



**Q. I am running Windows XP and continue to get a warning message from my computer telling me that my system is low on virtual memory. Can someone tell me why this is and how to fix it?**

--Submitted by: Jared Y.

A. Before you can begin troubleshooting virtual memory, you need to understand what it is and how it works.

The easy answer would be to increase your RAM, but there are several factors that could contribute to your issue, so we'll start at the top.

If you are running a Windows XP machine and typically have several programs running, I would recommend no less than 512MB of RAM. A lot of manufacturers recommend only 256MB of RAM, and I believe Microsoft says that 128MB is sufficient. I would argue both of those by saying that most users do more than one thing at a time on their computer and from personal experience, more is better in the world of RAM.

**RAM vs. virtual memory:**

RAM is the amount of physical memory installed on your computer. It acts like short-term memory, enabling programs to load and operate faster. When you start a program or an application, it uses a part of that memory. Most programs will require at least 32MB of RAM. If you look in your system tray (next to the time), there are usually four or more programs running (antivirus, firewall, and so on). Those background programs alone require 128MB. Then if you use any programs, such as a Web browser or a word processor, it requires more memory.

Windows makes up the difference for that amount of RAM requirement by allocating or reserving a portion of your hard drive to act as though it were RAM. That's what is referred to as virtual memory, or page file. The less RAM you have the more virtual memory is allocated.