

NAME

ht – RH-11/TU-16 magtape interface

DESCRIPTION

The files *mt0*, ..., *mt7* refer to the DEC RH/TM/TU16 magtape. When opened for reading or writing, the tape is rewound. When closed, it is rewound; if it was open for writing, a double end-of-file is written first.

A standard tape consists of a series of 512 byte records terminated by a double end-of-file. To the extent possible, the system makes it possible, if inefficient, to treat the tape like any other file. Seeks have their usual meaning and it is possible to read or write a byte at a time. Writing in very small units is inadvisable, however, because it tends to create monstrous record gaps.

The *mt* files discussed above are useful when it is desired to access the tape in a way compatible with ordinary files. When foreign tapes are to be dealt with, and especially when long records are to be read or written, the "raw" interface is appropriate. The associated files are named *rmt0*, ..., *rmt7*. Each *read* or *write* call reads or writes the next record on the tape. In the write case the record has the same length as the buffer given. During a read, the record size is passed back as the number of bytes read, provided it is no greater than the buffer size; if the record is long, an error is indicated. In raw tape I/O, the buffer must begin on a word boundary and the count must be even. Seeks are ignored. An error is returned when a tape mark is read, but another read will fetch the first record of the new tape file.

FILES

/dev/mt?, /dev/rmt?

SEE ALSO

tp (I)

BUGS

Raw I/O doesn't work yet. The magtape system is supposed to be able to take 64 drives. Such addressing has never been tried. These bugs will be fixed when we get more experience with this device.

If any non-data error is encountered, it refuses to do anything more until closed. In raw I/O, there should be a way to perform forward and backward record and file spacing and to write an EOF mark.