

Glossary

Absolute reference Process of inserting a spreadsheet code into a cell formula to hold the row and/or column references constant (absolute) when the formula is copied to another cell in the worksheet; the row or column reference does not change when copied. (9)¹

Absorption The engulfing of sound waves by environmental materials. (11)

Acceptance test The final systems test where users evaluate the entire system and indicate how well it meets the standards established at the beginning of the design or purchase of the system. (5)

Active cell A highlighted (outlined in dark) area where data is entered into a spreadsheet program worksheet. (9)

Alignment The design principle that ensures visual units on the page are horizontally and vertically connected; alignment and repetition tie together the visual units. (6)

Ambient lighting Indirect light that illuminates the area surrounding the work surface. (11)

Animation Special sound or visual effects that can be added to slides in an electronic presentation; this is not to be overused. (9)

Anthropometry The study of human body measurements in order to design furniture (sizes, heights, and shapes) accurately scaled to the dimensions of a worker's body. (11)

Antivirus program A software program on the organization's network, as well as desktop PCs, notebooks, and workstations, to detect and delete computer viruses. (5)

Application service provider (ASP) A company that leases software as well as hardware to organizations through the Internet or a private network in an attempt to provide lower technology costs to the organization; an ASP manages all applications and computing services including updates and maintenance. (9)

Application software Software that provides the instructions for processing general purpose appli-

cations for end users as well as applications specific to the organization's functional areas. (8)

Application specific software Software developed by in-house application programmers, purchased from vendors, or custom developed by software vendors to process daily business operations according to the needs of each department's function; vendor software can be cross-industry application software (e.g., payroll, accounts receivable, or inventory) or industry-specific application software (e.g., credit loan programs, legal programs, or insurance programs). (9)

Ascender The portion of a lowercase letter that is above the main body of a letter; in the English alphabet there are eight letters with ascenders: b, d, f, h, i, k, l, and t. (6)

Audio conference A telephone call for three or more people to talk with one another; the conference call was the first form of audio conference. (3)

Batch processing For efficiency, processing business transactions in a group at a future time. (1)

Binding A method for holding all pages of a final document together; binding methods include case, fastback, lay-flat, plastic comb, saddle-stitch, sewn-and-glued, spiral, staple, stitching, three-ring, Velo, and Wir-O. (7)

Biomechanics The study of the musculoskeletal effort of human beings. (11)

Biometric control A security control that identifies an individual based on physiological or behavioral characteristics; (i.e., iris, fingerprints, signature, and keystrokes). (5)

Bit A two-state (binary) electrical impulse in a digital computer system represented by the 1 digit for *on* and the 0 digit for *off*; an acronym for **binary digit**. (2)

Boot Method of turning the computer-based information system on. (8)

Bridge A communication processor that provides connection between two similar networks. (3)

¹The number in parentheses after each entry indicates the chapter location in the text.

Byte A string of bits (0s and 1s) representing a number or a character (alphanumeric character or symbol—including a blank space) in all digital computer systems; eight bits equals one byte. (2)

Camera phone A cell phone enhanced to capture photographic images that can be immediately sent to other camera phone users along with a message, downloaded to computers, or posted on the Internet. (3)

Capital equipment A nonrecurring asset intended for use over a period of years; includes office furniture, computers, printers, copiers, and other office equipment. (10)

Carpal tunnel syndrome The compression of a nerve leading into the wrist that results in debilitating pain and muscle weakness. (11)

Cell The intersection of a row and column on a spreadsheet program worksheet; end users input text, numbers, and formulas into the active cell. (9)

Cell reference A unique address for a spreadsheet program worksheet cell that consists of the column letter and row number. (9)

Central exchange system (CENTREX) A telephone system where each extension is assigned a seven-digit number for direct outward and direct inward dialing; leased from the regional telephone company. (3)

✓ **Central processing unit (CPU)** Computer system component that manipulates raw data, moves information, and performs required arithmetic or logic operations in a digital computer system; consists of a control unit and the arithmetic/logic unit. (1) (2)

Centralized computing Processing data in a mainframe or supercomputer with users entering data from local input devices; used by organizations along with one of the other computing models (distributed or collaborative). (3)

Channel The communication link for transmitting data between the computer system and secondary storage or other computer peripherals external to the system. (2)

Client/server computing Widely used form of distributed computing where a microcomputer, mid-range computer, or a mainframe is a server to its clients (end user with a desktop PC, notebook, or workstation); data storage and management, processing logic, and an interface are shared between the server and client. (3)

Collaborative commerce Through shared digital systems, businesses collaborate with suppliers, engineers, manufacturers, and sales representatives to improve planning, production, and distribution of goods and services. (4)

Collaborative computing Networks are networked to accomplish integrated operations and link common processing tasks; the network infrastructure along with collaborative software tools support data, information, and process sharing. (3)

Collating The process of sorting each page into a set of pages using a stand-alone collator or a collator attached to a copier or a duplicator. (7)

Column (in)

Database management software The data fields in a relational database management system (DBMS) table (relation); each column in a database table must be uniquely named with one field as the primary key. (9)

Spreadsheet software Typically identified by a letter (A, B, . . . , IV) horizontally across the top of a worksheet; data in columns are read vertically. (9)

Word processing software Entering text, illustrations, graphs [charts], and pictures into a format resembling a newspaper format; the size and number of columns can be specified. (9)

Command-driven interface Interface that requires the user to enter brief user commands to the operating system for decoding and execution (i.e., MS-DOS). (8)

Compact disc (CD) An optical disc that includes compact disc-random access memory (CD-ROM), compact disc-recordable (CD-R), compact disc-rewritable (CD-RW), and digital video discs (DVD). (2)

Comprehensive sketches Sketches (often called comps) that provide colors to be used, number of pages and/or folds, trim size of the final document, image placement, number of columns (if applicable), and type specifications; a refinement of hard-copy thumbnails. (6)

Computer conference Participants designated to be part of the discussion transmit information to others either simultaneously or on a delayed basis anytime, anywhere; also referred to as a discussion forum. (4)

Computerized branch exchange (CBX) A computer-based telephone communication system for automated telephone switching and management. (3)

Context-sensitive menu An on-screen menu that provides a shortcut to functions related to the window or object the pointer is on at the time of a right click with an input device. (8)

Contrast The design principle that occurs when two elements are *noticeably* different; bold, italics, a thin line with a thick line (rules), a warm color with a cool color, a small graphic with a large graphic, or a horizontal element with a vertical el-

ement. Contrast and proximity emphasize important information. (6)

Control panel Module that allows the micro-computer user to change the appearance and functionality of the operating system; in a networked environment, the end user may be locked out from changing the functionality of their desktop PC, notebook, or workstation operating system requiring the assistance from an information technology specialist. (8)

Conversion The process of changing from the old system to a new one; methods include direct, parallel, phased, and pilot. (5)

Cracker A malicious hacker with the intent of disabling the computer system or cracking the system for a profit. (5)

Cropping Trimming the unwanted edges of an image. (6)

Custom-designed software Software developed by an in-house programmer or purchased or leased from a software vendor who provides installation, maintenance, and training services. (9)

Cybernetics The information flow resulting from the communications systems being used. (10)

Data conference Participants on a computer network with data conferencing software to view, revise, and save changes to text, graphics, drawings, images, and other material displayed on a shared whiteboard; the conference is simultaneous, in real time. (4)

Data flow diagram Diagram that graphically illustrates the computer-based information system's component processes and the flow of data between the processes. (10)

Data mart A small data warehouse containing only a portion of the organization's data for a specialized function or work group. (8)

Data tampering Intentionally or unintentionally entering incorrect or fabricated data or changing or deleting existing data stored in the organization's files and databases; typically done by organization insiders. (5)

Data warehouse System that integrates current and historical transaction data from the organization's multiple databases and/or storage area networks (SAN) so end users can use report and query tools to extract data for analysis and better decision making (datamining); operational TPS data are copied to a data warehouse as often as required—monthly, weekly, daily, or even hourly. (8)

Database administrator The information technology person responsible for the logical database design, development of the data dictionary, security of the data, and monitoring how others (both users and technical personnel) use data. (5)

Database management systems (DBMS) A system and an application software program that control the development, use, and maintenance of data stored in databases; for enterprise-wide data management, a mainframe or mid-range computer system is required. (8)

Datamining The analysis of data stored in a data warehouse to identify patterns and relationships for predicting future trends and consumer behaviors as well as making better decisions. (8)

Decibel The unit measurement of the intensity of sound; one decibel is the faintest sound that can be detected by the human ear. (11)

Decision support systems (DSS) An information system that uses transaction processing system (TPS) and management information system (MIS) data as well as external sources in sophisticated analytical models to support semi-structured decisions; an interactive environment where management can change assumptions, ask new questions, and change the variables in the DSS model. (1)

Defragmentation The process of rewriting parts of a file to contiguous sectors on a disk to increase the speed of access and retrieval. (8)

Denial of service Attacks where crackers flood a network or Web server with information requests in an attempt to crash the network. (5)

Descender The portion of a lowercase letter that falls below the baseline of a letter; in the English alphabet there are five letters with descenders: g, j, p, q, and y. (6)

Desktop Place where the operating system displays a taskbar and program or file icons once the computer system has completely booted; default icons include computer directory, documents, network places, recycle bin, and network browser. (8)

Dialog box Area where the end user and the computer system communicate; displays whenever the application or operating system software provides information to the end user or the software needs the end user to enter information or make a selection. (8)

Diazo A process for making engineering and architectural drawing copies where the original document is in a translucent state with printing only on one side of the page; accepts ink or pencil additions and special correction devices for deletions or erasures on the original. (7)

Digital certificate An attachment to an electronic document that verifies the sender to be whom he or she claims. (5)

Digital copier Copier that uses technology that allows data to be transferred in a series of bits from a computer-based information system, thus providing faster, clearer, and higher-quality output; also called an information distributor. (7)

Digital duplicating Process that combines convenience copying with the economy of offset printing. (7)

Digital signature A digital code attached to a document to identify the sender and message contents; to be legally binding, someone must verify that the digital signature belongs to the person who sent the data and that the data were not altered. (5)

Digital subscriber line (DSL) A high-capacity digital transmission over existing twisted copper telephone lines from the office or home to the telephone switching station. (3)

Digital wallet Software that stores credit card and owner identification to be used for e-commerce purchases. (5)

Digitizing Converting data into digital information called bits. (3)

Direct-image master A smooth paper material that is prepared by keying or writing directly on it with special writing implements (reproducing pens or pencils); one paper offset master can produce up to 2,500 copies. (7)

Document mode An application software screen ready to accept keyed text for input; in a graphical user interface environment, the document mode is referred to as an active window. (9)

Domain function Element required in a Web address and an e-mail address; six of the original domain functions are com, edu, gov, mil, net, and org. A Web site must be registered in a domain function. The e-mail address top-level domain is either a domain function or country reference with the domain function at the immediate left. (4)

Domain name Name that identifies the host or network that services the e-mail account and contains subdomains separated by a period. (4)

Downtime When the computer-based information system is not in operation. (1)

Dropped capital (drop cap) Stylistic device used to emphasize the beginning of a section by setting the first letter with a larger and sometimes stylized font; drop caps are either inset within the paragraph or offset into the margin to the left of the paragraph. (6)

Early adapter A person who is quick to change, study a new system, and try to implement it. (11)

e-Business The internal integration within an organization to enhance and support communication and business operations electronically; internal networks, intranet, and the enterprise system support e-business operations. (4)

e-Commerce Conducting business online, primarily over the Internet; Internet business models include business-to-consumer (B2C), business-to-business (B2B), consumer-to-consumer (C2C), and mobile-commerce (m-commerce). (4)

Eight-panel fold Holding the paper in portrait orientation, fold it horizontally in half, then fold it vertically in half to create eight pages (panels—count both sides of the paper but use only four panels for printing); also called a French fold and often used for formal invitations. (6)

Electronic data interchange (EDI) Provides computer-to-computer exchange of standard documents (purchase orders, invoices, payments) between two businesses (business-to-business commerce [B2B]) using private networks (value-added network [VAN]) or the Internet (virtual private network [VPN]) for transmission. (4)

Electrostatic imaging The process of making an offset master or overhead transparency from an original using a copy machine. (7)

Electrostatic master Copying original material (printed hard copy or copy drawn [usually with black ink] onto a sheet of bond paper) onto a sensitized offset master; electrostatic masters can be used to duplicate as many as 5,000 copies. (7)

Emotional disturbance Disturbance that affects an employee's ability to adequately perform tasks; includes mood disturbances and psychosomatic disorders. (11)

Encryption Coded messages requiring the receiver to have an authorized decryption key to read the message. There are one-key encryption systems, two-key encryption systems, and a hybrid of these two systems. (5)

Enterprise network Network that connects an organization's distributed networks into one single network; differing technologies are addressed and also can connect to external networks. (3)

Enterprise system An organization-wide information system that integrates key business processes so information flows freely between different divisions (manufacturing, accounting, finance, sales and marketing, and human resources). (4)

Ergonomics The scientific study of the relationship of employees to their physical environment, including the workspace and the tools that enhance the workspace. (11)

Ergonomics standards Guidelines for the application of ergonomics factors in office/furniture design; based on research by ergonomics specialists and used in the design of office products throughout the world. (11)

Euthenics The science of bettering employee conditions by improving the work environment. (10)

Executive support systems (ESS) An information system for senior management queries on external and internal data; projections about the future are provided for strategic decisions. (1)

Extranet Provides authorized users outside the company limited access to the organization's pri-

vate intranets in order to coordinate and communicate with business partners and customers. (4)

Facsimile (Fax) Technology that is used in two ways in the electronic office: (1) sending a document from one location to another (facsimile transmission—fax) and (2) digitizing text from a printed page and transferring it to a computer disk/disc or to a master for printing (electronic scanning). (7)

Fault-tolerant system An information system designed with duplicate hardware, software, and power supply so processing will continue during a system failure; important for mission critical operations. (5)

Fiber optic imaging An electrographic process where tiny glass strands transmit information in the form of pulsating laser light from the original document to an electrically charged drum; toner is used to fuse the copy paper with an image of the original document. (7)

Field Area that contains descriptive characteristics about a person, place, or thing in a database management system (DBMS) with each data field assigned a unique name; also referred to as a *data element*. (9)

File transfer protocol (FTP) A communications standard for downloading and uploading files at remote locations. (4)

Filter A quick and easy way to work with a subset of data in a spreadsheet program list without having to sort (ascending or descending) the data list first; only the rows that meet the criteria (filter) specified for a column are displayed and the data can be edited, formatted, printed, and used to create graphs (charts). (9)

Firewall System that consists of software and hardware placed between the organization's internal network(s) and an external, unsecured network (Internet) to ensure that only authorized personnel have access to the organization's private network; also recommended for a traveling professional's notebook. (5)

Fluorescent lighting Illumination that resembles natural light; common light source in office buildings. (11)

Foot-candle The amount of light produced by a standard candle at a distance of 1 foot. (11)

Footer A group of words or a short phrase that appears within the bottom margin of a page as an identification of the document; a footer can appear on every page, on every odd-numbered page, on every even-numbered page, or be deleted from selected pages in electronic documents. (9)

Footlambert A measure of brightness; a unit of measure approximating 1 foot-candle of light transmitted or reflected. (11)

Foreign exchange A special telephone service that provides customers a local number when calling a business located in another city; the toll charge for the call is billed to the listed number. (3)

Four-panel fold Folding a piece of paper in half so the vertical fold is either a landscape orientation (holding the paper so it is wider than it is tall) or a portrait orientation (holding the paper so it is taller than it is wide); there are two signatures on a four-panel fold. (6)

Front-end processor A small, specialized computer that communicates with the main computer system and manages all routine telecommunications tasks. (3)

Full-service supplier A single supplier for MRO items offering just-in-time inventory management and lower costs. (10)

Gateway A communication processor that connects two dissimilar networks and translates the differences between the systems so the computers can communicate with one another. (3)

General purpose application software Software (word processing, spreadsheet, database management, electronic presentation, and graphs [charts]) used directly by the non-technical end users to develop common business applications; often referred to as productivity packages or fourth-generation languages (4GL). (9)

Global network System that includes the networks of several organizations internationally; the Internet is the world's largest computer network. (3)

Global procurement Making purchases world wide; impacted by Pacific Rim and Europe procurement options emphasizing quality at a lower cost, a shorter product life cycle due to technology innovations around the world, and the ability to coordinate purchasing activities through world wide networks (Internet, extranets, and e-commerce). (10)

Graph Bar, line, pie, or doughnut graphs used to enhance the presentation of factual data; also called *chart*. (9)

Graphical user interface (GUI) A combination of hardware and software that makes it easy for the end user to respond to computer messages, control the computer, and request information from the computer through the use of icons, bars, buttons, boxes, images, and pull-down menus; the end user points and clicks on the appropriate graphic with an input device (mouse, trackball, or touchpad). (2) (8)

Grayscale An 8-bit mode with 254 different shades of gray producing what individuals call black-and-white images. (6)

Greeking Nonsense type showing appropriate type size, line spacing, and text placement but does

not include the final text; often used when keying the comprehensive sketch. (6)

Groupware System that includes all software for information sharing, electronic meetings, electronic scheduling, team writing, and project management, as professionals work in an anytime-anywhere networked environment; supported by IT infrastructure, the Internet, and the World Wide Web (WWW). (4)

Gutter The space between two sides of adjacent pages in a bound document; includes left-bound gutters and top-bound gutters. (6)

Hacker A person who gains unauthorized access to a computer network for mischief. (5)

Halftone Using a dithering process where dots are either on or off to reproduce on paper a continuous-tone image (i.e., a photograph that has been converted into a black-and-white image). (6)

✓ **Hard copy** A paper copy of a document. (1)

Hard disk A nonremovable magnetic disk outside the processor unit for the computer's internal secondary storage; also referred to as a *fixed disk*. (2)

Header A group of words or a short phrase that appears within the top margin of a page as an identification of the document; a header can appear on every page, on every odd-numbered page, on every even-numbered page, or be deleted from selected pages in electronic documents. (9)

Help desk A support station staffed by an information technology specialist where end users can call, e-mail, or drop in to receive both hardware and software assistance; sometimes technology assistance is available 24/7 (24 hours a day, 7 days a week). (5)

Help manual Documentation for each application (word processing, spreadsheet, database management, presentation graphics, and operating system) from the vendor to support end users with software and troubleshoot issues; a soft-copy manual (help menu) provides system and application assistance online and is typically accessed from the menu bar. (8)

Hot desking Sharing space by two or more employees to efficiently occupy offices that are in use only 10 to 20 percent of the time; two approaches include hotelling and motelling. (10)

Hot site An external location that contains a fully configured backup data center; includes all required hardware and software for a computer-based information system. (5)

Hypertext markup language (HTML) Web standard that formats documents and utilizes hypertext links to other documents stored on computers in a network (LAN or WAN). (4)

Idea folder A collection of sample documents in a folder as a helpful resource when brainstorming designs for future projects (flyer, brochure, post card, multi-page document, or other types of business documents). (6)

Incandescent lighting Filament bulb that produces glare and shadowing on work surfaces. (11)

✓ **Information** Processed data that is timely, meaningful, and useful to the recipient. (1)

✓ **Information architecture** The conceptual design of how an organization achieves business processes (applications) and goals. (1)

Information center A unit staffed with technology specialists responsible for supporting end users in using hardware and software, maintaining hardware and software, providing technology workshops and seminars, and recommending new purchases for the user's area of specialty. (5)

Information policy Guidelines often posted on the organization's intranet for easy access and updates regarding the use, distribution, and security of information for the entire organization; formulating the policy is typically the responsibility of the Chief Information Officer with input from all organizational levels. (5)

✓ **Information technology (IT) infrastructure** A foundation that includes all the technical resources shared within the organization—computer hardware, software, storage, data management, and networks. (1)

Instant messaging Feature that lets an online user know when a colleague is online so e-mail messages can be communicated back and forth in real time; requires client software. (4)

✓ **Interactive mode** *Frequent interchange* between the user at the data entry terminal and the processor unit during execution of a program; a two-way communication flow as the user responds to computer system prompts. (1)

Interface A combination of hardware and software that makes data input, response to computer messages, computer control, and information requests easy through the use of function keys, screen prompts, menus, and/or icons; includes command-driven interface, menu-driven interface, graphical user interface (GUI), and social interface. (2)

International direct-distance dialing (IDDD) Direct dialing an overseas call by using the international access code, the code for the country called, the city or area code, and the local telephone number. (3)

Internet A global network that provides communication (e-mail, newsgroups, listserv, Internet Relay Chat, search, and e-commerce) anytime,

anywhere; often referred to as the information superhighway. (4)

Internet phone Microcomputers at both the sending and receiving location with a microphone, speakers, and software for audio conversations over the Internet; a video camera allows projection of the individual's image or objects being discussed. (4)

Internet Relay Chat (IRC) With appropriate hardware and software, interactive, real-time text chatting over the Internet; some services provide audio and visual components to IRC. (4)

Internet service provider (ISP) A commercial organization with permanent connection to the Internet selling temporary connections to subscribers (individuals, educational institutions, businesses, and governmental agencies). (4)

Intranet A closed, private version of the Internet available only to approved employees who use the Web browser to create a rich, responsive collaborative environment for e-business; includes company news, forms, updates, corporate policies, databases, or any other information the organization determines important to business operations and employee communication. (4)

Inventory control Securing inventory items through locked storage areas with authorized access or the honor system. (10)

Inventory management A method to control the investment made in inventories; methods include cross-functional teams, electronic data interchange (EDI), inventory reviews, inventory record system (computerized), and supplier-buyer partnership. (10)

Inward wide area telephone service (INWATS) A toll-free call for the caller by dialing a toll-free area code (800, 888, 877, 866, and 855) and telephone number; the party with the toll-free number pays for the call. (3)

Isolation The prevention of sound waves from passing through environmental materials. (11)

Job recovery When an operator is interrupted while making copies, the copier "remembers" the point where the original job was stopped and can continue the process from that point. (7)

Kerning The spacing of words and characters on a line by intentionally decreasing the default spacing to improve the appearance of letter combinations. (6)

Knowledge work systems (KWS) An information system used by knowledge workers to create new information and knowledge. (1)

Laminating A process that protects and preserves documents and other frequently used items from

wear and tear by permanently bonding the original document (both sides of a page) in a plastic film. (7)

Language translators A system program that changes system and application software instructions (code), written in a programming language (C++, Visual Basic, HTML, COBOL), into a machine language (binary bits / 1s and 0s) understood by the computer; two ways to translate the system and application software instructions are with a compiler or an interpreter. (8)

Laser imaging A process that utilizes a beam of light that reflects off a series of mirrors with the final mirror diverting the image to a drum that transfers the image to paper. (7)

Late adapter A person who waits for others to implement a new system, then tries to catch up with the technology; such a person has difficulty keeping up to date with technology and is often considered "behind the times." (11)

Leading The vertical space between lines in the text; if two different leading values are specified in a line of print, the larger value applies to the entire line. (6)

Listserv An electronic public forum for registered subscribers to receive information on predefined topics; uses push technology. (4)

Local area network (LAN) A private network that supports communication within an office, building, or firm at lower computer costs for the company by linking electronic devices so data can be shared easily and at greater speeds than otherwise provided. (3)

Magnetic disk A common secondary storage peripheral for microcomputers where the disk can be removed from the disk drive and the data transported with the user to other computing environments. (2)

Mainframe computer Computer that supports online services for several thousand users and provides processing for extensive computing applications with processing speeds greater than 1 trillion instructions per second (picoseconds) and primary storage ranging from hundreds of megabytes (1 million bytes) to gigabytes (1 billion bytes); also used as superservers for very large client/server networks. (2)

Maintenance, repair, and operating supplies (MRO) Technical maintenance and repairs to the computer network and peripherals, general facility maintenance and repair, and office supplies (operating supplies). Specialized departments handle maintenance and repair (the IT Division and the Maintenance and Service Department), and office supplies are typically the responsibility of the Purchasing Department. (10)

- ✓ **Management information systems (MIS)** An information system that uses transaction processing system (TPS) data to provide management with online access for structured summary and exception reports that address management functions (planning, controlling, and making decisions); reports are available on demand (when needed). (1)
- Manipulation language** Language that contains commands that permit end users to interactively extract data from a database management system (DBMS) for specific information needs (also called query); the most prominent manipulation language is structured query language (SQL). (8)
- Masking** The use of a low-level, non-disturbing background noise (background music) to blend in with regular office noise, eliminating the “silent” sound (total lack of sound) or covering distracting noises; also called *white noise* or *white sound*. (11)
- Materials management** Management of the combined related functions of purchasing, inventory control, receiving, and storage from an overall organizational concept (total system) handled by one division for potential cost savings. (10)
- Menu bar** Bar located just below the title bar that typically includes file, edit, view, insert, format, tools, and help functions; clicking or pointing on a menu option results in a pull-down menu for various functions specific to the application or operating system software. (8)
- Menu-driven interface** System that presents a menu of options on the monitor where the user selects the correct option by pointing and clicking with an input device (mouse, trackball, or touching a touch-sensitive screen); many automatic-teller machines (ATM) and information kiosks have menu-driven interfaces. (8)
- Metal plates** A camera captures the original material which is transferred to a metal master for offset duplicating of documents that are rerun; plates are saved and reused, producing as many as 50,000 copies per plate. (7)
- Metropolitan area network (MAN)** Connecting local area networks (LANs) with fiber optic cable for high-speed data transmission within a small geographic area. (3)
- Microcomputer** A digital computer that uses a microprocessor, an internal storage chip, an input/output chip, and any additional chips required by the system; includes desktop PC, workstation, notebook (laptop), and are often called *personal computers* or *PCs*. (2)
- Microprocessor** Computer component that includes the control unit and the arithmetic logic unit mounted on a single silicon chip; it is the main technology of microcomputers. (2)
- Middleware** An interface that translates different operating system (computing platform) protocols and manages the exchange of information among different computing platforms and hardware devices. (8)
- Mid-range computer** Computer that supports computing requirements for small to medium-size organizations as well as e-commerce and networking environments; two types of mid-range computers include minicomputers and servers. (2)
- Modem** A device that converts (**modulates**) digital data codes from the computer system into analog signals for transmission on telephone lines and **demodulates** received analog signals into digital data codes for the computer system; required at both the receiving and sending locations. (3)
- Monitor** A common output device that allows the user to view soft copy by using either cathode-ray tube (CRT) technology, liquid crystal display (LCD) technology, or plasma technology. (2)
- Multiplexer** Allows one communication channel to carry data from multiple sources at the same time; required at both the receiving and sending locations. (3)
- ✓ **Multiprocessing** The simultaneous (at the same time) execution of two or more application software programs in a computer system that serves multiple users; requires the computer system to have two or more central processing units (CPUs) as well as operating system software that supports multiprocessing. (1)
- ✓ **Multiprogramming** The concurrent (switching back and forth) execution of two or more application software programs in a computer system that serves multiple users; requires the computer system to have multiprogramming operating system software. (1)
- ✓ **Multitasking** Multiprogramming on a single user operating system (e.g., Windows 2000 and Windows XP on a home microcomputer or a notebook). (1)
- Multithreading** A form of multitasking that concurrently executes more than one task of a single application. (8)
- Musculoskeletal problems** Pain or discomfort occurring in various body parts (neck, back, shoulders, arms, and fingers). (11)
- Natural language processing (NLP)** Communicating with a computer in English or the natural language of the user. (1)
- Negotiations** A “win-win,” face-to-face session with suppliers that is effective for purchases with vague specifications; the session should clearly discuss specifications, terms and conditions of the purchase, quality expectations, purchase procedures, delivery schedules, and continuous performance improvement objectives. (10)

Network engineer An information technology position typically staffed by an electrical engineer with a specialization (certification) in networks who can address the information technology infrastructure—hardware, software, data storage, and networks. (5)

Network interface card (NIC) An expansion card that connects the microcomputer to a network enabling the exchange of data between computers; the cables or wireless transceivers of the microcomputer must be connected to an NIC. (3)

Network topology A network configuration used in local area and wide area telecommunications networks; three basic configurations are bus, star, and ring. (3)

Newsgroup Independent forums where individuals can join the bulletin board discussion of their choice to share information and ideas; pull technology by using newsreader client software available on most Internet browsers. (4)

Nonadapter The person who prefers the status quo, does not accept change easily, and may resist and also encourage others to resist change; typically feels negative job-related stress. (11)

Off-the-shelf software Easy-to-use general purpose application software purchased from software vendors with supporting manuals and help services. (9)

Office layout chart Charts the movement of a document using the actual floor plan of the office to develop the resulting workflow pattern; important for identifying personnel or departments that frequently work together. (10)

✓ **Office systems (OS)** An information system used by all organizational levels to manipulate and disseminate information electronically; designed to increase productivity by supporting the coordination and communication activities of the office. (1)

Offset cylinders Three cylinders (master, blanket, and impression) that work together to produce the duplicated offset copy. (7)

Offset duplicating Based on the principle that grease and water do not mix, the image area is receptive to ink (grease), and the non-image area is receptive to water; the material to be reproduced is prepared on a master—direct-image master, electrostatic master, or metal plates. (7)

✓ **Online processing** A processing method where a user enters transactions through an input device that is directly connected to the computer system; processing is in real time if the user receives immediate results. (1)

Open-office design A large open area of work space with only a minimum of permanent walls,

modular furniture systems, clustering of workspaces, the use of accent colors to enhance the work area décor, and aisle space to accommodate the communication flows throughout the division that is common for the business environment and for the home office; two popular approaches are office landscaping and the modular design. Also referred to as the *modern office*. (10)

Operating system Software that manages the operations of the central processing unit (CPU); controls the input, output, and storage resources and computer system tasks. (8)

Optical disc Laser technology that stores data by burning microscopic pits onto disc tracks. (2)

Pattern recognition system A visual system that requires a camera to be the computer's eyes; visual systems are highly structured. (2)

Peer-to-peer computing A form of distributed computing where all computers on the network can access organizational data, application software, public files, and peripherals connected to the network; through transparent access, unused disk space and processing power can be utilized for large computing tasks. (3)

Performance monitor A tool that watches and adjusts the usage and performance of the computer-based information system; information technicians check output from the networked enterprise performance monitors to address system maintenance and issues; end users can check the microcomputer system diagnostics (performance) through the control panel system utilities. (8)

Personal digital assistant (PDA) A popular mobile device in the handheld computer category with a touch screen and pen-based handwriting recognition for sending and receiving e-mail; accessing the Web; and exchanging information such as appointments, sales contracts, to-do lists, and client address books with a desktop PC or Web servers. (2)

Photocomposition The process whereby the composer automatically sets the type as the text is being keyed from the keyboard; often referred to as direct entry composition. (7)

Pica The measurement used for the width and length of a line; 6 picas equal an inch. (7)

Point-and-click device An input device that allows end users to point and click (or drag) on graphical user interface icons, buttons, and symbols to activate operating system software and application software functions. (2)

Points The measurement of a character size ranging from 6 points to 96 points, with 10 or 12 points being the most common point sizes; a 72-point character equals one inch. (7)

Port The connection point on a computer where the peripheral communication line is connected. (2)

Potential supplier list A list of perspective suppliers generated from marketing representatives, information databases, and trade journals. (10)

Preferred supplier list List that contains the names of suppliers whose past performance demonstrated quality products or services at a fair price; provides a means for the organization to deal with suppliers of known performance capabilities. (10)

Primary key A data field (column), also called a key field or a control field, that uniquely identifies a record in a relational database management system (DBMS); all records in the database table must contain unique data in the primary key field. (9)

Primary storage Storage made of semiconductor memory chips and divided into read only memory (ROM), random access memory (RAM), and cache memory; also called *main memory* or *internal storage*. (2)

Print run The number of finished pieces required when placing an order with a reproduction center or commercial print shop. (6)

Printer A common output device for hard copy; two types include impact and nonimpact. (2)

Printer spreads Arranging the pages in the order required for printing. (6)

Private branch exchange (PBX) A special purpose computer that accepts and transmits voice and data using regular telephone lines; no special wiring is required. (3)

Private-office design Offices separated from general office areas because of the confidential and private nature of the work, the high level of concentration that requires a quiet work environment, or the prestige and higher status for the business professional; also referred to as the bull-pen design, traditional design, or closed office. (10)

Process chart Chart that illustrates existing distances and delays involved in an entire process or procedure from start to finish. (10)

Programmer Technical specialists who write and maintain software instructions (code) for the computer; systems programmers specialize in system software. (5)

Proximity The design principle that groups related information together through the logical connection of the information (visual units), what information should be emphasized, and effective use of white space; proximity and contrast emphasize important information. (6)

Psychosocial disturbance Stress related to the job, workload, pace of work, and poor or inadequate supervision that can lead to ailments. (11)

Pull quote A small amount of text that is enlarged within an article to catch the reader's attention. (6)

Pull technology The user pulls information he or she wants off the Web. (4)

Purchase order A business document submitted to a supplier for an approved purchase. (10)

Purchase requisition An internal document submitted to the division in charge of purchases to activate the order process; often available on the organization's intranet. (10)

Push technology When requested information is automatically sent to a recipient; the recipient has asked for the information. (4)

Random access memory (RAM) Primary storage internal to the computer system temporarily available for processing business data; RAM is volatile memory. (2)

Read only memory (ROM) Nonvolatile primary storage, also called firmware, where critical system instructions available only to the central processing unit (CPU) for starting the computer are permanently stored by the computer manufacturer; variations of ROM include programmable read-only memory (PROM) chips and erasable PROM (EPROM) chips. (2)

Record A row in a relational database management system (DBMS) table that contains related data fields (columns); one field must be coded as the primary key to uniquely identify the record. (9)

Recycle bin Area that stores deleted items until emptied; if not emptied, any deleted item can be retrieved/restored. (8)

Reduced instruction set computing (RISC) Technology that enhances the speed of workstation microprocessors by embedding the most frequently used instructions on a chip. (2)

Redundant arrays of independent disks (RAID) Ten to more than 100 small hard disk drives combined into a single unit providing large storage capacities and high access speeds; RAID units are used to provide a fault-tolerant environment. (2)

Reflection The bouncing of sound waves off material and back into space. (11)

Relation A two-dimensional table in a relational database management system (DBMS) where data about a specific topic are collected; a separate table for each topic is created (i.e., products, suppliers, or prices). (9)

Relative reference When copying a spreadsheet program worksheet cell formula, the formula cell references change relative to the cell where it is copied. (9)

Reorder point A way to recognize the need to purchase an item. (10)

Repetition The design principle that repeats some aspect of the design throughout one-page and

multiple-page documents for consistency and tying the visual units together; repetition and alignment unite the visual units together. (6)

Repetitive-strain injury (RSI) A workplace health danger that can result from tasks that require continuous repetitive motion; symptoms include stiff or sore wrists, numbness, loss of strength in arms or hands, or finger cramps while working. (11)

Reproduction The preparation of multiple copies or images. (7)

Request for proposal (RFP) Suppliers are asked to submit a bid on a prospective purchase; this is an effective method for items with straightforward specifications. (10)

Requisition number A control number from the buying organization that links purchase approval to an authorized individual. (10)

Rotating Pivoting an image around the image's center point; images can rotate 360 degrees at increments of .01 degrees. (6)

Row (in)

Database management software A record in a relational database table that must have a primary key (control field). (9)

Spreadsheet software Typically identified by a number (1, 2, . . . , 65,536) vertically down the side of the worksheet; data in rows are read horizontally. (9)

Saddle-stitch binding A process that uses two or more staples at the fold of the paper. (7)

Sans serif A typeface where no decorative stroke is added to the end of a letter's main stroke; often used for footnotes, endnotes, or headings. Sans means *without* in French. (6)

Scanning A process that digitizes text from a printed page and transfers it to a computer disk/disc or to an electronic master for printing. (7)

Search engine Tool to help users find information or services on Web pages (pull technology); most search engines offer advanced search features. (4)

Secondary storage Where data, information, application software, and system software are saved in files with unique names for future use; also called auxiliary storage. Common secondary storage media are magnetic disk, optical disc, DVD disc, USB flash drive, and magnetic tape. (2)

Security monitors Technology that controls the use of hardware, software, and data resources by maintaining statistics on system use and unauthorized access; the statistics provide IT technicians/managers with important security information. (8)

Security protocol Standards for providing a secure information technology environment; two protocols include secure hypertext transport protocol (S-HTTP) and secure electronic transaction (SET). (5)

Serif A typeface with a small decorative stroke (slab, wedge, or hair) added to the end of a letter's main strokes. (6)

Server farms Multiple servers maintained by the organization or a commercial vendor who then sells the services to an organization. (2)

Services Equipment repair (copy machines and telephones), maintenance not performed by staff, and grounds and facilities upkeep often contracted through outside sources at the organizational level; can be complex to manage. (10)

Shortcut A link to any item accessible on the microcomputer or the organization's network; displayed on the desktop as an icon, added to the operating system start button menu, or placed in specific folders. (8)

Sick building Buildings infected with microorganisms (molds, bacteria, and viruses) at levels that make employees sick; buildings with poor ventilation or that are airtight run the greatest risk of becoming a sick building. (11)

Signature A group of panels (pages) that are printed on one side of a sheet of paper for a document. (6)

Six-panel fold Holding the paper in landscape orientation and folding it in thirds to create six panels (pages); six-panel fold includes accordion, brochure, C, letter, spiral, tri, and zig-zag. (6)

↘ **Soft copy** The electronic output viewed on a computer screen (monitor). (1)

↘ **Source data automation** Eliminating the need for manually recording data on a source document and keying data input by using online terminals and input devices to enter data directly into the computer system at the time the business transaction originates. (1)

↘ **Source document** An original record (hard copy) of a business transaction (i.e., time card, purchase order). (1)

Spam Unsolicited junk e-mail that interferes with work and can slow down the network to the point where efficient business communication and operations are affected by consuming valuable network bandwidth. (5)

Steering committee A committee that focuses on policies for the use of the information system, priorities for system development, budgets for information technology, system security, system maintenance, and system issues; usually chaired by the Chief Information Officer or an assistant with member representation from the information technology division and each functional division within the organization. (5)

Stitching A process that uses a roll of wire from which staples are automatically cut to the size needed. (7)

Storage Data, information, systems software, and application software are electronically held

for future use in secondary storage; storage media include hard disk, magnetic disk, optical disc, DVD disc, USB flash drive, and magnetic tape. (1) (2)

Storage area network (SAN) An enterprise-wide infrastructure dedicated to data storage by providing a high-speed fiber-channel network that interconnects different storage devices (e.g., database servers, RAID, and tape libraries). (2)

Storage service provider (SSP) A professional service that assists with storage assessment, design, management, operations, and 24/7 online data storage and backup either on-site or off-site. (2)

Supercomputer The largest, fastest, most powerful, and most expensive computer system; used by government agencies and large organizations involved in research-and-development activities that are mathematically intensive (i.e., aerospace industry, chemical industries, and weather forecasting). (2)

System software Software that provides instructions to control computer operations, network management, database management, and system security for the organization's information system. (8)

Systems analyst The liaison between information technicians and business users who translates business requirements and problems into information technology requirements; often considered change agents within the organization. (5)

Systems audits Comprehensive audits on the computer-based information system to determine the effectiveness of all the security controls; includes external audits, internal audits, and data audits. (5)

Systems life cycle A dynamic process that requires interaction with personnel at all levels within the organization for analysis, design, development, implementation, and operation and maintenance of the organization's computer-based information system. (5)

Table (in)

Database management software The organization for a relational database that looks like a spreadsheet program worksheet with intersecting rows and columns. (9)

Word processing software Module that consists of rows and columns where the end user can set the desired width of each column, set tabulations, view the table with or without ruled lines, include mathematical computations, and easily move to the desired input cell with the tab key. (9)

Table structure Structure that contains a design view where each field within the relational database management system (DBMS) table (relation) is

identified; the following information is provided—field name, type of data for the field (e.g., text, numeric, currency, date/time, and autonumber), which field is the primary key, field size, and a description of each data field. (9)

Task lighting Direct light that illuminates the work surface. (11)

Taskbar Bar that contains a start button and icons for all application or operating system software that are running; the default location can be moved to the sides or top of the desktop, hidden, or customized. (8)

Technology support group Individuals proficient with productivity software and technology who are identified to provide assistance to other end users within the organization. (5)

Telecommunications The exchange of voice, data, text, graphics, or audio and video information over computer-based networks. (3)

Telecommuter An employee who works at home and is connected to the office data through a communication channel (telephone line, cable, satellite). (1)

Telephony The technology of translating sound into digital signals, transmitting the signals, and converting the signals back to sound at the receiving end. (4)

Tendinitis The inflammation of muscles at the points where they insert into the bones of the shoulders, arms, and wrists. (11)

Tethered line Line channels that are continuous; the three line channels are twisted wire, coaxial cable, and fiber optic cable. (3)

Text telephone (TT) Telephones designed to accommodate individuals with disabilities (deaf, hard-of-hearing, or speech impaired). (3)

Thumbnails Initial rough sketches on paper (brainstorming) to help establish basic ideas for the layout and design of a document. (6)

Tie line A leased, private telephone connection linking business telephones in two locations; tie lines include T-1 line and T-3 line (dedicated service lines, DS1 and DS3). (3)

Time-sharing Operating system software that provides a fixed amount of time to a user for processing. (1)

Title bar Bar that displays horizontally across the top of the application or operating system software open window and includes the name of the software on the left side of the bar with minimize, maximize/restore down, and close buttons on the right side; the window name changes to coincide with the software window that is currently active. (8)

Toolbar Bar located just below the menu bar that displays application or operating system software icons (tools) for frequently used menu options or

commands that can be executed by simply pointing and clicking on the appropriate icon; can be customized to include only those functions the user frequently needs. (8)

Track spacing Spacing that adjusts the number of words on a line by squeezing or expanding text and adding or removing space from character combinations on a line. (6)

✓ **Transaction processing systems (TPS)** An information system basic to business operations that captures daily business transactions as records, has highly structured processing, and produces automatic output on a daily, weekly, monthly, or quarterly basis for supervisors and operations personnel of the functional areas; output includes detailed reports, lists, and summaries. TPS data are used by other information systems (DSS, MIS, and ESS). (1)

Transitions Special effects to introduce a slide in an electronic presentation—introduction of a slide from the top or bottom of the screen, left or right of the screen, with or without sound, and with different speeds—to bring attention to a new section in the presentation or emphasize a key slide. (9)

Trapping Typesetting method that minimizes the gap of uninked paper between adjacent colors by expanding the ink so small amounts of color overlap and print on top of each other. (6)

Trojan horse A destructive program that masquerades as a benign application; does not replicate. (5)

✓ **Turnaround time** The time it takes between submission of data to a computer-based information system and receipt of output information. (1)

Type font A group of letters, numbers, and symbols with a common typeface that consists of two elements—typeface and point size; font refers to the style of the characters. (7)

Typeface A specific type—sans serif (without serif), serif (old style, modern, slab), script, decorative, and Pi; each typeface comes in different type fonts. (6) (7)

Typesetting A process that electronically produces a master copy (camera-ready copy) in the professional type style and type size desired; also called cold type. (7)

Typography The overall arrangement and appearance of printed matter on a page that establishes a visual hierarchy by providing text and graphic accents that assist the reader in understanding the message and relationships between headings and subordinate blocks of text. (6)

Uniform resource locator (URL) A unique address required in order to place a Web site on the Internet; the URL must be registered in a domain function. (4)

USB flash drive An external Universal Serial Bus standard that supports data transfer rates of 12 Mbps (million bits per second); the portable storage drive holds 250 MB (megabytes) of data and plugs into the microcomputer USB port. (2)

Utility programs Operating system software programs for routine, repetitive tasks including creating directories, creating new folders, restoring deleted files, editing, security, disk defragmentation, and formatting disks. (8)

Value-added network (VAN) A private multimedia, multipath, third-party managed, medium-speed wide area network (WAN) shared by multiple organizations; services provided include network management, e-mail, electronic data interchange, and security. (3)

Video conference A conference usually in a room equipped with appropriate electronic media where participants' actions can be seen as well as heard for collaborative efforts; the two video conferences include one-way or two-way full-motion. (4)

Virtual memory Simulates more primary memory (RAM) space by dividing a software program into fixed pages whereby the system places into RAM only those modules (pages) currently in use and brings other "pages" from secondary storage when needed; allows users to work with application or system software that are more complex (larger) than what primary memory can handle at one time. (8)

Virtual private network (VPN) Used by many organizations for intranet and extranet security when the Internet is the network backbone. (3)

Virtual team Members of a group or different groups within the organization as well as from widely dispersed locations who work over the network (little or no face-to-face contact) with compatible groupware (software for writing and communicating [word processing and e-mail]), information sharing [chat (IRC) and data conference], electronic meetings [computer conference and video conference], scheduling [e-calendars], and electronic project management [timelines and tracking]. (9)

Virus A rogue software program that spreads throughout the network disrupting processing and memory operations and possibly destroying data; thousands exist, and approximately 150 new viruses are created each month. (5)

Visual dysfunction Temporary visual distress (eye irritation, visual fatigue, blurred vision, headaches, and chronic disorders) possibly caused by long intensive work intervals without adequate rest periods, or poor design of computer monitors or the physical environment. (11)

Visual unit Grouping like information together and separated from other units by white space. (6)

Washout A potential folding problem that occurs when printed matter is trimmed off on the inside panels of a signature; also called creep. (6)

Web browser A program coded in hypertext markup language (HTML) that translates other HTML documents into a Web page; users navigate the Web with a browser to visit Web sites as well as retrieve, view, and print Internet-posted information. (4)

Web designer One who possesses the technical and aesthetic skills for developing Web sites. (5)

Web publishing An efficient and convenient way to share information with others over the Internet and intranet; hyperlinked documents display text, animation, multimedia, and interactive environments for individual and team activities. (4)

Web site All the Web pages maintained by one organization or individual; a Web site consisting of more than one page sets up a home page as an introduction to the site with interactive buttons for navigation. (4)

Webmaster Information technology employee who monitors and maintains Web servers. (5)

White space The area on a page that is blank—no text or graphics; professional designers make effective use of white space. (6)

Wide area telephone service (WATS) A fixed monthly subscription (full business-day package or a measured-time package) for national, regional, or state area calls. (3)

Widow/orphan function When on, the word processing software makes automatic decisions about page breaks by eliminating a single line of a paragraph on the bottom (widow) or top (orphan) of a page; the automatic page break ensures that two or more lines of a paragraph are on a page. (9)

Window An overlay on the desktop for the specific operating system or application software in use; includes a title bar, menu bar, and toolbar. (8)

Wireless channel Low-power radio frequencies or infrared technologies to transmit digital communications between communication devices; wireless channels include terrestrial microwave, celestial satellites, wireless networks, Bluetooth, and cellular (telephones and mobile devices). (3)

Word wrap When a word extends beyond the right margin in a word processing application, the entire word is automatically placed on the next line. (9)

Work log Logging actual time spent in performing office tasks to provide insight into time requirements (in hours and minutes) as well as work allocation each day. (11)

Workbook The document mode where multiple worksheets are available through the active window in a spreadsheet program; the end user clicks on the appropriate worksheet tab to have the correct worksheet in the active window. (9)

Workflow The transmission of information, as related to a specific process, through either face-to-face or electronic communication. (10)

Worksheet A single spreadsheet organized into intersecting rows and columns that make up a grid (cells) for data input. (9)

World Wide Web (WWW) A system of universally accepted standards (hypertext markup language [HTML]) for storing, retrieving, formatting, and displaying information over networks (local area network [intranet and extranet] and wide area network [Internet]); typically referred to as the *Web*. (4)

Xerographic imaging A plain-paper copier process that uses a camera to project the original image onto a positively charged drum with the image adhering to the negatively charged drum plain sheet of copy paper; the image is permanently fixed with a powder or liquid toner and heat. (7)