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Microsoft Computer Dictionary

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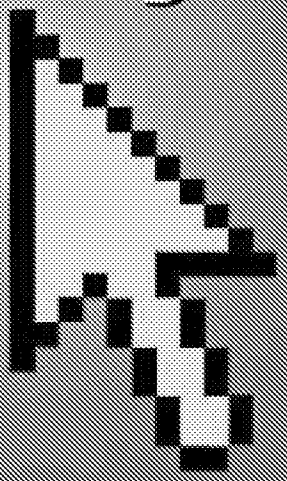


EXHIBIT 2001

receives from its neighboring cells, and all cells output their values simultaneously. 2. Systems in which rules are applied to multiple cells and their neighbors in a regular spatial lattice or grid that advances through time. Usually, each cell in a cellular automaton has any one state out of a finite number of states. The state changes discretely in time according to rules that depend on the condition of the individual cell and its neighbors. Thus, an individual cell in a cellular automaton takes a neighbor cell's state as input before outputting its own state. Additionally, all the cells in the lattice are updated simultaneously, while the state of the entire lattice also advances discretely in time. Many computer simulations of cellular automata are demonstrated on Web sites; the best known Web example is J.H. Conway's Game of Life.

Cellular Digital Packet Data *n.* A wireless standard providing two-way, 19.2-Kbps packet data transmission over existing cellular telephone channels. *Acronym:* CDPD. *See also* packet, wireless.

Cellular Telecommunications and Internet Association *n.* Association based in Washington, D.C. that represents the wireless telecommunications industry and its equipment manufacturers. *Acronym:* CTIA.

censorship *n.* The action of preventing material that a party considers objectionable from circulating within a system of communication over which that party has some power. The Internet as a whole is not censored, but some parts of it come under varying degrees of control. A news server, for example, often is set to exclude any or all of the alt. newsgroups, such as alt.sex.* or alt.music.white-power, which are unmoderated and tend to be controversial. A moderated newsgroup or mailing list might be considered to be "censored" because the moderator will usually delete highly controversial and obscene content or content that is on a different topic from that followed by the newsgroup. Online services have identifiable owners, who often take some share of responsibility for what reaches their users' computer screens. In some countries, censorship of certain political or cultural Web sites is a matter of national policy.

censorware *n.* Software that imposes restrictions on what Internet sites, newsgroups, or files may be accessed by the user.

center *vb.* To align characters around a point located in the middle of a line, page, or other defined area; in effect, to place text an equal distance from each margin or border. *See also* align (definition 1).

centi- *prefix* 1. One hundred. 2. One hundredth, as in *centimeter*—one hundredth of a meter.

centralized network *n.* A network in which nodes connect to and use resources on a single central computer, typically a mainframe.

centralized processing *n.* The location of computer processing facilities and operations in a single (centralized) place. *Compare* decentralized processing, distributed processing.

central office *n.* In communications, the switching center where interconnections between customers' communications lines are made.

central office exchange service *n. See* Centrex.

central processing unit *n. See* CPU.

Centrex *n.* An option offered by some phone companies in which up-to-date phone facilities are available to business customers, giving the customer access to a complete range of phone services without having to purchase or maintain the necessary equipment. Customers can purchase just the lines and services they will use. The name *central office exchange* refers to the fact that the phone facilities for Centrex services, particularly switching services, are generally maintained at the offices of the local or central phone company. Since Centrex offers a wider range of services, it is replacing PBX for businesses. *See also* switching. *Compare* PBX.

Centronics parallel interface *n.* A de facto standard for parallel data exchange paths between computers and peripherals, originally developed by the printer manufacturer Centronics, Inc. The Centronics parallel interface provides eight parallel data lines plus additional lines for control and status information. *See also* parallel interface.

CERN *n.* Acronym for Conseil Européen pour la Recherche Nucléaire (the European Laboratory for Particle Physics). CERN, a physics research center located in Geneva, Switzerland, is where the original development of the World Wide Web took place by Tim Berners-Lee in 1989 as a method to facilitate communication among members of the scientific community. *See also* NCSA (definition 1).

CERN server *n.* One of the first Hypertext Transfer Protocol (HTTP) servers, developed at CERN by Tim Berners-Lee. The CERN server is still in wide use and is free of charge. *See also* CERN, HTTP server (definition 1).

CERT *n.* Acronym for Computer Emergency Response Team. An organization that provides a round-the-clock

for microcomputers based on Intel microprocessors. The first system, CP/M-80, was the most popular operating system for 8080- and Z80-based microcomputers. Digital Research also developed CP/M-86 for 8086/8088-based computers, CP/M-Z8000 for Zilog Z8000-based computers, and CP/M-68K for Motorola 68000-based computers. When the IBM PC and MS-DOS were introduced, common use of CP/M by end users dwindled. DRI continues to enhance the CP/M line, supporting multitasking with the Concurrent CP/M and MP/M products. *See also* MP/M.

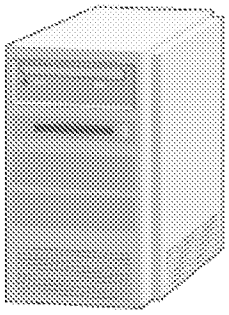
CPM *n. See* critical path method.

CPRM *n.* Acronym for Content Protection for Recordable Media. Technology developed to control the use of copyrighted digital music and video material by blocking the transfer of protected files to portable media such as zip disks and smart cards. CPRM would be added to storage devices and provide data scrambling and identification codes to block the copying of copyrighted files.

cps *n. See* characters per second.

CPSR *n.* Acronym for Computer Professionals for Social Responsibility. A public advocacy organization of computer professionals. CPSR was originally formed out of concern over the use of computer technology for military purposes but has extended its interest to such issues as civil liberties and the effect of computers on workers.

CPU *n.* Acronym for central processing unit. The computational and control unit of a computer. The CPU is the device that interprets and executes instructions. Mainframes and early minicomputers contained circuit boards full of integrated circuits that implemented the CPU. Single-chip central processing units, called *microprocessors*, made possible personal computers and workstations. Examples of single-chip CPUs are the Motorola 68000, 68020, and 68030 chips and the Intel 8080, 8086, 80286, 80386, and i486 chips. The CPU—or microprocessor, in the case of a microcomputer—has the ability to fetch, decode, and execute instructions and to transfer information to and from other resources over the computer's main data-transfer path, the bus. By definition, the CPU is the chip that functions as the "brain" of a computer. In some instances, however, the term encompasses both the processor and the computer's memory or, even more broadly, the main computer console (as opposed to peripheral equipment). See the illustration. *See also* microprocessor.



CPU.

CPU-bound *adj. See* computation-bound.

CPU cache *n.* A section of fast memory linking the CPU (central processing unit) and main memory that temporarily stores data and instructions the CPU needs to execute upcoming commands and programs. Considerably faster than main memory, the CPU cache contains data that is transferred in blocks, thereby speeding execution. The system anticipates the data it will need through algorithms. *Also called:* cache memory, memory cache. *See also* cache, CPU, VCACHE.

CPU cycle *n.* 1. The smallest unit of time recognized by the CPU (central processing unit)—typically a few hundred-millionths of a second. 2. The time required for the CPU to perform the simplest instruction, such as fetching the contents of a register or performing a no-operation instruction (NOP). *Also called:* clock tick.

CPU fan *n.* An electric fan usually placed directly on a CPU (central processing unit) or on the CPU's heat sink to help dissipate heat from the chip by circulating air around it. *See also* CPU, heat sink.

CPU speed *n.* A relative measure of the data-processing capacity of a particular CPU (central processing unit), usually measured in megahertz. *See also* CPU.

CPU time *n.* In multiprocessing, the amount of time during which a particular process has active control of the CPU (central processing unit). *See also* CPU, multiprocessing.

CR *n. See* carriage return.

crack *vb.* 1. To gain unauthorized access to a network by breaching its security. 2. To decipher encrypted information.

cracker *n.* A person who overcomes the security measures of a computer system and gains unauthorized access. The goal of some crackers is to obtain information ille-

privileged mode *n.* A mode of execution, supported by the protected mode of the Intel 80286 and higher microprocessors, in which software can carry out restricted operations that manipulate critical components of the system, such as memory and input/output ports (channels). Application programs cannot be executed in privileged mode; the heart (kernel) of the OS/2 operating system can be, as can the programs (device drivers) that control devices attached to the system.

privileges *n. See* access privileges.

PRN *n.* The logical device name for *printer*. A name reserved by the MS-DOS operating system for the standard print device. PRN usually refers to a system's first parallel port, also known as LPT1.

.pro *n.* One of seven new top-level domain names approved in 2000 by the Internet Corporation for Assigned Names and Numbers (ICANN). .pro is meant for use in Web sites relating to professions such as physicians, accountants, and lawyers. Six of the new domains became available for use in the spring of 2001; negotiations are still underway for the final registry agreement for the .pro domain.

probability *n.* The likelihood that an event will happen, which can often be estimated mathematically. In mathematics, statistics and probability theory are related fields. In computing, probability is used to determine the likelihood of failure or error in a system or device.

problem solving *n.* **1.** The process of devising and implementing a strategy for finding a solution or for transforming a less desirable condition into a more desirable one. **2.** An aspect of artificial intelligence wherein the task of problem solving is performed solely by a program. *See also* artificial intelligence.

procedural language *n.* A programming language in which the basic programming element is the procedure (a named sequence of statements, such as a routine, subroutine, or function). The most widely used high-level languages (C, Pascal, Basic, FORTRAN, COBOL, Ada) are all procedural languages. *See also* procedure. *Compare* nonprocedural language.

procedural rendering *n.* The rendering of a two-dimensional image from three-dimensional coordinates with texturing according to user-specified conditions, such as direction and degree of lighting.

procedure *n.* In a program, a named sequence of statements, often with associated constants, data types, and variables, that usually performs a single task. A procedure can usually be called (executed) by other procedures, as well as by the main body of the program. Some languages distinguish between a procedure and a function, with the latter (the function) returning a value. *See also* function, parameter, procedural language, routine, subroutine.

procedure call *n.* In programming, an instruction that causes a procedure to be executed. A procedure call can be located in another procedure or in the main body of the program. *See also* procedure.

process[1] *n.* A program or part of a program; a coherent sequence of steps undertaken by a program.

process[2] *vb.* To manipulate data with a program.

process-bound *adj.* Limited in performance by processing requirements. *See also* computation-bound.

process color *n.* A method of handling color in a document in which each block of color is separated into its subtractive primary color components for printing: cyan, magenta, and yellow (as well as black). All other colors are created by blending layers of various sizes of halftone spots printed in cyan, magenta, and yellow to create the image. *See also* color model, color separation (definition 1). *Compare* spot color.

processing *n.* The manipulation of data within a computer system. Processing is the vital step between receiving data (input) and producing results (output)—the task for which computers are designed.

processor *n. See* central processing unit, microprocessor.

Processor Direct Slot *n. See* PDS (definition 1).

Processor Input/Output *n. See* PIO.

Procmail *n.* An open-source e-mail-processing utility for Linux and other UNIX-based computers and networks. Procmail can be used to create mail servers and mailing lists, filter mail, sort incoming mail, preprocess mail, and perform other mail-related functions.

Prodigy *n.* An Internet service provider (ISP) that offers Internet access and a wide range of related services. Prodigy was founded by IBM and Sears as a proprietary online service, was acquired by International Wireless in 1996, and in 1999 entered into a partnership with SBC Commu-