M 11

```
DDDDDDDDDDDD        CCCCCCCCCCCC  LLL
DDDDDDDDDDDD        CCCCCCCCCCCC  LLL
DDDDDDDDDDDD        CCCCCCCCCCCC  LLL
DDD         DDD  CCC              LLL
DDD         DDD  CCC              LLL
DDD         DDD  CCC              LLL
DDD         DDD  CCC              LLL
DDD         DDD  CCC              LLL
DDD         DDD  CCC              LLL
DDD         DDD  CCC              LLL
DDD         DDD  CCC              LLL
DDD         DDD  CCC              LLL
DDD         DDD  CCC              LLL
DDD         DDD  CCC              LLL
DDD         DDD  CCC              LLL
DDD         DDD  CCC              LLL
DDD         DDD  CCC              LLL
DDDDDDDDDDDD        CCCCCCCCCCCC  LLLLLLLLLLLLLLL
DDDDDDDDDDDD        CCCCCCCCCCCC  LLLLLLLLLLLLLLL
DDDDDDDDDDDD        CCCCCCCCCCCC  LLLLLLLLLLLLLLL
```

```
**FILE**ID**RPSUB                                M 6
```

```
RRRRRRRR    PPPPPPPP      SSSSSSSS  UU      UU  BBBBBBBB
RRRRRRRR    PPPPPPPP      SSSSSSSS  UU      UU  BBBBBBBB
RR      RR  PP      PP  SS          UU      UU  BB      BB
RR      RR  PP      PP  SS          UU      UU  BB      BB
RR      RR  PP      PP  SS          UU      UU  BB      BB
RR      RR  PP      PP  SS          UU      UU  BB      BB
RRRRRRRR    PPPPPPPP      SSSSSS    UU      UU  BBBBBBBB
RRRRRRRR    PPPPPPPP      SSSSSS    UU      UU  BBBBBBBB
RR  RR      PP                  SS  UU      UU  BB      BB
RR  RR      PP                  SS  UU      UU  BB      BB
RR    RR    PP                  SS  UU      UU  BB      BB      ....
RR    RR    PP                  SS  UU      UU  BB      BB      ....
RR      RR  PP          SSSSSSSS    UUUUUUUUUU  BBBBBBBB        ....
RR      RR  PP          SSSSSSSS    UUUUUUUUUU  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
```

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```
    (2)        54        DECLARATIONS
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```

```
0000          .TITLE  RPSUB - DCL RESULT PARSE SUBROUTINES
0000          .IDENT  'V04-000'
0000
0000     ;
0000     ;****************************************************************************
0000     ;*                                                                          *
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0000     ;*                                                                          *
0000     ;*                                                                          *
0000     ;****************************************************************************
0000     ;
0000
0000     ;++
0000     ; FACILITY:     STARLET DCL CLI
0000     ;
0000     ; ABSTRACT:     MISC SUBROUTINES
0000     ;
0000     ;
0000     ; ENVIRONMENT:  NATIVE MODE USER CODE
0000     ;
0000     ; AUTHOR:       W.H.BROWN, CREATION DATE:14-APR-77
0000     ;
0000     ; MODIFIED BY:
0000     ;
0000     ;       V03-003 PCG0003         Peter George            15-Feb-1983
0000     ;               Update to new structure level.
0000     ;               Handle larger PTR data structure.
0000     ;               Move DCL$CNVASCBIN to CONVERT.
0000     ;
0000     ;       V03-002 PCG0002         Peter George            14-Nov-1982
0000     ;               Call DCL$TRIM to process the numeric string
0000     ;               before converting it to an integer.
0000     ;
0000     ;       V03-001 PCG0001         Peter George            30-Sep-1982
0000     ;               Use new larger PTR data structure.
0000     ;--
```

```
    0000          .SBTTL  DECLARATIONS
    0000    ;
    0000    ; MACRO LIBRARY CALLS
    0000    ;
    0000
    0000          PRCDEF                              ; DEFINE PROCESS WORK AREA
    0000          WRKDEF                              ; DEFINE COMMAND WORK AREA
    0000          $$CLITABDEF                         ; DEFINE TABLE STRUCTURE
    0000          PTRDEF                              ; DEFINE RESULT PARSE DESCRIPTOR
    0000          RPWDEF                              ; RESULT PARSE WORK DEFINITIONS
    0000          PLMDEF                              ; PARAMETER LIMIT DEFINITIONS
    0000          $CLIDEF                             ; CLI DEFINITIONS
    0000          $CLIMSGDEF                          ; CLI MESSAGE DEFINITIONS
    0000
    0000
    0000    ;
    0000    ; OWN STORAGE:
    0000    ;
00000000          .PSECT  DCL$ZCODE        BYTE,RD,NOWRT
    0000
```

```
                     0000     75
                     0000     76            .DSABL  LSB
                     0000     77            .SBTTL  GET QUALIFIER DESCRIPTOR BLOCK
                     0000     78 ;++
                     0000     79 ; FUNCTIONAL DESCRIPTION:
                     0000     80 ;
                     0000     81 ;          THIS ROUTINE IS CALLED TO LOCATE THE COMMAND QUALIFIER
                     0000     82 ;          DESCRIPTOR BLOCK FOR A SPECIFIC QUALIFIER.
                     0000     83 ;          ALTERNATE ENTRY TO CHECK THAT QUALIFIER IS A PARAMETER
                     0000     84 ;          QUALIFIER AS OPPOSED TO AN OUTPUT SPECIFIER.
                     0000     85 ;
                     0000     86 ; CALLING SEQUENCE:
                     0000     87 ;
                     0000     88 ;          BSB/JSB DCL$GETQUALDESC          ; GET QUALIFIER DESCRIPTOR
                     0000     89 ;          BSB/JSB DCL$GETPARMQUAL          ; GET PARAMETER QUALIFIER DESCRIPTOR
                     0000     90 ;
                     0000     91 ; INPUT PARAMETERS:
                     0000     92 ;
                     0000     93 ;          R1 IS THE CODE TO IDENTIFY THE QUALIFIER
                     0000     94 ;
                     0000     95 ; IMPLICIT INPUTS:
                     0000     96 ;
                     0000     97 ;          R8 = ADDRESS OF UTILITY BIT ARRAY
                     0000     98 ;          R9 = ADDRESS OF REQUEST DESCRIPTOR
                     0000     99 ;          R10 = ADDRESS OF WORK BLOCK
                     0000    100 ;          R11 = ADDRESS OF PASS 1 PARSE WORK AREA
                     0000    101 ;
                     0000    102 ; OUTPUT PARAMETERS:
                     0000    103 ;
                     0000    104 ;          R2 IS THE ADDRESS OF THE QUALIFIER DESCRIPTOR BLOCK
                     0000    105 ;
                     0000    106 ; COMPLETION CODES:
                     0000    107 ;
                     0000    108 ;          R0 = SUCCESS/FAIL DEPENDING OF WHETHER THE DESCRIPTOR WAS FOUND
                     0000    109 ;
                     0000    110 ; SIDE EFFECTS:
                     0000    111 ;
                     0000    112 ;          TOP LEVEL RETURN (RET) TAKEN IF SEARCH FAILS
                     0000    113 ;
                     0000    114 ;--
                     0000    115
                     0000    116            .ENABL  LSB
                     0000    117
                     0000    118 DCL$GETPARMQUAL::                           ; GET A PARAMETER QUALIFIER DESCRIPTOR
                     0000    119 DCL$GETQUALDESC::                           ; FIND A QUALIFIER DESCRIPTOR
      50    51  D0   0000    120            MOVL    R1,R0                   ; COPY QUALIFIER NUMBER
            19  13   0003    121            BEQL    90$                     ; ZERO IS INVALID QUALIFIER NUMBER
   52    CA AB  D0   0005    122            MOVL    WRK_L_QUABLK(R11),R2    ; POINT AT START OF QUALIFIER BLOCKS
            13  13   0009    123            BEQL    90$                     ; BR IF NONE
            0B  11   000B    124            BRB     20$                     ; START OF SEARCH
         08 A2  D5   000D    125 10$:       TSTL    ENT_L_NEXT(R2)          ; TEST OFFSET TO NEXT
            0C  13   0010    126            BEQL    90$                     ; BR IF THIS IS LAST
         08 A2  C1   0012    127            ADDL3   ENT_L_NEXT(R2),-        ; FIND ADDRESS OF NEXT ENT BLOCK
   52    DE AB       0015    128                    WRK_L_TAB_VEC(R11),R2   ;
         F2 50  F5   0018    129 20$:       SOBGTR  R0,10$                  ; COUNT DOWN QUALIFIER NUMBER
            50  D6   001B    130            INCL    R0                      ; INDICATE DESCRIPTOR FOUND
                05   001D    131            RSB                             ; BACK TO THE CALLER
         001E     132
         001E     133 90$:     SETSTAT INVQUALNUM                ; SET ERROR-INVALID QUALIFER NUMBER
     04  0023     134          RET                               ; GO BACK TO DISPATCHER
         0024     135
         0024     136          .DSABL  LSB
```

```
                        0024           .SBTTL  FIND COMMAND QUALIFIER
                        0024    ;++
                        0024    ; FUNCTIONAL DESCRIPTION:
                        0024    ;
                        0024    ;       THIS COROUTINE IS CALLED TO SEARCH FOR A
                        0024    ;       COMMAND QUALIFIER IN THE RANGE OF THE CURRENT COMMAND.
                        0024    ;       THE SEARCH IS DONE OUT TO THE FIRST PARAMETER APPEARING
                        0024    ;       IN THE COMMAND, THEN FROM THE START OF THE FIRST PARAMETER
                        0024    ;       IN THE RANGE OF THE CURRENT COMMAND TO THE END OF THE
                        0024    ;       RANGE OF THE CURRENT COMMAND.
                        0024    ;
                        0024    ; CALLING SEQUENCE:
                        0024    ;
                        0024    ;       BSB/JSB DCL$LOCCMDQUAL
                        0024    ;
                        0024    ; INPUT PARAMETERS:
                        0024    ;
                        0024    ;       R1 IS THE CODE OF THE QUALIFIER TO LOCATE
                        0024    ;
                        0024    ; IMPLICIT INPUTS:
                        0024    ;
                        0024    ;       R8 = ADDRESS OF UTILITY BIT ARRAY
                        0024    ;       R9 = ADDRESS OF REQUEST DESCRIPTOR
                        0024    ;       R10 = ADDRESS OF WORK BLOCK
                        0024    ;       R11 = ADDRESS OF PASS 1 PARSE WORK AREA
                        0024    ;
                        0024    ; OUTPUT PARAMETERS:
                        0024    ;
                        0024    ;       R4 IS RETURNED AS THE ADDRESS OF THE DESCRIPTOR IF FOUND
                        0024    ;       R5 IS THE INDEX TO THE DESCRIPTOR IF FOUND
                        0024    ;
                        0024    ; COMPLETION CODES:
                        0024    ;
                        0024    ;       R0 IS SET TRUE OR FALSE DEPENDING OF SUCCESS OF SEARCH
                        0024    ;
                        0024    ; SIDE EFFECTS:
                        0024    ;
                        0024    ;       REGISTERS R4, R5 & R6 ARE USED BY THIS ROUTINE
                        0024    ;       AND MUST BE PRESERVED ACCROSS COROUTINE RETURNS.
                        0024    ;
                        0024    ;--
                        0024
                        0024    DCL$FNDCMDQUAL::                              ; LOCATE THE COMMAND QUALIFIER
           55   01  D0  0024            MOVL    #1,R5                         ; SET INDEX TO START SEARCH
   56      40   AA  DE  0027            MOVAL   RPW_G_PRMLIM(R10),R6          ; START OF PARAMETER LIMIT DESCRIPTORS
                50  D4  002B    10$:    CLRL    R0                            ; ASSUME NO MORE QUALIFIERS
   08 AA        55  91  002D            CMPB    R5,RPW_B_STRPARM(R10)         ; THIS DESCRIPTOR IN RANGE OF VERB
                0E  1F  0031            BLSSU   40$                           ; BR IF YES
                06  12  0033            BNEQ    30$                           ; BR IF WITHIN A PARAMETER
   55      01   A6  9A  0035    20$:    MOVZBL  PLM_B_FSTDESC(R6),R5          ; SET INDEX OF PLACE TO START LOOKING
                1C  13  0039            BEQL    70$                           ; BR WHEN DONE
   02 A6        55  91  003B    30$:    CMPB    R5,PLM_B_LSTDESC(R6)          ; IS THIS WITHIN THE CURRENT PARAMETER?
                11  1A  003F            BGTRU   60$                           ; BR IF OUT OF RANGE OF THIS PARAMETER
                3E  10  0041    40$:    BSBB    DCL$SETDESCADR                ; SET ADDRESS OF RESULT DESCRIPTOR
        04      1C  ED  0043            CMPZV   #PTR_V_TYPE,#PTR_S_TYPE,-     ; VIELD LIMITS FOR TYPE
        00      64      0046                    PTR_C_DESCR(R4),#PTR_K_COMDQUAL ; IF THIS A COMMAND QUALIFIER?
        04      12      0048            BNEQ    50$                           ; BR IF NO-CONTINUE SEARCH
```

```
             50   D6  004A           INCL    R0                 ; SET SUCCESS
             9E   16  004C           JSB     @(SP)+             ; RETURN WITH QUALIFIER
             55   D6  004E  50$:     INCL    R5                 ; ADVANCE INDEX TO NEXT DESCRIPTOR
             D9   11  0050           BRB     10$                ; CHECK AGAIN
    56   04  C0       0052  60$:     ADDL    #PLM_K_SIZE,R6     ; SET TO NEXT PARAMETER LIMIT DESCRIPTOR
             DE   11  0055           BRB     20$                ; TRY NEXT PARAMETER
                  05  0057  70$:     RSB                        ; RETURN WITH VALUE OR ZERO
```

```
                        0058          .SBTTL  EXTRACT RESULT DESCRIPTOR FIELDS
                        0058   ;++
                        0058   ; FUNCTIONAL DESCRIPTION:
                        0058   ;
                        0058   ;      THIS ROUTINE IS CALLED TO TAKE A RESULT DESCRIPTOR APART
                        0058   ;      AND RETURN ITS COMPONTENT PART AS INDIVIDUAL VALUES.
                        0058   ;
                        0058   ; CALLING SEQUENCE:
                        0058   ;
                        0058   ;      BSB/JSB DCL$EXTNXTDESC         ; EXTRACT NEXT DESCRIPTOR
                        0058   ;      BSB/JSB DCL$GETEXTDESC         ; GET AND EXTRACT DESCRIPTOR
                        0058   ;      BSB/JSB DCL$EXTRSLDESC         ; EXTRACT RESULT DESCRIPTOR
                        0058   ;
                        0058   ; INPUT PARAMETERS:
                        0058   ;
                        0058   ;      AT EXTRSLDESC WITH R4 CONTAINS THE ADDRESS OF THE DESCRIPTOR
                        0058   ;      AT EXTNXTDESC WITH R6 CONTAINS THE ADDRESS OF THE PARAMETER
                        0058   ;          LIMIT DESCRIPTOR.
                        0058   ;
                        0058   ; IMPLICIT INPUTS:
                        0058   ;
                        0058   ;      R8 = ADDRESS OF UTILITY BIT ARRAY
                        0058   ;      R9 = ADDRESS OF REQUEST DESCRIPTOR
                        0058   ;      R10 = ADDRESS OF WORK BLOCK
                        0058   ;      R11 = ADDRESS OF PASS 1 PARSE WORK AREA
                        0058   ;
                        0058   ; OUTPUT PARAMETERS:
                        0058   ;
                        0058   ;      R1 = TYPE
                        0058   ;      R2 = SIZE OR VALUE DEPENDING ON THE DESCRIPTOR
                        0058   ;      R3 = ADDRESS OF THE ITEM
                        0058   ;      R4 = ADDRESS OF DESCRIPTOR
                        0058   ;
                        0058   ; COMPLETION CODES:
                        0058   ;
                        0058   ;      R0 = SUCCESS/FAILURE DEPENDING ON RESULT OF SEARCH
                        0058   ;
                        0058   ;--
                        0058          .ENABL  LSB
                        0058
                        0058   DCL$EXTNXTDESC::                        ; EXTRACT NEXT COMPLETE DESCRIPTOR
                        0058          SETSTAT FAIL                     ; ASSUME WONT FIND ONE
          55    66   9A 005A          MOVZBL  PLM_B_NXTDESC(R6),R5     ; SET POINTER TO DESCRIPTOR
                21   13 005D          BEQL    40$                      ; BR IF PARAMETER SET IS MISSING
       02 A6    55   91 005F          CMPB    R5,PLM_B_LSTDESC(R6)     ; IS THIS IN RANGE OF CURRENT PARAMETER?
                1B   1A 0063          BGTRU   40$                      ; BR IF NO
                66   96 0065          INCB    PLM_B_NXTDESC(R6)        ; ADVANCE INDEX TO NEXT
                50   D6 0067          INCL    R0                       ; SET ANY SUCCESSFUL STATUS
                        0069   DCL$GETEXTDESC::                        ; GET AND EXTRACT NEXT DESCTRIPTOR
                16   10 0069          BSBB    DCL$SETDESCADR           ; SET ADDRESS OF RESULT DESCRIPTOR
                        006B   DCL$EXTRSLDESC::                        ; EXTRACT FOR RESULT DESCRIPTION
          0C    08   EF 006B          EXTZV   #PTR_V_OFFSET,#PTR_S_OFFSET,- ; START BIT AND SIZE OF OFFSET
          53    64      006E                  PTR_L_DESCR(R4),R3       ; GET OFFSET INTO R3
 53  F492 CB43       9E 0070          MOVAB   WRK_G_BUFFER(R11)[R3],R3 ; FIND ADDRESS OF ITEM IN BUFFER
          08    00   EF 0076          EXTZV   #PTR_V_VALUE,#PTR_S_VALUE,- ; START BIT AND SIZE OF VALUE
          52    64      0079                  PTR_L_DESCR(R4),R2       ; GET VALUE INTO R2
          04    1C   EF 007B          EXTZV   #PTR_V_TYPE,#PTR_S_TYPE,- ; START BIT AND SIZE OF TYPE
```

```
                    51   64     007E                        PTR_L_DESCR(R4),R1      ; GET TYPE INTO R1
                          05    0080      40$:      RSB                               ;
                                0081
                                0081                .DSABL  LSB
```

```
                           0081            .SBTTL  SET RESULT DESCRIPTOR ADDRESS
                           0081       ;++
                           0081       ; FUNCTIONAL DESCRIPTION:
                           0081       ;
                           0081       ;        THIS ROUTINE IS CALLED TO SET THE ADDRESS OF A RESULT
                           0081       ;        DESCRIPTOR INTO R4.
                           0081       ;
                           0081       ; CALLING SEQUENCE:
                           0081       ;
                           0081       ;        BSB/JSB DCL$SETDESCADR
                           0081       ;
                           0081       ; INPUT PARAMETERS:
                           0081       ;
                           0081       ;        R5 CONTAINS THE INDEX FOR THE DESIRED DESCRIPTOR
                           0081       ;
                           0081       ; IMPLICIT INPUTS:
                           0081       ;
                           0081       ;        R10 = ADDRESS OF WORK BLOCK
                           0081       ;        R11 = ADDRESS OF PASS 1 PARSE WORK AREA
                           0081       ;
                           0081       ; OUTPUT PARAMETERS:
                           0081       ;
                           0081       ;        R4 IS LOADED WITH THE ADDRESS OF THE DESCRIPTOR
                           0081       ;
                           0081       ;--
                           0081
                           0081       DCL$SETDESCADR::
      54    55    0C    C5 0081            MULL3   #PTR_C_LENGTH,R5,R4                            ; GET BYTE OFFSET OF DESCRIP
  54    F9AA CB44       9E 0085            MOVAB   WRK_G_RESULT-PTR_C_LENGTH(R11)[R4],R4          ; GET ADDRESS OF DESCRIPTOR
                        05 008B            RSB
```

```
                 008C            .SBTTL  GET PARAMETER
                 008C      ;++
                 008C      ; FUNCTIONAL DESCRIPTION:
                 008C      ;
                 008C      ;       THIS ROUTINE IS CALLED TO SEARCH THE RESULT DESCRIPTOR
                 008C      ;       BUFFER FOR THE NEXT OCCURANCE OF A PRARMETER
                 008C      ;
                 008C      ; CALLING SEQUENCE:
                 008C      ;
                 008C      ;       BSB/JSB DCL$GETPARM              ; GET A PARAMETER
                 008C      ;
                 008C      ; INPUT PARAMETERS:
                 008C      ;
                 008C      ;       R5 CONTAINS THE INDEX OF NEXT DESCRIPTOR TO CHECK
                 008C      ;
                 008C      ; IMPLICIT INPUTS:
                 008C      ;
                 008C      ;       R8 = ADDRESS OF UTILITY BIT ARRAY
                 008C      ;       R9 = ADDRESS OF REQUEST DESCRIPTOR
                 008C      ;       R10 = ADDRESS OF WORK BLOCK
                 008C      ;       R11 = ADDRESS OF PASS 1 PARSE WORK AREA
                 008C      ;
                 008C      ; OUTPUT PARAMETERS:
                 008C      ;
                 008C      ;       R1 CONTAINS THE TYPE OF THE DESCRIPTOR(IE:PTR_K_PARAMETR)
                 008C      ;       R2 CONTAINS THE SIZE OF THE PARAMETER
                 008C      ;       R3 CONTAINS THE PRECEEDING TERMINATOR
                 008C      ;       R4 CONTAINS THE ADDRESS OF THE PARAMETER DESCRIPTOR
                 008C      ;       R5 IS THE INDEX TO THE DESCRIPTOR
                 008C      ;
                 008C      ; COMPLETION CODES:
                 008C      ;
                 008C      ;       R0 = SUCCESS/FAIL DEPENDING ON THE RESULT OF THE SEARCH
                 008C      ;
                 008C      ;--
                 008C
                 008C      DCL$GETPARM::                            ; GET THE NEXT PARAMETER
                 008C              SETSTAT FAIL                     ; ASSUME NO MORE PARAMETERS
         55  D6  008E      10$:    INCL    R5                       ; ADVANCE INDEX
         D7  10  0090              BSBB    DCL$GETEXTDESC           ; GET DESCRIPTOR AND EXTRACT FIELDS
     04  18  EF  0092              EXTZV   #PTR_V_TERM,#PTR_S_TERM,- ; GET THE TERMINATOR FORM THE PRVIOUS
  53  F4 A4      0095                      -PTR_C_LENGTH(R4),R3     ; DESCRIPTOR AND SAVE IN R3
     04  51  91  0098              CMPB    R1,#PTR_K_ENDLINE        ; IS THIS THE END OF LINE?
         08  13  009B              BEQL    30$                      ; NO MORE PARAMETERS
     03  51  91  009D              CMPB    R1,#PTR_K_PARAMETR       ; IS THE CURRENT A PARAMETER?
         EC  12  00A0              BNEQ    10$                      ; BR IF NO-TRY NEXT
                 00A2              SETSTAT SUCCESS                  ; SET FOUND ONE
             05  00A5      30$:    RSB                              ; RETURN TO CALLER
```

```
                           00A6                 .SBTTL  RESULT PARSE INIT
                           00A6         ;++
                           00A6         ; FUNCTIONAL DESCRIPTION:
                           00A6         ;
                           00A6         ;       THIS ROUTINE IS CALLED TO ESTABLISH INITIAL CONDITIONS
                           00A6         ;       IN THE RESULT PARSE WORK AREA PRIOR TO PERFORMAING
                           00A6         ;       A RESULT PARSE.
                           00A6         ;
                           00A6         ; CALLING SEQUENCE:
                           00A6         ;
                           00A6         ;       ENTERED VIA A CASE FOLLOWED BY A CALL
                           00A6         ;
                           00A6         ; IMPLICIT INPUTS:
                           00A6         ;
                           00A6         ;       R9 = ADDRESS OF REQUEST DESCRIPTOR
                           00A6         ;       R10 = ADDRESS OF WORK BLOCK
                           00A6         ;       R11 = ADDRESS OF PASS 1 PARSE WORK AREA
                           00A6         ;
                           00A6         ; OUTPUT PARAMETERS:
                           00A6         ;
                           00A6         ;       THE RESULT PARSE WORK AREA IS INITED
                           00A6         ;
                           00A6         ; COMPLETION CODES:
                           00A6         ;
                           00A6         ;       R0 = SUCCESS
                           00A6         ;
                           00A6         ;--
                           00A6
                           00A6         DCL$RPINIT::                                    ; RESULT APRSE INIT
                  62   10  00A6                 BSBB    DCL$GETDCLWRK                   ; GET POINTER TO DCL PHASE 1 WORK AREA
   00    6A       00   2C  00A8                 MOVC5   #0,(R10),#0,-                   ; SOURCE BUFFER SIZE AND FILL OF 0 TO
04 AA    007C     8F       00AC                         #CLI$C_WORKAREA-4,4(R10)        ; ZERO OUT THE WORK AREA
      04 AA       5B   D0  00B1                 MOVL    R11,RPW_L_DCLWRK(R10)           ; SAVE WORK AREA ADDRESS FOR LATER
      57    C6    AB   D0  00B5                 MOVL    WRK_L_PROPTR(R11),R7            ; GET ADDRESS OF COMMAND PROMPT TABLE
      56    40    AA   DE  00B9                 MOVAL   RPW_G_PRMLIM(R10),R6            ; GET ADDRESS OF FIRST PARAM LIMIT TABLE
                  55   D4  00BD                 CLRL    R5                              ; INIT INDEX TO MINUS FIRST DESCRIPTOR
                  CB   10  00BF                 BSBB    DCL$GETPARM                     ; RETREIVE THE NEXT(FIRST)PARAMETER
      08 AA       55   90  00C1                 MOVB    R5,RPW_B_STRPARM(R10)           ; SAVE THE INDEX TO THE FIRST PARAMETER
            3A    50   E9  00C5                 BLBC    R0,90$                          ; BR IF NO PARAMETERS IN COMMAND
      01 A6       55   90  00C8         10$:    MOVB    R5,PLM_B_FSTDESC(R6)            ; SET FIRST PARAMETER IN THIS LIST
         66       55   90  00CC                 MOVB    R5,PLM_B_NXTDESC(R6)            ; ALSO THE NEXT TO PROCESS
                  BB   10  00CF         20$:    BSBB    DCL$GETPARM                     ; LOCATE THE NEXT PARAMETER IN THE COMD
02 A6       55    01   83  00D1                 SUBB3   #1,R5,PLM_B_LSTDESC(R6)         ; SET INDEX OF THE LAST PARAMETER SEEN
            29    50   E9  00D6                 BLBC    R0,90$                          ; BR IF NO MORE
         01       53   91  00D9                 CMPB    R3,#PTR_K_BLANK                 ; IS THIS THE START OF A PARMETER LIST?
                  16   13  00DC                 BEQL    50$                             ; BR IF YES
                  07   E0  00DE                 BBS     #ENT_V_IMPCAT,-                 ; IF COMMAND HAS IMPLIED CONCATONATION
         EC 04    A7       00E0                         ENT_Q_FLAGS(R7),20$             ; THEN KEEP LOOKING TILL END OF PARAMETER
         05       53   91  00E3                 CMPB    R3,#PTR_K_COMMA                 ; ELSE LOOK FOR PARAMETER LIST SEPARATOR
                  E7   12  00E6                 BNEQ    20$                             ; IF NO A SEPARATOR, CONTINUE SCAN
         01       53   91  00E8         40$:    CMPB    R3,#PTR_K_BLANK                 ; SCAN FOR LAST PARAMETER IN THE LIST
                  07   13  00EB                 BEQL    50$                             ; BR IF FOUND LAST PARAMETER
                  9D   10  00ED                 BSBB    DCL$GETPARM                     ; SEARCH FOR NEXT PARAMETER
            10    50   E9  00EF                 BLBC    R0,90$                          ; BR IF RAN OUT OF PARAMETERS
                  F4   11  00F2                 BRB     40$                             ; CHECK FOR BLANKS
            08 A7      C1  00F4         50$:    ADDL3   ENT_L_NEXT(R7),-                ; SKIP TO NEXT DESCRIPTOR
      57    DE    AB       00F7                         WRK_L_TAB_VEC(R11),R7           ;
```

```
  03 A6    55   90  00FA         MOVB     R5,PLM_B_TRMDESC(R6)     ; SAVE DESCRIPTOR OF PARAMETER TERMINATOR
           86   D5  00FE         TSTL     (R6)+                    ; POINT AT NEXT PARAMETER LIMIT DESCRIPTOR
           C6   11  0100         BRB      10$                      ; SCAN NEXT PARAMETER
                    0102  90$:   SETSTAT  SUCCESS                  ; SET ALL IS GOOD
  03 A6    55   90  0105         MOVB     R5,PLM_B_TRMDESC(R6)     ; SAVE FINAL TERMINATOR
                04  0109         RET                               ; RETURN TO DISPATCHER
                    010A  ;
                    010A  ; SET WORK ADDRESS
                    010A  ;
                    010A  DCL$GETDCLWRK::                          ;
00000000'EF     16  010A         JSB      CLI$GET_PRC              ; GET ADDRESS OF CLI PROCESS WORK AREA
  5B    04 AB   D0  0110         MOVL     PRC_L_SAVFP(R11),R11     ; GET ADDRESS OF COMMAND WORK AREA
                05  0114         RSB                               ; RETURN TO CALLER
                    0115         .END
```

```
CLI$C_WORKAREA           = 00000080                 PRC_L_OUTRABCTX               00000118
CLI$GET_PRC                ********    X    02      PRC_L_PPFLIST                 00000070
CLI$_INVQUALNUM          = 0003881A                 PRC_L_RECALLPTR               0000012F
DCL$EXTNXTDESC             00000058 RG      02      PRC_L_RESTART                 00000058
DCL$EXTRSLDESC             0000006B RG      02      PRC_L_SAVAP                   00000000
DCL$FNDCMDQUAL             00000024 RG      02      PRC_L_SAVFP                   00000004
DCL$GETDCLWRK              0000010A RG      02      PRC_L_SEVERITY                00000050
DCL$GETEXTDESC             00000069 RG      02      PRC_L_SPWN                    000000C0
DCL$GETPARM                0000008C RG      02      PRC_L_STACKLM                 000000A4
DCL$GETPARMQUAL            00000000 RG      02      PRC_L_STACKPT                 000000A0
DCL$GETQUALDESC            00000000 RG      02      PRC_L_STATUS                  00000054
DCL$RPINIT                 000000A6 RG      02      PRC_L_STS                     00000084
DCL$SETDESCADR             00000081 RG      02      PRC_L_STV                     00000088
ENT_L_NEXT               = 00000008                 PRC_L_SYMBOL                  00000060
ENT_V_IMPCAT             = 00000007                 PRC_L_TMBX                    00000074
ENT_W_FLAGS              = 00000004                 PRC_L_TRMLIST                 00000010
PLM_B_FSTDESC              00000001                 PRC_Q_ALLOCREG                00000020
PLM_B_LSTDESC              00000002                 PRC_Q_COMMAND                 000000E0
PLM_B_NXTDESC              00000000                 PRC_Q_FLUSHTIME               000000D0
PLM_B_QUADESC              00000003                 PRC_Q_GLOBAL                  00000028
PLM_B_TRMDESC              00000003                 PRC_Q_IMAGENAME               000000D8
PLM_C_SIZE                 00000004                 PRC_Q_KEYPAD                  00000040
PLM_K_SIZE                 00000004                 PRC_Q_LABEL                   00000030
PRC_B_CONTINUE             000000F3                 PRC_Q_LOCAL                   00000038
PRC_B_DEFRADIX             000000AE                 PRC_Q_SAVEPRIV                000000E8
PRC_B_EXMDEPMOD            000000AD                 PRC_T_OUTDVI                  0000011C
PRC_B_EXMDEPWID            000000AC                 PRC_W_ASTIOSB                 000000C6
PRC_B_EXONLYL              0000012D                 PRC_W_ASTRETN                 000000C8
PRC_B_FLAGS2               000000AF                 PRC_W_ASTSTATUS               000000C4
PRC_B_IMGFLAG              00000078                 PRC_W_ATTMBX                  0000007A
PRC_B_OUTFLAGS             0000012C                 PRC_W_FLAGS                   00000068
PRC_B_PROMPTLEN            000000F0                 PRC_W_INPCHAN                 00000064
PRC_C_LENGTH               00000534                 PRC_W_ONLEVEL                 0000006A
PRC_G_COMMANDS             00000133                 PRC_W_OUTIFI                  00000114
PRC_G_PROMPT               000000F4                 PRC_W_OUTISI                  00000116
PRC_K_LENGTH               00000534                 PRC_W_OUTMBXCHN               000000CA
PRC_L_CURRKEY              00000048                 PRC_W_OUTMBXREF               000000CE
PRC_L_EXMDEPADR            000000A8                 PRC_W_OUTMBXSIZ               000000CC
PRC_L_EXTARG               00000094                 PRC_W_PMPTCTRL                000000F1
PRC_L_EXTBLK               0000008C                 PRC_W_WAITIOSB                00000066
PRC_L_EXTCOD               0000009C                 PTR_B_LEVEL                   00000004
PRC_L_EXTHND               00000090                 PTR_B_NUMBER                  00000005
PRC_L_EXTPRM               00000098                 PTR_B_PARMCNT                 00000006
PRC_L_IDFLNK               000000BC                 PTR_B_VALUE                   00000000
PRC_L_IMGACTSTS            00000080                 PTR_C_LENGTH                  0000000C
PRC_L_INDCLOCK             0000007C                 PTR_K_BLANK                 = 00000001
PRC_L_INDEPTH              0000005C                 PTR_K_COMDQUAL              = 00000000
PRC_L_INDFAB               0000001C                 PTR_K_COMMA                 = 00000005
PRC_L_INDINPRAB            00000014                 PTR_K_ENDLINE               = 00000004
PRC_L_INDOUTRAB            00000018                 PTR_K_LENGTH                  0000000C
PRC_L_INPRAB               00000008                 PTR_K_PARAMETR              = 00000003
PRC_L_LASTKEY              0000004C                 PTR_L_DESCR                   00000000
PRC_L_LSTSTATUS            000000B0                 PTR_L_ENTITY                  00000008
PRC_L_ONCTLY               000000B8                 PTR_S_OFFSET                = 0000000C
PRC_L_ONERROR              0000006C                 PTR_S_TERM                  = 00000004
PRC_L_OUTOFBAND            000000B4                 PTR_S_TYPE                  = 00000004
PRC_L_OUTRAB               0000000C                 PTR_S_VALUE                 = 00000008
```

```
PTR_V_OFFSET                    = 00000008
PTR_V_TERM                      = 00000018
PTR_V_TYPE                      = 0000001C
PTR_V_VALUE                     = 00000000
RPW_B_LSTDESC                     00000009
RPW_B_STRPARM                     00000008
RPW_C_HDRSIZ                      00000040
RPW_C_LENGTH                      00000080
RPW_G_BITS                        00000020
RPW_G_PRMLIM                      00000040
RPW_K_HDRSIZ                      00000040
RPW_K_LENGTH                      00000080
RPW_L_DCLWRK                      00000004
RPW_L_USERCTX                     00000000
WRK_B_CMDOPT                      FFFFFFC3
WRK_B_MAXPARM                     FFFFFFD0
WRK_B_MINPARM                     FFFFFFD1
WRK_B_PARMCNT                     FFFFFFCE
WRK_B_PARMSUM                     FFFFFFCF
WRK_B_RECALLCNT                   FFFFFFC5
WRK_B_VALLEV                      FFFFFFC4
WRK_B_VERBTYP                     FFFFFFC2
WRK_C_LENGTH                      FFFFF486
WRK_G_BUFFER                      FFFFF492
WRK_G_INPBUF                      FFFFF896
WRK_G_RESULT                      FFFFF9B6
WRK_K_LENGTH                      FFFFF486
WRK_L_CHARPTR                     FFFFF48E
WRK_L_DISALLOW                    FFFFFFE6
WRK_L_ERRORRTN                    FFFFF9AE
WRK_L_EXPANDPTR                   FFFFF486
WRK_L_IMAGE                       FFFFFFE2
WRK_L_MARKPTR                     FFFFF48A
WRK_L_PAROUT                      FFFFFFD2
WRK_L_PMPTADDR                    FFFFF9A2
WRK_L_PROMPTRTN                   FFFFF9A6
WRK_L_PROPTR                      FFFFFFC6
WRK_L_QUABLK                      FFFFFFCA
WRK_L_READRTN                     FFFFF9AA
WRK_L_RECALLPTR                   FFFFFFEA
WRK_L_RSLEND                      FFFFFFB6
WRK_L_RSLNXT                      FFFFFFBA
WRK_L_SAVAP                       FFFFFFF8
WRK_L_SAVFP                       FFFFFFFC
WRK_L_SAVSP                       FFFFFFF4
WRK_L_SIGNALRTN                   FFFFFFD6
WRK_L_SPECRTN                     FFFFF9B2
WRK_L_TAB_VEC                     FFFFFFDE
WRK_L_VERB                        FFFFFFBE
WRK_W_FLAGS                       FFFFFFF0
WRK_W_FLAGS2                      FFFFFFF2
WRK_W_IMGCHAN                     FFFFFFEE
WRK_W_PMPTLEN                     FFFFF99E
```

```
                                     +----------------+
                                     ! Psect synopsis !
                                     +----------------+

PSECT name                      Allocation          PSECT No.  Attributes
----------                      ----------          ---------  ----------
.  ABS  .                       00000000  (     0.)  00 (   0.)  NOPIC    USR    CON    ABS    LCL NOSHR NOEXE NORD   NOWRT NOVEC BYTE
$ABS$                           FFFFFFFC  (     0.)  01 (   1.)  NOPIC    USR    CON    ABS    LCL NOSHR   EXE   RD     WRT NOVEC BYTE
DCL$ZCODE                       00000115  (   277.)  02 (   2.)  NOPIC    USR    CON    REL    LCL NOSHR   EXE   RD   NOWRT NOVEC BYTE

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

Phase                        Page faults    CPU Time       Elapsed Time
-----                        -----------    --------       ------------
Initialization                         9    00:00:00.11    00:00:00.42
Command processing                    83    00:00:00.81    00:00:05.05
Pass 1                               250    00:00:09.13    00:00:22.27
Symbol table sort                      0    00:00:01.20    00:00:02.81
Pass 2                                72    00:00:01.69    00:00:06.40
Symbol table output                   20    00:00:00.16    00:00:00.68
Psect synopsis output                  2    00:00:00.02    00:00:00.02
Cross-reference output                 0    00:00:00.00    00:00:00.00
Assembler run totals                 436    00:00:13.14    00:00:37.67

The working set limit was 1200 pages.
45492 bytes (89 pages) of virtual memory were used to buffer the intermediate code.
There were 50 pages of symbol table space allocated to hold 815 non-local and 18 local symbols.
415 source lines were read in Pass 1, producing 13 object records in Pass 2.
34 pages of virtual memory were used to define 20 macros.

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

Macro library name                       Macros defined
------------------                       --------------
_$255$DUA28:[SYSLIB]SYSBLDMLB.MLB;1                   0
_$255$DUA28:[DCL.OBJ]DCL.MLB;1                        8
_$255$DUA28:[SYS.OBJ]LIB.MLB;1                        0
_$255$DUA28:[SYSLIB]STARLET.MLB;2                     4
TOTALS (all libraries)                               12

956 GETS were required to define 12 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LIS$:RPSUB/OBJ=OBJ$:RPSUB MSRC$:RPSUB/UPDATE=(ENH$:RPSUB)+EXECML$/LIB+LIB$:DCL/LIB+SYS$LIBRARY:SYSBLDMLB/LIB
```

0073 AH-BT13A-SE
VAX/VMS V4.0

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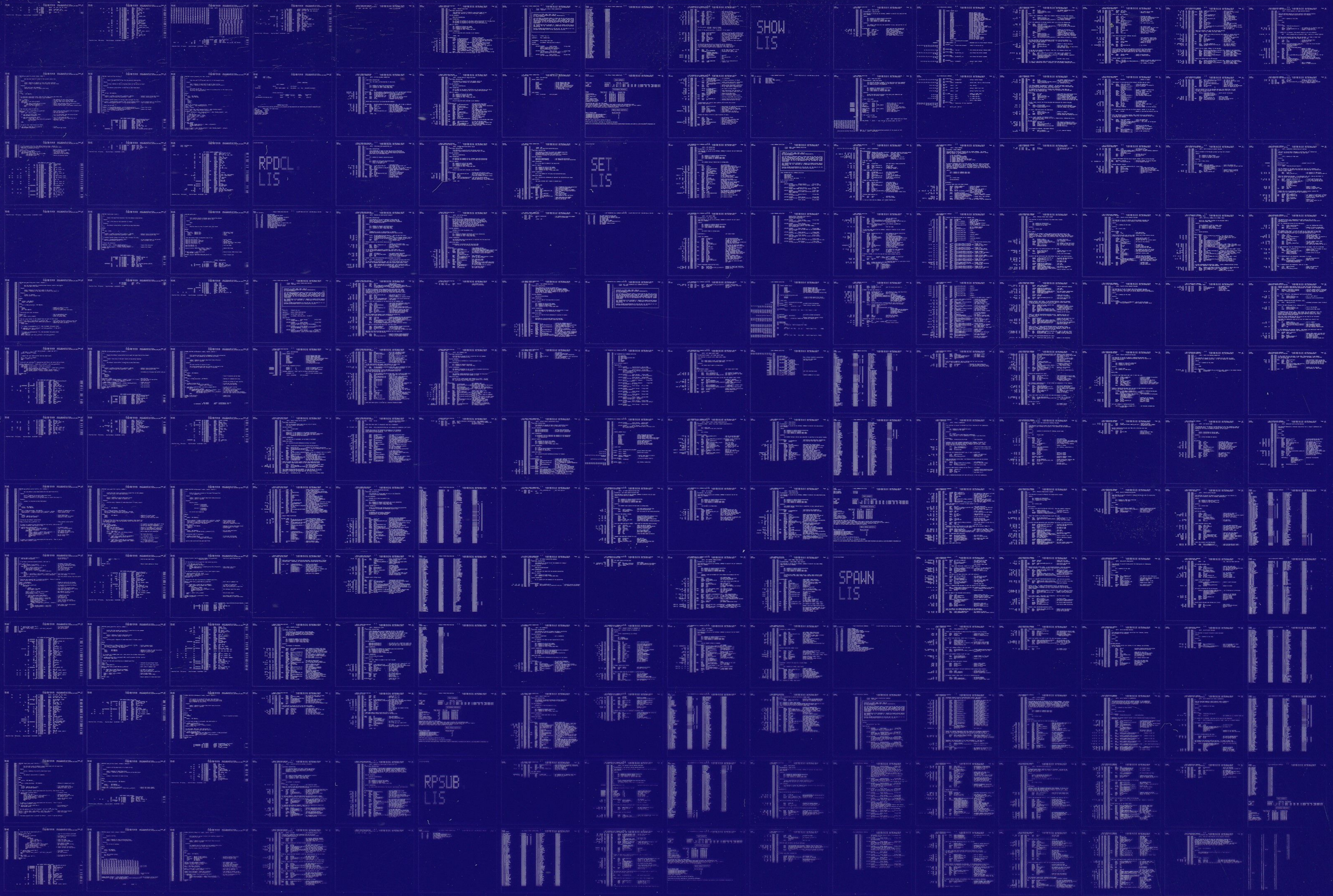

SHOW
LIS

RPDCL
LIS

SET
LIS

SPAWN
LIS

RPSUB
LIS