



WILEY ELECTRICAL AND ELECTRONICS ENGINEERING DICTIONARY

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file handle

file handle A temporary designation an operating system assigns to an opened file during any given session.

file header An information unit found at the beginning of a file, such as that stored on a tape or disk, which serves to identify it and describe the contained information.

file identification A code, name, label, or the such which serves to identify a file. Also, The assigning of such an identification.

file importing The conversion of a file or data in one format, into another format required for use by the receiving application or environment, using the appropriate filters. In file importing the conversion occurs after files or data are accepted, while in **file exporting** the conversion occurs before said files or data are moved or saved.

file label A record appearing at the beginning of a file, containing information such as its name, size, type, and so on. Also called **header label**.

file layout The manner in which the content of a file is distributed. It consists of the arrangement of the records it contains. Also, a description of such a layout.

file locking 1. A technique employed to help maintain data integrity in a multiuser environment. When a user accesses any file, all other users are blocked from doing so. Once the accessed file is updated, it again becomes freely available. 2. The enabling of a security feature, such as a password, to block access to a file.

file maintenance 1. The updating of master files, based on changes in the data contained in transaction files. 2. Any activity which helps maintain files current and/or optimally accessible. Such activities include the addition, modification, or deletion of contained information, copying or archiving files, or the defragmentation of a disk.

file management system A program, or a part of a program, which performs functions such as the organization, copying, renaming, transferring, viewing, and retrieving of files. An operating system incorporates a file management system, but there are also specialized programs which provide more flexibility and ease of use. Also called **file manager**.

file manager Same as **file management system**.

file name Same as **filename**.

file processing The use of a file. This includes, saving, updating, and manipulating information within it.

file protection 1. Measures taken to prevent the accidental erasure of files, or parts of files. Such protection may be logical or physical. Logical protection, for instance, may involve designating a file as read-only, while physical protection might entail the moving of a tab. 2. Same as **file security**.

file recovery Procedures utilized to restore files, or parts of files, which have been lost due to accidental erasure, software and/or hardware failure, misplacement, and so on. Although there are utility programs that can help in this capacity, the best restoration method is to access a backup copy.

file recovery program Same as **file recovery software**.

file recovery software A program or utility employed for **file recovery**. Also called **file recovery utility**, or **file recovery program**.

file recovery utility Same as **file recovery software**.

file retrieval The accessing of a file, or a part of a file, from a storage location.

file search 1. To look for specific content within a file. 2. To look for a specific file within a file server, database, directory, and so on.

file security The safeguarding of files against loss, damage, unwanted modification, or unauthorized access. Such safeguards may be administrative, physical, or technical. Also called **file protection** (2).



file server In a communications network, a server which manages files and serves as a remote storage location for a workstation. For example, a file server helps insure that multiple requests for files are handled in an orderly manner.

file sharing The accessing of files by multiple users in a network. This may or not occur simultaneously. The files are available from a central computer, such as a file server, which takes care of tasks such as file locking.

file sharing protocol A communications protocol which governs the sharing of files over a network.

file size The length of a file, usually expressed in bytes or a multiple of bytes such as megabytes.

file spec Same as **full path**. Abbreviation of **file specification**.

file specification Same as **full path**.

file system Within a operating system, the manner in which files are named, renamed, organized, copied, transferred, stored, and retrieved.

file transfer The movement, without alteration, of a file from one location to another. This may be, for instance, from one computer to another within a network, or between file directories.

File Transfer, Access, and Management A communications protocol intended to facilitate the access, management, and transfer of files between different computer environments. Its abbreviation is **FTAM**.

file transfer program A program designed to simply, quickly, and safely transfer files between computers, such as those linked via a parallel or USB cable. Its abbreviation is **FTP**.

file transfer protocol A protocol utilized for transferring files over a TCP/IP network, such as the Internet. In incorporates functions such as conversions between character codes, and accepts commands, such as directory listing. Its abbreviation is **FTP**.

file type The kind of information contained in a file, and the format in which it is stored. For instance, an operating system will use this information to select the appropriate application to open when a given file is selected. The file type is usually indicated by a filename extension.

file upload To send one or more files to a remote computer in a network. This contrasts with a **file download**, where files are received from a remote computer in a network.

file viewer A separate application which is called upon to interpret and view files, including those with multimedia content, which could otherwise not be seen by the current application. For instance, a Web browser plug-in utilized to display a video file that is in a format not currently supported.

FileMaker A popular database program.

filename One or more alphanumeric characters utilized to designate a file. Each operating system has restrictions on filenames, such as length, or the inability to use certain characters and/or symbols. Many operating systems support extensions at the end of a filename, which indicate the file type. Also spelled **file name**.

filename extension A set of characters appearing at the end of a filename, indicating the file type. For example, in the filename *notepen.exe*, the *.exe* portion is the extension, and in this case specifies an executable program. Also called **file extension**, or **extension** (2).

filespec Abbreviation of **file specification**. Same as **full path**.

fill 1. That which serves to occupy a space or enclosure. For example, the fill of a gas tube, or the fill between spaces in hard-solder. Also to add such a substance to a space or enclosure. 2. To occupy a virtual space. For instance, the filling of a polygon on a computer screen with a given pattern



prototyping board

prototyping board A perforated board or chassis on which electronic devices and components can be mounted and interconnected simply and quickly, for testing, experimenting, and preparation of prototype circuits. Its abbreviation is **proto-board**. Also called **breadboard** (1).

proustite A red mineral whose chemical formula is Ag_3AsS_3 . It is soft, relatively dense, and translucent. Used, for instance, in optics research.

provisioning Also called **network provisioning**. 1. The setting up of a communications network. This may include the allocation of hardware, such as multiplexers and interface units, the selection of the mediums of transmission, such as coaxial cables and optical fibers, and establishing the connections between nodes. Alternatively, it may involve simply programming a computer to make the appropriate arrangements within an established network. 2. **Provisioning** (1) for a specific customer.

proximity alarm 1. An alarm which is activated when the distance between two objects is less than or greater than a given amount. 2. An alarm incorporating a **proximity sensor**.

proximity card A card, such as a smart card, whose data can be accessed by a **proximity card reader**. Used, for instance, for purchases or identification.

proximity card reader A device which detects data contained by **proximity cards** that are held or otherwise located nearby. A card and reader may communicate, for instance, via RFID technology.

proximity detector Same as **proximity sensor**.

proximity effect 1. The altering of the distribution of current in a conductor due to the presence of another nearby conductor. 2. In a microphone, a boost in the low-frequency response when in close proximity to a sound source.

proximity relay A relay which responds to very small variations in capacitance, similar to those produced by a human body, or a part of it, such as a hand. Such a device may be used, for instance, as an intrusion alarm. Also called **capacitance relay**.

proximity sensing 1. The utilization of a **proximity sensor**. 2. The function of a **proximity sensor**.

proximity sensor A sensing device utilized to determine the distance to one or more objects, without coming in contact with that which is detected. They are many types, including optical, acoustic, and magnetic. Frequently used in robotics. Also known as **proximity detector**, **non-contact sensor**, or **non-contact detector**.

proximity switch A switch that is actuated when an object or body is in close proximity. Such a switch may incorporate a **proximity sensor**.

proximity warning A warning, such as an alarm, produced when the distance between two objects is less than or greater than a given amount.

proxy Same as **proxy server**.

proxy cache The caching function of a **proxy server**.

proxy server A server, application, or system that serves as an intermediary between a private network, such as a LAN, and all other networks. Its two main functions are to provide document caching and access control. When caching, a proxy first attempts to access data which it has cached, and if not present there, it fetches it from a remote server where said data resides. When controlling access, it serves as a firewall. Also called **proxy**, or **application level gateway**.

PRR Abbreviation of **pulse repetition rate**.

PRT Abbreviation of **platinum resistance thermometer**.

ps Abbreviation of **picosecond**.

pS Abbreviation of **picosiemens**.

610

psychoacoustics

PSD 1. Abbreviation of **power spectral density**. 2. Abbreviation of **phase-sensitive detector**.

psec Abbreviation of **picosecond**.

pseudo code Same as **pseudocode**.

pseudo instruction Same as **pseudoinstruction**.

pseudo-random Same as **pseudorandom**.

pseudo-random number Same as **pseudorandom number**.

pseudo-random sequence Same as **pseudorandom sequence**.

pseudo-streaming Same as **progressive download**. Also spelled **pseudostreaming**.

pseudocode Also spelled **pseudo code**. Its abbreviation is **p-code**. 1. A description, in a natural language, of the steps of a program, routine, or algorithm. It is intended to be detailed and sufficiently clear, so that programmers can understand enough of the design of a program to make changes and improvements. Such a language is not necessarily suitable for computer processing, although there are programs that convert pseudocode into a programming language. 2. A computer language that can not be directly executed by a CPU. Such a language must be interpreted or compiled prior to execution. Also called **interpretive language**. 3. An intermediate language which is processed by a virtual machine. The virtual machine converts the instructions into machine instructions most any CPU will understand, making such code essentially architecture-independent. For example, Java bytecode is processed by a Java Virtual Machine. Also called **bytecode**.

pseudoinstruction An instruction written in **pseudocode**. Also spelled **pseudo instruction**.

pseudomorphic high-electron mobility transistor A gallium-arsenide transistor with enhanced electron mobility, which is used, for instance, as a low-noise microwave amplifier. Its abbreviation is **PHEMT**.

pseudonoise sequence Same as **PN sequence**.

pseudorandom Generated by a specific process, such as an algorithm, but still having sufficient randomness for most purposes. For a number to be truly random, there could not be a specific pattern or even the objective of seeking such a number. Also spelled **pseudo-random**.

pseudorandom number A number which is **pseudorandom**. Such a number passes one or more tests of randomness, but is not truly random. Also spelled **pseudo-random number**.

pseudorandom sequence A sequence, such as a series of numbers, which is **pseudorandom**. Also spelled **pseudorandom sequence**.

pseudostreaming Same as **progressive download**. Also spelled **pseudo-streaming**.

psf Abbreviation of **pounds per square foot**.

psi Abbreviation of **pounds per square inch**.

psi particle An unusually long-lived meson. Also called **J particle**.

PSK Abbreviation of **phase-shift keying**.

PSN 1. Abbreviation of **packet-switching network**. 2. Abbreviation of **public switched network**.

psophometer An instrument that measures and indicates the level of noise in a communications system, such as that utilized for telephony. Such a device usually incorporates a weighting network, whose characteristics depend on the type of circuit being evaluated. The measured results approximate the effects of noise at different frequencies on a human listener.

PSRR Abbreviation of **power-supply rejection ratio**.

PSSTN Abbreviation of **public switched telephone network**.

psychoacoustics The science that deals with the manner in which sound is perceived. Factors such as head-related

