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Microsoft Press® **Computer Dictionary** Third Edition

- *Over 7,600 terms and definitions*
- *345 illustrations and diagrams*
- *Extensive Internet and Web coverage*
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Microsoft Press

Microsoft Press

Computer Dictionary

Third Edition

Microsoft Press

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 pending.

ISBN 1-57231-743-4

Printed and bound in the United States of America.

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

Distributed to the book trade in Canada by Macmillan of Canada, a division of Canada Publishing Corporation.

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

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Introduction

The *Microsoft Press Computer Dictionary, Third 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:

Applications

- Databases
- Desktop Publishing
- Multimedia
- Spreadsheets
- Word Processing

Communication and Networks

- E-mail
- Intranet

Data and Data Storage

Games

Graphics

Hardware

- Architecture
- Chips, Cards, and Boards
- Computers
- Disks, Drives, and Other Media
- Peripherals
- Processors

History

Information Processing

- General Computing
- Input/Output
- Memory and Memory Management

Internet

- Protocols
- Security
- Tools (user and developer)
- World Wide Web

Organizations

Software Engineering

- Concepts
- Programming Languages
- Tools and Techniques

Standards

Systems and Environments

- Operating Systems



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 Third Edition

The third edition of the *Microsoft Press Computer Dictionary* has been revised and updated to reflect the many advances in the computer field and to include several areas that have come into prominence in the public eye, such as the Internet. Over 2,500 new entries have been added, covering the Internet, the World Wide Web, network computing, hardware and software advances, virtual reality, multimedia, and workgroup computing.

Existing entries from the second edition of the *Microsoft Press Computer Dictionary* have been updated to include changes in the field.

All entries have been styled in a more traditional dictionary format than in previous editions. Pronunciations and parts of speech are given for all terms. Entries that have more than one sense, or definition, are broken into numbered lists.

Order of Presentation

Entries are alphabetized by letter. Spaces are ignored, as are characters such as hyphens and slashes; for example, *Baudot 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), pronunciation, part of speech, definition, illustration or table references (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*.

Pronunciations

Pronunciation keys appear after all defined terms in the dictionary. Within the pronunciation keys, individual words are separated by word spaces, and syllables within each word are separated by stress marks or hyphens.

Variant Pronunciations

The *Microsoft Press Computer Dictionary, Third Edition* uses a generalized system for representing pronunciations, particularly for the vowels. There are many subtle variations, well known to phonologists in particular, in the ways Americans in different parts of the United States pronounce many vowels. However, most can recognize words that are pronounced slightly differently by others and should be able to interpret the broad category represented for each of the vowel sounds in this dictionary and apply it in their own regional variation or dialect. This dictionary represents only standard American pronunciations, but there are cases in which sufficient divergence in pronunciation exists, even within the United States, so some variant pronunciations have been included.

Variants are separated by commas, and the most common pronunciation may appear first. However, because there are many cases where two pronunciations are (at least roughly) equally widely used, the order in which they appear should not be interpreted to mean that the first one given is more "correct" or common than the other(s). Variants are shown on a word-by-word basis; for a multiword entry, pronunciation keys are given only for the word or words that have variant pronunciations.

For words that are spelled with the letters *wh*, the pronunciation is listed with two variants: one with a simple *w* (w) and one with the *hw* sound (hw).

Words that are spelled with either *au* or *aw* include a variant pronunciation with the letter *o* with a circumflex accent (ô), which represents the vowel sound some Americans (those who make a significant distinction between this sound and a "regular" short *o*) pronounce when they say the word *dawn*. In some parts of the country, this vowel sound is also used in words with other spellings, such as *coffee* or *talk*, but this seems to be a distinctly dialectical variation rather than a standard one. It is therefore very difficult for any individual to predict how any other might pronounce these particular words, so variants have not been included for them.

Stress

The syllable or syllables pronounced with the heaviest, or primary, stress in a term are followed by acute accents (´); those with lighter, or secondary, stress are followed by grave accents (`). For example, in the word *computer*, the second syllable is spoken more forcefully, or with more stress, than the first and third syllables and therefore is followed in the pronunciation key by an acute accent (kəm-pyúˈtər). In the word *engineering*, the third syllable is stressed most heavily, but the first syllable is stressed more than the second or fourth, so the first syllable is followed by a grave accent, indicating secondary stress (enˈjə-nērˈēŋg).

Special Characters and Diacritics

The dictionary's pronunciation schema keeps the use of technical phonetic characters to a minimum. Instead, a system that is more familiar to most Americans represents short vowels with plain letters (a, e, i, o, u) and long vowels with overbars (ā, ē, ī, ō, ū). The ligatured *o*'s represent the vowel sounds in the words *foot* (ō) and *food* (ū).

The letter *a* with an umlaut (ä) is included as an alternative to the short *o* (o). It is used when the vowel is represented orthographically by some

Introduction

letter or combination of letters other than the letter *o*, such as *a* (as in *father*), *au* (as in *caught*), or *aw* (as in *dawn*). This is done mainly to avoid confusing the reader visually with pronunciations such as wonˈdər for the word *wander*.

One other pair of alternative characters is used to represent a single vowel sound: the schwa (ə) and a short *u* (u). Traditionally, the schwa has been reserved for unstressed, or reduced, vowels, but in recent years it has become much more commonly used in dictionaries to also represent the short, stressed *u*. In this dictionary, the short *u* is used only in words that are spelled with the letter *u*, and the schwa is used for all other spellings except for “syllabic *l*’s,” in which cases the vowel is dropped entirely, as in the word *little* (liˈtl).

One other diacritic used in the pronunciations is a circumflex over the letter *a* (â). This is used instead of the short *e* only in combination with the letter *r*, to represent the vowel sound heard in words such as *air*, *software*, and *very*. This is done to avoid representations such as kerˈək-tər for the word *character*, which might lead some readers to believe that the sound should be pronounced as is the *er* in the word *her*.

Acronyms

When acronyms are pronounced as a series of sounded-out letters, capital letters are used to represent the pronunciation of the letters; for example, the pronunciation for the term *EPS* is EˈP-Sˈ, not ěˈpě-esˈ. *Note:* Letter-by-letter pronunciations are included for all acronyms in the dictionary, even those that are pronounced as words by most people; for example, the pronunciation for the term *ASCII* includes both aˈskĕ and AˈS-C-I-Iˈ.

Pronunciation Symbols

The following charts include the characters used for the pronunciations in the *Microsoft Press Computer Dictionary, Third Edition* (MPCD), the International Phonetic Alphabet (IPA) symbols to which those characters correspond, and some example words in which the letter or letters that represents each sound is underlined. No attempt has been made to repre-

sent foreign sounds as they are pronounced in their original language; only Americanized pronunciations are given for foreign words and names.

VOWELS

MPCD	IPA	Representative Words
a	æ	<u>bat</u>
ā	e	<u>ape</u>
ä	ɑ	<u>father</u>
ô	ɔ	<u>dawn</u>
är	ɔr	<u>dart</u>
âr	er	<u>hair</u>
e	ɛ	<u>let</u>
ē	i	<u>bee</u> , <u>equal</u>
ēr	ir	<u>hear</u>
i	ɪ	<u>sit</u>
ī	aɪ	<u>nice</u>
īr	aɪr	<u>wire</u>
o	ɑ	<u>hot</u>
ō	o	<u>oats</u> , <u>home</u>
ōr	or	<u>torn</u>
ōō	u	<u>book</u>
ōōr	ur	<u>tour</u>
ōō	u	<u>boot</u> , <u>rule</u>
oi	ɔɪ	<u>oil</u> , <u>boy</u>
ou	aʊ	<u>out</u>
u	ʌ	<u>cup</u>
ur	ʊ	<u>purge</u>
ə	ə	<u>about</u> , <u>item</u> , <u>edible</u> , <u>gallop</u>
ər	ər	<u>ever</u>

CONSONANTS

MPCD	IPA	Representative Words
b	b	<u>bit</u>
ch	tʃ	<u>child</u> , <u>ratchet</u>
d	d	<u>dog</u>
f	f	<u>fill</u> , <u>phobia</u> , <u>laugh</u>
g	g	<u>gold</u> , <u>ghost</u>
h	h	<u>home</u>
j	dʒ	<u>jail</u> , <u>ledge</u>
k	k	<u>kid</u> , <u>cow</u> , <u>chrome</u>
l	l, ɫ	<u>live</u> , <u>double</u>
m	m	<u>map</u>
n	n	<u>not</u> , <u>know</u>

ng	ng, ŋ	finger, sing
p	p	pine, apple
r	r	rat
s	s	soon, cell
sh	ʃ	shoe, notion, charade
t	t	test
th	θ	thin
dh	ð	then
v	v	vine
w	w	wine
hw	ʍ	whine
y	j	yet
z	z	zoom, beds
zh	ʒ	pleasure, collage

Parts of Speech

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

<i>n.</i>	noun
<i>vb.</i>	verb
<i>adj.</i>	adjective
<i>adv.</i>	adverb

Definitions

Each of the more than 7,300 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:



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Online Updates

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ment the content of this dictionary and keep it up to date in regard to computer technology, which is one of the fastest-evolving fields in the world today. Simply point your Web browser to <http://mspress.microsoft.com/mspress/products/1031> to access the update page for the dictionary. Please note that the content of the updates is in HTML format and is not available in a separate file for downloading. The updates are meant to be viewed on the Microsoft Press Web site.



tape dump \tāp' dūmp\ *n.* The process of simply printing the data contained on a tape cartridge without performing any report formatting. *See also* tape cartridge.

tape tree \tāp' trē\ *n.* A means of audiotape distribution, used in Usenet music newsgroups and mailing lists, in which a recording is copied and sent to a number of *branch* participants, who in turn send copies to their *children*, or *leaves*. *See also* branch (definition 1), child (definition 2), leaf, tree structure. *Compare* vine.

TAPI \tap'ē, T'A-P-I'\ *n.* Acronym for **Telephony Application Programming Interface**. In the Windows Open Systems Architecture (WOSA), a programming interface that gives Windows client applications access to a server's voice services. TAPI facilitates interoperability between personal computers and telephone equipment. *Also called* Telephony API. *See also* application programming interface, WOSA. *Compare* TSAPI.

.tar \dot-tār', -T'A-R'\ *n.* The file extension that identifies uncompressed UNIX archives in the format produced by the tar program.

tar¹ \tār\ *n.* Acronym for **tape archive**. A UNIX utility for making a single file out of a set of files that a user wishes to store together. The resulting file has the extension .tar. Unlike PKZIP, tar does not compress files, so compress or gzip is usually run on the .tar file to produce a file with extensions .tar.gz or .tar.Z. *See also* compress¹, gzip, PKZIP. *Compare* untar¹.

tar² \tār\ *vb.* To make a single file out of a set of files using the tar utility. *See also* compress, PKZIP. *Compare* untar².

target \tār'gət\ *n.* Loosely, the objective of a computer command or operation. Examples are a computer that is to run a program translated for its use, a "foreign" language (for another computer) into which a program is to be translated, or a group of people for whom a particular product is designed. In MS-DOS usage, the target is often the disk referred to by prompts in a copy operation (for example, "insert *target* diskette"). In terms of

the SCSI (small computer system interface) connection, the target is the device that receives commands. *See also* SCSI, target computer, target disk, target language.

target computer \tār'gət kəm-pyōō'tər\ *n.* The computer that receives data from a communications device, a hardware add-in, or a software package.

target disk \tār'gət disk'\ *n.* The disk to which data is to be written, as in a copy operation. *See also* target. *Compare* source disk.

target language \tār'gət lang'wəj\ *n.* The language into which source code is compiled or assembled. *See also* assembler, compiler (definition 2), cross-compiler.

task \task\ *n.* A stand-alone application or a subprogram that is run as an independent entity.

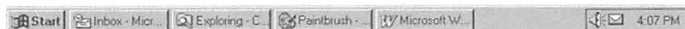
taskbar \task'bār\ *n.* A graphic toolbar used in Windows 95 to select, via the mouse, one of a number of active applications. *See the illustration.* *See also* task button, toolbar.

task button \task' but'ən\ *n.* In Windows 95, a button that appears on the taskbar on the screen when an application is run. By clicking on the button, the user can switch from another application to the application corresponding to the button. *See also* taskbar.

task management \task' man'əj-mənt\ *n.* The operating-system process of tracking the progress of and providing necessary resources for separate tasks that are running on a computer, especially in a multitasking environment.

task swapping \task' swā'pēŋ\ *n.* The process of switching from one application to another by saving the data for the application presently running in the foreground to a storage device and loading the other application. *See also* foreground² (definition 2), task.

task switching \task' swich'ēŋ\ *n.* The act of moving from one program to another without shutting down the first program. Task switching is a single act, as compared to multitasking, in which the central processing unit rapidly switches back



Taskbar.



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**The Comprehensive
Standard for Business,
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MICROSOFT PRESS COMPUTER DICTIONARY, THIRD EDITION, is the authoritative source of definitions for computer terms, concepts, and acronyms—from the world's most respected computer software company. With more than 7,600 entries—2,300 of which are new—this comprehensive standard has been completely updated and revised to cover the most recent trends in computing, including extensive coverage of Internet, Web, and intranet-related terms. The definitions are based on the ways the terms are used in the real world today. Extensively illustrated, the Third Edition now offers a more professional, traditional-dictionary format for maximum utility and ease of use.

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X002KHKW37
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Computer Dictionary

New

Key facts that make the new MICROSOFT PRESS COMPUTER DICTIONARY, THIRD EDITION, one of the finest references of its kind you can use:

- In addition to terms and technology developed at Microsoft, the dictionary thoroughly covers other products and technologies in the computing industry (PC, Macintosh®, and Unix terminology), plus words illustrating mathematical, mainframe, network, and programming concepts.
- It's a real dictionary. You'll find pronunciation guides, parts of speech, and definitions.
- Online updates are available every quarter on the Microsoft Press Web site.

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