



**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
```

## 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

[INT21:49H,AH=4Ah,AH=58h,AH=83h](#)

## Note

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

<b>DOS API</b>	
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>
<b>osFree Macro Library</b>	
Video I/O	<a href="#">@SetMode</a> <a href="#">@SetCurSz</a> <a href="#">@SetCurPos</a> <a href="#">@GetCur</a> <a href="#">@SetPage</a> <a href="#">@ScrollUp</a> <a href="#">@ScrollDn</a> <a href="#">@Scroll</a> <a href="#">@GetChAtr</a> <a href="#">@PutChAtr</a> <a href="#">@PutCh</a> <a href="#">@SetPalet</a> <a href="#">@SetColor</a> <a href="#">@SetDot</a> <a href="#">@GetDot</a> <a href="#">@WrtTTY</a> <a href="#">@VideoState</a> <a href="#">@GetMode</a> <a href="#">@GetDisplay</a> <a href="#">@GetVideoState</a> <a href="#">@GetEGAInfo</a> <a href="#">@Cls</a>
Hardware info	<a href="#">@Equipment</a> <a href="#">@MemSize</a>
Serial I/O	<a href="#">@AuxInit</a> <a href="#">@AuxSendChar</a> <a href="#">@AuxRecieveChar</a> <a href="#">@AuxStatus</a>
Tape I/O	<a href="#">@TapeOn</a> <a href="#">@TapeOff</a> <a href="#">@TapeRead</a> <a href="#">@TapeWrite</a>
Keyboard I/O	<a href="#">@KbdStatus</a> <a href="#">@CharIn</a> <a href="#">@CharPeek</a>
Printer I/O	<a href="#">@PrnPrint</a> <a href="#">@PrnInit</a> <a href="#">@PrnStatus</a>
Disk I/O	<a href="#">@DskReset</a> <a href="#">@DskStatus</a> <a href="#">@DskRead</a> <a href="#">@DskWrite</a> <a href="#">@DskVerify</a> <a href="#">@DskFormat</a>
Date and Time	<a href="#">@SetTime</a> <a href="#">@GetTime</a>

<b>osFree Macro Library</b>	
Mouse	@MouInit @MouShowPointer @MouStatus @MouSetPos @MouSetMickey @MouRegion
Memory manager	@ModBlok SET_BLOCK

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<b>Family API</b>		
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 DosDevIOct1 DosDevIOct2
	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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