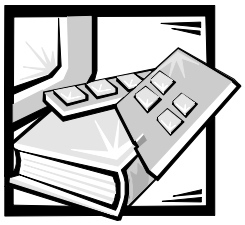


Glossary

The following list defines or identifies technical terms, abbreviations, and acronyms used in Dell user documents.

A
Abbreviation for ampere(s).

AC
Abbreviation for alternating current.

adapter card
An expansion card that plugs into an expansion-card connector on the system's system board. An adapter card adds some specialized function to the system by providing an interface between the expansion bus and a peripheral device. Examples of adapter cards include network cards, sound boards, and SCSI adapters.

application program
Software designed to help you perform a specific task, such as a spreadsheet or word processor. Application programs are distinct from operating system and utility software.

backup
A copy of a program or data file. As a precaution, you should back up your system's hard-disk drive on a regular basis.

baud rate
Data transmission speed. For example, modems are designed to transmit data at one or more specified baud rate(s) through the COM (serial) port of a system.

BBS
Abbreviation for bulletin board service. A system that serves as a central location for accessing data or relaying messages by modem. For example, Dell's TechConnect BBS contains the latest version of software such as video drivers and the Dell Directory. If your system has a modem, you can access the BBS and download the most recent version of this software.

beep code
A diagnostic system message in the form of a series of beeps from your system's speaker. See your *Installation and Troubleshooting Guide* for a complete discussion of system beep codes.

BIOS
Acronym for basic input/output system. Your system's BIOS contains programs stored on a ROM chip. The BIOS controls the following functions:

- Communications between the microprocessor and peripheral devices such as the keyboard and the video adapter
- Miscellaneous functions, such as system messages

bit
The smallest unit of information interpreted by your system.

boot routine
When you start your system, it clears all memory, initializes devices, and loads the operating system. Unless the operating

system fails to respond, you can reboot (also called warm boot) your system by pressing <Ctrl><Alt><Del>; otherwise, you must perform a cold boot by pressing the reset button (if your system has one) or by turning the system off and then back on.

bootable diskette
You can start your system from a diskette in drive A. To make a bootable diskette, insert a diskette in drive A, type `sys a:` at the command line prompt and then press <Enter>. Use this bootable diskette if your system will not boot from the hard-disk drive.

bus
A bus forms an information pathway between the components of a system. Your system contains an expansion bus that allows the microprocessor to communicate with controllers for all the various peripheral devices connected to the system. Your system also contains an address bus and a data bus for communications between the microprocessor and RAM.

byte
Eight contiguous bits of information; the basic data unit used by your system.

C
Abbreviation for Celsius.

cache
To facilitate quicker data retrieval, a storage area for keeping a copy of data or instructions. For example, your system's BIOS may cache ROM code in faster RAM. Or a disk-cache utility may reserve RAM in which to store frequently accessed information from your system's disk drives; when a program makes a request to a disk drive for data that is in the cache, the disk-cache utility can retrieve the data from RAM faster than from the disk drive.

CD-ROM
Abbreviation for compact disc read-only memory. CD-ROM drives use optical technology to read data from compact discs. CDs are read-only storage devices; you cannot write new data to a CD with standard CD-ROM drives.

cm
Abbreviation for centimeter(s).

controller
A chip or expansion card that controls the transfer of data between the microprocessor and a peripheral such as a diskette drive or the keyboard.

conventional memory
The first 640 KB of RAM. Unless they are specially designed, MS-DOS programs are limited to running in conventional memory. See also EMM, expanded memory, extended memory, HMA, memory manager, upper memory area, and XMM.

coprocessor
A coprocessor relieves the system's microprocessor of specific processing tasks. A math coprocessor, for example, handles numeric processing. A graphics coprocessor handles video rendering. The Intel Pentium microprocessor includes an integrated math coprocessor.

cpi
Abbreviation for characters per inch.

CPU
Abbreviation for central processing unit. See also microprocessor.

DC
Abbreviation for direct current.

device driver
A device driver allows the operating system or a program to interface correctly with a peripheral such as a printer or network card. Some device drivers—such as network drivers—must be loaded from the **config.sys** file (with a device= statement) or as memory-resident programs (usually, from the **autoexec.bat** file). Others—such as video drivers—must load when you start the program for which they were designed.

DHCP
Acronym for Dynamic Host Configuration Protocol.

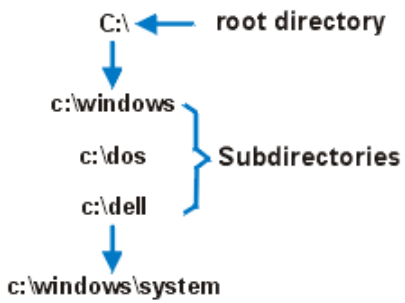
diagnostics
See diskette-based diagnostics.

DIMM
Acronym for dual in-line memory module.

DIN
Acronym for Deutsche Industrie Norm.

DIP
Acronym for dual in-line package. A circuit board, such as a system board or expansion card, may contain DIP switches for configuring the circuit board. DIP switches are always toggle switches, with an ON position and an OFF position.

directory
Directories help keep related files organized in a hierarchical, "inverted tree" structure. Each disk has a "root" directory; for example, a **C:\>** prompt normally indicates that you are at the root directory of hard-disk drive C. Additional directories that branch off of the root directory are called subdirectories. Subdirectories may contain additional directories branching off of them.



diskette-based diagnostics
A comprehensive set of diagnostic tests for your Dell system. To use the diskette-based diagnostics, you must boot your system from the *Dell Diagnostics Diskette*. Refer to your *Installation and Troubleshooting Guide* for a complete discussion about how to use the diskette-based diagnostics.

display adapter
See video adapter.

DMA
Abbreviation for direct memory access. A DMA channel allows certain types of data transfer between RAM and a device to bypass the microprocessor.

DRAC
Acronym for Dell OpenManage Remote Assistant Card.

DRAM
Abbreviation for dynamic random-access memory. A system's RAM is usually made up entirely of DRAM chips. Because DRAM chips cannot store an electrical charge indefinitely, your system continually refreshes each DRAM chip in the system.

drive-type number
Your system can recognize a number of specific hard-disk drives. Each is assigned a drive-type number that is stored in NVRAM. The hard-disk drive(s) specified in your system's System Setup program must match the actual drive(s) installed in the system. The System Setup program also allows you to specify physical parameters (cylinders, heads, write precomp, landing zone, and capacity) for drives not included in the table of drive types stored in NVRAM.

ECC
Abbreviation for error checking and correction.

EEPROM
Acronym for electrically erasable programmable read-only memory.

expansion bus
Your system contains an expansion bus that allows the microprocessor to communicate with controllers for peripheral devices, such as a network card or an internal modem.

expansion-card connector
A connector on the system's system board for plugging in an expansion card.

external cache memory
A RAM cache using SRAM chips. Because SRAM chips operate at several times the speed of DRAM chips, the microprocessor can retrieve data and instructions faster from external cache memory than from RAM.

F
Abbreviation for Fahrenheit.

flash memory
A type of EEPROM chip that can be reprogrammed from a utility on diskette while still installed in a system; most EEPROM chips can only be rewritten with special programming equipment.

format
To prepare a hard-disk drive or diskette for storing files. An unconditional format deletes all data stored on the disk. The format command in MS-DOS 5.0 or higher includes an option that allows you to unformat a disk if you have not yet used the disk for file storage.

ft
Abbreviation for foot/feet.

g
Abbreviation for gram(s).

G
Abbreviation for gravities.

GB
Abbreviation for gigabyte(s). A gigabyte equals 1024 megabytes or 1,073,741,824 bytes.

GUI
Acronym for graphical user interface.

h
Abbreviation for hexadecimal.

host adapter
A host adapter implements communication between the system's bus and the controller for a peripheral. (Hard-disk drive controller subsystems include integrated host adapter circuitry.) To add a SCSI expansion bus to your system, you must install the appropriate host adapter.

Hz
Abbreviation for hertz.

IC
Abbreviation for integrated circuit.

I/O
Abbreviation for input/output. The keyboard and a printer, for example, are I/O devices. In general, I/O activity can be differentiated from computational activity. For example, when a program sends a document to the printer, it is engaging in I/O activity; when the program sorts a list of terms, it is engaging in computational activity.

ID
Abbreviation for identification.

IDE
Integrated drive electronics.

IP
Acronym for Internet Protocol.

IRQ
Abbreviation for interrupt request. A signal that data is about to be sent to or received by a peripheral travels by an IRQ line to the microprocessor. Each peripheral connection must be assigned an IRQ number. For example, the first serial port in your system (COM1) is assigned to IRQ4 by default. Two devices can share the same IRQ assignment, but you cannot operate both devices simultaneously.

K
Abbreviation for kilo-, indicating 1000.

KB
Abbreviation for kilobyte(s), 1024 bytes.

KB/sec
Abbreviation for kilobyte(s) per second.

Kbit(s)
Abbreviation for kilobit(s), 1024 bits.

Kbps
Abbreviation for kilobit(s) per second.

key combination
A command requiring that you press multiple keys at the same time. For example, you can reboot your system by pressing the <Ctrl><Alt><Del> key combination.

kg
Abbreviation for kilogram(s), 1000 grams.

kHz
Abbreviation for kilohertz, 1000 hertz.

LAN
Acronym for local area network. A LAN system is usually confined to the same building or a few nearby buildings, with all equipment linked by wiring dedicated specifically to the LAN.

lb
Abbreviation for pound(s).

LCD
Abbreviation for liquid crystal display. A low-power display often used for notebook systems. An LCD consists of a liquid crystal solution between two sheets of polarizing material. An electric current causes each crystal to act like a shutter that can open to allow light past or close to block the light.

LED
Abbreviation for light-emitting diode. An electronic device that lights up when a current is passed through it.

LUN
Acronym for logical unit number.

m
Abbreviation for meter(s).

mA
Abbreviation for milliampere(s).

mAh
Abbreviation for milliampere-hour(s).

MB
Abbreviation for megabyte(s). The term megabyte means 1,048,576 bytes; however, when referring to hard-disk drive storage, the term is often rounded to mean 1,000,000 bytes.

memory
A system can contain several different forms of memory, such as RAM, ROM, and video memory. Frequently, the word memory is used as a synonym for RAM; for example, an unqualified statement such as "a system with 8 MB of memory" refers to a system with 8 MB of RAM.

memory address
A specific location, usually expressed as a hexadecimal number, in the system's RAM.

MHz
Abbreviation for megahertz.

microprocessor
Because it is the primary computational chip inside the system, it is customary to refer to the microprocessor as "the system's brain." The microprocessor contains an arithmetic processing unit and a control unit. Software written for one microprocessor must usually be revised to run on another microprocessor. CPU is a synonym for microprocessor.

min
Abbreviation for minute(s).

mm
Abbreviation for millimeter(s).

mouse
A pointing device that controls the movement of the cursor on a screen. Mouse-aware software allows you to activate commands by clicking a mouse button while pointing at objects displayed on the screen.

ms
Abbreviation for millisecond(s).

MS-DOS
Abbreviation for Microsoft Disk Operating System.

mV
Abbreviation for millivolt(s).

NIC
Acronym for network interface controller.

NiCad
Acronym for nickel cadmium.

NiMH
Abbreviation for nickel-metal hydride.

ns
Abbreviation for nanosecond(s), one billionth of a second.

NVRAM
Abbreviation for nonvolatile random-access memory. Memory that does not lose its contents when you turn off your system. NVRAM is used for maintaining the date, time, and system setup options.

parallel port
An I/O port used most often to connect a parallel printer to your system. You can usually identify a parallel port on your system by its 25-hole connector.

parameter
A value or option that you specify to a program. A parameter is sometimes called a switch or an argument.

PC Card
Slightly larger than a credit card, a PC Card is a removable I/O card—such as a modem, LAN, SRAM, or flash memory card—that adheres to the PCMCIA standards. See also PCMCIA.

PCI
Abbreviation for Peripheral Component Interconnect. A standard for local-bus implementation developed by Intel Corporation.

PDC
Acronym for primary domain controller.

peripheral device
An internal or external device—such as a printer, a disk drive, or a keyboard—connected to a system.

PGA
Abbreviation for pin grid array, a type of microprocessor socket that allows you to remove the microprocessor chip.

pixel
Arranged in rows and columns, a pixel is a single point on a video display. Video resolution—640 x 480, for example—is expressed as the number of pixels across by the number of pixels up and down.

POST
Acronym for power-on self-test. Before the operating system loads when you turn on your system, the POST tests various system components such as RAM, the disk drives, and the keyboard.

program diskette set
The set of diskettes from which you can perform a complete installation of an application program. When you reconfigure a program, you often need its program diskette set.

PS/2
Abbreviation for Personal System/2.

RAID
Acronym for redundant arrays of independent disks.

RAM
Acronym for random-access memory. The system's primary temporary storage area for program instructions and data. Each location in RAM is identified by a number called a memory address. Any information stored in RAM is lost when you turn off your system.

ROM
Acronym for read-only memory. Your system contains some programs essential to its operation in ROM code. Unlike RAM, a ROM chip retains its contents even after you turn off your system. Examples of code in ROM include the program that

initiates your system's boot routine and the POST.

rpm
Abbreviation for revolutions per minute.

RTC
Abbreviation for real-time clock. Battery-powered clock circuitry inside the system that keeps the date and time after you turn off the system.

SDRAM
Abbreviation for synchronous dynamic random-access memory.

SEC
Abbreviation for single-edge contact.

sec
Abbreviation for second(s).

serial port
An I/O port used most often to connect a modem or a mouse to your system. You can usually identify a serial port on your system by its 9-pin connector.

SNMP
Abbreviation for Simple Network Management Protocol.

switch
See parameter.

system board
As the main circuit board, the system board usually contains most of your system's integral components, such as the following:

- Microprocessor
- RAM
- Expansion-card connectors
- Controllers for standard peripheral devices such as the keyboard
- Various ROM chips

Frequently used synonyms for system board are motherboard and logic board.

system diskette
System diskette is a synonym for bootable diskette.

system memory
System memory is a synonym for RAM.

System Setup program
System Setup program options allow you to configure your system's hardware. Some options in the System Setup program require that you reboot the system to effect a hardware-configuration change. Because the System Setup program is stored in NVRAM, any options that you set remain in effect until you change them again.

TCP/IP
Abbreviation for Transmission Control Protocol/Internet Protocol.

terminator
Some devices, especially disk drives, contain a terminator to absorb and dissipate excess current. When more than one such device is connected in a series, you may need to remove the terminator—or change a jumper setting to disable it—unless it is the last device in the series. However, some devices have terminators that should never be removed or disabled.

UPS
Abbreviation for uninterruptible power supply. A battery-powered unit that automatically supplies power to your system in the event of an electrical failure.

USB
Abbreviation for Universal Serial Bus.

utility
A program used to manage system resources—memory, disk drives, or printers, for example. The **diskcopy** command for duplicating diskettes and the **himem.sys** device driver for managing extended memory are utilities included in MS-DOS.

V
Abbreviation for volt(s).

VAC
Abbreviation for volt(s) alternating current.

VDC
Abbreviation for volt(s) direct current.

VGA
Abbreviation for video graphics array.

video adapter
The logical circuitry that provides—in combination with the monitor or display—your system's video capabilities. A video adapter may support more or fewer features than a specific monitor offers. Typically, a video adapter comes with video drivers for displaying popular application programs and operating environments in a variety of video modes.

On most current Dell systems, a video adapter is integrated into the system board. Also available are many video adapter cards that plug into an expansion-card connector.

Video adapters can include memory separate from RAM on the system board. The amount of video memory, along with the adapter's video drivers, may affect the number of colors that can be simultaneously displayed. Video adapters can also include their own coprocessor chip for faster graphics rendering.

video driver
Graphics-mode application programs and operating environments, such as Windows, often require video drivers to display at a chosen resolution with the desired number of colors. A program may include some "generic" video drivers. Any additional video drivers may need to match the video adapter; you can find these drivers on a separate diskette with your system or video adapter.

video memory
Most VGA and SVGA video adapters include VRAM or DRAM memory chips in addition to your system's RAM. The amount of video memory installed primarily influences the number of colors that a program can display (with the appropriate video drivers and monitor capability).

video mode
Video adapters normally support multiple text and graphics display modes. Character-based software (such as MS-DOS) displays in text modes that can be defined as *x* columns by *y* rows of characters. Graphics-based software (such as Windows) displays in graphics modes that can be defined as *x* horizontal by *y* vertical pixels by *z* colors.

video resolution
Video resolution—640 x 480, for example—is expressed as the number of pixels across by the number of pixels up and down. To display a program at a specific graphics resolution, you must install the appropriate video drivers and your monitor must support the resolution.

W
Abbreviation for watt(s).

write-protected
Read-only files are said to be write-protected. You can write-protect a 3.5-inch diskette by sliding its write-protect tab to the open position; you can write-protect a 5.25-inch diskette by placing an adhesive label over its write-protect notch.

WWW
Abbreviation for World Wide Web.

XMS
Abbreviation for eXtended Memory Specification. See also EMS, extended memory, and memory manager.

ZIF
Acronym for zero insertion force. Some systems use ZIF sockets and connectors to allow devices such as the microprocessor chip to be installed or removed with no stress applied to the device.