

SSSSSSSSSSSS	DDDDDDDDDDDD	AAAAA
SSSSSSSSSSSS	DDDDDDDDDDDD	AAAAA
SSSSSSSSSSSS	DDDDDDDDDDDD	AAAAA
SSS	DDD	AAA
SSS	DDD	AAA
SSS	DDD	AAA
SSS	DDD	AAA
SSS	DDD	AAA
SSS	DDD	AAA
SSSSSSSSSS	DDD	AAA
SSSSSSSSSS	DDD	AAA
SSSSSSSSSS	DDD	AAA
SSS	DDD	AAAAA
SSS	DDD	AAAAA
SSS	DDD	AAAAA
SSS	DDD	AAA
SSS	DDD	AAA
SSS	DDD	AAA
SSSSSSSSSSSS	DDDDDDDDDDDD	AAA
SSSSSSSSSSSS	DDDDDDDDDDDD	AAA
SSSSSSSSSSSS	DDDDDDDDDDDD	AAA


```
HH      HH      AAAAAA      NN      NN      DDDDDDDD      LL      EEEEEEEEEE      RRRRRRRR
HH      HH      AAAAAA      NN      NN      DDDDDDDD      LL      EEEEEEEEEE      RRRRRRRR
HH      HH      AA      AA      NN      NN      DD      DD      LL      EE      RR      RR
HH      HH      AA      AA      NN      NN      DD      DD      LL      EE      RR      RR
HH      HH      AA      AA      NNNN      NN      DD      DD      LL      EE      RR      RR
HH      HH      AA      AA      NNNN      NN      DD      DD      LL      EE      RR      RR
HH      HH      AA      AA      NN      NN      DD      DD      LL      EEEEEEEE      RRRRRRRR
HH      HH      AA      AA      NN      NN      DD      DD      LL      EEEEEEEE      RRRRRRRR
HH      HH      AAAAAAAAAA      NN      NNNN      DD      DD      LL      EE      RR      RR
HH      HH      AAAAAAAAAA      NN      NNNN      DD      DD      LL      EE      RR      RR
HH      HH      AA      AA      NN      NN      DD      DD      LL      EE      RR      RR
HH      HH      AA      AA      NN      NN      DD      DD      LL      EE      RR      RR
HH      HH      AA      AA      NN      NN      DDDDDDDD      LLLLLLLLLL      EEEEEEEEEE      RR      RR
HH      HH      AA      AA      NN      NN      DDDDDDDD      LLLLLLLLLL      EEEEEEEEEE      RR      RR
```

```
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
```


HANDLER
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EXCEPTION HANDLER

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```
0000 1 .TITLE HANDLER EXCEPTION HANDLER
0000 2 .SBTTL COPYRIGHT NOTICE
0000 3 .IDENT 'V04-000'
0000 4 :
0000 5 :*****
0000 6 :*
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0000 24 :*
0000 25 :*
0000 26 :*****
0000 27 :
```

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```
0000 29 .SBTTL PROGRAM DESCRIPTION
0000 30 :++
0000 31 FACILITY
0000 32
0000 33 SYSTEM DUMP ANALYZER
0000 34
0000 35 ABSTRACT
0000 36
0000 37 THIS MODULE CONTAINS THE EXCEPTION HANDLER
0000 38 FOR THE DUMP ANALYZER PROGRAM. IT OUTPUTS
0000 39 AN ERROR MESSAGE IF THE HANDLER WAS SIGNED
0000 40 FROM WITHIN THE PROGRAM.
0000 41
0000 42 ENVIRONMENT
0000 43
0000 44 NATIVE MODE, USER MODE
0000 45
0000 46 AUTHOR
0000 47
0000 48 TIM HALVORSEN, JULY 1978
0000 49
0000 50 MODIFIED BY
0000 51
0000 52 V004 TMH0004 Tim Halvorsen 04-Nov-1981
0000 53 Fix handler to re-add the count of two (for the PC/PSL)
0000 54 back to the signal vector, so that a resignal after the
0000 55 PUTMSG doesn't screw up a later handler.
0000 56
0000 57 V003 MTR0001 Mike Rhodes 19-Jun-1981
0000 58 A. Check for internally signalled conditions, and act upon
0000 59 them appropriately.
0000 60
0000 61 B. 1. Remove $$DAMSGDEF macro references.
0000 62
0000 63 2. Remove MSG macro and its associated MSG_TABLE.
0000 64
0000 65 3. Remove CMD_HANDLER entry point and code.
0000 66
0000 67 4. Remove private table search code, which now allows
0000 68 for uniform condition handling of all signals.
0000 69
0000 70 V002 TMH0002 Tim Halvorsen 07-Feb-1981
0000 71 Do not convert unknown errors to fatals.
0000 72 Add NOINSTRAN for instruction decode.
0000 73
0000 74 V001 TMH0001 Tim Halvorsen 19-Jan-1981
0000 75 Add SPTNOTFND and modify SHORTDUMP to include the number
0000 76 of blocks desired. Make fatal errors return the error
0000 77 status code in the final image R0.
0000 78 :--
```

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EXCEPTION HANDLER
DECLARATIONS

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0000 80
0000 81 :
0000 82 :
0000 83 :
0000 84 :
0000 85

.SBTTL DECLARATIONS

SYMBOL DEFINITIONS

\$CHFDEF
\$STSDEF

; CONDITION HANDLING DEFINITIONS
; CONDITION VALUE FIELDS


```
0000 87 .SBTTL HANDLER -- EXCEPTION HANDLER
0000 88 :---
0000 89 :
0000 90 : HANDLER
0000 91 :
0000 92 : THIS EXCEPTION HANDLER IS RESPONSIBLE FOR TRAPPING
0000 93 : CONDITIONS SIGNALLED WITHIN THE PROGRAM AND OUTPUTTING
0000 94 : THE APPROPRIATE ERROR MESSAGE.
0000 95 :
0000 96 : INPUTS:
0000 97 :
0000 98 : 4(AP) = POINTER TO SIGNAL ARGUMENTS
0000 99 : 8(AP) = POINTER TO MECHANISM ARGUMENTS
0000 100 :
0000 101 : OUTPUTS:
0000 102 :
0000 103 : ERROR MESSAGE TO THE OUTPUT DEVICE
0000 104 :
0000 105 : ---
0000 106 :
0000 107 HANDLER::
003C 0000 108 .WORD ^M<R2,R3,R4,R5>
0002 109 :
0002 110 : Check for INTERNALLY signalled conditions, upon receipt of one
0002 111 : unwind to the appropriate command level.
0002 112 :
0002 113 :
55 52 04 AC 7D 0002 113 MOVQ 4(AP),R2 ; GET ADDRESSES OF ARRAYS
55 55 04 A2 D0 0006 114 MOVL CHF$SIG_NAME(R2),R5 ; FIND OUT IF ITS AN INTERNAL SIGNAL
00000000'8F D1 000A 115 CMPL #MSG$_BACKUP,R5 ; BACK UP 1 COMMAND LEVEL
4E 13 0011 116 BEQL 25$
55 00000000'8F D1 0013 117 CMPL #MSG$_EXITCMD,R5 ; ABORT COMMAND AND ERASE SCREEN
45 13 001A 118 BEQL 25$
55 00000000'8F D1 001C 119 CMPL #MSG$_EOF,R5 ; INTERNAL END OF FILE SIGNAL
3C 13 0023 120 BEQL 25$
0025 121 :
0025 122 :
0025 123 : MESSAGES ARE WRITTEN USING $PUTMSG
0025 124 :
55 00000000'8F D1 0025 125 80$: CMPL #SS$_UNWIND,R5 ; ARE WE UNWINDING?
3D 13 002C 126 BEQL 30$ ; IF SO, SIMPLY RESIGNAL
62 02 C2 002E 127 SUBL #2,CHF$SIG_ARGS(R2) ; SUBTRACT PC,PSL FROM MESSAGE VECTOR
0031 128 $PUTMSG,S MSGVEC=(R2) ; OUTPUT THE MESSAGE
62 02 C0 0040 129 ADDL #2,CHF$SIG_ARGS(R2) ; RESTORE PC,PSL TO MESSAGE VECTOR
00 04 A2 1C E2 0043 130 BBSS #ST$V_INHIB_MSG,CHF$SIG_NAME(R2),15$ ; MARK MESSAGE OUTPUT
0048 131 :
0048 132 : ON WARNINGS, SIMPLY CONTINUE EXECUTION AT THE POINT OF THE SIGNAL
0048 133 :
50 04 A2 03 00 EF 0048 134 15$: EXTZV #ST$V_SEVERITY,#ST$S_SEVERITY,-
004E 135 CHF$SIG_NAME(R2),R0 ; EXTRACT SEVERITY CODE
00 50 D1 004E 136 CMPL R0,#ST$K_WARNING ; CHECK IF ONLY WARNING
05 12 0051 137 BNEQ 20$ ; BRANCH IF ERROR
50 00'8F 9A 0053 138 MOVZBL #SS$_CONTINUE,R0 ; INDICATE TO CONTINUE
04 0057 139 RET
0058 140 :
0058 141 : ON ERRORS, SET SUCCESS IN CALLER'S R0 AND UNWIND TO ESTABLISHER.
0058 142 :
02 50 D1 0058 143 20$: CMPL R0,#ST$K_ERROR ; CHECK IF ERROR
```

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HANDLER -- EXCEPTION HANDLER

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```

      OC A3      OE 12 005B 144      BNEQ 30$      ; BRANCH IF FATAL
      00000000'GF 01 D0 005D 145      MOVL #1,CHF$MCH_SAVR0(R3) ; SUCCESS AFTER UNWIND
      02 7E 7C 0061 146 25$: CLRG -(SP) ; GO BACK TO ESTABLISHER
      04 FB 0063 147      CALLS #2,G^SYSS$UNWIND ; UNWIND CALL FRAMES
      04 006A 148      RET ; RETURN TO ESTABLISHER
      006B 149 ;
      006B 150 ; ON FATALS, RESIGNAL THE CONDITION SO THAT THE IMAGE IS ABORTED
      006B 151 ;
      50 0000'8F 3C 006B 152 30$: MOVZWL #SS$RESIGNAL,R0 ; RESIGNAL CONDITION
      04 0070 153      RET
```

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0071 155
0071 156 .END

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Symbol table

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```
CHF$MCH_SAVRO= 0000000C
CHF$SIG_ARGS = 00000000
CHF$SIG_NAME = 00000004
HANDLER      00000000 RG 01
MSG$BACKUP   ***** X 01
MSG$EOF      ***** X 01
MSG$EXITCMD  ***** X 01
SS$CONTINUE  ***** X 01
SS$RESIGNAL  ***** X 01
SS$UNWIND    ***** X 01
ST$K_ERROR   = 00000002
ST$K_WARNING = 00000000
ST$S_SEVERITY = 00000003
ST$V_INHIB_MSG = 0000001C
ST$V_SEVERITY = 00000000
SY$POTMSG    ***** GX 01
SY$UNWIND    ***** X 01
```

+-----+
! Psect synopsis !
+-----+

PSECT name	Allocation	PSECT No.	Attributes
. ABS .	00000000 (0.)	00 (0.)	NOPIC USR CON ABS LCL NOSHR NOEXE NORD NOWRT NOVEC BYTE
. BLANK .	00000071 (113.)	01 (1.)	NOPIC USR CON REL LCL NOSHR EXE RD WRT NOVEC BYTE
\$AB\$\$	00000000 (0.)	02 (2.)	NOPIC USR CON ABS LCL NOSHR EXE RD WRT NOVEC BYTE

+-----+
! Performance indicators !
+-----+

Phase	Page faults	CPU Time	Elapsed Time
Initialization	29	00:00:00.03	00:00:02.20
Command processing	107	00:00:00.46	00:00:03.61
Pass 1	140	00:00:00.87	00:00:08.69
Symbol table sort	0	00:00:00.02	00:00:00.47
Pass 2	48	00:00:00.27	00:00:01.21
Symbol table output	3	00:00:00.02	00:00:00.02
Psect synopsis output	1	00:00:00.01	00:00:00.01
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	330	00:00:01.69	00:00:16.45

The working set limit was 1200 pages.

5106 bytes (10 pages) of virtual memory were used to buffer the intermediate code.

There were 10 pages of symbol table space allocated to hold 54 non-local and 5 local symbols.

156 source lines were read in Pass 1, producing 12 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:[SDA.OBJ]SDALIB.MLB;1	0
-\$255\$DUA28:[SYS.OBJ]LIB.MLB;1	0
-\$255\$DUA28:[SYSLIB]STARLET.MLB;2	7
TOTALS (all libraries)	7

123 GETS were required to define 7 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LISS:HANDLER/OBJ=OBJ\$:HANDLER MSRC\$:HANDLER/UPDATE=(ENH\$:HANDLER)+EXECML\$/LIB+LIB\$:SDALIB/LIB

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