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NIANTIC-1015

IPR2025-01273, IPR2025-01274

IPR2025-01275, IPR2025-01276

MICROSOFT PRESS®

COMPUTER DICTIONARY



PUBLISHED BY
Microsoft Press
A Division of Microsoft Corporation
One Microsoft Way
Redmond, Washington 98052-6399

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be reproduced or transmitted in any form or by any means without
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Library of Congress Cataloging-in-Publication Data
Microsoft Press computer dictionary : the comprehensive standard for
business, school, library, and home.

p. cm.

ISBN 1-55615-231-0

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

I. Microsoft Press.

QA76.15.M54 1991

004.16'03--dc20

91-9904

CIP

Printed and bound in the United States of America.

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

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.

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device on which information can be accessed directly, rather than by starting at the beginning of the data and passing sequentially over all intervening storage areas. Thus, a disk drive is a DASD unit. A tape is not a DASD unit because the data is stored as a linear block. *Compare* sequential access; *see also* direct access.

DAT *See* digital audio tape, dynamic address translation.

data Plural of the Latin *datum*, meaning an item of information. Following classical usage, one item of information should be called a datum, and more than one item should be called data: "The datum is," but "the data are." In practice, however, *data* is frequently used for the singular as well as the plural form of the noun. *Compare* information.

data acquisition The process of obtaining data from another source, typically one outside the system. It can be done by electronic sensing, as in process control or communications, or through data terminal input, as in online transaction processing, or from some magnetic medium, as in batch database processing.

data aggregate A collection of data records or blocks that typically includes a description of the placement of each block within the collection and its relationship to the entire set.

data attribute Structural information about data that serves to establish its context and give meaning to it. The term is also used to refer to descriptive structural information about a data field in a record.

data bank A repository of data; any substantial collection of data.

database Loosely, any aggregation of data; a file consisting of a number of records (or tables), each of which is constructed of fields (columns) of a particular type, together with a collection of operations that facilitate searching, sorting, recombination, and similar activities.

database administrator Abbreviated DBA. The individual or group of individuals responsible for a database. Typically, the DBA is responsible for determining the information content of the database; determining the internal storage structure and access strategy for the database; defining data

security and integrity checks; and monitoring database performance and responding to changing requirements.

database analyst An individual who provides the analytic functions required to design and/or maintain applications requiring use of a database. The functions performed by a database analyst are, in a database context, much like the functions performed by a systems analyst in a programming context.

database designer An individual who provides the design and implementation functions required to implement and/or maintain applications that use a database. The functions performed are, in a database context, much like the functions performed by a programmer in a programming context.

database engine The program module or modules that provide access to the functions of a database management system (DBMS). A database engine is used as an interface between the data manipulation language (DML) or programs written in conventional programming languages and the functions supported by the DBMS.

database machine A computer peripheral device that, from the viewpoint of the computer, directly executes database-related tasks. This relieves the main computer of the execution of these tasks. Database machines can be attached to the computer responsible for application tasks via a channel or a local area network (LAN). The database machine is itself a computer. However, because it has only database management tasks to perform, its hardware and software can be highly optimized for the job at hand. A database server that performs only database functions is sometimes referred to as a database machine. *See also* database server.

database management system Abbreviated DBMS. A layer of software between the physical database and the user. The DBMS manages all requests for database action (for example, queries or updates) from the user. Thus, the user is spared the necessity of keeping track of the physical details of file locations and formats, indexing schemes, and so on. In addition, a DBMS permits centralized control of security and data integrity requirements. *See also* database engine.



in science and engineering, would thus express the mass of the sun, which is approximately 1,990,000,000,000,000,000,000,000,000 kilograms, as 1.99×10^{30} kilograms, a much more manageable number. Scientific notation is similar to, and is often considered synonymous with, the floating-point notation commonly used in computing. *See also* floating-point notation.

scissoring *See* clipping.

scope In programming, the extent to which a given identifier (constant, data type, variable, routine) can be referenced within a program. The simplest type of scope is global: All identifiers can be referenced anywhere in the program. Most block-structured languages (such as C and Pascal) allow the concept of local scope—that is, identifiers that “exist” only within a given block (such as a routine or a control statement). Scope can also be affected by the redefinition of identifiers, such as giving a local variable the same name as a global variable. *See also* block, global, local.

In electronics, a slang term for oscilloscope. *See also* oscilloscope.

SCR *See* silicon-controlled rectifier.

scrambler A device or a program for reordering a sequence of signals in order to render them indecipherable. *See also* encryption.

scrap An application or system file maintained for storage of document data that has been marked for movement, copying, or excision. *See also* clipboard.

scrapbook A file in which a series of text and graphical images can be saved for subsequent use. When capitalized (Scrapbook), the Macintosh system file that supports this function. *See also* clipboard.

scratch As a noun, a memory region or a file used by a program as a place to keep work in progress. The scratch (also called a scratch file) is created and maintained by the program, usually without the user's knowledge. It is needed only until the current session is terminated, at which time the work saved in the scratch is either recorded on disk or discarded. The scratch is similar to the temporary storage facility called the scrap. The scrap, however, usually stores data that has been copied or deleted by the user rather than data used by the

program.

As a verb, to erase or eliminate data.

scratch file *See* scratch.

scratchpad A temporary storage area used for calculations, data, and other work in progress. In reference to a microprocessor, *scratchpad* refers to a special high-speed memory circuit used to hold small items of data for rapid retrieval. *See also* scratch, temporary file.

scratchpad memory *See* cache.

screen angle The angle at which a halftone screen is printed. Setting the correct screen angle is of particular importance when printing process color separations so that each dot will be visible and interactions between the screens, such as moiré effects, will be avoided. *See also* color separation, halftone.

screen buffer *See* video buffer.

screen dump A duplicate of a screen image; essentially, a “snapshot” of the screen, either sent to a printer or saved as a file on disk. Because it literally dumps the screen contents to another output location, a screen dump preserves a screen image for later use or reference.

screen flicker *See* flicker.

screen font A type size designed for display on a computer screen. On the Macintosh, for example, screen fonts are bit maps (pixel-by-pixel designs) that are used for the display and for printing on an ImageWriter or a LaserWriter printer. Often a screen font has a corresponding PostScript font for printing to a PostScript-compatible printer. *Compare* PostScript font; *see also* derived font, intrinsic font.

screen frequency *See* halftone.

screen grabber *See* grabber.

script A type of program that consists of a set of instructions to an application or utility program. A script usually consists of instructions expressed using the application's or utility's rules and syntax, combined with simple control structures such as loops and if/then expressions.

scroll arrow *See* scroll bar.

scroll bar In many types of graphical user interface, a vertical or horizontal bar at the side or bottom of a window that can be used with a mouse for moving around in a document. A scroll bar has

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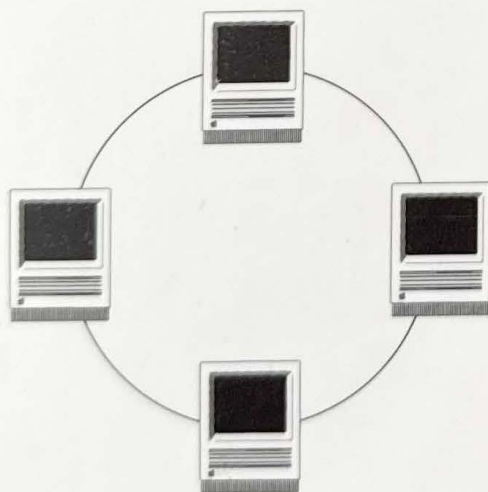
The Standard Microcomputer Dictionary for Business, School, Library, and Home

Here at last is a rich and comprehensive dictionary that meets the information needs of today's microcomputer user. This dictionary is ideal for the hundreds of thousands of people who work with microcomputers but who are not computer professionals. Wide-ranging in scope, it covers:

- memory management ■ applications ■ hardware ■ graphics ■ system software
- desktop publishing ■ programming ■ printing ■ electronics ■ communications
- computer-industry slang ■ data storage ■ networks

The **MICROSOFT PRESS COMPUTER DICTIONARY** was written, reviewed, and edited by a distinguished team of experts whose experience is drawn from the computer industry and the business and academic communities.

ring network A local area network in which devices (nodes) are connected in a closed loop, or ring. Messages in a ring network pass in one direction, from node to node. As a message travels around the ring, each node examines the destination address attached to the message. If the address is the same as the address assigned to the node, the node accepts the message; otherwise, it regenerates the signal and passes the message along to the next node in the circle. Such regeneration allows a ring network to cover larger distances than star and bus networks. It can also be designed to bypass any malfunctioning or failed node. Because of the closed loop, however, new nodes can be difficult to add. A ring network is diagrammed below:



Compare bus network, star network; see also token passing, token ring network.

Pronunciation Guides. Where appropriate, definitions include phonetic pronunciations that reflect industry usage—for example: GUI, pronounced “gooey.”

Definitions Plus. Each of the more than 5000 entries is written in clear, standard English, and most go beyond simple definition to provide additional detail. You'll find definitions for terms as basic to computing as *hard disk*, *boot*, *operating system*, and *batch file* as well as more advanced terms such as *object-oriented programming*, *fractal*, *expert system*, and *virtual memory*.

Illustrations. Drawings, diagrams, and other graphics enhance many definitions.

Cross-References. Entries are fully cross-referenced to provide supplementary information and invite further exploration.

U.S.A. \$19.95
U.K. £18.95
Canada \$24.95
 [Recommended]

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Editions

ISBN 1-55615-231-0

