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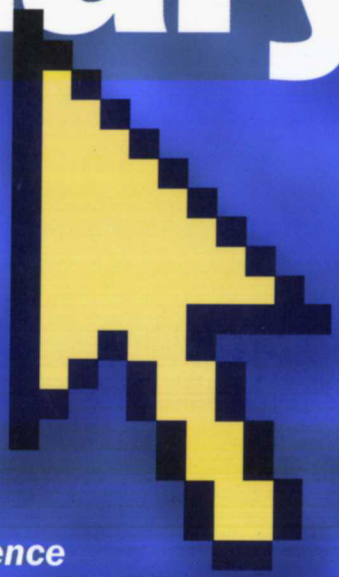

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A

Apple Events *n.* A feature added to Mac OS System 7 that enables one application to send a command, such as save or open, to another application. *See also* Mac OS.

Apple Extended Keyboard *n.* A 105-key keyboard that works with the Macintosh SE, Macintosh II, and Apple IIGS computers. This keyboard marks Apple's first inclusion of function (F) keys, whose absence was long cited as a shortcoming of the Macintosh compared with IBM PCs and compatibles. This feature, along with other layout changes and the addition of new keys and lights, makes the Apple Extended Keyboard quite similar in form to the IBM enhanced keyboard. See the illustration. *See also* enhanced keyboard.

Apple II *n.* The second computer introduced by the Apple Computer Corporation, in April 1977. The Apple II featured 4K dynamic RAM, expandable to 48K (with 16K chips), and used the 6502 microprocessor. The Apple II was the first computer to offer a TV video adapter as an optional alternative to a color computer monitor. It also featured sound and eight expansion slots. *See also* 6502.

Apple key *n.* A key on Apple keyboards labeled with an outline of the Apple logo. On the Apple Extended Keyboard, this key is the same as the Command key, which functions similarly to the Control key on IBM and compatible keyboards. It is generally used in conjunction with a character key as a shortcut to making menu selections or starting a macro.

Apple Macintosh *n. See* Macintosh.

Apple Newton *n. See* Newton.

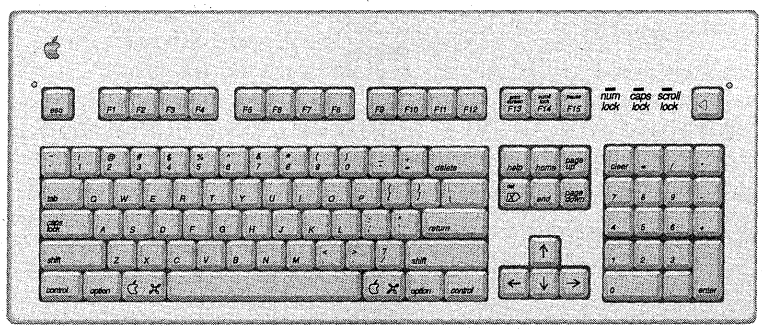
AppleScript *n.* A script language developed by Apple Computer, Inc., for Macintosh computers running under the Mac OS to execute commands and automate functions. *See also* script.

AppleShare *n.* A file server software developed by Apple Computer, Inc., that works with the Mac OS and allows one Macintosh computer to share files with another on the same network. *See also* file server, Mac OS.

applet \a´plət\ *n.* A program that can be downloaded over the Internet and executed on the recipient's machine. Applets are often written in the Java programming language and run within browser software, and they are typically used to customize or add interactive elements to a Web page.

AppleTalk *n.* An inexpensive local area network developed by Apple Computer, Inc., for Macintosh computers that can be used by Apple and non-Apple computers to communicate and share resources such as printers and file servers. Non-Apple computers must be equipped with AppleTalk hardware and suitable software. The network uses a layered set of protocols similar to the ISO/OSI reference model and transfers information in the form of packets called frames. AppleTalk supports connections to other AppleTalk networks through devices known as bridges, and it supports connections to dissimilar networks through devices called gateways. *See also* bridge, frame (definition 2), gateway.

application *n.* A program designed to assist in the performance of a specific task, such as word processing, accounting, or inventory management. *Compare* utility.



Apple Extended Keyboard.

B

bandwidth *n.* **1.** The difference between the highest and lowest frequencies that an analog communications system can pass as measured in Hertz (Hz) or cycles per second. For example, a telephone accommodates a bandwidth of 3,000 Hz: the difference between the lowest (300 Hz) and highest (3,300 Hz) frequencies it can carry. **2.** The data transfer capacity, or speed of transmission, of a digital communications system as measured in bits per second (bps).

bandwidth on demand *n.* In telecommunications, the capability of increasing throughput, in increments, as required by the channel to be serviced. *See also* bandwidth, channel (definition 2), throughput.

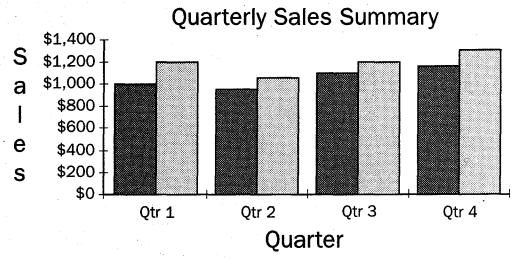
bank *n.* **1.** Any group of similar electrical devices connected together for use as a single device. For example, transistors may be connected in a row/column array inside a chip to form memory, or several memory chips may be connected together to form a memory module such as a SIMM. *See also* SIMM. **2.** A section of memory, usually of a size convenient for a CPU to address. For example, an 8-bit processor can address 65,536 bytes of memory; therefore, a 64-kilobyte (64-KB) memory bank is the largest that the processor can address at once. To address another 64-KB bank of memory requires circuitry that fools the CPU into looking at a separate block of memory. *See also* bank switching, page (definition 2).

bank switching *n.* A method of expanding a computer's available random access memory (RAM) by switching between banks of RAM chips that share a range of memory addresses, which is set aside before switching begins. Only one bank is directly accessible at a time; when a bank is not active, it retains whatever is stored in it. Before another bank can be used, the operating system, driver, or program must explicitly issue a command to the hardware to make the switch. Because switching between banks takes time, memory-intensive operations take longer with bank-switched memory than with main memory. Bank-switched memory typically takes the form of an expansion card that plugs into a slot on the motherboard.

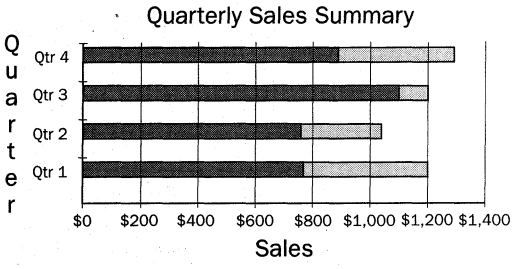
banner *n.* A section of a Web page containing an advertisement that is usually an inch or less tall and spans the width of the Web page. The banner contains a link to the advertiser's Web site. *See also* Web page, Web site.

banner page *n.* **1.** The title page that may be added to printouts by most print spoolers. Such a page typically incorporates account ID information, job length, and print spooler information, and is used primarily to separate one print job from another. *See also* print spooler. **2.** In software, an initial screen used to identify a product and credit its producers.

bar chart *n.* A type of graphic in which data items are shown as rectangular bars. The bars may be displayed either vertically or horizontally and may be distinguished from one another by color or by some type of shading or pattern. Positive and negative values may be shown in relation to a zero baseline. Two types of bar charts are common: a standard bar chart, in which each value is represented by a separate bar, and a stacked bar chart, in which several data points are "stacked" to produce a single bar. See the illustration. *Also called* bar graph.



Vertical bar chart



Stacked bar chart

Bar chart. Two common types of bar chart.

bar code *n.* The special identification code printed as a set of vertical bars of differing widths on books, grocery products, and other merchandise. Used for rapid, error-free input in such facilities as libraries, hospitals, and grocery stores, bar codes represent binary information that can be read by an optical scanner. The coding can include numbers, letters, or

a combination of the two; some codes include built-in error checking and can be read in either direction.

bar code reader *n. See* bar code scanner.

bar code scanner *n.* An optical device that uses a laser beam to read and interpret bar codes, such as the Universal Product Codes found on grocery products and other retail items. *See also* bar code, Universal Product Code.

bare board *n.* A circuit board with no chips on it; most commonly, a memory board not populated with memory chips.

bare bones[1] *adj.* Purely functional; stripped or otherwise clean of features. Bare bones applications provide only the most basic functions necessary to perform a given task. By the same token, a bare bones computer provides a minimal amount of hardware or is sold at retail with no peripherals and just the operating system (and no other software).

bare bones[2] *n.* **1.** An application that provides only the most basic functions necessary to perform a given task. **2.** A computer consisting only of motherboard (equipped with CPU and RAM), cabinet, power supply, floppy disk drive, and keyboard, to which the user must add hard disk, video adapter, monitor, and any other peripherals. *See also* motherboard, peripheral.

bar graph *n. See* bar chart.

base *n.* **1.** In mathematics, a number that is raised to the power specified by an exponent. For example, in $2^3 = 2 \times 2 \times 2 = 8$, the base is 2. **2.** In mathematics, the number of digits in a particular numbering system. With microcomputers, four numbering systems are commonly used or referred to—binary, octal, decimal, and hexadecimal—and each is based on a different number of digits. The binary, or base-2, numbering system, which is used to discuss the states of a computer's logic, has two digits, 0 and 1. Octal, or base-8, has eight digits, 0 through 7. The familiar decimal, or base-10, numbering system has ten digits, 0 through 9. Hexadecimal, or base-16, has sixteen digits, 0 through 9 and A through F. When numbers are written in a particular base, the base is often subscripted and enclosed in parentheses after the number, as in $24AE_{(16)} = 9{,}390$. *Also called* radix. *See also* binary[1], decimal, hexadecimal, octal. **3.** One of three terminals (emitter, base, and collector) in a bipolar transistor. The current through the base controls the current between the emitter and the collector. *See also* transistor. **4.** The insulating foundation of a printed circuit board. *See also* circuit board.

base 10 *adj. See* decimal.

base 16 *adj. See* hexadecimal.

base 2 *adj. See* binary[1].

base 8 *adj. See* octal.

base address *n.* The part of a two-part memory address that remains constant and provides a reference point from which the location of a byte of data can be calculated. A base address is accompanied by an offset value that is added to the base to determine the exact location (the absolute address) of the information. The concept is similar to a street address system. For example, "2010 Main Street" consists of a base (the 2000 block of Main Street) plus an offset (10 from the beginning of the block). Base addresses are known as segment addresses in IBM PCs and compatibles; data in these computers is identified by its position as a relative offset from the start of the segment. *See also* absolute address, offset, relative address, segment.

baseband *adj.* Of or relating to communications systems in which the medium of transmission (such as a wire or fiber-optic cable) carries a single message at a time in digital form. Baseband communication is found in local area networks such as Ethernet and Token Ring. *See also* Ethernet, fiber optics, Token Ring network. *Compare* broadband.

baseband network *n.* A type of local area network in which messages travel in digital form on a single transmission channel between machines connected by coaxial cable or twisted-pair wiring. Machines on a baseband network transmit only when the channel is not busy, although a technique called *time-division multiplexing* can enable channel sharing. Each message on a baseband network travels as a packet that contains information about the source and destination machines as well as message data. Baseband networks operate over short distances at speeds ranging from about 50 kilobits per second (50 Kbps) to 16 megabits per second (16 Mbps). Receiving, verifying, and converting a message, however, add considerably to the actual time, reducing throughput. The maximum recommended distance for such a network is about 2 miles, or considerably less if the network is heavily used. *See also* coaxial cable, multiplexing, packet (definition 2), throughput, time-division multiplexing, twisted-pair cable. *Compare* broadband network.

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