

Dictionary of Computer and Internet Terms

Fifth Edition



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- More than 1,800 key computer terms with definitions
 - Includes hundreds of words and expressions that apply specifically to the Internet
 - User-friendly descriptions of programming concepts, desktop and other applications, and much more
 - Filled with illustrations
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MAXIMIZE (Windows) to make a window take over the whole screen or become as large as possible. To do this, click the mouse on the MAXIMIZE BUTTON (*see* WINDOW). *See also* MINIMIZE; RESTORE. Maximize is also an option under the CONTROL MENU.

On a Macintosh, use the ZOOM box (at the far right side of the window's title bar) to enlarge a window.

MB abbreviation for MEGABYTE.

MCGA (Monochrome/Color Graphics Adapter) a video system built into two early IBM PS/2 models (25 and 30). Its features are a subset of those of the VGA. *See* VGA; VIDEO MODES (IBM PC).

MDA (Monochrome Display Adapter) the very first video system used in early model IBM PCs. It provided very sharp, readable text, but no graphics, on a monochrome screen.

MEDIA plural of MEDIUM.

MEDIUM (plural *media*)

1. material used for storage of information. Magnetic disks, tapes, and optical disks are examples of storage media.
2. a way of presenting information to the computer user. Vision is one medium; sound is another. Multimedia computing uses visible displays of several types together with sound.

MEDIUM-SCALE INTEGRATION the construction of integrated circuits that contain from 10 to 100 logic gates. *See* INTEGRATED CIRCUIT.

MEGABYTE (MB) an amount of computer memory equal to $2^{20} = 1,048,576$ bytes = 1,024 kilobytes. One megabyte can store more than one million characters. The internal memory (RAM) of a microcomputer is often measured in megabytes: four MB, eight MB, or more have become common sizes. *See* MEMORY.

Hard disk capacity is also measured in megabytes; 100 to 500 megabytes are typical sizes. In measuring disk capacity, *megabyte* sometimes means the same as when measuring memory. Sometimes, however, *megabyte* is used to mean 1 million bytes, or even 1,024,000 bytes (1024×1000). These different systems of measurement result in different numbers being used to describe the capacity of the same disk.

MEGAHERTZ "million hertz" or "million cycles per second," a measure of the clock speed of a computer. *See* CLOCK; MICROPROCESSOR.

MEGAPIXEL an image containing about one million pixels or more. For example, a 1024×1024 -pixel image is often referred to as a megapixel image. *See* BITMAP.

MEMORY (formerly called *core*) the space within a computer where information is stored while being actively worked on. Most microcomputers have a small amount of read-only memory (ROM), containing

the built-in programs that start the operation of the computer when it is turned on, and a large amount of random-access memory (RAM) for user's programs and data. Except for ROM, memory goes blank when the computer is turned off; any data in it must be copied to disk or tape if they are to be saved.

The memory requirements of a computer are dictated by the software that is to be run on it. In the early 1980s, 64K was a common size for a microcomputer memory. The memory requirements of newer software continued to increase, however, so by the end of the decade 640K became the minimum amount of memory necessary for a business microcomputer. Memory sizes of four or eight megabytes or more have become common in the 1990s. Computers running Windows or OS/2 perform best if at least eight megabytes are available.

See also EXPANDED MEMORY; EXTENDED MEMORY; MS-DOS; SIMM; DRAM; EDO; FPM.

MEMORY LEAK *see* LEAK.

MEMORY-MAPPED VIDEO a type of computer video display where the contents of the screen are controlled by storing appropriate value in a block of memory that is directly accessible to the CPU. (*See* VIDEO MEMORY.) For example, the IBM PC has memory-mapped video; many UNIX systems do not.

MEMORY-RESIDENT PROGRAM a computer program that remains in memory after being run, so that it can be called up later. Memory-resident programs are often called TSRs ("terminate-and-stay-resident"). They extend the capabilities of the operating system or provide "pop-up" functions, such as a calendar or calculator, that can be called up in the middle of another program without disturbing it. You can then return to the original program as if nothing had happened.

Memory-resident programs were particularly popular on IBM PC compatibles before Windows 3.0 was introduced. Windows now makes it easier to switch between programs, so that programs of any kind can be called up instantly and TSR programs are no longer a special class.

MENU a list of choices that appears on the screen in response to your actions. Most windows have a MENU BAR just under the title bar. When you click on an item in the menu bar, its corresponding menu will appear. You select the command you want by moving the mouse pointer to it. Commands with ellipsis dots (...) after them will pop up a dialog box for you to give the computer further instructions before executing the command. If there are keyboard shortcuts for any command, they will often be listed to the right of the command.

Menus make a program user-friendly. It's very easy to learn and use software with a menu-driven command system. You don't need to memorize all the commands. By looking at the menus, you can see all the options.

Their TRS-80 Model I, introduced in 1977, was one of the first home computers. Subsequent Radio Shack computers of many different types have shared the name TRS-80.

RADIX the base of a number system. Binary numbers have a radix of 2, and decimal numbers have a radix of 10.

RADIX SORT an algorithm that puts data in order by classifying each item immediately rather than comparing it to other items. For example, you might sort cards with names on them by putting all the A's in one bin, all the B's in another bin, and so on. You could then sort the contents of each bin the same way using the second letter of each name, and so on. The radix sort method can be used effectively with binary numbers, since there are only two possible bins for the items to be placed. For other sorting methods, see SORT and references there.

RAGGED MARGIN a margin that has not been evened out by justification and at which the ends of words do not line up. For an example, see FLUSH LEFT.

RAID (Redundant Array of Inexpensive Disks) a highly reliable way of storing data using a set of disk drives rather than just one.

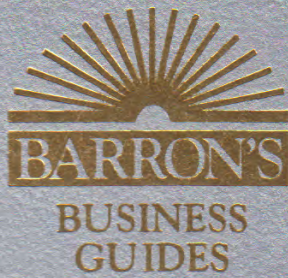
One type of RAID system divides up each byte of data into bits and stores each bit on a different disk. If the data consists of 8-bit bytes, there will be 10 disks, one for each of the 8 bits, and two more for an error-correcting code. The error-correcting code makes it possible to reconstruct any single missing bit in any byte. Thus, if one of the disk drives fails completely, only one bit will be missing from each byte, and the contents of the failed disk can be reconstructed completely from the error-correcting code.

RAID also includes other ways of combining disk drives, including a simple scheme in which one drive stores a copy of the information on the other.

RAM (Random-Access Memory) a memory device whereby any location in memory can be found, on average, as quickly as any other location. A computer's RAM is its main memory where it can store data. The size of the RAM (measured in kilobytes or megabytes) is an important indicator of the capacity of the computer. See MEMORY; DRAM; FPM; EDO.

RAM DISK (virtual disk) an area of RAM (random-access memory) that is used to simulate an additional disk drive (see DISK). Data can be written and read much more quickly on a RAM disk than on a real disk. Like memory, a RAM disk goes blank whenever the computer is turned off; its contents must be copied onto it from a real disk whenever the computer is turned on. RAM disks are ordinarily employed to store frequently used programs or temporary working files.

RAM disks are especially popular under the MS-DOS operating system (see MS-DOS). A RAM disk is created by modifying the oper-



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