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CHECK ACCESS RIGHTS FOR CONTROL WRITE FUNCTIONS

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0000 1      .TITLE MTFDT - MAGTAPE FUNCTION DECISION TABLE ROUTINES
0000 2      .IDENT 'V04-000'
0000 3
0000 4
0000 5 *****
0000 6
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0000 25 *****
0000 26
0000 27
0000 28 D. N. CUTLER 29-JUN-77
0000 29
0000 30 MAGTAPE FUNCTION DECISION TABLE ROUTINES
0000 31
0000 32 MODIFIED BY:
0000 33
0000 34 V03-001 LMP0185 L. Mark Pilant, 31-Jan-1984 10:49
0000 35 Track interface change to EXE$CHKxxxACCESS routines.
0000 36
0000 37 V0003 RLR0001 Robert Rappaport 11-March-1980
0000 38 Added error return code when volume software write locked.
0000 39 V0002 ACG0047 Andrew C. Goldstein, 8-Aug-1979 17:05
0000 40 Protection check interface changes
0000 41
0000 42
0000 43 MACRO LIBRARY CALLS
0000 44
0000 45
0000 46 $DEVDEF ;DEFINE DEVICE CHARACTERISTIC BITS
0000 47 $PCBDEF ;DEFINE PCB OFFSETS
0000 48 $$$DEF ;DEFINE SYSTEM STATUS VALUES
0000 49 $UCBDEF ;DEFINE UCB OFFSETS

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0000 51      .SBTTL CHECK ACCESS RIGHTS FOR CONTROL WRITE FUNCTIONS
0000 52      :+
0000 53      : MT$CHECK_ACCESS - CHECK ACCESS RIGHTS FOR CONTROL WRITE FUNCTIONS
0000 54      :
0000 55      : THIS ROUTINE IS CALLED BY THE FUNCTION DECISION TABLE DISPATCHER WHEN A WRITE
0000 56      : TAPE MARK OR ERASE TAPE FUNCTION IS ENCOUNTERED. ITS FUNCTION IS TO CHECK THE
0000 57      : ACCESS RIGHTS OF THE REQUESTING PROCESS.
0000 58      :
0000 59      : INPUTS:
0000 60      :
0000 61      :     R0 = SCRATCH.
0000 62      :     R1 = SCRATCH.
0000 63      :     R2 = SCRATCH.
0000 64      :     R3 = ADDRESS OF I/O REQUEST PACKET.
0000 65      :     R4 = CURRENT PROCESS PCB ADDRESS.
0000 66      :     R5 = ASSIGNED DEVICE UCB ADDRESS.
0000 67      :     R6 = ADDRESS OF CCB.
0000 68      :     R7 = I/O FUNCTION CODE BIT NUMBER.
0000 69      :     R8 = FUNCTION DECISION TABLE DISPATCH ADDRESS.
0000 70      :     R9 = SCRATCH.
0000 71      :     R10 = SCRATCH.
0000 72      :     R11 = SCRATCH.
0000 73      :     AP = ADDRESS OF FIRST FUNCTION DEPENDENT PARAMETER.
0000 74      :
0000 75      : OUTPUTS:
0000 76      :
0000 77      :     THE ACCESS RIGHTS OF THE REQUESTING PROCESS ARE CHECKED TO DETERMINE
0000 78      :     WHETHER A CONTROL WRITE FUNCTION CAN BE PERFORMED. IF THE REQUESTING
0000 79      :     PROCESS DOES NOT HAVE SUFFICIENT PRIVILEGE, THEN THE I/O FUNCTION IS
0000 80      :     ABORTED WITH A STATUS OF SSS_NOPRIV. OTHERWISE A RETURN TO THE FUNCTION
0000 81      :     DECISION TABLE DISPATCHER IS EXECUTED.
0000 82      : -
0000 83      :
0000 84      MT$CHECK_ACCESS::                                ;CHECK ACCESS RIGHTS FOR CONTROL WRITE
0000 85      MOVZWL #SS$ WRITLCK,R0                          ; Set error code just in case.
0000 86      BBS    #DEV$V SWL,UCB$L_DEVCHAR(R5),10$        ;IF SET, SOFTWARE WRITE LOCKED
0000 87      BSBW   EXE$CHRWRRTACCES                        ;WRITE FOR WRITE ACCESS TO VOLUME
0000 88      :                                             ;R4 = PCB ADDRESS
0000 89      :                                             ;R5 = UCB ADDRESS
0000 90      BLBC  R0,10$                                    ;IF LBC ACCESS DENIED
0000 91      RSB   :
0000 92      10$: BRW   EXE$ABORTIO                          ;ABORT I/O OPERATION (STATUS = SSS_NOPRIV)
0000 93      :
0000 94      .END

```

MTFDT  
Symbol table

L 13

- MAGTAPE FUNCTION DECISION TABLE ROUTIN 16-SEP-1984 00:36:46 VAX/VMS Macro V04-00  
5-SEP-1984 03:45:22 [SYS.SRC]MTFDT.MAR;1

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DEV\$V SWL = 00000019  
EXE\$ABORTIO \*\*\*\*\* X 01  
EXE\$CHKWRTACCES \*\*\*\*\* X 01  
MT\$CHECK\_ACCESS 00000000 RG 01  
SS\$ WRITCCK = 0000025C  
UCB\$ \_DEVCHAR = 00000038

-----  
! Psect synopsis !  
-----

PSECT name	Allocation	PSECT No.	Attributes
. ABS :	00000000 ( 0.)	00 ( 0.)	NOPIC USR CON ABS LCL NOSHR NOEXE NORD NOWRT NOVEC BYTE
. BLANK :	00000014 ( 20.)	01 ( 1.)	NOPIC USR CON REL LCL NOSHR EXE RD WRT NOVEC BYTE
\$AB\$\$	00000000 ( 0.)	02 ( 2.)	NOPIC USR CON ABS LCL NOSHR EXE RD WRT NOVEC BYTE

-----  
! Performance indicators !  
-----

Phase	Page faults	CPU Time	Elapsed Time
Initialization	31	00:00:00.07	00:00:01.48
Command processing	110	00:00:00.51	00:00:04.76
Pass 1	286	00:00:07.92	00:00:25.61
Symbol table sort	0	00:00:01.40	00:00:03.65
Pass 2	34	00:00:01.19	00:00:04.14
Symbol table output	3	00:00:00.03	00:00:00.04
Psect synopsis output	1	00:00:00.02	00:00:00.02
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	467	00:00:11.14	00:00:39.91

The working set limit was 1350 pages.  
44767 bytes (88 pages) of virtual memory were used to buffer the intermediate code.  
There were 60 pages of symbol table space allocated to hold 962 non-local and 1 local symbols.  
94 source lines were read in Pass 1, producing 12 object records in Pass 2.  
11 pages of virtual memory were used to define 10 macros.

-----  
! Macro library statistics !  
-----

Macro library name	Macros defined
_\$255\$DUA28:[SYS.OBJ]LIB.MLB;1	2
-\$255\$DUA28:[SYSLIB]STARLET.MLB;2	5
TOTALS (all libraries)	7

1033 GETS were required to define 7 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LIS\$:MTFDT/OBJ=OBJ\$:MTFDT MSRCS\$:MTFDT/UPDATE=(ENH\$:MTFDT)+EXECMLS/LIB

