NAME

hp − RP04/RP05/RP06 moving-head disk

DESCRIPTION

The files **hp0**, ..., **hp31** refer to sections of the RP04/RP05/RP06 disk drive 0. The files **hp32**, ..., **hp63** refer to drive 1, etc. This slicing allows the pack to be broken up into more manageable pieces.

A sample of the origin and size of the sections on each drive are as follows:

NCYL = 418 (22 * 19)

blocks	offset	section	
120*NCYL	0	hp0	overlaps 8,9,10,11
120*NCYL	120	hp1	overlaps 12,13
120*NCYL	240	hp2	
120*NCYL	360	hp3	
120*NCYL	480	hp4	
120*NCYL	600	hp5	
95*NCYL	720	hp6	
	(end of RP06)		
51*NCYL	360	hp7	
	(end of RP04/RP05)		
12*NCYL	0	hp8	util
11*NCYL	12	hp9	
97*NCYL	23	hp10	
0	0	hp11	spare
65*NCYL	120	hp12	source
55*NCYL	185	hp13	rootdev
-	-	-	
-	-	-	
	etc.		

Blocks are the number of cylinders assigned to a section of the disk times 418 blocks per cylinder. Offset is in multiple of cylinders and indicates where each section of the disk begins. Section refers to the *hp* number found in **/dev/hp***. It should be noted that **/dev/hp8** and **dev/util** are linked together and therefore, describe the same section of the disk. Also and **/dev/rootdev** are linked together and both refer to the root file system. This layout should be made with discretion to allow for convenient backups (overlays) and future expansion.

The *hp* files access the disk via the system's normal buffering mechanism and may be read and written without regard to physical disk records. There is also a "raw" interface which provides for direct transmission between the disk and the user's read or write buffer. A single read or write call results in exactly one I/O operation and therefore raw I/O is considerably more efficient when many words are transmitted. The names of the raw *HP* files begin with **rhp** and end with a number which selects the same disk section as the corresponding *hp* file.

In raw I/O the buffer must begin on a word boundary, and counts should be a multiple of 512 bytes (a disk block). Likewise *lseek* calls should specify a multiple of 512 bytes.

By convention, programs never access the physical names **dev/hp*** or **/dev/rhp***, but access the logical names such as **/dev/musr** or **/dev/rmusr** instead. These logical names are linked by the system administrator to the physical device names.

FILES

/dev/hp*
/dev/rhp*