

When should you defrag your computer?

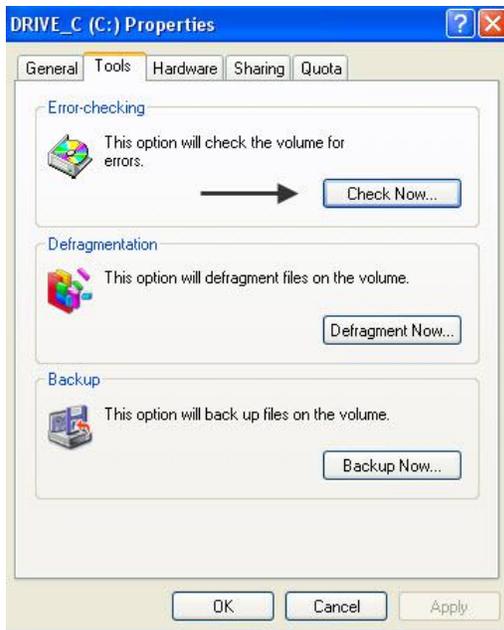


*Stump the PC Club is a free tech-advice column written by members of the **North Orange County Computer Club**, which has been in existence since 1976. Visit the club's site at noccc.org. And don't forget to stop by the Gadgetress' home for the PC Club, at ocregister.com/link/pcclub, to find out how to ask a question and read past answers.*

QUESTION: My operating system is XP and my computer is a desktop with a 114 gigabyte hard drive. How often should I defrag and how do I go about doing it? Typical answer is when computer slows down but I'm not sure I can recognize this. Also, I leave my computer on continuously — is this good or bad?

PC CLUB: Hard drive maintenance is an important part of keeping your PC running smoothly and operating at peak performance. Defragging is one of the three major components involved. This maintenance is not the only factor but the one we'll address here. Other factors include controlling the programs that run when you start up your PC and the prevention of viruses and spyware from invading your system.

These three major components of disk maintenance include periodic Disk Cleanup, Disk Error checking, formally called Check Disk; and Defragging. Disk Cleanup was discussed previously in Stump the PC Club's article "[How to cleanup your hard drive](http://bit.ly/UWYIY)" available at <http://bit.ly/UWYIY>.



These tasks should be performed in this order.

You'll want to clean up your hard drive prior to performing the other tasks so you don't waste time processing unwanted files. Also, you will not be able to run a successful defrag if your drive has any errors on it — that's why Disk Checking should be performed prior to defrag. The easiest way to run Disk Checking is to open My Computer, right-click the drive you want to check, usually the C drive, and select Properties. Select the Tools tab and click Check Now (see image on right).

When the next window opens place checkmarks in both boxes. Windows will inform you that this task will run the next time Windows starts up. Allow some time for this to take place depending on your hard drive size and speed.

Now, back to defragging.

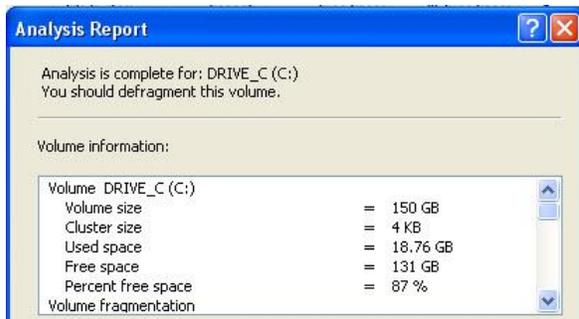
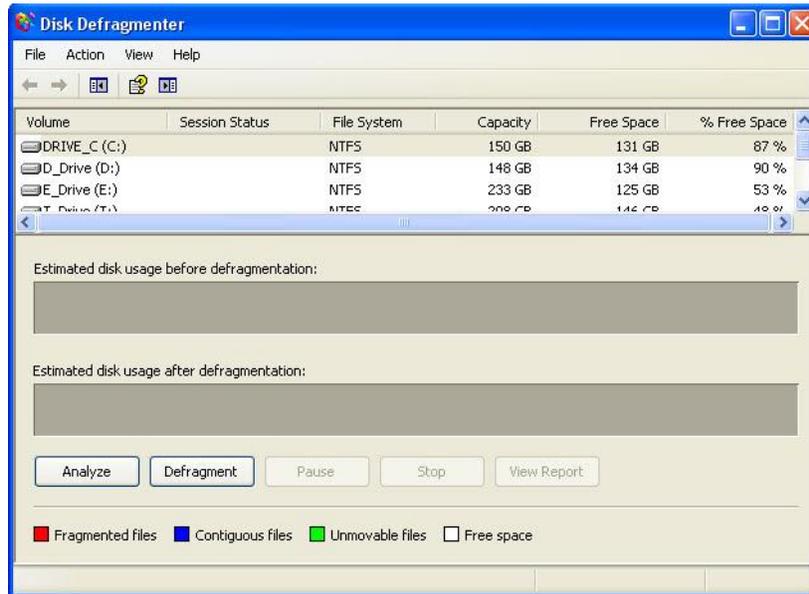
Basically, files on hard drives can become fragmented. In plain English, this means that instead of a file's contents occupying a contiguous portion of the drive, its contents are spread out in pieces or fragments. That forces the hard drive to spend time searching for all of the fragments of a file when reading it.

Defragmenting places the entire contents of a file in one contiguous location, thus speeding up your drive's performance.

How often you need to do this depends on how frequently you add files to or delete files from your drive. Theoretically, if you never performed these tasks, you would never have to defrag.

But first, clean up the disk. Disk cleanup can be done frequently since the disk accumulates unnecessary files as a result of performing routine tasks, such as browsing the Internet. The more frequently you perform disk cleanup, the less time it requires to complete.

Defragging, on the other hand, can be performed less frequently depending on your frequency of adding and removing files. Installing and uninstalling of software are examples of activities that could fragment your drive. I typically defrag my drives on three- to six-month intervals. You can start the defragging process by clicking Start, All Programs, Accessories, System Tools, Disk Defragmenter. It will pull up a screen that looks like this:

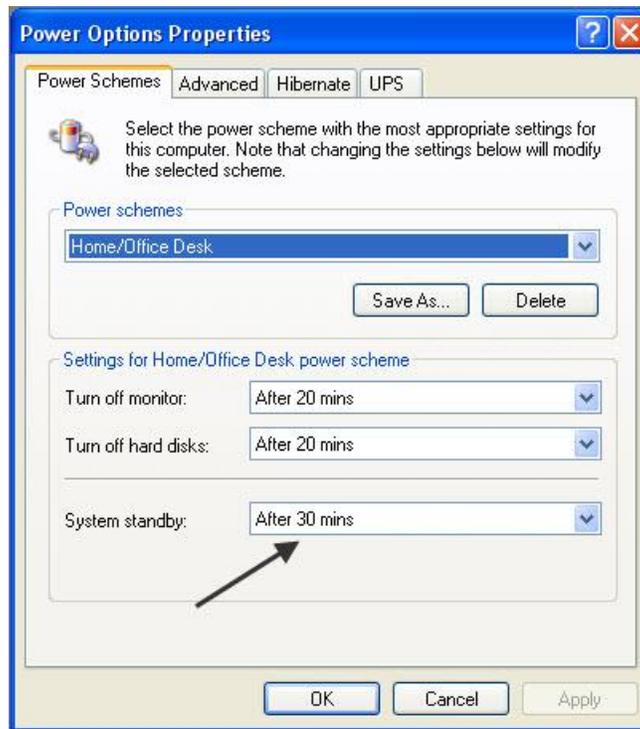


If you click the Analyze button first, another window will open allowing you to view a report. If the fragmentation is above 10 percent, it's a good time to defragment your drive. The directions above apply equally to Windows XP and Vista.

A free alternative to the Windows defragging tool is Defraggler. This program was written by the same company that provides CCleaner at www.ccleaner.com. It can be downloaded from their web site at www.defraggler.com. Be sure to read all of its online help. There is a portable version also should you be interested.

As far as leaving your PC on all of the time, it's fine to do this provided you set up your PC to enter the standby mode after a period of inactivity to conserve energy.

To do this, go to your Control Panel and open the Power Options. Use the System standby drop-down box to select a duration of inactivity before entering the standby mode. See image below:



It's also a good idea to turn off your PC completely and let it re-boot at least once weekly. This gives Windows an opportunity to cleanup after itself by removing some temporary files. ~Ed Schwartz, NOCCC member. View his blog at www.edwardns.com/blog.