

Restoring an MBR System image to UEFI/GPT

The Unified Extensible Firmware Interface (UEFI) is an interface between a computer's firmware and operating system. It is designed as a replacement for Basic Input/Output System (BIOS). UEFI supports hard disks with either master boot record (MBR) or the newer GUID Partition Table (GPT) system. GPT is a newer standard that supports disks larger than 2TiB and allows for more than four primary partitions per disk.

As UEFI and GPT are increasingly widespread, older images of MBR disks often need restoring to replacement UEFI / GPT systems.

Rescue media created on Windows 7/8 operating systems is dual boot, meaning they boot in both MBR and UEFI mode. **Boot your rescue media in UEFI mode.** Consult your Motherboard user manual for information on how to do this.

Caution: We assume there are no other hardware differences between the system being imaged and the system being restored to. For dissimilar hardware, use ReDeploy.

1. Boot into Windows PE.
2. Open a Windows command window. To open a command window click the icon



on the taskbar.

3. Type:

```
diskpart
```

4. Type:

```
list disk
```

5. Select the disk number that you want to restore to. For example:

```
select disk 0
```

6. Clean the selected disk:

```
clean
```

7. By default, "clean" creates an empty MBR disk. Convert it to GPT:

```
convert gpt
```

8. Create the EFI partition:

```
create partition efi size=200
```

9. Format the EFI partition:

```
format fs=fat32
```

10. Create the MSR partition:

```
create partition msr size=128
```

11. Exit Diskpart:

```
exit
```

```

C:\Administrator: X:\Windows\System32\cmd.exe - diskpart
Microsoft Windows [Version 6.1.7601]

X:\windows\system32>diskpart

Microsoft DiskPart version 6.1.7601
Copyright (C) 1999-2008 Microsoft Corporation.
On computer: MININT-50GLG55

DISKPART> lis dis

   Disk ###  Status              Size          Free          Dyn  Gpt
   -----  -
   Disk 0    Online              149 GB         0 B           *
   Disk 1    Online              7702 MB         0 B

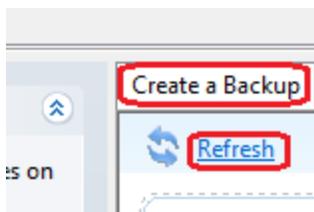
```

```

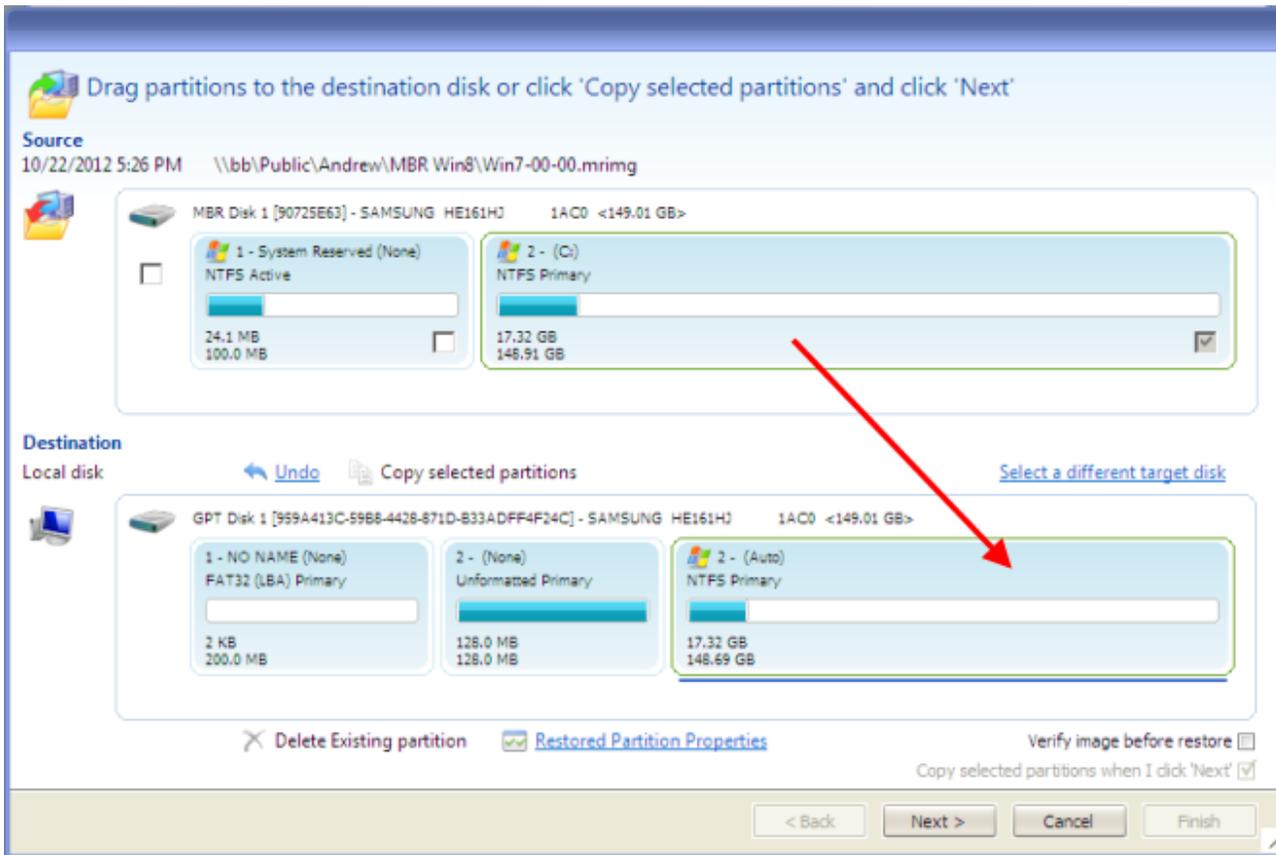
DISKPART> sel disk 0
Disk 0 is now the selected disk.
DISKPART> clean
DiskPart succeeded in cleaning the disk.
DISKPART> convert gpt
DiskPart successfully converted the selected disk to GPT format.
DISKPART> create partition efi size=200
DiskPart succeeded in creating the specified partition.
DISKPART> format fs=fat32
100 percent completed
DiskPart successfully formatted the volume.
DISKPART> create partition msr size=128
DiskPart succeeded in creating the specified partition.
DISKPART>

```

12. In Macrium Reflect, click **Backup** tab.
13. Click **Refresh** to read the newly initialized disk.



14. Click **Restore** tab.
15. Select the image file, *drag and drop the imaged partitions* but *DO NOT restore the MSR partition* from the image file. In this example, only the C partition is restored to the target disk.



16. When the restore is complete, configure the UEFI boot files in the EFI system partition.

Follow the steps in the section **Fix Boot problems for GPT/UEFI Boot Systems** in the following KB article:
[Fixing Windows boot problems](#)

You may need to edit the UEFI configuration to tell it to boot into the new GPT hard disk.