

# EXHIBIT 5

**McGraw-Hill**

---

**Dictionary of  
Computing &  
Communications**

**McGraw-Hill**

---

New York Chicago San Francisco Lisbon London Madrid  
Mexico City Milan New Delhi San Juan Seoul Singapore  
Sydney Toronto

The McGraw-Hill Companies

Materials in this dictionary are derived from the McGRAW-HILL DICTIONARY OF SCIENTIFIC AND TECHNICAL TERMS, Sixth Edition, copyright © 2003 by The McGraw-Hill Companies, Inc. All rights reserved.

McGRAW-HILL DICTIONARY OF COMPUTING & COMMUNICATIONS, copyright © 2003 by The McGraw-Hill Companies, Inc. All rights reserved. Printed in the United States of America. Except as permitted under the United States Copyright Act of 1976, no part of this publication may be reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written permission of the publisher.

1 2 3 4 5 6 7 8 9 0      DOC/DOC      0 9 8 7 6 5 4 3

ISBN 0-07-142178-5



This book is printed on recycled, acid-free paper containing a minimum of 50% recycled, de-inked fiber.

This book was set in Helvetica Bold and Novarese Book by TechBooks, Fairfax, Virginia. It was printed and bound by RR Donnelley, The Lakeside Press.

McGraw-Hill books are available at special quantity discounts to use as premiums and sales promotions, or for use in corporate training programs. For more information, please write to the Director of Special Sales, Professional Publishing, McGraw-Hill, Two Penn Plaza, New York, NY 10121-2298. Or contact your local bookstore.

**Library of Congress Cataloging-in-Publication Data**

McGraw-Hill dictionary of computing and communications/McGraw-Hill.

p.      cm.

ISBN 0-07-142178-5

- 1. Computer science—Dictionaries.    2. Telecommunication—Dictionaries.
- 3. Engineering—Dictionaries.    I. The McGraw-Hill Companies, Inc.

QA76.15D52634      2003

004'.03—dc21

2003051209

## ghost image

problems; it provides instructions for solving a specific problem when appropriate parameters are supplied. { |jɛn-rəl rú'tɛn }

**generate** [COMPUT SCI] **1.** To create a particular program by selecting parts of a general-program skeleton (or outline) and specializing these parts into a cohesive entity. **2.** See gen. { |'jɛn-ə,rāt }

**generate and test** [COMPUT SCI] A computer problem-solving method in which a sequence of candidate solutions is generated, and each is tested to determine if it is an appropriate solution. { |'jɛn-ə,rāt ən 'tɛst }

**generated address** [COMPUT SCI] An address calculated or determined by instructions contained in a computer program for subsequent use by that program. Also known as calculated address; synthetic address. { |jɛn-ə,rād-əd ə'dres }

**generating area** See fetch. { |'jɛn-ə,rād-ɪŋ ,er-ē-ə }

**generating routine** See generator. { |'jɛn-ə,rād-ɪŋ rú,tɛn }

**generation** [COMPUT SCI] **1.** Any one of three groups used to historically classify computers according to their electronic hardware components, logical organization and software, or programming techniques; computers are thus known as first-, second-, or third-generation; a particular computer may possess characteristics of all generations simultaneously. **2.** One of a family of data sets, related to one another in that each is a modification of the next most recent data set. { |,jɛn-ə'rā-shən }

**generation data group** [COMPUT SCI] A collection of files, each a modification of the previous one, with the newest numbered 0, the next -1, and so forth, and organized so that each time a new file is added the oldest is deleted. Abbreviated GDG. { |,jɛn-ə'rā-shən 'dad-ə,grúp }

**generation number** [COMPUT SCI] A number contained in the file label of a reel of magnetic tape that indicates the generation of the data set of the tape. { |,jɛn-ə'rā-shən ,nəm-bər }

**generative grammar** [COMPUT SCI] A set of rules that describes the valid expressions in a formal language on the basis of a set of the parts of speech (formally called the set of metavariables or phrase names) and the alphabet or character set of the language. { |'jɛn-rəd-iv 'gram-ər }

**generator** [COMPUT SCI] A program that produces specific programs as directed by input parameters. Also known as generating routine. [ELECTR] **1.** A vacuum-tube oscillator or any other nonrotating device that generates an alternating voltage at a desired frequency when energized with direct-current power or low-frequency alternating-current power. **2.** A circuit that generates a desired repetitive or nonrepetitive waveform, such as a pulse generator. { |'jɛn-ə,rād-ər }

**generator lock** [ELECTR] Circuitry that synchronizes two video signals so that they can be mixed. Abbreviated genlock. { |'jɛn-ə,rād-ər ,læk }

**genetic algorithm** [COMPUT SCI] A search procedure based on the mechanics of natural selection

and genetics. Also known as evolutionary strategy. { |ə,ned-ik 'al-gə,rɪθ-əm }

**genetic programming** See evolutionary programming. { |ə,ned-ik 'prō,gram-ɪŋ }

**genlock** See generator lock. { 'gen,læk }

**GEO** See geosynchronous orbit. { |jɛ,'ē'ō or 'jē-ō }

**geomagnetic noise** [COMMUN] Interference in radio communications arising from terrestrial magnetism. { |jɛ-ō ,mag'ned-ik 'nɔɪz }

**geometrical distortion** [COMPUT SCI] A discrepancy between the horizontal and vertical dimensions of the picture elements on an electronic display, causing, for example, circles to appear as ovals unless corrected for in software. { |jɛ-ə |me-trə-kəl dɪ'stɔr-shən }

**geometric programming** [SYS ENG] A nonlinear programming technique in which the relative contribution of each of the component costs is first determined; only then are the variables in the component costs determined. { |jɛ-ə |me-trɪk 'prō,gram-ɪŋ }

**geostationary satellite** [AERO ENG] A satellite that follows a circular orbit in the plane of the earth's equator from west to east at such a speed as to remain fixed over a given place on the equator at an altitude of 22,280 miles (35,860 kilometers). { |jɛ-ō'stā-shə ,ner-ē 'səd-əl,ɪt }

**geosynchronous orbit** [AERO ENG] A satellite orbit that has a period of one sidereal day (23 hours, 56 minutes, 4 seconds). Abbreviated GEO. { |,jɛ-ō'sɪŋ-krə-nəs 'ôr-bət }

**geosynchronous satellite** [AERO ENG] An earth satellite that makes one revolution in one sidereal day (23 hours, 56 minutes, 4 seconds), synchronous with the earth's rotation; the orbit can have arbitrary eccentricity and arbitrary inclination to the earth's equator. Also known as synchronous satellite. { |,jɛ-ō'sɪŋ-krə-nəs 'səd-əl,ɪt }

**get** [COMPUT SCI] An instruction in a computer program to read data from a file. { get }

**getmain** [COMPUT SCI] An instruction used in some programming languages to request dynamic allocation of additional storage space to the program. { 'get,mān }

**ghost** [COMPUT SCI] To display a menu option in a dimmed, fuzzy typeface to indicate that this option is no longer available. [ELECTR] In radar, a contact generated where in fact no target exists, resulting from measurement ambiguity or attempts to resolve ambiguities with multiple observations in a multiple-target situation. { gōst }

**ghost algebraic manipulation language** [COMPUT SCI] An algebraic manipulation language which externally gives the appearance of manipulating quite general mathematical expressions, although internally it is functioning with canonically represented data, much like the simpler seminumerical languages. { |gōst al-jə'brā-ɪk mənɪp-yə'lā-shən ,læŋ-gwɪj }

**ghost image** [ELECTR] An undesired duplicate image offset from the desired image on a video display device. { 'gōst ,ɪm-ɪj }