

## BIOS interrupt call

### Interrupt Table

Interrupt	Description
INT 00h--	CPU: Executed after an attempt to divide by zero or when the quotient does not fit in the destination
INT 01h	CPU: Executed after every instruction while the trace flag is set
INT 02h	CPU: NMI, used e.g. by POST for memory errors
INT 03h	CPU: The lowest non-reserved interrupt, it is used exclusively for debugging, and the INT 03 handler is always implemented by a debugging program
INT 04h	CPU: Numeric Overflow. Usually caused by the INTO instruction when the overflow flag is set.
INT 05h	Executed when <u>Shift-PrintScreen</u> is pressed, as well as when the BOUND instruction detects a bound failure.
INT 06h	CPU: Called when the Undefined Opcode (invalid instruction) exception occurs. Usually installed by the operating system.
INT 07h	CPU: Called when an attempt was made to execute a floating-point instruction and no numeric coprocessor was available.
INT 08h	IRQ0: Implemented by the system timing component; called 18.2 times per second (once every 55 ms) by the PIC
INT 09h	IRQ1: Called after every key press and release (as well as during the time when a key is being held)
INT 0Bh	IRQ3: Called by serial ports 2 and 4 (COM2/4) when in need of attention
INT 0Ch	IRQ4: Called by serial ports 1 and 3 (COM1/3) when in need of attention
INT 0Dh	IRQ5: Called by hard disk controller (PC/XT) or 2nd parallel port LPT2 (AT) when in need of attention
INT 0Eh	IRQ6: Called by floppy disk controller when in need of attention
INT 0Fh	IRQ7: Called by 1st parallel port LPT1 (printer) when in need of attention
INT 10h	Video Services - installed by the BIOS or operating system; called by software programs AH=00h Set Video Mode AH=01h Set Cursor Shape AH=02h Set Cursor Position AH=03h Get Cursor Position And Shape AH=04h Get Light Pen Position AH=05h Set Display Page AH=06h Clear/Scroll Screen Up AH=07h Clear/Scroll Screen Down AH=08h Read Character and Attribute at Cursor AH=09h Write Character and Attribute at Cursor AH=0Ah Write Character at Cursor AH=0Bh Set Border Color AH=0Eh Write Character in TTY Mode

	AH=0Fh Get Video Mode AH=13h Write String
INT 11h	Installed by the BIOS; returns equipment list
INT 12h	Installed by the BIOS or operating system; returns Conventional Memory Size
INT 13h	Low Level Disk Services; installed by the BIOS or operating system; called by software programs AH=00h Reset Disk Drives AH=01h Check Drive Status AH=02h Read Sectors From Drive AH=03h Write Sectors To Drive AH=04h Verifies Sectors On Drive AH=05h Format Track On Drive AH=08h Get Drive Parameters AH=09h Init Fixed Drive Parameters AH=0Ch Seek To Specified Track AH=0Dh Reset Fixed Disk Controller AH=15h Get Drive Type AH=16h Get Floppy Drive Media Change Status
INT 14h	Routines for communicating via the serial port. Used by software programs. AH=00h Serial Port Initialization AH=01h Transmit Character AH=02h Receive Character AH=03h Status
INT 15h	Miscellaneous (System services support routines) AH=4FH Keyboard Intercept AH=83H Event Wait AH=84H Read Joystick AH=85H Sysreq Key Callout AH=86H Wait AH=87H Move Block AH=88H Get Extended Memory Size AH=C0H Get System Parameters AH=C1H Get Extended BIOS Data Area Segment AH=C2H Pointing Device Functions AH=0E8h, AL=01h Get Extended Memory Size(Newer function, since 1994). Gives results for memory size above 64 Mb. (AX = 0E801h)
INT 16h	Implemented by the BIOS or operating system. Provides routines to be called by software programs which communicate with the keyboard. AH=00h Read Character AH=01h Read Input Status AH=02h Read Keyboard Shift Status AH=10h Read Character Extended AH=11h Read Input Status Extended AH=12h Read Keyboard Shift Status Extended
INT 17h	Print Services - used by software programs to communicate with the printer AH=00h Print Character to Printer

	AH=01h Initialize Printer AH=02h Check Printer Status
INT 18h	Execute Cassette BASIC: True IBM computers contain BASIC in the ROM to be interpreted and executed by this routine in the event of a boot failure (called by the BIOS)
INT 19h	After POST this interrupt is used by BIOS to load the operating system.
INT 1Ah	Real Time Clock Services - called by software programs to communicate with the RTC AH=00h Read RTC AH=01h Set RTC AH=02h Read RTC Time AH=03h Set RTC Time AH=04h Read RTC Date AH=05h Set RTC Date AH=06h Set RTC Alarm AH=07h Reset RTC Alarm
INT 1Bh	Installed by the operating system; automatically called by INT 9 when Ctrl-Break has been pressed
INT 1Ch	Called automatically by INT 08; available for use by software programs when a routine needs to be executed regularly
INT 1Dh	Not to be called; simply a pointer to the VPT (Video Parameter Table), which contains data on video modes
INT 1Eh	Not to be called; simply a pointer to the DPT (Diskette Parameter Table), containing a variety of information concerning the diskette drives
INT 1Fh	Not to be called; simply a pointer to the VGCT (Video Graphics Character Table), which contains the data for ASCII characters 80h to FFh
INT 41h	Address pointer: FDPT = Fixed Disk Parameter Table (1st hard drive)
INT 46h	Address pointer: FDPT = Fixed Disk Parameter Table (2nd hard drive)
INT 4Ah	Called by RTC for alarm
INT 70h	IRQ8: Called by RTC
INT 74h	IRQ12: Called by mouse
INT 75h	IRQ13: Called by math coprocessor
INT 76h	IRQ14: Called by primary IDE controller
INT 77h	IRQ15: Called by secondary IDE controller