



This is part of **Family API** which allow to create dual-os version of program runs under OS/2 and DOS

**Note:** This is legacy API call. It is recommended to use 32-bit equivalent

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## DosRead

This call reads the specified number of bytes from a file, pipe, or device to a buffer location.

### Syntax

```
DosRead (FileHandle, BufferArea, BufferLength, BytesRead)
```

### Parameters

- FileHandle ([HFILE](#)) - input : File handle obtained from DosOpen.
- BufferArea ([PVOID](#)) - output : Address of the input buffer.
- BufferLength ([USHORT](#)) - input : Length, in bytes, to be read.
- BytesRead ([PUSHORT](#)) - output : Address of the number of bytes read.

### Return Code

rc ([USHORT](#)) - return

Return code descriptions are:

- 0 NO\_ERROR
- 5 ERROR\_ACCESS\_DENIED
- 6 ERROR\_INVALID\_HANDLE
- 26 ERROR\_NOT\_DOS\_DISK
- 33 ERROR\_LOCK\_VIOLATION
- 109 ERROR\_BROKEN\_PIPE
- 234 ERROR\_MORE\_DATA

### Remarks

The requested number of bytes may not be read. If the value returned in BytesRead is zero, the process has tried to read from the end of the file.

A `BufferLength` value of zero is not considered an error. In the case where `BufferLength` is zero, the system treats the request as a null operation.

The file pointer is moved to the desired position by reading, writing, or issuing `DosChgFilePtr`.

## Family API Considerations

Some options operate differently in the DOS mode than in the OS/2 mode. Therefore, the following restrictions apply to `DosRead` when coding for the DOS mode:

- Only single-byte `DosRead` calls may be made to the COM device, because the COM device driver for the DOS environment does not support multiple-byte I/O.
- When `DosRead` is called with a handle that is open to CON, the read goes directly through `KbdStringIn` using the buffer and length that are provided to `DosRead`. This causes a DOS mode `DosRead` to behave differently than an OS/2 mode `DosRead`. Because an OS/2 mode `DosRead` buffers the call to `KbdStringIn`, this allows the user to enter many more characters.

For example, suppose `DosRead` is called with a buffer of length 10 from a handle opened to CON:

- In OS/2 mode, the user is allowed to enter a large number of characters before `KbdStringIn` begins beeping (indicating the buffer is full). After carriage return is pressed, `KbdStringIn` returns to `DosRead`. `DosRead` returns the first 10 characters to the caller and the remaining characters on subsequent calls to `DosRead` from CON.
- In DOS mode, the user is allowed to enter only eight characters (DOS mode `DosRead` reserves two characters for CR and LF) before `KbdStringIn` begins beeping. `DosRead` returns the eight characters entered, followed by CR and LF to the calling program.

## Named Pipe Considerations

A named pipe is read as one of the following:

- A byte pipe in byte read mode.
- A message pipe in message read mode.
- A message pipe in byte read mode.

A byte pipe must be in byte read mode to be read; an error is returned if it is in message read mode. All currently available data, up to the size requested, is returned.

A message pipe can be read in either message read mode or byte read mode. When the message pipe is in message read mode, a read that is larger than the next available message returns only that message. `BytesRead` is set to indicate the size of the message returned.

A read that is smaller than the next available message returns with the number of bytes requested and an `ERROR_MORE_DATA` return code. When resuming the reading of a message after `ERROR_MORE_DATA` is returned, a read always blocks until the next piece (or the rest) of the message can be transferred. `DosPeekNmPipe` may be used to determine how many bytes are left in the message.

A message pipe in byte read mode is read as if it were a byte stream, skipping over message headers. This is like reading a byte pipe in byte read mode.

When blocking mode is set for a named pipe, a read blocks until data is available. In this case, the read never returns with BytesRead = 0 except at EOF. In message read mode, messages are always read in their entirety, except in the case where the message is bigger than the size of the read.

Non-blocking mode allows a return with BytesRead = 0 only when no data is available at the time of the read.

## Bindings

### C Binding

```
#define INCL_DOSFILEMGR

USHORT rc = DosRead(FileHandle, BufferArea, BufferLength, BytesRead);

HFILE      FileHandle;    /* File Handle */
PVOID      BufferArea;    /* User buffer (returned) */
USHORT     BufferLength;  /* Buffer length */
PUSHORT    BytesRead;    /* Bytes read (returned) */

USHORT     rc;           /* return code */
```

### MASM Binding

```
EXTRN DosRead:FAR
INCL_DOSFILEMGR EQU 1

PUSH WORD FileHandle ;File Handle
PUSH@ OTHER BufferArea ;User buffer (returned)
PUSH WORD BufferLength ;Buffer length
PUSH@ WORD BytesRead ;Bytes read (returned)
CALL DosRead

Returns WORD
```

## Note

Text based on [http://www.edm2.com/index.php/DosRead\\_\(FAPI\)](http://www.edm2.com/index.php/DosRead_(FAPI))

Family API		
DOS	Process Manager	DosBeep DosExit DosSleep DosExecPgm
	File Manager	DosChDir DosChgFilePtr DosClose DosDelete DosDupHandle DosMkDir DosMove DosQCurDir DosQCurDisk DosSetFileMode DosOpen DosQFileInfo DosRead DosQFileMode DosQFSInfo DosQVerify DosRmdir DosSelectDisk DosFindClose DosFindFirst DosFindNext DosSetFileInfo DosSetVerify DosWrite DosFileLocks DosSetFHandState DosNewSize DosBufReset DosQFHandState DosSetFSinfo
	Memory Manager	DosFreeSeg DosSubAlloc DosSubFree DosSubSet DosAllocHuge DosAllocSeg DosReallocHuge DosReallocSeg DosGetHugeShift DosCreateCSAlias
	NLS	DosCaseMap DosGetCtryInfo DosGetDBCSEv DosSetCtryCode DosGetCollate DosGetMessage DosInsMessage DosPutMessage
	Date and Time	DosSetDateTime DosGetDateTime
	Devices	DosDevConfig DosDevIOct1 DosDevIOct2
	Signals	DosHoldSignal DosSetSigHandler
	Misc	BadDynLink DosGetEnv DosGetMachineMode DosGetVersion DosError DosErrClass DosSetVec
KBD	KbdCharIn KbdFlushBuffer KbdGetStatus KbdSetStatus KbdStringIn KbdPeek	
VIO	VioGetBuf VioGetConfig VioGetCurPos VioGetCurType VioGetPhysBuf VioReadCellStr VioReadCharStr VioScrollUp VioScrollDn VioScrollLf VioScrollRt VioScrUnLock VioSetCurPos VioSetCurType VioSetMode VioGetMode VioShowBuf VioWrtCellStr VioWrtCharStr VioWrtCharStrAtt VioWrtNAttr VioWrtNCell VioWrtNChar VioWrtTTY VioScrLock VioPopUp	
Tools	BIND	
Modules	DOSCALLS.DLL VIOCALLS.DLL KBDCALLS.DLL MSG.DLL	
Libraries	API.LIB OS2386.LIB FAPI.LIB DOSCALLS.LIB SUBCALLS.LIB	

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