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**GetDrvQHdr** 

QHdrPtr

#include < Files.h>

Obtain pointer to the drive queue header

File Manager

GetDrvQHdr();

returns address of a 10-byte QHdr structure

**GetDrvQHdr** returns the address of the header of the standard Operating System queue used to maintain the linked-list of disk drive information records. There is one <u>DrvQEI</u> entry for each physical drive attached to the Mac.

**Returns**: a 32-bit <u>QHdrPtr</u>; the address of the 10-byte <u>QHdr</u> structure whose qLink field points to the first <u>DrvQEI</u> structure in the queue.

Notes: C programmers may prefer to get this address from the global variable <u>DrvQHdr</u> (at 0x0308).

You can use this function to obtain information about drives attached to the system; it may be the only way to get this collection of information. If you need to monkey with this queue, you can use **Enqueue** and **Dequeue**.

In addition to the information in the <u>DrvQEI</u> structure, there are four bytes of additional data that precede each element. The following describes these prefix bytes:

## Offset Description

- -4 (bit 7 set) = disk is locked (write-protected)
- -3 0 = no disk in drive 1 or 2 = disk is in drive 8 = non-ejectable disk FCh...FFh = disk was ejected within last 1.5 seconds 48h = non-ejectable disk, but driver expects a call
- -2 (used internally during system startup)
- -1 (bit 7 clear) = drive supports only single-sided media

The following example reads the elements of the drive queue and displays information about all drives attached to the system.

## Example

```
#include <Files.h>
#include < OSUtils.h >
QHdrPtr
                                           /* address of a QHdr structure */
             qhp;
<u>DrvQEI</u>
             *qep;
                                           /* helps to decode prefix bytes */
<u>Byte</u>
             *bp;
<u>long</u>
             totBlks;
<u>Boolean</u>
             locked, oneSide, empty;
qhp= GetDrvQHdr();
                                             /* address of queue header */
qep = (DrvQEI *)qhp->qHead;
                                             /* address of a queue element */
printf("Drv# FileSys Blocks locked 1-sided empty\n");
do {
   bp=(Byte *)qep; bp -=4;
                                      /* point to structure prefix bytes */
```

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```
if (qep->qType == 0)
       totBlks = qep->dQDrvSz;
                                /* get size (in logical blocks) */
       totBlks = qep->dQDrvSz + (((long) qep->dQDrvSz2) << 16);
   locked = oneSide = empty = <u>FALSE</u>;
                                          /* set Booleans from prefix flags */
   if ( (bp[0] \& 0x80) == 0x80 ) locked=<u>TRUE</u>;
   if ( (bp[3] \& 0x80)==0 ) oneSide=TRUE;
   if (bp[1]==0) empty=\overline{TRUE};
   printf(" %d %5d %8ld %s %s
                                       %s\n",
          qep->dQDrive,
          qep->dQFSID,
          totBlks,
          locked ? "Yes": "No ",
          oneSide? "Yes": "No ",
          empty ? "Yes" : "No "
   );
   qep=(DrvQEI *)qep->qLink;
                                 /* point to next queue element */
} while( qep != 0 );
```