

5th-6th Grade Computer Terms

bug

A bug is a mistake in the design of something, especially software. A really severe bug can cause something to crash.

database

A database is a collection of data, typically organized to make common retrievals easy and efficient. Some common database programs include Oracle, Sybase, Postgres, Informix, Filemaker, Adabas, etc.

directory

Also called "folder", a directory is a collection of files typically created for organizational purposes. Note that a directory is itself a file, so a directory can generally contain other directories. It differs in this way from a partition.

format

The manner in which data is stored; its organization. For example, VHS, SVHS, and Beta are three different formats of video tape. They are not 100% compatible with each other, but information can be transferred from one to the other with the proper equipment (but not always without loss; SVHS contains more information than either of the other two). Computer information can be stored in literally hundreds of different formats, and can represent text, sounds, graphics, animations, etc. Computer information can be exchanged via different computer types provided both computers can interpret the format used.

organizer

An organizer is a tiny computer used primarily to store names, addresses, phone numbers, and date book information. They usually have some ability to exchange information with desktop systems. They boast even better battery life than PDAs but are far less capable. They are extremely inexpensive but are typically incapable of running any special purpose applications and are thus of limited use.

OS

The operating system is the program that manages a computer's resources. Common OSes include Windows '95, MacOS, Linux, Solaris, AmigaOS, AIX, Windows NT, etc.

processor (CPU)

The processor (also called central processing unit, or CPU) is the part of the computer that actually works with the data and runs the programs. Advertisers often use megahertz numbers as a means of showing a processor's speed. This is often extremely misleading; megahertz numbers are more or less meaningless when compared across different types of processors.

program

A program is a series of instructions for a computer, telling it what to do or how to behave. The terms "[application](#)" and "[app](#)" mean almost the same thing. Program is also the verb that means to create a program, and a programmer is one who programs.

Apple][

The Apple][computer sold millions of units and is generally considered to have been the first home computer with a 1977 release date. It is based on the [65xx](#) family of [processors](#). The earlier Apple I was only available as a build-it-yourself kit.

baud

A measure of communications speed, used typically for [modems](#) indicating how many [bits](#) per second can be transmitted.

binary

There are two meanings for binary in common computer usage. The first is the name of the number system in which there are only zeros and ones. This is important to computers because all computer data is ultimately a series of zeros and ones, and thus can be represented by binary numbers. The second is an offshoot of the first; data that is not meant to be interpreted through a common [character set](#) (like [ASCII](#)) is typically referred to as binary data. Pure binary data is typically eight [bit](#) data, and transferring a binary file through ASCII channels without prior modification will result in corruption and loss of data. Binary data can be turned into ASCII data via [uucoding](#) or [bcoding](#).

bit

A bit can either be on or off; one or zero. All computer data can ultimately be reduced to a series of bits. The term is also used as a (very rough) measure of sound quality, color quality, and even [processor](#) capability by considering the fact that series of bits can represent binary numbers. For example (without getting too technical), an eight bit image can contain at most 256 distinct colors while a sixteen bit image can contain at most 65,536 distinct colors.

bitmap

A bitmap is a simplistic representation of an image on a computer, simply indicating whether or not [pixels](#) are on or off, and sometimes indicating their color. Often [fonts](#) are represented as bitmaps. The term "pixmap" is sometimes used similarly; typically when a distinction is made, pixmap refers to color images and bitmap refers to monochrome images.

boolean

Boolean algebra is the mathematics of base two numbers. Since base two numbers have only two values, zero and one, there is a good analogy between base two numbers and the logical values "true" & "false". In common usage, booleans are therefore considered to be simple logical values like true & false and the operations that relate them, most typically "and", "or" and "not". Since everyone

has a basic understanding of the concepts of true & false and basic conjunctions, everyone also has a basic understanding of boolean concepts -- they just may not realize it.

browser

A browser is a program used to browse the web. Some common browsers include Netscape, MSIE (Microsoft Internet Explorer), Safari, Lynx, Mosaic, Amaya, Arena, Chimera, Opera, Cyberdog, HotJava, etc.

byte

A byte is a grouping of bits. It is typically eight bits, but there are those who use non-standard byte sizes. Bytes are usually measured in large groups, and the term "kilobyte" (often abbreviated as K) means one-thousand twenty-four (1024) bytes; the term "megabyte" (often abbreviated as M) means one-thousand twenty-four (1024) K; the term gigabyte (often abbreviated as G) means one-thousand twenty-four (1024) M; and the term "terabyte" (often abbreviated as T) means one-thousand twenty-four (1024) G. Memory is typically measured in kilobytes or megabytes, and disk space is typically measured in megabytes or gigabytes. Note that the multipliers here are 1024 instead of the more common 1000 as would be used in the metric system. This is to make it easier to work with the binary number system. Note also that some hardware manufacturers will use the smaller 1000 multiplier on M & G quantities to make their disk drives seem larger than they really are; buyer beware.

chat

Chatting is like e-mail, only it is done instantaneously and can directly involve multiple people at once. While e-mail now relies on one more or less standard protocol, chatting still has a couple competing ones. Of particular note are IRC and Instant Messenger. One step beyond chatting is called MUDding

crash

If a bug in a program is severe enough, it can cause that program to crash, or to become inoperable without being restarted. On machines that are not multitasking, the entire machine will crash and have to be rebooted. On machines that are only partially multitasking the entire machine will sometimes crash and have to be rebooted. On machines that are fully multitasking, the machine should never crash and require a reboot.

DOS

A **d**isk **o**perating system manages disks and other system resources. Sort of a subset of OSes, sort of an archaic term for the same. MS-DOS is the most popular program currently calling itself a DOS. CP/M was the most popular prior to MS-DOS.

download

To download a file is to copy it from a remote computer to your own. The opposite is upload.

driver

A driver is a piece of software that works with the OS to control a particular piece of hardware, like a printer or a scanner or a mouse or whatever.

mainframe

A mainframe is any computer larger than a small piece of furniture. A modern mainframe is more powerful than a modern workstation, but more expensive and more difficult to maintain.

modem

A modem allows two computers to communicate over ordinary phone lines. It derives its name from **modulate** / **demodulate**, the process by which it converts digital computer data back and forth for use with an analog phone line.

multimedia

This originally indicated a capability to work with and integrate various types of things including audio, still graphics, and especially video. Now it is more of a marketing term and has little real meaning. Historically the Amiga was the first multimedia machine. Today in addition to AmigaOS, IRIX and Solaris are popular choices for high-end multimedia work.

notebook

A notebook is a small laptop with similar price, performance, and battery life.

RAM

Random access memory is the short-term memory of a computer. Any information stored in RAM will be lost if power goes out, but the computer can read from RAM far more quickly than from a drive.

ROM

Read-only memory is similar to RAM only cannot be altered and does not lose its contents when power is removed.

scanner

A scanner is a piece of hardware that will examine a picture and produce a computer file that represents what it sees. A digital camera is a related device. Each has its own limitations.

shareware

Shareware is software made for profit that allows a trial period before purchase. Typically shareware can be freely downloaded, used for a period of weeks (or sometimes even months), and either purchased or discarded after it has been learned whether or not it will satisfy the user's needs.