WEBSTERS NEW WORLD™

DICTIONARY

of

COMPUTER TERMS

EIGHTH EDITION

By Bryan Pfaffenberger, Ph.D.

Dedication

For Suzanne, always

Webster's New World™ Dictionary of Computer Terms, 8th Edition

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A Webster's New World™ Book

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biological feedback device   A device that translates eye movements, body movements, and even brain waves into computer input.

biometric authentication   A method of authentication that requires a biological scan of some sort, such as a retinal scan or voice recognition.

BIOS   Acronym for Basic Input-Output System. A set of programs encoded in read-only memory (ROM) in IBM PC–compatible computers. These programs handle startup operations such as the Power-On Self-Test (POST) and low-level control for hardware, such as disk drives, keyboard, and monitor. Popular brands of BIOS chips on motherboards sold today include Phoenix Technologies and American Megatrends, Inc. Some system components have their own BIOS chip, whose instructions are also read into the PC's memory at startup. The BIOS on a hard disk controller, for example, stores a table of tracks and sectors on the drive.

B-ISDN   See *Broadband ISDN*.

bit   The basic unit of information in a binary numbering system (BInary digiT). The electronic circuitry in computers detects the difference between two states (high current and low current) and represent these states as one of the two numbers in a binary system: 1 or 0. These basic high/low, either/or, yes/no units of information are called bits. Because building a reliable circuit that tells the difference between a 1 and a 0 is easy and inexpensive, computers are accurate in their internal processing capabilities, typically making fewer than one internal error in every 100 billion processing operations. Eight bits comprise 1 byte, or octet.

bit depth   In a scanner, the length (expressed in bits) of the storage unit used to store information about the scanned image. The greater the bit depth, the better the scanner's resolution. A common bit depth for a home-quality scanner is 30 bits.

bit length   In encryption, the length (expressed in bits) of the key used to encode and decode the text data. The greater the bit length, the stronger (less breakable) the encryption.

bitmap   The representation of a video image stored in a computer's memory as a set of bits. Each picture element (pixel), corresponding to a tiny dot onscreen, is controlled by an on or