



*Stump the PC Club is a free tech-advice column written by members of the **North Orange County Computer Club**, which has been in existence since 1976. Visit the club's site at noccc.org.*

QUESTION: I'm running Windows XP and I keep getting a message that says "Insufficient Disk Space". I can't install anything or download any files. I've tried uninstalling some programs such as Skype, RealPlayer, etc. and haven't made a dent. What do you suggest?

PC CLUB: First of all I'd check my C drive first to see if you really have a problem. Click Start and open My Computer (just Computer on Vista or Windows 7) and right-click your C drive. Next, select properties and you will see how full the drive is. If it's almost full to capacity as I suspect, you'll need to free up some space which is no surprise at this point. A good rule of thumb is that your hard drive should be no more than 75% full.

Let's begin by listing all of the Windows features or locations that impact your hard drive space. These are not necessarily in the order of importance so read on before taking any action.

1. System Restore – this can occupy several gigabytes and can be turned on or off. See <http://bit.ly/sysrestore> and <http://bit.ly/sysrestore2>.
2. Hibernate – this can occupy several gigabytes also. See <http://bit.ly/hibernate1> and <http://bit.ly/hibernate3>.
3. Temporary Internet Files – there's no limit to the junk stored here. See Ccleaner below.
4. Temp folders – the locations of these is shown below.
5. Recycle Bin – this usually occupies a small percent of your hard drive but can be adjusted. See <http://bit.ly/recyclebin1>.
6. Installed Programs – you can always use Add/Remove programs to remove software you no longer need. Please be careful and don't remove any security software.
7. Email folders – these should be compacted periodically. See <http://bit.ly/compresso> for Outlook Express and <http://bit.ly/compressoutlook> for Outlook.
8. Misc folders such as Installers. You may have to search for folders with this name.

9. Media files such as pictures, videos and music. Backup your media to an external hard drive before eliminating any media folders from your hard drive.

If you want to snoop around where various temp files are stored, here are the locations. Where you see xxx, replace this with your User name. There may be more than one user on your PC.

Temporary Internet files:

Windows XP

\Documents and Settings\xxx\Local Settings\Temporary Internet Files

Windows Vista and Windows 7

\Users\xxx\AppData\Local\Microsoft\Windows\Temporary Internet Files

Temp files:

All Windows versions

\Windows\Temp

Windows XP

\Documents and Settings\xxx\Local Settings\Temp

Windows Vista and Windows 7

\Users\xxx\AppData\Local\Microsoft\Windows\Temp

Here are the steps I would start with to free up disk space:

1. Download, install and run Ccleaner. It's free and available at www.ccleaner.com
2. Re-check your hard drive space
3. Examine the Temp folders listed above and delete their contents

If the hard drive is still full or almost full it's time to examine your drive with a hard drive analyzer tool. Here's a list of several free ones:

- WinDirStat available at <http://bit.ly/windirstatpor>. This is a portable version and requires no installation.
- Free Commander available at <http://www.freecommander.com>. There is a portable version at http://www.freecommander.com/fc_u3_en.htm. Stay away from the U3 version. Just click Folder on the top menu bar and select Size of Folders.
- FolderSize available at <http://bit.ly/foldersizeapp>. This program takes quite a while to scan the drive.
- Space Sniffer available at <http://bit.ly/spacesniffer>. This is a portable program.

With any of these programs you may have to click a plus (+) sign to expand a folder to examine its sub-folders.

The two programs that I recommend are WinDirStat and Free Commander since they exhibited no problems with any version of Windows. I also liked the program called Disk Analyzer Pro which costs \$29.95 and has a free trial period and has many features lacking in the free programs. However, the free programs will tell you what you need to

know to locate large folders that can be deleted. Don't delete any folder unless you thoroughly understand its purpose.

When the term Portable Program is used, it means that no installation is required. You simply download the program, and in some cases unzip it, and run the program. What's the advantage of portable programs? Let me answer this question by relating a recent experience to you.

A client called me and was quite distraught since her PC was giving her an error message that said "Insufficient Disk Space". She was unable to perform any tasks. I started by doing all of the routine things to free up disk space to no avail. She had tried to uninstall programs, remove pictures, etc. and was having no great success. I tried to download and install WinDirStat and the system would not let me. Here's where portable applications come into play. I took out my flash drive that had a portable version of WinDirStat, ran it, and discovered a folder named Installers containing many gigabytes. I deleted it and the problem was solved. The morale of the story is to keep these tools already installed or have portable versions available to use when trouble shows up. - *Ed Schwartz, NOCCC member. View his Web site at www.edwardns.com.*