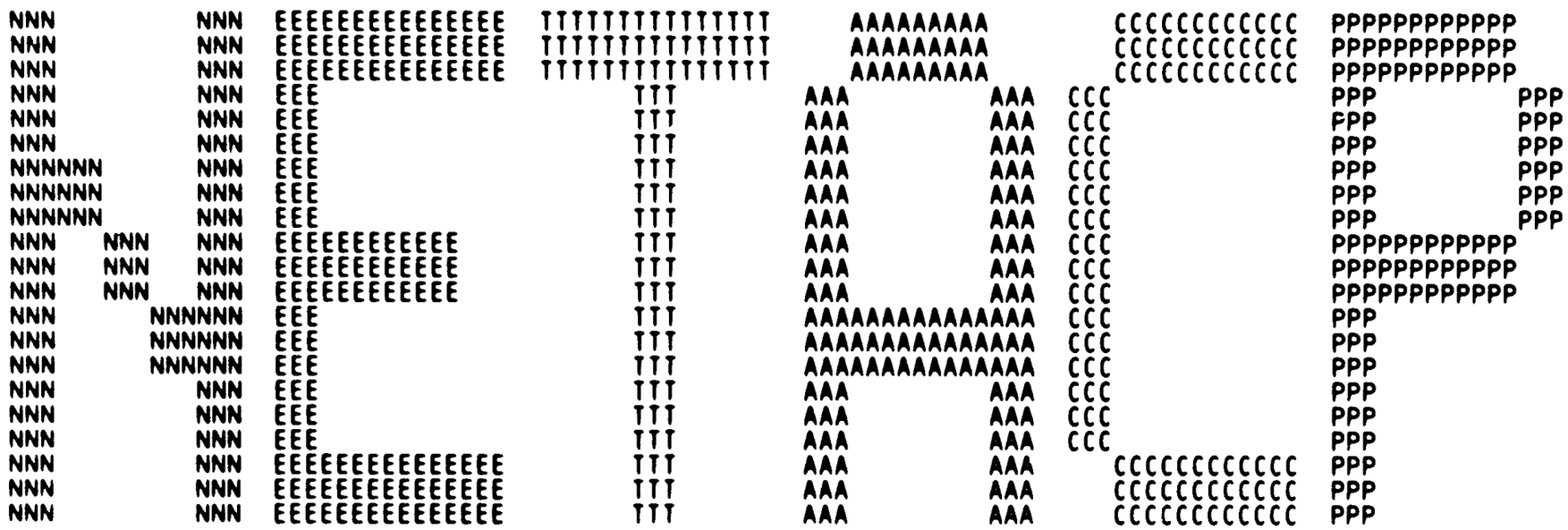
NNN NNN EEEEEEEEEEEEEEE TTTTTTTTTTTTTTT AAAAAAAAA CCCCCCCCCCC PPPPPPPPPPPP
NNN NNN EEEEEEEEEEEEEEE TTTTTTTTTTTTTTT AAAAAAAAA CCCCCCCCCCC PPPPPPPPPPPP
NNN NNN EEEEEEEEEEEEEEE TTTTTTTTTTTTTTT AAAAAAAAA CCCCCCCCCCC PPPPPPPPPPPP
NNN NNN EEE TTT AAA AAA CCC PPP PPP
NNN NNN EEE TTT AAA AAA CCC PPP PPP
NNN NNN EEE TTT AAA AAA CCC PPP PPP
NNNNNN NNN EEE TTT AAA AAA CCC PPP PPP
NNNNNN NNN EEE TTT AAA AAA CCC PPP PPP
NNNNNN NNN EEE TTT AAA AAA CCC PPP PPP
NNN NNN NNN EEEEEEEEEEE TTT AAA AAA CCC PPPPPPPPPPPP
NNN NNN NNN EEEEEEEEEEE TTT AAA AAA CCC PPPPPPPPPPPP
NNN NNN NNN EEEEEEEEEEE TTT AAA AAA CCC PPPPPPPPPPPP
NNN NNNNNN EEE TTT AAAAAAAAAAAAAAA CCC PPP
NNN NNNNNN EEE TTT AAAAAAAAAAAAAAA CCC PPP
NNN NNNNNN EEE TTT AAAAAAAAAAAAAAA CCC PPP
NNN NNN EEE TTT AAA AAA CCC PPP
NNN NNN EEE TTT AAA AAA CCC PPP
NNN NNN EEE TTT AAA AAA CCC PPP
NNN NNN EEEEEEEEEEEEEEE TTT AAA AAA CCCCCCCCCCC PPP
NNN NNN EEEEEEEEEEEEEEE TTT AAA AAA CCCCCCCCCCC PPP
NNN NNN EEEEEEEEEEEEEEE TTT AAA AAA CCCCCCCCCCC PPP

```
NN       NN  EEEEEEEEEE  TTTTTTTTTT    000000    PPPPPPPP      CCCCCCCC    000000    MM       MM
NN       NN  EEEEEEEEEE  TTTTTTTTTT    000000    PPPPPPPP      CCCCCCCC    000000    MM       MM
NN       NN  EE              TT      00      00  PP      PP  CC            00      00  MMMM   MMMM
NN       NN  EE              TT      00      00  PP      PP  CC            00      00  MMMM   MMMM
NNNN     NN  EE              TT      00      00  PP      PP  CC            00      00  MM  MM  MM
NNNN     NN  EE              TT      00      00  PP      PP  CC            00      00  MM  MM  MM
NN  NN   NN  EEEEEEEE        TT      00      00  PPPPPPPP    CC            00      00  MM      MM
NN  NN   NN  EEEEEEEE        TT      00      00  PPPPPPPP    CC            00      00  MM      MM
NN    NNNN  EE              TT      00      00  PP          CC            00      00  MM      MM
NN    NNNN  EE              TT      00      00  PP          CC            00      00  MM      MM
NN      NN  EE              TT      00      00  PP          CC            00      00  MM      MM      ....
NN      NN  EE              TT      00      00  PP          CC            00      00  MM      MM      ....
NN      NN  EEEEEEEEEE      TT        000000    PP            CCCCCCCC    000000    MM      MM      ....
NN      NN  EEEEEEEEEE      TT        000000    PP            CCCCCCCC    000000    MM      MM      ....

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

```
0000     1          .TITLE  NETOPCOM - OPERATOR COMMUNICATIONS
0000     2          .IDENT  'V04-000'
0000     3          .DEFAULT DISPLACEMENT,LONG
0000     4
0000     5 ;
0000     6 ;**********************************************************************************
0000     7 ;*                                                                                *
0000     8 ;*  COPYRIGHT (c) 1978, 1980, 1982, 1984 B;                                       *
0000     9 ;*  DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.                        *
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0000    18 ;*                                                                                *
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0000    21 ;*  CORPORATION.                                                                  *
0000    22 ;*                                                                                *
0000    23 ;*  DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE  OR  RELIABILITY OF ITS         *
0000    24 ;*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.                       *
0000    25 ;*                                                                                *
0000    26 ;*                                                                                *
0000    27 ;**********************************************************************************
0000    28
0000    29 ;++
0000    30 ; FACILITY:     NETWORK ACP
0000    31 ;
0000    32 ; ABSTRACT:
0000    33 ;       THIS MODULE IS USED TO SEND INFORMATIONAL MESSAGES TO THE NETWORK OPERATOR
0000    34 ;
0000    35 ; ENVIRONMENT:
0000    36 ;       MODE = EXEC
0000    37 ;
0000    38 ; AUTHOR:       SCOTT G. DAVIS, CREATION DATE: 13-APR-1980
0000    39 ;
0000    40 ; MODIFIED BY:
0000    41 ;
0000    42 ;       V03-002 ADE0001         Alan D. Eldridge        19-Feb-1984
0000    43 ;                Fix linkage truncation errors.
0000    44 ;
0000    45 ;       V001    TMH0001         Tim Halvorsen           13-Apr-1982
0000    46 ;                Rewrite.  Remove obsolete code.
0000    47 ;---
```

```
                                0000     49          .SBTTL  DECLARATIONS
                                0000     50 ;
                                0000     51 ; INCLUDE FILES:
                                0000     52 ;
                                0000     53          $NDBDEF                         ; NETACP internal operator msg numbers
                                0000     54          $OPCDEF                         ; OPCOM message format
                                0000     55          $PCBDEF                         ; Process control block
                                0000     56          $PHDDEF                         ; Process header block
                                0000     57
                                0000     58 ;
                                0000     59 ; The messages sent by $SNDACC, $SNDERR, and $SNDOPR consist of
                                0000     60 ; a common header followed by the user specified message.  The
                                0000     61 ; common header has the following format:
                                0000     62 ;
                                0000     63 ;       .WORD   <message type>
                                0000     64 ;       .WORD   <reply mailbox channel #>
                                0000     65 ;       .QUAD   <sender's privilege mask>
                                0000     66 ;       .LONG   <sender's UIC>
                                0000     67 ;       .BLKB   <sender's USERNAME.  12 bytes, blank filled>
                                0000     68 ;       .BLKB   <sender's ACCOUNT.  8 bytes, blank filled>
                                0000     69 ;       .BYTE   <sender's base priority>
                                0000     70 ;       .BYTE   <unused>
                                0000     71 ;
                   00000026     0000     72 SNDMSG_HDR = 38
                                0000     73
                                0000     74 ;
                                0000     75 ; OWN STORAGE:
                                0000     76 ;
                   00000000     0000     77          .PSECT  NET_PURE,NOWRT,NOEXE
                                0000     78
72 61 74 73 20 74 65 6E 43 45 44 00' 0000     79 START_MSG:       .ASCIC  /DECnet starting/
                      67 6E 69 74  000C
                                   0F  0000
74 75 68 73 20 74 65 6E 43 45 44 00' 0010     80 SHUT_MSG:        .ASCIC  /DECnet shutting down/
         6E 77 6F 64 20 67 6E 69 74  001C
                                   14  0010
                                0025     81
                                0025     82
                   00000000     0000     83          .PSECT  NET_CODE,NOWRT,EXE
```

```
                                0000     85          .SBTTL  NETWORK OPERATOR MESSAGE FORMATTING
                                0000     86 ;++
                                0000     87 ; FUNCTIONAL DESCRIPTION:
                                0000     88 ;
                                0000     89 ; NET$OPCOM - FORMAT AND SEND OPERATOR MESSAGE
                                0000     90 ;
                                0000     91 ; CALLING SEQUENCE:
                                0000     92 ;
                                0000     93 ;       BSB     NET$OPCOM
                                0000     94 ;
                                0000     95 ; INPUT PARAMETERS:
                                0000     96 ;
                                0000     97 ;       R0 - Message code (NDB$C_MSG_xxx)
                                0000     98 ;
                                0000     99 ; SIDE EFFECTS:
                                0000    100 ;
                                0000    101 ;       MESSAGE SENT TO NETWORK OPERATOR
                                0000    102 ;       R1,R2 - destroyed
                                0000    103 ;--
                                0000    104
                                0000    105 NET$OPCOM::
                                0000    106         $DISPATCH R0,TYPE=B,<-
                                0000    107                 <NDB$C_MSG_START,10$>,- ; Starting network
                                0000    108                 <NDB$C_MSG_SHUT,20$>>   ; Shutting down network
                          05    0008    109         RSB                             ; If not recognized, ignore it
                                0009    110
      51  00000000'EF   9E    0009    111 10$:    MOVAB   START_MSG,R1            ; Get startup message
                    07  11    0010    112         BRB     50$
      51  00000010'EF   9E    0012    113 20$:    MOVAB   SHUT_MSG,R1             ; Get shutdown message
                                0019    114
          007C 8F       BB    0019    115 50$:    PUSHR   #^M<R2,R3,R4,R5,R6>     ; Save registers
               50       81    001D    116         MOVZBL  (R1)+,R0                ; Make descriptor of message text
          53   50       2E    C1  0020    117         ADDL3   #SNDMSG_HDR+OPC$L_MS_TEXT,R0,R3 ; Compute size of buffer needed
               5E       53    C2  0024    118         SUBL    R3,SP                   ; Allocate space for OPCOM message
               53       5E    D0  0027    119         MOVL    SP,R3                   ; Point to buffer
               7E       50    7D  002A    120         MOVQ    R0,-(SP)                ; Save descriptor of message text
                                002D    121 ;
                                002D    122 ; Prepare to send a message to the OPCOM mailbox.  We must use the kernel
                                002D    123 ; mode routine EXE$WRTMAILBOX rather than the $SNDOPR system service
                                002D    124 ; because of some bad safety checks in the service which prevent it's use
                                002D    125 ; from kernel mode (it runs in EXEC mode, and makes sure that the buffer
                                002D    126 ; isn't "less than" the executive mode stack, and of course, calling the
                                002D    127 ; service from kernel mode means that it runs on the kernel stack instead).
                                002D    128 ;
                                002D    129 ; Build common SNDMSG mailbox header
                                002D    130 ;
          83   0000'8F       B0  002D    131         MOVW    #MSG$_OPRQST,(R3)+      ; INSERT MESAGE TYPE
                    83       B4  0032    132         CLRW    (R3)+                   ; INSERT REPLY MAILBOX CHANNEL NUMBER
      56  00000000'GF       D0  0034    133         MOVL    G^CTL$GL_PCB,R6         ; GET ADDRESS OF PCB
                                003B    134         ASSUME  PHD$Q_PRIVMSK EQ 0
           83    6C       B6  7D  003B    135         MOVQ    @PCB$L_PHD(R6),(R3)+    ; INSERT PRIVILEGE MASK
          83   00BC       C6  D0  003F    136         MOVL    PCB$L_UIC(R6),(R3)+     ; INSERT UIC
      63  00000000'GF       14  28  0044    137         MOVC3   #20,G^CTL$T_USERNAME,(R3); INSERT USER NAME AND ACCOUNT NAME
           83    1F    2F   A6  83  004C    138         SUBB3   PCB$B_PRIB(R6),#31,(R3)+; INSERT BASE PRIORITY
                       83   94  0051    139         CLRB    (R3)+                   ; CLEAR SPARE BYTE
                                0053    140 ;
                                0053    141 ; Build OPCOM header
```

```
                              0053   ;
          50    8E      7D    0053          MOVQ    (SP)+,R0                      ; Restore descriptor of message text
                              0056          ASSUME  OPC$B_MS_TARGET EQ OPC$B_MS_TYPE+1 ; 3 bytes of operator mask
    00004003    8F      D0    0056          MOVL    #OPC$_RQ_RQST!<OPC$M_NM_NTWORK@8>,-
                63            005C                  OPC$B_MS_TYPE(R3)             ; Request type/opermask
             04 A3      D4    005D          CLRL    OPC$L_MS_RQSTID(R3)           ; No ID for message
  08 A3      61    50   28    0060          MOVC    R0,(R1),OPC$L_MS_TEXT(R3)     ; Copy text into OPCOM message
           53      5E   C2    0065          SUBL    SP,R3                         ; Compute size of message
           54      5E   D0    0068          MOVL    SP,R4                         ; Set address of message
  55   00000000'GF      9E    006B          MOVAB   G^SYS$GL_OPRMBX,R5            ; Get address of OPCOM mailbox UCB
       00000000'GF      16    0072          JSB     G^EXE$WRTMAILBOX              ; Send message to OPCOM mailbox
           5E      53   C0    0078          ADDL    R3,SP                         ; Deallocate message off stack
         007C      8F   BA    007B          POPR    #^M<R2,R3,R4,R5,R6>           ; Restore registers
                        05    007F          RSB                                   ; DONE
                              0080
                              0080          .END
```

```
CTL$GL_PCB                      ********    X   03
CTL$T_USERNAME                  ********    X   03
EXE$WRTMAILBOX                  ********    X   03
MSG$_OPRQST                     ********    X   03
NDB$C_MSG_SHUT                = 00000002
NDB$C_MSG_START               = 00000001
NET$OPCOM                       00000000 RG     03
OPC$B_MS_TARGET               = 00000001
OPC$B_MS_TYPE                 = 00000000
OPC$L_MS_RQSTID               = 00000004
OPC$L_MS_TEXT                 = 00000008
OPC$M_NM_NTWORK               = 00000040
OPC$_RQ_RQST                  = 00000003
PCB$B_PRIB                    = 0000002F
PCB$L_PHD                     = 0000006C
PCB$L_UIC                     = 000000BC
PHD$Q_PRIVMSK                 = 00000000
SHUT_MSG                        00000010 R      02
SNDMSG_HDR                    = 00000026
START_MSG                       00000000 R      02
SYS$GL_OPRMBX                   ********    X   03
```

Psect synopsis

PSECT name	Allocation	PSECT No.	Attributes
. ABS .	00000000 (0.)	00 (0.)	NOPIC USR CON ABS LCL NOSHR NOEXE NORD NOWRT NOVEC BYTE
ABS	00000000 (0.)	01 (1.)	NOPIC USR CON ABS LCL NOSHR EXE RD WRT NOVEC BYTE
NET_PURE	00000025 (37.)	02 (2.)	NOPIC USR CON REL LCL NOSHR NOEXE RD NOWRT NOVEC BYTE
NET_CODE	00000080 (128.)	03 (3.)	NOPIC USR CON REL LCL NOSHR EXE RD NOWRT NOVEC BYTE

Performance indicators

Phase	Page faults	CPU Time	Elapsed Time
Initialization	29	00:00:00.06	00:00:00.48
Command processing	156	00:00:01.02	00:00:04.45
Pass 1	238	00:00:03.98	00:00:08.65
Symbol table sort	0	00:00:00.46	00:00:00.48
Pass 2	48	00:00:00.78	00:00:01.05
Symbol table output	4	00:00:00.04	00:00:00.04
Psect synopsis output	2	00:00:00.02	00:00:00.02
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	479	00:00:06.37	00:00:15.17

```
The working set limit was 1200 pages.
19379 bytes (38 pages) of virtual memory were used to buffer the intermediate code.
There were 20 pages of symbol table space allocated to hold 338 non-local and 8 local symbols.
157 source lines were read in Pass 1, producing 15 object records in Pass 2.
19 pages of virtual memory were used to define 17 macros.
```

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

Macro library name	Macros defined
_255DUA28:[SHRLIB]NMALIBRY.MLB;1	0
_255DUA28:[SHRLIB]EVCDEF.MLB;1	0
_255DUA28:[NETACP.OBJ]NETDRV.MLB;1	0
_255DUA28:[NETACP.OBJ]NET.MLB;1	2
_255DUA28:[SYS.OBJ]LIB.MLB;1	2
_255DUA28:[SYSLIB]STARLET.MLB;2	5
TOTALS (all libraries)	9

457 GETS were required to define 9 macros.

There were no errors, warnings or information messages.

```
MACRO/LIS=LIS$:NETOPCOM/OBJ=OBJ$:NETOPCOM MSRC$:NETOPCOM/UPDATE=(ENH$:NETOPCOM)+EXECML$/LIB+LIB$:NET/LIB+LIB$:NETDRV/LIB+SHRLIB$:EVC
```

NETDRVXPT
LIS

NETOPCOM
LIS

NETLLCNT
LIS

NETEVTLOG
LIS

NETPROCRE
LIS