



This is part of **Family API** which allow to create dual-os version of program runs under OS/2 and DOS

**Note:** This is legacy API call. It is recommended to use 32-bit equivalent

2021/09/17 04:47 · prokushev · [0 Comments](#)

2021/08/20 03:18 · prokushev · [0 Comments](#)

## DosSubAlloc

This call suballocates portions of a segment allocated by [DosAllocSeg](#) or [DosAllocShrSeg](#), and initialized by [DosSubSet](#).

### Syntax

```
DosSubAlloc (SegSelector, BlockOffset, Size)
```

### Parameters

- SegSelector ([SEL](#)) - input : Data segment selector that allocates the memory.
- BlockOffset ([PUSHORT](#)) - output : Address of the allocated block offset.
- Size ([USHORT](#)) - input : Memory block size requested in bytes.

### Return Code

rc ([USHORT](#)) - return

Return code descriptions are:

- 0 NO\_ERROR
- 311 ERROR\_DOSSUB\_NOMEM
- 313 ERROR\_DOSSUB\_BADSIZE

### Remarks

Before a segment allocated by [DosAllocSeg](#) or [DosAllocShrSeg](#) can be suballocated, it must first be initialized for suballocation by a call to [DosSubSet](#).

Allocation size must be a multiple of four bytes. Otherwise, it is rounded up to a multiple of four bytes. The maximum value for the size parameter is the size that was set with [DosSubSet](#) minus 8. Note that no paragraph (16-byte) alignment is required; all requests are serviced on a byte alignment basis.

A suballocated block of memory in a suballocated segment is freed by a call to [DosSubFree](#).

## Example Code

### C Binding

```
#define INCL_DOSMEMMGR

USHORT rc = DosSubAlloc(SegSelector, BlockOffset, Size);

SEL      SegSelector;    /* Segment selector */
PUSHORT  BlockOffset;    /* Block Offset (returned) */
USHORT   Size;           /* Size of requested block */

USHORT   rc;             /* return code */
```

### MASM Binding

```
EXTRN DosSubAlloc:FAR
INCL_DOSMEMMGR EQU 1

PUSH WORD SegSelector ;Segment selector
PUSH@ WORD BlockOffset ;Block Offset (returned)
PUSH WORD Size ;Size of requested block
CALL DosSubAlloc
```

Returns WORD

## Note

Text based on <http://www.edm2.com/index.php/DosSubAlloc>

| 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 KBDSCALLS.DLL MSG.DLL                                                                                                                                                                                                                                                                                                                              |
| Libraries  |                 | API.LIB OS2386.LIB FAPI.LIB DOSCALLS.LIB SUBCALLS.LIB                                                                                                                                                                                                                                                                                                                        |

2018/08/25 15:05 · prokushev · 0 Comments

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Last update: **2021/12/05 11:05**

