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ILLUSTRATIONS



THE COMPREHENSIVE  
STANDARD FOR  
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**cell** In spreadsheet terminology, the intersection of a row and a column. Each row and column in a spreadsheet is unique, so each cell can be uniquely identified—for example, cell B17, at the intersection of column B and row 17. Each cell is displayed as a rectangular space that can hold text, a value, or a formula. See the illustration. Similarly, although less familiarly, a cell is an addressable (named or numbered) storage unit for information. A binary cell, for example, is a storage unit that can hold 1 bit of information—that is, it can be either on or off.

WIDGET.XLS						
	A	B	C	D	E	F
1						
2		Performance	Reliability	Warranty	Ease of Use	Value
3	Product A	3	4	4	2	3
4	Product B	3	5	3	4	4
5	Product C	5	3	3	5	3
6						
7						
8						

Cell

#### Cell.

**cellular automata** In computer science, theoretical models of parallel computers. They enable the investigation of parallel computers without the need to actually build them. The cellular automaton is composed of a network of multiple cells, each representing a processor in the parallel computer. The cells must be identical, and they must have a finite amount of available memory. Each cell outputs a value calculated from the input values it receives from its neighboring cells, and all cells output their values simultaneously.

**center** To align characters around a point located in the middle of a line, page, or other defined area; in effect, to place text an equal distance from each margin or border. *See also* align.

**centi-** Prefix meaning “one hundred” or, more usually, “one hundredth,” as in *centimeter*—one hundredth of a meter.

**centralized processing** The location of computer processing facilities and operations in a single (centralized) place. *Compare* decentralized processing, distributed processing.

**central office** In communications, the switching center where interconnections between customers' communications lines are made.

**central processing unit** Abbreviated CPU. The computational and control unit of a computer; the device that interprets and executes instructions. Mainframes and early minicomputers contained circuit boards full of integrated circuits that implemented the central processing unit. Single-chip central processing units, called microprocessors, made possible personal computers and workstations. Examples of single-chip CPUs are the Motorola 68000, 68020, and 68030 chips and the Intel 8080, 8086, 80286, 80386, and i486 chips. The CPU—or microprocessor, in the case of a microcomputer—has the ability to fetch, decode, and execute instructions and to transfer information to and from other resources over the computer's main data-transfer path, the bus. By definition, the CPU is the chip that functions as the “brain” of a computer. In some instances, however, the term encompasses both the processor and the computer's memory or, even more broadly, the main computer console (as opposed to peripheral equipment). *See also* microprocessor.

**Centronics parallel interface** A de facto standard for parallel data exchange paths between computers and peripherals, originally developed by the printer manufacturer Centronics, Inc. The Centronics parallel interface provides eight parallel data lines plus additional lines for control and status information.

**CGA** Acronym for Color/Graphics Adapter, a video adapter board introduced by IBM in 1981. The CGA is capable of several character and graphics modes, including character modes of 40 or 80 horizontal characters (columns) by 25 vertical lines with 16 colors, and graphics modes of 640 horizontal pixels by 200 vertical pixels with 2 colors, or 320 horizontal pixels by 200 vertical pixels with 4 colors. *See also* graphics adapter, video adapter.

**CGI** *See* Computer Graphics Interface.

**CGM** *See* Computer Graphics Metafile.

**chad** The paper removed when a hole is punched



**damping** A technique for preventing overshoot (exceeding the desired limit) in the response of a circuit or device. An amplifier circuit, for example, might contain components that damp the output, preventing it from exceeding a critical level.

**Darlington circuit** Sometimes called a Darlington pair. An amplifier circuit consisting of two transistors, often mounted in the same housing. The collectors of the two transistors are connected, and the emitter of the first is connected to the base of the second. Darlington circuits are used to provide high-gain current amplification.

**Darlington pair** See Darlington circuit.

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

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

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

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

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

**data attribute** Structural information about data that serves to establish its context and give mean-

ing to it. The term is also used to refer to descriptive structural information about a data field in a record.

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

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

**database administrator** Abbreviated DBA. The individual or group of individuals responsible for a database. Typically, the DBA is responsible for determining the information content of the database; determining the internal storage structure and access strategy for the database; defining data security and integrity checks; and monitoring database performance and responding to changing requirements.

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

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

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

**database machine** A computer peripheral device that, from the viewpoint of the computer, directly executes database-related tasks, relieving the main computer of the execution of these tasks. Database machines can be attached to the computer

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