

Part 9 – How do I speed up my computer?

Welcome back to a series of computer related articles brought to you by VistaSol Computer Solutions. Over the coming weeks we are going to be featuring articles based on the theme of 'How do I . . .?'

In our last article we covered the subject of 'Problem Devices'. In this week's article we'll be continuing with the theme of 'How do I Speed up my Computer' with the final subject in this series:

Random Access Memory (RAM)



RAM is an acronym for Random Access Memory, this is also known as 'volatile memory' because the data it holds is lost when the desktop PC or laptop/notebook computer using it is switched off. Briefly, RAM is used by the system to store data in the form of files for processing by a computer's central processing unit (CPU), also known as the processor. How much RAM the computer needs depends on a number of factors:

1. The type of operating system e.g. XP, Vista or Win7
2. The nature / intensity of work being carried out on the computer
3. If the computer has a 'dedicated' graphics card installed

The amount of RAM used in modern desktop and laptop computers is expressed in Megabytes (MB) or Gigabytes (GB). A Gigabyte (1GB) is equal to 1024 MB.

Windows XP

Most desktop and laptop computers with the original version of Windows XP pre-installed had just 256 MB of RAM. However, since the introduction of Service Pack 2 & 3, this is no longer sufficient; the minimum requirement is now 512 MB.

If you have Windows XP installed and the computer is struggling to run programs, or you are receiving the error 'Windows is running low on virtual memory' – chances are that you only have 256MB of RAM. You can check how much RAM you have installed by right clicking on 'My Computer', then select properties from the menu. In the properties window you will see information about the type of processor and how much RAM is available. If you see only 224MB for instance, this means that 32MB is already being used by the graphics chip on the motherboard. If this is the case, you should consider upgrading to a minimum of 512MB of RAM. If you have 512MB installed and you are using 'memory intensive' programs such as image editing or video editing programs, you should consider upgrading to a minimum of 1GB.

Windows Vista

Windows Vista is the most 'memory hungry' operating system produced by Microsoft. A computer with Windows Vista installed can use between 512MB and 1GB just to start up! Therefore, if you have Windows Vista installed you should have a minimum of 2 GB of RAM to run programs comfortably. The same caveats apply to Vista as with XP i.e. the more intense your computing activities, the more RAM you will need. Bear in mind however, that XP and Vista (32bit) can only handle a maximum of 4GB of RAM.

Windows 7

Windows 7 is a little more complicated because typically its predecessors used what is known as a 32 bit architecture, whereas Windows 7 is typically installed using the latest 64 bit architecture (with the exception of Netbooks). 64 bit architecture raises the bar on the amount of RAM you can have installed from the maximum of 4GB with XP and Vista to a whopping 128+ GBs! Right click on 'computer' to discover how much RAM you have installed and also whether you have the 32 bit version or 64 bit. 1GB of RAM memory in computers running a 32-bit version of Windows 7 should suffice, but the more RAM you have, the better the performance. If you have the 64 bit version you will need a minimum of 2GB.

You can find out more information about the RAM you have installed by typing this link into the address bar of Internet Explorer, or just visit the crucial.com website.

<http://www.crucial.com/uk/store/listmodel.aspx?mfgr=More&pid=1087277>

If you've been following our series over the last few weeks, hopefully your ailing computer should now be performing with fewer problems.