

The Dictionary of Multimedia *Terms & Acronyms*

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encapsulation (n.) 1. The addition of layers containing header information to a protocol data unit (PDU) from the layer above. The headers may be combined from the physical layer, the network layer (IP), and the transport layer (TCP). 2. In object-oriented programming (OOP), the way in which data structures and their methods, or procedures, are kept together.

encode (v.) 1. To translate images or sound into a digital format. Encoding is the final step in converting an analog signal into a data representation. Other steps are sampling and quantizing. 2. To combine three-color signals into one composite video signal.

encoder (n.) 1. A microprocessor-based hardware system that converts analog video signals into a series of binary numbers that define the signal content. 2. A device that transforms original RGB video signals into a luminance signal (Y) and a chrominance signal for NTSC transmission.

encryption (n.) A process used to encode data. Encryption makes it difficult to decode without proprietary software, thus protecting data from unauthorized access. Encrypted data is usually created by applying an algorithm that must be reapplied to translate it.

end of file (EOF) (n.) 1. The out-of-band value returned by sequential character-input functions in the C programming language when the end of a file has been reached. 2. The keyboard character (usually Ctrl-D, which is the ASCII end-of-transmission character) that a Unix terminal driver maps into an end-of-file condition. 3. A character placed at the conclusion of a data set or data stream informing the reader or receiver that it has ended.

end of message (n.) A control character that

identifies the last bit of data in a message.

Energy Star (n.) An energy-efficiency guideline established by the Environmental Protection Agency (EPA) to identify an upper limit for wattage that an inactive computing device may draw. Compliance is voluntary, and manufacturers whose equipment meets the guidelines may display the Energy Star logo.

engine (n.) In software, a program (such as a database engine or search engine) that performs a function. It is usually transparent to the user. An interface is provided that allows the user to interact with the data or media.

Enhanced Graphics Adapter (EGA) (n.) An IBM PC display adapter that supports 16 colors from a palette of 64 colors at 640 x 350 pixels, as well as several other resolutions. See the Graphics Adapter Resolutions table. Pronounced "ee-jee-AY."

Enhanced Small Device Interface (ESDI, pronounced "EHZ-dee") (n.) An interface for transferring data between a mass storage device (or some other peripheral) and a microcomputer. An ESDI board has a buffer and can transfer data at 10 to 24 megabits per second (Mbps).

Enhanced Specialized Mobile Radio (ESMR) (n.) Developed by Nextel and Geotek Communications, an advanced two-way radio service that competes with wireless telephone service in some areas.

ENQ (n.) Enquire; an online convention for querying a user's availability. It is also the ASCII character 5.

Enterprise Java Beans (EJB) (n.) Customizable Java components typically used on the Internet to solve problems across a wide area network (WAN).

entropy (n.) The degree of disorder or randomness in a system. The entropy of a system is related to the amount of information it contains and the ways in which the information can be structured. An ordered system can be defined with fewer bits of information than a disordered one.

entropy encoder/decoder (n.) A type of encoder/decoder that compresses and decompresses quantized DCT coefficients compactly based on spatial characteristics.

envelope (n.) In audio engineering, a curve created by connecting the amplitude parameters of a sound over time. A simple envelope might consist of the attack, decay, sustain, and release levels, or ADSR. Changing the ADSR settings alters the shape of a tone but not its base pitch. An *envelope generator* is a device used to shape these four elements.

environment (n.) In programming, a list of variable bindings. To evaluate a variable is to look up its value in the environment. The environment is extended with new bindings when new variables are declared or when a function's parameters are bound to its actual arguments. In most block-structured procedural languages, the environment consists of a linked list of activation records.

EOF See *end of file*.

EPROM See *erasable programmable read-only memory*.

EPS See *Encapsulated PostScript*.

equalization (n.) In audio recording and processing, the use of filters or attenuators to adjust spectral levels in specified frequency ranges.