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external device using infrared light. *See also* infrared, input/output port.

FIRST \fərst, F'I-R-S-T\ *n.* Acronym for **Forum of Incident Response and Security Teams**. An organization within the Internet Society (ISOC) that coordinates with CERT in order to encourage information sharing and a unified response to security threats. *See also* CERT, Internet Society.

first-generation computer \fərst-jen-ər-ā-shən kəm-pyoo'tər\ *n.* *See* computer.

first in, first out \fərst-in'fərst-out\ *n.* A method of processing a queue, in which items are removed in the same order in which they were added—the first in is the first out. Such an order is typical of a list of documents waiting to be printed. *Acronym:* FIFO (fī'fō, F'I-F-O'). *See also* queue. *Compare* last in, first out.

first normal form \fərst' nōr-məl fōrm\ *n.* *See* normal form (definition 1).

fitting \fit'ēng\ *n.* The calculation of a curve or other line that most closely approximates a set of data points or measurements. *See also* regression analysis.

FIX \fiks, F'I-X\ *n.* Acronym for **Federal Internet Exchange**. A connection point between the U.S. government's various internets and the Internet. There are two Federal Internet Exchanges: FIX West, in Mountain View, California; and FIX East, in College Park, Maryland. Together, they link the backbones of MILNET, ESnet (the TCP/IP network of the Department of Energy), and NSInet (NASA Sciences Internet) with NSFnet. *See also* backbone (definition 1), MILNET, NSFnet, TCP/IP.

fixed disk \fiksd disk\ *n.* *See* hard disk.

fixed-length field \fiksd'length fēld\ *n.* In a record or in data storage, a field whose size in bytes is predetermined and constant. A fixed-length field always takes up the same amount of space on a disk, even when the amount of data stored in the field is small. *Compare* variable-length field.

fixed-pitch spacing \fikst'pich spā'sēng\ *n.* *See* monospacing.

fixed-point arithmetic \fiksd'point ər-ith'mə-tik\ *n.* Arithmetic performed on fixed-point numbers. *See also* fixed-point notation.

fixed-point notation \fiksd'point nō-tā'shən\ *n.* A numeric format in which the decimal point has

a specified position. Fixed-point numbers are a compromise between integral formats, which are compact and efficient, and floating-point numeric formats, which have a great range of values. Like floating-point numbers, fixed-point numbers can have a fractional part, but operations on fixed-point numbers usually take less time than floating-point operations. *See also* floating-point notation, integer.

fixed space \fiksd' spās\ *n.* A set amount of horizontal space used to separate characters in text—often, the width of a numeral in a given font. *See also* em space, en space, thin space.

fixed spacing \fiksd' spā'sēng\ *n.* *See* monospacing.

fixed storage \fiksd' stōr'əj\ *n.* Any nonremovable storage, such as a large disk that is sealed permanently in its drive.

fixed-width font \fiksd'width font\ *n.* *See* monospace font.

fixed-width spacing \fiksd'width spā'sēng\ *n.* *See* monospacing.

fixed-word-length computer \fiksd'wōrd'length kəm-pyoo'tər\ *n.* A description that applies to almost all computers and refers to the uniform size of the data units, or words, that are processed by the microprocessor and shuttled through the system over the hardware lines composing the main data bus. Fixed-word-length computers, including IBM and Macintosh personal computers, commonly work with 2 or 4 bytes at a time.

.fj \dot'F-J\ *n.* On the Internet, the major geographic domain specifying that an address is located in Fiji.

F keys \F'kēz\ *n.* *See* function key.

flag \flag\ *n.* **1.** Broadly, a marker of some type used by a computer in processing or interpreting information; a signal indicating the existence or status of a particular condition. Flags are used in such areas as communications, programming, and information processing. Depending on its use, a flag can be a code, embedded in data, that identifies some condition, or it can be one or more bits set internally by hardware or software to indicate an event of some type, such as an error or the result of comparing two values. **2.** In the HDLC communications protocol, a flag is the unique



series of bits 01111110, used to start and end a transmission frame (message unit). *See also* HDLC.

flame¹ \flām\ *n.* An abusive or personally insulting e-mail message or newsgroup posting.

flame² \flām\ *vb.* **1.** To send an abusive or personally insulting e-mail message or newsgroup posting. **2.** To criticize personally by means of e-mail messages or newsgroup postings.

flame bait \flām' bāt\ *n.* A posting to a mailing list, newsgroup, or other online conference that is likely to provoke flames, often because it expresses a controversial opinion on a highly emotional topic. *See also* flame¹, flame war. *Compare* troll.

flamefest \flām'fest\ *n.* A series of inflammatory messages or articles in a newsgroup or other online conference.

flamer \flā'mər\ *n.* A person who sends or posts abusive messages via e-mail, in newsgroups and other online forums, and in online chats. *See also* chat¹ (definition 1), newsgroup.

flame war \flām' wōr\ *n.* A discussion in a mailing list, newsgroup, or other online conference that has turned into a protracted exchange of flames. *See also* flame¹.

flash memory \flash' mem'ər-ē\ *n.* A type of nonvolatile memory. Flash memory is similar to EEPROM memory in function but it must be erased in blocks, whereas EEPROM can be erased one byte at a time. Because of its block-oriented nature, flash memory is commonly used as a supplement to or replacement for hard disks in portable computers. In this context, flash memory either is built into the unit or, more commonly, is available as a PC Card that can be plugged into a PCMCIA slot. A disadvantage of the block-oriented nature of flash memory is that it cannot be practically used as main memory (RAM) because a computer needs to be able to write to memory in single-byte increments. *See also* EEPROM, nonvolatile memory, PC Card, PCMCIA slot.

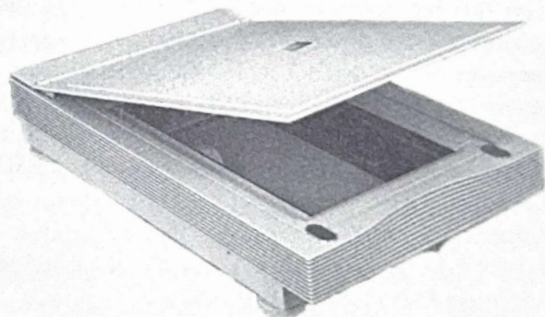
flash ROM \flash' rom, R-O-M'\ *n.* *See* flash memory.

flat address space \flat' a'dres spās, ə-dres\ *n.* An address space in which each location in memory is specified by a unique number. (Memory addresses start at 0 and increase sequentially by 1.)

The Macintosh operating system, OS/2, and Windows NT use a flat address space. MS-DOS uses a segmented address space, in which a location must be accessed with a segment number and an offset number. *See also* segmentation. *Compare* segmented address space.

flatbed plotter \flat'bed plot'ər\ *n.* A plotter in which paper is held on a flat platform and a pen moves along both axes, traveling across the paper to draw an image. This method is slightly more accurate than that used by drum plotters, which move the paper under the pen, but requires more space. Flatbed plotters can also accept a wider variety of media, such as vellum and acetate, because the material does not need to be flexible. *See also* plotter. *Compare* drum plotter, pinch-roller plotter.

flatbed scanner \flat'bed skan'ər\ *n.* A scanner with a flat transparent surface that holds the image to be scanned, generally a book or other paper document. A scan head below the surface moves across the image. Some flatbed scanners can also reproduce transparent media, such as slides. *See* the illustration. *Compare* drum scanner, handheld scanner, sheet-fed scanner.



Flatbed scanner.

flat file \flat' fīl\ *n.* A file consisting of records of a single record type in which there is no embedded structure information that governs relationships between records.

flat-file database \flat'fīl dā'tə-bās\ *n.* A database that takes the form of a table, where only one table can be used for each database. A flat-file database can only work with one file at a time. *Compare* relational database.

flat file directory \flat' fīl' dər-ek'tər-ē\ *n.* A directory that cannot contain subdirectories but

tag \tag\ *n.* **1.** In programming, one or more characters containing information about a file, record type, or other structure. **2.** In certain types of data files, a key or an address that identifies a record and its storage location in another file. *See also* tag sort. **3.** In markup languages such as SGML and HTML, a code that identifies an element in a document, such as a heading or a paragraph, for the purposes of formatting, indexing, and linking information in the document. In both SGML and HTML, a tag is generally a pair of angle brackets that contain one or more letters and numbers. Usually one pair of angle brackets is placed before an element, and another pair is placed after, to indicate where the element begins and ends. For example, in HTML, <IT>hello world</IT> indicates that the phrase "hello world" should be italicized. *See also* <>, element, emotag, HTML, SGML.

Tagged Image File Format \tagd' im'əj fil' fōr-mat\ *n.* *See* TIFF.

tag sort \tag' sōrt\ *n.* A sort performed on one or several key fields for the purpose of establishing the order of their associated records. *Also called* key sort.

tag switching \tag' swich'ēng\ *n.* A multilayer Internet switching technology developed by Cisco Systems that integrates routing and switching.

talk¹ \tāk\ *n.* The UNIX command that, when followed by another user's name and address, is used to generate a request for a synchronous chat session on the Internet. *See also* chat¹ (definition 1).

talk² \tāk\ *vb.* *See* chat².

talker \tā'kər\ *n.* An Internet-based synchronous communication mechanism most commonly used to support multiuser chat functions. Such systems typically provide specific commands for movement through separate rooms, or chat areas, and allow users to communicate with other users in real time through text messages, indicate simple gestures, use a bulletin board system (BBS) for posting comments, and send internal e-mail. *See also* BBS (definition 1), chat¹ (definition 1).

talk. newsgroups \tāk'dot nōōz'grōōps\ *n.* Usenet newsgroups that are part of the talk. hierarchy and have the prefix talk. as part of their names. These newsgroups are devoted to debate and discussion of controversial topics. Talk. newsgroups are one of the seven original Usenet newsgroup

hierarchies. The other six are comp. misc., news, rec., sci., and soc. *See also* newsgroup, traditional newsgroup hierarchy, Usenet.

tandem processors \tan'dəm pros'as-arz\ *n.* Multiple processors wired so that the failure of one processor transfers central processing unit (CPU) operation to another processor. Using tandem processors is part of the strategy for implementing fault-tolerant computer systems. *See also* central processing unit.

TANSTAAFL \tan'staf'l, T'A-N-S-T-A-A-F-L\ *n.* Acronym for "There ain't no such thing as a free lunch." An expression used on the Internet in e-mail, chat sessions, mailing lists, newsgroups, and other online forums. *See also* chat¹ (definition 1), e-mail¹ (definition 1), mailing list, newsgroup.

tap \tap\ *n.* A device that can be attached to an Ethernet bus to enable a computer to be connected.

tape \tāp\ *n.* **1.** A thin strip of polyester film coated with magnetic material that permits the recording of data. Because tape is a continuous length of data storage material and because the read/write head cannot "jump" to a desired point on the tape without the tape first being advanced to that point, tape must be read or written sequentially, not randomly (as can be done on a floppy disk or a hard disk). **2.** A storage medium consisting of a thin strip of paper used to store information in the form of sequences of punched holes, chemical impregnation, or magnetic ink imprinting.

tape cartridge \tāp' kār'trij\ *n.* A module that resembles an audio cassette and contains magnetic tape that can be written on and read from by a tape drive. Tape cartridges are primarily used to back up hard disks. *See the illustration. See also* tape (definition 1).

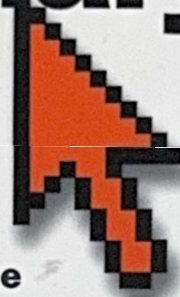


Tape cartridge.

tape drive \tāp' drīv\ *n.* A device for reading and writing tapes. *See also* tape (definition 1).

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