



This is part of **Win16 API** which allow to create versions of program from one source code to run under OS/2 and Win16. Under OS/2 program can be running under Win-OS/2 if program is Windows NE executable, and with help on Windows Libraries for OS/2, if it is OS/2 NE executable. [Here](#) is a WLO to OS/2 API mapping draft

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# LocalAlloc

## Brief

Allocates a block of memory from the local heap of the current data segment.

## Syntax

```
HLOCAL WINAPI LocalAlloc(  
    UINT uFlags,  
    UINT uBytes  
);
```

## Parameters

uFlags - Allocation attributes. Common flags:

LMEM\_FIXED (0x0000) - Allocates fixed memory; the return value is a pointer.

LMEM\_MOVEABLE (0x0002) - Allocates movable memory; returns a handle.

LMEM\_ZEROINIT (0x0040) - Initializes the memory to zero.

LMEM\_DISCARDABLE (0x0F00) - Makes the block discardable (only with LMEM\_MOVEABLE).

LMEM\_NOCOMPACT (0x0010) - Prevents heap compaction for this allocation.

LMEM\_NODISCARD (0x0020) - Prevents discarding of other blocks.

Shorthands: LHND (LMEM\_MOVEABLE | LMEM\_ZEROINIT), LPTR (LMEM\_FIXED | LMEM\_ZEROINIT).

uBytes - Number of bytes to allocate. If zero and LMEM\_MOVEABLE is set, returns a handle to a discarded object.

## Return Value

If successful, returns a handle to the allocated object. For `LMEM_FIXED`, this handle is actually a pointer.

Returns `NULL` on failure. Call `GetLastError` for extended error information.

## Notes

For movable blocks, use `LocalLock` to obtain a pointer before accessing the memory.

The internal lock count of a new block is zero.

## Example Code

### C Binding

```
HLOCAL hMem = LocalAlloc(LMEM_MOVEABLE | LMEM_ZEROINIT, 1024);  
HLOCAL hMem2 = LocalAlloc(LHND, 1024);
```

### MASM Binding

```
push 0042h ; LMEM_MOVEABLE | LMEM_ZEROINIT  
push 0400h ; 1024 bytes  
call LocalAlloc
```

## See also

[LocalReAlloc](#)

[LocalFree](#)

[LocalLock](#)

Group	Functions
<b>Module manager</b>	GETVERSION GETMODULEHANDLE GETMODULEUSAGE GETMODULEFILENAME GETPROCADDRESS MAKEPROCINSTANCE FREEPROCINSTANCE GETINSTANCEDATA CATCH THROW GETCODEHANDLE LOADLIBRARY

Group	Functions
<b>Memory Manager</b>	GlobalAlloc GlobalCompact GlobalDiscard GlobalFree GlobalLock GlobalReAlloc GlobalSize GlobalUnlock GlobalFlags LocalInit LocalAlloc LocalCompact LocalDiscard LocalFree LocalLock LocalFreeze LocalMelt LocalReAlloc LocalSize LocalUnlock LocalHandleDelta LockData UnlockData LocalFlags
<b>Task Scheduler</b>	GetCurrentTask Yield SetPriority
<b>Resource Manager</b>	AddFontResource RemoveFontResource LoadBitmap LoadCursor LoadIcon LoadMenu LoadString LoadAccelerators FindResource LoadResource AllocResource LockResource FreeResource AccessResource SizeofResource SetResourceHandler
<b>String Translation</b>	AnsiUpper AnsiLower AnsiNext AnsiPrev
<b>Atom Manager</b>	InitAtomTable AddAtom DeleteAtom FindAtom GetAtomName
<b>Windows Initialization File</b>	GetProfileInt GetProfileString WriteProfileString
<b>Debugging</b>	FatalExit
<b>File I/O</b>	_lopen _lcreat _lseek _lread _lwrite _lclose OpenFile GetTempFileName GetTempDrive
<b>Registry</b>	RegOpenKey RegCreateKey RegCloseKey RegDeleteKey RegSetValue RegQueryValue RegEnumKey

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