



**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, enhanced mode is DPMI client running under Virtual Machine 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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**Note: This API implemented by DPMI extenders under DOS and by DOSX.EXE under Windows. Under OS/2 MVDM this API implemented by VDPMI**

| Interrupt | AX                   | Description                                      | Version | 32-bit host | 16-bit host |
|-----------|----------------------|--|---------|-------------|-------------|
| 2f        | <a href="#">1680</a> | Release Current Virtual Machine's Time Slice     | 1.0     | Yes         | Yes         |
| 2f        | <a href="#">1686</a> | Get CPU Mode                                     | 0.9     | Yes         | Yes         |
| 2f        | <a href="#">1687</a> | Obtain Real-to-Protected Mode Switch Entry Point | 0.9     | Yes         | Yes         |
| 2f        | <a href="#">168A</a> | Get Vendor-Specific API Entry Point              | 1.0     | Yes         | Yes         |
| 31        | <a href="#">0000</a> | Allocate LDT Descriptors                         | 0.9     | Yes         | Yes         |
| 31        | <a href="#">0001</a> | Free LDT Descriptor                              | 0.9     | Yes         | Yes         |
| 31        | <a href="#">0002</a> | Segment to Descriptor                            | 0.9     |             |             |
| 31        | <a href="#">0003</a> | Get Selector Increment Value                     | 0.9     |             |             |
| 31        | <a href="#">0006</a> | Get Segment Base Address                         | 0.9     |             |             |
| 31        | <a href="#">0007</a> | Set Segment Base Address                         | 0.9     |             |             |
| 31        | <a href="#">0008</a> | Set Segment Limit                                | 0.9     |             |             |
| 31        | <a href="#">0009</a> | Set Descriptor Access Rights                     | 0.9     |             |             |
| 31        | <a href="#">000A</a> | Create Alias Descriptor                          | 0.9     |             |             |
| 31        | <a href="#">000B</a> | Get Descriptor                                   | 0.9     |             |             |
| 31        | <a href="#">000C</a> | Set Descriptor                                   | 0.9     |             |             |
| 31        | <a href="#">000D</a> | Allocate Specific LDT Descriptor                 | 0.9     |             |             |
| 31        | <a href="#">000E</a> | Get Multiple Descriptors                         | 1.0     |             |             |
| 31        | <a href="#">000F</a> | Set Multiple Descriptors                         | 1.0     |             |             |
| 31        | <a href="#">0100</a> | Allocate DOS Memory Block                        | 0.9     |             |             |
| 31        | <a href="#">0101</a> | Free DOS Memory Block                            | 0.9     |             |             |
| 31        | <a href="#">0102</a> | Resize DOS Memory Block                          | 0.9     |             |             |
| 31        | <a href="#">0200</a> | Get Real Mode Interrupt Vector                   | 0.9     |             |             |

| Interrupt | AX                   | Description  | Version | 32-bit host | 16-bit host |
|-----------|----------------------|--|---------|-------------|-------------|
| 31        | <a href="#">0201</a> | Set Real Mode Interrupt Vector                                   | 0.9     |             |             |
| 31        | <a href="#">0202</a> | Get Processor Exception Handler Vector                           | 0.9     |             |             |
| 31        | <a href="#">0203</a> | Set Processor Exception Handler Vector                           | 0.9     |             |             |
| 31        | <a href="#">0204</a> | Get Protected Mode Interrupt Vector                              | 0.9     |             |             |
| 31        | <a href="#">0205</a> | Set Protected Mode Interrupt Vector                              | 0.9     |             |             |
| 31        | <a href="#">0210</a> | Get Extended Processor Exception Handler Vector (Protected Mode) | 1.0     |             |             |
| 31        | <a href="#">0211</a> | Get Extended Processor Exception Handler Vector (Real Mode)      | 1.0     |             |             |
| 31        | <a href="#">0212</a> | Set Extended Processor Exception Handler Vector (Protected Mode) | 1.0     |             |             |
| 31        | <a href="#">0213</a> | Set Extended Processor Exception Handler Vector (Real Mode)      | 1.0     |             |             |
| 31        | <a href="#">0300</a> | Simulate Real Mode Interrupt                                     | 0.9     |             |             |
| 31        | <a href="#">0301</a> | Call Real Mode Procedure With Far Return Frame                   | 0.9     |             |             |
| 31        | <a href="#">0302</a> | Call Real Mode Procedure With IRET Frame                         | 0.9     |             |             |
| 31        | <a href="#">0303</a> | Allocate Real Mode Callback Address                              | 0.9     |             |             |
| 31        | <a href="#">0304</a> | Free Real Mode Callback Address                                  | 0.9     |             |             |
| 31        | <a href="#">0305</a> | Get State Save/Restore Addresses                                 | 0.9     |             |             |
| 31        | <a href="#">0306</a> | Get Raw Mode Switch Addresses                                    | 0.9     |             |             |
| 31        | <a href="#">0400</a> | Get Version  | 0.9     |             |             |
| 31        | <a href="#">0401</a> | Get DPMI Capabilities  | 1.0     |             |             |
| 31        | <a href="#">0500</a> | Get Free Memory Information                                      | 0.9     |             |             |
| 31        | <a href="#">0501</a> | Allocate Memory Block  | 0.9     |             |             |
| 31        | <a href="#">0502</a> | Free Memory Block  | 0.9     |             |             |
| 31        | <a href="#">0503</a> | Resize Memory Block  | 0.9     |             |             |
| 31        | <a href="#">0504</a> | Allocate Linear Memory Block                                     | 1.0     |             |             |
| 31        | <a href="#">0505</a> | Resize Linear Memory Block                                       | 1.0     |             |             |
| 31        | <a href="#">0506</a> | Get Page Attributes  | 1.0     |             |             |
| 31        | <a href="#">0507</a> | Set Page Attributes  | 1.0     |             |             |
| 31        | <a href="#">0508</a> | Map Device in Memory Block                                       | 1.0     |             |             |
| 31        | <a href="#">0509</a> | Map Conventional Memory in Memory Block                          | 1.0     |             |             |
| 31        | <a href="#">050A</a> | Get Memory Block Size and Base                                   | 1.0     |             |             |
| 31        | <a href="#">050B</a> | Get Memory Information   | 1.0     |             |             |
| 31        | <a href="#">0600</a> | Lock Linear Region   | 0.9     |             |             |
| 31        | <a href="#">0601</a> | Unlock Linear Region   | 0.9     |             |             |
| 31        | <a href="#">0602</a> | Mark Real Mode Region as Pageable                                | 0.9     |             |             |
| 31        | <a href="#">0603</a> | Relock Real Mode Region  | 0.9     |             |             |
| 31        | <a href="#">0604</a> | Get Page Size  | 0.9     |             |             |
| 31        | <a href="#">0702</a> | Mark Page as Demand Paging Candidate                             | 0.9     |             |             |
| 31        | <a href="#">0703</a> | Discard Page Contents  | 0.9     |             |             |
| 31        | <a href="#">0800</a> | Physical Address Mapping   | 0.9     |             |             |
| 31        | <a href="#">0801</a> | Free Physical Address Mapping                                    | 1.0     |             |             |
| 31        | <a href="#">0900</a> | Get and Disable Virtual Interrupt State                          | 0.9     |             |             |
| 31        | <a href="#">0901</a> | Get and Enable Virtual Interrupt State                           | 0.9     |             |             |

| Interrupt       | AX   | Description                                | Version | 32-bit host | 16-bit host |
|-----------------|------|--|---------|-------------|-------------|
| 31              | 0902 | Get Virtual Interrupt State                | 0.9     |             |             |
| 31              | 0A00 | Get Vendor-Specific API Entry Point        | 0.9     |             |             |
| 31              | 0B00 | Set Debug Watchpoint                       | 0.9     |             |             |
| 31              | 0B01 | Clear Debug Watchpoint                     | 0.9     |             |             |
| 31              | 0B02 | Get State of Debug Watchpoint              | 0.9     |             |             |
| 31              | 0B03 | Reset Debug Watchpoint                     | 0.9     |             |             |
| 31              | 0C00 | Install Resident Service Provider Callback | 1.0     |             |             |
| 31              | 0C01 | Terminate and Stay Resident                | 1.0     |             |             |
| 31              | 0D00 | Allocate Shared Memory                     | 1.0     |             |             |
| 31              | 0D01 | Free Shared Memory                         | 1.0     |             |             |
| 31              | 0D02 | Serialize on Shared Memory                 | 1.0     |             |             |
| 31              | 0D03 | Free Serialization on Shared Memory        | 1.0     |             |             |
| 31              | 0E00 | Get Coprocessor Status                     | 1.0     |             |             |
| 31              | 0E01 | Set Coprocessor Emulation                  | 1.0     |             |             |
| DPMI            |      |  |         |             |             |
| Process manager |      | INT 2FH 1680H, 1687H                       |         |             |             |
| Signals         |      |  |         |             |             |
| Memory manager  |      |  |         |             |             |
| Misc            |      | INT 2FH 1686H, 168AH                       |         |             |             |
| Devices         |      |  |         |             |             |

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