



By Scott Lowe

If some of your Windows XP clients run slower than others, it could be due to some of the default settings in the Performance Options dialog box. You can change the options in this dialog box to boost the performance of a Windows XP client. Let's examine those settings.

1: Access the Performance options

The most useful Windows XP performance-tuning options are on the Visual Effects and Advanced tabs of the Performance Options dialog box. Go to Start | Control Panel | System | Performance | Settings to open this dialog box. The figure to the right shows the Visual Effects and Advanced tabs with the performance options you can easily modify.

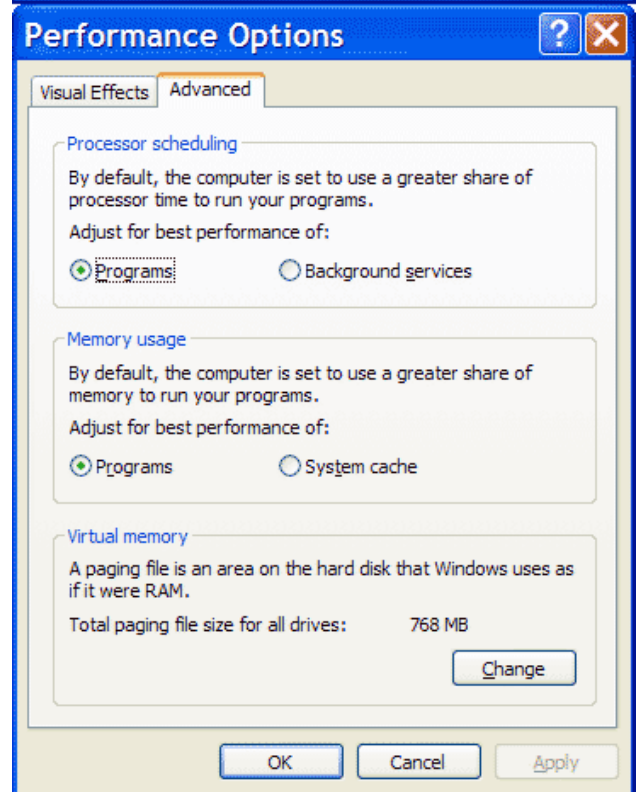
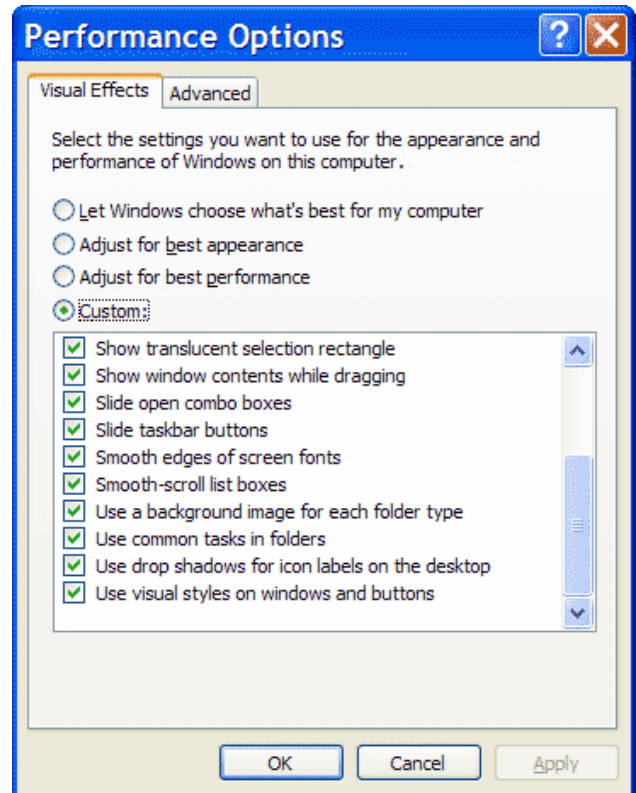
2: Change Visual Effects settings

The Visual Effects tab is the easiest place to start when troubleshooting certain performance problems. By default, Windows XP enables visual effects, such as the Scroll option for the Start menu. These effects consume system resources. If you're troubleshooting a sluggish system, try choosing the Adjust For Best Performance option, which will disable many of these visual effects settings. You'll lose the cool visual effects, but there's always a tradeoff for performance.

3: Change Processor Scheduling settings

If you're troubleshooting something more than sluggish screen redraws, you'll need to adjust the options on the Advanced tab of the Performance Options dialog box. There are three sections on this tab: Processor Scheduling, Memory Usage, and Virtual Memory. The settings in these sections have a major impact on how your system operates.

The Processor Scheduling section controls how much processor time Windows XP devotes to a program or process. The processor has a finite amount of resources to divide among the various applications. Choosing the Programs option will devote the most processor time to the program running in the foreground. Choosing Background Services allocates equal processor time to all running services, which can include print jobs and other applications running in the background. If your users complain about slow-running programs, you could try setting the processor scheduling to Programs.



On the flip side, if users complain that print jobs never print or are slow to print, or if they run a macro in one application while working in another, you may want to assign equal time slices (called *quanta*) to each process by choosing the Background Services option. If you use the Windows XP machine as a server, you're better off choosing the Background Services option.

4: Change Memory Usage settings

The Memory Usage section governs how Windows XP uses system RAM. The first option, Programs, allocates more RAM to running applications. For desktop systems with very little RAM, this selection gives the best performance. For a server or a desktop with a lot of RAM, however, choosing the System Cache setting will yield better performance. When set to System Cache, the system will use most of the available RAM as a disk cache, which can result in major performance improvements on systems that depend on disk I/O.

5: Change Virtual Memory settings

A number of settings in the Virtual Memory section affect how Windows XP performs. [Virtual memory](#) is an area on the disk that Windows uses as if it were RAM. Windows requires this type of system in the event that it runs out of physical RAM. The virtual memory space is used as a swap space where information residing in RAM is written to the virtual memory space (also called the page file or swap file) to free up RAM for other processes. When the system needs the information in the swap file, Windows puts it back into RAM and writes something else out to the disk in its place.

Windows XP has a recommended default page file size of 1.5 times the amount of system RAM. You can let Windows completely manage this file or have no file at all. I recommend that you don't remove the paging file because you'll experience a noticeable degradation of system performance without it.

One way to boost system performance is to place the paging file on a separate physical hard drive from the operating system. The only caveat is if the second drive is slower than the primary drive, you'd want to leave the paging file where it is.

You can also span the paging file across multiple disks to increase performance. To make changes to the virtual memory, click the Change tab on the Advanced tab of the Performance Options dialog box, make the changes, and click Set. The changes will take effect after you reboot the machine.

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