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.fidonet.org \dot-fī`dō-net-dot-ōrg´\ *n.* On the Internet, the major domain specifying that an address is located on Fidonet.

field \fēld\ *n.* **1.** A location in a record in which a particular type of data is stored. For example, EMPLOYEE-RECORD might contain fields to store Last-Name, First-Name, Address, City, State, Zip-Code, Hire-Date, Current-Salary, Title, Department, and so on. Individual fields are characterized by their maximum length and the type of data (for example, alphabetic, numeric, or financial) that can be placed in them. The facility for creating these specifications usually is contained in the data definition language (DDL). In relational database management systems, fields are called *columns.* **2.** A space in an on-screen form where the user can enter a specific item of information.

field-effect transistor \fēld`ə-fekt tranz-i´stər\ *n. See* FET.

field-programmable logic array \fēld`prō-gram-ə-bl loj´ik ər-ā`\ *n.* An integrated circuit containing an array of logic circuits in which the connections between the individual circuits, and thus the logic functions of the array, can be programmed after manufacture, typically at the time of installation in the field. Programming can be performed only once, typically by passing high current through fusible links on the chip. *Acronym:* FPLA (F`P-L-A´). *Also called* PLA, programmable logic array.

field separator \fēld´ sep`ər-ā-tər\ *n.* Any character that separates one field of data from another. *See also* delimiter, field (definition 1).

FIFO \fī´fō, F`I-F-O´\ *n. See* first in, first out.

fifth-generation computer \fifth`jen-ər-ā`shən kəm-pyo͞o´tər\ *n. See* computer.

fifth normal form \fifth` nōr`məl fōrm´\ *n.* Abbreviated 5NF. *See* normal form (definition 1).

file \fīl\ *n.* A complete, named collection of information, such as a program, a set of data used by a program, or a user-created document. A file is the basic unit of storage that enables a computer to distinguish one set of information from another. A file is the "glue" that binds a conglomeration of instructions, numbers, words, or images into a coherent unit that a user can retrieve, change, delete, save, or send to an output device.

file allocation table \fīl´ al-ə-kā`shən tā`bl\ *n.* A table or list maintained by some operating systems to manage disk space used for file storage. Files on a disk are stored, as space allows, in fixed-size groups of bytes (characters) rather than from beginning to end as contiguous strings of text or numbers. A single file can thus be scattered in pieces over many separate storage areas. A file allocation table maps available disk storage space so that it can mark flawed segments that should not be used and can find and link the pieces of a file. In MS-DOS, the file allocation table is commonly known as the FAT. *See also* FAT file system.

file attribute \fīl´ a`trə-byo͞ot\ *n.* A restrictive label attached to a file that describes and regulates its use—for example, hidden, system, read-only, archive, and so forth. In MS-DOS, this information is stored as part of the file's directory entry.

file backup \fīl´ bak`up\ *n. See* backup.

file compression \fīl´ kəm-presh`ən\ *n.* The process of reducing the size of a file for transmission or storage. *See also* data compression.

file control block \fīl´ kən-trōl` blok\ *n.* A small block of memory temporarily assigned by a computer's operating system to hold information about an opened file. A file control block typically contains such information as the file's identification, its location on disk, and a pointer that marks the user's current (or last) position in the file. *Acronym:* FCB (F`C-B´).

file conversion \fīl´ kən-vər`zhən\ *n.* The process of transforming the data in a file from one format to another without altering its contents—for example, converting a file from a word processor's format to its ASCII equivalent.

file extension \fīl´ eks-ten`shən\ *n. See* extension (definition 1).

file extent \fīl´ eks-tent`\ *n. See* extent.

file format \fīl´ fōr`mat\ *n.* The structure of a file that defines the way it is stored and laid out on the screen or in print. The format can be fairly simple and common, as are files stored as "plain" ASCII text, or it can be quite complex and include various types of control instructions and codes used by programs, printers, and other devices. Examples include RTF (Rich Text Format), DCA (Document Content Architecture), PICT, DIF (Data Interchange Format), DXF, TIFF (Tagged Image File Format), and EPSF (Encapsulated PostScript Format).

file fragmentation \fīl´ frag-mən-tā`shən\ *n.* **1.** The breaking apart of files into small, separate segments for storage on disk. The condition is a natural consequence of enlarging files and saving them on a crowded disk that no longer contains contiguous blocks of free space large enough to hold them. File fragmentation is not an integrity problem, although it can eventually slow read and write access times if the disk is very full and storage is badly fragmented. Software products are available for redistributing (optimizing) file storage to reduce fragmentation. **2.** In a database, a situation in which records are not stored in their optimal access sequence because of accumulated additions and deletions of records. Most database systems offer or contain utility programs that resequence records to improve efficiency of access and to aggregate free space occupied by deleted records.

file gap \fīl´ gap\ *n. See* block gap.

file handle \fīl´ han`dl\ *n.* In MS-DOS, OS/2, and Windows, a token (number) that the system uses to identify or refer to an open file or, sometimes, to a device.

file-handling routine \fīl´hand-lēng rōō-tēn`\ *n.* Any routine designed to assist in creating, opening, accessing, and closing files. Most high-level languages have built-in file-handling routines, although more sophisticated or complex file-handling routines in an application are often created by the programmer.

file header \fīl´ hed`ər\ *n. See* header (definition 2).

file layout \fīl´ lā`out\ *n.* In data storage, the organization of records within a file. Frequently, descriptions of the record structure are also included within the file layout.

file librarian \fīl´ lī-brār`ē-ən\ *n.* A person or process responsible for maintaining, archiving, copying, and providing access to a collection of data.

file maintenance \fīl´ mān`tə-nəns\ *n.* Broadly, the process of changing information in a file, altering a file's control information or structure, or copying and archiving files. A person using a terminal to enter data, the program accepting the data from the terminal and writing it to a data file, and a database administrator using a utility to alter the format of a database file are all forms of file maintenance.

file manager \fīl´ man`ə-jər\ *n.* A module of an operating system or environment that controls the physical placement of and access to a group of program files.

filename \fīl´nām\ *n.* The set of letters, numbers, and allowable symbols assigned to a file to distinguish it from all other files in a particular directory on a disk. A filename is the handle by which a computer user saves and requests a block of information. Both programs and data have filenames and often extensions that further identify the type or purpose of the file. Naming conventions, such as maximum length and allowable characters of a filename, vary from one operating system to another. *See also* directory, path (definition 5).

filename extension \fīl´nām eks-ten`shən\ *n. See* extension (definition 1).

file protection \fīl´ prə-tek`shən\ *n.* A process or device by which the existence and integrity of a file are maintained. Methods of file protection range from allowing read-only access and assigning passwords to covering the write-protect notch on a disk and locking away floppy disks holding sensitive files.

file recovery \fīl´ rə-kəv`ər-ē\ *n.* The process of reconstructing lost or unreadable files on disk. Files are lost when they are inadvertently deleted, when on-disk information about their storage is damaged, or when the disk is damaged. File recovery involves the use of utility programs that attempt to rebuild on-disk information about the storage locations of deleted files. Because deletion makes the file's disk space available but does not remove the data, data that has not yet been overwritten can be recovered. In the case of damaged files or disks, recovery programs read whatever raw data they can find, and save the data to a new disk or file in ASCII or numeric (binary or hexadecimal) form. In some instances, however, such reconstructed files contain so much extraneous or mixed information that they are unreadable. The best way to recover a file is to restore it from a backup copy.

file retrieval \fīl´ rə-trē`vəl\ *n.* The act of transferring a data file from a storage location to the machine where it is to be used.

file server \fīl´ sər`vər\ *n.* A file-storage device on a local area network that is accessible to all users on the network. Unlike a disk server, which appears to the user as a remote disk drive, a file server is a sophisticated device that not only stores files but manages them and maintains order as network users request files and make changes to them. To deal with the tasks of handling multiple—sometimes simultaneous—requests for files, a file server contains a processor and controlling software as well as a disk drive for storage. On local area networks, a file server is often a computer with a large hard disk that is dedicated only to the task of managing shared files. *Compare* disk server.

file sharing \fīl´ shâr`ēng\ *n.* The use of computer files on networks, wherein files are stored on a central computer or a server and are requested, reviewed, and modified by more than one individual. When a file is used with different programs or different computers, file sharing can require conversion to a mutually acceptable format. When a single file is shared by many people, access can be regulated through such means as password protection, security clearances, or file locking to prohibit changes to a file by more than one person at a time.

file size \fīl´ sīz\ *n.* The length of a file, typically given in bytes. A computer file stored on disk actually has two file sizes, logical size and physical size. The logical file size corresponds to the file's actual size—the number of bytes it contains. The physical size refers to the amount of storage space allotted to the file on disk. Because space is set aside for a file in blocks of bytes, the last characters in the file might not completely fill the block (allocation unit) reserved for them. When this happens, the physical size is larger than the logical size of the file.

filespec \fīl´spek\ *n. See* file specification (definition 1).

file specification \fīl` spes`ə-fə-kā´shən\ *n.* **1.** Abbreviated filespec. The path to a file, from a disk drive through a chain of directory files to the filename that serves to locate a particular file. **2.** A filename containing wildcard characters that indicate which files among a group of similarly named files are requested. **3.** A document that describes the organization of data within a file.

file structure \fīl´ struk`chur\ *n.* A description of a file or group of files that are to be treated together for some purpose. Such a description includes file layout and location for each file under consideration.

file system \fīl´ si`stəm\ *n.* In an operating system, the overall structure in which files are named, stored, and organized. A file system consists of files, directories, and the information needed to locate and access these items. The term can also refer to the portion of an operating system that translates requests for file operations from an application program into low-level, sector-oriented tasks that can be understood by the drivers controlling the disk drives. *See also* driver.

file transfer \fīl´ trans`fər\ *n.* The process of moving or transmitting a file from one location to another, as between two programs or over a network.

File Transfer Protocol \fīl` trans-fər prō´tə-kol\ *n. See* FTP[1] (definition 1).

file type \fīl´ tīp\ *n.* A designation of the operational or structural characteristics of a file. A file's type is often identified in the filename. With MS-DOS, a file's type is usually reflected in the filename extension. *See also* file format.

fill \fil\ *n.* In computer graphics, to "paint" the inside of an enclosed figure, such as a circle, with color or a pattern. The portion of the shape that can be colored or patterned is the fill area. Drawing programs commonly offer tools for creating filled or nonfilled shapes; the user can specify color or pattern.

film at 11 \film` at ə-lev´ən\ A phrase sometimes seen in newsgroups. An allusion to a brief newsbreak on TV that refers to a top news story that will be covered in full on the 11 o'clock news, it is used sarcastically to ridicule a previous article's lack of timeliness or newsworthiness. *See also* newsgroup.

film recorder \film´ rə-kōr`dər\ *n.* A device for capturing on 35-mm film the images displayed on a computer screen.

film ribbon \film´ rib`ən\ *n. See* carbon ribbon.

filter \fil´tər\ *n.* **1.** A program or set of features within a program that reads its standard or designated input, transforms the input in some desired way, and then writes the output to its standard or