IOQUEUEM(b)

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NAME

ioqueuem – send message to I/O device driver

SYNOPSIS

(ioqueuem = 1.)
ioqueuem(&msgbuf)
int *msgbuf; /* pointer to message buffer */

DESCRIPTION

Ioqueuem computes the physical address for an I/O transfer as defined by the message pointed to by *msgbuf*. The message body must contain:

```
int     msiosid;    /* segment ID */
int     msioba;     /* word offset */
int     msiobc;     /* I/O byte count */
char    msiodev;    /* logical device number */
char    msiob0;     /* 8-bit high order block number */
char    *msiob1;    /* 16-bit low order block number */
```

A negative word offset indicates offset is from top of segment. Upon return word 1 of the message will contain the 16 least significant bits of the physical address. The user status byte in *msstat* of the message contains the extension bits. This routine also sets the *iolock* bit in the *mssize* byte so that the segment will be unlocked by *messink*. A value of 1 is returned from C.

In assembly language, r0 must contain the message buffer address.

SEE ALSO

iomap(b), messink(b), iomsg(c).

DIAGNOSTICS

A null value is returned from C if the segment ID is not valid, if the segment is not in memory, if the segment is not locked for I/O, or if the transfer to be initiated would be outside the address space of the segment.

In assembly language, the c-bit is set.

FUTURE AND DMERT DIAGNOSTICS

The message is returned to the sender with a status of *IOERROR* if the segment ID is not valid, if the segment is not in memory, if the segment is not locked for I/O, of if the transfer to be initiated would be outside the address space of the segment. Control is passed to the process' fault entry with a *BADOST* fault code if the input *msgbuf* does not point to a valid, allocated kernel message buffer.