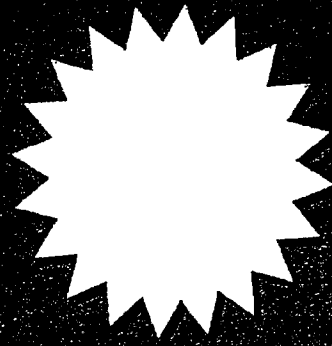# **EXHIBIT 32**

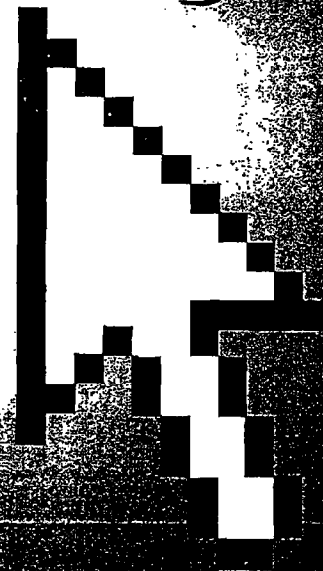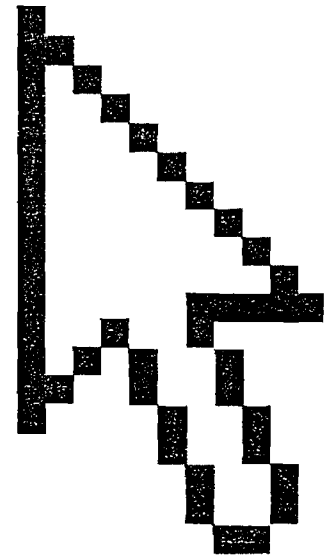# Microsoft
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DirectPlay, DirectShow, DirectSound, DirectX, Entourage, FoxPro, FrontPage, Hotmail, IntelliEye,
IntelliMouse, IntelliSense, JScript, MapPoint, Microsoft, Microsoft Press, Mobile Explorer, MS-DOS,
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and events depicted herein are fictitious. No association with any real company, organization, product,
domain name, e-mail address, logo, person, place, or event is intended or should be inferred.

audio response *n.* Any sound produced by a computer; specifically, spoken output produced by a computer in response to some specific type of input. Such output may be generated using a combination of words from a digitized vocabulary or through the synthesis of words from tables of phonemes. *See also* frequency response, phoneme.

audiotex *n.* An application allowing users to send and receive information by telephone. Users typically call an audiotex system and are presented with a series of choices or a series of questions through a voice mail system. When users select choices by pressing the buttons on the phone (rotary dial phones cannot be used for audiotex) or by speaking aloud, a database host responds by sending information to the voice mail system, which then converts the data to a spoken message for the user, or it responds by receiving and storing the information entered by the user. *Also called:* audiotext. *See also* voice mail.

audiotext *n. See* audiotex.

Audio Video Interleaved *n. See* AVI.

audiovisual *adj.* Relating to or being any material that uses a combination of sight and sound to present information.

audit *n.* In reference to computing, an examination of equipment, programs, activities, and procedures to determine how efficiently the overall system is performing, especially in terms of ensuring the integrity and security of data.

auditing *n.* The process an operating system uses to detect and record security-related events, such as an attempt to create, to access, or to delete objects such as files and directories. The records of such events are stored in a file known as a security log, whose contents are available only to those with the proper clearance. *See also* security log.

audit policy *n.* A policy that determines the security events to be reported to the network administrator.

audit trail *n.* In reference to computing, a means of tracing all activities affecting a piece of information, such as a data record, from the time it is entered into a system to the time it is removed. An audit trail makes it possible to document, for example, who made changes to a particular record and when.

AUI *n.* 1. Acronym for attachment unit interface. A 15-pin (DB-15) connector commonly used to connect a net-

work interface card to an Ethernet cable. 2. *See* aural user interface.

AUI cable *n.* Short for Attachment Unit Interface cable. A transceiver cable used to connect a host adapter within a computer to an Ethernet (10base5 or 10BaseF) network. *See also* 10Base5, 10Base-F, Ethernet (definition 1), transceiver cable.

AUP *n. See* acceptable use policy.

aural user interface *n.* Voice-activated interface that allows users to issue spoken commands to electronic devices. The aural user interface is used with features such as voice recognition for computers and voice-activated dialing for wireless phones. *Acronym:* AUI.

authentication *n.* In a multiuser or network operating system, the process by which the system validates a user's logon information. A user's name and password are compared against an authorized list, and if the system detects a match, access is granted to the extent specified in the permission list for that user. *See also* logon, password, permission, user account, user name.

authentication center *n.* Secure database used to identify and prevent wireless phone fraud. Authentication centers verify whether a wireless phone is registered with a wireless carrier's network.

Authentication Header *n. See* AH.

Authenticode *n.* A security feature of Microsoft Internet Explorer. Authenticode allows vendors of downloadable executable code (plug-ins or ActiveX controls, for example) to attach digital certificates to their products to assure end users that the code is from the original developer and has not been altered. Authenticode lets end users decide for themselves whether to accept or reject software components posted on the Internet before downloading begins. *See also* ActiveX control, Internet Explorer, security.

author[1] *vb.* 1. To create a product for implementation via computer technology. 2. To write a computer program. 3. To assemble multimedia components, such as graphics, text, audio, and animation, in a publication or product, for delivery on a CD-ROM or DVD or on line, to be viewed on a computer. 4. To create Web pages. Traditionally, to author meant to write a literary work or journalistic piece; in the cyberworld, to write is "to provide content"; thus, to author in the traditional sense is to be a "content provider."

author[2] *n. See* Web author.

B

cost. The first Beowulf cluster was assembled at NASA's Goddard Space Flight Center in 1994. The origin of the name comes from Beowulf, the hero who fought and killed the monster Grendel in an eighth-century Old English saga.

Beowulf-class computing *n. See* Beowulf.

Berkeley Internet Name Domain *n. See* BIND.

Berkeley Sockets API *n. See* sockets API.

Bernoulli box *n.* A removable floppy disk drive for personal computers that uses a nonvolatile cartridge and has high storage capacity. Named after Daniel Bernoulli, an eighteenth-century physicist who first demonstrated the principle of aerodynamic lift, the Bernoulli box uses high speed to bend the flexible disk close to the read/write head in the disk drive. *See also* read/write head.

Bernoulli distribution *n. See* binomial distribution.

Bernoulli process *n.* A mathematical process involving the Bernoulli trial, a repetition of an experiment in which there are only two possible outcomes, such as success and failure. This process is used mostly in statistical analysis. *See also* Bernoulli sampling process, binomial distribution.

Bernoulli sampling process *n.* In statistics, a sequence of *n* independent and identical trials of a random experiment, with each trial having one of two possible outcomes. *See also* Bernoulli process, binomial distribution.

best of breed *adj.* A term used to describe a product that is the best in a particular category of products.

beta¹ *adj.* Of or relating to software or hardware that is a beta. *See also* beta². *Compare* alpha¹.

beta² *n.* A new software or hardware product, or one that is being updated, that is ready to be released to users for beta testing in real-world situations. Usually betas have most or all of the features and functionality implemented that the finished product is to have. *See also* beta test. *Compare* alpha².

beta site *n.* An individual or an organization that tests software before it is released to the public. The company producing the software usually selects these beta sites from a pool of established customers or volunteers. Most beta sites perform this service free of charge, often to get a

first look at the software and to receive free copies of the software once it is released to the public.

beta test *n.* A test of software that is still under development, accomplished by having people actually use the software. In a beta test, a software product is sent to selected potential customers and influential end users (known as beta sites), who test its functionality and report any operational or utilization errors (bugs) found. The beta test is usually one of the last steps a software developer takes before releasing the product to market; however, if the beta sites indicate that the software has operational difficulties or an extraordinary number of bugs, the developer may conduct more beta tests before the software is released to customers.

betweening *n. See* tween.

bezel *n.* In arcade games, the bezel refers to the glass located around the monitor. It is often silk-screened with artwork relating to the game. *See also* arcade game.

Bézier curve *n.* A curve that is calculated mathematically to connect separate points into smooth, free-form curves and surfaces of the type needed for illustration programs and CAD models. Bézier curves need only a few points to define a large number of shapes—hence their usefulness over other mathematical methods for approximating a given shape. See the illustration. *See also* CAD.
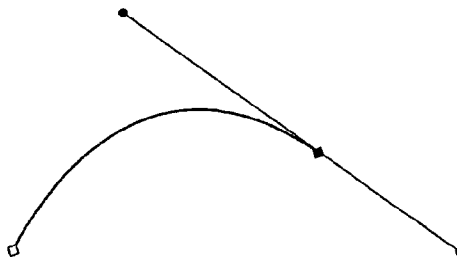
Bézier curve.

BFT *n. See* batch file transmission, binary file transfer.

BGP *n. See* Border Gateway Protocol.

bias *n.* 1. A uniform or systematic deviation from a point of reference. 2. In mathematics, an indication of the amount by which the average of a group of values deviates from a reference value. 3. In electronics, a voltage applied to a transistor or other electronic device to establish a ref-

erence level for its operation. 4. In communications, a type of distortion in the length of transmitted bits, caused by a lag that occurs as voltage builds up or falls off each time the signal changes from 0 to 1 or vice versa.

bidirectional *adj.* Operating in two directions. A bidirectional printer can print from left to right and from right to left; a bidirectional bus can transfer signals in both directions between two devices.

bidirectional parallel port *n.* An interface that supports two-way parallel communication between a device, such as a printer, and a computer. *See also* interface (definition 3), parallel port.

bidirectional printing *n.* The ability of an impact or ink-jet printer to print from left to right and from right to left. Bidirectional printing improves speed substantially because no time is wasted returning the print head to the beginning of the next line, but it may lower print quality.

bi-endian *adj.* Of, pertaining to, or characteristic of processors and other chips that can be switched to work in big endian or little endian mode. The PowerPC chip has this ability, which allows it to run the little endian Windows NT or the big endian MacOS/PPC. *See also* big endian, little endian, PowerPC.

BIFF *n.* Short for Binary Interchange File Format. The native file format used by Microsoft Excel.

biff *n.* **1.** A BSD utility that issues a signal when new mail has arrived. Biff was named after a University of California graduate student's dog who had a habit of barking at the mailman at the time the utility was developed. **2.** *See* BIFF.

biff *vb.* To provide notification of new (incoming) e-mail.

bifurcation *n.* A split that results in two possible outcomes, such as 1 and 0 or on and off.

Big 5 *n.* Traditional Chinese encoding.

Big Blue *n.* The International Business Machines (IBM) Corporation. This nickname comes from the corporate color used on IBM's early mainframes and still used in the company logo.

big endian *adj.* Storing numbers in such a way that the most significant byte is placed first. For example, given the hexadecimal number A02B, the big endian method would cause the number to be stored as A02B, and the little endian method would cause the number to be stored as

2BA0. The big endian method is used by Motorola microprocessors; Intel microprocessors use the little endian method. The term *big endian* is derived from Jonathan Swift's *Gulliver's Travels*, in which the Big-Endians were a group of people who opposed the emperor's decree that eggs should be broken at the small end before they were eaten. *Compare* little endian.

bigint data type *n.* In an Access project, a data type of 8 bytes (64 bits) that stores whole numbers in the range of -2^{63} ($-9,223,372,036,854,775,808$) through $2^{63}-1$ ($9,223,372,036,854,775,807$).

big iron *n.* One or more large, fast, and expensive computers, such as a Cray supercomputer or a room-filling mainframe system.

big red switch *n.* The power on/off switch of a computer, thought of as a kind of interrupt or last resort. On the original IBM PC and many other computers, it was indeed big and red. Using the switch is an interrupt of last resort because it deletes all the data in RAM and can also damage the hard drive. *Acronym:* BRS.

billboard *n.* A primitive inserted into a 3-D scene that is oriented so that one face is toward the viewer. A texture, usually an animated sprite, is applied to the billboard to give the appearance of a 3-D object in the scene.

billion *n.* **1.** In American usage (as is usual with microcomputers), a thousand million, or 10^9. Computer terminology uses the prefixes *giga-* for 1 billion and *nano-* for 1 billionth. **2.** In British usage, a million million, or 10^{12}, which is a *trillion* in American usage.

billisecond *n.* *See* nanosecond.

bimodal virus *n.* *See* multipartite virus.

.bin *n.* A file name extension for a file encoded with Mac-Binary. *See also* MacBinary.

binary[1] *adj.* Having two components, alternatives, or outcomes. The binary number system has 2 as its base, so values are expressed as combinations of two digits, 0 and 1. These two digits can represent the logical values *true* and *false* as well as numerals, and they can be represented in an electronic device by the two states *on* and *off*, recognized as two voltage levels. Therefore, the binary number system is at the heart of digital computing. Although ideal for computers, binary numbers are usually difficult for people to interpret because they are repetitive strings of 1s

downstream rates from about 10 Mbps to 36 Mbps. *See also* coaxial cable, modem.

cable telephony *n.* Telephone service provided over a cable TV connection rather than over traditional telephone lines. Although service is delivered over cable rather than telephone wire, the end user perceives no difference between cable telephony and normal telephone service. Proponents of cable telephony see it as part of the eventual integration of Internet, television, and telephone services into a single communication/entertainment unit.

cable television *n. See* CATV.

cabling diagram *n.* A plan that shows the path of cables that attach computer system components or peripherals. Cabling diagrams are particularly important for explaining the connection of disk drives to a disk controller.

cache *n.* A special memory subsystem in which frequently used data values are duplicated for quick access. A memory cache stores the contents of frequently accessed RAM locations and the addresses where these data items are stored. When the processor references an address in memory, the cache checks to see whether it holds that address. If it does hold the address, the data is returned to the processor; if it does not, a regular memory access occurs. A cache is useful when RAM accesses are slow compared with the microprocessor speed because cache memory is always faster than main RAM memory. *See also* disk cache, wait state.

cache card *n.* An expansion card that increases a system's cache memory. *See also* cache, expansion board.

Cache-Coherent Non-Uniform Memory Access *n. See* ccNUMA.

cache farm *n.* A group of servers that save copies of Web pages to caches to fulfill successive requests without calling the pages up repeatedly from the Web server. In essence, the servers are dedicated to caching. By saving Web pages where they can be accessed without increasing traffic on the Web site, the cache farm allows higher-performance Web access for the end user and a reduction in network congestion and volume. *See also* cache.

cache memory *n. See* cache.

cache poisoning *n.* Deliberate corruption of Internet Domain Name System (DNS) information through alteration of data that equates host names with their IP addresses. Misleading information of this type, when cached (saved) by one DNS server and later passed to another, exposes DNS servers to attacks in which data sent from one host to another can be accessed or corrupted. Cache poisoning has been used to redirect network requests from a legitimate server to an alternate Web site. *See also* DNS.

CAD *n.* Acronym for computer-aided design. A system of programs and workstations used in designing engineering, architectural, and scientific models ranging from simple tools to buildings, aircraft, integrated circuits, and molecules. Various CAD applications create objects in two or three dimensions, presenting the results as wire-frame "skeletons," as more substantial models with shaded surfaces, or as solid objects. Some programs can also rotate or resize models, show interior views, generate lists of materials required for construction, and perform other allied functions. CAD programs rely on mathematics, often requiring the computing power of a high-performance workstation. *See also* CAD/CAM, I-CASE.

CAD/CAM *n.* Acronym for computer-aided design/computer-aided manufacturing. The use of computers in both the design and manufacture of a product. With CAD/CAM, a product, such as a machine part, is designed with a CAD program and the finished design is translated into a set of instructions that can be transmitted to and used by the machines dedicated to fabrication, assembly, and process control. *See also* CAD, I-CASE.

CADD *n.* A system of hardware and software similar to CAD but with additional features related to engineering conventions, including the ability to display dimension specifications and other notes. *Acronym:* CADD. *See also* CAD.

caddy *n.* A plastic carrier that holds a CD-ROM and is inserted into a CD-ROM drive. Some PCs, especially older models, have CD-ROM drives that require the use of a caddy. Most current CD-ROM drives do not require a caddy.

CAE *n.* Acronym for computer-aided engineering. An application that enables the user to perform engineering tests and analyses on designs created with a computer. In some instances, capabilities such as logic testing that are generally attributed to CAE applications are also part of CAD programs, so the distinction between CAD and CAE is not a hard-and-fast one. *See also* CAD, I-CASE.

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data *n.* Plural of the Latin *datum*, meaning an item of information. In practice, *data* is often used for the singular as well as the plural form of the noun. *See also* datum. *Compare* information.

Data Access Objects *n.* A data access interface that communicates with Microsoft Jet and ODBC-compliant data sources to connect to, retrieve, manipulate, and update data and the database structure. *Acronym:* DAO.

data acquisition *n.* The process of obtaining data from another source, usually one outside a specific system.

data aggregate *n.* A collection of data records. It usually includes a description of the placement of the data blocks and their relation to the entire set.

data attribute *n.* Structural information about data that describes its context and meaning.

data bank *n.* Any substantial collection of data.

database *n.* A file composed of records, each containing fields together with a set of operations for searching, sorting, recombining, and other functions. *Acronym:* DB.

database administrator *n.* One who manages a database. The administrator determines the content, internal structure, and access strategy for a database, defines security and integrity, and monitors performance. *Acronym:* DBA. *Also called:* database manager.

database analyst *n.* One who provides the analytic functions needed to design and maintain applications requiring a database.

database designer *n.* One who designs and implements functions required for applications that use a database.

database engine *n.* The program module or modules that provide access to a database management system (DBMS).

database machine *n.* 1. A peripheral that executes database tasks, thereby relieving the main computer from performing them. 2. A database server that performs only database tasks.

database management system *n.* A software interface between the database and the user. A database management system handles user requests for database actions and allows for control of security and data integrity requirements. *Acronym:* DBMS. *Also called:* database manager. *See also* database engine.

database manager *n. See* database administrator, database management system.

database publishing *n.* The use of desktop publishing or Internet technology to produce reports containing information obtained from a database.

database server *n.* A network node, or station, dedicated to storing and providing access to a shared database. *Also called:* database machine.

database structure *n.* A general description of the format of records in a database, including the number of fields, specifications regarding the type of data that can be entered in each field, and the field names used.

data bit *n.* In asynchronous communications, one of a group of from 5 to 8 bits that represents a single character of data for transmission. Data bits are preceded by a start bit and followed by an optional parity bit and one or more stop bits. *See also* asynchronous transmission, bit, communications parameter.

data buffer *n.* An area in memory where data is temporarily stored while being moved from one location to another. *See also* buffer[1].

data bus *n. See* bus.

data cable *n.* Fiber-optic or wire cable used to transfer data from one device to another.

data capture *n.* 1. The collection of information at the time of a transaction. 2. The process of saving on a storage medium a record of interchanges between a user and a remote information utility.

data carrier *n. See* carrier (definition 1).

Data Carrier Detected *n. See* DCD (definition 1).

data chaining *n.* The process of storing segments of data in noncontiguous locations while retaining the ability to reconnect them in the proper sequence.

data channel *n. See* channel (definition 1).

data closet *n. See* wiring closet.

data collection *n.* 1. The process of acquiring source documents or data. 2. The grouping of data by means of classification, sorting, ordering, and other organizing methods.

datacom *n.* Short for **data communications.** *See* communications.

data communications *n. See* communications.

data compaction *n. See* data compression.

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log files *n.* A computer file that records requests received by online applications or the number of hits a Web page receives. Log files are useful in analyzing the technical performance of a Web site, redesigning Web site navigation, and revising marketing strategies used by e-businesses.

logic *n.* In programming, the assertions, assumptions, and operations that define what a given program does. Defining the logic of a program is often the first step in developing the program's source code. *See also* formal logic.

logical *adj.* 1. Based on true and false alternatives as opposed to arithmetic calculation of numeric values. For example, a logical expression is one that, when evaluated, has a single outcome, either true or false. *See also* Boolean algebra. *Compare* fuzzy logic. 2. Conceptually true to a particular design or idea—for example, network transmissions travel in a circle around a logical ring, even though the ring shape itself is not physically apparent. *Compare* physical.

logical block addressing *n.* A technique in which the cylinder, head, and sector locations on a hard disk are converted to 24-bit addresses for data storage and retrieval. Logical block addressing is used with SCSI drives and is also a feature of Enhanced IDE (EIDE) disk drives, on which it breaks through the earlier 528-MB IDE limit and allows support for drives up to 8.4 GB in capacity if 24-bit logical address space is used. Address conversion is performed by an EIDE drive's disk controller, but also requires support from the BIOS and the computer's operating system. *Acronym:* LBA. *See also* EIDE, SCSI.

logical decision *n.* Any decision that can have one of two outcomes (true/false, yes/no, and so on). *Compare* fuzzy logic.

logical device *n.* A device named by the logic of a software system, regardless of its physical relationship to the system. For example, a single floppy disk drive can simultaneously be, to the MS-DOS operating system, both logical drive A and drive B.

logical drive *n. See* logical device.

logical error *n. See* logic error.

logical expression *n. See* Boolean expression.

logical file *n.* A file as seen from a conceptual standpoint, without reference to and as distinct from its physical realization in memory or storage. For example, a logical file might consist of a contiguous series of records, whereas the file might be physically stored in small pieces scattered over the surface of a disk or even on several disks. A logical file might also consist of some subset of columns (fields) and rows (records) extracted from a database. In this case, the logical file (or view) is only that information required by a particular application program or user.

Logical Link Control *n. See* LLC.

logical memory *n.* A correlation between physical memory of the computer system and an address range that is accessible to devices. The hardware abstraction layer (HAL) provides this correlation (or mapping). *See also* map.

logical network *n.* A way to describe the topology, or layout, of a computer network. Referring to a logical (rather than physical) topology describes the way information moves through the network—for example, in a straight line (bus topology) or in a circle (ring topology). The difference between describing a network as logical or physical is sometimes subtle because the physical network (the actual layout of hardware and cabling) doesn't necessarily resemble the logical network (the path followed by transmissions). A logical ring, for example, might include groups of computers cabled octopus-like to hardware "collection points" which, in turn, are cabled to one another. In such a network, even though the physical layout of computers and connecting hardware might not visually resemble a ring, the logical layout followed by network transmissions would, indeed, be circular. *See also* bus network, ring network, star network, token ring network, topology. *Compare* physical network.

logical operator *n.* An operator that manipulates binary values at the bit level. In some programming languages, logical operators are identical to Boolean operators, which manipulate true and false values. *See also* Boolean operator, mask.

logical record *n.* Any unit of information that can be handled by an application program. A logical record can be a collection of distinct fields or columns from a database file or a single line in a text file. *See also* logical file.

logical schema *n. See* conceptual schema.

logic analyzer *n.* A hardware device that facilitates sophisticated low-level debugging of programs. Typical features include the ability to monitor bus signals during execution, to halt execution when a given memory location is read or written to, and to trace back through some number of instructions when execution is halted for any reason. *See also* debugger.

serial port adapter *n.* An interface card or device that either provides a serial port or converts a serial port to another use. *See also* adapter, serial port.

serial printer *n.* A printer connected to the computer via a serial interface (commonly RS-232-C or compatible). Connectors for this type of printer vary widely, which is one reason they are less popular than parallel printers among those who use IBM and IBM-compatible PCs. Serial printers are standard for Apple computers. *See also* DB connector, serial, serial transmission. *Compare* parallel printer.

serial processing *n.* *See* sequential processing (definition 2).

Serial Storage Architecture *n.* *See* SSA.

serial transmission *n.* The transfer of discrete signals one after another. In communications and data transfer, serial transmission involves sending information over a single line one bit at a time, as in modem-to-modem connections. *Compare* parallel transmission.

series circuit *n.* A circuit in which two or more components are linked in series. All the current passes through each component in a series circuit, but the voltage is divided among the components. See the illustration. *Compare* parallel circuit.
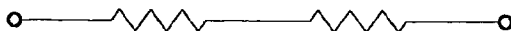
Series circuit.

serif¹ *adj.* Marked by the use of serifs. For example, Goudy is a serif typeface, whereas Helvetica is a sans serif typeface. See the illustration. *See also* serif². *Compare* sans serif.

Serifs

Serif. A serif typeface (top) and a sans serif typeface (bottom).

serif² *n.* Any of the short lines or ornaments at the ends of the strokes that form a typeface character.

server *n.* **1.** On a local area network (LAN), a computer running administrative software that controls access to the network and its resources, such as printers and disk drives, and provides resources to computers functioning as workstations on the network. **2.** On the Internet or other network, a computer or program that responds to commands from a client. For example, a file server may contain an archive of data or program files; when a client submits a request for a file, the server transfers a copy of the file to the client. *See also* application server (definitions 1 and 2), client/server architecture. *Compare* client (definition 3).

server appliance *n.* A device designed to deliver one or more specific network services in a single turnkey package that includes both hardware and software. All necessary programs are preinstalled on a server appliance, which has minimal, simplified options and controls. Server appliances can be used to complement or replace traditional servers on a network and can provide such services as file and printer sharing and Internet connectivity. *Also called:* appliance. *See also* information appliance.

server-based application *n.* A program that is shared over a network. The program is stored on the network server and can be used at more than one client machine at a time.

server cluster *n.* A group of independent computer systems, known as nodes, working together as a single system to ensure that mission-critical applications and resources remain available to clients. A server cluster is the type of cluster that Cluster service implements. *See also* cluster.

server control *n.* *See* ASP.NET server control.

server error *n.* A failure to complete a request for information through HTTP that results from an error at the server rather than an error by the client or the user. Server errors are indicated by HTTP status codes beginning with 5. *See also* HTTP, HTTP status codes.

server farm *n.* A centralized grouping of network servers maintained by an enterprise or, often, an Internet service provider (ISP). A server farm provides a network with load balancing, scalability, and fault tolerance. Individual servers may be connected in such a way that they appear to represent a single resource.

serverlet *n.* *See* servlet.

Server Message Block *n.* *See* SMB.

trellis-coded modulation *n.* An enhanced form of quadrature amplitude modulation that is used by modems that operate at or above 9,600 bps (bits per second). Trellis-coded modulation encodes information as unique sets of bits associated with changes in both the phase and amplitude of the carrier, as well as using extra signal points for error-checking bits. *Acronym:* TCM. *See also* quadrature amplitude modulation.

trendline *n.* A graphic representation of trends in data series, such as a line sloping upward to represent increased sales over a period of months. Trendlines are used for the study of problems of prediction. *Also called:* regression analysis.

triage¹ *n.* The process of prioritizing projects or elements of a project (such as bug fixes) to ensure that available resources are assigned in the most effective, time-efficient, and cost-efficient manner. Traditionally, triage has referred to the prioritization of treatment to the wounded during wartime or medical disaster situations. More recently, the term also refers to anticipating and preventing computer system crashes brought on by the Year 2000 (Y2K) problem. *See also* Year 2000 Problem.

triage² *vb.* To identify and prioritize the elements of a project or problem to order them in a way that makes best use of labor, funds, and other resources.

tri-band phone *n.* A wireless phone designed for international travel. Tri-band phones broadcast on the personal communication service (PCS) frequency used in North America as well as PCS frequencies used in other regions of the world.

trichromatic *adj.* Of, pertaining to, or characteristic of a system that uses three colors (red, green, and blue in computer graphics) to create all other colors. *See also* color model.

trigger¹ *n.* 1. In a database, an action that causes a procedure to be carried out automatically when a user attempts to modify data. A trigger can instruct the database system to take a specific action, depending on the particular change attempted. Incorrect, unwanted, or unauthorized changes can thereby be prevented, helping to maintain the integrity of the database. 2. A function built into a virus or worm that controls the release of a malicious payload or similar event. The trigger may be activated at a predetermined time or date or in response to a user-initiated event, such as opening a specific program or file. In some cases,

the trigger may reset itself repeatedly until the virus is neutralized.

trigger² *vb.* To activate a function or program, such as the release of a virus payload, in response to a specific event, date, or time.

trigonometry *n.* The branch of mathematics dealing with arcs and angles, expressed in functions (for example, sine and cosine) that show relationships—for example, between two sides of a right triangle or between two complementary angles.

trilinear filtering *n.* A technique used in 3-D computer game rendering and other digital animation applications that produces the illusion of depth of field by making distant objects less distinct and detailed than nearer objects.

tri-mode phone *n.* A wireless phone that broadcasts on 1900 MHz personal communication service (PCS), 800 MHz digital cellular networks, and 800 MHz analog networks.

triple-pass scanner *n.* A color scanner that performs one scanning pass on an image for each of the three primary colors of light (red, green, and blue). *See also* color scanner.

tristimulus values *n.* In color graphics, the varying amounts of three colors, such as red, blue, and green, that are combined to produce another color. *See also* color, color model.

Trivial File Transfer Protocol *n.* A simplified version of File Transfer Protocol (FTP) that provides basic file transfer with no user authentication and is often used to download the initial files needed to begin an installation process. *Acronym:* TFTP. *See also* communications protocol.

troff *n.* Short for typesetting run off. A UNIX text formatter often used to format man pages. *See also* man pages, RUNOFF. *Compare* TeX.

Trojan horse *n.* A destructive program disguised as a game, utility, or application. When run, a Trojan horse does something harmful to the computer system while appearing to do something useful. *See also* virus, worm.

troll *vb.* To post a message in a newsgroup or other online conference in the hopes that somebody else will consider the original message so outrageous that it demands a heated reply. A classic example of trolling is an article in favor of torturing cats posted in a pet lovers' newsgroup. *See also* YHBT.