

## Speeding Up Your Computer

Human beings as they age tend to slow down. And, so it is with our computer. As it ages it also tends to slow down. But, in reality, our computer does NOT slow down because of "aging", it slows down due to what we, the computer owner and operator, do to our computer. When we get a new computer it is a relatively "lean & mean" machine. But, as time goes on we add new programs to our computer, then we add more programs to our computer, and we add more programs to our computer, and on and on it goes.

When we add a program it makes a huge difference as to whether we let the program "startup" when our computer starts up, or whether it only starts up when we need it and we call for it to start up. An example of this would be Microsoft Word. Do we need it lying in the background "ready to go" at all times, or can we let it stay dormant until we need to use the program. Other examples of "do we need it" would be Adobe Reader, Windows Media Player, various games, etc., etc.

Every program that starts up, and lays in the background when our computer starts up, requires a portion of the computer RAM (random access memory) so that it can be "ready to go" when we call for it. If we have too many programs "at the ready" we may leave our computer short on RAM for performing its normal functions. And, in some cases, having an extreme excess of programs "at the ready" may cause our computer to come to a crawl. Also, the number of programs "at the ready" is the number one cause of why it takes our computer so much time to boot up and to shut down.

So, we now know that our computer has not slowed down because it has aged, but because of what we, the owners and operators, have done to our computer. What, then, can we do to improve our computer's processing speed, and to make it a "happy" computer? Listed below are a number ways we can help our computer to perform better and to run faster.

### 1 - System Configuration file --

The "Startup" tab of the Windows System Configuration file will show us which programs start up and take up RAM when we boot up our computer. To get to this "tab":

Win-7 -- left click on the Windows Ball at the very bottom left corner on your taskbar. In the "search box" type "**MSCONFIG**" (no caps or quote marks required) and then hit "**ENTER**".

Win-8.1 -- Right click on the Win 8 logo at the very bottom left corner on your desktop. Left click on "**RUN**" and type "**MSCONFIG**" (no caps or quote marks required) in the search box and then hit "**ENTER**".

You should shortly see the System Configuration screen. Click on the "**STARTUP**" tab. Listed will be all of the programs that would like to start up when you boot up your computer. If a program has a check mark next to it that program will start up when your computer boots up, taking a portion of your RAM. By removing a check mark next to a program you will, of course, eliminate that program from starting up and will release the RAM for other functions.

The question then arises, which programs do I need and which ones can I eliminate. There are very few programs on the Startup tab that are required or needed on boot up. These are examples of programs that can be left "unchecked": Adobe Reader, any printer program, utilities, Malwarebytes, Windows Media, Skype, games, etc., etc. All of these programs will be available to start by clicking on their icon on the desktop, by clicking on them on the Startup Menu, or by going to Program Files and clicking on the program. And, of course, if you find you do have a problem with a program not being available after boot up you can always go back into System Configuration and re-check that program on the Startup tab.

In addition to the **Startup** tab on the System Configuration screen you will also find a **Services** tab. This tab shows which "Services" start up when you boot up your computer. There are "Services" which can be eliminated on startup but defining which ones you can "uncheck" becomes a little trickier. If you want to know more about a program or function on this tab there are websites which will explain their use, and whether or not you can or should not "uncheck" the item.

## 2 - Increase you computer's memory --

The easiest way to increase the speed of your computer is to add RAM (Random Access Memory) to your computer's motherboard. If you have only 1 GB (or less) of RAM you definitely need to add additional RAM. For Vista you should have at least 2 GB, preferably 3 GB, and for Win-7 you should consider having 3 to 4 GB of RAM. Yes, those operating systems will run with less than the above mentioned amounts, but you will definitely have a slower operating computer. Also, keep in mind that Vista & Win-7 32 Bit operating systems will only support a maximum of 4 GB of RAM, and 64 Bit operating systems will support 8 GB of RAM. If you are a "gamer" you should consider the maximum RAM allowable on your Vista or Win 7 system.

For a Windows 8.1 operating system the amount of RAM that it will support is limited only by the amount of that "green stuff" in your wallet. A minimum of 4 GB of RAM is recommended.

Please note, that when adding RAM it is extremely important, and necessary, that you add the proper RAM to your computer. There are numerous types and speeds of RAM.

Your computer's manual should tell you what type of RAM you have, and how much RAM it will support. If you don't have info as to what type and speed your RAM is, try a Google search of the model # or UPC code on the RAM stick.

Adding RAM to a laptop is really quite easy. You simply open the panel on the bottom of the laptop and replace the memory stick (or add to it) with your new RAM. Push aside the retaining connectors on each side of the stick, then flip out, flip in.

For a desktop PC the replacement, or addition of RAM, is a tad bit more complicated but still very "owner doable", with no need to pay to have it done. Open your PC case and simply add or replace the memory stick. Please note that it will take a very firm push on the RAM stick to seat it properly.

### **3 - Install a Solid State Drive (SSD) -**

For those who are a little more adventurous installing a SSD in your computer, and installing the Windows operating system on it, can literally turn your computer into a speed demon. Since an SSD has no moving parts information stored on the drive is found and processed much, much more rapidly than a standard hard drive, in which the information must be retrieved from whirling discs. Yes, at this time, an SSD is more expensive per giga byte than a standard hard drive, but it will increase your computer performance tremendously.

### **4 - Clean up your hard drive --**

If you have not done a "Disk Cleanup" or "Disk Defrag" lately, you should to do that.

**Win-7** -- both can be found by going to Programs > Accessories > System Tools.

**Win 8.1** -- both can be found by going to Control Panel > Administrative Tools.

Be sure and do the "Disk Cleanup" before defragging. Performing both of these will decrease the "seek time" that is required by the hard drive to find the information being requested, and will improve your hard drive performance.

### **5 - Install a "lean" anti-virus program -**

Anti-virus programs such as Norton, McAfee, Avast, Trend Micro, AVG, etc., are humongous memory hogging programs. They have surpassed their original intent of blocking viruses and they now tend to be all-encompassing programs working in the background, watching every move on your computer. Unfortunately, they require large amounts of RAM to provide their services and definitely slow down the processing speed of your computer.

I am solidly in agreement with the "experts" who strongly suggest **NOT** installing (or removing with RevoUninstaller if they are installed) the heavy duty, unruly, anti-virus program on your computer. The "experts" highly recommend Microsoft Security Essentials. This is a **FREE** program which provides anti-virus and malware protection, running full time in the background, but using a minimal amount of RAM. Its effect on the operational speed of your computer is hardly noticeable. MSE (Microsoft Security Essentials) is available for downloading for WIN -7 at the official Microsoft website. MSE comes automatically with Win -8.1, and you can check to see that it is installed and turned on by going to **Control Panel > Windows Defender**.

### **6 - And finally --**

If you have performed all of the maintenance items listed above and your computer is still running at a snail's pace it might, just possibly might, be time to do a total reinstall of your operating system. No one enjoys doing this, but it is the one true way of getting all of the "garbage" off of your computer and giving it a fresh start. I've done it. It's time consuming. But, it works wonders.

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