Technical white paper

Operating System Deployment to the HP ElitePad 1000 with MDT and ConfigMgr

Deployment Guide

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Introduction

This document contains guidance on deploying Windows® 8.1 64-bit images to supported HP ElitePad tablets. For guidance and help on other configuration items or issues (such as Windows Server setup, general Microsoft® management or deployment tool questions, and so on), see your product documentation and/or the appropriate support personnel. The intended audience includes IT administrators and system integrators familiar with the operating system deployment process using Microsoft Deployment Toolkit (MDT) or Microsoft System Center Configuration Manager (ConfigMgr).

Terminology

Table 1. Terminology

Abbreviation/Acronym	Meaning
ADK	Microsoft Windows Assessment and Deployment Kit
BCU	HP BIOS Configuration Utility
ConfigMgr	Microsoft System Center Configuration Manager
HP CMS	HP Client Management Solutions web site
LTI	Lite Touch Installation
MDT	Microsoft Deployment Toolkit
WDS	Microsoft Windows Deployment Services

Supported platforms

- HP ElitePad 1000 G2

Supported operating systems

- Windows 8.1 64-bit

Component requirements

The following components are needed to be able to successfully deploy an image to a supported HP ElitePad:

- HP WinPE 5.0 Driver Pack—Go to http://www.hp.com/go/clientmanagement, and then click **HP CMS Download Library**.
- HP ElitePad 1000 G2 Driver Pack—Go to http://h20566.www2.hp.com/portal/siste/hpsc/.
- HP ElitePad 1000 WMI Provider—Go to http://www.hp.com/go/clientmanagement, and then click **HP CMS Download Library**.
- BCU (optional)—Go to http://www.hp.com/go/clientmanagement, and then click **HP CMS Download Library**. BIOS configuration changes are possible via the WMI interface provided by HP ElitePad 1000 WMI Provider. BCU provides a convenient way to retrieve and change BIOS settings, so that HP customers do not need to write script with WMI queries. HP recommends using the latest BCU on CMS.

Deploying the operating system

1. Prepare the boot image.
2. Import the platform driver pack.
3. Prepare the target operating system.
4. Download and prepare the HP ElitePad 1000 WMI Provider package. See Basic deployment scenario using MDT and Basic deployment scenario using ConfigMgr for more details.
5. If needed, download and prepare BCU to make changes to BIOS settings.

Basic deployment scenario using MDT

Deployment requirements

- Microsoft Deployment Toolkit (MDT) 2013
- Windows Server 2012 R2 with Windows Assessment and Deployment Kit 8.1 (ADK) and Windows Deployment Services (WDS) installed and configured appropriately

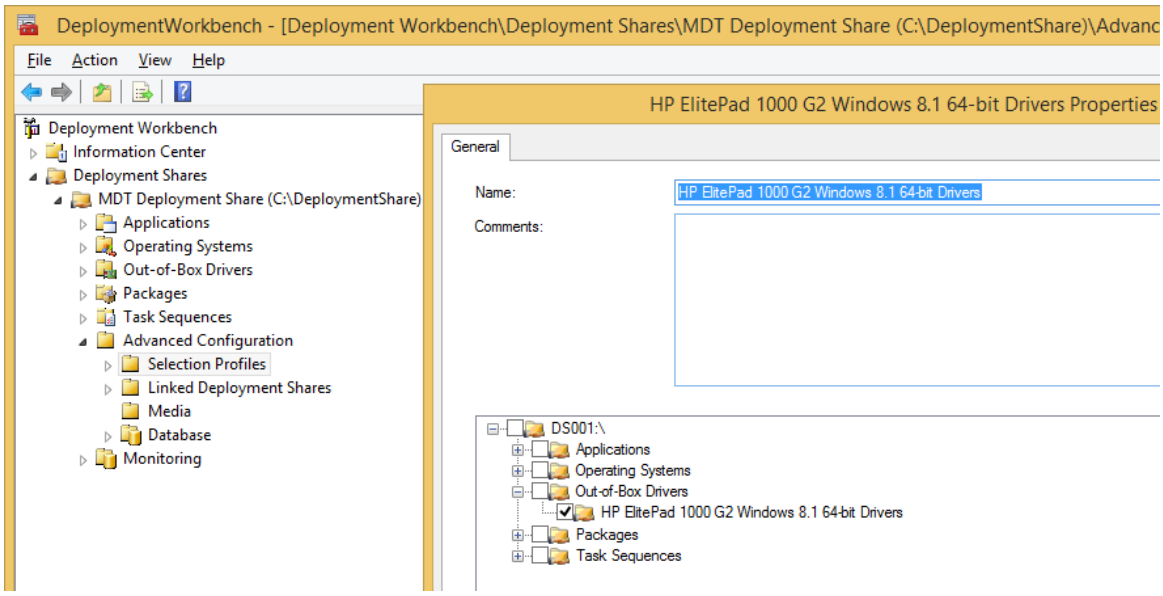
Deployment setup

Importing the HP ElitePad 1000 G2 Driver Pack

The HP ElitePad 1000 G2 Driver Pack can be imported into MDT. See the MDT documentation for instructions. Be sure to download the appropriate driver pack for the target Windows version. The drivers must all be placed into a folder in MDT. For more details about the driver pack, see its ReadMe.txt file.

To use the drivers in the driver pack, the drivers must be placed into a selection profile. This is needed when configuring the deployment task sequence.

Figure 1. Selection profile example for the HP ElitePad 1000 G2 drivers



Note

The driver pack does not contain Bluetooth or Sierra Wireless HP lt4111 Gobi 4G drivers, because they must be installed by running an installer. If you wish to deploy an image to HP ElitePads with either the Bluetooth or Sierra Wireless capability, you need to download the packages and add them to the task sequence as applications to be installed. See the documentation for those packages for configuration details.

Setting up the boot image

In MDT, after the drivers are imported, be sure to update the boot images (Update Deployment Share) so that the necessary network drivers are applied to the boot image.

If BIOS access via WMI is needed when in a WinPE environment, the HP ElitePad 1000 WMI Provider needs to be installed or added to the boot image prior to any WMI access. See the HP ElitePad 1000 WMI Provider documentation for details on setup and usage.

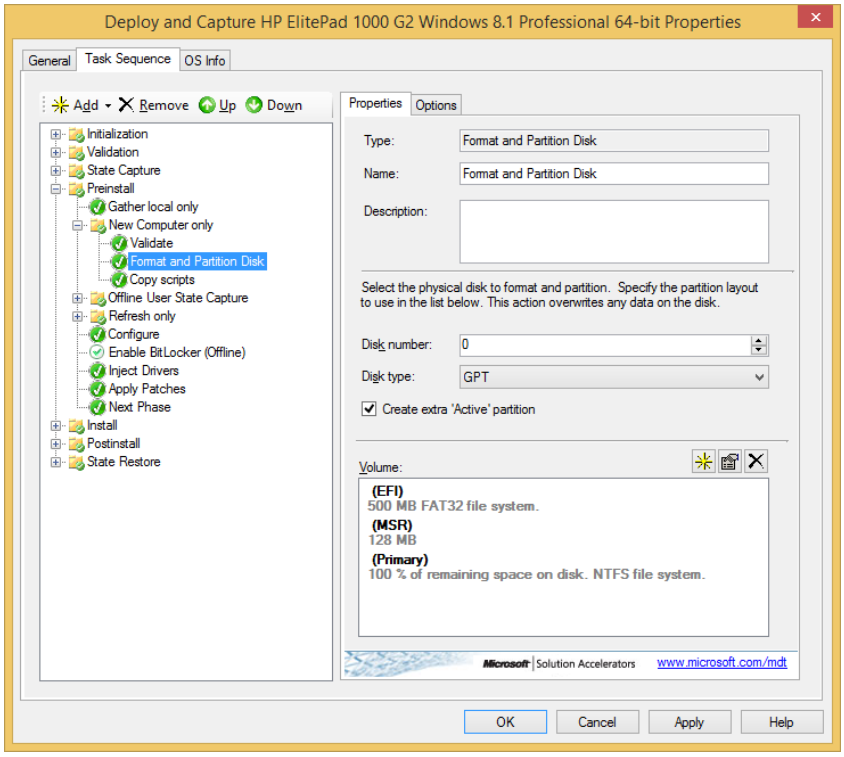
Setting up the target Windows image

No setup is necessary for the target Windows image.

Setting up a Deployment Task Sequence

1. Configure a Format and Partition Disk step in the task sequence.

Figure 2. Format and partition disk task sequence step example

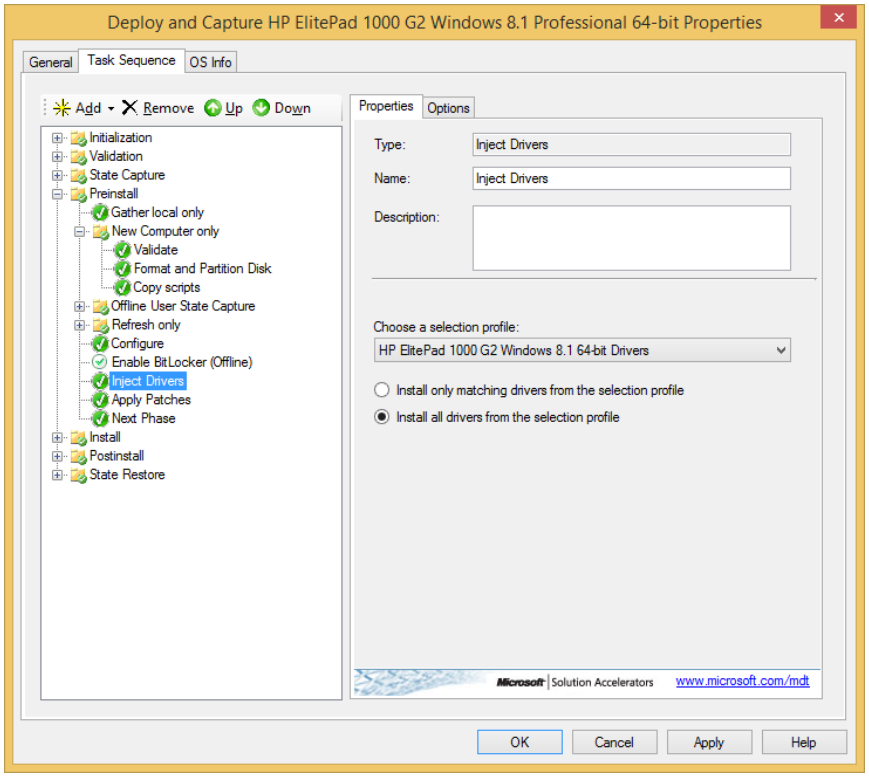


The format and partition disk step should be modified as shown in Figure 2. If needed, select **Create extra 'Active' partition**. This is typically needed to support the installation of a Windows Recovery Enviornment (WinRE).

The EFI partition size can be adjusted to allow more space for the primary partition. See the Microsoft documentation for guidance and best practices.

2. Configure an Inject Drivers step.

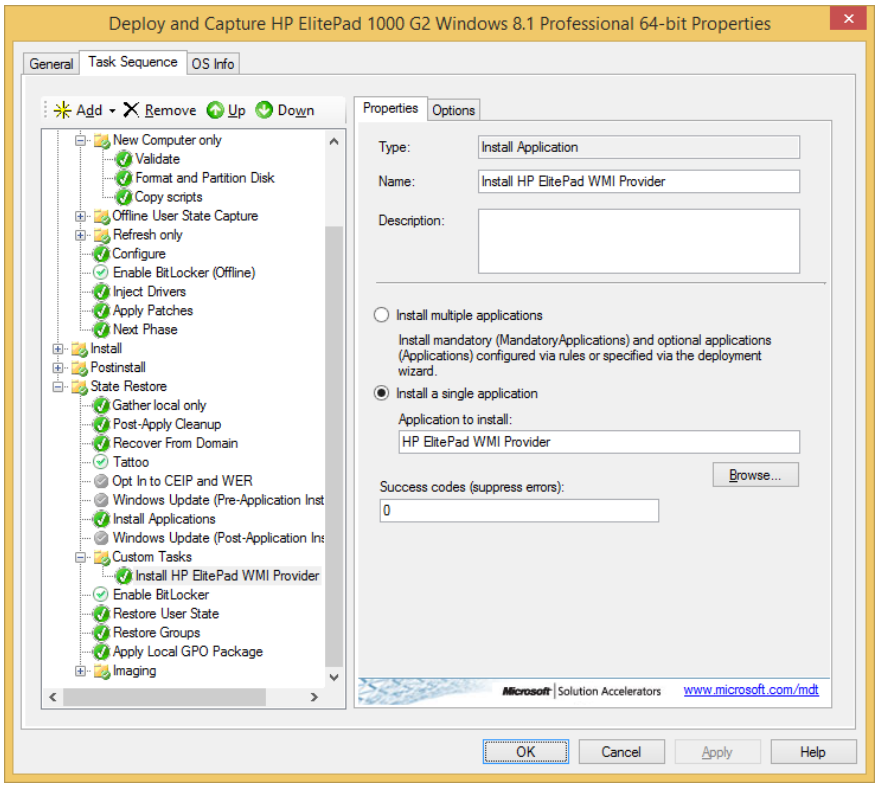
Figure 3. Inject Drivers step



Use the selection profile created for the imported drivers. Be sure to select **Install all drivers from the selection profile** to ensure that all devices drivers are applied and installed.

3. Configure an Install Applications step to install the HP ElitePad 1000 WMI Provider when the computer boots to the target operating system.

Figure 4. Install HP ElitePad 1000 WMI Provider step



4. If needed, change the BIOS settings using BCU. For the HP ElitePad 1000 G2, BCU must be run after a successful installation of the HP ElitePad 1000 WMI Provider. See the BCU documentation for details on setup and usage.

Note
Most BIOS setting changes take effect only after a system restarts.

Creating, capturing, and redeploying an image

If creating, capturing, and redeploying an image, consider the following:

- When creating an image, HP recommends not adding the task sequence step to install the HP ElitePad 1000 WMI Provider.
- When redeploying the image, you must add the task sequence step to install the HP ElitePad 1000 WMI Provider.

Adding a boot image to WDS

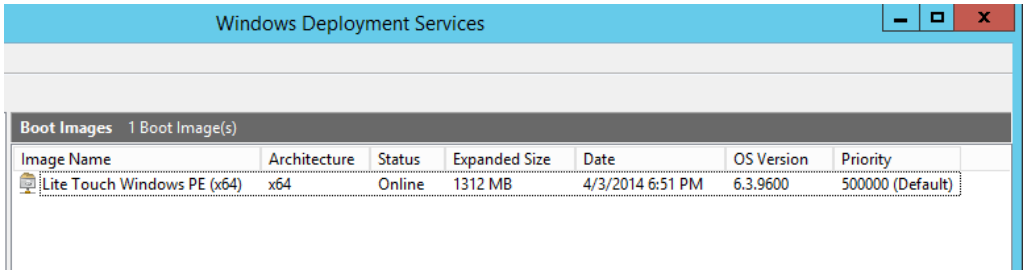
Before adding the boot image to WDS, update the distribution share in MDT to ensure that the network drivers are added to the boot image.

The boot image located in the Boot folder in the distribution share (by default, is it named LiteTouchPE_x64.wim) is the image to be imported into WDS.

Note
The x64 version must be used.

In WDS, add the boot image. When specifying the location of the boot image, browse to the location of the boot image. After the boot image is imported, set up any additional configuration options as needed.

Figure 5. Boot image imported to WDS



Basic deployment scenario using ConfigMgr

Deployment requirements

- Windows Server 2012 R2 with Windows Assessment and Deployment Kit 8.1 (ADK) and Windows Deployment Services (WDS) installed and configured appropriately
- Microsoft System Center 2012 R2 Configuration Manager (ConfigMgr) installed with the appropriate configuration for the deployment of Windows

Deployment setup

Importing the HP ElitePad 1000 G2 Driver Pack

The HP ElitePad 1000 G2 Driver Pack can be imported into ConfigMgr. See the ConfigMgr documentation for instructions. The drivers must all be added to a driver package for reference during the task sequence creation process. For more details about the driver pack, see its ReadMe.txt.

Note

The driver pack does not contain Bluetooth or Sierra Wireless HP lt4111 Gobi 4G drivers, because they must be installed by running an installer. If you wish to deploy to an HP ElitePad 1000 G2 with either the Bluetooth or Sierra Wireless capability, you need to download the packages and add them to the task sequence as applications to be installed. See the documentation for those packages for details on configuration.

Setting up the boot image

In ConfigMgr, the boot image must contain either the drivers in the HP WinPE 5.0 Driver Pack or the network drivers from the HP ElitePad 1000 G2 Driver Pack for network connectivity to be functional during a deployment. The 64-bit boot image must be used to deploy the supported 64-bit operating system.

Note

If BIOS access via WMI is needed in WinPE, install HP ElitePad 1000 WMI Provider in WinPE prior to updating WMI, BCU, or the BIOS.

Creating a package for the HP ElitePad WMI Provider

Create a software package in ConfigMgr for the HP ElitePad 1000 WMI Provider. There is no need to create a program for the package.

Setting up the target Windows image

No setup is necessary for the target Windows image.

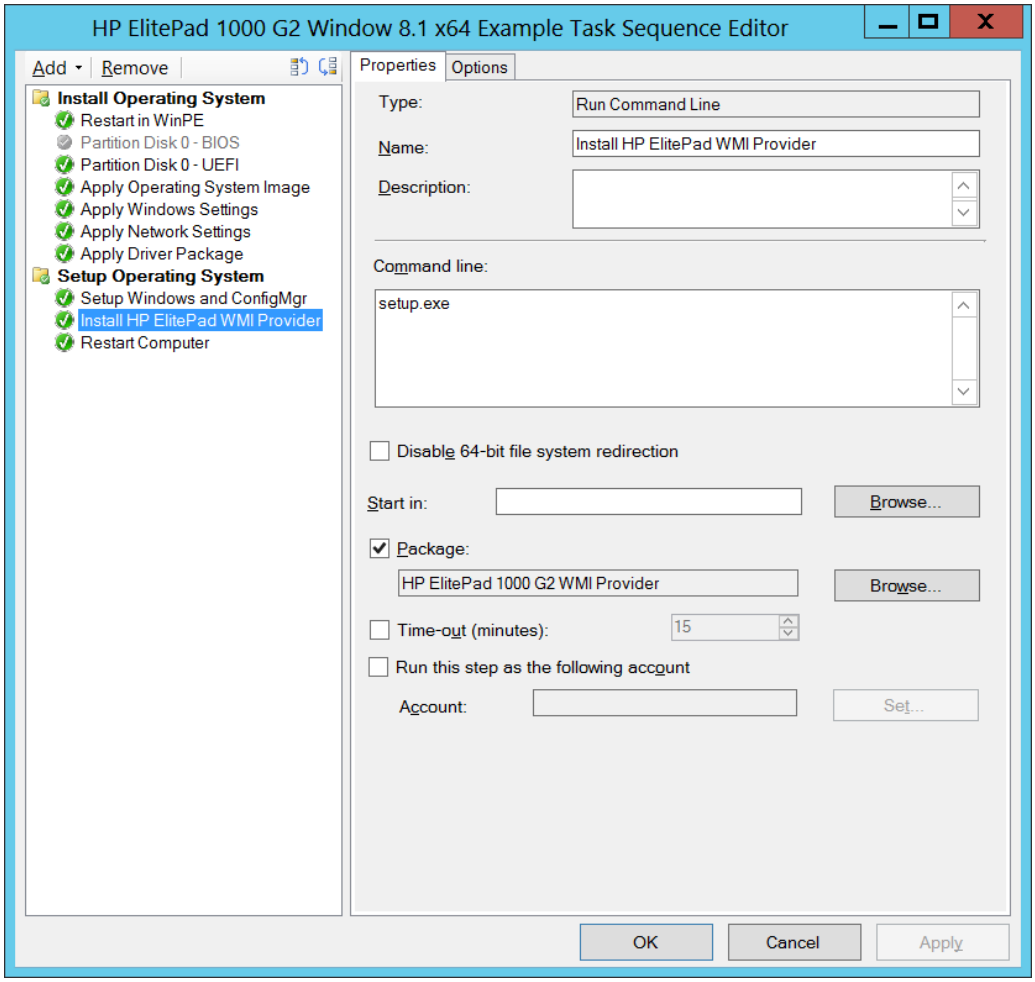
Setting up a Deployment Task Sequence

1. Configure a Format & Partition Disk step in the task sequence.

   The HP ElitePad 1000 G2 requires the disk to be formatted for EFI systems. Leverage the default Format & Partition Disk (EFI) step created by ConfigMgr to ensure that your disk is partitioned and formatted correctly.
2. Reference the HP ElitePad 1000 G2 Driver Pack. Use the driver package created in Importing the HP ElitePad 1000 G2 Driver Pack.

3. Configure a **Run Command Line** step to install HP ElitePad 1000 WMI Provider after the target system boots to the target operating system.

Figure 6. Run Command Line step



4. If needed, change the BIOS settings using BCU. For the HP ElitePad 1000 G2, BCU must be run after a successful installation of the HP ElitePad 1000 WMI Provider. See the BCU documentation for details on setup and usage.

Note
Most BIOS setting changes take effect only after a system restarts.

Boot image download speed

The default Trivial File Transfer Protocol (TFTP) block size setting of ConfigMgr 2012 R2 might cause the boot image to download slowly during PXE booting. If you experience this performance issue, change this setting.

To adjust this setting:

1. Open the registry editor and browse to `HKEY_LOCAL_MACHINES\SOFTWARE\Microsoft\SMS\DP`.

Note
Be sure to back up the registry before making changes.

2. Create a new DWORD value with the name **RamDiskTFTPBlockSize**, and specify a larger value, such as 0x2000 (8192).

Be sure to test this new value before deploying this setting widely. For more guidance on setting and adjusting this value, see the Microsoft documentation.

Finding more resources

To download HP driver packs, go to the CMS home page and select **HP Driver Packs**.

To build HP driver packs, go to the CMS home page and select **SoftPaq Download Manager**.

To download HP WinPE driver packs and tools, go to the CMS home page and select **HP CMS Download Library**.

To download other HP drivers and software:

1. Go to www.hp.com.
2. Click **Support**.
3. Select **Download drivers**.
4. Enter the product name (for example, **HP ElitePad 1000 G2**) and click **Go**.
5. Select the link with the product name.
6. Select the target operating system of your deployment.

To configure MDT and/or ConfigMgr products, go to www.msdn.microsoft.com. Be sure to use the appropriate Microsoft management solutions that support the deployment of the target Windows operating system.

For more information

To learn more about HP Client Management Solutions (CMS), go to www.hp.com/go/clientmanagement.

Sign up for updates
hp.com/go/getupdated

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