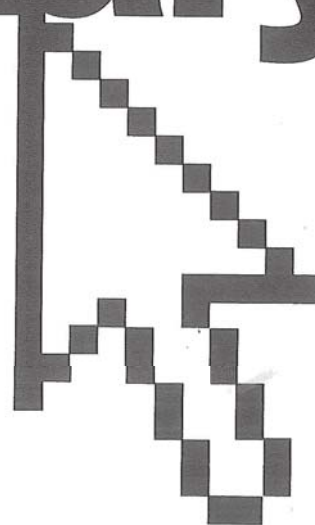


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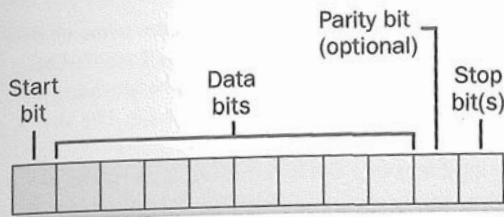
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Asynchronous transmission. The coding of a typical character sent in asynchronous transmission.

AT&T System V *n.* See System V.

ATA \at'-ə\ *n.* Acronym for Advanced Technology Attachment. ANSI group X3T10's official name for the disk drive interface standard commonly known as Integrated Drive Electronics (IDE). Also called AT Attachment.

ATA hard disk drive card *n.* Expansion card used to control and interface with an ATA hard disk drive. These cards are usually ISA cards. See also ATA, ISA.

ATA/IDE hard disk drive *n.* ATA (Advanced Technology Attachment) and IDE (Integrated Drive Electronics)—or numerous other interpretations—are one and the same thing: a disk drive implementation designed to integrate the controller onto the drive itself, thereby reducing interface costs and making firmware implementations easier.

ATAPI \a-ta'pē\ *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.

aTdHvAaNnKcSe *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.

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). 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.

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).

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

A

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.

process¹ *n.* A program or part of a program; a coherent sequence of steps undertaken by a program.

process² *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.

Prodigy Information Service *n.* An online information service founded by IBM and Sears. Like its competitors America Online and CompuServe, Prodigy offers access to databases and file libraries, online chat, special interest groups, e-mail, and Internet connectivity. *Also called* Prodigy.

product *n.* 1. An operator in the relational algebra used in database management that, when applied to two existing relations (tables), results in the creation of a new table containing all possible ordered concatenations (combinations) of tuples (rows) from the first relation with tuples from the second. The number of rows in the resulting relation is the product of the number of rows in the two source relations. *Also*

called Cartesian product. *Compare* inner join. 2. In mathematics, the result of multiplying two or more numbers. 3. In the most general sense, an entity conceived and developed for the purpose of competing in a commercial market. Although computers are products, the term is more commonly applied to software, peripherals, and accessories in the computing arena.

production system *n.* In expert systems, an approach to problem solving based on an "IF this, THEN that" approach that uses a set of rules, a database of information, and a "rule interpreter" to match premises with facts and form a conclusion. Production systems are also known as rule-based systems or inference systems. *See also* expert system.

Professional Graphics Adapter *n.* A video adapter introduced by IBM, primarily for CAD applications. The Professional Graphics Adapter is capable of displaying 256 colors, with a horizontal resolution of 640 pixels and a vertical resolution of 480 pixels. *Acronym:* PGA.

Professional Graphics Display *n.* An analog display introduced by IBM, intended for use with their Professional Graphics Adapter. *See also* Professional Graphics Adapter.

profile¹ *n.* *See* user profile.

profile² *vb.* To analyze a program to determine how much time is spent in different parts of the program during execution.

Profiles for Open Systems Internetworking Technology *n.* *See* POSIT.

program¹ *n.* A sequence of instructions that can be executed by a computer. The term can refer to the original source code or to the executable (machine language) version. *Also called* software. *See also* program creation, routine, statement.

program² *vb.* To create a computer program, a set of instructions that a computer or other device executes to perform a series of actions or a particular type of work.

program card *n.* *See* PC Card, ROM card.

program cartridge *n.* *See* ROM cartridge.

program counter *n.* A register (small, high-speed memory circuit within a microprocessor) that contains the address (location) of the instruction to be executed next in the program sequence.