# **Microsoft** Solution Accelerators

# Microsoft Deployment Toolkit 2013

Quick Start Guide for User-Driven Installation

Published: September 2013

For the latest information and to leave feedback, please visit Microsoft Connect at <a href="http://connect.microsoft.com">http://connect.microsoft.com</a>.



The information in this document and any document referenced herein is provided for informational purposes only, is provided AS IS AND WITH ALL FAULTS and cannot be understood as substituting for customized service and information that might be developed by Microsoft Corporation for a particular user based upon that user's particular environment. RELIANCE UPON THIS DOCUMENT AND ANY DOCUMENT REFERENCED HEREIN IS AT THE USER'S OWN RISK.

© 2013 Microsoft Corporation. All rights reserved.

If the user of this work is using the work SOLELY FOR NON-COMMERCIAL PURPOSES INTERNALLY WITHIN A COMPANY OR ORGANIZATION, then this work is licensed under the Creative Commons Attribution-NonCommercial License. To view a copy of this license, visit http://creativecommons.org/licenses/by-nc/2.5 or send a letter to Creative Commons, 543 Howard Street, 5th Floor, San Francisco, California, 94105, LISA

MICROSOFT CORPORATION PROVIDES NO WARRANTIES, EXPRESS, IMPLIED OR STATUTORY, AS TO THE INFORMATION CONTAINED IN THIS DOCUMENT AND ANY DOCUMENT REFERENCED HEREIN. Microsoft Corporation provides no warranty and makes no representation that the information provided in this document or any document referenced herein is suitable or appropriate for any situation, and Microsoft Corporation cannot be held liable for any claim or damage of any kind that users of this document or any document referenced herein may suffer. Your retention of and/or use of this document and/or any document referenced herein constitutes your acceptance of these terms and conditions. If you do not accept these terms and conditions, Microsoft Corporation does not provide you with any right to use any part of this document or any document referenced herein.

Complying with the applicable copyright laws is the responsibility of the user. Without limiting the rights under copyright, no part of this document may be reproduced, stored in or introduced into a retrieval system, or transmitted in any form or by any means (electronic, mechanical, photocopying, recording or otherwise), or for any purpose, without the express written permission of Microsoft Corporation.

Microsoft may have patents, patent applications, trademarks, copyrights or other intellectual property rights covering subject matter within this document. Except as provided in any separate written license agreement from Microsoft, the furnishing of this document does not give you, the user, any license to these patents, trademarks, copyrights or other intellectual property.

Information in this document, including URL and other Internet Web site references, is subject to change without notice. Unless otherwise noted, the example companies, organizations, products, domain names, e-mail addresses, logos, people, places and events depicted herein are fictitious, and no association with any real company, organization, product, domain name, e-mail address, logo, person, place or event is intended or should be inferred.

Microsoft, Active Directory, SQL Server, Windows, Windows Live, Windows PowerShell, and Windows Server are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries

The names of actual companies and products mentioned herein may be the trademarks of their respective owners.

## Contents

Introduction to Quick Start Guide for User-Driven Installation	1
Prerequisites	2
Step 1: Prepare the Prerequisite Infrastructure	4
Step 1-1: Install Windows Server 2008 R2	5
Step 1-2: Create the Required Folders and Network Shares	5
Step 1-3: Obtain the Required Software	6
Step 1-4: Install the AD DS Server Role	7
Step 1-5: Install the DHCP Server Server Role	8
Step 1-6: Install the Web Services (IIS) Server Role	8
Step 1-7: Add the Required Windows Server 2008 R2 Features	10
Step 1-8: Create the Required User and Service Accounts	10
Step 1-9: Install SQL Server 2008 R2	12
Step 1-10: Add the Site Server to the Administrators Security Group	15
Step 1-11: Install Configuration Manager	16
Step 1-12: Configure the Network Access Account	17
Step 1-13: Configure the Configuration Manager Site Boundaries and Boundary	
Groups	
Step 1-14: Configure the Publishing of Site Information in AD DS and DNS	
Step 1-15: Configure Discovery of Active Directory Users	
Step 2: Prepare the MDT Environment	
Step 2-1: Install MDT	
Step 2-2: Enable Configuration Manager Console Integration	24
Step 3: Create and Configure a Task Sequence to Create a Reference Computer	26
Step 3-1: Create an MDT Task Sequence for Deploying the Reference Computer	26
Step 3-2: Select the Distribution Points for the New Packages and Images	30
Step 3-3: Add the Necessary Device Drivers	31
Step 3-4: Enable MDT Deployment Process Monitoring	33
Step 3-5: Customize the MDT Configuration Files for the Reference Computer	34
Step 3-6: Update the Distribution Points for the Custom Settings Files Package	35
Step 3-7: Customize the Task Sequence for the Reference Computer	36
Step 4: Deploy Windows 8.1 and Capture an Image of the Reference Computer	38
Step 4-1: Add the Reference Computer to the Configuration Manager Site Database	38
Step 4-2: Create a Collection That Contains the Reference Computer	39
Step 4-3: Deploy the Reference Computer Task Sequence	41
Step 4-4: Create the Task Sequence Bootable Media	42
Step 4-5: Start the Reference Computer with the Task Sequence Bootable Media	44
Step 5: Create and Configure a Task Sequence to Deploy the Target Computer	49
Step 5-1: Import the Captured .wim File into Configuration Manager	50
Step 5-2: Create an MDT Task Sequence to Deploy the Captured Image	51
Step 5-3: Select the Distribution Points for the New Packages and Images	54
Step 5-4: Customize the MDT Configuration Files	55
Step 5-5: Update the Distribution Points for the Custom Settings Package	56
Step 5-6: Customize the Task Sequence for the Target Computer	56
Step 5-7: Configure an Unattended Installation of Office Professional Plus 2010	
Step 5-8: Create an Office Professional Plus 2010 Application	58

Step 5-9: Distribute the Office Professional Plus 2010 Application	61
Step 5-10: Make the Office Professional Plus 2010 Application Available to All Users	62
Step 5-11: Customize the UDI Wizard Configuration File for the Target Computer	63
Step 5-13: Create a New Custom Wizard Page	69
Step 5-14: Add Controls to New Custom Wizard Page	69
Step 5-15: Update the Distribution Points for the MDT Files Package	75
Step 6: Deploy the Captured Image of the Reference Computer to the Target	
Computer	76
Step 6-1: Add the Target Computer to the Configuration Manager Site Database	76
Step 6-2: Create a Computer Collection That Includes the Target Computer	77
Step 6-3: Deploy the Target Computer Task Sequence	79
Step 6-4: Start the Target Computer with the Task Sequence Bootable Media	80

# Introduction to Quick Start Guide for User-Driven Installation

Microsoft® Deployment Toolkit (MDT) 2013 provides technology for deploying Windows® operating systems, and Microsoft Office. This quick start guide helps you quickly evaluate MDT 2013 by providing condensed, step-by-step instructions for using it to install the Windows 8.1 operating system and Microsoft Office Professional Plus 2010 with User-Driven Installation (UDI) and Microsoft System Center 2012 R2 Configuration Manager. This quick start guide demonstrates how to perform the MDT New Computer deployment scenario, which covers the deployment of Windows 8.1 to a new computer. This scenario assumes that there is no user data or profile to preserve.

**Note** In this document, *Windows* applies to the Windows 8.1, Windows 8, Windows 7, Windows Server® 2012 R2, Windows Server 2012, and Windows Server 2008 R2 operating systems unless otherwise noted. MDT does not support ARM processor—based versions of Windows. Similarly, *MDT* refers to MDT 2013 unless otherwise stated.

After using this guide to evaluate MDT, review the rest of the MDT guidance to learn more about the technology's advanced features.

**Note** The infrastructure setup described here is for evaluation purposes and not intended for a production system.

# **Prerequisites**

UDI installations using System Center 2012 R2 Configuration Manager have the following prerequisites.

## Required Software

To complete this guide, the following software is required:

- Windows Server 2008 R2
- Microsoft SQL Server® 2008 R2
- SQL Server 2008 R2 Service Pack 1 (SP1)
- SQL Server 2008 R2 SP1 Cumulative Update 6 (CU6)
- Windows 8.1
- System Center 2012 R2 Configuration Manager
- Office Professional Plus 2010 volume license, 32-bit version
- Microsoft .NET Framework version 3.5 with SP1
- Windows PowerShell™ version 2.0
- Windows Preinstallation Environment (Windows PE), which is included in Configuration Manager
- Networking services, including Domain Name System (DNS) and Dynamic Host Configuration Protocol (DHCP)
- Active Directory® Domain Services (AD DS)

**Note** The Task Sequencer used in MDT deployments requires that the Create Global Object right be assigned to credentials used to access and run the Deployment Workbench and the deployment process. This right is normally available to accounts with Administrator-level permissions (unless explicitly removed). Also, the Specialized Security – Limited Functionality (SSLF) security profile removes the Create Global Object right and should not be applied to computers deployed using MDT.

## **Computer Configuration**

To complete this guide, set up the computers listed in Table 1. These computers can be either physical computers or virtual machines (VMs) with the system resources designated.

Table 1. Computers Used in This Guide

Computer	Description and system resources
WDG-MDT-01	This computer runs the MDT infrastructure and Configuration Manager. The computer runs Windows Server 2008 R2 with the following networking services installed:

Computer	Description and system resources	
	AD DS	
	DNS Server	
	DHCP Server	
	Windows Deployment Services	
	The system resources of the computer are as follows:	
	<ul> <li>Quad-core processor running at 2.66 gigahertz (GHz) or faster</li> </ul>	
	4 gigabytes (GB) or more of physical memory	
	<ul> <li>A disk partition that has 40 GB or more of available disk space; it will become the drive C partition</li> </ul>	
	One CD-ROM or DVD-ROM drive that will be assigned the drive letter D	
	<ul> <li>A disk partition that has 40 GB or more of available disk space; it will become partition E.</li> </ul>	
WDG-REF-01	This is the reference computer, which runs no current operating system. The system resources of the computer are as follows:	
	Processor running at 1.4 GHz or faster	
	1 GB or more of physical memory	
	16 GB or more of available disk space	
WDG-CLI-01	This is the target computer, which runs no current operating system. The system resources of the computer are as follows:	
	Processor running at 1.4 GHz or faster	
	1 GB or more of physical memory	
	16 GB or more of available disk space	

The resources listed in Table 1 reflect the system resources recommended to perform the steps in this guide. For information on the minimum system resource requirements for:

- Windows Server 2008 R2, see <u>Installing Windows Server 2008 R2</u>
- SQL Server 2008 R2, see <u>Hardware and Software Requirements for Installing SQL Server 2008 R2</u>

**Note** This guide assumes that MDT is being evaluated on 64-bit (x64) physical or virtual computers. If evaluating MDT on 32-bit (x86) platforms, download and install the x86 editions of MDT and the components that this guide describes.

# **Step 1: Prepare the Prerequisite Infrastructure**

For purposes of this guide, all the prerequisite infrastructure services run on the computer named *WDG-MDT-01*. Install the prerequisite software, server roles, and services on this computer before installing MDT.

**Note** This section assumes that you are creating a new Configuration Manager infrastructure for MDT. If you are using an existing Configuration Manager infrastructure, review the steps in this section and substitute existing resource names for the resources created in this section (such as the computer name and shared network folders). After reviewing this section, proceed to <a href="Step 2">Step 2</a>: Prepare the MDT Environment.

Prepare the prerequisite infrastructure before installing MDT by:

- Installing Windows Server 2008 R2 as described in <u>Step 1-1: Install Windows</u> <u>Server 2008 R2</u>
- Creating the required folders and network shares as described in <u>Step 1-2:</u>
   <u>Create the Required Folders and Network Shares</u>
- Obtaining the software required to perform the steps in this guide as described in <u>Step 1-3</u>: <u>Obtain the Required Software</u>
- Installing the AD DS server role as described in <u>Step 1-4: Install the AD DS</u> Server Role
- Installing the DHCP Server server role as described in <u>Step 1-5: Install the</u> DHCP Server Server Role
- Installing the Web Services (IIS) server role as described in <u>Step 1-6: Install</u> the Web Services (IIS) Server Role
- Adding the required Windows Server 2008 R2 features as described in <u>Step</u>
   1-7: Add the Required Windows Server 2008 R2 Features
- Creating the user and service accounts required to perform the steps in this guide as described in <u>Step 1-8: Create the Required User and Service</u> <u>Accounts</u>
- Installing SQL Server 2008 R2 for Configuration Manager to use as described in Step 1-9: Install SQL Server 2008 R2
- Adding the site server to the Administrators security group as described in Step 1-10: Add the Site Server to the Administrators Security Group
- Installing Configuration Manager as described in <u>Step 1-11: Install</u> Configuration Manager
- Configuring the Network Access Account that Configuration Manager clients use to access Configuration Manager distribution points as described in Step 1-12: Configure the Network Access Account

- Configuring the Configuration Manager site boundaries and boundary groups as described in <u>Step 1-13: Configure the Configuration Manager Site</u> Boundaries and Boundary Groups
- Configuring the publishing of site information in AD DS and DNS as described in <u>Step 1-14: Configure the Publishing of Site Information in AD DS</u> and DNS
- Configuring discovery of users in AD DS as described in <u>Step 1-15: Configure</u> Discovery of Active Directory Users

# Step 1-1: Install Windows Server 2008 R2

Use the information in Table 2 to install Windows Server 2008 R2. Accept default values unless otherwise specified.

Table 2. Information for Installing Windows Server 2008 R2

When prompted for	Provide these values
Where do you want to install Windows?	Disk 0 Unallocated Space
Password	Any strong password
Computer name	WDG-MDT-01
Format for volumes C and E	NTFS
TCP/IP configuration	Configure with a static IP address configuration, with the other TCP/IP configuration options as appropriate for the environment

# Step 1-2: Create the Required Folders and Network Shares

The MDT deployment process requires additional folders that are used as the source for files or to store files created during the MDT deployment process. Some of these folders need to be shared so that they can be accessed from other computers.

#### To create the required folders and shares

1. Create the folders and shares listed in Table 3 with the permissions specified for each share.

Table 3. Folders That the MDT Deployment Process Requires

Create this folder	With this share name	With these share
		permissions

Create this folder	With this share name	With these share permissions
E:\Source\$	Source\$	Administrators: Co-owner
		Everyone: Read
E:\Images\$	Images\$	Administrators: Co-owner
		Everyone: Read
E:\Capture\$	Capture\$	Administrators: Co-owner
		Everyone: Read
E:\Packages\$	Packages\$	Administrators: Co-owner
		Everyone: Read

- 2. Create the following folders:
  - E:\CMDownloads
  - E:\Source\$\CustomSettings
  - E:\Source\Drivers
  - E:\Source\$\Windows\_8-1
  - E:\Source\$\MDT\_2013
  - E:\Source\$\SQL2008R2
  - E:\Source\$\SQL2008R2SP1
  - E:\Source\$\SQL2008R2CU6
  - E:\Source\$\OfficeProPlus2010
  - E:\Source\$\ConfigMgr
  - E:\Packages\$\Drivers
- Copy the device drivers for the reference computer (WDG-REF-01) and the target computer (WDG-CLI-01) to E:\Source\$\Drivers.

**Note** The processes in this guide assume that the reference computer and target computer have the same devices and do not require different devices drivers.

### Step 1-3: Obtain the Required Software

Besides Windows Server 2008 R2, Windows 8.1, and System Center 2012 R2 Configuration Manager, certain software is required to evaluate MDT based on the processes in this guide. Table 4 lists the software required to perform deployments using MDT, where to obtain the software, and where to place the software on WDG-MDT-01.

Table 4. Additional Software Required for Deployment Using MDT

Obtain this software	Place in this folder
----------------------	----------------------

Obtain this software	Place in this folder
MDT 2013	E:\Source\$\MDT_2013
Windows 8.1 distribution files from the product media	E:\Source\$\Windows_8-1
Device drivers required for the reference and target computers (WDG-REF-01 and WDG-CLI-01)	E:\Source\$\Drivers
SQL Server 2008 R2 from the product media	E:\Source\$\SQL2008
SQL Server 2008 R2 SP1, available at <a href="http://www.microsoft.com/download/en/details.aspx?id=26727">http://www.microsoft.com/download/en/details.aspx?id=26727</a>	E:\Source\$\SQL2008R2SP1
SQL Server 2008 R2 SP1 CU6, available at <a href="http://support.microsoft.com/kb/2679367">http://support.microsoft.com/kb/2679367</a>	E:\Source\$\SQL2008R2SP1CU 6
System Center 2012 R2 Configuration Manager from the product media	E:\Source\$\ConfigMgr
Office Professional Plus 2010 32-bit Volume Licensing version from the product media	E:\ Source\$\OfficeProPlus2010

## Step 1-4: Install the AD DS Server Role

AD DS is required to provide authentication and act as a repository for configuration values for the Microsoft products and technologies that MDT uses, such as Microsoft SQL Server and Configuration Manager.

To install AD DS, run the DCPROMO Wizard to configure the computer as a domain controller. Install AD DS using the information in Table 5, accepting any defaults unless otherwise specified.

Table 5. Information for Installing AD DS

When prompted	Do this
For the domain type	Create a new domain in a new forest.
For the fully qualified domain name	Type mdt2013.corp.woodgrovebank.com.
For the forest functional level	Select Windows Server 2008 R2.
To install the DNS Server service as part of the domain controller installation process	Click Yes.

## Step 1-5: Install the DHCP Server Server Role

The DHCP Server server role is required to provide automatic IP configuration for the target computers. Install DHCP Server using the information in Table 6, accepting any defaults unless otherwise specified.

**Note** If you are using a virtualized environment, disable any DHCP configuration that the computer-virtualization software provides. Ensure that the DHCP Server service running WDG-MDT-01 is the only provider of IP configuration using DHCP.

 Table 6. Information for Installing the DHCP Server Server Role

On this wizard page	Do this
Authorize DHCP server in Active Directory	Authorize WDG-MDT-01 to provide client IP configuration.
DHCP scopes	Create an appropriate scope that can be used to automatically configure TCP/IP for WDG-REF-01 and WDG-CLI-01.
DHCPv6 stateless mode configuration	Disable DHCPv6 stateless mode for this server.

## Step 1-6: Install the Web Services (IIS) Server Role

Install the Web Services (IIS) server role with the role services listed in Table 7, which are required for SQL Server 2008 R2 and Configuration Manager. Unless otherwise specified, use the default values.

Table 7. Information for Installing the Web Services (IIS) Server Role

Role service	Status
Web Server	Installed
Common HTTP Features	Installed
Static Content	Installed
Default Document	Installed
Directory Browsing	Installed
HTTP Errors	Installed
HTTP Redirection	Installed
WebDAV Publishing	Installed
Application Development	Installed
ASP.NET	Installed
.NET Extensibility	Installed

Role service	Status
ASP	Not installed
CGI	Not installed
ISAPI Extensions	Installed
ISAPI Filters	Installed
Server Side Includes	Not installed
Health and Diagnostics	Installed
HTTP Logging	Installed
Logging Tools	Installed
Request Monitor	Installed
Tracing	Installed
Custom Logging	Not installed
ODBC Logging	Not installed
Security	Installed
Basic Authentication	Not installed
Windows Authentication	Installed
Digest Authentication	Not installed
Client Certificate Mapping Authentication	Not installed
IIS Client Certificate Mapping Authentication	Not installed
URL Authorization	Not installed
Request Filtering	Installed
IP and Domain Restriction	Not installed
Performance	Installed
Static Content Compression	Installed
Dynamic Content Compression	Not installed
Management Tools	Installed
IIS Management Console	Installed
IIS Management Scripts and Tools	Not installed
Management Service	Not installed
IIS 6 Management Compatibility	Installed
IIS 6 Metabase Compatibility	Installed
IIS 6 WMI Compatibility	Installed

Role service	Status
IIS 6 Scripting Tools	Not installed
IIS 6 Management Console	Not installed
FTP Publishing Service	Not installed
FTP Server	Not installed
FTP Management Console	Not installed
IIS Hostable Web Core	Not installed

## Step 1-7: Add the Required Windows Server 2008 R2 Features

In addition to installing the required Windows Server 2008 R2 server roles, add the following required features in Server Manager in the **Features Summary** section:

- Background Intelligent Transfer Service
- Remote Differential Compression

# Step 1-8: Create the Required User and Service Accounts

Configuration Manager and SQL Server 2008 R2 require user accounts during the installation process. Table 8 lists the information needed for creating these accounts.

**Table 8. Information for Creating the Required Accounts** 

Create this account	With these settings
SQL Server Agent	1. In First name, type SQL Agent.
service account	2. In Last name, type Service Account.
	3. In User logon name, type SQLAgent.
	<ol> <li>In Password and Confirm password, type P@ssw0rd.</li> </ol>
	<ol><li>Clear the User must change password at next logon check box.</li></ol>
	6. Select the <b>Password never expires</b> check box.
	7. Make the account a member of the Domain Admins security group.
	8. In Description, type Service account used to run SQL Server 2008 R2 Agent service.

Create this account	With these settings
SQL Server Database	1. In First name, type SQL DB Engine.
Engine service account	2. In Last name, type Service Account.
account	3. In User logon name, type SQLDBEngine.
	<ol> <li>In Password and Confirm password, type P@ssw0rd.</li> </ol>
	<ol><li>Clear the User must change password at next logon check box.</li></ol>
	6. Select the <b>Password never expires</b> check box.
	<ol><li>Make the account a member of the Domain Admins security group.</li></ol>
	8. In <b>Description</b> , type <b>Service account used to</b> run <b>SQL Server 2008 R2 database engine</b> .
SQL Server Reporting	1. In First name, type SQL Reporting.
Services service account	2. In Last name, type Service Account.
account	3. In User logon name, type SQLReport.
	<ol> <li>In Password and Confirm password, type P@ssw0rd.</li> </ol>
	<ol><li>Clear the User must change password at next logon check box.</li></ol>
	6. Select the <b>Password never expires</b> check box.
	7. Make the account a member of the Domain Admins security group.
	8. In <b>Description</b> , type <b>Service account used to</b> run <b>SQL Server 2008 R2 reporting services</b> .
System Center	1. In First name, type CM 2012.
Configuration Manager Client Network Access account	2. In Last name, type Client Network Access.
	3. In User logon name, type CMNetAccess.
	<ol> <li>In Password and Confirm password, type P@ssw0rd.</li> </ol>
	<ol><li>Clear the User must change password at next logon check box.</li></ol>
	6. Select the <b>Password never expires</b> check box.
	7. In Description, type Service account used as the network access account for Configuration Manager Client.

## Step 1-9: Install SQL Server 2008 R2

Before installing Configuration Manager, install SQL Server 2008 R2 SP1 and CU6.

**Note** To enable all SQL Server 2008 R2 features, install the Web Services (IIS) server role before installing SQL Server 2008 R2.

#### To install SQL Server 2008 R2

- 1. Start the SQL Server Installation Center.
- 2. In the SQL Server Installation Center, in the navigation pane, click **Installation**.
- 3. In the preview pane, click **New installation or add features to an existing installation**.
  - SQL Server 2008 R2 Setup Wizard starts.
- 4. Install SQL Server 2008 R2 using the information in Table 9, accepting the defaults unless otherwise specified.

Table 9. Information for Installing SQL Server 2008 R2

On this wizard page	Do this
Setup Support Rules	Click <b>OK</b> .
Product Key	Click Next.
License Terms	Select the I accept the license terms check box, and then click Next.
Setup Support Files	Click Install.
Setup Support Rules	Ensure that no critical results exist for the rules, and then click <b>Next</b> .
Setup Role	Click <b>SQL Server Feature Installation</b> , and then click <b>Next</b> .
Feature Selection	Select the <b>Database Engine Services</b> check box.
	2. Select the <b>Reporting Services</b> check box.
	3. Select the <b>Full-Text Search</b> check box.
	<ol> <li>Select the Management Tools - Complete check box.</li> </ol>
	5. Click <b>Next</b> .
Installation Rules	Click Next.
Instance Configuration	Click Next.
Disk Space	Click Next.

On this wizard page	Do this
Requirements	
Server Configuration	<ol> <li>For SQL Server Agent, in Account Name, type MDT2013\SQLAgent, in Password, type P@ssw0rd.</li> </ol>
	<ol> <li>For SQL Server Database Engine, in Account Name, type MDT2013\SQLDBEngine, in Password, type P@ssw0rd.</li> </ol>
	<ol> <li>For SQL Server Reporting Services, in Account Name, type MDT2013\SQLReport, in Password, type P@ssw0rd.</li> </ol>
	4. Click Next.
Database Engine Configuration	Click Add Current User, and then click Next.
Reporting Services Configuration	Click Next.
Error Reporting	Click Next.
Installation Configuration Rules	Click Next.
Ready to Install	Click Install.
Complete	Click Close.

5. Close the SQL Server Installation Center.

#### To install SQL Server 2008 R2 SP1

1. In Windows Explorer, go to E:\Source\$\SQL2008R2SP1, and double-click SQLServer2008R2SP1-KB2528583-x64-ENU.exe.

The **Extracting Files** dialog box displays the file-extraction process. When the process is complete, the SQL Server 2008 R2 Service Pack 1 Update Setup Wizard starts.

2. Install SQL Server 2008 R2 SP1 using the information in Table 10, accepting the defaults unless otherwise specified.

Table 10. Information for Installing SQL Server 2008 R2 SP1

On this wizard page	Do this
SQL Server 2008 R2 update	Click Next.
License Terms	Select the I accept the license terms check box, and then click Next.

On this wizard page	Do this
Select Features	Click Next.
Check Files In Use	Click Next.
Ready to update	Click <b>Update</b> .
Update Progress	The progress is displayed on the wizard page as the update is performed and finishes.
Complete	Click Close.

#### To install SQL Server 2008 R2 SP1 CU6

1. In Windows Explorer, go to E:\Source\$\SQL2008R2SP1CU6, and double-click 446622 intl x64 zip.exe.

The Microsoft Self-Extractor dialog box appears.

- 2. In the Microsoft Self-Extractor dialog box, click Continue.
- In the Microsoft Self-Extractor dialog box, in Select the folder where you
  want to unzip the files to, type E:\Source\$\SQL2008R2SP1CU6, and then
  click OK.

Note You can click the ellipse (...) to browse for the E:\Source\$\SQL2008R2SP1CU6 folder.

The extraction process is displayed. When the process is complete, the completion status is displayed.

- 4. In the Microsoft Self-Extractor dialog box, click OK.
- In Windows Explorer, go to E:\Source\$\SQL2008R2SP1CU6, and doubleclick SQLServer2008R2- KB2679367-x64.exe.

The **Extracting Files** dialog box displays the file-extraction process. When the process is complete, the SQL Server 2008 R2 Service Pack 1 CU6 Update Setup Wizard starts.

6. Install SQL Server 2008 R2 SP1 CU6 using the information in Table 11, accepting the defaults unless otherwise specified.

Table 11. Information for Installing SQL Server 2008 R2 SP1 CU6

On this wizard page	Do this
SQL Server 2008 R2 update	Click Next.
License Terms	Select the I accept the license terms check box, and then click Next.
Select Features	Click Next.
Check Files In Use	Click Next.
Ready to update	Click Update.

On this wizard page	Do this
Update Progress	The progress is displayed on the wizard page as the update is performed and finishes.
Complete	Click Close.

The **Install a SQL Server 2008 R2 update** dialog box appears prompting you to restart the computer to complete the setup.

- 7. In the Install a SQL Server 2008 R2 update dialog box, click OK.
- 8. Restart the computer.
- After installing SQL Server 2008 R2 SP1 CU6, the SQL Server build number should be 10.51,2811.0.

**Tip** You can verify the SQL Server build number by viewing the SQL Server updates applied in the Programs and Features Control Panel item by clicking **View installed updates**.

# Step 1-10: Add the Site Server to the Administrators Security Group

When all computers are in the same forest, manually add the site server computer account to the local Administrators group on each computer. Complete this step before configuring the computer as a site system.

#### To add the site server to the Administrators security group

- 1. Click **Start**, point to **Administrative Tools**, and then click **Active Directory Users and Computers**.
- 2. In the Active Directory Users and Computers console tree, go to mdt2013.corp.woodgrovebank.com/Builtin.
- 3. In the preview pane, right-click **Administrators**, and then click **Properties**.
- 4. In the **Administrators Properties** dialog box, click the **Members** tab, and then click **Add**.
- 5. In the **Select Users, Contacts, Computers, or Groups** dialog box, click **Object Types**.
- 6. In the **Object Types** dialog box, in **Object types**, select **Computers**, and then click **OK**.
- 7. In the Select Users, Contacts, Computers, or Groups dialog box, in Enter the object names to select, type WDG-MDT-01. Click Check Names, and then click OK.
- 8. Close any open windows.

## Step 1-11: Install Configuration Manager

When the other products and technologies have been installed, install Configuration Manager. Before doing so, however, extend the Active Directory schema so that computers can locate the distribution points, service locator points, and other server roles. Also, you can extend the schema after you have installed Configuration Manager. For more information about how to extend the Active Directory schema for Configuration Manager, see the section, "Extend the Active Directory Schema," in the Configuration Manager Documentation Library, which is installed with Configuration Manager.

After extending the Active Directory schema, install Configuration Manager. The configuration of WDG-MDT-01 supports Configuration Manager for this sample. The configuration of computers in the production network may vary. To find out more about the prerequisites for installing Configuration Manager, see <a href="Supported Configurations for Configuration Manager">Supported Configurations for Configuration Manager</a>.

#### To install Configuration Manager

- 1. Start the System Center 2012 R2 Configuration Manager Setup splash screen.
- 2. On the System Center 2012 R2 Configuration Manager Setup splash screen, click the **Install** link.
  - The Microsoft System Center 2012 R2 Configuration Manager Setup Wizard starts.
- 3. Complete the Microsoft System Center 2012 R2 Configuration Manager Setup Wizard using the information in Table 12. Accept the defaults unless otherwise specified.

**Table 12. Information for Installing Configuration Manager** 

On this wizard page	Do this
Before You Begin	Click Next.
Getting Started	Click Next.
Product Key	In Enter your 25-character product key, type product_key (where product_key is your product key for Configuration Manager).
Microsoft Software License Terms	Select the I accept these license terms check box, and then click Next.
Update Prerequisite Components	In Download and use the latest updates. Updates will be saved to the following location, type E:\CMDownloads, and then click Next.
Server Language Selection	Click Next.

On this wizard page	Do this
Client Language Selection	Click Next.
Site and Installation	1. In Site code, type NYC.
Settings	2. In Site name, type New York City Site.
	3. Click Next.
Primary Site Installation	Click Install the primary site as a stand- alone site.
	2. Click Next.
	The <b>Configuration Manager</b> dialog box appears, confirming that you want to install this site as a stand-alone site.
	<ol> <li>In the Configuration Manager dialog box, click Yes.</li> </ol>
Database Information	Click Next.
SMS Provider Settings	Click Next.
Client Computer Communication Settings	Click Configure the communication method on each site system role, and then click Next.
Site System Roles	Click Next.
Customer Experience Improvement Program Configuration	Select the appropriate participation in the Customer Experience Improvement program for your organization, and then click <b>Next</b> .
Settings Summary	Click Next.
Prerequisite Check	Click Begin Install.
Install	Monitor the installation process until it is complete, and then click <b>Close</b> .

4. Close all open windows and dialog boxes.

When the wizard is complete, Configuration Manager is installed.

## Step 1-12: Configure the Network Access Account

The Configuration Manager client needs an account to provide credentials when accessing the Configuration Manager distribution points, MDT deployment shares, and shared folders. This account is called the *Network Access account*.

The CMNetAccess account was created earlier in the process to use as the Network Access account.

#### To configure the Network Access account

- Click Start, point to All Programs, and then point to Microsoft System Center 2012. Point to Configuration Manager, and then click Configuration Manager Console.
- 2. In the Configuration Manager console, in the navigation pane, click **Administration**.
- 3. In the Administration workspace, go to Overview/Site Configuration/Sites.
- 4. In the preview pane, click NYC New York City Site.
- 5. On the Ribbon, click **Settings**, click **Configure Site Components**, and then click **Software Distribution**.
- 6. In the **Software Distribution Properties** dialog box, click the **Network Access Account** tab.
- 7. In Network Access Account, click Specify the account that accessed network locations, click Set, and then click New Account.
  - The Windows User Account dialog box appears.
- 8. Complete the **Windows User Account** dialog box using the information in Table 13, and then click **OK**.

Table 13. Information Required to Complete the Windows User Account Dialog Box

For this	Do this
User name	Type MDT2013\CMNetAccess.
Password	Type P@ssw0rd.
Confirm password	Type P@ssw0rd.

- 9. In the **Software Distribution Properties** dialog box, click **OK**.
- 10. Close any open windows.

# Step 1-13: Configure the Configuration Manager Site Boundaries and Boundary Groups

The Configuration Manager client needs to know the boundaries for the site. Unless the site boundaries are specified, the client assumes that the computer running Configuration Manager is in a remote site. Add a site boundary based on the IP subnet that WDG-MDT-01, WDG-REF-01, and WDG-CLI-01 use. Then, add the site boundary to a site boundary group.

#### To create a Configuration Manager site boundary

- Click Start, point to All Programs, and then point to Microsoft System Center 2012. Point to Configuration Manager, and then click Configuration Manger Console.
- 2. In the Configuration Manager console, in the navigation pane, click **Administration**.
- 3. In the Administration workspace, go to Overview/Hierarchy Configuration/Boundaries.
- 4. On the Ribbon, click Create Boundary.

The Create Boundary dialog box opens.

5. Complete the **Create Boundary** dialog box using the information in Table 14, and then click **OK**.

**Note** For this sample, the site boundary is specified by network address. However, you can also specify site boundaries using an AD DS site name or an IP address range.

Table 14. Information Required to Complete the Create Boundary Dialog Box

For this	Do this
Description	Type IP Subnet Boundary.
Туре	Select IP subnet.
Network	Type <i>network_address</i> (where <i>network_address</i> is the network address of the subnet where the computers are installed).
Subnet mask	Type <b>subnet_mask</b> (where <b>subnet_mask</b> is the subnet mask of the subnet where the computers are installed).

#### To add the Configuration Manager site boundary to a site boundary group

- 1. In the Configuration Manager console, in the navigation pane, click **Administration**.
- 2. In the Administration workspace, go to Overview/Hierarchy Configuration/Boundary Groups.
- 3. On the Ribbon, click Create Boundary Group.

The **Create Boundary Group** dialog box opens.

4. Complete the **General** tab of the **Create Boundary Group** dialog box using the information in Table 15.

Table 15. Information Required to Complete the General Tab of the Create Boundary Group Dialog Box

For this	Do this

For this	Do this
Name	Type New York City Boundary Group.
Description	Type Boundary group for the site boundaries at the New York City site.
Boundaries	1. Click Add.
	The <b>Add Boundaries</b> dialog box appears.
	<ol> <li>In the Add Boundaries dialog box, select site_boundary (where site_boundary is the site boundary you created earlier in the process), and then click OK.</li> </ol>
	The site boundary appears in the list of boundaries.

5. Complete the **References** tab of the **Create Boundary Group** dialog box using the information in Table 16, and then click **OK**.

Table 16. Information Required to Complete the References Tab of the Create Boundary Group Dialog Box

For this	Do this
Site assignment	Select the Use this boundary group for site assignment check box.
Content location	1. Click Add.
	The <b>Add Site Systems</b> dialog box appears.
	<ol><li>In the Add Site Systems dialog box, select \WDG-MDT-</li></ol>
	<b>01.mdt2013.corp.woodgrovebank.com</b> , and then click <b>OK</b> .
	The site system server appears in the list of site system servers.

6. Close any open windows.

# Step 1-14: Configure the Publishing of Site Information in AD DS and DNS

The Configuration Manager client needs to locate the various Configuration Manager server roles. Modify the site properties to publish the site information in AD DS and in DNS.

#### To configure the publishing of site information in AD DS and in DNS

 Click Start, point to All Programs, and then point to Microsoft System Center 2012. Point to Configuration Manager, and then click Configuration Manager Console.

- 2. In the Configuration Manager console, in the navigation pane, click **Administration**.
- 3. In the Administration workspace, go to Overview/Site Configuration/Sites.
- 4. In the preview pane, click NYC New York City Site.
- 5. On the Ribbon, click Properties.
- 6. In the **New York City Site Properties** dialog box, on the **Publishing** tab, verify that the **mdt2013.corp.woodgrovebank.com** Active Directory forest is listed, and then click **Cancel**.
- 7. Close any open windows.

# Step 1-15: Configure Discovery of Active Directory Users

In some instances, software will be deployed to user collections that Configuration Manager discovers. Configuration Manager can discovery user accounts stored in AD DS using the Active Directory User Discovery method.

#### To configure discovery of Active Directory users

- Click Start, point to All Programs, and then point to Microsoft System Center 2012. Point to Configuration Manager, and then click Configuration Manager Console.
- 2. In the Configuration Manager console, in the navigation pane, click **Administration**.
- 3. In the Administration workspace, go to Overview/Hierarchy/Discovery Methods.
- 4. In the preview pane, click **Active Directory User Discovery**.
- On the Ribbon, on the Home tab, click Properties.
   The Active Directory User Discovery Properties dialog box appears.
- 6. In the **Active Directory User Discovery Properties** dialog box, on the **General** tab, perform the following steps:
  - a. Select the Enable Active Directory User Discovery check box.
  - b. In Active Directory containers, click New.
    - The **New Active Directory Container** dialog box appears.
  - c. In the **New Active Directory Container** dialog box, in **Path**, click **Browse**.
    - The **Select New Container** dialog box appears.
  - d. In the **Select New Container** dialog box, click **mdt2013**, and then click **OK**.

In the **New Active Directory Container** dialog box, the Lightweight Directory Access Protocol (LDAP) path is displayed in the **Path** box.

- e. In the **New Active Directory Container** dialog box, click **OK**. The LDAP path appears in the **Active Directory containers** list box.
- 7. In the **Active Directory User Discovery Properties** dialog box, click **OK**. The **Configuration Manager** dialog box appears, querying whether you want to perform the discovery as soon as possible.
- 8. In the Configuration Manager dialog box, click Yes.
- 9. In the Configuration Manager console, in the navigation pane, click **Assets** and **Compliance**.
- 10. In the Assets and Compliance workspace, go to Overview/Users.
  The list of users discovered in AD DS is displayed in the preview pane.
- 11. Close any open windows.

# **Step 2: Prepare the MDT Environment**

The first step in the deployment process is to prepare the MDT environment. When this step is complete, you can create the reference computer and deploy a captured image of it to the target computer (WDG-CLI-01) using Configuration Manager integration with MDT.

Prepare the MDT environment by:

- Installing MDT as described in <u>Step 2-1: Install MDT</u>
- Enabling Configuration Manager console integration by running the Configure ConfigMgr Integration wizard as described in <a href="Step 2-2: Enable Configuration">Step 2-2: Enable Configuration</a> Manager Console Integration

## Step 2-1: Install MDT

To install MDT, complete the following steps:

- 1. In Windows Explorer, go to E:\Source\$\MDT\_2013.
- 2. Double-click **MicrosoftDeploymentToolkit2013\_x64.msi** (for 64-bit operating systems) or **MicrosoftDeploymentToolkit2013\_x86.msi** (for 32-bit operating systems), and then click **Install**.
  - The Microsoft Deployment Toolkit 2013 Setup Wizard starts.
- 3. Complete the Microsoft Deployment Toolkit 2013 Setup Wizard using the information in Table 17. Accept the default values unless otherwise specified.

Table 17. Information for Completing the Microsoft Deployment Toolkit 2013 Setup Wizard

On this wizard page	Do this
Welcome to the Microsoft Deployment Toolkit 2013 Setup Wizard	Click Next.
End-User License Agreement	Click I accept the terms in the License Agreement, and then click Next.
Custom Setup	Click Next.
Ready to install Microsoft Deployment Toolkit 2013	Click Install.
Installing Microsoft Deployment Toolkit 2013	The progress for installing MDT is displayed.

On this wizard page	Do this
Completed the Microsoft Deployment Toolkit 2013 Setup Wizard	Click <b>Finish</b> .

The Microsoft Deployment Toolkit 2013 Setup Wizard finishes, and MDT is installed on WDG-MDT-01.

# Step 2-2: Enable Configuration Manager Console Integration

Before you can use the Configuration Manager integration features of MDT, run the Configure ConfigMgr Integration wizard. This wizard copies the appropriate integration files to the folder in which Configuration Manager is installed. The wizard also adds Windows Management Instrumentation (WMI) classes for the new MDT custom actions. The classes are added by compiling a new Managed Object Format (.mof) file that contains the new class definitions.

#### To enable Configuration Manager console integration

Note Ensure that the Configuration Manager console is closed while performing these steps.

1. Click **Start**, and then point to **All Programs**. Point to **Microsoft Deployment Toolkit**, and then click **Configure ConfigMgr Integration**.

The Configure ConfigMgr Integration Wizard starts.

2. Complete the Configure ConfigMgr Integration Wizard using the information in Table 18. Accept the default values unless otherwise specified.

**Table 18. Information for Completing the Configure ConfigMgr Integration Wizard** 

On this wizard page	Do this
Options	Verify that the Install the MDT console     extensions for ConfigMgr 2012 check box     is selected.
	<ol> <li>Verify that the Add the MDT task sequence actions to a ConfigMgr server check box is selected.</li> </ol>
	3. In Site server name, verify that the value is WDG-MDT- 01.mdt2013.corp.woodgrovebank.com.
	4. In <b>Site code</b> , verify that the value is <b>NYC</b> .
	5. Click Next.
Confirmation	Click Finish.

The Configure ConfigMgr Integration Wizard finishes, and MDT is integrated with Configuration Manager.

# Step 3: Create and Configure a Task Sequence to Create a Reference Computer

When you have prepared the MDT environment, create the reference computer. The reference computer is the template for deploying new images to the target computers. Configure this computer (WDG-REF-01) exactly as you will configure the target computers. You will then capture an image of the reference computer and deploy the image to the target computers.

Create the reference computer, WDG-REF-01, by:

- Creating an MDT task sequence to deploy Windows 8.1 to the reference computer as described in <u>Step 3-1: Create an MDT Task Sequence for</u> Deploying the Reference Computer
- Selecting the distribution points for the new packages and images that the Create MDT Task Sequence Wizard creates as described in <a href="Step 3-2: Select">Step 3-2: Select</a> the Distribution Points for the New Packages and Images
- Adding the necessary device drivers to a new drive package and to the appropriate boot images as described in <u>Step 3-3: Add the Necessary Device</u> <u>Drivers</u>
- Enable monitoring of the MDT deployment process as described in <u>Step 3-4:</u>
   Enable MDT Deployment Process Monitoring
- Configuring the MDT configuration files for the reference computer specifically, the CustomSettings.ini file—as described in <a href="Step 3-5">Step 3-5</a>: Customize the MDT Configuration Files for the Reference Computer
- Updating the Configuration Manager distribution points for the Custom Settings Files package as described in <u>Step 3-6: Update the Distribution</u> Points for the Custom Settings Files Package
- Customizing the task sequence for the reference computer as described in <u>Step 3-7: Customize the Task Sequence for the Reference Computer</u>

# Step 3-1: Create an MDT Task Sequence for Deploying the Reference Computer

Use the Create MDT Task Sequence Wizard in the Configuration Manager console to create task sequences in Configuration Manager that are integrated with MDT. MDT includes the Standard Client Task Sequence template, which you can use to deploy the reference computer.

The Create MDT Task Sequence Wizard substitutes the packages and images selected for the placeholders in the task sequence templates. After completing the wizard, the new task sequence references the appropriate packages and images.

**Note** Always use the Create MDT Task Sequence Wizard to create task sequences based on the MDT task sequence templates. Although you can manually import the task sequence templates, Microsoft does not recommend this process.

#### To create a task sequence for deploying the reference computer

- Click Start, point to All Programs, and then point to Microsoft System Center 2012. Point to Configuration Manager, and then click Configuration Manager Console.
- 2. In the Configuration Manager console, in the navigation pane, click **Software Library**.
- 3. In the Software Library workspace, go to Overview/Operating Systems/Task Sequences.
- 4. On the Ribbon, on the **Home** tab, in the **Task Sequences** group, click **Create MDT Task Sequence**.

The Create MDT Task Sequence Wizard starts.

5. Complete the Create MDT Task Sequence Wizard using the information in Table 19. Accept the default values unless otherwise specified.

**Table 19. Information for Completing the Create MDT Task Sequence Wizard** 

On this wizard page	Do this
Choose Template	Select Client Task Sequence, and then click Next.
Choose Template: General	In Task sequence name, type Windows 8.1     Reference Deployment.
	2. In Task sequence comments, type Task sequence for deploying Windows 8.1 to the reference computer (WDG-REF-01), and then click Next.
Choose Template:	Click Join a workgroup.
Details	2. In Workgroup, type WORKGROUP.
	3. In <b>User name</b> , type <b>Woodgrove Bank Employee</b> .
	<ol> <li>In Organization name, type Woodgrove Bank.</li> </ol>
	<ol> <li>In <b>Product key</b>, type <b>product_key</b> (where product_key is the product key for Windows 8.1).</li> </ol>
	6. Click Next.
Choose Template: Capture Settings	Click This task sequence may be used to capture and image.
	2. In Capture destination, type \\WDG-MDT-

On this wizard page	Do this
	01\Capture\$\WDG-REF-01.wim.
	3. In Capture account, click Set.
	<ol> <li>Complete the Windows User Account dialog box by performing the following steps:</li> </ol>
	<ul> <li>a. In User name, type</li> <li>MDT2013\Administrator.</li> </ul>
	<ul><li>b. In Password and Confirm password, type P@ssw0rd.</li></ul>
	5. Click <b>OK</b> .
	6. Click Next.
Boot Image	Click Create a new boot image package.
	2. In Package source folder to be created,
	type \\WDG-MDT- 01\Packages\$\WINPE_Custom, and then click Next.
Post Imaga: Canaral	
Boot Image: General Settings	1. In Name, type Windows PE Custom.
	2. In <b>Version</b> , type <b>1.00</b> .
	<ol> <li>In Comments, type Customized version of Windows PE to be used in deployment of reference and target computers, and then click Next.</li> </ol>
<b>Boot Image: Options</b>	Under Platform, click x64, and then click Next.
Boot Image: Components	Click Next.
Boot Image: Customization	Click Next.
MDT Package	Click Create a new Microsoft Deployment     Toolkit Files package.
	<ol> <li>In Package source folder to be created, type \\WDG-MDT-01\Packages\\MDT_Files, and then click Next.</li> </ol>
MDT Package: MDT	1. In Name, type MDT Files.
Details	2. In <b>Version</b> , type <b>1.00</b> .
	3. In Comments, type Provides access to MDT files during Configuration Manager deployment process, and then click Next.
OS Image	1. Click Create a new OS install package.
	2. In OS installation folder location, type \\WDG-MDT-01\Source\$\Windows_8-1.

On this wizard page	Do this
	3. In Package source folder to be created, type \\WDG-MDT-01\Packages\$\Windows_8-1, and then click Next.
OS Image: Image	1. In Name, type Windows 8.1.
Details	2. In <b>Version</b> , type <b>1.00</b> .
	3. In Comments, type Windows 8.1 package used to deploy to reference computers, and then click Next.
Deployment Method	Click Next.
Client Package	Click Create a new ConfigMgr client package, and then click Next.
USMT Package	1. Click Create a new USMT package.
	<ol> <li>In Package source folder to be created, type \\WDG-MDT-01\Packages\$\USMT, and then click Next.</li> </ol>
USMT Package:	1. In <b>Name</b> , type <b>USMT</b> .
USMT Details	2. In <b>Version</b> , type <b>1.00</b> .
	<ol> <li>In Comments, type USMT files used to capture and restore user state migration information, and then click Next.</li> </ol>
Settings Package	Click Create a new settings package.
	<ol> <li>In Package source folder to be created, type \\WDG-MDT- 01\Packages\$\CustomSettings_Reference, and then click Next.</li> </ol>
Settings Package: Settings Details	<ol> <li>In Name, type MDT Reference Computer Custom Settings.</li> </ol>
	2. In <b>Version</b> , type <b>1.00</b> .
	<ol> <li>In Comments, type Configuration settings for MDT deployment process (such as CustomSettings.ini) for the reference computer, and then click Next.</li> </ol>
Sysprep Package	Click Next.
Summary	Review the information in the <b>Details</b> box that that you provided while completing the previous wizard pages, and then click <b>Next</b> .
Progress	The progress for creating the task sequence is displayed.
Confirmation	Click Finish.

The new task sequence appears in the preview pane.

# Step 3-2: Select the Distribution Points for the New Packages and Images

The Create MDT Task Sequence Wizard creates a number of packages and images. After these packages and images are created, select the distribution points from which the packages and images will be copied and available to target computers.

**Note** In this sample, there is only one distribution point (WDG-MDT-01). However, most production networks have multiple distribution points. When performing this step in a production environment, select the appropriate distribution points for the network.

#### To select the distribution points for software distribution packages

- Click Start, point to All Programs, and then point to Microsoft System Center 2012. Point to Configuration Manager, and then click Configuration Manager Console.
- 2. In the Configuration Manager console, in the navigation pane, click **Software Library**.
- 3. In the Software Library workspace, go to Overview/Operating Systems/Task Sequences.
- 4. In the preview pane, select Windows 8.1 Reference Deployment.
- 5. On the Ribbon, on the **Home** tab, in the **Deployment** group, click **Distribute Content**.

The Distribute Content Wizard starts.

6. Complete the Distribute Content Wizard using the information in Table 20. Accept default values unless otherwise specified.

**Table 20. Information for Completing the Distribute Content Wizard** 

On this wizard page	Do this
General	Click Next.
General: Content	Click Next.
General: Content Destination	<ol> <li>Click Add, and then click Distribution Point.         The Add Distribution Points dialog box appears.     </li> <li>In the Add Distribution Points dialog box, select         \WDG-MDT-01.mdt2013.corp.woodgroveban k.com, and then click OK.         \WDG-MDT-01.mdt2013.corp.woodgrovebank. com appears in the Content destination list.     </li> </ol>

On this wizard page	Do this
	3. Click Next.
Summary	Review the information in the <b>Details</b> box that that you provided while completing the previous wizard pages, and then click <b>Next</b> .
Progress	The progress for distributing the software is displayed.
Completion	Click Close.

7. Close all open windows and dialog boxes.

## Step 3-3: Add the Necessary Device Drivers

When the MDT task sequence has been created, add any device drivers required for the reference computer (WDG-REF-01) to the Windows PE boot image and to the Windows 8.1 image. Add the device drivers in the Drivers node in the Configuration Manager console. Create a package that contains the device drivers, and inject the drivers into the custom Windows PE image created earlier in the process.

After creating the package that contains the device drivers, select the distribution point to which the package will be deployed.

#### To add the necessary device drivers

- 1. Click **Start**, point to **All Programs**, and then point to **Microsoft System Center 2012**. Point to **Configuration Manager**, and then click **Configuration Manager Console**.
- 2. In the Configuration Manager console, in the navigation pane, click **Software Library**.
- 3. In the Software Library workspace, go to Overview/Operating Systems/Drivers.
- 4. On the Ribbon, on the **Home** tab, in the **Create** group, click **Import Driver**. The Import New Driver Wizard starts.
- 5. Complete the Import New Driver Wizard using the information in Table 21. Accept the default values unless otherwise specified.

Table 21. Information for Completing the Import New Driver Wizard

On this wizard page	Do this
Locate Driver	In Source folder, type \\WDG-MDT- 01\Source\$\Drivers, and then click Next.
Locate Driver: Driver Details	Click Next.

On this wizard page	Do this
Locate Driver: Add Driver to Package	1. Click New Package.
	Complete the <b>New Driver Package</b> dialog box by performing the following steps:
	<ul> <li>a. In Name, type device_driver_name</li> <li>Package (where device_driver_name is a descriptive name for the device drivers).</li> </ul>
	b. In Comment, type Device drivers that are necessary for the reference and target computers.
	<ol> <li>In Driver package source, type \\WDG-MDT- 01\Packages\\Drivers, and then click OK.</li> </ol>
	4. Click <b>Next</b> .
Locate Driver: Add Driver to Boot Images	In the list of images, select the Windows PE Custom check box.
	<ol><li>Select the Update distribution points when finished check box, and then click Next.</li></ol>
Summary	Review the information in the <b>Details</b> box that that you provided while completing the previous wizard pages, and then click <b>Next</b> .
Progress	The progress for importing the device drivers is displayed.
Confirmation	Click Close.

#### To select the distribution points for the driver package

- Click Start, point to All Programs, and then point to Microsoft System Center 2012. Point to Configuration Manager, and then click Configuration Manager Console.
- 2. In the Configuration Manager console, in the navigation pane, click **Software Library**.
- 3. In the Software Library workspace, go to Overview/Operating Systems/Driver Packages.
- 4. In the preview pane, click *device\_driver\_name* Package (where *device\_driver\_name* is a descriptive name for the device drivers).
- 5. On the Ribbon, on the **Home** tab, in the **Deployment** group, click **Distribute Content**.

The Distribute Content Wizard starts.

6. Complete the Distribute Content Wizard using the information in Table 22. Accept the default values unless otherwise specified.

#### **Table 22. Information for Completing the Distribute Content Wizard**

On this wizard page	Do this
General	Click Next.
General: Content	Click Next.
General: Content	Click Add, and then click Distribution Point.
Destination	The <b>Add Distribution Points</b> dialog box appears.
	<ol> <li>In the Add Distribution Points dialog box, select \\WDG-MDT- 01.mdt2013.corp.woodgrovebank.com, and then click OK.</li> </ol>
	\\WDG-MDT-01.mdt2013.corp.woodgrovebank. com appears in the <b>Content destination</b> list.
	3. Click Next.
Summary	Review the information in the <b>Details</b> box that that you provided while completing the previous wizard pages, and then click <b>Next</b> .
Progress	The progress for distributing the software is displayed.
Completion	Click Close.

7. Close all open windows and dialog boxes.

### Step 3-4: Enable MDT Deployment Process Monitoring

Prior to deploying the reference computer (WDG-REF-01) with the task sequence bootable media, enable MDT monitoring of the ZTI deployment process. You enable monitoring on the **Monitoring** tab on the deployment share **Properties** dialog box. Later in the process, you will monitor the ZTI deployment process using the Deployment Workbench or the **Get-MDTMonitorData** cmdlet.

#### To enable MDT monitoring of the ZTI deployment process

- 1. Click **Start**, and then point to **All Programs**. Point to **Microsoft Deployment Toolkit**, and then click **Deployment Workbench**.
- 2. In the Deployment Workbench console tree, go to Deployment Workbench/Deployment Shares.
- In the Actions pane, click New Deployment Shares.
   The New Deployment Share Wizard starts.
- 4. Complete the New Deployment Share Wizard using the information in Table 23.

#### Table 23. Information for Completing the New Deployment Share Wizard

On this wizard page	Do this
Path	In <b>Deployment share path</b> , type <b>C:\DeploymentShare\$</b> , and then click <b>Next</b> .
Share	Click Next.
<b>Descriptive Name</b>	Click Next.
Options	Click Next.
Summary	Click Next.
Progress	The progress for creating the deployment share is displayed.
Confirmation	Click Finish.

The New Deployment Share Wizard finishes, and the new deployment share—MDT Deployment Share (C:\DeploymentShare\$)—appears in the details pane.

- 5. In the details pane, click MDT Deployment Share (C:\DeploymentShare\$).
- 6. In the Actions pane, click Properties.

The MDT Deployment Share (C:\DeploymentShare\$) Properties dialog box opens.

- 7. In the MDT Deployment Share (C:\DeploymentShare\$) Properties dialog box, on the Monitoring tab, select the Enable monitoring for this deployment share check box, and then click Apply.
- 8. In the MDT Deployment Share (C:\DeploymentShare\$) Properties dialog box, on the Rules tab, notice that the EventService property has been added to the CustomSettings.ini file, and then click OK.

The **EventService** property is as follows:

EventServi ce=http://WDG-MDT-01:9800

9. Close all open windows and dialog boxes.

## Step 3-5: Customize the MDT Configuration Files for the Reference Computer

When the MDT task sequence has been created, customize the MDT configuration files that provide the configuration settings for deploying Windows 8.1 to the target computer. Specifically, customize the CustomSettings.ini file.

When the CustomSettings.ini file customization is finished, save the updated files to the source folder for the MDT Reference Computer Custom Settings package created earlier in the process (E:\Packages\$\CustomSettings\_Reference). Then, add the **DoCapture** and **EventService** properties and corresponding values to

the CustomSettings.ini file so that the MDT deployment process captures an image of the reference computer (WDG-REF-01) after deploying Windows 8.1.

#### To customize the MDT configuration files for the reference computer

- 1. In Windows Explorer, go to E:\Packages\$\CustomSettings\_Reference, and then double-click **CustomSettings.ini**.
- 2. Open Microsoft Notepad, and then add the following lines to the end of the CustomSettings.ini file, as shown in Listing 1:

DoCapture=YES

EventServi ce=http://WDG-MDT-01:9800

Note Ensure that you remove any additional settings other than those shown in Listing 1.

#### Listing 1. CustomSettings.ini File After Adding the DoCapture Property

[Settings]
Priority=Default
Properties=MyCustomProperty

[Default]

OSI nstall=Y

Ski pCapture=YES

Ski pAdmi nPassword=N0

Ski pProductKey=YES

DoCapture=YES

EventServi ce=http://WDG-MDT-01:9800

3. Save the file, and then exit Notepad.

### Step 3-6: Update the Distribution Points for the Custom Settings Files Package

When the source folder has been updated for the MDT Reference Computer Custom Settings package in Configuration Manager, update the distribution points for the MDT Reference Computer Custom Settings Files package. Updating the distribution points copies the updated version of the CustomSettings.ini file to the deployment shares specified in the package.

#### To update the distribution points for the Custom Settings package

- 1. Click **Start**, point to **All Programs**, and then point to **Microsoft System Center 2012**. Point to **Configuration Manager**, and then click **Configuration Manager Console**.
- In the Configuration Manager console, in the navigation pane, click Software Library.

- 3. In the Software Library workspace, go to Overview/Application Management/Packages.
- 4. In the preview pane, click MDT Reference Computer Custom Settings.
- 5. On the Ribbon, on the **Home** tab, in the **Deployment** group, click **Update Distribution Points**.

The **Configuration Manager** dialog box opens, notifying you that you are going to update the package on all distribution points.

- 6. In the Configuration Manager dialog box, click OK.
- 7. Close all open windows and dialog boxes.

Configuration Manager starts updating the distribution points with the latest versions of the CustomSettings.ini file. This process could take several minutes. Check the status of the package until the **Last Update** value of the package status has been updated to a recent date and time.

### Step 3-7: Customize the Task Sequence for the Reference Computer

For most deployments, the **Windows 8.1 Reference Deployment** task sequence created earlier in the process performs all the necessary steps without modification. In this sample, modify the task sequence to set the password for the local Administrator account to a known value. By default, the task sequence sets the password for the local Administrator account to a random value. Further customization of the task sequence may be required depending on the environment.

#### To customize the Windows 8.1 Reference Deployment task sequence

- Click Start, point to All Programs, and then point to Microsoft System Center 2012. Point to Configuration Manager, and then click Configuration Manager Console.
- 2. In the Configuration Manager console, in the navigation pane, click **Software Library**.
- 3. In the Software Library workspace, go to Overview/Operating Systems/Task Sequences.
- 4. In the preview pane, click Windows 8.1 Reference Deployment.
- On the Ribbon, on the Home tab, in the Task Sequence group, click Edit.
   The Windows 8.1 Reference Deployment Task Sequence Editor dialog box opens.
- 6. In the **Windows 8.1 Reference Deployment Task Sequence Editor** dialog box, go to PostInstall/Apply Windows Settings.
- 7. On the **Properties** tab, click **Enable the account and specify the local administrator password**.

- 8. On the **Properties** tab, in **Password** and **Confirm Password**, type **P@ssw0rd**, and then click **Apply**.
- 9. Make any additional modifications to the task sequence that the environment requires, and then click **OK**.
- 10. Close all open windows and dialog boxes.

# **Step 4: Deploy Windows 8.1 and Capture an Image of the Reference Computer**

When you have created the task sequence to deploy Windows 8.1 to the reference computer and captured an image of the reference computer, start the task sequence. Create the operating system capture by using the Task Sequence Media Wizard in the Configuration Manager console.

Deploy Windows 8.1 and capture an image of the reference computer by:

- Adding the reference computer to the Configuration Manager site database as described in <u>Step 4-1: Add the Reference Computer to the Configuration</u> Manager Site Database
- Creating a collection that contains the reference computer you just added as described in <u>Step 4-2: Create a Collection That Contains the Reference</u> <u>Computer</u>
- Deploy the reference computer task sequence as described in <u>Step 4-3:</u>
   <u>Deploy the Reference Computer Task Sequence</u>
- Using the Task Sequence Media Wizard to create a task sequence bootable media disk as described in <u>Step 4-4: Create the Task Sequence Bootable</u> <u>Media</u>
- Starting the reference computer with the task sequence bootable media disk as described in <u>Step 4-5: Start the Reference Computer with the Task</u> Sequence Bootable Media

### Step 4-1: Add the Reference Computer to the Configuration Manager Site Database

To deploy an operating system without stand-alone media to a new computer that Configuration Manager does not currently manage, add the new computer to the Configuration Manager site database prior to initiating the operating system deployment process. Configuration Manager can automatically discover computers on the network that have a Windows operating system installed; however, if the computer has no operating system installed, use the Import Computer Information Wizard to import the new computer information.

#### To add the reference computer to the Configuration Manager site database

- Click Start, point to All Programs, and then point to Microsoft System Center 2012. Point to Configuration Manager, and then click Configuration Manager Console.
- 2. In the Configuration Manager console, in the navigation pane, click **Assets** and **Compliance**.
- 3. In the Assets and Compliance workspace, go to Overview/Devices.

4. On the Ribbon, on the **Home** tab, in the **Create** group, click **Import Computer Information**.

The Import Computer Information Wizard starts.

5. Complete the Import Computer Information Wizard using the information in Table 24. Accept the default values unless otherwise specified.

**Table 24. Information for Completing Import Computer Information Wizard** 

On this wizard page	Do this
Select Source	Click <b>Import single computer</b> , and then click <b>Next</b> .
Select Source:	1. In Computer Name, type WDG-REF-01.
Single Computer	<ol> <li>In MAC address, type mac_address (where mac_address is the media access control [MAC] address of the primary network adapter for the reference computer, WDG-REF-01).</li> </ol>
	3. Click Next.
Select Source: Data Preview	Click Next.
Select Source: Choose Target Collection	Click Next.
Summary	Review the information in the <b>Details</b> box that that you provided while completing the previous wizard pages, and then click <b>Next</b> .
Progress	The progress for importing the computer is displayed.
Confirmation	Click Close.

For more information on adding a new computer to the Configuration Manager site database, see the section, "To import computer information for a single computer," in the section, "How to Deploy Operating Systems in Configuration Manager," in the Configuration Manager Documentation Library, which is installed with Configuration Manager.

## Step 4-2: Create a Collection That Contains the Reference Computer

In the Configuration Manager console, create a collection that includes the reference computer (WDG-REF-01). This computer collection is used later when advertising the task sequence created earlier in the process.

#### To create a collection that includes the reference computer

- Click Start, point to All Programs, and then point to Microsoft System Center 2012. Point to Configuration Manager, and then click Configuration Manager Console.
- 2. In the Configuration Manager console, in the navigation pane, click **Assets** and **Compliance**.
- 3. In the Assets and Compliance workspace, go to Overview/Device Collections.
- 4. On the Ribbon, on the **Home** tab, in the **Create** group, click **Create**, and then click **Create Device Collection**.

The Create Device Collection Wizard starts.

5. Complete the Create Device Collection Wizard using the information in Table 25. Accept the default values unless otherwise specified.

**Table 25. Information for Completing the Create Device Collection Wizard** 

On this wizard page	Do this
General	<ol> <li>In Name, type Microsoft Deployment – Reference Computer.</li> </ol>
	2. In Comment, type Computer that is to be the reference computer for the target computers to be deployed.
	3. In Limited Collection, click Browse.
	The <b>Select Collection</b> dialog box appears. Complete the dialog box by performing the following steps:
	a. In Name, click All Systems.
	b. Click <b>OK</b> .
	4. Click Next.
Membership Rules	1. Click Add Rule, and then click Direct Rule.
	The Create Direct Membership Rule Wizard starts.
	<ol><li>Complete the Create Direct Membership Rule Wizard by performing the following steps:</li></ol>
	a. On the <b>Welcome</b> page, click <b>Next</b> .
	<ul> <li>b. On the Search for Resources page, in Resource class, select System Resource; in Attribute name, select Name; in Value, type WDG-REF-01; and then click Next.</li> </ul>
	<ul> <li>c. On the Select Resources page, select WDG-REF-01, and then click Next.</li> </ul>

On this wizard page	Do this
	d. On the <b>Summary</b> page, click <b>Next</b> .
	e. On the <b>Progress</b> page, view the progress for creating the new membership rule.
	f. On the <b>Completion</b> page, click <b>Close</b> .
	3. Click Next.
Summary	Review the information in the <b>Details</b> box that that you provided while completing the previous wizard pages, and then click <b>Next</b> .
Progress	The progress for creating the device collection is displayed.
Completion	Click Close.

For more information, see the section, "How to Create Collections in Configuration Manager," in the Configuration Manager Documentation Library, which is installed with Configuration Manager.

### Step 4-3: Deploy the Reference Computer Task Sequence

In the Configuration Manager console, deploy the task sequence created earlier in the process to the device collection that includes the reference computer created earlier in the process.

#### To deploy the task sequence

- 1. Click **Start**, point to **All Programs**, and then point to **Microsoft System Center 2012**. Point to **Configuration Manager**, and then click **Configuration Manager Console**.
- 2. In the Configuration Manager console, in the navigation pane, click **Software Library**.
- 3. In the Software Library workspace, go to Overview/Operating Systems/Task Sequences.
- 4. In the preview pane, click Windows 8.1 Reference Deployment.
- On the Ribbon, on the **Home** tab, in the **Deployment** group, click **Deploy**.The Deploy Software Wizard starts.
- 6. Complete the Deploy Software Wizard using the information in Table 26. Accept the default values unless otherwise specified.

Table 26. Information for Completing the Deploy Software Wizard

On this wizard page	Do this

On this wizard page	Do this
General	1. In Collection, click Browse.
	<ol> <li>In the Browse Collection dialog box, click Microsoft Deployment – Reference Computer, and then click OK.</li> </ol>
	3. In Comment, type Deploy Windows 8.1 to the reference computer and then capture an image of the reference computer.
	4. Click Next.
<b>Deployment Settings</b>	1. In Purpose, select Available.
	2. Select the <b>Make available to boot media and PXE</b> check box.
	3. Click Next.
Deployment Settings: Schedule	Click Next.
Deployment Settings: User Experience	Click Next.
Deployment Settings: Alerts	Click Next.
Deployment Settings: Distribution Points	Click Next.
Summary	Review the information in the <b>Details</b> box that that you provided while completing the previous wizard pages, and then click <b>Next</b> .
Progress	The progress for deploying the task sequence is displayed.
Completion	Click Close.

For more information, see the section, "How to Deploy a Task Sequence," in the Configuration Manager Documentation Library, which is installed with Configuration Manager.

### Step 4-4: Create the Task Sequence Bootable Media

To initiate the MDT process, provide a method for starting the computer with Windows PE and the necessary software by creating the task sequence bootable media disk. Use the Task Sequence Media Wizard in the Configuration Manager console to create bootable media for storage on a USB flash drive, CD, or DVD.

#### To create a task sequence bootable media disk

- 1. Click **Start**, point to **All Programs**, and then point to **Microsoft System Center 2012**. Point to **Configuration Manager**, and then click **Configuration Manager Console**.
- 2. In the Configuration Manager console, in the navigation pane, click **Software Library**.
- 3. In the Software Library workspace, go to Overview/Operating Systems/Task Sequences.
- 4. On the Ribbon, on the **Home** tab, in the **Create** group, click **Create Task Sequence Media**.

The Create Task Sequence Media Wizard starts.

5. Complete the Create Task Sequence Media Wizard using the information in Table 27. Accept the default values unless otherwise specified.

**Table 27. Information for Completing the Create Task Sequence Media Wizard** 

On this wizard page	Do this
Select Media Type	1. Click Bootable media.
	<ol><li>Clear the Allow unattended operating system deployment check box.</li></ol>
	3. Click Next.
Select Media Type: Media Management	Click Site-based media, and then click Next.
Select Media Type: Media Type	In Media file, type \\WDG-MDT- 01\Capture\$\CM2012_TS_Boot_Media.iso, and then click Next.
Select Media Type: Security	In Password and Confirm password, type P@ssw0rd, and then click Next.
Select Media Type:	1. In Boot image, click Browse.
Boot Image	<ol> <li>In the Select a Boot Image dialog box, click Windows PE Custom, and then click OK.</li> </ol>
	<ol> <li>In Distribution point, click \\WDG-MDT- 01.mdt2013.corp.woodgrovebank.com, and then click OK.</li> </ol>
	<ol> <li>In Management point, click \\WDG-MDT- 01.mdt2013.corp.woodgrovebank.com, and then click OK.</li> </ol>
	5. Click Next.
Select Media Type: Customization	Click Next.
Summary	Review the information in the <b>Details</b> box that that you provided while completing the previous

On this wizard page	Do this
	wizard pages, and then click <b>Next</b> .
Progress	The progress for creating the task sequence media is displayed.
Completion	Click Close.

The wizard creates the CM2012\_TS\_Boot\_Media.iso file in the \\WDG-MDT-01\Capture\$ shared folder.

6. If WDG-REF-01 is a physical computer, create a CD or DVD of the International Organization for Standardization (ISO) file. If WDG-REF-01 is a VM, start the VM directly from the ISO file.

For more information on creating the task sequence bootable media disk, see the section, "How to Create Bootable Media," in the Configuration Manager Documentation Library, which is installed with Configuration Manager.

### Step 4-5: Start the Reference Computer with the Task Sequence Bootable Media

Start the reference computer (WDG-REF-01) with the task sequence bootable media disk created earlier in the process. This medium starts Windows PE on the reference computer and initiates the MDT process. At the end of the MDT process, Windows 8.1 is deployed on the reference computer and an image of the reference computer is saved to \WDG-MDT-01\Capture\$\WDG-REF-01.wim.

**Note** You can also initiate the MDT process by starting the target computer from Windows Deployment Services.

#### To start the reference computer with the task sequence bootable media

- 1. Start WDG-REF-01 with the task sequence bootable media created earlier in the process.
  - Windows PE starts, and then the Task Sequence Wizard starts.
- 2. Complete the Task Sequence Wizard using the information in Table 28. Accept the default values unless otherwise specified.

Table 28. Information for Completing the Task Sequence Wizard

On this wizard page	Do this
Welcome to the Task Sequence Wizard	In <b>Password</b> , type <b>P@ssw0rd</b> , and then click <b>Next</b> .
Select a Task Sequence	In the list box, select <b>Windows 8.1 Reference Deployment</b> , and then click <b>Next</b> .

### To monitor the reference computer deployment process using the Deployment Workbench

- 1. On WDG-MDT-01, click **Start**, and then point to **All Programs**. Point to **Microsoft Deployment Toolkit**, and then click **Deployment Workbench**.
- 2. In the Deployment Workbench console tree, go to Deployment Workbench/Deployment Shares/MDT Deployment Share (C:\DeploymentShare\$)/Monitoring.
- 3. In the details pane, view the deployment process for WDG-REF-01.
- 4. In the Actions pane, periodically click Refresh.
  - The status of the deployment process is updated in the details pane. Continue to monitor the deployment process until the process is complete.
- 5. In the details pane, click WDG-REF-01.
- 6. In the Actions pane, click Properties.
  - The **WDG-REF-01 Properties** dialog box is displayed.
- 7. In the **WDG-REF-01 Properties** dialog box, on the **Identity** tab, view the monitoring information provided about the deployment process as described in Table 29.

**Table 29. Monitoring Information About the Deployment Process** 

Information	Description
ID	Unique identifier for the computer being deployed.
Computer Name	The name of the computer being deployed.
Deployment status	The current status of the computer being deployed; the status can be one of the following:
	Running. The task sequence is healthy and running.
	Failed. The task sequence failed, and the deployment process was unsuccessful.
	Completed. The task sequence has finished.
	Unresponsive. The task sequence has not updated its status in the past four hours and is assumed to be nonresponsive.
Step	The current task sequence step being run.
Progress	The overall progress of the task sequence. The progress bar indicates how many task sequence steps have been run out of the total number of task sequence steps.
Start	The time the deployment process started.

Information	Description
End	The time the deployment process ended.
Elapsed	The length of time the deployment process has been running or took to run if the deployment process has finished.
Errors	The number of errors encountered during the deployment process.
Warnings	The number of warnings encountered during the deployment process.
Remote Desktop	This button allows you to establish a remote desktop connection with the computer being deployed using the Windows Remote Desktop feature. This method assumes that:
	The target operating system is running and has remote desktop support enabled
	mstsc.exe is in the path
	<b>Note</b> This button is always visible but may not be able to establish a remote desktop session if the monitored computer is running Windows PE, has not completed installation of the target operating system, or does not have the Remote Desktop feature enabled.
VM Connection	This button allows you to establish a remote desktop connection to a VM running in Hyper-V®. This method assumes that:
	The deployment is being performed to a VM running on Hyper-V
	vmconnect.exe is located in the %ProgramFiles%\Hyper-V folder
	<b>Note</b> This button appears when ZTIGather.wsf detects that Hyper-V integration components are running on the monitored computer. Otherwise, this button will not be visible.
DaRT Remote Control	This button allows you to establish a remote control session using the remote viewer feature in the Diagnostics and Recovery Toolkit (DaRT).
	This method assumes that:
	DaRT has been deployed to the target computer and is currently running
	DartRemoteViewer.exe is located in the %ProgramFiles%\Microsoft DaRT 7\v7 folder
	<b>Note</b> This button appears when ZTIGather.wsf detects that DaRT is running on the monitored computer. Otherwise, this button will not be visible.

Information	Description
Automatically refresh this information every	Check box that controls whether the information in the dialog box is automatically refreshed. If the check box is:
10 seconds	<ul> <li>Selected, the information is refreshed every 10 seconds</li> </ul>
	Cleared, the information is not automatically refreshed and must be manually refreshed using the Refresh Now button
Refresh Now	This button immediately refreshes the information displayed in the dialog box.

- 8. In the WDG-REF-01 Properties dialog box, click OK.
- 9. Close the Deployment Workbench.

#### To monitor the reference computer deployment process using the Get-MDTMonitorData cmdlet

 On WDG-MDT-01, click Start, point to Administrative Tools, and then click Windows PowerShell Modules.

The Windows PowerShell Modules command prompt opens.

2. Create a Windows PowerShell drive that uses the MDT PowerShell provider by running the New-PSDrive cmdlet, as shown in the following example:

New-PSDri ve - Name DS001 - PSProvi der  $\mbox{mdtprovi der}$  - Root d: \Depl oymentShare\$

3. View the MDT monitoring process by running the **Get-MDTMonitorData** cmdlet, as shown in the following example:

Get-MDTMonitorData - Path DS001:

This command returns the monitoring data collected by the MDT monitoring service running on the same computer that hosts the deployment share, as shown in the following example output:

Name : WDG-REF-01

PercentComplete : 96
Settings : 
Warnings : 0
Errors : 0
DeploymentStatus : 1

StartTime : 6/7/2012 6:45:39 PM

EndTi me

ID : 1

Uni queID : 94a0830e-f2bb-421c-b1e0-6f86f9eb9fa1

CurrentStep : 130
TotalSteps : 134
StepName : Gather

LastTime : 6/7/2012 8: 46: 32 PM

DartIP :
DartPort :
DartTi cket :

VMHost : XYL-DC-02 VMName : WDG-REF-01

ComputerIdentities : {}

#### 4. Close the Windows PowerShell console.

If any problems occur during the deployment, consult the MDT document *Troubleshooting Reference*. When completed, a captured image of the reference computer should exist in \\WDG-MDT-01\Capture\$\\WDG-REF-01.wim.

# Step 5: Create and Configure a Task Sequence to Deploy the Target Computer

After the task sequence to deploy the reference computer (WDG-REF-01) finishes, a captured image of the reference computer is stored in \\WDG-MDT-01\Capture\\WDG-REF-01.wim. Now, create a task sequence that will deploy the captured image of the reference computer to the target computer (WDG-CLI-01). When this step is complete, you can deploy the captured image of the reference computer to the target computer.

Create and configure a task sequence to deploy the target computer by:

- Importing the .wim file captured in the previous step into Configuration
  Manager using the Add Operating System Image Wizard as described in
  <a href="Step 5-1: Import the Captured .wim File into Configuration Manager">Step 5-1: Import the Captured .wim File into Configuration Manager</a>
- Using the Create MDT Task Sequence Wizard to create an MDT task sequence template to deploy the captured image of the reference computer to the target computer as described in <a href="Step 5-2">Step 5-2</a>: Create an MDT Task Sequence to Deploy the Captured Image
- Selecting the distribution points for the new packages and images that the Create MDT Task Sequence Wizard creates as described in <a href="Step 5-3: Select the Distribution Points for the New Packages and Images">Step 5-3: Select the Distribution Points for the New Packages and Images</a>
- Customizing the MDT configuration files for the target computer—specifically, the CustomSettings.ini file—as described in <a href="Step 5-4">Step 5-4</a>: Customize the MDT Configuration Files
- Updating the Configuration Manager distribution points for the Custom Settings package as described in <u>Step 5-5</u>: <u>Update the Distribution Points for the Custom Settings Package</u>
- Customizing the task sequence for the target computer as described in Step 5-6: Customize the Task Sequence for the Target Computer
- Configuring unattended installation of Office Professional Plus 2010 as described in <u>Step 5-7: Configure an Unattended Installation of Office</u> <u>Professional Plus 2010</u>
- Creating a Configuration Manager application to deploy Office Professional Plus 2010 as described in <u>Step 5-8: Create an Office Professional Plus 2010</u> <u>Application</u>
- Distributing the Office Professional Plus 2010 application to the distributions points as described in <u>Step 5-9</u>: <u>Distribute the Office Professional Plus 2010</u> <u>Application</u>
- Making the Office Professional Plus 2010 application available to all users as described in <u>Step 5-10: Make the Office Professional Plus 2010 Application</u> <u>Available to All Users</u>

- Customizing the UDI Wizard configuration file as described in <u>Step 5-11:</u>
   <u>Customize the UDI Wizard Configuration File for the Target Computer</u>
- Creating a new custom wizard page to collect additional deployment information as described in <a href="Step 5-13">Step 5-13</a>: Create a New Custom Wizard Page
- Adding controls to the new custom wizard page as described in <u>Step 5-14:</u>
   Add Controls to New Custom Wizard Page
- Updating the MDT files package that contains the updated UDI Wizard configuration file as described in <u>Step 5-15</u>: <u>Update the Distribution Points for</u> the MDT Files Package

### Step 5-1: Import the Captured .wim File into Configuration Manager

After the image of the reference computer (WDG-REF-01) is captured in to the .wim file, import the captured .wim file into Configuration Manager. Import the captured .wim file into the Operating System Images node using the Add Operating System Image Wizard.

The captured WIM file contains two images, one for each partition on the reference computer. Identify which of the images has the captured Windows 8.1 operating system using the image description containing Windows 8.1. You use the image index when you create the task sequence for deploying the captured image to the target computer.

#### To import the captured .wim file into Configuration Manager

- Click Start, point to All Programs, and then point to Microsoft System Center 2012. Point to Configuration Manager, and then click Configuration Manager Console.
- 2. In the Configuration Manager console, in the navigation pane, click **Software Library**.
- 3. In the Software Library workspace, go to Overview/Operating Systems/Operating System Images.
- On the Ribbon, in the Create group, click Add Operating System Image.
   The Add Operating System Image Wizard starts.
- 5. Complete the Add Operating System Image Wizard using the information in Table 30. Accept the default values unless otherwise specified.

### **Table 30. Information for Completing the Add Operating System Image Wizard**

On this wizard page	Do this
Data Source	In Path, type \\WDG-MDT-01\Capture\\WDG-REF-01.wim, and then click Next.

On this wizard page	Do this
General	In Name, type Windows 8.1 Reference Image.
	2. In <b>Version</b> , type <b>1.00</b> .
	<ol> <li>In Comments, type Windows 8.1 captured image of reference computer (WDG-REF- 01) used to deploy to target computers, and then click Next.</li> </ol>
Summary	Review the information in the <b>Details</b> box that that you provided while completing the previous wizard pages, and then click <b>Next</b> .
Progress	The progress for importing the operating system image is displayed.
Completion	Click Close.

- 6. In the preview pane, click Windows 8.1 Reference Image.
- 7. In the preview pane, click the **Details** tab.

The list of operating system partitions captured in the .wim file is displayed. The image index that contains Windows 8.1 is the image index you will specify later during the Create MDT Task Sequence Wizard.

8. Record the image index that contains Windows 8.1.

**Tip** For the purposes of this example, image index 2 should have the Windows 8.1 operating system.

### Step 5-2: Create an MDT Task Sequence to Deploy the Captured Image

After the image is captured, create a task sequence to deploy the captured image of the reference computer (WDG-REF-01) to the target computer (WDG-CLI-01). Most of the packages needed for this task sequence were created earlier in the process. However, you must create a new MDT Custom Settings package that has the proper configuration settings for the target computer and creates an operating system image of the captured image of the reference computer.

### To create a task sequence template to deploy the captured image to the target computer

- Click Start, point to All Programs, and then point to Microsoft System Center 2012. Point to Configuration Manager, and then click Configuration Manager Console.
- 2. In the Configuration Manager console, in the navigation pane, click **Software Library**.

- 3. In the Software Library workspace, go to Overview/Operating Systems/Task Sequences.
- 4. On the Ribbon, on the **Home** tab, in the **Task Sequences** group, click **Create MDT Task Sequence**.

The Create MDT Task Sequence Wizard starts.

5. Complete the Create MDT Task Sequence Wizard using the information in Table 31. Accept the default values unless otherwise specified.

**Table 31. Information for Completing the Create MDT Task Sequence Wizard** 

On this wizard page	Do this
Choose Template	Select Client Task Sequence, and then click Next.
Choose Template: General	In Task sequence name, type UDI - Windows 8.1 Target Deployment.
	2. In Task sequence comments, type Task sequence for deploying captured reference computer image to the target computer (WDG-CLI-01) using UDI, and then click Next.
Choose Template: Details	In Use name, type Woodgrove Bank Employee.
	<ol><li>In Organization name, type Woodgrove Bank.</li></ol>
	3. Click Next.
Choose Template: Capture Settings	Click Next.
Boot Image	In Specify an existing boot image package, click Browse.
	<ol> <li>In Select a Package dialog box, click Windows PE Custom, and then click OK.</li> </ol>
	3. Click Next.
MDT Package	<ol> <li>In Specify an existing Microsoft         Deployment Toolkit Files package, click         Browse.     </li> </ol>
	<ol> <li>In the Select a Package dialog box, click MDT Files, and then click OK.</li> </ol>
	3. Click Next.
OS Image	1. Click Specify an existing OS image.
	2. In Specify an existing OS image, click

On this wizard page	Do this
	Browse.
	<ol> <li>In the Select a Package dialog box, click Windows 8.1 Reference Image, and then click OK.</li> </ol>
	4. Click <b>Next</b> .
OS Image: OS Image Index	1. In The selected operating system image (WIM) file contains multiple images.  Specify which image you would like to deploy, select image_index (where image_index is the image index of the image that contains Windows 8.1, which was identified in the <a href="Step 5-1: Import the Captured">Step 5-1: Import the Captured</a> <a href="www.wim.File.into.configuration_Manager">wim.File.into.configuration_Manager</a> ; for the purposes of this guide, select 2).
	2. Click Next.
Deployment Method	Click <b>Perform a "User-Driven Installation"</b> , and then click <b>Next</b> .
Client Package	In Specify an existing ConfigMgr client package, click Browse.
	<ol> <li>In the Select a Package dialog box, click Microsoft Configuration Manager Client Upgrade, and then click OK.</li> </ol>
	3. Click Next.
USMT Package	In Specify an existing USMT package, click Browse.
	<ol> <li>In the Select a Package dialog box, click USMT, and then click OK.</li> </ol>
	3. Click Next.
Settings Package	Click Create a new settings package.
	<ol> <li>In Package source folder to be created, type \\WDG-MDT- 01\Packages\$\UDICustomSettings_Target, and then click Next.</li> </ol>
Settings Package: Settings Details	In Name, type UDI Target Computer Custom Settings.
	2. In <b>Version</b> , type <b>1.00</b> .
	3. In Comments, type Configuration settings for MDT deployment process using UDI (such as CustomSettings.ini) for the target computer, and then click Next.

On this wizard page	Do this
Summary	Review the information in the <b>Details</b> box that that you provided while completing the previous wizard pages, and then click <b>Next</b> .
Progress	The progress for creating the task sequence is displayed.
Confirmation	Click Finish.

The list of task sequences is displayed. The task sequence that you just created (**UDI – Windows 8.1 Target Deployment**) is listed in the list of task sequences.

### Step 5-3: Select the Distribution Points for the New Packages and Images

Running the Create MDT Task Sequence Wizard to create the task sequence for the target generates a new software-distribution package and a new image. When the package and image are created, select the distribution points from which the package and image will be copied and available to target computers.

**Note** In this sample, there is only one distribution point (WDG-MDT-01). However, most production networks will have multiple distribution points. When performing this step in a production environment, select the appropriate distribution points for the network.

Select the distribution points for the software-distribution package (for the new target computer custom settings package called *MDT 2013 Target Computer Custom Settings*) and the operating system image package (for the new captured .wim file of the reference computer called *Windows 8.1 Reference Image*).

#### To select the distribution points for the software-distribution package

- Click Start, point to All Programs, and then point to Microsoft System Center 2012. Point to Configuration Manager, and then click Configuration Manager Console.
- 2. In the Configuration Manager console, in the navigation pane, click **Software Library**.
- 3. In the Software Library workspace, go to Overview/Operating Systems/Task Sequences.
- 4. In the preview pane, select **UDI Windows 8.1 Target Deployment**.
- 5. On the Ribbon, on the **Home** tab, in the **Deployment** group, click **Distribute Content**.

The Distribute Content Wizard starts.

6. Complete the Distribute Content Wizard using the information in Table 32. Accept default values unless otherwise specified.

**Table 32. Information for Completing the Distribute Content Wizard** 

On this wizard page	Do this	
General	Click Next.	
Content	Click Next.	
General: Content	Click Add, and then click Distribution Point.	
Destination	The <b>Add Distribution Points</b> dialog box appears.	
	2. In the Add Distribution Points dialog box, select \\WDG-MDT-01.mdt2013.corp.woodgroveban	
	k.com, and then click OK.	
	\\WDG-MDT-01.mdt2013.corp.woodgrovebank. com appears in the <b>Content destination</b> list.	
	3. Click Next.	
Summary	Review the information in the <b>Details</b> box that that you provided while completing the previous wizard pages, and then click <b>Next</b> .	
Progress	The progress for distributing the software is displayed.	
Completion	Click Close.	

### Step 5-4: Customize the MDT Configuration Files

When the task sequence for the target computer has been created, customize the MDT configuration files that provide the configuration settings for deploying Windows 8.1 to the target computer—specifically, CustomSettings.ini.

When the CustomSettings.ini file has been customized, save the updated files to the source folder for the MDT Custom Settings package created earlier in the process (E:\Packages\$\CustomSettings\_Target).

#### To customize the MDT configuration files for the target computer

- 1. In Windows Explorer, go to E:\Packages\$\CustomSettings\_Target folder, and then double-click **CustomSettings.ini**.
- 2. Open Notepad, and then add the following line to the CustomSettings.ini file that the environment requires, as shown in Listing 2:

This setting configures monitoring of the target computer deployment.

**Note** Make any other changes that your environment requires.

#### Listing 2. Default CustomSettings.ini File

[Settings]

Pri ori ty=Defaul t Properti es=MyCustomProperty

[Default]
0SInstall=Y
SkipCapture=YES
SkipAdminPassword=N0
SkipProductKey=YES
EventService=http://WDG-MDT-01:9800

3. Save the file, and then close Notepad.

### Step 5-5: Update the Distribution Points for the Custom Settings Package

When the source folder has been updated for the MDT Target Computer Custom Settings package in Configuration Manager, update the distribution points for the MDT Target Computer Custom Settings package. Updating the distribution points copies the updated version of the CustomSettings.ini file to the deployment shares specified in the package.

#### To update the distribution points for the Custom Settings package

- 1. Click **Start**, point to **All Programs**, and then point to **Microsoft System Center 2012**. Point to **Configuration Manager**, and then click **Configuration Manager Console**.
- 2. In the Configuration Manager console, in the navigation pane, click **Software Library**.
- 3. In the Software Library workspace, go to Overview/Application Management/Packages.
- 4. In the preview pane, click MDT Target Computer Custom Settings.
- 5. On the Ribbon, on the **Home** tab, in the **Deployment** group, click **Update Distribution Points**.

The **Configuration Manager** dialog box opens, notifying you that you are going to update the package on all distribution points.

- 6. In the Configuration Manager dialog box, click OK.
- 7. Close all open windows and dialog boxes.

## Step 5-6: Customize the Task Sequence for the Target Computer

For most deployments, the Windows 8.1 Target Deployment task sequence created earlier in the process performs all the necessary steps without modification. In this sample, modify the task sequence template to set the

password for the local Administrator account to a known value. (By default, the task sequence sets the password for the local Administrator account to a random value.) The task sequence may require further customization depending on the environment.

#### To customize the Windows 8.1 Target Deployment task sequence

- Click Start, point to All Programs, and then point to Microsoft System Center 2012. Point to Configuration Manager, and then click Configuration Manager Console.
- In the Configuration Manager console, in the navigation pane, click Software Library.
- 3. In the Software Library workspace, go to Overview/Operating Systems/Task Sequences.
- 4. In the preview pane, click **UDI Windows 8.1 Target Deployment**.
- On the Ribbon, on the Home tab, in the Task Sequence group, click Edit.
   The Windows 8.1 Reference Deployment Task Sequence Editor dialog box opens.
- In the Windows 8.1 Reference Deployment Task Sequence Editor dialog box, go to PostInstall/Apply Windows Settings.
- 7. On the **Properties** tab, click **Enable the account and specify the local** administrator password.
- 8. On the **Properties** tab, in **Password** and **Confirm Password**, type **P@ssw0rd**, and then click **Apply**.
- 9. Make any additional modifications to the task sequence that the environment requires, and then click **OK**.
- 10. Close all open windows and dialog boxes.

### Step 5-7: Configure an Unattended Installation of Office Professional Plus 2010

Configuration Manager distributes the files and folders used to deploy Office Professional Plus 2010 but does not provide the method for performing an unattended installation after distribution. Instead, the unattended installation must be configured using methods provided in Office Professional Plus 2010. You can configure unattended (silent) installation of Office Professional Plus 2010 using one of the following methods:

- Create an Office Customization Tool (OCT) Setup customization file (.msp file).
- Modify the Config.xml file.

For more information about each of these methods, see <u>Customize Setup before</u> installing Office 2010.

For the purposes of this guide, the unattended installation of Office Professional Plus 2010 will be done by creating an OCT Setup customization file (.msp file). You will save the OCT Setup customization file in the Updates folder, which is automatically scanned by the Office Professional Plus 2010 Setup Wizard.

#### To configure an unattended installation of Office Professional Plus 2010

- At a command prompt, type the following command, and then press ENTER.
   e:
- 2. At a command prompt, type the following command, and then press ENTER. cd \Source\OfficeProPlus2010\
- At a command prompt, type the following command, and then press ENTER.
   setup /admi n

The OCT starts, and the **Select Product** dialog box opens.

- 4. In the OCT, in the Select Product dialog box, click OK.
  The OCT loads the appropriate information, and then displays the settings that can be customized in the .msp file.
- 5. In the OCT, in the navigation pane, go to Setup/Install location and organization name.
- 6. In the preview pane, in **Organization name**, type **Woodgrove Bank**.
- 7. In the OCT, in the navigation pane, go to Setup/Licensing and user interface.
- 8. In the preview pane, select the I accept the terms in the License Agreement check box.
- 9. In the preview pane, in **Display level**, select **None**.
- 10. From the File menu, click Save As.

The **Save As** dialog box opens.

In the Save As dialog box, type
 E:\Source\OfficeProPlus2010\Updates\OPP2010\_Unattend, and then click Save.

The OPP2010\_Unattend.msp file is saved.

12. Close all open windows and dialog boxes.

### Step 5-8: Create an Office Professional Plus 2010 Application

One of the advantages to performing MDT deployments using UDI is the ability for the user to select the applications to install at deployment time. You can add any number of applications to Configuration Manager, and then select the applications when running the UDI Wizard, as described in <a href="Step 6-4">Step 6-4</a>: Start the Target Computer with the Task Sequence Bootable Media.

You can configure the applications that appear in the UDI Wizard using the UDI Wizard Designer, as described in <a href="Step 5-11">Step 5-11</a>: Customize the UDI Wizard Configuration File for the Target Computer.

#### To create an Office Professional Plus 2010 application

- Click Start, point to All Programs, and then point to Microsoft System Center 2012. Point to Configuration Manager, and then click Configuration Manager Console.
- 2. In the Configuration Manager console, in the navigation pane, click **Software Library**.
- 3. In the Software Library workspace, go to Overview/Application Management/Applications.
- 4. On the Ribbon, on the **Home** tab, in the **Create** group, click **Create Application**.

The Create Application Wizard starts.

5. Complete the Create Application Wizard using the information in Table 33. Accept default values unless otherwise specified.

Table 33. Information for Completing the Create Application Wizard

On this wizard page	Do this
General	Click Manually specify the application information, and then click Next.
General: General	1. In Name, type Microsoft Office Professional Plus 2010 – x86.
	2. In Administrator comments, type 32-bit version of Microsoft Office Professional Plus 2010.
	3. Select the Allow this application to be installed from Install Application task sequence action instead of deploying it manually check box.
	4. Click Next.
General: Application Catalog	In Localized description, type 32-bit version of Microsoft Office Professional Plus 2010 for use by Woodgrove Bank Employees.
	<ol> <li>In Keywords, type Office Professional Plus 2010.</li> </ol>
	3. Click Next.
General: Deployment	1. Click Add.
Types	The Create Deployment Type Wizard Starts.
	2. In the Create Deployment Type Wizard, on

On this wizard page	Do	this
		the <b>General</b> page, click <b>Manually specify the deployment type information</b> and then click <b>Next</b> .
	3.	On the <b>General: General Information</b> page, perform the following steps, and then click <b>Next</b> :
		<ul> <li>a. In Name, type Microsoft Office</li> <li>Professional Plus 2010 – x32 (Windows Installer).</li> </ul>
		b. In Administrator comments, type Deploy Microsoft Office Professional Plus 2010 using native Windows Installer.
	4.	On the <b>General: Content</b> page, perform the following steps, and then click <b>Next</b> :
		<ul><li>a. In Content location, type \\WDG-MDT-01\Source\$\OfficeProPlus20 10.</li></ul>
		b. In Installation program, type setup.exe.
		<ul> <li>In Uninstall program, type setup.exe /uninstall PROPLUS.</li> </ul>
	5.	On the <b>General: Detection Method</b> page, perform the following steps, and then click <b>Next</b> :
		a. Click Add Clause,
		The <b>Detection Rule</b> dialog box appears.
		<ul> <li>b. In the <b>Detection Rule</b> dialog box, in <b>Setting Type</b>, select <b>Windows Installer</b>.</li> </ul>
		c. In <b>Product code</b> , click <b>Browse</b>
		The <b>Open</b> dialog box appears.
		d. In the Open dialog box, in File name, type \\WDG-MDT-01\Source\$\OfficeProPlus20 10\ProPlus.WW\ProPlusWW.msi, and then click Open.
		The product code for Office Professional Plus 2010 appears in the <b>Product code</b> box.
		e. In the <b>Detection Rule</b> dialog box, click <b>OK</b> .
	6.	On the <b>General: User Experience</b> page, perform the following steps, and then click <b>Next</b> :
		<ul> <li>a. In Installation behavior, select Install for system.</li> </ul>

On this wizard page	Do this
	b. In Logon requirement, select Whether or not a user is logged on.
	c. In Installation program visibility, select Normal.
	d. In Estimated installation time, type 120.
	7. On the <b>Requirements</b> page, click <b>Next</b> .
	8. On the <b>Dependencies</b> page, click <b>Next</b> .
	9. On the <b>Summary</b> page, click <b>Next</b> .
	10. On the <b>Completion</b> page, click <b>Close</b> .
	The Create Application Wizard starts.
	11. Click <b>Next</b> .
Summary	Review the information in the <b>Details</b> box that that you provided while completing the previous wizard pages, and then click <b>Next</b> .
Progress	The progress for creating the application is displayed.
Completion	Click Close.

The Office Professional Plus 2010 – x86 application appears in the preview pane.

### Step 5-9: Distribute the Office Professional Plus 2010 Application

After you have created the Office Professional Plus 2010 application, you need to distribute the application to the distribution points. Doing so allows installation of the application from the distribution points. For the purposes of this guide, there is only one distribution point (WDG-MDT-01). In typical Configuration Manager deployments, there are usually multiple distribution points.

#### To distribute the Office Professional Plus 2010 application

- Click Start, point to All Programs, and then point to Microsoft System Center 2012. Point to Configuration Manager, and then click Configuration Manager Console.
- In the Configuration Manager console, in the navigation pane, click Software Library.
- 3. In the Software Library workspace, go to Overview/Application Management/Applications.
- 4. In the preview pane, click Microsoft Office Professional Plus 2012 x86.

On the Ribbon, on the Home tab, in the Deployment group, click Distribute Content.

The Distribute Content Wizard starts.

6. Complete the Distribute Content Wizard using the information in Table 34. Accept the default values unless otherwise specified.

**Table 34. Information for Completing the Distribute Content Wizard** 

On this wizard page	Do this	
General	Click Next.	
General: Content	Click Next.	
General: Content Destination	<ol> <li>Click Add, and then click Distribution Point.         The Add Distribution Points dialog box appears.     </li> <li>In the Add Distribution Points dialog box, select         \WDG-MDT-01.mdt2013.corp.woodgroveban k.com, and then click OK.         \WDG-MDT-01.mdt2013.corp.woodgrovebank. com appears in the Content destination list.     </li> </ol>	
	3. Click Next.	
Summary	Review the information in the <b>Details</b> box that that you provided while completing the previous wizard pages, and then click <b>Next</b> .	
Progress	The progress for distributing the application is displayed.	
Completion	Click Close.	

7. Close all open windows and dialog boxes.

### Step 5-10: Make the Office Professional Plus 2010 Application Available to All Users

After you have created the Office Professional Plus 2010 application, you need to distribute the application to the distribution points. Doing so allows installation of the application from the distribution points. For the purposes of this guide, there is only one distribution point (WDG-MDT-01). In typical Configuration Manager deployments, there are usually multiple distribution points.

#### To make the Office Professional Plus 2010 application available to all users

1. Click **Start**, point to **All Programs**, and then point to **Microsoft System Center 2012**. Point to **Configuration Manager**, and then click **Configuration Manager Console**.

- 2. In the Configuration Manager console, in the navigation pane, click **Software Library**.
- 3. In the Software Library workspace, go to Overview/Application Management/Applications.
- 4. In the preview pane, click Microsoft Office Professional Plus 2010 x86.
- On the Ribbon, on the **Home** tab, in the **Deployment** group, click **Deploy**.
   The Deploy Software Wizard starts.
- 6. Complete the Deploy Software Wizard using the information in Table 35. Accept the default values unless otherwise specified.

Table 35. Information for Completing the Deploy Software Wizard

On this wizard page	Do this
General	1. In Collection, click Browse.
	The <b>Select Collection</b> dialog box appears.
	<ol> <li>In the Select Collection dialog box, click All Users, and then click OK.</li> </ol>
	3. In Comments, type Make Microsoft Office Professional Plus 2010 available for deployment to all users.
	4. Click <b>Next</b> .
Content	Click Next.
Deployment Settings	Click Next.
Scheduling	Click Next.
Alerts	Click Next.
Summary	Review the information in the <b>Details</b> box that that you provided while completing the previous wizard pages, and then click <b>Next</b> .
Progress	The progress for deploying the application is displayed.
Completion	Click Close.

7. Close all open windows and dialog boxes.

## Step 5-11: Customize the UDI Wizard Configuration File for the Target Computer

The User-Driven Installation task sequence template includes a task sequence step that runs the UDI Wizard. When a task sequence step runs the UDI Wizard, the step also references an XML file that determines the configuration of the UDI Wizard. The UDIWizard\_Config.xml file in the Scripts folder controls the behavior

of the UDI Wizard. Customize the UDIWizard\_Config.xml file using the UDI Wizard Designer.

The UDI Wizard Designer includes predefined stage groups for the UDI Wizard listed in Table 36. You can add or remove the wizard pages that appear in the UDI Wizard and the sequence of each wizard page for each stage group.

Table 36. Predefined Stage Groups for Each Supported MDT Deployment Scenario

Stage group	Description
New Computer	Use this stage group as the basis for your deployment when a new installation of a Windows operating system is deployed to a new computer and no user state is migrated.
Refresh	Use this stage group as the basis for your deployment when a computer is refreshed, including computers that must be re-imaged for image standardization or to address a problem.
Replace	Use this stage group as the basis for your deployment when one computer replaces another computer. The existing user state migration data is saved from the original computer. Then, a new installation of Windows is deployed to a new computer. Finally, the user state data is restored to the new computer.

#### To customize the UDI Wizard configuration file for the reference computer

1. Click **Start**, point to **All Programs**, point to **Microsoft Deployment Toolkit**, and then click **UDI Wizard Designer**.

The UDI Wizard Designer starts.

- 2. On the Ribbon, on the **Home** tab, in the **File Menu** group, click **Open**.
- In the Open dialog box, in File name, type \\WDG-MDT-01\Packages\$\\MDT\_Files\Scripts\\UDIWizard\_Config.xml, and then click Open.

**Note** This opens the copy of the UDIWizard\_Config.xml file that resides in the MDT Package folder you created when you ran the Create Microsoft Deployment Task Sequence Wizard earlier in the process.

- 4. In the Page Library, click **Install Programs**.
- 5. On the Ribbon, on the **Home** tab, in the **Edit Settings** group, click **Configuration Manager**.

The **Site Settings** dialog box appears.

- In the Site Settings dialog box, perform the following steps, and then click OK:
  - a. In Site Server Name, type WDG-MDT-01.
  - b. In Site Code, type NYC.
  - c. Click Validate Site.
  - d. In Application Collection, type All Users.

**Note** The Configuration Manager collection you type here must match the Configuration Manager collection to which you deployed your applications. In this guide, you selected the All Users collection in <a href="Step 5-10">Step 5-10</a>: Make the Office Professional Plus 2010 Application Available to All Users.

7. In the preview pane, on the Flow tab, expand StageGroup: New Computer.

The list of wizard pages used in the StageGroup: New Computer flow is displayed.

**Note** Make note of the sequence of the wizard pages in the StageGroup: New Computer flow in the UDI Wizard Designer. You will see the same sequence of wizard pages when you run the UDI Wizard in <a href="Step 6-4">Step 6-4</a>: Start the Target Computer with the Task Sequence Bootable Media.

 Configure the StageGroup: New Computer flow using the information for each page listed in Table 37. Accept the default values unless otherwise specified.

**Table 37. Information for Configuring UDI Wizard Designer Pages** 

Wizard page	Click the Configure tab and do the following	
BitLocker	Under BitLocker Mode, expand     BitLocker Mode. In BitLocker     Checkbox, clear the Initially check this check box check box.	
	Under BitLocker Mode, click Unlocked for each of the following configuration options:	
	BitLocker Checkbox	
	BitLocker Mode Radio Buttons	
	PIN Text Box	
	The status for each configuration option changes to <b>Locked</b> , which prevents users from changing these options in the UDI Wizard.	
Volume	Under Image Combo Box, expand Image Combo Behavior, under Image Combo Box Values, right-click Windows 8.1 RTM (x86), and then click Select an Operating	

Wizard page	Click the Configure tab and do the following
	System Image.
	The <b>Select an Operating System Image</b> dialog box appears.
	<ol> <li>Complete the Select an Operating System Image dialog box by performing the following steps, and then click OK:</li> </ol>
	a. In Select an Operating System Image/Installer to add, click image_index (where image_index is the image index of the image that contains Windows 8.1, which was identified in <a href="Step 5-1: Import the Captured .wim File into Configuration Manager">Step 5-1: Import the Captured .wim File into Configuration Manager</a> ; for the purposes of this guide, select 2).
	<ul> <li>b. In <b>Display Name</b>, type <b>Windows 8.1</b></li> <li><b>Reference Image – x64</b>.</li> </ul>
	<ol> <li>Under Image Combo Box, expand Image Combo Behavior; under Image Combo Box Values, right-click Windows 8.1 RTM (x86), and then click Remove Item.</li> </ol>
	The <b>Delete Item Confirmation</b> dialog box appears.
	<ol> <li>In the <b>Delete Item Confirmation</b> dialog box, click <b>Yes</b>.</li> </ol>
	<ol> <li>Under User Data and Settings, expand User Data Combo Behavior, and then select the Format: Clean all the data on the target volume during install check box.</li> </ol>
	<ol> <li>Under User Data Combo Behavior, click Unlocked for each of the following configuration options:</li> </ol>
	Format Drive
	<ul> <li>Windows Directory</li> </ul>
	The status for each configuration option changes to <b>Locked</b> , which prevents users from changing these options in the UDI Wizard.
New Computer Details	Under Network Details, expand Network     Details; in Domain or Workgroup Radio

Wizard page	Click the Configure tab and do the following	
		Buttons, click Domain.
	2.	Under <b>Domain or Workgroup Radio Buttons</b> , click <b>Unlocked</b> .
		The status changes to <b>Locked</b> , which prevents users from changing this option in the UDI Wizard.
	3.	Under <b>Network Details</b> , expand <b>Domains</b> and <b>OUs</b> , and then click <b>Add Domain</b> .
		The <b>Create or Edit Domain Information</b> dialog box appears.
	4.	In the Create or Edit Domain Information dialog box, in Domain Name type mdt2013.corp.woodgrovebank.com.
	5.	In the Create or Edit Domain Information dialog box, in Friendly Name, type Woodgrove Bank Active Directory Domain, and then click OK.
Install Programs	1.	Under <b>Software and Groups</b> , right-click any blank area, and then click <b>Add Software Group</b> .
		The <b>Add/Edit a Software Group</b> dialog box appears.
	2.	In the Add/Edit a Software Group dialog box, in Name, type Woodgrove Bank Applications, and then click OK.
	3.	Under <b>Software and Groups</b> , click <b>Woodgrove Bank Applications</b> .
	4.	On the Ribbon, on the <b>Home</b> tab, in the <b>General Software Item Settings</b> group, click <b>Add</b> , and then click <b>Add Software to Group</b> .
		The Add Software to Group Wizard starts.
	5.	Complete the Add Software to Group Wizard by performing the following steps:
		<ul> <li>a. On the What type of software item do you want to add page, click I want to add an Application, and then click Next.</li> </ul>
		b. On the <b>Search Configuration Manager for the Software Item to</b>

Wizard page	Click the Configure tab and do the following
	Add page, in Display Name, type Microsoft Office Professional Plus 2010 – x86.
	<ul> <li>c. On the Search Configuration         Manager for the Software Item to         Add page, click Select.     </li> </ul>
	The <b>Search Applications</b> dialog box appears.
	<ul> <li>d. In the Search Applications dialog box, click Search, click Microsoft Office Professional Plus 2010 – X86, and then click OK.</li> </ul>
	e. On the <b>Search Configuration Manager for the Software Item to Add</b> page, click <b>Finish</b> .
	Microsoft Office Professional Plus 2010 – x86 appears underneath the Woodgrove Bank Applications software group.
	<ol> <li>Under Software and Groups, click General Software.</li> </ol>
	7. On the Ribbon, on the <b>Home</b> tab, in the <b>General Software Item Settings</b> group, click <b>Add</b> , and then click <b>Remove Item</b> .
	The <b>Delete the Selected Item</b> dialog box appears.
	8. In the <b>Delete the Selected Item</b> dialog box, click <b>Yes</b> .
	<ol> <li>Under Software and Groups, select the check box for Woodgrove Bank Applications.</li> </ol>
	The group and Microsoft Office Professional Plus 2010 – x86 are selected.

- 9. On the Ribbon, on the Home tab, click Save.
  - The **File Save** dialog box appears.
- 10. In the File Save dialog box, click OK.
- 11. Leave the UDI Wizard Designer open for the next step.

### Step 5-13: Create a New Custom Wizard Page

You can create custom wizard pages that allow you to collect deployment information in addition to the information collected on other UDI Wizard pages. You create custom wizard pages based on the **Build Your Own Page** wizard page type. After you create the custom wizard page, you can add controls to it and configure the task sequence variables the controls set.

For this guide, Woodgrove Bank wants to allow users to enter their name and the department in which they work. Woodgrove Bank is departmentalized by geographic location. This information will be used to configure the registered user name and organization in Windows. In this step, you add a new custom wizard page to the New Computer stage group.

#### To create a new custom wizard page

- On the Ribbon, on the Home tab, in the Page Library group, click Add Page.
   The Add New Page dialog box appears.
- 2. In the **Add New Page** dialog box, in the **Page Type** column, click **Build Your Own Page**.
- 3. In **Display Name**, type **User Information**.
- In Page Name, type UserInformationPage, and then click OK.
   The User Information page appears in the Page Library.
- 5. In the details pane, click the **Flow** tab.
- On the Flow tab, expand the New Computer stage group.
   The list of wizard pages in the New Computer stage group is displayed.
- 7. In the Page Library, drag the **User Information** page to a point immediately before the **BitLocker** page in the New Computer stage group on the **Flow** tab.
- 8. On the Ribbon, on the **Home** tab, click **Save**.
  - The **File Save** dialog box appears.
- 9. In the File Save dialog box, click OK.
- 10. Leave the UDI Wizard Designer open for the next step.

### Step 5-14: Add Controls to New Custom Wizard Page

After the new UDI custom wizard page has been added to the New Computer stage group, the appropriate controls need to be added to the new custom wizard page. The controls are added to the custom wizard page from the Build Your Own Page toolbox, which is displayed when you view the custom wizard page on the **Configure** tab in the UDI Wizard Designer.

Table 38 lists the types of controls to your custom wizard page, which is illustrated in Figure 1.

Table 38. Types of Controls in the UDI Build Your Own Page Toolbox

Control type	Description
Checkbox	This control allows you to select or clear a configuration option and behaves as a traditional user interface (UI) check box. This control has a corresponding label that you can use to describe the purpose of the check box. The state of this control is True when the check box is selected and False when the check box is cleared. The state of the check box is stored in the task sequence variable configured for this control. For more information on this control, see "Checkbox Control" in the MDT document, <i>Toolkit Reference</i> .
Combobox	This control allows you to select an item from a list of items and behaves as a traditional UI drop-down list. This control allows you to add or remove items from the list and provide a corresponding value that will be set in the task sequence variable configured for this control. For more information on this control, see "Combobox Control" in the MDT document, <i>Toolkit Reference</i> .
Line	This control allows you to add a horizontal line to divide one portion of the custom wizard page from another. This control does not collect any configuration values but rather is used to visually enhance the UI. For more information on this control, see "Line Control" in the MDT document, <i>Toolkit Reference</i> .
Label	This control allows you to add descriptive, read-only text to the wizard page. This control does not collect any configuration values but rather is used to visually enhance the UI. For more information on this control, see "Label Control" in the MDT document, <i>Toolkit Reference</i> .
Radio	This control allows you to select one configuration option from a group of two or more options. As with traditional radio buttons, two or more of these controls can be grouped together, and then the user can select one of the options in the radio button group. A unique value is assigned to each option. The value assigned to the selected option control is saved in the task sequence variable configured for this control. For more information on this control, see "Radio Control" in the MDT document, <i>Toolkit Reference</i> .
Bitmap	This control allows you to add a bitmap graphic (.bmp file) to the custom wizard page. This control does not collect any configuration values but rather is used to visually enhance the UI. The path to the .bmp file is relative to the location of the UDI Wizard (OSDSetupWizard.exe). For more information on this control, see "Bitmap Control" in the MDT

Control type	Description
	document, Toolkit Reference.
Textbox	This control allows you to enter text on the custom wizard page. The text typed into this control is saved in the task sequence variable configured for this control. For more information on this control, see "Textbox Control" in the MDT document, <i>Toolkit Reference</i> .

You can add any combination of these controls to your custom wizard page based on the information you want to collect. In addition, you can use the **Show Gridlines** check box to show or hide gridlines that can be used to assist in visually designing the custom wizard page.

For the purposes of this example, you will create a custom wizard page as illustrated in Figure 1.

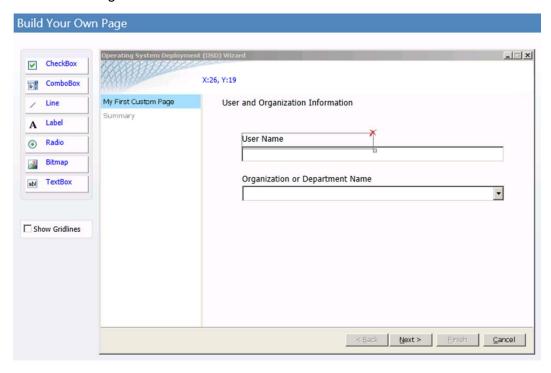


Figure 1. Custom wizard page to be created

#### To add controls to the new custom wizard page

- 1. In the Page Library, click **User Information** page.
- In the details pane, click the Configure tab.
   The Build Your Own Page toolbox and empty wizard page are displayed.
- 3. In the Build Your Own Page toolbox, drag the **Label** control to the empty wizard page at approximately the following coordinates:
  - x = 30

• y = 5

The label control is placed on the wizard page and named *label1*.

- 4. On the custom wizard page, click label1 (the label control added in step 3).
  This control acts as a heading for the custom wizard page and describes the purpose of the page.
- 5. Configure the layout properties of **label1** on the **Layout** tab using the information in Table 39. Accept the default values unless otherwise stated.

**Table 39. label1 Layout Properties** 

Property	Value
Label	User and organization information
Х	30
Υ	5

- 6. In the Build Your Own Page toolbox, drag the **Label** control to the empty wizard page at approximately the following coordinates:
  - x = 60
  - y = 60

The label control is placed on the wizard page and named label2.

7. On the custom wizard page, click **label2** (the control added in the previous step).

This control acts as a label for the text box used to enter the user name.

8. Configure the layout properties of **label2** on the **Layout** tab using the information in Table 40. Accept the default values unless otherwise stated.

**Table 40. lable2 Layout Properties** 

Property	Value
Label	User name
X	60
Υ	60

- 9. In the Build Your Own Page toolbox, click and drag the **Textbox** control to the empty wizard page at approximately the following coordinates:
  - x = 60
  - y = 80

The **Textbox** control is placed on the wizard page and named *text1*.

10. On the custom wizard page, click **text1** (the control added in the previous step).

This control is the text box used to enter the user name.

11. Configure the layout properties of **text1** on the **Layout** tab using the information in Table 41. Accept the default values unless otherwise stated.

**Table 41. text1 Layout Properties** 

Property	Value
X	60
Υ	80
Width	400

12. Configure the settings properties of **text1** on the **Settings** tab using the information in Table 42. Accept the default values unless otherwise stated.

**Table 42. text1 Settings Properties** 

Property	Value
Task sequence variable name	FullName
Friendly display name visible in summary page	Registered user name

- 13. In the Build Your Own Page toolbox, drag the **Label** control to the empty wizard page at approximately the following coordinates:
  - x = 60
  - y = 60

The **Label** control is placed on the wizard page and named *label3*.

14. On the custom wizard page, click **label3** (the control added in the previous step).

This control acts as a label for the combo box used to select the organization or department name for the user.

15. Configure the layout properties of **lable3** on the **Layout** tab using the information in Table 43. Accept the default values unless otherwise stated.

Table 43. lable3 Layout Properties

Property	Value
Label	Organization or department name
X	60

Property	Value
Υ	121

- 16. In the Build Your Own Page toolbox, drag the **Combobox** control to the empty wizard page at approximately the following coordinates:
  - x = 60
  - y = 140

The **Combobox** control is placed on the wizard page and named *combo1*.

17. On the custom wizard page, click **combo1** (the control added in the previous step).

This control is the combo box used to select the organization name.

18. Configure the layout properties of **combo1** on the **Layout** tab using the information in Table 44. Accept the default values unless otherwise stated.

Table 44. combo1 Layout Properties

Property	Value
X	60
Υ	80
Width	400

19. Add data items to the layout properties of **combo1** on the **Layout** tab using the information in Table 45. Accept the default values unless otherwise stated.

Table 45, combo1 Data Items

Value	Display Value
Woodgrove Bank – New York City	Woodgrove Bank – New York City
Woodgrove Bank – Dallas	Woodgrove Bank – Dallas
Woodgrove Bank – Chicago	Woodgrove Bank – Chicago
Woodgrove Bank – Seattle	Woodgrove Bank – Seattle

20. Configure the settings properties of **combo1** on the **Settings** tab using the information in Table 46. Accept the default values unless otherwise stated.

**Table 46. combo1 Settings Properties** 

Property	Value
Task sequence variable name	OrgName
Friendly display	Registered organization name

Property	Value
name visible in	
summary page	

21. On the Ribbon, on the **Home** tab, click **Save**.

The File Save dialog box appears.

- 22. In the **File Save** dialog box, click **OK**.
- 23. Close the UDI Wizard Designer.

## Step 5-15: Update the Distribution Points for the MDT Files Package

After the UDI Wizard configuration file, UDIWizard\_Config.xml, has been updated for the MDT Files package in Configuration Manager, update the distribution points for the MDT Files package. Updating the distribution points copies the updated version of the UDIWizard\_Config.xml file to the deployment shares specified in the package.

#### To update the distribution points for the MDT Files package

- Click Start, point to All Programs, and then point to Microsoft System Center 2012. Point to Configuration Manager, and then click Configuration Manager Console.
- 2. In the Configuration Manager console, in the navigation pane, click **Software Library**.
- 3. In the Software Library workspace, go to Overview/Application Management/Packages.
- 4. In the preview pane, click **MDT Files**.
- 5. On the Ribbon, on the **Home** tab, in the **Deployment** group, click **Update Distribution Points**.

The **Configuration Manager** dialog box opens, notifying you that you are going to update the package on all distribution points.

- 6. In the Configuration Manager dialog box, click OK.
- 7. Close all open windows and dialog boxes.

Configuration Manager starts updating the distribution points with the latest versions of the UDIWizard\_Config.xml file. This process could take several minutes. Check the status of the package until the **Last Update** value of the package status has been updated to a recent date and time.

# Step 6: Deploy the Captured Image of the Reference Computer to the Target Computer

When you have captured the image of the reference computer and created and configured the task sequence, deploy the captured image. Configure MDT to provide all the necessary configuration settings to deploy to the target computer. After initiating the deployment process, the image of the reference computer running Windows 8.1 is automatically deployed to the target computer and configured with the settings defined.

Deploy the captured image by:

- Adding the target computer to the Configuration Manager site database as described in <u>Step 6-1: Add the Target Computer to the Configuration</u> Manager Site Database
- Creating a computer collection that includes the target computer as described in Step 6-2: Create a Computer Collection That Includes the Target Computer
- Deploy the task sequence created earlier in the process as described in Step 6-3: Deploy the Target Computer Task Sequence
- Starting the target computer with the task sequence bootable media as described in <u>Step 6-4: Start the Target Computer with the Task Sequence</u> Bootable Media

# Step 6-1: Add the Target Computer to the Configuration Manager Site Database

To deploy an operating system without stand-alone media to a new computer that Configuration Manager does not currently manage, add the new computer to the Configuration Manager site database prior to initiating the operating system deployment process. Configuration Manager can automatically discover computers on the network that have a Windows operating system installed; however, if the computer has no operating system installed, use the Import Computer Information Wizard to import the new computer information.

### To add the target computer to the Configuration Manager site database

- Click Start, point to All Programs, and then point to Microsoft System Center 2012. Point to Configuration Manager, and then click Configuration Manager Console.
- 2. In the Configuration Manager console, in the navigation pane, click **Assets** and **Compliance**.
- 3. In the Assets and Compliance workspace, go to Overview/Devices.

4. On the Ribbon, on the **Home** tab, in the **Create** group, click **Import Computer Information**.

The Import Computer Information Wizard starts.

5. Complete the Import Computer Information Wizard using the information in Table 47. Accept the default values unless otherwise specified.

Table 47. Information for Completing Import Computer Information Wizard

On this wizard page	Do this
Select Source	Click <b>Import single computer</b> , and then click <b>Next</b> .
Select Source: Single Computer	<ol> <li>In Computer Name, type WDG-CLI-01.</li> <li>In MAC address, type mac_address (where mac_address is the MAC address of the primary network adapter for the target computer, WDG-CLI-01).</li> <li>Click Next.</li> </ol>
Select Source: Data Preview	Click Next.
Select Source: Choose Target Collection	Click Next.
Summary	Review the information in the <b>Details</b> box that that you provided while completing the previous wizard pages, and then click <b>Next</b> .
Progress	The progress for importing the computer is displayed.
Confirmation	Click Close.

For more information on adding a new computer to the Configuration Manager site database, see the section, "To import computer information for a single computer," in the section, "How to Deploy Operating Systems in Configuration Manager," in the Configuration Manager Documentation Library, which is installed with Configuration Manager.

## Step 6-2: Create a Computer Collection That Includes the Target Computer

In the Configuration Manager console, create a collection that includes the target computer (WDG-CLI-01). You use this computer collection later when advertising the task sequence created earlier in the process.

### To create a computer collection that includes the target computer

- Click Start, point to All Programs, and then point to Microsoft System Center 2012. Point to Configuration Manager, and then click Configuration Manager Console.
- 2. In the Configuration Manager console, in the navigation pane, click **Assets** and **Compliance**.
- 3. In the Assets and Compliance workspace, go to Overview/Device Collections.
- 4. On the Ribbon, on the **Home** tab, in the **Create** group, click **Create Device Collection**.

The Create Device Collection Wizard starts.

5. Complete the Create Device Collection Wizard using the information in Table 48. Accept the default values unless otherwise specified.

**Table 48. Information for Completing the Create Device Collection Wizard** 

On this wizard page	Do this
General	In Name, type Microsoft Deployment –     Batch 01.
	2. In Comment, type Computers that are to be included in the first batch of computers deployed.
	3. In Limited Collection, click Browse.
	The <b>Browse Collections</b> dialog box appears. Complete the dialog box by performing the following steps:
	<ul> <li>a. In the Browse Collection dialog box, in Name, click All Systems.</li> </ul>
	b. Click <b>OK</b> .
	4. Click Next.
Membership Rules	1. Click Add Rule, and then click Direct Rule.
	The Create Direct Membership Rule Wizard starts.
	Complete the Create Direct Membership Rule     Wizard by performing the following steps:
	a. On the <b>Welcome</b> page, click <b>Next</b> .
	<ul> <li>b. On the Search for Resources page, in Resource class, select System Resource; in Attribute name, select Name; in Value, type WDG-CLI-01; and then click Next.</li> </ul>
	c. On the <b>Select Resources</b> page, select

On this wizard page	Do this
	WDG-CLI-01, and then click Next.
	Note The process for adding the target computer (WDG-CLI-01) to All Systems can take a few minutes to finish. If WDG-CLI-01 does not appear in the list, repeat steps b and c until WDG-CLI-01 appears.
	d. On the <b>Summary</b> page, click <b>Next</b> .
	e. On the <b>Completion</b> page, click <b>Close</b> .
	3. Click Next.
Summary	Review the information in the <b>Details</b> box that that you provided while completing the previous wizard pages, and then click <b>Next</b> .
Progress	The progress for creating the device collection is displayed.
Completion	Click Close.

For more information, see the section, "How to Create Collections in Configuration Manager," in the Configuration Manager Documentation Library, which is installed with Configuration Manager.

## Step 6-3: Deploy the Target Computer Task Sequence

In the Configuration Manager console, deploy the task sequence created earlier in the process for the target computers. Deploy the task sequence to the collection of target computers created earlier in the process.

#### To deploy the task sequence

- 1. Click **Start**, point to **All Programs**, and then point to **Microsoft System Center 2012**. Point to **Configuration Manager**, and then click **Configuration Manager Console**.
- In the Configuration Manager console, in the navigation pane, click Software Library.
- 3. In the Software Library workspace, go to Overview/Operating Systems/Task Sequences.
- 4. In the preview pane, click **UDI Windows 8.1 Target Deployment**.
- On the Ribbon, on the **Home** tab, in the **Deployment** group, click **Deploy**.
   The Deploy Software Wizard starts.
- 6. Complete the Deploy Software Wizard using the information in Table 49. Accept the default values unless otherwise specified.

**Table 49. Information for Completing the Deploy Software Wizard** 

On this wizard page	Do this
General	1. In Collection, click Browse.
	<ol> <li>In the Browse Collection dialog box, click Microsoft Deployment – Batch 01, and then click OK.</li> </ol>
	3. In Comment, type Deploy Windows 8.1 to the first batch of target computers using UDI.
	4. Click Next.
Deployment	1. In Purpose, select Available.
Settings	<ol><li>Select the Make available to boot media and PXE check box.</li></ol>
	3. Click Next.
Deployment Settings: Schedule	Click Next.
Deployment Settings: User Experience	Click Next.
Deployment Settings: Alerts	Click Next.
Deployment Settings: Distribution Points	Click Next.
Summary	Review the information in the <b>Details</b> box that that you provided while completing the previous wizard pages, and then click <b>Next</b> .
Progress	The progress for creating the deploying the task sequence is displayed.
Completion	Click Close.

For more information, see the section, "How to Deploy a Task Sequence," in the Configuration Manager Documentation Library, which is installed with Configuration Manager.

### Step 6-4: Start the Target Computer with the Task Sequence Bootable Media

Start the target computer (WDG-CLI-01) with the task sequence bootable media created earlier in the process. This medium starts Windows PE on the reference computer and initiates the MDT process. At the end of the MDT process, Windows 8.1 is deployed on the target computer.

**Note** You can also initiate the MDT process by starting the target computer from Windows Deployment Services.

#### To start the target computer with the task sequence bootable media

1. Start WDG-CLI-01 with the task sequence bootable media created earlier in the process.

Windows PE starts, and then the Task Sequence Wizard starts.

2. Complete the Task Sequence Wizard using the information in Table 50. Accept the default values unless otherwise specified.

**Table 50. Information for Completing the Task Sequence Wizard** 

On this wizard page	Do this
Welcome to the Task Sequence Wizard	In Password, type P@ssw0rd, and then click Next.
Select a Task Sequence	In the list box, select <b>UDI - Windows 8.1 Target Deployment</b> , and then click <b>Next</b> .

At the appropriate task sequence step, the UDI Deployment Wizard starts.

3. Complete the UDI Deployment Wizard using the information in Table 51. Accept the default values unless otherwise specified.

**Table 51. Information for UDI Deployment Wizard** 

On this wizard page	Do this
Welcome	Click Next.
User Information	In User Name, type Woodgrove Bank     Chicago Employee.
	2. In Organization or Department Name, select Woodgrove Bank – Chicago.
	3. Click Next.
BitLocker	Click Next.
Volume	Click Next.
Select Target	Click Next.
Deployment Readiness	Review the configuration checks, and ensure that the status for all checks are set to <b>Success</b> .
	2. Click Next.
New Computer	1. In Computer name, type WDG-CLI-01.
Details	<b>Note</b> In unknown computer scenarios, users could change the computer name to the appropriate value.

On this wizard page	Do this
	2. In User name, type MDT2013\Administrator.
	<ol><li>In Password and Confirm password, type P@ssw0rd.</li></ol>
	4. Click Next.
Administrator Password	In Administrator password and     Confirm password, type P@ssw0rd.
	2. Click Next.
User Device Affinity	Select the <b>Set primary user</b> check box, and then click <b>Next</b> .
Language	Click Next.
Install Programs	Verify that the Microsoft Office Professional Plus 2010 – x86 check box is selected, and then click Next.
Summary	Review the information that that you provided while completing the previous wizard pages, and then click <b>Finish</b> .

### To monitor the reference computer deployment process using the Deployment Workbench

- 1. On WDG-MDT-01, click **Start**, and then point to **All Programs**. Point to **Microsoft Deployment Toolkit**, and then click **Deployment Workbench**.
- 2. In the Deployment Workbench console tree, go to Deployment Workbench/Deployment Shares/MDT Deployment Share (C:\DeploymentShare\$)/Monitoring.
- 3. In the details pane, view the deployment process for WDG-REF-01.
- 4. In the Actions pane, periodically click **Refresh**.
  - The status of the deployment process is updated in the details pane. Continue to monitor the deployment process until the process is complete.
- 5. In the details pane, click WDG-REF-01.
- 6. In the Actions pane, click **Properties**.
  - The **WDG-REF-01 Properties** dialog box is displayed.
- 7. In the **WDG-REF-01 Properties** dialog box, on the **Identity** tab, view the monitoring information provided about the deployment process as described in Table 52.

**Table 52. Monitoring Information About the Deployment Process** 

Information	Description

Information	Description
ID	Unique identifier for the computer being deployed.
Computer Name	The name of the computer being deployed.
Deployment status	The current status of the computer being deployed; the status can be one of the following:
	Running. The task sequence is healthy and running.
	Failed. The task sequence failed, and the deployment process was unsuccessful.
	Completed. The task sequence has finished.
	Unresponsive. The task sequence has not updated its status in the past four hours and is assumed to be nonresponsive.
Step	The current task sequence step being run.
Progress	The overall progress of the task sequence. The progress bar indicates how many task sequence steps have been run out of the total number of task sequence steps.
Start	The time the deployment process started.
End	The time the deployment process ended.
Elapsed	The length of time the deployment process has been running or took to run if the deployment process has finished.
Errors	The number of errors encountered during the deployment process.
Warnings	The number of warnings encountered during the deployment process.
Remote Desktop	This button allows you to establish a remote desktop connection with the computer being deployed using the Windows Remote Desktop feature. This method assumes that:
	The target operating system is running and has remote desktop support enabled
	mstsc.exe is in the path
	<b>Note</b> This button is always visible but may not be able to establish a remote desktop session if the monitored computer is running Windows PE, has not completed installation of the target operating system, or does not have the Remote Desktop feature enabled.
VM Connection	This button allows you to establish a remote desktop connection to a VM running in Hyper-V.

Information	Description
	This method assumes that:
	<ul> <li>The deployment is being performed to a VM running on Hyper-V</li> </ul>
	<ul> <li>vmconnect.exe is located in the %ProgramFiles%\Hyper-V folder</li> </ul>
	<b>Note</b> This button appears when ZTIGather.wsf detects that Hyper-V integration components are running on the monitored computer. Otherwise, this button will not be visible.
DaRT Remote Control	This button allows you to establish a remote control session using the remote viewer feature in DaRT.
	This method assumes that:
	<ul> <li>DaRT has been deployed to the target computer and is currently running</li> </ul>
	DartRemoteViewer.exe is located in the %ProgramFiles%\Microsoft DaRT 7\v7 folder
	<b>Note</b> This button appears when ZTIGather.wsf detects that DaRT is running on the monitored computer. Otherwise, this button will not be visible.
Automatically refresh this information every 10 seconds	Check box that controls whether the information in the dialog box is automatically refreshed. If the check box is:
	<ul> <li>Selected, the information is refreshed every 10 seconds</li> </ul>
	Cleared, the information is not automatically refreshed and must be manually refreshed using the <b>Refresh Now</b> button
Refresh Now	This button immediately refreshes the information displayed in the dialog box.

- 8. In the WDG-REF-01 Properties dialog box, click OK.
- 9. Close the Deployment Workbench.

### To monitor the reference computer deployment process using the Get-MDTMonitorData cmdlet

- 1. On WDG-MDT-01, click **Start**, point to **Administrative Tools**, and then click **Windows PowerShell Modules**.
  - The Windows PowerShell Modules command prompt opens.
- 2. Create a Windows PowerShell drive that uses the MDT PowerShell provider by running the <a href="New-PSDrive">New-PSDrive</a> cmdlet as shown in the following example:

New-PSDri ve - Name DS001 - PSProvi der  $\mbox{mdtprovi der}$  - Root d: \Depl oymentShare\$

3. View the MDT monitoring process by running the **Get-MDTMonitorData** cmdlet, as shown in the following example:

Get-MDTMonitorData - Path DS001:

This command returns the monitoring data collected by the MDT monitoring service running on the same computer that hosts the deployment share as shown in the following example output:

Name : WDG-REF-01

PercentComplete : 96
Settings : :
Warnings : 0
Errors : 0
DeploymentStatus : 1

StartTime : 6/7/2012 6:45:39 PM

EndTi me : : ID : : :

Uni queID : 94a0830e-f2bb-421c-b1e0-6f86f9eb9fa1

CurrentStep : 130
Total Steps : 134
StepName : Gather

LastTime : 6/7/2012 8: 46: 32 PM

DartIP :
DartPort :
DartTi cket :

VMHost : XYL-DC-02 VMName : WDG-REF-01

ComputerIdentities : {}

Name : WDG-CLI-01

PercentComplete : 26
Settings : 
Warnings : 0
Errors : 0
DeploymentStatus : 1

StartTime : 6/7/2012 3:07:13 AM

EndTi me :

ID : 2

Uni queID : 94a0830e-f2bb-421c-b1e0-6f86f9eb9fa1

CurrentStep : 49

Total Steps : 134

StepName : Capture Network Settings using MDT

LastTi me : 6/7/2012 3:08:32 AM

DartIP :
DartPort :
DartTicket :
VMHost :
VMName :

ComputerIdentities : {}

### 4. Close the Windows PowerShell console.

If any problems occur during the deployment, consult the MDT document *Troubleshooting Reference*. When successfully completed, the target computer is running a Windows 8.1 operating system configured like the reference computer.

At the completion of the deployment process, Windows 8.1 starts for the first time, and the **Welcome** tab in the **Deployment Complete** dialog box is displayed. The **Welcome** tab displays helpful information about the deployment and provides contact information in the event issues with the deployment occur.

Review the information on the **Deployment Summary** and **Applications Installed** tabs to verify that Windows 8.1 and Office Professional Plus 2010 were installed correctly. When you have finished reviewing these tables, click **Start Windows** to log on to Windows 8.1 for the first time.

**Note** Configuration Manager applications are not displayed on the **Applications Installed** tab. Instead, they are detected after the user logs on to the target computer for the first time.