

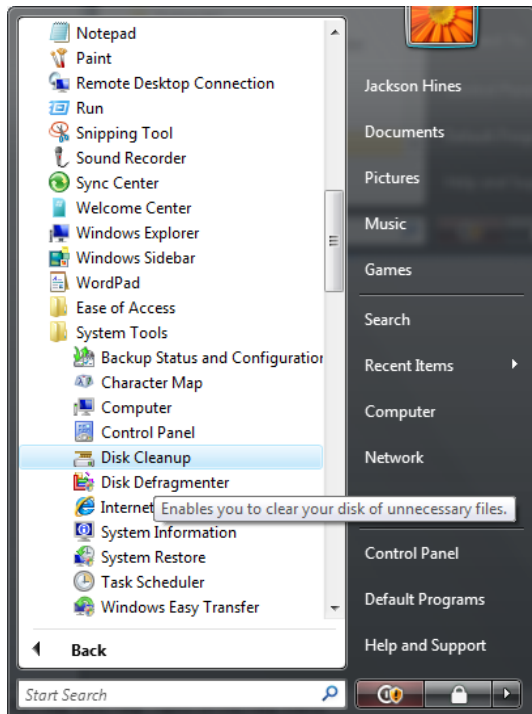
Tech Tips

Issue 2: Speed up your PC

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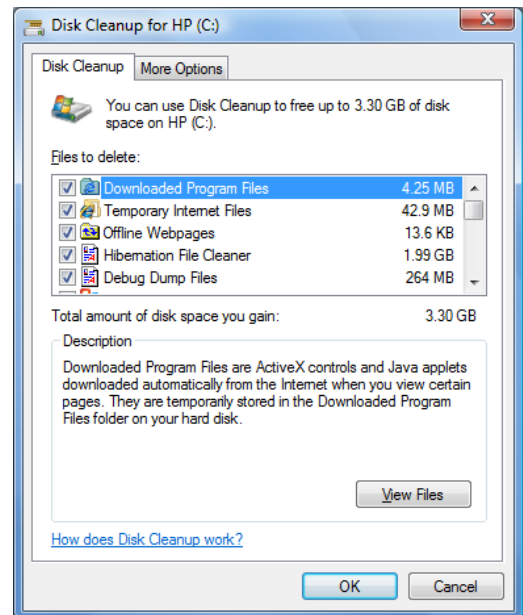
After using your PC for a long amount of time, it can become very sluggish, but this does not necessarily mean that you need a new PC. In this issue of tech tips I'll show you a few tricks to speed up your PC!

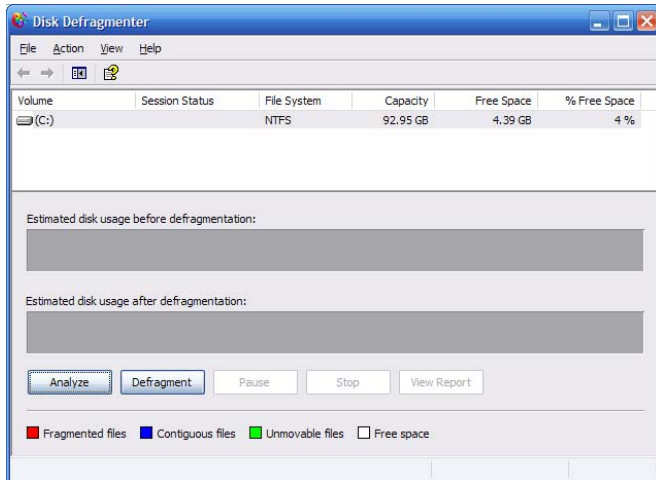


The first thing you can do is clear up disk space by deleting files that you probably didn't even know you had. There is a utility built into windows called "Disk Cleanup" that can identify some files that are safe to delete and delete them for you. To run this program, click the **Start** button in the lower left, click **All Programs**, go to **Accessories**, then **System Tools**, and then choose **disk cleanup**. Wait for disk cleanup to find all the files (that make take a few minutes). Once it has found the files, a new window will come up (shown below) and you will be able to select the files you want to delete. I recommend just deleting all of them. I was able to free up 3.3 GB of space on my own computer this way.

You can also free up some space by uninstalling programs that you don't use anymore. Click the **Start** button, go to your **Control Panel** and find **Add or Remove Programs (Programs and Features on Windows Vista)**. A list of all your programs will come up. Just go to each program that you don't want anymore, click uninstall and then follow the on screen instruction, it's that simple.

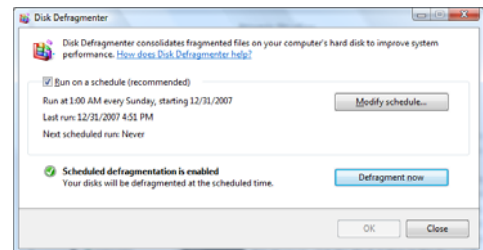
You can also free up some space by uninstalling programs



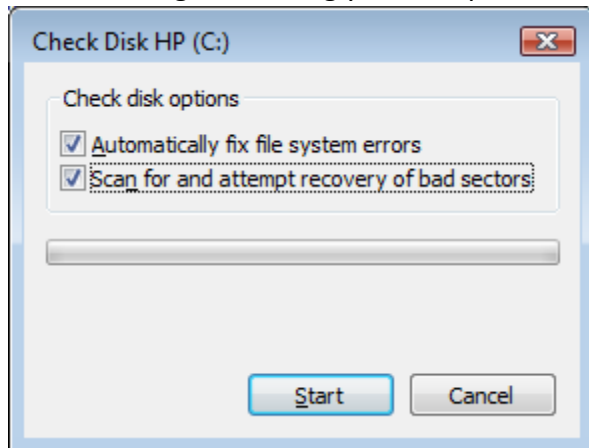


Another thing that you can do to speed up your computer's performance is defragment the hard drive(s). The defragment feature is also built into windows. It is in the same area that you found the Disk Cleanup utility. Just go to **Start, All Programs, Accessories, System Tools**, and click **Disk Defragmenter**. Run the defragmenter on all your Hard Drives. The defragmenter will look different depending on whether you are using

Windows XP or Windows Vista. First I will explain for XP. In Windows XP, select the drive(s) that you want to defragment and then click the analyze button. Once analyzing is done, it will let you know if you should defragment the analyzed drive(s). Select the drives that it said you should defragment and click the defragment button. The defragmentation process on Windows Vista is much simpler. All you need to do is click the button that says "Defragment Now" and wait for it to finish. Be aware on both XP and vista, defragmentation will most likely take hours to complete. Also note, it is recommended that you have at least 15% free space before defragmenting, that is the total size of your drive multiplied by 0.15.



Now you know how to defragment your drive, but what does that mean? Every time you access a file on your hard drive, your computer has to figure out where on the hard drive that file is. As you add and delete files and programs, everything gets spread out all over the hard drive and there are spaces between files making files much harder to find, making it take longer and seem like your computer is slower. Defragmenting moves all the files back near each other again, making your computer faster.

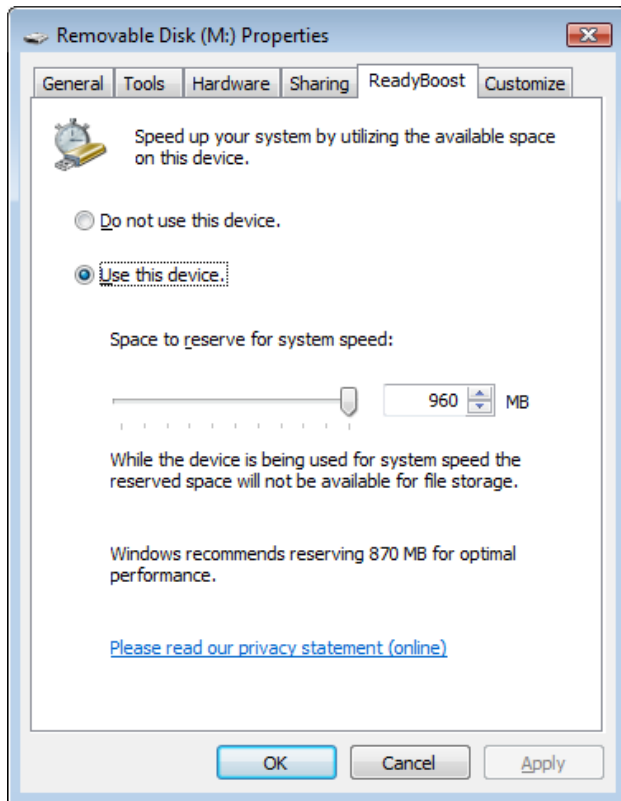


So far I've shown you how to free up disk space and defragment your hard drive. Up next let's look at how we can repair disk errors. Bad Sectors often arise after using your hard drive for an extended period of time. Disk Check can help! To run disk check, go to **Start, My Computer** (called **Computer** on Windows Vista). Right click on the drive you wish to check for bad sectors and choose **properties** from the right click menu. The drive properties will appear in a

new window. Go to the **tools** tab and click the **Check Now** button. The Check Disk utility will open. Make sure both check boxes are selected and press **Start**. Follow the on screen instructions and be aware you may be asked to restart your computer during some point of the process.

Next, you should find and get rid of any spyware or viruses on your computer. If you already have virus/spyware software running, just do a full scan of your machine and let it delete the viruses for you. If you do not have any software protecting your computer, try doing a free security and virus scan from Symantec (makers of Norton) at <http://security.symantec.com/>. Make sure you run these scans using Microsoft's Internet Explorer 5, 6 or 7 (because Symantec hasn't yet figured out that Mozilla's Firefox browser is far superior). There are also quality windows security programs available for free! For anti-virus security, there is a program available called **AVG Anti-Virus Free Edition**. You can download that at www.download.com. For spyware security, I highly recommend a program called **Ad-Aware** that can also be downloaded at www.download.com.

Another thing to do is clean out the windows registry. The windows registry contains info about programs you've installed and a lot other info about the way windows runs. Your registry can get pretty cluttered up, if you install and uninstall things frequently, but no worries, a free program called **CCleaner** is here to help. **CCleaner** will scan your registry and find unneeded entries and delete them for you. You can download **CCleaner** from www.download.com.



Now this last tip is only for people who are using Windows Vista. This is called ReadyBoost. If you have a flash drive lying around with some extra space on it, you can put that space to good use as additional RAM (Random Access Memory) for your computer. Random Access Memory is used to hold processes/programs that are currently being used. If you open a program, and you have to wait a few seconds for it to load, this is because your computer is loading the program into the RAM. If you have more RAM, you can have more processes and programs running without as much slowdown of your computer. To use ReadyBoost, just plug in your flash drive and click **Start** and then click **Computer**. When the computer window comes up, find the drive you just plugged in. Right click and

choose properties to open the properties window. Go to the tab called **ReadyBoost** and choose to **Use this device**. Then, choose how much space you want to allocate to **ReadyBoost** and press **OK**.

Now if your computer should be performing a lot faster, but if you are still unhappy with the speed of your computer and you know it still used to be faster there is one last thing you can do, that is reinstall the Operating System (also called a full system restore). Be aware, this will delete EVERYTHING on your computer, every document, every program, and every everything. Consult your computer's user's manual for information on the details of how to do this for your specific computer.

If you have done everything I've said here and the performance of your computer is still sluggish it may be time for a new PC.