



Note: This API call is for DOS and Win16 personality only. Use [Family API](#) for portability.

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Int 25H

Version

1 and higher

Brief

ABSOLUTE DISK READ (except partitions > 32M)

Family API

Input

- AL = drive number (00h = A:, 01h = B:, etc)
- CX = number of sectors to read (not FFFFh)
- DX = starting logical sector number (0000h - highest sector on drive)
- DS:BX → buffer for data

Return

- CF clear if successful
- CF set on error
 - AH = status (see #02547)
 - AL = error code (same as passed to INT 24 in DI)

Macro

Notes

AX = 0207h if more than 64K sectors on drive – use new-style call

may destroy all other registers except segment registers

original flags are left on stack, and must be popped by caller

this call bypasses the DOS filesystem

examination of CPWIN386.CPL indicates that if this call fails with error 0408h on an old-style (<32M) call, one should retry the call with the high bit of the drive number in AL set

Novell DOS 7 decides whether the old-style or new-style (>32M) version of INT 25 must be used solely on the basis of the partition's size, thus forcing use of the new-style call even for data in the first 32M of the partition

PC Tools MIRROR as shipped with MS-DOS 5.0+ checks several signatures at the beginning of INT 25h and INT 26h before it starts to patch these vectors. The signatures it looks for are 83h, F9h, FFh, 74h (CMP CX,-01; JZ ?????) at offset +1 from the INT 25h/26h entry points and 2Eh, FFh, 2Eh (JMP DWORD PTR CS:[????]) at the location pointed to by the JZ ?????. If it finds these signatures it will use the target address of the far jump for its sub-sequent checks, otherwise it will just take the previous interrupt entry points when scanning for FAh, 2Eh, 8Ch, 16h (CLI; MOV CS:????,SS) or FAh, 2Eh, 89h, 26h (CLI; MOV CS:????,SP) right at the beginning. Hence, it seems the first two checks are to trace through a specific INT 25h/26h filter. However, the purpose of the whole patch is unknown.

A method to detect the actual assignments of logical drive numbers to physical BIOS drive units (for example to detect the boot drive), is to temporarily mount an INT 13h handler recording the used DL drive unit for any INT 13/AH=02h read operations and discarding any attempts to access actual floppy drives. Then call INT 25h for all the appropriate DOS drives and watch the results recorded by the INT 13h interceptor.

Although all registers except segment registers may be destroyed some software depends on some of the registers being preserved. For example some Flash disk drivers requires that DX is not trashed. DR-DOS 7.03 takes care of this.

BUGS: DOS 3.1 through 3.3 set the word at ES:[BP+1Eh] to FFFFh if AL is an invalid drive number

DR DOS 3.41 will return with a jump instead of RETF, leaving the wrong number of bytes on the stack; use the huge-partition version (INT 25/CX=FFFFh) for all partition sizes under DR DOS 3.41

DR DOS 6.0 original issues 05/1991 & 08/1991 reported wrong error codes for "drive not ready" and "write protect". This was fixed with the DR DOS BDOS patch "PAT321" (1992/02/19, XDIR /C: 947Bh), and later "full" rebuilds (see INT 21/AX=4452h for details).

See Also

INT 13/AH=02h, INT 25/CX=FFFFh, INT 26, INT 21/AX=7305h

Note

Text based on [Ralf Brown Interrupt List Release 61](#)

DOS API	
Process manager	INT 20H, INT 21H : 00H, 25H, 26H, 31H, 34H, 35H, 4BH, 4CH, 4DH, 50H, 51H, 52H, 55H, 62H, INT 22H, INT 27H, INT 28H
File manager	INT 25H, INT 26H, INT 21H : 0DH, 0EH, 0FH, 10H, 11H, 12H, 13H, 14H, 15H, 16H, 17H, 19H, 1AH, 1BH, 1CH, 21H, 22H, 23H, 24H, 27H, 28H, 29H, 2EH, 2FH, 32H, 3305H, 36H, 39H, 3AH, 3BH, 3CH, 3DH, 3EH, 3FH, 40H, 41H, 42H, 4300H, 4301H, 45H, 45H, 46H, 4EH, 4FH, 54H, 56H, 5700H, 5701H, 5AH, 5BH, 5c00H, 5c01H, 60H, 67H, 68H, 6900H, 6901H, 6AH, 6CH
Character Device I/O	INT 29H, INT 21H : 01H, 02H, 03H, 04H, 05H, 06H, 07H, 08H, 09H, 0AH, 0BH, 0AH, 0CH, 5D07H, 5D08H, 5D09H, 5D0AH
Signals	INT 23H, INT 24H, INT 21H : 3300H, 3301H, 3302H
Memory manager	INT 21H : 48H, 49H, 4AH, 5800H, 5801H, 5802H, 5803H
Date and Time	INT 21H : 2AH, 2BH, 2CH, 2DH
Misc	INT 21H : 30H, 3306H, 3700H, 3701H, 3702H, 3703H, 59H
NLS	INT 21H : 3303H, 3304H, 3800H, 3801H, 6300H, 6301H, 6301H, 6500H, 6501H, 6502H, 6503H, 6504H, 6505H, 6506H, 6507H, 6520H, 6521H, 6522H, 6523H, 65A0H, 65A1H, 65A2H, 6601H, 6602H
Devices	INT 21H : 4400H, 4401H, 4402H, 4403H, 4404H, 4405H, 4406H, 4407H, 4408H, 4409H, 440AH, 440BH, 440CH, 440DH, 440EH, 440FH, 4410H, 4411H, 53H
Network	INT 21H : 5E00H, 5E01H, 5E02H, 5E03H, 5E04H, 5E05H, 5F00H, 5F01H, 5F02H, 5F03H, 5F04H, 5F05H, 5F07H, 5F08H
osFree Macro Library	
Video I/O	@SetMode @SetCurSz @SetCurPos @GetCur @SetPage @ScrollUp @ScrollDn @Scroll @GetChAtr @PutChAtr @PutCh @SetPalet @SetColor @SetDot @GetDot @WrtTTY @VideoState @GetMode @GetDisplay @GetVideoState @GetEGALinfo @ClS
Hardware info	@Equipment @MemSize
Serial I/O	@AuxInit @AuxSendChar @AuxRecieveChar @AuxStatus
Tape I/O	@TapeOn @TapeOff @TapeRead @TapeWrite
Keyboard I/O	@KbdStatus @CharIn @CharPeek
Printer I/O	@PrnPrint @PrnInit @PrnStatus
Disk I/O	@DskReset @DskStatus @DskRead @DskWrite @DskVerify @DskFormat
Date and Time	@SetTime @GetTime
Mouse	@MouInit @MouShowPointer @MouStatus @MouSetPos @MouSetMickey @MouRegion
Memory manager	@ModBlok SET_BLOCK

2022/10/04 14:28 · prokushhev · 0 Comments

2018/09/04 17:23 · prokushhev · 0 Comments

Family API	
DOS	Process Manager DosBeep DosExit DosSleep DosExecPgm
	File Manager DosChDir DosChgFilePtr DosClose DosDelete DosDupHandle DosMkDir DosMove DosQCurDir DosQCurDisk DosSet FileMode DosOpen DosQFileInfo DosRead DosQ FileMode DosQFSInfo DosQVerify DosRmDir DosSelectDisk DosFindClose DosFindFirst DosFindNext DosSet FileInfo DosSet Verify DosWrite DosFileLocks DosSet FHandState DosNewSize DosBufReset DosQFHandState DosSet FInfo
	Memory Manager DosFreeSeg DosSubAlloc DosSubFree DosSubSet DosAlloc Huge DosAlloc Seg DosRealloc Huge DosRealloc Seg DosGet Huge Shift DosCreate CS Alias
	NLS DosCaseMap DosGet Ctry Info DosGet DBCSEv DosSet Ctry Code DosGet Collate DosGet Message DosIns Message DosPut Message
	Date and Time DosSet Date Time DosGet Date Time
	Devices DosDevConfig DosDevIOCtl DosDevIOCtl2
	Signals DosHoldSignal DosSet Sig Handler
	Misc BadDynLink DosGet Env DosGet Machine Mode DosGet Version DosError DosErr Class DosSet Vec
KBD	KbdCharIn KbdFlushBuffer KbdGet Status KbdSet Status KbdStringIn KbdPeek
VIO	VioGet Buf VioGet Config VioGet Cur Pos VioGet Cur Type VioGet Phys Buf VioRead Cell Str VioRead Char Str VioScroll Up VioScroll Dn VioScroll If VioScroll Rt VioScr Un Lock VioSet Cur Pos VioSet Cur Type VioSet Mode VioGet Mode VioShow Buf VioWrt Cell Str VioWrt Char Str VioWrt Char Str Att VioWrt N Attr VioWrt N Cell VioWrt N Char VioWrt TTY VioScr Lock VioPop Up
Tools	BIND
Modules	DOSCALLS.DLL VIOCALS.DLL KBDCALS.DLL MSG.DLL
Libraries	API.LIB OS2386.LIB FAPI.LIB DOSCALLS.LIB SUBCALLS.LIB

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