


```
LL      000000  CCCCCCCC  KK      KK  DDDDDDDD  BBBB88888
LL      000000  CCCCCCCC  KK      KK  DDDDDDDD  BBBB88888
LL      00      00  CC      CC  KK      KK  DD      DD  BB      BB
LL      00      00  CC      CC  KK      KK  DD      DD  BB      BB
LL      00      00  CC      CC  KK      KK  DD      DD  BB      BB
LL      00      00  CC      CC  KK      KK  DD      DD  BB      BB
LL      00      00  CC      CC  KK      KK  DD      DD  BB      BB
LL      00      00  CC      CC  KKKKKK  DD      DD  BBBB88888
LL      00      00  CC      CC  KKKKKK  DD      DD  BBBB88888
LL      00      00  CC      CC  KK      KK  DD      DD  BB      BB
LL      00      00  CC      CC  KK      KK  DD      DD  BB      BB
LL      00      00  CC      CC  KK      KK  DD      DD  BB      BB
LL      00      00  CC      CC  KK      KK  DD      DD  BB      BB
LLLLLLLLLLLL  000000  CCCCCCCC  KK      KK  DDDDDDDD  BBBB88888
LLLLLLLLLLLL  000000  CCCCCCCC  KK      KK  DDDDDDDD  BBBB88888
                                         ....
                                         ....
                                         ....
                                         ....
```

```
LL      IIIIII  SSSSSSSS
LL      IIIIII  SSSSSSSS
LL      II      SS
LL      II      SS
LL      II      SS
LL      II      SS
LL      II      SSSSSS
LL      II      SSSSSS
LL      II      SS
LL      II      SS
LL      II      SS
LL      II      SS
LLLLLLLLLLLL  IIIIII  SSSSSSSS
LLLLLLLLLLLL  IIIIII  SSSSSSSS
```



```

0000 1      .TITLE LOCKDB - LOCK AND UNLOCK I/O DATA BASE
0000 2      .IDENT 'V04-000'
0000 3
0000 4
0000 5 :*****
0000 6 :*
0000 7 :*  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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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 :     THESE ROUTINES LOCK AND UNLOCK THE I/O DATA BASE MUTEX.
0000 35 :     NEEDLESS TO SAY, THEY MUST BE CALLED IN KERNEL MODE.
0000 36
0000 37 : ENVIRONMENT:
0000 38
0000 39 :     STARLET OPERATING SYSTEM, INCLUDING PRIVILEGED SYSTEM SERVICES
0000 40 :     AND INTERNAL EXEC ROUTINE.
0000 41
0000 42 : --
0000 43
0000 44 : AUTHOR: ANDREW C. GOLDSTEIN, CREATION DATE: 29-APR-1977 15:31
0000 45
0000 46 : MODIFIED BY:
0000 47
0000 48 : **
0000 49
0000 50
0000 51      $PRDEF                ; DEFINE PROCESOR REGISTER NUMBERS

```

```

0000 53 :++
0000 54 :
0000 55 : FUNCTIONAL DESCRIPTION:
0000 56 :
0000 57 :     THIS ROUTINE LOCKS THE I/O DATA BASE MUTEX.
0000 58 :
0000 59 : CALLING SEQUENCE:
0000 60 :     CALL LOCK_IODB ( )
0000 61 :
0000 62 : INPUT PARAMETERS:
0000 63 :     NONE
0000 64 :
0000 65 : IMPLICIT INPUTS:
0000 66 :     NONE
0000 67 :
0000 68 : OUTPUT PARAMETERS:
0000 69 :     NONE
0000 70 :
0000 71 : IMPLICIT OUTPUTS:
0000 72 :     NONE
0000 73 :
0000 74 : ROUTINE VALUE:
0000 75 :     NONE
0000 76 :
0000 77 : SIDE EFFECTS:
0000 78 :     I/O DATA BASE MUTEX LOCKED
0000 79 :
0000 80 :--
0000 81 :
00000000 82 : .PSECT $LOCKEDC1$,NOWRT
0000 83 :
0000 84 LOCK_IODB::
50 00000000'9F 003C 0000 85 : .WORD ^M<R2,R3,R4,R5> ; SAVE REGISTERS
54 00000000'9F DE 0002 86 : MOVAL @#IOC$GL_MUTEX,R0 ; GET I/O DATA BASE MUTEX
00000000'9F D0 0009 87 : MOVL @#SCH$GL_CURPCB,R4 ; GET OWN PCB ADDRESS
00000000'9F 16 0010 88 : JSB @#SCH$LOCKW ; AND LOCK IT
04 0016 89 : RET

```

```

0017 91 :++
0017 92 :
0017 93 : FUNCTIONAL DESCRIPTION:
0017 94 :
0017 95 :     THIS ROUTINE UNLOCKS THE I/O DATA BASE MUTEX.
0017 96 :
0017 97 : CALLING SEQUENCE:
0017 98 :     CALL UNLOCK_IODB ( )
0017 99 :
0017 100 : INPUT PARAMETERS:
0017 101 :     NONE
0017 102 :
0017 103 : IMPLICIT INPUTS:
0017 104 :     NONE
0017 105 :
0017 106 : OUTPUT PARAMETERS:
0017 107 :     NONE
0017 108 :
0017 109 : IMPLICIT OUTPUTS:
0017 110 :     NONE
0017 111 :
0017 112 : ROUTINE VALUE:
0017 113 :     NONE
0017 114 :
0017 115 : SIDE EFFECTS:
0017 116 :     I/O DATA BASE MUTEX UNLOCKED
0017 117 :     IPL LOWERED TO 0
0017 118 :
0017 119 :--
0017 120 :
0017 121 UNLOCK_IODB::
0017 122 .WORD ^M<R2,R3,R4,R5> ; SAVE REGISTERS
50 00000000'9F DE 0019 123 MOVAL @#IOC$GL_Mutex,R0 ; GET I/O DATA BASE MUTEX
54 00000000'9F DO 0020 124 MOVL @#SCH$GL_CURPCB,R4 ; AND OWN PCB ADDRESS
00000000'9F 16 0027 125 JSB @#SCH$UNLOCK ; AND UNLOCK IT
002D 126 SETIPL #0 ; ALSO LOWER IPL
04 0030 127 RET
0031 128
0031 129
0031 130
0031 131 .END

```

00000000'9F DE 0019 123 MOVAL @#IOC\$GL_Mutex,R0 ; GET I/O DATA BASE MUTEX

```

AQB_TYPE      = 00000005
BITMAP_TYPE   = 00000001
DIRECTORY_TYPE = 00000002
FCB_TYPE      = 00000000
HEADER_TYPE   = 00000000
INDEX_TYPE    = 00000003
IOCSGC_MUTEX  ***** X 02
LOCK_IODB     00000000 RG 02
MVL_TYPE      = 00000004
PR$_IPL       = 00000012
RVT_TYPE      = 00000003
SCH$GL_CURPCB ***** X 02
SCH$LOCKW     ***** X 02
SCH$UNLOCK    ***** X 02
UNLOCK_IODB   00000017 RG 02
VCB_TYPE      = 00000002
WCB_TYPE      = 00000001
    
```

! 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
\$LOCKEDC1\$	00000031 (49.)	02 (2.)	NOPIC USR CON REL LCL NOSHR EXE RD NOWRT NOVEC BYTE

! Performance indicators !

Phase	Page faults	CPU Time	Elapsed Time
Initialization	44	00:00:00.12	00:00:00.51
Command processing	169	00:00:00.78	00:00:05.10
Pass 1	138	00:00:01.48	00:00:07.87
Symbol table sort	0	00:00:00.08	00:00:00.11
Pass 2	39	00:00:00.58	00:00:02.58
Symbol table output	2	00:00:00.03	00:00:00.03
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	396	00:00:03.10	00:00:16.23

The working set limit was 1050 pages.
6296 bytes (13 pages) of virtual memory were used to buffer the intermediate code.
There were 10 pages of symbol table space allocated to hold 96 non-local and 0 local symbols.
234 source lines were read in Pass 1, producing 13 object records in Pass 2.
13 pages of virtual memory were used to define 12 macros.

! Macro library statistics !

Macro library name	Macros defined
-----	-----
\$255\$DUA28:[SYS.OBJ]LIB.MLB;1	1
\$255\$DUA28:[SYSLIB]STARLET.MLB;2	4
TOTALS (all libraries)	5

146 GETS were required to define 5 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LIS\$:LOCKDB/OBJ=OBJ\$:LOCKDB MSRC\$:FCPPRE/UPDATE=(ENH\$:FCPPRE)+MSRC\$:LOCKDB/UPDATE=(ENH\$:LOCKDB)+EXECML\$/LIB

A grid of 100 individual program listings, each contained within a rectangular frame. Each listing begins with a title and the text 'LISTING'. The titles, which are the names of the programs, are as follows:

- EXTFCB LIS
- DELJL LIS
- DIRGET LIS
- EXTIOX LIS
- TODONE LIS
- LOCKDN LIS
- ENTER LIS
- GETREQ LIS
- GETTIM LIS
- DISPAT LIS
- INIFCP LIS
- DIRFCB LIS
- EXTHDR LIS
- DIRSCN LIS
- LOGDEL LIS
- LOCKDB LIS
- FIND LIS
- GETFIB LIS
- DIRACC LIS
- EXTDIR LIS
- EXTEND LIS
- INIFCB LIS

The listings themselves consist of multiple lines of text, including headers, comments, and data, typical of a VAX/VMS program listing. The text is arranged in columns and rows within each listing frame.