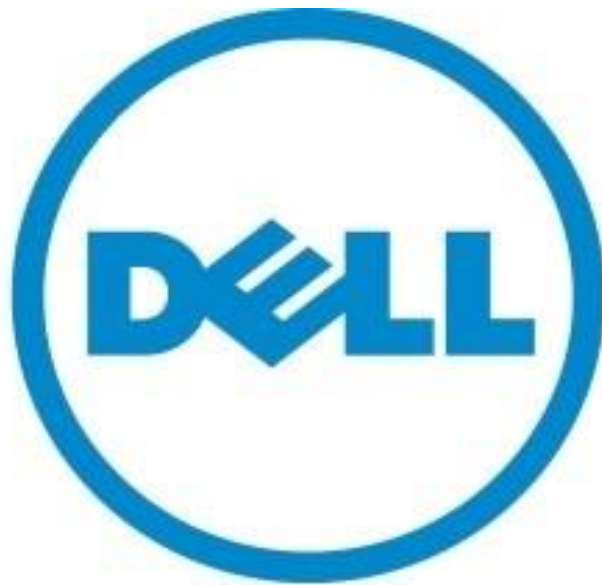


Microsoft® System Center Configuration Manager 2012 Dell Factory Integration



The power to do more

User Guide January 2017

Introduction to ConfigMgr 2012 OSD in Dell Factories

Introduction

Process

Requirements

Configuration

OSD MAP

Partitioning

Drivers

CS Enablement

Post-Delivery

BitLocker

Create Media

Validate Media

Advanced

Administrators of Microsoft® System Center Configuration Manager 2012 (referenced as "Configuration Manager" or "ConfigMgr" in this document) can perform Operating System Deployments (OSD) in various methods, including Stand-alone media, Prestaged media, and Network based deployments.



IMPORTANT NOTICE FOR PRESTAGE MEDIA USERS:

This document does not apply to Prestaged media deployments. Dell Configuration Services can pre-load your Prestaged or Stand-alone media on new system orders. Please contact your Configuration Services Project Manager for instructions on sending your Prestaged media to Dell to begin your project setup.

Dell Configuration Services simplifies IT for Configuration Manager Administrators by enabling a single source provisioning solution for all deployment scenarios. By leveraging the Dell factory to execute an OSD, the Admin will save time and network resources previously allocated for image deployment tasks.

Admins can also leverage Configuration Manager to reduce the number of OS images your company must create and manage. Admins can detect the system's model type and distribute the appropriate hardware driver package, and software installs can be configured based on business rules. As a result, your IT department has fewer OS images to manage and more flexibility to deliver operating system, applications, updates, patches and security fixes to devices in a single distribution.

Configuration Manager's support for offline or removable media, in-place migrations, OEM and PXE gives your company the ability to retain high levels of automation across any deployment scenario.

The use of conditional statements allows you to manage a single task sequence for use across various deployment scenarios.

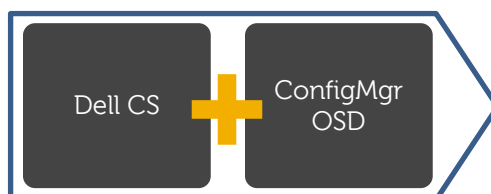
Intended users of this guide are Dell customers:

- IT network administrators or managers who are responsible for Configuration Manager and OSD activities

Requirement

Administrators must have experience creating and validating stand-alone media builds from Configuration Manager OSD Task Sequences

This guide explains how to leverage Dell Configuration Services with ConfigMgr to deploy a customized operating system image to new Dell client systems while in the factory – saving you run-time on each new client deployment.



Better Experience for
Admins and End Users



Dell Factory / ConfigMgr OSD Process Overview

Introduction

Process

Requirements

Configuration

OSD MAP

Partitioning

Drivers

CS Enablement

Post-Delivery

BitLocker

Create Media

Validate Media

Advanced

The following process outlines the basic steps required to integrate a Configuration Manager 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 Image Services engineers will work with you to validate your Task Sequence modifications



Step 4:

Dell Configuration Services team imports your standalone 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

Creating a stand-alone media build should be a simple process. Review the Microsoft document ["How to Create Stand-alone Media"](#) for additional information.



Per Microsoft, the following Configuration Manager Task Sequence steps are not supported when using standalone media
<http://technet.microsoft.com/en-us/library/bb632784.aspx>

- Auto Apply Drivers
- Install Software Updates

Building your Reference OS WIM

When building the reference OS wim intended for factory deployment, Dell recommends the use of either Hyper-V or VMWare. Do not install drivers into the reference OS wim. Do not build the reference OS wim on physical hardware. The reference OS wim should be free of installed drivers.

Apply Driver Package

Use the Task Sequence Step **Apply Driver Package** instead of **Auto Apply Drivers**. The Auto Apply drivers task is **not** supported in a stand-alone media scenario, as the system does not have access to your ConfigMgr site. A Dell OSD best practice is to use the [Dell OSD Driver Packs](#) with WMI queries (based on model) for task sequence steps which apply driver packages.

- The **Apply Driver Package** task sequence step downloads all the drivers in the driver package and installs them on the Windows operating system. This step is necessary to install boot-critical drivers on pre-Vista operating systems.
- The **Apply Driver Package** task sequence step makes all device drivers in a driver package available for use by Windows. This step can be added to a task sequence between the "Apply Operating System" and the "Setup Windows and ConfigMgr" task sequence steps in order to make the device drivers in the driver package available to Windows after the OS bits have been distributed to the client's hard drive.
- You should put similar device drivers into a driver package and distribute them to the appropriate distribution points so that ConfigMgr client computers can install them.
- This step is useful for stand-alone media and for administrators who want to install a specific set of drivers, including drivers for devices that would not be detected in a Plug-n-Play scan (for example, network printers and USB peripherals).

Install Software Updates

Install Software Updates Task Sequence step is **not** supported in a stand-alone media scenario, as the system does not have access to your ConfigMgr site.

- Install all security updates into your base .WIM using ConfigMgr Build and Capture Process.
- Apply the Stand-alone Media Build to an offline PC and validate the build process
- **Important:** Validate your task sequence before adding the steps for Dell Configuration Services Process. After successfully completing the stand-alone media build, validate that the steps you modified are working properly, and such as **Apply Driver Package** and other custom steps.
- For more detail on this process, refer to the *Configure Stand-Alone Media Build*, step. Test the Stand-alone Media Build to Simulate Dell Configuration Services

Introduction

Process

Requirements

Configuration

OSD MAP

Partitioning

Drivers

CS Enablement

Post-Delivery

BitLocker

Create Media

Validate Media

Advanced



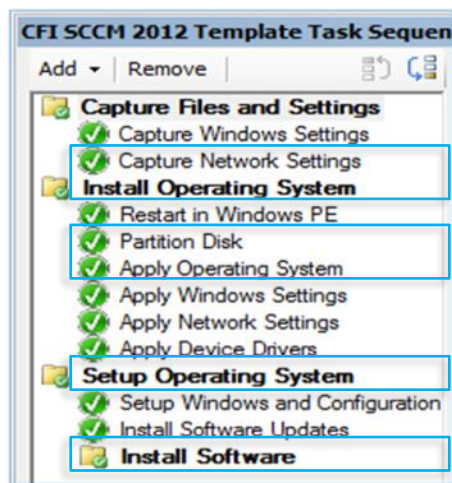
Configure Standalone Media Build

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.

Important

Be sure to spell/type variables and group names correctly.
Be sure to add the space and dashes as indicated.

Standard Task Sequence Example

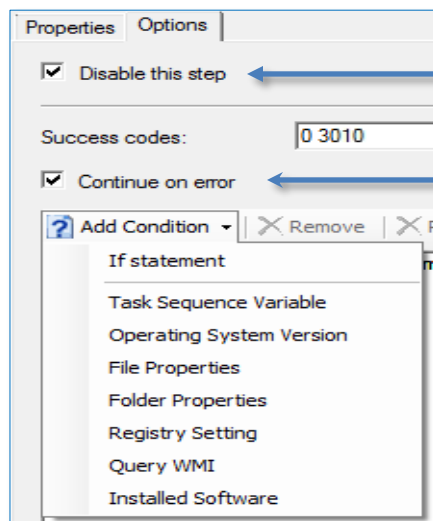


These sections run based on **conditional statements**.

Microsoft TechNet coverage of the Task Sequence Options Tab has more information relating to Conditional Statements.

Options Tab Configurations

Use the Options tab to configure specific settings for task sequence steps and groups, and to configure conditions that ConfigMgr must evaluate before running the task sequence step or group. You can enter options individually, or group them using the If Statement.



When checked, the task will not run. Use this to disable a task or group.

A user-defined option that determines how the task sequence will process a task sequence step or group that does not successfully execute.

Introduction

Process

Requirements

Configuration

OSD MAP

Partitioning

Drivers

CS Enablement

Post-Delivery

BitLocker

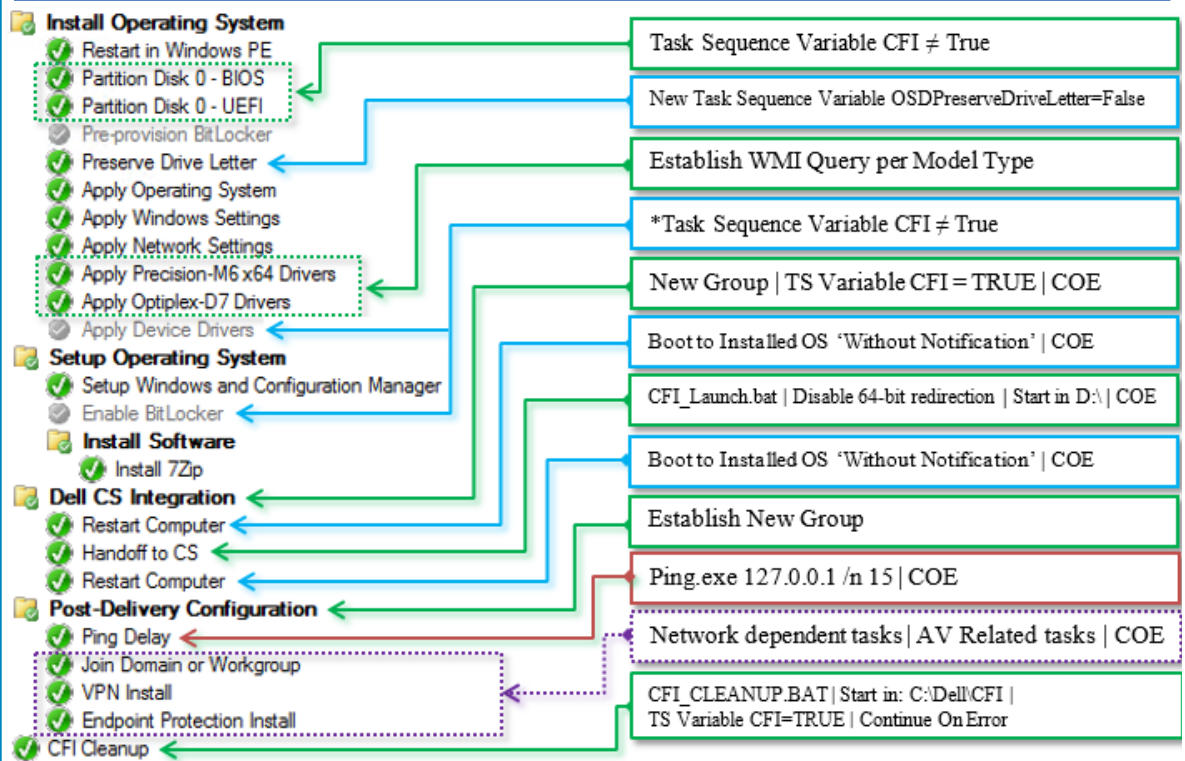
Create Media

Validate Media

Advanced



Dell Factory / ConfigMgr OS Deployment Map



Dell Factory Enabled ConfigMgr OSD Map

This map illustrates what actions are required in order to enable your current OSD task sequence for Dell factory integration. You should be able to use this map as a quick reference when configuring your task sequence with the Dell factory process. The **Apply Device Drivers** and **Install Software Updates** steps have been disabled in the illustration. *You are not required to disable these steps as you may require the execution of these tasks in your production environment. Dell recommends that you establish a task sequence variable to control when these tasks will run, and when they will be skipped (e.g, skip these when CFI ≠ True).

All software packages must be enabled for offline deployment during the factory process. If you have a package that requires connectivity to your infrastructure then the task must be moved to the "Post-Delivery Configuration" group. This task group will execute when you connect your system to your network and boot to the OS for the first time. In most cases, network connectivity is essential for your deployment to complete. When testing the media created through the steps detailed in this white paper, you will be required to disable the NIC in the BIOS prior to initiating a test deployment. You will be required to reenble the NIC from the BIOS when the 'Handoff to CS' task has completed. Removing the network cable from the system is not the same as disabling the NIC.

Note: There are several references to the task sequence variable "CFI" in this document. The CFI task sequence variable will be setup during the "Create Media" section (page 17). When creating media for factory integration this variable must be set to TRUE.

Introduction

Process

Requirements

Configuration

OSD MAP

Partitioning

Drivers

CS Enablement

Post-Delivery

BitLocker

Create Media

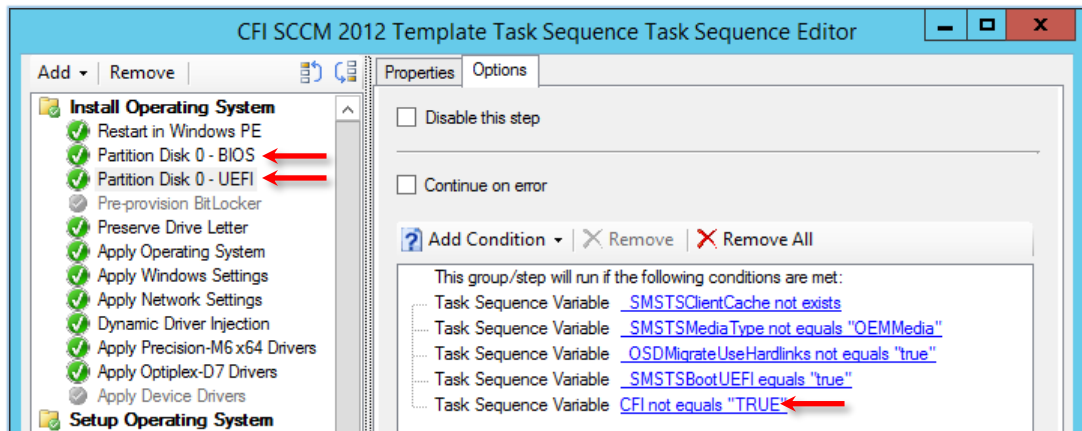
Validate Media

Advanced



Modify the Partition Disk Step so that it does not run in the Dell factory

Ensure that the partition disk step does not run during the Dell factory process. Add to or modify the Task Sequence Variables for the Partition Disk 0 step to display as shown in the example below.



*Partitioning Instructions:

From the Configuration Manager Operating Systems navigational pane, locate the task sequence to integrate with Dell's factory process.

- 1) Locate all "Partition Disk 0" tasks (including UEFI)
- 2) Click on the **Options** tab
- 3) Click **Add Condition**, select **Task Sequence Variables**
 - » Variable = **CFI**
 - » Condition = **not equals**
 - » Value = **True**
- 4) Click **OK**

Setting OSDPreserveDriveLetter Variable

Set a variable to ensure that the OS partition's drive letter will be set to C: after the deployment completes

- 5) Set the variable immediately after the Partition Disk task
- 6) Click **Add > General > Set Task Sequence Variable**
 - » Name: **Preserve Drive Letter**
 - » Task Sequence Variable: **OSDPreserveDriveLetter**
 - » Value = **False**
- 7) Click **OK**

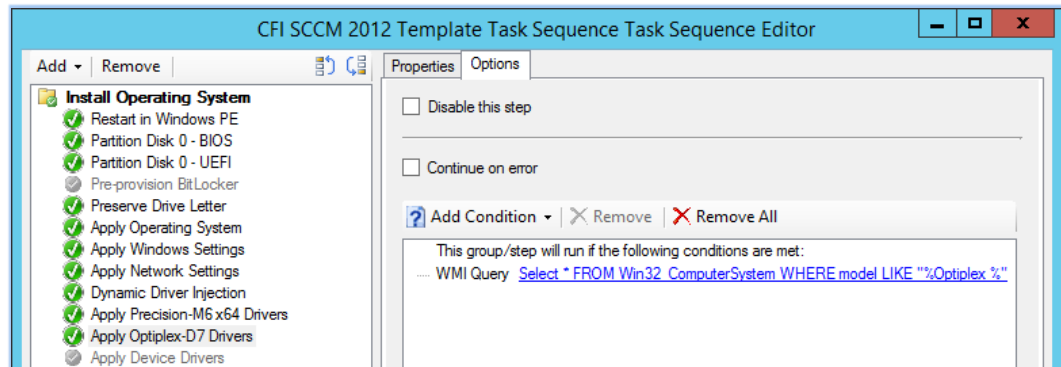
*This modification will instruct the Task Sequence to skip the Partition Disk task when executed in the **Dell Factory**.

*UEFI/GPT formatting is not supported with 32bit OS Deployments



Add Required Apply Driver Package Steps to support ordered systems

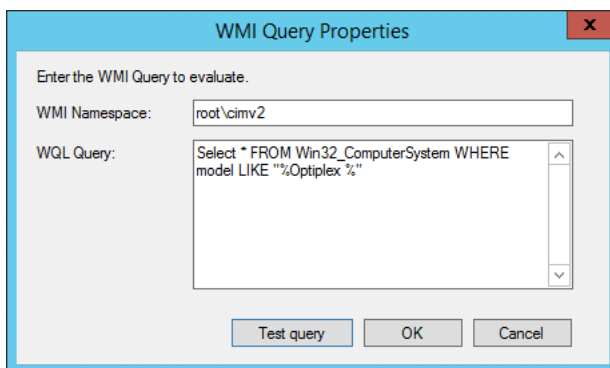
The **Apply Device Drivers** step is **not** supported when using a standalone media build. Dell recommends that the default Apply Device Drivers step is either disabled or skipped when in Dell Factories. Review the walk-through on [TechNet](#) for an in-depth look at driver management in SCCM. **Do not include Driver Packages if you intend to leverage the Factory Dynamic Driver Injection process.**



Add Required Driver Package Steps

From the Configuration Manager Operating Systems navigational pane, locate the task sequence to integrate with Dell's factory process.

- 1) Task Sequence Editor, Click Add > Drivers > Apply Driver Package
- 2) From **Properties** tab:
 - » Name: Type a name (Example: **Apply Optiplex-D7 Drivers**)
- 3) Select **Browse**
- 4) Select your **Driver Package** > Click **OK**
- 5) Click **Options** tab
- 6) Click **Add Condition**
 - » At WQL Query, select **Query WMI** to open WMI Query Properties
 - » Type: **Select * FROM Win32_ComputerSystem WHERE model LIKE "Optiplex %"**
- 7) Click **OK** > **Apply**



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

Repeat these steps for the additional models that will be targeted for deployment. Dell recommends the use of the Dell TechCenter [Family Driver Packs](#) or [System Cabs](#)



Factory Dynamic Driver Injection

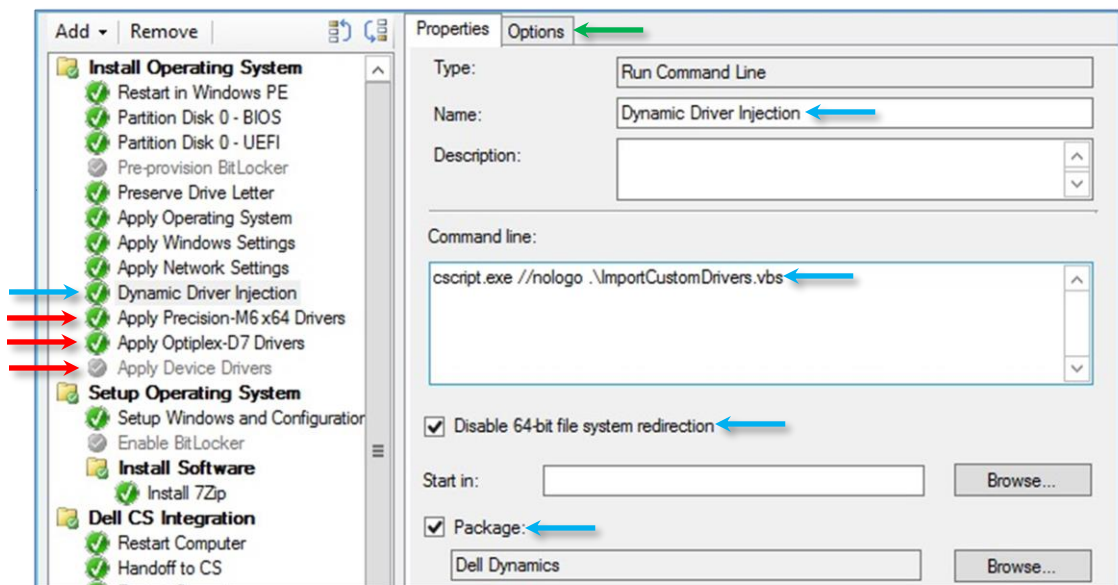
Configuration Services gives you the option to simplify both driver management and hardware transitions by dynamically injecting the latest [Dell TechCenter Family Driver Packs](#) into your deployment while the Task Sequence is running in the factory. A packaged [VBScript](#) executed from a "Run Command line" task will be required. The admin must prevent previously established driver injections from running when opting for the dynamic driver injection capability. Dell does not support any modifications made to the script posted on Dell TechCenter.

Create a new Dynamic Driver Injection package

To dynamically apply drivers in the Dell factory, extract and add the ["ImportCustomDrivers.vbs"](#) script posted on Dell's TechCenter to a new package in your SCCM Environment. Don't create a program for the package. Add the package to your Distribution Points.

Create a Run Command Line task to leverage the VBScript

- 1) The task must be placed prior to any previously established Driver Injection Tasks,
- 2) At **Name**, type **Dynamic Driver Injection**
- 3) At **Command Line**, enter: **Cscript.exe //nologo .\ImportCustomDrivers.vbs**
- 4) Check the **"Disable 64-bit file system redirection"** box
- 5) Check the **Package box** and Browse for the **Dynamic Driver Injection package**
- 6) Click **Options** Tab > Select **Continue on Error**
- 7) Click **Task Sequence Variable**
 - » Variable = **CFI**
 - » Condition = **Equals**
 - » Value = **True**
- 8) Click **OK**
- 9) Place a Task Sequence Variable on all pre-established driver injection tasks to prevent its execution in the factory
 - » Variable = **CFI**
 - » Condition = **Not Equals**
 - » Value = **True**



Configure Dell Configuration Services Integration

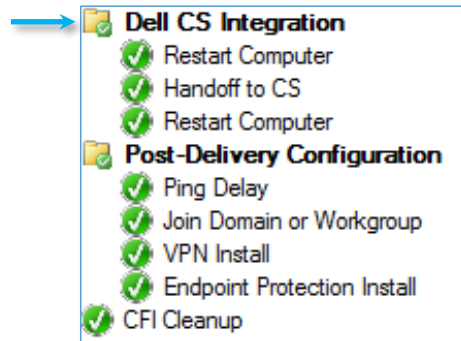
The Dell CS Integration group is placed at the end of your existing task sequence and consists of four primary sections

Restart System

Handoff to CS

Restart System

Post-Delivery



Create New Group – Dell CS Integration

From the Configuration Manager Operating Systems navigational pane, locate the task sequence to integrate with Dell's factory process.

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



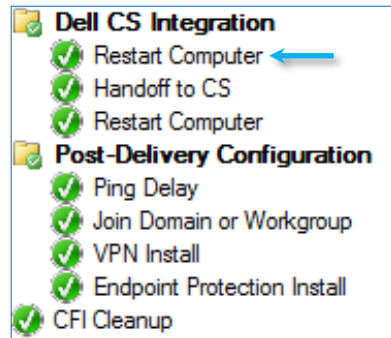
Configure Dell Configuration Services Integration

Restart System

Handoff to CS

Restart System

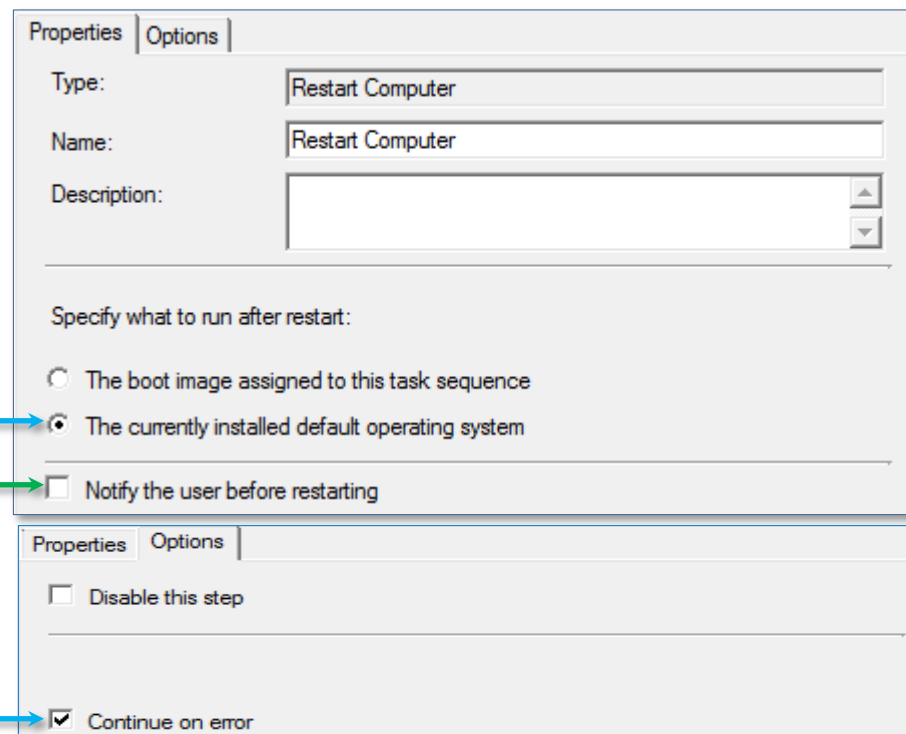
Post-Delivery



Create First Restart Computer Step

Restart Computer is the first step required for Configuration Services to make sure the process is running from within the Operating System. From the Configuration Manager Operating Systems navigational pane, locate the task sequence to integrate with Dell's factory process

- 1) Task Sequence Editor, Click Add > General > Restart Computer
- 2) At Properties tab, click Currently Installed Default Operating System
- 3) **Uncheck** the "Notify the user before restarting" box
- 4) Click the Options tab
- 5) Check the "Continue on error" box



Introduction

Process

Requirements

Configuration

OSD MAP

Partitioning

Drivers

CS Enablement

Post-Delivery

BitLocker

Create Media

Validate Media

Advanced



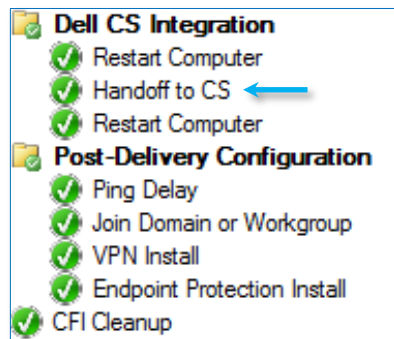
Configure Dell Configuration Services Integration

Restart System

Handoff to CS

Restart System

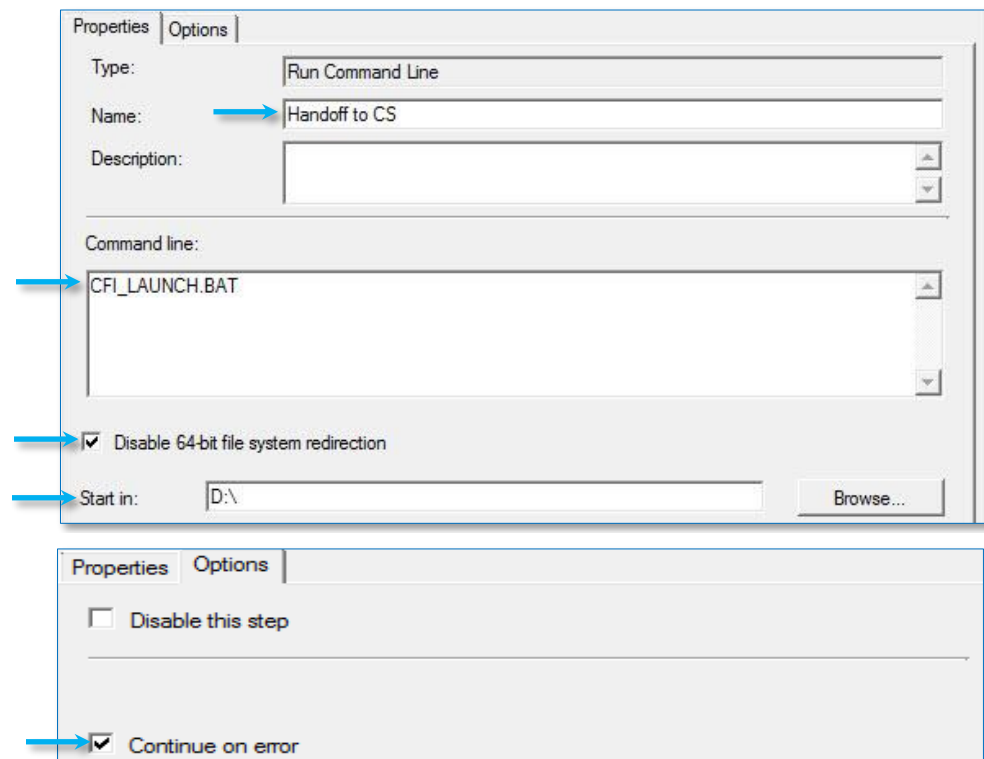
Post-Delivery



Create Handoff to CS Step

Create and configure a Run Command Line task sequence Step

- 1) Task Sequence Editor, Click **Add > General > Run Command Line**
- 2) At **Name**, type **Handoff to CS**
- 3) At **Command Line Field**, enter **CFI_LAUNCH.BAT**
- 4) At **Start In**, type **D:**
- 5) **Check** the "Disable 64-bit file system redirection" box
- 6) Click **Options** Tab > Select **Continue on Error**
- 7) Click **Apply**



Introduction

Process

Requirements

Configuration

OSD MAP

Partitioning

Drivers

CS Enablement

Post-Delivery

BitLocker

Create Media

Validate Media

Advanced



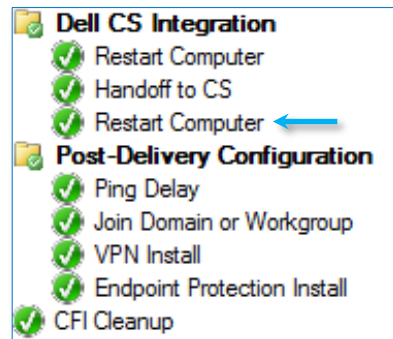
Configure Dell Configuration Services Integration

Restart System

Handoff to CS

Restart System

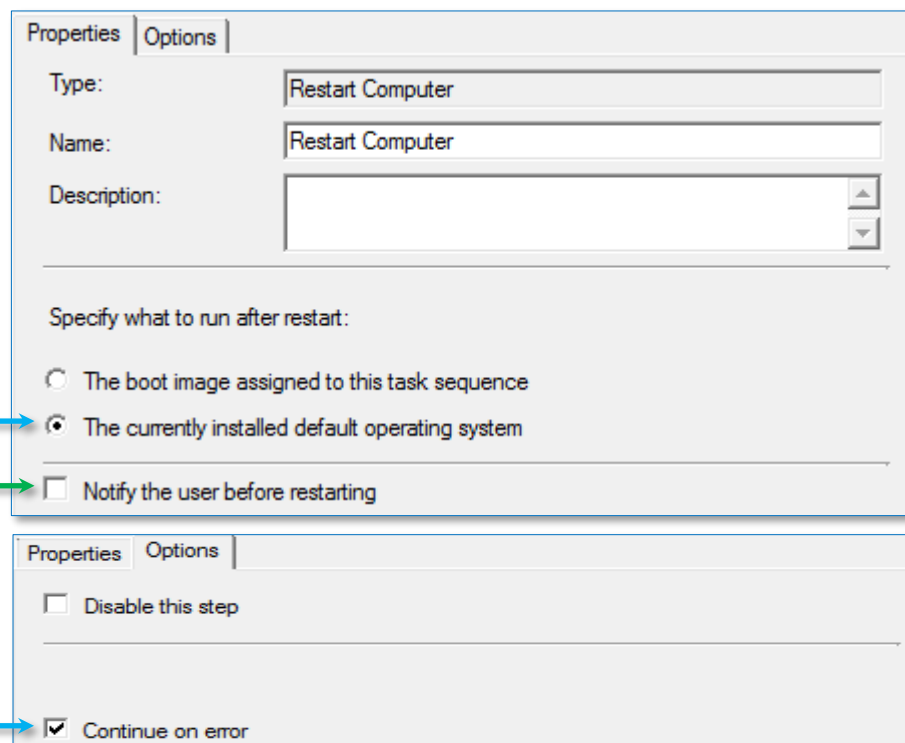
Post-Delivery



Create a Second Restart Computer Step

The second Restart Computer step is the third step required for Configuration Services to make sure the process is running in the operating system phase. From the Configuration Manager Operating Systems navigational pane, locate the task sequence to integrate with Dell's factory process

- 1) Task Sequence Editor, Click **Add > General > Restart Computer**
- 2) At **Properties** tab, click **Currently Installed Default Operating System**
- 3) **Uncheck** the "Deselect Notify user before restarting" box
- 4) Click the **Options** tab
- 5) Check the "Continue on error" box



Introduction

Process

Requirements

Configuration

OSD MAP

Partitioning

Drivers

CS Enablement

Post-Delivery

BitLocker

Create Media

Validate Media

Advanced



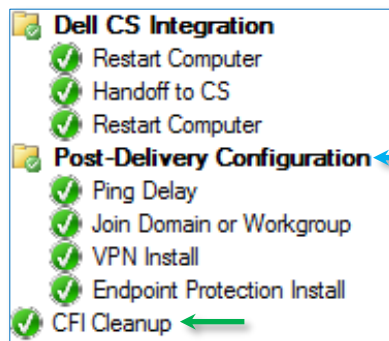
Post-Delivery Configuration

Restart System

Handoff to CS

Restart System

Post-Delivery



Post-Delivery Configuration

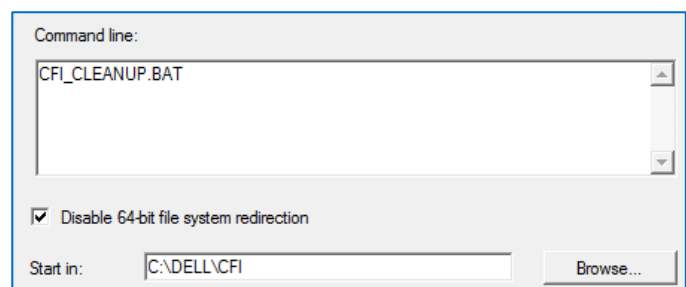
Include in this group any **Network Dependent** or **Anti-Virus installation** tasks needed to complete your build process. Include a "continue on error" for all **individual** tasks to be run in this group.

- » Join Domain: Runs while the system is connected to your network
- » Use the Post-Delivery group to install Anti-Virus/Endpoint client software
- » Use the Post-Delivery group to install VPN software
- » CFI Cleanup: Removes unneeded files from the disk.

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

CFI Cleanup

- 1) To be placed as the last task in the sequence outside of the Post-Delivery Configuration group
- 2) Task Sequence Editor, click **Add > General > Run Command Line**
- 3) At Name, **CFI Cleanup**
- 4) At Command Line field, enter **CFI_CLEANUP.BAT**
- 5) At Start in field, enter **C:\DELL\CFI**
- 6) Check the "Disable 64-bit file system redirection" box
- 7) Click **Options > Continue on Error**
- 8) Click **Add Conditions > Task Sequence Variable**
- 9) Click **Add Conditions**
 - » Variable = **CFI**
 - » Condition = **Equals**
 - » Value = **True**
- 10) Click **OK**



BitLocker Partition Creation – AC Power Check

AC Power is required for the BitLocker partition to be created. An AC Power Check script is recommended if the Admin wants to create a BitLocker partition on battery powered systems. If AC power is not detected then a warning will instruct the end-user to plug in the system to a power source.

Integrate a Check AC Power package into the Post-Delivery Configuration Group

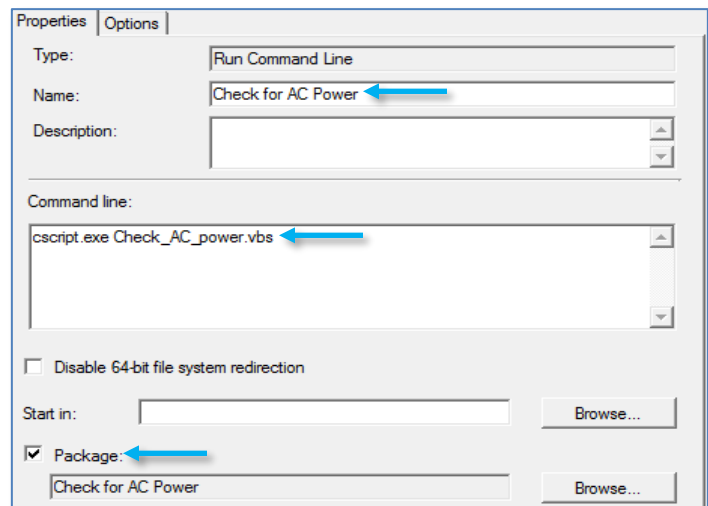
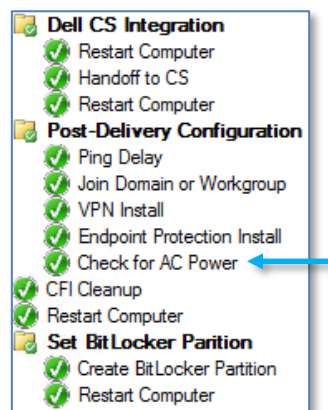
- 1) Create a SCCM package to host the "Check_AC_Power.vbs" script
 - a. Copy the below script into notepad and save as "Check_AC_Power.vbs"
 - b. Create the package and include the script in the source path
 - c. Update your Distribution Points with the new package

```
strComputer="."
Set objWMIService = GetObject("winmgmts:\\." & strComputer & "\root\cimv2")
Set colItems = objWMIService.ExecQuery( "Select * from Win32_Battery")
if colItems.count = 1 Then
For Each objItem in colItems
If objItem.BatteryStatus = 1 then
MsgBox vbCrLf & vbCrLf & vbCrLf & vbCrLf & _
"System is running from battery. Please connect this system to a power source before pressing OK." ,vbCritical, "Bitlocker Partition Creation Requirement - Power check for notebook."
End If
Next
End If
```

- 2) Within the Post-Delivery Configuration Group, Click Add > General > Run Command Line

- » Name: "Check for AC Power"
- » Command line: Cscript.exe Check_AC_Power.vbs
- » Check the "Package" box and select "Check_AC_Power"
- » Check "Continue on Error" from the Options tab

- 3) Ensure that the Check for AC Power script runs prior to the "CFI Cleanup" task



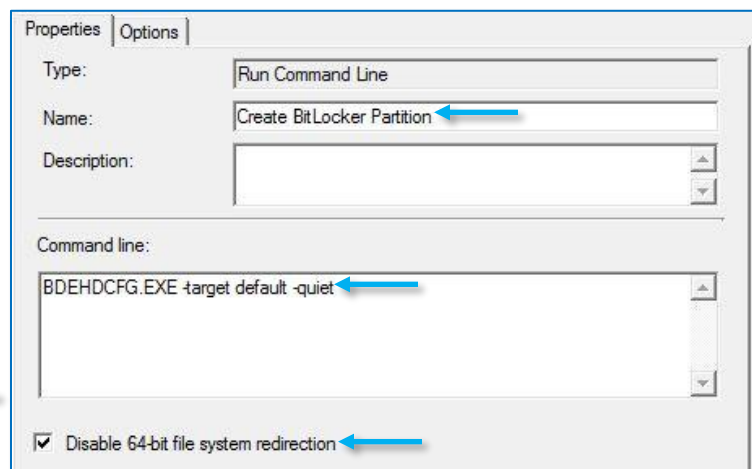
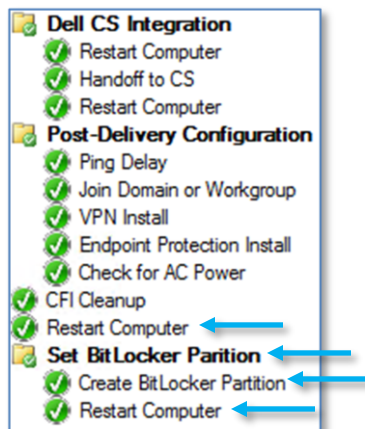
BitLocker Partition Creation

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 established after the system has arrived onsite. The BitLocker partition can be created at the end of the execution of the task sequence by using the built-in Windows tool "BdeHdCfg.exe". This process will only create the partition necessary for BitLocker. This process will not initiate the encryption process.

Adding a BitLocker Partition to MBR disks with SCCM in the Factory

The BdeHdCfg.exe tool is used to prepare a hard drive with the partition configuration necessary for BitLocker Drive Encryption. The tool will shrink the System partition, if present, and create the partition needed for BitLocker at the end of the disk.

- 1) After CFI Cleanup, **Click Add > General > Restart Computer**
 - » Select **"The current installed default operating system" to run after restart**
 - » Uncheck **"Notify the user before restarting"**
- 2) **Click Add > New Group**
 - » Name: **Set BitLocker Partition**
- 3) Move the New Group to the end of your Task Sequence, after the CFI Cleanup task
- 4) **Click Add > General > Run Command Line**
 - » Name: **Create BitLocker Partition**
 - » Command line: **BdeHdCfg.exe -target default -quiet**
 - » Check **"Disable 64-bit file system redirection"**
- 5) **Click Add > General > Restart Computer**
 - » Select **"The current installed default operating system" to run after restart**
 - » Uncheck **"Notify the user before restarting"**



After the "CFI Cleanup" task, all task sequence package data will have been wiped from the system. Only "Restart Computer" and local "Run Command Line" tasks can be run at this time. BitLocker partition creation through the BDEHDCFG utility is not required for GPT formatted disks

Introduction

Process

Requirements

Configuration

OSD MAP

Partitioning

Drivers

CS Enablement

Post-Delivery

BitLocker

Create Media

Validate Media

Advanced



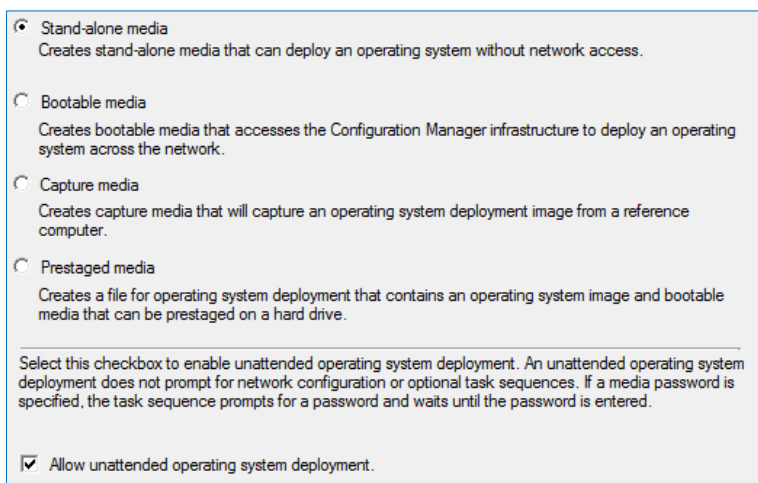
Create Standalone Media

Standalone Media created with the intention of using the Dell factory instruction set **must** include a **CFI =True** variable for the process to work. (see step 13 below)

Create the Standalone Media ISO

Use the Create Task Sequence Media process to generate the standalone media

- 1) Navigate to the Software Library pane in the Configuration Manager Console
- 2) Expand Overview
- 3) Expand Operating Systems
- 4) Select Task Sequences
- 5) Click on Create Task Sequence Media button in the ribbon display
- 6) Select **Stand-alone media**
- 7) Select **Allow unattended operating system deployment**



- 8) Select CD/DVD Set
 - » Media Size = Unlimited
- 9) At Media File Name, enter the file name for the media > Next
- 10) Deselect Protect Media with a Password checkbox > Next
- 11) Select a CS enabled Task Sequence to be used for factory deployment
 - » Click Browse
 - » Select the **"Factory Enabled Task Sequence"** > OK > Next
- 12) At Distribution Points, select your distribution points
 - » Click **Add > Next**
- 13) At Customizations box, click New Variable button
 - » Name = CFI
 - » Value = True
 - » OK > Next
- 14) At **Summary > Next**
- 15) At **Progress > Next**
- 16) At Confirmation, click **Finish**

Introduction

Process

Requirements

Configuration

OSD MAP

Partitioning

Drivers

CS Enablement

Post-Delivery

BitLocker

Create Media

Validate Media

Advanced



Testing the Dynamic Driver Injection Process

In order to validate the Dynamic Driver Injection process, you will be required to format and partition the target system's Hard Drive in accordance with the set of instructions detailed below. You will be required to establish a specific folder structure on the second partition.

Prepare the Test System's Partition and Folder Structure

The following steps will prepare a legacy BIOS enabled system for Dynamic Driver Injection

- 1) Boot your test system into a Windows PE environment
- 2) Use diskpart to create the test system's partition structure
 - » Partition 1 should be **70%** of the size of the disk
 - » Partition 1 should be formatted and **bootable**
 - » Partition 1 should have the drive letter **C:**
 - » Partition 2 should be **30%** of the size of the disk
 - » Partition 2 should be formatted
 - » Partition 2 should have the drive letter **S:**
- 3) Create the folder S:\Scratch
- 4) Create the folder S:\ExportedDrivers
- 5) Extract the contents of the system's Combo Cab to S:\ExportedDrivers
- 6) If deploying a **64bit OS** then remove the **x86** folder from the extraction
- 7) If deploying a **32bit OS** then remove the **x64** folder from the extraction
- 8) Shutdown the test system
- 9) Boot the test system with CFI enabled standalone media

Sample Diskpart Commands for Preparing the Hard Drive in MBR format

Once you have booted the system to Windows PE, use these commands to prepare the hard drive. These commands assume that the target system's hard drive capacity is 256GB, modify the size of the partition as needed.

```
Diskpart
Sel Disk 0
Clean
Cre Par Pri size = 179200
Cre Par Pri
Sel Par 1
Format FS=NTFS quick
Assign letter=c
Active
Sel Par 2
Format FS=NTFS quick
Assign letter=s
Exit
```

Create the S:\Scratch and S:\ExportedDrivers folders.

Introduction

Process

Requirements

Configuration

OSD MAP

Partitioning

Drivers

CS Enablement

Post-Delivery

BitLocker

Create Media

Validate Media

Advanced



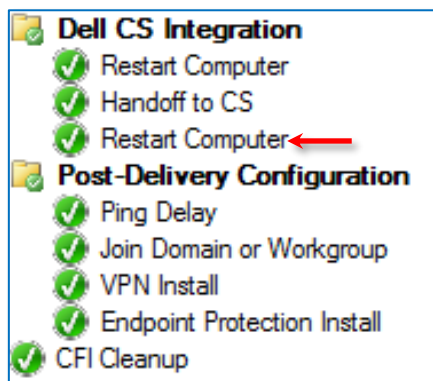
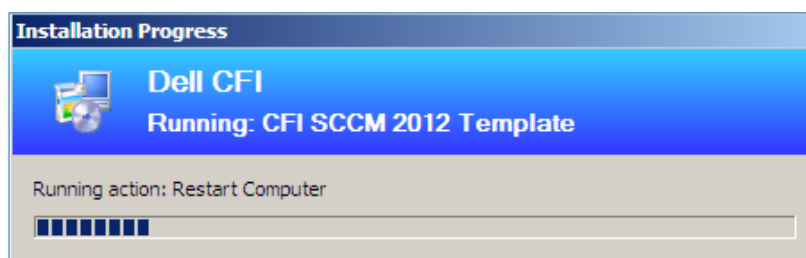
Test Standalone Media

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 similar to our example, which includes a network dependent post-delivery configuration group, the Admin should run tests with the system on the network and off the network (stand-alone).

Test the Stand-Alone Media Build to Simulate Dell CS

These steps represent a brief test simulation walk-through

- 1) Extract stand-alone media to a bootable USB Flash Drive
- 2) Disconnect the test system from the network
- 3) Prepare the hard drive manually (format/partition)
- 4) Boot the test system using the USB Media
- 5) Click Next to start the build process
- 6) **Watch the Installation Progress** display for the Second **Restart Computer** step to occur at the end of the **Dell CS integration group**, and during the restart, connect the system back to the network. This represents the point where the system will be delivered to your facility
- 7) Allow the task sequence process to complete
- 8) Log in to the system and verify all configuration and application installation settings to confirm a successful deployment



**Work with your Configuration Services or Image Services PM
to send your Configuration Manager OSD .ISO files to Dell**

Introduction

Process

Requirements

Configuration

OSD MAP

Partitioning

Drivers

CS Enablement

Post-Delivery

BitLocker

Create Media

Validate Media

Advanced



Advanced Configurations

You may require a custom computer name for your system. If your custom computer name depends on hardware information, you can customize it during the task sequence. Please consult with an Image Services engineer if using other computer naming conventions.

How to set the computer name to be the Service Tag

Create a VBscript named SETCOMPUTERNAME.VBS, and insert the following information into the script:

```
SET env = CreateObject("Microsoft.SMS.TSEnvironment")
strComputer="."
' Connect to WMI
Set objWMIService=GetObject("winmgmts:" & "{impersonationLevel=impersonate}!\" & strComputer & "\root\cimv2")
' Find the Service Tag, which will make up the last part of the computer name
Set colservicetag=objWMIService.ExecQuery("Select * from Win32_Bios")
For Each objservicetag in colservicetag
    strName = objservicetag.serialnumber
Next
' Set the variable
env("OSDCOMPUTERNAME") = strName
```

- » Save the Script
- » Create a new Configuration Manager Package and distribute to the appropriate Distribution Point
- » Edit your task sequence
- » Immediately following the Partition Disk step, insert a new task for Run Command Line
- » Select the package that contains the vbscript
- » Command line, enter:
 - Cscript //nologo SetComputerName.vbs
- » Click OK to save the task sequence
- » Re-create the Standalone media and test

For more information about solutions for your organization, contact your Dell account representative or visit Dell.com/imaging



Introduction

Process

Requirements

Configuration

OSD MAP

Partitioning

Drivers

CS Enablement

Post-Delivery

BitLocker

Create Media

Validate Media

Advanced



Dell's Factory Readiness Checklist

The Factory Readiness Checklist is a set of tasks that will assist you in preparing your task sequence 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.

SCCM Boot in the Factory requirements

- ☐ Your Windows 7 reference OS wim contains the [KMDF 1.11 update](#) and the [UMDF 1.11 update](#).
- ☐ Your Windows 7 reference OS wim contains update [KB2920188](#) to support TPM 2.0.
- ☐ You established the variable CFI=TRUE on the Standalone Media ISO.
- ☐ You created the standalone media from a Primary Site Server and not a CAS.
- ☐ You established the CFI≠TRUE variable condition on the "Partition Disk" task.
- ☐ You created a "Handoff to CS" task and set the run command from within the "Dell CS Integration" group.
- ☐ Your "Apply Network Settings" task is set to join a WORKGROUP.
- ☐ If your task sequence is joining a domain, then the "Join Domain or Workgroup" task is present in the "Post-Delivery Configuration" group.
- ☐ You have added the Ping Delay as the first task within Post-Delivery Configuration
- ☐ There is a "Continue on Error" established on each individual tasks within the "Post-Deployment Configuration" group.
- ☐ Your Driver Injection tasks use WMI Queries to determine the model type. (Multi Model Deployment Requirement)
- ☐ Your Application installation tasks staged before the "Dell CS Integration" group do not require network connectivity.
- ☐ The "CFI Cleanup" task has a CFI=TRUE task sequence variable set as a condition.
- ☐ You have placed AV installation tasks in the "Post Delivery Configuration" group.
- ☐ You have tested your deployment on the hardware that the task sequence supports.
- ☐ All tasks prior to the "Dell CS Integration" group successfully completes when the NIC is disabled in the BIOS.
- ☐ Your unattend.xml skips the Wireless Setup configuration screen when in the OOBE phase. (HideWirelessSetupInOOBE=TRUE)

If you are deploying Windows 10 with a manual input requirement in Post Delivery...

- ☐ You have enabled mouse cursor support by modifying the registry:
 - » Use a 'Run Command Line' placed after 'Setup Windows and Configuration Manager'
reg add HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Policies\System /v EnableCursorSuppression /t REG_DWORD /d 0 /f

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

- ☐ You established the CFI≠TRUE Task Sequence variable condition on all driver injection tasks.
- ☐ You created a package that contains the "ImportCustomDrivers.VBS" script.
- ☐ You established a Continue On Error for the task.
- ☐ You established the CFI=TRUE Task Sequence variable condition on the "Dynamic Driver Injection" task.

If you require BitLocker as part of your deployment...

- ☐ You created a "Set BitLocker Partition" group.
- ☐ You created an Run Command line task that calls BDEHDCFG.exe.
- ☐ You are creating the BitLocker partition after CFI Cleanup has run.

