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Microsoft Computer Dictionary

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PUBLISHED BY
Microsoft Press
A Division of Microsoft Corporation
One Microsoft Way
Redmond, Washington 98052-6399

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Library of Congress Cataloging-in-Publication Data
Microsoft Computer Dictionary.--5th ed.
p. cm.
ISBN 0-7356-1495-4
1. Computers--Dictionaries. 2. Microcomputers--Dictionaries.

AQ76.5. M52267 2002
004'.03--dc21 200219714

Printed and bound in the United States of America.

2 3 4 5 6 7 8 9 QWT 7 6 5 4 3 2

Distributed in Canada by H.B. Fenn and Company Ltd.

A CIP catalogue record for this book is available from the British Library.

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C



Control key.

controller *n.* A device that other devices rely on for access to a computer subsystem. A disk controller, for example, controls access to one or more disk drives, managing physical and logical access to the drive or drives.

control logic *n.* The electronic circuitry that generates, interprets, and uses control data.

control panel *n.* In Windows and Macintosh systems, a utility that allows the user to control aspects of the operating system or hardware, such as system time and date, keyboard characteristics, and networking parameters.

control panel device *n. See* cdev.

control sequence *n. See* control code.

control signal *n.* An electronic signal used to control internal or external devices or processes.

control statement *n.* A statement that affects the flow of execution through a program. Control statements include conditional statements (CASE, IF-THEN-ELSE), iterative statements (DO, FOR, REPEAT, WHILE), and transfer statements (GOTO). *See also* conditional statement, iterative statement, statement, transfer statement.

control strip *n.* **1.** An equipment calibration tool used to determine the corrections needed to restore accuracy by comparing recorded data against known values. **2.** A utility that groups shortcuts to commonly used items or information, such as time, battery power level, desktop items, and programs, in an easily accessible place. *See also* shortcut.

control structure *n.* A portion of a program defined by the relationship between the statements, used in structured programming. There are three basic control structures: sequence, where one statement simply follows another; selection, where program flow depends on which criteria are met; and iteration, where an action is repeated until some condition occurs.

control unit *n.* A device or circuit that performs an arbitrating or regulating function. For example, a memory controller chip controls access to a computer's memory and is the control unit for that memory.

control variable *n.* In programming, the variable in a control statement that dictates the flow of execution. For example, the index variable in a FOR loop controls the number of times a group of statements are executed. *See also* control statement.

convenience adapter *n. See* port replicator.

convention *n.* Any standard that is used more or less universally in a given situation. Many conventions are applied to microcomputers. In programming, for example, a language such as C relies on formally accepted symbols and abbreviations that must be used in programs. Less formally, programmers usually adopt the convention of indenting subordinate instructions in a routine so that the structure of the program is more easily visualized. National and international committees often discuss and arbitrate conventions for programming languages, data structures, communication standards, and device characteristics. *See also* CCITT, ISO, NTSC, standard (definition 1).

conventional memory *n.* The amount of RAM addressable by an IBM PC or compatible machine operating in real mode. This is typically 640 kilobytes (KB). Without the use of special techniques, conventional memory is the only kind of RAM accessible to MS-DOS programs. *See also* protected mode, real mode. *Compare* expanded memory, extended memory.

convergence *n.* A coming together. Convergence can occur between different disciplines and technologies, as when telephone communications and computing converge in the field of telecommunications. It can also occur within a program, such as a spreadsheet, when a circular set of formulas are repeatedly recalculated (iterated), with the results of each iteration coming closer to a true solution.

conversational *adj.* Of, pertaining to, or characteristic of the mode of operation, typical of microcomputers, in which the computer user and the system engage in a dialogue of commands and system responses. *See also* interactive.

conversational interaction *n.* Interaction in which two or more parties alternately transmit and receive messages from each other. *See also* interactive processing.

conversational language *n.* Any programming language that allows the programmer to instruct the computer in a conversational mode, as opposed to more formal, structured languages. For example, in a COBOL program, in order to execute a procedure called CHECK 10 times, a

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data flow or **dataflow** *n.* **1.** The movement of data through a system, from entry to destination. **2.** In parallel processing, a design in which a calculation is made either when all necessary data is available (data-driven processing) or when other processors request the data (demand-driven processing). *See also* parallel processing.

data fork *n.* In Macintosh files, the part of a stored document that contains user-supplied information, such as the text of a word-processing document. A Macintosh file can have a data fork, a resource fork (which contains information such as program code, font data, digitized sound, or icons), and a header. All three parts are used by the operating system in file management and storage. *See also* resource (definition 2), resource fork.

data format *n.* The structure applied to data by an application program to provide a context in which the data can be interpreted.

data frame *n.* A packet of information transmitted as a unit on a network. Data frames are defined by the network's data-link layer and exist only on the wire between network nodes. *See also* data-link layer, frame (definition 2).

data glove *n.* A data input device or controller in the form of a glove fitted with sensors that convert movement of the hand and fingers into commands. *See also* virtual reality.

datagram *n.* One packet, or unit, of information, along with relevant delivery information such as the destination address, that is sent through a packet-switching network. *See also* packet switching.

data independence *n.* The separation of data in a database from the programs that manipulate it. Data independence makes stored data as accessible as possible.

data integrity *n.* The accuracy of data and its conformity to its expected value, especially after being transmitted or processed.

data interchange format *n.* A format consisting of ASCII codes in which database, spreadsheet, and similar documents can be structured to facilitate their use by and transfer to other programs. *Acronym:* DIF. *See also* ASCII.

data item *n. See* data element.

data library *n.* A cataloged collection of data files on disk or in another storage medium.

data link *n.* A connection between any two devices capable of sending and receiving information, such as a computer and a printer or a main computer and a terminal. Sometimes the term is extended to include equipment, such as a modem, that enables transmission and receiving. Such devices follow protocols that govern data transmission. *See also* communications protocol, data-link layer, DCE (definition 1), DTE.

Data Link Connection Identifier *n.* A virtual circuit on frame relay networks that permanently identifies the path to a particular destination. *See also* frame relay, virtual circuit.

Data Link Control *n. See* DLC.

data link escape *n.* In data transmission, a control character that changes the meaning of the characters immediately following it.

data-link layer *n.* The second of seven layers in the ISO/OSI reference model for standardizing computer-to-computer communications. The data-link layer is one layer above the physical layer. Its concern is packaging and addressing data and managing the flow of transmissions. It is the lowest of the three layers (data-link, network, and transport) involved in actually moving data between devices. See the illustration. *See also* ISO/OSI reference model.

ISO/OSI MODEL

ISO/OSI Layer	*Focus*
Application *(highest level)*	Program-to-program transfer of information
Presentation	Text formatting and display, code conversion
Session	Establishing, maintaining, and coordinating communication
Transport	Accurate delivery, service quality
Network	Transport routes, message handling and transfer
Data-link	Coding, addressing, and transmitting information
Physical	Hardware connections

Data-link layer on ISO/OSI reference model.

data management *n.* The control of data from acquisition and input through processing, output, and storage. In microcomputers, hardware manages data by gathering it, moving it, and following instructions to process it. The operating system manages the hardware and ensures that

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modulation *n.* **1.** The process of changing or regulating the characteristics of a carrier wave vibrating at a certain amplitude (height) and frequency (timing) so that the variations represent meaningful information. **2.** In computer communications, the means by which a modem converts digital information sent by a computer to the audio form that it sends over a telephone line.

modulation standards *n.* Protocols that determine how modems convert digital data into analog signals that can be transmitted over telephone lines. Initially, Bell created modulation standards used in the United States, and the CCITT created international recommendations. The ITU-T (formerly called the CCITT) now makes recommendations generally adopted by modem manufacturers both internationally and in the United States. The ITU-TV series recommendations (such as V.34 and V.90) define data communication over the telephone network. The suffixes -bis and -ter (for example, V.32bis) indicate later versions. *See also* V.34, V.90.

module *n.* **1.** In programming, a collection of routines and data structures that performs a particular task or implements a particular abstract data type. Modules usually consist of two parts: an interface, which lists the constants, data types, variables, and routines that can be accessed by other modules or routines; and an implementation, which is private (accessible only to the module) and which contains the source code that actually implements the routines in the module. *See also* abstract data type, information hiding, Modula-2, modular programming. **2.** In hardware, a self-contained component that can provide a complete function to a system and can be interchanged with other modules that provide similar functions. *See also* memory card, SIMM.

modulo *n.* An arithmetic operation whose result is the remainder of a division operation. For example, 17 *modulo* 3 = 2 because 17 divided by 3 yields a remainder of 2. Modulo operations are used in programming.

moiré *n.* A visible wavy distortion or flickering in an image that is displayed or printed with an inappropriate resolution. Several parameters affect moiré patterns, including the size and resolution of the image, resolution of the output device, and halftone screen angle.

molecular beam epitaxy *n.* A process used in the fabrication of semiconductor devices, such as integrated circuits. A device employing molecular beam epitaxy creates thin layers of semiconducting material by vaporizing the material and then directing a beam of molecules at the substrate on which the layer is to be formed. This technique allows very precise and very thin layers to be created.

MOM *n.* Acronym for **m**essaging-**o**riented **m**iddleware. A class of programs that translates data and messages between applications that use one format and communications services (such as NetBIOS and TCP/IP) that expect a different format.

monadic *adj. See* unary.

Money *n.* Microsoft's Windows-based financial-management software for individuals, families, and small businesses. Money includes tools for managing bank accounts and investments, budgeting, tax estimating and financial planning, and paying bills.

monitor *n.* The device on which images generated by the computer's video adapter are displayed. The term *monitor* usually refers to a video display and its housing. The monitor is attached to the video adapter by a cable. *See also* CRT.

monitoring software *n.* A program or set of programs used to oversee computer-based systems and networks for the purpose of tracking usage or identifying, reporting on, and solving problems at the earliest possible stage. Monitoring software is used in a variety of areas ranging from hardware platforms and their components to operating systems, databases, Internet/intranet access, and business applications. Typically, different tools are used to monitor individual system components, though the individual monitors might feed information to a higher-level monitor in order to encompass an entire computing environment.

monitor port *n. See* display port.

monochrome *adj.* Of, pertaining to, or being a monitor that displays images in only one color—black on white (as on early monochrome Macintosh screens) or amber or green on black (as on early IBM and other monochrome monitors). The term is also applied to a monitor that displays only variable levels of a single color, such as a gray-scale monitor.

monochrome adapter *n.* A video adapter capable of generating a video signal for one foreground color or sometimes for a range of intensities in a single color, as for a gray-scale monitor.

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