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NMLINISTA .:::

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NML$INISTA
V04-000

N 14

NML Initial parsing state table

16-SEP-1984 00:44:49   VAX/VMS Macro V04-00
5-SEP-1984 02:25:29   [NML.SRC]NMLINISTA.MAR;1

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NML
V04

```
0000      1
0000      2              .TITLE   NML$INISTA      NML Initial parsing state table
0000      3              .IDENT   'V04-000'
0000      4
0000      5    ;*******************************************************************************
0000      6    ;*                                                                             *
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0000     24    ;*                                                                             *
0000     25    ;*                                                                             *
0000     26    ;*******************************************************************************
0000     27    ;
0000     28
0000     29    ;++
0000     30    ; FACILITY:  DECnet-VAX Network Management Listener
0000     31    ;
0000     32    ;
0000     33    ; ABSTRACT:
0000     34    ;
0000     35    ;       This module contains the NPARSE state tables for handling the
0000     36    ;       initial processing of all NICE command messages.
0000     37    ;
0000     38    ; ENVIRONMENT:  VAX/VMS Operating System
0000     39    ;
0000     40    ; AUTHOR:  Distributed Systems Software Engineering
0000     41    ;
0000     42    ; CREATION DATE: 8-Sep-1979
0000     43    ;
0000     44    ; MODIFIED BY:
0000     45    ;       V03-011  MKP0013         Kathy Perko      21-Mar-1984
0000     46    ;               Fix parsing of node number to change area 0 to area 1
0000     47    ;               for Phase IV NCPs and to change area 0 to the exec's area
0000     48    ;               for Phase III NCPs.  This to fix the area 1 probem.
0000     49    ;
0000     50    ;       V03-010  MKP0012         Kathy Perko      6-Jan-1984
0000     51    ;               Add X25-Access Module entity.
0000     52    ;
0000     53    ;       V03-009  MKP0011         Kathy Perko      20-April-1983
0000     54    ;               Add support to call MOM if I get a system specific down
0000     55    ;               line load command.
0000     56    ;
0000     57    ;       V03-008  MKP0010         Kathy Perko      17-Jan-1983
```

```
0000    58 ;              Add support for NI CONFIGURATOR module.
0000    59 ;
0000    60 ;    V03-007 MKP0009          Kathy Perko      12-Nov-1982
0000    61 ;              Allow CIRCUIT qualifier on any SHOW NODE command.
0000    62 ;
0000    63 ;    V03-006 MKP0008          Kathy Perko       7-Nov-1982
0000    64 ;              Add area entity.
0000    65 ;
0000    66 ;    V03-005 MKP0007          Kathy Perko       1-Oct-1982
0000    67 ;              Add SHOW ADJACENT NODES and SHOW CIRCUIT ADJACENT NODE
0000    68 ;              parsing.
0000    69 ;
0000    70 ;    V03-004 MKP0006          Kathy Perko      20-Sept-1982
0000    71 ;              Fix node parsing so that the internal entity ID for
0000    72 ;              NML is properly set up.
0000    73 ;
0000    74 ;    V03-003 MKP0005          Kathy Perko       9-Sept-1982
0000    75 ;              For errors in X25-Protocol qualifiers, return
0000    76 ;              detail = module instead of the qualifier parameter ID.
0000    77 ;              The architecture needs to be changed to make this better.
0000    78 ;
0000    79 ;    V03-002 MKP0004          Kathy Perko      17-June-1982
0000    80 ;              Fix parsing for X25-Protocol networks to default
0000    81 ;              to using null string as entity id - indicates the
0000    82 ;              currently active network.
0000    83 ;              Add SHOW/LIST GROUP parsing for DTE qualifier.
0000    84 ;              Add X29 Server and Trace modules.
0000    85 ;
0000    86 ;    V03-001 MKP0003          Kathy Perko      16-June-1982
0000    87 ;              Add parsing for qualifiers, and clean up X25-PROTOCOL
0000    88 ;              Module parsing.
0000    89 ;
0000    90 ;    V02-002 MKP0002          Kathy Perko      14-Nov-1981
0000    91 ;              Fix circuit id parsing so same checks are made as
0000    92 ;              for line id parsing.
0000    93 ;
0000    94 ;    V02-001 MKP0001          Kathy Perko      19-July-1981
0000    95 ;              Add Circuit and Module entities.
0000    96 ;
0000    97 ;--
```

```
0000     99          .SBTTL  Declarations
0000    100  ;
0000    101  ; INCLUDE FILES:
0000    102  ;
0000    103
0000    104  $NMADEF                    ; Network Management Layer symbols
0000    105  $NMLDEF                    ; Network Management Listener definitions
0000    106
0000    107  ;
0000    108  ; MACROS:
0000    109  ;
0000    110
0000    111  ;
0000    112  ; EQUATED SYMBOLS:
0000    113  ;
0000    114
0000    115  ;
0000    116  ; OWN STORAGE:
0000    117  ;
```

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NML Initial parsing state table   16-SEP-1984 00:44:49 VAX/VMS Macro V04-00   Page 4
NML$NPA_INIT - NICE Phase III message pa 5-SEP-1984 02:25:29 [NML.SRC]NMLINISTA.MAR;1   (3)

```
0000   119                .SBTTL  NML$NPA_INIT - NICE Phase III message parse tables
0000   120  ;^
0000   121  ; Phase III parse tables
0000   122  ;-
0000   123                IMSG$   NML$NPA_INIT
0000   124  ;
0000   125  ; Get the function code
0000   126  ;
0000   127                FIELD$
0000   128                $BYTE   NMA$C_FNC_CHA,NML_CHA,NML$PRSFNC  ; Change
0000   129                $BYTE   NMA$C_FNC_REA,NML_REA,NML$PRSFNC  ; Pead
0000   130                $BYTE   NMA$C_FNC_ZER,NML_ZER,NML$PRSFNC  ; Zero
0000   131                $BYTE   NMA$C_FNC_TES,NML_TES,NML$PRSFNC  ; Test
0000   132                $BYTE   NMA$C_FNC_LOA,NML_LOA,NML$PRSFNC  ; Load
0000   133                $BYTE   NMA$C_FNC_DUM,NML_DUM,NML$PRSFNC  ; Dump
0000   134                $BYTE   NMA$C_FNC_TRI,NML_TRI,NML$PRSFNC  ; Trigger
0000   135                $BYTE   NMA$C_FNC_SYS,NML_SYS            ; System-specific function
0000   136                $NULL   ,NML_FUN_ERR                    ; Unrecognized function
0000   137  ;
0000   138  ; Down-line load
0000   139  ;
0000   140                FIELD$  NML_LOA
0000   141                $SBEXP  NML_CHKOPT_SUB,NPA$_EXIT         ; Parse the option byte
0000   142  ;
0000   143  ; Up-line dump
0000   144  ;
0000   145                FIELD$  NML_DUM
0000   146                $SBEXP  NML_CHKOPT_SUB,NPA$_EXIT         ; Parse the option byte
0000   147  ;
0000   148  ; Trigger bootstrap
0000   149  ;
0000   150                FIELD$  NML_TRI
0000   151                $SBEXP  NML_CHKOPT_SUB,NPA$_EXiT         ; Parse the option byte
0000   152  ;
0000   153  ; Send test message
0000   154  ;
0000   155                FIELD$  NML_TES
0000   156                $SBEXP  NML_CHKOPT_SUB,NPA$_EXIT         ; Parse the option byte
0000   157  ;
0000   158  ;
0000   159  ; Change parameter
0000   160  ;
0000   161                FIELD$  NML_CHA                          ; Check change parameter option
0000   162                $SBEXP  NML_CHKOPT_SUB                   ; Parse the option byte
0000   163                FIELD$
0000   164                $SBEXP  NML_CHKENT_SUB,NPA$_EXIT         ; Parse entity id
0000   165  ;
0000   166  ;
0000   167  ; Read information
0000   168  ;
0000   169                FIELD$  NML_REA                          ; Check read information option
0000   170                $SBEXP  NML_CHKOPT_SUB                   ; Parse the option byte
0000   171                FIELD$
0000   172                $SBEXP  NML_CHK_INFO_SUB                 ; Check information type
0000   173                FIELD$
0000   174                $SBEXP  NML_CHKENT_SUB,NPA$_EXIT         ; Parse entity id
0000   175
```

NML$INISTA   NML Initial parsing state table   16-SEP-1984 00:44:49   VAX/VMS Macro V04-00   Page   5   NM
V04-000   NML$NPA_INIT - NICE Phase III message pa 5-SEP-1984 02:25:29   [NML.SRC]NMLINISTA.MAR;1   (3)   Sy

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```
0000   176 ;
0000   177 ; Zero counters
0000   178 ;
0000   179          FIELD$   NML_ZER                              ; Check zero counters option
0000   180          $SBEXP   NML_CHKOPT_SUB                       ; Parse the option byte
0000   181          FIELD$                                        ; Parse the entity ID
0000   182          $EXTZV   <NMA$C_ENT_NOD, -                    ; Node
0000   183                   NMA$V_OPT_ENT, -
0000   184                   NMA$S_OPT_ENT, -
0000   185                   NPA$_ADVANCE>, NML_NOD_ENT,NML$PRSENT
0000   186          $EXTZV   <NMA$C_ENT_LIN, -                    ; Line
0000   187                   NMA$V_OPT_ENT, -
0000   188                   NMA$S_OPT_ENT, -
0000   189                   NPA$_ADVANCE>, NML_LIN_ENT,NML$PRSENT
0000   190          $EXTZV   <NMA$C_ENT_CIR, -                    ; Circuit
0000   191                   NMA$V_OPT_ENT, -
0000   192                   NMA$S_OPT_ENT, -
0000   193                   NPA$_ADVANCE>, NML_CIRCUIT_ENT,NML$PRSENT
0000   194          $EXTZV   <NMA$C_ENT_MOD, -                    ; Module
0000   195                   NMA$V_OPT_ENT, -
0000   196                   NMA$S_OPT_ENT, -
0000   197                   NPA$_ADVANCE>, NML_MODULE_ENT,NML$PRSENT
0000   198          $NULL    ,NML_FUN_ERR                         ; Unrecognized option
0000   199
0000   200 ;
0000   201 ; System-specific functions
0000   202 ;
0000   203          FIELD$   NML_SYS                              ; System-specific function
0000   204          $EOM     ,NML_FOR_ERR                         ; Message format error
0000   205          $BYTE    NMA$C_SYS_VMS,NML_VMS,,NML$M_PRS_VMS,NML$GL_PRS_FLGS
0000   206          $NULL    ,NML_SYS_ERR                         ; Only VMS is valid
0000   207
0000   208          FIELD$   NML_VMS                              ; VMS-specific function
0000   209          $EOM     ,NML_FOR_ERR                         ; Message format error
0000   210          $BYTE    NMA$C_FNC_CHA,NML_VMS_CHA,NML$PRSFNC ; Change
0000   211          $BYTE    NMA$C_FNC_REA,NML_VMS_REA,NML$PRSFNC ; Read
0000   212          $BYTE    NMA$C_FNC_LOA,NPA$_EXIT,NML$PRSFNC   ; Load
0000   213          $NULL    ,NML_FUN_ERR                         ; Unrecognized function
0000   214
0000   215 ;
0000   216 ; Change parameter for VMS specific function
0000   217 ;
0000   218          FIELD$   NML_VMS_CHA                          ; Check change parameter option
0000   219          $SBEXP   NML_CHKOPT_SUB                       ; Parse the option byte
0000   220          FIELD$
0000   221          $SBEXP   NML_CHK_VMS_ENT_SUB,NPA$_EXIT        ; Parse entity id for VMS
0000   222                                                        ;    specific
0000   223 ;
0000   224 ; Read information for VMS specific function
0000   225 ;
0000   226          FIELD$   NML_VMS_REA                          ; Check read information option
0000   227          $SBEXP   NML_CHKOPT_SUB                       ; Parse the option byte
0000   228          FIELD$
0000   229          $SBEXP   NML_CHK_INFO_SUB                     ; Check information type
0000   230          FIELD$
0000   231          $SBEXP   NML_CHK_VMS_ENT_SUB,NPA$_EXIT        ; Parse entity id for VMS
0000   232                                                        ;    specific
```

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NML Initial parsing state table   16-SEP-1984 00:44:49   VAX/VMS Macro V04-00   Page 6
NML$NPA_INIT - NICE Phase III message pa   5-SEP-1984 02:25:29   [NML.SRC]NMLINISTA.MAR;1   (4)

```
0000   234 ;
0000   235 ; Parse information type subexpression
0000   236 ;
0000   237        FIELD$  NML_CHK_INFO_SUB                ; Match the information type
0000   238        $EXTZV  <NMA$C_OPINF_SUM, -             ; Summary
0000   239                NMA$V_OPT_INF, -
0000   240                NMA$S_OPT_INF -
0000   241                             >,NPA$_EXIT,NML$PRSINF
0000   242        $EXTZV  <NMA$C_OPINF_STA, -             ; Status
0000   243                NMA$V_OPT_INF, -
0000   244                NMA$S_OPT_INF -
0000   245                             >,NPA$_EXIT,NML$PRSINF
0000   246        $EXTZV  <NMA$C_OPINF_CHA, -             ; Characteristics
0000   247                NMA$V_OPT_INF, -
0000   248                NMA$S_OPT_INF -
0000   249                             >,NPA$_EXIT,NML$PRSINF
0000   250        $EXTZV  <NMA$C_OPINF_COU, -             ; Counters
0000   251                NMA$V_OPT_INF, -
0000   252                NMA$S_OPT_INF -
0000   253                             >,NPA$_EXIT,NML$PRSINF
0000   254        $EXTZV  <NMA$C_OPINF_EVE, -             ; Events
0000   255                NMA$V_OPT_INF, -
0000   256                NMA$S_OPT_INF -
0000   257                             >,NPA$_EXIT,NML$PRSINF
0000   258        $NULL   ,NML_FUN_ERR                    ; Unrecognized option
0000   259
```

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NMLSINISTA   NML Initial parsing state table   16-SEP-1984 00:44:49 VAX/VMS Macro V04-00   Page 7
V04-000   Entity parsing   5-SEP-1984 02:25:29 [NML.SRC]NMLINISTA.MAR;1   (5)

```
0000    261              .SBTTL  Entity parsing
0000    262      ;
0000    263      ; Parse the entity for a non VMS specific command, according to the option byte
0000    264      ;
0000    265              FIELD$  NML_CHKENT_SUB
0000    266              SEXTZV  <NMA$C_ENT_NOD, -                    ; Node
0000    267                      NMA$V_OPT_ENT, -
0000    268                      NMA$S_OPT_ENT, -
0000    269                      NPA$_ADVANCE>, NML_NOD_ENT,NML$PRSENT
0000    270              SEXTZV  <NMA$C_ENT_LIN, -                    ; Line
0000    271                      NMA$V_OPT_ENT, -
0000    272                      NMA$S_OPT_ENT, -
0000    273                      NPA$_ADVANCE>, NML_LIN_ENi,NML$PRSENT
0000    274              SEXTZV  <NMA$C_ENT_LOG, -                    ; Logging
0000    275                      NMA$V_OPT_ENT, -
0000    276                      NMA$S_OPT_ENT, -
0000    277                      NPA$_ADVANCE>, NML_LOG_ENT,NML$PRSENT
0000    278              SEXTZV  <NMA$C_ENT_CIR, -                    ; Circuit
0000    279                      NMA$V_OPT_ENT, -
0000    280                      NMA$S_OPT_ENT, -
0000    281                      NPA$_ADVANCE>, NML_CIRCUIT_ENT,NML$PRSENT
0000    282              SEXTZV  <NMA$C_ENT_MOD, -                    ; Module
0C00    283                      NMA$V_OPT_ENT, -
0000    284                      NMA$S_OPT_ENT, -
0000    285                      NPA$_ADVANCE>, NML_MODULE_ENT,NML$PRSENT
0000    286              SEXTZV  <NMA$C_ENT_ARE, -                    ; Area
0000    287                      NMA$V_OPT_ENT, -
0000    288                      NMA$S_OPT_ENT, -
0000    289                      NPA$_ADVANCE>, NML_AREA_ENT,NML$PRSENT
0000    290              $NULL   ,NML_FUN_ERR                         ; Unrecognized function
0000    291
0000    292
0000    293      ;
0000    294      ; Parse VMS specific entities.
0000    295      ;
0000    296              FIELD$  NML_CHK_VMS_ENT_SUB
0000    297              SEXTZV  <NMA$C_SENT_OBJ, -                   ; Object
0000    298                      NMA$V_OPT_ENT, -
0000    299                      NMA$S_OPT_ENT, -
0000    300                      NPA$_ADVANCE>, NML_OBJ_ENT,NML$PRSENT
0000    301              SEXTZV  <NMA$C_SENT_LNK, -                   ; Link
0000    302                      NMA$V_OPT_ENT, -
0000    303                      NMA$S_OPT_ENT, -
0000    304                      NPA$_ADVANCE>, NML_LNK_ENT,NML$PRSENT
0000    305              $NULL   ,NML_FUN_ERR                         ; Unrecognized option
0000    306
0000    307      ;
0000    308      ; Parse a node entity
0000    309      ;
0000    310              FIELD$  NML_NOD_ENT                          ; Node-id entity
0000    311              $EOM    ,NML_FOR_ERR                         ; Message format error
0000    312              $LOOK   0,NML_NOD_NUM                        ; 3 bytes if node number
0000    313              $BYTE   NMA$C_ENT_LOO,NML_CHKEOM,NML$PRSIDLEQ, -
0000    314                      NML$C_LOOPNODE,NML$GL_NML_ENTITY
0000    315              $BYTE   NMA$C_ENT_KNO,NML_NODE_CIRC_QOAL,NML$PRSIDLEQ, -
0000    316                      NML$C_NODE,NML$GL_NML_ENTITY
0000    317              $BYTE   NMA$C_ENT_ACT,NML_NODE_CIRC_QOAL,NML$PRSIDLEQ, -
```

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NML$INISTA   NML Initial parsing state table   16-SEP-1984 00:44:49 VAX/VMS Macro V04-00   Page 8
V04-000   Entity parsing   5-SEP-1984 02:25:29 [NML.SRC]NMLINISTA.MAR;1   (5)

```
0000   318                                    NML$C_NODE,NML$GL_NML_ENTITY
0000   319             $BYTE    NMA$C_ENT_ADJ,NML_NODE_CIRC_QUAL,NML$PRSIDLEQ, -
0000   320                                    NML$C_ADJACENT_NODE,NML$GL_NML_ENTITY
0000   321             $IMAGE   6,NML_NODE_CIRC_QUAL,NML$PRSNODNAM,NML$C_NODEBYNAME, -; n bytes (nam
0000   322                                    NML$GL_NML_ENTITY
0000   323             $ERROR   NML$_STS_IDE,,NML$PRSIDERR,,,NMA$C_ENT_NOD ; Illegal node name
0000   324
0000   325             FIELD$   NML_NOD_NUM                           ; Node-id number
0000   326             $SBEXP   NML_NOD_EXE,NPA$_EXIT,NML$PRSID
0000   327             $MATCH   3,NML_NODE_CIRC_QUAL, -               ; Skip 2 bytes (node number)
0000   328                                    NML$PRS_NODE_NUM_ENTITY, -
0000   329                                    NML$C_NODE,NML$GL_NML_ENTITY
0000   330             $NULL    ,NML_FOR_ERR                          ; Must be at least 2 bytes
0000   331
0000   332             FIELD$   NML_NOD_EXE                           ; Zero address is executor node
0000   333             $MATCH   1
0000   334             FIELD$
0000   335             $WORD    0,NPA$_EXIT,,NML$C_EXECUTOR, -  ; Executor node
0000   336                                    NML$GL_NML_ENTITY
0000   337
0000   338     ;
0000   339     ; Parse a circuit qualifier (for SHOW NODE[S] CIRC <circuit id>)
0000   340     ;
0000   341             FIELD$   NML_NODE_CIRC_QUAL
0000   342             $EOM     ,NPA$_EXIT                            ; No qualifier is present
0000   343             $LOOK    ,NPA$_EXIT,NML$PRS_NOREAD             ; Get out if not a read.
0000   344             $WORD    NMA$C_PCNO_DLI,NML_CHECK_QUAL
0000   345             $ERROR   NML$_STS_IDE,,NML$PRSIDERR,,,NMA$C_ENT_NOD ; Illegal node name
0000   346
0000   347             FIELD$   NML_CHECK_QUAL
0000   348             $EOM     ,NML_FOR_ERR
0000   349             $MATCH   1,NPA$_EXIT,NML$PRSIDLEQ              ; KNOWN circuits is the
0000   350                                                           ;      default.
0000   351             $NULL    ,NML_CIRC_QUAL,,NML$M_PRS_QUALIFIER, - ; Flag qualifier
0000   352                                    NML$GL_PRS_FLGS ;          present.
0000   353             FIELD$   NML_CIRC_QUAL                        ; Parse circuit qualifier
0000   354             $IMAGE   16,NPA$_EXIT,NML$PRSIDN,,,CPT$GK_PCNO_DLI
0000   355             $ERROR   NML$_STS_IDE,,NML$PRSIDERR,,,NMA$C_ENT_CIR; Illegal circuit name
0000   356
0000   357     ;
0000   358     ; Parse a line entity
0000   359     ;
0000   360             FIELD$   NML_LIN_ENT                           ; Line-id entity
0000   361             $EOM     ,NML_FOR_ERR                          ; Message format error
0000   362             $MATCH   1,NML_LINE,NML$PRSIDLEQ ; 1 byte if zero or negative
0000   363             $IMAGE   16,NML_LINE,NML$PRSDEVICE             ; n bytes (line name)
0000   364             $ERROR   NML$_STS_IDE,,NML$PRSIDERR,,,NMA$C_ENT_LIN ; Illegal line-id
0000   365
0000   366             FIELD$   NML_LINE                              ; Set internal NML entity type
0000   367             $NULL    ,NPA$_EXIT,,NML$C_LINE,NML$GL_NML_ENTITY
0000   368
0000   369     ;
0000   370     ; Parse a logging entity
0000   371     ;
0000   372             FIELD$   NML_LOG_ENT                           ; Logging entity
0000   373             $MATCH   1,NML_LOG_SIN,NML$PRSID, -            ; 1 byte, always.
0000   374                                    NML$C_LOGGING,NML$GL_NML_ENTITY ; Set internal NML entity type.
```

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NMLSINISTA   NML Initial parsing state table   16-SEP-1984 00:44:49 VAX/VMS Macro V04-00   Page 9
V04-000   Entity parsing   5-SEP-1984 02:25:29 [NML.SRC]NMLINISTA.MAR;1   (5)

```
0000  375              $NULL    ,NML_FOR_ERR                              ; Message format error
0000  376
0000  377              FIELD$   NML_LOG_SIN                               ; If READ then sink node
0000  378              $NULL    ,NPA$_EXIT,NML$PRSLOGSIN                  ;  must be specified
0000  379              $EOM     ,NPA$_EXIT,NML$PRSEXESNK                  ; Null is executor node
0000  380              $WORD    NMA$C_PCLO_SIN,NML_LOG_NID
0000  381
0000  382              FIELD$   NML_LOG_NID
0000  383              $SBEXP   NML_LOG_NIDSUB,NML_CHKEOM,,NML$M_PRS_SNKNOD,NML$GL_PRS_FLGS
0000  384              $ERROR   NML$_STS_IDE,,NML$PRSIDERR,,,NMA$C_ENT_NOD ; Illegal node id
0000  385
0000  386              FIELD$   NML_LOG_NIDSUB
0000  387              $BYTE    NMA$C_ENT_KNO,NPA$_EXIT,,NML$M_PRS_KNOSNK,NML$GL_PRS_FLGS ; Known si
0000  388              $LOOK    0,NML_LOG_NODNUM
0000  389              $IMAGE   6,NPA$_EXIT,NML$PRSSNKNNA
0000  390              $NULL    ,NML_FOR_ERR                              ; Message format error
0000  391
0000  392              FIELD$   NML_LOG_NODNUM
0000  393              $MATCH   3,NPA$_EXIT,NML$PRSSNKNAD
0000  394
0000  395      ;
0000  396      ; Parse a circuit entity
0000  397      ;
0000  398              FIELD$   NML_CIRCUIT_ENT                          ; Circuit-id entity
0000  399              $EOM     ,NML_FOR_ERR                             ; Message format error
0000  400              $MATCH   1,NML_CIRCUIT,NML$PRSIDLEQ, -            ; 1 byte if zero or negative
0000  401                       NML$C_CIRCUIT,NML$GL_NML_ENTITY
0000  402              $IMAGE   16,NML_CIRCUIT,NML$PRSDEVICE, -          ; n bytes (circuit name)
0000  403                       NML$C_CIRCUIT,NML$GL_NML_ENTITY
0000  404              $ERROR   NML$_STS_IDE,,NML$PRSIDERR,,,NMA$C_ENT_CIR; Illegal circuit-id
0000  405
0000  406              FIELD$   NML_CIRCUIT                              ; Set internal NML entity type
0000  407              $EOM     ,NPA$_EXIT                               ; No Adjacency qualifier - exit
0000  408              $WORD    NMA$C_PCCI_ADJ,NML_CIRC_ADJACENCY
0000  409              $NULL    ,NPA$_EXIT                               ; Check for other parameters
0000  410                                                               ;           later.
0000  411
0000  412              FIELD$   NML_CIRC_ADJACENCY
0000  413              $EOM     ,NML_FOR_ERR
0000  414              $BYTE    NMA$C_ENT_KNO,NPA$_EXIT                  ; Known adjacencies is default.
0000  415              $NULL    ,NML_PRS_ADJ,,NML$M_PRS_QUALIFIER, - ; Set qualifier flag
0000  416                       NML$GL_PRS_FLGS
0000  417              FIELD$   NML_PRS_ADJ
0000  418              $LOOK    0,NML_ADJ_NOD_NUM                        ; 3 bytes if node number
0000  419              $IMAGE   16,NPA$_EXIT,NML$PRSIDN,,, -             ; Save adjacent node name.
0000  420                       CPT$GK_PCCI_AJ$
0000  421              $ERROR   NML$_STS_IDE,,NML$PRSIDERR,,,NMA$C_ENT_NOD; Illegal Adjacency id
0000  422
0000  423              FIELD$   NML_ADJ_NOD_NUM                         ; Adjacent node-id is a number
0000  424              $SBEXP   NML_ADJ_EXE,NPA$_EXIT
0000  425              $MATCH   3,NPA$_EXIT,NML$PRS_NODE_NUM,,, - ; Save adjacent node number.
0000  426                       CPT$GK_PCCI_ADJ
0000  427
0000  428              FIELD$   NML_ADJ_EXE                             ; Zero address is executor node
0000  429              $MATCH   1
0000  430              FIELD$
0000  431              $WORD    0,NML_NOD_ERR
```

NML$INISTA
V04-000

J 15

NML Initial parsing state table   16-SEP-1984 00:44:49   VAX/VMS Macro V04-00   Page 10
Entity parsing   5-SEP-1984 02:25:29   [NML.SRC]NMLINISTA.MAR;1   (5)

```
        0000    432
        0000    433            FIELD$  NML_NOD_ERR
        0000    434            $ERROR  NML$_STS_IDE,,NML$PRSIDERR,,,NMA$C_ENT_NOD; Illegal Adjacency id
```

```
0000   436  ;
0000   437  ; Parse a module entity
0000   438  ;
0000   439        FIELD$  NML_MODULE_ENT                          ; Module entity
0000   440        $EOM    ,NMC_FOR_ERR                            ; Message format error
0000   441        $MATCH  1,NMC_FUN_ERR,NML$PRSIDLEQ              ; Don't allow KNOWN or ACTIVE
0000   442                                                        ;       modules.
0000   443        $IMAGE  10,NML_MOD_X25_ACCESS,NML$PRS_MODULE,,,NML$C_X25_ACCESS
0000   444        $IMAGE  12,NML_MOD_PROTOCOL,NML$PRS_MODULE,,,NML$C_PROTOCOL
0000   445        $IMAGE  10,NML_MOD_X25_SERVER,NML$PRS_MODULE,,,NML$C_X25_SERV
0000   446        $IMAGE  10,NML_MOD_X25_TRACE,NML$PRS_MODULE,,,NML$C_TRACE
0000   447        $IMAGE  10,NML_MOD_X29_SERVER,NML$PRS_MODULE,,,NML$C_X29_SERV
0000   448        $IMAGE  12,NML_MOD_NI_CONFIG,NML$PRS_MODULE,,,NML$C_NI_CONFIG
0000   449        $ERROR  NML$_STS_IDE,,NML$PRSIDERR,,,NMA$C_ENT_MOD; Illegal module-id
0000   450
0000   451  ;
0000   452  ; Parse X25 Access module - Network qualifier is manadatory
0000   453  ;
0000   454        FIELD$  NML_MOD_X25_ACCESS
0000   455        $EOM    ,NMC_INV_DEST                           ; No network ID in command
0000   456        $WORD   NMA$C_PCXA_NET,NML_X25_ACCESS_NET
0000   457        $NULL   ,NML_INV_DEST
0000   458
0000   459        FIELD$  NML_X25_ACCESS_NET                      ; Check destination ID
0000   460        $EOM    ,NMC_FOR_ERR                            ; No destination ID, message
0000   461                                                        ;       format error
0000   462        $NULL   ,NML_MOD_ENT,,NML$C_X25_ACCESS, -       ; Set internal NML entity type.
0000   463                        NML$GL_NML_ENTITY
0000   464
0000   465        FIELD$  NML_INV_DEST                            ; Illegal destination id
0000   466        $ERROR  NML$_STS_IDE,,NML$PRSIDERR,,,NMA$C_ENT_MOD
0000   467
0000   468  ;
0000   469  ; Parse for X25 Protocol module sub entity - DTE or group
0000   470  ;
0000   471        FIELD$  NML_MOD_PROTOCOL
0000   472        $EOM    ,NMC_PROTCL_NET                         ; No sub entity.  Use network.
0000   473        $WORD   NMA$C_PCXP_DTE,NML_PROTCL_DTE           ; DTE
0000   474        $WORD   NMA$C_PCXP_GRP,NML_PROTCL_GRP           ; Group
0000   475        $NULL   ,NML_PROTCL_NET                         ; Assume network
0000   476
0000   477        FIELD$  NML_PROTCL_NET                          ; Network sub entity.
0000   478        $NULL   ,NPX$_EXIT,NML$PRS_ACTIVE_NET, -        ; Set internal NML entity type.
0000   479                        NML$C_PROT_NET, -               ;       and active network
0000   480                        NML$GL_NML_ENTITY               ;       entity.
0000   481
0000   482
0000   483        FIELD$  NML_PROTCL_DTE                          ; DTE sub entity.
0000   484        $EOM    ,NMC_FOR_ERR                            ; No DTE ID, message format error
0000   485        $NULL   ,NML_MOD_ENT,,NML$C_PROT_DTE, -         ; Set internal NML entity type.
0000   486                        NML$GL_NML_ENTITY
0000   487
0000   488
0000   489        FIELD$  NML_PROTCL_GRP                          ; Check Group ID
0000   490        $EOM    ,NMC_FOR_ERR                            ; No destination ID, message
0000   491                                                        ;       format error
0000   492        $SBEXP  NML_MOD_ENT,NML_CHK_DTE,, -             ; Set internal NML entity type.
```

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```
0000   493                                   NML$C_PROT_GRP, NML$GL_NML_ENTITY
0000   494                  $ERROR  NML$_STS_IDE,,NML$PRSIDERR,,,NMA$C_ENT_MOD; Illegal group-id
0000   495
0000   496                  FIELD$  NML_CHK_DTE
0000   497                  $EOM    ,NPA$_EXIT                          ; No DTE qualifier - exit
0000   498                  $WORD   NMA$C_PCXP_GDT,NML_GRP_DTE_ID      ; Go check Group DTE id.
0000   499                  $ERROR  NML$_STS_IDE,,NML$PRSIDERR,,,NMA$C_ENT_MOD; Illegal group-id
0000   500
0000   501                  FIELD$  NML_GRP_DTE_ID
0000   502                  $EOM    ,NML_FOR_ERR
0000   503                  $MATCH  1,NPA$_EXIT,NML$PRSQUALLEQ          ; Known DTEs is default.
0000   504                  $NULL   ,NML_DTE_QUAL,,NML$M_PRS_QUALIFIER, -   ; Flag qualifier
0000   505                                            NML$GL_PRS_FLGS ;      present.
0000   506
0000   507                  FIELD$  NML_DTE_QUAL
0000   508                  $IMAGE  16,NPA$_EXIT,NML$PRSIDN,,, -        ; Save Group-DTE ID.
0000   509                                            CPT$GK_PCXP_GDT
0000   510                  $ERROR  NML$_STS_IDE,,NML$PRSIDERR,,,NMA$C_ENT_MOD; Illegal DTE id
0000   511
0000   512
0000   513          ;
0000   514          ; Parse X25 Server module
0000   515          ;
0000   516                  FIELD$  NML_MOD_X25_SERVER
0000   517                  $EOM    ,NPA$_EXIT,,NML$C_X25_SERV, -       ; No destination sub entity
0000   518                                            NML$GL_NML_ENTITY
0000   519                  $WORD   NMA$C_PCXS_DST,NML_X25_SERV_DEST; Sub entity is destination.
0000   520                  $NULL   ,NPA$_EXIT,,NML$C_X25_SERV, -       ; No destination sub entity.
0000   521                                            NML$GL_NML_ENTITY;      Parameters follow.
0000   522
0000   523                  FIELD$  NML_X25_SERV_DEST                   ; Sub entity is Destination.
0000   524                  $EOM    ,NML_FOR_ERR                        ; No destination ID, message
0000   525                                                              ;      format error
0000   526                  $NULL   ,NML_MOD_ENT,,NML$C_X25_SERV_DEST, -; Set internal NML entity
0000   527                                            NML$GL_NML_ENTITY ;      type.
0000   528
0000   529          ;
0000   530          ; Parse X25 Trace module
0000   531          ;
0000   532                  FIELD$  NML_MOD_X25_TRACE
0000   533                  $EOM    ,NPA$_EXIT,,NML$C_TRACE, -          ; No tracepoint sub entity
0000   534                                            NML$GL_NML_ENTITY
0000   535                  $WORD   NMA$C_PCXT_TPT,NML_TRACEPOINT       ; Sub entity is tracepoint.
0000   536                  $NULL   ,NPA$_EXIT,,NML$C_TRACE, -          ; No tracepoint sub entity.
0000   537                                            NML$GL_NML_ENTITY;      Parameters follow.
0000   538
0000   539                  FIELD$  NML_TRACEPOINT                      ; Sub entity is tracepoint
0000   540                  $EOM    ,NML_FOR_ERR                        ; No tracepoint ID, message
0000   541                                                              ;      format error
0000   542                  $NULL   ,NML_TPT_ENT,,NML$C_TRACEPNT, -     ; Set internal NML entity
0000   543                                            NML$GL_NML_ENTITY ;      type.
0000   544                  FIELD$  NML_TPT_ENT                         ; Finish processing module entity.
0000   545                  $MATCH  1,NPA$_EXIT,NML$PRSIDLEQ            ; 1 byte if zero or negative.
0000   546                  $IMAGE  31,NPA$_EXIT,NML$PRSIDN             ; 16 bytes of ID
0000   547                  $ERROR  NML$_STS_IDE,,NML$PRSIDERR,,,NMA$C_ENT_MOD; Illegal module id
0000   548
0000   549
```

NML$INISTA
V04-000

M 15

NML Initial parsing state table   16-SEP-1984 00:44:49   VAX/VMS Macro V04-00   Page 13
Entity parsing   5-SEP-1984 02:25:29   [NML.SRC]NMLINISTA.MAR;1   (6)

```
0000   550 ;
0000   551 ; Parse X29 Server module
0000   552 ;
0000   553         FIELD$  NML_MOD_X29_SERVER
0000   554         $EOM    ,NPA$_EXIT,,NML$C_X29_SERV, -    ; No destination sub entity
0000   555                         NML$GL_NML_ENTITY
0000   556         $WORD   NMA$C_PCXS_DST,NML_X29_SERV_DEST; Sub entity is destination.
0000   557         $NULL   ,NPA$_EXIT,,NML$C_X29_SERV, -   ; No destination sub entity.
0000   558                         NML$GL_NML_ENTITY;         Parameters follow.
0000   559
0000   560         FIELD$  NML_X29_SERV_DEST                 ; Sub entity is Destination.
0000   561         $EOM    ,NML_FOR_ERR                      ; No destination ID, message
0000   562                                                   ;    format error
0000   563         $NULL   ,NML_MOD_ENT ,NML$C_X29_SERV_DEST, -; Set internal NML entity
0000   564                         NML$GL_NML_ENTITY         ;    type.
0000   565
0000   566
0000   567 ;
0000   568 ; Parse NI configurator module
0000   569 ;
0000   570         FIELD$  NML_MOD_NI_CONFIG
0000   571         $EOM    ,NPA$_EXIT,,NML$C_NI_CONFIG, -   ; No circuit qualifier - exit
0000   572                         NML$GL_NML_ENTITY
0000   573         $WORD   NMA$C_PCCN_CIR,NML_NI_CONFIG_CIRC,, -
0000   574                         NML$C_NI_CONFIG,NML$GL_NML_ENTITY
0000   575         $NULL   ,NPA$_EXIT,,NML$C_NI_CONFIG, -   ; Check for other parameters
0000   576                         NML$GL_NML_ENTITY         ;      later.
0000   577
0000   578         FIELD$  NML_NI_CONFIG_CIRC
0000   579         $EOM    ,NML_FOR_ERR
0000   580         $NEXT
094C   581
094C   582
094C   583         FIELD$  NML_MOD_ENT                      ; Finish processing module entity.
0000   584         $MATCH  1,NPA$_EXIT,NML$PRSIDLEQ         ; 1 byte if zero or negative.
0000   585         $IMAGE  16,NPA$_EXIT,NML$PRSIDN          ; 16 bytes of ID
0000   586         $ERROR  NML$_STS_IDE,,NML$PRSIDERR,,,NMA$C_ENT_MOD; Illegal module id
```

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V04-000

N 15

NML Initial parsing state table   16-SEP-1984 00:44:49   VAX/VMS Macro V04-00   Page 14
Entity parsing   5-SEP-1984 02:25:29   [NML.SRC]NMLINISTA.MAR;1   (7)

```
0000   588 ;
0000   589 ; Parse an area entity
0000   590 ;
0000   591         FIELD$  NML_AREA_ENT                        ; Area entity
0000   592         $EOM    ,NML_FOR_ERR                        ; Message format error
0000   593         $LOOK   0,NML_AREA_NUM                      ; Area number in next byte.
0000   594         $BYTE   NMA$C_ENT_RNO,NPA$_EXIT,NML$PRSIDLEQ, -
0000   595                 NML$C_AREA,NML$GL_NML_ENTITY
0000   596         $BYTE   NMA$C_ENT_ACT,NPA$_EXIT,NML$PRSIDLEQ, -
0000   597                 NML$C_AREA,NML$GL_NML_ENTITY
0000   598         $ERROR  NML$_STS_IDE,,NML$PRSIDERR,,,NMA$C_ENT_ARE; Illegal area ID
0000   599
0000   600         FIELD$  NML_AREA_NUM
0000   601         $MATCH  2,NPA$_EXIT,NML$PRSID, -            ; Save 1 byte area number
0000   602                 NML$C_AREA,NML$GL_NML_ENTITY
0000   603         $NULL   ,NML_FOR_ERR                        ; Must be at least 2 bytes
```

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B 16

NML$INISTA   NML Initial parsing state table   16-SEP-1984 00:44:49   VAX/VMS Macro V04-00   Page 15
VO4-000   Entity parsing   5-SEP-1984 02:25:29   [NML.SRC]NMLINISTA.MAR;1   (8)

```
0000    605  ;
0000    606  ; Parse an object entity (VMS-specific)
0000    607  ;
0000    608          FIELD$   NML_OBJ_ENT                        ; Object entity
0000    609          $EOM    ,NMC_FOR_ERR                        ; Message format error
0000    610          $MATCH   1,NMC_OBJECT,NML$PRSIDLEQ          ; 1 byte if zero or negative
0000    611          $IMAGE   12,NMC_OBJECT,NML$PRSIDN           ; n bytes (name)
~000    612          $ERROR   NML$_STS_IDE,,NML$PRSIDERR,,,NMA$C_SENT_OBJ ; Illegal object name
0000    613
0000    614          FIELD$   NML_OBJECT                         ; Set internal NML entity type
0000    615          $NULL   ,NPA$_EXIT,,NML$C_OBJECT,NML$GL_NML_ENTITY
0000    616
0000    617  ;
0000    618  ; Parse a link entity 'VMS-specific)
0000    619  ;
0000    620          FIELD$   NML_LNK_ENT                        ; Link entity
0000    621          $EOM    ,NMC_FOR_ERR                        ; Message format error
0000    622          $NULL   ,NML_LINK,,NML$C_LINKS,NML$GL_NML_ENTITY
0000    623
0000    624          FIELD$   NML_LINK
0000    625          $LOOK    0,NML_LNK_NUM                      ; If zero, it's a link number.
0000    626          $MATCH   1,NML_LNK_NOD,NML$PRSIDLEQ         ; 1 byte if negative
0000    627
0000    628          FIELD$   NML_LNK_NUM                        ; Link address
0000    629          $MATCH   3,NML_LNK_NOD,NM'$PRSID            ; Must be byte of 0 and 2 bytes
0000    630                                                      ;     of link number.
0000    631          $ERROR   NML$_STS_IDE,,NML$PRSIDERR,,,NMA$C_SENT_LNK ; Illegal link address
0000    632
0000    633          FIELD$   NML_LNK_NOD
0000    634          $EOM    ,NPA$_EXIT
0000    635          $WORD    NMA$C_PCLK_NID,NML_LNK_NID,, -     ; Flag node qualifier
0000    636                          NMC$M_PRS_QUALIFIER,NML$GL_PRS_FLGS
0000    637          $NULL   ,NML_FOR_ERR
0000    638
0000    639          FIELD$   NML_LNK_NID
0000    640          $EOM    ,NMC_FOR_ERR
0000    641          $SBEXP   NML_NODEID_SUB,NML_CHKEOM
0000    642          $ERROR   NML$_STS_IDE,,NML$PRSIDERR,,,NMA$C_ENT_NOD ; Illegal node id
0000    643
0000    644
0000    645          FIELD$   NML_NODEID_SUB
0000    646          $LOOK    0,NML_NODNUM
0000    647          $IMAGE   6,NPA$_EXIT,NML$PRSIDN,,, -        ; Qualifier is a node name.
0000    648                          CPT$GK_PCLK_NID
0000    649
0000    650          FIELD$   NML_NODNUM
0000    651          $MATCH   3,NPA$_EXIT,NML$PRS_NODE_NUM,,, -  ; Qualifier is a node address.
0000    652                          CPT$GK_PCLK_PN$
0000    653
0000    654          FIELD$
```

NML$INISTA
V04-000

C 16

NML Initial parsing state table   16-SEP-1984 00:44:49   VAX/VMS Macro V04-00   Page 16
Common expressions   5-SEP-1984 02:25:29   [NML.SRC]NMLINISTA.MAR;1   (9)

```
0000   656              .SBTTL  Common expressions
0000   657    ;
0000   658    ; Check the option byte for illegal bits and save it
0000   659    ;
0000   660              FIELD$  NML_CHKOPT_SUB                ; Check for valid option
0000   661              $EOM    ,NML_FOR_ERR                  ; Message format error
0000   662              $LOOK   ,NPA$_EXIT,NML$PRSOPT          ;
0000   663              $NULL   ,NML_FUN_ERR                  ; Unrecognized option
0000   664    ;
0000   665    ; No more bytes allowed in message
0000   666    ;
0000   667              FIELD$  NML_CHKEOM                    ; Check for end of message
0000   668              $EOM    ,NPA$_EXIT                    ; If end then success
0000   669              $NULL   ,NML_FOR_ERR                  ; Message format error
0000   670    ;
0000   671    ; Error exits
0000   672    ;
C000   673              FIELD$  NML_FOR_ERR                   ; Message format error
0000   674              $ERROR  NML$_STS_INV,,NML$PRSERR1,,,NMA$C_STS_INV
0000   675
0000   676              FIELD$  NML_FUN_ERR                   ; Illegal function or option
0000   677              $ERROR  NML$_STS_FUN,,NML$PRSERR1,,,NMA$C_STS_FUN
0000   678
0000   679              FIELD$  NML_SYS_ERR                   ; Unrecognized system-specific
0000   680              $ERROR  NML$_STS_SYS,,NML$PRSERR1,,,NMA$C_STS_SYS
0000   681
0000   682              FIELD$                                ; End of Phase III tables
0000   683    ;
0C00   684    ; End of parse tables
0000   685    ;
0000   686              .END
```

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NML$INISTA   NML Initial parsing state table   16-SEP-1984 00:44:49   VAX/VMS Macro V04-00   Page 17
Symbol table   5-SEP-1984 02:25:29   [NML.SRC]NMLINISTA.MAR;1   (9)

```
CPT$GK_PCCI_ADJ        ********  X  03     NML$C_LOGGING           = 00000001
CPT$GK_PCCI_AJS        ********  X  03     NML$C_LOOPNODE          = 00000005
CPT$GK_PCLK_NID        ********  X  03     NML$C_NI_CONFIG         = 00000017
CPT$GK_PCLK_PNS        ********  X  03     NML$C_NODE              = 00000003
CPT$GK_PCNO_DLI        ********  X  03     NML$C_NODEBYNAME        = 00000004
CPT$GK_PCXP_GDT        ********  X  03     NML$C_OBJECT            = 00000008
FLG$$$                 = FFFFFFFF          NML$C_PROTOCOL          = 00000019
NMA$C_ENT_ACT          = FFFFFFFE          NML$C_PROT_DTE          = 0000000F
NMA$C_ENT_ADJ          = FFFFFFFC          NML$C_PROT_GRP          = 00000010
NMA$C_ENT_ARE          = 00000005          NML$C_PROT_NET          = 0000000E
NMA$C_ENT_CIR          = 00000003          NML$C_TRACE             = 00000013
NMA$C_ENT_KNO          = FFFFFFFF          NML$C_TRACEPNT          = 00000014
NMA$C_ENT_LIN          = 00000001          NML$C_X25_ACCESS        = 0000000D
NMA$C_ENT_LOG          = 00000002          NML$C_X25_SERV          = 00000011
NMA$C_ENT_LOO          = FFFFFFFD          NML$C_X25_SERV_DEST     = 00000012
NMA$C_ENT_MOD          = 00000004          NML$C_X29_SERV          = 00000015
NMA$C_ENT_NOD          = 00000000          NML$C_X29_SERV_DEST     = 00000016
NMA$C_FNC_CHA          = 00000013          NML$GL_NML_ENTITY       ********  X  03
NMA$C_FNC_DUM          = 00000010          NML$GL_PRS_FLGS         ********  X  03
NMA$C_FNC_LOA          = 0000000F          NML$M_PRS_RNOSNK        = 00000400
NMA$C_FNC_REA          = 00000014          NML$M_PRS_QUALIFIER     = 00000004
NMA$C_FNC_SYS          = 00000016          NML$M_PRS_SNKNOD        = 00000200
NMA$C_FNC_TES          = 00000012          NML$M_PRS_VMS           = 00000001
NMA$C_FNC_TRI          = 00000011          NML$NPA_INIT            00000000 RG  03
NMA$C_FNC_ZER          = 00000015          NML$PRSDEVICE           ********  X  03
NMA$C_OPINF_CHA        = 00000002          NML$PRSENT              ********  X  03
NMA$C_OPINF_COU        = 00000003          NML$PRSERR1             ********  X  03
NMA$C_OPINF_EVE        = 00000004          NML$PRSEXESNK           ********  X  03
NMA$C_OPINF_STA        = 00000001          NML$PRSFNC              ********  X  03
NMA$C_OPINF_SUM        = 00000000          NML$PRSID               ********  X  03
NMA$C_PCCI_ADJ         = 00000320          NML$PRSIDERR            ********  X  03
NMA$C_PCCN_CIR         = 00000064          NML$PRSIDLEQ            ********  X  03
NMA$C_PCLK_NID         = 00000065          NML$PRSIDN              ********  X  03
NMA$C_PCLO_SIN         = 000000C8          NML$PRSINF              ********  X  03
NMA$C_PCNO_DLI         = 00000336          NML$PRSLOGSIN           ********  X  03
NMA$C_PCXA_NET         = 00000456          NML$PRSNODNAM           ********  X  03
NMA$C_PCXP_DTE         = 0000044C          NML$PRSOPT              ********  X  03
NMA$C_PCXP_GDT         = 00000492          NML$PRSQUALLEQ          ********  X  03
NMA$C_PCXP_GRP         = 0000044D          NML$PRSSNKNAD           ********  X  03
NMA$C_PCXS_DST         = 0000012C          NML$PRSSNKNNA           ********  X  03
NMA$C_PCXT_TPT         = 0000006A          NML$PRS_ACTIVE_NET      ********  X  03
NMA$C_SENT_LNK         = 00000007          NML$PRS_MODULE          ********  X  03
NMA$C_SENT_OBJ         = 00000004          NML$PRS_NODE_NUM        ********  X  03
NMA$C_STS_FUN          = FFFFFFFF          NML$PRS_NODE_NUM_ENTITY ********  X  03
NMA$C_STS_INV          = FFFFFFFE          NML$PRS_NOREAD          ********  X  03
NMA$C_STS_SYS          = FFFFFFE6          NML$_STS_FUN            = FFFFFFFE
NMA$C_SYS_VMS          = 00000004          NML$_STS_IDE            = FFFFFFEE
NMA$S_OPT_ENT          = 00000003          NML$_STS_INV            = FFFFFFFC
NMA$S_OPT_INF          = 00000003          NML$_STS_SYS            = FFFFFFCC
NMA$V_OPT_ENT          = 00000000          NML_ADJ_EXE             00000600 R   03
NMA$V_OPT_INF          = 00000004          NML_ADJ_NOD_NUM         000005E0 R   03
NML$C_ADJACENT_NODE    = 00000006          NML_AREA_ENT            00000980 R   03
NML$C_AREA             = 0000000C          NML_AREA_NUM            000009D8 R   03
NML$C_CIRCUIT          = 00000009          NML_CHA                 000000B4 R   03
NML$C_EXECUTOR         = 00000007          NML_CHECK_QUAL          000003D0 R   03
NML$C_LINE             = 00000000          NML_CHKENT_SUB          00000220 R   03
NML$C_LINKS            = 00000018          NML_CHKEOM              00000B38 R   03
```

E 16

NML$INISTA   NML Initial parsing state table   16-SEP-1984 00:44:49 VAX/VMS Macro V04-00   Page 18
Symbol table   5-SEP-1984 02:25:29 [NML.SRC]NMLINISTA.MAR;1   (9)

NML_CHKOPT_SUB	00000B1C	R	03	NML_VMS_CHA	00000198	R	03
NML_CHK_DTE	00000798	R	03	NML_VMS_REA	000001AC	R	03
NML_CHK_INFO_SUB	000001C8	R	03	NML_X25_ACCESS_NET	000006E8	R	03
NML_CHK_VMS_ENT_SUB	00000288	R	03	NML_X25_SERV_DEST	0000083C	R	03
NML_CIRCUIT	0000056C	R	03	NML_X29_SERV_DEST	000008F8	R	03
NML_CIRCUIT_ENT	00000520	R	03	NML_ZER	000000E4	R	03
NML_CIRC_ADJACENCY	00000588	R	03	NPA$M_ACTION	= 00000004	
NML_CIRC_QUAL	000003F8	R	03	NPA$M_EXT	= 00000001	
NML_DTE_QUAL	000007E8	R	03	NPA$M_LAST	= 00008000	
NML_DUM	00000090	R	03	NPA$M_MASK	= 0000(010	
NML_FOR_ERR	00000B48	R	03	NPA$M_MSKADR	= 00000020	
NML_FUN_ERR	00000B5C	R	03	NPA$M_OFFSET	= 00000040	
NML_GRP_DTE_ID	000007C0	R	03	NPA$M_PARAM	= 00000002	
NML_INV_DEST	00000700	R	03	NPA$M_STATE	= 00000008	
NML_LINE	0000045C	R	03	NPA$_ADVANCE	= 00000001	
NML_LINK	00000A5C	R	03	NPA$_BYTE	= 00000003	
NML_LIN_ENT	00000420	R	03	NPA$_EOM	= 00000004	
NML_LNK_ENT	00000A44	R	03	NPA$_ERROR	= 00000007	
NML_LNK_NID	00000AC0	R	03	NPA$_EXIT	= 00000000	
NML_LNK_NOD	00000A9C	R	03	NPA$_EXTZV	= 0000000A	
NML_LNK_NUM	00000A78	R	03	NPA$_FAIL	= FFFFFFFF	
NML_`	00000084	R	03	NPA$_IMAGE	= 00000000	
NML_LOG_ENT	0000046C	R	03	NPA$_LOOK	= 00000009	
NML_LOG_NID	000004B0	R	03	NPA$_MASK	= 00000002	
NML_LOG_NIDSUB	000004D8	R	03	NPA$_MATCH	= 00000008	
NML_LOG_NODNUM	00000510	R	03	NPA$_NULL	= 00000005	
NML_LOG_SIN	0000048C	R	03	NPA$_SBEXP	= 00000006	
NML_MODULE_ENT	00000628	R	03	NPA$_WORD	= 00000001	
NML_MOD_ENT	0000094C	R	03	NXT$$$	= 00000000	
NML_MOD_NI_CONFIG	00000910	R	03			
NML_MOD_PROTOCOL	00000714	R	03			
NML_MOD_X25_ACCESS	000006CC	R	03			
NML_MOD_X25_SERVER	00000810	R	03			
NML_MOD_X25_TRACE	00000854	R	03			
NML_MOD_X29_SERVER	000008CC	R	03			
NML_NI_CONFIG_CIRC	00000944	R	03			
NML_NODEID_SUB	00000AE8	R	03			
NML_NODE_CIRC_QUAL	0000039C	R	03			
NML_NODNUM	00000B08	R	03			
NML_NOD_ENT	000002B0	R	03			
NML_NOD_ERR	00000614	R	03			
NML_NOD_EXE	00000380	R	03			
NML_NOD_NUM	00000350	R	03			
NML_OBJECT	00000A34	R	03			
NML_OBJ_ENT	000009F8	R	03			
NML_PROTCL_DTE	00000750	R	03			
NML_PROTCL_GRP	00000768	R	03			
NML_PROTCL_NET	0000073C	R	03			
NML_PRS_ADJ	000005AC	R	03			
NML_REA	000000C8	R	03			
NML_SYS	00000134	R	03			
NML_SYS_ERR	00000B70	R	03			
NML_TES	000000A8	R	03			
NML_TPT_ENT	00000898	R	03			
NML_TRACEPOINT	00000880	R	03			
NML_TRI	0000009C	R	03			
NML_VMS	00000158	R	03			

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

PSECT name                    Allocation         PSECT No.   Attributes
----------                    ----------         ---------   ----------
. ABS .                       00000000 (     0.)  00 (   0.)  NOPIC   USR   CON   ABS   LCL NOSHR NOEXE NORD   NOWRT NOVEC BYTE
. BLANK .                     00000000 (     0.)  01 (   1.)  NOPIC   USR   CON   REL   LCL NOSHR  EXE  RD     WRT NOVEC BYTE
$ABS$                         00000000 (     0.)  02 (   2.)  NOPIC   USR   CON   ABS   LCL NOSHR  EXE  RD     WRT NOVEC BYTE
NPA$STATE                     00000B84 (  2948.)  03 (   3.)  NOPIC   USR   CON   REL   LCL NOSHR NOEXE RD   NOWRT NOVEC BYTE

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

Phase                Page faults    CPU Time        Elapseu Time
-----                -----------    --------        ------------
Initialization             32       00:00:00.12     00:00:00.42
Command processing        137       00:00:00.91     00:00:05.23
Pass 1                    635       00:00:41.54     00:01:28.34
Symbol table sort           0       00:00:01.68     00:00:02.76
Pass 2                    145       00:00:07.50     00:00:16.92
Symbol table output        24       00:00:00.20     00:00:00.73
Psect synopsis output       2       00:00:00.03     00:00:00.12
Cross-reference output      0       00:00:00.00     00:00:00.00
Assembler run totals      977       00:00:51.98     00:01:54.52
```

The working set limit was 1950 pages.
197884 bytes (387 pages) of virtual memory were used to buffer the intermediate code.
There were 70 pages of symbol table space allocated to hold 1130 non-local and 0 local symbols.
686 source lines were read in Pass 1, producing 34 object records in Pass 2.
35 pages of virtual memory were used to define 32 macros.

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

Macro library name                       Macros defined
------------------                       --------------
_$255$DUA28:[SHRLIB]NMALIBRY.MLB;1              1
_$255$DUA28:[SYS.OBJ]LIB.MLB;1                  0
_$255$DUA28:[NML.OBJ]NMLLIB.MLB;1              18
_$255$DUA28:[SYSLIB]STARLET.MLB;2               3
TOTALS (all libraries)                         22
```

1357 GETS were required to define 22 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LIS$:NMLINISTA/OBJ=OBJ$:NMLINISTA MSRC$:NMLINISTA/UPDATE=(ENH$:NMLINISTA)+LIB$:NMLLIB/LIB+EXECML$/LIB+SHRLIB$:NMALIBRY/LIB

NMLFORWRD
LIS

NMLENTRY
LIS

NMLDEFINE
LIS

NMLFILEIO
LIS

NMLLIB
LIS

NMLINISTA
LIS

NMLDISC
LIS