

NNN		NNN	MMM	MMM	LLL	
NNN		NNN	MMM	MMM	LLL	
NNN		NNN	MMM	MMM	LLL	
NNN		NNN	MMMMMM	MMMMMM	LLL	
NNN		NNN	MMMMMM	MMMMMM	LLL	
NNN		NNN	MMMMMM	MMMMMM	LLL	
NNNNNN		NNN	MMM	MMM	MMM	LLL
NNNNNN		NNN	MMM	MMM	MMM	LLL
NNNNNN		NNN	MMM	MMM	MMM	LLL
NNN	NNN	NNN	MMM		MMM	LLL
NNN	NNN	NNN	MMM		MMM	LLL
NNN	NNN	NNN	MMM		MMM	LLL
NNN		NNNNNN	MMM		MMM	LLL
NNN		NNNNNN	MMM		MMM	LLL
NNN		NNNNNN	MMM		MMM	LLL
NNN		NNN	MMM		MMM	LLL
NNN		NNN	MMM		MMM	LLL
NNN		NNN	MMM		MMM	LLL
NNN		NNN	MMM		MMM	LLLLLLLLLLLLLLLL
NNN		NNN	MMM		MMM	LLLLLLLLLLLLLLLL
NNN		NNN	MMM		MMM	LLLLLLLLLLLLLLLL

_S
Ps
NP
NP
SG
SO
NP
PA
_L

```

NN      NN      MM      MM      LL      IIIIII      NN      NN      IIIIII      SSSSSSSS      TTTTTTTTTT      AAAAAA
NN      NN      MM      MM      LL      IIIIII      NN      NN      IIIIII      SSSSSSSS      TTTTTTTTTT      AAAAAA
NN      NN      MMMM     MMMM     LL      II         NN      NN      II         SS          TT         AA         AA
NN      NN      MMMM     MMMM     LL      II         NN      NN      II         SS          TT         AA         AA
NNNN    NN      MM      MM      LL      II         NNNN    NN      II         SS          TT         AA         AA
NNNN    NN      MM      MM      LL      II         NNNN    NN      II         SS          TT         AA         AA
NN      NN      NN      MM      MM      LL      II         NN      NN      NN      II         SSSSSS     TT         AA         AA
NN      NN      NN      MM      MM      LL      II         NN      NN      NN      II         SSSSSS     TT         AA         AA
NN      NNNN    MM      MM      LL      II         NN      NN      NN      II         SS          TT         AAAAAAAAAA
NN      NNNN    MM      MM      LL      II         NN      NN      NN      II         SS          TT         AAAAAAAAAA
NN      NN      MM      MM      LL      II         NN      NN      NN      II         SS          TT         AA         AA
NN      NN      MM      MM      LL      IIIIII     NN      NN      IIIIII     SSSSSSSS     TT         AA         AA
NN      NN      MM      MM      LLLLLLLLLL     IIIIII     NN      NN      IIIIII     SSSSSSSS     TT         AA         AA
NN      NN      MM      MM      LLLLLLLLLL     IIIIII

```

```

LL      IIIIII     SSSSSSSS
LL      IIIIII     SSSSSSSS
LL      II         SS
LL      II         SS
LL      II         SS
LL      II         SS
LL      II         SSSSSS
LL      II         SSSSSS
LL      II         SS
LL      II         SS
LL      II         SS
LL      IIIIII     SSSSSSSS
LLLLLLLLLL     IIIIII     SSSSSSSS
LLLLLLLLLL     IIIIII     SSSSSSSS

```

(2)	99	Declarations
(3)	119	NML\$NPA_INIT - NICE Phase III message parse tables
(5)	261	Entity parsing
(9)	656	Common expressions

```

0000 1
0000 2      .TITLE NML$INISTA      NML Initial parsing state table
0000 3      .IDENT 'V04-000'
0000 4
0000 5 :*****
0000 6 :*
0000 7 :*  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
0000 8 :*  DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.
0000 9 :*  ALL RIGHTS RESERVED.
0000 10 :*
0000 11 :*  THIS SOFTWARE IS FURNISHED UNDER A LICENSE AND MAY BE USED AND COPIED
0000 12 :*  ONLY IN ACCORDANCE WITH THE TERMS OF SUCH LICENSE AND WITH THE
0000 13 :*  INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR ANY OTHER
0000 14 :*  COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY
0000 15 :*  OTHER PERSON. NO TITLE TO AND OWNERSHIP OF THE SOFTWARE IS HEREBY
0000 16 :*  TRANSFERRED.
0000 17 :*
0000 18 :*  THE INFORMATION IN THIS SOFTWARE IS SUBJECT TO CHANGE WITHOUT NOTICE
0000 19 :*  AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY DIGITAL EQUIPMENT
0000 20 :*  CORPORATION.
0000 21 :*
0000 22 :*  DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS
0000 23 :*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
0000 24 :*
0000 25 :*
0000 26 :*****
0000 27 :
0000 28 :
0000 29 :++
0000 30 : FACILITY: 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 problem.
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 :
```



```
0000 234 :  
0000 235 : Parse information type subexpression  
0000 236 :  
0000 237 :  
0000 238 :  
0000 239 :  
0000 240 :  
0000 241 :  
0000 242 :  
0000 243 :  
0000 244 :  
0000 245 :  
0000 246 :  
0000 247 :  
0000 248 :  
0000 249 :  
0000 250 :  
0000 251 :  
0000 252 :  
0000 253 :  
0000 254 :  
0000 255 :  
0000 256 :  
0000 257 :  
0000 258 :  
0000 259 :
```

FIELD\$ NML_CHK_INFO_SUB ; Match the information type
\$EXTZV <NMASC_OPINF_SUM, - ; Summary
NMASV_OPT_INF, -
NMASS_OPT_INF, -
>,NPAS_EXIT,NML\$PRSINF
\$EXTZV <NMASC_OPINF_STA, - ; Status
NMASV_OPT_INF, -
NMASS_OPT_INF, -
>,NPAS_EXIT,NML\$PRSINF
\$EXTZV <NMASC_OPINF_CHA, - ; Characteristics
NMASV_OPT_INF, -
NMASS_OPT_INF, -
>,NPAS_EXIT,NML\$PRSINF
\$EXTZV <NMASC_OPINF_COU, - ; Counters
NMASV_OPT_INF, -
NMASS_OPT_INF, -
>,NPAS_EXIT,NML\$PRSINF
\$EXTZV <NMASC_OPINF_EVE, - ; Events
NMASV_OPT_INF, -
NMASS_OPT_INF, -
>,NPAS_EXIT,NML\$PRSINF
\$NULL ,NML_FUN_ERR ; Unrecognized option

```

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      FIELDS$ NML_CHKENT_SUB
0000 266      $EXTZV <NMASC_ENT_NOD, - ; Node
0000 267              NMA$V_OPT_ENT, -
0000 268              NMA$S_OPT_ENT, -
0000 269              NPAS_ADVANCE>, NML_NOD_ENT,NML$PRSENT
0000 270      $EXTZV <NMASC_ENT_LIN, - ; Line
0000 271              NMA$V_OPT_ENT, -
0000 272              NMA$S_OPT_ENT, -
0000 273              NPAS_ADVANCE>, NML_LIN_ENTi,NML$PRSENT
0000 274      $EXTZV <NMASC_ENT_LOG, - ; Logging
0000 275              NMA$V_OPT_ENT, -
0000 276              NMA$S_OPT_ENT, -
0000 277              NPAS_ADVANCE>, NML_LOG_ENT,NML$PRSENT
0000 278      $EXTZV <NMASC_ENT_CIR, - ; Circuit
0000 279              NMA$V_OPT_ENT, -
0000 280              NMA$S_OPT_ENT, -
0000 281              NPAS_ADVANCE>, NML_CIRCUIT_ENT,NML$PRSENT
0000 282      $EXTZV <NMASC_ENT_MOD, - ; Module
0000 283              NMA$V_OPT_ENT, -
0000 284              NMA$S_OPT_ENT, -
0000 285              NPAS_ADVANCE>, NML_MODULE_ENT,NML$PRSENT
0000 286      $EXTZV <NMASC_ENT_ARE, - ; Area
0000 287              NMA$V_OPT_ENT, -
0000 288              NMA$S_OPT_ENT, -
0000 289              NPAS_ADVANCE>, NML_AREA_ENT,NML$PRSENT
0000 290      $NULL ,NML_FUN_ERR ; Unrecognized function
0000 291
0000 292
0000 293      ::
0000 294      :: Parse VMS specific entities.
0000 295      ::
0000 296      FIELDS$ NML_CHK_VMS_ENT_SUB
0000 297      $EXTZV <NMASC_SENT_OBJ, - ; Object
0000 298              NMA$V_OPT_ENT, -
0000 299              NMA$S_OPT_ENT, -
0000 300              NPAS_ADVANCE>, NML_OBJ_ENT,NML$PRSENT
0000 301      $EXTZV <NMASC_SENT_LNK, - ; Link
0000 302              NMA$V_OPT_ENT, -
0000 303              NMA$S_OPT_ENT, -
0000 304              NPAS_ADVANCE>, NML_LNK_ENT,NML$PRSENT
0000 305      $NULL ,NML_FUN_ERR ; Unrecognized option
0000 306
0000 307      ::
0000 308      :: Parse a node entity
0000 309      ::
0000 310      FIELDS$ NML_NOD_ENT ; Node-id entity
0000 311      $EOM ,NMC_FOR_ERR ; Message format error
0000 312      $LOOK 0,NMC_NOD_NUM ; 3 bytes if node number
0000 313      $BYTE NMASC_ENT_LOO,NML_CHKEOM,NML$PRSIDLEQ, -
0000 314              NML$C_LOOPNODE,NML$GL,NML_ENTIY
0000 315      $BYTE NMASC_ENT_KNO,NML_NODE_CIRC_QOAL,NML$PRSIDLEQ, -
0000 316              NML$C_NODE,NML$GL,NML_ENTIY
0000 317      $BYTE NMASC_ENT_ACT,NML_NODE_CIRC_QOAL,NML$PRSIDLEQ, -

```

```

0000 318          NML$C_NODE,NML$GL_NML_ENTITY
0000 319          $BYTE  NMA$C_ENT_ADJ,NML_NODE_CIRC_QUAL,NML$PR$IDLEQ, -
0000 320          NML$C_ADJACENT_NODE,NML$GL_NML_ENTITY
0000 321          $IMAGE 6,NML_NODE_CIRC_QUAL,NML$PR$NODNAM,NML$C_NODEBYNAME, -; n bytes (nam
0000 322          NML$GL_NML_ENTITY
0000 323          $ERROR  NML$STS_IDE,,NML$PR$IDERR,,NMA$C_ENT_NOD ; Illegal node name
0000 324
0000 325          FIELDS  NML_NOD_NUM          ; Node-id number
0000 326          $$BEXP  NML_NOD_EXE,NP$S_EXIT,NML$PR$ID
0000 327          $MATCH 3,NML_NODE_CIRC_QUAL, -          ; Skip 2 bytes (node number)
0000 328          NML$PR$NODE_NUM_ENTITY, -
0000 329          NML$C_NODE,NML$GL_NML_ENTITY
0000 330          $NULL  ,NML_FOR_ERR          ; Must be at least 2 bytes
0000 331
0000 332          FIELDS  NML_NOD_EXE          ; Zero address is executor node
0000 333          $MATCH  1
0000 334          FIELDS
0000 335          $WORD  0,NP$S_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          FIELDS  NML_NODE_CIRC_QUAL
0000 342          $EOM    ,NP$S_EXIT          ; No qualifier is present
0000 343          $LOOK  ,NP$S_EXIT,NML$PR$NOREAD ; Get out if not a read.
0000 344          $WORD  NMA$C_PCNO_DLI,NML_CHECK_QUAL
0000 345          $ERROR  NML$STS_IDE,,NML$PR$IDERR,,NMA$C_ENT_NOD ; Illegal node name
0000 346
0000 347          FIELDS  NML_CHECK_QUAL
0000 348          $EOM    ,NML_FOR_ERR
0000 349          $MATCH  1,NP$S_EXIT,NML$PR$IDLEQ ; KNOWN circuits is the
0000 350          ; default.
0000 351          $NULL  ,NML_CIRC_QUAL,,NML$M_PR$QUALIFIER, - ; Flag qualifier
0000 352          NML$GL_PR$FLGS ; present.
0000 353          FIELDS  NML_CIRC_QUAL ; Parse circuit qualifier
0000 354          $IMAGE 16,NP$S_EXIT,NML$PR$IDN,,CPT$GK_PCNO_DLI
0000 355          $ERROR  NML$STS_IDE,,NML$PR$IDERR,,NMA$C_ENT_CIR; Illegal circuit name
0000 356
0000 357  :
0000 358  : Parse a line entity
0000 359  :
0000 360          FIELDS  NML_LIN_ENT          ; Line-id entity
0000 361          $EOM    ,NML_FOR_ERR          ; Message format error
0000 362          $MATCH  1,NML_LINE,NML$PR$IDLEQ ; 1 byte if zero or negative
0000 363          $IMAGE 16,NML_LINE,NML$PR$DEVICE ; n bytes (line name)
0000 364          $ERROR  NML$STS_IDE,,NML$PR$IDERR,,NMA$C_ENT_LIN ; Illegal line-id
0000 365
0000 366          FIELDS  NML_LINE          ; Set internal NML entity type
0000 367          $NULL  ,NP$S_EXIT,,NML$C_LINE,NML$GL_NML_ENTITY
0000 368
0000 369  :
0000 370  : Parse a logging entity
0000 371  :
0000 372          FIELDS  NML_LOG_ENT          ; Logging entity
0000 373          $MATCH  1,NML_LOG_SIN,NML$PR$ID, - ; 1 byte, always.
0000 374          NML$C_LOGGING,NML$GL_NML_ENTITY ; Set internal NML entity type.

```

```

0000 375      $NULL      ,NML_FOR_ERR      ; Message format error
0000 376
0000 377      FIELDS$    NML_LOG_SIN      ; If READ then sink node
0000 378      $NULL      ,NPAS_EXIT,NML$PRSLOGSIN ; must be specified
0000 379      $EOM       ,NPAS_EXIT,NML$PRSEXESNK ; Null is executor node
0000 380      $WORD      NMA$C_PCLO_SIN,NML_LOG_NID
0000 381
0000 382      FIELDS$    NML_LOG_NID
0000 383      $$BEXP     NML_LOG_NIDSUB,NML_CHKEOM,,NML$M_PRS_SKNOD,NML$GL_PRS_FLGS
0000 384      $ERROR    NML$STS_IDE,,NML$PRSIDERR,,,NMA$C_ENT_NOD ; Illegal node id
0000 385
0000 386      FIELDS$    NML_LOG_NIDSUB
0000 387      $BYTE      NMA$C_ENT_KNO,NPAS_EXIT,,NML$M_PRS_KNOSNK,NML$GL_PRS_FLGS ; Known si
0000 388      $LOOK      0,NML_LOG_NODNUM
0000 389      $IMAGE     6,NPAS_EXIT,NML$PRSSNKNA
0000 390      $NULL      ,NML_FOR_ERR      ; Message format error
0000 391
0000 392      FIELDS$    NML_LOG_NODNUM
0000 393      $MATCH     3,NPAS_EXIT,NML$PRSSNKNA
0000 394
0000 395      :
0000 396      : Parse a circuit entity
0000 397      :
0000 398      FIELDS$    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$PR$DEVICE, - ; 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      FIELDS$    NML_CIRCUIT      ; Set internal NML entity type
0000 407      $EOM       ,NPAS_EXIT      ; No Adjacency qualifier - exit
0000 408      $WORD      NMA$C_PCCI_ADJ,NML_CIRC_ADJACENCY
0000 409      $NULL      ,NPAS_EXIT      ; Check for other parameters
0000 410      ; later.
0000 411
0000 412      FIELDS$    NML_CIRC_ADJACENCY
0000 413      $EOM       ,NML_FOR_ERR
0000 414      $BYTE      NMA$C_ENT_KNO,NPAS_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      FIELDS$    NML_PRS_ADJ
0000 418      $LOOK      0,NML_ADJ_NOD_NUM ; 3 bytes if node number
0000 419      $IMAGE     16,NPAS_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      FIELDS$    NML_ADJ_NOD_NUM ; Adjacent node-id is a number
0000 424      $$BEXP     NML_ADJ_EXE,NPAS_EXIT
0000 425      $MATCH     3,NPAS_EXIT,NML$PRS_NODE_NUM,... - ; Save adjacent node number.
0000 426      CPT$GK_PCCI_ADJ
0000 427
0000 428      FIELDS$    NML_ADJ_EXE ; Zero address is executor node
0000 429      $MATCH     1
0000 430      FIELDS$
0000 431      $WORD      0,NML_NOD_ERR

```

NML\$INISTA
V04-000

NML Initial parsing state table
Entity parsing

J 15

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

Page 10
(5)

0000 432
0000 433
0000 434

FIELD\$ NML_NOD_ERR
\$ERROR NML\$_STS_IDE,,NML\$PRSIDERR,,NMASC_ENT_NOD; Illegal Adjacency id

```

0000 436 :
0000 437 : Parse a module entity
0000 438 :
0000 439 :   FIELDS$ 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$PRSIDERR,,NML$C_ENT_MOD; Illegal module-id
0000 450 :
0000 451 :
0000 452 : Parse X25 Access module - Network qualifier is mandatory
0000 453 :
0000 454 :   FIELDS$ NML_MOD_X25_ACCESS
0000 455 :   $EOM ,NMC_INV_DEST ; No network ID in command
0000 456 :   $WORD NML$C_PCXA_NET,NML_X25_ACCESS_NET
0000 457 :   $NULL ,NML_INV_DEST
0000 458 :
0000 459 :   FIELDS$ 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$GL_NML_ENTITY
0000 464 :
0000 465 :   FIELDS$ NML_INV_DEST ; Illegal destination id
0000 466 :   $ERROR NML$STS_IDE,,NML$PRSIDERR,,NML$C_ENT_MOD
0000 467 :
0000 468 :
0000 469 : Parse for X25 Protocol module sub entity - DTE or group
0000 470 :
0000 471 :   FIELDS$ NML_MOD_PROTOCOL
0000 472 :   $EOM ,NMC_PROTCL_NET ; No sub entity. Use network.
0000 473 :   $WORD NML$C_PCXP_DTE,NML_PROTCL_DTE ; DTE
0000 474 :   $WORD NML$C_PCXP_GRP,NML_PROTCL_GRP ; Group
0000 475 :   $NULL ,NML_PROTCL_NET ; Assume network
0000 476 :
0000 477 :   FIELDS$ NML_PROTCL_NET ; Network sub entity.
0000 478 :   $NULL ,NML$C_EXIT,NML$PRS_ACTIVE_NET, - ; Set internal NML entity type.
0000 479 : ; NML$C_PROT_NET, - ; and active network
0000 480 : ; NML$GL_NML_ENTITY ; entity.
0000 481 :
0000 482 :
0000 483 :   FIELDS$ 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$GL_NML_ENTITY
0000 487 :
0000 488 :
0000 489 :   FIELDS$ NML_PROTCL_GRP ; Check Group ID
0000 490 :   $EOM ,NMC_FOR_ERR ; No destination ID, message
0000 491 : ; format error
0000 492 :   $$BEXP NML_MOD_ENT,NML_CHK_DTE,, - ; Set internal NML entity type.

```



```

0000 550 :
0000 551 : Parse X29 Server module
0000 552 :
0000 553 :
0000 554 :   FIELDS  NML_MOD X29_SERVER
0000 555 :   SEOM    ,NPAS_EXIT,,NML$C X29 SERV, - ; No destination sub entity
0000 556 :           NML$GL_NML_ENTITY
0000 557 :   SWORD  NMASC_PCXS_DST,NML_X29-SERV_DEST; Sub entity is destination.
0000 558 :   $NULL  ,NPAS_EXIT,,NML$C X29 SERV,- ; No destination sub entity.
0000 559 :           NML$GL_NML_ENTITY; Parameters follow.
0000 560 :
0000 561 :   FIELDS  NML_X29_SERV_DEST ; Sub entity is Destination.
0000 562 :   SEOM    ,NMC_FOR_ERR ; No destination ID, message
0000 563 :           ; format error
0000 564 :   $NULL  ,NML_MOD ENT,,NML$C X29 SERV_DEST, -; Set internal NML entity
0000 565 :           NML$GL_NML_ENTITY ; type.
0000 566 :
0000 567 :
0000 568 : Parse NI configurator module
0000 569 :
0000 570 :   FIELDS  NML_MOD NI_CONFIG
0000 571 :   SEOM    ,NPAS_EXIT,,NML$C NI CONFIG, - ; No circuit qualifier - exit
0000 572 :           NML$GL_NMC_ENTITY
0000 573 :   SWORD  NMASC_PCCN_CIR,NML_NI_CONFIG_CIRC,, -
0000 574 :           NMC$C NI_CONFIG,NML$GL_NML_ENTITY
0000 575 :   $NULL  ,NPAS_EXIT,,NML$C NI CONFIG, - ; Check for other parameters
0000 576 :           NML$GL_NMC_ENTITY ; later.
0000 577 :
0000 578 :   FIELDS  NML_NI_CONFIG_CIRC
0000 579 :   SEOM    ,NMC_FOR_ERR
0000 580 :   $NEXT
0000 581 :
0000 582 :
0000 583 :   FIELDS  NML_MOD ENT ; Finish processing module entity.
0000 584 :   $MATCH 1,NPAS_EXIT,NML$PRSIDLEQ ; 1 byte if zero or negative.
0000 585 :   $IMAGE 16,NPAS_EXIT,NML$PRSIDN ; 16 bytes of ID
0000 586 :   $ERROR NML$STS_IDE,,NML$PRSIDERR,,NMASC_ENT_MOD; Illegal module id

```

```
0000 588 :  
0000 589 : Parse an area entity  
0000 590 :  
0000 591 :   FIELDS  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 :   $BYTE   NMASC_ENT,RNO,NPAS_EXIT,NML$PRSIDLEQ,-  
0000 595 :           NML$C_AREA,NML$GL_NML_ENTITY  
0000 596 :   $BYTE   NMASC_ENT,ACT,NPAS_EXIT,NML$PRSIDLEQ,-  
0000 597 :           NML$C_AREA,NML$GL_NML_ENTITY  
0000 598 :   $ERROR  NML$STS_IDE,,NML$PRSIDERR,,NMASC_ENT_ARE; Illegal area ID  
0000 599 :  
0000 600 :   FIELDS  NML_AREA_NUM  
0000 601 :   $MATCH  2,NPAS_EXIT,NML$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
```

B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V
W
X
Y
Z
[
\
]
^
_
`
a
b
c
d
e
f
g
h
i
j
k
l
m
n
o
p
q
r
s
t
u
v
w
x
y
z
{|}~

```

0000 605 :
0000 606 : Parse an object entity (VMS-specific)
0000 607 :
0000 608 :   FIELDS  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)
0000 612 :   $ERROR  NML$_STS_IDE,,NML$PRSIDERR,,NMAC$_SENT_OBJ ; Illegal object name
0000 613 :
0000 614 :   FIELDS  NML_OBJECT           ; Set internal NML entity type
0000 615 :   $NULL   ,NPAS_EXIT,,NML$_OBJECT,NML$GL_NML_ENTITY
0000 616 :
0000 617 :
0000 618 : Parse a link entity (VMS-specific)
0000 619 :
0000 620 :   FIELDS  NML_LNK_ENT           ; Link entity
0000 621 :   $EOM    ,NMC_FOR_ERR         ; Message format error
0000 622 :   $NULL   ,NML_LINK,,NML$_LINKS,NML$GL_NML_ENTITY
0000 623 :
0000 624 :   FIELDS  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 :   FIELDS  NML_LNK_NUM           ; Link address
0000 629 :   $MATCH  3,NML_LNK_NOD,NML$PRSID ; Must be byte of 0 and 2 bytes
0000 630 :   ;                               of link number.
0000 631 :   $ERROR  NML$_STS_IDE,,NML$PRSIDERR,,NMAC$_SENT_LNK ; Illegal link address
0000 632 :
0000 633 :   FIELDS  NML_LNK_NOD
0000 634 :   $EOM    ,NPAS_EXIT
0000 635 :   $WORD   NMAC$_PCLK_NID,NML_LNK_NID,, - ; Flag node qualifier
0000 636 :   ;                               NML$M_PRS_QUALIFIER,NML$GL_PRS_FLGS
0000 637 :   $NULL   ,NML_FOR_ERR
0000 638 :
0000 639 :   FIELDS  NML_LNK_NID
0000 640 :   $EOM    ,NMC_FOR_ERR
0000 641 :   $$BEXP  NML_NODEID_SUB,NML_CHKEOM
0000 642 :   $ERROR  NML$_STS_IDE,,NML$PRSIDERR,,NMAC$_ENT_NOD ; Illegal node id
0000 643 :
0000 644 :
0000 645 :   FIELDS  NML_NODEID_SUB
0000 646 :   $LOOK   0,NML_NODNOM
0000 647 :   $IMAGE  6,NPAS_EXIT,NML$PRSIDN,, - ; Qualifier is a node name.
0000 648 :   ;                               CPT$GK_PCLK_NID
0000 649 :
0000 650 :   FIELDS  NML_NODNUM
0000 651 :   $MATCH  3,NPAS_EXIT,NML$PRS_NODE_NUM,, - ; Qualifier is a node address.
0000 652 :   ;                               CPT$GK_PCLK_PNS
0000 653 :
0000 654 :   FIELDS

```

```

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

```

NML\$INISTA
Symbol table

NML Initial parsing state table D 16

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

CPTSGK_PCCI_ADJ	*****	X	03	NMLSC_LOGGING	=	00000001		
CPTSGK_PCCI_AJS	*****	X	03	NMLSC_LOOPNODE	=	00000005		
CPTSGK_PCLK_NID	*****	X	03	NMLSC_NI_CONFIG	=	00000017		
CPTSGK_PCLK_PNS	*****	X	03	NMLSC_NODE	=	00000003		
CPTSGK_PCNO_DLI	*****	X	03	NMLSC_NODEBYNAME	=	00000004		
CPTSGK_PCXP_GDT	*****	X	03	NMLSC_OBJECT	=	00000008		
FLGSS\$	=			NMLSC_PROTOCOL	=	00000019		
NMASC_ENT_ACT	=			NMLSC_PROT_DTE	=	0000000F		
NMASC_ENT_ADJ	=			NMLSC_PROT_GRP	=	00000010		
NMASC_ENT_ARE	=			NMLSC_PROT_NET	=	0000000E		
NMASC_ENT_CIR	=			NMLSC_TRACE	=	00000013		
NMASC_ENT_KNO	=			NMLSC_TRACEPNT	=	00000014		
NMASC_ENT_LIN	=			NMLSC_X25_ACCESS	=	0000000D		
NMASC_ENT_LOG	=			NMLSC_X25_SERV	=	00000011		
NMASC_ENT_LOO	=			NMLSC_X25_SERV_DEST	=	00000012		
NMASC_ENT_MOD	=			NMLSC_X29_SERV	=	00000015		
NMASC_ENT_NOD	=			NMLSC_X29_SERV_DEST	=	00000016		
NMASC_FNC_CHA	=			NMLSGE_NML_ENTITY	*****		X	03
NMASC_FNC_DUM	=			NML\$GL_PRS_FLGS	*****		X	03
NMASC_FNC_LOA	=			NMLSM_PRS_RNOSNK	=	00000400		
NMASC_FNC_REA	=			NMLSM_PRS_QUALIFIER	=	00000004		
NMASC_FNC_SYS	=			NMLSM_PRS_SKNOD	=	00000200		
NMASC_FNC_TES	=			NMLSM_PRS_VMS	=	00000001		
NMASC_FNC_TRI	=			NMLSNPA_INIT	00000000		RG	03
NMASC_FNC_ZER	=			NML\$PRSDEVICE	*****		X	03
NMASC_OPINF_CHA	=			NML\$PRESENT	*****		X	03
NMASC_OPINF_COU	=			NML\$PRSERR1	*****		X	03
NMASC_OPINF_EVE	=			NML\$PRSEXESNK	*****		X	03
NMASC_OPINF_STA	=			NML\$PRSFNC	*****		X	03
NMASC_OPINF_SUM	=			NML\$PRSID	*****		X	03
NMASC_PCCI_ADJ	=			NML\$PRSIDERR	*****		X	03
NMASC_PCCN_CIR	=			NML\$PRSIDLEQ	*****		X	03
NMASC_PCLK_NID	=			NML\$PRSIDN	*****		X	03
NMASC_PCLO_SIN	=			NML\$PR\$INF	*****		X	03
NMASC_PCNO_DLI	=			NML\$PR\$LOGSIN	*****		X	03
NMASC_PCXA_NET	=			NML\$PR\$SNODNAM	*****		X	03
NMASC_PCXP_DTE	=			NML\$PR\$SOPT	*****		X	03
NMASC_PCXP_GDT	=			NML\$PR\$SQUALLEQ	*****		X	03
NMASC_PCXP_GRP	=			NML\$PR\$SSKNAD	*****		X	03
NMASC_PCXS_DST	=			NML\$PR\$SSKNNA	*****		X	03
NMASC_PCXT_TPT	=			NML\$PR\$ACTIVE_NET	*****		X	03
NMASC_SENT_LNK	=			NML\$PR\$MODULE	*****		X	03
NMASC_SENT_OBJ	=			NML\$PR\$NODE_NUM	*****		X	03
NMASC_STS_FUN	=			NML\$PR\$NODE_NUM_ENTITY	*****		X	03
NMASC_STS_INV	=			NML\$PR\$NOREAD	*****		X	03
NMASC_STS_SYS	=			NML\$STS_FUN	=	FFFFFFFE		
NMASC_SYS_VMS	=			NML\$STS_IDE	=	FFFFFFEE		
NMASS_OPT_ENT	=			NML\$STS_INV	=	FFFFFFFC		
NMASS_OPT_INF	=			NML\$STS_SYS	=	FFFFFFCC		
NMASV_OPT_ENT	=			NML_ADJ_EXE	00000600		R	03
NMASV_OPT_INF	=			NML_ADJ_NOD_NUM	000005E0		R	03
NMLSC_ADJACENT_NODE	=			NML_AREA_ENT	00000980		R	03
NMLSC_AREA	=			NML_AREA_NUM	000009D8		R	03
NMLSC_CIRCUIT	=			NML_CHA	000000B4		R	03
NMLSC_EXECUTOR	=			NML_CHECK_QUAL	000003D0		R	03
NMLSC_LINE	=			NML_CHKENT_SUB	00000220		R	03
NMLSC_LINKS	=			NML_CHK\$EOM	00000B38		R	03

NML\$INISTA
Symbol table

NML Initial parsing state table E 16

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

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	NPASM_ACTION	= 00000004		
NML_CIRC_QUAL	000003F8	R	03	NPASM_EXT	= 00000001		
NML_DTE_QUAL	000007E8	R	03	NPASM_LAST	= 00008000		
NML_DUM	00000090	R	03	NPASM_MASK	= 00000010		
NML_FOR_ERR	00000B48	R	03	NPASM_MSKADR	= 00000020		
NML_FUN_ERR	00000B5C	R	03	NPASM_OFFSET	= 00000040		
NML_GRP_DTE_ID	000007C0	R	03	NPASM_PARAM	= 00000002		
NML_INV_DEST	00000700	R	03	NPASM_STATE	= 00000008		
NML_LINE	0000045C	R	03	NPAS_ADVANCE	= 00000001		
NML_LINK	00000A5C	R	03	NPAS_BYTE	= 00000003		
NML_LIN_ENT	00000420	R	03	NPAS_EOM	= 00000004		
NML_LNK_ENT	00000A44	R	03	NPAS_ERROR	= 00000007		
NML_LNK_NID	00000AC0	R	03	NPAS_EXIT	= 00000000		
NML_LNK_NOD	00000A9C	R	03	NPAS_EXTZV	= 0000000A		
NML_LNK_NUM	00000A78	R	03	NPAS_FAIL	= FFFFFFFF		
NML_LOG_ENT	00000084	R	03	NPAS_IMAGE	= 00000000		
NML_LOG_NID	0000046C	R	03	NPAS_LOOK	= 00000009		
NML_LOG_NIDSUB	000004B0	R	03	NPAS_MASK	= 00000002		
NML_LOG_NODNUM	000004D8	R	03	NPAS_MATCH	= 00000008		
NML_LOG_NUM	00000510	R	03	NPAS_NULL	= 00000005		
NML_LOG_SIN	0000048C	R	03	NPAS_SBEXP	= 00000006		
NML_MODULE_ENT	00000628	R	03	NPAS_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_NODNOM	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
\$ABSS	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	Elapsed 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

