```
DDDDDDDDDDD     EEEEEEEEEEEEEEE  BBBBBBBBBBB      UUU         UUU     GGGGGGGGGGG
DDDDDDDDDDDD    EEEEEEEEEEEEEEE  BBBBBBBBBBBB     UUU         UUU     GGGGGGGGGGGG
DDDDDDDDDDDD    EEEEEEEEEEEEEEE  BBBBBBBBBBBB     UUU         UUU     GGGGGGGGGGGG
DDD         DDD EEE              BBB         BBB  UUU         UUU GGG
DDD         DDD EEE              BBB         BBB  UUU         UUU GGG
DDD         DDD EEE              BBB         BBB  UUU         UUU GGG
DDD         DDD EEE              BBB         BBB  UUU         UUU GGG
DDD         DDD EEE              BBB         BBB  UUU         UUU GGG
DDD         DDD EEEEEEEEEEE      BBBBBBBBBBBB     UUU         UUU GGG
DDD         DDD EEEEEEEEEEE      BBBBBBBBBBBB     UUU         UUU GGG
DDD         DDD EEEEEEEEEEE      BBBBBBBBBBBB     UUU         UUU GGG
DDD         DDD EEE              BBB         BBB  UUU         UUU GGG    GGGGGGGGG
DDD         DDD EEE              BBB         BBB  UUU         UUU GGG    GGGGGGGGG
DDD         DDD EEE              BBB         BBB  UUU         UUU GGG    GGGGGGGGG
DDD         DDD EEE              BBB         BBB  UUU         UUU GGG          GGG
DDD         DDD EEE              BBB         BBB  UUU         UUU GGG          GGG
DDD         DDD EEE              BBB         BBB  UUU         UUU GGG          GGG
DDDDDDDDDDDD    EEEEEEEEEEEEEEE  BBBBBBBBBBBB     UUUUUUUUUUUUUUUU    GGGGGGGGG
DDDDDDDDDDDD    EEEEEEEEEEEEEEE  BBBBBBBBBBBB     UUUUUUUUUUUUUUUU    GGGGGGGGG
DDDDDDDDDDDD    EEEEEEEEEEEEEEE  BBBBBBBBBBBB     UUUUUUUUUUUUUUUU    GGGGGGGGG
```

**FILE**ID**RESETSSI

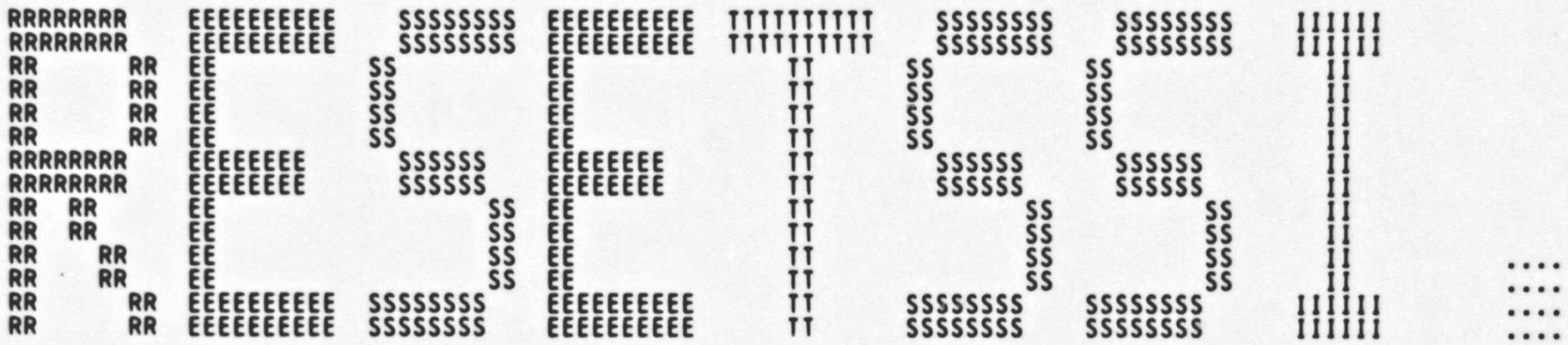

Table of contents

```
0000     1          .TITLE  RESETSSV -- Reset System Service Vector
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: VAX/VMS System Service Monitor
0000    31  ;
0000    32  ; Abstract:
0000    33  ;
0000    34  ;       This routine puts the systerm service vector back in shape and
0000    35  ;       deletes the P0 space.
0000    36  ;       (This routine is called when SYS$RUNDWN is encountered and
0000    37  ;        System service vector has been modified.)
0000    38  ;
0000    39  ; Environment:  VAX/VMS
0000    40  ;
0000    41  ;--
0000    42  ;
0000    43  ; Author: D.W. Thiel,    Creation Date: 30-Dec-1981
0000    44  ;
0000    45  ; Modified By:
0000    46  ;
0000    47  ;         P. Sager,      20-Sep-1983
0000    48  ;
0000    49  ;**
0000    50  ;
0000    51
0000    52
0000    53          .SBTTL  DECLARATIONS
0000    54
0000    55          .ENABLE SUPPRESSION
0000    56
0000    57          .EXTERNAL INTERCEPT,RANGE,SSV_MUNGED_FLAG
```

```
                        58
                        59 ;
                        60 ; EQUATED SYMBOLS:
                        61 ;
                        62
                        63          $SGNDEF
                        64          $IPLDEF
                        65
                        66 ;
                        67 ; OWN STORAGE:
                        68 ;
00000000                69          .PSECT  $RESETDATA$, NOEXE, LONG, PIC
                        70
00000000                71          .PSECT  $RESETCODE$, NOWRT, BYTE, PIC, EXE
```

```
                        .SBTTL  RESET_SSV

;++
;
; FUNCTIONAL DESCRIPTION:
;       This routine is called at image run down time to copy the
;       original system service vector back and get rid of the P0.
; CALLING SEQUENCE:
;       This routine is called from SSI_USS by passing SYS$RUNDWN in as
;       second parameter.  All the other parameters are ignored.
;--
```

```
                     0010  0000    86          .ENTRY  RESET_SSV,^M<R4>
                           0002    87
           51   00000000'EF   D0   0002    88          MOVL    INTERCEPT,R1            ; Pointer to P0 saved copy
                           0009    89
                           0009    90 ; If this module is part of the installed privileged shareable
                           0009    91 ; image then $CHMKRL is not needed in here to copy the vector back.
                           0009    92 ; For in user defined system service vector already has CHMK
                           0009    93 ; instruction which grands the privilege.
                           0009    94 ;
                           0009    95 ; In testing stage, it is easier if we reduce the amount of code in kernel
                           0009    96 ; mode, strip off the interface module (SSIDISP.MAR which defines the user
                           0009    97 ; system service in KERNEL mode), call the essential routines via $CHMKRL,
                           0009    98 ; so that we still could test the remaining code in lesser mode environment.
                           0009    99 ; After testing is done, then we put interface module in place to execute
                           0009   100 ; the whole image in the proper mode environment.
                           0009   101 ;
                           0009   102 ; I have strip off all the other $CHMKRL in the other parts of this image
                           0009   103 ; except this one.  For this one has a different call interface, see
                           0009   104 ; the comment below, otherwise it would not work.  So I kept it here
                           0009   105 ; to save the need of finding out how to call $CHMKRL in here if there is a
                           0009   106 ; need to set up a test environment, since it does not hurt to keep it.
                           0009   107 ; -Ping
                           0009   108 ;
                        00   DD   0009   109          PUSHL   #0                      ; Just about to put original one back
                     14'AF   9F   000B   110          PUSHAB  B^COPY_SAVED_SSV        ; Routine to be executed in Kernel
                           000E   111                                                  ;  Mode
                        02   FB   000E   112          CALLS   #2,-                    ; Call $CHMKRL through saved vector in
                   0000'C1        0010   113                  W^<SYS$CMKRNL-SYS$QIOW>(R1); P0 (must be this way, for the
                           0013   114                                                  ;    state is going to change after RET)
                        04   0013   115          RET                             ; Now, everything is back to normal
                           0014   116
                           0014   117 COPY_SAVED_SSV::
                     0000  0014   118          .WORD   ^M<>
           51   00000000'EF   D0   0016   119          MOVL    INTERCEPT,R1            ; Pointer to P0 saved copy
                        3C   BB   001D   120          PUSHR   #^M<R2,R3,R4,R5>        ; save volatile registers
                           001F   121          DSBINT  #IPL$_ASTDEL            ; disable AST's
              61   0A00 8F   28   0025   122          MOVC3   #SGN$C_SYSVECPGS*512, - ; length of transfer vector
                00000000'9F        002A   123                  (R1),              - ; saved transfer vector address
                           002F   124                  @#SYS$QIOW                 ; Put system service vector back
                00000000'EF   D4   002F   125          CLRL    SSV_MUNGED_FLAG         ; Clear flag which says whether
                           0035   126                                                  ;    the system service vector has
                           0035   127                                                  ;    been modified by us
                           0035   128          ENBINT                          ; restore IPL
                        3C   BA   0038   129          POPR    #^M<R2,R3,R4,R5>        ; restore volatile registers
                     50 01   D0   003A   130          MOVL    #1,R0
                        04   003D   131          RET
                           003E   132
                           003E   133          .END
```

```
COPY_SAVED_SSV   00000014 RG    03
INTERCEPT        ******** X     00
IPL$_ASTDEL    = 00000002
PR$_IPL          ******** X     03
RANGE            ******** X     00
RESET_SSV        00000000 RG    03
SGN$C_SYSVECPGS= 00000005
SSV_MUNGED_FLAG  ******** X     00
SYS$CMKRNL       ******** X     03
SYS$QIOW         ******** 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 |
| $RESETDATA$ | 00000000 ( 0.) | 02 ( 2.) | PIC USR CON REL LCL NOSHR NOEXE RD WRT NOVEC LONG |
| $RESETCODE$ | 0000003E ( 62.) | 03 ( 3.) | PIC USR CON REL LCL NOSHR EXE RD NOWRT NOVEC BYTE |

## Performance indicators

| Phase | Page faults | CPU Time | Elapsed Time |
|---|---|---|---|
| Initialization | 12 | 00:00:00.08 | 00:00:01.06 |
| Command processing | 83 | 00:00:00.73 | 00:00:03.41 |
| Pass 1 | 110 | 00:00:01.13 | 00:00:03.21 |
| Symbol table sort | 0 | 00:00:00.03 | 00:00:00.02 |
| Pass 2 | 41 | 00:00:00.36 | 00:00:00.80 |
| Symbol table output | 2 | 00:00:00.02 | 00:00:00.02 |
| Psect synopsis output | 2 | 00:00:00.02 | 00:00:00.24 |
| Cross-reference output | 0 | 00:00:00.00 | 00:00:00.00 |
| Assembler run totals | 252 | 00:00:02.38 | 00:00:08.78 |

```
The working set limit was 1050 pages.
3836 bytes (8 pages) of virtual memory were used to buffer the intermediate code.
There were 10 pages of symbol table space allocated to hold 38 non-local and 0 local symbols.
133 source lines were read in Pass 1, producing 18 object records in Pass 2.
11 pages of virtual memory were used to define 10 macros.
```

## Macro library statistics

| Macro library name | Macros defined |
|---|---|
| _$255$DUA28:[SYS.OBJ]LIB.MLB;1 | 4 |
| _$255$DUA28:[SYSLIB]STARLET.MLB;2 | 3 |
| TOTALS (all libraries) | 7 |

```
112 GETS were required to define 7 macros.

There were no errors, warnings or information messages.
```

```
MACRO/LIS=LIS$:RESETSSI/OBJ=OBJ$:RESETSSI MSRC$:RESETSSI/UPDATE=(ENH$:RESETSSI)+EXECML$/LIB
```

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GETMEMORY
LIS

DSTRECORDS
LIS

ISSH
LIS

RESETSSI
LIS

0098 AH-BT13A-SE
VAX/VMS V4.0

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RSTACCESS
LIS