```
UUU         UUU  EEEEEEEEEEEEEEE  TTTTTTTTTTTTTTT  PPPPPPPPPPPP        SSSSSSSSSSSS  YYY         YYY
UUU         UUU  EEEEEEEEEEEEEEE  TTTTTTTTTTTTTTT  PPPPPPPPPPPP        SSSSSSSSSSSS  YYY         YYY
UUU         UUU  EEEEEEEEEEEEEEE  TTTTTTTTTTTTTTT  PPrPPPPPPPPP        SSSSSSSSSSSS  YYY         YYY
UUU         UUU  EEE                    TTT        PPP         PPP  SSS              YYY         YYY
UUU         UUU  EEE                    TTT        PPP         PPP  SSS              YYY         YYY
UUU         UUU  EEE                    TTT        PPP         PPP  SSS              YYY         YYY
UUU         UUU  EEE                    TTT        PPP         PPP  SSS                 YYY   YYY
UUU         UUU  EEE                    TTT        PPP         PPP  SSS                 YYY   YYY
UUU         UUU  EEE                    TTT        PPP         PPP  SSS                 YYY   YYY
UUU         UUU  EEEEEEEEEEEE           TTT        PPPPPPPPPPPP        SSSSSSSSS           YYY
UUU         UUU  EEEEEEEEEEEE           TTT        PPPPPPPPPPPP        SSSSSSSSS           YYY
UUU         UUU  EEEEEEEEEEEE           TTT        PPPPPPPPPPPP        SSSSSSSSS           YYY
UUU         UUU  EEE                    TTT        PPP                          SSS        YYY
UUU         UUU  EEE                    TTT        PPP                          SSS        YYY
UUU         UUU  EEE                    TTT        PPP                          SSS        YYY
UUU         UUU  EEE                    TTT        PPP                          SSS        YYY
UUU         UUU  EEE                    TTT        PPP                          SSS        YYY
UUU         UUU  EEE                    TTT        PPP                          SSS        YYY
UUUUUUUUUUUUUUU  EEEEEEEEEEEEEEE        TTT        PPP              SSSSSSSSSSSS           YYY
UUUUUUUUUUUUUUU  EEEEEEEEEEEEEEE        TTT        PPP              SSSSSSSSSSSS           YYY
UUUUUUUUUUUUUUU  EEEEEEEEEEEEEEE        TTT        PPP              SSSSSSSSSSSS           YYY
```

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```
**FILE**ID**SATSSS42                                   C 4                                                        SA
                                                                                                                  V04
```

```
  SSSSSSSS    AAAAAA    TTTTTTTTTT    SSSSSSSS    SSSSSSSS    SSSSSSSS  44    44      222222
  SSSSSSSS    AAAAAA    TTTTTTTTTT    SSSSSSSS    SSSSSSSS    SSSSSSSS  44    44      222222
SS          AA      AA      TT      SS          SS          SS          44    44    22      22
SS          AA      AA      TT      SS          SS          SS          44    44    22      22
SS          AA      AA      TT      SS          SS          SS          44    44            22
SS          AA      AA      TT      SS          SS          SS          44    44            22
  SSSSSS    AA      AA      TT        SSSSSS      SSSSSS      SSSSSS    4444444444        22
  SSSSSS    AA      AA      TT        SSSSSS      SSSSSS      SSSSSS    4444444444        22
        SS  AAAAAAAAAA      TT              SS          SS          SS        44        22
        SS  AAAAAAAAAA      TT              SS          SS          SS        44        22
        SS  AA      AA      TT              SS          SS          SS        44      22             ....
        SS  AA      AA      TT              SS          SS          SS        44      22             ....
SSSSSSSS    AA      AA      TT      SSSSSSSS    SSSSSSSS    SSSSSSSS          44    2222222222       ....
SSSSSSSS    AA      AA      TT      SSSSSSSS    SSSSSSSS    SSSSSSSS          44    2222222222       ....

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          .TITLE  SATSSS42 SATS SYSTEM SERVICE TESTS  $FORCEX (SUCC S.C.)
0000          .IDENT  'V04-000'
0000
0000    ;
0000    ;****************************************************************************
0000    ;*                                                                          *
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0000    ;*                                                                          *
0000    ;*                                                                          *
0000    ;****************************************************************************
0000    ;
0000
0000    ;++
0000    ; FACILITY:     SYSTST (SATS SYSTEM SERVICE TESTS)
0000    ;
0000    ; ABSTRACT:
0000    ;
0000    ;               THIS MODULE CONTAINS SUBROUTINES WHICH, WHEN LINKED
0000    ; WITH SUCCOMMON.OBJ, FORM TEST MODULE SATSSS42 TO TEST SUCCESSFUL
0000    ; OPERATION OF THE $FORCEX SYSTEM SERVICE. THE SERVICE IS INVOKED
0000    ; UNDER VARIOUS INPUT CONDITIONS WITH VARYING INPUT PARAMETERS. ONLY
0000    ; SUCCESSFUL STATUS CODES ARE EXPECTED IN THIS TEST MODULE.  CORRECT
0000    ; OPERATION OF THE SERVICE FOR EACH OF ITS ISSUANCES IS VERIFIED BY
0000    ; CHECKING FOR AN SS$_NORMAL STATUS CODE, EXPECTED RE   RN ARGUMENTS
0000    ; AND EXPECTED FUNCTIONALITY PERFORMED.
0000    ;
0000    ; ENVIRONMENT:  USER MODE IMAGE; NEEDS CMKRNL PRIVILEGE,
0000    ;               DYNAMICALLY ACQUIRES OTHER PRIVILEGES, AS NEEDED.
0000    ;
0000    ; AUTHOR: THOMAS L. CAFARELLA,         CREATION DATE: MAR, 1978
0000    ;
0000    ; MODIFIED BY:
0000    ;
0000    ;       V03-001 LDJ0001         Larry D. Jones,         23-Jun-1983
0000    ;               Removed the quota list to force the use of the
0000    ;               default sysboot quota values.
0000    ;--
```

```
0000          .SBTTL  DECLARATIONS
0000    ;
0000    ; INCLUDE FILES:
0000    ;
0000          $PRVDEF                               ; PRIVILEGE BIT DEFINITIONS
0000          $PHDDEF                               ; PROCESS HEADER OFFSETS
0000          $PQLDEF                               ; PROCESS QUOTA CODES
0000          $PCBDEF                               ; PCB LABELS
0000          $LOGDEF                               ; LOGICAL NAME TABLE TYPE SYMBOLS
0000          $DIBDEF                               ; DEVICE INFO BLOCK OFFSETS
0000    ;
0000    ; MACROS:
0000    ;
0000    ;
0000    ; EQUATED SYMBOLS:
0000    ;
0000    ;
0000    ; OWN STORAGE:
0000    ;
```

```
         00000000     75              .PSECT  RODATA,RD,NOWRT,NOEXE,LONG
             0000     76 TEST_MOD_NAME:: STRING  C,<SATSSS42>     ; TEST MODULE NAME
             0009     77 TEST_MOD_NAME_D: STRING I,<SATSSS42>     ; TEST MODULE NAME DESCRIPTOR
             0019     78 MSG1_INP_CTL:    STRING  I,<  SSFEX!4ZW: CONDITIONS:>
             0039     79                                          ; FAO CTL STRING FOR MSG1 IN SUCCOMMON.MAR
             0039     80 MSG3_ERR_CTL::  STRING  I,< *SSFEX!4ZW: !AS>
             0051     81                                          ; FAO CTL STRING FOR MSG3 IN SUCCOMMON.MAR
FFFFFFFF DC3CBA00  0051     82 ONE_MIN:         .LONG   -10*1000*1000*60,-1 ; ONE MINUTE (WAKE-UP DELTA)
             0059     83 CREATED_PRN:     STRING  I,<SATSSS42_CRE> ; PROCESS & MBX NAME FOR CREATED PROCESS
             006D     84 IMAGNAM:         STRING  I,<SYSTST$RES:SATSUT13.EXE> ; IMAGE NAME FOR CREATED PROC
             008C     85 LOGNAM_PID:      STRING  I,<SYSTST$PID>  ; LOG NAME OF CREATING PID
    00000004 009E     86 EQUIV_PID:       .LONG   4               ; EQUIV NAME STRING DESCRIPTOR
   00000114' 00A2     87                  .ADDRESS CREATING_PID   ; ... OF CREATING PID
             00A6     88 ;QUOTALIST:      $QUOTA  CPULM,0         ; INFINITE CPU
             00A6     89 ;                $QUOTA  BYTLM,512       ; BYTE LIMIT FOR BUFFERED I/O
             00A6     90 ;                $QUOTA  FILLM,2         ; OPEN FILE COUNT LIMIT
             00A6     91 ;                $QUOTA  PGFLQUOTA,10    ; PAGING FILE QUOTA
             00A6     92 ;                $QUOTA  PRCLM,2         ; SUBPROCESS QUOTA
             00A6     93 ;                $QUOTA  TQELM,3         ; TIMER QUEUE ENTRY QUOTA
             00A6     94 ;                $QUOTA  LISTEND         ; DEFINES END OF LIST
```

```
     00000000     96           .PSECT  RWDATA,RD,WRT,NOEXE,LONG
00000008  0000     97 PRIVMASK:       .BLKQ   1                 ; ADDR OF PRIVILEGE MASK (IN PHD)
0000000C  0008     98 MBXCHAN:        .BLKL   1                 ; CHAN. NO. FOR MAILBOX FOR CREATED PROCESS
          000C     99 MBXCHANINFO:                              ; CHANNEL INFO RETURNED BY GETCHN
00000074  000C    100                 .LONG   DIB$K_LENGTH
00000014' 0010    101                 .ADDRESS .+4
00000088  0014    102                 .BLKB   DIB$K_LENGTH
0000008C  0088    103 MBXUNIT:        .BLKL   1                 ; SAVE AREA FOR MAILBOX UNIT NUMBER
          008C    104 MBXBUFF:        STRING  0,120             ; MAILBOX BUFFER FOR CREATED PROCESS
00000110  010C    105 DEST_PIDADR:    .BLKL   1                 ; DESTINATION PID ADDR, WRITTEN BY S.S.
00000114  0110    106 ZEROPID:        .BLKL   1                 ; PID OF ZEROES
00000000  0114    107 CREATING_PID:   .LONG   0                 ; PID OF CREATING PROCESS
0000011C  0118    108 CREATED_PID:    .BLKL   1                 ; PID OF CREATED PROCESS
00000120  011C    109 EXP_STATUS:     .BLKL   1                 ; EXPECTED STATUS CODE FROM CREATED PROC
```

```
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```

```
              0120            .SBTTL  CONDITION TABLES
              0120      ;
              0120      ;       ***** CONDITION TABLES FOR FORCEX SYSTEM SERVICE *****
              0120      ;
              0120            COND    1,NOTARG,<PID ADDRESS>,-
              0120                      <NOT SPECIFIED>,-
              0120                      <SPECIFIED, NON-ZERO>,-
              0120                      <SPECIFIED, ZERO>,-
              0120
   00000000'  016B                        .ADDRESS    0
   00000118'  016F                        .ADDRESS    CREATED_PID
   00000110'  0173                        .ADDRESS    ZEROPID
              0177      ;
              0177            COND    2,NOTARG,<PROCESS NAME ADDRESS>,-
              0177                      <SPECIFIED>,-
              0177                      <NOT SPECIFIED>,-
              0177
   00000059'  01AD                        .ADDRESS    CREATED_PRN
   00000000'  01B1                        .ADDRESS    0
              01B5      ;
              01B5            COND    3,NOTARG,<CREATED PROCESS TYPE>,-
              01B5                      <SUBPROCESS>,-
              01B5                      <DETACHED, DIFFERENT GROUP>,-
              01B5                      <DETACHED, SAME GROUP, SAME MEMBER>,-
              01B5                      <DETACHED, SAME GROUP, DIFFERENT MEMBER>,-
              01B5
   00000000   0249                      .LONG       0           ; PSEUDO-UIC
   00000251   024D                      .BLKL       1           ; UIC
   00000255   0251                      .BLKL       1           ; UIC
   00000259   0255                      .BLKL       1           ; UIC
              0259      ;
              0259            COND    4,NULL
              025A
              025A            COND    5,NULL
              025B
          00000000            .PSECT  SATSSS42,RD,WRT,EXE
```

```
                              0000   148          .SBTTL  TM_SETUP, TM_CLEANUP
                              0000   149 ;++
                              0000   150 ; FUNCTIONAL DESCRIPTION:
                              0000   151 ;
                              0000   152 ;                TM_SETUP AND TM_CLEANUP ARE CALLED TO PERFORM
                              0000   153 ; REQUIRED HOUSEKEEPING AT THE BEGINNING AND END, RESPECTIVELY, OF
                              0000   154 ; TEST MODULE EXECUTION.
                              0000   155 ;
                              0000   156 ; CALLING SEQUENCE:
                              0000   157 ;
                              0000   158 ;        BSBW TM_SETUP   BSBW TM_CLEANUP
                              0000   159 ;
                              0000   160 ; INPUT PARAMETERS:
                              0000   161 ;
                              0000   162 ;        NONE
                              0000   163 ;
                              0000   164 ; IMPLICIT INPUTS:
                              0000   165 ;
                              0000   166 ;        NONE
                              0000   167 ;
                              0000   168 ; OUTPUT PARAMETERS:
                              0000   169 ;
                              0000   170 ;        NONE
                              0000   171 ;
                              0000   172 ; IMPLICIT OUTPUTS:
                              0000   173 ;
                              0000   174 ;        TM_SETUP:  COND TABLE INDEX REGISTERS (R2,3,4,5,6) CLEARED;
                              0000   175 ;                   ALL PRIVILEGES ACQUIRED.
                              0000   176 ;
                              0000   177 ; COMPLETION CODES:
                              0000   178 ;
                              0000   179 ;        EFLAG SET TO NON-ZERO IF ERROR ENCOUNTERED.
                              0000   180 ;
                              0000   181 ; SIDE EFFECTS:
                              0000   182 ;
                              0000   183 ;        SS_CHECK AND ERR_EXIT MACROS CAUSE PREMATURE EXIT
                              0000   184 ;        (VIA RSB) IF ERROR ENCOUNTERED.
                              0000   185 ;
                              0000   186 ;--
                              0000   187
                              0000   188
                              0000   189
                              0000   190 TM_SETUP::
                      52  D4  0000   191         CLRL    R2                           ; INITIALIZE
                      53  D4  0002   192         CLRL    R3                           ; .. CONDITION
                      54  D4  0004   193         CLRL    R4                           ; .... TABLE
                      55  D4  0006   194         CLRL    R5                           ; ...... INDEX
                      56  D4  0008   195         CLRL    R6                           ; ........ REGISTERS
                   FFF3'  30  000A   196         BSBW    MOD_MSG_PRINT                ; PRINT TEST MODULE BEGIN MSG
00000000'EF  00000000'EF  DE  000D   197         MOVAL   TEST_MOD_SUCC,TMD_ADDR       ; ASSUME END MSG WILL SHOW SUCCESS
   03   00   00000000'8F  F0  0018   198         INSV    #SUCCESS,#0,#3,MOD_MSG_CODE ; ADJUST STATUS CODE FOR SUCCESS
             00000000'EF      0020
                              0025   199         MODE    TO,5$,KRNL                   ; KERNEL MODE TO ACCESS PHD
        59   00000000'9F  D0  0048   200         MOVL    @#CTL$GL_PHD,R9              ; GET PROCESS HEADER ADDRESS
      00000000'EF     69  DE  004F   201         MOVAL   PHD$Q_PRIVMSK(R9),PRIVMASK ; GET PRIV MASK ADDRESS
                              0056   202         MODE    FROM,5$ ; BACK TO USER MODE
                              0057   203         PRIV    ADD,ALL                      ; GET ALL PRIVILEGES
```

```
                                  0077   204            $SETPRN_S TEST_MOD_NAME_D        ; SET PROCESS NAME
                                  0084   205            SS_CHECK  NORMAL                 ; CHECK STATUS CODE RETURNED FROM SETPRN
                                  00B2   206            $WAKE_S PIDADR=CREATING_PID      ; GET MY PID
                                  00C1   207            SS_CHECK NORMAL                  ; CHECK FOR NORMAL RETURN
                                  00EF   208            $HIBER_S                         ; UNDO ABOVE WAKE
                                  00F6   209            SS_CHECK NORMAL                  ; CHECK FOR NORMAL RETURN
                                  0124   210            $CRELOG_S TBLFLG=#LOG$C_SYSTEM, - ; GET MY PID INTO LOG NAME TABLE
                                  0124   211                      LOGNAM=LOGNAM_PID,    - ; ... FOR USE BY CREATED PROCESS
                                  0124   212                      EQLNAM=EQUIV_PID
                   2E 50      E8  013B   213            BLBS     R0,10$                  ; IF SUCCESSFUL, CONTINUE
                                  013E   214            SS_CHECK NORMAL                  ; USE SS_CHECK TO TERMINATE MODULE
                                  016C   215 10$:
                                  016C   216 ;
                                  016C   217 ; THE FOLLOWING CODE ESTABLISHES UIC'S IN THE CONDITION 3 TABLE
                                  016C   218 ;
                                  016C   219            MODE     TO,20$,KRNL             ; KERNEL MODE TO ACCESS PCB
            59   00000000'9F  D0  018F   220            MOVL     @#SCH$GL_CURPCB,R9      ; GET CURRENT PCB ADDRESS
               59   00BC C9   D0  0196   221            MOVL     PCB$L_UIC(R9),R9        ; PICK UP UIC FROM PCB
                                  019B   222            MODE     FROM,20$                ; ... AND GET BACK TO USER MODE
                                  019C   223 .
                                  019C   224 ; R9 NOW CONTAINS "MY" UIC
                                  019C   225 ;
                    5A   01   9A  019C   226            MOVZBL   #1,R10                  ; GET COND3 TABLE INDEX NUMBER INTO A REG
            59   00010000 8F  C1  019F   227            ADDL3    #^X10000,R9,COND3_E[R10] ; PUT DIFF GROUP UIC INTO 2ND TABLE ELT
              00000249'EF4A       01A6
                          5A  D6  01AC   228            INCL     R10                     ; POINT TO 3RD COND3 TABLE ELEMENT
         00000249'EF4A    59  D0  01AE   229            MOVL     R9,COND3_E[R10]         ; PUT MY UIC INTO TABLE
                          5A  D6  01B6   230            INCL     R10                     ; POINT TO 4TH COND3 TABLE ELEMENT
     00000249'EF4A   59   01  C1  01B8   231            ADDL3    #1,R9,COND3_E[R10]      ; PUT DIFF MEMBER UIC INTO THE TABLE
                                  01C1   232            $CREMBX_S CHAN=MBXCHAN, LOGNAM=CREATED_PRN, - ; GET MAILBOX FOR PROCESS
                                  01C1   233                      MAXMSG=#120, PROMSK=#0, BUFQUO=#240
                                  01E6   234            SS_CHECK NORMAL                  ; CHECK NORMAL COMPLETION
                                  0214   235            $GETCHN_S CHAN=MBXCHAN, -        ; GET CHAN INFO (UNIT NUMBER)
                                  0214   236                      PRIBUF=MBXCHANINFO
                                  022E   237            SS_CHECK NORMAL                  ; CHECK NORMAL COMPLETION
  00000088'EF    00000020'EF  3C  025C   238            MOVZWL  MBXCHANINFO+8+DIB$W_UNIT,MBXUNIT ; SAVE MAILBOX UNIT NUMBER
                              05  0267   239            RSB                              ; RETURN TO MAIN ROUTINE
                                  0268   240 TM_CLEANUP::
                                  0268   241            $DELMBX_S  MBXCHAN               ; DELETE TERMINATION MAILBOX
                                  0276   242            $DELLOG_S TBLFLG=#LOG$C_SYSTEM, - ; DELETE LOG NAME ACQUIRED ABOVE
                                  0276   243                      LOGNAM=LOGNAM_PID
                       FD76'  30  0287   244            BSBW     MOD_MSG_PRINT           ; PRINT TEST MODULE END MSG
                              05  028A   245            RSB                              ; RETURN TO MAIN ROUTINE
```

```
                                    028B          .SBTTL  CONDITION SUBROUTINES - SETUP AND CLEANUP
                                    028B      ;++
                                    028B      ; FUNCTIONAL DESCRIPTION:
                                    028B      ;
                                    028B      ;               CONDX AND CONDX_CLEANUP ARE SUBROUTINES WHICH ARE EXECUTED
                                    028B      ; BEFORE AND AFTER THE VERIFY SUBROUTINE, RESPECTIVELY, WHENEVER A NEW
                                    028B      ; CONDITION X VALUE IS SELECTED (SEE FUNCTIONAL DESCRIPTION OF SUCCOMMON
                                    028B      ; ROUTINE IN SUCCOMMON.MAR). ANY SETUP FUNCTION PARTICULAR TO THE
                                    028B      , CONDITION X TABLE IS INCLUDED IN THE CONDX SUBROUTINE AND CLEANED
                                    028B      ; UP, IF NECESSARY, IN THE CONDX_CLEANUP SUBROUTINE. THIS INCLUDES,
                                    028B      ; ESPECIALLY, CODE TO DETECT CONFLICTS AMONG CURRENT ENTRIES IN TWO
                                    028B      ; OR MORE CONDITION TABLES. IF A CONFLICT IS DETECTED, A NON-ZERO
                                    028B      ; VALUE IS STORED INTO CONFLICT, WHICH CAUSES THE CALLING ROUTINE
                                    028B      ; (SUCCOMMON) TO SKIP THE CURRENT ENTRY IN THE CONDITION X TABLE.
                                    028B      ;
                                    028B      ; CALLING SEQUENCE:
                                    028B      ;
                                    028B      ;       BSBW CONDX    BSBW CONDX_CLEANUP
                                    028B      ;         WHERE X = 1,2,3,4,5
                                    028B      ;
                                    028B      ; INPUT PARAMETERS:
                                    028B      ;
                                    028B      ;       CONFLICT = 0
                                    028B      ;
                                    028B      ; IMPLICIT INPUTS:
                                    028B      ;
                                    028B      ;       R2,3,4,5,6 CONTAIN CURRENT CONDITION TABLE INDEX VALUES
                                    028B      ;         FOR COND TABLES 1,2,3,4,5, RESPECTIVELY.
                                    028B      ;
                                    028B      ; OUTPUT PARAMETERS:
                                    028B      ;
                                    028B      ;       CONFLICT SET TO NON-ZERO IF COND TABLE CONFLICT DETECTED.
                                    028B      ;
                                    028B      ; IMPLICIT OUTPUTS:
                                    028B      ;
                                    028B      ;       R2,3,4,5,6 PRESERVED
                                    028B      ;
                                    028B      ; COMPLETION CODES:
                                    028B      ;
                                    028B      ;       NONE
                                    028B      ;
                                    028B      . SIDE EFFECTS:
                                    028B      ;
                                    028B      ;       NONE
                                    028B      ;
                                    028B      ;--
                                    028B
                                    028B
                                    028B
                                    028B      COND1::
                                05  028B              RSB                             ; RETURN TO MAIN ROUTINE
                                    028C      COND1_CLEANUP::
                                05  028C              RSB                             ; RETURN TO MAIN ROUTINE
                                    028D      COND2::
0000016B'EF42     00000110'8F   D1  028D              CMPL    #ZEROPID,COND1_E[R2]    ; PID SPECIFIED AS 0 ??
                           14   12  0299              BNEQU   COND2X                  ; NO -- NO CONFLICT
                 000001AD'EF43  D5  029B              TSTL    COND2_E[R3]             ; YES -- IS THERE A PROCESS NAME ??
```

```
                      0B   12 02A2           BNEQU   COND2X                        ; YES -- NO CONFLICT
   00000000'EF   00000000'EF   90 02A4           MOVB    ONES,CONFLICT                 ; NO -- INDICATE CONFLICT BECAUSE THIS TYPE
                                  02AF                                                 ; ... OF FORCEX WOULD EXIT CREATING IMAGE
                                  02AF   COND2X:
                             05   02AF           RSB                                   ; RETURN TO MAIN ROUTINE                 !
                                  02B0   COND2_CLEANUP::
                             05   02B0           RSB                                   ; RETURN TO MAIN ROUTINE
                                  02B1   COND3::
 0000016B'EF42   00000118'8F   D1 02B1           CMPL    #CREATED_PID,COND1_E[R2] ; NON-ZERO PID SPECIFIED ?
                          19   13 02BD           BEQLU   COND3X                        ; YES -- NO CONFLICT
                000001AD'EF43  D5 02BF           TSTL    COND2_E[R3]                   ; IS PROCESS NAME SPECIFIED ?
                          10   13 02C6           BEQL    COND3X                        ; NO -- NO CONFLICT
                                  02C8   ;
                                  02C8   ; NOTE -- AT THIS POINT, PROCESS WILL BE REFERENCED BY PROCESS NAME.
                                  02C8   ;
                   01     54   D1 02C8           CMPL    R4,#1                         ; DOES CONDITION 3 SPECIFY DIFFERENT GROUP ?
                          0B   12 02CB           BNEQ    COND3X                        ; NO -- NO CONFLICT
   00000000'EF   00000000'EF   90 02CD           MOVB    ONES,CONFLICT                 ; YES -- PROCESS NAME FOR DIFF GROUP IS CONF
                                  02D8   COND3X:
                             05   02D8           RSB                                   ; RETURN TO MAIN ROUTINE
                                  02D9   COND3_CLEANUP::
                             05   02D9           RSB                                   ; RETURN TO MAIN ROUTINE
                                  02DA   COND4::
                             05   02DA           RSB                                   ; RETURN TO MAIN ROUTINE
                                  02DB   COND4_CLEANUP::
                             05   02DB           RSB                                   ; RETURN TO MAIN ROUTINE
                                  02DC   COND5::
                             05   02DC           RSB                                   ; RETURN TO MAIN ROUTINE
                                  02DD   COND5_CLEANUP::
                             05   02DD           RSB                                   ; RETURN TO MAIN ROUTINE
```

```
                                 02DE           .SBTTL  FORM_CONDS
                                 02DE   ;++
                                 02DE   ; FUNCTIONAL DESCRIPTION:
                                 02DE   ;
                                 02DE   ;               FORM_CONDS FORMATS AND PRINTS INFORMATION ABOUT
                                 02DE   ;  THE CURRENT ELEMENT IN EACH OF THE CONDITION TABLES.
                                 02DE   ;
                                 02DE   ; CALLING SEQUENCE:
                                 02DE   ;
                                 02DE   ;       BSBW FORM_CONDS
                                 02DE   ;
                                 02DE   ; INPUT PARAMETERS:
                                 02DE   ;
                                 02DE   ;       NONE
                                 02DE   ;
                                 02DE   ; IMPLICIT INPUTS:
                                 02DE   ;
                                 02DE   ;       R2,3,4,5,6 CONTAIN CURRENT CONDITION TABLE INDEX VALUES
                                 02DE   ;         FOR COND TABLES 1,2,3,4,5, RESPECTIVELY.
                                 02DE   ;       FOR X = 1,2,3,4,5 :
                                 02DE   ;               CONDX_T - TITLE TEXT FOR CONDX TABLE
                                 02DE   ;               CONDX_TAB - ELEMENT TEXT FOR CONDX TABLE
                                 02DE   ;               CONDX_C - CONTEXT OF THE CONDX TABLE
                                 02DE   ;               CONDX_E - DATA ELEMENTS OF THE CONDX TABLE
                                 02DE   ;
                                 02DE   ; OUTPUT PARAMETERS:
                                 02DE   ;
                                 02DE   ;       NONE
                                 02DE   ;
                                 02DE   ; IMPLICIT OUTPUTS:
                                 02DE   ;
                                 02DE   ;       NONE
                                 02DE   ;
                                 02DE   ; COMPLETION CODES:
                                 02DE   ;
                                 02DE   ;       NONE
                                 02DE   ;
                                 02DE   ; SIDE EFFECTS:
                                 02DE   ;
                                 02DE   ;       NONE
                                 02DE   ;
                                 02DE   ;--
                                 02DE
                                 02DE
                                 02DE
                                 02DE   FORM_CONDS::
                                 02DE           $FAO_S  MSG1_INP_CTL,FAO_LEN,FAO_DESC,TESTNUM
                                 02FD                                           ; FORMAT CONDITIONS HEADER MSG
                      FF00'  30  02FD           BSBW    OUTPUT_MSG              ; ... AND PRINT IT
                 14     00   91  0300           CMPB    #COND1_C,#NULL          ; IS CONDITION 1 NULL ?
                        03   12  0303           BNEQU   10$                     ; NO -- CONTINUE
                      00BF   31  0305           BRW     FORM_CONDSX             ; YES -- SUBROUTINE IS FINISHED
                                 0308   10$:
   00000000'EF   00000120'EF DE  0308           MOVAL   COND1_T,MSG_A           ; SAVE ADDRESS OF CONDITION 1 TITLE FOR FAO
 00000000'EF   0000012D'EF42 D0  0313           MOVL    COND1_TAB[R2],MSG_B     ; SAVE ADDR OF COND 1 CURR TEXT ELT FOR FAO
          00000000'EF   00   90  031F           MOVB    #COND1_C,MSG_CTXT       ; SAVE CONDITION 1 CONTEXT FOR FAO
                                 0326           MOV_VAL COND1_C,COND1_E[R2],MSG_DATA1 ; GIVE COND 1 DATA VALUE TO FAO
```

```
                FCD7'  30 0326           BSBW    WRITE_MSG2              ; FORMAT AND WRITE CONDITION 1 MSG
           14    00    91 0329           CMPB    #COND2_C,#NULL          ; IS CONDITION 2 NULL ?
                 03    12 032C           BNEQU   20$                     ; NO -- CONTINUE
               0096    31 032E           BRW     FORM_CONDSX             ; YES -- SUBROUTINE IS FINISHED
                          0331      20$:
  00000000'EF  00000177'EF  DE 0331      MOVAL   COND2_T,MSG_A           ; SAVE ADDRESS OF CONDITION 2 TITLE FOR FAO
00000000'EF  0000018D'EF43  D0 033C      MOVL    COND2_TAB[R3],MSG_B     ; SAVE ADDR OF COND 2 CURR TEXT ELT FOR FAO
         00000000'EF   00  90 0348       MOVB    #COND2_C,MSG_CTXT       ; SAVE CONDITION 2 CONTEXT FOR FAO
                          034F           MOV_VAL COND2_C,COND2_E[R3],MSG_DATA1 ; GIVE COND 2 DATA VALUE TO FAO
                FCAE'  30 034F           BSBW    WRITE_MSG2              ; FORMAT AND WRITE CONDITION 2 MSG
           14    00    91 0352           CMPB    #COND3_C,#NULL          ; IS CONDITION 3 NULL ?
                 03    12 0355           BNEQU   30$                     ; NO -- CONTINUE
               006D    31 0357           BRW     FORM_CONDSX             ; YES -- SUBROUTINE IS FINISHED
                          035A      30$:
  00000000'EF  000001B5'EF  DE 035A      MOVAL   COND3_T,MSG_A           ; SAVE ADDRESS OF CONDITION 3 TITLE FOR FAO
00000000'EF  000001CB'EF44  D0 0365      MOVL    COND3_TAB[R4],MSG_B     ; SAVE ADDR OF COND 3 CURR TEXT ELT FOR FAO
         00000000'EF   00  90 0371       MOVB    #COND3_C,MSG_CTXT       ; SAVE CONDITION 3 CONTEXT FOR FAO
                          0378           MOV_VAL COND3_C,COND3_E[R4],MSG_DATA1 ; GIVE COND 3 DATA VALUE TO FAO
                FC85'  30 0378           BSBW    WRITE_MSG2              ; FORMAT AND WRITE CONDITION 3 MSG
           14    14    91 037B           CMPB    #COND4_C,#NULL          ; IS CONDITION 4 NULL ?
                 47    13 037E           BEQLU   FORM_CONDSX             ; YES -- SUBROUTINE IS FINISHED
  00000000'EF  00000259'EF  DE 0380      MOVAL   COND4_T,MSG_A           ; SAVE ADDRESS OF CONDITION 4 TITLE FOR FAO
00000000'EF  00000259'EF45  D0 038B      MOVL    COND4_TAB[R5],MSG_B     ; SAVE ADDR OF COND 4 CURR TEXT ELT FOR FAO
         00000000'EF   14  90 0397       MOVB    #COND4_C,MSG_CTXT       ; SAVE CONDITION 4 CONTEXT FOR FAO
                          039E           MOV_VAL COND4_C,COND4_E[R5],MSG_DATA1 ; GIVE COND 4 DATA VALUE TO FAO
                FC5F'  30 039E           BSBW    WRITE_MSG2              ; FORMAT AND WRITE CONDITION 4 MSG
           14    14    91 03A1           CMPB    #COND5_C,#NULL          ; IS CONDITION 5 NULL ?
                 21    13 03A4           BEQLU   FORM_CONDSX             ; YES -- SUBROUTINE IS FINISHED
  00000000'EF  0000025A'EF  DE 03A6      MOVAL   COND5_T,MSG_A           ; SAVE ADDRESS OF CONDITION 5 TITLE FOR FAO
00000000'EF  0000025A'EF46  D0 03B1      MOVL    COND5_TAB[R6],MSG_B     ; SAVE ADDR OF COND 5 CURR TEXT ELT FOR FAO
         00000000'EF   14  90 03BD       MOVB    #COND5_C,MSG_CTXT       ; SAVE CONDITION 5 CONTEXT FOR FAO
                          03C4           MOV_VAL COND5_C,COND5_E[R6],MSG_DATA1 ; GIVE COND 5 DATA VALUE TO FAO
                FC39'  30 03C4           BSBW    WRITE_MSG2              ; FORMAT AND WRITE CONDITION 5 MSG
                          03C7      FORM_CONDSX:
                       05 03C7           RSB                             ; RETURN TO CALLER
```

```
03C8          .SBTTL  VERIFY
03C8    ;++
03C8    ; FUNCTIONAL DESCRIPTION:
03C8    ;
03C8    ;                 VERIFY IS CALLED ONCE FOR EACH COMBINATION OF CONDITION
03C8    ; TABLE VALUES (AS DETERMINED BY THE INDEX REGISTERS R2,3,4,5,6 FOR
03C8    ; COND TABLES 1,2,3,4,5, RESPECTIVELY). VERIFY ESTABLISHES THE CONDITIONS
03C8    ; SPECIFIED BY THE COND TABLES AND ISSUES THE SUBJECT SYSTEM SERVICE
03C8    ; ($FORCEX). THEN, THE SUCCESSFUL OPERATION OF THE SERVICE IS VERIFIED
03C8    ; BY EXAMINING THE STATUS CODE RETURNED, THE VALUES FOR RETURN ARGUMENTS
03C8    ; AND THE FUNCTIONALITY PERFORMED. THE EXAMINATIONS TAKE THE FORM OF
03C8    ; COMPARISONS AGAINST EXPECTED VALUES. ANY FAILING COMPARISON CAUSES AN
03C8    ; ERR_EXIT MACRO TO BE EXECUTED (EITHER DIRECTLY, OR INDIRECTLY,
03C8    ; THROUGH THE SS_CHECK MACRO); ERR_EXIT SETS EFLAG TO NON-ZERO,
03C8    ; PRINTS ERROR MESSAGES AND CAUSES AN IMMEDIATE RSB TO CALLER.
03C8    ; WHEN ERR_EXIT IS EXECUTED, FURTHER CALLS TO VERIFY ARE SUPPRESSED,
03C8    ; AND, AFTER EXECUTING CLEANUP SUBROUTINES, THE IMAGE EXITS.
03C8    ;
03C8    ; CALLING SEQUENCE:
03C8    ;
03C8    ;       BSBW VERIFY
03C8    ;
03C8    ; INPUT PARAMETERS:
03C8    ;
03C8    ;       NONE
03C8    ;
03C8    ; IMPLICIT INPUTS:
03C8    ;
03C8    ;       R2,3,4,5,6 CONTAIN CURRENT CONDITION TABLE INDEX VALUES
03C8    ;         FOR COND TABLES 1,2,3,4,5, RESPECTIVELY.
03C8    ;       FOR X = 1,2,3,4,5 :
03C8    ;               CONDX_E - ADDRESS OF TABLE OF DATA VALUES FOR CONDX
03C8    ;                 TABLE. IF THE CONTEXT OF TABLE X IS A SYSTEM SERVICE
03C8    ;                 ARGUMENT, THE ARGUMENT NAME MAY BE USED AS A SYNONYM
03C8    ;                 FOR CONDX_E.
03C8    ;
03C8    ; OUTPUT PARAMETERS:
03C8    ;
03C8    ;       NONE
03C8    ;
03C8    ; IMPLICIT OUTPUTS:
03C8    ;
03C8    ;       VERIFY HAS NO OUTPUT. SINCE ITS PURPOSE IS TO TEST FOR ERRORS,
03C8    ;       IT MERELY RETURNS TO CALLER NORMALLY AFTER THE TESTS, PROVIDING
03C8    ;       ALL WERE SUCCESSFUL; IF AN ERROR IS DISCOVERED, RETURN IS VIA
03C8    ;       AN ERR_EXIT OR SS_CHECK MACRO, BOTH OF WHICH DOCUMENT DETECTED
03C8    ;       ERRORS.
03C8    ;
03C8    ; COMPLETION CODES:
03C8    ;
03C8    ;       EFLAG SET TO NON-ZERO IF ERROR ENCOUNTERED.
03C8    ;
03C8    ; SIDE EFFECTS:
03C8    ;
03C8    ;       SS_CHECK AND ERR_EXIT MACROS CAUSE PREMATURE EXIT
03C8    ;       (VIA RSB) IF ERROR ENCOUNTERED.
03C8    ;
```

74

```
                                  03C8  ;--
                                  03C8
                                  03C8
                                  03C8
                                  03C8  VERIFY::
              00000000'EF    95   03C8          TSTB    CFLAG                      ; SHOULD CONDITIONS BE PRINTED ?
                       03    13   03CE          BEQL    5$                         ; NO -- CONTINUE
                     FF0B    30   03D0          BSBW    FORM_CONDS                 ; YES -- FMT & PRINT ALL CONDS FOR THIS T.C.
                                  03D3  5$:
              00000110'EF    D4   03D3          CLRL    ZEROPID                    ; CLEAR ZERO PID
                                  03D9          $CREPRC_S PIDADR=CREATED_PID, PRCNAM=CREATED_PRN, -
                                  03D9                  UIC=COND3_E[R4], IMAGE=IMAGNAM, -
                                  03D9                  MBXUNT=MBXUNIT;, QUOTA=QUOTALIST
                                  0410                                             ; CREATE A PROCESS TO BE FORCEX'D
                                  0410          SS_CHECK NORMAL                    ; ... AND MAKE SURE IT CREATED OK
                                  043E          $SCHDWK_S DAYTIM=ONE_MIN           ; WAKE SELF IN 1 MIN IF CREATED PROC DOESN'T
                                  0451          SS_CHECK NORMAL                    ; CHECK FOR NORMAL RETURN
                                  047F          $HIBER_S                           ; SLEEP UNTIL CREATED PROC IS FULLY CREATED
                                  0486          SS_CHECK NORMAL                    ; EXPECT NORMAL RETURN
                                  04B4          $CANWAK_S                          ; GET RID OF SCHEDULED WAKE-UP
                                  04BF          SS_CHECK NORMAL                    ; CHECK FOR NORMAL STATUS RETURN
                                  04ED  ;
                                  04ED  ; SCHEDULED WAKE-UP WILL ONLY BE EFFECTED IF CREATED PROCESS DOES
                                  04ED  ; NOT GET FULLY CREATED. IN THIS CASE, THE SUBJECT SYSTEM SERVICE
                                  04ED  ; BELOW WILL FAIL WITH AN APPROPRIATE ERROR CONDITION.
                                  04ED  ;
                                  04ED  ;
                                  04ED  ; THE FOLLOWING CODE LOOKS FOR THE SPECIAL CASE OF NO PID SPECIFIED
                                  04ED  ; AND NO PROCESS NAME SPECIFIED IN CONDITION TABLES. IF THIS CASE
                                  04ED  ; IS PRESENT, FORCEX IS NOT ISSUED HERE, BUT, INSTEAD, A $WAKE IS
                                  04ED  ; ISSUED FOR THE CREATED PROCESS, WHICH, IN TURN, ISSUES A $FORCEX
                                  04ED  ; TO FORCE ITS OWN EXIT. FOR ALL OTHER CASES, THE CREATED PROCESS
                                  04ED  ; IS FORCED TO EXIT BY A $FORCEX ISSUED HERE IN THIS PROCESS.
                                  04ED  ;
            0000016B'EF42    D5   04ED          TSTL    COND1_E[R2]                ; IS PIDADR SPECIFIED ??
                       54    12   04F4          BNEQU   10$                        ; YES -- NO SPECIAL CASE -- CONTINUE
            000001AD'EF43    D5   04F6          TSTL    COND2_E[R3]                ; NO -- HOW ABOUT PROCESS NAME ??
                       4B    12   04FD          BNEQU   10$                        ; IT EXISTS -- A NORMAL CASE
                                  04FF          $WAKE_S PIDADR=CREATED_PID         ; NO PIDADR OR PIDADR SPECIFIED
                                  050E                                             ; WAKE CREATED PROCESS TO FORCE ITSELF
                                  050E          SS_CHECK NORMAL                    ; CHECK FOR NORMAL STATUS RETURN
 0000011C'EF  00000118'EF    D0   053C          MOVL    CREATED_PID,EXP_STATUS     ; ... SET UP EXPECTED STATUS CODE
                     010E    31   0547          BRW     20$                        ; ... AND GO WAIT FOR ITS MAIL
                                  054A  10$:
                                  054A  ;
                                  054A  ; SET UP TO ISSUE SUBJECT $FORCEX IN THIS PROCESS
                                  054A  ;
 0000011C'EF  00000114'EF    D0   054A          MOVL    CREATING_PID,EXP_STATUS ; SET UP EXPECTED STATUS CODE
0000010C'EF 0000016B'EF42    D0   0555          MOVL    COND1_E[R2],DEST_PIDADR ; GET PID ADDRESS OUT OF TABLE
          59 000001AD'EF43    D0   0561          MOVL    COND2_E[R3],R9             ; PRCNAM ADDR INTO REG FOR INDIRECT REF'RNCE
                                  0569  ;
                                  0569  ; ****** SYSTEM SERVICE CALL WHICH IS THE SUBJECT OF THIS TEST CASE ******
                                  0569  ;
                                  0569          $FORCEX_S PIDADR=@DEST_PIDADR, PRCNAM=(R9), -
                                  0569                  CODE=EXP_STATUS
        00000000'8F    50    D1   057E          CMPL    R0,#SS$_NORMAL             ; CODE RECEIVED = CODE EXPECTED ?
                       61    13   0585          BEQLU   15$                        ; YES -- CONTINUE
```

```
     00000000'EF   00000000'8F  D0  0587    542          MOVL    #SS$_NORMAL,EXPV         ; NO -- LOAD UP EXPECTED AND ...
            00000C00'EF      50  D0  0592    543          MOVL    R0,RECV                  ; ... RECEIVED VALUES, THEN EXIT
                                     0599    544          ERR_EXIT LONG,<INCORRECT STATUS CODE RETURNED FROM FORCEX>
                                     05E8    545 15$:
                   0000010C'EF  D5  05E8    546          TSTL    DEST_PIDADR              ; PID RETURNED BY FORCEX ?
                            68  13  05EE    547          BEQL    20$                      ; NO -- KEEP GOING
     0000010C'FF   00000118'EF  D1  05F0    548          CMPL    CREATED_PID,@DEST_PIDADR ; YES -- IS IT THE CORRECT ONE ?
                            5B  13  05FB    549          BEQL    20$                      ; YES -- CONTINUE
     00000000'EF   00000118'EF  D0  05FD    550          MOVL    CREATED_PID,EXPV         ; NO --LOAD UP EXPECTED AND ...
     00000000'EF   00C0010C'FF  D0  0608    551          MOVL    @DEST_PIDADR,RECV        ; ... RECEIVED VALUES, THEN EXIT
                                     0613    552          ERR_EXIT LONG,<INCORRECT PID RETURNED BY FORCEX>
                                     0658    553 20$:
                                     0658    554 ;
                                     0658    555 ; CREATED PROCESS HAS BEEN FORCEX'D (BY THIS PROCESS OR BY ITSELF)
                                     0658    556 ;
                                     0658    557          $QIOW_S CHAN=MBXCHAN, FUNC=#IO$_READVBLK, -
                                     0658    558                  P1=MBXBUFF+8, P2=MBXBUFF
                                     0681    559                                           ; WAIT FOR CREATED PROCESS TO SEND MAIL
                                     0681    560          SS_CHECK NORMAL                  ; CHECK FOR NORMAL STATUS CODE
     0000011C'EF   00000098'EF  D1  06AF    561          CMPL    MBXBUFF+12,EXP_STATUS    ; CREATED PROC RETURN EXPECTED EXIT STATUS ?
                            69  13  06BA    562          BEQLU   VERIFYX                  ; YES -- ALL IS OK
     00000000'EF   0000011C'EF  D0  06BC    563          MOVL    EXP_STATUS,EXPV          ; NO -- LOAD UP EXPECTED AND
     00000000'EF   00000098'EF  D0  06C7    564          MOVL    MBXBUFF+12,RECV          ; ... RECEIVED VALUES, THEN EXIT
                                     06D2    565          ERR_EXIT LONG,<INCORRECT EXIT STATUS CODE RETURNED IN MAILBOX>
                                     0725    566 VERIFYX:
                                05  0725    567          RSB                              ; RETURN TO CALLER
```

```
        0726   569          .SBTTL  VFY_CLEANUP
        0726   570 ;++
        0726   571 ; FUNCTIONAL DESCRIPTION:
        0726   572 ;
        0726   573 ;                VFY_CLEANUP EXECUTES SYSTEM SERVICES TO UNDO THE
        0726   574 ; EFFECT OF THOSE ISSUED IN THE VERIFY SUBROUTINE. VFY_CLEANUP MUST
        0726   575 ; ASSUME THAT VERIFY MAY NOT HAVE EXECUTED IN ITS ENTIRETY (IF AN
        0726   576 ; ERROR IS FOUND). ALSO, VFY_CLEANUP MAY ISSUE SS_CHECK OR ERR_EXIT
        0726   577 ; ONLY AFTER PERFORMING ALL OF ITS CLEANUP OPERATIONS; THIS IS REQUIRED
        0726   578 ; IN THE EVENT THAT VFY_CLEANUP IS CALLED DURING ERROR PROCESSING,
        0726   579 ; WHEN PERFORMING THE REQUIRED CLEANUP IS MORE IMPORTANT THAN
        0726   580 ; POSSIBLY DISCOVERING A SECOND ERROR.
        0726   581 ;
        0726   582 ; CALLING SEQUENCE:
        0726   583 ;
        0726   584 ;        BSBW VFY_CLEANUP
        0726   585 ;
        0726   586 ; INPUT PARAMETERS:
        0726   587 ;
        0726   588 ;        NONE
        0726   589 ;
        0726   590 ; IMPLICIT INPUTS:
        0726   591 ;
        0726   592 ;        R2,3,4,5,6 CONTAIN CURRENT CONDITION TABLE INDEX VALUES
        0726   593 ;          FOR COND TABLES 1,2,3,4,5, RESPECTIVELY.
        0726   594 ;        FOR X = 1,2,3,4,5 :
        0726   595 ;                CONDX_E - ADDRESS OF TABLE OF DATA VALUES FOR CONDX
        0726   596 ;                  TABLE. IF THE CONTEXT OF TABLE X IS A SYSTEM SERVICE
        0726   597 ;                  ARGUMENT, THE ARGUMENT NAME MAY BE USED AS A SYNONYM
        0726   598 ;                  FOR CONDX_E.
        0726   599 ;
        0726   600 ; OUTPUT PARAMETERS:
        0726   601 ;
        0726   602 ;        NONE
        0726   603 ;
        0726   604 ; IMPLICIT OUTPUTS:
        0726   605 ;
        0726   606 ;        NONE
        0726   607 ;
        0726   608 ; COMPLETION CODES:
        0726   609 ;
        0726   610 ;        EFLAG SET TO NON-ZERO IF ERROR ENCOUNTERED.
        0726   611 ;
        0726   612 ; SIDE EFFECTS:
        0726   613 ;
        0726   614 ;        SS_CHECK AND ERR_EXIT MACROS CAUSE PREMATURE EXIT
        0726   615 ;        (VIA RSB) IF ERROR ENCOUNTERED.
        0726   616 ;
        0726   617 ;--
        0726   618
        0726   619
        0726   620
        0726   621 VFY_CLEANUP::
        0726   622          $DELPRC_S PRCNAM=CREATED_PRN    ; DELETE CREATED PROCESS (IF STILL HERE)
     05 0735   623          RSB                             ; RETURN TO CALLER
        0736   624          .END
```

```
$$$$                             = 0000C5DC R       04          DESC                             = 00000010  G
$$$CHARS                         = 0000002E                     DEST_PIDADR                        0000010C R       03
$$$CHARS1                        = 0000000A                     DIB$K_LENGTH                     = 00000074
$$$CHARS2                        = 00000019                     DIB$W_UNIT                       = 0000000C
$$$CHARS3                        = 00000021                     EFLAG                              ********   X    04
$$$CHARS4                        = 00000026                     EQUIV_PID                          0000009E R       02
$$$CHARS5                        = 00000000                     EXPV                               ********   X    04
$$$COND_A                        = 00000003                     EXP_STATUS                         0000011C R       03
$$$STRINGS                       = 00000001                     FAO_DESC                           ********   X    04
$$$STRINGS2                      = 00000005                     FAO_LEN                            ********   X    04
$$T1                             = 00000001                     FORM_CONDS                         000002DE RG      04
$$T2                             = 00000004                     FORM_CONDSX                        000003C7 R       04
BYTE                             = 00000001  G                  IMAGNAM                            0000006D R       02
CFLAG                              ********   X    04           IO$_READVBLK                       ********   X    04
CHMRTN                             ********   X    04           LOG$C_SYSTEM                     = 00000000
CHM_CONT                           ********   X    04           LOGNAM_PID                         0000008C R       02
COMP_SC                            ********   X    04           LONG                             = 00000004  G
CONDT                              0000028B RG      04          MBXBUFF                            0000008C R       03
COND1_C                          = 00000000                     MBXCHAN                            00000008 R       03
COND1_CLEANUP                      0000028C RG      04          MBXCHANINFO                        0000000C R       03
COND1_E                            0000016B R       03          MBXUNIT                            00000088 R       03
COND1_H                            0000012C RG      03          MOD_MSG_CODE                       ********   X    04
COND1_T                            00000120 R       03          MOD_MSG_PRINT                      ********   X    04
COND1_TAB                          0000012D R       03          MSGT_INP_CTL                       00000019 R       02
COND2                              0000028D RG      04          MSG3_ERR_CTL                       00000039 RG      02
COND2X                             000002AF R       04          MSG_A                              ********   X    04
COND2_C                          = 00000000                     MSG_B                              ********   X    04
COND2_CLEANUP                      000002B0 RG      04          MSG_CTXT                           ********   X    04
COND2_E                            000001AD R       03          NOTARG                           = 00000000  G
COND2_H                            0000018C RG      03          NULL                             = 00000014  G
COND2_T                            00000177 R       03          ONES                               ********   X    04
COND2_TAB                          0000018D R       03          ONE_MIN                            00000051 R       02
COND3                              000002B1 RG      04          OUTPUT_MSG                         ********   X    04
COND3X                             000002D8 R       04          PCB$L_UIC                        = 000000BC
COND3_C                          = 00000000                     PCV                                ********   X    04
COND3_CLEANUP                      000002D9 RG      04          PHD$Q_PRIVMSK                    = 00000000
COND3_E                            00000249 R       03          PRIVMASK                           00000000 R       03
COND3_H                            000001CA RG      03          PRIV_ARGS                        = 00000002
COND3_T                            000001B5 R       03          PROCESS_ERR                        ********   X    04
COND3_TAB                          000001CB R       03          QUAD                             = 00000008  G
COND4                              000002DA RG      04          RECV                               ********   X    04
COND4_C                          = 00000014                     REST_REGS                          ********   X    04
COND4_CLEANUP                      000002DB RG      04          SAVE_REGS                          ********   X    04
COND4_H                            00000259 RG      03          SCH$GL_CURPCB                      ********   X    04
COND4_T                            00000259 R       03          SS$_NORMAL                         ********   X    04
COND4_TAB                          00000259 R       03          SUCCESS                            ********   X    04
COND5                              000002DC RG      04          SYS$CANWAK                         ********  GX    04
COND5_C                          = 00000014                     SYS$CMKRNL                         ********  GX    04
COND5_CLEANUP                      000002DD RG      04          SYS$CRELOG                         ********  GX    04
COND5_H                            0000025A RG      03          SYS$CREMBX                         ********  GX    04
COND5_T                            0000025A R       03          SYS$CREPRC                         ********  GX    04
COND5_TAB                          0000025A R       03          SYS$DELLOG                         ********  GX    04
CONFLICT                           ********   X    04           SYS$DELMBX                         ********  GX    04
CREATED_PID                        00000118 R       03          SYS$DELPRC                         ********  GX    04
CREATED_PRN                        00000059 R       02          SYS$FAO                            ********   X    04
CREATING_PID                       00000114 R       03          SYS$FORCEX                         ********  GX    04
CTL$GL_PHD                         ********   X    04           SYS$GETCHN                         ********  GX    04
```

```
SYS$HIBER                        ********  GX    04
SYS$QIOW                         ********  GX    04
SYS$SCHDWK                       ********  GX    04
SYS$SETPRN                       ********  GX    04
SYS$SETPRV                       ********  GX    04
SYS$WAKE                         ********  GX    04
TESTNUM                          ********   X    04
TEST_MOD_NAME                    00000000 RG     02
TEST_MOD_NAME_D                  00000009 R      02
TEST_MOD_SUCC                    ********   X    04
TMD_ADDR                         ********   X    04
TM_CLEANUP                       00000268 RG     04
TM_SETUP                         00000000 RG     04
VERIFY                           000003C8 RG     04
VERIFYX                          00000725 R      04
VFY_CLEANUP                      00000726 RG     04
WORD                           = 00000002  G
WRITE_MSG2                       ********   X    04
ZEROPID                          00000110 R      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
RODATA                            000000A6  (   166.)  02 (  2.)  NOPIC   USR   CON   REL   LCL NOSHR NOEXE   RD  NOWRT NOVEC LONG
RWDATA                            0000025B  (   603.)  03 (  3.)  NOPIC   USR   CON   REL   LCL NOSHR NOEXE   RD    WRT NOVEC LONG
SATSSS42                          00000736  (  1846.)  04 (  4.)  NOPIC   USR   CON   REL   LCL NOSHR   EXE   RD    WRT NOVEC BYTE

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

Phase                        Page faults    CPU Time       Elapsed Time
-----                        -----------    --------       ------------
Initialization                        29    00:00:00.07    00:00:00.37
Command processing                   113    00:00:00.61    00:00:02.18
Pass 1                               316    00:00:09.72    00:00:20.20
Symbol table sort                      0    00:00:00.79    00:00:00.81
Pass 2                               136    00:00:02.34    00:00:03.22
Symbol table output                   16    00:00:00.10    00:00:00.12
Psect synopsis output                  2    00:00:00.03    00:00:00.03
Cross-reference output                 0    00:00:00.00    00:00:00.00
Assembler run totals                 614    00:00:13.66    00:00:26.93

The working set limit was 1350 pages.
51508 bytes (101 pages) of virtual memory were used to buffer the intermediate code.
There were 30 pages of symbol table space allocated to hold 510 non-local and 48 local symbols.
624 source lines were read in Pass 1, producing 26 object records in Pass 2.
51 pages of virtual memory were used to define 41 macros.
```

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

Macro library name                           Macros defined
------------------                           --------------
_$255$DUA28:[SHRLIB]UETP.MLB;1                            8
_$255$DUA28:[SYS.OBJ]LIB.MLB;1                            3
_$255$DUA28:[SYSLIB]STARLET.MLB;2                        27
TOTALS (all libraries)                                   38

934 GETS were required to define 38 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LIS$:SATSSS42/OBJ=OBJ$:SATSSS42 MSRC$:SATSSS42/UPDATE=(ENH$:SATSSS42)+EXECML$/LIB+SHRLIB$:UETP/LIB
```

0423 AH-BT13A-SE
VAX/VMS V4.0

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