The Year 2000 Challenge
A Guide for Home Computers

Glossary

A

application
A software program designed to assist in the performance of a specific task, such as word processing, accounting or inventory management.

API
Acronym for Application Programming Interface.

ASCII
ASCII was developed in 1968 to standardize data transmission among disparate hardware and software systems and is built into most minicomputers and personal computers. ASCII is an acronym for American Standard Code for Information Interchange. It is a coding scheme using 7 or 8 bits that assigns numeric values to up to 256 characters, including letters, numerals, punctuation marks, control characters and other symbols.

ASCII file
A document file in ASCII format, containing characters, spaces, punctuation, carriage returns, tabs and an end-of-file marker, but no formatting information. Can also be called a text file or text-only file.

B

backup
A duplicate copy of a program, a disk or data, made either for archiving purposes or for safeguarding valuable files from loss should the active copy be damaged or destroyed. A backup is an "insurance" copy.

BIOS
The set of essential software routines that test hardware at startup, start the operating system, and support the transfer of data among hardware devices. BIOS is an acronym for Basic Input/Output System. On PC-compatible computers, the BIOS is stored in read-only memory (ROM) so that it can be executed when the computer is turned on. Although critical to performance, the BIOS is usually invisible to computer users.

bit
Shortened term for binary digit. It is the smallest unit of information handled by a computer. One bit expresses a 1 or a 0 in a binary numeral, or a true or false logical condition, and is represented physically by an element such as a high or low voltage at one point in a circuit or a small spot on a disk magnetized one way or the other. A single bit conveys little information a human would consider meaningful. A group of 8 bits, however, makes up a byte, which can be used to represent many types of information, such as a letter of the alphabet, a decimal digit or other character.

boot
The process of starting or resetting a computer. When first turned on (cold boot) or reset (warm boot), the computer executes important software that loads and starts the computer's operating system and prepares it for use. Thus, the computer can be said to pull itself up by its own bootstraps.

boot disk
A floppy disk that contains key system files from the operating system and that can boot, or start, the PC. A boot disk must be inserted in the primary floppy disk drive (usually drive A:) and is used when there is some problem with starting the PC from the hard disk, from which the computer generally boots.

boot drive
In a PC-compatible computer, this is the disk drive that the BIOS uses to automatically load the operating system when the computer is turned on. In computers with MS-DOS, Windows 3.x, or Windows 95 operating systems, the default boot drive is generally the primary floppy disk drive (A). If a floppy disk is not found in that drive, the BIOS will check the primary hard disk next, which is drive C.

boot failure
The inability of a computer to locate or activate the operating system and thus boot (start) the computer.

bundled software
Software programs that are sold with a computer as part of a combined hardware/software package, or programs that are sold with larger programs to increase functionality or attractiveness.

byte
A unit of data, today almost always consisting of 8 bits. A byte can represent a single character, such as a letter, a digit or a punctuation mark. Because a byte represents only a small amount of information, amounts of computer memory and storage are usually given in kilobytes (1,024 bytes), megabytes (1,048,576 bytes), or gigabytes (1,073,741,824 bytes).

C

clock
As related to the year 2000 issue, an independent timekeeping circuit (called the Real Time Clock or RTC) used within a microcomputer to keep track of the time and calendar date. A clock/calendar circuit is battery powered, so it continues running even when the computer is turned off. The time and date kept by the clock/calendar can be used by the operating system (for example, to "stamp" files with the date and time of creation or revision) and by application programs (for example, to insert the date or time in a document) via calls to the BIOS. Not to be confused with the computer's system clock, one of the prime determinants of the overall processing speed.

CMOS
As related to the year 2000 issue, the battery-backed memory used to store parameter values needed to boot microcomputers. These stored parameters include information about the type of disk drives, the amount of memory, and the clock/calendar time.

CMOS setup
A system configuration utility, accessible at boot time, for setting up certain system options, such as the date and time, the kind of drives installed, the amount of memory and port configuration.

code
Program instructions written by a programmer in a programming language.

cold boot
Starting the computer after the computer's power has been turned off. Typically, a cold boot involves some basic hardware checking by the system, after which the operating system is loaded into memory.

compatibility
The degree to which a computer, an attached device, a data file, or a program can work with or understand the same commands, formats or language as another. Compatibility between two computers indicates whether, and to what degree, the computers can communicate, share data, or run the same programs. Software compatibility also refers to the extent to which programs can work together and share data.

compressed file
A file whose contents have been compressed by a special utility program so that it occupies less space on a disk or other storage device than in its decompressed (normal) state.

configuration
In reference to a single microcomputer, the sum of a system's internal and external components, including memory, disk drives, keyboard, video, and generally less critical add-on hardware, such as a mouse, modem, or printer. Configuration also refers to software: the operating system and various device drivers, the user's choices established through configuration files and any hardware settings that were made.

control panel
In Windows and Macintosh systems, a utility that allows the user to control aspects of the operating system or hardware, such as time and date, keyboard characteristics and networking parameters.

cosmetic dates
Refers to two-digit-year dates that are seen only by human eyes, and are neither read nor further processed by the computer in subsequent calculations.

custom software program
Generally speaking, a program that is specifically developed for a particular client or purpose, as contrasted with software programs that are distributed at large by major software vendors. Custom programs also include those that can be created by using tools that are offered with some software programs to extend or customize the performance of the software program.

D

data file
A file consisting of data in the form of text, numbers or graphics, as distinct from a program file containing commands and instructions. Data files may also be called documents or spreadsheets.

data format
The arrangement of data within a document file that typically permits the document to be opened or edited by a certain application. Many applications can store files in more generic formats, such as plain ASCII text.

date window
A 100-year range that generally spans two centuries, specified with a beginning and ending date (for example, 1928-2027). The beginning date of the window becomes a threshold to which a two-digit year shortcut is compared in order to interpret the century for the date.

For example, if the date window is set to be 1928-2027, the threshold is then "28." A two-digit shortcut less than 28 will be interpreted as 20xx (the later century). A two-digit shortcut greater than or equal to 28 will be interpreted as 19xx (the earlier century). In this example, if a user entered the dates 1/1/26, 1/1/27, 1/1/28 and 1/1/29, a program using this date window would interpret these dates as 1/1/2026, 1/1/2027, 1/1/1928 and 1/1/1929.

desktop computer
A computer that fits on the surface of a business desk. Most personal computers as well as some workstations are considered desktop computers.

device
A generic term for printers, scanners, mice, keyboards, serial ports, video adapters, disk drives and other computer subsystems. Such devices frequently require their own controlling software, called device drivers.

device driver
A software component that permits the computer system to communicate with a device. Many devices, especially video adapters on microcomputers, will not work properly—if at all—without the correct device drivers installed in the system.

disk
A round, flat piece of flexible plastic (floppy disk) or inflexible metal (hard disk) coated with a magnetic material that can be electrically influenced to hold information recorded in digital (binary) form. In microcomputers, a disk is the primary means of storing data on a permanent or semi-permanent basis. Types of disks used with microcomputers include floppy disks, Zip disks (Iomega™), and hard disks.

document
Any self-contained piece of work created with a software program that is saved and given a unique filename by which it can be retrieved. A document is a data file that has been created by a word processor, spreadsheet program, graphic program, or any other software program. Also called *document file* or *data file*.

download
To transfer a copy of a file from a remote computer to the requesting computer by means of a modem or network.

E

embedded
In software, pertaining to programming code or a command that is built into its carrier.

For example, an application program may insert embedded printing commands into a document to control printing and formatting.

end-to-end
A term used to describe the recommended year 2000 testing philosophy which examines all aspects of a customer's environment, including embedded systems, firmware, hardware, operating system, software programs (including custom software programs), personal data files (including those that are exchanged), general business processes, and the supply chain.

error
A value or condition that is not consistent with the true, specified or expected value or condition. In computers, an error results when an event does not occur as expected or when impossible or illegal maneuvers are attempted.

executable program
A software program that can be run. Also known as *code* or *computer program*.

extension
See *filename extension*.

F

failure
The inability of a computer system or related device to operate reliably or to operate at all. A common cause of system failure is loss of power.

FAQ
Acronym for Frequently Asked Questions. A document listing common questions and answers on particular subject.

fault tolerance
The ability of a computer or an operating system to respond to a catastrophic event or fault, such as a power outage or a hardware failure, in a way that ensures that no data is lost and any work in progress is not corrupted. This can be accomplished with a battery-backed power supply, backup hardware, provisions in the operating system, or any combination of these.

file
A complete, named collection of information that is saved by a user and stored on a disk. Technically, a file can contain program code, data used by a program, or a user-created data. Most commonly, however, the term refers to data (numbers, words, or images) that a user has created and then saved for subsequent retrieval, editing or printing.

filename
The name of a file. All files have names. Different operating systems impose different restrictions on filenames. Most operating systems, for example, prohibit the use of certain characters in a filename and impose a limit on the length of a filename. In addition, many systems, including DOS and UNIX, allow a filename extension that consists of one or more characters following the proper filename.

filename extension
The filename extension allows a file's format to be described as part of its name so that

users can quickly understand the type of file it is without having to "open" or try to use it. The filename extension also helps an application program recognize whether a file is a type that it can work with. The extension takes the form of ".xxx" where "xxx" represents a specific number of alphanumeric characters. Example: Myfilename.doc, where ".doc" is an extension representing the Microsoft Word application.

firmware
Programming that is inserted into programmable read-only memory (PROM), thus becoming a permanent part of a computing device. Firmware is created and tested like other software. It can also be distributed like other software and installed in the PROM by the user. Firmware is sometimes distributed for printers, modems and other computer devices.

four-digit year
A date format that uses four digits for the year and specifies the century in a fully distinguished form. For example, "1998" is a four-digit year, but "98" is not.

FTP
Acronym for File Transfer Protocol, the protocol used for copying files to and from remote computer systems on a network, such as the Internet, using TCP/IP.

FTP client
A software program that enables the user to upload and download files to and from an FTP site on the Internet using the File Transfer Protocol. Most current browsers have FTP client capabilities built into them.

G

GB, gigabyte
1,024 megabytes (2^{30} bytes). Often interpreted, though, as approximately one million bytes.

glitch
A problem, usually minor.

H

hard disk
A device, also called hard disk drive, that contains one or more inflexible platters coated with material in which data can be recorded magnetically with read/write heads. The hard drive exists in a sealed case that protects it and allows the head to fly 10 to 25 millionths of an inch above the surface of a platter. Data can both be stored and accessed much more quickly than on a floppy disk.

hardware
The physical components of a computer system, including any peripheral equipment such as printers, modems and mouse devices.

HTTP
Acronym for Hypertext Transfer Protocol. HTTP is the client/server protocol used to access information on the World Wide Web using a web browser, such as Internet Explorer.

I

install
To put a software program or update in place and prepare it for operation. Operating systems and application programs commonly include a special installation program that does most of the work of setting up the program to work with the computer, printer and other devices. The installation program can check for devices attached to the system, request the user to choose from sets of options, create a place for the program on the hard disk and modify system startup files as necessary.

J

Julian calendar
The calendar introduced by Julius Caesar in 46 B.C. to replace the lunar calendar. The Julian calendar provided for a year of 365 days with a leap year every four years, or an average year length of 365.25 days. Because the solar year is slightly shorter, the Julian calendar gradually moved out of phase with the seasons and was superseded by the Gregorian calendar, introduced by Pope Gregory XIII.

Julian date
A Julian date is expressed as the number of days elapsed since January 1, 4713 B.C. For example, the date October 9, 1995 (Gregorian calendar) would be expressed as 2,450,000 on the Julian calendar. Julian dates are useful for finding elapsed times between events that may be many years apart, as in astronomy.

K

K, KB, Kbyte, **kilobyte**
1,024 bytes, though often interpreted as simply 1,000 bytes.

L

laptop
A small, portable personal computer that runs on either batteries or AC power, designed for use during travel. Laptops have flat screens and small keyboards, though most have connectors for plugging in external keyboards and full-sized monitors.

Laptops generally run the same software as their desktop counterparts and can accept similar peripherals, such as sound cards, internal or external modems, floppy disks and CD-ROM drives. While *notebook* is the current term for an ultralight portable computer, a notebook is also commonly referred to as a laptop.

leap year
A year that has 366 days instead of the standard 365. The extra day occurs on February 29th. A leap year occurs whenever the year is evenly divisible by 4—except for those years evenly divisible by 100; this exception, however, does not apply to years evenly divisible by 400.

In other words, every four years (e.g., 1988, 1992, 1996, etc.) February gets an extra day — *except* on the century year, when the extra day is *not* added to February, with a further exception that every *four* centuries, when the year is evenly divisible by 400, the extra day is added. Because the year 2000 is evenly divisible by 400, it is a leap year.

legacy
Of or pertaining to documents or data that existed prior to a certain time. The

designation refers particularly to a change in process or technique that requires translating old data files to a new computer system.

library
In programming, a collection of programming routines stored in files. Each set of instructions in a library has a name and each performs a different task.

localized
Translated and adapted to another region's language. This can include additions, such as the calendar system that is used only with that language.

long date and short date
There are two date format settings in the Regional Settings Control Panel of the Windows operating system: the short date and the long date. The short date choice is preset (by "default") to display the year in only two digits, but can easily be changed by a user to a four-digit year format (by choosing a setting that includes "yyyy").

The long date (a more fully descriptive format that includes spelling of the month) is preset (by "default") to display a four-digit year (also represented by "yyyy").

M

mainframe computer
A high-level computer designed for the most intensive computational tasks. Mainframe computers are often shared by multiple users connected to the computer by terminals.

macro
A macro is a list of actions to be performed that is saved under a short key code or name. The software program can then carry out the instructions of the macro whenever the user calls on the macro by typing its short key code or specifying the macro name. Macros can be created using the Record Macro feature of a program or by writing them in Visual Basics for Applications (VBA).

mass storage
A generic term for disk, tape, or optical disc storage of computer data. The name refers to the large masses of data that can be stored (in comparison with the capacity of computer memory or RAM).

MB, megabyte
1,048,576 bytes (2^{20}), though often interpreted as 1 million bytes.

media
The physical material, such as paper, disk and tape, used for storing computer-based information. *Media* is plural; *medium* is singular.

memory
Memory generally refers to the fast semiconductor storage (RAM) directly connected to the processor that is dependent on electrical power for activation. Memory is often differentiated from computer storage (e.g., hard disks, floppy disks, CD-ROM disks) that is not dependent on electricity and is therefore a more permanent means for holding data.

memory chip
An integrated circuit devoted to memory storage. The memory storage can be *volatile*

and hold data temporarily, such as RAM, or *nonvolatile* and hold data permanently, such as ROM, EPROM, EEPROM or PROM.

microcomputer
A computer that is built around a microprocessor. Less powerful than minicomputers and mainframe computers, microcomputers have nevertheless evolved into very powerful machines capable of complex tasks. Technology has progressed so quickly that state-of-the-art microcomputers are as powerful as mainframes of only a few years ago, at a fraction of the cost.

microprocessor
A central processing unit (CPU) on a single chip. A modern microprocessor can have more than one million transistors in an integrated-circuit package that is roughly one inch square. Microprocessors are at the heart of all personal computers.

modem
A communications device that enables a computer to transmit information over a standard telephone line. Because a computer is digital (works with discrete electrical signals representing binary numbers 1 and 0) and a telephone line is analog (carries a signal that can have any of a large number of variations), modems are needed to convert digital to analog and vice versa. The term is short for MOdulator/DEModulator.

monitor
The device on which images generated by the computer's video adapter are displayed. The term usually refers to a video display and its housing. The monitor is attached to the video adapter by a cable.

motherboard
The main circuit board containing the primary components of a computer system. This board contains the processor, main memory, support circuitry, bus controller and connector. Other boards, including expansion memory and input/output boards, may attach to the motherboard via the bus connector.

MS-DOS
Acronym for Microsoft Disk Operating System. A single-tasking, single-user operating system with a command-line interface that was released in 1981 for IBM PCs and compatibles. MS-DOS, like other operating systems, oversees operations such as disk input and output, video support, keyboard control and many internal functions related to program execution and file maintenance.

MS-DOS shell
A shell environment based on a command line prompt that allows a user to interact with MS-DOS or an MS-DOS-emulating operating system.

multifunction board
A computer add-in board that provides more than one function. Multifunction boards for personal computers frequently offer additional memory, serial/parallel ports or a clock/calendar.

N

network
A group of computers and associated devices that are connected. A network can involve permanent connections (with cables), or temporary connections made through

telephone or other communication links. A network can consist of just a few computers, printers, and other devices (often called a Local Area Network or LAN), or it can consist of many small and large computers distributed over a vast geographic area (such as the Internet).

O

off-the-shelf
A packaged item ready for sale. The term can refer to hardware or software.

online
Generally means that a computer is connected to a network and is thereby ready for operation or interaction over the network. It may also refer to the ability to connect to the Internet by virtue of having an Internet account.

operating system (OS)
The software that controls the allocation and usage of hardware resources such as memory, central processing unit (CPU) time, disk space, and peripheral devices. The operating system is the foundation on which software programs (applications) are built. Popular operating systems include Windows 98, Windows NT, Mac® OS and UNIX.

operational data range
This term refers to the range of date data that a software program will accept from the user. It does not refer to data accuracy or the accuracy of interpretations based on two-digit year shortcuts. (The latter is handled by the "date window.")

Original Equipment Manufacturer (OEM)
An OEM typically purchases components from other manufacturers, integrates these into its own product, and then sells that product to the public.

OS/2®
A protected mode, virtual memory, multitasking operating system for personal computers based on the Intel 80286, 80386, i486 and Pentium processors. Important OS/2 subsystems include Presentation Manager, which provides a graphical user interface, and LAN Manager, which provides networking facilities.

OSR
An acronym for an OEM Service Release. This term refers to later versions of software that are made available to and installed by OEMs. For example, the retail version of Windows 95 is called just Windows 95 or Windows 95 gold; the OSR versions include Windows 95 OSR1, Windows 95 OSR2.0, Windows 95 OSR2.1 and Windows 95 OSR2.5.

P

palmtop
A portable personal computer whose size enables it to be held in one hand while it is operated with the other hand. A major difference between palmtop computers and laptop computers is that palmtops are usually powered by off-the-shelf batteries such as AA cells. Palmtop computers typically do not have disk drives; rather, their programs are stored in ROM and are loaded into RAM when they are switched on. More recent palmtop computers are equipped with PCMCIA slots to provide wider flexibility and greater capability.

patch

A piece of programming code that is added to an existing program to repair a deficiency in the functionality of an existing routine or program. It is generally provided in response to an unforeseen need or set of circumstances. Patching is also a common means of adding a new feature or function to a program until the next major version of the software is released.

PC

An acronym for *personal computer*, it is now a commonly used term that means any microcomputer that includes a microprocessor in the Intel 80x86 family (or compatible).

PC Card

An add-in card, first introduced in 1990, that conforms to the specifications of the Personal Computer Memory Card International Association (PCMCIA). It is a removable device, approximately the same size as a credit card, that is designed to plug into a PCMCIA slot. PC cards can function as a modem, fax or network card, as well as offer additional memory to a system.

PC-compatible

Conforming to IBM PC/XT and PC/AT hardware and software specifications, which has been the de facto standard in the computing industry for personal computers that use the Intel 80x86 family or compatible chips. Though most PC-compatible computers today are developed outside of IBM; they are still sometimes referred to as clones.

PC-DOS

Acronym for Personal Computer Disk Operating System. This is the version of MS-DOS sold by IBM. MS-DOS and PC-DOS are virtually identical, although filenames of utility programs sometimes differ in the two versions.

PCMCIA

Acronym for Personal Computer Memory Card International Association. It is the common standard for PC Card-based peripherals and the slot designed to hold them, primarily on laptop, palmtop, and other portable computers, as well as for intelligent electronic devices. The PCMCIA standard was first introduced in 1990.

PC memory card

An add-in circuit card that increases the amount of RAM in a system, as specified by PCMCIA. The card consists of conventional static RAM chips powered by a small battery and is designed to provide additional RAM to the system.

prerequisite

As related to Microsoft product compliance, a prerequisite refers to what is needed for a given product to reach the compliance classification indicated. It could include a software update that is required or a specific version of a related Microsoft technology that the product needs.

product dependency

As related to Microsoft product compliance, a product dependency is an item that is not part of a product that nonetheless needs to be considered for the year 2000 readiness of that product. Examples of product dependency are system requirements listed on the purchase box, or products (and configurations) that were used during compliance testing.

Q

query
A specific set of instructions for extracting particular data from a database.

R

RAM
Acronym for Random Access Memory. Semiconductor-based memory that can be read and written by the central processing unit (CPU) or other hardware devices. The term is generally understood to refer to volatile memory that does not permanently hold data or programs.

Readme
A file containing information that a user will either need or find informative when using or installing a particular program. Readme files are generally formatted as plain text (without extraneous or program-specific characters) so that they can be read easily by a variety of word processing programs.

Real Time Clock (RTC)
An independent timekeeping circuit used within a microcomputer to keep track of the time and calendar date. A clock/calendar circuit is battery powered, so it continues running even when the computer is turned off. The time and date kept by the clock/calendar can be used by the operating system (for example, to "stamp" files with the date and time of creation or revision) and by application programs (for example, to insert the date or time in a document) via calls to the BIOS.

reboot
To restart a computer by reloading the operating system. This can be done by performing either a cold boot (turning the computer system off and then back on) or a warm boot (without turning the computer off).

remote system
The computer or network that a user accesses via a modem.

removable disk
A disk that can be removed from a disk drive. Floppy disks are removable; hard disks usually are not.

Rich Text Format (RTF)
An adaptation of DCA (Document Content Architecture) that is used for transferring formatted text documents between applications, even those applications running on different platforms, such as between IBM and compatibles and Apple Macintoshes.

rollover problem
As related to the year 2000 issue, this refers to the inability of some computer hardware, usually the Real Time Clock or BIOS, to interpret the century as the twenty-first (20xx) when the two-digits allocated for the year "roll over" from "99" to "00." For some computers, the BIOS will incorrectly interpret the year as "1900" instead of "2000," and this may lead to inaccuracies within the computer system regarding dates and date calculations.

ROM
Acronym for Read-Only Memory. A semiconductor circuit into which code or data is permanently installed by the manufacturing process. ROM contains instructions or data that can be read but not modified.

run
To start or execute a program.

run-time library
A file containing one or more prewritten routines to perform specific, commonly used functions. A run-time library, used primarily in high-level languages such as C, saves the programmer from having to repetitively rewrite those routines.

S

save
To write data (as a file) to a storage medium, such as a floppy disk or a hard disk.

script
A simple program consisting of a set of instructions to perform or automate specific tasks or functions.

self-extracting file
An executable program file that contains one or more compressed text or data files. When a user runs the program, it automatically decompresses the compressed files and stores them on the user's hard drive.

service pack
A service pack is a means by which Microsoft product updates are distributed. A service pack includes updates, system administration tools, drivers, and additional components. All are conveniently bundled for easy downloading.

setup wizard
In Microsoft Windows, a structured series of questions and options that leads a user through the process of installing a new program.

shortcut
In Windows 95, 98, or NT, an icon on the desktop that a user can double-click on to immediately access a program, a data file, or a Web page.

short date and long date
There are two date format settings in the Regional Settings Control Panel of the Windows operating system: the short date and the long date. The short date choice is preset (by "default") to display the year in only two digits, but can easily be changed by a user to a four-digit year format (by choosing one of the options that includes "yyyy").

The long date (a more fully descriptive format that includes the spelling of the month) is preset (by "default") to display a four-digit year (also represented by "yyyy").

software
Instructions for the computer. A series of instructions that performs a particular task is called a program. Two main types of software are system software (operating system), which controls the workings of the computer and software programs (applications), which perform the tasks for which people use computers.

A common misconception is that software is data. It is not. Software tells the hardware how to process the data. Software is "run." Data is "processed."

software package
A software program or software application sold to the public, ready to run, and containing all necessary components and documentation. Also called "shrink wrapped" or "off-the-shelf" software.

software program
A software application. Common types of software programs include word processing programs (for example, Microsoft Word or WordPerfect), spreadsheet programs (for example, Excel or Lotus 123) and database applications (for example, Access, FileMaker Pro, or dBase).

spreadsheet
A document (or data file) that is created with a spreadsheet program. Spreadsheets commonly contain information about budgets, forecasting, or other finance-related information that can be time-sensitive.

spreadsheet program
An application commonly used for budgets, forecasting, and other finance-related tasks that organizes data values using cells, where the relationships between cells are defined by formulas. A change to one cell produces changes to related cells. Spreadsheet programs usually provide graphing capabilities for output and a variety of formatting options for text, numeric values and graph features.

storage
In computing, any device in or on which information can be kept. Microcomputers generally rely on disk drives and other external storage media for permanently storing information.

system
Any collection of component elements that work together to perform a task. Examples are a hardware system consisting of a microprocessor, its allied chips and circuitry, input and output devices, and peripheral devices; an operating system consisting of a set of programs and data files; or a database management system used to process specific kinds of information.

system disk
A disk that contains an operating system and can be used to boot (start) a computer. Also known as a startup disk.

T

TCP/IP
An acronym for Transmission Control Protocol/Internet Protocol, a protocol developed by the Department of Defense for communications between computers. It is built into the UNIX system and has become the de facto standard for data transmission over networks, including the Internet.

text file
A file composed of text characters. A text file can be a word-processing file, but generally refers to a "plain" ASCII file encoded in a format practically all computers can use.

text-only file
Identical to an ASCII text file.

time and date
The timekeeping and datekeeping functions maintained by the computer's operating system, and used most visibly as a means of "stamping" files with the date and time of creation or last revision.

transaction
A discrete activity within a computer system, such as an entry of a customer order or an update of an inventory item. Transactions are usually associated with database applications and files.

two-digit shortcut
A date format that uses only the last two digits of the year, excluding information about the century. For example, "98" is a two-digit shortcut; it does not reveal which century is intended. Interpreting two-digit shortcuts always requires an assumption about the intended century.

two-digit year
A date format that uses only the last two digits of the year, excluding information about the century. An example of a two-digit year is "98"; it does not reveal which century is intended. Interpreting two-digit years always requires an assumption about the intended century.

U

uninstall
To remove software completely from a system, including the elimination of files and components residing in system locations such as the Registry in Windows 95/98 or Windows NT. Some applications have built-in uninstall utilities, and in other cases a separate uninstall program can be used.

UNIX
A multi-user, multitasking operating system originally developed at AT&T Bell Laboratories in 1969 for use on minicomputers. UNIX is available in several related forms, including AIX® (a version of UNIX adapted by IBM to run on RISC-based workstations), A/UX® (a graphical version of UNIX for the Apple Macintosh), and HU-UX® (a version of UNIX adapted by HP).

unzip
To uncompress a file that has been compressed by a program such as PKZIP.

update
A new release of an existing software product that is generally free. A software update usually adds relatively minor new features to a product or addresses issues found after the program was released. Updates can be indicated by small changes in the software version numbers, such as the change from version 4.0 to version 4.0b.

upgrade
The new or enhanced version of a software product that is considered to have major enhancements or improvement to its features or functionality, and which is generally available at a fee. Software upgrades are typically indicated by a significant (integer) change in the version number, such as from version 4.0 to version 5.0.

UPS
Acronym for Uninterruptible Power Supply. A device, connected between a computer (or other electronic equipment) and a power source (usually an outlet receptacle), that ensures that electrical flow to the computer is not interrupted because of a blackout and, in most cases, protects the computer against potentially damaging events, such as power surges and brownouts. All UPS units are equipped with a battery and a loss-of-power sensor; if the sensor detects a loss of power, it switches over to the battery so that the user has time to save his or her work and shut off the computer.

username
The name by which a user is identified to a computer system or network. During the logon process, the user must enter the username and the correct password. If the system or network is connected to the Internet, the username generally corresponds to the leftmost part of the user's e-mail address.

utility program
A software program designed to perform maintenance work on the system or on system components (e.g., a storage backup program, disk and file recovery program, or resource editor).

V

version
A particular issue or release of a hardware or software product. Version numbers are generally represented by an integer (a whole number) combined with a decimal number (for example 3.2). Successive releases of a program are assigned increasingly higher numbers. Major releases are reflected with whole number increments; minor releases with decimal increments.

When discussing software versions, an "x" is often used after the version integer to designate a range of minor releases. For example, Internet Explorer 4.x refers to all minor releases of Internet Explorer 4.

virus
An intrusive program that infects computer files by inserting copies of itself in them, thereby causing the files to be "infected." When the infected file is then loaded into memory, the virus can then infect other files, and so on. Viruses often have damaging side effects—sometimes intentionally, sometimes not. For example, some viruses can destroy a computer's hard disk or take up memory space that could otherwise be used by programs.

Visual Basic
A high-level, visual-programming version of Basic. Visual Basic was developed by Microsoft for building Windows-based applications.

Visual Basic for Applications
A macro-language version of Visual Basic that is used to program many Windows 95 applications and is included with several Microsoft applications.

W

warm boot
The restarting of a running computer without first turning off the power. Also called a *soft boot* or *warm start*.

Web browser
A client application that enables a user to view HTML documents on the World Wide Web, follow the hyperlinks among them, and transfer files. Text-based web browsers, such as Lynx, use shell accounts and show only the text elements of an HTML document. Most Web browsers, however, require a connection that can handle IP packets and can also display graphics, play audio and video, and execute small programs (such as Java applets or ActiveX controls) that are embedded in the HTML pages. Some Web browsers require helper applications or plug-ins to accomplish one or more of these tasks. In addition, most current Web browsers permit users to send and receive e-mail and to read and respond to newsgroups.

Win32
The application programming interface in Windows 95, Windows 98 and Windows NT that enables applications to use the 32-bit instructions available on 80386 and higher processors. Although Windows 95 and Windows NT support 16-bit 80x86 instructions as well, Win32 offers greatly improved performance.

window
In applications and graphical interfaces, a portion of the screen that can contain its own document or message. In window-based programs, the screen can be divided into several windows, each of which has its own boundaries and can contain a different document (or another view of the same document).

windowing
A technique to determine the century of the year when it is represented by a two-digit shortcut (for example, "98" for "1998"). The two-digit year shortcut is compared to a threshold set within a 100-year range ("window") that generally spans two centuries. If the two-digit shortcut is equal to or greater than the threshold, the year is interpreted as in the earlier century of the window. If the two-digit shortcut is less than the threshold, the year is interpreted as in the later century of the window.

For example, if the threshold is set to 28 (the "window" is actually 1928-2027), a two-digit shortcut less than 28 will be interpreted as 20xx (the 21st century). A two-digit shortcut equal to or greater than 28 will be interpreted as 19xx (the 20th century).

Windows
An operating system introduced by Microsoft Corporation in 1983. Windows is a multitasking graphical user interface environment that runs on both MS-DOS-based computers (Windows and Windows for Workgroups) and as a self-contained operating system (Windows 95, Windows NT). Windows provides a standard interface based on drop-down menus, windowed regions on the screen, and a pointing device such as a mouse.

Windows application
A software program (or application) designed for use with the Microsoft Windows operating system.

Windows CE
A scaled-down version of the Microsoft Windows platform designed for use with handheld PCs. Windows CE includes scaled-down versions of several Microsoft application programs, including Excel, Word, Internet Explorer, Schedule+ and an e-mail client.

Windows NT
An operating system released by Microsoft Corporation in 1993. The Windows NT operating system, sometimes referred to as simply NT, is the high-end member of a family of operating systems from Microsoft. It is a completely self-contained operating system with a built-in graphical user interface. Windows NT is a 32-bit, preemptive multitasking operating system that features networking, symmetric multiprocessing, multithreading and security. It is a portable operating system that can run on a variety of hardware platforms including those based on the Intel 80386, i486 and Pentium microprocessors and MIPS microprocessors; it can also run on multiprocessor computers. Windows NT supports up to 4 gigabytes of virtual memory and can run MS-DOS, POSIX, and OS/2 (character-mode) applications.

wizard
A tool that guides a user through the steps of a process or task, by asking a series of questions or presenting options. For example, wizards might be involved in helping you to start up a word processing document, install software, or create a database file for the first time.

word processor
A software program (or application) for creating and manipulating text-based documents. A word processor is the electronic equivalent of paper, pen, typewriter, eraser, and, most likely, dictionary and thesaurus. Word processors allow document formatting, such as font changes, page layout, paragraph indentation and the like. Some word processors can also check spelling, find synonyms, incorporate graphics created with another program, align mathematical formulas, create and print form letters, perform calculations, display documents in multiple on-screen windows and enable users to record macros that simplify difficult or repetitive operations.

worksheet
In a spreadsheet software program, the worksheet is a data document that appears on the screen as a page organized into rows and columns in a table.

X

XML
An acronym for Extensible Markup Language, it is a set of tags and declarations used as a complement to HTML in the construction of Web pages.

Y

YY format
Two-digit-year format. This format uses only two digits to describe the calendar year and thus omits information about the specific century. For example, 98, 9/98 and 4/4/98 are all two-digit-year dates.

YYYY format
Four-digit-year format. This format uses four digits to describe the calendar year; and the century is not assumed or interpreted. For example, 1952, 2001 and 1837 are all four-digit year dates because the specific century is not ambiguous.

Z

Zip drive
A disk drive developed by Iomega that uses 3.5-inch removable disks (Zip disks) capable of storing 100 megabytes or more of data.

Zulu time
Slang for Greenwich Mean Time.

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Additional Microsoft glossaries with basic computing terminology can be found at:

Microsoft Personal Support Center: http://support.microsoft.com/support/glossary/

MSN Computing Central: http://computingcentral.msn.com/Topics/applications/glossary.asp

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Other sources of technology definitions are located at:

http://www.techweb.com/encyclopedia/

http://www.pcwebopaedia.com/

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Additional sources for Internet-specific terminology are located at:

http://www.netlingo.com/

http://www.whatis.com/

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