

Why Is My Computer So Slow?

It used to be so fast! But now...

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By far, the number one question I get regarding computers is “Why is my computer so slow?”. The majority of computer users are running their computer much more slowly than they need to. Just a little time is required to clean things up on your computer in order to make it into the speed demon it is supposed to be.

If your computer is running slowly, here are the possible reasons, in order of likelihood, and their cures:

Cause Number One: Too many programs automatically loading up when the computer is turned on.

Whenever you turn on your computer for the day, Windows loads programs into your RAM that then sit and take up space in your memory. The more programs that are running, the slower your computer will be. Fortunately, the vast majority of these programs are ones that you will never need! This is especially true if you run a brand-name computer such as a Compaq, Dell, or IBM. These companies love to load up their Windows installations with tons of useless software that take up precious Windows resources.

If you use Windows 98, Windows 2000, or Windows Millennium, there is a program called “msconfig” that will tell you exactly what programs Windows is loading at boot time. Simply click the Start button, then click Run, then type “msconfig” and click OK. You will get a window with tabs on the top. Click the tab labeled “Startup”. You will see a list (hopefully a small one) of all of the items that are automatically loaded into your Windows every time you turn your computer on. They will have checkboxes next to them, and if any are unchecked, they will not run next time you reboot your computer. If you have any names in this list you know are not necessary to your usage of the computer, simply uncheck the ones you don’t want, and click OK. Next time you reboot your computer, these extraneous programs will not run, and your computer will run faster.

What if you have Windows 95 or Windows NT? The process of editing your automatically-running programs is a little more complex, so you will probably want to get some help rather than trying this on your own.

Cause Number Two: Too many programs installed on your computer.

About seventy percent of all software loaded on computers is never used. Seventy percent! You may ask, “So what?” The problem is this: every time you install a new piece of software into your computer, you actually increase the size and scope of Windows itself. The more software you install (or the more

software the computer manufacturer installs, or the more software your employees install, or the more software your kids install, etc) the “fatter” Windows gets. Even if you never use your installed software, Windows still needs to move and manage more data, which means, of course, that Windows runs slower.

Fortunately, there is a relatively easy remedy for this. Click your Start button, then Settings, then Control Panel. In here, double-click the “Add/Remove Programs” icon. In the bottom half of the presented window is a scrollable list (again, hopefully a small list). This is a list of (almost) every program installed into your Windows. Your mission is to ruthlessly go through this list and make a mental or written list of the programs you know you don’t want. When you’re ready to start cleaning house, click a name of a program you want to remove, and click the “Add/Remove” button. This will un-install the program (or at least the bulk of it) out of your system. Keep doing this until all of the garbage programs are gone. When totally finished, run a Defrag (more on this below) and then reboot your system.

“This sounds way too easy,” you say, “What’s the catch?” Well, there are several. First off, not all of the programs installed are going to be in this list. Some actually like to hide from you, so that you won’t uninstall them. This is especially true of freebie programs you can download off the internet. The second catch is that some programs don’t like to be un-installed from Control Panel, and others will partially un-install, but not completely. These troublemakers require a little more time, digging, and computer expertise to get rid of. There are even some cases when the computer is just so overloaded, it makes much more sense to copy off all of your data, delete the entire computer, and re-install Windows and your software from scratch. Those who do this are amazed at how fast their computer runs when they’re done. I personally do this to my own computer twice a year, and my computer runs faster than many computers I see in the field that have Pentium processors twice as fast as mine!

Cause Number Three: Not enough RAM.

Here’s a sample of a conversation I have several times a year:

Frustrated Computer User: “My computer is running slow! Why is that?”

Friendly Computer Consultant: “Well let’s take a look...ah! You don’t have enough RAM. You only have 32 megabytes.”

Frustrated Computer User: “Not enough space? What are you talking about? This computer has 20 gigs of hard drive space or something! I should have tons of space on this sucker! Why do I need to buy more?”

This is an illustration of something that frankly, in my opinion, we geniuses in the computer industry have failed to communicate to our consumers. “Hard drive space” and “RAM”, although they are both measured in megabytes, are two completely and totally different things. There is an exhaustive explanation that I could give that could run 10 pages, but let me just break down the bottom line for you here, in simple language:

- Hard drive space is a measure of how much data your computer can hold when it is turned *off*.
- RAM is a measure of how much work the computer can perform while it is turned *on*.

If you have a huge hard drive, but a small amount of RAM, your computer can hold a lot of data, but if you run Word, Excel, Outlook, the internet, and Solitaire all at the same time, your computer will run slowly. This is because the RAM cannot handle all of that data being used at *the same time*.

Every time you double-click an icon to run a program, you are eating up RAM. Double-click a lot of programs, without closing them, you're eating a *ton* of RAM. If RAM gets too full, friendly Windows starts to use the hard drive as extra RAM for your running programs. The problem with this system is that the hard drive is literally *thousands* of times slower than RAM is. RAM is fast. Hard drives are dog slow, at least in comparison to RAM. Have you ever tried to click an icon and sat for minutes while you heard your hard drive cranking inside your computer like there was no tomorrow? This means you are possibly low on RAM.

RAM is pretty inexpensive. Often you can upgrade to 128 megabytes for under a hundred dollars. If this is the cause of your computer running slowly, you will be astounded at how much speed difference a little RAM can make.

Cause Number Four: A fragmented hard drive.

When it comes to saving files on your hard drive, Windows is messy. It just throws the data out there where ever it feels like. Over time you have patches of data and free space all over your hard drive. This means that the hard drive, which looks like a record player with a needle on a record, has to run its "needle" all over the place just to find that letter you saved in Word yesterday.

Of all the slowness problems, this one is the easiest to fix. Simply click on Start, then Programs, then System Tools, then Disk Defragmenter. All you have to do is hit OK, and away you go. The defragmenter will re-organize the data on your hard drive into one nice, contiguous block of data. This will dramatically increase your speed and lengthen the life of your hard drive (because it doesn't have to work as hard). Just make sure you don't have any programs open when you do this. The process can take anywhere from 10 minutes to two hours, depending on how fragmented your hard drive is.

How often should you do this? There are many differing opinions on the subject, but I think once every week or two is fine. If you are on a network and access your data on a server, you can do it less often. If your computer holds its own data (like a home computer), it might need it a little more often. Another really good time to defragment your hard drive is right after deleting a large amount of files, or un-installing a group of programs.

Cause Number Five: A dying hard drive or other hardware problem.

It is possible, though not likely, that your hard drive is failing. Slowness is one symptom of this. It is also possible that one of your RAM chips has gone out and your computer is running with insufficient RAM (back to cause number three). The only way to determine this is to address the other causes first, and then getting some help if none of them seem to work. As a general computer rule, if you fix the software and still have a problem, it's probably the hardware.

Cause Number Six: A virus.

Now take a deep breath and don't panic. Of all the likely causes of your computer being slow, this one is the least likely. That's why it's on the bottom of the list. Slowness is one of many symptoms of having a virus. Usually, if your computer is infected with a virus, you will be experiencing other problems as well, such as errors, weird quirks that have no explanation, missing data, email problems, and yes, slowness.

If you believe you may have a virus get and install a good anti-virus program (McAfee and Norton are both great), download the latest virus signatures (a very important step that many people overlook), and scan your computer. If a virus is there, it will let you know. Then you can proceed to removing of the virus. Realize though, that if you were infected and the virus has been cleaned, it may still be necessary to re-install some of your software to get your computer back to peak working order again. ❖