```
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**NMLNETIO

```
NN      NN  MM      MM  LL          NN      NN  EEEEEEEEEE  TTTTTTTTTT    IIIIII     000000
NN      NN  MM      MM  LL          NN      NN  EEEEEEEEEE  TTTTTTTTTT    IIIIII     000000
NN      NN  MMMM  MMMM  LL          NN      NN  EE              TT          II      00      00
NN      NN  MMMM  MMMM  LL          NN      NN  EE              TT          II      00      00
NNNN    NN  MM  MM  MM  LL          NNNN    NN  EE              TT          II      00      00
NNNN    NN  MM  MM  MM  LL          NNNN    NN  EE              TT          II      00      00
NN  NN  NN  MM      MM  LL          NN  NN  NN  EEEEEEEE        TT          II      00      00
NN  NN  NN  MM      MM  LL          NN  NN  NN  EEEEEEEE        TT          II      00      00
NN    NNNN  MM      MM  LL          NN    NNNN  EE              TT          II      00      00
NN    NNNN  MM      MM  LL          NN    NNNN  EE              TT          II      00      00
NN      NN  MM      MM  LL          NN      NN  EE              TT          II      00      00      ....
NN      NN  MM      MM  LL          NN      NN  EE              TT          II      00      00      ....
NN      NN  MM      MM  LLLLLLLLLL  NN      NN  EEEEEEEEEE      TT      IIIIII     000000       ....
NN      NN  MM      MM  LLLLLLLLLL  NN      NN  EEEEEEEEEE      TT      IIIIII     000000       ....

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
```

```
;  1     0001  0 %TITLE 'NML Network I/O module'
;  2     0002  0 MODULE NML$NETIO (
;  3     0003  0                 LANGUAGE (BLISS32),
;  4     0004  0                 ADDRESSING_MODE (NONEXTERNAL=GENERAL),
;  5     0005  0                 ADDRESSING_MODE (EXTERNAL=GENERAL),
;  6     0006  0                 IDENT = 'V04-000'
;  7     0007  0                 ) =
;  8     0008  1 BEGIN
;  9     0009  1 !
; 10     0010  1 !**************************************************************************
; 11     0011  1 !*                                                                        *
; 12     0012  1 !*  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY                               *
; 13     0013  1 !*  DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.                 *
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; 28     0028  1 !*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.                *
; 29     0029  1 !*                                                                        *
; 30     0030  1 !*                                                                        *
; 31     0031  1 !**************************************************************************
; 32     0032  1
; 33     0033  1 !++
; 34     0034  1 ! FACILITY:  DECnet-VAX V2.0 Network Management Listener
; 35     0035  1 !
; 36     0036  1 !
; 37     0037  1 ! ABSTRACT:
; 38     0038  1 !
; 39     0039  1 !       This module contains routines to handle all network I/O
; 40     0040  1 !       with NCP and NETACP (NETDRIVER).
; 41     0041  1 !
; 42     0042  1 ! ENVIRONMENT:  VAX/VMS Operating System
; 43     0043  1 !
; 44     0044  1 ! AUTHOR:  Distributed Systems Software Engineering
; 45     0045  1 !
; 46     0046  1 ! CREATION DATE:  2-Oct-1979
; 47     0047  1 !
; 48     0048  1 ! MODIFIED BY:
; 49     0049  1 !
; 50     0050  1 !       V03-007 MKP0011         Kathy Perko             25-Mar-1984
; 51     0051  1 !               If a circuit or line operation returns an SS$_CTRL or
; 52     0052  1 !               SS$_TIMEOUT error, use the middle word of the second longword
; 53     0053  1 !               of the IOSB for the NICE response detail field.  This word is
; 54     0054  1 !               the error and status fields of $XMDEF.
; 55     0055  1 !
; 56     0056  1 !       V03-006 MKP0010         Kathy Perko             27-Feb-1984
; 57     0057  1 !               Do previous fix correctly (EQL --> NEQ).
```

```
;    58          0058  1 !
;    59          0059  1 !       V03-005 MKP0009         Kathy Perko             1-Nov-1983
;    60          0060  1 !               Change mapping of parameters NETAP returns in 2nd longword
;    61          0061  1 !               of the IOSB so that, if the parameter doesn't map and the
;    62          0062  1 !               high order word is zero, it is returned as is.  This is
;    63          0063  1 !               because some of the drivers return Network Management
;    64          0064  1 !               parameter IDs which don't need to be mapped.
;    65          0065  1 !
;    66          0066  1 !       V03-004 MKP0008         Kathy Perko             14-Nov-1982
;    67          0067  1 !               Add area entity mapping.
;    68          0068  1 !
;    69          0069  1 !       V03-003 MKP0007         Kathy Perko             6-Oct-1982
;    70          0070  1 !               Add adjacency database error mapping.
;    71          0071  1 !
;    72          0072  1 !       V03-002 MKP0006         Kathy Perko             8-Sept-1982
;    73          0073  1 !               Move the $ASSIGN for the QIO channel to NETACP here.  This
;    74          0074  1 !               means that the assign is only attempted for NCP commands to
;    75          0075  1 !               the volatile database, and NCP commands to the permanent data
;    76          0076  1 !               base will be performed even if the network is not up.
;    77          0077  1 !
;    78          0078  1 !       V03-001 MKP0005         Kathy Perko             17-July-1982
;    79          0079  1 !               Add module entity parameter mapping.
;    80          0080  1 !
;    81          0081  1 !       V02-006 MKP0004         Kathy Perko             10-Jan-1982
;    82          0082  1 !               Add SS$_NOLICENSE as a completion code for QIOs to NETACP.
;    83          0083  1 !               Add a parameter to NML$DEBUG_QIO to put a header in
;    84          0084  1 !               the debug log to identify what kind of QIO is being logged.
;    85          0085  1 !
;    86          0086  1 !       V02-005 MKP0003         Kathy Perko             05-Dec-1981
;    87          0087  1 !               Add NICE return of Component in Wrong State when
;    88          0088  1 !               NETACP returns Device Inactive (if circuit is turned
;    89          0089  1 !               on when line is off).
;    90          0090  1 !
;    91          0091  1 !       V02-004 MKP0002         Kathy Perko             23-NOV-1981
;    92          0092  1 !               Add NICE return of Invalid Identifiaction Format when
;    93          0093  1 !               NETACP returns Invalid Device Name.
;    94          0094  1 !
;    95          0095  1 !       V02-003 MKP0001         Kathy Perko             11-Sept-1981
;    96          0096  1 !               Add ACP link database as a separate data base.
;    97          0097  1 !
;    98          0098  1 !       V002    LMK0001         Len Kawell              24-Jul-1981
;    99          0099  1 !               Remove QIOSET and QIOCLEAR and other mofifications for
;   100          0100  1 !               new ACP control QIO.
;   101          0101  1 !
;   102          0102  1 !       V001    TMH0001         Tim Halvorsen           20-Jul-1981
;   103          0103  1 !               Move SEND and RECEIVE routines to NMLENTRY and NMLMAIN
;   104          0104  1 !               respectively.
;   105          0105  1 !--
;   106          0106  1
```

```
;  108          0107  1 %SBTTL 'Declarations'
;  109          0108  1
;  110          0109  1 !
;  111          0110  1 ! TABLE OF CONTENTS:
;  112          0111  1 !
;  113          0112  1
;  114          0113  1 FORWARD ROUTINE
;  115          0114  1     NML$NETQIO,
;  116          0115  1     NML$MAPQIOERROR,
;  117          0116  1     NML_MAPENTITY,
;  118          0117  1     NML_MAPPARAMID;
;  119          0118  1
;  120          0119  1 !
;  121          0120  1 ! INCLUDE FILES:
;  122          0121  1 !
;  123          0122  1
;  124          0123  1 LIBRARY 'LIB$:NMLLIB';                  ! Facility-wide definitions
;  125          0124  1 LIBRARY 'SHRLIB$:NMALIBRY';             ! NICE definitions
;  126          0125  1 LIBRARY 'SHRLIB$:NET';                  ! NETACP QIO interface
;  127          0126  1 LIBRARY 'SYS$LIBRARY:STARLET';          ! VMS common definitions
;  128          0127  1
;  129          0128  1 !
;  130          0129  1 ! OWN STORAGE:
;  131          0130  1 !
;  132          0131  1
;  133          0132  1 !
;  134          0133  1 ! EXTERNAL REFERENCES:
;  135          0134  1 !
;  136          0135  1
;  137          0136  1 $NML_EXTDEF;
;  138          0137  1
;  139          0138  1 EXTERNAL
;  140          0139  1     NML$GQ_PLIMAPDES,
;  141          0140  1     NML$GQ_EFIMAPDES,
;  142          0141  1     NML$GQ_ESIMAPDES,
;  143          0142  1     NML$GQ_LNIMAPDES,
;  144          0143  1     NML$GQ_NDIMAPDES,
;  145          0144  1     NML$GQ_OBIMAPDES,
;  146          0145  1     NML$GQ_CRIMAPDES,
;  147          0146  1     NML$GQ_LLIMAPDES,
;  148          0147  1     NML$GQ_XNIMAPDES,
;  149          0148  1     NML$GQ_XDIMAPDES,
;  150          0149  1     NML$GQ_XGIMAPDES,
;  151          0150  1     NML$GQ_XS5MAPDES,
;  152          0151  1     NML$GQ_XD5MAPDES,
;  153          0152  1     NML$GQ_XS9MAPDES,
;  154          0153  1     NML$GQ_XD9MAPDES,
;  155          0154  1     NML$GQ_AJIMAPDES,
;  156          0155  1     NML$GQ_ARIMAPDES;
;  157          0156  1
;  158          0157  1 EXTERNAL ROUTINE
;  159          0158  1     NML$DEBUG_QIO;
;  160          0159  1
```

```
;  162          0160  1 %SBTTL 'NML$NETQIO  General network QIO routine'
;  163          0161  1 GLOBAL ROUTINE NML$NETQIO (NFBDSC, P2, P3, BUFDSC) =
;  164          0162  1
;  165          0163  1 !++
;  166          0164  1 ! FUNCTIONAL DESCRIPTION:
;  167          0165  1 !
;  168          0166  1 !       This routine issues QIO function requests to NETACP to perform
;  169          0167  1 !       volatile data base operations.
;  170          0168  1 !
;  171          0169  1 ! FORMAL PARAMETERS:
;  172          0170  1 !
;  173          0171  1 !       NFBDSC          Descriptor of NFB data.
;  174          0172  1 !       P2              Descriptor of P2 data.
;  175          0173  1 !       P3              Address of word to contain resulting length.
;  176          0174  1 !       BUFDSC          Descriptor of data buffer
;  177          0175  1 !
;  178          0176  1 ! IMPLICIT INPUTS:
;  179          0177  1 !
;  180          0178  1 !       NML$GW_ACP_CHAN Channel assigned to the command process link.
;  181          0179  1 !
;  182          0180  1 ! IMPLICIT OUTPUTS:
;  183          0181  1 !
;  184          0182  1 !       NONE
;  185          0183  1 !
;  186          0184  1 ! ROUTINE VALUE:
;  187          0185  1 ! COMPLETION CODES:
;  188          0186  1 !
;  189          0187  1 !       This routine returns an NML status code that has been mapped from
;  190          0188  1 !       the QIO status code.
;  191          0189  1 !
;  192          0190  1 ! SIDE EFFECTS:
;  193          0191  1 !
;  194          0192  1 !       NONE
;  195          0193  1 !
;  196          0194  1 !--
;  197          0195  1
;  198          0196  2 BEGIN
;  199          0197  2
;  200          0198  2 MAP
;  201          0199  2     NFBDSC : REF DESCRIPTOR,
;  202          0200  2     BUFDSC : REF DESCRIPTOR;
;  203          0201  2
;  204          0202  2 LOCAL
;  205          0203  2     IOSB      : $IOSB,                      ! I/O status block
;  206          0204  2     DATABASE,                               ! Database ID
;  207          0205  2     STATUS;                                 ! Temporary return status
;  208          0206  2 !
;  209          0207  2 ! If it hasn't already been done, establish channel to NETACP for QIO control
;  210          0208  2 ! functions. The channel is to NET:, the pseudo device to which volatile
;  211          0209  2 ! database commands are issued.  Doing the assing here allows NCP commands to
;  212          0210  2 ! the permanent data base to be processed even if NETACP is not mounted.
;  213          0211  2 !
;  214          0212  2 STATUS = SS$_NORMAL;
;  215          0213  2 IF .NML$GW_ACP_CHAN EQL 0 THEN
;  216        P 0214  2     STATUS = $ASSIGN(DEVNAM = NML$GQ_NETNAMDSC,
;  217          0215  2                      CHAN = NML$GW_ACP_CHAN);
;  218          0216  2 IF .STATUS THEN
```

```
;  219          0217  3     BEGIN
;  220          0218  3     !
;  221          0219  3     ! Issue the QIO.
;  222          0220  3     !
;  223        P 0221  3     STATUS = $QIOW (CHAN = .NML$GW_ACP_CHAN,      ! Channel
;  224        P 0222  3                     FUNC = IO$_ACPCONTROL,       ! Function
;  225        P 0223  3                     IOSB = IOSB,                 ! I/O status block
;  226        P 0224  3                     P1   = .NFBDSC,              ! P1 descriptor (NFB)
;  227        P 0225  3                     P2   = .P2,                  ! P2 descriptor (component id)
;  228        P 0226  3                     P3   = .P3,                  ! Address for resulting length
;  229          0227  3                     P4   = .BUFDSC);             ! P4 (data buffer) descriptor
;  230          0228  3     !
;  231          0229  3     ! Log the QIO function.
;  232          0230  3     !
;  233          0231  3     NML$DEBUG_QIO (DBG$C_ACPQIO,                  ! Log type code
;  234          0232  3                    .STATUS,                     ! QIO status value
;  235          0233  3                    IOSB,                        ! Address of I/O status block
;  236          0234  3                    .NFBDSC,                     ! NFB descriptor
;  237          0235  3                    .P2,                         ! P2 descriptor
;  238          0236  3                    .P3,                         ! Address of P3 word
;  239          0237  3                    .BUFDSC,                     ! Data buffer descriptor
;  240          0238  3                    $ASCID('SET, SHOW, or CLEAR NETACPs database'));
;  241          0239  3     !
;  242          0240  3     ! Map the operation status into an NML code.
;  243          0241  3     !
;  244          0242  3     DATABASE = .BBLOCK [.NFBDSC [DSC$A_POINTER], NFB$B_DATABASE];
;  245          0243  2     END;
;  246          0244  2 STATUS = NML$MAPQIOERROR (.DATABASE, .STATUS, IOSB);
;  247          0245  2 !
;  248          0246  2 ! Return the mapped status code.
;  249          0247  2 !
;  250          0248  2 RETURN .STATUS
;  251          0249  2
;  252          0250  1 END;                                    ! End of NML$NETQIO


                                                                .TITLE  NML$NETIO NML Network I/O module
                                                                .IDENT  \V04-000\

                                                                .PSECT  $PLIT$,NOWRT,NOEXE,2

43  20  72  6F  20  2C  57  4F  48  53  20  2C  54  45  53  00000 P.AAB:   .ASCII  \SET, SHOW, or CLEAR NETACPs database\      ;
61  64  20  73  50  43  41  54  45  4E  20  52  41  45  4C  0000F                                                            ;
                              65  73  61  62  61  74  0001E                                                              ;
                                                  00000024  00024 P.AAA:   .LONG   36                                     ;
                                                  00000000' 00028         .ADDRESS P.AAB                                  ;

                                                                .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  NML$GQ_PLIMAPDES
                        .EXTRN  NML$GQ_EFIMAPDES
                        .EXTRN  NML$GQ_ESIMAPDES
                        .EXTRN  NML$GQ_LNIMAPDES
                        .EXTRN  NML$GQ_NDIMAPDES
                        .EXTRN  NML$GQ_OBIMAPDES
                        .EXTRN  NML$GQ_CRIMAPDES
                        .EXTRN  NML$GQ_LLIMAPDES
                        .EXTRN  NML$GQ_XNIMAPDES
                        .EXTRN  NML$GQ_XDIMAPDES
                        .EXTRN  NML$GQ_XGIMAPDES
                        .EXTRN  NML$GQ_XS5MAPDES
                        .EXTRN  NML$GQ_XD5MAPDES
                        .EXTRN  NML$GQ_XS9MAPDES
                        .EXTRN  NML$GQ_XD9MAPDES
                        .EXTRN  NML$GQ_AJIMAPDES
                        .EXTRN  NML$GQ_ARIMAPDES
                        .EXTRN  NML$DEBUG_QIO, SYS$ASSIGN
                        .EXTRN  SYS$QIOW

                        .PSECT  $CODE$,NOWRT,2

                    001C 00000          .ENTRY  NML$NETQIO, Save R2,R3,R4                       ; 0161
54 00000000G    00   9E 00002          MOVAB   NML$GW_ACP_CHAN, R4                             ;
5E              08   C2 00009          SUBL2   #8, SP                                          ;
53              01   D0 0000C          MOVL    #1, STATUS                                      ; 0212
                64   D5 0000F          TSTL    NML$GW_ACP_CHAN                                 ; 0213
                14   12 00011          BNEQ    1$                                              ;
                7E   7C 00013          CLRQ    -(SP)                                           ; 0215
```

```
                                                54  DD 00015          PUSHL   R4                                          ;
                                    00000000G   00  9F 00017          PUSHAB  NML$GQ_NETNAMDSC                            ;
                          00000000G 00          04  FB 0001D          CALLS   #4, SYS$ASSIGN                              ;
                                    53          50  D0 00024          MOVL    R0, STATUS                                  ;
                                    49          53  E9 00027 1$:      BLBC    STATUS, 2$                                  ; 0216
                                                7E  7C 0002A          CLRQ    -(SP)                                       ; 0227
                                    7E      0C  AC  7D 0002C          MOVQ    P3, -(SP)                                   ;
                                            08  AC  DD 00030          PUSHL   P2                                          ;
                                    52      04  AC  D0 00033          MOVL    NFBDSC, R2                                  ;
                                                52  DD 00037          PUSHL   R2                                          ;
                                                7E  7C 00039          CLRQ    -(SP)                                       ;
                                            20  AE  9F 0003B          PUSHAB  IOSB                                        ;
                                                38  DD 0003E          PUSHL   #56                                         ;
                                                64  DD 00040          PUSHL   NML$GW_ACP_CHAN                             ;
                                                7E  D4 00042          CLRL    -(SP)                                       ;
                          00000000G 00          0C  FB 00044          CALLS   #12, SYS$QIOW                               ;
                                    53          50  D0 0004B          MOVL    R0, STATUS                                  ;
                                    00000000'   00  9F 0004E          PUSHAB  P.AAA                                       ; 0238
                                    7E      0C  AC  7D 00054          MOVQ    P3, -(SP)                                   ; 0236
                                            08  AC  DD 00058          PUSHL   P2                                          ; 0235
                                                52  DD 0005B          PUSHL   R2                                          ; 0234
                                            14  AE  9F 0005D          PUSHAB  IOSB                                        ; 0231
                                                53  DD 00060          PUSHL   STATUS                                      ; 0232
                                                04  DD 00062          PUSHL   #4                                          ; 0231
                          00000000G 00          08  FB 00064          CALLS   #8, NML$DEBUG_QIO                           ;
                                    50      04  A2  D0 0006B          MOVL    4(R2), R0                                   ; 0242
                                    50      02  A0  9A 0006F          MOVZBL  2(R0), DATABASE                             ;
                                          4009  8F  BB 00073 2$:      PUSHR   #^M<R0,R3,SP>                               ; 0244
                          00000000V 00          03  FB 00077          CALLS   #3, NML$MAPQIOERROR                         ;
                                    53          50  D0 0007E          MOVL    R0, STATUS                                  ;
                                                04  00081           RET                                                 ; 0250

; Routine Size:  130 bytes,    Routine Base:  $CODE$ + 0000
```

```
;  254     0251  1 %SBTTL 'NML$MAPQIOERROR  Map QIO error to NML error'
;  255     0252  1 GLOBAL ROUTINE NML$MAPQIOERROR (DATABASE, QIOSTATUS, IOSB) =
;  256     0253  1
;  257     0254  1 !++
;  258     0255  1 ! FUNCTIONAL DESCRIPTION:
;  259     0256  1 !
;  260     0257  1 !       This routine translates QIO errors into network management
;  261     0258  1 !       errors and makes the appropriate entries in the message
;  262     0259  1 !       block.
;  263     0260  1 !
;  264     0261  1 ! FORMAL PARAMETERS:
;  265     0262  1 !
;  266     0263  1 !       DATABASE        Database ID
;  267     0264  1 !       QIOSTATUS       QIO status return.
;  268     0265  1 !       IOSB            Address of I/O status block.
;  269     0266  1 !
;  270     0267  1 ! IMPLICIT INPUTS:
;  271     0268  1 !
;  272     0269  1 !       NONE
;  273     0270  1 !
;  274     0271  1 ! IMPLICIT OUTPUTS:
;  275     0272  1 !
;  276     0273  1 !       NML$AB_MSGBLOCK contains the appropriate error code and detail
;  277     0274  1 !       if applicable.
;  278     0275  1 !
;  279     0276  1 ! ROUTINE VALUE:
;  280     0277  1 ! COMPLETION CODES:
;  281     0278  1 !
;  282     0279  1 !       The return status is the NML error that corresponds to the QIO error.
;  283     0280  1 !
;  284     0281  1 ! SIDE EFFECTS:
;  285     0282  1 !
;  286     0283  1 !       NONE
;  287     0284  1 !
;  288     0285  1 !--
;  289     0286  1
;  290     0287  2     BEGIN
;  291     0288  2
;  292     0289  2     MAP
;  293     0290  2         IOSB : REF $IOSB;
;  294     0291  2
;  295     0292  2     LOCAL
;  296     0293  2         CODE   : BYTE,                  ! NICE status code
;  297     0294  2         DETAIL : WORD,                  ! NICE detail code
;  298     0295  2         FLAGS,                          ! Message flags
;  299     0296  2         STATUS,                         ! Return status
;  300     0297  2         TEXT;                           ! Optional text code
;  301     0298  2 !
;  302     0299  2 ! Set up the default message information.
;  303     0300  2 !
;  304     0301  2     CODE = NMA$C_STS_OPE;               ! Management program error
;  305     0302  2     DETAIL = -1;                        ! No detail
;  306     0303  2     FLAGS = MSB$M_DET_FLD;              ! Detail flag
;  307     0304  2 !
;  308     0305  2 ! Check the QIO status and the I/O status block.
;  309     0306  2 !
;  310     0307  2     IF NOT .QIOSTATUS
```

```
;   311          0308  2     THEN
;   312          0309  3         BEGIN
;   313          0310  3 !
;   314          0311  3 ! The QIO was in error.  This indicates a program or a system error.
;   315          0312  3 !
;   316          0313  3         TEXT = .QIOSTATUS;              ! Use system message as optional text
;   317          0314  3         FLAGS = .FLAGS OR               ! Default flags
;   318          0315  3                 MSB$M_MSG_FLD OR        !  and optional text
;   319          0316  3                 MSB$M_SYSM_FLD;         !  and system text
;   320          0317  3         STATUS = NML$_STS_MPR;          ! Return status
;   321          0318  3
;   322          0319  3         END
;   323          0320  2     ELSE
;   324          0321  3         BEGIN
;   325          0322  3 !
;   326          0323  3 ! The QIO status was successful so check the I/O status block.
;   327          0324  3 ! If it indicates success the just return.  Otherwise, attempt to map
;   328          0325  3 ! the error code to an NML error code.
;   329          0326  3 !
;   330          0327  3         IF .IOSB [IOS$W_STATUS]
;   331          0328  3         THEN
;   332          0329  3             RETURN NML$_STS_SUC;
;   333          0330  3
;   334          0331  3         SELECTONE .IOSB [IOS$W_STATUS] OF
;   335          0332  3             SET
;   336          0333  3
;   337          0334  3             [SS$_BUFFEROVF]:                    ! Buffer is full
;   338          0335  4                 BEGIN
;   339          0336  4 !
;   340          0337  4 ! This is a special error code.  If all of the components for a plural SHOW
;   341          0338  4 ! function will not fit in a single buffer then this code is returned to
;   342          0339  4 ! indicate that more components remain.  The code returned when the end of
;   343          0340  4 ! the component list has been reached is SS$_ENDOFFILE.
;   344          0341  4 !
;   345          0342  4                 STATUS = NML$_STS_SUC;
;   346          0343  3                 END;
;   34           0344  3
;   348          0345  3             [SS$_INSFARG]:                      ! Missing parameter
;   349          0346  4                 BEGIN
;   350          0347  4                 CODE = NMA$C_STS_PMS;
;   351          0348  4                 DETAIL = NML_MAPPARAMID (.IOSB [IOS$L_INFO]);
;   352          0349  4                 STATUS = NML$_STS_PMS;
;   353          0350  3                 END;
;   354          0351  3
;   355          0352  3             [SS$_BADPARAM,                      ! Parameter value error
;   356          0353  3              SS$_DEVACTIVE]:
;   357          0354  4                 BEGIN
;   358          0355  4                 CODE = NMA$C_STS_PVA;
;   359          0356  4                 DETAIL = NML_MAPPARAMID (.IOSB [IOS$L_INFO]);
;   360          0357  4                 STATUS = NML$_STS_PVA;
;   361          0358  3                 END;
;   362          0359  3
;   363          0360  3             [SS$_WRITLCK]:                      ! Component in wrong state
;   364          0361  4                 BEGIN
;   365          0362  4                 CODE = NMA$C_STS_STA;
;   366          0363  4                 DETAIL = NML_MAPENTITY (.DATABASE);
;   367          0364  4                 STATUS = NML$_STS_STA;
```

```
;  368          0365  3                END;
;  369          0366  3
;  370          0367  3            [SS$_INSFMEM]:                          ! No room for new entry
;  371          0368  4                BEGIN
;  372          0369  4                CODE = NMA$C_STS_ROO;
;  373          0370  4                STATUS = NML$_STS_ROO;
;  374          0371  3                END;
;  375          0372  3
;  376          0373  3            [SS$_ENDOFFILE]:                        ! Unrecognized component
;  377          0374  4                BEGIN
;  378          0375  4                CODE = NMA$C_STS_CMP;
;  379          0376  4                DETAIL = NML_MAPENTITY (.DATABASE);
;  380          0377  4                STATUS = NML$_STS_CMP;
;  381          0378  3                END;
;  382          0379  3
;  383          0380  3            [SS$_NOPRIV]:                           ! Privilege violation
;  384          0381  4                BEGIN
;  385          0382  4                CODE = NMA$C_STS_PRI;
;  386          0383  4                STATUS = NML$_STS_PRI;
;  387          0384  3                END;
;  388          0385  3
;  389          0386  3            [SS$_NOSUCHDEV]:                        ! No such device
;  390          0387  4                BEGIN
;  391          0388  4                CODE = NMA$C_STS_CMP;
;  392          0389  4                DETAIL = NML_MAPENTITY (.DATABASE);
;  393          0390  4                TEXT = .IOSB [IOS$W_STATUS];
;  394          0391  4                FLAGS = .FLAGS OR MSB$M_MSG_FLD OR MSB$M_SYSM_FLD;
;  395          0392  4                STATUS = NML$_STS_CMP;
;  396          0393  3                END;
;  397          0394  3
;  398          0395  3            [SS$_NOSUCHNODE]:                       ! No such node
;  399          0396  4                BEGIN
;  400          0397  4 !
;  401          0398  4 ! This parameter only applies to SHOW and DISCONNECT LINK comands.
;  402          0399  4 !
;  403          0400  4                CODE = NMA$C_STS_CMP;
;  404          0401  4                DETAIL = NMA$C_ENT_NOD;
;  405          0402  4                TEXT = .IOSB [IOS$W_STATUS];
;  406          0403  4                FLAGS = .FLAGS OR MSB$M_MSG_FLD OR MSB$M_SYSM_FLD;
;  407          0404  4                STATUS = NML$_STS_CMP;
;  408          0405  3                END;
;  409          0406  3
;  410          0407  3            [SS$_DEVINACT]:                         ! Device inactive
;  411          0408  4                BEGIN
;  412          0409  4                CODE = NMA$C_STS_STA;
;  413          0410  4                DETAIL = NML_MAPPARAMID (.IOSB [IOS$L_INFO]);
;  414          0411  4                TEXT = .IOSB [IOS$W_STATUS];
;  415          0412  4                FLAGS = .FLAGS OR MSB$M_MSG_FLD OR MSB$M_SYSM_FLD;
;  416          0413  4                STATUS = NML$_STS_STA;
;  417          0414  3                END;
;  418          0415  3
;  419          0416  3            [SS$_IVDEVNAM]:                         ! Invalid device name.
;  420          0417  4                BEGIN
;  421          0418  4                CODE = NMA$C_STS_IDE;
;  422          0419  4                DETAIL = NML_MAPENTITY (.DATABASE);
;  423          0420  4                TEXT = .IOSB [IOS$W_STATUS];
;  424          0421  4                FLAGS = .FLAGS OR MSB$M_MSG_FLD OR MSB$M_SYSM_FLD;
```

```
;  425          0422  4                STATUS = NML$_STS_IDE;
;  426          0423  3                END;
;  427          0424  3
;  428          0425  3            [SS$_NOLICENSE]:                    ! Customer doesn't have a
;  429          0426  4                BEGIN
;  430          0427  4                CODE = NMA$C_STS_OPE;
;  431          0428  4                TEXT = .IOSB [IOS$W_STATUS];
;  432          0429  4                FLAGS = .FLAGS OR MSB$M_MSG_FLD OR MSB$M_SYSM_FLD;
;  433          0430  4                STATUS = NML$_STS_OPE;
;  434          0431  3                END;
;  435          0432  3
;  436          0433  3            [OTHERWISE]:                        ! Operation failure
;  437          0434  4                BEGIN
;  438          0435  4                CODE = NMA$C_STS_OPE;
;  439          0436  4                !
;  440          0437  4                ! If the error was SS$_CTRL or SS$_TIMEOUT on a line or
;  441          0438  4                ! circuit, the second longword of the IOSB is described by
;  442          0439  4                ! $XMDEF.  The 2nd and 3rd bytes are the status and error
;  443          0440  4                ! fields respectively, and are the most meaningful bytes to
;  444          0441  4                ! return, since the detail field is only a word.
;  445          0442  4                !
;  446          0443  4                IF .DATABASE EQL NFB$C_DB_CRI OR
;  447          0444  4                   .DATABASE EQL NFB$C_DB_PLI THEN
;  448          0445  5                    DETAIL = .(IOSB [IOS$L_INFO] +1)
;  449          0446  4                ELSE
;  450          0447  4                    DETAIL = .IOSB [IOS$L_INFO];
;  451          0448  4                TEXT = .IOSB [IOS$W_STATUS];
;  452          0449  4                FLAGS = .FLAGS OR
;  453          0450  4                        MSB$M_MSG_FLD OR
;  454          0451  4                        MSB$M_SYSM_FLD;
;  455          0452  4                STATUS = NML$_STS_OPE;
;  456          0453  3                END;
;  457          0454  3
;  458          0455  3            TES;
;  459          0456  2        END;
;  460          0457  2 !
;  461          0458  2 ! Set up the message information.
;  462          0459  2 !
;  463          0460  2     NML$AB_MSGBLOCK [MSB$L_FLAGS]  = .FLAGS;
;  464          0461  2     NML$AB_MSGBLOCK [MSB$B_CODE]   = .CODE;
;  465          0462  2     NML$AB_MSGBLOCK [MSB$W_DETAIL] = .DETAIL;
;  466          0463  2     NML$AB_MSGBLOCK [MSB$L_TEXT]   = .TEXT;
;  467          0464  2 !
;  468          0465  2 ! Return the mapped status.
;  469          0466  2 !
;  470          0467  2     RETURN .STATUS
;  471          0468  2
;  472          0469  1     END;                                    ! End of NML$MAPQIOERROR



                                    07FC 00000          .ENTRY  NML$MAPQIOERROR, Save R2,R3,R4,R5,R6,R7,R8,-; 0252
                                                                R9,R10                                        ;
                         5A 00000000V  00  9E 00002     MOVAB   NML_MAPPARAMID, R10                           ;
                         59 00000000G  00  9E 00009     MOVAB   NML$AB_MSGBLOCK, R9                           ;
```

```
                                58 00000000V  00  9E 00010          MOVAB   NML_MAPENTITY, R8
                                54            19  8E 00017          MNEGB   #25, CODE                    ; 0301
                                57            01  AE 0001A          MNEGW   #1, DETAIL                   ; 0302
                                55            02  D0 0001D          MOVL    #2, FLAGS                    ; 0303
                                0D        08  AC  E8 00020          BLBS    QIOSTATUS, 1$                ; 0307
                                56        08  AC  D0 00024          MOVL    QIOSTATUS, TEXT              ; 0313
                                55        44  8F  88 00028          BISB2   #68, FLAGS                   ; 0315
                                53            0A  CE 0002C          MNEGL   #10, STATUS                  ; 0317
                                              6E  11 0002F          BRB     8$                           ; 0307
                                52        0C  AC  D0 00031  1$:     MOVL    IOSB, R2                     ; 0327
                                04            62  E9 00035          BLBC    (R2), 2$
                                50            01  D0 00038          MOVL    #1, R0                       ; 0329
                                              04  00 0003B          RET
                          0601  8F            62  B1 0003C  2$:     CMPW    (R2), #1537                  ; 0334
                                              05  12 00041          BNEQ    3$
                                53            01  D0 00043          MOVL    #1, STATUS                   ; 0342
                                              79  11 00046          BRB     11$                          ; 0331
                          0114  8F            62  B1 00048  3$:     CMPW    (R2), #276                   ; 0345
                                              11  12 0004D          BNEQ    4$
                                54            1D  8E 0004F          MNEGB   #29, CODE                    ; 0347
                                        04    A2  DD 00052          PUSHL   4(R2)                        ; 0348
                                6A            01  FB 00055          CALLS   #1, NML_MAPPARAMID
                                57            50  B0 00058          MOVW    R0, DETAIL
                                53            3A  CE 0005B          MNEGL   #58, STATUS                  ; 0349
                                              61  11 0005E          BRB     11$                          ; 0331
                                14            62  B1 00060  4$:     CMPW    (R2), #20                    ; 0352
                                              07  13 00063          BEQL    5$
                          02C4  8F            62  B1 00065          CMPW    (R2), #708
                                              11  12 0006A          BNEQ    6$
                                54            10  8E 0006C  5$:     MNEGB   #16, CODE                    ; 0355
                                        04    A2  DD 0006F          PUSHL   4(R2)                        ; 0356
                                6A            01  FB 00072          CALLS   #1, NML_MAPPARAMID
                                57            50  B0 00075          MOVW    R0, DETAIL
                                53            20  CE 00078          MNEGL   #32, STATUS                  ; 0357
                                              71  11 0007B          BRB     16$                          ; 0331
                          025C  8F            62  B1 0007D  6$:     CMPW    (R2), #604                   ; 0360
                                              0E  12 00082          BNEQ    7$
                                54            0B  8E 00084          MNEGB   #11, CODE                    ; 0362
                                        04    AC  DD 00087          PUSHL   DATABASE                     ; 0363
                                68            01  FB 0008A          CALLS   #1, NML_MAPENTITY
                                57            50  B0 0008D          MOVW    R0, DETAIL
                                              78  11 00090          BRB     18$                          ; 0364
                          0124  8F            62  B1 00092  7$:     CMPW    (R2), #292                   ; 0367
                                              08  12 00097          BNEQ    9$
                                54            14  8E 00099          MNEGB   #20, CODE                    ; 0369
                                53            28  CE 0009C          MNEGL   #40, STATUS                  ; 0370
                                              6C  11 0009F  8$:     BRB     19$                          ; 0331
                          0870  8F            62  B1 000A1  9$:     CMPW    (R2), #2160                  ; 0373
                                              0E  12 000A6          BNEQ    10$
                                54            08  8E 000A8          MNEGB   #8, CODE                     ; 0375
                                        04    AC  DD 000AB          PUSHL   DATABASE                     ; 0376
                                68            01  FB 000AE          CALLS   #1, NML_MAPENTITY
                                57            50  B0 000B1          MOVW    R0, DETAIL
                                              35  11 000B4          BRB     15$                          ; 0377
                                24            62  B1 000B6  10$:    CMPW    (R2), #36                    ; 0380
                                              08  12 000B9          BNEQ    12$
                                54            03  8E 000BB          MNEGB   #3, CODE                     ; 0382
```

```
                                53              06  CE 000BE             MNEGL   #6, STATUS                                      ; 0383
                                                69  11 000C1 11$:        BRB     21$                                             ; 0331
                          0908  8F              62  B1 000C3 12$:        CMPW    (R2), #2312                                     ; 0386
                                                0E  12 000C8             BNEQ    13$
                                54              08  8E 000CA             MNEGB   #8, CODE                                        ; 0388
                                          04    AC  DD 000CD             PUSHL   DATABASE                                        ; 0389
                                68              01  FB 000D0             CALLS   #1, NML_MAPENTITY
                                57              50  B0 000D3             MOVW    R0, DETAIL
                                                0C  11 000D6             BRB     14$                                             ; 0390
                          028C  8F              62  B1 000D8 13$:        CMPW    (R2), #652                                      ; 0395
                                                11  12 000DD             BNEQ    17$
                                54              08  8E 000DF             MNEGB   #8, CODE                                        ; 0400
                                                57  B4 000E2             CLRW    DETAIL                                          ; 0401
                                56              62  3C 000E4 14$:        MOVZWL  (R2), TEXT                                      ; 0402
                                55        44    8F  88 000E7             BISB2   #68, FLAGS                                      ; 0403
                                53              10  CE 000EB 15$:        MNEGL   #16, STATUS                                     ; 0404
                                                6D  11 000EE 16$:        BRB     27$                                             ; 0331
                          20D4  8F              62  B1 000F0 17$:        CMPW    (R2), #8404                                     ; 0407
                                                18  12 000F5             BNEQ    20$
                                54              0B  8E 000F7             MNEGB   #11, CODE                                       ; 0409
                                          04    A2  DD 000FA             PUSHL   4(R2)                                           ; 0410
                                6A              01  FB 000FD             CALLS   #1, NML_MAPPARAMID
                                57              50  B0 00100             MOVW    R0, DETAIL
                                56              62  3C 00103             MOVZWL  (R2), TEXT                                      ; 0411
                                55        44    8F  88 00106             BISB2   #68, FLAGS                                      ; 0412
                                53              16  CE 0010A 18$:        MNEGL   #22, STATUS                                     ; 0413
                                                4E  11 0010D 19$:        BRB     27$                                             ; 0331
                          0144  8F              62  B1 C010F 20$:        CMPW    (R2), #324                                      ; 0416
                                                18  12 00114             BNEQ    22$
                                54              09  8E 00116             MNEGB   #9, CODE                                        ; 0418
                                          04    AC  DD 00119             PUSHL   DATABASE                                        ; 0419
                                68              01  FB 0011C             CALLS   #1, NML_MAPENTITY
                                57              50  B0 0011F             MOVW    R0, DETAIL
                                56              62  3C 00122             MOVZWL  (R2), TEXT                                      ; 0420
                                55        44    8F  88 00125             BISB2   #68, FLAGS                                      ; 0421
                                53              12  CE 00129             MNEGL   #18, STATUS                                     ; 0422
                                                2F  11 0012C 21$:        BRB     27$                                             ; 0331
                          2194  8F              62  B1 0012E 22$:        CMPW    (R2), #8596                                     ; 0425
                                                05  12 00133             BNEQ    23$
                                54              19  8E 00135             MNEGB   #25, CODE                                       ; 0427
                                                19  11 00138             BRB     26$                                             ; 0428
                                54              19  8E 0013A 23$:        MNEGB   #25, CODE                                       ; 0435
                                04        04    AC  D1 0013D             CMPL    DATABASE, #4                                    ; 0443
                                                06  13 00141             BEQL    24$
                                05        04    AC  D1 00143             CMPL    DATABASE, #5                                    ; 0444
                                                06  12 00147             BNEQ    25$
                                57        05    A2  B0 00149 24$:        MOVW    5(R2), DETAIL                                   ; 0445
                                                04  11 0014D             BRB     26$
                                57        04    A2  B0 0014F 25$:        MOVW    4(R2), DETAIL                                   ; 0447
                                56              62  3C 00153 26$:        MOVZWL  (R2), TEXT                                      ; 0448
                                55        44    8F  88 00156             BISB2   #68, FLAGS                                      ; 0450
                                53              32  CE 0015A             MNEGL   #50, STATUS                                     ; 0452
                                69              55  D0 0015D 27$:        MOVL    FLAGS, NML$AB_MSGBLOCK                          ; 0460
                          04    A9              54  90 00160             MOVB    CODE, NML$AB_MSGBLOCK+4                         ; 0461
                          08    A9              57  B0 00164             MOVW    DETAIL, NML$AB_MSGBLOCK+8                       ; 0462
                          0C    A9              56  D0 00168             MOVL    TEXT, NML$AB_MSGBLOCK+12                        ; 0463
                                50              53  D0 0016C             MOVL    STATUS, R0                                      ; 0467
```

```
                                                04 0016F         RET                                                    ; 0469

; Routine Size:  368 bytes,    Routine Base:  $CODE$ + 0082
```

```
;  474          0470  1 %SBTTL 'NML_MAPENTITY  Map NETACP database ID into entity type'
;  475          0471  1 ROUTINE NML_MAPENTITY (DATABASE) =
;  476          0472  1
;  477          0473  1 !++
;  478          0474  1 ! FUNCTIONAL DESCRIPTION:
;  479          0475  1 !
;  480          0476  1 !       This routine translates the QIO database ID into a network
;  481          0477  1 !       management entity detail code.
;  482          0478  1 !
;  483          0479  1 ! INPUTS:
;  484          0480  1 !
;  485          0481  1 !       DATABASE        NETACP database ID
;  486          0482  1 !
;  487          0483  1 ! OUTPUTS:
;  488          0484  1 !
;  489          0485  1 !       The return value is the detail code.
;  490          0486  1 !--
;  491          0487  1
;  492          0488  2     BEGIN
;  493          0489  2
;  494          0490  2     LOCAL
;  495          0491  2         DETAIL : WORD;
;  496          0492  2
;  497          0493  3     DETAIL = (
;  498          0494  3         SELECTONE .DATABASE OF
;  499          0495  3             SET
;  500          0496  3
;  501          0497  3             [NFB$C_DB_PLI]: NMA$C_ENT_LIN;
;  502          0498  3
;  503          0499  3             [NFB$C_DB_EFI,
;  504          0500  3              NFB$C_DB_ESI]: NMA$C_ENT_LOG;
;  505          0501  3
;  506          0502  3             [NFB$C_DB_LNI,
;  507          0503  3              NFB$C_DB_NDI]: NMA$C_ENT_NOD;
;  508          0504  3
;  509          0505  3             [NFB$C_DB_OBI]: NMA$C_SENT_OBJ;
;  510          0506  3
;  511          0507  3             [NFB$C_DB_CRI]: NMA$C_ENT_CIR;
;  512          0508  3
;  513          0509  3             [NFB$C_DB_AJI]: NMA$C_ENT_NOD;
;  514          0510  3
;  515          0511  3             [NFB$C_DB_XNI,
;  516          0512  3              NFB$C_DB_XDI,
;  517          0513  3              NFB$C_DB_XGI,
;  518          0514  3              NFB$C_DB_XD5,
;  519          0515  3              NFB$C_DB_XD9]: NMA$C_ENT_MOD;
;  520          0516  3
;  521          0517  3             [NFB$C_DB_AJI]: NMA$C_ENT_NOD;
;  522          0518  3
;  523          0519  3             [NFB$C_DB_LLI]: NMA$C_SENT_LNK;
;  524          0520  3
;  525          0521  3             [NFB$C_DB_ARI]: NMA$C_ENT_ARE;
;  526          0522  3
;  527          0523  3             [OTHERWISE]:    -1;
;  528          0524  3
;  529          0525  2             TES);
;  530          0526  2
```

```
;  531          0527  2     RETURN .DETAIL
;  532          0528  2
;  533          0529  1     END;                                    ! End of NML_MAPENTITY



                                0000 00000 NML_MAPENTITY:
                                                    .WORD   Save nothing                    ; 0471
                    50      04  AC  D0 00002         MOVL    DATABASE, R0                ; 0494
                    05          50  D1 00006         CMPL    R0, #5                      ; 0497
                                05  12 00009         BNEQ    1$                          ;
                    50          01  D0 0000B         MOVL    #1, R0                      ;
                                65  11 0000E         BRB     12$                         ;
                    06          50  D1 00010 1$:     CMPL    R0, #6                      ; 0499
                                0A  19 00013         BLSS    2$                          ;
                    07          50  D1 00015         CMPL    R0, #7                      ;
                                05  14 00018         BGTR    2$                          ;
                    50          02  D0 0001A         MOVL    #2, R0                      ;
                                56  11 0001D         BRB     12$                         ;
                                50  D5 0001F 2$:     TSTL    R0                          ; 0502
                                05  15 00021         BLEQ    3$                          ;
                    02          50  D1 00023         CMPL    R0, #2                      ;
                                32  15 00026         BLEQ    8$                          ;
                    03          50  D1 00028 3$:     CMPL    R0, #3                      ; 0505
                                23  13 0002B         BEQL    6$                          ;
                    04          50  D1 0002D         CMPL    R0, #4                      ; 0507
                                05  12 00030         BNEQ    4$                          ;
                    50          03  D0 00032         MOVL    #3, R0                      ;
                                3E  11 00035         BRB     12$                         ;
                    13          50  D1 00037 4$:     CMPL    R0, #19                     ; 0509
                                1E  13 0003A         BEQL    8$                          ;
                    09          50  D1 0003C         CMPL    R0, #9                      ; 0511
                                05  19 0003F         BLSS    5$                          ;
                    0B          50  D1 00041         CMPL    R0, #11                     ;
                                0A  15 00044         BLEQ    6$                          ;
                    0D          50  D1 00046 5$:     CMPL    R0, #13                     ;
                                05  13 00049         BEQL    6$                          ;
                    0F          50  D1 0004B         CMPL    R0, #15                     ;
                                05  12 0004E         BNEQ    7$                          ;
                    50          04  D0 00050 6$:     MOVL    #4, R0                      ;
                                20  11 00053         BRB     12$                         ;
                    13          50  D1 00055 7$:     CMPL    R0, #19                     ; 0517
                                04  12 00058         BNEQ    9$                          ;
                                50  D4 0005A 8$:     CLRL    R0                          ;
                                17  11 0005C         BRB     12$                         ;
                    08          50  D1 0005E 9$:     CMPL    R0, #8                      ; 0519
                                05  12 00061         BNEQ    10$                         ;
                    50          07  D0 00063         MOVL    #7, R0                      ;
                                0D  11 00066         BRB     12$                         ;
                    14          50  D1 00068 10$:    CMPL    R0, #20                     ; 0521
                                05  12 0006B         BNEQ    11$                         ;
                    50          05  D0 0006D         MOVL    #5, R0                      ;
                                03  11 00070         BRB     12$                         ;
                    50          01  CE 00072 11$:    MNEGL   #1, R0                      ; 0523
                    51          50  B0 00075 12$:    MOVW    R0, DETAIL                  ; 0493
```

```
                                50          51  3C 00078         MOVZWL  DETAIL, R0                              ; 0527
                                                04 0007B         RET                                             ; 0529

; Routine Size:  124 bytes,    Routine Base:  $CODE$ + 01F2
```

```
;  535     0530  1 %SBTTL 'NML_MAPPARAMID  Map QIO parameter ID into management code'
;  536     0531  1 ROUTINE NML_MAPPARAMID (PRMID) =
;  537     0532  1
;  538     0533  1 !++
;  539     0534  1 ! FUNCTIONAL DESCRIPTION:
;  540     0535  1 !
;  541     0536  1 !       This routine translates the QIO parameter ID code a into network
;  542     0537  1 !       management parameter ID to be returned in the detail field of
;  543     0538  1 !       the NICE response to NCP.
;  544     0539  1 !
;  545     0540  1 ! INPUTS:
;  546     0541  1 !
;  547     0542  1 !       PRMID           NETACP QIO parameter ID
;  548     0543  1 !
;  549     0544  1 ! OUTPUTS:
;  550     0545  1 !
;  551     0546  1 !       The return value is the detail code.
;  552     0547  1 !--
;  553     0548  1
;  554     0549  2     BEGIN
;  555     0550  2
;  556     0551  2     LOCAL
;  557     0552  2         I,
;  558     0553  2         INDEX;
;  559     0554  2
;  560     0555  2     MAP
;  561     0556  2         PRMID: BBLOCK;
;  562     0557  2
;  563     0558  2     BIND
;  564     0559  3         TABDSC = (
;  565     0560  3             SELECTONE .PRMID [NFB$V_DB] OF
;  566     0561  3                 SET
;  567     0562  3                     [NFB$C_DB_PLI]: NML$GQ_PLIMAPDES;
;  568     0563  3                     [NFB$C_DB_EFI]: NML$GQ_EFIMAPDES;
;  569     0564  3                     [NFB$C_DB_ESI]: NML$GQ_ESIMAPDES;
;  570     0565  3                     [NFB$C_DB_LNI]: NML$GQ_LNIMAPDES;
;  571     0566  3                     [NFB$C_DB_NDI]: NML$GQ_NDIMAPDES;
;  572     0567  3                     [NFB$C_DB_OBI]: NML$GQ_OBIMAPDES;
;  573     0568  3                     [NFB$C_DB_CRI]: NML$GQ_CRIMAPDES;
;  574     0569  3                     [NFB$C_DB_LLI]: NML$GQ_LLIMAPDES;
;  575     0570  3                     [NFB$C_DB_XNI]: NML$GQ_XNIMAPDES;
;  576     0571  3                     [NFB$C_DB_XGI]: NML$GQ_XGIMAPDES;
;  577     0572  3                     [NFB$C_DB_XDI]: NML$GQ_XDIMAPDES;
;  578     0573  3                     [NFB$C_DB_XS5]: NML$GQ_XS5MAPDES;
;  579     0574  3                     [NFB$C_DB_XD5]: NML$GQ_XD5MAPDES;
;  580     0575  3                     [NFB$C_DB_XS9]: NML$GQ_XS9MAPDES;
;  581     0576  3                     [NFB$C_DB_XD9]: NML$GQ_XD9MAPDES;
;  582     0577  3                     [NFB$C_DB_AJI]: NML$GQ_AJIMAPDES;
;  583     0578  3                     [NFB$C_DB_ARI]: NML$GQ_ARIMAPDES;
;  584     0579  3
;  585     0580  3                     [OTHERWISE]: $ASCID (0, 0);
;  586     0581  3
;  587     0582  2                     TES) : DESCRIPTOR;
;  588     0583  2
;  589     0584  2     BIND
;  590     0585  2         TABLE = TABDSC [DSC$A_POINTER] : REF BBLOCKVECTOR [, 6];
;  591     0586  2
```

```
;  592          0587  2     !
;  593          0588  2     ! Step through the paramete- mapping table (in NMLDAT) to find
;  594          0589  2     ! the NETACP QIO parameter ID.
;  595          0590  2     !
;  596          0591  2     INCR I FROM 0 TO .TABDSC [DSC$W_LENGTH] - 1 DO
;  597          0592  3         BEGIN
;  598          0593  3
;  599          0594  3         IF .PRMID [NFB$L_PARAM_ID] EQLU .TABLE [.I, 0,0,32,0]
;  600          0595  3         THEN
;  601          0596  4             BEGIN
;  602          0597  4             !
;  603          0598  4             ! Extract the Network Management parameter ID from the mapping
;  604          0599  4             ! table, and return it.
;  605          0600  4             !
;  606          0601  4             INDEX = .TABLE [.I, 4,0,16,0];
;  607          0602  4             RETURN .NML$AB_PRMSEM [.INDEX, PST$W_DATAID];
;  608          0603  4
;  609          0604  3             END;
;  610          0605  2         END;
;  611          0606  2     !
;  612          0607  2     ! The parameter did not appear in the mapping table.  Return the
;  613          0608  2     ! low word as is (since the detail field of the NICE response message
;  614          0609  2     ! is only a word, this is all that can be returned).
;  615          0610  2     !
;  616          0611  2     IF .PRMID <0,16> NEQ 0 THEN
;  617          0612  2         RETURN .PRMID [NFB$V_INX]
;  618          0613  2     ELSE
;  619          0614  2         RETURN -1
;  620          0615  1     END;                                    ! End of NML_MAPPARAMID


                                        .PSECT  $PLIT$,NOWRT,NOEXE,2

                 30  30  0002C P.AAD:   .ASCII  \00\                                    ;
                        0002E           .BLKB   2
            00000002  00030 P.AAC:      .LONG   2                                      ;
            00000000'  00034            .ADDRESS P.AAD                                 ;


                                        .PSECT  $CODE$,NOWRT,2

                      001C 00000 NML_MAPPARAMID:
                                        .WORD   Save R2,R3,R4                          ; 0531
50          07    AC  9A 00002          MOVZBL  PRMID+3, R0                            ; 0560
05                50  91 00006          CMPB    R0, #5                                 ; 0562
                  09  12 00009          BNEQ    1$                                     ;
53 00000000G      00  9E 0000B          MOVAB   NML$GQ_PLIMAPDES, R3                   ;
                  7C  11 00012          BRB     10$                                    ;
06                50  91 00014 1$:      CMPB    R0, #6                                 ; 0563
                  09  12 00017          BNEQ    2$                                     ;
53 00000000G      00  9E 00019          MOVAB   NML$GQ_EFIMAPDES, R3                   ;
                  7C  11 00020          BRB     12$                                    ;
07                50  91 00022 2$:      CMPB    R0, #7                                 ; 0564
                  09  12 00025          BNEQ    3$                                     ;
53 00000000G      00  9E 00027          MOVAB   NML$GQ_ESIMAPDES, R3                   ;
```

```
                                 7C  11 0002E          BRB     14$
                        01       50  91 00030 3$:     CMPB    R0, #1                                  ;0565
                                 09  12 00033          BNEQ    4$
                        53 00000000G 00  9E 00035          MOVAB   NML$GQ_LNIMAPDES, R3
                                 7C  11 0003C          BRB     16$
                        02       50  91 0003E 4$:     CMPB    R0, #2                                  ;0566
                                 09  12 00041          BNEQ    5$
                        53 00000000G 00  9E 00043          MOVAB   NML$GQ_NDIMAPDES, R3
                                 7C  11 0004A          BRB     18$
                        03       50  91 0004C 5$.     CMPB    R0, #3                                  ;0567
                                 09  12 0004F          BNEQ    6$
                        53 00000000G 00  9E 00051          MOVAB   NML$GQ_OBIMAPDES, R3
                                 7C  11 00058          BRB     20$
                        04       50  91 0005A 6$:     CMPB    R0, #4                                  ;0568
                                 09  12 0005D          BNEQ    7$
                        53 00000000G 00  9E 0005F          MOVAB   NML$GQ_CRIMAPDES, R3
                                 7C  11 00066          BRB     22$
                        08       50  91 00068 7$:     CMPB    R0, #8                                  ;0569
                                 09  12 0006B          BNEQ    8$
                        53 00000000G 00  9E 0006D          MOVAB   NML$GQ_LLIMAPDES, R3
                                 7C  11 00074          BRB     24$
                        09       50  91 00076 8$:     CMPB    R0, #9                                  ;0570
                                 09  12 00079          BNEQ    9$
                        53 00000000G 00  9E 0007B          MOVAB   NML$GQ_XNIMAPDES, R3
                                 77  11 00082          BRB     26$
                        0A       50  91 00084 9$:     CMPB    R0, #10                                 ;0571
                                 09  12 00087          BNEQ    11$
                        53 00000000G 00  9E 00089          MOVAB   NML$GQ_XGIMAPDES, R3
                                 69  11 00090 10$:     BRB     26$
                        0B       50  91 00092 11$:     CMPB    R0, #11                                 ;0572
                                 09  12 00095          BNEQ    13$
                        53 00000000G 00  9E 00097          MOVAB   NML$GQ_XDIMAPDES, R3
                                 5B  11 0009E 12$:     BRB     26$
                        0C       50  91 000A0 13$:     CMPB    R0, #12                                 ;0573
                                 09  12 000A3          BNEQ    15$
                        53 00000000G 00  9E 000A5          MOVAB   NML$GQ_XS5MAPDES, R3
                                 4D  11 000AC 14$:     BRB     26$
                        0D       50  91 000AE 15$:     CMPB    R0, #13                                 ;0574
                                 09  12 000B1          BNEQ    17$
                        53 00000000G 00  9E 000B3          MOVAB   NML$GQ_XD5MAPDES, R3
                                 3F  11 000BA 16$:     BRB     26$
                        0E       50  91 000BC 17$:     CMPB    R0, #14                                 ;0575
                                 09  12 000BF          BNEQ    19$
                        53 00000000G 00  9E 000C1          MOVAB   NML$GQ_XS9MAPDES, R3
                                 31  11 000C8 18$:     BRB     26$
                        0F       50  91 000CA 19$:     CMPB    R0, #15                                 ;0576
                                 09  12 000CD          BNEQ    21$
                        53 00000000G 00  9E 000CF          MOVAB   NML$GQ_XD9MAPDES, R3
                                 23  11 000D6 20$:     BRB     26$
                        13       50  91 000D8 21$:     CMPB    R0, #19                                 ;0577
                                 09  12 000DB          BNEQ    23$
                        53 00000000G 00  9E 000DD          MOVAB   NML$GQ_AJIMAPDES, R3
                                 15  11 000E4 22$:     BRB     26$
                        14       50  91 000E6 23$:     CMPB    R0, #20                                 ;0578
                                 09  12 000E9          BNEQ    25$
                        53 00000000G 00  9E 000EB          MOVAB   NML$GQ_ARIMAPDES, R3
                                 07  11 000F2 24$:     BRB     26$
```

```
                     53 00000000'    00  9E 000F4 25$:    MOVAB   P.AAC, R3                          ; 0580
                     54              63  3C 000FB 26$:    MOVZWL  (R3), R4                         ; 0591
                     50              01  CE 000FE         MNEGL   #1, I                            ; 0594
                                     21  11 00101         BRB     28$                              ;
              52     50              06  C5 00103 27$:    MULL3   #6, I, R2                        ;
                     52         04   A3  C0 00107         ADDL2   4(R3), R2                        ;
                     62         04   AC  D1 0010B         CMPL    PRMID, (R2)                      ;
                                     13  12 0010F         BNEQ    28$                              ;
                     51         04   A2  3C 00111         MOVZWL  4(R2), INDEX                     ; 0601
              52     51              04  78 00115         ASHL    #4, INDEX, R2                    ; 0602
                        00000000G0042  9F 00119         PUSHAB  NML$AB_PRMSEM[R2]                ;
                     50              9E  3C 00120         MOVZWL  @(SP)+, R0                       ;
                                     04  00123         RET                                      ;
              DB     50              54  F2 00124 28$:    AOBLSS  R4, I, 27$                       ; 0591
                           04        AC  B5 00128         TSTW    PRMID                            ; 0611
                                     05  13 0012B         BEQL    29$                              ;
                     50         04   AC  3C 0012D         MOVZWL  PRMID, R0                        ; 0614
                                     04  00131         RET                                      ;
                     50              01  CE 00132 29$:    MNEGL   #1, R0                           ;
                                     04  00135         RET                                      ; 0615

; Routine Size:  310 bytes,    Routine Base:  $CODE$ + 026E
```

```
;  622          0616  1 END                                          ! End of module
;  623          0617  1
;  624          0618  0 ELUDOM
```

PSECT SUMMARY

Name	Bytes	Attributes
$PLIT$	56	NOVEC,NOWRT, RD ,NOEXE,NOSHR, LCL, REL, CON,NOPIC,ALIGN(2,
$CODE$	932	NOVEC,NOWRT, RD , EXE,NOSHR, LCL, REL, CON,NOPIC,ALIGN(2)

Library Statistics

File	Symbols Total	Symbols Loaded	Symbols Percent	Pages Mapped	Processing Time
_255DUA28:[NML.OBJ]NMLLIB.L32;1	341	41	12	27	00:00.1
_255DUA28:[SHRLIB]NMALIBRY.L32;1	887	16	1	47	00:00.2
_255DUA28:[SHRLIB]NET.L32;1	1279	21	1	63	00:00.3
_255DUA28:[SYSLIB]STARLET.L32;1	9776	21	0	581	00:03.3

COMMAND QUALIFIERS

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

; Size:          932 code + 56 data bytes
; Run Time:        00:19.8
; Elapsed Time:    00:42.6
; Lines/CPU Min:    1876
; Lexemes/CPU-Min:  9607
; Memory Used:  164 pages
; Compilation Complete
```

NMLMSG
LIS

NMLLOGOPS
LIS

NMLMAIN
LIS

NMLNETIO
LIS

NMLLISPRM
LIS

NMLLIST
LIS

NML_PURGE
LIS

NML_PARINI
LIS

NML_NODFIL
LIS

NML_READ
LIS

NML_PARPRM
LIS

NML_MANIP
LIS