

topics to stress the *actions* you need to take to achieve a faster running computer.

Some computers are slow from the time you buy them, because they have too little RAM, a very slow processor, a slow graphic card, and a very slow hard drive. However, overtime any computer will run slower if no one has taken steps to regularly maintain them.

GET RID OF AN ACCUMULATION OF MALWARE. Use anti-spyware programs to remove malware (adware, spyware), and a good anti-virus program to stop new viruses, and to remove viruses that may have gotten on your computer. Use only one antivirus program, but you may use more than one malware remover program. However, if you use more than one anti-spyware program, only one should load at startup.

Examples of good free programs are Ad-Aware™, Spyware Search and Destroy™, Spywareblaster™, and Microsoft Windows Defender™. If your security suite has that option, check to see if your Internet Security Suite contains a spyware monitoring and removal module. Be sure that you have enabled that feature in your security suite software



Click on this link for additional information about spyware. <http://en.wikipedia.org/wiki/Spyware>.

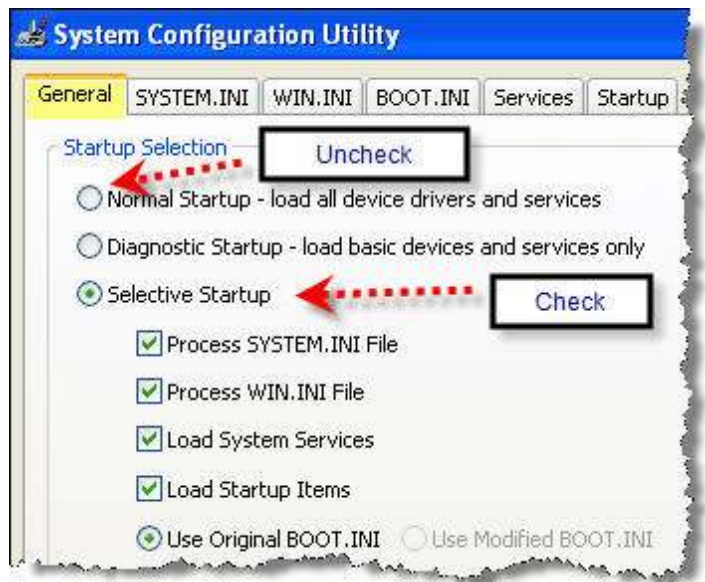
In a particular case that I know of, the user had more than 3,000 instances of spyware on his computer. It took a special effort to get his computer to start so that the spyware could be removed.

16. Stop unnecessary programs from loading at startup. In XP, Click on Start, Run, and type in the word Msconfig. Click on the Enter key. Select the Startup Tab. In Vista, click on the Start icon, type Msconfig in the search window above the start icon, and press usually the only program that needs to open at startup is your anti-virus program, and perhaps a keyboard program if you use a keyboard with optional internet buttons on it. Almost everything else is optional.

On my computer, I allow Trend Micro PC-Cillin Security, Ad Muncher (a commercial spam blocker), Vista Sidebar, Skype (PC-to PC video and audio service), Answers.com, and APC PowerShute (uninterruptible battery backup) to open. That is all.

REMOVE UNNECESSARY PROGRAMS FROM STARTUP

Open Msconfig. If it is checked, uncheck the box for Normal Startup. Check the box for Selective Startup. If Normal Startup is selected, a long list of unwanted and unnecessary programs will open at startup.



Next, click on the Startup tab and review the list of programs that are set to open every time you start your computer. Remember, if you uncheck something, it is easy to reopen Msconfig and to restore the checkmark.

If you prefer, download the free copy of Startup Inspector from <http://www.windowstartup.com/>. It provides visual codes that tell you which programs are definitely not needed by your operating system, which are required by the OS, which are optional, and which programs are unknown to the Startup Inspector folks. The program helps you make the changes you want without opening Msconfig.

Startup Inspector



A Windows® platform software that helps novice and expert users manage Windows® startup applications.

[More Info >>](#)

MAKE CHANGES SLOWLY, NOT ALL AT ONCE

A word of advice. Make changes a few at a time and then restart your computer. That way, you can see the progress you have made. If something doesn't work the way you want it to, it is easy reverse what you did since you last restarted your computer.

CHECK FOR RAM MEMORY HOGS

Press Ctrl-Alt Delete, or Right-click on the taskbar at the bottom of your screen and select Task Manager. Click on the Processes tab. Look to see if any program is taking up 80% to 100% of our memory resources for more than a few minutes.

Sometimes an installation program will temporarily hog resources during the installation steps, but then it quickly relinquishes the memory when the installation is finished (such as when your anti-virus software is being updated and installed.) You want to look for programs that continue to hog memory ten minutes after your computer starts in the morning. Identify which program is hogging memory and do an Internet Search looking for information about that particular problem and how to fix it. Is it a program that you recognize?

If the program is one you know about and need, go to the vendor's web site and look for an update. Download the update and see if that fixes the problem. If the program is not one you need or want, uninstall it. Click on Start, Control Panel, Add/ Remove software. Remove the offending program.

The screen shot below shows the process tab and data sorted by Memory Usage. No problems are noted in this example. The Right end of the double-headed arrow points to the CPU Usage column. In the example, "26" is shown

Image Name	User Name	CPU	Mem Usage
mscorsvw.exe	SYSTEM	26	9,416 K
ashServ.exe	SYSTEM	26	14,704 K
System Idle Process	SYSTEM	26	16 K
SnagIt32.exe	Alan Burt	06	3,180 K
csrss.exe	SYSTEM	06	3,796 K
mscorsvw.exe	SYSTEM	04	4,172 K
System	SYSTEM	04	212 K
explorer.exe	Alan Burt	02	16,864 K
wmiprvse.exe	SYSTEM	00	4,648 K
wmiadap.exe	SYSTEM	00	6,400 K
wuauclt.exe	SYSTEM	00	14,784 K
alg.exe	LOCAL SERVICE	00	3,500 K
SnagPriv.exe	Alan Burt	00	2,300 K
taskmgr.exe	Alan Burt	00	4,680 K
spoolsv.exe	SYSTEM	00	4,644 K
rundll32.exe	Alan Burt	00	2,924 K
ashDisp.exe	Alan Burt	00	2,104 K
TschHelp.exe	Alan Burt	00	2,980 K
ashWebSv.exe	SYSTEM	00	18,300 K

Processes: 35 CPU Usage: 79% Commit Charge: 242M / 1246M

temporarily, but nothing higher. Look for resource hogs under the CPU column. Click on the CPU column heading to sort the column so that the highest numbers show first.

Be sure that the box is checked at the bottom of the Windows Task Manager dialog box. That way all of the information will show up.



Reminder: In between steps, restart your computer. Time how long it takes your computer to start, and make sure everything is working correctly.

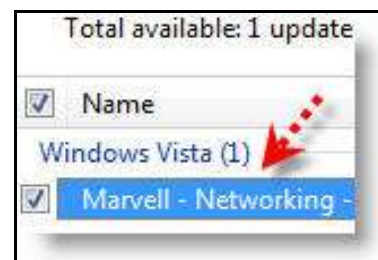
MANUALLY, RUN WINDOWS UPDATE

Open Windows Update and review the available updates. If you have your computer set to automatically download and install updates, that process only installs the critical updates. Make sure you are up to date. Click on the History link to review what updates have been installed. Occasionally, you may see updates that failed to install correctly. If so, then download and install those updates again.

If a particular update still won't install, write down the knowledge base number (KB number) for the update and go to the Microsoft web site for information on how to get that file to install correctly.



Click on the Optional Updates link. From time to time Microsoft offers new drivers for the hardware in your computer. Download the latest drivers. For instance, I just downloaded a new driver for my network card. See the Vista screen shot below. XP users will see similar Windows Update screens.



Windows Update provides critical security updates to fix problems that Microsoft has discovered, and patches and fixes to improve how the operating system works. If you are using Windows XP, you should be using at least Service Pack 2 (SP2). SP3 was due out in the second half of 2008. Before installing the service pack, search the internet for reviews of SP3. Sometimes it pays to wait a month or two after a service pack comes out so that problems, if there are any, are resolved by the time you download the service pack.

SP3 will be the final service pack for XP.

FREQUENTLY DEFRAGMENT YOUR HARD DRIVES

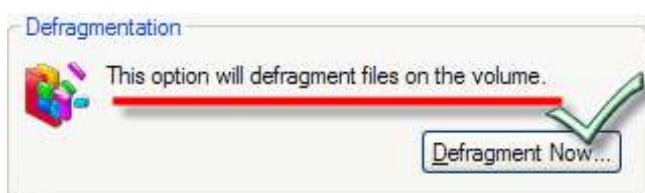
Hard drives rapidly become fragmented as data is written to the drives, moved, erased, and stored in temporary files. If you are a heavy user of a computer, it pays to defragment your hard drives at least once a week, and better yet, once a day. If you defrag daily, it takes only minutes to complete the job. If you wait weeks, it can take many hours to complete the defragmentation process.

Fragmentation occurs when data is distributed across your disk in small bits like filling the pot holes in a road. It takes your hard drive heads much longer to read and write data that is not contiguous.

The best defrag product I've discovered, and which I use to take care of this maintenance chore, is Diskeeper Professional using the *Set It and Forget It* option. Diskeeper Home Edition is also a fine product. Diskeeper runs automatically in the background without your intervention.



Want to manually defragment your hard drive with the software that comes with your operating system? Click on My Computer (In Vista, Computer), select the drive you want to defrag. Right-click on that drive, select Properties, Tools, and click the *Defragment Now* button under Defragmentation in the Tools menu. See the screen shot below. The defrag software that comes with your operating system is a stripped down version of the commercial software. It does offer the Set It and Forget It option.



If you defrag daily, it takes only minutes to complete the job. If you wait weeks, it may take many hours to complete the defragmentation process. Therefore, defrag often.

USE DISK CLEANUP, OR A THIRD PARTY CLEANUP PRODUCT

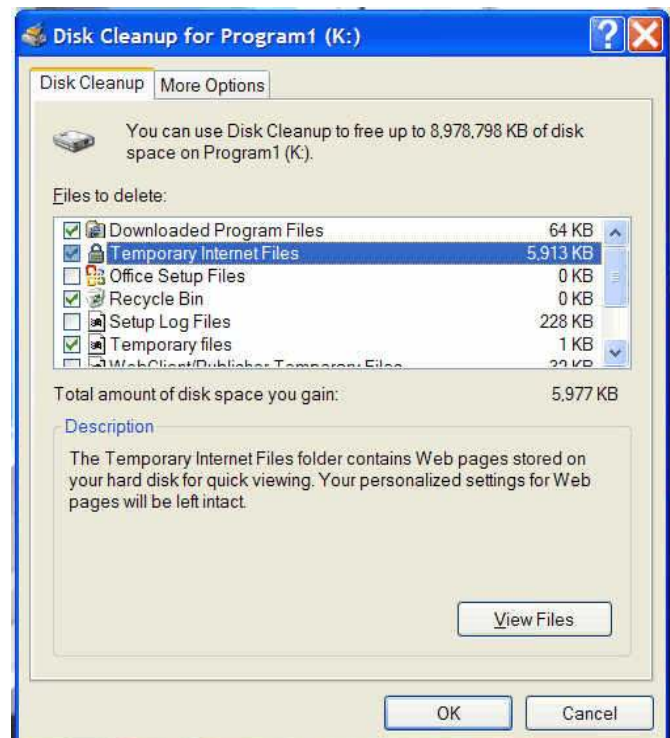


Cyberjunk accumulates on your hard drive. Cyberjunk is composed of temporary files, files in the Recycle Bin, temporary internet files, installation files that were not automatically removed when installations were completed, and similar files. See the screen shot that follows for the Disk Cleanup utility included with XP, and Vista.

Right-click on a drive in My Computer, select Properties, Disk Cleanup. Scroll through the list of files that you can delete. Review the list to see what files will be deleted when you click on OK. I recommend that you remove the checkmark from "Compress Old Files" unless you need to free up space on your hard drives. With modern huge hard drives, that options is seldom needed.

Periodically run Disk Cleanup, or a free product such as *CCleaner*™ to remove cyberjunk. CCleaner does a more

thorough job.



thorough job than Disk Cleanup and has better customize options. <http://www.ccleaner.com/download>

YOUR HARD DRIVE IS RUNNING OUT OF SPACE

If you have a computer with a very small hard drive, you may get error messages informing you that your drive is running out of space.

These are the common ways to free up disk space:

- Use Add/Remove programs from the Control Panel to delete programs that you never use, or which you haven't used in years. These are programs that you downloaded to try, but you seldom used them. There may be optional programs that your computer manufacturer installed that you don't use (alternative ISP sign-up programs, et cetera). You may have installed duplicate programs, such as more than one word processing suite. Use the Add/Remove module in the Control Panel to remove those programs that you don't need.

- **Warning! Do not attempt to delete the programs directly from their folders. Directly deleting the files results in broken links and orphaned entries in the Windows Registry. It is messy to cleanup.**

- Compress your drive to save space. You can do that as an option from the Disk Clean menu as discussed in the previous article.

- Buy a larger hard drive. Not only will it hold much more data, but usually it will read and write much faster than your old drive. (Buy a 7,200 RPM drive.) Transfer your old data to the new drive. If you wish, you can use the new drive as your primary (master) drive and your old drive as a secondary (slave) drive, if the ribbon cable in your computer has two IDE connectors. The faster drive will help your computer to boot (start) faster.

- **Warning. Be sure your BIOS supports the size of hard drive that you want to buy. If you are not sure, contact someone in the club to help you decide this fact.**

- **The next items are important, but they may not have the same impact as the first five problems.**

- Optimize your performance settings

- In XP, Right-click on My Computer. Open the Performance tab and click on Advanced, Performance, Settings. Click on the **Visual Effects tab** and select Custom. Select as few of the visual effect options as possible. When I use XP, I select only smooth edges of

screen fonts, drop shadows, and I use visual styles. That conserves memory.

Click on the Advance tab, then on Virtual memory, Change. Set your virtual memory for either System Managed Size, OR select Custom and enter the higher recommended size in the Initial and Maximum size box. Click on Set, then the OK button.

- Click on Startup and Recovery, Settings. Under System Failure, uncheck the box for Automatic restart. Under System Startup, reduce the time shown for Time to display the list of operating systems to 15 seconds, and Time to display recovery options when needed to 15 seconds. Click OK. The default times are much too generous unless you are a very slow reader.

- Disable error reporting, but put a checkmark in the box for Notify me when critical errors occur. Now, your computer will not send reports to Microsoft, thus freeing up additional memory.

- Under System Properties, turn off Remote Assistance invitations unless you use that service. Click on System Restore, be sure System Restore is turned on and select the drive that contains your windows files. Click on Settings and move the slider over to about 3%. The default setting reserves too much space on your hard drive for system restore files.

- Click OK.

- Under System Properties, click on the Automatic Update tab. If you have a fast internet connection, select either Automatic downloads or to Download updates for me, but let me choose when to install them. See the screen shot below. Pick the date and time that work for you.

ARE YOU A FONT COLLECTOR?

Limit your fonts to those you regularly use. Keep the total number of fonts installed on your computer to less than 300 fonts. The reason is that Windows loads at startup information for each of the fonts you have selected. That can cause your computer to load slower than if you keep your fonts to a reasonable number.



Fontviewer 3, from the PC Magazine Utility Library is an excellent font management program. It shows you how the selected fonts look with the same string of text. The program enables you to easily move fonts you don't want into an alternate font direc-

tory. Rather than delete them, they are there so if you need them again you can easily move selected fonts back into the Windows Font directory. Files in the PC Magazine utility library are available either by subscription or for a nominal one-time charge. www.pcmag.com. Fontviewer works with Windows 98 to Windows Vista.

TURN OFF INDEXING UNLESS YOU NEED IT

In XP, indexing can make your computer seem to be swimming through molasses. Turn off Indexing in that case. The problem in XP is that indexing may run at times when you need all of your computer's memory resources, such as for a memory intensive task. Vista handles indexing better. It stops indexing when the computer is busy.

To turn off indexing, open My Computer. Right-click on a drive, then on Properties. **Uncheck the box at the bottom of the screen** under the General tab. It says "Allow indexing Services to index this disk for fast file searching." Click OK.

SEARCH FOR DRIVER UPDATES

Open Windows Update, click on Optional to search for new hardware driver updates for your computer. Windows Update does a very good job of finding drivers for you. This works well for XP or Vista.

Alternatively, Right-click on My Computer, select Properties from the menu, Hardware, Device Manager. Then, click on the "+" sign in front of each of the major hardware items listed below, then Right-click a hardware item and select Update Driver. A welcome window will open and will ask you how to search for the driver. Select, Yes, this time only. Install the software automatically. It is one of the choices that comes up.

- Display Adapter
- IDE ATA/ATAPI controllers
- Modems
- Network Adapters
- Monitors
- Sound, Video, and game controllers

If want, you can check for updates for other hardware items in the Device Manager. However, the items listed with the bullets are the major ones.

Occasionally, new drivers come out for items listed under System Devices. Click the "-" in front of a device to collapse that portion of the menu.

CLEAN OUT E-MAIL MESSAGES THAT ARE EXCESS TO YOUR NEEDS



Periodically, delete old messages that you do not want to keep, or move them to folders that have meaning for you. For example, you might create a 2007Mail folder to archive messages you received in 2007, or a Keepers folder for items

you know you will want to share with others in the future. You can create additional folders as you need them.

First, from Outlook Express, be sure to select Local Folders at the top of the menu tree. Then, Right-click, select New Folder, and give the new folder a name. By clicking on Local Folders, your new folder will appear under that heading. If you want to create a subfolder under an existing folder, Right-click on the existing folder, such as Computerbugs, and select New Folder, and give it a name. Your new folder, in the case of Computerbugs, would appear under the Computerbugs folder when you expand the folder by double-clicking on it.

Your Outlook Express inbox will open faster if it doesn't have to load thousands of messages whenever it opens.

Periodically delete all of the messages in the Deleted Items folder. **Click on Deleted Items, Edit, Empty 'Deleted Items' folder.**

If you have a spam folder, delete all of the messages in your spam folder. Click on any message to highlight it, then click on Edit, Select All, and press the delete key. Alternatively, highlight one message and press Ctrl-A to highlight all of the messages. Then press the delete key.

Summary

If possible, do at least the first six steps to cleanup your computer. Your computer should start faster and will seem much more responsive because of your efforts. If you have the time, do the other steps at your leisure. They will also benefit your computer.

