

# DNHELP, A DIRECTORY ASSISTOR PROGRAM

DECUS Program Library Write-up

DECUS No. 8-135

DNHELP is a four-page disk utility program that may reside in core with DIRECTORY and DISKLOOK. It is designed to assist programmers in investigating the contents of the DN and SAM blocks on the disk under the DEC Disk Monitor System.

For any one file (at a time), DNHELP outputs the contents of the associated directory entry, giving its absolute disk location, the program's name in octal and alphanumerics, the load point and start address, and the File type/File number word, also in octal and alphanumerics. Following the directory entry, the block numbers assigned to the file number are printed out. Finally, the (octal) total number of blocks typed is printed, and the program asks for the next user request.

## Other Features

1. "?" is typed to illegal requests, and the program recycles to "\*IN-"
2. Typing "A < CR >" as a request gives the first available directory entry and the numbers of free blocks.
3. Striking a key during type-out halts printing and causes "\*IN-" to be typed out.
4. A "RUBOUT" will erase a request.
5. ↑ C (CTRL C) returns control to the monitor.

DNHELP starts at 50000. System monitor head (DEC Disk [Tape] Monitor System) must be in core at 76000. Calls on SYS I/O. A carriage return initiates execution of a request. The program works with both disk and DECTape. The format for address output (Block Address) is that used by DLOOK and SYSLUK. See the example sequence for typical usage.

.HELP  
>DIRECTORY ASSISTOR  
FORMAT FILE TYPE/NAME  
WHERE FILE TYPE (A,B,F,U,S)

} Header message, typed at beginning only

\*IN-S/LOAD ← System Save File; note "/" as separator

DN ENTRY AT 177.22  
                  ↑                  ↓  
                  Block number  
                  Word 22 of block 177

5457	LO	Name				
4144	AD					
7000		Load point				
7000		Start address				
6104	S	0	S	4	← =	System
					Save	Field
						0
						System
						File
						Internal
						File No.
						4

BLOCK NUMBERS  
12  
13  
14  
} Blocks allocated for File No. 4

3 BLOCKS USED

\*IN-S/XODH ← Next user request  
DN.ENTRY AT 177.53

7057 XO  
4450 DH  
6400  
7000  
6311 S 1 S 1 1  
                  ↑                  Field 1

BLOCK NUMBERS  
42  
43  
44  
45  
46

5 BLOCKS USED

\*IN-A ← Request for Available DN entry, numbers of free blocks  
DN ENTRY AT 201.41

0  
0  
0  
0  
0 A 0 U 0

BLOCK NUMBERS

362  
363  
364  
365  
370  
372

6 BLOCKS USED ← 6 free blocks

\*IN-UT? ← improper format  
\*IN-U/TEMP  
? ← user file "TEMP" not on disk.

\*IN-S/EX C  
DN ENTRY AT 177.3

4570 EX  
43 C  
7000  
7000  
6101 S 0 S 1

BLOCK NUM ← type-out terminated by striking Key  
\*IN-U/TEMP ← User save file "TEMP"  
DN ENTRY AT 201.41

6445 TE  
5560 MP  
0  
0  
6040 U 0 U 40  
└───┬───> User save file

BLOCK NUMBERS  
321

1 BLOCKS USED

\*IN- ← RUBOUT typed  
\*IN- ←  
· ← ↑ C typed