



Dictionary of Computer and Internet Terms

Sixth Edition



- More than 2,500 key computer terms with definitions
 - Includes hundreds of words and expressions that apply specifically to the Internet
- User-friendly definitions of programming concepts, desktop and other applications, and much more
 - Filled with illustrations

Douglas Downing, Ph.D., Michael Cowanpico, Ph.D., and
Marilyn Mauletha Cowanpico

RPX Exhibit 1112

About the Authors
 To the Reader
 Dictionary
 Characters and Symbols

© Copyright 1998 by Barron's Educational Series, Inc.
 Prior editions © copyright 1996, 1995, 1992, 1989, and 1986
 by Barron's Educational Series, Inc.

All rights reserved.
 No part of this book may be reproduced in any form, by photostat, microfilm,
 xerography, or any other means, or incorporated into any information
 retrieval system, electronic or mechanical, without the written permission
 of the copyright owner.

All inquiries should be addressed to:
 Barron's Educational Series, Inc.
 250 Wireless Boulevard
 Hauppauge, New York 11788
<http://www.barronseduc.com>

Library of Congress Catalog Card No. 98-6984

International Standard Book No. 0-7641-0094-7

Library of Congress Cataloging-in-Publication Data

Downing, Douglas.
 Dictionary of computer and Internet terms / Douglas A. Downing,
 Michael A. Covington, Melody Mauldin Covington—6th ed.
 p. cm.
 First-4th eds. published under title: Dictionary of computer
 terms.
 ISBN 0-7641-0094-7
 1. Computers—Dictionaries. 2. Internet (Computer network)—
 Dictionaries. I. Covington, Michael A., 1957— II. Covington,
 Melody Mauldin. III. Downing, Douglas. Dictionary of computer
 terms. IV. Title. QA76.15.D667 1998
 004'.03—dc21

98-6984
 CIP

PRINTED IN THE UNITED STATES OF AMERICA

98765432

machine. Applets are normally written in Java. *See* WORLD WIDE WEB; BROWSER; JAVA.

Appletalk the network communication protocol built into Macintosh computers.

application *see* APPLICATION PROGRAM.

application framework a set of predefined procedures or classes that saves the programmer much of the work of writing a program with a sophisticated user interface. Using an application framework, the programmer need not write code to handle menu choices, mouse movements, etc., because that work has already been done.

Examples of application frameworks are MacApp for Macintosh, Turbo Vision for DOS, and various Windows application frameworks provided with Borland and Microsoft compilers. Newer programming languages such as Java, Borland Delphi for Windows, Microsoft Visual Basic for DOS and Windows, and CA-Realizer for OS/2 have application frameworks built in.

Application Menu (Macintosh) the menu at the far right end of a window's title bar that allows you to quickly switch between open application programs. The icon for the Application menu changes to show the active program.

A similar Windows 3.1 feature is the TASK LIST; for Windows 95 and Windows 98 users, the TASKBAR is analogous to the Macintosh Application Menu.

application program a computer program that performs useful work not related to the computer itself. Examples include word processors, spreadsheets, accounting systems, and engineering programs. *Contrast* UTILITY; OPERATING SYSTEM.

applications programmer a person who writes programs that use the computer as a tool to solve particular problems, rather than just to manage the computer itself. *Contrast* SYSTEMS PROGRAMMER.

arc

1. part of a circle.
2. a data compression program for the IBM PC formerly produced by System Enhancement Associates in the mid-1980s, a precursor of ZIP. *See* ZIP FILE.

arccos *see* ARC COSINE.

arc cosine the inverse of the trigonometric cosine function. If $x = \cos y$ then $y = \arccos x$. Many computer languages provide the arc tangent function but not the arc cosine function. You can work around this by using the relation:

$$\arccos x = \arctan \frac{\sqrt{1-x^2}}{x}$$

where x is positive and $\arcsin x$ is the angle whose sine is x . *See* TRIGONOMETRIC FUNCTION.

Archie a SEARCH ENGINE for the World Wide Web created by by ANONYMOUS FTP. At one time it could be searched by typing a keyword and it resided on a number of sites. It has now been superseded by World Wide Web as <http://www.yahoo.com>.

Archie was developed by Mark Deutsch at McGill University. "archive."

archival storage storage for data that will seldom be used, such as on Microcomputers often use floppy disk drives for archival storage. It is a form of archival storage, but it is not used for years if their contents are still needed. *See also* GRAB.

archive

1. a filing system for information. *See* ARCHIVAL STORAGE.
2. a file containing the compressed version of original files can be reconstructed. *See* COMPRESSION.
3. in DOS, OS/2, and Windows, it says whether or not it has been backed up. The **attrib** command can be used to set bits. The archive bit makes it possible to have not already been backed up.

ARCNET a type of local area network except that the connection is in the shape of a ring. A special computer to computer and on a token ring. Allowed to transmit. ARCNET TOKEN RING; LOCAL-AREA NETWORK.

arcsin *see* ARC SINE.

arc sine the inverse of the trigonometric sine function. If $y = \sin x$ then $x = \arcsin y$. Many computer languages provide the arc sine function but not the arc sine function. You can work around this by using the relation:

$$\arcsin x = \arctan \frac{x}{\sqrt{1-x^2}}$$

in which all angles are expressed in radians. *See* FUNCTIONS.


```
);
forms the division,
quotient and the remainder }
```

```
INTEGER);
in an integer from
of invalid input,
to reenter the data. }
INTEGER;
```

```
ue:');
```

```
invalid; enter integer;');
```

```
re is called in each}
lines}
(V b));
(D b))
```

PROCEDURE IN A PASCAL PROGRAM

programmer only has to write it once, and occupies space in the computer's memory.

to understand if it consists of procedures, it should have a well-understood purpose. (PROGRAMMING.)

Pascal procedure, see PARAMETER. For the concept in BASIC, see SUBROUTINE.

that a computer is executing in a multiprocessor system, processes execute concurrently. From this, it may be that some programs or parts of programs are the printing routine in a word processor. In a multiuser operating system such as UNIX, there are many more processes. See MULTITASKING.

ing, usually used for producing full-page color. SPOT COLOR.

OR; COPROCESSOR; CPU.

Prodigy a popular on-line service accessible to computer users with modems. Users can obtain information on news, weather, sports, traveling, shopping, and finance, exchange e-mail, and access the Internet.

Prodigy holds down the costs to its users by selling advertising, much in the same way a newspaper or magazine does. Further information is available from <http://www.prodigy.com>.

profile a file of saved information that indicates how the user normally wants something done.

ProgMan short for PROGRAM MANAGER (part of Windows 3.1).

program a set of instructions for a computer to execute. A program can be written in a programming language, such as BASIC or Pascal, or in an assembly language. See APPLICATION PROGRAM; UTILITY.

program group in Microsoft Windows, a set of application programs whose icons appear in a single window or on a single menu. In many ways, a program group is similar to a SUBDIRECTORY or a Macintosh FOLDER. An application program can appear in more than one program group.

When Windows 95 is installed on a system that previously used Windows 3.1, the program groups are preserved in the START MENU.

programmable function key a key on a computer keyboard whose function depends on the software being run. In many cases, programmable function (PF) keys can be defined as equivalent to combinations or sequences of other keys.

programmable option select see POS (definition 2).

Program Manager a program supplied with Microsoft Windows 3.1 that allows you to organize and run application programs. Program Manager by default takes over most of the screen and lets you control all the other applications from within it. Because of this, to many people, Program Manager is Windows. When you close Program Manager, you end your Windows session.

programmer a person who prepares instructions for computers.

programming the process of composing instructions for a computer to carry out. A programmer needs to develop a well-defined concept of how to solve a problem. (See ALGORITHM.) Then this concept must be translated into a computer language. (See PROGRAMMING LANGUAGE.) Finally, the program needs to be typed into the computer, tested, and debugged before being placed into service.

programming language a language used to give instructions to computers. During the 1960s and 1970s, a huge variety of programming languages were developed, most of which are no longer in wide use. Moreover, a substantial amount of programming is now done with special program development tools (e.g., Visual Basic), or in program-