

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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LocalShrink

(Source: Windows 3.0 SDK, Microsoft Knowledge Base Article Q21581)

Brief

Shrinks the specified local heap to the size given by the wSize parameter. The minimum size for the automatic local heap is defined in the application's module-definition file .

Syntax

```
WORD WINAPI LocalShrink(
HANDLE hSeg,
WORD wSize
);
```

Parameters

hSeg – Handle (selector) of the segment that contains the local heap. If hSeg is zero, the function reduces the local heap in the current data segment (DGROUP) .

wSize – Specifies the desired size of the local heap after shrinkage, in bytes .

Return Value

The return value specifies the actual size of the local heap after shrinkage, in bytes . If the heap could not be shrunk to the requested size, the return value may be larger than wSize.

Notes

Windows will not shrink that portion of the data segment that contains the stack and the static variables .

When an application calls LocalAlloc and there is not enough memory within the application's data segment, Windows uses memory from the global heap and appends it to the data segment. Releasing this temporary memory becomes an issue for the programmer. Using LocalShrink compacts and shrinks the data segment to the smallest possible size .

LocalShrink cannot move FIXED or locked blocks when compacting the local heap. Therefore, free space may still remain in the heap, and the final size may not be as small as requested. The function compacts as much as possible given this constraint .

To determine the new size of the whole data segment, use the GlobalSize function .

This function is rarely used in practice; Windows usually manages the local heap size automatically.

Example Code

C Binding

```c
#include <windows.h>

// Shrink the local heap of the current data segment to 256 bytes
WORD wNewSize = LocalShrink(0, 256);
```

MASM Binding

```
; AX = segment handle (0 for current data segment), BX = desired size in
bytes
push ax ; hSeg
push bx ; wSize
call LocalShrink ; Returns AX = new heap size
```

See also

- LocalInit
- LocalAlloc
- LocalCompact

Group	Functions
Module Management	GetVersion GetModuleHandle GetModuleUsage GetModuleFileName GetProcAddress MakeProcInstance FreeProcInstance GetInstanceData Catch Throw GetCodeHandle LoadLibrary FreeLibrary
Global Memory Management	GlobalAlloc GlobalCompact GlobalDiscard GlobalFree GlobalLock GlobalReAlloc GlobalSize GlobalUnlock GlobalFlags
Local Memory Management	LocalInit LocalAlloc LocalCompact LocalDiscard LocalFree LocalLock LocalFreeze LocalMelt LocalReAlloc LocalSize LocalUnlock LocalHandleDelta LockData UnlockData LocalFlags
Task Scheduling	GetCurrentTask Yield SetPriority

Group	Functions
Resource Management	AddFontResource RemoveFontResource LoadBitmap LoadCursor LoadIcon LoadMenu LoadString LoadAccelerators FindResource LoadResource AllocResource LockResource FreeResource AccessResource SizeofResource SetResourceHandler
String Manipulation	AnsiUpper AnsiLower AnsiNext AnsiPrev AnsiUpperBuff AnsiLowerBuff lstrcmp lstrcmpi IsCharAlpha IsCharAlphaNumeric IsCharUpper IsCharLower _wsprintf wvsprintf
Atom Management	InitAtomTable AddAtom DeleteAtom FindAtom GetAtomName GlobalAddAtom GlobalDeleteAtom GlobalFindAtom GlobalGetAtomName
Initialization Files	GetProfileInt GetProfileString WriteProfileString
Debugging	FatalExit
File Input/Output	_lopen _lcreat _llseek _lread _lwrite _lclose OpenFile GetTempFileName GetTempDrive
Registry	RegOpenKey RegCreateKey RegCloseKey RegDeleteKey RegSetValue RegQueryValue RegEnumKey
Window Management	CreateWindow CreateWindowEx DestroyWindow ShowWindow CloseWindow OpenIcon MoveWindow SetWindowPos BringWindowToTop GetWindow GetParent SetParent GetNextWindow GetTopWindow GetWindowRect GetClientRect AdjustWindowRect AdjustWindowRectEx EnableWindow IsWindowEnabled IsWindowVisible IsIconic IsZoomed IsWindow IsChild FindWindow EnumWindows EnumChildWindows EnumTaskWindows GetDesktopWindow GetDesktopHwnd WindowFromPoint ChildWindowFromPoint GetWindowText SetWindowText GetWindowTextLength GetClassName GetWindowLong SetWindowLong GetWindowWord SetWindowWord GetWindowTask GetWindowPlacement SetWindowPlacement ArrangeIconicWindows CascadeChildWindows TileChildWindows ShowOwnedPopups AnyPopup GetLastActivePopup SetActiveWindow GetActiveWindow SetFocus GetFocus SetCapture GetCapture ReleaseCapture SetSysModalWindow GetSysModalWindow LockWindowUpdate RedrawWindow UpdateWindow InvalidateRect InvalidateRgn ValidateRect ValidateRgn GetUpdateRect GetUpdateRgn ExcludeUpdateRgn BeginDeferWindowPos DeferWindowPos EndDeferWindowPos FlashWindow
Message Handling	GetMessage PeekMessage PostMessage PostAppMessage SendMessage ReplyMessage InSendMessage WaitMessage TranslateMessage DispatchMessage GetMessagePos GetMessageTime GetMessageExtraInfo PostQuitMessage RegisterWindowMessage SetMessageQueue GetQueueStatus GetInputState QuerySendMessage
Painting and Drawing	BeginPaint EndPaint GetDC GetDCEx GetWindowDC ReleaseDC DrawText GrayString TabbedTextOut GetTabbedTextExtent FillRect InvertRect FrameRect DrawFocusRect DrawIcon ScrollDC ScrollWindow ScrollWindowEx FillWindow PaintRect GetControlBrush
Menus	CreateMenu CreatePopupMenu DestroyMenu GetMenu SetMenu GetSystemMenu GetSubMenu AppendMenu InsertMenu ModifyMenu DeleteMenu RemoveMenu ChangeMenu CheckMenuItem EnableMenuItem HiliteMenuItem GetMenuState GetMenuString GetMenuItemCount GetMenuItemID DrawMenuBar TrackPopupMenu GetMenuCheckMarkDimensions SetMenuItemBitmaps IsMenu

Group	Functions
Clipboard	OpenClipboard CloseClipboard EmptyClipboard GetClipboardOwner GetOpenClipboardWindow SetClipboardData GetClipboardData CountClipboardFormats EnumClipboardFormats RegisterClipboardFormat GetClipboardFormatName IsClipboardFormatAvailable GetPriorityClipboardFormat SetClipboardViewer GetClipboardViewer ChangeClipboardChain
Caret	CreateCaret DestroyCaret SetCaretPos GetCaretPos HideCaret ShowCaret SetCaretBlinkTime GetCaretBlinkTime
Cursor and Icon	SetCursor GetCursor SetCursorPos GetCursorPos ShowCursor ClipCursor GetClipCursor LoadCursor LoadIcon CreateCursor CreateIcon CopyCursor CopyIcon DestroyCursor DestroyIcon CreateCursorIconIndirect
Scroll Bars	SetScrollPos GetScrollPos SetScrollRange GetScrollRange ShowScrollBar EnableScrollBar CalcChildScroll
Dialog Boxes	DialogBox DialogBoxIndirect DialogBoxParam DialogBoxIndirectParam CreateDialog CreateDialogIndirect CreateDialogParam CreateDialogIndirectParam EndDialog GetDlgItem SetDlgItemText GetDlgItemText SetDlgItemInt GetDlgItemInt CheckDlgButton IsDlgButtonChecked CheckRadioButton SendDlgItemMessage GetNextDlgGroupItem GetNextDlgTabItem GetDlgCtrlID IsDialogMessage MapDialogRect GetDialogBaseUnits DefDlgProc DlgDirList DlgDirListComboBox DlgDirSelect DlgDirSelectEx DlgDirSelectComboBox DlgDirSelectComboBoxEx
Device Context Management	GetDC GetDCEx GetWindowDC ReleaseDC SaveDC RestoreDC CreateDC CreateCompatibleDC DeleteDC ResetDC
Coordinates and Transformations	SetMapMode GetMapMode SetWindowOrg GetWindowOrg SetWindowExt GetWindowExt SetViewportOrg GetViewportOrg SetViewportExt GetViewportExt OffsetWindowOrg OffsetViewportOrg ScaleWindowExt ScaleViewportExt DPtoLP LPtoDP
Drawing Functions	SetPixel GetPixel MoveTo LineTo Polyline Polygon PolyPolygon Rectangle RoundRect Ellipse Arc Chord Pie FloodFill ExtFloodFill DrawFocusRect PatBlt BitBlt StretchBlt StretchDIBits SetDIBits GetDIBits SetDIBitsToDevice
Regions	CreateRectRgn CreateRectRgnIndirect CreateRoundRectRgn CreateEllipticRgn CreateEllipticRgnIndirect CreatePolygonRgn CreatePolyPolygonRgn CombineRgn EqualRgn OffsetRgn FillRgn FrameRgn InvertRgn PaintRgn SelectClipRgn ExcludeClipRect IntersectClipRect OffsetClipRgn GetClipBox GetRgnBox PtInRegion RectInRegion SetRectRgn
Bitmaps	CreateBitmap CreateBitmapIndirect CreateCompatibleBitmap CreateDiscardableBitmap CreateDIBitmap CreateDIBPatternBrush SetBitmapBits GetBitmapBits SetBitmapDimension GetBitmapDimension
Brushes and Pens	CreateSolidBrush CreateHatchBrush CreatePatternBrush CreateBrushIndirect CreatePen CreatePenIndirect SetBrushOrg GetBrushOrg SelectObject GetObject DeleteObject GetStockObject UnrealizeObject
Fonts and Text	CreateFont CreateFontIndirect CreateScalableFontResource AddFontResource RemoveFontResource EnumFonts EnumFontFamilies GetTextMetrics GetTextExtent GetTextFace GetCharWidth GetCharABCWidths GetOutlineTextMetrics GetGlyphOutline GetKerningPairs SetTextColor GetTextColor SetBkColor GetBkColor SetBkMode GetBkMode SetTextAlign GetTextAlign SetTextCharacterExtra GetTextCharacterExtra SetTextJustification TextOut ExtTextOut TabbedTextOut GetTabbedTextExtent
Metafiles	CreateMetaFile CloseMetaFile DeleteMetaFile CopyMetaFile GetMetaFile GetMetaFileBits SetMetaFileBits PlayMetaFile PlayMetaFileRecord EnumMetaFile IsValidMetaFile

Group	Functions
Printing	StartDoc EndDoc StartPage EndPage SetAbortProc AbortDoc QueryAbort OpenJob CloseJob DeleteJob WriteSpool StartSpoolPage EndSpoolPage SpoolFile
Palettes	CreatePalette SelectPalette RealizePalette GetPaletteEntries SetPaletteEntries ResizePalette AnimatePalette UpdateColors GetNearestPaletteIndex GetNearestColor SetSystemPaletteUse GetSystemPaletteUse GetSystemPaletteEntries
Device Capabilities	GetDeviceCaps GetRasterizerCaps GetEnvironment SetEnvironment GetAspectRatioFilter Escape CreateIC
Miscellaneous GDI	SetROP2 GetROP2 SetPolyFillMode GetPolyFillMode SetStretchBltMode GetStretchBltMode SetMapperFlags GetMapperFlags LineDDA MulDiv GetCurrentPosition GetBoundsRect SetBoundsRect FastWindowFrame
Timer	SetTimer KillTimer GetTickCount GetTimerResolution GetCurrentTime
Hooks	SetWindowsHook SetWindowsHookEx UnhookWindowsHook UnhookWindowsHookEx CallNextHookEx DefHookProc CallMsgFilter
Communications	OpenComm CloseComm ReadComm WriteComm SetCommState GetCommState GetCommError TransmitCommChar SetCommEventMask GetCommEventMask SetCommBreak ClearCommBreak UngetCommChar BuildCommDCB EscapeCommFunction FlushComm EnableCommNotification
Networking (WNet)	WNetErrorText WNetOpenJob WNetCloseJob WNetAbortJob WNetHoldJob WNetReleaseJob WNetCancelJob WNetSetJobCopies WNetWatchQueue WNetUnwatchQueue WNetLockQueueData WNetUnlockQueueData WNetGetConnection WNetGetCaps WNetDeviceMode WNetBrowseDialog WNetGetUser WNetAddConnection WNetCancelConnection WNetGetError WNetGetErrorText WNetEnable WNetDisable WNetRestoreConnection WNetWriteJob WNetConnectDialog WNetDisconnectDialog WNetConnectionDialog WNetViewQueueDialog WNetPropertyDialog WNetGetDirectoryType WNetDirectoryNotify WNetGetPropertyText
System Information	GetSystemMetrics GetSysColor SetSysColors SystemParametersInfo GetFreeSystemResources GetSystemDebugState GetDoubleClickTime SetDoubleClickTime SwapMouseButton GetKeyState GetAsyncKeyState GetKeyboardState SetKeyboardState mouse_event GetMouseEventProc EnableHardwareInput IsUserIdle LockInput MessageBeep WinHelp
Window Classes	RegisterClass RegisterClassEx UnregisterClass GetClassInfo GetClassInfoEx GetClassWord SetClassWord GetClassLong SetClassLong GetClassName
Window Properties	SetProp GetProp RemoveProp EnumProps
MDI Support	DefFrameProc DefMDIChildProc TranslateMDISysAccel
Drivers	OpenDriver CloseDriver SendDriverMessage GetDriverModuleHandle GetDriverInfo GetNextDriver DefDriverProc
Miscellaneous	InitApp ExitWindows ExitWindowsExec OLDEXITWINDOWS BEAR11 BEAR86 BEAR182 UserSeeUserDo OldSetDeskPattern SetRect SetRectEmpty CopyRect IsRectEmpty PtInRect OffsetRect InflateRect IntersectRect UnionRect EqualRect SubtractRect

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