

The New Penguin Dictionary of Computing

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circuits permitted today's miniature, energy-efficient computers.

EMM Abbreviation of EXPANDED MEMORY MANAGER.

EMM386 (expanded memory manager 386) A piece of software issued with all versions of the MS-DOS operating system from version 5.0 onward to enable it to access more than the 640 kilobytes of memory to which the original IBM PC was restricted. EMM386 works only on Intel processors later than the 80386, hence the name. The program is loaded in the CONFIG.SYS file at system start up, and was still required by all versions of WINDOWS prior to NT and 2000. See more under EXTENDED MEMORY and EXPANDED MEMORY.

emoticon A jargon name for the SMILEY and other symbols used to convey the writers mood in text-only EMAIL and NEWSGROUP messages. The use of emoticons is sufficiently well established that the latest text-to-speech synthesizers can speak them.

emphasis A collective term for various visual methods of drawing attention to certain words within a text, including the use of bold, italic and underlined FONTS, colour, and animated effects such as blinking.

EMS Abbreviation of EXPANDED MEMORY SPECIFICATION.

emulation The process by which one system or device mimics the operation of another, most typically by a computer running suitable software. An emulation that must reproduce the behaviour of the original system in all respects including speed is called a REAL TIME emulation, but in many applications emulation slower than the original is acceptable. Emulation software is often used to run software written for one processor or operating system on another. See also SIMULATION.

emulator Hardware or software that imitates the behaviour of another device sufficiently well that it may be used in its place under real operating conditions. An emulator that is used only for purposes of appearance, analysis, experimentation or training is more usually called a SIMULATOR. To illustrate this distinction, consider that an emulator for the Pentium chip might be used to run actual

Pentium programs, but a Boeing 747 flight simulator will not take you to actual Barbados. See also EMULATION, SIMULATION.

en A printer's unit of width, used to specify spaces and rules, traditionally equal to the width of a lower case letter n in the current FONT. See also POINT, POINT SIZE, EN-DASH.

Encapsulated PostScript (EPS) A file format used to import into different DTP applications document layouts represented in the POSTSCRIPT page description language. Pages represented in EPS remain scalable and can be adjusted to the desired size within the target application without loss of quality.

EPS files contain PostScript code for the text, BITMAP images and any VECTOR drawings, together with PRAGMAS (comments) describing details such as the page's bounding box and page number. Photographs and fonts may also be embedded in the file as tables of bitmap data.

EPS files usually also contain a low-resolution preview of the whole layout which the target application can display to help the user identify the required image and position it accurately, without waiting for a full rendering.

encapsulation 1 In OBJECT-ORIENTED PROGRAMMING, the concealment of data items contained within an object so that they may be accessed only by calling that object's own methods, and remain invisible to all other program code.

2 In hardware engineering, the sealing of chips and other devices within a plastic coating to prevent the ingress of air and moisture.

Encarta Microsoft's CD-ROM encyclopedia.

encode To convert data into a different form. The purpose of encoding data may be to prevent it being read by unauthorized eyes (see ENCRYPTION), to prepare it for transmission or storage in a different medium (see for example ASCII code), or to represent it in the minimum of space (see for example HUFFMAN CODING). See also DECODE.

encryption The encoding of data so that it may be read only by authorized persons. Data is transformed in a way that can be reversed only by someone who possesses an extra piece of information called the KEY, which is a secret shared only by authorized parties.