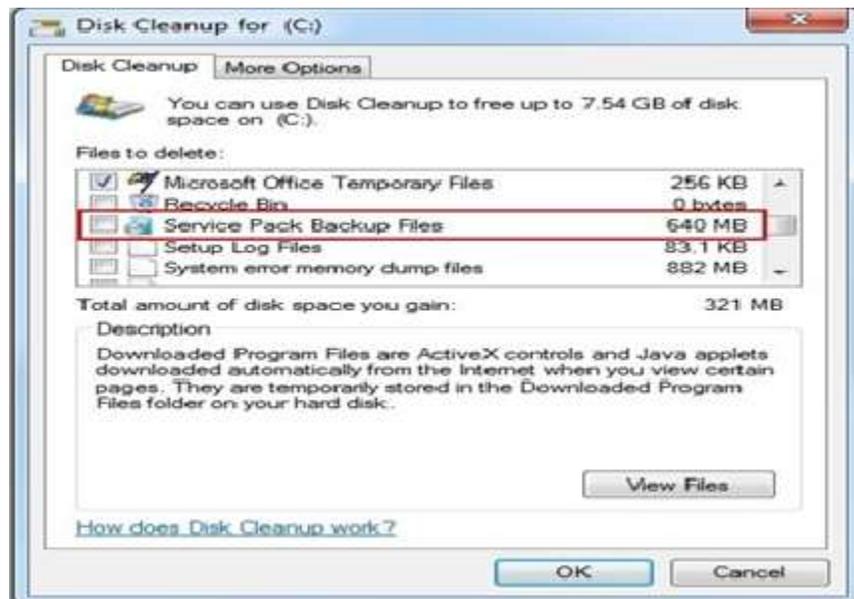


Warranty: There is none.

- **Clean up after Windows 7 SP1 (Service Pack 1)** - After you install Windows 7 SP1, it leaves original files so you can uninstall *the Service Pack Backup Files* if you don't need the option, Disk Cleanup and check "Service Pack Backup Files" this may free up almost 1 GB.

The only thing is that you can't uninstall SP1.

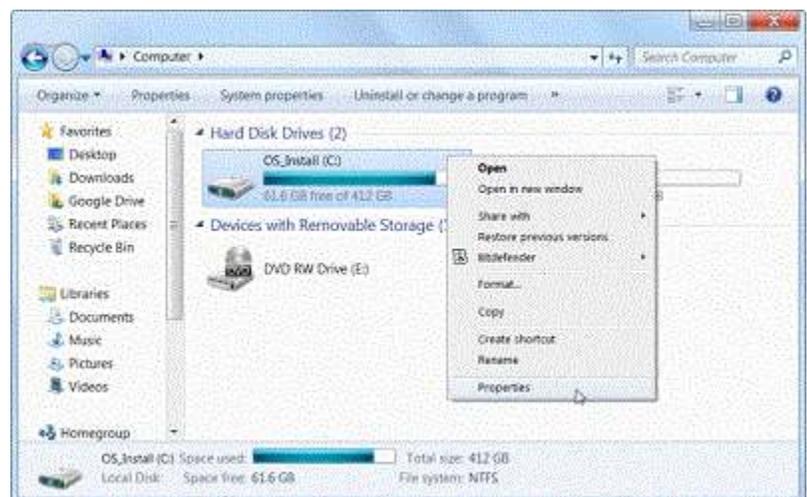
- **Disk Cleanup** - After you run it, run it again and click *Clean up System Files* to get files that you need to be admin to delete.



Run Disk Cleanup

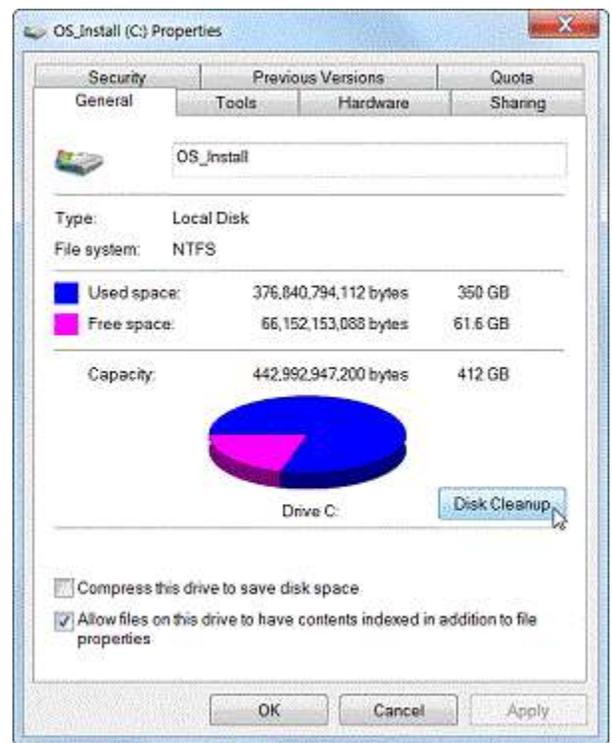
Windows includes a built-in tool that deletes temporary files and other unimportant data. To access it, right-click one of your hard drives in the Computer window and select Properties.

See figure to right



Click the Disk Cleanup button in the disk properties window.

See figure to right



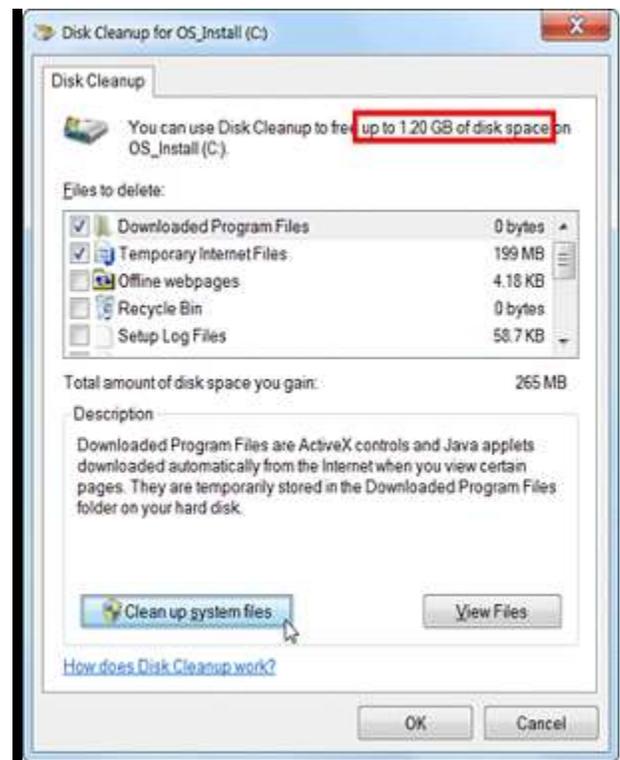
Select the types of files you want to delete and click OK. This includes temporary files, log files, files in your recycle bin, and other unimportant files.

See figure to right



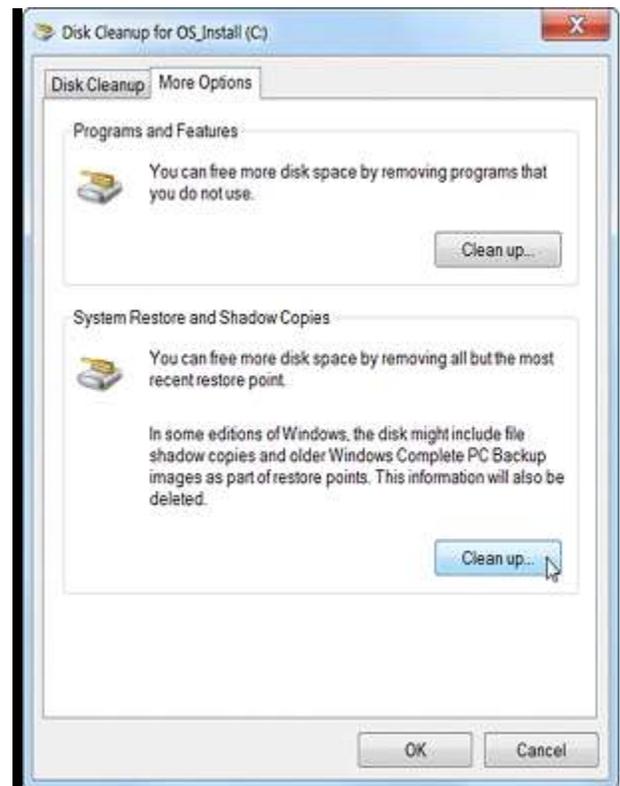
You can also clean up system files, which don't appear in the list here. Click the Clean up system files button if you also want to delete system files.

See figure to right



After you do, you can click the More Options button and use the Clean up button under System Restore and Shadow Copies to delete system restore data. This button deletes all but the most recent restore point, so ensure your computer is working properly before using it – you won't be able to use older system restore points.

See figure to right



Delete your Browser Cache - Whether you use Chrome, IE9 or Firefox, your browser is saving temporary files. Consider clearing it out manually (or use the CCleaner mentioned below) occasionally



- Clean up System Restore - Windows 7 keeps backups of lots of system files every time something major happens, (driver installation, some software installations, etc) after a while this can take up lots of space. It uses a service/subsystem called ShadowCopies and can be administered with a tool called vssadmin. The EASIEST way to handle this is to run Disk Cleanup, then click More Options and "Clean up..." which will delete all but the most recent System Restore data. You can also go to System Properties, then System Protection, then Configure and not only control how much space to allow for System Protection but also delete preview restore points.

Alternatively, you can use the vssadmin tool from an admin command prompt to do important things.

1. set a max size for the System Restore to use.
2. set an alternative drive. For example, you could have the D: drive responsible for System Restore for the C: drive.

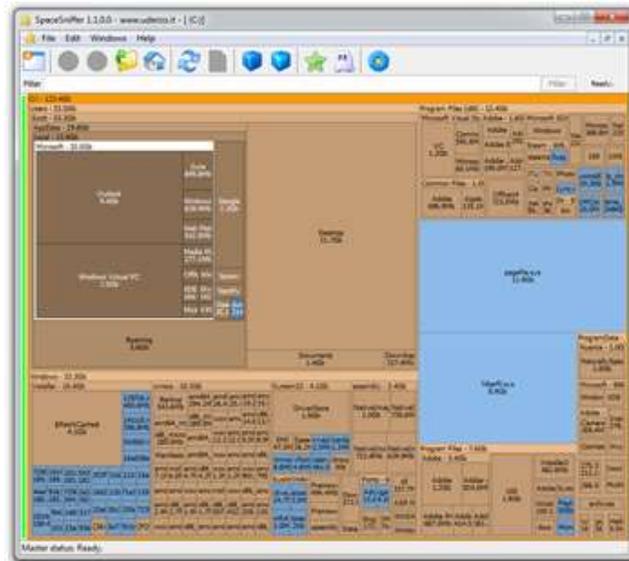
Note: that you can put whatever drive letters you have in there.

Note: that this isn't just used for System Restore, it's also used for the "Previous Versions" feature of Windows that keeps some number of Shadow Backups in case you delete something and didn't mean it. Kind of a mini time machine.

You can use the commands like this.

```
vssadmin Resize ShadowStorage /On=C: /For=C: /MaxSize=15GB
```

- Understand what's taking up all that space with SpaceSniffer or WinDirStat - WinDirStat is actively developed, it's Open Source, and it works great in Windows. It'll help you find those crazy large log files. SpaceSniffer also lets you drill into what's going on with your disk space.



- Remove Old Stuff - Add/Remove Programs or Programs and Features likely have a pile of old things taking up space. Remove Toolbars, and anything that looks like it might destabilize the system.
-
- Wasteful TempFiles/ScratchFiles Settings in Popular Programs - Most programs that need scratch space have a way to set a ceiling on that Max Space. Go into Internet Explorer or Firefox, into the options and delete the Temporary Internet Files. Set a reasonable size like 250 megs or 500 megs. Check other programs like Adobe Photoshop and other editors to see where they store their temporary files and how large they've become.
-
- NTFS Compression - compress any and all folders that are infrequently accessed, but not ready to be tossed. Just right click a folder, hit Properties, then Advanced, then Compress.
- And then defrag.
-
- Find Fat Temp File Apps and squash them - Google Earth and Microsoft Virtual Earth 3D are really fast and loose with the disk space. You can poke around for a while and next thing you know you're down 2 gigs or more. If you don't use the app a lot, delete the caches when you exit, or better yet, make the cache size for each app small.
-

- Remove Crap with CrapCleaner (CLeaner) - This is a brilliant utility that removes crapware, unneeded programs, toolbars and other things that might litter up your machine.
-
- Disable Hibernate - hibernation uses as much disk space as you have RAM. From an administrative command prompt, type "powercfg -h off" to get that space back.
- Don't turn it off if you use this feature.

%TEMP% Files - Even though Disk Cleanup is great, sometimes it doesn't always get the TEMP folder. Open up an administrative console, (command line)
 Type (cd /d %TEMP%) Then, go up one folder with (cd ...)
 Type (rd /s temp)

- Be warned, this command says TRY to delete the whole folder and everything underneath it. It's very unambiguous. If you don't feel comfortable, do not do it. If you feel in over your head, don't do it. If it screws up your computer, don't email me.
-
- Type (dir temp) to see if the folder is really deleted.
- Usually it won't delete. Because almost always some other program has a temp file open and the command can't remove open items. If it DOES remove the folder, type (md temp) to get it back fresh and empty.
-
-
- ADVANCED: Use Junction Points/Hard Links/Reparse Points to move temp file folders - This is an advanced technique. If this technique kills your beloved pet cat, don't email me. You have been warned.

C:\Users\kat\AppData\Roaming\Apple Computer\MobileSync>dir

Directory of C:\Users\kat\AppData\Roaming\Apple Computer\MobileSync

```
11/25/2011 10:10 PM <DIR>      .
11/25/2011 10:10 PM <DIR>      ..
11/25/2011 10:10 PM <JUNCTION> Backup [f:\iTunesMobileSync\Backup]
                0 File(s)      0 bytes
                3 Dir(s) 97,594,851,328 bytes free
```

- Hard drives are getting larger and larger, but somehow they always seem to fill up. This is even truer if you're using a solid-state drive (SSD), which offers much less hard drive space than traditional mechanical hard drives. If you're hurting for hard drive space, these tricks should help you free up space for important files and programs by removing the unimportant junk cluttering up your hard disk.
- Uninstall Space-Hungry Applications
- Uninstalling programs will free up space, but some programs use very little space. From the Programs and Features control panel, you can click the Size column to see just how much space each program installed on your computer is using.

- If you don't see this column, click the options button at the top right corner of the list and select the Details view. Note that this isn't always accurate – some programs don't report the amount of space they use. A program may be using a lot of space but may not have any information in its Size column.

