Microsoft Press

Microsoft Computer Discussion

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

Printed and bound in the United States of America.

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

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 <u>mspress.microsoft.com</u>.

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

Contents

Introduction Vii

Dictionary

of Computer Terms

Appendix A ASCII Character Set 494

Appendix B IBM Extended Character Set 496

Appendix C Apple Macintosh Extended Character Set 498

> Appendix D EBCDIC Character Set 502

Appendix E Numeric Equivalents 509 Table of Contents

Appendix F Internet Domains 517

Appendix G Common File Extensions 527

Appendix H Year 2000 Problem Reference 536

bit

binomial distribution *n*. In statistics, a list or a function that describes the probabilities of the possible values of a random variable chosen by means of a Bernoulli sampling process. A Bernoulli process has three characteristics: each trial has only two possible outcomes—success or failure; each trial is independent of all other trials; and the probability of success for each trial is constant. A binomial distribution can be used to calculate the probability of getting a specified number of successes in a Bernoulli process. For example, the binomial distribution can be used to calculate the probability of zetting a 7 three times in 20 rolls of a pair of dice. *Also called* Bernoulli distribution.

- biometrics n. Traditionally, the science of measuring and analyzing human biological characteristics. In computer technology, biometrics relates to authentication and security techniques that rely on measurable, individual biological stamps to recognize or verify an individual's identity. For example, fingerprints, handprints, or voice-recognition might be used to enable access to a computer, to a room, or to an electronic commerce account. Security schemes are generally categorized into three levels: level 1 relies on something the person carries, such as an ID badge with a photo or a computer cardkey; level 2 relies on something the person knows, such as a password or a code number; level 3, the highest level, relies on something that is a part of the person's biological makeup or behavior, such as a fingerprint, the pattern of blood vessels in a retina, or a signature. See also fingerprint reader, handwriting recognition (definition 1), voice recognition.
- **bionics** \bī-on'iks`\ n. The study of living organisms, their characteristics, and the ways they function, with a view toward creating hardware that can simulate or duplicate the activities of a biological system. See also cybernetics.
- **BIOS** \bi \overline{os} n. Acronym for basic input/output system. On PC-compatible computers, the set of essential software routines that tests hardware at startup, starts the operating system, and supports the transfer of data among hardware devices. The BIOS is stored in read-only memory (ROM) so that it can be executed when the computer is turned on. Although critical to performance, the BIOS is usually invisible to computer users. See also AMI BIOS, CMOS setup, Phoenix BIOS, ROM BIOS. Compare Toolbox.

bipolar *adj.* **1.** Having two opposite states, such as positive and negative. **2.** In information transfer and processing, pertaining to or characteristic of a signal in which opposite voltage polarities represent on and off, true and false, or some other pair of values. *See also* nonreturn to zero. *Compare* unipolar. **3.** In electronics, pertaining to or characteristic of a transistor having two types of charge carriers. *See also* transistor.

BIS n. See business information system.

BISDN n. See broadband ISDN.

- **bistable** *adj.* Of, pertaining to, or characteristic of a system or device that has two possible states, such as on and off. *See also* flip-flop.
- **bistable circuit** *n*. Any circuit that has only two stable states. The transition between them must be initiated from outside the circuit. A bistable circuit is capable of storing 1 bit of information.

bistable multivibrator n. See flip-flop.

- BISYNC \bi'senk\ n. Short for binary synchronous communications protocol. A communications standard developed by IBM. BISYNC transmissions are encoded in either ASCII or EBCDIC. Messages can be of any length and are sent in units called frames, optionally preceded by a message header. BISYNC uses synchronous transmission, in which message elements are separated by a specific time interval, so each frame is preceded and followed by special characters that enable the sending and receiving machines to synchronize their clocks. STX and ETX are control characters that mark the beginning and end of the message text; BCC is a set of characters used to verify the accuracy of transmission. See the illustration. Also called BSC.
- **bit** *n*. Short for **bi**nary digit. The smallest unit of information handled by a computer. One bit expresses a 1 or a 0 in a binary numeral, or a true or false logical condition, and is represented physically by an element such as a high or low voltage at one point in a circuit or a small spot on a disk magnetized one way or the other. A single bit conveys little information a human would consider meaningful. A group of 8 bits, however, makes up a byte, which can be used to represent many types of information, such as a letter of the alphabet, a decimal digit, or other character. *See also* ASCII, binary¹, byte.



