```
MMM        MMM   000000000      UUU          UUU  NNN          NNN  TTTTTTTTTTTTTTTT
MMM        MMM   000000000      UUU          UUU  NNN          NNN  TTTTTTTTTTTTTTTT
MMM        MMM   000000000      UUU          UUU  NNN          NNN  TTTTTTTTTTTTTTTT
MMMMMM  MMMMMM   000      000   UUU          UUU  NNN          NNN       TTT
MMMMMM  MMMMMM   000      000   UUU          UUU  NNN          NNN       TTT
MMMMMM  MMMMMM   000      000   UUU          UUU  NNN          NNN       TTT
MMM  MMM   MMM   000      000   UUU          UUU  NNNNNN       NNN       TTT
MMM  MMM   MMM   000      000   UUU          UUU  NNNNNN       NNN       TTT
MMM  MMM   MMM   000      000   UUU          UUU  NNNNNN       NNN       TTT
MMM        MMM   000      000   UUU          UUU  NNN    NNN   NNN       TTT
MMM        MMM   000      000   UUU          UUU  NNN    NNN   NNN       TTT
MMM        MMM   000      000   UUU          UUU  NNN    NNN   NNN       TTT
MMM        MMM   000      000   UUU          UUU  NNN       NNNNNN       TTT
MMM        MMM   000      000   UUU          UUU  NNN       NNNNNN       TTT
MMM        MMM   000      000   UUU          UUU  NNN       NNNNNN       TTT
MMM        MMM   000      000   UUU          UUU  NNN          NNN       TTT
MMM        MMM   000      000   UUU          UUU  NNN          NNN       TTT
MMM        MMM   000      000   UUU          UUU  NNN          NNN       TTT
MMM        MMM     000000000    UUUUUUUUUUUUUUUU  NNN          NNN       TTT
MMM        MMM     000000000    UUUUUUUUUUUUUUUU  NNN          NNN       TTT
MMM        MMM     000000000    UUUUUUUUUUUUUUUU  NNN          NNN       TTT
```

```
CCCCCCC  HH     HH  NN      NN  UU      UU  CCCCCCC  BBBBBBBB
CCCCCCC  HH     HH  NN      NN  UU      UU  CCCCCCC  BBBBBBBB
CC       HH     HH  NN      NN  UU      UU  CC       BB      BB
CC       HH     HH  NN      NN  UU      UU  CC       BB      BB
CC       HH     HH  NNNN    NN  UU      UU  CC       BB      BB
CC       HH     HH  NNNN    NN  UU      UU  CC       BB      BB
CC       HHHHHHHHH  NN NN   NN  UU      UU  CC       BBBBBBBB
CC       HHHHHHHHH  NN NN   NN  UU      UU  CC       BBBBBBBB
CC       HH     HH  NN   NNNN  UU      UU  CC       BB      BB
CC       HH     HH  NN   NNNN  UU      UU  CC       BB      BB
CC       HH     HH  NN      NN  UU      UU  CC       BB      BB
CC       HH     HH  NN      NN  UU      UU  CC       BB      BB    ....
CCCCCCC  HH     HH  NN      NN  UUUUUUUUUU  CCCCCCC  BBBBBBBB    ....
CCCCCCC  HH     HH  NN      NN  UUUUUUUUUU  CCCCCCC  BBBBBBBB    ....


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
LLLLLLLLLL      IIIIII      SSSSSSSS
LLLLLLLLLL      IIIIII      SSSSSSSS
```

```
                    0000     55 ;
                    0000     56 ; ASSORTED MACROS USED IN FCP CODE
                    0000     57 ;
                    0000     58
                    0000     59         .MACRO  SET_IPL LEVEL              ; SET PROCESSOR IPL (DUMMY NOW)
                    0000     60         .ENDM   SET_IPL
                    0000     61
                    0000     62 ; MACRO USED TO SIGNAL FATAL ERRORS (INTERNAL CONSISTENCY CHECKS).
                    0000     63 ;
                    0000     64         .MACRO  BUG_CHECK       CODE, TYPE, MESSAGE
                    0000     65         HALT                    ; SIMPLY CALL A HALT FOR NOW
                    0000     66         .ENDM   BUG_CHECK
                    0000     67 ;
                    0000     68 ; MACRO TO SIGNAL AN ERROR STATUS AND CONTINUE.
                    0000     69 ;
                    0000     70         .MACRO  ERROR   CODE
                    0000     71         MOVL    #CODE,USER_STATUS
                    0000     72         .ENDM   ERROR
                    0000     73 ;
                    0000     74 ; MACRO TO SIGNAL AN ERROR STATUS AND EXIT.
                    0000     75 ;
                    0000     76         .MACRO  ERR_EXIT        CODE
                    0000     77         MOVZWL  CODE,-(SP)
                    0000     78         HALT                    ; UNTIL WE FIGURE THIS OUT
                    0000     79         .ENDM   ERR_EXIT
                    0000     80 ;
                    0000     81 ; TYPE CODES USED TO IDENTIFY BLOCKS BEING READ BY READ_BLOCK.
                    0000     82 ; NOTE THAT READ_BLOCK CONTAINS A TABLE INDEXED BY THESE CODES.
                    0000     83 ;
00000000            0000     84         HEADER_TYPE     = 0             ; FILE HEADER
00000001            0000     85         BITMAP_TYPE     = 1             ; STORAGE BITMAP
00000002            0000     86         DIRECTORY_TYPE  = 2             ; DIRECTORY BLOCK
00000003            0000     87         INDEX_TYPE      = 3             ; OTHER INDEX FILE BLOCKS
                    0000     88 ;
                    0000     89 ; TYPE CODES USED TO IDENTIFY BLOCKS OF MEMORY REQUESTED FROM THE
                    0000     90 ; ALLOCATOR. NOTE THAT THESE CODES INDEX INTO A TABLE IN ALLOCATE.
                    0000     91 ;
00000000            0000     92         FCB_TYPE        = 0             ; FILE CONTROL BLOCK
00000001            0000     93         WCB_TYPE        = 1             ; WINDOW BLOCK
```

```
                   0000     1          .TITLE  CHNUCB - GET ASSUGNED UCB ADDRESS OF CHANNEL
                   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    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 RETURNS THE ADDRESS OF THE UCB ASSIGNED TO THE GIVEN
                   0000    35   ;       CHANNEL.
                   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 CALLED IN
                   0000    41   ;       KERNEL MODE.
                   0000    42   ;
                   0000    43   ;--
                   0000    44   ;
                   0000    45   ; AUTHOR:  ANDREW C. GOLDSTEIN, CREATION DATE:  28-APR-1977  16:26
                   0000    46   ;
                   0000    47   ; MODIFIED BY:
                   0000    48   ;
                   0000    49   ;       V02-000 ACG0167          Andrew C. Goldstein,    18-Apr-1980  13:40
                   0000    50   ;                 Previous revision history moved to MOUNT.REV
                   0000    51   ;**
                   0000    52
                   0000    53
                   0000    54   ; EQUATED SYMBOLS:
                   0000    55
00000004           0000    56   CHANNEL = 4                              ; ADDRESS OF CHANNEL NUMBER ARG
                   0000    57
```

```
                    0000    58          $CCBDEF                              ; DEFINE CHANNEL CONTROL BLOCK
```

```
                      0000    60  ;++
                      0000    61  ;
                      0000    62  ; FUNCTIONAL DESCRIPTION:
                      0000    63  ;
                      0000    64  ;       THIS ROUTINE RETURNS THE ADDRESS OF THE UCB ASSIGNED TO THE GIVEN
                      0000    65  ;       CHANNEL.
                      0000    66  ;
                      0000    67  ; CALLING SEQUENCE:
                      0000    68  ;       CALL    GET_CHANNELUCB (ARG1)
                      0000    69  ;
                      0000    70  ; INPUT PARAMETERS:
                      0000    71  ;       ARG1: CHANNEL NUMBER
                      0000    72  ;
                      0000    73  ; IMPLICIT INPUTS:
                      0000    74  ;       NONE
                      0000    75  ;
                      0000    76  ; OUTPUT PARAMETERS:
                      0000    77  ;       NONE
                      0000    78  ;
                      0000    79  ; IMPLICIT OUTPUTS:
                      0000    80  ;       NONE
                      0000    81  ;
                      0000    82  ; ROUTINE VALUE:
                      0000    83  ;       NONE
                      0000    84  ;
                      0000    85  ; SIDE EFFECTS:
                      0000    86  ;       NONE
                      0000    87  ;
                      0000    88  ;--
                      0000    89
                  00000000    90          .PSECT  $CODE$,NOWRT,LONG
                      0000    91
                      0000    92  GET_CHANNELUCB::
            003C      0000    93          .WORD   ^M<R2,R3,R4,R5>              ; SAVE REGISTERS
  50    04 AC   D0    0002    94          MOVL    CHANNEL(AP),R0              ; GET CHANNEL NUMBER
00000000'9F     16    0006    95          JSB     @#IOC$VERIFYCHAN           ; GET UCB WITH EXEC SUBROUTINE
      04 50     E8    000C    96          BLBS    R0,10$                     ; BRANCH IF GOOD
                      000F    97          ERR_EXIT  R0
    5u    61    D0    0013    98  10$:    MOVL    CCB$L_UCB(R1),R0           ; RETURN UCB ADDRESS AS VALUE
            04        0016    99          RET
                      0017   100
                      0017   101
                      0017   102
                      0017   103          .END
```

```
BITMAP_TYPE     = 00000001
CCBSL_UCB       = 00000000
CHANNEL         = 00000004
DIRECTORY_TYPE  = 00000002
FCB_TYPE        = 00000000
GET_CHANNELUCB    00000000  RG    02
HEADER_TYPE     = 00000000
INDEX_TYPE      = 00000003
IOC$VERIFYCHAN    ********  X     02
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
$ABS$                     00000000  (    0.)  01 (  1.)  NOPIC    USR   CON   ABS   LCL NOSHR  EXE   RD     WRT NOVEC BYTE
$CODE$                    00000017  (   23.)  02 (  2.)  NOPIC    USR   CON   REL   LCL NOSHR  EXE   RD   NOWRT NOVEC LONG
```

```
                              +----------------------------+
                              ! Performance indicators !
                              +----------------------------+


Phase                 Page faults   CPU Time     Elapsed Time
-----                 -----------   --------     ------------
Initialization             39       00:00:00.08  00:00:00.80
Command processing        128       00:00:00.70  00:00:03.66
Pass 1                    131       00:00:01.18  00:00:05.01
Symbol table sort           0       00:00:00.01  00:00:00.04
Pass 2                     42       00:00:00.52  00:00:02.39
Symbol table output         2       00:00:00.02  00:00:00.16
Psect synopsis output       2       00:00:00.02  00:00:00.07
Cross-reference output      0       00:00:00.00  00:00:00.00
Assembler run totals      347       00:00:02.53  00:00:12.13
```

The working set limit was 900 pages.
3241 bytes (7 pages) of virtual memory were used to buffer the intermediate code.
There were 10 pages of symbol table space allocated to hold 30 non-local and 1 local symbols.
197 source lines were read in Pass 1, producing 13 object records in Pass 2.
12 pages of virtual memory were used to define 11 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
```

80 GETS were required to define 4 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LIS$:CHNUCB/OBJ=OBJ$:CHNUCB MSRC$:FCPDEF/UPDATE=(ENH$:FCPDEF)+MSRC$:CHNUCB/UPDATE=(ENH$:CHNUCB)+EXECML$/LIB