

Microsoft Press

Computer Dictionary

Third Edition

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n. A description of
t are to be treated
Such a description
on for each file under

In an operating sys-
which files are named,
the system consists of
information needed to
s. The term can also
operating system that
operations from an
low-level, sector-
understood by the driv-
es. *See also* driver.

n. The process of
le from one location to
programs or over a net-

trans-fər prō'tə-kol\

signation of the opera-
teristics of a file. A file's
the filename. With MS-
ally reflected in the file-
file format.

graphics, to "paint" the
are, such as a circle, with
portion of the shape that
ned is the fill area. Draw-
offer tools for creating
es; the user can specify

en\ A phrase sometimes
allusion to a brief news-
to a top news story that
n the 11 o'clock news, it is
dicule a previous article's
newsworthiness. *See also*

-kōr'dər\ *n.* A device for
m the images displayed on

on\ *n.* *See* carbon ribbon.
program or set of features
reads its standard or desig-
s the input in some desired
he output to its standard or

designated output destination. A database filter, for
example, might flag information of a certain age.

2. In communications and electronics, hardware or
software that selectively passes certain elements of
a signal and eliminates or minimizes others. A filter
on a communications network, for example, must
be designed to transmit a certain frequency but
attenuate (dampen) frequencies above it (a low-
pass filter), those below it (a highpass filter), or
those above and below it (a bandpass filter). **3.** A
pattern or mask through which data is passed to
weed out specified items. For instance, a filter used
in e-mail or in retrieving newsgroup messages can
allow users to filter out messages from other users.
See also e-mail filter, mask. **4.** In computer graph-
ics, a special effect or production effect that is
applied to bitmapped images; for example, shifting
pixels within an image, making elements of the
image transparent, or distorting the image. Some
filters are built into a graphics program, such as a
paint program or an image editor. Others are sep-
arate software packages that plug into the graphics
program. *See also* bitmapped graphics, image edi-
tor, paint program.

filtering program \fil'tər-ēng prō'gram\ *n.* A
program that filters information and presents only
results that match the qualifications defined in the
program.

FilterKeys \fil'tər-kēz\ *n.* A Windows 95 accessi-
bility control panel feature that enables users with
physical disabilities to use the keyboard. With Fil-
terKeys, the system ignores brief and repeated
keystrokes that result from slow or inaccurate fin-
ger movements. *See also* accessibility. *Compare*
MouseKeys, ShowSounds, SoundSentry, Sticky-
Keys, ToggleKeys.

Final-Form-Text DCA \fī'nəl-fōrm-tekst` D-C-A\ *n.* A standard in Document Content Architecture
(DCA) for storing documents in ready-to-print
form for interchange between dissimilar programs.
A related standard is Revisable-Form-Text DCA
(RFTDCA). *Acronym:* FFTDCA (F'F-T'D-C-A'). *See*
also DCA (definition 1). *Compare* Revisable-Form-
Text DCA.

find \find\ *vb.* *See* search².

Finder \fin'dər\ *n.* The standard interface to the
Macintosh operating system, allowing the user to
view the contents of directories (folders); to move,

copy, and delete files; and to launch applications.
Items in the system are often represented as icons,
and a mouse or similar pointing device is used to
manipulate these items. The Finder was the first
commercially successful graphical user interface,
and it helped launch a wave of interest in icon-
based systems. *See also* MultiFinder.

finger¹ \fēng'ər\ *n.* An Internet utility, originally
limited to UNIX but now available on many other
platforms, that enables a user to obtain informa-
tion on other users who may be at other sites (if
those sites permit access by finger). Given an e-
mail address, finger returns the user's full name, an
indication of whether or not the user is currently
logged on, and any other information the user has
chosen to supply as a profile. Given a first or last
name, finger returns the logon names of users
whose first or last names match.

finger² \fēng'ər\ *vb.* To obtain information on a
user by means of the finger program.

fingerprint reader \fēng'-ər-print rē'dər\ *n.* A
scanner that reads human fingerprints for compar-
ison to a database of stored fingerprint images.

FIPS \fips, F'I-P-S\ *n.* *See* Federal Information
Processing Standards.

firewall \fīr'wāl\ *n.* A security system intended to
protect an organization's network against external
threats, such as hackers, coming from another net-
work, such as the Internet. A firewall prevents
computers in the organization's network from
communicating directly with computers external
to the network and vice versa. Instead, all commu-
nication is routed through a proxy server outside
of the organization's network, and the proxy
server decides whether it is safe to let a particular
message or file pass through to the organization's
network.

firmware \fərm'wâr\ *n.* Software routines stored
in read-only memory (ROM). Unlike random
access memory (RAM), read-only memory stays
intact even in the absence of electrical power.
Startup routines and low-level input/output
instructions are stored in firmware. It falls between
software and hardware in terms of ease of modifi-
cation. *See also* RAM, ROM.

FIR port \F'I-R' pōrt\ *n.* Short for **fast infrared**
port. A wireless I/O port, most common on a
portable computer, that exchanges data with an

FIRST

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

FIRST \fɜrst, 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 \fɜrst-jen-ər-ā'shən kəm-pyōō'tər \ *n.* *See* computer.

first in, first out \fɜrst-in'fɜrst-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 \fɜrst' nōr-məl fōrm' \ *n.* *See* normal form (definition 1).

fitting \fit'ɪŋg \ *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'sēŋg \ *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'sēŋg \ *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'sēŋg \ *n.* *See* monospacing.

fixed-word-length computer \fiksd'wɜrd'length kəm-pyōō'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

flag

flame

series of bits 0111 transmission frame

flame¹ \flām' \ *n.* A

ing e-mail message

flame² \flām' \ *vb.*

sonally insulting c

posting. **2.** To criti

mail messages or r

flame bait \flām' b

list, newsgroup, or

likely to provoke

expresses a contr

emotional topic. *S*

pare troll.

flamefest \flām'fes

messages or artic

online conference.

flamer \flā'mər' \ *n.*

abusive messages

other online forum

chat¹ (definition 1)

flame war \flām' v

ing list, newsgrou

that has turned i

flames. *See also* fla

flash memory \fla

nonvolatile memo

to EEPROM mem

numbers are a
mats, which are
g-point numeric
e of values. Like
int numbers can
ations on fixed-
me than floating-
g-point notation,

t amount of hori-
characters in text—
a given font. See
pace.

n. See monospac-

. Any nonremov-
that is sealed per-

ont\ n. See mono-

lth spā'sēng\ n.

\fiks'd wərd\ length
on that applies to
ers to the uniform
ords, that are pro-
ssor and shuttled
ardware lines com-
Fixed-word-length
nd Macintosh per-
work with 2 or 4

net, the major geo-
that an address is

n key.

marker of some type
essing or interpreting
ing the existence or
on. Flags are used in
ns, programming, and
ending on its use, a
ed in data, that identi-
n be one or more bits
or software to indicate
ch as an error or the
values. 2. In the HDLC
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 insult-
ing e-mail message or newsgroup posting.

flame² \flām\ vb. 1. To send an abusive or per-
sonally 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. Com-
pare 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 mail-
ing 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.

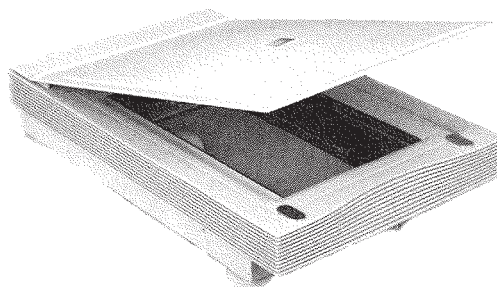
flash ROM \flash' rom, R-O-M\ n. See flash mem-
ory.

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

The Macintosh operating system, OS/2, and Win-
dows 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 embed-
ded structure information that governs relation-
ships 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' də-r-ek'tər-ē\ n. A
directory that cannot contain subdirectories but

flat file system

simply contains a list of filenames. *Compare* hierarchical file system.

flat file system \flat' fīl' sī'stəm\ *n.* A filing system with no hierarchical order in which no two files on a disk may have the same name, even if they exist in different directories. *Compare* hierarchical file system.

flat memory \flat' mem'ər-ē\ *n.* Memory that appears to a program as one large addressable space, whether consisting of RAM or virtual memory. The 68000 and VAX processors have flat memory; by contrast, 80x86 processors operating in real mode have segmented memory. *Also called* linear memory.

flat pack \flat' pak\ *n.* An integrated circuit housed in a flat rectangular package with connecting leads along the edges of the package. The flat pack was a precursor of surface-mounted chip packaging. *See also* surface-mount technology. *Compare* DIP (definition 1).

flat-panel display \flat'pan-əl dis-plā'\ *n.* A video display with a shallow physical depth, based on technology other than the CRT (cathode-ray tube). Such displays are typically used in laptop computers. Common types of flat-panel displays are the electroluminescent display, the gas discharge display, and the LCD display.

flat screen \flat skrēn'\ *n.* *See* flat-panel display.

flavor \flā'vər\ *n.* One of several varieties of a system, having its own details of operation. UNIX in particular is found in distinct flavors, such as BSD UNIX or AT&T UNIX System V.

flexible disk \fleks'ə-bl disk'\ *n.* *See* floppy disk.

.fli \dot'F-L-I'\ *n.* The file extension that identifies animation files in the FLI file format.

flicker \flik'ər\ *n.* Rapid, visible fluctuation in a screen image, as on a television or computer monitor. Flicker occurs when the image is refreshed (updated) too infrequently or too slowly for the eye to perceive a steady level of brightness. In television and raster-scan displays, flicker is not noticeable when the refresh rate is 50 to 60 times per second. Interlaced displays, in which the odd-numbered scan lines are refreshed on one sweep and even-numbered lines on the other, achieve a flicker-free effective refresh rate of 50 to 60 times per second because the lines appear to merge, even though

floating-point notation

each line is actually updated only 25 to 30 times per second.

flight simulator \flīt' sim'yə-lā-tər\ *n.* A computer-generated recreation of the experience of flying. Sophisticated flight simulators costing hundreds of thousands of dollars can provide pilot training, simulating emergency situations without putting human crews and planes at risk. Flight simulator software running on personal computers simulates flight in a less realistic fashion; it provides entertainment and practice in navigation and instrument reading.

flip-flop \flip'flop\ *n.* A circuit that alternates between two possible states when a pulse is received at the input. For example, if the output of a flip-flop is high and a pulse is received at the input, the output "flips" to low; a second input pulse "flops" the output back to high, and so on. *Also called* bistable multivibrator.

flippy-floppy \flip'ē-flop'ē\ *n.* A 5.25-inch floppy disk that uses both sides for storage but is used in an older drive that can read only one side at a time. Thus, to access the opposite side, the disk must be physically removed from the drive and flipped over. Disk and disk-drive manufacturers discourage the practice of turning a double-sided disk into a flippy-floppy (by cutting an extra write-protect notch on the side opposite the original one), because the felt pad that rides on the disk surface opposite the single read/write head can damage data on that side of the disk. *See also* double-sided disk.

float \flōt\ *n.* The data type name used in some programming languages, notably C, to declare variables that can store floating-point numbers. *See also* data type, floating-point number, variable.

floating-point arithmetic \flō'tēng-point' arith'mə-tik\ *n.* Arithmetic performed on floating-point numbers. *See also* floating-point notation, floating-point number.

floating-point constant \flō'tēng-point' kon'stənt\ *n.* A constant representing a real, or floating-point, value. *See also* constant, floating-point notation.

floating-point notation \flō'tēng-point' nō-tā'shən\ *n.* A numeric format that can be used to represent very large real numbers and very small real numbers. Floating-point numbers are stored in

floating-point number

two parts, a mantissa and tissa specifies the digits exponent specifies the m (the position of the deci the numbers 314,600,0 expressed respectively a floating-point notation. I not directly support float sequentially, floating-point formed either by using s floating-point processor notation. *See also* fixed point processor, integer.

floating-point number *n.* A number represent exponent according to a is usually a value betw value of a floating-point to the power of the exp multiplied by the resul tion uses floating-point base. In a computer, numbers is usually 2.

floating-point operation \flō'shən\ *n.* An arithmetic data stored in floatin point operations are u have either fractional spreadsheets and con Therefore, one measu how many millions per second (MFLOPS form. Acronym: FLOP floating-point operat notation, MFLOPS.

floating-point proces es-ər\ *n.* A coproces on floating-point num processor to a system of math and graphic is designed to recogn 68040 and higher r floating-point proce cessor, numeric co point notation, float **floating-point regis** *n.* A register design ues. *See also* floatin