

# APPENDIX B



The Ultimate Computer Reference



*The Comprehensive Standard for  
Business, School, Library, and Home*



# Microsoft Press Computer Dictionary Third Edition

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which have speeds of 500 kilobits per second (Kbps), can generally transmit data faster than current conventional modems. *See also* coaxial cable, modem.

**cabling diagram** \kāˈbəl-ēng dīˈə-gram\ *n.* A plan that shows the path of cables that attach computer system components or peripherals. Cabling diagrams are particularly important for explaining the connection of disk drives to a disk controller.

**cache** \kash\ *n.* A special memory subsystem in which frequently used data values are duplicated for quick access. A memory cache stores the contents of frequently accessed RAM locations and the addresses where these data items are stored. When the processor references an address in memory, the cache checks to see whether it holds that address. If it does hold the address, the data is returned to the processor; if it does not, a regular memory access occurs. A cache is useful when RAM accesses are slow compared with the microprocessor speed, because cache memory is always faster than main RAM memory. *See also* disk cache, wait state.

**cache card** \kashˈkârd\ *n.* An expansion card that increases a system's cache memory. *See also* cache, expansion board.

**cache memory** \kashˈmemˈər-ē\ *n.* *See* cache.

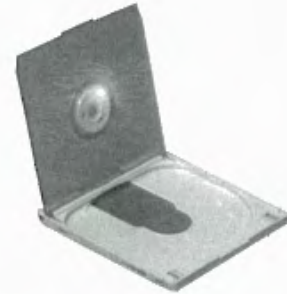
**CAD** \kad, CˈA-Dˈ\ *n.* Acronym for **computer-aided design**. A system of programs and workstations used in designing engineering, architectural, and scientific models ranging from simple tools to buildings, aircraft, integrated circuits, and molecules. Various CAD applications create objects in two or three dimensions, presenting the results as wire-frame "skeletons," as more substantial models with shaded surfaces, or as solid objects. Some programs can also rotate or resize models, show interior views, generate lists of materials required for construction, and perform other allied functions. CAD programs rely on mathematics, often requiring the computing power of a high-performance workstation. *See also* CAD/CAM, I-CASE.

**CAD/CAM** \kadˈkâm, C-A-DˈC-A-Mˈ\ *n.* Acronym for **computer-aided design/computer-aided manufacturing**. The use of computers in both the design and manufacture of a product. With CAD/CAM, a product, such as a machine part, is designed with a CAD program and the finished design is translated into a set of instructions that

can be transmitted to and used by the machines dedicated to fabrication, assembly, and process control. *See also* CAD, I-CASE.

**CADD** \CˈA-D-Dˈ, kad-Dˈ\ *n.* *See* computer-aided design and drafting.

**caddy** \kadˈē\ *n.* A plastic carrier that holds a CD-ROM and is inserted into a CD-ROM drive. Some personal computers, especially older models, have CD-ROM drives that require the use of a caddy. Most current CD-ROM drives do not require a caddy. *See* the illustration.



*Caddy.*

**CAE** \CˈA-Eˈ\ *n.* Acronym for **computer-aided engineering**. An application that enables the user to perform engineering tests and analyses on designs created with a computer. In some instances, capabilities such as logic testing that are generally attributed to CAE applications are also part of CAD programs, so the distinction between CAD and CAE is not a hard-and-fast one. *See also* CAD, I-CASE.

**CAI** \CˈA-Iˈ\ *n.* Acronym for **computer-aided (or computer-assisted) instruction**. An educational program designed to serve as a teaching tool. CAI programs typically use tutorials, drills, and question-and-answer sessions to present a topic and to test the student's comprehension. CAI programs are excellent aids for presenting factual material and for allowing students to pace their learning speed. Subjects and complexity range from beginning arithmetic to advanced mathematics, science, history, computer studies, and specialized topics. *See also* I-CASE. *Compare* CBT, CMI.

**CAL** \CˈA-Lˈ\ *n.* Acronym for **computer-assisted (or computer-augmented) learning**. *See* CAI.

## virtual channel

application uses to reference memory. The memory management unit (MMU) translates this address into a physical address before the memory is actually read or written to. *See also* physical address, virtual memory. *Compare* real address.

**virtual channel** \vərˈchɔː-əl ʃənˈəl\ *n.* In Asynchronous Transfer Mode (ATM), the path taken by data sent from one sender to one receiver. *See also* ATM (definition 1), virtual path (definition 2).

**virtual circuit** \vərˈchɔː-əl sərˈkət\ *n.* A communications link that appears to be a direct connection between sender and receiver, although physically the link can be routed through a more circuitous path.

**virtual community** \vərˈchɔː-əl kə-myooˈnə-tē\ *n.* *See* online community.

**Virtual Control Program Interface** \vərˈchɔː-əl kən-trɒlˈ prɔːgram inˈtər-fās\ *n.* A specification for MS-DOS programs to allow access to extended memory under a multitasking environment (for example, Microsoft Windows) for 386 and higher-level processors. *Acronym:* VCPI (V-C-P-I). *See also* 80386DX, extended memory, multitasking. *Compare* protected mode.

**virtual desktop** \vərˈchɔː-əl deskˈtɒp\ *n.* A desktop enhancement tool that provides access to the desktop when it is covered by open windows or that expands the size of the working desktop. *See also* desktop.

**virtual device** \vərˈchɔː-əl də-vīs\ *n.* A device that can be referenced but that does not physically exist. Virtual-memory addressing, for example, uses magnetic disk storage to simulate memory larger than that physically available.

**virtual device driver** \vərˈchɔː-əl də-vīsˈ drī-vər\ *n.* Software in Windows 95 that manages a hardware or software system resource. If a resource retains information from one access to the next that affects the way it behaves when accessed (for example, a disk controller with its status information and buffers), a virtual device driver must exist for it. Virtual device drivers are described using three-letter abbreviations beginning with V and ending with D; the middle letter indicates the type of device, such as D for a display, P for a printer, T for a timer, and x when the type of device is not under discus-

## virtual monitor

sion. *Acronym:* VxD (V-X-D). *See also* device driver.

**virtual disk** \vərˈchɔː-əl disk\ *n.* *See* RAM disk.

**virtual display device driver** \vərˈchɔː-əl dis-plāˈ de-vīsˈ drī-vər\ *n.* *See* virtual device driver.

**Virtual File Allocation Table** \vərˈchɔː-əl filˈ al-ə-kāˈ shən tāˈ bl\ *n.* *See* VFAT.

**virtual image** \vərˈchɔː-əl imˈɪj\ *n.* An image that is stored in computer memory but is too large to be shown in its entirety on the screen. Scrolling and panning are used to bring unseen portions of the image into view. *See also* virtual screen.

**virtual-image file** \vərˈchɔː-əl imˈɪjˈ fīl\ *n.* A file that specifies the material to be recorded onto a CD-ROM. A virtual-image file generally contains pointers to files that are distributed across a hard disk rather than gathered in one area. Since a complete copy of the material is not assembled, problems may occur in writing the CD-ROM due to delays in assembling the material from a scattered group of files. *See also* CD-ROM. *Compare* physical-image file.

**virtual LAN** \vərˈchɔː-əl lanˈ, L-A-N\ *n.* Short for **virtual local area network**. A local area network consisting of groups of hosts that are on physically different segments but that communicate as though they were on the same wire. *See also* LAN.

**virtual machine** \vərˈchɔː-əl mə-shēn\ *n.* Software that mimics the performance of a hardware device, such as a program that allows applications written for an Intel processor to be run on a Motorola chip. *Acronym:* VM (V-M).

**virtual memory** \vərˈchɔː-əl memˈər-ē\ *n.* Memory that appears to an application to be larger and more uniform than it is. Virtual memory may be partially simulated by secondary storage such as a hard disk. Applications access memory through virtual addresses, which are translated (mapped) by special hardware and software onto physical addresses. *Acronym:* VM (V-M). *Also called* disk memory. *See also* paging, segmentation.

**virtual monitor** \vərˈchɔː-əl monˈə-tər\ *n.* An enhanced monitor viewing system for visually impaired users that uses a virtual-reality headset to move enlarged text across the screen in a direction opposite to head motion. *See also* virtual reality.