

Computer Tips

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Understanding Your PC—Part 5 The Processor

Your computer's processor, also known as the CPU, is the main 'brain' or processing engine of your computer. The speed of your processor determines the overall quickness of your computer.

The processor is the small square chip positioned on the motherboard, usually hidden by a large heatsink and fan. The other components in your computer all interact with each other through the processor. Let me give you an example.

You type the letter A on your keyboard. This sends a code to the keyboard controller, which in turn transmits this to the processor. The processor identifies the keyboard controller signal as a letter A, and then does two things. It sends a notification off to the memory bank that a letter A was typed, and at the same time sends a coded signal to the video card. The video card picks up the coded signal, converts it into the shape of the letter A, and then sends the finished letter to the monitor, where it appears for you to see. This process happens extremely quickly, the speed largely determined by the capacity of the processor.

Today processors speeds have greatly increased from what they were even 10 years ago. Processor speeds are measured in 'cycles', a cycle being from when the processor receives a coded signal, until it is ready to receive another signal. For example, a processor is said to be 2.8Ghz, which is 2,800,000,000 cycles per second. When we say a processor is 700Mhz (or 0.7Ghz), we are saying the processor can do 700,000,000 cycles per second. This is fast! It would be like you moving a piece of paper from one hand to the other 700,000,000 times per second!

Another factor in processor speed is the way it has been manufactured. There are two main manufacturers of processors, Intel and AMD. Many folks have various opinions about which processor is better, but realistically both processors are excellent, provided you use them for what they are best designed for.

The Intel processor is designed to do solid processing, due to it having a large amount of memory built-in. This memory, known as the L1 and L2 cache, increases the capacity within the processor to 'remember' where it is up to in its tasks. This type of processor is ideal for large number crunching, such as in finance software, office programs, and where large amounts of information are being searched for, as in databases.

The AMD processor is built differently from the Intel. The AMD's have access to 4 times the amount of memory than do the Intel's, and thus are able to move large chunks of information quickly. This makes them ideal for graphic intensive software, such as games, photo editing, and website development. In AMD's the cycle speed is not as high as the Intel's, but in terms of performance, are comparable to the Intel's.

For more information, you are welcome to contact us on 0419 790 071, or email us at info@mcsyarraman.com.au, or visit our site.

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