
Dictionary of Computer and Internet Terms

Tenth Edition

Douglas A. Downing, Ph.D.
School of Business and Economics
Seattle Pacific University

Michael A. Covington, Ph.D.
Artificial Intelligence Center
The University of Georgia

Melody Mauldin Covington
Covington Innovations
Athens, Georgia

Catherine Anne Covington
Covington Innovations
Athens, Georgia

With the assistance of
Sharon Covington



ABOUT THE AUTHORS

Douglas Downing teaches economics and quantitative methods at the School of Business and Economics at Seattle Pacific University. He is the author of several books in both Barron's Easy Way and Business Review series. He is also the author of *Java Programming the Easy Way* and *Dictionary of Mathematics Terms*, published by Barron's Educational Series, Inc. He holds the Ph.D. degree in economics from Yale University.

Michael Covington is Associate Director of the Artificial Intelligence Institute at the University of Georgia. He is the author of several books and over 250 magazine articles. He holds the Ph.D. degree in linguistics from Yale University.

Melody Mauldin Covington is a graphic designer living in Athens, Georgia. She is the author of *Dictionary of Desktop Publishing* (published by Barron's).

Catherine Anne Covington is a student at the Lamar Dodd School of Art (University of Georgia).

Sharon Covington is a student at Emory University.

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All inquiries should be addressed to:

Barron's Educational Series, Inc.

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downward compatibility the ability to work with older equipment and/or software than that for which a computer program or accessory was designed. *Contrast* UPWARD COMPATIBILITY.

dpi (dots per inch) the number of pixels or printer dots per linear inch. The first generation of laser printers could print with a resolution of 300 dots per inch. 600- and 1200-dpi laser printers are now available. See RESOLUTION for further details.

draft quality a printout in low resolution, unsuitable for CAMERA-READY COPY, but adequate for proofing the copy and checking the placement and alignment of graphics.

drag to move an object by using a mouse. To do this, move the mouse pointer to the object, and then hold down a mouse button (usually the leftmost button if there is more than one), and move the mouse. The selected object will move with the mouse pointer, as if the pointer were *dragging* the object. When you are finished, drop the object by releasing the button.



FIGURE 85. Drag

drag and drop

1. the ability to move text or graphics by dragging it to a new location with the mouse.
2. a method of opening an application program. Simply pick up a file icon and drag it to the icon of an application program that can open the file.

drain one of the three regions in a field-effect transistor.

DRAM (Dynamic Random-Access Memory, pronounced "D-ram") a computer memory that requires a refresh signal to be sent to it periodically. Almost all computers use DRAM chips for memory. *See* EDO; MEMORY; RAM; RDRAM; SDRAM. *Contrast* SRAM.

draw program a graphics program that operates in terms of lines and shapes. Unlike a paint program, a draw program treats the picture as a collection of objects, each of which will be printed as sharply as the printer can print. Thus, the sharpness of the picture is not limited by the resolution of the screen. Also, individual circles, lines, rectangles, and other shapes can be moved around without affecting other objects they overlap. However, individual pixels cannot be edited. Draw programs are sometimes called *vector graphics* or *object-oriented graphics* programs.

Draw programs are preferred for drawing diagrams, while paint programs are superior for pictorial artwork or correcting photographs. Some

VoIP (Voice over Internet Protocol) the transmission of voice telephone conversations through the Internet or through IP networks. Several protocols are used for this purpose. *See* INTERNET TELEPHONY; PROTOCOL; SKYPE.

voken (virtual token) an advertisement that appears over the contents of a browser window, but not in a window of its own. *Compare* POP-UP AD.

The voken can move around the screen, rotate, and blink to attract attention. A moving voken can trick you into clicking on it—thus going to the advertiser's site—when you meant to click on something else, but it got in the way.

volatile not permanent; erased when turned off. The memory (RAM) of a computer is volatile; that is, it goes blank when power is removed. Flash memory and disks are non-volatile. In some programming languages, a variable is declared *volatile* if it can be changed by something outside the program.

volt the unit of measure of electric potential. If a potential of 1 volt is applied to a resistance of 1 ohm, then a current of 1 ampere will flow through the resistance. (*See* OHM'S LAW.)

volume

1. an individual diskette, disk, or tape.
2. the perceived loudness of a sound. The volume control on a sound card may be a knob on the card itself, a setting made in software, or both.

volume serial number an identifying number assigned to a disk or tape by Windows or other operating systems. Volume serial numbers ensure that the computer will know when the disk or tape in a drive is changed.

Von Neumann architecture a type of computer design in which programs and data are stored in a single kind of memory. *Contrast* HARVARD ARCHITECTURE. *See* COMPUTER ARCHITECTURE.

Von Neumann, John (1903–1957) mathematician who worked on one of the earliest computers and developed the concept of storing programs in memory.

voxel (from *volume cell*) one of the cubes into which a three-dimensional space is divided, like a PIXEL but in three dimensions.

VPN (virtual private network) a network where data is transferred over the Internet using security features preventing unauthorized access.

VRAM (video random access memory) RAM that is specially designed for use in video cards. Commonly, it can be read and written simultaneously so that the generation of the display is not interrupted when the CPU needs to place data in it.

VRML (Virtual Reality Markup Language or Virtual Reality Modeling Language) a programming language developed by Mark Pesce and Tony Parisi to describe three-dimensional objects for graphical display. A