

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=08H

Version

0.9

Brief

Set Segment Limit [0.9]

Input

```
AX = 0008H
BX = selector
CX:DX = 32-bit segment limit
```

Return

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

```
if function unsuccessful
Carry flag = set
AX = error code
8021H   invalid value (CX <> 0 on a 16-bit DPMI host; or the limit is
greater than 1 MB, but the low twelve bits are not set)
8022H   invalid selector
8025H   invalid linear address (changing the limit would cause the
descriptor to reference a linear address range outside that allowed for DPMI
clients.)
```

Notes

Sets the limit field in the LDT descriptor for the specified segment.

The value supplied to the function in CX:DX is the byte length of the segment-1 (i.e., the value returned by the LSL instruction).

Segment limits greater than or equal to 1 MB must be page-aligned. That is, limits greater than 1 MB must have the low 12 bits set.

This function has an implicit effect on the “G” (granularity) bit in an 80386 descriptor's extended access rights/type byte; i.e., it is the host's responsibility to set the “G” bit correctly.

Client programs must use the LSL instruction to query the limit for a descriptor. Note that on 80386 machines, the client must use the 32-bit form of LSL if the segment size is greater than 64 KB.

A DPMI 1.0 host will reload any segment registers which contain the selector specified in register BX. It is suggested that DPMI 0.9 hosts also implement this.

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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