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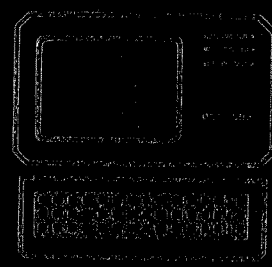
Dictionary of Computer Terms

Second Edition



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Douglas Downing
Michael Covington

Dictionary Of Computer Terms

Second Edition

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DO The keyword DO is used to identify loops in FORTRAN, PL/I, and Pascal. (See **loop; FORTRAN; PL/I; Pascal; FOR.**)

DOCUMENT A document is a file containing a text to be printed (e.g., a letter, term paper, or book chapter) or a drawing.

DOCUMENT MODE In WordStar and other word processors, document mode is the normal way of typing documents that are to be printed. The word processor includes codes that indicate hyphenation, page breaks, and the like, thereby producing a special word processing file rather than a text file. (See **nondocument mode; text file.**)

DOCUMENTATION A written description of a computer program is known as documentation. Documentation falls into several categories:

1. Internal documentation, consisting of comments, within the program. (See **comment.**) Internal documentation is addressed mostly to future programmers who may have to make corrections or other modifications.
2. On-line documentation, that is, information that is displayed as the program runs or that can be called up with a command such as HELP. The user should be able to control the amount of information displayed (more for beginners, and less as the user's experience increases). Also, HELP commands should be sensitive to the context in which they are invoked; for instance, typing HELP within an editor should call up information about the editor, not the whole operating system.
3. Reference cards, containing easily forgotten details for quick reference. A reference card assumes that the user is already familiar with the general principles of the program.
4. Reference manuals, setting out complete instructions for the program in a systematic way. Related information should be grouped together, and a good index should be provided.
5. Tutorials, serving as introductions for new users. Unlike a reference manual, a tutorial gives the information in the order in which the user will want to learn it; items are grouped by importance rather than by function or logical category.

DOPING Doping is the process of adding impurities to a silicon crystal to form either a P-type or an N-type semiconductor region. (See **semiconductor.**)

to see if another node is transmitting. If so, it waits its turn to transmit. If two nodes inadvertently transmit at the same time, the collision is detected and they retransmit one at a time.

Different Ethernet systems use different software protocols, including TCP/IP and DECNET.

EXCEL Excel is an integrated program produced by Microsoft for the Apple Macintosh that combines a spreadsheet, a data base manager, and a graphics program.

EXE FILE In MS-DOS (PC-DOS), OS/2, and VAX/VMS, an EXE (executable) file is a file that contains a relocatable machine code program and has a name ending with ".EXE". To execute the program, type the name of the file without the final ".EXE"; for example, to execute AAAA.EXE, type AAAA. In VAX/VMS, however, an .EXE file is executed by the RUN command (e.g., RUN AAAAA.EXE.)

Most application programs are distributed as EXE files. Most compilers translate source code into EXE files (see **compiler**).

EXECUTE To execute an instruction is to do what the instruction says to do. A computer alternates between a fetch cycle, when it locates the next instruction, and an execute cycle, when it carries the instruction out. (See **computer design.**)

EXP In many programming languages the function EXP(X) calculates the value of e^x. The letter e represents a special number approximately equal to 2.71828.

EXPANDED MEMORY Expanded memory is a method of equipping an IBM PC with many megabytes of memory. Ordinarily, the 8088 processor in the PC can address only one megabyte (1024K) of memory. The upper 384K of this is reserved for special purposes, leaving only 640K available for ordinary use. Expanded memory uses bank switching to swap many different sets of memory chips into a single block of addresses within this 640K region. The Lotus-Intel-Microsoft Expanded Memory Specification (LIM-EMS) specifies how this is done. Special software is required to take advantage of it.

By contrast, extended memory (on the PC AT and PS/2) is directly accessible at addresses higher than one megabyte. This requires an 80286 or 80386 processor and, under DOS, a different type of special software. The OS/2 and UNIX operating systems use extended memory automatically.

cal energy. It is made of a thin fiber of glass. Large amounts of data can be carried by a single fiber-optic cable.

FIELD A group of adjacent characters is called a field. For example, in a company payroll system the information about a single individual can be stored as one record. Each record will be divided into several fields. One field will contain the employee's name; another field, his Social Security number; a third field, his salary or rate per hour; and so on.

FIELD-EFFECT TRANSISTOR A field-effect transistor consists of two islands of N-type semiconductor inside a P-type region. One island is called the *source*, and the other is called the *drain*. A thin insulating layer of silicon dioxide is placed over the P-type region between the drain and the source, and a thin layer of metal, called the *gate*, is placed over this insulating material. Field-effect transistors can perform the same switching and amplification functions as bipolar transistors, and they can be packed more densely on a chip of silicon.

FIFTH-GENERATION COMPUTERS Fifth-generation computers, predicted by some to be available in the 1990s, will be capable of knowledge processing instead of merely data processing. These computers will be able to understand languages that are much closer to natural languages than are current programming languages. The advent of fifth-generation computers will require significant advancements in artificial intelligence and the development of enhanced supercomputers that perform logical operations many times faster than do the computers currently available. In 1981 Japan announced a concerted national effort directed toward producing fifth-generation computers by the 1990s. (See **artificial intelligence**.)

FILE A file is a collection of information stored as records. The information in a file is stored in such a way that the computer can read information from the file or write information to the file.

For example, the U.S. Census Bureau stores vast amounts of information. Suppose that the bureau is keeping information on a monthly sample of 130,000 people. The information on each person can be stored in one record. The entire set of information can be stored in a file containing 130,000 records. The file will be stored on a magnetic tape.

Microcomputers can store files on floppy disks. Here is an

example of storing information on a disk file in Microsoft BASIC. First, we must open the file with an OPEN command, such as:

```
10 OPEN "O",1,"HELLO"
```

The "O" means that the file will be an output file (in other words, the computer will be writing information out to the file). The number 1 means that this file will be referred to as file #1 in all subsequent statements. In this case "HELLO" will be the name of the file.

Now we can write information to the file:

```
20 A$ = "Hi! How are you doing today?"
30 PRINT#1,A$
```

The command PRINT#1,A$ tells the computer that the string variable A$ is to be written to file #1. Now that we have finished writing output to the file, we must close the file:

```
40 CLOSE#1
```

To read information from the file, we must first open it again, but this time we will specify that we are opening it for input instead of output:

```
50 OPEN "I",3,"HELLO"
```

The "I" stands for input. This time we will open the file as #3. (You should check with your computer to find what numbers it allows for file numbers.)

Now we can read from the file.

```
60 INPUT#3,X$
```

The command INPUT#3,X$ tells the computer to read the next item from file #3 and store the item it finds there under the name X$. Now, if the computer finds the command

```
70 PRINT X$
```

The screen will display:

```
Hi! How are you doing today?
```

Now that we are done with the file we can close it:

```
80 CLOSE#3
```

These computers use the ASCII character set (see **ASCII**). In addition, they define printed representations for all character codes from 0 to 255, even those that are not defined by the ASCII standard. Some of these characters can never be printed because they are equivalent to codes such as Return or Line Feed.

Figure 32 shows special characters that can be printed on most IBM printers, along with their numeric codes. These characters are typed by holding down the Alt key and typing the appropriate number on the numeric keypad at the right side of the keyboard. For example, to type a shaded block, hold down Alt, type 1 7 8, and then release Alt.

An unusual characteristic of all IBM PCs, ATs, and PS/2s, but not of clones, is that if the machine is unable to load an operating system from disk, it calls up a BASIC interpreter that is stored on a ROM chip. This BASIC interpreter ("Cassette BASIC") was originally implemented so that low-budget computer hobbyists could use IBM PCs without disk drives, storing their programs on cassette tape. The same ROM code was included in later machines because it is used by the BASIC interpreter that runs under DOS. (See **BASICA; GWBASIC.**)

IC See **integrated circuit.**

ICON An icon on a computer screen is a picture that represents a particular object or command. For example, on a Macintosh computer, the picture of a trash can stands for "delete." Use the mouse to move a file to the trash can, and it will be deleted. (See **mouse.**)

IDENTIFIER An identifier is a symbolic name used in a program and defined by the programmer. Most identifiers stand for variables (see **variable**); however, some languages allow the use of identifiers to represent constants, so that the value of a particular constant, wherever it occurs in the program, can be changed by changing the statement that defines the identifier. (See **constant.**)

IF In many programming languages the keyword IF is used to specify an action that is to be executed only if a specified condition is true. Here is an example of an IF statement in BASIC:

```
100 PRINT "INPUT PRICE"
110 INPUT P
```

continued improvement. The number of components that can be placed on a single chip has been steadily rising.

The advantages of integrated circuits include the fact that they are very small (less than ¼ inch square), their internal connections are more reliable, they consume much less power, they generate much less heat, and they cost less than similar circuits made with separate components.

Integrated circuits are classified by their level of complexity. "Small-scale integration" refers to circuits containing fewer than 10 logic gates; "medium-scale integration," to circuits containing 10 to 100 gates; and "large-scale integration," to circuits with more than 100 gates.

The pattern of components to be placed in an integrated circuit is first mapped out by a computer. It is necesary to add impurities to the silicon-crystal to create either P-type or N-type regions. (See **semiconductor**.) An evaporated metal is engraved on the circuit by photographic techniques in the places where electrical conducting paths are needed. Integrated circuits are mass produced by making many identical circuits at the same time from a single wafer of silicon. Each circuit must be individually tested, however, because a single defect in the crystal can compeletely ruin the circuit.

The ultimate integrated circuit is the microprocessor, which is a single chip that contains the complete arithmetic and logic unit of a computer.

INTEGRATED SOFTWARE An integrated software package is a program that combines several functions in one program. For example, Lotus 1-2-3 is an integrated program that combines spreadsheet calculations, data management operations, and graphics. The advantage of an integrated program stems from the fact that the transfer of information from one application to another is easier than it would be if a separate program was used for each application.

INTEL Intel produces the 8088 microprocessor that is used in the IBM PC and other computers. The 8088 processor has 16-bit internal registers.

INTERACTIVE SYSTEM In an interactive computer system the user communicates with the computer through a keyboard and a CRT screen. The computer presents the results almost immedi-

ately after an instruction has been entered, and the user can type in new instructions after seeing the results of the previous ones. See, for contrast, **batch processing.**

INTERBLOCK GAP An interblock gap is a blank space on a magnetic tape between two adjacent blocks. The presence of the gap makes it easier to keep track of the locations of the blocks when the tape is started and stopped.

INTERNAL STORAGE The internal storage of a computer is the memory that is built in (see **memory**). For contrast, see **auxiliary storage.**

INTERNATIONAL BUSINESS MACHINES See **IBM.**

INTERPRETER An interpreter is a program that executes a source program by reading it one line at a time and doing the specified operations immediately. Most BASIC systems are interpreters. For contrast, see **compiler.**

INTERRUPT An interrupt is an instruction that tells a microprocessor to put aside what it is doing and call a specified routine. The processor resumes its original work when the *interrupt service routine* finishes.

Interrupts are used for two main purposes:

1. To deal with hardware events such as a key being pressed or a character arriving through a serial port. These events cannot be ignored; the incoming data must be either processed immediately or stored in a buffer.
2. To call subroutines that are provided by the hardware or operating system. On the IBM PC, most DOS and BIOS services are called through interrupts rather than through the ordinary instruction for calling a subroutine. OS/2 services, on the other hand, are called as ordinary subroutines.

These correspond to the two main ways of causing an interrupt: by receiving a signal from outside the microprocessor (a *hardware interrupt*) or by executing a machine instruction (a *software interrupt*).

INTERRUPT SERVICE ROUTINE See **interrupt.**

INVERTER (1) A NOT gate is often called an inverter. (See **NOT gate.**)

```
    k := k * 2
  UNTIL k>1000
END.
```

MODULE A module is a part of a larger system. For example, a Lunar Module is a part of the Apollo rocket system. A module in a computer program is a part of the program that is written and tested separately and then is combined with other modules to form the complete program. (See **top-down programming.**)

MONADIC OPERATION A monadic operation requires only one operand. For example, negation (finding the negative of a number) is an operation that requires only one operand and is therefore monadic.

MONITOR (1) A monitor is a computer program that supervises the activity of other programs.

(2) A device similar to a television set that accepts video signals from a computer and displays information on its screen is known as a monitor. The monitor itself does no computing at all.

The first generation of personal computers used TV-type *composite video* monitors. The sharpness of the image on the screen depended on the *bandwidth*, or frequency response, of the monitor. Users were quick to note that color-TV monitors had much poorer bandwidth than black-and-white (monochrome) monitors.

The IBM PC popularized two new types of monitors. The IBM Monochrome Display, a *TTL monochrome monitor*, provides very sharp images and accepts the same input voltages as TTL integrated circuits.

The IBM Color Display, an *RGB color monitor*, produces a color image by accepting separate signals for red, green, and blue on separate wires. The result is much sharper than a color TV picture but still not really adequate for prolonged reading of text. A higher-resolution RGB monitor was introduced with the Enhanced Graphics Adapter (EGA). It offered the important ability to scan the screen at different rates in different modes. (See **video modes [IBM PC].**)

Newer computers use *analog* color monitors that provide crisp text with an unlimited range of colors. Many present-day monitors have "multiscan" or "multisync" capability, which means that they automatically detect the scan frequencies used by the computer to which they are attached.

A terminal set to the wrong parity can often be recognized because about half of the characters are incorrect, while the rest are received normally.

(2) The memory of the IBM PC and PS/2 is parity checked. The message PARITY ERROR 1 or PARITY ERROR 2 means that a memory chip is defective.

PARK To park the head of a hard disk drive means to disengage it so that the disk will be protected from possible damage if the computer is moved.

PARSING Parsing is the analysis, by computer, of the structure of statements in a human or artificial language. For instance, MS-DOS (PC-DOS) has to parse the command

```
dir b: /p
```

to determine that "dir" is the name of the command, that "b:" specifies the files to be shown, and that "/p" is another parameter (in this case, it means "pause when the screen is full"). Compilers and interpreters have to parse statements in programming languages. (See **compiler; interpreter.**) Programs that accept natural-language input have to parse sentences in human languages.

Parsing is done by comparing the string to be parsed to a *grammar*, which defines possible structures. For example, Figure 60 shows the structure of the sentence "The dog chased the black cat." Figure 61 shows a small part of a grammar of English.

Parsing can be done either *top-down* or *bottom-up*. In top-down parsing, the computer starts by looking for a particular con-

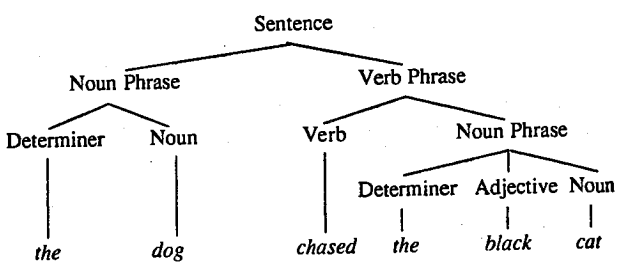

FIGURE 60. Structure of a Simple English Sentence.

(1)	Sentence	→	Noun Phrase + Verb Phrase
(2)	Noun Phrase	→	Determiner + Noun
(3)	Noun Phrase	→	Determiner + Adjective + Noun
(4)	Verb Phrase	→	Verb + Noun Phrase
(5)	Determiner	→	*the*
(6)	Noun	→	*dog*
(7)	Noun	→	*cat*
(8)	Adjective	→	*black*
(9)	Verb	→	*chased*

FIGURE 61. A Small Part of a Grammar of English. Each rule states that the constituent named on the left can consist of the constituents named on the right, in the specified order.

stituent. It consults the grammar to determine what this constitutent consists of, then looks for those constituents instead, thus:

```
Look for Sentence
Rule 1:Sentence consists of Noun Phrase + Verb Phrase
        Look for Noun Phrase
        Rule 2:Noun Phrase consists of Determiner + Noun
            Look for Determiner
                Accept Determiner the from input string
            Look for Noun
                Accept Noun dog from input string
        Look for Verb Phrase
(etc.)
```

The process is complete when the input string is empty and all of the elements of a sentence have been found.

In bottom-up parsing, the computer accepts elements from the input string and tries to put them together, thus:

```
Accept the, which is a Determiner
Accept dog, which is a Noun
Determiner + Noun make a Noun Phrase
Accept chased, which is a Verb
Accept the, which is a Determiner
Accept black, which is an Adjective
Accept cat, which is a Noun
Determiner + Adjective + Noun make a Noun Phrase
Verb + Noun Phrase make a Verb Phrase
Noun Phrase + Verb Phrase make a Sentence
```

Parsing algorithms must be able to *backtrack* (back up and try alternatives) because the grammar provides alternatives. For example, a noun phrase may or may not contain an adjective; and a word like *leaves* may be a verb or a noun. Further, parsing

algorithms usually use *recursion* to handle the recursive structure of human languages. For example, a noun phrase can contain a noun phrase, which can contain another noun phrase, as in *the discoverer of the solution to the problem.* (See **recursion; backtracking; natural language processing.**)

PASCAL Pascal, a programming language developed by Niklaus Wirth, is designed to encourage programmers to write modular and well-structured programs. Pascal has become one of the most popular languages for microcomputers, and there are several common versions. Here are some of its features:

1 The first word in a Pascal program is PROGRAM, followed by the program name. The first line also normally includes the words (INPUT,OUTPUT). The first part of the program is a declaration section for constants, variables, procedures, and functions. Every variable used in a Pascal program must be declared. The action part of the program starts with the word BEGIN, and the program concludes with the word END, followed by a period. Statements are separated from each other by semicolons.

2 Pascal provides four standard data types: real, integer, Boolean, and char. *Integer* variables can take on only values that are whole numbers or the negatives of whole numbers. *Real* variables can take on numerical values that include fractional parts, such as 23.432. *Boolean* variables are logic variables that can only have two possible values: true or false. *Char* variables can take on single character values.

Here is an example of a declaration section:

```
VAR
  count, total : INTEGER;
  average : REAL;
  error : BOOLEAN;
  c : CHAR;
```

3 An assignment statement in Pascal looks like this:

```
x := 3;
```

Note that a colon followed by an equal sign is the symbol used for assignment. This statement will cause the variable *x* to take on the value 3. For integers and real numbers, + means

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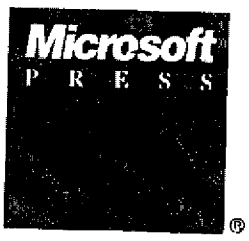

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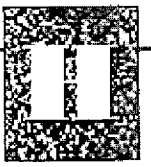

ment occurs, the shorter (in bits) its corresponding code. Typically, the method is used for text, with the coding based on letter frequency.

The Huffman code was one of the earliest data compression codes and, with modifications, remains one of the most widely used for a large group of message types. The savings that can be realized by using Huffman coding (or other data compression techniques) to minimize the number of bits required to encode data can be significant, as when a large file is sent by modem over a long-distance telephone circuit.

huge model A memory model of the Intel 80x86 family of processors. The huge model allows both code and data to exceed 64 kilobytes (KB) in size, but in most cases the total of both must be less than 1 megabyte (MB). Individual data structures can exceed 64 KB in size. *See also* memory model.

human engineering The designing of machines and associated products to suit the needs of humans. *See also* ergonomics.

human-machine interface The boundary at which people make contact with and use machines, more typically known as the user interface when applied to programs and operating systems.

hybrid circuit Any circuit in which fundamentally different types of components are used to perform similar functions. For example, a stereo amplifier that uses both tubes and transistors as amplifiers is a hybrid circuit.

hybrid computer A computer that contains both digital and analog circuits. Digital circuits use discrete on/off signals to represent the 0's and 1's of binary numbers; they are found in almost all computers, including personal computers. Analog circuits use continuously variable physical quantities (such as voltage or current) to represent values; they are found in some specialized computers used in engineering and other fields.

hybrid microcircuit A microelectronic circuit that combines individual microminiaturized components and integrated components.

HyperCard Software designed for the Apple Macintosh that provides users with an information-management tool implementing many hypertext concepts. A HyperCard document consists of a series of cards collected together in a stack; each card can contain text, graphical images, and sound. Stack authors and users can link items together in many ways: by implementing various types of text searches; by providing controls that permit traveling from card to card by clicking with the mouse on objects called buttons; and through scripts (programs and routines) coded in an object-oriented language called HyperTalk. Developers can program external code resources (XCMDs and XFCNs) and place them within a HyperCard stack or even within HyperCard itself, permitting the addition of features to HyperCard beyond the abilities of the product as it was released. *See also* hypertext, object-oriented programming, XCMD, XFCN.

hypermedia The integration of graphics, sound, video, or any combination into a primarily associative system of information storage and retrieval. Hypermedia, especially in an interactive format where choices are controlled by the user, is structured around the idea of offering a working and learning environment that parallels human thinking—that is, an environment that allows the user to make associations between topics rather than move sequentially from one to the next, as in an alphabetic list. Hypermedia topics are thus linked in a manner that allows the user to jump from subject to related subject in searching for information. For example, a hypermedia presentation on navigation might include links to such topics as astronomy, bird migration, geography, satellites, and radar. If the information is primarily in text form, the product is hypertext; if video, music, animation, or other elements are included, the product is hypermedia. *See also* hypertext.

HyperTalk The programming language used to manipulate HyperCard stacks.

hypertext A metaphor for presenting information in which text, images, sounds, and actions become linked together in a complex, nonsequential web of associations that permit the user to browse through related topics, regardless of the presented order of the topics. These links are often established both by the author of a hypertext document and by the user, depending on the intent of the hypertext document. For example, traveling among the links

See also word processor.

word processor An application program for manipulating text-based documents; the electronic equivalent of paper, pen, typewriter, eraser, and, most likely, dictionary and thesaurus. Word processors run the gamut from simple through complex, but all ease the tasks associated with editing documents (deleting, inserting, rewording, and so on). Depending on the program and the equipment in use, word processors can display documents either in text mode, using highlighting, underlining, or color to represent italics, boldfacing, and other such formatting, or in graphics mode, wherein formatting and, sometimes, a variety of fonts appear on the screen as they will on the printed page. All word processors offer at least limited facilities for document formatting, such as font changes, page layout, paragraph indention, and the like. Some word processors can also check spelling, find synonyms, incorporate graphics created with another program, correctly align mathematical formulas, create and print form letters, perform calculations, display documents in multiple on-screen windows, and enable users to record macros that simplify difficult or repetitive operations. *Compare* editor, line editor.

wordwrap The ability of a word-processing program to break lines of text automatically to stay within the page margins of a document. Line breaks created by wordwrap are known as soft returns. *See also* hard return, soft return.

worksheet A term used to describe a data file created by and used with an electronic spreadsheet program. Also, an alternative name for a spreadsheet. *See also* spreadsheet program.

workstation In general, a combination of input, output, and computing hardware that can be used for work by an individual. More often, however, the term refers to a powerful stand-alone computer of the sort used in computer-aided design and other applications requiring a high-end, usually expensive, machine ($10,000 to $100,000) with considerable calculating or graphics capability. Sometimes, *workstation* is also used to refer to a microcomputer or terminal connected to a network.

worm A program that propagates itself across computers, usually by spawning copies of itself in each computer's memory. A worm might duplicate itself in one computer so often that it causes the computer to crash. Sometimes written in separate "segments," a worm is introduced surreptitiously into a host system either for "fun" or with intent to damage or destroy information. The term comes from a science-fiction novel and has generally been superseded by the term *virus*. *See also* Trojan horse, virus.

WORM Acronym for "write once, read many." A type of optical disc that can be read and reread but cannot be altered after it has been recorded. WORMs are high-capacity storage devices. Because they cannot be erased and rerecorded, they are suited to storing archives and other large bodies of unchanging information.

WP *See* word processing.

wrap around To continue movement, as with the cursor or a search operation, to the beginning or to a new starting point rather than stopping when the end of a series is reached. For example, the screen cursor normally wraps around to the first column of the next line rather than stopping when it reaches the last column of the current line. Likewise, a program starting a search or replace operation in the middle of a document might be instructed to wrap around to the beginning rather than stop when it reaches the end of the document.

write To transfer information either to a storage device, such as a disk, or to an output device, such as the monitor or a printer. Writing is the means by which a computer provides the results of processing. Writing is almost synonymous with outputting, except that writing implies outputting to a medium such as a disk drive. The opposite is reading—gathering information from storage or an input device such as the keyboard. *Write* is used as either a noun or a verb. For example, a disk write means that information is transferred from memory to storage on disk. A computer can also be said to write to the screen when it displays information on the monitor. *Compare* read; *see also* output.

write error An error encountered while a computer is in the process of transferring information from memory to storage or to another output de-

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eminence or preference; SPECIFIC implies a quality or character distinguishing a kind or a species; PARTICULAR stresses the distinctness of something as an individual; INDIVIDUAL implies unequivocal reference to one of a class or group

²special *n* (1867) **1** : something (as a television program) that is not part of a regular series **2** : one that is used for a special service or occasion ⟨caught the commuter ~ to work⟩

special assessment *n* (1875) : a specific tax levied on private property to meet the cost of public improvements that enhance the value of the property

special delivery *n* (1886) : expedited messenger delivery of mail matter for an extra fee

special district *n* (1950) : a political subdivision of a state established to provide a single public service (as water supply or sanitation) within a specific geographical area

special drawing rights *n* (1967) : a means of exchange used by governments to settle their international indebtedness

special education *n* (1921) : classes for students (as the handicapped) with special educational needs

special effects *n pl* (1937) : visual or sound effects introduced into a motion picture or a taped television production during laboratory processing

Special Forces *n pl* (1962) : a branch of the army composed of men specially trained in guerrilla warfare

special handling *n* (1928) : the handling of parcel-post or fourth-class mail as first-class but not as special-delivery matter for an extra postal fee

special interest *n* (1910) : a person or group seeking to influence legislative or government policy to further often narrowly defined interests; *esp* : LOBBY

spe·cial·ism \'spesh-ə-ˌliz-əm\ *n* (1856) **1** : specialization in an occupation or branch of learning **2** : a field of specialization : SPECIALTY

spe·cial·ist \'spesh-(ə-)ləst\ *n* (1856) **1** : one who devotes himself to a special occupation or branch of learning **2** : any of four enlisted ranks in the army corresponding to the grades of corporal through sergeant first class — **specialist** *or* **spe·cial·is·tic** \ˌspesh-ə-'lis-tik\ *adj*

spe·ci·al·i·ty \ˌspesh-ē-'al-ət-ē\ *n, pl* **-ties** (15c) **1** : a special mark or quality **2** : a special object or class of objects **3 a** : a special aptitude or skill **b** : a particular occupation or branch of learning

spe·cial·iza·tion \ˌspesh-(ə-)lə-'zā-shən\ *n* (1843) **1** : a making or becoming specialized **2 a** : structural adaptation of a body part to a particular function or of an organism for life in a particular environment **b** : a body part or an organism adapted by specialization

spe·cial·ize \'spesh-ə-ˌliz\ *vb* **-ized; -iz·ing** *vt* (1613) **1** : to make particular mention of : PARTICULARIZE **2** : to apply or direct to a specific end or use ⟨*specialized* his study⟩ ~ *vi* **1** : to concentrate one's efforts in a special activity or field **2** : to undergo specialization; *esp* : to change adaptively

specialized *adj* (1853) **1** : designed or fitted for one particular purpose or occupation ⟨~ personnel⟩ **2** : characterized by or exhibiting biological specialization; *esp* : highly differentiated esp. in a particular direction or for a particular end

special jury *n* (1730) : a jury chosen by the court on request from a list of better educated or presumably more intelligent prospective jurors for a case involving complicated issues of fact or serious felonies — called also *blue-ribbon jury*

special pleading *n* (1684) **1** : the allegation of special or new matter to offset the effect of matter pleaded by the opposite side and admitted, as distinguished from a direct denial of the matter pleaded **2** : misleading argument that presents one point or phase as if it covered the entire question at issue

special theory of relativity (1920) : RELATIVITY 3a

spe·cial·ty \'spesh-əl-tē\ *n, pl* **-ties** [ME *specialte*, fr. MF *especialté*, fr. LL *specialitat-, specialitas*, fr. L *specialis* special] (14c) **1** : a distinctive mark or quality **2 a** : a special object or class of objects: as (1) : a legal agreement embodied in a sealed instrument (2) : a product of a special kind or of special excellence ⟨fried chicken was father's ~⟩ **b** : the state of being special, distinctive, or peculiar **3** : something in which one specializes

spe·ci·a·tion \ˌspē-s(h)ē-'ā-shən\ *n* (1906) : the process of biological species formation — **spe·ci·ate** \'spē-s(h)ē-ˌāt\ *vi* — **spe·ci·a·tion·al** \ˌspē-s(h)ē-'ā-shnəl, -shən²l\ *adj*

¹spe·cie \'spē-shē, -sē\ *n* [fr. *in specie*, fr. L, in kind] (1617) : money in coin — **in specie** : in the same or like form or kind ⟨ready to return insult *in specie*⟩; *also* : in coin

²specie *n* [back-formation fr. *species* (taken as a pl.)] *substand* (1711) : SPECIES

¹spe·cies \'spē-(ˌ)shēz, -(ˌ)sēz\ *n, pl* **species** [L, appearance, kind, species — more at SPY] (1551) **1 a** : a class of individuals having common attributes and designated by a common name; *specif* : a logical division of a genus or more comprehensive class **b** : KIND, SORT **c** : the human race : human beings — often used with *the* ⟨survival of the ~ in the nuclear age⟩ **d** (1) : a category of biological classification ranking immediately below the genus or subgenus, comprising related organisms or populations potentially capable of interbreeding, and being designated by a binomial that consists of the name of a genus followed by a Latin or latinized uncapitalized noun or adjective agreeing grammatically with the genus name (2) : an individual or kind belonging to a biological species **e** : a particular kind of atomic nucleus, atom, molecule, or ion **2** : the consecrated eucharistic elements of the Roman Catholic or Eastern Orthodox Eucharist **3 a** : a mental image; *also* : a sensible object **b** : an object of thought correlative with a natural object

²species *adj* (1899) : belonging to a biological species as distinguished from a horticultural variety ⟨a ~ rose⟩

spe·cies·ism \'spē-shē-ˌziz-əm, -sē-\ *n* [*¹species* + *-ism* (as in *racism*)] (1973) : prejudice or discrimination based on species; *esp* : discrimination against animals

¹spe·cif·ic \spi-'sif-ik\ *adj* [LL *specificus*, fr. L *species*] (1631) **1 a** : constituting or falling into a specifiable category **b** : sharing or being those properties of something that allow it to be referred to a particular category **2 a** : restricted to a particular individual, situation, relation, or effect ⟨a disease ~ to horses⟩ **b** : exerting a distinctive influence (as on a body part or a disease) ⟨~ antibodies⟩ **3** : free from ambiguity : ACCURATE ⟨a ~ statement of faith⟩ **4** : of, relating to, or constituting a species and esp. a biologic species **5 a** : being any of various arbitrary physical constants and esp. one relating a quantitative attribute to unit mass, volume, or area **b** : imposed at a fixed rate per unit (as of weight or count) ⟨~ import duties⟩ — compare AD VALOREM *syn* see SPECIAL, EXPLICIT — **spe·cif·i·cal·ly** \-i-k(ə-)lē\ *adv*

²specific *n* (1661) **1 a** : something peculiarly adapted to a purpose or use **b** : a drug or remedy having a specific mitigating effect on a disease **2 a** : a characteristic quality or trait **b** : DETAILS, PARTICULARS — usu. used in pl. ⟨haggling over the legal and financial ~s of independence —*Time*⟩ **c** *pl* : SPECIFICATION 2a

spec·i·fi·ca·tion \ˌspes-(ə-)fə-'kā-shən\ *n* (1615) **1** : the act or process of specifying **2 a** : a detailed precise presentation of something or of a plan or proposal for something — usu. used in pl. **b** : a statement of legal particulars (as of charges or of contract terms); *also* : a single item of such statement **c** : a written description of an invention for which a patent is sought

specific epithet *n* (1906) : the Latin or latinized noun or adjective that follows the genus name in a taxonomic binomial

specific gravity *n* (1666) : the ratio of the density of a substance to the density of some substance (as pure water or hydrogen) taken as a standard when both densities are obtained by weighing in air

specific heat *n* (1832) **1** : the ratio of the quantity of heat required to raise the temperature of a body one degree to that required to raise the temperature of an equal mass of water one degree **2** : the heat in calories required to raise the temperature of one gram of a substance one degree Celsius

specific impulse *n* (1947) : the thrust produced per unit rate of consumption of the propellant that is usu. expressed in pounds of thrust per pound of propellant used per second and that is a measure of the efficiency of a rocket engine

spec·i·fic·i·ty \ˌspes-ə-'fis-ət-ē\ *n* (1876) : the quality or condition of being specific: as **a** : the condition of being peculiar to a particular individual or group of organisms ⟨host ~ of a parasite⟩ **b** : the condition of participating in or catalyzing only one or a few chemical reactions ⟨the ~ of an enzyme⟩

specific performance *n* (1873) **1** : the performance of a legal contract strictly or substantially according to its terms **2** : an equitable remedy enjoining specific performance

spec·i·fy \'spes-ə-ˌfī\ *vt* **-fied; -fy·ing** [ME *specifien*, fr. MF *specifier*, fr. LL *specificare*, fr. *specificus*] (14c) **1** : to name or state explicitly or in detail **2** : to include as an item in a specification — **spec·i·fi·able** \-ˌfī-ə-bəl\ *adj* — **spec·i·fi·er** \-ˌfī(-ə)r\ *n*

spec·i·men \'spes-(ə-)mən\ *n* [L, fr. *specere* to look at, look — more at SPY] (1610) **1** : an item or part typical of a group or whole **2 a** : something that obviously belongs to a particular category but is noticed by reason of an individual distinguishing characteristic **b** : PERSON, INDIVIDUAL ⟨he's a tough ~⟩ ***syn*** see INSTANCE

spe·ci·os·i·ty \ˌspē-shē-'äs-ət-ē\ *n* (1608) : the quality or state of being specious : SPECIOUSNESS

spe·cious \'spē-shəs\ *adj* [ME, fr. L *speciosus* beautiful, plausible, fr. *species*] (15c) **1** *obs* : SHOWY **2** : having deceptive attraction or allure **3** : having a false look of truth or genuineness : SOPHISTIC — **spe·cious·ly** *adv* — **spe·cious·ness** *n*

¹speck \'spek\ *n* [ME *specke*, fr. OE *specca*] (bef. 12c) **1** : a small discoloration or spot esp. from stain or decay **2** : a very small amount : BIT **3** : something marked or marred with specks — **specked** \'spekt\ *adj*

²speck *vt* (1580) : to produce specks on or in

¹speck·le \'spek-əl\ *n* [ME; akin to OE *specca*] (15c) : a little speck (as of color)

²speckle *vt* **speck·led; speck·ling** \-(ə-)liŋ\ (ca. 1570) **1** : to mark with speckles **2** : to be distributed in or on like speckles

speckled perch *n* (1877) : BLACK CRAPPIE

speckled trout *n* (1805) **1** : BROOK TROUT **2** : SPOTTED SEA TROUT

¹specs \'speks\ *n pl* [contr. of *spectacles*] (1807) : EYEGLASSES

²specs *n pl* [by contr.] (1942) : SPECIFICATIONS

spec·ta·cle \'spek-ti-kəl *also* -ˌtik-əl\ *n* [ME, fr. MF, fr. L *spectaculum*, fr. *spectare* to watch, fr. *spectus*, pp. of *specere* to look, look at — more at SPY] (14c) **1 a** : something exhibited to view as unusual, notable, or entertaining; *esp* : an eye-catching or dramatic public display **b** : an object of curiosity or contempt ⟨made a ~ of herself⟩ **2** *pl* : GLASSES **3** : something (as natural markings on an animal) suggesting a pair of glasses

spec·ta·cled \-ti-kəld, -ˌtik-əld\ *adj* (1607) **1** : having or wearing spectacles **2** : having markings suggesting a pair of spectacles ⟨a ~ alligator⟩

¹spec·tac·u·lar \spek-'tak-yə-lər, spək-\ *adj* [L *spectaculum*] (1682) : of, relating to, or constituting a spectacle : STRIKING, SENSATIONAL ⟨a ~ display of fireworks⟩ — **spec·tac·u·lar·ly** *adv*

²spectacular *n* (1890) : something that is spectacular

spec·tate \'spek-ˌtāt\ *vi* **spec·tat·ed; spec·tat·ing** [back-formation fr. *spectator*] (1709) : to be present as a spectator (as at a sports event)

spec·ta·tor \'spek-ˌtāt-ər, spek-'\ *n* [L, fr. *spectatus*, pp. of *spectare* to watch] (1586) : one who looks on or watches — **spectator** *adj*

spec·ter *or* **spec·tre** \'spek-tər\ *n* [F *spectre*, fr. L *spectrum* appearance, specter, fr. *specere* to look, look at — more at SPY] (1605) **1** : a visible disembodied spirit : GHOST **2** : something that haunts or perturbs the mind : PHANTASM ⟨the ~ of hunger⟩

spec·ti·no·my·cin \ˌspek-tə-nō-'mīs-²n\ *n* [NL, fr. *spect*abilis + *-in* + *-o-* + *-mycin*] (1964) : a white crystalline broad-spectrum antibiotic $C_{14}H_{24}N_2O_7$ produced by a bacterium (*Streptomyces spectabilis*) that is used clinically esp. in the form of its hydrochloride to treat gonorrhea

spec·tral \'spek-trəl\ *adj* (1815) **1** : of, relating to, or suggesting a specter : GHOSTLY **2** : of, relating to, or made by a spectrum — **spec·tral·ly** \'spek-trə-lē\ *adv*

spectral line *n* (1902) : one of a series of linear images of the narrow slit of a spectrograph or similar instrument corresponding to a component of the spectrum of the radiation emitted by a particular source

spectro- *comb form* [NL *spectrum*] : spectrum ⟨*spectro*scope⟩

spec·tro·flu·o·rom·e·ter \'spek-(ˌ)trō-ˌflü(-ə)r-'äm-ət-ər\ *also* **spec·tro·flu·o·rim·e·ter** \-'im-\ *n* [*spectr-* + *fluorometer*] (1957) : a device for measuring and recording fluorescence spectra — **spec·tro·flu·o·ro·met·ric**

Exhibit T

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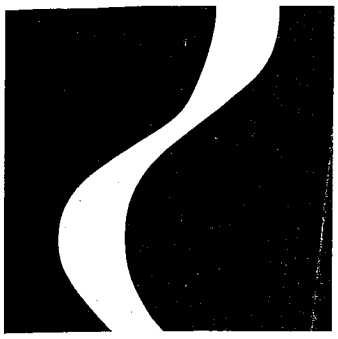

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Edited by
Christopher Morris

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dispersion force or **dispersion attraction** *Physical Chemistry.* a general force of attraction between nearby atoms or molecules that arises from a temporary polarity between them, caused by the uneven distribution of electrons; independent of temperature and present in all types of matter, including the noble gases. Also, ATTRACTION FORCE.

dispersion formula *Physics.* a relationship giving the index of refraction of a particular substance as a function of the wavelength, as in the Cauchy dispersion formula or the Hartmann dispersion formula.

dispersion fuel *Nucleonics.* small particles of fissile and fertile fuel that are dispersed in a matrix in such a way that fission-fragment damage areas do not overlap, thereby providing good thermal conductivity while retaining the mechanical strength of the matrix.

dispersion interaction *Physical Chemistry.* a momentary shift in the symmetry of the electron clouds of two nearby atoms or molecules, resulting in a force of attraction between them.

dispersion ladder *Ordnance.* a diagram showing the probable dispersion of a group of shots fired under identical conditions; it indicates the percentage of shots expected to fall in each of eight zones.

dispersion measure *Astrophysics.* a quantity that expresses the amount of dispersion that a radio signal suffers; it is proportional to both the number of electrons in the path and the path's length.

dispersion medium *Physical Chemistry.* the bulk substance in which another substance is dispersed; for example, the gas in an aerosol spray mixture. Also, CONTINUOUS PHASE.

dispersion mill *Mechanical Engineering.* a size-reduction machine used to break clusters of solids in the preparation of purees, food pastes, cosmetics, pulps, paints, and the like.

dispersion of a random variable *Statistics.* the scatter of values or measurements around the arithmetic mean or other measure of central tendency.

dispersion pattern *Geochemistry.* the pattern of distribution of chemical elements in rocks or surface material, such as soil, as a result of migration away from a source, such as an ore body.

dispersion relation *Physics.* an equation relating the wavenumber k to the radian angular frequency ω, usually expressed as a derivative $dk/d\omega$ equal to some function of ω.

dispersion relations *Nuclear Physics.* the set of analogous relations between the real and imaginary parts (for example, refractivity and index of refraction, respectively) of any response function, such as the cause-and-effect pairs of force and spatial displacement, electric field and polarization, or incident and scattered waves.

dispersion strengthening *Materials Science.* a method of strengthening a material by the even distribution of particles that are small (less than 0.1 micrometer) in a matrix at 1–15% vol. The matrix is the main load-bearing component. *Metallurgy.* specifically, the strengthening of a metal or alloy by incorporation in its structure of finely dispersed particles of a stable nonmetallic compound such as aluminum oxide. Also, **dispersion hardening**.

dispersion theory see BREIT-WIGNER THEORY.

dispersion zone *Ordnance.* the area over which shots spread apart and scatter when fired with the same sight setting.

dispersive Fourier transform spectrometry *Spectroscopy.* a spectroscopic technique in which the entire range of frequencies of interest is simultaneously passed through an interferometer whose output signal is analyzed by a Fourier transform.

dispersive FT-IR *Spectroscopy.* dispersive Fourier transform in which the frequency range of interest is that of the infrared band of the electromagnetic spectrum.

dispersive lens see DIVERGING LENS.

dispersive line *Electromagnetism.* a line that delays different frequencies by different amounts of time.

dispersive medium *Electromagnetism.* a medium in which the phase velocity of electromagnetic waves is a function of the frequency.

dispersive power *Optics.* a measure of the ability of a material to separate light into different colors.

dispersivity *Materials Science.* the degree of distribution of a finely divided solid in a liquid or a solid matrix; often used to describe the distribution of macromolecules in a sample of polymers.

dispersoid *Chemistry.* the product of a dispersion.

displaced aggression *Psychology.* aggressive behavior directed at some person or object other than the original source of the hostility.

displaced ore body *Geology.* an ore body affected by displacement or disruption that occurred after its initial deposition.

displaced outcrop *Geology.* an outcrop that has moved downhill due to a landslide or soil creep.

displacement a movement away from the original position; specific uses include: *Fluid Mechanics.* **1.** the weight of fluid that is displaced by a floating body, equal to the weight of the body plus its contents. **2.** in general, the volume of fluid displaced by any floating body. *Mechanics.* **1.** any movement of a particle or body from one position in space to a new position. **2.** a description of this motion, involving the linear distance moved and the direction of the path taken. *Mechanical Engineering.* **1.** the volume through which a piston travels during a single stroke in an engine, pump, or similar mechanism. **2.** the total volume displaced by all the pistons of an engine. *Chemistry.* a chemical reaction in which one element releases another element from a compound and replaces it in the compound. *Geology.* the relative movement of rock on opposite sides of a fault, measured in any specified direction, or the magnitude of such movement. Also, DISLOCATION. *Psychology.* the shift of an emotion or impulse from the person, object, or situation toward which it was originally directed to a more acceptable substitute. *Cartography.* a shift in the position of an image on a photograph that does not alter the perspective characteristics of the photograph. *Computer Programming.* the quantity that, when added to the contents of the base register, produces the machine language address of an operand or an instruction.

displacement angle *Electricity.* the change that occurs in the phase of an alternator's terminal voltage when a load is applied.

displacement behavior *Behavior.* a behavior pattern that is seemingly irrelevant to the present situation, usually arising from conflict. Also, **displacement activity.**

displacement chromatography *Analytical Chemistry.* a separation technique using elution chromatography in which the solvent is adsorbed to a packed column (stationary phase) and the freed sample migrates down the column.

displacement compressor *Mechanical Engineering.* a compressor that relies on the displacement of a volume of air by a piston moving in a cylinder.

displacement current *Electromagnetism.* a hypothetical current used in Maxwell's equations to account for the apparent current through the space between the plates of a capacitor; it exists in the presence of a time-varying electric field.

displacement curve *Naval Architecture.* a design curve showing how a vessel's draft increases as its displacement is increased.

displacement engine see PISTON ENGINE.

displacement gyroscope *Engineering.* a gyroscope that senses, measures, and transmits angular displacement data.

displacement law see WIEN'S DISPLACEMENT LAW.

displacement length *Materials Science.* the distance between the free ends of a coiled chain polymer; an important parameter in describing the dimensions of the chain.

displacement loop see D LOOP.

displacement manometer *Engineering.* a differential manometer that measures pressure difference across a solid or liquid partition being displaced by force.

displacement meter *Engineering.* a meter that measures water flow by recording the number of times a vessel of known size and capacity is filled and emptied.

displacement parameters *Crystallography.* a description of the displacement of atoms in a crystal structure; atomic vibrations are displacements from equilibrium positions with periods that are typically smaller than 10^{-12} seconds. Because static displacements of a given atom are random from unit cell to unit cell, they will stimulate atomic vibrations.

displacement plane see DEFORMATION PLANE.

displacement pump *Mechanical Engineering.* a pump in which nonreturn valves prevent the return flow of displaced liquid during the retracting phase of the pump cycle, thus creating a pulsing action characterized by alternate filling and emptying of an enclosed volume.

displacement series see ACTIVITY SERIES.

displacement vessel *Naval Architecture.* any ship or boat that is supported in the water by displacement of its weight, as opposed to a hydrofoil or surface skimmer.

displacer-type meter *Engineering.* a specific gravity measuring device in which the liquid being measured flows continuously through a chamber containing a submerged, gas-filled cylinder whose buoyancy is recorded.

display *Electronics.* any visual presentation of the output of a unit or system, as on a cathode-ray tube or in readable characters of a digital display. *Computer Science.* in an activation record, an array of pointers to the activation records of surrounding blocks, used to access variables defined in those blocks. *Behavior.* see DISPLAY BEHAVIOR.

Fijivirus *Plant Pathology.* a type subgroup of Phytorevirus that causes the sugarcane Fijivirus, a disease in which white to brown swellings occur on the undersides of the sugarcane leaves, and stunting and death of the plant follow.

filament a very slender thread or threadlike structure; specific uses include: *Biology.* a strand of cells in a long row. *Botany.* the stalk of an anther-bearing stamen. *Electricity.* a thread of tungsten, carbon, or similar material that emits light when heated by an electric current. *Electronics.* also, **filamentary cathode.** in an electron tube, a cathode that is heated when an electric current flows though it; usually a wire or ribbon. *Metallurgy.* a fiber of virtually infinite length. *Astronomy.* a solar prominence seen in projection on the sun's disk.

filament current *Electronics.* the flow of electrons that heat the filament in an electron tube.

filament drawing *Metallurgy.* drawing of wires of extremely small diameters.

filament emission *Electronics.* the electrons that are emitted when a filament is heated.

filamentous *Science.* having the shape of a filament; long and slender.

filamentous bacteria *Microbiology.* colonies made up of long threadlike microorganisms, often interwoven.

filamentous phage *Virology.* any phage of the family Inoviridae; an inovirus.

filament saturation see TEMPERATURE SATURATION.

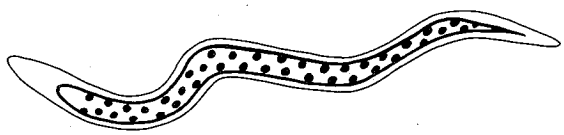
filament transformer *Electronics.* a device that supplies the filament in an electron tube with current or voltage.

filament winding *Electronics.* in a transformer that provides several voltages for the operation of a vacuum tube circuit, the winding that provides the filament current. *Engineering.* a method of fabricating a composite structure in which continuous fiber reinforcement is wound tightly over a rotating core.

filamin *Biochemistry.* a protein that binds to F-actin, to crosslink microfilaments, thus inducing gel formation.

filaree see ALFILARIA.

Filaria *Invertebrate Zoology.* the type genus of nematode worm causing elephantiasis and filariasis in humans; adults parasitize the blood and tissue of mammals, while larvae are found in biting insects.



Filaria

filariasis see ELEPHANTIASIS.

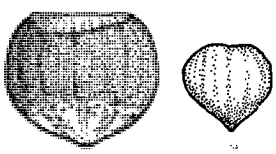
filariform larva *Invertebrate Zoology.* a larval nematode resembling a filaria, with a long body and a long esophagus that is a delicate capillary tube of uniform diameter.

Filarioidea *Invertebrate Zoology.* threadlike nematode worms in the order Spirurida, parasites in birds and mammals; larvae are found in bloodsucking insects.

filar micrometer *Mechanical Devices.* an instrument mounted on a telescope or microscope consisting of a parallel set of wires, a stationary wire and a movable wire, both of which can be adjusted by a finely threaded screw to measure small distances in the focal plane.

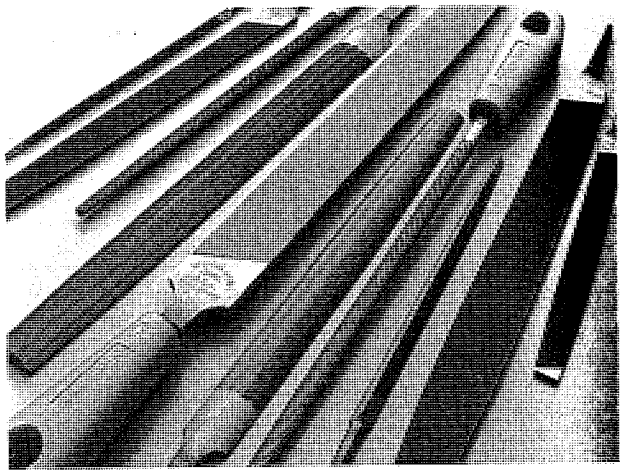
filature *Textiles.* **1.** the process of forming a material into threads. **2.** the process of reeling raw silk from a cocoon. **3.** a reel designed for this purpose.

filbert *Botany.* **1.** the common name for plants of the genus *Corylus.* **2.** the fruit of the *Corylus.*



filbert

file *Mechanical Devices.* any of various steel hand tools having diagonally oriented teeth incised into its face; designed to smooth metal, wood, or plastic surfaces by means of fine, parallel cutting edges. *Computer Programming.* **1.** a collection of items with certain common aspects, organized for a specific purpose and stored or processed as a unit. **2.** any collection of data that is stored and manipulated as a named unit by a file-management system. Used to form many compound terms, such as **file backup, file catolog, file layout, file maintenance, file printout, file processing, file separator, file transfer,** and so on.



files

file band *Mechanical Devices.* an endless steel band used to hold numerous steel files in a series on a band mill or saw.

file conversion *Computer Programming.* the process of translating a file from one system of file conventions, e.g., character set, to another or of transferring a file from one medium to another.

file directory *Computer Programming.* a list of names and other relevant information relating to files associated with a particular user or application.

file-drawer problem *Psychology.* the tendency of psychological research to be biased toward confirmation of a thesis, because positive results are publicized while negative results are "filed" or disregarded.

filed waveguide *Electromagnetism.* a single insulated wire used to guide an electromagnetic wave.

file event *Computer Programming.* a single read or write access operation with a storage device.

file hardness *Engineering.* the relative hardness of a material, usually determined by attempts to cut the material with a file of standardized hardness.

file label *Computer Technology.* information found at the beginning of a disk or tape file that indicates characteristics of the file, such as name, block size, recording density, date written, and edition number. Also, HEADER LABEL.

file locking *Computer Programming.* the process of preventing access to a file by other users during file update; a method of ensuring data integrity and consistency for all users.

file-management system *Computer Programming.* system software that provides access to and allocation of storage devices, and allows users to share, create, change, and delete files.

file mark *Computer Programming.* an end-of-file mark recorded on magnetic tape.

file name *Computer Programming.* a user-supplied alphanumeric character label that uniquely identifies a set of data.

file-name extension *Computer Programming.* a code added to a file name, usually separated from the name by a period, that describes the type of file; for example, the extension .DBF may indicate a database file, or .PIC may be appended to a graphic file name. Also, EXTENSION.

file organization *Computer Programming.* the physical arrangement of records on a storage medium. Also, PHYSICAL FILE STRUCTURE.

file-oriented system *Computer Technology.* **1.** a computer system that is used primarily for processing multiple large files. **2.** a system in which secondary storage and the operating system are organized in terms of files.

identification division *Computer Programming.* one of the four main parts of a COBOL program, in which the programmer identifies the source and object programs.

identifier *Computer Programming.* a symbol used to name, identify, or specify a program or portion of data.

identifier word *Computer Programming.* a computer word that is stored in a special register and is used in a search-read sequence; each word read is compared with the identifier word stored in the register.

identity *Science.* the state of remaining the same under varying conditions. *Psychology.* a person' s concept of self; the aggregate of characteristics by which a person is recognized by him- or herself and others. *Mathematics.* **1.** see IDENTITY ELEMENT. **2.** an equation that is satisfied for all possible values of the variables. **3.** an equation relating operators, mappings, or other higher-order mathematical objects without reference to their operands.

identity crisis *Psychology.* a conflict in which an individual loses his sense of self and cannot accept or adopt the role he believes society has placed on him; typically expressed by withdrawal, rebelliousness, or negativity; often triggered by rapid social or technological changes.

identity element *Crystallography.* a symmetry element whose operation leaves unchanged anything on which it operates. *Mathematics.* a two-sided identity element for an algebraic operation $*$ is an element e of the object A (such as a group, ring, etc.) on which $*$ is defined, such that $e * a = a * e = a$ for every element a of A. If it is only true that $e * a = a$ (or $a * e = a$), then e is called a left identity (or right identity). By convention, a (two-sided) identity element for (ring, field, etc.) addition is denoted by 0, and the identity element for (ring, field, etc.) multiplication, if it exists, is denoted by 1 or by 1_A.

identity function *Mathematics.* any function f for which $f(x) = x$ for all x in the domain of definition. Denoted Id or I. Also, **identity map, identity operator.**

identity functor *Mathematics.* the functor from a category C that assigns each object of C to itself and each morphism of C to itself. Also, COVARIANT IDENTITY FUNCTOR.

identity matrix *Mathematics.* the $n \times n$ identity matrix is the matrix with 1 in every main diagonal position and 0 elsewhere.

identity stage *Psychology.* the fifth of Erik Erikson's eight stages of human development, during the adolescent years, when the person develops a characterization of himself or herself as a unique individual with a sense of purpose and direction. Also, **identity formation.**

identity unit *Computer Technology.* a logic circuit with several binary input signals and a single binary output signal such that, when all the input signals are the same (0 or 1), the output signal represents 1.

identity vs diffusion *Psychology.* the conflict or stress that can arise during the identity stage of development, if a person cannot form a sense of being a unique individual. Also, **identity vs (role) confusion.**

ideo- a combining form meaning "idea," as in *ideogram.*

ideofact *Archaeology.* an object whose function is to express or symbolize the beliefs of a people rather than to serve practical or social needs.

ideofunction *Archaeology.* the use of an object for ideological purposes; for example, the wearing of a certain special garment as part of a religious ceremony.

ideofunctional *Archaeology.* of or relating to ideofunction; used in a ceremonial way. Also, IDEOTECHNIC.

ideogram *Archaeology.* a symbol that represents a concept or object, as in the picture-writing systems of the ancient Mideast.

ideology *Anthropology.* the belief system of a society that includes values, philosophies, religions, and sciences and that may be expressed in a number of institutions such as school, church, family, and so on.

ideomotor *Physiology.* of or related to involuntary muscular action produced by mental energy. Also, IDEOKINETIC.

ideomotor apraxia *Medicine.* the inability to perform complex body movements due to an interruption between the ideation center and the limb center. Also, LIMB-KINETIC APRAXIA, TRANSCORTICAL APRAXIA.

ideophobia *Psychology.* an irrational fear of ideas.

ideotype *Systematics.* a specimen that is determined by the original author of that taxa to belong within that taxon, but not collected from the type locality. Also, IDIOTYPE.

idigbo *Materials.* the light yellow wood of the *Terminalia worensis* tree of Africa; used in the construction of furniture and joinery.

idio- a combining form meaning: **1.** personal or peculiar, as in *idiosyncrasy.* **2.** spontaneously or self-produced, as in *idiomuscular.*

idioblast *Geology.* a mineral constituent in a metamorphic rock that is formed by recrystallization and bounded by its own crystal faces.

idioblastic series see CRYSTALLOBLASTIC SERIES.

idiochromatic *Mineralogy.* of or relating to a mineral whose characteristic color is a result of its chemical composition.

idiochromatin *Cell Biology.* the chromatin of a cell that is concerned with reproductive function, as opposed to strict metabolic function.

idiocy *Psychology.* the fact or condition of being an idiot.

idiogenous see SYNGENEIC.

idioglossia *Psychology.* **1.** the development of a private language not intelligible to others, by a child or by a pair of children in close contact, such as twins. **2.** any unintelligible or invented speech. Also, **idiolalia.**

idiogram *Genetics.* a diagrammatic representation of a karyotype, based on a measurement of the chromosomes of a number of cells.

idiographic *Psychology.* relating to psychological studies or techniques that focus on a certain individual person, as opposed to people in general. Thus, **idiographic goals, idiographic emphasis.**

idiomorphic see AUTOMORPHIC.

idiomorphism *Materials Science.* a condition in which igneous rock minerals are bounded by their own crystal faces. Also, AUTOMORPHISM.

idiomuscular *Physiology.* of or related to the muscular tissue apart from neural stimulation; applied to certain muscular contractions that occur only in degenerated muscles.

idiopathic *Immunology.* referring to a disease that is of unknown cause.

idiopathic colitis *Medicine.* a primary inflammation of the colon.

idiopathic eunuchoidism *Medicine.* male hypogonadism, a primary condition marked by the presence of nonfunctioning testes.

idiopathic familial jaundice *Medicine.* a form of obstructive jaundice in which the ability to excrete conjugated bilirubin into the bile duct is decreased.

idiopathic hypercholesterolemia *Medicine.* the presence of an abnormally large amount of cholesterol in the cells and plasma of the blood, without any known cause.

idiopathic megacolon *Medicine.* the extreme enlargement and hypertrophy of the colon; often associated with constipation.

idiopathic multiple pigmented hemorrhagic sarcoma see KAPOSI'S SARCOMA.

idiopathic pulmonary hemisiderosis *Medicine.* a condition, of unknown cause, marked by hemorrhaging from pulmonary capillaries.

idiopathic thrombocytopenic purpura *Medicine.* a systemic illness marked by hemorrhages from mucous membranes, extensive ecchymoses, deficiencies in platelet count, anemia, and prostration, and often accompanied by a serum antiplatelet factor.

idiopathic ulcerative colitis *Medicine.* a primary disease marked by ulceration and bleeding of the colon and rectum, mucosal crypt abscesses, and inflammatory pseudopolyps; often leads to anemia, hypoproteinemia, and electrolyte imbalance, and is sometimes made more severe by perforation or carcinoma of the colon.

idiopathy *Medicine.* a primary disease; an illness with a spontaneous, unknown origin.

idiophase *Biotechnology.* a phase in culture production in which the biosynthetic pathways are altered and products other than the primary metabolites are formed.

idiosome *Cell Biology.* any of a number of specialized organelles or regions of a cell, such as the centrosome.

idiospasm *Neurology.* a spasm limited to a certain area of the body.

Idiospermaceae *Botany.* a monospecific family of dicotyledonous evergreen trees belonging to the order Laurales, characterized by scattered spherical cells containing volatile oils, opposite and simple leaves, large perfect flowers, and a large poisonous seed; native to Australia.

Idiostolidae *Invertebrate Zoology.* a small family of true bugs, hemipteran insects in the superfamily Pentatomorpha; found in South America and Australia.

idiosyncrasy *Medicine.* a mental, behavioral, or physical characteristic unique to an individual. *Immunology.* an individual's unique abnormal response to a drug, food, treatment, or environmental condition.

idiot *Psychology.* **1.** a term formerly used to describe a severely retarded person having a mental age of less than two years and an IQ of less than 25. **2.** in historic use, a general term used to describe a person regarded as mentally deficient; applied to various conditions of mental retardation, mental illness, autism, and the like.

idiotope *Immunology.* a determinant region of an antigen that is characteristic of one individual antigen.

idiotroph *Biotechnology.* a microorganism with a mutation in its biosynthetic pathways, making it unable to produce the valuable products for which it is being cultured.

idiot savant see SAVANT.

local sidereal time *Astronomy.* the right ascension of the point in the sky that is crossing the observer's meridian at any given moment. *Navigation.* the location of the vernal equinox west of the local meridian, expressed in time through 24 hours.

local solidification time *Materials Science.* the time required for a particular location in a casting to solidify.

local solution *Mathematics.* a function which satisfies a system of functional equations only in a neighborhood of some fixed point.

local standard of rest *Astrophysics.* a frame of reference centered on the sun in which the space velocities of all stars within about 150 light-years average out to zero.

local storage *Computer Technology.* the small set of storage registers that provide high-speed addressable program or data storage.

local storm *Meteorology.* any weather phenomenon of mesometeorological scale, such as a thunderstorm, squall, or tornado.

local structural discontinuity *Mechanics.* the effect of a void, inclusion, dislocation, etc. on stress flow.

Local Supercluster *Astrophysics.* an immense collection of clusters of galaxies, including the Local Group and the Virgo-Coma cluster, that extends for perhaps 100 million light-years.

local thermodynamic equilibrium *Astrophysics.* an assumption that the matter at a given point in a star is in balance with the radiation flowing through the point.

local traffic *Transportation Engineering.* vehicle traffic that is involved in short trips within a local area, as opposed to traffic making longer trips along arterials. Traffic flow is frequently improved by segregating local traffic from through traffic. *Aviation.* aircraft that operate entirely within sight of one airport's control tower, as in touch-and-go landing practice.

local transformation *Mathematics.* given a vector field V on a manifold, a local transformation of a neighborhood U maps each point of U to a point that lies a fixed value along the integral curves of V.

local trunk *Telecommunications.* a trunk between private exchange and local switchboards or switching systems, or a trunk between long-distance and local switchboards or switching systems.

local variable *Computer Programming.* a variable that can be referenced in only the program block in which it is defined.

local vertical *Geodesy.* at any point on the earth's surface, the direction of the acceleration of gravity, which, because of the deflection of the vertical, may or may not conform to a straight line perpendicular to the reference surface at the same point. *Navigation.* the vertical line, from the center of the earth to the zenith, at any given geographical location.

local war *Military Science.* see LIMITED WAR.

local wind *Meteorology.* any wind differing from winds that are appropriate to the general pressure distribution in an area, usually developing as a result of local thermal or topographic effects on an air mass.

locant *Organic Chemistry.* the number or letter immediately preceding a chemical symbol, as in 2H, indicating the position of an atom or group in a molecule.

locate mode *Computer Programming.* a method of providing access to data for input/output control routines by transferring the data addresses rather than the data themselves.

locating *Mechanical Engineering.* a term for the process of bringing together the appropriate contact points between a workpiece and a tooling device.

locating back *Photogrammetry.* a flat surface in an aerial camera against which the film is held, either by means of a vacuum or air pressure, so that the emulsion lies exactly in the focal plane. A locating back that uses a vacuum is a vacuum back, and one that uses air pressure is a pressure back.

locating hole *Mechanical Engineering.* a hole used for accurately positioning a part in relation to a cutting tool or to other parts.

locating surface *Design Engineering.* an area on a part used for setting alignment with other parts. *Mechanical Engineering.* specifically, a surface used by automated manufacturing and assembly machines for indexing or positioning parts.

location *Computer Programming.* a term for any addressable place in memory where an instruction or data item is stored.

location constancy *Psychology.* the autonomic modification by the perceptual system of objects and their distance, depending on the individual's location or the change in the position of the object.

location constant *Computer Programming.* an explicit value that identifies an instruction in a computer program; used to reference the instruction from other parts of the program, such as in a branch instruction. Also, LABEL CONSTANT.

location counter *Computer Programming.* any counter maintained by a compiler or assembler to indicate the current location at which instructions or data are being placed.

location dimension *Design Engineering.* a measurement that specifies the distance of one feature of an object with respect to another.

location fit *Design Engineering.* the assemblying of parts by making one piece with another into a precise position between the two.

location notice *Mining Engineering.* a written sign visibly displayed on a claim, indicating the locator's name and describing the claim's extent and boundaries.

location parameter *Statistics.* a parameter whose variation causes a translation in a probability distribution.

location plan *Mining Engineering.* a scale map of a projected mine development that indicates proposed shafts, works in relation to existing surface features, etc.

location work *Mining Engineering.* any labor required by law in order to establish ownership.

locator a person or thing that locates; specific uses include: *Engineering.* any instrument or process by which the location of an object is determined, such as a radar system that locates airborne aircraft. *Mining Engineering.* a person who locates a mining claim.

Loc. dol. to the painful spot. (From Latin *loco dolenti.*)

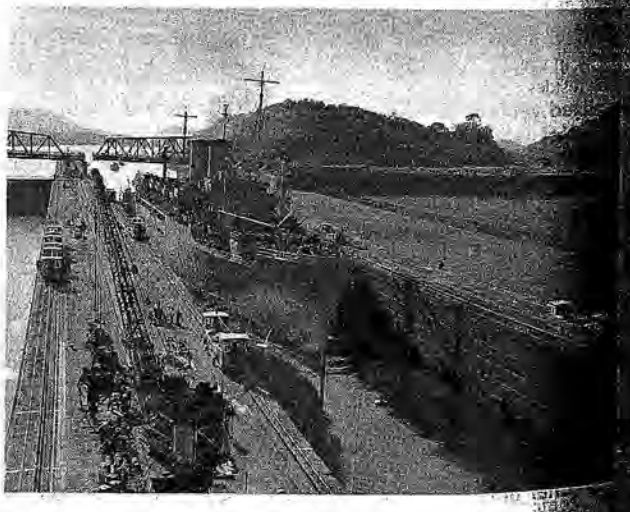
locellus *Botany.* a compartment in the ovary of some legumes or in a pollen sac.

lochia *Medicine.* the vaginal discharge of mucus, blood, and tissue debris during the first week or two following childbirth.

loci the plural of *locus.*

lociation *Ecology.* a ranked category used in the classification of vegetation.

lock a mechanical device for fastening and securing something; or the process of operating such a device; specific uses include: *Mechanical Devices.* a door, lid, or cabinet fastening device with a cylinder and a movable bolt accessed by turning a key in the cylinder to secure or open the assembly to which it is a part. *Ordnance.* **1.** the position of the safety mechanism that prevents a loaded weapon from being fired. **2.** to set the safety mechanism in such a position. **3.** see GUNLOCK. *Computer Science.* **1.** to set a lock variable to prevent other processes from accessing shared data during a critical region. **2.** see LOCK VARIABLE. *Electronics.* to latch onto and automatically track a target, using a radar beam. *Metallurgy.* in forging, the condition in which the line on which the flash is formed is not in a single plane. *Hydrology.* a section of a waterway in which the level of the water can be raised or lowered.



locks

lockalloy *Metallurgy.* the trade name of a noncommercial alloy for aerospace application, based on beryllium.

lock bolt *Engineering.* **1.** the bolt portion of a lock. **2.** a bolt that is used with a locking collar rather than a nut. **3.** a bolt used to adjust machine parts.

lock chamber *Civil Engineering.* the enclosed section of a canal or river where the level can be altered to account for the change in water and through which ships or barges may pass.

Exhibit U

McGraw-Hill Dictionary of Scientific and Technical Terms

Fifth Edition

Sybil P. Parker
Editor in Chief

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On the cover: Photomicrograph of crystals of vitamin B_1.
(Dennis Kunkel, University of Hawaii)

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within the body or transferred from one part of the body to another. { ˌȯd·ō,in'fek·shən }

autoinjection *See* autointrusion. { ˌȯd·ō,in'jek·shən }

autoinoculation [MED] **1.** Spread of a disease from one part of the body to another. **2.** Injection of an autovaccine. { ˌȯd·ō·in,äk·yə'lā·shən }

autointoxication [MED] Poisoning by metabolic products elaborated within the body; generally, toxemia of pathologic states. { ˌȯd·ō·in,täk·sə'kā·shən }

autointrusion [GEOL] A process wherein the residual liquid of a differentiating magma is drawn into rifts formed in the crystal mesh at a late stage by deformation of unspecified origin. Also known as autoinjection. { ˌȯd·ō·in'trü·zhən }

autoionization [ATOM PHYS] The radiationless transition of an electron in an atom from a discrete electronic level to an ionized continuum level of the same energy. Also known as preionization. { ˌȯd·ō,ī·ə·nə'zā·shən }

autolith [PETR] **1.** A fragment of igneous rock enclosed in another igneous rock of later consolidation, each being regarded as a derivative from a common parent magma. **2.** A round, oval, or elongated accumulation of iron-magnesium minerals of uncertain origin in granitoid rock. { 'ȯd·ō,lith }

autolithography [GRAPHICS] A lithographic process in which the artist makes a drawing onto the printing surface directly. { ˌȯd·ō·lith'äg·rə·fē }

autologous [BIOL] Derived from or produced by the individual in question, such as an autologous protein or an autologous graft. { ȯ'täl·ə·gəs }

autoluminescence [ATOM PHYS] Luminescence of a material (such as a radioactive substance) resulting from energy originating within the material itself. { ˌȯd·ō,lü·mə'nes·əns }

autolysis [GEOCHEM] Return of a substance to solution, as of phosphate removed from seawater by plankton and returned when these organisms die and decay. [PATH] Self-digestion by body cells following somatic or organ death or ischemic injury. { ȯ'täl·ə·səs }

autolysosome *See* autophagic vacuole. { ˌȯd·ō'lī·sə,sōm }

autolytic enzyme [BIOCHEM] A bacterial enzyme, located in the cell wall, that causes disintegration of the cell following injury or death. { ˌȯd·əl'id·ik 'en,zīm }

Autolytinae [INV ZOO] A subfamily of errantian polychaetes in the family Syllidae. { ˌȯd·ə'lid·ə·nē }

automanual system [CIV ENG] A railroad signal system in which signals are set manually but are activated automatically to return to the danger position by a passing train. { ˌȯd·ō'man·yə·wəl 'sis·təm }

automata theory [MATH] A theory concerned with models used to simulate objects and processes such as computers, digital circuits, nervous systems, cellular growth and reproduction. { ȯ'täm·əd·ə 'thē·ə·rē }

automated guided vehicle [IND ENG] In a flexible manufacturing system, a driverless computer-controlled vehicle equipped with guidance and collision-avoidance systems and used to transport workpieces and tools between work stations. Abbreviated AGV. { ˌȯd·ə,mād·əd ˌgīd·əd 'vē·ə·kəl }

automated guided vehicle system [CONT SYS] A computer-controlled system that uses pallets and other interface equipment to transport workpieces to numerically controlled machine tools and other equipment in a flexible manufacturing system, moving in a predetermined pattern to ensure automatic, accurate, and rapid work-machine contact. { 'ȯd·ə,mād·əd ˌgīd·əd 'vē·ə·kəl ˌsis·təm }

automated identification system [COMPUT SCI] In a data processing system, the use of a technology such as bar coding, image recognition, or voice recognition instead of keyboarding for data entry. { ˌȯd·ə,mād·əd ī,den·tə·fə'ka·shən ˌsis·təm }

automated radar plotting aid [NAV] A marine computer-based anticollision system that automatically processes time coordinates of radar echo signals into space coordinates in digital form, determines consecutive coordinates and motion parameters of targets, calculates the predicted closest point of approach and time to closest point of approach and presents them in graphic or alphanumeric form on the radar display, and switches on alarms if there is a danger of collision. { 'ȯd·ə,mād·əd ˌrā,där 'plād·iŋ ˌād }

automated radar terminal system [NAV] A system for carrying out air-traffic control in the vicinity of airports which uses both airport surveillance radar and the air-traffic radar beacon system; radar video, representing aircraft targets, is presented on the air-traffic controllers' displays, and the automation system automatically tracks controlled aircraft and presents alphanumeric information adjacent to their targets. Abbreviated ARTS. { 'ȯd·ə,mād·əd 'rā,där 'tərm·ən·əl ˌsis·təm }

automated tape library [COMPUT SCI] A computer storage system consisting of several thousand magnetic tapes and equipment under computer control which automatically brings the tapes from storage, mounts them on tape drives, dismounts the tapes when the job is completed, and returns them to storage. { 'ȯd·ə,mād·əd 'tāp ˌlī,brer·ē }

automatic [ENG] Having a self-acting mechanism that performs a required act at a predetermined time or in response to certain conditions. [ORD] *See* automatic weapon. { ˌȯd·ə'mad·ik }

automatic abstracting [COMPUT SCI] Techniques whereby, on the basis of statistical properties, a subset of the sentences in a document is selected as representative of the general content of that document. { ˌȯd·ə'mad·ik 'ab,strak·tiŋ }

automatic alarm receiver [ELECTR] A complete receiving, selecting, and warning device capable of being actuated automatically by intercepted radio-frequency waves forming the international automatic alarm signal. Also known as automatic alarm. { ˌȯd·ə'mad·ik ə'lärm ri,sē·vər }

automatic-alarm-signal keying device [COMMUN] A device capable of automatically keying the radiotelegraph transmitter on board a vessel to transmit the international automatic alarm signal, or to respond to receipt of an internationally agreed-upon distress signal and wake up the radio operator on ships not having a 24-hour radio watch. { ˌȯd·ə'mad·ik ə'lärm ˌsig·nəl 'kē·iŋ di,vīs }

automatic back bias [ELECTR] Radar technique which consists of one or more automatic gain control loops to prevent overloading of a receiver by large signals, whether jamming or actual radar echoes. { ˌȯd·ə'mad·ik 'bak ˌbī·əs }

automatic background control *See* automatic brightness control. { ˌȯd·ə'mad·ik 'bak,graund kən,trōl }

automatic balance [ENG] A balance capable of performing weighing procedures without the intervention of an operator. { ˌȯd·ə'mad·ik 'ba·ləns }

automatic bass compensation [ELECTR] A circuit related to the volume control in some radio receivers and audio amplifiers to make bass notes sound properly balanced, in the audio spectrum, at low volume-control settings. { ˌȯd·ə'mad·ik 'bās kām·pən'sā·shən }

automatic batcher [MECH ENG] A batcher for concrete which is actuated by a single starter switch, opens automatically at the start of the weighing operations of each material, and closes automatically when the designated weight of each material has been reached. { ˌȯd·ə'mad·ik 'bach·ər }

automatic bias [ELECTR] A method of obtaining the correct bias for a vacuum tube or transistor through use of a resistor, usually in the cathode or emitter circuit. { ˌȯd·ə'mad·ik 'bī·əs }

automatic brazing [MET] Brazing by the use of either portable or stationary equipment which does not require constant supervision by the operator. { ˌȯd·ə'mad·ik 'brāz·iŋ }

automatic breech mechanism [ORD] A device that utilizes the energy of recoil, or the pressure of the powder gases, to open the breech, withdraw the fired cartridge case, insert a new cartridge, and close the breech. { ˌȯd·ə'mad·ik 'brēch ˌmek·ə'niz·əm }

automatic brightness control [ELECTR] A circuit used in television receiver to keep the average brightness of the reproduced image essentially constant. Abbreviated ABC. Also known as automatic background control. { ˌȯd·ə'mad·ik 'brīt·nəs kən,trōl }

automatic calibration [ENG] A process in which an electronic device automatically performs the recalibration of a measuring range of a weighing instrument, for example an electronic balance. { ˌȯd·ə'mad·ik ˌkal·ə'brā·shən }

automatic calling unit [COMPUT SCI] A device that enables a business machine or computer to automatically dial calls on a communications network. { ˌȯd·ə'mad·ik 'kól·iŋ ˌyü·nət }

automatic call origination *See* autocall. { ˌȯd·ə'mad·ik ə,rij·ə'nā·shən }

automatic carriage [COMPUT SCI] Any mechanism designed to feed continuous paper or plastic forms through a printing, writing device, often using sprockets to engage holes in the paper. { ˌȯd·ə'mad·ik 'kar·ij }

automatic casing hanger [PETRO ENG] Unitized hanger-s

AUTOLYTINAE

Procerastea of the Syllidae (Autolytinae); dorsal view.

[NAV ARCH] Any ship or boat which operates at relatively lower speeds than planes, which plane on the surface of the ... { dis'plās·mənt ,bōt }

matography [ANALY CHEM] Variation ...ent or elution chromatography in which the ...re strongly than the sample components; ...grates down the column, pushed by the ...ment ,krō·mə'tag·rə·fē }

...ion [NUCLEO] The collision of an ener... atom in a solid resulting in the atom being ...from its original site. { dis'plās·mənt ...

...pressor [MECH ENG] A type of compres... displacement of a volume of air by a piston ... { dis'plās·mənt kəm,pres·ər }

...nt [ELECTROMAG] The rate of change of ...ment vector, which must be added to the ...tead Ampère's law to the case of time... ...e-kilogram-second units). Also known as ...ent current. { dis'plās·mənt ,kə·rənt }

...e [NAV ARCH] A graph of the displace... ...us its draft; it is a curve of form. { dis'plās·...

...ency [PETRO ENG] In a gas condensate ...tion (by volume) of wet hydrocarbons swept ...dry-gas cycling. { dis'plās·mənt ə'fish·ən·...

...e See piston engine. { dis'plās·mənt ,en·...

... [MATER] A fluid material, usually drilling ...id is pumped into a well after the cement to ...out of the casing and into the annulus. ...d }

...scope [ENG] A gyroscope that senses, ...mits angular displacement data. { dis'plās·...

...el [NUCLEO] In nuclear reactor theory, a ...ations that depends only on the distance ...ed, such as the diffusion kernel or slowing-... dis'plās·mənt ,kər·nəl }

... See radioactive displacement law; Wien's ... { dis'plās·mənt ,lō }

...n coefficient [NAV ARCH] The displace... ...water) of a ship divided by the length over ...plās·mənt ,leŋkth ,kō·i'fish·ənt }

... [MOL BIO] In circular deoxyribonucleic ...d region in which ribonucleic acid is paired ...DNA, effectively displacing the other DNA ...n as D-loop. { dis'plās·mənt ,lüp }

...nometer [ENG] A differential manometer ...pressure difference across a solid or liquid ...n be displaced against a restoring force. ...nam·əd·ər }

...ter [ENG] A water meter that measures ...tively by recording the number of times a ...acity is filled and emptied. { dis'plās·mənt ...

...erator [MATH] A difference operator, de... by the equation $Ef(x) = f(x + h)$, where h is ...the difference between successive points of ...ifflation. Also known as forward shift op... ...mənt ,ōp·ə,rād·ər }

...p [MECH ENG] A pump that develops its ...alternate filling and emptying of an enclosed ...tion-cylinder construction. { dis'plās·mənt ...

... [PETRO ENG] In oil well cementing, the ...given volume of cement slurry or mud is ...borehole. { dis'plās·mənt ,rāt }

...ies [CHEM] The elements in decreasing ...ative potentials. Also known as constant ...ive series; Volta series. { dis'plās·mənt ,sir...

... [NUCLEO] A region in a solid in which ...manently moved from their original loca... ...sult of energetic particle bombardment. ...t }

...ter [ENG] Apparatus to detect liquid level or gas density by measuring the effect of the fluid (gas or liquid) on the buoyancy of a displacer unit immersed within the fluid. { di'splās·ər ,tīp ,mēd·ər }

display [ELECTR] 1. A visible representation of information, in words, numbers, or drawings, as on the cathode-ray tube screen of a radar set, navigation system, or computer console. 2. The device on which the information is projected. Also known as display device. 3. The image of the information. { di'splā }

display adapter See video display board. { di'splā ə,dap·tər }

display console [COMPUT SCI] A cathode-ray tube or other display unit on which data being processed or stored in a computer can be presented in graphical or character form; sometimes equipped with a light pen with which the user can alter the information displayed. { di'splā ,kän,sōl }

display control [COMPUT SCI] A unit in a computer system consisting of channels and associated control circuitry that connect a number of visual display units with a central processor. { di'splā kən,trōl }

display cycle [COMPUT SCI] In computer graphics, the sequence of operations carried out to display an image. { di,splā ,sī·kəl }

display device See display. { di'splā di,vīs }

display element [COMPUT SCI] In computer graphics, a basic component of a display, such as a circle, line, or dot. { di'splā ,el·ə·mənt }

display entity [COMPUT SCI] In computer graphics, a group of display elements that can be manipulated as a unit. { di'splā ,en·təd·ē }

display frame [COMPUT SCI] In computer graphics, one of a sequence of frames making up a computer-generated animation. { di'splā ,frām }

display information processor [COMPUT SCI] Computer used to generate situation displays in a combat operations center. { di'splā in·fər'mā·shən ,präs,es·ər }

display list [COMPUT SCI] In computer graphics, a set of vectors that form an image stored in vectors graphics format. { di'splā ,list }

display loss See visibility factor. { di'splā ,lòs }

display packing [COMPUT SCI] An efficient means of transmitting the x and y coordinates of a point packed in a single word to halve the time required to freshen the spot on a cathode-ray tube display. { di'splā ,pak·iŋ }

display primary [COMMUN] One of the primary colors produced in a television receiver that, when mixed in proper proportions, serve to produce the other desired colors. Also known as receiver primary. { di'splā 'prī,mer·ē }

display processor [COMPUT SCI] A section of a computer, or a minicomputer which handles the routines required to display an output on a cathode-ray tube. { di'splā ,präs,es·ər }

display screen See video monitor. { di'splā ,skrēn }

display storage tube See direct-view storage tube. { di'splā 'stór·ij ,tüb }

display system [COMPUT SCI] The total system, combining hardware and software, needed to achieve a visible representation of information in a data-processing system. { di'splā ,sis·təm }

display terminal [COMPUT SCI] A computer output device in which characters, and sometimes graphic information, appear on the screen of a cathode-ray tube. Also known as display unit; video display terminal (VDT). { di'splā ,tər·mən·əl }

display tube [ELECTR] A cathode-ray tube used to provide a visual display. Also known as visual display unit. { di'splā ,tüb }

display type [GRAPHICS] In composition, type which is larger in size than the regular text type. { di'splā ,tīp }

display unit See display terminal. { di'splā ,yü·nət }

display window [COMMUN] Width of the portion of the frequency spectrum presented on panoramic presentation; expressed in frequency units, usually megahertz. { di'splā ,win,dō }

disposable [ENG] Within a manufacturing system, designed to be discarded after use and replaced by an identical item, such as a filter element. { də'spō·zə·bəl }

disposal area [NAV] On U.S. Coast and Geodetic Survey charts, an area established or approved by the Corps of Engineers for depositing dredged material where existing depths indicate that the intent is not to cause sufficient shoaling to create

Exhibit V

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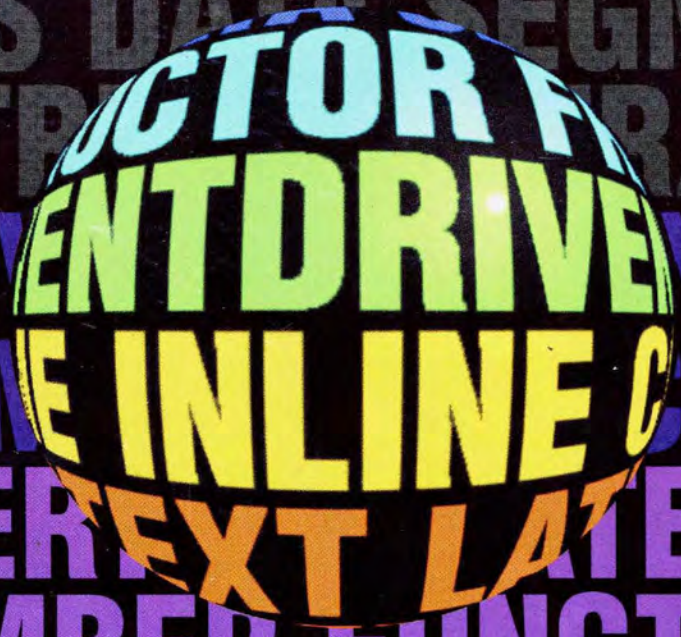

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display adapter

A circuit board providing the video signal required to display or generate text and graphics on a screen. Other names for display adapter include graphics adapter, graphics card, video adapter, video card, video board, and video controller.

This device typically contains additional memory that is reserved for video use. A program can access the memory and associated video circuitry either directly or through a device driver program. Data stored in video memory is converted into signals that appear on the screen. Display adapters produce two kinds of output, depending on the type of system: digital output, such as monochrome, CGA, and EGA, and analog output, such as VGA, Super VGA, and XGA.

See also *EGA* and *VGA.*

distributed database

A database regarded conceptually as a single collection of data, but physically stored in multiple locations under the local control of different computers. Those local computers are often connected in a network, so that any user can access any record regardless of where it is stored.

See also *client-server architecture* and *distributed processing.*

distributed processing

Implementation of a single application system on multiple computer configurations in different locations, often under different operating platforms and usually connected in a network.

The goals of distributed processing are to optimize the cost, responsiveness, availability, and reliability of application systems that have users at workstations at multiple sites. In a successful implementation, a system appears to the user as a unified whole, and the user is unaware of the coordination and data transmissions taking place behind the scenes.

See also *client-server architecture* and *distributed database.*

parity

An extra bit appended to a byte, a word, or a record, representing the number of 1-bits modulo 2 (or the exclusive or of the bits). Parity bits are used to detect errors in data transmission, input-output (I/O) operations, or internal machine operations.

Depending on the device or transmission protocol, a convention may call either for even parity or odd parity. With odd parity, the parity bit is the complement of the 1-bit count modulo 2. For example, for a single byte, odd parity would generate a ninth bit as follows:

Byte Configuration	*Parity Bit*	*Decimal Value*
10000000	0	128
11000000	1	192
00010111	0	23
00100010	1	34

Although you can manipulate parity bits in software, most computers, modems, and input-output (I/O) devices both generate and check parity through hardware circuitry. Whenever the hardware detects a parity error, it causes an interrupt or turns on an indicator.

parse

To decompose an expression and categorize its components.

The term can apply to natural languages such as English, to programming languages, and to any other structured input data. For example, a compiler usually begins by parsing the source code.

See also *decomposition* and *syntax.*

partition table

An area of a fixed disk that defines how the disk is separated into separately addressable portions.

You can create or modify a partition table in MS-DOS with the FDISK command. You then refer to the resulting partitions as if they were separate disk drives, such as C, D, and E.

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title indicates the ~ his historical studies have taken⟩ ⟨the existence of the censorship deters men . . . from essaying new ~s in drama —A.B.Walkley⟩ ⟨it is because culture molds the specific ~ and activities of the personality —Abram Kardiner⟩; *also* **:** tenor of a saying or writing ⟨I had felt and written to him in the same general ~ —O.W.Holmes †1935⟩ **c :** a path or course esp. of thought or effort marked by a specific aim or design ⟨the introduction of printing in Italy in 1462 gave a new ~ to scholarship —R.A.Hall b. 1911⟩ ⟨ideals are not meant to be reached; they merely indicate the ~ of movement —Edward Sapir⟩ ⟨even those who do not accept the letter of his dogma are in accord with the ~ taken by his thought —W.L.Sperry⟩; *also* **:** a pointing of thought or effort on a predetermined path or course ⟨his ~ toward a life of asceticism and contemplation was already clear —W.P.Clancy⟩ ⟨there the boy began to give ~ to the instinct for arranging nature that later was translated into a delightful profession —José Gómez-Sicre⟩ ⟨a deep uncertainty about goals and obligations pervades all classes and all levels of culture. Our society has lost ~ —Walter Moberly⟩ **d :** an onward path determined through inclination or guidance pointing toward some attainment ⟨the conspiracy gained momentum and ~ —R.C.Doty⟩ ⟨slow to make up his mind what his ~ as a writer ought to be⟩ ⟨stood about idly on the street corners without purpose or ~ in their lives —Oscar Handlin⟩ **e :** determinative guiding or governing design ⟨cultivate the historical sense and a sense of ~, and read some good books on the history of law; at least, the law has ~ —Caroline Slade⟩ **7 :** the way of advancement, furtherance, or cultivation **:** AIM, PURPOSE, OBJECTIVE — used in the expression *in the direction of* ⟨gains made in the ~ of integration⟩ ⟨a significant step in the ~ of cooperation between the executive and congress in treaty making —Vera M. Dean⟩ ⟨advocate of reforms particularly in the ~ of equalizing the legal status of men and women —H.W.H.Knott⟩ **8 :** an indicated sphere or role in which something may be regarded **:** a particular respect ⟨a few pencil portraits do exist which show that he had great talent in this ~ —Herbert Read⟩ ⟨much of the literature (geographical, historical, and economic) on Czechoslovakia is biased in one ~ or another —*Geog. Jour.*⟩ **9** *archaic* **:** DIRECTORATE 1 **10 :** a calculation by reference to a horoscope of the times when events will happen **11** *in equity practice* **:** the part of a bill containing the address to the court **12 :** the lateral pointing of an artillery piece — compare ELEVATION **13 :** one of the cardinal points which among some peoples include the zenith, nadir, and center and intermediate points of the compass

²di·rec·tion \"\ *vt* **directioned, directioning** \-sh(ə)niŋ\ **directions :** to give a direction to **:** direct along a line ⟨strangely ~*ed* water —D.L.Morgan⟩

di·rec·tion·al \-shən°l, -shnəl\ *adj* **1 :** relating to direction in space: **a :** moving, aiming, or leading in some particular direction ⟨a strictly ~ flight on a great circle⟩ ⟨~ lines showing winds and ocean currents⟩ **b :** suitable or used for detecting the direction in which or from which signals are received ⟨plot position by ~ radio⟩ ⟨flying on the beam of a ~ radio range⟩ **c :** so designed that performance depends on direction or is restricted in direction **:** more effective in some directions than others ⟨a polarized ~ electromagnet controls the position and shape of the tail flame —J.K.Elderkin⟩ ⟨the use of ~ broadcasting techniques had made it possible to increase the number of radio stations —F.L.Mott⟩; *specif* **:** narrowly selective as to direction in the emission or reception of signals ⟨a highly ~ microphone picks up sounds coming from a single direction⟩ ⟨that a Geiger-Müller tube cannot be made ~ enough and still retain any measure of workable sensitivity —*Surgical Forum*⟩ **d** *of sound* **:** controlled for giving depth and realism in motion pictures by the use of several sound tracks recorded at different parts of the set or location **e :** indicating the direction in which something lies or the direction to take or about to be taken ⟨a ~ airway marker⟩ ⟨~ arrows for facilitating movement of traffic⟩ ⟨flashing ~ signals for motorcars and trucks⟩ **2 :** relating to direction (as of thought, effort, or culture): **a :** aimed or moving in the direction of one or another object, objective, or condition ⟨the picture presented is frankly chaotic; it is hard to recognize in it any unifying pattern, any ~ trends —V.G.Childe⟩ ⟨the ~ quality of cultural change⟩ **b :** constitutive of purpose or motivation **3 a :** consisting of or imposing direction or guidance ⟨the ~ role that profits play under capitalism⟩ **b :** suitable or contributory to the direction of dramatic performance ⟨good plays and even good ~ ideas frequently take on a distressingly ragged aspect in performance —H.E.Clurman⟩ **c** *of an oil-well drilling* **:** made at an angle with the vertical

directional filter *n* **:** an electric filter designed to divide the band of frequencies available for carrier currents about midway using one portion of the band for east-to-west transmission and the other portion for west-to-east transmission

directional gyro *n* **:** an air-driven free gyroscope with rotor spinning on a horizontal axis that when manually set to some one direction maintains that fixed direction despite maneuvers of its conveyor and thereby indicates any deviation from the course

di·rec·tion·al·i·ty \dȧ,rekshə'nalədē, (,)dī,-\ *n* -ES **1 :** the property of directional selectivity or precision ⟨a scintillation counter was devised in such a fashion as to give a ~ of fifteen degrees and adequate sensitivity —*Surgical Forum*⟩ **2 :** maintenance of direction ⟨among these properties is that of ~ —C.K.Kluckhohn⟩

di·rec·tion·al·ize \dȧ'reksh(ə)nə,līz, dī'-\ *vt* -ED/-ING/-S **:** to guide or govern as to direction

di·rec·tion·al·ly \-nəlē, -li\ *adv* **:** as to or with reference to direction

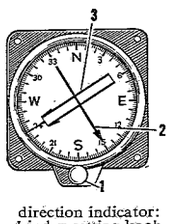
direction angle *n* **:** an angle made by a given line with an axis of reference; *specif* **:** one of the three angles made by a straight line with the three axes of a rectangular coordinate system

direction cosine *n* **:** one of the cosines of the three angles between a directed line in space and the positive directions of the axes of a rectangular Cartesian coordinate system — usu. used in pl.

direction finder *n* **:** a radio receiving device permitting determination of the direction from which received radio waves come to it, typically consisting of a coil antenna mounted on a vertical axis so that it can be rotated freely

direction finding *n* **:** the finding of the azimuth of a distant transmitter by the use of a direction finder

direction indicator *n* **:** a compass that assists an airplane pilot in flying a predetermined course by direct reading and comparison of two indicators one of which is set for the desired heading while the other shows the actual heading so that when the two indicators point alike the airplane is flying the desired course



direction indicator:
1 index setting knob,
2 pointer,
3 reference index

di·rec·tion·ize \-shə,nīz\ *vt* -ED/-ING/-S **:** to impel in a particular direction

di·rec·tion·less \-ənləs\ *adj* **1 :** having no discernible direction **2 :** having no guiding purpose

direction post *n, Brit* **:** GUIDEPOST

directions *pl of* DIRECTION, *pres 3d sing of* DIRECTION

direction test *n* **:** a psychological test measuring an individual's success in following simple or complex directions

direction word *n* **:** CATCHWORD 1a

¹di·rec·tive \dȧ'rektiv, -tēv *also* dī'- *or* -təv\ *adj* [MF & ML; MF *directif*, fr. ML *directivus*, fr. L *directus* (past part. of *dirigere* to direct, guide) + *-ivus* -ive — more at DRESS] **1 :** serving or qualified to lead, guide, or govern thought or action nsu. by prompting and impelling rather than by dominating ⟨the ~ power of conscience⟩ ⟨experimenting to find which is superior, the permissive or the ~ method of teaching⟩ ⟨every manager who has at least one subordinate engages in the ~ function —Harold Koontz & Cyril O'Donnell⟩ **2 :** serving to point direction ⟨the ~ power of a magnetized needle⟩ ⟨the ~ function of a compass⟩; *specif* **:** DIRECTIONAL 1c ⟨a more ~ aerial⟩ **3 :** pointing the way **:** concentrating or focusing on an objective **:** selective as to tendency or trend ⟨like the realities of the external environment they exercise a ~ influence on the development of behavior patterns —Ralph Linton⟩ **4 :** of or relating to psychotherapy or counseling in which the counselor introduces information, content, or attitudes not previously expressed by the client

²directive \"\ *n* -S **1 :** something that serves to direct, guide, and usu. impel toward an action, attainment, or goal: **a :** a pronouncement urging or banning some action or conduct **:** BIDDING ⟨leaders became too fond of passing down ~*s* to the members instead of calling for a vote⟩; *also* **:** a sharp or peremptory word of command ⟨"keep your head down!" . . . and a heavy hand on top of his head added persuasion to the ~ —Helen Nielsen⟩ **b :** an assignment, instruction, or injunction by a superior ⟨the verdict of the people in the recent election constituted a ~ —B.C.Reece⟩ **c :** an advisory instruction or set of directions ⟨progress has been hampered by inadequate coordination, lack of clear ~*s* —*Economist*⟩ ⟨dependent on the ~*s* of the guidebook and the hotel porter⟩ **d :** an ideological, traditional, cultural, or moral influence or principle **:** EXEMPLAR ⟨folk wisdom preserves many ~*s* —L.J.Davidson⟩ ⟨they were not trained in a school of science which accepts Marxism-Leninism as the supreme ~ —C.P.Fitzgerald⟩ **e :** a communication that initiates or governs action, conduct, or procedure **f :** an authoritative instrument that promulgates a program or regulation or directs or prohibits certain acts and that is issued by a high-level official body or competent official as a broad policy statement to be developed by technicians or as an explicit instruction with details; *usu* **:** such an instrument of a national regime or international body esp. of a head of a government or an administrative bureau whose decrees have the force of an executive order ⟨a relatively new administrative device called the "~" . . . was frequently used by the president and other high officials to explain, modify, or amplify an order —C.O.Johnson⟩ ⟨he issued a stream of ~*s* that in their entirety imposed a far-reaching social revolution upon Japan — Allan Taylor⟩ ⟨~*s* which actually have the force of law —H.W. Sumners⟩ **2 :** DIRECTIVE MESENTERY

directive antenna *n* **:** an antenna that radiates or receives better in some directions than in others

di·rec·tive·ly \-tēvlē, -li\ *adv* **:** so as to guide **:** with directive methods ⟨taught a psychology class ~⟩

directive mesentery *n* **:** either member of one or more pairs of mesenteries in actinians that differ from other mesenteries in the arrangement of the muscles and serve to determine the longitudinal plane of the body

di·rec·tive·ness \-tivnəs, -tēv- *also* -təv-\ *n* -ES **:** the quality of being directive; *specif* **:** the character of being determined in direction of development (as toward definitely organized structure) ⟨impressed by the apparent ~ of evolution —*Brit. Book News*⟩

di·rec·tiv·i·ty \dȧ,rektivad·ē, (,)dī,-\ *n* -ES **1 :** DIRECTIVENESS **2 :** the property of being directional or a measure of that property (as the front-to-back ratio of microphone response) **:** ORIENTATION; *specif* **:** a measure of the property in an antenna, loudspeaker, microphone, or other transducer used for sound transmission or reception by which its performance in one direction is better than that in another

direct labor *n* **1 :** labor (as machine operators) applied directly to a product in the manufacturing process so that the cost is computable, identifiable, and chargeable directly to the specific product — called also *productive labor;* compare INDIRECT LABOR **2 :** the wages paid to workers classed as direct labor

direct laying *n* **:** the laying of an artillery piece with the line of sighting directly upon the target

direct lighting *n* **:** lighting in which the greater part of the luminous flux goes directly from the fixture toward the area to be illuminated

direct loss by fire : loss traceable to fire as the proximate cause **:** loss that is caused by smoke or by water used in extinguishing a fire

¹di·rect·ly \də'rek(t)lē *or* -li *or (rapid in senses other than 6)* 'dre- *or (esp in senses other than 6)* (')dī,re-; *in sense 6 often* 'drekl- *in both the US & England and chiefly substand South* tə'rekl-\ *adv* [ME, fr. ²*direct* + *-ly*] **1 a :** without any intervening space or time **:** next in order **:** SQUARELY, EXACTLY ⟨~ opposite the city hall⟩ ⟨~ in the center of the room⟩ ⟨during the decade ~ before his birth⟩ ⟨he holds a position ~ below that of the president⟩ **b :** in a straight line **:** without deviation of course ⟨the turnpike here runs ~ east and west⟩ ⟨a dredged channel allows boats to get in and out ~⟩ **:** by the shortest way ⟨we headed ~ into the mountain country⟩ **2 a :** straight on along a definite course of action without deflection or slackening ⟨proceeds to go ~ to a children's hospital⟩ ⟨the problem being ~ attacked⟩ ⟨~ or by the most circuitous routes the fountain of happiness is what all living entities fumble and grope toward —J.C.Powys⟩ **b :** purposefully or decidedly and straight to the mark ⟨~ engaged in replacing muscle power with machine power⟩ **:** in a straightforward manner without hesitation, circumlocution, or equivocation **:** plainly and not by implication ⟨he ~ criticizes contemporary society⟩ **:** in unmistakable terms **:** UNQUALIFIEDLY ⟨deals ~ with the stated purpose of the book —Stanley Newman⟩ **c :** without divergence from the source or the original ⟨that the only valid method of painting was to paint ~ from nature and to imitate nature as closely as possible —Michael Kitson⟩ **d :** simultaneously and exactly or equally ⟨that certain types of costs are neither ~ variable with output nor entirely fixed —Harold Koontz & Cyril O'Donnell⟩ **3 :** in close relational proximity ⟨increased interest in art may be ~ traceable to present easy and lucrative employment⟩ ⟨new evidence bearing ~ on the question of guilt⟩ ⟨~ concerned in the founding of the university⟩ **4 a :** without any intervening agency or instrumentality or determining influence **:** without any intermediate step ⟨writes ~ in Spanish⟩ ⟨paints ~ on canvas⟩ ⟨take part in the government either ~ or through freely chosen representatives⟩ **b :** in the exact words of the original **:** VERBATIM ⟨permitted to take notes but enjoined not to quote anything ~⟩ **5 a :** in independent action without any sharing of authority or responsibility ⟨the initial steps in the process of demilitarization and democratization were handled ~ by the American occupying forces —C.E.Black & E.C.Helmreich⟩ **b :** FACE-TO-FACE **:** in person ⟨dealing ~ with the strikers⟩ **6 a :** without a moment's delay **:** at once **:** IMMEDIATELY ⟨get a doctor ~⟩ **b :** after a little **:** in a little while **:** SHORTLY, PRESENTLY ⟨we'll discuss that ~; first we must act on this motion⟩

²directly *\like sense 6 of* ¹DIRECTLY\ *conj, chiefly Brit* **:** immediately after **:** as soon as ⟨apparently written ~ their agreement was made —K.J.Fielding⟩ ⟨~ we enter it we breast some new wave of emotion —Virginia Woolf⟩

direct mail *n* **:** printed matter prepared to solicit trade or contributions and sent directly through the mails to individuals (as letters, cards, circulars, catalogs, house periodicals)

direct material *n* **:** material used in manufacturing processes which becomes an integral part of the product and the cost of which is identifiable and chargeable directly to it — compare INDIRECT MATERIAL

direct method *n* **:** a teaching method that seeks to dispense with theoretical discussion and historical considerations in favor of concrete observation and practical experience; *specif* **:** a method of teaching a language through conversation, discussion, and reading in the language itself without translation and without the study of formal grammar

di·rect·ness *n* -ES **1 a :** the character of being true in course toward a target or goal ⟨rivaling a hawk in ~ of aim⟩ ⟨stared at her youngest niece with concentrated ~ —J.C.Snaith⟩ **b :** strict pertinence or distinct forthrightness **:** straightforwardness often with a degree of abruptness or brusqueness ⟨his sledgehammer ~ had often served him better than nice legal knowledge —Thomas Hardy⟩ **2 :** closeness to actual experience and consequent vividness or incisiveness ⟨described Ireland's troubles with a searing ~ that has rarely been equalled —*Time*⟩ **3 :** open frankness and naturalness **:** freedom from barriers of pretense and pretension and from adornment and prettiness ⟨created an atmosphere of ~ between herself and all men and women —Eden Phillpotts⟩ ⟨what people take for rudeness is really ~ —Ian Bevan⟩

di·rec·toire \dȧ,rek'twär, dē,r-, ¦dē,r-\ *adj, usu cap* [fr. *Directoire*, the body of five men that held executive power in France from 1795–1799, fr. *directoire* directory (book — influenced in meaning by *directeur* director), fr. MF, fr. ML *directorium* — more at DIRECTORY] **:** of, relating to, or imitative of the kind or style prevalent in France during the French Revolution: as **a** *of women's clothes* **:** imitative of classic dress and marked by a picturesque hat with a flaring brim and a décolleté gown usu. with short sleeves and a skirt hanging straight down like a tube from a waistline just under the bust **b** *of furniture* **:** transitional between the Louis Seize style and the Empire style and not sharply distinguishable from the latter

di·rec·tor \dȧ'rektə(r) *also* (')dī,r-, *rapid* 'dre-\ *n* -S [LL, fr. L *directus* (past part. of *dirigere* to direct) + *-or* — more at DRESS] **1 :** one that directs: as **a :** the head or chief of an organized occupational group (as a bureau, foundation, institute, school) ⟨the ~ of the budget⟩ ⟨orientation of new school ~*s* is the responsibility of the county superintendent⟩ ⟨thousands of ~*s* of religious education now at work —J.O. Nelson⟩ ⟨a department of public relations headed by a ~ — R.F.Harlow & M.M.Black⟩ **b :** one of a group of persons entrusted by the shareholders of a corporation with the final overall control and direction of the corporate enterprise ⟨final authority in a corporation of this sort lies with a board of ~*s* —P.M.Sweezy⟩ **c :** one that supervises the production of a show (as for stage, screen, or radio transmission) with responsibility for action, lighting, music, rehearsals and generally for giving substance to the conception of the author — compare PRODUCER 4a **d :** CONDUCTOR 6 **e :** a college teacher that directs students individually in the choice of a program and in special projects (as research for a thesis or practice teaching) — compare ADVISER **f :** the head judge in a fencing match **2** [trans. of F *directeur*, fr. MF *directeur* director, fr. LL *director*] **:** a member of the French Directory of 1795–99 **3 :** an instrument grooved to guide and limit the motion of a surgical knife **4 :** a computing machine for controlling gunfire that automatically and continuously predicts the future position of the target and computes the ballistically correct firing data **5** *Brit* **:** a device to hold in position an unattended fire hose emitting a jet of water

di·rec·tor·al \-t(ə)rəl\ *adj* **:** DIRECTORIAL

di·rec·tor·ate \dȧ'rekt(ə)rət *also* dī'-, *rapid* 'dre-, *usu* -ədˌ+V\ *n* -S [F *directorat*, fr. LL *director* + F *-at* -ate] **1 :** the office or occupancy of the office of director (as of an agency) ⟨served during the ~ of his predecessor⟩ **2 :** ²DIRECTORY 2a ⟨a perpetuating ~ which subordinates the making of laws and the processes of the courts to the orders of the executive —F.D. Roosevelt⟩ **3 a :** a board of directors of a corporation ⟨two subsidiary funds, each with its own ~ and administrative staff —Craig Thompson⟩ **b :** membership on a board of directors ⟨was required to resign his ~*s* before accepting the appointment⟩ **4 :** an executive staff in charge of a program, bureau, department, or major subdivision ⟨astronautics ~⟩ ⟨four main ~*s* deal with the various aspects of local government —Brian Chapman⟩ ⟨a 4-man aircraft ~ created to speed up production⟩

director general *n, pl* **directors general** *also* **director generals :** a chief executive or administrator placed in overall charge of a bureau, department, or agency esp. in a national government or organization with international orientation

di·rec·to·ri·al \dȧ,rek'tōrēəl, ¦dī,r-, -tȯr-\ *adj* [LL *directorius* + E *-al* — more at DIRECTORY] **1 :** serving to direct **:** DIRECTIVE, DIRECTORY ⟨reading ~ books in preparation for citizenship⟩ ⟨how far the council shall go in exercising these ~ powers —J.E.Pate⟩ **2 a :** belonging to or having the function or qualities of a director ⟨his earlier ~ assignments⟩ ⟨employed in a ~ position at a large automobile plant —Paul Moor⟩ **b :** adapted to or connected with the direction or directorship of dramatic or theatrical production ⟨a new ~ genius⟩ ⟨richly fulfilling his high ~ promise⟩ **:** characteristic of a skilled director ⟨an ambitious melodrama bristling with fine ~ touches — *Time*⟩ **3** [F, fr. LL *directorius* (influenced in meaning by F *Directoire*, 18th cent. executive body) + F *-al* — more at DIRECTOIRE] **:** belonging to a directory or body of directors **:** done, constituted, or administered by a directory ⟨during the period France was under ~ government⟩

di·rec·to·ri·al·ly \-ēəlē, -li\ *adv* **:** in a directorial function or manner

di·rec·to·ri·um \dȧ,rek'tōrēəm, (,)dī,-, -tȯr-\ *n, pl* **directo·ria** \-ēə\ [ML, directory, guidebook] **:** ORDO

di·rec·tor·ship *pronunc at* DIRECTOR + *,*ship\ *n* **1 :** the office of director **2 :** a position as a director esp. on a board of directors

¹di·rec·to·ry \dȧ'rekt(ə)rē, -ri *also* dī'-, *rapid* 'dre*ə*\ *adj* [ME, fr. LL *directorius*, fr. L *directus* (past part. of *dirigere* to direct) + *-orius* -ory — more at DRESS] **1 :** serving to direct **:** DIRECTIVE; *specif* **:** providing guidance that is advisory and authoritative but not compulsory **2** *of a law* **a :** directing what is to be done **b :** directing how a thing shall be done rather than what shall be done — opposed to *mandatory* **3** *usu cap* [trans. of F *Directoire*] **:** DIRECTOIRE

²directory \"\ *n* -ES **1** [ML *directorium* guidebook, fr. neut. of LL *directorius*] **:** a compilation, index, or treatise serving to direct or guide: **a :** a collection of directions, rules, or ordinances **b :** a book of directions for the conduct of worship; *specif, usu cap* **:** a Presbyterian book of rules for public worship used in the Church of Scotland and certain Presbyterian and Congregational churches elsewhere **c :** ORDO **d :** an alphabetical or classified list containing the names and addresses of the inhabitants or organizations of a locality or the names, location, and identifying data of persons or organizations connected with a particular profession or occupation or that are subscribers of a particular service ⟨a city ~ is usually an annual or biennial publication⟩ ⟨a ~ of manufacturers —*Eastman Kodak Monthly Abstract Bull.*⟩ ⟨an annual ~ of "who is who" among the publishers, reviewers, publications, and organizations interested in literary material —Anne J. Richter⟩ **e :** a tablet or sectional strips on the wall of the entry of a building bearing the names of occupants with indication of the floor level and room numbers of each **2** [fr. *Directory*, French executive body, trans. of F *Directoire* — more at DIRECTOIRE] **a :** a small governing body with executive power often unconstitutional and of a military character ⟨the French ~ of the First Republic⟩ ⟨to make sure that the cabinet did what it was supposed to do, they set up a ~, or shadow cabinet, behind it —Leigh White⟩ **b :** a body of directors **:** DIRECTORATE

direct package *n* **:** a package of sorted mail containing matter to be distributed from a single post office

direct positive *n* **:** a positive in photography that is made directly by exposure to light and by development without the use of a negative

direct primary *n* **:** a preliminary election at which direct nominations of candidates for office are made usu. by a plurality vote by the qualified voters under the same procedures as used in final elections

direct printing *n* **:** the process of printing textiles by passing them between a succession of rollers having different colors and different parts of the pattern

direct process *n* **:** a process that yields metal by a single working from the ore — compare INDIRECT PROCESS

direct product *n* **:** SCALAR PRODUCT

direct proportion *n* **:** a proportion of two variable quantities when the ratio of the two quantities is constant

direct pyramidal tract *n* **:** a tract of descending fibers in the upper half of the spinal cord that is traceable from the cerebral cortex of the same side and that is situated next to the anterior median fissure

direct reduction *n* **:** a reduction of a syllogistic argument to the first figure by converting or obverting one or more of its propositions or by converting or obverting and interchanging the premises — contrasted with *indirect reduction*

direct rein *n* **:** the use of a rein in such a way as to place tension on the bit and move a horse's head toward the direction in which it is required to move — compare INDIRECT REIN

di·rec·tress \dȧ'rektrəs, dī'-\ *n* -ES [*director* + *-ess*] **:** a female director ⟨the social ~ said hopefully, "You're a bridge player" —Walter Hackett⟩

di·rec·trice \dȧ¦rek¦trēs\ *n* -S [F, fr. ML *directric-, directrix*] **:** DIRECTRESS ⟨had been the ~ of wardrobe of a ballet company⟩ ⟨could let its managing ~ draw a lavish stipend — Leslie Charteris⟩

separate different colors of light by refraction as measnred by the difference in refractivity for two specified widely differing wavelengths divided by the refractivity at some specified intermediate wavelength

dis·per·soid \|ˌsȯid\ *n* -s [*²disperse* + *-oid*] **1 :** matter in a form produced by dispersion : DISPERSE SYSTEM : COLLOID 1b **2 :** DISPERSED PHASE

dis·personify \dis|ə\ *vt* [*¹dis-* + *personify*] **:** to consider or call impersonal

dis·petal \dəs, (ˌ)dis+\ *vt* [*¹dis-* + *petal* (n.)] **:** to remove petals from : deprive of petals

dis·pharynx \dəs+\ *n, cap* [NL, fr. *¹dis-* + *pharynx*] **:** a genus of spiruroid nematodes including destructive parasites of the proventriculus and gizzard of gallinaceous birds and usu. having intermediate stages in sow bugs

di·sphenoid \(ˌ)dī+\ *n* [*di-* + *sphenoid*] **1 :** a wedge-shaped crystal form of the tetragonal or orthorhombic system having four like triangular faces that correspond in position to alternate faces of the tetragonal or orthorhombic dipyramid and being symmetrical about each of three mutually perpendicular diad axes of symmetry in all classes except the tetragonal-disphenoidal in which the form is generated by an inverse tetrad axis of symmetry **2 :** a form of crystal bounded by eight scalene triangles arranged in pairs : the tetragonal scalenohedron — **di·sphenoidal** \(ˌ)dī+\ *adj*

dis·phol·i·dus \dəsfäləd͟əs\ *n, cap* [NL, fr. *¹dis-* + *-pholidus* (fr. Gk *pholid-, pholis* scale of a reptile) — more at PHOLID-] **:** a genus of boigid snakes that includes the boomslang

di·spireme *also* **di·spirem** \(ˌ)dī+\ *n* [*di-* + *spireme*] **:** a supposed late phase in mitotic division characterized by association of each set of daughter chromosomes into a spireme and now usu. considered an observational artifact

di·spirit \də, (ˌ)di+\ *also* **dis·spirit** \də, (ˌ)di(s)+\ *vt* [*¹dis-* + *spirit* (n.)] **1** *obs* **:** to take away the vigor or force from **2 :** to deprive of cheerful or sanguine spirits : DEPRESS, DISCOURAGE ⟨*-ed* by their futile efforts —C.H.Grandgent⟩ ⟨a sparsely settled community laid out on *-ing* flat lands —*Amer. Guide Series: N.Y. City*⟩ **syn** see DISCOURAGE

dispirited *adj* **1 :** marked by gloom of spirit, by a sense of personal defeat, or by a pessimistic outlook : DISCOURAGED, DEPRESSED, DOWNCAST ⟨had never seen a more ~ man than he when he lost the election⟩ **2 a :** lacking independent vigor or forcefulness : flaccid in moral quality ⟨the weakness doesn't lie in the pessimism of the younger writers so much as it lies in their rather ~ correctness and conformity —Malcolm Cowley⟩ **b :** lacking an essential spirit : FLAT : LIFELESS ⟨the black gummy ~ air —R.P.Warren⟩ **syn** see DOWNCAST

di·spir·it·ed·ly *adv* **:** in a dispirited manner ⟨working ~ at a job he would never finish⟩

di·spir·it·ed·ness *n* **:** the quality or state of being dispirited : DEJECTION, DEPRESSION

dispiriting *adj* **:** acting to dispirit : DISCOURAGING, DISHEARTENING, CHEERLESS ⟨one person whose struggle for existence was more hopeless and ~ than his —Erskine Caldwell⟩ ⟨no ~ rows of tenements are to be seen —Ellery Sedgwick⟩ **syn** see DISMAL

di·spir·it·ing·ly *adv* **:** in a dispiriting manner

di·spir·it·ment \-mənt\ *n* -s **:** the state of being dispirited or disheartened : DISCOURAGEMENT

dis·pit·e·ous \dəˈspid-ēəs, (ˌ)dīˈs-\ *adj* [alter. of *despiteous*] *archaic* **:** CRUEL, SPITEFUL, PITILESS — **dis·pit·e·ous·ly** *adv*

dis·place \dəs, (ˌ)dis+\ *vt* [prob. fr. MF *desplacer*, fr. *des-* *¹dis-* + *place* — more at PLACE] **1 a :** to remove from the usual or proper place **:** put out of place; *specif* **:** to expel or force to flee from home or homeland ⟨the war has *displaced* thousands of people⟩ **b :** to remove from an office or position of dignity : DISCHARGE, DEPOSE **c** *obs* **:** to drive away : BANISH **d :** to shift or redirect from a previous or usual objective or form of outlet ⟨in every society there are hatreds and frustrations which the movement of events ~*s* on chosen victims —Max Lerner⟩ **2 :** to crowd out **:** take the place of esp. by force **:** move from place by occupying the space : SUPPLANT ⟨the Bishop's Bible that immediately *displaced* the Great Bible as the ecclesiastical version in use in the churches —I.M.Price⟩ ⟨today, when barns have been *displaced* by garages —*Amer. Guide Series: Minn.*⟩; *specif* **:** to set free from chemical combination by taking the place of ⟨zinc ~*s* the hydrogen of dilute acids⟩ **3 :** to put (an object) in place of another **:** substitute (one thing) for another ⟨an effort . . . to ~ the American shoe with the English boot —*Encyc. Americana*⟩ **4 :** to subject to percolation **syn** see REPLACE

dis·place·able \-əbəl\ *adj* **:** that can be displaced

dis·placed person *n* **:** a person expelled, deported, or impelled to flee from his country of nationality or habitual residence by the forces or consequences of war or oppression — abbr. *DP*

displaced speech *n* **:** the use of a word to refer to something that is not present

dis·place·ment \-mənt\ *n* **1 a :** the act or process of displacing or the state of being displaced ⟨sideward ~ of the foundation of a house by earth pressure⟩ ⟨the final ~ of an ancient and unjust law⟩ ⟨the uneven ~ of population and consequent disorganization of tribal village life —Tom Marvel⟩ : DEPOSITION ⟨the ultimate ~ of the autocratic ruler⟩ : DISLOCATION ⟨the ~ of a knee joint⟩ **b :** PERCOLATION 1d **2 :** the quantity in which or the degree to which something is displaced: as **a :** the volnme or weight of a fluid (as water) displaced by a floating body (as a ship) of equal weight **b :** the difference between the initial position of a geologic body and its later position along a geologic fault **c :** the distance from a neutral or equilibrium point to any specified point of a path in vibratory motion **d :** PISTON DISPLACEMENT **3 a :** the electric intensity in a dielectric medium under electric influence multiplied by the dielectric constant of the medium **b :** the product of this multiplication divided by 4π **4 :** a vector drawn from an initial position of a material particle to any subsequent position **5 a :** redirection of an emotion or impulse from its original object (as an idea or person) to something that is more acceptable **b :** SUBLIMATION 1b

displacement angle *n* **:** angular phase change in the terminal voltage of an alternator when the orig. open external circuit is closed upon a load

displacement current *n* **:** a limited shifting of electric components that occurs within a dielectric when a voltage is applied to or removed from it (as in charging or discharging a capacitor) and that corresponds to the current in the circuit supplying the voltage

displacement law *n* **:** any of three statements in physics or chemistry: (1) WIEN'S DISPLACEMENT LAW or (2) the emission of an alpha particle by an atom rednces the atomic nnmber by two while the emission of a beta particle increases it by one or (3) ionization of an element causes both its spectrum and its chemical properties to resemble those of the element whose atomic number is less by one, two, or more according as the ionization is single, double, or higher

displacement pump *n* **:** a pnmp (as an air lift or pulsometer) that raises or transfers a fluid by direct displacement with no transformation of the kinetic energy due to the fluid's motion into potential energy due to pressure

displacement theory *n* **:** WEGENER HYPOTHESIS

dis·pla·cen·cy \dəˈsplās͟ənsē\ *n* -ES [ML *displacentia*, alter. of L *displicentia*, fr. *displicent-, displicens* (pres. part. of *displicēre* to displease) + *-ia* -y — more at DISPLEASE] *archaic* **:** DISLIKE, DISSATISFACTION, DISPLEASURE

dis·placer \dəˈsplāsə(r), (ˌ)dīˈs-\ *n* **:** one that displaces; *specif* **:** PERCOLATOR b

dis·pla·cive \dəˈsplāsiv, (ˌ)dīˈs-\ *adj, of a crystal* **:** affected by, resulting from, or characterized by displacement

displant *vt* [MF *desplanter*, fr. *des-* *¹dis-* + *planter* to plant, fr. LL *plantare*] **1** *obs* **:** to take (a plant) out of the ground **2** *obs* **a :** to deprive (as a town or settlement) of inhabitants **:** destroy the essential character of (as a town or settlement) **b :** to remove from a place (as of habitation or a colony or a settlement) **:** root out **:** DISPLACE; *also* **:** SUPPLANT

¹dis·play \dəˈsplā *sometimes* ˈdi,s-\ *vb* -ED/-ING/-S [ME *displayen*, fr. AF *despleier*, fr. L *displicare* to scatter, fr. *dis-* *¹dis-* + *plicare* to fold — more at PLY] *vt* **1** *obs* **a :** to spread or stretch out or wide : UNFOLD **b :** DEPLOY 1 **2 a :** to spread before the view **:** exhibit to the sight or mind **:** give evidence of : SHOW, MANIFEST, DISCLOSE ⟨*-ed* the flag for all to see⟩ ⟨~ a map on the table⟩ ⟨~ one's appreciation⟩ ⟨~ criminal tendencies⟩; *specif* **:** to put on exhibition ⟨these reproductions have been *-ed* throughout Canada —*Report: (Canadian) Royal Commission on Nat'l Development*⟩ ⟨two model houses were *-ed* for a week⟩ **b :** to exhibit conspicuously ⟨~ a gift for ham acting⟩ **c :** to set forth (as in representation or narrative) **:** DESCRIBE, DEPICT ⟨the canvases *-ed* shabby acrobats —*Time*⟩ **d :** to set in display in printing **3** *obs* **:** DISCOVER, DESCRY ~ *vi* **1 :** to make a display **:** act as one making a show or demonstration **2 :** to present or advertise something by means of a display **syn** see SHOW

²display \ˈ\ *n* -s *often attrib* **1** *obs* **a :** a presentation by representation or narrative **:** DESCRIPTION **2 a :** an exhibiting or showing of something **:** an unfolding or opening out to view **:** EXHIBITION, MANIFESTATION ⟨want no ~ of emotion —Henry Adams⟩; *specif* **:** the means by which radar echoes or other information is given to an operator in visual form in communications **b :** ostentatious show **:** exhibition for effect ⟨the Church of the Brethren or the Mennonite Church, neither of which countenances worldly ~ —*Amer. Guide Series: Pa.*⟩ ⟨making a disgusting ~ in front of company⟩ **c :** composition designed to catch the eye (as by the use of lines of uneven length or different type sizes or styles) and typically used in title pages, advertising brochures, and magazine covers ⟨~ composition⟩ ⟨~ typefaces⟩; *also* **:** printed matter so composed ⟨the local press gave top ~ to the murder story⟩ **d :** an often artistic conspicuous eye-catching construction or assemblage by which something (as merchandise or collector's items) is exhibited or advertised ⟨his pictures are on ~ at the art gallery⟩; *also* **:** the use of such constructions or assemblages ⟨~ is the key to self-service sales —*Printers' Ink*⟩ **3 :** a stereotypic pattern of behavior exhibited esp. by male birds in the breeding season that serves to initiate specific responses in another individual ⟨as a possible breeding partner or a potential territorial rival⟩ ⟨the males congregate on a low knoll serving as a ~ ground —J.M.Flagler⟩

syn PARADE, ARRAY, POMP: DISPLAY may suggest a spectacular spreading out in or as if in exhibition to impress by extent, detail, beauty, number, or lavishness ⟨the *display* of political partisanship on the part of the Hamilton-Jefferson faction —J.C.Fitzpatrick⟩ ⟨fine editions that make an impressive *display* in an oilman's library —Green Peyton⟩ ⟨a fine *display* of camellias in bloom —*Amer. Guide Series: La.*⟩ ⟨an imitation of the jousts of the middle ages, providing *displays* of horsemanship —*Amer. Guide Series: N.C.*⟩ PARADE may indicate ostentatious flaunting, usu. sustained, to impress, dazzle, or awe another ⟨he does not make the least *parade* of his wealth or his gentility —J.C.Snaith⟩ ⟨in the ritornello, with its *parade* of themes, one immediately recognizes the orchestral opulence and virtuosity of the incomparable Toscanini —Abram Chasins⟩ ARRAY may suggest order and brilliancy in display of or as if of marshaled ranks of soldiers ⟨we look up at this facade and see a magnificent *array* of saints, all ordered in their appropriate niches; we recognize Homer, Dante, Shakespeare and several others —Herbert Read⟩ ⟨today's motorists come in all seasons to revel in such an *array* of splendors as few other roads of the state can offer —Maynard Leahey⟩ POMP, once often used of a ceremonial process or pageant, now suggests spectacular brilliance or splendid ostentation often accomplished with vain or lofty punctiliousness ⟨a *pomp* of flaming colors —F.D.Ommanney⟩ ⟨the *pomp* of nations that pretend to be sovereign —C.W.Ferguson⟩

display advertising *n* **:** advertising not under classified headings in a newspaper or magazine; *esp* **:** advertising that utilizes various kinds of display techniques or devices (as large print, colorful makeup, or a large spread)

display artist *n* **:** one who prepares advertising displays for windows or interiors of business concerns

displayed *adj* [ME, fr. past part. of *displayen*] **:** having wings spread out — used of a heraldic representation of a bird of prey, esp. an eagle

display key *n* [*display (room)*] **:** a key generally used in hotel rooms to prevent any unwarranted entrance and that when used to operate a given lock of a master-keyed lock system prevents the lock from being opened by any other key except an emergency key

display line *n* **:** matter set in one line in nontext often ornamental type

dis·play·man \dəˈsplāmən, -ˌman\ *n, pl* **displaymen :** DISPLAY ARTIST

display pipe *n* **:** a pipe forming part of an organ case; *sometimes* **:** a dummy pipe

displays *pres 3d sing of* DISPLAY, *pl of* DISPLAY

display window *n* **:** a large window usu. in the front of a store for the display of merchandise

disple *vt* -ED/ING/-S [ME *dissplyen*, alter. of *disciplinen*] *obs* **:** DISCIPLINE

displeasant *adj* [ME *displesaunt*, fr. MF *desplaisant*, pres. part. of *desplaire, desplaisir*] **1** *obs* **:** DISPLEASING **2** *obs* **:** DISPLEASED

dis·please \dəˈsplēz, (ˌ)dīˈs-\ *vb* [ME *displesen*, fr. MF *desplais-*, stem of *desplaisir, desplaire*, fr. (assumed) VL *displacēre*, alter. of L *displicēre*, fr. *dis-* *¹dis-* + *-plicēre* (fr. *placēre* to please) — more at PLEASE] *vt* **1 :** to incur the disapproval of esp. as accompanied by annoyance, aversion, or dislike ⟨a rich man can discharge anyone in his employment who ~*s* him —G.B.Shaw⟩ ⟨the verdict *displeased* the judge⟩ **2 :** to arouse unpleasant feelings in **:** be offensive to ⟨the colors of the picture *displeased* her the most⟩ ~ *vi* **:** to give displeasure or offense ⟨it is best to avoid *displeasing* if it can be decently avoided⟩

dis·pleased·ly \-zəd(ˌ)lē, -liˈ\ *adv* **:** in a manner that shows one's displeasure

displeasing *adj* [ME *displesing*, fr. pres. part. of *displesen* to displease] **1 :** causing displeasnre ⟨~ behavior⟩ **2 :** lacking in pleasing quality or effect ⟨~ voice⟩

dis·pleas·ing·ly *adv* **:** in a displeasing manner ⟨making ~ cutting remarks about one's friends⟩

dis·pleas·ing·ness *n* **:** the quality or state of being displeasing

¹dis·pleasure \dəs, (ˌ)dis+\ *n* [ME *displesure*, alter. (influenced by *plesure, plesire* pleasure) of *displesire*, fr. MF *desplaisir*, fr. *des-* *¹dis-* + *plaisir* pleasure — more at PLEASURE] **1 :** the feeling of one that is displeased **:** DISAPPROVAL, DISLIKE, DISFAVOR, INDIGNATION ⟨not anxious to incnr further government ~ —H.C.Atyeo⟩ **2 a :** DISCOMFORT, UNEASINESS **b :** PAIN, SORROW, UNHAPPINESS ⟨pleasure and ~ are intensive quantities —Lucius Garvin⟩ **3** *archaic* **:** something that displeases ⟨a cause of irritation or annoyance : OFFENSE, INJURY

²displeasure \ˈ\ *vt, archaic* **:** DISPLEASE

dis·plenish \dəs, (ˌ)dis+\ *vt* [*dis-* + *plenish*] *Scot* **:** to divest or strip (as a house or farm) of contents and equipment : DEPLENISH

displenishing sale *n, Scot* **:** a disposal sale esp. of farm or household goods

displicence *n* -S [L *displicentia*] *obs* **:** DISPLICENCY

dis·plic·en·cy \dəˈsplisənsē, ˈdisplə-\ *n* -ES [L *displicentia* — more at DISPLEASNCY] *archaic* **:** DISSATISFACTION, AVERSION, DISCONTENT

dis·plode \dəˈsplōd\ *vb* -ED/-ING/-S [L *displodere*, fr. *dis-* apart + *-plodere* (fr. *plaudere* to clap, beat, applaud) — more at DIS-] *archaic* **:** to discharge explosively : EXPLODE — **dis·plo·sion** \-ōzhən\ *n* -S

dis·plume \dəs, (ˌ)dis+\ *vt* [*¹dis-* + *plume* (n.)] **:** DEPLUME

dis·pone \dəˈspōn\ *vt* -ED/-ING/-S [ME *disponen* to set in order, arrange, dispose, fr. L *disponere* — more at DISPOSE] *Scots law* **:** to dispose of, grant, or transfer (real or personal property) legally — **dis·pon·er** \-nər\ *n* -S

dis·pon·ee \ˌdi(ˌ)spōˈnē, dəˈs-\ *n* -S [*dispone* + *-ee*] *Scots law* **:** one to whom property is disponed

dis·pon·ible \dəˈspōnəbəl\ *adj* **:** capable of being placed, arranged, or disposed of as one wishes : AVAILABLE

dis·pope \dəs, (ˌ)dis+\ *vt* -ED/-ING/-S [*¹dis-* + *pope* (n.)] **:** to depose from the office of pope

di·sporous \(ˌ)dī+\ *adj* [*di-* + *-sporous*] **:** having two spores

¹dis·port \dəˈsport\ *n* -S [ME, fr. MF *desport*, fr. *desporter*] **1 a :** PLAY, SPORT, DIVERSION **b :** a pastime or game **2** *archaic* **:** MIRTH, AMUSEMENT, DELIGHT **syn** see ²PLAY

²disport \ˈ\ *vb* -ED/-ING/-S [ME *disporten*, fr. MF *desporter*, fr. *des-* *¹dis-* + *porter* to carry — more at PORT (to carry)] *vt* **1 :** DIVERT, AMUSE, ENTERTAIN ⟨converted one of the stables . . . into a billiard room and here the youths *-ed* themselves to their hearts' content —Thomas Wall⟩ ⟨sea lions bark and ~ themselves before a gallery of enthusiasts —*Amer. Guide Series: N.Y. City*⟩ **2 :** to make a fine display of ⟨the town *-ed* three bright shiny new hacks with rumbling wheels —W.A.White⟩ ⟨gave the . . . critics an opportunity to ~ their innocence of Christian knowledge or culture —*Time*⟩ **3 :** to conduct or behave (oneself) **:** DEPORT ⟨*-ed* himself like the high-bred virtuoso he is —*Musical Digest*⟩ ⟨equip a man to ~ himself gracefully in the domain of Americau speech —*Saturday Rev.*⟩ ~ *vi* **:** to amuse or divert oneself esp. in a light, frolicsome, lively, or wanton way ⟨do you dig in the garden, ride horses, ~ at dnde ranches, or amble around the countryside? —*Better Homes & Gardens*⟩ ⟨in this den he would ~ among books, radios, tape recorders —Murray Schumach⟩ **syn** see PLAY

di·sportive \dəˈspȯrtiv\ *adj, archaic* **:** SPORTIVE

di·spo·rum \(ˌ)dīˈspōrəm, ˈdispər-\ *n* [NL, fr. *di-* + *-sporum* (fr. Gk *sporos* seed) — more at SPORE] **1** *cap* **:** a small genus of herbs of the family Liliaceae with leafy branching stems, small terminal greenish, yellow, or purplish flowers, and oval berries **2** *pl* **dispo·ra** \-rə\ *or* **disporums** \-rəmz\ **:** a plant of the genus *Disporum*

dis·pos·abil·i·ty \dəˌspōzəˈbilәd-ē, (ˌ)di,s-, -ətē, -iˈ\ *n* -ES **:** the quality or state of being disposable ⟨the ~ of paper napkins is their great recommendation⟩

dis·pos·able \dəˈspōzəbəl\ *adj* [*dispose* + *-able*] **1 :** free to be used as occasion requires **:** not assigned to any special use ⟨needs all ~ air-combat units for the Mediterranean front —*New Republic*⟩ **2 :** capable of being disposed of easily; *esp* **:** designed to be thrown away after use with only negligible loss ⟨fabrics from which are made ~ napkins, towels, and diapers —S.B.Hunt⟩ — **dis·pos·able·ness** *n* -ES

disposable income *n* **:** the personal income that is left after the deduction of personal taxes and that is available for consnmption and savings

disposable weight *n* **:** all weights on an aircraft other than the fixed weight

¹dispos·al \dəˈspōzəl\ *n* -S [*dispose* + *-al*] **1 :** the act or process of disposing: as **a :** orderly or systematic placement, distribution, or arrangement ⟨the ~ of troops along the ridge⟩ ⟨the pitching of the tent and the ~ of the gear under cover⟩ **b :** the regulation of the fate or condition of something : ADMINISTRATION, DISPENSATION **c :** the transference of something into new hands or to a new place **:** BESTOWAL ⟨the ~ of political offices by patronage⟩ ⟨worrying about the ultimate ~ of one's property⟩ **d :** a discarding or throwing away ⟨the ~ of the dirty paper napkins⟩ ⟨the ~ of all the rubbish on the desk⟩ **:** DESTRUCTION ⟨the ~ of all enemy aircraft by concentrated flak⟩; *esp* **:** the discarding or destroying of garbage or sewage or its transformation into something useful (as fertilizer) or innocuous (as by incineration) **2 :** the power or authority to dispose of or use at one's convenience **:** discretionary use, command, or control — used esp. in the phrase *at the disposal of* ⟨a plane was always at the ~ of the president⟩ ⟨Congress had at its ~ the means of alleviating the high cost of living —*Current Biog.*⟩ ⟨the shortness of the period at our ~ —D.C.Buchanan⟩ ⟨the effectiveness of the central organization depended in the last resort on the amount of money it had at its ~ —H.J.Hanham⟩

²disposal \ˈ\ *or* **disposal unit** *n* -S [garbage-*disposal (unit)*] **:** DISPOSER c

disposal field *n* **:** an area of ground under whose surface the overflow from a septic tank is distributed in drain tile to be absorbed in the soil

¹dis·pose \dəˈspōz\ *vb* -ED/-ING/-S [ME *disposen*, fr. MF *disposer*, modif. (influenced by *poser* to put, place) of L *disponere* to set in order, arrange (perfect stem *dispos-*), fr. *dis-* *¹dis-* + *ponere* to put, place — more at POSITION, POSE] *vt* **1 a :** to give a tendency to ⟨right air was thought to ~ one to sickness⟩ **:** put in a frame of mind or feeling that is favorable (as to an act or a condition) ⟨the remark *disposed* him to like the man immediately⟩ **b :** to put into a condition (as for a particular action) **:** make ready : PREPARE ⟨troops *disposed* for immediate withdrawal⟩ **2 a :** to put in place or order **:** distribute and arrange esp. for greatest effectiveness, economy, ease, or conformity to a pattern ⟨she carried an armful of books; these she *disposed* within reach —Elinor Wylie⟩ ⟨branches and leaves were *disposed*, not as combinations of color in mass, but as designs in line —Laurence Binyon⟩ ⟨the general who *disposed* his forces so as to counteract a greater force —W.E.Channing⟩ **b** *obs* **:** REGULATE, DETERMINE, ORDER, MANAGE **c** *archaic* **:** deal out **:** assign to a use **:** bestow for a purpose **:** dispose of **d** *obs* **:** to assign to a particular place or position ~ *vi* **1 :** to arrange or settle a matter finally or definitively **:** make disposition; *esp* **:** to regulate the fate or condition finally or definitively ⟨man proposes but God ~*s*⟩ **2** *obs* **:** BARGAIN **syn** see SET — **dispose of 1 a :** to place, distribute, or arrange esp. in an orderly or systematic way (as according to a pattern) ⟨the men *disposed* of the weapons in convenient quickly accessible places⟩ **b :** to apportion or allot (as to particular purposes) freely or as one sees fit ⟨she has been allowed to *dispose of* her time in the most idle and frivolous manner —Jane Austen⟩ **2 a :** to transfer into new hands or to the control of someone else (as by selling or bargaining away) **:** RELINQUISH, BESTOW ⟨*dispose of* some property to a man all too anxious to buy⟩ ⟨*dispose of* public offices to all his political friends⟩ **b (1) :** to get rid of **:** throw away **:** DISCARD ⟨*dispose of* a lot of old clothes by burning them⟩ ⟨*dispose of* the trash in several barrels⟩ **(2) :** to treat or handle (something) with the result of finishing or finishing with ⟨the article *disposed of* the matter in two paragraphs⟩ ⟨the ability of supervisors and employees to *dispose of* differences —*Annual Report Pa. Railroad*⟩ : COMPLETE, DISPATCH ⟨they had quickly *disposed of* the meal⟩ **c :** DESTROY ⟨*disposed of* three enemy planes in an afternoon⟩

²dispose *n* -S **1** *obs* **:** the disposal or the power or right of disposal **2** *obs* **:** DISPOSITION; *also* **:** DEMEANOR

dis·posed \-zd\ *adj* [ME, fr. past part. of *disponen*]' **1 :** having a particular temperament, disposition, or tendency or being of a particular frame of mind or condition of bodily health ⟨a dog that is ~ to bite⟩ ⟨a man generally ~ to love his fellow men⟩ ⟨a man well ~ in all physical qualities⟩ ⟨a young boy already criminally ~⟩ ⟨those ~ to violate or evade the decrees of the sovereign —M.R.Cohen⟩ **2** *obs* **:** MERRY, JOLLY, MIRTHFUL, HAPPY

dis·pos·ed·ly \-zəd(ˌ)lē, -liˈ\ *adv* **:** in a dignified manner ⟨a stout man moving ~ along the promenade⟩

dis·pos·er \-zə(r)\ *n* -S **:** one that disposes: as **a** *archaic* **:** MANAGER, DIRECTOR **b** *archaic* **:** DISPENSER **c :** an electrical device that forms part of a sink drain and disposes of garbage by grinding it up to be flushed through the house drainpipes

dis·pos·ing·ly *adv* **:** in a disposing manner

dis·po·si·tio \ˌdispəˈzishēˌō, -zid-ēˌō\ *n* -S [L] **:** the rhetorical and logical arrangement of the matter or the discrete elements of a discourse esp. in classical and Renaissance rhetorical systems

dis·po·si·tion \ˌdispəˈzishən\ *n* -S [ME *dispositioun*, fr. MF *disposition*, fr. L *disposition-, dispositio*, fr. *dispositus* (past part. of *disponere* to set in order, arrange) + *-ion-, -io* -ion — more at DISPOSE] **1 :** the act or the power of disposing or disposing of or the state of being disposed or disposed of: as **a :** ADMINISTRATION, CONTROL, MANAGEMENT; *often* **:** divine dispensation ⟨received the law by the ~ of angels —Acts 7:53 (AV)⟩ **b :** a placing elsewhere, a giving over to the care or possession of another, or a relinquishing ⟨saw to the ~ of all surplus goods by shipment to needy couutries⟩ ⟨the ~ of the garbage was always a problem⟩ **:** the power of so placing, giving, ridding oneself of, relinquishing, or doing with as one wishes **:** discretionary control — used esp. in the phrase *at the disposition of; specif* **:** the transfer of property from one to another (as by gift, barter, or sale or by will) or the scheme or arrangement by which such transfer is effected **c :** an ordering or arranging or a state of being ordered or arranged usn. systematically or in an orderly way and esp. of the parts of a whole **:** orderly preparation or placing **:** ARRANGEMENT ⟨the ~ of the parts of his argument made his speech forceful and tidy⟩ ⟨the ~ of the artillery was shown on the map⟩ **2 a :** the prevailing tendency, aspect, mood, or inclination of one's spirits ⟨with large blue eyes that . . . showed her thoughts and ~*s* —Hugh Walpole⟩ ⟨woke up in a nasty ~⟩ **:** the complex of attitudes, proclivities, and responses conditioning conduct **:** PROPENSITY ⟨his ~ was to make the worst of bad for-

emul·si·fi·able \ə'məlsə,fīəbəl, ē'-, ,=,=='=,=\ *or* **emul·si·ble** \='=səbəl\ *adj* : capable of being emulsified ⟨~ oils⟩
emul·si·fi·ca·tion \-səfə'kāshən\ *n* -s : the process of emulsifying
emul·si·fi·er \-'məlsə,fī(ə)r, -lə\ *n* -s **1** : an emulsifying agent : a surface-active agent (as a soap) for promoting the formation and stabilization of an emulsion **2** : a machine (as a mixer) for emulsifying — compare HOMOGENIZER
emul·si·fy \-,fī\ *vt* -ED/-ING/-ES [*emulsion* + *-ify*] : to convert (as an oil) into an emulsion — compare HOMOGENIZE
emul·sin \-'məlsən\ *n* -s [G, fr. L *emulsus* + G *-in*] : any of various enzyme preparations that are obtained usu. from plants (as almonds and mold fungi) as white amorphous powders and that contain glycosidases active on beta-glycosides (as amygdalin or cellobiose)
emul·sion \ə'məlshən, ē'-\ *n* -s [NL *emulsion-, emulsio*, fr. L *emulsus* (past part. of *emulgēre* to milk out) + *-ion-, -io* -ion — more at EMULGENT] **1 a** : a milky fluid made by rubbing almonds or other seeds with water and used as a demulcent **b** : any of various milky liquids **2 a** (1) : an intimate mixture of two incompletely miscible liquids (as oil and water) in which one of the liquids in the form of fine droplets is dispersed in the other usu. with the aid of an emulsifier : a disperse system in which both phases are liquids ⟨milk is an oil-in-water ~⟩ (2) : an intimate mixture consisting of a semisolid or solid (as a resinous or bituminous material) dispersed in a liquid ⟨an ~ of asphalt in water⟩ — compare FOAM 1, SUSPENSION 2b (3) **b** : an emulsion of a liquid or solid substance in an aqueous liquid with an emulsifier (as a gum or gelatin) used esp. to improve the palatability of a medicine ⟨~ of cod-liver oil⟩ **3** : a suspension of a finely divided sensitive silver salt (as silver bromide) or a mixture of silver halides in a viscous medium (as a gelatin solution) used for coating photographic plates, films, and paper; *also* : the resultant coating when dried
emulsion paint *n* : a paint having water usu. as the volatile phase with various nonvolatile substances (as a linseed-oil varnish) in emulsion as the binder — compare LATEX PAINT
emul·sive \-lsiv\ *adj* [*emulsion* + *-ive*] : constituting or yielding an emulsion ⟨~ insecticidal spray oils⟩
emul·soid \-,sȯid\ *n* -s [ISV *emulsion* + *-oid*] **1** : a colloidal system consisting of a liquid dispersed in a liquid — not used scientifically; compare SUSPENSOID **2** : a lyophilic sol (as a gelatin solution) — used esp. in biology — **emul·soi·dal** \ə'məl,sȯid°l, ē'-; ¦e,məl'ȯ-\ *adj*
emul·sor \ə'məlsə(r), ē'-\ *n* -s [*emulsion* + *-or*] : EMULSIFIER 2 ⟨centrifugal ~s⟩
emunc·to·ry \ə'məŋ(k)t(ə)rē, ē'-\ *n* -ES [NL *emunctorium*, fr. L *emunctus* (past part. of *emungere* to blow or wipe the nose, fr. *e-* + *-mungere*, akin to *mucus*) + *-orium* -ory — more at MUCUS] *archaic* : an organ or part of the body (as the kidneys or skin) that serves to carry off body wastes
emundation *n* -s [LL *emundation-, emundatio*, fr. L *emundatus* (past part. of *emundare* to clean out, fr. *e* + *mundare* to clean, fr. *mundus* clean) + *-ion-, -io* -ion — more at MOTHER (membrane)] *obs* : ceremonial cleansing
emus *abbr* [L *eminentissimus*] most eminent
emu wren *n* : any of several small Australian warblers (genus *Stipiturus*) that resemble wrens but have the tail feathers long and loosely barbed like emu feathers
emyd·ea \ə'midēə, ē'-\ *n pl, cap* [NL, fr. *Emyd-, Emys*] *in former classifications* : a group of turtles nearly coextensive with the family Emydidae
em·y·did \'emə,did; ə'midəd, ē'-\ *adj* [NL *Emydidae*] : of or relating to the Emydidae
emyd·i·dae \ə'midə,dē, ē'-\ *n pl, cap* [NL, fr. *Emyd-, Emys*, type genus + *-idae*] : a family of chelonians comprising most of the freshwater aquatic tortoises and terrapins and closely related to Testudinidae in which it has often been included as a subfamily
em·y·do·sau·ria \,emədō'sȯrēə\ [NL, fr. Gk *emyd-, emys* + NL *-o-* + *-sauria*] *syn of* LORICATA
1em·y·do·sau·ri·an \,=,=='=ən\ *adj* [NL *Emydosauria* + E *-an*] : of or relating to the Loricata : CROCODILIAN
2emydosaurian \"\ *n* -s : LORICATE
emys \'ēməs, 'em-\ *n, cap* [NL, fr. Gk *emys* freshwater tortoise] : a small genus of turtles (family Emydidae) including the common European pond tortoise (*E. orbicularis*) and a No. American tortoise (*E. blandingii*)
1en \'en\ *n* -s **1** : the letter *n* **2** : the set dimension of an en quad used esp. in Great Britain as a unit of measure of a typesetter's production
2en \ən, ᵊn, ēn\ *dial Eng var of* HIM
3en \'en, ān, 'ai(ə)n\ *Scot var of* END
4en \(ˌ)ä"n(n), (ˌ)ān, (ˌ)en, (ˌ)in\ *prep* [F, lit., in, fr. L *in*] : IN the form or manner of — see EN BLOC, EN BROSSE, EN CABOCHON
1en- *also* **em-** *prefix* [ME, fr. OF, fr. L *in-, im-*, fr. *in* — more at IN] **1** : put into ⟨encradle⟩ : put on to ⟨enthrone⟩ : cover or surround with ⟨enverdure⟩ : go into or on to ⟨embus⟩ — in verbs formed from nouns **2** : cause to be ⟨englad⟩ ⟨enslave⟩ — sometimes in verbs that also have the suffix *-en* ⟨embolden⟩; in verbs formed from adjectives or nouns **3** : provide with ⟨encollar⟩ ⟨empower⟩ — in verbs formed from nouns **4** : so as to cover or surround ⟨enwrap⟩ : thoroughly ⟨entangle⟩ — often in verbs differing little or not at all in meaning from the corresponding verb without prefix ⟨entame⟩; in verbs formed from verbs; in all senses usu. *em-* before *b, m*, or *p* and *en-* in other circumstances
2en- *also* **em-** *prefix* [ME, fr. L, fr. Gk, fr. *en* in — more at IN] : in : within : inside ⟨endermic⟩ ⟨engram⟩ ⟨enzootic⟩ — usu. *em-* before *b, m*, or *p* ⟨*em*batholithic⟩ and *en-* in other circumstances
3en- — see OEN-
4en- *comb form* [ISV, fr. *-ene*] : chemically unsaturated; *esp* : having one double bond ⟨enamine⟩
1-en \ən, ᵊn *sometimes* ᵊm *after* p, b, f, or v *sometimes* ᵊŋ *after* k or g\ *also* **-n** \n\ *adj suffix* [ME, fr. OE; akin to OHG *-īn* made of, ON *-inn*, Goth *-eins* made of, of or belonging to, L *-inus* (with long ī) of or belonging to, Gk *-inos* made of, of or belonging to, Skt *-īna* of or belonging to] : made of : consisting of ⟨earthen⟩ ⟨woolen⟩ — now relatively infrequent because of the widespread attributive use of nouns or of adjectives formed from nouns without the addition of a suffix (as in *gold* cup, *wheat* cake) and to be found chiefly in adjectives which are obsolete ⟨tinnen⟩ or archaic ⟨oaken⟩ or in which a sense other than the literal one has become prominent ⟨golden⟩ ⟨wooden⟩; usu. *-n* after *-er* ⟨silvern⟩
2-en \"\ *vb suffix* -ED/-ING/-S [ME *-nen*, fr. OE *-nian* (as in *fæstnian* to fasten); akin to OS *-nōn*, final segment of certain transitive infinitives (as in *fastnōn* to fasten), OHG *-inōn* (as in *festinōn* to fasten), ON *-na* (as in *fastna* to pledge, betroth)] **1 a** : cause to be ⟨sharpen⟩ — sometimes in verbs that also have the prefix *en-* ⟨embolden⟩; in transitive verbs formed from adjectives **b** : cause to have ⟨lengthen⟩ — in transitive verbs formed from nouns **2 a** : come to be ⟨steepen⟩ — in intransitive verbs formed from adjectives **b** : come to have ⟨lengthen⟩ — in intransitive verbs formed from nouns
en *abbr* enemy
en *symbol* ethylenediamine — in chemical formulas ⟨[Co(en)$_3$]-Br$_3$⟩
EN *abbr* exception noted
en·able \ə'nābəl, ē'-\ *vt* **enabled; enabled; enabling** \-b(ə)liŋ\ **enables** [ME *enablen*, fr. *1en-* + *able*, adj.] **1 a** : to render able ⟨~ a person to earn a living⟩ : give power, strength, or competency ⟨his particular theology *enabling* him to overcome some of the difficulties —S.F.Mason⟩ **b** : to make possible, practical, or easy ⟨*enabled* passage of the anti-poll-tax law —H.F. & Katharine Pringle⟩ **2 a** *archaic* : to give authority or sanction to : ENDOW **b** : to give legal capacity to **3** : to give the opportunity to : ALLOW ⟨examinations so designed that high-school graduates are *enabled* to pass⟩
en·abler \-b(ə)lə(r)\ *n* -s : one that enables
enabling *adj* [fr. pres. part. of *enable*] : giving or providing legal power or sanction esp. beyond usual bounds in order to meet the demands of an unusual or anomalous situation ⟨an ~ act⟩ ⟨an ~ resolution⟩
1en·act \ə'nakt, ē'-\ *vb* [ME *enacten*, fr. *1en-* + *acte* act, formal record — more at ACT] *vt* **1** *obs* : to enter into the public records : CHRONICLE **2** : to establish by legal and authoritative act : make into a law; *esp* : to perform the last act of legislation upon (a bill) that gives the validity of law **3** : to act out : REPRESENT, PLAY ⟨a lot of history has been *~ed* within my view —Douglas Carruthers⟩ ⟨this scene being *~ed* in the courtroom —Beatrice Griffith⟩ ~ *vi* : to act on or as if on the stage : PERFORM
2enact *n* [ME *enacte*, fr. *enacten*, v.] *obs* : ENACTMENT
enacting clause *n* [*enacting* fr. pres. part. of *1enact*] : the clause of an act that formally expresses the legislative sanction and that usu. appears after the title or preamble of the act
en·ac·tion \ə'nakshən, ē'-\ *n* [*1enact* + *-ion*] : ENACTMENT
en·act·ment \-k(t)mənt\ *n* -s **1** : the act or action of enacting : PASSING ⟨the ~ of a bill by the legislature to aid private industry⟩ **2** : something that has been enacted (as a law, bill, or statute)
en·ac·tor \-ktə(r)\ *n* : one that enacts ⟨the new laws . . . fulfilled the fondest hopes of their ~s —Oscar Handlin⟩
enacture *n* -s *obs* : ENACTMENT, RESOLUTION
en·a·lid \'enᵊlīd\ *n* -s [ISV *enal-* (fr. Gk *enalios* of the sea, fr. *en-* ²en- + *halios* of the sea, fr. *hal-, hals* sea) + *-id*; akin to Gk *hals* salt — more at SALT] : a submerged marine plant (as eelgrass)
en·al·i·or·nis \ə,nalē'ȯrnəs\ *n, cap* [NL, fr. *enali-* (fr. Gk *enalios* of the sea) + *-ornis*] : a genus comprising Cretaceous swimming birds from the Greensand formations of England and related to *Hesperornis*
en·al·i·o·saur \ə'nalēə,sȯ(ə)r\ *n* -s [NL *Enaliosauria*] : a marine reptile of the division Enaliosauria
en·al·i·o·sau·ria \ə,=,=='sȯrēə\ *n pl, cap* [NL, fr. *enalio-* (fr. Gk *enalios* of the sea) + *-sauria*] *in some classifications* : a division of extinct marine reptiles comprising the Ichthyosauria and the Plesiosauria and other forms — **en·al·i·o·sau·ri·an** \ə,=,=='sȯrēən\ *adj or n*
en·a·lite \'enᵊl,īt\ *n* -s [*Ena*, town in central Honshu, Japan + E *-lite*] : a uraniferous thorite
enam \ə'nām\ *n* -s [Hindi *in'ām* enam, gift, favor, fr. Per, gift, favor, fr. Ar] *Hindu law* : a grant of land to be held rent free or on favorable rent; *specif* : such a grant in perpetuity — compare JAGIR
enam·dar \-,där\ *n* -s [Hindi *in'āmdār*, fr. Per, fr. *in'ām* + *-dār* holder — more at BHUMIDAR] : the holder of an enam
1enam·el \ə'naməl, ē'-\ *vt* **enameled** *or* **enamelled; enameled** *or* **enamelled; enameling** *or* **enamelling** \-m(ə)liŋ\ **enamels** [ME *enamelen*, fr. MF *enameler, esmailler*, fr. *en-* ¹en- + *esmaillier, amaillier* to enamel, fr. OF *esmaillier, fr. esmail, esmal* enamel, of Gmc origin; akin to OHG *smelzan* to melt — more at SMELT] **1** : to cover or inlay with enamel **2** : to beautify or adorn with or as if with a colorful bright surface ⟨sun . . . *~ed* the whole scene —*London Calling*⟩ **3** : to form or produce a glossy surface upon (as paper, leather, or cloth) **4** : to apply enamel to (the face or nails)
2enamel \"\ *n* -S [ME, fr. *enamelen*, v.] **1** : a usu. opaque or semiopaque vitreous composition applied by fusion to the surface of metal, glass, or pottery for ornament or protection or as a basis for decoration — see CHAMPLEVÉ, CLOISONNÉ; compare GLAZE **2** : a surface, exterior, or outer covering that resembles or suggests enamel **3** : a paint that flows out to a smooth hard coat when applied, that contains a specially prepared vehicle instead of raw oil, and that usu. dries with a glossy appearance **4** : something that is enameled : enameled ware **5** : a cosmetic intended to give the appearance of a smooth and beautiful complexion or to produce a glossy appearance **6** : the intensely hard calcareous substance that forms a thin layer capping or partly covering the teeth of most mammals (as man) and many other vertebrates, being the hardest substance of the animal body and consisting of minute prisms that are secreted by ameloblasts, are arranged at right angles to the surface, and are bound together by a cement substance — see TOOTH illustration **7 a** : the coating of carbonized glue or shellac that forms the acid-resisting portion of a metal photoengraving plate **b** : the facing material of coated paper
enamel cell *n* : AMELOBLAST
enameled brick *n* [*enameled* fr. past part. of *1enamel*] : a brick having a smooth impervious easily cleaned surface secured by coating with a special wash before burning and used in bathrooms, hotel kitchens, and swimming pools
enameled leather *n* : leather having a hard varnished surface; *specif* : PATENT LEATHER
enam·el·er *or* **enam·el·ler** \-m(ə)lə(r)\ *n* -s : one that applies enamel: as **a** : one that fuses enamel into jewelry settings **b** : one that coats cast-iron sanitary units with enamel
enameling *or* **enamelling** *n* -s [ME *enamelinge*, fr. *enamelen* to enamel + *-inge* -ing] **1** : ENAMEL; *specif* : ceramic ornamentation **2 a** : the application of enamel **b** : the process or technique of applying enamel
enam·el·ist *or* **enam·el·list** \-məlȯst\ *n* -s : ENAMELER
enamel kiln *n* : a muffle kiln used by enamelers in which colors and gold applied over the glaze are fired : a decorating kiln
enamel organ *n* : an ectodermal ingrowth from the dental ridge that forms a cap with two walls separated by a reticulum of stellate cells, encloses the anterior part of the developing dental papilla and the cells of the inner enamel layer adjacent to the papilla, and differentiates into columnar ameloblasts which lay down the enamel rods of the tooth
enamel painting *n* : painting with enamel colors that are fixed with heat usu. upon a surface of fired enamel
enamel rod *n* : one of the elongated prismatic bodies making up the enamel of a tooth
enamelware \ə'=,=\ *n* : ware (as iron cooking utensils) coated with enamel for protection (as from rust or the action of acids)
en·am·or \ə'naməə(r), ē'-\ *vt* **enamored; enamored; enamoring** \-m(ə)riŋ\ **enamors** *see -or in Explan Notes* [ME *enamouren*, fr. OF *enamourer, enamorer*, fr. *en-* ¹en- + *amour, amor* love — more at AMOUR] : to inflame with love : CHARM, CAPTIVATE — usu. used in the passive with *of* ⟨tourists were *~ed* of the town⟩ and sometimes with *with* ⟨a beautiful Indian girl with whom he was *~ed* —Walter Havighurst⟩
en·am·ored·ness \-mə(r)dnəs\ *n* -ES : the state of being enamored
enan·thal·de·hyde *or* **oe·nan·thal·de·hyde** \,ēˌnanᵊthaldə,hīd\ *n* [ISV *enanth-, oenanth-* (as in *enanthic acid*) + *aldehyde*] : a puugent oily compound $CH_3(CH_2)_5CHO$ obtained by pyrolysis of castor oil and used esp. in making artificial cognac — called also *heptaldehyde, heptanal*
enan·thate *or* **oe·nan·thate** \ə'nanˌthāt, ē'-\ *n* -S [ISV *enanth-, oenanth-* + *-ate*] : a salt or ester of enanthic acid
en·an·them \ə'nan(t)thəm, eˈ-\ *or* **en·an·the·ma** \,e,nanᵊthēmə\ *n, pl* **enanthems** \-thəmz\ *or* **enanthe·ma·ta** \-ᵊthēmədə, -ᵊthem-\ [NL *enanthema*, fr. *2en-* + *-anthema*] : an eruption upon a mucous surface — **en·an·them·a·tous** \ˌ=,=ᵊthēmədəs, -ᵊthēm-\ *adj*
enan·thic acid *or* **oe·nan·thic acid** \ə|ᵊnan(t)thik-, ē|\ *n* [ISV *enanth-, oenanth-* (fr. L *oenanthe* wild grape, fr. Gk *oinanthē* grape blossom, fr. *oinē* grapevine + *anthē* blossom) + *-ic*; akin to Gk *oinos* wine and to Gk *anthos* flower — more at WINE, ANTHOLOGY] : an oily fatty acid $CH_3(CH_2)_5COOH$ usu. made by oxidizing enanthaldehyde and used chiefly in making esters for flavoring materials — called also *heptanoic acid*
enantio- *comb form* [NL, fr. Gk, fr. *enantios, fr. enanti* in the presence of, fr. *en* in + *anti* against — more at IN, ANTE-] **1** : opposite ⟨*enantio*tropy⟩ **2** : antagonistic ⟨*enantio*biosis⟩
en·an·ti·o·bi·o·sis \ə,nanˌtēō,bīˈōsəs, e,-\ *also* **en·an·to·bi·o·sis** \-tō,b-\ *n, pl* **enantiobioses** *also* **enantobioses** [NL, fr. *enantio-* + *-biosis*] : antagonistic symbiosis
en·an·ti·o·blas·tic \ə,nanˌtēōˈblastik, eˌ-\ *also* **en·an·ti·o·blas·tous** \-stəs\ *adj* [*enantio-* + *-blastic* or *-blastous* (fr. *-blast* + *-ous*)] : originating at the end of a seed opposite the hilum — used of an embryo
en·an·ti·o·mer \ə'nanˌtēōmər, eˈ-, -ˌme(ə)r\ *n* -s [*enantio-* + *-mer*] : ENANTIOMORPH 2
en·an·ti·o·mer·ic \-ˌnanˌtēōˈmerik\ *adj* [*enantio-* + *-meric*] : ENANTIOMORPHOUS
en·an·ti·o·morph \ə'=,=ˌmȯrf\ *n* -S [ISV *enantio-* + *-morph*; orig. formed as G] **1** : either of two enantiomorphous crystals **2** : either of two crystalline forms or compounds exhibiting enantiomorphism — called also *optical antipode*; distinguished from *diastereoisomer*; compare RACEMIC
en·an·ti·o·mor·phism \ə,=,=='mȯr,fizəm\ *n* -S [*enantio-* + *-morphism*] : the phenomenon of mirror-image relationship exhibited by right-handed and left-handed crystals (as of quartz) or by the molecular structures of two stereoisomeric compounds (as *dextro*-tartaric acid and *levo*-tartaric acid) — distinguished from *diastereoisomerism*; compare ASYMMETRIC CARBON ATOM, OPTICAL ISOMERISM
en·an·ti·o·mor·phous \ə'=,=='mȯrfəs\ *or* **en·an·ti·o·mor·phic** \-fik\ *adj* [*enantio-* + *-morphous* or *-morphic*] : of, relating to, or exhibiting enantiomorphism
en·an·ti·o·trop·ic \ə,=,=='träpik\ *adj* [*enantio-* + *-tropic*] : of, relating to, or exhibiting enantiotropy
en·an·ti·ot·ro·py \ə,=,=='ätrəpē\ *n* -ES [ISV *enantio-* + *-tropy*] : the relation of two different forms of the same substance (as two allotropic forms of tin) that have a definite transition point and can therefore change reversibly each into the other — compare MONOTROPY
en·arched \ə'närcht, eˈ-\ *adj* [fr. past part. of obs. *enarch* to provide with an arch or arches, fr. ME *enarchen*, fr. *1en-* + *arche*, n., arch] *heraldry* : bent into a curve or arch ⟨an ~ fess⟩
en·ar·gite \ə'närˌjīt, 'enər-\ *n* -S [G *enargit*, fr. Gk *enargēs* visible (fr. *en* in + *argēs* bright) + G *-it* -ite; fr. its cleavage; akin to Gk *argos* white — more at ARGENT] : a grayish black or iron-black copper arsenic sulfide (Cu_3AsS_4) of metallic luster occurring in small orthorhombic crystals or massive and often containing antimony
en·arm \ə'närm, eˈ-\ *vt* [ME *enarmen*, prob. fr. *1en-* + *armen* to arm] *archaic* : to equip with arms or armor
en·arme \"\ *n* -S [obs. F, fr. OF, fr. *enarmer* to provide (a shield) with straps through which an arm may be passed, fr. (assumed) VL *inarmare*, fr. L *in* + (assumed) VL *-armare* (fr. L *armus* shoulder) — more at IN, ARM] : the strap or the set of straps by which a shield was held on the arm — usu. used in pl.
enar·ra·tion \,ē,naˈrāshən, ,e,n-\ *n* -S [L *enarration-, enarratio* detailed exposition, fr. *enarratus* (past part. of *enarrare* to explain in detail, fr. *e-* + *narrare* to narrate) + *-ion-, -io* -ion — more at NARRATE] *archaic* : a detailed exposition or description
en ar·rière \ äⁿnȧryeər\ *adv (or adj)* [F, behind, backward, in arrears] **1** *heraldry* : from the back ⟨an eagle proper *en arrière*⟩ **2** *ballet* : toward the back : BACKWARD — used of a movement or of the execution of a step ⟨a glissade *en arrière*⟩
en·ar·thro·di·al \,e,närˌthrōdēəl\ *adj* [NL *enarthrodia* enarthrosis (fr. *2en-* + *arthrodia*) + E *-al*] : of, relating to, or having the form of an enarthrosis
en·ar·thro·sis \,=,=ˈthrōsəs\ *n, pl* **enarthro·ses** \-ōˌsēz\ [NL, fr. Gk *enarthrōsis*, fr. *en-* ²en- + *arthrōsis* arthrosis] : an articulation in which the rounded head of one bone fits into a cuplike cavity of the other and admits movement in any direction : a ball-and-socket joint (as the hip joint)
enas·cent \ē, ə+\ *adj* [L *enascent-, enascens*, pres. part. of *enasci* to spring up, sprout, fr. *e-* + *nasci* to be born — more at NATION] *archaic* : NASCENT
1enate \'ē,nāt\ *adj* [L *enatus*, past part. of *enasci*] **1** : growing out **2** : ENATIC
2enate \"\ *n* -S [L *enatus*, past part. of *enasci*] : one related on the mother's side — compare AGNATE
enat·ic \(ˌ)ē,nad·ik\ *adj* [L *enatus* (past part. of *enasci*) + E *-ic*] : descended from the same mother : related on the mother's side ⟨~ clans⟩
ena·tion \ē'nāshən\ *n* -S [L *enatus* (past part. of *enasci*) + E *-ion*] **1** : an outgrowth from the surface of an organ ⟨a plant virus forming ~*s* on leaves⟩ **2** : kinship on the mother's side
enation mosaic *n* : mosaic (as of tobacco, potato, and tomato) in which raised pin-shaped corrugated outgrowths appear chiefly on the lower surface of the leaves
en avant \äⁿnȧväⁿ\ *adv (or adj)* [F, in front, forward] *ballet* : in front : FORWARD — used of a movement or of the execution of a step
en axe \äⁿnȧks\ *adj* [F, on the axis] : placed symmetrically in or upon the axis — used with *with* ⟨pillars *en axe* with the central aisle⟩
en banc \äⁿbäⁿ\ *adv (or adj)* [F, on the bench] : in full court : with full judiciary authority ⟨in the recent . . . case all seven circuit judges sat *en banc* —Archibald Cox⟩
en bas \äⁿbȧ\ *adv (or adj)* [F, below, down] *ballet* : in a low position — used of the arms
en bloc *pronunc at* ᵊEN + ˈbläk\ *adv (or adj)* [F] **1** : as a body or whole : in a lump or mass ⟨forced the islanders . . . to move *en bloc* —D.B.Forrester⟩ ⟨one escape for harassed editors is to buy a group of strips *en bloc* from some syndicate —Coulton Waugh⟩ **2** : in one piece : as a unit ⟨an engine with cylinders cast *en bloc*⟩
enbrave *var of* EMBRAVE
en bro·chette \äⁿbrōˈshet\ *adv (or adj)* [F] : on a skewer ⟨broiled kidney *en brochette*⟩
en brosse \äⁿbrȯs\ *adv (or adj)* [F, lit., in the manner of a brush] : in a manner resembling the short erect bristles of a brush — used of a man's hair style ⟨his black hair . . . stood up *en brosse* —Hugh Walpole⟩ ⟨his very thick graying hair *en brosse* added an extra inch to his stature —Kathryn Grondahl⟩
enc *abbr* **1** enclosed; enclosure **2** encyclopedia
en cab·o·chon \enˈkabəˌshän\ *adv* [F, in the manner of a cabochon] : in convex form but not faceted ⟨a ruby cut *en cabochon*⟩
en·cae·nia \enˈsēnyə, inˈ-, -nēə\ *n pl but sing or pl in constr, sometimes cap* [NL, fr. L, dedication festival, fr. Gk *enkainia*, fr. *en* in + *-kainia* (fr. *kainos* new) — more at IN, RECENT] : an annual university ceremony (as at Oxford University) of commemoration with recital of poems and essays and conferring of degrees
en·cage \ən, en+\ *vt* [*1en-* + *cage*, n.] : CAGE 1
en·camp \ən, en-+\ *vb* [*1en-* + *camp*, n.] *vt* : to form into or place in a camp ⟨~ soldiers⟩ ~ *vi* : to form or occupy a camp : prepare and settle in temporary habitations (as tents or huts)
en·camp·ment \"mənt\ *n* -S **1 a** : the action of encamping **b** : the state of being encamped **2 a** : the place where a body of troops or campers is encamped : CAMP ⟨was not enthusiastic over the choice of Valley Forge as a winter ~ —F.V.W. Mason⟩ ⟨a well-fortified ~⟩ ⟨the ~ of migratory workers outside the city⟩ **b** : the individuals that make up an encampment ⟨the whole ~ was in an uproar⟩ **3** : COMMANDERY 3 **4** : a convention of a national association of ex-servicemen
en·cap·su·late \ənˈkapsəˌlāt, en- *also* -syə-\ *also* **en·capsule** \ən, en+\ *vb* -ED/-ING/-S [*encapsule* fr. *1en-* + *capsule*, n. + *-ate*, vb. suffix; *encapsule* fr. *1en-* + *capsule*, n.] *vt* : to surround, encase, or protect in or as if in a capsule : CAPSULE ⟨the tissues of the body surround the [trichina] organisms and ~ them —Morris Fishbein⟩ ⟨in his youth he was *encapsulated* in affection —H.L.Mencken⟩ ~ *vi* : to become encapsulated ⟨a bacillus that ~s in the human body⟩ ⟨some very small poikilotherms desiccate and ~ for protection —Samuel Brody⟩ — **en·capsulation** \ən, (ˌ)en+\ *n*
encapsulated *adj* [fr. past part. of *encapsulate*] *biol* : surrounded by a gelatinous or membranous envelope ⟨~ water bacteria⟩
encaptive *vt* [*1en-* + *captive*, n. or adj.] *obs* : to make captive
encarnadine *var of* INCARNADINE
en·carnalize \ən, en+\ *vt* [*1en-* + *carnalize*] : to make carnal ⟨grossness *encarnalizing* a conversation⟩
en·car·pus \enˈkärpəs\ *n, pl* **encar·pi** \-ˌpī, -ˌpē\ [alter. (influenced by Gk *enkarpos*) of earlier *encarpa* festoons as an architectural ornament, fr. L, fr. Gk *enkarpa*, neut. pl. of *enkarpos* containing fruit, fr. *en-* ²en- + *-karpos* -carpous] : an ornament on a frieze or capital consisting of festoons (as of fruit or flowers)
en car·ré \äⁿkäˈrā\ *adv* [F, lit., in the form of a square] : on the intersection of four numbers in roulette so as to include all four — used of a bet
en·case *also* **in·case** \ənˈkās, en-\ *vt* [*1en-* or *2in-* + *case*, n.] **1** : to enclose in, place in, or provide with a case ⟨each product *encased* in leatherette⟩ **2** : to cover or surround with or as if with something solid, impermeable, or confining ⟨the neurotic loneliness of a woman *encased* in her ambition —*Saturday Rev.*⟩
encased knot *n* [*encased* fr. past part. of *encase*] : a dead or

used esp. in ancient quantitative verse and consisting of four short syllables

2proceleusmatic \ˌ=ˌ=ˌ=\ *adj* [Gk *prokeleusmatikos*] **:** of, relating to, or marked by the use of proceleusmatics

pro-cel-lar-ia \ˌprōsə'la(ə)rēə\ *n, cap* [NL, fr. L *procella* storm (fr. *procellere* to throw down, fr. *pro-* forward, forth, down + *-cellere* to rise, project) + *-aria;* fr. the association of the petrels with storms at sea — more at PRO-, EXCEL] **:** a genus of petrels that includes the white-chinned petrels and related forms and in some classifications the shearwaters and that is the type of the family Procellariidae

pro-cel-la-ri-idae \ˌprōsələ'rīəˌdē, prōˌsel-\ *n pl, cap* [NL, fr. *Procellaria,* type genus + *-idae*] **:** a family of oceanic birds (order Procellariiformes) comprising the fulmars, shearwaters, and related birds

pro-cel-lar-ii-for-mes \ˌprōsəˌla(ə)rēə'fȯr(ˌ)mēz\ *n pl, cap* [NL, fr. *Procellaria* + *-iformes*] **:** an order of predominantly pelagic birds comprising the petrels, shearwaters, albatrosses, and diving petrels

pro-cel-lous \prō'seləs\ *adj* [L *procellosus,* fr. *procella* + *-osus* -ous] **:** STORMY ⟨the dangers of that ~ sea —Rafael Sabatini⟩

pro-cephalic \ˌprō+\ *adj* [*1pro-* + *cephalic*] **1 :** relating to, forming, or situated on or near the front of the head ⟨~ antennae⟩ **2** [Gk *prokephalos* (fr. *pro-* 1pro- + *kephalē* head) + E *-ic* — more at CEPHALIC] *of a dactylic hexameter* **:** having actually or apparently an extra syllable at the beginning

pro-cephalon \(ˌ)prō+\ *n* -s [NL, fr. *1pro-* + *-cephalon* (fr. Gk *kephalē* head)] **:** the part of an insect's head that is in front of the segment in which the mandibles are located

pro-ceph-a-lous \(ˌ)prōˌsefələs\ *adj* [Gk *prokephalos*] **:** marked by anacrusis (sense 1)

pro-cer-coid \(ˌ)prōˌsərˌkȯid\ *n* -s [*1pro-* + *cerc-* + *-oid*] **:** the solid first parasitic larva of pseudophyllidean and some other tapeworms that develops usu. in the body cavity of a copepod — compare PLEROCERCOID

pro-cerebral \(ˌ)prō+\ *adj* [NL *procerebrum* forebrain (fr. *1pro-* + L *cerebrum*) + E *-al*] **:** of or relating to the forebrain

proc-er-ite \'prāsəˌrīt\ *n* -s [ISV *1pro-* + Gk *keras* horn + ISV *-ite* — more at HORN] **:** the flagellum of the antenna of a crustacean

proc-er-it-ic \ˌ=ərˈid-ik\ *adj* **:** of or relating to a procerite

pro-cer-i-ty \prōˈserəd-ē\ *n* -ES [L *proceritas,* fr. *procerus* high, tall (fr. *pro-* forward + *-cerus,* fr. the stem of *crescere* to grow) + *-itas* -ity — more at CRESCENT] *archaic* **:** HEIGHT, TALLNESS

pro-ce-rus \prōˈsirəs\ *n, pl* **pro-ce-ri** \-rī\ *or* **proceruses** [NL, fr. L, high, tall] **:** a facial muscle arising from the nasal bone and lateral nasal cartilage and inserting in the skin at the root of the nose

1pro-cess \'prāˌsˌses *also* 'prō| *or* |ˌsəs\ *n, pl* **processes** \"+əz *also* ÷|ˌsōˌsēz *sometimes* ÷|ˌse(ˌ)sēz\ [ME *proces, processe, process,* fr. MF *proces,* fr. L *processus,* fr. *processus,* past part. of *procedere* to proceed — more at PROCEED] **1 a :** a progressive forward movement from one point to another on the way to completion **:** the action of passing through continuing development from a beginning to a contemplated end **:** the action of continuously going along through each of a succession of acts, events, or developmental stages **:** the action of being progressively advanced or progressively done **:** continued onward movement ⟨the job is not yet finished but is still in ~⟩ ⟨many other questions are in ~ of discussion —Vera M. Dean⟩ ⟨social ~⟩ ⟨links in the endless interlocking chain of causation and concomitance that constitutes the ~ of history —Max Lerner & Edwin Mims⟩ ⟨in the ~ of governing people of so many races —Vernon Bartlett⟩ ⟨did his best to educate himself, and in the ~ he developed a profound respect for education —Oscar Schisgall⟩ **b :** continued onward flow **:** COURSE ⟨in the ~ of time⟩ **c :** something (as a series of actions, happenings, or experiences) going on or carried on **:** PROCEEDING ⟨standing in the cold was not a pleasant ~⟩ ⟨behind the arras I'll convey myself to hear the ~ —Shak.⟩ **d** (1) **:** a natural progressively continuing operation or development marked by a series of gradual changes that succeed one another in a relatively fixed way and lead toward a particular result or end ⟨the ~ of growth⟩ ⟨the ~ of digestion⟩ **:** a natural continuing activity or function ⟨such life ~*es* as breathing and the circulation of the blood⟩ (2) **:** an artificial or voluntary progressively continuing operation that consists of a series of controlled actions or movements systematically directed toward a particular result or end ⟨the ~ governing the mechanism of a clock⟩ ⟨cannot be achieved by any deductive ~ —J.H.Steward⟩ ⟨explanations of . . . how the editorial ~ worked —A.S.Link⟩ (3) **:** a set of facts, circumstances, or experiences that are observed and described or that can be observed and described throughout each of a series of changes continuously succeeding each other **:** a phenomenon or condition marked by a series of slow or rapid changes throughout a period of time ⟨the ~ of decay⟩ ⟨a pathological ~⟩ ⟨tuberculous ~⟩ (4) **:** a succession of related changes by which one thing gradually becomes something else ⟨a new theory of evolutionary ~⟩ **e :** a particular method or system of doing something, producing something, or accomplishing a specific result; *esp* **:** a particular method or system used in a manufacturing operation ⟨a ~ of making steel⟩ or other technical operation ⟨a chemical ~⟩ **2** [ME *proces, processe,* fr. MF *proces,* fr. ML *processus,* fr. L] **a :** the course of procedure in a judicial action or in a suit in litigation **:** legal action ⟨changed his name by legal ~ —*Current Biog.*⟩ ⟨federal ~ . . . does not have to be confined to state borders —*Va. Law Rev.*⟩ **b** (1) **:** a summons, mandate, or writ that serves as the means used to bring a defendant into court to answer in a judicial action or in a suit in litigation; *also* **:** a writ by which a court exercises its jurisdiction over the parties or subject matter of judicial action or of a suit in litigation ⟨~ for their appearance has been duly issued —*Detroit Law Jour.*⟩ (2) **:** the whole body of such summonses, mandates or writs **3** *obs* **:** REPORT, ACCOUNT ⟨the whole ear of Denmark is by a forged ~ of my death rankly abused —Shak.⟩ **4 :** a part of the mass of an organism or organic structure that projects outward from the main mass ⟨a bone ~⟩ ⟨a parasite that puts forth ~*es* resembling tentacles⟩ **5** *obs* **:** a royal edict **6** *Roman Catholicism* **:** the canonical procedure followed in beatification or canonization

2process \"\ *vb* **processed** \"+t\ **processed** \"+t\ **processing** \"+iŋ\ **processes** \"+əz\ [in sense 1, fr. MF *processer,* fr. *proces;* in other senses, fr. *1process*] *vt* **1 a :** to proceed against by law **:** PROSECUTE ⟨the debt for which they were ~*ed* —H.W.V.Stuart⟩ **b** (1) **:** to take out a summons against (2) **:** to serve a summons on ⟨warned that they would ~ him⟩ **2 :** to subject to a particular method, system, or technique of preparation, handling, or other treatment designed to effect a particular result **:** put through a special process: as **a** (1) **:** to prepare for market, manufacture, or other commercial use by subjecting to some process ⟨~*ing* cattle by slaughtering them⟩ ⟨~*ed* the milk by pasteurizing it⟩ ⟨~*ing* grain by milling⟩ ⟨~*ing* cotton by spinning⟩ (2) **:** to make usable by special treatment ⟨~*ing* rancid butter⟩ ⟨~*ing* waste material⟩ ⟨~*ed* the water to remove impurities⟩ **b** (1) **:** to subject to rapid examination and handling designed to dispose of routine details (as by recording preliminary data of or about) ⟨~*ing* books for a library⟩ ⟨efficiently ~*ed* the invoices⟩ (2) **:** to subject to rapid examination and handling designed to produce a preliminary classification based on apparent skills, aptitudes, and other qualifications ⟨~*ing* applicants⟩ ⟨~*ing* army recruits⟩ (3) **:** to take care of, attend to, or dispose of by some largely routine procedure ⟨quickly ~*ed* the loan requested by the firm⟩ (4) **:** to subject to examination and analysis ⟨~*ing* data radioed by a space rocket⟩ ⟨where news from everywhere is ~*ed* —F.L.Mott⟩ **3 :** to produce a copy of by a mechanical or photomechanical duplicating process ⟨a ~*ed* publication⟩ ~ *vi* **:** to process something

3process \"\ *adj* [*1process*] **1 :** prepared, handled, treated, or produced by a special process: as **a :** made by some special synthetic process ⟨~ fuels⟩ ⟨~ sugar⟩ **b :** made by or used in a mechanical or photomechanical duplicating process ⟨~ publications⟩ ⟨~ ink⟩ **c :** made by special equipment or techniques so as to produce an optical effect not otherwise attainable ⟨a motion picture that has a number of remarkable ~ scenes⟩ **2 a :** used in producing special effects ⟨a ~ motion-picture camera⟩ **b :** used in making colored reproductions in almost any hue or shade by printing from halftone plates in usu. three or more colors (as red, yellow, blue)

4pro-cess \prə'ses, prōˈs-\ *vi* -ED/-ING/-ES [back-formation fr. *1procession*] **:** to move along **:** GO; *esp* **:** to move along in or as if in a procession ⟨~*ed* slowly through the town, conversing amiably —Thomas Wood †1950⟩

process annealing *n* **:** the process of softening steel by heating it to a temperature near but below the transformation range and then cooling slowly

process butter *or* **processed butter** *n* **:** butter that has been melted, refined, and reworked

process chart *n* **:** a chart on which are graphically shown in sequence the separate details that make up a complete process (as of a particular job operation)

process cheese *or* **processed cheese** *n* **:** a cheese made by blending several lots of cheese by heating, stirring, and emulsifying and often smoked or otherwise flavored

processer *var of* PROCESSOR

processes *pl of* PROCESS, *pres 3d sing of* PROCESS

1pro-ces-sion \'prəˈseshən, prōˈs-\ *n* -S [ME *processioun,* fr. OF *procession,* fr. LL & L; LL *procession-, processio* religious procession, fr. L, act of proceeding, fr. *processus* (past part. of *procedere* to proceed) + *-ion-, -io* -ion — more at PROCEED] **1 :** the action of proceeding: **a :** the action of moving along on a particular course esp. in a continuous orderly regulated often formal or ceremonial way **:** continuous forward movement **:** PROGRESSION ⟨watched the constant ~ of people passing by the building⟩ ⟨it happened during the ~⟩ ⟨the uninterrupted ~ of the clergy down the aisle⟩ **b :** the action of issuing forth; *specif* **:** the action of the Holy Spirit in issuing forth from another of the persons of the Trinity — see DOUBLE PROCESSION, SINGLE PROCESSION **2 a** (1) **:** a group of individuals (as people, animals, vehicles) moving along or about to move along on a particular course esp. in a continuous orderly regulated often formal or ceremonial way and usu. arranged in a long line ⟨formed a ~⟩ ⟨the ~ moved slowly⟩ ⟨a funeral ~⟩ (2) **:** the formation proper to or typical of such a group ⟨walked along in ~⟩ ⟨go in ~ round the fields —J.G.Frazer⟩ **b :** a succession, sequence, or series of things arranged or occurring in a formation or alignment like that of such a group ⟨a ~ of stately trees on each side of the avenue⟩ ⟨an endless ~ of fields broken now and then by a strip of woodland —Sherwood Anderson⟩ **3** *obs* **:** something (as a hymn, prayer) sung or recited during a religious procession

2pro-ces-sion \prəˈseshən, prōˈs-\ *vb* -ED/-ING/-S *vi, archaic* **:** to move along or about in or as if in a procession ~ *vt, Midland* **:** to move in procession around (land, boundaries) in formally determining the limits of

1pro-ces-sion-al \-shənᵊl, -shnəl\ *n* -S [ME, fr. ML *processionale,* fr. neut. of *processionalis,* adj., fr. LL *procession-, processio* + *-alis* -al] **1 a :** a book containing material (as hymns, litanies) to be sung or recited during a religious procession and often containing regulations for conducting various types of religious procession **b :** a musical composition designed for a procession: as (1) **:** a hymn sung during a religious procession; *esp* **:** a hymn sung at the entrance of a procession (as of clergy and choir) into a church at the beginning of a service (2) **:** an instrumental composition typically solemn in character and written as an accompaniment for a religious or other ceremonial procession **c :** the first part of a church service or some other solemn function during which a procession (as of clergy and choir) enters the place in which the service or function is being held **2 :** PROCESSION 1a,2 ⟨marched in a Sunday School ~ —K.D.Miller⟩ ⟨slow ~ of years —R.W.Howard⟩

2processional \"\ *adj* [F or ML; F *processionel,* fr. ML *processionalis*] **1 a :** of, relating to, or typical of a procession ⟨moved along in good ~ order⟩ ⟨the car slowed down, and at ~ pace we crept along the road —Richard Church⟩ **b :** designed for or used in a procession ⟨~ music⟩ ⟨a ~ cross⟩ ⟨~ vestments⟩ **2 :** grouped or moving in or as if in a procession ⟨automobiles poking along in ~ lines of traffic⟩ — **pro-ces-sion-al-ly** \-ᵊlē, -əl|, |i\ *adv*

pro-ces-sion-ary \-shəˌnerē\ *adj* **:** PROCESSIONAL

processionary caterpillar *n* **:** the larva of a processionary moth

processionary moth *also* **processional moth** *or* **procession moth** *n* **:** a moth of the genus *Thaumetopoea* whose larvae make large webs on oak trees and go out in columns to feed

pro-ces-sion-er \-sh(ə)nə(r)\ *n -s chiefly Midland* **:** one appointed to examine and formally determine the limits of an area of land

procession flower *n* **:** any of various plants of the genus *Polygala; esp* **:** a milkwort (*P. incarnata*) of No. America

pro-ces-sion-ist \-sh(ə)nəst\ *n* -S **:** one that takes part in a procession

pro-ces-sion-ize \-shəˌnīz\ *vi* -ED/-ING/-S **:** to move along in a procession **:** go in procession

pro-ces-sive \prəˈsesiv, prōˈs-\ *adj* [L *processus* (past part. of *procedere* to proceed) + E *-ive* — more at PROCEED] **:** moving forward **:** PROGRESSIVE

process of tomes \-ˈtōmz\ *usu cap T* [after Sir John *Tomes* †1895 Eng. dental surgeon] **:** one of the fine fibrils of the ameloblasts that project from the pulp of a tooth into the dentine

proces-sor \'prāˌsesə(r) *also* -rō| *or* |ˌsāsə(r) *or* |ˌsāˌsō(ə)r *or* |ˌsāˌsō(ə)\ *also* **process-er** \-ə(r)\ *n* -S **:** one that processes: as **a :** one that processes agricultural products, foods, or similar products **b :** one that processes films, paper, chemicals, or similar products **c :** one that processes individuals (as applicants, recruits) or data forms

process philosophy *n* **:** a theistic philosophy that views being as primarily relational, stresses emergent evolution, and criticizes or rejects nonreligious naturalism — compare NEONATURALISM

process photography *n* **1 :** the photographic steps involved in any photomechanical reproduction process **2** *cinematography* **:** special printing methods or use of a background projection screen in front of which live action is photographed

process plate *n* **:** a photographic plate usu. slow in speed having the characteristics of high contrast and very fine grain and used chiefly in reproducing line drawings or in photomechanical processing

process printer *n* **:** one that does process printing

process printing *n* **:** a method of printing from halftone plates in usu. three or more colors so that nearly any hue may be reproduced

process projection *n* **:** BACKGROUND PROJECTION

process shot *n* **:** a shot made with a trick camera incorporating in the completed film matter not present in the actual scene photographed — compare PROCESS PHOTOGRAPHY 2

process steam *n* **:** steam used for heat and moisture rather than for power

process theology *n* **:** NEONATURALISM

pro-ces-su-al \(ˌ)prāˈ|seshəwəl, -rōˌs-\ *adj* [ML *processus* legal process + E *-al*] — more at PROCESS] **1 :** of or relating to a legal process ⟨a ~ code⟩ **2 :** FUNCTIONAL, OPERATIONAL — **pro-ces-su-al-ly** \-wəlē\ *adv*

pro-ces-sus \prōˈsesəs\ *n, pl* **processus** [L — more at PROCESS] **1 :** FUNCTIONING, OPERATION ⟨the ~ of the mind —H.F. Muller⟩ **2 :** PROCESS 4

procès-verbal \ˌprāˌsāˌver'bäl, -rōˌs-, prōˌs-, -bal\ *n, pl* **procès-verbaux** \-bō\ [F, lit., verbal trial] **:** a detailed written account of things said or done that is official and authenticated: as **a :** a written statement of attested facts brought up during a legal action in court together with the official procedures adopted by the court **b :** a written record (as in a book of minutes) of the proceedings of an organized group (as a society, assembly) **c :** a written record of diplomatic negotiations

pro-chancellor \(ˌ)prō+\ *n* [*2pro-* + *chancellor*] **:** an officer of a British university who in the absence of the vice-chancellor may represent the chancellor

pro-chein ami *or* **pro-chein amy** \ˌprōˌshe,nāˈmē, prōˌsh-, -nāˈ-\ *n* [ME *prochein amy,* fr. AF *prochein ami,* lit., near friend] **:** one not regularly appointed that acts (as in a suit at law) for one not sui juris (as an infant, married woman) **:** NEXT FRIEND

pro-chlorite \(ˌ)prō+\ *n* [*1pro-* + *chlorite;* fr. its being the earliest variety of chlorite distinguished] **:** RIPIDOLITE

pro-cho-os \'prōkəˌwäs, -räk-\ *n, pl* **procho-oi** \-wȯi\ [Gk *prochoos, prochous,* fr. *prochein* to pour forth, fr. *pro-* 1pro- + *chein* to pour — more at FOUND] **:** a tall slender ancient Greek jug used esp. to hold water for washing the hands

pro-chorda \(ˌ)prō+\ *or* **pro-chordata** \ˌprō+\ [NL, fr. *1pro-* + *Chorda* or *Chordata*] *syn of* PROTOCHORDATA

pro-chordal \(ˌ)prō +\ *adj* [*1pro-* + *chordal*] **:** anterior to the notochord

1pro-chordate \"+\ *adj* [NL *Prochordata*] **:** PROTOCHORDATE

2prochordate \"\ *n* **:** PROTOCHORDATE

pro-chorion \(ˌ)prō+\ *n, pl* **prochorions** *or* **prochoria** [NL, fr. *1pro-* + *chorion*] **:** any of several structures surrounding the blastodermic vesicle in some animals (as rodents); *esp* **:** a gelatinous coat that is prob. a secretion of the uterine glands — **pro-chorionic** \(ˌ)prō+\ *adj*

pro-chromosome \(ˌ)prō+\ *n* [ISV *1pro-* + *chromosome*] **:** a condensed heterochromatic portion of a chromosome visible in the resting nucleus

prochro-nism \'prōkrəˌnizəm, 'präk-\ *n* -S [Gk *prochronos* anticipatory (fr. *pro-* 1pro- + *chronos* time) + E *-ism*] **:** an anachronism marked by the assignment of something (as an event) to a date earlier than the actual historical one

proci-den-tia \ˌprōsəˈdenchē(ē)ə, ˌpräs-\ *n* -S [L, fr. *procident-, procidens* (pres. part. of *procidere* to fall forward, fall down, fr. *pro-* forward, down + *-cidere,* fr. *cadere* to fall) + *-ia* -y — more at PRO-, CHANCE] **:** prolapse of an organ; *esp* **:** severe prolapse of the uterus in which the cervix projects from the vaginal opening

1procinct *n* [ME *procincte,* fr. ML *procinctum,* alter. of *praecinctum* — more at PRECINCT] *obs* **:** PRECINCT

2procinct *n* [L *procinctus,* fr. *pro-* before, in front + *cinctus,* past part. of *cingere* to gird — more at PRO-, CINCTURE] *obs* **:** READINESS ⟨war he perceived, war in ~ —John Milton⟩

pro-ci-on dye \'prōsēənˌ\ *n* [fr. *Procion,* a trademark] **:** any of several fiber-reactive dyes — see DYE table I

prock \'präk\ *n* -S [origin unknown] **:** GYASCUTUS

1pro-claim \prōˈklām, -rəˈk-\ *vb* -ED/-ING/-S [ME *proclamen, proclaimen,* fr. MF or L; MF *proclamer,* fr. L *proclamare,* fr. *pro-* before + *clamare* to cry out, call — more at PRO-, CLAIM] *vt* **1 a** (1) **:** to declare openly or publicly **:** make widely known through speech or writing **:** ANNOUNCE ⟨the newspaper ~*ed* its adherence to the government's policy⟩ ⟨~*ed* that he would be a candidate⟩ (2) **:** to assert openly or publicly and with conviction ⟨in ringing words . . . ~*ed* the . . . right of the opposition to voice its protests —A.C.Cole⟩ **b :** to give an unmistakable indication of **:** clearly reveal **:** SHOW ⟨all these things ~ the actor in him —James Hanley⟩ **c :** to make clearly evident **:** demonstrate undeniably **:** PROVE — usu. used with a complement ⟨such conduct ~*s* him a fool⟩ **2 a :** to declare solemnly, officially, or formally ⟨~*ed* an amnesty —*Collier's Yr. Bk.*⟩ ⟨~*ed* a state of war⟩ **b :** to declare to be by solemn, official, or formal announcement ⟨is ~*ed* the panacea for many of the ills of life —E.J.Banfield⟩ ⟨~*ed* the country a republic⟩ **3 a** *archaic* **:** DENOUNCE **b** *archaic* **:** to place (as a district) under some legal restriction by official decree **4 :** to bring (banns of marriage) to public notice **:** PUBLISH **5 :** to recognize officially and publicly; *specif* **:** to recognize the accession of ⟨was going to help ~ a queen of Britain —John Strachey⟩ **6 :** to praise or glorify openly or publicly **:** EXTOL ⟨loudly ~*ing* their master —*Times Lit. Supp.*⟩ ⟨had loudly ~*ed* the quality of his wife —Compton Mackenzie⟩ ~ *vi* **:** to make a proclamation **syn** see DECLARE

2proclaim \"\ *n, archaic* **:** the action of calling out ⟨voices of soft ~ —John Keats⟩

pro-claim-er \-mə(r)\ *n* -S **:** one that proclaims

proc-la-ma-tion \ˌpräkləˈmāshən\ *n* -S [ME *proclamacioun,* fr. MF *proclamation,* fr. L *proclamation-, proclamatio,* fr. *proclamatus* (past part. of *proclamare* to proclaim) + *-ion-, -io* -ion — more at PROCLAIM] **1 a :** the action of proclaiming ⟨laid down as a policy by ~ —Oscar Handlin⟩ **b :** the condition of being proclaimed ⟨becomes legal upon ~ —W.S.Sayre⟩ **2 :** something proclaimed; *specif* **:** an official formal public announcement (as a public notice, edict, decree) ⟨issued a ~ announcing the cessation of war —*Amer. Guide Series: N.C.*⟩

proclamation piece *n* **:** a medal or coin issued at the same time as a proclamation (as at the accession of a ruler)

pro-clam-a-to-ry \prōˈklamə,tōrē\ *adj* [L *proclamatus* + E *-ory*] **:** of or relating to proclamation or a proclamation **:** proclaiming or like that of one proclaiming ⟨a ~ style of speaking⟩

pro-climax \(ˌ)prōˈ+\ *n* [*1pro-* + *climax*] **:** an ecological community that suggests a climax in stability and permanence but is not primarily the product of climate — compare CLIMATIC CLIMAX

proc-li-nate \'präkləˌnāt\ *adj* [L *proclinatus,* past part. of *proclinare* to bend forward, fr. *pro-* forward + *clinare* to bend, incline — more at PRO-, LEAN] **:** directed forward ⟨an insect with ~ ocellar bristles⟩

procli-sis \'prōkləsəs, 'präk-\ *n, pl* **procli-ses** \-ləˌsēz\ [NL, fr. *1pro-* + LL *-clisis* (as in *enclisis*) — more at ENCLISIS] **:** pronunciation as a proclitic **:** combination in pronunciation of an unaccented word or particle with a following accented word

1pro-clit-ic \(ˌ)prōˌklid-ik, -lit|, |ēk\ *adj* [NL *procliticus,* fr. *1pro-* + LL *-cliticus* (as in *encliticus* enclitic) — more at ENCLITIC] **:** of, relating to, or constituting a word or particle without sentence stress that is accentually dependent upon the immediately following stressed word and is pronounced with it as a phonetic unit — compare ENCLITIC — **proclitically** *adv*

2proclitic \"\ *n* -S **:** a proclitic word or particle

proclive *adj* [L *proclivis,* lit., sloping, fr. *pro-* forward, down + *-clivis* (fr. *clivus* slope, hill) — more at PRO-, DECLIVITY] *obs* **:** inclined toward something by disposition or circumstances

pro-cliv-i-ty \prōˈklivəd-ē, -rəˈk-, -vətē, -ī\ *n* -ES [L *proclivitas,* fr. *proclivis* + *-itas* -ity] **:** an inclination or predisposition toward something ⟨must not be forced into social activities for which they have no ~ —Philip Toynbee⟩; *esp* **:** a strong inherent inclination or predisposition toward something objectionable that is difficult to control and that arises from a natural tendency in that direction and esp. from particular characteristics of constitution or temperament or from frequent or habitual experience with or indulgence in the thing indicated ⟨man's ~ for violence —H.N.Maclean⟩ **syn** see LEANING

pro-cnemial \(ˌ)prōˈ+\ *adj* [*1pro-* + *cnemial*] **:** of, relating to, or formed on the ventral surface of the tibia

pro-coe-la \prōˈsēlə\ *n pl, cap* [NL, fr. *1pro-* + *-coela,* neut. pl. of *-coelus* -coelous] **:** a suborder of Salientia that includes Bufonidae, Hylidae, and some families of extinct amphibians and that comprises frogs and toads with vertebrae uniformly concave in front and with sacral vertebrae united with the urostyle by a double condyle

1pro-coe-lia \-lēə\ *n* -S [NL, fr. *1pro-* + Gk *koilia* bodily cavity — more at COELIAC] **:** LATERAL VENTRICLE

2procoelia \"\ *n pl, cap* [NL, fr. *1pro-* + Gk *koilia*] *in some classifications* **:** a division of Loricata that includes recent forms and some late fossils with dorsal vertebrae mostly concave in front

1pro-coe-li-an \(ˌ)=ˈ|=lēən\ *adj* [NL *1procoelia* + E *-an*] **1 :** PROCOELOUS **2** [NL *2Procoelia* + E *-an*] **:** of or relating to the Procoelia

2procoelian \"\ *n* -S **:** an animal of the division Procoelia

pro-coe-lous \(ˌ)prōˌsēləs\ *adj* [ISV *1pro-* + *-coelous*] **1** *of a vertebra* **:** concave at the anterior end of the centrum and usu. convex at the posterior end of the centrum **2 :** having procoelous vertebrae

pro con-fes-so \ˌprōkənˈfe(ˌ)sō\ *adv* (*or adj*) [L, as (if) confessed] *law* **:** in the category of what may be considered as true, factual, or valid by reason of not having been denied or rejected ⟨the matter was taken *pro confesso* since the defendant did not file an answer⟩ **:** as though admitted **:** as though confessed **:** on the basis of what is implicitly admitted or confessed ⟨the individual defendant was directed to appear and answer ⟨the complaint or suffer judgment to be taken *pro confesso* —*Corporation Jour.*⟩

1pro-consul \(ˌ)prōˈ+\ *n* -S [ME, fr. L, fr. the phrase *pro consule* (acting) for a consul, fr. *pro* for + *consule,* abl. of *consul* — more at FOR, CONSUL] **1 :** an official in an ancient Roman province who was entrusted with most of the authority of a consul and who acted as governor or military commander in the province **2 :** an official in a modern colony, dependency, or occupied area who acts as an administrator usu. with extensive powers

2proconsul \"\ *n* [NL, fr. L *pro-* 1pro- + *Consul,* a chimpanzee in the London zoo] **1** *cap* **:** a genus of extinct primitive African Miocene anthropoid apes related to those of the genus *Dryopithecus* **2** -S **:** an ape of the genus *Proconsul*

one has special knowledge: as **a** : a branch of knowledge, science, art, or business to which one devotes oneself whether as an avocation or a profession and usu. to the partial or total exclusion of related matters ⟨a chemist whose ~ is tropical alkaloids⟩ ⟨the major medical *specialties*⟩ **b** : a culture trait characteristic of or restricted to a limited group in a society

specialty contract *n* : a contract (as a deed or mortgage) depending for its validity upon the formality of its execution (as in being signed, sealed, and delivered) — called also *formal contract*, *special contract*

specialty mark *n* : insignia worn on an enlisted man's uniform that reveals his specialty or rating — compare RATING BADGE

special verdict *n* : a verdict setting forth the specific findings of fact made by the jury on the material issues and leaving the court to make general finding for either party as the law requires on the facts so found

special vert *n* : trees in an English crown forest that provide food for deer

special warranty *n* : a limited warranty in a transfer or conveyance by which the grantor warrants the property transferred to be free of all liens and encumbrances made by, through, or under him

spe·ci·ate \'spēs(h)ē,āt\ *vi* -ED/-ING/-S [back-formation fr. *speciation*] : to form species : differentiate into new species

spe·ci·a·tion \,spē,shē'āshən\ *n* -S [*speci-* + *-ation*] : formation of biological species or the processes leading to this end whether constituting gradual divergence from related groups (as by an extension of raciation) or occurring abruptly by combination or transformation of genomes (as in the formation of polyploid species) — compare MACROEVOLUTION, SALTATION — **spe·ci·a·tion·al** \-shənᵊl, -shnəl\ *adj*

¹spe·cie \'spē(,)shē, -,shī *also* -(,)sē *or* -,sī\ *n* -S [fr. the phrase *in specie*, fr. L, in kind] : money in coin ⟨required ~ payments⟩ — **in spe·cie** \ən'pē(,)shē, -n'sp-, -,shī *also* -(,)sē *or* -,sī; *in senses other than c* " *or* -pēs(h)ē,ē *or* -pekē,ā\ *adv* : in or with the same or like form or kind: **a** : in kind : SPECIFICALLY ⟨his duties are *in specie* identical with your own⟩ **b** : in the identical form and without alteration or substitution — used chiefly in law ⟨an agreement to be carried out *in specie*⟩ **c** : in coin or coined money ⟨payment *in specie*⟩ **d** : in a like manner or with similar treatment ⟨ready to return insult *in specie*⟩

²specie \'ē\ *n* -S [back-formation fr. *species*] *nonstand* : SPECIES

specie- — see SPECI-

specie jar *n* [*²specie*] : a blown glass jar with sheet metal top formerly used for storage (as of herbs or stick candies)

specie payment *n* [*¹specie*] : payment in coin or bullion as distinguished from payment in paper money

¹spe·cies \'spē(,)shēz, -,shīz *also* -(,)sēz *or* -,siz\ *n, pl* **species** [L, appearance, form, kind, species, beauty — more at SPY] **1 a** : a class of individuals having common attributes and designated by a common name : a logical division of a genus or more comprehensive class : a subclass designated by adding to the name or connotation of a genus some specific difference that limits its application to a restricted group ⟨the triangle is a ~ of plane figure⟩ **b** : a limited kind or group having a distinguishing characteristic; *esp* : one capable of including variant individuals and of being subsumed in a more inclusive category ⟨mineral ~ are made up of varieties having common basic properties⟩ ⟨one ~ of tramp who wanders from workhouse to workhouse —Osbert Sitwell⟩ **c** : the race of man : human beings : HUMANITY ⟨progress of the ~ in science⟩ **d** (1) : a category of biological classification ranking immediately below a genus or subgenus and being denominated in taxonomic usage by a binomial that consists of the name of its genus followed by a Latin or latinized noun or adjective which is usu. not capitalized and agrees grammatically with the genus name : a group of intimately related and physically similar organisms that actually or potentially interbreed and are less commonly capable of fertile interbreeding with members of other groups, that ordinarily comprise differentiated populations limited geographically (as subspecies) or ecologically (as ecotypes) which tend to intergrade at points of contact, and that as a group represent the stage of evolution at which variations become fixed through loss of ability to exchange genes with members of other groups although formerly conceived to be the total progeny of a single distinctive specially created pair — compare NOMENCLATURE 4c; see SPECIFIC EPITHET (2) : an individual plant or animal or a kind of plant or animal belonging to a particular species — not used technically **e** : a particular kind of atomic nucleus, atom, molecule, or ion ⟨a great number of new nuclear ~ have been prepared within the last few years in the region of the natural radioactivities —*Science*⟩ ⟨all atoms of a particular radioactive ~ have the same probability of disintegrating —H.D.Smyth⟩ — compare ISOTOPE, NUCLIDE **2 a** : the consecrated eucharistic elements; *specif* : the accidents of the eucharistic bread and wine as distinguished in Roman Catholicism from their substance **b** (1) : a mental image, phantasm, or sensuous presentation (2) : an idea or object of thought that is the similitude of an object in nature whether in the guise of a modification of sense or of a purely intellectual correlative of the natural object; *broadly* : FORM, ASPECT, APPEARANCE **c** *obs* : a reflected image : REFLECTION **d** *obs* : an illusory image : PHANTOM **3** *obs* : the essential quality or distinguishing characteristic of something **4 a** : a component part of a compound medicine : SIMPLE **b** : a mixture of chopped or coarsely powdered vegetable drugs; *esp* : one used to prepare an aromatic tea or tisane ⟨a pectoral ~⟩ ⟨an emollient ~⟩ **5** *obs* : money of gold, silver, or other metal : COIN, SPECIE **syn** see CLASS

²species \"\ *adj* : constituting, being a member of, or selected from a biological species and not belonging to a horticultural variety of hybrid origin ⟨the China rose is a ~ rose⟩ ⟨native American ~ irises⟩

species-group \'ˌ=(,)=ˌ=\ *n* : ARTENKREIS

species-specific \'ˌ=(,)=ˌ=\ *adj* : exhibiting or characterized by species specificity ⟨a *species-specific* reaction⟩

species specificity *n* : the phenomenon involved in the interaction of an agent (as a pathogen, drug, or antigen) and members of a given species that results in a reaction characteristic for that species — compare SUSCEPTIBILITY

spe·ci·es·ta·ler \'shpātsē,e,stälər, -ē,es,dē-\ *n* -S [G *speziestaler*, fr. *spezies* specie (fr. L *species* species) + *taler* — more at TALER] : REICHSTALER

specif *abbr* **1** specific; specifically **2** specification

spec·i·fi·able \'spesə,fīəbəl, ˌ=ˌ=ˈ=ˌ=\ *adj* : capable of being specified ⟨~ standards⟩ ⟨a ~ logical form⟩

¹spe·cif·ic \spə'sifik, -fēk\ *adj* [LL *specificus*, fr. L *species* + *-ficus* -fic] **1** : constituting or falling into the category specified ⟨~ fertilizing agents such as nitrogen or phosphate⟩ **2** : having a real and fixed relationship to and usu. constituting a characteristic of : being peculiar to the thing or relation in question ⟨the ~ qualities of a drug⟩ ⟨a ~ distinction between vice and virtue⟩ ⟨~ symptoms of a disease⟩ **3** : restricted by nature to a particular individual, situation, relation, or effect : PECULIAR ⟨faults ~ to past centuries⟩: as **a** *of a therapeutic agent* : exerting a definitive and distinctive influence on a particular part of the body or on the course of a particular disease ⟨quinine is highly ~ for malaria⟩ **b** *of a parasite* (1) : capable of living and reproducing in only one kind of host (2) : producing a particular disease **c** *of a disease* : caused by a particular pathogen (as a microorganism) **d** *of an antigen or antibody* : capable of reacting with but one antibody or antigen or with an antibody or antigen in but one way ⟨in complement fixation both antigen and antibody may be either ~ or nonspecific⟩ **4 a** : characterized by precise formulation or accurate restriction (as in stating, describing, defining, reserving) : free from such ambiguity as results from careless lack of precision or from omission of pertinent matter ⟨a ~ statement of faith⟩ ⟨~ analysis of the problem⟩ ⟨a ~ agreement⟩ **b** : intended for or restricted to a particular end or object ⟨a ~ deposit in a bank⟩ **5** : of, relating to, or constituting a species and esp. a taxonomic species ⟨groups of ~ rank⟩ ⟨distinctive ~ characters⟩ **6** : being any of various arbitrary physical constants and esp. one relating a quantitative attribute to unit mass, volume, or area ⟨~ luminous intensity is the luminous intensity per unit area of source⟩ — see SPECIFIC ENTROPY, SPECIFIC GRAVITY, SPECIFIC HEAT, SPECIFIC HUMIDITY **syn** see EXPLICIT, SPECIAL

²specific \"\ *n* -S **1 a** : something peculiarly adapted to its purpose, use, or situation **b** : a drug that has a specific mitigating influence on a disease ⟨quinine is a ~ for malaria⟩ **2 a** : a specific or characteristic quality, trait, mark, or other feature **b** : precise details or distinctions : PARTICULARS ⟨music frees us from the ~ and stirs the unconscious depths of our being⟩ **c specifics** *pl* : SPECIFICATION 4 ⟨work out the ~s required for putting his program into effect —*New Republic*⟩ **syn** see REMEDY

specific absorptive index *n* : absorbance of radiation per unit thickness of layer and concentration of solution

spe·cif·i·cal \-fəkəl\ *adj* [ME, fr. LL *specificus* + ME *-al*] *archaic* : SPECIFIC

spe·cif·i·cal·i·ty \ˌ=,fə'kaləd-ē, -ləte, -i\ *n* -ES [*specifical* + *-ity*] : the quality or state of being specific

spe·cif·i·cal·ly \spə'sifək(ə)lē, -fēk-, -li\ *adv* [*specifical* + *-ly*] **1** : in regard to the matter in question : with reference to a quality or condition that is specified or inherent ⟨water is ~ heavier than ice⟩ ⟨a product of ~ architectural imagination —R.W.Kennedy⟩ **2** : with exactness and precision : in a definite manner ⟨~ denounced the new tax⟩

spe·cif·i·cate \-fə,kāt\ *vt* -ED/-ING/-S [LL *specificatus*, past part. of *specificare* to specify — more at SPECIFY] : to give specificity to : SPECIFY

spec·i·fi·ca·tion \,spesəfə'kāshən\ *n* -S [ML *specification-*, *specificatio*, fr. LL *specificatus* + L *-ion*, *-io* -ion] **1 a** *obs* : the giving of a definitive or specific quality **b** : conversion of property and esp. of property belonging to another into a new kind of property by labor (as in manufacture); *also* : the acquisition of title in property so produced that results under Roman, Scots, or civil law when the article cannot be reduced to its original form **2** *obs* : natural or specific character : characteristic quality **3** : the act or process of identifying or making specific through the supplying of particularizing detail : a decreasing of generality or vagueness (as of a concept) by determining or supplying characteristics that delimit a more precise applicability; *esp* : the replacement of a variable in a propositional function in symbolic logic by a specific value ("the sky is blue" is obtained by ~ from "*x* is blue") **4** : a detailed, precise, explicit presentation (as by enumeration, description, or working drawing) of something or a plan or proposal for something: as **a** : a written statement containing a minute description or enumeration of particulars (as of charges against a public officer or of the terms of a contract); *also* : a single article, item, or particular or an allegation of a specific act **b** : a written description of an invention or discovery for which a patent is sought that embodies the manner and process of making, constructing, compounding, and using and concludes with a specific and distinct claim of the part, improvement, or combination which the applicant regards as his discovery or invention — compare CLAIM **c** : a written or printed description of constructional work to be done (as in repairing a house or installing machinery in a factory) forming part of the contract, describing qualities of material and mode of construction, and giving dimension and other information not shown in the drawings — usu. used in pl.

spec·i·fi·ca·tive \'spesəfə,kād-iv, spə'sifə,-\ *adj* [LL *specificatus* + E *-ive*] : tending or serving to specify — **spec·i·fi·ca·tive·ly** \-d-əvlē\ *adv*

specific capacity *n* : the amount of water furnished under a standard unit head : the amount of water that is furnished under unit lowering of the surface of the water in a well by pumping

specific character *n* : a character distinguishing one species from another or from every other species of the same genus

specific charge *n* **1** : a charge against specific identifiable property that is essentially the same in effect as a mortgage **2** : the ratio of the electric charge on a particle to its mass

specific color *n* : a color having hue and saturation : a chromatic color

specific conductance *n* : CONDUCTIVITY

specific cost *n* : DIRECT COST

specific duty *n* : a duty assessed on an article of a given kind at a flat rate per unit of quantity (as a ton, bushel, or yard) without individual appraisal

specific dynamic action *n* : the effect of ingestion and assimilation of food and esp. of protein in increasing the production of heat in the body

specific energy *n* : the supposed specific quality of a sensory nerve that has been held to cause it to transmit a particular kind of sensation whatever the nature of the stimulus and that is usu. attributed to interpretive and correlative processes in the central nervous system

specific entropy *n* : entropy of a substance per unit mass (as per gram or per mole)

specific epithet *n* : the Latin or latinized noun or adjective that follows and agrees grammatically with the genus name in the name of a taxonomic species — called also *trivial name*

specific gravity *n* : the ratio of the density of a substance to the density of some substance (as pure water at its temperature of maximum density at 4° C) taken as a standard when both densities are obtained by weighing in air ⟨if one cubic inch of gold weighs in air 19.3 times as much as one cubic inch of water, the *specific gravity* of gold is 19.3⟩

specific-gravity balance *n* : a balance used for determining the specific gravity of a liquid or solid by means of the Archimedes' principle

specific-gravity bottle *or* **specific-gravity flask** *n* : a pycnometer having the form of a stoppered bottle

specific-gravity bulb *n* : a hollow glass bulb so weighted that it will float on a liquid of greater and sink in a liquid of less specific gravity than that marked on the bulb

specific heat *n* **1** : the ratio of the quantity of heat required to raise the temperature of a body one degree to that required to raise the temperature of an equal mass of water one degree **2** : the heat in calories required to raise the temperature of one gram of a substance one degree centigrade

specific humidity *n* : the mass of water vapor per unit mass of moist air

specific impulse *n* : the thrust produced per unit rate of consumption of the propellant usu. specified in pounds of thrust per pound of propellant used per second and forming a measure of the efficiency of performance of a rocket engine

specific ionization *n* : the number of ion pairs formed in a gas by an ionizing particle per unit length of its path

spec·i·fic·i·ty \ˌspesə'fisəd-ē, -sətē, -i\ *n* -ES : the quality or state of being specific ⟨contribute a desirable note of ~ to the discussion —H.D.Gideonse⟩; *esp* : the condition of being peculiar to a particular individual or group of organisms ⟨host ~ of a parasite⟩

spe·cif·i·cize \spə'sifəˌsīz\ *vt* -ED/-ING/-S : to make specific : give a specific quality to

specific key *n* : a key for a single cryptographic message or a small group of messages — compare PERIOD KEY

specific legacy *n* : a bequest of a particular identifiable and existing thing or part (as a specified animal) out of a testator's estate — compare GENERAL LEGACY

specific lien *n* : PARTICULAR LIEN

specific magnetization *n* : the ratio of the magnetization of a substance to the density obtained by dividing the magnetic moment of a specimen by its mass

specific modifier *n* : a gene that modifies the effect of one or more other genes

specific name *n* : the binomial name of a taxonomic species consisting of the name of its genus followed by a specific epithet

spe·cif·ic·ness *n* -ES : the quality or state of being specific

specific performance *n* : the performance of a legal contract exactly or substantially according to its terms — used chiefly with reference to such performance as decreed by a court of equity in a case where the common-law remedy of damages would be substantially inadequate and the specific performance not unjust to the defendant

specific rate *n* : an insurance rate specif. computed for a particular risk : SCHEDULE RATE

specific refractivity *n* : the refractivity of a medium divided by its density

specific resistance *n* : RESISTIVITY 2b

specific rotation *n* : the angle of rotation in degrees of the plane of polarization of a ray of monochromatic light that passes through a tube 1 decimeter long containing the substance in solution at a concentration of 1 gram per milliliter in a polarimeter

specifics *pl of* SPECIFIC

specific stain *n* : a dye used in histology and microchemistry that has a specific affinity for particular structural elements or chemical compounds

specific surface *n* : the ratio of the total surface of a substance (as an adsorbent) to its volume : surface area (as of a finely divided powder) per unit mass

specific volume *n* : the volume per unit mass of a substance : the reciprocal of the density

specific weight *n* : the weight of a substance per unit volume in absolute units equal to the density multiplied by the acceleration of gravity

spec·i·fi·er \'spesəˌfī(ə)r, -īə\ *n* -S : one that specifies (as by giving details or particulars); *esp* : a person who draws up specifications (as for obtaining a patent)

spec·i·fy \-ˌfī\ *vb* -ED/-ING/-ES [ME *specifien*, fr. OF *specifier*, fr. LL *specificare*, fr. *specificus* specific] *vt* **1 a** : to mention or name in a specific or explicit manner : tell or state precisely or in detail ⟨~ the uses of a plant⟩ ⟨clearly *specified* the one he meant⟩ ⟨the bequest *specifies* that the recipient must care for the cat⟩ **b** : to include as an item in a specification ⟨~*ing* oak flooring throughout⟩; *also* : to draw specifications of **2** : to make specific : give a specific character or application to ⟨tensions that ~ personal conflicts⟩ ~ *vi* : to speak precisely or in detail : give full particulars **syn** see MENTION

spec·i·men \'spesəmən *sometimes* -esmᵊn\ *n* -S [L, fr. *specere* to look, look at — more at SPY] **1 a** : a particular single item, part, aspect, or incident that is typical and indicative of the nature, character, or quality of others in the same class or group ⟨a ~ of the melodramatic fiction of the era —T.S. Eliot⟩ ⟨compared ~s of their handwriting⟩ ⟨repeated a ~ from which the tenor of the conversation could be readily inferred⟩ **b** : a sample or unit (as of merchandise, a mineral, or a plant) that is deliberately selected for examination, display, or study and is usu. chosen as typical of its kind ⟨a ~ cabinet⟩ ⟨~s of a new line of textiles⟩: as (1) : a printed sheet showing different styles and sizes of type (2) : a sample copy of a printed work; *specif* : a condensed sample containing enough of the typography, illustrations, maps, binding, and other features to give an adequate idea of the complete work (3) : a postage stamp printed as a sample and bearing the word *specimen* (4) : a portion of material for use in testing ⟨a fecal ~⟩ ⟨wool ~s for staple testing⟩ **2 a** : something that obviously belongs to a particular category but shows or is noticed by reason of some individual distinguishing character or peculiarity ⟨the scavenging pigs, the dirtiest, leanest, and hungriest ~s I have met with —V.G.Heiser⟩ **b** : INDIVIDUAL, PERSON ⟨turned out to be a queer ~⟩ ⟨~s like these fellows that hang around the docks⟩ **syn** see INSTANCE

specimen plant *n* : a plant grown for exhibition or in the open to display its full development as distinguished from one in a border or other planting

specio- — see SPECI-

spe·ci·os·i·ty \,spēshē'äsəd-ē, -sətē, -i\ *n* -ES [ME *specioustee* beauty, fr. LL *speciositat-*, *speciositas*, fr. L *speciosus* beautiful + *-itat*, *-itas* -ity] **1** : the quality or state of being specious **2** : a specious appearance or thing

spe·cious \'spēshəs\ *adj* [ME, fr. L *speciosus* beautiful, showy, plausible, fr. *species* appearance, beauty + *-osus* -ous — more at SPY] **1** *obs* : presenting a pleasing appearance : pleasing in form or look : SHOWY **2** : superficially beautiful or attractive but not so in reality : deceptively beautiful **3** : apparently right or proper : superficially fair, just, or correct but not so in reality : appearing well at first view : PLAUSIBLE ⟨~ reasoning⟩ ⟨a ~ claim⟩ **4** : existing to our senses : actually known or experienced — see SPECIOUS PRESENT — **spe·cious·ly** *adv* — **spe·cious·ness** *n* -ES

specious present *n* : the time span of immediate consciousness : interval within which what is earlier may be distinguished from what is later though both are directly present to consciousness

¹speck \'spek\ *n* -S [ME *specke*, fr. OE *specca*] **1 a** : a small discoloration in or on something : SPOT, STAIN ⟨a ~ on paper or cloth⟩ ⟨covered with dark ~s⟩ **b** : a small discoloration revealing decay (as in fruit); *broadly* : FLAW, BLEMISH ⟨a reputation without a ~⟩ **2** : a tiny bit of something : a small piece, particle, or amount : MITE ⟨put just a ~ of milk in the tea⟩ ⟨ore sparkling with ~s of gold⟩ ⟨the announcement failed to arouse a ~ of interest⟩ **3 a** : a bacterial or fungous disease of rice characterized by shriveled or specked grains **b** : a disease of plants characterized by small usu. circumscribed lesions — see BACTERIAL SPECK **4** : something marked or marred with specks: as **a** : imperfect but usable fruit ⟨bought a basket of ~s for jelly⟩ **b** : a spotted or speckled fish ⟨when the big ~s begin biting⟩ **5** : a small sand darter (*Ulocentra stigmaea*) common in the southeastern U. S.

²speck \"\ *vt* -ED/-ING/-S **1** : to produce specks and esp. blemishes on or in : SPOT, SPECKLE **2** : to remove specks from (as cloth)

³speck \"\ *n* -S [ME *spekke*] *dial Eng* : PATCH

⁴speck \"\ *n* [D *spek* (fr. MD *spec*) & G *speck*, fr. OHG *spek;* both akin to OE *spec*, *spic* bacon, blubber, ON *spik*, Skt *sphigī* buttock, *sphāyati* he increases, grows fat — more at SPEED] *chiefly dial* : fat meat: as **a** : BACON, SALT PORK **b** : the blubber of a whale or other marine mammal **c** *Africa* : the fat of the hippopotamus esp. when cured for use as bacon

⁵speck \"\ *vi* -ED/-ING/-S [by shortening and alter.] *Austral* : PROSPECT 1a

specked \'spekt\ *adj* [ME, fr. *specke* speck + *-ed*] : marked or marred with or as if with specks : SPOTTED, SPECKLED — **speck·ed·ness** \'spekədnəs\ *n* -ES

speckeldy *var of* SPECKLEDY

speck·er \'spekə(r)\ *n* -S : one that specks; *esp* : a worker that removes specks from something

speckfall \'ˌ=ˌ=\ *n* [*⁴speck* + *fall*] : a fall rove through a block for hoisting blubber and bone aboard a whaler

speck finger *n* [*²speck* + *finger*] : ERYSIPELOID

speckier *comparative of* SPECKY

speckiest *superlative of* SPECKY

speck·i·ness \'spekēnəs, -kin-\ *n* -ES : the quality or state of being specky

¹speck·le \'spekəl\ *n* -S *often attrib* [ME *spakle*, *speckle;* akin to MD *speckel* speckle, OE *specca* speck] : a small mark, splotch, or speck; *esp* : an irregular natural speck (as of color) ⟨white eggs covered with purplish ~s⟩ ⟨a *speckle*-bellied goose⟩

²speckle \"\ *vt* **speckled**; **speckled**; **speckling** \-k(ə)liŋ\ **speckles** **1** : to mark with small spots or specks : SPECK, SPOT ⟨sunlight *speckling* the lawn⟩ ⟨decided to ~ the finish of the floor⟩ **2** : to dot in the manner of speckles ⟨little lakes *speckled* the land⟩ ⟨a slope *speckled* with houses⟩

speckledbelly \'ˌ=ˌ=\ *n* [*¹speckle* + *belly*] **1** : WHITE-FRONTED GOOSE **2** : GADWALL

speckledbreast \'ˌ=ˌ=\ *also* **speckle-breasted brant** \'ˌ=ˌ=ˌ=\ *or* **speckle-breasted goose** *n* : WHITE-FRONTED GOOSE

speckle-cheek \'ˌ=ˌ=\ *n* : CACTUS WOODPECKER

speck·led \'spekəld\ *adj* [ME *spacled*, fr. *spakle* speckle + *-ed*] : covered or marked with speckles : SPOTTED

speckled alder *n* : a common shrub (*Alnus rugosa*) of the north temperate zone with oval leaves and catkins that flower much before the leaves expand

speckled bass *n* : BLACK CRAPPIE

speckledbill \'ˌ=ˌ=\ *n* : SURF SCOTER

speckled blotch *or* **speckled leaf blotch** *n* : a disease of wheat caused by fungi of the genus *Septoria* and characterized by pinhead-sized light-colored leaf spots that later develop into blackish spore pustules

speckled brant *n* : WHITE-FRONTED GOOSE

speckled bullhead *n* : BROWN BULLHEAD

speckled crab *n* : an active shallow-water crab (*Araneus cribrarius*) that is found from Massachusetts to Brazil and is light brown thickly dotted with white or yellow

speckled hind *n* : a large grouper (*Epinephelus drummondhayi*) that is umber brown densely covered with small pearly-white or bluish dots and is a common food fish of the Florida coast

speckled moray *n* : HAMLET 2

speck·led·ness \'spekəldnəs\ *n* -ES : the quality or state of being speckled

usun \ˈü-ˌsün\ *n, pl* **usun** *or* **usuns** *usu cap* : a member of an ancient people of central Asia said to have been blond and blue-eyed

usu·ra \ˈyü-zürə\ *n, pl* **usurae** [L] : interest paid on borrowed money

usu·rae usu·ra·rum \ˈyü-ˌzü,rī,yüsəˈrärəm, -rē...ˈrārəm\ *n pl* [NL, lit., interests on interests] *Roman law* : COMPOUND INTEREST

usure *n* -S [ME, fr. MF, fr. L *usura* use, interest, usury — more at USURY] *obs* : USURY

usu·rer \ˈyüzhərə(r)\ *n* -S [ME, fr. AF, fr. ML *usurarius*, fr. L *usura* interest, usury + *-arius* -ary] : one that lends money and takes interest for it : MONEYLENDER; *specif* : one that lends money at a rate of interest beyond that established by law or at an exorbitant rate

usu·ri·ous \yüˈzhůrēəs\ *adj* [*usury* + *-ous*] **1** : practicing usury : taking illegal or exorbitant interest for the use of money ⟨a ~ old pawnbroker⟩ **2** : involving usury : of the character of usury ⟨a ~ rate of interest⟩ — **usu·ri·ous·ly** *adv* — **usu·ri·ous·ness** *n* -ES

usu·rous \ˈyüzhərəs\ *adj* [*usure* + *-ous*] *obs* : USURIOUS

usurp \yüˈsərp, -ˈsȯrp, -ˈsəip *sometimes* -ˈz\ *vb* -ED/-ING/-S [ME *usurpen*, fr. MF *usurper*, fr. L *usurpare* to take possession of by use, employ, usurp, fr. *usu* (abl. of *usus* use) + *rapere* to seize — more at USE, RAPID] *vt* **1** : to seize and hold (as office, place, functions, powers, or rights) in possession by force or without right ⟨~ a throne⟩ ⟨by use of the treaty-making power, the president can ~ legislative powers that do not belong to him —J.J.Del Castillo⟩ **2** : to occupy (as land or a city) by or as if by force : take possession of ⟨the bogs, like inland seas, ~ the earth —Sacheverell Sitwell⟩ **3** : to employ wrongfully : use without authority **4** : to take the place of by or as if by force : SUPPLANT ⟨gloom was beginning to ~ mirth —O.S.J. Gogarty⟩ **5** *archaic* : to appropriate (a word or expression) for use ~ *vi* : to act as a usurper: **a** : to seize or exercise authority or possession wrongfully **b** : to practice usurpation upon a person — used with *on* or *upon* **c** : to encroach or infringe upon a right or privilege — used with *on* or *upon*
syn see APPROPRIATE

usur·pa·tion \ˌyüsəˈ(r)ˈpāshən *sometimes* ˌyüzə(-\ *n* -S [ME, fr. MF, fr. L *usurpation-*, *usurpatio* act of using, fr. *usurpatus* (past part. of *usurpare* to use) + *-ion-*, *-io* -ion] **1** : the act of usurping : unauthorized arbitrary assumption and exercise of power esp. as infringing on others' rights ⟨dictatorial ~ of Congressional power —*Current History*⟩; *specif* : the illegal seizure of sovereign power — usu. used with *of* or sometimes with *on* or *upon* **2** : an act or an instance of encroachment ⟨protect the executive branch from any legislative ~s —Sidney Hyman⟩ **3** : the dispossession of the patron of a church by a stranger presenting to a vacant benefice a clerk who is thereupon admitted and instituted **4** *Roman law* : an interruption of use or possession (as in usucapion or in cohabitation)

usur·pa·tive \yüˈsərpəd·iv *sometimes* -ˈzər-\ *adj* [LL *usurpativus* wrongly used, fr. L *usurpatus* (past part. of *usurpare* to usurp) + *-ivus* -ive] : of or constituting usurpation : USURPING ⟨the tyranny of some ~ minority —*Nineteenth Century & After*⟩

usur·pa·to·ry \-pəˌtōrē\ *adj* [LL *usurpatorius*, fr. L *usurpatus* + *-orius* -ory] : USURPATIVE

usurp·a·ture \-pəˌchu̇(ə)r, ˌyüzərˈpā,-\ *n* -S [L *usurpatus* + E *-ure*] : USURPATION

usurp·er \yüˈsərpər, -ȯpə(r, -ˌəipə(r *sometimes* -ˈz\ *n* -S [ME, fr. *usurpen* to usurp + *-er*] : one that usurps: as **a** : one that seizes illegally on sovereign power ⟨a ~ who should make himself master of the relics would be acknowledged king without dispute —J.G.Frazer⟩ **b** : one that infringes or encroaches upon the rights or property of another **c** : one that without proper authority assumes public office and performs official acts

usurp·ing·ly *adv* [*usurping* (pres. part. of *usurp*) + *-ly*] : by usurpation

usur·press \-prəs\ *n* -ES [*usurper* + *-ess*] *archaic* : a woman usurper

usu·ry \ˈyüzh(ə)rē, -ri\ *n* -ES [ME, fr. ML *usuria*, fr. L *usura* use, interest, usury (fr. *usus* — past part. of *uti* to use — + *-ura* -ure) + *-ia* -y — more at USE] **1** *archaic* : a premium or increase paid or stipulated for a loan of money or goods : INTEREST ⟨thou shalt not lend upon ~ to thy brother—Deut. 23:19 (AV)⟩ **2** : the lending out of money with an interest charge for its use : the taking or practice of taking interest **3** : an unconscionable or exorbitant rate or amount of interest; *specif* : interest in excess of a legal rate charged to a borrower for the use of money

usus \ˈyüsəs\ *n* -ES [L — more at USE] **1** *Roman law* : the act of making use of something : USE **2** *Roman law* : the personal and inalienable servitude of the usuary of making the bare use of real or personal property without enjoying its income, profit, or produce

USW *abbr* **1** ultrashort wave **2** *often not cap* [G *und so weiter*] and so forth

us·ward \ˈəswə(r)d\ *adv* [ME (*to*) *usward*, fr. *to* + *us* + *-ward*] : toward us ⟨bending ~ with memorial urns the most high Muses . . . weep —A.C.Swinburne⟩ ⟨the Lord . . . is long-suffering to ~ —2 Pet 3:9 (AV)⟩

ut \ˈət, ˈüt\ *n* -S [ME, lowest note of Guido's scale, fr. ML, fr. L, that, in order that, a word sung to this note in a medieval hymn to St. John the Baptist] : the musical tone *C* in the French fixed-do system replaced in solmization by *do*

ut *abbr* utility

UT *abbr* universal time

¹uta \ˈyüd-ə\ *n* [NL, fr. E ¹*ute*] **1** *cap* : a large genus of iguanid lizards found from New Mexico to Lower California — compare SWIFT 1a **2** -S : any lizard of *Uta* or a related genus

²uta \ˈüd-ə\ *n* -S [fr. native name in Peru] : a leishmaniasis of the skin occurring in Peru : ESPUNDIA

¹utah \ˈyü,tȯ, -tä\ *n, pl* **utah** *or* **utahs** *usu cap* : ¹UTE

²utah \ˈ\ *adj, usu cap* [fr. *Utah*, state in the western U.S. fr. Ute *Yuta* Ute] : of or from the state of Utah ⟨*Utah* mines⟩ : of the kind or style prevalent in Utah : UTAHAN

¹utah·an \-ȯən, -ən\ *adj, usu cap* [*Utah*, state in the western U.S. + E *-an*] **1** : of, relating to, or characteristic of the state of Utah **2** : of, relating to, or characteristic of the people of Utah

²utahan \ˈ\ *also* **utahn** \-ȯn, -ən\ *n* -S *cap* : a native or resident of the state of Utah

utah juniper *n, usu cap U* : a small tree (*Juniperus osteosperma*) of the midwestern and Rocky Mountain regions of No. America with gray fibrous shreddy bark and yellow-green leaves

utah-lite \-ˌlīt, -ət,-\ *n* -S [fr. *Utah*, state + *-lite*] : VARISCITE

utas \ˈyü,tas\ *n* -ES [ME, contr. of *utaves*, fr. MF *huitaves*, pl. of *huitave* octave, fr. ML *octava* — more at OCTAVE] *archaic* : the octave of a church feast

ut dict \ˈət'dikt\ *abbr* [L *ut dictum*] as directed

¹ute \ˈyüt, *usu* -üd-+V; ˈyüd-ē, -üt|, |ī\ *n, pl* **ute** *or* **utes** *usu cap* [Ute *Yuta*] **1 a** : a group of Shoshonean peoples of Colorado, Utah, and New Mexico **b** : a member of any of such peoples **2** : the language of the Ute people

²ute \ˈyüt\ *n* -S [by shortening & alter.] : a truck adaptable to numerous uses : a utility truck ⟨while I'm loading the ~ —R.M.Daw⟩

uten·sil \yüˈten(t)səl\ *n* -S [ME *utensele*, *utensil* collection of domestic articles, fr. MF *utensile*, fr. L *utensilia* utensils, fr. neut. pl. of *utensilis* useful, fr. *uti* to use — more at USE] **1 a** : an article useful or necessary in a household; *esp* : an implement, instrument, or vessel used in a kitchen ⟨household ~s⟩ **b** : an article (as a tool, implement, or vessel) serving a useful purpose ⟨providing his chums with the ~s of smoking —Arnold Bennett⟩ ⟨writing ~s⟩ ⟨farming ~s⟩ **2** : a vessel, ornament, or furnishing belonging to a church; *esp* : one used in religious service ⟨consecration of the altar and its ~s⟩ **3** : a person that is useful or is made use of ⟨a lackey and serf, the merest ~ of his master's will —Sir Winston Churchill⟩ **4** *archaic* : CHAMBER POT **syn** see IMPLEMENT

uter- *or* **utero-** *comb form* [L *uterus*] **1** : uterus ⟨*uteralgia*⟩ ⟨*uterectomy*⟩ ⟨*uterocele*⟩ ⟨*uterology*⟩ **2** : uterine and ⟨*utero-*abdominal⟩ ⟨*uteroovarian*⟩ ⟨*uterovaginal*⟩

uteri *pl of* UTERUS

uter·ine \ˈyü-tərən, -ītə-, -ə,rīn\ *adj* [ME, fr. LL *uterinus*, fr. L *uterus* + *-inus* -ine] **1 a** : born of the same mother but by a different father ⟨~ brothers⟩ **b** (1) : related by blood through the mother : having relationship traced entirely through females ⟨~ uncle⟩ ⟨~ kin⟩ (2) : based upon such relationship ⟨a ~ system of descent⟩ **2** : suited for use in or on the uterus ⟨~ probe⟩ ⟨~ speculum⟩ **3** : of, relating to, or situated in the uterus : affecting or taking place in the uterus ⟨~ diseases⟩

uterine artery *n* : an artery that is derived from the hypogastric artery and that following a course between the layers of the broad ligament reaches the uterus at the cervix and supplies the uterus and adjacent parts and during pregnancy the placenta — see UTERINE PLEXUS

uterine gland *n* : any of the branched tubular glands in the mucous membrane of the uterus

uterine milk *n* : a nutritive secretion that is produced by uterine glands esp. during early phases of mammalian gestation and that nourishes the young mammalian embryo prior to implantation

uterine plexus *n* : a plexus of veins tributary to the hypogastric vein by which blood is returned from the uterus — compare UTERINE ARTERY

uterine tube *n* : FALLOPIAN TUBE

utero-gestation \ˌyüd-ə(ˌ)rō+\ *n* [*uter-* + *gestation*] **1** : the part of the gestation period that is passed within the uterus **2** : the entire normal mammalian gestation period

uter·o·gram \ˈyüd-ərəˌgram\ *n* [*uter-* + *-gram*] : an X-ray photograph of the uterine cavity made after the injection of a radiopaque substance

uter·og·ra·phy \ˌyüd-əˈrägrəfē\ *n* -ES [ISV *uter-* + *-graphy*] : the art, practice, or action of making uterograms

utero-ma·nia \ˌyüd-ərō-ˈmānēə\ *n* [NL, fr. *uter-* + *mania*] : NYMPHOMANIA

uter·o·sal·pin·gog·ra·phy \ˌ=ˌsal,piŋˈgägrəfē\ *n* [ISV *uter-* + *salping-* + *-graphy*] : HYSTEROSALPINGOGRAPHY

uter·o·tub·al \ˌ=ˈtübəl, -ˈtyü-\ *adj* [*uter-* + *tube* + *-al*] : of or relating to the uterus and Fallopian tubes ⟨a ~ insufflation of air in which air injected into the uterus is forced through the tubes⟩

uter·us \ˈyüd-ərəs, -ütər-\ *n, pl* **uteri** \-ə,rī\ [L, womb, belly; perh. akin to Gk *hoderos* belly, Skt *udara*] **1** : an organ in female mammals for containing and usn. for nourishing the young during development previous to birth that consists of a greatly modified and enlarged section of an oviduct or of the two oviducts united, that has thick walls consisting of an external serous coat, a very thick muscular coat of nonstriated muscle, and a mucous coat containing numerous glands, and that during pregnancy nndergoes remarkable increase in size and change in the condition of its walls : WOMB — compare CERVIX, FALLOPIAN TUBE, PLACENTA **2 a** : a section or diverticulum of an oviduct of any of various vertebrate or invertebrate animals other than the mammals that is enlarged or modified to serve as a place of development of the eggs or of the young **b** : the glandular part of the oviduct that secretes the eggshell

utes *pl of* UTE

ut·fang·thief *or* **ut·fang·theef** \ˈətfaŋ,thēf\ *n* [OE *ūtfangenetheof* — more at OUTFANGTHIEF] : OUTFANGTHIEF

utia \ˈütēə\ *n* -S [Sp *hutia* — more at HUTIA] : HUTIA

uti·ca \ˈyüd·ikə, -üt|, |ēkə\ *adj, usu cap* [fr. *Utica*, manufacturing city of central New York] : of or from the city of Utica, N.Y. ⟨*Utica* knitting mills⟩ : of the kind or style prevalent in Utica

utick \ˈyütik\ *n* -S [prob. of imit. origin] *dial Eng* : WHINCHAT

util *or* **utile** \ˈyüd·ᵊl, -üt|ᵊl, -ü(ˌ)tīl\ *n* -S [back-formation fr. ¹*utility*] : a hypothetical unit of utility

utile \ˈ\ *adj* [MF, fr. L *utilis* — more at UTILITY] : having utility : productive of profit or advantage : PRACTICAL, USEFUL ⟨~ metals such as copper and tin —R.E.M.Wheeler⟩ ⟨ready-made and ~ substitutes —Parker Tyler⟩ ⟨a ~ agent⟩

¹util·i·tar·i·an \(ˌ)yü,tilə'terēən, -ˈtā(a)r-, -ˈtär-\ *n* -S [*utility* + *-arian*] **1** : one that believes in, advocates, or follows the doctrine of utilitarianism ⟨the original ~s . . . believed that each individual was the best judge of his own welfare —E.S. Griffith⟩ **2** : a person who has a utilitarian outlook

²utilitarian \(ˌ)=ˌ==ˈ===\ *adj* **1 a** : of, relating to, or based upon the doctrine of utilitarianism ⟨on the ~ theory of obligation all duties are subordinate to one: maximize good consequences —O.A.Johnson⟩ ⟨first exponent of ~ political theory —*Times Lit. Supp.*⟩ **b** : believing in, advocating, or supporting the doctrine of utilitarianism ⟨~ philosophers⟩ **2** : marked by a prevalence of the doctrines, principles, or views of utilitarianism ⟨love of truth for its own sake is . . . becoming rarer in this hasty ~ age —M.R.Cohen⟩ ⟨a ~ culture⟩ **3 a** : of or relating to utility : concerned with practical things or material interests ⟨humanistic vs.~ education —J.E.Tobin⟩ ⟨a ~ point of view⟩ **b** (1) : characterized by or aiming at utility as distinguished from beauty or ornament ⟨her dark abundant hair was skewered into a ~ knob —Edna Ferber⟩ ⟨an essentially ~ and only accidentally aesthetic end —Stanley Morison⟩ ⟨~ steel tables⟩ (2) : evincing or characterized by a regard for utility of a lower kind : marked by a sordid spirit ⟨~ narrowness⟩ ⟨a ~ indifference to art⟩ **c** : preferring such utility ⟨a ~ people who are concerned more with getting on in the world and seducing women than with theology and a decent meal —Thomas Sugrue⟩

util·i·tar·i·an·ism \(ˌ)=ˌ==ˈterēəˌnizəm, -ta(a)r-, -tär-\ *n* -S [¹*utilitarian* + *-ism*] **1 a** : a doctrine that the useful is the good and that the determining consideration of right conduct should be the usefulness of its consequences; *specif* : a theory elaborated by Jeremy Bentham and James and John Stuart Mill that the aim of moral, social, and political action should be the largest possible balance of pleasure over pain or the greatest happiness of the greatest number — compare BENTHAMISM, HEDONISM 1 **b** : one of a group of primarily 20th century ethical theories based not or not only on a conception of pleasure as an intrinsic good but on other intrinsic goods (as beauty, harmony, or affection) ⟨enunciates the general principle of ~ in the formula that it is right to aim at whatever will promote the increasingly full realization of increasingly high values —C.D.Broad⟩ — called also *ideal utilitarianism* **2** : utilitarian character, spirit, or quality ⟨the ~ of commercial industry —Bertrand Russell⟩ ⟨the forthright ~ of the superb . . . aqueduct —*Amer. Guide Series: N.Y.*⟩

¹util·i·ty \yüˈtilədē, -ətē, -i\ *n* -ES [ME *utilite*, fr. MF *utilité*, fr. L *utilitat-*, *utilitas*, fr. *utilis* useful (fr. *uti* to use + *-ilis* -ile) + *-itat*, *-itas* -ity — more at USE] **1** : the quality or state of being useful : fitness for some purpose : profitability to some desired end : SERVICEABLENESS, USEFULNESS ⟨demonstrated the ~ of hard coal as a domestic fuel —*Amer. Guide Series: Pa.*⟩ ⟨the design . . . is based on ~ rather than artistic embellishment —*Amer. Guide Series: Minn.*⟩ ⟨a road whose ~ was proved —*Amer. Guide Series: Ark.*⟩ — sometimes used with *of* ⟨more of ostentation than of real ~ in ships of this . . . burthen —Henry Fielding⟩ **2** : something useful or designed primarily for use: as **a** : a useful factor or feature ⟨their views of the relative *utilities* of . . . democracy and communism —H.A.Steiner⟩ ⟨many of the admitted *utilities* and amenities from social services —J.A.Hobson⟩ **b** : a tool, device, or other implement; *esp* : one used as an adjunct to a more important machine **c** : a service provided by a public utility **d** *chiefly Austral* : a versatile motor vehicle : one having or adaptable to a number of uses (as both a truck and a car) **e** : a unit composed of one or more pieces of equipment usu. connected to or part of a structure and designed to provide a service (as heat, light, power, water, or sewage disposal) ⟨the price of the house included all *utilities*⟩ **3** : the capacity to satisfy human wants or desires — see MARGINAL UTILITY, SUBJECTIVE UTILITY **4 a** : PUBLIC UTILITY 1 ⟨the *utility's* regular residential . . . customers —*N.Y. Times*⟩ ⟨effective public regulation of *utilities* —*Amer. Polit. Sci. Rev.*⟩ **b utilities** *pl* : stocks or bonds of utility companies ⟨*utilities* . . . displayed an easier tone —*Brookmire Investment Reports*⟩

²utility \ˈ\ *adj* **1** : capable of serving as a substitute in any of various roles or positions ⟨a ~ actor⟩ ⟨~ workers⟩ — compare UTILITY MAN **2 a** : kept for the production of an economically valued product (as meat, eggs, or milk) rather than for show or as pets ⟨~ livestock⟩ ⟨~ poultry⟩ ⟨~ sheep⟩ **b** : of, belonging to, or constituting an inferior grade of market cattle ⟨~ cows⟩ **c** : of, belonging to, or constituting a low grade of meat or other food products ⟨~ beef⟩ ⟨~ grades of lamb⟩ **3** : serving primarily for utility rather than beauty : designed primarily for usefulness often at the expense of beauty, taste, or good quality : FUNCTIONAL, UTILITARIAN ⟨~ furniture⟩ ⟨~ clothes⟩ ⟨~ art⟩ ⟨~ goods⟩ **4** : having or designed for a number of useful and practical purposes : adapted or adaptable for general use esp. in place of something specialized ⟨~ bag⟩ ⟨~ knife⟩ ⟨~ chair⟩ ⟨~ boat⟩ **5** : of, relating to, or based upon philosophical utility ⟨~ calculus⟩ ⟨~ concepts⟩ **6** : playing a usu. minor part incidental to the plot but often of considerable technical or expository usefulness ⟨a ~ character in a story or play⟩ **7 a** : of, relating to, or constituting a public utility ⟨~ companies⟩ ⟨~ regulation⟩ ⟨~ mergers⟩ ⟨a ~ meter⟩ **b** : of, relating to, or based on the prices of shares of public utility stocks ⟨the ~ average climbed 1.2 points in heavy trading⟩

utility man *n* : a man available for service in various positions: as **a** : an actor who performs minor parts and does odd jobs in a theater **b** : a member of a baseball team who plays various positions in the absence of regular players **c** : a kitchen helper or busboy on a ship — called also *galley man* **d** : JUMPER If **e** : one (as a handyman, houseman, or man-of-all-work) who is available for a variety of jobs

utility pole *n* : one of a series of poles usu. located at the side of a street or road and used to support wires and other equipment used by utilities (as telephone and electric companies) ⟨his car sideswiped a *utility pole* —*Springfield (Mass.) Union*⟩

utility principle *n* : GREATEST HAPPINESS PRINCIPLE

utility room *n* : a room (as in a dwelling) designed or used to house heating, laundry, or general maintenance equipment

uti·liz·able \ˈyüd·ᵊl,īzəbəl, -üt|ᵊl-, ˌ=ˈ===\ *adj* : capable of being utilized ⟨a two-seated bomber . . . ~ for the launching of torpedoes —*New Republic*⟩

uti·li·za·tion \ˌyüd·ᵊlə'zāshən, -üt|ᵊl-, -ᵊl,ī'-\ *n* -S [F *utilisation*, fr. *utiliser* to utilize + *-ation*] : the action of utilizing or the state of being utilized ⟨the ~ of quotations from archives —C.H.Driver⟩ ⟨~ of glucose in the liver⟩ ⟨the disparity between the established drawing rights and their rate of ~ —R.F.Mikesell⟩

utilization coefficient *n* : the fraction of the total luminous flux from the lighting equipment of a room or office that falls upon areas (as desks or tables) where it is actually utilized

utilization factor *n* : the ratio of the maximum demand on a generator or generating station to the capacity of the generators

uti·lize \ˈyüd·ᵊl,īz, -üt|ᵊl- *vt* -ED/-ING/-S *see -ize in Explan Notes* [F *utiliser*, fr. *utile* useful (fr. L *utilis*) + *-iser* -ize — more at UTILITY] : to make useful : turn to profitable account or use : make use of : convert to use ⟨a cheese factory ~s milk from scores of farms —*Amer. Guide Series: Ark.*⟩ ⟨the ability of an organism to ~ oxygen —H.G.Armstrong⟩ ⟨~ the services of existing agencies —Frederick Graham⟩ **syn** see USE

uti·liz·er \-zəˌ(r)\ *n* -S : one that utilizes

uti pos·si·de·tis \ˈü,tē,päsōˈdādə·ōs, ˈyü,tī,päsōˈdēd·ōs\ *n* [L, as you (now) possess (fr. the wording of the formula of interdiction)] **1** : an interdict in Roman and civil law for deciding the right to the possession of immovables and preserving things in statu quo pending the decision — compare UTRUBI **2** : a principle in international law that a conclusion or treaty of peace between belligerents vests in them respectively as absolute property the territory under their actual control and the things attached to it and the movables then in their possession except as otherwise stipulated (as by treaty)

ut·man khel \ˈütmənˈkā(ə)l\ *n, pl* **utman khel** *or* **utman khels** *usu cap U&K* **1** : an independent Pathan people in the country southwest of the junction of the Swat and the Panjkora **2** : a member of the Utman Khel

¹ut·most \ˈətˌmōst *also chiefly Brit* -ˌməst\ *adj* [ME, alter. (influenced by *most*) of *utmest*, fr. OE *ūtmest*, superl. adj. fr. *ūt* out (adv.) — more at OUT] **1** : situated at the farthest point or extremity : most distant or remote in location : EXTREME ⟨the ~ point of the earth —John Hunt⟩ ⟨the ~ island⟩ **2** : of the greatest or highest degree : of the largest quantity, number, or amount ⟨a matter calling for the ~ secrecy —E.S. McCartney⟩ ⟨living in the ~ misery —Angélica Mendoza⟩ ⟨separated with the ~ clearness of distinction —R.M.Weaver⟩ **3** : final in order or time : LAST ⟨obtain the ~ penny of his debt —Maria Edgeworth⟩ **4** *archaic* : furthest extended : greatest in length, measure, or extent ⟨put forth your hand to the ~ stretch —Henry Felton⟩

²utmost \ˈ\ *n* [ME, fr. OE *ūtmest*, fr. *ūtmest*, adj.] **1** *archaic* : something that is most outward, distant, or remote : the farthest limit, part, or district (as of an extent or area) ⟨a city . . . on the ~ of the ridge of a hill —George Sandys⟩ **2 a** : the most possible : the extreme limit : the highest attainable point or degree ⟨designed to provide the ~ in comfort —*advt*⟩ ⟨the modeling of individual figures was . . . the ~ they attempted —O. Elfrida Saunders⟩ — used esp. in the phrase *to the utmost* ⟨decentralizing authority . . . to the ~ —A.L. Nickerson⟩ ⟨taxing my resources to the ~ —E.S.McCartney⟩ **b** : the highest, greatest, or best of one's abilities, powers, and resources ⟨doing his ~ for a woman confided to his protection —Thomas De Quincey⟩ ⟨after society and culture have done their ~ —Ralph Linton⟩

uto-aztecan \ˈyü(ˌ)tō+\ *n, usu cap U&A* [*Ute* + *-o* + *Aztec* + *-an*] **1** : a language phylum comprising the Nahuatlan, Taracahitian, Piman, and Shoshonean families **2 a** : a people speaking a Uto-Aztecan language **b** : a member of such people

uto·pia \yüˈtōpēə\ *n* -S [fr. *Utopia* an imaginary country with ideal laws and social conditions (fr. Gk *ou* not, no + *topos* place) described in the book *Utopia* (1516) by Sir Thomas More †1535 English statesman and author — more at TOPIC] **1** : a place (as a region, island, country, or locality) that is imaginary and indefinitely remote **2** *often cap* : a place, state, or condition of ideal perfection esp. in laws, government, and social conditions ⟨that workers' ~ . . . in which there are more jobs than men seeking them —S.E.Harris⟩ — often used without article ⟨many were persuaded that independence would usher in ~ —A.E.Stevenson b. 1900⟩ **3** : an impractical and usu. impossibly ideal scheme esp. for social improvement **4** : a romance or other work describing a utopia ⟨a ~ written for girls —Emory Holloway⟩

¹uto·pi·an \(ˈ)yüˈtōpēən\ *adj, often cap* [NL *utopianus*, fr. *Utopia*, Sir Thomas More's imaginary country + L *-anus* -an] **1** : of, relating to, or having the characteristics of a utopia; *specif* : having impossibly ideal conditions (as in politics, economics, and social customs and organization) ⟨the dim ~ future —J.G.Colton⟩ ⟨a ~ commonwealth⟩ **2** : proposing or advocating visionary and usu. impractically ideal schemes esp. for the perfection of social and political conditions ⟨~ idealists⟩ **3** : involving or founded upon imaginary perfection : impossibly ideal : CHIMERICAL, VISIONARY ⟨those who react adversely to secrecy often propose ~ alternatives —R.A. Dahl⟩ ⟨branded as a ~ objective —M.K.Dziewanowski⟩ ⟨recognized the ~ nature of his hopes —C.S.Kilby⟩ **4** : believing in, advocating, or having the characteristics of utopian socialism ⟨~ socialists⟩ ⟨~ doctrines⟩

²utopian \ˌ=ˈ===\ *n -s sometimes cap* **1** : a native or inhabitant of a utopia **2 a** : one that believes in the perfectibility of human society : IDEALIST, VISIONARY ⟨a consistent ~, expecting the future to realize her hopes —Van Wyck Brooks⟩ **b** : one that proposes or advocates plans usu. of an impractical kind for social improvement and esp. toward ideal social and political conditions ⟨the attempts of ~s to impose an impossible social order —N.S.Timasheff⟩ **c** : one that believes in or advocates utopian socialism

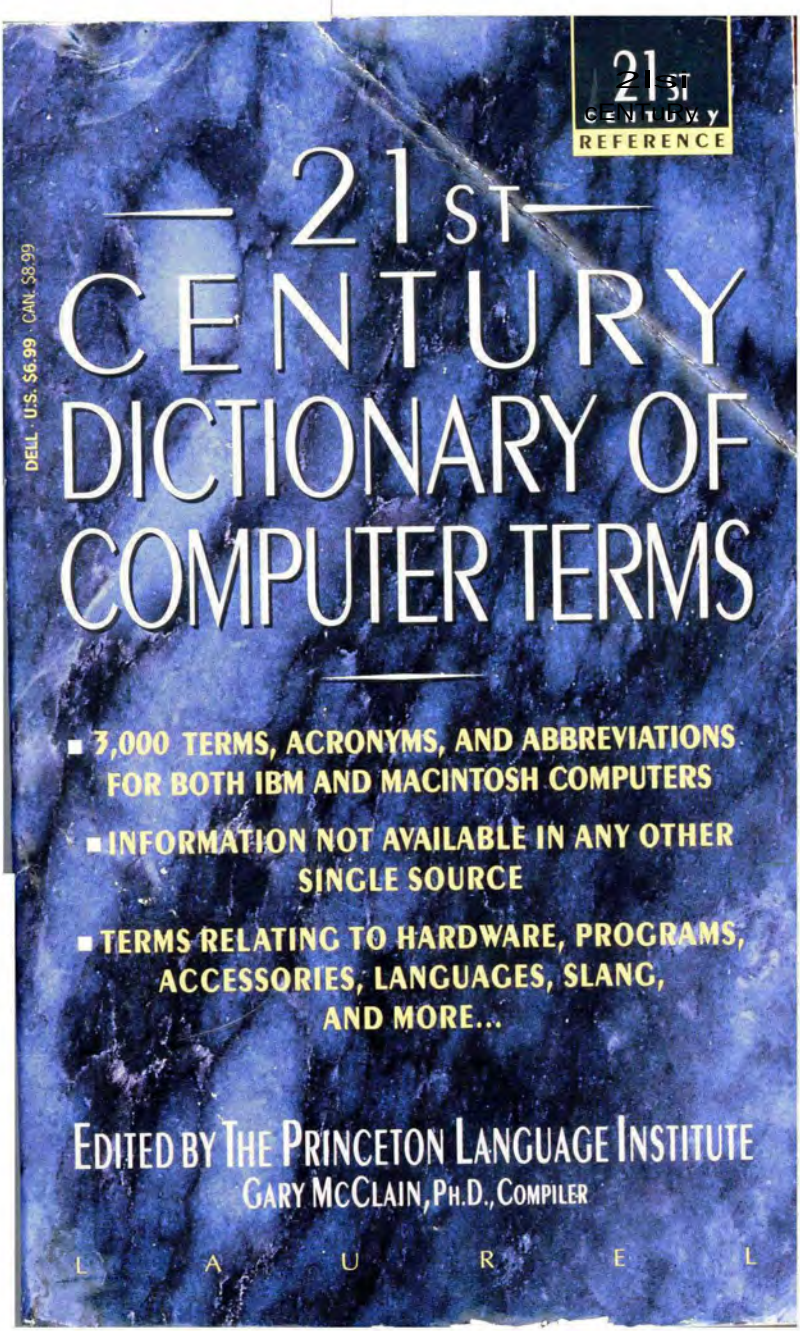
uto·pi·an·ism \-ēəˌnizəm\ *n* -S **1** : a utopian idea or theory ⟨mixes a good deal of hard sense with some curious ~s —*New Republic*⟩ **2** *often cap* : the body of ideas, views, or aims of a utopian : impracticable and usu. impossibly ideal schemes of human perfection or social improvement ⟨the somewhat impractical ~ . . . naturally found among socialists —Woodrow Wyatt⟩

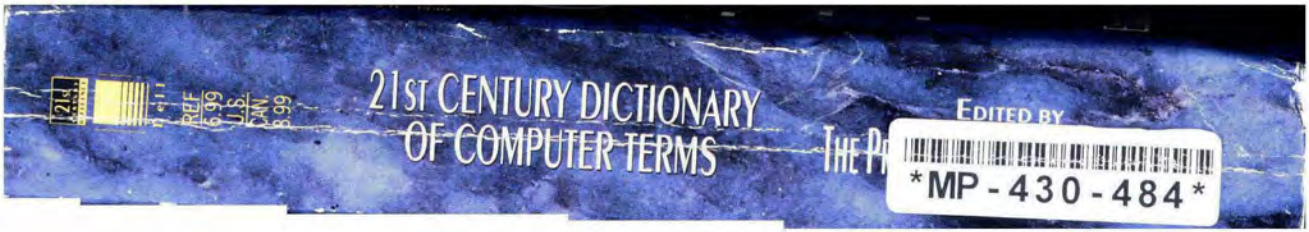
uto·pi·an·ist \-ənəst\ *n* -S *often cap* [¹*utopian* + *-ist*] : UTOPIAN 2

uto·pi·an·ize \-ēəˌnīz\ *vt* -ED/-ING/-S *sometimes cap* : to render utopian : make a utopia of ⟨~ society⟩

utopian socialism *n, sometimes cap U&S* : socialism based on a belief that elimination of unemployment and the attainment of economic security by means of social ownership of the means of production could be achieved by a voluntary and

Exhibit X





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application program Computer programs designed to enable users to perform specific job functions. Word processing, accounting, and engineering programs are examples of application programs.

application program interface Code in one computer program that allows it to work with others. As a result of application program interfaces, users can use one set of procedures to operate a variety of different programs.

application programmer A computer programmer with a focus on developing specific user applications, such as programs used in finance or word processing.

application programming The process of developing application programs.

application software (See APPLICATION PROGRAM.)

applied mathematics The use of mathematical concepts and principles in day-to-day activities. Computer science is an example of applied mathematics.

ARC A format for compressing files (see also DATA COMPRESSION).

display screen The part of the monitor that displays data.

distributed computing system A network of computers that work independently of one another. For example, each department in the organization may have its own computer or network of personal computers, and be responsible for maintaining its own set of departmental data, while messages to and from other departments are shared over the network.

distributed database A database that is physically located in more than one location of the organization but connected by the computer network. Distributed databases allow users access to the data they use most often in their work. Distributed databases are managed by a distributed database management system.

distributed processing An approach to information management in which data are stored and processed on more than one computer.

dithering Mixing together various color dots on the computer screen to create new colors, similarly to the way in which an artist mixes colors on the palette.

tocols provide guidelines for the speed and method of transmitting data.

European Computer Manufacturers Association (See ECMA.)

evaluate To take a critical look at a hardware or software product to understand what the vendor promises as opposed to what it actually delivers, often an extensive process undertaken before a purchase is made.

even header A header that only appears on the even-numbered pages of a document.

event Broadly used, a situation or occurrence that takes place during the execution of a computer program. A user pressing the Enter key can be described as an event, as can an error that occurs during processing.

exception Generally, an error severe enough to interrupt a computer program's execution.

executable file A file that contains program code that cannot be understood by humans but can be directly executed by the computer.

Federal Communications Commission (See FCC.)

feed To advance paper through a printer, as with fanfold paper on a tractor feed. Feed can also refer to the process of sending data to a computer.

Fiber-Optic Digital Device Interface (See FDDI.)

fiber optics A data transmission technology that uses glass or plastic threads to transmit data at the speed of light.

field An area on a database record in which a specific unit of data is contained. For example, personnel records include a field for the employee's name, a field for social security number, and a field for job title.

file Broadly used, a collection of related data identified by a file name. For example, a document created and stored through a word processing program is referred to as a file, as is a spreadsheet.

file allocation table A table, or list, within the operating system that keeps track of a user's files and their locations. The system uses this table as users create and modify files.

program functions. Icons form the basis of a graphical user interface.

iconic interface A graphical user interface (GUI) based on the use of icons that allow the user to select functions with the use of a mouse rather than typing commands. (See GUI).

IDE interface The abbreviation of INTELLIGENT DRIVE INTERFACE, a hard disk with an integrated controller used in IBM and compatible personal computers.

identifier A name, or symbol, that applies to a variable in a program, or a program itself.

idle time Periods of time during which the computer system is available but not in use.

IEEE The abbreviation of INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, an association of engineers and scientists whose activities include setting standards for computers and data transmission.

IFIP The abbreviation of INTERNATIONAL FEDERATION OF INFORMATION PROCESSING, an international association of organizations representing information-processing professionals.

load To install a software program, or to read a program that already exists in storage into main memory so that it can be used.

loader The function in an operating system that brings programs from storage into main memory.

load sharing The ability of two or more computers to work together to handle the excess processing requirements that often occur during the busiest times of the work day.

local The programs and data files on one's own computer, as opposed to those installed elsewhere and thus remote.

local-area network (See LAN.)

local-area wireless network (See LAWN.)

local network Another term for a LOCAL-AREA NETWORK. (See LAN.)

LocalTalk The cable strategy for connecting Macintosh computers together as a local-area network.

location An area of storage in a computer.

word wrap A standard feature in a word processing program that enables the user to easily keep text within the specified margins. With word wrap, when the user is typing a word at the end of a line that will go over the margin, the program automatically moves the word to the next line. (See SOFT RETURN.)

workgroup computing software A software application program that enables individuals working on a specific task, like the members of a department, to share information and scheduling activities. Workgroup computing software generally offers a range of functions including electronic mail, a calendar, and the document-editing capabilities that allow multiple users to comment on the same document.

working directory The directory of files the user is currently involved in using—for example, in using a word processing program, the directory of files associated with that program.

worksheet Another term for SPREADSHEET.

workstation Broadly, applies to any computer available for use by only one individual at a time, and as such can refer to a personal computer; however, generally assumed to refer to high-power, full-featured desktop computers used for

scientific and engineering applications. These are often based on the UNIX operating system with high-resolution screens, fast processing power, and large storage capacities.

WORM The acronym for WRITE-ONCE, READ-MANY, an optical disk on which data can be written only once and not subsequently changed or erased. Used for storing large amounts of data, and related uses in which data will not change once they have been recorded.

WP The abbreviation of WORD PROCESSING.

write To transfer data from main memory to a storage device such as a floppy disk or magnetic tape. Also, the process of transferring data from main memory to the computer's display screen.

write error An error that occurs during the process of transferring data from main memory to the display screen or a storage device.

write-once, read-many (See WORM.)

write-protect To physically protect a floppy disk or tape to prevent data from being recorded on it. For example, a floppy disk containing an application program is write-protected to prevent the program from being accidentally destroyed.

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attached by linking one to the next in a series called a daisy chain. *See also* bus, device driver, port, serial communications.

Apple Extended Keyboard A 105-key keyboard that works with the Macintosh SE, Macintosh II, and Apple IIGS computers. See the illustration. This keyboard marks Apple's first inclusion of function, or F, keys, the absence of which was long cited by users of IBM PCs and compatibles as a shortcoming of the Macintosh. Apple also made several other changes to the layout of existing keys, which, combined with added keys and lights, make the Apple Extended Keyboard quite similar in layout to the IBM enhanced keyboard.

Apple key A key on Apple keyboards labeled with an outline of the Apple logo symbol (). On Apple's universal ADB and Extended keyboards, the Apple key and the Command key are the same key, which serves a purpose similar to that of the Control key on IBM and compatible keyboards. It is generally used in combination with a character key as a shortcut to making menu selections or to starting a macro (a stored sequence of commands).

AppleTalk An inexpensive local area network developed by Apple Computer that can be used by both Apple and non-Apple computers for communication and sharing of resources such as printers and file servers. Macintosh computers plug into the network through the printer port (serial port B); non-Apple computers, such as IBM PCs, must be equipped with AppleTalk hardware and suitable software. AppleTalk is a baseband network that transfers information at a raw speed of 230 kilobits per second and links up to 32 devices (nodes) using CSMA/CD (Carrier Sense Multiple Access with Collision Detection) over a distance of about 1000 feet on shielded, twisted-pair cabling known as LocalTalk cable. The network uses a layered set of protocols similar to the ISO/OSI (International Organization for Standardization/Open Systems Interconnection) model and transfers information as packets of data called frames. AppleTalk supports connections to other AppleTalk networks through devices known as bridges, and it supports connections to dissimilar networks through devices called gateways. *See also* frame.

application A computer program designed to help people perform a certain type of work. An application thus differs from an operating system (which runs a computer), a utility (which performs maintenance or general-purpose chores), and a language (with which computer programs

Apple Extended Keyboard.

are created). Depending on the work for which it was designed, an application can manipulate text, numbers, graphics, or a combination of these elements. Some application packages offer considerable computing power by focusing on a single task, such as word processing; others, called integrated software, offer somewhat less power but include several applications, such as a word processor, a spreadsheet, and a database program.

application developer A person who designs, specifies, and researches the appearance and function of an application program. An application developer might or might not do any of the actual programming.

application development language Loosely, a computer language designed specifically for creating applications. Because most computer languages could be used for this purpose, the term is reserved for those languages having specific high-level constructs aimed toward record design, form layout, database retrieval and update, and similar tasks. *See also* application, application generator, fourth-generation language.

application development system A programming environment designed specifically for producing applications. The term usually implies the combination of a text editor, a compiler, and a linker. An application development system might also contain libraries of common software routines that can be used in developed programs.

application file *See* program file.

application generator A software development system that allows a programmer to lay out an application and define its functionality, after which the application generator produces the necessary source or machine code for that application. Because applications are so diverse, application generators are difficult to create and are often limited in the types of applications they can produce. Application generators are included with some database programs and use built-in sets of instructions to generate program code. *See also* application.

application layer The layer of network standards concerned with providing services to network users at an application-based level. The seventh and highest layer in the Open Systems Interconnection (OSI) model developed for the International Organization for Standardization (ISO), the application layer relies on services performed at lower levels but is the layer least involved with the underlying network hardware. Tasks performed on the application layer vary with the uses of a network, but they might include login procedures, electronic mail, terminal emulation, database management, and the operation of file servers and print servers. *See also* ISO/OSI model.

application processor A processor dedicated to a single application. A hardware circuit designed to speed the matching of text strings is an application processor.

application program *See* application.

application programming interface Abbreviated API. A set of routines that an application program uses to request and carry out lower-level services performed by a computer's operating system. An application program carries out two types of tasks: those related to work being performed, such as accepting text or numbers input to a document or spreadsheet, and those related to maintenance chores, such as managing files and displaying information on the screen. These maintenance chores are performed by the computer's operating system, and an API provides the program with a means of communicating with the system, telling it which system-level task to perform and when. On computers running a graphical user interface such as that on the Apple Macintosh, an API also helps application programs manage windows, menus, icons, and so on. On local area networks, an API, such as IBM's NetBIOS, provides applications with a uniform means of requesting services from the lower levels of the network.

application software *See* application.

application-specific integrated circuit *See* gate array.

arbitration The process of monitoring and managing competing demands for a resource that are

transferring unadorned but readable files between programs that could not otherwise understand each other's documents. *See also* ASCII, binary file, text file.

ASCIIZ string Also called a null-terminated string. In programming, an ASCII string terminated by the NULL character (a zero byte, which is a byte containing the character whose ASCII value is 0).

ASIC Application-specific integrated circuit. *See* gate array.

aspect ratio In computer displays and computer graphics, the ratio of width to height of a screen or an image; for example, an aspect ratio of 2:1 indicates that the width is twice the height. Aspect ratio generally refers to the image area (the frame that holds the image) rather than the image itself. It is an important factor in maintaining correct proportions when a graphic is printed, resized, or incorporated into another document.

assemble In programming, to convert an assembly language program into equivalent machine language instructions called object code. Object code can sometimes be carried out directly by the computer, but usually it must be combined with other pieces of object code by a program called a linker in order to create a complete executable file of instructions or an executable program. *See also* assembler, assembly language, linker, object code.

assembler A computer program that converts assembly language programs, which can be read by humans, into executable machine language. *See also* assemble, assembly language, assembly listing, compiler, machine code.

assembly language A type of low-level programming language in which each statement corresponds directly to a single machine instruction. Assembly languages are thus specific to a given processor. After writing an assembly language program, the programmer must use the assembler specific to the processor to translate the assembly language into machine code. Assembly language provides precise control of the computer, but assembly language programs written for one type of computer must be rewritten to operate on another type. Assembly language might be used instead of a high-level language for any of three major reasons: speed, control, and preference. Programs written in assembly language usually run faster than those generated by a compiler; use of assembly language lets a programmer interact directly with the hardware (processor, memory, display, and input/output ports). *See also* assembler, compiler, high-level language, low-level language, machine code.

assembly listing A file created by an assembler that contains the statements of an assembly language program, the machine language generated by the assembler, and a list of symbols used in the program. *See also* assembler, assembly language.

assertion A Boolean statement in a program that tests a condition that should, if the program is operating correctly, evaluate as true. If the condition is false, an error has occurred, and the program will typically terminate with an appropriate error message. Assertions are useful for debugging programs. They also serve as documentation of how the program should operate.

assignment operator An operator used to assign a value to a variable or a data structure. The C language, which does not have a function that performs assignment, uses the assignment operator to assign values to variables. *See also* assignment statement.

assignment statement A programming language statement that assigns a value to a variable. An assignment statement usually is composed of three elements: an expression to be assigned, an assignment operator, and a destination variable. When the assignment statement is executed, the expression is evaluated, and the resulting value is stored in the specified destination. The most common assignment symbols are = (C, FORTRAN, BASIC) and := (Pascal, Modula-2). *See also* assignment operator, expression, variable.

associate To inform the operating system that a specific filename extension "belongs" to a specific application. If a user opens a data file that has an extension associated with a specific application, the operating system starts that application and loads the file automatically. *See also* extension.

taminating electronics components and other delicate, sensitive equipment.

Clear key On Apple ADB and Extended keyboards, a key in the upper left corner of the numeric keypad that, in many applications, usually clears the currently selected menu choice or deletes the current selection.

Clear To Send *See* CTS.

click To press and release a mouse button once without moving the mouse. Clicking is usually performed to select or deselect an item or to activate a program or program feature. *Compare* double-click, drag.

client In object-oriented programming, a member of a class (group) that uses the services of another class to which it is not related. In computing, a client is a process (roughly, program or task) that requests a service provided by another program—for example, a word processor that calls on a sort routine built into another program. The client process uses the requested service without having to "know" any working details about the other program or the service itself. *Compare* child, descendant; *see also* inheritance.

On a local area network, a computer that accesses shared network resources provided by another computer (called a server). *See also* client/server architecture, server.

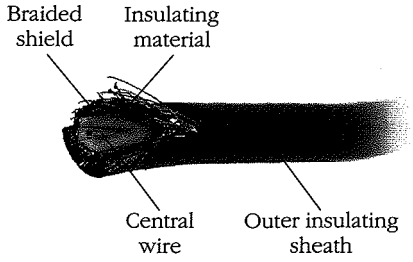
client/server architecture An arrangement used on local area networks that makes use of "distributed intelligence" to treat both the server and the individual workstations as intelligent, programmable devices, thus exploiting the full computing power of each. This is done by splitting the processing of an application between two distinct components: a "front-end" client and a "back-end" server. The client component, itself a complete, stand-alone personal computer (vs. the "dumb" terminal found in older architectures such as the time-sharing used on a mainframe), offers the user its full range of power and features for running applications. The server component, which can be another personal computer, a minicomputer, or a mainframe, enhances the client component by providing the traditional strengths offered by minicomputers and mainframes in a time-sharing environment: data management, information sharing between clients, and sophisticated network administration and security features. The advantage of the client/server architecture over older architectures is that the client and server machines work together to accomplish the processing of the application being used. Not only does this increase the processing power available, but it also uses that power more efficiently. The client portion of the application is typically optimized for user interaction, whereas the server portion provides the centralized, multiuser functionality.

clip art A collection—either in a book or on a disk—of proprietary or public-domain photographs, diagrams, maps, drawings, and other such graphics that can be "clipped" from the collection and incorporated into other documents.

clipboard A special memory resource maintained by operating systems such as the Apple Macintosh operating system, Microsoft Windows, and the OS/2 Presentation Manager. A clipboard stores a copy of the last information that was "copied" or "cut." A "paste" operation passes data from the clipboard to the current program. A clipboard allows information to be transferred from one program to another, provided the second program can read data generated by the first. Data copied using the clipboard is static and will not reflect later changes. *Compare* scrap; *see also* cut and paste, Dynamic Data Exchange.

Also, a computer that uses a pen as the primary input device. *See also* clipboard computer, pen computer.

clipboard computer A term used to describe a portable computer whose overall appearance and operation resembles that of a traditional clipboard. A clipboard computer has an LCD or similar flat display and has a pen for user input instead of a keyboard, mouse, or other input device; the user operates it by touching the pen to the display. Data entered in a clipboard computer is generally transferred to another computer via a cable or a modem. Primary uses for a clipboard computer are those situations where a traditional clipboard would be used, such as field work, data



Coaxial cable.

language developed between 1959 and 1961. Its establishment as a required language by the U.S. Department of Defense, its emphasis on data structures, and its English-like syntax (compared to those of FORTRAN and ALGOL) led to its widespread acceptance and usage, especially in business applications. Programs written in COBOL, which is a compiled language, are split into four divisions: Identification, Environment, Data, and Procedure. The Identification division specifies the name of the program and contains any other documentation the programmer wants to add. The Environment division specifies the computer(s) being used and the files used in the program for input and output. The Data division describes the data used in the program. The Procedure division contains the procedures that dictate the actions of the program. *See also* compiled language.

CODASYL Pronounced "code-a-sill." Acronym for Conference on Data Systems Languages, an organization founded by the U.S. Department of Defense. CODASYL is dedicated to the development of data-management systems and languages, among them the widely used COBOL business language.

code As a noun, a generic term for program instructions, used in two general senses. The first sense refers to human-readable source code, which is the instructions written by the programmer in a programming language. The second refers to executable machine code, which is the instructions of a program that were converted from source code to instructions that the computer can understand. As a verb, to write program instructions in a programming language. *See also* data, program.

code conversion The act of translating code from one form into another. Conversion might be performed at the source-language level (for example, converting a program from C to Pascal), at the hardware-platform level (for example, converting a program from working on the IBM PC to working on the Apple Macintosh), or at the language level (for example, converting from C, a high-level language, to assembly language, a low-level language). Code conversion can also refer to converting data from one form of representation to another, such as converting from ASCII to EBCDIC or converting from two's complement to binary-coded decimal. *See also* code.

code page In MS-DOS versions 3.3 and later, a means of providing support for character sets and keyboard layouts used in different countries. A code page is a table that relates the binary character codes used by a program to keys on the keyboard or to the appearance of characters on the display. Devices such as the display and the keyboard can be configured to use a specific code page and to switch from one code page (such as United States) to another (such as Portugal) at the user's request.

code segment Any piece of code consisting of one or more instructions, or a memory segment containing code. *Code segment* can also refer to a named and segregated portion of a program's code that typically performs a specific class of operations. The main program segment is kept in memory, and auxiliary segments are loaded only when they are required. *See also* transient.

coding The act of programming; specifically, generating source code in the language(s) of the programmer's choice. *See also* code.

coding form A sheet of paper specifically designed to aid in writing source code. Coding forms are popular for older languages that have position-dependent syntax (such as FORTRAN); most programmers now use graph paper, if they use paper at all. *See also* coding.

coercion *See* cast.

coherence In raster-scan technology, the assignment of the value of one pixel to the pixel next to

access time of 65 milliseconds or higher). *See also* access time, benchmark, MFLOPS, MIPS.

computer program A set of instructions in some computer language, intended to be executed on a computer to perform a useful task. The term usually implies a self-contained entity, as opposed to a routine or a library. *Compare* library, routine; *see also* computer language.

computer-readable A term describing information that can be interpreted and acted upon by a computer. Two types of information are referred to as computer-readable. One type, comprising bar codes, magnetic tape, magnetic-ink characters, and so on, is information that can be scanned in some way and read as data by a computer. The other type, machine code, is the form in which instructions and data reach the computer's microprocessor. Machine code is the binary form into which all information is ultimately translated for use by a computer.

computer revolution A label for the widespread use and acceptance of computers—specifically single-user personal computers—in society. The impact of these machines is considered revolutionary for two reasons. First, their appearance and success were rapid. Second, and more important, their speed and accuracy produced a change in the ways in which information can be processed, stored, and transferred.

computer science The study of computers, including their design, operation, and use in processing information. Computer science combines both theoretical and practical aspects of engineering, electronics, information theory, mathematics, logic, and human behavior. Aspects of computer science range from programming and computer architecture to artificial intelligence and robotics.

computer security The steps taken to protect a computer and the information it contains. Computer security varies with the type of system and the sensitivity of the information. On large systems or those handling financial or confidential data, computer security requires professional supervision that combines legal and technical expertise. On a microcomputer, security is a much simpler matter. Data protection can be achieved by backing up and storing copies of files in a separate location, and the integrity of data on the computer can be maintained by assigning passwords to files, marking files "read-only" to avoid changes to them, physically locking a hard disk, storing sensitive information on floppy disks kept in locked cabinets, and installing special programs to protect against viruses. On a computer to which many people have access, security can be maintained by requiring personnel to use passwords and by granting only approved users access to sensitive information. *See also* virus.

computer simulation *See* simulation.

computer system The configuration that includes all functional components of a computer and its associated hardware. A basic microcomputer system includes a console, or system unit, with one or more disk drives, a monitor, and a keyboard. Additional hardware, called peripherals, can include such devices as a printer, a modem, and a joystick. Software is usually not considered part of a computer system, although the operating system that runs the hardware is known as system software.

computer typesetting A general term used to describe typesetting operations that are partially or totally controlled by computers. Partial control could involve the transmittal of text directly from the source to the typesetter, without a pasteup stage. Full computerization would include the digitization of all graphics, which would then also be transmitted directly to the typesetter and regenerated without pasteup.

computer users' group *See* user group.

computer utility *See* utility.

computer virus *See* virus.

COM recorder Abbreviation for computer output microfilm recorder, a device that records computer information on microfilm.

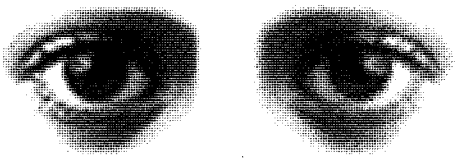
CON Logical device name for console; a name reserved by the MS-DOS operating system for the keyboard and the screen. The input-only keyboard and the output-only screen together make

rate computers that are linked through a communications network. Distributed processing is usually categorized as either *plain distributed processing* or *true distributed processing*. Plain distributed processing shares the workload among computers that can communicate with one another. True distributed processing has separate computers perform different tasks in such a way that their combined work can contribute to a larger goal, such as the transfer of funds from one bank to another. This latter type of processing requires a highly structured environment that allows hardware and software to communicate, share resources, and exchange information freely. At the highest (and most visible) levels, such distributed processing can also require data-transfer mechanisms that are relatively invisible to users but that enable different programs to use and share one another's data.

distributive sort An ordering process in which a list is separated into parts and then is reassembled in a particular order. *Compare* bubble sort, insertion sort, merge sort, quicksort; *see also* sort algorithm.

dithering A technique used in computer graphics to create the illusion of varying shades of gray (on a monochrome display or printer) or additional colors (on a color display or printer). Dithering relies on treating areas of an image as groups of dots that are colored in different patterns. Akin to the print images called halftones and, to some extent, paintings done in the pointillist style, dithering takes advantage of the eye's tendency to blur spots of different colors by averaging their effects and merging them into a single perceived shade or color. Depending on the ratio of black dots to white dots within a given area, the overall effect is of a particular shade of gray. Similarly, red dots interspersed with white ones create the illusion of varying shades of pink. Dithering is used to add realism to computer graphics and to soften jagged edges in curves and diagonal lines at low resolutions.

In the illustration, the image on the left is a halftone image of 72 cells per inch. The image on the right is the same image printed at 72 cells per inch, but shading is expressed through dithering instead of halftoning. *See also* aliasing, halftone.



Dithering.
A halftone image (left) and a dithered image (right).

divergence A moving apart or separation. On computer displays, divergence occurs when the red, green, and blue electron beams in a color monitor do not collectively light the same spot on the screen. Within a program, such as a spreadsheet, divergence can occur when a circular set of formulas is repeatedly recalculated (iterated), with the results of each iteration moving further from a stable solution—for example, the successive values of *A* and *B* when *A* equals *B* +1 and *B* equals *A* +1. *Compare* convergence.

divide overflow *See* overflow error.

division by zero An error condition caused by an attempt to divide a number by zero, which is mathematically undefined, or by a number that is sufficiently near to zero that the result is too large to be expressed by the machine. Computers do not allow division by zero, and software must provide some means of protecting the user from program failure on such attempts.

DLL *See* dynamic-link library.

DMA *See* direct memory access.

DML *See* data manipulation language.

document As a noun, any self-contained piece of work created with an application program and, if saved on disk, given a unique filename by which it can be retrieved. People generally think of documents as word-processed materials only. To a computer, however, data is nothing more than a collection of characters, so a spreadsheet or a graphic is as much a document as is a letter or report. In the Macintosh environment in particular, a document is any user-created work named and saved as a separate file.

term is usually limited to describing a system with two microprocessors; a system with a microprocessor and a math coprocessor is not considered a dyadic system. In mathematics, a dyadic operation is one in which there are two operands. In Boolean algebra, a dyadic Boolean operation is, again, one in which there are two operands, both of which are significant. Dyadic Boolean operations are those such as AND and OR in which the outcome depends on both values. Such operations are commonly used to create truth tables. *Compare* unary; *see also* Boolean algebra, operand.

dye-polymer recording A type of recording technology used with optical discs in which dye embedded in a plastic polymer coating on an optical disc is used to create minute bumps on the surface that can be read by a laser. Dye-polymer bumps can be flattened and re-created, thus making an optical disc rewritable, as opposed to being recordable only once.

dynamic An adjective used to describe events or processes that occur immediately and concurrently as opposed to those planned for in advance or reacted to after the fact. *Dynamic* is used in reference to both hardware and software; in each case it describes some action or event that occurs when and as needed. In nondynamic memory management, a program is given a certain amount of memory when the program is first run and must run within that constraint. In dynamic memory management, a program is able to negotiate with the operating system when it needs more memory.

dynamic address translation Abbreviated DAT. On-the-fly conversion of memory-location references from relative addresses ("three units from the beginning of X") to absolute address ("location number 123") when a program is run. Dynamic address translation depends on conditions existing within the system at the runtime of a program; for example, it might depend on exactly where in memory a particular part of a program is loaded by the operating system.

dynamic allocation The allocation of memory during program execution according to current needs. Dynamic allocation almost always implies that dynamic deallocation is possible too, so data structures can be created and destroyed as required. *Compare* static allocation; *see also* allocate, deallocate.

dynamic binding Also called late binding. Binding (converting symbolic addresses in the program to storage-related addresses) that occurs during program execution. The term often refers to object-oriented applications that determine, during runtime, which software routines to call for particular data objects. For example, an application might define a class named "artwork," with subclasses for paintings, sculptures, ceramics, and so on. Each of these classes would have a routine named "dollarvaluenow" that would calculate the current value of a piece of art, based in part on the class's unique characteristics and also on the state of the market for art. Given an artwork object, dynamic binding would ensure that the correct "dollarvaluenow" routine was called to compute the current value. *Compare* static binding.

Dynamic Data Exchange Abbreviated DDE. A form of interprocess communication (IPC) implemented in Microsoft Windows and OS/2. When two or more programs that support DDE are running simultaneously, they can exchange information and commands. For example, a spreadsheet with a DDE link to a communications program might be capable of keeping stock prices that are displayed in the spreadsheet current with trading information received over the communications channel. *See also* interprocess communication.

dynamic dump A listing, either stored on disk or sent to a printer, of memory contents generated at the time of a break in the execution of a program; a useful tool for programmers interested in knowing what is happening at a certain point in the execution of a program.

dynamic-link library A feature of the Microsoft Windows family of operating systems and the OS/2 operating system that allows executable routines—generally serving a specific function or set of functions—to be stored separately as files with DLL extensions and to be loaded only when

needed by the program that calls them. A dynamic-link library has several advantages. First, because a dynamic-link library is loaded only when it is needed, it does not consume any memory until it is used. Second, because a dynamic-link library is a separate file, a programmer can make corrections or improvements to only that module without affecting the operation of the calling program or any other dynamic-link library. Finally, because a dynamic-link library often contains related functions—for example, routines for creating animation on a video display—a programmer can use the same dynamic-link library with other programs.

dynamic RAM Abbreviated DRAM (pronounced "dee-ram"). A form of semiconductor random access memory (RAM). Dynamic RAMs store information in integrated circuits that contain capacitors. Because capacitors lose their charge over time, dynamic RAM boards must include logic to "refresh" (recharge) the RAM chips continuously. While a dynamic RAM is being refreshed, it cannot be read by the processor; if the processor must read the RAM while it is being refreshed, one or more wait states occur. Because their internal circuitry is simple, dynamic RAMs are more commonly used than static RAMs, even though they are slower. A dynamic RAM can hold approximately four times as much data as a static RAM chip of the same complexity. *Compare* static RAM; *see also* RAM.

dynamic relocation The relocation in memory of data or of the code of a currently running program by an internal system routine. Dynamic relocation helps a computer use memory efficiently.

dynamic scheduling The management of concurrently running processes (programs), usually by the operating system.

dynamic storage A term describing information storage systems whose contents will be lost if power is removed from the system. RAM (random access memory) systems are the most common form of dynamic storage, and both dynamic RAM (DRAM) and static RAM (SRAM) are considered forms of dynamic storage. *Compare* permanent storage; *see also* dynamic RAM, static RAM.

In programming, a term describing blocks of memory that can be allocated, deallocated, or freely changed in size.

and mouse movements. *See also* event-driven programming.

event-driven programming A style of programming in which the program is constantly testing for and responding to a set of events, such as key presses or mouse movements. The Apple Macintosh computer is well known for requiring most programs to use an event-driven approach, although most graphical user interfaces, such as Microsoft Windows, also use such an approach. *See also* event.

event processing A program feature belonging to more advanced operating-system architectures such as the Apple Macintosh operating system, Microsoft Windows, UNIX, and OS/2. In times past, programs were required to interrogate, and effectively anticipate, every device that was expected to interact with the program, such as the keyboard, mouse, printer, disk drive, and serial port. Often, unless sophisticated programming techniques were used, one of two events happening at the same instant would be lost. Event processing solves this problem through the creation and maintenance of an event queue. Most common events that occur are appended to the event queue for the program to process in turn; however, certain types of events can preempt others if they have a higher priority. An event can be of several types, depending on the specific operating system considered: pressing a mouse button or keyboard key, inserting a disk, clicking on a window, or receiving information from a device driver (as for managing the transfer of data from the serial port or from a network connection). *See also* autopolling, event, interrupt.

exa- Abbreviated E. A prefix meaning one quintillion (10^{18}). In computing, which is based on the binary (base-2) numbering system, *exa-* has a literal value of 1,152,921,504,606,846,976, which is the power of two (2^{60}) closest to one quintillion.

exabyte Abbreviated EB. 1 quadrillion kilobytes, or 1,152,921,504,606,846,-976 bytes.

exception In programming and information processing, a problem or change in conditions that causes a computer's microprocessor to stop what it is doing and then find and carry out the instructions in a separate routine designed to handle the situation. An exception is similar to an interrupt because it refers the microprocessor to a separate set of instructions. On MS-DOS computers, however, an exception differs from an interrupt in two ways: It is related to the execution of a program, and it is potentially significant enough to cause the program to be terminated. On Apple Macintosh computers, an exception is defined somewhat more broadly as any error or change in conditions, including an interrupt, that is detected by the microprocessor while a program is running.

exception handling *See* error handling.

exchangeable disk *See* removable disk.

exchange sort *See* bubble sort.

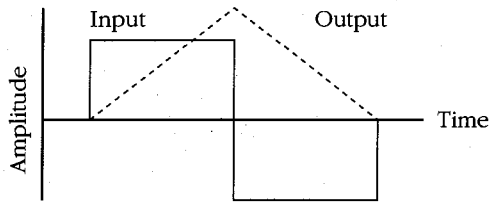
exclusive OR Usually abbreviated XOR; sometimes abbreviated EOR. A Boolean operation that yields "true" if and only if one of its operands is true and the other is false. The truth table appears below. *Compare* AND, OR; *see also* Boolean operator, truth table.

a	*b*	*a XOR b*
0	0	20
0	1	1
1	0	1
1	1	0

EXE In MS-DOS, a filename extension that indicates the file is an executable program. To run the program, the user need only type the filename (without the EXE extension) at the command prompt and press Enter.

executable program A computer program that is ready to run. The term usually refers to a compiled program that has been translated into machine code in a format that can be loaded into memory and run; however, for interpreted languages it can simply refer to source code in the proper format. Applications such as word-processing programs are executable programs. The user does not have to alter the program in any way before being able to run it. *See also* code, compiler, computer program, interpreter, source code.

with respect to time, of the input signal. The integral of a signal is, in effect, the area under the input waveform, as illustrated in the diagram. *Compare* differentiator.



Integrator.
An example of the action of an integrator circuit.

integrity The completeness and accuracy of data stored in a computer, particularly after it has been manipulated in some way. *See also* data integrity.

intelligence In relation to hardware, the ability to process information. Intelligence is a characteristic of all computers and of peripheral devices with built-in processing capability. A device without intelligence is said to be dumb—for example, a dumb terminal connected to a large computer can receive input and display output but cannot process information independently.

In relation to software, the ability of a program to monitor its environment and initiate appropriate actions to achieve a desired state. For example, a program waiting for data to be read from disk might do another task in the meantime to achieve high performance.

In relation to reasoning and logic, the ability of a program to simulate human thought, or the ability of a machine, such as a robot, to respond appropriately to changing stimuli (input). *See also* artificial intelligence.

intelligent cable Also known as a smart cable. A cable with circuitry built into its connector that can determine the characteristics of the connector it is plugged into and can transmit data in the form expected by the host; generally, any cable incorporating circuitry that does more than simply pass signals from one end of the cable to the other.

intelligent database A somewhat ambiguous or loosely defined term, but generally used to describe database management systems that manipulate stored information in a way that people find logical, natural, and easy to use. An intelligent database conducts searches relying not only on traditional data-finding routines but also relying on predetermined rules governing associations, relationships, and even inferences regarding the data. Examples of intelligent databases include expert systems, hypertext and hypermedia, and online information retrieval. *See also* database.

intelligent terminal A terminal with its own memory, processor, and firmware that can perform certain functions independent of its host processor. A personal computer can be an intelligent terminal with the use of terminal emulation or communications software. Most intelligent terminals, however, have only the capability to reroute incoming data to a printer or video screen.

Intensity Red Green Blue *See* IRGB.

interactive Operating in a back-and-forth, often conversational, manner, as when a user enters a question or command and the system immediately responds. Microcomputers are interactive machines; this interactivity is one of the features that make them approachable and easy to use.

interactive graphics A form of computer use in which the user can change and control graphic displays, often with the help of a pointing device such as a mouse or a joystick. Interactive graphics is used in a range of computer products from games to computer-aided design (CAD) systems.

interactive processing Processing that involves the more or less continuous participation of the user; the command/response mode characteristic of microcomputers.

interactive program A program that interacts with the user, who is usually (although not necessarily) sitting at a display of some sort and who is using some sort of input device (keyboard, mouse, joystick) to provide responses to the program. For example, a computer game is an interactive program. *Compare* batch program.

interactive session A processing session in which the user can more or less continuously intervene

and control the activities of the computer. *Compare* batch processing.

interblock gap *See* inter-record gap.

interface The point at which a connection is made between two elements so that they can work with one another. In computing, different types of interfacing occur on different levels, ranging from highly visible user interfaces that enable people to communicate with programs to often invisible, yet necessary, hardware interfaces that connect devices and components inside the computer.

User interfaces consist of the graphical design, the commands, prompts, and other devices that enable a user to interact with a program. Microcomputers have three basic types of user interfaces (which are not necessarily mutually exclusive):

- The command-line interface, typified by the MS-DOS A> or C> prompt, responds to commands typed by the user.
- The menu-based interface (also called menu-driven interface), used by many application programs such as Lotus 1-2-3, offers the user a choice of command words that can be activated by typing a letter, pressing a direction key, or pointing with a mouse.
- The graphical interface, characteristic of the Apple Macintosh and of windowing programs, presents the user with a visual representation of some metaphor such as a desktop and allows the user to control not only menu choices but also the size, layout, and contents of one or more on-screen "windows" or working areas.

At less visible software levels within the computer are other types of interfaces, such as those that enable an application to work with the operating system and those that enable an operating system to work with the computer's hardware.

In hardware, interfaces are cards, plugs, and other devices that connect pieces of hardware with the computer so that information can be moved from place to place. There are, for example, standardized data-transfer interfaces, such as RS-232-C and SCSI, that enable connections between computers and printers, hard disks, and other devices.

On the conceptual level, networking and communications standards such as the ISO Open Systems Interconnection (OSI) model combine hardware and software guidelines to enable entire systems and their associated devices to connect with one another. Although the ISO/OSI model and other guidelines are not literal, physical interfaces, they define ways for different systems to connect and communicate.

interface adapter *See* network adapter.

interface card *See* adapter.

interference Noise or other external signals that affect the performance of a communications channel; also, the electromagnetic signals generated by electronic devices such as computers that can disturb radio or television reception.

interlacing A technique used in some raster-scan displays in which the electron beam refreshes (updates) all odd-numbered scan lines in one sweep of the screen and all even-numbered scan lines in the next. Interlacing takes advantage of both the screen phosphor's ability to maintain an image for a short time before fading and the tendency of the human eye to average, or blend, subtle differences in light intensity. By refreshing alternate sets of lines on the display, interlacing halves the number of lines that must be updated in a single sweep of the screen and also halves the amount of information that must be carried by the display signal at any one time. Thus, interlacing updates any single line on the screen only 30 times per second, yet it provides the equivalent of a 60-cycles-per-second refresh rate. *Compare* noninterlaced.

interleaved memory A RAM memory system in which the technique of interleaving is used to reduce wait states. Typically, memory is organized in rows of chips totaling 265 kilobytes (KB) or 1 megabyte (MB). After an access to a location in one of these rows, the processor must wait an entire memory cycle before it can access another byte in the same row. A two-way interleave puts

locators for sets of information. For example, in a file containing data about cars, records 3, 7, 19, 24, and 32 might contain the value "Red" in the field COLOR. An inverted list (or index) on the field COLOR would contain a record for "Red" followed by the locator numbers 3, 7, 19, 24, and 32. *Compare* linked list.

inverted list database A database similar to a relational database but with the following differences:

- The rows (records or tuples) of an inverted list table are ordered in a specific physical sequence, independent of any orderings that may be imposed by means of indexes.
- The total database can also be ordered, with specified logical merge criteria being imposed between tables.
- Any number of search keys, either simple or composite, can be defined. Unlike the keys of a relational system, these search keys are arbitrary fields or combinations of fields.
- No integrity or uniqueness constraints are enforced.
- Neither the indexes nor the tables are transparent to the user, as they would normally be in a relational system.

Because of these differences, it is much more difficult for the database management system to assure data consistency, integrity, and security with an inverted list database than with a relational system.

inverted structure A file structure in which record keys are stored and manipulated separately from the records themselves.

inverter In electronics, a logic circuit that inverts (reverses) the signal input to it—for example, inverting a high input to a low output. An inverter is also a device that converts direct current (DC) to alternating current (AC).

invoke To call or activate; used in reference to commands and subroutines.

I/O *See* input/output.

I/O-bound *See* input/output-bound.

ion-deposition printer An electrophotographic page printer similar to a laser printer but based on a more expensive technology. These printers, used mainly in high-volume data-processing environments, typically operate at speeds from 30 to 90 pages per minute. Like other electrophotographic printers, ion-deposition models use an electrostatically charged drum. Rather than converting some form of light to an electrostatic charge, however, as laser, LED, and LCD printers do, ion-deposition printers charge the drum by applying an ion stream directly to it. Ion-deposition printers typically use a method of fusing toner to paper that is fast and does not require heat. This method leaves the paper a little glossy, however, making it unsuitable for business correspondence. In addition, ion-deposition printers tend to produce thick, slightly fuzzy characters. *Compare* laser printer, LCD printer, LED printer; *see also* electrophotographic printers, nonimpact printer, page printer.

IO.SYS One of two hidden system files installed on an MS-DOS startup disk. IO.SYS in IBM releases of MS-DOS (called IBMBIO.COM) contains device drivers for peripherals such as the display, keyboard, floppy disk drive, hard disk drive, serial port, and real-time clock. *See also* MSDOS.COM.

IPC *See* interprocess communication.

IPL *See* initial program load.

IR *See* infrared.

IRG *See* inter-record gap.

IRGB Acronym for Intensity Red Green Blue, a type of color encoding originally used in IBM's Color/Graphics Adapter (CGA) and continued in the EGA (Enhanced Graphics Adapter) and VGA (Video Graphics Array). The standard 3-bit RGB color encoding (specifying eight colors) is supplemented by a fourth bit (called Intensity) that uniformly increases the intensity of the red, green, and blue signals, resulting in a total of 16 colors. *See also* RGB.

ISA Pronounced "eye-sa"; abbreviation for Industry Standard Architecture. An unofficial designation for the bus design of the IBM PC/XT, which

usually printed below the graphic. On a graph or a map, the legend is the key to the patterns or the symbols used.

length The number of linear units of storage space occupied by an object (such as a file on disk or a data structure in a program), typically measured in bits, bytes, or blocks.

less than *See* relational operator.

less than or equal to *See* relational operator.

letter quality A level of print quality on dot-matrix printers that is better than draft quality. As the name implies, letter quality is supposed to be crisp and dark enough for use in business letters. *Compare* draft quality, near-letter-quality; *see also* print quality.

letter-quality printer Any printer that produces output high enough in quality to be acceptable for business letters. Laser printers and impact printers that use fully formed characters (typically daisy-wheel printers) are letter-quality printers. Certain high-end dot-matrix printers are sometimes included in this category. Above-average dot-matrix printers are often dubbed near-letter-quality. *See also* daisy-wheel printer, laser printer.

lexicographic sort A sort that arranges items in the order in which they would appear if listed in a dictionary. A lexicographic sort puts numbers, for instance, where they would be if they were spelled out: *567* would fall in the F's. *Compare* alphanumeric sort.

lexicon The words of a language and their definitions. In programming, the lexicon of a language would be the identifiers, keywords, constants, and other elements that make up its "vocabulary"; the ways in which these vocabulary elements can be put together would be the syntax of the language. *Compare* syntax.

LF *See* linefeed.

LHARC A shareware file-compression utility program developed by Haruyasu Yoshizaki, introduced in 1988 and available from a wide variety of bulletin board systems (BBS's) and other sources. An aspect of the LHARC utility is that it can produce self-extracting executable files: In addition to compressing the contents of one or more files, it can also embed a small program with the compressed information and save everything in a single file with an EXE extension. To uncompress a self-extracting file, the user simply enters the name of the compressed file at a command prompt, and the embedded program automatically uncompresses the compressed file and saves it on disk in its original state and with its original filename. As a result, the recipient of the compressed file does not need a separate utility program to uncompress the file. *See also* shareware, utility program.

library In programming, a collection of routines stored in a file. Each set of instructions in a library has a name, and each performs a different, often very specific, task. For example, the *printf()* function is part of the Standard C library and displays characters on the screen. Such sets of instructions simplify work and prevent duplication of effort each time a particular task needs to be carried out. A programmer can identify a library to a program, refer to library routines in the program, and have the program carry out the appropriate tasks without having to write (or rewrite) the instructions themselves each time they are needed. Libraries can include standard routines for a particular programming language, or they can contain customized routines written by the programmer.

Also, as in its traditional sense, any collection of information; sometimes used to refer to software or data files.

library routine In programming, a routine stored in a collection of routines (a library) that can be used by any program that can link into the library. *See also* function library, library.

LIFO *See* last in, first out.

light-emitting diode Abbreviated LED. A semiconductor device that converts electrical energy into light. See the illustration. Light-emitting diodes work on the principle of electroluminescence and are highly efficient, producing relatively little heat for the amount of light output. Most LEDs are red, although yellow, green, and blue LEDs are also available. The "activity lights" on computer disk drives are LEDs.

one device, usually a computer, controls other devices connected to it.

matching The process of testing whether two data items are identical or of finding a data item that is identical to a key. *See also* pattern recognition.

math coprocessor *See* floating-point processor.

mathematical expression An expression that uses numeric values and operators, such as integers, fixed-point numbers, and floating-point numbers. *See also* expression.

mathematical function A function in a program that performs a set of mathematical operations on one or more values or expressions and that returns a numeric value.

mathematical model The mathematical assumptions, expressions, and equations that underlie a given program. Mathematical models are used to model "real-world" physical systems such as planets in orbit around a star or resource production and consumption within a closed system.

matrix In mathematics and computing, an arrangement of rows and columns used for organizing related items such as numbers, dots, spreadsheet cells, or circuit elements. Matrices, or matrixes, are used in mathematics for manipulating rectangular sets of numbers. In computing and computer applications, matrices are used for the similar purpose of arranging sets of data in table form, as in spreadsheets and lookup tables. In hardware, matrices of dots are used in creating characters on the screen as well as in print (as by dot-matrix prints). In electronics, matrices of diodes or transistors are used to create networks of logic circuits for such purposes as encoding, decoding, or converting information. *See also* grid.

matrix line printer *See* line printer.

Mb *See* megabit.

MB *See* megabyte.

MC *See* megacycle.

MC68000 *See* 68000.

MC68020 *See* 68020.

MC68030 *See* 68030.

MC68040 *See* 68040.

MC68881 *See* 68881.

MCGA Acronym for Multi-Color Graphics Array, a video adapter included in the IBM PS/2 Models 25 and 30. The MCGA is capable of emulating the CGA (Color/Graphics Adapter) and provides two additional graphics modes: The first mode has 640 horizontal pixels by 480 vertical pixels with 2 colors chosen from a palette of 262,144 colors; the second has 320 horizontal pixels by 200 vertical pixels with 256 colors chosen from a palette of 262,144 colors.

MDA Abbreviation for Monochrome Display Adapter. A video adapter introduced in 1981, capable of only one character mode: 25 lines of 80 characters each, with underlining, blinking, and high-intensity characters. Although IBM never used the name *Monochrome Display Adapter* or the abbreviation *MDA, MDA* is often used to refer to the IBM Monochrome Display and Printer Adapter.

mean time between failures *See* MTBF.

mean time to repair *See* MTTR.

mechanical mouse A type of mouse in which the motion of a ball on the bottom of the mouse is translated into directional signals. As the user moves the mouse, the ball typically spins a pair of wheels inside the mouse. These conductive wheels might, in turn, rotate additional wheels via axles or gears. At least one pair of wheels have conductive markings on their surface. Because the markings permit an electric current to flow, a set of conductive brushes that ride on the surface of the conductive wheels can detect these conductive markings. The electronics in the mouse translate these electrical-movement signals into mouse-movement information that can be used by the computer. *Compare* optical mouse, optomechanical mouse; *see also* mouse, trackball.

media A collective word for the physical material, such as paper, disk, and tape, used for storing computer-based information. *Media* is plural; *medium* is singular.

media eraser A device that removes or obliterates data from a storage medium on a wholesale basis, usually by writing meaningless data (such as zeros) over it. *See also* bulk eraser.

medium model A memory model of the Intel 80x86 processor family. The medium model allows only 64 kilobytes (KB) for data but generally

declared within a procedure), or nested records (a record containing a field that is itself a record).

NetBIOS An application program interface (API) that can be used by application programs on a local area network consisting of IBM and compatible microcomputers running MS-DOS, OS/2, or some version of UNIX. Primarily of interest to programmers, NetBIOS provides application programs with a uniform set of commands for requesting the lower-level network services required to conduct sessions between nodes on a network and to transmit information back and forth. *See also* application program interface.

network A group of computers and associated devices that are connected by communications facilities. A network can involve permanent connections, such as cables, or temporary connections made through telephone or other communications links. A network can be as small as a local area network consisting of a few computers, printers, and other devices, or it can consist of many small and large computers distributed over a vast geographic area. Small or large, a computer network exists to provide computer users with the means of communicating and transferring information electronically. Some types of communication are simple user-to-user messages; others, of the type known as distributed processes, can involve several computers and the sharing of workloads or cooperative efforts in performing a task.

network adapter An expansion card or other device used to connect a computer to a local area network.

network administrator The person in charge of operations on either a wide area network or a local area network. The duties of a network administrator (also called a system administrator) can be broad and might include such tasks as installing new workstations and other devices, adding and removing authorized users, archiving files, overseeing password protection and other security measures, monitoring usage of shared resources, and handling malfunctioning equipment.

network architecture The underlying structure of a computer network, including hardware, functional layers, interfaces, and protocols (rules) used to establish communication and ensure reliable transfer of information. Because a computer network is a mixture of hardware and software, network architectures are designed to provide both philosophical and physical standards for enabling computers and other devices to handle the complexities of establishing communications links and transferring information without conflict. Various network architectures exist, among them the internationally accepted seven-layer ISO Open Systems Interconnection (OSI) model and IBM's Systems Network Architecture (SNA). Both the OSI and SNA architectures organize network functions in layers, each layer dedicated to a particular aspect of communication or transmission and each requiring protocols that define how functions are carried out. The ultimate objective of these and other network architectures is the creation of communications standards that will enable computers of many kinds to exchange information freely and (to the user) transparently. *See also* ISO/OSI model, SNA.

network control program In a communications network that includes a mainframe computer, a program that usually resides in a communications controller and takes over communications tasks such as routing, error control, line control, and polling (checking terminals for transmissions), leaving the main computer free for other functions.

network database In information management, a type of database in which data records can be linked (related to one another) in more than one way. A network database is similar to a hierarchical database in the sense that it contains a progression from one record to another. It differs in being less rigidly structured: Any single record can point to more than one other record and, conversely, can be pointed to by one or more records. In effect, a network database allows more than one path between any two records, whereas a hierarchical database allows only one, from parent (higher-level record) to child (lower-level record). *Compare* hierarchical database, relational database.

network device driver Software that coordi-

nates communication between the network adapter card and the computer's hardware and other software, controlling the physical function of the network adapter card.

network directory Also called a networked directory. On a local area network, a directory on a disk that is located on a computer other than the one the user is operating. A network directory differs from a network drive in that the user has access to only that directory; the rest of the disk might or might not be accessible to the user depending on whether he or she has access. On the Apple Macintosh, a network directory is referred to as a shared folder. *See also* network drive, shared directory, shared folder.

network drive Also called a networked drive. On a local area network, a disk drive whose disk is available to other computers on the network. To a user on another computer on the network, a network drive responds exactly as a disk drive installed in the user's own computer would. However, access to a network drive might not be allowed to all users of the network: Many operating systems contain security provisions that enable the network administrator to grant or deny access to part or all of a network drive. *See also* network directory.

network layer The third of the seven layers in the International Organization for Standardization's Open Systems Interconnection (OSI) model for standardizing computer-to-computer communications. The network layer is one level above the data-link layer and ensures that information arrives at its intended destination. Information is not always transmitted in a direct path from sender to receiver; along the way, it might be routed from one circuit to another, or it might be broken into packets that are sent by different routes to the same destination. The function of the network layer is to establish, maintain, and keep open a path for information to travel on and to make the actual route immaterial to any other layer. It is the middle of the three layers (data-link, network, and transport) concerned with actually moving information from one device to another. *See also* ISO/OSI model.

network model A database structure, or layout, similar to a hierarchical model, except that records can have multiple parent records as well as multiple child records. A database management system that supports a network model can be used to simulate a hierarchical model. *See also* CODASYL.

network operating system An operating system installed on a server in a local area network that coordinates the activities of providing services to the computers and other devices attached to the network. Unlike a single-user operating system, which performs the basic tasks required to keep one computer running, a network operating system must acknowledge and respond to requests from many workstations, managing such details as network access and communications, resource allocation and sharing, data protection, and error control.

network server *See* server.

network structure The record organization used in a particular network model.

neural network A type of artificial-intelligence system modeled after the neurons (nerve cells) in a biological nervous system and intended to simulate the way in which a brain processes information, learns, and remembers. A neural network is designed as an interconnected system of processing elements, each with a limited number of inputs (comparable to the impulse-receiving dendrites of a neuron) and an output (comparable to the synapse over which a nerve impulse travels to the next neuron). Rather than being programmed, these processing elements are able to "learn" by receiving weighted inputs—roughly, weak to strong or negative to positive—that, with adjustment, time, and repetition, can be made to produce appropriate outputs. Neural networks are implemented either through hardware circuits (the fast method) or through software that simulates such a network (a much slower method). Unlike most applications of computing power, they are used to help computers "learn" by association and recognition. Neural networks are used in areas such as pattern recognition,

exist because the operating system needs to perform certain operations that applications should not be allowed to perform; therefore, only the operating-system routines have the necessary privilege to execute these instructions.

privileged mode A mode of execution supported by the protected mode of the Intel 80286 and higher microprocessors in which software can carry out restricted operations that manipulate critical components of the system, such as memory and input/output ports (channels). Application programs cannot be executed in privileged mode; the heart (kernel) of the OS/2 operating system can be, as can the programs (device drivers) that control devices attached to the system.

PRN Logical device name for *printer;* a name reserved by the MS-DOS operating system for the standard print device. *PRN* usually refers to a system's first parallel port, also known as LPT1.

probability The likelihood that an event will happen, which can often be estimated mathematically. In mathematics, statistics and probability theory are related fields. In computing, probability is used to determine the likelihood of failure or error in a system or device.

problem solving The process of devising and implementing a strategy for finding a solution or for transforming a less desirable condition into a more desirable one. The term is also used to refer to an aspect of artificial intelligence when the task of problem solving is performed solely by a program. *See also* artificial intelligence.

procedural language A programming language in which the basic programming element is the procedure (a named sequence of statements, such as a routine, subroutine, or function). The most widely used high-level languages (C, Pascal, BASIC, FORTRAN, COBOL, Ada) are all procedural languages. *Compare* nonprocedural language; *see also* procedure.

procedure In a program, a named sequence of statements, often with associated constants, data types, and variables, that usually performs a single task. A procedure can usually be called (executed) by other procedures, as well as by the main body of the program. Some languages distinguish between a procedure and a function, with the latter returning a value. *See also* function, parameter, routine, subroutine.

process As a noun, a program or part of a program; a coherent sequence of steps undertaken by a program—for example, an internal or external data-transfer operation, handling of an interrupt, or evaluation of a function.

As a verb, to manipulate data with a program.

process-bound Limited in performance by processing requirements. *See also* computation-bound.

process color A method of handling color in a document in which each block of color is separated into its subtractive primary color components for printing: cyan, magenta, and yellow (as well as black). All other colors are created by blending layers of various sizes of halftone spots printed in cyan, magenta, and yellow to create the image. *Compare* spot color; *see also* color model, color separation.

processing Manipulating data within a computer system. Processing is the vital step between receiving data (input) and producing results (output)—the task for which computers are designed.

processor *See* central processing unit, microprocessor.

product Also known as a Cartesian product. An operator in the relational algebra used in database management that, when applied to two existing relations (tables), results in the creation of a new table containing all possible ordered concatenations (combinations) of tuples (rows) from the first relation with tuples from the second. The number of rows in the resulting relation is the product of the number of rows in the two source relations. *Compare* inner join.

In mathematics, the result of multiplying two or more numbers.

In general, an entity conceived and developed for the purpose of competing in a commercial market. Although computers are products, the term is more commonly applied to software, peripherals, and accessories in the computing arena.

production system In expert systems, an approach to problem solving based on an "IF this, THEN that" approach that uses a set of rules, a database of information, and a "rule interpreter" to match premises with facts and form a conclusion. Production systems are also known as rule-based systems or inference systems. *See also* expert system, inference.

Professional Graphics Adapter Abbreviated PGA. A video adapter introduced by IBM, primarily for CAD applications. The PGA is capable of displaying 256 colors, with a horizontal resolution of 640 pixels and a vertical resolution of 480 pixels.

Professional Graphics Display An analog display introduced by IBM, intended for use with their Professional Graphics Adapter. *See also* Professional Graphics Adapter.

program Synonymous with *software;* a sequence of instructions that can be executed by a computer. The term can refer to the original source code or to the executable (machine language) version. The term *program* implies a degree of completeness; that is, a source code program comprises all statements and files necessary for complete interpretation or compilation, and an executable program can be loaded into a given environment and executed independently of other programs. *See also* program creation, routine, statement.

program card *See* PC Card, ROM card.

program cartridge *See* ROM cartridge.

program counter A register (small, high-speed memory circuit within a microprocessor) that contains the address (location) of the instruction to be executed next in the program sequence.

program creation The process of creating a program—that is, an executable file. Traditionally, program creation comprises three steps: (1) compiling the high-level source code into assembly language source code; (2) assembling the assembly language source code into machine-code object files; (3) linking the machine-code object files with various data files, run-time files, and library files into an executable file. Some compilers go directly from high-level source to machine-code object, and some integrated development environments compress all three steps into a single command. *See also* assembler, compiler, linker, program.

program file A disk file that contains the executable portion(s) of a computer program, such as a word processor, spreadsheet, or communications package. Depending on its size and complexity, an application or other program, such as an operating system, can be stored in several different files, each containing the instructions necessary for some part of the program's overall functioning. A word processor, for example, might have its text-entry and editing functions in a main program file, its spell-checking abilities in a separate file, and its built-in dictionary or thesaurus in yet another file. All of these, however, are program files, as opposed to letters, reports, and other user-generated materials, which are document (or data) files. *Compare* document file.

program generator A program that creates other programs (usually in source code) based on a set of specifications and relationships given by the user. Program generators are often used to simplify the task of creating an application. *See also* application generator, fourth-generation language.

program listing A copy, usually on paper, of the source code of a program. Some compilers can generate program listings with line numbers, cross-references, and so on.

program logic The logic behind the design and construction of a program—that is, the reasons it works the way it does. *See also* logic error.

programmable Capable of accepting instructions for performing a task or an operation. Programmability is a characteristic of computers.

programmable function key Any of several, sometimes unlabeled, keys on some third-party keyboards that allow the user to "play back" previously stored key combinations or sequences of keystrokes called macros. The same effect can be achieved with a standard keyboard and a keyboard enhancer, the latter of which intercepts the keyboard codes and substitutes modified values; but programmable function keys accomplish this without requiring RAM-resident software that might not work with some application software. *Compare* keyboard enhancer.

information between computers or between computers and peripheral devices one bit at a time over a single line. Serial communications can be synchronous (controlled by some time standard such as a clock) or asynchronous (managed by the exchange of control signals that govern the flow of information). An important aspect of serial communications—and a potential source of difficulty—is that both sender and receiver must use the same baud rate, parity, and control information. *See also* baud rate, parity, start bit, stop bit.

serial interface A data-transmission scheme that sends data and control bits sequentially over a single transmission line. In reference to a computer's serial input/output connection, the term usually implies the use of an RS-232 or RS-422 interface. *Compare* parallel interface; *see also* RS-232-C standard, RS-422/423/449.

serialize To change from parallel transmission (byte by byte) to serial transmission (bit by bit). Its opposite is *deserialize,* not "parallelize."

serial mouse A mouse that attaches to the computer through a standard serial port of the type that can also be used for other purposes, such as attaching a modem. If a serial port is unavailable or another serial port cannot be added to the system, however, a bus mouse, which uses its own computer card, might be used instead. *Compare* bus mouse; *see also* mouse.

serial port An input/output location (channel) for serial data transmission.

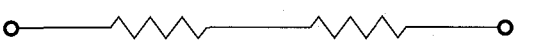
serial printer A printer that is connected to the computer via a serial interface. In the microcomputer world, a serial printer or printer port is almost always an RS-232-C or compatible interface. The most common connector for a serial port on a printer is a female D-shaped connector with 25 pin holes. Connectors on the computer side are more varied. Before IBM introduced the PC, the most common connector on the computer side was also a female D-shaped connector with 25 pin holes. The IBM PC, XT, PS/2, and virtually all compatible systems use a male D-shaped connector with 25 pins; the IBM AT and compatibles use a 9-pin male D-shaped connector.

This variety in connectors, along with the need for printer-specific cabling, is one reason why serial printers are less popular than parallel printers in the IBM world. In addition, the MS-DOS operating system assumes that the system printer is attached to the parallel port. Serial printers are the standard for Apple microcomputers. *Compare* parallel printer; *see also* DB connector, serial, serial transmission.

serial processing *See* sequential processing.

serial transmission The transmission of discrete signals one after the other. In communications and data transfer, serial transmission involves sending information over a single wire one bit at a time; this is the method used in microcomputer modem-to-modem communications over telephone lines and used in sending files to a serial printer. *Compare* parallel transmission.

series circuit A circuit in which two or more components are chained together in series, as shown in the illustration. In a series circuit, all of the circuit current passes through each component, but the voltage is divided among the components. This is in contrast to a parallel circuit, in which all components receive the same voltage but share the current load. *Compare* parallel circuit.



Series circuit.

serif As a noun, any of the short lines or ornaments at the upper and lower ends of the strokes that form a character in a typeface; also an adjective describing any face with serifs. The first example in the illustration on the next page is Goudy, a typeface with serifs. The second example is Helvetica, a sans serif typeface.

A serif typeface is usually considered to be easier to read—especially in large blocks of text—than is a sans serif typeface. *Compare* sans serif.

server On a local area network, a computer running administrative software that controls access to all or part of the network and its resources (such as disk drives or printers). A computer acting as a server makes resources available to computers acting as workstations on the network. *Compare* client; *see also* client/server architecture.

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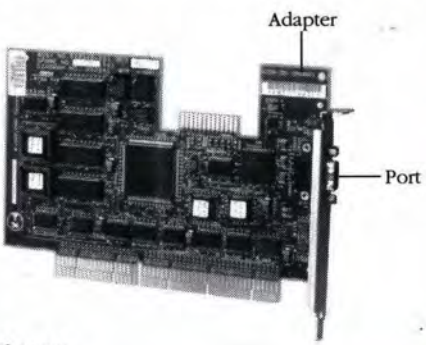
adapter With personal computers, especially those from IBM® or those that are IBM compatible, usually a printed circuit board (also called an interface card) that enables the computer to use a peripheral device for which it does not already have the necessary connections or circuit boards. See the illustration. Adapters are often used to permit upgrading to new or different hardware. Most often, the term is encountered in video, as in Color/Graphics Adapter (CGA), Enhanced Graphics Adapter (EGA), and Video Graphics Array (VGA). Other common adapters include game-controller hardware for joysticks, adapters for serial communications with devices such as modems, adapters for parallel interfaces for devices such as printers, and adapters for other types of peripheral devices such as CD-ROM drives. Commonly, a single adapter card can have more than one adapter on it. For example, a single adapter card can have both a serial port and a parallel port.



See also port.

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