

Microsoft®

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

Copyright © 2002 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.--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.

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 www.microsoft.com/mspress. Send comments to mspinput@microsoft.com.

Active Desktop, Active Directory, ActiveMovie, ActiveStore, ActiveSync, ActiveX, Authenticode, BackOffice, BizTalk, ClearType, Direct3D, DirectAnimation, DirectDraw, DirectInput, DirectMusic, DirectPlay, DirectShow, DirectSound, DirectX, Entourage, FoxPro, FrontPage, Hotmail, IntelliEye, IntelliMouse, IntelliSense, JScript, MapPoint, Microsoft, Microsoft Press, Mobile Explorer, MS-DOS, MSN, Music Central, NetMeeting, Outlook, PhotoDraw, PowerPoint, SharePoint, UltimateTV, Visio, Visual Basic, Visual C++, Visual FoxPro, Visual InterDev, Visual J++, Visual SourceSafe, Visual Studio, Win32, Win32s, Windows, Windows Media, Windows NT, Xbox are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. Other product and company names mentioned herein may be the trademarks of their respective owners.

The example companies, organizations, products, domain names, e-mail addresses, logos, people, places, and events depicted herein are fictitious. No association with any real company, organization, product, domain name, e-mail address, logo, person, place, or event is intended or should be inferred.

Acquisitions Editor: Alex Blanton

Project Editor: Sandra Haynes

Body Part No. X08-41929

Contributors

Peter Aiken
Bart Arenson
Janice Borzendowski
Jerome Colburn
Duane Hanson
Andrew Himes
Robert Howecton
Annette B. Jackson
Larry S. Jackson
Thomas A. Jackson
Chris Kinata
Ilana Kingsley
Robin Lombard
Thomas A. Long
William G. Madison

Thomas P. Magliery
David Mason
Terrence M. McLaren
Wallace Parker
Charles Petzold
Phil Rose
John Ross
David Rygmyr
Aimée Truchard
Michael Vose
Bruce Webster
Judson D. Weeks
Tom Winn
JoAnne Woodcock

Illustrators

Travis Beaven
David Holter
Alton Lawson

Rob Nance
Joel Panchot

Contents

<i>Introduction</i>	vii
<i>Changes in the Fifth Edition</i>	vii
<i>Order of Presentation</i>	vii
<i>Entries</i>	vii
<i>Future Printings and Editions</i>	ix

Dictionary of Computer Terms 1

Appendix A:

Common Character Sets	587
ANSI Character Set	587
Apple Macintosh Extended Character Set	593
IBM Extended Character Set	597
EBCDIC Character Set	599

Appendix B:

Common File Extensions	605
----------------------------------	-----

Appendix C:

Instant Messaging Emoticons and Acronyms	613
--	-----

Appendix D:

Internet Domains	623
----------------------------	-----

Appendix E:

Numeric Equivalents	631
-------------------------------	-----

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.

Future Printings and Editions

Every effort has been made to ensure the accuracy and completeness of this book. If you find an error, think that an entry does not contain enough information, or seek an entry that does not appear in this edition, please let us know. Address your letter to: Dictionary Editor, Microsoft Press, One Microsoft Way, Redmond, WA 98052-6399. Or send e-mail to mspcd@microsoft.com.

E

elevator seeking *n.* A method of limiting hard disk access time in which multiple requests for data are prioritized based on the location of the data relative to the read/write head. This serves to minimize head movement. *See also* access time (definition 2), hard disk, read/write head.

elite *n.* 1. A size of fixed-width type that prints 12 characters to the inch. 2. A fixed-width font that may be available in various type sizes. *See also* monospace font.

ELIZA *n.* A program, modeled on Rogerian psychotherapy, that conducts simulated conversations with humans by echoing responses and posing questions based on key words in earlier comments. It was created by Dr. Joseph Weizenbaum, who considered it a bit of a joke and was alarmed that people took it seriously. *See also* artificial intelligence, Turing test.

ellipsis *n.* A set of three dots (...) used to convey incompleteness. In many windowing applications, selection of a command that is followed by an ellipsis will produce a submenu or a dialog box. In programming and software manuals, an ellipsis in a syntax line indicates the repetition of certain elements. *See also* dialog box, syntax.

elm *n.* Short for **electronic mail**. A program for reading and composing e-mail on UNIX systems. The elm program has a full-screen editor, making it easier to use than the original mail program, but elm has largely been superseded by pine. *See also* e-mail¹. *Compare* Eudora, pine.

e-mail¹ or **email** or **E-mail** *n.* 1. Short for **electronic mail**. The exchange of text messages and computer files over a communications network, such as a local area network or the Internet, usually between computers or terminals. 2. An electronic text message.

e-mail² or **email** or **E-mail** *vb.* To send an e-mail message.

e-mail address *n.* A string that identifies a user so that the user can receive Internet e-mail. An e-mail address typically consists of a name that identifies the user to the mail server, followed by an at sign (@) and the host name and domain name of the mail server. For example, if Anne E. Oldhacker has an account on the machine called baz at Foo Enterprises, she might have an e-mail address aeo@baz.foo.com, which would be pronounced "A E O at baz dot foo dot com."

e-mail filter *n.* A feature in e-mail-reading software that automatically sorts incoming mail into different folders or mailboxes based on information contained in the message.

For example, all incoming mail from a user's Uncle Joe might be placed in a folder labeled "Uncle Joe." Filters may also be used either to block or accept e-mail from designated sources.

e-mail management system *n.* An automated e-mail response system used by an Internet-based business to sort incoming e-mail messages into predetermined categories and either reply to the sender with an appropriate response or direct the e-mail to a customer service representative. *Acronym:* EMS.

embed *vb.* To insert information created in one program, such as a chart or an equation, into another program. After the object is embedded, the information becomes part of the document. Any changes made to the object are reflected in the document.

embedded *adj.* In software, pertaining to code or a command that is built into its carrier. For example, application programs insert embedded printing commands into a document to control printing and formatting. Low-level assembly language is embedded in higher-level languages, such as C, to provide more capabilities or better efficiency.

embedded chip *n.* *See* embedded system.

embedded command *n.* A command placed in a text, graphics, or other document file, often used for printing or page-layout instructions. Such commands often do not appear on screen but can be displayed if needed. In transferring documents from one program to another, embedded commands can cause problems if the programs are incompatible.

embedded controller *n.* A processor-based controller circuit board that is built into the computer machinery. *See also* controller.

embedded hyperlink *n.* A link to a resource that is embedded within text or is associated with an image or an image map. *See also* hyperlink, image map.

embedded interface *n.* An interface built into a hardware device's drive and controller board so that the device can be directly connected to the computer's system bus. *See also* controller, interface (definition 3). *Compare* ESDI, SCSI, ST506 interface.

embedded system *n.* Microprocessors used to control devices such as appliances, automobiles, and machines used in business and manufacturing. An embedded system is created to manage a limited number of specific tasks

within a larger device or system. An embedded system is often built onto a single chip or board and is used to control or monitor the host device—usually with little or no human intervention and often in real time. *See also* microprocessor.

em dash *n.* A punctuation mark (—) used to indicate a break or interruption in a sentence. It is named for the em, a typographical unit of measure that in some fonts equals the width of a capital M. *Compare* en dash, hyphen.

EMF *n.* *See* electromotive force.

emitter *n.* In transistors, the region that serves as a source of charge carriers. *Compare* base (definition 3), collector.

emitter-coupled logic *n.* A circuit design in which the emitters of two transistors are connected to a resistor so that only one of the transistors switches at a time. The advantage of this design is very high switching speed. Its drawbacks are the high number of components required and susceptibility to noise. *Acronym:* ECL.

EMM *n.* *See* Expanded Memory Manager.

e-money or **emoney** *n.* Short for **electronic money**. A generic name for the exchange of money through the Internet. *Also called:* cybercash, digicash, digital cash, e-cash, e-currency.

emotag *n.* In an e-mail message or newsgroup article, a letter, word, or phrase that is encased in angle brackets and that, like an emoticon, indicates the attitude the writer takes toward what he or she has written. Often emotags have opening and closing tags, similar to HTML tags, that enclose a phrase or one or more sentences. For example: <joke>You didn't think there would really be a joke here, did you?</joke>. Some emotags consist of a single tag, such as <grin>. *See also* emoticon, HTML.

emoticon *n.* A string of text characters that, when viewed sideways, form a face expressing a particular emotion. An emoticon is often used in an e-mail message or newsgroup post as a comment on the text that precedes it. Common emoticons include :-) or :) (meaning "I'm smiling at the joke here"), ;-) ("I'm winking and grinning at the joke here"), :-(("I'm sad about this"), :-7 ("I'm speaking with tongue in cheek"), :D or :-D (big smile; "I'm overjoyed"), and :-O (either a yawn of boredom or a mouth open in amazement). *Compare* emotag.

EMS *n.* Acronym for **Expanded Memory Specification**. A technique for adding memory to PCs that allows for increasing memory beyond the Intel 80x86 microproces-

sor real-mode limit of 1 megabyte (MB). In earlier versions of microprocessors, EMS bypassed this memory board limit with a number of 16-kilobyte banks of RAM that could be accessed by software. In later versions of Intel microprocessors, including the 80386 and 80486 models, EMS is converted from extended memory by software memory managers, such as EMM386 in MS-DOS 5. Now EMS is used mainly for older MS-DOS applications because Windows and other applications running in protected mode on 80386 and higher microprocessors are free of the 1-MB limit. *Also called:* LIM EMS. *See also* expanded memory, protected mode. *Compare* conventional memory, extended memory.

em space *n.* A typographical unit of measure that is equal in width to the point size of a particular font. For many fonts, this is equal to the width of a capital M, from which the em space takes its name. *Compare* en space, fixed space, thin space.

emulate *vb.* For a hardware or software system to behave in the same manner as another hardware or software system. In a network, for example, microcomputers might emulate terminals in order to communicate with mainframes.

emulation *n.* The process of a computer, device, or program imitating the function of another computer, device, or program.

emulator *n.* Hardware or software designed to make one type of computer or component act as if it were another. By means of an emulator, a computer can run software written for another machine. In a network, microcomputers might emulate terminals in order to communicate with mainframes.

emulsion laser storage *n.* A method for recording data in film by selective heating with a laser beam.

enable *vb.* To activate or turn on. *Compare* disable.

encapsulate *vb.* **1.** To treat a collection of structured information as a whole without affecting or taking notice of its internal structure. In communications, a message or packet constructed according to one protocol, such as a TCP/IP packet, may be taken with its formatting data as an undifferentiated stream of bits that is then broken up and packaged according to a lower-level protocol (for example, as ATM packets) to be sent over a particular network; at the destination, the lower-level packets are assembled, re-creating the message as formatted for the encapsulated protocol. *See also* ATM (definition 1). **2.** In object-oriented

E