G 12

```
            JJJ     000000000     BBBBBBBBBBBB        CCCCCCCCCCC   TTTTTTTTTTTTTTT  LLL
            JJJ     000000000     BBBBBBBBBBBB        CCCCCCCCCCC   TTTTTTTTTTTTTTT  LLL
            JJJ     000000000     BBBBBBBBBBBB        CCCCCCCCCCC   TTTTTTTTTTTTTTT  LLL
            JJJ  000         000  BBB         BBB  CCC                    TTT        LLL
            JJJ  000         000  BBB         BBB  CCC                    TTT        LLL
            JJJ  000         000  BBB         BBB  CCC                    TTT        LLL
            JJJ  000         000  BBB         BBB  CCC                    TTT        LLL
            JJJ  000         000  BBB         BBB  CCC                    TTT        LLL
            JJJ  000         000  BBB         BBB  CCC                    TTT        LLL
            JJJ  000         000  BBBBBBBBBBBB     CCC                    TTT        LLL
            JJJ  000         000  BBBBBBBBBBBB     CCC                    TTT        LLL
            JJJ  000         000  BBBBBBBBBBBB     CCC                    TTT        LLL
JJJ         JJJ  000         000  BBB         BBB  CCC                    TTT        LLL
JJJ         JJJ  000         000  BBB         BBB  CCC                    TTT        LLL
JJJ         JJJ  000         000  BBB         BBB  CCC                    TTT        LLL
JJJ         JJJ  000         000  BBB         BBB  CCC                    TTT        LLL
JJJ         JJJ  000         000  BBB         BBB  CCC                    TTT        LLL
JJJ         JJJ  000         000  BBB         BBB  CCC                    TTT        LLL
   JJJJJJJJJ        000000000     BBBBBBBBBBBB        CCCCCCCCCCC         TTT        LLLLLLLLLLLLLLL
   JJJJJJJJJ        000000000     BBBBBBBBBBBB        CCCCCCCCCCC         TTT        LLLLLLLLLLLLLLL
   JJJJJJJJJ        000000000     BBBBBBBBBBBB        CCCCCCCCCCC         TTT        LLLLLLLLLLLLLLL
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```
**FILE**ID**CONTROL                                F 15
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```
  CCCCCCCC    000000    NN      NN  TTTTTTTTTT  RRRRRRRR      000000    LL
  CCCCCCCC    000000    NN      NN  TTTTTTTTTT  RRRRRRRR      000000    LL
CC          00      00  NN      NN      TT      RR      RR  00      00  LL
CC          00      00  NN      NN      TT      RR      RR  00      00  LL
CC          00      00  NNNN    NN      TT      RR      RR  00      00  LL
CC          00      00  NNNN    NN      TT      RR      RR  00      00  LL
CC          00      00  NN  NN  NN      TT      RRRRRRRR    00      00  LL
CC          00      00  NN  NN  NN      TT      RRRRRRRR    00      00  LL
CC          00      00  NN    NNNN      TT      RR  RR      00      00  LL
CC          00      00  NN    NNNN      TT      RR  RR      00      00  LL
CC          00      00  NN      NN      TT      RR    RR    00      00  LL              ....
CC          00      00  NN      NN      TT      RR    RR    00      00  LL              ....
  CCCCCCCC    000000    NN      NN      TT      RR      RR    000000    LLLLLLLLLL      ....
  CCCCCCCC    000000    NN      NN      TT      RR      RR    000000    LLLLLLLLLL      ....


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
```

CO
VO

```
0 MODULE CONTROL  (%TITLE 'Main control logic'
0                 MAIN = JOBCTL,
0                 IDENT = 'V04-002'
0                 ) =
1 BEGIN
1
1 !
1 !****************************************************************************
1 !*                                                                          *
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1 !*                                                                          *
1 !*                                                                          *
1 !****************************************************************************
1 !
1
1 !++
1 ! FACILITY:
1 !       Job controller.
1 !
1 ! ABSTRACT:
1 !       This module contains the main control logic.
1 !
1 ! ENVIRONMENT:
1 !       VAX/VMS user and kernel mode.
1 !--
1 !
1 ! AUTHOR: M. Jack, CREATION DATE: 16-Feb-1982
1 !
1 ! MODIFIED BY:
1 !
1 !       V04-002 JAK0236         J A Krycka      14-Sep-1984
1 !               Collect more diagnostic information.
1 !
1 !       V04-001 JAK0236         J A Krycka      13-Sep-1984
1 !               Set control flags to have the job controller take the abort-
1 !               restart patch instead of the bugcheck patch on encountering a
1 !               severe (fata) error.
1 !
1 !       V03-012 JAK0230         J A Krycka      28-Aug-1984
1 !               Conditionally bypass close of the system job queue file on the
1 !               job controller bug check error path to preserve internal RMS
```

```
1 !                     data structures in the dump.
1 !
1 !             V03-011 JAK0219         J A Krycka      17-Jul-1984
1 !                     Track changes in JOBCTLDEF.REQ.
1 !
1 !             V03-010 JAK0215         J A Krycka      25-May-1984
1 !                     For the time being, bug check on encountering a severe error
1 !                     instead of aborting/restarting the job controller.
1 !
1 !             V03-009 JAK0213         J A Krycka      18-May-1984
1 !                     Make $ENQ/$DEQ lock errors reported via the JBC$_COMREMJBC code
1 !                     into severe (fatal) errors.
1 !
1 !             V03-008 JAK0209         J A Krycka      09-May-1984
1 !                     Log diagnostic information in the DIAG_TRACE vector.
1 !
1 !             V03-007 JAK0206         J A Krycka      06-May-1984
1 !                     Conditionally request image dump on creating the symbiont and
1 !                     (recreated) job controller processes depending on whether or not
1 !                     the job controller was initiated with image dump enabled.
1 !
1 !             V03-006 GRR3006         Gregory R. Robert       06-May-1984
1 !                     Enable image dumps for newly created job controller process.
1 !                     Also resignal errors so that the last chance handler will
1 !                     terminate the process as appropriate instead of calling $EXIT.
1 !
1 !             V03-005 MLJ0115         Martin L. Jack, 30-Jul-1983
1 !                     Changes for job controller baselevel.
1 !
1 !             V03-004 MLJ0114         Martin L. Jack, 23-Jun-1983
1 !                     Changes for job controller baselevel.
1 !
1 !             V03-003 MLJ0113         Martin L. Jack, 26-May-1983
1 !                     Changes for job controller baselevel.
1 !
1 !             V03-002 MLJ0112         Martin L. Jack, 29-Apr-1983
1 !                     Changes for job controller baselevel.
1 !
1 !             V03-001 MLJ0109         Martin L. Jack, 14-Apr-1983
1 !                     Changes for job controller baselevel.
1 !
1 !**
```

```
:  101        0100  1 REQUIRE 'SRC$:JOBCTLDEF';
:  102        1141  1 REQUIRE 'SHRLIB$:OPCDEFTMP';            ! To support internal diagnostic option
:  103        1382  1
:  104        1383  1
:  105        1384  1 FORWARD ROUTINE
:  106        1385  1         JOBCTL:                         NOVALUE,
:  107        1386  1         RESET_USERNAME,
:  108        1387  1         SCHEDULE_NONAST:                NOVALUE,
:  109        1388  1         MAILBOX_NONAST:                 NOVALUE,
:  110        1389  1         MAILBOX_AST:                    NOVALUE,
:  111        1390  1         SIGNAL_FILE_ERROR:              NOVALUE,
:  112        1391  1         MAIN_HANDLER_ACTION,
:  113        1392  1         MAIN_HANDLER,
:  114        1393  1         BUG_CHECK_SYSTEM:               NOVALUE;
:  115        1394  1
:  116        1395  1
:  117        1396  1 EXTERNAL ROUTINE
:  118        1397  1         ALLOCATE_MEMORY,
:  119        1398  1         CLOSE_ACCOUNTING_FILE:          NOVALUE,
:  120        1399  1         DEALLOCATE_MEMORY:              NOVALUE,
:  121        1400  1         DELETE_SYMBIONTS:               NOVALUE,
:  122        1401  1         GETQUI_SERVICE,
:  123        1402  1         INITIALIZE_RESTRICTED:          NOVALUE,
:  124        1403  1         LOCK_QUEUE_FILE:                NOVALUE,
:  125        1404  1         OPEN_ACCOUNTING_FILE:           NOVALUE,
:  126        1405  1         PROCESS_ACCOUNTING:             NOVALUE,
:  127        1406  1         PROCESS_DELETION:               NOVALUE,
:  128        1407  1         SEND_SERVICE_RESPONSE:          NOVALUE,
:  129        1408  1         SYS$SETDDIR,
:  130        1409  1         SNDACC_SERVICE,
:  131        1410  1         SNDJBC_SERVICE,
:  132        1411  1         SNDSMB_SERVICE,
:  133        1412  1         SYMBIONT_SERVICE:               NOVALUE,
:  134        1413  1         UNSOLICITED_INPUT:              NOVALUE,
:  135        1414  1         UNLOCK_QUEUE_FILE:              NOVALUE,
:  136        1415  1         WARM_START_EXISTING_FILE:       NOVALUE;
:  137        1416  1
:  138        1417  1
:  139        1418  1 EXTERNAL
:  140        1419  1         SGN$GL_VMSD2:   BBLOCK[4]       ADDRESSING_MODE(GENERAL),
:  141        1420  1         CTL$GL_PHD:     REF BBLOCK      ADDRESSING_MODE(GENERAL),
:  142        1421  1         CTL$T_USERNAME: VECTOR[,BYTE]   ADDRESSING_MODE(GENERAL);
:  143        1422  1
:  144        1423  1
:  145        1424  1 EXTERNAL LITERAL
:  146        1425  1         SYS$C_JOBCTLMB;
:  147        1426  1
:  148        1427  1
:  149        1428  1 GLOBAL BIND
:  150        1429  1         NLA0_DESC=              $DESCRIPTOR('_NLA0:'),
:  151        1430  1         OPA0_DESC=              $DESCRIPTOR('_OPA0:'),
:  152        1431  1         JOBCTLMBX_DESC=         UPLIT(6, UPLIT BYTE ('_', LONG(SYS$C_JOBCTLMB), ':')),
:  153        1432  1         ALL_PRIVILEGES=         UPLIT(-1, -1);
:  154        1433  1
:  155        1434  1
:  156        1435  1 BIND
:  157        1436  1         JOB_CONTROL_DESC=       $DESCRIPTOR('JOB_CONTROL'): BBLOCK;
```

```
;  158         1437  1
;  159         1438  1
;  160         1439  1 MACRO
;  161         1440  1
;  162         1441  1         ! Fields for non-AST work queue block.
;  163         1442  1         !
;  164         1443  1         NWB_FLINK=                 0,0,32,0 %,      ! Forward link
;  165         1444  1         NWB_BLINK=                 4,0,32,0 %,      ! Backward link
;  166         1445  1         NWB_ROUT=                  8,0,32,0 %,      ! Routine address
;  167         1446  1         NWB_PAGES=                 12,0,32,0 %,     ! Size of NWB in pages
;  168         1447  1         NWB_PARAM=                 16,0,0,0 %;      ! Routine parameters
;  169         1448  1
;  170         1449  1
;  171         1450  1 BUILTIN
;  172         1451  1         INSQUE,
;  173         1452  1         REMQUE,
;  174         1453  1         TESTBITCS;
```

```
1 ROUTINE JOBCTL: NOVALUE=
1
1 !++
1 !
1 ! FUNCTIONAL DESCRIPTION:
1 !       This routine is the main entry point for the job controller.
1 !
1 ! INPUT PARAMETERS:
1 !       NONE
1 !
1 ! IMPLICIT INPUTS:
1 !       NONE
1 !
1 ! OUTPUT PARAMETERS:
1 !       NONE
1 !
1 ! IMPLICIT OUTPUTS:
1 !       NONE
1 !
1 ! ROUTINE VALUE:
1 !       NONE
1 !
1 ! SIDE EFFECTS:
1 !       NONE
1 !
1 !--
1
2 BEGIN
2 LOCAL
2         STATUS_1,                       ! Status return
2         STATUS_2;                       ! Status return
2 OWN
2         PRIVILEGE_MASK: BBLOCK[8] PSECT(CODE) PRESET(
2                 [PRV$V_NOACNT]  = TRUE,
2                 [PRV$V_ALTPRI]  = TRUE,
2                 [PRV$V_BYPASS]  = TRUE,
2                 [PRV$V_CMKRNL]  = TRUE,
2                 [PRV$V_DETACH]  = TRUE,
2                 [PRV$V_EXQUOTA] = TRUE,
2                 [PRV$V_LOG_IO]  = TRUE,
2                 [PRV$V_NETMBX]  = TRUE,
2                 [PRV$V_OPER]    = TRUE,
2                 [PRV$V_PSWAPM]  = TRUE,
2                 [PRV$V_SETPRV]  = TRUE,
2                 [PRV$V_TMPMBX]  = TRUE,
2                 [PRV$V_WORLD]   = TRUE);
2
2 BUILTIN
2         FP;
2
2
2 ! Initialize error processing control flags.
2 !
2 FLAGS[FLAGS_V_READ_VMSD2] = TRUE;       ! Reset debugging control flags from VMSD2 sysgen parameter
2                                         ! On encountering a severe (fatal) error:
2 FLAGS[FLAGS_V_CLUSTER_SCRAM] = FALSE;   !  Synchronously bug check entire cluster
2 FLAGS[FLAGS_V_LEAVE_OPEN] = FALSE;      !  Leave system job queue file open on exit
```

```
    2 FLAGS[FLAGS_V_BUGCHECK] = FALSE;         . Bug check system vs abort/restart image
    2                                          ! Other debugging flags:
    2 FLAGS[FLAGS_V_CS_QF_DEADLOCK] = FALSE;   !  Bug check cluster on queue file deadlock error
    2 FLAGS[FLAGS_V_LOG_QF_REPAIR] = FALSE;    !  Log occurrence of on-the-fly repair of queue file
    2 FLAGS[FLAGS_V_OMIT_QF_INIT] = FALSE;     !  Omit queue file initializaton after opening it
    2
    2 IF .FLAGS[FLAGS_V_READ_VMSD2]            ! Reset debugging control flags
    2     THEN FLAGS<17,15> = .SGN$GL_VMSD2<1,15>;
    2
    2
    2 ! Set the privileges that we need.
    2 !
    2 $SETPRV(ENBFLG=TRUE, PRVADR=PRIVILEGE_MASK);
    2
    2
    2 ! Define SYS$DISK to set the default device for image dumps.
    2 !
P   2 $CRELOG(
P   2     TBLFLG=LOG$C_PROCESS,
P   2     LOGNAM=$DESCRIPTOR ('SYS$DISK'),
    2     EQLNAM=$DESCRIPTOR('SYS$SYSROOT:') );
    2
    2
    2 ! Set the default directory for image dumps.
    2 ! Note that optional arguments must be specified as zero.
    2 !
    2 SYS$SETDDIR ($DESCRIPTOR ('[SYSEXE]'), 0, 0);
    2
    2
    2 ! Get the image dump flag from the process header which will be used later
    2 ! to determine whether or not image dump will be requested when a symbiont
    2 ! (or the job controller itself upon termnation) is created.
    2 !
    2 IF (.CTL$GL_PHD[PHD$W_FLAGS] AND PHD$M_IMGDMP) EQL 0
    2 THEN IMAGE_DUMP_STSFLG = 0
    2 ELSE IMAGE_DUMP_STSFLG = PRC$M_IMGDMP;
    2
    2
    2 ! Execute a $GETJPI to get process information that will be needed later.
    2 !
P   2 $GETJPIW(
P   2     EFN=JBC$K_SYNC_EFN,
P   2     ITMLST=UP[IT(
P   2         WORD(4, JPI$_ASTLM),    LONG(JBC_QUOTAS[ 1,0,32,0], 0),
P   2         WORD(4, JPI$_BIOLM),    LONG(JBC_QUOTAS[ 6,0,32,0], 0),
P   2         WORD(4, JPI$_BYTLM),    LONG(JBC_QUOTAS[11,0,32,0], 0),
P   2         WORD(4, JPI$_DIOLM),    LONG(JBC_QUOTAS[21,0,32,0], 0),
P   2         WORD(4, JPI$_ENQLM),    LONG(JBC_QUOTAS[26,0,32,0], 0),
P   2         WORD(4, JPI$_FILLM),    LONG(JBC_QUOTAS[31,0,32,0], 0),
P   2         WORD(4, JPI$_PGFLQUOTA),LONG(JBC_QUOTAS[36,0,32,0], 0),
P   2         WORD(4, JPI$_PRCLM),    LONG(JBC_QUOTAS[41,0,32,0], 0),
P   2         WORD(4, JPI$_TQLM),     LONG(JBC_QUOTAS[46,0,32,0], 0),
P   2         WORD(4, JPI$_DFWSCNT),  LONG(JBC_QUOTAS[51,0,32,0], 0),
P   2         WORD(4, JPI$_WSAUTHEXT),LONG(JBC_QUOTAS[56,0,32,0], 0),
P   2         WORD(4, JPI$_WSAUTH),   LONG(JBC_QUOTAS[61,0,32,0], 0),
P   2         WORD(4, JPI$_PRIB),     LONG(JBC_PRIORITY, 0),
P   2         WORD(8, JPI$_CURPRIV),  LONG(JBC_PRIVILEGES, 0),
:   290      P 1568  2         WORD(4, JPI$_UIC),      LONG(JBC_UIC, 0),
:   291        1569  2         LONG(0)));
:   292        1570  2
:   293        1571  2 JBC_QUOTAS[ 0,0,8,0] = PQL$_ASTLM;
:   294        1572  2 JBC_QUOTAS[ 5,0,8,0] = PQL$_BIOLM;
:   295        1573  2 JBC_QUOTAS[10,0,8,0] = PQL$_BYTLM;
:   296        1574  2 JBC_QUOTAS[15,0,8,0] = PQL$_CPULM;
:   297        1575  2 JBC_QUOTAS[20,0,8,0] = PQL$_DIOLM;
:   298        1576  2 JBC_QUOTAS[25,0,8,0] = PQL$_ENQLM;
:   299        1577  2 JBC_QUOTAS[30,0,8,0] = PQL$_FILLM;
:   300        1578  2 JBC_QUOTAS[35,0,8,0] = PQL$_PGFLQUOTA;
:   301        1579  2 JBC_QUOTAS[40,0,8,0] = PQL$_PRCLM;
:   302        1580  2 JBC_QUOTAS[45,0,8,0] = PQL$_TQELM;
:   303        1581  2 JBC_QUOTAS[50,0,8,0] = PQL$_WSDEFAULT;
:   304        1582  2 JBC_QUOTAS[55,0,8,0] = PQL$_WSEXTENT;
:   305        1583  2 JBC_QUOTAS[60,0,8,0] = PQL$_WSQUOTA;
:   306        1584  2 JBC_QUOTAS[65,0,8,0] = PQL$_LISTEND;
:   307        1585  2
:   308        1586  2
:   309        1587  2 ! Establish the condition handler.
:   310        1588  2 !
:   311        1589  2 .FP = MAIN_HANDLER;
:   312        1590  2
:   313        1591  2
:   314        1592  2 ! Set the process name and the username to JOB_CONTROL.
:   315        1593  2 !
:   316        1594  2 $SETPRN(PRCNAM=JOB_CONTROL_DESC);
:   317        1595  2 $CMKRNL(ROUTIN=RESET_USERNAME);
:   318        1596  2
:   319        1597  2
:   320        1598  2 ! Assign a channel to the job controller input mailbox.
:   321        1599  2 !
:   322        1600  2 STATUS_1 = $ASSIGN(DEVNAM=JOBCTLMBX_DESC, CHAN=MBX_CHAN);
:   323        1601  2 IF NOT .STATUS_1 THEN SIGNAL(JBC$_OPEJBCMBX OR STS$K_SEVERE, 0, .STATUS_1);
:   324        1602  2
:   325        1603  2
:   326        1604  2 ! Get the current time.
:   327        1605  2 !
:   328        1606  2 $GETTIM(TIMADR=CUR_TIME);
:   329        1607  2
:   330        1608  2
:   331        1609  2 ! Initialize the restricted login hours subsystem.
:   332        1610  2 !
:   333        1611  2 INITIALIZE_RESTRICTED();
:   334        1612  2
:   335        1613  2
:   336        1614  2 ! Initialize the accounting manager.
:   337        1615  2 !
:   338        1616  2 OPEN_ACCOUNTING_FILE(FALSE);
:   339        1617  2
:   340        1618  2
:   341        1619  2 ! Initialize the static queue headers.
:   342        1620  2 !
:   343        1621  2 NONAST_WORK_QUEUE[0] = NONAST_WORK_QUEUE[1] = NONAST_WORK_QUEUE[0];
:   344        1622  2 INCR I FROM 0 TO %ALLOCATION(MEMORY_FREE_QUEUES)/4-2 BY 2 DO
:   345        1623  2     MEMORY_FREE_QUEUES[.I] = MEMORY_FREE_QUEUES[.I+1] = MEMORY_FREE_QUEUES[.I];
:   346        1624  2
```

```
  2
  2 ! Queue the first read from the mailbox.
  2 !
  2 FLAGS[FLAGS_V_READ_POSTED] = TRUE;
P 2 STATUS_2 = $QIO(
P 2     FUNC=IO$_READVBLK,
P 2     CHAN=.MBX_CHAN,
P 2     IOSB=MBX_IOSB,
P 2     ASTADR=MAILBOX_AST,
P 2     P1=MBX_BUFFER,
  2     P2=%ALLOCATION(MBX_BUFFER));
  2 IF NOT .STATUS_2 THEN SIGNAL(JBC$_REAJBCMBX OR STS$K_SEVERE, 0, .STATUS_2);
  2
  2
  2 ! Hibernate, waiting for non-AST work.
  2 !
  2 WHILE TRUE DO
  3     BEGIN
  3     LOCAL
  3         NWB:              REF BBLOCK;      ! Pointer to non-AST work block
  3
  3
  3     UNTIL REMQUE(.NONAST_WORK_QUEUE[0], NWB) DO
  4         BEGIN
  4         (.NWB[NWB_ROUT])(NWB[NWB_PARAM]);
  4         DEALLOCATE_MEMORY(.NWB, .NWB[NWB_PAGES]);
  3         END;
  3     $HIBER;
  2     END;
  1 END;
```

```
                              .TITLE  CONTROL Main control logic
                              .IDENT  \V04-002\

                              .PSECT  COMMON,NOEXE,  OVR,2

        00000 DIAG_STORAGE_BASE:
                              .BLKB   0
        00000 DIAG_TRACE:
                              .BLKB   96
        00060 DIAG_COUNT:
                              .BLKB   96
        000C0 DIAG_FLAGS:
                              .BLKB   4
        000C4 WORK_AREA:
                              .BLKB   44
        000F0 SNDJBC_COUNT:
                              .BLKB   132
        00174 GETQUI_COUNT:
                              .BLKB   40
        0019C SNDACC_COUNT:
                              .BLKB   28
        001B8 SNDSMB_COUNT:
                              .BLKB   72
        00200 DIAG_STORAGE_END:
                              .BLKB   0
```

```
00200 FLAGS:  .BLKB   4
00204 IMAGE_DUMP_STSFLG:
              .BLKB   4
00208 THIS_SYSID:
              .BLKB   6
0020E         .BLKB   2
00210 CUR_TIME:
              .BLKB   8
00218 HOURLY_TIME:
              .BLKB   8
00220 HOURLY_PARAMS:
              .BLKB   20
00234 SYMBIONT_COUNT:
              .BLKB   4
00238 QUEUE_REFERENCE_COUNT:
              .BLKB   4
0023C MBX_MESSAGE_COUNT:
              .BLKB   4
00240 MBX:    .BLKB   4
00244 MBX_END:.BLKB   4
00248 MEMORY_FREE_QUEUES:
              .BLKB   40
00270 NONAST_WORK_QUEUE:
              .BLKB   8
00278 BCB_FREE_LIST:
              .BLKB   4
0027C BCB_ACTIVE_LIST:
              .BLKB   4
00280 GQL_FREE_LIST:
              .BLKB   4
00284 GQL_ACTIVE_LIST:
              .BLKB   4
00288 OPEN_GETQUI_LIST:
              .BLKB   4
0028C PROCESS_DATA_LIST:
              .BLKB   4
00290 SYMBIONT_CONTROL:
              .BLKB   4
00294 SPARE_AREA:
              .BLKB   12
002A0 REMOTE_REQUEST_LKSB:
              .BLKB   8
002A8 QUEUE_FILE_LKSB:
              .BLKB   8
002B0 QUEUE_LOCK_LKSB:
              .BLKB   8
002B8 RSP:    .BLKB   8
002C0 JBC_PRIORITY:
              .BLKB   4
002C4 JBC_PRIVILEGES:
              .BLKB   8
002CC JBC_QUOTAS:
              .BLKB   66
0030E         .BLKB   2
00310 JBC_UIC:.BLKB   4
00314 QUEUE_FAB:
              .BLKB   80
```

```
00364 QUEUE_RAB:
                .BLKB   68
003A8 QUEUE_NAM:
                .BLKB   96
00408 QUEUE_XAB:
                .BLKB   88
00460 QUEUE_RSA:
                .BLKB   255
0055F           .BLKB   1
00560 QUEUE_ALQ:
                .BLKB   4
00564 QUEUE_MBF:
                .BLKB   1
00565           .BLKB   3
00568 ACCOUNTING_FABS:
                .BLKB   8
00570 ACCOUNTING_RABS:
                .BLKB   8
00578 ACCOUNT_FAB_A:
                .BLKB   80
005C8 ACCOUNT_RAB_A:
                .BLKB   68
0060C ACCOUNT_NAM_A:
                .BLKB   96
0066C ACCOUNT_RSA_A:
                .BLKB   255
0076B           .BLKB   1
0076C ACCOUNT_FAB_B:
                .BLKB   80
007BC ACCOUNT_RAB_B:
                .BLKB   68
00800 ACCOUNT_NAM_B:
                .BLKB   96
00860 ACCOUNT_RSA_B:
                .BLKB   255
0095F           .BLKB   1
00960 DIAG_FAB:
                .BLKB   80
009B0 DIAG_RAB:
                .BLKB   68
009F4 MBX_CHAN:
                .BLKB   4
009F8 MBX_IOSB:
                .BLKB   8
00A00 MBX_BUFFER:
                .BLKB   1024
00E00 VALUE_STORAGE_BASE:
                .BLKB   0
00E00 ITEM_PRESENT:
                .BLKB   32
00E20 VALUE_GETQUI_BASE:
                .BLKB   0
00E20 VALUE_ACCOUNTING_MESSAGE:
                .BLKB   6
00E26 VALUE_ACCOUNTING_TYPES:
                .BLKB   4
00E2A VALUE_AFTER_TIME:
```

```
                 .BLKB   8
00E32 VALUE_ALIGNMENT_PAGES:
                 .BLKB   1
00E33 VALUE_BASE_PRIORITY:
                 .BLKB   1
00E34 VALUE_BATCH_INPUT:
                 .BLKB   6
00E3A VALUE_BATCH_OUTPUT:
                 .BLKB   10
00E44 VALUE_BUFFER_COUNT:
                 .BLKB   1
00E45 VALUE_CHARACTERISTIC_NAME:
                 .BLKB   6
00E4B VALUE_CHARACTERISTIC_NUMBER:
                 .BLKB   1
00E4C VALUE_CHARACTERISTICS:
                 .BLKB   16
00E5C VALUE_CHECKPOINT_DATA:
                 .BLKB   6
00E62 VALUE_CLI:
                 .BLKB   6
00E68 VALUE_CPU_DEFAULT:
                 .BLKB   4
00E6C VALUE_CPU_LIMIT:
                 .BLKB   4
00E70 VALUE_DESTINATION_QUEUE:
                 .BLKB   8
00E78 VALUE_DEVICE_NAME:
                 .BLKB   6
00E7E VALUE_ENTRY_NUMBER:
                 .BLKB   4
00E82 VALUE_ENTRY_NUMBER_OUTPUT:
                 .BLKB   10
00E8C VALUE_EXTEND_QUANTITY:
                 .BLKB   2
00E8E VALUE_FILE_COPIES:
                 .BLKB   1
00E8F VALUE_FILE_IDENTIFICATION:
                 .BLKB   36
00EB3 VALUE_FILE_SETUP_MODULES:
                 .BLKB   6
00EB9 VALUE_FILE_SPECIFICATION:
                 .BLKB   6
00EBF VALUE_FIRST_PAGE:
                 .BLKB   4
00EC3 VALUE_FORM_DESCRIPTION:
                 .BLKB   6
00EC9 VALUE_FORM_LENGTH:
                 .BLKB   1
00ECA VALUE_FORM_MARGIN_BOTTOM:
                 .BLKB   1
00ECB VALUE_FORM_MARGIN_LEFT:
                 .BLKB   2
00ECD VALUE_FORM_MARGIN_RIGHT:
                 .BLKB   2
00ECF VALUE_FORM_MARGIN_TOP:
                 .BLKB   1
```

```
00ED0 VALUE_FORM_NAME:
                .BLKB   6
00ED6 VALUE_FORM_NUMBER:
                .BLKB   4
00EDA VALUE_FORM:
                .BLKB   8
00EE2 VALUE_FORM_SETUP_MODULES:
                .BLKB   6
00EE8 VALUE_FORM_STOCK:
                .BLKB   6
00EEE VALUE_FORM_WIDTH:
                .BLKB   2
00EF0 VALUE_GENERIC_TARGET:
                .BLKB   996
012D4 VALUE_JOB_COPIES:
                .BLKB   1
012D5 VALUE_JOB_LIMIT:
                .BLKB   1
012D6 VALUE_JOB_NAME:
                .BLKB   6
012DC VALUE_JOB_RESET_MODULES:
                .BLKB   6
012E2 VALUE_JOB_SIZE_MAXIMUM:
                .BLKB   4
012E6 VALUE_JOB_SIZE_MINIMUM:
                .BLKB   4
012EA VALUE_JOB_STATUS_OUTPUT:
                .BLKB   10
012F4 VALUE_LAST_PAGE:
                .BLKB   4
012F8 VALUE_LIBRARY_SPECIFICATION:
                .BLKB   6
012FE VALUE_LOG_QUEUE:
                .BLKB   8
01306 VALUE_LOG_SPECIFICATION:
                .BLKB   6
0130C VALUE_NOTE:
                .BLKB   6
01312 VALUE_OPERATOR_REQUEST:
                .BLKB   6
01318 VALUE_OWNER_UIC:
                .BLKB   4
0131C VALUE_PAGE_SETUP_MODULES:
                .BLKB   6
01322 VALUE_PARAMETER_1:
                .BLKB   6
01328 VALUE_PARAMETER_2:
                .BLKB   6
0132E VALUE_PARAMETER_3:
                .BLKB   6
01334 VALUE_PARAMETER_4:
                .BLKB   6
0133A VALUE_PARAMETER_5:
                .BLKB   6
01340 VALUE_PARAMETER_6:
                .BLKB   6
01346 VALUE_PARAMETER_7:
```

```
                                                   .BLKB   6
                                  0134C VALUE_PARAMETER_8:
                                                   .BLKB   6
                                  01352 VALUE_PRIORITY:
                                                   .BLKB   1
                                  01353 VALUE_PROCESSOR:
                                                   .BLKB   6
                                  01359 VALUE_PROTECTION:
                                                   .BLKB   4
                                  0135D VALUE_QUEUE:
                                                   .BLKB   6
                                  01363 VALUE_QUEUE_FILE_SPECIFICATION:
                                                   .BLKB   6
                                  01369 VALUE_RELATIVE_PAGE:
                                                   .BLKB   4
                                  0136D VALUE_RESERVED_INPUT_1:
                                                   .BLKB   1
                                  0136E VALUE_RESERVED_INPUT_2:
                                                   .BLKB   2
                                  01370 VALUE_RESERVED_INPUT_3:
                                                   .BLKB   4
                                  01374 VALUE_RESERVED_INPUT_4:
                                                   .BLKB   6
                                  0137A VALUE_RESERVED_OUTPUT_1:
                                                   .BLKB   10
                                  01384 VALUE_RESERVED_OUTPUT_2:
                                                   .BLKB   10
                                  0138E VALUE_SEARCH_STRING:
                                                   .BLKB   6
                                  01394 VALUE_SCSNODE_NAME:
                                                   .BLKB   6
                                  0139A VALUE_WSDEFAULT:
                                                   .BLKB   2
                                  0139C VALUE_WSEXTENT:
                                                   .BLKB   2
                                  0139E VALUE_WSQUOTA:
                                                   .BLKB   2
                                  013A0 VALUE_STORAGE_END:
                                                   .BLKB   0

                                                   .PSECT  CODE,NOWRT,2

      3A  30  41  4C  4E  5F      00000 P.AAB:     .ASCII  \_NLA0:\                                 ;
                                  00006            .BLKB   2
                       00000006   00008 P.AAA:     .LONG   6                                        ;
                       00000000'  0000C            .ADDRESS P.AAB                                   ;
      3A  30  41  50  4F  5F      00010 P.AAD:     .ASCII  \_OPA0:\                                 ;
                                  00016            .BLKB   2
                       00000006   00018 P.AAC:     .LONG   6                                        ;
                       00000000'  0001C            .ADDRESS P.AAD                                   ;
                             5F   00020 P.AAF:     .ASCII  \_\                                      ;
                       00000000G  00021            .LONG   SYS$C_JOBCTLMB                           ;
                             3A   00025            .ASCII  \:\                                      ;
                                  00026            .BLKB   2
                       00000006   00028 P.AAE:     .LONG   6                                        ;
                       00000000'  0002C            .ADDRESS P.AAF                                   ;
            FFFFFFFF   FFFFFFFF   00030 P.AAG:     .LONG   -1, -1                                   ;
```

```
   4C 4F 52 54 4E 4F 43 5F 42 4F 4A 00038 P.AAI:   .ASCII  \JOB_CONTROL\                              ;
                                    00043          .BLKB   1
                          0000000B  00044 P.AAH:   .LONG   11                                         ;
                          00000000' 00048          .ADDRESS P.AAI                                     ;
                       20 1D F2 A1  0004C PRIVILEGE_MASK:
                                           .BYTE   -95, -14, 29, 32                                   ;
                                    00050          .BLKB   4
            4B 53 49 44 24 53 59 53 00054 P.AAK:   .ASCII  \SYS$DISK\                                 ;
                          00000008  0005C P.AAJ:   .LONG   8                                          ;
                          00000000' 00060          .ADDRESS P.AAK                                     ;
3A 54 4F 4F 52 53 59 53 24 53 59 53 00064 P.AAM:   .ASCII  \SYS$SYSROOT:\                             ;
                          0000000C  00070 P.AAL:   .LONG   12                                         ;
                          00000000' 00074          .ADDRESS P.AAM                                     ;
            5D 45 58 45 53 59 53 5B 00078 P.AAO:   .ASCII  \[SYSEXE]\                                 ;
                          00000008  00080 P.AAN:   .LONG   8                                          ;
                          00000000' 00084          .ADDRESS P.AAO                                     ;
                         0409 0004  00088 P.AAP:   .WORD   4, 1033                                    ;
                          00000000' 0008C          .ADDRESS JBC_QUOTAS+1                              ;
                          00000000  00090          .LONG   0                                          ;
                         0310 0004  00094          .WORD   4, 784                                     ;
                          00000000' 00098          .ADDRESS JBC_QUOTAS+6                              ;
                          00000000  0009C          .LONG   0                                          ;
                         031A 0004  000A0          .WORD   4, 794                                     ;
                          00000000' 000A4          .ADDRESS JBC_QUOTAS+11                             ;
                          00000000  000A8          .LONG   0                                          ;
                         0313 0004  000AC          .WORD   4, 787                                     ;
                          00000000' 000B0          .ADDRESS JBC_QUOTAS+21                             ;
                          00000000  000B4          .LONG   0                                          ;
                         0320 0004  000B8          .WORD   4, 800                                     ;
                          00000000' 000BC          .ADDRESS JBC_QUOTAS+26                             ;
                          00000000  000C0          .LONG   0                                          ;
                         040F 0004  000C4          .WORD   4, 1039                                    ;
                          00000000' 000C8          .ADDRESS JBC_QUOTAS+31                             ;
                          00000000  000CC          .LONG   0                                          ;
                         040E 0004  000D0          .WORD   4, 1038                                    ;
                          00000000' 000D4          .ADDRESS JBC_QUOTAS+36                             ;
                          00000000  000D8          .LONG   0                                          ;
                         0408 0004  000DC          .WORD   4, 1032                                    ;
                          00000000' 000E0          .ADDRESS JBC_QUOTAS+41                             ;
                          00000000  000E4          .LONG   0                                          ;
                         0410 0004  000E8          .WORD   4, 1040                                    ;
                          00000000' 000EC          .ADDRESS JBC_QUOTAS+46                             ;
                          00000000  000F0          .LONG   0                                          ;
                         0403 0004  000F4          .WORD   4, 1027                                    ;
                          00000000' 000F8          .ADDRESS JBC_QUOTAS+51                             ;
                          00000000  000FC          .LONG   0                                          ;
                         0417 0004  00100          .WORD   4, 1047                                    ;
                          00000000' 00104          .ADDRESS JBC_QUOTAS+56                             ;
                          00000000  00108          .LONG   0                                          ;
                         0401 0004  0010C          .WORD   4, 1025                                    ;
                          00000000' 00110          .ADDRESS JBC_QUOTAS+61                             ;
                          00000000  00114          .LONG   0                                          ;
                         0309 0004  00118          .WORD   4, 777                                     ;
                          00000000' 0011C          .ADDRESS JBC_PRIORITY                              ;
                          00000000  00120          .LONG   0                                          ;
                         0400 0008  00124          .WORD   8, 1024                                    ;
                          00000000' 00128          .ADDRESS JBC_PRIVILEGES                            ;
```

```
                                                  00000000  0012C         .LONG   0                                            ;
                                                 0304 0004  00130         .WORD   4, 772                                       ;
                                                  00000000' 00134         .ADDRESS JBC_UIC                                     ;
                                                  00000000  00138         .LONG   0                                            ;
                                                  00000000  0013C         .LONG   0                                            ;

                                                                  JBC$_CLOSEOUT=      266328
                                                                  JBC$_NOCMKRNL=      272388
                                                                  JBC$_NOOPER=        272532
                                                                  JBC$_NOSYSNAM=      272404
                                                                  JBC$_OPENIN=        266392
                                                                  JBC$_OPENOUT=       266400
                                                                  JBC$_READERR=       266416
                                                                  JBC$_WRITEERR=      266448
                                                                  NLA0_DESC==         P.AAA
                                                                  OPA0_DESC==         P.AAC
                                                                  JOBCTLMBX_DESC==    P.AAE
                                                                  ALL_PRIVILEGES==    P.AAG
                                                                  JOB_CONTROL_DESC=   P.AAH
                                                                          .EXTRN  ALLOCATE_MEMORY
                                                                          .EXTRN  CLOSE_ACCOUNTING_FILE
                                                                          .EXTRN  DEALLOCATE_MEMORY
                                                                          .EXTRN  DELETE_SYMBIONTS
                                                                          .EXTRN  GETQUI_SERVICE, INITIALIZE_RESTRICTED
                                                                          .EXTRN  LOCK_QUEUE_FILE
                                                                          .EXTRN  OPEN_ACCOUNTING_FILE
                                                                          .EXTRN  PROCESS_ACCOUNTING
                                                                          .EXTRN  PROCESS_DELETION
                                                                          .EXTRN  SEND_SERVICE_RESPONSE
                                                                          .EXTRN  SYS$SETDDIR, SNDACC_SERVICE
                                                                          .EXTRN  SNDJBC_SERVICE, SNDSMB_SERVICE
                                                                          .EXTRN  SYMBIONT_SERVICE
                                                                          .EXTRN  UNSOLICITED_INPUT
                                                                          .EXTRN  UNLOCK_QUEUE_FILE
                                                                          .EXTRN  WARM_START_EXISTING_FILE
                                                                          .EXTRN  SGN$GL_VMSD2, CTL$GL_PHD
                                                                          .EXTRN  CTL$T_USERNAME, SYS$C_JOBCTLMB
                                                                          .EXTRN  SYS$SETPRV, SYS$CRELOG
                                                                          .EXTRN  SYS$GETJPIW, SYS$SETPRN
                                                                          .EXTRN  SYS$CMKRNL, SYS$ASSIGN
                                                                          .EXTRN  SYS$GETTIM, SYS$QIO
                                                                          .EXTRN  SYS$HIBER

                                                       003C 00000 JOBCTL: .WORD   Save R2,R3,R4,R5                             ; 1454
                                       55 00000000G  00  9E 00002         MOVAB   LIB$SIGNAL, R5                               ;
                                       54     FEFF   CF  9E 00009         MOVAB   PRIVILEGE_MASK, R4                           ;
                                       53 00000000'  EF  9E 0000E         MOVAB   FLAGS, R3                                    ;
                                  02   A3            01  88 00015         BISB2   #1, FLAGS+2                                  ; 1507
                                  02   A3         7E 8F  8A 00019         BICB2   #126, FLAGS+2                                ; 1515
                                       0F         02 A3  E9 0001E         BLBC    FLAGS+2, 1$                                  ; 1517
           50 00000000G  00            0F            01  EF 00022         EXTZV   #1, #15, SGN$GL_VMSD2, R0                    ; 1518
      02   A3            0F            01            50  F0 0002B         INSV    R0, #1, #15, FLAGS+2                         ;
                                                     7E  7C 00031 1$:     CLRQ    -(SP)                                        ; 1523
                                                     54  DD 00033         PUSHL   R4                                           ;
                                                     01  DD 00035         PUSHL   #1                                           ;
                            00000000G  00            04  FB 00037         CALLS   #4, SYS$SETPRV                               ;
                                                     7E  D4 0003E         CLRL    -(SP)                                        ; 1531
```

```
                      24   A4    9F 00040         PUSHAB  P.AAL                                        ;
                      10   A4    9F 00043         PUSHAB  P.AAJ                                        ;
                           02    DD 00046         PUSHL   #2                                           ;
       00000000G   00      04    FB 00048         CALLS   #4, SYS$CRELOG                               ;
                           7E    7C 0004F         CLRQ    -(SP)                                        ; 1537
                      34   A4    9F 00051         PUSHAB  P.AAN                                        ;
       00000000G   EF      03    FB 00054         CALLS   #3, SYS$SETDDIR                              ;
                   50 00000000G  00    D0 0005B   MOVL    CTL$GL_PHD, R0                               ; 1544
    05       36    A0      05    E0 00062         BBS     #5, 54(R0), 2$                               ;
                      04   A3    D4 00067         CLRL    IMAGE_DUMP_STSFLG                            ; 1545
                           06    11 0006A         BRB     3$                                           ;
             04    A3    0800   8F    3C 0006C 2$:  MOVZWL  #2048, IMAGE_DUMP_STSFLG                   ; 1546
                           7E    7C 00072 3$:     CLRQ    -(SP)                                        ; 1569
                           7E    D4 00074         CLRL    -(SP)                                        ;
                      3C   A4    9F 00076         PUSHAB  P.AAP                                        ;
                           7E    7C 00079         CLRQ    -(SP)                                        ;
                           01    DD 0007B         PUSHL   #1                                           ;
       00000000G   00      07    FB 0007D         CALLS   #7, SYS$GETJPIW                              ;
            00CC   C3      01    90 00084         MOVB    #1, JBC_QUOTAS                               ; 1571
            00D1   C3      02    90 00089         MOVB    #2, JBC_QUOTAS+5                             ; 1572
            00D6   C3      03    90 0008E         MOVB    #3, JBC_QUOTAS+10                            ; 1573
            00DB   C3      04    90 00093         MOVB    #4, JBC_QUOTAS+15                            ; 1574
            00E0   C3      05    90 00098         MOVB    #5, JBC_QUOTAS+20                            ; 1575
            00E5   C3      0C    90 0009D         MOVB    #12, JBC_QUOTAS+25                           ; 1576
            00EA   C3      06    90 000A2         MOVB    #6, JBC_QUOTAS+30                            ; 1577
            00EF   C3      07    90 000A7         MOVB    #7, JBC_QUOTAS+35                            ; 1578
            00F4   C3      08    90 000AC         MOVB    #8, JBC_QUOTAS+40                            ; 1579
            00F9   C3      09    90 000B1         MOVB    #9, JBC_QUOTAS+45                            ; 1580
            00FE   C3      0B    90 000B6         MOVB    #11, JBC_QUOTAS+50                           ; 1581
            0103   C3      0D    90 000BB         MOVB    #13, JBC_QUOTAS+55                           ; 1582
            0108   C3      0A    90 000C0         MOVB    #10, JBC_QUOTAS+60                           ; 1583
                    010D   C3    94 000C5         CLRB    JBC_QUOTAS+65                                ; 1584
                   6D   0000V    CF    9E 000C9   MOVAB   MAIN_HANDLER, (FP)                           ; 1589
                      F8   A4    9F 000CE         PUSHAB  JOB_CONTROL_DESC                             ; 1594
       00000000G   00      01    FB 000D1         CALLS   #1, SYS$SETPRN                               ;
                           7E    D4 000D8         CLRL    -(SP)                                        ; 1595
                    0000V  CF    9F 000DA         PUSHAB  RESET_USERNAME                               ;
       00000000G   00      02    FB 000DE         CALLS   #2, SYS$CMKRNL                               ;
                           7E    7C 000E5         CLRQ    -(SP)                                        ; 1600
                    07F4   C3    9F 000E7         PUSHAB  MBX_CHAN                                     ;
                      DC   A4    9F 000EB         PUSHAB  JOBCTLMBX_DESC                               ;
       00000000G   00      04    FB 000EE         CALLS   #4, SYS$ASSIGN                               ;
                   0D      50    E8 000F5         BLBS    STATUS_1, 4$                                 ; 1601
                           50    DD 000F8         PUSHL   STATUS_1                                     ;
                           7E    D4 000FA         CLRL    -(SP)                                        ;
                00048434   8F    DD 000FC         PUSHL   #295988                                      ;
                   65      03    FB 00102         CALLS   #3, LIB$SIGNAL                               ;
                      10   A3    9F 00105 4$:     PUSHAB  CUR_TIME                                     ; 1606
       00000000G   00      01    FB 00108         CALLS   #1, SYS$GETTIM                               ;
       00000000G   EF      00    FB 0010F         CALLS   #0, INITIALIZE_RESTRICTED                    ; 1611
                           7E    D4 00116         CLRL    -(SP)                                        ; 1616
       00000000G   EF      01    FB 00118         CALLS   #1, OPEN_ACCOUNTING_FILE                     ;
                   50      70    A3    9E 0011F   MOVAB   NONAST_WORK_QUEUE, R0                        ; 1621
              74   A3      50    D0 00123         MOVL    R0, NONAST_WORK_QUEUE+4                      ;
              70   A3      50    D0 00127         MOVL    R0, NONAST_WORK_QUEUE                        ;
                           50    D4 0012B         CLRL    I                                            ; 1622
                   51      48 A340  DE 0012D 5$:  MOVAL   MEMORY_FREE_QUEUES[I], R1                    ; 1623
```

```
                                  4C A340            51 D0 00132         MOVL    R1, MEMORY_FREE_QUEUES+4[I]                  ;
                                  48 A340            51 D0 00137         MOVL    R1, MEMORY_FREE_QUEUES[I]                    ;
         FFEB            50            02            08 F1 0013C         ACBL    #8, #2, I, 5$                                ;
                                       63            02 88 00142         BISB2   #2, FLAGS                                    ; 1628
                                                     7E 7C 00145         CLRQ    -(SP)                                        ; 1635
                                                     7E 7C 00147         CLRQ    -(SP)                                        ;
                                       7E     0400   8F 3C 00149         MOVZWL  #1024, -(SP)                                 ;
                                              0800   C3 9F 0014E         PUSHAB  MBX_BUFFER                                   ;
                                                     7E D4 00152         CLRL    -(SP)                                        ;
                                              0000V  CF 9F 00154         PUSHAB  MAILBOX_AST                                  ;
                                              07F8   C3 9F 00158         PUSHAB  MBX_IOSB                                     ;
                                                     31 DD 0015C         PUSHL   #49                                          ;
                                              07F4   C3 DD 0015E         PUSHL   MBX_CHAN                                     ;
                                                     7E D4 00162         CLRL    -(SP)                                        ;
                            00000000G  00            0C FB 00164         CALLS   #12, SYS$QIO                                 ;
                                       0D            50 E8 0016B         BLBS    STATUS_2, 6$                                 ; 1636
                                                     50 DD 0016E         PUSHL   STATUS_2                                     ;
                                                     7E D4 00170         CLRL    -(SP)                                        ;
                                          0004844C   8F DD 00172         PUSHL   #296012                                      ;
                                       65            03 FB 00178         CALLS   #3, LIB$SIGNAL                               ;
                                       52       70   B3 0F 0017B  6$:    REMQUE  @NONAST_WORK_QUEUE, NWB                      ; 1647
                                                     15 1D 0017F         BVS     7$                                           ;
                                                10   A2 9F 00181         PUSHAB  16(NWB)                                      ; 1649
                                  08   B2            01 FB 00184         CALLS   #1, @8(NWB)                                  ;
                                                0C   A2 DD 00188         PUSHL   12(NWB)                                      ; 1650
                                                     52 DD 0018B         PUSHL   NWB                                          ;
                            00000000G  EF            02 FB 0018D         CALLS   #2, DEALLOCATE_MEMORY                        ;
                                                     E5 11 00194         BRB     6$                                           ; 1647
                            00000000G  00            00 FB 00196  7$:    CALLS   #0, SYS$HIBER                                ; 1651
                                                     DC 11 0019D         BRB     6$                                           ; 1641

; Routine Size:  415 bytes,    Routine Base:  CODE + 0140
;  378          1655  1 ROUTINE RESET_USERNAME=
;  379          1656  1
;  380          1657  1 !++
;  381          1658  1 !
;  382          1659  1 ! FUNCTIONAL DESCRIPTION:
;  383          1660  1 !       This routine sets the process username to JOB_CONTROL.  It executes in
;  384          1661  1 !       kernel mode.
;  385          1662  1 !
;  386          1663  1 ! INPUT PARAMETERS:
;  387          1664  1 !       NONE
;  388          1665  1 !
;  389          1666  1 ! IMPLICIT INPUTS:
;  390          1667  1 !       NONE
;  391          1668  1 !
;  392          1669  1 ! OUTPUT PARAMETERS:
;  393          1670  1 !       NONE
;  394          1671  1 !
;  395          1672  1 ! IMPLICIT OUTPUTS:
;  396          1673  1 !       CTL$T_USERNAME set to JOB_CONTROL.
;  397          1674  1 !
;  398          1675  1 ! ROUTINE VALUE:
;  399          1676  1 !       SS$_NORMAL
;  400          1677  1 !
;  401          1678  1 ! SIDE EFFECTS:
;  402          1679  1 !       NONE
;  403          1680  1 !
;  404          1681  1 !--
;  405          1682  1
;  406          1683  2 BEGIN
;  407          1684  2 CH$COPY(
;  408          1685  2     .JOB_CONTROL_DESC[DSC$W_LENGTH], .JOB_CONTROL_DESC[DSC$A_POINTER],
;  409          1686  2     %C' ',
;  410          1687  2     12, CTL$T_USERNAME);
;  411          1688  2 SS$_NORMAL
;  412          1689  1 END;



                                                     003C 00000 RESET_USERNAME:
                                                                       .WORD   Save R2,R3,R4,R5                        ; 1655
        0C            20      FD60   DF      FD5F   CF   2C 00002      MOVC5   JOB_CONTROL_DESC, @JOB_CONTROL_DESC+4, - ; 1684
                                         00000000G  00      0000B              #32, #12, CTL$T_USERNAME                 ;
                                     50             01   D0 00010      MOVL    #1, R0                                   ; 1689
                                                         04 00013      RET                                              ;

; Routine Size:  20 bytes,    Routine Base:  CODE + 02DF
```

```
1 GLOBAL ROUTINE SCHEDULE_NONAST(ROUT,LENGTH,ADDRESS): NOVALUE=
1
1 !++
1 !
1 ! FUNCTIONAL DESCRIPTION:
1 !       This routine is called by an AST routine to schedule a specified routine
1 !       to execute at non-AST level.  The requests are processed first in, first
1 !       out.
1 !
1 ! INPUT PARAMETERS:
1 !       ROUT            - Address of the routine to be executed.
1 !       LENGTH          - (Optional) Descriptor for parameter data.
1 !       ADDRESS         -
1 !
1 ! IMPLICIT INPUTS:
1 !       NONE
1 !
1 ! OUTPUT PARAMETERS:
1 !       NONE
1 !
1 ! IMPLICIT OUTPUTS:
1 !       NONE
1 !
1 ! ROUTINE VALUE:
1 !       NONE
1 !
1 ! SIDE EFFECTS:
1 !       NONE
1 !
1 !--
1
2 BEGIN
2 LOCAL
2       NWB:            REF BBLOCK;     ! Pointer to non-AST work block
2 BUILTIN
2       ACTUALCOUNT;
2
2
2 IF ACTUALCOUNT() LSSU 2
2 THEN
3     BEGIN
3     NWB = ALLOCATE_MEMORY();
3     NWB[NWB_ROUT] = .ROUT;
3     NWB[NWB_PAGES] = 1;
3     END
2 ELSE
3     BEGIN
3     LOCAL
3         NP;
3
3     NP = (.LENGTH + 16 + 511) / 512;
3     NWB = ALLOCATE_MEMORY(.NP);
3     NWB[NWB_ROUT] = .ROUT;
3     NWB[NWB_PAGES] = .NP;
3     CH$MOVE(.LENGTH, .ADDRESS, NWB[NWB_PARAM]);
2     END;
2
```

```
;  471          1747  2
;  472          1748  2 IF INSQUE(.NWB, .NONAST_WORK_QUEUE[1]) THEN $WAKE();
;  473          1749  1 END;



                                                                          .EXTRN  SYS$WAKE

                                                       00FC 00000         .ENTRY  SCHEDULE_NONAST, Save R2,R3,R4,R5,R6,R7      ; 1690
                                       57 00000000G  EF  9E 00002         MOVAB   ALLOCATE_MEMORY, R7                          ;
                                       02            6C  91 00009         CMPB    (AP), #2                                     ; 1728
                                                     11  1E 0000C         BGEQU   1$                                           ;
                                       67            00  FB 0000E         CALLS   #0, ALLOCATE_MEMORY                          ; 1731
                                       56            50  D0 00011         MOVL    R0, NWB                                      ;
                                  08   A6       04   AC  D0 00014         MOVL    ROUT, 8(NWB)                                 ; 1732
                                  0C   A6            01  D0 00019         MOVL    #1, 12(NWB)                                  ; 1733
                                                     29  11 0001D         BRB     2$                                           ; 1728
                         50       08   AC 0000020F   8F  C1 0001F 1$:     ADDL3   #527, LENGTH, R0                             ; 1740
                         52            50 00000200   8F  C7 00028         DIVL3   #512, R0, NP                                 ;
                                                     52  DD 00030         PUSHL   NP                                           ; 1741
                                       67            01  FB 00032         CALLS   #1, ALLOCATE_MEMORY                          ;
                                       56            50  D0 00035         MOVL    R0, NWB                                      ;
                                  08   A6       04   AC  D0 00038         MOVL    ROUT, 8(NWB)                                 ; 1742
                                  0C   A6            52  D0 0003D         MOVL    NP, 12(NWB)                                  ; 1743
                    10   A6       0C   BC       08   AC  28 00041         MOVC3   LENGTH, @ADDRESS, 16(NWB)                    ; 1744
                            00000000'  FF            66  0E 00048 2$:     INSQUE  (NWB), @NONAST_WORK_QUEUE+4                  ; 1748
                                                     09  12 0004F         BNEQ    3$                                           ;
                                                     7E  7C 00051         CLRQ    -(SP)                                        ;
                            00000000G  00            02  FB 00053         CALLS   #2, SYS$WAKE                                 ;
                                                         04 0005A 3$:     RET                                                  ; 1749

; Routine Size:  91 bytes,    Routine Base:  CODE + 02F3
```

```
1 ROUTINE MAILBOX_NONAST(MSG): NOVALUE=
1
1 !++
1 !
1 ! FUNCTIONAL DESCRIPTION:
1 !       This routine is scheduled to execute by the completion AST routine for
1 !       a mailbox read.  It processes the buffered message.
1 !
1 ! INPUT PARAMETERS:
1 !       MSG             - Pointer to message IOSB followed by message.
1 !
1 ! IMPLICIT INPUTS:
1 !       NONE
1 !
1 ! OUTPUT PARAMETERS:
1 !       NONE
1 !
1 ! IMPLICIT OUTPUTS:
1 !       NONE
1 !
1 ! ROUTINE VALUE:
1 !       NONE
1 !
1 ! SIDE EFFECTS:
1 !       NONE
1 !
1 !--
1
2 BEGIN
2 LOCAL
2       STATUS;                         ! Status return
2
2
2 ! Initialize global pointers to the message.
2 !
2 MBX = .MSG + 8;
2 MBX_END = .MBX + .MBX[ACM$W_MSGLEN];
2
2 IF .FLAGS[FLAGS_V_READ_VMSD2]           ! Reset debug control flags
2     THEN FLAGS<17,15> = .SGN$GL_VMSD2<1,15>;
2
2 DIAG_TRACE[0] = .MBX[MSG_W_TYPE];       ! ***** diagnostic info *****
2 DIAG_TRACE[1] = 0;                      ! ***** diagnostic info *****
2 DIAG_COUNT[0] = DIAG_COUNT[1] = DIAG_COUNT[2] = DIAG_COUNT[3] = 0;
2 DIAG_COUNT[4] = DIAG_COUNT[5] = DIAG_COUNT[6] = DIAG_COUNT[7] = 0;
2
2
2 ! Process the message.
2 !
2 CASE .MBX[MSG_W_TYPE] FROM MSG$_DELPROC TO MSG$_GETQUI OF
2     SET
2
2
2     [INRANGE, OUTRANGE]:
2         SIGNAL(JBC$_INVMSG OR STS$K_ERROR);
2
2
```

```
2      [MSG$_DELPROC]:
3          BEGIN
3          COPY_TIME(MBX[ACM$Q_SYSTIME], CUR_TIME);
3          PROCESS_DELETION();
2          END;
2
2
2      [MSG$_SNDSMB]:
3          BEGIN
3          COPY_TIME(MBX[ACM$Q_SYSTIME], CUR_TIME);
3          RSP[RSP_W_TYPE] = MSG$_SMBRSP;
3          RSP[RSP_W_ENTRY_NUMBER] = 0;
3          RSP[RSP_L_STATUS] = SNDSMB_SERVICE();
3          UNLOCK_QUEUE_FILE();
3          SEND_SERVICE_RESPONSE();
2          END;
2
2
2      [MSG$_SMBINI]:
3          BEGIN
3          $GETTIM(TIMADR=CUR_TIME);
3          SYMBIONT_SERVICE();
2          END;
2
2
2      [MSG$_SMBDON]:                                  ! Connection manager message
3          BEGIN
3          $GETTIM(TIMADR=CUR_TIME);
3          IF .QUEUE_FAB[FAB$W_IFI] NEQ 0
3          THEN
4              BEGIN
4              LOCAL
4                  SYSID:  BBLOCK[6];
4
4              CH$COPY(.MBX[8,0,8,0], MBX[9,0,0,0], %C' ', 6, SYSID);
4              LOCK_QUEUE_FILE();
4              WARM_START_EXISTING_FILE(SYSID);
4              UNLOCK_QUEUE_FILE();
3              END;
2          END;
2
2
2      [MSG$_SNDACC]:
3          BEGIN
3          COPY_TIME(MBX[ACM$Q_SYSTIME], CUR_TIME);
3          RSP[RSP_W_TYPE] = MSG$_ACCRSP;
3          RSP[RSP_W_ENTRY_NUMBER] = 0;
3          RSP[RSP_L_STATUS] = SNDACC_SERVICE();
3          SEND_SERVICE_RESPONSE();
2          END;
2
2
2      [MSG$_PURPROC, MSG$_DELIMAG, MSG$_PURIMAG]:
3          BEGIN
3          COPY_TIME(MBX[ACM$Q_SYSTIME], CUR_TIME);
3          PROCESS_ACCOUNTING();
2          END;
```

```
:  589          1864  2
:  590          1865  2
:  591          1866  2       [MSG$_SNDJBC]:
:  592          1867  3           BEGIN
:  593          1868  3           COPY_TIME(MBX[ACM$Q_SYSTIME], CUR_TIME);
:  594          1869  3           RSP[RSP_W_ENTRY_NUMBER] = 0;
:  595          1870  3           RSP[RSP_L_STATUS] = SNDJBC_SERVICE();
:  596          1871  3           UNLOCK_QUEUE_FILE();
:  597          1872  3           SEND_SERVICE_RESPONSE();
:  598          1873  2           END;
:  599          1874  2
:  600          1875  2
:  601          1876  2       [MSG$_GETQUI]:
:  602          1877  3           BEGIN
:  603          1878  3           COPY_TIME(MBX[ACM$Q_SYSTIME], CUR_TIME);
:  604          1879  3           RSP[RSP_W_ENTRY_NUMBER] = 0;
:  605          1880  3           RSP[RSP_L_STATUS] = GETQUI_SERVICE();
:  606          1881  3           UNLOCK_QUEUE_FILE();
:  607          1882  3           SEND_SERVICE_RESPONSE();
:  608          1883  2           END;
:  609          1884  2
:  610          1885  2
:  611          1886  2       TES;
:  612          1887  2
:  613          1888  2
:  614          1889  2  DIAG_COUNT[12] = .DIAG_COUNT[12] + .DIAG_COUNT[0];
:  615          1890  2  DIAG_COUNT[13] = .DIAG_COUNT[13] + .DIAG_COUNT[1];
:  616          1891  2  DIAG_COUNT[14] = .DIAG_COUNT[14] + .DIAG_COUNT[2];
:  617          1892  2  DIAG_COUNT[15] = .DIAG_COUNT[15] + .DIAG_COUNT[3];
:  618          1893  2  DIAG_COUNT[16] = .DIAG_COUNT[16] + .DIAG_COUNT[4];
:  619          1894  2  DIAG_COUNT[17] = .DIAG_COUNT[17] + .DIAG_COUNT[5];
:  620          1895  2  DIAG_COUNT[18] = .DIAG_COUNT[18] + .DIAG_COUNT[6];
:  621          1896  2  DIAG_COUNT[19] = .DIAG_COUNT[19] + .DIAG_COUNT[7];
:  622          1897  2
:  623          1898  2
:  624          1899  2  ! Queue another read from the mailbox if there is no read in progress -- it
:  625          1900  2  ! was shut down because the maximum was exceeded.
:  626          1901  2  !
:  627          1902  2  MBX_MESSAGE_COUNT = .MBX_MESSAGE_COUNT - 1;
:  628          1903  2  IF TESTBITCS(FLAGS[FLAGS_V_READ_POSTED])
:  629          1904  2  THEN
:  630          1905  3      BEGIN
:  631          1906  3      LOCAL
:  632          1907  3          STATUS;                 ! Status return
:  633          1908  3
:  634        P 1909  3      STATUS = $QIO(
:  635        P 1910  3          FUNC=IO$_READVBLK,
:  636        P 1911  3          CHAN=.MBX_CHAN,
:  637        P 1912  3          IOSB=MBX_IOSB,
:  638        P 1913  3          ASTADR=MAILBOX_AST,
:  639        P 1914  3          P1=MBX_BUFFER,
:  640          1915  3          P2=%ALLOCATION(MBX_BUFFER));
:  641          1916  3      IF NOT .STATUS THEN SIGNAL(JBC$_REAJBCMBX OR STS$K_SEVERE, 0, .STATUS);
:  642          1917  2      END;
:  643          1918  1  END;
```

```
                                                       03FC 00000 MAILBOX_NONAST:
                                                                         .WORD   Save R2,R3,R4,R5,R6,R7,R8,R9                ; 1750
                                       59 00000000G  EF  9E 00002        MOVAB   UNLOCK_QUEUE_FILE, R9                       ;
                                       58 00000000G  00  9E 00009        MOVAB   SYS$GETTIM, R8                              ;
                                       57 00000000G  00  9E 00010        MOVAB   LIB$SIGNAL, R7                              ;
                                       56 00000000'  EF  9E 00017        MOVAB   CUR_TIME, R6                                ;
                                       5E            08  C2 0001E        SUBL2   #8, SP                                      ;
                    30   A6       04   AC            08  C1 00021        ADDL3   #8, MSG, MBX                                ; 1785
                                       52       30   A6  D0 00027        MOVL    MBX, R2                                     ; 1786
                                       50       FA   A2  3C 0002B        MOVZWL  -6(R2), R0                                  ;
                    34   A6            52            50  C1 0002F        ADDL3   R0, R2, MBX_END                             ;
                                       0F       F2   A6  E9 00034        BLBC    FLAGS+2, 1$                                 ; 1788
           50 00000000G  00            0F            01  EF 00038        EXTZV   #1, #15, SGN$GL_VMSD2, R0                   ; 1789
      F2   A6            0F            01            50  F0 00041        INSV    R0, #1, #15, FLAGS+2                        ;
                                FDF0   C6            62  3C 00047 1$:    MOVZWL  (R2), DIAG_TRACE                            ; 1791
                                              FDF4   C6  D4 0004C        CLRL    DIAG_TRACE+4                                ; 1792
                                              FE58   C6  7C 00050        CLRQ    DIAG_COUNT+8                                ; 1793
                                              FE50   C6  7C 00054        CLRQ    DIAG_COUNT                                  ;
                                              FE68   C6  7C 00058        CLRQ    DIAG_COUNT+24                               ; 1794
                                              FE60   C6  7C 0005C        CLRQ    DIAG_COUNT+16                               ;
                         0D            03            62  AF 00060        CASEW   (R2), #3, #13                               ; 1799
         001C          001C          0034          0027     00064 2$:    .WORD   4$-2$,-                                     ;
         0083          0054          0046          001C     0006C                5$-2$,-                                     ;
         001C          009A          009A          009A     00074                3$-2$,-                                     ;
                                     00B8          00A7     0007C                3$-2$,-                                     ;
                                                                                 3$-2$,-                                     ;
                                                                                 6$-2$,-                                     ;
                                                                                 7$-2$,-                                     ;
                                                                                 8$-2$,-                                     ;
                                                                                 9$-2$,-                                     ;
                                                                                 9$-2$,-                                     ;
                                                                                 9$-2$,-                                     ;
                                                                                 3$-2$,-                                     ;
                                                                                 11$-2$,-                                    ;
                                                                                 13$-2$                                      ;
                                          00048422   8F  DD 00080 3$:    PUSHL   #295970                                     ; 1804
                                       67            01  FB 00086        CALLS   #1, LIB$SIGNAL                              ;
                                                     7E  11 00089        BRB     10$                                         ;
                                       66       3C   A2  7D 0008B 4$:    MOVQ    60(R2), CUR_TIME                            ; 1809
                            00000000G  EF            00  FB 0008F        CALLS   #0, PROCESS_DELETION                        ; 1810
                                                     71  11 00096        BRB     10$                                         ; 1799
                                       66       3C   A2  7D 00098 5$:    MOVQ    60(R2), CUR_TIME                            ; 1816
                                00A8   C6            20  D0 0009C        MOVL    #32, RSP                                    ; 1817
                            00000000G  EF            00  FB 000A1        CALLS   #0, SNDSMB_SERVICE                          ; 1819
                                                     70  11 000A8        BRB     12$                                         ;
                                                     56  DD 000AA 6$:    PUSHL   R6                                          ; 1827
                                       68            01  FB 000AC        CALLS   #1, SYS$GETTIM                              ;
                            00000000G  EF            00  FB 000AF        CALLS   #0, SYMBIONT_SERVICE                        ; 1828
                                                     51  11 000B6        BRB     10$                                         ; 1799
                                                     56  DD 000B8 7$:    PUSHL   R6                                          ; 1834
                                       68            01  FB 000BA        CALLS   #1, SYS$GETTIM                              ;
                                              0106   C6  B5 000BD        TSTW    QUEUE_FAB+2                                 ; 1835
                                                     77  13 000C1        BEQL    16$                                         ;
                                       50       30   A6  D0 000C3        MOVL    MBX, R0                                     ; 1841
```

```
                                          51        08    A0  9A 000C7          MOVZBL  8(R0), R1                                 ;
         06             20           09   A0              51  2C 000CB          MOVC5   R1, 9(R0), #32, #6, SYSID                 ;
                                                          6E     000D1                                                            ;
                                   00000000G  EF          00  FB 000D2          CALLS   #0, LOCK_QUEUE_FILE                       ; 1842
                                                          5E  DD 000D9          PUSHL   SP                                        ; 1843
                                   00000000G  EF          01  FB 000DB          CALLS   #1, WARM_START_EXISTING_FILE              ;
                                              69          00  FB 000E2          CALLS   #0, UNLOCK_QUEUE_FILE                     ; 1844
                                                          53  11 000E5          BRB     16$                                       ; 1799
                                          66        3C    A2  7D 000E7  8$:     MOVQ    60(R2), CUR_TIME                          ; 1851
                                        00A8  C6          21  D0 000EB          MOVL    #33, RSP                                  ; 1852
                                   00000000G  EF          00  FB 000F0          CALLS   #0, SNDACC_SERVICE                        ; 1854
                                        00AC  C6          50  D0 000F7          MOVL    R0, RSP+4                                 ;
                                                          35  11 000FC          BRB     15$                                       ; 1855
                                          66        3C    A2  7D 000FE  9$:     MOVQ    60(R2), CUR_TIME                          ; 1861
                                   00000000G  EF          00  FB 00102          CALLS   #0, PROCESS_ACCOUNTING                    ; 1862
                                                          2F  11 00109  10$:    BRB     16$                                       ; 1799
                                          66        3C    A2  7D 0010B  11$:    MOVQ    60(R2), CUR_TIME                          ; 1868
                                                  00AA    C6  B4 0010F          CLRW    RSP+2                                     ; 1869
                                   00000000G  EF          00  FB 00113          CALLS   #0, SNDJBC_SERVICE                        ; 1870
                                                          0F  11 0011A  12$:    BRB     14$                                       ;
                                          66        3C    A2  7D 0011C  13$:    MOVQ    60(R2), CUR_TIME                          ; 1878
                                                  00AA    C6  B4 00120          CLRW    RSP+2                                     ; 1879
                                   00000000G  EF          00  FB 00124          CALLS   #0, GETQUI_SERVICE                        ; 1880
                                        00AC  C6          50  D0 0012B  14$:    MOVL    R0, RSP+4                                 ;
                                              69          00  FB 00130          CALLS   #0, UNLOCK_QUEUE_FILE                     ; 1881
                                   00000000G  EF          00  FB 00133  15$:    CALLS   #0, SEND_SERVICE_RESPONSE                 ; 1882
                                        FE80  C6      FE50  C6  C0 0013A  16$:    ADDL2   DIAG_COUNT, DIAG_COUNT+48                 ; 1889
                                        FE84  C6      FE54  C6  C0 00141          ADDL2   DIAG_COUNT+4, DIAG_COUNT+52               ; 1890
                                        FE88  C6      FE58  C6  C0 00148          ADDL2   DIAG_COUNT+8, DIAG_COUNT+56               ; 1891
                                        FE8C  C6      FE5C  C6  C0 0014F          ADDL2   DIAG_COUNT+12, DIAG_COUNT+60              ; 1892
                                        FE90  C6      FE60  C6  C0 00156          ADDL2   DIAG_COUNT+16, DIAG_COUNT+64              ; 1893
                                        FE94  C6      FE64  C6  C0 0015D          ADDL2   DIAG_COUNT+20, DIAG_COUNT+68              ; 1894
                                        FE98  C6      FE68  C6  C0 00164          ADDL2   DIAG_COUNT+24, DIAG_COUNT+72              ; 1895
                                        FE9C  C6      FE6C  C6  C0 0016B          ADDL2   DIAG_COUNT+28, DIAG_COUNT+76              ; 1896
                                                    2C    A6  D7 00172          DECL    MBX_MESSAGE_COUNT                         ; 1902
                        36           F0   A6              01  E2 00175          BBSS    #1, FLAGS, 17$                            ; 1903
                                                          7E  7C 0017A          CLRQ    -(SP)                                     ; 1915
                                                          7E  7C 0017C          CLRQ    -(SP)                                     ;
                                          7E      0400    8F  3C 0017E          MOVZWL  #1024, -(SP)                              ;
                                                  07F0    C6  9F 00183          PUSHAB  MBX_BUFFER                                ;
                                                          7E  D4 00187          CLRL    -(SP)                                     ;
                                                  0000V   CF  9F 00189          PUSHAB  MAILBOX_AST                               ;
                                                  07E8    C6  9F 0018D          PUSHAB  MBX_IOSB                                  ;
                                                          31  DD 00191          PUSHL   #49                                       ;
                                                  07E4    C6  DD 00193          PUSHL   MBX_CHAN                                  ;
                                                          7E  D4 00197          CLRL    -(SP)                                     ;
                                   00000000G  00          0C  FB 00199          CALLS   #12, SYS$QIO                              ;
                                              0D          50  E8 001A0          BLBS    STATUS, 17$                               ; 1916
                                                          50  DD 001A3          PUSHL   STATUS                                    ;
                                                          7E  D4 001A5          CLRL    -(SP)                                     ;
                                              0004844C    8F  DD 001A7          PUSHL   #296012                                   ;
                                              67          03  FB 001AD          CALLS   #3, LIB$SIGNAL                            ;
                                                              04 001B0  17$:    RET                                               ; 1918

; Routine Size:  433 bytes,    Routine Base:  CODE + 034E
;  645        1919  1 ROUTINE MAILBOX_AST: NOVALUE=
;  646        1920  1
;  647        1921  1 !++
;  648        1922  1 !
;  649        1923  1 ! FUNCTIONAL DESCRIPTION:
;  650        1924  1 !       This is the completion AST routine for a mailbox read.  It processes
;  651        1925  1 !       the message just read and queues another read.
;  652        1926  1 !
;  653        1927  1 ! INPUT PARAMETERS:
;  654        1928  1 !       NONE
;  655        1929  1 !
;  656        1930  1 ! IMPLICIT INPUTS:
;  657        1931  1 !       MBX_IOSB        - IOSB for read.
;  658        1932  1 !       MBX_BUFFER      - Buffer containing data.
;  659        1933  1 !
;  660        1934  1 ! OUTPUT PARAMETERS:
;  661        1935  1 !       NONE
;  662        1936  1 !
;  663        1937  1 ! IMPLICIT OUTPUTS:
;  664        1938  1 !       NONE
;  665        1939  1 !
;  666        1940  1 ! ROUTINE VALUE:
;  667        1941  1 !       NONE
;  668        1942  1 !
;  669        1943  1 ! SIDE EFFECTS:
;  670        1944  1 !       NONE
;  671        1945  1 !
;  672        1946  1 !--
;  673        1947  1
;  674        1948  2 BEGIN
;  675        1949  2 LOCAL
;  676        1950  2       STATUS;                         ! Status return
;  677        1951  2
;  678        1952  2
;  679        1953  2 IF NOT .MBX_IOSB[0]
;  680        1954  2 THEN
;  681        1955  2     SIGNAL(JBC$_REAJBCMBX OR STS$K_ERROR, 0, .MBX_IOSB[0])
;  682        1956  2 ELSE
;  683        1957  2     IF .MBX_BUFFER[MSG_W_TYPE] EQL MSG$_TRMUNSOLIC
;  684        1958  2     OR .MBX_BUFFER[MSG_W_TYPE] EQL MSG$_CRUNSOLIC
;  685        1959  2     THEN
;  686        1960  2         UNSOLICITED_INPUT()
;  687        1961  2     ELSE
;  688        1962  3         BEGIN
;  689        1963  3         SCHEDULE_NONAST(MAILBOX_NONAST, .MBX_IOSB[1] + 8, MBX_IOSB);
;  690        1964  3         MBX_MESSAGE_COUNT = .MBX_MESSAGE_COUNT + 1;
;  691        1965  2         END;
;  692        1966  2
;  693        1967  2
;  694        1968  2 ! Queue another read from the mailbox.
;  695        1969  2 !
;  696        1970  2 IF .MBX_MESSAGE_COUNT LSSU JBC$K_MAXBUFMSG
;  697        1971  2 THEN
;  698        1972  3     BEGIN
;  699      P 1973  3     STATUS = $QIO(
;  700      P 1974  3         FUNC=IO$_READVBLK,
;  701      P 1975  3         CHAN=.MBX_CHAN,
P 1976  3            IOSB=MBX_IOSB,
P 1977  3            ASTADR=MAILBOX_AST,
P 1978  3            P1=MBX_BUFFER,
  1979  3            P2=%ALLOCATION(MBX_BUFFER));
  1980  3        IF NOT .STATUS THEN SIGNAL(JBC$_REAJBCMBX OR STS$K_SEVERE, 0, .STATUS);
  1981  3        END
  1982  2    ELSE
  1983  2        FLAGS[FLAGS_V_READ_POSTED] = FALSE;
  1984  1    END;
```

```
                                        000C 00000 MAILBOX_AST:
                                                         .WORD   Save R2,R3                                 ; 1919
                  53 0000000G     00     9E 00002        MOVAB   LIB$SIGNAL, R3                             ;
                  52 00000000'    EF     9E 00009        MOVAB   MBX_IOSB, R2                               ;
                  10              62     E8 00010        BLBS    MBX_IOSB, 1$                               ; 1953
                  7E              62     3C 00013        MOVZWL  MBX_IOSB, -(SP)                            ; 1955
                                  7E     D4 00016        CLRL    -(SP)                                      ;
                     0004844A     8F     DD 00018        PUSHL   #296010                                    ;
                  63              03     FB 0001E        CALLS   #3, LIB$SIGNAL                             ;
                                  2B     11 00021        BRB     4$                                         ;
                  01         08   A2     B1 00023 1$:    CMPW    MBX_BUFFER, #1                             ; 1957
                                  06     13 00027        BEQL    2$                                         ;
                  02         08   A2     B1 00029        CMPW    MBX_BUFFER, #2                             ; 1958
                                  09     12 0002D        BNEQ    3$                                         ;
      0000000G    EF              00     FB 0002F 2$:    CALLS   #0, UNSOLICITED_INPUT                      ; 1960
                                  16     11 00036        BRB     4$                                         ;
                                  52     DD 00038 3$:    PUSHL   R2                                         ; 1963
                  7E         02   A2     3C 0003A        MOVZWL  MBX_IOSB+2, -(SP)                          ;
                  6E              08     C0 0003E        ADDL2   #8, (SP)                                   ;
                           FE0A   CF     9F 00041        PUSHAB  MAILBOX_NONAST                             ;
          FDAA    CF              03     FB 00045        CALLS   #3, SCHEDULE_NONAST                        ;
                           F844   C2     D6 0004A        INCL    MBX_MESSAGE_COUNT                          ; 1964
      00000064    8F       F844   C2     D1 0004E 4$:    CMPL    MBX_MESSAGE_COUNT, #100                    ; 1970
                                  32     1E 00057        BGEQU   5$                                         ;
                                  7E     7C 00059        CLRQ    -(SP)                                      ; 1979
                                  7E     7C 0005B        CLRQ    -(SP)                                      ;
                  7E       0400   8F     3C 0005D        MOVZWL  #1024, -(SP)                               ;
                             08   A2     9F 00062        PUSHAB  MBX_BUFFER                                 ;
                                  7E     D4 00065        CLRL    -(SP)                                      ;
                             96   AF     9F 00067        PUSHAB  MAILBOX_AST                                ;
                                  52     DD 0006A        PUSHL   R2                                         ;
                                  31     DD 0006C        PUSHL   #49                                        ;
                             FC   A2     DD 0006E        PUSHL   MBX_CHAN                                   ;
                                  7E     D4 00071        CLRL    -(SP)                                      ;
      0000000G    00              0C     FB 00073        CALLS   #12, SYS$QIO                               ;
                  13              50     E8 0007A        BLBS    STATUS, 6$                                 ; 1980
                                  50     DD 0007D        PUSHL   STATUS                                     ;
                                  7E     D4 0007F        CLRL    -(SP)                                      ;
                     0004844C     8F     DD 00081        PUSHL   #296012                                    ;
                  63              03     FB 00087        CALLS   #3, LIB$SIGNAL                             ;
                                         04 0008A        RET                                                ; 1970
          F808    C2              02     8A 0008B 5$:    BICB2   #2, FLAGS                                  ; 1983
                                         04 00090 6$:    RET                                                ; 1984
```

```
; Routine Size:  145 bytes,    Routine Base:  CODE + 04FF
```

```
1 GLOBAL ROUTINE SIGNAL_FILE_ERROR(MESSAGE,FAB,FRAB)  NOVALUE=
1
1 !++
1 !
1 ! FUNCTIONAL DESCR;PTION:
1 !       This routine handles signalling of file-related errors.
1 !
1 ! INPUT PARAMETERS:
1 !       MESSAGE         - Message code to be signalled.
1 !       FAB             - FAB for the file, to obtain the file specification.
1 !       FRAB            - FAB or RAB that sustained the error, to obtain
1 !                         STS and STV.
1 !
1 ! IMPLICIT INPUTS:
1 !       NONE
1 !
1 ! OUTPUT PARAMETERS:
1 !       NONE
1 !
1 ! IMPLICIT OUTPUTS:
1 !       NONE
1 !
1 ! ROUTINE VALUE:
1 !       NONE
1 !
1 ! SIDE EFFECTS:
1 !       Message signalled.
1 !
1 !--
1
2 BEGIN
2 MAP
2       FAB:            REF BBLOCK,     ! Pointer to FAB
2       FRAB:           REF BBLOCK;     ! Pointer to FAB or RAB
2 LOCAL
2       NAM:            REF BBLOCK,     ! Pointer to NAM block
2       DESC:           VECTOR[2];      ! Descriptor for file specification
2
2
2 ! Set up the file name descriptor.
2 !
2 NAM = .FAB[FAB$L_NAM];
2 IF .NAM[NAM$B_RS[] NEQ 0
2 THEN
3     BEGIN
3     DESC[0] = .NAM[NAM$B_RSL];
3     DESC[1] = .NAM[NAM$L_RSA];
3     END
2 ELSE IF .NAM[NAM$B_ESL] NEQ 0
2 THEN
3     BEGIN
3     DESC[0] = .NAM[NAM$B_ESL];
3     DESC[1] = .NAM[NAM$L_ESA];
3     END
2 ELSE
3     BEGIN
3     DESC[0] = .FAB[FAB$B_FNS];
```

```
;  769          2042  3      DESC[1] = .FAB[FAB$L_FNA];
;  770          2043  2      END;
;  771          2044  2
;  772          2045  2
;  773          2046  2  ! Signal the message.
;  774          2047  2  !
;  775          2048  2  SIGNAL(.MESSAGE, 1, DESC, .FRAB[FAB$L_STS], .FRAB[FAB$L_STV]);
;  776          2049  1  END;



                                        0000 00000          .ENTRY  SIGNAL_FILE_ERROR, Save nothing              ; 1985
                      5E            08   C2 00002          SUBL2   #8, SP                                       ;
                      51       08   AC   D0 00005          MOVL    FAB, R1                                      ; 2026
                      50       28   A1   D0 00009          MOVL    40(R1), NAM                                  ;
                               03   A0   95 0000D          TSTB    3(NAM)                                       ; 2027
                                    0B   13 00010          BEQL    1$                                           ;
                      6E       03   A0   9A 00012          MOVZBL  3(NAM), DESC                                 ; 2030
                 04   AE       04   A0   D0 00016          MOVL    4(NAM), DESC+4                               ; 2031
                                    19   11 0001B          BRB     3$                                           ; 2027
                               0B   A0   95 0001D 1$:      TSTB    11(NAM)                                      ; 2033
                                    0B   13 00020          BEQL    2$                                           ;
                      6E       0B   A0   9A 00022          MOVZBL  11(NAM), DESC                                ; 2036
                 04   AE       0C   A0   D0 00026          MOVL    12(NAM), DESC+4                              ; 2037
                                    09   11 0002B          BRB     3$                                           ; 2033
                      6E       34   A1   9A 0002D 2$:      MOVZBL  52(R1), DESC                                 ; 2041
                 04   AE       2C   A1   D0 00031          MOVL    44(R1), DESC+4                               ; 2042
                      50       0C   AC   D0 00036 3$:      MOVL    FRAB, R0                                     ; 2048
                      7E       08   A0   7D 0003A          MOVQ    8(R0), -(SP)                                 ;
                               08   AE   9F 0003E          PUSHAB  DESC                                         ;
                                    01   DD 00041          PUSHL   #1                                           ;
                               04   AC   DD 00043          PUSHL   MESSAGE                                      ;
          00000000G   00            05   FB 00046          CALLS   #5, LIB$SIGNAL                               ;
                                         04 0004D          RET                                                  ; 2049

; Routine Size:  78 bytes,    Routine Base:  CODE + 0590
```

```
1 ROUTINE MAIN_HANDLER_ACTION(MSG_DESC)=
1
1 !++
1 !
1 ! FUNCTIONAL DESCRIPTION:
1 !       This is an action routine for the $PUTMSG that issues a signalled
1 !       message to the system console.  It writes the record to the operator
1 !       via OPCOM or via broadcast.
1 !
1 ! INPUT PARAMETERS:
1 !       MSG_DESC        - Descriptor for message.
1 !
1 ! IMPLICIT INPUTS:
1 !       NONE
1 !
1 ! OUTPUT PARAMETERS:
1 !       NONE
1 !
1 ! IMPLICIT OUTPUTS:
1 !       NONE
1 !
1 ! ROUTINE VALUE:
1 !       FALSE, to signal $PUTMSG not to write the message.
1 !
1 ! SIDE EFFECTS:
1 !       NONE
1 !
1 !--
1
2 BEGIN
2 MAP
2       MSG_DESC:       REF BBLOCK;     ! Descriptor for message text
2 LOCAL
2       LENGTH:         WORD,           ! Length of message, minimized
2       OPC_BUFFER:     BBLOCK[$BYTEOFFSET(OPC$L_MS_TEXT) + 132],
2                                       ! Buffer for OPCOM message
2       OPC_DESC:       VECTOR[2],      ! Descriptor for message buffer
2       STATUS;                         ! Status return
2
2
2 ! Set up the OPCOM message buffer.
2 !
2 OPC_BUFFER[OPC$B_MS_TYPE] = OPC$_RQ_RQST;
2 OPC_BUFFER[OPC$B_MS_TARGET] = OPC$M_NM_CENTRL;
2 OPC_BUFFER[OPC$W_MS_STATUS] = 0;
2 OPC_BUFFER[OPC$L_MS_RQSTID] = 0;
2 LENGTH = .MSG_DESC[DSC$W_LENGTH];
2 IF .LENGTH GTRU 132 THEN LENGTH = 132;
2 CH$MOVE(.LENGTH, .MSG_DESC[DSC$A_POINTER], OPC_BUFFER[OPC$L_MS_TEXT]);
2 OPC_DESC[0] = $BYTEOFFSET(OPC$L_MS_TEXT) + .LENGTH;
2 OPC_DESC[1] = OPC_BUFFER;
2
2
2 ! Try to send the message by OPCOM.  If this fails, send a broadcast to the
2 ! system console.
2 !
2 STATUS = $SNDOPR(MSGBUF=OPC_DESC);
```

```
;  835          2107  2 IF NOT .STATUS OR .STATUS EQL OPC$_NOPERATOR
;  836          2108  2 THEN
;  837        P 2109  2     $BRKTHRU(
;  838        P 2110  2         MSGBUF=.MSG_DESC,
;  839        P 2111  2         SENDTO=OPA0_DESC,
;  840        P 2112  2         SNDTYP=BRK$C_DEVICE,
;  841          2113  2         TIMOUT=10);
;  842          2114  2
;  843          2115  2
;  844          2116  2 ! Return FALSE, to signal $PUTMSG not to write the message.
;  845          2117  2 !
;  846          2118  2 FALSE
;  847          2119  1 END;



                                                                           .EXTRN  SYS$SNDOPR, SYS$BRKTHRU

                                                        00FC 00000 MAIN_HANDLER_ACTION:
                                                                           .WORD   Save R2,R3,R4,R5,R6,R7                       ; 2050
                                        5E     FF6C   CE  9E 00002         MOVAB   -148(SP), SP                                 ;
                                   08   AE     0103   8F  3C 00007         MOVZWL  #259, OPC_BUFFER                             ; 2092
                                                 0C   AE  D4 0000D         CLRL    OPC_BUFFER+4                                 ; 2095
                                        57       04   AC  D0 00010         MOVL    MSG_DESC, R7                                 ; 2096
                                        56            67  B0 00014         MOVW    (R7), LENGTH                                 ;
                                 0084   8F            56  B1 00017         CMPW    LENGTH, #132                                 ; 2097
                                                      04  1B 0001C         BLEQU   1$                                           ;
                                        56       84   8F  9B 0001E         MOVZBW  #132, LENGTH                                 ;
                    10   AE        04   B7            56  28 00022 1$:     MOVC3   LENGTH, @4(R7), OPC_BUFFER+8                 ; 2098
                                        6E            56  3C 00028         MOVZWL  LENGTH, OPC_DESC                             ; 2099
                                        6E            08  C0 0002B         ADDL2   #8, OPC_DESC                                 ;
                                   04   AE       08   AE  9E 0002E         MOVAB   OPC_BUFFER, OPC_DESC+4                       ; 2100
                                                      7E  D4 00033         CLRL    -(SP)                                        ; 2106
                                                 04   AE  9F 00035         PUSHAB  OPC_DESC                                     ;
                            00000000G   00            02  FB 00038         CALLS   #2, SYS$SNDOPR                               ;
                                        09            50  E9 0003F         BLBC    STATUS, 2$                                   ; 2107
                             00058061   8F            50  D1 00042         CMPL    STATUS, #360545                              ;
                                                      1A  12 00049         BNEQ    3$                                           ;
                                                      7E  7C 0004B 2$:     CLRQ    -(SP)                                        ; 2113
                                                      0A  DD 0004D         PUSHL   #10                                          ;
                                                      7E  7C 0004F         CLRQ    -(SP)                                        ;
                                                      20  DD 00051         PUSHL   #32                                          ;
                                        7E            01  7D 00053         MOVQ    #1, -(SP)                                    ;
                                               F9E0   CF  9F 00056         PUSHAB  OPA0_DESC                                    ;
                                                      57  DD 0005A         PUSHL   R7                                           ;
                                                      7E  D4 0005C         CLRL    -(SP)                                        ;
                            00000000G   00            0B  FB 0005E         CALLS   #11, SYS$BRKTHRU                             ;
                                                      50  D4 00065 3$:     CLRL    R0                                           ; 2119
                                                          04 00067         RET                                                  ;

; Routine Size:  104 bytes,    Routine Base:  CODE + 05DE
```

```
1 ROUTINE MAIN_HANDLER(SIG,MECH)=
1
1 !++
1 !
1 ! FUNCTIONAL DESCRIPTION:
1 !       This routine is the condition handler for the main routine.  It
1 !       intercepts signals and writes the message to the operator.
1 !
1 ! INPUT PARAMETERS:
1 !       Standard VMS condition handler parameters.
1 !
1 ! IMPLICIT INPUTS:
1 !       NONE
1 !
1 ! OJTPUT PARAMETERS:
1 !       NONE
1 !
1 ! IMPLICIT OUTPUTS:
1 !       NONE
1 !
1 ! ROUTINE VALUE:
1 !       SS$_CONTINUE
1 !
1 ! SIDE EFFECTS:
1 !       If the condition is fatal, the image exits.
1 !
1 !--
1
2 BEGIN
2 MAP
2       SIG:            REF BBLOCK,     ! Signal parameters
2       MECH:           REF BBLOCK;     ! Mechanism parameters
2 LOCAL
2       OPC_BUFFER:     $BBLOCK[OPC$K_SHUTDOWN_MIN_SIZE],       ! Data structures
2       OPC_DESC:       VECTOR [2]                              !  to support
2                       PRESET ([0] = OPC$K_SHUTDOWN_MIN_SIZE,  !  cluster-wide
2                               [1] = OPC_BUFFER);              !  take down
2
2
2 ! Adjust the signal parameter count to remove the PC and PSL, and call $PUTMSG
2 ! to issue the message to the operator.
2 !
2 SIG[CHF$L_SIG_ARGS] = .SIG[CHF$L_SIG_ARGS] - 2;
2 $PUTMSG(MSGVEC=.SIG, ACTRTN=MAIN_HANDLER_ACTION);
2
2
2 ! If the condition is not a job controller message, force the severity to
2 ! fatal.  It must be a real system exception.
2 !
2 IF .BBLOCK[SIG[CHF$L_SIG_NAME], STS$V_FAC_NO] NEQ JBC$_FACILITY
2 THEN
2     BBLOCK[SIG[CHF$L_SIG_NAME], STS$V_SEVERITY] = STS$K_SEVERE;
2
2
2 ! Turn $ENQ/$DEQ errors reported via the JBC$_COMREMJBC code into fatal errors.
2 !
3 IF .SIG[CHF$L_SIG_NAME] EQL (JBC$_COMREMJBC OR STS$K_ERROR)
```

```
2 THEN
2     BBLOCK[SIG[CHF$L_SIG_NAME], STS$V_SEVERITY] = STS$K_SEVERE;
2
2
2 ! If the exception was fatal, exit the image.  Otherwise, signal the error and
2 ! continue. Note that certain control flags can alter this behavior.
2 !
2 DIAG_TRACE[14] = .SIG[CHF$L_SIG_NAME];  ! ***** diagnostic info *****
2 IF .BBLOCK[SIG[CHF$L_SIG_NAME], STS$V_SEVERITY] EQL STS$K_SEVERE
2 THEN
3     BEGIN
3
3
3     ! For debugging purposes, conditionally force a synchronous cluster-wide
3     ! crash.
3     !
3     IF .FLAGS[FLAGS_V_CLUSTER_SCRAM] THEN
4         BEGIN
4         OPC_BUFFER[OPC$B_RQSTCODE] = OPC$_X_SHUTDOWN;
4         OPC_BUFFER[OPC$L_RQ_OPTIONS] = OPC$M_CLUSTER;
5         IF(WORK_AREA[2] = $SNDOPR(MSGBUF=OPC_DESC))
4         THEN WHILE TRUE DO
5             BEGIN
5             $HIBER;                             ! Wait for system to crash ...
4             END;
3         END;
3
3
3     ! Delete all symbiont processes.
3     !
3     DELETE_SYMBIONTS();
3
3
3     ! Close the accounting file.
3     !
3     CLOSE_ACCOUNTING_FILE();
3
3
3     ! Close the system job queue file unless it is desired to leave it open
3     ! for debugging purposes to preserve internal RMS data structures.
3     !
3     IF NOT .FLAGS[FLAGS_V_LEAVE_OPEN] THEN $CLOSE(FAB=QUEUE_FAB);
3
3
3     ! Conditionally bug check the system instead of aborting/restarting the job
3     ! controller.
3     !
3     IF .FLAGS[FLAGS_V_BUGCHECK] THEN $CMKRNL(ROUTIN=BUG_CHECK_SYSTEM);
3
3
3     ! Make the process name null to avoid a name conflict with the new process.
3     !
3     $SETPRN();
3
3
3     ! Create a new job controller process.
3     !
```

```
;  963          P 2234  3     $CREPRC(
;  964          P 2235  3         IMAGE=$DESCRIPTOR('SYS$SYSTEM:JOBCTL.EXE'),
;  965          P 2236  3         INPUT=OPA0_DESC,
;  966          P 2237  3         OUTPUT=OPA0_DESC,
;  967          P 2238  3         ERROR=OPA0_DESC,
;  968          P 2239  3         PRVADR=JBC_PRIVILEGES,
;  969          P 2240  3         QUOTA=JBC_QUOTAS,
;  970          P 2241  3         PRCNAM=JOB_CONTROL_DESC,
;  971          P 2242  3         BASPRI=.JBC_PRIORITY,
;  972          P 2243  3         STSFLG=.IMAGE_DUMP_STSFLG,
;  973            2244  3         UIC=.JBC_UIC);
;  974            2245  3
;  975            2246  3
;  976            2247  3     ! Resignal the error to allow last chance handler to write the dump. Then
;  977            2248  3     ! the process will exit after the dump has been written. In addition,
;  978            2249  3     ! further display of the message will be inhibited so that it is displayed
;  979            2250  3     ! only once.
;  980            2251  3     !
;  981            2252  3     SIG[CHF$L_SIG_NAME] = .SIG[CHF$L_SIG_NAME] OR STS$M_INHIB_MSG;
;  982            2253  3     RETURN SS$_RESIGNAL
;  983            2254  2     END;
;  984            2255  2
;  985            2256  2
;  986            2257  2 SS$_CONTINUE
;  987            2258  1 END;


43  42  4F  4A  3A  4D  45  54  53  59  53  24  53  59  53  00646 P.AAR:  .ASCII  \SYS$SYSTEM:JOBCTL.EXE\                       ;
                                    45  58  45  2E  4C  54  00655                                                               ;
                                                            0065B         .BLKB   1
                                                  00000015  0065C P.AAQ:  .LONG   21                                            ;
                                                  00000000' 00660         .ADDRESS P.AAR                                        ;

                                                                          .EXTRN  SYS$PUTMSG, SYS$CLOSE
                                                                          .EXTRN  SYS$CREPRC

                                                       001C 00000 MAIN_HANDLER:
                                                                          .WORD   Save R2,R3,R4                                 ; 2120
                                       54      F9AE    CF  9E 00002       MOVAB   OPA0_DESC, R4                                 ;
                                       53 00000000'    EF  9E 00007       MOVAB   FLAGS, R3                                     ;
                                       5E              20  C2 0000E       SUBL2   #32, SP                                       ;
                                                       1A  DD 00011       PUSHL   #26                                           ; 2156
                                  04   AE       08     AE  9E 00013       MOVAB   OPC_BUFFER, OPC_DESC+4                        ;
                                       52       04     AC  D0 00018       MOVL    SIG, R2                                       ; 2162
                                       62              02  C2 0001C       SUBL2   #2, (R2)                                      ;
                                                       7E  7C 0001F       CLRQ    -(SP)                                         ; 2163
                                              FF55     CF  9F 00021       PUSHAB  MAIN_HANDLER_ACTION                           ;
                                                       52  DD 00025       PUSHL   R2                                            ;
                            00000000G  00              04  FB 00027       CALLS   #4, SYS$PUTMSG                                ;
                                       52              04  C0 0002E       ADDL2   #4, R2                                        ; 2169
           04       02   A2            0C              00  ED 00031       CMPZV   #0, #12, 2(R2), #4                            ;
                                                       05  13 00037       BEQL    1$                                            ;
           62            03            00              04  F0 00039       INSV    #4, #0, #3, (R2)                              ; 2171
                            00048412   8F              62  D1 0003E 1$:   CMPL    (R2), #295954                                 ; 2176
                                                       05  12 00045       BNEQ    2$                                            ;
           62            03            00              04  F0 00047       INSV    #4, #0, #3, (R2)                              ; 2178
```

```
                                 FE38 C3            62  D0 0004C 2$:     MOVL    (R2), DIAG_TRACE+56                         ; 2184
           04            62           03            00  ED 00051         CMPZV   #0, #3, (R2), #4                            ; 2185
                                                    03  13 00056         BEQL    3$                                          ;
                                                  009A  31 00058         BRW     8$                                          ;
                         25        02 A3            01  E1 0005B 3$:     BBC     #1, FLAGS+2, 5$                             ; 2193
                                   08 AE            10  90 00060         MOVB    #16, OPC_BUFFER                             ; 2195
                                   0E AE            01  D0 00064         MOVL    #1, OPC_BUFFER+6                            ; 2196
                                                    7E  D4 00068         CLRL    -(SP)                                       ; 2197
                                               04   AE  9F 0006A         PUSHAB  OPC_DESC                                    ;
                            00000000G 00            02  FB 0006D         CALLS   #2, SYS$SNDOPR                              ;
                                 FECC C3            50  D0 00074         MOVL    R0, WORK_AREA+8                             ;
                                      09            50  E9 00079         BLBC    R0, 5$                                      ;
                            00000000G 00            00  FB 0007C 4$:     CALLS   #0, SYS$HIBER                               ; 2199
                                                    F7  11 00083         BRB     4$                                          ; 2198
                            00000000G EF            00  FB 00085 5$:     CALLS   #0, DELETE_SYMBIONTS                        ; 2207
                            00000000G EF            00  FB 0008C         CALLS   #0, CLOSE_ACCOUNTING_FILE                   ; 2212
                         0B        02 A3            02  E0 00093         BBS     #2, FLAGS+2, 6$                             ; 2218
                                             0114   C3  9F 00098         PUSHAB  QUEUE_FAB                                   ;
                            00000000G 00            01  FB 0009C         CALLS   #1, SYS$CLOSE                               ;
                         0D        02 A3            03  E1 000A3 6$:     BBC     #3, FLAGS+2, 7$                             ; 2224
                                                    7F  D4 000A8         CLRL    -(SP)                                       ;
                                            0000V   CF  9F 000AA         PUSHAB  BUG_CHECK_SYSTEM                            ;
                            00000000G 00            02  FB 000AE         CALLS   #2, SYS$CMKRNL                              ;
                                                    7E  D4 000B5 7$:     CLRL    -(SP)                                       ; 2229
                            00000000G 00            01  FB 000B7         CALLS   #1, SYS$SETPRN                              ;
                                                    7E  D4 000BE         CLRL    -(SP)                                       ; 2244
                                               04   A3  DD 000C0         PUSHL   IMAGE_DUMP_STSFLG                           ;
                                                    7E  D4 000C3         CLRL    -(SP)                                       ;
                                             0110   C3  DD 000C5         PUSHL   JBC_UIC                                     ;
                                             00C0   C3  DD 000C9         PUSHL   JBC_PRIORITY                                ;
                                               2C   A4  9F 000CD         PUSHAB  JOB_CONTROL_DESC                            ;
                                             00CC   C3  9F 000D0         PUSHAB  JBC_QUOTAS                                  ;
                                             00C4   C3  9F 000D4         PUSHAB  JBC_PRIVILEGES                              ;
                                                    54  DD 000D8         PUSHL   R4                                          ;
                                                    54  DD 000DA         PUSHL   R4                                          ;
                                                    54  DD 000DC         PUSHL   R4                                          ;
                                             0644   C4  9F 000DE         PUSHAB  P.AAQ                                       ;
                                                    7E  D4 000E2         CLRL    -(SP)                                       ;
                            00000000G 00            0D  FB 000E4         CALLS   #13, SYS$CREPRC                             ;
                                   03 A2            10  88 000EB         BISB2   #16, 3(R2)                                  ; 2252
                                      50     0918   8F  3C 000EF         MOVZWL  #2328, R0                                   ; 2253
                                                        04 000F4         RET                                                 ;
                                      50            01  D0 000F5 8$:     MOVL    #1, R0                                      ; 2258
                                                        04 000F8         RET                                                 ;

; Routine Size:  249 bytes,    Routine Base:  CODE + 0664
;  989       2259  1 ROUTINE BUG_CHECK_SYSTEM: NOVALUE=
;  990       2260  1
;  991       2261  1 !++
;  992       2262  1 !
;  993       2263  1 ! FUNCTIONAL DESCRIPTION:
;  994       2264  1 !       This routine crashes the system via a bug check.
;  995       2265  1 !
;  996       2266  1 ! INPUT PARAMETERS:
;  997       2267  1 !       NONE
;  998       2268  1 !
;  999       2269  1 ! IMPLICIT INPUTS:
; 1000       2270  1 !       NONE
; 1001       2271  1 !
; 1002       2272  1 ! OUTPUT PARAMETERS:
; 1003       2273  1 !       NONE
; 1004       2274  1 !
; 1005       2275  1 ! IMPLICIT OUTPUTS:
; 1006       2276  1 !       NONE
; 1007       2277  1 !
; 1008       2278  1 ! ROUTINE VALUE:
; 1009       2279  1 !       NONE
; 1010       2280  1 !
; 1011       2281  1 ! SIDE EFFECTS:
; 1012       2282  1 !       The system crashes!!!
; 1013       2283  1 !
; 1014       2284  1 !--
; 1015       2285  1
; 1016       2286  2 BEGIN
; 1017       2287  2 BUG_CHECK(UNXINTEXC);
; 1018       2288  1 END;


                                                   .EXTRN  BUGS_UNXINTEXC

                                   0000 00000 BUG_CHECK_SYSTEM:
                                                   .WORD   Save nothing                              ; 2259
                                   FEFF 00002      BUGW                                              ; 2287
                                  0000* 00004      .WORD   <BUGS_UNXINTEXC!4>                        ;
                                     04 00006      RET                                               ; 2288

; Routine Size:  7 bytes,    Routine Base:  CODE + 075D
; 1020          2289  1 END
; 1021          2290  0 ELUDOM



                                                                        .EXTRN  LIB$SIGNAL

;                                            PSECT SUMMARY
;
;         Name                          Bytes                         Attributes
;
;   COMMON                                  5024  NOVEC,  WRT,  RD ,NOEXE,NOSHR,  LCL,  REL,  OVR,NOPIC,ALIGN(2)
;   CODE                                    1892  NOVEC,NOWRT,  RD ,  EXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)



;                                    Library Statistics
;
;                                                 -------- Symbols --------        Pages        Processing
;         File                                    Total    Loaded   Percent        Mapped       Time
;
;   _$255$DUA28:[SYSLIB]LIB.L32;1                 18619       150         0        1000           00:01.4




;                                             COMMAND QUALIFIERS

;         BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS$:CONTROL/OBJ=OBJ$:CONTROL MSRC$:CONTROL/UPDATE=(ENH$:CONTROL)

; Size:           1542 code + 5374 data bytes
; Run Time:          00:30.8
; Elapsed Time:      01:47.7
; Lines/CPU Min:      4458
; Lexemes/CPU-Min: 48716
; Memory Used:  348 pages
; Compilation Complete
```

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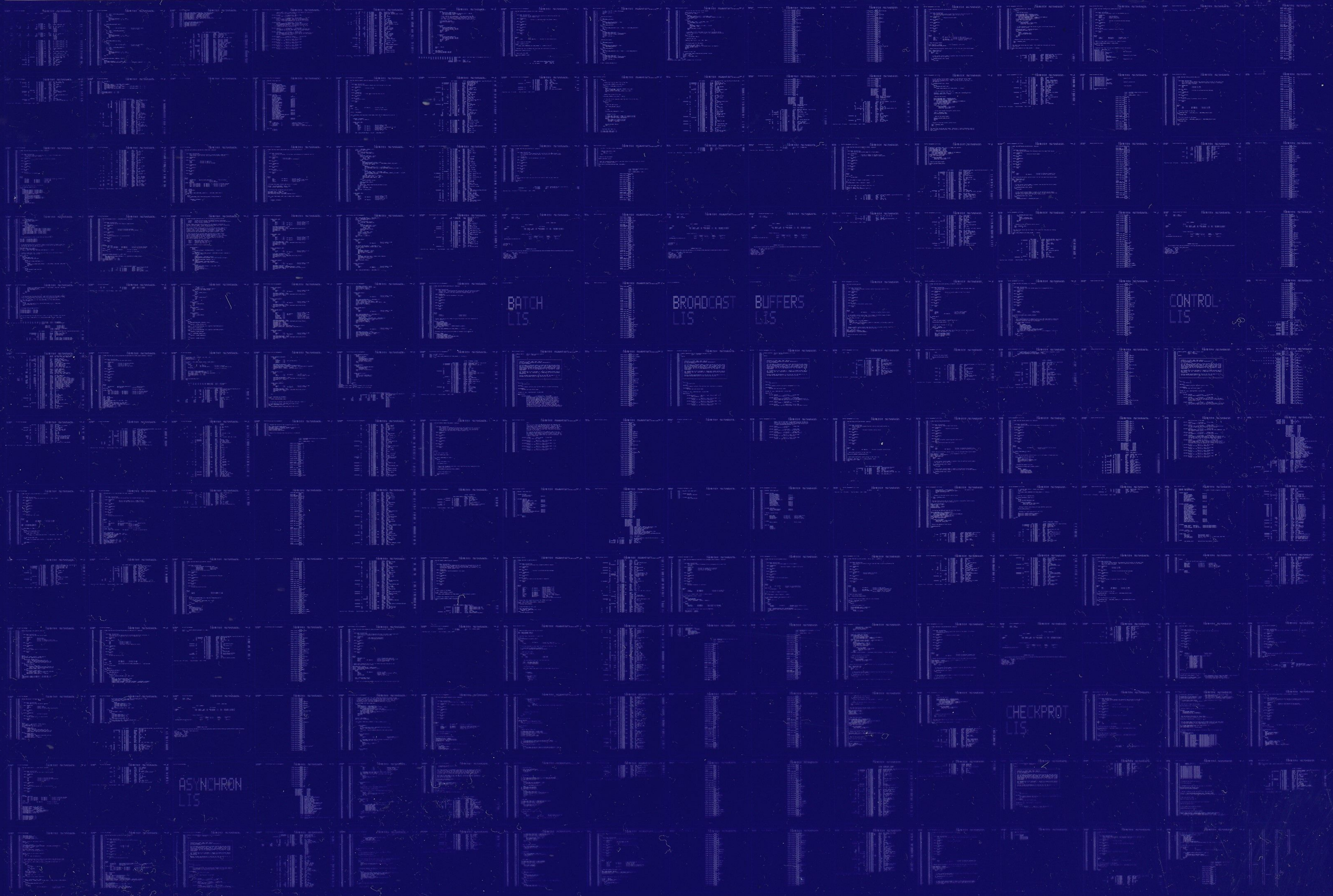

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