

**PBClose** Close an open device driver

#include <Devices.h>

## **Device Manager**

```

OSErr      PBClose(pb, async);
ParmBlkPtr pb;          address of a 50-byte IOParm structure
Boolean     async;       0=await completion; 1=immediate return
              returns    Error Code; 0=no error
  
```

**PBClose** is used by the **File Manager** and the **Device Manager**.

### **File Manager Usage**

**PBClose** flushes the file buffer to the volume and removes the file's access path (i.e., invalidates its file reference number).

### **Device Manager Usage**

**PBClose** closes the device driver referenced in the ioRefNum parameter after completing any pending I/O's and releases whatever memory the driver obtained.

*pb* is the address of a 50-byte IOParm structure. The relevant fields are as follows:

| <u>Out-In Name</u> | <u>Type</u>    | <u>Size</u> | <u>Offset</u> | <u>Description</u>                                 |
|--------------------|----------------|-------------|---------------|--|
| -> ioCompletion    | <u>ProcPtr</u> | 4           | 12            | Completion routine address (if <i>async</i> =TRUE) |
| -> ioRefNum        | <u>short</u>   | 2           | 24            | Device reference number of driver to close         |
| <- ioResult        | <u>OSErr</u>   | 2           | 16            | Error Code (0=no error, 1=not done yet)            |

*async* is a Boolean value. Use FALSE for normal (synchronous) operation or TRUE to enqueue the request and resume control immediately. See Async I/O.

**File MgrReturns:** an operating system Error Code. It will be one of:

|              |       |  |
|--------------|-------|--|
| noErr        | (0)   | No error   |
| badUnitErr   | (-21) | <i>refNum</i> doesn't match unit table           |
| unitEmptyErr | (-22) | <i>refNum</i> specifies NIL handle in unit table |
| dRemoveErr   | (-25) | Can't remove open driver                         |

**Device Mgr Returns:** an operating system Error Code. It will be one of:

|          |       |                      |
|----------|-------|----------------------|
| noErr    | (0)   | No error             |
| extFSErr | (-58) | External file system |
| fnfErr   | (-43) | File not found       |
| fnOpnErr | (-38) | File not open        |
| ioErr    | (-36) | I/O error            |
| nsvErr   | (-35) | No such volume       |
| rfNumErr | (-51) | Bad ioRefNum         |

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#### File Mgr Notes:

DO NOT close a file if already closed. It is possible to wipe out a disk if you do so. A safe suggestion is to set your file reference number to 0 (an invalid value) after you close a file; then if you close the file again, you'll get an error, rather than a catastrophe.

Closing a file does not necessarily flush all related data to disk. To ensure data integrity, you should use **PBFlushVol** directly after closing.

Device Mgr Notes:

This is the low-level equivalent of **CloseDriver**. The **Device Manager** and the **File Manager** share the same parameter block data structure, but file-specific aspects don't apply to **Device Manager** calls.