WEBSTER'S NEW WORLD™

COMPUTER DICTIONARY

NINTH EDITION

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Webster's New World™ Computer Dictionary, Ninth Edition

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local loop The copper pair wire that connects a home or business to a telephone company switching station. Local loop wires have very low bandwidth and need to be replaced before implementing high-speed digital telecommunications, such as those provided by the Integrated Services Digital Network (ISDN).

local printer In a local area network (LAN), a printer directly connected to the workstation the user is using, as distinguished from a network printer (a printer made available to the user through the network).

LocalTalk The physical connectors and cables manufactured by Apple Computer for use in AppleTalk networks.

local Usenet hierarchy In Usenet, a category of newsgroups that is set up for local distribution only, such as within the confines of a company or university. Local newsgroups are not ordinarily accessible outside the organization.

locked file In a local area network (LAN), a file attribute that prevents applications or the user from updating or deleting the file.

lock up See *freeze.*

log A record. In communications programs, a log feature can record everything that appears on the monitor for later review, which can save the user money if he or she is paying a per-minute connection fee.

logarithmic chart See *logarithmic graph.*

logarithmic graph In analytical and presentation graphics, a graph displayed with a y-axis (values) that increases exponentially in powers of 10. On an ordinary y-axis, the 10 is followed by 20, 30, 40, and so on. On a logarithmic scale, however, 10 is followed by 100, 1,000, 10,000, and so on. This makes a logarithmic graph useful when great differences exist in the values of the data being graphed.

logical Having the appearance of and being treated as a real thing, even though it does not exist. See *logical drives, physical drive.*

Logical Block Addressing (LBA) Part of the Enhanced IDE standard; LBA permits hard disks to store up to 8.4GB of data.

logical drives Sections of a hard drive that are formatted and assigned a drive letter, each of which is presented to the user as though it were a separate drive. Another way logical drives are created is by substituting a drive letter for a directory. Also, networks typically map directories to drive letters, resulting in logical drives. See *logical, partition, physical drive.*

logical format See *high-level format.*

logical network A network as it appears to the user. In fact, the network could be composed of two or more physical networks, or portions of these, that are linked and coordinated in such a way that they appear to be a unit. One of the most remarkable facts about the Internet is that, even though it links tens of thousands of physically heterogeneous networks, they nevertheless appear to the user to comprise a single, immense network of global proportions.

logical operator See *Boolean operator.*

logic board See *motherboard.*

logic bomb In programming, a form of sabotage in which a programmer inserts code that causes the program to perform a destructive action when some triggering event occurs, such as terminating the programmer's employment.

virtual device The simulation of a computer device or peripheral, such as a hard disk drive or printer, that does not exist—at least, not nearby. In a local area network (LAN), a computer may appear to have an additional enormous hard disk, but it is really located on the file server.

Virtual Device Driver (VxD) In Microsoft Windows 95/98, a 32-bit program that manages a specific system resource, such as a sound card or printer. Unlike the device drivers used in Windows 3.1, Virtual Device Drivers run in the processor's protected mode, where they are less likely to conflict with other applications and cause system crashes. The abbreviation VxD covers a range of devices, including virtual printer devices (VPD), virtual display devices (VDD), and virtual timing devices (VTD).

Virtual Library In the World Wide Web (WWW), a Web subject guide in which volunteers take on the responsibility of maintaining the portion of the tree that is devoted to a specific subject, such as astronomy or zoology. The Virtual Library, headquartered at www.vlib.org, is a good place to look for academically oriented information on the Web. See *subject tree*.

virtual machine **1.** In 80386 and higher microprocessors, a protected memory space created by the microprocessor's hardware capabilities. Each virtual machine can run its own programs, completely isolated from other machines. The virtual machines can also access the keyboard, printer, and other devices without conflicts. Virtual machines are made possible by a computer with the necessary processing circuitry and a lot of random access memory (RAM). See *Virtual 8086 mode*. **2.** In Java, a protected memory space in which a Java applet can execute safely, without any access to the computer's file system. Synonymous with sandbox.

virtual memory A method of extending the apparent size of random access memory (RAM) by using part of the hard disk as an extension of RAM. Many application programs, such as Microsoft Word, routinely use the disk instead of memory to store some data or program instructions while one runs the program. See *virtual memory management*.

virtual memory management The management of virtual memory operations at the operating system level rather than the application program level. An advantage to implementing virtual memory at the operating system level rather than the application level is that any program can take advantage of the virtual memory, with the result that memory extends seamlessly from random access memory (RAM) to the computer's secondary storage. Microsoft Windows 95/98/2000 and Linux users can take full advantage of the virtual memory capabilities of their system's microprocessors. In the Macintosh world, MacOS makes virtual memory management available for users of Power Macintoshes.

virtual private network (VPN) A highly secure network for transmitting sensitive data (including electronic commerce transactions) that uses the public Internet as its transmission medium. To ensure data confidentiality and integrity, VPNs use encryption and protocol tunneling. See *PPTP*.

virtual reality (VR) A computer-generated illusion of three-dimensional space. On the Web, virtual reality sites enable Web users to explore three-dimensional virtual reality "worlds" by means of VR plug-in programs. These programs enable a person to walk or fly through the three-dimensional space that these worlds offer. In advanced VR, the user wears a head-mounted display (HMD),