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eventually (in five years or more). *See also* non-volatile memory.

permanent swap file \pər-mə-nənt swäp' fīl\ *n.* In Windows, a file composed of contiguous disk sectors used for virtual memory operations. *See also* swap file, virtual memory.

permanent virtual circuit \pər-mə-nənt vər'-chōō-əl sər'kət\ *n.* *See* PVC.

permission \pər-mish'ən\ *n.* In a networked or multiuser computer environment, the ability of a particular user to access a particular resource by means of his or her user account. Permissions are granted by the system administrator or other authorized person; these permissions are stored in the system (often in a file called a *permissions log*) and are checked when a user attempts to access a resource.

perpendicular recording \pər-pən-dik'yə-lər rə-kōr'dēng\ *n.* A method of increasing storage capacity on magnetic media by aligning the magnetic dipoles, whose orientation determines bit values, in a direction that is perpendicular to the recording surface. *Also called* vertical recording.

persistence \pər-si'stəns\ *n.* A characteristic of some light-emitting materials, such as the phosphors used in CRTs, that causes an image to be retained for a short while after being irradiated, as by an electron beam in a CRT. The decay in persistence is sometimes called *luminance decay*.

persistent data \pər-si'stənt dā'tə, dat'əl\ *n.* Data that is stored in a database or on tape so that it is retained by the computer between sessions.

persistent link \pər-si'stənt lēnk'\ *n.* *See* hot link (definition 1).

persistent storage \pər-si'stənt stōr'əj\ *n.* Memory that remains intact when the power to a device is turned off, such as ROM. *See also* memory.

personal computer \pər'sə-nəl kəm-pyōō'tər\ *n.* A computer designed for use by one person at a time. Personal computers do not need to share the processing, disk, and printer resources of another computer. IBM PC-compatible computers and Apple Macintoshes are both examples of personal computers. *Acronym:* PC (P-C).

Personal Computer \pər'sə-nəl kəm-pyōō'tər\ *n.* *See* IBM PC.

Personal Computer Memory Card International Association \pər'sən-əl kəm-pyōō-tər

mem'ər-ē kārd in-tər-nash'ə-nəl ə-sō'sē-ā'shən\ *n.* *See* PCMCIA.

personal digital assistant \pər'sə-nəl dij'i-təl ə-si'stənt\ *n.* *See* PDA.

personal finance manager \pər'sə-nəl fī'nans man'ə-jər\ *n.* A software application designed to assist the user in performing simple financial accounting tasks, such as balancing checkbooks and paying bills.

personal information manager \pər'sə-nəl in-fər-mā'shən man'ə-jər\ *n.* *See* PIM.

perspective view \pər-spek'tiv vyōō'\ *n.* In computer graphics, a display method that shows objects in three dimensions (height, width, and depth), with the depth aspect rendered according to the desired perspective. An advantage of perspective view is that it presents a more accurate representation of what the human eye perceives. *Compare* isometric view.

peta- \pet'ə\ *prefix* Abbreviated P. Denotes 1 quadrillion (10^{15}). In computing, which is based on the binary (base-2) numbering system, *peta-* has a literal value of 1,125,899,906,842,624, which is the power of 2 (2^{50}) closest to 1 quadrillion.

petabyte \pet'ə-bīt'\ *n.* Abbreviated PB. Either 1 quadrillion bytes or 1,125,899,906,842,624 bytes.

.pg \dot'P-G'\ *n.* On the Internet, the major geographic domain specifying that an address is located in Papua New Guinea.

PGA \P'G-A'\ *n.* *See* pin grid array, Professional Graphics Adapter.

PgDn key \pāj-doun' kē'\ *n.* *See* Page Down key.

PGP \P'G-P'\ *n.* Acronym for **Pretty Good Privacy**. A program for public key encryption, using the RSA algorithm, developed by Philip Zimmermann. PGP software is available in unsupported free versions and supported commercial versions. *See also* privacy, public key encryption, RSA encryption.

PgUp key \pāj-up' kē'\ *n.* *See* Page Up key.

.ph \dot'P-H'\ *n.* On the Internet, the major geographic domain specifying that an address is located in the Philippines.

phase \fāz\ *n.* A relative measurement that describes the temporal relationship between two signals that have the same frequency. Phase is measured in degrees, with one full oscillation cycle having 360 degrees. The phase of one signal

time, depending on the implementation, and it allows intelligent, PCI-compliant adapters to perform tasks concurrently with the CPU using a technique called bus mastering. The PCI specification allows for multiplexing, a technique that permits more than one electrical signal to be present on the bus at one time. *See also* local bus. *Compare* VL bus.

PCL \P`C-L` \ *n.* *See* Printer Control Language.

PCM \P`C-M` \ *n.* *See* pulse code modulation.

PCMCIA \P`C-M`C-I-A` \ *n.* Acronym for **Personal Computer Memory Card International Association**. A group of manufacturers and vendors formed to promote a common standard for PC Card-based peripherals and the slot designed to hold them, primarily on laptop, palmtop, and other portable computers, as well as for intelligent electronic devices. PCMCIA is also the name of the standard for PC Cards, first introduced in 1990 as release 1. *See also* PC Card, PCMCIA slot.

PCMCIA card \P`C-M`C-I-A` kãrd` \ *n.* *See* PC card.

PCMCIA connector \P`C-M`C-I-A` kã-nek`tãr` \ *n.* The 68-pin female connector inside a PCMCIA slot designed to hold the 68-pin male connector on a PC Card. *See also* PC Card, PCMCIA slot.

PCMCIA slot \P`C-M`C-I-A` slot` \ *n.* An opening in the housing of a computer, peripheral, or other intelligent electronic device designed to hold a PC Card. *Also called* PC Card slot. *See also* PC Card, PCMCIA connector.

PC memory card \P-C` mem`ãr-ē kãrd` \ *n.* **1.** An add-in circuit card that increases the amount of RAM in a system. *See also* memory card. **2.** A Type I PC Card as specified by PCMCIA. In this context,

such a card consists of conventional static RAM chips powered by a small battery and is designed to provide additional RAM to the system. *See also* PC Card. *Compare* flash memory.

p-code \P`kõd` \ *n.* *See* pseudocode.

PCT \P`C-T` \ *n.* Acronym for **program comprehension tool**. A software engineering tool that facilitates the process of understanding the structure and/or functionality of computer programs.

.pcx \dot-P`C-X` \ *n.* The file extension that identifies bitmapped images in the PC Paintbrush file format.

PC/XT \P`C-X-T` \ *n.* The original IBM Personal Computer, introduced in 1981, which used the Intel 8088 CPU. *See also* IBM PC.

PC/XT keyboard \P`C-X-T` kē`bõrd` \ *n.* The original keyboard for the IBM Personal Computer. Strong, reliable, and equipped with 83 keys, the PC/XT keyboard offers a typist an audible click. *See the illustration.* *See also* IBM PC, PC/XT.

PDA \P`D-A` \ *n.* Acronym for **Personal Digital Assistant**. A lightweight palmtop computer designed to provide specific functions like personal organization (calendar, note taking, database, calculator, and so on) as well as communications. More advanced models also offer multimedia features. Many PDA devices rely on a pen or other pointing device for input instead of a keyboard or mouse, although some offer a keyboard too small for touch typing to use in conjunction with a pen or pointing device. For data storage, a PDA relies on flash memory instead of power-hungry disk drives. *See also* firmware, flash memory, PC Card, pen computer.

PDC \P`D-C` \ *n.* *See* Primary Domain Controller.



PC/XT keyboard.

trol commands rather than receiving streams of already-processed pixels.

Gray code \grā' kōd\ *n.* See cyclic binary code.

gray scale \grā' skāl\ *n.* A sequence of shades ranging from black through white, used in computer graphics to add detail to images or to represent a color image on a monochrome output device. Like the number of colors in a color image, the number of shades of gray depends on the number of bits stored per pixel. Grays may be represented by actual gray shades, by halftone dots, or by dithering. See also dithering, halftone.

greater than \grā'tər dhan\ *adj.* See relational operator.

greater than or equal to \grā'tər dhan ōr ē'kwəl tō\ *adj.* See relational operator.

Great Renaming \grāt' rē-nā'mēng\ *n.* The changeover to the current system of Usenet hierarchies throughout the Internet. Before the Great Renaming, which took place in 1985, nonlocal newsgroup names had the form net.*; for example, a group that carried source code, formerly named net.sources, was renamed comp.sources.misc. See also local newsgroups, newsgroup, traditional newsgroup hierarchy, Usenet.

greeking \grē'kēng\ *n.* **1.** The use of gray bars or other graphics to represent lines of characters too small to be drawn legibly on a screen at the chosen resolution, such as when viewing the layout of a whole page or pair of facing pages. **2.** The use of nonsense words to represent the text of a document in design samples. A garbled Latin text beginning "Lorem ipsum dolor sit amet" is traditionally used for this purpose. Greeking does not involve substituting the Greek alphabet for the Roman one.

greek text \grēk tekst\ *n.* See greeking.

Green Book \grēn' bōōk\ *n.* A specifications book written by the Sony and Philips Corporations, covering the CD-I (compact disc-interactive) technology. See also CD-I. Compare Orange Book (definition 2), Red Book (definition 2).

green PC \grēn' P-C\ *n.* A computer system designed to conserve energy. For example, some computers shut off power to nonessential systems when no input has been detected for a certain amount of time, a condition known as *sleep mode*.

Green PCs may also be distinguished by the use of minimal packaging materials and replaceable components, such as toner cartridges, that are recyclable.

Gregorian calendar \gre-gōr'ē-ən kal'ən-dər\ *n.* The calendar used today in the Western world, introduced by Pope Gregory XIII in 1582 to replace the Julian calendar. To approximate better the length of the astronomical year (365.2422 days), years divisible by 100 are leap years only if they are also divisible by 400 (thus, 2000 will be a leap year, but 1900 was not). To correct the error accumulated since A.D. 1, 10 days were dropped from October 1582; however, Britain and the American colonies did not adopt the Gregorian calendar until 1752 and had to remove 11 days then. Compare Julian calendar.

grep¹ \grɛp, G'R-E-P\ *n.* Acronym for **g**lobal **r**egu-**l**ar **e**xpression **p**rint. A UNIX command used to search a file or files by key word.

grep² \grɛp, G'R-E-P\ *vb.* To search text, especially with the UNIX grep utility.

grid \grɪd\ *n.* Two sets of lines or linear elements at right angles to each other. A spreadsheet is a grid of rows and columns; a graphics screen is a grid of horizontal and vertical lines of pixels. In optical character recognition, a grid is used for measuring or specifying characters. See also Cartesian coordinates.

grok \grok\ *vb.* To understand deeply and appreciatively. The term comes from Robert A. Heinlein's novel *Stranger in a Strange Land*, where it is also a Martian word for "to drink" and implies the kind of devoted interest that a Martian—native of a dry planet—would have in water. Hackers often use it (for example, in Internet discussions) in reference to computer expertise. See also cyberpunk.

ground \graʊnd\ *n.* A conducting path from an electric circuit to earth or to a conducting body serving in place of earth, usually used as a safety device. See also grounding.

grounding \graʊn'dēng\ *n.* The connection of sections of an electrical circuit to a common conductor, called the *ground*, which serves as the reference for the other voltages in the circuit. The ground conductor on installed circuit boards is usually connected to the chassis, or metal frame, holding the electronic parts; the chassis is