

[illegible]

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YY      YY      CCCCCCCC DDDDDDDD RRRRRRRR IIIIII VV      VV      EEEEEEEEE EEEEEEEEE RRRRRRRR
YY      YY      CCCCCCCC DDDDDDDD RRRRRRRR RRRRRRRR IIIIII VV      VV      EEEEEEEEE RRRRRRRR
YY      YY      CC      DD      RR      RR      II      VV      VV      EE      RR      RR
YY      YY      CC      DD      RR      RR      II      VV      VV      EE      RR      RR
    YY      YY      CC      DD      RR      RR      II      VV      VV      EE      RR      RR
    YY      YY      CC      DD      RR      RR      II      VV      VV      EE      RR      RR
        YY      CC      DD      RRRRRRRR II      VV      VV      EEEEEEEE RRRRRRRR
        YY      CC      DD      RRRRRRRR II      VV      VV      EEEEEEEE RRRRRRRR
        YY      CC      DD      RR      RR      II      VV      VV      EE      RR      RR
        YY      CC      DD      RR      RR      II      VV      VV      EE      RR      RR
        YY      CC      DD      RR      RR      II      VV      VV      EE      RR      RR
        YY      CC      DD      RR      RR      II      VV      VV      EE      RR      RR
        YY      CC      DD      RR      RR      II      VV      VV      EE      RR      RR
        YY      CC      DD      RR      RR      II      VV      VV      EE      RR      RR
        YY      CCCCCCCC DDDDDDDD RR      RR      IIIIII VV      VV      EEEEEEEEE RR      RR
        YY      CCCCCCCC DDDDDDDD RR      RR      IIIIII VV      VV      EEEEEEEEE RR      RR

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|     |      |                                       |
|-----|------|---------------------------------------|
| (1) | 187  | DECLARATIONS                          |
| (1) | 319  | REGISTER DEFINITIONS                  |
| (1) | 402  | CONTROLLER INITIALIZATION             |
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B  
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```
0000 1 .TITLE YCDRIVER - Port Driver for DMF Async
0000 2 .IDENT 'V04-000'
0000 3
0000 4
0000 5 *****
0000 6
0000 7 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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0000 24
0000 25
0000 26 *****
0000 27
0000 28 ++
0000 29 FACILITY:
0000 30
0000 31 VAX/VMS TERMINAL DRIVER
0000 32
0000 33 ABSTRACT
0000 34
0000 35 DMF ASYNC PORT DRIVER
0000 36
0000 37 AUTHOR:
0000 38
0000 39 RICK SPITZ
0000 40
0000 41 Revision history:
0000 42
0000 43 V03-032 WHM0003 Bill Matthews 24-Jul-1984
0000 44 Set the device type field in the CRB.
0000 45
0000 46 V03-231 LMP0275 L. Mark Pilant, 12-Jul-1984 21:04
0000 47 Initialize the ACL info in the ORB to be a null descriptor
0000 48 list rather than an empty queue. This avoids the overhead
0000 49 of locking and unlocking the ACL mutex, only to find out
0000 50 that the ACL was empty.
0000 51
0000 52 V03-030 EMD0089 Ellen M. Dusseault 30-Apr-1984
0000 53 Add DEV$M_NNM characteristic to DEVCHAR2 so that these
0000 54 devices will have the prefix 'node$'.
0000 55
0000 56 V03-029 LMP0221 L. Mark Pilant, 31-Mar-1984 10:23
0000 57 Change UCBSL_OWNUIC to ORBSL_OWNER and UCBSW_VPROT to
```

```
0000 58 : ORBSW_PROT.
0000 59 :
0000 60 : V03-028 MIR0360 Michael I. Rosenblum 20-Mar-1984
0000 61 : Add code to check for DMF honoring XON and XOFF.
0000 62 : Remove Callback to BURST_OUTPUT when resume is called
0000 63 : This eliminates unnecessary interrupts when the silo
0000 64 : Goes empty and we get a control-Q.
0000 65 :
0000 66 : V03-027 WHM0002 Bill Matthews 29-Feb-1984
0000 67 : Second part of change to control_init to support
0000 68 : multiple comm devices on one board.
0000 69 :
0000 70 : V03-026 WHM0001 Bill Matthews 28-Dec-1983
0000 71 : Use IDBSB_COMBO_VECTOR and IDBSB_COMBO_CSR_OFFSET to find
0000 72 : the start of the combo device's CSR and load the soft
0000 73 : interrupt vector.
0000 74 :
0000 75 : V03-025 JLV0318 Jake VanNoy 9-DEC-1983
0000 76 : comment out DPT_STORE for parity to fix build problem.
0000 77 :
0000 78 : V03-024 MIR0083 Michael I. Rosenblum 02-Aug-1983
0000 79 : Add Field test DMZ-32 support. Remove local def of
0000 80 : IOSM_AUTXOF_ENA and IOSM_AUTXOF_DIS and move them into STARDEF.
0000 81 :
0000 82 : V03-023 MIR0062 Michael I. Rosenblum 30-Jun-1983
0000 83 : Change controller and unit init to use newly defined
0000 84 : macros. Remove code that looked at the logical UCB
0000 85 : (code moved to the class drivers setup ucb and transition
0000 86 : routine) Remove into the class driver on resume with nothing
0000 87 : to resume.
0000 88 :
0000 89 : V03-022 MIR0060 Michael I. Rosenblum 1-Jun-1983
0000 90 : Add code to combat against silo full conditions and spurious
0000 91 : DMA completion interrupts.
0000 92 :
0000 93 : V03-021 MIR0050 Michael I. Rosenblum 11-May-1983
0000 94 : Remove STOP2 entry point (no longer necessary)
0000 95 : add code in set_line to allow the use of the auto xon xoff
0000 96 : feature of the dmf. Fix bug that would cause setting of the
0000 97 : XON bit not to restart a write.
0000 98 :
0000 99 : V03-020 RKS0020 RICK SPITZ 14-MAR-1983
0000 100 : ADD ENHANCEMENTS TO SUPPORT LOGICAL UCB
0000 101 :
0000 102 : V03-019 RKS0019 RICK SPITZ 1-FEB-1983
0000 103 : DMA CODE HAS BEEN MOVED INTO THE DMF PORT DRIVER. THIS
0000 104 : CODE HAS BEEN REMOVED FROM THE CLASS LEVEL. ALL OUTPUT
0000 105 : FROM CLASS TO PORT IS NOW HANDLED USING THE SAME INTERFACE.
0000 106 : RESUME LOGIC HAS BEEN CHANGED TO INSURE INT IS ON DURING
0000 107 : DMA BURST AND BYTE COUNT = 0 TO INSURE NO NEW OUTPUT IS
0000 108 : STARTED DURING THAT WINDOW.
0000 109 :
0000 110 : V03-018 MIR0022 Michael I. Rosenblum 18-Jan-1983
0000 111 : Replace old vector table with new vector table macro.
0000 112 : Remove references to UCBSL_DEVDEPEND and UCBSQ IT STATE
0000 113 : move these references into the class driver jackef routines
0000 114 :
```

|      |     |   |         |         |                                                             |             |
|------|-----|---|---------|---------|-------------------------------------------------------------|-------------|
| 0000 | 115 | : | V03-017 | MIR0017 | Michael I. Rosenblum                                        | 04-Jan-1983 |
| 0000 | 116 | : |         |         | Add powerfail check in the Unit init routine to allow the   |             |
| 0000 | 117 | : |         |         | terminal class driver to take positive action on powerfail. |             |
| 0000 | 118 | : |         |         |                                                             |             |
| 0000 | 119 | : | V03-016 | MIR0016 | Michael I. Rosenblum                                        | 29-Dec-1982 |
| 0000 | 120 | : |         |         | Replace time calculation code with TIMSET macro call.       |             |
| 0000 | 121 | : |         |         |                                                             |             |
| 0000 | 122 | : | V03-015 | MIR0015 | Michael I. Rosenblum                                        | 22-Dec-1982 |
| 0000 | 123 | : |         |         | Change code in YCSDISCONNECT to reflect the change          |             |
| 0000 | 124 | : |         |         | in functionality. Remove code that referenced               |             |
| 0000 | 125 | : |         |         | DMAABO and DMA state bits.                                  |             |
| 0000 | 126 | : |         |         |                                                             |             |
| 0000 | 127 | : | V03-014 | MIR0014 | Michael I. Rosenblum                                        | 17-Dec-1982 |
| 0000 | 128 | : |         |         | move code to figure out what flow control character         |             |
| 0000 | 129 | : |         |         | to send to TTYSUB.                                          |             |
| 0000 | 130 | : |         |         |                                                             |             |
| 0000 | 131 | : | V03-013 | RKS0013 | RICK SPITZ                                                  | 18-OCT-1982 |
| 0000 | 132 | : |         |         | CORRECT SENSE OF PARITY BIT                                 |             |
| 0000 | 133 | : |         |         |                                                             |             |
| 0000 | 134 | : | V03-010 | RKS0012 | RICK SPITZ                                                  | 16-SEP-1982 |
| 0000 | 135 | : |         |         | Remove check for powerfail in unit init which prevents      |             |
| 0000 | 136 | : |         |         | SETUP_UCB from being called. This is needed to allow        |             |
| 0000 | 137 | : |         |         | Unibus switches to connect a line and then switch the       |             |
| 0000 | 138 | : |         |         | device on the bus, followed by a psuedo powerfail recovery. |             |
| 0000 | 139 | : |         |         |                                                             |             |
| 0000 | 140 | : |         |         | Check reference count in unit init to determine if          |             |
| 0000 | 141 | : |         |         | modem control should be initialized or hungup. This         |             |
| 0000 | 142 | : |         |         | is needed to insure that a hangup ^Y is posted on           |             |
| 0000 | 143 | : |         |         | powerfail on modem lines.                                   |             |
| 0000 | 144 | : |         |         |                                                             |             |
| 0000 | 145 | : |         |         | Refrain from clearing INT in the port abort logic.          |             |
| 0000 | 146 | : |         |         | This prevents output data following a flush from being      |             |
| 0000 | 147 | : |         |         | lost during a small time window.                            |             |
| 0000 | 148 | : |         |         | The DMF will interrupt on silo flush complete, at           |             |
| 0000 | 149 | : |         |         | which point INT will be handled.                            |             |
| 0000 | 150 | : |         |         |                                                             |             |
| 0000 | 151 | : | V03-009 | KDM0002 | Kathleen D. Morse                                           | 28-Jun-1982 |
| 0000 | 152 | : |         |         | Added \$DEVDEF and \$SSDEF.                                 |             |
| 0000 | 153 | : |         |         |                                                             |             |
| 0000 | 154 | : | V03-008 | RKS008  | RICK SPITZ                                                  | 23-MAR-1982 |
| 0000 | 155 | : |         |         | USE SYSGEN VALUE FOR COMBO INPUT SILO TIMER.                |             |
| 0000 | 156 | : |         |         | CHANGE OUTPUT DELAY.                                        |             |
| 0000 | 157 | : |         |         |                                                             |             |
| 0000 | 158 | : | V03-007 | RKS007  | RICK SPITZ                                                  | 13-FEB-1982 |
| 0000 | 159 | : |         |         | ADD DELAY LOGIC WHEN OUTPUTING TO TRANSMIT SILO             |             |
| 0000 | 160 | : |         |         |                                                             |             |
| 0000 | 161 | : | V03-006 | RKS0006 | RICK SPITZ                                                  | 8-FEB-1982  |
| 0000 | 162 | : |         |         | DO NOT ALLOW UNLOAD                                         |             |
| 0000 | 163 | : |         |         | FIX CHARACTER TIMER                                         |             |
| 0000 | 164 | : |         |         | DO UNSIGNED COMPARISON IN SILO OUTPUT.                      |             |
| 0000 | 165 | : |         |         |                                                             |             |
| 0000 | 166 | : | V03-005 | RKS0005 | RICK SPITZ                                                  | 11-JAN-1982 |
| 0000 | 167 | : |         |         | REPAIR MODEM INTERRUPT LOGIC                                |             |
| 0000 | 168 | : |         |         | ADD INPUT SILO TIMER.                                       |             |
| 0000 | 169 | : |         |         |                                                             |             |
| 0000 | 170 | : | V03-004 | RKS0004 | RICK SPITZ                                                  | 15-DEC-1981 |
| 0000 | 171 | : |         |         | FIX MAINTENANCE BIT OFFSETS, ADD EXTERNAL LOOP SUPPORT.     |             |



YCDRIVER  
V04-000

- Port Driver for DMF Async

E 16

16-SEP-1984 02:25:59 VAX/VMS Macro V04-00  
5-SEP-1984 04:17:34 [TTDRVR.SRC]YCDRIVER.MAR;1

Page 4  
(1)

0000 172 :  
0000 173 :  
0000 174 :  
0000 175 :  
0000 176 :  
0000 177 :  
0000 178 :  
0000 179 :  
0000 180 :  
0000 181 :  
0000 182 :  
0000 183 :  
0000 184 :  
0000 185 :--

ENHANCE RESUME LOGIC IN DMA MODE TO AVOID WRITING 0 BYTE  
COUNT.  
USE SYSPARAM VALUES FOR CLASS DRIVER LOCATION, PARITY, RSPEED  
CHANGE TYPE CODE TO DMF-32.

V03-003 JLV0104 Jake VanNoy  
Changed TTYDEFS to \$TTYDEFS.

27-Oct-1981

V03-002 RKS002 RICK SPITZ  
USE SUBTRACT TO COMPUTE VECTOR ADDRESS TO BE LOADED INTO  
DMF-32 VECTOR REGISTER.

8-OCT-1981

```
0000 187 .SBTTL DECLARATIONS
0000 188
0000 189 :
0000 190 : EXTERNAL DEFINITIONS:
0000 191 :
0000 192 $ACBDEF ; DEFINE ACB
0000 193 $CRBDEF ; DEFINE CRB
0000 194 $DCDEF ; DEFINE ADAPTER TYPES
0000 195 $DDBDEF ; DEFINE DDB
0000 196 $DEVDEF ; DEFINE DEVICE TYPES
0000 197 $DYNDDEF ; DEFINE DYNAMIC STRUCTURE TYPES
0000 198 $IDBDEF ; DEFINE IDB OFFSETS
0000 199 $IODEF ; DEFINE I/O FUNCTION CODES
0000 200 $IRPDEF ; DEFINE IRP
0000 201 $ORBDEF ; DEFINE OBJECT'S RIGHTS BLOCK OFFSETS
0000 202 $SSDEF ; DEFINE SYSTEM STATUS CODES
0000 203 $TTYDEF ; DEFINE TERMINAL DRIVER SYMBOLS
0000 204 $TTDEF ; DEFINE TERMINAL TYPES
0000 205 $TT2DEF ; DEFINE EXTENDED CHARACTERISTICS
0000 206 $TQEDEF ; DEFINE TIMER QUEUE OFFSETS
0000 207 $UCBDEF ; DEFINE UCB
0000 208 $UBADEF ; DEFINE UBA
0000 209 $VECDEF ; DEFINE VECTOR FOR CRB
0000 210 $TTYMACS ; DEFINE TERMINAL DRIVER MACROS
0000 211 .show me
0000 212 $TTYDEFS ; DEFINE TERMINAL DRIVER SYMBOLS
0000 $DEFINI TTYDEFS,
0000 .SAVE LOCAL_BLOCK
0000 .NOCROSS
0000 .IIF DIF <> <GLOBAL>..ENABLE SUPPRESSION
0000 .PSECT $ABSS,ABS
0000 $GBLINI
0000 .IF IDN <LOCAL> <GLOBAL>
0000 .MACRO $DEF SYM,ALLOC,SIZ
0000 .IIF NB,SYM,SYM::
0000 .IIF NB,ALLOC, ALLOC SIZ
0000 .ENDM $DEF
0000 .MACRO $EQU SYM,VAL
0000 SYM=VAL
0000 .ENDM $EQU
0000 .MACRO $VIELD1 MOD,SEP,SYM,SIZ,MSK
0000 SIZ...=1
0000 .IIF NB,SIZ, SIZ...=SIZ
0000 .IF NB,SYM
0000 MOD'SEP'V 'SYM==BIT::
0000 .IIF NB,SIZ, MOD'SEP'S 'SYM==SIZ
0000 .IIF NB,MSK, MOD'SEP'M 'SYM==<<<1@SIZ...>-1>@BIT...>
0000 .ENDC
0000 BIT...=BIT...+SIZ...
0000 .ENDM $VIELD1
0000 .IIF
0000 .IIF DIF <LOCAL> <LOCAL>..ERROR ;ARG MUST BE 'GLOBAL','LOCAL',OR NULL
0000 .MACRO $DEF SYM,ALLOC,SIZ
0000 .IIF NB,SYM,SYM:
0000 .IIF NB,ALLOC, ALLOC SIZ
0000 .ENDM $DEF
0000 .MACRO $EQU SYM,VAL
```



00000000

```
0000 SYM=VAL
0000 .ENDM $EQU
0000 .MACRO $VIELD1 MOD,SEP,SYM,SIZ,MSK
0000 SIZ...=1
0000 .IIF NB,SIZ, SIZ...=SIZ
0000 .IF NB,SYM
0000 MOD'SEP'V 'SYM=BIT...
0000 .IIF NB,SIZ, MOD'SEP'S 'SYM=SIZ
0000 .IIF NB,MSK, MOD'SEP'M 'SYM=<<<1@SIZ...>-1>@BIT...>
0000 .ENDC
0000 BIT...=BIT...+SIZ...
0000 .ENDM $VIELD1
0000 .ENDC
0000
0000 .=0
0000
0000 $UCBDEF
0000
0000 $CRBDEF
0000
0000 $IDBDEF
0000
0000 $TTYUCBDEF
0000 $DEFINI TTYUCB,
0000 .SAVE LOCAL_BLOCK
0000 .NOCROSS
0000 .IIF DIF <> <GLOBAL>,.ENABLE SUPPRESSION
0000 .PSECT $ABSS,ABS
0000 $GBLINI
0000 .IF IDN <LOCAL> <GLOBAL>
0000 .MACRO $DEF SYM,ALLOC,SIZ
0000 .IIF NB,SYM, SYM::
0000 .IIF NB,ALLOC, ALLOC SIZ
0000 .ENDM $DEF
0000 .MACRO $EQU SYM,VAL
0000 SYM=VAL
0000 .ENDM $EQU
0000 .MACRO $VIELD1 MOD,SEP,SYM,SIZ,MSK
0000 SIZ...=1
0000 .IIF NB,SIZ, SIZ...=SIZ
0000 .IF NB,SYM
0000 MOD'SEP'V 'SYM=BIT...
0000 .IIF NB,SIZ, MOD'SEP'S 'SYM=SIZ
0000 .IIF NB,MSK, MOD'SEP'M 'SYM=<<<1@SIZ...>-1>@BIT...>
0000 .ENDC
0000 BIT...=BIT...+SIZ...
0000 .ENDM $VIELD1
0000 .IIF
0000 .IIF DIF <LOCAL> <LOCAL>,.ERROR ;ARG MUST BE 'GLOBAL','LOCAL',OR NULL
0000 .MACRO $DEF SYM,ALLOC,SIZ
0000 .IIF NB,SYM, SYM:
0000 .IIF NB,ALLOC, ALLOC SIZ
0000 .ENDM $DEF
0000 .MACRO $EQU SYM,VAL
0000 SYM=VAL
0000 .ENDM $EQU
0000 .MACRO $VIELD1 MOD,SEP,SYM,SIZ,MSK
```

```
0000      SIZ...=1
0000      .IIF      NB,SIZ, SIZ...=SIZ
0000      .IF      NB,SYM
0000      MOD'SEP'V,SYM=BIT...
0000      .IIF      NB,SIZ, MOD'SEP'S,SYM=SIZ
0000      .IIF      NB,MSK, MOD'SEP'M,SYM=<<<1@SIZ...>-1>@BIT...>
0000      .ENDC
0000      BIT...=BIT...+SIZ...
0000      .ENDM      $VIELD1
0000      .ENDC
00000000 0000      .=0
00000080 0000      $EQU      UCB$C_TL_LENGTH 176
00000080 0000      UCB$C_TL_LENGTH=176
00000080 0000      $EQU      UCB$K_TL_LENGTH 176
00000080 0000      UCB$K_TL_LENGTH=176
00000001 0000      $EQU      TTY$M_ST_POWER 1
00000001 0000      TTY$M_ST_POWER=1
00000002 0000      $EQU      TTY$M_ST_CTRL 2
00000002 0000      TTY$M_ST_CTRL=2
00000004 0000      $EQU      TTY$M_ST_FILL 4
00000004 0000      TTY$M_ST_FILL=4
00000008 0000      $EQU      TTY$M_ST_CURSOR 8
00000008 0000      TTY$M_ST_CURSOR=8
00000010 0000      $EQU      TTY$M_ST_SENDF 16
00000010 0000      TTY$M_ST_SENDF=16
00000020 0000      $EQU      TTY$M_ST_BACKSPACE 32
00000020 0000      TTY$M_ST_BACKSPACE=32
00000040 0000      $EQU      TTY$M_ST_MULTI 64
00000040 0000      TTY$M_ST_MULTI=64
00000080 0000      $EQU      TTY$M_ST_WRITE 128
00000080 0000      TTY$M_ST_WRITE=128
00000100 0000      $EQU      TTY$M_ST_EOL 256
00000100 0000      TTY$M_ST_EOL=256
00000200 0000      $EQU      TTY$M_ST_EDITREAD 512
00000200 0000      TTY$M_ST_EDITREAD=512
00000400 0000      $EQU      TTY$M_ST_RDVERIFY 1024
00000400 0000      TTY$M_ST_RDVERIFY=1024
00000800 0000      $EQU      TTY$M_ST_RECALL 2048
00000800 0000      TTY$M_ST_RECALL=2048
00001000 0000      $EQU      TTY$M_ST_READ 4096
00001000 0000      TTY$M_ST_READ=4096
```

|          |      |      |                        |
|----------|------|------|------------------------|
|          | 0000 |      |                        |
|          | 0000 |      |                        |
| 00000001 | 0000 | SEQU | TTY\$M_ST_CTRL0 1      |
|          | 0000 |      | TTY\$M_ST_CTRL0=1      |
|          | 0000 |      |                        |
|          | 0000 |      |                        |
| 00000002 | 0000 | SEQU | TTY\$M_ST_DEL 2        |
|          | 0000 |      | TTY\$M_ST_DEL=2        |
|          | 0000 |      |                        |
|          | 0000 |      |                        |
| 00000004 | 0000 | SEQU | TTY\$M_ST_PASALL 4     |
|          | 0000 |      | TTY\$M_ST_PASALL=4     |
|          | 0000 |      |                        |
|          | 0000 |      |                        |
| 00000008 | 0000 | SEQU | TTY\$M_ST_NOECHO 8     |
|          | 0000 |      | TTY\$M_ST_NOECHO=8     |
|          | 0000 |      |                        |
|          | 0000 |      |                        |
| 00000010 | 0000 | SEQU | TTY\$M_ST_WRTALL 16    |
|          | 0000 |      | TTY\$M_ST_WRTALL=16    |
|          | 0000 |      |                        |
|          | 0000 |      |                        |
| 00000020 | 0000 | SEQU | TTY\$M_ST_PROMPT 32    |
|          | 0000 |      | TTY\$M_ST_PROMPT=32    |
|          | 0000 |      |                        |
|          | 0000 |      |                        |
| 00000040 | 0000 | SEQU | TTY\$M_ST_NOFLTR 64    |
|          | 0000 |      | TTY\$M_ST_NOFLTR=64    |
|          | 0000 |      |                        |
|          | 0000 |      |                        |
| 00000080 | 0000 | SEQU | TTY\$M_ST_ESC 128      |
|          | 0000 |      | TTY\$M_ST_ESC=128      |
|          | 0000 |      |                        |
|          | 0000 |      |                        |
| 00000100 | 0000 | SEQU | TTY\$M_ST_BADESC 256   |
|          | 0000 |      | TTY\$M_ST_BADESC=256   |
|          | 0000 |      |                        |
|          | 0000 |      |                        |
| 00000200 | 0000 | SEQU | TTY\$M_ST_NL 512       |
|          | 0000 |      | TTY\$M_ST_NL=512       |
|          | 0000 |      |                        |
|          | 0000 |      |                        |
| 00000400 | 0000 | SEQU | TTY\$M_ST_REFRSH 1024  |
|          | 0000 |      | TTY\$M_ST_REFRSH=1024  |
|          | 0000 |      |                        |
|          | 0000 |      |                        |
| 00000800 | 0000 | SEQU | TTY\$M_ST_ESCAPE 2048  |
|          | 0000 |      | TTY\$M_ST_ESCAPE=2048  |
|          | 0000 |      |                        |
|          | 0000 |      |                        |
| 00001000 | 0000 | SEQU | TTY\$M_ST_TYPFUL 4096  |
|          | 0000 |      | TTY\$M_ST_TYPFUL=4096  |
|          | 0000 |      |                        |
|          | 0000 |      |                        |
| 00002000 | 0000 | SEQU | TTY\$M_ST_SKIPLF 8192  |
|          | 0000 |      | TTY\$M_ST_SKIPLF=8192  |
|          | 0000 |      |                        |
|          | 0000 |      |                        |
| 00004000 | 0000 | SEQU | TTY\$M_ST_ESC_0 16384  |
|          | 0000 |      | TTY\$M_ST_ESC_0=16384  |
|          | 0000 |      |                        |
|          | 0000 |      |                        |
| 00008000 | 0000 | SEQU | TTY\$M_ST_WRAP 32768   |
|          | 0000 |      | TTY\$M_ST_WRAP=32768   |
|          | 0000 |      |                        |
|          | 0000 |      |                        |
| 00010000 | 0000 | SEQU | TTY\$M_ST_OVRFLO 65536 |
|          | 0000 |      | TTY\$M_ST_OVRFLO=65536 |
|          | 0000 |      |                        |
|          | 0000 |      |                        |
| 00020000 | 0000 | SEQU | TTY\$M_ST_AUTOP 131072 |
|          | 0000 |      | TTY\$M_ST_AUTOP=131072 |
|          | 0000 |      |                        |
|          | 0000 |      |                        |
| 00040000 | 0000 | SEQU | TTY\$M_ST_CTRLR 262144 |
|          | 0000 |      | TTY\$M_ST_CTRLR=262144 |

|          |      |      |                               |            |
|----------|------|------|-------------------------------|------------|
|          | 0000 |      |                               |            |
|          | 0000 |      |                               |            |
| 00080000 | 0000 | SEQU | TTY\$M_ST_SKIPCRLF            | 524288     |
|          | 0000 |      | TTY\$M_ST_SKIPCRLF=524288     |            |
|          | 0000 |      |                               |            |
|          | 0000 |      |                               |            |
| 00100000 | 0000 | SEQU | TTY\$M_ST_EDITING             | 1048576    |
|          | 0000 |      | TTY\$M_ST_EDITING=1048576     |            |
|          | 0000 |      |                               |            |
|          | 0000 |      |                               |            |
| 00200000 | 0000 | SEQU | TTY\$M_ST_TABEXPAND           | 2097152    |
|          | 0000 |      | TTY\$M_ST_TABEXPAND=2097152   |            |
|          | 0000 |      |                               |            |
|          | 0000 |      |                               |            |
| 00400000 | 0000 | SEQU | TTY\$M_ST_QUOTING             | 4194304    |
|          | 0000 |      | TTY\$M_ST_QUOTING=4194304     |            |
|          | 0000 |      |                               |            |
|          | 0000 |      |                               |            |
| 00800000 | 0000 | SEQU | TTY\$M_ST_OVERSTRIKE          | 8388608    |
|          | 0000 |      | TTY\$M_ST_OVERSTRIKE=8388608  |            |
|          | 0000 |      |                               |            |
|          | 0000 |      |                               |            |
| 01000000 | 0000 | SEQU | TTY\$M_ST_TERMNorm            | 16777216   |
|          | 0000 |      | TTY\$M_ST_TERMNorm=16777216   |            |
|          | 0000 |      |                               |            |
|          | 0000 |      |                               |            |
| 02000000 | 0000 | SEQU | TTY\$M_ST_ECHAS               | 33554432   |
|          | 0000 |      | TTY\$M_ST_ECHAS=33554432      |            |
|          | 0000 |      |                               |            |
|          | 0000 |      |                               |            |
| 04000000 | 0000 | SEQU | TTY\$M_ST_PRE                 | 67108864   |
|          | 0000 |      | TTY\$M_ST_PRE=67108864        |            |
|          | 0000 |      |                               |            |
|          | 0000 |      |                               |            |
| 08000000 | 0000 | SEQU | TTY\$M_ST_NINTMULTI           | 134217728  |
|          | 0000 |      | TTY\$M_ST_NINTMULTI=134217728 |            |
|          | 0000 |      |                               |            |
|          | 0000 |      |                               |            |
| 10000000 | 0000 | SEQU | TTY\$M_ST_RECONNECT           | 268435456  |
|          | 0000 |      | TTY\$M_ST_RECONNECT=268435456 |            |
|          | 0000 |      |                               |            |
|          | 0000 |      |                               |            |
| 20000000 | 0000 | SEQU | TTY\$M_ST_CTSLOW              | 536870912  |
|          | 0000 |      | TTY\$M_ST_CTSLOW=536870912    |            |
|          | 0000 |      |                               |            |
|          | 0000 |      |                               |            |
| 40000000 | 0000 | SEQU | TTY\$M_ST_TABRIGHT            | 1073741824 |
|          | 0000 |      | TTY\$M_ST_TABRIGHT=1073741824 |            |
|          | 0000 |      |                               |            |
|          | 0000 |      |                               |            |
| 00000001 | 0000 | SEQU | UCB\$M_TT_XXPARITY            | 1          |
|          | 0000 |      | UCB\$M_TT_XXPARITY=1          |            |
|          | 0000 |      |                               |            |
|          | 0000 |      |                               |            |
| 00000002 | 0000 | SEQU | UCB\$M_TT_DISPARERR           | 2          |
|          | 0000 |      | UCB\$M_TT_DISPARERR=2         |            |
|          | 0000 |      |                               |            |
|          | 0000 |      |                               |            |
| 00000004 | 0000 | SEQU | UCB\$M_TT_USERFRAME           | 4          |
|          | 0000 |      | UCB\$M_TT_USERFRAME=4         |            |
|          | 0000 |      |                               |            |
|          | 0000 |      |                               |            |
| 00000018 | 0000 | SEQU | UCB\$M_TT_LEN                 | 24         |
|          | 0000 |      | UCB\$M_TT_LEN=24              |            |
|          | 0000 |      |                               |            |
|          | 0000 |      |                               |            |
| 00000020 | 0000 | SEQU | UCB\$M_TT_STOP                | 32         |
|          | 0000 |      | UCB\$M_TT_STOP=32             |            |
|          | 0000 |      |                               |            |
|          | 0000 |      |                               |            |
| 00000040 | 0000 | SEQU | UCB\$M_TT_PARTY               | 64         |
|          | 0000 |      | UCB\$M_TT_PARTY=64            |            |
|          | 0000 |      |                               |            |
|          | 0000 |      |                               |            |
| 00000080 | 0000 | SEQU | UCB\$M_TT_ODD                 | 128        |
|          | 0000 |      | UCB\$M_TT_ODD=128             |            |

```
00000100 0000 SEQU TTYSM_TANK_PREMPT 256
           0000 TTYSM_TANK_PREMPT=256
           0000
00000200 0000 SEQU TTYSM_TANK_STOP 512
           0000 TTYSM_TANK_STOP=512
           0000
00000400 0000 SEQU TTYSM_TANK_HOLD 1024
           0000 TTYSM_TANK_HOLD=1024
           0000
00000800 0000 SEQU TTYSM_TANK_BURST 2048
           0000 TTYSM_TANK_BURST=2048
           0000
00001000 0000 SEQU TTYSM_TANK_DMA 4096
           0000 TTYSM_TANK_DMA=4096
           0000
00000001 0000 SEQU TTYSM_PC_NOTIME 1
           0000 TTYSM_PC_NOTIME=1
           0000
00000002 0000 SEQU TTYSM_PC_DMAENA 2
           0000 TTYSM_PC_DMAENA=2
           0000
00000004 0000 SEQU TTYSM_PC_DMAAVL 4
           0000 TTYSM_PC_DMAAVL=4
           0000
00000008 0000 SEQU TTYSM_PC_PRMMAP 8
           0000 TTYSM_PC_PRMMAP=8
           0000
00000010 0000 SEQU TTYSM_PC_MAPAVL 16
           0000 TTYSM_PC_MAPAVL=16
           0000
00000020 0000 SEQU TTYSM_PC_XOFAVL 32
           0000 TTYSM_PC_XOFAVL=32
           0000
00000040 0000 SEQU TTYSM_PC_XOFENA 64
           0000 TTYSM_PC_XOFENA=64
           0000
00000080 0000 SEQU TTYSM_PC_NOCRLF 128
           0000 TTYSM_PC_NOCRLF=128
           0000
00000080 0000 SEQU UCBSM_TT_DSBL 128
           0000 UCBSM_TT_DSBL=128
           0000
0000012C 0000 SEQU UCBSM_TT_CLSLEN 300
           0000 UCBSM_TT_CLSLEN=300
           0000
0000012C 0000 SEQU UCBSM_TT_CLSLEN 300
           0000 UCBSM_TT_CLSLEN=300
           0000
00000001 0000 SEQU TTYSM_TP_ABORT 1
           0000 TTYSM_TP_ABORT=1
           0000
00000002 0000 SEQU TTYSM_TP_ALLOC 2
           0000 TTYSM_TP_ALLOC=2
           0000
00000004 0000 SEQU TTYSM_TP_DLLOC 4
           0000 TTYSM_TP_DLLOC=4
```

|          |      |       |                       |     |
|----------|------|-------|-----------------------|-----|
|          | 0000 |       |                       |     |
| 00000134 | 0000 | \$EQU | UCB\$C_TP_LENGTH 308  |     |
|          | 0000 |       | UCB\$C_TP_LENGTH=308  |     |
|          | 0000 |       |                       |     |
| 00000134 | 0000 | \$EQU | UCB\$K_TP_LENGTH 308  |     |
|          | 0000 |       | UCB\$K_TP_LENGTH=308  |     |
|          | 0000 |       |                       |     |
| 00000134 | 0000 | \$EQU | UCB\$C_TT_LENGTH 308  |     |
|          | 0000 |       | UCB\$C_TT_LENGTH=308  |     |
|          | 0000 |       |                       |     |
| 00000134 | 0000 | \$EQU | UCB\$K_TT_LENGTH 308  |     |
|          | 0000 |       | UCB\$K_TT_LENGTH=308  |     |
|          | 0000 |       |                       |     |
| 00000001 | 0000 | \$EQU | FLG\$M_WIIRP_BSY 1    |     |
|          | 0000 |       | FLG\$M_WIIRP_BSY=1    |     |
|          | 0000 |       |                       |     |
| 00000002 | 0000 | \$EQU | FLG\$M_CTRLO 2        |     |
|          | 0000 |       | FLG\$M_CTRLO=2        |     |
|          | 0000 |       |                       |     |
| 00000004 | 0000 | \$EQU | FLG\$M_CANCTRLO 4     |     |
|          | 0000 |       | FLG\$M_CANCTRLO=4     |     |
|          | 0000 |       |                       |     |
| 00000008 | 0000 | \$EQU | FLG\$M_INWRTFDT 8     |     |
|          | 0000 |       | FLG\$M_INWRTFDT=8     |     |
|          | 0000 |       |                       |     |
| 00000010 | 0000 | \$EQU | FLG\$M_QUOTA 16       |     |
|          | 0000 |       | FLG\$M_QUOTA=16       |     |
|          | 0000 |       |                       |     |
| 00000020 | 0000 | \$EQU | FLG\$M_VAXTOVAX 32    |     |
|          | 0000 |       | FLG\$M_VAXTOVAX=32    |     |
|          | 0000 |       |                       |     |
| 00000040 | 0000 | \$EQU | FLG\$M_BUFFER 64      |     |
|          | 0000 |       | FLG\$M_BUFFER=64      |     |
|          | 0000 |       |                       |     |
| 00000138 | 0000 | \$EQU | UCB\$C_RTT_LENGTH     | 312 |
|          | 0000 |       | UCB\$C_RTT_LENGTH=312 |     |
|          | 0000 |       |                       |     |
| 00000138 | 0000 | \$EQU | UCB\$K_RTT_LENGTH     | 312 |
|          | 0000 |       | UCB\$K_RTT_LENGTH=312 |     |
|          | 0000 |       |                       |     |
| 0000013C | 0000 | \$EQU | UCB\$\$_TTYUCBDEF 316 |     |
|          | 0000 |       | UCB\$\$_TTYUCBDEF=316 |     |
|          | 0000 |       |                       |     |
| 00000090 | 0000 | \$EQU | UCB\$L_TL_CTRLY 144   |     |
|          | 0000 |       | UCB\$L_TL_CTRLY=144   |     |
|          | 0000 |       |                       |     |
| 00000094 | 0000 | \$EQU | UCB\$L_TL_CTRLC 148   |     |
|          | 0000 |       | UCB\$L_TL_CTRLC=148   |     |
|          | 0000 |       |                       |     |
| 00000098 | 0000 | \$EQU | UCB\$L_TL_OUTBAND     | 152 |
|          | 0000 |       | UCB\$L_TL_OUTBAND=152 |     |
|          | 0000 |       |                       |     |
| 0000009C | 0000 | \$EQU | UCB\$L_TL_BANDQUE     | 156 |
|          | 0000 |       | UCB\$L_TL_BANDQUE=156 |     |
|          | 0000 |       |                       |     |
| 000000A0 | 0000 | \$EQU | UCB\$L_TL_PHYUCB 160  |     |
|          | 0000 |       | UCB\$L_TL_PHYUCB=160  |     |



|          |      |      |                       |     |
|----------|------|------|-----------------------|-----|
| 000000A4 | 0000 | SEQU | UCB\$S_TL_CTLPID 164  |     |
|          | 0000 |      | UCB\$S_TL_CTLPID=164  |     |
|          | 0000 |      |                       |     |
| 00000008 | 0000 | SEQU | UCB\$S_TL_BRKTHRU     | 8   |
|          | 0000 |      | UCB\$S_TL_BRKTHRU=8   |     |
|          | 0000 |      |                       |     |
| 000000A8 | 0000 | SEQU | UCB\$Q_TL_BRKTHRU     | 168 |
|          | 0000 |      | UCB\$Q_TL_BRKTHRU=168 |     |
|          | 0000 |      |                       |     |
| 0000008C | 0000 | SEQU | UCB\$S_TTYRTTUCB 140  |     |
|          | 0000 |      | UCB\$S_TTYRTTUCB=140  |     |
|          | 0000 |      |                       |     |
| 000000B0 | 0000 | SEQU | UCB\$R_TTYRTTUCB 176  |     |
|          | 0000 |      | UCB\$R_TTYRTTUCB=176  |     |
|          | 0000 |      |                       |     |
| 0000008C | 0000 | SEQU | UCB\$S_TTYUCB 140     |     |
|          | 0000 |      | UCB\$S_TTYUCB=140     |     |
|          | 0000 |      |                       |     |
| 000000B0 | 0000 | SEQU | UCB\$R_TTYUCB 176     |     |
|          | 0000 |      | UCB\$R_TTYUCB=176     |     |
|          | 0000 |      |                       |     |
| 000000B0 | 0000 | SEQU | UCB\$S_TT_RDUE 176    |     |
|          | 0000 |      | UCB\$S_TT_RDUE=176    |     |
|          | 0000 |      |                       |     |
| 000000B4 | 0000 | SEQU | UCB\$S_TT_RTIMOU 180  |     |
|          | 0000 |      | UCB\$S_TT_RTIMOU=180  |     |
|          | 0000 |      |                       |     |
| 00000008 | 0000 | SEQU | UCB\$S_TT_STATE 8     |     |
|          | 0000 |      | UCB\$S_TT_STATE=8     |     |
|          | 0000 |      |                       |     |
| 000000B8 | 0000 | SEQU | UCB\$Q_TT_STATE 184   |     |
|          | 0000 |      | UCB\$Q_TT_STATE=184   |     |
|          | 0000 |      |                       |     |
| 000000B8 | 0000 | SEQU | UCB\$S_TT_STATE1 184  |     |
|          | 0000 |      | UCB\$S_TT_STATE1=184  |     |
|          | 0000 |      |                       |     |
| 00000000 | 0000 | SEQU | TTY\$V_ST_POWER 0     |     |
|          | 0000 |      | TTY\$V_ST_POWER=0     |     |
|          | 0000 |      |                       |     |
| 00000001 | 0000 | SEQU | TTY\$V_ST_CTRL 1      |     |
|          | 0000 |      | TTY\$V_ST_CTRL=1      |     |
|          | 0000 |      |                       |     |
| 00000002 | 0000 | SEQU | TTY\$V_ST_FILL 2      |     |
|          | 0000 |      | TTY\$V_ST_FILL=2      |     |
|          | 0000 |      |                       |     |
| 00000003 | 0000 | SEQU | TTY\$V_ST_CURSOR 3    |     |
|          | 0000 |      | TTY\$V_ST_CURSOR=3    |     |
|          | 0000 |      |                       |     |
| 00000004 | 0000 | SEQU | TTY\$V_ST_SENDF 4     |     |
|          | 0000 |      | TTY\$V_ST_SENDF=4     |     |
|          | 0000 |      |                       |     |
| 00000005 | 0000 | SEQU | TTY\$V_ST_BACKSPACE   | 5   |
|          | 0000 |      | TTY\$V_ST_BACKSPACE=5 |     |
|          | 0000 |      |                       |     |
| 00000006 | 0000 | SEQU | TTY\$V_ST_MULTI 6     |     |
|          | 0000 |      | TTY\$V_ST_MULTI=6     |     |

```
00000007 0000 $EQU TTY$V_ST_WRITE 7
          0000 TTY$V_ST_WRITE=7
          0000
00000008 0000 $EQU TTY$V_ST_EOL 8
          0000 TTY$V_ST_EOL=8
          0000
00000009 0000 $EQU TTY$V_ST_EDITREAD 9
          0000 TTY$V_ST_EDITREAD=9
          0000
0000000A 0000 $EQU TTY$V_ST_RDVERIFY 10
          0000 TTY$V_ST_RDVERIFY=10
          0000
0000000B 0000 $EQU TTY$V_ST_RECALL 11
          0000 TTY$V_ST_RECALL=11
          0000
0000000C 0000 $EQU TTY$V_ST_READ 12
          0000 TTY$V_ST_READ=12
          0000
0000000C 0000 $EQU UCBSL_TT_STATE2 188
          0000 UCBSL_TT_STATE2=188
          0000
00000000 0000 $EQU TTY$V_ST_CTRL0 0
          0000 TTY$V_ST_CTRL0=0
          0000
00000001 0000 $EQU TTY$V_ST_DEL 1
          0000 TTY$V_ST_DEL=1
          0000
00000002 0000 $EQU TTY$V_ST_PASALL 2
          0000 TTY$V_ST_PASALL=2
          0000
00000003 0000 $EQU TTY$V_ST_NOECHO 3
          0000 TTY$V_ST_NOECHO=3
          0000
00000004 0000 $EQU TTY$V_ST_WRTALL 4
          0000 TTY$V_ST_WRTALL=4
          0000
00000005 0000 $EQU TTY$V_ST_PROMPT 5
          0000 TTY$V_ST_PROMPT=5
          0000
00000006 0000 $EQU TTY$V_ST_NOFLTR 6
          0000 TTY$V_ST_NOFLTR=6
          0000
00000007 0000 $EQU TTY$V_ST_ESC 7
          0000 TTY$V_ST_ESC=7
          0000
00000008 0000 $EQU TTY$V_ST_BADESC 8
          0000 TTY$V_ST_BADESC=8
          0000
00000009 0000 $EQU TTY$V_ST_NL 9
          0000 TTY$V_ST_NL=9
          0000
0000000A 0000 $EQU TTY$V_ST_REFRSH 10
          0000 TTY$V_ST_REFRSH=10
          0000
0000000B 0000 $EQU TTY$V_ST_ESCAPE 11
          0000 TTY$V_ST_ESCAPE=11
```



|          |      |       |                         |  |
|----------|------|-------|-------------------------|--|
| 0000000C | 0000 | \$EQU | TTY\$V_ST_TYPFUL 12     |  |
|          | 0000 |       | TTY\$V_ST_TYPFUL=12     |  |
|          | 0000 |       |                         |  |
| 0000000D | 0000 | \$EQU | TTY\$V_ST_SKIPLF 13     |  |
|          | 0000 |       | TTY\$V_ST_SKIPLF=13     |  |
|          | 0000 |       |                         |  |
| 0000000E | 0000 | \$EQU | TTY\$V_ST_ESC_O 14      |  |
|          | 0000 |       | TTY\$V_ST_ESC_O=14      |  |
|          | 0000 |       |                         |  |
| 0000000F | 0000 | \$EQU | TTY\$V_ST_WRAP 15       |  |
|          | 0000 |       | TTY\$V_ST_WRAP=15       |  |
|          | 0000 |       |                         |  |
| 00000010 | 0000 | \$EQU | TTY\$V_ST_OVRFLO 16     |  |
|          | 0000 |       | TTY\$V_ST_OVRFLO=16     |  |
|          | 0000 |       |                         |  |
| 00000011 | 0000 | \$EQU | TTY\$V_ST_AUTOP 17      |  |
|          | 0000 |       | TTY\$V_ST_AUTOP=17      |  |
|          | 0000 |       |                         |  |
| 00000012 | 0000 | \$EQU | TTY\$V_ST_CTRLR 18      |  |
|          | 0000 |       | TTY\$V_ST_CTRLR=18      |  |
|          | 0000 |       |                         |  |
| 00000013 | 0000 | \$EQU | TTY\$V_ST_SKIPCRLF 19   |  |
|          | 0000 |       | TTY\$V_ST_SKIPCRLF=19   |  |
|          | 0000 |       |                         |  |
| 00000014 | 0000 | \$EQU | TTY\$V_ST_EDITING 20    |  |
|          | 0000 |       | TTY\$V_ST_EDITING=20    |  |
|          | 0000 |       |                         |  |
| 00000015 | 0000 | \$EQU | TTY\$V_ST_TABEXPAND 21  |  |
|          | 0000 |       | TTY\$V_ST_TABEXPAND=21  |  |
|          | 0000 |       |                         |  |
| 00000016 | 0000 | \$EQU | TTY\$V_ST_QUOTING 22    |  |
|          | 0000 |       | TTY\$V_ST_QUOTING=22    |  |
|          | 0000 |       |                         |  |
| 00000017 | 0000 | \$EQU | TTY\$V_ST_OVERSTRIKE 23 |  |
|          | 0000 |       | TTY\$V_ST_OVERSTRIKE=23 |  |
|          | 0000 |       |                         |  |
| 00000018 | 0000 | \$EQU | TTY\$V_ST_TERMORM 24    |  |
|          | 0000 |       | TTY\$V_ST_TERMORM=24    |  |
|          | 0000 |       |                         |  |
| 00000019 | 0000 | \$EQU | TTY\$V_ST_ECHAES 25     |  |
|          | 0000 |       | TTY\$V_ST_ECHAES=25     |  |
|          | 0000 |       |                         |  |
| 0000001A | 0000 | \$EQU | TTY\$V_ST_PRE 26        |  |
|          | 0000 |       | TTY\$V_ST_PRE=26        |  |
|          | 0000 |       |                         |  |
| 0000001B | 0000 | \$EQU | TTY\$V_ST_NINTMULTI 27  |  |
|          | 0000 |       | TTY\$V_ST_NINTMULTI=27  |  |
|          | 0000 |       |                         |  |
| 0000001C | 0000 | \$EQU | TTY\$V_ST_RECONNECT 28  |  |
|          | 0000 |       | TTY\$V_ST_RECONNECT=28  |  |
|          | 0000 |       |                         |  |
| 0000001D | 0000 | \$EQU | TTY\$V_ST_CTSLOW 29     |  |
|          | 0000 |       | TTY\$V_ST_CTSLOW=29     |  |
|          | 0000 |       |                         |  |
| 0000001E | 0000 | \$EQU | TTY\$V_ST_TABRIGHT 30   |  |
|          | 0000 |       | TTY\$V_ST_TABRIGHT=30   |  |

```
000000C0 0000 $EQU UCB$$_TT_LOGUCB 192
          0000 UCB$$_TT_LOGUCB=192
          0000
000000C4 0000 $EQU UCB$$_TT_DECHAR 196
          0000 UCB$$_TT_DECHAR=196
          0000
000000C8 0000 $EQU UCB$$_TT_DECHA1 200
          0000 UCB$$_TT_DECHA1=200
          0000
000000CC 0000 $EQU UCB$$_TT_WFLINK 204
          0000 UCB$$_TT_WFLINK=204
          0000
000000D0 0000 $EQU UCB$$_TT_WBLINK 208
          0000 UCB$$_TT_WBLINK=208
          0000
000000D4 0000 $EQU UCB$$_TT_WRTBUF 212
          0000 UCB$$_TT_WRTBUF=212
          0000
000000D8 0000 $EQU UCB$$_TT_MULT1 216
          0000 UCB$$_TT_MULT1=216
          0000
000000DC 0000 $EQU UCB$$_TT_MULTILEN 220
          0000 UCB$$_TT_MULTILEN=220
          0000
000000DE 0000 $EQU UCB$$_TT_SMLTLEN 222
          0000 UCB$$_TT_SMLTLEN=222
          0000
000000E0 0000 $EQU UCB$$_TT_SMLT 224
          0000 UCB$$_TT_SMLT=224
          0000
000000E4 0000 $EQU UCB$$_TT_TYPAHD 228
          0000 UCB$$_TT_TYPAHD=228
          0000
000000E8 0000 $EQU UCB$$_TT_DESPEE 232
          0000 UCB$$_TT_DESPEE=232
          0000
000000EA 0000 $EQU UCB$$_TT_DECRF 234
          0000 UCB$$_TT_DECRF=234
          0000
000000EB 0000 $EQU UCB$$_TT_DELFF 235
          0000 UCB$$_TT_DELFF=235
          0000
000000EC 0000 $EQU UCB$$_TT_DEPARI 236
          0000 UCB$$_TT_DEPARI=236
          0000
000000ED 0000 $EQU UCB$$_TT_DEFSPE_SPARE1 237
          0000 UCB$$_TT_DEFSPE_SPARE1=237
          0000
000000EE 0000 $EQU UCB$$_TT_DEFSPE_SPARE2 238
          0000 UCB$$_TT_DEFSPE_SPARE2=238
          0000
000000F0 0000 $EQU UCB$$_TT_DETTYPE 240
          0000 UCB$$_TT_DETTYPE=240
          0000
000000F1 0000 $EQU UCB$$_TT_DESIZE 241
          0000 UCB$$_TT_DESIZE=241
```

```
000000F3 0000   $EQU   UCBSB_TT_SPARE1 243
          0000   UCBSB_TT_SPARE1=243
          0000
000000F4 0000   $EQU   UCBSW_TT_SPEED 244
          0000   UCBSW_TT_SPEED=244
          0000
000000F4 0000   $EQU   UCBSB_TT_TSPEED 244
          0000   UCBSB_TT_TSPEED=244
          0000
000000F5 0000   $EQU   UCBSB_TT_RSPEED 245
          0000   UCBSB_TT_RSPEED=245
          0000
000000F6 0000   $EQU   UCBSB_TT_CRFILL 246
          0000   UCBSB_TT_CRFILL=246
          0000
000000F7 0000   $EQU   UCBSB_TT_LFFILL 247
          0000   UCBSB_TT_LFFILL=247
          0000
000000F8 0000   $EQU   UCBSB_TT_PARITY 248
          0000   UCBSB_TT_PARITY=248
          0000
00000000 0000   $EQU   UCBSV_TT_XXPARITY 0
          0000   UCBSV_TT_XXPARITY=0
          0000
00000001 0000   $EQU   UCBSV_TT_DISPARERR 1
          0000   UCBSV_TT_DISPARERR=1
          0000
00000002 0000   $EQU   UCBSV_TT_USERFRAME 2
          0000   UCBSV_TT_USERFRAME=2
          0000
00000002 0000   $EQU   UCBSB_TT_LEN 2
          0000   UCBSB_TT_LEN=2
          0000
00000003 0000   $EQU   UCBSV_TT_LEN 3
          0000   UCBSV_TT_LEN=3
          0000
00000005 0000   $EQU   UCBSV_TT_STOP 5
          0000   UCBSV_TT_STOP=5
          0000
00000006 0000   $EQU   UCBSV_TT_PARTY 6
          0000   UCBSV_TT_PARTY=6
          0000
00000007 0000   $EQU   UCBSV_TT_ODD 7
          0000   UCBSV_TT_ODD=7
          0000
000000F9 0000   $EQU   UCBSB_TT_PAR_SPARE1 249
          0000   UCBSB_TT_PAR_SPARE1=249
          0000
000000FA 0000   $EQU   UCBSW_TT_PAR_SPARE2 250
          0000   UCBSW_TT_PAR_SPARE2=250
          0000
000000FC 0000   $EQU   UCBSW_TT_CURSOR 252
          0000   UCBSW_TT_CURSOR=252
          0000
000000FE 0000   $EQU   UCBSB_TT_LINE 254
          0000   UCBSB_TT_LINE=254
```

|          |      |      |                      |     |
|----------|------|------|----------------------|-----|
|          | 0000 |      |                      |     |
|          | 0000 | SEQU | UCBSB_TT_LASTC 255   |     |
| 000000FF | 0000 |      | UCBSB_TT_LASTC=255   |     |
|          | 0000 |      |                      |     |
|          | 0000 | SEQU | UCBSW_TT_BSPLN 256   |     |
| 00000100 | 0000 |      | UCBSW_TT_BSPLN=256   |     |
|          | 0000 |      |                      |     |
|          | 0000 | SEQU | UCBSB_TT_FILL 258    |     |
| 00000102 | 0000 |      | UCBSB_TT_FILL=258    |     |
|          | 0000 |      |                      |     |
|          | 0000 | SEQU | UCBSB_TT_ESC 259     |     |
| 00000103 | 0000 |      | UCBSB_TT_ESC=259     |     |
|          | 0000 |      |                      |     |
|          | 0000 | SEQU | UCBSB_TT_ESC_0 260   |     |
| 00000104 | 0000 |      | UCBSB_TT_ESC_0=260   |     |
|          | 0000 |      |                      |     |
|          | 0000 | SEQU | UCBSB_TT_INTCNT 261  |     |
| 00000105 | 0000 |      | UCBSB_TT_INTCNT=261  |     |
|          | 0000 |      |                      |     |
|          | 0000 | SEQU | UCBSW_TT_UNITBIT 262 | 262 |
| 00000106 | 0000 |      | UCBSW_TT_UNITBIT=262 |     |
|          | 0000 |      |                      |     |
|          | 0000 | SEQU | UCBSW_TT_HOLD 264    |     |
| 00000108 | 0000 |      | UCBSW_TT_HOLD=264    |     |
|          | 0000 |      |                      |     |
|          | 0000 | SEQU | TTYB_TANK_CHAR 264   |     |
| 00000108 | 0000 |      | TTYB_TANK_CHAR=264   |     |
|          | 0000 |      |                      |     |
|          | 0000 | SEQU | TTYB_TANK_PREMPT 8   | 8   |
| 00000008 | 0000 |      | TTYB_TANK_PREMPT=8   |     |
|          | 0000 |      |                      |     |
|          | 0000 | SEQU | TTYB_TANK_STOP 9     |     |
| 00000009 | 0000 |      | TTYB_TANK_STOP=9     |     |
|          | 0000 |      |                      |     |
|          | 0000 | SEQU | TTYB_TANK_HOLD 10    |     |
| 0000000A | 0000 |      | TTYB_TANK_HOLD=10    |     |
|          | 0000 |      |                      |     |
|          | 0000 | SEQU | TTYB_TANK_BURST 11   | 11  |
| 0000000B | 0000 |      | TTYB_TANK_BURST=11   |     |
|          | 0000 |      |                      |     |
|          | 0000 | SEQU | TTYB_TANK_DMA 12     |     |
| 0000000C | 0000 |      | TTYB_TANK_DMA=12     |     |
|          | 0000 |      |                      |     |
|          | 0000 | SEQU | UCBSB_TT_PREMPT 266  |     |
| 0000010A | 0000 |      | UCBSB_TT_PREMPT=266  |     |
|          | 0000 |      |                      |     |
|          | 0000 | SEQU | UCBSB_TT_OUTYPE 267  |     |
| 0000010B | 0000 |      | UCBSB_TT_OUTYPE=267  |     |
|          | 0000 |      |                      |     |
|          | 0000 | SEQU | UCBSL_TT_GETNXT 268  |     |
| 0000010C | 0000 |      | UCBSL_TT_GETNXT=268  |     |
|          | 0000 |      |                      |     |
|          | 0000 | SEQU | UCBSL_TT_PUTNXT 272  |     |
| 00000110 | 0000 |      | UCBSL_TT_PUTNXT=272  |     |
|          | 0000 |      |                      |     |
|          | 0000 | SEQU | UCBSL_TT_CLASS 276   |     |
| 00000114 | 0000 |      | UCBSL_TT_CLASS=276   |     |

```
00000118 0000   SEQU   UCBSL_TT_PORT 280
          0000   UCBSL_TT_PORT=280
          0000
0000011C 0000   SEQU   UCBSL_TT_OUTADR 284
          0000   UCBSL_TT_OUTADR=284
          0000
00000120 0000   SEQU   UCBSW_TT_OUTLEN 288
          0000   UCBSW_TT_OUTLEN=288
          0000
00000122 0000   SEQU   UCBSW_TT_PRTCTL 290
          0000   UCBSW_TT_PRTCTL=290
          0000
00000000 0000   SEQU   TTYSV_PC_NOTIME 0
          0000   TTYSV_PC_NOTIME=0
          0000
00000001 0000   SEQU   TTYSV_PC_DMAENA 1
          0000   TTYSV_PC_DMAENA=1
          0000
00000002 0000   SEQU   TTYSV_PC_DMAAVL 2
          0000   TTYSV_PC_DMAAVL=2
          0000
00000003 0000   SEQU   TTYSV_PC_PRMMAP 3
          0000   TTYSV_PC_PRMMAP=3
          0000
00000004 0000   SEQU   TTYSV_PC_MAPAVL 4
          0000   TTYSV_PC_MAPAVL=4
          0000
00000005 0000   SEQU   TTYSV_PC_XOFAVL 5
          0000   TTYSV_PC_XOFAVL=5
          0000
00000006 0000   SEQU   TTYSV_PC_XOFENA 6
          0000   TTYSV_PC_XOFENA=6
          0000
00000007 0000   SEQU   TTYSV_PC_NOCRLF 7
          0000   TTYSV_PC_NOCRLF=7
          0000
00000124 0000   SEQU   UCBSB_TT_DS_RCV 292
          0000   UCBSB_TT_DS_RCV=292
          0000
00000125 0000   SEQU   UCBSB_TT_DS_TX 293
          0000   UCBSB_TT_DS_TX=293
          0000
00000126 0000   SEQU   UCBSW_TT_DS_ST 294
          0000   UCBSW_TT_DS_ST=294
          0000
00000128 0000   SEQU   UCBSW_TT_DS_TIM 296
          0000   UCBSW_TT_DS_TIM=296
          0000
0000012A 0000   SEQU   UCBSB_TT_MAINT 298
          0000   UCBSB_TT_MAINT=298
          0000
00000007 0000   SEQU   UCBSB_TT_MAINT_FILL 7
          0000   UCBSB_TT_MAINT_FILL=7
          0000
00000C00 0000   SEQU   UCBSV_TT_MAINT_FILL 0
          0000   UCBSV_TT_MAINT_FILL=0
```

```
00000007 0000      $EQU   UCBSV_TT_DSBL      7
           0000      UCBSV_TT_DSBL=7
           0000
0000012B 0000      $EQU   UCBSB_TT_OLDPCPZORG 299
           0000      UCBSB_TT_OLDPCPZORG=299
           0000
0000012C 0000      $EQU   UCBSL_TP_MAP      300
           0000      UCBSL_TP_MAP=300
           0000
00000130 0000      $EQU   UCBSB_TP_STAT     304
           0000      UCBSB_TP_STAT=304
           0000
00000000 0000      $EQU   TTYSV_TP_ABORT    0
           0000      TTYSV_TP_ABORT=0
           0000
00000001 0000      $EQU   TTYSV_TP_ALLOC    1
           0000      TTYSV_TP_ALLOC=1
           0000
00000002 0000      $EQU   TTYSV_TP_DLLOC    2
           0000      TTYSV_TP_DLLOC=2
           0000
00000131 0000      $EQU   UCBSB_TP_SPARE1   305
           0000      UCBSB_TP_SPARE1=305
           0000
00000132 0000      $EQU   UCBSW_TP_SPARE2   306
           0000      UCBSW_TP_SPARE2=306
           0000
00000008 0000      $EQU   TTYSS_TT_STATE_SX  8
           0000      TTYSS_TT_STATE_SX=8
           0000
00000134 0000      $EQU   UCBSR_TT_STATE_SX 308
           0000      UCBSR_TT_STATE_SX=308
           0000
00000000 0000      $EQU   TTYSV_SX_POWER    0
           0000      TTYSV_SX_POWER=0
           0000
00000001 0000      $EQU   TTYSV_SX_CTRL    1
           0000      TTYSV_SX_CTRL=1
           0000
00000002 0000      $EQU   TTYSV_SX_FILL     2
           0000      TTYSV_SX_FILL=2
           0000
00000003 0000      $EQU   TTYSV_SX_CURSOR   3
           0000      TTYSV_SX_CURSOR=3
           0000
00000004 0000      $EQU   TTYSV_SX_SENDF    4
           0000      TTYSV_SX_SENDF=4
           0000
00000005 0000      $EQU   TTYSV_SX_BACKSPACE 5
           0000      TTYSV_SX_BACKSPACE=5
           0000
00000006 0000      $EQU   TTYSV_SX_MULTI    6
           0000      TTYSV_SX_MULTI=6
           0000
00000007 0000      $EQU   TTYSV_SX_WRITE    7
           0000      TTYSV_SX_WRITE=7
```



|          |      |      |                       |  |
|----------|------|------|-----------------------|--|
|          | 0000 |      |                       |  |
|          | 0000 |      |                       |  |
| 00000008 | 0000 | SEQU | TTY\$V_SX_EOL 8       |  |
|          | 0000 |      | TTY\$V_SX_EOL=8       |  |
|          | 0000 |      |                       |  |
|          | 0000 |      |                       |  |
| 00000009 | 0000 | SEQU | TTY\$V_SX_EDITREAD 9  |  |
|          | 0000 |      | TTY\$V_SX_EDITREAD=9  |  |
|          | 0000 |      |                       |  |
|          | 0000 |      |                       |  |
| 0000000A | 0000 | SEQU | TTY\$V_SX_RDVERIFY 10 |  |
|          | 0000 |      | TTY\$V_SX_RDVERIFY=10 |  |
|          | 0000 |      |                       |  |
|          | 0000 |      |                       |  |
| 0000000B | 0000 | SEQU | TTY\$V_SX_RECALL 11   |  |
|          | 0000 |      | TTY\$V_SX_RECALL=11   |  |
|          | 0000 |      |                       |  |
|          | 0000 |      |                       |  |
| 0000000C | 0000 | SEQU | TTY\$V_SX_READ 12     |  |
|          | 0000 |      | TTY\$V_SX_READ=12     |  |
|          | 0000 |      |                       |  |
|          | 0000 |      |                       |  |
| 00000013 | 0000 | SEQU | TTY\$S_SX_FILLBITS 19 |  |
|          | 0000 |      | TTY\$S_SX_FILLBITS=19 |  |
|          | 0000 |      |                       |  |
|          | 0000 |      |                       |  |
| 0000000D | 0000 | SEQU | TTY\$V_SX_FILLBITS 13 |  |
|          | 0000 |      | TTY\$V_SX_FILLBITS=13 |  |
|          | 0000 |      |                       |  |
|          | 0000 |      |                       |  |
| 00000020 | 0000 | SEQU | TTY\$V_SX_CTRL0 32    |  |
|          | 0000 |      | TTY\$V_SX_CTRL0=32    |  |
|          | 0000 |      |                       |  |
|          | 0000 |      |                       |  |
| 00000021 | 0000 | SEQU | TTY\$V_SX_DEL 33      |  |
|          | 0000 |      | TTY\$V_SX_DEL=33      |  |
|          | 0000 |      |                       |  |
|          | 0000 |      |                       |  |
| 00000022 | 0000 | SEQU | TTY\$V_SX_PASALL 34   |  |
|          | 0000 |      | TTY\$V_SX_PASALL=34   |  |
|          | 0000 |      |                       |  |
|          | 0000 |      |                       |  |
| 00000023 | 0000 | SEQU | TTY\$V_SX_NOECHO 35   |  |
|          | 0000 |      | TTY\$V_SX_NOECHO=35   |  |
|          | 0000 |      |                       |  |
|          | 0000 |      |                       |  |
| 00000024 | 0000 | SEQU | TTY\$V_SX_WRTALL 36   |  |
|          | 0000 |      | TTY\$V_SX_WRTALL=36   |  |
|          | 0000 |      |                       |  |
|          | 0000 |      |                       |  |
| 00000025 | 0000 | SEQU | TTY\$V_SX_PROMPT 37   |  |
|          | 0000 |      | TTY\$V_SX_PROMPT=37   |  |
|          | 0000 |      |                       |  |
|          | 0000 |      |                       |  |
| 00000026 | 0000 | SEQU | TTY\$V_SX_NOFLTR 38   |  |
|          | 0000 |      | TTY\$V_SX_NOFLTR=38   |  |
|          | 0000 |      |                       |  |
|          | 0000 |      |                       |  |
| 00000027 | 0000 | SEQU | TTY\$V_SX_ESC 39      |  |
|          | 0000 |      | TTY\$V_SX_ESC=39      |  |
|          | 0000 |      |                       |  |
|          | 0000 |      |                       |  |
| 00000028 | 0000 | SEQU | TTY\$V_SX_BADESC 40   |  |
|          | 0000 |      | TTY\$V_SX_BADESC=40   |  |
|          | 0000 |      |                       |  |
|          | 0000 |      |                       |  |
| 00000029 | 0000 | SEQU | TTY\$V_SX_NL 41       |  |
|          | 0000 |      | TTY\$V_SX_NL=41       |  |
|          | 0000 |      |                       |  |
|          | 0000 |      |                       |  |
| 0000002A | 0000 | SEQU | TTY\$V_SX_REFRSH 42   |  |
|          | 0000 |      | TTY\$V_SX_REFRSH=42   |  |
|          | 0000 |      |                       |  |
|          | 0000 |      |                       |  |
| 0000002B | 0000 | SEQU | TTY\$V_SX_ESCAPE 43   |  |
|          | 0000 |      | TTY\$V_SX_ESCAPE=43   |  |

|          |      |      |                         |    |
|----------|------|------|-------------------------|----|
|          | 0000 |      |                         |    |
|          | 0000 |      |                         |    |
| 0000002C | 0000 | SEQU | TTY\$V_SX_TYPFUL 44     |    |
|          | 0000 |      | TTY\$V_SX_TYPFUL=44     |    |
|          | 0000 |      |                         |    |
|          | 0000 |      |                         |    |
| 0000002D | 0000 | SEQU | TTY\$V_SX_SKIPLF 45     |    |
|          | 0000 |      | TTY\$V_SX_SKIPLF=45     |    |
|          | 0000 |      |                         |    |
|          | 0000 |      |                         |    |
| 0000002E | 0000 | SEQU | TTY\$V_SX_ESC_0 46      |    |
|          | 0000 |      | TTY\$V_SX_ESC_0=46      |    |
|          | 0000 |      |                         |    |
|          | 0000 |      |                         |    |
| 0000002F | 0000 | SEQU | TTY\$V_SX_WRAP 47       |    |
|          | 0000 |      | TTY\$V_SX_WRAP=47       |    |
|          | 0000 |      |                         |    |
|          | 0000 |      |                         |    |
| 00000030 | 0000 | SEQU | TTY\$V_SX_OVRFLO 48     |    |
|          | 0000 |      | TTY\$V_SX_OVRFLO=48     |    |
|          | 0000 |      |                         |    |
|          | 0000 |      |                         |    |
| 00000031 | 0000 | SEQU | TTY\$V_SX_AUTOP 49      |    |
|          | 0000 |      | TTY\$V_SX_AUTOP=49      |    |
|          | 0000 |      |                         |    |
|          | 0000 |      |                         |    |
| 00000032 | 0000 | SEQU | TTY\$V_SX_CTRLR 50      |    |
|          | 0000 |      | TTY\$V_SX_CTRLR=50      |    |
|          | 0000 |      |                         |    |
|          | 0000 |      |                         |    |
| 00000033 | 0000 | SEQU | TTY\$V_SX_SKIPCRLF      | 51 |
|          | 0000 |      | TTY\$V_SX_SKIPCRLF=51   |    |
|          | 0000 |      |                         |    |
|          | 0000 |      |                         |    |
| 00000034 | 0000 | SEQU | TTY\$V_SX_EDITING       | 52 |
|          | 0000 |      | TTY\$V_SX_EDITING=52    |    |
|          | 0000 |      |                         |    |
|          | 0000 |      |                         |    |
| 00000035 | 0000 | SEQU | TTY\$V_SX_TABEXPAND     | 53 |
|          | 0000 |      | TTY\$V_SX_TABEXPAND=53  |    |
|          | 0000 |      |                         |    |
|          | 0000 |      |                         |    |
| 00000036 | 0000 | SEQU | TTY\$V_SX_QUOTING       | 54 |
|          | 0000 |      | TTY\$V_SX_QUOTING=54    |    |
|          | 0000 |      |                         |    |
|          | 0000 |      |                         |    |
| 00000037 | 0000 | SEQU | TTY\$V_SX_OVERSTRIKE    | 55 |
|          | 0000 |      | TTY\$V_SX_OVERSTRIKE=55 |    |
|          | 0000 |      |                         |    |
|          | 0000 |      |                         |    |
| 00000038 | 0000 | SEQU | TTY\$V_SX_TERMNORM      | 56 |
|          | 0000 |      | TTY\$V_SX_TERMNORM=56   |    |
|          | 0000 |      |                         |    |
|          | 0000 |      |                         |    |
| 00000039 | 0000 | SEQU | TTY\$V_SX_ECHAES 57     |    |
|          | 0000 |      | TTY\$V_SX_ECHAES=57     |    |
|          | 0000 |      |                         |    |
|          | 0000 |      |                         |    |
| 0000003A | 0000 | SEQU | TTY\$V_SX_PRE 58        |    |
|          | 0000 |      | TTY\$V_SX_PRE=58        |    |
|          | 0000 |      |                         |    |
|          | 0000 |      |                         |    |
| 0000003B | 0000 | SEQU | TTY\$V_SX_NINTMULTI     | 59 |
|          | 0000 |      | TTY\$V_SX_NINTMULTI=59  |    |
|          | 0000 |      |                         |    |
|          | 0000 |      |                         |    |
| 0000003C | 0000 | SEQU | TTY\$V_SX_RECONNECT     | 60 |
|          | 0000 |      | TTY\$V_SX_RECONNECT=60  |    |
|          | 0000 |      |                         |    |
|          | 0000 |      |                         |    |
| 0000003D | 0000 | SEQU | TTY\$V_SX_CTSLOW 61     |    |
|          | 0000 |      | TTY\$V_SX_CTSLOW=61     |    |
|          | 0000 |      |                         |    |
|          | 0000 |      |                         |    |
| 0000003E | 0000 | SEQU | TTY\$V_SX_TABRIGHT      | 62 |
|          | 0000 |      | TTY\$V_SX_TABRIGHT=62   |    |



```
0000
00000088 0000 $EQU UCB$$_RTTUCB 136
          0000 UCB$$_RTTUCB=136
          0000
000000B0 0000 $EQU UCB$_RTTUCB 176
          0000 UCB$_RTTUCB=176
          0000
000000B0 0000 $EQU UCB$_RTT_NETUCB 176
          0000 UCB$_RTT_NETUCB=176
          0000
000000B4 0000 $EQU UCB$_RTT_NETWIND 180
          0000 UCB$_RTT_NETWIND=180
          0000
000000B8 0000 $EQU UCB$_RTT_IRPFL 184
          0000 UCB$_RTT_IRPFL=184
          0000
000000BC 0000 $EQU UCB$_RTT_IRPBL 188
          0000 UCB$_RTT_IRPBL=188
          0000
000000C0 0000 $EQU UCB$_RTT_NETIRP 192
          0000 UCB$_RTT_NETIRP=192
          0000
000000C4 0000 $EQU UCB$_RTT_BANDINCL 196
          0000 UCB$_RTT_BANDINCL=196
          0000
000000C8 0000 $EQU UCB$_RTT_BANDINMSK 200
          0000 UCB$_RTT_BANDINMSK=200
          0000
000000CC 0000 $EQU UCB$_RTT_BANDEXCL 204
          0000 UCB$_RTT_BANDEXCL=204
          0000
000000D0 0000 $EQU UCB$_RTT_BANDEXMSK 208
          0000 UCB$_RTT_BANDEXMSK=208
          0000
000000D4 0000 $EQU UCB$_RTT_PROVRS 212
          0000 UCB$_RTT_PROVRS=212
          0000
000000D5 0000 $EQU UCB$_RTT_PROECO 213
          0000 UCB$_RTT_PROECO=213
          0000
000000D6 0000 $EQU UCB$_RTT_LINK 214
          0000 UCB$_RTT_LINK=214
          0000
000000D8 0000 $EQU UCB$_RTT_OBJ 216
          0000 UCB$_RTT_OBJ=216
          0000
000000D9 0000 $EQU UCB$_RTT_SYSTYPE 217
          0000 UCB$_RTT_SYSTYPE=217
          0000
000000DB 0000 $EQU UCB$_RTT_FILLBYTE 219
          0000 UCB$_RTT_FILLBYTE=219
          0000
000000DC 0000 $EQU UCB$_CT_FLAGS 220
          0000 UCB$_CT_FLAGS=220
          0000
00000000 0000 $EQU FLG$_WIIRP_BSY 0
          0000 FLG$_WIIRP_BSY=0
```

|          |      |      |                       |  |
|----------|------|------|-----------------------|--|
| 00000001 | 0000 | SEQU | FLGSV_CTRL0 1         |  |
|          | 0000 |      | FLGSV_CTRL0=1         |  |
|          | 0000 |      |                       |  |
| 00000002 | 0000 | SEQU | FLGSV_CANCTRL0 2      |  |
|          | 0000 |      | FLGSV_CANCTRL0=2      |  |
|          | 0000 |      |                       |  |
| 00000003 | 0000 | SEQU | FLGSV_INWRTFDT 3      |  |
|          | 0000 |      | FLGSV_INWRTFDT=3      |  |
|          | 0000 |      |                       |  |
| 00000004 | 0000 | SEQU | FLGSV_QUOTA 4         |  |
|          | 0000 |      | FLGSV_QUOTA=4         |  |
|          | 0000 |      |                       |  |
| 00000005 | 0000 | SEQU | FLGSV_VAXTOVAX 5      |  |
|          | 0000 |      | FLGSV_VAXTOVAX=5      |  |
|          | 0000 |      |                       |  |
| 00000006 | 0000 | SEQU | FLGSV_BUFFER 6        |  |
|          | 0000 |      | FLGSV_BUFFER=6        |  |
|          | 0000 |      |                       |  |
| 000000DE | 0000 | SEQU | UCBSW_CT_QCTPCNT 222  |  |
|          | 0000 |      | UCBSW_CT_QCTPCNT=222  |  |
|          | 0000 |      |                       |  |
| 000000E0 | 0000 | SEQU | UCBSL_CT_WIIRP 224    |  |
|          | 0000 |      | UCBSL_CT_WIIRP=224    |  |
|          | 0000 |      |                       |  |
| 000000E4 | 0000 | SEQU | UCBSL_CT_TQE 228      |  |
|          | 0000 |      | UCBSL_CT_TQE=228      |  |
|          | 0000 |      |                       |  |
| 000000E8 | 0000 | SEQU | UCBSL_CT_NETQFL 232   |  |
|          | 0000 |      | UCBSL_CT_NETQFL=232   |  |
|          | 0000 |      |                       |  |
| 000000EC | 0000 | SEQU | UCBSL_CT_NETQBL 236   |  |
|          | 0000 |      | UCBSL_CT_NETQBL=236   |  |
|          | 0000 |      |                       |  |
| 000000F0 | 0000 | SEQU | UCBSL_CT_STALLQFL 240 |  |
|          | 0000 |      | UCBSL_CT_STALLQFL=240 |  |
|          | 0000 |      |                       |  |
| 000000F4 | 0000 | SEQU | UCBSL_CT_STALLQBL 244 |  |
|          | 0000 |      | UCBSL_CT_STALLQBL=244 |  |
|          | 0000 |      |                       |  |
| 000000F8 | 0000 | SEQU | UCBSL_CT_WRTCTP 248   |  |
|          | 0000 |      | UCBSL_CT_WRTCTP=248   |  |
|          | 0000 |      |                       |  |
| 000000FC | 0000 | SEQU | UCBSL_CT_WRTCUR 252   |  |
|          | 0000 |      | UCBSL_CT_WRTCUR=252   |  |
|          | 0000 |      |                       |  |
| 00000100 | 0000 | SEQU | UCBSW_CT_WRTSIZ 256   |  |
|          | 0000 |      | UCBSW_CT_WRTSIZ=256   |  |
|          | 0000 |      |                       |  |
| 00000102 | 0000 | SEQU | UCBSW_CT_WRTCNT 258   |  |
|          | 0000 |      | UCBSW_CT_WRTCNT=258   |  |
|          | 0000 |      |                       |  |
| 00000104 | 0000 | SEQU | UCBSW_CT_MAXMSG 260   |  |
|          | 0000 |      | UCBSW_CT_MAXMSG=260   |  |
|          | 0000 |      |                       |  |
| 00000106 | 0000 | SEQU | UCBSW_CT_MAXREAD 262  |  |
|          | 0000 |      | UCBSW_CT_MAXREAD=262  |  |

```
0000
00000108 0000 $EQU UCB$$_CT_LEGALMSG 264
          0000 UCB$$_CT_LEGALMSG=264
          0000
0000010C 0000 $EQU UCB$$_CT_VERSION 268
          0000 UCB$$_CT_VERSION=268
          0000
0000010D 0000 $EQU UCB$$_CT_ECO 269
          0000 UCB$$_CT_ECO=269
          0000
0000010E 0000 $EQU UCB$$_CT_FILLWORD 270
          0000 UCB$$_CT_FILLWORD=270
          0000
00000028 0000 $EQU UCB$$_CT_DEBUG_FILL 40
          0000 UCB$$_CT_DEBUG_FILL=40
          0000
00000110 0000 $EQU UCB$$_CT_DEBUG_FILL 272
          0000 UCB$$_CT_DEBUG_FILL=272
          0000
          0000 $DEFEND TTYUCB,,DEF
          0000 .MACRO $TTYUCBDEF A
          0000 .ENDM $TTYUCBDEF
          0000 .IIF DIF <> <GLOBAL>,,DISABLE SUPPRESSION
          0000 .CROSS
          0000 .RESTORE
          0000
          0000 $TTYVECDEF
          0000 $DEFINI TTYVEC,
          0000 .SAVE LOCAL_BLOCK
          0000 .NOCROSS
          0000 .IIF DIF <> <GLOBAL>,,ENABLE SUPPRESSION
          0000 .PSECT $ABSS,ABS
          0000 $GBLINI
          0000 .IF IDN <LOCAL> <GLOBAL>
          0000 .MACRO $DEF SYM,ALLOC,SIZ
          0000 .IIF NB,SYM,SYM::
          0000 .IIF NB,ALLOC, ALLOC SIZ
          0000 .ENDM $DEF
          0000 .MACRO $EQU SYM,VAL
          0000 SYM==VAL
          0000 .ENDM $EQU
          0000 .MACRO $VIELD1 MOD,SEP,SYM,SIZ,MSK
          0000 SIZ...=1
          0000 .IIF NB,SIZ, SIZ...=SIZ
          0000 .IF NB,SYM
          0000 MOD'SEP'V'SYM==BIT::SEP'S'SYM==SIZ
          0000 .IIF NB,SIZ, MOD'SEP'S'SYM==SIZ
          0000 .IIF NB,MSK, MOD'SEP'M_'SYM==<<<1@SIZ...>-1>@BIT...>
          0000 .ENDC
          0000 BIT...=BIT...+SIZ...
          0000 .ENDM $VIELD1
          0000 .IIF
          0000 .IIF DIF <LOCAL> <LOCAL>,,ERROR ;ARG MUST BE 'GLOBAL','LOCAL',OR NULL
          0000 .MACRO $DEF SYM,ALLOC,SIZ
          0000 .IIF NB,SYM,SYM:
          0000 .IIF NB,ALLOC, ALLOC SIZ
```

```
0000 .ENDM $DEF
0000 .MACRO $SEQU SYM,VAL
0000 SYM=VAL
0000 .ENDM $SEQU
0000 .MACRO $VIELD1 MOD,SEP,SYM,SIZ,MSK
0000 SIZ...=1
0000 .IIF NB,SIZ, SIZ...=SIZ
0000 .IF NB,SYM
0000 MOD'SEP'V'SYM=BIT...
0000 .IIF NB,SIZ, MOD'SEP'S'SYM=SIZ
0000 .IIF NB,MSK, MOD'SEP'M'SYM=<<<1@SIZ...>-1>@BIT...>
0000 .ENDC
0000 BIT...=BIT...+SIZ...
0000 .ENDM $VIELD1
0000 .ENDC
00000000 0000 .=0
00000028 0000 $SEQU CLASSS_CLASS_DEF 40
0000 CLASSS_CLASS_DEF=40
00000000 0000 $SEQU CLASS_GETNXT 0
0000 CLASS_GETNXT=0
00000004 0000 $SEQU CLASS_PUTNXT 4
0000 CLASS_PUTNXT=4
00000008 0000 $SEQU CLASS_SETUP_UCB 8
0000 CLASS_SETUP_UCB=8
0000000C 0000 $SEQU CLASS_DS_TRAN 12
0000 CLASS_DS_TRAN=12
00000010 0000 $SEQU CLASS_DDT 16
0000 CLASS_DDT=16
00000014 0000 $SEQU CLASS_READERROR 20
0000 CLASS_READERROR=20
00000018 0000 $SEQU CLASS_DISCONNECT 24
0000 CLASS_DISCONNECT=24
0000001C 0000 $SEQU CLASS_FORK 28
0000 CLASS_FORK=28
00000020 0000 $SEQU CLASS_POWERFAIL 32
0000 CLASS_POWERFAIL=32
00000024 0000 $SEQU CLASS_TABLES 36
0000 CLASS_TABLES=36
00000038 0000 $SEQU PORT_LENGTH 56
0000 PORT_LENGTH=56
00000038 0000 $SEQU PORTS_PORT_DEF 56
0000 PORTS_PORT_DEF=56
0000
```

```
00000000 0000 $EQU PORT_STARTIO 0
00000000 0000 PORT_STARTIO=0
00000000 0000
00000004 0000 $EQU PORT_DISCONNECT 4
00000004 0000 PORT_DISCONNECT=4
00000004 0000
00000008 0000 $EQU PORT_SET_LINE 8
00000008 0000 PORT_SET_LINE=8
00000008 0000
0000000c 0000 $EQU PORT_DS_SET 12
0000000c 0000 PORT_DS_SET=12
0000000c 0000
00000010 0000 $EQU PORT_XON 16
00000010 0000 PORT_XON=16
00000010 0000
00000014 0000 $EQU PORT_XOFF 20
00000014 0000 PORT_XOFF=20
00000014 0000
00000018 0000 $EQU PORT_STOP 24
00000018 0000 PORT_STOP=24
00000018 0000
0000001c 0000 $EQU PORT_STOP2 28
0000001c 0000 PORT_STOP2=28
0000001c 0000
00000020 0000 $EQU PORT_ABORT 32
00000020 0000 PORT_ABORT=32
00000020 0000
00000024 0000 $EQU PORT_RESUME 36
00000024 0000 PORT_RESUME=36
00000024 0000
00000028 0000 $EQU PORT_SET_MODEM 40
00000028 0000 PORT_SET_MODEM=40
00000028 0000
0000002c 0000 $EQU PORT_DMA 44
0000002c 0000 PORT_DMA=44
0000002c 0000
00000030 0000 $EQU PORT_MAINT 48
00000030 0000 PORT_MAINT=48
00000030 0000
00000034 0000 $EQU PORT_FORKRET 52
00000034 0000 PORT_FORKRET=52
00000034 0000
00000034 0000 $DEFEND TTYVEC,,DEF
00000034 0000 .MACRO $TTYVECDEF A
00000034 0000 .ENDM $TTYVECDEF
00000034 0000 .IIF DIF <> <GLOBAL>,,DISABLE SUPPRESSION
00000034 0000 .CROSS
00000034 0000 .RESTORE
00000034 0000
00000034 0000 $TTYSYMD
00000034 0000 $DEFINI TTYSYM,
00000034 0000 .SAVE LOCAL_BLOCK
00000034 0000 .NOCROSS
00000034 0000 .IIF DIF <> <GLOBAL>,,ENABLE SUPPRESSION
00000034 0000 .PSECT $ABS$,ABS
00000034 0000 $GBLINI
```

```
0000 .IF IDN <LOCAL> <GLOBAL>
0000 .MACRO $DEF SYM,ALLOC,SIZ
0000 .IIF NB,SYM,SYM::
0000 .IIF NB,ALLOC,ALLOC SIZ
0000 .ENDM $DEF
0000 .MACRO $EQU SYM,VAL
0000 SYM=VAL
0000 .ENDM $EQU
0000 .MACRO $VIELD1 MOD,SEP,SYM,SIZ,MSK
0000 SIZ...=1
0000 .IIF NB,SIZ,SIZ...=SIZ
0000 .IF NB,SYM
0000 MOD'SEP'V'SYM=BIT...
0000 .IIF NB,SIZ,MOD'SEP'S'SYM=SIZ
0000 .IIF NB,MSK,MOD'SEP'M'SYM=<<<1@SIZ...>-1>@BIT...>
0000 .ENDC
0000 BIT...=BIT...+SIZ...
0000 .ENDM $VIELD1
0000 .IIF
0000 .IIF DIF <LOCAL> <LOCAL>,,ERROR ;ARG MUST BE 'GLOBAL','LOCAL',OR NULL
0000 .MACRO $DEF SYM,ALLOC,SIZ
0000 .IIF NB,SYM,SYM:
0000 .IIF NB,ALLOC,ALLOC SIZ
0000 .ENDM $DEF
0000 .MACRO $EQU SYM,VAL
0000 SYM=VAL
0000 .ENDM $EQU
0000 .MACRO $VIELD1 MOD,SEP,SYM,SIZ,MSK
0000 SIZ...=1
0000 .IIF NB,SIZ,SIZ...=SIZ
0000 .IF NB,SYM
0000 MOD'SEP'V'SYM=BIT...
0000 .IIF NB,SIZ,MOD'SEP'S'SYM=SIZ
0000 .IIF NB,MSK,MOD'SEP'M'SYM=<<<1@SIZ...>-1>@BIT...>
0000 .ENDC
0000 BIT...=BIT...+SIZ...
0000 .ENDM $VIELD1
0000 .ENDC
00000000 0000 .=0
00000001 0000 $EQU TTY$M_FD_UN SOL 1
0000 TTY$M_FD_UN SOL=1
00000002 0000 $EQU TTY$M_FD_GETAHD 2
0000 TTY$M_FD_GETAHD=2
00000004 0000 $EQU TTY$M_FD_DISCONNECT 4
0000 TTY$M_FD_DISCONNECT=4
00000008 0000 $EQU TTY$M_FD_PORTFORK 8
0000 TTY$M_FD_PORTFORK=8
00000010 0000 $EQU TTY$M_FD_UNLINK 16
0000 TTY$M_FD_UNLINK=16
0000 $EQU TTY$M_FD_LINK 32
```



|          |      |      |                       |    |
|----------|------|------|-----------------------|----|
| 00000020 | 0000 |      | TTYSM_FD_LINK=32      |    |
|          | 0000 |      |                       |    |
|          | 0000 | SEQU | TTYSM_FD_BUSY         | 64 |
| 00000040 | 0000 |      | TTYSM_FD_BUSY=64      |    |
|          | 0000 |      |                       |    |
|          | 0000 | SEQU | TTYSS_FORK            | 1  |
| 00000001 | 0000 |      | TTYSS_FORK=1          |    |
|          | 0000 |      |                       |    |
|          | 0000 | SEQU | TTYSV_FD_UN SOL       | 0  |
| 00000000 | 0000 |      | TTYSV_FD_UN SOL=0     |    |
|          | 0000 |      |                       |    |
|          | 0000 | SEQU | TTYSV_FD_GETAHD       | 1  |
| 00000001 | 0000 |      | TTYSV_FD_GETAHD=1     |    |
|          | 0000 |      |                       |    |
|          | 0000 | SEQU | TTYSV_FD_DISCONNECT   | 2  |
| 00000002 | 0000 |      | TTYSV_FD_DISCONNECT=2 |    |
|          | 0000 |      |                       |    |
|          | 0000 | SEQU | TTYSV_FD_PORTFORK     | 3  |
| 00000003 | 0000 |      | TTYSV_FD_PORTFORK=3   |    |
|          | 0000 |      |                       |    |
|          | 0000 | SEQU | TTYSV_FD_UNLINK       | 4  |
| 00000004 | 0000 |      | TTYSV_FD_UNLINK=4     |    |
|          | 0000 |      |                       |    |
|          | 0000 | SEQU | TTYSV_FD_LINK         | 5  |
| 00000005 | 0000 |      | TTYSV_FD_LINK=5       |    |
|          | 0000 |      |                       |    |
|          | 0000 | SEQU | TTYSV_FD_BUSY         | 6  |
| 00000006 | 0000 |      | TTYSV_FD_BUSY=6       |    |
|          | 0000 |      |                       |    |
|          | 0000 | SEQU | TTYSC_CTRLA           | 1  |
| 00000001 | 0000 |      | TTYSC_CTRLA=1         |    |
|          | 0000 |      |                       |    |
|          | 0000 | SEQU | TTYSC_CTRLB           | 2  |
| 00000002 | 0000 |      | TTYSC_CTRLB=2         |    |
|          | 0000 |      |                       |    |
|          | 0000 | SEQU | TTYSC_CTRLC           | 3  |
| 00000003 | 0000 |      | TTYSC_CTRLC=3         |    |
|          | 0000 |      |                       |    |
|          | 0000 | SEQU | TTYSC_CTRLD           | 4  |
| 00000004 | 0000 |      | TTYSC_CTRLD=4         |    |
|          | 0000 |      |                       |    |
|          | 0000 | SEQU | TTYSC_CTRL E          | 5  |
| 00000005 | 0000 |      | TTYSC_CTRL E=5        |    |
|          | 0000 |      |                       |    |
|          | 0000 | SEQU | TTYSC_CTRL F          | 6  |
| 00000006 | 0000 |      | TTYSC_CTRL F=6        |    |
|          | 0000 |      |                       |    |
|          | 0000 | SEQU | TTYSC_BELL            | 7  |
| 00000007 | 0000 |      | TTYSC_BELL=7          |    |
|          | 0000 |      |                       |    |
|          | 0000 | SEQU | TTYSC_BS              | 8  |
| 00000008 | 0000 |      | TTYSC_BS=8            |    |
|          | 0000 |      |                       |    |
|          | 0000 | SEQU | TTYSC_TAB             | 9  |
| 00000009 | 0000 |      | TTYSC_TAB=9           |    |
|          | 0000 |      |                       |    |
|          | 0000 | SEQU | TTYSC_LF              | 10 |

|          |      |       |                 |    |
|----------|------|-------|-----------------|----|
| 0000000A | 0000 |       | TTYSC_LF=10     |    |
|          | 0000 |       |                 |    |
|          | 0000 |       |                 |    |
| 0000000B | 0000 | \$EQU | TTYSC_VT        | 11 |
|          | 0000 |       | TTYSC_VT=11     |    |
|          | 0000 |       |                 |    |
|          | 0000 |       |                 |    |
| 0000000C | 0000 | \$EQU | TTYSC_FF        | 12 |
|          | 0000 |       | TTYSC_FF=12     |    |
|          | 0000 |       |                 |    |
|          | 0000 |       |                 |    |
| 0000000D | 0000 | \$EQU | TTYSC_CR        | 13 |
|          | 0000 |       | TTYSC_CR=13     |    |
|          | 0000 |       |                 |    |
|          | 0000 |       |                 |    |
| 0000000E | 0000 | \$EQU | TTYSC_CTRLN     | 14 |
|          | 0000 |       | TTYSC_CTRLN=14  |    |
|          | 0000 |       |                 |    |
|          | 0000 |       |                 |    |
| 0000000F | 0000 | \$EQU | TTYSC_CTRL0     | 15 |
|          | 0000 |       | TTYSC_CTRL0=15  |    |
|          | 0000 |       |                 |    |
|          | 0000 |       |                 |    |
| 00000010 | 0000 | \$EQU | TTYSC_CTRLP     | 16 |
|          | 0000 |       | TTYSC_CTRLP=16  |    |
|          | 0000 |       |                 |    |
|          | 0000 |       |                 |    |
| 00000011 | 0000 | \$EQU | TTYSC_CTRLQ     | 17 |
|          | 0000 |       | TTYSC_CTRLQ=17  |    |
|          | 0000 |       |                 |    |
|          | 0000 |       |                 |    |
| 00000012 | 0000 | \$EQU | TTYSC_CTRLR     | 18 |
|          | 0000 |       | TTYSC_CTRLR=18  |    |
|          | 0000 |       |                 |    |
|          | 0000 |       |                 |    |
| 00000013 | 0000 | \$EQU | TTYSC_CTRLs     | 19 |
|          | 0000 |       | TTYSC_CTRLs=19  |    |
|          | 0000 |       |                 |    |
|          | 0000 |       |                 |    |
| 00000014 | 0000 | \$EQU | TTYSC_CTRLT     | 20 |
|          | 0000 |       | TTYSC_CTRLT=20  |    |
|          | 0000 |       |                 |    |
|          | 0000 |       |                 |    |
| 00000015 | 0000 | \$EQU | TTYSC_CTRLU     | 21 |
|          | 0000 |       | TTYSC_CTRLU=21  |    |
|          | 0000 |       |                 |    |
|          | 0000 |       |                 |    |
| 00000016 | 0000 | \$EQU | TTYSC_CTRLV     | 22 |
|          | 0000 |       | TTYSC_CTRLV=22  |    |
|          | 0000 |       |                 |    |
|          | 0000 |       |                 |    |
| 00000017 | 0000 | \$EQU | TTYSC_CTRLW     | 23 |
|          | 0000 |       | TTYSC_CTRLW=23  |    |
|          | 0000 |       |                 |    |
|          | 0000 |       |                 |    |
| 00000018 | 0000 | \$EQU | TTYSC_CTRLX     | 24 |
|          | 0000 |       | TTYSC_CTRLX=24  |    |
|          | 0000 |       |                 |    |
|          | 0000 |       |                 |    |
| 00000019 | 0000 | \$EQU | TTYSC_CTRLY     | 25 |
|          | 0000 |       | TTYSC_CTRLY=25  |    |
|          | 0000 |       |                 |    |
|          | 0000 |       |                 |    |
| 0000001A | 0000 | \$EQU | TTYSC_CTRLZ     | 26 |
|          | 0000 |       | TTYSC_CTRLZ=26  |    |
|          | 0000 |       |                 |    |
|          | 0000 |       |                 |    |
| 0000001B | 0000 | \$EQU | TTYSC_ESCAPE    | 27 |
|          | 0000 |       | TTYSC_ESCAPE=27 |    |
|          | 0000 |       |                 |    |
|          | 0000 |       |                 |    |
| 00000011 | 0000 | \$EQU | TTYSC_XON       | 17 |
|          | 0000 |       | TTYSC_XON=17    |    |
|          | 0000 |       |                 |    |
|          | 0000 |       |                 |    |
|          | 0000 | \$EQU | TTYSC_XOFF      | 19 |



|          |      |      |                     |     |
|----------|------|------|---------------------|-----|
| 00000013 | 0000 |      | TTYSC_XOFF=19       |     |
|          | 0000 |      |                     |     |
|          | 0000 | SEQU | TTYSC_BLANK         | 32  |
| 00000020 | 0000 |      | TTYSC_BLANK=32      |     |
|          | 0000 |      |                     |     |
|          | 0000 | SEQU | TTYSC_DOLLAR        | 36  |
| 00000024 | 0000 |      | TTYSC_DOLLAR=36     |     |
|          | 0000 |      |                     |     |
|          | 0000 | SEQU | TTYSC_PLUS          | 43  |
| 0000002B | 0000 |      | TTYSC_PLUS=43       |     |
|          | 0000 |      |                     |     |
|          | 0000 | SEQU | TTYSC_ZERO          | 48  |
| 00000030 | 0000 |      | TTYSC_ZERO=48       |     |
|          | 0000 |      |                     |     |
|          | 0000 | SEQU | TTYSC_ONE           | 49  |
| 00000031 | 0000 |      | TTYSC_ONE=49        |     |
|          | 0000 |      |                     |     |
|          | 0000 | SEQU | TTYSC_SCRIPT        | 96  |
| 00000060 | 0000 |      | TTYSC_SCRIPT=96     |     |
|          | 0000 |      |                     |     |
|          | 0000 | SEQU | TTYSC_LOWA          | 97  |
| 00000061 | 0000 |      | TTYSC_LOWA=97       |     |
|          | 0000 |      |                     |     |
|          | 0000 | SEQU | TTYSC_LOWZ          | 123 |
| 0000007B | 0000 |      | TTYSC_LOWZ=123      |     |
|          | 0000 |      |                     |     |
|          | 0000 | SEQU | TTYSC_LOWESC1       | 125 |
| 0000007D | 0000 |      | TTYSC_LOWESC1=125   |     |
|          | 0000 |      |                     |     |
|          | 0000 | SEQU | TTYSC_LOWESC2       | 126 |
| 0000007E | 0000 |      | TTYSC_LOWESC2=126   |     |
|          | 0000 |      |                     |     |
|          | 0000 | SEQU | TTYSC_DELETE        | 127 |
| 0000007F | 0000 |      | TTYSC_DELETE=127    |     |
|          | 0000 |      |                     |     |
|          | 0000 | SEQU | TTYSC_NL            | 128 |
| 00000080 | 0000 |      | TTYSC_NL=128        |     |
|          | 0000 |      |                     |     |
|          | 0000 | SEQU | TTYSC_CSI           | 155 |
| 0000009B | 0000 |      | TTYSC_CSI=155       |     |
|          | 0000 |      |                     |     |
|          | 0000 | SEQU | TTYSC_MAXPAGLEN     | 255 |
| 000000FF | 0000 |      | TTYSC_MAXPAGLEN=255 |     |
|          | 0000 |      |                     |     |
|          | 0000 | SEQU | TTYSC_MAXPAGWID     | 511 |
| 000001FF | 0000 |      | TTYSC_MAXPAGWID=511 |     |
|          | 0000 |      |                     |     |
|          | 0000 | SEQU | TTYSC_HIGHIPL       | 22  |
| 00000016 | 0000 |      | TTYSC_HIGHIPL=22    |     |
|          | 0000 |      |                     |     |
|          | 0000 | SEQU | TTYSK_ER_NORMAL     | 0   |
| 00000000 | 0000 |      | TTYSK_ER_NORMAL=0   |     |
|          | 0000 |      |                     |     |
|          | 0000 | SEQU | TTYSK_ER_CLRECHO    | 1   |
| 00000001 | 0000 |      | TTYSK_ER_CLRECHO=1  |     |
|          | 0000 |      |                     |     |
|          | 0000 | SEQU | TTYSK_ER_ECHLINE    | 2   |

|          |      |      |                          |    |
|----------|------|------|--------------------------|----|
| 00000002 | 0000 |      | TTY\$K_ER_ECHLINE=2      |    |
|          | 0000 |      |                          |    |
|          | 0000 | SEQU | TTY\$K_ER_UPDCURSOR      | 3  |
| 00000003 | 0000 |      | TTY\$K_ER_UPDCURSOR=3    |    |
|          | 0000 |      |                          |    |
|          | 0000 | SEQU | TTY\$K_ER_EXITING        | 4  |
| 00000004 | 0000 |      | TTY\$K_ER_EXITING=4      |    |
|          | 0000 |      |                          |    |
|          | 0000 | SEQU | TTY\$K_ER_MOVECURSOR     | 5  |
| 00000005 | 0000 |      | TTY\$K_ER_MOVECURSOR=5   |    |
|          | 0000 |      |                          |    |
|          | 0000 | SEQU | TTY\$K_ER_CLRREST        | 6  |
| 00000006 | 0000 |      | TTY\$K_ER_CLRREST=6      |    |
|          | 0000 |      |                          |    |
|          | 0000 | SEQU | TTY\$K_ER_PRMECHO        | 7  |
| 00000007 | 0000 |      | TTY\$K_ER_PRMECHO=7      |    |
|          | 0000 |      |                          |    |
|          | 0000 | SEQU | TTY\$K_ER_PRMECHO1       | 8  |
| 00000008 | 0000 |      | TTY\$K_ER_PRMECHO1=8     |    |
|          | 0000 |      |                          |    |
|          | 0000 | SEQU | TTY\$K_ER_AESECHO        | 9  |
| 00000009 | 0000 |      | TTY\$K_ER_AESECHO=9      |    |
|          | 0000 |      |                          |    |
|          | 0000 | SEQU | TTY\$K_ER_RVECHO 10      |    |
| 0000000A | 0000 |      | TTY\$K_ER_RVECHO=10      |    |
|          | 0000 |      |                          |    |
|          | 0000 | SEQU | TTY\$K_ER_SIMCEOL        | 11 |
| 0000000B | 0000 |      | TTY\$K_ER_SIMCEOL=11     |    |
|          | 0000 |      |                          |    |
|          | 0000 | SEQU | TTY\$K_ET_CTRLU 1        |    |
| 00000001 | 0000 |      | TTY\$K_ET_CTRLU=1        |    |
|          | 0000 |      |                          |    |
|          | 0000 | SEQU | TTY\$K_ET_CTRLR 2        |    |
| 00000002 | 0000 |      | TTY\$K_ET_CTRLR=2        |    |
|          | 0000 |      |                          |    |
|          | 0000 | SEQU | TTY\$K_ET_DELEFT 3       |    |
| 00000003 | 0000 |      | TTY\$K_ET_DELEFT=3       |    |
|          | 0000 |      |                          |    |
|          | 0000 | SEQU | TTY\$K_ET_ESCAPE 4       |    |
| 00000004 | 0000 |      | TTY\$K_ET_ESCAPE=4       |    |
|          | 0000 |      |                          |    |
|          | 0000 | SEQU | TTY\$K_ET_BACK_CHAR      | 5  |
| 00000005 | 0000 |      | TTY\$K_ET_BACK_CHAR=5    |    |
|          | 0000 |      |                          |    |
|          | 0000 | SEQU | TTY\$K_ET_FORWARD_CHAR   | 6  |
| 00000006 | 0000 |      | TTY\$K_ET_FORWARD_CHAR=6 |    |
|          | 0000 |      |                          |    |
|          | 0000 | SEQU | TTY\$K_ET_MOVE_EOL       | 7  |
| 00000007 | 0000 |      | TTY\$K_ET_MOVE_EOL=7     |    |
|          | 0000 |      |                          |    |
|          | 0000 | SEQU | TTY\$K_ET_MOVE_BOL       | 8  |
| 00000008 | 0000 |      | TTY\$K_ET_MOVE_BOL=8     |    |
|          | 0000 |      |                          |    |
|          | 0000 | SEQU | TTY\$K_ET_DELETE_WORD    | 9  |
| 00000009 | 0000 |      | TTY\$K_ET_DELETE_WORD=9  |    |
|          | 0000 |      |                          |    |
|          | 0000 | SEQU | TTY\$K_ET_QUOTING        | 10 |

```

0000000A 0000      TTY$K_ET_QUOTING=10
0000      0000
0000000B 0000      $EQU  TTY$K_ET_RECALL 11
0000      0000      TTY$K_ET_RECALL=11
0000      0000
0000000C 0000      $EQU  TTY$K_ET_TOGGEL 12
0000      0000      TTY$K_ET_TOGGEL=12
0000      0000
0000000D 0000      $EQU  TTY$K_ET_UNUSED 13
0000      0000      TTY$K_ET_UNUSED=13
0000      0000
0000000E 0000      $EQU  TTY$K_ET_TERMINATE 14
0000      0000      TTY$K_ET_TERMINATE=14
0000      0000
00000004 0000      $EQU  TTY$K_EDITNORMAL 4
0000      0000      TTY$K_EDITNORMAL=4
0000      0000
00000000 0000      $EQU  TTY$C_FC_READ 0
0000      0000      TTY$C_FC_READ=0
0000      0000
00000001 0000      $EQU  TTY$C_FC_WRITE 1
0000      0000      TTY$C_FC_WRITE=1
0000      0000
00000002 0000      $EQU  TTY$C_FC_SETM 2
0000      0000      TTY$C_FC_SETM=2
0000      0000
00000003 0000      $EQU  TTY$C_FC_SETC 3
0000      0000      TTY$C_FC_SETC=3
0000      0000
00000004 0000      $EQU  TTY$C_FC_HANGUP 4
0000      0000      TTY$C_FC_HANGUP=4
0000      0000
00000005 0000      $EQU  TTY$C_FC_MAINT 5
0000      0000      TTY$C_FC_MAINT=5
0000      0000
00000006 0000      $EQU  TTY$C_FC_CTRL 6
0000      0000      TTY$C_FC_CTRL=6
0000      0000
00000007 0000      $EQU  TTY$C_FC_CONNECT 7
0000      0000      TTY$C_FC_CONNECT=7
0000      0000
00000008 0000      $EQU  TTY$C_FC_DISCON 8
0000      0000      TTY$C_FC_DISCON=8
0000      0000
00000008 0000      $EQU  TTY$M_CH_LOWER 8
0000      0000      TTY$M_CH_LOWER=8
0000      0000
00000010 0000      $EQU  TTY$M_CH_SPEC 16
0000      0000      TTY$M_CH_SPEC=16
0000      0000
00000020 0000      $EQU  TTY$M_CH_CTRL 32
0000      0000      TTY$M_CH_CTRL=32
0000      0000
00000040 0000      $EQU  TTY$M_CH_CTRL3 64
0000      0000      TTY$M_CH_CTRL3=64
0000      0000
0000      0000      $EQU  TTY$M_CH_CTRL2 128

```

```
00000080 0000 TTY$M_CH_CTRL2=128
00000001 0000 SEQU TTY$S_CHAR_CHAR 1
00000001 0000 TTY$S_CHAR_CHAR=1
00000003 0000 SEQU TTY$S_CH_FILL 3
00000003 0000 TTY$S_CH_FILL=3
00000000 0000 SEQU TTY$V_CH_FILL 0
00000000 0000 TTY$V_CH_FILL=0
00000003 0000 SEQU TTY$V_CH_LOWER 3
00000003 0000 TTY$V_CH_LOWER=3
00000004 0000 SEQU TTY$V_CH_SPEC 4
00000004 0000 TTY$V_CH_SPEC=4
00000005 0000 SEQU TTY$V_CH_CTRL 5
00000005 0000 TTY$V_CH_CTRL=5
00000006 0000 SEQU TTY$V_CH_CTRL3 6
00000006 0000 TTY$V_CH_CTRL3=6
00000007 0000 SEQU TTY$V_CH_CTRL2 7
00000007 0000 TTY$V_CH_CTRL2=7
0000
0000 $DEFEND TTYSYM,,DEF
0000 .MACRO $TTYSYMDEF A
0000 .ENDM $TTYSYMDEF
0000 .IIF DIF <> <GLOBAL>,,DISABLE SUPPRESSION
0000 .CROSS
0000 .RESTORE
0000
0000 $TTYRBDEF
0000 $DEFINI TTYRB,
0000 .SAVE LOCAL_BLOCK
0000 .NOCROSS
0000 .IIF DIF <> <GLOBAL>,,ENABLE SUPPRESSION
0000 .PSECT $ABS$,ABS
0000 $GBLINI
0000 .IF IDN <LOCAL> <GLOBAL>
0000 .MACRO $DEF SYM,ALLOC,SIZ
0000 .IIF NB,SYM,SYM::
0000 .IIF NB,ALLOC, ALLOC SIZ
0000 .ENDM $DEF
0000 .MACRO $SEQU SYM,VAL
0000 SYM=VAL
0000 .ENDM $SEQU
0000 .MACRO $VIELD1 MOD,SEP,SYM,SIZ,MSK
0000 SIZ...=1
0000 .IIF NB,SIZ, SIZ...=SIZ
0000 .IF NB,SYM
0000 MOD'SEP'V 'SYM==BIT...
0000 .IIF NB,SIZ, MOD'SEP'S 'SYM==SIZ
0000 .IIF NB,MSK, MOD'SEP'M 'SYM==<<<10SIZ...>-1>0BIT...>
0000 .ENDC
```

```
0000 BIT...=BIT...+SIZ...
0000 .ENDM $VIELD1
0000 .IFF
0000 .IIF DIF <LOCAL> <LOCAL>,,ERROR ;ARG MUST BE 'GLOBAL','LOCAL',OR NULL
0000 .MACRO $DEF SYM,ALLOC,SIZ
0000 .IIF NB,SYM,SYM:
0000 .IIF NB,ALLOC, ALLOC SIZ
0000 .ENDM $DEF
0000 .MACRO $SEQU SYM,VAL
0000 SYM=VAL
0000 .ENDM $SEQU
0000 .MACRO $VIELD1 MOD,SEP,SYM,SIZ,MSK
0000 SIZ...=1
0000 .IIF NB,SIZ, SIZ...=SIZ
0000 .IF NB,SYM
0000 MOD'SEP'V,SYM=BIT...
0000 .IIF NB,SIZ,MOD'SEP'S,SYM=SIZ
0000 .IIF NB,MSK,MOD'SEP'M,SYM=<<<1@SIZ...>-1>@BIT...>
0000 .ENDC
0000 BIT...=BIT...+SIZ...
0000 .ENDM $VIELD1
0000 .ENDC
00000000 0000 .=0
00000001 0000 $SEQU TTY$M_RS_WRAP 1
00000001 0000 TTY$M_RS_WRAP=1
0000004E 0000 $SEQU TTY$S_TTYRBDEF 78
0000004E 0000 TTY$S_TTYRBDEF=78
00000000 0000 $SEQU TTY$L_RB_TXT 0
00000000 0000 TTY$L_RB_TXT=0
00000004 0000 $SEQU TTY$L_RB_UVA 4
00000004 0000 TTY$L_RB_UVA=4
00000008 0000 $SEQU TTY$W_RB_SIZE 8
00000008 0000 TTY$W_RB_SIZE=8
0000000A 0000 $SEQU TTY$B_RB_SPARE1 10
0000000A 0000 TTY$B_RB_SPARE1=10
0000000B 0000 $SEQU TTY$B_RB_ECHLEN 11
0000000B 0000 TTY$B_RB_ECHLEN=11
00000008 0000 $SEQU TTY$S_RB_ECHOAREA 8
00000008 0000 TTY$S_RB_ECHOAREA=8
0000000C 0000 $SEQU TTY$Q_RB_ECHOAREA 12
0000000C 0000 TTY$Q_RB_ECHOAREA=12
00000014 0000 $SEQU TTY$L_RB_ECHSTR 20
00000014 0000 TTY$L_RB_ECHSTR=20
00000018 0000 $SEQU TTY$L_RB_PIC 24
00000018 0000 TTY$L_RB_PIC=24
```

|          |      |      |                     |  |
|----------|------|------|---------------------|--|
|          | 0000 |      |                     |  |
|          | 0000 | SEQU | TTYSL_RB_TERM 28    |  |
| 0000001C | 0000 |      | TTYSL_RB_TERM=28    |  |
|          | 0000 |      |                     |  |
|          | 0000 | SEQU | TTYSL_RB_MOD 32     |  |
| 00000020 | 0000 |      | TTYSL_RB_MOD=32     |  |
|          | 0000 |      |                     |  |
|          | 0000 | SEQU | TTYSL_RB_AES 36     |  |
| 00000024 | 0000 |      | TTYSL_RB_AES=36     |  |
|          | 0000 |      |                     |  |
|          | 0000 | SEQU | TTYSW_RB_AESLEN 40  |  |
| 00000028 | 0000 |      | TTYSW_RB_AESLEN=40  |  |
|          | 0000 |      |                     |  |
|          | 0000 | SEQU | TTYSW_RB_RDSTATE 42 |  |
| 0000002A | 0000 |      | TTYSW_RB_RDSTATE=42 |  |
|          | 0000 |      |                     |  |
|          | 0000 | SEQU | TTYSV_RS_WRAP 0     |  |
| 00000000 | 0000 |      | TTYSV_RS_WRAP=0     |  |
|          | 0000 |      |                     |  |
|          | 0000 | SEQU | TTYSL_RB_LIN 44     |  |
| 0000002C | 0000 |      | TTYSL_RB_LIN=44     |  |
|          | 0000 |      |                     |  |
|          | 0000 | SEQU | TTYSW_RB_LINOFF 48  |  |
| 00000030 | 0000 |      | TTYSW_RB_LINOFF=48  |  |
|          | 0000 |      |                     |  |
|          | 0000 | SEQU | TTYSW_RB_LINREST 50 |  |
| 00000032 | 0000 |      | TTYSW_RB_LINREST=50 |  |
|          | 0000 |      |                     |  |
|          | 0000 | SEQU | TTYSW_RB_PRMLen 52  |  |
| 00000034 | 0000 |      | TTYSW_RB_PRMLen=52  |  |
|          | 0000 |      |                     |  |
|          | 0000 | SEQU | TTYSW_RB_TIMOS 54   |  |
| 00000036 | 0000 |      | TTYSW_RB_TIMOS=54   |  |
|          | 0000 |      |                     |  |
|          | 0000 | SEQU | TTYSW_RB_CPZCUR 56  |  |
| 00000038 | 0000 |      | TTYSW_RB_CPZCUR=56  |  |
|          | 0000 |      |                     |  |
|          | 0000 | SEQU | TTYSW_RB_CPZORG 58  |  |
| 0000003A | 0000 |      | TTYSW_RB_CPZORG=58  |  |
|          | 0000 |      |                     |  |
|          | 0000 | SEQU | TTYSW_RB_TXTOFF 60  |  |
| 0000003C | 0000 |      | TTYSW_RB_TXTOFF=60  |  |
|          | 0000 |      |                     |  |
|          | 0000 | SEQU | TTYSW_RB_PICLEN 62  |  |
| 0000003E | 0000 |      | TTYSW_RB_PICLEN=62  |  |
|          | 0000 |      |                     |  |
|          | 0000 | SEQU | TTYSW_RB_TXTSIZ 64  |  |
| 00000040 | 0000 |      | TTYSW_RB_TXTSIZ=64  |  |
|          | 0000 |      |                     |  |
|          | 0000 | SEQU | TTYSW_RB_TXTECH 66  |  |
| 00000042 | 0000 |      | TTYSW_RB_TXTECH=66  |  |
|          | 0000 |      |                     |  |
|          | 0000 | SEQU | TTYSW_RB_MODE 68    |  |
| 00000044 | 0000 |      | TTYSW_RB_MODE=68    |  |
|          | 0000 |      |                     |  |
|          | 0000 | SEQU | TTYSB_RB_RVFCLR 70  |  |
| 00000046 | 0000 |      | TTYSB_RB_RVFCLR=70  |  |



```
0000
00000047 0000      $EQU  TTY$B_RB_RVFFIL 71
          0000      TTY$B_RB_RVFFIL=71
          0000
00000048 0000      $EQU  TTY$W_RB_ESCTKN 72
          0000      TTY$W_RB_ESCTKN=72
          0000
0000004A 0000      $EQU  TTY$A_RB_PPM 74
          0000      TTY$A_RB_PPM=74
          0000
0000004A 0000      $EQU  TTY$L_RB_DATA 74
          0000      TTY$L_RB_DATA=74
          0000
          0000      $DEFEND TTYRB,,DEF
          0000      .MACRO $TTYRBDf A
          0000      .ENDM $TTYRBDf
          0000      .IIF DIF <> <GLOBAL>,.DISABLE      SUPPRESSION
          0000      .CROSS
          0000      .RESTORE
          0000
          0000
          0000      $TTYISDEF
          0000      $DEFINI TTYIS,
          0000      .SAVE LOCAL_BLOCK
          0000      .NOCROSS
          0000      .IIF DIF <> <GLOBAL>,.ENABLE SUPPRESSION
          0000      .PSECT $ABS$,ABS
          0000      $GBLINI
          0000      .IF IDN <LOCAL> <GLOBAL>
          0000      .MACRO $DEF SYM,ALLOC,SIZ
          0000      .IIF NB,SYM,SYM::
          0000      .IIF NB,ALLOC,      ALLOC      SIZ
          0000      .ENDM $DEF
          0000      .MACRO $EQU SYM,VAL
          0000      SYM==VAL
          0000      .ENDM $EQU
          0000      .MACRO $VIELD1 MOD,SEP,SYM,SIZ,MSK
          0000      SIZ...=1
          0000      .IIF NB,SIZ, SIZ...=SIZ
          0000      .IF NB,SYM
          0000      MOD'SEP'V 'SYM==BIT...
          0000      .IIF NB,SIZ, MOD'SEP'S 'SYM==SIZ
          0000      .IIF NB,MSK, MOD'SEP'M 'SYM==<<<1@SIZ...>-1>@BIT...>
          0000      .ENDC
          0000      BIT...=BIT...+SIZ...
          0000      .ENDM $VIELD1
          0000      .IIF
          0000      .IIF DIF <LOCAL> <LOCAL>,.ERROR ;ARG MUST BE 'GLOBAL','LOCAL',OR NULL
          0000      .MACRO $DEF SYM,ALLOC,SIZ
          0000      .IIF NB,SYM,SYM:
          0000      .IIF NB,ALLOC,      ALLOC      SIZ
          0000      .ENDM $DEF
          0000      .MACRO $EQU SYM,VAL
          0000      SYM=VAL
          0000      .ENDM $EQU
          0000      .MACRO $VIELD1 MOD,SEP,SYM,SIZ,MSK
          0000      SIZ...=1
```

```
0000 .IIF NB,SIZ, SIZ...=SIZ
0000 .IF NB,SYM
0000 MOD'SEP'V'SYM=BIT
0000 .IIF NB,SIZ, MOD'SEP'S'SYM=SIZ
0000 .IIF NB,MSK, MOD'SEP'M'SYM=<<<1@SIZ...>-1>@BIT...>
0000 .ENDC
0000 BIT...=BIT...+SIZ...
0000 .ENDM $VIELD1
0000 .ENDC
0000
00000000 0000 .=0
0000
00000058 0000 $EQU TTY$K_IS_LENGTH 88
0000 TTY$K_IS_LENGTH=88
0000
00000058 0000 $EQU TTY$S_TTYISDEF 88
0000 TTY$S_TTYISDEF=88
0000
00000000 0000 $EQU TTY$L_IS_ACMODE 0
0000 TTY$L_IS_ACMODE=0
0000
00000004 0000 $EQU TTY$L_IS_EDITMODE 4
0000 TTY$L_IS_EDITMODE=4
0000
00000008 0000 $EQU TTY$L_IS_BUF 8
0000 TTY$L_IS_BUF=8
0000
0000000C 0000 $EQU TTY$L_IS_BUFLen 12
0000 TTY$L_IS_BUFLen=12
0000
00000010 0000 $EQU TTY$L_IS_INI 16
0000 TTY$L_IS_INI=16
0000
00000014 0000 $EQU TTY$L_IS_INILEN 20
0000 TTY$L_IS_INILEN=20
0000
00000018 0000 $EQU TTY$L_IS_INIBUF 24
0000 TTY$L_IS_INIBUF=24
0000
0000001C 0000 $EQU TTY$L_IS_ITMLST 28
0000 TTY$L_IS_ITMLST=28
0000
00000020 0000 $EQU TTY$L_IS_LASTITM 32
0000 TTY$L_IS_LASTITM=32
0000
00000024 0000 $EQU TTY$L_IS_MODIFY 36
0000 TTY$L_IS_MODIFY=36
0000
00000028 0000 $EQU TTY$L_IS_PIC 40
0000 TTY$L_IS_PIC=40
0000
0000002C 0000 $EQU TTY$L_IS_PICLEN 44
0000 TTY$L_IS_PICLEN=44
0000
00000030 0000 $EQU TTY$L_IS_PRM 48
0000 TTY$L_IS_PRM=48
0000
```



```
00000034 0000 $EQU TTYSL_IS_PRMLN 52
          0000 TTYSL_IS_PRMLN=52
          0000
00000038 0000 $EQU TTYSL_IS_PRMBUF 56
          0000 TTYSL_IS_PRMBUF=56
          0000
0000003C 0000 $EQU TTYSL_IS_SPECIFIED 60
          0000 TTYSL_IS_SPECIFIED=60
          0000
00000040 0000 $EQU TTYSL_IS_TERM 64
          0000 TTYSL_IS_TERM=64
          0000
00000044 0000 $EQU TTYSL_IS_TERMLEN 68
          0000 TTYSL_IS_TERMLEN=68
          0000
00000048 0000 $EQU TTYSL_IS_AES 72
          0000 TTYSL_IS_AES=72
          0000
0000004C 0000 $EQU TTYSL_IS_AESLEN 76
          0000 TTYSL_IS_AESLEN=76
          0000
00000050 0000 $EQU TTYSL_IS_TIMEOUT 80
          0000 TTYSL_IS_TIMEOUT=80
          0000
00000054 0000 $EQU TTYSW_IS_FILLCHR 84
          0000 TTYSW_IS_FILLCHR=84
          0000
00000056 0000 $EQU TTYSW_IS_INIOFF 86
          0000 TTYSW_IS_INIOFF=86
          0000
          0000 $DEFEND TTYIS,,DEF
          0000 .MACRO $TTYISDEF A
          0000 .ENDM $TTYISDEF
          0000 .IIF DIF <> <GLOBAL>,,DISABLE SUPPRESSION
          0000 .CROSS
          0000 .RESTORE
          0000
          0000
          0000 $TTYILDEF
          0000 $DEFINI TTYIL,
          0000 .SAVE LOCAL_BLOCK
          0000 .NOCROSS
          0000 .IIF DIF <> <GLOBAL>,,ENABLE SUPPRESSION
          0000 .PSECT $ABSS,ABS
          0000 $GBLINI
          0000 .IF IDN <LOCAL> <GLOBAL>
          0000 .MACRO $DEF SYM,ALLOC,SIZ
          0000 .IIF NB,SYM,SYM::
          0000 .IIF NB,ALLOC, ALLOC SIZ
          0000 .ENDM $DEF
          0000 .MACRO $EQU SYM,VAL
          0000 SYM=VAL
          0000 .ENDM $EQU
          0000 .MACRO $VIELD1 MOD,SEP,SYM,SIZ,MSK
          0000 SIZ...=1
          0000 .IIF NB,SIZ, SIZ...=SIZ
          0000 .IF NB,SYM
```

```
0000 MOD'SEP'V 'SYM==BIT...
0000 .IIF NB,SIZ, MOD'SEP'S 'SYM==SIZ
0000 .IIF NB,MSK, MOD'SEP'M 'SYM==<<<1@SIZ...>-1>@BIT...>
0000 .ENDC
0000 BIT...=BIT...+SIZ...
0000 .ENDM $VIELD1
0000 .IIF
0000 .IIF DIF <LOCAL> <LOCAL>, ERROR ;ARG MUST BE 'GLOBAL','LOCAL',OR NULL
0000 .MACRO $DEF SYM,ALLOC,SIZ
0000 .IIF NB,SYM, SYM:
0000 .IIF NB,ALLOC, ALLOC SIZ
0000 .ENDM $DEF
0000 .MACRO $EQU SYM,VAL
0000 SYM=VAL
0000 .ENDM $EQU
0000 .MACRO $VIELD1 MOD,SEP,SYM,SIZ,MSK
0000 SIZ...=1
0000 .IIF NB,SIZ, SIZ...=SIZ
0000 .IIF NB,SYM
0000 MOD'SEP'V 'SYM==BIT...
0000 .IIF NB,SIZ, MOD'SEP'S 'SYM==SIZ
0000 .IIF NB,MSK, MOD'SEP'M 'SYM==<<<1@SIZ...>-1>@BIT...>
0000 .ENDC
0000 BIT...=BIT...+SIZ...
0000 .ENDM $VIELD1
0000 .ENDC
00000000 0000 .=0
00000000 0000 $EQU TTY$K_IL_LENGTH 12
00000000 0000 TTY$K_IL_LENGTH=12
00000000 0000 $EQU TTY$S_TTYILDEF 12
00000000 0000 TTY$S_TTYILDEF=12
00000000 0000 $EQU TTY$W_IL_LEN 0
00000000 0000 TTY$W_IL_LEN=0
00000002 0000 $EQU TTY$W_IL_TYPE 2
00000002 0000 TTY$W_IL_TYPE=2
00000004 0000 $EQU TTY$L_IL_ADR 4
00000004 0000 TTY$L_IL_ADR=4
00000008 0000 $EQU TTY$L_IL_RETADR 8
00000008 0000 TTY$L_IL_RETADR=8
0000 $DEFEND TTYIL,,DEF
0000 .MACRO $TTYILDEF A
0000 .ENDM $TTYILDEF
0000 .IIF DIF <> <GLOBAL>,.DISABLE SUPPRESSION
0000 .CROSS
0000 .RESTORE
0000
0000 $TTYTADEF
0000 $DEFINI TTYTA,
```

```
0000 .SAVE LOCAL_BLOCK
0000 .NOCROSS
0000 .IIF DIF <> <GLOBAL>,.ENABLE SUPPRESSION
0000 .PSECT $ABSS,ABS
0000 $GBLINI
0000 .IF IDN <LOCAL> <GLOBAL>
0000 .MACRO $DEF SYM,ALLOC,SIZ
0000 .IIF NB,SYM,SYM::
0000 .IIF NB,ALLOC,ALLOC SIZ
0000 .ENDM $DEF
0000 .MACRO $EQU SYM,VAL
0000 SYM=VAL
0000 .ENDM $EQU
0000 .MACRO $VIELD1 MOD,SEP,SYM,SIZ,MSK
0000 SIZ...=1
0000 .IIF NB,SIZ,SIZ...=SIZ
0000 .IF NB,SYM
0000 MOD'SEP'V'SYM=BIT...
0000 .IIF NB,SIZ,MOD'SEP'S'SYM=SIZ
0000 .IIF NB,MSK,MOD'SEP'M_'SYM=<<<1@SIZ...>-1>@BIT...>
0000 .ENDC
0000 BIT...=BIT...+SIZ...
0000 .ENDM $VIELD1
0000 .IIF
0000 .IIF DIF <LOCAL> <LOCAL>,.ERROR ;ARG MUST BE 'GLOBAL','LOCAL',OR NULL
0000 .MACRO $DEF SYM,ALLOC,SIZ
0000 .IIF NB,SYM,SYM:
0000 .IIF NB,ALLOC,ALLOC SIZ
0000 .ENDM $DEF
0000 .MACRO $EQU SYM,VAL
0000 SYM=VAL
0000 .ENDM $EQU
0000 .MACRO $VIELD1 MOD,SEP,SYM,SIZ,MSK
0000 SIZ...=1
0000 .IIF NB,SIZ,SIZ...=SIZ
0000 .IF NB,SYM
0000 MOD'SEP'V'SYM=BIT...
0000 .IIF NB,SIZ,MOD'SEP'S'SYM=SIZ
0000 .IIF NB,MSK,MOD'SEP'M_'SYM=<<<1@SIZ...>-1>@BIT...>
0000 .ENDC
0000 BIT...=BIT...+SIZ...
0000 .ENDM $VIELD1
0000 .ENDC
00000000 0000 .=0
00000100 0000 $EQU TTY$K_TA_RCLLEN 256
00000100 0000 TTY$K_TA_RCLLEN=256
0000011C 0000 $EQU TTY$S_TTYTADEF 284
0000011C 0000 TTY$S_TTYTADEF=284
00000000 0000 $EQU TTY$L_TA_PUT 0
00000000 0000 TTY$L_TA_PUT=0
00000004 0000 $EQU TTY$L_TA_GET 4
00000004 0000 TTY$L_TA_GET=4
```

```
0000      0000      SEQU      TTY$W_TA_SIZE      8
00000008  0000      TTY$W_TA_SIZE=8
0000      0000
0000      0000      SEQU      TTY$B_TA_TYPE      10
0000000A  0000      TTY$B_TA_TYPE=10
0000      0000
0000      0000      SEQU      TTY$B_TA_SPARE1     11
0000000B  0000      TTY$B_TA_SPARE1=11
0000      0000
0000      0000      SEQU      TTY$W_TA_INAHD     12
0000000C  0000      TTY$W_TA_INAHD=12
0000      0000
0000      0000      SEQU      TTY$W_TA_RCLOFF     14
0000000E  0000      TTY$W_TA_RCLOFF=14
0000      0000
0000      0000      SEQU      TTY$L_TA_END        16
00000010  0000      TTY$L_TA_END=16
0000      0000
0000      0000      SEQU      TTY$W_TA_RCLSIZ     20
00000014  0000      TTY$W_TA_RCLSIZ=20
0000      0000
0000      0000      SEQU      TTY$W_TA_SPARE2     22
00000016  0000      TTY$W_TA_SPARE2=22
0000      0000
0000      0000      SEQU      TTY$$_TA_RCL        256
00000100  0000      TTY$$_TA_RCL=256
0000      0000
0000      0000      SEQU      TTY$A_TA_RCL        24
00000018  0000      TTY$A_TA_RCL=24
0000      0000
0000      0000      SEQU      TTY$L_TA_DATA       280
00000118  0000      TTY$L_TA_DATA=280
0000
0000      $DEFEND TTYTA,,DEF
0000      .MACRO $TTYTADEF A
0000      .ENDM $TTYTADEF
0000      .IF DIF <> <GLOBAL>,.DISABLE      SUPPRESSION
0000      .CROSS
0000      .RESTORE
0000
0000      $DEFEND TTYDEFS,,DEF
0000      .MACRO $TTYDEFSDEF A
0000      .ENDM $TTYDEFSDEF
0000      .IF DIF <> <GLOBAL>,.DISABLE      SUPPRESSION
0000      .CROSS
0000      .RESTORE
0000
0000      213 .rioshow me
0000      214 $TTYMODEM                      ; DEFINE MODEM DEFINITIONS
0000      215
0000      216
0000      217 ;
0000      218 ; LOCAL STORAGE
0000      219 ;
```

```
00000000 220      .PSECT $$$105_PROLOGUE
0000 221
0000 222      ;
0000 223      ; Driver prologue table:
0000 224      ;
0000 225
0000 226 YCSDPT::      ; DRIVER START
0000 227      DPTAB      -      ; DRIVER PROLOGUE TABLE
0000 228      END=YCSEND,-      ; End and offset to INIT's vectors
0000 229      UCBSIZE=UCB$C_TT_LENGTH,-      ; SIZE OF UCB
0000 230      FLAGS=DPT$M_NOUNLOAD,-      ; NO UNLOAD ALLOWED
0000 231      ADAPTER=UBA,-      ; ADAPTER TYPE
0000 232      DEFUNITS=8,-      ; Number of units to create
0000 233      NAME=YCDRIVER,-      ; NAME OF DRIVER
0000 234      VECTOR=PORT_VECTOR      ; PORT DRIVER VECTOR TABLE
0038 235      DPT_STORE INIT
0038 236      DPT_STORE UCB,UCB$B_FIPL,B,8      ; FORK IPL
003C 237      DPT_STORE UCB,UCB$L_DEVCHAR,L,<-      ; CHARACTERISTICS
003C 238      DEV$M_REC!-      ;
003C 239      DEV$M_AVL!-      ;
003C 240      DEV$M_IDV!-      ;
003C 241      DEV$M_ODV!-      ;
003C 242      DEV$M_TRM!-      ;
003C 243      DEV$M_CCL>
0043 244      DPT_STORE UCB,UCB$L_DEVCHAR2,L,-      ; DEVICE CHARACTERISTICS
0043 245      <DEV$M_NNM>      ; PREFIX WITH 'NODE$'
004A 246      DPT_STORE UCB,UCB$B_DEVCLASS,B,DC$ TERM;
004E 247      DPT_STORE UCB,UCB$B_TT_DETYPE,B,TT$ UNKNOWN      ; TYPE
0052 248      DPT_STORE UCB,UCB$W_TT_DESIZE,AW,TTY$GW_DEFBUF      ; BUFFER SIZE
0059 249      DPT_STORE UCB,UCB$L_TT_DECHAR,AL,TTY$GL_DEFCHAR      ; DEFAULT CHARACTERS
0060 250      DPT_STORE UCB,UCB$L_TT_DECHA1,AL,TTY$GL_DEFCHAR2      ; DEFAULT CHARACTERS
0067 251      DPT_STORE UCB,UCB$W_TT_DESPEE,AB,TTY$GB_DEFSPEED      ; DEFAULT SPEED
006E 252      DPT_STORE UCB,UCB$W_TT_DESPEE+1,AB,TTY$GB_RSPEED      ; DEFAULT RSPEED
0075 253      DPT_STORE UCB,UCB$B_TT_DEPARI,AB,TTY$GB_PARITY      ; DEFAULT PARITY
007C 254      ;**      DPT_STORE UCB,UCB$B_TT_PARITY,AB,TTY$GB_PARITY      ; DEFAULT PARITY
007C 255      DPT_STORE UCB,UCB$B_TT_DEVTYPE,B,TT$ UNKNOWN      ; TYPE
0080 256      DPT_STORE UCB,UCB$W_DEVBUFSIZ,AW,TTY$GW_DEFBUF      ; BUFFER SIZE
0087 257      DPT_STORE UCB,UCB$L_DEVDEPEND,AL,TTY$GL_DEFCHAR      ; DEFAULT CHARACTERS
008E 258      DPT_STORE UCB,UCB$L_DEVDEPN2,AL,TTY$GL_DEFCHAR2      ; DEFAULT CHARACTERS
0095 259      DPT_STORE UCB,UCB$W_TT_SPEED,AB,TTY$GB_DEFSPEED      ; DEFAULT SPEED
009C 260      DPT_STORE UCB,UCB$W_TT_SPEED+1,AB,TTY$GB_RSPEED      ; DEFAULT RSPEED
00A3 261      DPT_STORE UCB,UCB$B_DIPL,B,21      ; DEVICE IPL
00A7 262      DPT_STORE UCB,UCB$L_TT_WFLINK,L,0      ; Zero write queue.
00AE 263      DPT_STORE UCB,UCB$L_TT_WBLINK,L,0      ; Zero write queue.
00B5 264      DPT_STORE UCB,UCB$L_TT_RTIMOU,L,0      ; Zero read timed out disp.
00BC 265      DPT_STORE ORB,ORB$B_FLAGS,B,-      ; Protection block flags
00BC 266      2ORB$M_PROT 16>      ; SOGW protection word
00C0 267      DPT_STORE ORB,ORB$W_PROT,AW,TTY$GW_PROT      ; Default allocation protection
00C7 268      DPT_STORE ORB,ORB$L_OWNER,AL,TTY$GL_OWNUIC      ; Default owner UIC
00CE 269      DPT_STORE DDB,DDB$L_DDT,D,YC$DDT
00D3 270
00D3 271      DPT_STORE REINIT
00D3 272      DPT_STORE CRB,CRB$L_INTD+4,D,YC$INTINP      ; RECEIVER INTERRUPT
00D8 273      DPT_STORE CRB,CRB$L_INTD2+4,D,YC$INTOUT      ; TRANSMITTER INTERRUPT
00DD 274      DPT_STORE CRB,CRB$L_INTD+VEC$L_INITIAL,D,YC$INITIAL      ; CONTROLLER INIT
00E2 275      DPT_STORE CRB,CRB$L_INTD+VEC$L_UNITINIT,D,YC$INITLINE; UNIT INIT
00E7 276      DPT_STORE END
```

```
0000 277
0000 278          DDTAB  DEVNAM = YC,- ; DUMMY DMF PORT DRIVER DISPATCH TABLE
0000 279          START  = 0,-
0000 280          FUNCTB = 0
0038 281
00000038 282          .PSECT $$$115_DRIVER, LONG
0038 283
0038 284
0038 285 ; THE ASSOCIATED CLASS DRIVER USES THIS TABLE TO COMMAND THE PORT DRIVER.
0038 286 ; THE ADDRESS OF THIS TABLE IS CONTAINED IN THE TERMINAL UCB EXTENSION AREA.
0038 287 ; THE OFFSET DEFINITIONS ARE DEFINED BY TTYDEFS.
0038 288
00000000 0038 289 YC$SIL_ERROR:
0038 290          .LONG 0
003C 291 YC$S_ERROR:
00000000 003C 292          .LONG 0
0040 293 YC$S_DMAXMT_ERROR:
00000000 0040 294          .LONG 0
0044 295 PORT_VECTOR:
0044 296
0044 297
0044 298 ; DMF SPECIFIC DISPATCH TABLE
0044 299
0044 300          $VECINI YC, YC$NULL
007C 301          $VEC  STARTIO, YC$STARTIO ; START NEW OUTPUT
0048 302          $VEC  SET_LINE, YC$SET_LINE ; SET NEW SPEED/PARITY
0050 303          $VEC  DS_SET, YC$DS_SET ; SET OUTPUT MODEM SIGNALS
0054 304          $VEC  XON, YC$XON ; SEND XON SEQUENCE
0058 305          $VEC  XOFF, YC$XOFF ; SEND XOFF SEQUENCE
005C 306          $VEC  STOP, YC$STOP ; STOP OUTPUT
0060 307          $VEC  ABORT, YC$ABORT ; ABORT OUTPUT IN PROGRESS
0068 308          $VEC  RESUME, YC$RESUME ; RESUME STOPPED OUTPUT
006C 309          $VEC  MAINT, YC$MAINT ; INVOKE MAINTENANCE FUNCTION
0078 310          $VEC  FORKRET, YC$FORK ; PORT FORK CALLBACK
007C 311          $VECEND
0080 312
0080 313
0080 314
0080 315 YC$NULL: ; NULL PORT ROUTINE
05 0080 316          RSB
0081 317
```



```
0081 319 .SBTTL REGISTER DEFINITIONS
0081 320
0081 321 :
0081 322 : CSR BIT DEFINITIONS ( CSR ) ( READ/WRITE )
0081 323 : (NOTE: THIS REGISTER MUST ONLY BE READ IN RESPONSE TO A TRANSMIT INTERRUPT.
0081 324 : TO LOAD AN INDIRECT REGISTER, ONLY WRITE OPERATIONS MAY BE USED)
0081 325
0081 326 $VIELD DMFCSR,0,<-
0081 327 <IADDR,5,M>,- : INDERECT REGISTER ADDRESS
0081 328 <CLEAR,1,M>,- : MASTER RESET
0081 329 <RCVINT,1,M>,- : RECEIVER INTERRUPT ENABLE
0081 330 <,1,>,- : DON'T USE THIS BIT
0081 331 <LINE,3,M>,- : LINE NUMBAE (0 - 7)
0081 332 <,1,>,-
0081 333 <DMAERR,1,M>,- : DMA TRANSMIT ERROR
0081 334 <,1,>,-
0081 335 <SNDINT,1,M>,- : TRANSMIT INTERPUPT ENABLE
0081 336 <SNDRDY,1,M>,- : TRANSMITTER READY
0081 337 >
0081 338 :
0081 339 : RECEIVER BUFFER ( CSR+4 ) ( READ ONLY )
0081 340 :
0081 341 $VIELD DMFRCV,0,<-
0081 342 <BUF,8,M>,- : RECEIVER DATA
0081 343 <LINE,3,M>,- : LINE NUMBER (0 - 7)
0081 344 <DS CHG,1,M>,- : DATA SET CHANGE INTERRUPT
0081 345 <PARERR,1,M>,- : PARITY ERROR
0081 346 <FRAMER,1,M>,- : FRAME ERROR
0081 347 <OVERRUN,1,M>,- : OVERRUN ERROR
0081 348 <VALID,1,M>,- : DATA VALID
0081 349 >
0081 350 :
0081 351 : LINE PARAMETER REGISTER ( CSR+2 ) ( WRITE ONLY )
0081 352 :
0081 353 $VIELD DMFLPR,0,<-
0081 354 <LINE,3,M>,- : LINE NUMBER (0-7)
0081 355 <SIZE,2,M>,- : CHARACTER SIZE
0081 356 <PARITY,1,M>,- : PARITY ENABLE
0081 357 <ODD,1,M>,- : ODD PARITY
0081 358 <STOP,1,M>,- : NUMBER STOP BITS
0081 359 <RSPEED,4,M>,- : RECEIVER LINE SPEED
0081 360 <TSPEED,4,M>,- : TRANSMITTER LINE SPEED (BOTH RVC/TX FOR LINES 2-7)
0081 361 >
0081 362 :
0081 363 : LINE CONTROL INDIRECT REGISTER (INDIRECT REGISTER #2)
0081 364 :
0081 365 :
0081 366 $VIELD DMFLCT,0,<-
0081 367 <XMIT,1,M>,- : TRANSMIT ENABLE
0081 368 <AUTOX,1,M>,- : AUTO XON/OFF
0081 369 <RCV,1,M>,- : RECEIVER ENABLE
0081 370 <BREAK,1,M>,- : SEND BREAK
0081 371 <FLUSH,1,M>,- : FLUSH OUTPUT SILO/ABORT TRANSMIT
0081 372 <DS ENABLE,1,M>,- : ENABLE MODEM TRANSITION INTERRUPTS
0081 373 <MAINT,2,M>,- :
0081 374 <,7,>,-
0081 375
```

```
0081 376          <PREMPT,1,M>,- ; PREMPT CURRENT OUTPUT
0081 377          >
0081 378
0081 379 :
0081 380 : MACRO USED TO ACCESS INDIRECT REGISTERS
0081 381 :
0081 382
0081 383          .MACRO GETIND OFFSET,RX
0081 384          MOVL   UCB$C_CRB(R5),R0          ; GET CRB ADDRESS
0081 385          MOVL   @CRB$C_INTD+VEC$C_IDB(R0),R0 ; GET CSR ADDRESS
0081 386          BISW3  #<<^X4040>+<OFFSET*8>>,UCB$W_UNIT(R5),(R0); SELECT INDIRECT FIELD
0081 387          .IF    NB      RX
0081 388          MOVW   6(R0),RX          ; GET CONTENTS OF INDIRECT F
0081 389          .ENDC
0081 390          .ENDM   GETIND
0081 391
0081 392 :
0081 393 : OUTPUT DELAY MACRO
0081 394 : TO RELEASE THE UNIBUS
0081 395          .MACRO DELAY
0081 396          .REPEAT 3
0081 397          NOP
0081 398          .ENDR
0081 399          .ENDM
0081 400
```



```
0081 402 .SBTTL CONTROLLER INITIALIZATION
0081 403
0081 404
0081 405
0081 406 :++
0081 407 : YC$INITIAL - INITIALIZE INTERFACE
0081 408
0081 409 : FUNCTIONAL DESCRIPTION:
0081 410
0081 411 : THIS ROUTINE IS ENTERED AT SYSTEM STARTUP AND POWER RECOVERY.
0081 412
0081 413 : INPUTS:
0081 414
0081 415 : R4 = ADDRESS OF THE UNIT CSR
0081 416 : R5 = IDB OF UNIT
0081 417 : R8 = ADDRESS OF THE UNIT CRB
0081 418
0081 419 : OUTPUTS:
0081 420
0081 421 : R2 is destroyed.
0081 422
0081 423 : IMPLICIT INPUTS:
0081 424
0081 425 : IPL = IPL$ POWER
0081 426
0081 427 :--
0081 428 YC$INITIAL:: ; INITIALIZE DMF UNIT
0081 429
0081 430 : SET UP CONTROLLER
0081 431
0081 432 : CLASS_CTRL_INIT YC$DPT,PORT_VECTOR; RELOCATE THE NECESSARY TABLES
00AD 433 25$:
00AD 434 TSTB CRB$B_TT_TYPE(R8) ; CONTROLLER TYPE INITIALIZED?
00B0 435 BNEQ 30$ ; IF NEQ YES
00B2 436 MOVB #DTS_DMF32,CRB$B_TT_TYPE(R8) ; ASSUME DMF32
00B6 437 TSTB IDB$B_COMBO_VECTOR_OFFSET(R5) ; DMF32 HAS A VECTOR OFFSET OF 16
00B9 438 BNEQ 30$ ; IF NEQ NO, MUST BE A DMZ32
00BB 439 MOVB #DTS_DMZ32,CRB$B_TT_TYPE(R8) ; SET CONTROLLER TYPE DMZ32
00C0 440 30$:
00C0 441 CVTBL IDB$B_COMBO_CSR_OFFSET(R5),R0 ; GET THE OFFSET TO THE MAIN CSR
00C4 442 SUBB3 IDB$B_COMBO_VECTOR_OFFSET(R5),- ; LOAD THE SOFT VECTOR
00C7 443 IDB$B_VECTOR(R5),(R4)[R0]
00CB 444 MOVW #DMFCSR$M_CLEAR,(R4) ; CONTROLLER RESET
00CE 445
00CE 446 :
00CE 447 : WAIT TILL CONTROLLER INITIALIZATION IS COMPLETE
00CE 448 :
00CE 449 : TIMEWAIT #100,#DMFCSR$M_CLEAR,(R4),W,.FALSE.
00F5 450
00F5 451 MOVW #<<DMFCSR$M_RCVINT>>!- ; ENABLE RECEIVER INTERRUPTS
00FA 452 <DMFCSR$M_SNDINT>>,(R4) ; ENABLE TRANSMITTER INTERRUPTS
00FA 453 BLBC R0,YC$CTRL_ERROR
00FD 454
00FD 455
00FD 456 100$:
00FD 457 MOVW G^TTY$GB_SILOTIME,4(R4) ; INIT INPUT SILO TIMEOUT VALUE
0105 458
```

|    |      |     |                 |
|----|------|-----|-----------------|
|    | 0105 | 459 |                 |
|    | 0105 | 460 |                 |
| 05 | 0105 | 461 | RSB             |
|    | 0106 | 462 |                 |
|    | 0106 | 463 | YC\$CTRL_ERROR: |
| 05 | 0106 | 464 | -RSB            |
|    | 0107 | 465 |                 |

```
0107 467 .SBTTL UNIT INITIALIZATION
0107 468
0107 469 : YC$INITLINE - UNIT INITIALIZATION
0107 470 :
0107 471 : FUNCTIONAL DESCRIPTION:
0107 472 :
0107 473 : THIS ROUTINE PERFORMS A SIMPLE UNIT INITIALIZATION.
0107 474 :
0107 475 : INPUTS:
0107 476 :
0107 477 : R5 = UCB ADDRESS
0107 478 :
0107 479 : OUTPUTS:
0107 480 :
0107 481 : R4,R5 ARE PRESERVED.
0107 482 : --
0107 483
0107 484 YC$INITLINE::
50 FF39 CF DE 0107 485 MOVAL YC$VEC,R0 ; GET THE DISPATCH TABLE ADDRESS
64 A5 10 A8 010C 486 CLASS_UNIT_INIT
0155 487 BISW #UCB$M_ONLINE,UCB$W_STS(R5); SET ONLINE
0159 488
53 01 54 A5 78 0159 489 10$: ASHL UCB$W_UNIT(R5),#1,R3 ; BUILD UNIT'S BIT MASK
0106 C5 53 B0 015E 490 MOVW R3,UCB$W_TT_UNITBIT(R5) ; SAVE IT
0163 491
0163 492 BISW #TTY$M_PC_DMAAVL!TTY$M_PC_XOFAVL,-; SHOW DMA FEATURE AVAILABLE FOR U
0122 C5 A8 0165 493 UCB$W_TT_PRTCTL(R5) ; IN PORT LEVEL
0168 494
51 0114 C5 D0 0168 495 MOVL UCB$L_TT_CLASS(R5),R1 ; ADDRESS CLASS VECTOR TABLE
08 B1 16 016D 496 JSB @CLASS_SETUP_UCB(R1) ; INIT UCB FIELDS
0170 497
0170 498 ;SET MODE CODE NEEDS TO TOGGLE THESE BITS
0170 499
00000764'EF 16 0170 500 JSB YC$SET_LINE ; INIT SPEED/PARITY
0176 501
0176 502
0176 503 :
0176 504 : ENABLE LINE RECEIVER , TRANSMITTER AND MODEM INTERRUPTS
0176 505 :
0176 506
64 54 A5 4048 8F A9 0176 507 BISW3 #*X4048,UCB$W_UNIT(R5),(R4) ; SELECT LCT
06 A4 25 B0 017D 508 MOVW #<<DMFLCT$M_XMIT>!-- ; ENABLE TRANSMIT
0181 509 <DMFLCT$M_RCV>!-- ; ENABLE RECEIVE
0181 510 <DMFLCT$M_DS_ENABLE>>,6(R4) ; AND MODEM INTERRUPTS
0181 511 :
0181 512 : INIT RECEIVER MODEM STATUS FOR DMF
0181 513 :
0181 514
64 54 A5 4040 8F A9 0181 515 BISW3 #*X4040,UCB$W_UNIT(R5),(R4) ; SELECT RECV MODEM INDIRECT REG
0124 C5 07 A4 90 0188 516 MOVW 7(R4),UCB$B_TT_DS_RCV(R5) ; UPDATE RECEIVER MODEM STATUS
018E 517
018E 518 25$:
51 51 00 9A 018E 519 MOVZBL #MODEM$C_INIT,R1 ; ASSUME INIT MODEM PROTOCOL
50 0114 C5 D0 0191 520 MOVL UCB$L_TT_CLASS(R5),R0 ; ADDRESS CLASS VECTOR TABLE
0C B0 16 0196 521 JSB @CLASS_DS_TRAN(R0) ; INVOKE TO INIT MODEM PROTOCOL
0199 522
08 64 A5 05 E1 0199 523 30$: BBC #UCB$V_POWER,UCB$W_STS(R5),40$; DID WE DETECT A POWER FAIL
```

```

50 0114 C5 D0 019E 524      MOVL  UCB$L TT CLASS(R5),R0 ; GET THE CLASS VECTOR TABLE ADDRESS
    20 B0 17 01A3 525      JMP   @CLASS_POWERFAIL(R0) ; AND GOTO THE POWERFAIL CODE
    05 01A6 526
    01A6 527 40$: RSB
    01A7 528 :
    01A7 529 : ERROR DETECTED DURING INITIALIZATION
    01A7 530 :
    01A7 531 :
    01A7 532 YC$UNIT_ERROR:
64 A5 10 AA 01A7 533      BICW  #UCB$M_ONLINE,UCB$W_STS(R5) ; UNIT NOT ON LINE
    05 01AB 534      RSB
    01AC 535

```

```
01AC 537 .SBTTL MAINTENANCE ROUTINES
01AC 538 :++
01AC 539 : YC$MAINT - MAINTENANCE FUNCTIONS
01AC 540 :
01AC 541 : FUNCTIONAL DESCRIPTION:
01AC 542 : THIS ROUTINE PERFORMS MAINTENANCE FUNCTIONS FOR THE DMF
01AC 543 : (LOOPBACK IS ONLY ALLOWED ON LINES 0 AND 1)
01AC 544 :
01AC 545 : INPUTS:
01AC 546 :
01AC 547 : R5 = UBC ADDRESS
01AC 548 : UCBSB_TT_MAINT = FUNCTION TO BE PERFORMED
01AC 549 :
01AC 550 : OUTPUTS:
01AC 551 : R0-R4 SCRATCH
01AC 552 :--
01AC 553
01AC 554 YC$MAINT:
012A 01 93 01AC 555 BITB #IOSM_LOOPB-7,- ; LOOPBACK FUNCTION
012A C5 13 01AE 556 UCBSB_TT_MAINT(R5)
012A 0E 80 01B1 557 BEQL 5$ ; NO
012A 12 16 01B3 558 MOVW #TTSM_DS_DTR!TTSM_DS_RTS,- ; SET REQUIRED MODEM LINES
012A 52 3C 01B5 559 R2
00000281'EF 16 01B6 560 JSB YC$DS_SET ; SET THEM TO ALLOW LOOPBACK
012A 02 3C 01BC 561 MOVZWL #^X02,R2 ; SPECIFY LOOPBACK CODE
012A 15 11 01BF 562 BRB 10$
012A 02 93 01C1 563 5$: BITB #IOSM_UNLOOPB-7,- ; RESET LOOPBACK FUNCTION
012A C5 13 01C3 564 UCBSB_TT_MAINT(R5)
012A 42 80 01C6 565 BEQL 15$ ; NO
012A 1300 8F 80 01C8 566 MOVW #256*<TTSM_DS_DTR!TTSM_DS_RTS!^X01>,-; RESET REQUIRED MODEM LINES
012A 52 16 01CC 567 R2
00000281'EF 16 01CD 568 JSB YC$DS_SET ; SET THEM TO ALLOW LOOPBACK
012A 52 00 3C 01D3 569 MOVZWL #^X00,R2 ; SPECIFY UNLOOP CODE
012A 51 24 A5 00 01D6 571 10$: MOVL UCBSL_CRB(R5),R1 ; GET THE CRB ADDRESS
012A 0B A1 45 8F 91 01DA 572 CMPB #DTS_DMZ32,CB$B_TT_TYPE(R1) ; IS THIS A DMZ
012A 06 13 01DF 573 BEQL 12$ ; YES THEN MODEM CONTROL ON ALL UNIT
012A 54 A5 02 B1 01E1 574 CMPW #2,UCBSW_UNIT(R5) ; ALLOWED ON THIS UNIT?
012A 20 15 01E5 575 BLEQ 50$ ; NO
012A 51 02 06 52 F0 01FA 576 GETIND 1,R1 ; GET INDIRECT FIELD
012A 06 A0 51 B0 01FF 577 12$: INSV R2,#DMFLCT$V_MAINT,#2,R1 ; SET MAINT FIELD
012A 50 01 9A 0203 578 MOVW R1,6(P0) ; UPDATE
012A 05 0206 579 MOVZBL #1,R0 ; INDICATE SUCCESS
012A 50 04 0207 580 RSB
012A 50 05 0209 581 50$: CLRL R0
012A 40 8F 93 020A 582 RSB
012A 012A C5 13 020A 583 15$: BITB #IOSM_AUTXOF_ENAB-7,- ; AUTOXON ENABLED
012A 05 13 020B 584 UCBSB_TT_MAINT(R5) ; NO THEN MAYBE DISABLE
012A 20 A8 0210 585 BEQL 17$
012A 0122 C5 0212 586 BISW #TTY$M_PC_XOFAVL,- ; SET THE BIT AVAILABLE
012A 80 8F 93 0214 587 UCBSW_TT_PRTCTL(R5)
012A 0217 588
012A 0217 589 17$: BITB #IOSM_AUTXOF_DISB-7,-
```

```
012A C5      021A 594
      05      13 021D 595
      20      AA 021F 596
0122 C5      0221 597
      0224 598
      0224 599 19$.
      0224 600
      20      93 0224 601
012A C5      0226 602
      0E      13 0229 603
      13      B0 022B 604
      52      16 022D 605
00000281'EF 16 022E 606
      52      00 3C 0234 607
      9D      11 0237 608
      04      93 0239 609 20$.
012A C5      0239 610
      1C      13 023B 611
      51      05 AA 023E 612
      05      AA 0240 613
      51      05 AA 0253 614
06 A0      51 B0 0256 615
      21      11 0256 616
      05      93 025A 617
      10      93 025C 618 30$.
012A C5      025C 619
      A4      13 025E 620
      51      05 A8 0261 621
      05      A8 0263 622
      51      05 A8 0276 623
06 A0      51 B0 0279 624
      50      01 9A 0279 625
      01      05 027D 626
      05      05 027D 627 40$.
      05      05 0280 628
      05      05 0281 629
      05      05 0281 630
```

BEQL UCBSB\_TT\_MAINT(R5) ; AUTOXON disabled  
BICW 19\$ ; no then don't disable it  
UCBSW\_TT\_PRTCTL(R5)

BITB #IOSM\_LOOP\_EXT@-7- ; LOOPBACK FUNCTION  
UCBSB\_TT\_MAINT(R5)  
BEQL 20\$ ; NO  
MOVW #<TTSM\_DS\_DTR!TTSM\_DS\_RTS!^X01>,R2 ; SET REQUIRED MODEM LINES  
JSB YC\$DS\_SET ; SET THEM TO ALLOW LOOPBACK  
MOVZWL #^X00,R2 ; SPECIFY NO LOOPBACK CODE  
BRB 10\$

BITB #IOSM\_LINE\_OFF@-7- ; CHECK OTHER FUNCTIONS  
UCBSB\_TT\_MAINT(R5) ; LINE OFF  
BEQL 30\$ ; NO  
GETIND 1,R1 ; GET FIELD  
BICW #<<DMFLCTSM\_XMIT>!-- ; DISABLE TRANSMIT AND RECEIVE  
<DMFLCTSM\_RCV>>,R1  
MOVW R1,6(R0) ; UPDATE  
BRB 40\$

BITB #IOSM\_LINE\_ON@-7- ; LINE ON  
UCBSB\_TT\_MAINT(R5)  
BEQL 50\$ ; NO  
GETIND 1,R1 ; GET FIELD  
BISW #<<DMFLCTSM\_XMIT>!-- ; ENABLE TRANSMIT AND RECEIVE  
<DMFLCTSM\_RCV>>,R1  
MOVW R1,6(R0) ; UPDATE

MOVZBL #1,R0  
RSB



```
0281 632 .SBTTL OUTPUT MODEM CONTROL
0281 633 :++
0281 634 : YC$DS_SET - SET OUTPUT MODEM SIGNALS
0281 635 :
0281 636 : FUNCTIONAL DESCRIPTION:
0281 637 :
0281 638 : THIS ROUTINE OUTPUTS THE OUTPUT MODEM SIGNALS FOR THE SPECIFIED UNIT
0281 639 :
0281 640 : INPUTS:
0281 641 :
0281 642 :     R2 = LOW BYTE - SIGNALS TO ACTIVATE
0281 643 :     HIGH BYTE- SIGNALS TO DEACTIVATE
0281 644 :
0281 645 :     R5 = UCB ADDRESS
0281 646 :
0281 647 : OUTPUTS:
0281 648 :
0281 649 :     R0-R3 ARE USED.
0281 650 :--
0281 651 :
0281 652 YC$DS_SET:
0281 653     BISB    R2,UCB$B_TT_DS_TX(R5)    ; SET NEW OUTPUT SIGNALS
52 0125 C5 52 88 0281 653     ASHL    #-8,R2,R2    ; ACCESS SIGNALS TO RESET
0281 654     BICB    R2,UCB$B_TT_DS_TX(R5)    ; RESET THEM
0281 655     GETIND  1,-(SP)
0281 656     BICB3   #^X0E0,UCB$B_TT_DS_TX(R5),- ; OR IN OUTPUT MODEM SIGNALS
0290 657     1(SP)
02A3 658     MOVW   (SP)+,6(R0)    ; OUTPUT UPDATED VALUE
02A9 659     RSB
02AB 660
02AF 661
02B0 662
```

0125 C5 52 88  
52 52 F8 8F 78  
0125 C5 52 8A  
0125 C5 E0 8F 8B  
06 A0 01 AE 80  
06 A0 8E 05

```
02B0 664 .SBTTL RECEIVER INTERRUPT SERVICE
02B0 665 :++
02B0 666 : YC$INTINP - DMF RECEIVER READY INTERRUPTS
02B0 667 :
02B0 668 : FUNCTIONAL DESCRIPTION:
02B0 669 :
02B0 670 : THIS ROUTINE IS ENTERED WHEN A CHARACTER IS AVAILABLE IN THE UNIT'S
02B0 671 : SILO. THE CHARACTER IS EXTRACTED AND IS PASSED TO THE ASSOCIATED
02B0 672 : CLASS DRIVER. IF THE CLASS DRIVER RETURNS CHARACTER(S) THEN NEW
02B0 673 : OUTPUT IT INITIATED (NORMALLY ECHO).
02B0 674 :
02B0 675 : INPUTS:
02B0 676 :
02B0 677 : 00(SP) = ADDRESS OF IDB
02B0 678 :
02B0 679 : IMPLICIT INPUTS:
02B0 680 :
02B0 681 : R0,R1,R2,R3,R4,R5 ARE SAVED ON STACK.
02B0 682 :
02B0 683 : OUTPUTS:
02B0 684 :
02B0 685 : THE INTERRUPT IS DISMISSED WHEN THE SILO IS EMPTY.
02B0 686 :
02B0 687 : --
02B0 688 YC$INTINP:: : DMF INPUT INTERRUPTS
02B0 689 :
02B0 690 : GET THE CSR ADDRESS
02B0 691 :
02B0 692 : MOVL 2(SP)+,R4 : GET THE IDB ADDRESS
02B3 693 : PUSHL R4 : SAVE IDB ADDRESS
02B5 694 : MOVL (R4),R0 : GET THE CSR ADDRESS
02B8 695 :
02B8 696 : GET THE CHARACTER FROM THE INTERFACE
02B8 697 :
02B8 698 25$: MOVW 4(R0),R3 : GET THE CHARACTER,ERRORS AND LINE NUMBER
02BC 699 : BGEQ 100$ : SILO EMPTY
02BE 700 : BITW #<DMFRCVSM_PARERR>,-
02C3 701 : <DMFRCVSM_OVERRUN>,-
02C3 702 : <DMFRCVSM_FRAMER>,-
02C3 703 : <DMFRCVSM_DS_CHG>,R3 : ERRORS OR MODEM TRANSITION ?
02C3 704 :
02C3 705 : BNEQ 50$ : YES,PROCESS THEM
02C5 706 27$: ASHL #-8,R3,R2 : GET THE LINE NUMBER
02CA 707 : BICL #^C<7>,R2
02D1 708 : MOVZBL R3,R3 : CLEAR THE HIGH BYTES OF CHARACTER
02D4 709 : MOVL IDB$L_UCBLST(R4)[R2],R5 : GET THE UCB FOR THAT LINE
02D9 710 : BEQL 25$ : IF EQL THEN NOT THERE
02DB 711 : JSB 2UCB$L_TT_PUTNXT(R5) : BUFFER THE CHARACTER
02DF 712 : BLEQ 40$ : NONE OR STRING OUTPUT
02E1 713 : BISW3 #^X4040,UCB$W_UNIT(R5),(R0) : SELECT OUTPUT SILO INDIRECT REGIST
02E8 714 : MOVW R3,6(R0) : OUTPUT CHARACTER
02EC 715 30$: MOVL (SP),R4 : GET IDB ADDRESS
02EF 716 : BRB 25$ : CONTINUE
02F1 717 40$:
02F1 718 : BEQL 30$ : NO CHARACTER
02F3 719 : JSB BURST_OUTPUT : START BURST
02F9 720 : BRB 30$
```

54 9E D0 02B0 692  
50 54 DD 02B3 693  
50 64 DC 02B5 694  
53 04 A0 B0 02B8 698  
53 7800 8F B3 02BE 700  
52 53 F8 8F 78 02C5 706  
52 FFFFFFF8 8F CA 02CA 707  
55 53 53 9A 02D1 708  
55 18 A442 D0 02D4 709  
0110 D5 13 02D9 710  
0110 D5 16 02DB 711  
60 54 A5 4040 8F A9 02E1 713  
06 A0 53 90 02E8 714  
54 6E D0 02EC 715  
C7 11 02EF 716  
F9 13 02F1 717  
00000357 EF 16 02F3 719  
F1 11 02F9 720



```
02FB 721 :
02FB 722 50$:
02FB 723 :
02FB 724 : PROCESS PARITY, FRAME OVERRUN ERROR OR MODEM TRANSITION
02FB 725 :
52 53 FB 8F 78 02FB 726 ASHL #-8,R3,R2 : GET LINE NUMBER
52 FFFFFFFF 8F CA 0300 727 BICL #^C<7>,R2 :
55 18 A442 D0 0307 728 IDB$L_UCBLST(R4)[R2],R5 : GET UCB ADDRESS
19 53 0E 13 030C 729 BEQL 70$ : IF EQL THEN NO UCB
52 0114 C5 D0 030E 730 BBS #DMFRCV$V_DS_CHG,R3,200$ : MODEM TRANSITION
14 B2 16 0312 731 MOVL UCB$L TT CLASS(R5),R2 : GET CLASS DISPATCH
A9 12 0317 732 JSB @CLASS_READERROR(R2) : SIGNAL ERROR
031A 733 BNEQ 27$ : CHARACTER TO ECHO
CE 11 031C 734 70$:
031C 735 BRB 30$
5E 04 C0 031E 736
50 8E 7D 0321 737 100$: ADDL #4,SP : REMOVE IDB ADDRESS
52 8E 7D 0324 738 MOVQ (SP)+,R0 : RESTORE REGISTERS
54 8E 7D 0327 739 MOVQ (SP)+,R2 :
02 032A 740 MOVQ (SP)+,R4 :
032B 741 REI :
60 52 4040 8F A9 032B 742 200$: BISW3 #^X4040,R2,(R0) : SELECT MODEM INDIRECT REGISTER
52 07 A0 9A 032B 743 MOVZBL 7(R0),R2 : GET CURRENT RECEIVE MODEM SIGNALS
0124 C5 52 90 0335 744 MOV B R2,UCB$B TT_DS_RCV(R5) : UPDATE CURRENT INPUT MODEM SIGNALS
51 03 9A 033A 745 MOVZBL #MODEM$C_DATASET,R1 : TRANSITION TYPE IS DATASET
50 DD 033D 746 PUSHL R0 : SAVE CSR ADDRESS
54 0114 C5 D0 033F 747 MOVL UCB$L TT CLASS(R5),R4 : GET CLASS DISPATCH
OC B4 16 0344 748 JSB @CLASS_DS_TRAN(R4) : INVOKE TRANSITION ROUTINE
50 8ED0 0347 749 POPL R0 : RESTORE CSR ADDRESS
FF9F 31 034A 750 BRW 30$
034D 751
034D 752
034D 753
```

```
034D 755 .SBTTL START I/O ROUTINE
034D 756 :++
034D 757 YC$STARTIO - START I/O OPERATION ON DMF
034D 758 :
034D 759 FUNCTIONAL DESCRIPTION:
034D 760 :
034D 761 THIS ROUTINE IS ENTERED FROM THE DEVICE INDEPENDENT TERMINAL STARTIO
034D 762 ROUTINE TO ENABLE OUTPUT INTERRUPTS ON AN IDLE DMF UNIT.
034D 763 :
034D 764 INPUTS:
034D 765 :
034D 766 R3 = CHARACTER AND CC = PLUS
034D 767 ADDRESS AND CC = NEGATIVE
034D 768 :
034D 769 R5 = UCB ADDRESS
034D 770 :
034D 771 OUTPUTS:
034D 772 :
034D 773 R5 = UCB ADDRESS
034D 774 :--
034D 775 .ENABLE LSB
034D 776 YC$STARTIO: : START I/O ON UNIT
034D 777 BGEQ 90$ : SINGLE CHARACTER
034D 778 MOVL UCB$LCRB(R5),R0 : GET CRB OF UNIT
034D 779 MOVL @CRB$_INTD+VEC$_IDB(R0),R0; GET CSR
034D 780 :
034D 781 BURST_OUTPUT:
034D 782 MOVZWL UCB$_TT_OUTLEN(R5),R2 : GET LENGTH
034D 783 BBC #TTY$DMAENA,- : USE SILO IF DMA NOT ENABLED ON THIS LINE
034D 784 UCB$_TT_PRTCTL(R5),SILO_OUTPUT
034D 785 CMPW R2,GTTY$GW_DMASIZE : LARGE ENOUGH FOR DMA
034D 786 BGEQ DMA_START : YES SO DO DMA
034D 787 :
034D 788 SILO_OUTPUT:
034D 789 BISW3 #X4040,UCB$_UNIT(R5),(R0); SELECT TRANSMIT SILO
034D 790 MOVZBL 6(R0),R1 : GET SILO DEPTH
034D 791 SUBL3 R1,#32,R1 : CONVERT TO NUMBER SLOTS AVAILABLE
034D 792 :
034D 793 CMPW R2,R1 : BURST LARGER THAN SILO?
034D 794 BLEQU 50$ : NO
034D 795 MOVZBL R1,R2 : SLOTS AVAILABLE IS MAXIMUM
034D 796 50$:
034D 797 MOVL UCB$_TT_OUTADR(R5),R3 : GET ADDRESS
034D 798 ADDL R2,UCB$_TT_OUTADR(R5) : UPDATE POINTER
034D 799 SUBW R2,UCB$_TT_OUTLEN(R5) : AND COUNT
034D 800 BEQL 60$ : ALL DONE, NO NEED FOR BURST
034D 801 BISW #TTY$TANK_BURST,- : SIGNAL BURST ACTIVE
034D 802 UCB$_TT_HOEN(R5)
034D 803 60$:
034D 804 BLBC R2,70$ : EVEN TRANSFER
034D 805 MOVB (R3)+,6(R0) : OUTPUT ODD BYTE
034D 806 DECL R2 : UPDATE COUNT
034D 807 BEQL 30$ : DONE
034D 808 70$:
034D 809 ASHL #-1,R2,R2 : CONVERT TO WORD COUNT
034D 810 75$:
034D 811 MOVW (R3)+,6(R0)
```

50 24 66 18  
50 2C 80 00  
52 0120 C5 3C  
09 0122 C5 E1  
00000000 GF 52 B1  
60 18  
60 54 A5 4040 8F A9  
51 06 A0 9A  
51 20 51 C3  
51 52 B1  
52 03 1B  
52 51 9A  
53 011C C5 D0  
011C C5 52 C0  
0120 C5 52 A2  
0800 8F AR  
0108 C5  
06 A0 08 52 E9  
83 90  
52 D7  
0F 13  
52 52 FF 8F 78  
06 A0 83 B0

[illegible]

```
03CB 826 .SBTTL PORT DMA ROUTINES
03CB 827 :++
03CB 828 : DMA_START - INITIATE DMA OUTPUT
03CB 829 :
03CB 830 : FUNCTIONAL DESCRIPTION:
03CB 831 :
03CB 832 : THESE ROUTINES ARE CALLED BY THE PORT INPUT INTERRUPT, OUTPUT
03CB 833 : INTERRUPT, AND STARTIO TO INITIATE NEW DAM OUTPUT.
03CB 834 : THEY HANDLE ALLOCATION AND LOADING OF MAP REGISTERS
03CB 835 : TO HANDLE DMA OUTPUT. MAP REGISTERS ARE ALLOCATED IN PAIRS
03CB 836 : TO ALLOW OUTPUT BURSTS UP TO 512 BYTES. TRANSFERS LARGER THAN
03CB 837 : THAT ARE DONE IN SEGMENTS. IF INSUFFICIENT MAPS ARE AVAILABLE,
03CB 838 : THE TRANSFER IS DONE SILO MODE.
03CB 839 :
03CB 840 :
03CB 841 : INPUTS:
03CB 842 :
03CB 843 : R5 = UCB ADDRESS
03CB 844 :
03CB 845 : OUTPUTS:
03CB 846 :
03CB 847 : R5 = UCB ADDRESS
03CB 848 :
03CB 849 : R0 PRESERVED
03CB 850 : R1,R2,R3,R4 DESTROYED
03CB 851 : --
03CB 852 : DMA_START:
03CB 853 : BISW #TTY$M_TANK_DMA,- ; SHOW DMA MODE ACTIVE
03CB 854 : UCBSW_TT_HOCD(R5)
03CB 855 : BICB #TTY$M_TP_ABORT,- ; RESET ANY OLD ABORT REQUESTS
03CB 856 : UCBSB_TP_STAT(R5)
03CB 857 :
03CB 858 : CHECK IF UNIT HAS PERMANENT MAP REGISTERS
03CB 859 :
03CB 860 : BBC #TTY$V_PC_PRMMAP,- ; SKIP IF NOT AUTHORIZED FOR PERM MAPS
03CB 861 : UCBSW_TT_PRTCTL(R5),5$
03CB 862 : BBS #TTY$V_PC_MAPAVL,- ; SKIP FORK IF MAPS ALLOCATED ALREADY
03CB 863 : UCBSW_TT_PRTCTL(R5),DMA_CONTINUE
03CB 864 : 5$:
03CB 865 : BISB #TTY$M_TP_ALLOC,- ; SHOW ALLOC FORK ACTIVE
03CB 866 : UCBSB_TP_STAT(R5)
03CB 867 : MOVL UCBSL_TT_CLASS(R5),R1 ; GET CLASS VECTOR ADDRESS
03CB 868 : JSB @CLASS_FORK(R1) ; FORK TO FIPL FOR MAP
03CB 869 : ; REGISTER ALLOCATION
03CB 870 : RSB ; RETURN TO CALLER WITH
03CB 871 : ; "INT" LEFT ON TO INTERLOCK
03CB 872 : ; OUTPUT. FORK ROUTINE WILL
03CB 873 : ; RESUME AT DMA_ALLOC.
03CB 874 : DMA_ALLOC:
03CB 875 :
03CB 876 :
03CB 877 : 5$:
03CB 878 : MOVZBL #2,R3 ; REQUEST 2 MAP REGISTERS
03CB 879 : JSB G^IOCSALOUBAMAPN ;
03CB 880 :
03CB 881 : SETIPL UCBSB_DIPL(R5) ; INTERLOCK TO DEVICE IPL
03CB 882 : BISW #TTY$M_PC_MAPAVL,- ; SHOW MAP ALLOCATED
```

1000 8F A8  
0108 C5  
0130 C5  
06 0122 03 E1  
49 0122 04 E0  
0130 C5 02 88  
51 0114 C5 D0  
1C B1 16 05  
53 02 9A  
00000000 GF 16  
10 A8

| PC | Op | Op2 | Op3 | Op4 | Op5 | Op6 | Op7 | Op8 | Op9 | Op10 | Op11 | Op12 | Op13 | Op14 | Op15 | Op16 | Op17 | Op18 | Op19 | Op20 | Op21 | Op22 | Op23 | Op24 | Op25 | Op26 | Op27 | Op28 | Op29 | Op30 | Op31 | Op32 | Op33 | Op34 | Op35 | Op36 | Op37 | Op38 | Op39 | Op40 | Op41 | Op42 | Op43 | Op44 | Op45 | Op46 | Op47 | Op48 | Op49 | Op50 | Op51 | Op52 | Op53 | Op54 | Op55 | Op56 | Op57 | Op58 | Op59 | Op60 | Op61 | Op62 | Op63 | Op64 | Op65 | Op66 | Op67 | Op68 | Op69 | Op70 | Op71 | Op72 | Op73 | Op74 | Op75 | Op76 | Op77 | Op78 | Op79 | Op80 | Op81 | Op82 | Op83 | Op84 | Op85 | Op86 | Op87 | Op88 | Op89 | Op90 | Op91 | Op92 | Op93 | Op94 | Op95 | Op96 | Op97 | Op98 | Op99 | Op100 | Op101 | Op102 | Op103 | Op104 | Op105 | Op106 | Op107 | Op108 | Op109 | Op110 | Op111 | Op112 | Op113 | Op114 | Op115 | Op116 | Op117 | Op118 | Op119 | Op120 | Op121 | Op122 | Op123 | Op124 | Op125 | Op126 | Op127 | Op128 | Op129 | Op130 | Op131 | Op132 | Op133 | Op134 | Op135 | Op136 | Op137 | Op138 | Op139 | Op140 | Op141 | Op142 | Op143 | Op144 | Op145 | Op146 | Op147 | Op148 | Op149 | Op150 | Op151 | Op152 | Op153 | Op154 | Op155 | Op156 | Op157 | Op158 | Op159 | Op160 | Op161 | Op162 | Op163 | Op164 | Op165 | Op166 | Op167 | Op168 | Op169 | Op170 | Op171 | Op172 | Op173 | Op174 | Op175 | Op176 | Op177 | Op178 | Op179 | Op180 | Op181 | Op182 | Op183 | Op184 | Op185 | Op186 | Op187 | Op188 | Op189 | Op190 | Op191 | Op192 | Op193 | Op194 | Op195 | Op196 | Op197 | Op198 | Op199 | Op200 | Op201 | Op202 | Op203 | Op204 | Op205 | Op206 | Op207 | Op208 | Op209 | Op210 | Op211 | Op212 | Op213 | Op214 | Op215 | Op216 | Op217 | Op218 | Op219 | Op220 | Op221 | Op222 | Op223 | Op224 | Op225 | Op226 | Op227 | Op228 | Op229 | Op230 | Op231 | Op232 | Op233 | Op234 | Op235 | Op236 | Op237 | Op238 | Op239 | Op240 | Op241 | Op242 | Op243 | Op244 | Op245 | Op246 | Op247 | Op248 | Op249 | Op250 | Op251 | Op252 | Op253 | Op254 | Op255 | Op256 | Op257 | Op258 | Op259 | Op260 | Op261 | Op262 | Op263 | Op264 | Op265 | Op266 | Op267 | Op268 | Op269 | Op270 | Op271 | Op272 | Op273 | Op274 | Op275 | Op276 | Op277 | Op278 | Op279 | Op280 | Op281 | Op282 | Op283 | Op284 | Op285 | Op286 | Op287 | Op288 | Op289 | Op290 | Op291 | Op292 | Op293 | Op294 | Op295 | Op296 | Op297 | Op298 | Op299 | Op300 | Op301 | Op302 | Op303 | Op304 | Op305 | Op306 | Op307 | Op308 | Op309 | Op310 | Op311 | Op312 | Op313 | Op314 | Op315 | Op316 | Op317 | Op318 | Op319 | Op320 | Op321 | Op322 | Op323 | Op324 | Op325 | Op326 | Op327 | Op328 | Op329 | Op330 | Op331 | Op332 | Op333 | Op334 | Op335 | Op336 | Op337 | Op338 | Op339 | Op340 | Op341 | Op342 | Op343 | Op344 | Op345 | Op346 | Op347 | Op348 | Op349 | Op350 | Op351 | Op352 | Op353 | Op354 | Op355 | Op356 | Op357 | Op358 | Op359 | Op360 | Op361 | Op362 | Op363 | Op364 | Op365 | Op366 | Op367 | Op368 | Op369 | Op370 | Op371 | Op372 | Op373 | Op374 | Op375 | Op376 | Op377 | Op378 | Op379 | Op380 | Op381 | Op382 | Op383 | Op384 | Op385 | Op386 | Op387 | Op388 | Op389 | Op390 | Op391 | Op392 | Op393 | Op394 | Op395 | Op396 | Op397 | Op398 | Op399 | Op400 | Op401 | Op402 | Op403 | Op404 | Op405 | Op406 | Op407 | Op408 | Op409 | Op410 | Op411 | Op412 | Op413 | Op414 | Op415 | Op416 | Op417 | Op418 | Op419 |
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```
04B2 940
04B2 941 :
04B2 942 :
04B2 943 :
04B2 944 :
04B2 945 :
04B2 946 :
04B2 947 :
04B2 948 :
52 02 9A 04B2 948 10$: MOVZBL #2,R2
55 84 D0 04B5 949 : MOVL (R4)+,R5 ; GET CONTENTS OF NEXT PTE
04B8 950 :
04B8 951 : THIS CODE ASSUMES THAT DMA IS FROM NONPAGED POOL
04B8 952 :
55 0B 15 00000400 8F F0 04B8 953 : INSV #X400,#21,#11,R5 ; SET VALID BIT, DATA PATH 0
81 55 D0 04C1 954 : MOVL R5,(R1)+ ; LOAD INTO MAP REGISTER
EE 52 F5 04C4 955 : SOBGTR R2,10$
24 BA 04C7 956 :
04C9 957 : PUPR #M<R2,R5> ; RESTORE LENGTH,WRITE BUFFER,UCB
53 09 09 50 F0 04C9 958 : INSV R0,#9,#9,R3 ; COMPUTE UNIBUS ADDRESS
50 53 02 10 EF 04CE 959 : EXTZV #16,#2,R3,R0 ; GET HIGH 2 UNIBUS ADDRESS BITS
52 02 0E 50 F0 04D3 960 : INSV R0,#14,#2,R2 ; MERGE WITH BYTE COUNT
04D8 961 :
04D8 962 : GETIND 2 ; SELECT DMA INDIRECT REGISTERS
06 A0 53 B0 04E7 963 : MOVW R3,6(R0) ; LOAD ADDRESS (INDIRECT REGISTER
04EB 964 : ; AUTO INCREMENTS TO COUNT)
06 A0 52 B0 04EB 965 : MOVW R2,6(R0) ; LOAD COUNT/ INIT TRANSFER
04EF 966 :
50 8ED0 04EF 967 : POPL R0 ; RESTORE CSR ADDRESS
05 04F2 968 : RSB ; RETURN TO CALLER
04F3 969 : ; FORK DISPATCHER, ISR, OR STARTIO
04F3 970 :
04F3 971 :
04F3 972 DMA_DONE: ; DMA COMPLETION
04F3 973 :
04F3 974 :
04F3 975 : BBS #TTY$V_PC_PRMMAP,- ; SKIP FORK IF MAPS PERMANENT
2E 0122 03 E0 04F5 976 : UCBSW TT_PRTCTL(R5),DMA_POST
04 88 04F9 977 : BISB #TTY$M_TP_DLLOC,- ; SHOW DEALLOC FORK ACTIVE
0130 C5 04FB 978 : UCBSB TP_STAT(R5)
51 0114 C5 D0 04FE 979 : MOVL UCBSL-TT-CLASS(R5),R1 ; GET CLASS VECTOR ADDRESS
1C B1 16 0503 980 : JSB @CLASS_FORK(R1) ; SCHEDULE FORK TO FIPL FOR MAP
0506 981 : ; REGISTER DEALLOCATION
05 0506 982 : RSB ; RETURN TO CALLER, FORK WILL RESUME
0507 983 : ; AT DMA_DEALLOC
0507 984 :
0507 985 DMA_DEALLOC:
50 24 A5 D0 0507 986 : MOVL UCBSL_CRB(R5),R0 ; GET CRB ADDRESS
012C C5 D0 050B 987 : MOVL UCBSL_TP_MAP(R5),-
34 A0 050F 988 : CRBSL_INTD+VECSW_MAPREG(R0); RESTORE MAP FIELD IN CRB
06 13 0511 989 : BIEQL 5$ ; SKIP IF NONE
00000000 GF 16 0513 990 : JSB G*IOCSRELMAPREG ; RELEASE MAP REGISTERS
0519 991 :
0519 992 5$: SETIPL UCBSB DIPL(R5) ; INTERLOCK TO DEVICE IPL
051D 993 : BICW #TTY$M_PC_MAPAVL,- ; SHOW MAP ALLOCATED
0122 C5 051F 994 : UCBSW TT_PRTCTL(R5)
04 8A 0522 995 : BISB #TTY$M_TP_DLLOC,- ; SHOW DEALLOC FORK DONE
0130 C5 0524 996 : UCBSB_TP_STAT(R5)
```



```
0527 997
0527 998 DMA_POST:
0527 999 BICB #TTY$M_TP_ABORT - ; RESET ABORT REQUEST
0130 C5 8A 0529 1000 UCBSB_TP_STAT(R5)
1000 8F AA 052C 1001 BICW #TTY$M_TANK_DMA - ; RESET DMA MODE
0108 C5 0530 1002 UCBSW_TP_HOLD(R5)
0533 1003
0533 1004 : CALL GETNEXT TO CONTINUE PROCESSING
0533 1005 :
0533 1006 BICB #UCBSM_TIM!UCBSM_INT,- ; CLEAR TIMEOUT AND INT EXPECTED
03 8A 0535 1007 UCBSW_STS(R5)
64 A5 0537 1008 JSB @UCBSM_TP_GETNXT(R5) ; GET NEXT BURST
010C D5 16 053B 1009 BRW YC$STARTIO ; AND PROCEED
FE0F 31 053E 1010
053E 1011 YC$FORK:
053E 1012 :
053E 1013 SAVIPL ; SAVE CURRENT IPL ON THE STACK
00000559'EF DF 0541 1014 PUSHAL 20$ ; BUILD RETURN ADDRESS ON STACK
01 E1 0547 1015 BBC #TTY$V_TP_ALLOC - ; SKIP IF NOT ALLOCATE FORK
03 0130 C5 0549 1016 UCBSB_TP_STAT(R5),10$
FEA1 31 054D 1017 BRW DMA_ALLOC ; RESUME AT ALLOCATE CODE THREAD
0550 1018 10$:
03 0130 C5 0550 1018 BBC #TTY$V_TP_DLOC - ; CHECK FOR DEALLOCATE
02 E1 0552 1019 UCBSB_TP_STAT(R5),20$
FFAE 31 0556 1020 BRW DMA_DEALLOC
0559 1021 20$:
0559 1022 ENBINT ; RESTORE SAVED FORK IPL FROM STACK
055C 1023
05 055C 1024 RSB
055D 1025
055D 1026
```

```
055D 1028 .SBTTL PORT ROUTINES STOP,RESUME,XON,XOFF
055D 1029 :++
055D 1030 : YC$XOFF - SEND XOFF
055D 1031 : YC$XON - SEND XON
055D 1032 : YC$STOP - STOP OUTPUT
055D 1033 : YC$ABORT - ABORT CURRENT OUTPUT
055D 1034 : YC$RESUME - RESUME STOPPED OUTPUT
055D 1035
055D 1036 : FUNCTIONAL DESCRIPTION:
055D 1037
055D 1038 : THESE ROUTINES ARE USED BY THE THE TERMINAL CLASS DRIVER TO
055D 1039 : CONTROL OUTPUT ON THE PORT
055D 1040
055D 1041 : INPUTS:
055D 1042
055D 1043 : R5 = UCB ADDRESS
055D 1044
055D 1045 : OUTPUTS:
055D 1046
055D 1047 : R5 = UCB ADDRESS
055D 1048 :--
055D 1049
055D 1050 : SCHEDULE XOFF OR XON TO BE SEND
055D 1051
055D 1052 : INPUTS:
055D 1053
055D 1054 : R3 - CONTAINS THE CHARACTER TO SEND AS FLOW CONTROL.
055D 1055
055D 1056 YC$XOFF:
055D 1057 YC$XON:
055D 1058 : PUSH R0,R1
055D 1059 : GETIND 1,R1
055D 1060 : BISW3 #DMFLCT$M_PREMPT,R1,6(R0) : PREMPT ANY CURRENT OUTPUT
055D 1061 : BISW3 #X4040,UCB$W_UNIT(R5),(R0) : SELECT TRANSMIT SILO
055D 1062 : MOV B,R3,6(R0) : OUTPUT CHARACTER
055D 1063 : POP R0,R1
055D 1064 : RSB
055D 1065 :
055D 1066 : STOP PORT OUTPUT
055D 1067 :
055D 1068 YC$STOP:
055D 1069 : PUSH R0,R1
055D 1070 : BICB #UCB$M_INT!UCB$M_TIM,- : RESET TIMER AND OUTPUT ACTIVE
055D 1071 : UCB$W_STS(R5)
055D 1072 : GETIND 1
055D 1073 :
055D 1074 : BBC #TTY$V_PC_XOFFAVL,UCB$W_TT_PRTCTL(R5),10$: AUTOXON XOFF AVAILABLE ON
055D 1075 : : YES THEN IS
055D 1076 : BBS #TTY$V_PC_XOFFENA,UCB$W_TT_PRTCTL(R5),20$: AUTOXON XOFF ENABLED
055D 1077 : BICW2 #DMFLCT$M_XMIT,6(R0) : RESET TRANSMIT ENABLE
055D 1078 :
055D 1079 : POP R0,R1
055D 1080 : RSB
055D 1081 :
055D 1082 : ABORT ANY CURRENT PORT OUTPUT ACTIVITY
055D 1083 :
055D 1084 YC$ABORT:
```

06 A0 51 8000 8F A9 0572 1060  
60 54 A5 4040 8F A9 0579 1061  
06 A0 53 90 0580 1062  
03 03 BA 0584 1063  
05 05 0586 1064  
0587 1065  
0587 1066  
0587 1067  
0587 1068  
03 BB 0587 1069  
03 8A 0589 1070  
64 A5 058B 1071  
058D 1072  
059C 1073  
06 0122 C5 05 E1 059C 1074  
05A2 1075  
04 0122 C5 06 E0 05A2 1076  
06 A0 01 AA 05A8 1077  
05AC 1078  
03 BA 05AC 1079  
05 05AE 1080  
05AF 1081  
05AF 1082  
05AF 1083  
05AF 1084



```
0108 C5 03 BB 05AF 1085      PUSHR  #^M<R0,R1>
00      08 E5 05B1 1086      BBCC    #TTY$V_TANK_BURST,UCB$W_TT_HOLD(R5),- ; RESET BURST ACTIVE
00      00      05B6 1087      10$
00      00      05B7 1088      10$:
00      00      05B7 1089      GETIND  1
06 A0 01 A8 05C6 1090      BISW2    #<DMFLCT$M_XMIT>,6(R0) ; SET XMIT
09 64 A5 01 E1 05CA 1091      BBC     #UCB$V_INT,UCB$W_STS(R5),15$ ; SKIP IF NOT BUSY.
06 A0 10 A8 05CF 1092      BISW2    #<DMFLCT$M_FLUSH>,6(R0) ; FLUSH OUTPUT
0130 C5 01 88 05D3 1093      BISB     #TTY$M_TP_ABORT,UCB$B_TP_STAT(R5) ; REQUEST DMA ABORT
00      00      05D8 1094      15$:
00      00      05D8 1095      POPR    #^M<R0,R1>
00      00      05DA 1096      RSB
00      00      05DB 1097
00      00      05DB 1098
00      00      05DB 1099      ; RESUME PREVIOUSLY STOPPED PORT OUTPUT
00      00      05DB 1100
00      00      05DB 1101      YC$RESUME:
0F BB 05DB 1102      PUSHR  #^M<R0,R1,R2,R3>
00      00      05DD 1103      GETIND  1
00      00      05EC 1104
06 0122 C5 05 E1 05EC 1105      BBC     #TTY$V_PC_XOFFAVL,UCB$W_TT_PRTCTL(R5),10$; AUTOXON XOFF AVAILABLE ON
04 0122 C5 06 E0 05F2 1106      ; NO THEN RESUME TRANSMISSION
00      00      05F2 1107      BBS     #TTY$V_PC_XOFFENA,UCB$W_TT_PRTCTL(R5),20$; AUTOXON XOFF ENABLED
00      00      05F8 1108      ; YES THEN DON'T ENABLE THE
06 A0 01 A8 05F8 1109      10$: BISW2    #DMFLCT$M_XMIT,6(R0) ; ENABLE TRANSMIT
38 64 A5 01 E0 05FC 1110      20$: BBS     #UCB$V_INT,UCB$W_STS(R5),40$ ; SKIP IF OUTPUT ON
00      00      0601 1111      BBS     #TTY$V_TANK_DMA,UCB$W_TT_HOLD(R5),50$ ; SPECIAL IF DMA ACTIVE
2C 0108 C5 0B E1 0607 1112      BBC     #TTY$V_TANK_BURST,UCB$W_TT_HOLD(R5),40$ ; NO BURST IN PROGRESS
00      00      060D 1114      ; (RESET ANYWAY. WILL BE
00      00      060D 1115      ; SET IF NEEDED BY BURST_OUT
60 54 A5 4040 8F A9 060D 1116      BISW3    #^X4040,UCB$W_UNIT(R5),(R0) ; SELECT TRANSMIT SILO
51 06 A0 9A 0614 1117      MOVZBL  6(R0),R1 ; GET SILO DEPTH
00      00      0618 1118      TIMSET  R1,R1,LOCKOUTPUT ; COMPUTE TIMEOUT AND
00      00      0639 1119      ; SET INTERRUPT EXPECTED
00      00      0639 1120
00      00      0639 1121      40$:
0F BA 0639 1122      POPR    #^M<R0,R1,R2,R3>
00      00      063B 1123      RSB
00      00      063C 1124
00      00      063C 1125      50$:
60 54 A5 4058 8F A9 063C 1126      BISW3    #^X4058,UCB$W_UNIT(R5),(R0) ; GET CURRENT BYTE COUNT
51 06 A0 3C 0643 1127      MOVZWL  6(R0),R1
51 C000 8F AA 0647 1128      BICW    #^X0C000,R1 ; MASK OFF ADDRESS BITS
00      00      064C 1129      TIMSET  R1,R1,LOCKOUTPUT ; COMPUTE TIMEOUT AND
00      00      066D 1130      ; SET INTERRUPT EXPECTED
00      00      066D 1131      BRB     40$
00      00      066F 1132
```

```
066F 1134 .SBTTL OUTPUT INTERRUPT SERVICE
066F 1135 :++
066F 1136 : YC$INTOUT - DMF OUTPUT INTERRUPT SERVICE
066F 1137 :
066F 1138 : FUNCTIONAL DESCRIPTION:
066F 1139 :
066F 1140 : THIS ROUTINE IS ENTERED WHEN THE DMF FINDS A LINE ENABLED
066F 1141 : AND AN EMPTY UART. THE CORRESPONDING UCB IS FOUND AND
066F 1142 : ANY OUTSTANDING PORT OUTPUT IS DONE. WHEN ALL OUTSTANDING PORT
066F 1143 : OUTPUT IS COMPLETED, THE CLASS DRIVER IS CALLED TO RETURN THE NEXT
066F 1144 : CHARACTER OR STRING TO BE OUTPUT. IF NO MORE OUTPUT IS FOUND, THEN
066F 1145 : THE LINE IS DISABLED.
066F 1146 :
066F 1147 : INPUTS:
066F 1148 :
066F 1149 : SP(00) = ADDRESS OF THE IDB
066F 1150 :
066F 1151 : IMPLICIT INPUTS:
066F 1152 :
066F 1153 : R0,R1,R2,R3,R4,R5 SAVED ON THE STACK.
066F 1154 :
066F 1155 : OUTPUTS:
066F 1156 :
066F 1157 : THE INTERRUPT IS DISMISSED.
066F 1158 :
066F 1159 :--
066F 1160 YC_OUT_EXIT:
066F 1161 ADDL #4,SP ; EXIT OUTPUT INTERRUPT
0672 1162 MOVQ (SP)+,R0 ; REMOVE IDB ADDRESS
0675 1163 MOVQ (SP)+,R2 ; RESTORE REGISTERS
0678 1164 MOVQ (SP)+,R4 ;
067B 1165 REI ; DISMISS INTERRUPT
067C 1166
067C 1167 YC$INTOUT:: ; DMF OUTPUT INTERRUPT SERVICE
067C 1168
067C 1169 YC_OUT_LOOP:
067C 1170 MOVL @ (SP),R4 ; GET THE IDB ADDRESS
0680 1171 MOVL (R4),R0 ; GET THE CSR ADDRESS
0683 1172 :
0683 1173 : GET THE LINE INFO FROM THE CSR
0683 1174 :
0683 1175 :
0683 1176 MOVW (R0),R2 ; GET THE CSR VALUE
0686 1177 BGEQ YC_OUT_EXIT ; NO MORE LINES
0688 1178 ASHL #-8,R2,R1 ; GET THE LINE NUMBER
068D 1179 BICL #^C<7>,R1 ;
0694 1180 MOVL IDB$L_UCBLST(R4)[R1],R5 ; GET THE UCB ADDRESS
0699 1181 BEQL YC_OUT_LOOP ; IF EQL THEN DISMISS
069B 1182 :
069B 1183 : CHECK TO MAKE SURE NO DATA IS PENDING BEFORE ASKING FOR MORE
069B 1184 :
069B 1185 BISW3 #^X4040,UCB$W_UNIT(R5),(R0); GET THE SILO INDIRECT REGISTER
06A2 1186 TSTB 6(R0) ; ANY DATA STILL IN THE SILO
06A5 1187 BNEQ 40$ ; YES THEN LET IT COMPLETE
06A7 1188 :
06A7 1189 : CHECK FOR BURST OR DMA ACTIVE ON LINE
06A7 1190 :
```

5E 04 C0  
50 8E 7D  
52 8E 7D  
54 8E 7D  
02

54 00 BE D0  
50 64 D0

52 60 B0  
E7 18  
51 52 F8 8F 78  
51 FFFF F8 8F CA  
55 18 A441 D0  
E1 13

60 54 A5 4040 8F A9  
06 A0 95  
27 12

```
0109 08 91 06A7 1191
      C5 13 06A7 1192      CMPB #TTY$M_TANK_BURST@-8,- ; ONLY BURST ACTIVE?
      2C 13 06A9 1193      UCB$W_TT_HOLD+1(R5)
      10 93 06AC 1194      BEQL YC_SICO ; YES, CONTINUE SILO OUTPUT
0109 10 93 06AE 1195
      C5 12 06AE 1196      BITB #TTY$M_TANK_DMA@-8,- ; DMA ACTIVE?
      7A 12 06B0 1197      UCB$W_TT_HOLD+1(R5)
      12 06B3 1198      BNEQ YC_DMA_INTERRUPT ; YES, PROCESS IT.
      06B5 1199
      06B5 1200 : NO PENDING DATA - LOOK FOR NEXT CHARACTER
      06B5 1201
64 A5 03 8A 06B5 1202 10$: BICB #UCB$M_TIM!UCB$M_INT,UCB$W_STS(R5); CLEAR TIMEOUT AND EXPECTED
      06B9 1203
      06B9 1204 : CALL CLASS DRIVER FOR MORE OUTPUT
      06B9 1205
010C D5 16 06B9 1206      JSB @UCB$W_TT_GETNXT(R5) ; GET THE NEXT CHARACTER
      15 19 06BD 1207      BLSS YC_START_BURST ; BURST SPECIFIED
      BB 13 06BF 1208      BEQL YC_OUT_LOOP ; NONE
      06C1 1209
      06C1 1210 : OUTPUT A CHARACTER TO THE DMF
      06C1 1211
      06C1 1212 20$:
60 54 A5 4040 8F A9 06C1 1213      BISW3 #^X4040,UCB$W_UNIT(R5),(R0) ; SELECT OUTPUT SILO INDIRECT REGIST
      06  A0 53 90 06C8 1214      MOVW R3,6(R0) ; OUTPUT CHARACTER
      AE 11 06CC 1215      BRB YC_OUT_LOOP
      06CE 1216
      F966 CF D6 06CE 1217 40$: INCL YC$W_SIL_ERROR
      AB 11 06D2 1218      BRB YC_OUT_LOOP
```

```
06D4 1220
06D4 1221 YC_START BURST:
FC7F CF 16 06D4 1222 JSB BURST_OUTPUT ; START OUTPUT SILO OR DMA
A2 11 06D8 1223 BRB YC_OUT_LOOP
06DA 1224
06DA 1225 :
06DA 1226 : CONTINUE SILO OUTPUT
06DA 1227 :
06DA 1228 YC_SILO:
60 54 A5 4040 8F A9 06DA 1229 BISW3 #^X4040,UCB$W_UNIT(R5),(R0) ; SELECT OUTPUT SILO INDIRECT REGIST
51 06 A0 9A 06E1 1230 MOVZBL 6(R0),R1 ; GET SILO DEPTH
51 20 51 C3 06E5 1231 SUBL3 R1,#32,R1 ; CONVERT TO NUMBER SLOTS AVAILABLE
06E9 1232
52 0120 C5 3C 06E9 1233 MOVZWL UCB$W_TT_OUTLEN(R5),R2 ; GET CURRENT LENGTH
53 011C C5 D0 06EE 1234 MOVL UCB$W_TT_OUTADR(R5),R3 ; GET CURRENT ADDRESS
51 52 B1 06F3 1235 CMPW R2,R1 ; BURST LARGER THAN SILO?
52 03 1B 06F6 1236 BLEQU 50$ ; NO
52 51 9A 06F8 1237 MOVZBL R1,R2 ; MAXIMUM
06F8 1238 50$:
011C C5 52 C0 06F8 1239 ADDL R2,UCB$W_TT_OUTADR(R5) ; UPDATE POINTER
0120 C5 52 A2 0700 1240 SUBW R2,UCB$W_TT_OUTLEN(R5) ; AND COUNT
07 12 0705 1241 BNEQ 60$ ; NOT DONE
0800 8F AA 0707 1242 BICW #TTY$M_TANK_BURST,- ; RESET BURST ACTIVE
0108 C5 0708 1243 UCB$W_TT_HOLD(R5)
52 D5 070E 1244 60$: TSTL R2 ; ANY ROOM AT ALL
1A 13 0710 1245 BEQL 80$ ; NO THEN EXIT
0712 1246
06 A0 08 52 E9 0712 1247 BLBC R2,70$ ; EVEN TRANSFER
83 90 0715 1248 MOVW (R3)+,6(R0) ; OUTPUT ODD BYTE
52 D7 0719 1249 DECL R2 ; UPDATE COUNT
OF 13 071B 1250 BEQL 80$ ; DONE
071D 1251 70$:
52 52 FF 8F 78 071D 1252 ASHL #-1,R2,R2 ; CONVERT TO WORD COUNT
0722 1253 75$:
06 A0 83 B0 0722 1254 MOVW (R3)+,6(R0)
0726 1255 DELAY ; TO RELEASE THE UNIBUS
F6 52 F5 0729 1256 SOBGTR R2,75$ ; LOOP TILL DONE
072C 1257
FF4D 31 072C 1258 80$: BRW YC_OUT_LOOP
072F 1259
072F 1260
072F 1261 YC_DMA_INTERRUPT:
04 FF49 CF DF 072F 1262 PUSHAL YC_OUT_LOOP ; BUILD RETURN ADDRESS ON STACK
52 0C E1 0733 1263 BBC #DMFCSR$V_DMAERR,R2,30$ ; CHECK FOR A DMA ERROR
F905 CF D6 0737 1264 INCL YC$L_DMAXMT_ERROR ; ERROR OCCURED INCREMENT COUNTS
073B 1265 30$:
06 93 073B 1266 BITB #TTY$M_TP_ALLOC!TTY$M_TP_DLLOC,- ;CHECK FOR FORKS ACTIVE
0130 C5 073D 1267 UCB$B_TP_STAT(R5) ; AND IGNORE IF SO
21 12 0740 1268 BNEQ 10$
0130 C5 00 E0 0742 1269 BBS #TTY$V_TP_ABORT,UCB$B_TP_STAT(R5),- ; ABORT ACTIVE DMA
18 0747 1270 20$
60 54 A5 4058 8F A9 0748 1271 BISW3 #^X4058,UCB$W_UNIT(R5),(R0); GET CURRENT BYTE COUNT
51 06 A0 3C 074F 1272 MOVZWL 6(R0),R1
51 C000 8F AA 0753 1273 BICW #^X0C000,R1 ; MASK OFF ADDRESS BITS
06 13 0758 1274 BEQL 20$ ; DMA BYTE COUNT DONE.
F8DE CF D6 075A 1275 INCL YC$L_ERROR
03 11 075E 1276 BRB 10$ ; NO THEN CONTINUE
```

|      |    |      |      |       |     |              |
|------|----|------|------|-------|-----|--------------|
| FCC9 | 31 | 0760 | 1277 |       |     |              |
|      |    | 0760 | 1278 | 20\$: |     |              |
|      |    | 0760 | 1279 |       | BRW | DMA_CONTINUE |
|      |    | 0763 | 1280 |       |     |              |
|      |    | 0763 | 1281 |       |     |              |
|      |    | 0763 | 1282 |       |     |              |
|      |    | 0763 | 1283 |       |     |              |
|      |    | 0763 | 1284 | 10\$: |     |              |
|      | 05 | 0763 | 1285 |       | RSB |              |
|      |    | 0764 | 1286 |       |     |              |

; OTHERWISE, CONTINUE THE DMA  
; IF THIS INTERRUPT WAS THE RESULT  
; OF AN ABORT, THIS WILL BE HANDLED  
; BY DMA\_CONTINUE

```
0764 1288 .SBTTL SET SPEED, PARITY PARAMETERS
0764 1289
0764 1290 :++
0764 1291 : YC$SET_LINE - RESET SPEED, PARITY
0764 1292 :
0764 1293 : FUNCTIONAL DESCRIPTION:
0764 1294 :
0764 1295 : INPUTS:
0764 1296 :
0764 1297 : R5 - UCB ADDRESS
0764 1298 :
0764 1299 : OUTPUTS:
0764 1300 :
0764 1301 : R4 USED
0764 1302 :--
0764 1303
0764 1304 YC$SET_LINE:
0764 1305 PUSHL R3
0764 1306 MOVL UCB$L_CRB(R5),R4 ; ADDRESS CRB
0764 1307 MOVL @CRB$C_INTD+VEC$L_IDB(R4),R4 ; GET THE CSR ADDRESS VIA CRB
0764 1308 BISW3 #^X4048,UCB$W_UNIT(R5),(R4) ; GET THE RIGHT INDIRECT REGISTER
0775 1309 BBC #TTY$V_PC_XOFFAVL,UCB$W_TT_PRTCTL(R5),4$ ; AUTOXON XOFF AVAILABLE ON T
0778 1310 ; YES THEN IS
0778 1311 BBS #TTY$V_PC_XOFFENA,UCB$W_TT_PRTCTL(R5),2$ ; AUTOXON XOFF ENABLED
0781 1312 BICW #DMFLCT$M_AUTOX,6(R4) ; NO THEN CLEAR THE AUTOXOFF ENABLE
0785 1313 BRB 4$ ; AND CONTINUE
0787 1314 BISW #DMFLCT$M_AUTOX,6(R4) ; ENABLED THEN SET AUTOXOFF
0788 1315 2$:
0788 1316 4$:
0788 1316 CLRL -(SP) ; RESET A TEMPORARY LOCATION
078D 1317 :
078D 1318 : SET UP LINE SPEED AND PARITY
078D 1319 :
078D 1320 :
078D 1321 TSTB UCB$W_TT_SPEED+1(R5) ; RECEIVE SPEED SPECIFIED?
0791 1322 BNEQ 5$ ; YES
0793 1323 MOVB UCB$W_TT_SPEED(R5),- ; NO, SO USE TRANSMITTER SPEED
0797 1324 UCB$W_TT_SPEED+1(R5)
079A 1325 5$: SUBB3 #1,UCB$W_TT_SPEED(R5),R3 ; ADJUST TRANSMIT SPEED
07A0 1326 INSV R3,#DMFLPR$V_TSPEED,#4,(SP) ; SET TRANSMIT SPEED
07A5 1327 SUBB3 #1,UCB$W_TT_SPEED+1(R5),R3 ; ADJUST RECEIVER SPEED
07AB 1328 INSV R3,#DMFLPR$V_RSPEED,#4,(SP) ; SET RECEIVE SPEED
07B0 1329 :
07B0 1330 : NONSTANDARD PARITY/STOP LAYOUT
07B0 1331 :
07B0 1332 EXTV #UCB$V_TT_LEN,#2,UCB$B_TT_PARITY(R5),R3 ; GET CHAR SIZE
07B7 1333 INSV R3,#DMFLPR$V_SIZE,#2,(SP) ; SET IT
07BC 1334 EXTV #UCB$V_TT_PARTY,#2,UCB$B_TT_PARITY(R5),R3 ; GET PARITY/ODD
07C3 1335 INSV R3,#DMFLPR$V_PARITY,#2,(SP) ;
07C8 1336 XORB #DMFLPR$M_ODD,(SP) ; INVERT PARITY BIT
07CC 1337 EXTV #UCB$V_TT_STOP,#1,UCB$B_TT_PARITY(R5),R3 ; GET STOP
07D3 1338 INSV R3,#DMFLPR$V_STOP,#1,(SP) ;
07D8 1339 :
07D8 1340 BICW #^X0007,(SP) ; CLEAR SPECIAL FIELDS
07DB 1341 BISW UCB$W_UNIT(R5),(SP) ; SET LINE NUMBER
07DF 1342 (VTLW (SP)+7,2(R4) ; INSERT AS LINE PARAMETER
07E3 1343 POPL R3
07E6 1344 RSB
```



YCDRIVER  
V04-000

- Port Driver for DMF Async  
SET SPEED, PARITY PARAMETERS

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YFC  
V04

07E7 1345  
07E7 1346  
07E7 1347  
07E7 1348 YCSEND:  
07E7 1349  
07E7 1350 .END

; End of driver

YCDRIVER  
Symbol table

- Port Driver for DMF Async

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\$\$\$  
\$\$OP  
AT\$\_UBA  
BIT...  
BURST\_OUTPUT  
CLASS\_DDT  
CLASS\_DS\_TRAN  
CLASS\_FORK  
CLASS\_GETNXT  
CLASS\_POWERFAIL  
CLASS\_PUTNXT  
CLASS\_READERROR  
CLASS\_SETUP\_UCB  
CRBSB\_TT\_TYPE  
CRBSL\_INTD  
CRBSL\_INTD2  
DC\$ TERM  
DDBSL\_DDT  
DEVSM\_AVL  
DEVSM\_CCL  
DEVSM\_IDV  
DEVSM\_NNM  
DEVSM\_ODV  
DEVSM\_REC  
DEVSM\_TRM  
DMA\_ALOC  
DMA\_CONTINUE  
DMA\_DEALLOC  
DMA\_DONE  
DMA\_POST  
DMA\_START  
DMFCSRSM\_CLEAR  
DMFCSRSM\_DMAERR  
DMFCSRSM\_IADDR  
DMFCSRSM\_LINE  
DMFCSRSM\_RCVINT  
DMFCSRSM\_SNDINT  
DMFCSRSM\_SNDRDY  
DMFCSRSS\_CLEAR  
DMFCSRSS\_DMAERR  
DMFCSRSS\_IADDR  
DMFCSRSS\_LINE  
DMFCSRSS\_RCVINT  
DMFCSRSS\_SNDINT  
DMFCSRSS\_SNDRDY  
DMFCSRSV\_CLEAR  
DMFCSRSV\_DMAERR  
DMFCSRSV\_IADDR  
DMFCSRSV\_LINE  
DMFCSRSV\_RCVINT  
DMFCSRSV\_SNDINT  
DMFCSRSV\_SNDRDY  
DMFLCTSM\_AUTOX  
DMFLCTSM\_BREAK  
DMFLCTSM\_DS\_ENABLE  
DMFLCTSM\_FLUSH  
DMFLCTSM\_MAINT

= 00000020 R 02  
= 00000002  
= 00000001  
= 00000010  
= 00000357 R 03  
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= 00000200  
= 08000000  
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= 00000004  
000003F1 R 03  
0000042C R 03  
00000507 R 03  
000004F3 R 03  
00000527 R 03  
000005CB R 03  
= 00000020  
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DMFLCTSM\_PREMPT  
DMFLCTSM\_RCV  
DMFLCTSM\_XMIT  
DMFLCTSS\_AUTOX  
DMFLCTSS\_BREAK  
DMFLCTSS\_DS\_ENABLE  
DMFLCTSS\_FLUSH  
DMFLCTSS\_MAINT  
DMFLCTSS\_PREMPT  
DMFLCTSS\_RCV  
DMFLCTSS\_XMIT  
DMFLCTSV\_AUTOX  
DMFLCTSV\_BREAK  
DMFLCTSV\_DS\_ENABLE  
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DMFLCTSV\_PREMPT  
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DMFLPRSM\_LINE  
DMFLPRSM\_ODD  
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DMFLPRSM\_RSPEED  
DMFLPRSM\_SIZE  
DMFLPRSM\_STOP  
DMFLPRSM\_TSPEED  
DMFLPRSS\_LINE  
DMFLPRSS\_ODD  
DMFLPRSS\_PARITY  
DMFLPRSS\_RSPEED  
DMFLPRSS\_SIZE  
DMFLPRSS\_STOP  
DMFLPRSS\_TSPEED  
DMFLPRSV\_LINE  
DMFLPRSV\_ODD  
DMFLPRSV\_PARITY  
DMFLPRSV\_RSPEED  
DMFLPRSV\_SIZE  
DMFLPRSV\_STOP  
DMFLPRSV\_TSPEED  
DMFRCVSM\_BUF  
DMFRCVSM\_DS\_CHG  
DMFRCVSM\_FRAMER  
DMFRCVSM\_LINE  
DMFRCVSM\_OVERRUN  
DMFRCVSM\_PARERR  
DMFRCVSM\_VALID  
DMFRCVSS\_BUF  
DMFRCVSS\_DS\_CHG  
DMFRCVSS\_FRAMER  
DMFRCVSS\_LINE  
DMFRCVSS\_OVERRUN  
DMFRCVSS\_PARERR  
DMFRCVSS\_VALID  
DMFRCVSV\_BUF  
DMFRCVSV\_DS\_CHG  
DMFRCVSV\_FRAMER

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= 0000000D

YFC  
V04



YCDRIVER  
Symbol table

- Port Driver for DMF Async

G 5

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V04

|                            |       |          |   |    |                   |       |          |   |    |
|----------------------------|-------|----------|---|----|-------------------|-------|----------|---|----|
| DMFRCVSV_LINE              | =     | 00000008 |   |    | SILO_OUTPUT       |       | 00000368 | R | 03 |
| DMFRCVSV_OVERRUN           | =     | 0000000E |   |    | SIZ...            | =     | 00000001 |   |    |
| DMFRCVSV_PARERR            | =     | 0000000C |   |    | SS\$ NORMAL       | =     | 00000001 |   |    |
| DMFRCVSV_VALID             | =     | 0000000F |   |    | TTSM_DS_DTR       | =     | 00000002 |   |    |
| DPTSC_LENGTH               | =     | 00000038 |   |    | TTSM_DS_RTS       | =     | 00000010 |   |    |
| DPTSC_VERSION              | =     | 00000004 |   |    | TT\$ UNKNOWN      | =     | 00000000 |   |    |
| DPT\$INITAB                | =     | 00000038 | R | 02 | TTY\$GB_DEFSPEED  | ***** |          | X | 02 |
| DPTSM_NOUNLOAD             | =     | 00000004 |   |    | TTY\$GB_PARITY    | ***** |          | X | 02 |
| DPT\$REINITAB              | =     | 00000003 | R | 02 | TTY\$GB_RSPEED    | ***** |          | X | 02 |
| DPT\$TAB                   | =     | 00000000 | R | 02 | TTY\$GB_SILOTIME  | ***** |          | X | 03 |
| DPT\$W_VECTOR              | =     | 0000001E |   |    | TTY\$GL_DEFCHAR   | ***** |          | X | 02 |
| DTS_DM32                   | =     | 0000000A |   |    | TTY\$GL_DEFCHAR2  | ***** |          | X | 02 |
| DTS_DM32                   | =     | 00000045 |   |    | TTY\$GL_DPT       | ***** |          | X | 03 |
| DYN\$C_CRB                 | =     | 00000005 |   |    | TTY\$GL_OWNUIC    | ***** |          | X | 02 |
| DYN\$C_DDB                 | =     | 00000006 |   |    | TTY\$GW_DEFBUF    | ***** |          | X | 02 |
| DYN\$C_DPT                 | =     | 0000001E |   |    | TTY\$GW_DMA_SIZE  | ***** |          | X | 03 |
| DYN\$C_ORB                 | =     | 00000049 |   |    | TTY\$GW_PROT      | ***** |          | X | 02 |
| DYN\$C_UCB                 | =     | 00000010 |   |    | TTY\$M_PC_DMAAVL  | =     | 00000004 |   |    |
| EXESGL_ABSTIM              | ***** |          | X | 03 | TTY\$M_PC_MAPAVL  | =     | 00000010 |   |    |
| EXESGL_TENUSEC             | ***** |          | X | 03 | TTY\$M_PC_XOFAVL  | =     | 00000020 |   |    |
| EXESGL_UBDELAY             | ***** |          | X | 03 | TTY\$M_TANK_BURST | =     | 00000800 |   |    |
| FUNCTAB_LEN                | =     | 00000000 |   |    | TTY\$M_TANK_DMA   | =     | 00001000 |   |    |
| IDB\$B_COMBO_CSR_OFFSET    | =     | 0000000F |   |    | TTY\$M_TP_ABORT   | =     | 00000001 |   |    |
| IDB\$B_COMBO_VECTOR_OFFSET | =     | 00000010 |   |    | TTY\$M_TP_ALLOC   | =     | 00000002 |   |    |
| IDB\$B_VFCTOR              | =     | 0000000B |   |    | TTY\$M_TP_DLLOC   | =     | 00000004 |   |    |
| IDB\$B_UCBLST              | =     | 00000018 |   |    | TTY\$V_PC_DMAENA  | =     | 00000001 |   |    |
| IOSM_AUTXOF_DIS            | =     | 00004000 |   |    | TTY\$V_PC_MAPAVL  | =     | 00000004 |   |    |
| IOSM_AUTXOF_ENA            | =     | 00002000 |   |    | TTY\$V_PC_NOTIME  | =     | 00000000 |   |    |
| IOSM_LINE_OFF              | =     | 00000200 |   |    | TTY\$V_PC_PRMMAP  | =     | 00000003 |   |    |
| IOSM_LINE_ON               | =     | 00000800 |   |    | TTY\$V_PC_XOFAVL  | =     | 00000005 |   |    |
| IOSM_LOOP                  | =     | 00000080 |   |    | TTY\$V_PC_XOFENA  | =     | 00000006 |   |    |
| IOSM_LOOP_EXT              | =     | 00001000 |   |    | TTY\$V_TANK_BURST | =     | 0000000B |   |    |
| IOSM_UNLOOP                | =     | 00000100 |   |    | TTY\$V_TANK_DMA   | =     | 0000000C |   |    |
| IOCS\$ALOU\$BMAPN          | ***** |          | X | 03 | TTY\$V_TP_ABORT   | =     | 00000000 |   |    |
| IOCS\$MNTVER               | ***** |          | X | 03 | TTY\$V_TP_ALLOC   | =     | 00000001 |   |    |
| IOCS\$REL\$MAPREG          | ***** |          | X | 03 | TTY\$V_TP_DLLOC   | =     | 00000002 |   |    |
| IOCS\$RETURN               | ***** |          | X | 03 | UBASL_MAP         | =     | 00000800 |   |    |
| MMG\$GL_SPI\$BASE          | ***** |          | X | 03 | UCB\$B_DEVCLASS   | =     | 00000040 |   |    |
| MODEM\$C_DATASET           | =     | 00000003 |   |    | UCB\$B_DEVTYPE    | =     | 00000041 |   |    |
| MODEM\$C_INIT              | =     | 00000000 |   |    | UCB\$B_DIPL       | =     | 0000005E |   |    |
| ORB\$B_FLAGS               | =     | 0000000B |   |    | UCB\$B_FIPL       | =     | 0000000B |   |    |
| ORB\$B_OWNER               | =     | 00000000 |   |    | UCB\$B_TP_STAT    | =     | 00000130 |   |    |
| ORB\$M_PROT_16             | =     | 00000001 |   |    | UCB\$B_TT_DEPARI  | =     | 000000EC |   |    |
| ORB\$W_PROT                | =     | 00000018 |   |    | UCB\$B_TT_DETYPE  | =     | 000000F0 |   |    |
| PORT_ABORT                 | =     | 00000020 |   |    | UCB\$B_TT_DS_RCV  | =     | 00000124 |   |    |
| PORT_DS_SET                | =     | 0000000C |   |    | UCB\$B_TT_DS_TX   | =     | 00000125 |   |    |
| PORT_FORKRET               | =     | 00000034 |   |    | UCB\$B_TT_MAINT   | =     | 0000012A |   |    |
| PORT_LENGTH                | =     | 00000038 |   |    | UCB\$B_TT_PARITY  | =     | 000000F8 |   |    |
| PORT_MAINT                 | =     | 00000030 |   |    | UCB\$C_TT_LENGTH  | =     | 00000134 |   |    |
| PORT_RESUME                | =     | 00000024 |   |    | UCB\$B_CRB        | =     | 00000024 |   |    |
| PORT_SET_LINE              | =     | 00000008 |   |    | UCB\$B_DDB        | =     | 00000028 |   |    |
| PORT_STARTIO               | =     | 00000000 |   |    | UCB\$B-DDT        | =     | 00000088 |   |    |
| PORT_STOP                  | =     | 00000018 |   |    | UCB\$B_DEVCHAR    | =     | 00000038 |   |    |
| PORT_VECTOR                | =     | 00000044 | R | 03 | UCB\$B_DEVCHAR2   | =     | 0000003C |   |    |
| PORT_XOFF                  | =     | 00000014 |   |    | UCB\$B_DEVDEPEND  | =     | 00000044 |   |    |
| PORT_XON                   | =     | 00000010 |   |    | UCB\$B_DEVDEPND2  | =     | 00000048 |   |    |
| PR\$TPL                    | ***** |          | X | 03 | UCB\$B_DUETIME    | =     | 0000006C |   |    |

YCDRIVER  
Symbol table

- Port Driver for DMF Async

H 5

16-SEP-1984 02:25:59 VAX/VMS Macro V04-00  
5-SEP-1984 04:17:34 [TTDRVR.SRC]YCDRIVER.MAR;1

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YFD  
V04

|                   |            |    |    |
|-------------------|------------|----|----|
| UCBSL_TP_MAP      | = 0000012C |    |    |
| UCBSL_TT_CLASS    | = 00000114 |    |    |
| UCBSL_TT_DECHA1   | = 000000C8 |    |    |
| UCBSL_TT_DECHAR   | = 000000C4 |    |    |
| UCBSL_TT_GETNXT   | = 0000010C |    |    |
| UCBSL_TT_OUTADR   | = 0000011C |    |    |
| UCBSL_TT_PORT     | = 00000118 |    |    |
| UCBSL_TT_PUTNXT   | = 00000110 |    |    |
| UCBSL_TT_RTIMOU   | = 000000B4 |    |    |
| UCBSL_TT_WBLINK   | = 000000D0 |    |    |
| UCBSL_TT_WFLINK   | = 000000CC |    |    |
| UCBSM_INT         | = 00000002 |    |    |
| UCBSM_ONLINE      | = 00000010 |    |    |
| UCBSM_TIM         | = 00000001 |    |    |
| UCBSV_INT         | = 00000001 |    |    |
| UCBSV_POWER       | = 00000005 |    |    |
| UCBSV_TT_LEN      | = 00000003 |    |    |
| UCBSV_TT_PARTY    | = 00000006 |    |    |
| UCBSV_TT_STOP     | = 00000005 |    |    |
| UCBSW_DEVBUSIZ    | = 00000042 |    |    |
| UCBSW_STS         | = 00000064 |    |    |
| UCBSW_TT_DESIZE   | = 000000F1 |    |    |
| UCBSW_TT_DESPEE   | = 000000E8 |    |    |
| UCBSW_TT_HOLD     | = 00000108 |    |    |
| UCBSW_TT_OUTLEN   | = 00000120 |    |    |
| UCBSW_TT_PRTCTL   | = 00000122 |    |    |
| UCBSW_TT_SPEED    | = 000000F4 |    |    |
| UCBSW_TT_UNITBIT  | = 00000106 |    |    |
| UCBSW_UNIT        | = 00000054 |    |    |
| VECSL_ADP         | = 00000014 |    |    |
| VECSL_IDB         | = 00000008 |    |    |
| VECSL_INITIAL     | = 0000000C |    |    |
| VECSL_UNITINIT    | = 00000018 |    |    |
| VECSS_MAPREG      | = 0000000F |    |    |
| VECSV_MAPREG      | = 00000000 |    |    |
| VECSW_MAPREG      | = 00000010 |    |    |
| YCSABORT          | 000005AF   | R  | 03 |
| YCSCTRL_ERROR     | 00000106   | R  | 03 |
| YCSDDT            | 00000000   | RG | 03 |
| YCSDPT            | 00000000   | RG | 02 |
| YCSDS_SET         | 00000281   | R  | 03 |
| YCSEND            | 000007C7   | R  | 03 |
| YCSFORK           | 0000053E   | R  | 03 |
| YCSINITIAL        | 00000081   | RG | 03 |
| YCSINITLINE       | 00000107   | RG | 03 |
| YCSINTINP         | 00000280   | RG | 03 |
| YCSINTOUT         | 0000067C   | RG | 03 |
| YCSL_DMAXMT_ERROR | 00000040   | R  | 03 |
| YCSL_ERROR        | 0000003C   | R  | 03 |
| YCSL_SIL_ERROR    | 00000038   | R  | 03 |
| YCSMAINT          | 000001AC   | R  | 03 |
| YCSNULL           | 00000080   | R  | 03 |
| YCSRESUME         | 000005DB   | R  | 03 |
| YCSSET_LINE       | 00000764   | R  | 03 |
| YCSSTARTIO        | 0000034D   | RG | 03 |
| YCSSTOP           | 00000587   | R  | 03 |
| YCSUNIT_ERROR     | 000001A7   | R  | 03 |

|                  |          |   |    |
|------------------|----------|---|----|
| YCSVEC           | 00000044 | R | 03 |
| YCSVECEND        | 0000007C | R | 03 |
| YCSXOFF          | 0000055D | R | 03 |
| YCSXON           | 0000055D | R | 03 |
| YC_DMA_INTERRUPT | 0000072F | R | 03 |
| YC_OUT_EXIT      | 0000066F | R | 03 |
| YC_OUT_LOOP      | 0000067C | R | 03 |
| YC_SILD          | 000006DA | R | 03 |
| YC_START_BURST   | 000006D4 | R | 03 |

! Psect synopsis !

| PSECT name         | Allocation        | PSECT No. | Attributes                                              |
|--------------------|-------------------|-----------|---------------------------------------------------------|
| ABS                | 00000000 ( 0.)    | 00 ( 0.)  | NOPIC USR CON ABS LCL NOSHR NOEXE NORD NOWRT NOVEC BYTE |
| \$ABSS             | 00000000 ( 0.)    | 01 ( 1.)  | NOPIC USR CON ABS LCL NOSHR EXE RD WRT NOVEC BYTE       |
| \$\$\$105_PROLOGUE | 000000E8 ( 232.)  | 02 ( 2.)  | NOPIC USR CON REL LCL NOSHR EXE RD WRT NOVEC BYTE       |
| \$\$\$115_DRIVER   | 000007E7 ( 2023.) | 03 ( 3.)  | NOPIC USR CON REL LCL NOSHR EXE RD WRT NOVEC LONG       |

! Performance indicators !

| Phase                  | Page faults | CPU Time    | Elapsed Time |
|------------------------|-------------|-------------|--------------|
| Initialization         | 37          | 00:00:00.06 | 00:00:01.07  |
| Command processing     | 116         | 00:00:00.36 | 00:00:01.78  |
| Pass 1                 | 770         | 00:00:22.21 | 00:00:35.16  |
| Symbol table sort      | 0           | 00:00:03.21 | 00:00:03.25  |
| Pass 2                 | 407         | 00:00:05.14 | 00:00:06.31  |
| Symbol table output    | 1           | 00:00:00.18 | 00:00:00.18  |
| Psect synopsis output  | 0           | 00:00:00.01 | 00:00:00.02  |
| Cross-reference output | 0           | 00:00:00.00 | 00:00:00.00  |
| Assembler run totals   | 1333        | 00:00:31.18 | 00:00:47.77  |

The working set limit was 2400 pages.  
214653 bytes (420 pages) of virtual memory were used to buffer the intermediate code.  
There were 160 pages of symbol table space allocated to hold 2948 non-local and 78 local symbols.  
1350 source lines were read in Pass 1, producing 22 object records in Pass 2.  
72 pages of virtual memory were used to define 67 macros.

! Macro library statistics !

| Macro library name                  | Macros defined |
|-------------------------------------|----------------|
| _\$255\$DUA28:[SYS.OBJ]LIB.MLB;1    | 32             |
| -\$255\$DUA28:[SYSLIB]STARLET.MLB;2 | 11             |
| TOTALS (all libraries)              | 43             |

3430 GETS were required to define 43 macros.

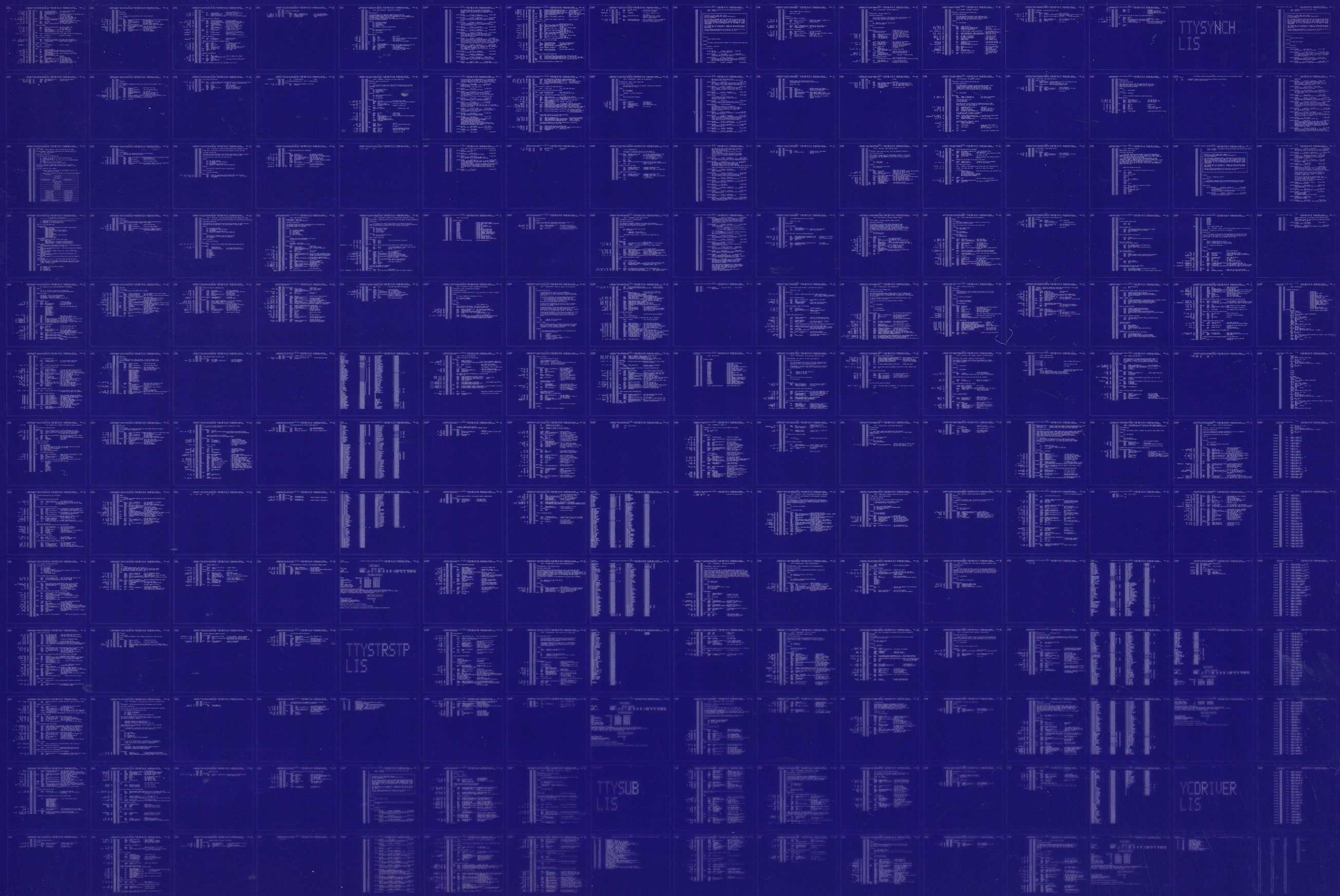
There were no errors, warnings or information messages.

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



0404 AH-BT13A-SE  
VAX/VMS V4.0

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0405 AH-BT13A-SE  
VAX/VMS V4.0

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