when the system is turned on and boots to the operating system for the first time after delivery.

Dell recommends that Driver Groups are not leveraged for Driver Injection tasks.

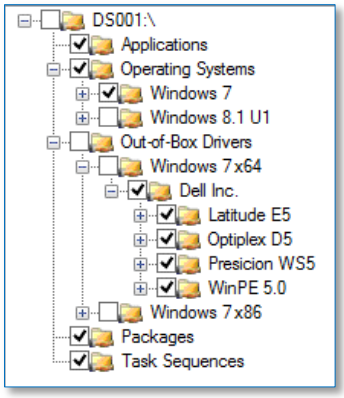
Adding drivers to Support Models ordered from the Dell Factory

Add required drivers

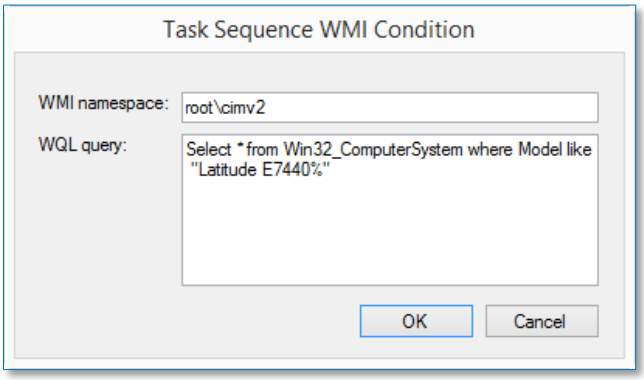
Drivers will be in either the form of a package that contains .INF files or as an application that you must install. Model specific driver packages and Family cabs can be obtained from Dell TechCenter. Refer to the Model Matrix for a list of models supported per Family cab.

Note: To ensure proper support for 512e Advanced Format drives see www.dell.com/512e-drives

1) Import driver .INF files into the Out-Of-Box Drivers node in the Deployment Workbench
2) Use the MDT 2013 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 E5 Series x64 Family Drivers, Dell Latitude E7440 x64 Drivers, WinPE 5.0 x64 Drivers, WinPE 5.0 x86 Drivers.



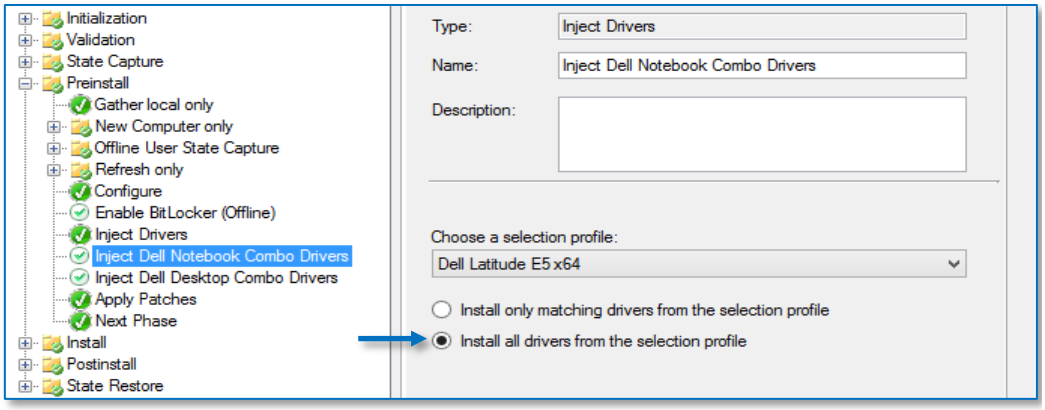
5) Integrate conditions to apply drivers with the use of WMI Queries as shown below:
   - » If any conditions are true:
   - » select * from **Win32_ComputerSystem** where Model like "Latitude E7440%"



Applying drivers to Support Models ordered from the Dell Factory

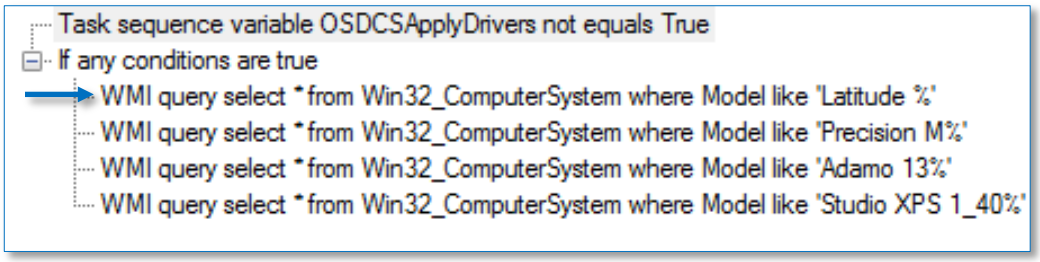
Apply Driver Package

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**

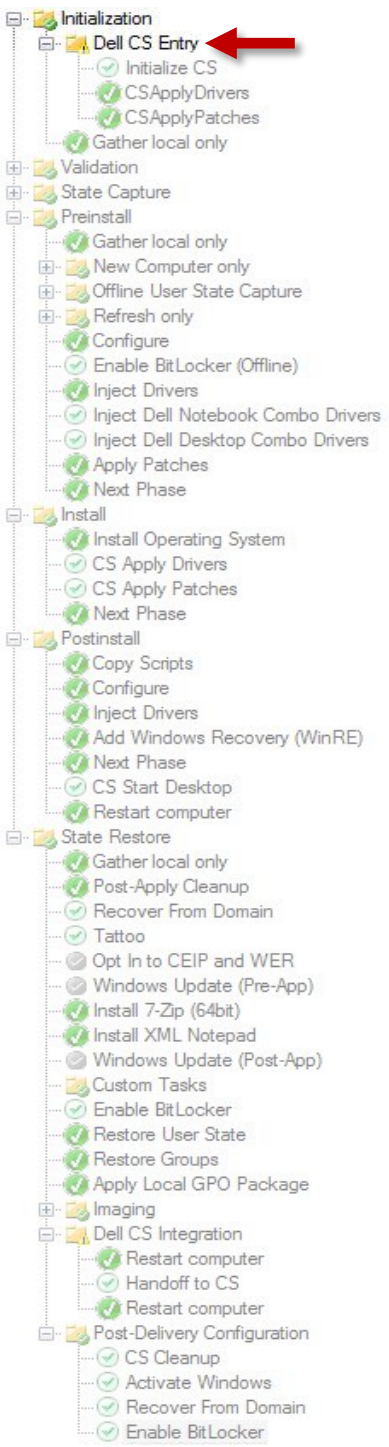


Repeat these steps for each model type to be imaged in the Dell Factory

Configure Dell CS Initialization

The Dell CS Entry group is placed at the beginning of your existing task sequence within the Initialization Group and consists of one primary section.

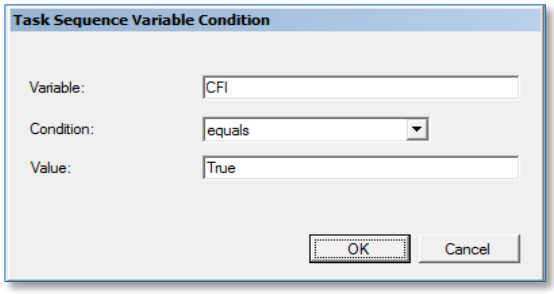
CS Initialization | CS Integration | CS Handoff | Post-Delivery

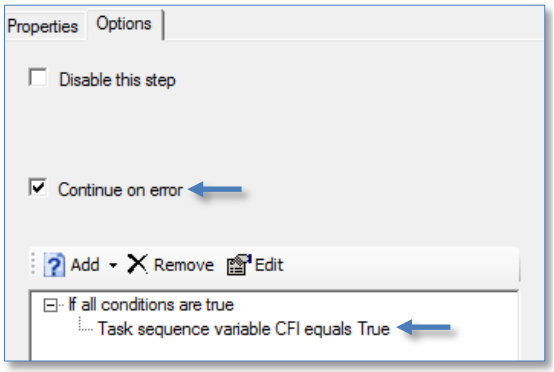


Create Group – Dell CS Entry

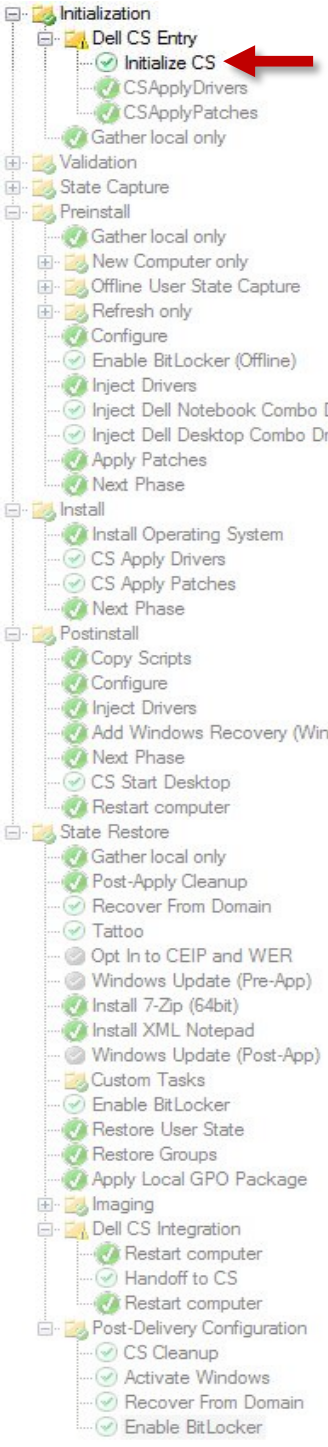
From the Microsoft Deployment Toolkit navigational pane, locate the task sequence to integrate with Dell's factory process.

1) Task Sequence Editor, Select Initialization:
   - » Click **Add > New Group**
   - » At Name type, **Dell CS Entry**
2) Click **Options** tab
3) Check the "**Continue on error box**"
4) Click **Options** tab > **Add Conditions > If Statement > All Conditions**
5) Click OK, and then select the created **If Statement** for proper nesting
6) Click **Add Conditions**
   - » Variable = **CFI**
   - » Condition = **Equals**
   - » Value = **True**
7) Click **OK > Apply**





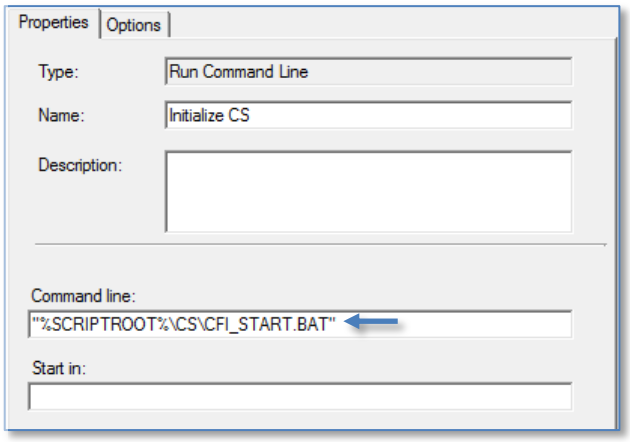
Configure Dell CS Initialization

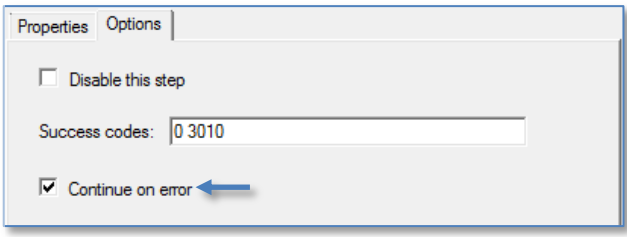


Initialize Configuration Services

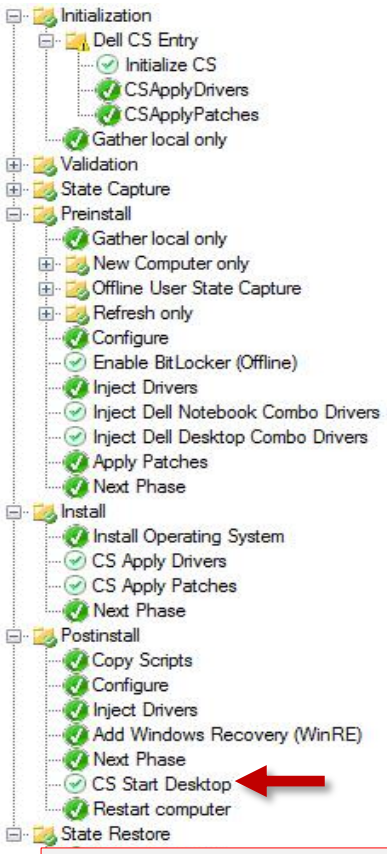
Initialize CS copies factory integration files to the system for initial build dependencies. Create a Run Command Line Task Sequence Step called Initialize CS, as shown below. Initialize CS should be nested in the Dell CS Entry group.

1) Task Sequence Editor, Select Dell CS Entry
2) Click **Add > General > Run Command Line**
3) At **Properties** tab, enter the following:
4) At **Name**, type **Initialize CS**
5) At **Command Line**, type: **"%SCRIPTROOT%\CS\CFI_START.BAT"**
6) Click the **Options** tab
7) **Check** the "**Continue on error"** box





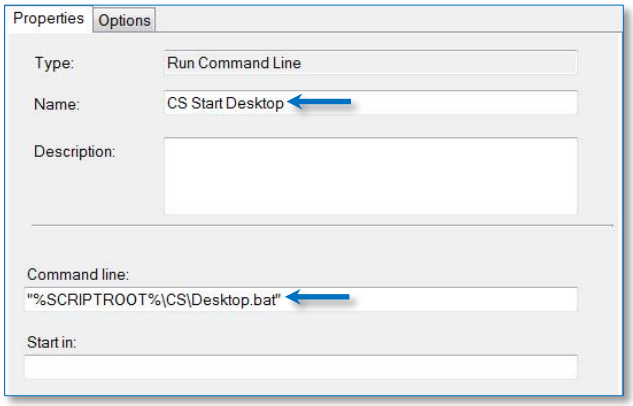
Windows 8.1 Update 1 Configuration

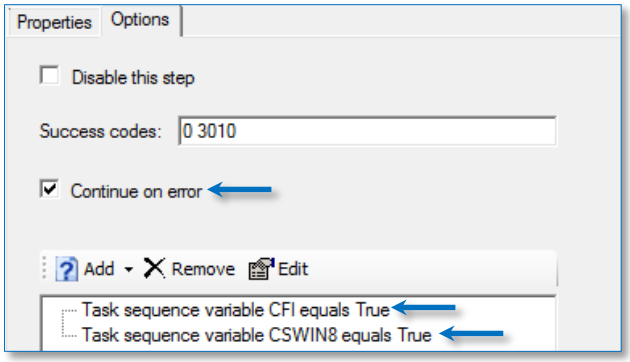


Windows 8 Desktop Initialization Task

The "CS Start Desktop" task is a Dell Factory requirement for **Windows 8.1 Update 1+ OS deployments**. Create a Run Command Line Task Sequence Step called CS Start Desktop, as shown below. CS Start Desktop should be nested in the Postinstall group. This step is **not needed** if deploying the **Windows 10** OS

1) Task Sequence Editor > Postinstall Group > Select "Next Phase"
2) Click **Add > General > Run Command Line**
3) At **Properties** tab, enter the following:
   - » At **Name**, type **CS Start Desktop**
   - » At **Command Line**, type **"%SCRIPTROOT%\CS\Desktop.bat"**
4) Create a **Task Sequence Variable**
   - » At **Name**, type **CFI**
   - » At **Condition**, Select **Equals**
   - » At **Value**, type **True**
5) Create a **Task Sequence Variable**
   - » At **Name**, type **CSWIN8**
   - » At **Condition**, Select **Equals**
   - » At **Value**, type **True**





Windows 8.1 Deployment Rules

Add the following Rules to the Properties section of the Deployment Media Properties:

Properties=CFI, CSWIN8

Add the following Rules to the Properties section of the Deployment Media Properties:

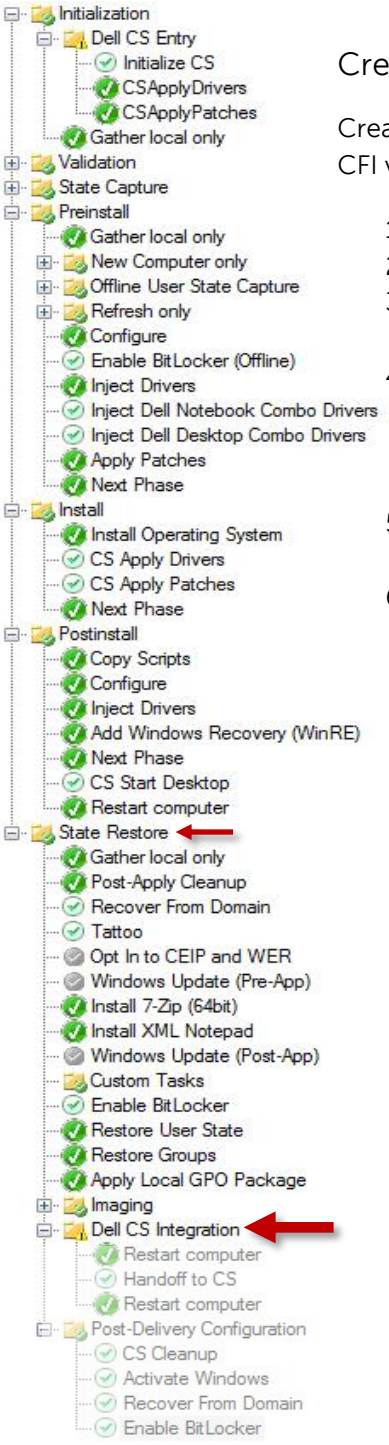
CFI=TRUE
CSWIN8=TRUE

Refer to the **"Create Media"** Section for further Guidance

UEFI / GPT Boot Requirements

The Boot in the Factory process will support UEFI enabled systems if using MDT 2013 to deploy a 64bit version of Windows 8.1 with Update 1 or Windows 10.

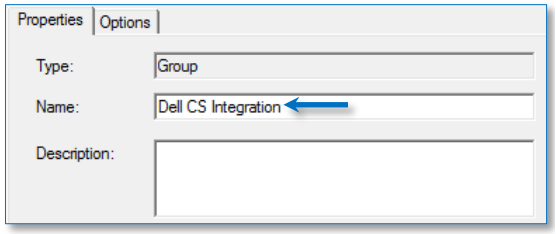
Configure Dell CS Integration

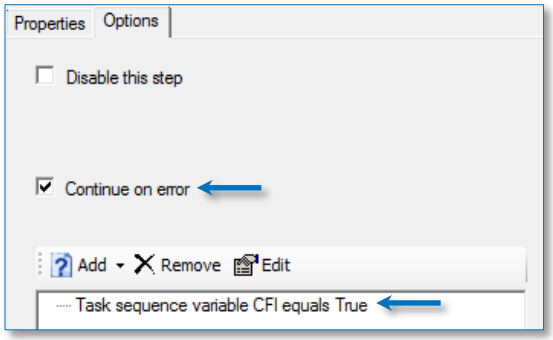


Create Dell CS Integration Group

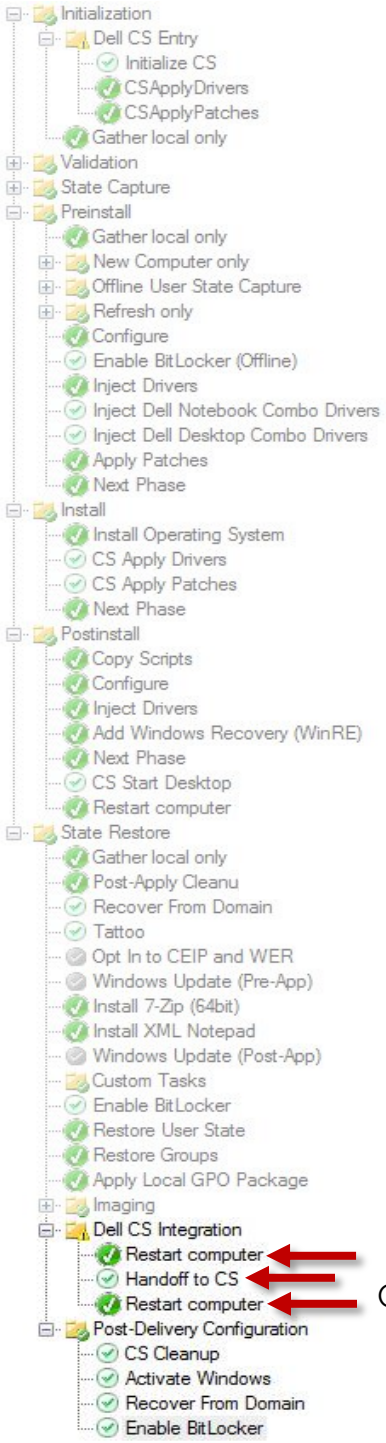
Create and configure the Dell CS Integration group with the CFI variable

1) Task Sequence Editor, Select **State Restore** Group
2) Click **Add > New Group**
3) Click the **Properties** tab, enter the following
   - » At **Name**, type **Dell CS Integration**
4) Click **Options** Tab > **Add** > **Task Sequence Variable**
   - » At **Name**, type **CFI**
   - » At **Condition**, Select **Equals**
   - » At **Value**, type **True**
5) Select the "**Continue on Error**" box from the Options tab
6) Click **Apply**





Configure Dell CS Handoff



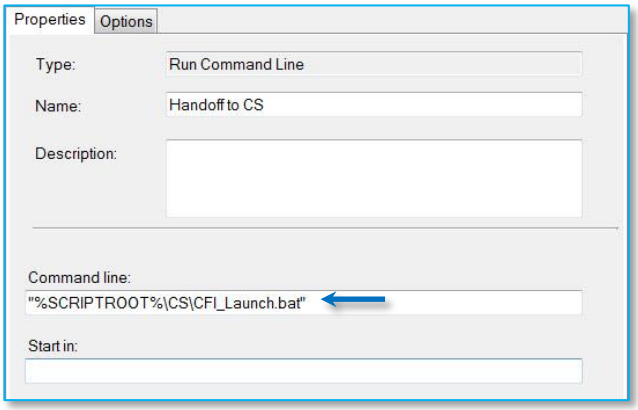
Create the first "Restart Computer" Task

1) Task Sequence Editor, Select **Dell CS Integration** Group
2) Click **Add > General > Restart Computer**
3) Select the "**Continue on Error**" box from the Options tab
4) Click **Apply**

Create the "Handoff to CS" Task

Handoff to CS transfers the MDT process over to the Dell Factory for build dependencies and system shipment

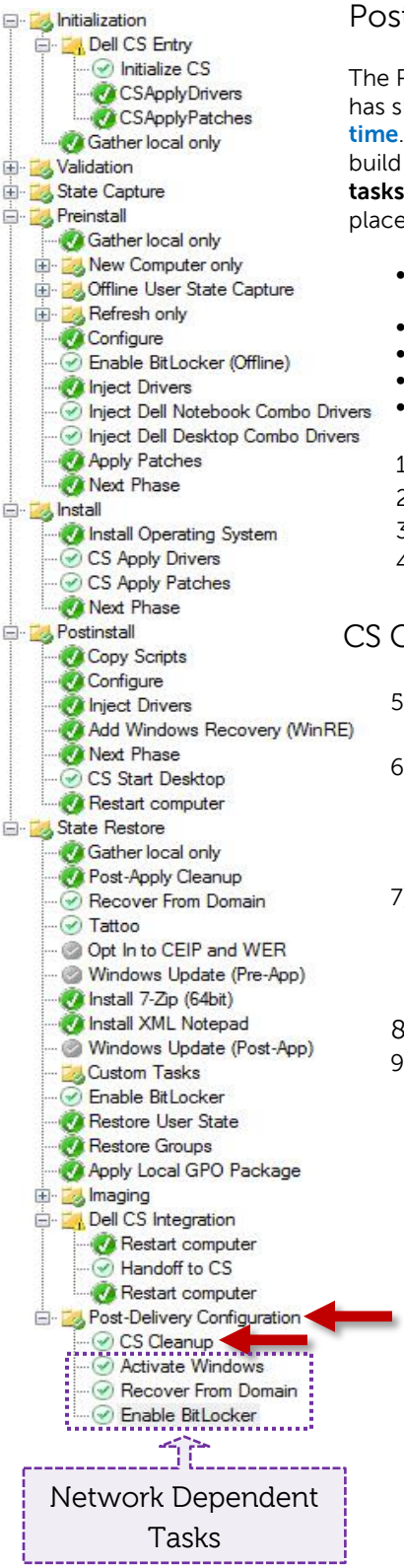
5) Task Sequence Editor, Select **Dell CS Integration Group**
6) Click **Add > General > Run Command Line**
7) Click the **Properties** tab, enter the following
   - » At **Name**, type **Handoff to CS**
   - » At **Command Line**, type **"%SCRIPTROOT%\CS\CFI_LAUNCH.BAT"**
8) Select the "**Continue on Error**" box from the Options tab
9) Click **Apply**



Create the second "Restart Computer" Task

10) Task Sequence Editor, Select **Handoff to CS** task
11) Click **Add > General > Restart Computer**
12) Select the "**Continue on Error**" box from the Options tab
13) Click **Apply**

Post-Delivery Configuration



Post-Delivery Configuration Group

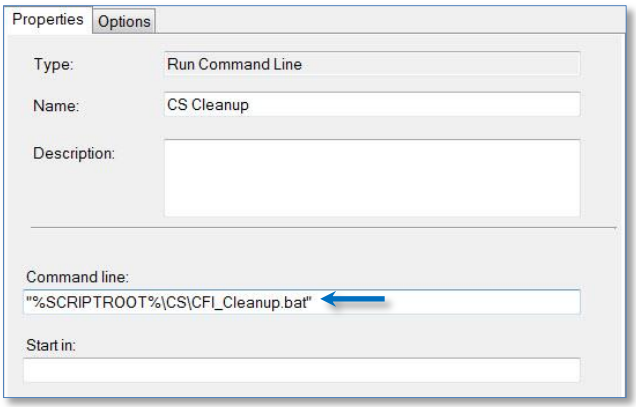
The Post Delivery Configuration group will run when the system has shipped and is booted to the Operating System for the **first time**. Include in this group any steps needed to complete your build process. Include a "**continue on error**" for **ALL individual tasks** to be run in this group. Below is a list of items typically placed in the Post-Delivery Configuration group.

- CS Cleanup is required to remove Dell Factory files from the hard drive
- Recover From Domain
- Windows Activation
- VPN Application installations
- Network Dependent Tasks

1) Task Sequence Editor, Select **State Restore** Group
2) Click **Add > New Group**
3) At **Name** type, **Post-Delivery Configuration**
4) Click **Apply**

CS Cleanup

5) Task Sequence Editor, Select **Post-Delivery Configuration** Group
6) Click **Add > General > Run Command Line**
   - » At Name, **CS Cleanup**
   - » At Command Line field, enter **"%SCRIPTROOT%\CS\CFI_CLEANUP.BAT"**
7) Click **Options** Tab > **Add** > **Task Sequence Variable**
   - » At **Name**, type **CFI**
   - » At **Condition**, Select **Equals**
   - » At **Value**, type **True**
8) Select the "**Continue on Error**" box from the Options tab
9) Click **Apply > OK**



Create the Deployment Media

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.

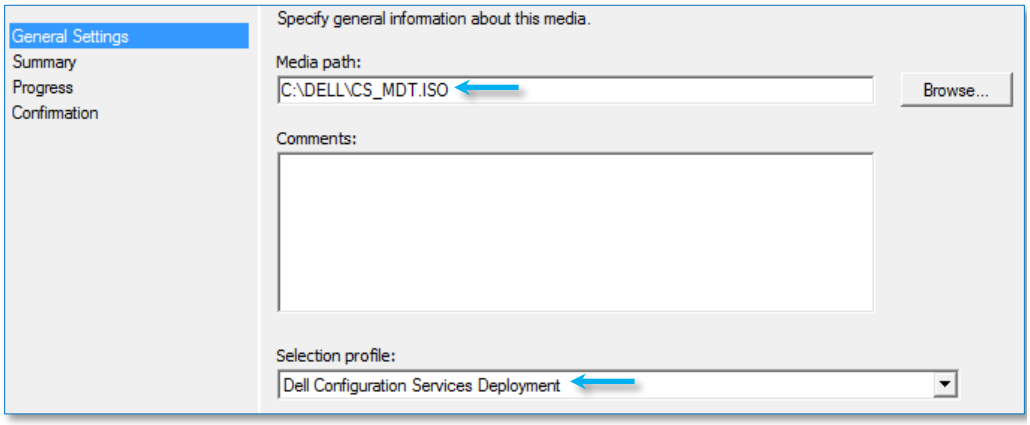
Important

The items compiled in the Media are determined by the selection profile assigned to the Media.

Rules established in the Deployment Share are not carried over to the Media. Admins will be required to input the Rules into the Media's CustomSettings.ini and Bootstrap.ini (instructions on page 17)

How to Create Deployment Media

1) Expand **Advance Configuration** from the Deployment Workbench
2) Expand the **Media folder**
3) Right click the **Media folder** > **New Media**
   - » At **Media path**, type a **folder path** and **name of ISO file** to be generated
   - » At **Selection Profile**, select the **desired profile intended for deployment** (instructions on page 4)
   - » Click **Next**
4) At **Summary**, click **Next**.



Reference the next page for the media's boot image configuration.

Customize the Boot Image

If deploying a 64bit image then include only a 64bit boot environment.

If deploying a 32bit image then include only a 32bit boot environment.

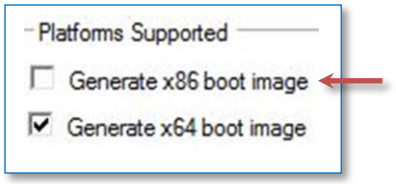
Important

The items compiled in the Media are determined by the selection profile assigned to the Media.

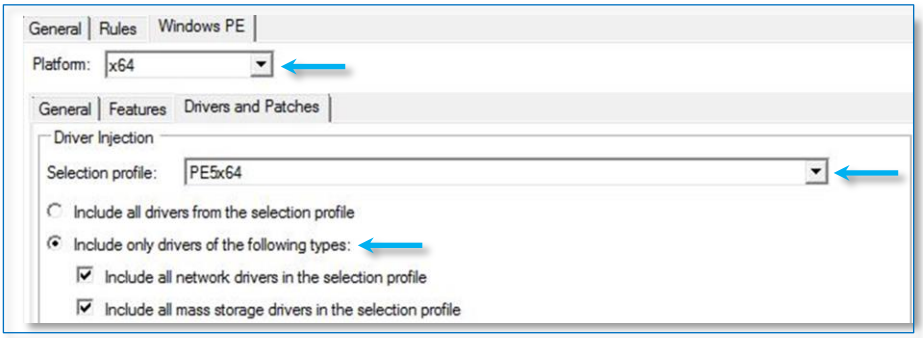
Create a Selection profile for the Windows PE drivers to be leveraged in the PE Environment. The Windows PE drivers cab can be found on Dell TechCenter

How to Customize the Windows PE Environment

1) Expand **Advance Configuration** from the Deployment Workbench
2) Select the **Media folder**
3) Right click **MediaXXX > Properties**
4) **General tab**: At **Platforms Supported**, uncheck the platform that is not supported by the OS Architecture.



5) **Windows PE tab**: Select the platform associated with the deployment
6) Set the **Scratch space size** to **512**
7) Click the **Drivers and Patches** tab
   - » At **Driver Injection**, the Selection Profile should reference a Windows PE Selection profile that contains drivers only for the PE Environment that will be leveraged.as part of the deployment



The Media ISO and the Content folder will only be generated when the Media has been updated in the Deployment Workbench

Modify the Deployment Media to Automate the LTI deployment

Dell Configuration Services requires that the OSD is configured to have zero user interaction throughout the factory process. The following instruction set should be applied to the CustomSettings.ini and Bootstrap.ini files in the **Media Properties**. Use the following illustrations as a reference for customizing the Rules.

CustomSettings.ini

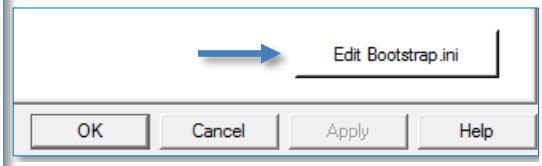
1) Navigate to the **Media folder** > Select the **created Media**
2) Right click the **created Media** > **Properties** > Click the **Rules** tab
3) At the end of the **Settings** section, **establish the CFI variable**
   - » Properties=MyCustomProperty**, CFI**
4) At the end of the **Default** section add the following lines
   - » **CFI=TRUE**
   - » **SkipBDDWelcome=YES**

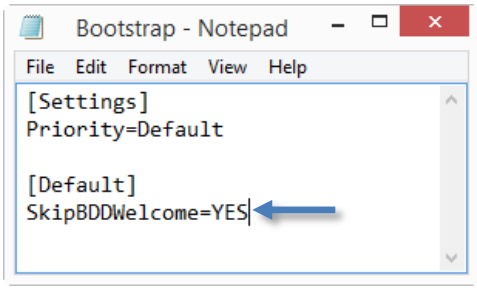
```
[Settings]
Priority=Default
Properties=MyCustomProperty, CFI, CSWIN8

[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
CSWIN8=TRUE
CFI=TRUE
SkipBDDWelcome=YES
```

Bootstrap.ini

5) Click on the **Edit Bootstrap.ini** button from within the Rules tab
6) Use the following line "**SkipBDDWelcome=Yes**" to bypass the MDT Welcome screen during the time of deployment.





The listed modifications to the Media's Rules will populate the empty variables required for the Task Sequence to be performed with zero user input. Modify the variable's values or add additional variables to further customize the client system's deployment (e.g.: TaskSequenceID, OSDComputerName). Consult the "Toolkit Reference" section of the MDT 2013↕ documentation for Property Definition guidance.

Test Standalone Media

Although you cannot replicate the entire Dell Factory process, perform a simulation of the process to identify potential failures. If your process is similar to our example, with post-delivery configuration requiring network access (such as join domain), Dell recommends at least two test deployments are performed. One test with the system connected to your network. A second test with the system disconnected from your network. When a system is ordered with both NVMe and SATA drives, Configuration Services will deploy the OS to the NVMe disk.

Test the Stand-Alone Media Build to simulate factory deployment

These steps represent a brief test simulation walk-through

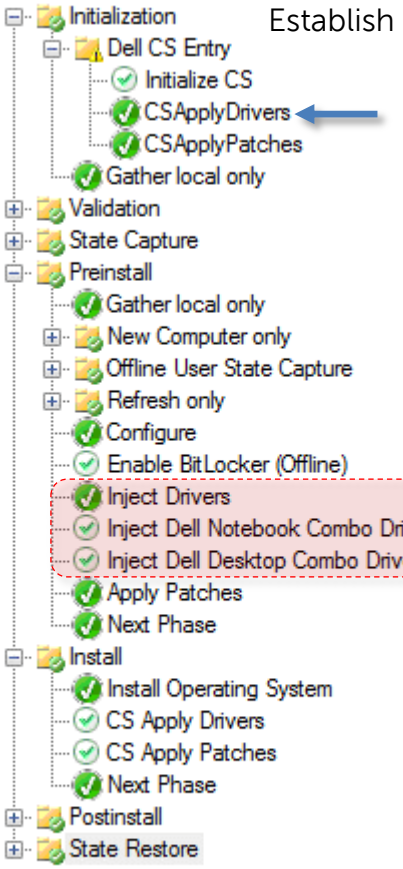
1) In the **Media folder**, **right click** the **Media** > **Update Media Content**
2) Locate and burn stand-alone media ISO to DVD or extract to bootable external storage
3) Disable the NIC from the test system's BIOS
4) Boot a test system using the media DVD or bootable external storage
5) There should be **no** prompts to initiate the deployment
6) Allow the task sequence process to complete
7) Log in to the system and verify all configurations and application installation settings to confirm a successful deployment.
8) Enable the NIC from the BIOS and rerun steps 1-7 with the test system connected to your infrastructure
9) Log in to the system and verify that all Post-Delivery Configurations have executed as expected
10) Take note of how the final configurations differ between the two tests.
11) Provide screenshots or relevant information regarding image deployment behavior when testing the deployment offline. This will aid the Dell IMS Engineers in their validation process.

Advanced Features

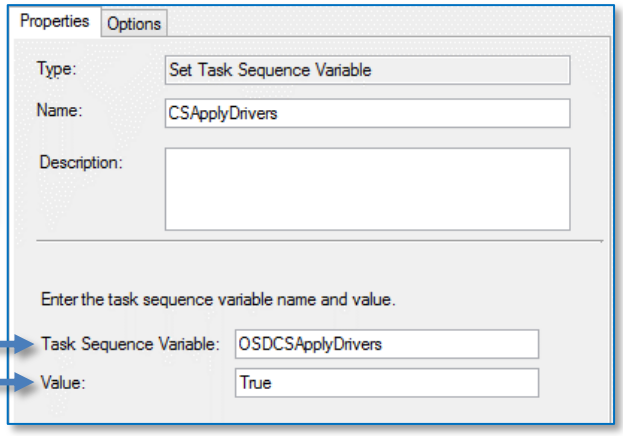
Dynamic Driver Injection | Dynamic Patch Injection | BitLocker Configuration

Dynamic Driver Injection leverages the Dell Factory to identify a system's model type and install the most current drivers posted on Dell TechCenter during the factory deployment. If this optional service has been requested then the Admin will be required to establish a task sequence variable and limit the execution of existing driver injections from within the Task

Establish the OSDCSApplyDrivers Task Sequence Variable



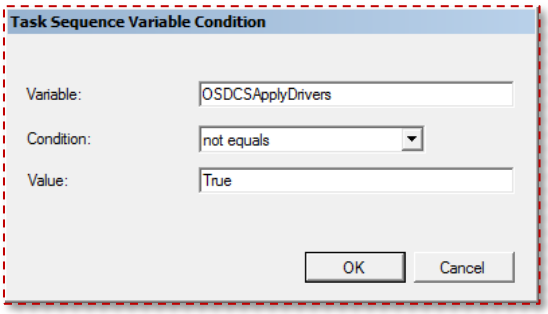
1) Task Sequence Editor, Select **Dell CS Entry** Group
2) Click **Add > General > Set Task Sequence Variable**
3) At Name, type: **CSApplyDrivers**
4) At Task Sequence Variable, type: **OSDCSApplyDrivers**
5) At Value, type: **True**



Limit existing Driver Injection Tasks from Running

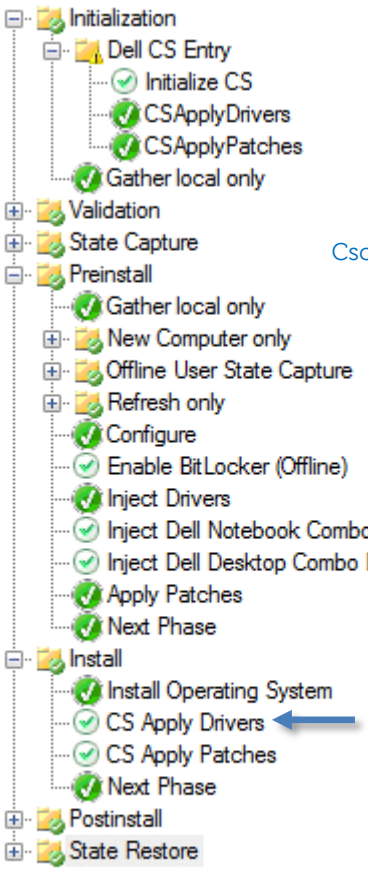
The dynamic driver injection process requires that the Admin prevents existing driver packages from installing through the Task Sequence. The following steps will instruct the Admin to use the OSDCSApplyDrivers variable to limit existing Driver Injection tasks

1) Task Sequence Editor, Select **existing Inject Drivers tasks from the Preinstall Group**
2) Click **Options Tab > Add > Task Sequence Variable**
3) **At Variable, type: OSDCSApplyDrivers**
4) **At Condition, select: not equals**
5) **At Value, type: True**
6) **Repeat** for all existing Driver Injections in the Preinstall Group



Advanced Features

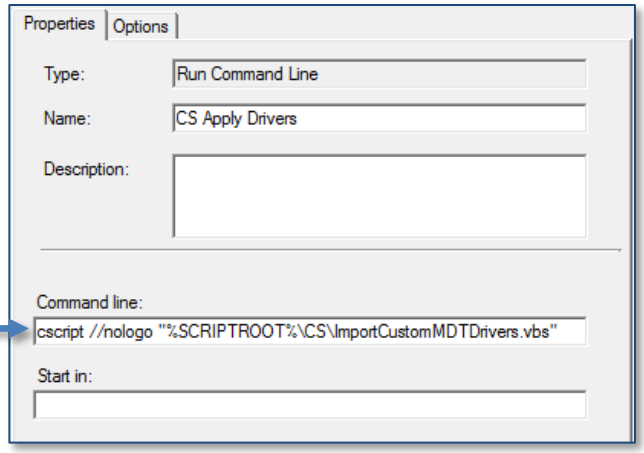
Dynamic Driver Injection | Dynamic Patch Injection | BitLocker Configuration



Establish CS Apply Drivers Run Command

1) Task Sequence Editor, Select **Install Operating System from the Install task group**
2) Click **Add > General > Run Command Line**
3) At Name, type: **CS Apply Drivers**
4) At Command line, type:

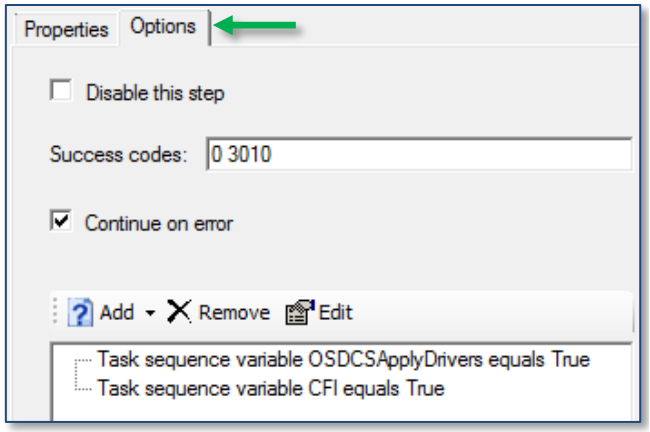
Cscript //nologo "%SCRIPTROOT%\CS\ImportCustomMDTDrivers.vbs"



Establish Conditional Statements for the CS Apply Drivers Task

The CS Apply Drivers task requires both OSDCSApplyDrivers and CFI variables to equal True. Set these variables as conditions to the CS Apply Drivers task.

5) Click **Options** Tab > Add > **Task Sequence Variable**
6) At Variable, type: **OSDCSApplyDrivers**
7) At Condition, select: **Equals**
8) At Value, type: **True**
9) Click OK
10) Click Add > **Task Sequence Variable**
11) At Variable, type: **CFI**
12) At Condition, select: **equals**
13) At Value, type: **True**
14) Click OK
15) Check the **"Continue on Error"** box

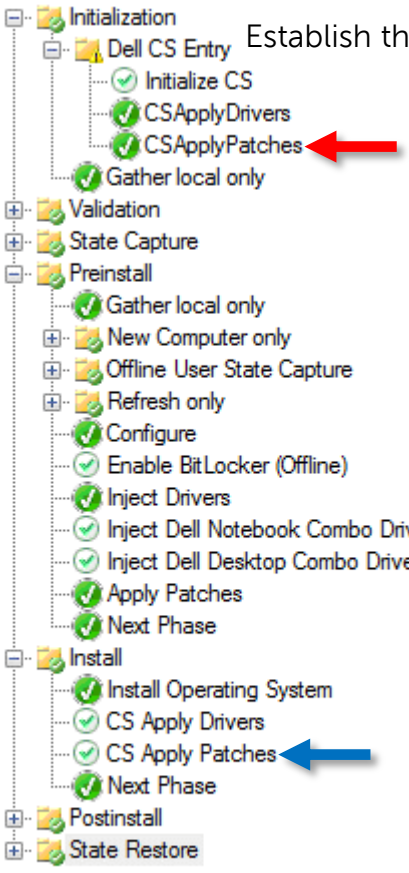


Advanced Features

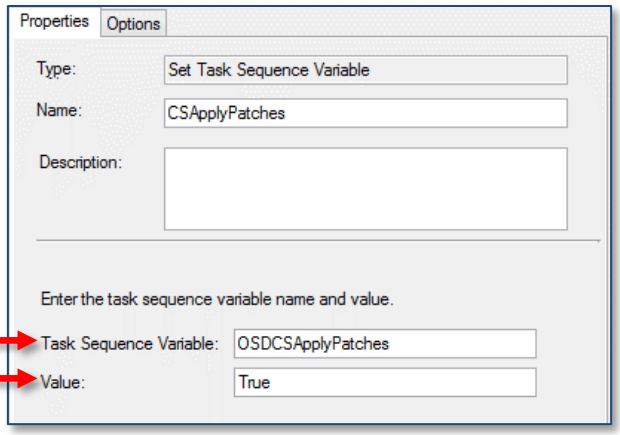
Dynamic Driver Injection | **Dynamic Patch Injection** | BitLocker Configuration

Dynamic Patch Injection leverages the Dell Factory to install the most current Microsoft Windows critical & security updates to every system before they ship. If this optional service has been requested then the Admin will be required to establish a task sequence variable and a command line "hook" into Dell's Factory patching process. (English only). Windows 10 factory patching is not supported.

Establish the OSDCSApplyPatches Task Sequence Variable

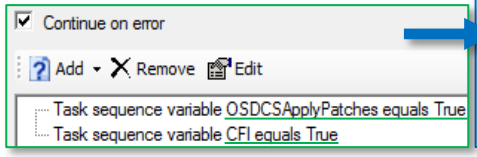


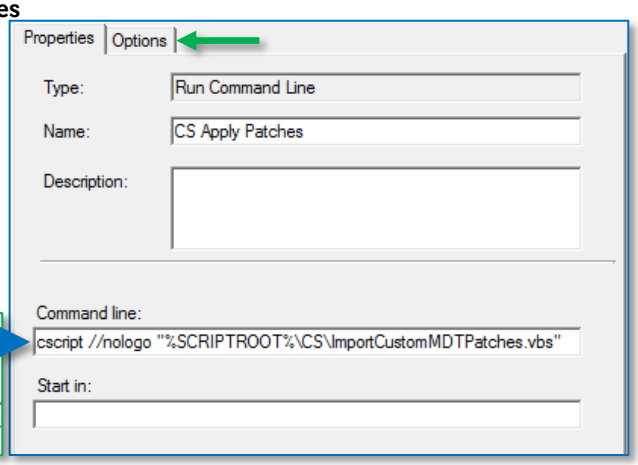
1) Task Sequence Editor, Select **Dell CS Entry** Group
2) Click **Add > General > Set Task Sequence Variable**
3) At Name, type: **CSApplyPatches**
4) At Task Sequence Variable, type: **OSDCSApplyPatches**
5) At Value, type: **True**



Establish CS Apply Patches Run Command

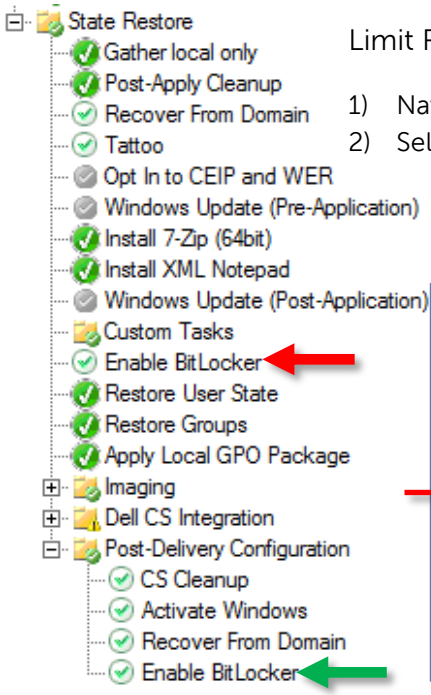
6) Task Sequence Editor, Select **Install Operating System from the Install task group**
7) Click **Add > General > Run Command Line**
8) At Name, **CS Apply Patches**
9) At Command line: **Cscript //nologo "%SCRIPTROOT%\CS\ImportCustomMDTPatches.vbs"**
10) Click **Options** Tab > Add > **Task Sequence Variable**
11) At Variable, type: **OSDCSApplyPatches**
12) At Condition, select: **equals**
13) At Value, type: **True**
14) Click OK
15) Click Add > **Task Sequence Variable**
16) At Variable, type: **CFI**
17) At Condition, select: **equals**
18) At Value, type: **True**
19) Click OK
20) Check the **"Continue on Error"** box





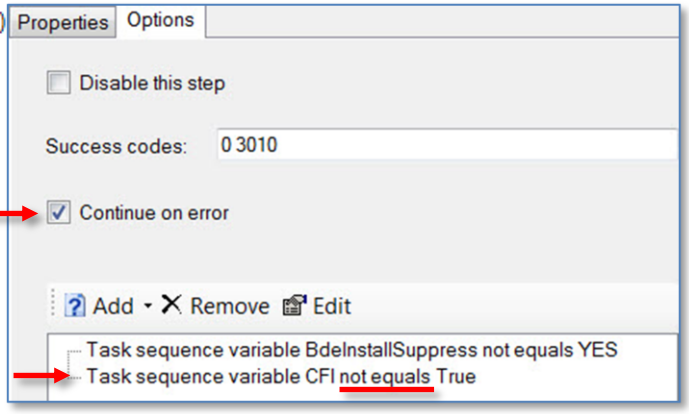
Advanced Features

The Admin has the ability to leverage the Factory to prepare the system's hard drive for BitLocker Encryption. This process will ensure that the BitLocker partition is created after the system has arrived onsite. This is accomplished by limiting the execution of the Enable BitLocker step from the "State Restore" Group **and** then creating an "Enable Bitlocker" as the final step in the "Post-Delivery Configuration" Group.



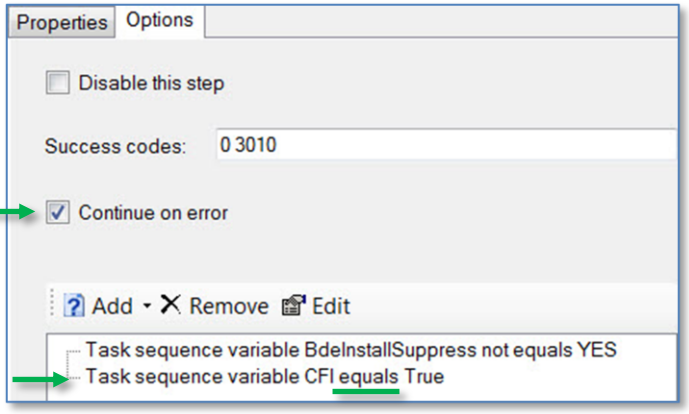
Limit Run-Time of BitLocker in the State Restore Group

1) Navigate to the State Restore Group of the Task Sequence
2) Select the "Enable BitLocker" Task > Options Tab
   a. Check "Continue on error"
   b. Add the following Task Sequence Variable
      i. CFI not equals True



Enable BitLocker in the Post-Delivery Configuration Group

3) Navigate to the "Post-Delivery Configuration" Group of the Task Sequence
4) Inject a new "Enable BitLocker" task as the last step of the Task Sequence
   a. Click Add > Disks > Enable BitLocker
5) Select the new "Enable BitLocker" Task > Options Tab
   a. Check "Continue on error"
   b. Add the following Task Sequence Variable
      i. CFI equals True



BitLocker Deployment Rules

Add the following to the Default Section of the Deployment Media's Rules

SkipBitLocker=YES
BDEInstall=TPM
BDEInstallSuppress=NO
BDEWaitForEncryption=False
BDEDriveSize=500
BDEDriveLetter=S:
BDEKeyLocation=c:

Refer to the "Create Media" Section

Dell's Factory Readiness Checklist

The Factory Readiness Checklist is a set of tasks that will assist you in preparing your Task Sequence and media for a factory deployment. After you have implemented the instructions detailed in the white paper, use this checklist to ensure that your Task Sequence meets the criteria detailed below.

MDT Boot in the Factory requirements

- ☐ Your reference Windows 7 OS wim contains the KMDF 1.11 update.
- ☐ Your reference Windows 7 OS wim contains the UMDF 1.11 update.
- ☐ You established the variable CFI=TRUE in the Media's Deployment rules.
- ☐ You set SkipBDDWelcome=YES in both the Media's Deployment rules and Bootstrap.ini.
- ☐ You established the CFI=TRUE variable condition on the "Dell CS Entry" group.
- ☐ 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.
- ☐ There is a "Restart Computer" task following 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 for your driver deployments. (Multi Model Deployment Requirement)
- ☐ Your Driver Injection tasks use WMI Queries to determine the model type. (Multi Model Deployment Requirement)
- ☐ 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 files. (I.E.: LiteTouchPE_x86, LiteTouchPE_x64)
- ☐ Your WinPE Scratch Space is set to 512MB.
- ☐ You generated a 64bit boot image for a 64bit OS Deployment **OR** a 32bit boot image for a 32bit OS Deployment.
- ☐ Your unattend.xml skips Wireless Setup configuration screen when in OOBE phase (HideWirelessSetupInOOBE=TRUE)
- ☐ You have tested your deployment on the hardware that the task sequence supports.
- ☐ Your Windows 10 deployment was created using MDT 2013 Update 1

If you are deploying Windows 8.x…

- ☐ You created the "CS Start Desktop" task in the State Restore Group.
- ☐ You established the variable CSWIN8=TRUE in the Media's Deployment rules.

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

- ☐ You established the OSDCSApplyDrivers Task Sequence Variable within the Dell CS Entry group.
- ☐ You created a "CS Apply Drivers" run command line task in the Install group.
- ☐ Both OSDCSApplyDrivers=TRUE and CFI=TRUE variables set on the "CS Apply Drivers" task.
- ☐ Driver Injection tasks contain conditions to not run in the factory (I.E.: OSDCSApplyDrivers≠TRUE)

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

- ☐ You established the OSDCSApplyPatches Task Sequence Variable within the Dell CS Entry group.
- ☐ You created a "CS Apply Patches" run command line task in the Install group.
- ☐ Both OSDCSApplyPatches=TRUE and CFI=TRUE variable conditions are set on the "CS Apply Patches" task.

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: