

OVER
10,000
ENTRIES

Microsoft

Computer Dictionary

Fifth Edition

- Fully updated with the latest technologies, terms, and acronyms
- Easy to read, expertly illustrated
- Definitive coverage of hardware, software, the Internet, and more!



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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Body Part No. X08-41929

Introduction

The *Microsoft Computer Dictionary, Fifth Edition* is designed to be a comprehensive and authoritative source of definitions for computer-related terms and abbreviations. The dictionary includes terms drawn from a wide variety of topics relevant to computer users, including software, hardware, networking, data storage, graphics, games, information processing, the Internet and the World Wide Web, gaming, history, jargon and slang, organizations, programming, and standards.

Although this book covers nearly every aspect of computing, it does not include entries on most companies or on most makes and models of computers, nor does it contain entries on most application software products. The few exceptions to this rule of thumb are key companies and products that have a historical or universal importance within the computing industry.

This dictionary emphasizes terminology that the average computer user will encounter in documentation, online help, computer manuals, marketing and sales materials, the popular media, and the computer trade press. Because most computer users operate personal computers and desktop systems at home, work, or both, the majority of the entries in this dictionary cover the terminology used in describing and working with these systems. However, some specialized or highly technical language is included that pertains to areas of industry, academia, software and hardware development, and research. These terms have been included because they have a bearing on more common computer terminology or because they are of historical significance.

Changes in the Fifth Edition

The fifth edition of the *Microsoft Computer Dictionary* has been revised and expanded to include over 10,000 entries, reflecting the many advances in the computer field and

including several areas that have come into prominence in the public eye, such as networking, Web authoring, and new technologies, such as .NET. The content from the Year 2000 appendix has been integrated into the body of the dictionary and a new appendix on emoticons and instant messaging symbols has been added.

Order of Presentation

Entries are alphabetized by letter. Spaces are ignored, as are characters such as hyphens and slashes; for example, *Baud-dot code* falls between *baud* and *baud rate*, and *machine-independent* falls between *machine identification* and *machine instruction*. Numbers and symbols are located at the beginning of the book and are listed in ascending ASCII order. If an entry begins with a letter or letters but contains a number, it is listed alphabetically, according to the initial letter(s), and then according to ASCII order. Thus, V20 precedes V.2x, and both precede VAB.

Entries

Entries are of two types: main entries, which contain full definitions, and synonymous cross-references, which contain *See* references to the appropriate main entries. Synonymous cross-references are generally secondary or less common ways of referring to a main entry. The definition at the main entry can be substituted as a definition for the synonymous cross-reference.

Format

Information in each main entry is presented in a consistent format: entry name in boldface, spelling variants (if any), part of speech, definition, illustration or table reference (if any), acronym (if any), alternative names (if any), and cross-references (if any).

Main Entries

Entries that are acronyms or abbreviations for one or more words or concatenations of two or more words have those words spelled out at the beginning of the definition. The letters in these words or phrases that make up the acronym, abbreviation, or concatenation are in boldface.

When a main entry is spelled exactly the same as another main entry, the two entries are differentiated by the use of a superscript numeral after each term. These entries are called homographs, and they are generally different parts of speech. For example,

e-mail¹ (*noun*)

e-mail² (*verb*)

Spelling Variants

When a main entry has one or more variations in the way it is spelled, each spelling variant follows the main entry, after the word *or*.

Parts of Speech

Entries are broken down into four parts of speech, in addition to prefixes, abbreviated as follows:

n. noun

vb. verb

adj. adjective

adv. adverb

Definitions

Each of the more than 10,000 entries is written in clear, standard English. Many go beyond a simple definition to provide additional detail and to put the term in context for a typical computer user. When an entry has more than one sense or definition, the definitions are presented in a numbered list, to make it easier to distinguish the particular, sometimes subtle, variations in meaning.

Illustration and Table References

Some entries have affiliated illustrations or tables that aid in defining the entry. In most cases, illustrations and tables appear on the same page as the entries to which they apply.

In some instances, however, page layout requirements have forced them to a subsequent page. Entries with illustrations or tables usually have references at the end of the definition for an entry, in the following formats:

See the illustration.

See the table.

Acronyms

Some terminology in the computer field, particularly computer standards and Internet slang, can be shortened to form acronyms. Sometimes the acronym is the more common way to refer to the concept or object; in these cases, the acronym is the main entry. In other cases, the acronym is not as commonly used as the words or phrase for which it stands. In these cases, the words or phrase constitute the main entry. The acronym is given after the definition for these entries in the following format:

Acronym:

Alternative Names

Some items or concepts in the computer field can be referred to by more than one name. Generally, though, one way is preferred. The preferred terminology is the main entry. Alternative names are listed after any acronyms; otherwise they are listed after the definition in the following format:

Also called:

Cross-References

Cross-references are of three types: *See*, *See also*, and *Compare*. A *See* reference is used in an entry that is a synonymous cross-reference and simply points to another entry that contains the information sought. A *See also* reference points to one or more entries that contain additional or supplemental information about a topic and follows any acronyms or alternative names after the definition. A *Compare* reference points to an entry or entries that offer contrast and follows any *See also* references; otherwise it follows any acronyms or alternative names after the definition.

D

distributed database management system *n.* A database management system capable of managing a distributed database. *Acronym:* DDBMS. *See also* distributed database.

distributed denial of service attack *n.* *See* DDoS.

distributed file system *n.* A file management system in which files may be located on multiple computers connected over a local or wide area network. *Acronym:* DFS.

distributed intelligence *n.* A system in which processing ability (intelligence) is distributed among multiple computers and other devices, each of which can work independently to some degree but can also communicate with the other devices to function as part of the larger system. *See also* distributed processing.

distributed network *n.* A network in which processing, storage, and other functions are handled by separate units (nodes) rather than by a single main computer.

distributed processing *n.* A form of information processing in which work is performed by separate computers linked through a communications network. Distributed processing is usually categorized as either plain distributed processing or true distributed processing. Plain distributed processing shares the workload among computers that can communicate with one another. True distributed processing has separate computers perform different tasks in such a way that their combined work can contribute to a larger goal. The latter type of processing requires a highly structured environment that allows hardware and software to communicate, share resources, and exchange information freely.

distributed services *n.* *See* BISDN.

distributed system *n.* A noncentralized network consisting of numerous computers that can communicate with one another and that appear to users as parts of a single, large, accessible “storehouse” of shared hardware, software, and data.

Distributed System Object Model *n.* IBM’s System Object Model (SOM) in a shared environment, where binary class libraries can be shared between applications on networked computers or between applications on a given system. The Distributed System Object Model complements existing object-oriented languages by allowing SOM class libraries to be shared among applications writ-

ten in different languages. *Acronym:* DSOM. *See also* SOM (definition 1).

distributed transaction processing *n.* Transaction processing that is shared by one or more computers communicating over a network. *Acronym:* DTP. *See also* distributed processing, transaction processing.

distributed workplace *n.* An environment other than the traditional office or factory, in which work is carried out on a regular basis. The flexibility afforded by the combination of communications and computing technologies enables many workers to conduct business anywhere the appropriate computer and data communications infrastructure has been set up. *See also* SOHO, telecommute.

distribution group *n.* A group that is used solely for e-mail distribution and that is not security-enabled. Distribution groups cannot be listed in discretionary access control lists (DACLS) used to define permissions on resources and objects. Distribution groups can be used only with e-mail applications (such as Microsoft Exchange) to send e-mail messages to collections of users. If you do not need a group for security purposes, create a distribution group instead of a security group. *See also* discretionary access control list, security group.

distribution list *n.* A list of recipients on an e-mail mailing list. This can be in the form of either a mailing list program, such as LISTSERV, or an alias in an e-mail program for all recipients of an e-mail message. *See also* alias (definition 2), LISTSERV, mailing list.

distribution services *n.* *See* BISDN.

distributive sort *n.* An ordering process in which a list is separated into parts and then reassembled in a particular order. *See also* sort algorithm. *Compare* bubble sort, insertion sort, merge sort, quicksort.

distro¹ *n.* **1.** A distribution of software (usually a version of Linux), digital music, or an online magazine or e-zine. *See also* e-zine, Linux. **2.** A company or individual that sells items, typically software, music CDs, or books, via the Web.

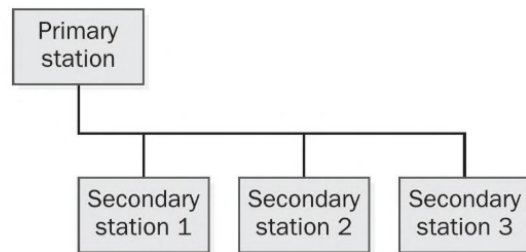
distro² *vb.* To distribute or sell software releases, digital music, or text items via the Web.

dithering *n.* A technique used in computer graphics to create the illusion of varying shades of gray on a monochrome display or printer, or additional colors on a color display or printer. Dithering relies on treating areas of an

is the same if the two are reversed—for example, 2×3 and 3×2 . In arithmetic performed by computers, however, the multiplicand is different from the multiplier because computer multiplication is usually performed as addition. Therefore, 2×3 means “add 2 three times,” whereas 3×2 means “add 3 two times.” *See also* factor. *Compare* multiplier (definition 1).

multiplier *n.* **1.** In arithmetic, the number that indicates how many times another number (the multiplicand) is multiplied. *See also* factor. *Compare* multiplicand. **2.** In computing, an electronic device independent of the central processing unit (CPU) that performs multiplication by adding the multiplicand according to the value of the digits in the multiplier.

multipoint configuration *n.* A communications link in which multiple stations are connected sequentially to the same communications line. Typically, the communications line is controlled by a primary station, such as a computer, and the stations attached to the line are secondary. *See the illustration.*



Multipoint configuration.

multiport repeater *n.* *See* active hub.

multiprocessing *n.* A mode of operation in which two or more connected and roughly equal processing units each carry out one or more processes (programs or sets of instructions) in tandem. In multiprocessing, each processing unit works on a different set of instructions or on different parts of the same process. The objective is increased speed or computing power, the same as in parallel processing and in the use of special units called *coprocessors*. *Compare* coprocessor, parallel processing.

multiprogramming *n.* A form of processing in which a computer holds more than one program in memory and works on them in round-robin fashion—that is, by sharing out the processor’s time so that each program receives some

attention some of the time. This way of working is in contrast to using the processor to run one program at a time.

Multiprotocol Label Switching *n.* *See* MPLS.

Multi-Protocol Over ATM *n.* *See* MPOA.

Multipurpose Internet Mail Extensions *n.* *See* MIME.

Multipurpose Internet Mail Extensions HTML *n.* *See* MHTML.

multiscan monitor *n.* A computer monitor capable of adapting to different video frequencies to accommodate multiple screen resolutions and to support different video adapters and graphics display methods.

Multistation Access Unit *n.* *See* MAU.

multisystem network *n.* A communications network in which two or more host computers can be accessed by network users.

multitasking *n.* A form of processing supported by most current operating systems in which a computer works on multiple tasks—roughly, separate “pieces” of work—seemingly at the same time by parceling out the processor’s time among the different tasks. Multitasking can be either cooperative or preemptive. In the former, the operating system relies on the task to voluntarily cede control to another task; in the latter, the operating system decides which task receives priority. *See also* background¹, context switching, cooperative multitasking, foreground¹, time slice.

multithreaded application *n.* A program capable of running more than one program thread simultaneously. *See also* multithreading (definition 1), thread (definition 1).

multithreading *n.* **1.** The running of several processes in rapid sequence (multitasking) within a single program. *See also* thread (definition 1). **2.** In data manipulation, a technique in which nodes in a tree data structure contain pointers to higher nodes to make traversal of the structure more efficient. *See also* thread (definition 2).

multi-tier *n.* *See* three-tier.

multiuser *n.* *See* multiuser system.

multiuser dungeon *n.* *See* MUD.

multiuser simulation environment *n.* *See* MUD.

multiuser system *n.* Any computer system that can be used by more than one person. Although a microcomputer

or local. Scope can also be affected by redefining identifiers, such as by giving the same name to both a global variable and a local variable. *See also* block¹(definition 3), global, local. **2.** In electronics, slang for oscilloscope. *See also* oscilloscope.

score *n.* When referring to a spelling checker, a score is a number that indicates how much a replacement word differs from the original misspelled word. A low score indicates that the misspelled word was changed slightly, while a high score indicates that the word was changed a great deal.

SCP *n.* Acronym for Simple Control Protocol. A lightweight peer-to-peer networking protocol for devices that have limited processing and memory resources and operate over limited-bandwidth networks such as powerline carrier (PLC) systems. Products using SCP can interoperate with products using the Universal Plug and Play (UPnP), CEBus, and Home Plug & Play (HPnP) standards. Developed by a team of companies including Microsoft and General Electric, SCP enables the interaction between UPnP devices, devices based on Internet Protocol (IP), and non-IP-capable devices such as coffeemakers and alarm clocks. SCP, which was designed as a stand-alone protocol, can be used in residential, commercial, industrial, and utility applications. *See also* UPnP networking.

SCR *n.* *See* silicon-controlled rectifier.

scrambler *n.* A device or program that reorders a signal sequence in order to render it indecipherable. *See also* encryption.

scrap *n.* An application or system file maintained for storing data that has been marked for movement, copying, or deletion. *See also* clipboard (definition 1).

scrapbook *n.* **1.** A file in which a series of text and graphical images can be saved for subsequent use. **2.** A Macintosh system file that can hold a number of text and graphical images for later use. *Compare* clipboard (definition 1).

scratch¹ *n.* A memory region or file used by a program or operating system to hold work in progress temporarily. Created and maintained usually without the end user's knowledge, the scratch is needed only until the current session is terminated, at which time the data is saved or discarded. *Also called:* scratch file. *See also* temporary file. *Compare* scrap.

scratch² *vb.* To erase or discard data.

scratch file *n.* *See* scratch¹.

scratchpad *n.* **1.** A temporary storage area used by a program or operating system for calculations, data, and other work in progress. *See also* scratch¹, temporary file. **2.** A high-speed memory circuit used to hold small items of data for rapid retrieval. *See also* cache.

scratchpad memory *n.* *See* cache.

scratchpad RAM *n.* Memory used by a central processing unit (CPU) for temporary data storage. *Also called:* scratchpad, scratchpad memory. *See also* central processing unit, register.

scream *vb.* To operate at very high speed. For example, a modem that can transfer data several times faster than the one it replaced or a computer with a very high clock speed could be said to "scream."

screamer *n.* Slang for a piece of computer equipment that operates at a very high speed. Generally, "screamers" are the newest versions of a particular piece of equipment, such as a PC with the latest, fastest microprocessor, or are comprised of multiple components that increase the operating speed over standard models, such as a PC that has a huge amount of RAM (Random Access Memory), a high-performance video board, a superfast CD-ROM drive, and the latest microprocessor. However, as technology evolves and new, faster devices are introduced, yesterday's screamer rapidly becomes today's snail.

screen angle *n.* The angle at which the dots in a halftone screen are printed. A correct angle will minimize blur and other undesirable effects, such as moiré patterns. *See also* color separation (definition 1), halftone, moiré.

screen buffer *n.* *See* video buffer.

screen dump *n.* A duplicate of a screen image; essentially, a snapshot of the screen that is either sent to a printer or saved as a file.

screen flicker *n.* *See* flicker.

screen font *n.* A typeface designed for display on a computer monitor screen. Screen fonts often have accompanying PostScript fonts for printing to PostScript-compatible printers. *See also* derived font, intrinsic font. *Compare* PostScript font, printer font.

screen frequency *n.* *See* halftone.

screen grabber *n.* *See* grabber (definition 3).

grams, a predesigned spreadsheet that contains formulas, labels, and other elements. **4.** In MS-DOS, a small portion of memory that holds the most recently typed MS-DOS command. **5.** In word processing and desktop publishing programs, a predesigned document that contains formatting and, in many cases, generic text.

temporary file *n.* A file created either in memory or on disk, by the operating system or some other program, to be used during a session and then discarded. *Also called:* temp file. *See also* scratch¹.

temporary storage *n.* A region in memory or on a storage device that is temporarily allocated for use in storing intermediate data in a computational, sorting, or transfer operation.

ten's complement *n.* A number in the base-10 system that is the true complement of another number and is derived either by subtracting each digit from 1 less than the base and adding 1 to the result or by subtracting each number from the next higher power of the base. For example, the ten's complement of 25 is 75, and it can be derived either by subtracting each digit from 9, which is 1 less than the base ($9 - 2 = 7$, $9 - 5 = 4$) and then adding 1 ($74 + 1 = 75$) or by subtracting 25 from the next higher power of 10, which is 100 ($100 - 25 = 75$). *See also* complement. *Compare* nine's complement.

tera- prefix A prefix meaning 10^{12} : 1 trillion in the American numbering system, 1 million million in British numbering. *Abbreviation:* T. *See also* terabyte.

terabyte *n.* A measurement used for high-capacity data storage. One terabyte equals 2^{40} , or 1,099,511,627,776, bytes, although it is commonly interpreted as simply one trillion bytes. *Abbreviation:* TB.

teraflops *n.* One trillion floating-point operations (FLOPS) per second. Teraflops serves as a benchmark for larger computers that measures the number of floating-point operations they can perform 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 multiuser 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.

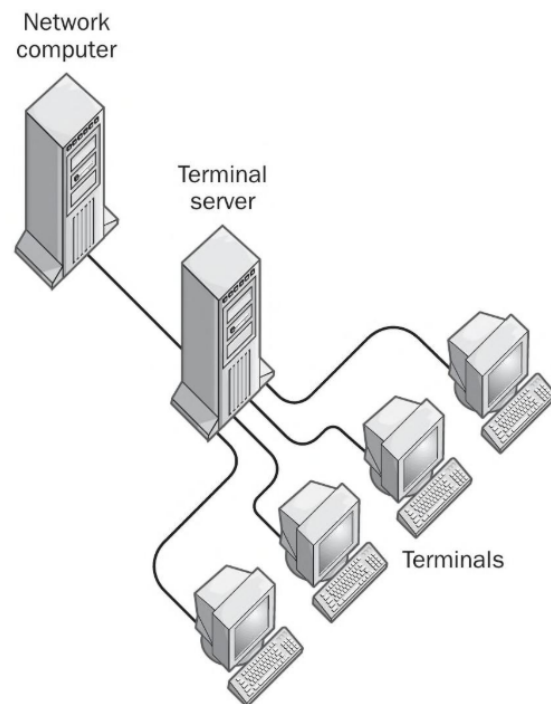
Terminal *n.* An application that provides command-line access to the Mac OS X UNIX core. The Terminal command-line environment allows UNIX functions from within Mac OS X.

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.

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