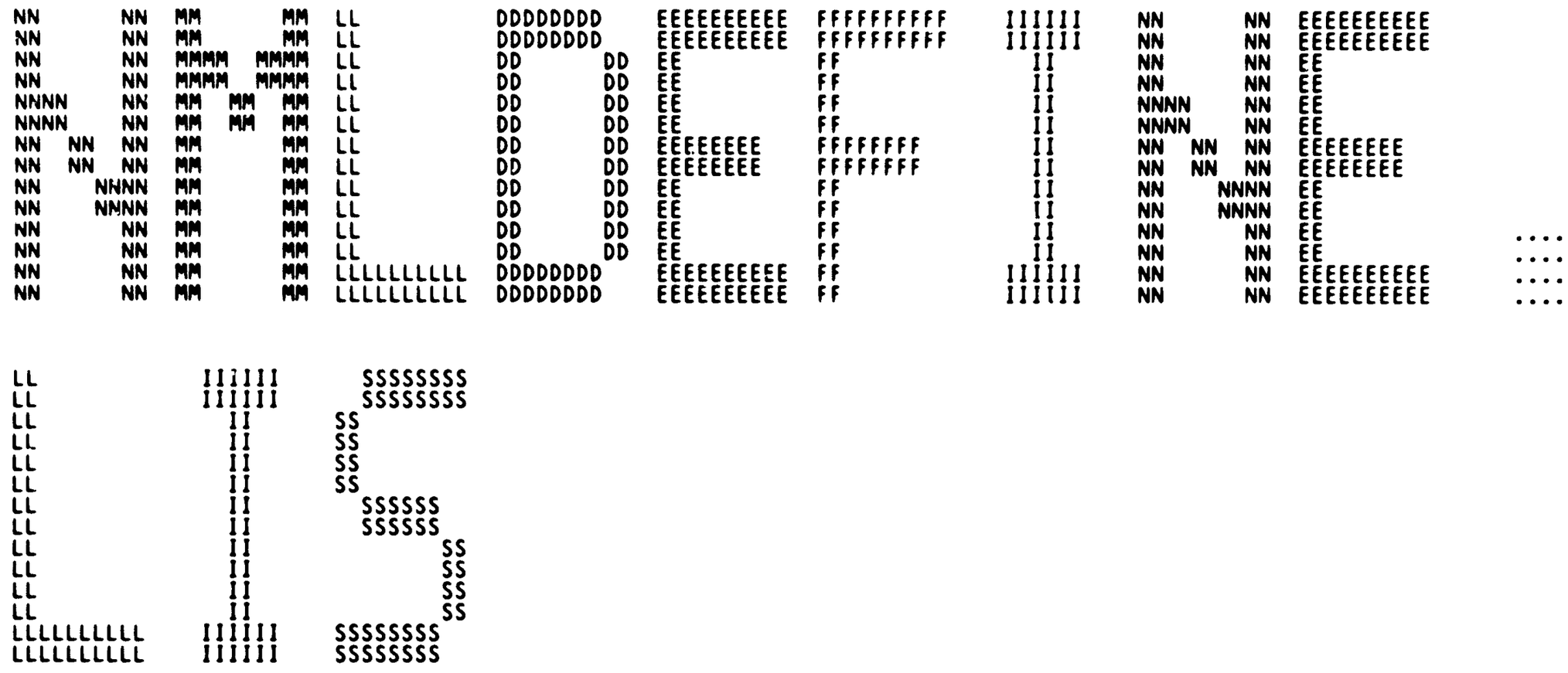
```
NNN           NNN   MMM           MMM   LLL
NNN           NNN   MMM           MMM   LLL
NNN           NNN   MMM           MMM   LLL
NNN           NNN   MMMMMM    MMMMMM   LLL
NNN           NNN   MMMMMM    MMMMMM   LLL
NNN           NNN   MMMMMM    MMMMMM   LLL
NNNNNN        NNN   MMM   MMM   MMM   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**NMLDEFINE



```
;  1     0001  0 %TITLE 'NML DEFINE permanent parameter module'
;  2     0002  0 MODULE NML$DEFINE (
;  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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; 29     0029  1 !*                                                                        *
; 30     0030  1 !*                                                                        *
; 31     0031  1 !**************************************************************************
; 32     0032  1 !
; 33     0033  1
; 34     0034  1 !++
; 35     0035  1 ! FACILITY:  DECnet-VAX Network Management Listener
; 36     0036  1 !
; 37     0037  1 ! ABSTRACT:
; 38     0038  1 !
; 39     0039  1 !       This module contains routines to handle the NCP DEFINE command.
; 40     0040  1 !
; 41     0041  1 ! ENVIRONMENT:  VAX/VMS Operating System
; 42     0042  1 !
; 43     0043  1 ! AUTHOR:  Distributed Systems Software Engineering
; 44     0044  1 !
; 45     0045  1 ! CREATION DATE:  30-DEC-1979
; 46     0046  1 !
; 47     0047  1 ! MODIFIED BY:
; 48     0048  1 !
; 49     0049  1 !       V03-010 MKP0013         Kathy Perko     20-April-1984
; 50     0050  1 !               If DEF NODE nnn NAME mmm supplies a duplicate name, fix
; 51     0051  1 !               the error message so it indicates whether the duplicate is
; 52     0052  1 !               the exec or a remote.
; 53     0053  1 !
; 54     0054  1 !       V03-009 MKP0012         Kathy Perko     9-April-1984
; 55     0055  1 !               If talking to a Phase III NCP, return those nodes in the
; 56     0056  1 !               executor's area with a zero area number.  This will make
; 57     0057  1 !               them intelligble on the Phase III system.  Node numbers
```

```
;    58          0058  1 !               outside the executor's area are returned as is.  This means
;    59          0059  1 !               they will be large, not easily understood numbers, but at
;    60          0060  1 !               least they will be unique.
;    61          0061  1 !
;    62          0062  1 !       V03-008 MKP0011         Kathy Perko     17-Feb-1984
;    63          0063  1 !               Fix bug in DEFINE KNOWN NODES - NML$GETRECOWNER is being
;    64          0064  1 !               passed a descriptor incorrectly.
;    65          0065  1 !
;    66          0066  1 !       V03-007 MKP0010         Kathy Perko     9-Jan-1984
;    67          0067  1 !               Add X25-Access Module entity.
;    68          0068  1 !
;    69          0069  1 !       V03-006 MKP0009         Kathy Perko     4-Aug-1983
;    70          0070  1 !               Converting node database to use multiple ISAM keys.  Make
;    71          0071  1 !               changes necessary in this module.
;    72          0072  1 !
;    73          0073  1 !       V03-005 MKP0008         Kathy Perko     25-April-1983
;    74          0074  1 !               Add configurator module permanent database operations.
;    75          0075  1 !
;    76          0076  1 !       V03-004 MKP0007         Kathy Perko     14-Sept-1982
;    77          0077  1 !               If a logging sink node is the executor node, save it in
;    78          0078  1 !               the permanent data base with an address of zero.  This allows
;    79          0079  1 !               the database to be transported to another node, and still log
;    80          0080  1 !               the events to the local node.
;    81          0081  1 !               Fix DEFINE KNOWN so that it uses a record owner to determine
;    82          0082  1 !               what records to modify.  This allows for X25 and X29 which
;    83          0083  1 !               combine several databases in a single permanent database file.
;    84          0084  1 !
;    85          0085  1 !       V03-003 MKP0006         Kathy Perko     9-Sept-1982
;    86          0086  1 !               Fix entity returned in NICE messages for X29-Server so
;    87          0087  1 !               that a length is included.
;    88          0088  1 !
;    89          0089  1 !       V03-002 MKP0005         Kathy Perko     28-June-1982
;    90          0090  1 !               Redo qualifier handling to use the qualifier's index into
;    91          0091  1 !               the Parameter Semantic Table (PST) instead of the qualifier's
;    92          0092  1 !               Network Management parameter ID.
;    93          0093  1 !               Add X29-Server entity.
;    94          0094  1 !
;    95          0095  1 !       V03-001 MKP0004         Kathy Perko     3-May-1982
;    96          0096  1 !               Add qualifier matching to permanent data base operations.
;    97          0097  1 !
;    98          0098  1 !       V02-003 MKP0003         Kathy Perko     16-Nov-1981
;    99          0099  1 !               Undo the previous fix.  It's wrong.
;   100          0100  1 !
;   101          0101  1 !       V02-002 MKP0002         Kathy Perko     17-Sept-1981
;   102          0102  1 !               Fix NML$SAVEVENTS so that a status of NML$_STS_PMS
;   103          0103  1 !               is returned if there are no events.
;   104          0104  1 !
;   105          0105  1 !       V02-001 MKP0001         Kathy Perko     23-July-1981
;   106          0106  1 !               Add circuit entity and multidrop lines
;   107          0107  1 !--
;   108          0108  1
```

```
;   110         0109  1 %SBTTL 'Declarations'
;   111         0110  1
;   112         0111  1 !
;   113         0112  1 ! TABLE OF CONTENTS:
;   114         0113  1 !
;   115         0114  1
;   116         0115  1 FORWARD ROUTINE
;   117         0116  1     nml$defineknown      : NOVALUE,
;   118         0117  1     nml$defentity        : NOVALUE,
;   119         0118  1     nml_defentity        : NOVALUE,
;   120         0119  1     nml$define_known_nodes: NOVALUE,
;   121         0120  1     nml$define_node      : NOVALUE,
;   122         0121  1     nml_define_node      : NOVALUE,
;   123         0122  1     nml$defknownlog      : NOVALUE,
;   124         0123  1     nml$deflogging       : NOVALUE,
;   125         0124  1     nml_deflogging       : NOVALUE,
;   126         0125  1     nml$addevents,
;   127         0126  1     nml$savevents,
;   128         0127  1     nml$getrecowner;
;   129         0128  1
;   130         0129  1 !
;   131         0130  1 ! INCLUDE FILES:
;   132         0131  1 !
;   133         0132  1
;   134         0133  1 LIBRARY 'LIB$:NMLLIB.L32';
;   135         0134  1 LIBRARY 'SHRLIB$:NMALIBRY.L32';
;   136         0135  1 LIBRARY 'SYS$LIBRARY:STARLET.L32';
;   137         0136  1
;   138         0137  1 !
;   139         0138  1 ! EQUATED SYMBOLS:
;   140         0139  1 !
;   141         0140  1
;   142         0141  1 !
;   143         0142  1 ! OWN STORAGE:
;   144         0143  1 !
;   145         0144  1
;   146         0145  1 !
;   147         0146  1 ! Entity buffer and descriptor.
;   148         0147  1 !
;   149         0148  1 OWN
;   150         0149  1     NML$T_ENTBUFFER : BBLOCK [NML$K_ENTBUFLEN],
;   151         0150  1     NML$Q_ENTBFDSC  : DESCRIPTOR;
;   152         0151  1
;   153         0152  1 !
;   154         0153  1 ! EXTERNAL REFERENCES:
;   155         0154  1 !
;   156         0155  1
;   157         0156  1 $NML_EXTDEF;
;   158         0157  1
;   159         0158  1 EXTERNAL
;   160         0159  1     nml$gb_ncp_version,
;   161         0160  1     nml$gw_perm_exec_addr: BBLOCK [2];
;   162         0161  1
;   163         0162  1 EXTERNAL LITERAL
;   164         0163  1     nml$_badevtupd,
;   165         0164  1     nml$_intevtovf,
;   166         0165  1     nml$_recadded,
```

```
;  167          0166  1      nml$_norecown;
;  168          0167  1
;  169          0168  1 EXTERNAL ROUTINE
;  170          0169  1      nma$insertfld,
;  171          0170  1      nml$matchrerord,
;  172          0171  1      nma$searchfld,
;  173          0172  1      nml$add_fields,
;  174          0173  1      nml$addfilters,
;  175          0174  1      nml$getnxtsnk,
;  176          0175  1      nml$bld_reply,
;  177          0176  1      nml$error_1,
;  178          0177  1      nml$openfile,
;  179          0178  1      nml$read_known_node_rec,
;  180          0179  1      nml$readrecord,
;  181          0180  1      nml$writerecord,
;  182          0181  1      nml$send;
;  183          0182  1
```

```
;  185          0183  1 %SBTTL 'NML$DEFINEKNOWN  Define parameters for known entities'
;  186          0184  1 GLOBAL ROUTINE NML$DEFINEKNOWN (ENTITY, DUM1, DUM2,
;  187          0185  1                                 DUM3, DUM4, DUM5) : NOVALUE =
;  188          0186  1
;  189          0187  1 !++
;  190          0188  1 ! FUNCTIONAL DESCRIPTION:
;  191          0189  1 !       This routine defines a set of parameters in the permanent
;  192          0190  1 !       data base entry for each entity of the specified type.
;  193          0191  1 !
;  194          0192  1 ! FORMAL PARAMETERS:
;  195          0193  1 !
;  196          0194  1 !       ENTITY          Entity type code.
;  197          0195  1 !       DUM1-DUM5       Not used.
;  198          0196  1 !
;  199          0197  1 ! IMPLICIT INPUTS:
;  200          0198  1 !
;  201          0199  1 !       NML$GL_PRS_FLGS Message parsing flags.
;  202          0200  1 !
;  203          0201  1 ! SIDE EFFECTS:
;  204          0202  1 !
;  205          0203  1 !       Signals errors.
;  206          0204  1 !
;  207          0205  1 !--
;  208          0206  1
;  209          0207  2 BEGIN
;  210          0208  2
;  211          0209  2 LOCAL
;  212          0210  2     fid,                        ! File id code
;  213          0211  2     param_to_find,              ! Parameter to match in permanent database
;  214          0212  2                                 !       record.
;  215          0213  2     msgsize,                    ! Message size
;  216          0214  2     key,                        ! Temporary record key buffer
;  217          0215  2     recdsc  : DESCRIPTOR;       ! Record descriptor
;  218          0216  2
;  219          0217  2 fid = .nml$ab_entitydata [.entity, eit$b_fileid];
;  220          0218  2 param_to_find = .nml$ab_entitydata [.entity, eit$w_key];
;  221          0219  2 !
;  222          0220  2 ! Some of the permanent database files have more than one entity in them.
;  223          0221  2 ! For example, NETX25.DAT has all X25 entities (Access, Protocol, and Server).
;  224          0222  2 ! Add parameters to every record in the file which contains a parameter
;  225          0223  2 ! matching PARAM_TO_FIND.
;  226          0224  2 !
;  227          0225  2 key = 0;
;  228          0226  3 WHILE nml$matchrecord (.fid, nml$gq_recbfdsc, key,
;  229          0227  2                         .param_to_find, 0, 0,
;  230          0228  2                         0, 0, 0,
;  231          0229  2                         recdsc) DO
;  232          0230  3     BEGIN
;  233          0231  3     nml$ab_msgblock [msb$l_flags] = 0; ! Initialize message flags
;  234          0232  3     !
;  235          0233  3     ! Add the parameters to the entity's record, and write the updated record
;  236          0234  3     ! back to the permanent database file.
;  237          0235  3     !
;  238          0236  3     nml_defentity (.entity, recdsc, key);
;  239          0237  3     !
;  240          0238  3     ! Build and send the NICE response message.
;  241          0239  3     !
```

```
;  242          0240  3     nml$bld_reply (nml$ab_msgblock, msgsize);
;  243          0241  3     nml$send (nml$ab_sndbuffer, .msgsize);
;  244          0242  3     key = .key + 1;
;  245          0243  2     END;
;  246          0244  1 END;                                ! End of NML$DEFINEKNOWN

;
                                                .TITLE  NML$DEFINE NML DEFINE permanent parameter modul
                                                                                                      e
                                                .IDENT  \V04-000\

                                                .PSECT  $OWN$,NOEXE,2

                                        00000 NML$T_ENTBUFFER:
                                                .BLKB   64
                                        00040 NML$Q_ENTBFDSC:
                                                .BLKB   8

                                                .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$GW_PRMDESCNT
                                                .EXTRN  NML$GB_NCP_VERSION
```

```
                                                                .EXTRN  NML$GW_PERM_EXEC_ADDR
                                                                .EXTRN  NML$_BADEVTOPD, NML$_INTEVTOVF
                                                                .EXTRN  NML$_RECADDED, NML$_NORECOWN
                                                                .EXTRN  NMA$INSERTFLD, NML$MATCHRECORD
                                                                .EXTRN  NMA$SEARCHFLD, NML$ADD_FIELDS
                                                                .EXTRN  NML$ADDFILTERS, NML$GETNXTSNK
                                                                .EXTRN  NML$BLD_REPLY, NML$ERROR_1
                                                                .EXTRN  NML$OPENFILE, NML$READ_KNOWN_NODE_REC
                                                                .EXTRN  NML$READRECORD, NML$WRITERECORD
                                                                .EXTRN  NML$SEND

                                                                .PSECT  $CODE$,NOWRT,2

                                                001C 00000      .ENTRY  NML$DEFINEKNOWN, Save R2,R3,R4                  ; 0184
                                    54 00000000G   00   9E 00002        MOVAB   NML$AB_MSGBLOCK, R4
                                    5E             10   C2 00009        SUBL2   #16, SP
                          50        04             AC   C5 0000C        MULL3   #44, ENTITY, R0                         ; 0217
                                    53 00000000G0040   9A 00011        MOVZBL  NML$AB_ENTITYDATA[R0], FID
                                       00000000G0040   9F 00019        PUSHAB  NML$AB_ENTITYDATA+3[R0]                 ; 0218
                                    52                 9E 0003C        MOVZWL  @(SP)+, PARAM_TO_FIND
                                                       6E D4 00023      CLRL    KEY                                     ; 0225
                                              08       AE 9F 00025 1$:  PUSHAB  RECDSC                                  ; 0226
                                                       7E 7C 00028      CLRQ    -(SP)
                                                       7E 7C 0002A      CLRQ    -(SP)
                                                       7E D4 0002C      CLRL    -(SP)
                                                       52 DD 0002E      PUSHL   PARAM_TO_FIND                           ; 0227
                                                 1C    AE 9F 00030      PUSHAB  KEY                                     ; 0226
                                       00000000G   00   9F 00033      PUSHAB  NML$GQ_RECBFDSC
                                                       53 DD 00039      PUSHL   FID
                             00000000G   00            0A FB 0003B      CALLS   #10, NML$MATCHRECORD
                                    31                 50 E9 00042      BLBC    R0, 2$
                                                       64 D4 00045      CLRL    NML$AB_MSGBLOCK                         ; 0231
                                                       5E DD 00047      PUSHL   SP                                      ; 0236
                                              0C       AE 9F 00049      PUSHAB  RECDSC
                                              04       AC DD 0004C      PUSHL   ENTITY
                          00000000V   00               03 FB 0004F      CALLS   #3, NML_DEFENTITY
                                              04       AE 9F 00056      PUSHAB  MSGSIZE                                 ; 0240
                                                       54 DD 00059      PUSHL   R4
                          00000000G   00               02 FB 0005B      CALLS   #2, NML$BLD_REPLY
                                              04       AE DD 00062      PUSHL   MSGSIZE                                 ; 0241
                                    00000000G   00     9F 00065      PUSHAB  NML$AB_SNDBUFFER
                          00000000G   00               02 FB 0006B      CALLS   #2, NML$SEND
                                                       6E D6 00072      INCL    KEY                                     ; 0242
                                                       AF 11 00074      BRB     1$                                      ; 0226
                                                          04 00076 2$:  RET                                             ; 0244

; Routine Size:  119 bytes,    Routine Base:  $CODE$ + 0000
```

```
;  248          0245  1 %SBTTL 'NML$DEFENTITY  Define entity parameters'
;  249          0246  1 GLOBAL ROUTINE NML$DEFENTITY (ENTITY, ENTITY_LEN, ENTITY_ADR,
;  250          0247  1                                QUAL_PST, QUAL_LEN, QUAL_ADR) : NOVALUE =
;  251          0248  1
;  252          0249  1 !++
;  253          0250  1 ! FUNCTIONAL DESCRIPTION:
;  254          0251  1 !
;  255          0252  1 !       Add parameters to the permanent data base entry for the specified
;  256          0253  1 !       entity.
;  257          0254  1 !
;  258          0255  1 ! FORMAL PARAMETERS:
;  259          0256  1 !
;  260          0257  1 !       ENTITY          Entity type code.
;  261          0258  1 !       ENTITY_LEN      Byte count of entity id string.
;  262          0259  1 !       ENTITY_ADR      Address of entity id string.
;  263          0260  1 !       QUAL_PST        Qualifier PST entry address
;  264          0261  1 !       QUAL_LEN        Qualifier ID byte count.
;  265          0262  1 !       QUAL_ADR        Address of qualifier id string.
;  266          0263  1 !
;  267          0264  1 ! IMPLICIT INPUTS:
;  268          0265  1 !
;  269          0266  1 !       NML$GL_PRS_FLGS Message parsing flags.
;  270          0267  1 !
;  271          0268  1 !--
;  272          0269  1
;  273          0270  2 BEGIN
;  274          0271  2
;  275          0272  2 LOCAL
;  276          0273  2     fid,                                ! File id code
;  277          0274  2     fldadr,
;  278          0275  2     fldsize,
;  279          0276  2     loop,
;  280          0277  2     msgsize,                            ! Message size
;  281          0278  2     key,                                ! Temporary record key buffer
;  282          0279  2     owner,                              ! Search key
;  283          0280  2     recdsc  : DESCRIPTOR,               ! Record descriptor
;  284          0281  2     status;
;  285          0282  2
;  286          0283  2 nml$ab_msgblock [msb$l_flags] = 0;       ! Initialize message flags
;  287          0284  2 !
;  288          0285  2 ! Add parameters to every record in the file.
;  289          0286  2 !
;  290          0287  2 fid = .nml$ab_entitydata [.entity, eit$b_fileid]; ! Get file id
;  291          0288  2 owner = .nml$ab_entitydata [.entity, eit$w_key];  ! Get search key
;  292          0289  2
;  293          0290  2 key = 0;                                        ! Initialize record key
;  294          0291  2 status = nml$matchrecord (.fid,
;  295          0292  2                                 nml$gq_recbfdsc,
;  296          0293  2                                 key,
;  297          0294  2                                 .owner, .entity_len, .entity_adr,
;  298          0295  2                                 .qual_pst, .qual_len, .qual_adr,
;  299          0296  2                                 recdsc);
;  300          0297  2 IF NOT .status THEN
;  301          0298  3     BEGIN
;  302          0299  3     !
;  303          0300  3     ! Initialize record descriptor and add entity ID field to record buffer.
;  304          0301  3     !
```

```
;  305          0302  3     recdsc [dsc$w_length] = 0;
;  306          0303  3     recdsc [dsc$a_pointer] = .nml$gq_recbfdsc [dsc$a_pointer] + 2;
;  307          0304  3     nma$insertfld (nml$k_max_rec_data,
;  308          0305  3                    .owner, .entity_len, .entity_adr, recdsc);
;  309          0306  3     !
;  310          0307  3     ! If there's a qualifier associated with this entity, add that to
;  311          0308  3     ! the record as well.
;  312          0309  3     !
;  313          0310  3     IF .nml$gl_prs_flgs [nml$v_prs_qualifier] THEN
;  314          0311  4         BEGIN
;  315          0312  4         MAP qual_pst: REF BBLOCK;
;  316          0313  4         nma$insertfld (nml$k_max_rec_data,
;  317          0314  4                    .qual_pst [pst$w_dataid], .qual_len, .qual_adr,
;  318          0315  4                    recdsc);
;  319          0316  3         END;
;  320          0317  3      status = nml$_sts_suc;
;  321          0318  2      END;
;  322          0319  2 !
;  323          0320  2 ! If everything is all right then add the parameters.
;  324          0321  2 !
;  325          0322  2 IF .status THEN
;  326          0323  2     nml_defentity (.entity, recdsc, key);
;  327          0324  2 !
;  328          0325  2 ! Build and send the response message.
;  329          0326  2 !
;  330          0327  2 nml$bld_reply (nml$ab_msgblock, msgsize);
;  331          0328  2 nml$send (nml$ab_sndbuffer, .msgsize);
;  332          0329  2
;  333          0330  1 END;                              ! End of NML$DEFENTITY
```

```
                                                003C 00000     .ENTRY  NML$DEFENTITY, Save R2,R3,R4,R5                 ; 0246
                                    55 00000000G  00   9E 00002 MOVAB   NML$AB_MSGBLOCK, R5                         ;
                                    54 00000000G  00   9E 00009 MOVAB   NMA$INSERTFLD, R4                           ;
                                    5E            10   C2 00010 SUBL2   #16, SP                                    ;
                                                  65   D4 00013 CLRL    NML$AB_MSGBLOCK                           ; 0283
                              50          04    AC     2C C5 00015 MULL3   #44, ENTITY, R0                         ; 0287
                                    51 00000000G0040   9A 0001A MOVZBL  NML$AB_ENTITYDATA[R0], FID                 ;
                                       00000000G0040   9F 00022 PUSHAB  NML$AB_ENTITYDATA+3[R0]                    ; 0288
                                    53            9E   3C 00029 MOVZWL  @(SP)+, OWNER                             ;
                                                  6E   D4 0002C CLRL    KEY                                       ; 0290
                                             08   AE   9F 0002E PUSHAB  RECDSC                                    ; 0291
                                    7E       14   AC   7D 00031 MOVQ    QUAL_LEN, -(SP)                           ; 0295
                                    7E       0C   AC   7D 00035 MOVQ    ENTITY_ADR, -(SP)                         ; 0294
                                             08   AC   DD 00039 PUSHL   ENTITY_LEN                                ;
                                                  53   DD 0003C PUSHL   OWNER                                     ;
                                             1C   AE   9F 0003E PUSHAB  KEY                                       ; 0291
                                       00000000G  00   9F 00041 PUSHAB  NML$GQ_RECBFDSC                           ;
                                                  51   DD 00047 PUSHL   FID                                       ;
                         00000000G    00               0A   FB 00049 CALLS   #10, NML$MATCHRECORD                  ;
                                    52            50   D0 00050 MOVL    R0, STATUS                                ;
                                    3E            52   E8 00053 BLBS    STATUS, 2$                                ; 0297
                                             08   AE   B4 00056 CLRW    RECDSC                                    ; 0302
                0C    AE 00000000G  00               02   C1 00059 ADDL3   #2, NML$GQ_RECBFDSC+4, RECDSC+4        ; 0303
```

```
                                    08   AE  9F 00062          PUSHAB  RECDSC                                  ; 0304
                                7E  08   AC  7D 00065          MOVQ    ENTITY_LEN, -(SP)                       ; 0305
                                    53   DD 00069          PUSHL   OWNER                                   ;
                                7E  03F6 8F  3C 0006B          MOVZWL  #1014, -(SP)                            ; 0304
                                64       05  FB 00070          CALLS   #5, NMA$INSERTFLD                       ;
                    13 00000000G 00      02  E1 00073          BBC     #2, NML$GL_PRS_FLGS, 1$                 ; 0310
                                    08   AE  9F 0007B          PUSHAB  RECDSC                                  ; 0313
                                7E  14   AC  7D 0007E          MOVQ    QUAL_LEN, -(SP)                         ; 0314
                                7E  10   BC  3C 00082          MOVZWL  @QUAL_PST, -(SP)                        ;
                                7E  03F6 8F  3C 00086          MOVZWL  #1014, -(SP)                            ; 0313
                                64       05  FB 0008B          CALLS   #5, NMA$INSERTFLD                       ;
                                52       01  D0 0008E 1$:     MOVL    #1, STATUS                              ; 0317
                                0F       52  E9 00091          BLBC    STATUS, 3$                              ; 0322
                                         5E  DD 00094 2$:      PUSHL   SP                                      ; 0323
                                    0C   AE  9F 00096          PUSHAB  RECDSC                                  ;
                                    04   AC  DD 00099          PUSHL   ENTITY                                  ;
                        00000000V   00       03  FB 0009C          CALLS   #3, NML_DEFENTITY                       ;
                                    04   AE  9F 000A3 3$:      PUSHAB  MSGSIZE                                 ; 0327
                                         55  DD 000A6          PUSHL   R5                                      ;
                        00000000G   00       02  FB 000A8          CALLS   #2, NML$BLD_REPLY                       ;
                                    04   AE  DD 000AF          PUSHL   MSGSIZE                                 ; 0328
                                00000000G 00 9F 000B2          PUSHAB  NML$AB_SNDBUFFER                        ;
                        00000000G   00       02  FB 000B8          CALLS   #2, NML$SEND                            ;
                                             04  000BF          RET                                             ; 0330

; Routine Size:  192 bytes,    Routine Base:  $CODE$ + 0077
```

```
;  335          0331  1 %SBTTL 'NML_DEFENTITY  Define entity parameters'
;  336          0332  1 ROUTINE NML_DEFENTITY (ENTITY, RECDSC, KEY) : NOVALUE =
;  337          0333  1
;  338          0334  1 !++
;  339          0335  1 ! FUNCTIONAL DESCRIPTION:
;  340          0336  1 !
;  341          0337  1 !       This routine performs common DEFINE functions for both singular
;  342          0338  1 !       and plural requests.
;  343          0339  1 !
;  344          0340  1 ! FORMAL PARAMETERS:
;  345          0341  1 !
;  346          0342  1 !       ENTITY          Entity type code.
;  347          0343  1 !       RECDSC          Address of current record descriptor.
;  348          0344  1 !       KEY             Address of current record key.
;  349          0345  1 !
;  350          0346  1 !--
;  351          0347  1
;  352          0348  2 BEGIN
;  353          0349  2
;  354          0350  2 MAP
;  355          0351  2     recdsc : REF DESCRIPTOR;    ! Record descriptor
;  356          0352  2
;  357          0353  2 LOCAL
;  358          0354  2     fid;                                ! File id code
;  359          0355  2
;  360          0356  2 fid = .nml$ab_entitydata [.entity, eit$b_fileid]; ! Get file id
;  361          0357  2 !
;  362          0358  2 ! Add the NICE command parameter fields to the permanent database record.
;  363          0359  2 !
;  364          0360  2 IF nml$add_fields (nml$k_max_rec_data, .recdsc) THEN
;  365          0361  3     BEGIN
;  366          0362  3     nml$writerecord (.fid, .entity, .key, .recdsc, 0);
;  367          0363  3     nml$ab_msgblock [msb$b_code] = nma$c_sts_suc;
;  368          0364  2     END;
;  369          0365  2 !
;  370          0366  2 ! Build response message.
;  371          0367  2 !
;  372          0368  2 nml$q_entbfdsc [dsc$w_length] = nml$k_entbuflen; ! Initialize entity descriptor
;  373          0369  2 nml$q_entbfdsc [dsc$a_pointer] = nml$t_entbuffer;
;  374          0370  2
;  375          0371  2 nml$getrecowner (.recdsc,
;  376          0372  2                  .entity,
;  377          0373  2                  nml$q_entbfdsc,
;  378          0374  2                  nml$q_entbfdsc [dsc$w_length]);
;  379          0375  2
;  380          0376  2 nml$ab_msgblock [msb$v_entd_fld] = 1;           ! Set entity descriptor flag
;  381          0377  2 nml$ab_msgblock [msb$a_entity] = nml$q_entbfdsc; ! Add entity descriptor pointer
;  382          0378  2
;  383          0379  1 END;                                    ! End of NML_DEFENTITY


                                001C 00000 NML_DEFENTITY:
                                                .WORD   Save R2,R3,R4                                   ; 0332
                      54 00000000G   00   9E 00002      MOVAB   NML$AB_MSGBLOCK+4, R4                   ;
```

```
                    53 00000000'   00  9E 00009          MOVAB   NML$Q_ENTBFDSC, R3                                  ;
              50        04          AC  2C C5 00010       MULL3   #44, ENTITY, R0                                     ; 0356
                    52 00000000G00040  9A 00015          MOVZBL  NML$AB_ENTITYDATA[R0], FID                          ;
                             08    AC  DD 0001D          PUSHL   RECDSC                                              ; 0360
                    7E       03F6  8F  3C 00020          MOVZWL  #1014, -(SP)                                        ;
          00000000G 00            02  FB 00025          CALLS   #2, NML$ADD_FIELDS                                  ;
                    17            50  E9 0002C          BLBC    R0, 1$                                              ;
                                  7E  D4 0002F          CLRL    -(SP)                                               ; 0362
                             08    AC  DD 00031          PUSHL   RECDSC                                              ;
                             0C    AC  DD 00034          PUSHL   KEY                                                 ;
                             04    AC  DD 00037          PUSHL   ENTITY                                              ;
                                   52  DD 0003A          PUSHL   FID                                                 ;
          00000000G 00            05  FB 0003C          CALLS   #5, NML$WRITERECORD                                 ;
                    64            01  90 00043          MOVB    #1, NML$AB_MSGBLOCK+4                               ; 0363
                    63       40   8F  9B 00046 1$:      MOVZBW  #64, NML$Q_ENTBFDSC                                 ; 0368
              04    A3       C0   A3  9E 0004A          MOVAB   NML$T_ENTBUFFER, NML$Q_ENTBFDSC+4                   ; 0369
                                   53  DD 0004F          PUSHL   R3                                                  ; 0374
                                   53  DD 00051          PUSHL   R3                                                  ; 0371
                             04    AC  DD 00053          PUSHL   ENTITY                                              ; 0374
                             08    AC  DD 00056          PUSHL   RECDSC                                              ;
          00000000V 00            04  FB 00059          CALLS   #4, NML$GETRECOWNER                                 ;
                 FC   A4          10  88 00060          BISB2   #16, NML$AB_MSGBLOCK                                ; 0376
                 10   A4          63  9E 00064          MOVAB   NML$Q_ENTBFDSC, NML$AB_MSGBLOCK+20                  ; 0377
                                  04  00068          RET                                                         ; 0379

; Routine Size:  105 bytes,    Routine Base:  $CODE$ + 0137
```

```
;  385     0380  1 %SBTTL 'NML$DEFINE_KNOWN_NODES  Define parameters for known entities'
;  386     0381  1 GLOBAL ROUTINE NML$DEFINE_KNOWN_NODES (ENTITY, DUM1, DUM2,
;  387     0382  1                                       DUM3, DUM4, DUM5) : NOVALUE =
;  388     0383  1
;  389     0384  1 !++
;  390     0385  1 ! FUNCTIONAL DESCRIPTION:
;  391     0386  1 !       This routine defines a set of parameters in the permanent
;  392     0387  1 !       data base entry for each entity in the node database.  The
;  393     0388  1 !       nodes updated in this case are the executor and the remotes.
;  394     0389  1 !
;  395     0390  1 ! FORMAL PARAMETERS:
;  396     0391  1 !
;  397     0392  1 !       ENTITY          Entity type code.
;  398     0393  1 !       DUM1-DUM5       Not used.
;  399     0394  1 !
;  400     0395  1 ! IMPLICIT INPUTS:
;  401     0396  1 !
;  402     0397  1 !       NML$GL_PRS_FLGS Message parsing flags.
;  403     0398  1 !
;  404     0399  1 ! SIDE EFFECTS:
;  405     0400  1 !
;  406     0401  1 !       Signals errors.
;  407     0402  1 !
;  408     0403  1 !--
;  409     0404  1
;  410     0405  2 BEGIN
;  411     0406  2
;  412     0407  2 LOCAL
;  413     0408  2     node_type,
;  414     0409  2     recdsc:     DESCRIPTOR,
;  415     0410  2     rewind_flag,
;  416     0411  2     msgsize;
;  417     0412  2
;  418     0413  2 !
;  419     0414  2 ! Loopnodes can only have the parameter CIRCUIT, which must be unique.  So
;  420     0415  2 ! DEFINE KNOWN never applies to loopnodes.  Apply the DEFINE to the executor
;  421     0416  2 ! first, and then to the remote nodes.
;  422     0417  2 !
;  423     0418  2 nml$define_node (nml$c_executor, 2, 0);
;  424     0419  2 rewind_flag = true;
;  425     0420  2 WHILE nml$read_known_node_rec (nml$c_node,
;  426     0421  2                                nml$gq_recbfdsc,
;  427     0422  2                                recdsc,
;  428     0423  2                                .rewind_flag) DO
;  429     0424  3     BEGIN
;  430     0425  3     rewind_flag = false;
;  431     0426  3     nml$ab_msgblock [msb$l_flags] = 0;
;  432     0427  3     !
;  433     0428  3     ! Add the parameters to the node's record, and write the updated
;  434     0429  3     ! record back to the node permanent database file.
;  435     0430  3     !
;  436     0431  3     nml_define_node (.entity, recdsc, nmn$c_update_rec);
;  437     0432  3     !
;  438     0433  3     ! Set up the NICE message block so that the modified node's id is
;  439     0434  3     ! included in the NICE response message.  This is done because the
;  440     0435  3     ! architecture requires that, for KNOWN entity operations, the entitie IDs
;  441     0436  3     ! of the modified entities be returned in the NICE responses.
```

```
;  442          0437  3     !
;  443          0438  3     nml$q_entbfdsc [dsc$w_length] = nml$k_entbuflen;
;  444          0439  3     nml$q_entbfdsc [dsc$a_pointer] = nml$t_entbuffer;
;  445          0440  3     nml$getrecowner (recdsc,
;  446          0441  3                      .entity,
;  447          0442  3                      nml$q_entbfdsc,
;  448          0443  3                      nml$q_entbfdsc [dsc$w_length]);
;  449          0444  3     nml$ab_msgblock [msb$v_entd_fld] = 1;
;  450          0445  3     nml$ab_msgblock [msb$a_entity] = nml$q_entbfdsc;
;  451          0446  3     !
;  452          0447  3     ! Build and send NICE response message - one for each node updated.
;  453          0448  3     !
;  454          0449  3     nml$bld_reply (nml$ab_msgblock, msgsize);
;  455          0450  3     nml$send (nml$ab_sndbuffer, .msgsize);
;  456          0451  2     END;
;  457          0452  1 END;                               ! End of NML$DEFINE_KNOWN_NODES


                                                001C 00000          .ENTRY  NML$DEFINE_KNOWN_NODES, Save R2,R3,R4       ; 0381
                                    54 00000000G   00   9E 00002    MOVAB   NML$AB_MSGBLOCK, R4                         ;
                                    53 00000000'   00   9E 00009    MOVAB   NML$Q_ENTBFDSC, R3                          ;
                                    5E             0C   C2 00010    SUBL2   #12, SP                                     ;
                                    7E             02   7D 00013    MOVQ    #2, -(SP)                                   ; 0418
                                                   07   DD 00016    PUSHL   #7                                          ;
                          00000000V 00             03   FB 00018    CALLS   #3, NML$DEFINE_NODE                         ;
                                    52             01   D0 0001F    MOVL    #1, REWIND_FLAG                             ; 0419
                                                   52   DD 00022 1$: PUSHL   REWIND_FLAG                                ; 0423
                                       08          AE   9F 00024    PUSHAB  RECDSC                                      ; 0420
                                  00000000G        00   9F 00027    PUSHAB  NML$GQ_RECBFDSC                             ;
                                                   03   DD 0002D    PUSHL   #3                                          ;
                          00000000G 00             04   FB 0002F    CALLS   #4, NML$READ_KNOWN_NODE_REC                 ;
                                    50             50   E9 00036    BLBC    R0, 2$                                      ;
                                                   52   D4 00039    CLRL    REWIND_FLAG                                 ; 0425
                                                   64   D4 0003B    CLRL    NML$AB_MSGBLOCK                             ; 0426
                                                   02   DD 0003D    PUSHL   #2                                          ; 0431
                                       08          AE   9F 0003F    PUSHAB  RECDSC                                      ;
                                       04          AC   DD 00042    PUSHL   ENTITY                                      ;
                          00000000V 00             03   FB 00045    CALLS   #3, NML_DEFINE_NODE                         ;
                                    63             40   8F 9B 0004C MOVZBW  #64, NML$Q_ENTBFDSC                         ; 0438
                                04  A3             C0   A3 9E 00050 MOVAB   NML$T_ENTBOFFER, NML$Q_ENTBFDSC+4        ; 0439
                                                   53   DD 00055    PUSHL   R3                                          ; 0443
                                                   53   DD 00057    PUSHL   R3                                          ; 0440
                                       04          AC   DD 00059    PUSHL   ENTITY                                      ; 0443
                                       10          AE   9F 0005C    PUSHAB  RECDSC                                      ; 0440
                          00000000V 00             04   FB 0005F    CALLS   #4, NML$GETRECOWNER                         ; 0443
                                    64             10   88 00066    BISB2   #16, NML$AB_MSGBLOCK                        ; 0444
                               14   A4             63   9E 00069    MOVAB   NML$Q_ENTBFDSC, NML$AB_MSGBLOCK+20          ; 0445
                                          4010     8F   BB 0006D    PUSHR   #^M<R4,SP>                                  ; 0449
                          00000000G 00             02   FB 00071    CALLS   #2, NML$BLD_REPLY                           ;
                                                   6E   DD 00078    PUSHL   MSGSIZE                                     ; 0450
                                  00000000G        00   9F 0007A    PUSHAB  NML$AB_SNDBUFFER                            ;
                          00000000G 00             02   FB 00080    CALLS   #2, NML$SEND                                ;
                                                   99   11 00087    BRB     1$                                          ; 0420
                                                        04 00089 2$: RET                                                 ; 0452
```

; Routine Size: 138 bytes,   Routine Base: $CODE$ + 01A0

```
;  459          0453  1 %SBTTL 'NML$DEFINE_NODE  Define entity parameters'
;  460          0454  1 GLOBAL ROUTINE NML$DEFINE_NODE (ENTITY, ENTITY_LEN, ENTITY_ADR) : NOVALUE =
;  461          0455  1
;  462          0456  1 !++
;  463          0457  1 ! FUNCTIONAL DESCRIPTION:
;  464          0458  1 !       Add a node's parameters to the permanent data base entry for the
;  465          0459  1 !       specified node.
;  466          0460  1 !
;  467          0461  1 ! FORMAL PARAMETERS:
;  468          0462  1 !
;  469          0463  1 !       ENTITY          Entity type code.
;  470          0464  1 !       ENTITY_LEN      Byte count of entity id string.
;  471          0465  1 !       ENTITY_ADR      Address of entity id string.
;  472          0466  1 !
;  473          0467  1 ! IMPLICIT INPUTS:
;  474          0468  1 !       NML$GL_PRS_FLGS Message parsing flags.
;  475          0469  1 !
;  476          0470  1 !--
;  477          0471  1
;  478          0472  2 BEGIN
;  479          0473  2
;  480          0474  2 LOCAL
;  481          0475  2     fid,                        ! Node permanent database file ID
;  482          0476  2     msgsize,                    ! Message size
;  483          0477  2     key,                        ! Record key buffer
;  484          0478  2     key_value_dsc_addr,         ! Address of node's key value descriptor
;  485          0479  2     node_type,                  ! Record's node type (remote, loopnode, or
;  486          0480  2                                 !     executor).
;  487          0481  2     write_type,                 ! Indicates whether updating an already existing
;  488          0482  2                                 !     node record, or creating a new one.
;  489          0483  2     recdsc  : DESCRIPTOR,       ! Record descriptor
;  490          0484  2     status;
;  491          0485  2
;  492          0486  2 !
;  493          0487  2 ! Try to get the permanent database record for the node in question.
;  494          0488  2 !
;  495          0489  2 key = .nml$ab_entitydata [.entity, eit$w_key];     ! Get search key
;  496          0490  2 fid = .nml$ab_entitydata [.entity, eit$b_fileid]; ! Get file id
;  497          0491  2 !
;  498          0492  2 ! Set up the key value.
;  499          0493  2 !
;  500          0494  2 IF .entity EQL nml$c_executor THEN
;  501          0495  2     key_value_dsc_addr = UPLIT (nmn$c_typ_key_len, UPLIT (nml$c_executor))
;  502          0496  2 ELSE
;  503          0497  2     key_value_dsc_addr = entity_len;
;  504          0498  2 status = nml$readrecord (.fid,                   ! Node DB file ID
;  505          0499  2                         key,                    ! Key of reference ID
;  506          0500  2                         .key_value_dsc_addr,    ! Key value of node
;  507          0501  2                         nml$gq_recbfdsc,        ! Read buffer descriptor
;  508          0502  2                         recdsc,                 ! Return data descriptor
;  509          0503  2                         node_type);             ! Entity type of node read
;  510          0504  2 IF .status THEN
;  511          0505  3     BEGIN
;  512          0506  3     write_type = nmn$c_update_rec;
;  513          0507  3     !
;  514          0508  3     ! If this is not a loop node but the parameter group is for loop nodes
;  515          0509  3     ! then return a parameter not applicable error for the line parameter.
```

```
;   516          0510  3      ! (This assumes that the line parameter is the only one applicable to
;   517          0511  3      ! loop nodes.)
;   518          0512  3      !
;   519          0513  3      IF .node_type NEQ nml$c_loopnode AND .nml$gl_prs_flgs [nml$v_prs_loopg] THEN
;   520          0514  4          BEGIN
;   521          0515  4          nml$ab_msgblock [msb$l_flags]  = msb$m_det_fld;
;   522          0516  4          nml$ab_msgblock [msb$b_code]   = nma$c_sts_pna;
;   523          0517  4          nml$ab_msgblock [msb$w_detail] = nma$c_pcno_nli;
;   524          0518  4          status = nml$_sts_pna;
;   525          0519  3          END;
;   526          0520  3      !
;   527          0521  3      ! If the node is a loop node but the parameter group is not for loop nodes
;   528          0522  3      ! then return an unrecgnized component error.  (There must be something
;   529          0523  3      ! better!)
;   530          0524  3      !
;   531          0525  3      IF .node_type EQL nml$c_loopnode AND NOT .nml$gl_prs_flgs [nml$v_prs_loopg]
;   532          0526  3           THEN
;   533          0527  4          BEGIN
;   534          0528  4          nml$ab_msgblock [msb$l_flags]  = msb$m_det_fld;
;   535          0529  4          nml$ab_msgblock [msb$b_code]   = nma$c_sts_cmp;
;   536          0530  4          nml$ab_msgblock [msb$w_detail] = nma$c_ent_nod;
;   537          0531  4          status = nml$_sts_cmp;
;   538          0532  3          END;
;   539          0533  3      END
;   540          0534  2  ELSE
;   541          0535  3      BEGIN
;   542          0536  3      write_type = nmn$c_put_rec;
;   543          0537  3      !
;   544          0538  3      ! Initialize record descriptor, leaving room for the ISAM keys at the
;   545          0539  3      ! beginning of the record, and add entity ID field to record buffer.
;   546          0540  3      !
;   547          0541  3      recdsc [dsc$w_length] = 0;
;   548          0542  3      recdsc [dsc$a_pointer] = .nml$gq_recbfdsc [dsc$a_pointer] +
;   549          0543  3                                                nmn$c_node_keys_len;
;   550          0544  3      IF .entity NEQ nml$c_executor THEN
;   551          0545  3          nma$insertfld (nml$k_max_rec_data,
;   552          0546  3                         .key, .entity_len, .entity_adr, recdsc);
;   553          0547  3      !
;   554          0548  3      ! All nodes are in the same permanent database file.
;   555          0549  3      ! Loop nodes are uniquely identifyable because they have a circuit
;   556          0550  3      ! (NMA$C_PCNO_NLI) parameter and nothing else.  If the NICE command
;   557          0551  3      ! is defining a loop node, set the entity type accordingly, so the
;   558          0552  3      ! loopnode will be written to the file with the correct node type key.
;   559          0553  3      !
;   560          0554  3      IF .nml$gl_prs_flgs [nml$v_prs_loopg] THEN
;   561          0555  3          entity = nml$c_loopnode;
;   562          0556  3      status = nml$_sts_suc;
;   563          0557  2      END;
;   564          0558  2  !
;   565          0559  2  ! If everything is all right then add the parameters.
;   566          0560  2  !
;   567          0561  2  IF .status THEN
;   568          0562  3      BEGIN
;   569          0563  3      nml$ab_msgblock [msb$l_flags] = 0;
;   570          0564  3      nml_define_node (.entity, recdsc, .write_type);
;   571          0565  2      END;
;   572          0566  2  !
```

```
;  573          0567  2 ! Build and send the response message.
;  574          0568  2 !
;  575          0569  2 nml$bld_reply (nml$ab_msgblock, msgsize);
;  576          0570  2 nml$send (nml$ab_sndbuffer, .msgsize);
;  577          0571  2
;  578          0572  1 END;                                ! End of NML$DEFINE_NODE


                                                                .PSECT  $PLIT$,NOWRT,NOEXE,2

                                                    00000007  00000 P.AAB:  .LONG   7                                                  ;
                                                    00000002  00004 P.AAA:  .LONG   2                                                  ;
                                                    00000000' 00008         .ADDRESS P.AAB                                             ;


                                                                .PSECT  $CODE$,NOWRT,2

                                                        003C 00000          .ENTRY  NML$DEFINE_NODE, Save R2,R3,R4,R5                  ; 0454
                                                55 00000000G   00   9E 00002    MOVAB   NML$GL_PRS_FLGS, R5                            ;
                                                54 00000000G   00   9E 00009    MOVAB   NML$AB_MSGBLOCK, R4                            ;
                                                5E             14   C2 00010    SUBL2   #20, SP                                        ;
                                      50        04   AC          2C   C5 00013    MULL3   #44, ENTITY, R0                            ; 0489
                                                   00000000G00040   9F 00018    PUSHAB  NML$AB_ENTITYDATA+3[R0]                        ;
                                                04 AE             9E   3C 0001F    MOVZWL  @(SP)+, KEY                                ;
                                                51 00000000G00040   9A 00023    MOVZBL  NML$AB_ENTITYDATA[R0], FID                     ; 0490
                                                07        04   AC   D1 0002B    CMPL    ENTITY, #7                                     ; 0494
                                                                09   12 0002F    BNEQ    1$                                             ;
                                                50 00000000'   00   9E 00031    MOVAB    .AAA, KEY_VALUE_DSC_ADDR                      ; 0495
                                                                04   11 00038    BRB     2$                                             ;
                                                50        08   AC   9E 0003A 1$: MOVAB   ENTITY_LEN, KEY_VALUE_DSC_ADDR              ; 0497
                                                5E             DD   9E 0003E 2$: PUSHL   SP                                             ; 0498
                                                             10   AE   9F 00040    PUSHAB  RECDSC                                         ;
                                                   00000000G   00   9F 00043    PUSHAB  NML$GQ_RECBFDSC                                ;
                                                50             DD   00049    PUSHL   KEY_VALUE_DSC_ADDR                                 ; 0500
                                                             14   AE   9F 0004B    PUSHAB  KEY                                            ; 0498
                                                51             DD   0004E    PUSHL   FID                                                ;
                                      00000000G   00             06   FB 00050    CALLS   #6, NML$READRECORD                             ;
                                                52             50   D0 00057    MOVL    R0, STATUS                                     ;
                                                36             52   E9 0005A    BLBC    STATUS, 4$                                     ; 0504
                                                53             02   D0 0005D    MOVL    #2, WRITE_TYPE                                 ; 0506
                                                05             6E   D1 00060    CMPL    NODE_TYPE, #5                                  ; 0513
                                                               15   13 00063    BEQL    3$                                             ;
                                      10        01   A5          03   E1 00065    BBC     #3, NML$GL_PRS_FLGS+1, 3$                      ;                 ;
                                                64             02   D0 0006A    MOVL    #2, NML$AB_MSGBLOCK                            ; 0515
                                                   04   A4       16   8E 0006D    MNEGB   #22, NML$AB_MSGBLOCK+4                         ; 0516
                                                   08   A4 01F5   8F   B0 00071    MOVW    #501, NML$AB_MSGBLOCK+8                        ; 0517
                                                52             2C   CE 00077    MNEGL   #44, STATUS                                    ; 0518
                                                05             6E   D1 0007A 3$: CMPL    NODE_TYPE, #5                                  ; 0525
                                                               4B   12 0007D    BNEQ    7$                                             ;
                                      46        01   A5          03   E0 0007F    BBS     #3, NML$GL_PRS_FLGS+1, 7$                      ;
                                                64             02   D0 00084    MOVL    #2, NML$AB_MSGBLOCK                            ; 0528
                                                   04   A4       08   8E 00087    MNEGB   #8, NML$AB_MSGBLOCK+4                          ; 0529
                                                      08   A4    A4   B4 0008B    CLRW    NML$AB_MSGBLOCK+8                              ; 0530
                                                52             10   CE 0008E    MNEGL   #16, STATUS                                    ; 0531
                                                               37   11 00091    BRB     7$                                             ; 0504
```

```
                                53              01  D0 00093 4$:      MOVL    #1, WRITE_TYPE                          ; 0536
                                            0C  AE  B4 00096          CLRW    RECDSC                                  ; 0541
                    10  AE 00000000G     00      0A  C1 00099          ADDL3   #10, NML$GQ_RECBFDSC+4, RECDSC+4        ; 0542
                                07          04  AC  D1 000A2          CMPL    ENTITY, #7                              ; 0544
                                                16  13 000A6          BEQL    5$                                      ;
                                            0C  AE  9F 000A8          PUSHAB  RECDSC                                  ; 0545
                                7E          08  AC  7D 000AB          MOVQ    ENTITY_LEN, -(SP)                       ; 0546
                                            10  AE  DD 000AF          PUSHL   KEY                                     ;
                                7E      03F6    8F  3C 000B2          MOVZWL  #1014, -(SP)                            ; 0545
                        00000000G       00      05  FB 000B7          CALLS   #5, NMA$INSERTFLD                       ;
                    04          01      A5      03  E1 000BE 5$:      BBC     #3, NML$GL_PRS_FLGS+1, 6$               ; 0554
                                04      AC      05  D0 000C3          MOVL    #5, ENTITY                              ; 0555
                                52              01  D0 000C7 6$:      MOVL    #1, STATUS                              ; 0556
                                11              52  E9 000CA 7$:      BLBC    STATUS, 8$                              ; 0561
                                                64  D4 000CD          CLRL    NML$AB_MSGBLOCK                         ; 0563
                                                53  DD 000CF          PUSHL   WRITE_TYPE                              ; 0564
                                            10  AE  9F 000D1          PUSHAB  RECDSC                                  ;
                                            04  AC  DD 000D4          PUSHL   ENTITY                                  ;
                        00000000V       00      03  FB 000D7          CALLS   #3, NML_DEFINE_NODE                     ;
                                            08  AE  9F 000DE 8$:      PUSHAB  MSGSIZE                                 ; 0569
                                                54  DD 000E1          PUSHL   R4                                      ;
                        00000000G       00      02  FB 000E3          CALLS   #2, NML$BLD_REPLY                       ;
                                            08  AE  DD 000EA          PUSHL   MSGSIZE                                 ; 0570
                                00000000G   00  9F 000ED              PUSHAB  NML$AB_SNDBUFFER                        ;
                        00000000G       00      02  FB 000F3          CALLS   #2, NML$SEND                            ;
                                                04  000FA          RET                                             ; 0572

; Routine Size:  251 bytes,    Routine Base:  $CODE$ + 022A
```

```
;  580          0573  1 %SBTTL 'NML_DEFINE_NODE  Define entity parameters'
;  581          0574  1 ROUTINE NML_DEFINE_NODE (ENTITY, RECDSC, WRITE_TYPE) : NOVALUE =
;  582          0575  1
;  583          0576  1 !++
;  584          0577  1 ! FUNCTIONAL DESCRIPTION:
;  585          0578  1 !       This routine performs DEFINE NODE functions for both singular
;  586          0579  1 !       and plural requests.
;  587          0580  1 !
;  588          0581  1 ! FORMAL PARAMETERS:
;  589          0582  1 !
;  590          0583  1 !       ENTITY          Entity type code.
;  591          0584  1 !       RECDSC          Address of current record descriptor.
;  592          0585  1 !       WRITE_TYPE      Indicates whether updating an already existing node
;  593          0586  1 !                       record, or if creating a new one.
;  594          0587  1 !
;  595          0588  1 !--
;  596          0589  1
;  597          0590  2 BEGIN
;  598          0591  2
;  599          0592  2 MAP
;  600          0593  2     recdsc : REF DESCRIPTOR;    ! Record descriptor
;  601          0594  2
;  602          0595  2 LOCAL
;  603          0596  2     fid,
;  604          0597  2     fldsize,
;  605          0598  2     fldadr,
;  606          0599  2     node_name_dsc       : VECTOR [2],
;  607          0600  2     node_type,
;  608          0601  2     original_rec        : BBLOCK [nml$k_recbflen],
;  609          0602  2     original_rec_dsc    : VECTOR [2],
;  610          0603  2     status;
;  611          0604  2
;  612          0605  2 !
;  613          0606  2 ! Save the original contents of the node's database record so that, if the
;  614          0607  2 ! record hasn't been modified after the changes have been applied, it isn't
;  615          0608  2 ! written back to disk.  This should improve performance of command procedures
;  616          0609  2 ! that are reapplied after only a few changes (as is commonly done to update
;  617          0610  2 ! the node database).
;  618          0611  2 !
;  619          0612  2 original_rec_dsc [0] = .recdsc [dsc$w_length];
;  620          0613  2 original_rec_dsc [1] = original_rec;
;  621          0614  2 CH$MOVE (.recdsc [dsc$w_length], .recdsc [dsc$a_pointer], original_rec);
;  622          0615  2 !
;  623          0616  2 ! Add new parameter fields to the permanent database record for the node
;  624          0617  2 ! being DEFINEd.
;  625          0618  2 !
;  626          0619  2 IF nml$add_fields (nml$k_max_rec_data, .recdsc) THEN
;  627          0620  3     BEGIN
;  628          0621  3     !
;  629          0622  3     ! Node must have either address or line parameter specified.
;  630          0623  3     !
;  631          0624  3     status = nml$_sts_suc;
;  632          0625  3     fldadr = 0;
;  633          0626  4     IF NOT (nma$searchfld (     .recdsc,
;  634          0627  4                                 nma$c_pcno_nli,
;  635          0628  4                                 fldsize,
;  636          0629  4                                 fldadr)
```

```
;  637          0630  4              OR nma$searchfld (  .recdsc,
;  638          0631  4                                  nma$c_pcno_add,
;  639          0632  4                                  fldsize,
;  640          0633  4                                  fldadr)
;  641          0634  3              OR .entity EQL nml$c_executor) THEN
;  642          0635  4          BEGIN
;  643          0636  4          nml$ab_msgblock [msb$l_flags]  = msb$m_det_fld;
;  644          0637  4          nml$ab_msgblock [msb$b_code]   = nma$c_sts_pms;
;  645          0638  4          nml$ab_msgblock [msb$w_detail] = nma$c_pcno_add;
;  646          0639  4          status = nml$_sts_pms;
;  647          0640  3          END;
;  648          0641  3      !
;  649          0642  3      ! DEFINE fields added to the node's permanent database record, check
;  650          0643  3      ! to see if the record has changed at all.  If it has, write the record
;  651          0644  3      ! back to file.
;  652          0645  3      !
;  653          0646  3      IF .status THEN
;  654          0647  4          BEGIN
;  655          0648  4          IF CH$NEQ (.recdsc [dsc$w_length], .recdsc [dsc$a_pointer],
;  656          0649  4                     .original_rec_dsc [0], .original_rec_dsc [1], 0) THEN
;  657          0650  5              BEGIN
;  658          0651  5              fid = .nml$ab_entitydata [.entity, eit$b_fileid]; ! Get file id
;  659          0652  5              status = nml$writerecord (.fid, .entity, 0, .recdsc, .write_type);
;  660          0653  4              END;
;  661          0654  4          IF .status EQL rms$_dup THEN
;  662          0655  5              BEGIN
;  663          0656  5              !
;  664          0657  5              ! Node name is not unique.  (Address was checked in
;  665          0658  5              ! NML$DEF_NODE_ADDR since the address key to the node
;  666          0659  5              ! database allows duplicates).  So, the DEFINE cannot be
;  667          0660  5              ! performed.
;  668          0661  5              !
;  669          0662  5              node_name_dsc [1] = 0;
;  670          0663  5              !
;  671          0664  5              ! Get the duplicated node name from node record that the NICE
;  672          0665  5              ! command is attempting to modify.
;  673          0666  5              !
;  674          0667  5              nma$searchfld (.recdsc, nma$c_pcno_nna,
;  675          0668  5                             node_name_dsc [0],
;  676          0669  5                             node_name_dsc [1]);
;  677          0670  5              !
;  678          0671  5              ! Read in the record for the duplicated node so that it's ID is
;  679          0672  5              ! returned in the NICE error response.
;  680          0673  5              !
;  681          0674  5              nml$readrecord (.fid,                          ! File ID
;  682          0675  5                              UPLIT (nma$c_pcno_nna),       ! Key type
;  683          0676  5                              node_name_dsc,                ! Key value = node name
;  684          0677  5                              nml$gq_recbfdsc,              ! Read buffer descriptor
;  685          0678  5                              .recdsc,                      ! Return record descriptor
;  686          0679  5                              node_type);                   ! Node type
;  687          0680  5              nml$ab_msgblock [msb$l_flags] = msb$m_det_fld;
;  688          0681  5              nml$ab_msgblock [msb$b_code] = nma$c_sts_pva;
;  689          0682  5              nml$ab_msgblock [msb$w_detail] = nma$c_pcno_nna;
;  690          0683  5              !
;  691          0684  5              ! Set up the NICE message block so that the duplicate node id
;  692          0685  5              ! is included in the NICE response message.
;  693          0686  5              !
```

```
;  694          0687  5              nml$q_entbfdsc [dsc$w_length] = nml$k_entbuflen;
;  695          0688  5              nml$q_entbfdsc [dsc$a_pointer] = nml$t_entbuffer;
;  696          0689  5              nml$getrecowner (.recdsc,
;  697          0690  5                               .node_type,
;  698          0691  5                               nml$q_entbfdsc,
;  699          0692  5                               nml$q_entbfdsc [dsc$w_length]);
;  700          0693  5              nml$ab_msgblock [msb$v_entd_fld] = 1;
;  701          0694  5              nml$ab_msgblock [msb$a_entity] = nml$q_entbfdsc;
;  702          0695  5              END
;  703          0696  4          ELSE
;  704          0697  4              nml$ab_msgblock [msb$b_code] = nma$c_sts_suc;
;  705          0698  3          END;
;  706          0699  2      END;
;  707          0700  1 END;                                  ! End of NML_DEFINE_NODE


                                                    .PSECT  $PLIT$,NOWRT,NOEXE,2                                    ; R

                                000001F4  0000C P.AAC:  .LONG   500                                     ;


                                                    .PSECT  $CODE$,NOWRT,2

                                          03FC 00000 NML_DEFINE_NODE:
                                                    .WORD   Save R2,R3,R4,R5,R6,R7,R8,R9                    ; 0574
                                    59 00000000G   00  9E 00002         MOVAB   NMA$SEARCHFLD, R9           ;
                                    58 00000000'   00  9E 00009         MOVAB   NML$Q_ENTBFDSC, R8          ;
                                    57 00000000G   00  9E 00010         MOVAB   NML$AB_MSGBLOCK, R7         ;
                                    5E      FBE4   CE  9E 00017         MOVAB   -1052(SP), SP               ;
                                    56        08   AC  D0 0001C         MOVL    RECDSC, R6                  ; 0612
                                          0C   AE       66  3C 00020    MOVZWL  (R6), ORIGINAL_REC_DSC      ;
                                          10   AE    14 AE  9E 00024    MOVAB   ORIGINAL_REC, ORIGINAL_REC_DSC+4    ; 0613
                                14    AE    04   B6       66  28 00029    MOVC3   (R6), @4(R6), ORIGINAL_REC  ; 0614
                                                    56  DD 0002F        PUSHL   R6                          ; 0619
                                          7E      03F6  8F  3C 00031    MOVZWL  #1014, -(SP)                ;
                                    00000000G     00    02  FB 00036    CALLS   #2, NML$ADD_FIELDS          ;
                                                    01  50  E8 0003D    BLBS    R0, 1$                      ;
                                                        04  00040       RET                                 ;
                                                    54      01  D0 00041 1$:     MOVL    #1, STATUS          ; 0624
                                                            6E  D4 00044        CLRL    FLDADR              ; 0625
                                                            5E  DD 00046        PUSHL   SP                  ; 0626
                                                        08      AE  9F 00048    PUSHAB  FLDSIZE             ;
                                                    7E      01F5  8F  3C 0004B  MOVZWL  #501, -(SP)         ;
                                                            56  DD 00050        PUSHL   R6                  ;
                                                    69          04  FB 00052    CALLS   #4, NMA$SEARCHFLD   ;
                                                    28          50  E8 00055    BLBS    R0, 2$              ;
                                                            5E  DD 00058        PUSHL   SP                  ; 0630
                                                        08      AE  9F 0005A    PUSHAB  FLDSIZE             ;
                                                    7E      01F6  8F  3C 0005D  MOVZWL  #502, -(SP)         ;
                                                            56  DD 00062        PUSHL   R6                  ;
                                                    69          04  FB 00064    CALLS   #4, NMA$SEARCHFLD   ;
                                                    16          50  E8 00067    BLBS    R0, 2$              ;
                                                    07      04      AC  D1 0006A    CMPL    ENTITY, #7      ; 0634
                                                                10  13 0006E    BEQL    2$                  ;
                                                    67          02  D0 00070    MOVL    #2, NML$AB_MSGBLOCK ; 0636
```

```
                        04   A7              1D  8E 00073          MNEGB   #29, NML$AB_MSGBLOCK+4                          ; 0637
                        08   A7    01F6      8F  B0 00077          MOVW    #502, NML$AB_MSGBLOCK+8                         ; 0638
                             54              3A  CE 0007D          MNEGL   #58, STATUS                                     ; 0639
                             01              54  E8 00080 2$:      BLBS    STATUS, 3$                                      ; 0646
                                             04  00083           RET                                                     ;
    0C  AE          00       04   B6          66  2D 00084 3$:      CMPC5   (R6), @4(R6), #0, ORIGINAL_REC_DSC, -       ; 0648
                                        10   BE      0008B                  @ORIGINAL_REC_DSC+4                         ;
                                             23  13 0008D          BEQL    4$                                          ;
                        50       04   AC              2C  C5 0008F          MULL3   #44, ENTITY, R0                         ; 0651
                                             52 00000000G00040  9A 00094          MOVZBL  NML$AB_ENTITYDATA[R0], FID      ;
                                                  0C   AC  DD 0009C          PUSHL   WRITE_TYPE                          ; 0652
                                                       56  DD 0009F          PUSHL   R6                                  ;
                                                       7E  D4 000A1          CLRL    -(SP)                               ;
                                                  04   AC  DD 000A3          PUSHL   ENTITY                              ;
                                                       52  DD 000A6          PUSHL   FID                                 ;
                                  00000000G    00        05  FB 000A8          CALLS   #5, NML$WRITERECORD                 ;
                                             54              50  D0 000AF          MOVL    R0, STATUS                      ;
                                  000184EC   8F              54  D1 000B2 4$:      CMPL    STATUS, #99564                  ; 0654
                                             5E              12  000B9          BNEQ    5$                                  ;
                                                  FC   AD  D4 000BB          CLRL    NODE_NAME_DSC+4                     ; 0662
                                                  FC   AD  9F 000BE          PUSHAB  NODE_NAME_DSC+4                     ; 0669
                                                  F8   AD  9F 000C1          PUSHAB  NODE_NAME_DSC                       ; 0668
                                             7E       01F4  8F  3C 000C4          MOVZWL  #500, -(SP)                     ; 0667
                                                       56  DD 000C9          PUSHL   R6                                  ;
                                             69              04  FB 000CB          CALLS   #4, NMA$SEARCHFLD               ;
                                                  08   AE  9F 000CE          PUSHAB  NODE_TYPE                           ; 0674
                                                       56  DD 000D1          PUSHL   R6                                  ; 0678
                                                00000000G  00  9F 000D3          PUSHAB  NML$GQ_RECBFDSC                     ; 0674
                                                     F8    AD  9F 000D9          PUSHAB  NODE_NAME_DSC                       ;
                                                00000000'  00  9F 000DC          PUSHAB  P.AAC                               ; 0675
                                                       52  DD 000E2          PUSHL   FID                                 ; 0674
                                  00000000G    00        06  FB 000E4          CALLS   #6, NML$READRECORD                  ;
                                             67              02  D0 000EB          MOVL    #2, NML$AB_MSGBLOCK             ; 0680
                                   04   A7              10  8E 000EE          MNEGB   #16, NML$AB_MSGBLOCK+4              ; 0681
                                   08   A7    01F4      8F  B0 000F2          MOVW    #500, NML$AB_MSGBLOCK+8             ; 0682
                                        68      40     8F  9B 000F8          MOVZBW  #64, NML$Q_ENTBFDSC                 ; 0687
                                   04   A8      C0     A8  9E 000FC          MOVAB   NML$T_ENTBOFFER, NML$Q_ENTBFDSC+4   ; 0688
                                                       58  DD 00101          PUSHL   R8                                  ; 0692
                                                       58  DD 00103          PUSHL   R8                                  ; 0689
                                                  10   AE  DD 00105          PUSHL   NODE_TYPE                           ; 0692
                                                       56  DD 00108          PUSHL   R6                                  ;
                                  00000000V    00        04  FB 0010A          CALLS   #4, NML$GETRECOWNER                 ;
                                             67              10  88 00111          BISB2   #16, NML$AB_MSGBLOCK            ; 0693
                                   14   A7              68  9E 00114          MOVAB   NML$Q_ENTBFDSC, NML$AB_MSGBLOCK+20  ; 0694
                                                             04 00118          RET                                         ; 0654
                                   04   A7              01  90 00119 5$:      MOVB    #1, NML$AB_MSGBLOCK+4               ; 0697
                                                             04 0011D          RET                                         ; 0700

; Routine Size:  286 bytes,    Routine Base:  $CODE$ + 0325
```

```
;  709          0701  1 %SBTTL 'NML$DEFKNOWNLOG  Define parameters for known logging entities'
;  710          0702  1 GLOBAL ROUTINE NML$DEFKNOWNLOG (ENTITY, DUM1, DUM2,
;  711          0703  1                                 DUM3, DUM4, DUM5) : NOVALUE =
;  712          0704  1 !++
;  713          0705  1 ! FUNCTIONAL DESCRIPTION:
;  714          0706  1 !       This routine defines a set of parameters in the permanent
;  715          0707  1 !       data base entry for each logging entity.
;  716          0708  1 !
;  717          0709  1 ! FORMAL PARAMETERS:
;  718          0710  1 !       ENTITY          Entity type code.
;  719          0711  1 !       DUM1-DUM5       Not used.
;  720          0712  1 !
;  721          0713  1 ! IMPLICIT INPUTS:
;  722          0714  1 !       NML$GL_PRS_FLGS Message parsing flags.
;  723          0715  1 !
;  724          0716  1 ! SIDE EFFECTS:
;  725          0717  1 !       Signals errors.
;  726          0718  1 !
;  727          0719  1 !--
;  728          0720  1
;  729          0721  2 BEGIN
;  730          0722  2
;  731          0723  2 LOCAL
;  732          0724  2     fid,                        ! File id code
;  733          0725  2     key,                        ! Index key into logging file.
;  734          0726  2     exec_addr,                  ! Address of executor node.
;  735          0727  2     recdsc : DESCRIPTOR,        ! Descriptor of logging database record.
;  736          0728  2     source_blkdsc: DESCRIPTOR,  ! Descriptor for event source block.
;  737          0729  2     source_ptr;                 ! Pointer to event source block.
;  738          0730  2
;  739          0731  2
;  740          0732  2 fid = .nml$ab_entitydata [.entity, eit$b_fileid];
;  741          0733  2 !
;  742          0734  2 ! Add logging parameters only for sinks that currently exist, or
;  743          0735  2 ! for sinks that are logging events at the executor node.
;  744          0736  2 !
;  745          0737  2 INCR snk FROM nma$c_snk_con TO nma$c_snk_mon DO
;  746          0738  3     BEGIN
;  747          0739  3     IF .nml$gl_prs_flgs [nml$v_prs_esipg] THEN
;  748          0740  4         BEGIN
;  749          0741  4         key = 0;
;  750          0742  4         !
;  751          0743  4         ! If the sink already has an entry in the sink (ESI) permanent
;  752          0744  4         ! database, modify it.
;  753          0745  4         !
;  754          0746  4         IF nml$matchrecord (.fid, nml$gg_recbfdsc, key,
;  755          0747  4                             nml$c_key_sink, 1, snk,
;  756          0748  4                             0, 0, 0,    ! No qualifier
;  757          0749  4                             recdsc) THEN
;  758          0750  4             nml$deflogging (.entity, .snk, 0)
;  759          0751  4         ELSE
;  760          0752  4             !
;  761          0753  4             ! If the filter database (EFI) specifies events to be
;  762          0754  4             ! logged to this sink on the executor node, modify the
;  763          0755  4             ! sink (ESI) database.
;  764          0756  4             !
;  765          0757  5             BEGIN
```

```
;  766          0758  5              exec_addr = 0;
;  767          0759  5              key = 0;
;  768          0760  5              !
;  769          0761  5              ! Get the event filters for the executor node from the EFI
;  770          0762  5              ! database.  Then search through the source blocks (which
;  771          0763  5              ! specify the sink type, source, if any, and filters) to see
;  772          0764  5              ! if any of the events are specified for the sink currently
;  773          0765  5              ! being processed.  If so, do the define in the ESI database
;  774          0766  5              ! for this sink.
;  775          0767  5              !
;  776          0768  5              IF nml$matchrecord (.fid, nml$gq_recbfdsc, key,
;  777          0769  5                                  nma$c_pclo_sin, 2, exec_addr,
;  778          0770  5                                  0, 0, 0,        ! No qualifier
;  779          0771  5                                  recdsc) THEN
;  780          0772  6                  BEGIN
;  781          0773  6                  !
;  782          0774  6                  ! Find the events in the permanent database record, and check
;  783          0775  6                  ! to see if any of them are being logged to the sink, SNK.  If
;  784          0776  6                  ! so, update the permanent database.
;  785          0777  6                  !
;  786          0778  6                  source_blkdsc [dsc$a_pointer] = 0;
;  787          0779  6                  IF nma$searchfld (recdsc,
;  788          0780  6                                    nma$c_pclo_eve,
;  789          0781  6                                    source_blkdsc [dsc$w_lengtn],
;  790          0782  6                                    source_blkdsc [dsc$a_pointer]) THEN
;  791          0783  7                      BEGIN
;  792          0784  7                      source_ptr = 0;
;  793          0785  7                      IF nml$getnxtsnk (source_blkdsc, .snk, source_ptr) THEN
;  794          0786  7                          nml$deflogging (.entity, .snk, 0);
;  795          0787  6                      END;
;  796          0788  5                  END;
;  797          0789  4              END;
;  798          0790  3          END;
;  799          0791  2      END;
;  800          0792  1 END;                                ! End of NML$DEFKNOWNLOG


                                        001C 00000          .ENTRY  NML$DEFKNOWNLOG, Save R2,R3,R4                  ; 0702
                              54 00000000G   00  9E 00002   MOVAB   NML$MATCHRECORD, R4                               ;
                              53 00000000G   00  9E 00009   MOVAB   NML$GQ_RECBFDSC, R3                              ;
                                 5E          1C  C2 00010   SUBL2   #28, SP                                         ;
                        50       04         AC  C5 00013   MULL3   #44, ENTITY, R0                                 ; 0732
                              52 00000000G00040  9A 00018   MOVZBL  NML$AB_ENTITYDATA[R0], FID                      ;
                                              01  DD 00020   PUSHL   #1                                             ; 0737
                     7A 00000000G   00         04  E1 00022 1$:    BBC     #4, NML$GL_PRS_FLGS+1, 3$               ; 0739
                                          08    AE  D4 0002A   CLRL    KEY                                         ; 0741
                                          18    AE  9F 0002D   PUSHAB  RECDSC                                      ; 0746
                                                7E  7C 00030   CLRQ    -(SP)                                       ;
                                                7E  D4 00032   CLRL    -(SP)                                       ;
                                          10    AE  9F 00034   PUSHAB  SNK                                         ;
                                                01  DD 00037   PUSHL   #1                                          ;
                              7E                02  CE 00039   MNEGL   #2, -(SP)                                   ;
                                          24    AE  9F 0003C   PUSHAB  KEY                                         ;
                                                0C  BB 0003F   PUSHR   #^M<R2,R3>                                  ;
```

```
                         64              0A  FB 00041          CALLS   #10, NML$MATCHRECORD                    ;
                         4E              50  E8 00044          BLBS    R0, 2$                                  ;
                                 04      AE  7C 00047          CLRQ    EXEC_ADDR                               ; 0758
                                 18      AE  9F 0004A          PUSHAB  RECDSC                                  ; 0768
                                         7E  7C 0004D          CLRQ    -(SP)                                   ;
                                         7E  D4 0004F          CLRL    -(SP)                                   ;
                                 14      AE  9F 00051          PUSHAB  EXEC_ADDR                               ;
                                         02  DD 00054          PUSHL   #2                                      ;
                         7E      C8      8F  9A 00056          MOVZBL  #200, -(SP)                             ;
                                 24      AE  9F 0005A          PUSHAB  KEY                                     ;
                                         0C  BB 0005D          PUSHR   #^M<R2,R3>                              ;
                         64              0A  FB 0005F          CALLS   #10, NML$MATCHRECORD                    ;
                         3F              50  E9 00062          BLBC    R0, 3$                                  ;
                                 14      AE  D4 00065          CLRL    SOURCE_BLKDSC+4                         ; 0778
                                 14      AE  9F 00068          PUSHAB  SOURCE_BLKDSC+4                         ; 0782
                                 14      AE  9F 0006B          PUSHAB  SOURCE_BLKDSC                           ; 0781
                         7E      C9      8F  9A 0006E          MOVZBL  #201, -(SP)                             ;
                                 24      AE  9F 00072          PUSHAB  RECDSC                                  ; 0779
                 00000000G       00          04  FB 00075      CALLS   #4, NMA$SEARCHFLD                       ; 0781
                         25              50  E9 0007C          BLBC    R0, 3$                                  ;
                                 0C      AE  D4 0007F          CLRL    SOURCE_PTR                              ; 0784
                                 0C      AE  9F 00082          PUSHAB  SOURCE_PTR                              ; 0785
                                 04      AE  DD 00085          PUSHL   SNK                                     ;
                                 18      AE  9F 00088          PUSHAB  SOURCE_BLKDSC                           ;
                 00000000G       00          03  FB 0008B      CALLS   #3, NML$GETNXTSNK                       ;
                         0F              50  E9 00092          BLBC    R0, 3$                                  ;
                                         7E  D4 00095  2$:      CLRL    -(SP)                                   ; 0786
                                 04      AE  DD 00097          PUSHL   SNK                                     ;
                                 04      AC  DD 0009A          PUSHL   ENTITY                                  ;
                 00000000V       00          03  FB 0009D      CALLS   #3, NML$DEFLOGGING                      ;
         FF78            6E      01          03  F1 000A4  3$:  ACBL    #3, #1, SNK, 1$                         ; 0737
                                             04  000AA          RET                                             ; 0792

; Routine Size:  171 bytes,    Routine Base:  $CODE$ + 0443
```

```
;  802          0793  1 %SBTTL 'NML$DEFLOGGING  Define logging parameters'
;  803          0794  1 GLOBAL ROUTINE NML$DEFLOGGING (ENTITY, SNK, DUM2,
;  804          0795  1                                 DUM3, DUM4, DUM5) : NOVALUE =
;  805          0796  1
;  806          0797  1 !++
;  807          0798  1 ! FUNCTIONAL DESCRIPTION:
;  808          0799  1 !
;  809          0800  1 !       Add parameters to the permanent data base entry for the specified
;  810          0801  1 !       logging entity.
;  811          0802  1 !
;  812          0803  1 ! FORMAL PARAMETERS:
;  813          0804  1 !
;  814          0805  1 !       ENTITY          Entity type code.
;  815          0806  1 !       SNK             Logging sink type.
;  816          0807  1 !       DUM2-DUM5       Not used.
;  817          0808  1 !
;  818          0809  1 ! IMPLICIT INPUTS:
;  819          0810  1 !
;  820          0811  1 !       NML$GL_PRS_FLGS Message parsing flags.
;  821          0812  1 !       NML$GW_EVTSNKADR Sink node address.
;  822          0813  1 !
;  823          0814  1 !--
;  824          0815  1
;  825          0816  2 BEGIN
;  826          0817  2
;  827          0818  2 LOCAL
;  828          0819  2     sink_node_addr,                    ! Address of node where events get
;  829          0820  2                                        !       logged.
;  830          0821  2     fid,                               ! File id code
;  831          0822  2     msgsize,                           ! Message size
;  832          0823  2     key,                               ! Temporary record key buffer
;  833          0824  2     owner,                             ! Search key
;  834          0825  2     recdsc  : DESCRIPTOR;              ! Record descriptor
;  835          0826  2
;  836          0827  2 !
;  837          0828  2 ! Decide if the parameter group is for filters (EFI) or sinks (ESI).
;  838          0829  2 !
;  839          0830  2 IF .nml$gl_prs_flgs [nml$v_prs_esipg] THEN
;  840          0831  3     BEGIN
;  841          0832  3     nml$defentity (nml$c_sink, 1, snk,
;  842          0833  3                    0, 0, 0);           ! No qualifier for logging.
;  843          0834  3     RETURN
;  844          0835  2     END;
;  845          0836  2
;  846          0837  2 nml$ab_msgblock [msb$l_flags] = 0;              ! Initialize message flags
;  847          0838  2 fid = .nml$ab_entitydata [nml$c_logging, eit$b_fileid]; ! Get file id
;  848          0839  2 owner = .nml$ab_entitydata [nml$c_logging, eit$w_key];  ! Get search key
;  849          0840  2 !
;  850          0841  2 ! If the sink node (node to log the events at) is the executor node,
;  851          0842  2 ! store the node's address as zero in the permanent database.
;  852          0843  2 !
;  853          0844  2 IF .nml$gl_prs_flgs [nml$v_prs_exesnk] THEN
;  854          0845  2     sink_node_addr = 0
;  855          0846  2 ELSE
;  856          0847  2     sink_node_addr = .nml$gw_evtsnkadr;
;  857          0848  2
;  858          0849  2 key = 0;                                     ! Initialize record key
```

```
;  859          0850  2 !
;  860          0851  2 ! If there is already a record in the event filter (EFI) database for
;  861          0852  2 ! this sink node, read it in and modify it.  Otherwise, create a new
;  862          0853  2 ! record in the logging database for the sink node.
;  863          0854  2 !
;  864          0855  2 IF NOT nml$matchrecord (.fid,
;  865          0856  2                         nml$gq_recbfdsc,
;  866          0857  2                         key,
;  867          0858  2                         .owner, 2, sink_node_addr,
;  868          0859  2                         0, 0, 0,                    ! No qualifier.
;  869          0860  2                         recdsc) THEN
;  870          0861  3     BEGIN
;  871          0862  3     !
;  872          0863  3     ! Record not found so create a new one by adding the record owner field.
;  873          0864  3     ! In the case of the EFI database, the sink node address is the owner
;  874          0865  3     ! field.
;  875          0866  3     !
;  876          0867  3     recdsc [dsc$w_length] = 0;  ! Initial descriptor
;  877          0868  3     recdsc [dsc$a_pointer] = .nml$gq_recbfdsc [dsc$a_pointer] + 2;
;  878          0869  3     nma$insertfld (nml$k_max_rec_data, .owner, 2, sink_node_addr, recdsc);
;  879          0870  3
;  880          0871  3     nml$ab_msgblock [msb$l_flags] = msb$m_msg_fld;
;  881          0872  3     nml$ab_msgblock [msb$l_text] = nml$_recadded;
;  882          0873  2     END;
;  883          0874  2
;  884          0875  2 !
;  885          0876  2 ! Add the event filters to the record.
;  886          0877  2 !
;  887          0878  2 nml_deflogging (.snk, .sink_node_addr, recdsc, key);
;  888          0879  2 !
;  889          0880  2 ! Add entity id (sink type code) to entity buffer for NICE response message.
;  890          0881  2 !
;  891          0882  2 nml$q_entbfdsc [dsc$w_length] = 1;
;  892          0883  2 nml$q_entbfdsc [dsc$a_pointer] = nml$t_entbuffer;
;  893          0884  2 nml$t_entbuffer<0,8> = .snk;
;  894          0885  2 !
;  895          0886  2 ! Set up NICE response message information to add the entity to the NICE
;  896          0887  2 ! response message.
;  897          0888  2 !
;  898          0889  2 nml$ab_msgblock [msb$v_entd_fld] = 1;
;  899          0890  2 nml$ab_msgblock [msb$a_entity] = nml$q_entbfdsc;
;  900          0891  2 !
;  901          0892  2 ! Build and send the NICE response message.
;  902          0893  2 !
;  903          0894  2 nml$bld_reply (nml$ab_msgblock, msgsize);
;  904          0895  2 nml$send (nml$ab_sndbuffer, .msgsize);
;  905          0896  1 END;                                ! End of NML$DEFLOGGING


                                                001C 00000          .ENTRY  NML$DEFLOGGING, Save R2,R3,R4                   ; 0794
                                    54 00000000'  00  9E 00002      MOVAB   NML$Q_ENTBFDSC, R4                              ;
                                    53 00000000G  00  9E 00009      MOVAB   NML$AB_MSGBLOCK, R3                             ;
                                    5E            14  C2 00010      SUBL2   #20, SP                                         ;
                         11 00000000G  00         04  E1 00013      BBC     #4, NML$GL_PRS_FLGS+1, 1$                       ; 0830
```

```
                                                 7E  7C 0001B          CLRQ    -(SP)                                                          ; 0832
                                                 7E  D4 0001D          CLRL    -(SP)                                                          ;
                                              08 AC  9F 0001F          PUSHAB  SNK                                                            ;
                                                 01  DD 00022          PUSHL   #1                                                             ;
                                                 02  DD 00024          PUSHL   #2                                                             ;
                                        FB5E  CF                 06  FB 00026          CALLS   #6, NML$DEFENTITY                              ;
                                                                 04  0002B          RET                                                    ; 0831
                                                 63  D4 0002C 1$:      CLRL    NML$AB_MSGBLOCK                                                ; 0837
                                        50 00000000G             00  9A 0002E          MOVZBL  NML$AB_ENTITYDATA+44, FID                      ; 0838
                                        52 00000000G             00  3C 00035          MOVZWL  NML$AB_ENTITYDATA+47, OWNER                    ; 0839
                                        04 00000000G             00  E9 0003C          BLBC    NML$GL_PRS_FLGS+1, 2$                          ; 0844
                                                 6E  D4 00043          CLRL    SINK_NODE_ADDR                                                 ; 0845
                                                 07  11 00045          BRB     3$                                                             ;
                                        6E 00000000G             00  3C 00047 2$:      MOVZWL  NML$GW_EVTSNKADR, SINK_NODE_ADDR               ; 0847
                                              04 AE  D4 0004E 3$:      CLRL    KEY                                                            ; 0849
                                              0C AE  9F 00051          PUSHAB  RECDSC                                                         ; 0855
                                                 7E  7C 00054          CLRQ    -(SP)                                                          ;
                                                 7E  D4 00056          CLRL    -(SP)                                                          ;
                                              10 AE  9F 00058          PUSHAB  SINK_NODE_ADDR                                                 ;
                                                 02  DD 0005B          PUSHL   #2                                                             ;
                                                 52  DD 0005D          PUSHL   OWNER                                                          ; 0858
                                              20 AE  9F 0005F          PUSHAB  KEY                                                            ; 0855
                                    00000000G    00  9F 00062          PUSHAB  NML$GQ_RECBFDSC                                                ;
                                                 50  DD 00068          PUSHL   FID                                                            ;
                              00000000G          00  0A FB 0006A          CALLS   #10, NML$MATCHRECORD                                           ;
                                                 2D  50 E8 00071          BLBS    R0, 4$                                                         ;
                                              0C AE  B4 00074          CLRW    RECDSC                                                         ; 0867
                        10 AE 00000000G          00  02 C1 00077          ADDL3   #2, NML$GQ_RECBFDSC+4, RECDSC+4                                ; 0868
                                              0C AE  9F 00080          PUSHAB  RECDSC                                                         ; 0869
                                              04 AE  9F 00083          PUSHAB  SINK_NODE_ADDR                                                 ;
                                                 02  DD 00086          PUSHL   #2                                                             ;
                                                 52  DD 00088          PUSHL   OWNER                                                          ;
                                    7E        03F6   8F 3C 0008A          MOVZWL  #1014, -(SP)                                                   ;
                              00000000G          00  05 FB 0008F          CALLS   #5, NMA$INSERTFLD                                              ;
                                                 63  04 D0 00096          MOVL    #4, NML$AB_MSGBLOCK                                            ; 0871
                                    0C    A3 00000000G   8F D0 00099          MOVL    #NML$_RECADDED, NML$AB_MSGBLOCK+12                     ; 0872
                                              04 AE  9F 000A1 4$:      PUSHAB  KEY                                                            ; 0878
                                              10 AE  9F 000A4          PUSHAB  RECDSC                                                         ;
                                              08 AE  DD 000A7          PUSHL   SINK_NODE_ADDR                                                 ;
                                              08 AC  DD 000AA          PUSHL   SNK                                                            ;
                              00000000V          00  04 FB 000AD          CALLS   #4, NML_DEFLOGGING                                             ;
                                                 64  01 B0 000B4          MOVW    #1, NML$Q_ENTBFDSC                                             ; 0882
                                    04    A4         C0  A4 9E 000B7          MOVAB   NML$T_ENTBUFFER, NML$Q_ENTBFDSC+4                      ; 0883
                                    C0    A4         08  AC 90 000BC          MOVB    SNK, NML$T_ENTBUFFER                                   ; 0884
                                                 63  10  88 000C1          BISB2   #16, NML$AB_MSGBLOCK                                   ; 0889
                                    14    A3                 64  9E 000C4          MOVAB   NML$Q_ENTBFDSC, NML$AB_MSGBLOCK+20             ; 0890
                                              08 AE  9F 000C8          PUSHAB  MSGSIZE                                                        ; 0894
                                                 53  DD 000CB          PUSHL   R3                                                             ;
                              00000000G          00  02 FB 000CD          CALLS   #2, NML$BLD_REPLY                                              ;
                                              08 AE  DD 000D4          PUSHL   MSGSIZE                                                        ; 0895
                                    00000000G        00  9F 000D7          PUSHAB  NML$AB_SNDBUFFER                                               ;
                              00000000G          00  02 FB 000DB          CALLS   #2, NMC$SEND                                                   ;
                                                                 04  000E4          RET                                                    ; 0896

; Routine Size:  229 bytes,    Routine Base:  $CODE$ + 04EE
```

```
;  907          0897  1 %SBTTL 'NML_DEFLOGGING  Define entity parameters'
;  908          0898  1 ROUTINE NML_DEFLOGGING (SNK, SNKADR, RECDSC, KEY) : NOVALUE =
;  909          0899  1
;  910          0900  1 !++
;  911          0901  1 ! FUNCTIONAL DESCRIPTION:
;  912          0902  1 !
;  913          0903  1 !       This routine performs common DEFINE functions for both singular
;  914          0904  1 !       and plural requests.
;  915          0905  1 !
;  916          0906  1 ! FORMAL PARAMETERS:
;  917          0907  1 !
;  918          0908  1 !       SNK             Logging sink type.
;  919          0909  1 !       SNKADR          Sink node address.
;  920          0910  1 !       RECDSC          Address of current record descriptor.
;  921          0911  1 !       KEY             Address of current record key.
;  922          0912  1 !
;  923          0913  1 ! IMPLICIT INPUTS:
;  924          0914  1 !
;  925          0915  1 !       NONE
;  926          0916  1 !
;  927          0917  1 ! IMPLICIT OUTPUTS:
;  928          0918  1 !
;  929          0919  1 !       NONE
;  930          0920  1 !
;  931          0921  1 ! ROUTINE VALUE:
;  932          0922  1 ! COMPLETION CODES:
;  933          0923  1 !
;  934          0924  1 !       NONE
;  935          0925  1 !
;  936          0926  1 ! SIDE EFFECTS:
;  937          0927  1 !
;  938          0928  1 !       NONE
;  939          0929  1 !
;  940          0930  1 !--
;  941          0931  1
;  942          0932  2 BEGIN
;  943          0933  2
;  944          0934  2 MAP
;  945          0935  2     snkadr : WORD,
;  946          0936  2     recdsc : REF DESCRIPTOR;
;  947          0937  2
;  948          0938  2 LOCAL
;  949          0939  2     fid,                                    ! File id code
;  950          0940  2     fldsize,
;  951          0941  2     fldadr,
;  952          0942  2     status,
;  953          0943  2     updflg;
;  954          0944  2
;  955          0945  2 fid = .nml$ab_entitydata [nml$c_logging, eit$b_fileid]; ! Get file id
;  956          0946  2 !
;  957          0947  2 ! Add event to record.
;  958          0948  2 !
;  959          0949  2 status = nml$addevents (true, .recdsc, .snk, .snkadr, updflg);
;  960          0950  2 IF NOT .status THEN
;  961          0951  2     RETURN;
;  962          0952  2
;  963          0953  2 IF NOT .updflg THEN
```

```
;  964          0954  3     BEGIN
;  965          0955  3     nml$ab_msgblock [msb$l_flags] = msb$m_msg_fld;
;  966          0956  3     nml$ab_msgblock [msb$b_code]  = nma$c_sts_mpr;
;  967          0957  3     nml$ab_msgblock [msb$l_text]  = nml$_badevtupd;
;  968          0958  3     RETURN
;  969          0959  2     END;
;  970          0960  2 !
;  971          0961  2 ! If event field was added successfully, then write the record back to file.
;  972          0962  2 !
;  973          0963  2 nml$writerecord (.fid, .snk, .key, .recdsc, 0);
;  974          0964  2 nml$ab_msgblock [msb$b_code] = nma$c_sts_suc;
;  975          0965  2
;  976          0966  1 END;                              ! End of NML_DEFLOGGING


                                        000C 00000 NML_DEFLOGGING:
                                                    .WORD   Save R2,R3                                          ; 0898
                    53 00000000G    00  9E 00002    MOVAB   NML$AB_MSGBLOCK+4, R3                               ;
                    5E              04  C2 00009    SUBL2   #4, SP                                              ;
                    52 00000000G    00  9A 0000C    MOVZBL  NML$AB_ENTITYDATA+44, FID                           ; 0945
                                    5E  DD 00013    PUSHL   SP                                                  ; 0949
                    7E        08    AC  3C 00015    MOVZWL  SNKADR, -(SP)                                       ;
                              04    AC  DD 00019    PUSHL   SNK                                                 ;
                              0C    AC  DD 0001C    PUSHL   RECDSC                                              ;
                                    01  DD 0001F    PUSHL   #1                                                  ;
                00000000V   00          05  FB 00021    CALLS   #5, NML$ADDEVENTS                               ;
                            2A          50  E9 00028    BLBC    STATUS, 2$                                      ; 0950
                            10          6E  E8 0002B    BLBS    UPDFLG, 1$                                      ; 0953
                      FC    A3          04  D0 0002E    MOVL    #4, NML$AB_MSGBLOCK                             ; 0955
                            63          05  8E 00032    MNEGB   #5, NML$AB_MSGBLOCK+4                           ; 0956
                      08    A3 00000000G  8F  D0 00035    MOVL    #NML$_BADEVTUPD, NML$AB_MSGBLOCK+12             ; 0957
                                        04  00039    RET                                                         ; 0954
                                    7E  D4 0003A 1$:    CLRL    -(SP)                                           ; 0963
                              0C    AC  DD 0003C    PUSHL   RECDSC                                              ;
                              10    AC  DD 0003F    PUSHL   KEY                                                 ;
                              04    AC  DD 00042    PUSHL   SNK                                                 ;
                                    52  DD 00045    PUSHL   FID                                                 ;
                00000000G   00          05  FB 00047    CALLS   #5, NML$WRITERECORD                             ;
                            63          01  90 0004E    MOVB    #1, NML$AB_MSGBLOCK+4                           ; 0964
                                        04  00051 2$:    RET                                                     ; 0966

; Routine Size:  82 bytes,    Routine Base:  $CODE$ + 05D3
```

```
;  978          0967  1 %SBTTL 'NML$ADDEVENTS  Add events to the volatile data base'
;  979          0968  1 GLOBAL ROUTINE NML$ADDEVENTS (FCT, RECDSC, SNK, SNKADR, UPDFLG) =
;  980          0969  1
;  981          0970  1 !++
;  982          0971  1 ! FUNCTIONAL DESCRIPTION:
;  983          0972  1 !
;  984          0973  1 !       This routine adds the filters specified in the SET command
;  985          0974  1 !       to the volatile data base entry for the specified sink node
;  986          0975  1 !       and sink type.  If an entry does not exist then a new one
;  987          0976  1 !       is created.
;  988          0977  1 !
;  989          0978  1 ! FORMAL PARAMETERS:
;  990          0979  1 !
;  991          0980  1 !       FCT             Function code. (TRUE=>set, FALSE=>clear).
;  992          0981  1 !       RECDSC          Descriptor of temporary data base record
;  993          0982  1 !                       containing event filters to be added.
;  994          0983  1 !       SNK             Logging sink type.
;  995          0984  1 !       SNKADR          Sink node address.
;  996          0985  1 !       UPDFLG          Address of update flag.  (TRUE=>add,
;  997          0986  1 !                       FALSE=>delete).
;  998          0987  1 !
;  999          0988  1 ! IMPLICIT INPUTS:
; 1000          0989  1 !
; 1001          0990  1 !       NML$GB_EVTSRCTYP Event source type code.
; 1002          0991  1 !       NML$GQ_EVTSRCDSC Descriptor of event source id string.
; 1003          0992  1 !       NML$GQ_EVTMSKDSC Descriptor of event filter mask.
; 1004          0993  1 !       NML$GW_EVTCLASS Event class code.
; 1005          0994  1 !
; 1006          0995  1 ! IMPLICIT OUTPUTS:
; 1007          0996  1 !
; 1008          0997  1 !       NONE
; 1009          0998  1 !
; 1010          0999  1 ! ROUTINE VALUE:
; 1011          1000  1 ! COMPLETION CODES:
; 1012          1001  1 !
; 1013          1002  1 !       NONE
; 1014          1003  1 !
; 1015          1004  1 ! SIDE EFFECTS:
; 1016          1005  1 !
; 1017          1006  1 !       NONE
; 1018          1007  1 !
; 1019          1008  1 !--
; 1020          1009  1
; 1021          1010  2 BEGIN
; 1022          1011  2
; 1023          1012  2 MAP
; 1024          1013  2     recdsc : REF DESCRIPTOR,
; 1025          1014  2     snkadr : WORD;
; 1026          1015  2
; 1027          1016  2 OWN
; 1028          1017  2     evtbuf : VECTOR [nml$k_recbflen, BYTE];
; 1029          1018  2 BIND
; 1030          1019  2     evtdsc = UPLIT (nml$k_recbflen, evtbuf) : DESCRIPTOR;
; 1031          1020  2
; 1032          1021  2 LOCAL
; 1033          1022  2     fldadr,
; 1034          1023  2     fldsize,
```

```
;  1035          1024  2      prmdsc : DESCRIPTOR,
;  1036          1025  2      status;
;  1037          1026  2  !
;  1038          1027  2  ! Get the event field from the record.  If one does not exist then create
;  1039          1028  2  ! a new one.
;  1040          1029  2  !
;  1041          1030  2  fldadr = 0;
;  1042          1031  2  status = nma$searchfld (.recdsc,
;  1043          1032  2                              nma$c_pclo_eve,
;  1044          1033  2                              fldsize,
;  1045          1034  2                              fldadr);
;  1046          1035  2  IF .status THEN
;  1047          1036  3      BEGIN
;  1048          1037  3      CH$MOVE (.fldsize, .fldadr, .evtdsc [dsc$a_pointer]);
;  1049          1038  3      prmdsc [dsc$w_length] = .fldsize;
;  1050          1039  3      prmdsc [dsc$a_pointer] = .evtdsc [dsc$a_pointer];
;  1051          1040  3      END
;  1052          1041  2  ELSE
;  1053          1042  3      BEGIN
;  1054          1043  3      prmdsc [dsc$w_length] = 0;
;  1055          1044  3      prmdsc [dsc$a_pointer] = .evtdsc [dsc$a_pointer];
;  1056          1045  2      END;
;  1057          1046  2  !
;  1058          1047  2  ! Add the filters to those found in the temporary data base record.
;  1059          1048  2  !
;  1060          1049  2  status = nml$addfilters (.fct,
;  1061          1050  2                              evtdsc,
;  1062          1051  2                              .snk,
;  1063          1052  2                              .nml$gb_evtsrctyp,
;  1064          1053  2                              nml$gq_evtsrcdsc,
;  1065          1054  2                              .nml$gw_evtclass,
;  1066          1055  2                              .nml$gq_evtmskdsc [dsc$w_length],
;  1067          1056  2                              .nml$gq_evtmskdsc [dsc$a_pointer],
;  1068          1057  2                              prmdsc);
;  1069          1058  2
;  1070          1059  2  IF NOT .status THEN
;  1071          1060  3      BEGIN
;  1072          1061  3      nml$ab_msgblock [msb$l_flags] = msb$m_msg_fld;
;  1073          1062  3      nml$ab_msgblock [msb$b_code]  = nma$c_sts_mpr;
;  1074          1063  3      nml$ab_msgblock [msb$l_text]  = nml$_badevtupd;
;  1075          1064  3      RETURN .status;
;  1076          1065  2      END;
;  1077          1066  2  !
;  1078          1067  2  ! If the filters were successfully added then replace the temporary
;  1079          1068  2  ! data base entry with the modified one.
;  1080          1069  2  !
;  1081          1070  2  status = nml$savevents (nml$k_max_rec_data,
;  1082          1071  2                              .prmdsc [dsc$w_length],
;  1083          1072  2                              .prmdsc [dsc$a_pointer],
;  1084          1073  2                              .recdsc);
;  1085          1074  2  IF NOT .status THEN
;  1086          1075  2      RETURN .status;
;  1087          1076  2  !
;  1088          1077  2  ! If there are still filters remaining then indicate that they should be
;  1089          1078  2  ! replaced in the data base.
;  1090          1079  2  !
;  1091          1080  2  IF .prmdsc [dsc$w_length] NEQ 0 THEN
```

```
;  1092          1081  2      .updflg = TRUE
;  1093          1082  2 ELSE
;  1094          1083  2      .updflg = FALSE;
;  1095          1084  2
;  1096          1085  2 RETURN nml$_sts_suc
;  1097          1086  2
;  1098          1087  1 END;                              ! End of NML$ADDEVENTS


                                                        .PSECT  $PLIT$,NOWRT,NOEXE,2

                                        00000400  00010 P.AAD:  .LONG   1024                                                    ;
                                        00000000' 00014         .ADDRESS EVTBUF                                                 ;

                                                        .PSECT  $OWN$,NOEXE,2

                                              00048 EVTBUF: .BLKB   1024

                                                    EVTDSC=             P.AAD


                                                        .PSECT  $CODE$,NOWRT,2

                                                01FC 00000          .ENTRY  NML$ADDEVENTS, Save R2,R3,R4,R5,R6,R7,R8    ; 0968
                                    58 00000000G  00    9E 00002    MOVAB   NML$AB_MSGBLOCK, R8                         ;
                                    5E            0C    C2 00009    SUBL2   #12, SP                                     ;
                                                  7E    D4 0000C    CLRL    FLDADR                                      ; 1030
                                                  5E    DD 0000E    PUSHL   SP                                          ; 1031
                                          08      AE    9F 00010    PUSHAB  FLDSIZE                                     ;
                                    7E            C9    8F 9A 00013 MOVZBL  #201, -(SP)                                 ;
                                          08      AC    DD 00017    PUSHL   RECDSC                                      ;
                          00000000G   00                  04 FB 0001A CALLS   #4, NMA$SEARCHFLD                       ;
                                      57                  50 D0 00021 MOVL    R0, STATUS                              ;
                                      56 00000000'        00 D0 00024 MOVL    EVTDSC+4, R6                            ; 1037
                                      0D                  57 E9 0002B BLBC    STATUS, 1$                              ; 1035
                              66      00    BE      04    AE 28 0002E MOVC3   FLDSIZE, @FLDADR, (R6)                  ; 1037
                                      08    AE      04    AE B0 00034 MOVW    FLDSIZE, PRMDSC                         ; 1038
                                                  03    11 00039    BRB     2$                                      ; 1039
                                                08      AE B4 0003B 1$: CLRW    PRMDSC                                  ; 1043
                                      0C      AE            56 D0 0003E 2$: MOVL    R6, PRMDSC+4                        ; 1044
                                                08      AE 9F 00042 PUSHAB  PRMDSC                                  ; 1049
                                          00000000G   00    DD 00045    PUSHL   NML$GQ_EVTMSKDSC+4                      ; 1056
                                    7E    00000000G   00    3C 0004B    MOVZWL  NML$GQ_EVTMSKDSC, -(SP)                 ; 1055
                                    7E    00000000G   00    3C 00052    MOVZWL  NML$GW_EVTCLASS, -(SP)                  ; 1054
                                          00000000G   00    9F 00059    PUSHAB  NML$GQ_EVTSRCDSC                        ; 1049
                                    7E    00000000G   00    9A 0005F    MOVZBL  NML$GB_EVTSRCTYP, -(SP)                 ; 1052
                                             0C       AC    DD 00066    PUSHL   SNK                                     ; 1051
                                          00000000'   00    9F 00069    PUSHAB  EVTDSC                                  ; 1049
                                             04       AC    DD 0006F    PUSHL   FCT
                          00000000G   00                  09 FB 00072 CALLS   #9, NML$ADDFILTERS                      ;
                                      57                  50 D0 00079 MOVL    R0, STATUS                              ;
                                      11                  57 E8 0007C BLBS    STATUS, 3$                              ; 1059
                                      68                  04 D0 0007F MOVL    #4, NML$AB_MSGBLOCK                     ; 1061
                                            04    A8            05 8E 00082 MNEGB   #5, NML$AB_MSGBLOCK+4               ; 1062
                                            0C    A8 00000000G  8F D0 00086 MOVL    #NML$_BADEVTUPD, NML$AB_MSGBLOCK+12 ; 1063
                                                              1C  11 0008E  BRB     4$                                  ; 1064
```

```
                                    08   AC   DD 00090 3$:     PUSHL   RECDSC                          ; 1073
                                    10   AE   DD 00093         PUSHL   PRMDSC+4                        ; 1072
                              7E    10   AE   3C 00096         MOVZWL  PRMDSC, -(SP)                   ; 1071
                              7E  03F6   8F   3C 0009A         MOVZWL  #1014, -(SP)                    ; 1070
                  00000000V   00         04   FB 0009F         CALLS   #4, NML$SAVEVENTS               ;
                              57         50   D0 000A6         MOVL    R0, STATUS                      ;
                              04         57   E8 000A9         BLBS    STATUS, 5$                      ; 1074
                              50         57   D0 000AC 4$:     MOVL    STATUS, R0                      ; 1075
                                         04   000AF           RET                                     ;
                                    08   AE   B5 000B0 5$:     TSTW    PRMDSC                          ; 1080
                                         06   13 000B3         BEQL    6$                              ;
                           14    BC          01   D0 000B5     MOVL    #1, @UPDFLG                     ; 1081
                                         03   11 000B9         BRB     7$                              ;
                                    14   BC   D4 000BB 6$:     CLRL    @UPDFLG                         ; 1083
                              50         01   D0 000BE 7$:     MOVL    #1, R0                          ; 1085
                                         04   000C1           RET                                     ; 1087

; Routine Size:  194 bytes,    Routine Base:  $CODE$ + 0629
```

```
;  1100          1088  1 %SBTTL 'NML$SAVEVENTS  Save events'
;  1101          1089  1 GLOBAL ROUTINE NML$SAVEVENTS (BUFSIZE, LEN, ADR, RTNDSC) =
;  1102          1090  1
;  1103          1091  1 !++
;  1104          1092  1 ! FUNCTIONAL DESCRIPTION:
;  1105          1093  1 !
;  1106          1094  1 !       This routine stores events in a structure resembling a permanent
;  1107          1095  1 !       data base record.  It is used for both volatile and permanent
;  1108          1096  1 !       event filter modifications.
;  1109          1097  1 !
;  1110          1098  1 ! FORMAL PARAMETERS:
;  1111          1099  1 !
;  1112          1100  1 !       BUFSIZE         Maximum size of buffer.
;  1113          1101  1 !       LEN             Length of events parameter.
;  1114          1102  1 !       ADR             Address of events parameter string.
;  1115          1103  1 !       RTNDSC          Descriptor of resulting data.
;  1116          1104  1 !
;  1117          1105  1 ! IMPLICIT INPUTS:
;  1118          1106  1 !
;  1119          1107  1 !       NONE
;  1120          1108  1 !
;  1121          1109  1 ! IMPLICIT OUTPUTS:
;  1122          1110  1 !
;  1123          1111  1 !       NONE
;  1124          1112  1 !
;  1125          1113  1 ! ROUTINE VALUE:
;  1126          1114  1 ! COMPLETION CODES:
;  1127          1115  1 !
;  1128          1116  1 !       NONE
;  1129          1117  1 !
;  1130          1118  1 ! SIDE EFFECTS:
;  1131          1119  1 !
;  1132          1120  1 !       NONE
;  1133          1121  1 !
;  1134          1122  1 !--
;  1135          1123  1
;  1136          1124  2 BEGIN
;  1137          1125  2
;  1138          1126  2 MAP
;  1139          1127  2     rtndsc : REF DESCRIPTOR;
;  1140          1128  2
;  1141          1129  2 LOCAL
;  1142          1130  2     status;
;  1143          1131  2
;  1144          1132  2 status = nma$insertfld (.bufsize,
;  1145          1133  2                          nma$c_pclo_eve,
;  1146          1134  2                          .len,
;  1147          1135  2                          .adr,
;  1148          1136  2                          .rtndsc);
;  1149          1137  2 IF NOT .status THEN
;  1150          1138  3     BEGIN
;  1151          1139  3     nml$ab_msgblock [msb$l_flags] = msb$m_msg_fld;
;  1152          1140  3     nml$ab_msgblock [msb$b_code]  = nma$c_sts_mpr;
;  1153          1141  3     nml$ab_msgblock [msb$l_text]  = nml$_intevtovf;
;  1154          1142  2     END;
;  1155          1143  2
;  1156          1144  2 RETURN .status
```

```
; 1157          1145  2
; 1158          1146  1 END;                          ! End of NML$SAVEVENTS


                                                0004 00000          .ENTRY  NML$SAVEVENTS, Save R2                          ; 1089
                                    52 00000000G  00   9E 00002     MOVAB   NML$AB_MSGBLOCK, R2                             ;
                                    7E        0C  AC   7D 00009     MOVQ    ADR, -(SP)                                      ; 1135
                                              08  AC   DD 0000D     PUSHL   LEN                                             ; 1134
                                    7E        C9  8F   9A 00010     MOVZBL  #201, -(SP)                                     ; 1132
                                              04  AC   DD 00014     PUSHL   BUFSIZE                                         ;
                              00000000G       00       05 FB 00017  CALLS   #5, NMA$INSERTFLD                               ;
                                              0F       50 E8 0001E  BLBS    STATUS, 1$                                      ; 1137
                                              62       04 D0 00021  MOVL    #4, NML$AB_MSGBLOCK                             ; 1139
                                        04    A2       05 8E 00024  MNEGB   #5, NML$AB_MSGBLOCK+4                           ; 1140
                                        0C    A2 00000000G  8F   D0 00028  MOVL    #NML$_INTEVTOVF, NML$AB_MSGBLOCK+12     ; 1141
                                                        04 00030 1$:    RET                                                 ; 1146

; Routine Size:  49 bytes,    Routine Base:  $CODE$ + 06EB
```

```
;1160     1147  1 %SBTTL 'NML$GETRECOWNER  Get record owner string'
;1161     1148  1 GLOBAL ROUTINE NML$GETRECOWNER (RECDSC, ENTITY, BUFDSC, RESLEN) =
;1162     1149  1
;1163     1150  1 !++
;1164     1151  1 ! FUNCTIONAL DESCRIPTION:
;1165     1152  1 !
;1166     1153  1 !       This routine returns the entity id string based on information supplied
;1167     1154  1 !       by the current permanent data base record.
;1168     1155  1 !
;1169     1156  1 ! FORMAL PARAMETERS:
;1170     1157  1 !
;1171     1158  1 !       RECDSC          Address of the record descriptor.
;1172     1159  1 !       ENTITY          Entity type code.
;1173     1160  1 !       BUFDSC          Address of owner string buffer descriptor.
;1174     1161  1 !       RESLEN          Address of the resulting string length.
;1175     1162  1 !
;1176     1163  1 ! IMPLICIT INPUTS:
;1177     1164  1 !
;1178     1165  1 !       NONE
;1179     1166  1 !
;1180     1167  1 ! IMPLICIT OUTPUTS:
;1181     1168  1 !
;1182     1169  1 !       The buffer descriptor pointed to by BUFDSC describes the record
;1183     1170  1 !       owner string.
;1184     1171  1 !
;1185     1172  1 ! ROUTINE VALUE:
;1186     1173  1 ! COMPLETION CODES:
;1187     1174  1 !
;1188     1175  1 !       If no owner field is present for the record then an error
;1189     1176  1 !       indicating invalid file contents (NML$_STS_FCO) is returned
;1190     1177  1 !       otherwise success (NML$_STS_SUC) is returned.
;1191     1178  1 !
;1192     1179  1 ! SIDE EFFECTS:
;1193     1180  1 !
;1194     1181  1 !       NONE
;1195     1182  1 !
;1196     1183  1 !--
;1197     1184  1
;1198     1185  2 BEGIN
;1199     1186  2
;1200     1187  2 MAP
;1201     1188  2     recdsc : REF DESCRIPTOR,    ! Descriptor of record data
;1202     1189  2     bufdsc : REF DESCRIPTOR;    ! Descriptor of entity buffer
;1203     1190  2
;1204     1191  2 LOCAL
;1205     1192  2     code     : WORD,            ! Entity id parameter code
;1206     1193  2     fldsize,                    ! Temporary record owner string length
;1207     1194  2     fldadr,                     ! Temporary record owner string pointer
;1208     1195  2     ptr,                        ! Output string pointer
;1209     1196  2     msgsize;                    ! Message size
;1210     1197  2
;1211     1198  2 ptr = .bufdsc [dsc$a_pointer];
;1212     1199  2 !
;1213     1200  2 ! Get entity information.
;1214     1201  2 !
;1215     1202  2 code = .nml$ab_entitydata [.entity, eit$w_key]; ! Permanent database key
;1216     1203  2
```

```
;  1217     1204  2 SELECTONEU .entity OF
;  1218     1205  2     SET
;  1219     1206  2     [nml$c_node,
;  1220     1207  2      nml$c_nodebyname,
;  1221     1208  2      nml$c_executor]:
;  1222     1209  3         BEGIN
;  1223     1210  3         fldadr = 0;                        ! Search all fields
;  1224     1211  3         IF nma$searchfld (.recdsc,
;  1225     1212  3                           nma$c_pcno_add,
;  1226     1213  3                           fldsize,
;  1227     1214  3                           fldadr) THEN
;  1228     1215  4             BEGIN
;  1229     1216  4             !
;  1230     1217  4             ! If talking to a Phase III node, clear area numbers that match
;  1231     1218  4             ! the executors, so they are displayed intelligebly on the Phase
;  1232     1219  4             ! III system.  Node numbers outside the executor's area will
;  1233     1220  4             ! not look sensible, but they will be unique.
;  1234     1221  4             !
;  1235     1222  4             IF CH$RCHAR (nml$gb_ncp_version) LEQ 3 THEN
;  1236     1223  5                 BEGIN
;  1237     1224  5                 BIND node_addr = fldadr: REF BBLOCK;
;  1238     1225  5
;  1239     1226  5                 IF .node_addr [nma$v_area] EQL
;  1240     1227  5                       .nml$gw_perm_exec_addr [nma$v_area] THEN
;  1241     1228  5                     node_addr [nma$v_area] = 0;
;  1242     1229  4                 END;
;  1243     1230  4             ptr = CH$MOVE (2, .fldadr, .ptr);
;  1244     1231  4             END
;  1245     1232  3         ELSE
;  1246     1233  4             BEGIN
;  1247     1234  4             (.ptr)<0,16> = 0;              ! Zero node address
;  1248     1235  4             ptr = .ptr + 2;                ! Advance pointer
;  1249     1236  3             END;
;  1250     1237  3         code = nma$c_pcno_nna;             ! Look for name
;  1251     1238  2         END;
;  1252     1239  2
;  1253     1240  2     [nml$c_loopnode]:
;  1254     1241  3         BEGIN
;  1255     1242  3         code = nma$c_pcno_nna;             ! Look for name
;  1256     1243  3         (.ptr)<0,16> = 0;                  ! Loop node address is zero
;  1257     1244  3         ptr = .ptr + 2;                    ! Advance pointer
;  1258     1245  2         END;
;  1259     1246  2     TES;
;  1260     1247  2
;  1261     1248  2 fldadr = 0;                                ! Search all fields
;  1262     1249  2 IF nma$searchfld (.recdsc, .code, fldsize, fldadr) THEN
;  1263     1250  3     BEGIN
;  1264     1251  3     SELECTONEU .entity OF
;  1265     1252  3         SET
;  1266     1253  3         [nml$c_node,
;  1267     1254  3          nml$c_nodebyname,
;  1268     1255  3          nml$c_loopnode,
;  1269     1256  3          nml$c_line,
;  1270     1257  3          nml$c_circuit,
;  1271     1258  3          nml$c_object,
;  1272     1259  3          nml$c_x25_serv,
;  1273     1260  3          nml$c_trace,
```

```
;  1274     1261  3            nml$c_x29_serv]:
;  1275     1262  3                CH$WCHAR_A (.fldsize, ptr); ! Add count
;  1276     1263  3
;  1277     1264  3            [nml$c_executor]:
;  1278     1265  3                CH$WCHAR_A (.fldsize OR nma$m_ent_exe, ptr);
;  1279     1266  3
;  1280     1267  3            [nml$c_x25_access]:
;  1281     1268  4                BEGIN
;  1282     1269  4                $MOVE_ASCIC ('X25-ACCESS', ptr);
;  1283     1270  4                ptr = CH$MOVE (2, UPLIT (nma$c_pcxa_net), .ptr);
;  1284     1271  4                CH$WCHAR_A (nma$m_pty_asc, ptr);
;  1285     1272  4                CH$WCHAR_A (.fldsize, ptr); ! Add count
;  1286     1273  3                END;
;  1287     1274  3
;  1288     1275  3            [nml$c_prot_net,
;  1289     1276  3             nml$c_prot_dte,
;  1290     1277  3             nml$c_prot_grp]:
;  1291     1278  4                BEGIN
;  1292     1279  4                $MOVE_ASCIC ('X25-PROTOCOL', ptr);
;  1293     1280  4                ptr = CH$MOVE (2, code, .ptr);
;  1294     1281  4                CH$WCHAR_A (nma$m_pty_asc, ptr);
;  1295     1282  4                CH$WCHAR_A (.fldsize, ptr); ! Add count
;  1296     1283  3                END;
;  1297     1284  3
;  1298     1285  3            [nml$c_x25_serv_dest,
;  1299     1286  3             nml$c_tracepnt,
;  1300     1287  3             nml$c_x29_serv_dest,
;  1301     1288  3             nml$c_ni_config]:
;  1302     1289  4                BEGIN
;  1303     1290  4                SELECTONEU .ENTITY OF
;  1304     1291  4                    SET
;  1305     1292  4                    [nml$c_x25_serv_dest]: $MOVE_ASCIC ('X25-SERVER', ptr);
;  1306     1293  4                    [nml$c_tracepnt]:      $MOVE_ASCIC ('X25-TRACE', ptr);
;  1307     1294  4                    [nml$c_x29_serv_dest]: $MOVE_ASCIC ('X29-SERVER', ptr);
;  1308     1295  4                    [nml$c_ni_config]: $MOVE_ASCIC ('CONFIGURATOR', ptr);
;  1309     1296  4                    TES;
;  1310     1297  4                ptr = CH$MOVE (2, code, .ptr);
;  1311     1298  4                CH$WCHAR_A (nma$m_pty_asc, ptr);
;  1312     1299  4                CH$WCHAR_A (.fldsize, ptr); ! Add count
;  1313     1300  3                END;
;  1314     1301  3            TES;
;  1315     1302  3
;  1316     1303  3        !
;  1317     1304  3        ! If it will fit, move the entity string into the buffer for the
;  1318     1305  3        ! record owner.  The contents of this buffer are later used as
;  1319     1306  3        ! the entity ID in the NICE response message.
;  1320     1307  3        !
;  1321     1308  3        IF .bufdsc [dsc$w_length] GEQU
;  1322     1309  3                    (.fldsize + (.ptr - .bufdsc [dsc$a_pointer])) THEN
;  1323     1310  3            ptr = CH$MOVE (.fldsize, .fldadr, .ptr);
;  1324     1311  3
;  1325     1312  3        END
;  1326     1313  2    ELSE
;  1327     1314  2        SELECTONEU .entity OF
;  1328     1315  2            SET
;  1329     1316  2            [nml$c_node,
;  1330     1317  2             nml$c_nodebyname]:
```

```
;  1331          1318  2              CH$WCHAR_A (0, ptr);
;  1332          1319  2
;  1333          1320  2          [nml$c_executor]:
;  1334          1321  2              ch$wchar_A (nma$m_ent_exe, ptr);
;  1335          1322  2
;  1336          1323  2          [OTHERWISE] :
;  1337          1324  3              BEGIN
;  1338          1325  3              nml$ab_msgblock [msb$l_flags] =
;  1339          1326  3                      msb$m_det_fld OR msb$m_msg_fld; ! Set message flags
;  1340          1327  3              nml$ab_msgblock [msb$b_code] = nma$c_sts_fco;
;  1341          1328  3              nml$ab_msgblock [msb$w_detail] = nma$c_fopdtl_pdb;
;  1342          1329  3              nml$ab_msgblock [msb$l_text] = nml$_norecown;
;  1343          1330  3              nml$bld_reply (nml$ab_msgblock, msgsize); ! Build message
;  1344          1331  3              $SIGNAL_MSG (nml$ab_sndbuffer, .msgsize); ! Signal it
;  1345          1332  2              END;
;  1346          1333  2          TES;
;  1347          1334  2
;  1348          1335  2  .reslen = .ptr - .bufdsc [dsc$a_pointer];
;  1349          1336  2  RETURN nml$_sts_suc
;  1350          1337  1  END;                                  ! End of NML$GETRECOWNER


                                                                        .PSECT  $PLIT$,NOWRT,NOEXE,2

                53  53  45  43  43  41  2D  35  32  58  0A  00018 P.AAE:  .ASCII  <10>\X25-ACCESS\                          ;
                                                        00023           .BLKB   1                                       ;
                                            00000456    00024 P.AAF:    .LONG   1110                                    ;
        4C  4F  43  4F  54  4F  52  50  2D  35  32  58  0C  00028 P.AAG:  .ASCII  <12>\X25-PROTOCOL\                      ;
                52  45  56  45  52  53  2D  35  32  58  0A  00035 P.AAH:  .ASCII  <10>\X25-SERVER\                        ;
                    45  43  41  52  54  2D  35  32  58  09  00040 P.AAI:  .ASCII  <9>\X25-TRACE\                         ;
                52  45  56  52  45  53  2D  39  32  58  0A  0004A P.AAJ:  .ASCII  <10>\X29-SERVER\                        ;
        52  4F  54  41  52  55  47  49  46  4E  4F  43  0C  00055 P.AAK:  .ASCII  <12>\CONFIGURATOR\                      ;


                                                                        .PSECT  $CODE$,NOWRT,2

                                                0FFC 00000             .ENTRY  NML$GETRECOWNER, Save R2,R3,R4,R5,R6,R7,R8,-; 1148
                                                                                R9,R10,R11                                  ;
                        5B 00000000G   00   9E 00002                   MOVAB   NMA$SEARCHFLD, R11                      ;
                        5A 00000000G   00   9E 00009                   MOVAB   NML$AB_MSGBLOCK, R10                    ;
                        59 00000000'   00   9E 00010                   MOVAB   P.AAE, R9                               ;
                        5E             0C   C2 00017                   SUBL2   #12, SP                                 ;
                        56       08    AC   7D 0001A                   MOVQ    ENTITY, R6                              ; 1202
                        53       04    A7   D0 0001E                   MOVL    4(R7), PTR                              ; 1198
                    50                 56   C5 00022                   MULL3   #44, R6, R0                             ; 1202
                           00000000G00040   9F 00026                   PUSHAB  NML$AB_ENTITYDATA+3[R0]                 ;
                        58             9E   B0 0002D                   MOVW    @(SP)+, CODE                            ;
                        03             56   D1 00030                   CMPL    R6, #3                                  ; 1206
                                       05   1F 00033                   BLSSU   1$                                      ;
                        04             56   D1 00035                   CMPL    R6, #4                                  ;
                                       05   1B 00038                   BLEQU   2$                                      ;
                        07             56   D1 0003A 1$:               CMPL    R6, #7                                  ;
                                       47   12 0003D                   BNEQ    6$                                      ;
                                       6E   D4 0003F 2$:               CLRL    FLDADR                                  ; 1210
                                       5E   DD 00041                   PUSHL   SP                                      ; 1211
```

```
                                                08    AE  9F 00043          PUSHAB  FLDSIZE                                          ;
                                             7E 01F6  8F  3C 00046          MOVZWL  #502, -(SP)                                     ;
                                                04    AC  DD 0004B          PUSHL   RECDSC                                          ;
                                             6B       04  FB 0004E          CALLS   #4, NMA$SEARCHFLD                               ;
                                             26       50  E9 00051          BLBC    R0, 4$                                          ;
                                             03 00000000G  00  91 00054     CMPB    NML$GB_NCP_VERSION, #3                          ; 1222
                                                      17  1A 0005B          BGTRU   3$                                              ;
      50 00000000G  00                       06          02  EF 0005D     EXTZV   #2, #6, NML$GW_PERM_EXEC_ADDR+1, R0             ; 1227
      50        00  BE                       06          0A  ED 00066     CMPZV   #10, #6, @NODE_ADDR, R0                         ;
                                                      06  12 0006C          BNEQ    3$                                              ;
                                          00  BE FC00  8F  AA 0006E          BICW2   #64512, @NODE_ADDR                              ; 1228
                                             63    00  BE  B0 00074 3$:     MOVW    @FLDADR, (PTR)                                  ; 1230
                                                      02  11 00078          BRB     5$                                              ;
                                                      63  B4 0007A 4$:     CLRW    (PTR)                                           ; 1234
                                             53       02  C0 0007C 5$:     ADDL2   #2, PTR                                         ; 1235
                                             58 01F4  8F  B0 0007F          MOVW    #500, CODE                                      ; 1237
                                                      0C  11 00084          BRB     7$                                              ; 1204
                                             05       56  D1 00086 6$:     CMPL    R6, #5                                          ; 1240
                                                      07  12 00089          BNEQ    7$                                              ;
                                             58 01F4  8F  B0 0008B          MOVW    #500, CODE                                      ; 1242
                                                      83  B4 00090          CLRW    (PTR)+                                          ; 1243
                                                      6E  D4 00092 7$:     CLRL    FLDADR                                          ; 1248
                                                      5E  DD 00094          PUSHL   SP                                              ; 1249
                                                08    AE  9F 00096          PUSHAB  FLDSIZE                                         ;
                                             7E       58  3C 00099          MOVZWL  CODE, -(SP)                                     ;
                                                04    AC  DD 0009C          PUSHL   RECDSC                                          ;
                                             6B       04  FB 0009F          CALLS   #4, NMA$SEARCHFLD                               ;
                                             03       50  E8 000A2          BLBS    R0, 8$                                          ;
                                                   00C1  31 000A5          BRW     26$                                             ;
                                                      56  D5 000A8 8$:     TSTL    R6                                              ; 1253
                                                      24  13 000AA          BEQL    13$                                             ;
                                             03       56  D1 000AC          CMPL    R6, #3                                          ;
                                                      05  1F 000AF          BLSSU   9$                                              ;
                                             05       56  D1 000B1          CMPL    R6, #5                                          ;
                                                      08  1B 000B4          BLEQU   10$                                             ;
                                             08       56  D1 000B6 9$:     CMPL    R6, #8                                          ;
                                                      08  1F 000B9          BLSSU   12$                                             ;
                                             09       56  D1 000BB          CMPL    R6, #9                                          ;
                                                      03  1A 000BE 10$:     BGTRU   12$                                             ;
                                                   0088  31 000C0 11$:     BRW     23$                                             ;
                                             11       56  D1 000C3 12$:     CMPL    R6, #17                                         ;
                                                      F8  13 000C6          BEQL    11$                                             ;
                                             13       56  D1 000C8          CMPL    R6, #19                                         ;
                                                      7E  13 000CB          BEQL    23$                                             ;
                                             15       56  D1 000CD          CMPL    R6, #21                                         ;
                                                      79  13 000D0 13$:     BEQL    23$                                             ;
                                             07       56  D1 000D2          CMPL    R6, #7                                          ; 1264
                                                      08  12 000D5          BNEQ    14$                                             ;
      63        04    AE       80    8F  89 000D7          BISB3   #128, FLDSIZE, (PTR)                                            ; 1265
                                                      70  11 000DD          BRB     24$                                             ;
                                             0D       56  D1 000DF 14$:     CMPL    R6, #13                                         ; 1267
                                                      0A  12 000E2          BNEQ    15$                                             ;
      63                                     69       0B  28 000E4          MOVC3   #11, P.AAE, (PTR)                               ; 1269
                                             63    0C  A9  B0 000E8          MOVW    P.AAF, (PTR)                                    ; 1270
                                                      56  11 000EC          BRB     22$                                             ;
                                             0E       56  D1 000EE 15$:     CMPL    R6, #14                                         ; 1275
                                                      0C  1F 000F1          BLSSU   16$                                             ;
```

```
                                10              56  D1 000F3          CMPL    R6, #16                                 ;
                                                07  1A 000F6          BGTRU   16$                                     ;
                    63      10  A9              0D  28 000F8          MOVC3   #13, P.AAG, (PTR)                       ; 1279
                                                42  11 000FD          BRB     21$                                     ; 1280
                                12              56  D1 000FF 16$:      CMPL    R6, #18                                 ; 1285
                                                0F  13 00102          BEQL    17$                                     ;
                                14              56  D1 00104          CMPL    R6, #20                                 ;
                                                0A  13 00107          BEQL    17$                                     ;
                                16              56  D1 00109          CMPL    R6, #22                                 ;
                                                43  1F 0010C          BLSSU   25$                                     ;
                                17              56  D1 0010E          CMPL    R6, #23                                 ;
                                                3E  1A 00111          BGTRU   25$                                     ;
                                12              56  D1 00113 17$:      CMPL    R6, #18                                 ; 1292
                                                07  12 00116          BNEQ    18$                                     ;
                    63      1D  A9              0B  28 00118          MOVC3   #11, P.AAH, (PTR)                       ;
                                                22  11 0011D          BRB     21$                                     ;
                                14              56  D1 0011F 18$:      CMPL    R6, #20                                 ; 1293
                                                07  12 00122          BNEQ    19$                                     ;
                    63      28  A9              0A  28 00124          MOVC3   #10, P.AAI, (PTR)                       ;
                                                16  11 00129          BRB     21$                                     ;
                                16              56  D1 0012B 19$:      CMPL    R6, #22                                 ; 1294
                                                07  12 0012E          BNEQ    20$                                     ;
                    63      32  A9              0B  28 00130          MOVC3   #11, P.AAJ, (PTR)                       ;
                                                0A  11 00135          BRB     21$                                     ;
                                17              56  D1 00137 20$:      CMPL    R6, #23                                 ; 1295
                                                05  12 0013A          BNEQ    21$                                     ;
                    63      3D  A9              0D  28 0013C          MOVC3   #13, P.AAK, (PTR)                       ;
                                63              58  B0 00141 21$:      MOVW    CODE, (PTR)                             ; 1297
                                53              02  C0 00144 22$:      ADDL2   #2, PTR                                 ;
                                83      40      8F  90 00147          MOVB    #64, (PTR)+                             ; 1298
                                63      04      AE  90 0014B 23$:      MOVB    FLDSIZE, (PTR)                          ; 1299
                                53              D6  0014F 24$:      INCL    PTR                                     ;
                    50          53      04      A7  C3 00151 25$:      SUBL3   4(R7), PTR, R0                          ; 1309
                                50      04      AE  C0 00156          ADDL2   FLDSIZE, R0                             ;
                50  67          10              00  ED 0015A          CMPZV   #0, #16, (R7), R0                       ;
                                                57  1F 0015F          BLSSU   30$                                     ;
                    63      00  BE      04      AE  28 00161          MOVC3   FLDSIZE, @FLDADR, (PTR)                 ; 1310
                                                4F  11 00167          BRB     30$                                     ; 1249
                                03              56  D1 00169 26$:      CMPL    R6, #3                                  ; 1316
                                                09  1F 0016C          BLSSU   27$                                     ;
                                04              56  D1 0016E          CMPL    R6, #4                                  ;
                                                04  1A 00171          BGTRU   27$                                     ;
                                                63  94 00173          CLRB    (PTR)                                   ; 1318
                                                09  11 00175          BRB     28$                                     ;
                                07              56  D1 00177 27$:      CMPL    R6, #7                                  ; 1320
                                                08  12 0017A          BNEQ    29$                                     ;
                                63      80      8F  90 0017C          MOVB    #-128, (PTR)                            ; 1321
                                53              D6  00180 28$:      INCL    PTR                                     ;
                                                34  11 00182          BRB     30$                                     ; 1314
                                6A              06  D0 00184 29$:      MOVL    #6, NML$AB_MSGBLOCK                     ; 1326
                        04      AA              0E  8E 00187          MNEGB   #14, NML$AB_MSGBLOCK+4                  ; 1327
                                        08      AA  B4 0018B          CLRW    NML$AB_MSGBLOCK+8                       ; 1328
                        0C      AA 00000000G    8F  D0 0018E          MOVL    #NML$_NORECOWN, NML$AB_MSGBLOCK+12      ; 1329
                                            08  AE  9F 00196          PUSHAB  MSGSIZE                                 ; 1330
                                                5A  DD 00199          PUSHL   R10                                     ;
                00000000G       00              02  FB 0019B          CALLS   #2, NML$BLD_REPLY                       ;
                                            08  AE  DD 001A2          PUSHL   MSGSIZE                                 ; 1331
```

```
                                 000000000G  00  9F  001A5          PUSHAB  NML$AB_SNDBUFFER                    ;
                                 01F90000    8F  DD  001AB          PUSHL   #33095680                           ;
                                             03  FB  001B1          CALLS   #3, LIB$SIGNAL                      ;
                    00000000G    00                               
                                 53          04  A7  C3  001B8  30$: SUBL3   4(R7), PTR, @RESLEN                ; 1335
                                 50              01  D0  001BE      MOVL    #1, R0                              ; 1336
                                                 04  001C1          RET                                         ; 1337

; Routine Size:  450 bytes,    Routine Base:  $CODE$ + 071C
```

```
; 1352          1338  1 END                                   ! End of module
; 1353          1339  1
; 1354          1340  0 ELUDOM
```

```
                                                        .EXTRN  LIB$SIGNAL
```

```
;                               PSECT SUMMARY
;
;       Name                    Bytes                   Attributes
;
;   $OWN$                         1096  NOVEC,  WRT,  RD ,NOEXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)
;   $CODE$                        2270  NOVEC,NOWRT,  RD ,  EXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)
;   $PLIT$                          98  NOVEC,NOWRT,  RD ,NOEXE,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        68        19        27        00:00.1
;   _$255$DUA28:[SHRLIB]NMALIBRY.L32;1     887        20         2        47        00:00.2
;   _$255$DUA28:[SYSLIB]STARLET.L32;1     9776         3         0       581        00:02.2
```

```
;                                   COMMAND QUALIFIERS

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

; Size:          2270 code + 1194 data bytes
; Run Time:         00:37.3
; Elapsed Time:     01:18.9
; Lines/CPU Min:     2157
; Lexemes/CPU-Min: 13330
; Memory Used:  201 pages
; Compilation Complete
```

NMLFORWRD
LIS

NMLENTRY
LIS

NMLDEFINE
LIS

NMLFILEIO
LIS

NMLLIB
LIS

NMLINISTA
LIS

NMLDISC
LIS