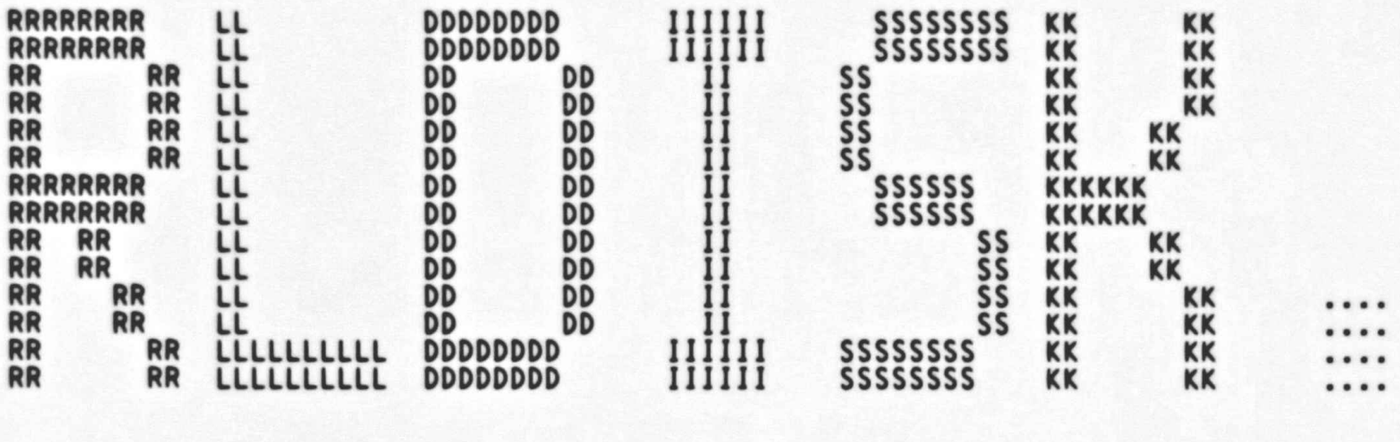
```
EEEEEEEEEEEEEEE   RRRRRRRRRRR      FFFFFFFFFFFFFFF
EEEEEEEEEEEEEEE   RRRRRRRRRRRR     FFFFFFFFFFFFFFF
EEEEEEEEEEEEEEE   RRRRRRRRRRRR     FFFFFFFFFFFFFFF
EEE               RRR          RRR  FFF
EEE               RRR          RRR  FFF
EEE               RRR          RRR  FFF
EEE               RRR          RRR  FFF
EEE               RRR          RRR  FFF
EEE               RRR          RRR  FFF
EEEEEEEEEEEE      RRRRRRRRRRRR      FFFFFFFFFFFF
EEEEEEEEEEEE      RRRRRRRRRRRR      FFFFFFFFFFFF
EEEEEEEEEEEE      RRRRRRRRRRRR      FFFFFFFFFFFF
EEE               RRR    RRR        FFF
EEE               RRR    RRR        FFF
EEE               RRR    RRR        FFF
EEE               RRR       RRR     FFF
EEE               RRR       RRR     FFF
EEE               RRR       RRR     FFF
EEEEEEEEEEEEEEE   RRR          RRR   FFF
EEEEEEEEEEEEEEE   RRR          RRR   FFF
EEEEEEEEEEEEEEE   RRR          RRR   FFF
EEEEEEEEEEEEEEE   RRR          RRR   FFF
```

FILEID**RLDISK



```
0001            SUBROUTINE RLDISK (LUN)
0002    C
0003    C Version:      'V04-000'
0004    C
0005    C*****************************************************************************
0006    C*                                                                           *
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0024    C*                                                                           *
0025    C*                                                                           *
0026    C*****************************************************************************
0027    C
0028    C
0029    C       AUTHOR: BRIAN PORTER            CREATION DATE:5-FEB-1979
0030    C
0031
0032    C++
0033    C       Functional description:
0034    C
0035    C       This module displays entries made for the rl11 controller.
0036    C
0037    C       Modified by:
0038    C
0039    C       V03-004 SAR0232         Sharon A. Reynolds,     28-Mar-1984
0040    C               Changed the call to UCB$L_OWNUIC to ORB$L_OWNER.
0041    C
0042    C       V03-003 SAR0093         Sharon A. Reynolds,     20-Jun-1983
0043    C               Changed the carriage control in the 'format' statements
0044    C               for use with ERF.
0045    C
0046    C       V03-002 SAR0050         Sharon A. Reynolds,     13-Jun-1983
0047    C               Removed brief/cryptic support.
0048    C
0049    C       v03-001 BP0001          Brian Porter,           20-AUG-1982
0050    C               Corrected device attention.
0051    C**
0052    C--
0053            INCLUDE 'SRC$:MSGHDR.FOR /NOLIST'
0112            INCLUDE 'SRC$:DEVERR.FOR /NOLIST'
0213
0214            INTEGER*4       RLCS
0215            INTEGER*4       RLBA
```

```
0216            INTEGER*4       RLDA
0217            INTEGER*4       RLMP
0218            INTEGER*4       UBA_REGS(4)
0219            INTEGER*4       FIELD
0220            INTEGER*4       FIELD1
0221            INTEGER*4       FIELD2
0222            INTEGER*4       COMPRESS4
0223            INTEGER*4       COMPRESSC
0224
0225            BYTE            DRIVE_FUNC
0226            BYTE            LUN
0227
0228            EQUIVALENCE     (RLCS,EMB$L_DV_REGSAV(0))
0229            EQUIVALENCE     (RLBA,EMB$L_DV_REGSAV(1))
0230            EQUIVALENCE     (RLDA,EMB$L_DV_REGSAV(2))
0231            EQUIVALENCE     (RLMP,EMB$L_DV_REGSAV(3))
0232            EQUIVALENCE     (UBA_REGS,EMB$L_DV_REGSAV(4))
0233
0234            PARAMETER       NO_OPERATION    = 0
0235            PARAMETER       XFER_ERR        = 1
0236            PARAMETER       WRITE_CHECK     = 1
0237            PARAMETER       GET_STATUS      = 2
0238            PARAMETER       SEEK            = 3
0239            PARAMETER       READ_HEADER     = 4
0240            PARAMETER       WRITE_DATA      = 5
0241            PARAMETER       READ_DATA       = 6
0242            PARAMETER       TIMEOUT         = 96
0243
0244            CHARACTER*12    V1RL_CS(0:0)
0245            DATA    V1RL_CS(0)      /'DRIVE READY*'/
0246
0247            CHARACTER*17    V2RL_CS(6:7)
0248            DATA    V2RL_CS(6)      /'INTERRUPT ENABLE*'/
0249            DATA    V2RL_CS(7)      /'CONTROLLER READY*'/
0250
0251            CHARACTER*21    V3RL_CS(10:10)
0252            DATA    V3RL_CS(10)     /'OPERATION INCOMPLETE*'/
0253
0254            CHARACTER*20    V4RL_CS(13:15)
0255            DATA    V4RL_CS(13)     /'NON-EXISTENT MEMORY*'/
0256            DATA    V4RL_CS(14)     /'DRIVE ERROR*'/
0257            DATA    V4RL_CS(15)     /'COMPOSITE ERROR*'/
0258
0259            CHARACTER*17    DCRC_HCRC(0:1)
0260            DATA    DCRC_HCRC(0)    /'DATA CRC ERROR*'/
0261            DATA    DCRC_HCRC(1)    /'HEADER CRC ERROR*'/
0262
0263            CHARACTER*22    DLT_HNF(0:1)
0264            DATA    DLT_HNF(0)      /'DATA LATE ERROR*'/
0265            DATA    DLT_HNF(1)      /'HEADER NOT FOUND*'/
0266
0267            CHARACTER*6     V1RL_DA(3:3)
0268            DATA    V1RL_DA(3)      /'RESET*'/
0269
0270            CHARACTER*7     DIRECTION(0:1)
0271            DATA    DIRECTION(0)    /'REVERSE'/
0272            DATA    DIRECTION(1)    /'FORWARD'/
```

```
0273
0274            CHARACTER*24    HEAD_SELECT(0:1)
0275            DATA    HEAD_SELECT(0)  /'HEAD SELECT = UPPER HEAD'/
0276            DATA    HEAD_SELECT(1)  /'HEAD SELECT = LOWER HEAD'/
0277
0278            CHARACTER*2     ADDR_EXTN(4:5)
0279            DATA    ADDR_EXTN(4)    /'16'/
0280            DATA    ADDR_EXTN(5)    /'17'/
0281
0282            CHARACTER*13    V2RL_STATUS(3:5)
0283            DATA    V2RL_STATUS(3)  /'BRUSHES HOME*'/
0284            DATA    V2RL_STATUS(4)  /'HEADS OUT*'/
0285            DATA    V2RL_STATUS(5)  /'COVER OPEN*'/
0286
0287            CHARACTER*19    V3RL_STATUS(8:15)
0288            DATA    V3RL_STATUS(8)  /'DRIVE SELECT ERROR*'/
0289            DATA    V3RL_STATUS(9)  /'VOLUME CHECK*'/
0290            DATA    V3RL_STATUS(10) /'WRITE GATE ERROR*'/
0291            DATA    V3RL_STATUS(11) /'SPIN ERROR*'/
0292            DATA    V3RL_STATUS(12) /'SEEK TIME-OUT*'/
0293            DATA    V3RL_STATUS(13) /'WRITE PROTECTED*'/
0294            DATA    V3RL_STATUS(14) /'HEAD CURRENT ERROR*'/
0295            DATA    V3RL_STATUS(15) /'WRITE DATA ERROR*'/
0296
0297            CHARACTER*4     DRIVE_TYPE(0:1)
0298            DATA    DRIVE_TYPE(0)   /'RL01'/
0299            DATA    DRIVE_TYPE(1)   /'RL02'/
0300
0301            CHARACTER*15    V1RL_STATUS(0:7)
0302            DATA    V1RL_STATUS(0)  /'LOAD CARTRIDGE*'/
0303            DATA    V1RL_STATUS(1)  /'SPIN UP*'/
0304            DATA    V1RL_STATUS(2)  /'BRUSH CYCLE*'/
0305            DATA    V1RL_STATUS(3)  /'LOAD HEADS*'/
0306            DATA    V1RL_STATUS(4)  /'SEEK*'/
0307            DATA    V1RL_STATUS(5)  /'LOCK ON*'/
0308            DATA    V1RL_STATUS(6)  /'UNLOAD HEADS*'/
0309            DATA    V1RL_STATUS(7)  /'SPIN DOWN*'/
0310
0311            CHARACTER*23    RL_FUNC(0:7)
0312            DATA    RL_FUNC(0)      /'NO OPERATION*'/
0313            DATA    RL_FUNC(1)      /'WRITE CHECK*'/
0314            DATA    RL_FUNC(2)      /'GET STATUS*'/
0315            DATA    RL_FUNC(3)      /'SEEK*'/
0316            DATA    RL_FUNC(4)      /'READ HEADER*'/
0317            DATA    RL_FUNC(5)      /'WRITE DATA*'/
0318            DATA    RL_FUNC(6)      /'READ DATA*'/
0319            DATA    RL_FUNC(7)      /'READ DATA NO HDR CHECK*'/
0320
0321            CHARACTER*33    MUST_BE
0322            DATA    MUST_BE /'MUST BE SET/CLEAR INCORRECT'/
0323
0324
0325            CALL FRCTOF (LUN)
0326
0327            call dhead1 (lun,'UBA RL11')
0328
0329            CALL LINCHK (LUN,2)
```

```
0330
0331            WRITE(LUN,100) RLCS
0332    100     FORMAT(/' ',T8,'RLCS',T24,Z8.4)
0333
0334            CALL OUTPUT (LUN,RLCS,V1RL_CS,0,0,0,'0')
0335
0336            DRIVE_FUNC = LIB$EXTZV(1,3,RLCS)
0337
0338            CALL LINCHK (LUN,1)
0339
0340            WRITE(LUN,125) RL_FUNC(DRIVE_FUNC)
0341    125     FORMAT(' ',T40,'FUNCTION = ',
0342            1 A<COMPRESSC (RL_FUNC(DRIVE_FUNC))>)
0343
0344            DO 140,I = 4,5
0345
0346            FIELD = LIB$EXTZV(I,1,RLCS)
0347
0348            IF (FIELD .NE. 0) THEN
0349
0350            CALL LINCHK (LUN,1)
0351
0352            WRITE(LUN,130) ADDR_EXTN(I)
0353    130     FORMAT(' ',T40,'BUS ADDRESS EXTENSION BIT ',A2,'.')
0354            ENDIF
0355
0356    140     CONTINUE
0357
0358            CALL OUTPUT (LUN,RLCS,V2RL_CS,6,6,7,'0')
0359
0360            CALL LINCHK (LUN,1)
0361
0362            FIELD = LIB$EXTZV(8,2,RLCS)
0363
0364            WRITE(LUN,150) FIELD
0365    150     FORMAT(' ',T40,'SELECTED DRIVE = ',I1,'.')
0366
0367            CALL OUTPUT (LUN,RLCS,V3RL_CS,10,10,10,'0')
0368
0369            FIELD = LIB$EXTZV(10,1,RLCS)
0370
0371            FIELD1 = LIB$EXTZV(11,1,RLCS)
0372
0373            IF (FIELD1 .EQ. 1) THEN
0374
0375            CALL LINCHK (LUN,1)
0376
0377            IF (DRIVE_FUNC .NE. WRITE_CHECK) THEN
0378
0379            WRITE(LUN,160) DCRC_HCRC(FIELD)
0380    160     FORMAT(' ',T40,A<COMPRESSC (DCRC_HCRC(FIELD))>)
0381            ELSE
0382
0383            WRITE(LUN,170)
0384    170     FORMAT(' ',T40,'WRITE CHECK ERROR')
0385            ENDIF
0386            ENDIF
```

```
0387
0388            FIELD1 = LIB$EXTZV(12,1,RLCS)
0389
0390            IF (FIELD1 .NE. 0) THEN
0391
0392            CALL LINCHK (LUN,1)
0393
0394            WRITE(LUN,180) DLT_HNF(FIELD)
0395    180     FORMAT(' ',T40,A<INDEX(DLT_HNF(FIELD),'*')-1>)
0396            ENDIF
0397
0398            CALL OUTPUT (LUN,RLCS,V4RL_CS,13,13,15,'0')
0399
0400            CALL LINCHK (LUN,1)
0401
0402            WRITE(LUN,250) RLBA
0403    250     FORMAT(' ',T8,'RLBA',T24,Z8.4)
0404
0405            IF (DRIVE_FUNC .EQ. WRITE_CHECK
0406            1 .OR.
0407            2 DRIVE_FUNC .GE. WRITE_DATA) THEN
0408
0409            CALL CALC_MAP (LUN,4,RLCS,RLBA)
0410            ENDIF
0411
0412            CALL LINCHK (LUN,1)
0413
0414            WRITE(LUN,275) RLDA
0415    275     FORMAT(' ',T8,'RLDA',T24,Z8.4)
0416
0417            IF (DRIVE_FUNC .EQ. SEEK) THEN
0418
0419            IF (JIAND(RLDA,'A'X) .NE. 'A'X
0420            1 .OR.
0421            2 JIAND(RLDA,'1'X) .EQ. 0) THEN
0422
0423            CALL LINCHK (LUN,1)
0424
0425            WRITE(LUN,280) MUST_BE
0426    280     FORMAT(' ',T40,A33)
0427            ENDIF
0428
0429            FIELD = LIB$EXTZV(2,1,RLDA)
0430
0431            CALL LINCHK (LUN,1)
0432
0433            WRITE(LUN,285) DIRECTION(FIELD)
0434    285     FORMAT(' ',T40,A7)
0435
0436            FIELD = LIB$EXTZV(4,1,RLDA)
0437
0438            CALL LINCHK (LUN,1)
0439
0440            WRITE(LUN,290) HEAD_SELECT(FIELD)
0441    290     FORMAT(' ',T40,A24)
0442
0443            FIELD = LIB$EXTZV(7,9,RLDA)
```

```
0444
0445            CALL LINCHK (LUN,1)
0446
0447            WRITE(LUN,295) FIELD
0448    295     FORMAT(' ',T40,'CYLINDER DIFFERENCE = ',I<COMPRESS4 (FIELD)>,'.')
0449
0450            ELSE IF (DRIVE_FUNC .EQ. GET_STATUS) THEN
0451
0452            IF (JIAND(RLDA,'F4'X) .NE. 0
0453            1 .OR.
0454            2 JIAND(RLDA,'3'X) .NE. '3'X) THEN
0455
0456            CALL LINCHK (LUN,1)
0457
0458            WRITE(LUN,300) MUST_BE
0459    300     FORMAT(' ',T40,A33)
0460            ENDIF
0461
0462            CALL OUTPUT (LUN,RLDA,V1RL_DA,3,3,3,'0')
0463
0464            ELSE IF (DRIVE_FUNC .EQ. WRITE_CHECK
0465            1 .OR.
0466            2 DRIVE_FUNC .GE. WRITE_DATA) THEN
0467
0468            FIELD = LIB$EXTZV(0,6,RLDA)
0469
0470            CALL LINCHK (LUN,1)
0471
0472            WRITE(LUN,305) FIELD
0473    305     FORMAT(' ',T40,'SECTOR = ',I<COMPRESS4 (FIELD)>,'.')
0474
0475            FIELD = LIB$EXTZV(6,1,RLDA)
0476
0477            CALL LINCHK (LUN,1)
0478
0479            WRITE(LUN,310) HEAD_SELECT(FIELD)
0480    310     FORMAT(' ',T40,A24)
0481
0482            FIELD = LIB$EXTZV(7,9,RLDA)
0483
0484            CALL LINCHK (LUN,1)
0485
0486            WRITE(LUN,315) FIELD
0487    315     FORMAT(' ',T40,'CYLINDER = ',I<COMPRESS4 (FIELD)>,'.')
0488            ENDIF
0489
0490    C
0491    C       THE RLMP REGISTER RETURNED TO SYE IS NOT THE CONTENTS AT THE
0492    C       TIME OF THE ERROR.IT IS THE CONTENTS AFTER A GET STATUS
0493    C       COMMAND HAS BEEN EXECUTED ON THE FAILING DRIVE.A GET STATUS
0494    C       IS EXECUTED UNCONDITIONALLY WHEN ANY ERROR IS DETECTED BY
0495    C       THE RL DISK DRIVER.
0496    C
0497
0498            CALL LINCHK (LUN,2)
0499
0500            WRITE(LUN,605) RLMP
```

```
0501     605      FORMAT(' ',T8,'RLMP',T24,Z8.4,/,T48,'**ERROR STATUS**')
0502
0503              FIELD = LIB$EXTZV(0,3,RLMP)
0504
0505              CALL LINCHK (LUN,1)
0506
0507              WRITE(LUN,615) V1RL_STATUS(FIELD)
0508     615      FORMAT(' ',T40,A<INDEX(V1RL_STATUS(FIELD),'*')-1>)
0509
0510              CALL OUTPUT (LUN,RLMP,V2RL_STATUS,3,3,5,'0')
0511
0512              FIELD = LIB$EXTZV(6,1,RLMP)
0513
0514              CALL LINCHK (LUN,1)
0515
0516              WRITE(LUN,620) HEAD_SELECT(FIELD)
0517     620      FORMAT(' ',T40,A24)
0518
0519              FIELD = LIB$EXTZV(7,1,RLMP)
0520
0521              CALL LINCHK (LUN,1)
0522
0523              WRITE(LUN,625) DRIVE_TYPE(FIELD)
0524     625      FORMAT(' ',T40,'DRIVE IS ',A4)
0525
0526              CALL OUTPUT (LUN,RLMP,V3RL_STATUS,8,8,15,'0')
0527
0528              if (emb$w_hd_entry .ne. 98) then
0529
0530              IF ((DRIVE_FUNC .EQ. WRITE_CHECK
0531              1 .OR.
0532              2 DRIVE_FUNC .GE. WRITE_DATA)
0533              3 .AND.
0534              4 EMB$W_HD_ENTRY .NE. TIMEOUT) THEN
0535
0536              if (uba_regs(1) .ne. 0) then
0537
0538              call uba_datapath (lun,uba_regs(1),uba_regs(2))
0539              endif
0540
0541              call calc_map2 (4,rlcs,rlba,field)
0542
0543              call uba_mapping (lun,field,uba_regs(3))
0544
0545              if (
0546              1 lib$extzv(16,16,emb$l_dv_iosb1) .gt. 512
0547              1 .and.
0548              1 field .ne. 0
0549              1 ) then
0550
0551              call uba_mapping (lun,(field-1),uba_regs(4))
0552              endif
0553              ENDIF
0554              endif
0555
0556              call linchk (lun,1)
0557
```

```
0558            write(lun,630)
0559    630     format(' ',:)
0560
0561            if (emb$w_hd_entry .ne. 98) then
0562
0563            call ucb$b_ertcnt (lun,emb$b_dv_ertcnt)
0564
0565            call ucb$b_ertmax (lun,emb$b_dv_ertmax)
0566            endif
0567
0568            call orb$l_owner (lun,emb$l_dv_ownuic)
0569
0570            call ucb$l_char (lun,emb$l_dv_char)
0571
0572            call ucb$w_sts (lun,emb$w_dv_sts)
0573
0574            call ucb$l_opcnt (lun,emb$l_dv_opcnt)
0575
0576            call ucb$w_errcnt (lun,emb$w_dv_errcnt)
0577
0578            if (emb$w_hd_entry .ne. 98) then
0579
0580            call ucb$l_media (lun,emb$l_dv_media)
0581
0582            call linchk (lun,1)
0583
0584            write(lun,630)
0585
0586            call rldisk_qio (lun,emb$w_dv_func)
0587
0588            call irp$w_bcnt (lun,emb$w_dv_bcnt)
0589
0590            call irp$w_boff (lun,emb$w_dv_boff)
0591
0592            call irp$l_pid (lun,emb$l_dv_rqpid)
0593
0594            call irp$q_iosb (lun,emb$l_dv_iosb1)
0595            endif
0596
0597            RETURN
0598            END
```

PROGRAM SECTIONS

	Name	Bytes	Attributes
0	$CODE	2260	PIC CON REL LCL SHR EXE RD NOWRT LONG
1	$PDATA	487	PIC CON REL LCL SHR NOEXE RD NOWRT LONG
2	$LOCAL	1928	PIC CON REL LCL NOSHR NOEXE RD WRT LONG
3	EMB	512	PIC OVR REL GBL SHR NOEXE RD WRT LONG
	Total Space Allocated	5187	

ENTRY POINTS

Address	Type	Name
0-00000000		RLDISK

VARIABLES

Address	Type	Name	Address	Type	Name
2-0000030C	L*1	DRIVE_FUNC	3-0000001C	L*1	EMB$B_DV_CLASS
3-00000010	L*1	EMB$B_DV_ERTCNT	3-00000011	L*1	EMB$B_DV_ERTMAX
3-0000003E	L*1	EMB$B_DV_NAMLNG	3-0000003A	L*1	EMB$B_DV_SLAVE
3-0000001D	L*1	EMB$B_DV_TYPE	3-00000036	I*4	EMB$L_DV_CHAR
3-00000012	I*4	EMB$L_DV_IOSB1	3-00000016	I*4	EMB$L_DV_IOSB2
3-00000026	I*4	EMB$L_DV_MEDIA	3-0000004E	I*4	EMB$L_DV_NUMREG
3-0000002E	I*4	EMB$L_DV_OPCNT	3-00000032	I*4	EMB$L_DV_OWNUIC
3-0000001E	I*4	EMB$L_DV_RQPID	3-00000000	I*4	EMB$L_HD_SID
3-0000003F	CHAR	EMB$T_DV_NAME	3-00000024	I*2	EMB$W_DV_BCNT
3-00000022	I*2	EMB$W_DV_BOFF	3-0000002C	I*2	EMB$W_DV_ERRCNT
3-0000003C	I*2	EMB$W_DV_FUNC	3-0000001A	I*2	EMB$W_DV_STS
3-0000002A	I*2	EMB$W_DV_UNIT	3-00000004	I*2	EMB$W_HD_ENTRY
3-0000000E	I*2	EMB$W_HD_ERRSEQ	2-00000330	I*4	FIELD
2-00000334	I*4	FIELDT	2-00000338	I*4	FIELD2
2-0000033C	I*4	I	AP-00000004@	L*1	LUN
2-0000030D	CHAR	MUST_BE	3-00000056	I*4	RLBA
3-00000052	I*4	RLCS	3-0000005A	I*4	RLDA
3-0000005E	I*4	RLMP			

ARRAYS

Address	Type	Name	Bytes	Dimensions
2-00000111	CHAR	ADDR_EXTN	4	(4:5)
2-0000007F	CHAR	DCRC_HCRC	34	(0:1)
2-000000D3	CHAR	DIRECTION	14	(0:1)
2-000000A1	CHAR	DLT_HNF	44	(0:1)
2-000001D4	CHAR	DRIVE_TYPE	8	(0:1)
3-00000000	L*1	EMB	512	(0:511)
3-00000052	I*4	EMB$L_DV_REGSAV	420	(0:104)
3-00000006	I*4	EMB$Q_HD_TIME	8	(2)
2-000000E1	CHAR	HEAD_SELECT	48	(0:1)
2-00000254	CHAR	RL_FUNC	184	(0:7)

```
  3-00000062  I*4  UBA_REGS                  16  (4)
  2-00000000  CHAR V1RL_CS                   12  (0:0)
  2-000000CD  CHAR V1RL_DA                    6  (3:3)
  2-000001DC  CHAR V1RL_STATUS              120  (0:7)
  2-0000000C  CHAR V2RL_CS                   34  (6:7)
  2-00000115  CHAR V2RL_STATUS               39  (3:5)
  2-0000002E  CHAR V3RL_CS                   21  (10:10)
  2-0000013C  CHAR V3RL_STATUS              152  (8:15)
  2-00000043  CHAR V4RL_CS                   60  (13:15)
```

LABELS

Address	Label	Address	Label	Address	Label	Address	Label	Address	Label	Address	Label
1-0000004D	100'	1-0000005F	125'	1-00000078	130'	**	140	1-0000009F	150'	1-000000BD	160'
1-000000C9	170'	1-000000E2	180'	1-000000EE	250'	1-000000FF	275'	1-00000110	280'	1-00000118	285'
1-00000120	290'	1-00000128	295'	1-0000014F	300'	1-00000157	305'	1-00000171	310'	1-00000179	315'
1-00000195	605'	1-000001BB	615'	1-000001C7	620'	1-000001CF	625'	1-000001E2	630'		

FUNCTIONS AND SUBROUTINES REFERENCED

Type	Name	Type	Name	Type	Name	Type	Name	Type	Name	Type	Name
	CALC_MAP		CALC_MAP2	I*4	COMPRESS4	I*4	COMPRESSC		DHEAD1		FRCTOF
	IRP$L_PID		IRP$Q_IOSB		IRP$W_BCNT		IRP$W_BOFF	I*4	LIB$EXTZV	I*4	LIB$INDEX
	LINCHR		ORB$L_OWNER		OUTPUT		RLDISK_QIO		UBA_DATAPATH		UBA_MAPPING
	UCB$B_ERTCNT		UCB$B_ERTMAX		UCB$L_CHAR		UCB$L_MEDIA		UCB$L_OPCNT		UCB$W_ERRCNT
	UCB$W_STS										

```
0001
0002
0003
0004            Subroutine RLDISK_QIO (lun,emb$w_dv_func)
0005
0006            include 'src$:qiocommon.for /nolist'
0270
0271            byte            lun
0272
0273            integer*2       emb$w_dv_func
0274
0275            integer*4       qiocode(0:1,0:63)
0276
0277
0278            if (qiocode(0,0) .eq. 0) then
0279
0280            qiocode(1,00) = %loc(io$_nop)
0281
0282            qiocode(1,02) = %loc(io$_seek)
0283
0284            qiocode(1,04) = %loc(io$_drvclr)
0285
0286            qiocode(1,08) = %loc(io$_packack)
0287
0288            qiocode(1,10) = %loc(io$_writecheck)
0289
0290            qiocode(1,11) = %loc(io$_writepblk)
0291
0292            qiocode(1,12) = %loc(io$_readpblk)
0293
0294            qiocode(1,14) = %loc(io$_readhead)
0295
0296            qiocode(1,26) = %loc(io$_setchar)
0297
0298            qiocode(1,27) = %loc(io$_sensechar)
0299
0300            qiocode(1,32) = %loc(io$_writelblk)
0301
0302            qiocode(1,33) = %loc(io$_readlblk)
0303
0304            qiocode(1,35) = %loc(io$_setmode)
0305
0306            qiocode(1,39) = %loc(io$_sensemode)
0307
0308            qiocode(1,48) = %loc(io$_writevblk)
0309
0310            qiocode(1,49) = %loc(io$_readvblk)
0311
0312            qiocode(1,50) = %loc(io$_access)
0313
0314            qiocode(1,51) = %loc(io$_create)
0315
0316            qiocode(1,52) = %loc(io$_deaccess)
0317
0318            qiocode(1,53) = %loc(io$_delete)
0319
0320            qiocode(1,54) = %loc(io$_modify)
```

```
0321
0322            qiocode(1,56) = %loc(io$_acpcontrol)
0323
0324            qiocode(1,57) = %loc(io$_mount)
0325
0326            do 10,i = 0,63
0327
0328            qiocode(0,i) = 33
0329
0330            if (qiocode(1,i) .eq. 0) then
0331
0332            qiocode(1,i) = %loc(qio_string)
0333            endif
0334
0335    10      continue
0336            endif
0337
0338            call irp$w_func (lun,emb$w_dv_func,
0339            1 qiocode(0,lib$extzv(0,6,emb$w_dv_func)))
0340
0341            return
0342
0343            end
```

PROGRAM SECTIONS

	Name	Bytes	Attributes
0	$CODE	249	PIC CON REL LCL SHR EXE RD NOWRT LONG
1	$PDATA	8	PIC CON REL LCL SHR NOEXE RD NOWRT LONG
2	$LOCAL	548	PIC CON REL LCL NOSHR NOEXE RD WRT LONG
3	QIOCOMMON	1247	PIC OVR REL GBL SHR NOEXE RD WRT LONG
	Total Space Allocated	2052	

ENTRY POINTS

Address	Type	Name
0-00000000		RLDISK_QIO

VARIABLES

Address	Type	Name	Address	Type	Name
AP-0000008a	I*2	EMB$W_DV_FUNC	2-00000200	I*4	I
3-00000442	CHAR	IO$_ABORT	3-0000034D	CHAR	IO$_ACCESS
3-000003C2	CHAR	IO$_ACPCONTROL	3-000004B3	CHAR	IO$_AVAILABLE
3-00000297	CHAR	IO$_CLEAN	3-00000369	CHAR	IO$_CREATE
3-00000385	CHAR	IO$_DEACCESS	3-00000393	CHAR	IO$_DELETE
3-0000026D	CHAR	IO$_DIAGNOSE	3-00000065	CHAR	IO$_DRVCLR
3-000004CB	CHAR	IO$_DSE	3-000000A9	CHAR	IO$_ERASETAPE

```
  3-00000276  CHAR IO$_FORMAT          3-00000071  CHAR IO$_INITIALIZE
  3-00000014  CHAR IO$_LOADMCODE       3-000003A1  CHAR IO$_MODIFY
  3-000003E2  CHAR IO$_MOUNT           3-00000000  CHAR IO$_NOP
  3-0000009D  CHAR IO$_OFFSET          3-000000EB  CHAR IO$_PACKACK
  3-000000E0  CHAR IO$_QSTOP           3-000003EF  CHAR IO$_RDSTATS
  3-00000421  CHAR IO$_READCSR         3-00000169  CHAR IO$_READHEAD
  3-000002B6  CHAR IO$_READLBLK        3-0000013F  CHAR IO$_READPBLK
  3-00000200  CHAR IO$_READPRESET      3-00000195  CHAR IO$_READTRACKD
  3-0000033A  CHAR IO$_READVBLK        3-0000045A  CHAR IO$_READWTHBUF
  3-00000484  CHAR IO$_READWTHXBUF     3-0000004D  CHAR IO$_RECAL
  3-0000007C  CHAR IO$_RELEASE         3-000001AB  CHAR IO$_REREADN
  3-000001B8  CHAR IO$_REREADP         3-000000CA  CHAR IO$_RETCENTER
  3-000002E6  CHAR IO$_REWIND          3-000002C9  CHAR IO$_REWINDOFF
  3-000000FC  CHAR IO$_SEARCH          3-00000024  CHAR IO$_SEEK
  3-00000231  CHAR IO$_SENSECHAR       3-00000309  CHAR IO$_SENSEMODE
  3-0000021D  CHAR IO$_SETCHAR         3-000003B8  CHAR IO$_SETCLOCK
  3-00000088  CHAR IO$_SETCLOCKP       3-000002DD  CHAR IO$_SETMODE
  3-000002ED  CHAR IO$_SKIPFILE        3-000002FA  CHAR IO$_SKIPRECORD
  3-00000029  CHAR IO$_SPACEFILE       3-0000010E  CHAR IO$_SPACERECORD
  3-000003D7  CHAR IO$_STARTDATA       3-000000B4  CHAR IO$_STARTDATAP
  3-00000037  CHAR IO$_STARTMPROC      3-0000020F  CHAR IO$_STARTSPNDL
  3-00000059  CHAR IO$_STOP            3-0000000D  CHAR IO$_UNLOAD
  3-0000046B  CHAR IO$_WRITEBUFNCRC    3-0000011E  CHAR IO$_WRITECHECK
  3-000001E4  CHAR IO$_WRITECHECKH     3-000003FF  CHAR IO$_WRITECSR
  3-00000153  CHAR IO$_WRITEHEAD       3-000002A2  CHAR IO$_WRITELBLK
  3-00000247  CHAR IO$_WRITEMARK       3-00000314  CHAR IO$_WRITEOF
  3-0000012A  CHAR IO$_WRITEPBLK       3-000001C9  CHAR IO$_WRITERET
  3-0000017E  CHAR IO$_WRITETRACKD     3-00000326  CHAR IO$_WRITEVBLK
  3-00000448  CHAR IO$_WRITEWTHBUF     3-00000257  CHAR IO$_WRTTMKR
AP-0000004C L*1  LUN                   3-000004A1  CHAR QIO_STRING

ARRAYS

    Address  Type  Name                Bytes  Dimensions
  2-00000000  I*4  QIOCODE               512  (0:1, 0:63)

LABELS

    Address   Label
      **      10

FUNCTIONS AND SUBROUTINES REFERENCED

  Type  Name             Type  Name
        IRP$W_FUNC        I*4  LIB$EXTZV
```

COMMAND QUALIFIERS

```
  FORTRAN /LIS=LIS$:RLDISK/OBJ=OBJ$:RLDISK MSRC$:RLDISK

  /CHECK=(NOBOUNDS,OVERFLOW,NOUNDERFLOW)
  /DEBUG=(NOSYMBOLS,TRACEBACK)
  /STANDARD=(NOSYNTAX,NOSOURCE_FORM)
  /SHOW=(NOPREPROCESSOR,NOINCLUDE,MAP)
  /F77  /NOG_FLOATING  /I4  /OPTIMIZE  /WARNINGS  /NOD_LINES  /NOCROSS_REFERENCE  /NOMACHINE_CODE  /CONTINUATIONS=19
```

COMPILATION STATISTICS

```
  Run Time:            9.03 seconds
  Elapsed Time:        19.09 seconds
  Page Faults:         248
  Dynamic Memory:      228 pages
```

0153 AH-BT13A-SE
VAX/VMS V4.0

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PCL11R
LIS

SB11
LIS

RKDISK
LIS