

[illegible][illegible]

```
RRRRRRRR      EEEEEEEEEEE MM      MM      SSSSSSSS UU      UU      BBBB BBBB      RRRRRRRR
RRRRRRRR      EEEEEEEEEEE MM      MM      SSSSSSSS UU      UU      BBBB BBBB      RRRRRRRR
RR      RR      EE      MM      MM      SS      UU      UU      BB      BB      RR      RR
RR      RR      EE      MM      MM      SS      UU      UU      BB      BB      RR      RR
RR      RR      EE      MM      MM      SS      UU      UU      BB      BB      RR      RR
RR      RR      EE      MM      MM      SS      UU      UU      BB      BB      RR      RR
RRRRRRRR      EEEEEEEEEEE MM      MM      SSSSSS  UU      UU      BBBB BBBB      RRRRRRRR
RRRRRRRR      EEEEEEEEEEE MM      MM      SSSSSS  UU      UU      BBBB BBBB      RRRRRRRR
RR      RR      EE      MM      MM      SS      UU      UU      BB      BB      RR      RR
RR      RR      EE      MM      MM      SS      UU      UU      BB      BB      RR      RR
RR      RR      EE      MM      MM      SS      UU      UU      BB      BB      RR      RR
RR      RR      EE      MM      MM      SS      UU      UU      BB      BB      RR      RR
RR      RR      EE      MM      MM      SS      UU      UU      BB      BB      RR      RR
RR      RR      EEEEEEEEEEE MM      MM      SSSSSSSS UU      UU      BBBB BBBB      RRRRRRRR
RR      RR      EEEEEEEEEEE MM      MM      SSSSSSSS UU      UU      BBBB BBBB      RRRRRRRR
```

```
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
LLLLLLLLLLLL IIIIII      SSSSSSSS
LLLLLLLLLLLL IIIIII      SSSSSSSS
```


(3)	39
(4)	54
(5)	82
(6)	102
(7)	135

HISTORY	
DECLARATIONS	
REMSCLEAN UP	- Clean up io in progress
REMSATTNMSG	- Send an attention message
REMSQUEUE	- Put element in work queue

```
0000 1      .TITLE  REMSUBR - SUBROUTINES FOR REMOTE I/O
0000 2      .IDENT  'V04-000'
0000 3
0000 4 :
0000 5 :*****
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0000 23 :*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
0000 24 :*
0000 25 :*
0000 26 :*****
0000 27 :
0000 28 :++
0000 29 : FACILITY:      REMOTE I/O ACP
0000 30 :
0000 31 : ABSTRACT:
0000 32 :      This module contains miscellaneous routines
0000 33 :
0000 34 : ENVIRONMENT:
0000 35 :      MODE = KERNEL
0000 36 :--
```



```
0000 38
0000 39
0000 40 : .SBTTL HISTORY
0000 41 : AUTHOR: SCOTT G. DAVIS, CREATION DATE: 17-JUL-79
0000 42 :
0000 43 : MODIFIED BY:
0000 44 :
0000 45 : V02-004 DJD2002 Darrell Duffy 28-July-1981
0000 46 : Fix to use DDT entries as absolute addresses.
0000 47 :
0000 48 : V02-003 DJD2001 Darrell Duffy 5-Mar-1981
0000 49 : RTTDRIIVER calls NETDRIIVER directly for IO.
0000 50 : Pass real buffered IO packets to RTTDRIIVER.
0000 51 :
0000 52 : V02-002 SGD2001 Scott G. Davis 23-Sep-1980
Remove multiple devices, ignore unknown messages
```

```
0000 54      .SBTTL  DECLARATIONS
0000 55      :
0000 56      : INCLUDE FILES:
0000 57      :
0000 58
0000 59      $CCBDEF
0000 60      $CRBDEF
0000 61      $ddbDEF
0000 62      $DDTDEF
0000 63      $DYNDEF
0000 64      $IRPDEF
0000 65      $RBFDEF
0000 66      $REMDEF
0000 67      $UCBDEF
0000 68
0000 69      $RTTUCBEXT                ; RTT extensions to UCB
0000 70      :
0000 71      : MACROS:
0000 72      :
0000 73
0000 74      :
0000 75      : EQUATED SYMBOLS:
0000 76      :
0000 77
0000 78      :
0000 79      : OWN STORAGE:
0000 80      :
```



```
0000 82 .SBTTL REMSCLEAN_UP - Clean up io in progress
0000 83
00000000 84 .PSECT REM_CODE,NOWRT
0000 85 :++
0000 86 :
0000 87 : REMSCLEAN_UP - Clean up the I/O in progress
0000 88 :
0000 89 : INPUTS:
0000 90 :
0000 91 : R11 - device index
0000 92 :
0000 93 :--
0000 94
0000 95 REMSCLEAN UP::
55 0000'DF4B D0 0000 96 MOVL @W^REM$GL_UCBVEC[R11],R5 ; Get the associated UCB address
01 12 0006 97 BNEQ 5$ ; If NEQ proceed
05 0008 98 RSB ; UCB is gone
52 01 D0 0009 99 5$: MOVL #RBF$C_TT_HANGUP, R2 ; The code for a hangup.
000C 100 ; **** Fall through ****
```

```
000C 102 .SBTTL REM$ATTNMSG - Send an attention message
000C 103 :++
000C 104 : REM$ATTNMSG - Send an attention message to the driver
000C 105 :
000C 106 : An attention message is formatted for the driver given a code
000C 107 : as input to this routine.
000C 108 :
000C 109 : inputs:
000C 110 : r2 = modifier for attention message
000C 111 : r5 = rtt ucb
000C 112 : outputs:
000C 113 : r0 - r4, r6 clobbered
000C 114 :--
000C 115 REM$ATTNMSG::
56 52 D0 000C 116 MOVL R2, R6 ; Save the modifier out of harms way
FFEE 30 000F 117 BSBW REM$ALLOC_IRP ; Get a block
53 52 D0 0012 118 MOVL R2, R3 ; Get address where it belongs
13 90 0015 119 MOV B #DYN$C_BUFIO, - ; Set the block type
0A A2 0017 120 RBF$B_TYPE(R2)
OE A2 9E 0019 121 MOVAB RBF$W_OPCODE(R2), - ; Set the data address
62 001C 122 RBF$L_MSGDAT(R2)
04 A2 D4 001D 123 CLRL RBF$L_USRBF(R2) ; Set the user buffer address
0020 124
01 AE 0020 125 MNEGW #-RBF$C_ATTN, - ; This is an attention packet
OE A2 0022 126 RBF$W_OPCODE(R2)
10 A2 56 B0 0024 127 MOVW R6, RBF$W_MOD(R2) ; Modifier into message
52 28 A5 D0 0028 128 MOVL UCB$L_DDB(R5), R2 ; Get the DDB address
52 0C A2 D0 002C 129 MOVL DDB$L_DDT(R2), R2 ; Get the DDT address
52 04 A2 D0 0030 130 MOVL DDT$L_UN$OLINT(R2), R2 ; Get the UNSOL address
16 0034 131 JSB (R2) ; Pass the message and return
05 0036 132 RSB
0037 133
```



```
0037 135 .SBTTL REM$ENQUEUE - Put element in work queue
0037 136 :++
0037 137 :
0037 138 : REM$ENQUEUE - Put an element into the work queue
0037 139 :
0037 140 : INPUTS:
0037 141 :
0037 142 :
0037 143 : R10 - Low byte has work type
0037 144 : R11 - Device index - saved, but not always relevant
0037 145 : OUTPUTS:
0037 146 :
0037 147 : R0-R3 destroyed
0037 148 :
0037 149 :--
0037 150
0037 151 REM$ENQUEUE::
0037 152 BSBW REM$ALLOC IRP ; Get storage for a queue element
53 0A A2 9E 003A 153 MOVAB IRP$B_TYPE(R2),R3 ; Point to area to put info
83 83 94 003E 154 CLRB (R3)+ ; Mark as a work element
63 5A 90 0040 155 MOVB R10,(R3)+ ; Store the work type
53 0000'CF D0 0043 156 MOVL R11,(R3) ; Store the device index (maybe)
04 B3 62 0E 0046 157 MOVL W^REM$GL Q HEAD,R3 ; Get the ACP queue head
08 12 004B 158 INSQUE (R2),a4(R3) ; Put element in the queue
0051 159 BNEQ 10$ ; If NEQ this is not the first element
005C 160 $WAKE_S ; Cause processing to occur
05 005C 161 10$: RSB ; Done
005D 162
005D 163
005D 164 .END
```

REMSUBR
Symbol table

- SUBROUTINES FOR REMOTE I/O

H 11

16-SEP-1984 02:12:32 VAX/VMS Macro V04-00
5-SEP-1984 02:54:15 [REM.SRC]REMSUBR.MAR;1

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```

DDB$$_DDT          = 0000000C
DDT$$_UNSOLINT     = 00000004
DYN$$_BUFIO        = 00000013
IRP$$_TYPE         = 0000000A
RBF$$_TYPE         = 0000000A
RBF$$_ATTN         = FFFFFFFF
RBF$$_TT_HANGUP    = 00000001
RBF$$_MSGDAT       = 00000000
RBF$$_USRBFR       = 00000004
RBF$$_MOD          = 00000010
RBF$$_OPCODE       = 0000000E
REMSA$$_LOC_IRP    = ***** X 02
REMSA$$_ATTNMSG    = 0000000C RG 02
REMSA$$_CLEAN_UP   = 00000000 RG 02
REMSA$$_CURECO     = 00000001
REMSA$$_CURVRS     = 00000001
REMSA$$_LNK_READ   = 00000002
REMSA$$_MAXDEVS    = 0000000A
REMSA$$_MAXLINKS   = 00000010
REMSA$$_MAXUNITS   = 00000010
REMSA$$_MBX_READ   = 00000001
REMSA$$_ST_ATTRIB  = 00000002
REMSA$$_ST_CONFIG  = 00000001
REMSA$$_ENQUEUE    = 00000037 RG 02
REMSA$$_Q_HEAD     = ***** X 02
REMSA$$_UCBVEC     = ***** X 02
SYSSWARE           = ***** GX 02
UCB$$_RTT_LEN      = 00000138
UCB$$_RTT_LENGTH   = 00000138
UCB$$_DDB          = 00000028
UCB$$_DEVDEPND2    = 00000048
UCB$$_RTT_CTRLC    = 00000094
UCB$$_RTT_CTRLY    = 00000090
UCB$$_RTT_DEVDEPND2 = 00000048
UCB$$_TL_BANDQUE   = 0000009C
UCB$$_TL_CTRLC     = 00000094
UCB$$_TL_CTRLY     = 00000090
UCB$$_TL_OUTBAND   = 00000098
  
```

+-----+
! Psect synopsis !
+-----+

PSECT name	Allocation	PSECT No.	Attributes
. ABS .	00000000 (0.)	00 (0.)	NOPIC USR CON ABS LCL NOSHR NOEXE NORD NOWRT NOVEC BYTE
\$AB\$\$	00000000 (0.)	01 (1.)	NOPIC USR CON ABS LCL NOSHR EXE RD WRT NOVEC BYTE
REM_CODE	0000005D (93.)	02 (2.)	NOPIC USR CON REL LCL NOSHR EXE RD NOWRT NOVEC BYTE

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

Phase	Page faults	CPU Time	Elapsed Time
Initialization	37	00:00:00.10	00:00:00.49
Command processing	133	00:00:00.61	00:00:02.28

Pass 1	360	00:00:12.47	00:00:26.18
Symbol table sort	0	00:00:02.14	00:00:04.36
Pass 2	45	00:00:01.91	00:00:03.47
Symbol table output	5	00:00:00.07	00:00:00.07
Psect synopsis output	1	00:00:00.01	00:00:00.20
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	583	00:00:17.32	00:00:37.05

The working set limit was 1500 pages.

66261 bytes (130 pages) of virtual memory were used to buffer the intermediate code.

There were 80 pages of symbol table space allocated to hold 1368 non-local and 2 local symbols.

164 source lines were read in Pass 1, producing 13 object records in Pass 2.

29 pages of virtual memory were used to define 28 macros.

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

Macro library name

Macros defined

_S255\$DUA28:[REM.OBJ]REM.MLB;1
_S255\$DUA28:[SYS.OBJ]LIB.MLB;1
_S255\$DUA28:[SYSLIB]STARLET.MLB;2
TOTALS (all libraries)

2
17
5
24

1524 GETS were required to define 24 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LIS\$:REMSUBR/OBJ=OBJ\$:REMSUBR MSRC\$:REMSUBR/UPDATE=(ENH\$:REMSUBR)+EXECML\$/LIB+LIB\$:REM/LIB

0312 AH-BT13A-SE
VAX/VMS V4.0

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