DLA Piper
Baltimore Library
3 0100 00016 1069

WILEY ELECTRICAL AND ELECTRONICS ENGINEERING DICTIONARY

STEVEN M. KAPLAN

IPR2025-01312 - Samsung
Ex. 1046 - Page 1

WILEY ELECTRICAL AND ELECTRONICS ENGINEERING DICTIONARY

Steven M. Kaplan
Lexicographer

WITHDRAWN

IEEE
IEEE PRESS
WILEY-INTERSCIENCE
A JOHN WILEY & SONS, INC., PUBLICATION

MURDOCK LEARNING RESOURCE CENTER
GEORGE FOX UNIVERSITY
NEWBERG, OR. 97132

IPR2025-01312 - Samsung
Ex. 1046 - Page 2

Copyright © 2004 by John Wiley & Sons, Inc. All rights reserved.

Published by John Wiley & Sons, Inc., Hoboken, New Jersey.
Published simultaneously in Canada.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, scanning or otherwise, except as permitted under Section 107 or 108 of the 1976 United States Copyright Act, without either the prior written permission of the Publisher, or authorization through payment of the appropriate per-copy fee to the Copyright Clearance Center, Inc., 222 Rosewood Drive, Danvers, MA 01923, 978-750-8400, fax 978-646-8600, or on the web at www.copyright.com. Requests to the Publisher for permission should be addressed to the Permissions Department, John Wiley & Sons, Inc., 111 River Street, Hoboken, NJ 07030, (201) 748-6011, fax (201) 748-6008.

Limit of Liability/Disclaimer of Warranty: While the publisher and author have used their best efforts in preparing this book, they make no representation or warranties with respect to the accuracy or completeness of the contents of this book and specifically disclaim any implied warranties of merchantability or fitness for a particular purpose. No warranty may be created or extended by sales representatives or written sales materials. The advice and strategies contained herein may not be suitable for your situation. You should consult with a professional where appropriate. Neither the publisher nor author shall be liable for any loss of profit or any other commercial damages, including but not limited to special, incidental, consequential, or other damages.

For general information on our other products and services please contact our Customer Care Department within the U.S. at 877-762-2974, outside the U.S. at 317-572-3993 or fax 317-572-4002.

Wiley also publishes its books in a variety of electronic formats. Some content that appears in print, however, may not be available in electronic format.

Library of Congress Cataloging-in-Publication Data is available.

Kaplan, Steven M.

Wiley Electrical and Electronics Engineering Dictionary

ISBN 0-471-40224-9

Printed in the United States of America.

10 9 8 7 6 5 4 3 2 1

Amazon $67.93 6.22.05

set many system parameters, such as keyboard and mouse characteristics, monitor resolution, and printer settings. Also called **control panel program**.

control panel program Same as **control panel (2)**.

control parallel A computer architecture in which multiple processors simultaneously and independently execute different instructions on different sets of data. Also called **multiple instruction stream-multiple data stream**.

control point In an automatic control system, the target value towards which the system makes adjustments. In the case of a thermostat, for instance, it would be a given temperature.

control processor A processor used in a control system.

control program A program which controls the operations of a computer, performing tasks such as managing system resources. An operating system is an example of such a program.

control register In a CPU, a register that contains the address of the location in memory that is to be accessed by the next instruction. May also refer to the address of the current instruction. Also called by various other names, including **control counter, current-instruction register, program counter, program register, instruction register, instruction counter,** and **sequence register**.

control rod A material utilized to control the reactivity of a nuclear reactor by absorbing neutrons. Examples include gadolinium, boron, and europium.

control room A room which houses the necessary devices and equipment to monitor and control a facility such as a TV recording studio or a nuclear power plant.

control sequence The order in which computer instructions are executed. For instance, the sequence followed while performing a given task.

control signal **1.** A signal utilized to control a device or process. In a computer, for instance, such a signal may be an interrupt request. **2.** In telecommunications, a signal that transmits control information. For example, a customer picks up a telephone receiver, hears a dial tone, dials a sequence of digits, and then gets a busy signal. All the tones heard are control signals.

control statement **1.** A computer statement which controls the flow of execution of a program. For instance, an IF-THEN statement. **2.** Same as **control instruction**.

control station Within a communications network, the station that manages all operations, such as the orderly flow of traffic.

control system A system utilized to maintain one or more output quantities within specified parameters. In a closed-loop control system, a feedback signal is incorporated for this purpose, while in an open-loop control system there is no such feedback. The components of a control system may be electrical, mechanical, thermal, and so on.

control total A total, composed of several numbers taken from a file, which is calculated before, during, and after processing. The numbers utilized to calculate the total do not necessarily have to be taken from numeric data. Control totals are used to verify the accuracy of processed data, or to help ensure that transmitted messages have not been tampered with. At all stages the calculated totals must match, otherwise there is an error. Also called **hash total**.

control track A track on a recordable magnetic medium, such as a tape or a disk, containing control signals such as tape playback speed.

control transformer A transformer utilized to supply a control device.

control unit **1.** In a computer, circuitry that performs control functions such as sending control signals, interpreting program instructions, handling peripherals, or managing access to memory locations. **2.** A unit which controls a given mechanism, piece of equipment, function, process, or system.

control winding A winding that carries a current that controls the output of a machine.

control word A computer word which stores information used for a control function.

controlled-avalanche device A semiconductor device with precisely defined avalanche voltage characteristics. Such devices can absorb repeated momentary power surges without damage.

controlled-avalanche diode A semiconductor diode with precisely defined avalanche voltage characteristics. Such diodes can absorb repeated momentary power surges without damage, and can be used, for instance, for surge suppression.

controlled-carrier modulation A type of amplitude modulation in which the amplitude of the carrier wave is varied according to the percentage of modulation, providing for an essentially constant modulation factor. Also called **floating-carrier modulation**, or **variable-carrier modulation**.

controlled environment An enclosure, such as a room, in which measures are taken to provide an environment that meets certain requirements, such as maintaining a specified level of temperature and/or humidity, guarding against static electricity or electromagnetic radiation, or isolating from dust. Such environments may be used, for instance, for testing, or to protect sensitive electronic equipment.

controlled-path robot A robot whose movements are dictated by a **controlled-path system**.

controlled-path system A computer control system in which a path of movement is numerically described. Used, for instance, in robotics.

controlled rectifier A rectifier, such as a silicon-controlled rectifier, whose output current may be regulated.

controller **1.** A circuit board or device which controls the way peripheral devices access the computer, and vice versa. It is usually contained on a single chip. Examples include disk controllers, graphics controllers, and video controllers. Also called **peripheral controller**, or **host adapter**. **2.** A signal, circuit, device, or system which controls any given mechanism, function, process, or piece of equipment. An example is an infrared remote control for electronic equipment. **3.** A circuit, mechanism, device, or system, which monitors one or more variables, and automatically makes the necessary adjustments in order to maintain operation within the specified parameters. Also known as **automatic controller**. **4.** The computer and programs which control a robot. Also called **controller system**, or **robot controller**.

controller card A circuit board which controls the way peripheral devices access the computer, and vice versa. Examples include disk controllers, graphics controllers, and SCSI controllers.

controller system **1.** A system which monitors one or more variables, and automatically makes the necessary adjustments, in order to maintain operation within the specified parameters. **2.** Same as **controller (4)**.

convection The transmission of energy or matter through a medium, which is itself moved. For instance, in convection cooling, the air transferring the heat moves along with the heat. This contrasts with **conduction**, where the medium itself is not moved as a whole, and with **radiation**, where waves or particles are emitted.

convection cooling A process by which an object transfers heat to the surrounding air. The heated air is less dense, hence moving upward so that cooler air is then available for further cooling. Used, for instance, to cool components which generate heat, such as transistors.

IPR2025-01312 - Samsung
Ex. 1046 - Page 4