



```

MM      MM      P P P P P P P P      W W      W W      I I I I I I      N N      N N      D D D D D D D D
MM      MM      P P P P P P P P      W W      W W      I I I I I I      N N      N N      D D D D D D D D
MMMM    MMMM    P P      P P      W W      W W      I I      N N      N N      D D      D D
MMMM    MMMM    P P      P P      W W      W W      I I      N N      N N      D D      D D
MM      MM      P P      P P      W W      W W      I I      N N N N      N N      D D      D D
MM      MM      P P      P P      W W      W W      I I      N N N N      N N      D D      D D
MM      MM      P P P P P P P P      W W      W W      I I      N N      N N      D D      D D
MM      MM      P P P P P P P P      W W      W W      I I      N N      N N      D D      D D
MM      MM      P P      W W      W W      W W      I I      N N      N N N N      D D      D D
MM      MM      P P      W W      W W      W W      I I      N N      N N N N      D D      D D
MM      MM      P P      W W W W      W W W W      I I      N N      N N      D D      D D
MM      MM      P P      W W W W      W W W W      I I      N N      N N      D D      D D
MM      MM      P P      W W      W W      W W      I I I I I I      N N      N N      D D D D D D D D
MM      MM      P P      W W      W W      W W      I I I I I I      N N      N N      D D D D D D D D

```

```

LL      I I I I I I      S S S S S S S S
LL      I I I I I I      S S S S S S S S
LL      I I      S S
LL      I I      S S
LL      I I      S S
LL      I I      S S
LL      I I      S S S S S S
LL      I I      S S S S S S
LL      I I      S S
LL      I I      S S
LL      I I      S S
LL      I I      S S
LLLLLLLLLLLL      I I I I I I      S S S S S S S S
LLLLLLLLLLLL      I I I I I I      S S S S S S S S

```

....  
....  
....  
....

```
0000 1 .TITLE MPWIND - MAP BLOCKS THROUGH FILE WINDOW
0000 2 .IDENT 'V04-000'
0000 3
0000 4
0000 5 *****
0000 6 *
0000 7 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY *
0000 8 * DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS. *
0000 9 * ALL RIGHTS RESERVED. *
0000 10 *
0000 11 * THIS SOFTWARE IS FURNISHED UNDER A LICENSE AND MAY BE USED AND COPIED *
0000 12 * ONLY IN ACCORDANCE WITH THE TERMS OF SUCH LICENSE AND WITH THE *
0000 13 * INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR ANY OTHER *
0000 14 * COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY *
0000 15 * OTHER PERSON. NO TITLE TO AND OWNERSHIP OF THE SOFTWARE IS HEREBY *
0000 16 * TRANSFERRED. *
0000 17 *
0000 18 * THE INFORMATION IN THIS SOFTWARE IS SUBJECT TO CHANGE WITHOUT NOTICE *
0000 19 * AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY DIGITAL EQUIPMENT *
0000 20 * CORPORATION. *
0000 21 *
0000 22 * DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS *
0000 23 * SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL. *
0000 24 *
0000 25 *
0000 26 *****
0000 27
0000 28 ++
0000 29
0000 30 FACILITY: F11ACP STRUCTURE LEVEL 1
0000 31
0000 32 ABSTRACT:
0000 33
0000 34 THIS ROUTINE MAPS THE GIVEN VIRTUAL BLOCK(S) INTO THE
0000 35 CORRESPONDING LOGICAL BLOCKS.
0000 36
0000 37 ENVIRONMENT:
0000 38
0000 39 STARLET OPERATING SYSTEM, INCLUDING PRIVILEGED SYSTEM SERVICES
0000 40 AND INTERNAL EXEC ROUTINES. THIS ROUTINE MUST BE EXECUTED IN
0000 41 KERNEL MODE.
0000 42
0000 43 --
0000 44
0000 45 AUTHOR: ANDREW C. GOLDSTEIN, CREATION DATE: 3-MAR-1977 11:15
0000 46
0000 47 MODIFIED BY:
0000 48
0000 49 V03-002 ACG0408 Andrew C. Goldstein, 23-Mar-1984 11:00
0000 50 Make all of global storage based
0000 51
0000 52 V03-001 CDS0001 Christian D Saether 9-Dec-1983
0000 53 Fix truncation error.
0000 54
0000 55 A0101 ACG0003 Andrew C. Goldstein, 8-Nov-1978 19:08
0000 56 Add multi-volume support for structure level 2
0000 57
```

```
0000 58 : A0100 ACG00001 Andrew C. Goldstein, 10-Oct-1978 20:04
0000 59 : Previous revision history moved to F11A.REV
0000 60 : **
0000 61 :
0000 62 :
0000 63 : INCLUDE FILES:
0000 64 :
0000 65 : .INCLUDE FCPDEF.MAR
0000 66 :
0000 67 :
0000 68 : EQUATED SYMBOLS:
0000 69 :
0000 70 : AP OFFSETS
0000 71 :
00000004 0000 72 VBN = 4 ; DESIRED VBN
00000008 0000 73 WINDOW = 8 ; WINDOW ADDRESS
0000000C 0000 74 COUNT = 12 ; BLOCK COUNT TO MAP
00000010 0000 75 UNMAPPED= 16 ; ADDRESS OF LONGWORD TO STORE
00000014 0000 76 ; COUNT OF UNMAPPED BLOCKS
0000 77 UCB = 20 ; ADDRESS OF LONGWORD TO STORE
0000 78 ; RESULTING UCB
0000 79
0000 80
0000 81 $WCBDEF ; DEFINE WINDOW STRUCTURE
```

```

0000 83 :++
0000 84 :
0000 85 : FUNCTIONAL DESCRIPTION:
0000 86 :
0000 87 :     THIS ROUTINE MAPS THE GIVEN VIRTUAL BLOCK(S) INTO THE
0000 88 :     CORRESPONDING LOGICAL BLOCKS.
0000 89 :
0000 90 : CALLING SEQUENCE:
0000 91 :     CALL     MAP_WINDOW (ARG1, ARG2, ARG3, ARG4, ARG5)
0000 92 :
0000 93 : INPUT PARAMETERS:
0000 94 :     ARG1: DESIRED VBN
0000 95 :     ARG2: ADDRESS OF WINDOW TO USE
0000 96 :     ARG3: NUMBER OF BLOCKS TO MAP
0000 97 :
0000 98 : IMPLICIT INPUTS:
0000 99 :     CURRENT_UCB CONTAINS UCB ADDRESS OF UNIT IN PROCESS
0000 100 :
0000 101 : OUTPUT PARAMETERS:
0000 102 :     ARG4: ADDRESS OF LONGWORD TO RECEIVE UNMAPPED COUNT
0000 103 :     ARG5: ADDRESS OF LONGWORD TO RECEIVE RESULT UCB ADDRESS
0000 104 :
0000 105 : IMPLICIT OUTPUTS:
0000 106 :     NONE
0000 107 :
0000 108 : ROUTINE VALUE:
0000 109 :     LBN IF ANY BLOCKS MAPPED
0000 110 :     -1 IF NONE MAPPED
0000 111 :
0000 112 : SIDE EFFECTS:
0000 113 :     NONE
0000 114 :
0000 115 : --
0000 116 :
00000000 117 : .PSECT $CODE$,NOWRT, LONG
0000 118 :
0000 119 MAP_WINDOW::
0000 120 : .WORD ^M<R2,R3,R4,R5> ; SAVE REGISTERS
152 08 AC 003C 0002 121 : MOVL WINDOW(AP),R2 ; GET WINDOW ADDRESS
55 0000 CA 0006 122 : MOVL W^CURRENT_UCB(R10),R5 ; GET UCB ADDRESS FOR MAPPER
000B 123 :
51 50 04 AC 000B 124 10$: MOVL VBN(AP),R0 ; GET VBN
0C AC 09 78 000F 125 : ASHL #9,COUNT(AP),R1 ; GET EXPLICIT COUNT
00000000 9F 16 0014 126 20$: JSB @#10C$MAPVBLK ; CALL SYSTEM MAPPING ROUTINE
14 BC 55 001A 127 : MOVL R5,@UCB(AP) ; STORE RESULTING UCB
0A 50 E9 001E 128 : BLBC R0,40$ ; BRANCH IF NO MAP
0021 129 :
0021 130 : SUCCESSFUL MAP - RETURN LBN AND COUNT OF UNMAPPED BLOCKS IF WANTED
0021 131 :
10 BC 50 51 0021 132 : MOVL R1,R0 ; LBN TO ROUTINE VALUE
52 F7 8F 78 0024 133 : ASHL #-9,R2,@UNMAPPED(AP) ; STORE RESULT
04 002A 134 30$: RET ; AND RETURN
002B 135 :
002B 136 : WE GET HERE IF THE MAP FAILS COMPLETELY. RETURN -1 AS VALUE.
002B 137 :
10 BC 0C AC 002B 138 40$: MOVL COUNT(AP),@UNMAPPED(AP) ; RETURN ENTIRE COUNT AS UNMAPPED
50 01 CE 0030 139 : MNEGL #1,R0 ; VALUE = -1

```

MPWIND  
V04-000

- MAP BLOCKS THROUGH FILE WINDOW I 13

15-SEP-1984 23:44:26 VAX/VMS Macro V04-00  
5-SEP-1984 01:14:14 [F11X.SRC]MPWIND.MAR;1

Page 4  
(2)

04	0033	140	RET
	0034	14	
	0034	1	
	0034	3	
	0034	4	.END

PAI  
V04

```

ACL_TYPE           = 00000007
AOB_TYPE           = 00000005
BITMAP_TYPE        = 00000001
CACHE_TYPE         = 00000006
CHIP_TYPE          = 00000008
COUNT             = 0000000C
CURRENT_UCB        ***** X 02
DATA_TYPE          = 00000004
DIRECTORY_TYPE     = 00000002
FCB_TYPE           = 00000000
HEADER_TYPE        = 00000000
INDEX_TYPE         = 00000003
IOCSMAPVBLK       ***** X 02
MAP_WINDOW         00000000 RG 02
MVL_TYPE           = 00000004
QUOTA_TYPE         = 00000005
RVT_TYPE           = 00000003
UCB                = 00000014
UNMAPPED           = 00000010
VBN                = 00000004
VCB_TYPE           = 00000002
WCB_TYPE           = 00000001
WINDOW             = 00000008
    
```

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

PSECT name	Allocation	PSECT No.	Attributes
. ABS	00000000 ( 0.)	00 ( 0.)	NOPIC USR CON ABS LCL NOSHR NOEXE NORD NOWRT NOVEC BYTE
\$ABSS	00000000 ( 0.)	01 ( 1.)	NOPIC USR CON ABS LCL NOSHR EXE RD WRT NOVEC BYTE
\$CODES	00000034 ( 52.)	02 ( 2.)	NOPIC USR CON REL LCL NOSHR EXE RD NOWRT NOVEC LONG

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

Phase	Page faults	CPU Time	Elapsed Time
Initialization	35	00:00:00.07	00:00:00.30
Command processing	136	00:00:00.65	00:00:04.44
Pass 1	140	00:00:01.51	00:00:05.22
Symbol table sort	0	00:00:00.09	00:00:00.26
Pass 2	44	00:00:00.61	00:00:01.81
Symbol table output	4	00:00:00.01	00:00:00.04
Psect synopsis output	2	00:00:00.02	00:00:00.03
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	364	00:00:02.96	00:00:12.10

The working set limit was 1200 pages.  
6617 bytes (13 pages) of virtual memory were used to buffer the intermediate code.  
There were 10 pages of symbol table space allocated to hold 103 non-local and 4 local symbols.  
245 source lines were read in Pass 1, producing 13 object records in Pass 2.  
10 pages of virtual memory were used to define 9 macros.

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

Macro library name	Macros defined
-----	-----
_\$255\$DUA28:[SYS.OBJ]LIB.MLB;1	1
_\$255\$DUA28:[SYSLIB]STARLET.MLB;2	3
TOTALS (all libraries)	4

139 GETS were required to define 4 macros.

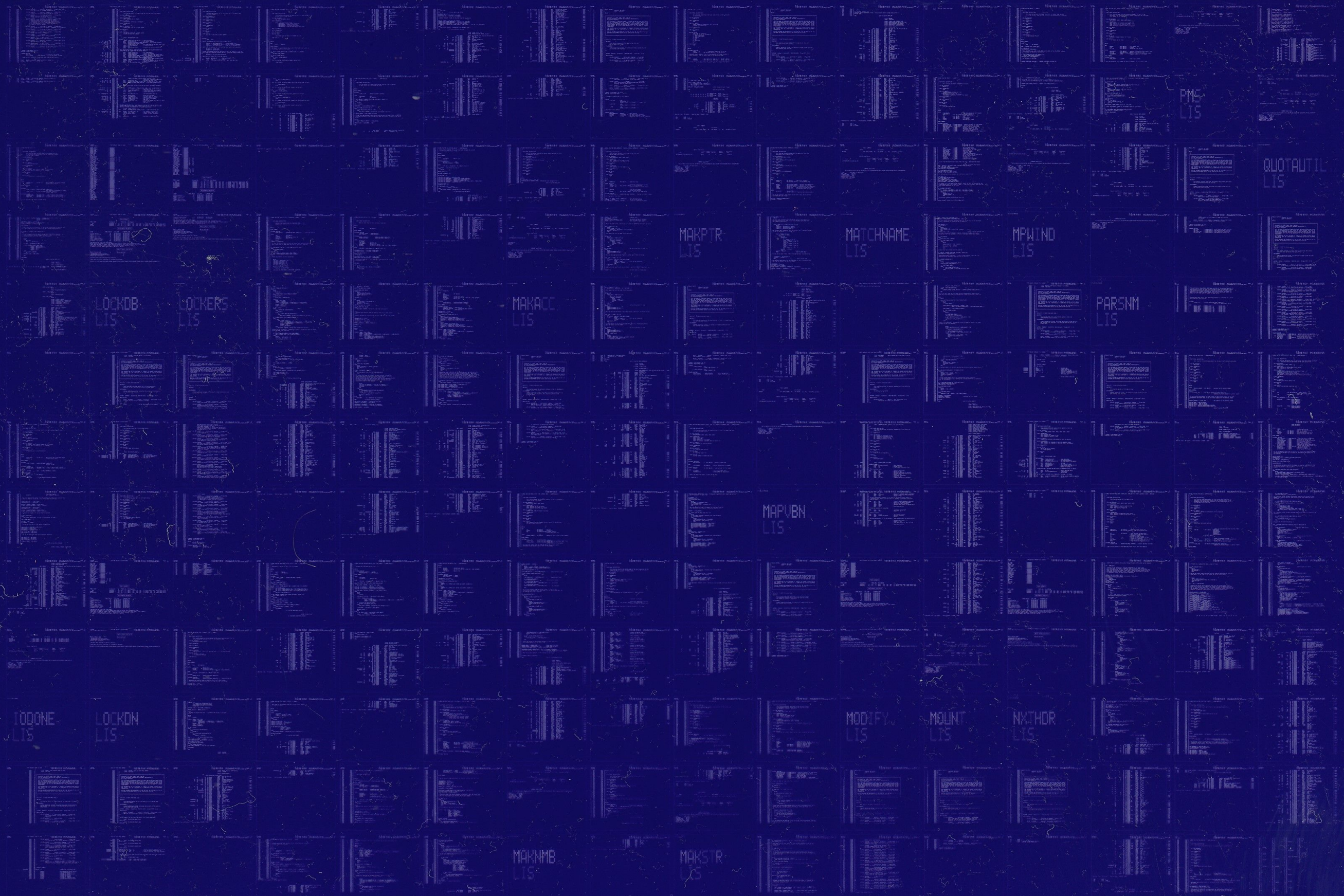
There were no errors, warnings or information messages.

MACRO/LIS=LIS\$:MPWIND/OBJ=OBJ\$:MPWIND MSRCS:FCPPRE/UPDATE=(ENHS:FCPPRE)+MSRCS:MPWIND/UPDATE=(ENHS:MPWIND)+EXECMLS/LIB



0171 AH-BT13A-SE  
VAX/VMS V4.0

DIGITAL EQUIPMENT CORPORATION  
CONFIDENTIAL AND PROPRIETARY



PMS  
LIS

QUOTAUTIL  
LIS

MAKPTR  
LIS

MATCHNAME  
LIS

MPWIND  
LIS

LOCKDB  
LIS

LOCKERS  
LIS

MAKACC  
LIS

PARSNM  
LIS

MAPVBN  
LIS

TODONE  
LIS

LOCKDN  
LIS

MODIFY  
LIS

MOUNT  
LIS

MYTHOR  
LIS

MAKNMB  
LIS

MAKSTR  
LIS