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MICROSOFT PRESS®

COMPUTER DICTIONARY

SECOND EDITION

COMPLETELY
REVISED AND
UPDATED, WITH NEW
DEFINITIONS AND
ILLUSTRATIONS

THE COMPREHENSIVE
STANDARD FOR
BUSINESS, SCHOOL,
LIBRARY, AND HOME

Microsoft
P R E S S

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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

Microsoft Press computer dictionary : the comprehensive standard for
business, school, library, and home / Microsoft Press. -- 2nd ed.

p. cm.

ISBN 1-55615-597-2

1. Computers--Dictionaries. 2. Microcomputers--Dictionaries.

I. Microsoft Press. II. Title: Computer dictionary.

QA76.15.M54 1993

004'.03--dc20

93-29868

CIP

Printed and bound in the United States of America.

5 6 7 8 9 MLML 9 8 7 6 5

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

Distributed to the book trade outside the United States and Canada by
Penguin Books Ltd.

Penguin Books Ltd., Harmondsworth, Middlesex, England

Penguin Books Australia Ltd., Ringwood, Victoria, Australia

Penguin Books N.Z. Ltd., 182-190 Wairau Road, Auckland 10, New Zealand

British Cataloging-in-Publication Data available.

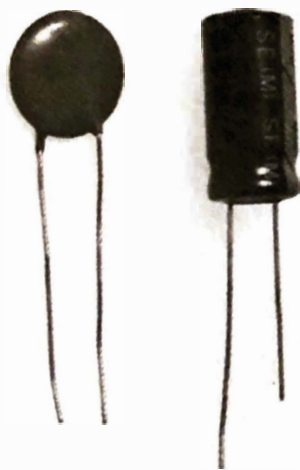
Project Editor: Casey D. Doyle

Manuscript Editor: Alice Copp Smith

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charge at a potential of 1 volt. In practical use, a farad is an extremely large amount of capacitance; typical capacitors have values in the microfarads (10^{-6}) or picofarads (10^{-12}).

capacitor A circuit component that provides a known amount of capacitance (ability to store an electric charge). A capacitor typically consists of two conductive plates separated by an insulating (dielectric) material. If other factors remain constant, capacitance increases as the plates are made larger or brought closer together. A capacitor blocks direct current but passes alternating current to an extent that depends on its capacitance and on the frequency of the current. In the illustration, note the vertical band and the shorter lead on the electrolytic capacitor; these identify the negative lead of the device. (Electrolytic capacitors are polarized; others, such as the ceramic disk, are not.)



Capacitor.

Two of several kinds of capacitors: ceramic disc (left) and electrolytic (right).

capacity The amount of information a computer or an attached device can process or store. With respect to specific parts of a computer system:

- Disk capacity is the total number of bytes (characters) a disk can hold. Because the operating system of a computer requires some space on the disk for its own use, and because files on a disk are stored in blocks rather than byte by byte, disk capacity is

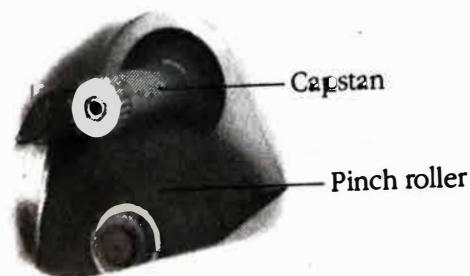
greater (although not significantly greater) than available storage space.

- Channel capacity is the maximum speed at which a communications channel can transfer data within or between computers.
- Memory capacity is, in terms of microcomputers, usually considered the amount of random access memory (RAM) in a computer. Often, however, the term is used to describe the amounts of both RAM and ROM (read-only memory).
- Processing capacity refers to the maximum number of operations that a processor can handle in a given unit of time, often expressed in MIPS (millions of operations per second) or FLOPS (floating-point operations per second).
- Register capacity is the total number of bits or bytes that a register in a microprocessor can store.

caps Capital letters. *All caps* indicates the capitalization of each letter; *initial caps* indicates the capitalization of the first letter of each significant word. *Compare* lowercase; *see also* uppercase.

Caps Lock key A toggle key that, when on, shifts the alphabetic characters on the keyboard to uppercase. The Caps Lock key does not affect numbers, punctuation marks, or other symbols.

capstan On a tape recorder, a polished metal post against which a turning rubber wheel (called a pinch roller) presses to move a length of magnetic tape placed between the wheel and the post. The capstan controls the speed of the tape as it moves past the recording head. See the illustration.



Capstan.