J 6

```
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  LLLLLLLLLLLLLLL
NNN         NNN  MMM         MMM  LLLLLLLLLLLLLLL
NNN         NNN  MMM         MMM  LLLLLLLLLLLLLLL
```

FILEID**NMLREAD

```
NN      NN  MM      MM  LL          RRRRRRRR    EEEEEEEEEE    AAAAAA    DDDDDDDD
NN      NN  MM      MM  LL          RRRRRRRR    EEEEEEEEEE    AAAAAA    DDDDDDDD
NN      NN  MMMM  MMMM  LL          RR      RR  EE          AA      AA  DD      DD
NN      NN  MMMM  MMMM  LL          RR      RR  EE          AA      AA  DD      DD
NNNN    NN  MM  MM  MM  LL          RR      RR  EE          AA      AA  DD      DD
NNNN    NN  MM  MM  MM  LL          RR      RR  EE          AA      AA  DD      DD
NN  NN  NN  MM      MM  LL          RRRRRRRR    EEEEEEEE    AA      AA  DD      DD
NN  NN  NN  MM      MM  LL          RRRRRRRR    EEEEEEEE    AA      AA  DD      DD
NN    NNNN  MM      MM  LL          RR  RR      EE          AAAAAAAAAA  DD      DD
NN    NNNN  MM      MM  LL          RR  RR      EE          AAAAAAAAAA  DD      DD
NN      NN  MM      MM  LL          RR    RR    EE          AA      AA  DD      DD    ....
NN      NN  MM      MM  LL          RR    RR    EE          AA      AA  DD      DD    ....
NN      NN  MM      MM  LLLLLLLLLL  RR      RR  EEEEEEEEEE  AA      AA  DDDDDDDD      ....
NN      NN  MM      MM  LLLLLLLLLL  RR      RR  EEEEEEEEEE  AA      AA  DDDDDDDD      ....

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

```
0 %TITLE 'NML Read information module'
0 MODULE NML$READ (
0                 LANGUAGE (BLISS32),
0                 ADDRESSING_MODE (NONEXTERNAL=GENERAL),
0                 ADDRESSING_MODE (EXTERNAL=GENERAL),
0                 IDENT = 'V04-000'
0                 ) =
1 BEGIN
1 !
1 !****************************************************************************
1 !*                                                                          *
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1 !*                                                                          *
1 !*                                                                          *
1 !****************************************************************************
1 !
1
1 !++
1 ! FACILITY:  DECnet-VAX Network Management Listener
1 !
1 ! ABSTRACT:
1 !
1 !     These routines dispatch NICE READ function requests to the entity
1 !     processing routine.
1 !
1 ! ENVIRONMENT:  VAX/VMS Operating System
1 !
1 ! AUTHOR:  Kathy Perko
1 !
1 ! CREATION DATE:  30-June-1982
1 !
1 ! MODIFIED BY:
1 !
1 !        V03-007 MKP0007          Kathy Perko              7-Jan-1984
1 !                Add X25 Access Module entity.
1 !
1 !        V03-006 MKP0006          Kathy Perko              4-Aug-1983
1 !                Enhance node permanent database to use more ISAM keys - to
1 !                speed it up.
1 !
1 !        V03-005 MKP0005          Kathy Perko              28-April-1983
```

```
1 !              Add Adjacent service circuit database.
1 !
1 !     V03-004 MKP0004         Kathy Perko             17-Jan-1983
1 !             Add support for the NI Configurator Module.
1 !
1 !     V03-003 MKP0003         Kathy Perko             14-Nov-1982
1 !             Add circuit qualifier to SHOW KNOWN and ACTIVE NODES.
1 !
1 !     V03-002 MKP0002         Kathy Perko             8-Nov-1982
1 !             Add area entity.
1 !
1 !     V03-001 MKP0001         Kathy Perko             5-Oct-1982
1 !             Add show for adjacent nodes, and for circuits adjacent nodes.
1 !--
1
```

```
1 %SBTTL 'Declarations'
1
1 !
1 ! TABLE OF CONTENTS:
1 !
1
1 FORWARD ROUTINE
1         NML$READ               : NOVALUE,
1         NML_READ               : NOVALUE,
1         NML_READ_LOGGING       : NOVALUE,
1         NML_READ_NODE          : NOVALUE,
1         NML_READ_EXECUTOR      : NOVALUE,
1         NML_READ_NETWORK       : NOVALUE,
1         NML_READ_AREA          : NOVALUE,
1         NML_SHOW_LINKS         : NOVALUE,
1         NML_READ_PLURAL        : NOVALUE;
1
1 !
1 ! INCLUDE FILES:
1 !
1
1 LIBRARY 'LIB$:NMLLIB.L32';
1 LIBRARY 'SHRLIB$:NMALIBRY.L32';
1 LIBRARY 'SYS$LIBRARY:STARLET.L32';
1
1 !
1 ! EXTERNAL REFERENCES:
1 !
1
1 $NML_EXTDEF;
1
1 EXTERNAL ROUTINE
1     LIB$ESTABLISH : ADDRESSING_MODE (GENERAL),
1     LIB$REVERT    : ADDRESSING_MODE (GENERAL),
1     NML$OPENFILE,
1     NML$BLD_REPLY,
1     NML$MAINHANDLER,
1     NML$ERROR_1,
1     NML$ERROR_2,
1     NML$LISTENTITY,
1     NML$LIST_KNOWN_NODES,
1     NML$LIST_TYPE_NODES,
1     NML$LISTKNOWN,
1     NML$READACTLOG,
1     NML$READKNOLOG,
1     NML$READLOGGING,
1     NML$SEND,
1     NML$SHOWMULTIPLE,
1     NML$SHOW_MULTIPLE_NODES,
1     NML$SHOW_KNOWN_LOOP,
1     NML$SHOWENTITY,
1     NML$SHOW_CIRCUIT,
1     NML$SHOWNODEBYNAME,
1     NML$SHOWEXECUTOR,
1     NML$CALL_NI_CONFIG;
```

```
!
! Macro to build dispatch table for an entity.
!
MACRO $TAB (TAB,
    DISPATCH_RTN,
    SHOW_RTN,
    SHOW_W_QUAL_RTN,
    SHOW_KNO_RTN,
    SHOW_KNO_W_QUAL_RTN,
    SHOW_ACT_RTN,
    LIST_RTN,
    LIST_W_QUAL_RTN,
    LIST_KNO_RTN,
    LIST_KNO_W_QUAL_RTN) =

        OWN TAB : BBLOCK [%LENGTH * 4] INITIAL (
        $PIC (DISPATCH_RTN, TAB),
        $PIC (SHOW_RTN,TAB),
        $PIC (SHOW_W_QUAL_RTN,TAB),
        $PIC (SHOW_KNO_RTN,TAB),
        $PIC (SHOW_KNO_W_QUAL_RTN,TAB),
        $PIC (SHOW_ACT_RTN, TAB),
        $PIC (LIST_RTN,TAB),
        $PIC (LIST_W_QUAL_RTN,TAB),
        $PIC (LIST_KNO_RTN,TAB),
        $PIC (LIST_KNO_W_QUAL_RTN,TAB),
        0)  !There is never a LIST ACTIVE command.
                %,

    $PIC (ADDR,TAB) =
                %IF %IDENTICAL (ADDR, 0)
                %THEN   LONG (0)
                %ELSE LONG (%NAME (ADDR) - %NAME (TAB))
                %FI
                %;


!
! Dispatch tables.  There is one table for each internal NML entity (NML
! internal entities are broken down more that NICE entities).  The table
! specifies the following information about the entity:
!       The address of the dispatch routine in this module for the entity.
!               The dispatch routines vary depending on the different
!               formats the entities can have.
!       The addresses of the routines which perform the requested read:
!               - Show single entity
!               - Show single entity with specified qualifier
!               - Show known entities
!               - Show known entities with specified qualifier
!               - List single entity
!               - List single entity with specified qualifier
!               - List known entities
!               - List known entities with specified qualifier
!               - Show active entities
!
!
$TAB (LINE_TAB,                                 ! NML$C_LINE
```

```
                NML_READ,
                NML$SHOWENTITY,         0,      NML$SHOWMULTIPLE,       0,
                NML$SHOWMULTIPLE,
                NML$LISTENTITY,         0,      NML$LISTKNOWN,          0);

$TAB (LOGGING_TAB,                              ! NML$C_LOGGING
                NML_READ_LOGGING,
                NML$READLOGGING,        0,      NML$READKNOLOG,         0,
                NML$READACTLOG,
                NML$READLOGGING,        0,      NML$READKNOLOG,         0);

BIND SINK_TAB = UPLIT (0);

$TAB (NODE_TAB,                                 ! NML$C_NODE
                NML_READ_NODE,
                NML$SHOWENTITY,         0,      NML$SHOW_MULTIPLE_NODES,
                                                        NML$SHOW_MULTIPLE_NODES,
                NML$SHOW_MULTIPLE_NODES,
                NML$LISTENTITY,         0,      NML$LIST_KNOWN_NODES,   0);

$TAB (NODEBYNAME_TAB,                           ! NML$C_NODEBYNAME
                NML_READ_NODE,
                NML$SHOWNODEBYNAME,     0,      NML$SHOW_MULTIPLE_NODES,0,
                NML$SHOW_MULTIPLE_NODES,
                NML$LISTENTITY,         0,      NML$LIST_KNOWN_NODES,   0);

$TAB (LOOPNODE_TAB,                             ! NML$C_LOOPNODE
                NML_READ_NODE,
                0,                      0,      NML$SHOW_KNOWN_LOOP,    0,
                0,
                0,                      0,      NML$LIST_TYPE_NODES,    0);

$TAB (ADJACENT_TAB,                             ! NML$C_ADJACENT_NODE
                NML_READ_NODE,
                0,                      0,      NML$SHOWMULTIPLE,  NML$SHOWMULTIPLE,
                0,
                0,                      0,      0,                 0);

$TAB (EXECUTOR_TAB,                             ! NML$C_EXECUTOR
                NML_READ_EXECUTOR,
                NML$SHOWEXECUTOR,       0,      0,      0,
                0,
                NML$LISTENTITY,         0,      0,      0);

$TAB (OBJECT_TAB,                               ! NML$C_OBJECT
                NML_READ,
                NML$SHOWENTITY,         0,      NML$SHOWMULTIPLE,       0,
                NML$SHOWMULTIPLE,
                NML$LISTENTITY,         0,      NML$LISTKNOWN,          0);

$TAB (CIRCUIT_TAB,                              ! NML$C_CIRCUIT
                NML_READ,
                NML$SHOW_CIRCUIT, NML$SHOW_CIRCUIT, NML$SHOWMULTIPLE, NML$SHOWMULTIPLE,
                NML$SHOWMULTIPLE,
                NML$LISTENTITY,   0,                NML$LISTKNOWN,    0);

BIND CIRCUIT_ADJACENT_TAB = UPLIT (0);
```

```
BIND CIRCUIT_ADJ_SRV_TAB = UPLIT (0);

$TAB (AREA_TAB,                         ! NML$C_AREA
        NML_READ_AREA,
        NML$SHOWENTITY,         0,      NML$SHOWMULTIPLE,       0,
        NML$SHOWMULTIPLE,
        0,                      0,      0,                      0);

$TAB (ACCESS_TAB,                               ! NML$C_X25_ACCESS
        NML_READ_NETWORK,
        NML$SHOWENTITY,         0,      NML$SHOWMULTIPLE,       0,
        0,
        NML$LISTENTITY,         0,      NML$LISTKNOWN,          0);

$TAB (PROT_NET_TAB,                             ! NML$C_PROT_NET_TAB
        NML_READ_NETWORK,
        NML$SHOWENTITY,         0,      0,      0,
        0,
        NML$LISTENTITY,         0,      0,      0);

$TAB (PROT_DTE_TAB,                             ! NML$C_PROT_DTE
        NML_READ,
        NML$SHOWENTITY,         0,      NML$SHOWMULTIPLE,       0,
        NML$SHOWMULTIPLE,
        NML$LISTENTITY,         0,      NML$LISTKNOWN,          0);

$TAB (PROT_GRP_TAB,                             ! NML$C_PROT_GRP
        NML_READ,
        NML$SHOWMULTIPLE, NML$SHOWMULTIPLE, NML$SHOWMULTIPLE, NML$SHOWMULTIPLE,
        0,
        NML$LISTKNOWN,    NML$LISTKNOWN,    NML$LISTKNOWN,    NML$LISTKNOWN);

$TAB (SERV_TAB,                                 ! NML$C_X25_SERV and NML$C_X29_SERV
        NML_READ,
        NML$SHOWENTITY,         0,      0,      0,
        0,
        NML$LISTENTITY,         0,      0,      0);

$TAB (SERV_DEST_TAB,                    ! NML$C_X25_SERV_DEST and NML$C_X29_SERV_DEST
        NML_READ,
        NML$SHOWENTITY,         0,      NML$SHOWMULTIPLE,       0,
        NML$SHOWMULTIPLE,
        NML$LISTENTITY,         0,      NML$LISTKNOWN,          0);

$TAB (TRACE_TAB,                                        ! NML$C_TRACE
        NML_READ,
        NML$SHOWENTITY,         0,      0,      0,
        0,
        NML$LISTENTITY,         0,      0,      0);

$TAB (TRACEPNT_TAB,                     ! NML$C_TRACEPNT
        NML_READ,
        NML$SHOWENTITY,         0,      NML$SHOWMULTIPLE,       0,
        NML$SHOWMULTIPLE,
        NML$LISTENTITY,         0,      NML$LISTKNOWN,          0);
```

```
$TAB (NI_CONFIG_TAB,                   ! NML$C_NI_CONFIG
        NML_READ,
        NML$CALL_NI_CONFIG,     0,     NML$CALL_NI_CONFIG,     0,
        0,
        NML$LISTENTITY,         0,     NML$LISTKNOWN,          0);

$TAB (LINK_TAB,                        ! NML$C_LINK
        NML_SHOW_LINKS,
        NML$SHOWENTITY,         0,     NML$SHOWMULTIPLE,  NML$SHOWMULTIPLE,
        0,
        0,                      0,     0,                 0);


!
! Table table.  Contains pointers to Dispatch tables for NML entities.
! Indexed by NML$C_entity definitions.
!
OWN TABLE_TAB : VECTOR [NML$C_MAXENTITY] INITIAL (
        $PIC (LINE_TAB, TABLE_TAB),
        $PIC (LOGGING_TAB,TABLE_TAB),
        $PIC (SINK_TAB,TABLE_TAB),
        $PIC (NODE_TAB,TABLE_TAB),
        $PIC (NODEBYNAME_TAB,TABLE_TAB),
        $PIC (LOOPNODE_TAB,TABLE_TAB),
        $PIC (ADJACENT_TAB,TABLE_TAB),
        $PIC (EXECUTOR_TAB,TABLE_TAB),
        $PIC (OBJECT_TAB,TABLE_TAB),
        $PIC (CIRCUIT_TAB,TABLE_TAB),
        $PIC (CIRCUIT_ADJACENT_TAB,TABLE_TAB),
        $PIC (CIRCUIT_ADJ_SRV_TAB,TABLE_TAB),
        $PIC (AREA_TAB,TABLE_TAB),
        $PIC (ACCESS_TAB,TABLE_TAB),           ! X25
        $PIC (PROT_NET_TAB,TABLE_TAB),
        $PIC (PROT_DTE_TAB,TABLE_TAB),
        $PIC (PROT_GRP_TAB,TABLE_TAB),
        $PIC (SERV_TAB,TABLE_TAB),             ! X25
        $PIC (SERV_DEST_TAB,TABLE_TAB),        ! X25
        $PIC (TRACE_TAB,TABLE_TAB),
        $PIC (TRACEPNT_TAB,TABLE_TAB),
        $PIC (SERV_TAB,TABLE_TAB),             ! X29
        $PIC (SERV_DEST_TAB,TABLE_TAB),        ! X29
        $PIC (NI_CONFIG_TAB,TABLE_TAB),
        $PIC (LINK_TAB,TABLE_TAB));
```

```
%SBTTL 'NML$READ  Read parameters main routine'
GLOBAL ROUTINE NML$READ : NOVALUE =

!++
! FUNCTIONAL DESCRIPTION:
!
!       This routine dispatches the NICE read parameters command to
!       the correct function handler.
!
! IMPLICIT INPUTS:
!
!       NML$GB_OPTIONS contains the option byte parsed from the NICE message.
!       NML$GB_ENTITY_CODE contains the entity code.
!
!--

BEGIN

MAP
    NML$GB_ENTITY_FORMAT : BYTE SIGNED,
    NML$GB_OPTIONS : BBLOCK [1];

LOCAL
    INDEX,                          ! Index into Information Table (in NMLDAT)
    ENT_TAB     : REF BBLOCK,       ! Dispatch table reference
    READ_TABLE_ADR: REF BBLOCK,     ! Address of SHOW or LIST portion of entity
                                    !       dispatch table.
    RTN_ADDR,                       ! Temporary routine address
    READ_RTN;                       ! Address of routine to perform
                                    !       read requested by NICE
                                    !       message.


!
! Get the index for information type requested by the NICE command.
!
SELECTONEU .NML$GB_INFO OF
    SET
    [NMA$C_OPINF_SUM]:
        INDEX = NML$C_SUMMARY;  ! Summary
    [NMA$C_OPINF_STA]:
        INDEX = NML$C_STATUS;   ! Status
    [NMA$C_OPINF_CHA]:
        INDEX = NML$C_CHARACTERISTICS; ! Characteristics
    [NMA$C_OPINF_COU]:
        !
        ! Counters are kept only in the volatile data base.
        !
        IF .NML$GB_OPTIONS [NMA$V_OPT_PER] THEN
            INDEX = -1
        ELSE
            INDEX = NML$C_COUNTERS;
    [NMA$C_OPINF_EVE]:
        INDEX = NML$C_EVENTS;   ! Events
    [OTHERWISE]:
        INDEX = -1;             ! Option error
    TES;
```

```
!
! If the information type is illegal, signal an error response to NCP
!
IF .INDEX EQLU -1 THEN
    NML$ERROR_1 (NMA$C_STS_FUN);

!
! Get address of entity's dispatch table.  The addresses are stored as offsets
! to make NMLSHR PIC.  Change the offset into a useable address.
!
ENT_TAB = .TABLE_TAB [.NML$GL_NML_ENTITY] + TABLE_TAB;
IF .ENT_TAB NEQA 0 THEN
    BEGIN
    RTN_ADDR = .ENT_TAB [DT$L_DISPATCH] + .ENT_TAB;
    !
    ! Go to dispatch table for the entity specified in the NICE message.
    ! Get the address of the routine which performs the type of read
    ! requested.
    !
    IF .RTN_ADDR NEQA .ENT_TAB THEN
       BEGIN
       !
       ! Get address of portion of entity's dispatch table containing
       ! the change routine addresses for the function (SHOW or LIST)
       ! specified by the NICE message.
       !
       IF .NML$GB_OPTIONS [NMA$V_OPT_PER] THEN
           READ_TABLE_ADR = ENT_TAB [DT$A_LIST_ROUTINES]
       ELSE
           READ_TABLE_ADR = ENT_TAB [DT$A_SHOW_ROUTINES];

       !
       ! Each function's portion of the entity's dispatch table contains
       ! the addresses of five read routines.  These routines do the
       ! following:
       !       - Read a single entity
       !       - Read a single entity with the specified qualifier
       !       - Read known entities
       !       - Read known entities with the specified qualifier
       !       - Read active entities (never used for LIST because
       !         the permanent data base does not maintain real state info.
       !
       SELECTONEU .NML$GB_ENTITY_FORMAT OF
           SET
           [NMA$C_ENT_KNO,                 ! read known
            NMA$C_ENT_LOO,                 ! read loopnodes
            NMA$C_ENT_ADJ]:                ! read adjacent nodes
               IF .NML$GL_PRS_FLGS [NML$V_PRS_QUALIFIER] THEN
                   READ_RTN = .READ_TABLE_ADR [RD$L_KNOWN_W_QUAL]
               ELSE
                   READ_RTN = .READ_TABLE_ADR [RD$L_KNOWN];
           [NMA$C_ENT_ACT]:                ! read active
               READ_RTN = .READ_TABLE_ADR [RD$L_ACTIVE];
           [0]:                            ! read active X25-Protocol network,
                                           !         node by address or single area.
               READ_RTN = .READ_TABLE_ADR [RD$L_ENTITY];
           [1 TO 16]:                      ! read single entity
```

```
;  4                   IF .NML$GL_PRS_FLGS [NML$V_PRS_QUALIFIER] THEN
;  4                       READ_RTN = .READ_TABLE_ADR [RD$L_ENTITY_W_QUAL]
;  4                   ELSE
;  4                       READ_RTN = .READ_TABLE_ADR [RD$L_ENTITY];
;  4               [OTHERWISE]:
;  4                   READ_RTN = 0;           ! Invalid entity format for SHOW
;  4               TES;
;  4           !
;  4           ! The routine addresses are stored as offsets (to make NMLSHR PIC).
;  4           ! Make the offset into a callable routine address.
;  4           !
;  4           IF .READ_RTN NEQ 0 THEN
;  5               BEGIN
;  5               READ_RTN = .READ_RTN + .ENT_TAB;
;  5               !
;  5               ! Call read routine.
;  5               !
;  5               (.RTN_ADDR) (.NML$GL_NML_ENTITY,
;  5                            .INDEX,
;  5                            .READ_RTN);
;  5               END
;  4           ELSE
;  4               NML$ERROR_2 (NMA$C_STS_IDE, .NML$GB_ENTITY_FORMAT);
;  4           END
;  3       ELSE
;  3           NML$ERROR_2 (NMA$C_STS_IDE, .NML$GB_ENTITY_FORMAT);
;  3       END
;  2   ELSE
;  2       NML$ERROR_2 (NMA$C_STS_IDE, .NML$GB_ENTITY_FORMAT);
;  1   END;                                  ! End of NML$READ
```

```
                                        .TITLE  NML$READ NML Read information module
                                        .IDENT  \V04-000\

                                        .PSECT  $PLIT$,NOWRT,NOEXE,2

          00000000   00000 P.AAA:       .LONG   0                                                   ;
          00000000   00004 P.AAB:       .LONG   0                                                   ;
          00000000   00008 P.AAC:       .LONG   0                                                   ;

                                        .PSECT  $OWN$,NOEXE,2

          00000000V  00000 LINE_TAB:
                                        .LONG   <NML_READ-LINE_TAB>                                 ;
          00000000*  00004              .LONG   <NML$SHOWENTITY-LINE_TAB>                           ;
          00000000   00008              .LONG   0                                                   ;
          00000000*  0000C              .LONG   <NML$SHOWMULTIPLE-LINE_TAB>                         ;
          00000000   00010              .LONG   0                                                   ;
          00000000*  00014              .LONG   <NML$SHOWMULTIPLE-LINE_TAB>                         ;
          00000000*  00018              .LONG   <NML$LISTENTITY-LINE_TAB>                           ;
          00000000   0001C              .LONG   0                                                   ;
          00000000*  00020              .LONG   <NML$LISTKNOWN-LINE_TAB>                            ;
          00000000   00024              .LONG   0                                                   ;
          00000000   00028              .LONG   0                                                   ;
          00000000V  0002C LOGGING_TAB:
                                        .LONG   <NML_READ_LOGGING-LOGGING_TAB>                      ;
```

```
00000000* 00030          .LONG   <NML$READLOGGING-LOGGING_TAB>              ;
00000000  00034          .LONG   0                                          ;
00000000* 00038          .LONG   <NML$READKNOLOG-LOGGING_TAB>               ;
00000000  0003C          .LONG   0                                          ;
00000000* 00040          .LONG   <NML$READACTLOG-LOGGING_TAB>               ;
00000000* 00044          .LONG   <NML$READLOGGING-LOGGING_TAB>              ;
00000000  00048          .LONG   0                                          ;
00000000* 0004C          .LONG   <NML$READKNOLOG-LOGGING_TAB>               ;
00000000  00050          .LONG   0                                          ;
00000000  00054          .LONG   0                                          ;
00000000V 00058 NODE_TAB:
                         .LONG   <NML_READ_NODE-NODE_TAB>                   ;
00000000* 0005C          .LONG   <NML$SHOWENTITY-NODE_TAB>                  ;
00000000  00060          .LONG   0                                          ;
00000000* 00064          .LONG   <NML$SHOW_MULTIPLE_NODES-NODE_TAB>         ;
00000000* 00068          .LONG   <NML$SHOW_MULTIPLE_NODES-NODE_TAB>         ;
00000000* 0006C          .LONG   <NML$SHOW_MULTIPLE_NODES-NODE_TAB>         ;
00000000* 00070          .LONG   <NML$LISTENTITY-NODE_TAB>                  ;
00000000  00074          .LONG   0                                          ;
00000000* 00078          .LONG   <NML$LIST_KNOWN_NODES-NODE_TAB>            ;
00000000  0007C          .LONG   0                                          ;
00000000  00080          .LONG   0                                          ;
00000000V 00084 NODEBYNAME_TAB:
                         .LONG   <NML_READ_NODE-NODEBYNAME_TAB>             ;
00000000* 00088          .LONG   <NML$SHOWNODEBYNAME-NODEBYNAME_TAB>        ;
00000000  0008C          .LONG   0                                          ;
00000000* 00090          .LONG   <NML$SHOW_MULTIPLE_NODES-NODEBYNAME_TAB>   ;
00000000  00094          .LONG   0                                          ;
00000000* 00098          .LONG   <NML$SHOW_MULTIPLE_NODES-NODEBYNAME_TAB>   ;
00000000* 0009C          .LONG   <NML$LISTENTITY-NODEBYNAME_TAB>            ;
00000000  000A0          .LONG   0                                          ;
00000000* 000A4          .LONG   <NML$LIST_KNOWN_NODES-NODEBYNAME_TAB>      ;
00000000  000A8          .LONG   0                                          ;
00000000  000AC          .LONG   0                                          ;
00000000V 000B0 LOOPNODE_TAB:
                         .LONG   <NML_READ_NODE-LOOPNODE_TAB>               ;
00000000  000B4          .LONG   0                                          ;
00000000  000B8          .LONG   0                                          ;
00000000* 000BC          .LONG   <NML$SHOW_KNOWN_LOOP-LOOPNODE_TAB>         ;
00000000  000C0          .LONG   0                                          ;
00000000  000C4          .LONG   0                                          ;
00000000  000C8          .LONG   0                                          ;
00000000  000CC          .LONG   0                                          ;
00000000* 000D0          .LONG   <NML$LIST_TYPE_NODES-LOOPNODE_TAB>         ;
00000000  000D4          .LONG   0                                          ;
00000000  000D8          .LONG   0                                          ;
00000000V 000DC ADJACENT_TAB:
                         .LONG   <NML_READ_NODE-ADJACENT_TAB>               ;
00000000  000E0          .LONG   0                                          ;
00000000  000E4          .LONG   0                                          ;
00000000* 000E8          .LONG   <NML$SHOWMULTIPLE-ADJACENT_TAB>            ;
00000000* 000EC          .LONG   <NML$SHOWMULTIPLE-ADJACENT_TAB>            ;
00000000  000F0          .LONG   0                                          ;
00000000  000F4          .LONG   0                                          ;
00000000  000F8          .LONG   0                                          ;
00000000  000FC          .LONG   0                                          ;
00000000  00100          .LONG   0                                          ;
```

```
00000000  00104              .LONG   0                                         ;
00000000V 00108 EXECUTOR_TAB:
                             .LONG   <NML_READ_EXECUTOR-EXECUTOR_TAB>          ;
00000000* 0010C              .LONG   <NML$SHOWEXECUTOR-EXECUTOR_TAB>           ;
00000000  00110              .LONG   0                                         ;
00000000  00114              .LONG   0                                         ;
00000000  00118              .LONG   0                                         ;
00000000  0011C              .LONG   0                                         ;
00000000* 00120              .LONG   <NML$LISTENTITY-EXECUTOR_TAB>             ;
00000000  00124              .LONG   0                                         ;
00000000  00128              .LONG   0                                         ;
00000000  0012C              .LONG   0                                         ;
00000000  00130              .LONG   0                                         ;
00000000V 00134 OBJECT_TAB:
                             .LONG   <NML_READ-OBJECT_TAB>                     ;
00000000* 00138              .LONG   <NML$SHOWENTITY-OBJECT_TAB>               ;
00000000  0013C              .LONG   0                                         ;
00000000* 00140              .LONG   <NML$SHOWMULTIPLE-OBJECT_TAB>             ;
00000000  00144              .LONG   0                                         ;
00000000* 00148              .LONG   <NML$SHOWMULTIPLE-OBJECT_TAB>             ;
00000000* 0014C              .LONG   <NML$LISTENTITY-OBJECT_TAB>               ;
00000000  00150              .LONG   0                                         ;
00000000* 00154              .LONG   <NML$LISTKNOWN-OBJECT_TAB>                ;
00000000  00158              .LONG   0                                         ;
00000000  0015C              .LONG   0                                         ;
00000000V 00160 CIRCUIT_TAB:
                             .LONG   <NML_READ-CIRCUIT_TAB>                    ;
00000000* 00164              .LONG   <NML$SHOW_CIRCUIT-CIRCUIT_TAB>            ;
00000000* 00168              .LONG   <NML$SHOW_CIRCUIT-CIRCUIT_TAB>            ;
00000000* 0016C              .LONG   <NML$SHOWMULTIPLE-CIRCUIT_TAB>            ;
00000000* 00170              .LONG   <NML$SHOWMULTIPLE-CIRCUIT_TAB>            ;
00000000* 00174              .LONG   <NML$SHOWMULTIPLE-CIRCUIT_TAB>            ;
00000000* 00178              .LONG   <NML$LISTENTITY-CIRCUIT_TAB>              ;
00000000  0017C              .LONG   0                                         ;
00000000* 00180              .LONG   <NML$LISTKNOWN-CIRCUIT_TAB>               ;
00000000  00184              .LONG   0                                         ;
00000000  00188              .LONG   0                                         ;
00000000V 0018C AREA_TAB:
                             .LONG   <NML_READ_AREA-AREA_TAB>                  ;
00000000* 00190              .LONG   <NML$SHOWENTITY-AREA_TAB>                 ;
00000000  00194              .LONG   0                                         ;
00000000* 00198              .LONG   <NML$SHOWMULTIPLE-AREA_TAB>               ;
00000000  0019C              .LONG   0                                         ;
00000000* 001A0              .LONG   <NML$SHOWMULTIPLE-AREA_TAB>               ;
00000000  001A4              .LONG   0                                         ;
00000000  001A8              .LONG   0                                         ;
00000000  001AC              .LONG   0                                         ;
00000000  001B0              .LONG   0                                         ;
00000000  001B4              .LONG   0                                         ;
00000000V 001B8 ACCESS_TAB:
                             .LONG   <NML_READ_NETWORK-ACCESS_TAB>             ;
00000000* 001BC              .LONG   <NML$SHOWENTITY-ACCESS_TAB>               ;
00000000  001C0              .LONG   0                                         ;
00000000* 001C4              .LONG   <NML$SHOWMULTIPLE-ACCESS_TAB>             ;
00000000  001C8              .LONG   0                                         ;
00000000  001CC              .LONG   0                                         ;
00000000* 001D0              .LONG   <NML$LISTENTITY-ACCESS_TAB>               ;
```

```
00000000  001D4           .LONG   0                                       ;
00000000* 001D8           .LONG   <NML$LISTKNOWN-ACCESS_TAB>              ;
00000000  001DC           .LONG   0                                       ;
00000000  001E0           .LONG   0                                       ;
00000000V 001E4 PROT_NET_TAB:
                          .LONG   <NML_READ_NETWORK-PROT_NET_TAB>         ;
00000000* 001E8           .LONG   <NML$SHOWENTITY-PROT_NET_TAB>           ;
00000000  001EC           .LONG   0                                       ;
00000000  001F0           .LONG   0                                       ;
00000000  001F4           .LONG   0                                       ;
00000000  001F8           .LONG   0                                       ;
00000000* 001FC           .LONG   <NML$LISTENTITY-PROT_NET_TAB>           ;
00000000  00200           .LONG   0                                       ;
00000000  00204           .LONG   0                                       ;
00000000  00208           .LONG   0                                       ;
00000000  0020C           .LONG   0                                       ;
00000000V 00210 PROT_DTE_TAB:
                          .LONG   <NML_READ-PROT_DTE_TAB>                 ;
00000000* 00214           .LONG   <NML$SHOWENTITY-PROT_DTE_TAB>           ;
00000000  00218           .LONG   0                                       ;
00000000* 0021C           .LONG   <NML$SHOWMULTIPLE-PROT_DTE_TAB>         ;
00000000  00220           .LONG   0                                       ;
00000000* 00224           .LONG   <NML$SHOWMULTIPLE-PROT_DTE_TAB>         ;
00000000* 00228           .LONG   <NML$LISTENTITY-PROT_DTE_TAB>           ;
00000000  0022C           .LONG   0                                       ;
00000000* 00230           .LONG   <NML$LISTKNOWN-PROT_DTE_TAB>            ;
00000000  00234           .LONG   0                                       ;
00000000  00238           .LONG   0                                       ;
00000000V 0023C PROT_GRP_TAB:
                          .LONG   <NML_READ-PROT_GRP_TAB>                 ;
00000000* 00240           .LONG   <NML$SHOWMULTIPLE-PROT_GRP_TAB>         ;
00000000* 00244           .LONG   <NML$SHOWMULTIPLE-PROT_GRP_TAB>         ;
00000000* 00248           .LONG   <NML$SHOWMULTIPLE-PROT_GRP_TAB>         ;
00000000* 0024C           .LONG   <NML$SHOWMULTIPLE-PROT_GRP_TAB>         ;
00000000  00250           .LONG   0                                       ;
00000000* 00254           .LONG   <NML$LISTKNOWN-PROT_GRP_TAB>            ;
00000000* 00258           .LONG   <NML$LISTKNOWN-PROT_GRP_TAB>            ;
00000000* 0025C           .LONG   <NML$LISTKNOWN-PROT_GRP_TAB>            ;
00000000* 00260           .LONG   <NML$LISTKNOWN-PROT_GRP_TAB>            ;
00000000  00264           .LONG   0                                       ;
00000000V 00268 SERV_TAB:
                          .LONG   <NML_READ-SERV_TAB>                     ;
00000000* 0026C           .LONG   <NML$SHOWENTITY-SERV_TAB>               ;
00000000  00270           .LONG   0                                       ;
00000000  00274           .LONG   0                                       ;
00000000  00278           .LONG   0                                       ;
00000000  0027C           .LONG   0                                       ;
00000000* 00280           .LONG   <NML$LISTENTITY-SERV_TAB>               ;
00000000  00284           .LONG   0                                       ;
00000000  00288           .LONG   0                                       ;
00000000  0028C           .LONG   0                                       ;
00000000  00290           .LONG   0                                       ;
00000000V 00294 SERV_DEST_TAB:
                          .LONG   <NML_READ-SERV_DEST_TAB>                ;
00000000* 00298           .LONG   <NML$SHOWENTITY-SERV_DEST_TAB>          ;
00000000  0029C           .LONG   0                                       ;
00000000* 002A0           .LONG   <NML$SHOWMULTIPLE-SERV_DEST_TAB>        ;
```

```
00000000  002A4           .LONG   0                                          ;
00000000* 002A8           .LONG   <NML$SHOWMULTIPLE-SERV_DEST_TAB>           ;
00000000* 002AC           .LONG   <NML$LISTENTITY-SERV_DEST_TAB>             ;
00000000  002B0           .LONG   0                                          ;
00000000* 002B4           .LONG   <NML$LISTKNOWN-SERV_DEST_TAB>              ;
00000000  002B8           .LONG   0                                          ;
00000000  002BC           .LONG   0                                          ;
00000000V 002C0 TRACE_TAB:
                          .LONG   <NML_READ-TRACE_TAB>                       ;
00000000* 002C4           .LONG   <NML$SHOWENTITY-TRACE_TAB>                 ;
00000000  002C8           .LONG   0                                          ;
00000000  002CC           .LONG   0                                          ;
00000000  002D0           .LONG   0                                          ;
00000000  002D4           .LONG   0                                          ;
00000000* 002D8           .LONG   <NML$LISTENTITY-TRACE_TAB>                 ;
00000000  002DC           .LONG   0                                          ;
00000000  002E0           .LONG   0                                          ;
00000000  002E4           .LONG   0                                          ;
00000000  002E8           .LONG   0                                          ;
00000000V 002EC TRACEPNT_TAB:
                          .LONG   <NML_READ-TRACEPNT_TAB>                    ;
00000000* 002F0           .LONG   <NML$SHOWENTITY-TRACEPNT_TAB>              ;
00000000  002F4           .LONG   0                                          ;
00000000* 002F8           .LONG   <NML$SHOWMULTIPLE-TRACEPNT_TAB>            ;
00000000  002FC           .LONG   0                                          ;
00000000* 00300           .LONG   <NML$SHOWMULTIPLE-TRACEPNT_TAB>            ;
00000000* 00304           .LONG   <NML$LISTENTITY-TRACEPNT_TAB>              ;
00000000  00308           .LONG   0                                          ;
00000000* 0030C           .LONG   <NML$LISTKNOWN-TRACEPNT_TAB>               ;
00000000  00310           .LONG   0                                          ;
00000000  00314           .LONG   0                                          ;
00000000V 00318 NI_CONFIG_TAB:
                          .LONG   <NML_READ-NI_CONFIG_TAB>                   ;
00000000* 0031C           .LONG   <NML$CALL_NI_CONFIG-NI_CONFIG_TAB>         ;
00000000  00320           .LONG   0                                          ;
00000000* 00324           .LONG   <NML$CALL_NI_CONFIG-NI_CONFIG_TAB>         ;
00000000  00328           .LONG   0                                          ;
00000000  0032C           .LONG   0                                          ;
00000000* 00330           .LONG   <NML$LISTENTITY-NI_CONFIG_TAB>             ;
00000000  00334           .LONG   0                                          ;
00000000* 00338           .LONG   <NML$LISTKNOWN-NI_CONFIG_TAB>              ;
00000000  0033C           .LONG   0                                          ;
00000000  00340           .LONG   0                                          ;
00000000V 00344 LINK_TAB:
                          .LONG   <NML_SHOW_LINKS-LINK_TAB>                  ;
00000000* 00348           .LONG   <NML$SHOWENTITY-LINK_TAB>                  ;
00000000  0034C           .LONG   0                                          ;
00000000* 00350           .LONG   <NML$SHOWMULTIPLE-LINK_TAB>                ;
00000000* 00354           .LONG   <NML$SHOWMULTIPLE-LINK_TAB>                ;
00000000  00358           .LONG   0                                          ;
00000000  0035C           .LONG   0                                          ;
00000000  00360           .LONG   0                                          ;
00000000  00364           .LONG   0                                          ;
00000000  00368           .LONG   0                                          ;
00000000  0036C           .LONG   0                                          ;
00000000* 00370 TABLE_TAB:
                          .LONG   <LINE_TAB-TABLE_TAB>                       ;
```

```
                    00000000*  00374            .LONG   <LOGGING_TAB-TABLE_TAB>                          ;
                    00000000*  00378            .LONG   <SINK_TAB-TABLE_TAB>                             ;
                    00000000*  0037C            .LONG   <NODE_TAB-TABLE_TAB>                             ;
                    00000000*  00380            .LONG   <NODEBYNAME_TAB-TABLE_TAB>                       ;
                    00000000*  00384            .LONG   <LOOPNODE_TAB-TABLE_TAB>                         ;
                    00000000*  00388            .LONG   <ADJACENT_TAB-TABLE_TAB>                         ;
                    00000000*  0038C            .LONG   <EXECUTOR_TAB-TABLE_TAB>                         ;
                    00000000*  00390            .LONG   <OBJECT_TAB-TABLE_TAB>                           ;
                    00000000*  00394            .LONG   <CIRCUIT_TAB-TABLE_TAB>                          ;
                    00000000*  00398            .LONG   <CIRCUIT_ADJACENT_TAB-TABLE_TAB>                 ;
                    00000000*  0039C            .LONG   <CIRCUIT_ADJ_SRV_TAB-TABLE_TAB>                  ;
                    00000000*  003A0            .LONG   <AREA_TAB-TABLE_TAB>                             ;
                    00000000*  003A4            .LONG   <ACCESS_TAB-TABLE_TAB>                           ;
                    00000000*  003A8            .LONG   <PROT_NET_TAB-TABLE_TAB>                         ;
                    00000000*  003AC            .LONG   <PROT_DTE_TAB-TABLE_TAB>                         ;
                    00000000*  003B0            .LONG   <PROT_GRP_TAB-TABLE_TAB>                         ;
                    00000000*  003B4            .LONG   <SERV_TAB-TABLE_TAB>                             ;
                    00000000*  003B8            .LONG   <SERV_DEST_TAB-TABLE_TAB>                        ;
                    00000000*  003BC            .LONG   <TRACE_TAB-TABLE_TAB>                            ;
                    00000000*  003C0            .LONG   <TRACEPNT_TAB-TABLE_TAB>                         ;
                    00000000*  003C4            .LONG   <SERV_TAB-TABLE_TAB>                             ;
                    00000000*  003C8            .LONG   <SERV_DEST_TAB-TABLE_TAB>                        ;
                    00000000*  003CC            .LONG   <NI_CONFIG_TAB-TABLE_TAB>                        ;
                    00000000*  003D0            .LONG   <LINK_TAB-TABLE_TAB>                             ;
                               003D4            .BLKB   4

                                     SINK_TAB=          P.AAA
                                     CIRCUIT_ADJACENT_TAB=
                                                        P.AAB
                                     CIRCUIT_ADJ_SRV_TAB=P.AAC
                                                .EXTRN  NML$GB_EVTSRCTYP
                                                .EXTRN  NML$GQ_EVTSRCDSC
                                                .EXTRN  NML$GW_EVTCLASS
                                                .EXTRN  NML$GB_EVTMSKTYP
                                                .EXTRN  NML$GQ_EVTMSKDSC
                                                .EXTRN  NML$GW_EVTSNKADR
                                                .EXTRN  NML$GW_ACP_CHAN
                                                .EXTRN  NML$GL_LOGMASK, NML$GQ_ENTSTRDSC
                                                .EXTRN  NML$AB_QIOBUFFER
                                                .EXTRN  NML$GQ_QIOBFDSC
                                                .EXTRN  NML$AB_EXEBUFFER
                                                .EXTRN  NML$GL_EXEDATPTR
                                                .EXTRN  NML$GQ_EXEDATDSC
                                                .EXTRN  NML$GQ_EXEBFDSC
                                                .EXTRN  NML$AB_RCVBUFFER
                                                .EXTRN  NML$GQ_RCVBFDSC
                                                .EXTRN  NML$AB_SNDBUFFER
                                                .EXTRN  NML$GQ_SNDBFDSC
                                                .EXTRN  NML$GL_RCVDATLEN
                                                .EXTRN  NML$AB_CPTABLE, NML$AB_MSGBLOCK
                                                .EXTRN  NML$AB_ENTITY_ID
                                                .EXTRN  NML$AB_QUALIFIER_ID
                                                .EXTRN  NML$AB_ENTITYDATA
                                                .EXTRN  NML$AB_NML_NMV, NML$AB_PRMSEM
                                                .EXTRN  NML$AB_RECBUF, NML$AL_ENTINFTAB
                                                .EXTRN  NML$AL_PERMINFTAB
                                                .EXTRN  NML$AW_PRM_DES, NML$GB_CMD_VER
```

```
                                                  .EXTRN   NML$GB_ENTITY_CODE
                                                  .EXTRN   NML$GB_ENTITY_FORMAT
                                                  .EXTRN   NML$GL_QUALIFIER_PST
                                                  .EXTRN   NML$GB_QUALIFIER_FORMAT
                                                  .EXTRN   NML$GB_FUNCTION
                                                  .EXTRN   NML$GB_INFO, NML$GB_OPTIONS
                                                  .EXTRN   NML$GL_PRMCODE, NML$GL_PRS_FLGS
                                                  .EXTRN   NML$GL_NML_ENTITY
                                                  .EXTRN   NML$GQ_NETNAMDSC
                                                  .EXTRN   NML$GQ_RECBFDSC
                                                  .EXTRN   NML$GW_PRMDESCNT
                                                  .EXTRN   LIB$ESTABLISH, LIB$REVERT
                                                  .EXTRN   NML$OPENFILE, NML$BLD_REPLY
                                                  .EXTRN   NML$MAINHANDLER
                                                  .EXTRN   NML$ERROR_1, NML$ERROR_2
                                                  .EXTRN   NML$LISTENTITY, NML$LIST_KNOWN_NODES
                                                  .EXTRN   NML$LIST_TYPE_NODES
                                                  .EXTRN   NML$LISTKNOWN, NML$READACTLOG
                                                  .EXTRN   NML$READKNOLOG, NML$READLOGGING
                                                  .EXTRN   NML$SEND, NML$SHOWMULTIPLE
                                                  .EXTRN   NML$SHOW_MULTIPLE_NODES
                                                  .EXTRN   NML$SHOW_KNOWN_LOOP
                                                  .EXTRN   NML$SHOWENTITY, NML$SHOW_CIRCUIT
                                                  .EXTRN   NML$SHOWNODEBYNAME
                                                  .EXTRN   NML$SHOWEXECUTOR
                                                  .EXTRN   NML$CALL_NI_CONFIG

                                                  .PSECT   $CODE$,NOWRT,2

                                   03FC 00000     .ENTRY   NML$READ, Save R2,R3,R4,R5,R6,R7,R8,R9     ; 0344
                59 00000000G  00    9E 00002      MOVAB    NML$GL_PRS_FLGS, R9                        ;
                58 00000000'  00    9E 00009      MOVAB    TABLE_TAB, R8                              ;
                57 00000000G  00    9E 00010      MOVAB    NML$GB_OPTIONS, R7                         ;
                50 00000000G  00    9A 00017      MOVZBL   NML$GB_INFO, R0                            ; 0379
                              04    12 0001E      BNEQ     1$                                         ; 0381
                              54    D4 00020      CLRL     INDEX                                      ; 0382
                              2F    11 00022      BRB      6$                                         ;
                01            50    91 00024 1$:  CMPB     R0, #1                                     ; 0383
                              05    12 00027      BNEQ     2$                                         ;
                54            01    D0 00029      MOVL     #1, INDEX                                  ; 0384
                              25    11 0002C      BRB      6$                                         ;
                02            50    91 0002E 2$:  CMPB     R0, #2                                     ; 0385
                              05    12 00031      BNEQ     3$                                         ;
                54            02    D0 00033      MOVL     #2, INDEX                                  ; 0386
                              1B    11 00036      BRB      6$                                         ;
                03            50    91 00038 3$:  CMPB     R0, #3                                     ; 0387
                              09    12 0003B      BNEQ     4$                                         ;
                              67    95 0003D      TSTB     NML$GB_OPTIONS                             ; 0391
                              0F    19 0003F      BLSS     5$                                         ;
                54            03    D0 00041      MOVL     #3, INDEX                                  ; 0394
                              0D    11 00044      BRB      6$                                         ; 0391
                04            50    91 00046 4$:  CMPB     R0, #4                                     ; 0395
                              05    12 00049      BNEQ     5$                                         ;
                54            04    D0 0004B      MOVL     #4, INDEX                                  ; 0396
                              03    11 0004E      BRB      6$                                         ;
                54            01    CE 00050 5$:  MNEGL    #1, INDEX                                  ; 0398
       FFFFFFFF 8F            54    D1 00053 6$:  CMPL     INDEX, #-1                                 ; 0403
```

```
                                       0A  12 0005A        BNEQ    7$                                                   ;
                          7E           01  CE 0005C        MNEGL   #1, -(SP)                                            ; 0404
              00000000G   00           01  FB 0005F        CALLS   #1, NML$ERROR_1                                      ;
                          55 00000000G 00  D0 00066  7$:   MOVL    NML$GL_NML_ENTITY, R5                                ; 0410
                          50           68  9E 0006D        MOVAB   TABLE_TAB, R0                                        ;
          51              50         6845  C1 00070        ADDL3   TABLE_TAB[R5], R0, ENT_TAB                           ;
                          53 00000000G 00  98 00075        CVTBL   NML$GB_ENTITY_FORMAT, R3                             ; 0442
                                       51  D5 0007C        TSTL    ENT_TAB                                              ; 0411
                                       7A  13 0007E        BEQL    18$                                                  ;
          56              61           51  C1 00080        ADDL3   ENT_TAB, (ENT_TAB), RTN_ADDR                         ; 0413
                          51           56  D1 00084        CMPL    RTN_ADDR, ENT_TAB                                    ; 0419
                                       71  13 00087        BEQL    18$                                                  ;
                                       67  95 00089        TSTB    NML$GB_OPTIONS                                       ; 0426
                                       06  18 0008B        BGEQ    8$                                                   ;
                          50       18  A1  9E 0008D        MOVAB   24(R1), READ_TABLE_ADR                               ; 0427
                                       04  11 00091        BRB     9$                                                   ;
                          50       04  A1  9E 00093  8$:   MOVAB   4(R1), READ_TABLE_ADR                                ; 0429
              FFFFFFFC    8F           53  D1 00097  9$:   CMPL    R3, #-4                                              ; 0444
                                       09  1F 0009E        BLSSU   10$                                                  ;
              FFFFFFFD    8F           53  D1 000A0        CMPL    R3, #-3                                              ;
                                       09  1B 000A7        BLEQU   11$                                                  ;
              FFFFFFFF    8F           53  D1 000A9  10$:  CMPL    R3, #-1                                              ;
                                       10  12 000B0        BNEQ    13$                                                  ;
          06              69           02  E1 000B2  11$:  BBC     #2, NML$GL_PRS_FLGS, 12$                             ; 0447
                          52       0C  A0  D0 000B6        MOVL    12(READ_TABLE_ADR), READ_RTN                         ; 0448
                                       2F  11 000BA        BRB     17$                                                  ;
                          52       08  A0  D0 000BC  12$:  MOVL    8(READ_TABLE_ADR), READ_RTN                          ; 0450
                                       29  11 000C0        BRB     17$                                                  ; 0447
              FFFFFFFE    8F           53  D1 000C2  13$:  CMPL    R3, #-2                                              ; 0451
                                       06  12 000C9        BNEQ    14$                                                  ;
                          52       10  A0  D0 000CB        MOVL    16(READ_TABLE_ADR), READ_RTN                         ; 0452
                                       1A  11 000CF        BRB     17$                                                  ;
                                       53  D5 000D1  14$:  TSTL    R3                                                   ; 0453
                                       0F  13 000D3        BEQL    15$                                                  ;
                          10           53  D1 000D5        CMPL    R3, #16                                              ; 0456
                                       0F  1A 000D8        BGTRU   16$                                                  ;
          06              69           02  E1 000DA        BBC     #2, NML$GL_PRS_FLGS, 15$                             ; 0457
                          52       04  A0  D0 000DE        MOVL    4(READ_TABLE_ADR), READ_RTN                          ; 0458
                                       07  11 000E2        BRB     17$                                                  ;
                          52           60  D0 000E4  15$:  MOVL    (READ_TABLE_ADR), READ_RTN                           ; 0460
                                       02  11 000E7        BRB     17$                                                  ; 0457
                                       52  D4 000E9  16$:  CLRL    READ_RTN                                             ; 0462
                                       0D  13 000EB  17$:  BEQL    18$                                                  ; 0468
                          52           51  C0 000ED        ADDL2   ENT_TAB, READ_RTN                                    ; 0470
                                       52  DD 000F0        PUSHL   READ_RTN                                             ; 0476
                                       54  DD 000F2        PUSHL   INDEX                                                ; 0475
                                       55  DD 000F4        PUSHL   R5                                                   ; 0474
                          66           03  FB 000F6        CALLS   #3, (RTN_ADDR)                                       ;
                                       04     000F9        RET                                                          ; 0468
                                       53  DD 000FA  18$:  PUSHL   R3                                                   ; 0485
                          7E           09  CE 000FC        MNEGL   #9, -(SP)                                            ;
              00000000G   00           02  FB 000FF        CALLS   #2, NML$ERROR_2                                      ;
                                       04     00106        RET                                                          ; 0486

; Routine Size:  263 bytes,    Routine Base:  $CODE$ + 0000
```

```
;      1 %SBTTL 'NML_READ  Read parameters'
;      1 ROUTINE NML_READ (ENTITY, INDEX, READ_RTN) : NOVALUE =
;      1
;      1 !++
;      1 ! FUNCTIONAL DESCRIPTION:
;      1 !
;      1 !        This routine dispatches to the routine which read the permanent
;      1 !        or volatile data base for the specified entity.
;      1 !
;      1 ! INPUTS:
;      1 !        ENTITY          The internal NML index for the entity specified in
;      1 !                        the NICE command.
;      1 !        INDEX           Entity information table (in NMLDAT) index code.
;      1 !        READ_RTN        Address of routine to perform read requested
;      1 !                                by NICE message.
;      1 !
;      1 ! IMPLICIT INPUTS:
;      1 !
;      1 !        NML$GB_ENTITY_FORMAT contains the entity format code.
;      1 !
;      1 !--
;      1
;      2 BEGIN
;      2
;      2 MAP
;      2     NML$GB_ENTITY_FORMAT : BYTE SIGNED;
;      2
;      2 SELECTONEU .NML$GB_ENTITY_FORMAT OF
;      2     SET
;      2     [NMA$C_ENT_KNO,                          ! Known entities
;      2      NMA$C_ENT_ACT]:                         ! or active entities
;      2         NML_READ_PLURAL (.ENTITY, .READ_RTN, .INDEX,
;      2                          .NML$GB_ENTITY_FORMAT, 0,
;      2                          .NML$GL_QUALIFIER_PST,
;      2                          .NML$GB_QUALIFIER_FORMAT,
;      2                         NML$AB_QUALIFIER_ID);
;      2
;      2     [1 TO 31]:                               ! Single entity
;      2         NML_READ_PLURAL (.ENTITY, .READ_RTN, .INDEX,
;      2                          .NML$GB_ENTITY_FORMAT, NML$AB_ENTITY_ID,
;      2                          .NML$GL_QUALIFIER_PST,
;      2                          .NML$GB_QUALIFIER_FORMAT,
;      2                         NML$AB_QUALIFIER_ID);
;      2
;      2     [OTHERWISE]:
;      2         NML$ERROR_2 (NMA$C_STS_IDE, .NML$GB_ENTITY_CODE);
;      2     TES;
;      1 END;                               ! End of NML_READ


                                    001C 00000 NML_READ:
                                                    .WORD    Save R2,R3,R4                                   ; 0488
             54 00000000G   00  9E 00002            MOVAB    NML$GL_QUALIFIER_PST, R4                        ;
             53 00000000G   00  9E 00009            MOVAB    NML$GB_QUALIFIER_FORMAT, R3                     ;
```

```
         52 00000000G  00  9E 00010       MOVAB   NML$AB_QUALIFIER_ID, R2                       ;
         50 00000000G  00  98 00017       CVTBL   NML$GB_ENTITY_FORMAT, R0                      ; 0514
      FE     8F            50  91 0001E   CMPB    R0, #-2                                       ; 0516
                       0B  1F C0022       BLSSU   1$                                            ;
                       52  DD 00024       PUSHL   R2                                            ; 0518
         7E            63  9A 00026       MOVZBL  NML$GB_QUALIFIER_FORMAT, -(SP)                ; 0521
                       64  DD 00029       PUSHL   NML$GL_QUALIFIER_PST                          ; 0520
                       7E  D4 0002B       CLRL    -(SP)                                         ; 0518
                       16  11 0002D       BRB     2$                                            ; 0519
                       50  D5 0002F  1$:  TSTL    R0                                            ; 0524
                       25  13 00031       BEQL    3$                                            ;
         1F            50  91 00033       CMPB    R0, #31                                       ;
                       20  1A 00036       BGTRU   3$                                            ;
                       52  DD 00038       PUSHL   R2                                            ; 0525
         7E            63  9A 0003A       MOVZBL  NML$GB_QUALIFIER_FORMAT, -(SP)                ; 0528
                       64  DD 0003D       PUSHL   NML$GL_QUALIFIER_PST                          ; 0527
            00000000G  00  9F 0003F       PUSHAB  NML$AB_ENTITY_ID                              ; 0525
                       50  DD 00045  2$:  PUSHL   R0                                            ; 0526
                08     AC  DD 00047       PUSHL   INDEX                                         ; 0525
                0C     AC  DD 0004A       PUSHL   READ_RTN                                      ;
                04     AC  DD 0004D       PUSHL   ENTITY                                        ;
00000000V   00         08  FB 00050       CALLS   #8, NML_READ_PLURAL                           ;
                       04  00057          RET                                                   ;
         7E 00000000G  00  9A 00058  3$:  MOVZBL  NML$GB_ENTITY_CODE, -(SP)                     ; 0532
         7E            09  CE 0005F       MNEGL   #9, -(SP)                                     ;
00000000G   00         02  FB 00062       CALLS   #2, NML$ERROR_2                               ;
                       04  00069          RET                                                   ; 0534

; Routine Size:  106 bytes,    Routine Base:  $CODE$ + 0107
```

```
1 %SBTTL 'NML_READ_LOGGING  Read logging volatile parameters'
1 ROUTINE NML_READ_LOGGING (ENTITY, INDEX, READ_RTN) : NOVALUE =
1
1 !++
1 ! FUNCTIONAL DESCRIPTION:
1 !
1 !       This routine reads the specified logging parameters from the volatile
1 !       or permanent data base.
1 !
1 ! FORMAL PARAMETERS:
1 !
1 ! INPUTS:
1 !       ENTITY          The internal NML index for the entity specified in
1 !                       the NICE command.
1 !       INDEX           Entity information table (in NMLDAT) index code.
1 !       READ_RTN        Address of routine to perform read requested
1 !                               by NICE message.
1 !
1 ! IMPLICIT INPUTS:
1 !       NML$GB_ENTITY_FORMAT contains the entity format code.
1 !
1 !--
1
2 BEGIN
2
2 MAP
2     NML$GB_ENTITY_FORMAT : BYTE SIGNED;
2
2 LOCAL
2     LEN,
2     ENTITY_ID;
2
2 SELECTONEU .NML$GB_ENTITY_FORMAT OF
2     SET
2     [NMA$C_ENT_KNO,
2     NMA$C_ENT_ACT]:                   ! Known and active entities
3         BEGIN
3         LEN = 0;
3         ENTITY_ID = 0;
2         END;
2
2     [NMA$C_SNK_CON,                   ! Console
2     NMA$C_SNK_FIL,                    ! File
2     NMA$C_SNK_MON]:                   ! Monitor
3         BEGIN
3         LEN = .NML$GB_ENTITY_FORMAT;
3         ENTITY_ID = 0;
2         END;
2
2     [OTHERWISE]:
2         NML$ERROR_2 (NMA$C_STS_IDE, NMA$C_ENT_LOG); ! Option error
2     TES;
2 NML_READ_PLURAL (.ENTITY, .READ_RTN, .INDEX, .LEN, .ENTITY_ID, 0);
2
1 END;                                  ! End of NML_SHOW_LOGGING
```

```
                                        000C 00000 NML_READ_LOGGING:
                                                          .WORD   Save R2,R3                                    ; 0536
                  50 00000000G  00   98 00002             CVTBL   NML$GB_ENTITY_FORMAT, R0                      ; 0567
          FE      8F            50   91 00009             CMPB    R0, #-2                                       ; 0569
                                04   1F 0000D             BLSSU   1$                                            ;
                                53   D4 0C00F             CLRL    LEN                                           ; 0572
                                0C   11 00011             BRB     2$                                            ; 0573
                                50   D5 00013 1$:         TSTL    R0                                            ; 0576
                                0C   13 00015             BEQL    3$                                            ;
                  03            50   91 00017             CMPB    R0, #3                                        ;
                                07   1A 0001A             BGTRU   3$                                            ;
                  53            50   D0 0001C             MOVL    R0, LEN                                       ; 0580
                                52   D4 0001F 2$:         CLRL    ENTITY_ID                                     ; 0581
                                0C   11 00021             BRB     4$                                            ; 0567
                                02   DD 00023 3$:         PUSHL   #2                                            ; 0585
                  7E            09   CE 00025             MNEGL   #9, -(SP)                                     ;
        00000000G 00            02   FB 00028             CALLS   #2, NML$ERROR_2                               ;
                                7E   D4 0002F 4$:         CLRL    -(SP)                                         ; 0587
                                52   DD 00031             PUSHL   ENTITY_ID                                     ;
                                53   DD 00033             PUSHL   LEN                                           ;
                           08   AC   DD 00035             PUSHL   INDEX                                         ;
                           0C   AC   DD 00038             PUSHL   READ_RTN                                      ;
                           04   AC   DD 0003B             PUSHL   ENTITY                                        ;
        00000000V 00            06   FB 0003E             CALLS   #6, NML_READ_PLURAL                           ;
                                     04 00045             RET                                                   ; 0589

; Routine Size:  70 bytes,    Routine Base:  $CODE$ + 0171
```

```
%SBTTL 'NML_READ_NODE  Read node parameters'
ROUTINE NML_READ_NODE (ENTITY, INDEX, READ_RTN) : NOVALUE =

!++
! FUNCTIONAL DESCRIPTION:
!       This routine dispatches to the routine which reads the permanent
!       or volatile data base for nodes.
!
! INPUTS:
!       ENTITY          The internal NML index for the entity specified in
!                       the NICE command.
!       INDEX           Entity information table (in NMLDAT) index code.
!       READ_RTN        Address of routine to perform read requested
!                               by NICE message.
!
! IMPLICIT INPUTS:
!       NML$GB_ENTITY_FORMAT contains the entity format code.
!
!--

BEGIN

MAP
    NML$GB_ENTITY_FORMAT : BYTE SIGNED,
    NML$GB_OPTIONS : BBLOCK [1];

SELECTONEU .NML$GB_ENTITY_FORMAT OF
    SET
    [NMA$C_ENT_LOO]:                    ! Loop nodes (SHOW only)
        NML_READ_PLURAL (.ENTITY, .READ_RTN, .INDEX,
                         0, 0);

    [NMA$C_ENT_KNO,                     ! Known nodes
     NMA$C_ENT_ACT,                     ! Active nodes
     NMA$C_ENT_ADJ]:                    ! Adjacent nodes
        NML_READ_PLURAL (.ENTITY, .READ_RTN, .INDEX,
                         .NML$GB_ENTITY_FORMAT, 0,
                         .NML$GL_QUALIFIER_PST,
                         .NML$GB_QUALIFIER_FORMAT,
                         NML$AB_QUALIFIER_ID);

    [NMA$C_ENT_ADD]:                    ! Node is specified by address
        IF .NML$GB_OPTIONS [NMA$V_OPT_PER] THEN
            NML_READ_PLURAL (.ENTITY, .READ_RTN, .INDEX,
                             2, NML$AB_ENTITY_ID)
        ELSE
            NML_READ_PLURAL (.ENTITY, .READ_RTN, .INDEX,
                             0, .NML$AB_ENTITY_ID);

    [1 TO 6]:
        NML_READ_PLURAL (.ENTITY, .READ_RTN, .INDEX,
                         .NML$GB_ENTITY_FORMAT,
                         NML$AB_ENTITY_ID);

    [OTHERWISE]:
        NML$ERROR_2 (NMA$C_STS_IDE, NMA$C_ENT_NOD); ! Option error
    TES;
```

```
;  653          0647  1 END;                            ! End of NML_READ_NODE



                                          001C 00000 NML_READ_NODE:
                                                                .WORD   Save R2,R3,R4                                      ; 0591
                  54 00000000V  00   9E 00002                 MOVAB   NML_READ_PLURAL, R4                                ;
                  53 00000000G  00   9E 00009                 MOVAB   NML$AB_ENTITY_ID, R3                               ;
                  52 00000000G  00   98 00010                 CVTBL   NML$GB_ENTITY_FORMAT, R2                           ; 0616
        FD     8F               52   91 00017                 CMPB    R2, #-3                                            ; 0618
                                04   12 0001B                 BNEQ    1$                                                 ;
                                7E   D4 0001D                 CLRL    -(SP)                                              ; 0619
                                44   11 0001F                 BRB     5$                                                 ;
        FC     8F               52   91 00021 1$:             CMPB    R2, #-4                                            ; 0622
                                06   13 00025                 BEQL    2$                                                 ;
        FE     8F               52   91 00027                 CMPB    R2, #-2                                            ;
                                24   1F 0002B                 BLSSU   3$                                                 ;
                     00000000G  00   9F 0002D 2$:             PUSHAB  NML$AB_QUALIFIER_ID                                ; 0625
                  7E 00000000G  00   9A 00033                 MOVZBL  NML$GB_QUALIFIER_FORMAT, -(SP)                     ; 0628
                     00000000G  00   DD 0003A                 PUSHL   NML$GL_QUALIFIER_PST                               ; 0627
                                7E   D4 00040                 CLRL    -(SP)                                              ; 0625
                                52   DD 00042                 PUSHL   R2                                                 ; 0626
                          08    AC   DD 00044                 PUSHL   INDEX                                              ; 0625
                          0C    AC   DD 00047                 PUSHL   READ_RTN                                           ;
                          04    AC   DD 0004A                 PUSHL   ENTITY                                             ;
               64               08   FB 0004D                 CALLS   #8, NML_READ_PLURAL                                ;
                                     04 00050                 RET                                                        ;
                                52   D5 00051 3$:             TSTL    R2                                                 ; 0631
                                14   12 00053                 BNEQ    6$                                                 ;
                     00000000G  00   95 00055                 TSTB    NML$GB_OPTIONS                                     ; 0632
                                06   18 0005B                 BGEQ    4$                                                 ;
                                53   DD 0005D                 PUSHL   R3                                                 ; 0633
                                02   DD 0005F                 PUSHL   #2                                                 ;
                                0D   11 00061                 BRB     7$                                                 ;
                                63   DD 00063 4$:             PUSHL   NML$AB_ENTITY_ID                                   ; 0637
                                7E   D4 00065 5$:             CLRL    -(SP)                                              ; 0636
                                07   11 00067                 BRB     7$                                                 ;
               06               52   91 00069 6$:             CMPB    R2, #6                                             ; 0639
                                0F   1A 0006C                 BGTRU   8$                                                 ;
                                0C   BB 0006E                 PUSHR   #^M<R2,R3>                                         ; 0641
                          08    AC   DD 00070 7$:             PUSHL   INDEX                                              ; 0640
                          0C    AC   DD 00073                 PUSHL   READ_RTN                                           ;
                          04    AC   DD 00076                 PUSHL   ENTITY                                             ;
               64               05   FB 00079                 CALLS   #5, NML_READ_PLURAL                                ;
                                     04 0007C                 RET                                                        ;
                                7E   D4 0007D 8$:             CLRL    -(SP)                                              ; 0645
               7E               09   CE 0007F                 MNEGL   #9, -(SP)                                          ;
       00000000G  00            02   FB 00082                 CALLS   #2, NML$ERROR_2                                    ;
                                     04 00089                 RET                                                        ; 0647

; Routine Size:  138 bytes,    Routine Base:  $CODE$ + 01B7
```

```
1 %SBTTL 'NML_READ_EXECUTOR  Read executor parameters'
1 ROUTINE NML_READ_EXECUTOR (ENTITY, INDEX, READ_RTN) : NOVALUE =
1
1 !++
1 ! FUNCTIONAL DESCRIPTION:
1 !       This routine dispatches to the routine which reads the permanent
1 !       or volatile data base to get information about the executor node.
1 !
1 ! INPUTS:
1 !       ENTITY          The internal NML index for the entity specified in
1 !                       the NICE command.
1 !       INDEX           Entity information table (in NMLDAT) index code.
1 !       READ_RTN        Address of routine to perform read requested
1 !                               by NICE message.
1 !
1 ! IMPLICIT INPUTS:
1 !       NML$GB_ENTITY_FORMAT contains the entity format code.
1 !
1 !--
1
2 BEGIN
2
2 MAP
2     NML$GB_ENTITY_FORMAT : BYTE SIGNED;
2
2 SELECTONEU .NML$GB_ENTITY_FORMAT OF
2     SET
2     [NMA$C_ENT_ADD]:                          ! Node address
2         NML_READ_PLURAL (.ENTITY, .READ_RTN, .INDEX);
2
2     [1 TO 6]:                                 ! Node name
2         NML_READ_PLURAL (.ENTITY, .READ_RTN, .INDEX);
2
2     [OTHERWISE]:
2         NML$ERROR_2 (NMA$C_STS_IDE, NMA$C_ENT_NOD); ! Option error
2     TES;
2
1 END;                                  ! End of NML_READ_EXECUTOR
```

```
                                       0000 00000 NML_READ_EXECUTOR:
                                                          .WORD   Save nothing                          ; 0649
            50 00000000G  00   98 00002                   CVTBL   NML$GB_ENTITY_FORMAT, R0              ; 0673
                          05   13 00009                   BEQL    1$                                    ; 0675
            06            50   91 0000B                   CMPB    R0, #6                                ; 0678
                          11   1A 0000E                   BGTRU   2$                                    ;
                 08       AC   DD 00010 1$:               PUSHL   INDEX                                 ; 0679
                 0C       AC   DD 00013                   PUSHL   READ_RTN                              ;
                 04       AC   DD 00016                   PUSHL   ENTITY                                ;
      00000000V  00       03   FB 00019                   CALLS   #3, NML_READ_PLURAL                   ;
                               04 00020                   RET                                           ;
                          7E   D4 00021 2$:               CLRL    -(SP)                                 ; 0682
            7E            09   CE 00023                   MNEGL   #9, -(SP)                             ;
      00000000G  00       02   FB 00026                   CALLS   #2, NML$ERROR_2                       ;
```

```
                                              04 0002D        RET                                          ; 0685

; Routine Size:  46 bytes,    Routine Base:  $CODE$ + 0241
```

```
1 %SBTTL 'NML_READ_NETWORK  Read X25-Protocol network parameters'
1 ROUTINE NML_READ_NETWORK (ENTITY, INDEX, READ_RTN) : NOVALUE =
1
1 !++
1 ! FUNCTIONAL DESCRIPTION:
1 !       This routine dispatches to the routine which reads the permanent
1 !       or volatile data base for X25-Protocol networks.
1 !
1 ! INPUTS:
1 !       ENTITY                  The internal NML index for the entity specified in
1 !                               the NICE command.
1 !       INDEX                   Entity information table (in NMLDAT) index code.
1 !       READ_RTN                Address of routine to perform read requested
1 !                                       by NICE message.
1 !
1 ! IMPLICIT INPUTS:
1 !       NML$GB_ENTITY_FORMAT contains the entity format code.
1 !
1 !--
1
2 BEGIN
2
2 MAP
2     NML$GB_ENTITY_FORMAT : BYTE SIGNED;
2
2 SELECTONEU .NML$GB_ENTITY_FORMAT OF
2     SET
2     [0]:                              ! Active network (internal NML-ACP format only)
2         NML_READ_PLURAL (.ENTITY, .READ_RTN, .INDEX,
2                         0, 0,
2                         0, 0, 0);
2
2     [NMA$C_ENT_KNO]:                          ! Known entities
2         NML_READ_PLURAL (.ENTITY, .READ_RTN, .INDEX,
2                         .NML$GB_ENTITY_FORMAT, 0,
2                         0, 0, 0);
2
2     [1 TO 16]:                        ! Single network
2         NML_READ_PLURAL (.ENTITY, .READ_RTN, .INDEX,
2                         .NML$GB_ENTITY_FORMAT, NML$AB_ENTITY_ID,
2                         0, 0, 0);
2
2     [OTHERWISE]:
2         NML$ERROR_2 (NMA$C_STS_IDE, .NML$GB_ENTITY_CODE);
2     TES;
1 END;                                  ! End of NML_READ_NETWORK


                                0000 00000 NML_READ_NETWORK:
                                                .WORD   Save nothing                            : 0687
            50 00000000G  00  98 00002          CVTBL   NML$GB_ENTITY_FORMAT, R0                : 0711
                          08  12 00009          BNEQ    1$                                      : 0713
                          7E  7C 0000B          CLRQ    -(SP)                                   : 0714
                          7E  7C 0000D          CLRQ    -(SP)                                   :
```

```
                                7E  D4 0000F           CLRL    -(SP)                              ;
                                21  11 00011           BRB     4$                                 ;
              FF   8F           50  91 00013  1$:      CMPB    R0, #-1                            ; 0718
                                06  12 00017           BNEQ    2$                                 ;
                                7E  7C 00019           CLRQ    -(SP)                              ; 0719
                                7E  7C 0001B           CLRQ    -(SP)                              ;
                                13  11 0001D           BRB     3$                                 ; 0720
                                50  D5 0001F  2$:      TSTL    R0                                 ; 0723
                                22  13 00021           BEQL    5$                                 ;
                   10           50  91 00023           CMPB    R0, #16                            ;
                                1D  1A 00026           BGTRU   5$                                 ;
                                7E  7C 00028           CLRQ    -(SP)                              ; 0724
                                7E  D4 0002A           CLRL    -(SP)                              ;
                     00000000G  00  9F 0002C           PUSHAB  NML$AB_ENTITY_ID                   ;
                                50  DD 00032  3$:      PUSHL   R0                                 ; 0725
                         08     AC  DD 00034  4$:      PUSHL   INDEX                              ; 0724
                         0C     AC  DD 00037           PUSHL   READ_RTN                           ;
                         04     AC  DD 0003A           PUSHL   ENTITY                             ;
        00000000V  00           08  FB 0003D           CALLS   #8, NML_READ_PLURAL                ;
                                04  00044              RET                                        ;
                   7E 00000000G 00  9A 00045  5$:      MOVZBL  NML$GB_ENTITY_CODE, -(SP)          ; 0729
                   7E           09  CE 0004C           MNEGL   #9, -(SP)                          ;
        00000000G  00           02  FB 0004F           CALLS   #2, NML$ERROR_2                    ;
                                04  00056              RET                                        ; 0731

; Routine Size:  87 bytes,    Routine Base:  $CODE$ + 026F
```

```
1 %SBTTL 'NML_READ_AREA   Read area parameters'
1 ROUTINE NML_READ_AREA (ENTITY, INDEX, READ_RTN) : NOVALUE =
1
1 !++
1 ! FUNCTIONAL DESCRIPTION:
1 !
1 !       This routine dispatches to the routine which read the
1 !       volatile data base for areas.
1 !
1 ! INPUTS:
1 !       ENTITY          The internal NML index for the entity specified in
1 !                       the NICE command: NML$C_AREA
1 !       INDEX           Entity information table (in NMLDAT) index code.
1 !       READ_RTN        Address of routine to perform read requested
1 !                               by NICE message.
1 !
1 ! IMPLICIT INPUTS:
1 !       NML$GB_ENTITY_FORMAT contains the entity format code.
1 !
1 !--
1
2 BEGIN
2
2 MAP
2     NML$GB_ENTITY_FORMAT : BYTE SIGNED;
2
2 SELECTONEU .NML$GB_ENTITY_FORMAT OF
2     SET
2     [NMA$C_ENT_KNO,                   ! Known entities
2      NMA$C_ENT_ACT]:                  ! or active entities
2         NML_READ_PLURAL (.ENTITY, .READ_RTN, .INDEX,
2                         .NML$GB_ENTITY_FORMAT, 0,
2                         0, 0, 0);     ! No qualifiers for areas
2
2     [0]:                              ! Single entity
2         NML_READ_PLURAL (.ENTITY, .READ_RTN, .INDEX,
2                         0, .NML$AB_ENTITY_ID,
2                         0, 0, 0);     ! No qualifiers for areas
2
2     [OTHERWISE]:
2         NML$ERROR_2 (NMA$C_STS_IDE, .NML$GB_ENTITY_CODE);
2     TES;
1 END;                                  ! End of NML_READ_AREA
```

```
                            0000 00000 NML_READ_AREA:
                                       .WORD   Save nothing                    ; 0733
        50 00000000G  00  98 00002     CVTBL   NML$GB_ENTITY_FORMAT, R0        ; 0758
     FE   8F          50  91 00009     CMPB    R0, #-2                         ; 0760
                      08  1F 0000D     BLSSU   1$                              ;
                      7E  7C 0000F     CLRQ    -(SP)                           ; 0762
                      7E  7C 00011     CLRQ    -(SP)                           ;
                      50  DD 00013     PUSHL   R0                              ; 0763
                      10  11 00015     BRB     2$                              ; 0762
```

```
                                    50  D5 00017 1$:    TSTL    R0                                  ; 0766
                                    1D  12 00019        BNEQ    3$                                  ;
                                    7E  7C 0001B        CLRQ    -(SP)                               ; 0767
                                    7E  D4 0001D        CLRL    -(SP)                               ;
                        00000000G   00  DD 0001F        PUSHL   NML$AB_ENTITY_ID                    ; 0768
                                    7E  D4 00025        CLRL    -(SP)                               ; 0767
                               08   AC  DD 00027 2$:    PUSHL   INDEX                               ;
                               0C   AC  DD 0002A        PUSHL   READ_RTN                            ;
                               04   AC  DD 0002D        PUSHL   ENTITY                              ;
              00000000V  00             08  FB 00030    CALLS   #8, NML_READ_PLURAL                 ;
                                        04 00037        RET                                         ;
                    7E  00000000G   00  9A 00038 3$:    MOVZBL  NML$GB_ENTITY_CODE, -(SP)           ; 0772
                    7E              09  CE 0003F        MNEGL   #9, -(SP)                           ;
              00000000G  00             02  FB 00042    CALLS   #2, NML$ERROR_2                     ;
                                        04 00049        RET                                         ; 0774

; Routine Size:  74 bytes,    Routine Base:  $CODE$ + 02C6
```

```
%SBTTL 'NML_SHOW_LINKS  Show link volatile parameters'
ROUTINE NML_SHOW_LINKS (ENTITY, INDEX, READ_RTN) : NOVALUE =

!++
! FUNCTIONAL DESCRIPTION:
!
!       This routine shows the specified link parameters in the volatile
!       data base.
!
! INPUTS:
!       ENTITY          The internal NML index for the entity specified in
!                       the NICE command.
!       INDEX           Entity information table (in NMLDAT) index code.
!       READ_RTN        Address of routine to perform read requested
!                               by NICE message.
!
! IMPLICIT INPUTS:
!
!       NML$GL_PRS_FLGS contains the parse flags.
!       NML$GB_ENTITY_FORMAT contains the entity format code.
!
!--

BEGIN

MAP
    NML$GB_ENTITY_FORMAT : BYTE SIGNED;

!
! All functions specifying the link entity must be system-specific.
!

IF .NML$GL_PRS_FLGS [NML$V_PRS_VMS] THEN
    SELECTONEU .NML$GB_ENTITY_FORMAT OF
        SET
        [NMA$C_ENT_KNO]:                        ! Known
            NML_READ_PLURAL (.ENTITY,
                             .READ_RTN,
                             .INDEX,
                             NMA$C_ENT_KNO, 0,
                             .NML$GL_QUALIFIER_PST,
                             .NML$GB_QUALIFIER_FORMAT,
                             NML$AB_QUALIFIER_ID);

        [NMA$C_ENT_ADD]:
            NML_READ_PLURAL (.ENTITY,
                             .READ_RTN,
                             .INDEX,
                             0,
                             .(NML$AB_ENTITY_ID)<0,16>);
        TES;

NML$ERROR_2 (NMA$C_STS_IDE, NMA$C_SENT_LNK); ! Option error

END;                                    ! End of NML_SHOW_LINKS
```

```
                                        0004 00000 NML_SHOW_LINKS:
                                                         .WORD   Save R2                                        ; 0776
                 52 00000000V  00  9E 00002              MOVAB   NML_READ_PLURAL, R2
                 4C 00000000G  00  E9 00009              BLBC    NML$GL_PRS_FLGS, 2$                            ; 0807
                 50 00000000G  00  98 00010              CVTBL   NML$GB_ENTITY_FORMAT, R0                       ; 0808
         FF    8F              50  91 00017              CMPB    R0, #-T                                        ; 0810
                               26  12 0001B              BNEQ    1$
                    00000000G  00  9F 0001D              PUSHAB  NML$AB_QUALIFIER_ID                            ; 0811
                 7E 00000000G  00  9A 00023              MOVZBL  NML$GB_QUALIFIER_FORMAT, -(SP)                 ; 0816
                    00000000G  00  DD 0002A              PUSHL   NML$GL_QUALIFIER_PST                           ; 0815
                               7E  D4 00030              CLRL    -(SP)                                          ; 0811
                 7E            01  CE 00032              MNEGL   #1, -(SP)
                          08   AC  DD 00035              PUSHL   INDEX                                          ; 0813
                          0C   AC  DD 00038              PUSHL   READ_RTN                                       ; 0812
                          04   AC  DD 0003B              PUSHL   ENTITY                                         ; 0811
                 62            08  FB 0003E              CALLS   #8, NML_READ_PLURAL
                               19  11 00041              BRB     2$
                               50  D5 00043 1$:          TSTL    R0                                             ; 0819
                               15  12 00045              BNEQ    2$
                 7E 00000000G  00  3C 00047              MOVZWL  NML$AB_ENTITY_ID, -(SP)                        ; 0824
                               7E  D4 0004E              CLRL    -(SP)                                          ; 0820
                          08   AC  DD 00050              PUSHL   INDEX                                          ; 0822
                          0C   AC  DD 00053              PUSHL   READ_RTN                                       ; 0821
                          04   AC  DD 00056              PUSHL   ENTITY                                         ; 0820
                 62            05  FB 00059              CALLS   #5, NML_READ_PLURAL
                               07  DD 0005C 2$:          PUSHL   #7                                             ; 0827
                 7E            09  CE 0005E              MNEGL   #9, -(SP)
      00000000G  00            02  FB 00061              CALLS   #2, NML$ERROR_2
                               04     00068              RET                                                    ; 0829

; Routine Size:  105 bytes,    Routine Base:  $CODE$ + 0310
```

```
1 %SBTTL 'NML_READ_PLURAL Read plural entity parameters'
1 ROUTINE NML_READ_PLURAL (ENT, RTN, INF, PRM2, PRM3, PRM4, PRM5, PRM6) : NOVALUE =
1
1 !++
1 ! FUNCTIONAL DESCRIPTION:
1 !
1 !       This routine performs initialization for read operations.
1 !       The NICE framing messages (plural and done) are transmitted and
1 !       the SHOW or LIST routine is called.
1 !
1 ! FORMAL PARAMETERS:
1 !
1 !       ENT             Entity type code.
1 !       RTN             Address of routine to be called.
1 !       INF             Information code (SUMMARY, STATUS, CHARACTERISTICS,
1 !                       or COUNTERS).
1 !       PRM2 - PRM6     Function-specific routine parameters.
1 !
1 ! SIDE EFFECTS:
1 !
1 !       Several NICE messages are transmitted.
1 !
1 !--
1
2 BEGIN
2
2 MAP
2     NML$GB_OPTIONS : BBLOCK [1];
2
2 LOCAL
2     MSGSIZE;
2
2 IF .NML$GB_OPTIONS [NMA$V_OPT_PER] THEN
2     !
2     ! Open permanent data base file specified for write.
2     !
2     NML$OPENFILE (.NML$AB_ENTITYDATA [.ENT, EIT$B_FILEID], NMA$C_OPN_AC_RO);
2 !
2 ! Send success with multiple responses message.
2 !
2 NML$BLD_REPLY (UPLIT (0, NMA$C_STS_MOR), MSGSIZE); ! Build message
2 NML$SEND (NML$AB_SNDBUFFER, .MSGSIZE);           ! Send it
2 !
2 ! Enable condition handler to allow done message to be sent.
2 !
2 LIB$ESTABLISH (NML$MAINHANDLER);
2 !
2 ! Call entity-specific routine.
2 !
2 (.RTN) (.ENT, .INF, .PRM2, .PRM3, .PRM4, .PRM5, PRM6);
2 !
2 ! Signal done message.
2 !
2 LIB$REVERT ();                      ! Disable condition handler
2 NML$ERROR_1 (NMA$C_STS_DON);        ! Signal no more responses
2
1 END;                                ! End of NML_READ_PLURAL
```

```
                                                              .PSECT  $PLIT$,NOWRT,NOEXE,2

                    00000002  00000000  0000C P.AAD:          .LONG   0, 2                                       ;

                                                              .PSECT  $CODE$,NOWRT,2

                                   0000 00000 NML_READ_PLURAL:
                                                              .WORD   Save nothing                               ; 0831
                 5E              04  C2 00002                 SUBL2   #4, SP                                     ;
                    00000000G    00  95 00005                 TSTB    NML$GB_OPTIONS                             ; 0862
                                 16  18 0000B                 BGEQ    1$                                         ;
                                 7E  D4 0000D                 CLRL    -(SP)                                      ; 0866
       50      04  AC            2C  C5 0000F                 MULL3   #44, ENT, R0                               ;
                 7E 00000000G0040    9A 00014                 MOVZBL  NML$AB_ENTITYDATA[R0], -(SP)               ;
       00000000G  00             02  FB 0001C                 CALLS   #2, NML$OPENFILE                           ;
                                 5E  DD 00023 1$:             PUSHL   SP                                         ; 0870
                    00000000'    00  9F 00025                 PUSHAB  P.AAD                                      ;
       00000000G  00             02  FB 0002B                 CALLS   #2, NML$BLD_REPLY                          ;
                                 6E  DD 00032                 PUSHL   MSGSIZE                                    ; 0871
                    00000000G    00  9F 00034                 PUSHAB  NML$AB_SNDBUFFER                           ;
       00000000G  00             02  FB 0003A                 CALLS   #2, NML$SEND                               ;
                    00000000G    00  9F 00041                 PUSHAB  NML$MAINHANDLER                            ; 0875
       00000000G  00             01  FB 00047                 CALLS   #1, LIB$ESTABLISH                          ;
                           20    AC  9F 0004E                 PUSHAB  PRM6                                       ; 0879
                 7E        18    AC  7D 00051                 MOVQ    PRM4, -(SP)                                ;
                 7E        10    AC  7D 00055                 MOVQ    PRM2, -(SP)                                ;
                           0C    AC  DD 00059                 PUSHL   INF                                        ;
                           04    AC  DD 0005C                 PUSHL   ENT                                        ;
            08   BC              07  FB 0005F                 CALLS   #7, @RTN                                   ;
       00000000G  00             00  FB 00063                 CALLS   #0, LIB$REVERT                             ; 0883
                 7E        80    8F  98 0006A                 CVTBL   #-128, -(SP)                               ; 0884
       00000000G  00             01  FB 0006E                 CALLS   #1, NML$ERROR_1                            ;
                                     04 00075                 RET                                                ; 0886

; Routine Size:  118 bytes,    Routine Base:  $CODE$ + 0379
```

```
;  899          0887  1 END                                     ! End of module
;  900          0888  1
;  901          0889  0 ELUDOM



;                                       PSECT SUMMARY
;
;       Name                    Bytes                           Attributes
;
;   $OWN$                         984  NOVEC,  WRT,  RD ,NOEXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)
;   $PLIT$                         20  NOVEC,NOWRT,  RD ,NOEXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)
;   $CODE$                       1007  NOVEC,NOWRT,  RD ,  EXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)



;                               Library Statistics
;
;                                           -------- Symbols --------       Pages      Processing
;       File                                Total   Loaded   Percent       Mapped     Time
;
;   _$255$DUA28:[NML.OBJ]NMLLIB.L32;1         341       33         9           27     00:00.1
;   _$255$DUA28:[SHRLIB]NMALIBRY.L32;1        887       22         2           47     00:00.2
;   _$255$DUA28:[SYSLIB]STARLET.L32;1        9776        0         0          581     00:02.2



;                                       COMMAND QUALIFIERS

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

; Size:           1007 code + 1004 data bytes
; Run Time:          00:29.2
; Elapsed Time:      01:12.8
; Lines/CPU Min:      1827
; Lexemes/CPU-Min: 28538
; Memory Used:  171 pages
; Compilation Complete
```

NMLPURGE
LIS

NMLPARINI
LIS

NMLNODFIL
LIS

NMLREAD
LIS

NMLPARPRM
LIS

NMLPMANIP
LIS

0286 AH-BT13A-SE
VAX/VMS V4.0

DIGITAL EQUIPMENT CORPORATION
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NMLREALOG
LIS

NMLSHOPRM
LIS

NMLSET
LIS

NMLSEDEST
LIS