



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

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# Int 21H, AH=48H

## Version

2 and higher

## Brief

ALLOCATE MEMORY

## Family API

[DosAllocHuge](#), [DosAllocSeg](#)

## Input

```
AH = 48h  
BX = number of paragraphs to allocate
```

## Return

```
CF clear if successful  
AX = segment of allocated block  
CF set on error  
AX = error code (07h,08h) (see #01680 at AH=59h/BX=0000h)  
BX = size of largest available block
```

## Macro

```
INCLUDE DOS.INC
```

## ALLOCATE\_MEMORY bytes

## Notes

DOS 2.1-6.0 coalesces free blocks while scanning for a block to allocate

.COM programs are initially allocated the largest available memory block, and should free some memory with AH=49h before attempting any allocations

under the FlashTek X-32 DOS extender, EBX contains a protected-mode near pointer to the allocated block on a successful return

## See also

[INT 21H: 49H, 4AH, 58H](#)

## Note

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

DOS API	
Process manager	<a href="#">INT 20H</a> , <a href="#">INT 21H: 00H, 25H, 26H, 31H, 34H, 35H, 4BH, 4CH, 4DH, 50H, 51H, 52H, 55H, 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: 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</a>
Character Device I/O	<a href="#">INT 29H</a> , <a href="#">INT 21H: 01H, 02H, 03H, 04H, 05H, 06H, 07H, 08H, 09H, 0AH, 0BH, 0AH, 0CH, 5D07H, 5D08H, 5D09H, 5D0AH</a>
Signals	<a href="#">INT 23H</a> , <a href="#">INT 24H</a> , <a href="#">INT 21H: 3300H, 3301H, 3302H</a>
Memory manager	<a href="#">INT 21H: 48H, 49H, 4AH, 5800H, 5801H, 5802H, 5803H</a>
Date and Time	<a href="#">INT 21H: 2AH, 2BH, 2CH, 2DH</a>
Misc	<a href="#">INT 21H: 30H, 3306H, 3700H, 3701H, 3702H, 3703H, 59H</a>
NLS	<a href="#">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</a>
Devices	<a href="#">INT 21H: 4400H, 4401H, 4402H, 4403H, 4404H, 4405H, 4406H, 4407H, 4408H, 4409H, 440AH, 440BH, 440CH, 440DH, 440EH, 440FH, 4410H, 4411H, 53H</a>
Network	<a href="#">INT 21H: 5E00H, 5E01H, 5E02H, 5E03H, 5E04H, 5E05H, 5F00H, 5F01H, 5F02H, 5F03H, 5F04H, 5F05H, 5F07H, 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 @GetEGAIInfo @CIs
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 DosSet FileMode DosOpen DosQFileInfo DosRead DosQ FileMode DosQFSInfo DosQVerify DosRmDir DosSelectDisk DosFindClose DosFindFirst DosFindNext DosSet FileInfo DosSet Verify DosWrite DosFileLocks DosSetFHandState DosNewSize DosBufReset DosQFHandState DosSetFSInfo
	Memory Manager	DosFreeSeg DosSubAlloc DosSubFree DosSubSet DosAlloc Huge DosAlloc Seg DosRealloc Huge DosRealloc Seg DosGet Huge Shift DosCreateCS Alias
	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		DOSCALS.DLL VIOCALS.DLL KBDCALLS.DLL MSG.DLL
Libraries		API.LIB OS2386.LIB FAPI.LIB DOSCALLS.LIB SUBCALLS.LIB

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