```
HHH          HHH  LLL              DDDDDDDDDDDD
HHH          HHH  LLL              DDDDDDDDDDDDD
HHH          HHH  LLL              DDDDDDDDDDDDD
HHH          HHH  LLL              DDD          DDD
HHH          HHH  LLL              DDD          DDD
HHH          HHH  LLL              DDD          DDD
HHH          HHH  LLL              DDD          DDD
HHH          HHH  LLL              DDD          DDD
HHH          HHH  LLL              DDD          DDD
HHHHHHHHHHHHHHHH  LLL              DDD          DDD
HHHHHHHHHHHHHHHH  LLL              DDD          DDD
HHHHHHHHHHHHHHHH  LLL              DDD          DDD
HHH          HHH  LLL              DDD          DDD
HHH          HHH  LLL              DDD          DDD
HHH          HHH  LLL              DDD          DDD
HHH          HHH  LLL              DDD          DDD
HHH          HHH  LLL              DDD          DDD
HHH          HHH  LLLLLLLLLLLLLLLL DDDDDDDDDDDD
HHH          HHH  LLL              DDD          DDD
HHH          HHH  LLLLLLLLLLLLLLLL DDDDDDDDDDDD
HHH          HHH  LLLLLLLLLLLLLLLL DDDDDDDDDDDD
HHH          HHH  LLLLLLLLLLLLLLLL DDDDDDDDDDDD
```

```
HH      HH  LL          DDDDDDDD    PPPPPPPP    RRRRRRRR     IIIIII    NN      NN  TTTTTTTTTT
HH      HH  LL          DDDDDDDD    PPPPPPPP    RRRRRRRR     IIIIII    NN      NN  TTTTTTTTTT
HH      HH  LL          DD      DD  PP      PP  RR      RR     II      NN      NN      TT
HH      HH  LL          DD      DD  PP      PP  RR      RR     II      NN      NN      TT
HH      HH  LL          DD      DD  PP      PP  RR      RR     II      NNNN    NN      TT
HH      HH  LL          DD      DD  PP      PP  RR      RR     II      NNNN    NN      TT
HHHHHHHHHH  LL          DD      DD  PPPPPPPP    RRRRRRRR       II      NN  NN  NN      TT
HHHHHHHHHH  LL          DD      DD  PPPPPPPP    RRRRRRRR       II      NN  NN  NN      TT
HH      HH  LL          DD      DD  PP          RR  RR         II      NN    NNNN      TT
HH      HH  LL          DD      DD  PP          RR  RR         II      NN    NNNN      TT
HH      HH  LL          DD      DD  PP          RR    RR       II      NN      NN      TT          ....
HH      HH  LL          DD      DD  PP          RR    RR       II      NN      NN      TT          ....
HH      HH  LLLLLLLLLL  DDDDDDDD    PP          RR      RR   IIIIII    NN      NN      TT          ....
HH      HH  LLLLLLLLLL  DDDDDDDD    PP          RR      RR   IIIIII    NN      NN      TT          ....

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
```

Table of contents

```
0000     1          .TITLE  HLDPRINT - HLD PRINT ROUTINES
0000     2          .IDENT  'V04-000'
0000     3
0000     4  ;
0000     5  ;*****************************************************************************
0000     6  ;*                                                                           *
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0000    24  ;*                                                                           *
0000    25  ;*                                                                           *
0000    26  ;*****************************************************************************
0000    27  ;
0000    28
0000    29  ;++
0000    30  ; FACILITY: DECNET HOST LOADER (HLD)
0000    31  ;
0000    32  ; ABSTRACT:
0000    33  ;
0000    34  ;       THIS MODULE IS RESPONSIBLE FOR FORMATTING AND PRINTING
0000    35  ;       MESSAGES TO THE LOG FILE.
0000    36  ;
0000    37  ; ENVIRONMENT:
0000    38  ;
0000    39  ;       THE HLD IMAGE EXECUTES IN THE CONTEXT OF A PROCESS CREATED BY
0000    40  ;       NETACP. IT RUNS IN USER MODE AND REQUIRES NETWORK PRIVILEGE.
0000    41  ;
0000    42  ; AUTHOR: SCOTT G. DAVIS,       CREATION DATE: 02-JUL-79
0000    43  ;
0000    44  ; MODIFICATIONS:
0000    45  ;
0000    46  ;       V001    SGD0002         19-Mar-1984
0000    47  ;               Add error message for improper connect from SLD.
0000    48  ;               Make sure recursive errors don't occur.
0000    49  ;--
0000    50          .SBTTL  DECLARATIONS
0000    51
0000    52  ;
0000    53  ; INCLUDE FILES:
0000    54  ;
0000    55  ;
0000    56  ; MACROS:
0000    57  ;
```

```
                                    0000     58 ;       NONE
                                    0000     59 ;
                                    0000     60 ; EQUATED SYMBOLS:
                                    0000     61 ;
                                    0000     62 ;       NONE
                                    0000     63 ;
                                    0000     64 ; OWN STORAGE:
                                    0000     65 ;
                                00000000     66          .PSECT  HLD$PURE        NOSHR,NOEXE,RD,NOWRT,LONG
                                    0000     67
                                    0000     68 ;
                                    0000     69 ; FAO DESCRIPTOR
                                    0000     70 ;
41 21 2F 21 2F 21 00000008'010E0000' 0000     71 HLD_ANNOUNCE:   .ASCID  \!/!/!AC request from node !AS:: for task '!AC"!/!AC!AC!/!/\
72 66 20 74 73 65 75 71 65 72 20 43  000E
3A 53 41 21 20 65 64 6F 6E 20 6D 6F  001A
22 20 6B 73 61 74 20 72 6F 66 20 3A  0026
43 41 21 43 41 21 2F 21 22 43 41 21  0032
                  2F 21 2F 21        003E
                                    0042     72 ;
                                    0042     73 ; MESSAGES
                                    0042     74 ;
45 4C 49 41 46 20 2A 2A 2A 2A 2A 00' 0042     75 FAILED: .ASCIC  /***** FAILED - /
                  20 2D 20 44        004E
                              0F     0042
                                    0052     76 ;
                                    0052     77 ; TEXT RELATED TO REQUEST TYPE
                                    0052     78 ;
76 6E 49 20 2D 20 2A 2A 2A 2A 2A 00' 0052     79 HLD$GT_INVALID::        .ASCIC  /***** - Invalid/ ; CONNECT FROM SLD WAS GARBAGE
                  64 69 6C 61        005E
                              0F     0052
                                    0062     80 HLD$AT_REQ_TYPE::                       ; VECTOR OF ADDRESSES
                        00000072'   0062     81          .ADDRESS        HLD_OVERLAY     ; OVERLAY REQUEST
                        0000007A'   0066     82          .ADDRESS        HLD_LOAD        ; INITIAL LOAD REQUEST
                        00000087'   006A     83          .ADDRESS        HLD_CHKREAD     ; CHECKPOINT READ REQUEST
                        00000097'   006E     84          .ADDRESS        HLD_CHKWRT      ; CHECKPOINT WRITE REQUEST
                                    0072     85
                  79 61 6C 72 65 76 4F 00' 0072     86 HLD_OVERLAY:    .ASCIC  /Overlay/
                              07     0072
61 6F 6C 20 6C 61 69 74 69 6E 49 00' 007A     87 HLD_LOAD:       .ASCIC  /Initial load/
                              64     0086
                              0C     007A
20 74 6E 69 6F 70 6B 63 65 68 43 00' 0087     88 HLD_CHKREAD:    .ASCIC  /Checkpoint read/
                        64 61 65 72  0093
                              0F     0087
20 74 6E 69 6F 70 6B 63 65 68 43 00' 0097     89 HLD_CHKWRT:     .ASCIC  /Checkpoint write/
                     65 74 69 72 77  00A3
                              10     0097
                                    00A8     90 MSG_ARRAY:                              ; ARRAY TO BE INDEXED BY MSG NUMBER
                        000000D0'   00A8     91          .ADDRESS        NULL            ; IF 0 THEN NO ERROR MESSAGE
                        000000D1'   00AC     92          .ADDRESS        FORMAT
                        000000E9'   00B0     93          .ADDRESS        SYNTAX
                        00000101'   00B4     94          .ADDRESS        SEARCH
                        00000115'   00B8     95          .ADDRESS        NO_HEADER
                        0000012C'   00BC     96          .ADDRESS        NOT_4K
                        0000014B'   00C0     97          .ADDRESS        BAD_PART
                        00000167'   00C4     98          .ADDRESS        BIG_FILE
```

```
                        00000182' 00C8    99          .ADDRESS        BIG_PART
                        000001A9' 00CC   100          .ADDRESS        BAD_REQST
                                  00D0   101
                              00' 00D0   102 NULL:    .ASCIC  //                      ; NOTHING HERE
                              00  00D0
6F 72 72 65 20 74 61 6D 72 6F 66 00' 00D1   103 FORMAT: .ASCIC  /format error in HLD.DAT/
54 41 44 2E 44 4C 48 20 6E 69 20 72  00DD
                              17  00D1
6F 72 72 65 20 78 61 74 6E 79 73 00' 00E9   104 SYNTAX: .ASCIC  /syntax error in HLD.DAT/
54 41 44 2E 44 4C 48 20 6E 69 20 72  00F5
                              17  00E9
6E 20 65 6D 61 6E 20 6B 73 61 74 00' 0101   105 SEARCH: .ASCIC  /task name not found/
                 64 6E 75 6F 66 20 74 6F     010D
                              13  0101
69 20 72 65 64 61 65 68 20 6F 6E 00' 0115   106 NO_HEADER:      .ASCIC  /no header in task file/
   65 6C 69 66 20 6B 73 61 74 20 6E  0121
                              16  0115
6B 73 61 74 20 64 65 70 70 61 6D 00' 012C   107 NOT_4K: .ASCIC  /mapped task not on 'k boundary/
62 20 6B 34 20 6E 6F 20 74 6F 6E 20  0138
                 79 72 61 64 6E 75 6F 6F     0144
                              1E  012C
61 70 20 64 65 70 70 61 6D 6E 75 00' 014B   108 BAD_PART:       .ASCIC  /unmapped partition mismatch/
6D 73 69 6D 20 6E 6F 69 74 69 74 72  0157
                        68 63 74 61  0163
                              1B  014B
69 62 20 6F 6F 74 20 65 6C 69 66 00' 0167   109 BIG_FILE:       .ASCIC  /file too big for partition/
74 69 74 72 61 70 20 72 6F 66 20 67  0173
                        6E 6F 69 74  017F
                              1A  0167
74 20 6E 6F 69 74 69 74 72 61 70 00' 0182   110 BIG_PART:       .ASCIC  /partition too big for checkpoint space/
63 20 72 6F 66 20 67 69 62 20 6F 6F  018E
70 73 20 74 6E 69 6F 70 6B 63 65 68  019A
                        65 63 61 74  01A6
                              26  0182
6E 6F 63 20 6C 61 67 65 6C 6C 69 00' 01A9   111 BAD_REQST:      .ASCIC  /illegal connect request from SLD/
74 73 65 75 71 65 72 20 74 63 65 6E  01B5
            44 4C 53 20 6D 6F 72 66 20  01C1
                              20  01A9
```

```
00000000   113          .PSECT  HLD$CODE        NOSHR,EXE,RD,NOWRT
     0000   114
     0000   115 ;++
     0000   116 ; FUNCTIONAL DESCRIPTION:
     0000   117 ;
     0000   118 ;       HLD$PRINT - FORMATS AND PRINTS A MESSAGE TO THE HLD LOG FILE.
     0000   119 ;               THE MESSAGE INCLUDE A NODE NAME, A TASK NAME, A
     0000   120 ;               REQUEST TYPE (POSSIBLY "INVALID"), AND AN ERROR
     0000   121 ;               INDICATION, IF ANY.
     0000   122 ;
     0000   123 ; CALLING SEQUENCE:
     0000   124 ;
     0000   125 ;       BSB/JSB HLD$PRINT
     0000   126 ;
     0000   127 ; INPUT PARAMETERS:
     0000   128 ;
     0000   129 ;       HLD$GT_OPER - ADDRESS OF OPERATION(REQUEST) TYPE MESSAGE COUNTED STRING
     0000   130 ;       HLD$GB_ERRORFLG - ERROR MESSAGE NUMBER OR 0
     0000   131 ;
     0000   132 ; IMPLICIT INPUTS:
     0000   133 ;
     0000   134 ;       NONE
     0000   135 ;
     0000   136 ; OUTPUT PARAMETERS:
     0000   137 ;
     0000   138 ;       NONE
     0000   139 ;
     0000   140 ; IMPLICIT OUTPUTS:
     0000   141 ;
     0000   142 ;       FORMATTED MESSAGE TO LOG FILE
     0000   143 ;
     0000   144 ; COMPLETION CODES:
     0000   145 ;
     0000   146 ;       NONE
     0000   147 ;
     0000   148 ; SIDE EFFECTS:
     0000   149 ;
     0000   150 ;       NONE
     0000   151 ;
     0000   152 ;--
     0000   153
     0000   154 HLD$PRINT::
  57 00D0'CF    9E 0000   155          MOVAB   W^NULL,R7               ; ASSUME NO EXTRA ERROR MESSAGE
  56 0000'CF    9A 0005   156          MOVZBL  W^HLD$GB_ERRORFLG,R6    ; GET ERROR CODE, IF ANY
        05      13 000A   157          BEQL    10$                     ; IF EQL NO MORE TEXT
  57 0042'CF    9E 000C   158          MOVAB   W^FAILED,R7             ; ERROR INTRODUCTION
     0011   159 10$:
  56 00A8'CF46  D0 0011   160          MOVL    W^MSG_ARRAY[R6],R6      ; GET ADDRESS OF ERROR MESSAGE
     0017   161          $FAO_S  CTRSTR= W^HLD_ANNOUNCE- ; FORMAT MESSAGE
     0017   162                  OUTLEN=W^HLD$GW_PRTLEN- ;
     0017   163                  OUTBUF=W^HLD$GQ_PRTBUF- ;
     0017   164                  P1=     W^HLD$GT_OPER-  ; REQUEST TYPE
     0017   165                  P2=     #HLD$GQ_NODEDESC- ; NODENAME
     0017   166                  P3=     #HLD$AT_TSKBUF- ; TASKNAME
     0017   167                  P4=     R7-             ; ERROR INTRODUCTION
     0017   168                  P5=     R6              ; ERROR MESSAGE ADDRESS, IF ANY
     003E   169 ;
```

```
                     003E   170 ; PRINT THE MESSAGE
                     003E   171 ;
0000'CF    B0        003E   172         MOVW    W^HLD$GW_PRTLEN,-       ; UPDATE BUFFER SIZE IN PRINT RAB
0000'CF              0042   173                 W^HLD$PRTRAB+RAB$W_RSZ  ;
                     0045   174         $PUT    RAB=W^HLD$PRTRAB        ; OUTPUT THE RECORD
                05   0050   175         RSB                             ; DONE
                     0051   176
                     0051   177         .END
```

```
$$.TMP1         =  00000001
$$.TMP2         =  000000CF
$$T2            =  00000008
BAD_PART          0000014B R      01
BAD_REQST         000001A9 R      01
BIG_FILE          00000167 R      01
BIG_PART          00000182 R      01
FAILED            00000042 R      01
FORMAT            000000D1 R      01
HLD$AT_REQ_TYPE   00000062 RG     01
HLD$AT_TSKBUF     ********   X    02
HLD$GB_ERRORFLG   ********   X    02
HLD$GQ_NODEDESC   ********   X    02
HLD$GQ_PRTBUF     ********   X    02
HLD$GT_INVALID    00000052 RG     01
HLD$GT_OPER       ********   X    02
HLD$GW_PRTLEN     ********   X    02
HLD$PRINT         00000000 RG     02
HLD$PRTRAB        ********   X    02
HLD_ANNOUNCE      00000000 R      01
HLD_CHKREAD       00000087 R      01
HLD_CHKWRT        00000097 R      01
HLD_LOAD          0000007A R      01
HLD_OVERLAY       00000072 R      01
MSG_ARRAY         000000A8 R      01
NOT_4K            0000012C R      01
NO_READER         00000115 R      01
NULL              000000D0 R      01
RAB$W_RSZ         ********   X    02
SEARCH            00000101 R      01
SYNTAX            000000E9 R      01
SYS$FAO           ********   X    02
SYS$PUT           ********  GX    02
```

Psect synopsis

PSECT name	Allocation	PSECT No.	Attributes
. ABS .	00000000 (0.)	00 (0.)	NOPIC USR CON ABS LCL NOSHR NOEXE NORD NOWRT NOVEC BYTE
HLD$PURE	000001CA (458.)	01 (1.)	NOPIC USR CON REL LCL NOSHR NOEXE RD NOWRT NOVEC LONG
HLD$CODE	00000051 (81.)	02 (2.)	NOPIC USR CON REL LCL NOSHR EXE RD NOWRT NOVEC BYTE

Performance indicators

Phase	Page faults	CPU Time	Elapsed Time
Initialization	29	00:00:00.08	00:00:00.94
Command processing	109	00:00:00.59	00:00:03.55
Pass 1	127	00:00:01.15	00:00:05.65
Symbol table sort	0	00:00:00.02	00:00:00.02
Pass 2	53	00:00:00.50	00:00:01.95
Symbol table output	5	00:00:00.04	00:00:00.11
Psect synopsis output	1	00:00:00.02	00:00:00.12

Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	326	00:00:02.40	00:00:12.35

The working set limit was 900 pages.
4913 bytes (10 pages) of virtual memory were used to buffer the intermediate code.
There were 10 pages of symbol table space allocated to hold 33 non-local and 1 local symbols.
177 source lines were read in Pass 1, producing 14 object records in Pass 2.
6 pages of virtual memory were used to define 4 macros.

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

Macro library name	Macros defined
_255DUA28:[HLD.OBJ]HLD.MLB;1	0
_255DUA28:[SYSLIB]STARLET.MLB;2	4
TOTALS (all libraries)	4

70 GETS were required to define 4 macros.

There were no errors, warnings or information messages.

```
MACRO/LIS=LIS$:HLDPRINT/OBJ=OBJ$:HLDPRINT MSRC$:HLDPRINT/UPDATE=(ENH$:HLDPRINT)+LIB$:HLD/LIB
```

0186 AH-BT13A-SE
VAX/VMS V4.0

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INIT

HLDPRINT
LIS

IMGDMPDEF
SDL

INIT
MAP

HLDDATA
LIS

INIBAD
LIS

INIDEF
B32

HLDMAIN
LIS

ANALIMDMP
LIS

IMGDMP

ANALIMDMP
MAP

IMGDMP
MAP

HLDIO
LIS

DISPIMDMP
LIS

HLDFILE
LIS

HLDTASK
LIS

IMGDMP
LIS

INIALL
LIS