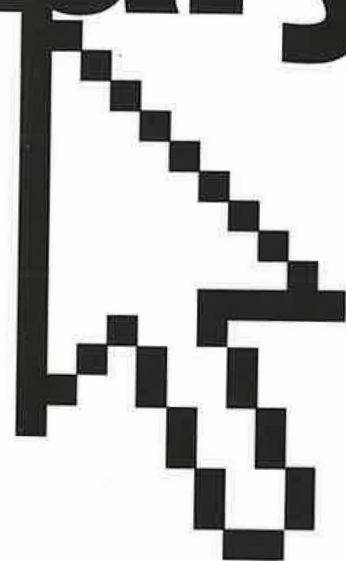


Microsoft®

Microsoft®
**Computer
Dictionary**
Fourth
Edition



RECEIVED

MAY 02 2014

DLA PIPER LIBRARY

PUBLISHED BY

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

Copyright © 1999 by Microsoft Corporation

All rights reserved. No part of the contents of this book may be reproduced or transmitted in any form or by any means without the written permission of the publisher.

Library of Congress Cataloging-in-Publication Data

Microsoft Computer Dictionary. -- 4th ed.

p. cm.

Previous eds. published under title: Microsoft Press computer dictionary

ISBN 0-7356-0615-3

1. Computers Dictionaries. 2. Microcomputers Dictionaries.

I. Microsoft Press computer dictionary.

QA76.15.M538 1999

004'.03--dc21

99-20168

CIP

Printed and bound in the United States of America.

3 4 5 6 7 8 9 MLML 4 3 2 1 0

Distributed in Canada by Penguin Books Canada Limited.

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

Microsoft Press books are available through booksellers and distributors worldwide. For further information about international editions, contact your local Microsoft Corporation office or contact Microsoft Press International directly at fax (425) 936-7329. Visit our Web site at mspress.microsoft.com.

Macintosh, Power Macintosh, QuickTime, and TrueType fonts are registered trademarks of Apple Computer, Inc. Kodak is a registered trademark of the Eastman Kodak Company. Intel is a registered trademark and Indeo is a trademark of Intel Corporation. Active Desktop, Active Directory, ActiveMovie, Active Platform, ActiveX, Authenticode, BackOffice, DirectInput, DirectX, Microsoft, Microsoft Press, MS-DOS, MSN, NetMeeting, NetShow, Visual Basic, Visual C++, Visual J++, WebTV, WebTV Network, Win32, Win32s, Windows, Windows NT, and XENIX are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. PANTONE is a registered trademark of Pantone, Inc. Other product and company names mentioned herein may be the trademarks of their respective owners.

The example companies, organizations, products, people, and events depicted herein are fictitious. No association with any real company, organization, product, person, or event is intended or should be inferred.

Acquisitions Editor: Christey Bahn

Project Editor: Kim Fryer

C

close¹ *n.* An FTP command that instructs the client to close the current connection with a server. *See also* FTP¹ (definition 1), Web site.

close² *vb.* **1.** To end an application's relationship with an open file so that the application will no longer be able to access the file without opening it again. **2.** To end a computer's connection with another computer on a network.

close box *n.* In the Macintosh graphical user interface, a small box in the left corner of a window's title bar. Clicking on the box closes the window. *Compare* close button.

close button *n.* In the graphical user interface for Windows 9x, Windows NT, and the X Window System, a square button in the right corner (left corner in X Windows) of a window's title bar with an *x* mark on it. Clicking on the button closes the window. *Also called* X button. *Compare* close box.

closed architecture *n.* **1.** Any computer design whose specifications are not freely available. Such proprietary specifications make it difficult or impossible for third-party vendors to create ancillary devices that work correctly with a closed-architecture machine; usually only its original maker can build peripherals and add-ons for such a machine. *Compare* open architecture (definition 1). **2.** A computer system that provides no expansion slots for adding new types of circuit boards within the system unit. The original Apple Macintosh was an example of a closed architecture. *Compare* open architecture (definition 2).

closed file *n.* A file not being used by an application. An application must open such a file before reading or writing to it and must close it afterward. *Compare* open file.

closed shop *n.* A computer environment in which access to the computer is restricted to programmers and other specialists. *Compare* open shop.

closed system *n.* *See* closed architecture (definition 2).

cloth ribbon *n.* An inked ribbon generally used with impact printers and typewriters. The print element strikes the ribbon and drives it against the paper so as to transfer ink; then the ribbon advances slightly to make fresh ink available. A cloth ribbon is wrapped onto a spool or loaded into a cartridge that is made to fit the printer used. Cloth ribbon, although adequate for most tasks, is sometimes replaced by film ribbon when the crispest possible output is called for. How-

ever, a cloth ribbon, which re-inks itself by capillary action, is usable for multiple impressions, unlike a film ribbon. *Compare* carbon ribbon.

cluster *n.* **1.** An aggregation, such as a group of data points on a graph. **2.** A communications computer and its associated terminals. **3.** In data storage, a disk-storage unit consisting of a fixed number of sectors (storage segments on the disk) that the operating system uses to read or write information; typically, a cluster consists of two to eight sectors, each of which holds a certain number of bytes (characters). **4.** A group of independent network servers that operate—and appear to clients—as if they were a single unit. A cluster network is designed to improve network capacity by, among other things, enabling the servers within a cluster to shift work in order to balance the load. By enabling one server to take over for another, a cluster network also enhances stability and minimizes or eliminates downtime caused by application or system failure. *See also* client/server architecture.

cluster controller *n.* An intermediary device that is situated between a computer and a group (cluster) of subsidiary devices, such as terminals on a network, and is used to control the cluster.

clustering *n.* The grouping of multiple servers in a way that allows them to appear to be a single unit to client computers on a network. Clustering is a means of increasing network capacity, providing live backup in case one of the server fails, and improving data security. *See also* cluster (definition 4), server.

cluster network *n.* *See* cluster.

CMI *n.* Acronym for computer-managed instruction. Any type of teaching that uses computers as educational tools. *See also* CAI, CBT.

CMOS \C'mos\ *n.* **1.** Acronym for complementary metal-oxide semiconductor. A semiconductor technology in which pairs of metal-oxide semiconductor field-effect transistors (MOSFETs), one N-type and the other P-type, are integrated on a single silicon chip. Generally used for RAM and switching applications, these devices have very high speed and extremely low power consumption. They are, however, easily damaged by static electricity. *See also* MOSFET, N-type semiconductor, P-type semiconductor. **2.** The battery-backed memory used to store parameter values needed to boot PCs, such as the type of disks and the amount of memory, as well as the clock/calendar time.

D

information read from disk. A disk cache does not hold entire files, as does a RAM disk (a portion of memory that acts as if it were a disk drive). Instead, a disk cache is used to hold information that either has recently been requested from disk or has previously been written to disk. If the required information remains in a disk cache, access time is considerably faster than if the program must wait for the disk drive mechanism to fetch the information from disk. *See also* cache. *Compare* disk buffer.

disk cartridge *n.* A removable disk enclosed in a protective case. A disk cartridge can be used by certain types of hard disk drives and related devices, such as the external data storage units known as Bernoulli boxes.

disk controller *n.* A special-purpose chip and associated circuitry that directs and controls reading from and writing to a computer's disk drive. A disk controller handles such tasks as positioning the read/write head, mediating between the drive and the microprocessor, and controlling the transfer of information to and from memory. Disk controllers are used with floppy disk drives and hard disks and can either be built into the system or be part of a card that plugs into an expansion slot.

disk copy *n.* The process of duplicating a source disk's data and the data's organizational structure onto a target disk. *See also* backup.

disk crash *n.* The failure of a disk drive. *See also* crash¹.

disk directory *n.* An index of the files on a disk, analogous to a card catalog. A disk directory includes information about the files, such as their names, sizes, dates of creation, and physical locations on the disk. *See also* directory.

disk drive *n.* An electromechanical device that reads from and writes to disks. The main components of a disk drive include a spindle on which the disk is mounted, a drive motor that spins the disk when the drive is in operation, one or more read/write heads, a second motor that positions the read/write head(s) over the disk, and controller circuitry that synchronizes read/write activities and transfers information to and from the computer. Two types of disk drives are in common use: floppy disk drives and hard disk drives. Floppy disk drives are designed to accept re-

movable disks in either 5.25-inch or 3.5-inch format; hard disk drives are faster, high-capacity storage units that are completely enclosed in a protective case.

disk driver *n.* A device driver that is added to a system to support a specific manufacturer's disk device. *See also* device driver.

disk duplexing *n.* *See* disk mirroring.

disk envelope *n.* The paper container that holds a 5.25-inch floppy disk and its attached jacket. The disk envelope protects exposed surfaces of the disk from dust and other foreign material that can scratch and otherwise damage the surface, resulting in the loss of recorded data. *See also* disk jacket.

diskette *n.* *See* floppy disk.

disk interface *n.* 1. The circuitry that connects a disk drive to a computer system. 2. A standard for connecting disk drives and computers. The ST506 standard for connecting hard disks to computers is a disk interface standard.

disk jacket *n.* The protective plastic sheath that covers a floppy disk.

diskless workstation *n.* A station on a computer network that is not equipped with a disk drive and that uses files stored in a file server. *See also* file server.

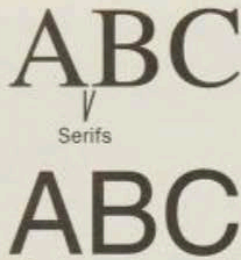
disk memory *n.* *See* virtual memory.

disk mirroring *n.* A technique in which all or part of a hard disk is duplicated onto one or more other hard disks, each of which ideally is attached to its own controller. With disk mirroring, any change made to the original disk is simultaneously made to the other disks, so that if the original disk becomes damaged or corrupted, the mirror disks will contain a current, undamaged collection of the data from the original disk. *Also called* disk duplexing. *See also* fault tolerance.

disk operating system *n.* *See* DOS.

disk pack *n.* A collection of disks in a protective container. Used primarily with minicomputers and mainframe computers, a disk pack is a removable medium, generally a stack of 14-inch disks in a plastic housing.

disk partition *n.* A logical compartment on a physical disk drive. A single disk might have two or more logical disk partitions, each of which would be referenced with a different disk drive name. Multiple partitions are divided into a primary (boot) partition and one or more extended partitions.



Serif. A serif typeface (top) and a sans serif typeface (bottom).

computers functioning as workstations on the network.

2. On the Internet or other network, a computer or program that responds to commands from a client. For example, a file server may contain an archive of data or program files; when a client submits a request for a file, the server transfers a copy of the file to the client. *See also* client/server architecture. *Compare* client (definition 3).

server-based application *n.* A program that is shared over a network. The program is stored on the network server and can be used at more than one client machine at a time.

server cluster *n.* A group of independent computers that work together as a single system. A server cluster presents the appearance of a single server to a client.

server error *n.* A failure to complete a request for information through HTTP that results from an error at the server rather than an error by the client or the user. Server errors are indicated by HTTP status codes beginning with 5. *See also* HTTP, HTTP status codes.

serverlet *n.* *See* servlet.

server push-pull *n.* A combination of Web client/server techniques individually called "server push" and "client pull." In server push, the server loads data to the client, but the data connection stays open. This allows the server to continue sending data to the browser as necessary. In client pull, the server loads data to the client, but the data connection does not stay open. The server sends an HTML directive to the browser telling it to reopen the connection after a certain interval to get more data or possibly to open a new URL. *See the illustration. See also* HTML, server (definition 2), URL.

server-side include *n.* A mechanism for including dynamic text in World Wide Web documents. Server-side includes are special command codes that are recognized and interpreted by the server; their output

is placed in the document body before the document is sent to the browser. Server-side includes can be used, for example, to include the date/time stamp in the text of the file. *Acronym:* SSI. *See also* server (definition 2).

service *n.* **1.** A customer-based or user-oriented function, such as technical support or network provision.

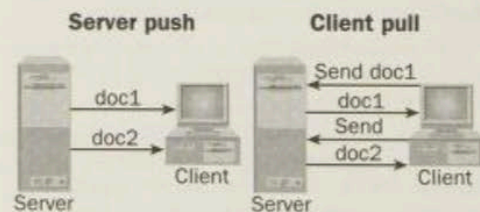
2. In reference to programming and software, a program or routine that provides support to other programs, particularly at a low (close to the hardware) level. **3.** In networking, specialized, software-based functionality provided by network servers—for example, directory services that provide the network equivalent of "phone books" needed for locating users and resources. *See also* utility.

Service Advertising Protocol *n.* A method used by a service-providing node in a network (such as a file server or application server) to notify other nodes on the network that it is available for access. When a server boots, it uses the protocol to advertise its service; when the same server goes offline, it uses the protocol to announce that it is no longer available. *Acronym:* SAP. *See also* server (definition 1).

service bureau *n.* **1.** A company that provides various services related to publishing, such as prepress production, desktop publishing, typesetting, image-setting, and optical scanning of graphics. **2.** An organization that provides data processing services and access to software packages for a fee.

service provider *n.* *See* ISP.

servlet or servelet *n.* A small Java program that runs on a server. The term is a companion to applet, a Java program that usually runs on the client. Servlets perform lightweight Web services, such as redirecting a Web user from an outdated address to the correct page-tasks traditionally handled by CGI (Common Gateway Interface) applications. Because servlets are automatically threaded and highly responsive, they execute quickly, thereby reducing system overhead. *Also called* serverlet. *See also* applet, CGI.



Server push-pull.

in a set amount of time. *Also called* TFLOPS. *See also* FLOPS.

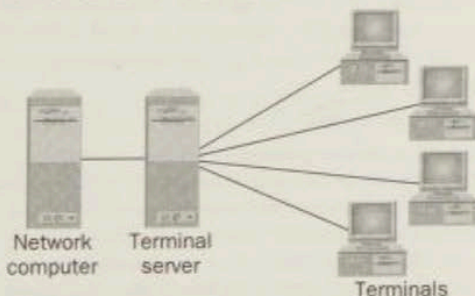
terminal *n.* **1.** In networking, a device consisting of a video adapter, a monitor, and a keyboard. The adapter and monitor and, sometimes, the keyboard are typically combined in a single unit. A terminal does little or no computer processing on its own; instead, it is connected to a computer with a communications link over a cable. Terminals are used primarily in multi-user systems and today are not often found on single-user personal computers. *See also* dumb terminal, smart terminal, terminal emulation. **2.** In electronics, a point that can be physically linked to something else, usually by a wire, to form an electrical connection.

Terminal Access Controller Access Control System *n.* *See* TACACS.

terminal adapter *n.* The correct name for an ISDN "modem," which connects a PC to an ISDN line but does not modulate or demodulate signals as a typical modem does.

terminal emulation *n.* The imitation of a terminal by using software that conforms to a standard, such as the ANSI standard for terminal emulation. Terminal-emulation software is used to make a microcomputer act as if it were a particular type of terminal while it is communicating with another computer, such as a mainframe. *See also* VT-52, VT-100, VT-200.

terminal server *n.* In a LAN (local area network), a computer or a controller that allows terminals, microcomputers, and other devices to connect to a network or host computer, or to devices attached to that particular computer. *See the illustration. See also* controller, LAN, microcomputer, terminal.



Terminal server.

terminal session *n.* The period of time spent actively using a terminal. *See also* session.

terminal strip *n.* A usually long and narrow assembly containing one or more electrical connectors. Commonly, terminal strips consist of screws on which bare wires are wrapped before the screws are tightened; for example, some consumer-grade stereo receiver/amplifiers incorporate a set of terminal strips on the rear panel for attaching speaker wires to the unit.

terminate *vb.* **1.** With reference to software, to end a process or program. Abnormal termination occurs in response to user intervention or because of a hardware or software error. **2.** With reference to hardware, to install a plug, jack, or other connector at the end of a wire or cable.

terminate-and-stay-resident program *n.* *See* TSR.

terminator *n.* **1.** A character that indicates the end of a string, such as the null character in an ASCII string. *See also* ASCII, ASCII string. **2.** An item of hardware that must be installed in the last device in a daisy chain or bus network, such as Ethernet or SCSI. The terminator "caps" the end of a cable in a bus network in order to keep signals from bouncing back along the line. *See also* terminator cap.

terminator cap *n.* A special connector that must be attached to each end of an Ethernet bus. If one or both terminator caps are missing, the Ethernet network will not work.

ternary *adj.* In programming, of, pertaining to, or characteristic of an element with three possible values, a condition that has three possible states, or a base-3 number system. *Compare* binary¹, unary.

test *vb.* To check program correctness by trying out various sequences and input values. *See also* debug, test data.

test automation software *n.* A program that automatically enters a predetermined set of characters or user commands in order to test new or modified versions of software applications.

test data *n.* A set of values used to test proper functioning of a program. Reasons for choosing particular test data include verifying known output (anticipated output) and pushing boundary conditions that might cause the program to fail.

T