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Fifth Edition

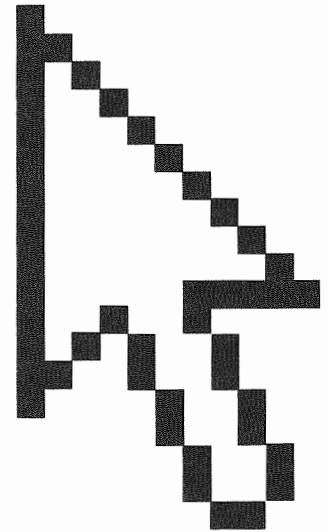
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the controller onto the drive itself, thereby reducing interface costs and making firmware implementations easier.

ATAPI *n.* The interface used by the IBM PC AT system for accessing CD-ROM devices.

AT Attachment *n.* See ATA.

AT bus *n.* The electric pathway used by IBM AT and compatible computers to connect the motherboard and peripheral devices. The AT bus supports 16 bits of data, whereas the original PC bus supports only 8 bits. *Also called:* expansion bus. See also EISA, ISA, Micro Channel Architecture.

aTdTdHvAaNnKcSe *n.* See TIA.

ATDP *n.* Acronym for **Attention Dial Pulse**, a command that initiates pulse (as opposed to touch-tone) dialing in Hayes and Hayes-compatible modems. Compare ATDT.

ATDT *n.* Acronym for **Attention Dial Tone**, a command that initiates touch-tone (as opposed to pulse) dialing in Hayes and Hayes-compatible modems. Compare ATDP.

Athlon *n.* Family of x86-compatible processors introduced by Advanced Micro Devices, Inc. (AMD) in 1999. Athlon, which was code-named AMD-K7, is a successor to the AMD-K6 family. Comparable to upper-end Intel Pentium III processors in performance, Athlon is distinguished by over 22 million transistors; a fully pipelined, superscalar floating-point engine, which enhances performance of graphics and multimedia programs, Internet streaming applications, and games; a 200-MHz system bus; and a 128-KB L1 cache. Although the L2 cache is 512 KB in size, the Athlon can support L2 cache sizes up to 8 MB. The first Athlon releases featured clock speeds of 500 to 650 MHz; 800-MHz and faster versions are now available. Athlon, which runs 32-bit programs, is compatible with most PC operating systems, including Microsoft Windows, Linux, OS/2 Warp, and NetWare. See also AMD-K6.

ATM *n.* **1.** Acronym for **Asynchronous Transfer Mode**. A network technology capable of transmitting data, voice, audio, video, and frame relay traffic in real time. Data, including frame relay data, is broken into packets containing 53 bytes each, which are switched between any two nodes in the system at rates ranging from 1.5 Mbps to 622 Mbps (over fiber optic cable). The basic unit of ATM transmission is known as a cell, a packet consisting of 5 bytes routing information and a 48-byte payload (data). These

cells are transmitted to their destination, where they are reassembled into the original traffic. During transmission, cells from different users may be intermixed asynchronously to maximize utilization of network resources. ATM is defined in the broadband ISDN protocol at the levels corresponding to levels 1 and 2 of the ISO/OSI reference model. It is currently used in LANs (local area networks) involving workstations and personal computers, but it is expected to be adopted by the telephone companies, which will be able to charge customers for the data they transmit rather than for their connect time. See also broadband, ISDN, ISO/OSI reference model. **2.** Acronym for **automated teller machine**. A special-purpose terminal that bank customers can use to make deposits, obtain cash, and perform other transactions. **3.** See Adobe Type Manager.

ATM Adaptation Layer *n.* The ATM layer that mediates between higher-level and lower-level services, converting different types of data (such as audio, video, and data frames) to the 48-byte payloads required by ATM. *Acronym:* AAL. See also ATM (definition 1).

ATM Forum *n.* Forum created in 1991 and including more than 750 companies related to communications and computing, as well as government agencies and research groups. The forum aims to promote Asynchronous Transfer Mode for data communication. See also ATM (definition 1).

Atomicity, Consistency, Isolation, Durability *n.* See ACID.

atomic operation *n.* An operation considered or guaranteed to be indivisible (by analogy with an atom of matter, once thought to be indivisible). Either the operation is uninterruptible or, if it is aborted, a mechanism is provided that ensures the return of the system to its state prior to initiation of the operation.

atomic transaction *n.* A set of operations that follow an "all or nothing" principle, in which either all of the operations are successfully executed or none of them is executed. Atomic transactions are appropriate for order entry and fulfillment or for money transfers to ensure that information is fully updated. For example, if funds are transferred between accounts on two databases, one account cannot be credited if the other is not debited by the same amount. An atomic transaction would involve both recording the credit in one database and recording the corresponding debit in the other. If any operation in the transaction fails, the transaction is aborted and any infor-

mation changes are undone. *See also* Distributed Computing Environment, TP monitor, transaction processing.

at sign *n.* *See* @.

attach *vb.* To include an external document, a file, or an executable program with an e-mail message.

attached document *n.* An ASCII text file or a binary file, such as a document created in a word processing system, that is included with an e-mail message as an attachment. *See also* ASCII, attachment, binary file, BinHex¹, MIME, uuencode.

attached file *n.* *See* attachment.

attached processor *n.* A secondary processor attached to a computer system, such as a keyboard or video subsystem processor.

Attached Resource Computer Network *n.* *See* ARCnet.

attachment *n.* A file that accompanies an e-mail message. As transmitted, an attached file is an exact copy of the original file located on the sender's computer. The file can be a document, an executable program, or a compressed file containing more than one item, among other types of files. The file is not part of the actual e-mail message, and it is generally encoded using uuencoding, MIME, or BinHex. Most e-mail programs automatically encode an attached document for transmission with a message. The recipient of the message must have an e-mail program capable of decoding the attached document or use a separate utility to decode it in order to read the document. Some gateways prohibit transmission of files over a certain size. Most e-mail systems permit more than one file to be attached to an e-mail message at a time.

attachment unit interface *n.* *See* AUI.

attenuation *n.* The weakening of a transmitted signal, such as the distortion of a digital signal or the reduction in amplitude of an electrical signal, as it travels farther from its source. Attenuation is usually measured in decibels and is sometimes desirable, as when signal strength is reduced electronically, for example, by a radio volume control, to prevent overloading.

atto- *prefix* Metric prefix meaning 10^{-18} (one quintillionth).

attract mode *n.* In commercial arcade games, when a coin-operated game is not in use, the screen will rotate through "attract mode." The aim is to both tempt prospective players and demonstrate game play or rules. Also, by

constantly changing the screen image, attract mode avoids screen burn in. *See also* arcade game, burn in.

attribute *n.* **1.** In a database record, the name or structure of a field. For example, the files LASTNAME, FIRST-NAME, and PHONE would be attributes of each record in a PHONELIST database. The size of a field or the type of information it contains would also be attributes of a database record. **2.** In screen displays, an element of additional information stored with each character in the video buffer of a video adapter running in character mode. Such attributes control the background and foreground colors of the character, underlining, and blinking. **3.** In markup languages such as SGML and HTML, a name-value pair within a tagged element that modifies certain features of that element. *See also* HTML, SGML.

attribution line *n.* In newsgroups, e-mail, and other Internet-based communications, an identification line added to material quoted from earlier postings. Some mail and messaging software will add an attribution line automatically, which might read something like "News King wrote:" and usually appears immediately before the quoted text.

ATX *n.* A specification for PC motherboard architectures with built-in audio and video capabilities, introduced by Intel in 1995. ATX supports USB and full-length boards in all sockets. *See also* board, motherboard, specification, USB.

audio *adj.* Relating to frequencies within the range of perception by the human ear—from about 15 to 20,000 hertz (cycles per second). *See also* audio response, synthesizer.

audio board *n.* *See* sound card.

audio card *n.* *See* sound card.

audiocast *n.* The transmission of an audio signal using IP protocols. *See also* IP.

audio compression *n.* A method of reducing the overall loudness of an audio signal. This is accomplished by limiting the amount of apparent distortion when the signal is played back through a speaker or transmitted through a communications link.

audio output *n.* *See* audio response.

audio output port *n.* A circuit consisting of a digital-to-analog converter that transforms signals from the computer to audible tones. It is used in conjunction with an amplifier and a speaker. *See also* digital-to-analog converter.