

From The TechnoManor

Our *Troubleshooting 911* class was a hit. A few people asked if they could send me technical questions that I would answer in *The Link*. Seemed like a good idea.

So, send your computer, email, Web, or related questions to:

frenchygrey@gmail.com

and I'll attempt to answer one each week.

Since we're kicking off this idea, let me offer a question to answer.

What's a megabyte?

When you deal with computers these days, you see a mind-boggling array of terms. Here is a short glossary of the more common ones.

Bit – A simple piece of information. It's value is either **0** or **1**.

Byte – A collection of 8 bits, representing a uniquely-identifiable unit. A byte may contain a character, like the letter '**A**', may represent a number from 0 – 255, or may be an instruction (or part of an instruction) to the CPU.

Chip – The informal name for an integrated circuit. It is a piece of plastic with wire "legs" sticking out of it. The plastic contains circuitry that does something specific for the computer. A chip may range in size from an eraser on a pencil to a large postage stamp.

CPU – Literally, the **C**entral **P**rocessing **U**nit. This is a chip within a computer that is the heart of the computer. It performs the instructions in RAM that make up a program. The speed of a CPU is sometimes measured in Gigahertz.

Disk drive (aka hard drive) – A device about the size of a small paperback book that contains files. A disk drive is meant to contain files for a long period of time: like months or years. Disk drives are measured by the number of gigabytes they can hold. A hard drive in a typical desktop computer may hold 250 Gigabytes.

File – A collection of bytes with a purpose.

Gigabyte – A count of bytes. The count is roughly 1 billion bytes (1,000,000,000) and is represented as 1 **GB**. Some calculate it as 1024 x 1024 x 1024.

Gigahertz – A count of the master clock cycles that drives the CPU. This value is represented as **GHz**. Traditionally, this count represented the "speed" of a CPU. The higher the number, the faster the CPU, and the faster the overall computer.

This is not necessarily true today. You may see CPU “speeds” of 2 GHz to 4 GHz (i.e., 2 Gigahertz to 4 Gigahertz).

Kilobyte – A count of bytes. The count is 1,024 bytes and is represented as 1 **KB**.

Megabyte – A count of bytes. The count is roughly 1 million bytes (1,000,000) and is represented as 1 **MB**. Some calculate it as 1024 x 1024.

Operating System – A special collection of programs that manage the CPU, disk drive, RAM, and all other pieces of a computer. The Operating System loads other programs from the disk drive into RAM and then guides their functioning in the CPU. Examples of operating systems in consumer computers are: Apple’s OS X, Linux, Microsoft’s Windows XP, and Microsoft’s Windows Vista.

Program – A file that instructs the CPU to perform a specific task. That task may be to read or send email. Another task may be to write a letter. Many programs are stored on a disk drive until they are needed. They must be copied into RAM to actually perform their task.

RAM – Literally, **R**andom **A**ccess **M**emory. These are a series of chips within a computer that contain the immediate memory of the computer. This memory contains the programs that are executed and the data for those programs. When you turn off a computer’s power, the RAM is erased. On current computers, you should have between 1 and 4 Gigabytes of RAM installed. Older computers often held 256 to 512 Megabytes of RAM.

I hope this gives you a starting point. Now, think of those questions and send them to me!

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