
**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=00H, AL=02H

## Version

0.9

## Brief

Segment to Descriptor

## Input

```
AX = 0002H
BX = real mode segment address
```

## Return

```
if function successful
Carry flag = clear
AX = selector for real mode segment
```

```
if function unsuccessful
Carry flag = set
AX = error code
8011H   descriptor unavailable
```

## Notes

Maps a real mode segment (paragraph) address onto an LDT descriptor that can be used by a protected mode program to access the same memory.

The descriptor's limit will be set to 64 KB.

Multiple calls to this function with the same segment address will return the same selector.

The intent of this function is to provide clients with easy access to commonly used real mode segments such as the BIOS data area at segment 0040H and the video refresh buffers at segments A000H, B000H, and B800H. Clients should not call this function to obtain descriptors to private data areas.

Descriptors created by this function can never be modified or freed. For this reason, the function should be used sparingly. Clients which need to examine various real mode addresses using the same selector should allocate a descriptor with Int 31H Function 0000H and change the base address in the descriptor as necessary, using the Set Segment Base Address function (Int 31H Function 0007H).

Refer to the rules for descriptor usage in Appendix D.

## 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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