



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

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# Int 21H, AH=58H, AL=00H

## Version

2.11 and higher

## Brief

SET MEMORY ALLOCATION STRATEGY

## Family API

## Input

```
AH = 58h
AL = 01h
BL = new allocation strategy (see #01679)
BH = 00h (DOS 5+)
```

## Return

```
CF clear if successful
CF set on error
AX = error code (01h) (see #01680)
```

## Notes

```
the Get subfunction returns the last value set
setting an allocation strategy involving high memory does not
  automatically link in the UMB memory chain; this must be done
  explicitly with AX=5803h in order to actually allocate high memory
a program which changes the allocation strategy should restore it
```

```
before terminating
Toshiba MS-DOS v2.11 supports subfunctions 00h and 01h, as does the
TI Professional MS-DOS v2.13
DR DOS 3.41 reportedly reverses subfunctions 00h and 01h
(Table 01679)
Values for DOS memory allocation strategy:
00h low memory first fit
01h low memory best fit
02h low memory last fit
---DOS 5+ ---
40h high memory first fit
41h high memory best fit
42h high memory last fit
80h first fit, try high then low memory
81h best fit, try high then low memory
82h last fit, try high then low memory
```

## See also

AH=48h, AH=49h, AH=4Ah, INT 2F/AX=4310h"XMS", INT 67/AH=3Fh

## Note

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

| DOS API              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Process manager      | <a href="#">INT 20H</a> , <a href="#">INT 21H</a> : <a href="#">00H</a> , <a href="#">25H</a> , <a href="#">26H</a> , <a href="#">31H</a> , <a href="#">34H</a> , <a href="#">35H</a> , <a href="#">4BH</a> , <a href="#">4CH</a> , <a href="#">4DH</a> , <a href="#">50H</a> , <a href="#">51H</a> , <a href="#">52H</a> , <a href="#">55H</a> , <a href="#">62H</a> , <a href="#">INT 22H</a> , <a href="#">INT 27H</a> , <a href="#">INT 28H</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| File manager         | <a href="#">INT 25H</a> , <a href="#">INT 26H</a> , <a href="#">INT 21H</a> : <a href="#">0DH</a> , <a href="#">0EH</a> , <a href="#">0FH</a> , <a href="#">10H</a> , <a href="#">11H</a> , <a href="#">12H</a> , <a href="#">13H</a> , <a href="#">14H</a> , <a href="#">15H</a> , <a href="#">16H</a> , <a href="#">17H</a> , <a href="#">19H</a> , <a href="#">1AH</a> , <a href="#">1BH</a> , <a href="#">1CH</a> , <a href="#">21H</a> , <a href="#">22H</a> , <a href="#">23H</a> , <a href="#">24H</a> , <a href="#">27H</a> , <a href="#">28H</a> , <a href="#">29H</a> , <a href="#">2EH</a> , <a href="#">2FH</a> , <a href="#">32H</a> , <a href="#">3305H</a> , <a href="#">36H</a> , <a href="#">39H</a> , <a href="#">3AH</a> , <a href="#">3BH</a> , <a href="#">3CH</a> , <a href="#">3DH</a> , <a href="#">3EH</a> , <a href="#">3FH</a> , <a href="#">40H</a> , <a href="#">41H</a> , <a href="#">42H</a> , <a href="#">4300H</a> , <a href="#">4301H</a> , <a href="#">45H</a> , <a href="#">45H</a> , <a href="#">46H</a> , <a href="#">4EH</a> , <a href="#">4FH</a> , <a href="#">54H</a> , <a href="#">56H</a> , <a href="#">5700H</a> , <a href="#">5701H</a> , <a href="#">5AH</a> , <a href="#">5BH</a> , <a href="#">5c00H</a> , <a href="#">5c01H</a> , <a href="#">60H</a> , <a href="#">67H</a> , <a href="#">68H</a> , <a href="#">6900H</a> , <a href="#">6901H</a> , <a href="#">6AH</a> , <a href="#">6CH</a> |
| Character Device I/O | <a href="#">INT 29H</a> , <a href="#">INT 21H</a> : <a href="#">01H</a> , <a href="#">02H</a> , <a href="#">03H</a> , <a href="#">04H</a> , <a href="#">05H</a> , <a href="#">06H</a> , <a href="#">07H</a> , <a href="#">08H</a> , <a href="#">09H</a> , <a href="#">0AH</a> , <a href="#">0BH</a> , <a href="#">0AH</a> , <a href="#">0CH</a> , <a href="#">5D07H</a> , <a href="#">5D08H</a> , <a href="#">5D09H</a> , <a href="#">5D0AH</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Signals              | <a href="#">INT 23H</a> , <a href="#">INT 24H</a> , <a href="#">INT 21H</a> : <a href="#">3300H</a> , <a href="#">3301H</a> , <a href="#">3302H</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Memory manager       | <a href="#">INT 21H</a> : <a href="#">48H</a> , <a href="#">49H</a> , <a href="#">4AH</a> , <a href="#">5800H</a> , <a href="#">5801H</a> , <a href="#">5802H</a> , <a href="#">5803H</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Date and Time        | <a href="#">INT 21H</a> : <a href="#">2AH</a> , <a href="#">2BH</a> , <a href="#">2CH</a> , <a href="#">2DH</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Misc                 | <a href="#">INT 21H</a> : <a href="#">30H</a> , <a href="#">3306H</a> , <a href="#">3700H</a> , <a href="#">3701H</a> , <a href="#">3702H</a> , <a href="#">3703H</a> , <a href="#">59H</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| NLS                  | <a href="#">INT 21H</a> : <a href="#">3303H</a> , <a href="#">3304H</a> , <a href="#">3800H</a> , <a href="#">3801H</a> , <a href="#">6300H</a> , <a href="#">6301H</a> , <a href="#">6301H</a> , <a href="#">6500H</a> , <a href="#">6501H</a> , <a href="#">6502H</a> , <a href="#">6503H</a> , <a href="#">6504H</a> , <a href="#">6505H</a> , <a href="#">6506H</a> , <a href="#">6507H</a> , <a href="#">6520H</a> , <a href="#">6521H</a> , <a href="#">6522H</a> , <a href="#">6523H</a> , <a href="#">65A0H</a> , <a href="#">65A1H</a> , <a href="#">65A2H</a> , <a href="#">6601H</a> , <a href="#">6602H</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Devices              | <a href="#">INT 21H</a> : <a href="#">4400H</a> , <a href="#">4401H</a> , <a href="#">4402H</a> , <a href="#">4403H</a> , <a href="#">4404H</a> , <a href="#">4405H</a> , <a href="#">4406H</a> , <a href="#">4407H</a> , <a href="#">4408H</a> , <a href="#">4409H</a> , <a href="#">440AH</a> , <a href="#">440BH</a> , <a href="#">440CH</a> , <a href="#">440DH</a> , <a href="#">440EH</a> , <a href="#">440FH</a> , <a href="#">4410H</a> , <a href="#">4411H</a> , <a href="#">53H</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Network              | <a href="#">INT 21H</a> : <a href="#">5E00H</a> , <a href="#">5E01H</a> , <a href="#">5E02H</a> , <a href="#">5E03H</a> , <a href="#">5E04H</a> , <a href="#">5E05H</a> , <a href="#">5F00H</a> , <a href="#">5F01H</a> , <a href="#">5F02H</a> , <a href="#">5F03H</a> , <a href="#">5F04H</a> , <a href="#">5F05H</a> , <a href="#">5F07H</a> , <a href="#">5F08H</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

**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 @GetEGAInfo @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                                                                                                                                                                                                 |

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**Family API**

|           |                 |                                                                                                                                                                                                                                                                                                                                                                              |
|-----------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DOS       | Process Manager | DosBeep DosExit DosSleep DosExecPgm                                                                                                                                                                                                                                                                                                                                          |
|           | File Manager    | DosChDir DosChgFilePtr DosClose DosDelete DosDupHandle DosMkDir DosMove DosQCurDir DosQCurDisk DosSetFileMode DosOpen DosQFileInfo DosRead DosQFileMode DosQFSInfo DosQVerify DosRmdir DosSelectDisk DosFindClose DosFindFirst DosFindNext DosSetFileInfo DosSetVerify DosWrite DosFileLocks DosSetFHandState DosNewSize DosBufReset DosQFHandState DosSetFSinfo DosShutdown |
|           | Memory Manager  | DosFreeSeg DosSubAlloc DosSubFree DosSubSet DosAllocHuge DosAllocSeg DosReallocHuge DosReallocSeg DosGetHugeShift DosCreateCSAlias                                                                                                                                                                                                                                           |
|           | NLS             | DosCaseMap DosGetCtryInfo DosGetDBCSEv DosSetCtryCode DosGetCollate DosGetMessage DosInsMessage DosPutMessage                                                                                                                                                                                                                                                                |
|           | Date and Time   | DosSetDateTime DosGetDateTime                                                                                                                                                                                                                                                                                                                                                |
|           | Devices         | DosDevConfig DosDevIOCtl DosDevIOCtl2                                                                                                                                                                                                                                                                                                                                        |
|           | Signals         | DosHoldSignal DosSetSigHandler                                                                                                                                                                                                                                                                                                                                               |
|           | Misc            | BadDynLink DosGetEnv DosGetMachineMode DosGetVersion DosError DosErrClass DosSetVec                                                                                                                                                                                                                                                                                          |
| KBD       |                 | KbdCharIn KbdFlushBuffer KbdGetStatus KbdSetStatus KbdStringIn KbdPeek                                                                                                                                                                                                                                                                                                       |
| VIO       |                 | VioGetBuf VioGetConfig VioGetCurPos VioGetCurType VioGetPhysBuf VioReadCellStr VioReadCharStr VioScrollUp VioScrollDn VioScrollLf VioScrollRt VioScrUnLock VioSetCurPos VioSetCurType VioSetMode VioGetMode VioShowBuf VioWrtCellStr VioWrtCharStr VioWrtCharStrAtt VioWrtNAttr VioWrtNCell VioWrtNChar VioWrtTTY VioScrLock VioPopUp                                        |
| Tools     |                 | BIND                                                                                                                                                                                                                                                                                                                                                                         |
| Modules   |                 | DOSCALLS.DLL VIOCALLS.DLL KBDCALLS.DLL MSG.DLL                                                                                                                                                                                                                                                                                                                               |
| Libraries |                 | API.LIB OS2386.LIB FAPI.LIB DOSCALLS.LIB SUBCALLS.LIB                                                                                                                                                                                                                                                                                                                        |

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