

## Seven Tips for Optimizing PC Performance

Using a desktop computer used to be relatively simple once you learned how to use the software programs needed to do your job. Today, with increased virus activity and the advent of adware/spyware, not to mention e-mail system-clogging spam, you must take more responsibility for keeping your PC running optimally. These tips will help you significantly protect your PC's performance.

### 1. Use malware tools regularly

Viruses and spyware represent the single biggest threat to optimal PC performance. Running anti-virus software, like either AVG ([www.grisoft.com](http://www.grisoft.com)) or Norton ([www.symantec.com](http://www.symantec.com)), on your desktop is requisite and it should be configured to scan and update itself automatically.

Anti-spyware software like Spybot Search & Destroy ([www.safer-networking.org/en/download/](http://www.safer-networking.org/en/download/)) and Ad-Aware ([www.lavasoftusa.com](http://www.lavasoftusa.com)) should also be run at least weekly, if not daily. It is best to run both Spybot and Ad-Aware since different programs look for different types of spyware.

### 2. Automatic updates

Microsoft regularly releases security patches and bug fixes for its products. You can get these free updates automatically by using the Automatic Updates feature. To activate Automatic Updates, go to Start > Control Panel, select "Automatic Updates." If you have Windows XP SP2 (Service Pack 2), choose "Automatic" and choose a time outside business hours. If you do not have Service Pack 2, select "Download The Updates Automatically And Notify Me When They Are Ready To Be Installed." If you prefer, you can also go to [www.windowsupdate.com](http://www.windowsupdate.com) and manually search for and update the patches yourself.

### 3. Use your system tools

Windows has a set of system tools that can be found at Start > All Programs > Accessories > System Tools. These should be used regularly to keep your PC optimized. *Disk Cleanup* is a tool that searches your hard drive for files that are taking up space and can be safely deleted to free up disk space, especially Recycle Bin files and Temporary Internet Files. Periodically deleting these files improves storage efficiency and, along with it, system performance. We recommend not deleting the Office Setup Files if you have them because you will need the installation disk to add any additional functionality you might need in the future.

Also found in system tools, *Disk Defragmenter* should be run regularly to optimize performance. It increases the storage efficiency on the hard drive, making it easier for your computer to retrieve data.

You should also occasionally run the *Error-checking* utility (formerly known as Scandisk) to check your physical hard drive for problems. In Windows XP, Start > My Computer > and right-click on the C: drive. Select Properties > Tools and then press the Check Now button. Make sure the "Automatically Fix Errors" and the "Scan for and attempt recovery of bad sectors" boxes are checked. Note: this scan may take hours, so this is best done at night before you leave the office.

### 4. Eliminate unnecessary startups

Many software developers write their programs to run automatically when you turn on your computer. Minimizing the number of programs that start automatically will decrease the time required for your

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computer to boot up. In Windows XP go to Start > My Computer > C: > Documents and Settings > All Users > Start Menu > Programs > Startup. Right-click and delete any program that does not need to start automatically. You can repeat this procedure substituting "Administrator" and other individual users for "All Users."

#### **5. Uninstall unwanted software**

Every program you install adds additional code to your system, increasing the time required for boot-up and using limited system resources. For optimum performance, uninstall the programs you do not use anymore. From Start > Control Panel, select "Add Or Remove Programs" and remove anything that is not absolutely necessary. You will want to reboot after each uninstall for the best results.

#### **6. Reboot it**

Memory in Windows computers gets clogged up during use. Rebooting the computer clears out the system memory and reduces memory-related system slowdowns.

#### **7. Multitasking**

Are you really getting more done with six programs open on your desktop? This practice consumes limited resources, slowing performance. If you limit the number of applications open at one time, especially when working with large graphics, video or audio files, your computer will run much faster.

When combined, the tips above are your best strategy for keeping your computer running smoothly. Unfortunately, they are not a guarantee. It is important to remember that malware programs are only as good as the frequency of their updates. New viruses and spyware are released daily, and even if your malware protection is set up to update automatically, it is still possible for these bugs to sneak by.

If you have followed the tips above and are still not satisfied with the results, you have two choices: 1) call a computer consultant experienced with desktops, or 2) you can always start over by reformatting the hard drive and reinstalling Windows and your other software. Reformatting deletes all the files on the hard drive, so make sure you back up your files and find the installation discs for your most important software, especially the operating system, before beginning. Your users manual or computer manufacturer can provide you with detailed instructions. If this scenario is unappealing, a trained computer consultant with editing the registry and manually removing malware may be able to save you time and frustration.