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# Microsoft® **Computer Dictionary**

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PUBLISHED BY  
Microsoft Press  
A Division of Microsoft Corporation  
One Microsoft Way  
Redmond, Washington 98052-6399

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Library of Congress Cataloging-in-Publication Data  
Microsoft Computer Dictionary. -- 4th ed.

p. cm.

Previous eds. published under title: Microsoft Press computer dictionary

ISBN 0-7356-0615-3

1. Computers Dictionaries. 2. Microcomputers Dictionaries.

I. Microsoft Press computer dictionary.

QA76.15.M538 1999

004'.03--dc21

99-20168

CIP

Printed and bound in the United States of America.

3 4 5 6 7 8 9 MLML 4 3 2 1 0

Distributed in Canada by Penguin Books Canada Limited.

A CIP catalogue record for this book is available from the British Library.

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## B

**burn in** *vb.* **1.** To keep a new system or device running continuously so that any weak elements or components will fail early and can be found and corrected before the system becomes an integral part of the user's work routine. Such a test is often performed at the factory before a device is shipped. **2.** To make a permanent change in the phosphor coating on the inside of a monitor screen by leaving the monitor on and keeping a bright, unchanging image on the screen for extended periods. Such an image will remain visible after the monitor is turned off. Burning in was a danger with older PC monitors; it is no longer a concern with most new PC monitors. *Also called* ghosting.

**burst<sup>1</sup>** *n.* Transfer of a block of data all at one time without a break. Certain microprocessors and certain buses have features that support various types of burst transfers. *See also* burst speed (definition 1).

**burst<sup>2</sup>** *vb.* To break fanfold continuous-feed paper apart at its perforations, resulting in a stack of separate sheets.

**burster** *n.* A device used to burst, or break apart at the perforations, fanfold continuous-feed paper.

**burst extended-data-out RAM** *n.* *See* BEDO RAM.

**burst mode** *n.* A method of data transfer in which information is collected and sent as a unit in one high-speed transmission. In burst mode, an input/output device takes control of a multiplexer channel for the time required to send its data. In effect, the multiplexer, which normally merges input from several sources into a single high-speed data stream, becomes a channel dedicated to the needs of one device until the entire transmission has been sent. Burst mode is used both in communications and between devices in a computer system. *See also* burst<sup>1</sup>.

**burst rate** *n.* *See* burst speed (definition 1).

**burst speed** *n.* **1.** The fastest speed at which a device can operate without interruption. For example, various communications devices (as on networks) can send data in bursts, and the speed of such equipment is sometimes measured as the burst speed (the speed of data transfer while the burst is being executed). *Also called* burst rate. **2.** The number of characters per second that a printer can print on one line without a carriage return or linefeed. Burst speed measures the actual speed of printing, without consideration of the time taken to advance paper or to move the print head back to the left margin. Al-

most always, the speed claimed by the manufacturer is the burst speed. By contrast, *throughput* is the number of characters per second when one or more entire pages of text are being printed and is a more practical measurement of printer speed in real-life situations.

**bursty** *adj.* Transmitting data in spurts, or bursts, rather than in a continuous stream.

**bus** *n.* A set of hardware lines (conductors) used for data transfer among the components of a computer system. A bus is essentially a shared highway that connects different parts of the system—including the processor, disk-drive controller, memory, and input/output ports—and enables them to transfer information. The bus consists of specialized groups of lines that carry different types of information. One group of lines carries data; another carries memory addresses (locations) where data items are to be found; yet another carries control signals. Buses are characterized by the number of bits they can transfer at a single time, equivalent to the number of wires within the bus. A computer with a 32-bit address bus and a 16-bit data bus, for example, can transfer 16 bits of data at a time from any of 2<sup>32</sup> memory locations. Most PCs contain one or more expansion slots into which additional boards can be plugged to connect them to the bus.

**bus enumerator** *n.* A device driver that identifies devices located on a specific bus and assigns a unique identification code to each device. The bus enumerator is responsible for loading information about the devices onto the hardware tree. *See also* bus, device driver, hardware tree.

**bus extender** *n.* **1.** A device that expands the capacity of a bus. For example, IBM PC/AT computers used a bus extender to add onto the earlier PC bus and allow the use of 16-bit expansion boards in addition to 8-bit boards. *See also* bus. **2.** A special board used by engineers to raise an add-on board above the computer's cabinet, making it easier to work on the circuit board.

**business graphics** *n.* *See* presentation graphics.

**business information system** *n.* A combination of computers, printers, communications equipment, and other devices designed to handle data. A completely automated business information system receives, processes, and stores data; transfers information as needed; and produces reports or printouts on de-

**digital audio/video connector** *n.* An interface on some high-end video cards or TV tuner cards that allows the simultaneous transmission of digital audio and video signals. *Also called* DAV connector. *See also* interface (definition 3), video adapter.

**digital broadcast satellite** *n.* *See* direct broadcast satellite.

**digital camera** *n.* A type of camera that stores photographed images electronically instead of on traditional film. A digital camera uses a CCD (charge-coupled device) element to capture the image through the lens when the operator releases the shutter in the camera; circuitry within the camera then stores the image captured by the CCD in a storage medium such as solid-state memory or a hard disk. After the image has been captured, it is downloaded by cable to the computer using software supplied with the camera. Once stored in the computer, the image can be manipulated and processed much like the image from a scanner or related input device. *See also* charge-coupled device.

**digital cash** *n.* *See* e-money.

**digital certificate** *n.* **1.** An assurance that software downloaded from the Internet comes from a reputable source. A digital certificate provides information about the software—such as the identity of the author and the date on which the software was registered with a certificate authority (CA), as well as a measure of tamper-resistance. **2.** A user identity card or “driver’s license” for cyberspace. Issued by a certificate authority (CA), a digital certificate is an electronic credential that authenticates a user on the Internet and intranets. Digital certificates ensure the legitimate online transfer of confidential information, money, or other sensitive materials by means of public encryption technology. A digital certificate holder has two keys (strings of numbers): a private key held only by the user, for “signing” outgoing messages and decrypting incoming messages; and a public key, for use by anyone, for encrypting data to send to a specific user. *See also* certificate authority, encryption, private key, public key.

**digital communications** *n.* Exchange of communications in which all information is transmitted in binary-encoded (digital) form.

**digital computer** *n.* A computer in which operations are based on two or more discrete states. Binary digital computers are based on two states, logical “on” and

“off,” represented by two voltage levels, arrangements of which are used to represent all types of information—numbers, letters, graphics symbols, and program instructions. Within such a computer, the states of various circuit components change continuously to move, operate on, and save this information. *Compare* analog computer.

**Digital Darkroom** *n.* A Macintosh program developed by Silicon Beach Software for enhancement of black-and-white photographs or scanned images.

**digital data service** *n.* *See* DDS:

**digital data transmission** *n.* The transfer of information encoded as a series of bits rather than as a fluctuating (analog) signal in a communications channel.

**digital display** *n.* A video display capable of rendering only a fixed number of colors or gray shades. Examples of digital displays are IBM’s Monochrome Display, Color/Graphics Display, and Enhanced Color Display. *See also* CGA, EGA, MDA. *Compare* analog display.

**digital DNA** *n.* **1.** Broadly, a reference to the bits that comprise digital information. **2.** In the gaming world, a technology called “Cyberlife” that mimics biological DNA in the creation and development of trainable creatures known as Norns. Like real DNA, digital DNA is passed from parent to offspring and determines the artificial creature’s characteristics and adaptability.

**digital flat panel port** *n.* An interface designed to allow direct connection between a flat panel monitor and a computer without requiring an analog-to-digital conversion. *Acronym* DFP.

**digital light processing projector** *n.* *See* DLP projector.

**digital line** *n.* A communications line that carries information only in binary-encoded (digital) form. To minimize distortion and noise interference, a digital line uses repeaters to regenerate the signal periodically during transmission. *See also* repeater. *Compare* analog line.

**digital linear tape** *n.* A magnetic storage medium used to back up data. Digital linear tape allows for faster transfer of data compared with other tape technologies. *Acronym:* DLT.

**Digital Micromirror Device** *n.* The circuit technology behind Texas Instruments’ Digital Light Processing, used in image projectors. A Digital Micromirror



in such applications as television and film, satellite weather mapping, machine vision, computer-based pattern recognition. *See also* enhancement, video digitizer.

**sensor** *n.* A light-sensitive integrated circuit or integrated circuits used in scanners, digital cameras, and video cameras.

**typesetter** *n.* A typesetting device that can transfer ready text and artwork from computer files onto paper or film. Imagesetters print at high resolution (commonly above 1,000 dpi) and are usually PostScript-compatible.

**imaginary number** *n.* A number that must be expressed as the product of a real number and  $i$ , where  $i$  is the square root of  $-1$ . The sum of an imaginary number and a real number is a complex number. Although imaginary numbers are not directly encountered in the unit, as in "1.544i megabits per second", some quantities, especially in electrical engineering, behave mathematically like the real and imaginary parts of complex numbers. *Compare* complex number, real number.

**image capture** *n.* The processes involved in the capture, display, and printing of graphical images.

**IMAP-for** *n.* Acronym for Internet Message Access Protocol 4. The latest version of IMAP, a protocol for an e-mail program to gain access to mail and bulletin-board messages stored on a mail server. Unlike POP3, a similar protocol, IMAP allows a user to retrieve messages efficiently from a mail server rather than one computer. *Compare* POP3.

*See* Internet Mail Consortium.

**IMHO** *n.* Acronym for in my humble opinion. IMHO, in e-mail and in online forums, flags a statement as one that the writer wants to present as a personal opinion rather than as a statement of fact. *See also* IMO.

**in Game** *n.* *See* Turing test.

**direct access** *n.* *See* direct access, random access.

**implied operand** *n.* A data value, used in the execution of an assembly language instruction, that is implied in the instruction itself rather than pointed to by an address in the instruction.

**direct printing** *n.* A process in which text and graphics commands are sent directly to the printer rather than being stored as a printing file and without the use of an intermediate page-composition process. *Compare* a file containing printer setup commands.

**IMO** *n.* Acronym for in my opinion. A shorthand phrase used often in e-mail and Internet news and discussion groups to indicate an author's admission that a statement he or she has just made is a matter of judgment rather than fact. *See also* IMHO.

**impact printer** *n.* A printer, such as a wire-pin dot-matrix printer or a daisy-wheel printer, that drives an inked ribbon mechanically against the paper to form marks. *See also* daisy-wheel printer, dot-matrix printer. *Compare* nonimpact printer.

**impedance** *n.* Opposition to the flow of alternating current. Impedance has two aspects: resistance, which impedes both direct and alternating current and is always greater than zero; and reactance, which impedes alternating current only, varies with frequency, and can be positive or negative. *See also* resistance.

**import** *vb.* To bring information from one system or program into another. The system or program receiving the data must somehow support the internal format or structure of the data. Conventions such as the TIFF (Tagged Image File Format) and PICT formats (for graphics files) make importing easier. *See also* PICT, TIFF. *Compare* export.

**inactive window** *n.* In an environment capable of displaying multiple on-screen windows, any window other than the one currently being used for work. An inactive window can be partially or entirely hidden behind another window, and it remains inactive until the user selects it. *Compare* active window.

**in-band signaling** *n.* Transmission within the voice or data-handling frequencies of a communication channel.

**in-betweening** *n.* *See* tween.

**Inbox** *n.* In many e-mail applications, the default mailbox where the program stores incoming messages. *See also* e-mail, mailbox. *Compare* Outbox.

**incident light** *n.* The light that strikes a surface in computer graphics. *See also* illuminance.

**in-circuit emulator** *n.* *See* ICE (definition 2).

**INCLUDE directive** *n.* A statement within a source-code file that causes another source-code file to be read in at that spot, either during compilation or during execution. It enables a programmer to break up a program into smaller files and enables multiple programs to use the same files.

**inclusive OR** *n.* *See* OR.

Table 1.2 Types of Integrated Circuits

Category	Elements
small-scale integration (SSI)	in the 10s
medium-scale integration (MSI)	in the 100s
large-scale integration (LSI)	in the 1,000s
very-large-scale integration (VLSI)	in the 100,000s
ultra-large-scale integration (ULSI)	1,000,000 or more

**integrated development environment** *n.* A set of integrated tools for developing software. The tools are generally run from one user interface and consist of a compiler, an editor, and a debugger, among others. Acronym: IDE.

**Integrated Device Electronics** *n.* See IDE (definition 1).

**integrated injection logic** *n.* A type of circuit design that uses both NPN and PNP transistors and does not require other components, such as resistors. Such circuits are moderately fast, consume little power, and can be manufactured in very small sizes. Acronym: IIL. Also called merged transistor logic. See also NPN transistor, PNP transistor.

**Integrated Services Digital Network** *n.* See ISDN.

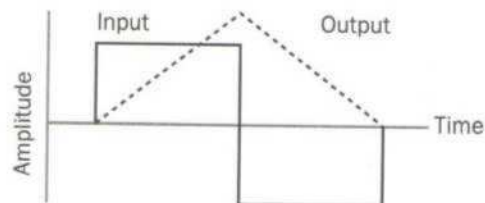
**Integrated Services LAN** *n.* See isochronous network.

**integrated software** *n.* A program that combines several applications, such as word processing, database management, and spreadsheets, in a single package. Such software is "integrated" in two ways: it can transfer data from one of its applications to another, helping users coordinate tasks and merge information created with the different software tools; and it provides the user with a consistent interface for choosing commands, managing files, and otherwise interacting with the programs so that the user will not have to master several, often very different, programs. The applications in an integrated software package are often not, however, designed to offer as much capability as single applications, nor does integrated software necessarily include all the applications needed in a particular environment.

**integration** *n.* 1. In computing, the combining of different activities, programs, or hardware components into a functional unit. See also integral modem, integrated software, ISDN. 2. In electronics, the process

of packing multiple electronic circuit elements on a single chip. See also integrated circuit. 3. In mathematics, specifically calculus, a procedure performed on an equation and related to finding the area under a given curve or the volume within a given shape.

**integrator** *n.* A circuit whose output represents the integral, with respect to time, of the input signal—that is, its total accumulated value over time. See the illustration. Compare differentiator.



Integrator. An example of the action of an integrator circuit.

**integrity** *n.* The completeness and accuracy of data stored in a computer, especially after it has been manipulated in some way. See also data integrity.

**intellectual property** *n.* Content of the human intellect deemed to be unique and original and to have marketplace value—and thus to warrant protection under the law. Intellectual property includes but is not limited to ideas; inventions; literary works; chemical, business, or computer processes; and company or product names and logos. Intellectual property protections fall into four categories: copyright (for literary works, art, and music), trademarks (for company and product names and logos), patents (for inventions and processes), and trade secrets (for recipes, code, and processes). Concern over defining and protecting intellectual property in cyberspace has brought this area of the law under intense scrutiny.

**intelligence** *n.* 1. The ability of hardware to process information. A device without intelligence is said to be dumb; for example, a dumb terminal connected to a computer can receive input and display output but cannot process information independently. 2. The ability of a program to monitor its environment and initiate appropriate actions to achieve a desired state. For example, a program waiting for data to be read from disk might switch to another task in the meantime. 3. The ability of a program to simulate human thought. See also artificial intelligence. 4. The ability of a machine such as a robot to respond appropriately to changing stimuli (input).



and ISDN are methods for providing high-speed last-mile data service through twisted-pair copper wires. *See also* DSL, ISDN, twisted-pair wiring. *Compare* local loop.

**latch** *n.* A circuit or circuit element used to maintain a particular state, such as on or off, or logical true or false. A latch changes state only in response to a particular input. *See also* flip-flop.

**late binding** *n.* *See* dynamic binding.

**latency** *n.* The time required for a signal to travel from one point on a network to another. *See also* ping<sup>1</sup> (definition 1).

**LaTeX<sup>1</sup> or L<sup>A</sup>T<sub>E</sub>X** *n.* A document preparation system based on TeX, developed by Leslie Lamport. By using simple, intuitive commands for text elements such as headers, LaTeX lets the user focus more on document content than document appearance. *See also* header (definition 1), TeX.

**LaTeX<sup>2</sup>** *vb.* To process a LaTeX file. *See also* LaTeX<sup>1</sup>.

**launch** *vb.* To activate an application program (especially on the Macintosh) from the operating system's user interface.

**launcher** *n.* In Mac OS, a program that organizes frequently used applications and programs and that allows the user to execute them with a single mouse click.

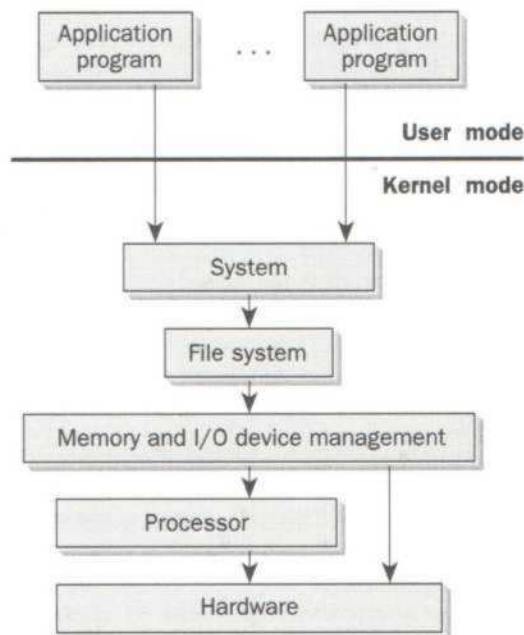
**layer** *n.* **1.** The protocol or protocols operating at a particular level within a protocol suite, such as IP within the TCP/IP suite. Each layer is responsible for providing specific services or functions for computers exchanging information over a communications network (such as the layers in the ISO/OSI reference model) and information is passed from one layer to the next. Although different suites have varying numbers of levels, generally the highest layer deals with software interactions at the application level, and the lowest governs hardware-level connections between different computers. *See the table.* *See also* ISO/OSI reference model, protocol stack, TCP/IP. **2.** In communications and distributed processing, a set of rules and standards that handles a particular class of events.

**layered architecture** *n.* The division of a network model into multiple discrete layers, or levels, through which messages pass as they are prepared for transmission. In a layered architecture, protocols at each layer provide specific services or functions and rely on protocols in the layers above and below them for other needed services. *See also* protocol.

Table L.1 Layers in the ISO/OSI reference model.

ISO/OSI layer	Focus
Application (highest level)	Program-to-program transfer of information
Presentation	Text formatting and display, code conversion
Session	Establishing, maintaining, and coordinating communication
Transport	Accurate delivery, service quality
Network	Transport routes, message handling and transfer
Data-link	Coding, addressing, and transmitting information
Physical	Hardware connections

**layered interface** *n.* In programming, one or more levels of routines lying between an application and the computing hardware and separating activities according to the type of task the activities are designed to carry out. Ultimately, such an interface makes it easier to adapt a program to different types of equipment. *See the illustration.*



Layered interface.



servers at lower levels of the hierarchy, the DNS is able to match a "friendly" Internet address, such as microsoft.com, with its numerical counterpart, the IP address. Root servers thus contain the data needed for referrals to name servers at the highest level of the hierarchy. There are 13 root servers in the world, located in the United States, the United Kingdom, Sweden, and Japan. *Also called* root name server. *See also* DNS (definition 1), DNS server, top-level domain.

**ROT13 encryption** *n.* A simple encryption method in which each letter is replaced with the letter of the alphabet 13 letters after the original letter, so that A is replaced by N, and so forth; N, in turn, is replaced by A, and Z is replaced by M. ROT13 encryption is not used to protect messages against unauthorized readers; rather, it is used in newsgroups to encode messages that a user may not want to read, such as sexual jokes or spoilers. Some newsreaders can automatically perform ROT13 encryption and decryption at the touch of a key.

**rotary dialing** *n.* The signaling system used in telephones with rotary dials, in which each digit is associated with a set number of pulses. During dialing, these pulses, which are audible as series of clicks, momentarily turn the current in the telephone wires on and off. *Also called* pulse dialing. *Compare* touch tone dialing.

**rotate** *vb.* **1.** To turn a model or other graphical image so that it is viewed at a different angle. **2.** To move bits in a register to the left or to the right. The bit that moves out of the end position rotates to the newly vacated position at the opposite end of the register. *Compare* shift.

**rotational delay** *n.* The time required for a desired disk sector to rotate to the read/write head. *Also called* rotational latency.

**rotational latency** *n.* *See* rotational delay.

**RO terminal** *n.* Short for **read-only terminal**. A terminal that can receive data but cannot send data. Nearly all printers can be classified as RO terminals.

**ROTFL** *n.* *See* ROFL.

**round** *vb.* To shorten the fractional part of a number, usually increasing the last remaining (rightmost) digit or not, according to whether the deleted portion was over or under 5. For example, 0.3333 rounded to two decimal places is 0.33, and 0.6666 is 0.67. Computer programs often round numbers, sometimes

causing confusion when the resulting values do not add up "correctly." Percentages in a spreadsheet can thus total 99 percent or 101 percent because of rounding.

**round robin** *n.* A sequential, cyclical allocation of resources to more than one process or device.

**routable protocol** *n.* A communications protocol that is used to route data from one network to another by means of a network address and a device address. TCP/IP is an example of a routable protocol.

**router** *n.* An intermediary device on a communications network that expedites message delivery. On a single network linking many computers through a mesh of possible connections, a router receives transmitted messages and forwards them to their correct destinations over the most efficient available route. On an interconnected set of LANs (local area networks)—including those based on differing architectures and protocols—using the same communications protocols, a router serves the somewhat different function of acting as a link between LANs, enabling messages to be sent from one to another. *See also* bridge, gateway.

**routine** *n.* Any section of code that can be invoked (executed) within a program. A routine usually has name (identifier) associated with it and is executed by referencing that name. Related terms (which may or may not be exact synonyms, depending on the context) are *function*, *procedure*, and *subroutine*. *See also* function (definition 3), procedure, subroutine.

**routing table** *n.* In data communications, a table of information that provides network hardware (bridges and routers) with the directions needed to forward packets of data to locations on other networks. The information contained in a routing table differs according to whether it is used by a bridge or a router. A bridge relies on both the source (originating) and destination addresses to determine where and how to forward a packet. A router relies on the destination address and on information in the table that give possible routes—in hops or in number of jumps—between itself, intervening routers, and the destination. Routing tables are updated frequently as more current information becomes available. *See also* bridge, hop, internetwork, router.

**row** *n.* A series of items arranged horizontally within some type of framework—for example, a continuing series of cells running from left to right in a spreadsheet.

**servo** *n.* The part of a servomechanism, controlled by the servomechanism's feedback circuit, that produces the mechanical output. *Also called* servomotor. *See also* servomechanism.

**servomechanism** *n.* A control system in which the output is mechanical movement. A servomechanism uses feedback to control the position, velocity, or acceleration of a mechanical component. *Also called* servo system.

**servomotor** *n.* *See* servo.

**servo** *n.* *See* servomechanism.

**session** *n.* The time during which a program is running. In interactive programs, a session is the time during which the program accepts input and produces information. **2.** In communications, the time during which two computers maintain a connection. In specific protocol layer in the ISO/OSI reference model that manages communication between communicating processes. *See also* ISO/OSI reference model, session layer.

**session layer** *n.* The fifth of seven layers in the ISO/OSI reference model. The session layer handles the sessions that must be agreed on by the two communicating systems. *See the illustration. See also* ISO/OSI reference model.

### ISO/OSI MODEL

Layer	Focus
Application	Program-to-program transfer of information
Presentation	Text formatting and display, code conversion
Session	Establishing, maintaining, and coordinating communication
Transport	Accurate delivery, service quality
Network	Transport routes, message handling and transfer
Data link	Coding, addressing, and transmitting information
Physical	Hardware connections

**set** *n.* In formatting and display, a group of related characters, such as a character set. *See also* character set.

**set** *v.* To change the value of a bit to 1. **2.** To establish a particular condition, such as setting tab

stops, setting a counter to 0, or setting a breakpoint. *See also* breakpoint.

**SET protocol** *n.* *See* Secure Electronics Transactions protocol.

**settling time** *n.* The time required for a disk drive's read/write head to stabilize over a new location on the disk after being moved.

**set-top box** *n.* A device that converts a cable TV signal to an input signal to the TV set. Set-top boxes can be used to access the World Wide Web.

**setup** *n.* **1.** A computer along with all its devices. **2.** The procedures involved in preparing a software program or application to operate within a computer.

**setup program** *n.* **1.** A built-in BIOS program for reconfiguring system parameters to accommodate a new disk drive. *See also* BIOS. **2.** *See* installation program.

**setup string** *n.* *See* control code.

**setup wizard** *n.* In Windows, a utility that asks users a structured series of questions and give them options to aid the process of installing a new program.

**seven-segment display** *n.* A light-emitting diode (LED) display or liquid crystal display (LCD) that can show any of the 10 decimal digits. The seven segments are the seven bars that form a numeral 8 as in a calculator display.

**sex changer** *n.* *See* gender changer.

**.sgm** *n.* The MS-DOS/Windows 3.x file extension that identifies files encoded in Standard Generalized Markup Language (SGML). Because MS-DOS and Windows 3.x cannot recognize file extensions longer than three letters, the .sgml extension is truncated to three letters in those environments. *See also* SGML.

**.sgml** *n.* The file extension that identifies files encoded in Standard Generalized Markup Language. *See also* SGML.

**SGML** *n.* Acronym for Standard Generalized Markup Language. An information management standard adopted by the International Organization for Standardization (ISO) in 1986 as a means of providing platform- and application-independent documents that retain formatting, indexing, and linked information. SGML provides a grammarlike mechanism for users to define the structure of their documents and the tags they will use to denote the structure in individual documents. *See also* ISO.

S



**swapping** *n.* 1. A technique for enabling an operating system, and therefore a computer, to address—roughly, have available—more memory than is physically present in the system. Swapping in this sense (as opposed to swapping disks in and out of a drive, for example) involves moving blocks of information in units known as pages between memory and disk as they are needed during the execution of the application. Swapping is supported by operating systems such as Windows NT, Windows 9x, OS/2, and LINUX. 2. A technique for moving entire processes in and out of main memory. 3. In programming, the process of exchanging two values—for example, exchanging values between two variables. *See also* page (definition 2), swap, swap file, virtual memory.

**swim** *n.* A condition in which images slowly move about the positions they are supposed to occupy on screen.

**switch** *n.* 1. A circuit element that has two states: on and off. 2. A control device that allows the user to choose one of two or more possible states. 3. In communications, a computer or electromechanical device that controls routing and operation of a signal path. 4. In networking, a device capable of forwarding packets directly to the ports associated with particular network addresses. 5. In operating systems such as MS-DOS, an argument used to control the execution of a command or an application, typically starting with a slash character (/).

**switch box** *n.* An enclosure that contains a selector switch. When a user selects a switch setting, the signal passing through the box may be directed either from a single input to one of multiple outputs, or from the selected input to a single output. Switch boxes are often used to connect multiple peripherals, such as printers, to a single port.

**switched configuration** *n.* A communications link in which a signal moves from the origin to a switch that routes the signal to one of several possible destinations. *Compare* point-to-point configuration.

**switched Ethernet** *n.* An Ethernet network run through a high-speed switch instead of an Ethernet hub. A switched Ethernet involves dedicated bandwidth of 10 Mbps between stations rather than a shared medium. *See also* Ethernet (definition 1), switch (definition 3).

**switched line** *n.* A standard dial-up telephone connection; the type of line established when a call is routed through a switching station. *Compare* leased line.

**Switched Multimegabit Data Services** *n.* *See* SMDS.

**switched network** *n.* A communications network that uses switching to establish a connection between parties, such as the dial-up telephone system.

**Switched T1** *n.* A circuit-switched form of T1 communications. *See also* T1.

**switched virtual circuit** *n.* *See* SVC.

**Switcher** *n.* A special Macintosh utility that allowed more than one program to be resident in memory at one time. Switcher was made obsolete by MultiFinder. *See also* MultiFinder.

**switching** *n.* A communications method that uses temporary rather than permanent connections to establish a link or to route information between two parties. In the dial-up telephone network, for example, a caller's line goes to a switching center, where the actual connection is made to the called party. In computer networks, message switching and packet switching allow any two parties to exchange information. In both instances, messages are routed (switched) through intermediary stations that together serve to connect the sender and the receiver.

**switching hub** *n.* A central device (switch) that connects separate communication lines in a network and routes messages and packets among the computers on the network. The switch functions as a hub, or PBX, for the network. *See also* hub, packet (definition 1), PBX, switch (definition 3), switched Ethernet, switched network.

**switching speed** *n.* In a packet-switching telecommunications technology, such as ATM, the speed at which data packets are sent through the network. Switching speed is generally measured in kilobits or megabits per second. *See also* ATM (definition 1), packet switching.

**SYLK file** \silk\fil\ *n.* Short for **symbolic link file**. A file constructed with a proprietary Microsoft format, used primarily for exchanging spreadsheet data in such a way that formatting information and intercellular data value relationships are preserved.

**symbol** *n.* In programming, a name that represents a register, an absolute value, or a memory address (relative or absolute). *See also* identifier, operator (definition 1).

**symbol font** *n.* A special font or typeface that replaces the characters normally accessible from the keyboard with alternative characters used as symbols, such as scientific, linguistic, or foreign-alphabet characters.