

*C.L. Edwards*

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# COMPUTER DICTIONARY

SECOND EDITION

COMPLETELY  
REVISED AND  
UPDATED, WITH NEW  
DEFINITIONS AND  
ILLUSTRATIONS

THE COMPREHENSIVE  
STANDARD FOR  
BUSINESS, SCHOOL,  
LIBRARY, AND HOME

Microsoft  
P R E S S

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to secure a document. *See also* Data Encryption Standard.

**end-around carry** An end-around shift operation on a binary value that uses the carry bit as an extra bit—that is, moves the carry bit from one end of the value to the other. *See also* carry, end-around shift, shift.

**end-around shift** The act of shifting a binary value in such a way that the bit being shifted out of one end gets shifted into the other end. For example, a right end-around shift on the binary value 00101001 results in the value 10010100. *See also* shift.

**en dash** A punctuation mark (–) used to indicate a range of dates or numbers (for example, 1980–90) or to separate the elements of a compound adjective, one part of which is hyphenated or consists of two words (for example, *pre-Civil War*). An en dash is named for a typographical unit of measure called the en (half the width of an em). *Compare* em dash, hyphen.

**End key** A cursor-control key that moves the cursor directly to a defined position. The “end” to which the cursor moves varies with the program that is running; it might, for example, be the end of a line of text, the end of a screen, or the end of a file.

**endless loop** *See* infinite loop.

**end mark** A symbol that designates the end of some entity, such as a file or a word-processing document.

**end-of-file** Abbreviated EOF. A code placed by a program after the last byte in a file. An EOF character is a marker that tells the computer’s operating system that no additional data follows. Although it seems redundant, an EOF character is usually needed to mark the actual point at which a file ends because file space is allocated in blocks of bytes. Thus, the true end of a file, if it appears in the middle of the last allocated group of bytes, is not the same as the so-called physical end-of-file (the last byte of storage space set aside for the data contained in the file). In the ASCII coding scheme, EOF is represented by the decimal value 26 (hexadecimal 1A) or the Control-Z control character.

**end-of-text** Abbreviated ETX. A character used in data transmission to denote the end of a text file. End-of-text does not necessarily mean end-of-transmission (EOT) because a transmission can include a substantial number of error-checking and transmission-control characters that precede and follow the text portion of the message. In the ASCII coding scheme, ETX is represented by the decimal value 3 (hexadecimal 03).

**end-of-transmission** Abbreviated EOT. A symbol designating the end of a transmission. In the ASCII coding scheme, end-of-transmission is a transmission-control character with the decimal value 4 (hexadecimal 04).

**endpoint** The beginning or end of a line segment.

**end user** Traditionally, the recipient of computer output; with microcomputers, a term used in reference to the people who use (as opposed to design or program) computers and computer applications.

**engine** The portion of a program that determines how the program manages and manipulates data. An engine thus differs from a user interface, with which the user communicates with the program, and it differs from other parts of a program, such as installation routines and device drivers, which enable the program to use a computer system and its components. The term *engine* is seldom used on its own; it is more often mentioned in relation to a particular program. For example, a database engine is the portion of a database-management program that contains the tools for manipulating a database. Rarely, *engine* is also used to refer to a microprocessor. *Compare* back-end processor, front-end processor.

**Enhanced Expanded Memory Specification** *See* EEMS.

**Enhanced Graphics Adapter** *See* EGA.

**enhanced keyboard** The 101/102-key keyboard introduced by IBM partway through the life of the IBM PC/AT. This layout remains the standard keyboard for the PS/2 line and has become the de facto standard for most IBM-compatible keyboards. *See* the illustration on the next page. The enhanced keyboard (originally called the Advanced Keyboard by IBM) differs most signifi-