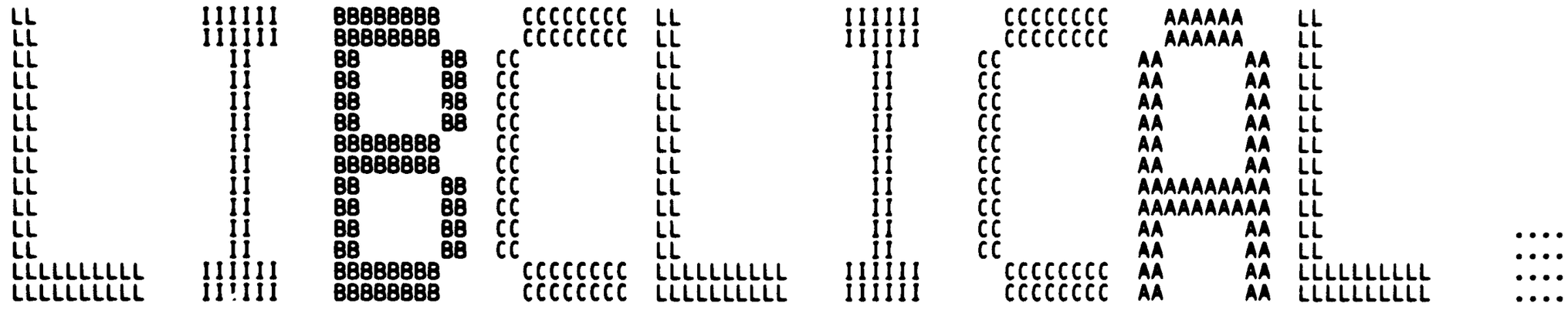
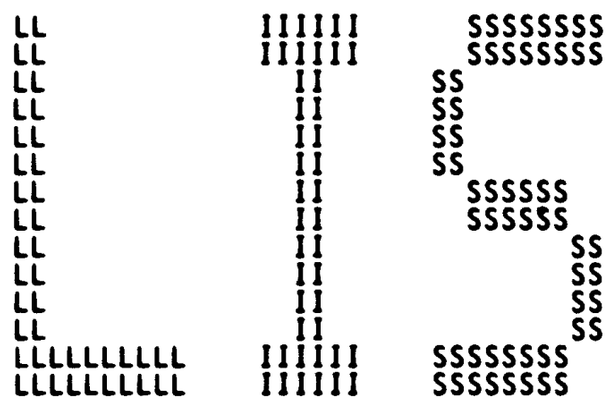
```
LLL                 IIIIIIIII     BBBBBBBBBBBB     RRRRRRRRRRRR     TTTTTTTTTTTTTTT  LLL
LLL                 IIIIIIIII     BBBBBBBBBBBB     RRRRRRRRRRRR     TTTTTTTTTTTTTTT  LLL
LLL                 IIIIIIIII     BBBBBBBBBBBB     RRRRRRRRRRRR     TTTTTTTTTTTTTTT  LLL
LLL                    III        BBB         BBB  RRR         RRR        TTT        LLL
LLL                    III        BBB         BBB  RRR         RRR        TTT        LLL
LLL                    III        BBB         BBB  RRR         RRR        TTT        LLL
LLL                    III        BBB         BBB  RRR         RRR        TTT        LLL
LLL                    III        BBB         BBB  RRR         RRR        TTT        LLL
LLL                    III        BBB         BBB  RRR         RRR        TTT        LLL
LLL                    III        BBBBBBBBBBBB     RRRRRRRRRRRR           TTT        LLL
LLL                    III        BBBBBBBBBBBB     RRRRRRRRRRRR           TTT        LLL
LLL                    III        BBBBBBBBBBBB     RRRRRRRRRRRR           TTT        LLL
LLL                    III        BBB         BBB  RRR   RRR              TTT        LLL
LLL                    III        BBB         BBB  RRR   RRR              TTT        LLL
LLL                    III        BBB         BBB  RRR   RRR              TTT        LLL
LLL                    III        BBB         BBB  RRR      RRR           TTT        LLL
LLL                    III        BBB         BBB  RRR      RRR           TTT        LLL
LLL                    III        BBB         BBB  RRR      RRR           TTT        LLL
LLLLLLLLLLLLLLL     IIIIIIIII     BBBBBBBBBBBB     RRR         RRR        TTT        LLLLLLLLLLLLLLL
LLLLLLLLLLLLLLL     IIIIIIIII     BBBBBBBBBBBB     RRR         RRR        TTT        LLLLLLLLLLLLLLL
LLLLLLLLLLLLLLL     IIIIIIIII     BBBBBBBBBBBB     RRR         RRR        TTT        LLLLLLLLLLLLLLL
```

FILEID**LIBCLICAL





```
;     1          0001  0 %TITLE 'LIB$CLI_CALLBACK - CLI Callback Interface Procedures'
;     2          0002  0 MODULE LIB$CLI_CALLBACK (                       ! CLI Callback Procedures
;     3          0003  0                  IDENT = 'V04-000'              ! File: LIBCLICAL.B32 Edit: STAN3009
;     4          0004  0                  ) =
;     5          0005  1 BEGIN
;     6          0006  1 !
;     7          0007  1 !**************************************************************************
;     8          0008  1 !*                                                                        *
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;    21          0021  1 !*  AND  SHOULD  NOT  BE  CONSTRUED AS  A COMMITMENT BY DIGITAL EQUIPMENT   *
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;    25          0025  1 !*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.                *
;    26          0026  1 !*                                                                        *
;    27          0027  1 !*                                                                        *
;    28          0028  1 !**************************************************************************
;    29          0029  1 !
;    30          0030  1
;    31          0031  1 !++
;    32          0032  1 ! FACILITY:     General Utility Library
;    33          0033  1 !
;    34          0034  1 ! ABSTRACT:
;    35          0035  1 !
;    36          0036  1 !       This module contains callable procedures which allow user programs
;    37          0037  1 !       to access the CLI callback facility.  The procedures in this module
;    38          0038  1 !       are:
;    39          0039  1 !               LIB$GET_SYMBOL          get value of a CLI symbol
;    40          0040  1 !               LIB$SET_SYMBOL          set value of a CLI symbol
;    41          0041  1 !               LIB$DELETE_SYMBOL       delete a CLI symbol
;    42          0042  1 !               LIB$SET_LOGICAL         set value of a supervisor mode
;    43          0043  1 !                                       logical name
;    44          0044  1 !               LIB$DELETE_LOGICAL      delete a supervisor mode logical name
;    45          0045  1 !               LIB$DISABLE_CTRL        disable CLI out-of-band handling
;    46          0046  1 !               LIB$ENABLE_CTRL         re-enable CLI out-of-band handling
;    47          0047  1 !
;    48          0048  1 ! ENVIRONMENT:  Runs only in USER mode - AST reentrant
;    49          0049  1 !
;    50          0050  1 ! AUTHOR: Ralph O. Weber,       CREATION DATE: 19-AUG-1981
;    51          0051  1 !
;    52          0052  1 ! MODIFIED BY:
;    53          0053  1 !
;    54          0054  1 ! 1-001 - Original.  ROW 19-AUG-1981
;    55          0055  1 ! 1-002 - Change symbol name > 255 characters error to LIB$_INVSYMNAM.
;    56          0056  1 !         ROW 3-DEC-1981
;    57          0057  1 ! 1-003 - Use CLI$C_SRVDESC.  Improve code.  SBL 18-Dec-1981
```

```
;    58          0058  1 ! 1-004 - Correct all references to LIB$ANALYZE_SDESC.  DGP 31-Dec-1981
;    59          0059  1 ! 1-005 - Correct PSECT definitions.  SBL 4-Jan-1981
;    60          0060  1 ! 1-006 - Fix reference to CLIMSG.B32 to use SHRLIB$, not LIB$  TMH 14-Feb-1982
;    61          0061  1 ! 1-007 - Allow symbol name to start with $ or _.  SBL 3-Feb-1983
;    62          0062  1 ! 1-008 - Use new callbacks to allow itemlists and attributes. STAN 26-Feb-1984.
;    63          0063  1 ! 1-009 - Fix bug in way pass itemlist to callback. STAN 10-JUL-1984.
;    64          0064  1 !--
```

```
;    66          0065  1 %SBTTL 'Declarations'
;    67          0066  1 !
;    68          0067  1 ! SWITCHES:
;    69          0068  1 !
;    70          0069  1
;    71          0070  1 SWITCHES ADDRESSING_MODE (EXTERNAL = GENERAL, NONEXTERNAL = WORD_RELATIVE);
;    72          0071  1
;    73          0072  1 !
;    74          0073  1 ! LINKAGES:
;    75          0074  1 !
;    76          0075  1
;    77          0076  1 LINKAGE LIB$ANALYZE_SDESC_JSB_LINK = JSB (REGISTER=0; REGISTER=1,REGISTER=2):
;    78          0077  1         NOTUSED (3,4,5,6,7,8,9,10,11);
;    79          0078  1
;    80          0079  1 !
;    81          0080  1 ! TABLE OF CONTENTS:
;    82          0081  1 !
;    83          0082  1
;    84          0083  1 FORWARD ROUTINE
;    85          0084  1     LIB$GET_SYMBOL,                         ! get value of a CLI symbol
;    86          0085  1     LIB$SET_SYMBOL,                         ! set value of a CLI symbol
;    87          0086  1     LIB$SET_LOGICAL,                        ! set value of a supervisor-mode
;    88          0087  1                                             ! logical name
;    89          0088  1     LIB$DELETE_LOGICAL,                     ! delete a supervisor-mode logical
;    90          0089  1                                             ! name
;    91          0090  1     LIB$DISABLE_CTRL,                       ! disable CLI out-of-band recognition
;    92          0091  1     LIB$ENABLE_CTRL,                        ! re-enable CLI out-of-band recognition
;    93          0092  1     LIB$$BUILD_SYMBOL_NAME;                 ! build a good symbol name
;    94          0093  1
;    95          0094  1 !
;    96          0095  1 ! INCLUDE FILES:
;    97          0096  1 !
;    98          0097  1
;    99          0098  1 LIBRARY 'SYS$LIBRARY:STARLET';              ! System symbol definitions
;   100          0099  1
;   101          0100  1 REQUIRE 'SHRLIB$:CLIMSG';                   ! CLI$_ symbols
;   102          0380  1
;   103          0381  1 !
;   104          0382  1 ! MACROS:
;   105          0383  1 !
;   106          0384  1 !       MACRO MOVEDESC builds a S-type string descriptor at _TO
;   107          0385  1 !       which points to the same data area as that pointed to by
;   108          0386  1 !       the string descriptor at _FROM.  NB: since the _TO
;   109          0387  1 !       descriptor will be used only by SYS$CLI which ignores the
;   110          0388  1 !       DTYPE and CLASS fields, only the LENGTH and POINTER fields
;   111          0389  1 !       are built by MOVEDESC.
;   112          0390  1 !
;   113        M 0391  1     MACRO MOVEDESC (_FROM, _TO) =
;   114        M 0392  1         BEGIN
;   115        M 0393  1         REGISTER
;   116        M 0394  1             RET_STATUS = 0;
;   117        M 0395  1         RET_STATUS = LIB$ANALYZE_SDESC_R2 ( _FROM;
;   118        M 0396  1          BLOCK [_TO, DSC$W_LENGTH; , BYTE],
;   119        M 0397  1          BLOCK [_TO, DSC$A_POINTER; , BYTE] );
;   120        M 0398  1         IF NOT .RET_STATUS
;   121        M 0399  1         THEN
;   122        M 0400  1             RETURN (.RET_STATUS);
```

```
;  123          0401  1          END%;
;  124          0402  1
;  125          0403  1 !
;  126          0404  1 ! EQUATED SYMBOLS:
;  127          0405  1 !
;  128          0406  1 !       NONE
;  129          0407  1 !
;  130          0408  1 ! FIELDS:
;  131          0409  1 !
;  132          0410  1 !       NONE
;  133          0411  1 !
;  134          0412  1 ! PSECTS:
;  135          0413  1 !
;  136          0414  1
;  137          0415  1 PSECT
;  138          0416  1     CODE = _LIB$CODE (READ, NOWRITE, EXECUTE, SHARE, PIC, ADDRESSING_MODE (WORD_RELATIVE)),
;  139          0417  1     PLIT = _LIB$CODE (READ, NOWRITE, EXECUTE, SHARE, PIC, ADDRESSING_MODE (WORD_RELATIVE)),
;  140          0418  1     OWN  = _LIB$DATA (READ, WRITE, NOEXECUTE, NOSHARE, PIC, ADDRESSING_MODE (LONG_RELATIVE)),
;  141          0419  1     GLOBAL = _LIB$DATA (READ, WRITE, NOEXECUTE, NOSHARE, PIC, ADDRESSING_MODE (LONG_RELATIVE));
;  142          0420  1
;  143          0421  1 !
;  144          0422  1 ! OWN STORAGE:
;  145          0423  1 !
;  146          0424  1 !       NONE
;  147          0425  1 !
;  148          0426  1 ! EXTERNAL REFERENCES:
;  149          0427  1 !
;  150          0428  1
;  151          0429  1 EXTERNAL ROUTINE
;  152          0430  1     SYS$CLI,                                        CLI Callback Routine
;  153          0431  1     LIB$ANALYZE_SDESC_R2 : LIB$ANALYZE_SDESC_JSB_LINK,
;  154          0432  1                                                     ! Analyze a string descriptor
;  155          0433  1     LIB$SCOPY_DXDX,                                 ! Copy strings of any type
;  156          0434  1                                                     !       to any type
;  157          0435  1     LIB$SGET1_DD,                                   ! Get a dynamic string
;  158          0436  1     LIB$SFREE1_DD;                                  ! Free a dynamic string
;  159          0437  1
;  160          0438  1 EXTERNAL
;  161          0439  1     LIB$AB_UPCASE;                                  ! the string upcase table
;  162          0440  1
;  163          0441  1 EXTERNAL LITERAL                                    ! Condition value symbols
;  164          0442  1     LIB$_INVARG,                                    ! Invalid argument
;  165          0443  1     LIB$_WRONUMARG,                                 ! Wrong number of arguments
;  166          0444  1     LIB$_INVSYMNAM,                                 ! Illegal symbol name
;  167          0445  1     LIB$_NOSUCHSYM,                                 ! No such symbol
;  168          0446  1     LIB$_INSCLIMEM,                                 ! Insufficient CLI memory
;  169          0447  1     LIB$_AMBSYMDEF,                                 ! Ambiguous symbol defined
;  170          0448  1     LIB$_NOCLI,                                     ! No CLI present
;  171          0449  1     LIB$_UNECLIERR;                                 ! Unexpected CLI error
```

```
;  173          0450  1 %SBTTL 'LIB$GET_SYMBOL - get value of a CLI symbol'
;  174          0451  1 GLOBAL ROUTINE LIB$GET_SYMBOL (                        ! get value of a CLI symbol
;  175          0452  1         SYMBOL: REF BLOCK [, BYTE],                    ! symbol string descriptor
;  176          0453  1         RETBUF: REF BLOCK [, BYTE],                    ! return value string descriptor
;  177          0454  1         RETLEN: REF VECTOR [, WORD],                   ! no. bytes returned (opt.)
;  178          0455  1         MODE: REF VECTOR [, LONG]                      ! symbol table searched (opt.)
;  179          0456  1     ) =
;  180          0457  1
;  181          0458  1 !++
;  182          0459  1 ! FUNCTIONAL DESCRIPTION:
;  183          0460  1 !
;  184          0461  1 !       LIB$GET_SYMBOL gets the value of the specified CLI symbol and returns
;  185          0462  1 !       it in the specified buffer.  Before the actual search, however, the
;  186          0463  1 !       specified symbol name is upcased so that it will better match symbol
;  187          0464  1 !       names formed by the CLI.  The local-symbol table is scanned first for
;  188          0465  1 !       the symbol, and if no matching symbol is found there, the global-
;  189          0466  1 !       symbol table is scanned.  The length of the returned value and a mode
;  190          0467  1 !       value, indicating the table in which the symbol value was found, are
;  191          0468  1 !       optionally returned when parameters to receive them are supplied in
;  192          0469  1 !       the calling sequence.
;  193          0470  1 !
;  194          0471  1 !       Numeric values are automatically translated to decimal strings before
;  195          0472  1 !       being returned.
;  196          0473  1 !
;  197          0474  1 !       The optional mode value can be one of:
;  198          0475  1 !               LIB$K_CLI_LOCAL_SYM  = 1 ==> Local symbol table name
;  199          0476  1 !               LIB$K_CLI_GLOBAL_SYM = 2 ==> Global symbol table name
;  200          0477  1 !       These symbols are defined in $LIBCLIDEF.
;  201          0478  1 !
;  202          0479  1 ! CALLING SEQUENCE:
;  203          0480  1 !
;  204          0481  1 !       ret_status.wlc.v = LIB$GET_SYMBOL (symbol.rt.dx, retbuf.wt.dx
;  205          0482  1 !                                          [, retlen.ww.r [, mode.wl.r]])
;  206          0483  1 !
;  207          0484  1 ! FORMAL PARAMETERS:
;  208          0485  1 !
;  209          0486  1 !       symbol.rt.dx  - A string, passed by descriptor, which contains the
;  210          0487  1 !                       symbol to be searched for.  An upcased copy of this
;  211          0488  1 !                       string will actually be used for the search.
;  212          0489  1 !
;  213          0490  1 !       retbuf.wt.dx  - A string, passed by descriptor, into which the value
;  214          0491  1 !                       of the symbol, if found, will be written.
;  215          0492  1 !
;  216          0493  1 !       retlen.ww.r   - An optional word which, if present, will receive
;  217          0494  1 !                       the length of the returned symbol value string.
;  218          0495  1 !
;  219          0496  1 !       mode.wl.r     - An optional longword which, if present, will receive a
;  220          0497  1 !                       value indicating table in which symbol was found.
;  221          0498  1 !                       Possible values are:
;  222          0499  1 !                           LIB$K_CLI_LOCAL_SYM  ==> Local symbol table name
;  223          0500  1 !                           LIB$K_CLI_GLOBAL_SYM ==> Global symbol table name
;  224          0501  1 !
;  225          0502  1 ! IMPLICIT INPUTS:
;  226          0503  1 !
;  227          0504  1 !       NONE
;  228          0505  1 !
;  229          0506  1 ! IMPLICIT OUTPUTS:
```

```
;  230          0507  1 !
;  231          0508  1 !       NONE
;  232          0509  1 !
;  233          0510  1 ! COMPLETION STATUS: (or ROUTINE VALUE:)
;  234          0511  1 !
;  235          0512  1 !       SS$_NORMAL      Normal successful completion
;  236          0513  1 !       LIB$_INVARG     Invalid argument
;  237          0514  1 !       LIB$_INVSYMNAM  Invalid symbol name
;  238          0515  1 !       LIB$_NOSUCHSYM  No such symbol found
;  239          0516  1 !       LIB$_INSCLIMEM  Insufficient CLI memory
;  240          0517  1 !       LIB$_NOCLI      No CLI present to perform function
;  241          0518  1 !       LIB$_UNECLIERR  Unexpected CLI Error
;  242          0519  1 !
;  243          0520  1 ! SIDE EFFECTS:
;  244          0521  1 !
;  245          0522  1 !       WARNING:
;  246          0523  1 !       Although this procedure performs some checks on the validity of
;  247          0524  1 !       symbol names passed to it, some symbol name considered valid by
;  248          0525  1 !       this procedure will be considered invalid by DCL.  Callers of this
;  249          0526  1 !       procedure are responsible for insuring that symbol names passed to
;  250          0527  1 !       this procedure contain only alphanumeric characters.
;  251          0528  1 !
;  252          0529  1 !--
;  253          0530  1
;  254          0531  2     BEGIN
;  255          0532  2
;  256          0533  2     BUILTIN
;  257          0534  2         NULLPARAMETER;
;  258          0535  2
;  259          0536  2     LOCAL
;  260          0537  2         CLI_REQ_BLOCK : BLOCK [CLI$C_SRVDESC, BYTE], ! A CLI request block
;  261          0538  2         DYN_STRING : BLOCK [8, BYTE],                ! Descriptor for dynamic string
;  262          0539  2         RETURN_STATUS : BLOCK [4, BYTE];             ! A return status value
;  263          0540  2
;  264          0541  2
;  265          0542  2
;  266          0543  2 !+
;  267          0544  2 ! Initialize CLI Command request block.
;  268          0545  2 !-
;  269          0546  2     CH$FILL (0, CLI$C_SRVDESC, CLI_REQ_BLOCK);
;  270          0547  2     CLI_REQ_BLOCK [CLI$B_RQTYPE] = CLI$K_CLISERV;
;  271          0548  2     CLI_REQ_BLOCK [CLI$W_SERVCOD] = CLI$K_GETSYM;
;  272          0549  2     RETURN_STATUS = LIB$$BUILD_SYMBOL_NAME( .SYMBOL, DYN_STRING,
;  273          0550  2                                 CLI_REQ_BLOCK [CLI$Q_NAMDESC] );
;  274          0551  2     IF NOT .RETURN_STATUS THEN RETURN .RETURN_STATUS;
;  275          0552  2
;  276          0553  2 !+
;  277          0554  2 ! Get CLI symbol value.
;  278          0555  2 !-
;  279          0556  2     RETURN_STATUS = SYS$CLI (CLI_REQ_BLOCK);
;  280          0557  2
;  281          0558  2 !+
;  282          0559  2 ! Free dynamic string used for upcased symbol name.
;  283          0560  2 !-
;  284          0561  2     LIB$SFREE1_DD( DYN_STRING );
;  285          0562  2
;  286          0563  2 !+
```

```
;  287          0564  2 ! Process returned symbol value and requested optional values.
;  288          0565  2 !-
;  289          0566  2     IF .RETURN_STATUS
;  290          0567  2     THEN
;  291          0568  3     BEGIN
;  292          0569  3         LOCAL
;  293          0570  3             CLI_DESC : REF BLOCK [8, BYTE];
;  294          0571  3         CLI_DESC = CLI_REQ_BLOCK [CLI$Q_VALDESC];
;  295          0572  3         RETURN_STATUS = LIB$SCOPY_DXDX (.CLI_DESC, .RETBUF);
;  296          0573  3         IF NOT NULLPARAMETER (3) AND .RETURN_STATUS
;  297          0574  3         THEN
;  298          0575  4         BEGIN
;  299          0576  4             LOCAL
;  300          0577  4                 ADDRESS,
;  301          0578  4                 LENGTH;
;  302          0579  4             LIB$ANALYZE_SDESC_R2 (.RETBUF; LENGTH, ADDRESS );
;  303          0580  4             RETLEN [0] = MINU (.LENGTH, .CLI_DESC [DSC$W_LENGTH]);
;  304          0581  3             END;
;  305          0582  3         IF NOT NULLPARAMETER (4)
;  306          0583  3         THEN
;  307          0584  3             MODE [0] = .CLI_REQ_BLOCK [CLI$B_RQSTAT];
;  308          0585  3         END
;  309          0586  3     ELSE IF (.RETURN_STATUS [STS$V_FAC_NO] EQL CLI$_FACILITY)
;  310          0587  2     THEN
;  311          0588  2         RETURN_STATUS =
;  312          0589  3         BEGIN
;  313          0590  3             SELECTONE .RETURN_STATUS OF
;  314          0591  3             SET
;  315          0592  3             [CLI$_UNDSYM] :     LIB$_NOSUCHSYM;
;  316          0593  3             [CLI$_BUFOVF] :     LIB$_INSCLIMEM;
;  317          0594  3             [CLI$_INVREQTYP] :  LIB$_NOCLI;
;  318          0595  3             [OTHERWISE] :       LIB$_UNECLIERR;
;  319          0596  3             TES
;  320          0597  2             END;
;  321          0598  2
;  322          0599  2     RETURN (.RETURN_STATUS);
;  323          0600  2
;  324          0601  1     END;                                    ! End of routine LIB$GET_SYMBOL


                                                                    .TITLE  LIB$CLI_CALLBACK LIB$CLI_CALLBACK - CLI Callbac
;                                                                                           k Interface Proce
                                                                    .IDENT  \V04-000\

                                                                    .EXTRN  SYS$CLI, LIB$ANALYZE_SDESC_R2
                                                                    .EXTRN  LIB$SCOPY_DXDX, LIB$SGET1_DD
                                                                    .EXTRN  LIB$SFREET_DD, LIB$AB_UPCASE
                                                                    .EXTRN  LIB$_INVARG, LIB$_WRONUMARG
                                                                    .EXTRN  LIB$_INVSYMNAM, LIB$_NOSUCHSYM
                                                                    .EXTRN  LIB$_INSCLIMEM, LIB$_AMBSYMDEF
                                                                    .EXTRN  LIB$_NOCLI, LIB$_UNECLIERR

                                                                    .PSECT  _LIB$CODE,NOWRT,  SHR,  PIC,2

                                                 003C 00000         .ENTRY  LIB$GET_SYMBOL, Save R2,R3,R4,R5            ; 0451
                                5E        A4   AE   9E 00002        MOVAB   -92(SP), SP                                 ;
    0054    8F          00        6E         00   2C 00006        MOVC5   #0, (SP), #0, #84, CLI_REQ_BLOCK            ; 0546
```

```
                                    08   AE      0000D
                                08  AE          05  90 0000F        MOVB    #5, CLI_REQ_BLOCK                                   ; 0547
                                09  AE          0A  B0 00013        MOVW    #10, CLI_REQ_BLOCK+1                                ; 0548
                                    0C  AE  9F  00017               PUSHAB  CLI_REQ_BLOCK+4                                     ; 0550
                                    04  AE  9F  0001A               PUSHAB  DYN_STRING                                          ; 0549
                                    04  AC  DD  0001D               PUSHL   SYMBOL                                              ; 0550
                              0000V CF          03  FB 00020        CALLS   #3, LIB$$BUILD_SYMBOL_NAME
                                    53          50  D0 00025        MOVL    R0, RETURN_STATUS
                                    79          53  E9 00028        BLBC    RETURN_STATUS, 4$                                   ; 0551
                                    08  AE  9F  0002B               PUSHAB  CLI_REQ_BLOCK                                       ; 0556
                         00000000G  00          01  FB 0002E        CALLS   #1, SYS$CLI
                                    53          50  D0 00035        MOVL    R0, RETURN_STATUS
                                                5E  DD 00038        PUSHL   SP                                                  ; 0561
                         00000000G  00          01  FB 0003A        CALLS   #1, LIB$SFREE1_DD
                                    49          53  E9 00041        BLBC    RETURN_STATUS, 3$                                   ; 0566
                                    54      14  AE  9E 00044        MOVAB   CLI_REQ_BLOCK+12, CLI_DESC                          ; 0571
                                        08  AC  DD 00048            PUSHL   RETBUF                                              ; 0572
                                            54  DD 0004B            PUSHL   CLI_DESC
                         00000000G  00          02  FB 0004D        CALLS   #2, LIB$SCOPY_DXDX
                                    53          50  D0 00054        MOVL    R0, RETURN_STATUS
                                    03          6C  91 00057        CMPB    (AP), #3                                            ; 0573
                                                20  1F 0005A        BLSSU   2$
                                        0C  AC  D5 0005C            TSTL    12(AP)
                                            1B  13 0005F            BEQL    2$
                                    18          53  E9 00061        BLBC    RETURN_STATUS, 2$
                                    50      08  AC  D0 00064        MOVL    RETBUF, R0                                          ; 0579
                                 00000000G  00  16  00068        JSB     LIB$ANALYZE_SDESC_R2
          51            64              10      00  ED 0006E        CMPZV   #0, #16, (CLI_DESC), R1                             ; 0580
                                                03  1E 00073        BGEQU   1$
                                    51          64  3C 00075        MOVZWL  (CLI_DESC), R1
                                 0C BC          51  B0 00078  1$:    MOVW    R1, @RETLEN
                                    04          6C  91 0007C  2$:    CMPB    (AP), #4                                            ; 0582
                                                50  1F 0007F        BLSSU   8$
                                        10      AC  D5 00081        TSTL    16(AP)
                                                4B  13 00084        BEQL    8$
                                 10 BC      0B  AE  9A 00086        MOVZBL  CLI_REQ_BLOCK+3, @MODE                              ; 0584
                                                44  11 0008B        BRB     8$                                                  ; 0566
          03            53                0C      10  ED 0008D  3$:    CMPZV   #16, #12, RETURN_STATUS, #3                     ; 0586
                                                3D  12 00092        BNEQ    8$
                       00038140 8F              53  D1 00094        CMPL    RETURN_STATUS, #229696                              ; 0592
                                                09  12 0009B        BNEQ    5$
                                53 00000000G    8F  D0 0009D        MOVL    #LIB$_NOSUCHSYM, RETURN_STATUS
                                                2B  11 000A4  4$:    BRB     8$
                       00038018 8F              53  D1 000A6  5$:    CMPL    RETURN_STATUS, #229400                              ; 0593
                                                09  12 000AD        BNEQ    6$
                                53 00000000G    8F  D0 000AF        MOVL    #LIB$_INSCLIMEM, RETURN_STATUS
                                                19  11 000B6        BRB     8$
                       00038822 8F              53  D1 000B8  6$:    CMPL    RETURN_STATUS, #231458                              ; 0594
                                                09  12 000BF        BNEQ    7$
                                53 00000000G    8F  D0 000C1        MOVL    #LIB$_NOCLI, RETURN_STATUS
                                                07  11 000C8        BRB     8$
                                53 00000000G    8F  D0 000CA  7$:    MOVL    #LIB$_UNECLIERR, RETURN_STATUS                      ; 0595
                                50              53  D0 000D1  8$:    MOVL    RETURN_STATUS, R0                                   ; 0599
                                                    04 000D4        RET                                                         ; 0601

; Routine Size:  213 bytes,    Routine Base:  _LIB$CODE + 0000
```

```
;  326          0602  1 %SBTTL 'LIB$SET_SYMBOL - set value of a CLI symbol'
;  327          0603  1 GLOBAL ROUTINE LIB$SET_SYMBOL (                    ! set value of a CLI symbol
;  328          0604  1         SYMBOL: REF BLOCK [, BYTE],                ! symbol string descriptor
;  329          0605  1         VALUE: REF BLOCK [, BYTE],                 ! desired symbol value descriptor
;  330          0606  1         MODE: REF VECTOR [, LONG]                  ! desired symbol table (opt.)
;  331          0607  1     ) =
;  332          0608  1
;  333          0609  1 !++
;  334          0610  1 ! FUNCTIONAL DESCRIPTION:
;  335          0611  1 !
;  336          0612  1 !       This routine defines a CLI symbol giving it the value specified by
;  337          0613  1 !       call parameter value.  Before the actual definition, however, the
;  338          0614  1 !       specified symbol name is upcased so that it will better match symbol
;  339          0615  1 !       names formed by the CLI.  An attempt to define a CLI symbol which
;  340          0616  1 !       already exists results in the value of that symbol being updated to
;  341          0617  1 !       the new value.  The optional mode argument specifies a code
;  342          0618  1 !       (LIB$K_CLI_LOCAL_SYM or LIB$K_CLI_GLOBAL_SYM) which names the symbol
;  343          0619  1 !       table on which the define/update operation will be performed.  If the
;  344          0620  1 !       mode argument is omitted, the the local symbol table is used.
;  345          0621  1 !
;  346          0622  1 !       The optional mode value can be one of:
;  347          0623  1 !               LIB$K_CLI_LOCAL_SYM  = 1 ==> Local symbol table name
;  348          0624  1 !               LIB$K_CLI_GLOBAL_SYM = 2 ==> Global symbol table name
;  349          0625  1 !       These symbols are defined in $LIBCLIDEF.
;  350          0626  1 !
;  351          0627  1 ! CALLING SEQUENCE:
;  352          0628  1 !
;  353          0629  1 !       ret_status.wlc.v = LIB$SET_SYMBOL (symbol.rt.dx, value.rt.dx
;  354          0630  1 !                                          [, mode.rl.r])
;  355          0631  1 !
;  356          0632  1 ! FORMAL PARAMETERS:
;  357          0633  1 !
;  358          0634  1 !       symbol.rt.dx  - A string, passed by descriptor, which contains the
;  359          0635  1 !                       symbol to be defined or modified.  An upcased copy of
;  360          0636  1 !                       this string will actually be used for the define
;  361          0637  1 !                       or update operation.
;  362          0638  1 !
;  363          0639  1 !       value.rt.dx   - A string, passed by descriptor, containing the value
;  364          0640  1 !                       to be given to the symbol.
;  365          0641  1 !
;  366          0642  1 !       mode.rl.r     - An optional longword which, if present, contains a
;  367          0643  1 !                       value indicating into which table the symbol is to be
;  368          0644  1 !                       placed.  If this parameter is omitted, the local
;  369          0645  1 !                       symbol table is used.
;  370          0646  1 !                       Possible values are:
;  371          0647  1 !                           LIB$K_CLI_LOCAL_SYM  ==> Local symbol table name
;  372          0648  1 !                           LIB$K_CLI_GLOBAL_SYM ==> Global symbol table name
;  373          0649  1 !
;  374          0650  1 ! IMPLICIT INPUTS:
;  375          0651  1 !
;  376          0652  1 !       NONE
;  377          0653  1 !
;  378          0654  1 ! IMPLICIT OUTPUTS:
;  379          0655  1 !
;  380          0656  1 !       NONE
;  381          0657  1 !
;  382          0658  1 ! COMPLETION STATUS: (or ROUTINE VALUE:)
```

```
;  383          0659  1 !
;  384          0660  1 !       SS$_NORMAL      Normal successful completion
;  385          0661  1 !       LIB$_INVARG     Invalid argument
;  386          0662  1 !       LIB$_INVSYMNAM  Invalid symbol name
;  387          0663  1 !       LIB$_INSCLIMEM  Insuficient CLI memory
;  388          0664  1 !       LIB$_AMBSYMDEF  Ambiguous CLI symbol defined
;  389          0665  1 !       LIB$_NOCLI      No CLI present to perform function
;  390          0666  1 !       LIB$_UNECLIERR  Unexpected CLI Error
;  391          0667  1 !
;  392          0668  1 ! SIDE EFFECTS:
;  393          0669  1 !
;  394          0670  1 !       A CLI symbol is created or updated.
;  395          0671  1 !
;  396          0672  1 !       WARNING:
;  397          0673  1 !       Although this procedure performs some checks on the validity of
;  398          0674  1 !       symbol names passed to it, some symbol name considered valid by
;  399          0675  1 !       this procedure will be considered invalid by DCL.  Callers of this
;  400          0676  1 !       procedure are responsible for insuring that symbol names passed to
;  401          0677  1 !       this procedure contain only alphanumeric characters.  If this
;  402          0678  1 !       procedure is used to create symbols whose names contain invalid
;  403          0679  1 !       characters, deleting those symbols can be accomplished by logging
;  404          0680  1 !       out and logging back in.
;  405          0681  1 !
;  406          0682  1 !--
;  407          0683  1
;  408          0684  2     BEGIN
;  409          0685  2
;  410          0686  2     BUILTIN
;  411          0687  2         NULLPARAMETER;
;  412          0688  2
;  413          0689  2     LOCAL
;  414          0690  2         CLI_REQ_BLOCK : BLOCK [CLI$C_SRVDESC, BYTE], ! A CLI request block
;  415          0691  2         DYN_STRING : BLOCK [8, BYTE],                ! Descriptor for dynamic string
;  416          0692  2         RETURN_STATUS : BLOCK [4, BYTE];             ! A return status value
;  417          0693  2
;  418          0694  2
;  419          0695  2 !+
;  420          0696  2 ! Initialize CLI Command request block.
;  421          0697  2 !-
;  422          0698  2     CH$FILL (0, CLI$C_SRVDESC, CLI_REQ_BLOCK);
;  423          0699  2     CLI_REQ_BLOCK [CLI$B_RQTYPE] = CLI$K_CLISERV;
;  424          0700  3     BEGIN
;  425          0701  3         LOCAL
;  426          0702  3             STRING : REF BLOCK [8, BYTE];
;  427          0703  3         STRING = .VALUE;
;  428          0704  3         IF .STRING [DSC$W_LENGTH] GTRU 255 THEN RETURN LIB$_INVARG;
;  429          0705  2         END;
;  430          0706  2     MOVEDESC ( .VALUE, CLI_REQ_BLOCK [CLI$Q_VALDESC] );
;  431          0707  2     RETURN_STATUS = LIB$$BUILD_SYMBOL_NAME( .SYMBOL, DYN_STRING,
;  432          0708  2                                 CLI_REQ_BLOCK [CLI$Q_NAMDESC] );
;  433          0709  2     IF NOT .RETURN_STATUS THEN RETURN .RETURN_STATUS;
;  434          0710  2
;  435          0711  2 !+
;  436          0712  2 ! Setup service code indicating which symbol table.
;  437          0713  2 !-
;  438          0714  2     CLI_REQ_BLOCK [CLI$W_SERVCOD] =
;  439          0715  3         BEGIN
```

```
;  440          0716  3              IF NULLPARAMETER (3)
;  441          0717  3              THEN
;  442          0718  3                  CLI$K_DEFLOCAL
;  443          0719  3              ELSE
;  444          0720  3                  CASE .MODE [0] FROM LIB$K_CLI_LOCAL_SYM
;  445          0721  3                                  TO LIB$K_CLI_GLOBAL_SYM OF
;  446          0722  3                  SET
;  447          0723  3                  [LIB$K_CLI_LOCAL_SYM]   : CLI$K_DEFLOCAL;
;  448          0724  3                  [LIB$K_CLI_GLOBAL_SYM]  : CLI$K_DEFGLOBAL;
;  449          0725  3                  [OUTRANGE]              : RETURN (LIB$_INVARG);
;  450          0726  3              TES
;  451          0727  2              END;
;  452          0728  2
;  453          0729  2      !+
;  454          0730  2      ! Set CLI symbol.
;  455          0731  2      !-
;  456          0732  2          RETURN_STATUS = SYS$CLI (CLI_REQ_BLOCK);
;  457          0733  2
;  458          0734  2      !+
;  459          0735  2      ! Free dynamic string used for upcased symbol name.
;  460          0736  2      !-
;  461          0737  2          LIB$SFREE1_DD( DYN_STRING );
;  462          0738  2
;  463          0739  2      !+
;  464          0740  2      ! Adjust error return status, if any.
;  465          0741  2      !-
;  466          0742  3          IF NOT .RETURN_STATUS AND (.RETURN_STATUS [STS$V_FAC_NO] EQL CLI$_FACILITY)
;  467          0743  2          THEN
;  468          0744  2              RETURN_STATUS =
;  469          0745  3              BEGIN
;  470          0746  3                  SELECTONE .RETURN_STATUS OF
;  471          0747  3                  SET
;  472          0748  3                  [CLI$_SYMOVF] :     LIB$_INSCLIMEM;
;  473          0749  3                  [CLI$_ABSYMD] :     LIB$_AMBSYMDEF;
;  474          0750  3                  [CLI$_INVREQTYP] :  LIB$_NOCLI;
;  475          0751  3                  [OTHERWISE] :       LIB$_UNECLIERR;
;  476          0752  3                  TES
;  477          0753  2                  END;
;  478          0754  2
;  479          0755  2          RETURN (.RETURN_STATUS);
;  480          0756  2
;  481          0757  1          END;                                    ! End of routine LIB$SET_SYMBOL


                                                    003C 00000     .ENTRY  LIB$SET_SYMBOL, Save R2,R3,R4,R5                ; 0603
                                              5E        A4  AE  9E 00002     MOVAB   -92(SP), SP                             ;
0054    8F                    00                    6E      00  2C 00006     MOVC5   #0, (SP), #0, #84, CLI_REQ_BLOCK        ; 0698
                                                          08  AE     0000D
                                                08    AE      05  90 0000F     MOVB    #5, CLI_REQ_BLOCK                       ; 0699
                                              50        08  AC  D0 00013     MOVL    VALUE, STRING                           ; 0703
                                          00FF    8F          60  B1 00017     CMPW    (STRING), #255                          ; 0704
                                                              3D  1A 0001C     BGTRU   3$                                      ;
                                              50        08  AC  D0 0001E     MOVL    VALUE, R0                               ; 0706
                                                 00000000G    00  16 00022     JSB     LIB$ANALYZE_SDESC_R2                    ;
```

```
                                14   AE             51   B0 00028          MOVW    R1, CLI_REQ_BLOCK+12                        ;
                                18   AE             52   D0 0002C          MOVL    R2, CLI_REQ_BLOCK+16                        ;
                                     01             50   E8 00030          BLBS    RET_STATUS, 1$                              ;
                                                    04   00033          RET                                                 ;
                                               0C   AE   9F 00034 1$:     PUSHAB  CLI_REQ_BLOCK+4                     ; 0708  ;
                                               04   AE   9F 00037         PUSHAB  DYN_STRING                          ; 0707  ;
                                               04   AC   DD 0003A         PUSHL   SYMBOL                              ; 0708  ;
                             0000V             CF   03   FB 0003D         CALLS   #3, LIB$$BUILD_SYMBOL_NAME                  ;
                                               52   50   D0 00042         MOVL    R0, RETURN_STATUS                           ;
                                               7B   52   E9 00045         BLBC    RETURN_STATUS, 9$                   ; 0709  ;
                                               03   6C   91 00048         CMPB    (AP), #3                            ; 0716  ;
                                                    16   1F 0004B         BLSSU   4$                                          ;
                                               0C   AC   D5 0004D         TSTL    12(AP)                                      ;
                                                    11   13 00050         BEQL    4$                                          ;
                        01                     01   0C   BC   CF 00052   CASEL   @MODE, #1, #1                      ; 0720  ;
                                          0011           000C   00057 2$:  .WORD   4$-2$,-                                    ;
                                                                                5$-2$                                       ;
                                               50 00000000G   8F   D0 0005B 3$:  MOVL    #LIB$_INVARG, R0                    ; 0725  ;
                                                              04   00062         RET                                         ;
                                               50             02   D0 00063 4$:  MOVL    #2, R0                              ; 0720  ;
                                                              03   11 00066     BRB     6$                                  ;
                                               50             03   D0 00068 5$:  MOVL    #3, R0                              ;
                                         09    AE             50   B0 0006B 6$:  MOVW    R0, CLI_REQ_BLOCK+1                 ; 0715  ;
                                               08   AE   9F 0006F         PUSHAB  CLI_REQ_BLOCK                       ; 0732  ;
                                00000000G      00             01   FB 00072     CALLS   #1, SYS$CLI                             ;
                                               52             50   D0 00079     MOVL    R0, RETURN_STATUS                       ;
                                                              5E   DD 0007C     PUSHL   SP                                  ; 0737  ;
                                00000000G      00             01   FB 0007E     CALLS   #1, LIB$SFREE1_DD                       ;
                                               44             52   E8 00085     BLBS    RETURN_STATUS, 11$                  ; 0742  ;
                     03         52                    0C       10   ED 00088     CMPZV   #16, #12, RETURN_STATUS, #3             ;
                                                              3D   12 0008D     BNEQ    11$                                     ;
                                00038138       8F             52   D1 0008F     CMPL    RETURN_STATUS, #229688              ; 0748  ;
                                                              09   12 00096     BNEQ    7$                                      ;
                                               52 00000000G   8F   D0 00098     MOVL    #LIB$_INSCLIMEM, RETURN_STATUS          ;
                                                              2B   11 0009F     BRB     11$                                     ;
                                000381A0       8F             52   D1 000A1 7$:  CMPL    RETURN_STATUS, #229792              ; 0749  ;
                                                              09   12 000A8     BNEQ    8$                                      ;
                                               52 00000000G   8F   D0 000AA     MOVL    #LIB$_AMBSYMDEF, RETURN_STATUS          ;
                                                              19   11 000B1     BRB     11$                                     ;
                                00038822       8F             52   D1 000B3 8$:  CMPL    RETURN_STATUS, #231458              ; 0750  ;
                                                              09   12 000BA     BNEQ    10$                                     ;
                                               52 00000000G   8F   D0 000BC     MOVL    #LIB$_NOCLI, RETURN_STATUS              ;
                                                              07   11 000C3 9$:  BRB     11$                                     ;
                                               52 00000000G   8F   D0 000C5 10$: MOVL    #LIB$_UNECLIERR, RETURN_STATUS      ; 0751  ;
                                               50             52   D0 000CC 11$: MOVL    RETURN_STATUS, R0                   ; 0755  ;
                                                              04   000CF         RET                                         ; 0757  ;

; Routine Size:  208 bytes,    Routine Base:  _LIB$CODE + 00D5
```

```
;  483          0758  1 %SBTTL 'LIB$DELETE_SYMBOL - delete a CLI symbol'
;  484          0759  1 GLOBAL ROUTINE LIB$DELETE_SYMBOL (                  ! set value of a CLI symbol
;  485          0760  1         SYMBOL: REF BLOCK [, BYTE],                 ! symbol string descriptor
;  486          0761  1         MODE: REF VECTOR [, LONG]                   ! desired symbol table (opt.)
;  487          0762  1     ) =
;  488          0763  1
;  489          0764  1 !++
;  490          0765  1 ! FUNCTIONAL DESCRIPTION:
;  491          0766  1 !
;  492          0767  1 !       This routine deletes a CLI symbol.  Before the actual deletion,
;  493          0768  1 !       however, the specified symbol name is upcased so that it will better
;  494          0769  1 !       match symbol names formed by the CLI.  The optional mode argument
;  495          0770  1 !       specifies a code (LIB$K_CLI_LOCAL_SYM or LIB$K_CLI_GLOBAL_SYM) which
;  496          0771  1 !       names the symbol table on which the delete operation will be performed.
;  497          0772  1 !       If the mode argument is omitted, the the local symbol table is used.
;  498          0773  1 !
;  499          0774  1 !       The optional mode value can be one of:
;  500          0775  1 !               LIB$K_CLI_LOCAL_SYM  = 1 ==> Local symbol table name
;  501          0776  1 !               LIB$K_CLI_GLOBAL_SYM = 2 ==> Global symbol table name
;  502          0777  1 !       These symbols are defined in $LIBCLIDEF.
;  503          0778  1 !
;  504          0779  1 ! CALLING SEQUENCE:
;  505          0780  1 !
;  506          0781  1 !       ret_status.wlc.v = LIB$DELETE_SYMBOL (symbol.rt.dx [, mode.rl.r])
;  507          0782  1 !
;  508          0783  1 ! FORMAL PARAMETERS:
;  509          0784  1 !
;  510          0785  1 !       symbol.rt.dx  - A string, passed by descriptor, which contains the
;  511          0786  1 !                       symbol to be defined or modified.  An upcased copy of
;  512          0787  1 !                       this string will actually be used for the deletion.
;  513          0788  1 !
;  514          0789  1 !       mode.rl.r     - An optional longword which, if present, contains a
;  515          0790  1 !                       value indicating from which table the symbol is to be
;  516          0791  1 !                       deleted.  If this parameter is omitted, the local
;  517          0792  1 !                       symbol table is used.
;  518          0793  1 !                       Possible values are:
;  519          0794  1 !                           LIB$K_CLI_LOCAL_SYM  ==> Local symbol table name
;  520          0795  1 !                           LIB$K_CLI_GLOBAL_SYM ==> Global symbol table name
;  521          0796  1 !
;  522          0797  1 ! IMPLICIT INPUTS:
;  523          0798  1 !
;  524          0799  1 !       NONE
;  525          0800  1 !
;  526          0801  1 ! IMPLICIT OUTPUTS:
;  527          0802  1 !
;  528          0803  1 !       NONE
;  529          0804  1 !
;  530          0805  1 ! COMPLETION STATUS: (or ROUTINE VALUE:)
;  531          0806  1 !
;  532          0807  1 !       SS$_NORMAL      Normal successful completion
;  533          0808  1 !       LIB$_INVARG     Invalid argument
;  534          0809  1 !       LIB$_INVSYMNAM  Invalid symbol name
;  535          0810  1 !       LIB$_NOSUCHSYM  No such symbol found
;  536          0811  1 !       LIB$_NOCLI      No CLI present to perform function
;  537          0812  1 !       LIB$_UNECLIERR  Unexpected CLI Error
;  538          0813  1 !
;  539          0814  1 ! SIDE EFFECTS:
```

```
;  540          0815  1 !
;  541          0816  1 !       A CLI symbol is deleted.
;  542          0817  1 !
;  543          0818  1 !       WARNING:
;  544          0819  1 !       Although this procedure performs some checks on the validity of
;  545          0820  1 !       symbol names passed to it, some symbol name considered valid by
;  546          0821  1 !       this procedure will be considered invalid by DCL.  Callers of this
;  547          0822  1 !       procedure are responsible for insuring that symbol names passed to
;  548          0823  1 !       this procedure contain only alphanumeric characters.
;  549          0824  1 !
;  550          0825  1 !--
;  551          0826  1
;  552          0827  2     BEGIN
;  553          0828  2
;  554          0829  2     BUILTIN
;  555          0830  2         NULLPARAMETER;
;  556          0831  2
;  557          0832  2     LOCAL
;  558          0833  2         CLI_REQ_BLOCK : BLOCK [CLI$C_SRVDESC, BYTE], ! A CLI request block
;  559          0834  2         DYN_STRING : BLOCK [8, BYTE],                ! Descriptor for dynamic string
;  560          0835  2         RETURN_STATUS : BLOCK [4, BYTE];             ! A return status value
;  561          0836  2
;  562          0837  2
;  563          0838  2 !+
;  564          0839  2 ! Initialize CLI Command request block.
;  565          0840  2 !-
;  566          0841  2     CH$FILL (0, CLI$C_SRVDESC, CLI_REQ_BLOCK);
;  567          0842  2     RETURN_STATUS = LIB$$BUILD_SYMBOL_NAME( .SYMBOL, DYN_STRING,
;  568          0843  2                             CLI_REQ_BLOCK [CLI$Q_NAMDESC] );
;  569          0844  2     IF NOT .RETURN_STATUS THEN RETURN .RETURN_STATUS;
;  570          0845  2     CLI_REQ_BLOCK [CLI$B_RQTYPE] = CLI$K_CLISERV;
;  571          0846  2
;  572          0847  2 !+
;  573          0848  2 ! Setup service code indicating which symbol table.
;  574          0849  2 !-
;  575          0850  2     CLI_REQ_BLOCK [CLI$W_SERVCOD] =
;  576          0851  3         BEGIN
;  577          0852  3             IF NULLPARAMETER (2)
;  578          0853  3             THEN
;  579          0854  3                 CLI$K_DELELCL
;  580          0855  3             ELSE
;  581          0856  3                 CASE .MODE [0] FROM LIB$K_CLI_LOCAL_SYM
;  582          0857  3                                 TO LIB$K_CLI_GLOBAL_SYM OF
;  583          0858  3                 SET
;  584          0859  3                 [LIB$K_CLI_LOCAL_SYM]   : CLI$K_DELELCL;
;  585          0860  3                 [LIB$K_CLI_GLOBAL_SYM]  : CLI$K_DELEGBL;
;  586          0861  3                 [OUTRANGE]              : RETURN (LIB$_INVARG);
;  587          0862  3             TES
;  588          0863  2             END;
;  589          0864  2
;  590          0865  2 !+
;  591          0866  2 ! Delete CLI symbol.
;  592          0867  2 !-
;  593          0868  2     RETURN_STATUS = SYS$CLI (CLI_REQ_BLOCK);
;  594          0869  2
;  595          0870  2 !+
;  596          0871  2 ! Free dynamic string used for upcased symbol name.
```

```
;  597          0872  2 !-
;  598          0873  2     LIB$SFREE1_DD( DYN_STRING );
;  599          0874  2
;  600          0875  2 !+
;  601          0876  2 ! Adjust error return status, if any.
;  602          0877  2 !-
;  603          0878  3     IF NOT .RETURN_STATUS AND (.RETURN_STATUS [STS$V_FAC_NO] EQL CLI$_FACILITY)
;  604          0879  2     THEN
;  605          0880  2         RETURN_STATUS =
;  606          0881  3         BEGIN
;  607          0882  3             SELECTONE .RETURN_STATUS OF
;  608          0883  3             SET
;  609          0884  3             [CLI$_UNDSYM] :     LIB$_NOSUCHSYM;
;  610          0885  3             [CLI$_INVREQTYP] :  LIB$_NOCLI;
;  611          0886  3             [OTHERWISE] :       LIB$_UNECLIERR;
;  612          0887  3             TES
;  613          0888  2             END;
;  614          0889  2
;  615          0890  2     RETURN (.RETURN_STATUS);
;  616          0891  2
;  617          0892  1     END;                                    ! End of routine LIB$DELETE_SYMBOL


                                    003C 00000         .ENTRY  LIB$DELETE_SYMBOL, Save R2,R3,R4,R5          ; 0759
                              5E    A4   AE  9E 00002  MOVAB   -92(SP), SP                                  ;
 0054   8F          00        6E         00  2C 00006  MOVC5   #0, (SP), #0, #84, CLI_REQ_BLOCK            ; 0841
                                         08  AE 0000D                                                       ;
                                         0C  AE 9F 0000F  PUSHAB  CLI_REQ_BLOCK+4                           ; 0843
                                         04  AE 9F 00012  PUSHAB  DYN_STRING                                 ; 0842
                                         04  AC DD 00015  PUSHL   SYMBOL                                    ; 0843
                                0000V    CF         03  FB 00018  CALLS   #3, LIB$$BUILD_SYMBOL_NAME         ;
                                         52         50  D0 0001D  MOVL    R0, RETURN_STATUS                 ;
                                         76         52  E9 00020  BLBC    RETURN_STATUS, 7$                 ; 0844
                                   08    AE         05  90 00023  MOVB    #5, CLI_REQ_BLOCK                 ; 0845
                                         02         6C  91 00027  CMPB    (AP), #2                          ; 0852
                                                    16  1F 0002A  BLSSU   2$                                ;
                                         08    AC   D5  0002C  TSTL    8(AP)                               ;
                                                    11  13 0002F  BEQL    2$                                ;
                                01             01    08  BC  CF 00031  CASEL   @MODE, #1, #1                ; 0856
                                          0011          000C     00036 1$:  .WORD   2$-1$,-                  ;
                                                                            3$-1$                           ;
                                         50 00000000G   8F  D0 0003A  MOVL    #LIB$_INVARG, R0              ; 0861
                                                        04  00041    RET                                     ;
                                         50             CB  D0 00042 2$:  MOVL    #11, R0                   ; 0856
                                                        03  11 00045  BRB     4$                            ;
                                         50             0C  D0 00047 3$:  MOVL    #12, R0                   ;
                                   09    AE              50  B0 0004A 4$:  MOVW    R0, CLI_REQ_BLOCK+1       ; 0851
                                                    08  AE 9F 0004E  PUSHAB  CLI_REQ_BLOCK                 ; 0868
                              00000000G  00             01  FB 00051  CALLS   #1, SYS$CLI                   ;
                                         52             50  D0 00058  MOVL    R0, RETURN_STATUS             ;
                                                        5E  DD 0005B  PUSHL   SP                            ; 0873
                              00000000G  00             01  FB 0005D  CALLS   #1, L'B$SFREE1_DD             ;
                                         32             52  E8 00064  BLBS    RETURN_STATUS, 7$             ; 0878
                         03        52              0C        10  ED 00067  CMPZV   #16, #T2, RETURN_STATUS, #3 ;
```

```
                               2B  12 0006C        BNEQ   7$                                      ;
        00038140  8F           52  D1 0006E        CMPL   RETURN_STATUS, #229696                  ; 0884
                               09  12 00075        BNEQ   5$                                      ;
                  52 00000000G 8F  D0 00077        MOVL   #LIB$_NOSUCHSYM, RETURN_STATUS          ;
                               19  11 0007E        BRB    7$                                      ;
        00038822  8F           52  D1 00080 5$:    CMPL   RETURN_STATUS, #231458                  ; 0885
                               09  12 00087        BNEQ   6$                                      ;
                  52 00000000G 8F  D0 00089        MOVL   #LIB$_NOCLI, RETURN_STATUS              ;
                               07  11 00090        BRB    7$                                      ;
                  52 00000000G 8F  D0 00092 6$:    MOVL   #LIB$_UNECLIERR, RETURN_STATUS          ; 0886
                  50           52  D0 00099 7$:    MOVL   RETURN_STATUS, R0                       ; 0890
                                   04 0009C        RET                                            ; 0892

; Routine Size:  157 bytes,    Routine Base:  _LIB$CODE + 01A5
```

```
;  619          0893  1 %SBTTL 'LIB$SET_LOGICAL - set supervisor mode logical name'
;  620          0894  1 GLOBAL ROUTINE LIB$SET_LOGICAL (                    ! set supervisor mode logical name
;  621          0895  1         LOGNAME : REF $BBLOCK,          ! logical name string descriptor
;  622          0896  1         VALUE   : REF $BBLOCK,          ! equivalence name string descriptor
;  623          0897  1         TABNAM  : REF $BBLOCK,          ! logical name table
;  624          0898  1         ATTR    : REF $BBLOCK[4],       ! attributes
;  625          0899  1         ITMLST  : REF $BBLOCK           ! Address of itemlist
;  626          0900  1     ) =
;  627          0901  1
;  628          0902  1 !++
;  629          0903  1 ! FUNCTIONAL DESCRIPTION:
;  630          0904  1 !
;  631          0905  1 !       This routine provides a method by which a non-privileged program can
;  632          0906  1 !       create/modify supervisor mode logical names.  The logical name given
;  633          0907  1 !       by logname is created or modified to have the equivalence name
;  634          0908  1 !       specified by value.
;  635          0909  1 !       The user may specify attributes for the logical name and may
;  636          0910  1 !       specify which logical name table is to be used.
;  637          0911  1 !       Instead of specifying a single equivalence string, via VALUE,
;  638          0912  1 !       the caller may specify an item list to give multiple equivalence strings.
;  639          0913  1 !
;  640          0914  1 !       The $TRNLNM system service can be used to obtain the value of
;  641          0915  1 !       supervisor mode logical names.  The routine is equivalent to the ASSIGN
;  642          0916  1 !       or DEFINE DCL command.
;  643          0917  1 !
;  644          0918  1 ! CALLING SEQUENCE:
;  645          0919  1 !
;  646          0920  1 !       ret_status.wlc.v = LIB$SET_LOGICAL (
;  647          0921  1 !                                   logname.rt.dx
;  648          0922  1 !                                  [, value.rt.dx]
;  649          0923  1 !                                  [, tabnam.rt.dx]
;  650          0924  1 !                                  [, attr.rlu.r]
;  651          0925  1 !                                  [, itmlst.ra.r])
;  652          0926  1 !
;  653          0927  1 ! FORMAL PARAMETERS:
;  654          0928  1 !
;  655          0929  1 !       logname.rt.dx - A string, passed by descriptor, which contains the
;  656          0930  1 !                       supervisor mode logical name to be created or modified.
;  657          0931  1 !
;  658          0932  1 !       value.rt.dx   - A string, passed by descriptor, specifing the value
;  659          0933  1 !                       to be given to the supervisor mode logical name.
;  660          0934  1 !                       If omitted, an itemlist must be present to specify the
;  661          0935  1 !                       value(s) of the logical name.
;  662          0936  1 !
;  663          0937  1 !       tabnam.rt.dx  - Name of the table in which to create the logical name.
;  664          0938  1 !                       If omitted, the LNM$PROCESS table is used.
;  665          0939  1 !
;  666          0940  1 !       attr.rlu.r    - Logical name attributes.  See the description of
;  667          0941  1 !                       the system service $CRELNM for more details.
;  668          0942  1 !                       Currently available attributes are
;  669          0943  1 !                       LNM$M_CONFINE and LNM$M_NO_ALIAS.
;  670          0944  1 !                       If omitted, no special attributes are established.
;  671          0945  1 !                       However, if no table or itemlist is specified,
;  672          0946  1 !                       then the attribute LNM$M_CRELOG is defaulted in.
;  673          0947  1 !
;  674          0948  1 !                       If no itemlist is specified, then the translation
;  675          0949  1 !                       attributes LNM$M_CONCEALED and LNM$M_TERMINAL may
```

```
;  676     0950  1 !                          also be specified here.  They apply to the
;  677     0951  1 !                          equivalence string string specified by the VALUE
;  678     0952  1 !                          parameter.
;  679     0953  1 !
;  680     0954  1 !                          If an itemlist is specified, then the itemlist will
;  681     0955  1 !                          contain the translation attributes for each
;  682     0956  1 !                          equivalence string in the itemlist.
;  683     0957  1 !
;  684     0958  1 !              itmlst.ra.r The address of an item list describing the
;  685     0959  1 !                          equivalence name(s) for this logical name.
;  686     0960  1 !                          See the description of the $CRELNM system service
;  687     0961  1 !                          for the format and meaning of the item list.
;  688     0962  1 !
;  689     0963  1 !                          If omitted, the logical name will have just one
;  690     0964  1 !                          value, as specified by the VALUE parameter.
;  691     0965  1 !
;  692     0966  1 !                          Either VALUE or ITMLST must be specified.
;  693     0967  1 !                          If neither are specified, the LIB$_INVARG
;  694     0968  1 !                          error is produced.
;  695     0969  1 !
;  696     0970  1 !                          If both are specified, then the VALUE parameter
;  697     0971  1 !                          is ignored.  In this case, logical name
;  698     0972  1 !                          attributes are permitted, but translation
;  699     0973  1 !                          attributes specified in the ATTR parameter
;  700     0974  1 !                          will be ignored (since these will appear in the
;  701     0975  1 !                          itemlist).
;  702     0976  1 !
;  703     0977  1 !                          The ITMLST parameter is only needed in the case where
;  704     0978  1 !                          you wish to create multiple equivalence strings
;  705     0979  1 !                          for a single logical name (i.e. a search list).
;  706     0980  1 !
;  707     0981  1 ! IMPLICIT INPUTS:
;  708     0982  1 !
;  709     0983  1 !       It is assumed that the logical name table specified already exists.
;  710     0984  1 !
;  711     0985  1 ! IMPLICIT OUTPUTS:
;  712     0986  1 !
;  713     0987  1 !       NONE
;  714     0988  1 !
;  715     0989  1 ! COMPLETION STATUS: (or ROUTINE VALUE:)
;  716     0990  1 !
;  717     0991  1 !       SS$_NORMAL      Normal successful completion
;  718     0992  1 !       SS$_SUPERSEDE   Previous logical name replaced (success)
;  719     0993  1 !       SS$_ACCVIO      logname or value cannot be read
;  720     0994  1 !       SS$_IVLOGNAM    logname or value contains more than 255 characters
;  721     0995  1 !       SS$_BADPARAM    One or more arguments had a bad value.
;  722     0996  1 !                       For example, an unknown bit was specified in
;  723     0997  1 !                       the attributes parameter.
;  724     0998  1 !                       Note that if an item list is specified,
;  725     0999  1 !                       then translation attributes (if any) must
;  726     1000  1 !                       appear in the item list and may not appear
;  727     1001  1 !                       in the ATTR parameter.  Only logical name
;  728     1002  1 !                       attributes may appear in the ATTR parameter
;  729     1003  1 !                       in that case.
;  730     1004  1 !       SS$_NOLOGNAM    The specified logical name table does not exist.
;  731     1005  1 !       SS$_NOPRIV      The caller lacks the necessary privieleges
;  732     1006  1 !                       to create the logical name.
```

```
;  733          1007  1 !       SS$_TOOMANYLNAM Logical name translation of the table name exceeded
;  734          1008  1 !                       the allowable depth (10 translations).
;  735          1009  1 !       SS$_DUPLNAM     Attempt to create a logical name that conflicts
;  736          1010  1 !                       with a logical name created at a higher access mode
;  737          1011  1 !                       and which had the LNM$M_NO_ALIAS attribute.
;  738          1012  1 !       SS$_EXLNMQUOTA  Exceeded logical name space quota.
;  739          1013  1 !       SS$_INSFMEM     Insufficient dynamic memory.
;  740          1014  1 !       LIB$_INVARG     Invalid argument. Neither a VALUE nor an ITMLST
;  741          1015  1 !                       was specified.
;  742          1016  1 !                       Or LOGNAME was omitted.
;  743          1017  1 !       LIB$_NOCLI      No CLI present to perform function
;  744          1018  1 !       LIB$_UNECLIERR  Unexpected CLI Error
;  745          1019  1 !       LIB$_WRONUMARG  Wrong number of arguments.  Either fewer than two
;  746          1020  1 !                       arguments or more than 5 arguments were specified.
;  747          1021  1 !
;  748          1022  1 ! SIDE EFFECTS:
;  749          1023  1 !
;  750          1024  1 !       A supervisor mode logical name is created or modified.
;  751          1025  1 !
;  752          1026  1 !--
;  753          1027  1
;  754          1028  2     BEGIN
;  755          1029  2
;  756          1030  2     BUILTIN
;  757          1031  2
;  758          1032  2         ACTUALCOUNT,
;  759          1033  2         NULLPARAMETER;
;  760          1034  2
;  761          1035  2     LOCAL
;  762          1036  2
;  763          1037  2         CLI_REQ_BLOCK : BLOCK [CLI$C_SRVDESC, BYTE],    ! A CLI request block
;  764          1038  2         RETURN_STATUS : BLOCK [4, BYTE],
;  765          1039  2         TRANSLATION_ATTRIBUTES,
;  766          1040  2         LOGICAL_NAME_ATTRIBUTES,
;  767          1041  2         SPECIAL_ITEM_LIST : VECTOR [7];                 ! Special item list
;  768          1042  2
;  769          1043  2 !+
;  770          1044  2 ! Check for proper number of arguments.
;  771          1045  2 !-
;  772          1046  2
;  773          1047  2     IF ACTUALCOUNT() LEQU 1
;  774          1048  2     OR ACTUALCOUNT() GTRU 5
;  775          1049  2     THEN
;  776          1050  2         RETURN  LIB$_WRONUMARG;
;  777          1051  2
;  778          1052  2 !+
;  779          1053  2 ! Initialize CLI Command request block accounting for the differences
;  780          1054  2 ! between creating/modifying a logical name and deleting one.
;  781          1055  2 !-
;  782          1056  2
;  783          1057  2     CH$FILL (0, CLI$C_SRVDESC, CLI_REQ_BLOCK);
;  784          1058  2     CLI_REQ_BLOCK [CLI$B_ROTYPE] = CLI$K_CLISERV;
;  785          1059  2     CLI_REQ_BLOCK [CLI$W_SERVCOD] = CLI$R_CREALOG;
;  786          1060  2
;  787          1061  2 !+
;  788          1062  2 ! Move in the logical name, the equivalence string, and the logical
;  789          1063  2 ! name table name.
```

```
;  790          1064  2 ! Give an error if the logical name is omitted.
;  791          1065  2 ! Give an error if neither VALUE nor ITMLST is supplied.
;  792          1066  2 !-
;  793          1067  2
;  794          1068  2     IF .LOGNAME EQL 0
;  795          1069  2     THEN
;  796          1070  2         RETURN  LIB$_INVARG;
;  797          1071  2
;  798          1072  2     MOVEDESC ( .LOGNAME, CLI_REQ_BLOCK [CLI$Q_NAMDESC] );
;  799          1073  2
;  800          1074  2     IF NULLPARAMETER(VALUE) AND NULLPARAMETER(ITMLST)
;  801          1075  2     THEN
;  802          1076  2         RETURN  LIB$_INVARG;
;  803          1077  2
;  804          1078  2     IF NOT NULLPARAMETER(VALUE)
;  805          1079  2     THEN
;  806          1080  2         MOVEDESC ( .VALUE,  CLI_REQ_BLOCK [CLI$Q_VALDESC] );
;  807          1081  2
;  808          1082  2     !+
;  809          1083  2     ! NOTE:
;  810          1084  2     ! If both VALDESC and ITMLST are specified, DCL will ignore VALUE.
;  811          1085  2     !-
;  812          1086  2
;  813          1087  2     !+
;  814          1088  2     ! Move in the table name if present.
;  815          1089  2     ! If not present, DCL defaults to LNM$PROCESS.
;  816          1090  2     !-
;  817          1091  2
;  818          1092  2     IF NOT NULLPARAMETER(TABNAM)
;  819          1093  2     THEN
;  820          1094  2         MOVEDESC ( .TABNAM, CLI_REQ_BLOCK [CLI$Q_TABDESC] );
;  821          1095  2
;  822          1096  2     !+
;  823          1097  2     ! Move in the address of the item list (if present).
;  824          1098  2     ! If not present, DCL will create an itemlist from CLI$Q_VALDESC.
;  825          1099  2     !-
;  826          1100  2
;  827          1101  2     IF NOT NULLPARAMETER(ITMLST)
;  828          1102  2     THEN
;  829          1103  2         CLI_REQ_BLOCK [CLI$L_ITMLST] = .ITMLST;
;  830          1104  2
;  831          1105  2     !+
;  832          1106  2     ! Move in the address of the attributes (if present).
;  833          1107  2     !-
;  834          1108  2
;  835          1109  2     IF NOT NULLPARAMETER(ATTR)
;  836          1110  2     THEN
;  837          1111  2         CLI_REQ_BLOCK [CLI$L_ATTR] = .ATTR;
;  838          1112  2
;  839          1113  2     !+
;  840          1114  2     ! NOTE:
;  841          1115  2     ! If CLI$Q_TABDESC, CLI$L_ITMLST, and CLI$L_ATTR are all 0,
;  842          1116  2     ! then DCL defaults in the attribute LNM$M_CRL_JG, i.e.
;  843          1117  2     ! the call back looks like a V3 call back.
;  844          1118  2     !-
;  845          1119  2
;  846          1120  2 !+
```

```
;  847          1121  2 ! If the caller has specified translation attributes in ATTR
;  848          1122  2 ! (as opposed to just logical name attributes), this is normally
;  849          1123  2 ! an error.  That is because translation attributes should go in
;  850          1124  2 ! the itemlist.  However, as a convenience to RTL users who find
;  851          1125  2 ! it hard to build itemlists, we allow translation attributes to
;  852          1126  2 ! occur if no itemlist is specified.  In that case, we have to go
;  853          1127  2 ! through the trouble of building an itemlist for him.
;  854          1128  2 !-
;  855          1129  2
;  856          1130  2     IF NULLPARAMETER(ITMLST) AND NOT NULLPARAMETER(ATTR)
;  857          1131  2     THEN
;  858          1132  3         BEGIN   ! Check for translation attributes
;  859          1133  3         BIND    ATTR_VECTOR = .ATTR     : VECTOR[4,BYTE],
;  860          1134  3                 ATTR_VALUE  = .ATTR     : LONG;
;  861          1135  3
;  862          1136  3         !+
;  863          1137  3         ! The first byte of attributes are logical name attributes.
;  864          1138  3         ! The second byte of attributes are translation attributes.
;  865          1139  3         ! The other 2 bytes are reserved for VMS use.
;  866          1140  3         !-
;  867          1141  3
;  868          1142  3         IF .ATTR_VECTOR[1] NEQ 0
;  869          1143  3         THEN
;  870          1144  4                 BEGIN   ! Build special itemlist
;  871          1145  4                 BIND EQUIV_STRING_DESC = CLI_REQ_BLOCK[CLI$Q_VALDESC] : $BBLOCK;
;  872          1146  4
;  873          1147  4                 !+
;  874          1148  4                 ! Create translation attributes from the specified attributes.
;  875          1149  4                 !-
;  876          1150  4
;  877          1151  4                 TRANSLATION_ATTRIBUTES=.ATTR_VALUE AND %X'FF00';
;  878          1152  4
;  879          1153  4                 !+
;  880          1154  4                 ! Create logical name attributes from the specified attributes.
;  881          1155  4                 !-
;  882          1156  4
;  883          1157  4                 LOGICAL_NAME_ATTRIBUTES=.ATTR_VALUE AND %X'FF';
;  884          1158  4
;  885          1159  4                 SPECIAL_ITEM_LIST[0]=LNM$_ATTRIBUTES^16+4;
;  886          1160  4                 SPECIAL_ITEM_LIST[1]=TRANSLATION_ATTRIBUTES;
;  887          1161  4                 SPECIAL_ITEM_LIST[2]=0;
;  888          1162  4                 SPECIAL_ITEM_LIST[3]=LNM$_STRING^16+.EQUIV_STRING_DESC[DSC$W_LENGTH];
;  889          1163  4                 SPECIAL_ITEM_LIST[4]=.EQUIV_STRING_DESC[DSC$A_POINTER];
;  890          1164  4                 SPECIAL_ITEM_LIST[5]=0;
;  891          1165  4                 SPECIAL_ITEM_LIST[6]=0;                 ! no more entries
;  892          1166  4
;  893          1167  4                 !+
;  894          1168  4                 ! Store specially revised attributes and item list in
;  895          1169  4                 ! the request block.
;  896          1170  4                 !-
;  897          1171  4
;  898          1172  4                 CLI_REQ_BLOCK[CLI$L_ATTR]=LOGICAL_NAME_ATTRIBUTES;
;  899          1173  4                 CLI_REQ_BLOCK[CLI$L_ITMLST]=SPECIAL_ITEM_LIST
;  900          1174  4
;  901          1175  4                 END     ! Build special itemlist
;  902          1176  4
;  903          1177  2         END;    ! Check for translation attributes
```

```
;  904          1178  2
;  905          1179  2 !+
;  906          1180  2 ! Create or modify the supervisor mode logical name.
;  907          1181  2 !-
;  908          1182  2     RETURN_STATUS = SYS$CLI (CLI_REQ_BLOCK);
;  909          1183  2
;  910          1184  2 !+
;  911          1185  2 ! Adjust error return status, if any.
;  912          1186  2 !-
;  913          1187  3     IF NOT .RETURN_STATUS AND (.RETURN_STATUS [STS$V_FAC_NO] EQL CLI$_FACILITY)
;  914          1188  2     THEN
;  915          1189  2         RETURN_STATUS =
;  916          1190  3         BEGIN
;  917          1191  3             SELECTONE .RETURN_STATUS OF
;  918          1192  3             SET
;  919          1193  3             [CLI$_INVREQTYP] :  LIB$_NOCLI;
;  920          1194  3             [OTHERWISE] :       LIB$_UNECLIERR;
;  921          1195  3             TES
;  922          1196  2             END;
;  923          1197  2
;  924          1198  2     RETURN .RETURN_STATUS
;  925          1199  2
;  926          1200  1     END;                                    ! End of LIB$SET_LOGICAL


                                                007C 00000          .ENTRY  LIB$SET_LOGICAL, Save R2,R3,R4,R5,R6        ; 0894
                                 56 00000000G   00   9E 00002       MOVAB   LIB$ANALYZE_SDESC_R2, R6
                                 5E         88  AE   9E 00009       MOVAB   -120(SP), SP
                                 01             6C   91 0000D       CMPB    (AP), #1                                    ; 1047
                                                05   1B 00010       BLEQU   1$
                                 05             6C   91 00012       CMPB    (AP), #5                                    ; 1048
                                                08   1B 00015       BLEQU   2$
                                 50 00000000G   8F   D0 00017 1$:    MOVL    #LIB$_WRONUMARG, R0                         ; 1050
                                                04   0001E         RET
0054    8F               00                    6E   00   2C 0001F 2$:    MOVC5   #0, (SP), #0, #84, CLI_REQ_BLOCK    ; 1057
                                                24   AE   00026
                                 24             AE   05   90 00028       MOVB    #5, CLI_REQ_BLOCK                   ; 1058
                                 25             AE   06   B0 0002C       MOVW    #6, CLI_REQ_BLOCK+1                 ; 1059
                                                04   AC   D5 00030       TSTL    LOGNAME                             ; 1068
                                                     25   13 00033       BEQL    4$
                                 50             04   AC   D0 00035       MOVL    LOGNAME, R0                         ; 1072
                                                     66   16 00039       JSB     LIB$ANALYZE_SDESC_R2
                                 28             AE   51   B0 0003B       MOVW    R1, CLI_REQ_BLOCK+4
                                 2C             AE   52   D0 0003F       MOVL    R2, CLI_REQ_BLOCK+8
                                                4F   50   E9 00043       BLBC    RET_STATUS, 7$
                                                02   6C   91 00046       CMPB    (AP), #2                            ; 1074
                                                     05   1F 00049       BLSSU   3$
                                                08   AC   D5 0004B       TSTL    8(AP)
                                                     12   12 0004E       BNEQ    5$
                                 05                  6C   91 00050 3$:    CMPB    (AP), #5
                                                     05   1F 00053       BLSSU   4$
                                                14   AC   D5 00055       TSTL    20(AP)
                                                     08   12 00058       BNEQ    5$
                                 50 00000000G   8F   D0 0005A 4$:    MOVL    #LIB$_INVARG, R0                    ; 1076
```

```
                                               04 00061        RET                                                      ;
                        02               6C    91 00062 5$:    CMPB    (AP), #2                                         ; 1078
                                         16    1F 00065        BLSSU   6$                                               ;
                                  08     AC    D5 00067        TSTL    8(AP)                                            ;
                                         11    13 0006A        BEQL    6$                                               ;
                        50        08     AC    D0 0006C        MOVL    VALUE, R0                                        ; 1080
                                         66    16 00070        JSB     LIB$ANALYZE_SDESC_R2                             ;
                 30     AE               51    B0 00072        MOVW    R1, CLI_REQ_BLOCK+12                             ;
                 34     AE               52    D0 00076        MOVL    R2, CLI_REQ_BLOCK+16                             ;
                        18               50    E9 0007A        BLBC    RET_STATUS, 7$                                   ;
                        03               6C    91 0007D 6$:    CMPB    (AP), #3                                         ; 1092
                                         17    1F 00080        BLSSU   8$                                               ;
                                  0C     AC    D5 00082        TSTL    12(AP)                                           ;
                                         12    13 00085        BEQL    8$                                               ;
                        50        0C     AC    D0 00087        MOVL    TABNAM, R0                                       ; 1094
                                         66    16 0008B        JSB     LIB$ANALYZE_SDESC_R2                             ;
                 38     AE               51    B0 0008D        MOVW    R1, CLI_REQ_BLOCK+20                             ;
                 3C     AE               52    D0 00091        MOVL    R2, CLI_REQ_BLOCK+24                             ;
                        01               50    E8 00095 7$:    BLBS    RET_STATUS, 8$                                   ;
                                               04 00098        RET                                                      ;
                        05               6C    91 00099 8$:    CMPB    (AP), #5                                         ; 1101
                                         0A    1F 0009C        BLSSU   9$                                               ;
                                  14     AC    D5 0009E        TSTL    20(AP)                                           ;
                                         05    13 000A1        BEQL    9$                                               ;
                 40     AE        14     AC    D0 000A3        MOVL    ITMLST, CLI_REQ_BLOCK+28                         ; 1103
                        04               6C    91 000A8 9$:    CMPB    (AP), #4                                         ; 1109
                                         0A    1F 000AB        BLSSU   10$                                              ;
                                  10     AC    D5 000AD        TSTL    16(AP)                                           ;
                                         05    13 000B0        BEQL    10$                                              ;
                 44     AE        10     AC    D0 000B2        MOVL    ATTR, CLI_REQ_BLOCK+32                           ; 1111
                        05               6C    91 000B7 10$:   CMPB    (AP), #5                                         ; 1130
                                         05    1F 000BA        BLSSU   11$                                              ;
                                  14     AC    D5 000BC        TSTL    20(AP)                                           ;
                                         4B    12 000BF        BNEQ    12$                                              ;
                        04               6C    91 000C1 11$:   CMPB    (AP), #4                                         ;
                                         46    1F 000C4        BLSSU   12$                                              ;
                                  10     AC    D5 000C6        TSTL    16(AP)                                           ;
                                         41    13 000C9        BEQL    12$                                              ;
                        50        10     AC    D0 000CB        MOVL    ATTR, R0                                         ; 1133
                                  01     A0    95 000CF        TSTB    1(R0)                                            ; 1142
                                         38    13 000D2        BEQL    12$                                              ;
          6E     10     BC FFFF00FF      8F    CB 000D4        BICL3   #-65281, @ATTR, TRANSLATION_ATTRIBUTES           ; 1151
                 04     AE        10     BC    9A 000DD        MOVZBL  @ATTR, LOGICAL_NAME_ATTRIBUTES                   ; 1157
                 08     AE 00030004      8F    D0 000E2        MOVL    #196612, SPECIAL_ITEM_LIST                       ; 1159
                 0C     AE               6E    9E 000EA        MOVAB   TRANSLATION_ATTRIBUTES, SPECIAL_ITEM_LIST+4      ; 1160
                                  10     AE    D4 000EE        CLRL    SPECIAL_ITEM_LIST+8                              ; 1161
                 14     AE        30     AE    3C 000F1        MOVZWL  EQUIV_STRING_DESC, SPECIAL_ITEM_LIST+12          ; 1162
                 16     AE               02    A0 000F6        ADDW2   #2, SPECIAL_ITEM_LIST+12                         ;
                 18     AE        34     AE    D0 000FA        MOVL    EQUIV_STRING_DESC+4, SPECIAL_ITEM_LIST+16        ; 1163
                                  1C     AE    7C 000FF        CLRQ    SPECIAL_ITEM_LIST+20                             ; 1164
                 44     AE        04     AE    9E 00102        MOVAB   LOGICAL_NAME_ATTRIBUTES, CLI_REQ_BLOCK+32        ; 1172
                 40     AE        08     AE    9E 00107        MOVAB   SPECIAL_ITEM_LIST, CLI_REQ_BLOCK+28              ; 1173
                                  24     AE    9F 0010C 12$:   PUSHAB  CLI_REQ_BLOCK                                    ; 1182
              00000000G  00              01    FB 0010F        CALLS   #1, SYS$CLI                                      ;
                        1F               50    E8 00116        BLBS    RETURN_STATUS, 14$                               ; 1187
   03            50     0C               10    ED 00119        CMPZV   #16, #12, RETURN_STATUS, #3                      ;
                                         18    12 0011E        BNEQ    14$                                              ;
```

```
                          00038822   8F              50  D1 00120          CMPL    RETURN_STATUS, #231458                  ; 1193
                                                     08  12 00127          BNEQ    13$                                     ;
                                     50 00000000G     8F  D0 00129          MOVL    #LIB$_NOCLI, RETURN_STATUS              ;
                                                         04 00130          RET                                             ;
                                     50 00000000G     8F  D0 00131 13$:     MOVL    #LIB$_UNECLIERR, RETURN_STATUS          ; 1194
                                                         04 00138 14$:     RET                                             ; 1200

; Routine Size:  313 bytes,    Routine Base:  _LIB$CODE + 0242
```


LIBS
V04-

```
;  928          1201  1 %SBTTL 'LIB$DELETE_LOGICAL - delete supervisor mode logical name'
;  929          1202  1 GLOBAL ROUTINE LIB$DELETE_LOGICAL (                ! delete supervisor mode logical name
;  930          1203  1         LOGNAME : REF $BBLOCK,          ! logical name string descriptor
;  931          1204  1         TABNAM  : REF $BBLOCK           ! table name
;  932          1205  1     ) =
;  933          1206  1
;  934          1207  1 !++
;  935          1208  1 ! FUNCTIONAL DESCRIPTION:
;  936          1209  1 !
;  937          1210  1 !       This routine provides a method by which a non-privileged program can
;  938          1211  1 !       delete a supervisor mode logical name.  The logical name given by
;  939          1212  1 !       logname is deleted from the specified or implied logical name table.                    0000
;  940          1213  1 !
;  941          1214  1 !       The $TRNLOG system service can be used to obtain the value of
;  942          1215  1 !       supervisor mode logical names.  The routine is equivalent to the
;  943          1216  1 !       DEASSIGN DCL command.
;  944          1217  1 !
;  945          1218  1 ! CALLING SEQUENCE:
;  946          1219  1 !
;  947          1220  1 !       ret_status.wlc.v = LIB$DELETE_LOGICAL (logname.rt.dx [,tabnam.rt.dx])
;  948          1221  1 !
;  949          1222  1 ! FORMAL PARAMETERS:
;  950          1223  1 !
;  951          1224  1 !       logname.rt.dx - A string, passed by descriptor, which contains the
;  952          1225  1 !                       supervisor mode logical name to be deleted.
;  953          1226  1 !                       Must be present.
;  954          1227  1 !
;  955          1228  1 !       tabnam.rt.dx  - A string, passed by descriptor, that contains the
;  956          1229  1 !                       name of the logical name table from which the                           ; Ro
;  957          1230  1 !                       logical name is to be deleted.
;  958          1231  1 !                       If omitted, the logical name is removed from
;  959          1232  1 !                       the LNM$PROCESS logical name table.
;  960          1233  1 !
;  961          1234  1 ! IMPLICIT INPUTS:
;  962          1235  1 !
;  963          1236  1 !       It is assumed that the logical name table specified already exists.
;  964          1237  1 !
;  965          1238  1 ! IMPLICIT OUTPUTS:
;  966          1239  1 !
;  967          1240  1 !       NONE
;  968          1241  1 !
;  969          1242  1 ! COMPLETION STATUS: (or ROUTINE VALUE:)
;  970          1243  1 !
;  971          1244  1 !       SS$_NORMAL      Normal successful completion
;  972          1245  1 !       SS$_ACCVIO      logname cannot be read
;  973          1246  1 !       SS$_IVLOGNAM    logname contains more than 63 characters
;  974          1247  1 !       SS$_NOLOGNAM    No such logical name defined or logical name specified
;  975          1248  1 !                           was declared in executative or kernel mode
;  976          1249  1 !       SS$_IVLOGTAB    Invalid logical name table specified
;  977          1250  1 !       SS$_NOPRIV      Caller lacks the necessary privilege to delete
;  978          1251  1 !                           the logical name
;  979          1252  1 !       SS$_TOOMANYLNAM Logical name translation of the table name exceeded
;  980          1253  1 !                           the allowable depth (10 translations)
;  981          1254  1 !       LIB$_INVARG     Invalid argument
;  982          1255  1 !       LIB$_NOCLI      No CLI present to perform function
;  983          1256  1 !       LIB$_UNECLIERR  Unexpected CLI Error
;  984          1257  1 !       LIB$_WRONUMARG  No arguments specified or more than two specified.
```

```
;  985          1258  1 !
;  986          1259  1 ! SIDE EFFECTS:
;  987          1260  1 !
;  988          1261  1 !       A supervisor mode logical name is deleted from the specified or
;  989          1262  1 !       implied logical name table.
;  990          1263  1 !
;  991          1264  1 !--
;  992          1265  1
;  993          1266  2     BEGIN
;  994          1267  2
;  995          1268  2     BUILTIN
;  996          1269  2         ACTUALCOUNT,
;  997          1270  2         NULLPARAMETER;
;  998          1271  2
;  999          1272  2     LOCAL
; 1000          1273  2         CLI_REQ_BLOCK : BLOCK [CLI$C_SRVDESC, BYTE], ! A CLI request block
; 1001          1274  2         RETURN_STATUS : BLOCK [4, BYTE];
; 1002          1275  2
; 1003          1276  2 !+
; 1004          1277  2 ! Check for proper number of arguments.
; 1005          1278  2 !-
; 1006          1279  2
; 1007          1280  2     IF ACTUALCOUNT() EQLU 0
; 1008          1281  2     OR ACTUALCOUNT() GTRU 2
; 1009          1282  2     THEN
; 1010          1283  2         RETURN  LIB$_WRONUMARG;
; 1011          1284  2 !+
; 1012          1285  2 ! Initialize CLI Command request block.
; 1013          1286  2 !-
; 1014          1287  2     CH$FILL (0, CLI$C_SRVDESC, CLI_REQ_BLOCK);
; 1015          1288  2     CLI_REQ_BLOCK [CLI$B_RQTYPE] = CLI$K_CLISERV;
; 1016          1289  2     CLI_REQ_BLOCK [CLI$W_SERVCOD] = CLI$R_DELELOG;
; 1017          1290  2
; 1018          1291  2 !+
; 1019          1292  2 ! Move in the logical name.
; 1020          1293  2 !-
; 1021          1294  2
; 1022          1295  2     MOVEDESC ( .LOGNAME, CLI_REQ_BLOCK [CLI$Q_NAMDESC] );
; 1023          1296  2
; 1024          1297  2 !+
; 1025          1298  2 ! Move in the table name, if specified.
; 1026          1299  2 ! If not specified, DCL willd efault in LNM$PROCESS.
; 1027          1300  2 !-
; 1028          1301  2
; 1029          1302  2     IF NOT NULLPARAMETER(TABNAM)
; 1030          1303  2     THEN
; 1031          1304  2             MOVEDESC ( .TABNAM, CLI_REQ_BLOCK [CLI$Q_TABDESC] );
; 1032          1305  2
; 1033          1306  2 !+
; 1034          1307  2 ! Delete the supervisor mode logical name.
; 1035          1308  2 !-
; 1036          1309  2     RETURN_STATUS = SYS$CLI (CLI_REQ_BLOCK);
; 1037          1310  2
; 1038          1311  2 !+
; 1039          1312  2 ! Adjust error return status, if any.
; 1040          1313  2 !-
; 1041          1314  3     IF NOT .RETURN_STATUS AND (.RETURN_STATUS [STS$V_FAC_NO] EQL CLI$_FACILITY)
```

```
;  1042          1315  2     THEN
;  1043          1316  2         RETURN_STATUS =
;  1044          1317  3         BEGIN
;  1045          1318  3             SELECTONE .RETURN_STATUS OF
;  1046          1319  3             SET
;  1047          1320  3             [CLI$_INVREQTYP] :  LIB$_NOCLI;
;  1048          1321  3             [OTHERWISE] :       LIB$_UNECLIERR;
;  1049          1322  3             TES
;  1050          1323  2             END;
;  1051          1324  2
;  1052          1325  2     RETURN .RETURN_STATUS
;  1053          1326  2
;  1054          1327  1     END;                                    ! End of LIB$DELETE_LOGICAL



                                    007C 00000          .ENTRY  LIB$DELETE_LOGICAL, Save R2,R3,R4,R5,R6     ; 1202
                              56 0000C000G  00  9E 00002        MOVAB   LIB$ANALYZE_SDESC_R2, R6                    ;
                              5E       AC   AE  9E 00009        MOVAB   -84(SP), SP                                 ;
                                            6C  95 0000D        TSTB    (AP)                                        ; 1280
                                            05  13 0000F        BEQL    1$                                          ;
                              02            6C  91 00011        CMPB    (AP), #2                                    ; 1281
                                            08  1B 00014        BLEQU   2$                                          ;
                              50 00000000G  8F  D0 00016 1$:    MOVL    #LIB$_WRONUMARG, R0                         ; 1283
                                            04  0001D           RET                                                 ;
    0054    8F          00                6E  00  2C 0001E 2$:  MOVC5   #0, (SP), #0, #84, CLI_REQ_BLOCK           ; 1287
                                          6E      00025                                                           ;
                                  6E            05  90 00026        MOVB    #5, CLI_REQ_BLOCK                       ; 1288
                                01  AE          07  B0 00029        MOVW    #7, CLI_REQ_BLOCK+1                     ; 1289
                                50        04  AC  D0 0002D        MOVL    LOGNAME, R0                             ; 1295
                                            66  16 00031        JSB     LIB$ANALYZE_SDESC_R2                        ;
                                04  AE          51  B0 00033        MOVW    R1, CLI_REQ_BLOCK+4                     ;
                                08  AE          52  D0 00037        MOVL    R2, CLI_REQ_BLOCK+8                     ;
                                46            50  E9 0003B        BLBC    RET_STATUS, 5$                          ;
                                02            6C  91 0003E        CMPB    (AP), #2                                ; 1302
                                            16  1F 00041        BLSSU   3$                                          ;
                                      08    AC  D5 00043        TSTL    8(AP)                                       ;
                                            11  13 00046        BEQL    3$                                          ;
                                50        08  AC  D0 00048        MOVL    TABNAM, R0                              ; 1304
                                            66  16 0004C        JSB     LIB$ANALYZE_SDESC_R2                        ;
                                14  AE          51  B0 0004E        MOVW    R1, CLI_REQ_BLOCK+20                    ;
                                18  AE          52  D0 00052        MOVL    R2, CLI_REQ_BLOCK+24                    ;
                                2B            50  E9 00056        BLBC    RET_STATUS, 5$                          ;
                                            5E  DD 00059 3$:      PUSHL   SP                                      ; 1309
                         00000000G  00          01  FB 0005B        CALLS   #1, SYS$CLI                             ;
                                1F            50  E8 00062        BLBS    RETURN_STATUS, 5$                       ; 1314
    03          50                0C          10  ED 00065        CMPZV   #16, #12, RETURN_STATUS, #3             ;
                                            18  12 0006A        BNEQ    5$                                          ;
                         00038822  8F          50  D1 0006C        CMPL    RETURN_STATUS, #231458                  ; 1320
                                            08  12 00073        BNEQ    4$                                          ;
                                50 00000000G  8F  D0 00075        MOVL    #LIB$_NOCLI, RETURN_STATUS              ;
                                            04  0007C           RET                                                 ;
                                50 00000000G  8F  D0 0007D 4$:    MOVL    #LIB$_UNECLIERR, RETURN_STATUS          ; 1321
                                            04  00084 5$:      RET                                                 ; 1327
```

; Routine Size: 133 bytes,   Routine Base: _LIB$CODE + 037B

```
;  1056          1328  1 %SBTTL 'LIB$DISABLE_CTRL - disable CLI out-of-band character(s) handler'
;  1057          1329  1 GLOBAL ROUTINE LIB$DISABLE_CTRL (                    ! disable CLI out-of-band
;  1058          1330  1         DISABLE_MASK : REF VECTOR [, LONG],          ! disable bit mask
;  1059          1331  1         PREVIOUS_MASK : REF VECTOR [, LONG]          ! previous enable bit mask
;  1060          1332  1     ) =
;  1061          1333  1
;  1062          1334  1 !++
;  1063          1335  1 ! FUNCTIONAL DESCRIPTION:
;  1064          1336  1 !
;  1065          1337  1 !       This routine disables CLI processing for out-of-band the characters
;  1066          1338  1 !       identified by DISABLE_MASK.  When normal CLI processing for one or
;  1067          1339  1 !       more out-of-band characters is disabled, a user program can intercept
;  1068          1340  1 !       and respond to them.  There are no privilege requirements for calling
;  1069          1341  1 !       this routine.
;  1070          1342  1 !
;  1071          1343  1 !       Currently, this routine supports disabling of CLI out-of-band
;  1072          1344  1 !       processing for CTRL-T and CTRL-Y when the DCL CLI is in use, and for
;  1073          1345  1 !       CTRL-Y when the MCR CLI is in use.  The macro $LIBCLIDEF defines the
;  1074          1346  1 !       two masks used for disabling processing for these two out-of-band
;  1075          1347  1 !       characters as follows:
;  1076          1348  1 !               LIB$M_CLI_CTRLT         mask for CTRL-T
;  1077          1349  1 !               LIB$M_CLI_CTRLY         mask for CTRL-Y
;  1078          1350  1 !       If the masks are logically or'd together, processing for both
;  1079          1351  1 !       out-of-band characters will be effected.
;  1080          1352  1 !
;  1081          1353  1 ! CALLING SEQUENCE:
;  1082          1354  1 !
;  1083          1355  1 !       ret_status.wlc.v = LIB$DISABLE_CTRL (disable_mask.rl.r
;  1084          1356  1 !                                            [, previous_mask.wl.r ] )
;  1085          1357  1 !
;  1086          1358  1 ! FORMAL PARAMETERS:
;  1087          1359  1 !
;  1088          1360  1 !       disable_mask.rl.r     - the mask controlling which out-of-band
;  1089          1361  1 !                               characters the CLI should ignore.  Values
;  1090          1362  1 !                               should be selected from one of, or the logical
;  1091          1363  1 !                               OR of more than one of:
;  1092          1364  1 !                                       LIB$M_CLI_CTRLT
;  1093          1365  1 !                                       LIB$M_CLI_CTRLY
;  1094          1366  1 !                               These symbols are defined in $LIBCLIDEF.
;  1095          1367  1 !
;  1096          1368  1 !       previous_mask.wl.r    - a longword into which will be stored a mask
;  1097          1369  1 !                               having the same format as disable_mask, but
;  1098          1370  1 !                               which represents the enabled state for all
;  1099          1371  1 !                               out-of-band character processing before
;  1100          1372  1 !                               disable_mask is applied.
;  1101          1373  1 !
;  1102          1374  1 ! IMPLICIT INPUTS:
;  1103          1375  1 !
;  1104          1376  1 !       NONE
;  1105          1377  1 !
;  1106          1378  1 ! IMPLICIT OUTPUTS:
;  1107          1379  1 !
;  1108          1380  1 !       NONE
;  1109          1381  1 !
;  1110          1382  1 ! COMPLETION STATUS: (or ROUTINE VALUE:)
;  1111          1383  1 !
;  1112          1384  1 !       SS$_NORMAL      Normal successful completion
```

```
;  1113          1385  1 !       LIB$_INVARG     Disable_mask has an unrecognized bit set
;  1114          1386  1 !       LIB$_NOCLI      No CLI present to perform function
;  1115          1387  1 !       LIB$_UNECLIERR  Unexpected CLI Error
;  1116          1388  1 !
;  1117          1389  1 ! SIDE EFFECTS:
;  1118          1390  1 !
;  1119          1391  1 !       CLI out-of-band processing of one or more characters is disabled.
;  1120          1392  1 !
;  1121          1393  1 !--
;  1122          1394  1
;  1123          1395  2     BEGIN
;  1124          1396  2
;  1125          1397  2     BUILTIN
;  1126          1398  2         NULLPARAMETER;
;  1127          1399  2
;  1128          1400  2     LOCAL
;  1129          1401  2         CLI_REQ_BLOCK : BLOCK [CLI$C_SRVDESC, BYTE], ! A CLI request block
;  1130          1402  2         RETURN_STATUS : BLOCK [4, BYTE];
;  1131          1403  2
;  1132          1404  2
;  1133          1405  2 !+
;  1134          1406  2 ! Initialize CLI Command request block.
;  1135          1407  2 !-
;  1136          1408  2     CH$FILL (0, CLI$C_SRVDESC, CLI_REQ_BLOCK);
;  1137          1409  2     CLI_REQ_BLOCK [CLI$B_RQTYPE] = CLI$K_CLISERV;
;  1138          1410  2     CLI_REQ_BLOCK [CLI$W_SERVCOD] = CLI$K_DISAOOB;
;  1139          1411  2     CLI_REQ_BLOCK [CLI$L_NEW_MASK] = .DISABLE_MASK [0];
;  1140          1412  2
;  1141          1413  2 !+
;  1142          1414  2 ! Request CLI out-of-band processing be disabled.
;  1143          1415  2 !-
;  1144          1416  2     RETURN_STATUS = SYS$CLI (CLI_REQ_BLOCK);
;  1145          1417  2
;  1146          1418  2 !+
;  1147          1419  2 ! If requested, return previous out-of-band enabled mask.
;  1148          1420  2 ! It may be good.
;  1149          1421  2 !-
;  1150          1422  2     IF NOT NULLPARAMETER (2)
;  1151          1423  2     THEN
;  1152          1424  2         PREVIOUS_MASK [0] = .CLI_REQ_BLOCK [CLI$L_OLD_MASK];
;  1153          1425  2
;  1154          1426  2 !+
;  1155          1427  2 ! Adjust error return status, if any.
;  1156          1428  2 !-
;  1157          1429  3     IF NOT .RETURN_STATUS AND (.RETURN_STATUS [STS$V_FAC_NO] EQL CLI$_FACILITY)
;  1158          1430  2     THEN
;  1159          1431  2         RETURN_STATUS =
;  1160          1432  3         BEGIN
;  1161          1433  3             SELECTONE .RETURN_STATUS OF
;  1162          1434  3             SET
;  1163          1435  3             [CLI$_BADCTLMSK] :  LIB$_INVARG;
;  1164          1436  3             [CLI$_INVREQTYP] :  LIB$_NOCLI;
;  1165          1437  3             [OTHERWISE] :       LIB$_UNECLIERR;
;  1166          1438  3             TES
;  1167          1439  2             END;
;  1168          1440  2
;  1169          1441  2     RETURN (.RETURN_STATUS);
```

```
; 1170          1442  2
; 1171          1443  1     END;                                   ! End of LIB$DISABLE_CTRL



                                                  003C 00000         .ENTRY  LIB$DISABLE_CTRL, Save R2,R3,R4,R5          ; 1329
                                          5E      AC    AE  9E 00002         MOVAB   -84(SP), SP                         ;
    0054    8F            00                    6E        00  2C 00006         MOVC5   #0, (SP), #0, #84, CLI_REQ_BLOCK    ; 1408
                                                  6E            0000D         ;
                                                  6E        05  90 0000E         MOVB    #5, CLI_REQ_BLOCK                   ; 1409
                                        01        AE        0D  B0 00011         MOVW    #13, CLI_REQ_BLOCK+1                ; 1410
                                        04        AE        04  BC D0 00015      MOVL    @DISABLE_MASK, CLI_REQ_BLOCK+4      ; 1411
                                                              5E  DD 0001A         PUSHL   SP                                  ; 1416
                                00000000G       00            01  FB 0001C      CALLS   #1, SYS$CLI                         ;
                                                02            6C  91 00023         CMPB    (AP), #2                            ; 1422
                                                              0A  1F 00026         BLSSU   1$                                  ;
                                                        08    AC  D5 00028         TSTL    8(AP)                               ;
                                                              05  13 0002B         BEQL    1$                                  ;
                                        08        BC      08  AE  D0 0002D         MOVL    CLI_REQ_BLOCK+8, @PREVIOUS_MASK     ; 1424
                                                  30            50  E8 00032 1$:   BLBS    RETURN_STATUS, 4$                   ; 1429
            03            50                    0C            10  ED 00035         CMPZV   #16, #12, RETURN_STATUS, #3         ;
                                                              29  12 0003A         BNEQ    4$                                  ;
                                00038CA   8F                  50  D1 0003C      CMPL    RETURN_STATUS, #231626              ; 1435
                                                              08  12 00043         BNEQ    2$                                  ;
                                                  50 00000000G  8F  D0 00045      MOVL    #LIB$_INVARG, RETURN_STATUS         ;
                                                                04  0004C         RET                                         ;
                                00038822  8F                  50  D1 0004D 2$:   CMPL    RETURN_STATUS, #231458              ; 1436
                                                              08  12 00054         BNEQ    3$                                  ;
                                                  50 00000000G  8F  D0 00056      MOVL    #LIB$_NOCLI, RETURN_STATUS          ;
                                                                04  0005D         RET                                         ;
                                                  50 00000000G  8F  D0 0005E 3$:   MOVL    #LIB$_UNECLIERR, RETURN_STATUS      ; 1437
                                                                04  00065 4$:   RET                                         ; 1443

; Routine Size:  102 bytes,    Routine Base:  _LIB$CODE + 0400
```

```
;  1173          1444  1 %SBTTL 'LIB$ENABLE_CTRL - re-enable CLI out-of-band character(s) handler'
;  1174          1445  1 GLOBAL ROUTINE LIB$ENABLE_CTRL (                  ! re-enable CLI out-of-band
;  1175          1446  1         ENABLE_MASK : REF VECTOR [, LONG],        ! enable bit mask
;  1176          1447  1         PREVIOUS_MASK : REF VECTOR [, LONG]       ! previous enable bit mask
;  1177          1448  1     ) =
;  1178          1449  1
;  1179          1450  1 !++
;  1180          1451  1 ! FUNCTIONAL DESCRIPTION:
;  1181          1452  1 !
;  1182          1453  1 !       This routine re-enables CLI processing for out-of-band the characters
;  1183          1454  1 !       identified by ENABLE_MASK, presumable after such processing has been
;  1184          1455  1 !       disabled by a call to LIB$DISABLE_CTRL.  There are no privilege
;  1185          1456  1 !       requirements for calling this routine.
;  1186          1457  1 !
;  1187          1458  1 !       Currently, this routine supports re-enabling of CLI out-of-band
;  1188          1459  1 !       processing for CTRL-T and CTRL-Y when the DCL CLI is in use, and for
;  1189          1460  1 !       CTRL-Y when the MCR CLI is in use.  The macro $LIBCLIDEF defines the
;  1190          1461  1 !       two masks used for enabling processing for these two out-of-band
;  1191          1462  1 !       characters as follows:
;  1192          1463  1 !               LIB$M_CLI_CTRLT         mask for CTRL-T
;  1193          1464  1 !               LIB$M_CLI_CTRLY         mask for CTRL-Y
;  1194          1465  1 !       If the masks are logically or'd together, processing for both
;  1195          1466  1 !       out-of-band characters will be effected.
;  1196          1467  1 !
;  1197          1468  1 ! CALLING SEQUENCE:
;  1198          1469  1 !
;  1199          1470  1 !       ret_status.wlc.v = LIB$ENABLE_CTRL (enable_mask.rl.r
;  1200          1471  1 !                                           [, previous_mask.wl.r ] )
;  1201          1472  1 !
;  1202          1473  1 ! FORMAL PARAMETERS:
;  1203          1474  1 !
;  1204          1475  1 !       enable_mask.rl.r      - the mask controlling which out-of-band
;  1205          1476  1 !                               characters the CLI should process.  Values
;  1206          1477  1 !                               should be selected from one of, or the logical
;  1207          1478  1 !                               OR of more than one of:
;  1208          1479  1 !                                       LIB$M_CLI_CTRLT
;  1209          1480  1 !                                       LIB$M_CLI_CTRLY
;  1210          1481  1 !                               These symbols are defined in $LIBCLIDEF.
;  1211          1482  1 !
;  1212          1483  1 !       previous_mask.wl.r    - a longword into which will be stored a mask
;  1213          1484  1 !                               having the same format as enable_mask, but
;  1214          1485  1 !                               which represents the enabled state for all
;  1215          1486  1 !                               out-of-band character processing before
;  1216          1487  1 !                               enable_mask is applied.
;  1217          1488  1 !
;  1218          1489  1 ! IMPLICIT INPUTS:
;  1219          1490  1 !
;  1220          1491  1 !       NONE
;  1221          1492  1 !
;  1222          1493  1 ! IMPLICIT OUTPUTS:
;  1223          1494  1 !
;  1224          1495  1 !       NONE
;  1225          1496  1 !
;  1226          1497  1 ! COMPLETION STATUS: (or ROUTINE VALUE:)
;  1227          1498  1 !
;  1228          1499  1 !       SS$_NORMAL      Normal successful completion
;  1229          1500  1 !       LIB$_INVARG     Enable_mask has an unrecognized bit set
```

```
;  1230          1501  1 !       LIB$_NOCLI      No CLI present to perform function
;  1231          1502  1 !       LIB$_UNECLIERR  Unexpected CLI Error
;  1232          1503  1 !
;  1233          1504  1 ! SIDE EFFECTS:
;  1234          1505  1 !
;  1235          1506  1 !       CLI out-of-band processing of one or more characters is enabled.
;  1236          1507  1 !
;  1237          1508  1 !--
;  1238          1509  1
;  1239          1510  2     BEGIN
;  1240          1511  2
;  1241          1512  2     BUILTIN
;  1242          1513  2         NULLPARAMETER;
;  1243          1514  2
;  1244          1515  2     LOCAL
;  1245          1516  2         CLI_REQ_BLOCK : BLOCK [CLI$C_SRVDESC, BYTE], ! A CLI request block
;  1246          1517  2         RETURN_STATUS : BLOCK [4, BYTE];
;  1247          1518  2
;  1248          1519  2
;  1249          1520  2 !+
;  1250          1521  2 ! Initialize CLI Command request block.
;  1251          1522  2 !-
;  1252          1523  2     CH$FILL (0, CLI$C_SRVDESC, CLI_REQ_BLOCK);
;  1253          1524  2     CLI_REQ_BLOCK [CLI$B_RQTYPE] = CLI$K_CLISERV;
;  1254          1525  2     CLI_REQ_BLOCK [CLI$W_SERVCOD] = CLI$R_ENABOOB;
;  1255          1526  2     CLI_REQ_BLOCK [CLI$L_NEW_MASK] = .ENABLE_MASK [0];
;  1256          1527  2
;  1257          1528  2 !+
;  1258          1529  2 ! Request CLI out-of-band processing be enabled.
;  1259          1530  2 !-
;  1260          1531  2     RETURN_STATUS = SYS$CLI (CLI_REQ_BLOCK);
;  1261          1532  2
;  1262          1533  2 !+
;  1263          1534  2 ! If requested, return previous out-of-band enabled mask.
;  1264          1535  2 ! It may be good.
;  1265          1536  2 !-
;  1266          1537  2     IF NOT NULLPARAMETER (2)
;  1267          1538  2     THEN
;  1268          1539  2         PREVIOUS_MASK [0] = .CLI_REQ_BLOCK [CLI$L_OLD_MASK];
;  1269          1540  2
;  1270          1541  2 !+
;  1271          1542  2 ! Adjust error return status, if any.
;  1272          1543  2 !-
;  1273          1544  3     IF NOT .RETURN_STATUS AND (.RETURN_STATUS [STS$V_FAC_NO] EQL CLI$_FACILITY)
;  1274          1545  2     THEN
;  1275          1546  2         RETURN_STATUS =
;  1276          1547  3         BEGIN
;  1277          1548  3             SELECTONE .RETURN_STATUS OF
;  1278          1549  3             SET
;  1279          1550  3             [CLI$_BADCTLMSK] :  LIB$_INVARG;
;  1280          1551  3             [CLI$_INVREQTYP] :  LIB$_NOCLI;
;  1281          1552  3             [OTHERWISE] :       LIB$_UNECLIERR;
;  1282          1553  3             TES
;  1283          1554  2             END;
;  1284          1555  2
;  1285          1556  2     RETURN (.RETURN_STATUS);
;  1286          1557  2
```

```
; 1287          1558  1     END;                                        ! End of LIB$ENABLE_CTRL


                                                    003C 00000          .ENTRY  LIB$ENABLE_CTRL, Save R2,R3,R4,R5       ; 1445
                                              5E        AC  AE   9E 00002 MOVAB   -84(SP), SP
    0054    8F              00                6E            00   2C 00006 MOVC5   #0, (SP), #0, #84, CLI_REQ_BLOCK      ; 1523
                                                            6E       0000D
                                                    6E            05   90 0000E MOVB    #5, CLI_REQ_BLOCK                 ; 1524
                                                       01 AE      0E   B0 00011 MOVW    #14, CLI_REQ_BLOCK+1              ; 1525
                                                       04 AE  04  BC   D0 00015 MOVL    @ENABLE_MASK, CLI_REQ_BLOCK+4     ; 1526
                                                    5E        DD   0001A PUSHL   SP                                      ; 1531
                                 00000000G          00            01   FB 0001C CALLS   #1, SYS$CLI
                                                    02            6C   91 00023 CMPB    (AP), #2                          ; 1537
                                                                  0A   1F 00026 BLSSU   1$
                                                       08 AC      D5   00028 TSTL    8(AP)
                                                                  05   13 0002B BEQL    1$
                                                       08 BC  08  AE   D0 0002D MOVL    CLI_REQ_BLOCK+8, @PREVIOUS_MASK   ; 1539
                                                    30            50   E8 00032 1$:  BLBS    RETURN_STATUS, 4$             ; 1544
            03              50                      0C            10   ED 00035 CMPZV   #16, #12, RETURN_STATUS, #3
                                                                  29   12 0003A BNEQ    4$
                                 000388CA           8F            50   D1 0003C CMPL    RETURN_STATUS, #231626            ; 1550
                                                                  08   12 00043 BNEQ    2$
                                                    50 00000000G  8F   D0 00045 MOVL    #LIB$_INVARG, RETURN_STATUS
                                                                  04   0004C RET
                                 00038822           8F            50   D1 0004D 2$:  CMPL    RETURN_STATUS, #231458            ; 1551
                                                                  08   12 00054 BNEQ    3$
                                                    50 00000000G  8F   D0 00056 MOVL    #LIB$_NOCLI, RETURN_STATUS
                                                                  04   0005D RET
                                                    50 00000000G  8F   D0 0005E 3$:  MOVL    #LIB$_UNECLIERR, RETURN_STATUS    ; 1552
                                                                  04   00065 4$:  RET                                     ; 1558

; Routine Size:  102 bytes,    Routine Base:  _LIB$CODE + 0466
```

```
;  1289          1559  1 %SBTTL 'LIB$$BUILD_SYMBOL_NAME - Build a symbol name string'
;  1290          1560  1 ROUTINE LIB$$BUILD_SYMBOL_NAME (                  ! build a symbol name string
;  1291          1561  1         SYMBOL: REF BLOCK [, BYTE],               ! input symbol string descriptor
;  1292          1562  1         DYNSTR: REF BLOCK [, BYTE],               ! dynamic string descriptor
;  1293          1563  1         CLI_SYMBOL: REF BLOCK [, BYTE]            ! CLI symbol string descriptor
;  1294          1564  1     ) =
;  1295          1565  1
;  1296          1566  1 !++
;  1297          1567  1 ! FUNCTIONAL DESCRIPTION:
;  1298          1568  1 !
;  1299          1569  1 !       Using the string pointed to by SYMBOL, LIB$$BUILD_SYMBOL_NAME builds a
;  1300          1570  1 !       dynamic string, pointed to by CLI_SYMBOL, which has been upcased and
;  1301          1571  1 !       has trailing blanks deleted.  The string pointed to by SYMBOL is also
;  1302          1572  1 !       tested for validity as a symbol name; the first character must be
;  1303          1573  1 !       alphabetic or $ or _, there must be less than 255 characters in the name
;  1304          1574  1 !       (trailing blanks excluded), and there must be at least one non-blank
;  1305          1575  1 !       character in the name.
;  1306          1576  1 !
;  1307          1577  1 !       SCRATCH is a string descriptor into which the actual descriptor for
;  1308          1578  1 !       the dynamic string will be written.  The calling procedure must use
;  1309          1579  1 !       this descriptor to deallocate the dynamic string.
;  1310          1580  1 !
;  1311          1581  1 !       If this routine detects an error after it has allocated the dynamic
;  1312          1582  1 !       string, it will deallocate the dynamic string thus freeing its caller
;  1313          1583  1 !       from that responsibility.
;  1314          1584  1 !
;  1315          1585  1 ! CALLING SEQUENCE:
;  1316          1586  1 !
;  1317          1587  1 !       ret_status.wlc.v = LIB$$BUILD_SYMBOL_NAME (symbol.rt.dx,
;  1318          1588  1 !                                                  dynstr.wt.dx,
;  1319          1589  1 !                                                  cli_symbol.wt.dx)
;  1320          1590  1 !
;  1321          1591  1 ! FORMAL PARAMETERS:
;  1322          1592  1 !
;  1323          1593  1 !       symbol.rt.dx  - A string, passed by descriptor, which contains the
;  1324          1594  1 !                       original symbol name.
;  1325          1595  1 !
;  1326          1596  1 !       dynstr.wt.dx  - A string descriptor into which the descriptor for the
;  1327          1597  1 !                       actual dynamic string used to contain the converted
;  1328          1598  1 !                       symbol name will be written.  The calling procedure
;  1329          1599  1 !                       must use this descriptor to deallocate the dynamic
;  1330          1600  1 !                       string.
;  1331          1601  1 !
;  1332          1602  1 !       cli_symbol.wt.dx - A string, passed by descriptor, into which the
;  1333          1603  1 !                       processed symbol name will be placed.  This routine
;  1334          1604  1 !                       creates a new dynamic string in this descriptor: the
;  1335          1605  1 !                       contents of the descriptor upon entry are overwritten.
;  1336          1606  1 !
;  1337          1607  1 ! IMPLICIT INPUTS:
;  1338          1608  1 !
;  1339          1609  1 !       LIB$AB_UPCASE   the address of an upcase translation table.
;  1340          1610  1 !
;  1341          1611  1 ! IMPLICIT OUTPUTS:
;  1342          1612  1 !
;  1343          1613  1 !       NONE
;  1344          1614  1 !
;  1345          1615  1 ! COMPLETION STATUS: (or ROUTINE VALJE:)
```

```
;  1346          1616  1 !
;  1347          1617  1 !       SS$_NORMAL      Normal successful completion
;  1348          1618  1 !       LIB$_INVARG     Symbol name contains more than 255 characters or is
;  1349          1619  1 !                       all blanks
;  1350          1620  1 !       LIB$_INVSYMNAM  Symbol name does not begin with a letter
;  1351          1621  1 !       LIB$_INSVIRMEM  Insufficient virtual memory for dynamic string
;  1352          1622  1 !       Other completion stati from LIB$ANALYZE_SDESC.
;  1353          1623  1 !
;  1354          1624  1 !
;  1355          1625  1 ! SIDE EFFECTS:
;  1356          1626  1 !
;  1357          1627  1 !       WARNING:
;  1358          1628  1 !       Although this procedure performs some checks on the validity of
;  1359          1629  1 !       symbol names passed to it, some symbol name considered valid by
;  1360          1630  1 !       this procedure will be considered invalid by DCL.
;  1361          1631  1 !
;  1362          1632  1 !--
;  1363          1633  1
;  1364          1634  2     BEGIN
;  1365          1635  2
;  1366          1636  2     LOCAL
;  1367          1637  2         ADDRESS,                                ! a string address
;  1368          1638  2         LENGTH : WORD,                          ! a string length
;  1369          1639  2         IN_PTR, OUT_PTR,                        ! two pointer variables
;  1370          1640  2         STATUS;                                 ! a return status value
;  1371          1641  2
;  1372          1642  2
;  1373          1643  2
;  1374          1644  2 !+
;  1375          1645  2 ! Gather information about input symbol name string
;  1376          1646  2 ! and build pointer input symbol name string.
;  1377          1647  2 !-
;  1378          1648  2
;  1379          1649  2     STATUS = LIB$ANALYZE_SDESC_R2 (.SYMBOL; LENGTH, ADDRESS );
;  1380          1650  2     IF NOT .STATUS THEN RETURN .STATUS;
;  1381          1651  2     IN_PTR = CH$PTR( .ADDRESS, .LENGTH - 1 );
;  1382          1652  2
;  1383          1653  2 !+
;  1384          1654  2 ! Work backwards from the end of the string to locate
;  1385          1655  2 ! the first non-blank character; i.e. locate beginning
;  1386          1656  2 ! of the trailing blanks.
;  1387          1657  2 !-
;  1388          1658  2     LENGTH = 1 +
;  1389          1659  3         BEGIN
;  1390          1660  3             DECR J FROM .LENGTH - 1 TO 0 DO
;  1391          1661  4             BEGIN
;  1392          1662  4                 IF CH$RCHAR( .IN_PTR ) NEQU %C' ' THEN EXITLOOP .J;
;  1393          1663  4                 IN_PTR = CH$PLUS( .IN_PTR, -1 );
;  1394          1664  4                 END
;  1395          1665  2             END;
;  1396          1666  2     IF .LENGTH EQLU 0 OR .LENGTH GTRU 255 THEN RETURN LIB$_INVSYMNAM;
;  1397          1667  2
;  1398          1668  2 !+
;  1399          1669  2 ! Allocate a dynamic string and setup CLI symbol name
;  1400          1670  2 ! string descriptor.
;  1401          1671  2 !-
;  1402          1672  2     DYNSTR [DSC$B_CLASS] = DSC$K_CLASS_D;
```

```
;  1403          1673  2     DYNSTR [DSC$B_DTYPE] = DSC$K_DTYPE_T;
;  1404          1674  2     DYNSTR [DSC$W_LENGTH] = 0;
;  1405          1675  2     DYNSTR [DSC$A_POINTER] = 0;
;  1406          1676  2     STATUS = LIB$$GET1_DD( LENGTH, .DYNSTR );
;  1407          1677  2     IF NOT .STATUS THEN RETURN .STATUS;
;  1408          1678  2     CLI_SYMBOL [DSC$A_POINTER] = .DYNSTR [DSC$A_POINTER];
;  1409          1679  2     CLI_SYMBOL [DSC$W_LENGTH] = .LENGTH;
;  1410          1680  2
;  1411          1681  2 !+
;  1412          1682  2 ! Upcase the symbol name.
;  1413          1683  2 !-
;  1414          1684  2     IN_PTR = CH$PTR( .ADDRESS );
;  1415          1685  2     OUT_PTR = CH$PTR( .CLI_SYMBOL [DSC$A_POINTER] );
;  1416          1686  2     CH$TRANSLATE( LIB$AB_UPCASE, .LENGTH, .IN_PTR, %C' ', .LENGTH, .OUT_PTR );
;  1417          1687  2
;  1418          1688  2 !+
;  1419          1689  2 ! Check for reasonable first character in symbol name.
;  1420          1690  2 !-
;  1421          1691  2     IF (CH$RCHAR( .OUT_PTR ) LSSU %C'A' OR CH$RCHAR( .OUT_PTR ) GTRU %C'Z') AND
;  1422          1692  3        (CH$RCHAR( .OUT_PTR ) NEQU %C'$' OR CH$RCHAR( .OUT_PTR ) NEQU %C'_')
;  1423          1693  2     THEN
;  1424          1694  3     BEGIN
;  1425          1695  3         LIB$$FREE1_DD( .DYNSTR );
;  1426          1696  3         RETURN LIB$_INVSYMNAM;
;  1427          1697  3         END
;  1428          1698  2     ELSE
;  1429          1699  2         RETURN SS$_NORMAL;
;  1430          1700  2
;  1431          1701  1     END;                                    ! End of routine LIB$$BUILD_SYMBOL_NAME


                                    00FC 00000 LIB$$BUILD_SYMBOL_NAME:
                                                       .WORD   Save R2,R3,R4,R5,R6,R7                  ;  1560
                              5E          04   C2 00002        SUBL2   #4, SP
                              50    04    AC   D0 00005        MOVL    SYMBOL, R0                      ;  1649
                        00000000G   00    16   00009        JSB     LIB$ANALYZE_SDESC_R2
                              53          52   D0 0000F        MOVL    R2, R3
                              6E          51   D0 00012        MOVL    R1, LENGTH
                              41          50   E9 00015        BLBC    STATUS, 4$                      ;  1650
                              52          6E   3C 00018        MOVZWL  LENGTH, R2                      ;  1651
                              52          53   C0 0001B        ADDL2   ADDRESS, R2
                                          52   D7 0001E        DECL    IN_PTR
                              51          6E   3C 00020        MOVZWL  LENGTH, J                       ;  1660
                                          07   11 00023        BRB     2$
                              20          62   91 00025 1$:    CMPB    (IN_PTR), #32                   ;  1662
                                          08   12 00028        BNEQ    3$
                                          52   D7 0002A        DECL    IN_PTR                          ;  1663
                              F6          51   F4 0002C 2$:    SOBGEQ  J, 1$                           ;  1660
                              51          01   CE 0002F        MNEGL   #1, R1
                    6E        51          01   A1 00032 3$:    ADDW3   #1, R1, LENGTH                  ;  1658
                                          62   13 00036        BEQL    7$                              ;  1666
                    00FF      8F          6E   B1 00038        CMPW    LENGTH, #255
                                          5B   1A 0003D        BGTRU   7$
                              56    08    AC   D0 0003F        MOVL    DYNSTR, R6                      ;  1672
```

```
                                    66 020E0000    8F   D0 00043          MOVL    #34471936, (R6)                                 ; 1674
                                            04     A6   D4 0004A          CLRL    4(R6)                                           ; 1675
                                            56     DD   0004D             PJSHL   R6                                              ; 1676
                                            04     AE   9F 0004F          PUSHAB  LENGTH                                          ;
                          00000000G         00          02 FB 00052       CALLS   #2, LIB$SGET1_DD                                ;
                                            49          50 E9 00059 4$:   BLBC    STATUS, 9$                                      ; 1677
                                            50     0C   AC   D0 0005C     MOVL    CLI_SYMBOL, R0                                  ; 1678
                                 04         A0     04   A6   D0 00060     MOVL    4(R0), 4(R0)                                    ;
                                            60          6E   B0 00065     MOVW    LENGTH, (R0)                                    ; 1679
                                            52          53   D0 00068     MOVL    ADDRESS, IN_PTR                                 ; 1684
                                            57     04   A0   D0 0006B     MOVL    4(R0), OUT_PTR                                  ; 1685
00000000G  00             20                62          6E   2E 0006F     MOVTC   LENGTH, (IN_PTR), #32, LIB$AB_UPCASE, -         ; 1686
                                            67          6E      00078                LENGTH, (OUT_PTR)                               ;
                                 41         8F          67   91 0007A     CMPB    (OUT_PTR), #65                                  ; 1691
                                            06          1F   0007E        BLSSU   5$                                              ;
                                 5A         8F          67   91 00080     CMPB    (OUT_PTR), #90                                  ;
                                            1C          1B   00084        BLEQU   8$                                              ;
                                            24          67   91 00086 5$:  CMPB    (OUT_PTR), #36                                  ; 1692
                                            06          12   00089        BNEQ    6$                                              ;
                                 5F         8F          67   91 0008B     CMPB    (OUT_PTR), #95                                  ;
                                            11          13   0008F        BEQL    8$                                              ;
                                            56          DD   00091 6$:    PUSHL   R6                                              ; 1695
                          00000000G         00          01   FB 00093     CALLS   #1, LIB$SFREE1_DD                               ;
                                    50 00000000G      8F   D0 0009A 7$:   MOVL    #LIB$_INVSYMNAM, R0                             ; 1699
                                                           04 000A1        RET                                                     ;
                                            50          01   D0 000A2 8$:   MOVL    #1, R0                                          ;
                                                           04 000A5 9$:    RET                                                     ; 1701

; Routine Size:  166 bytes,    Routine Base:  _LIB$CODE + 04CC
```

```
; 1433          1702  1 END                                   ! End of module LIB$CLI_CALLBACK
; 1434          1703  0 ELUDOM
```

```
;                               PSECT SUMMARY

;       Name                    Bytes                   Attributes

;  _LIB$CODE                      1394  NOVEC,NOWRT,  RD ,  EXE,  SHR,  LCL,  REL,  CON,  PIC,ALIGN(2)


;                             Library Statistics

;                                       --------- Symbols ---------     Pages       Processing
;       File                            Total     Loaded    Percent     Mapped      Time

;  _$255$DUA28:[SYSLIB]STARLET.L32;1     9776        38          0        581        00:01.0
```

```
;                                   COMMAND QUALIFIERS

;       BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/NOTRACE/LIS=LIS$:LIBCLICAL/OBJ=OBJ$:LIBCLICAL MSRC$:LIBCLICAL/UPDATE=(ENH$:LIBCLICAL
;       )

; Size:          1394 code + 0 data bytes
; Run Time:        00:34.2
; Elapsed Time:    01:07.4
; Lines/CPU Min:    2990
; Lexemes/CPU-Min: 37106
; Memory Used:  171 pages
; Compilation Complete
```

RTLMACMAR
MAR

LIBASCEBC
LIS

LIBASTINP
LIS

RTLMACB32
REQ

STRMACROS
REQ

LIBBINTRE
LIS

RTLODBG
REQ

LIBDEF
FOR

LIBANASTR
LIS

LIBASNMBX
LIS

LIBBBCCI
LIS

LIBCHAR
LIS

LIBABUPCA
LIS

LIBADDX
LIS

RTLPSECT
REQ

SIGDEF
FOR

LIBASCTIM
LIS

LIBTABMAC
MAR

LIBATTACH
LIS

STRLNK
REQ

LIBA2EREV
LIS

LIBBBSSI
LIS

LIBCALLG
LIS

LIBCLICAL
LIS

LIBADDP
LIS

LIBCVTDX
LIS

LIBCVTMAC
LIS

LIBCRCTAB
LIS

LIBCVTDF
LIS

LIBCUSTOM
LIS

LIBCREDIR
LIS

LIBCUTATB
LIS

LIBCOMMON
LIS

LIBCRC
LIS