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Capture and Apply Windows, System, and Recovery Partitions

Updated: October 20, 2013

Applies To: Windows 8, Windows 8.1, Windows Server 2012, Windows Server 2012 R2

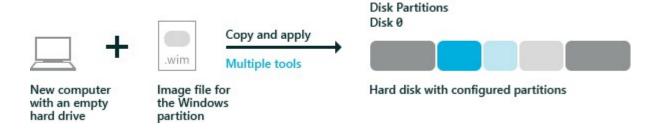
By using Windows image (.wim) files to deploy Windows, you can do the following:

- Change the drive partition configuration.
- Change the Windows image itself easily with tools such as DISM.
- Create scripts that modify the partition sizes based on the drive installed on a particular PC.
- Reduce the management of individual partitions by using Windows tools to create and configure new partitions.

The procedure below walks through creating an image of the Windows partition on a drive, and using the files in that image to set up the rest of the partitions on the drive.

The following diagram illustrates this process:

Capture only the Windows image, and configure other partitions during deployment





For full code samples that summarize these steps, see Samples: Applying Windows, System, and Recovery Partitions by using a Deployment Script.

Prepare the reference PC for image capture and deployment

1. Before you can deploy a Windows image to another PC, you must first generalize the image. For more information, see Sysprep (Generalize) a Windows installation.

How to capture only the Windows partition, and configure other partitions during deployment

- 1. Boot the PC using Windows PE.
- 2. Capture the Windows partition. For example:

```
Dism /Capture-Image /ImageFile:"D:\fabrikam.wim" /CaptureDir:C:\ /Name:Fabrikam
```

Where D: is a USB flash drive or other file storage location.

3. On the destination PC, use a DiskPart script to configure and format your hard drive partitions. For more information, see Configure UEFI/GPT-Based Hard Drive Partitions or Configure BIOS/MBR-Based Hard Drive Partitions.



If you apply an image to a volume that has an existing Windows installation, files from the previous installation may not be deleted. Format the volume by using a tool such as DiskPart before you apply the new image. For example:

```
diskpart /s CreatePartitions.txt
```

4. Copy the image to the recovery image partition:

```
copy D:\fabrikam.wim R:\install.wim
```

where R:\ is the recovery image partition.

5. Apply the image to the Windows partition:

```
dism /Apply-Image /ImageFile:R:\install.wim /Index:1 /ApplyDir:C:\
```

where C: is the Windows partition.

- 6. Copy the Windows Recovery Environment (RE) tools into the appropriate partition.
 - For Unified Extensible Firmware Interface (UEFI)-based PCs, copy these tools into a separate Windows RE tools partition:

md T:\Recovery\WindowsRE
copy C:\Windows\System32\Recovery\winre.wim T:\Recovery\WindowsRE\winre.wim

On BIOS-based PCs, copy these tools into the System partition:

md S:\Recovery\WindowsRE
copy C:\Windows\System32\Recovery\winre.wim S:\Recovery\WindowsRE\winre.wim

7. Configure the system partition by using the BCDBoot tool. This tool copies and configures system partition files by using files from the Windows partition. For example:

bcdboot C:\Windows

8. Register the location of the recovery image by using REAgentC. For example:

C:\Windows\System32\reagentc /setosimage /path R: /target C:\Windows /index 1

- 9. Register the location of the WindowsRE tools by using REAgentC.
 - For UEFI-based systems, copy the image to the use the image location as the Windows RE tools partition. For example:

C:\Windows\System32\reagentc /setreimage /path T:\Recovery\WindowsRE
/target C:\Windows

On BIOS-based systems, set the image location as the System partition. For example:

C:\Windows\System32\reagentc /setreimage /path S:\Recovery\WindowsRE
/target C:\Windows

Other methods of applying images

• Capture and apply each individual partition. This method enables you to manage customized system and recovery partitions. Note, for UEFI-based PCs, do not capture and apply the EFI system partition or the MSR partition – these are managed by the PC. Use the BCDBoot command to configure the system partition:

bcdboot C:\Windows

• Capture and apply the entire drive. You can use third-party software to capture and apply the entire drive. This method works well for multicast deployment.

See Also

Reference
REAgentC Command-Line Options
Concepts
Configure UEFI/GPT-Based Hard Drive Partitions
Configure BIOS/MBR-Based Hard Drive Partitions
BCDboot Command-Line Options

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