12.2.2 Optional Lab: Advanced Installation of Windows Vista

Introduction

Print and complete this lab.

In this lab, you will install a Windows Vista operating system by using an answer file for automation. You will customize partition settings and create an Administrator user account and Users account.

Recommended Equipment

The following equipment is required for this exercise:

- A computer with a new installation of Windows Vista
- Windows Automated Installation Kit (WAIK) installation media
- Windows Vista installation media
- A blank, formatted floppy disk or a USB flash drive

Step 1

Ask the instructor for the following required information for the answer file:

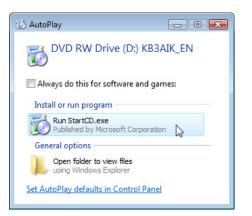
Regional and language settings
Windows Vista Business product key
Partition sizes: Primary Logical 1 Logical 2
Administrator account: Username
Password
User account: Username
Password
Computer name
Registered organization
Registered owner
Time zone

Step 2

Log on to the computer as administrator.

Insert the Windows Automated Installation Kit (WAIK) DVD in the DVD-ROM drive.

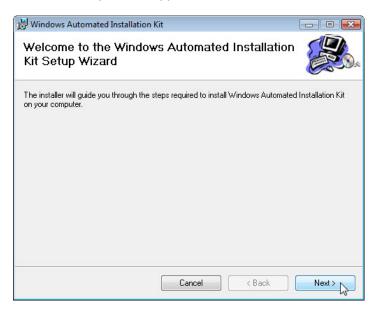
When the "AutoPlay" window appears, click Run StartCD.exe.



The "Welcome to Windows Automated Installation Kit" window appears, click **Windows AIK Setup**.



When the setup wizard appears click Next.



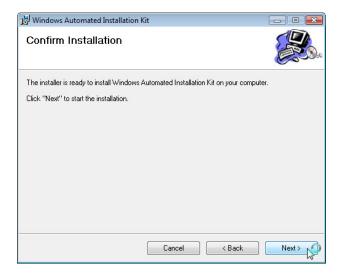
Select I Agree to license terms and then click Next.



For the "Select Installation Folder" screen, keep the default settings and click Next.

😸 Windows Automated Installation Kit	- • •
Select Installation Folder	
The installer will install Windows Automated Installation Kit to th To install in this folder, click "Next". To install to a different folde Folder:	
C:\Program Files\Windows AIK\ Install Windows Automated Installation Kit for yourself, or for a © Everyone © Just me	Browse Disk Cost
Cancel	< Back Next >

Click Next to confirm and start the installation.



When the "Installation Complete" screen appears, click Close.

😸 Windows Automated Installation Kit	
Installation Complete	
Windows Automated Installation Kit has been successfully installed.	
Click "Close" to exit.	
Cancel < Back	

Click Exit.



Step 3

Create a fold called "Vista_Installation" at the root of C:. Example: C:\Vista_Installation.

Insert the Windows Vista Business DVD in the DVD-ROM drive.

Close the "Install Windows" if it opens.

Navigate and copy "install.wim" from the Windows Vista installation DVD to C:\Vista_Installation.

Note: The install.wim file is 2.6GB and may take several minute to copy. **Start > Computer >** right-click the **DVD** drive **>** select **Explore**. Then double-click **sources >** right-click on **install.wim > copy**.

Start > Computer > double-click C: drive > double-click Vista_Installation > right-click Paste.

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Computer > DVD R	W Drive (D:) 🕨	sources 🕨	- - - - - - + - - + - + - + - + - + + + + + + + + + +	Search		م
Pavorite Construction Construc			Search		P	2
B Recer Favorite Links	Name	Date modified	Туре	Size		
Com Docu	install.wi	m				E
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More W			Sort By		•	
Recer Folders			Group B			9
Public Desktop			Stack By Refresh		•	
John =						
Public			Custom	ize This Folder.		
P Computer			Paste	Ν		
🚢 Local Disk (C:) 🔻			Paste Sł	nortcut		
1 item			New		• //	
			Properti	ies		
idwbin			🚳 input.dll			
install.v				ndows Vista BU		
Folders						
File name: install.wim						
				Oper	Cancel	J

Step 4

Start > All Programs > Microsoft Windows AlK > Windows System Image Manager.



Step 5

The "Windows System Image Manager" window appears.

Right-click Select a windows image or catalog file then click Select Windows Image.

🖞 Windows System Image Manager								
File Edit Insert Tools Help								
1 🔁 🇀 📾 🔜 🔏 🐁 📋 🗡 🔎 🞯 🚳 🚱								
Distribution Share	Answer File	Properties						
Select a Distribution Share	Create or open an answer file	No available properties						
Select a Windows imag	Vindows Image							
Close V	Vindows Image							
	Messages							
	XML (0) Validation Configuration Set							
	Description	Lo						
	(Þ						

Brows to C:\Vista_Installation > select install.wim > click Open.

🛃 Select a Windo	ows Image							×
Look in:	🔋 Vista_Insta	llation		•	G 🦻	P 🛙		
C.	Name	Date modif	Туре	Size				
Recent Places	install.win	n						
Desktop								
U.John								
Computer								
Network	File name:	install				•	Ope	en D
	Files of type:	Windows ima	age files(*.wim)			•	Open F	

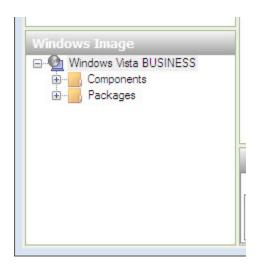
Select Windows Vista BUSINESS > click OK.

Select an Image	x
Select an image in the Windows image file:	
Windows Vista BUSINESS	
Windows Vista HOMEBASIC Windows Vista HOMEPREMIUM	
Windows Vista ULTIMATE	
Windows Vista HOMEBASICN Windows Vista BUSINESSN	
Windows Vista STARTER	
(You must be an administrator of the local machine to create catalogs.)	
OK 💦 Cancel	

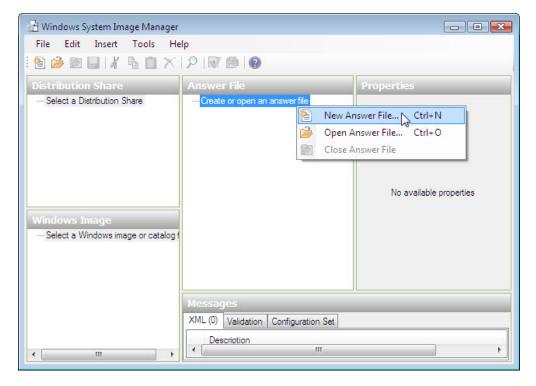
Click **Yes** to create a catalog file **> Continue**. This may take several minutes.

Windows	System Image Manager
\bigcirc	The catalog file for Windows image Windows Vista BUSINESS cannot be opened for the following reason:
\bigcirc	Cannot find the catalog file associated with the Windows image Windows Vista BUSINESS.
	You must have a valid catalog file to continue. Do you want to create a catalog file? (You must be an administrator of the local machine.)
	Yes No

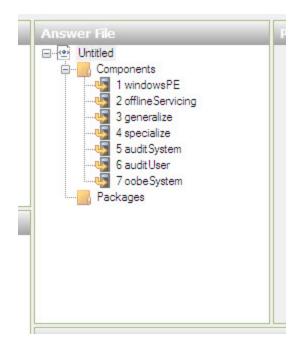
A catalog file is generated in the Windows Image pane.



Right-click Create or open an answer file then click New Answer File.



A new unconfigured answer file is created in the Answer File pane.



To name the file select the root node Untitled.

Click File > Save Answer File > name the file autounattend. Make sure the Vista_Installation folder is selected then click Save.

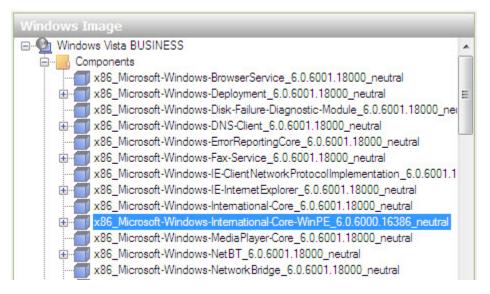
Note: It is important to name the file "autounattend" as Vista will only search for that file name when performing an unattended installation.

🔠 Untitled - Windows System Image Ma	nager	
File Edit Insert Tools Help		
🗄 🗎 🌽 🖬 🔛 🔏 🛍 🗡 I 🔎	1 📝 😂 I 🕢	
Distribution Share	Answer File	Properties
Select a Distribution Share	Components	
🛃 Save As		
Vista	Installation 👻 🐓 Sea	rch 🔎
File name: a	utounattend	-
Save as type: A	nswer files (*.xml)	•
Windows Windows Window Window Browse Folders	(Save Cancel
i Packages		
	Messages	
	XML (0) Validation (0) Configuration Set (0)	
	Description Location	
	Vo warnings or errors.	

Step 6

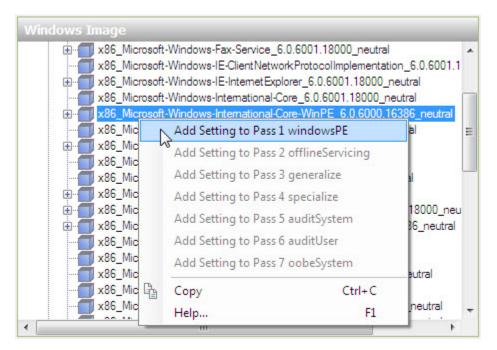
Regional and Language Options Settings

In the Windows Image pane, expand Components.



Note: The actual name of the components will have a prefix and suffix attached, for example: x86_Microsoft-Windows-International-Core-WinPE_6.0.6000.16386_neutral. The prefix is "x86" and the suffix is "6.0.6000.16386_neutral". For simplicity the prefix and suffix will be left out in the lab instructions.

Right-click **Microsoft-Windows-International-Core-WinPE** > select **Add Settings to Pass 1 windowsPE**.



Notice Microsoft-Windows-International-Core-WinPE has been added to the Answer File and Properties panes.

Answer File	Microsoft-Windows-Intern	
decuratend Components Components Sequence 2 offlineServicing Sequence 2 o	 Properties AppliedConfigurationPass Enabled Id Settings InputLocale LayeredDriver SystemLocale UlLanguage UlLanguageFallback UserLocale 	1 windowsPE True x86_Microsoft-Windows-International-Core
* •	AppliedConfigurationPass	

Select **Microsoft-Windows-International-Core-WinPE** in the Answer File pane. In the Microsoft-Windows-International-Core-WinPE Properties pane type the language settings provided by your instructor, in the following locations: InputLocale, SystemLocale, UILanguage, UILanguageFallback, and UserLocale. For example: **en-us**.

Answer File	Microsoft-Windows-Inte	
Answer File Answer File Components Components Second S	Properties AppliedConfigurationPass Enabled Id Settings InputLocale LayeredDriver SystemLocale	1 windowsPE True x86_Microsoft-Windows-International-Core en-us en-us
7 oobeSystem	UlLanguage UlLanguageFallback UserLocale	en-us en-us en-us

Note: Place the curser next to a setting in the Properties pane and press the F1 key to view Windows Help file for the setting. Supported regional and language settings are located here: <u>http://technet.microsoft.com/en-us/library/cc722435(WS.10).aspx</u>.

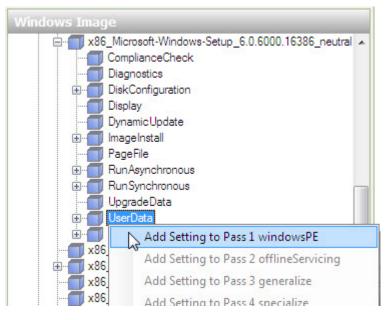
In the Answer File pane expand **Microsoft-Windows-International-Core-WinPE >** select **SetupUILanguage.** In the SetupUILanguage Properties pane type the language settings provided by your instructor, in the UILanguage location. For example: **en-us**.

Answer File	SetupUILanguage Prope	erties
autounattend Gomponents	SetupUII anguage Prope Properties AppliedConfigurationPass Component Path Settings UILanguage WillShowUI Settings	erties 1 windowsPE Microsoft-Windows-International-Core-Wir Setup UILanguage en-us OnError
•		

Confirm **OnError** is selected for WillShowUI.

Step 7

End User License Agreement and Windows Vista Product Key Settings In the Windows Image pane locate and expand component **Microsoft-Windows-Setup** > right-click **UserData** > select **Add Setting to Pass 1 windowsPE**.



Select **UserData** in the Answer File pane. In the UserData Properties pane click in the box to the right of **AcceptEula**. Click the drop-down arrow and select **true**.

A	nswer File	27 - 27	U	serData Proper	ties
		-Windows-Internat -Windows-Setup_r	A	Organization	1 windowsPE Microsoft-Windows-Setup UserData true false
•	III	•	1)	rpe: Boolean	

In the Answer File pane expand **UserData** > select **ProductKey**. In the ProductKey Properties pane click in the box to the right of **Key** and enter the Windows Vista Business product key provided by the instructor.

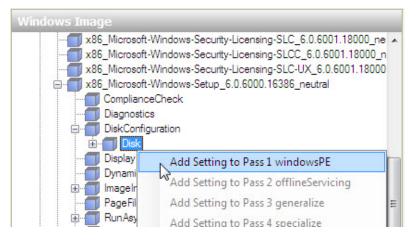
Next click in the box to the right of the **WillShowUl** > select **Never** from the drop-down arrow.

Answer File		roductKey Properties	
autounattend Components Associated Components Associated Associated		Properties AppliedConfigurationPass Component Path Settings Key WillShowUI	1 windowsPE Microsoft-Windows-Setup UserData/ProductKey ABCDE-01234-FGHIJ-56789-KLMNO Never
↓ ↓ 7 oobeSystem → Packages	1.00	ey /pe: String, MaxLength: 29	

Step 8

Hard Drive Partition Settings

In the Windows Image pane locate and expand component Microsoft-Windows-Setup\DiskConfiguration > right-click Disk > select Add Setting to Pass 1 windowsPE.



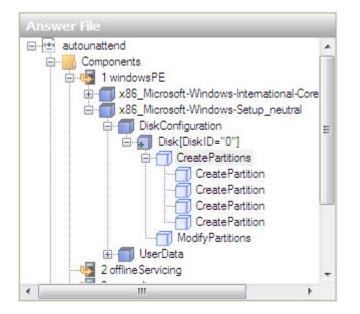
Select **Disk** in the Answer File pane. In the Disk Properties pane click in the box to the right of **DiskID** and type the number **0**. Also set WillWipeDisk to **true**.

Answer File		Disk[DiskID="0"] Properties
autounattend Components Scomponents Scomponents Scomponents Scomponents Scomponents Scomponents Scomponents Scomponents Scomponents Scomponents Scomponents Scomponents Scomponents Scomponents Scompon		 Properties AppliedConfiguratio Component KeyName Path Settings Action DiskID WillWipeDisk 	nPa 1 windowsPE Microsoft-Windows-Setup DiskID DiskConfiguration/Disk[DiskII AddListItem 0 true
7 oobe System	*	Settings	
	•		

In the Answer File pane expand **Disk[DiskID="0"] >** right-click **CreatePartitions >** select **Insert New CreatePartition**.

Answer File								
autounattend								
Emponents								
in windowsPE								
		ws-Setup_neutra						
📄 🗂 DiskConfigu	iration							
🖻 🚛 Disk[Dis	skID='	"0"]						
	atePar	rtitions						
Moo	X	Cut	Ctrl+X					
ie∎ UserData	B	Сору	Ctrl+C					
2 offline Servicing			200.0000000					
🛂 3 generalize		Paste	Ctrl+V					
	X	Delete	Del					
5 audit System			1.02362703					
7 oobe System								
Packages		Help	F1					

Now add three more CreatePartition objects, for a total of four.

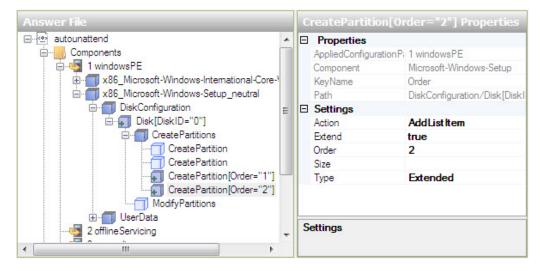


Select the top **CreatePartion** in the Answer File pane. In the CreatePartition Properties pane set the following values: Extend = **false**, Order = **1** and Type = **Primary**. For Size, use the primary partition size provided by the instructor. For example: Size = **15000**.

Answer File		C	reatePartition[0	der="1"] Properties
autounattend Components WindowsPE Windows-International-Core- X86_Microsoft-Windows-Setup_neutral Windows-Setup_neutral DiskConfiguration Windows-Setup_neutral Disk[DiskID="0"] CreatePartitions Windows-Setup_neutral Disk[DiskID="0"] CreatePartition CreatePartition CreatePartition WodfyPartitions	* H	0(Properties AppliedConfiguration P: Component KeyName Path Settings Action Extend Order Size Type	1 windowsPE Microsoft-Windows-Setup Order DiskConfiguration/Disk[Disk] AddListItem false 1 15000 Primary
UserData 2 offline Servicing	-	Se	attings	

Notice that the newly configured partition moves to the bottom of the four CreatePartition objects.

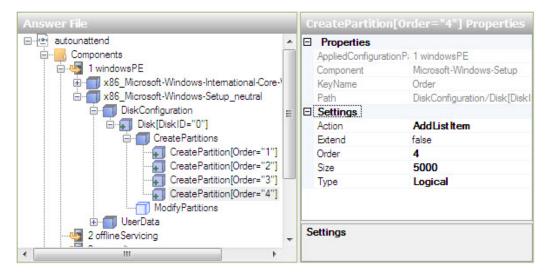
Select the top **CreatePartion** in the Answer File pane. In the CreatePartition Properties pane set the following values: Extend = **True**, Order = **2**, and Type = **Extended**.



Select the top **CreatePartion** in the Answer File pane. In the CreatePartition Properties pane set the following values: Extend = **false**, Order = **3** and Type = **Logical**. For Size, use the logical 1 partition size provided by the instructor. For example: Size = **5000**.

Answer File		C	reatePartition[0	der="3"] Properties
autounattend Components I windowsPE Soft All All All All All All All All All Al	m III		Properties AppliedConfiguration Pr Component KeyName Path Settings Action Extend Order Size Type	1 windowsPE Microsoft-Windows-Setup Order DiskConfiguration/Disk[Disk] AddListItem false 3 5000 Logical
UserData 2 offline Servicing	+	Se	ettings	

Select the top **CreatePartion** in the Answer File pane. In the CreatePartition Properties pane set the following values: Extend = **false**, Order = **4** and Type = **Logical**. For Size, use the logical 2 partition size provided by the instructor. For example: Size = **5000**.

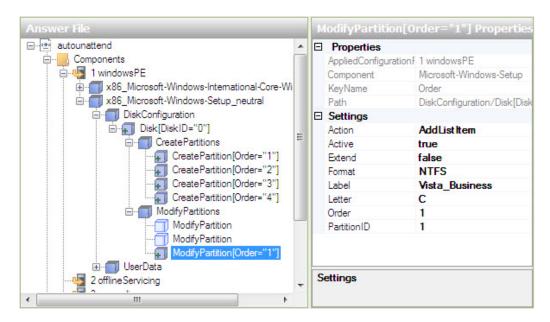


In the Answer File pane right-click **ModifyPartitions >** select **Insert New ModifyPartition**.

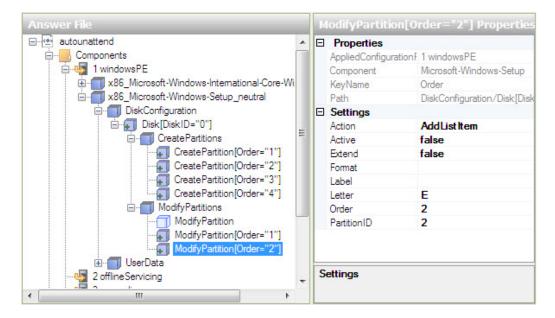
nswer File							
autounattend							
È <mark></mark>							
x86_Microsoft-Windows-Setup_neutral							
🚊 🗂 DiskConfiguration							
🖻 🚛 Disk[D)iskID="	D'']					
🗎 🗐 🖓	eatePart						
		Partition[Order=""					
	Create	Partition[Order="2	2"]				
		Partition[Order="3					
	Create	Partition [Order="4					
	Create	Partition [Order="4					
🕀 🗂 UserData	Create	Partition [Order="4					
	Create	Partition[Order="4 itions Cut	4"]				
	Create	Partition[Order="4 itions Cut Copy	4"] Ctrl+X Ctrl+C				
⊕ UserData 2 offlineServicing 3 generalize 4 specialize	Create	Partition[Order="4 itions Cut	4"] Ctrl+X				
UserData 2 offline Servicing 3 generalize 4 specialize 5 audit System	Create	Partition[Order="4 itions Cut Copy	4"] Ctrl+X Ctrl+C				
⊕ UserData 2 offlineServicing 3 generalize 4 specialize	Create	Partition[Order="4 itions Cut Copy Paste	4"] Ctrl+X Ctrl+C Ctrl+V Del				

Now add two more ModifyPartition objects, for a total of three.

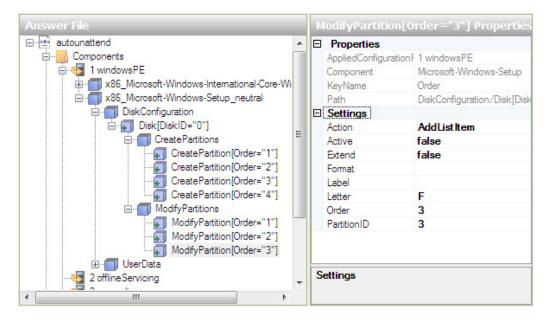
Select the top **ModifyPartion** in the Answer File pane. In the ModifyPartion Properties pane set the following values: Action = **AddListItem**, Active = **true**, Extend = **false**, Format = **NTFS**, Label = **Vista_Business**, Letter = **C**, Order = **1**, and PartitionID = **1**.



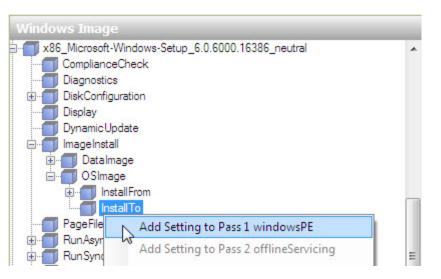
Select the top **ModifyPartion** in the Answer File pane. In the ModifyPartion Properties pane set the following values: Action = **AddListItem**, Active = **false**, Extend = **false**, Letter = **E**, Order = **2**, and PartitionID = **2**.



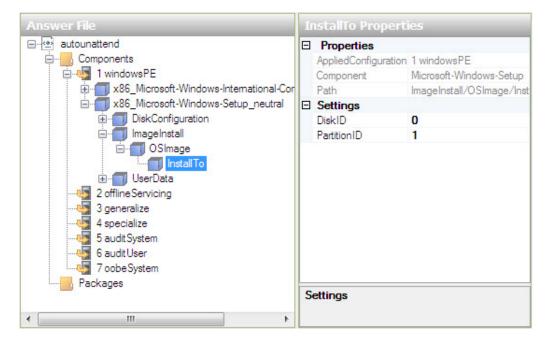
Select the top **ModifyPartion** in the Answer File pane. In the ModifyPartion Properties pane set the following values: Action = **AddListItem**, Active = **false**, Extend = **false**, Letter = \mathbf{F} , Order = $\mathbf{3}$, and PartitionID = $\mathbf{3}$.



In the Windows Image pane locate and expand component Microsoft-Windows-Setup\DiskConfiguration\ImageInstall\OSImage\InstallTo > right-click InstallTo > select Add Setting to Pass 1 windowsPE.



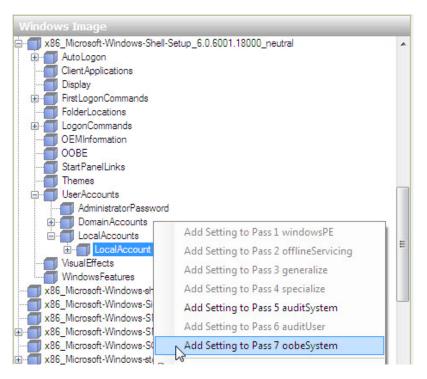
Select **InstallTo** in the Answer File pane. In the InstallTo Properties pane set the following values: DiskID = 0, and PartitionID = 1.



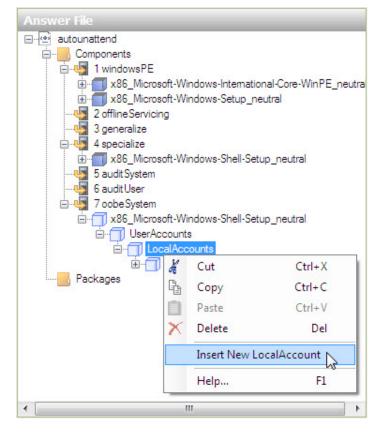
Step 9

User Name and Password Settings

In the Windows Image pane locate and expand component Microsoft-Windows-Shell-Setup\UserAccounts\LocalAccounts > right-click LocalAccount > select Add Setting to Pass 7 oobeSystem.



In the Answer File pane right-click LocalAccounts > select Insert New LocalAccounts.

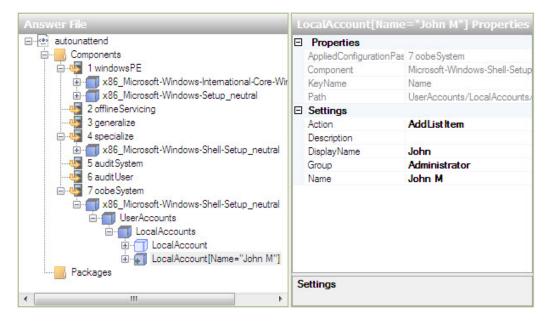


You should now have two LocalAccounts objects.

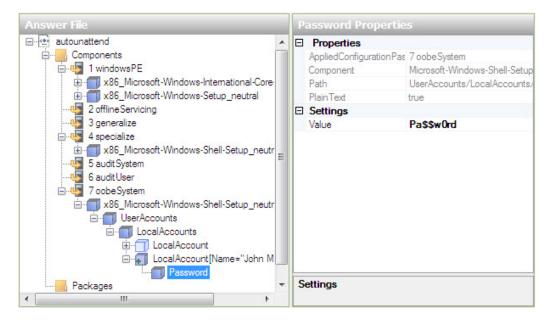
First setup an Administrators account.

Select the top **LocalAccount** in the Answer File pane. In the LocalAccount Properties pane type the DisplayName and Name provided by your instructor. Example: **John** and **John M**.

Type Administrators for the Group.



Expand LocalAccount[Name="John M"] > select Password. In the Password Properties pane type the password, in the Value setting, provided by your instructor. Example: Pa\$\$w0rd.



Now set up a Users account.

Select the top **LocalAccount** in the Answer File pane. In the LocalAccount Properties pane type the DisplayName and Name provided by your instructor. Example: **Nathan** and **Nathan W**.

Type **Users** for the Group.

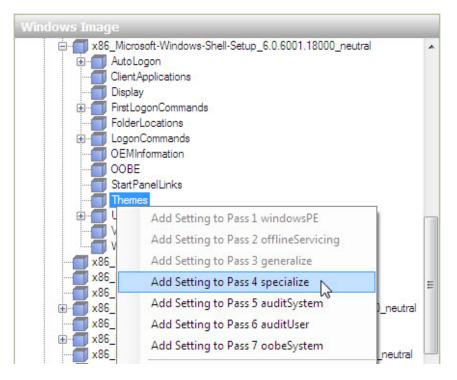
Answer File	LocalAccount[Name=	"Nathan W"] Properties
autounattend Components Components I windowsPE	 Properties AppliedConfigurationPass Component KeyName Path Settings Action Description DisplayName Group Name 	
Association with the set of	Name Type: String, MaxLength: 20	

Expand LocalAccount[Name="Nathan W"] > select Password. In the Password Properties pane type the password, in the Value setting, provided by your instructor. Example: Pa\$\$w0rd.

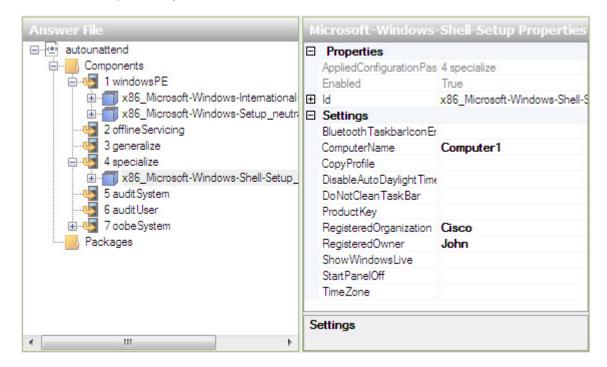
Answer File	P	assword Properties	
autounattend Components Components Second		Properties AppliedConfigurationPass Component Path PlainText Settings Value	7 oobeSystem Microsoft-Windows-Shell-Setup UserAccounts/LocalAccounts/Litrue Pa\$\$w0rd
Packages T	A	ppliedConfigurationPas	35

Step 10

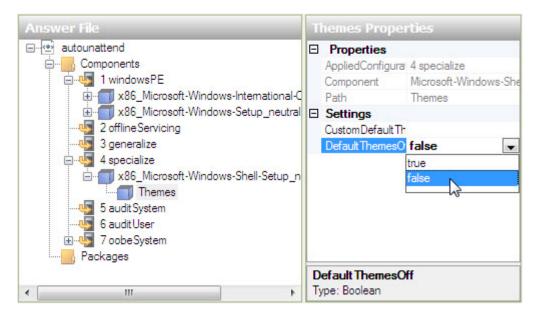
Computer Name, Registered Organization and Owner, and Default Theme Settings In the Windows Image pane locate and right-click **Microsoft-Windows-Shell-Setup** > select **Add Setting to Pass 4 specialize**.



Select **Microsoft-Windows-Shell-Setup** in the Answer File pane below component 4 specialize. In the Microsoft-Windows-Shell-Setup Properties pane type the ComputerName, RegisteredOrganization and RegisteredOwner provided by your instructor. Example: **Computer1, Cisco, and John**.

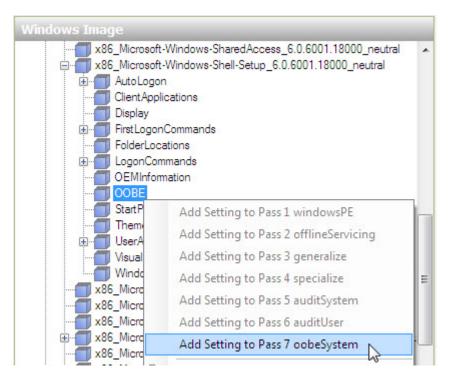


Expand Microsoft-Windows-Shell-Setup in component 4 specialize of the Answer File pane, and locate and select **Themes**. In the Themes Properties pane set the following value: DefaultThemesOff = **false**.



Step 11

PC Time Zone, Protection and Location Settings In the Windows Image pane locate and expand component Microsoft-Windows-Shell-Setup > right-click OOBE > select Add Setting to Pass 7 oobeSystem.



Select **Microsoft-Windows-Shell-Setup** in the Answer File pane below component 7 oobe System. In the Microsoft-Windows-Shell-Setup Properties pane type the time zone, in the TimeZone setting, provided by your instructor. Example: TimeZone = **Pacific Standard Time**.

Answer File	Microsoft-Windows-Shell-Setup Properties
autounattend autounattend Components VindowsPE X86_Microsoft-Windows-International- X86_Microsoft-Windows-Setup_neutra X86_Microsoft-Windows-Setup_neutra Vindows-Setup_neutra X86_Microsoft-Windows-Shell-Setup_n S audit System S audit User S audit User Vindows-Shell-Setup_n X86_Microsoft-Windows-Shell-Setup_n X86_Microsoft-Windows-Shell-Setup_n	Properties AppliedConfigurationPass 7 oobeSystem Enabled True Id x86_Microsoft-Windows-Shell-S
4 III >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	Settings

Now select **OOBE** in the Answer File pane. In the OOBE Properties pane set the following value: NetworkLocation = **Work** and ProtectYourPC = **3**. This will disable automatically install updates.

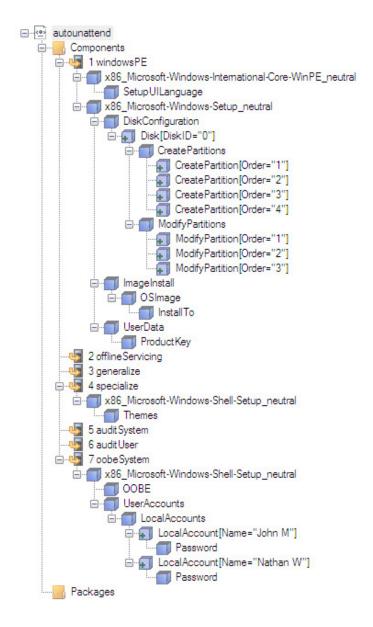
Note: Normally you would set ProtectYourPC to 1, automatically install updates. But to reduce the installation time for this lab we will set the value to 3.

Answer File	OOBE Properties	
autounattend Components 1 windowsPE x86_Microsoft-Windows-International- x86_Microsoft-Windows-Setup_neutra 2 offline Servicing 3 generalize x86_Microsoft-Windows-Shell-Setup_n x86_Microsoft-Windows-Shell-Setup_n 5 audit System 6 audit User 7 oobe System x86_Microsoft-Windows-Shell-Setup_n x86_Microsoft-Windows-Shell-Setup_n veg 6 audit User veg 7 oobe System veg 00BE veg 00BE veg 00BE veg 00BE veg 00BE	 Properties AppliedConfigurationPass Component Path Settings HideEULAPage NetworkLocation ProtectYourPC SkipMachineOOBE SkipUserOOBE 	7 oobeSystem Microsoft-Windows-Shell-Setup OOBE Work 3
	Settings	

Step 12

Validate and Save the Answer File

Before validating the answer file, expand all components in the autounattend file to make sure everything is properly added.



If anything is missing go back over the lab and add the missing components or settings.

👌 Autounatted.xml - Win	dows System Image Manager						
File Edit Insert Tools Help							
: 🖹 🇀 🔝 🗔 1 🖌 🔤	 Hide Sensitive Data 						
Distribution Share	👔 Validate Answer File 📐	er File					
Select a Distribution S	-0	Autounatted					
Windows Image	Explore Distribution Share Create Distribution Share	Componer					
Windows Vista Bl	Import Package(s)	🦣 3 gene ⊕ 🦣 4 spec					
	Create Catalog nt-vvindo_sis-Deployment_6.0.	5 audi					

Click Tools > Validate Answer File.

Select the Validation tab in the Messages pane.

XML (0)	Validation (0)	Configuration Set (0)	
Des	scription	Location	
😲 No	warnings or erro	nrs.	

If you see any error or warning messages, ask your instructor for assistance in correcting them before proceeding with the lab.

If there are no error or warning messages click File > Save Answer File.

Step 13

Copy the autounattend.xml file from C:\Vista_Installation to the root of the floppy disk or USB flash drive.

Insert the floppy disk in the floppy drive or connect the USB flash drive to a USB port.

Insert the Windows Vista Business DVD in the DVD-ROM drive.

Restart the computer.

Step 14

When the "Press Any Key to Boot from CD or DVD" message appears, press any key on the keyboard.

The installation of Windows Business will proceed in a completely unattended fashion, then Vista will run a performance check, and finally you will be presented with the logon screen.

Note: The system will flash on and off several times, restart several times, and other times only a black or blue screen will appear with nothing else shown during the installation.

Logon to the computer using the administrator name and password used in the autounattend file.

What was the name of the file used to automate the installation located on the floppy disk or USB flash drive?

How do you think automating the installation will help the IT Department if they have to repeat the procedure on 100 computers?