

Reducing Win7 Footprint for Imaging 2013

<http://www.terabyteunlimited.com/kb/article.php?id=233>

How to Minimize the Size of Image Backups

There are a number of steps you can take to help reduce the size of the image files that are created when performing a backup with Image for DOS, Image for Linux, or Image for Windows. Some of the tips that follow are intended to help reduce the size of images that are based on the backup of a Windows partition, and others will help reduce the size of any image you create.

Windows (all versions):

- Run the **Disk Cleanup Tool**. This built-in Windows utility provides many options for removing unneeded files.
- Empty the Recycle Bin.
- Empty your browser cache(s).
- Delete the backup files for any service packs you have installed, and do not plan to uninstall, as explained in the following Microsoft Knowledge Base articles:

[How to Remove Windows XP Service Pack 1 Folders](#)

[HOW TO: Remove the Service Pack Restore Files and Folders in Windows](#) (Windows 2000)

- Uninstall any applications you don't need or don't use. Some applications take up a very significant amount of hard drive space (3D games are a primary example).
- For space-intensive applications that you can't or don't want to uninstall completely, consider uninstalling and reinstalling them with fewer installation options selected, if possible. For example:

- o The installers for many applications provide options for which components to install. Deselect the components you don't need.
- o The installers for some 3D games provide the option to perform a reduced-size installation. Sometimes, you also have the option to run the game from the CD-ROM or DVD disc, rather than installing the entire game onto your hard drive.

- Defragment the partition you will be backing up. Having fewer file fragments means that less slack space will be present in the backup.
- Move multimedia files to a different partition. Most audio and video files do not compress well.

Windows Me/XP/Vista/Windows 7:

- Delete old restore points created by the System Restore service, if you no longer need them. You can do this by selecting the **More Options** tab of the **Disk Cleanup Tool**. To enable the **More Options** tab, you may need to select the *Files from all users on this computer* option when starting Disk Cleanup on Windows Vista or clicking the *Clean up system files* button in Disk Cleanup on Windows 7.

When deleting System Restore points on Windows Vista or Windows 7, be aware that you may also be deleting Shadow Copies of your files.

Hibernation

Windows Me/2000/XP/Vista/Windows 7:

- Disable hibernation. You can either do so permanently, or do it temporarily, each time you are about to create an image. The file used to store hibernation data, HIBERFIL.SYS, is equal in size to the amount of physical memory you have installed and can often add significantly to the size of the backup.

To disable hibernation in **Windows ME/2000/XP**:

1. Open the **Power Options** applet in **Control Panel**.
2. Click the **Hibernate** tab.
3. Clear the **Enable hibernate support** check box.

To disable hibernation in **Windows Vista** or **Windows 7**:

1. Click **Start**. Type **cmd** in the **Start Search/Search programs and files** box.
 2. In the search results list, right-click **Command Prompt** and then click **Run as Administrator**.
 3. When you get the UAC prompt, click **Continue** or **Yes** to proceed.
 4. At the command prompt, type **powercfg.exe /hibernate off** and then press ENTER.
 5. To close the command prompt, type **exit** and then press ENTER.
- (More information can be found in this [Microsoft Knowledge Base article](#).)

The file HIBERFIL.SYS should then be removed automatically by Windows.

- By default, Image for DOS, Image for Linux, and Image for Windows skip the hibernation file.
- When using Image for Windows with [PHYLock](#) (Windows 2000/XP/Vista/Windows 7 only), this tip is not applicable, since (by default) Image for Windows will skip the hibernation file when PHYLock is installed and enabled (unless the **Omit Hibernation Data** option is deselected).

Windows NT/2000/XP/Vista/Windows 7:

- Move the paging file to an alternate partition.

For **Windows NT/2000/XP**, the procedure is explained the following Microsoft Knowledge Base articles:

- o [How to Move the Windows Default Paging File and Print Spooler to a Different Hard Disk](#) (Windows NT/2000)
- o [How to Move the Windows Default Paging File and Print Spooler to a Different Hard Disk](#) (Windows XP)

For **Windows Vista** and **Windows 7**, the procedure is very similar to Windows XP:

1. Click the **Start** button, right-click on **Computer**, then click **Properties** from the pop-up menu.
 2. Click on **Advanced system settings** of the left side of the window. If you get a UAC prompt, click **Continue** or **Yes** to proceed.
 3. Click the **Advanced** tab, then click the **Settings...** button in the **Performance** section.
 4. Click the **Advanced** tab, then click the **Change...** button in the **Virtual memory** section.
 5. If selected, uncheck the **Automatically manage paging file size for all drives**.
 6. Make the desired changes to the location of the paging file(s).
- Configure Windows to clear the paging file at shutdown. This is done by changing a value in the Windows registry, as explained in the following Microsoft Knowledge Base articles:

[How to Clear the Windows Paging File at Shutdown](#) (Windows NT/2000)
[How to Clear the Windows Paging File at Shutdown](#) (Windows XP)

Although there is no Microsoft KB article regarding how to enable this option under Windows Vista or Windows 7, the steps are essentially the same:

1. Run Regedit.exe.
2. Navigate to the following registry key:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\Session Manager\Memory Management
3. Double-click the **ClearPageFileAtShutdown** value and change its data to **1**. If the **ClearPageFileAtShutdown** value does not exist, create it as a REG_DWORD value type and set its data to **1**. This change does not take effect until you restart Windows.

Enabling the ClearPageFileAtShutdown option can help reduce image size because it instructs Windows to overwrite the paging file with zeros during shutdown, which makes the file very highly compressible.

- By default, Image for DOS, Image for Linux, and Image for Windows skip the page file.
- Clearing the paging file will increase the length of time it takes to shut down Windows. How long it takes will depend on the size of the paging file at the time of each shut down.

Windows Vista/Windows 7:

- You can use the **vssadmin resize shadowstorage** command to change the maximum amount of disk space that will be used by Shadow Copies and/or the System Restore feature of Windows. Please note that for the **vssadmin resize shadowstorage** command to work, `vssadmin.exe` must be run by a member of the Administrators group and it must be run with administrator privileges.

For example, to set the maximum amount of space used on C: to 2GB, you would run the following command:

```
vssadmin Resize ShadowStorage /For=C: /On=C: /MaxSize=2GB
```

Be aware that resizing the shadow storage may cause Shadow Copies to be deleted. More information on using **vssadmin** can be found in the following Microsoft TechNet article: [Vssadmin resize shadowstorage](#)

Windows 7

- You can use the **vssadmin delete shadows** command to remove Shadow Copies from the drive. Please note that for the **vssadmin delete shadows** command to work, `vssadmin.exe` must be run by a member of the Administrators group and it must be run with administrator privileges.

For example, to delete all the Shadow Copies for the C: drive, run the following command:

```
vssadmin Delete Shadows /For=C: /All /Quiet
```

Note: If you don't specify the `/quiet` parameter, `vssadmin` will ask for confirmation before deleting the data.