

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

PICMG *n.* Acronym for the **PCI Industrial Computer Manufacturers Group**. A consortium of more than 350 computer product vendors, this non-profit organization develops specifications for PCI-based devices, such as the CompactPCI specification. *See also* CompactPCI.

pico- *prefix* Denotes one trillionth (10^{-12}), or, in the British numbering system, one million millionth.
Abbreviation: p.

picoJava *n.* A microprocessor developed by Sun Microsystems, Inc., that executes Java code. *See also* Java.

picosecond *n.* One trillionth of a second.
Abbreviation: psec.

PICS *n.* *See* Platform for Internet Content Selection.

.pict *n.* The file extension that identifies graphic images in the Macintosh PICT format. *See also* PICT.

PICT *n.* A file-format standard for encoding graphical images, both object-oriented and bitmapped. The PICT file format was first used in Macintosh applications, but many PC applications can read the format too. *See also* bitmapped graphics, object-oriented graphics.

picture element *n.* *See* pixel.

pie chart *n.* A type of graph that presents values as percentages (slices) of a whole (a pie).

piezoelectric *adj.* Of, pertaining to, or characteristic of crystals that can convert between mechanical and electrical energy. An electric potential applied to a piezoelectric crystal causes a small change in the shape of the crystal. Likewise, physical pressure applied to the crystal creates an electrical potential difference between the surfaces of the crystal.

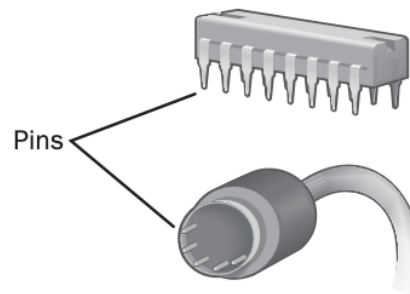
piggyback board *n.* A printed circuit board that plugs into another circuit board to enhance its capabilities. A piggyback board is sometimes used to replace a single chip, in which case the chip is removed and the piggyback board is inserted into the empty socket. *See also* daughterboard.

Pilot *n.* A series of popular handheld personal digital assistants (PDAs) designed by Palm and based on the Palm OS operating system. Palm introduced its first Pilot model in 1996, followed in 1997 by the PalmPilot, and thereafter by a series of other Palm handheld models.

PILOT *n.* Acronym for **Programmed Inquiry, Learning or Teaching**. A programming language developed in 1976 by John A. Starkweather and designed primarily for creating applications for computer-aided instruction.

PIM *n.* Acronym for **personal information manager**. An application that usually includes an address book and organizes unrelated information, such as notes, appointments, and names, in a useful way.

pin *n.* A slender prong. Pins are commonly encountered as the contacts protruding from a male connector. Connectors are often identified by the number of pins they have. Other types of pins are the spidery, leglike metal appendages that connect computer chips to sockets on a circuit board or directly to the circuit board. *See the illustration.*



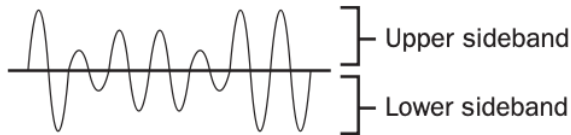
Pin. A 16-pin DIP (top) and a 6-pin DIN (bottom).

PIN *n.* Acronym for **personal identification number**. A unique code number used to gain access to personal information or assets via an electronic device. PINs are used by a variety of electronic services such as automated bank tellers, Internet sites, and wireless phone services.

pinch roller *n.* A small cylindrical pulley that presses magnetic tape against the drive's capstan to move the tape over the tape machine's heads. *See also* capstan.

pinch-roller plotter *n.* A type of plotter, intermediate between drum and flatbed types, that uses hard rubber or metal wheels to hold the paper against the main roller. *See also* plotter. *Compare* drum plotter, flatbed plotter.

pin-compatible *adj.* Having pins that are equivalent to the pins on another chip or device. A chip, for example, might have different internal circuitry from that used in another chip, but if the two chips use the same pins for input and output of identical signals, they are pin-compatible. *Compare* plug-compatible.



Sideband.

sidebar *n.* A block of text placed to the side of the main body of text in a document, often set off by a border or other graphic element.

side-by-side execution *n.* The ability to install and use multiple versions of an assembly in isolation at the same time. This can occur on the same machine, or in the same process or application domain. Side-by-side execution can apply to applications and components as well as the components of the .NET Framework. Allowing assemblies to run side-by-side is essential to support robust versioning in the common language runtime.

side effect *n.* Any change of state caused by a subroutine, such as a routine that reads a value from a file and advances the current file position.

side head *n.* A heading placed in the margin of a printed document and top-aligned with the body text, rather than being vertically aligned with text, as is a normal head.

sieve of Eratosthenes *n.* An algorithm for finding prime numbers. It is often used as a benchmark in testing the speed of a computer or programming language. *See also* benchmark¹.

.sig *n.* A file extension for a signature file for e-mail or Internet newsgroup use. The contents of this file are automatically appended to e-mail correspondence or newsgroup articles by their respective client software. *See also* signature file (definition 1).

SIG *n.* Acronym for special interest group. An e-mail online discussion group or a group of users who meet and share information, especially one of the groups supported by the Association for Computing Machinery (ACM), such as SIGGRAPH for computer graphics.

SIGGRAPH *n.* Short for Special Interest Group on Computer Graphics, a part of the Association for Computing Machinery (ACM).

sigmoid function *n.* A kind of S-shaped mathematical function arising in many dynamical systems, including neural networks, because it is the solution to a first-order differential equation. It typically maps a real value, which may be arbitrarily large in magnitude (positive or nega-

tive), to another real value, which lies within some narrow range. The sigmoid function, in neural network computation literature, is also sometimes referred to as the logistic function. The reason for its prevalence is that it is thought to resemble the probability that a true neuron generates as an action potential in response to particular input and output. *See also* artificial intelligence, neural network.

sign *n.* The character used to indicate a positive or negative number. In assembly-level programming, the sign is indicated by the sign bit accompanying the number. *See also* sign bit.

signal *n.* **1.** Any electrical quantity, such as voltage, current, or frequency, that can be used to transmit information. **2.** A beep or tone from a computer's speaker or a prompt displayed on screen that tells a user that the computer is ready to receive input.

signal converter *n.* A device or circuit that converts a signal from one form to another, such as analog to digital, or pulse code modulation to frequency modulation.

signal-to-noise ratio *n.* The amount of power, measured in decibels, by which the signal exceeds the amount of channel noise at the same point in transmission. *Abbreviation:* S/N. *See also* noise (definition 2).

signature *n.* **1.** A sequence of data used for identification, such as text appended to an e-mail message or a fax. **2.** A unique number built into hardware or software for authentication purposes.

signature block *n.* A block of text that an e-mail client or a newsreader automatically places at the end of every message or article before the message or article is transmitted. Signature blocks typically contain the name, e-mail address, and affiliation of the person who created the message or article.

signature file *n.* **1.** A file that contains information inserted by a user and automatically appended to e-mail correspondence or newsgroup articles by client software. A signature file typically contains the name or nickname of the user and might include such information as the user's e-mail address, Web page, company, or job title. **2.** A file that updates an antivirus program so that the program recognizes signatures of new viruses and removes the viruses from the user's computer. *See also* antivirus program, virus signature.

sign bit *n.* The most significant, or leftmost, bit of a number field, usually set to 1 if the number is negative.