**Freeing up Disk Space**

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**To see how much space you have used and free**

*Start - All Programs - Accessories -*Right click *Command Prompt* and choose *Run As Administrator*. Type (or copy and paste by right clicking in the Command Prompt window and choosing *Paste*).

For the system drive

*wmic volume where (DriveLetter='%systemdrive%') get Caption, Capacity, freespace /format:list*

For all drives

*wmic volume get Caption, Capacity, freespace /format:table*

If you want to store this info on your desktop

*wmic /append:"%userprofile%\desktop\Free Disk Space Report.html" volume get Caption, Capacity, freespace /format:htable*

To open double click Free Disk Space Report.html on your desktop or type

*start "" "%userprofile%\desktop\Free Disk Space Report.html"*

Then come back here after cleaning and repeat these commands to see the difference.

If for some reason the wmic command doesn't work use these two commands. Both take a long time.

*defrag %systemdrive% -a*

or

*dir %systemdrive%\\*.\* /a /s*

**To see where files are taking up space**

This will list the number of files and size for folders on your drive. Each command does a subset so you can manage it better.

*Start - All Programs - Accessories* - Right click *Command Prompt* and choose *Run As Administrator*. Type (or copy and paste by right clicking in the Command Prompt window and choosing *Paste*).

Then configure the command prompt. Right click the Command Prompt's titlebar - *Properties* - *Layout* tab - and enter 1000 for *Screen Buffer Size Height* and 43 (or 50) for *Window Size Height*. Change the Color (*Color*tab) and Font (*Font* tab) if you want.

To see size of folders in Documents, excluding music, video, or pictures folders.

*for /f "skip=2 tokens=3" %A in ('Reg query "HKCU\Software\Microsoft\Windows\CurrentVersion\Explorer\User Shell Folders" /v "Personal"') do set doc=%A*

*for /f "usebackq tokens=2\* delims= " %i IN (`dir "%doc%" /a /s ^|findstr /i /v "\/"^|findstr /l /v "Pictures Music Video"`) DO @echo %j&echo.*

To see size of folders in Music.

*for /f "skip=2 tokens=4" %A in ('Reg query "HKCU\Software\Microsoft\Windows\CurrentVersion\Explorer\User Shell Folders" /v "My Music"') do set Doc=%A*

*for /f "usebackq tokens=2\* delims= " %i IN (`dir "%doc%" /a /s ^|findstr /i /v "\/"`) DO @echo %j&echo.*

To see size of folders in Pictures.

*for /f "skip=2 tokens=4" %A in ('Reg query "HKCU\Software\Microsoft\Windows\CurrentVersion\Explorer\User Shell Folders" /v "My Pictures"') do set Doc=%A*

*for /f "usebackq tokens=2\* delims= " %i IN (`dir "%doc%" /a /s ^|findstr /i /v "\/"`) DO @echo %j&echo.*

To see size of folders in Video.

*for /f "skip=2 tokens=4" %A in ('Reg query "HKCU\Software\Microsoft\Windows\CurrentVersion\Explorer\User Shell Folders" /v "My Video"') do set Doc=%A*

*for /f "usebackq tokens=2\* delims= " %i IN (`dir "%doc%" /a /s ^|findstr /i /v "\/"`) DO @echo %j&echo.*

To see size of folders on the Desktop.

*for /f "skip=2 tokens=3" %A in ('Reg query "HKCU\Software\Microsoft\Windows\CurrentVersion\Explorer\User Shell Folders" /v "Desktop"') do set doc=%A*

*for /f "usebackq tokens=2\* delims= " %i IN (`dir "%doc%" /a /s ^|findstr /i /v "\/"`) DO @echo %j&echo.*

**Disk Cleanup**

The normal way to run Disk Cleanup is to right click the drive in My Computer (*Start* menu - *Computer*), then*Properties* - *General* tab - *Disk Cleanup* button.

Another way is *Start* menu - *All Programs - Accessories - System Tools - Disk Cleanup*.

Disk Cleanup can be started from the command line.

*Start - All Programs - Accessories* - Right click *Command Prompt* and choose *Run As Administrator*. Type (or copy and paste by right clicking in the Command Prompt window and choosing *Paste*).

To do your main drive.

*cleanmgr %systemdrive%*

To choose which drive to do.

*cleanmgr*

See the last section of this note to see how to supercharge Disk Cleanup.

**System Restore**

In Disk Cleanup above also see the *More Options* tab. You can delete all but the last System Restore point and see if that is taking up space.

System Restore uses 15% of the disk space normally. To change click *Start - All Programs - Accessories* - Right click *Command Prompt* and choose *Run As Administrator*. Type **Regedit** and navigate to

*HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\SystemRestore\cfg*

and double click *DiskPercent* and click *Decimal*and change the value to the percentage you want,

You can change it at the command prompt.

*Start - All Programs - Accessories* - Right click *Command Prompt* and choose *Run As Administrator*. Type (or copy and paste by right clicking in the Command Prompt window and choosing *Paste*).

To see size of System Restore folder.

You don't normally have access to this folder. You need to take ownership, give administrators permission, then query the size.

*takeown /f "%systemdrive%\System Volume Information" /a /r /d y*

*icacls "%systemdrive%\System Volume Information" /grant Administrators:f /t /c /q*

*dir "%systemdrive%\System Volume Information" /a /s*

To see current percentage

*reg query "HKLM\SOFTWARE\Microsoft\Windows NT\CurrentVersion\SystemRestore\cfg" /v DiskPercent*

It's hexadecimal. Numbers are 0-9 then a-f. So 0xf is 15. 0x5 is 5, 0x9 is 9, 0xa is 10, 0x14 is 20.

To set to a different value.

You can use decimal values to set it. This sets it to 10% (bolded in the example and the last item on the line).

*reg add "HKLM\SOFTWARE\Microsoft\Windows NT\CurrentVersion\SystemRestore\cfg" /v DiskPercent /t REG\_DWORD /f /d****10***

**Repair the Recycle Bin**

Sometimes files get lost in the recycle bin. Delete the storage folders. It will be automatically recreated next time you delete a file or open the Recycle Bin. It will delete the Recycle Bin, and files it contains, for all users.

Empty the recycle bin.

*Start - All Programs - Accessories* - Right click *Command Prompt* and choose *Run As Administrator*. Type (or copy and paste by right clicking in the Command Prompt window and choosing *Paste*).

To see the size of files in the recycle bin

It should have one or no files in it if working. There should be a dir (folder) per user.

*dir %systemdrive%\$RECYCLE.BIN\\*.\* /a /s*

To reset the recycle bin

*rd %systemdrive%\$RECYCLE.BIN /s /q*

**Repair Temporary Internet Files**

Sometimes files get lost in the temporary internet files folder. Delete the files. It will be automatically recreated next time you download it. It will delete for the current user only.

*Start - All Programs - Accessories* - Right click *Command Prompt* and choose *Run As Administrator*. Type (or copy and paste by right clicking in the Command Prompt window and choosing *Paste*).

To see the size of files an empty temporary internet files folder

*RunDll32.exe InetCpl.cpl,ClearMyTracksByProcess 8*

*dir "%userprofile%\AppData\Local\Microsoft\Windows\Temporary Internet Files\\*.\*" /a /s*

Then to delete.

Close Internet Explorer first. Some files may not delete at this time, they will be able to be deleted later.

*del "%userprofile%\AppData\Local\Microsoft\Windows\Temporary Internet Files" /s /q*

Then to see the new size.

*dir "%userprofile%\AppData\Local\Microsoft\Windows\Temporary Internet Files\\*.\*" /a /s*

**Delete Files in the System Temp Folder**

The system temp folder is only used when noone is logged in. It is rarely used but never cleaned.

*Start - All Programs - Accessories* - Right click *Command Prompt* and choose *Run As Administrator*. Type (or copy and paste by right clicking in the Command Prompt window and choosing *Paste*).

To list

*dir c:\windows\temp /a /s*

To delete

*del c:\windows\temp\\*.\* /s /f /q*

**Check Size of Swap File**

As a general rule you want your swap file a little bigger than the amount of memory you have. It grows automatically but doesn't shrink automatically. If using memory hungery programs like video editing it should be bigger. If too big you can shrink it and if pressed for space can be moved to another drive.

*Start - All Programs - Accessories* - Right click *Command Prompt* and choose *Run As Administrator*. Type (or copy and paste by right clicking in the Command Prompt window and choosing *Paste*).

To see what your usage has been

*wmic pagefile get /format:list*

To see the file size on disk

*dir c:\pagefile.sys /a*

To change size or change drive see **Change the size of virtual memory** in *Start - Help and Support*.

**Turn Off Hibernation**

The hiberation file is the same size of installed memory. If not hibernating the computer turn it off and save plenty of disk space.

*Start - All Programs - Accessories* - Right click *Command Prompt* and choose *Run As Administrator*. Type (or copy and paste by right clicking in the Command Prompt window and choosing *Paste*).

To see if it's on

If on the file will be found. If off the file won't be there.

*dir %systemdrive%\hiberfil.sys /a*

To turn off

*powercfg -h off*

To turn back on again

*powercfg -h on*

**Compact the Various Databases Windows Uses**

You can compact the various databases Windows uses. These are Windows Update, Windows Search, Windows Mail, Windows Contacts, Windows Calandar, some Windows Live apps, and Internet Explorer ver 10.

Close Windows Mail and Internet Explorer. Wait a minute for Internet Explorer to release it's file locks.

To see how much space it taking up type what's below and note the total size (because it will scroll away).

*Start - All Programs - Accessories -* Right click *Command Prompt* and choose *Run As Administrator.* Type (or copy and paste by right clicking in the Command Prompt window and choosing Paste).

*dir c:\\*.edb c:\\*.msmessagestore c:\WebCacheV\*.dat /a /s*

Then to compact

*sc stop wuauserv*

*sc stop bits*

*sc stop wsearch*

*for /r c:\ %A in (\*.edb \*.msmessagestore WebCacheV\*.dat) do esentutl.exe /p "%A" /o*

*for /r c:\ %A in (\*.edb \*.msmessagestore WebCacheV\*.dat) do esentutl.exe /d "%A"*

*sc start wsearch*

*sc start bits*

*sc start wuauserv*

Then to see the new size and compare to the old size

*dir c:\\*.edb c:\\*.msmessagestore c:\WebCacheV\*.dat /a /s*

If a program has a file open you can use this procedure to find which program.

*openfiles /local on*

Reboot

*openfiles /query /v|findstr /i "WebCacheV[0-9]\*\.dat \.edb \.msmessagestore"*

Then to delete some temporary files.

*del c:\\*.integ.raw c:\TEMPDFRG\*.edb /s*

**Remove files updated by Service Packs**

To see how much space it taking up type what's below and note the total size (because it will scroll away). Also note that the total is higher than it actually is.

This will remove the ability to uninstall the service packs.

Depending on the service pack Windows was supplied with you may have both, one, or neither of these two files.

*Start - All Programs - Accessories* - Right click *Command Prompt* and choose *Run As Administrator*. Type (or copy and paste by right clicking in the Command Prompt window and choosing *Paste*).

*dir c:\Windows\WinSxS /a /s*

Then type

*VSP1CLN.exe*

*COMPCLN.exe*

Then to see the new size and compare to the old size

*dir c:\windows\WinSxS* */a /s*

**Relocate Your Documents**

If you have another drive you can move the documents folder to it.

Right click your Documents (or Pictures, Videos, Contacts, Desktop, etc) folder - *Properties* - *Location* tab -*Move*.

**Delete The Thumbnail and Icon Caches**

These files may contain thumbnails or icons of long ago deleted files. The files will be recreated as needed.

*Start - All Programs - Accessories* - Right click *Command Prompt* and choose *Run As Administrator*. Type (or copy and paste by right clicking in the Command Prompt window and choosing *Paste*). The desktop and Start menu will briefly disappear.

To see size

*dir "%userprofile%\AppData\Local\\*.db" "%userprofile%\AppData\Local\Microsoft\Windows\Explorer\\*.db" /a*

then to delete

*taskkill /im explorer.exe /f  
attrib -r -s -h "%userprofile%\AppData\Local\\*.db"  
attrib -r -s -h "%userprofile%\AppData\Local\Microsoft\Windows\Explorer\\*.db"  
del "%userprofile%\AppData\Local\\*.db"   
del "%userprofile%\AppData\Local\Microsoft\Windows\Explorer\\*.db"  
explorer*

to check the new size

*dir "%userprofile%\AppData\Local\\*.db" "%userprofile%\AppData\Local\Microsoft\Windows\Explorer\\*.db" /a*

**Delete Backed Up Files Made By Photo Gallery**

Windows Photo Gallery makes a copy of any file you change. Click *Start - All Programs - Accessories - Run*(or press **Winkey + R**). Type

*Shell:original images*

Delete ones you don't want.

**Extending The Size of the Drive**

If all the space on the disk hasn't all been used it may be possible to extend your drive.

*Start - All Programs - Accessories* - Right click *Command Prompt* and choose *Run As Administrator*. Type (or copy and paste by right clicking in the Command Prompt window and choosing *Paste*).

*diskpart*

then type

*select volume c:*

Then type to see size

*list volume*

then (it will work if possible or won't if not possible)

*extend*

then type to see the new size

*list volume*

then to exit type

*exit*

If you want advice on extending the partition type the following and paste back the output

*diskpart*

*list disk*

*list volume*

*select disk 0*

*list partition*

*select disk 1*

*list partition*

*exit*

To copy the text output right click the window - *Mark* then select the text and press **Enter**.

**Compress Files**

There are two ways to compress files in windows. Zip files and the inbuilt file compression. This is about the inbuilt file compression. Type **zip** in *Start - Help and Support* for more info on zipping.

Photos, music, and video are already compressed. They may get larger if Windows tries to compress them any further. Also usually a bad idea to compress system files.

If you have document or spreadsheet files they can be compressed very well. If you have folders of setup files they may also be good candidates. Web  pages also make good candidates.

In Windows Explorer blue filenames means Compressed (this is file system compression not Compressed folders aka zip files). Green filenames means Encrypted.

To turn off coloured filenames, in Explorer - *Tools* menu (**Alt + T) -***View* tab, and then clear the *Show encrypted or compressed NTFS files in color* check box.

Windows compression, encryption, and security work mostly by apply attributes to a folder, and files in the folder inherit from the folder.

If you have any folders suitable for compression find them in Explorer, right click them - *Properties - General*tab *- Advanced* button - *Compress contents to save disk space*. Choose to apply to all files and folders when asked.

To use a command line to compress the files in the Favorites folder

*compact /c /s:"%userprofile%\Favorites" \*.\**

To set favourites to compress future files added

*compact /c /s:"%userprofile%\Favorites"*

To view compression details of the Favorites folder

*compact "%userprofile%\Favorites\\*.\*"*

**Supercharging Disk Cleanup**

* How Disk Cleanup works
* Scheduling Disk Cleanup
* Creating custom cleaners

C:\Users\David Candy>@echo.&@echo List of cleaners&@echo ================&FOR /F  
 "usebackq tokens=8 delims=\" %i IN (`reg query "HKEY\_LOCAL\_MACHINE\SOFTWARE\Mic  
rosoft\Windows\CurrentVersion\Explorer\VolumeCaches"`) DO @echo %i

List of cleaners  
================  
Active Setup Temp Folders  
Content Indexer Cleaner  
Downloaded Program Files  
Hibernation File  
Internet Cache Files  
Memory Dump Files  
Microsoft\_Event\_Reporting\_2.0\_Temp\_Files  
Offline Pages Files  
Old ChkDsk Files  
Previous Installations  
Recycle Bin  
Setup Log Files  
System error memory dump files  
System error minidump files  
Temporary Files  
Temporary Setup Files  
Temporary Sync Files  
Thumbnail Cache  
Upgrade Discarded Files  
Windows Error Reporting Archive Files  
Windows Error Reporting Queue Files  
Windows Error Reporting System Archive Files  
Windows Error Reporting System Queue Files  
WLX Thumbnail Cache