```
                                                        H 5

FFFFFFFFFFFFFFF         111              111         XXX         XXX
FFFFFFFFFFFFFFF         111              111         XXX         XXX
FFFFFFFFFFFFFFF         111              111         XXX         XXX
FFF                  111111           111111         XXX         XXX
FFF                  111111           111111         XXX         XXX
FFF                  111111           111111         XXX         XXX
FFF                     111              111            XXX   XXX
FFF                     111              111            XXX   XXX
FFF                     111              111            XXX   XXX
FFFFFFFFFFFF            111              111               XXX
FFFFFFFFFFFF            111              111               XXX
FFFFFFFFFFFF            111              111               XXX
FFF                     111              111            XXX   XXX
FFF                     111              111            XXX   XXX
FFF                     111              111            XXX   XXX
FFF                     111              111         XXX         XXX
FFF                     111              111         XXX         XXX
FFF                     111              111         XXX         XXX
FFF                     111              111         XXX         XXX
FFF                  111111111        111111111      XXX         XXX
FFF                  111111111        111111111      XXX         XXX
FFF                  111111111        111111111      XXX         XXX
```

```
_$25

Symb
----
IOC$
IO_C
IO_C
IO_D
IO_F
IO_S
KILL

KILL
KILL
LB_B
LB_D
LB_F
LB_M
LB_L
LOCA
LOCA
LOCK

LOCK
LOCK
LOCK
LOC_
LOC_
L_CO
L_CO
L_DA
L_DA
MAIN
MAKE
MAKE
MAKE
MAKE
MAKE
MAKE

MAKE
MAKE
MAP_
MAP_

MAP
MARK
MARK
MARK
MARK
MARK
```

```
                                        F  7
**FILE**ID**CHKDMO



  CCCCCCCC  HH      HH  KK      KK  DDDDDDDD    MM      MM    OOOOOO
  CCCCCCCC  HH      HH  KK      KK  DDDDDDDD    MM      MM    OOOOOO
CC          HH      HH  KK      KK  DD      DD  MMMM  MMMM  OO      OO
CC          HH      HH  KK      KK  DD      DD  MMMM  MMMM  OO      OO
CC          HH      HH  KK    KK    DD      DD  MM  MM  MM  OO      OO
CC          HH      HH  KK    KK    DD      DD  MM  MM  MM  OO      OO
CC          HHHHHHHHHH  KKKKKK      DD      DD  MM      MM  OO      OO
CC          HHHHHHHHHH  KKKKKK      DD      DD  MM      MM  OO      OO
CC          HH      HH  KK    KK    DD      DD  MM      MM  OO      OO
CC          HH      HH  KK    KK    DD      DD  MM      MM  OO      OO
CC          HH      HH  KK      KK  DD      DD  MM      MM  OO      OO      ....
CC          HH      HH  KK      KK  DD      DD  MM      MM  OO      OO      ....
  CCCCCCCC  HH      HH  KK      KK  DDDDDDDD    MM      MM    OOOOOO        ....
  CCCCCCCC  HH      HH  KK      KK  DDDDDDDD    MM      MM    OOOOOO        ....


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
```

```
MODULE CHKDMO (
                LANGUAGE (BLISS32),
                IDENT = 'V04-000'
                ) =
BEGIN

!
!****************************************************************************
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!*                                                                          *
!*                                                                          *
!****************************************************************************

!++
!
! FACILITY:  F11ACP Structure Level 1
!
! ABSTRACT:
!
!       This routine dismounts the volume in use if it should be.
!
! ENVIRONMENT:
!
!       STARLET operating system, including privileged system services
!       and internal exec routines.
!
!--
!
!
! AUTHOR:  Andrew C. Goldstein,  CREATION DATE:  29-Apr-1977  17:19
!
! MODIFIED BY:
!
!       V03-026 HH0049          Hai Huang               16-Aug-1984
!               Call IOC$DALLOC_DMT to handle deallocation on dismount.
!
!       V03-025 HH0047          Hai Huang               13-Aug-1984
!               Correct IOC$DALLOC_DEV linkage (UCB address in R5).
!
!       V03-024 ACG0441         Andrew C. Goldstein,    9-Aug-1984  16:31
```

```
1 !              Rework dismount interlocking to eliminate races and
1 !              uninterlocked processing.
1 !
1 !      V03-023 ACG0438         Andrew C. Goldstein,    2-Aug-1984  11:39
1 !              Release cache locks when deallocating volume caches;
1 !              use central dequeue routine.
1 !
1 !      V03-022 LMP0275         L. Mark Pilant,         23-Jul-1984  14:08
1 !              Don't try to delete an uninitialized ACL.
1 !
1 !      V03-021 CDS0004         Christian D. Saether    20-Jun-1984
1 !              Temporarily raise the process diocnt around the
1 !              $QIO so that it will never be blocked.  Also raise
1 !              ASTCNT so it will not fail for that reason.
1 !
1 !      V03-020 CDS0003         Christian D. Saether     8-May-1984
1 !              Have UPDATE_DIRSEQ routine queue for exclusive
1 !              and cancel conversion of the volume lock to invalidate
1 !              the ucb dirseq counter.  Do not call the routine
1 !              from the check_dismount routine anymore.
1 !
1 !      V03-019 CDS0002         Christian D. Saether    22-Apr-1984
1 !              Use routine LOCK_COUNT.
1 !
1 !      V03-018 ACG0415         Andrew C. Goldstein,    9-Apr-1984  10:56
1 !              Interface change to ACL_DELETEACL
1 !
1 !      V03-017 HH0008          Hai Huang               9-Apr-1984
1 !              Change R2 thru R5 to NOPRESERVE in the linkage of the
1 !              EXE$DEAPGDSIZ routine.
1 !
1 !      V03-016 LMP0221         L. Mark Pilant,         27-Mar-1984  13:39
1 !              Change UCB$L_OWNUIC to ORB$L_OWNER and UCB$W_VPROT to
1 !              ORB$W_PROT.
1 !
1 !      V03-015 ACG0408         Andrew C. Goldstein,    23-Mar-1984  14:42
1 !              Add AST parameter so that impure storage is fully based
1 !
1 !      V03-014 CDS0011         Christian D. Saether     3-Mar-1984
1 !              Remove UNLOCK_XQP call.  It is done prior to this
1 !              point now.  Also KILL_CACHE happens in CLEANUP.
1 !
1 !      V03-013 CDS0010         Christian D. Saether    10-Feb-1984
1 !              Changes to deallocate AQB and buffer when last
1 !              dismount occurs on it.
1 !              Replace FLUSH_FID call with KILL_CACHE call.
1 !
1 !      V03-012 CDS0009         Christian D. Saether    29-Dec-1983
1 !              Use L_NORM linkage and BIND_COMMON macro.
1 !
1 !      V03-011 CDS0008         Christian D. Saether    16-Oct-1983
1 !              Dequeue blocking lock.
1 !
1 !      V03-010 CDS0007         Christian D. Saether    21-Sep-1983
1 !              Release locks in final stages of dismount so that
1 !              getlki check on volume lock is not confused by counting
1 !              an allocation lock for this request.
```

```
1 !
1 !         V03-009 PRD0039         Paul R. DeStefano        13-Sep-1983
1 !                 Modified to no longer clear volume valid when dismounting
1 !                 the volume.
1 !
1 !         V03-008 CDS0006         Christian D. Saether     18-Aug-1983
1 !                 Release volume lock.
1 !                 If this is the last volume lock to be released, then
1 !                 clear the device lock value block.
1 !
1 !         V03-007 CDS0005         Christian D. Saether     2-Aug-1983
1 !                 Remove reference to obselete RVX structure.
1 !
1 !         V03-006 CDS0004         Christian D. Saether     1-Mar-1983
1 !                 Also need BYPASS privilege.
1 !
1 !         V03-005 LMP0071         L. Mark Pilant,          20-Jan-1983  13:09
1 !                 Deallocate any ACL segments associated with directory FCB's
1 !                 left in the cache.  This includes correctly calling
1 !                 ACL_DELETEACL with the correct arguments.
1 !
1 !         V03-004 CDS0003         Christian D. Saether     13-Jan-1983
1 !                 Save and restore both PCB$Q_PRIV and PHD$Q_PRIVMSK.
1 !
1 !         V03-003 CDS0002         Christian D. Saether     28-Dec-1982
1 !                 Need PHY privilege for unload and available functions.
1 !
1 !         V03-002 CDS0001         C Saether                31-Jul-1982
1 !                 Change QIOW to QIO with completion AST.
1 !
1 !         V03-001 LMP0037         L. Mark Pilant,          28-Jun-1982  15:10
1 !                 Remove the addressing mode module switch.
1 !
1 !         V02-007 ACG0226         Andrew C. Goldstein,     24-Nov-1981  22:16
1 !                 Issue IO$_AVAILABLE on DISMOUNT/NOUNLOAD
1 !
1 !         V02-006 ACG0167         Andrew C. Goldstein,     16-Apr-1980  19:25
1 !                 Previous revision history moved to F11B.REV
1 !**
1
1
1 LIBRARY 'SYS$LIBRARY:LIB.L32';
1 REQUIRE 'SRC$:FCPDEF.B32';
1
1
1 !
1 ! Part of this routine runs at IPL$_SYNCH, so it must be locked into the
1 ! working set.
1 !
1
1 LOCK_CODE;
1
1
1 FORWARD ROUTINE
1         CHECK_DISMOUNT   : L_NORM NOVALUE, ! check volume for dismount
1         UPDATE_DIRSEQ    : L_NORM;         ! bump volume directory sequence count
```

```
1 GLOBAL ROUTINE CHECK_DISMOUNT : L_NORM NOVALUE =
1
1 !++
1 !
1 ! FUNCTIONAL DESCRIPTION:
1 !
1 !       This routine checks if the volume in use is marked for dismount and
1 !       idle. If so, it completes the dismount.
1 !
1 ! CALLING SEQUENCE:
1 !       CHECK_DISMOUNT ()
1 !
1 ! INPUT PARAMETERS:
1 !       NONE
1 !
1 ! IMPLICIT INPUTS:
1 !       CURRENT_UCB: UCB of unit in use
1 !       CURRENT_VCB: VCB of volume in use
1 !
1 ! OUTPUT PARAMETERS:
1 !       NONE
1 !
1 ! IMPLICIT OUTPUTS:
1 !       NONE
1 !
1 ! ROUTINE VALUE:
1 !       NONE
1 !
1 ! SIDE EFFECTS:
1 !       Volume dismounted if appropriate
1 !
1 !--
1
2 BEGIN
2
2 LINKAGE
2       DALLOC_DEV      = JSB (REGISTER = 4, REGISTER = 5)
2                       : NOPRESERVE (3)
2                         PRESERVE (2, 4, 5)
2                         NOTUSED (6, 7, 8, 9, 10, 11);
2
2 LOCAL
2       J,                                      ! loop index
2       RVT_LENGTH,                             ! number of entries in RVT
2       RVT             : REF BBLOCK;           ! address of RVT (or UCB if not a set)
2
2 EXTERNAL
2       CTL$GL_PCB      : ADDRESSING_MODE(GENERAL),     ! PCB address
2       CTL$GL_PHD      : ADDRESSING_MODE(GENERAL),     ! PHD address
2       IOC$GL_AQBLIST  : REF BBLOCK ADDRESSING_MODE (ABSOLUTE); ! AQB listhead
2
2 BIND_COMMON;
2
2 LINKAGE
2       DEAP = JSB (REGISTER=0, REGISTER=1) : NOPRESERVE (2,3,4,5);
2
2 EXTERNAL ROUTINE
```

```
	CONV_ACCLOCK    : L_NORM,               ! convert/dequeue access lock.
	LOCK_COUNT      : L_NORM,               ! Determine count of locks granted.
	WAIT_FOR_AST    : L_NORM NOVALUE ADDRESSING_MODE (GENERAL),
	                                        ! exit thread until completion ast
	CONTINUE_THREAD : L_NORM NOVALUE ADDRESSING_MODE (GENERAL),
	                                        ! completion ast to resume thread
	LOCK_IODB       : L_NORM,               ! lock I/O data base mutex
	UNLOCK_IODB     : L_NORM,               ! unlock I/O data base mutex
	DEQ_LOCK        : L_NORM,               ! dequeue a lock
	DEALLOCATE      : L_NORM,               ! deallocate dynamic memory
	SWITCH_CHANNEL  : L_NORM,               ! switch channels to specified UCB
	SEND_ERRLOG     : L_NORM,               ! send message to error logger
	EXE$DEAPGDSIZ   : DEAP ADDRESSING_MODE (GENERAL),
	                                        ! Deallocate paged pool.
	IOC$DALLOC_DMT  : DALLOC_DEV ADDRESSING_MODE (GENERAL),
	                                        ! deallocate device
	ACL_DELETEACL;                          ! Delete & deallocate ACL segments

! Get the RVT address and iterate on the whole volume set, since deaccessing
! a multi-volume file could make several volumes eligible for dismount. If
! this is not a volume set we special case and exit.
!

J = 1;
RVT = .CURRENT_VCB[VCB$L_RVT];
IF .RVT NEQ .CURRENT_UCB
THEN RVT_LENGTH = .RVT[RVT$B_NVOLS];

DO
    BEGIN

! Declare most locals here for substantial improvement in storage allocation.
!

    LOCAL
	LOCKCOUNT       : INITIAL (0),  ! count of volume locks
	STS,                            ! general status value
	LKSTS           : VECTOR [6],   ! lock status block
	AQB             : REF BBLOCK,   ! address of XQP AQB
	CACHE           : REF BBLOCK,   ! address of volume cache
	UCB             : REF BBLOCK,   ! local address of UCB
	ORB             : REF BBLOCK,   ! local address of ORB
	VCB             : REF BBLOCK,   ! local address of VCB
	FCB             : REF BBLOCK,   ! local address of FCB
	WCB             : REF BBLOCK;   ! local address of WCB

    UCB = .RVT;                         ! assume not volume set

    IF .UCB NEQ .CURRENT_UCB            ! get UCB if volume set
    THEN UCB = .VECTOR [RVT[RVT$L_UCBLST], .J-1];

! First check the mark for dismount bit.
!

    IF .UCB NEQ 0
    THEN IF .BBLOCK [UCB[UCB$L_DEVCHAR], DEV$V_DMT]
```

```
3          THEN
4              BEGIN
4
4      ! Do volume switch if necessary.
4      !
4
4              IF .UCB NEQ .CURRENT_UCB
4              THEN SWITCH_CHANNEL (.UCB);
4
4      ! The volume is marked for dismount. The remainder of the tests and the
4      ! dismount bit twiddling must be done interlocked.
4      !
4
4              LOCK_IODB ();
4              SET_IPL (IPL$_SYNCH);
4
4              ORB = .UCB[UCB$L_ORB];
4              VCB = .UCB[UCB$L_VCB];
4              IF .VCB[VCB$W_TRANS] NEQ 1
4              THEN
4                  UNLOCK_IODB ()
4              ELSE
5                  BEGIN
5
5      ! The volume is marked for dismount and idle. Set the dismount in progress
5      ! bit to stop all further activity.
5      !
5
5                  UCB[UCB$V_DISMOUNT] = 1;
5                  UNLOCK_IODB ();
5
5      ! Make an error log entry to record the dismount.
5      !
5
5                  SEND_ERRLOG (0, .UCB);
5
5      ! Release the device as specified in the applicable dismount request
5      ! by issuing either an IO$_UNLOAD or an IO$_AVAILABLE function.
5      !
5
6                  BEGIN
6                  LOCAL
6                      QIOSTAT,
6                      PTR             : REF BBLOCK,
6                      SAVE_PRIV       : VECTOR [4];
6
6      ! Save and restore PHY_IO privilege around the QIO.
6      !
6
6                  PTR = .CTL$GL_PCB;
6                  PTR [PCB$W_DIOCNT] = .PTR [PCB$W_DIOCNT] + 1;
6                  PTR [PCB$W_ASTCNT] = .PTR [PCB$W_ASTCNT] + 1;
6                  SAVE_PRIV [0] = .(PTR [PCB$Q_PRIV]);
6                  SAVE_PRIV [1] = .(PTR [PCB$Q_PRIV]+4);
6
6                  BBLOCK [PTR [PCB$Q_PRIV], PRV$V_PHY_IO] = 1;
6                  BBLOCK [PTR [PCB$Q_PRIV], PRV$V_BYPASS] = 1;
```

```
                PTR = .CTL$GL_PHD;
                SAVE_PRIV [2] = .(PTR [PHD$Q_PRIVMSK]);
                SAVE_PRIV [3] = .(PTR [PHD$Q_PRIVMSK]+4);
                BBLOCK [PTR [PHD$Q_PRIVMSK], PRV$V_PHY_IO] = 1;
                BBLOCK [PTR [PHD$Q_PRIVMSK], PRV$V_BYPASS] = 1;

! Issue an unload function if unload was requested.
!

                QIOSTAT = $QIO (
                        CHAN = .IO_CHANNEL,
                        ASTADR = CONTINUE_THREAD,
                        ASTPRM = .BASE,
                        EFN  = EFN,
                        FUNC = (IF TESTBITSC (UCB[UCB$V_UNLOAD])
                                THEN IO$_UNLOAD
                                ELSE IO$_AVAILABLE)
                        );

                (PTR [PHD$Q_PRIVMSK]) = .SAVE_PRIV [2];
                (PTR [PHD$Q_PRIVMSK]+4) = .SAVE_PRIV [3];
                PTR = .CTL$GL_PCB;
                PTR [PCB$W_DIOCNT] = .PTR [PCB$W_DIOCNT] - 1;
                PTR [PCB$W_ASTCNT] = .PTR [PCB$W_ASTCNT] - 1;
                (PTR [PCB$Q_PRIV]) = .SAVE_PRIV [0];
                (PTR [PCB$Q_PRIV]+4) = .SAVE_PRIV [1];

                IF .QIOSTAT
                THEN WAIT_FOR_AST();
                END;            ! of block defining PTR, SAVE_PRIV, QIOSTAT

! If this is a shared mount, raise the device lock to PW to get the
! value block, and prepare for writing it back. If the device is not
! shared, the lock is already at EX. If the device is not cluster
! accessible, there is no lock.
!

                IF (LKSTS [1] = .UCB [UCB$L_LOCKID]) NEQ 0
                    AND .UCB [UCB$L_PID] EQL 0
                THEN
                    BEGIN
                    STS = $ENQ (LKMODE = LCK$K_PWMODE,
                                LKSB   = LKSTS,
                                EFN    = EFN,
                                ASTADR = CONTINUE_THREAD,
                                ASTPRM = .BASE,
                                FLAGS  = LCK$M_CONVERT + LCK$M_SYNCSTS
                                         + LCK$M_NOQUOTA);

                    IF .STS<0,16> EQL SS$_NORMAL
                    THEN WAIT_FOR_AST ();
                    IF NOT .STS
                    OR NOT .LKSTS
                    THEN BUG_CHECK (XQPERR, FATAL, 'Unexpected lock manager error');

! Determine whether this is the last (only) lock for this volume.
```

```
6 !
6
6                   LOCKCOUNT = LOCK_COUNT (.VCB [VCB$L_VOLLKID]);
6                   END
5               ELSE
5                   LOCKCOUNT = 1;              ! always 1 if allocated.
5
5 ! Now relock the I/O database and finish the dismount.
5 ! Mark the volume dismounted and disconnect the VCB from the UCB.
5 ! The high bit of the dirseq is masked off.  This tells RMS the lock
5 ! is disarmed.
5 !
5
5               LOCK_IODB ();
5               (UCB [UCB$W_DIRSEQ])<15,1> = 0;
5               BBLOCK [UCB[UCB$L_DEVCHAR], DEV$V_MNT] = 0;
5               BBLOCK [UCB[UCB$L_DEVCHAR], DEV$V_DMT] = 0;
5               BBLOCK [UCB[UCB$L_DEVCHAR], DEV$V_SWL] = 0;
5               UCB[UCB$W_REFC] = .UCB[UCB$W_REFC] - 1;
5               UCB[UCB$V_DISMOUNT] = 0;
5               UCB[UCB$L_VCB] = 0;
5               ORB[ORB$L_SYS_PROT] = 0;
5               ORB[ORB$L_OWN_PROT] = 0;
5               ORB[ORB$L_GRP_PROT] = 0;
5               ORB[ORB$L_WOR_PROT] = 0;
5               ORB[ORB$L_OWNER] = 0;
5
5 ! Decrement the mount count on the AQB.  If it goes to zero, remove
5 ! this AQB from the list and remember to deallocate it after we're done
5 ! flushing buffers a little further on.
5 !
5
5               AQB = .VCB [VCB$L_AQB];
5               IF (AQB [AQB$B_MNTCNT] = .AQB [AQB$B_MNTCNT] - 1) NEQ 0
5               THEN
5                   AQB = 0
5               ELSE
6                   BEGIN
6                   LOCAL P : REF BBLOCK;
6
6                   P = .IOC$GL_AQBLIST;
6                   IF .P EQL .AQB
6                   THEN
6                       IOC$GL_AQBLIST = .AQB [AQB$L_LINK]
6                   ELSE
7                       BEGIN
7                       UNTIL .P [AQB$L_LINK] EQL .AQB
7                       DO P = .P [AQB$[_LINK];
7                       P [AQB$L_LINK] = .AQB [AQB$L_LINK];
6                       END;
5                   END;
5
5 ! Deallocate the remaining file control blocks and caches.
5 !
5
5               UNTIL REMQUE (.VCB[VCB$L_FCBFL], FCB)
5               DO
```

```
6                  BEGIN
6                  FCB [FCB$W_REFCNT] = 0;              ! force deq on conv_acclock
6                  CONV_ACCLOCK (0, .FCB);              ! deq access lock, if any
6                  IF .BBLOCK[FCB[FCB$R_ORB], ORB$V_ACL_QUEUE]
6                  THEN ACL_DELETEACL (FCB[FCB$L_ACL_FL], 0); ! Delete the ACL
6                  UNTIL REMQUE (.FCB[FCB$L_WLFL], WCB) ! deallocate all window
6                  DO DEALLOCATE (.WCB);                ! segments
6                  DEALLOCATE (.FCB);                   ! release all FCB's
5                  END;
5
5              CACHE = .VCB[VCB$L_CACHE];
5              IF .BBLOCK [.CACHE[VCA$L_FIDCACHE], VCA$L_FIDCLKID] NEQ 0
5              THEN DEQ_LOCK (.BBLOCK [.CACHE[VCA$L_FIDCACHE], VCA$L_FIDCLKID]);
5              IF .BBLOCK [.CACHE[VCA$L_EXTCACHE], VCA$L_EXTCLKID] NEQ 0
5              THEN DEQ_LOCK (.BBLOCK [.CACHE[VCA$L_EXTCACHE], VCA$L_EXTCLKID]);
5              DEALLOCATE (.VCB[VCB$L_CACHE]);      ! release the cache block
5
5              CACHE = .VCB[VCB$L_QUOCACHE];
5              IF .CACHE NEQ 0                          ! release quota cache if present
5              THEN
6                  BEGIN
6                  IF .CACHE[VCA$L_QUOCLKID] NEQ 0
6                  THEN DEQ_LOCK (.CACHE[VCA$L_QUOCLKID]);
6                  DEALLOCATE (.VCB[VCB$L_QUOCACHE]);
5                  END;
5
5  ! Dequeue the volume lock.
5  !
5
5              DEQ_LOCK (.VCB [VCB$L_VOLLKID]);
5
5              IF .RVT NEQ .CURRENT_UCB
5              THEN
6                  BEGIN
6                  VECTOR [RVT[RVT$L_UCBLST], .VCB[VCB$W_RVN]-1] = 0;
6                  RVT[RVT$W_REFC] = .RVT[RVT$W_REFC] - 1;
6                  IF .RVT[RVT$W_REFC] EQL 0
6                  THEN
7                      BEGIN
7
7                      DEQ_LOCK (.RVT[RVT$L_STRUCLKID]);
7
7  ! Dequeue blocking lock and disable blocking check on exit.
7  !
7
7                      IF .RVT[RVT$L_BLOCKID] NEQ 0
7                      THEN DEQ_LOCK (.RVT[RVT$L_BLOCKID]);
7                      BLOCK_CHECK = 0;
7
7                      DEALLOCATE (.RVT);
6                      END;
6                  END
5              ELSE
6                  BEGIN
6                  IF .VCB[VCB$L_BLOCKID] NEQ 0
6                  THEN DEQ_LOCK (.VCB[VCB$L_BLOCKID]);
6                  BLOCK_CHECK = 0;
```

```
                        END;

                DEALLOCATE (.VCB);                              ! release the VCB

        ! If the device lock exists, now demote it as appropriate (to CR if
        ! the device is not allocated, to EX otherwise). Clear the value
        ! block if this is the final dismount.
        !

                IF .LKSTS [1] NEQ 0
                THEN
                    BEGIN
                    LOCAL LKFLGS;
                    LKFLGS = LCK$M_CONVERT + LCK$M_CVTSYS
                           + LCK$M_SYNCSTS + LCK$M_NOQUOTA;

                    IF .LOCKCOUNT EQL 1
                    THEN
                        BEGIN
                        LKFLGS = .LKFLGS + LCK$M_VALBLK;
                        LKSTS [2] = 0;
                        LKSTS [3] = 0;
                        LKSTS [4] = 0;
                        LKSTS [5] = 0;
                        END;

                    STS = $ENQ (LKMODE = IF .UCB [UCB$L_PID] NEQ 0
                                         THEN LCK$K_EXMODE
                                         ELSE LCK$K_CRMODE,
                                LKSB   = LKSTS,
                                EFN    = EFN,
                                FLAGS  = .LKFLGS);
                    IF NOT .STS
                    OR NOT .LKSTS
                    THEN BUG_CHECK (XQPERR, FATAL, 'Unexpected lock manager error');
                    END;

        ! Call IOC$DALLOC_DMT routine to deallocate the device when appropriate.
        !

                IOC$DALLOC_DMT (.CTL$GL_PCB, .UCB);

                UNLOCK_IODB ();

                IF .AQB NEQ 0
                THEN
                    BEGIN
                    LOCAL P : REF BBLOCK;
                    P = .AQB [AQB$L_BUFCACHE];
                    EXE$DEAPGDSIZ (.P, .P [F11BC$L_REALSIZE]);
                    DEALLOCATE (.AQB);
                    END;

                END;                                    ! end of dismount processing

            END;                                        ! end of dismount condition
```

```
;  571        1560 3      IF .RVT EQL .CURRENT_UCB THEN EXITLOOP;
;  572        1561 3
;  573        1562 3      J = .J + 1;                          ! bump loop index
;  574        1563 3      END                                  ! end of multi-volume loop
;  575        1564 2  UNTIL .J GTRU .RVT_LENGTH;
;  576        1565 2
;  577        1566 1  END;                                     ! end of routine CHECK_DISMOUNT

                                                               .TITLE  CHKDMO
                                                               .IDENT  \V04-000\

                                                               .EXTRN  CTL$GL_PCB, CTL$GL_PHD
                                                               .EXTRN  IOC$GL_AQBLIST, CONV_ACCLOCK
                                                               .EXTRN  LOCK_COUNT, WAIT_FOR_AST
                                                               .EXTRN  CONTINUE_THREAD
                                                               .EXTRN  LOCK_IODB, UNLOCK_IODB
                                                               .EXTRN  DEQ_LOCK, DEALLOCATE
                                                               .EXTRN  SWITCH_CHANNEL, SEND_ERRLOG
                                                               .EXTRN  EXE$DEAPGDSIZ, IOC$DALLOC_DMT
                                                               .EXTRN  ACL_DELETEACL, SYS$QIO
                                                               .EXTRN  SYS$ENQ, BUG$_XQPERR

                                                               .PSECT  $LOCKEDC1$,NOWRT,2

                                        0BFC 00000             .ENTRY  CHECK_DISMOUNT, Save R2,R3,R4,R5,R6,R7,R8,- ; 1161
                                                                       R9,R11                                      ;
                         5E          30  C2 00002              SUBL2   #48, SP                                     ;
                         59     94   AA  9E 00005              MOVAB   -108(BASE), R9                              ; 1210
                         58          01  D0 00009              MOVL    #1, J                                       ; 1242
                         50     98   AA  D0 0000C              MOVL    -104(BASE), R0                              ; 1243
                         56     20   A0  D0 00010              MOVL    32(R0), RVT                                 ;
                         69          56  D1 00014              CMPL    RVT, (R9)                                   ; 1244
                                     04  13 00017              BEQL    1$                                          ;
                         6E     0B   A6  9A 00019              MOVZBL  11(RVT), RVT_LENGTH                         ; 1245
                                04   AE  D4 0001D  1$:         CLRL    LOCKCOUNT                                   ; 1248
                         55          56  D0 00020              MOVL    RVT, UCB                                    ; 1265
                         69          55  D1 00023              CMPL    UCB, (R9)                                   ; 1267
                                     05  13 00026              BEQL    2$                                          ;
                         55     40 A648  D0 00028              MOVL    64(RVT)[J], UCB                             ; 1268
                                     55  D5 0002D  2$:         TSTL    UCB                                         ; 1273
                                     2C  13 0002F              BEQL    4$                                          ;
          27        3A   A5          05  E1 00031              BBC     #5, 58(UCB), 4$                             ; 1274
                         69          55  D1 00036              CMPL    UCB, (R9)                                   ; 1281
                                     07  13 00039              BEQL    3$                                          ;
                                     55  DD 0003B              PUSHL   UCB                                         ; 1282
                    0000G  CF        01  FB 0003D              CALLS   #1, SWITCH_CHANNEL                          ;
                    0000G  CF        00  FB 00042  3$:         CALLS   #0, LOCK_IODB                               ; 1288
                         12          08  DA 00047              MTPR    #8, #18                                     ; 1289
                         54     1C   A5  D0 0004A              MOVL    28(UCB), ORB                                ; 1291
                         53     34   A5  D0 0004E              MOVL    52(UCB), VCB                                ; 1292
                         01     0C   A3  B1 00052              CMPW    12(VCB), #1                                 ; 1293
                                     08  13 00056              BEQL    5$                                          ;
                    0000G  CF        00  FB 00058              CALLS   #0, UNLOCK_IODB                             ; 1295
                                   0281  31 0005D  4$:         BRW     34$                                         ;
                    66     A5        10  88 00060  5$:         BISB2   #16, 102(UCB)                               ; 1303
                    0000G  CF        00  FB 00064              CALLS   #0, UNLOCK_IODB                             ; 1304
```

```
                                        55  DD 00069        PUSHL   UCB                             ; 1309
                                        7E  D4 0006B        CLRL    -(SP)                           ;
                 0000G  CF              02  FB 0006D        CALLS   #2, SEND_ERRLOG                 ;
                        52   00000000G  00  D0 00072        MOVL    CTL$GL_PCB, PTR                 ; 1324
                                    3E  A2  B6 00079        INCW    62(PTR)                         ; 1325
                                    38  A2  B6 0007C        INCW    56(PTR)                         ; 1326
                    08  AE        0084  C2  7D 0007F        MOVQ    132(PTR), SAVE_PRIV             ; 1327
                  0086  C2        2040  8F  A8 00085        BISW2   #8256, 134(PTR)                 ; 1331
                        52   00000000G  00  D0 0008C        MOVL    CTL$GL_PHD, PTR                 ; 1333
                    10  AE              62  7D 00093        MOVQ    (PTR), SAVE_PRIV+8              ; 1334
                    02  A2        2040  8F  A8 00097        BISW2   #8256, 2(PTR)                   ; 1337
                                        7E  7C 0009D        CLRQ    -(SP)                           ; 1350
                                        7E  7C 0009F        CLRQ    -(SP)                           ;
                                        7E  7C 000A1        CLRQ    -(SP)                           ;
                                        5A  DD 000A3        PUSHL   BASE                            ;
                             00000000G  00  9F 000A5        PUSHAB  CONTINUE_THREAD                 ;
                                        7E  D4 000AB        CLRL    -(SP)                           ;
04                  64  A5              0C  E5 000AD        BBCC    #12, 100(UCB), 6$               ;
                                        01  DD 000B2        PUSHL   #1                              ;
                                        02  11 000B4        BRB     7$                              ;
                                        11  DD 000B6 6$:    PUSHL   #17                             ;
                                  FF78  CA  DD 000B8 7$:    PUSHL   -136(BASE)                      ;
                                        1E  DD 000BC        PUSHL   #30                             ;
             00000000G  00              0C  FB 000BE        CALLS   #12, SYS$QIO                    ;
                        62          10  AE  7D 000C5        MOVQ    SAVE_PRIV+8, (PTR)              ; 1352
                        52   00000000G  00  D0 000C9        MOVL    CTL$GL_PCB, PTR                 ; 1354
                                    3E  A2  B7 000D0        DECW    62(PTR)                         ; 1355
                                    38  A2  B7 000D3        DECW    56(PTR)                         ; 1356
                  0084  C2          08  AE  7D 000D6        MOVQ    SAVE_PRIV, 132(PTR)             ; 1357
                        07              50  E9 000DC        BLBC    QIOSTAT, 8$                     ; 1360
             00000000G  00              00  FB 000DF        CALLS   #0, WAIT_FOR_AST                ; 1361
                    1C  AE          20  A5  D0 000E6 8$:    MOVL    32(UCB), LKSTS+4                ; 1370
                                        4B  13 000EB        BEQL    12$                             ;
                                    2C  A5  D5 000ED        TSTL    44(UCB)                         ; 1371
                                        46  12 000F0        BNEQ    12$                             ;
                                        7E  7C 000F2        CLRQ    -(SP)                           ; 1380
                                        7E  D4 000F4        CLRL    -(SP)                           ;
                                        5A  DD 000F6        PUSHL   BASE                            ;
                             00000000G  00  9F 000F8        PUSHAB  CONTINUE_THREAD                 ;
                                        7E  7C 000FE        CLRQ    -(SP)                           ;
                                        2A  DD 00100        PUSHL   #42                             ;
                                    38  AE  9F 00102        PUSHAB  LKSTS                           ;
                                        04  DD 00105        PUSHL   #4                              ;
                                        1E  DD 00107        PUSHL   #30                             ;
             00000000G  00              0B  FB 00109        CALLS   #11, SYS$ENQ                    ;
                        5B              50  D0 00110        MOVL    R0, STS                         ;
                        01              5B  B1 00113        CMPW    STS, #1                         ; 1382
                                        07  12 00116        BNEQ    9$                              ;
             00000000G  00              00  FB 00118        CALLS   #0, WAIT_FOR_AST                ; 1383
                        04              5B  E9 0011F 9$:    BLBC    STS, 10$                        ; 1384
                        04          18  AE  E8 00122        BLBS    LKSTS, 11$                      ; 1385
                                          FEFF 00126 10$:   BUGW                                    ; 1386
                                         0000* 00128        .WORD   <BUG$_XQPERR!4>                 ;
                                    7C  A3  DD 0012A 11$:   PUSHL   124(VCB)                        ; 1391
                 0000G  CF              01  FB 0012D        CALLS   #1, LOCK_COUNT                  ;
                    04  AE              50  D0 00132        MOVL    R0, LOCKCOUNT                   ;
                                        04  11 00136        BRB     13$                             ; 1370
```

```
          04   AE          01  D0 00138 12$:     MOVL    #1, LOCKCOUNT                         : 1394
        0000G  CF          00  FB 0013C 13$:     CALLS   #0, LOCK_IODB                         : 1402
        00AD   C5    80    8F  8A 00141          BICB2   #128, 173(UCB)                        : 1403
          3A   A5  0228    8F  AA 00147          BICW2   #552, 58(UCB)                         : 1406
                     5C    A5  B7 0014D          DECW    92(UCB)                               : 1407
          66   A5          10  8A 00150          BICB2   #16, 102(UCB)                         : 1408
                     34    A5  D4 00154          CLRL    52(UCB)                               : 1409
                     18    A4  7C 00157          CLRQ    24(ORB)                               : 1410
                     20    A4  7C 0015A          CLRQ    32(ORB)                               : 1412
                           64  D4 0015D          CLRL    (ORB)                                 : 1414
          57         10    A3  D0 0015F          MOVL    16(VCB), AQB                          : 1421
          50         0B    A7  9A 00163          MOVZBL  11(AQB), R0                           : 1422
                           50  D7 00167          DECL    R0                                    :
          0B   A7          50  90 00169          MOVB    R0, 11(AQB)                           :
                           50  D5 0016D          TSTL    R0                                    :
                           04  13 0016F          BEQL    14$                                   :
                           57  D4 00171          CLRL    AQB                                   : 1424
                           27  11 00173          BRB     17$                                   :
          50 00000000G     9F  D0 00175 14$:     MOVL    @#IOC$GL_AQBLIST, P                   : 1429
          57               50  D1 0017C          CMPL    P, AQB                                : 1430
                           0A  12 0017F          BNEQ    15$                                   :
     00000000G  9F   10    A7  D0 00181          MOVL    16(AQB), @#IOC$GL_AQBLIST             : 1432
                           11  11 00189          BRB     17$                                   :
          57         10    A0  D1 0018B 15$:     CMPL    16(P), AQB                            : 1435
                           06  13 0018F          BEQL    16$                                   :
          50         10    A0  D0 00191          MOVL    16(P), P                              : 1436
                           F4  11 00195          BRB     15$                                   :
     10   A0         10    A7  D0 00197 16$:     MOVL    16(AQB), 16(P)                        : 1437
          52         00    B3  0F 0019C 17$:     REMQUE  @0(VCB), FCB                          : 1444
                           34  1D 001A0          BVS     20$                                   :
                     18    A2  B4 001A2          CLRW    24(FCB)                               : 1447
                           52  DD 001A5          PUSHL   FCB                                   : 1448
                           7E  D4 001A7          CLRL    -(SP)                                 :
        0000G  CF          02  FB 001A9          CALLS   #2, CONV_ACCLOCK                      :
  0B      63   A2          01  E1 001AE          BBC     #1, 99(FCB), 18$                      : 1449
                           7E  D4 001B3          CLRL    -(SP)                                 : 1450
                   0080    C2  9F 001B5          PUSHAB  128(FCB)                              :
        0000G  CF          02  FB 001B9          CALLS   #2, ACL_DELETEACL                     :
          54         10    B2  0F 001BE 18$:     REMQUE  @16(FCB), WCB                         : 1451
                           09  1D 001C2          BVS     19$                                   :
                           54  DD 001C4          PUSHL   WCB                                   : 1452
        0000G  CF          01  FB 001C6          CALLS   #1, DEALLOCATE                        :
                           F1  11 001CB          BRB     18$                                   :
                           52  DD 001CD 19$:     PUSHL   FCB                                   : 1453
        0000G  CF          01  FB 001CF          CALLS   #1, DEALLOCATE                        :
                           C6  11 001D4          BRB     17$                                   : 1444
          52         58    A3  D0 001D6 20$:     MOVL    88(VCB), CACHE                        : 1456
          50               62  D0 001DA          MOVL    (CACHE), R0                           : 1457
                     04    A0  D5 001DD          TSTL    4(R0)                                 :
                           08  13 001E0          BEQL    21$                                   :
                     04    A0  DD 001E2          PUSHL   4(R0)                                 : 1458
        0000G  CF          01  FB 001E5          CALLS   #1, DEQ_LOCK                          :
          50         04    A2  D0 001EA 21$:     MOVL    4(CACHE), R0                          : 1459
                     0C    A0  D5 001EE          TSTL    12(R0)                                :
                           08  13 001F1          BEQL    22$                                   :
                     0C    A0  DD 001F3          PUSHL   12(R0)                                : 1460
        0000G  CF          01  FB 001F6          CALLS   #1, DEQ_LOCK                          :
```

```
CHKDMO                                       G 8
V04-000                             15-Sep-1984 23:59:22   VAX-11 Bliss-32 V4.0-742                 Page  14
                                    14-Sep-1984 12:30:10   DISK$VMSMASTER:[F11X.SRC]CHKDMO.B32;1         (2)

                          58    A3  DD 001FB 22$:   PUSHL   88(VCB)                                 ; 1461
            0000G  CF           01  FB 001FE        CALLS   #1, DEALLOCATE                          ;
                   52     5C    A3  D0 00203        MOVL    92(VCB), CACHE                          ; 1463
                                15  13 00207        BEQL    24$                                     ; 1464
                          04    A2  D5 00209        TSTL    4(CACHE)                                ; 1467
                                08  13 0020C        BEQL    23$                                     ;
                          04    A2  DD 0020E        PUSHL   4(CACHE)                                ; 1468
            0000G  CF           01  FB 00211        CALLS   #1, DEQ_LOCK                            ;
                          5C    A3  DD 00216 23$:   PUSHL   92(VCB)                                 ; 1469
            0000G  CF           01  FB 00219        CALLS   #1, DEALLOCATE                          ;
                          7C    A3  DD 0021E 24$:   PUSHL   124(VCB)                                ; 1475
            0000G  CF           01  FB 00221        CALLS   #1, DEQ_LOCK                            ;
                   69           56  D1 00226        CMPL    RVT, (R9)                               ; 1477
                                2D  13 00229        BEQL    26$                                     ;
                   50     0E    A3  3C 0022B        MOVZWL  14(VCB), R0                             ; 1480
                          40  A640  D4 0022F        CLRL    64(RVT)[R0]                             ;
                          04    A6  B7 00233        DECW    4(RVT)                                  ; 1481
                                31  12 00236        BNEQ    28$                                     ; 1482
                                66  DD 00238        PUSHL   (RVT)                                   ; 1486
            0000G  CF           01  FB 0023A        CALLS   #1, DEQ_LOCK                            ;
                          24    A6  D5 0023F        TSTL    36(RVT)                                 ; 1491
                                08  13 00242        BEQL    25$                                     ;
                          24    A6  DD 00244        PUSHL   36(RVT)                                 ; 1492
            0000G  CF           01  FB 00247        CALLS   #1, DEQ_LOCK                            ;
                          A7    AA  94 0024C 25$:   CLRB    -89(BASE)                               ; 1493
                                56  DD 0024F        PUSHL   RVT                                     ; 1495
            0000G  CF           01  FB 00251        CALLS   #1, DEALLOCATE                          ;
                                11  11 00256        BRB     28$                                     ; 1477
                   50   008C    C3  D0 00258 26$:   MOVL    140(VCB), R0                            ; 1500
                                07  13 0025D        BEQL    27$                                     ;
                                50  DD 0025F        PUSHL   R0                                      ; 1501
            0000G  CF           01  FB 00261        CALLS   #1, DEQ_LOCK                            ;
                          A7    AA  94 00266 27$:   CLRB    -89(BASE)                               ; 1502
                                53  DD 00269 28$:   PUSHL   VCB                                     ; 1505
            0000G  CF           01  FB 0026B        CALLS   #1, DEALLOCATE                          ;
                          1C    AE  D5 00270        TSTL    LKSTS+4                                 ; 1512
                                41  13 00273        BEQL    33$                                     ;
                   50     6A    8F  9A 00275        MOVZBL  #106, LKFLGS                            ; 1517
                   01     04    AE  D1 00279        CMPL    LOCKCOUNT, #1                           ; 1519
                                08  12 0027D        BNEQ    29$                                     ;
                                50  D6 0027F        INCL    LKFLGS                                  ; 1522
                          20    AE  7C 00281        CLRQ    LKSTS+8                                 ; 1523
                          28    AE  7C 00284        CLRQ    LKSTS+16                                ; 1525
                                7E  7C 00287 29$:   CLRQ    -(SP)                                   ; 1534
                                7E  7C 00289        CLRQ    -(SP)                                   ;
                                7E  7C 0028B        CLRQ    -(SP)                                   ;
                                7E  D4 0028D        CLRL    -(SP)                                   ;
                                50  DD 0028F        PUSHL   LKFLGS                                  ;
                          38    AE  9F 00291        PUSHAB  LKSTS                                   ;
                          2C    A5  D5 00294        TSTL    44(UCB)                                 ;
                                04  13 00297        BEQL    30$                                     ;
                                05  DD 00299        PUSHL   #5                                      ;
                                02  11 0029B        BRB     31$                                     ;
                                01  DD 0029D 30$:   PUSHL   #1                                      ;
                                1E  DD 0029F 31$:   PUSHL   #30                                     ;
        00000000G  00           0B  FB 002A1        CALLS   #11, SYS$ENQ                            ;
                   5B           50  D0 002A8        MOVL    R0, STS                                 ;
```

```
                         04            5B  E9 002AB        BLBC    STS, 32$                                        ; 1535
                         04      18    AE  E8 002AE        BLBS    LKSTS, 33$                                      ; 1536
                                     FEFF  002B2  32$:     BUGW                                                    ; 1537
                                    0000*  002B4           .WORD   <BUG$_XQPERR!4>                                 ;
                         54 00000000G  00  D0 002B6 33$:   MOVL    CTL$GL_PCB, R4                                  ; 1543
                            00000000G  00  16 002BD        JSB     IOC$DALLOC_DMT                                  ;
                   0000G  CF           00  FB 002C3        CALLS   #0, UNLOCK_IODB                                 ; 1545
                                       57  D5 002C8        TSTL    AQB                                             ; 1547
                                       15  13 002CA        BEQL    34$                                             ;
                         50      18    A7  D0 002CC        MOVL    24(AQB), P                                      ; 1551
                         51      0C    A0  D0 002D0        MOVL    12(P), R1                                       ; 1552
                            00000000G  00  16 002D4        JSB     EXE$DEAPGDSIZ                                   ;
                                       57  DD 002DA        PUSHL   AQB                                             ; 1553
                   0000G  CF           01  FB 002DC        CALLS   #1, DEALLOCATE                                  ;
                         69            56  D1 002E1 34$:   CMPL    RVT, (R9)                                       ; 1560
                                       0A  13 002E4        BEQL    35$                                             ;
                                       58  D6 002E6        INCL    J                                               ; 1562
                         6E            58  D1 002E8        CMPL    J, RVT_LENGTH                                   ; 1564
                                       03  1A 002EB        BGTRU   35$                                             ;
                                 FD2D  31 002ED            BRW     1$                                              ;
                                       04 002F0 35$:       RET                                                     ; 1566

; Routine Size:  753 bytes,    Routine Base:  $LOCKED(1$ + 0000
1 GLOBAL ROUTINE UPDATE_DIRSEQ : L_NORM =
1
1 !++
1 !
1 ! FUNCTIONAL DESCRIPTION:
1 !
1 !       This routine bumps the directory sequence count in the UCB to invalidate
1 !       RMS directory caches on the volume.
1 !
1 !
1 ! CALLING SEQUENCE:
1 !       UPDATE_DIRSEQ ()
1 !
1 ! INPUT PARAMETERS:
1 !       NONE
1 !
1 ! IMPLICIT INPUTS:
1 !       CURRENT_UCB: UCB of device in use
1 !       CURRENT_RVT:
1 !          NVOLS: number of volumes in volume set
1 !          UCBLST: addresses of UCB's in volume set
1 !
1 ! OUTPUT PARAMETERS:
1 !       NONE
1 !
1 ! IMPLICIT OUTPUTS:
1 !       directory sequence count incremented
1 !
1 ! ROUTINE VALUE:
1 !       1
1 !
1 ! SIDE EFFECTS:
1 !       NONE
1 !
1 !--
1
2 BEGIN
2
2 BIND_COMMON;
2
2 EXTERNAL ROUTINE
2       ALLOCATION_LOCK : L_NORM NOVALUE,
2       ALLOCATION_UNLOCK : L_NORM NOVALUE,
2       SWITCH_VOLUME   : L_NORM NOVALUE,
2       QEX_N_CANCEL    : L_NORM;
2
2 LOCAL
2       CURRVN,
2       HAD_LOCK,
2       VCB             : REF BBLOCK,   ! VCB address
2       UCB             : REF BBLOCK;   ! UCB address
2
2 ! Iterate over the mounted volumes of a volume set if there is one.
2 !
2
2 CURRVN = .CURRENT_RVN;
2
```

```
;  636         1624  2  HAD_LOCK = 0;
;  637         1625  2
;  638         1626  2  IF .LB_LOCKID [0] NEQ 0
;  639         1627  2  THEN
;  640         1628  2      HAD_LOCK = 1
;  641         1629  2  ELSE
;  642         1630  2      ALLOCATION_LOCK ();
;  643         1631  2
;  644         1632  2  UCB = .CURRENT_UCB;
;  645         1633  2  IF .CURRENT_RVT NEQ .UCB
;  646         1634  2  THEN
;  647         1635  3      BEGIN
;  648         1636  3      INCR J FROM 1 TO .CURRENT_RVT[RVT$B_NVOLS]
;  649         1637  3      DO
;  650         1638  4          BEGIN
;  651         1639  4          VCB = 0;
;  652         1640  4          UCB = .VECTOR [CURRENT_RVT[RVT$L_UCBLST], .J-1];
;  653         1641  4          IF .UCB NEQ 0
;  654         1642  4          THEN
;  655         1643  4              IF (VCB = .UCB [UCB$L_VCB]) NEQ 0
;  656         1644  4              THEN
;  657         1645  5                  BEGIN
;  658         1646  5                  SWITCH_VOLUME (.J);
;  659         1647  5                  QEX_N_CANCEL (.LB_LOCKID [0]);
;  660         1648  4                  END;
;  661         1649  3          END;
;  662         1650  3      SWITCH_VOLUME (.CURRVN);
;  663         1651  3      END
;  664         1652  2  ELSE
;  665         1653  2      QEX_N_CANCEL (.LB_LOCKID [0]);
;  666         1654  2
;  667         1655  2  IF NOT .HAD_LOCK
;  668         1656  2  THEN
;  669         1657  2      ALLOCATION_UNLOCK ();
;  670         1658  2
;  671         1659  2  RETURN 1;
;  672         1660  2
;  673         1661  1  END;                                              ! end of routine UPDATE_DIRSEQ


                                                                   .EXTRN   ALLOCATION_LOCK
                                                                   .EXTRN   ALLOCATION_UNLOCK
                                                                   .EXTRN   SWITCH_VOLUME, QEX_N_CANCEL

                                          00FC 00000               .ENTRY   UPDATE_DIRSEQ, Save R2,R3,R4,R5,R6,R7       ; 1567
                       57          A0    AA   D0 00002             MOVL     -96(BASE), CURRVN                           ; 1622
                                         56   D4 00006             CLRL     HAD_LOCK                                    ; 1624
                                   6C    AA   D5 00008             TSTL     108(BASE)                                   ; 1626
                                         05   13 0000B             BEQL     1$                                          ;
                       56                01   D0 0000D             MOVL     #1, HAD_LOCK                                ; 1628
                                         05   11 00010             BRB      2$                                          ;
                 0000G CF                00   FB 00012  1$:        CALLS    #0, ALLOCATION_LOCK                         ; 1630
                       53          94    AA   D0 00017  2$:        MOVL     -108(BASE), UCB                             ; 1632
                       50          9C    AA   D0 0001B             MOVL     -100(BASE), R0                              ; 1633
                       53                50   D1 0001F             CMPL     R0, UCB                                     ;
                                         37   13 00022             BEQL     5$                                          ;
```

```
                    55       0B   A0  9A 00024         MOVZBL  11(R0), R5                              ; 1636
                                  52  D4 00028         CLRL    J                                       ;
                                  22  11 0002A         BRB     4$                                      ;
                                  54  D4 0002C 3$:     CLRL    VCB                                     ; 1639
                    50       9C BA42  DE 0002E         MOVAL   @-100(BASE)[J], R0                      ; 1640
                    53       40   A0  D0 00033         MOVL    64(R0), UCB                             ;
                                  15  13 00037         BEQL    4$                                      ; 1641
                    54       34   A3  D0 00039         MOVL    52(UCB), VCB                            ; 1643
                                  0F  13 0003D         BEQL    4$                                      ;
                                  52  DD 0003F         PUSHL   J                                       ; 1646
               0000G  CF          01  FB 00041         CALLS   #1, SWITCH_VOLUME                       ;
                             6C   AA  DD 00046         PUSHL   108(BASE)                               ; 1647
               0000G  CF          01  FB 00049         CALLS   #1, QEX_N_CANCEL                        ;
         DA           52          55  F3 0004E 4$:     AOBLEQ  R5, J, 3$                               ; 1636
                                  57  DD 00052         PUSHL   CURRVN                                  ; 1650
               0000G  CF          01  FB 00054         CALLS   #1, SWITCH_VOLUME                       ;
                                  08  11 00059         BRB     6$                                      ; 1633
                             6C   AA  DD 0005B 5$:     PUSHL   108(BASE)                               ; 1653
               0000G  CF          01  FB 0005E         CALLS   #1, QEX_N_CANCEL                        ;
                      05          56  E8 00063 6$:     BLBS    HAD_LOCK, 7$                            ; 1655
               0000G  CF          00  FB 00066         CALLS   #0, ALLOCATION_UNLOCK                   ; 1657
                      50          01  D0 0006B 7$:     MOVL    #1, R0                                  ; 1659
                                      04 0006E         RET                                             ; 1661

; Routine Size:  111 bytes,    Routine Base:  $LOCKEDC1$ + 02F1


;  674          1662  1
;  675          1663  1 END
;  676          1664  0 ELUDOM




;                              PSECT SUMMARY
;
;       Name                         Bytes                    Attributes
;
;  $LOCKEDC1$                           864  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       84         0        1000          00:02.0
;                                    COMMAND QUALIFIERS

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

; Size:          864 code + 0 data bytes
; Run Time:         00:40.4
; Elapsed Time:     01:11.8
; Lines/CPU Min:      2473
; Lexemes/CPU-Min: 45046
; Memory Used:  405 pages
; Compilation Complete
```

0168 AH-BT13A-SE
VAX/VMS V4.0

DIGITAL EQUIPMENT CORPORATION
CONFIDENTIAL AND PROPRIETARY

CPYNAM
LIS

CHKDMO
LIS

CLENUP
LIS

CHKPRO
LIS

CHARGEQ
LIS

COMMON
LIS

CREATE
LIS

BADSCN
LIS

CHKHD2
LIS

CHKSUM
LIS

ALLOCB
LIS