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Technology: Time for a Tune Up

How Following a Few Simple Steps Can Make Your Computer Run More Efficiently

by Daniel J. Siegel

Do you remember when cars needed an annual tune up? Every year, you would drop the car off at the mechanic, who would replace the spark plugs, adjust the timing (whatever that is), and do all sorts of things to help the vehicle run more smoothly. With advances in automotive technology, tune ups are virtually a thing of the past. Obviously then, your high-tech personal computer doesn't need an annual tune up, right? Wrong. At a minimum, it needs weekly and monthly tune ups.

While cars may be able to take care of themselves, your fancy computer still needs help. In this article, I will highlight some routine maintenance you should perform to keep your computer running efficiently. While nothing can guarantee your hard drive won't crash or you won't download a virus, these tips will help to reduce the likelihood of losing valuable data—and a lot of sleep.

Weekly Maintenance

Make Sure Your Operating System and Anti-Virus Software Are Up-to-Date

The most important thing you can do to ensure your computer runs smoothly is to verify that its operating system is up-to-date and that its anti-virus software is both up-to-date and operating. While many larger firms perform these operations automatically, in most offices and at home this maintenance is left to PC users, who more often than not fail to perform these critical tasks regularly.

To find out which operating system your computer is running, right-click on the "My Computer" icon on your desktop and select "Properties" from the pop-up menu. This opens the "System Properties" dialog box, displaying your system type and service pack level on the "General" tab.

Many computers are configured to automatically install what Microsoft calls "Critical Updates." These programming changes are designed to correct and prevent potential problems with your operating system. To verify that your computer is set to install "Automatic Updates," go back to the "System Properties" box and click the "Automatic Updates" tab and confirm that the "Automatic (recommended)" button is selected. If not, select it and choose a time for Windows to verify your system status. Another, albeit manual, way to do this is to go to www.microsoft.com and click on the "Microsoft Update" link under "Resources."

Next, verify that your anti-virus software is running and up-to-date. (If you don't have anti-virus software on your computer, stop reading and immediately go to a computer or office supply store, buy anti-virus software and come back and install it; then, you can continue reading.) Next, open your anti-virus software (the way to do this depends upon the program

you use) and confirm that your anti-virus software:

- (1) is enabled;
- (2) runs automatically when your computer starts;
- (3) automatically checks for and install new virus definitions; and
- (4) is set to automatically scan your computer (weekly, at a minimum) for viruses and to decontaminate and/or quarantine them.

Update Your SpyBot Search & Destroy and Ad-Aware and Scan for Spyware

SpyBot and Ad-Aware are two free programs that analyze your computer to be sure that you haven't acquired any spyware programs that could hijack your computer, disable certain programs, or, at worst, let loose a virus that could wreak havoc. If you don't have these programs, go to www.download.com and download and install them.

Then, every week, check first (there's a button to do this in each program) to see if the software and their spyware definitions need to be updated. Once that's done, run each of these programs. They almost always find things that have infiltrated your computer, no matter how diligent you are. But be careful, these programs can also delete cookies (tracking files) you may want, so scrutinize the results before allowing the software to delete everything they find.

Perform Back-Ups of Critical Data

I am constantly amazed at how many law offices do not regularly back up their computer data. What I have discovered, however, are two types of computer users, one who backs up data regularly, and the other who will do so after the first crash or the first time a file is irretrievably lost. Best practices requires daily back-ups—either of your entire system or, at a minimum, your documents, financial records and other critical data. But the reality remains that many law offices and other businesses simply fail to perform daily back-ups.

In that event, it is crucial to perform weekly back-ups of your critical data, and to store the back-ups offsite. After all, what good does it do to save your back-ups on your computer or server if there's a fire or other catastrophe?

There are many ways to accomplish the back-ups. The best is to use external hard drives, tape back-ups or an online service and program your computer to perform these back-ups weekly. Then, remember to store the drive or tapes offsite. It only takes one crash, or even the accidental deletion or corruption of an important file for you to learn how valuable routine back-ups are.

Clean

Clean your monitor and your keyboard, and rid them of the dust and other visitors that accumulate. First, check the manual to determine what cleaning materials and solution are recommended. Depending upon the monitor, you may be able to use window cleaner, although I find that eyeglass cleaner (the liquid and the cloth) works best. Laptop monitors are more tricky, but they also need to be cleaned.

As for your keyboard, first turn it upside down, preferably over a trash can. You'll be amazed at how much junk falls out. Then, spray the keyboard using one of those compressed canned-air dusters, and watch what emerges—all of that stuff could eventually stop your keyboard or a couple of keys from working. Finally, use keyboard wipes to clean the keyboard and the keys.

Monthly Maintenance

Get Rid of Temporary Files

It's quite astounding—your computer creates lots of temporary (or "temp" or "tmp") files, but never gets rid of most of them. For example, when you visit a Web site, your computer stores the site temporarily in its memory, allowing it to reappear quickly when you return to the site. Over time, your hard drive saves thousands of these "temporary" files. Remove these files at least once a month.

To remove "temporary" Internet files from Internet Explorer 6.x, go to the "Tools" menu and select "Internet Options." There is a "Temporary Internet Files" section in the center of the "General" tab. Click the "Delete Files" button, then "OK," and wait while all of these files are erased. You can also select the "Delete Cookies" button, and then "OK," but doing so deletes all cookies, so be careful or you may have to reenter lots of information at Web sites you visit frequently.

Empty The Recycle Bin

Just like temporary files aren't really temporary, deleted files aren't really deleted. Instead, when you delete files from your computer, they are moved to the "Recycle Bin," continue to occupy valuable space on your hard drive, and aren't actually deleted until you empty the Recycle Bin. On the other hand, files stored on file servers are deleted when you hit the delete button and are only recoverable if you have a back-up.

If you have software that helps rid your computer of unwanted files, use it. If not, you can do it yourself. To empty deleted files from your PC, right-click on the "Recycle Bin," which is located on your desktop. Then select "Empty Recycle Bin." After being asked to "Confirm Multiple File Delete," click "OK" and the files are now gone.

Another way to accomplish this is with Windows' built-in "Disk Cleanup" utility. To do so, click the "Start" button, then select "Programs," then "Accessories," then "System Tools," and, finally, "Disk Cleanup." When the Disk Cleanup utility window opens, select a drive, generally the "C:" drive by default, or click the drop-down list and select a different drive. Windows will scan the drive and display a Disk Cleanup tab. Then, click the checkbox next to each type of file you want to remove. The utility will display how much hard drive space you can free, with the total appearing in the list of files to delete. Click OK and the utility will delete all of the selected file types and close when it is done.

Clean Up Your Hard Drive

You may have heard the phrase, "defragmenting your hard drive," which really means "straightening out" all of your files. When Windows saves a file, it places it on your hard drive, often in a random fashion. Over time, data become separated and spread out, which is called "fragmenting" because fragments of data are distributed across the drive. As your disk becomes more fragmented, it can take longer for Windows to find data because it has to search in several places, affecting your computer's overall performance. You can prevent problems related to fragmenting by running the Disk Defragmenter utility.

You may own software that defrags your computer. If not, you can use Windows' built-in defragmenter. As when using the Disk Cleanup Utility, click "Start," then "Programs," then "Accessories," then "System Tools," and, finally, "Disk Defragmenter." When the Disk Defragmenter window opens, select a drive, generally the "C:" drive by default, or click the drop-down list and select a different drive. The utility then runs ScanDisk (see below), checks your drive for errors, after which it begins defragmenting the disk. When the process is complete, the data on your disk will be stored in a logical fashion.

Use ScanDisk

In addition to having fragmented files, hard drives can also develop other more technical problems, including file system errors, lost clusters, and cross-linked files. Or, if your hard drive develops a dead spot (a spot where it has become damaged), your whole system can crash. To address these problems, Windows includes a ScanDisk utility to find and fix these problems automatically.

To use ScanDisk, click "Start," then "Programs," then "Accessories," then "System Tools" and, finally, "ScanDisk." When ScanDisk opens, it displays a list of available drives. Select the drive you want to check, or select multiple drives by pressing the CTRL key while clicking each additional drive to scan. Next, pick the type of test you want to run, either "Standard" (which only checks for file and folder errors), or "Thorough" (which checks for file errors, folder errors and surface errors). Click "Automatically Fix Errors" to have ScanDisk fix the errors; if you prefer to determine which errors to fix, leave this box unchecked and Windows will prompt you every time it finds an error. The "Thorough" scan takes a lot longer, but also repairs any physical imperfections on your drives. You should run the Standard scan once a month, or more frequently, and the Thorough scan at least every few months.

In conclusion, we've all heard the Jiffy Lube commercials extolling how, if you change your oil every 3,000 miles, your car will run better and last longer. Although you can't change the oil on your computer, you can give it periodic tune-ups. As a result, you will get better performance from your PC and reduce the possibility of encountering problems and losing valuable data.