

# Simple Ways to Speed Up Your Computer's Performance

There are a few guidelines that you can follow to maintain your computer and keep it running smoothly.

## Free Up Disk Space

By freeing disk space, you can improve the performance of your computer. The Disk Cleanup tool helps you free up space on your hard disk. The utility identifies files that you can safely delete, and then enables you to choose whether you want to delete some or all of the identified files.

Use Disk Cleanup to:

- Remove temporary Internet files.
- Remove downloaded program files (such as Microsoft ActiveX controls and Java applets).
- Empty the Recycle Bin.
- Remove Windows temporary files.
- Remove optional Windows components that you don't use.
- Remove installed programs that you no longer use.

Tip: Typically, temporary Internet files take the most amount of space because the browser caches each page you visit for faster access later.

To use Disk Cleanup

1. Click Start, point to All Programs, point to Accessories, point to System Tools, and then click Disk Cleanup. If several drives are available, you might be prompted to specify which drive you want to clean.

Disk Cleanup calculates the amount of space you will be able to free.

2. In the Disk Cleanup for dialog box, scroll through the content of the Files to delete list.

Choose the files that you want to delete.

3. Clear the check boxes for files that you don't want to delete, and then click OK.

4. When prompted to confirm that you want to delete the specified files, click Yes.

After a few minutes, the process completes and the Disk Cleanup dialog box closes, leaving your computer cleaner and performing better.

## Speed Up Access to Data

Disk fragmentation slows the overall performance of your system. When files are fragmented, the computer must search the hard disk when the file is opened to piece it back together. The response time can be significantly longer.

Disk Defragmenter is a Windows utility that consolidates fragmented files and folders on your computer's hard disk so that each occupies a single space on the disk. With your files stored neatly end-to-end, without fragmentation, reading and writing to the disk speeds up.

When to Run Disk Defragmenter

In addition to running Disk Defragmenter at regular intervals, optimally monthly, certain events warrant running the utility outside

of the monthly rule of thumb.

You should run Disk Defragmenter under the following circumstances:

- You add a large number of files.
- Your free disk space nears 15 percent.
- You install new programs or a new version of Windows.

To use Disk Defragmenter:

1. Click Start, point to All Programs, point to Accessories, point to System Tools, and then click Disk Defragmenter.

Click Analyze to start the Disk Defragmenter.

2. In the Disk Defragmenter dialog box, click the drives that you want to defragment, and then click the Analyze button.

After the disk is analyzed, a dialog box appears, letting you know whether you should defragment the analyzed drives.

**Tip:** You should analyze a volume before defragmenting it to get an estimate of how long the defragmentation process will take.

3. To defragment the selected drive or drives, click the Defragment button.

After the defragmentation is complete, Disk Defragmenter displays the results.

4. To display detailed information about the defragmented disk or partition, click View Report.

5. To close the View Report dialog box, click Close.

6. To close the Disk Defragmenter utility, click the Close button on the title bar of the window.

**Detect and Repair Disk Errors**

In addition to running Disk Cleanup and Disk Defragmenter to optimize the performance of your computer, you can check the integrity of the files stored on your hard disk by running the Error Checking utility.

As you use your hard drive, it can develop bad sectors. Bad sectors slow down hard disk performance and sometimes make data writing (such as file saving) difficult, or even impossible. The Error Checking utility scans the hard drive for bad sectors, and scans for file system errors to see whether certain files or folders are misplaced.

If you use your computer daily, you should try to run this utility weekly to help prevent data loss.

To run the Error Checking utility:

**Important:** Be sure to close all files before running the Error-Checking utility.

1. Click Start, and then click My Computer.
2. In the My Computer window, right-click the hard disk you want to search for bad sectors, and then click Properties.
3. In the Properties dialog box, click the Tools tab.
4. Click the Check Now button.
5. In the Check Disk dialog box, select the Scan for and attempt recovery of bad sectors check box, and then click Start.

In most circumstances, select Scan for and attempt recovery of bad sectors.

6. If bad sectors are found, choose to fix them.

**Tip:** Only select the Automatically fix file system errors check box if you think that your disk contains bad sectors.

**Protect Your Computer Against Spyware**

Spyware collects personal information without letting you know and without asking for permission. The information that spyware collects ranges from a list of Web sites that you visit to usernames and

passwords. In addition to privacy concerns, spyware can hamper your computer's performance.

**Cleaning out the folder c:\windows\prefetch**

**A little known tweak that can help you gain some performance on your XP Professional**

**related systems is to periodically empty the prefetch folder**

**As you can see, just like the TEMP directory on your system, the Prefetch folder can fill up with lots of unused entries and take up needed space.**

**The folder space isn't really what you are solely worried about, it's all this 'preloaded in memory' stuff that you are trying to avoid.**

**Memory is priceless... it's what makes your system 'seem' fast. In reality,**

**you load everything from your hard disk... the more memory your system has,**

**the more the operating system will attempt to load and keep loaded in memory.**

**You always... always want to keep this area as free and clear as possible**

**because when it fills up – it immediately impacts the system. Paging from disk**

**to memory and back again taxes system resources and slows down your system.**

**As well, running out of hard disk space simultaneously puts**

**a strain on your system's page file, which needs all available free hard disk space to**

**accommodate 'virtual memory'. In sum, you can improve system performance by**

**deleting files from this folder not only to keep it out of memory but to also keep it off**

**your hard disk. This is not space that will be gained back unless you are using**

**fewer programs now than you were at another time. An example may be if you**

**previously used many Graphic Art tools and now you aren't.**

**Since these tools and their environments are so large, removing the prefetch files**

**for these tools may claim a lot in system resources back for you.**

**When cleaning out your folder, you have two choices: Selective or All**

**You can be selective or you can mass delete everything. Ctrl + A and then Del. Gone.**

**No problems doing it that way, again – you can regenerate what you need upon reboot and reload.**

**You can also be very selective, although the first method is the easiest, quickest and most effective way of doing it.**

**Remember - to delete all the files, simply select them all in**

**Explorer and select the delete key on your keyboard.**

**Reboot, re-launch your programs and you are back in business.**

**Programs no longer used often will remain dormant until used again.**

**You shouldn't delete these files often because then your system is constantly taxed in creating file**

and then you deleting them. This of course will put a strain on your hard disk and leave you needing another defrag. Use this tweak sparingly, remembering it when you do spring cleaning.

You can tie this into a routine when you 'delete' unused programs, go and clear out the prefetch folder...

cleaning out any other temp related folders and then a scandisk and defrag.

If you spend a few bucks and get a memory upgrade, your system will 'appear' much quicker.

As well, you will reclaim some serious hard disk space – and clear out memory as well.

Heck, you may not even need that new stick of memory after you clean out your system.

So, is there anyway to modify prefetch? Yes there is.

### Changing Prefetch settings

To change settings for your Prefetch folder, you may need to take a trip into the system's Registry. You can do this with Regedit.

Start => Run => type Regedit => Enter

Now that you are in the Registry, you can change the way that Prefetch behaves by making a change in the registry. This is helpful when you want to alter Prefetch or disable Prefetch completely. Low resource (memory, hard disk space, etc) systems may need this functionality disabled to get the system to run more efficiently.

When the Registry Editor Dialog box opens, navigate to this value:

**HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Control\Session Manager\Memory Management\Prefetch Parameters**

In the right side pane, look for the key named EnablePrefetcher. The value of this key represents how Prefetch will operate.

Values you can choose from include:

**0: Disable**

**1: Application Launch Prefetch**

**2: Boot Prefetch**

**3: Prefetch everything**

Simply type the number in that you want (keep all other settings the same) and click OK.

Rebooting the system will give you the new Prefetch setting.