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Dictionary of
Computer Words

An A to Z Guide to
...y's Computers

Includes the Latest Terms in Interactive and Multimedia Technology

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ART CREDITS: *Apple Computer:* desktop, dialog box, keyboard (Apple Adjustable), menu, overlaid windows, toolbar; *Fountain Hills Systems Inc.:* keyboard (Ergonomic Keyboard); *Lexmark International, Inc.:* keyboard (Select-Ease); *Library of Congress:* pixel (photograph); *Lotus Development Corporation:* spreadsheet; *Maureen Wilken/Cheryl Snyder:* range; *Microsoft Corporation:* screen shots at the entries alert box, character-based, graphical user interface, and range reprinted with permission from Microsoft Corporation; illustration of the Natural Keyboard at the entry keyboard reproduced with permission from Microsoft Corporation; *Tech-Graphics:* antialiasing, Bézier curve, chip, computer, connector, DIP switch, Dvorak keyboard, floppy disk, hard disk, hierarchical, landscape, letter-quality, mouse, network, outline font, overlaid windows, pixel, printed circuit board, QWERTY keyboard, sector, sine wave, software, trackball, write-protect; *U.S. Environmental Protection Agency:* Energy Star.

Windows, which seems to function as an operating system but in fact relies on *DOS.* See also *environment.*

operating system *Software* designed to control the *hardware* of a specific computer system in order to allow users and *application* programs to employ it easily. The operating system mediates between hardware and applications programs. It handles the details of sending instructions to the hardware and allocating system resources in case of conflicts, thus relieving applications developers of this burden and providing a standard *platform* for new programs. The most common operating systems for personal computers are *DOS,* the Macintosh *System, OS/2, UNIX,* and *Windows NT.* See Table 18 for features of various operating systems. See also *Windows 95.*

operation **1.** An action performed on one or more numbers or *variables.* Addition, subtraction, multiplication, and division are common arithmetic operations. See also *operand, operator.* **2.** In programming, an action resulting from a single instruction.

operator A symbol or character that represents an *operation.* In computing, the following symbols are used as common mathematical operators: + (addition), − (subtraction), ∗ (multiplication), / (division), and ^ (exponentiation). In programming, spreadsheets, and database *query* languages, one encounters *Boolean operators* such as *AND, OR,* and *NOT,* and *relational operators,* such as > (greater than) and < (less than).

optical character recognition Abbreviated **OCR** The use of a light-sensitive device, such as an *optical scanner* or reader, to identify and encode printed or handwritten characters. The scanner matches the patterns of light and dark on a printed page against patterns stored in memory and then generates output to the computer or performs some other operation, such as sorting or searching. A page that is scanned into the computer or received over a *fax modem* can be converted into a computer file and then edited or retransmitted.