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# Creating a Windows PE ISO image for LANrev

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LANrev supports the reinstallation of managed Windows PCs through a Windows PXE server. Setting up this server requires a custom Windows PE ISO disk image that, due to licensing restrictions, HEAT Software cannot distribute with LANrev.

This guide describes how to create the required disk image under Windows 7. For additional details, see the Microsoft Technet page at [https://technet.microsoft.com/en-us/library/dd744537\(WS.10\).aspx](https://technet.microsoft.com/en-us/library/dd744537(WS.10).aspx).

Using the finished disk image in setting up a server is described in the LANrev User Guide in the Installation section under "Installing support for reinstalling Windows computers"

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## Creating a Windows PE disk image

Creating the disk image requires the Windows Automated Installation Kit (AIK). If you have not yet done so, you must install that kit first, as described below. If you have previously installed the AIK, you can go directly to "Creating bootable a Windows PE ISO file", below.

### Installing the Windows AIK

1. Download the Windows AIK for Windows 7 from the Microsoft Download Center (<http://go.microsoft.com/fwlink/?LinkId=136976>).
2. Burn the downloaded ISO image file to a DVD and insert it in your computer.

You can also mount the image file directly with a suitable tool.

3. In Windows Explorer, open the DVD or mounted image.
4. Right-click the installer and choose **Install** from the context menu:
  - For 32-bit systems, right-click wAIKX86.msi.
  - For 64-bit systems, right-click wAIKAMD64.msi.
5. Follow the instructions in the installer until the installation is complete.

Install AIK in the default location so that all users of the computer can use it.

Continue with creating the bootable image, as described below.

### Creating bootable a Windows PE ISO file

1. Open Microsoft Windows AIK.

2. Right-click **Deployment Tools Command Prompt**, and choose **Run as Administrator** from the context menu.

A conformation dialog is displayed.

3. Click Yes to open the Deployment Tools Command Prompt window with elevated permissions.
4. In the Deployment Tools Command Prompt window, enter the commands below, pressing Enter after each command. (You can copy and paste each command from this document.)

```
copy c:\winpe_x86\ISO\sources\boot.wim c:\winpe_x86\mount
copy c:\winpe_x86\ISO\bootmgr c:\winpe_x86\mount
mkdir c:\winpe_x86\mount\boot
xcopy /cherky C:\winpe_x86\ISO\boot C:\winpe_x86\mount\boot\
Del C:\winpe_x86\ISO\boot\bootfix.bin
Del c:\winpe_x86\mount\boot\BCD
Bcdedit /createstore c:\winpe_x86\mount\boot\BCD
Bcdedit /store c:\winpe_x86\mount\boot\BCD -create {bootmgr} /d "Boot Manager"
Bcdedit /store c:\winpe_x86\mount\boot\BCD -set {bootmgr} device boot
```

5. In the Deployment Tools Command Prompt window, enter the commands below, pressing Enter after each command.

```
Bcdedit /store c:\winpe_x86\mount\boot\BCD -create /d "WINPE" -application osloader
```

This command returns a GUID value, e.g. {189dc3a8-5df6-11e5-aaf2-005056c00008}. Substitute this value for <GUID> in the commands in the next step.

6. In the Deployment Tools Command Prompt window, enter the commands below, pressing Enter after each command.

```
Bcdedit /store c:\winpe_x86\mount\boot\BCD -set <GUID> osdevice boot
Bcdedit /store c:\winpe_x86\mount\boot\BCD -set <GUID> device boot
Bcdedit /store c:\winpe_x86\mount\boot\BCD -set <GUID> path \windows\system32\winload.exe
Bcdedit /store c:\winpe_x86\mount\boot\BCD -set <GUID> systemroot \windows
Bcdedit /store c:\winpe_x86\mount\boot\BCD -set <GUID> winpe yes
Bcdedit /store c:\winpe_x86\mount\boot\BCD -displayorder <GUID> -addlast
```

7. Copy all files and folders in the WinPE\_Data folder to C:\winpe\_x86. The WinPE\_Data folder is in the same location as this document.

8. In the Deployment Tools Command Prompt window, enter the commands below, pressing Enter after each command.

```
DISM /Image:C:\winpe_x86\mount /Add-Driver /  
Driver:C:\winpe_x86\Driver\vm SCSI-1.2.0.4\vm SCSI.inf  
copy C:\winpe_x86\startnet.cmd  
C:\winpe_x86\mount\Windows\System32 /Y  
copy C:\winpe_x86\dhcpip.cmd  
C:\winpe_x86\mount\Windows\System32  
copy C:\winpe_x86\StartDiskImaging.cmd  
C:\winpe_x86\mount\Windows\System32  
copy C:\winpe_x86\DiskImaging\*.*  
C:\winpe_x86\mount\Windows\System32  
Dism /Unmount-Wim /MountDir:C:\winpe_x86\mount /Commit
```

9. In the Deployment Tools Command Prompt window, enter the commands below, pressing Enter after each command.

```
Oscdimg -n -m -o -bC:\winpe_x86\Etfsboot.com  
C:\winpe_x86\ISO C:\winpe_x86\winpex86.iso
```

Additional information on building a WinPE ISO is available from Microsoft at [https://technet.microsoft.com/en-us/library/dd744537\(WS.10\).aspx](https://technet.microsoft.com/en-us/library/dd744537(WS.10).aspx).