

Ten Ways to Make Windows 98 Run Better

1. Lighten the Load

You probably have more applications running than you think: Press Ctrl+Alt+Del to bring up the Close Program box. Even with all the obvious top-level apps shut down, chances are you'll still see a bunch of invisible background applications running. (For a more complete list of hidden programs, run Winmag.com's [WinTune](#) utility.)

Each running app eats a little of your CPU time, with a net result of slowing things down. Some apps are worse than others. Microsoft Office's Find Fast is a notorious CPU hog, as are many anti-virus and "disk doctor" apps that run constantly in the background. For programs like these, use the Custom option in each program's Setup applet to control what runs in the background. Use Win98's System Configuration Utility to control which system-level tasks load at startup.

To launch System Configuration Utility, press the Start button and choose Run. Type "msconfig" without the quotation marks and press Enter. Click the STARTUP tab and uncheck programs that you do not need to have start every time you power up. The ones you should leave checked are your anti-virus program, anti-spyware program, regedit and systray. The others can be unchecked. You can use desktop shortcuts or the Start..Program list to start programs you need during the day.

2. Pick Up the Pieces

Defragging is always a good idea, but it's triply beneficial in Win98. You'll find the Disk Defragmenter icon in this Start submenu: Start > Programs > Accessories > System tools. (The program file is DEFRAG.EXE and it's found in the \Windows folder.) Defrag performs three tasks to enhance performance: It places the pieces of all your files into fast-loading contiguous areas of your hard disk, moves your most frequently used files to the front of the disk where they'll load fastest, and groups your applications' separate pieces into the most efficient load-order. Defrag often. For more information on how Win98 shortens application launch times, see [Get the Most out of Win98: How It Performs](#)

3. Be a Software Chiropractor

Win98's WAlign utility can restructure the way programs are stored on your hard drive for the fastest-possible access once they're loaded into RAM and your CPU's cache. You could see load times improve by 20 percent or more. But on its own, WAlign (which you'll find at \Windows\System\WALIGN.EXE) only works on Microsoft Office programs. To align other apps, you either need to spend \$70 for the full Win98 Resource Kit (which has a more powerful version called WinAlign) or you can grab a free copy of Winmag.com's exclusive WMAAlign utility at [The Expert's Guide to Windows 98 WinAlign](#), where you'll find everything you need to know about understanding and using WinAlign.

4. Take Out the Trash

Win98 is a packrat. As you work, it collects a prodigious number of temporary files, and it does so for a good reason: The \Windows\Temp, \Windows\Temporary Internet Files, and Recycle Bin files all exist to give you fast access to items you might need again. But there's a point of diminishing returns. And you can end up with hundreds of megabytes of these files, wasting

space and decreasing performance as the operating system tries to wade through the rubbish. To keep the trash to a manageable minimum, you should periodically run Disk Cleanup. You'll find this utility on this Start Menu submenu: Start > Programs > Accessories > System Tools. Some Win98 computers require that defrag be run in Safe Mode, otherwise it restarts due to running programs in the background.

5. How's Your Memory?(Not for the NEW USER)

Win98 wants to manage your swap file (virtual memory) on its own. Windows is good at doing that for routine use: The swap file can grow or shrink as needed, and it doesn't have to be all in one place. But Win98 will work faster if the file is all in one place, and if the operating system doesn't have to constantly take time to enlarge or reduce the swap file area as you work.

To take control of your swap file, right-click My Computer and choose Properties. Click the Performance tab and the Virtual Memory button. Choose "Let me specify my own virtual memory settings." If you have more than one hard drive, place the swap file on the fastest drive you have. Now choose a minimum size for the swap file; a good starting point is to specify at least 2.5 times your system's RAM. Setting a large minimum size means the swap file will usually be large enough for your needs. Reboot when asked, and run Defrag to ensure the swap file's all in one piece. After you're done, you should experience noticeably less disk-thrashing.

For more information on this subject, see Winmag.com's [Real-World Answers about Virtual Memory](#).

6. Try a High-FAT Diet

Many systems that came with Win98 or were upgraded from Win95 still run the old-style 16-bit File Allocation Table, or FAT16. Win98 also supports FAT32, which is better for several reasons. It makes far more efficient use of large hard drives, so it can span larger partition sizes. It also stores files more efficiently, which can mean an effective 10 to 30 percent increase in free disk space. FAT32 can also ecover from some kinds of damage to the root directory or to other critical data structures on your disk. And it allows Defrag to relocate portions of your applications and their supporting files in the actual order they're called, for the fastest possible loading. If you're still running FAT16, select Start > Programs > Accessories > System Tools > Drive Converter (FAT32) and follow the on-screen directions. If you're not sure which FAT you're using, launch the Drive Converter and click the Next button. For more detail on this topic, see [Look Before You Leap into FAT32](#).

7. Are You Being Served?

Windows retains some internal performance settings carried over from the days when RAM was expensive. Today they're obsolete and even counterproductive. For example, right-click My Computer and choose Properties > Performance > File System. There you'll find that the Typical role is usually "Desktop Computer." If your PC has more than 64MB of RAM it'll operate slightly faster if you select "Network Server," even if it isn't really a server. (The Network Server setting uses a little more RAM for various disk buffers and caches to speed disk operations.) For most systems with abundant RAM, it makes sense to choose this server setting.

8. Redo DUN (Not for new User)

By default, Windows' networking protocols are optimized for LAN-based communication. If you connect to the Web via a LAN, you're probably fine. But you're not fine if you use Dial-Up Networking. LANs and the Internet use different packet sizes, so the resulting packet fragmentation slows you down. Other default settings may slow you down as well, but all can be fixed by changing several Registry settings. The freeware application EasyMTU (available at most download sites) can do it all for you in seconds, and get your dial-up sessions operating at top speed. If you prefer the hands-on approach of editing the Registry yourself (as we do), see Winmag.com's [Broadband Report](#). Anyone with a broadband connection should also make these [RWIN settings](#) changes.

9. Tweak You Must (Not for the new User)

Tweak UI lets you improve your PC's responsiveness by setting faster menu speeds, adjusting your mouse's double-click sensitivity, turning off time- and CPU-cycle-wasting animations, and much more. On most Win98 CDs, you'll find Tweak UI in the \Tools\Reskit\Powertoy directory. Right-click the TWEAKUI.INF file and select Install. After it installs, open Control Panel, click the Tweak UI icon and tweak away.

Since newer versions of the Windows 98 CD no longer contain Tweak UI, and because Microsoft has released the much better new Tweak UI 1.33 version, Winmag.com has created the [Step-by-Step: Installing Tweak UI 1.33](#) site. It helps you with downloading, installing, and using this ultra-popular Windows utility.

10. When All Else Fails ...

Sometimes, subtle problems can put the brakes on Windows. Check out Winmag.com's [Do It Yourself](#) feature. If that still doesn't help, it's time for a reinstall. But relax, you don't have to do a full reformat. You'll find a safe, easy no-reformat method at this site: [What If It Still Won't Work?](#) Reinstalling is the last resort, but it's still the ultimate fix for sluggish Windows. For a full set of instructions on installing Windows 98, see [The Essential Guide to Installing Windows 98](#).

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