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Computer Dictionary

Third Edition

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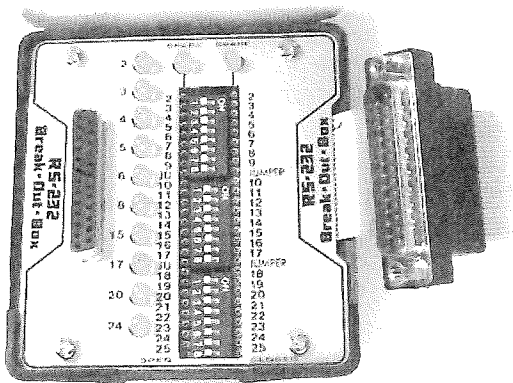
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On Macintosh computers, the key combination that sends a break code is Command-period.

breakout box \brāk'out boks\ *n.* A small hardware device that can be attached between two devices normally connected by a cable (such as a computer and a modem) to display and, if necessary, change the activity through individual wires of the cable. See the illustration.



Breakout box.

breakpoint \brāk'point\ *n.* A location in a program at which execution is halted so that a programmer can examine the program's status, the contents of variables, and so on. A breakpoint is set and used within a debugger and is usually implemented by inserting at that point some kind of jump, call, or trap instruction that transfers control to the debugger. *See also* debug, debugger.

BRI \B'R-I\ *n.* Acronym for **Basic Rate Interface**. An ISDN subscriber service that uses two B (64 Kbps) channels and one D (64 Kbps) channel to transmit voice, video, and data signals. *See also* ISDN.

bridge \brij\ *n.* **1.** A device that connects networks using the same communications protocols so that information can be passed from one to the other. *Compare* gateway. **2.** A device that connects two local area networks, whether or not they use the same protocols. A bridge operates at the ISO/OSI data-link layer. *See also* data-link layer. *Compare* router.

bridge router \brij' rou'tər, rōō'tər\ *n.* A device that supports the functions of both a bridge and router. A bridge router links two segments of a

local or wide area network, passing packets of data between the segments as necessary, and uses Level 2 addresses for routing. *Also called* Brouter. *See also* bridge (definition 2), router.

bridgware \brij'wār\ *n.* Hardware or software designed to convert application programs or data files to a form that can be used by a different computer.

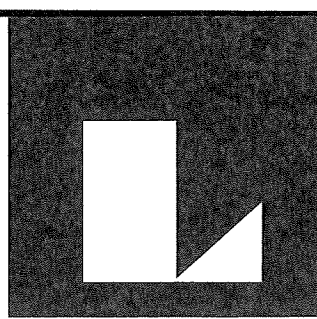
Briefcase \brēf'kās\ *n.* A system folder in Windows 95 used for synchronizing files between two computers, usually between desktop and laptop computers. The Briefcase can be transferred to another computer via disk, cable, or network. When files are transferred back to the original computer, the Briefcase updates all files to the most recent version.

brightness \brīt'nəs\ *n.* The perceived quality of radiance or luminosity of a visible object. Brightness is literally in the eye (and mind) of the beholder; a candle in the night appears brighter than the same candle under incandescent lights. Although its subjective value cannot be measured with physical instruments, brightness can be measured as luminance (radiant energy). The brightness component of a color is different from its color (the hue) and from the intensity of its color (the saturation). *See also* color model, HSB.

broadband \brod'band\ *adj.* Of or relating to communications systems in which the medium of transmission (such as a wire or fiber-optic cable) carries multiple messages at a time, each message modulated on its own carrier frequency by means of modems. Broadband communication is found in wide area networks. *Compare* baseband.

broadband modem \brod'band mō'dəm\ *n.* A modem for use on a broadband network. Broadband technology allows several networks to coexist on a single cable. Traffic from one network does not interfere with traffic from another, since the conversations happen on different frequencies, rather like the commercial radio system. *See also* broadband network.

broadband network \brod'band net'wərk\ *n.* A local area network on which transmissions travel as radio-frequency signals over separate inbound and outbound channels. Stations on a broadband network are connected by coaxial or fiber-optic cable, which can carry data, voice, and video



L1 cache \L-wən' kash\ *n.* A memory cache built into i486 and higher-level processors. The L1 cache, typically containing 8 KB, can be read in a single clock cycle, so it is tried first. The i486 contains one L1 cache; the Pentium contains two, one for code and one for data. *Also called* level 1 cache, on-chip cache. *See also* cache, i486DX, Pentium. *Compare* L2 cache.

L2 cache \L-tōō' kash\ *n.* A memory cache consisting of static RAM on a motherboard that uses an i486 or higher-level processor. The L2 cache, which typically contains 128 KB to 1 MB, is faster than the system DRAM but slower than the L1 cache built into the CPU chip. *Also called* level 2 cache. *See also* cache, dynamic RAM, i486DX, static RAM. *Compare* L1 cache.

L8R \lā'tər\ *adv.* Abbreviation for "later." As in "See you later," an expression often used in e-mail or Usenet groups as a closing remark.

.la \dot'L-A\ *n.* On the Internet, the major geographic domain specifying that an address is located in Laos.

label \lā'bəl\ *n.* An identifier. A label can be a physical item, such as a stick-on tag used to identify disks and other computer equipment, or an electronic label added to floppy disks or hard disks. It can also be a word, symbol, or other group of characters used to identify a file, a storage medium, an element defined in a computer program, or a specific item in a document such as a spreadsheet or a chart. *See also* identifier.

label prefix \lā'bəl prē'fiks\ *n.* In a spreadsheet, a character at the beginning of a cell entry that identifies the entry to the program as a label.

lag \lag\ *n.* The time difference between two events. In electronics, a lag is a delay between a change in input and a change in output. On computer displays, a lag is a fading brightness left on the phosphor coating of the screen after an image changes. *See also* persistence.

LAN \lan\ *n.* Acronym for **local area network**. A group of computers and other devices dispersed over a relatively limited area and connected by a communications link that enables any device to interact with any other on the network. LANs commonly include microcomputers and shared resources such as laser printers and large hard disks. The devices on a LAN are known as nodes, and the nodes are connected by cables through which messages are transmitted. *See also* baseband network, broadband network, bus network, collision detection, communications protocol, contention, CSMA/CD, network, ring network, star network, token bus network, token passing, token ring network. *Compare* wide area network.

landscape mode \land'skāp mōd\ *n.* A horizontal print orientation in which text or images are printed "sideways"—that is, the width of the image on the page is greater than the height. *See the illustration. Compare* portrait mode.

Lorem ipsum solebat somnus complexus est.
Africanus se ostendit es forma quae mihi
imagine elus quam ex isso erat notior. Quem ubi
agnovi, quidem cohorui. Quaesivi tamen
vivertne ipse et Paulus pater et ali quos nos
extintos.

Landscape mode.

landscape monitor \land'skāp mon'ə-tər\ *n.* A monitor that is wider than it is high. Landscape monitors are usually about 33 percent wider than they are high—roughly the same proportion as a

LLC \L'L-C\ *n.* See IEEE 802 standards.

load¹ \lōd\ *n.* **1.** The total computing burden a system carries at one time. **2.** In electronics, the amount of current drawn by a device. **3.** In communications, the amount of traffic on a line.

load² \lōd\ *vb.* To place information from storage into memory for processing, if it is data, or for execution, if it is program code.

load-and-go \lōd'ənd-gō\ *adj.* In reference to a routine, able to begin execution immediately, once loaded. The term is commonly used in reference to compilers and the machine code they generate.

loaded line \lō'dəd līn\ *n.* A transmission cable fitted with loading coils, usually spaced about a mile apart, that reduce amplitude distortion in a signal by adding inductance (resistance to changes in current flow) to the line. Loaded lines minimize distortion within the range of frequencies affected by the loading coils, but the coils also reduce the bandwidth available for transmission.

loader \lō'dər\ *n.* A utility that loads the executable code of a program into memory for execution. On most microcomputers, the loader is an invisible part of the operating system and is automatically invoked when a program is run. See also load module, loader routine.

loader routine \lō'dər rōō-tēn\ *n.* A routine that loads executable code into memory and executes it. A loader routine can be part of an operating system or it can be part of the program itself. See also loader, overlay¹ (definition 1).

load module \lōd' moj'ōl, mo'dyōl\ *n.* An executable unit of code loaded into memory by the loader. A program consists of one or more load modules, each of which can be loaded and executed independently. See also loader.

load point \lōd' point\ *n.* The beginning of the valid data area on a magnetic tape.

load sharing \lōd' shār'ēng\ *n.* A method of managing one or more tasks, jobs, or processes by scheduling and simultaneously executing portions of them on two or more microprocessors.

local \lō'kəl\ *adj.* Close at hand or restricted to a particular area. More specifically, in communications, a local device is one that can be accessed directly rather than by means of a communications

line. In information processing, a local operation is one performed by the computer at hand rather than by a remote computer. In programming, a local variable is a variable that is restricted in scope, that is, used in only one part (subprogram, procedure, or function) of a program. Compare remote.

local area network \lō'kəl ār'ē-ə net'wərk\ *n.* See LAN.

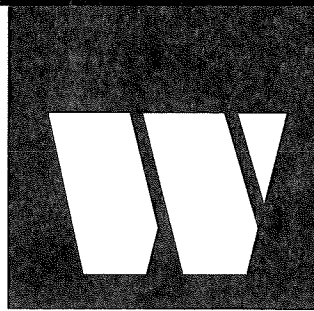
local bus \lō'kəl bus\ *n.* A PC architecture designed to speed up system performance by allowing some expansion boards to communicate directly with the microprocessor, bypassing the normal system bus entirely. See also PCI local bus, VL bus.

local bypass \lō'kəl bī'pas\ *n.* A telephone connection used by some businesses that links separate buildings but bypasses the telephone company.

local group \lō'kəl grōōp\ *n.* **1.** In Windows NT, a group that is granted permissions and rights to only those resources on the workstation on which the group resides. Local groups provide a convenient means of allowing users both inside and outside the workstation to use resources found only on the workstation containing the local group. See also group¹. **2.** In Windows NT Advanced Server, a group that is granted permissions and rights to only the resources on the servers of its own domain. Local groups in this context provide a convenient means of allowing users from both inside and outside the domain to use resources found only on the servers of the domain. See also global group, group¹.

localhost \lō'kəl-hōst\ *n.* The name that is used to represent the same computer on which a TCP/IP message originates. An IP packet sent to localhost has the IP address 127.0.0.1 and does not actually go out to the Internet. See also IP address, packet (definition 1), TCP/IP.

localization \lō'kə-lə-zā'shən\ *n.* The process of altering a program so that it is appropriate for the area in which it is used. For example, the developers of a word processing program must localize the sorting tables in the program for different countries or languages because the correct order of characters in one language might be incorrect in another.



w³ \W-kyōōbd\ *n.* See World Wide Web.

W3 \W-thrē\ *n.* See World Wide Web.

W3C \W-thrē-C\ *n.* See World Wide Web Consortium.

wafer \wā'fər\ *n.* A thin, flat piece of semiconductor crystal used in the fabrication of integrated circuits. Various etching, doping, and layering techniques are used to create the circuit components on the surface of the wafer. Usually multiple identical circuits are formed on a single wafer, which is then cut into sections. Each integrated circuit then has leads attached and is packaged in a holder. *See also* integrated circuit, semiconductor.

wafer-scale integration \wā'fər-skāl in-tə-grā-shən\ *n.* The fabrication on a single wafer of different microcircuits that are then connected to form a single circuit the full size of the wafer. *See also* wafer.

WAIS \wās, W'A-I-S\ *n.* Acronym for **Wide Area Information Server**. A UNIX-based document search and retrieval system on the Internet that can be used to search over 400 WAIS libraries, such as Project Gutenberg, for indexed files that match a series of keywords. WAIS can also be used on an individual Web site as a search engine. WAIS, developed by Thinking Machines Corporation, Apple Computer, and Dow Jones, uses the Z39.50 standard to process natural language queries. The list of documents returned by WAIS often contains numerous false matches. Users need a WAIS client to use a WAIS server. *See also* natural language query, Project Gutenberg, search engine, Z39.50 standard.

WAIS database \wās' dā'tə-bās, W'A-I-S\ *n.* *See* WAIS.

waisindex \wās'in'deks\ *n.* **1.** A UNIX utility for building an index to text files for access using WAIS (Wide Area Information Server) query software. **2.** A URL for accessing WAIS. The URL takes the form `wais://hostport/database[?search]`.

WAIS server or **waisserver** \wās' sər'vər, W'A-I-S\ *n.* *See* WAIS.

wait state \wāt' stāt\ *n.* A processing cycle of the microprocessor during which it only waits for data from an input/output device or from memory. While a single wait state is not humanly perceptible, the cumulative effect of wait states is to slow system performance. *See also* zero wait state.

wallet PC \wä'lət P-C\ *n.* A pocket-size portable computer designed to function like a wallet, carrying "virtual" versions of one's identification, money, credit cards, and other essentials, as well as a mobile information source and communications tool. The wallet PC is still under development.

wallpaper \wäl'pā-per\ *n.* In a graphical user interface such as Windows, a pattern or picture in the screen background that can be chosen by the user. *See also* graphical user interface.

WAN \W'A-N', wan\ *n.* *See* wide area network.

wand \wänd\ *n.* Any pen-shaped device used for data entry, such as a graphics tablet's stylus or, most commonly, the scanning instrument used with many bar code readers. *See also* optical scanner, scan head. *Compare* stylus.

wanderer \wän'dər-ər\ *n.* A person who frequently uses the World Wide Web. Many of these people make indexes of what they find.

warm boot \wärm bööt\ *n.* The restarting of a running computer without first turning off the power. *Also called* soft boot, warm start.

warm start \wärm stärt\ *n.* *See* warm boot.

watt \wät\ *n.* The unit of power equal to the expenditure of 1 joule of energy in 1 second. The power of an electrical circuit is a function of the potential across the circuit and the current flowing through the circuit. If E = potential, I = current, and R = resistance, power in watts can be calculated as $I \times E$, $I^2 \times R$, or E^2/R .

point operations. The result of the test is given in units called *whetstones*. The Whetstone benchmark has fallen out of favor because it produces inconsistent results compared with other benchmarks such as the Dhrystone and the sieve of Eratosthenes. *See also* benchmark¹, Dhrystone, sieve of Eratosthenes.

WHIRLWIND \hwɜrlˈwind, wɜrlˈwind\ *n.* A digital computer using vacuum tubes, developed at Massachusetts Institute of Technology in the 1940s and used during the 1950s. The innovations introduced with WHIRLWIND included CRT displays and real-time processing. WHIRLWIND project members included Kenneth H. Olsen, who later founded Digital Equipment Corporation in 1957. *See also* CRT, real-time, vacuum tube.

whiteboard \hwītˈbɔrd, wītˈbɔrd\ *n.* Software that allows multiple users across a network to work together on a document that is simultaneously displayed on all the users' screens, as though they are all gathered around a physical whiteboard.

white noise \hwīt noɪz, wīt\ *n.* Noise that contains components at all frequencies, at least within the frequency band of interest. It is called "white" by analogy to white light, which contains light at all the visible frequencies. In the audible spectrum, white noise is a hiss or a roar, such as that produced when a television set is tuned to a channel over which no station is broadcasting.

white pages \hwītˈpɑːʒ, wīt\ *n.* *See* DIB (definition 2).

white paper \hwītˈpɑːpər, wīt\ *n.* An informal paper stating a position or proposing a draft specification, usually on a technical topic. *See also* specification (definition 1).

whois \hooˈɪz\ *n.* **1.** An Internet service, provided by some domains, that enables a user to find e-mail addresses and other information for users listed in a database at that domain. **2.** A UNIX command to access the whois service. **3.** A command that displays a list of all users logged onto a Novell network.

whois client \hooˈɪz klɪˈənt\ *n.* A program (such as the UNIX whois command) that enables a user to access databases of usernames, e-mail addresses, and other information. *See also* whois.

whois server \hooˈɪz sərˈvər\ *n.* Software that provides the usernames and e-mail addresses from a database (often listing people who have accounts at an Internet domain) to users who request the information using whois clients. *See also* whois.

Whole Earth 'Electronic Link \hōlˈ ərthˈ lek-tronˈɪk lēnk\ *n.* *See* WELL.

whole number \hōlˈ numˈbər\ *n.* A number without a fractional component—for example, 1 or 173; an integer.

Wide Area Information Server \wɪdˈ âr-ē-ə in-fər-māˈshən sərˈvər\ *n.* *See* WAIS.

wide area network \wɪdˈ âr-ē-ə netˈwɜrk\ *n.* A communications network that connects geographically separated areas. *Acronym:* WAN (WˈA-Nˈ, wan).

wideband transmission \wɪdˈband tranz-mish-ən\ *n.* *See* broadband network.

Wide SCSI or Wide SCSI-2 \wɪdˈ skuzˈē, S-C-S-I\ *n.* A form of the SCSI-2 interface that can transfer data 16 bits at a time at up to 20 megabytes per second. The Wide SCSI connector has 68 pins. *See also* SCSI, SCSI-2. *Compare* Fast SCSI, Fast/Wide SCSI.

widow \widˈo\ *n.* A last line of a paragraph, shorter than a full line, appearing at the top of a page. A widow is considered visually undesirable on the printed page. *Compare* orphan.

wildcard character \wɪldˈkɑːrd kɑːrˈæk-tər\ *n.* A keyboard character that can be used to represent one or many characters. The asterisk (*), for example, typically represents one or more characters, and the question mark (?) typically represents a single character. Wildcard characters are often used in operating systems as a means of specifying more than one file by name.

Win32 \winˈthər-tē-tō\ *n.* The application programming interface in Windows 95 and Windows NT that enables applications to use the 32-bit instructions available on 80386 and higher processors. Although Windows 95 and Windows NT support 16-bit 80x86 instructions as well, Win32 offers greatly improved performance. *See also* 16-bit machine, 32-bit machine, 80386DX, 8086, application programming interface, central processing unit, Win32s.