

LABS

DEPLOYING A CAPTURED IMAGE

This lab contains the following exercises and activities: _____

- Exercise 5.1** Using DISM.exe
- Exercise 5.2** Installing Microsoft Deployment Toolkit 2010
- Exercise 5.3** Creating a Deployment Share
- Exercise 5.4** Creating a Task Sequence
- Exercise 5.5** Deploying an Image
- Lab Challenge 5.1** Configuring a Multicast Deployment

BEFORE YOU BEGIN

The lab environment consists of student workstations connected to a local area network, along with a server that functions as the domain controller for a domain called contoso.com. The computers required for this lab are listed in Table 5-1.

Table 5-1
Computers required for Lab 5

<i>Computer</i>	<i>Operating System</i>	<i>Computer Name</i>
Server	Windows Server 2008 R2	RWDC01
Workstation 1	Windows 7 Enterprise	NYC-CLa
Workstation 2	Windows 7 Enterprise	NYC-CLb

NOTE

In a classroom lab environment, there will be one classroom server and the students will have workstations named using consecutive numbers in place of the a and b variables. In a virtual lab environment, each student will have three virtual machines, named RWDC01, NYC-CL 1, and NYC-CL2.

In addition to the computers, you will also require the software listed in Table 5-2 to complete Lab 5.

Table 5-2
Software required for Lab 5

Software	Location
Microsoft Deployment Toolkit 2010 installation files	\\rwdc01\down\10ads\MicrosoftDeployment\Tool kit20_10_x64.msi
Windows 7 Automated Installation Kit	Installed in Lab 4
Windows 7 Enterprise installation files	\\rwdc01\downloads\win 7ent
Image file captured in Lab 3	\\rwdc01\downloads\NYC-CLa.wim
Lab 5 student worksheet	Lab05_worksheet.rtf (provided by instructor)

NOTE

This manual assumes the use of the 64-bit version of Windows 7 Enterprise. If you are working in a classroom lab that uses the 32-bit version, you must use the 32-bit version of all additional software as well.

Working with Lab Worksheets

Each lab in this manual requires that you answer questions, shoot screen shots, and perform other activities that you will document in a worksheet named for the lab, such as Lab05_worksheet.rtf. Your instructor will provide you with access to the worksheets. It is recommended that you use a USB flash drive to store your worksheets, so that you can submit them to your instructor for review. As you perform the exercises in each lab, open the appropriate worksheet file using WordPad, fill in the required information, and save the file to your flash drive.

SCENARIO

As a continuation of your Windows 7 workstation deployment project planning, you have been given the task of installing Microsoft Deployment Toolkit 2010 and using it to deploy an image file to a workstation.

After completing this lab, you will be able to:

- Use DISM.exe to modify an image file
- Install MDT 2010
- Create a deployment share and a task sequence
- Deploy an image to a workstation

Estimated lab time: 70 minutes

Exercise 5.1 Using DISM.exe

Overview In Exercise 5.1, you use the DISM.exe utility supplied with Windows 7 AIK to mount and modify an image file.

Completion time 15 minutes

NOTE

In a classroom lab environment, each student should have installed Windows 7 AIK on his or her own workstation during Lab 3, and should perform this exercise individually.

1. Log on to NYC-CLa using the **contoso\Administrator** user account and the password **Pa\$\$wOrd**.
2. Click Start, and then click All Programs> Accessories. Right click the Command Prompt icon and, from the context menu, select *Run as administrator*. A User Account Control message box appears.
3. Click Yes to continue. A Command Prompt window appears.
4. Create a new directory on your workstation using the following two commands:


```
cd\  
md mount
```
5. Use the DISM.exe program to mount your captured image with the following command:


```
dism /mount-wim /wimfile:\\rwdc01\downloads\NYC-CLa.wim /index:1 /mountdir:c:\mount
```
6. Take a screen shot of the Command Prompt window displaying the completed DISM.exe command by pressing Alt+Prt Scr and then paste it into your Lab05_worksheet file in the page provided by pressing Ctrl+V.

7. Use the following command to list the status of the Windows 7 features in the mounted image and save the information to a text file:

```
dism /image:c:\mount /get-features > features.txt
```

8. Use the following command to display the text file you just created in Notepad, as shown in Figure 5-1:

```
notepad features.txt
```

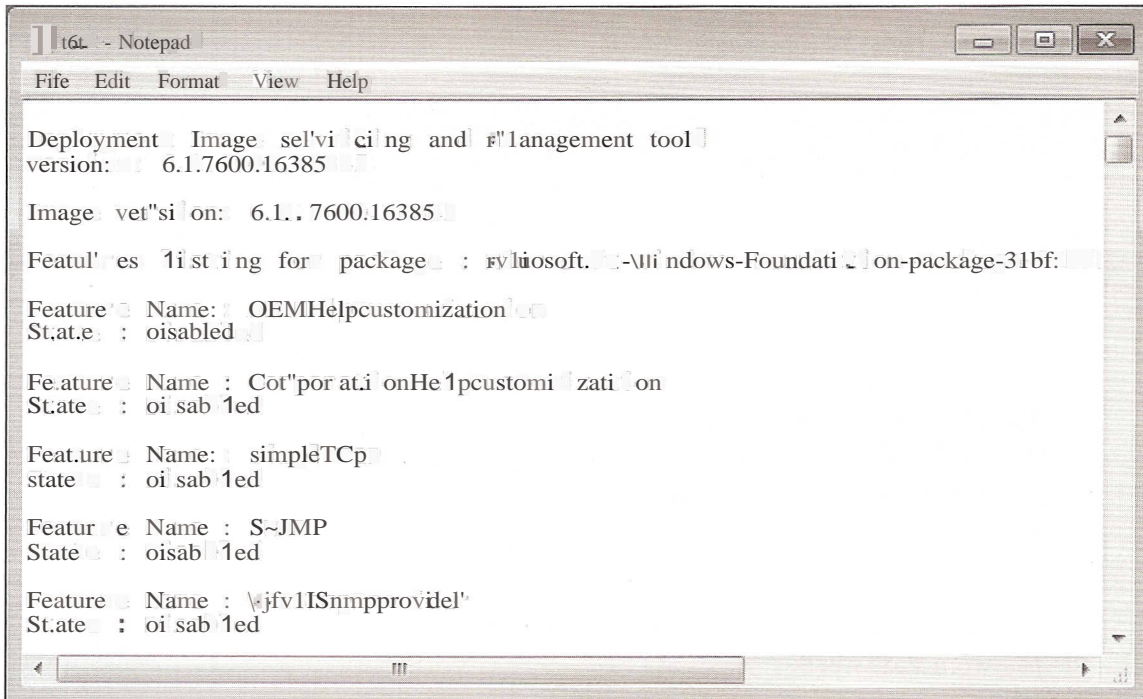


Figure 5-1

The features.txt file you created, opened in Notepad.

00imlm.am

1

What is the current status of the Solitaire feature in the mounted image?

9. In the Command Prompt window, use the following command to enable Solitaire in the mounted image:

```
dism /image:c:\mount /enable-feature
/featurename:Solitaire
```

Question

2

Why does the command fail to enable the Solitaire feature?

Question
3

What commands must you use to enable Solitaire?

10. Issue the necessary commands to enable Solitaire and take a screen shot of the Command Prompt window showing their successful completion by pressing Alt+Print Scr and then paste it into your LabOS_worksheet file in the page provided by pressing Ctrl+V.
11. Use the following command to commit your changes to the image and dismount it:

```
dism /unmount-wim /mountdir:c:\mount /commit
```

Question
4

Although DISM.exe is a standard executable program, its command line parameters bear a resemblance to what Windows administrative environment?

12. Type **exit** and press Enter. The Command Prompt window closes.
13. Leave the computer logged on for the next exercise.

Exercise 5.2 Installing Microsoft Deployment Toolkit 2010

Overview In Exercise 5.2, you install MDT 2010 so that you can use its tools to perform a practice Windows 7 workstation deployment...

Completion time 5 minutes

NOTE

If you have not already installed the Windows 7 Automated Installation Kit on your workstation, as described in Exercise 4.1, do so before you proceed with this exercise.

1. Click Start. In the *Search programs and files* box, type `\\rwdc01\downloads\MicrosoftDeploymentToolkit2010_x64.msi` and press Enter.. The Microsoft Deployment Toolkit 2010 Setup Wizard appears.
2. Click Next to bypass the *Welcome* page. The *End-User License Agreement* page appears.
3. Select the *I accept the terms of the license agreement* option and click Next.. The *Custom Setup* page appears.

4. Click Next to accept the default settings. The *Ready to Install* page appears.
5. Click Install.. The wizard installs the toolkit and the *Completing the Microsoft Deployment Toolkit 2010 Setup Wizard* page appears.
6. Click Finish.
7. Leave the computer logged on for the next exercise.

Exercise 5.3 Creating a Deployment Share

Overview In Exercise 5.3, you use the tools provided with MDT 2010 to create a deployment share.

Completion time 10 minutes

1. Click Start. Then click All Programs > Microsoft Deployment Toolkit > Deployment Workbench. The Deployment Workbench console appears, as shown in Figure 5-2.

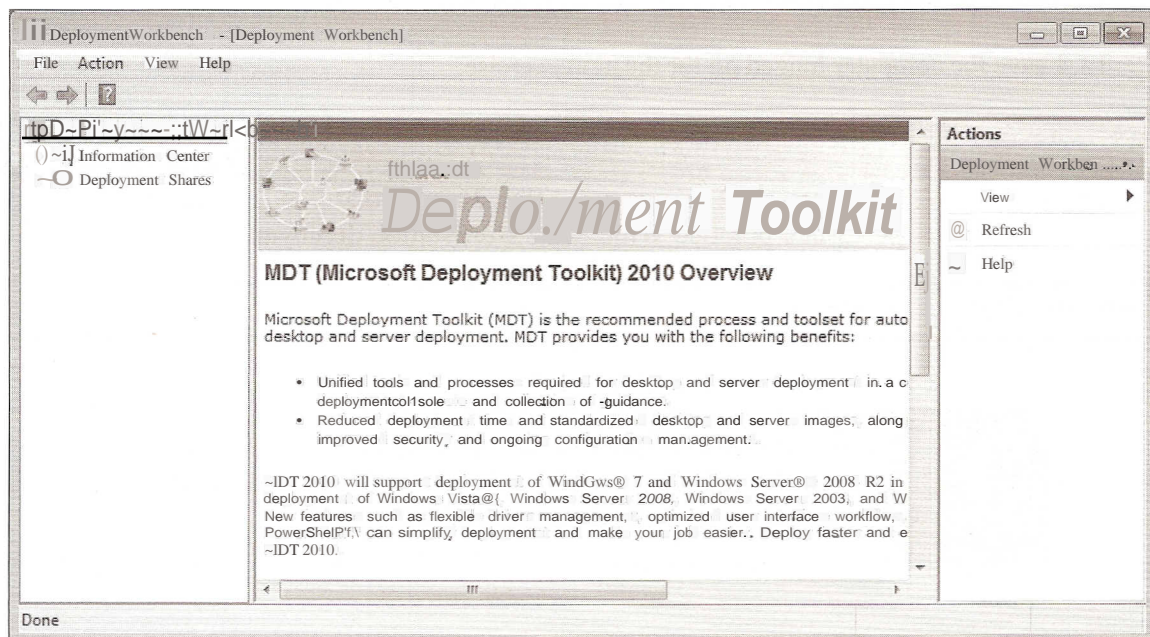


Figure 5-2
The Deployment Workbench

2. Right click the Deployment Shares folder and, from the context menu, select New Deployment Share. The New Deployment Share Wizard appears.
3. Click Next to accept the default share location. The *Share* page appears.
4. Click Next to accept the default share name. The *Descriptive Name* page appears.

5. Click Next to accept the default descriptive name. The *Allow Image Capture* page appears.
6. Click Next to accept the default setting. The *Allow Admin Password* page appears.
7. Select the Ask user to set the local Administrator Password check box and click Next. The *Allow Product Key* page appears.
8. Click Next to accept the default setting. The *Summary* page appears.
9. Click Next. The wizard creates the deployment share and the *Confirmation* page appears.
10. Click Finish.
11. Expand the Deployment Shares folder and the folder for the deployment share you just created.
12. Select the Operating Systems folder, then right click it and, from the context menu, select Import Operating System. The Import Operating System Wizard appears, displaying the *OS Type* page.
13. Leave the *Full set of source files* option selected and click Next. The *Source* page appears.
14. In the *Source directory* text box, type \\rwdc01\downloads\win7ent and click Next. The *Destination* page appears.
15. Click Next to accept the default directory name. The *Summary* page appears.
16. Click Next. The wizard imports the image file and the *Confirmation* page appears.
17. Click Finish. The wizard closes and the image appears in the Operating Systems folder.
18. Take a screen shot of the Deployment Workbench console showing the imported image by pressing Alt+Print Scr and then paste it into your Lab05_worksheet file in the page provided by pressing Ctrl+V.
19. Leave the Deployment Workbench console open for the next exercise.

Exercise 5.4 Creating a Task Sequence

Overview In Exercise 5.4, you use Deployment Workbench to create a task sequence that deploys Windows 7.

Completion time 15 minutes

1. In the Deployment Workbench console, select the Task Sequences folder; right click it and, from the context menu, select New Task Sequence. The New Task Sequence Wizard appears, displaying the *General Settings* page, as shown in Figure 5-3.

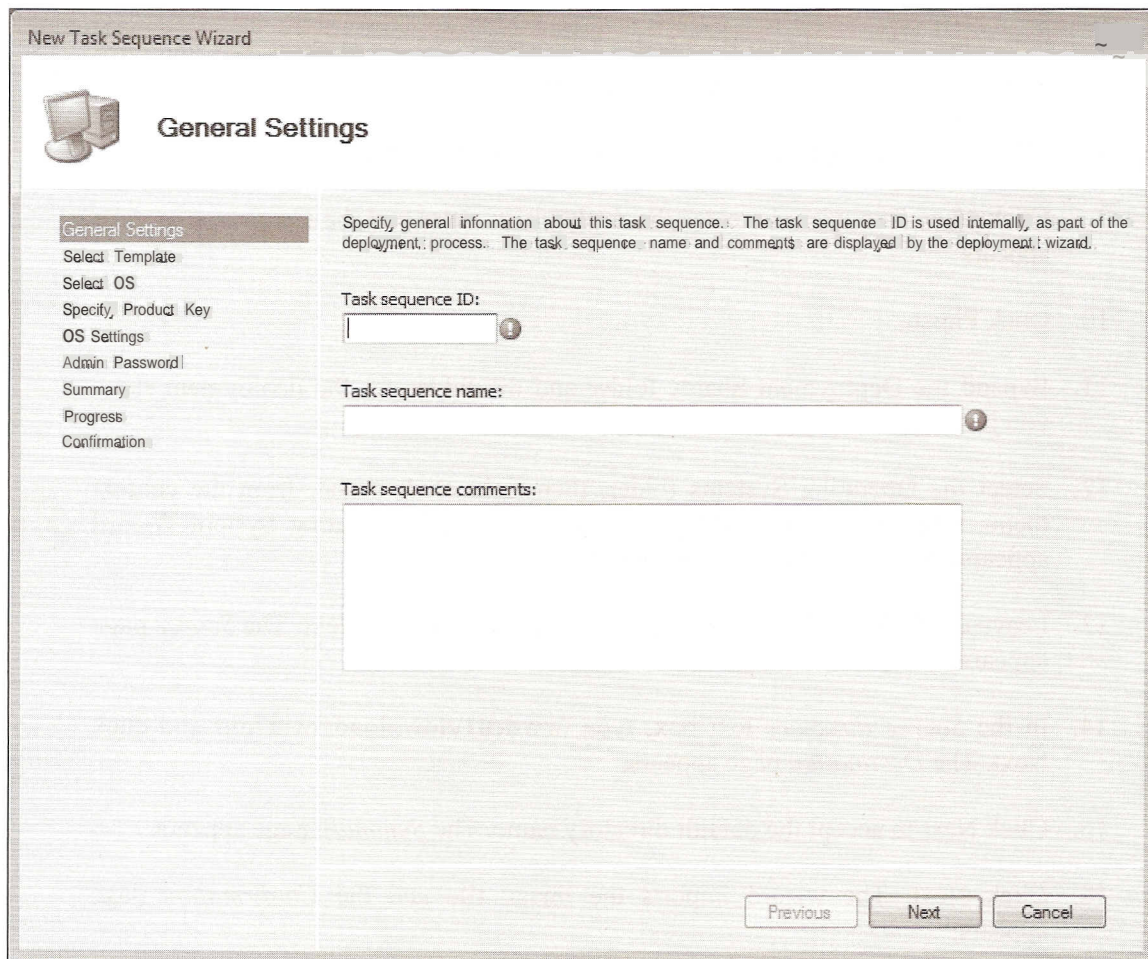


Figure 5-3
The New Task Sequence Wizard

2. In the *Task sequence ID* text box, type 1.
3. In the *Task sequence name* text box, type **Windows 7 Enterprise Deployment** and click Next. The *Select Template* page appears.
4. Leave the Standard Client Task Sequence template selected and click Next. The *Select OS* page appears.
5. Select the Windows 7 image you imported and click Next. The *Specify Product Key* page appears.
6. Click Next to accept the default option. The *OS Settings* page appears.

7. In the Full Name text box, type your name, and in the Organization text box, type the name of your school.. Then click Next.. The Administrator Password page appears.
8. In the Administrator Password and Please confirm Administrator Password text boxes, type Pa\$\$wOrd and click Next.. The Summary page appears.
9. Click Next.. The wizard creates the task sequence and the Confirmation page appears.
10. Click Finish. The wizard closes and the task sequence appears in the console.
11. Right click the task sequence and, from the context menu, select Properties. The Windows 7 Enterprise Deployment Properties sheet for the task sequence appears.
12. Click the Task Sequence tab, and browse to the Preinstall > New Computer only > Format and Partition Disk node, as shown in Figure 5-4.

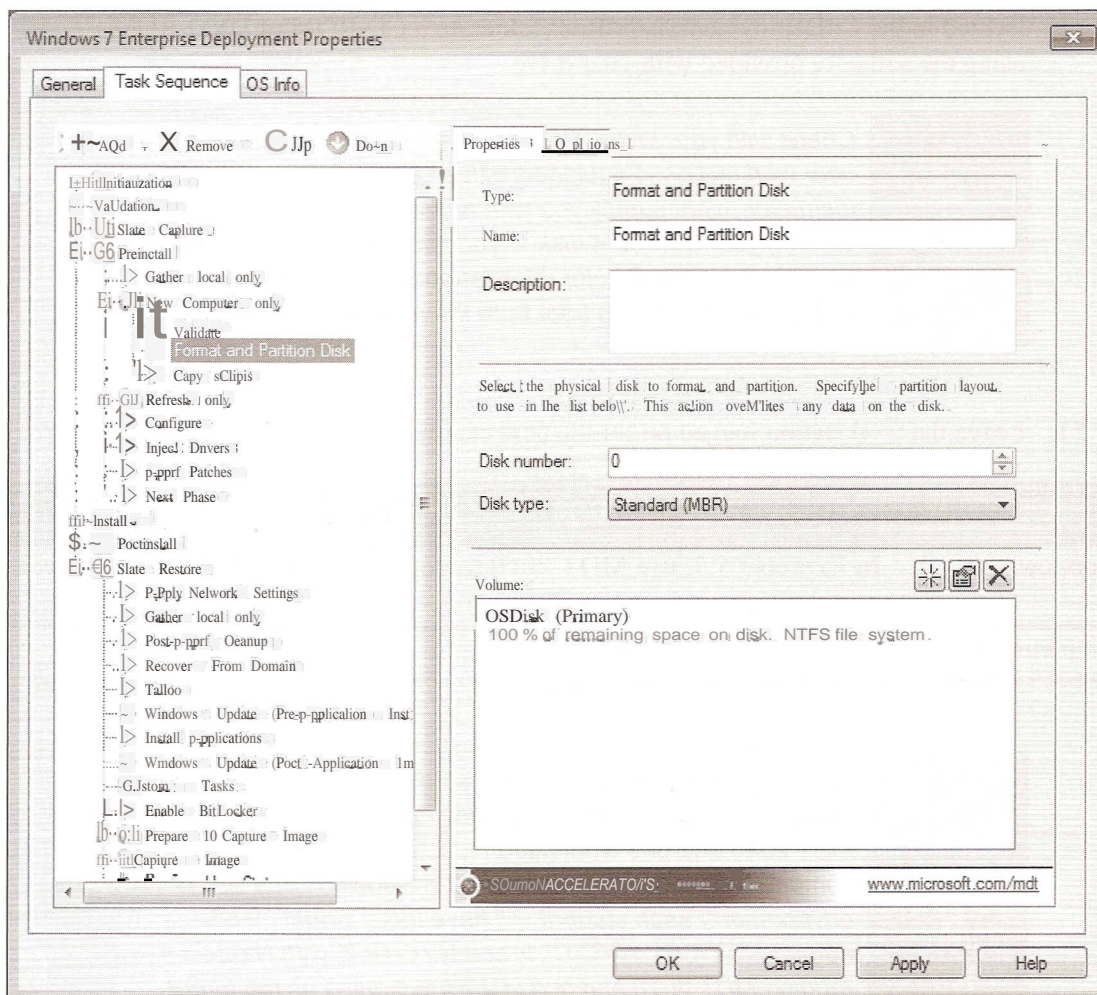


Figure 5-4
The Format and Partition Disk node

13. Select the OSDisk (Primary) volume and click the Properties button. The Partition Properties dialog box appears.
14. Change the Size (%) value to 66 and click OK.
15. Click OK to close the Windows 7 Enterprise Deployment Properties sheet.
16. Right click the deployment share and, from the context menu, select Update Deployment Share. The Update Deployment Share Wizard appears, displaying the Options page.
17. Click Next to accept the default option. The Summary page appears.
18. Click Next.. The wizard updates the deployment share and creates deployment image files. The Confirmation page appears.
19. Click Finish.
20. Burn the LiteTouchPE_x64.iso image created by Deployment Workbench, located in the C:\DeploymentShare\Boot folder, to a CD-ROM or DVD-ROM, using the software provided with your drive.

NOTE	<p><i>Check with your instructor before you attempt to burn a disk. If your workstation is equipped with a CD or DVD burner, your instructor might supply you with a blank disk and a procedure for burning your own boot disk. If your workstation is not properly equipped, your instructor might supply you with a boot disk or instructions on how to boot from the network.</i></p>
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21. Leave the workstation logged on for the next exercise.

Exercise 5.5 Deploying an Image	
Overview	In Exercise 5.5, use MDT 2010 to deploy an image file using the task <u>sequence you created in Exercise 5.4.</u>
Completion time	20 minutes

NOTE	<p><i>In a classroom lab environment, students should perform this exercise with a partner so that they have one workstation running MDT 2010 and one workstation functioning as the target computer to which they will deploy Windows 7. In a virtual lab environment, each student will have three virtual machines, named RWDC01, NYC-CL 1, and NYC-CL2, with NYC-CL 1 running MDT 2010 and NYC-CL2 functioning as the target computer.</i></p>
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1. Start the NYC-CLb computer using the LiteTouchPE _x64 boot disk you created in Exercise 5.4. The system boots to the Welcome Windows Deployment window, as shown in Figure 5-5.

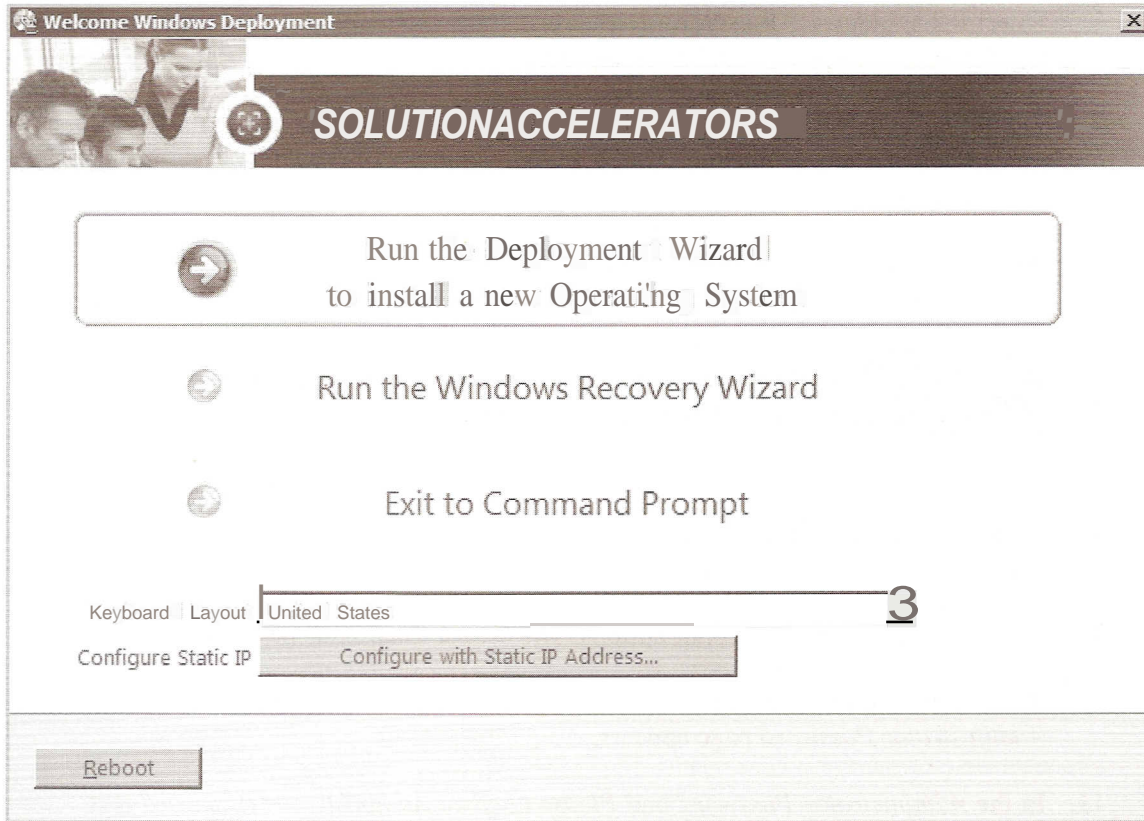


Figure 5-5
The Welcome Windows Deployment window

Question 5	<i>Which computer is hosting the Deployment Wizard?</i>
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2. Click *Run the Deployment Wizard to install a new Operating System*. The *Specify credentials for connecting to network shares* page appears.
3. Enter the required credentials as follows and click OK:
 - User name: **Administrator**
 - Password: **Pa\$\$w0rd**
 - Domain: **contoso**

The *Select a task sequence to execute on this computer* page appears.

4. Take a screen shot of the *Select a task sequence to execute on this computer* page by pressing **Alt+Print Scr** and then paste it into your `Lab05_worksheet` file in the page provided by pressing **Ctrl+V**.
5. Select the *Windows 7 Enterprise Deployment* task sequence and click **Next**. The *Configure the computer name* page appears.
6. In the *Computer name* text box, type **NYC-CLb** where **b** is the number assigned to the computer and click **Next**. The *Join the computer to a domain or workgroup* page appears.
7. Select the *Join a domain* option and, in the *Domain* text box, type **contoso.com** and click **Next**. The *Specify whether to restore user data* page appears.

Question
6

If you elected to restore user data, what program would the target computer use to perform the restoration?

8. Click **Next** to accept the default option. The *Language and other preferences* page appears.
9. Click **Next** to accept the default options. The *Set the Time Zone* page appears.
10. Select the appropriate time zone for your location and click **Next**. The *Administrator Password* page appears.
11. In the *Administrator Password* and *Please confirm Administrator Password* text boxes, type **Pa\$\$wOrd** and click **Next**. The *Specify the BitLocker configuration* page appears.
12. Click **Next** to accept the default option. The *Ready to Begin* page appears.
13. Click the **Details** button.
14. Take a screen shot of the *Ready to begin* page by pressing **Alt+Print Scr** and then paste it into your `Lab05_worksheet` file in the page provided by pressing **Ctrl+V**.
15. Click **Begin**. The *Windows 7 deployment* proceeds, the computer restarts, and the *Operating system deployment completed successfully* page appears.
16. Click **Finish**. The *Set Network Location* page appears.
17. Click **Work network**. A *Windows could not set the network settings* page appears.
18. Click **Close**.
19. Log off of the computer.

LAB CHALLENGE 5.1: CONFIGURING A MULTICAST DEPLOYMENT

<u>Completion time</u> <u>5 minutes</u>

To complete this challenge, you must use the classroom server console to create a multicast transmission in Windows Deployment Services that triggers when there are five workstations requesting deployment. Write out the exact steps you must perform to create the multicast transmission, and then take a screen shot of the Windows Deployment Services console, showing the multicast transmission you have created. You do not have to actually perform a multicast deployment, just create it on the server console.

NOTE

In a classroom lab environment with only one server, students will have to take turns on the server console working on this challenge. In this case, be sure to include the name of your workstation in your capture image filename to differentiate it from those belonging to other students.