



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

By Thomas Downing, Ph.D., Michael Covington, Ph.D., and
Melody Mauldin Covington

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Fifth Edition

Douglas A. Dowining, Ph.D.

School of Business and Economics
Seattle Pacific University

Michael A. Covington, Ph.D.

Artificial Intelligence Center
The University of Georgia

Melody Mauldin Covington

Graphic Designer
Athens, Georgia



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Specifically, the BinHex file consists of one hex digit (0-9, A-F) for each four bits of data in the original file. Thus the BinHex file is about twice as long as the original. *See* STUFFIT; UUENCODE; UUDECODE; BINARY FILE; TEXT FILE.

BIOS (Basic Input Output System) a set of procedures stored on a ROM chip inside IBM PC compatible computers. These routines handle all input-output functions, including screen graphics, so that programs do not have to manipulate the hardware directly. This is important because if the hardware is changed (for example, by installing a newer kind of video adapter) the BIOS can be changed to match it, and there is no need to change the application programs.

The BIOS is not re-entrant and is therefore not easily usable by multitasking programs. Windows and OS/2 programs do not call the BIOS; instead, they use procedures provided by the operating system.

BIOS ENUMERATOR the BIOS routine that tells a PLUG AND PLAY system what hardware is installed.

BIPOLAR TRANSISTOR a semiconductor device formed by sandwiching a thin layer of P- or N-type semiconductor between two layers of the opposite type of semiconductor. (*See* TRANSISTOR.) The other general type of transistor is the field effect transistor (FET).

BIS Latin for "a second time," used to denote revised CCITT standards. *See* CCITT.

BISYNC *see* BINARY SYNCHRONOUS.

BIT a shorthand term for "binary digit." There are only two possible binary digits: 0 and 1. (*See* BINARY NUMBERS.) Bits are represented in computers by two-state devices, such as flip-flops. A computer memory is a collection of devices that can store bits.

A *byte* is the number of bits (usually 8) that stand for one character. Memory is usually measured in units of *kilobytes* or *megabytes*. *See* MEMORY.

One important measure of the capability of a microprocessor is the number of bits that each internal register can contain. For example, the classic Z80 microprocessor had 8-bit registers. The Intel 8088, used in the original IBM PC, had 16-bit registers but only an 8-bit bus, leading to some confusion as to whether it should really have been called a 16-bit processor. Newer microprocessors have 32 or 64 bits per register. In general, a processor with a greater number of bits per instruction can process data more quickly (although there are other factors to consider that also determine a computer's speed). *See also* MICROPROCESSOR.

BIT BUCKET (*slang*) a place where data is lost. For example, under UNIX, the file name `/dev/null` can be used as a bit bucket; anything written to it will be ignored, but the program will think it is successfully writing to a file.