
GLOSSARY

Adapter Card

An electronic circuit board which may be plugged into an expansion slot on a computer system's motherboard.

Address

A combination of signals which specifies a unique memory location.

ALL CARD™

An adapter card which provides memory management capabilities in 8088-based systems.

ALL CHARGE CARD™

An adapter card which provides memory management capabilities in 80286-based systems

AT-GIZMO™

An adapter card which provides memory management capabilities in 80286-based systems.

Base 640K

The first 640 kilobytes of memory (RAM) which is installed as standard equipment in most computers.

Batch Sub-Procedure

A collection of batch file statements which is entered through a CALL statement, and returns to the point of call with a RETURN statement.

Baud Rate

The speed at which a serial communications channel operates -- measured in bits per second.

BIOS

Basic Input Output System -- a collection of machine specific assembly language subroutines burned into a ROM memory chip. Supplied as standard equipment on PC/XT/AT-class machines.

CMOS Configuration Memory

A small block of low power memory supplied as standard equipment on AT-class machines. This memory holds system configuration information and is typically backed up by a battery.

Co-Resident VNA

A system with an EGA or VGA display adapter as the master console, in conjunction with VNA workstations.

COM Devices

A means of logical access to a serial communications channel -- through a device name within the set COM1 through COM24.

Context Buffer

The storage buffer used to hold a partition's interrupt vectors and BIOS data area when it is not the current task.

CPU

An acronym for Central Processing Unit. In a PC/XT/AT-class microcomputer, this is the 8088, 8086, 80286 or 80386 microprocessor.

Device Driver

A module of system level program code which performs a specific function. Such modules are often used to provide an interface between the operating system and specific hardware devices.

EGA ROM BIOS

System level program code which provides an interface to the hardware on an EGA display adapter.

Environment

A memory area within each task which holds character strings. The SET command is used to enter strings into the environment.

Exception Processing

The capability of the 80386 CPU to immediately regain control when an invalid operation is attempted.

Extended Memory

RAM (Random Access Memory) which is allocated within the address region above the first megabyte -- beyond the range which a CPU operating in an 8086 type of mode can directly access.

FREEMEM

A term used to describe unused regions within the upper portion of the first megabyte of system memory.

Handshaking

A method used by serial communications devices to control data flow. Handshaking control is necessary to insure that data is not lost when the system at the receiving end cannot process the data as fast as the transmitting system can send it.

Hercules™

The name of a type of monochrome graphics display adapter. It provides a 720 by 348 pixel resolution.

Hexadecimal

Another name for the base 16 numbering system commonly used in computer systems work.

I/O Trapping

The capability of the 80386 CPU to immediately regain control when certain I/O operations are attempted. Providing emulation of I/O events is a key part of maintaining a virtual machine environment.

Interrupt

An event which temporarily diverts the CPU's normal path of program execution.

IRQ

An acronym for Interrupt ReQuest -- IRQ refers to an interrupt which originates from an external hardware device (as opposed to a software generated interrupt).

LIDT Interrupt Control

A method whereby the PC-MOS operating system maintains control of critical IRQ interrupt vectors.

Logical Memory

Memory which is made accessible at a different address than its physical address through the manipulations of a memory management unit.

Logical Printer Port

A form of printer access which uses an index number or a device name such as LPT1 or PRN.

Logical Serial Port

A form of serial communications channel access which uses an index number or a device name such as COM1 or COM2.

LPT Devices

A means of logical access to a printer through a device name in the set LPT1, LPT2, LPT3 or PRN (the PRN device is an alias for LPT1).

Master Console

The keyboard, display adapter card, and monitor which is installed in a computer as standard equipment. This is the workstation console which is initially attached to the foreground task upon booting a computer.

MEMDEV

This term refers to a device driver which is responsible for interfacing with a memory management unit to provide paging control.

Memory Management

The capability for a computer to manipulate the CPU's address signals before they reach the physical memory. The net effect of this manipulation is to provide memory remapping (or paging) capability.

Memory Map

The allocation of addresses to memory entities. A system's memory map is typically illustrated as a chart showing the use of each range of addresses.

Memory Page

A 4K sized block of memory.

Memory Window

A defined region within a CPU's address range which is used to access a wider range of memory locations. One or more page frames.

Native Mode

An operating mode of the 80386 which can take fullest advantage of advanced features of this CPU.

Nested Batch File Call

In PC-MOS, invoking (calling), one batch file from within another implies a return to the point of call when the called batch file ends. This is in contrast to PC-DOS where a call to one batch file from another does not involve a return to the original calling batch process.

Non-Switched Memory

When MOS is supporting multiple tasks through a paging-capable memory management driver, certain portions of the base 640K memory do not get remapped when a task switch occurs. These include the kernel, the command processor's code, and the SMP (including any device drivers it may contain).

Page Frame

A 4K region of the CPU's address space into which a page of memory may be mapped. Like a socket into which a block of memory may be plugged.

Page Table

An list maintained by the operating system which designates which page of memory is mapped into which page frame.

Paging

The ability to dynamically re-define the address at which a block of memory can be accessed.

Partition

The group of memory buffers and the application of operating system supervisory functions which comprise an individual processing environment. Also called a task.

Physical Serial Ports

The actual serial communications hardware device which is accessed through a defined I/O interface. Typically a UART chip.

Physical Memory

The actual memory chips which have been installed in a computer system.

Port - Parallel

A communications channel between the CPU and its peripheral devices which transmits or receives all bits of information at the same time.

Port - Serial

A communications channel between the CPU and its peripheral devices which transmits or receives bits of information in a one-at-a-time order.

Real Mode

The operating mode that the 80386 CPU initially assumes upon being powered up or reset. Although a certain subset of the 80386's advanced features are available, in its real mode, this CPU is most like an 8086 or 8088.

Regrab Interrupt Control

A method whereby the PC-MOS operating system maintains control of critical interrupt vectors.

Remapping

The ability to dynamically re-define the address at which a block of memory can be accessed.

RS-232C

A communications standard which defines the use of serial communications data and control signals.

Scan Code

The raw information produced by a keyboard when a key is pressed. Scan codes are interpreted into key codes which designate exactly which letter or function key is being pressed.

Shelling Out

A temporary exit from an application to a point where the command processor may be used to issue commands. Not all applications are designed to support this feature.

Slice

The portion of CPU execution time which is allocated to each task in a multitasking environment.

Suspend

A task is suspend when its normal share of execution time is temporarily given up in favor of other tasks. This is typically done when a task is waiting for an I/O event such as a keystroke.

Switched Memory

When MOS is supporting multiple tasks through a paging-capable memory management driver, certain portions of the base 640K memory get remapped when a task switch occurs. These include the task's TPA and context and video buffers.

System Call

A request made to the operating system kernel by an application program or system utility. Typical requests would be for file and console I/O.

Task

The group of memory buffers and the application of operating system supervisory functions which comprise an individual processing environment. Also called a partition.

Terminal Driver

A device driver designed to translate the generic workstation I/O operations of the kernel into the specific type of I/O required by the workstation.

Terminal Emulator

An application program which runs in a stand-alone computer, or within a partition of a multitasking system, and acts like a serial terminal workstation.

Timer Tick

A regular, periodic pulse created by a clock circuit. An INT8 interrupt is generated on each pulse. The default rate for timer ticks is approximately 18.2 per second.

TPA

An acronym for Transient Program Area. The area within the base 640K of memory where an application program's code and data are loaded.

TSR Utilities

A utility which is installed within a portion of the TPA in a permanent, or semi-permanent manner. (The acronym TSR stands for Terminate and Stay Resident).

UART

An acronym for Universal Asynchronous Receiver- Transmitter. A chip which functions as the heart of a serial port.

VIDRAM

A process by which the PC-MOS operating system intercepts an application's attempts at writing directly to video memory. This is necessary to maintain a correct display at a serial terminal type of workstation, or in the case where a partition is unwatched or being watched by more than one workstation at the same time.

VIDRAM Buffer

A memory buffer used in implementing the VIDRAM control feature.

Virtual Machine

The application of operating system supervisory functions which allows multiple partitions to exist within one computer system. To programs which are executing within each of these partitions, the appearance is given that the entire resources of the machine are available, even though other partitions are sharing those resources in a concurrent manner.

VM86 Mode

Short for Virtual 8086 Mode. This is an operating mode of the 80386 CPU which simplifies the support of multiple virtual machines of the 8086 type.

VTYPE

A declaration which is made within the CONFIG.SYS file to specify what portion of the video memory area may be used as TPA memory space.

XON/XOFF

A type of handshaking protocol used in serial communications. An XOFF code is sent from the receiving station to the transmitting station to signal that the transmitter needs to wait. An XON code is sent by the receiving station when the transmitting station may resume sending data.

XPC

A type of serial communications handshaking which is similar to XON/XOFF. The only difference is in the codes used to signal the stop and re-start conditions.