Note: This API calls are shared between DOS and Win16 personality.

DPMI is a shared interface for DOS applications to access Intel 80286+ CPUs services. DOS DMPI host provides core services for protected mode applications. Multitasking OS with DOS support also provides DMPI in most cases. Windows standard and extended mode kernel is a DPMI client app. Standard and extended mode kernel differs minimally and shares common codebase. Standard Windows kernel works under DOSX extender. DOSX is a specialized version of 16-bit DPMI Extender (but it is standard DPMI host). Standard mode is just DPMI client, exnhanced mode is DPMI client running under Virtual Machime Manager (really, multitasker which allow to run many DOS sessions). Both modes shares DPMI interface for kernel communication. The OS/2 virtual DOS Protected Mode Interface (VDPMI) device driver provides Version 0.9 DPMI support for virtual DOS machines. Win16 (up to Windows ME) provides Version 0.9 DPMI support. Windows in Standard Mode provides DPMI services only for Windows Applications, not DOS sessions.

DPMI host often merged with DPMI extender. Usually DPMI extender provide DPMI host standard services and DOS translation or True DPMI services.

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Int 31H, AH=03H, AL=03H

Version

0.9

Brief

Allocate Real Mode Callback Address

Input

```
AX = 0303H
DS:(E)SI = selector:offset of protected mode procedure to call
ES:(E)DI = selector:offset of 32H-byte buffer for real mode register data
structure to be used when calling callback routine.
```

Return

```
if function successful
Carry flag = clear
```

```
CX:DX = segment:offset of real mode callback

if function unsuccessful
Carry flag = set
AX = error code
8015H   callback unavailable
```

Notes

Returns a unique real mode segment:offset, known as a “real mode callback,” that will transfer control from real mode to a protected mode procedure. Callback addresses obtained with this function can be passed by a protected mode program to a real mode application, interrupt handler, device driver, or TSR, so that the real mode program can call procedures within the protected mode program or notify the protected mode program of an event.

DPMI hosts must provide a minimum of 16 callback addresses per client.

A descriptor may be allocated for each callback to hold the real mode SS descriptor. Real mode callbacks are a limited system resource. A client should use the Free Real Mode Callback Address function (Int 31H Function 0304H) to release a callback that it is no longer using.

For further information on writing real mode callback procedures, see that page.

The contents of the real mode register data structure is not valid after the function call, but only at the time of the actual callback.

See also

Note

Text based on http://www.delorie.com/djgpp/doc/dpmi/

DPMI	
Process manager	**INT 2FH** 1680H, 1687H
Signals	
Memory manager	
Misc	**INT 2FH** 1686H, 168AH
Devices	

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