Identification

Summary of Calls within the Basic File System
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Purpose

This section summarizes all of the calls to the major modules of
the basic file system. The calls outlined in this section are
fully specified in other sections of this manual. The intent of
this section is to provide a working document which can be
updated quickly with a minimum of effort.

Segment Control

The calls to segment control are outlined below. These calls are
specified in detail in section BG.3 of this manual.

1.   The System Interface Module

makeknown(name,id,mode,ptlist,dirsw,dtbm,dp,slot,dhs,rsw,
          segptr,slotlist)

Parameters: name char(*), id bit(70), mode bit(5), ptlist(*)
bit(18), dirsw bit(1), dtbm bit(52), dp ptr, slot fixed
bin(17), (dhs, rsw) bit(1), segptr ptr, slotlist(*) bit (18)

Called by: estblseg, delentry, finddir, appendb

Calls: sum$nsrchkst, sum$idsrchkst

sim1$getdirseg(name,segptr,mode)

Parameters: name char(*), segptr ptr, mode bit(5)

Called by: findentry, readacl, movefile, list_dir, getentry,
putentry, appendb

Calls: sum$nsrchkst, finddir

makeunknown(segptr)

Parameters: segptr ptr

Called by: list_dir, appendb, delentry, readacl, writeacl, movefile,   getentry,   putentry,   traphan, administrative-ring procedures

Calls: sum$searchast, setfaults, checkentry, sum$nsrchkst, sum$idsrchkst

segfault(scuptr,dbr,ringno)

Parameters: scuptr ptr, dbr bit(36), ringno fixed bin(17)

Called by: system fault interceptor, boundfault

Calls: boundfault, sum$searchast, getastentry, refindb, maketrailer, pcreadseg, checkentry

sim1$moveseg(segptr,did)

Parameters: segptr ptr, did bit(17)

Called by: multilevel processes

Calls: getastentry, pcreadseg, checkentry

boundfault(scuptr,dbr,ringno)

Parameters: scuptr ptr, dbr bit(36), ringno fixed bin(17)

Called by: segfault, system fault interceptor

Calls: sum$searchast, checkentry, segfault

initialize_kst

Parameters: none

Called by: loadsegs

Calls: none

sim2$dirmod (dp)

Parameters: dp ptr

Called by: chname, writeacl, set$bc, setml, set$copy, set$rd, appendl, appendb, movefile, setsystrap, setlimits, removel, removeb

Calls: getastentry, updates, checkentry

sim2$branchmod (id,dtbm)

Parameters: id bit(70), dtbm bit(52)

Called by: writeacl, setsystrap

Calls: sum$searchast, setfaults, checkentry

sim2$updateb (id,dp)

Parameters: id bit(70), dp ptr

Called by: list_dir, status, getentry

Calls: sum$searchast, activinfo$wrbranch, checkentry

sim2$unloadseg (id,deactsw)

Parameters: id bit(70), deactsw bit(1)

Called by: setml, movefile

Calls: sum$searchast,   setfaults,   pcfreecore, getastentry$delastentry

sim2$deleteseg (segptr)

Parameters: segptr ptr

Called by: delentry

Calls: getastentry, setfaults, pctruncate, sim2$unloadseg

changering (oldring,newring,dbr,callptr)

Parameters: (oldring newring) fixed bin(17),   dbr bit(36),
callptr ptr

Called by: ring-crossing procedures

Calls: groupstat, alloc_sst, assign

sim2$transuse (segptr,tus)

Parameters: segptr ptr, tus bit(1)

Called by: backup and multilevel processes

Calls: none

2.   The User Interface Module

uim$read_seg (addr_ptr,nwords)

Parameters: addr_ptr ptr, nwords fixed bin(18)

Called by: user

Calls: getastentry, pcreadseg, checkentry

write_seg (addr_ptr,array,nwords)

Parameters: addr_ptr ptr, array ptr, nwords fixed bin(18)

Called by: user

Calls: getastentry, refindb, getloaded, checkentry

uim$free_core (addr_ptr,nwords)

Parameters: addr_ptr ptr, nwords fixed bin(18)

Called by: user

Calls: sum$searchast, pcfreecore, checkentry

uim$truncate_seg (addr_ptr)

Parameters: addr_ptr ptr

Called by: user

Calls: getastentry, pctruncate, checkentry

uim$core_test (addr_ptr,nwords)   value= percent

Parameters: addr_ptr ptr, nwords fixed bin(18), percent fixed bin(17)

Called by: user

Calls: sum$searchast, pctestcore, checkentry

uim$check_access (segptr,ringno)   value= mode

Parameters: segptr ptr, ringno fixed bin(17), mode bit(5)

Called by: user

Calls: none

3.   The Process Load Module

actproc (dirname,processid)   value= pstptr

Parameters: dirname char(*), processid bit(36), pstptr ptr

Called by: hard-core-ring procedures

Calls: estblseg, getastentry, checkentry, alloc_sst, makeunknown

deactproc (pstptr)

Parameters: pstptr ptr

Called by: hard-core-ring procedures

Calls: checkentry

loadproc (pstptr)

Parameters: pstptr ptr

Called by: hard-core-ring procedures

Calls: getloaded, checkentry, alloc_sst

loadsegs (pstptr)

Parameters: pstptr ptr

Called by: hard-core-ring procedures

Calls: getastentry, pcreadseg, checkentry,   alloc_sst,
changering, initialize_kst

unloadproc (pstptr)

Parameters: pstptr ptr

Called by: hard-core-ring procedures

Calls: groupstat, checkentry

createseg (size,maxl,priority,descr)

Parameters: (size maxl) fixed bin(18), priority fixed bin(17),
descr bit(36)

Called by: hard-core-ring procedures

Calls: assign

killseg (descr)

Parameters: descr bit(36)

Called by: hard-core-ring procedures

Calls: unassign

4.   The Segment Utility Module

sum$searchast (id,found,hsi,astptr)

Parameters: id bit(70), found bit(1), hsi fixed bin(17), astptr ptr

Called by: makeunknown, boundfault, sim2$branchmod, sim2$updateb, sim2$unloadseg, uim$free_core, uim$core_test, getastentry

Calls: none

getastentry (kstptr,did)   value= astptr

Parameters: `kstptr ptr, did bit(17), astptr ptr

Called by: segfault, sim1$moveseg, sim2$dirmod, sim2$deleteseg, uim$read_seg, write_seg, uim$truncate_seg, actproc, loadsegs, getastentry

Calls: sum$searchast, getastentry, checkentry, alloc_sst, activinfo$rdbranch, multilevel move control, accounting routines

maketrailer (astptr,segno)

Parameters: astptr ptr, segno bit(18)

Called by: segfault

Calls: alloc_sst, checkentry

getastentry$delastentry (astptr,hsi)

Parameters: astptr ptr, hsi fixed bin(17)

Called by: sim2$unloadseg, alloc_sst

Calls: cleanup, getloaded, activinfo$wrbranch, checkentry, alloc_sst$free_sst, accounting routines

alloc_sst(type,ptr)

Parameters: type fixed bin(17), ptr ptr

Called by: changering, actproc, loadproc, loadsegs, getastentry, maketrailer

Calls: sum$searchast, getastentry$delastentry

alloc_sst$free_sst(type,ptr)

Parameters: type fixed bin(17), ptr ptr

Called by: deactproc, unloadproc, getastentry$delastentry

Calls: none

sum$nsrchkst(name,found,hsi,segno,ep)

Parameters: name char(*), found bit(1),   hsi fixed bin(17), segno bit(18), ep ptr

Called by: makeknown, sim1$getdirseg, makeunknown

Calls: none

sum$idsrchkst(id,found,hsi,segno,ep)

Parameters: id bit(70),   found bit(1),   hsi fixed bin(17), segno bit(18), ep ptr

Called by: makeknown, makeunknown

Calls: none

sum$searchhst(id,found,hsi,segno)

Parameters: id bit(70),   found bit(1),   hsi fixed bin(17), segno bit(18)

Called by: makeknown

Calls: none

Page Control

The calls to page control are outlined below. These calls are
specified in detail in section BG.4 of this manual.

pagefault(scuptr,dbr)

Parameters: scuptr ptr, dbr bit(36)

Called by: system fault interceptor

Calls: assign, updates, new_io, accounting routines

pcreadseg(astptr,addr,nwords,blocksw)

Parameters: `astptr ptr, (addr nwords) fixed bin(18),   blocksw
bit(1)

Called by: segfault, sim1$moveseg, uim$read_seg, loadsegs

Calls: getloaded, assign, updates, new_io, accounting routines

pctruncate(astptr,addr)

Parameters: astptr ptr, addr fixed bin(18)

Called by: sim2$deleteseg, uim$truncate_seg

Calls: setfaults, getloaded, unassign, new_io, updates,
accounting routines

removepage(sstptr,dssw,pageno,retarg)

Parameters: sstptr ptr, dssw bit(1),   pageno fixed bin(17),
retarg fixed bin(17)

Called by: assign

Calls: new_io, updates, assign, checkentry

pcfreecore(sstptr,dssw,addr,nwords,blocksw)

Parameters: sstptr ptr,   dssw bit(1),   (addr nwords) fixed
bin(18), blocksw bit(1)

Called by: uim$free_core, getastentry$delastentry

Calls: setfaults, unassign, new_io, updates, assign

pctestcore (astptr,addr,nwords)   value= percent

Parameters: astptr ptr, (addr, nwords) fixed bin(18),   percent
fixed bin(17)

Called by: uim$core_test

Calls: none

cleanup (astptr)

Parameters: astptr ptr

Called by: getastentry$delastentry

Calls: pcfreecore, new_io

updates (astptr,modsw)

Parameters: astptr ptr, modsw bit(1)

Called   by: sim2$dirmod, pagefault, pcreadseg, pctruncate,
removepage, pcfreecore

Calls: none

setfaults (entryptr,all)

Parameters: entryptr ptr, all bit(1)

Called   by: makeunknown, sim2$branchmod, sim2$deleteseg,
getastentry$delastentry, checkentry

Calls: none

getloaded (astptr)

Parameters: astptr ptr

Called   by: write_seg, loadproc, getastentry$delastentry,
pcreadseg, pctruncate

Calls: assign

checkentry(sstptr,dssw)

Parameters: sstptr ptr,   dssw bit(1)

Called by: makeunknown,   segfault,   sim1$moveseg,   boundfault,
sim2$dirmod, sim2$branchmod,   updateb, uim$read_seg, write_seg,
uim$free_core,   uim$truncate_seg,   uim$core_test,   actproc,
deactproc,   loadproc,   loadsegs,   unloadproc,   getastentry,
removepage, iodone

Calls: setfaults, unassign

iodone(astptr,aftptr,opcode,stateword,iocode)

Parameters: (astptr, aftptr) ptr,   opcode bit(3),   stateword
bit(36), iocode bit(18)

Called by: file system device interface modules

Calls: groupstat, unassign, checkentry

Core Control

The calls to core control are outlined below.   These calls are specified in detail in section BG.6 of this manual.

assign (type,size,status,pagsiz,pageno,pool,dssw,procsw,sstptr,
       threshold,retopt)   value= coreloc

Parameters: type bit(2),   size fixed bin(17),   status bit(2),
pagsiz bit(1),   (pageno pool) fixed bin(17),   (dssw, procsw)
bit(1), sstptr ptr, threshold fixed bin(17),   retopt bit(3),
coreloc bit(18)

Called   by: changering, createseg, getloaded, pagefault,
pcreadseg, removepage, pcfreecore

Calls: removepage

unassign (coreloc,ifstatus)

Parameters: coreloc bit(18),   ifstatus bit(2)

Called by: killseg, pctruncate, pcfreecore, checkentry, iodone

Calls: none

groupstat (coreloc,changestat,newstat)   value= oldstat

Parameters: coreloc bit(18),   (changestat newstat oldstat)
bit(2)

Called by: changering, unloadproc, iodone

Calls: none

poolsize (pool,poolmax)

Parameters: (pool poolmax) fixed bin(17)

Called by: use of this call is as yet unspecified

Calls: none

Directory Control

The calls to directory control are outlined below.   These calls
are specified in detail in section BG.8 of this manual.

1.   The Directory Supervisor

list_dir (dirname,areap,branchp,branchct,linkp,linkct)

Parameters: dirname char(*),   (areap, branchp, linkp) ptr,
(branchct, linkct) fixed bin(17)

Called by: user

Calls: sim1$getdirseg, sim2$updateb, makeunknown, packer$packb,
packer$packl

status (dirname,entry,type,areap,entryp)

Parameters: dirname char(*),   entry char(*),   type bit(1),
(areap, entryp) ptr

Called by: user

Calls: findentry, sim2$updateb, packer$packb, packer$packl

chname (dirname,entry,oldname,newname)

Parameters: (dirname entry oldname newname) char(*)

Called by: user

Calls: findentry, hash$in, hash$out, sim2$dirmod

delentry (dirname,entry,csw)

Parameters: (dirname, entry) char(*), csw bit(2)

Called by: user

Calls: findentry, effmode, removel, makeknown, sim2$deleteseg,
makeunknown, removeb

readacl (dirname,-entry-,areap,accessp)

Parameters: (dirname, entry) char(*),   (areap, accessp) ptr

Called by: user

Calls: findbranch, sim1$getdirseg, makeunknown

writeacl (dirname,-entry-,accessp)

Parameters: (dirname, entry) char(*),   accessp ptr

Called by: user

Calls: findbranch, sim1$getdirseg, sim2$dirmod, sim2$branchmod,
makeunknown

appendb (dirname,entry,type,mode,optsw,max)

Parameters: (dirname, entry)   char(*),   type bit(1),   mode
bit(5), optsw bit(2),   max bit(8)

Called by: user

Calls: findentry, hash$in, makeknown, makeunknown, sim2$dirmod

appendl (dirname,entry,pathname)

Parameters: (dirname, entry, pathname) char(*)

Called by: user

Calls: findentry, hash$in, sim2$dirmod

movefile (dirname,entry,csw,newdir,newname)

Parameters: (dirname entry newdir newname) char(*),   csw bit(2)

Called by: user

Calls: findbranch, effmode, sim2$unloadseg, sim1$getdirseg,
sim2$dirmod, makeunknown

estblseg (dirname,entry,segptr,optionsw,slotlist)

Parameters: (dirname, entry) char(*), segptr ptr,   optionsw
bit(3), slotlist(*) fixed bin(17)

Called by: actproc, traphan, administrative-ring procedures

Calls: findbranch, effmode, makeknown

setml (dirname,entry,max)

Parameters: (dirname, entry) char(*),   max bit(8)

Called by: user

Calls: findbranch, sim2$dirmod, sim2$unloadseg

set$bc (dirname,entry,bitct)

Parameters: (dirname, entry) char(*),   bitct bit(24)

Called by: user

Calls: findbranch, effmode, sim2$dirmod

set$copy (dirname,entry,copysw)

Parameters: (dirname, entry) char(*),   copysw bit(1)

Called by: user

Calls: findbranch, sim2$dirmod

set$rd (dirname,entry,retdate)

Parameters: (dirname, entry) char(*),   retdate bit(72)

Called by: user

Calls: findbranch, effmode, sim2$dirmod

<u>set$constsw</u> (dirname,entry,constsw,dtbm)

Parameters: (dirname, entry) char(*),   constsw bit(2),   dtbm bit(72)

Called by: user, backup processes

Calls: findbranch, sim2$dirmod

<u>set_base_dir</u> (basename)

Parameters: basename char(*)

Called by: privileged user

Calls: none

<u>finddir</u> (dirname,segptr)

Parameters: dirname char(*), segptr ptr

Called by: sim1$getdirseg

Calls: findbranch, effmode, makeknown

<u>refindb</u> (dp,slot,uid,dtbm,mode,plist)

Parameters: dp ptr, slot fixed bin(17),   uid bit(70),   dtbm bit(52),   mode bit(5),   (1 plist,   2 size fixed bin(17),   2 array(plistmax) fixed bin(18))

Called by: segfault

Calls: effmode

<u>setlimits</u> (dirname,entry,hlim,llim)

Parameters: (dirname, entry)   char(*),   (hlim, llim) fixed bin(17)

Called by: administrative-ring procedures

Calls: · findbranch, sim2$dirmod

<u>setsystrap</u> (dirname,entry,flag,trapsw,trap)

Parameters: (dirname, entry) char(*),   flag bit(2),   trapsw
bit(1), trap char(*)

Called by: administrative-ring procedures

Calls: findbranch, sim2$dirmod, sim2$branchmod

<u>setretrieve</u> (dirname,entry,flag,trapsw,trap)

Parameters: (dirname, entry) char(*),   flag bit(2),   trapsw
bit(1), trap char(*)

Called by: backup and multilevel processes

Calls: findbranch, sim2$dirmod

<u>setdtd</u> (dirname,entry,dtd)

Parameters: (dirname, entry) char(*), dtd bit(72)

Called by: backup and multilevel processes

Calls: findentry

<u>getentry</u> (dirname,entry,count,cdate,getsw,space,entryp)

Parameters: (dirname, entry) char(*),   count fixed bin(17),
cdate bit(72), getsw bit(1), space area(*), entryp ptr

Called by: backup and multilevel processes

Calls: findentry, sim1$getdirseg, makeunknown

<u>putentry</u> (dirname,entry,count,cdate,putsw,entryp)

Parameters: (dirname, entry) char(*),   count fixed bin(17),
cdate bit(72), putsw bit(1) entryp ptr

Called by: backup and multilevel processes

Calls: findentry, hash$in, hash$out, sim1$getdirseg, makeunknown

setusage(dirname,entry,olduse,newuse,blocksw)

Parameters: (dirname, entry) char(*), (olduse newuse) bit(2),
blocksw bit(1)

Called by: administrative-ring procedures

Calls: effmode

activinfo$rdbranch(dp,slot,uid,actsw,itemsptr)

Parameters: dp ptr, slot fixed bin(17), uid bit(70),   actsw
bit(1), itemsptr ptr

Called by: getastentry

Calls: none

activinfo$wrbranch(dp,slot,uid,actsw,itemsptr)

Parameters: dp ptr, slot fixed bin(17), uid bit(70),   actsw
bit(1), itemsptr ptr

Called by: sim2$updateb, getastentry$delastentry

Calls: none

2.   The Directory Maintainer

packer$packb(j,branchp,areap,i,entryp)

Parameters: (j, i) fixed bin(17), (branchp, areap, entryp) ptr

Called by: list_dir, status

Calls: appmode

packer$packl(j,linkp,areap,i,entryp)

Parameters: (j, i) fixed bin(17), (linkp, areap, entryp) ptr

Called by: list_dir, status

Calls: none

<u>findentry</u>(dirname,entry,slot,mode,ep)

Parameters: (dirname, entry)   char(*),   slot fixed bin(17),
mode bit(5), ep ptr

Called by: status, chname, appendb, appendl, setdtd, getentry,
putentry, findbranch

Calls: sim1$getdirseg, makeunknown

<u>findbranch</u>(dirname,entry,slot,mode,ep)

Parameters: (dirname, entry)   char(*),   slot fixed bin(17),
mode bit(5), ep ptr

Called by: readacl, writeacl, set$bc, setml, set$copy, set$rd,
movefile, estblseg, finddir, setlimits, setsystrap, setretrieve,
setusage

Calls: findentry

<u>hash$in</u>(dp,entry,slot)

Parameters: dp ptr, entry char(*), slot fixed bin(17)

Called by: chname, appendb, appendl, putentry

Calls: hash$search

<u>hash$out</u>(dp,entry)

Parameters: dp ptr, entry char(*)

Called by: chname, putentry, removel, removeb

Calls: hash$search

<u>hash$search</u>(dp,entry,found,hloc,slot,ep)

Parameters: dp ptr, entry char(*), found bit(1), (hloc, slot)
fixed bin(17), ep ptr

Called by: hash$in, hash$out

Calls: none

rehash(hp,size)

Parameters: hp ptr, size fixed bin(17)

Called by: hash$in, hash$out

Calls: none

removel(ep,slot)

Parameters: ep ptr, slot fixed bin(17)

Called by: delentry

Calls: hash$out, sim2$dirmod

removeb(ep,slot)

Parameters: ep ptr, slot fixed bin(17)

Called by: delentry

Calls: hash$out, sim2$dirmod

Access Control

The calls to access control are outlined below. These calls are specified in detail in section BG.9 of this manual.

1.   Access Control (The Hard-Core Section)

appmode(ep,dp,plistptr,entrylistptr,amode)

Parameters: (ep dp plistptr entrylistptr) ptr,   amode bit(5)

Called by: list_dir, status

Calls: none

effmode(ep,dp,slot,opname,vacant,plistptr,emode)

Parameters: (ep dp) ptr,   slot fixed bin(17),   opname char(*), vacant label, plistptr ptr,   emode bit(5)

Called by: delentry, setbc, setrd, estblseg, fiddir, refindb, movefile

Calls: traphan

2.   Trap Control (The Administrative Section)

traphan(trapargs,varargs,emode,ringno)

Parameters: (trapargs, varargs) char(*),   emode bit(5),   ringno fixed bin(17)

Called by: effmode

Calls: specified trap procedure

File System Device Interface Modules

The calls to the various procedures of the file system device interface modules are outlined below. These calls are specified in detail in section BG.10 of this manual. The Procedure names marked with an asterisk "*" indicate procedures which are called indirectly by means of the "push/pop" mechanism of DIM control (see section BG.10.3).

1.   The Device Strategy Section

new_io(astptr,aftptr,op,stateword,relrec,reccount,memloc)

Parameters: (astptr, aftptr) ptr,   op bit(3),   stateword bit(36), (relrec, reccount, memloc) bit(18)

Called by: pagefault, pcreadseg, pctruncate, removepage, pcfreecore, cleanup

Calls: dim$control, device_control

dim_driver(dimid)

Parameters: dimid fixed bin(17)

Called by: DIM driving daemons

Calls: dim_control, device_control

dim$control(dimid)

Parameters: dimid fixed bin(17)

Called by: new_io, dim_driver

Calls: iodone, accounting routines, issues all indirect module calls

dim$push(ioqx,modx,rtnx)

Parameters: ioqx bit(17), modx fixed bin(17), rtnx bit(5)

Called by: request_initiator, dim_read, dim_write, dim_truncate, dim_cleanup,   isolate_history_entry,   fetch_map_sector, expunge_history_entries

Calls: none

dim$pop(ioqx,commsw)

Patameters: ioqx bit(17), commsw bit(1)

Called by: request_initiator, dim_read, dim_write, dim_truncate,
dim_cleanup,   isolate_history_entry,   fetch_map_sector,
expunge_history_entries

Calls: none

dim$wait(ioqx,setready,rtnx)

Parameters: ioqx bit(17), setready bit(1), rtnx bit(5)

Called   by: isolate_history_entry,   fetch_map_sector,
expunge_history_entries

Calls: none

request_initiator(dimid,ioqx,ap,rtnx)   (*)

Parameters: dimid fixed bin(17), ioqx bit(17), ap ptr,   rtnx
bit(5)

Called by: dim$control

Calls: dim$push,   dim$pop,   dim_read(*),   dim_write(*),
dim_truncate(*), dim_cleanup(*)

dim_read(dimid,ioqx,ap,rtnx)   (*)

Parameters: dimid fixed bin(17), ioqx bit(17), ap ptr,   rtnx
bit(5)

Called by: dim$control, request_initiator(*)

Calls: dim$push, dim$pop, fetch_map_sector(*), put_command(*),
release_history_entry

dim_write(dimid,ioqx,ap,rtnx)   (*)

Parameters: dimid fixed bin(17), ioqx bit(17), ap ptr,   rtnx
bit(5)

Called by: dim$control, request-initiator(*)

Calls: dim$push, dim$pop, dim$wait, allocate_hypersector(*),
isolate_history_entry(*),   fetch_map_sector(*),   put_command(*),
release_history_entry

dim_truncate(dimid,ioqx,ap,rtnx)   (*)

Parameters: dimid fixed bin(17), ioqx bit(17), ap ptr,   rtnx bit(5)

Called by: dim$control, request_initiator(*)

Calls: dim$push,   dim$pop, dim$wait, delete_and_fetch(*), put_command(*), deallocate_hypersector(*), release_history_entry, delete_history_entry

dim_cleanup(dimid,ioqx,ap,rtnx)   (*)

Parameters: dimid fixed bin(17), ioqx bit(17), ap ptr,   rtnx bit(5)

Called by: dim$control, request_initiator(*)

Calls: dim$push, dim$pop, expunge_history_entries(*)

isolate_history_entry(dimid,ioqx,ap,rtnx)   (*)

Parameters: dimid fixed bin(17), ioqx bit(17), ap ptr,   rtnx bit(5)

Called by: dim$control, dim_write(*)

Calls: dim$push, dim$pop, dim$wait, link_command

fetch_map_sector(dimid,ioqx,ap,rtnx)   (*)

Parameters: dimid fixed bin(17), ioqx bit(17), ap ptr,   rtnx bit(5)

Called by: dim$control,   dim_read(*),   dim_write(*), dim_truncate(*)

Calls: dim$push, dim$pop, dim$wait, link_command

delete_and_fetch(dimid,ioqx,ap,rtnx)   (*)

Parameters: dimid fixed bin(17), ioqx bit(17), ap ptr,   rtnx bit(5)

Called by: dim$control, dim_truncate(*)

Calls: none

expunge_history_entries(dimid,ioqx,ap,rtnx)   (*)

Parameters: dimid fixed bin(17), ioqx bit(17), ap ptr,   rtnx
bit(5)

Called by: dim$control, dim_cleanup(*)

Calls: dim$push, dim$pop, dim$wait, link_command

release_history_entry(dimid,ap,histx)

Parameters: dimid fixed bin(17), ap ptr, histx bit(17)

Called by: dim_read, dim_write, dim_truncate

Calls: none

delete_history_entry(dimid,ap,histx)

Parameters: dimid fixed bin(17), ap ptr, histx bit(17)

Called by: dim_truncate

Calls: none

2.   The Device Control Section

device_control(dimid,recall)

Parameters: dimid fixed bin(17), recall bit(1)

Called by: new_io, dim_driver

Calls: none

allocate_hypersector(dimid,ioqx,ap,rtnx)   (*)

Parameters: dimid fixed bin(17), ioqx bit(17), ap ptr,   rtnx
bit(5)

Called by: dim$control, dim_write(*)

Calls: link_command

<u>deallocate_hypersector</u>(dimid,ioqx,ap,rtnx)   (*)

Parameters: dimid fixed bin(17), ioqx bit(17), ap ptr,   rtnx bit(5)

Called by: dim$control, dim_truncate(*)

Calls: link_command

<u>put_command</u>(dimid,ioqx,ap,rtnx)   (*)

Parameters: dimid fixed bin(17), ioqx bit(17), ap ptr,   rtnx bit(5)

Called   by: dim$control,   dim_read(*),   dim_write(*), dim_truncate(*)

Calls: none

<u>link_command</u>(dimid,comx,topsw)

Parameters: dimid fixed bin(17), comx bit(17), topsw bit(1)

Called   by: isolate_history_entry,   fetch_map_sector, expunge_history_entries,   allocate_hypersector, deallocate_hypersector

Calls: none