

A

B

C

D

E

F

G

H

I

J

K

L

M

N

O

P

Q

R

S

T

U

V

W

X

Y

Z

16550 UART

386 enhanced mode

386MAX

386PART.PAR

80386 expanded memory emulators

A

A20 handler

A20 enable count

ACC bit

accelerator key

active

active window

adapter area

Adobe Type Manager (ATM)

API

applet

application

application icon
application window
ANSI
arrow keys
ASCII
associate
association
asynchronous
attributes
AUTOEXEC.BAT

B

background
batch file
baud rate
benchmark test
binary file
BIOS
BIOS data area
bitmap
boot
boot sector
bootable diskette
breakpoint
browse
buffer
bus
button bar
byte

C

cache
cache block
cascade
cascading menu
case-sensitive
check box
central processing unit
CGA
clean diskette
click
Clipboard
close
cluster
CMOS
collapse
combination box

command
command button
communications settings
communications protocol
compressed file
CONFIG.SYS
context menu
control menu
control-menu box
Control Panel
CONTROL.INI
conventional memory
CPU
critical section
current directory

D

data area
data packet
data rate
database
DDE
decimal
default button
desktop
device-based font
device contention
device driver
device type
dialog box
dimmed
direct memory access (DMA)
directory
directory tree
diskette
dithered
DLL
DMA
document
document icon
document window
DOSAPP.INI
DOS
DOS data structures
DOS Extender
DOS prompt
DOS transfer buffers

DOS window
double-buffering
double-click
Dr. Watson
draft mode
drag
drag-and-drop
drop-down combination box
drop-down list box
drive icon
dynamic data exchange (DDE)
dynamic linked library (DLL)

E

EGA
EISA
embedded object
EMM386.EXE
EMS
encryption algorithm
enhanced mode
environment space
environment variable
EPROM
event
EXCLUDE.INI
.EXE file
executable file
expand
expanded memory
expanded memory managers (EMMs)
extended BIOS (EBIOS) device
extended memory
extension

F

FAT
fax
file allocation table (FAT)
file attribute
file extension
file handles
File Manager
file set
file specification
file type
filter

floppy disk
flow control
focus
font
foreground

G

GB
General Protection Fault
gigabyte
grabber
Graphic Device Interface (GDI) fonts
graphics
group
group box
group item icon
group window

H

handshaking
hexadecimal
hidden attribute
highlighted
high memory area(HMA)
HIMEM.SYS
history
hourglass pointer

I

.ICO file
icon
icon file
iconize
import
INI file
initialization file
insertion point
INT 9h
INT 13H
INT 16h
INT 21h
INT 28h
INT 2Ah
INT 2Fh
INT 33h
interrupt reflector stacks
interrupt request line (IRQ)

interrupts

ISA

J

jump

K

K

keyboard buffer

keyname

keyword

L

launch

least recently used (LRU)

linear address space

list box

lost cluster

M

macro

MAPI

master boot record

maximize

Maximize button

MCA

media control interface (MCI)

memory

memory manager

menu

menu bar

MHz

MIDI

minimize

Minimize button

monospaced

multitasking

N

NDW.INI

NetBIOS

network interface card (NIC)

nonmaskable interrupt (NMI)

non-text file

non-Windows application

Norton Cache

O

object
object linking and embedding (OLE)
octal
OEM
OEM Adaptation Kit
OEM text
open
option button

P

page
page frame
paging rate
palette
parallel interface
parallel port
parity
partition
partition table
path
permanent swap file
PIF
pixel
point
port
primary mouse button
printer driver
program file
program starting point (PSP)
PROGMAN.INI
Program Manager
PROM
prompt button
protected mode
protocol
push button

Q

QEMM/386
queue

R

random access memory(RAM)
raster fonts
read-only attribute
read-only memory

real mode
ROM
ROM header
root directory
RS-232-C
RTS/CTS

S

sans serif
screen saver
scroll
scroll bar
SCSI
search code
secondary mouse button
section
sector
separator line
serial interface
serial port
serif
server application
SETUP.INF
shell
shortcut key
shred
slack
source directory
source diskette
sort
SMARTDrive
SPART.PAR
SpeedDrive
spin button
standard mode
statement
status bar
subclass
subdirectory
superVGA
swap file
sweep frequency
switcher screen
system area
system attribute
system diskette
system files

System menu
system timer ports
system breakpoint
system virtual machine
SYSTEM.INI

T

target diskette
task
Task List
task switching
TASKMAN.EXE
temporary file
text box
text file
three-state check box
tile
time slice
timeout
timer interrupts
title bar
toggle
tool icon
toolbar
topic
TSR

U

UMB
undo file

V

value
vector fonts
VGA
VIM
virtual COM drive (VCD)
Virtual Device Driver (VxD)
virtual devices
virtual device file
virtual machine
virtual memory
virtual machine manager (VMM)
virus
volume label

W

wake up

wallpaper

wildcard

WIN.INI

window

window corner

window frame

WINFILE.INI

WINSTART.BAT

word

word processor

workspace

wrap

write-caching

WYSIWYG

X

Y

Z

XON/XOFF

386MAX

A Windows-compatible memory manager by Qualitas, Bethesda, MD.

386PART.PAR

A hidden file that is slightly larger than the swap file size you specify. This is actually the permanent swap file. See also [SPART.PAR](#).

accelerator key

A menu or menu item containing an underlined letter indicates that the menu or menu item can be accessed using a keystroke combination. For example, most Windows applications display the File menu when you press Alt+F. Once a menu is displayed, pressing the key corresponding to an underlined letter in a menu item executes that menu item.

active

The window or icon that you are currently using or that is currently selected. Keystrokes and commands affect the active window. To differentiate the active window from other windows, its title bar changes color. To differentiate the active icon from other icons, its label changes color.

Windows or icons on the desktop that are not selected are *inactive*.

active window

The currently selected window, which always appears on top of any other window. The title bar in the active window is a different color (blue, by default) or intensity than the title bar in an inactive window.

Adobe Type Manager (ATM)

A Windows utility that, like TrueType fonts, provides WYSIWYG fonts at any point size.

application

A computer program used to perform a certain task. Norton Utilities contains many applications, such as INI Tuner, INI Editor, INI Tracker, File Compare, and INI Advisor as well as many DOS applications. See *also* non-Windows application.

application icon

An icon that represents an open application window. Applications are iconized when you minimize an application window.


application window

A window that provides a work area for an application, such as Microsoft Excel.

ANSI

Acronym for the *American National Standards Institute*. This organization of American industry and business groups develop trade and communications standards.

arrow keys

Keyboard keys used to navigate around your screen. Each key is marked with an arrow that indicates the direction the cursor moves when the key is pressed. The four standard arrow keys are UpArrow ,

DownArrow

, LeftArrow

 and RightArrow

.

ASCII

Acronym for *American Standard Code for Information Interchange*. Numeric values are assigned to letters, numbers, punctuation marks and a few additional characters. Computers and computer programs using these standard codes are able to exchange information.

Values 0 to 31 are assigned as control codes, such as backspace and carriage return, and are generally non-printing characters. In some fonts, these characters represent graphical symbols.

Values from 32 to 127 represent the numbers 0 to 9, common punctuation marks and the upper- and lowercase letters of the Roman alphabet.

Values from 128 to 255 are not part of the standard and are assigned different sets of characters by computer manufacturers and software developers.

associate

To create a relationship between a file extension and an application. Opening any file with that extension launches the application automatically.

association

The relationship that exists between a file extension and an application, such that when you open a file with the specified extension, the application starts automatically.

attributes

Properties of a file. A file on your local disk drives (floppy and hard disks) may have up to four attributes (archive, hidden, read-only and system), or it may not have any. See *also* [file attribute](#).

AUTOEXEC.BAT

A batch file of commands that are executed automatically when your computer starts up. The commands in AUTOEXEC.BAT usually set up the path and the DOS prompt, start up TSRs and execute any other programs that are desirable at boot time. An AUTOEXEC.BAT file isn't required by DOS, but it has almost become a necessity with today's applications.

background

The ability to run more than one application at the same time. While you perform work in one application, other applications can perform tasks using a lower priority processing time. See *also* foreground.

batch file

A file that contains a list of commands to be executed in a "batch" instead of being entered one by one at the DOS prompt. Batch files are typically used to automate routines. DOS batch files usually have a .BAT extension.

benchmark test

A test comparing system performance against known parameters.

binary file

A file that is unreadable as text. Unlike text files, binary files can contain a end of file marker character any within it. This end of file marker is used when reading text files to signify there is no more data to be read.

BIOS

Acronym for *basic input/output system*. Allows the transfer of information between the computer's hardware, such as memory, hard disks and the monitor.

bitmap

A file containing a picture, stored as a set of colored dots called pixels (or picture elements).

boot

The process of loading the operating system into memory as the computer is turned on.

boot sector

A sector at the beginning of each disk that identifies the disk's architecture (sector size, cluster size, etc.). For bootable disks, it also contains a program that loads the operating system.

bootable diskette
See system diskette.

browse

To view the file and directory structure. In many dialog boxes where a filename is required, Symantec software provides a Browse button to help you locate a desired file.

buffer

A portion of memory used to hold data temporarily until it can be transferred to its ultimate destination.

bus

A hardware component that connects different parts of the computer (such as the microprocessor, input/output ports and memory) and allows for transfer of data.

button bar

A row of buttons that let you perform specific tasks, such as copying, moving and deleting items or displaying certain information. For example, Day Planner in Norton Desktop and INI Advisor in The Norton Utilities have button bars.

byte

8-bits or 2 nibbles of memory.

cache (pronounced "cash")

A special area of memory, along with the hardware or software that manages it, that is used to store information that is read from or written to disk. Because your computer can read and write to memory faster than to disk, the cache will contain information that is frequently accessed or that is waiting to be written to disk.

cache block

A group of contiguous sectors on a disk that Norton Cache has either read from or written to. (Similar to a SMARTDrive element.)

cascade

To open windows so that only the uppermost window is fully displayed.

cascading menu

A menu that drops down from a menu item when that item is chosen. The menu item is identified by a right arrowhead that follows the menu item name.

case-sensitive

The discrimination of upper- and lowercase characters.

check box

A dialog box component that acts like a switch, representing an option that you can turn on or off. Some check boxes may have more than two options; each click cycles through the check boxes options. See *also* [three-state check box](#).

clean diskette

A diskette that contains no viruses and is bootable (most easily obtained by formatting a disk with the options set to include make the disk bootable).

click

To press and release the primary mouse button.

clipboard

A buffer area in memory where data is stored when being transported from one Windows application to another.

close

To remove a window from the screen. Closing an application window exits the application.

cluster

The basic storage allocation unit for a disk, comprised of one or more sectors. Disk space is allocated to files in whole clusters.

CMOS

A battery-operated chip in 286 (and more advanced) computers that preserves basic data about the system's hardware.

collapse

To shrink a directory structure so that only directories right off of the root directory are displayed. See *also* expand.

combination box

A dialog box component that combines the capabilities of a text box and a list box. As in a text box, you can enter information into the entry field; like a list box, it provides a list of choices.

command

An instruction that tells the operating system to perform some action or to cause the execution of a certain program.

command button

A rectangular button that carries out the action described by the text on the button. The two most common command buttons are OK (acknowledges a warning or message, or performs an action) and Cancel (closes a dialog box without performing any pending action).

communications settings

Specific variables for allowing one computer to communicate to another. For example, device type, data rate, parity and flow control are communications settings in Norton Mail.

communications protocol

A set of rules designed to allow computers to exchange data with one another with as few errors as possible. Some protocols, such as RS-232-C, refer to hardware standards; others, such as XMODEM, refer to file transfer protocols. See *also* flow control.

compressed file

A file that has gone through an encoding process to make the file smaller in size. Several files can be compressed together.

CONFIG.SYS

A file containing commands that configure a system's hardware and load device drivers; it is automatically executed by DOS when your system starts up.

context menu

A menu that appears when you click the right mouse button in certain applications. The menu that appears relates to operations that can be performed on the currently selected object.

Control menu

A menu that allows you to manipulate a window, dialog box or icon, or switch to another application or document. The Control menu is revealed when you click the Control-menu box. Sometimes called the *System menu*.

Control-menu box

Located in the upper-left corner of each window or dialog box. When you click this box, the Control menu drops down. Sometimes called the System box.

Control Panel

A Windows application that allows you to modify the Windows environment, such as adding printers and fonts, or adjusting the tracking speed of your mouse.

CONTROL.INI

An initialization file that stores configuration information used by Control Panel.

conventional memory

The first 640K of RAM in a computer.

CPU

Abbreviation for *central processing unit*. The portion of a computer that performs computations, executes instructions and transfers information between all parts of the computer. Microcomputers contain single-chip central processing units, or microprocessors.

current directory

The directory that you are currently working in.

data area

The area on a disk where data files are located. This includes all of the disk except the system area.

data rate

The speed at which a computer communicates to a device. Such devices include modems and printers.

database

A compilation of data consisting of a number of records (or tables), each constructed of fields of a particular type, together with a collection of operations that facilitate searching, sorting, recombination, and similar activities.

decimal

The base-10 representation of a number, or a number displayed to the right of a decimal point.

default button

In a dialog box, the command button that is selected by default. It has a thicker border than the other command buttons. Pressing Enter is the same as clicking the default button.

desktop

The screen background on which windows, icons, and dialog boxes appear.

device-based font

The internal fonts used by output devices such as printers.

device contention

When more than one device is trying to communicate with the CPU using the same port address(es). Also known as an address conflict.

device driver

A program that allows a computer to communicate with a device, such as a printer or modem. There are three types of device drivers that can be used while in Windows. The first are DOS device drivers loaded from CONFIG.SYS and AUTOEXEC.BAT. The second are virtual device drivers loaded and managed by Windows (but only available in enhanced mode). The last are installable drivers which are DLLs that are used as device drivers.

device type

One of many methods a computer communicates. Such devices include network interface cards (NIC), serial (COM) ports and device drivers. A device type can be either hardware or software.

dialog box

A special kind of window that either requests or provides information.

dimmed

An unavailable menu item. A dimmed item cannot be accessed and appears in light grey.

directory

A way of grouping files together on a disk. The root directory contains files and other directories, called subdirectories.

directory tree

A graphical representation of the directories on a disk.

diskette

This is magnetic medium for storing data, also called a floppy disk or disk.

dithered

A display-rendering technique that enables the display of more colors than a display adapter is capable of through the use of colored dot patterns that, when combined, simulate a solid color.

direct memory access (DMA)

Memory access that does not require the use of the microprocessor. Such memory access is used for data transfer between memory and a peripheral, such as a hard drive.

document

A file that is created by or associated with an application.

document icon

An icon that represents an open document window. A document is iconized when you minimize a document window.

document window

A window that displays an application document, such as a spreadsheet or text file.

DOS

Acronym for *disk operating system*.

DOS prompt

The interface to the DOS operating system. It is a visual cue that prompts you for a command, usually displayed as A:> or C:>.

DOS window

A way to access the MS-DOS operating system to execute DOS applications through the Windows graphical environment.

DOSAPP.INI

This is a file kept by Windows to store information about DOS applications when they run in a window.

double buffering

A SMARTDrive feature that provides compatibility for hard-disk controllers that cannot work with virtual memory.

double-click

To press the primary mouse button twice, in rapid succession.

Dr. Watson

An application that monitors the Windows environment for errors. When an error, or GPF, occurs, Dr. Watson appears, allowing you to enter the actions you performed before the GPF occurred.

The information you enter, including a detailed status of the Windows environment, is logged to a file called DRWATSON.LOG. This file can then be used to troubleshoot application defects at the programming level.

draft mode

A high-speed, lower quality display that uses fewer dots to render characters or images, thereby increasing display speed.

drag

To hold the primary mouse button down while moving the mouse in a given direction. For example, you can use this technique to choose a menu item, move or resize a window, or as part of a drag-and-drop operation.

drag-and-drop

A feature that lets you use the mouse to perform complex operations with instant visual feedback. This feature involves dragging a file, directory or icon from one location and "dropping" it (by releasing the mouse button) on another location.

drop-down combination box

A special type of combination box that reveals a list of choices when you click its prompt button.

drop-down list box

A special type of list box that reveals a list of choices when you click its prompt button.

drive icon

An icon representing a disk drive. Drive icons can include your local floppy, hard, RAM, Bernoulli, and CD-ROM drives, as well as all network drives to which you are connected.

dynamic data exchange (DDE)

A Windows feature that allows applications to exchange information and commands.

dynamic link library (DLL)

A Windows executable file that enables applications to share code and other resources necessary to perform particular functions.

embedded object

An item that was created in one document and inserted into another.

EMM386.EXE

Microsoft's expanded memory manager. A device driver used to simulate expanded memory by using extended memory.

enhanced mode

Sometimes called 386 Enhanced mode. One of two modes in which Windows 3.1 runs (the other is Standard mode). It requires a 386-class processor (386, 486, or 586) and at least 2MB of RAM. To run in Enhanced mode effectively, at least 4MB and optimally 8MB of RAM is recommended.

Enhanced mode is superior to Standard mode because it uses virtual memory (which gives you more room to run applications) and lets you run multiple DOS applications, even in the background. In Enhanced mode, Windows can also simulate expanded memory for the DOS applications that need it.

environment space

An area in memory that contains the values of the operating system's environment variables.

environment variable

A variable used to store a piece of information needed by the operating system, such as the directories in your path, the location of the command processor (typically COMMAND.COM) and what to put in your DOS prompt. Environment variables are generally set up in the AUTOEXEC.BAT and CONFIG.SYS files.

EPR0M

Acronym for *Erasable Programmable Read-Only Memory*. An EPR0M chip is erased by exposing it ultraviolet light. It is usually programmed by using excessive voltage levels.

event

A message or program scheduled to execute at a specific time.

EXCLUDE.INI

An INI file that is created when you define INI Tracker exclusions in File Compare. It contains INI Tracker exclusions.

.EXE file

An executable file that contains a program and, sometimes, the icons that are used by that program.

executable file

A file containing a program that can be run by DOS or Windows.

expand

To display a directory structure in full so that all subdirectories can be seen. See *also* collapse.

expanded memory

A way of provided additional memory by mapping memory into a space know as the page frame, which exists between the 640K boundary and the 1 MB boundary. This is accomplished through the use of a special expanded memory board. Expanded memory can also be simulated from extended memory with special software.

Note that the only time you need expanded memory under Windows is when the DOS programs you're running need it. Even then Windows can simulate expanded memory for them in Enhanced mode.

extended memory

System memory located above 1 MB, accessible when the processor is running in protected mode or virtual real mode. Generally, extended memory is not available to MS-DOS programs, but can be utilized if memory management software is present.

extension

The one, two or three letters after the period in a filename. In the filename AUTOEXEC.BAT, the extension is .BAT. An extension often identifies the type of file; for example, .EXE identifies an executable file, whereas .DOC is a common file extension for files created by word processors. See *also* associate.

file allocation table (FAT)

A table in the system area of each disk that identifies each cluster as free, belonging to a file, or bad.

fax

Abbreviation for facsimile, the transmission of graphics or text over telephone lines in digitized form.

file attribute

A DOS setting for a file that indicates a trait of the file. File attributes can also restrict a file's use.

- r** Read-only (can't be deleted or modified)
- a** Needs to be archived (hasn't been backed up)
- s** A DOS system file (usually hidden)
- h** Hidden (is not displayed using the DOS DIR command)

file extension

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File Manager

A Microsoft Windows application used for managing directories, files and network connections.

file set

A list of one or more wildcard file specification patterns that describes which files to find. The list can be separated by spaces or commas and any element [can be preceded by a space or comma and a hyphen \(-\)](#) to indicate "except files matching this pattern." If a hyphen is preceded by some character other than a space or comma, it is assumed to be part of the filename.

file specification

Determines a file or set of files that is the target of some operation, such as copy, erase, or find. A file specification may include DOS wildcard characters, as in *.EXE, or ???90.DOC.

file type

The classification of a file usually distinguishable by the last three characters of the filename. For example, files with the EXE and COM extension are program files. TXT is for text files and BAT is for batch files.

filter

The process of eliminating information that does not conform to a predefined set of specifications.

floppy disk

One of several types of media for storing information; usually refers to either a 5¼-inch or a 3½-inch format.

flow control

A signal that acknowledges that communication or the transfer of information can take place. When a modem or computer receives data at a faster rate than it can process, data is stored in a special area of memory called a data buffer. Flow control, also called handshaking, prevents data loss by temporarily halting data transmission when the buffer approaches its capacity. Handshakes can be controlled by either hardware or software. A hardware handshake, as between a computer and a modem, is an exchange of signals, over specific wires, in which each device signals its readiness to send or receive data (see RTS/CTS). A software handshake, usually exchanged during modem-to-modem types of communication, consists of actual information transmitted between the sending and receiving devices. A software handshake establishes agreement between devices on the protocols that both will use in communicating. See *also* protocol, XON/XOFF.

focus

A control in a window or dialog box has the focus when the next user action performed will be carried out on that control and not another. Controls that have the focus are surrounded by a thin border that distinguishes it from other selectable items. An item in focus is not necessarily selected.

font

A font is a collection of typefaces or styles used to give your text a particular look.

foreground

The ability to run more than one application at the same time. The application that is receiving the highest priority is considered the foreground application. This is normally the application receiving input from the keyboard or mouse. See *also* [background](#).

gigabyte (GB)

(pronounced "jig-a-bite" or "gig-a-bite")A gigabyte is 1 billion bytes or 1000 megabytes.

General Protection Fault

Signifies that something unexpected happened in the Windows environment. GPFs are usually caused by programs making improper memory accesses. The program tries to access a memory location that it should be able to access and ends up overwriting the program code that is already there. This is usually a temporary memory conflict which goes away when you restart Windows.

Graphic Device Interface (GDI) fonts
Fonts use to display text on your screen.

graphics

The display of bitmapped images.

group

A collection of related applications, documents, or other groups. A group is represented by an icon in a group window; when you open a group icon, you see a group window displaying the contents of that group. A group can contain group item icons as well as icons representing any groups that are nested within it.

group box

A dialog box component that organizes related choices. A group box consists of a title and a border and often contains check boxes and/or option buttons.

group item icon

An icon that represents an application or accessory, or a document associated with an application. Group items appear in a group window.

group window

A window containing group item icons.

handshaking

A signal indicating that the devices involved are ready to communicate. Handshakes can be controlled by either hardware or software. A hardware handshake occurs when the two devices send signals over specific wires, indicating they are ready to send/receive data. A software handshake occurs when actual information is sent between the two devices. See [flow control](#).

hexadecimal

The base-16 representation of a number.

hidden attribute

Assigned to critical files to make them harder to access and more difficult to delete than other files.

highlighted

Indicates that an item is selected and will be affected by your next action.

high memory area (HMA)

The first 64K of extended memory. The HMA is available only when an extended memory manager (such as HIMEM.SYS) is present.

HIMEM.SYS

A device driver that controls all extended memory, establishes the XMS (Extended Memory Specification), and creates the HMA (high memory area).

history

Reference to past actions. History can be composed of time or sequences. For example, a history log could be created based on the loading order of files.

hourglass pointer

Indicates that Windows is doing some behind-the-scenes work to complete a task.

.ICO file

An icon file that contains one, and only one, icon.

icon

A graphical representation of an application, a document, a drive, a group, or a group item.

icon file

A file containing a single icon usually having an .ICO extension.

iconize

To shrink a window into an icon. See *also* minimize.

import

A command that transfers one file format into the workspace of the currently opened document.

INI file (initialization file)

(pronounced "in-ee" or "eye-en-eye") A file that contains initialization information intended for Windows and/or specific Windows applications. Of particular importance to Windows are the SYSTEM.INI and WIN.INI files, located in your WINDOWS directory.

insertion point

A blinking vertical bar that indicates where typed or pasted text will be inserted.

interrupt 13H

A common BIOS interrupt that handles most sector level disk read and write operations to floppy and hard disks.

interrupts

A signal sent by a hardware device or by software that causes the CPU to stop what it is doing and execute special instructions determined by the signal.

jump

A jump is graphics and/or text in Online Help that link to other Help topics or to more information about the current topic.

kilobyte (K)

(pronounced "key-low-bite") One thousand twenty-four bytes.

keyboard buffer

A small area of memory used to store characters that have been typed but not yet processed. Also called *type-ahead buffer*.

keyname

The part of the statement that defines a value. A keyname can consist of any alphanumeric character, not including punctuation. In most cases, the keyname must be followed by an equal sign (=).

keyword

Any word used as a command in a programming language. Additional words, such as the names of constants or error codes, can also be keywords. Also called *reserved word*.

launch

To start or run an application, with or without a related document.

list box

A dialog box component that contains a list of available choices.

lost cluster

A cluster that contains current data but, because of errors in the FAT or other directories, the file that owns it cannot be determined.

macro

A set of keystrokes and instructions saved under a shortcut key code. When you enter the shortcut key, the instructions in the macro are performed. Macros are used to save time by replacing long keystroke combinations with shortcut key codes.

master boot record

Contains information on how to read and decipher the disk partition table contained at the end of the master boot record.

maximize

To enlarge a window to its maximum size by using the maximize button (to the right of the title bar) or the maximize command from the Control menu.

Maximize button



A component of a window that zooms the window to full-screen size.

memory

Computer hardware that stores data and provides for retrieval of the data. Generally, the term memory refers to RAM, which is used to run applications as well as temporarily store data during program execution.

menu

A list of options that a user can choose in order to perform an action.

menu bar

A component of a window that contains the available menus, listed by menu name.

megahertz (MHz)

A measure of frequency in million cycles per second.

MIDI

(pronounced middy) Acronym for *Musical Instrument Digital Interface*. A software and hardware standard that allows computers, music synthesizers and musical instruments to exchange information.

minimize

To reduce a window to an icon on the desktop. You usually minimize windows when you want a process to run in the background while you do something else. Minimize a window by clicking the minimize button (also called *iconize*).

Minimize button



A component of a window that shrinks the window into a small icon.

monospaced

Letters spaced so that every letter is given the same width of space (for example, the space for an "i" is as wide as the space for a "w").

NDW.INI

A startup file that contains setup and configuration options used with Norton Desktop and its various tools.

network interface card (NIC)

A circuit board that is used to connect a computer to a local area network.

non-text file

A file that is unreadable as text only. Many files fall into this category, including binary files, document files, and so forth.

non-Windows application

An application that is designed to run with DOS but not specifically with Windows. By default, when a DOS application is executed it appears as a full DOS screen. You can press Alt+Enter at anytime to reduce the screen to a window (in enhanced mode only) or what is often referred to as a DOS window. The DOS window can be moved and sized like a normal window. Since the DOS application is not a Windows application, the Control menu contains settings that can be adjusted while the DOS application is running. If you are at the DOS prompt, type `EXIT` to close the DOS screen and return to Windows.

Norton Cache

A Norton Utilities disk cache program that helps your computer work faster by using memory to hold data read from and written to disks. Since computers read and write to memory much faster than to disk, a disk cache speeds up both of these operations noticeably.

object

A group or a group item icon that appears in a group window.

object linking and embedding (OLE)

A way to transfer and share information between applications. OLE enables applications to share data from another application by embedding an item, sometimes a graphics object, within a document. The object within the application is linked with another application. When the object is selected the server application is launched in order to edit the object.

octal

The base-8 representation of a number.

OEM text

Your machine's default DOS character set. OEM is an acronym for *Original Equipment Manufacturer*. The DOS character set contains characters beyond A to Z (called extended characters) that represent graphics such as line segments or shapes. Windows uses the ANSI character set which uses different extended characters. Text files that are created using the DOS or OEM extended characters will not display correctly in Windows.

OLE

See object linking and embedding.

open

To launch or start an application or process. You can open several items on the desktop. Some items may run an application, others may open groups. For example, you can select a text file with a .TXT extension from the drive window and choose Open from the File menu. The file will be presented to you through Notepad or Desktop Editor. Another example is highlighting a group icon and choosing Open from the File menu. The group window will be displayed.

option button

A dialog box component that represents a mutually exclusive choice. Option buttons always appear with at least one other button, one of which is the preset choice. Sometimes called a *radio button* by programmers.

palette

The set of colors available for painting to the display.

parallel interface

A method of data transmission. Information (both data bits and control bits used to delineate the data) are sent simultaneously over wires that are connected in parallel.

parallel port

A computer's input/output connection that uses a parallel interface for data transmission.

parity

In communications, parity refers to an error-checking procedure in which the number of 1's must always be the same--either even or odd--for each group of bits transmitted without error. In typical modem-to-modem communications, parity is one of the parameters that must be agreed upon by sending and receiving parties before transmission can take place. Parity can be computed in any of the following ways:

Even: Adding the data bits and the parity bit yields an even number. If a character with an even number of bits arrives with the parity bit set to 1, an error must have occurred during transmission.

Odd: Adding the data bits and the parity bit yields an odd number. If a character with an odd number of bits arrives with the parity bit set to 1, an error must have occurred during transmission.

Mark: Works the same way as Space, except that the parity bit is always set to 1. Also referred to as *bit forcing*.

None: There is no parity bit.

Space: Sometimes a parity bit is used, but it is always set to 0. If a character is received with a parity bit set to 1, an error may have occurred during transmission. Space can also be used to transmit seven-bit characters to a device that is expecting eight-bit characters. Also referred to as *bit trimming*.

partition

A logical portion of memory or a hard disk that acts a separate unit. A single hard disk can be divided into several partitions (using MS-DOS), where each partition acts as if it were a separate physical disk.

partition table

A table in the system area of a hard disk that identifies which sectors belong to which partitions.

path

Path has a dual meaning. The primary meaning is the DOS PATH= statement that lists the directories where DOS automatically searches for files when it cannot find requested files in the current directory. A PATH= statement is typically placed at the beginning of an AUTOEXEC.BAT file. One advantage of specifying a path is that programs located in directories listed in the path can be executed from any directory.

Path also means the location of a file from the root directory. In other words, the "path" that must be taken through the directory tree to get to a file.

permanent swap file

This swap file is allocated in contiguous space on your hard drive that cannot be moved. This allows for faster access to the file since the hard drive does not have to jump around the hard drive to find information.

PIF

Acronym for *program information file*. A PIF contains information that tells Windows how to run the DOS program associated with it. If a DOS program does not have its own PIF, Windows runs the program using the settings in _DEFAULT.PIF.

pixel

A graphic element, the smallest building block used to create an image on the display.

point

To position the mouse pointer over an object (a window or menu, for example).

port

The portion of a computer or a hardware device through which data is sent or received. Ports are used to connect computers to devices such as printers, monitors and modems.

primary mouse button

The mouse button you use the most. In most cases it is the left mouse button. See also [secondary mouse button](#).

printer driver

A loadable module that contains specific information for printing to a specific printer.

PROGMAN.INI

An initialization file that stores information about what should appear in the Program Manager window when you run Program Manager.

program file

An executable file that launches an application. A program file has an .EXE, .PIF, .COM or .BAT extension. For example, PROGMAN.EXE is the program file to launch Windows Program Manager.

Program Manager

A Microsoft Windows application that acts as the default shell (interface) for the Windows operating system. From Program Manager you start other applications and organize applications and files into groups. During the installation of NDW, you might have elected to replace your current Windows shell with NDW. If so, Norton Desktop always appears when you start Windows.

PROM

Acronym for *Programmable Read-Only Memory*. A chip that can only be programmed once. An EPROM can be programmed more than once.

prompt button

The small box to the right of a drop-down list or combination box. When clicked, a list of choices in alphabetical or historical order appears.

protected mode

One of two states of processing for an 80286, 80386, 80486, or Pentium processor (see real mode). Provides the capability of multitasking, by allocating memory to various processes running concurrently so that memory used by one process does not overlap memory used by another process. Protected mode maps areas of the CPU as virtual 8086 processors, and assigns tasks to them. Up to 4 GB of memory can be addressed when in protected mode.

protocol

A set of rules designed to allow computers to exchange data with one another with as few errors as possible. See *also* [communications protocol](#).

push button
See [command button](#).

QEMM/386

A Windows-compatible memory manager by Quarterdeck Office Systems, Santa Monica, CA.

queue

A type of buffer where the first piece of information placed into it is also the first to be removed. A print queue (like Print Manager) is a good example of how queues work in general.

RAM

Acronym for *random access memory*. Memory that can be read from and written to by the microprocessor and other hardware devices.

raster fonts

Fonts stored as pixel patterns, where each pixel has a specific height and width that can only be scaled to some multiple of its current size. Also called *bitmapped fonts*.

read-only attribute

Protects a file from being modified or deleted.

real mode

Allows an 80286, 80286, 80486, or Pentium processor to emulate an 8086 processor and run only one process at a time. When in real mode, only 1 MB of RAM may be addressed. Real mode allows one application to run at a time, with free access to memory and all input/output devices.

Real mode is the only operating mode supported by MS-DOS.

Restore button

A component of a window that returns a window to its previous size (the size it was before being maximized or minimized).

ROM

Acronym for *read only memory*. Semiconductor memory that can be read from but not written to, containing instructions and/or data. ROM can also be used to refer to any type of read only memory, including PROM and EPROM.

root directory

The highest level directory. From the root directory, you can store files and create other subdirectories.

RS-232-C

An industry standard for serial communication connections. Specific lines and signal characteristics are used to control the transmission of serial data between devices.

RTS/CTS

Request to send/clear to send. RS-232-C signals used in hardware flow control to pace information sent from one device to another.

sans serif

An absence of flourishes from the extremities of letters (serif fonts contain these flourishes).

screen saver

An application that clears your screen in order to protect it from screen damage caused by areas of light and dark displayed for long periods of time. Screen savers now feature moving pictures, art and entertainment.

scroll

To move a document in a window in order to see a different portion of the document.

scroll bar

A bar that appears along the right side and/or bottom of a window or list box when it contains more than can be displayed in the window.

SCSI

(pronounced scuzzy) Acronym for *Small Computer System Interface*. A standard interface that is used to connect computers to devices such as hard disks and printers. You can connect to seven SCSI devices together--called a daisy chain--and connect them to a single SCSI port on the computer.

secondary mouse button

The mouse button you use the least. This is generally your right mouse button.

section

A label grouping statements in an initialization (.INI) file. Generally, the section name indicates a specific aspect of the Windows environment, such as `[desktop]`, or `[Word for Windows 2.0]`. The brackets (`[]`) are required, and the left bracket must be in the leftmost column on the screen.

sector

The basic unit of data on hard and floppy drives. Typically, a sector is composed of 512 bytes of data, although it can also be 1024 bytes.

separator line

A horizontal line that divides a menu into logical groups of menu items.

serial interface

A method of data transmission. Information (both data bits and control bits used to delineate the data) are sent sequentially over a single transmission line.

serial port

A computer's input/output connection that uses a serial interface for data transmission. See *also* RS-232-C.

serif

Flourishes that decorate the extremities of letters to make them distinctive and easier to read (fonts without the flourishes are called *sans serif*).

server application

A Windows application that creates objects that can be linked and embedded into other documents.

shell

An interface between you and the operating system, whether its Windows, DOS, UNIX, or otherwise. Shells allow you to launch programs and manage files to varying degrees.

Windows' Program Manager is a graphical interface that acts as a shell.

shortcut key

A key combination that allows you to quickly carry out a particular command without choosing a menu item.

shred

In computer terms, to completely obliterate data from a disk by overwriting it with one or more values.

slack

Unused space at the end of a cluster when a file does not occupy the entire cluster. Data from previous files might remain in the slack area.

SMARTDrive

A Microsoft disk cache program.

sort

To group a range of items, such as files or directories, according to a given parameter. For example, you can specify a range of files to sort according to date or starting letter.

source directory

The directory that contains the files to be copied or moved.

source diskette

When copying the contents of one diskette to another, this is the diskette that contains the files to be copied.

SPART.PAR

This is a read-only file kept in your Windows directory when a permanent swap file exists. It tells Windows where, and how large, the permanent swap file, 386PART.PAR, is.

The Norton SpeedDrive

This is a disk cache product sold by Symantec. It is an enhanced version of NCache (which is included with Norton Utilities). It includes a CD-ROM cache and Windows tuning and benchmarking programs.

spin button

A Windows dialog box control that allows you to cycle through a series of values such as column letters or row numbers. By clicking the up or down arrow buttons, you can raise or lower the values.

Standard mode

One of two modes in which Windows 3.1 runs (the other is 386 Enhanced mode). Standard mode requires a 286 processor and 1MB of RAM. It can run faster than Enhanced mode because it doesn't use virtual memory. However, you can only run a single DOS program at a time, and only in full-screen mode. When you shell back to Windows, the DOS app stops until you return it to the foreground. To run Standard mode on a 386-class machine, type WIN /S to start Windows.

status bar

A component that displays information about a process, function or selected item. The status bar normally appears at the bottom of a window or dialog box.

system (or startup) files

The group of files used to start and/or configure DOS and Windows. These files include:

AUTOEXEC.BAT

CONFIG.SYS

WIN.INI

SYSTEM.INI

statement

A statement is a text entry in an .INI file comprised of both keyname and value.

subdirecotry

A directory within another directory. Also see [root directory](#).

swap file

A hidden file on your hard disk set aside for use by Windows in 386 enhanced mode. Windows uses this area to temporarily hold information from memory in order to free memory for other applications. The swap file is normally created in the root directory of your hard drive and named is **386SPART.PAR**.

system area

The first sector on a disk, where DOS stores the control information it needs to access the files on the disk. The system area, also called the *master boot records*, include the partition table, FAT and root directory.

system attribute

Marks a DOS or system-related file.

system diskette

A diskette that contains the DOS files necessary to start, or boot, a computer. Also known as a bootable diskette.

System menu
See Control menu.

SYSTEM.INI

A startup file that contains lower-level Windows configuration settings. The settings in this file help Windows run on a wide variety of DOS-based systems.

target diskette

When copying the contents of one diskette to another, this is the diskette to which the files will be copied.

task

An event that is to be completed but is not limited by time. For example, going to the store or walking the dog is a task. Whereas going to the dentist or seeing an auto mechanic is an appointment.

Task List

The Task List displays all of the currently running applications. Use the mouse to select an application from the list to switch to a task.

temporary file

A temporary file is used to store information while performing transitional operations. A good example is a temporary file created by a word processor that is used to store changes until the user decides to save the file.

Windows usually creates temporary files for applications automatically, and as requested, with an initial tilde character (~) and an extension of .TMP. The files are stored in the directory specified by either the TEMP or TMP environment variable.

text box

A rectangular box (usually a single-line high) within a dialog box, into which you type the information needed to complete an action. It may be blank when it first appears, or it may contain text.

text file

A file containing only letters, digits and symbols. A text file usually consists of characters coded from the ASCII character set. Generally text files are characterized by their .TXT extension. However, not all text files have a .TXT extension. For example, [AUTOEXEC.BAT](#), [CONFIG.SYS](#), [WIN.INI](#), [SYSTEM.INI](#) and [NDW.INI](#) are all text files.

three-state check box

A three-state check box has three possible states:



Gray-filled: Ignore the attribute or condition.



Checked: Include the file if the attribute or condition *is* true.



Cleared: Include the file only if the attribute or condition is *not* true.

Click the check box (or press Spacebar) until the check box is in the desired state. See *also* [check box](#).

tile

To set open windows next to each other so that all windows are clearly visible.

timeout

If a device is not performing a task, the amount of time a computer should wait before detecting it as an error.

time slice

Multitasking uses a time slice, or that gives each task the CPU's processing time for a fraction of a second.

title bar

The part of a window or dialog box that shows either the name of the application running in the window, or the name of the dialog box. The title bar in the currently selected, or *active*, window is a different color or intensity than the title bar in an inactive window.

toggle

n. An object that can be selected or deselected (or turned on or off) with the same action.

v. To select or deselect an object (such as a check box or menu item) using the same control or action.

tool icon

In Windows, an graphical representation of a Norton Desktop tool that is displayed on the desktop.

toolbar

A row of command buttons displayed in an application window that provides quick mouse access to tools specific to the window containing the toolbar.

topic

A brief description defining a written subject.

TSR

Acronym for *terminate-and-stay-resident program*, also known as a memory-resident program. A program that loads itself into memory the first time you run it and remains there until you turn off your computer or restart it.

upper memory blocks (UMB)

A portion of the upper memory area that is unused. On an 80386 or higher computer, memory management software can be used to copy information that is normally held in conventional memory into upper memory.

undo file

Before the Norton Disk Doctor makes changes to your disk, you can create an undo file that preserves the current disk structure in case you need to reverse the changes.

value

An expression that defines what the keyname is set to. Values can consist of any integer, string, or quoted string using any alphanumeric character. A keyname with a value instructs Windows to use the default value for that keyname.

vector fonts

Fonts stored as a series of line segments, which allows them to be scaled to any size. Also called *stroke fonts*.

virtual device driver (VxD)

A device driver for Win386/DOS386. The original function of a VxD was to extend Win386 so that it could support multiple virtual machines (VM). Thus, VxDs imitate hardware so that multiple VMs could run and "think" they were the only VM running.

The VxD is now taking on a more traditional device driver role as Windows progresses to newer versions. VxDs allow for device independence by providing a common set of functions for each hardware device.

virtual memory

The physical space on your hard drive that is used as actual memory by Microsoft Windows. Your hard drive's physical space is reserved in a hidden file called a swap file.

virus

A computer virus is a program (executable code segment) designed to attach itself to other executable applications. The virus copies itself into an application and is activated when the application is launched. While active, it replicates by copying itself to other applications on any available disk. Many viruses perform malicious and destructive acts of sabotage to disk data.

volume label

An optional name that may be given to each disk. It is displayed in the drive selector on drive windows, as well as in the text displayed by the DIR command at the DOS prompt.

wallpaper

A graphics image that is displayed on the desktop background.

wildcard

A global filename character that represents all or part of a filename. The question mark (?) represents a single variable and an asterisk (*) represents a series of up to eight question marks.

WIN.INI

A file containing information and parameters to control your Windows environment. For example, WIN.INI stores the desktop color preferences you've chosen or the Windows applications you want to start automatically.

window

A framed area in which you can run an application, view a file listing or a document, or perform a task. A window can be opened, closed, resized and moved.

window corner

One of the four corners of a window used to resize the window.

window frame

The four sides of a window that define its border.

WINFILE.INI

This INI file provides settings that relate to the Windows File Manager.

WINSTART.BAT

This is a batch-file that Windows looks for and executes before starting Windows in enhanced mode. The purpose of this file is to load TSRs you want available in DOS sessions under Windows, but not in Windows itself.

For example, if you want to be able to use the mouse in DOS windows create the WINSTART.BAT file with the command line to load your mouse driver. That way, when you exit Windows, the mouse driver is unloaded and you don't lose any DOS memory you had before starting Windows.

word processor

An application designed specifically for the manipulation of text.

workspace

The large central editing area of the Icon Editor window. Icons in the workspace are considered work in progress; to ensure your work is saved you must copy the contents of the workspace into the icon selector list before it becomes a part of the library or is saved to a file.

wrap

More commonly referred to as "word wrap," the continuation of text on a following line when the text has reached the boundary of the previous line. For example, as this text is displayed within this pop-up box, the text is automatically wrapped to the next line.

WYSIWYG

Acronym for *What You See Is What You Get*. Often used in word processing programs to describe the effect that whatever is on the screen is what the document will look like when it is printed.

write-caching

The technique of temporarily storing information to be written to disk in the cache buffers and writing all the information at once at a later time (whenever the cache is full or when your computer is not busy doing anything else).

XON/XOFF

The most common of protocols established to govern software handshaking. Under this protocol, the receiving device sends a specific character when it wants the transmitting device to stop sending characters. It sends a different character when it wants the transmission to resume.

API

Acronym for *application programming interface*. API is used to refer to a set of common functions and/or subroutines used to implement a particular feature. Microsoft has several APIs including the Windows API, Win32 API, Win32s API, OLE API, MAPI, and Telephony API.

Many times API is misused, referring to each function or subroutine as its own API. The set of functions that are used in Windows is the Windows API. The function WinExec is not an API, but an API function (or call).

adapter area

The adapter area is a portion of DOS memory typically used to for installable extensions to ROM. Installable extensions can be video adapters, network adapters, and so forth. The typical address range is usually between the segments C000h and EFFFh.

asynchronous

Asynchronous is used to describe communication processes that do not always occur during a fixed time period. Many operations on a computer are asynchronous, the most notable is serial communications via COM ports.

Synchronous is the opposite of asynchronous.

ACC bit

The ACC bit is used to indicate whether a given page of memory has been accessed, either for reading or writing. Windows performs two operations with this bit. One is to determine if a page can be swapped out of memory because the ACC bit is not set (indicating that the memory in it hasn't been accessed). The other, is to reset the bit at predetermined intervals so the memory pages that become inactive are found and swapped to disk by the first operation.

The ACC bit is located in each page table entry along with the dirty bit which indicates that the memory has been written to.

80386 expanded memory emulators

Expanded memory emulators take advantage of the 80386 (and higher processors) protected mode memory addressing capabilities. Using protected mode, these emulators (EMM386, QEMM, and 386MAX have emulator capabilities) simulate expanded memory to real mode applications.

applet

One of the "mini-programs" located in INI Tuner and Control Panel. Applets have many of the same properties as applications. However, applets reside in special DLLs that have .CPL extension and more than one applet can reside within a .CPL file.

16550 Universal Asynchronous Receiver Transmitter (UART)

A chip in PC computers that is used for serial communications. It replaces the older 8250A and 16450 UART chips found on many PCs.

The 16550 UART overrides the older chips' limitations. It can buffer up to 16 characters before generating an interrupt (the older chips generate interrupts after every character). It also recovers faster from interrupts to continue processing.

This chip is a must addition for computers using external communications devices (usually a modem) in excess of 9600 bits-per-second (bps) within Windows. Without it, many programs will not achieve the maximum throughput of the device.

A20 handler

A routine needed to access extended memory. A20 handlers use the last address line on the address bus (which contains 20 bits, A20 being the last) to access extended memory (including the high memory area (HMA)).

Most extended memory managers are able to determine this value on their own. However, there are times when it must be specified in order for extended memory to be accessed properly.

A20 enable count

This is the value used to determine which A20 handler to use. For HIMEM.SYS these values can range from 1 to 14.

breakpoint

Used to stop program execution so another can run. Breakpoints are usually used for debugging software and can be implemented in hardware or software.

Windows also uses breakpoints to perform many of its internal operations.

BIOS data area

An area at a low RAM address that stores important BIOS data, like amount of RAM installed, interrupt vector table, etc.

baud rate

The number of line signal variations per second. It is commonly misused as a synonym for bits-per-second. This can be the case if one signal change marks one bit. However, not all communication standards work in this manner.

critical section

A sequence of instructions in a program that depends on limited or unique resources. Execution of a critical section must be carefully managed. For example, most DOS interrupt calls are critical sections for Windows programs, because DOS is not reentrant.

A program claims a critical section when it wants to prevent reentry into some program code. Other virtual machines are prevented from executing this program code that the critical section protects.

CGA

Acronym for *Color Graphics Adapter*. In the evolution of PC display adapters the CGA came second after the monochrome display adapter (MDA). CGA cards are capable of several video modes but have a limit of four colors for graphics and 16 for text.

DOS data structures

DOS data structures are used to maintain all the information DOS needs to operate.

DOS Extender

A program (or library) that allows DOS programs to run in protected mode. Windows provides DOSX.EXE which gives Windows Standard mode this capability.

DOS transfer buffers

Used by Windows to perform DOS operations. When Windows needs to communicate with DOS it cannot use memory above 1 MB to pass information back and forth. Therefore, Windows maintains DOS transfer buffers in conventional memory so that DOS will recognize and be able to use them.

data packet

A grouping of information (in bit form).

encryption algorithm

Used to encipher bits. Typically, encryption algorithms map n input bits to n or more output bits.

EGA

Acronym for *Enhanced Graphics Adapter*. In the evolution of PC display adapters the EGA came the *Color Graphics Adapter (CGA)*. EGA cards are capable of several video modes but have a limit of 16 colors for graphics and text.

EMM

Acronym for *expanded memory manager* (also called expanded memory driver). A program that serves as the interface between applications and expanded memory.

EMS

Acronym for *expanded memory specification*. This is a standard developed by Lotus, Intel, and Microsoft for communicating between expanded memory managers and programs requiring expanded memory.

extended BIOS device

These are devices that use the extended ROM BIOS data area (that is allocated by BIOS from RAM). PS/2 computers typically use this area as transient (or temporary) storage for additional devices such as the mouse.

EISA

Acronym for *extended industry standard architecture*. This is a style of computer bus based on the ISA bus. It has advanced features that are not available on ISA buses.

file handles

Contains information about an open file. Every file currently open while using a PC under DOS must have a file handle associated with it in order to access the file.

grabber

Supports data exchange between Windows and non-Windows applications. The majority of data exchange handled is related to displaying the non-Windows application.

interrupt reflector stacks

Used to communicate interrupts from a virtual machine (VM) to Windows.

INT 2Ah

This interrupt is used as the critical error handler by DOS. A typical example of when this interrupt is used is when trying to obtain a directory listing from an empty floppy drive. This, by default--through this interrupt, causes DOS to display "Not ready error read drive A, Abort Retry, Ignore?"

INT 2Fh

Provides a general mechanism to verify the presence of a TSR and communicates with it. Known as the multiplex interrupt, this interrupt allows for several TSRs to use by requiring a unique identification value for each TSR. If this interrupt is invoked, each TSR checks the identification value and, if it matches the TSR's, executes the desired function.

INT 33h

This is the interrupt used to communicate with the pointing device (mouse). When a mouse driver, or Windows, is loaded this interrupt becomes active.

INT 9h

This interrupt is triggered by the keyboard whenever a keyboard key is pressed or released. The handler for this interrupt reads the key information and places it into the keyboard queue.

INT 16h

This interrupt interfaces the keyboard and its queue with applications. When an application wants to check for if key has been pressed, or otherwise communicate with the keyboard, this interrupt is usually used.

INT 28h

This interrupt is typically used by TSRs to take advantage of idle time in DOS. When DOS is polling for console input or output (such as keystrokes or waiting for file information from a disk drive) this interrupt is invoked.

INT 21h

This is the most widely used interrupt in a PC. It is used for a multitude of input and output operations, both to and from the display, keyboard, and other devices.

interrupt request line (IRQ)

These are actual pins that are hardwired directly to the CPU. When a hardware device requires servicing it informs the CPU via its assigned IRQ.

ISA

ISA is the most common type of bus used today.

linear address space

A range of available memory in contiguous locations.

Least Recently Used (LRU)

This is the page-swapping technique used by Windows. Whenever more memory is required than available, Windows checks to see what memory pages have been used the least and swaps them to disk.

multitasking

This is the process of running several programs (or tasks) at the same time (or so it appears to the user). This is done by switching from one task to another at intervals that are usually less than a second.

Windows uses a technique of multitasking called non-preemptive multitasking. This technique waits for a task to complete its operations before giving control of the CPU to another task.

Windows NT uses preemptive multitasking. This technique has a set time interval and transfers control of the CPU to another task every time that interval has elapsed.

memory manager

Used to oversee memory activity within the computer. Memory managers exist that manage extended memory, expanded memory, and both.

MAPI

Acronym for *Mail Application Programming Interface*. This API was developed by Microsoft and is implemented in a DLL.

Applications that recognize the presence of MAPI DLLs on your system allow you to send mail directly from them. Norton Desktop includes this capability.

Media Control Interface (MCI)

This is the interface provided by Windows so applications can take advantage of multimedia devices.

MCA

Acronym for *Micro Channel Architecture*. This is a style of computer bus developed by IBM. It has advanced features that are not available on ISA buses.

nonmaskable interrupt (NMI)

This interrupt is tied directly to a special NMI pin on the CPU. It is used to immediately deal with catastrophic events.

NetBIOS

Acronym for *network basic input/output system*. This is a high level, interrupt driven interface between applications and NetBIOS-compliant transports, such as NetBEUI.

OEM Adaptation Kit

Provided by MS to makers of PCs and hardware.

OEM

Acronym for *Original Equipment Manufacturer*.

page frame

This is the area of RAM, usually 64K, usually between A000 and F000 segment address, reserved for swapping EMS pages into. A page can be accessed by its owner program only while it is swapped into the page frame.

program segment prefix (PSP)

When DOS loads a program, it sets aside a 256-byte block of memory for the program known as the program segment prefix. Every program has one, and DOS uses it to help run the program.

page

Four kilobytes of memory.

paging rate

How often swapping of pages of memory occurs.

ROM header

A magic number signature of 2 bytes. A memory scanner can locate ROM by looking for this.

system timer ports

These are the hardware ports that are used to communicate directly with the system timer (or system clock). These ports are typically used to change timer interrupt rates.

Switcher Screen

This is the screen that appears when using Alt + Tab switching from a DOS application that is in full screen.

system breakpoint

This is a special instruction used to transfer operation from the 80386 virtual mode to Windows.

subclass

This is the process of handling Windows messages destined for a particular window or application before the window or application can handle the messages themselves.

Almost every window (and dialog) you see in Windows is subclassed. Usually this subclassing is from a set of default windows (more accurately, window procedures) that Windows provides to handle messages. These messages range from information on displaying windows to user input.

system virtual machine

The virtual machine (VM) that the Windows kernel runs within.

SuperVGA

In the evolution of PC display adapters SuperVGA came after the *Video Graphics Array (VGA)*. SuperVGA cards add several higher resolutions than where previously possible with VGA cards.

sweep frequency

How often a sweep is made over existing memory pages.

SETUP.INF

This is the file Windows Setup refers to when installing Windows. The statements that appear within it determine how and what Windows components are installed.

search code

This is an indicator to Windows that it can attempt to scan and use a particular region of memory for use by Windows.

TASKMAN.EXE

This is the Task Manager program that Windows Setup installs initially to handle switching between tasks. TASKMAN.EXE is invoked when you depress Ctrl + Esc and list all currently executing tasks.

task switching

The process of switching from one application to another. This can be done using Alt + Tab switching or by using the Task Manager (by pressing Ctrl + Esc).

timer interrupts

There are two interrupts relating to the system clock chip in a PC. They are INT 8h and INT 1Ch, known collectively as the timer interrupts. When software requires timer-related operations, it usually hooks onto INT 1Ch (widely considered the interrupt to hook for user operations) and occasionally INT 8h, which is not considered as wise a choice.

Some programs alter the rate at which these interrupts are generated by the system clock chip (default is 18.2 times a second). When they do, they are expected to maintain an emulation of the default rate. If they don't, the system time will no longer be kept correct and other operations (such as disk I/O) may fail.

virtual machine

A virtual machine is an executable task consisting of an application, supporting software, memory, and CPU registers. Virtual machines are created by the VMM for each non-Windows application and one for Windows itself (the system virtual machine).

Applications running in a virtual machine use the virtual 8086 mode. In this mode, the applications get copies of all real mode related data. This includes address space, the interrupt-vector table, and mappings to ROM BIOS, DOS, TSRs, and device drivers.

VGA

Acronym for *Video Graphics Array*. In the evolution of PC display adapters the VGA came after the *Enhanced Graphics Adapter (EGA)*. VGA cards are capable of several video modes but have a limit of 256 colors for graphics and text.

VIM

Acronym for *vendor-independent mail*. This API was developed by Lotus and is implemented in a DLL.

Applications that recognize the presence of VIM DLLs on your system allow you to send mail directly from them. Norton Desktop includes this capability.

Virtual Machine Manager (VMM)

Supports multiple virtual machines in Windows. It is the base of Windows enhanced mode.

virtual device file

File used to store the code to implement a virtual device driver.

virtual devices

The abstract layer separating application software from hardware. For example, the display driver implements a virtual display device. Windows applications place calls into the GDI module that calls the driver which actually writes to the screen. Since all drivers provide (essentially) the same services, the applications (usually, to some extent) don't have to be aware of which hardware actually underlies the virtual device.

Virtual COM Driver (VCD)

The virtual COM driver (or, more accurately, the virtual communications device), allows common access to ISA serial ports. In actuality, it prevents more than one virtual machine from accessing a COM port.

word

A combination of 16 bits or 2 bytes.

wake up

This is the process used to restart a task that has been idle (or not executing). It involves storing the current contents of CPU registers, reloading them with the previous values used by the task about to be awakened, and returning control of the CPU to the task.

