

A VCDW

VTAM SUPPLEMENT A.1

92L9905-007A

07-13-73



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1      EJEC                                03 00001
2 *   THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES 03 00002
3 *                                       03 00003
4 *   V.D.M. PART NO.          92L1105-007A 03 C0004
5 *                                       03 00005
6 *                                       RELEASED 03-26-73 03 00006
7 *                                       03 00007
8 *                                       03 00008
9 *           TC$CEX                    03 00009
10 *                                       03 00010
11 *                                       03 00011
12 *   TITLE TC$CEX                      03 00012

13     EJEC                                *****
14 *   THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES *****
15 *                                       *****
16 *   V.D.M. PART NO.          92L1105-005A *****
17 *                                       *****
18 *                                       RELEASED 03-26-73 *****
19 *                                       *****
20 *                                       *****
21 *           VTABL                      *****
22 *                                       *****
23 *                                       *****
24 *                                       *****
25 SPACE MAC                               *****
26     IFT P(1)..0                          *****
27     SPAC                               *****
28     IFT P(1)..0                          *****
29     SPACE P(1)-1                         *****
30     EMAC                               *****
31 PUSH  MAC                               *****
32     EXT VTPUSH                          *****
33     DINTS                               *****
34     JMPM VTPUSH                          *****
35     DATA P(1)                          *****
36     EMAC                               *****
37 ANAM  MAC                               *****
38     IFF P(0)..3                          *****
39     GOTO B&0                             *****
40     IFT P(1)..10                        *****
41     GOTO B&10                            *****
42     ANA BM1777                          *****
43 B&10  CONT                              *****
44     IFT P(1)..9                          *****
45     GOTO B&9                             *****
46     ANA BM777                           *****
47 B&9   CONT                              *****
48     IFT P(1)..8                          *****
49     GOTO B&8                             *****
50     ANA BM377                           *****
51 B&8   CONT                              *****
52     IFT P(1)..7                          *****
53     GOTO B&7                             *****
54     ANA BM177                           *****

55 B&7   CONT                              *****
56     IFT P(1)..6                          *****
57     GOTO B&6                             *****
58     ANA BM77                            *****
59 B&6   CONT                              *****
60     IFT P(1)..5                          *****
61     GOTO B&5                             *****
62     ANA BM37                            *****
63 B&5   CONT                              *****
64     IFT P(1)..4                          *****
65     GOTO B&4                             *****
66     ANA BM17                            *****
67 B&4   CONT                              *****
68     IFT P(1)..3                          *****
69     GOTO B&3                             *****
70     ANA BM7                             *****
71 B&3   CONT                              *****
72     IFT P(1)..2                          *****
73     GOTO B&2                             *****
74     ANA BM3                             *****
75 B&2   CONT                              *****
76     IFT P(1)..1                          *****
77     GOTO B&1                             *****
78     ANA BM1                             *****
79 B&1   CONT                              *****
80     IFT P(1),11,11                       *****
81     GOTO B&                               *****
82 B&0   CONT                              *****
83     IFT P(1)..0                          *****
84     ANAM P(1)-1,P(2)*2+1,0              *****
85     IFF P(1)..0                          *****
86     ANAI P(2)                            *****
87 B&    CONT                              *****
88     EMAC                               *****
89 ANAN  MAC                               *****
90     IFT P(1)..0                          *****
91     ANAN P(1)-1,P(2)*2+1                *****
92     IFF P(1)..0                          *****
93     ANAI -P(2)-1                        *****
94     EMAC                               *****
95 SETA  MAC                               *****

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96      IFF      P(4),,16      *****
97      GOTO     B              *****
98      IFT      P(3),,0       *****
99      LRLA     P(3)           *****
100     ERA      P(2),P(1)      *****
101     IFT      P(3),,0       *****
102     LSRA     P(3)           *****
103     ANAM     P(4)           *****
104     IFT      P(3),,0       *****
105     LRLA     P(3)           *****
106     ERA      P(2),P(1)      *****
107 B    CONT
108     STA      P(2),P(1)      *****
109     EMAC
110 SETB  MAC
111     IFF      P(1),,2       *****
112     **ERROR**
113     IFF      P(4),,16      *****
114     STB      P(2),P(1)      *****
115     IFF      P(4),,16      *****
116     GOTO     B              *****
117     LDA      P(2),P(1)      *****
118     IFT      P(3),,0       *****
119     LRLA     16-P(3)        *****
120     ANAN     P(4),0         *****
121     MERGE    031           *****
122     IFT      P(3),,0       *****
123     LRLA     P(3)           *****
124     STA      P(2),P(1)      *****
125 B    CONT
126     EMAC
127 FETCHA MAC
128     LDA      P(2),P(1)      *****
129     IFT      P(3),,0       *****
130     LSRA     P(3)           *****
131     IFT      0,P(3)+P(4),15 *****
132     ANAM     P(4),0         *****
133     EMAC
134 SUBAT  MAC
135     IFF      P(1),11,11     *****
136     SUBI     P(1)           *****
137     IFT      9,P(1),10     *****
138     SUB      TEN           *****

139     IFT      8,P(1),9      *****
140     SUB      NINE          *****
141     IFT      7,P(1),8      *****
142     SUB      EIGHT        *****
143     IFT      6,P(1),7      *****
144     SUB      SEVEN         *****
145     IFT      5,P(1),6      *****
146     SUB      SIX           *****
147     IFT      4,P(1),5      *****
148     SUB      FIVE          *****
149     IFT      3,P(1),4      *****
150     SUB      FOUR          *****
151     IFT      2,P(1),3      *****
152     SUB      THREE         *****
153     IFT      1,P(1),2      *****
154     SUB      TWO           *****
155     IFT      0,P(1),1      *****
156     SUB      ONE           *****
157     EMAC
158 ADAT  MAC
159     IFF      P(1),11,11     *****
160     ADDI     P(1)           *****
161     IFT      9,P(1),10     *****
162     ADD      TEN           *****
163     IFT      8,P(1),9      *****
164     ADD      NINE          *****
165     IFT      7,P(1),8      *****
166     ADD      EIGHT        *****
167     IFT      6,P(1),7      *****
168     ADD      SEVEN         *****
169     IFT      5,P(1),6      *****
170     ADD      SIX           *****
171     IFT      4,P(1),5      *****
172     ADD      FIVE          *****
173     IFT      3,P(1),4      *****
174     ADD      FOUR          *****
175     IFT      2,P(1),3      *****
176     ADD      THREE         *****
177     IFT      1,P(1),2      *****
178     ADD      TWO           *****
179     IFT      0,P(1),1      *****
180     ADD      ONE           *****

181     EMAC
182 EINTS  MAC
183     EXC      ENAPIM         *****
184     EXC      ENACK         *****
185     EMAC
186 DINTS  MAC
187     EXC      DISPIM        *****
188     EXC      DISCLK        *****
189     EMAC
190 SETF  MAC
191     IFT      P(4),,1       *****
                                ERROR IF NOT ONE BIT FLAG *****

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ADD ATTRIBUTE DESCRIBED BY P(1), AND P(2)

ERROR IF NOT ONE BIT FLAG

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192      **ERROR**
193      LDA      P(2),P(1)
194      ORA      BS0+P(3)
195      STA      P(2),P(1)
196      EMAC
197 CLEARF MAC
198      IFT      P(4),,1
199      **ERROR**          RRROR IF NOT ONE BIT FLAG
200      LDA      P(2),P(1)
201      ANA      BR0+P(3)
202      STA      P(2),P(1)
203      EMAC
204 TESTF  MAC          TEST FLAG MACRO
205      IFT      P(4),,1
206      **ERROR**
207      LDA      P(2),P(1)          PICK UP WORD CONTAINING FLAG
208      ANA      BS0+P(3)
209      EMAC

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210      EJEC
211 *****
212 ****  TIDB SETUP
213 *
214 *****

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000000	A	216	TBTRD	EQU	0	TASK THREAD	*****
000001	A	217	TBST	EQU	1	TASK STATUS	*****
000002	A	218	TBPL	EQU	2	STATUS CONT. (BITS15-6),PRIORITY LEVEL(5-0)	*****
000003	A	219	TBEVNT	EQU	3	INTERRUPT EVENT	*****
000004	A	220	TBRSA	EQU	4	A REENTRANT AND SUSPEND STACK	*****
000005	A	221	TBRSE	EQU	5	B REENTRANT AND SUSPEND STACK	*****
000006	A	222	TBRX	EQU	6	X REENTRANT AND SUSPEND STACK	*****
000007	A	223	TBRSP	EQU	7	OF/P REENTRANT AND SUSPEND STACK	*****
000010	A	224	TBRSTS	EQU	8	TEMP. STG. REENTRANT AND SUSPEND STACK	*****
000011	A	225	TBENTY	EQU	9	TASK ENTRY LOCATION	*****
000012	A	226	TBTMS	EQU	10	TIME COUNTER - CLOCK RESOLUTION IN SMS INCR	*****
000013	A	227	TBTMIN	EQU	11	TIME COUNTER - CLOCK MINUTE INCREMENTS	*****
000014	A	228	TBISA	EQU	12	A INTERRUPT STACK	*****
000015	A	229	TBISB	EQU	13	B INTERRUPT STACK	*****
000016	A	230	TBISX	EQU	14	X INTERRUPT STACK	*****
000017	A	231	TBISP	EQU	15	OF/P INTERRUPT STACK	*****
000020	A	232	TBISRS	EQU	16	REENT. STACK INTERRUPT STACK	*****
000021	A	233	TBIO	EQU	17	BLK ALLOC(15-10),I/O THR(9-5),I/O ACT(4-0)	*****
000022	A	234	TBKN1	EQU	18	TASK NAME	*****
000023	A	235	TBKN2	EQU	19	TASK NAME	*****
000024	A	236	TBKN3	EQU	20	TASK NAME	*****
000025	A	237	TBTLC	EQU	21	1ST LOC. OF TASK ALLOCATABLE	*****
000026	A	238	TBCPTH	EQU	22	BACKGROUND TASK QUEUE	*****
000027	A	239	TBATS	EQU	23	TIDB LOC. OF ACTIVATING TASK	*****
000030	A	240	TBRSE	EQU	24	TASK ERROR CODE	*****

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241      EJEC
242 *****
243 *
244 ****  TASK STATUS DESCRIPTION (BIT SET WORD 1)
245 *
246 *****

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000017	A	248	TBS15	EQU	15	INTERRUPT SUSPEND	*****
000016	A	250	TBS14	EQU	14	TASK SUSPEND	*****
000015	A	251	TBS13	EQU	13	TASK ABORT	*****
000014	A	252	TBS12	EQU	12	TASK EXIT	*****
000013	A	254	TBS11	EQU	11	TIDB CORE RESIDENT	*****
000012	A	255	TBS10	EQU	10	CORE RESIDENT TASK	*****
000011	A	256	TBS9	EQU	9	BACKGROUND TASK	*****
000010	A	258	TBS8	EQU	8	TASK PROTECTED	*****
000007	A	259	TBS7	EQU	7	TASK SCHEDULED BY TIME DELAY	*****
000006	A	260	TBS6	EQU	6	TIME DELAY ACTIVE	*****
000005	A	262	TBS5	EQU	5	TASK WAITING TO BE LOADED	*****
000004	A	263	TBS4	EQU	4	TASK ERROR	*****
000003	A	264	TBS3	EQU	3	TASK INTERRUPT EXPECTED	*****
000002	A	266	TBS2	EQU	2	OVERLAY TASK	*****
000001	A	267	TBS1	EQU	1	UPON TERMINATION ACTIVATE TASK SCHED TASK	*****
000000	A	268	TBS0	EQU	0	TASK SEARCH-ALLOCATED-LOADED	*****

```

269      EJEC
270 *****
271 *
272 ***  TASK STATUS DESCRIPTION (BIT SET WORD 2)
273 *
274 *****

```

- 276 * BIT 15 - TASK OPENED *****
- 278 * BIT 14 - UNUSED *****
- 279 * BIT 13 - OVERLAY LOAD *****
- 280 * BIT 12 - TASK WAITING FOR BACKGROUND TASK I/O TO COMPLETE *****
- 281 * TASK LOCKED-OUT UNTIL BG I/O COMPLETE OR BIT 11 *****
- 282 * IS SET (ALLOCATABLE SPACE AVAILABLE) *****
- 284 * BIT 11 - DEFINES THAT ALLOCATABLE SPACE IS AVAILABLE, TRY *****
- 285 * ALLOCATING TASK AGAIN. OVERRIDES BIT 12 SET OR *****
- 286 * BIT 5 IN STATUS WORD. *****
- 287 * BIT 10 - BACKGROUND TASK BEING WRITTEN ON CHECKPOINT FILE. *****

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288 *      BIT 9 - TASK WAITING FOR A TIDB TO COME AVAILABLE FOR *****
289 *      SCHEDULING. *****

291 *      BIT 8 TO 6 - UNUSED *****

292      EJEC *****
293 *****
294 * *****
295 ***      JOB PROCESSOR LOW CORE EQUATES *****
296 * *****
297 *****

000050 A 299 LCJP EQU 050 *****
000050 A 300 V$JNAM EQU LCJP JCP NAME *****
000054 A 301 V$LCNT EQU LCJP+4 LINE COUNT *****
000055 A 302 V$JCFG EQU LCJP+5 JCP FLAGS *****
303 *      BIT 2-0 = LOAD AND GO FLAGS *****
304 *      BIT 3 = DUMP FLAG 1=DUMP, 0=NO DUMP *****
305 *      BIT 4 = DUMP FLAG IF LOAD AND GO *****
306 *      BIT 9-5 = UNUSED *****
307 *      BIT 15-10 = BG EXTRA CORE BLOCKS TO ALLOC *****

000056 A 309 V$BICI EQU LCJP+6 BIC INTERRUPT ADDRESS TABLE (10 WORDS) *****
000070 A 310 V$DATE EQU LCJP+16 JCP DATE RECORD *****
000074 A 311 V$PLCT EQU LCJP+20 PERMINATE LINE COUNT *****
000075 A 312 V$BGLB EQU LCJP+21 JCP LIB KEY AND LU NO. (BACKGROUND LIB) *****
000076 A 313 V$CRDM EQU LCJP+22 CARD KEYPUNCH TYPE, 0=026, 1=029 *****
314 *      BIT 0 = SYSTEM NOMINAL KEYPUNCH MODE. *****
315 *      BIT 9 = CURRENT JOB KEYPUNCH MODE. *****
000077 A 316 V$JCTM EQU LCJP+23 TEMP. STORAGE FOR /MEM BLOCK *****

317      EJEC *****
318 *****
319 * *****
320 ***      LOW CORE DESCRIPTION *****
321 * *****
322 *****

000300 A 324 LC EQU 0300 *****
000300 A 325 V$CTL EQU LC *****
000301 A 326 V$CPL EQU LC+1 CURRENT TASK TIDB LOCATION *****
000302 A 327 V$CRS EQU LC+2 CURRENT PRIORITY LEVEL *****
000303 A 328 V$TB EQU LC+3 CURRENT REENRANT STACK POINTER *****
000304 A 329 V$UTB EQU LC+4 POINTER TO HIGHEST PRIORITY TIDB *****
000305 A 330 V$PTVB EQU LC+5 POINTER TO UNUSED TASK TIDB *****
000306 A 331 V$FLRS EQU LC+6 POINTER TO NEXT ENTRY IN REENRANT STACK *****
000307 A 332 V$LRSK EQU LC+7 FIRST LOC. OF REENRANT STACK *****
000310 A 333 V$CKPT EQU LC+8 LAST LOC. OF REENRANT STACK+1 *****
000311 A 334 V$OPCL EQU LC+9 CHECKPOINT FLAG 1=ON, 0=OFF *****
000312 A 335 V$LSAL EQU LC+10 LOC. OF TIDB FOR OPCOM TASK *****
000313 A 336 V$LER EQU LC+11 LOC. OF TIDB FOR SYSTEM SAL TASK *****
000314 A 337 V$TJCP EQU LC+12 LOC. OF TIDB FOR SYSTEM ERROR TASK *****
000315 A 338 V$BTB EQU LC+13 LOC. OF TIDB FOR JOB CONTROL PROCESSOR TASK *****
000316 A 339 V$LUP EQU LC+14 LOC. OF CURRENT ACTIVE BACKGROUND TSK TIDB *****
000317 A 340 V$LLUP EQU LC+15 LOC. OF 1ST UNPROTECTED WORD *****
000320 A 341 V$IM EQU LC+16 LOC. OF LAST UNPROTECTED WORD *****
000330 A 342 V$MPM EQU LC+24 INTERRUPT MASK (8 WORDS) *****
000334 A 343 V$CAM EQU LC+28 MEMORY PROTECT MASK (4 WORDS) *****
344 *      EQU LC+32 CORE ALLOCATION MASK (4 WORDS) *****
000341 A 345 V$CRDR EQU LC+33 UNUSED *****
000342 A 346 V$TBGT EQU LC+34 CORE RESIDENT DIRECTORY LOCATION *****
000343 A 347 V$TMS EQU LC+35 TOP OF THREAD OF BG TSK WAITING TO BE ALLOC *****
000344 A 348 V$TMN EQU LC+36 TIME OF DAY IN 5 MILLISECOND INCREMENTS *****
000345 A 349 V$LUNT EQU LC+37 TIME OF DAY IN MINUTE INCREMENTS *****
000346 A 350 V$OPCF EQU LC+38 ADDR. OF LOGICAL UNIT NAME TABLE *****
000347 A 351 V$FGLB EQU LC+39 OPCOM LOCKOUT FLAG *****
000350 A 352 V$FREE EQU LC+40 KEY AND LU NO. FOR FOREGROUND LIB *****
000351 A 353 V$CTMS EQU LC+41 FREE RUNNING COUNTER INCR. IN MICROSECONDS *****
000352 A 354 V$SCV EQU LC+42 CLOCK RESOLUTION IN 5 MILLISECOND INCR. *****
000353 A 355 V$CKB EQU LC+43 CLOCK SELECTED COUNT VALUE (1 TO 4095) *****
000354 A 356 V$CRM EQU LC+44 BASIC CLOCK INTERRUPT RATE IN MICROSECONDS *****
000355 A 357 V$DSTB EQU LC+45 CLOCK RESOLUTION INCR. FOR 1 MINUTE. *****
000356 A 358 V$LIT EQU LC+46 BASE ADDR. FOR DST BLOCK *****
359 *      EQU LC+47 LAST LOCATION OF BACKGROUND LITERAL TABLE *****
000360 A 360 V$CTAD EQU LC+48 UNUSED *****
000361 A 361 V$SCTL EQU LC+49 BASE ADDR. FOR CONTROLLER ADDR. TABLE *****
000362 A 362 V$NCTR EQU LC+50 CURRENT CONTROLLER IN SCAN *****
000363 A 363 V$PIMN EQU LC+51 NO. OF CONTROLLERS *****
364 *      EQU LC+51 EXTERNAL DEVICE ADDRESS TABLE FOR PIMS *****
365 *      EQU LC+59 (8 WORDS DEFINED IN PIM NO ORDER) *****
366 *      EQU LC+60 UNUSED *****
000375 A 367 V$SLFG EQU LC+61 UNUSED *****
000376 A 368 V$ERFG EQU LC+62 SAL TASK BUSY FLAG 1=BUSY, 0=NOT BUSY *****
000377 A 369 V$JOP EQU LC+63 ERROR TASK BUSY FLAG 1=BUSY, 0=NOT BUSY *****
000400 A 370 V$LUT1 EQU LC+64 JCP OPERATING FLAG *****
000401 A 371 V$LUT2 EQU LC+65 START LUN ADDR FOR JCP/OPCOM ASSIGNABLE *****
000402 A 372 V$LUT3 EQU LC+66 START LUN ADDR FOR UNASSIGNABLE *****
000403 A 373 V$1MIN EQU LC+67 START LUN ADDR FOR OPCOM ASSIGNABLE *****
374 *      EQU LC+67 32767 - (60000/(5*V$CTMS)) + 1 *****
375 *      EQU LC+68 UNUSED *****
376 *      EQU LC+69 UNUSED *****
377 *      EQU LC+70 UNUSED *****
000410 A 378 V$1OA EQU LC+71 I/O ALGORITHM *****
000411 A 379 V$CKIT EQU LC+72 I/O ALGORITHM *****
000412 A 380 V$JCB EQU LC+73 CLOCK INT. IN PIM BEFORE LOCKOUT FLAG. *****
381 *      EQU LC+73 ALL SYSTEM BACKGROUND PROGRAMS AND JCP USE *****
382 *      EQU LC+73 THIS SYSTEM BUFFER TO READ DIRECTIVES AND *****
000413 A 383 V$OCB EQU LC+75 SOURCE RECORDS IN. *****
OPCOM WILL READ OPERATOR KEY-IN REQUESTS *****

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384 * IN THIS BUFFER. IF JCP IS SET NOT ACTIVE *****
385 * AND A 1 DIRECTIVE IS INPUTED, OPCOM *****
386 * WILL MOVE THE DIRECTIVE TO V$JCB BEFORE *****
387 * SCHEDULING JCP. *****
000414 A 388 V$BVN EQU LC+76 BOTTOM OF VORTEX NUCLEUS *****
000415 A 389 V$BFC EQU LC+77 TOP OF FG RES. AREA/BOTTOM OF FG BLK COMM. *****
000416 A 390 V$TFC EQU LC+78 TOP OF FG BLK COMMON/TOP OF VORTEX CORE. *****
391 * EQU LC+79 UNUSED *****

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392 EJEC *****
393 .....Q..... *****
394 * *****
395 **** MASK TABLE DESCRIPTION *****
396 * *****
397 ..... *****

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000420 A 399 MT SET 0420 *****
000420 A 400 ZERO EQU MT ZERO WORD *****
000421 A 401 BS0 EQU MT+1 BIT MASK CONTENTS 000001 *****
000422 A 402 BS1 EQU MT+2 000002 *****
000423 A 403 BS2 EQU MT+3 000004 *****
000424 A 404 BS3 EQU MT+4 000010 *****
000425 A 405 BS4 EQU MT+5 000020 *****
000426 A 406 BS5 EQU MT+6 000040 *****
000427 A 407 BS6 EQU MT+7 000100 *****
000430 A 408 BS7 EQU MT+8 000200 *****
000431 A 409 BS8 EQU MT+9 000400 *****
000432 A 410 BS9 EQU MT+10 001000 *****
000433 A 411 BS10 EQU MT+11 002000 *****
000434 A 412 BS11 EQU MT+12 004000 *****
000435 A 413 BS12 EQU MT+13 010000 *****
000436 A 414 BS13 EQU MT+14 020000 *****
000437 A 415 BS14 EQU MT+15 040000 *****
000440 A 416 BS15 EQU MT+16 0100000 *****
000441 A 417 BR0 EQU MT+17 BIT MASK CONTENTS 0177776 *****
000442 A 418 BR1 EQU MT+18 0177775 *****
000443 A 419 BR2 EQU MT+19 0177773 *****
000444 A 420 BR3 EQU MT+20 0177767 *****
000445 A 421 BR4 EQU MT+21 0177757 *****
000446 A 422 BR5 EQU MT+22 0177737 *****
000447 A 423 BR6 EQU MT+23 0177677 *****
000450 A 424 BR7 EQU MT+24 0177577 *****
000451 A 425 BR8 EQU MT+25 0177377 *****
000452 A 426 BR9 EQU MT+26 0176777 *****
000453 A 427 BR10 EQU MT+27 0175777 *****
000454 A 428 BR11 EQU MT+28 0173777 *****
000455 A 429 BR12 EQU MT+29 0167777 *****
000456 A 430 BR13 EQU MT+30 0157777 *****
000457 A 431 BR14 EQU MT+31 0137777 *****
000460 A 432 BR15 EQU MT+32 0077777 *****
000461 A 433 NEG EQU MT+33 SET ALL BITS *****

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000462 A 434 LHW EQU MT+34 LEFT HALF WORD MASK 0177400 *****
000463 A 435 RHW EQU MT+35 RIGHT HALF WORD MASK 0377 *****
000421 A 436 ONE EQU MT+1 CONTAINS NUMBER 1 *****
000422 A 437 TWO EQU MT+2 CONTAINS NUMBER 2 *****
000464 A 438 THREE EQU MT+36 CONTAINS NUMBER 3 *****
000423 A 439 FOUR EQU MT+3 CONTAINS NUMBER 4 *****
000465 A 440 FIVE EQU MT+37 CONTAINS NUMBER 5 *****
000466 A 441 SIX EQU MT+38 CONTAINS NUMBER 6 *****
000467 A 442 SEVEN EQU MT+39 CONTAINS NUMBER 7 *****
000424 A 443 EIGHT EQU MT+4 CONTAINS NUMBER 8 *****
000470 A 444 NINE EQU MT+40 CONTAINS NUMBER 9 *****
000471 A 445 TEN EQU MT+41 CONTAINS NUMBER 10 *****
000421 A 446 BM1 EQU MT+1 BIT MASK WORD 00001 *****
000464 A 447 BM3 EQU MT+36 BIT MASK WORD 00003 *****
000467 A 448 BM7 EQU MT+39 BIT MASK WORD 00007 *****
000472 A 449 BM17 EQU MT+42 BIT MASK WORD 00017 *****
000473 A 450 BM37 EQU MT+43 BIT MASK WORD 00037 *****
000474 A 451 BM77 EQU MT+44 BIT MASK WORD 00077 *****
000475 A 452 BM177 EQU MT+45 BIT MASK WORD 00177 *****
000463 A 453 BM377 EQU MT+35 BIT MASK WORD 00377 *****
000476 A 454 BM777 EQU MT+46 BIT MASK WORD 00777 *****
000477 A 455 BM1777 EQU MT+47 BIT MASK WORD 01777 *****

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```

456 EJEC *****
457 ..... *****
458 * *****
459 **** BIT TEST BIT DESIGNATION *****
460 * *****
461 ..... *****

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```

000040 A 463 RA0 EQU 040 BT JUMPS WHEN A REGISTER IS 0 *****
000000 A 464 RA1 EQU 000 BT JUMPS WHEN A REGISTER IS 1 *****
000060 A 465 RB0 EQU 060 BT JUMPS WHEN B REGISTER IS 0 *****
000020 A 466 RB1 EQU 020 BT JUMPS WHEN B REGISTER IS 1 *****

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468 ..... *****
469 * *****
470 ** THE BIT CHECKED *****
471 * *****
472 ..... *****

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```

000000 A 474 B0 EQU 0 *****
000001 A 475 B1 EQU 1 *****
000002 A 476 B2 EQU 2 *****
000003 A 477 B3 EQU 3 *****
000004 A 478 B4 EQU 4 *****
000005 A 479 B5 EQU 5 *****

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000006 A 480 B6 EQU 6
000007 A 481 B7 EQU 7
000010 A 482 B8 EQU 8
000011 A 483 B9 EQU 9
000012 A 484 B10 EQU 10
000013 A 485 B11 EQU 11
000014 A 486 B12 EQU 12
000015 A 487 B13 EQU 13
000016 A 488 B14 EQU 14
000017 A 489 B15 EQU 15

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490 EJEC
491 *****
492 *
493 **** DEVICE AND FUNCTION CODES *****
494 *
495 *****

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000047 A 497 **** REAL TIME CLOCK *****
498 CLOCK EQU 047 DEVICE NUMBER 047 *****
499 * *****
000747 A 500 DISCLK EQU 0700+CLOCK DISABLE CLOCK *****
000147 A 501 ENACLK EQU 0100+CLOCK ENABLE CLOCK *****

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503 * *****
504 **** PIM *****
000044 A 505 APIM EQU 044 ALL PIMS DEVICE NUMBER *****
000040 A 506 PIM1 EQU 040 *****
000041 A 507 PIM2 EQU 041 *****
000042 A 508 PIM3 EQU 042 *****
000043 A 509 PIM4 EQU 043 *****
000040 A 510 PIM5 EQU 040 *****
000040 A 511 PIM6 EQU 040 *****
000040 A 512 PIM7 EQU 040 *****
000040 A 513 PIM8 EQU 040 *****
514 * *****
000444 A 515 DISPIM EQU 0400+APIM *****
000244 A 516 ENAPIM EQU 0200+APIM *****

```

```

518 **** MEMORY PROTECT *****
000045 A 519 MP EQU 045 DEVICE ADDRESS 045 *****
000745 A 520 DISMP EQU 0700+MP DISABLE MEMORY PROTECT *****
000645 A 521 ENAMP EQU 0600+MP ENABLE MEMORY PROTECT *****
000045 A 522 MPMR0 EQU 0000+MP SELECT MASK REGISTER 0 *****
000145 A 523 MPMR1 EQU 0100+MP SELECT MASK REGISTER 1 *****
000245 A 524 MPMR2 EQU 0200+MP SELECT MASK REGISTER 2 *****
000345 A 525 MPMR3 EQU 0300+MP SELECT MASK REGISTER 3 *****

```

```

526 EJEC *****
527 * DEVICE SPECIFICATION TABLE, DST *****
528 * DST FOR EACH DEVICE, AND EACH RMD PARTITION *****
529 * *****
000000 A 530 DSDVDN EQU 0 DEVICE DOWN INDICATOR, 1=DOWN BIT 15 *****
000000 A 531 DSDASS EQU 0 DEVICE ASSGNMT INDICATOR, BITS 14-13 *****
532 * 00 ASSIGNABLE BY JCP AND OPCOM *****
533 * 01 ASSIGNABLE BY OPCOM ONLY *****
534 * 10 UNASSIGNABLE *****
535 * 00 UNUSED *****
000000 A 536 DSUNAM EQU 0 DEV NAME, CH.3 B12-10, CH.4 B9-4 *****
537 * ADD 0260 TO GET ASCII CHARACTER *****
000000 A 538 DSNORQ EQU 0 DEVICE REQUEST COUNTER, BITS 3-0. *****
000001 A 539 DSNAME EQU 1 DEVICE NAME, 2 ASCII CHAR. *****
000002 A 540 DSREWD EQU 2 DEVICE REWIND INDICATOR, 1=REWIND, BIT 15 *****
000002 A 541 DSUNTN EQU 2 DEVICE UNIT NO., BITS 14-13 *****
000002 A 542 DSLCKO EQU 2 PARTITION LOCKOUT FLAG BIT 12 *****
000002 A 543 DSOPCM EQU 2 OPCOM DEVICE INDICATOR, BIT 11 *****
000002 A 544 DSPSTI EQU 2 INDEX TO PST, BITS 10-6. *****
000002 A 545 DSCTAD EQU 2 INDEX TO COTAD, CONTRLLR ADDR TABLE, B5-0. *****
546 * *****
547 * *****

```

```

548 EJEC *****
549 * CONTROLLER ADDRESS TABLE, COTAD *****
550 * 1 ENTRY FOR EACH CTBL. *****
551 * *****
000000 A 552 COTAD1 EQU 0 BASE ADDRESS FOR CONTROLLER TABLE *****
553 * *****

```

```

554 EJEC *****
555 * BIC FLAG TABLE *****
556 * 1 ENTRY FOR EACH BIC, EACH CONTROLLER TABLE, CTBL, WHICH *****
557 * UTILIZES A BIC CONTAINS AN ADDRESS, CTBICB, POINTING *****
558 * TO ITS BIC ENTRY. *****
559 * *****
000000 A 560 BICNUM EQU 0 BIC NUMBER FOR THIS ENTRY. *****
561 * POSITIVE VALUE MEANS BIC IS AVAILABLE *****
562 * NEGATIVE VALUE, COMPLEMENTED BIC NO., *****
563 * MEANS BIC IS CURRENTLY IN USE. *****
564 * *****
565 * *****
566 * *****
567 * *****

```

```

568 EJEC *****
569 * REQUEST BLOCK, RQBLK *****
570 * 1 FOR EACH IOC REQUEST. RQBLKS ARE QUEUED ACCORDING TO TASK *****
571 * PRIORITY TO CTBL. *****
000000 A 572 RSTPR EQU 0 BIT 15 = I/O COMPLETED INDICATOR. *****
573 * BITS 14-5, DRIVER STATUS *****

```



```

574 *
000001 A 575 ROPWD EQU 1 BITS 4-0, REQUESTING TASK PRIORITY. *****
576 * BIT 15 = WAIT OPTION *****
577 * BITS 14-12, MODE, USED BY DRIVERS *****
578 * BITS 11-8, OP-CODE *****
000002 A 579 RFCB EQU 2 BITS 7-0, LOGICAL UNIT NO. *****
000003 A 580 RTIDB EQU 3 FCB OR DCB ADDR. *****
000004 A 581 RADNR EQU 4 REQUESTING TASK TIDB ADDR. *****
582 * ADDR. OF NEXT RQBLK IN QUEUE., 0 = NONE. *****

```

583 EJEC *****

584 * *****
585 * PARTITION SPECIFICATION TABLE, PST *****
586 * *****

587 * A PST EXISTS FOR EACH ROTATING MEMORY DEVICE. EACH PARTITION *****
588 * ON THE RMD HAS A FIVE WORD ENTRY IN THE PST. THE PARTITION'S *****
589 * PST ENTRY NUMBER IS SPECIFIED IN THE DEVICE SPECIFICATION *****
590 * TABLE, DST, THUS LINKING THE PST WITH A LOGICAL UNIT NUMBER. *****
591 * THE EFFECTIVE ADDR FOR AN ENTRY IS FOUND AS FOLLOWS: *****

592 * *****
593 * PST ADDR. FOR ENTRY = (ENTRY NO. * 4) + 1 + PST BASE ADDR *****
594 * *****
595 * *****

```

000000 A 596 PSBEG EQU 0 PARTITION BEGINNING ADDR. *****
000001 A 597 PSPROT EQU 1 BIT 15, PROTECT FLAG *****
598 * BITS 14-8, UNUSED *****
599 * BITS 7-0, PROTECT KEY *****
000002 A 600 PSBADT EQU 2 ADDR. OF BAD TRACK TABLE *****
000003 A 601 PSNSEC EQU 3 ADDR. OF NEXT AVAILABLE SECTOR IN PARTITN *****
000004 A 602 PSEND EQU 4 PARTITION END ADDR + 1. ALSO BEGINNING *****
603 * ADDR FOR NEXT PARTITION. *****
604 * *****
605 * *****

```

606 EJEC *****

607 * *****
608 * DATA CONTROL BLOCK, DCB *****
609 * *****

610 * A DCB IS REFERENCED BY EACH I/O REQUEST BLOCK, RQBLK, SPECIFY- *****
611 * ING A NON-ROTATING MEMORY DEVICE. DCB CONTAINS ADDITION INFOR- *****
612 * MATION NECESSARY TO COMPLETE THE I/O OPERATION. *****
613 * DCB IS A FIXED LENGTH TABLE OF 3 WORDS EACH. THE FCB IS THE DCB *****
614 * EQUIVALENT FOR RMD. *****
615 * *****
616 * *****

```

000000 A 617 DCRECL EQU 0 RECORD LENGTH *****
000001 A 618 DCBUFF EQU 1 USER BUFFER AREA *****
000002 A 619 DCCNT EQU 2 NO. OF COUNTS, USE FOR FUNC REQUESTS. *****
620 * *****
621 * *****
622 * *****
000001 A 623 X EQU 1 *****
000002 A 624 B EQU 2 *****
000200 A 625 POST EQU 0200 POST INDEXING FLAG *****

```

626 EJEC *****

627 * *****
628 ** TABLE NAME IS CTB (CONTROLLER TABLE) *****
629 * *****

630 ** FIELD WORD BIT DESCRIPTION *****

```

631 ** *****
632 ** ACT 0 15-15 CONTROLLER ACTIVE FLAG *****
000000 A 633 CTA CTACT EQU 0 *****
000017 A 634 CTA CTACTB EQU 15 *****
000001 A 635 CTA CTACTZ EQU 1 *****
636 ** IDB 0 0-14 DRIVER TIDB ADDR *****
000000 A 637 CTA CTIDB EQU 0 *****
000000 A 638 CTA CTIDBB EQU 0 *****
000017 A 639 CTA CTIDBZ EQU 15 *****
640 ** ADN 1 0-15 CTBL THREAD *****
000001 A 641 CTA CTADN EQU 1 *****
000000 A 642 CTA CTADNB EQU 0 *****
000020 A 643 CTA CTADNZ EQU 16 *****
644 ** OPM 2 0-15 OP CODE MASK *****
000002 A 645 CTA CTOPM EQU 2 *****
000000 A 646 CTA CTOPMB EQU 0 *****
000020 A 647 CTA CTOPMZ EQU 16 *****
648 ** DST 3 0-15 ADDRESS OF DST *****
000003 A 649 CTA CTDST EQU 3 *****
000000 A 650 CTA CTDSTB EQU 0 *****
000020 A 651 CTA CTDSTZ EQU 16 *****
652 ** RQB 4 0-15 CURRENT REQUEST BLOCK *****
000004 A 653 CTA CTRQB EQU 4 *****
000000 A 654 CTA CTRQBB EQU 0 *****
000020 A 655 CTA CTRQBZ EQU 16 *****
656 ** RTR 5 8-15 RETRY CONSTANT *****
000005 A 657 CTA CTRTR EQU 5 *****
000010 A 658 CTA CTRTRB EQU 8 *****
000010 A 659 CTA CTRTRZ EQU 8 *****
660 ** RCN 5 0-7 VSERR RETRY COUNTER *****
000005 A 661 CTA CTRCN EQU 5 *****
000000 A 662 CTA CTRCNB EQU 0 *****
000010 A 663 CTA CTRCNZ EQU 8 *****
664 ** DVA 6 0-15 DEVICE ADDRESS *****
000006 A 665 CTA CTDVA EQU 6 *****
000000 A 666 CTA CTDVAB EQU 0 *****
000020 A 667 CTA CTDVAZ EQU 16 *****
668 ** IOA 7 0-15 I/O ALGORITHM VALUE *****

```

000007	A	669	CTIOA	EQU	7				*****
000000	A	670	CTIOAB	EQU	0				*****
000020	A	671	CTIOAZ	EQU	16				*****
		672	**	STA		8	0-15	DRIVER STATUS	*****
000010	A	673	CTSTA	EQU	8				*****
000000	A	674	CTSTAB	EQU	0				*****
000020	A	675	CTSTAZ	EQU	16				*****
		676	**	BIC		9	0-15	BIC FLAG TABLE ADDRESS	*****
000011	A	677	CTBIC	EQU	9				*****
000000	A	678	CTBICB	EQU	0				*****
000020	A	679	CTBICZ	EQU	16				*****
		680	**	FCB		10	0-15	FCB/DCB ADDRESS	*****
000012	A	681	CTFCB	EQU	10				*****
000000	A	682	CTFCBB	EQU	0				*****
000020	A	683	CTFCBZ	EQU	16				*****
		684	**	WDS		11	0-15	NO. WDS. TRANSFERRED	*****
000013	A	685	CTWDS	EQU	11				*****
000000	A	686	CTWDSB	EQU	0				*****
000020	A	687	CTWDSZ	EQU	16				*****
		688	**	FRC		12	8-15	FREQUENCY CONSTANT	*****
000014	A	689	CTFRC	EQU	12				*****
000010	A	690	CTFRCB	EQU	8				*****
000010	A	691	CTFRCZ	EQU	8				*****
		692	**	FRE		12	0- 7	FREQUENCY COUNT	*****
000014	A	693	CTFRE	EQU	12				*****
000000	A	694	CTFREB	EQU	0				*****
000010	A	695	CTFREZ	EQU	8				*****

696 EJEC *****

697 *****

698 ** TABLE NAME IS DMT (DEVICE MANAGEMENT TABLE) *****

699 *****

700 ** FIELD WORD BIT DESCRIPTION *****

701 ** *****

702 ** TPA 13 0-15 TRANSMIT PRIMITIVE ADDRESS *****

000015	A	703	DMTPA	EQU	13				*****
--------	---	-----	-------	-----	----	--	--	--	-------

000000	A	704	DMTPAB	EQU	0				*****
--------	---	-----	--------	-----	---	--	--	--	-------

000020	A	705	DMTPAZ	EQU	16				*****
--------	---	-----	--------	-----	----	--	--	--	-------

706 ** RPA 14 0-15 RECEIVE PRIMITIVE ADDRESS *****

000016	A	707	DMRPA	EQU	14				*****
--------	---	-----	-------	-----	----	--	--	--	-------

000000	A	708	DMRPAB	EQU	0				*****
--------	---	-----	--------	-----	---	--	--	--	-------

000020	A	709	DMRPAZ	EQU	16				*****
--------	---	-----	--------	-----	----	--	--	--	-------

710 ** FPA 15 0-15 FUNCTION PRIMITIVE ADDRESS *****

000017	A	711	DMFPA	EQU	15				*****
--------	---	-----	-------	-----	----	--	--	--	-------

000000	A	712	DMFPAB	EQU	0				*****
--------	---	-----	--------	-----	---	--	--	--	-------

000020	A	713	DMFPAZ	EQU	16				*****
--------	---	-----	--------	-----	----	--	--	--	-------

714 ** STA 16 0-15 STATUS PRIMITIVE ADDRESS *****

000020	A	715	DMSTA	EQU	16				*****
--------	---	-----	-------	-----	----	--	--	--	-------

000000	A	716	DMSTAB	EQU	0				*****
--------	---	-----	--------	-----	---	--	--	--	-------

000020	A	717	DMSTAZ	EQU	16				*****
--------	---	-----	--------	-----	----	--	--	--	-------

718 ** LCA 17 0-15 LCW BASE ADDRESS *****

000021	A	719	DMLCA	EQU	17				*****
--------	---	-----	-------	-----	----	--	--	--	-------

000000	A	720	DMLCAB	EQU	0				*****
--------	---	-----	--------	-----	---	--	--	--	-------

000020	A	721	DMLCAZ	EQU	16				*****
--------	---	-----	--------	-----	----	--	--	--	-------

722 ** LTA 18 0-15 LOGICALLINE TABLE BASE ADD *****

000022	A	723	DMLTA	EQU	18				*****
--------	---	-----	-------	-----	----	--	--	--	-------

000000	A	724	DMLTAB	EQU	0				*****
--------	---	-----	--------	-----	---	--	--	--	-------

000020	A	725	DMLTAZ	EQU	16				*****
--------	---	-----	--------	-----	----	--	--	--	-------

726 ** PTA 19 0-15 PHYSICAL LINE TABLE BASE A *****

000023	A	727	DMPTA	EQU	19				*****
--------	---	-----	-------	-----	----	--	--	--	-------

000000	A	728	DMPTAB	EQU	0				*****
--------	---	-----	--------	-----	---	--	--	--	-------

000020	A	729	DMPTAZ	EQU	16				*****
--------	---	-----	--------	-----	----	--	--	--	-------

730 ** CWA 20 0-15 CONTROL WORD ADDR *****

000024	A	731	DMCWA	EQU	20				*****
--------	---	-----	-------	-----	----	--	--	--	-------

000000	A	732	DMCWAB	EQU	0				*****
--------	---	-----	--------	-----	---	--	--	--	-------

000020	A	733	DMCWAZ	EQU	16				*****
--------	---	-----	--------	-----	----	--	--	--	-------

734 ** SWA 21 0-15 STATUS WORD ADDR *****

000025	A	735	DMSWA	EQU	21				*****
--------	---	-----	-------	-----	----	--	--	--	-------

000000	A	736	DMSWAB	EQU	0				*****
--------	---	-----	--------	-----	---	--	--	--	-------

000020	A	737	DMSWAZ	EQU	16				*****
--------	---	-----	--------	-----	----	--	--	--	-------

738 EJEC *****

739 *****

740 ** TABLE NAME IS LCW (LINE CONTROL WORDS) *****

741 *****

742 ** FIELD WORD BIT DESCRIPTION *****

743 ** *****

744 ** IBF 0 15-15 INPUT BLOCK FLAG *****

000000	A	745	LCIBF	EQU	0				*****
--------	---	-----	-------	-----	---	--	--	--	-------

000017	A	746	LCIBFB	EQU	15				*****
--------	---	-----	--------	-----	----	--	--	--	-------

000001	A	747	LCIBFZ	EQU	1				*****
--------	---	-----	--------	-----	---	--	--	--	-------

748 ** SMB 0 14-14 SET 2**7 ON *****

000000	A	749	LCSMB	EQU	0				*****
--------	---	-----	-------	-----	---	--	--	--	-------

000016	A	750	LCSMBB	EQU	14				*****
--------	---	-----	--------	-----	----	--	--	--	-------

000001	A	751	LCSMBZ	EQU	1				*****
--------	---	-----	--------	-----	---	--	--	--	-------

752 ** IBL 0 0-11 INPUT BUFFER LENG. *****

000000	A	753	LCIBL	EQU	0				*****
--------	---	-----	-------	-----	---	--	--	--	-------

000000	A	754	LCIBLB	EQU	0				*****
--------	---	-----	--------	-----	---	--	--	--	-------

000014	A	755	LCIBLZ	EQU	12				*****
--------	---	-----	--------	-----	----	--	--	--	-------

756 ** IBA 1 0-14 INPUT BUFFER ADDR *****

000001	A	757	LCIBA	EQU	1				*****
--------	---	-----	-------	-----	---	--	--	--	-------

000000	A	758	LCIBAB	EQU	0				*****
--------	---	-----	--------	-----	---	--	--	--	-------

000017	A	759	LCIBAZ	EQU	15				*****
--------	---	-----	--------	-----	----	--	--	--	-------

760 ** IC1 2 8-15 INPUT CONTROL CH 1 *****

000002	A	761	LCIC1	EQU	2				*****
--------	---	-----	-------	-----	---	--	--	--	-------

000010	A	762	LCIC1B	EQU	8				*****
--------	---	-----	--------	-----	---	--	--	--	-------

000010	A	763	LCIC1Z	EQU	8				*****
--------	---	-----	--------	-----	---	--	--	--	-------

764 ** IC2 2 0- 7 INPUT CONTROL CH 2 *****

000002	A	765	LCIC2	EQU	2				*****
000000	A	766	LCIC2B	EQU	0				*****
000010	A	767	LCIC2Z	EQU	8				*****
		768	**	RCC		3	15-15	TERM ON CONT CHAR	*****
000003	A	769	LCRCC	EQU	3				*****
000017	A	770	LCRCCB	EQU	15				*****
000001	A	771	LCRCCZ	EQU	1				*****
		772	**	CRC		3	12-14	NO BYTES IN CRC	*****
000003	A	773	LCCRC	EQU	3				*****
000014	A	774	LCCRCB	EQU	12				*****
000003	A	775	LCCRCZ	EQU	3				*****
		776	**	ABN		3	11-11	TERM ON ABN COND	*****
000003	A	777	LCABN	EQU	3				*****
000013	A	778	LCABNB	EQU	11				*****
000001	A	779	LCABNZ	EQU	1				*****
		780	**	ASY		3	10-10	SYNC/ASYNC FLAG	*****
000003	A	781	LCASY	EQU	3				*****
000012	A	782	LCASYB	EQU	10				*****
000001	A	783	LCASYZ	EQU	1				*****
		784	**	IKE		3	0- 3	INPUT MAP BITS	*****
000003	A	785	LCIKE	EQU	3				*****
000000	A	786	LCIKEB	EQU	0				*****
000004	A	787	LCIKEZ	EQU	4				*****
		788	**	OBF		4	15-15	OUTPUT BLOCK FLAG	*****
000004	A	789	LCOBF	EQU	4				*****
000017	A	790	LCOBFB	EQU	15				*****
000001	A	791	LCOBFZ	EQU	1				*****
		792	**	OBL		4	0-11	OUTPUT BUFFER LENG.	*****
000004	A	793	LCOBL	EQU	4				*****
000000	A	794	LCOBLB	EQU	0				*****
000014	A	795	LCOBLZ	EQU	12				*****
		796	**	OBA		5	0-14	OUTPUT BUFFER ADDR	*****
000005	A	797	LCOBA	EQU	5				*****
000000	A	798	LCOBAB	EQU	0				*****
000017	A	799	LCOBAZ	EQU	15				*****
		800	**	LCB		6	0-15	LINE CONTROL BYTE	*****
000006	A	801	LCLCB	EQU	6				*****
000000	A	802	LCLCBB	EQU	0				*****
000020	A	803	LCLCBZ	EQU	16				*****
		804	**	CWS		6	15-15	PCW S BIT	*****
000006	A	805	LCCWS	EQU	6				*****
000017	A	806	LCCWSB	EQU	15				*****
000001	A	807	LCCWSZ	EQU	1				*****
		808	**	CWI		6	14-14	PCW I BIT	*****
000006	A	809	LCCWI	EQU	6				*****
000016	A	810	LCCWIB	EQU	14				*****
000001	A	811	LCCWIZ	EQU	1				*****
		812	**	CWC		6	13-13	PCW C BIT	*****
000006	A	813	LCCWC	EQU	6				*****
000015	A	814	LCCWCB	EQU	13				*****
000001	A	815	LCCWCZ	EQU	1				*****
		816	**	CWB		6	12-12	PCW AR/B BIT	*****
000006	A	817	LCCWB	EQU	6				*****
000014	A	818	LCCWBB	EQU	12				*****
000001	A	819	LCCWBZ	EQU	1				*****
		820	**	CWD		6	11-11	PCW DTR BIT	*****
000006	A	821	LCCWD	EQU	6				*****
		822	LCCWDB	EQU	11				*****
000013	A	823	LCCWDZ	EQU	1				*****
000001	A	824	**	CWP		6	10-10	PCW E/P BIT	*****
		825	LCCWP	EQU	6				*****
000012	A	826	LCCWPB	EQU	10				*****
000001	A	827	LCCWPZ	EQU	1				*****
		828	**	CHR		6	9- 9	PCW R BIT	*****
000006	A	829	LCCWR	EQU	6				*****
000011	A	830	LCCWRB	EQU	9				*****
000001	A	831	LCCWRZ	EQU	1				*****
		832	**	CWT		6	8- 8	PCW T BIT	*****
000006	A	833	LCCWT	EQU	6				*****
000010	A	834	LCCWTB	EQU	8				*****
000001	A	835	LCCWTZ	EQU	1				*****
		836	**	LTB		7	15-15	OUTPUT BREAKS FLAG	*****
000007	A	837	LCLTB	EQU	7				*****
000017	A	838	LCLTBB	EQU	15				*****
000001	A	839	LCLTBZ	EQU	1				*****
		840	**	OKE		7	0- 3	OUTPUT MAP BITS	*****
000007	A	841	LCOKE	EQU	7				*****
000000	A	842	LCOKEB	EQU	0				*****
000004	A	843	LCOKEZ	EQU	4				*****
		844	**	EJEC					*****
		845	*****	*****					*****
		846	**	TABLE NAME IS LSD				(LINE SERVICE DESCRIPTOR)	*****
		847	*****	*****					*****
		848	**	FIELD	WORD			BIT	DESCRIPTION
		849	**						*****
		850	**	THD	0			0-15	LSD THREAD CELL
000000	A	851	LSTHD	EQU	0				*****
000000	A	852	LSTHDB	EQU	0				*****
000020	A	853	LSTHDZ	EQU	16				*****
		854	**	RRT	1			0-15	REQUEST THREAD
000001	A	855	LSRRT	EQU	1				*****
000000	A	856	LSRRTB	EQU	0				*****
000020	A	857	LSRRTZ	EQU	16				*****
		858	**	RCA	2			0-15	READ COMPLETION ADDRESS
000002	A	859	LSRCA	EQU	2				*****
000000	A	860	LSRCAB	EQU	0				*****

VTAM AI	TC\$CEX	(10)	PAGE	10
000020 A 861 LSRCAZ EQU 16				*****
000003 A 862 ** REM 3 3	0-15	READ EVENT MASK		*****
000000 A 863 LSREM EQU 3				*****
000000 A 864 LSREMB EQU 0				*****
000020 A 865 LSREMZ EQU 16				*****
000004 A 866 ** RTO 4 4	0-15	READ TIME OUT		*****
000000 A 867 LSRT0 EQU 4				*****
000000 A 868 LSRT0B EQU 0				*****
000020 A 869 LSRT0Z EQU 16				*****
000005 A 870 ** SRS 5 5	0-15	STATIC RECEIVE STATUS		*****
000000 A 871 LSSRS EQU 5				*****
000000 A 872 LSSRSB EQU 0				*****
000020 A 873 LSSRSZ EQU 16				*****
000006 A 874 ** WCA 6 6	0-15	WRITE COMPLETION ADDRESS		*****
000000 A 875 LSWCA EQU 6				*****
000000 A 876 LSWCAB EQU 0				*****
000020 A 877 LSWCAZ EQU 16				*****
000007 A 878 ** WEM 7 7	0-15	WRITE EVENT MASK		*****
000000 A 879 LSWEM EQU 7				*****
000000 A 880 LSWEMB EQU 0				*****
000020 A 881 LSWEMZ EQU 16				*****
000010 A 882 ** WTO 8 8	0-15	WRITE TIMEOUT		*****
000000 A 883 LSWTO EQU 8				*****
000000 A 884 LSWTOB EQU 0				*****
000020 A 885 LSWTOZ EQU 16				*****
000011 A 886 ** SWS 9 9	0-15	STATIC WRITE STATUS		*****
000000 A 887 LSSWS EQU 9				*****
000000 A 888 LSSWSB EQU 0				*****
000020 A 889 LSSWSZ EQU 16				*****
000012 A 890 ** CTA 10 10	0-15	CCM CONTROLLER TABLE ADDRE**		*****
000000 A 891 LSCTA EQU 10				*****
000000 A 892 LSCTAB EQU 0				*****
000020 A 893 LSCTAZ EQU 16				*****
000013 A 894 ** DST 11 11	0-15	DYNAMIC STATUS		*****
000000 A 895 LSDST EQU 11				*****
000000 A 896 LSDSTB EQU 0				*****
000020 A 897 LSDSTZ EQU 16				*****
000014 A 898 ** MOD 12 12	14-15	MODEM TYPE		*****
000000 A 899 LSMOD EQU 12				*****
000016 A 900 LSMODB EQU 14				*****
000002 A 901 LSMODZ EQU 2				*****
000014 A 902 ** PAR 12 12	12-13	PARITY MODE		*****
000000 A 903 LSPAR EQU 12				*****
000014 A 904 LSPARB EQU 12				*****
000002 A 905 LSPARZ EQU 2				*****
000014 A 906 ** ASY 12 12	11-11	ASYNC/SYNC FLAG		*****
000000 A 907 LSASY EQU 12				*****
000013 A 908 LSASYB EQU 11				*****
000001 A 909 LSASYZ EQU 1				*****
000014 A 910 ** XMM 12 12	9-10	TRANSMISSION MODE		*****
000000 A 911 LSXMM EQU 12				*****
000011 A 912 LSXMMB EQU 9				*****
000002 A 913 LSXMMZ EQU 2				*****
000014 A 914 ** LSP 12 12	0- 8	LINE SPEED		*****
000000 A 915 LSLSP EQU 12				*****
000011 A 916 LSLSPB EQU 0				*****
000000 A 917 LSLSPZ EQU 9				*****
000015 A 918 ** CC1 13 13	8-15	CONTROL CHARACTER 1		*****
000010 A 919 LSCC1 EQU 13				*****
000010 A 920 LSCC1B EQU 8				*****
000010 A 921 LSCC1Z EQU 8				*****
000015 A 922 ** CC2 13 13	0- 7	CONTROL CHARACTER 2		*****
000000 A 923 LSCC2 EQU 13				*****
000000 A 924 LSCC2B EQU 0				*****
000010 A 925 LSCC2Z EQU 8				*****
000016 A 926 ** TER 14 14	15-15	TERMINATE ON CONTROL CHARA**		*****
000000 A 927 LSTER EQU 14				*****
000017 A 928 LSTERB EQU 15				*****
000001 A 929 LSTERZ EQU 1				*****
000016 A 930 ** EPF 14 14	14-14	E/P FLAG		*****
000000 A 931 LSEPF EQU 14				*****
000016 A 932 LSEPFB EQU 14				*****
000001 A 933 LSEPFZ EQU 1				*****
000016 A 934 ** WRS 14 14	11-13	WRITE REQUEST STATUS		*****
000000 A 935 LSWRS EQU 14				*****
000013 A 936 LSWRSB EQU 11				*****
000003 A 937 LSWRSZ EQU 3				*****
000016 A 938 ** RRS 14 14	8-10	READ REQUEST STATUS		*****
000000 A 939 LSRRS EQU 14				*****
000010 A 940 LSRRSB EQU 8				*****
000003 A 941 LSRRSZ EQU 3				*****
000016 A 942 ** PLA 14 14	0- 7	PHYSICAL LINE ADDRESS		*****
000000 A 943 LSPLA EQU 14				*****
000000 A 944 LSPLAB EQU 0				*****
000010 A 945 LSPLAZ EQU 8				*****
000017 A 946 ** DSF 15 15	15-15	D/S FLAG		*****
000000 A 947 LSDSF EQU 15				*****
000017 A 948 LSDSFB EQU 15				*****
000001 A 949 LSDSFZ EQU 1				*****
000017 A 950 ** YNC 15 15	14-14	INPUT SYNC CONTROL		*****
000000 A 951 LSYNC EQU 15				*****
000016 A 952 LSYNCB EQU 14				*****
000001 A 953 LSYNCZ EQU 1				*****
000017 A 954 ** ABN 15 15	13-13	STOP RQST ON ABN STATUS		*****
000000 A 955 LSABN EQU 15				*****
000015 A 956 LSABNB EQU 13				*****
000001 A 957 LSABNZ EQU 1				*****

Address	Mode	Label	Equation	Length	TC\$CEX	Description
000017	A	958	** CRC	15	10-12	NO. OF CRC BYTES
000012	A	959	LSCRC EQU	15		
000012	A	960	LSCRCB EQU	10		
000003	A	961	LSCRCZ EQU	3		
000017	A	962	** ASC	15	9- 9	7-BIT ASCII MODE FLAG
000011	A	963	LSASC EQU	15		
000011	A	964	LSASCB EQU	9		
000001	A	965	LSASCZ EQU	1		
000017	A	966	** YNT	15	0- 7	XMIT SYNC CHAR
000017	A	967	LSYNT EQU	15		
000000	A	968	LSYNTB EQU	0		
000010	A	969	LSYNTZ EQU	8		
000020	A	970	** NTO	16	8-13	NO. TERM. OPEN ON LINE
000010	A	971	LSNTO EQU	16		
000010	A	972	LSNTOB EQU	8		
000006	A	973	LSNTOZ EQU	6		
000020	A	974	** YNR	16	0- 7	RECV SYNC CHAR
000020	A	975	LSYNR EQU	16		
000000	A	976	LSYNRB EQU	0		
000010	A	977	LSYNRZ EQU	8		
978			EJEC			
979			.....		
980	**		TABLE NAME IS TCD (TERMINAL CNTRLR DESCRIPTOR)			
981			.....		
982	**	FIELD	WORD		BIT	DESCRIPTION
983	**					
984	**	TCD	0		0-15	ADRS OF NEXT TCD IN QUEUE
000000	A	985	TCTCD EQU	0		
000000	A	986	TCTCDB EQU	0		
000020	A	987	TCTCDZ EQU	16		
000001	A	988	** RQH	1	0-15	HEAD OF REQUEST QUEUE
000001	A	989	TCRQH EQU	1		
000000	A	990	TCRQHB EQU	0		
000020	A	991	TCRQHZ EQU	16		
000002	A	992	** CTA	2	0-15	ADRS OF CNTRLR TBL FOR TC
000002	A	993	TCCTA EQU	2		
000000	A	994	TCCTAB EQU	0		
000020	A	995	TCCTAZ EQU	16		
000003	A	996	** CLN	3	0- 7	LUN FOR THE CCM
000003	A	997	TCCLN EQU	3		
000000	A	998	TCCLNB EQU	0		
000010	A	999	TCCLNZ EQU	8		
000003	A	1000	** LLN	3	8-15	LOGICAL LINE NUMBER
000010	A	1001	TCLLN EQU	3		
000010	A	1002	TCLLNB EQU	8		
000010	A	1003	TCLLNZ EQU	8		
000004	A	1004	** PCH	4	0- 7	PROMPTING CHAR FOR TERMINL
000004	A	1005	TCPCH EQU	4		
000000	A	1006	TCPCHB EQU	0		
000010	A	1007	TCPCHZ EQU	8		
000004	A	1008	** SWL	4	8- 8	1 SWITCHED LN, 0 NOT SWITC
000004	A	1009	TCSWL EQU	4		
000010	A	1010	TCSWLB EQU	8		
000001	A	1011	TCSWLZ EQU	1		
000004	A	1012	** BSL	4	9- 9	1 BIN SYNC LN, 0 ASYNC
000011	A	1013	TCBSL EQU	4		
000011	A	1014	TCBSLB EQU	9		
000001	A	1015	TCBSLZ EQU	1		
000004	A	1016	** XMM	4	10-11	TRANSMISSION MODE
000004	A	1017	TCXMM EQU	4		
000012	A	1018	TCXMMB EQU	10		
000002	A	1019	TCXMMZ EQU	2		
000004	A	1020	** ECH	4	12-12	1 NO ECHO, 0 ECHO FULL DUP
000014	A	1021	TCECH EQU	4		
000014	A	1022	TCECHB EQU	12		
000001	A	1023	TCECHZ EQU	1		
000004	A	1024	** CON	4	13-13	1 PHYS CON MADE, 0 NOT MAD
000004	A	1025	TCCON EQU	4		
000015	A	1026	TCCONB EQU	13		
000001	A	1027	TCCONZ EQU	1		
000004	A	1028	** WBC	4	14-14	0 WD COUNT FOR WRITE, 1 BY
000004	A	1029	TCWBC EQU	4		
000016	A	1030	TCWBCB EQU	14		
000001	A	1031	TCWBCZ EQU	1		
000004	A	1032	** RBC	4	15-15	0 WORD COUNT FOR READ, 1 B
000017	A	1033	TCRBC EQU	4		
000017	A	1034	TCRBCB EQU	15		
000001	A	1035	TCRBCZ EQU	1		
000005	A	1036	** NTD	5	0- 3	NO. DEVICES THIS TERMINAL
000005	A	1037	TCNTD EQU	5		
000000	A	1038	TCNTDB EQU	0		
000004	A	1039	TCNTDZ EQU	4		
000005	A	1040	** NOD	5	4- 7	NO. DEVICES OPEN THIS TERM
000005	A	1041	TCNOD EQU	5		
000004	A	1042	TCNODB EQU	4		
000004	A	1043	TCNODZ EQU	4		
000005	A	1044	** TYP	5	8-11	TSD/TCM TYPE
000005	A	1045	TCTYP EQU	5		
000010	A	1046	TCTYPB EQU	8		
000004	A	1047	TCTYPZ EQU	4		
000005	A	1048	** CTP	5	12-15	TRANSMISSION CODE TYPE
000005	A	1049	TCCTP EQU	5		
000014	A	1050	TCCTPB EQU	12		
000004	A	1051	TCCTPZ EQU	4		
000006	A	1052	** RMD	6	0- 2	MODE OF READ OPERATION
000006	A	1053	TCRMD EQU	6		

000000	A	1054	TCRMD8	EQU	0				*****
000003	A	1055	TCRMDZ	EQU	3				*****
		1056	**	WMD		6	3- 5	MODE OF WRITE OPERATION	*****
000006	A	1057	TCWMD	EQU	6				*****
000003	A	1058	TCWMD8	EQU	3				*****
000003	A	1059	TCWMDZ	EQU	3				*****
		1060	**	RRS		6	6- 8	READ REQUEST STATUS	*****
000006	A	1061	TCRRS	EQU	6				*****
000006	A	1062	TCRRS8	EQU	6				*****
000003	A	1063	TCRRSZ	EQU	3				*****
		1064	**	WRS		6	9-11	WRITE REQUEST STATUS	*****
000006	A	1065	TCWRS	EQU	6				*****
000011	A	1066	TCWRS8	EQU	9				*****
000003	A	1067	TCWRSZ	EQU	3				*****
		1068	**	LDF		6	12-12	LINE DISCONNECT FLAG	*****
000006	A	1069	TCLDF	EQU	6				*****
000014	A	1070	TCLDF8	EQU	12				*****
000001	A	1071	TCLDFZ	EQU	1				*****
		1072	**	RCA		7	0-15	CCM READ RQST BLOCK ADRS	*****
000007	A	1073	TCRCA	EQU	7				*****
000000	A	1074	TCRCAB	EQU	0				*****
000020	A	1075	TCRCAZ	EQU	16				*****
		1076	**	STO		8	0-15	READ TIMEOUT VALUE	*****
000010	A	1077	TCSTO	EQU	8				*****
000000	A	1078	TCSTOB	EQU	0				*****
000020	A	1079	TCSTOZ	EQU	16				*****
		1080	**	HCA		9	0-15	CCM WRITE RQST BLOCK ADRS	*****
000011	A	1081	TCWCA	EQU	9				*****
000000	A	1082	TCWCAB	EQU	0				*****
000020	A	1083	TCWCAZ	EQU	16				*****
		1084	**	DCC		10	0-15	DYNAMIC CHAR COUNT FOR REA	*****
000012	A	1085	TCDC	EQU	10				*****
000000	A	1086	TCDCB	EQU	0				*****
000020	A	1087	TCDCZ	EQU	16				*****
		1088	**	RBF		11	0-15	DYNAMIC READ BUFR ADRS	*****
000013	A	1089	TCRBF	EQU	11				*****
000000	A	1090	TCRBF8	EQU	0				*****
000020	A	1091	TCRBFZ	EQU	16				*****
		1092	**	DTO		12	0-15	DYNAMIC READ TIMEOUT VALUE	*****
000014	A	1093	TCDTO	EQU	12				*****
000000	A	1094	TCDTOB	EQU	0				*****
000020	A	1095	TCDTOZ	EQU	16				*****
		1096	**	ID1		13	0-15	1ST 2 CHAR OF TUID	*****
000015	A	1097	TCID1	EQU	13				*****
000000	A	1098	TCID18	EQU	0				*****
000020	A	1099	TCID1Z	EQU	16				*****
		1100	**	ID2		14	0-15	2ND 2 CHAR OF TUID	*****
000016	A	1101	TCID2	EQU	14				*****
000000	A	1102	TCID28	EQU	0				*****
000020	A	1103	TCID2Z	EQU	16				*****

1104			EJEC						*****
1105			*****						*****
1106	**	TABLE NAME IS TPT	(TCM PROCESSOR TABLE)					*****
1107			*****						*****
1108	**	FIELD	WORD	BIT				DESCRIPTION	*****
1109	**								*****
			RPA	13		0-15		READ PROCESSOR ADDRESS	*****
000015	A	1111	TPRPA	EQU	13				*****
000000	A	1112	TPRPAB	EQU	0				*****
000020	A	1113	TPRPAZ	EQU	16				*****
			HPA	14		0-15		WRITE PROCESSOR ADDRESS	*****
000016	A	1115	TPWPA	EQU	14				*****
000000	A	1116	TPWPAB	EQU	0				*****
000020	A	1117	TPWPAZ	EQU	16				*****
			FPA	15		0-15		FUNC PROCESSOR ADDRESS	*****
000017	A	1119	TPFPA	EQU	15				*****
000000	A	1120	TPFPAB	EQU	0				*****
000020	A	1121	TPFPAZ	EQU	16				*****

1122			EJEC						*****
1123			*****						*****
1124	**	TABLE NAME IS PSD	(PROTOTYPE LSD)					*****
1125			*****						*****
1126	**	FIELD	WORD	BIT				DESCRIPTION	*****
1127	**								*****
			MOD	0		14-15		MODEM TYPE	*****
000000	A	1129	PSMOD	EQU	0				*****
000016	A	1130	PSMOD8	EQU	14				*****
000002	A	1131	PSMODZ	EQU	2				*****
			PAR	0		12-13		PARITY MODE	*****
000000	A	1133	PSPAR	EQU	0				*****
000014	A	1134	PSPARB	EQU	12				*****
000002	A	1135	PSPARZ	EQU	2				*****
			ASY	0		11-11		SYNC/ASYNC FLAG	*****
000000	A	1137	PSASY	EQU	0				*****
000013	A	1138	PSASY8	EQU	11				*****
000001	A	1139	PSASYZ	EQU	1				*****
			XMM	0		9-10		TRANSMISSION MODE	*****
000000	A	1141	PSXMM	EQU	0				*****
000011	A	1142	PSXMM8	EQU	9				*****
000002	A	1143	PSXMMZ	EQU	2				*****
			LSP	0		0- 8		LINE SPEED	*****
000000	A	1145	PSLSP	EQU	0				*****
000000	A	1146	PSLSP8	EQU	0				*****
000011	A	1147	PSLSPZ	EQU	9				*****
			CC1	1		8-15		CONTROL CHARACTER 1	*****
1148	**								*****

000001	A	1149	PSCC1	EQU	1				*****
000010	A	1150	PSCC1B	EQU	8				*****
000010	A	1151	PSCC1Z	EQU	8				*****
		1152	**	CC2		1	0- 7	CONTROL CHARACTER 2	*****
000001	A	1153	PSCC2	EQU	1				*****
000000	A	1154	PSCC2B	EQU	0				*****
000010	A	1155	PSCC2Z	EQU	8				*****
		1156	**	TER		2	15-15	READ TERMINATION CONTROL	*****
000002	A	1157	PSTER	EQU	2				*****
000017	A	1158	PSTERB	EQU	15				*****
000001	A	1159	PSTERZ	EQU	1				*****
		1160	**	EPF		2	14-14	E/P BIT IN DCM	*****
000002	A	1161	PSEPF	EQU	2				*****
000016	A	1162	PSEPFZ	EQU	14				*****
000001	A	1163	PSEPFZ	EQU	1				*****
		1164	**	DWN		2	9- 9	LINE DOWN FLAG	*****
000002	A	1165	PSDWN	EQU	2				*****
000011	A	1166	PSDWNB	EQU	9				*****
000001	A	1167	PSDWNZ	EQU	1				*****
		1168	**	DEF		2	8- 8	LINE DEFINED FLAG	*****
000002	A	1169	PSDEF	EQU	2				*****
000010	A	1170	PSDEFB	EQU	8				*****
000001	A	1171	PSDEFZ	EQU	1				*****
		1172	**	PLA		2	0- 7	PHYSICAL LINE ADDRESS	*****
000002	A	1173	PSPLA	EQU	2				*****
000000	A	1174	PSPLAB	EQU	0				*****
000010	A	1175	PSPLAZ	EQU	8				*****
		1176	**	DSF		3	15-15	DS/S BIT IN DCM	*****
000003	A	1177	PSDSF	EQU	3				*****
000017	A	1178	PSDSFB	EQU	15				*****
000001	A	1179	PSDSFZ	EQU	1				*****
		1180	**	YNC		3	14-14	RESYNC ON READ	*****
000003	A	1181	PSYNC	EQU	3				*****
000016	A	1182	PSYNCB	EQU	14				*****
000001	A	1183	PSYNCZ	EQU	1				*****
		1184	**	ABN		3	13-13	ERROR STOP FLAG	*****
000003	A	1185	PSABN	EQU	3				*****
000015	A	1186	PSABNB	EQU	13				*****
000001	A	1187	PSABNZ	EQU	1				*****
		1188	**	CRC		3	10-12	INPUT CRC COUNT	*****
000003	A	1189	PSCRC	EQU	3				*****
000012	A	1190	PSCRCB	EQU	10				*****
000003	A	1191	PSCRCZ	EQU	3				*****
		1192	**	YNT		3	0- 7	SYNC XMIT BYTE	*****
000003	A	1193	PSYNT	EQU	3				*****
000000	A	1194	PSYNTB	EQU	0				*****
000010	A	1195	PSYNTZ	EQU	8				*****
		1196	**	YNR		4	0- 7	SYNC RECV BYTE	*****
000004	A	1197	PSYNR	EQU	4				*****
000000	A	1198	PSYNRB	EQU	0				*****
000010	A	1199	PSYNRZ	EQU	8				*****
		1200	**	EJEC					*****
		1201	*****	*****					*****
		1202	**	TABLE NAME IS PCD (PROTOTYPE TCD)					*****
		1203	*****	*****					*****
		1204	**	FIELD	WORD		BIT	DESCRIPTION	*****
		1205	**						*****
		1206	**	LLN	0		8-15	LOGICAL LINE NUMBER	*****
000000	A	1207	PCLLN	EQU	0				*****
000010	A	1208	PCLLNB	EQU	8				*****
000010	A	1209	PCLLNZ	EQU	8				*****
		1210	**	CLN	0		0- 7	LOGICAL UNIT OF CCM	*****
000000	A	1211	PCCLN	EQU	0				*****
000000	A	1212	PCCLNB	EQU	0				*****
000010	A	1213	PCCLNZ	EQU	8				*****
		1214	**	ECH	1		12-12	ECHO ON FULL DUPLEX	*****
000001	A	1215	PCECH	EQU	1				*****
000014	A	1216	PCECHB	EQU	12				*****
000001	A	1217	PCECHZ	EQU	1				*****
		1218	**	XMM	1		10-11	TRANSMISSION MODE	*****
000001	A	1219	PCXMM	EQU	1				*****
000012	A	1220	PCXMMB	EQU	10				*****
000002	A	1221	PCXMMZ	EQU	2				*****
		1222	**	BSL	1		9- 9	BISYNC FLAG	*****
000001	A	1223	PCBSL	EQU	1				*****
000011	A	1224	PCBSLB	EQU	9				*****
000001	A	1225	PCBSLZ	EQU	1				*****
		1226	**	SWL	1		8- 8	SWITCHED LINE FLAG	*****
000001	A	1227	PCSWL	EQU	1				*****
000010	A	1228	PCSWLB	EQU	8				*****
000001	A	1229	PCSWLZ	EQU	1				*****
		1230	**	PCH	1		0- 7	TERMINAL PROMPT BYTE	*****
000001	A	1231	PCPCH	EQU	1				*****
000000	A	1232	PCPCHB	EQU	0				*****
000010	A	1233	PCPCHZ	EQU	8				*****
		1234	**	CTP	2		12-15	CODE TYPE	*****
000002	A	1235	PCCTP	EQU	2				*****
000014	A	1236	PCCTPB	EQU	12				*****
000004	A	1237	PCCTPZ	EQU	4				*****
		1238	**	TYP	2		8-11	TCD/TCM TYPE	*****
000002	A	1239	PCTYP	EQU	2				*****
000010	A	1240	PCTYPB	EQU	8				*****
000004	A	1241	PCTYPZ	EQU	4				*****
		1242	**	NTD	2		0- 3	NUMBER OF DEVICES	*****
000002	A	1243	PCNTD	EQU	2				*****
000000	A	1244	PCNTDB	EQU	0				*****

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000004 A 1245 PCNTDZ EQU 4 *****
1246 EJECT *****
1247 *****
1248 ** TABLE NAME IS TIB (TERMINAL INDEX BLOCK) *****
1249 *****
1250 ** FIELD WORD BIT DESCRIPTION *****
1251 ** *****
1252 ** TUI 0 0-15 FIRST TWO CHARS OF TUID *****
000000 A 1253 TITUI EQU 0 *****
000000 A 1254 TITUIB EQU 0 *****
000020 A 1255 TITUIZ EQU 16 *****
1256 ** TU2 1 0-15 SECOND TWO CHARACS OF TUID *****
000001 A 1257 TITU2 EQU 1 *****
000000 A 1258 TITU2B EQU 0 *****
000020 A 1259 TITU2Z EQU 16 *****
1260 ** DWN 2 15-15 TERMINAL DOWN FLAG *****
000002 A 1261 TIDWN EQU 2 *****
000017 A 1262 TIDWNB EQU 15 *****
000001 A 1263 TIDWNZ EQU 1 *****
1264 ** SEC 2 7-14 SECTOR POINTER *****
000002 A 1265 TISEC EQU 2 *****
000007 A 1266 TISECB EQU 7 *****
000010 A 1267 TISECZ EQU 8 *****
1268 ** DSP 2 0-6 DISPLACEMENT *****
000002 A 1269 TIDSP EQU 2 *****
000000 A 1270 TIDSPB EQU 0 *****
000007 A 1271 TIDSPZ EQU 7 *****
1272 ** ODN 3 15-15 LOD DOWN FLAG *****
000003 A 1273 TIODN EQU 3 *****
000017 A 1274 TIODNB EQU 15 *****
000001 A 1275 TIODNZ EQU 1 *****
1276 ** OSC 3 7-14 OLD SECTOR POINTER *****
000003 A 1277 TIOSC EQU 3 *****
000007 A 1278 TIOSCB EQU 7 *****
000010 A 1279 TIOSCZ EQU 8 *****
1280 ** ODP 3 0-6 OLD DISPLACEMENT *****
000003 A 1281 TIODP EQU 3 *****
000000 A 1282 TIODPB EQU 0 *****
000007 A 1283 TIODPZ EQU 7 *****
1284 ** NET 0 0-15 NUMBER OF ENTRIES *****
000000 A 1285 TINET EQU 0 *****
000000 A 1286 TINETB EQU 0 *****
000020 A 1287 TINETZ EQU 16 *****

1288 LIST *****
1289 * 03 00014
1290 GETMEM MAC 03 00015
1291 LDAI P(2) 03 00016
1292 LOBI P(1) 03 00017
1293 STX *+6 03 00018
1294 JSR V$EXEC,1 03 00019
1295 DATA 0600 03 00020
1296 DATA VT$GTM 03 00021
1297 LDXI * 03 00022
1298 EMAC 03 00023
1299 PUTMEM MAC 03 00024
1300 LDAI P(1) 03 00025
1301 LDB P(2) 03 00026
1302 STX *+6 03 00027
1303 JSR V$EXEC,1 03 00028
1304 DATA 0600 03 00029
1305 DATA VT$PTM 03 00030
1306 LDXI * 03 00031
1307 EMAC 03 00032

1308 EJECT 03 00033
1309 TITLE TC$BRQ 03 00034
1310 ***** 03 00035
1311 ***** 03 00036
1312 ** PROGRAM NAME - **03 00037
1313 ** TC$BRQ - SETS UP SKELETON CCM RQST BLK **03 00038
1314 ** **03 00039
1315 ** ENTRY CONDITIONS - **03 00040
1316 ** (X) = TCD ADDRESS **03 00041
1317 ** (B) = ADDRESS OF ALLOCATED MEMORY FOR RQST BLK **03 00042
1318 ** (CCM RQBLK SIZE MUST BE 12 WORDS OR MORE) **03 00043
1319 ** **03 00044
1320 ** EXIT CONDITIONS - **03 00045
1321 ** (X) UNCHANGED **03 00046
1322 ** (B) UNCHANGED **03 00047
1323 ** (A) DESTROYED **03 00048
1324 ** **03 00049
1325 ** CALLING SEQUENCE - **03 00050
1326 ** JMPM TC$BRQ **03 00051
1327 ** (RETURN) **03 00052
1328 ** **03 00053
1329 ***** 03 00054
1330 ***** 03 00055
1331 NAME TC$BRQ 03 00056
000000 000000 A 1332 TC$BRQ ENTR 03 00057
000001 A 1333 TCD SET X 03 00058
000002 A 1334 RQBLK SET B 03 00059
000001 014023 A 1335 LDA JSRWD SET UP VS$IOC CALL 03 00060
000002 056000 A 1336 STA 0,RQBLK 03 00061
000003 014023 A 1337 LDA IOCA 03 00062
000004 056001 A 1338 STA 1,RQBLK 03 00063
000005 010440 A 1339 LDA BS15 CLEAR STATUS WORD, SET COMPLETE BIT 03 00064
000006 056002 A 1340 STA 2,RQBLK 03 00065

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			1341	FETCHA	TC\$D, TC\$CLN, TC\$CLNB, TC\$CLNZ		03 00066	
000007	015003	A						
000010	150463	A						
000011	110440	A	1342	ORA	BS15	IMMEDIATE RETURN	03 00067	
000012	056003	A	1343	STA	3, RQBLK	STORE CCM LOGICAL UNIT	03 00068	
000013	005021	A	1344	TBA		BUILD AN LCB	03 00069	
000014	120470	A	1345	ADD	NINE		03 00070	
000015	056004	A	1346	STA	4, RQBLK		03 00071	
			1347	FETCHA	TC\$D, TC\$CLN, TC\$CLNB, TC\$CLNZ		03 00072	
000016	015003	A						
000017	004350	A						
000020	056013	A	1348	STA	11, RQBLK	STORE LOGICAL LINE NUMBER	03 00073	
000021	014004	A	1349	LDA	JMPWD		03 00074	
000022	056007	A	1350	STA	7, RQBLK	STORE JMP INSTRUCTION	03 00075	
000023	001000	A	1351	JMP*	TC\$BRQ		03 00076	
000024	100000	R						
			1352	*		CONSTANTS	03 00077	
000025	006505	A	1353	JSRWD	DATA 006505	JUMP AND SET RETURN IN X REG INST.	03 00078	
000026	001000	A	1354	JMPWD	DATA 001000	JUMP UNCONDITIONAL INST.	03 00079	
			1355	EXT	V\$IOC		03 00080	
000027	000000	E	1356	IOCA	DATA V\$IOC		03 00081	
			1357	EJEC			03 00082	
			1358	TITLE	TC\$FRR		03 00083	
			1359	*****	*****	*****	03 00084	
			1360	*****	*****	*****	03 00085	
			1361	**	PROGRAM NAME -		**03 00086	
			1362	**	TC\$FRR - TC\$FWR - FIND NEXT READ OR WRITE RQST ON		**03 00087	
			1363	**	TC\$D REQUEST QUEUE		**03 00088	
			1364	**	ENTRY CONDITIONS -		**03 00089	
			1365	**	(X) = TC\$D ADDRESS		**03 00090	
			1366	**			**03 00091	
			1367	**	EXIT CONDITIONS -		**03 00092	
			1368	**	(X) UNCHANGED		**03 00093	
			1369	**	(B) DESTROYED		**03 00094	
			1370	**	(A) .GT. 0, (A) = ADDRESS OF NEXT REQUEST OF TYPE		**03 00095	
			1371	**	(A) .EQ. 0, NO REQUEST OF TYPE DESIRED AVAILABLE		**03 00096	
			1372	**			**03 00097	
			1373	**	CALLING SEQUENCE -		**03 00098	
			1374	**	JMPM TC\$FRR		**03 00099	
			1375	**	OR		**03 00100	
			1376	**	JMPM TC\$FWR		**03 00101	
			1377	**			**03 00102	
			1378	**	(RETURN)		**03 00103	
			1379	**			**03 00104	
			1380	*****	*****	*****	03 00105	
			1381	*****	*****	*****	03 00106	
			1382	SPACE	5		03 00107	
			1383	NAME	TC\$FRR, TC\$FWR		03 00108	
000030	000000	A	1384	TC\$FRR	ENTR	READ RQST ENTRY	03 00109	
000031	006017	A	1385	LDAE	TC\$FRR	EXIT SETUP	03 00110	
000032	000030	R						
000033	054045	A	1386	STA	FRXIT+1		03 00111	
000034	005001	A	1387	TZA		SET RQST TYPE TO READ	03 00112	
000035	001000	A	1388	JMP	FR01		03 00113	
000036	000044	R						
			1389	SPACE	5		03 00114	
000037	000000	A	1390	TC\$FWR	ENTR	WRITE RQST ENTRY	03 00115	
000040	006017	A	1391	LDAE	TC\$FWR		03 00116	
000041	000037	R						
000042	054036	A	1392	STA	FRXIT+1		03 00117	
000043	010421	A	1393	LDA	ONE	SET RQST TYPE TO WRITE	03 00118	
			1394	SPACE	2		03 00119	
000044	054035	A	1395	FR01	STA	FROPCD	03 00120	
			1396	*		FORM THE ADDRESS OF TC\$D REQUEST QUEUE POINTER	03 00121	
000045	005041	A	1397	TXA			03 00122	
			1398	ADAT	TCRQH	ADD DISPLACEMENT OF RQST QUEUE HEAD PTR	03 00123	
000046	120421	A						
000047	054033	A	1399	STA	FRRQST		03 00124	
			1400	SPACE	2		03 00125	
000050	006017	A	1401	FR05	LDAE*	FRRQST	(A) = ADDR OF NEXT RQST IN QUEUE	03 00126
000051	100103	R						
000052	001010	A	1402	JAZ	FRXIT	END OF THRD, NONE FOUND.	03 00127	
000053	000100	R						
000054	005012	A	1403	TAB			03 00128	
	000002	A	1404	RQST	SET	B	03 00129	
			1405	FETCHA	RQST, ROPWD, B, 4		03 00130	
000055	016001	A						
000056	004350	A						
000057	150472	A						
000060	140422	A	1406	SUB	TWO		03 00131	
000061	001010	A	1407	JAZ	FRXIT	WE OF RQST FOUND FIRST, NO FIND	03 00132	
000062	000100	R						

VTAM	A1			TC\$CEX	(16)	PAGE	16	
000063	140464	A	1408	SUB	THREE		03 00133	
000064	001010	A	1409	JAZ	FRXIT	FUNC RQST FOUND FIRST, NO FIND	03 00134	
000065	000100	R						
000066	120465	A	1410	ADD	FIVE		03 00135	
000067	144012	A	1411	SUB	FROPCD		03 00136	
000070	001010	A	1412	JAZ	FR10		03 00137	
000071	000077	R						
000072	005021	A	1413	TBA		NOT REQUESTED TYPE, CHECK NEXT RQST	03 00138	
			1414	ADAT	RADNR		03 00139	
000073	120423	A						
000074	054006	A	1415	STA	FRRQST		03 00140	
000075	001000	A	1416	JMP	FR05		03 00141	
000076	000050	R						
			1417	SPACE	2		03 00142	
000077	005021	A	1418	FR10	TBA	FOUND, SET (A) = ADDR OF RQST	03 00143	
000100	001000	A	1419	FRXIT	JMP	*	03 00144	
000101	000100	R						
			1420	SPACE	5		03 00145	
000102	000000	A	1421	FROPCD	DATA	0	03 00146	
000103	000000	A	1422	FRRQST	DATA	0	03 00147	
			1423	EJEC			03 00148	
			1424	TITLE	TC\$CRQ		03 00149	
			1425	*****				03 00150
			1426	*****				03 00151
			1427	**	PROGRAM NAME -		**03 00152	
			1428	**	TC\$CRQ - VTAM TCM REQUEST COMPLETION PROGRAM		**03 00153	
			1429	**	TC\$FRQ - ALTERNATE ENTRY POINT WHEN CCM STATUS NOT USED		**03 00154	
			1430	**	ENTRY CONDITIONS -		**03 00155	
			1431	**	(A) = REQUEST STATUS, BITS 14-9 HOLDS ERROR CODE		**03 00156	
			1432	**	(B) = ADDRESS OF REQUEST		**03 00157	
			1433	**	(X) = ADDRESS OF TCD		**03 00158	
			1434	**	INTERRUPTS DISABLED		**03 00159	
			1435	**	EXIT CONDITIONS -		**03 00160	
			1436	**	REQUEST IS DETHREADED FROM TCD REQUEST QUEUE AND PROPER		**03 00161	
			1437	**	STATUS AND COMPLETION BITS ARE SET IN RQST BLK. AND		**03 00162	
			1438	**	REQUESTOR'S TIDB.		**03 00163	
			1439	**			**03 00164	
			1440	**	(A) DESTROYED		**03 00165	
			1441	**	(B) DESTROYED		**03 00166	
			1442	**	(X) UNCHANGED		**03 00167	
			1443	**	INTERRUPTS DISABLED		**03 00168	
			1444	**			**03 00169	
			1445	**	CALLING SEQUENCE -		**03 00170	
			1446	**	JMPM TC\$CRQ OR JMPM TC\$FRQ		**03 00171	
			1447	**	(RETURN)		**03 00172	
			1448	**			**03 00173	
			1449	*****				03 00174
			1450	*****				03 00175
			1451	NAME	TC\$CRQ,TC\$FRQ		03 00176	
000104	000000	A	1452	TC\$FRQ	ENTR		03 00177	
000105	007400	A	1453	ROF		FLAG FOR ALTERNATE ENTRY	03 00178	
000106	001000	A	1454	JMP	TC\$CRQ+2		03 00179	
000107	000112	R						
000110	000000	A	1455	TC\$CRQ	ENTR		03 00180	
000111	007401	A	1456	SOF		FLAG FOR NORMAL ENTRY	03 00181	
			1457	SPACE	5		03 00182	
000112	054217	A	1458	STA	CRSTAT	SAVE RQST STATUS	03 00183	
000113	064213	A	1459	STB	CRQST	SAVE RQST ADDR	03 00184	
			1460	*		PERFORM HOUSEKEEPING FOR DETHREADING OF RQST	03 00185	
000114	005041	A	1461	TXA			03 00186	
			1462	ADAT	TCRQH	CALCULATE ADDR OF TCD RQST QUEUE THREAD	03 00187	
000115	120421	A						
000116	054212	A	1463	STA	CRPREV	POINTER AND SAVE IN PREVIOUS RQST CELL	03 00188	
			1464	SPACE	3		03 00189	
			1465	*	FIND THE REQUEST ON THREAD		03 00190	
000117	006027	A	1466	CR10	LDBE*	CRPREV (B) = ADDR OF NEXT RQST ON THREAD	03 00191	
000120	100331	R						
000121	001020	A	1467	JBZ	CR15A	NO RQSTS, NOT QUEUED ON TCD, IMMED. FUNC	03 00192	
000122	000137	R						
000123	005021	A	1468	TBA			03 00193	
000124	134202	A	1469	ERA	CRQST	CHECK IF NEXT RQST IS COMPLETED ONE	03 00194	
000125	001010	A	1470	JAZ	CR15	YES, FOUND	03 00195	
000126	000134	R						
000127	005021	A	1471	TBA		NOT FOUND,SET UP TO CHECK NEXT RQST	03 00196	
			1472	ADAT	RADNR		03 00197	
000130	120423	A						
000131	054177	A	1473	STA	CRPREV		03 00198	
000132	001000	A	1474	JMP	CR10		03 00199	
000133	000117	R						
			1475	SPACE	3		03 00200	

000134	026004	A	1476 *			REMOVE OBJECT RQST FROM QUEUE AND CLOSE THREAD	03	00201
000135	006067	A	1477 CR15	LDB		RADNR,B	03	00202
000136	100331	R	1478	STBE*		CRPREV	03	00203
			1479	SPACE	5		03	00204
000137	074170	A	1480 CR15A	STX		CRTCD SAVE TCD ADDR TO BE RESTORED ON EXIT	03	00205
			1481 *			DECREMENT NO. OF I/O REQUESTS ACTIVE AND QUEUED IN TBIO	03	00206
			1482 *			ENTRY OF REQUESTOR'S TIDB.	03	00207
000140	024166	A	1483 *			CLEAR SUSPEND BIT IF WAIT SELECTED IN REQUEST	03	00208
	000002	A	1484	LDB		CRQST GET TIDB ADDR FROM RQST	03	00209
			1485 RQST	SET		B	03	00210
			1486	FETCHA		RQST,RTIDB,0,16	03	00211
000141	016003	A						
000142	005014	A	1487	TAX		(X) = ADDR OF TIDB	03	00212
	000001	A	1488 TIDB	SET		X	03	00213
			1489 *			DECREMENT NO. OF I/O ACTIVE AND QUEUED	03	00214
			1490	FETCHA		TIDB,TBIO,0,10	03	00215
000143	015021	A						
000144	150477	A						
000145	006140	A	1491	SUBI	041		03	00216
000146	000041	A						
			1492	SETA		TIDB,TBIO,0,10	03	00217
000147	135021	A						
000150	150477	A						
000151	135021	A						
000152	055021	A						
			1493	SPACE	2		03	00218
000153	024153	A	1494 *			CLEAR SUSPEND BIT IF WAIT SELECTED	03	00219
			1495	LDB		CRQST	03	00220
			1496	FETCHA		RQST,ROPWD,15,1	03	00221
000154	016001	A						
000155	004357	A						
000156	001016	A	1497	JANZ	CR19	WAIT NOT SELECTED, DO NOT CLEAR SUSPEND BIT	03	00222
000157	000167	R						
			1498	SETA		TIDB,TBST,TBS14,1 WAIT SELECTED, CLEAR TBS14 IN TBST	03	00223
000160	004256	A						
000161	135001	A						
000162	004356	A						
000163	150421	A						
000164	004256	A						
000165	135001	A						
000166	055001	A						
			1499	SPACE	2		03	00224
			1500 *			NOW SET I/O COMPLETE BIT IN REQUEST,	03	00225
			1501 *			AND SET APPROPRIATE STATUS BITS IN	03	00226
			1502 *			RSTPR ENTRY OF USER REQUEST BLOCK.	03	00227
000167	034137	A	1503 CR19	LDX		CRQST (X) = RQST ADDR	03	00228
	000001	A	1504 RQST	SET		X	03	00229
000170	015000	A	1505	LDA		RSTPR,RQST SET I/O COMPLETE BIT IN RQST	03	00230
000171	110440	A	1506	ORA		BS15	03	00231
000172	055000	A	1507	STA		RSTPR,RQST	03	00232
000173	014136	A	1508	LDA		CRSTAT	03	00233
000174	001007	A	1509	JOFN		CR20B	03	00234
000175	000250	R						
000176	001004	A	1510	JAN	CR30	TIMED-OUT	03	00235
000177	000260	R						
000200	006407	A	1511	BT	RA1+7,CR19A	I/O CLEAR	03	00236
000201	000216	R						
000202	006441	A	1512	BT	RA0+1,CR20	DATA-SET-READY OFF/END-OF-FILE(EOF)	*****	
000203	000221	R						
000204	006150	A	1513	ANAI	0440	MASK OFF IRRECOVERABLE ERRORS	03	00238
000205	000440	A						
000206	001010	A	1514	JAZ	CR50	NO ERRORS IN DETAIL STATUS FROM CCM	03	00239
000207	000261	R						
000210	006405	A	1515	BT	RA1+5,CR20A	PARITY ERROR, ELSE BREAK	03	00240
000211	000244	R						
000212	006010	A	1516	LDAI	01035	BREAK DETECTED	03	00241
000213	001035	A						
000214	001000	A	1517	JMP	CR50	CODE = 041,ERR FLG, COMP CODE = 5(ERROR)	03	00242
000215	000261	R						
000216	005001	A	1518 CR19A	TZA			03	00243
000217	001000	A	1519	JMP	CR20C		03	00244
000220	000254	R						
000221	001016	A	1520 CR20	JANZ	CR20X	REAL CCM STATUS, DSR OFF	*****	
000222	000226	R						
000223	010466	A	1521	LDA	SIX	DETAIL STATUS=0, SET EOF COMP. CODE	*****	
000224	001000	A	1522	JMP	CR50	CODE=0, ERR FLG RESET, COMP CODE=6(EOF)	*****	
000225	000261	R						
000226	005101	A	1523 CR20X	INCR	01	CODE=0,ERR FLG SET, COMP CODE=6(DSR OFF)	*****	
000227	034100	A	1524	LDX		CRTCD SET LINE DISCONNECT FLAG	03	00246
	000001	A	1525 TCD	SET		X	03	00247
			1526	SETA		TCD,TCLDF,TCLDFB,TCLDFZ	03	00248
000230	004254	A						
000231	135006	A						
000232	004354	A						
000233	150421	A						

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000234 004254 A
000235 135006 A

000236 055006 A
000237 034067 A 1527 LDX CRQST 03 00249
000240 006010 A 1528 LDAI 016 03 00250
000241 000016 A
000242 001000 A 1529 JMP CR50 SET STATUS 03 00251
000243 000261 R
000244 006010 A 1530 CR20A LDAI 0615 CODE = 030, ERR FLG, COMP CODE = 5 03 00252
000245 000615 A
000246 001000 A 1531 JMP CR50 03 00253
000247 000261 R
1532 *
000250 006150 A 1533 CR20B ANAI 0177000 CHECK FOR ERROR CODE BEING PASSED 03 00254
000251 177000 A 1533 CR20B ANAI 0177000 CODE IN BITS 9-14 03 00255
000252 001010 A 1534 JAZ CR50 NO ERROR 03 00256
000253 000261 R
000254 004345 A 1535 CR20C LSRA 5 SET ERR FLG. AND COMP. CODE(5) 03 00257
000255 006110 A 1536 ORAI 015 03 00258
000256 000015 A
000257 001004 A 1537 DATA 01004 03 00259
000260 010467 A 1538 CR30 LDA SEVEN READ TIMEOUT, COMP CODE = 7 (EOD) 03 00260
1539 * SET COMPLETION STATUS IN RSTPR 03 00261
1540 CR50 SETA RQST,RSTPR,5,10 03 00262

000261 004245 A
000262 135000 A
000263 004345 A
000264 150477 A
000265 004245 A
000266 135000 A
000267 055000 A
1541 SPACE 2 03 00263

1542 * SET NO. OF BYTES/WORDS TRANSFERED 03 00264
000270 024037 A 1543 LDB CRTCD 03 00265
000002 A 1544 TCD SET B 03 00266
1545 FETCHA TCD,TCCTA,TCCTAB,TCCTAZ 03 00267

000271 016002 A
000272 005012 A 1546 TAB (B) = TCM CONTROLLER TABLE ADDR 03 00268
000002 A 1547 CTB SET B GET NO. OF BYTES/WORDS TRANSFERED 03 00269
1548 FETCHA CTB,CTWDS,CTWDSB,CTWDSZ 03 00270

000273 016013 A
000274 025003 A 1549 LDB RTIDB,RQST SAVE TIDB ADDR IS B REG. 03 00271

000275 055003 A 1550 STA RTIDB,RQST STORE IN RTIDB OF RQST 03 00272
1551 SPACE 5 03 00273

1552 * 03 00274
1553 * IF THE REQUESTING TASK IS BACKGROUND AND THE REQUEST 03 00275
1554 * IS IN THE FOREGROUND SAVE AREA, MOVE THE COMPLETED 03 00276
1555 * REQUEST TO THE BACKGROUND TASK AREA AND RETURN SAVE AREA. 03 00277
1556 * 03 00278
1557 SPACE 2 03 00279

000276 005101 A 1558 INCR 01 03 00280
000277 056003 A 1559 STA TBEVNT,B SET EVENT WORD IN TIDB NON-ZERO 03 00281
000300 016001 A 1560 LDA TBST,B 03 00282
000301 006411 A 1561 BT RA1+9,CR60 EXIT, NOT A BACKGROUND REQUEST 03 00283
000302 000320 R
000303 005001 A 1562 TZA 03 00284
1563 * PRIORITY 0 OR 1, MOVE RQST TO BACKGROUND TASK AREA 03 00285
000304 025005 A 1564 LDB RADNR+1,RQST (B) = ADDR OF RQST IN BACKGROUND AREA 03 00286
000305 055005 A 1565 STA RADNR+1,RQST RELEASE FOREGROUND SAVE AREA 03 00287
000306 015000 A 1566 LDA 0,X 03 00288
000307 056000 A 1567 STA 0,B 03 00289
000310 015001 A 1568 LDA 1,X 03 00290
000311 056001 A 1569 STA 1,B 03 00291
000312 015002 A 1570 LDA 2,X 03 00292
000313 056002 A 1571 STA 2,B 03 00293
000314 015003 A 1572 LDA 3,X 03 00294
000315 056003 A 1573 STA 3,B 03 00295
000316 015004 A 1574 LDA 4,X 03 00296
000317 056004 A 1575 STA 4,B 03 00297
1576 SPACE 5 03 00298

1577 * 03 00299
000320 034007 A 1578 CR60 LDX CRTCD RESTORE TCD ADDRESS TO X REGISTER 03 00300

000321 001001 A 1579 JOF CR60A 03 00301
000322 000325 R
000323 001000 A 1580 JMP* TC$FRQ EXIT FOR ALT. ENTRY 03 00302
000324 100104 R
000325 001000 A 1581 CR60A JMP* TC$CRQ EXIT(RETURN) 03 00303
000326 100110 R

1582 * 03 00304
1583 * 03 00305
000327 000000 A 1584 CRQST DATA LOCAL STORAGE 0 ADDRESS OF REQUEST 03 00306

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000330	000000	A	1585	CRTCD	DATA	0	ADDRESS OF TCD	03	00307
000331	000000	A	1586	CRPREV	DATA	0	TEMPORARY FOR DETHREADING REQUEST	03	00308
000332	000000	A	1587	CRSTAT	DATA	0	(A) UPON ENTRY, REQUEST STATUS	03	00309
			1588	EJEC				03	00310
			1589	TITLE	TC\$CEX			03	00311
			1590	*****	*****			03	00312
			1591	*****	*****			03	00313
			1592	**	PROGRAM NAME -			**03	00314
			1593	**	TC\$CEX - VTAM TCM COMMUNICATIONS EXECUTIVE			**03	00315
			1594	**				**03	00316
			1595	**	ENTRY CONDITIONS -			**03	00317
			1596	**	TC\$CEX IS SCHEDULED BY VT\$TCQ, THE TCM REQUEST QUEUEING			**03	00318
			1597	**	PROGRAM AND CC\$CRQ, THE CCM REQUEST COMPLETION PROGRAM.			**03	00319
			1598	**	ENTRY IS ALWAYS VIA PRIMARY ENTRY POINT, TC\$CEX.			**03	00320
			1599	**				**03	00321
			1600	*****	*****			03	00322
			1601	*****	*****			03	00323
			1602		NAME TC\$CEX			03	00324
000333			1603	TC\$CEX	BSS	0		03	00325
000333	030300	A	1604		LDX	V\$CTL	(X) = TCMEEXEC TIDB ADDR	03	00326
000334	005001	A	1605		TZA			03	00327
000335	055003	A	1606		STA	TBEVNT,X	SET TBEVNT IN TIDB TO ZERO	03	00328
			1607		EXT	TC\$TCD		03	00329
000336	006030	A	1608		LDXI	TC\$TCD	(X) = TCD ADDRESS POINTER	03	00330
000337	000000	E							
	000001	A	1609	TCD	SET	X		03	00331
000340	035000	A	1610	CE10	LDX	0,X	(X) = ADDR OF NEXT(FIRST) TCD IN THREAD	03	00332
000341	001040	A	1611		JXZ	CE50	THREAD = 0, NO MORE TCDS IN THREAD	03	00333
000342	000424	R							
000343	074312	A	1612		STX	CETCD	SAVE TCD ADDR FOR LATER REFERENCE	03	00334
			1613	*				03	00335
			1614	*				03	00336
			1615	*				03	00337
			1616	*				03	00338
			1617	*				03	00339
			1618	*				03	00340
			1619	*				03	00341
			1620	*				03	00342
			1621	*				03	00343
			1622		FETCHA	TCD,TCRCA,TCRCAB,TCRCAZ	GET CCM RQST BLK ADDR	03	00344
000344	015007	A							
000345	001010	A	1623		JAZ	CE30	CCM RQST BLK ADDR = 0, GO CHECK WRITE	03	00345
000346	000403	R							
000347	054304	A	1624		STA	CERBA	READ ACTIVE, SAVE RQST ADDR.	03	00346
			1625		SPACE	3		03	00347
			1626		FETCHA	TCD,TCDTO,TCDTOB,TCDTOZ		03	00348
000350	015014	A							
000351	001010	A	1627		JAZ	CE20		03	00349
000352	000361	R							
000353	144305	A	1628		SUB	CEDEL		03	00350
000354	001010	A	1629		JAZ	CE20B	IF (A) LEQ 0, TIMEOUT OCCURRED	03	00351
000355	000376	R							
000356	001004	A	1630		JAN	CE20B		03	00352
000357	000376	R							
			1631		SETA	TCD,TCDTO,TCDTOB,TCDTOZ		03	00353
000360	055014	A							
			1632	*			CHECK FOR COMPLETION EVENTS	03	00354
000361	024272	A	1633	CE20	LDB	CERBA		03	00355
	000002	A	1634	RQST	SET	B		03	00356
000362	016002	A	1635		LDA	RSTPR+2,RQST		03	00357
000363	001004	A	1636		JAN	CE20A	CCM RQST COMPLETE	03	00358
000364	000367	R							
000365	001000	A	1637		JMP	CE30	NOT COMPLETE, CHECK WRITE	03	00359
000366	000403	R							
000367	016010	A	1638	CE20A	LDA	RADNR+4,RQST	RQST COMPLETION ADDRESS FOR READ	03	00360
000370	054264	A	1639		STA	CEPEX		03	00361
000371	002000	A	1640		JMP*	CEPEX		03	00362
000372	100655	R							
000373	034262	A	1641		LDX	CETCD		03	00363
000374	001000	A	1642		JMP	CE30		03	00364
000375	000403	R							
000376	010461	A	1643	CE20B	LDA	NEG	TIMEOUT, SET TCDTO = -1.	03	00365
			1644		SETA	TCD,TCDTO,TCDTOB,TCDTOZ		03	00366
000377	055014	A							
000400	024253	A	1645		LDB	CERBA		03	00367
000401	001000	A	1646		JMP	CE20A	GO TO RQST COMPLETION ADDR.	03	00368
000402	000367	R							
			1647		SPACE	2		03	00369
			1648	CE30	FETCHA	TCD,TCWCA,TCWCAB,TCWCAZ		03	00370
000403	015011	A							
000404	001010	A	1649		JAZ	CE10	CCM RQST BLK ADDR = 0, CHECK NEXT TCD	03	00371
000405	000340	R							
000406	054245	A	1650		STA	CERBA	WRITE ACTIVE, SAVE RQST ADDR	03	00372
			1651		SPACE	3		03	00373
			1652	*			CHECK FOR COMPLETION EVENTS	03	00374
000407	005012	A	1653		TAB			03	00375
	000002	A	1654	RQST	SET	B		03	00376
000410	016002	A	1655		LDA	RSTPR+2,RQST		03	00377

000411	001004	A	1656	JAN	CE30A	CCM RQST COMPLETE	03	00378
000412	000415	R						
000413	001000	A	1657	JMP	CE10	NOT COMPLETE, CHECK NEXT TCD	03	00379
000414	000340	R						
000415	016010	A	1658	CE30A	LDA	RADNR+4,RQST RQST COMPLETION ADDRESS FOR WRITE	03	00380
000416	054236	A	1659		STA	CEPEX	03	00381
000417	002000	A	1660		JMPM*	CEPEX	03	00382
000420	100655	R						
000421	034234	A	1661		LDX	CETCD	03	00383
000422	001000	A	1662		JMP	CE10	03	00384
000423	000340	R						
			1663		EJEC		03	00385
			1664 *			NOW SCAN TCD THREAD AND LOOK FOR REQUESTS TO START.	03	00386
			1665 *			A FUNC REQUEST ON TOP OF THE REQUEST QUEUE AND CCM RQST	03	00387
			1666 *			BLOCK ADDRESS FOR READ EQUAL ZERO MEANS THAT THE FUNC	03	00388
			1667 *			MUST BE PERFORMED BEFORE ANY I/O REQUESTS MAY BE	03	00389
			1668 *			INITIATED. A FUNC REQUESTS EFFECTIVELY BLOCKS THE	03	00390
			1669 *			INITIATION OF ANY READ OR WRITE REQUESTS UNTIL IT IS	03	00391
			1670 *			COMPLETED	03	00392
			1671		SPACE	5	03	00393
000424	006030	A	1672	CE50	LDXI	TC\$TCD (X) = ADDR OF TCD POINTER	03	00394
000425	000337	E						
000426	035000	A	1673	CE50A	LDX	0,X (X) = TCD ADDR	03	00395
000427	001040	A	1674		JXZ	CE60 NO MORE TCDS IN QUEUE	03	00396
000430	000505	R						
000431	074224	A	1675		STX	CETCD	03	00397
			1676 *			CHECK FOR QUEUED REQUEST	03	00398
			1677	CE50B	FETCHA	TCD,TCRQH,TCRQHB,TCRQHZ	03	00399
000432	015001	A						
000433	001010	A	1678		JAZ	CE50A NO REQUESTS QUEUED, CHECK NEXT TCD	03	00400
000434	000426	R						
000435	005012	A	1679		TAB	(B) = RQST ADDR	03	00401
			1680 *				03	00402
			1681 *			CHECK IF TCD READ ACTIVE	03	00403
			1682		FETCHA	TCD,TCRCA,TCRCAB,TCRCAZ	03	00404
000436	015007	A						
000437	001016	A	1683		JANZ	CE50D READ BUSY, CHECK IF WRITE BUSY	03	00405
000440	000471	R						
			1684 *			TCD NOT READ ACTIVE, TCD MAY BE A	03	00406
			1685 *			CANDIDATE FOR A FUNC OR READ RQST INITIATE	03	00407
	000002	A	1686	RQST	SET	B	03	00408
			1687		FETCHA	RQST,ROPWD,0,4	03	00409
000441	016001	A						
000442	004350	A						
000443	150472	A						
000444	140422	A	1688		SUB	TWO FUNC OP CODE = 05, WEOF = 02	03	00410
000445	001004	A	1689		JAN	CE50C TOP RQST NOT A FUNC OR WEOF RQST.	03	00411
000446	000462	R						
			1690 *			READ NOT BUSY AND TOP RQST IS A FUNC/WEOF	03	00412
			1691 *			IMPLIES TCD IS NOT READ OR WRITE ACTIVE	03	00413
			1692 *			AND FUNC RQST MUST BE INITIATED.	03	00414
			1693		FETCHA	TCD,TCCTA,TCCTAB,TCCTAZ	03	00415
000447	015002	A						
000450	005012	A	1694		TAB		03	00416
	000002	A	1695	CTB	SET	B	03	00417
			1696		FETCHA	CTB,TPFPA,TPFPAB,TPFPAZ	03	00418
000451	016017	A						
000452	054202	A	1697		STA	CEPEX SAVE FUNC PROCESSOR ROUTINE ADDR	03	00419
000453	002000	A	1698		JMPM*	CEPEX PROCESS FUNC RQST	03	00420
000454	100655	R						
000455	034200	A	1699		LDX	CETCD	03	00421
000456	001004	A	1700		JAN	CE50A	03	00422
000457	000426	R						
000460	001000	A	1701		JMP	CE50B GO BACK AND CHECK IF READ CAN BE INITIATED	03	00423
000461	000432	R						
			1702 *			NOT READ ACTIVE, NOT FUNC RQST	03	00424
			1703 *			TRY TO INITIATE READ RQST	03	00425
			1704	CE50C	FETCHA	TCD,TCCTA,TCCTAB,TCCTAZ	03	00426
000462	015002	A						
000463	005012	A	1705		TAB	(B) = CTBL ADDRESS	03	00427
	000002	A	1706	CTB	SET	B	03	00428
			1707		FETCHA	CTB,TPRPA,TPRPAB,TPRPAZ	03	00429
000464	016015	A						
000465	054167	A	1708		STA	CEPEX SAVE READ PROCESSOR ROUTINE ADDR	03	00430
000466	002000	A	1709		JMPM*	CEPEX PROCESS READ RQST	03	00431
000467	100655	R						
000470	034165	A	1710		LDX	CETCD	03	00432
			1711		EJEC		03	00433
			1712 *			CHECK IF WRITE ACTIVE. IF NOT, TCD IS A	03	00434
			1713 *			CANDIDATE FOR WRITE REQUEST INITIATION	03	00435
			1714 *			AND CONTROL IS TRANSFERED TO WRITE	03	00436
			1715 *			PROCESSOR.	03	00437
			1716	CE50D	FETCHA	TCD,TCWCA,TCWCAB,TCWCAZ	03	00438
000471	015011	A						
000472	001016	A	1717		JANZ	CE50A WRITE ACTIVE, CHECK NEXT TCD	03	00439
000473	000426	R						
			1718		FETCHA	TCD,TCCTA,TCCTAB,TCCTAZ	03	00440
000474	015002	A						
000475	005012	A	1719		TAB	(B) = CTBL ADDR	03	00441
	000002	A	1720	CTB	SET	B	03	00442
			1721		FETCHA	CTB,TPWPA,TPWPAB,TPWPAZ	03	00443

000476	016016	A							
000477	054155	A	1722	STA	CEPEX	SAVE WRITE PROCESSOR ROUTINE ADDR		03	00444
000500	002000	A	1723	JMPM*	CEPEX	PROCESS WRITE RQST		03	00445
000501	100655	R							
000502	034153	A	1724	LDX	CETCD			03	00446
000503	001000	A	1725	JMP	CE50A	CHECK NEXT TCD IN THREAD		03	00447
000504	000426	R							
			1726	EJEC				03	00448
			1727 *			ALL TCDS ARE NOW SCANNED. CCM REQUESTS MAY		03	00449
			1728 *			HAVE COMPLETED SINCE ENTRY TO TCMEEXEC.		03	00450
			1729 *			IF REQUESTS HAVE COMPLETED, TBEVNT IN		03	00451
			1730 *			TCMEEXEC TIDB WILL BE NON-ZERO (TBEVNT WAS		03	00452
			1731 *			CLEARED TO ZERO ON ENTRY). INTERRUPTS ARE		03	00453
			1732 *			DISABLED AND TBEVNT IS CHECKED. IF NON-ZERO		03	00454
			1733 *			CONTROL IS TRANSFERRED TO TC\$CEX TO RESTART		03	00455
			1734 *			TCD SCAN, ELSE A TYPE 2 DELAY IS PERFORMED		03	00456
			1735 *			THEREBY DOING AN EXIT TO VORTEX.		03	00457
			1736 *	SPACE	5			03	00458
			1737	CE60	DINTS	DISABLE INTERRUPTS		03	00459
000505	100444	A							
000506	100747	A							
000507	030300	A	1738	LDX	V\$CTL			03	00460
	000001	A	1739	TIDB	SET	X		03	00461
000510	015003	A	1740	LDA	TBEVNT, TIDB			03	00462
000511	001010	A	1741	JAZ	CE70	NO REQUESTS COMPLETED OR QUEUED		03	00463
000512	000521	R							
			1742	EINTS				03	00464
000513	100244	A							
000514	100147	A							
000515	005001	A	1743	TZA		RESET DELTA TIME		03	00465
000516	054142	A	1744	STA	CEDELTA			03	00466
000517	001000	A	1745	JMP	TC\$CEX	TBEVNT NON-ZERO, GO BACK AND SCAN TCD THRO		03	00467
000520	000333	R							
			1746	EJEC				03	00468
			1747 *			SCAN ALL TCDS TO FIND THE SMALLEST TIMEOUT VALUE (READ)		03	00469
			1748 *			(IN 1 SECOND INTERVALS) AND USE THIS VALUE FOR THE		03	00470
			1749 *			INTERVAL OF TYPE 2 DELAY.		03	00471
			1750 *			BEFORE EXECUTING TYPE 2 DELAY, RECORD THE VALUE OF THE		03	00472
			1751 *			CURRENT 5 MS & MINS CLOCK FOR CALCULATION OF ELAPSED		03	00473
			1752 *			TIME WHEN TCMEEXEC REGAINS CONTROL.		03	00474
			1753 *					03	00475
000521	010460	A	1754	CE70	LDA	BR15		03	00476
000522	054134	A	1755	STA	CESTO	SET SMALLEST TIME OUT VALUE TO 32767 SECS.		03	00477
000523	006030	A	1756	LDX1	TC\$TCD	(X) = ADDR OF TCD POINTER		03	00478
000524	000425	E							
000525	035000	A	1757	CE70A	LDX	0, X	(X) = TCD ADDR	03	00479
000526	001040	A	1758	JXZ	CE70C	NO MORE TCDS		03	00480
000527	000544	R							
	000001	A	1759	TCD	SET	X		03	00481
			1760	FETCHA	TC, TCDTO, TCDTOB, TCDTOZ			03	00482
000530	015014	A							
000531	001010	A	1761	JAZ	CE70A	NOT TIMEOUT ACTIVE		03	00483
000532	000525	R							
000533	144123	A	1762	SUB	CESTO			03	00484
000534	001004	A	1763	JAN	CE70B	TCDTO .LT. CESTO		03	00485
000535	000540	R							
000536	001000	A	1764	JMP	CE70A	NOT SMALLER, CHECK NEXT TCD		03	00486
000537	000525	R							
000540	124116	A	1765	CE70B	ADD	CESTO	RESTORE (A)	03	00487
000541	054115	A	1766	STA	CESTO	UPDATE SHORTEST TIMEOUT VALUE		03	00488
000542	001000	A	1767	JMP	CE70A	CHECK NEXT TCD		03	00489
000543	000525	R							
			1768	SPACE	5			03	00490
000544	010343	A	1769	CE70C	LDA	V\$TMS	GET AND SAVE CURRENT TIME (5 MS AND 1 MIN.	03	00491
000545	054114	A	1770	STA	TC\$TMS	INTERVALS).		03	00492
000546	010344	A	1771	LDA	V\$TMN			03	00493
000547	054113	A	1772	STA	TC\$TMN			03	00494
			1773 *					03	00495
			1774 *			PERFORM TYPE 2 DELAY USING VALUE IN CESTO		03	00496
			1775 *					03	00497
000550	024106	A	1776	LDB	CESTO			03	00498
000551	005001	A	1777	TZA				03	00499
000552	006170	A	1778	DIVI	60			03	00500
000553	000074	A							
000554	064011	A	1779	STB	CE90+4	STORE NO. OF MINS. DELAY		03	00501
000555	005012	A	1780	TAB				03	00502
000556	005001	A	1781	TZA		CONVERT SECS TO 5 MS INCREMENTS		03	00503
000557	006160	A	1782	MUL1	200			03	00504
000560	000310	A							
000561	064003	A	1783	STB	CE90+3	STORE NO. OF 5MS. DELAY		03	00505
			1784	CE90	DELAY	0,0,2		03	00506
000562	006505	A							
000563	000000	E							
000564	001102	A							
000565	000000	A							
000566	000000	A							
			1785 *					03	00507
			1786 *			RETURN AFTER DELAY OR ACTIVATION BEFORE DELAY EXPIRED		03	00508
			1787 *					03	00509
000567	030300	A	1788	LDX	V\$CTL			03	00510
	000001	A	1789	TIDB	SET	X		03	00511

000570	015001	A	1790	LDA	TBST,TIDB	RESET SUSPEND,INT EXP,TIME-DELAY ACTIVE	03	00512
000571	006150	A	1791	ANAI	0137667	BITS 3,6,14	03	00513
000572	137667	A						
000573	055001	A	1792	STA	TBST,TIDB		03	00514
			1793 *				03	00515
			1794 *				03	00516
000574	014062	A	1795	LDA	CESTO	CALCULATE DELTA TIME FOR TIMEOUT ACTIVE READ REQUESTS	03	00517
000575	130460	A	1796	ERA	BR15		03	00518
000576	001010	A	1797	JAZ	CE90F	NO TIMEOUTS ACTIVE	03	00519
000577	000650	R						
000600	005001	A	1798	TZA			03	00520
000601	054057	A	1799	STA	CEDEL	CLEAR DELTA TIME	03	00521
000602	010344	A	1800	LDA	V\$TMN	CHECK MINS CLOCK	03	00522
000603	144057	A	1801	SUB	TC\$TMN		03	00523
000604	001004	A	1802	JAN	CE90D	WRAP AROUND	03	00524
000605	000640	R						
000606	001010	A	1803	JAZ	CE90B	LESS 1 MIN	03	00525
000607	000621	R						
000610	005012	A	1804	CE90A	TAB		03	00526
000611	010343	A	1805	LDA	V\$TMS		03	00527
000612	144047	A	1806	SUB	TC\$TMS		03	00528
000613	003004	A	1807	XAN	DBRINS	IF WRAP AROUND AND LESS 1 MIN, DECR. B REG.	03	00529
000614	000664	R						
000615	005001	A	1808	TZA			03	00530
000616	006160	A	1809	MULI	60	CONVERT TO SECS	03	00531
000617	000074	A						
000620	064040	A	1810	STB	CEDEL		03	00532
000621	010343	A	1811	CE90B	LDA	V\$TMS	03	00533
000622	144037	A	1812	SUB	TC\$TMS	CHECK 5 MS CLOCK	03	00534
000623	001004	A	1813	JAN	CE90E		03	00535
000624	000644	R						
000625	124032	A	1814	CE90C	ADD	CETMS	03	00536
000626	005012	A	1815	TAB		ADD RUNNING 5 MS COUNTER	03	00537
000627	005001	A	1816	TZA			03	00538
000630	006170	A	1817	DIVI	200	CONVERT TO SECS	03	00539
000631	000310	A						
000632	054025	A	1818	STA	CETMS	SAVE RUNNING 5 MS COUNTER	03	00540
000633	005021	A	1819	TBA			03	00541
000634	124024	A	1820	ADD	CEDEL		03	00542
000635	054023	A	1821	STA	CEDEL	GET DELTA TIME FROM 5 MS CLOCKS	03	00543
000636	001000	A	1822	JMP	TC\$CEX	START TCMEC	03	00544
000637	000333	R						
000640	006120	A	1823	CE90D	ADDI	1441	03	00545
000641	002641	A						
000642	001000	A	1824	JMP	CE90A		03	00546
000643	000610	R						
000644	006120	A	1825	CE90E	ADDI	12001	03	00547
000645	027341	A						
000646	001000	A	1826	JMP	CE90C		03	00548
000647	000625	R						
000650	054007	A	1827	CE90F	STA	CETMS	03	00549
000651	054007	A	1828	STA	CEDEL	ZERO 5 MS RUNNING COUNTER	03	00550
000652	001000	A	1829	JMP	TC\$CEX	START TCMEC	03	00551
000653	000333	R						
			1830	EJEC			03	00552
			1831 *			DATA STORAGE	03	00553
000654	000000	A	1832	CERBA	DATA	0	03	00554
000655	000000	A	1833	CEPEX	DATA	0	03	00555
000656	000000	A	1834	CETCD	DATA	0	03	00556
000657	000000	A	1835	CESTO	DATA	0	03	00557
000660	000000	A	1836	CETMS	DATA	0	03	00558
000661	000000	A	1837	CEDEL	DATA	0	03	00559
000662	000000	A	1838	TC\$TMS	DATA	0	03	00560
000663	000000	A	1839	TC\$TMN	DATA	0	03	00561
000664	005322	A	1840	DBRINS	DATA	05322	03	00562
			1841	END			03	00563

ENTRY NAMES

000000 R TC\$BRQ 000333 R TC\$CEX 000110 R TC\$CRQ 000104 R TC\$FRQ

000030 R TC\$FRR 000037 R TC\$FWR

EXTERNAL NAMES

000524 E TC\$TCD 000563 E V\$EXEC 000027 E V\$IOC

SYMBOLS

000044	A	APIM	000002	A	B	000000	A	B0	000001	A	B1
000012	A	B10	000013	A	B11	000014	A	B12	000015	A	B13
000016	A	B14	000017	A	B15	000002	A	B2	000003	A	B3
000004	A	B4	000005	A	B5	000006	A	B6	000007	A	B7
000010	A	B8	000011	A	B9	000000	A	BICNUM	000421	A	BM1
000472	A	BM17	000475	A	BM177	000477	A	BM1777	000464	A	BM3
000473	A	BM37	000463	A	BM377	000467	A	BM7	000474	A	BM77
000476	A	BM777	000441	A	BR0	000442	A	BR1	000453	A	BR10
000454	A	BR11	000455	A	BR12	000456	A	BR13	000457	A	BR14
000460	A	BR15	000443	A	BR2	000444	A	BR3	000445	A	BR4
000446	A	BR5	000447	A	BR6	000450	A	BR7	000451	A	BR8
000452	A	BR9	000421	A	BS0	000422	A	BS1	000433	A	BS10
000434	A	BS11	000435	A	BS12	000436	A	BS13	000437	A	BS14
000440	A	BS15	000423	A	BS2	000424	A	BS3	000425	A	BS4
000426	A	BS5	000427	A	BS6	000430	A	BS7	000431	A	BS8
000432	A	BS9	000340	R	CE10	000361	R	CE20	000367	R	CE20A
000376	R	CE20B	000403	R	CE30	000415	R	CE30A	000424	R	CE50
000426	R	CE50A	000432	R	CE50B	000462	R	CE50C	000471	R	CE50D
000505	R	CE60	000521	R	CE70	000525	R	CE70A	000540	R	CE70B
000544	R	CE70C	000562	R	CE90	000610	R	CE90A	000621	R	CE90B
000625	R	CE90C	000640	R	CE90D	000644	R	CE90E	000650	R	CE90F
000661	R	CEDEL	000655	R	CEPEX	000654	R	CERBA	000657	R	CESTO
000656	R	CETCD	000660	R	CETMS	000047	A	CLOCK	000000	A	COTAD1
000117	R	CR10	000134	R	CR15	000137	R	CR15A	000167	R	CR19


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000216 R CR19A 000221 R CR20 000244 R CR20A 000250 R CR20B
000254 R CR20C 000226 R CR20X 000260 R CR30 000261 R CR50
000320 R CR60 000325 R CR60A 000331 R CRPREV 000327 R CRQST
000332 R CRSTAT 000330 R CRTCD 000000 A CTACT 000017 A CTACTB
000001 A CTACTZ 000001 A CTADN 000000 A CTADNB 000020 A CTADNZ
000002 A CTB 000011 A CTBIC 000000 A CTBICB 000020 A CTBICZ
000003 A CTDST 000000 A CTDSTB 000020 A CTDSTZ 000006 A CTDVA
000000 A CTDVAB 000020 A CTDVAZ 000012 A CTFCB 000000 A CTFCBB
000020 A CTFCBZ 000014 A CTFCR 000010 A CTFCRB 000010 A CTFCRZ
000014 A CTFRE 000000 A CTFREB 000010 A CTFREZ 000000 A CTIOB
000000 A CTIDBB 000017 A CTIDBZ 000007 A CTIOA 000000 A CTIOAB
000020 A CTIOAZ 000002 A CTOPM 000000 A CTOPMB 000020 A CTOPMZ
000005 A CTRCN 000000 A CTRCNB 000010 A CTRCNZ 000004 A CTRQB
000000 A CTRQBB 000020 A CTRQBZ 000005 A CTRTR 000010 A CTRTRB
000010 A CTRTRZ 000010 A CTSTA 000000 A CTSTAB 000020 A CTSTAZ
000013 A CTWDS 000000 A CTWDSB 000020 A CTWDSZ 000664 R DBRINS
000001 A DCBUFF 000002 A DCCNT 000000 A DCRECL 000747 A DISCLK
000745 A DISMP 000444 A DISPM 000024 A DMCWA 000000 A DMCWAB
000020 A DMCWAZ 000017 A DMFPA 000000 A DMFPAB 000020 A DMFPAZ
000021 A DMLCA 000000 A DMLCAB 000020 A DMLCAZ 000022 A DMLTA
000000 A DMLTAB 000020 A DMLTAZ 000023 A DMPTA 000000 A DMPTAB
000020 A DMPTAZ 000016 A DMRPA 000000 A DMRPAB 000020 A DMRPAZ
000020 A DMSTA 000000 A DMSTAB 000020 A DMSTAZ 000025 A DMSWA
000000 A DMSWAB 000020 A DMSWAZ 000015 A DMPA 000000 A DMTPAB
000020 A DMTPAZ 000002 A DSCTAD 000000 A DSDASS 000000 A DSDVDN
000002 A DSLCKO 000001 A DSNAME 000000 A DSNORQ 000002 A DSOPCM
000002 A DSPST1 000002 A DSREWD 000000 A DSUNAM 000002 A DSUNTN
000424 A EIGHT 000147 A ENACLK 000645 A ENAMP 000244 A ENAPIM
000465 A FIVE 000423 A FOUR 000044 R FR01 000050 R FR05
000077 R FR10 000102 R FROPCD 000103 R FRRQST 000100 R FRXIT
000027 R IOCA 000026 R JMPWD 000025 R JSRWD 000300 A LC
000003 A LCABN 000013 A LCABNB 000001 A LCABNZ 000003 A LCASY
000012 A LCASYB 000001 A LCASYZ 000003 A LCCRC 000014 A LCCRCB
000003 A LCCRCZ 000006 A LCCWB 000014 A LCCWBB 000001 A LCCWBZ
000006 A LCCWC 000015 A LCCWCB 000001 A LCCWCZ 000006 A LCCWD
000013 A LCCWDB 000001 A LCCWDBZ 000006 A LCCWI 000016 A LCCWIB
000001 A LCCWIZ 000006 A LCCWP 000012 A LCCWPB 000001 A LCCWPZ
000006 A LCCWR 000011 A LCCWRB 000001 A LCCWRZ 000006 A LCCWS
000017 A LCCWSB 000001 A LCCWSZ 000006 A LCCWT 000010 A LCCWTB
000001 A LCCWTZ 000001 A LCIBA 000000 A LCIBAB 000017 A LCIBAZ
000000 A LCIBF 000017 A LCIBFB 000001 A LCIBFZ 000000 A LCIBL
000000 A LCIBLB 000014 A LCIBLBZ 000002 A LCICI 000010 A LCICIB

000010 A LCICIZ 000002 A LCIC2 000000 A LCIC2B 000010 A LCIC2Z
000003 A LCIKE 000000 A LCIKEB 000004 A LCIKEZ 000050 A LCJP
000006 A LCLCB 000000 A LCLCBB 000020 A LCLCBZ 000007 A LCLTB
000017 A LCLTB 000001 A LCLTBZ 000005 A LCOBA 000000 A LCOBAB
000017 A LCOBAZ 000004 A LCOBF 000017 A LCOBFB 000001 A LCOBFZ
000004 A LCOBL 000000 A LCOBLB 000014 A LCOBLZ 000007 A LCOKE
000000 A LCOKEB 000004 A LCOKEZ 000003 A LCRCC 000017 A LCRCCB
000001 A LCRCCZ 000000 A LCSMB 000016 A LCSMBB 000001 A LCSMBZ
000462 A LHW 000017 A LSABN 000015 A LSABNB 000001 A LSABNZ
000017 A LSASC 000011 A LSASCB 000001 A LSASCZ 000014 A LSASY
000013 A LSASYB 000001 A LSASYZ 000015 A LSCC1 000010 A LSCC1B
000010 A LSCCIZ 000015 A LSCC2 000000 A LSCC2B 000010 A LSCC2Z
000017 A LSCRC 000012 A LSCRCB 000003 A LSCRCZ 000012 A LSCTA
000000 A LSCTAB 000020 A LSCTAZ 000017 A LSDSF 000017 A LSDSFB
000001 A LSDSFZ 000013 A LSDST 000000 A LSDSTB 000020 A LSDSTZ
000016 A LSEPF 000016 A LSEPFZ 000001 A LSEPFZ 000014 A LSLSP
000000 A LSLSPB 000011 A LSLSPZ 000014 A LSMOD 000016 A LSMODB
000002 A LSMODZ 000020 A LSNT 000010 A LSNT 000006 A LSNT 0Z
000014 A LSPAR 000014 A LSPARB 000002 A LSPARZ 000016 A LSPLA
000000 A LSPLAB 000010 A LSPLAZ 000002 A LSRC 000000 A LSRCAB
000020 A LSRC 0Z 000003 A LSREM 000000 A LSREMB 000020 A LSREMBZ
000016 A LSRRS 000010 A LSRRSB 000003 A LSRRSZ 000001 A LSRRT
000000 A LSRRTB 000020 A LSRRTZ 000004 A LSRT 000000 A LSRT 0B
000020 A LSRT 0Z 000005 A LSSRS 000000 A LSSRSB 000020 A LSSRSZ
000011 A LSSWS 000000 A LSSWSB 000020 A LSSWSZ 000016 A LSTER
000017 A LSTERB 000001 A LSTERZ 000000 A LSTHD 000000 A LSTHDB
000020 A LSTHDZ 000006 A LSWCA 000000 A LSWCAB 000020 A LSWCAZ
000007 A LSWEM 000000 A LSWEMB 000020 A LSWEMZ 000016 A LSWRS
000013 A LSWRSB 000003 A LSWRSZ 000010 A LSWTO 000000 A LSWTOB
000020 A LSWTOZ 000014 A LSXMM 000011 A LSXMMB 000002 A LSXMMZ
000017 A LSYNC 000016 A LSYNCB 000001 A LSYNCZ 000020 A LSYNR
000000 A LSYNRB 000010 A LSYNRZ 000017 A LSYNT 000000 A LSYNTB
000010 A LSYNTZ 000045 A MP 000045 A MPMR 000145 A MPMRI
000245 A MPMR2 000345 A MPMR3 000420 A MT 000461 A NEG
000470 A NINE 000421 A ONE 000001 A PCBSL 000011 A PCBSLB
000001 A PCBSLZ 000000 A PCCLN 000000 A PCCLNB 000010 A PCCLNZ
000002 A PCCTP 000014 A PCCTPB 000004 A PCCTPZ 000001 A PCECH
000014 A PCECHB 000001 A PCECHZ 000000 A PCLLN 000010 A PCLLNB
000010 A PCLLNZ 000002 A PCNT 000000 A PCNTDB 000004 A PCNTDZ
000001 A PCPCH 000000 A PCPCHB 000010 A PCPCHZ 000001 A PCSWL
000010 A PCSWLB 000001 A PCSWLZ 000002 A PCTYP 000010 A PCTYPB
000004 A PCTYPZ 000001 A PCXMM 000012 A PCXMMB 000002 A PCXMMZ

000040 A PIM1 000041 A PIM2 000042 A PIM3 000043 A PIM4
000040 A PIM5 000040 A PIM6 000040 A PIM7 000040 A PIM8
000200 A POST 000003 A PSABN 000015 A PSABNB 000001 A PSABNZ
000000 A PSASY 000013 A PSASYB 000001 A PSASYZ 000002 A PSBADT
000000 A PSBEG 000001 A PSCC1 000010 A PSCC1B 000010 A PSCC1Z
000001 A PSCC2 000000 A PSCC2B 000010 A PSCC2Z 000003 A PSCRC
000012 A PSCRCB 000003 A PSCRCZ 000002 A PSDEF 000010 A PSDEFB
000001 A PSDEFZ 000003 A PSDSF 000017 A PSDSFB 000001 A PSDSFZ
000002 A PSDWN 000011 A PSDWNB 000001 A PSDWNZ 000004 A PSEND
000002 A PSEPF 000016 A PSEPFZ 000001 A PSEPFZ 000000 A PSLSP
000000 A PSLSPB 000011 A PSLSPZ 000000 A PSMOD 000016 A PSMODB
000002 A PSMODZ 000003 A PSNSEC 000000 A PPAR 000014 A PPARB
000002 A PPARZ 000002 A PSPLA 000000 A PSPLAB 000010 A PSPLAZ

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000001 A P$PROT 000002 A P$STER 000017 A P$STERB 000001 A P$STERZ
000000 A P$XMM 000011 A P$XMMB 000002 A P$XMMZ 000003 A P$SYNC
000016 A P$YNCB 000001 A P$YN CZ 000004 A P$YNR 000000 A P$YNRB
000010 A P$YNRZ 000003 A P$YNT 000000 A P$YNTB 000010 A P$YNTZ
000040 A RAO 000000 A RAI 000004 A RADNR 000060 A RBO
000020 A RB1 000002 A RFCB 000463 A RHW 000001 A ROPWD
000002 A RQBLK 000002 A RQST 000000 A RSTPR 000003 A RTIOB
000467 A SEVEN 000466 A SIX 000027 A TBATSK 000026 A TBCPTH
000011 A TBENTY 000003 A TBEVNT 000021 A TB10 000014 A TBISA
000015 A TBISB 000017 A TBISP 000020 A TBISRS 000016 A TBISX
000022 A TBKN1 000023 A TBKN2 000024 A TBKN3 000002 A TBPL
000004 A TBRSA 000005 A TBRSE 000030 A TBRSE 000007 A TBRSP
000010 A TBRSTS 000006 A TBR SX 000000 A TBS0 000001 A TBS1
000012 A TBS10 000013 A TBS11 000014 A TBS12 000015 A TBS13
000016 A TBS14 000017 A TBS15 000002 A TBS2 000003 A TBS3
000004 A TBS4 000005 A TBS5 000006 A TBS6 000007 A TBS7
000010 A TBS8 000011 A TBS9 000001 A TBST 000025 A TB TLC
000013 A TBTMIN 000012 A TBTMS 000000 A TBTRD 000000 R TC$BRQ
000333 R TC$CEX 000110 R TC$CRQ 000104 R TC$FRQ 000030 R TC$FRR
000037 R TC$FWR 000524 E TC$TCD 000663 R TC$TMN 000662 R TC$TMS
000004 A TCBSL 000011 A TCBSLB 000001 A TCBSLZ 000003 A TCCLN
000000 A TCCLNB 000010 A TCCLNZ 000004 A TCCON 000015 A TCCONB
000001 A TCCONZ 000002 A TCCTA 000000 A TCCTAB 000020 A TCCTAZ
000005 A TCCTP 000014 A TCCTPB 000004 A TCCTPZ 000001 A TCD
000012 A TCDC 000000 A TCDCB 000020 A TCDCZ 000014 A TCDO
000000 A TCDTOB 000020 A TCDTOZ 000004 A TCECH 000014 A TCECHB
000001 A TCECHZ 000015 A TCID1 000000 A TCID1B 000020 A TCID1Z
000016 A TCID2 000000 A TCID2B 000020 A TCID2Z 000006 A TCLDF
000014 A TCLDFB 000001 A TCLDFZ 000003 A TCLLN 000010 A TCLLN B

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000010 A TCLLNZ 000005 A TCNOD 000004 A TCNODB 000004 A TCNODZ
000005 A TCNTD 000000 A TCNTDB 000004 A TCNTDZ 000004 A TCPCH
000000 A TCPCHB 000010 A TCPCHZ 000004 A TCRBC 000017 A TCRBCB
000001 A TCRBCZ 000013 A TCRBF 000000 A TCRBFB 000020 A TCRBFZ
000007 A TCRCA 000000 A TCR CAB 000020 A TCRCAZ 000006 A TCRMD
000000 A TCRMDB 000003 A TCRMDZ 000001 A TCRQH 000000 A TCRQHB
000020 A TCRQHZ 000006 A TCRRS 000006 A TCRRSB 000003 A TCRRSZ
000010 A TCSTO 000000 A TCSTOB 000020 A TCSTOZ 000004 A TCSWL
000010 A TCSWLB 000001 A TCSWLZ 000000 A TCTCD 000000 A TCTCDB
000020 A TCTCDZ 000005 A TCTYP 000010 A TCTYPB 000004 A TCTYPZ
000004 A TCWBC 000016 A TCWBCB 000001 A TCWBCZ 000011 A TCWCA
000000 A TCWCAB 000020 A TCWCAZ 000006 A TCWMD 000003 A TCWMD B
000003 A TCWMDZ 000006 A TCWRS 000011 A TCWRSB 000003 A TCWRSZ
000004 A TCXMM 000012 A TCXMMB 000002 A TCXMMZ 000471 A TEN
000464 A THREE 000001 A TIDB 000002 A TIDSP 000000 A TIDSPB
000007 A TIDSPZ 000002 A TIDWN 000017 A TIDWNB 000001 A TIDWNZ
000000 A TINET 000000 A TINETB 000020 A TINETZ 000003 A TIODN
000017 A TIODNB 000001 A TIODNZ 000003 A TIODP 000000 A TIODPB
000007 A TIODPZ 000003 A TIOSC 000007 A TIOSCB 000010 A TIOSCZ
000002 A TISEC 000007 A TISECB 000010 A TISECZ 000000 A TITU1
000000 A TITU1B 000020 A TITU1Z 000001 A TITU2 000000 A TITU2B
000020 A TITU2Z 000017 A TPFPA 000000 A TPFPAZ 000020 A TPFPAZ
000015 A TPRPA 000000 A TPRPAB 000020 A TPRPAZ 000016 A TPWPA
000000 A TPWPAB 000020 A TPWPAZ 000422 A TWO 000403 A V$IMIN
000415 A V$BFC 000075 A V$BGLB 000056 A V$BIC1 000315 A V$BTB
000414 A V$BVN 000334 A V$CAM 000353 A V$CKB 000411 A V$CKIT
000310 A V$CKPT 000301 A V$CPL 000076 A V$CRDM 000341 A V$CRDR
000354 A V$CRM 000302 A V$CRS 000360 A V$CTAD 000300 A V$CTL
000351 A V$CTMS 000070 A V$DATE 000355 A V$DSTB 000376 A V$ERFG
000563 E V$EXEC 000347 A V$FGLB 000306 A V$FLRS 000350 A V$FREE
000320 A V$IM 000410 A V$IOA 000027 E V$IOC 000412 A V$JCB
000055 A V$JCFG 000077 A V$JCTM 000050 A V$JNAM 000377 A V$JOP
000054 A V$LCNT 000313 A V$LER 000356 A V$LIT 000317 A V$LLUP
000307 A V$LRSK 000312 A V$LSAL 000345 A V$LUNT 000316 A V$LUP
000400 A V$LUT1 000401 A V$LUT2 000402 A V$LUT3 000330 A V$MPH
000362 A V$NCTR 000413 A V$OCB 000346 A V$OPCF 000311 A V$OPCL
000363 A V$PIMN 000074 A V$PLCT 000305 A V$PTVB 000361 A V$SCTL
000352 A V$SCV 000375 A V$SLFG 000303 A V$TB 000342 A V$TBGT
000416 A V$TFC 000314 A V$TJCP 000344 A V$TMN 000343 A V$TMS
000304 A V$UTB 000001 A X 000420 A ZERO

```

0 ERRORS ASSEMBLY COMPLETE

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1          EJEC                                03 00001
2 * THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES 03 00002
3 *                                           03 00003
4 *          V.D.M. PART NO.          92L1105-008A 03 00004
5 *                                           03 00005
6 *                                           03 00006
7 *                                           03 00007
8 *                                           03 00008
9 *          TYREAD                        03 00009
10 *                                           03 00010
11 *                                           03 00011
12          TITLE  TYREAD                    03 00012
13          NLIS                                03 00013
1289         LIST                               *****
1290 *                                           03 00014
1291 GETMEM MAC                                03 00015
1292         LDAI  P(2)                          03 00016
1293         LDBI  P(1)                          03 00017
1294         STX   **6                            03 00018
1295         JSR   V$EXEC,1                       03 00019
1296         DATA 0600                          03 00020
1297         DATA VT$GTM                        03 00021
1298         LDXI  *                              03 00022
1299         EMAC                                03 00023
1300 PUTMEM MAC                                03 00024
1301         LDAI  P(1)                          03 00025
1302         LDBE  P(2)                          *****
1303         STX   **6                            03 00027
1304         JSR   V$EXEC,1                       03 00028
1305         DATA 0600                          03 00029
1306         DATA VT$PTM                        03 00030
1307         LDXI  *                              03 00031
1308         EMAC                                03 00032

1309         EJEC                                03 00033
1310 ***** 03 00035
1311 ***** 03 00036
1312 ** PROGRAM NAME - **03 00037
1313 ** TYRDCC - OUTPUT TTY CONTROL CHARACTER(S) SUBROUTINE **03 00038
1314 ** **03 00039
1315 ** ENTRY CONDITIONS - **03 00040
1316 ** (X) = TCD ADDRESS **03 00041
1317 ** (B) = CHARACTERS TO OUTPUT **03 00042
1318 ** (A) = BUFFER LENGTH(BYTES) **03 00043
1319 ** **03 00044
1320 ** EXIT CONDITIONS - **03 00045
1321 ** (X) DESTROYED **03 00046
1322 ** (B) DESTROYED **03 00047
1323 ** (A) DESTROYED **03 00048
1324 ** **03 00049
1325 ***** 03 00050
1326 ***** 03 00051
000000 000000 A 1327 TYRDCC ENTR                03 00052
000001 054030 A 1328 STA SAVA                    03 00053
000002 064030 A 1329 STB SAVB                    03 00054
000003 006027 A 1330 LDBE RDMEM GET CCM RQST BLK ADDR 03 00055
000004 001471 R
000005 006010 A 1331 RQBLK SET B                    03 00056
000006 000030 R 1332 LDAI CC1 RETURN ADDR          03 00057
000007 056010 A 1333 STA 8,RQBLK                    03 00058
000010 016003 A 1334 LDA 3,RQBLK SET OP-CODE TO WRITE 03 00059
000011 150463 A 1335 ANA RHW                    03 00060
000012 006110 A 1336 ORAI 0100400                03 00061
000013 100400 A
000014 056003 A 1337 STA 3,RQBLK                    03 00062
000015 014014 A 1338 LDA SAVA SET BUFFER LENGTH          03 00063
000016 056011 A 1339 STA 9,RQBLK                    03 00064
000017 005021 A 1340 TBA SET BUFFER ADDR, BYTE COUNT FLAG 03 00065
000020 006120 A 1341 ADDI 12                    03 00066
000021 000014 A
000022 110440 A 1342 ORA BS15                    03 00067
000023 056012 A 1343 STA 10,RQBLK                   03 00068
000024 014006 A 1344 LDA SAVB MOVE CHRS TO BUFFER          03 00069
000025 056014 A 1345 STA 12,RQBLK                   03 00070
000026 001000 A 1346 JMP* RDMEM QUEUE CCM REQUEST          03 00071

000027 101471 R
000030 001000 A 1347 CC1 JMP* TYRDCC RETURN          03 00072
000031 100000 R
000032 000000 A 1348 SAVA DATA 0 SAVE A REG.          03 00073
000033 000000 A 1349 SAVB DATA 0 SAVE B REG.          03 00074

1350         EJEC                                03 00075
1351 ***** 03 00077
1352 ***** 03 00078
1353 ** PROGRAM NAME - **03 00079
1354 ** TYSTCB - STORE CHARACTER IN BUFFER SUBROUTINE **03 00080
1355 ** ENTRY CONDITIONS - **03 00081
1356 ** (X) = TCD ADDRESS **03 00082
1357 ** (B) = BUFFER ADDRESS **03 00083
1358 ** (A) = CHAR IN BITS 7-0 **03 00084
1359 ** EXIT CONDITIONS - **03 00085
1360 ** (X) UNCHANGED **03 00086
1361 ** (B) = UPDATED BUFFER ADDRESS **03 00087
1362 ** (A) DESTROYED **03 00088
1363 ** CALLING SEQUENCE - **03 00089

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1364 **          JMPM TYSTCB          **03 00090
1365 **          (RETURN)            **03 00091
1366 **                                     **03 00092
1367 .....03 00093
1368 .....03 00094
000034 000000 A 1369 TYSTCB ENTR          03 00095
000035 006437 A 1370          BT      RB1+15,ST1  TEST SIGN BIT OF B REG.  03 00096
000036 000044 R                                     .....
000037 004250 A 1371          LRLA     8          POSITION CHAR TO LHW          03 00097
000040 056000 A 1372          STA      0,B        STORE CHAR              03 00098
000041 005222 A 1373          CPB                    COMPLEMENT BUFFER ADDR FOR RHW  03 00099
000042 001000 A 1374          JMP      ST2                    03 00100
000043 000054 R                                     .....
000044 005222 A 1375 ST1     CPB                    RHW CHAR              03 00101
000045 054003 A 1376          STA      **4                    03 00102
000046 016000 A 1377          LDA      0,B        GET PRIOR CHAR IN LHW          03 00103
000047 150462 A 1378          ANA     LHW                    03 00104
000050 006110 A 1379          ORAI     *                    03 00105
000051 000050 R                                     .....
000052 056000 A 1380          STA      0,B        STORE CHAR              03 00106
000053 005122 A 1381          IBR                    INCREMENT TO NEXT BUFFER LOCATION  03 00107
000054 001000 A 1382 ST2     JMP*     TYSTCB      B = NEXT BUFFER LOCATION  03 00108
000055 100034 R                                     .....

1383          EJEC                      03 00109
1384 .....03 00111
1385 .....03 00112
1386 **          PROGRAM NAME -          **03 00113
1387 **          TYBKBF - BLANK UNUSED PORTION OF USERS BUFFER **03 00114
1388 **                                     **03 00115
1389 **          ENTRY CONDITIONS -          03 00116
1390 **          (X) = TCD ADDRESS          **03 00117
1391 **          (B) = ADDRESS OF LAST CHAR INPUT PLUS ONE **03 00118
1392 **          (A) = NO OF BLANK CHARS TO MOVE **03 00119
1393 **                                     **03 00120
1394 **          EXIT CONDITIONS -          **03 00121
1395 **          (X) = UNCHANGED          **03 00122
1396 **          (B) = DESTROYED          **03 00123
1397 **          (A) = DESTROYED          **03 00124
1398 **                                     **03 00125
1399 **          CALLING SEQUENCE -          **03 00126
1400 **          JMPM TYBKBF          **03 00127
1401 **          (RETURN)            **03 00128
1402 .....03 00129
1403 .....03 00130
000056 000000 A 1404 TYBKBF ENTR          03 00131
000057 000001 A 1405 TCD     SET      X          03 00132
000060 054040 A 1406          STA     SAVR          03 00133
000061 001002 A 1407          TBA                    03 00134
000062 000077 R                                     .....
000063 005211 A 1408          JAP     BKBF1          START AT LHW          03 00135
000064 005012 A 1409          CPA                    BLANK RHW              03 00136
000065 016000 A 1410          TAB                    03 00137
000066 150462 A 1411          LDA     0,B          03 00138
000067 006117 A 1412          ANA     LHM          03 00139
000070 001504 R 1413          ORAE     TYBLK        03 00140
000071 056000 A 1414          STA     0,B          03 00141
000072 014025 A 1415          LDA     SAVR          03 00142
000073 005311 A 1416          DAR                    03 00143
000074 005122 A 1417          IBR                    03 00144
000075 001000 A 1418          JMP     BKBF1+1      03 00145
000076 000100 R                                     .....
000077 014020 A 1419 BKBF1  LDA     SAVR          03 00146
000100 004341 A 1420          LSRA     1          CONVERT TO NO. OF WORDS  03 00147
000101 074016 A 1421          STX     SAVR          03 00148
000102 005024 A 1422          TBX                    (X) = BUFFER POINTER    03 00149
000103 005012 A 1423          TAB                    (B) = COUNT            03 00150
000104 006017 A 1424          LDAE     TYBKBF        03 00151
000105 001505 R                                     .....
000106 001020 A 1425 BKBF2  JBZ     BKBF3          03 00152
000107 000115 R                                     .....
000110 055000 A 1426          STA     0,X          03 00153
000111 005144 A 1427          IXR                    INCREMENT BUFFER POINTER  03 00154
000112 005322 A 1428          DBR                    DECREMENT COUNT        03 00155
000113 001000 A 1429          JMP     BKBF2          03 00156
000114 000106 R                                     .....
000115 034002 A 1430 BKBF3  LDX     SAVR          (X) = TCD ADDRESS      03 00157
000116 001000 A 1431          JMP*    TYBKBF        03 00158
000117 100056 R                                     .....
000120 000000 A 1432 *          DATA 0          DATA STORAGE          03 00159
000120 000000 A 1433 SAVR     DATA 0          SAVE REGISTER CELL    03 00160

1434          EJEC                      03 00161
1435 .....03 00163
1436 .....03 00164
1437 **          PROGRAM NAME -          **03 00165
1438 **          TYREAD - PROCESSES READ REQUESTS FOR TTY TCM **03 00166
1439 **                                     **03 00167
1440 **          ENTRY CONDITIONS -          **03 00168
1441 **          (X) = ADDRESS OF TCD          **03 00169
1442 **                                     **03 00170
1443 **          EXIT CONDITIONS -          **03 00171
1444 **          (X) DESTROYED          **03 00172
1445 **          (A) AND (B) DESTROYED **03 00173
1446 **                                     **03 00174
1447 **          CALLING SEQUENCE -          **03 00175
1448 **          JMPM TYREAD          **03 00176

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1449 ** (RETURN) **03 00177
1450 ** **03 00178
1451 .....03 00179
1452 .....03 00180
1453 EXT V$EXEC 03 00181
1454 EXT VT$MPI 03 00182
1455 EXT VT$GTM 03 00183
1456 EXT VT$PTM 03 00184
1457 EXT TC$FRR 03 00185
1458 EXT TC$BRQ BUILD CCM RQST 03 00186
1459 NAME TYREAD 03 00187
000121 000000 A 1460 TYREAD ENTR 03 00188
000001 A 1461 TCD SET X 03 00189
000122 006077 A 1462 STXE RDTCD 03 00190
000123 001467 R
000124 002000 A 1463 JPM TC$FRR FIND READ REQUEST 03 00191
000125 000000 E
000126 001010 A 1464 JAZ* TYREAD NONE, EXIT 03 00192
000127 100121 R
000130 006057 A 1465 STAE RDRQST 03 00193
000131 001470 R
000132 005001 A 1466 TZA 03 00194
000133 006057 A 1467 STAE RDMEM 03 00195
000134 001471 R
1468 FETCHA TCD, TCSWL, TCSWL B, TCSWLZ 03 00196
000135 015004 A
000136 004350 A
000137 150421 A
000140 001010 A 1469 JAZ RD20 DIRECT CONNECT 03 00197
000141 000277 R
1470 * DIAL-UP, CHECK PHYSICAL CONNECTION 03 00198
1471 FETCHA TCD, TCCON, TCCONB, TCCONZ 03 00199
000142 015004 A
000143 004355 A
000144 150421 A
000145 001010 A 1472 JAZ RD09 NOT CONNECTED 03 00200
000146 000167 R
1473 FETCHA TCD, TCLDF, TCLDFB, TCLDFZ 03 00201
000147 015006 A
000150 004354 A
000151 150421 A
000152 001010 A 1474 JAZ RD20 CONNECTED 03 00202
000153 000277 R
000154 005101 A 1475 INCR 01 LINE DISC., SIMULATE DSR OFF, COMP. RQST. *****
000155 006027 A 1476 LOBE RDRQST 03 00204
000156 001470 R
1477 DINTS 03 00205
000157 100444 A
000160 100747 A
000161 002000 A 1478 JPM TC$CRQ 03 00206
000162 000000 E
1479 EINTS 03 00207
000163 100244 A
000164 100147 A
000165 001000 A 1480 JMP* TYREAD 03 00208
000166 100121 R
1481 RD09 GETMEM VT$MPI, 13 03 00209
000167 006010 A
000170 000015 A
000171 006020 A
000172 000000 E
000173 074005 A
000174 006505 A
000175 000000 E
000176 000600 A
000177 000000 E
000200 006030 A
000201 000200 R
000202 001010 A 1482 JAZ* TYREAD NO MEM, EXIT 03 00210
000203 100121 R
000204 006057 A 1483 STAE RDMEM 03 00211
000205 001471 R
000206 005012 A 1484 TAB 03 00212
000207 002000 A 1485 JPM TC$BRQ 03 00213
000210 000000 E
000211 006010 A 1486 LDAI RD10 SET UP RETURN ADDR 03 00214
000212 000223 R
000002 A 1487 RQBLK SET B 03 00215
000213 056010 A 1488 STA B, RQBLK 03 00216
000214 010465 A 1489 LDA FIVE SET OP-CODE TO FUNCTION, FUNC CODE = 0 03 00217
000215 004250 A 1490 LRLA B 03 00218
000216 116003 A 1491 ORA 3, RQBLK 03 00219
000217 150460 A 1492 ANA BR15 USE WAIT OPTION 03 00220
000220 056003 A 1493 STA 3, RQBLK 03 00221
000221 001000 A 1494 JMP* RDMEM 03 00222
000222 101471 R
000223 006027 A 1495 RD10 LOBE RDMEM 03 00223
000224 001471 R
000225 006037 A 1496 LDXE RDTCD 03 00224
000226 001467 R
000227 016006 A 1497 LDA 6, RQBLK GET DETAIL STATUS 03 00225
000230 150422 A 1498 ANA BS1 CHECK FOR DATA-SET-READY 03 00226
000231 001016 A 1499 JANZ RD15A ON 03 00227
000232 000267 R
1500 * OFF, SENSE DATA-SET-READY ON EVENT 03 00228
000233 016003 A 1501 LDA 3, RQBLK IMMEDIATE RETURN 03 00229
000234 110440 A 1502 ORA BS15 03 00230

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VTAM AI		TYREAD	(28)	PAGE	4
000235	056003 A 1503	STA	3,RQBLK		03 00231
000236	016013 A 1504	LDA	11,RQBLK	FUNC CODE = 3	03 00232
000237	150463 A 1505	ANA	RHW		03 00233
000240	006110 A 1506	ORAI	01400		03 00234
000241	001400 A				
000242	056013 A 1507	STA	11,RQBLK		03 00235
000243	010422 A 1508	LDA	BS1	MASK FOR DSR ON	03 00236
000244	056014 A 1509	STA	12,RQBLK	STORE IN LCB EXT WORD	03 00237
000245	006010 A 1510	LDAI	RD10A	SET UP RETURN ADDR	03 00238
000246	000253 R				
000247	056010 A 1511	STA	8,RQBLK		03 00239
000250	065007 A 1512	STB	TCRCA, TCD	SET READ ACTIVE	03 00240
000251	001000 A 1513	JMP*	RDMEM		03 00241
000252	101471 R				
	1514 *			CCM RQST QUEUED	03 00242
000253	006027 A 1515	RD10A	LDBE	RDMEM	03 00243
000254	001471 R				
000255	006010 A 1516	LDAI	RD15		03 00244
000256	000262 R				
000257	056010 A 1517	STA	8,RQBLK		03 00245
000260	001000 A 1518	JMP*	TYREAD	RETURN	03 00246
000261	100121 R				
	1519 *			ON RETURN, DSR IS ON	03 00247
000262	015007 A 1520	RD15	LDA	TCRCA, TCD	03 00248
000263	006057 A 1521	STAE	RDMEM		03 00249
000264	001471 R				
000265	005001 A 1522	TZA			03 00250
000266	055007 A 1523	STA	TCRCA, TCD		03 00251
000267	005101 A 1524	RD15A	INCR	01 SET PHYSICAL CONNECTION BIT, DSR ON	03 00252
	1525	SETA	TCRCA, TCD, TCCON, TCCONB, TCCONZ		03 00253
000270	004255 A				
000271	135004 A				
000272	004355 A				
000273	150421 A				
000274	004255 A				
000275	135004 A				
000276	055004 A				
	1526 *				03 00254
	1527 *			IF FULL-DUPLEX, CHECK IF READ CAN BE INITIATED	03 00255
	1528 *				03 00256
	1529 *				03 00257
	1530	SPACE	2		03 00258
	1531 *			GET TRANSMISSION MODE	03 00259
	1532	RD20	FETCHA	TCD, TCXMM, TCXMMB, TCXMMZ	03 00260
000277	015004 A				
000300	004352 A				
000301	150464 A				
000302	140464 A 1533	SUB	THREE		03 00261
000303	001016 A 1534	JANZ	RD30	NOT FULL-DUPLEX	03 00262
000304	000317 R				
	1535 *			FDX, CHECK FOR WRITE ACTIVE AND ECHO MODE	03 00263
	1536	FETCHA	TCRCA, TCWCA, TCWCA, TCWCAZ		03 00264
000305	015011 A				
000306	001010 A 1537	JAZ	RD30A	NOT WRITE ACTIVE	03 00265
000307	000326 R				
	1538 *			WRITE ACTIVE, CHECK IF READ WITH ECHO	03 00266
	1539	FETCHA	TCD, TCECH, TCECHB, TCECHZ		03 00267
000310	015004 A				
000311	004354 A				
000312	150421 A				
000313	001010 A 1540	JAZ	RD40B	ECHO, CANNOT INITIATE READ, EXIT	03 00268
000314	000443 R				
	1541 *			OTHERWISE INITIATE READ	03 00269
000315	001000 A 1542	JMP	RD30A		03 00270
000316	000326 R				
	1543	SPACE	2		03 00271
	1544 *			LINE IS HALF-DUPLEX OR SIMPLEX.	03 00272
	1545 *			READ CAN BE INITIATED IF RQST IS ON TOP	03 00273
	1546 *			OF TCD RQST QUEUE.	03 00274
	1547 *				03 00275
	1548	RD30	FETCHA	TCD, TCRQH, TCRQHB, TCRQHZ	03 00276
000317	015001 A				
000320	005012 A 1549	TAB			03 00277
	000002 A 1550	RQST	SET	B	03 00278
	1551	FETCHA	RQST, ROPWD, B, 4	GET OP-CODE OF TOP RQST	03 00279
000321	016001 A				
000322	004350 A				
000323	150472 A				
000324	001016 A 1552	JANZ	RD40B	READ RQST NOT ON TOP, EXIT	03 00280
000325	000443 R				
	1553 *				03 00281
	1554 *			INITIATE READ REQUEST	03 00282
	1555 *				03 00283
000326	006027 A 1556	RD30A	LDBE	RDRQST	03 00284
000327	001470 R				
	000002 A 1557	RQST	SET	B	03 00285
	1558	FETCHA	RQST, ROPWD, 12, 3		03 00286
000330	016001 A				
000331	004354 A				
000332	150467 A				
000333	140423 A 1559	SUB	FOUR	IS MODE = 4	03 00287
000334	001010 A 1560	JAZ	RD30B	YES	03 00288
000335	000340 R				

000336	005001	A	1561		TZA		NO, SET MODE = 1(DEFAULT)	03	00289
000337	001004	A	1562		DATA	01004		03	00290
000340	120464	A	1563	RD30B	ADD	THREE		03	00291
000341	006057	A	1564		STAE	RDMODE	SAVE MODE OF RQST	03	00292
000342	001472	R							
			1565		SETA	TCO,TCRMD,TCRMDDB,TCRMDZ		03	00293
000343	135006	A							
000344	150467	A							
000345	135006	A							
000346	055006	A							
000347	006027	A	1566		LDBE	RDRQST		03	00294
000350	001470	R							
000351	026002	A	1567		LDB	RFCB,RQST		03	00295
	000002	A	1568	DCB	SET	B		03	00296
000352	016000	A	1569		LDA	DCRECL,DCB	SAVE RECORD LENGTH (BYTES/WORDS)	03	00297
000353	006057	A	1570		STAE	ROBLEN		03	00298
000354	001473	R							
000355	016001	A	1571		LDA	DCBUFF,DCB	SAVE BUFFER ADDRESS, BYTE/WORD CNT FLAG	03	00299
000356	006057	A	1572		STAE	ROBUFF		03	00300
000357	001474	R							
000360	006017	A	1573		LDAE	RDMODE	GET MODE	03	00301
000361	001472	R							
000362	001010	A	1574		JAZ	RD50	MODE = 1, STANDARD	03	00302
000363	000467	R							
			1575 *					03	00303
			1576 *				MODE = 4, TRANSPARENT	03	00304
			1577 *				BUILD CCM RQST BLK TO READ INTO USER BUFFER	03	00305
			1578 *					03	00306
			1579		SPACE	2		03	00307
000364	006017	A	1580		LDAE	RDMEM		03	00308
000365	001471	R							
000366	001016	A	1581		JANZ	RD40	MEMORY ALLOCATED	03	00309
000367	000412	R							
			1582		GETMEM	VT\$MP1,13		03	00310
000370	006010	A							
000371	000015	A							
000372	006020	A							
000373	000172	E							
000374	074005	A							
000375	006505	A							
000376	000175	E							
000377	000600	A							
000400	000177	E							
000401	006030	A							
000402	000401	R							
000403	001010	A	1583		JAZ*	TYREAD	NO MEM, EXIT	03	00311
000404	100121	R							
000405	006057	A	1584		STAE	RDMEM		03	00312
000406	001471	R							
000407	005012	A	1585		TAB			03	00313
000410	002000	A	1586		JMPM	TC\$BRQ	BUILD CCM RQST	03	00314
000411	000210	E							
000412	006027	A	1587	RD40	LDBE	RDMEM		*****	
000413	001471	R							
	000002	A	1588	RQBLK	SET	B		03	00316
000414	006010	A	1589		LDAI	RD40A	SET UP RETURN ADDR	03	00317
000415	000434	R							
000416	056010	A	1590		STA	8,RQBLK		03	00318
000417	016003	A	1591		LDA	3,RQBLK	SET OP-CODE TO READ, IMMEDIATE RETURN	03	00319
000420	150463	A	1592		ANA	RHW		03	00320
000421	110440	A	1593		ORA	BS15	USE IMMEDIATE RETURN	03	00321
000422	056003	A	1594		STA	3,RQBLK		03	00322
000423	006017	A	1595		LDAE	ROBLEN	SET BUFFER LENGTH	*****	
000424	001473	R							
000425	056011	A	1596		STA	9,RQBLK		03	00324
000426	006017	A	1597		LDAE	ROBUFF	SET BUFFER ADDRESS, BYTE/WORD FLAG	*****	
000427	001474	R							
000430	056012	A	1598		STA	10,RQBLK		03	00326
000431	065007	A	1599		STB	TCRCA,TCO	SET READ ACTIVE	03	00327
000432	001000	A	1600		JMP*	RDMEM		03	00328
000433	101471	R							
			1601 *				AT THIS POINT CCM RQST HAS BEEN QUEUED	03	00329
000434	006027	A	1602	RD40A	LDBE	RDMEM		*****	
000435	001471	R							
	000002	A	1603	RQBLK	SET	B		03	00331
000436	006010	A	1604		LDAI	RD400	SET UP RETURN COMPLETION ADDRESS	03	00332
000437	001351	R							
000440	056010	A	1605		STA	8,RQBLK		03	00333
000441	001000	A	1606		JMP*	TYREAD	EXIT	03	00334
000442	100121	R							
000443	006027	A	1607	RD40B	LDBE	RDMEM	IF TCM TQST CANNOT BE INITIATED WE EXIT	*****	
000444	001471	R							
000445	001020	A	1608		JBZ*	TYREAD	HERE, AFTER RETURNING ALLOC. MEMORY.	03	00336
000446	100121	R							
000447	006010	A	1609		LDAI	13		03	00337
000450	000015	A							
000451	056000	A	1610		STA	0,B		03	00338
			1611		PUTMEM	VT\$MP1,RDMEM		03	00339
000452	006010	A							
000453	000373	E							
000454	006027	A							
000455	001471	R							
000456	074005	A							
000457	006505	A							

000460	000376	E									
000461	000600	A									
000462	000000	E									
000463	006030	A									
000464	000463	R									
000465	001000	A	1612	JMP*	TYREAD					03	00340
000466	100121	R									
			1613 *			MODE = 1, STANDARD				03	00341
			1614 *			BUILD CCM RQST TO OUTPUT PROMPT CHARACTER.				03	00342
			1615 *			INPUT CHRS INTO BUFFER UNTIL FULL OR CR CHR				03	00343
			1616 *			IS INPUT.				03	00344
			1617 *							03	00345
			1618	SPACE	2					03	00346
000467	006017	A	1619	RD50	LDAE	RDMEM				*****	
000470	001471	R									
000471	001016	A	1620	JANZ	RD50A	MEMORY ALLOCATED				03	00348
000472	000515	R									
			1621	GETMEM	VT\$MP1,13					03	00349
000473	006010	A									
000474	000015	A									
000475	006020	A									
000476	000453	E									
000477	074005	A									
000500	006505	A									
000501	000460	E									
000502	000600	A									
000503	000400	E									
000504	006030	A									
000505	000504	R									
000506	001010	A	1622	JAZ*	TYREAD	NO MEM, EXIT				03	00350
000507	100121	R									
000510	006057	A	1623	STAE	RDMEM					*****	
000511	001471	R									
000512	005012	A	1624	TAB						03	00352
000513	002000	A	1625	JMPM	TC\$BRQ	BUILD CCM RQST				03	00353
000514	000411	E									
000515	065007	A	1626	RD50A	STB	TCRCA, TCD	SET READ ACTIVE			03	00354
			1627 *				GET PROMPT CHARACTER			03	00355
			1628	FETCHA	TCD, TCPCH, TCPCHB, TCPCHZ					03	00356
000516	015004	A									
000517	150463	A									
000520	004250	A	1629	LRLA	8					03	00357
000521	005012	A	1630	TAB		(B) = USER PROMPT CHARACTER				03	00358
000522	005101	A	1631	INCR	01	(A) = 1				03	00359
000523	002000	A	1632	JMPM	TYRDCC	OUTPUT CONTROL CHARACTER				03	00360
000524	000000	R									
			1633 *			CCM REQUEST QUEUED, EXIT				03	00361
000525	006027	A	1634	LDBE	RDMEM					*****	
000526	001471	R									
	000002	A	1635	RQBLK	SET	B				03	00363
000527	006010	A	1636	LDAI	RD100	SET UP RETURN COMPLETION ADDRESS				03	00364
000530	000534	R									
000531	056010	A	1637	STA	8, RQBLK					03	00365
000532	001000	A	1638	JMP*	TYREAD	EXIT				03	00366
000533	100121	R									
			1639	EJEC						03	00367
			1640 *			USER PROMPT CHARACTER OUTPUT. IF LINE ERROR				03	00368
			1641 *			COMPLETE RQST AND EXIT. OTHERWISE, BUILD				03	00369
			1642 *			CCM RQST TO INPUT A CHARACTER.				03	00370
			1643 *							03	00371
			1644	SPACE	2					03	00372
000534	000000	A	1645	RD100	ENTR					03	00373
			1646	FETCHA	TCD, TCRCA, TCRCA8, TCRCAZ					03	00374
000535	015007	A									
000536	054732	A	1647	STA	RDMEM					03	00375
000537	005012	A	1648	TAB						03	00376
	000002	A	1649	RQBLK	SET	B				03	00377
000540	016006	A	1650	LDA	6, RQBLK	GET DETAIL STATUS				03	00378
000541	006441	A	1651	BT	RA0+1, RD401	DATA-SET-READY- OFF				03	00379
000542	001447	R									
000543	006410	A	1652	BT	RA1+8, RD401	BREAK				03	00380
000544	001447	R									
000545	002000	A	1653	JMPM	TC\$FRR	GET READ RQST ADDR				03	00381
000546	000125	E									
000547	054720	A	1654	STA	RDRQST					03	00382
000550	005012	A	1655	TAB						03	00383
000551	026002	A	1656	LDB	RFCB, B					03	00384
	000002	A	1657	DCB	SET	B				03	00385
000552	016000	A	1658	LDA	DCRECL, DCB	GET BUFFER LENGTH				03	00386
000553	054717	A	1659	STA	RDBLEN					03	00387
000554	016001	A	1660	LDA	DCBUFF, DCB	GET BUFFER ADDR, BYTE/WORD FLAG				03	00388
000555	054716	A	1661	STA	RDBUFF					03	00389
			1662 *			SET UP DYNAMIC COUNT, BUFFER ADDR IN TCD				03	00390
000556	150460	A	1663	ANA	BR15	TURN SIGN BIT OFF TO POINT AT LHW				03	00391
			1664	SETA	TCD, TCRBF, TCRBFB, TCRBFZ					03	00392
000557	055013	A									
000560	024712	A	1665	LDB	RDBLEN	SET CHARACTER COUNT(80 MAX.)				03	00393
000561	014712	A	1666	LDA	RDBUFF					03	00394
000562	001004	A	1667	JAN	RD100X					03	00395
000563	000565	R									
000564	004041	A	1668	LRLB	1	*2				03	00396
000565	005021	A	1669	RD100X	TBA					03	00397
000566	006140	A	1670	SUBI	81	CHRCNT GTR 80				03	00398

000567	000121	A							
000570	001004	A	1671	JAN	RD100Y	NO			03 00399
000571	000576	R							
000572	006010	A	1672	LDAI	80	YES, SET TO 80			03 00400
000573	000120	A							
000574	001000	A	1673	JMP	RD100Y+2				03 00401
000575	000600	R							
000576	006120	A	1674	RD100Y	ADDI	81			03 00402
000577	000121	A							
			1675	SETA	TCD,TCDC,TCDCB,TCDCZ				03 00403
000600	055012	A							
			1676 *			SET READ TIMEOUT VALUE IF SPECIFIED			03 00404
			1677	FETCHA	TCD,TCSTO,TCSTOB,TCSTOZ				03 00405
000601	015010	A							
			1678	SETA	TCD,TCDTO,TCDTOB,TCDTOZ				03 00406
000602	055014	A							
			1679 *			BUILD CCM RQST TO INPUT CHARACTER			03 00407
000603	024665	A	1680	LDB	RD MEM				03 00408
	000002	A	1681	RQBLK	SET	B			03 00409
000604	006010	A	1682	LDAI	RD100A	SET UP RETURN ADDRESS			03 00410
000605	000646	R							
000606	056010	A	1683	STA	8,RQBLK				03 00411
000607	016003	A	1684	LDA	3,RQBLK	SET OP-CODE TO READ			03 00412
000610	150463	A	1685	ANA	RHW				03 00413
000611	110440	A	1686	ORA	BS15	IMMEDIATE RETURN			03 00414
000612	056003	A	1687	STA	3,RQBLK				03 00415
000613	005101	A	1688	INCR	01	SET BUFFER LENGTH TO 1			03 00416
000614	056011	A	1689	STA	9,RQBLK				03 00417
000615	005021	A	1690	TBA		SET BUFFER ADDR TO LAST WORD OF RQBLK			03 00418
000616	006120	A	1691	ADDI	12	ADD OFFSET			03 00419
000617	000014	A							
000620	110440	A	1692	ORA	BS15	BYTE COUNT			03 00420
000621	056012	A	1693	STA	10,RQBLK				03 00421
000622	014651	A	1694	LDA	RDBUFF	SET WORD/BYTE COUNT FLAG IN TCD			03 00422
000623	150440	A	1695	ANA	BS15				03 00423
000624	004241	A	1696	LRLA	1				03 00424
			1697	SETA	TCD,TCRBC,TCRBCB,TCRBCZ				03 00425
000625	004257	A							
000626	135004	A							
000627	004357	A							
000630	150421	A							
000631	004257	A							
000632	135004	A							
000633	055004	A							
000634	005101	A	1698	INCR	01	SET 1ST CHAR. INPUT FLAG			*****
			1699	SETA	TCD,TCRRS,TCRRSB,TCRRSZ				*****
000635	004246	A							
000636	135006	A							
000637	004346	A							
000640	150467	A							
000641	004246	A							
000642	135006	A							
000643	055006	A							
000644	001000	A	1700	JMP*	RD MEM				03 00426
000645	101471	R							
			1701 *			CCM REQUEST QUEUED, EXIT			03 00427
000646	024622	A	1702	RD100A	LDB	RD MEM			03 00428
	000002	A	1703	RQBLK	SET	B			03 00429
000647	006010	A	1704	LDAI	RD200	SET UP RQST COMPLETION ADDRESS			03 00430
000650	000654	R							
000651	056010	A	1705	STA	8,RQBLK				03 00431
000652	001000	A	1706	JMP*	RD100				03 00432
000653	100534	R							
			1707	EJEC					03 00433
			1708 *						03 00434
			1709 *						03 00435
			1710 *			AT THIS POINT CHARACTER HAS BEEN INPUT.			03 00436
			1711 *			TERMINATE READ IF LINE ERROR. CHECK FOR			03 00437
			1712 *			CONTROL CHARACTER. MOVE CHR TO USER BUFFER			03 00438
			1713	SPACE	3				03 00439
000654	000000	A	1714	RD200	ENTR				03 00440
			1715	FETCHA	TCD,TCRCA,TCRCAB,TCRCZ				03 00441
000655	015007	A							
000656	054612	A	1716	STA	RD MEM				03 00442
000657	005012	A	1717	TAB					03 00443
	000002	A	1718	RQBLK	SET	B			03 00444
			1719 *			CHECK FOR TIMEOUT			03 00445
			1720	FETCHA	TCD,TCDTO,TCDTOB,TCDTOZ				03 00446
000660	015014	A							
000661	001004	A	1721	JAN	RD200Z				03 00447
000662	000674	R							
000663	016006	A	1722	LDA	6,RQBLK	GET DETAIL STATUS			03 00448
000664	006441	A	1723	BT	RA0+1,RD402A	DATA-SET-READY OFF			03 00449
000665	001453	R							
000666	006150	A	1724	ANA1	0440	MASK FOR PARITY, BREAK			03 00450
000667	000440	A							
000670	001016	A	1725	JANZ	RD402A	LINE ERROR			03 00451
000671	001453	R							
000672	001000	A	1726	JMP	RD200Y				03 00452
000673	000773	R							
			1727	RD200Z	GETMEM	VT\$MPI,12	ALLOCATE MEM FOR CCM RQBLK		03 00453
000674	006010	A							
000675	000014	A							

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000676 006020 A
000677 000476 E
000700 074005 A
000701 006505 A
000702 000501 E
000703 000600 A
000704 000503 E
000705 006030 A
000706 000705 R

000707 001010 A 1728      JAZ*   RD200      03 00454
000710 100654 R
000711 054563 A 1729      STA   TEMP      03 00455
000712 005012 A 1730      TAB   TC$BRQ     03 00456
000713 002000 A 1731      JMPM  TC$BRQ     BUILD CCM RQBLK 03 00457
000714 000514 E
000715 006010 A 1732      LDAI  RD200X     SET UP RETURN ADDRESS 03 00458
000716 000733 R
000717 056010 A 1733      STA   8,RQBLK   03 00459
000720 010465 A 1734      LDA   FIVE      03 00460
000721 004250 A 1735      LRLA  8         03 00461
000722 116003 A 1736      ORA   3,RQBLK   03 00462
000723 150460 A 1737      ANA   BR15      USE WAIT OPTION   03 00463
000724 056003 A 1738      STA   3,RQBLK   03 00464
000725 016013 A 1739      LDA   11,RQBLK  FUNC CODE = 1, CLEAR READ RQST 03 00465
000726 110431 A 1740      ORA   BSB       03 00466
000727 056013 A 1741      STA   11,RQBLK  03 00467
000730 074536 A 1742      STX   RDTCD     SAVE X REG.       03 00468
000731 001000 A 1743      JMP*  TEMP      03 00469
000732 101475 R
000733 034533 A 1744 *      1744 *
000734 024540 A 1745 RD200X LDX   RDTCD     READ I/O CLEAR DONE 03 00470
000735 006010 A 1746      LDB   TEMP      RESTORE X REG.    03 00471
000736 000014 A 1747      LDAI  12        RETURN MEM FOR CCM RQBLK 03 00472
000737 056000 A 1748      STA   0,B       03 00474
000737 056000 A 1749      PUTMEM VT$MPI,TEMP 03 00475

000740 006010 A
000741 000677 E
000742 006027 A
000743 001475 R
000744 074005 A
000745 006505 A
000746 000702 E
000747 000600 A
000750 000462 E
000751 006030 A
000752 000751 R
000753 006010 A 1750      LDAI  RD400     CHANGE CCM RQST COMPLETION ADDR. 03 00476
000754 001351 R
000755 024513 A 1751      LDB   RDMEM     03 00477
000756 056010 A 1752      STA   8,RQBLK   03 00478

000757 005001 A 1753      TZA   TCDTO,TCO 03 00479
000760 055014 A 1754      STA   TCDTO,TCO 03 00480
000761 005111 A 1755      IAR   SET READ RQST STATUS TO 1(TIMEOUT) 03 00481
000761 005111 A 1756      SETA  TCD,TCRRS,TCRRSB,TCRRSZ 03 00482

000762 004246 A
000763 135006 A
000764 004346 A
000765 150467 A
000766 004246 A
000767 135006 A
000770 055006 A
000771 001000 A 1757      JMP*  RD200     RETURN TO TCMEEXEC 03 00483
000772 100654 R
000772 100654 R
000773 055014 A 1762 RD200Y STA   TCDTO,TCO 03 00484
000774 016014 A 1763      LDA   12,RQBLK  GET INPUT CHAR.   03 00485
000775 004350 A 1764      LSRA  8         03 00486
000776 054477 A 1765      STA   INPTCR    03 00487
000777 134477 A 1766      ERA   TYCR      03 00488
001000 001010 A 1767      JAZ   RD201     CARRIAGE RETURN, TERMINATE INPUT 03 00489
001001 001072 R
001002 134474 A 1768      ERA   TYCR      RESTORE            03 00490
001003 134474 A 1769      ERA   TYBSLH    03 00491
001004 001010 A 1770      JAZ   RD202     BACKSLASH, RESTART INPUT SEQUENCE 03 00492
001005 001143 R
001006 134471 A 1771      ERA   TYBSLH    RESTORE            03 00493
001007 134471 A 1772      ERA   TYBKAR    03 00494
001010 001010 A 1773      JAZ   RD203     BACKARROW, BACKUP CHR PTR,BLANK PREV. CHAR 03 00495
001011 001211 R
001012 015006 A 1774      FETCHA TCD,TCRRS,TCRRSB,TCRRSZ *****
001013 004346 A
001014 150467 A
001015 001010 A 1775      JAZ   RD200A    NOT 1ST CHAR. INPUT *****
001016 001036 R
001017 005001 A 1776      TZA   CLEAR 1ST CHAR. INPUT FLAG *****
001017 005001 A 1777      SETA  TCD,TCRRS,TCRRSB,TCRRSZ *****

001020 004246 A
001021 135006 A

001022 004346 A
001023 150467 A
001024 004246 A

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			1847 *					03 00564
			1848 *					03 00565
			1849 *					03 00566
			1850	SPACE	2			03 00567
001143	002000	A	1851	RD202	JMPM	TC\$FRR		03 00568
001144	001073	E						
001145	054322	A	1852		STA	RDRQST		03 00569
001146	005012	A	1853		TAB			03 00570
001147	026002	A	1854		LDB	RFCB,B		03 00571
	000002	A	1855	DCB	SET	B		03 00572
001150	016001	A	1856		LDA	DCBUFF,DCB	RESET BUFFER POINTER	03 00573
001151	150460	A	1857		ANA	BR15		03 00574
001152	055013	A	1858		STA	TCRBF,TCD		03 00575
001153	016001	A	1859		LDA	DCBUFF,B		03 00576
001154	026000	A	1860		LDB	DCRECL,B		03 00577
001155	001004	A	1861		JAN	RD202A		03 00578
001156	001160	R						
001157	004041	A	1862		LRLB	1		03 00579
001160	005021	A	1863	RD202A	TBA			03 00580
001161	006140	A	1864		SUBI	81		03 00581
001162	000121	A						
001163	001004	A	1865		JAN	RD202B		03 00582
001164	001171	R						
001165	006010	A	1866		LDAI	80		03 00583
001166	000120	A						
001167	001000	A	1867		JMP	RD202B+2		03 00584
001170	001173	R						
001171	006120	A	1868	RD202B	ADDI	81		03 00585
001172	000121	A						
001173	055012	A	1869		STA	TCGCC,TCD		03 00586
001174	015007	A	1870		LDA	TCRCA,TCD	GET CCM RQBLK ADDR	03 00587
001175	054273	A	1871		STA	ROMEM		03 00588
001176	010422	A	1872		LDA	TWO		03 00589
001177	006027	A	1873		LDBE	TYCRLF		03 00590
001200	001503	R						
001201	002000	A	1874		JMPM	TYRDCC	OUTPUT CR/LF	03 00591
001202	000000	R						
			1875 *					03 00592
001203	024265	A	1876		LDB	ROMEM		03 00593
	000002	A	1877	RQBLK	SET	B		03 00594
001204	006010	A	1878		LDAI	RD100	SET UP RQST COMPLETION ADDRESS TO RESTART	03 00595
001205	000534	R						
001206	056010	A	1879		STA	B,RQBLK		03 00596
001207	001000	A	1880		JMP*	RD200		03 00597
001210	100654	R						
			1881 *					03 00598
			1882 *					03 00599
			1883 *					03 00600
			1884 *					03 00601
001211	002000	A	1885	RD203	JMPM	TC\$FRR		03 00602
001212	001144	E						
001213	005012	A	1886		TAB			03 00603
001214	026002	A	1887		LDB	RFCB,B		03 00604
001215	016001	A	1888		LDA	DCBUFF,B		03 00605
001216	026000	A	1889		LDB	DCRECL,B		03 00606
001217	001004	A	1890		JAN	RD203X		03 00607
001220	001222	R						
001221	004041	A	1891		LRLB	1		03 00608
001222	005021	A	1892	RD203X	TBA			03 00609
001223	006140	A	1893		SUBI	81		03 00610
001224	000121	A						
001225	001004	A	1894		JAN	RD203Y		03 00611
001226	001233	R						
001227	006010	A	1895		LDAI	80		03 00612
001230	000120	A						
001231	001000	A	1896		JMP	RD203Y+2		03 00613
001232	001235	R						
001233	006120	A	1897	RD203Y	ADDI	81		03 00614
001234	000121	A						
001235	054237	A	1898		STA	TEMP		03 00615
001236	015012	A	1899		LDA	TCGCC,TCD		03 00616
001237	144235	A	1900		SUB	TEMP		03 00617
001240	001010	A	1901		JAZ	RD200B	NO INPUT CHARS, INPUT NEXT	03 00618
001241	001054	R						
001242	124232	A	1902		ADD	TEMP	DECREMENT COUNT OF CHARS. INPUT	03 00619
001243	005111	A	1903		IAR			03 00620
001244	055012	A	1904		STA	TCGCC,TCD		03 00621
001245	144227	A	1905		SUB	TEMP		*****
001246	001016	A	1906		JANZ	RD203Z		*****
001247	001260	R						
001250	005111	A	1907		IAR		SET 1ST INPUT CHAR. FLAG	*****
			1908		SETA	TCDC,TCRRS,TCRRSB,TCRRSZ		*****
001251	004246	A						
001252	135006	A						
001253	004346	A						
001254	150467	A						
001255	004246	A						
001256	135006	A						
001257	055006	A						
001260	015013	A	1909	RD203Z	LDA	TCRBF,TCD	BLANK PREVIOUS CHAR	*****
001261	001004	A	1910		JAN	RD203A	BACK UP TO LHW OF SAME WORD	03 00623
001262	001264	R						
			1911 *					03 00624
001263	005311	A	1912		DAR			03 00625
001264	005211	A	1913	RD203A	CPA		BACK UP TO RHW OF PREVIOUS WORD	03 00626

001265	055013	A	1914	STA	TCRBF, TCD		03	00627
001266	014215	A	1915	LDA	TYBLK	STORE BLANK CHAR	03	00628
001267	001000	A	1916	JMP	RD200A+1		03	00629
001270	001037	R						
			1917	EJEC			03	00630
			1918	*			03	00631
			1919	*		CR/LF OR LF OUTPUT, CLEAR UNUSED PORTION OF	03	00632
			1920	*		BUFFER TO BLANKS FOR MODE = 1 READ.	03	00633
			1921	*			03	00634
001271	000000	A	1922	RD300	ENTR		03	00635
001272	015007	A	1923	LDA	TCRCA, TCD		03	00636
001273	054175	A	1924	STA	RDMEM		03	00637
001274	005012	A	1925	TAB			03	00638
	000002	A	1926	RQBLK	SET	B	03	00639
001275	016006	A	1927	LDA	6, RQBLK	GET DETAIL STATUS	03	00640
001276	006441	A	1928	BT	RA0+1, RD403	DATA-SET-READY OFF	03	00641
001277	001457	R						
001300	006410	A	1929	BT	RA1+8, RD403	BREAK	03	00642
001301	001457	R						
001302	002000	A	1930	JMPM	TC\$FRR	GET CHARACTER COUNT	03	00643
001303	001212	E						
001304	005012	A	1931	TAB			03	00644
001305	026002	A	1932	LDB	RFCB, B		03	00645
001306	016001	A	1933	LDA	DCBUFF, B		03	00646
001307	026000	A	1934	LDB	DCRECL, B		03	00647
001310	001004	A	1935	JAN	RD300X		03	00648
001311	001313	R						
001312	004041	A	1936	LRLB	1		03	00649
001313	005021	A	1937	RD300X	TBA		03	00650
001314	006140	A	1938	SUBI	81		03	00651
001315	000121	A						
001316	001004	A	1939	JAN	RD300Y		03	00652
001317	001324	R						
001320	006010	A	1940	LDAI	80		03	00653
001321	000120	A						
001322	001000	A	1941	JMP	RD300Y+2		03	00654
001323	001326	R						
001324	006120	A	1942	RD300Y	ADDI	81	03	00655
001325	000121	A						
001326	145012	A	1943	SUB	TCOCC, TCD		03	00656
001327	025013	A	1944	LDB	TCRBF, TCD		03	00657
001330	001010	A	1945	JAZ	RD300Z	BUFFER FULL, NO DEBLANKING	03	00658
001331	001334	R						
001332	002000	A	1946	JMPM	TYBKBF	CLEAR REMAINING PORTION OF BUFFER TO BLANKS	03	00659
001333	000056	R						
			1947	RD300Z	FETCHA	TCD, TCRBC, TCRBCB, TCRBCZ	03	00660
001334	015004	A						
001335	004357	A						
001336	001016	A	1948	JANZ	RD300A	BYTE COUNT	03	00661
001337	001344	R						
001340	015012	A	1949	LDA	TCOCC, TCD	CONVERT TO WORD COUNT	03	00662
001341	005111	A	1950	IAR			03	00663
001342	004341	A	1951	LSRA	1		03	00664
001343	055012	A	1952	STA	TCOCC, TCD		03	00665
001344	006017	A	1953	RD300A	LDAE	RD300	03	00666
001345	001271	R						
001346	054002	A	1954	STA	RD400		03	00667
001347	001000	A	1955	JMP	RD400+1	COMPLETE TCM REQUEST	03	00668
001350	001352	R						
			1956	EJEC			03	00669
			1957	*			03	00670
			1958	*		TCM REQUEST COMPLETED, RETURN NORMAL/ERROR	03	00671
			1959	*		STATUS AND RETURN MEMORY FOR CCM RQBLK	03	00672
			1960	*			03	00673
			1961	SPACE	3		03	00674
001351	000000	A	1962	RD400	ENTR		03	00675
001352	015007	A	1963	LDA	TCRCA, TCD		03	00676
001353	054115	A	1964	STA	RDMEM		03	00677
001354	002000	A	1965	JMPM	TC\$FRR	GET TCM REQUEST ADDR	03	00678
001355	001303	E						
001356	054111	A	1966	STA	RDRQST		03	00679
			1967	FETCHA	TCD, TCRMD, TCRMDB, TCRMDZ		03	00680
001357	015006	A						
001360	150467	A						
001361	001016	A	1968	JANZ	RD400A	MODE = 4, COUNT IN CCM RQST BLK	03	00681
001362	001366	R						
001363	015012	A	1969	LDA	TCOCC, TCD	MODE = 1, COUNT IN TCD	03	00682
001364	001000	A	1970	JMP	RD400A+2		03	00683
001365	001370	R						
001366	024102	A	1971	RD400A	LDB	RDMEM	03	00684
001367	016005	A	1972	LDA	5, RQBLK		03	00685
001370	025002	A	1973	LDB	TCCTA, TCD	(B) = TCM CTBL ADDRESS	03	00686
001371	056013	A	1974	STA	CTWDS, B	PUT NO. WDS/BYTES TRANSFERED IN TCM CTBL	03	00687
001372	024076	A	1975	LDB	RDMEM		03	00688
			1976	FETCHA	TCD, TCRRS, TCRRSB, TCRRSZ		03	00689
001373	015006	A						
001374	004346	A						
001375	150467	A						
001376	001016	A	1977	JANZ	RD400B	TIMEOUT(TCRRS=1)	03	00690
001377	001403	R						
001400	016006	A	1978	LDA	6, RQBLK	CCM DETAIL STATUS	03	00691
001401	001000	A	1979	JMP	RD400C		03	00692
001402	001414	R						

001403	005001	A	1980	RD400B	TZA				03	00693	
			1981		SETA	TCD,TCRRS,TCRRSB,TCRRSZ			03	00694	
001404	004246	A									
001405	135006	A									
001406	004346	A									
001407	150467	A									
001410	004246	A									
001411	135006	A									
001412	055006	A									
001413	010440	A	1982		LDA	BS15	TIMEOUT, SET STATUS NEG.		03	00695	
001414	024053	A	1983	RD400C	LDB	RDRQST	RQST ADDR		03	00696	
			1984		EXT	TC\$CRQ			03	00697	
			1985		DINTS				03	00698	
001415	100444	A									
001416	100747	A									
001417	002000	A	1986		JMPM	TC\$CRQ	COMPLETE REQUEST		03	00699	
001420	000162	E									
			1987		EINTS				03	00700	
001421	100244	A									
001422	100147	A									
			1988 *				RETURN MEMORY FOR CCM RQST BLOCK		03	00701	
001423	024045	A	1989		LDB	RD MEM			03	00702	
001424	006010	A	1990		LDAI	13			03	00703	
001425	000015	A									
001426	056000	A	1991		STA	0,B	SET SIZE OF CCM RQST BLK		03	00704	
			1992		EXT	VT\$MPI			03	00705	
			1993		PUTMEM	VT\$MPI, RD MEM	DEALLOCATE MEMORY		03	00706	
001427	006010	A									
001430	000741	E									
001431	006027	A									
001432	001471	R									
001433	074005	A									
001434	006505	A									
001435	000746	E									
001436	000600	A									
001437	000750	E									
001440	006030	A									
001441	001440	R									
001442	005001	A	1994		TZA		CLEAR CCM RQBLK ADDR(SET TCD NOT READ ACTIV03		03	00707	
001443	055007	A	1995		STA	TCRCA, TCD			03	00708	
001444	055014	A	1996		STA	TCDTO, TCD			03	00709	
001445	001000	A	1997		JMP*	RD400	EXIT TO TCMEXEC		03	00710	
001446	101351	R									
			1998		EJEC				03	00711	
			1999 *						03	00712	
001447	006017	A	2000	RD401	LDAE	RD100	PATCH RETURN ADDR AT RD400		03	00713	
001450	000534	R									
001451	001000	A	2001		JMP	RD404			03	00714	
001452	001461	R									
			2002 *						03	00715	
			2003 *						03	00716	
001453	006017	A	2004	RD402A	LDAE	RD200			03	00717	
001454	000654	R									
001455	001000	A	2005		JMP	RD404			03	00718	
001456	001461	R									
			2006 *						03	00719	
001457	006017	A	2007	RD403	LDAE	RD300			03	00720	
001460	001271	R									
001461	006057	A	2008	RD404	STAE	RD400			03	00721	
001462	001351	R									
001463	005001	A	2009		TZA				03	00722	
001464	055012	A	2010		STA	TCDC, TCD	CLEAR NO. OF CHARS INPUT		03	00723	
001465	001003	A	2011		JMP	RD400+1			03	00724	
001466	001352	R									
			2012		EJEC				03	00725	
			2013 *						03	00726	
			2014 *				CONSTANTS AND DATA STORAGE		03	00727	
			2015 *						03	00728	
001467	000000	A	2016	RDTCD	DATA	0	TCD ADDRESS		03	00729	
001470	000000	A	2017	RDRQST	DATA	0	READ REQUEST ADDRESS		03	00730	
001471	000000	A	2018	RD MEM	DATA	0	CCM REQUEST BLOCK ADDR		03	00731	
001472	000000	A	2019	RD MODE	DATA	0	MODE OF READ REQUEST		03	00732	
001473	000000	A	2020	RDBLEN	DATA	0	BUFFER LENGTH		03	00733	
001474	000000	A	2021	RDBUFF	DATA	0	BUFFER ADDRESS		03	00734	
001475	000000	A	2022	TEMP	DATA	0	TEMPORARY		03	00735	
001476	000000	A	2023	INPTCR	DATA	0	SAVE CELL FOR INPUT CHAR.		03	00736	
001477	000215	A	2024	TYCR	DATA	0215	CARRIAGE RETURN CHARACTER		03	00737	
001500	000334	A	2025	TYBSLH	DATA	0334	BACKSLASH CHARACTER		03	00738	
001501	000337	A	2026	TYBKAR	DATA	0337	BACKARROW CHARACTER		03	00739	
001502	000207	A	2027	TYBELL	DATA	0207	BELL CHARACTER(EOF)		*****		
001503	106612	A	2028	TYCRLF	DATA	0106612			03	00740	
001504	000240	A	2029	TYBLK	DATA	0240	BLANK CHR(ASCII)		03	00741	
001505	120240	A	2030	TYKBK	DATA	0120240			03	00742	
			2031		EJEC				03	00743	
			2032	*****						03	00745
			2033	*****						03	00746
			2034	**	PROGRAM NAME -				**03	00747	
			2035	**	TYWRIT - PROCESSES WRITE REQUESTS FOR TTY TCM				**03	00748	
			2036	**					**03	00749	
			2037	**	ENTRY CONDITIONS -				**03	00750	
			2038	**	(X) = ADDRESS OF TCD				**03	00751	
			2039	**					**03	00752	
			2040	**	EXIT CONDITIONS -				**03	00753	
			2041	**	(X) DESTROYED				**03	00754	
			2042	**	(A) AND (B) DESTROYED				**03	00755	

2043	**				**03	00756
2044	**	CALLING SEQUENCE -			**03	00757
2045	**	JMPM TYWRIT			**03	00758
2046	**	(RETURN)			**03	00759
2047	**				**03	00760
2048	.....				03	00761
2049	.....				03	00762
2050		EXT	V\$EXEC		03	00763
2051		EXT	VT\$GTM		03	00764
2052		EXT	VT\$PTM		03	00765
2053		EXT	VT\$MPI		03	00766
2054		EXT	TC\$FWR		03	00767
2055		NAME	TYWRIT		03	00768
001506	000000	A	2056	TYWRIT ENTR	03	00769
	000001	A	2057	TCD SET X	03	00770
001507	002000	A	2058	JMPM TC\$FWR	03	00771
001510	000000	E		FIND WRITE REQUEST		
001511	001010	A	2059	JAZ* TYWRIT	03	00772
001512	101506	R		NO RQST, EXIT		
001513	054756	A	2060	STA WRQSTA	03	00773
			2061	GETMEM VT\$MP1,13	03	00774
001514	006010	A				
001515	000015	A				
001516	006020	A				
001517	001430	E				
001520	074005	A				
001521	006505	A				
001522	001435	E				
001523	000600	A				
001524	000704	E				
001525	006030	A				
001526	001525	R				
001527	001010	A	2062	JAZ* TYWRIT	03	00775
001530	101506	R		NO MEM EXIT		
001531	054734	A	2063	STA WRMEM	03	00776
001532	005012	A	2064	TAB	03	00777
001533	002000	A	2065	JMPM TC\$BRQ	03	00778
001534	000714	E		BUILD CCM RQST		
			2066	FETCHA TCD,TCSWL,TCSWLB,TCSWLZ	03	00779
001535	015004	A				
001536	004350	A				
001537	150421	A				
001540	001010	A	2067	JAZ WR20	03	00780
001541	001653	R		DIRECT CONNECT		
			2068 *	DIAL-UP LINE, CHECK PHYSICAL CONNECTION	03	00781
			2069	FETCHA TCD,TCCON,TCCONB,TCCONZ	03	00782
001542	015004	A				
001543	004355	A				
001544	150421	A				
001545	001010	A	2070	JAZ WR09	03	00783
001546	001566	R		NOT CONNECTED		
			2071	FETCHA TCD,TCLDF,TCLDFB,TCLDFZ	03	00784
001547	015006	A				
001550	004354	A				
001551	150421	A				
001552	001010	A	2072	JAZ WR20	03	00785
001553	001653	R		CONNECTED		
001554	005101	A	2073	INCR 01	*****	
001555	024714	A	2074	LDB WRQSTA	03	00787
			2075	DINTS	03	00788
001556	100444	A				
001557	100747	A				
001560	002000	A	2076	JMPM TC\$CRQ	03	00789
001561	001420	E				
			2077	EINTS	03	00790
001562	100244	A				
001563	100147	A				
001564	001000	A	2078	JMP* TYWRIT	03	00791
001565	101506	R		RETURN		
			2079 *	CHECK FOR PHYSICAL CONNECTION	03	00792
001566	006010	A	2080	WR09 LDAI WR10	03	00793
001567	001602	R		SET UP RETURN ADDRESS		
001570	024675	A	2081	LDB WRMEM	03	00794
	000002	A	2082	RQBLK SET B	03	00795
001571	056010	A	2083	STA B,RQBLK	03	00796
001572	010465	A	2084	LDA FIVE	03	00797
001573	004250	A	2085	LRLA B	03	00798
001574	116003	A	2086	ORA 3,RQBLK	03	00799
001575	150460	A	2087	ANA BR15	03	00800
001576	056003	A	2088	STA 3,RQBLK	03	00801
001577	074673	A	2089	STX WRTCD	03	00802
001600	001000	A	2090	JMP* WRMEM	03	00803
001601	102466	R				
001602	024663	A	2091	WR10 LDB WRMEM	03	00804
001603	034667	A	2092	LDX WRTCD	03	00805
001604	016006	A	2093	LDA 6,RQBLK	03	00806
001605	150422	A	2094	ANA BS1	03	00807
001606	001016	A	2095	JANZ WR15A	03	00808
001607	001643	R		ON		
			2096 *	OFF, SENSE DATA-SET-READY ON EVENT	03	00809
001610	016003	A	2097	LDA 3,RQBLK	03	00810
001611	110440	A	2098	ORA BS15	03	00811
001612	056003	A	2099	STA 3,RQBLK	03	00812
001613	016013	A	2100	LDA 11,RQBLK	03	00813
001614	150463	A	2101	ANA RHW	03	00814
001615	006110	A	2102	ORA1 01400	03	00815
001616	001400	A				

001617	056013	A	2103	STA	11,RQBLK		03	00816
001620	010422	A	2104	LDA	BS1	MASK FOR DSR ON	03	00817
001621	056014	A	2105	STA	12,RQBLK	STORE IN LCB EXT WORD	03	00818
001622	006010	A	2106	LDAI	WR10A	SET UP RETURN	03	00819
001623	001630	R						
001624	056010	A	2107	STA	8,RQBLK		03	00820
001625	065011	A	2108	STB	TCWCA, TCD	SET WRITE ACTIVE	03	00821
001626	001000	A	2109	JMP*	WRMEM		03	00822
001627	102466	R						
			2110 *			CCM RQST QUEUED	03	00823
001630	006027	A	2111	WR10A	LDBE	WRMEM	03	00824
001631	002466	R						
001632	006010	A	2112	LDAI	WR15		03	00825
001633	001637	R						
001634	056010	A	2113	STA	8,RQBLK		03	00826
001635	001000	A	2114	JMP*	TYWRIT	RETURN	03	00827
001636	101506	R						
			2115 *			ON RETURN, DSR IS ON	03	00828
001637	015011	A	2116	WR15	LDA	TCWCA, TCD	03	00829
001640	054625	A	2117		STA	WRMEM	03	00830
001641	005001	A	2118		TZA		03	00831
001642	055011	A	2119		STA	TCWCA, TCD	03	00832
001643	005101	A	2120	WR15A	INCR	01	03	00833
			2121	SETA	TCWCA, TCD	SET PHYSICAL CONNECTION BIT, DSR ON	03	00834
						TCD, TCCON, TCCONB, TCCONZ		
001644	004255	A						
001645	135004	A						
001646	004355	A						
001647	150421	A						
001650	004255	A						
001651	135004	A						
001652	055004	A						
			2122 *				03	00835
			2123 *			IF FULL-DUPLEX, CHECK IF WRITE CAN BE	03	00836
			2124 *			INITIATED.	03	00837
			2125 *			GET TRANSMISSION MODE	03	00838
			2126	WR20	FETCHA	TCD, TCXMM, TCXMMB, TCXMMZ	03	00839
001653	015004	A						
001654	004352	A						
001655	150464	A						
001656	140464	A	2127	SUB	THREE		03	00840
001657	001016	A	2128	JANZ	WR30	NOT FULL-DUPLEX	03	00841
001660	001673	R						
			2129 *			FDX, CHECK FOR READ ACTIVE WITH ECHO	03	00842
			2130	FETCHA	TCD, TCRCA, TCRCAZ		03	00843
001661	015007	A						
001662	001010	A	2131	JAZ	WR30A	NOT READ ACTIVE	03	00844
001663	001703	R						
			2132 *			READ ACTIVE, CHECK IF ECHO MODE	03	00845
			2133	FETCHA	TCD, TCECH, TCECHB, TCECHZ		03	00846
001664	015004	A						
001665	004354	A						
001666	150421	A						
001667	001010	A	2134	JAZ	WR300C	ECHO MODE, CANNOT INITIATE WRITE	03	00847
001670	002460	R						
001671	001000	A	2135	JMP	WR30A	INITIATE WRITE	03	00848
001672	001703	R						
			2136 *				03	00849
			2137 *			LINE IS HALF-DUPLEX OR SIMPLEX.	03	00850
			2138 *			WRITE CAN BE INITIATED IF RQST IS ON TOP	03	00851
			2139 *			OF TCD RQST QUEUE.	03	00852
			2140 *				03	00853
			2141	WR30	FETCHA	TCD, TCRQH, TCRQHB, TCRQHZ	03	00854
001673	015001	A						
001674	005012	A	2142	TAB			03	00855
	000002	A	2143	RQST	SET	B	03	00856
			2144	FETCHA	RQST, ROPWD, 8, 4	GET OP-CODE OF TOP RQST	03	00857
001675	016001	A						
001676	004350	A						
001677	150472	A						
001700	005311	A	2145	DAR			03	00858
001701	001016	A	2146	JANZ	WR300C	WRITE RQST NOT ON TOP, EXIT	03	00859
001702	002460	R						
			2147 *				03	00860
			2148 *			INITIATE WRITE REQUEST	03	00861
			2149 *				03	00862
001703	024566	A	2150	WR30A	LDB	WRQSTA	03	00863
	000002	A	2151	RQST	SET	B	03	00864
			2152	FETCHA	RQST, ROPWD, 12, 3		03	00865
001704	016001	A						
001705	004354	A						
001706	150467	A						
001707	140423	A	2153	SUB	FOUR	IS MODE = 4	03	00866
001710	001010	A	2154	JAZ	WR30B	YES	03	00867
001711	001714	R						
001712	005001	A	2155	TZA		NO, SET MODE = 1 (DEFAULT)	03	00868
001713	001004	A	2156	DATA	01004		03	00869
001714	120464	A	2157	WR30B	ADD	THREE	03	00870
001715	054551	A	2158	STA	WRMODE	SAVE MODE	03	00871
			2159	SETA	TCD, TCWMD, TCWMDB, TCWMDZ		03	00872
001716	004243	A						
001717	135006	A						
001720	004343	A						
001721	150467	A						
001722	004243	A						
001723	135006	A						
001724	055006	A						
001725	014541	A	2160	LDA	WRMODE		03	00873

001726	001010	A	2161	JAZ	WR50	MODE = 1 OR NEQ 4	03	00874
001727	001764	R						
001730	024541	A	2162	LDB	WRQSTA		03	00875
001731	026002	A	2163	LDB	RFCB,RQST		03	00876
	000002	A	2164	DCB	SET	B	03	00877
001732	016000	A	2165	LDA	DCRECL,DCB		03	00878
001733	054534	A	2166	STA	WRBLEN	SAVE RECORD LENGTH (BYTES/WORDS)	03	00879
001734	016001	A	2167	LDA	DCBUFF,DCB		03	00880
001735	054533	A	2168	STA	WRBUFF	SAVE BUFFER ADDRESS, BYTE/WORD CMT FLAG	03	00881
	2169	*					03	00882
	2170	*				MODE = 4, TRANSPARENT	03	00883
	2171	*				BUILD CCM RQST BLK TO OUTPUT USER BUFFER	03	00884
	2172	*					03	00885
	2173	*		SPACE	2		03	00886
001736	024527	A	2174	WR40	LDB	WRMEM	03	00887
	000002	A	2175	RQBLK	SET	B	03	00888
001737	006010	A	2176	LDAI	WR40A	SET UP RETURN ADDR	03	00889
001740	001756	R						
001741	056010	A	2177	STA	8,RQBLK		03	00890
001742	016003	A	2178	LDA	3,RQBLK	SET OP-CODE TO WRITE, IMMEDIATE RETURN	03	00891
001743	150463	A	2179	ANA	RHW		03	00892
001744	006110	A	2180	ORAI	0100400		03	00893
001745	100400	A						
001746	056003	A	2181	STA	3,RQBLK		03	00894
001747	014520	A	2182	LDA	WRBLEN	SET BUFFER LENGTH	03	00895
001750	056011	A	2183	STA	9,RQBLK		03	00896
001751	014517	A	2184	LDA	WRBUFF	SET BUFFER ADDRESS, BYTE/WORD FLAG	03	00897
001752	056012	A	2185	STA	10,RQBLK		03	00898
001753	065011	A	2186	STB	TCWCA, TCD	SET WRITE ACTIVE	03	00899
001754	001000	A	2187	JMP*	WRMEM		03	00900
001755	102466	R				CCM RQST QUEUED, EXIT	03	00901
	2188	*					03	00902
001756	024507	A	2189	WR40A	LDB	WRMEM	03	00903
	000002	A	2190	RQBLK	SET	B	03	00904
001757	006010	A	2191	LDAI	WR200	SET UP RETURN COMPLETION ADDRESS	03	00905
001760	002301	R						
001761	056010	A	2192	STA	8,RQBLK		03	00906
001762	001000	A	2193	JMP*	TYWRIT	EXIT	03	00907
001763	101506	R						
	2194	*		EJEC			03	00908
	2195	*				MODE = 1, STANDARD	03	00909
	2196	*				BUILD CCM RQST TO OUTPUT FORMS CONTROL	03	00910
	2197	*					03	00911
001764	024505	A	2198	WR50	LDB	WRQSTA	03	00912
001765	026002	A	2199	LDB	RFCB,B	GET BUFFER ADDRESS	03	00913
001766	016001	A	2200	LDA	DCBUFF,B		03	00914
001767	054501	A	2201	STA	WRBUFF		03	00915
001770	150460	A	2202	ANA	BR15		03	00916
001771	005012	A	2203	TAB			03	00917
001772	016000	A	2204	LDA	0,B	GET 1ST CHR IN BUFFER	03	00918
001773	004350	A	2205	LSRA	8		03	00919
001774	006137	A	2206	ERAE	TYBLK		03	00920
001775	001504	R						
001776	001010	A	2207	JAZ	WR50A	BLANK, NO LF CHAR.	03	00921
001777	002017	R						
002000	006137	A	2208	ERAE	TYBLK	RESTORE	03	00922
002001	001504	R						
002002	134476	A	2209	ERA	TYZER		03	00923
002003	001010	A	2210	JAZ	WR50B	ZERO, ONE LF CHAR.	03	00924
002004	002026	R						
002005	134473	A	2211	ERA	TYZER		03	00925
002006	134471	A	2212	ERA	TYONE		03	00926
002007	001016	A	2213	JANZ	WR50A	INVALID FORMS CNTRL CHAR, BLANK DEFAULT CHR	03	00927
002010	002017	R						
002011	010423	A	2214	LDA	FOUR	ONE, FORMS CHR	03	00928
002012	054463	A	2215	STA	CHRCNT		03	00929
002013	006010	A	2216	LDAI	TYFORM			
002014	002503	R						
002015	001000	A	2217	JMP	WR60		03	00930
002016	002032	R						
002017	014446	A	2218	WR50A	LDA	WRMEM	03	00931
002020	055011	A	2219	STA	TCWCA, TCD	SET TCD WRITE ACTIVE	03	00932
002021	006017	A	2220	LDAE	TYWRIT	MOVE RETURN ADDRESS TO WR100	03	00933
002022	001506	R						
002023	054034	A	2221	STA	WR100		03	00934
002024	001000	A	2222	JMP	WR100A	OUTPUT USER BUFFER	03	00935
002025	002071	R						
002026	005111	A	2223	WR50B	IAR	ONE LINE FEED CHAR.	03	00936
002027	054446	A	2224	STA	CHRCNT		03	00937
002030	006010	A	2225	LDAI	TYLFLF		03	00938
002031	002502	R						
002032	024433	A	2226	WR60	LDB	WRMEM	03	00939
	000002	A	2227	RQBLK	SET	B	03	00940
002033	110440	A	2228	ORA	BS15	SET TO BYTE COUNT	03	00941
002034	056012	A	2229	STA	10,RQBLK	SET BUFFER ADDR OF FORMS CONTROL CHR	03	00942
002035	014440	A	2230	LDA	CHRCNT		03	00943
002036	056011	A	2231	STA	9,RQBLK	SET BUFFER LENGTH	03	00944
002037	006010	A	2232	LDAI	WR70	SET UP RETURN ADDRESS	03	00945
002040	002052	R						
002041	056010	A	2233	STA	8,RQBLK		03	00946
002042	016003	A	2234	LDA	3,RQBLK	SET OP-CODE TO WRITE, IMMEDIATE RETURN	03	00947
002043	150463	A	2235	ANA	RHW		03	00948
002044	006110	A	2236	ORAI	0100400		03	00949
002045	100400	A						

002046	056003	A	2237	STA	3,RQBLK		03	00950
002047	065011	A	2238	STB	TCWCA, TCD	SET WRITE ACTIVE	03	00951
002050	001000	A	2239	JMP*	WRMEM		03	00952
002051	102466	R						
002052	006010	A	2240	WR70	LDAI	WR100	03	00953
002053	002060	R						
002054	024411	A	2241	LDB	WRMEM		03	00954
002055	056010	A	2242	STA	8,RQBLK		03	00955
002056	001000	A	2243	JMP*	TYWRIT		03	00956
002057	101506	R						
			2244	EJEC			03	00957
			2245 *				03	00958
			2246 *			CHECK FOR LINE ERRORS ON RETURN FROM	03	00959
			2247 *			FORMS CONTROL CHR OUTPUT	03	00960
			2248	SPACE	3		03	00961
002060	000000	A	2249	WR100	ENTR		03	00962
			2250	FETCHA	TCD, TCWCA, TCWCAB, TCWCAZ		03	00963
002061	015011	A						
002062	054403	A	2251	STA	WRMEM		03	00964
002063	005012	A	2252	TAB			03	00965
	000002	A	2253	RQBLK	SET	B	03	00966
002064	016006	A	2254	LDA	6,RQBLK	GET DETAIL STATUS	03	00967
002065	006441	A	2255	BT	RA0+1,WR106	DATA-SET-READY OFF	03	00968
002066	002255	R						
002067	006410	A	2256	BT	RA1+8,WR106	BREAK	03	00969
002070	002255	R						
002071	002000	A	2257	WR100A	JMPM	TC\$FWR	03	00970
002072	001510	E						
002073	054376	A	2258	STA	WRQSTA	SAVE RQST ADDR	03	00971
002074	005012	A	2259	TAB			03	00972
002075	026002	A	2260	LDB	RFCB,B		03	00973
	000002	A	2261	DCB	SET	B	03	00974
002076	016000	A	2262	LDA	DCRECL,DCB	GET BUFFER LENGTH	03	00975
002077	054370	A	2263	STA	WRBLEN		03	00976
002100	016001	A	2264	LDA	DCBUFF,DCB	GET BUFFER ADDR, BYTE/WORD FLAG	03	00977
002101	054367	A	2265	STA	WRBUFF		03	00978
002102	150460	A	2266	ANA	BR15		03	00979
002103	005012	A	2267	TAB			03	00980
002104	016000	A	2268	LDA	0,B	SET 1ST CHR IN BUFFER TO BLANK CHR	03	00981
002105	054367	A	2269	STA	WRFMCC	SAVE FORMS CONTROL CHAR.	03	00982
002106	150463	A	2270	ANA	RHW		03	00983
002107	006110	A	2271	ORAI	0120000		03	00984
002110	120000	A						
002111	056000	A	2272	STA	0,B		03	00985
002112	014362	A	2273	LDA	WRFMCC		03	00986
002113	024352	A	2274	LDB	WRMEM		03	00987
002114	056014	A	2275	STA	12,RQBLK	SAVE IN CCM RQBLK	03	00988
			2276 *			CALCULATE NUMBER OF TRAILING BLANKS	03	00989
002115	005001	A	2277	TZA			03	00990
002116	054360	A	2278	STA	BLKCNT		03	00991
002117	014351	A	2279	LDA	WRBUFF		03	00992
002120	001004	A	2280	JAN	WR101	COUNT IN BYTES	03	00993
002121	002125	R						
002122	014345	A	2281	LDA	WRBLEN		03	00994
002123	001000	A	2282	JMP	WR102		03	00995
002124	002142	R						
002125	014342	A	2283	WR101	LDA	WRBLEN	03	00996
002126	054347	A	2284	STA	CHRCNT		03	00997
002127	005111	A	2285	IAR			03	00998
002130	004341	A	2286	LSRA	1	CONVERT TO WORD COUNT(UP ROUNDED)	03	00999
002131	054342	A	2287	STA	WDCNT	SAVE WORD COUNT	03	01000
002132	124336	A	2288	ADD	WRBUFF		03	01001
002133	005012	A	2289	TAB			03	01002
002134	005322	A	2290	DBR			03	01003
002135	014332	A	2291	LDA	WRBLEN	IF ODD, CHECK STARTS AT LHW	03	01004
002136	006400	A	2292	BT	RA1+0,WR104		03	01005
002137	002165	R						
002140	001000	A	2293	JMP	WR103+1		03	01006
002141	002152	R						
002142	054331	A	2294	WR102	STA	WDCNT	03	01007
002143	005012	A	2295	TAB			03	01008
002144	004241	A	2296	LRLA	1	*2	03	01009
002145	054330	A	2297	STA	CHRCNT		03	01010
002146	005021	A	2298	TBA			03	01011
002147	124321	A	2299	ADD	WRBUFF		03	01012
002150	005012	A	2300	TAB			03	01013
002151	005322	A	2301	WR103	DBR		03	01014
002152	016000	A	2302	LDA	0,B	CHECK RHW FOR BLANK	03	01015
002153	150463	A	2303	ANA	RHW		03	01016
002154	006137	A	2304	ERAE	TYBLK		03	01017
002155	001504	R						
002156	001016	A	2305	JANZ	WR105	NON-BLANK	03	01018
002157	002202	R						
002160	044316	A	2306	INR	BLKCNT		03	01019
002161	014314	A	2307	LDA	CHRCNT	CHECK FOR ALL BLANKS IN BUFFER	03	01020
002162	144314	A	2308	SUB	BLKCNT		03	01021
002163	001010	A	2309	JAZ	WR105	YES	03	01022
002164	002202	R						
002165	016000	A	2310	WR104	LDA	0,B	03	01023
002166	004350	A	2311	LSRA	8	CHECK LHW FOR BLANK	03	01024
002167	006137	A	2312	ERAE	TYBLK		03	01025
002170	001504	R						
002171	001016	A	2313	JANZ	WR105	NON-BLANK	03	01026

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001726 001010 A 2161	JAZ	WR50	MODE = 1 OR NEQ 4	03 00874
001727 001764 R				
001730 024541 A 2162	LDB	WRQSTA		03 00875
001731 026002 A 2163	LDB	RFCB,RQST		03 00876
000002 A 2164 DCB	SET	B		03 00877
001732 016000 A 2165	LDA	DCRECL,DCB		03 00878
001733 054534 A 2166	STA	WRBLEN	SAVE RECORD LENGTH (BYTES/WORDS)	03 00879
001734 016001 A 2167	LDA	DCBUFF,DCB		03 00880
001735 054533 A 2168	STA	WRBUFF	SAVE BUFFER ADDRESS, BYTE/WORD CMT FLAG	03 00881
				03 00882
2169 *			MODE = 4, TRANSPARENT	03 00883
2170 *			BUILD CCM RQST BLK TO OUTPUT USER BUFFER	03 00884
2171 *				03 00885
2172 *				03 00886
2173	SPACE	2		
001736 024527 A 2174 WR40	LDB	WRMEM		03 00887
000002 A 2175 RQBLK	SET	B		03 00888
001737 006010 A 2176	LDAI	WR40A	SET UP RETURN ADDR	03 00889
001740 001756 R				
001741 056010 A 2177	STA	8,RQBLK		03 00890
001742 016003 A 2178	LDA	3,RQBLK	SET OP-CODE TO WRITE, IMMEDIATE RETURN	03 00891
001743 150463 A 2179	ANA	RHW		03 00892
001744 006110 A 2180	ORAI	0100400		03 00893
001745 100400 A				
001746 056003 A 2181	STA	3,RQBLK		03 00894
001747 014520 A 2182	LDA	WRBLEN	SET BUFFER LENGTH	03 00895
001750 056011 A 2183	STA	9,RQBLK		03 00896
001751 014517 A 2184	LDA	WRBUFF	SET BUFFER ADDRESS, BYTE/WORD FLAG	03 00897
001752 056012 A 2185	STA	10,RQBLK		03 00898
001753 065011 A 2186	STB	TCWCA, TCD	SET WRITE ACTIVE	03 00899
001754 001000 A 2187	JMP*	WRMEM		03 00900
001755 102466 R				
			CCM RQST QUEUED, EXIT	03 00901
2188 *				03 00902
001756 024507 A 2189 WR40A	LDB	WRMEM		03 00903
000002 A 2190 RQBLK	SET	B		03 00904
001757 006010 A 2191	LDAI	WR200	SET UP RETURN COMPLETION ADDRESS	03 00905
001760 002301 R				03 00906
001761 056010 A 2192	STA	8,RQBLK		03 00907
001762 001000 A 2193	JMP*	TYWRIT	EXIT	03 00908
001763 101506 R				03 00909
2194	EJEC			03 00910
2195 *			MODE = 1, STANDARD	03 00911
2196 *			BUILD CCM RQST TO OUTPUT FORMS CONTROL	03 00912
2197 *				03 00913
001764 024505 A 2198 WR50	LDB	WRQSTA	GET BUFFER ADDRESS	03 00914
001765 026002 A 2199	LDB	RFCB,B		03 00915
001766 016001 A 2200	LDA	DCBUFF,B		03 00916
001767 054501 A 2201	STA	WRBUFF		03 00917
001770 150460 A 2202	ANA	BR15		03 00918
001771 005012 A 2203	TAB			03 00919
001772 016000 A 2204	LDA	0,B	GET 1ST CHR IN BUFFER	03 00920
001773 004350 A 2205	LSRA	8		03 00921
001774 006137 A 2206	ERAE	TYBLK		03 00922
001775 001504 R				03 00923
001776 001010 A 2207	JAZ	WR50A	BLANK, NO LF CHAR.	03 00924
001777 002017 R				03 00925
002000 006137 A 2208	ERAE	TYBLK	RESTORE	03 00926
002001 001504 R				03 00927
002002 134476 A 2209	ERA	TYZER		03 00928
002003 001010 A 2210	JAZ	WR50B	ZERO, ONE LF CHAR.	03 00929
002004 002026 R				03 00930
002005 134473 A 2211	ERA	TYZER		03 00931
002006 134471 A 2212	ERA	TYONE		03 00932
002007 001016 A 2213	JANZ	WR50A	INVALID FORMS CNTRL CHAR, BLANK DEFAULT CHR03	03 00933
002010 002017 R				03 00934
002011 010423 A 2214	LDA	FOUR	ONE, FORMS CHR	03 00935
002012 054463 A 2215	STA	CHRCNT		03 00936
002013 006010 A 2216	LDAI	TYFORM		03 00937
002014 002503 R				03 00938
002015 001000 A 2217	JMP	WR60		03 00939
002016 002032 R				03 00940
002017 014446 A 2218 WR50A	LDA	WRMEM	SET TCD WRITE ACTIVE	03 00941
002020 055011 A 2219	STA	TCWCA, TCD		03 00942
002021 006017 A 2220	LDAE	TYWRIT	MOVE RETURN ADDRESS TO WR100	03 00943
002022 001506 R				03 00944
002023 054034 A 2221	STA	WR100		03 00945
002024 001000 A 2222	JMP	WR100A	OUTPUT USER BUFFER	03 00946
002025 002071 R				03 00947
002026 005111 A 2223 WR50B	IAR		ONE LINE FEED CHAR.	03 00948
002027 054446 A 2224	STA	CHRCNT		03 00949
002030 006010 A 2225	LDAI	TYLFLF		03 00950
002031 002502 R				
002032 024433 A 2226 WR60	LDB	WRMEM		03 00951
000002 A 2227 RQBLK	SET	B		03 00952
002033 110440 A 2228	ORA	BS15	SET TO BYTE COUNT	03 00953
002034 056012 A 2229	STA	10,RQBLK	SET BUFFER ADDR OF FORMS CONTROL CHR	03 00954
002035 014440 A 2230	LDA	CHRCNT		03 00955
002036 056011 A 2231	STA	9,RQBLK	SET BUFFER LENGTH	03 00956
002037 006010 A 2232	LDAI	WR70	SET UP RETURN ADDRESS	03 00957
002040 002052 R				03 00958
002041 056010 A 2233	STA	8,RQBLK		03 00959
002042 016003 A 2234	LDA	3,RQBLK	SET OP-CODE TO WRITE, IMMEDIATE RETURN	03 00960
002043 150463 A 2235	ANA	RHW		03 00961
002044 006110 A 2236	ORAI	0100400		03 00962
002045 100400 A				

002046	056003	A	2237	STA	3,RQBLK		03	00950
002047	065011	A	2238	STB	TCWCA, TCD	SET WRITE ACTIVE	03	00951
002050	001000	A	2239	JMP*	WRMEM		03	00952
002051	102466	R						
002052	006010	A	2240	WR70	LDAI	WR100	03	00953
002053	002060	R						
002054	024411	A	2241	LDB	WRMEM		03	00954
002055	056010	A	2242	STA	8,RQBLK		03	00955
002056	001000	A	2243	JMP*	TYWRIT		03	00956
002057	101506	R						
	2244			EJEC			03	00957
	2245	*					03	00958
	2246	*				CHECK FOR LINE ERRORS ON RETURN FROM	03	00959
	2247	*				FORMS CONTROL CHR OUTPUT	03	00960
	2248			SPACE	3		03	00961
002060	000000	A	2249	WR100	ENTR		03	00962
	2250			FETCHA	TCO, TCWCA, TCWCAB, TCWCAZ		03	00963
002061	015011	A						
002062	054403	A	2251	STA	WRMEM		03	00964
002063	005012	A	2252	TAB			03	00965
	000002	A	2253	RQBLK	SET	B	03	00966
002064	016006	A	2254	LDA	6,RQBLK	GET DETAIL STATUS	03	00967
002065	006441	A	2255	BT	RA0+1, WR106	DATA-SET-READY OFF	03	00968
002066	002255	R						
002067	006410	A	2256	BT	RA1+8, WR106	BREAK	03	00969
002070	002255	R						
002071	002000	A	2257	WR100A	JMPM	TC\$FWR	03	00970
002072	001510	E						
002073	054376	A	2258	STA	WRQSTA	SAVE RQST ADDR	03	00971
002074	005012	A	2259	TAB			03	00972
002075	026002	A	2260	LDB	RFCB, B		03	00973
	000002	A	2261	DCB	SET	B	03	00974
002076	016000	A	2262	LDA	DCRECL, DCB	GET BUFFER LENGTH	03	00975
002077	054370	A	2263	STA	WRBLEN		03	00976
002100	016001	A	2264	LDA	DCBUFF, DCB	GET BUFFER ADDR, BYTE/WORD FLAG	03	00977
002101	054367	A	2265	STA	WRBUFF		03	00978
002102	150460	A	2266	ANA	BR15		03	00979
002103	005012	A	2267	TAB			03	00980
002104	016000	A	2268	LDA	0, B	SET 1ST CHR IN BUFFER TO BLANK CHR	03	00981
002105	054367	A	2269	STA	WRFMCC	SAVE FORMS CONTROL CHAR.	03	00982
002106	150463	A	2270	ANA	RHW		03	00983
002107	006110	A	2271	ORAI	0120000		03	00984
002110	120000	A						
002111	056000	A	2272	STA	0, B		03	00985
002112	014362	A	2273	LDA	WRFMCC		03	00986
002113	024352	A	2274	LDB	WRMEM		03	00987
002114	056014	A	2275	STA	12, RQBLK	SAVE IN CCM RQBLK	03	00988
	2276	*				CALCULATE NUMBER OF TRAILING BLANKS	03	00989
002115	005001	A	2277	TZA			03	00990
002116	054360	A	2278	STA	BLKCNT		03	00991
002117	014351	A	2279	LDA	WRBUFF		03	00992
002120	001004	A	2280	JAN	WR101	COUNT IN BYTES	03	00993
002121	002125	R						
002122	014345	A	2281	LDA	WRBLEN		03	00994
002123	001000	A	2282	JMP	WR102		03	00995
002124	002142	R						
002125	014342	A	2283	WR101	LDA	WRBLEN	03	00996
002126	054347	A	2284	STA	CHRCNT		03	00997
002127	005111	A	2285	IAR			03	00998
002130	004341	A	2286	LSRA	1	CONVERT TO WORD COUNT (UP ROUNDED)	03	00999
002131	054342	A	2287	STA	WDCNT	SAVE WORD COUNT	03	01000
002132	124336	A	2288	ADD	WRBUFF		03	01001
002133	005012	A	2289	TAB			03	01002
002134	005322	A	2290	DBR			03	01003
002135	014332	A	2291	LDA	WRBLEN	IF ODD, CHECK STARTS AT LHW	03	01004
002136	006400	A	2292	BT	RA1+0, WR104		03	01005
002137	002165	R						
002140	001000	A	2293	JMP	WR103+1		03	01006
002141	002152	R						
002142	054331	A	2294	WR102	STA	WDCNT	03	01007
002143	005012	A	2295	TAB			03	01008
002144	004241	A	2296	LRLA	1	*2	03	01009
002145	054330	A	2297	STA	CHRCNT		03	01010
002146	005021	A	2298	TBA			03	01011
002147	124321	A	2299	ADD	WRBUFF		03	01012
002150	005012	A	2300	TAB			03	01013
002151	005322	A	2301	WR103	DBR		03	01014
002152	016000	A	2302	LDA	0, B	CHECK RHW FOR BLANK	03	01015
002153	150463	A	2303	ANA	RHW		03	01016
002154	006137	A	2304	ERAE	TYBLK		03	01017
002155	001504	R						
002156	001016	A	2305	JANZ	WR105	NON-BLANK	03	01018
002157	002202	R						
002160	044316	A	2306	INR	BLKCNT		03	01019
002161	014314	A	2307	LDA	CHRCNT	CHECK FOR ALL BLANKS IN BUFFER	03	01020
002162	144314	A	2308	SUB	BLKCNT		03	01021
002163	001010	A	2309	JAZ	WR105	YES	03	01022
002164	002202	R						
002165	016000	A	2310	WR104	LDA	0, B	03	01023
002166	004350	A	2311	LSRA	B	CHECK LHW FOR BLANK	03	01024
002167	006137	A	2312	ERAE	TYBLK		03	01025
002170	001504	R						
002171	001016	A	2313	JANZ	WR105	NON-BLANK	03	01026

002172	002202	R							
002173	044303	A	2314	INR	BLKCNT	INCREMENT BLANK COUNTER		03	01027
002174	014301	A	2315	LDA	CHRCNT	CHECK FOR ALL BLANKS IN BUFFER		03	01028
002175	144301	A	2316	SUB	BLKCNT			03	01029
002176	001010	A	2317	JAZ	WR105	YES		03	01030
002177	002202	R							
002200	001000	A	2318	JMP	WR103	CONTINUE SCAN		03	01031
002201	002151	R							
			2319 *					03	01032
			2320 *			WE NOW HAVE COUNT OF TRAILING BLANKS.		03	01033
			2321 *			SET NUMBER OF WORDS/CHRS TO OUTPUT.		03	01034
002202	014266	A	2322	WR105 LDA	WRBUFF			03	01035
002203	001004	A	2323	JAN	WR105A	BYTE COUNT		03	01036
002204	002230	R							
002205	014271	A	2324	LDA	BLKCNT	WORD COUNT		03	01037
002206	004341	A	2325	LSRA	1	DIV BY 2		03	01038
002207	054267	A	2326	STA	BLKCNT			03	01039
002210	014263	A	2327	LDA	WDCNT			03	01040
002211	144265	A	2328	SUB	BLKCNT	(A) = NO. OF WORDS TO OUTPUT		03	01041
			2329 *			TRUNCATE TO 36 WDS IF GTR 36		03	01042
002212	006140	A	2330	SUBI	37			03	01043
002213	000045	A							
002214	001004	A	2331	JAN	WR105X			03	01044
002215	002222	R							
002216	006010	A	2332	LDAI	36	TRUNCATE		03	01045
002217	000044	A							
002220	001000	A	2333	JMP	WR105B			03	01046
002221	002246	R							
002222	006120	A	2334	WR105X ADDI	37			03	01047
002223	000045	A							
002224	001010	A	2335	JAZ	WR107			03	01048
002225	002264	R							
002226	001000	A	2336	JMP	WR105B			03	01049
002227	002246	R							
002230	014245	A	2337	WR105A LDA	CHRCNT			03	01050
002231	144245	A	2338	SUB	BLKCNT			03	01051
			2339 *			TRUNCATE TO 72 CHRS IF GTR 72		03	01052
002232	006140	A	2340	SUBI	73			03	01053
002233	000111	A							
002234	001004	A	2341	JAN	WR105Y			03	01054
002235	002242	R							
002236	006010	A	2342	LDAI	72	TRUNCATE		03	01055
002237	000110	A							
002240	001000	A	2343	JMP	WR105B			03	01056
002241	002246	R							
002242	006120	A	2344	WR105Y ADDI	73	RESTORE		03	01057
002243	000111	A							
002244	001010	A	2345	JAZ	WR107			03	01058
002245	002264	R							
002246	054221	A	2346	WR105B STA	WRBLEN	SAVE NEW BUFFER LENGTH		03	01059
002247	006017	A	2347	LDAE	WR100	MOVE RETURN ADDRESS TO TYWRIT		03	01060
002250	002060	R							
002251	006057	A	2348	STAE	TYWRIT	WILL EXIT VIA TYWRIT		03	01061
002252	001506	R							
002253	001000	A	2349	JMP	WR40	OUTPUT USER BUFFER		03	01062
002254	001736	R							
			2350 *					03	01063
002255	006017	A	2351	WR106 LDAE	WR100			03	01064
002256	002060	R							
002257	054101	A	2352	STA	WR300			03	01065
002260	005001	A	2353	TZA				03	01066
002261	054206	A	2354	STA	WRBLEN			03	01067
002262	001000	A	2355	JMP	WR300+1			03	01068
002263	002362	R							
			2356 *					03	01069
002264	006017	A	2357	WR107 LDAE	WR100			03	01070
002265	002060	R							
002266	054012	A	2358	STA	WR200			03	01071
002267	024176	A	2359	LDB	WRMEM			03	01072
002270	005001	A	2360	TZA				03	01073
002271	056005	A	2361	STA	5,B			03	01074
002272	016003	A	2362	LDA	3,B			03	01075
002273	150463	A	2363	ANA	RHW			03	01076
002274	006110	A	2364	ORAI	0100400	SET OP-CODE TO WRITE, IMMEDIATE		03	01077
002275	100400	A							
002276	056003	A	2365	STA	3,B			03	01078
002277	001000	A	2366	JMP	WR200+1			03	01079
002300	002302	R							
			2367 *					03	01080
			2368	EJEC				03	01081
			2369 *					03	01082
			2370 *			ON ENTRY AT THIS POINT, THE USER BUFFER HAS BEEN OUTPUT.		03	01083
			2371 *			LINE ERRORS ARE CHECKED FOR AND HANDLED APPROPRIATELY.		03	01084
			2372 *			IF MODE IS 4, THE REQUEST IS COMPLETE. OTHERWISE, IF MODE03		03	01085
			2373 *			IS 1, A CCM REQUEST TO OUTPUT CR/NULL/LF CHARACTERS IS		03	01086
			2374 *			MADE, THEN TCM WRITE REQUEST IS COMPLETED.		03	01087
			2375 *					03	01088
002301	000000	A	2376	WR200 ENTR				03	01089
			2377	FETCHA	TCD,TCWMD,TCWMDB,TCWMDZ			03	01090
002302	015006	A							
002303	004343	A							
002304	150467	A							
002305	001010	A	2378	JAZ	WR200A	MODE = 1, OUTPUT CR/NULL/LF		03	01091
002306	002314	R							
002307	006017	A	2379	LDAE	WR200	MOVE RETURN ADDRESS TO WR300		03	01092
002310	002301	R							
002311	054047	A	2380	STA	WR300			03	01093

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002312 001000 A 2381 JUMP WR300+1 COMPLETE TCM WRITE REQUEST 03 01094
002313 002362 R 2382 * 03 01095
                2383 * 03 01096
                2384 * 03 01097
                2385 WR200A FETCHA TCD,TCWCA,TCWCAB,TCWCAZ 03 01098
002314 015011 A 002315 005012 A 2386 TAB 03 01099
                000002 A 2387 RQBLK SET B 03 01100
002316 054147 A 2388 STA WRMEM SAVE CCM RQBLK ADDRESS 03 01101
002317 016006 A 2389 LDA 6,RQBLK CHECK FOR LINE ERRORS 03 01102
002320 006441 A 2390 BT RA0+1,WR201 DATA-SET-READY OFF 03 01103
002321 002354 R 002322 006410 A 2391 BT RA1+8,WR201 BREAK 03 01104
002323 002354 R 002324 010464 A 2392 LDA THREE NO LINE ERRORS, SET BUFFER LENGTH 03 01105
002325 056011 A 2393 STA 9,RQBLK 03 01106
002326 006010 A 2394 LDAI TYCNL SET BUFFER ADDRESS, BYTE COUNT 03 01107
002327 002505 R 002330 110440 A 2395 ORA BS15 03 01108
002331 056012 A 2396 STA 10,RQBLK 03 01109
002332 006010 A 2397 LDAI WR200B SET UP RETURN ADDRESS 03 01110
002333 002346 R 002334 056010 A 2398 STA 8,RQBLK 03 01111
002335 016005 A 2399 LDA 5,RQBLK 03 01112
002336 054131 A 2400 STA WRBLEN SAVE NO OF WDS/BYTES TRANSFERED 03 01113
002337 002000 A 2401 JMPM TC$FWR 03 01114
002340 002072 E 002341 005012 A 2402 TAB 03 01115
002342 014125 A 2403 LDA WRBLEN 03 01116
002343 056000 A 2404 STA RSTPR,B 03 01117
002344 001000 A 2405 JMP* WRMEM 03 01118
002345 102466 R 2406 * 03 01119
                002346 024117 A 2407 WR200B LDB WRMEM CCM RQST QUEUED 03 01120
                002347 006010 A 2408 LDAI WR300 SET RQST COMPLETION ADDRESS 03 01121
002350 002361 R 002351 056010 A 2409 STA 8,RQBLK 03 01122
002352 001000 A 2410 JMP* WR200 RETURN 03 01123
002353 102301 R 2411 * 03 01124
002354 006017 A 2412 WR201 LDAE WR200 03 01125
002355 002301 R 002356 054002 A 2413 STA WR300 03 01126
002357 001000 A 2414 JMP WR300+1 03 01127
002360 002362 R 2415 EJEC 03 01128
                2416 * 03 01129
                2417 * 03 01130
                2418 * TCM REQUEST COMPLETED,RETURN STATUS, AND MEMORY FOR CCM
                2419 * REQUEST BLOCK 03 01131
002361 000000 A 2420 WR300 ENTR 03 01132
                2421 FETCHA TCD,TCWCA,TCWCAB,TCWCAZ 03 01133
002362 015011 A 002363 054102 A 2422 STA WRMEM 03 01134
002364 002000 A 2423 JMPM TC$FWR 03 01135
002365 002340 E 002366 054103 A 2424 STA WRQSTA SAVE RQST ADDRESS 03 01137
                2425 FETCHA TCD,TCWMD,TCWMDA,TCWMDZ 03 01138
002367 015006 A 002370 004343 A 002371 150467 A 002372 001016 A 2426 JANZ WR300A 03 01139
002373 002415 R 002374 024071 A 2427 LDB WRMEM GET FORMS CHAR. 03 01140
002375 016014 A 2428 LDA 12,RQBLK 03 01141
002376 150462 A 2429 ANA LHM 03 01142
002377 054075 A 2430 STA WRFMCC SAVE 03 01143
002400 024071 A 2431 LDB WRQSTA GET BUFFER ADDR. 03 01144
002401 026002 A 2432 LDB RFCB,B 03 01145
002402 016001 A 2433 LDA DCBUFF,B 03 01146
002403 150460 A 2434 ANA BR15 03 01147
002404 005012 A 2435 TAB 03 01148
002405 016000 A 2436 LDA 0,B RESTORE 1ST CHAR. IN USER BUFFER 03 01149
002406 150463 A 2437 ANA RHW 03 01150
002407 114065 A 2438 ORA WRFMCC 03 01151
002410 056000 A 2439 STA 0,B 03 01152
002411 024060 A 2440 LDB WRQSTA 03 01153
002412 016000 A 2441 LDA RSTPR,B 03 01154
002413 001000 A 2442 JMP WR300A+2 03 01155
002414 002417 R 002415 000002 A 2443 RQBLK SET B 03 01156
002416 024050 A 2444 WR300A LDB WRMEM 03 01157
002417 054050 A 2445 LDA 5,RQBLK 03 01158
                2446 STA WRBLEN 03 01159
                2447 FETCHA TCD,TCCTA,TCCTAB,TCCTAZ 03 01160
002420 015002 A 002421 005012 A 2448 TAB (B) = TCM CTBL ADDRESS 03 01161
002422 014045 A 2449 LDA WRBLEN 03 01162
002423 056013 A 2450 STA CTWDS,B 03 01163
002424 024041 A 2451 LDB WRMEM 03 01164
002425 016006 A 2452 LDA 6,RQBLK 03 01165
002426 024043 A 2453 LDB WRQSTA 03 01166
                2454 EXT TC$CRQ 03 01167
                2455 DINTS 03 01168
002427 100444 A
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002430	100747	A								
002431	002000	A	2456	JMPM	TC\$CRQ	COMPLETE REQUEST				03 01169
002432	001561	E								
			2457	EINTS						03 01170
002433	100244	A								
002434	100147	A								
002435	024030	A	2458	WR300B	LOB	WRMEM	RETURN MEMORY FOR CCM RQST BLOCK			03 01171
002436	006010	A	2459		LDAI	12				03 01172
002437	000014	A								
002440	056000	A	2460		STA	0,B	SET SIZE OF CCM RQST BLK			03 01173
			2461		PUTMEM	VT\$MPI,WRMEM	DEALLOCATE MEMORY, CLEAR RQBLK ADDR IN TCD			03 01174
002441	006010	A								
002442	001517	E								
002443	006027	A								
002444	002466	R								
002445	074005	A								
002446	006505	A								
002447	001522	E								
002450	000600	A								
002451	001437	E								
002452	006030	A								
002453	002452	R								
002454	005001	A	2462		TZA					03 01175
			2463		SETA	TCD,TCWCA,TCWCAB,TCWCAZ				03 01176
002455	055011	A								
002456	001000	A	2464		JMP*	WR300	EXIT			03 01177
002457	102361	R								
			2465 *							03 01178
002460	006017	A	2466	WR300C	LDAE	TYWRIT				03 01179
002461	001506	R								
002462	006057	A	2467		STAE	WR300				03 01180
002463	002361	R								
002464	001000	A	2468		JMP	WR300B				03 01181
002465	002435	R								
			2469		EJEC					03 01182
			2470 *							03 01183
			2471 *				CONSTANTS AND TEMPORARY STORAGE			03 01184
			2472 *							03 01185
002466	000000	A	2473	WRMEM	DATA	0	ADDR OF CCM RQBLK			03 01186
002467	000000	A	2474	WRMODE	DATA	0	MODE OF TCM RQST			03 01187
002470	000000	A	2475	WRBLEN	DATA	0	BUFFER LENGTH (WDS/BYTES)			03 01188
002471	000000	A	2476	WRBUFF	DATA	0	BUFFER ADDRESS, BYTE COUNT FLAG			03 01189
002472	000000	A	2477	WRQSTA	DATA	0	TCM WRITE RQST ADDR			03 01190
002473	000000	A	2478	WRTCD	DATA	0	TCD ADDRESS			03 01191
002474	000000	A	2479	WDCNT	DATA	0	WORD COUNT			03 01192
002475	000000	A	2480	WRFMCC	DATA	0	SAVE CELL FOR FORMS CHAR.			03 01193
002476	000000	A	2481	CHRCNT	DATA	0	CHAR COUNT			03 01194
002477	000000	A	2482	BLKCNT	DATA	0	BLANK COUNT			03 01195
002500	000261	A	2483	TYONE	DATA	0261	ONE			03 01196
002501	000260	A	2484	TYZER	DATA	0260	ZERO			03 01197
002502	105212	A	2485	TYLFLF	DATA	0105212	LINE FEED, LINE FEED			03 01198
002503	106200	A	2486	TYFORM	DATA	0106200	FORM,NUL			03 01199
002504	100200	A	2487		DATA	0100200	NUL,NUL			03 01200
002505	106600	A	2488	TYCNL	DATA	0106600	CARRIAGE RETURN,NULL,LF			03 01201
002506	105000	A	2489	TYLF	DATA	0105000	LINE FEED			03 01202
			2490		EJEC					03 01203
			2491							03 01205
			2492							03 01206
			2493	**	PROGRAM NAME -					**03 01207
			2494	**	TYFUNC - PROCESSES FUNC/WEOF REQUESTS FOR TTY TCM					**03 01208
			2495	**						**03 01209
			2496	**	ENTRY CONDITIONS -					**03 01210
			2497	**	(X) = TCD ADDRESS					**03 01211
			2498	**						**03 01212
			2499	**	EXIT CONDITIONS -					**03 01213
			2500	**	(A) AND (B) DESTROYED					**03 01214
			2501	**	(X) UNCHANGED					**03 01215
			2502	**						**03 01216
			2503	**	CALLING SEQUENCE -					**03 01217
			2504	**	JMPM TYFUNC					**03 01218
			2505	**	(RETURN)					**03 01219
			2506	**						**03 01220
			2507							03 01221
			2508							03 01222
			2509		EXT	V\$EXEC				03 01223
			2510		EXT	VT\$GTM				03 01224
			2511		EXT	VT\$PTM				03 01225
			2512		EXT	VT\$MPI				03 01226
			2513		NAME	TYFUNC				03 01227
002507	000000	A	2514	TYFUNC	ENTR					03 01228
	000001	A	2515	TCO	SET	X	(X) = TCD ADDRESS			03 01229
002510	025001	A	2516	LOB	TCRQH,X		GET RQST ADDR FROM TOP OF TCD RQST QUEUE			03 01230
	000002	A	2517	RQST	SET	B				03 01231
			2518	FETCHA	TCD,TC\$WL,TC\$WL\$B,TC\$WL\$Z					03 01232
002511	015004	A								
002512	004350	A								
002513	150421	A								
002514	001010	A	2519	JAZ	FC01	DIRECT CONNECT				03 01233
002515	002664	R								
			2520	FETCHA	TCD,TCCON,TC\$CON\$B,TC\$CON\$Z					03 01234
002516	015004	A								
002517	004355	A								
002520	150421	A								
002521	001010	A	2521	JAZ	FC0	NO PHYSICAL CONNECTION				03 01235
002522	002541	R								
			2522	FETCHA	TCD,TCLDF,TCLDF\$B,TCLDF\$Z					03 01236

002523	015006	A					
002524	004354	A					
002525	150421	A					
002526	001010	A	2523	JAZ	FC01	CONNECTED	03 01237
002527	002664	R					
002530	005101	A	2524	INCR	01	LINE DISC., SIMULATE DSR OFF, COMP. RQST.	*****
			2525	DINTS			03 01239
002531	100444	A					
002532	100747	A					
002533	002000	A	2526	JMPM	TC\$CRQ		03 01240
002534	002432	E					
			2527	EINTS			03 01241
002535	100244	A					
002536	100147	A					
002537	001000	A	2528	JMP*	TYFUNC		03 01242
002540	102507	R					
			2529	FC0	GETMEM	VT\$MP1,13	03 01243
002541	006010	A					
002542	000015	A					
002543	006020	A					
002544	002442	E					
002545	074005	A					
002546	006505	A					
002547	002447	E					
002550	000600	A					
002551	001524	E					
002552	006030	A					
002553	002552	R					
002554	001010	A	2530	JAZ	FCEXIT		03 01244
002555	003157	R					
002556	054411	A	2531	STA	FUMEM		03 01245
002557	005012	A	2532	TAB			03 01246
	000002	A	2533	RQBLK	SET	B	03 01247
002560	002000	A	2534	JMPM	TC\$BRQ	BUILD CCM RQST	03 01248
002561	001534	E					
002562	006010	A	2535	LDAI	FC0A	SET UP RETURN ADDRESS	03 01249
002563	002575	R					
002564	056010	A	2536	STA	8,RQBLK		03 01250
002565	010465	A	2537	LDA	FIVE	SET OP-CODE TO FUNCTION	03 01251
002566	004250	A	2538	LRLA	8		03 01252
002567	116003	A	2539	ORA	3,RQBLK		03 01253
002570	150460	A	2540	ANA	BR15	USE WAIT OPTION	03 01254
002571	056003	A	2541	STA	3,RQBLK		03 01255
002572	074401	A	2542	STX	FUTCD	SAVE X REG.	03 01256
002573	001000	A	2543	JMP*	FUMEM		03 01257
002574	103170	R					
002575	024372	A	2544	FC0A	LDB	FUMEM	03 01258
002576	034375	A	2545	LDX	FUTCD		03 01259
002577	016006	A	2546	LDA	6,RQBLK		03 01260
002600	006401	A	2547	BT	RA1+1,FC0D	ON	03 01261
002601	002634	R					
			2548 *			OFF, SENSE DATA-SET-READY ON EVENT	03 01262
002602	016003	A	2549	LDA	3,RQBLK	IMMEDIATE RETURN	03 01263
002603	110440	A	2550	ORA	BS15		03 01264
002604	056003	A	2551	STA	3,RQBLK		03 01265
002605	016013	A	2552	LDA	11,RQBLK	FUNC CODE = 3	03 01266
002606	150463	A	2553	ANA	RHW		03 01267
002607	006110	A	2554	ORAI	01400		03 01268
002610	001400	A					
002611	056013	A	2555	STA	11,RQBLK		03 01269
002612	010422	A	2556	LDA	BS1	MASK FOR DSR ON	03 01270
002613	056014	A	2557	STA	12,RQBLK	STORE IN LCB EXT WORD	03 01271
002614	006010	A	2558	LDAI	FC0B	SET UP RETURN	03 01272
002615	002622	R					
002616	056010	A	2559	STA	8,RQBLK		03 01273
002617	065007	A	2560	STB	TCRCA, TCD	SET FUNC ACTIVE	03 01274
002620	001000	A	2561	JMP*	FUMEM		03 01275
002621	103170	R					
			2562 *			CCM RQST QUEUED	03 01276
002622	024345	A	2563	FC0B	LDB	FUMEM	03 01277
002623	006010	A	2564	LDAI	FC0C		03 01278
002624	002630	R					
002625	056010	A	2565	STA	8,RQBLK		03 01279
002626	001000	A	2566	JMP*	TYFUNC	RETURN	03 01280
002627	102507	R					
			2567 *			ON RETURN, DSR IS ON	03 01281
002630	015007	A	2568	FC0C	LDA	TCRCA, TCD	03 01282
002631	054336	A	2569	STA	FUMEM		03 01283
002632	005001	A	2570	TZA			03 01284
002633	055007	A	2571	STA	TCRCA, TCD		03 01285
002634	005101	A	2572	FC0D	INCR	01	03 01286
			2573	SETA	TCD, TCCON, TCCONB, TCCONZ		03 01287
002635	004255	A					
002636	135004	A					
002637	004355	A					
002640	150421	A					
002641	004255	A					
002642	135004	A					
002643	055004	A					
002644	006010	A	2574	LDAI	13	RETURN MEM USED FOR CCM RQST.	03 01288
002645	000015	A					
002646	024321	A	2575	LDB	FUMEM		03 01289
002647	056000	A	2576	STA	0,B		03 01290
			2577	PUTMEM	VT\$MP1, FUMEM		03 01291
002650	006010	A					
002651	002544	E					

002652	006027	A							
002653	003170	R							
002654	074005	A							
002655	006505	A							
002656	002547	E							
002657	000600	A							
002660	002451	E							
002661	006030	A							
002662	002661	R							
002663	025001	A	2578	LDB	TCRQH, TCD			03	01292
			2579 *			INITIATE FUNC RQST		03	01293
			2580	FC01	FETCHA	RQST, ROPWD, 8, 4		03	01294
002664	016001	A							
002665	004350	A							
002666	150472	A							
002667	140422	A	2581	SUB	TWO			03	01295
002670	001010	A	2582	JAZ	FC10	WE OF OP CODE, GO TO WE OF PROCESSOR		03	01296
002671	002711	R							
002672	026002	A	2583	LDB	RFCB, RQST	FUNC RQST		03	01297
	000002	A	2584	DCB	SET	B		03	01298
			2585	FETCHA	DCB, DCCNT, 0, 8	GET FUNC CODE FROM DCB		03	01299
002673	016002	A							
002674	150463	A							
002675	054273	A	2586	STA	FUNC	SAVE		03	01300
002676	006140	A	2587	SUBI	FUVEN-FUVST	VALIDATE FUNC CODE		03	01301
002677	000005	A							
002700	001002	A	2588	JAP	FCB1	ERROR, CODE NOT VALID		03	01302
002701	003152	R							
002702	014266	A	2589	LDA	FUNC	CALCULATE ADDRESS IN JUMP VECTOR TBL		03	01303
002703	006120	A	2590	ADDI	FUVST			03	01304
002704	003162	R							
002705	110440	A	2591	ORA	BS15	SET INDIRECT BIT		03	01305
002706	054260	A	2592	STA	FUPEX			03	01306
002707	001000	A	2593	JMP*	FUPEX	JUMP TO PARTICULAR PROCESSOR		03	01307
002710	103167	R							
			2594	EJEC				03	01308
			2595 *			PROCESS WE OF RQST		03	01309
			2596	FC10	GETMEM	VT\$MPI, 13	GET 13 WDS FOR CCM RQST BLK	03	01310
002711	006010	A							
002712	000015	A							
002713	006020	A							
002714	002651	E							
002715	074005	A							
002716	006505	A							
002717	002656	E							
002720	000600	A							
002721	002551	E							
002722	006030	A							
002723	002722	R							
002724	001010	A	2597	JAZ	FCEXIT	NO MEM, DO NOT PROCESS RQST		03	01311
002725	003157	R							
002726	054241	A	2598	STA	FUMEM			03	01312
002727	005012	A	2599	TAB				03	01313
	000002	A	2600	RQBLK	SET	B		03	01314
	002000	A	2601	JMPH	TC\$BRQ	BUILD CCM RQST BLK		03	01315
002730	002561	E							
002731	002561	E							
002732	010421	A	2602	LDA	ONE	STORE BYTE COUNT, BUFFER ADDRESS		03	01316
002733	056011	A	2603	STA	9, RQBLK			03	01317
002734	014233	A	2604	LDA	FUMEM			03	01318
002735	006120	A	2605	ADDI	12			03	01319
002736	000014	A							
002737	110440	A	2606	ORA	BS15			03	01320
002740	056012	A	2607	STA	10, RQBLK			03	01321
			2608	FETCHA	TCD, TCPCH, TCPCHB, TCPCHZ			03	01322
002741	015004	A							
002742	150463	A							
002743	004250	A	2609	LRLA	8			03	01323
002744	056014	A	2610	STA	12, RQBLK			03	01324
002745	006010	A	2611	LDAI	FC20			03	01325
002746	002756	R							
002747	056010	A	2612	STA	8, RQBLK			03	01326
002750	016003	A	2613	LDA	3, RQBLK	SET OP-CODE TO WRITE(1)		03	01327
002751	110431	A	2614	ORA	BS8			03	01328
002752	056003	A	2615	STA	3, RQBLK			03	01329
002753	065007	A	2616	STB	TCRCA, TCD	SET FUNC ACTIVE		03	01330
002754	001000	A	2617	JMP*	FUMEM	INITIATE CCM RQST VIA IOC		03	01331
002755	103170	R							
002756	024211	A	2618	FC20	LDB	FUMEM		03	01332
002757	006010	A	2619	LDAI	FC100			03	01333
002760	003111	R							
002761	056010	A	2620	STA	8, RQBLK			03	01334
002762	001000	A	2621	JMP*	TYFUNC			03	01335
002763	102507	R							
			2622	EJEC				03	01336
			2623 *			PROCESS FUNC CODE = 0		03	01337
			2624	FC30	GETMEM	VT\$MPI, 13		03	01338
002764	006010	A							
002765	000015	A							
002766	006020	A							
002767	002714	E							
002770	074005	A							
002771	006505	A							
002772	002717	E							
002773	000600	A							
002774	002721	E							

002775	006030	A							
002776	002775	R							
002777	001010	A	2625	JAZ	FCEXIT			03	01339
003000	003157	R							
003001	054166	A	2626	STA	FUMEM			03	01340
003002	005012	A	2627	TAB				03	01341
003003	000002	A	2628	RQBLK	SET B			03	01342
003004	002000	A	2629	JMPM	TC\$BRQ	BUILD CCM RQST BLK		03	01343
003004	002731	E							
003005	010464	A	2630	LDA	THREE	STORE BYTE COUNT, BUFFER ADDRESS		03	01344
003006	024161	A	2631	LDB	FUMEM			03	01345
003007	056011	A	2632	STA	9,RQBLK			03	01346
003010	006010	A	2633	LDAI	FUCRLF	SET UP BUFFER ADDR FOR CR & 3 LF CHRS		03	01347
003011	003172	R							
003012	110440	A	2634	ORA	BS15	BYTE COUNT		03	01348
003013	056012	A	2635	STA	10,RQBLK			03	01349
003014	006010	A	2636	LDAI	FC20	SET UP RETURN ADDR		03	01350
003015	002756	R							
003016	056010	A	2637	STA	8,RQBLK			03	01351
003017	016003	A	2638	LDA	3,RQBLK			03	01352
003020	110431	A	2639	ORA	BS8	SET OP-CODE TO WRITE		03	01353
003021	056003	A	2640	STA	3,RQBLK			03	01354
003022	065007	A	2641	STB	TCRCA, TCD	SET FUNC ACTIVE		03	01355
003023	001000	A	2642	JMP*	FUMEM	INITIATE CCM RQST		03	01356
003024	103170	R							
			2643	EJEC				03	01357
			2644 *			PROCESS FUNC CODE = 1,2		03	01358
003025	010421	A	2645	FC40	LDA	ONE	SET NO-ECHO FLAG	03	01359
003026	001000	A	2646	JMP	FC50+1			03	01360
003027	003031	R							
003030	005001	A	2647	FC50	TZA		RESET NO-ECHO FLAG	03	01361
			2648	SETA	TC, TCECH, TCECHB, TCECHZ			03	01362
003031	004254	A							
003032	135004	A							
003033	004354	A							
003034	150421	A							
003035	004254	A							
003036	135004	A							
003037	055004	A							
			2649	GETMEM	VT\$MP1,13			03	01363
003040	006010	A							
003041	000015	A							
003042	006020	A							
003043	002767	E							
003044	074005	A							
003045	006505	A							
003046	002772	E							
003047	000600	A							
003050	002774	E							
003051	006030	A							
003052	003051	R							
003053	001010	A	2650	JAZ	FCEXIT			03	01364
003054	003157	R							
003055	054112	A	2651	STA	FUMEM			03	01365
003056	005012	A	2652	TAB				03	01366
	000002	A	2653	RQBLK	SET B			03	01367
003057	002000	A	2654	JMPM	TC\$BRQ	BUILD CCM RQST		03	01368
003060	003004	E							
			2655	FETCHA	TC, TCECH, TCECHB, TCECHZ			03	01369
003061	015004	A							
003062	004354	A							
003063	150421	A							
003064	006120	A	2656	ADDI	11	SET FUNC CODE, 11(ECHO), 12(NO-ECHO)		03	01370
003065	000013	A							
003066	004250	A	2657	LRLA	8			03	01371
003067	116013	A	2658	ORA	11,RQBLK			03	01372
003070	056013	A	2659	STA	11,RQBLK			03	01373
003071	006010	A	2660	LDAI	FC20	SET UP RETURN ADDR		03	01374
003072	002756	R							
003073	056010	A	2661	STA	8,RQBLK			03	01375
003074	010465	A	2662	LDA	FIVE	SET OP-CODE TO FUNCTION		03	01376
003075	004250	A	2663	LRLA	8			03	01377
003076	116003	A	2664	ORA	3,RQBLK			03	01378
003077	056003	A	2665	STA	3,RQBLK			03	01379
003100	065007	A	2666	STB	TCRCA, TCD	SET FUNC ACTIVE		03	01380
003101	001000	A	2667	JMP*	FUMEM			03	01381
003102	103170	R							
			2668	EJEC				03	01382
			2669 *			PROCESS FUNC CODE = 3		03	01383
003103	016002	A	2670	FC60	LDA	DCCNT, DCB	SET READ TIMEOUT VALUE IN TCD	03	01384
003104	004350	A	2671	LSRA	8			03	01385
			2672	SETA	TC, TCSTO, TCSTOB, TCSTOZ			03	01386
003105	055010	A							
003106	010422	A	2673	LDA	BS1	RETURN WITH DATA-SET-READY ON.		03	01387
003107	001000	A	2674	JMP	FC100A	COMPLETE REQUEST		03	01388
003110	003115	R							
			2675	EJEC				03	01389
			2676 *					03	01390
			2677 *			ON RETURN FROM CCM RQST COMPLETION, LINE		03	01391
			2678 *			ERRORS ARE CHECKED FOR BY TC\$CRQ .		03	01392
			2679 *			TC\$CRQ IS CALLED TO COMPLETE RQST. AFTER		03	01393
			2680 *			THE RQST IS COMPLETED, MEMORY USED FOR		03	01394
			2681 *			CCM RQST IS DEALLOCATED		03	01395
			2682 *					03	01396
003111	000000	A	2683	FC100	ENTR			03	01397

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003112 025007 A 2684	LDB	TCRCA,TCO	(B) = CCM RQST BLK ADDR	03 01398
003113 064054 A 2685	STB	FUMEM		03 01399
000002 A 2686	RQBLK SET	B		03 01400
003114 016006 A 2687	LDA	6,RQBLK	GET DETAIL STATUS IN A REG.	03 01401
003115 025001 A 2688	FC100A LDB	TCRQH,TCO		03 01402
2689	EXT	TC\$CRQ		03 01403
2690	DINTS			03 01404
003116 100444 A				
003117 100747 A				
003120 002000 A 2691	JMPM	TC\$CRQ	COMPLETE RQST	03 01405
003121 002534 E				
2692	EINTS			03 01406
003122 100244 A				
003123 100147 A				
003124 015007 A 2693	LDA	TCRCA,TCO		03 01407
003125 001010 A 2694	JAZ*	TYFUNC	RETURN FOR FUNC CODE = 3 TO TCMEXEC	03 01408
003126 102507 R				
003127 005012 A 2695	TAB			03 01409
003130 006010 A 2696	LDAI	13		03 01410
003131 000015 A				
003132 056000 A 2697	STA	0,B		03 01411
2698	PUTMEM	VT\$MP1,FUMEM	DEALLOCATE MEMORY FOR CCM RQST BLK	03 01412
003133 006010 A				
003134 003043 E				
003135 006027 A				
003136 003170 R				
003137 074005 A				
003140 006505 A				
003141 003046 E				
003142 000600 A				
003143 002660 E				
003144 006030 A				
003145 003144 R				
003146 005001 A 2699	TZA			03 01413
003147 055007 A 2700	STA	TCRCA,TCO		03 01414
003150 001000 A 2701	JMP*	FC100	RETURN TO TCMEXEC	03 01415
003151 103111 R				
2702 *			INVALID FUNC CODE ERROR	03 01416
003152 006010 A 2703	FCB1 LDAI	075		03 01417
003153 000075 A				
003154 004245 A 2704	LRLA	5	SET ERROR CODE 03,ERR FLG, COMP. CODE 05	03 01418
003155 001000 A 2705	JMP	FC100A		03 01419
003156 003115 R				
003157 010461 A 2706	FCEXIT LDA	NEG	SET NO MEMORY FLAG	03 01420
003160 001000 A 2707	JMP*	TYFUNC	EXIT TO TCMEXEC	03 01421
003161 102507 R				
2708	EJEC			03 01422
2709 *			CONSTANTS AND TEMPORARY STORAGE	03 01423
003162 2710	FUVST BSS	0	JUMP VECTOR TABLE	03 01424
003162 002764 R 2711	DATA	FC30	0	03 01425
003163 003025 R 2712	DATA	FC40	1	03 01426
003164 003030 R 2713	DATA	FC50	2	03 01427
003165 003103 R 2714	DATA	FC60	3	03 01428
003166 000000 A 2715	DATA	0	4(I/O CLEAR, IMMEDIATE, DONE IN VT\$TCQ)	03 01429
003167 2716	FUVEN BSS	0	MUST BE LAST ENTRY IN JUMP VECTOR TABLE	03 01430
003167 000000 A 2717	FUPEX DATA	0		03 01431
003170 000000 A 2718	FUMEM DATA	0		03 01432
003171 000000 A 2719	FUNC DATA	0		03 01433
003172 106612 A 2720	FUCRLF DATA	0106612	CR,LF (CARRIAGE RETURN,3 LINE FEED BUFFER)	03 01434
003173 105212 A 2721	DATA	0105212	LF,LF	03 01435
003174 000000 A 2722	FUTCD DATA	0	TCO ADDRESS	03 01436
2723	END			03 01437
ENTRY NAMES				
002507 R TYFUNC	000121 R TYREAD	001506 R TYWRIT		
EXTERNAL NAMES				
003060 E TC\$BRQ	003121 E TC\$CRQ	001355 E TC\$FRR	002365 E TC\$FWR	
003141 E V\$EXEC	003050 E VT\$GTM	003134 E VT\$MP1	003143 E VT\$PTM	
SYMBOLS				
000044 A APIM	000002 A B	000000 A B0	000001 A B1	
000012 A B10	000013 A B11	000014 A B12	000015 A B13	
000016 A B14	000017 A B15	000002 A B2	000003 A B3	
000004 A B4	000005 A B5	000006 A B6	000007 A B7	
000010 A B8	000011 A B9	000000 A BICNUM	000077 R BKBF1	
000106 R BKBF2	000115 R BKBF3	002477 R BLKCNT	000421 A BM1	
000472 A BM17	000475 A BM177	000477 A BM1777	000464 A BM3	
000473 A BM37	000463 A BM377	000467 A BM7	000474 A BM77	
000476 A BM777	000441 A BR0	000442 A BR1	000453 A BR10	
000454 A BR11	000455 A BR12	000456 A BR13	000457 A BR14	
000460 A BR15	000443 A BR2	000444 A BR3	000445 A BR4	
000446 A BR5	000447 A BR6	000450 A BR7	000451 A BR8	
000452 A BR9	000421 A BS0	000422 A BS1	000433 A BS10	
000434 A BS11	000435 A BS12	000436 A BS13	000437 A BS14	
000440 A BS15	000423 A BS2	000424 A BS3	000425 A BS4	
000426 A BS5	000427 A BS6	000430 A BS7	000431 A BS8	
000432 A BS9	000030 R CC1	002476 R CHRCNT	000047 A CLOCK	
000000 A COTAD1	000000 A CACT	000017 A CACTB	000001 A CACTZ	
000001 A CTADN	000000 A CTADNB	000020 A CTADNZ	000011 A CTBIC	
000000 A CTBICB	000020 A CTBICZ	000003 A CTDST	000000 A CTDSTB	
000020 A CTDSTZ	000006 A CTDVA	000000 A CTDVAB	000020 A CTDVAZ	
000012 A CTFCB	000000 A CTFCBB	000020 A CTFCBZ	000014 A CTFRC	
000010 A CTFRCB	000010 A CTFRCZ	000014 A CTFRE	000000 A CTFREB	
000010 A CTFREZ	000000 A CTIDB	000000 A CTIDBB	000017 A CTIDBZ	
000007 A CTIOA	000000 A CTIOAB	000020 A CTIOAZ	000002 A CTOPM	
000000 A CTOPMB	000020 A CTOPMZ	000005 A CTRCN	000000 A CTRCNB	
000010 A CTRCNZ	000004 A CTRQB	000000 A CTRQBB	000020 A CTRQBZ	
000005 A CTRTR	000010 A CTRTRB	000010 A CTRTRZ	000010 A CTSTA	

000000 A CTSTAB 000020 A CTSTAZ 000013 A CTWDS 000000 A CTWDSB
000020 A CTWDSZ 000002 A DCB 000001 A DCBUFF 000002 A DCCNT
000000 A DCRECL 000747 A DISCLK 000745 A DISMP 000444 A DISPM
000024 A DMCWA 000000 A DMCWAB 000020 A DMCWAZ 000017 A DMFPA
000000 A DMFPAB 000020 A DMFPAZ 000021 A DMLCA 000000 A DMLCAB
000020 A DMLCAZ 000022 A DMLTA 000000 A DMLTAB 000020 A DMLTAZ
000023 A DMPTA 000000 A DMPTAB 000020 A DMPTAZ 000016 A DMRPA
000000 A DMRPAB 000020 A DMRPAZ 000020 A DMSTA 000000 A DMSTAB
000020 A DMSTAZ 000025 A DMSWA 000000 A DMSWAB 000020 A DMSWAZ
000015 A DMTPA 000000 A DMTTAB 000020 A DMTPAZ 000002 A DSCTAD
000000 A DSDASS 000000 A DSOVDN 000002 A DSLCKO 000001 A DSNAME
000000 A DSNORQ 000002 A DSOPCM 000002 A DSPSTI 000002 A DSREWD
000000 A DSUNAM 000002 A DSUNTN 000424 A EIGHT 000147 A ENACLK
000645 A ENAMP 000244 A ENAPIM 002541 R FCO 002664 R FCO1
002575 R FCOA 002622 R FCOB 002630 R FCO0 002634 R FCO0
002711 R FC10 003111 R FC100 003115 R FC100A 002756 R FC20
002764 R FC30 003025 R FC40 003030 R FC50 003103 R FC60
003152 R FC81 003157 R FCEXIT 000465 A FIVE 000423 A FOUR
003172 R FUCRLF 003170 R FUMEM 003171 R FUNC 003167 R FUPEX
003174 R FUTCD 003167 R FUVEN 003162 R FUVST 001476 R INPTCR
000300 A LC 000003 A LCABN 000013 A LCABNB 000001 A LCABNZ
000003 A LCASY 000012 A LCASYB 000001 A LCASYZ 000003 A LCCRC
000014 A LCCRCB 000003 A LCCRCZ 000006 A LCCWB 000014 A LCCWBB
000001 A LCCWBZ 000006 A LCCWC 000015 A LCCWCB 000001 A LCCWCZ
000006 A LCCWD 000013 A LCCWDB 000001 A LCCWDZ 000006 A LCCWI
000016 A LCCWIB 000001 A LCCWIZ 000006 A LCCWP 000012 A LCCWPB
000001 A LCCWPZ 000006 A LCCWR 000011 A LCCWRB 000001 A LCCWRZ
000006 A LCCWS 000017 A LCCWSB 000001 A LCCWSZ 000006 A LCCWT
000010 A LCCWTB 000001 A LCCWTZ 000001 A LCIBA 000000 A LCIBAB
000017 A LCIBAZ 000000 A LCIBF 000017 A LCIBFB 000001 A LCIBFZ
000000 A LCIBL 000000 A LCIBLB 000014 A LCIBLZ 000002 A LCICI
000010 A LCIC1B 000010 A LCIC1Z 000002 A LCIC2 000000 A LCIC2B
000010 A LCIC2Z 000003 A LCIKE 000000 A LCIKEB 000004 A LCIKEZ
000050 A LCJP 000006 A LCLCB 000000 A LCLCBB 000020 A LCLCBZ

000007 A LCLTB 000017 A LCLTBB 000001 A LCLTBZ 000005 A LCOBA
000000 A LCOBAB 000017 A LCOBAZ 000004 A LCOBF 000017 A LCOBFB
000001 A LCOBFZ 000004 A LCOBL 000000 A LCOBLB 000014 A LCOBLZ
000007 A LCOKE 000000 A LCOKEB 000004 A LCOKEZ 000003 A LCRCC
000017 A LCRCCB 000001 A LCRCCZ 000000 A LCSMB 000016 A LCSMBB
000001 A LCSMBZ 000462 A LHW 000017 A LSABN 000015 A LSABNB
000001 A LSABNZ 000017 A LSASC 000011 A LSASCB 000001 A LSASCZ
000014 A LSASY 000013 A LSASYB 000001 A LSASYZ 000015 A LSCC1
000010 A LSCC1B 000010 A LSCC1Z 000015 A LSCC2 000000 A LSCC2B
000010 A LSCC2Z 000017 A LSCRC 000012 A LSCRCB 000003 A LSCRCZ
000012 A LSCTA 000000 A LSCTAB 000020 A LSCTAZ 000017 A LSDSF
000017 A LSDSFB 000001 A LSDSFZ 000013 A LSDST 000000 A LSDSTB
000020 A LSDSTZ 000016 A LSEPF 000016 A LSEPFB 000001 A LSEPFZ
000014 A LSLSP 000000 A LSLSPB 000011 A LSLSPZ 000014 A LSMOD
000016 A LSMODB 000002 A LSMODZ 000020 A LSNT0 000010 A LSNT0B
000006 A LSNT0Z 000014 A LSPAR 000014 A LSPARB 000002 A LSPARZ
000016 A LSPLA 000000 A LSPLAB 000010 A LSPLAZ 000002 A LSRCB
000000 A LSRCAB 000020 A LSRCZ 000003 A LSREM 000000 A LSREMB
000020 A LSREMB 000016 A LSRRS 000010 A LSRRSB 000003 A LSRRSZ
000001 A LSRRZ 000000 A LSRRTB 000020 A LSRRTZ 000004 A LSRT0
000000 A LSRT0B 000020 A LSRT0Z 000005 A LSSRS 000000 A LSSRSB
000020 A LSSRSZ 000011 A LSSWS 000000 A LSSWSB 000020 A LSSWSZ
000016 A LSTER 000017 A LSTERB 000001 A LSTERZ 000000 A LSTHD
000000 A LSTHDB 000020 A LSTHDZ 000006 A LSWCA 000000 A LSWCAB
000020 A LSWCAZ 000007 A LSWEM 000000 A LSWEMB 000020 A LSWEMZ
000016 A LSWRS 000013 A LSWRSB 000003 A LSWRSZ 000010 A LSWTO
000000 A LSWTOB 000020 A LSWTOZ 000014 A LSXMM 000011 A LSXMMB
000002 A LSXMMZ 000017 A LSYNC 000016 A LSYNCB 000001 A LSYNCZ
000020 A LSYNR 000000 A LSYNRB 000010 A LSYNRZ 000017 A LSYNT
000000 A LSYNTB 000010 A LSYNTZ 000045 A MP 000045 A MPMR0
000145 A MPMR1 000245 A MPMR2 000345 A MPMR3 000420 A MT
000461 A NEG 000470 A NINE 000421 A ONE 000001 A PCBSL
000011 A PCBSLB 000001 A PCBSLZ 000000 A PCCLN 000000 A PCCLNB
000010 A PCCLNZ 000002 A PCCTP 000014 A PCCTPB 000004 A PCCTPZ
000001 A PCECH 000014 A PCECHB 000001 A PCECHZ 000000 A PCLLN
000010 A PCLLNB 000010 A PCLLNZ 000002 A PCNTD 000000 A PCNTDB
000004 A PCNTDZ 000001 A PCPCH 000000 A PCPCHB 000010 A PCPCHZ
000001 A PCSWL 000010 A PCSWLB 000001 A PCSWLZ 000002 A PCTYP
000010 A PCTYPB 000004 A PCTYPZ 000001 A PCXMM 000012 A PCXMMB
000002 A PCXMMZ 000040 A PIM1 000041 A PIM2 000042 A PIM3
000043 A PIM4 000040 A PIM5 000040 A PIM6 000040 A PIM7
000040 A PIMB 000200 A POST 000003 A PSABN 000015 A PSABNB

000001 A PSABNZ 000000 A PSASY 000013 A PSASYB 000001 A PSASYZ
000002 A PSBADT 000000 A PSBEG 000001 A PSCC1 000010 A PSCC1B
000010 A PSCC1Z 000001 A PSCC2 000000 A PSCC2B 000010 A PSCC2Z
000003 A PSCRC 000012 A PSCRCB 000003 A PSCRCZ 000002 A PSDEF
000010 A PSDEFB 000001 A PSDEFZ 000003 A PSDSF 000017 A PSDSFB
000001 A PSDSFZ 000002 A PSDWN 000011 A PSDWNB 000001 A PSDWNZ
000004 A PSEND 000002 A PSEPF 000016 A PSEPFB 000001 A PSEPFZ
000000 A PSLSP 000000 A PSLSPB 000011 A PSLSPZ 000000 A PSMOD
000016 A PSMODB 000002 A PSMODZ 000003 A PSNSEC 000000 A PSPAR
000014 A PSPARB 000002 A PSPARZ 000002 A PSPLA 000000 A PSPLAB
000010 A PSPLAZ 000001 A PSPROT 000002 A PSTER 000017 A PSTERB
000001 A PSTERZ 000000 A PSXMM 000011 A PSXMMB 000002 A PSXMMZ
000003 A PSYNC 000016 A PSYNCB 000001 A PSYNCZ 000004 A PSYNR
000000 A PSYNRB 000010 A PSYNRZ 000003 A PSYNT 000000 A PSYNTB
000010 A PSYNTZ 000040 A RA0 000000 A RA1 000004 A RADNR
000060 A R80 000020 A R81 000167 R RD09 000223 R RD10
000534 R RD100 000646 R RD100A 000565 R RD100X 000576 R RD100Y
000253 R RD10A 000262 R RD15 000267 R RD15A 000277 R RD20
000654 R RD200 001036 R RD200A 001054 R RD200B 001064 R RD200C
000733 R RD200X 000773 R RD200Y 000674 R RD200Z 001072 R RD201
001130 R RD201B 001133 R RD201C 001103 R RD201X 001114 R RD201Y

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001143 R RD202 001160 R RD202A 001171 R RD202B 001211 R RD203
001264 R RD203A 001222 R RD203X 001233 R RD203Y 001260 R RD203Z
000317 R RD30 001271 R RD300 001344 R RD300A 001313 R RD300X
001324 R RD300Y 001334 R RD300Z 000326 R RD30A 000340 R RD30B
000412 R RD40 001351 R RD400 001366 R RD400A 001403 R RD400B
001414 R RD400C 001447 R RD401 001453 R RD402A 001457 R RD403
001461 R RD404 000434 R RD40A 000443 R RD40B 000467 R RD50
000515 R RD50A 001473 R RDBLEN 001474 R RDBUFF 001471 R RDMEM
001472 R RDMODE 001470 R RDRQST 001467 R RDTCD 000002 A RFCB
000463 A RHW 000001 A ROPWD 000002 A RQBLK 000002 A RQST
000000 A RSTPR 000003 A RTIDB 000032 R SAVA 000033 R SAVB
000120 R SAVR 000467 A SEVEN 000466 A SIX 000044 R ST1
000054 R ST2 000027 A TBATSK 000026 A TBCPTH 000011 A TBENTY
000003 A TBEVNT 000021 A TBIO 000014 A TBISA 000015 A TBISB
000017 A TBISP 000020 A TBISRS 000016 A TBISX 000022 A TBKNI
000023 A TBKN2 000024 A TBKN3 000002 A TBPL 000004 A TBRSA
000005 A TBRSE 000030 A TBRSE 000007 A TBRSP 000010 A TBRSTS
000006 A TBRSX 000000 A TBS0 000001 A TBS1 000012 A TBS10
000013 A TBS11 000014 A TBS12 000015 A TBS13 000016 A TBS14
000017 A TBS15 000002 A TBS2 000003 A TBS3 000004 A TBS4
000005 A TBS5 000006 A TBS6 000007 A TBS7 000010 A TBS8

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000011 A TBS9 000001 A TBST 000025 A TBTLC 000013 A TBTMIN
000012 A TBMS 000000 A TBTRD 003060 E TC$BRQ 003121 E TC$CRQ
001355 E TC$FRR 002365 E TC$FWR 000004 A TCBSL 000011 A TCBSLB
000001 A TCBSLZ 000003 A TCCLN 000000 A TCCLNB 000010 A TCCLNZ
000004 A TCCON 000015 A TCCONB 000001 A TCCONZ 000002 A TCCTA
000000 A TCCTAB 000020 A TCCTAZ 000005 A TCCTP 000014 A TCCTPB
000004 A TCCTPZ 000001 A TCD 000012 A TCDC 000000 A TCDCB
000020 A TCDCZ 000014 A TCDO 000000 A TCDOB 000020 A TCDOZ
000004 A TCECH 000014 A TCECHB 000001 A TCECHZ 000015 A TCID1
000000 A TCID1B 000020 A TCID1Z 000016 A TCID2 000000 A TCID2B
000020 A TCID2Z 000006 A TCLDF 000014 A TCLDFB 000001 A TCLDFZ
000003 A TCLLN 000010 A TCLLN 000010 A TCLLNZ 000005 A TCNOD
000004 A TCNODB 000004 A TCNODZ 000005 A TCNTD 000000 A TCNTDB
000004 A TCNTDZ 000004 A TCPCH 000000 A TCPCHB 000010 A TCPCHZ
000004 A TCRBC 000017 A TCRBCB 000001 A TCRBCZ 000013 A TCRBF
000000 A TCRBFB 000020 A TCRBFZ 000007 A TCRC 000000 A TCRCAB
000020 A TCRCZ 000006 A TCRMD 000000 A TCRMDB 000003 A TCRMDZ
000001 A TCRQH 000000 A TCRQHB 000020 A TCRQHZ 000006 A TCRRS
000006 A TCRRSB 000003 A TCRRSZ 000010 A TCSTO 000000 A TCSTOB
000020 A TCSTOZ 000004 A TCSWL 000010 A TCSWLB 000001 A TCSWLZ
000000 A TCTCD 000000 A TCTCDB 000020 A TCTCDZ 000005 A TCTYP
000010 A TCTYPB 000004 A TCTYPZ 000004 A TCWBC 000016 A TCWBCB
000001 A TCWBCZ 000011 A TCWCA 000000 A TCWCAB 000020 A TCWCAZ
000006 A TCWMD 000003 A TCWMD 000003 A TCWMDZ 000006 A TCWRS
000011 A TCWRSB 000003 A TCWRSZ 000004 A TCXMM 000012 A TCXMMB
000002 A TCXMMZ 001475 R TEMP 000471 A TEN 000464 A THREE
000002 A TIDSP 000000 A TIDSPB 000007 A TIDSPZ 000002 A TIDWN
000017 A TIDWNB 000001 A TIDWNZ 000000 A TINET 000000 A TINETB
000020 A TINETZ 000003 A TIODN 000017 A TIODNB 000001 A TIODNZ
000003 A TIODP 000000 A TIODPB 000007 A TIODPZ 000003 A TIOSC
000007 A TIOSCB 000010 A TIOSCZ 000002 A TISEC 000007 A TISECB
000010 A TISECZ 000000 A TITU1 000000 A TITU1B 000020 A TITU1Z
000001 A TITU2 000000 A TITU2B 000020 A TITU2Z 000017 A TPFPA
000000 A TPFPA 000020 A TPFPAZ 000015 A TPRPA 000000 A TPRPAB
000020 A TPRPAZ 000016 A TPWPA 000000 A TPWPAB 000020 A TPWPAZ
000422 A TWO 001502 R TYBELL 001501 R TYBKAR 000056 R TYBKBF
001505 R TYBKBK 001504 R TYBLK 001500 R TYBSLH 002505 R TYCNL
001477 R TYCR 001503 R TYCRLF 002503 R TYFORM 002507 R TYFUNC
002506 R TYLF 002502 R TYLFLF 002500 R TYONE 000000 R TYRDC
000121 R TYREAD 000034 R TYSTCB 001506 R TYWRIT 002501 R TYZER
000403 A V$IMIN 000415 A V$BFC 000075 A V$BGLB 000056 A V$BIC1
000315 A V$BTB 000414 A V$BVN 000334 A V$CAM 000353 A V$CKB

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000411 A V$CKIT 000310 A V$CKPT 000301 A V$CPL 000076 A V$CRDM
000341 A V$CRDR 000354 A V$CRM 000302 A V$CRS 000360 A V$CTAD
000300 A V$CTL 000351 A V$CTMS 000070 A V$DATE 000355 A V$DSTB
000376 A V$ERFG 003141 E V$EXEC 000347 A V$FGLB 000306 A V$FLRS
000350 A V$FREE 000320 A V$IM 000410 A V$I0A 000412 A V$JCB
000055 A V$JCFG 000077 A V$JCTM 000050 A V$JNAM 000377 A V$JOP
000054 A V$LCNT 000313 A V$LER 000356 A V$LIT 000317 A V$LLUP
000307 A V$LRSK 000312 A V$LSAL 000345 A V$LUNT 000316 A V$LUP
000400 A V$LUT1 000401 A V$LUT2 000402 A V$LUT3 000330 A V$MPM
000362 A V$NCTR 000413 A V$OCB 000346 A V$OPCF 000311 A V$OPCL
000363 A V$PIMN 000074 A V$PLCT 000305 A V$PTVB 000361 A V$SCTL
000352 A V$SCV 000375 A V$SLFG 000303 A V$TB 000342 A V$TBGT
000416 A V$TFC 000314 A V$TJCP 000344 A V$TMN 000343 A V$TMS
000304 A V$UTB 003050 E V$VTGM 003134 E V$TMP1 003143 E V$TPTM
002474 R WDCNT 001566 R WR09 001602 R WR10 002060 R WR100
002071 R WR100A 002125 R WR101 002142 R WR102 002151 R WR103
002165 R WR104 002202 R WR105 002230 R WR105A 002246 R WR105B
002222 R WR105X 002242 R WR105Y 002255 R WR106 002264 R WR107
001630 R WR10A 001637 R WR15 001643 R WR15A 001653 R WR20
002301 R WR200 002314 R WR200A 002346 R WR200B 002354 R WR201
001673 R WR30 002361 R WR300 002415 R WR300A 002435 R WR300B
002460 R WR300C 001703 R WR30A 001714 R WR30B 001736 R WR40
001756 R WR40A 001764 R WR50 002017 R WR50A 002026 R WR50B
002032 R WR60 002052 R WR70 002470 R WRLEN 002471 R WRBUFF
002475 R WRFMCC 002466 R WRMEM 002467 R WRMODE 002472 R WRQSTA
002473 R WRTCD 000001 A X 000420 A ZERO

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0 ERRORS ASSEMBLY COMPLETE

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1      EJEC                                01 00001
2 *   THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES 01 00002
3 *                                       01 00003
4 *   V.D.M. PART NO.          92L1105-013A 01 00004
5 *                                       01 00005
6 *                                       01 00006
7 *                                       01 00007
8 *                                       01 00008
9 *   VT$OCL                                01 00009
10 *                                       01 00010
11 *                                       01 00011
12 *   TITLE  VT$OCL                        01 00012
13 *   NLIS                                         01 00013
1289 *   LIST                                         *****
1290 *                                       01 00014
1291 *                                       01 00015

1292 *   EJEC                                01 00016
1293 *                                       01 00017
1294 *   VT$OCL - VTAM LINE OPEN/CLOSE MODULE 01 00018
1295 *   THIS MODULE IS CALLED                01 00019
1296 *   BY MEANS OF A SCHED CALL TO THE REAL-TIME EXEC. IT 01 00020
1297 *   PROCESSES LINE OPEN/CLOSE REQUESTS THREADED FROM 01 00021
1298 *   CC$OCM, AND EXITS TO THE RTE WHEN ALL REQUESTS HAVE 01 00022
1299 *   BEEN PROCESSED.                      01 00023
1300 *                                       01 00024
1301 *                                       01 00025
1302 *                                       01 00026
1303 *                                       01 00027
1304 *   NAME  VT$OCL                          01 00028
1305 *   EXT   CC$OCM,CC$LSD,VT$MP1           01 00029
1306 *   EXT   CC$CRQ                          01 00030
1307 *   EXT   CC$ORQ                          01 00031
1308 *                                       01 00032
000005 A 1309 LPSIZ EQU      5          SIZE OF LSD PROTOTYPE 01 00033
1310 *                                       01 00034
000021 A 1311 LSDSIZ EQU     17          SIZE OF LSD          01 00035
1312 *                                       01 00036
000152 A 1313 TRMLUN EQU    106         LOGICAL UNIT NUMBER FOR 01 00037
1314 *                                       01 00038
1315 *                                       01 00039
1316 *   GETMEM MAC                            01 00040
1317 *   M2                                       01 00041
1318 *   EXT   VT$GTM                          01 00042
1319 *   DATA 0600,VT$GTM                    01 00043
1320 *   EMAC                                       01 00044
1321 *   PUTMEM MAC                            01 00045
1322 *   M2                                       01 00046
1323 *   EXT   VT$PTM                          01 00047
1324 *   DATA 0600,VT$PTM                    01 00048
1325 *   EMAC                                       01 00049
1326 *   BLDMAT MAC                            01 00050
1327 *   M2                                       01 00051
1328 *   EXT   VT$BMT                          01 00052
1329 *   DATA 0600,VT$BMT                    01 00053
1330 *   EMAC                                       01 00054
1331 *                                       01 00055
1332 *   EQUATES FOR LSD PROTOTYPE           01 00056
1333 *                                       01 00057

000002 A 1334 LPDEF EQU      2          01 00058
000010 A 1335 LPDEFB EQU     8          01 00059
000001 A 1336 LPDEFZ EQU     1          01 00060
1337 *                                       01 00061
000002 A 1338 LPDWN EQU      2          01 00062
000011 A 1339 LPDWNB EQU     9          01 00063
000001 A 1340 LPDWNZ EQU     1          01 00064
1341 *                                       01 00065
000002 A 1342 LPPLA EQU      2          01 00066
1343 *                                       01 00067

1344 *   EJEC                                01 00068
1345 *                                       01 00069
1346 *   ENTRY POINT TO LINE OPEN/CLOSE MODULE. 01 00070
1347 *                                       01 00071
1348 *   VT$OCL DINTS                          01 00072

000000 100444 A                                       01 00073
000001 100747 A                                       01 00074
000002 006027 A 1349 OCL1A LD BE    CC$OCM 01 00075
000003 000000 E                                       01 00076
000004 001026 A 1350          JBNZ    OCL1A1 01 00077
000005 000011 R                                       01 00078
1351          EXIT          EXIT TO RTE IF QUEUE IS EMPTY
000006 006505 A                                       01 00079
000007 000000 E                                       01 00080
000010 000200 A                                       01 00081
1352 OCL1A1 EINTS
000011 100244 A                                       01 00082
000012 100147 A                                       01 00083
1353 OCL1B1 OPEN    OCLFCB,TRMLUN 01 00084
000013 006505 A                                       01 00085
000014 000000 E                                       01 00086
000015 100000 A                                       01 00087
000016 003152 A                                       01 00088
000017 000605 R                                       01 00089
000020 000000 A                                       01 00090
000021 000000 A                                       01 00091

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000440 100244 A
000441 100147 A
000442 005041 A 1553 TXA
000443 006030 A 1554 LDX1 CC$LSD SCAN LSD QUEUE FOR THIS LSD 01 00277
000444 000270 E
000445 001040 A 1555 OCL3F1 JXZ OCL3F4 ERROR - NOT FOUND 01 00279
000446 000502 R
000447 135000 A 1556 ERA LSTHD,X
000450 001010 A 1557 JAZ OCL3F2 JUMP IF FOUND 01 00280
000451 000456 R
000452 135000 A 1558 ERA LSTHD,X
000453 035000 A 1559 LDX LSTHD,X LOOK AT NEXT 01 00283
000454 001000 A 1560 JMP OCL3F1 01 00284
000455 000445 R
1561 OCL3F2 DINTS 01 00285

000456 100444 A
000457 100747 A
000460 135000 A 1562 ERA LSTHD,X 01 00286
000461 005012 A 1563 TAB 01 00287
000462 016000 A 1564 LDA 0,B DELETE LSD FROM 01 00288

000463 055000 A 1565 STA 0,X LSD QUEUE 01 00289
1566 EINTS 01 00290

000464 100244 A
000465 100147 A
000466 006010 A 1567 LDAI LSDSIZ 01 00291
000467 000021 A
000470 056000 A 1568 STA 0,B PUT LSD SIZE IN TSB 01 00292
000471 006010 A 1569 LDAI VT$MP1 ADRS OF MEM POOL 01 00293
000472 000212 E
1570 PUTMEM RETURN TSB (LSD) TO MEM POOL 01 00294

000473 006505 A
000474 000214 E
000475 000600 A
000476 000000 E
000477 005001 A 1571 TZA
000500 001000 A 1572 JMP OCL4A1 GO TO END 01 00295
000501 000507 R
000502 014134 A 1573 OCL3F4 LDA ERRORA ERROR - LSD NOT IN QUEUE 01 00297
000503 001000 A 1574 JMP OCL4A1 01 00298
000504 000507 R
1575 OCL4B1 EINTS 01 00299

000505 100244 A
000506 100147 A
000507 054121 A 1576 OCL4A1 STA STATSV SAVE REQUEST STATUS 01 00300
000510 001016 A 1577 JANZ OCL4E1 JUMP IF THERE WERE ERRORS 01 00301
000511 000557 R
000512 014120 A 1578 LDA OCFLG OPEN REQUEST ? 01 00302
000513 001016 A 1579 JANZ OCL4E1 NO 01 00303
000514 000557 R
1580 * 01 00304
1581 * ISSUE FUNC 24 TO INITIALIZE LINE 01 00305
1582 * 01 00306

000515 014011 A 1583 LDA OCL4C1+3 01 00307
000516 150462 A 1584 ANA LHM 01 00308
000517 114101 A 1585 ORA CCMLUN SET LUN FOR CCM 01 00309
000520 054006 A 1586 STA OCL4C1+3 IN FUNC REQUEST 01 00310
000521 014076 A 1587 LDA LOGLN GET LOG. LINE NUMBER, 01 00311
000522 114103 A 1588 ORA FUNC24 OR WITH FUNC CODE 01 00312
000523 054056 A 1589 STA FNCLCB+2 FOR FUNC 24 01 00313
1590 OCL4C1 FUNC FNCLCB,0 ISSUE FUNC TO INITIALIZE LINE 01 00314

000524 006505 A
000525 000370 E

000526 100000 A
000527 002400 A
000530 000600 R
000531 000000 A
000532 000000 A
000533 034071 A 1591 LDX LSOADR 01 00315
000001 A 1592 LSD SET X 01 00316
1593 FETCHA LSD,LSMOD,LSMOB,LSMODZ GET MODEM TYPE 01 00317

000534 015014 A
000535 004356 A
000536 140422 A 1594 SUB TWO DIALUP LINE ? 01 00318
000537 001004 A 1595 JAN OCL4E1 NO 01 00319
000540 000557 R
000541 014011 A 1596 LDA OCL4D3+3 YES - 01 00320
000542 150462 A 1597 ANA LHM 01 00321
000543 114055 A 1598 ORA CCMLUN SET CCM LUN IN FUNC RQST 01 00322
000544 054006 A 1599 STA OCL4D3+3 01 00323
000545 014052 A 1600 LDA LOGLN GET LOG. LINE NO. 01 00324
000546 114061 A 1601 ORA DTRON OR IN FUNC CODE FOR TURN DTR ON 01 00325
000547 054032 A 1602 STA FNCLCB+2 SET IN LCB 01 00326
1603 OCL4D3 FUNC FNCLCB,0 TURN DATA TERM. READY ON 01 00327

000550 006505 A
000551 000525 E
000552 100000 A
000553 002400 A
000554 000600 R
000555 000000 A
000556 000000 A
1604 * 01 00328
1605 * PERFORM REQUEST COMPLETION PROCESSING HERE 01 00329
1606 * 01 00330
1607 OCL4E1 DINTS 01 00331

000557 100444 A
000560 100747 A
000561 006027 A 1608 LD BE CC$OCH ^B > REQUEST ADDRESS 01 00332

```

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000562 000355 E
000563 036004 A 1609 LDX RADNR,B 01 00333
000564 006077 A 1610 STXE CC$OCM DETHREAD REQUEST 01 00334
000565 000562 E
000566 005004 A 1611 TZX 01 00335
000567 076004 A 1612 STX RADNR,B ZERO THREAD IN REQUEST 01 00336
000570 064013 A 1613 STB DUMLSD+LSRRT LINK RQST TO DUMMY LSD 01 00337

000571 006030 A 1614 LDXI DUMLSD 01 00338
000572 000603 R
000573 014035 A 1615 LDA STATSV ERRORS ON REQUEST ? 01 00339
000574 002000 A 1616 CALL CC$ORQ USE SPECIAL ENTRY POINT TO CC$CRQ 01 00340
000575 000000 E
000576 001000 A 1617 JMP OCLIA GO BACK FOR NEXT REQUEST 01 00341
000577 000002 R
1618 * 01 00342
1619 * 01 00343
1620 FNCLCB DCB 0,0 01 00344

000600 000000 A
000601 000000 A
000602 000000 A
000603 1621 DUMLSD BSS LSRRT+1 01 00345
1622 OCLFCB FCB 120,INBUF,0,'F','VT','$D','FL' 01 00346

000605 000170 A
000606 000646 R
000607 000306 A
000610 000000 A
000611 000000 A
000612 000000 A
000613 000000 A
000614 153324 A
000615 122304 A
000616 143314 A
000617 000646 R 1623 INBFAD DATA INBUF 01 00347
000620 000000 A 1624 LOGLN DATA 0 01 00348
000621 000000 A 1625 CCMLUN DATA 0 01 00349
000622 000000 A 1626 PHYSLN DATA 0 01 00350
000623 000000 A 1627 LLTBAS DATA 0 01 00351
000624 000000 A 1628 PLTBAS DATA 0 01 00352
000625 000000 A 1629 LSDADR DATA 0 01 00353
000626 014000 A 1630 FUNC24 DATA 014000 01 00354
000627 004400 A 1631 DTROFF DATA 04400 01 00355
000630 004000 A 1632 DTRON DATA 04000 01 00356
000631 000000 A 1633 STATSV DATA 0 01 00357
000632 000000 A 1634 LCBADR DATA 0 01 00358
000633 000000 A 1635 OCFLG DATA 0 01 00359
000634 000000 A 1636 LSPRAD DATA 0 01 00360
000635 000000 A 1637 LPSHLD DATA 0 01 00361
000636 000000 A 1638 TEMI DATA 0 01 00362
1639 * 01 00363

1640 * ERROR CODES FOR OPEN/CLOSE LINE 01 00364
1641 * 01 00365
000637 033640 A 1642 ERRORA DATA 033640 INVALID LOGICAL LINE NO.(ERR FLG,CC=5) *****
000640 035640 A 1643 ERRORB DATA 035640 LINE DOWN(OPEN) *****
000641 036640 A 1644 ERRORC DATA 036640 LINE ALREADY OPEN(OPEN) *****
000642 042640 A 1645 ERRORD DATA 042640 INVALID PHYS LINE ADDRS *****
000643 034640 A 1646 ERRORE DATA 034640 LINE NOT OPEN(CLOSE) *****
000644 037640 A 1647 ERRORF DATA 037640 REQUESTS STILL PENDING ON LSD(CLOSE) *****
000645 044640 A 1648 ERRORG DATA 044640 NO TEMPORARY STORAGE AVAILABLE *****
000646 1649 INBUF BSS 120 01 00373
1650 * 01 00374
1651 * END 01 00375

```

ENTRY NAMES

```

000000 R VT$OCL
EXTERNAL NAMES
000000 E CC$CRQ 000444 E CC$LSD 000565 E CC$OCM 000575 E CC$ORQ
000474 E V$EXEC 000551 E V$IOC 000141 E V$IOST 000216 E VT$GTM
000472 E VT$MPI 000476 E VT$PTM

```

SYMBOLS

```

000044 A APIM 000002 A B 000000 A B0 000001 A B1
000012 A B10 000013 A B11 000014 A B12 000015 A B13
000016 A B14 000017 A B15 000002 A B2 000003 A B3
000004 A B4 000005 A B5 000006 A B6 000007 A B7
000010 A B8 000011 A B9 000000 A BICNUM 000421 A BM1
000472 A BM17 000475 A BM177 000477 A BM1777 000464 A BM3
000473 A BM37 000463 A BM377 000467 A BM7 000474 A BM77
000476 A BM777 000441 A BR0 000442 A BR1 000453 A BR10
000454 A BR11 000455 A BR12 000456 A BR13 000457 A BR14
000460 A BR15 000443 A BR2 000444 A BR3 000445 A BR4
000446 A BR5 000447 A BR6 000450 A BR7 000451 A BR8
000452 A BR9 000421 A BS0 000422 A BS1 000433 A BS10
000434 A BS11 000435 A BS12 000436 A BS13 000437 A BS14
000440 A BS15 000423 A BS2 000424 A BS3 000425 A BS4
000426 A BS5 000427 A BS6 000430 A BS7 000431 A BS8
000432 A BS9 000000 E CC$CRQ 000444 E CC$LSD 000565 E CC$OCM
000575 E CC$ORQ 000621 R CCMLUN 000047 A CLOCK 000000 A COTADI
000000 A CTACT 000017 A CTACTB 000001 A CTACTZ 000001 A CTADN
000000 A CTADNB 000020 A CTADNZ 000011 A CTBIC 000000 A CTBICB
000020 A CTBICZ 000003 A CTDST 000000 A CTDSTB 000020 A CTDSTZ
000006 A CTDVA 000000 A CTDVAB 000020 A CTDVAZ 000012 A CTFEB
000000 A CTFEBB 000020 A CTFEBZ 000014 A CTFRC 000010 A CTFRCB
000010 A CTFRCZ 000014 A CTFRE 000000 A CTFREB 000010 A CTFREZ

000000 A CTIOB 000000 A CTIOBB 000017 A CTIOBZ 000007 A CTIOA
000000 A CTIOAB 000020 A CTIOAZ 000002 A CTOPM 000000 A CTOPMB
000020 A CTOPMZ 000005 A CTRCN 000000 A CTRCNB 000010 A CTRCNZ
000004 A CTRQB 000000 A CTRQBB 000020 A CTRQBZ 000005 A CTRTR
000010 A CTRTRB 000010 A CTRTRZ 000010 A CTSTA 000000 A CTSTAB

```

000020 A CTSTAZ 000013 A CTWDS 000000 A CTWDSB 000020 A CTWDSZ
000001 A DCBUFF 000002 A DCCNT 000000 A DCRECL 000747 A DISCLK
000745 A DISMP 000444 A DISPIM 000024 A DMCWA 000000 A DMCWAB
000020 A DMCWAZ 000017 A DMFPA 000000 A DMFPAB 000020 A DMFPAZ
000021 A DMLCA 000000 A DMLCAB 000020 A DMLCAZ 000022 A DMLTA
000000 A DMLTAB 000020 A DMLTAZ 000023 A DMPTA 000000 A DMPTAB
000020 A DMPTAZ 000016 A DMRPA 000000 A DMRPAB 000020 A DMRPAZ
000020 A DMSTA 000000 A DMSTAB 000020 A DMSTAZ 000025 A DMSWA
000000 A DMSWAB 000020 A DMSWAZ 000015 A DMTPA 000000 A DMTPAB
000020 A DMTPAZ 000002 A DSCTAD 000000 A DSDASS 000000 A DSDVDN
000002 A DSLCKO 000001 A DSNAME 000000 A DSNORQ 000002 A DSOPCM
000002 A DSPSTI 000002 A DSREWD 000000 A DSUNAM 000002 A DSUNTN
000627 R DTROFF 000630 R DTRON 000603 R DUMLSO 000424 A EIGHT
000147 A ENACLK 000645 A ENAMP 000244 A ENAPIM 000637 R ERRORA
000640 R ERRORB 000641 R ERRORC 000642 R ERRORD 000643 R ERRERE
000644 R ERRORF 000645 R ERRORG 000465 A FIVE 000600 R FNCLCB
000423 A FOUR 000626 R FUNC24 000617 R INBFAD 000646 R INBUF
000300 A LC 000003 A LCABN 000013 A LCABNB 000001 A LCABNZ
000003 A LCASY 000012 A LCASYB 000001 A LCASYZ 000632 R LCBADR
000003 A LCCRC 000014 A LCCRCB 000003 A LCCRCZ 000006 A LCCWB
000014 A LCCWBB 000001 A LCCWBZ 000006 A LCCWC 000015 A LCCWCB
000001 A LCCWCZ 000006 A LCCWD 000013 A LCCWDB 000001 A LCCWDZ
000006 A LCCWI 000016 A LCCWIB 000001 A LCCWIZ 000006 A LCCWP
000012 A LCCWPB 000001 A LCCWPZ 000006 A LCCWR 000011 A LCCWRB
000001 A LCCWRZ 000006 A LCCWS 000017 A LCCWSB 000001 A LCCWSZ
000006 A LCCWT 000010 A LCCWTB 000001 A LCCWTZ 000001 A LCIBA
000000 A LCIBAB 000017 A LCIBAZ 000000 A LCIBF 000017 A LCIBFB
000001 A LCIBFZ 000000 A LCIBL 000000 A LCIBLB 000014 A LCIBLZ
000002 A LCIC1 000010 A LCIC1B 000010 A LCIC1Z 000002 A LCIC2
000000 A LCIC2B 000010 A LCIC2Z 000003 A LCIKE 000000 A LCIKEB
000004 A LCIKEZ 000050 A LCJP 000006 A LCLCB 000000 A LCLCBB
000020 A LCLCBZ 000007 A LCLTB 000017 A LCLTBB 000001 A LCLTBZ
000005 A LCOBA 000000 A LCOBAB 000017 A LCOBAZ 000004 A LCOBF
000017 A LCOBFB 000001 A LCOBFZ 000004 A LCOBL 000000 A LCOBLB
000014 A LCOBLZ 000007 A LCOKE 000000 A LCOKEB 000004 A LCOKEZ
000003 A LCRCC 000017 A LCRCCB 000001 A LCRCCZ 000000 A LCSMB
000016 A LCSMBB 000001 A LCSMBZ 000462 A LHW 000623 R LLTBAS

000620 R LOGLN 000002 A LPDEF 000010 A LPDEFB 000001 A LPDEFZ
000002 A LPDWN 000011 A LPDWNB 000001 A LPDWNZ 000002 A LPPLA
000635 R LPSHLD 000005 A LPSIZ 000017 A LSABN 000015 A LSABNB
000001 A LSABNZ 000017 A LSASC 000011 A LSASCB 000001 A LSASCZ
000014 A LSASY 000013 A LSASYB 000001 A LSASYZ 000015 A LSCC1
000010 A LSCC1B 000010 A LSCC1Z 000015 A LSCC2 000000 A LSCC2B
000010 A LSCC2Z 000017 A LSCRC 000012 A LSCRCB 000003 A LSCRCZ
000012 A LSCTA 000000 A LSCTAB 000020 A LSCTAZ 000001 A LSD
000625 R LSDADR 000017 A LSDSF 000017 A LSDSFB 000001 A LSDSFZ
000021 A LSDSIZ 000013 A LSDST 000000 A LSDSTB 000020 A LSDSTZ
000016 A LSEPF 000016 A LSEPFB 000001 A LSEPFZ 000014 A LSLSP
000000 A LSLSPB 000011 A LSLSPZ 000014 A LSMOD 000016 A LSMODB
000002 A LSMODZ 000020 A LSNT 000010 A LSNTOB 000006 A LSNTOZ
000014 A LSPAR 000014 A LSPARB 000002 A LSPARZ 000016 A LSPLA
000000 A LSPLAB 000010 A LSPLAZ 000634 R LSPRAD 000002 A LSRCA
000000 A LSRCAB 000020 A LSRCAZ 000003 A LSREM 000000 A LSREMB
000020 A LSREMZ 000016 A LSRRS 000010 A LSRRSB 000003 A LSRRSZ
000001 A LSRRZ 000000 A LSRRTB 000020 A LSRRTZ 000004 A LSRT
000000 A LSRTOB 000020 A LSRTOZ 000005 A LSSRS 000000 A LSSRSB
000020 A LSSRSZ 000011 A LSSWS 000000 A LSSWSB 000020 A LSSWSZ
000016 A LSTER 000017 A LSTERB 000001 A LSTERZ 000000 A LSTHD
000000 A LSTHDB 000020 A LSTHDZ 000006 A LSWCA 000000 A LSWCAB
000020 A LSWCAZ 000007 A LSWEM 000000 A LSWEMB 000020 A LSWEMZ
000016 A LSWRS 000013 A LSWRSB 000003 A LSWRSZ 000010 A LSWTO
000000 A LSWTOB 000020 A LSWTOZ 000014 A LSXMM 000011 A LSXMMB
000002 A LSXMMZ 000017 A LSYNC 000016 A LSYNCB 000001 A LSYNCZ
000020 A LSYNR 000000 A LSYNRB 000010 A LSYNRZ 000017 A LSYNT
000000 A LSYNTB 000010 A LSYNTZ 000045 A MP 000045 A MPMRO
000145 A MPMR1 000245 A MPMR2 000345 A MPMR3 000420 A MT
000461 A NEG 000470 A NINE 000633 R OCFLG 000002 R OCL1A
000011 R OCL1A1 000013 R OCL1B1 000033 R OCL1C1 000062 R OCL1D1
000113 R OCL1F1 000120 R OCL2A1 000127 R OCL2A2 000147 R OCL2A3
000165 R OCL2B1 000175 R OCL2C1 000207 R OCL2D1 000224 R OCL2D2
000231 R OCL2DA 000242 R OCL2DE 000313 R OCL2E3 000323 R OCL3A1
000332 R OCL3AB 000345 R OCL3B1 000367 R OCL3C1 000377 R OCL3D1
000411 R OCL3E1 000435 R OCL3E2 000436 R OCL3E3 000445 R OCL3F1
000456 R OCL3F2 000502 R OCL3F4 000507 R OCL4A1 000505 R OCL4B1
000524 R OCL4C1 000550 R OCL4D3 000557 R OCL4E1 000605 R OCLFCB
000421 A ONE 000001 A PCBSL 000011 A PCBSLB 000001 A PCBSLZ
000000 A PCCLN 000000 A PCCLNB 000010 A PCCLNZ 000002 A PCCTP
000014 A PCCTPB 000004 A PCCTPZ 000001 A PCECH 000014 A PCECHB
000001 A PCECHZ 000000 A PCLLN 000010 A PCLLNB 000010 A PCLLNZ

000002 A PCNTD 000000 A PCNTDB 000004 A PCNTDZ 000001 A PCPCH
000000 A PCPCHB 000010 A PCPCHZ 000001 A PCSWL 000010 A PCSWLB
000001 A PCSWLZ 000002 A PCTYP 000010 A PCTYPB 000004 A PCTYPZ
000001 A PCXMM 000012 A PCXMMB 000002 A PCXMMZ 000622 R PHYSLN
000040 A PIM1 000041 A PIM2 000042 A PIM3 000043 A PIM4
000040 A PIM5 000040 A PIM6 000040 A PIM7 000040 A PIM8
000624 R PLTBAS 000200 A POST 000003 A PSABN 000015 A PSABNB
000001 A PSABNZ 000000 A PSASY 000013 A PSASYB 000001 A PSASYZ
000002 A PS3ADT 000000 A PSBEG 000001 A PSCC1 000010 A PSCC1B
000010 A PSCC1Z 000001 A PSCC2 000000 A PSCC2B 000010 A PSCC2Z
000003 A PSCRC 000012 A PSCRCB 000003 A PSCRCZ 000002 A PSDEF
000010 A PSDEFB 000001 A PSDEFZ 000003 A PSDSF 000017 A PSDSFB
000001 A PSDSFZ 000002 A PSDWN 000011 A PSDWNB 000001 A PSDWNZ
000004 A PSEND 000002 A PSEPF 000016 A PSEPFB 000001 A PSEPFZ
000000 A PSLSP 000000 A PSLSPB 000011 A PSLSPZ 000000 A PSMOD
000016 A PSMODB 000002 A PSMODZ 000003 A PSNSEC 000000 A PSPAR
000014 A PSPARB 000002 A PSPARZ 000002 A PSPLA 000000 A PSPLAB
000010 A PSPLAZ 000001 A PSPROT 000002 A PSTER 000017 A PSTERB

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000001 A PSTERZ 000000 A PSXMM 000011 A PSXMMB 000002 A PSXMMZ
000003 A PSYNC 000016 A PSYNCB 000001 A PSYNCZ 000004 A PSYNR
000000 A PSYNRB 000010 A PSYNRZ 000003 A PSYNT 000000 A PSYNTB
000010 A PSYNTZ 000040 A RAO 000000 A RAI 000004 A RADNR
000060 A RBO 000020 A RB1 000002 A RFCB 000463 A RHW
000001 A ROPWD 000000 A RSTPR 000003 A RTIDB 000467 A SEVEN
000466 A SIX 000631 R STATSV 000027 A TBATSK 000026 A TBCPTH
000011 A TRENTY 000003 A TBEVNT 000021 A TB10 000014 A TBISA
000015 A TB1SB 000017 A TB1SP 000020 A TB1SRS 000016 A TB1SX
000022 A TBKN1 000023 A TBKN2 000024 A TBKN3 000002 A TBPL
000004 A TBRSA 000005 A TBRSE 000030 A TBRSE 000007 A TBRSP
000010 A TBRST5 000006 A TBRSX 000000 A TBS0 000001 A TBS1
000012 A TBS10 000013 A TBS11 000014 A TBS12 000015 A TBS13
000016 A TBS14 000017 A TBS15 000002 A TBS2 000003 A TBS3
000004 A TBS4 000005 A TBS5 000006 A TBS6 000007 A TBS7
000010 A TBS8 000011 A TBS9 000001 A TBST 000025 A TBTLK
000013 A TBTMIN 000012 A TBTMS 000000 A TBTRD 000004 A TCBSL
000011 A TCBSLB 000001 A TCBSLZ 000003 A TCCLN 000000 A TCCLNB
000010 A TCCLNZ 000004 A TCCON 000015 A TCCONB 000001 A TCCONZ
000002 A TCCTA 000000 A TCCTAB 000020 A TCCTAZ 000005 A TCCTP
000014 A TCCTPB 000004 A TCCTPZ 000012 A TCDC 000000 A TCDCCB
000020 A TCDCZ 000014 A TCDO 000000 A TCDOB 000020 A TCDOZ
000004 A TCECH 000014 A TCECHB 000001 A TCECHZ 000015 A TCID1
000000 A TCID1B 000020 A TCID1Z 000016 A TCID2 000000 A TCID2B

000020 A TCID2Z 000006 A TCLDF 000014 A TCLDFB 000001 A TCLDFZ
000003 A TCLLN 000010 A TCLLNZ 000010 A TCLLNZ 000005 A TCNOD
000004 A TCNODB 000004 A TCNODZ 000005 A TCNTD 000000 A TCNTDB
000004 A TCNTDZ 000004 A TCPCH 000000 A TCPCHB 000010 A TCPCHZ
000004 A TCRBC 000017 A TCRBCB 000001 A TCRBCZ 000013 A TCRBF
000000 A TCRBFB 000020 A TCRBFZ 000007 A TCRC 000000 A TCRCAB
000020 A TCRCAZ 000006 A TCRMD 000000 A TCRMDB 000003 A TCRMDZ
000001 A TCRQH 000000 A TCRQHB 000020 A TCRQHZ 000006 A TCRRS
000006 A TCRRSB 000003 A TCRRSZ 000010 A TCSTO 000000 A TCSTOB
000020 A TCSTOZ 000004 A TCSWL 000010 A TCSWLZ 000001 A TCSWLZ
000000 A TCTCD 000000 A TCTCDB 000020 A TCTCDZ 000005 A TCTYP
000010 A TCTYPB 000004 A TCTYPZ 000004 A TCWBC 000016 A TCWBCB
000001 A TCWBCZ 000011 A TCWCA 000000 A TCWCAZ 000020 A TCWCAZ
000006 A TCWMD 000003 A TCWMDZ 000003 A TCWMDZ 000006 A TCWRS
000011 A TCWRSB 000003 A TCWRSZ 000004 A TCXMM 000012 A TCXMMB
000002 A TCXMMZ 000636 R TEM1 000471 A TEN 000464 A THREE
000002 A TIDSP 000000 A TIDSPB 000007 A TIDSPZ 000002 A TIDWN
000017 A TIDWNB 000001 A TIDWNZ 000000 A TINET 000000 A TINETB
000020 A TINETZ 000003 A TIODN 000017 A TIODNB 000001 A TIODNZ
000003 A TIODP 000000 A TIODPB 000007 A TIODPZ 000003 A TIOSC
000007 A TIOSCB 000010 A TIOSCZ 000002 A TISEC 000007 A TISECB
000010 A TISECZ 000000 A TITU1 000000 A TITU1B 000020 A TITU1Z
000001 A TITU2 000000 A TITU2B 000020 A TITU2Z 000017 A TPFPA
000000 A TPFPAZ 000020 A TPFPAZ 000015 A TPRPA 000000 A TPRPAB
000020 A TPRPAZ 000016 A TPWPA 000000 A TPWPAB 000020 A TPWPAZ
000152 A TRMLUN 000422 A TWO 000403 A V$1MIN 000415 A V$BFC
000075 A V$BGLB 000056 A V$BIC1 000315 A V$BTB 000414 A V$BVB
000334 A V$CAM 000353 A V$CKB 000411 A V$CKIT 000310 A V$CKPT
000301 A V$CPL 000076 A V$CRDM 000341 A V$CRDR 000354 A V$CRM
000302 A V$CRS 000360 A V$CTAD 000300 A V$CTL 000351 A V$CTMS
000070 A V$DATE 000355 A V$DSTB 000376 A V$ERFG 000474 E V$EXEC
000347 A V$FLGB 000306 A V$FLRS 000350 A V$FREE 000320 A V$IM
000410 A V$10A 000551 E V$10C 000141 E V$10ST 000412 A V$JCB
000055 A V$JCFG 000077 A V$JCTM 000050 A V$JNAM 000377 A V$JOP
000054 A V$LCNT 000313 A V$LER 000356 A V$LIT 000317 A V$LLUP
000307 A V$LRSK 000312 A V$LSAL 000345 A V$LUNT 000316 A V$LUP
000400 A V$LUT1 000401 A V$LUT2 000402 A V$LUT3 000330 A V$MPM
000362 A V$NCTR 000413 A V$OCB 000346 A V$OPCF 000311 A V$OPCL
000363 A V$PIMN 000074 A V$PLCT 000305 A V$PTVB 000361 A V$SCTL
000352 A V$SCV 000375 A V$SLFG 000303 A V$TB 000342 A V$TBGT
000416 A V$TFC 000314 A V$TJCP 000344 A V$TMN 000343 A V$TMS
000304 A V$UTB 000216 E V$GTM 000472 E V$MPI 000000 R VT$OCL

000476 E V$PTM 000001 A X 000420 A ZERO
0 ERRORS ASSEMBLY COMPLETE
    
```

```

1      EJEC                                01 00001
2 *   THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES 01 00002
3 *                                       01 00003
4 *   V.D.M. PART NO.          92L1105-016A 01 00004
5 *                                       01 00005
6 *                                       RELEASED 03-26-73 01 00006
7 *                                       01 00007
8 *                                       01 00008
9 *   VT$OCT                            01 00009
10 *                                       01 00010
11 *                                       01 00011
12 *   TITLE  VT$OCT                      01 00012
13 *   NLIS                                       01 00013
1289 *   LIST                                       *****
1290 *                                       01 00014

1291      EJEC                                01 00015
1292 *                                       01 00016
1293 *                                       01 00017
1294 *                                       01 00018
1295 *   VT$OCT - TERMINAL UNIT OPEN/CLOSE MODULE 01 00019
1296 *                                       01 00020
1297 *   THIS PROGRAM IS CALLED BY MEANS OF A 01 00021
1298 *   SCHED CALL TO THE REAL-TIME EXEC. UPON 01 00022
1299 *   BEING ACTIVATED, IT PROCESSES TERMINAL 01 00023
1300 *   OPEN AND CLOSE REQUESTS FROM A QUEUE 01 00024
1301 *   HEADED BY TC$OCM.                    01 00025
1302 *                                       01 00026
1303 *                                       01 00027
1304 *                                       01 00028
1305 *                                       01 00029
1306 *   NAME  VT$OCT,VT$OCY,VT$OCZ          01 00030
1307 *                                       01 00031
1308 *                                       01 00032
000152 A 1309 TRMLUN EQU 106 LUN FOR FILE VT$DFT 01 00033
000306 A 1310 TRMFKY EQU 'F' PROTECTION KEY FOR TRMLUN 01 00034
000001 A 1311 NTCTYP EQU 1 NUMBER OF TCM TYPES 01 00035
000017 A 1312 TCDSIZ EQU 15 SIZE OF TCD 01 00036
000004 A 1313 TIBSIZ EQU 4 SIZE OF TERMINAL INDEX BLOCK 01 00037
1314 *                                       01 00038
1315 *                                       01 00039
000001 A 1316 X EQU 1 01 00040
000002 A 1317 B EQU 2 01 00041
1318 EXT V$EXEC,TC$OCM,TC$TCD 01 00042
1319 EXT TC$FRQ 01 00043
1320 EXT VT$LTT 01 00044
1321 VT$OCT DINTS 01 00045

000000 100444 A
000001 100747 A
000002 006017 A 1322 LDAE TC$OCM QUEUE EMPTY ? 01 00046
000003 000000 E
000004 001016 A 1323 JANZ OCT1B1 NO 01 00047
000005 000011 R 1324 EXIT YES - EXIT 01 00048

000006 006505 A
000007 000000 E
000010 000200 A 1325 OCT1B1 OPEN TRMFCB,TRMLUN OPEN TCD FILE 01 00049

000011 006505 A
000012 000000 E
000013 100000 A
000014 003152 A
000015 000617 R
000016 000000 A
000017 000000 A
000020 006017 A 1326 LDAE OCT1B1+2 01 00050
000021 000013 R 1327 STAT OCT1B1,OCT3A1,OCT1C1,OCT1C1,OCT3A1 01 00051

000022 006505 A
000023 000000 E
000024 000011 R
000025 000432 R
000026 000031 R
000027 000031 R
000030 000432 R
000031 006037 A 1328 OCT1C1 LDXE TC$OCM ADRS OF REQUEST BLOCK 01 00052
000032 000003 E
000033 015001 A 1329 LDA ROPWD,X SET OPEN/CLOSE FLAG, 01 00053
000034 006150 A 1330 ANA1 07400 ZERO FOR OPEN REQUESTS, 01 00054
000035 007400 A
000036 006130 A 1331 ERA1 03000 NOT ZERO FOR CLOSE REQUESTS 01 00055
000037 003000 A
000040 054571 A 1332 STA OCFLG 01 00056
000041 025002 A 1333 LDB RFCB,X ADRS OF DCB 01 00057
000042 016000 A 1334 LDA 0,B 01 00058
000043 054606 A 1335 STA TEM1 MOVE TUID 01 00059
000044 016001 A 1336 LDA 1,B TO TEMP LOCS. 01 00060
000045 054605 A 1337 STA TEM2 01 00061
000046 005101 A 1338 INCR 01 SET FCB FOR 1ST RECORD 01 00062
000047 054552 A 1339 STA TRMFCB+3 OF TERMINAL PROT. FILE 01 00063
1340 OCT1C2 READ TRMFCB,TRMLUN READ INDEX RECORD 01 00064

000050 006505 A
000051 000012 E
000052 100000 A
000053 000152 A
000054 000617 R

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000337	130463	A	1457	ERA	RHW	ASSIGNED TO PHYS LINE ?	01	00181
000340	001010	A	1458	JAZ	OCT2EK	NO, SO CANNOT BE OPEN	01	00182
000341	000357	R						
000342	130463	A	1459	ERA	RHW	YES -	01	00183
000343	024270	A	1460	LDB	CCMCAD		01	00184
000344	126023	A	1461	ADD	DMPA,B	GET ENTRY IN PLT	01	00185
000345	005111	A	1462	JAR			01	00186
000346	005011	A	1463	JAR			01	00187
000347	011000	A	1464	LDA	O,H	HAS LINE BEEN OPENED ?	01	00188
000348	001010	A	1465	JAZ	OCT2EK	NO	01	00189
000351	000357	R						
000352	001002	A	1466	JAP	OCT2F1	YES	01	00190
000353	000410	R						
000354	014266	A	1467	LDA	ERRB	LINE HAS BEEN DECLARED DOWN -	01	00191
000355	001000	A	1468	JMP	OCT3A1	SET ERROR CODE AND GO TO END	01	00192
000356	000432	R						
000357	014251	A	1469	OCT2EK LDA	LLNUM		01	00193
000360	054235	A	1470	STA	OCTLCB+2	SET LLN IN LCB	01	00194
000361	014011	A	1471	LDA	OCT2E3+3		01	00195
000362	150462	A	1472	ANA	LHW	CLEAR OLD LUN FROM OPEN CALL	01	00196
000363	054007	A	1473	STA	OCT2E3+3		01	00197
			1474	FETCHA	TCPROT,TCCLN,TCCLNB,TCCLNZ	GET LUN FOR CCM	01	00198
000364	015003	A						
000365	150463	A						
000366	114004	A	1475	ORA	OCT2E3+3		01	00199
000367	054003	A	1476	STA	OCT2E3+3	SET LUN FOR CCM IN OPEN CALL	01	00200
			1477	OCT2E3 OPEN	OCTLCB,0	OPEN LINE WITH WAIT	01	00201
000370	006505	A						
000371	000154	E						
000372	100000	A						
000373	003000	A						
000374	000614	R						
000375	000000	A						
000376	000000	A						
000377	006017	A	1478	LDAE	OCT2E3+2		01	00202
000400	000372	R						
			1479	STAT	OCT2E3,OCT3A1,OCT3A1,OCT3A1,OCT3A1	CHECK STATUS	01	00203
000401	006505	A						
000402	000165	E						
000403	000370	R						
000404	000432	R						
000405	000432	R						
000406	000432	R						
000407	000432	R						
000410	014226	A	1480	OCT2F1 LDA	TCMTYP		01	00204
000411	004241	A	1481	LRLA	1	COMPUTE DISPLACEMENT IN	01	00205
000412	005014	A	1482	TAX		JUMP TABLE FOR THIS TCM TYPE	01	00206
000413	005001	A	1483	TZA		SET FLAG -	01	00207
000414	054220	A	1484	STA	ERRCOD	NO ERRORS IN ROOT SEGMENT	01	00208
000415	006017	A	1485	LDAE	TC\$OCM	GET RQBLK ADRS	01	00209
000416	000227	E						
000417	024216	A	1486	LDB	TCADR	ADRS OF TCD PROTOTYPE IN B	01	00210
000420	006705	A	1487	IJMP	OCT2F3,1	GO TO GET OVERLAY	01	00211
000421	000422	R						
			1488 *				01	00212
			1489 *				01	00213
			1490 *			JUMP TABLE FOR TCM OVERLAYS - POSITION IN TABLE IS DETERMINED	01	00214
			1491 *			BY TCM TYPE (FROM PROTOTYPE TCD).	01	00215
			1492 *				01	00216
000422	001000	A	1492	OCT2F3 JMP	OVLAY1	OVERLAY FOR TTY TCM	01	00216
000423	000424	R						
			1493 *				01	00217
			1494 *			END OF TABLE	01	00218
			1495 *				01	00219
			1496	OVLAY1 OVLAY	0,'TT','YT','CM'	CALL IN TTY TCM	01	00220
000424	006505	A						
000425	000007	E						
000426	001300	A						
000427	152324	A						
000430	154724	A						
000431	141715	A						
			1497 *				01	00221
			1498 *				01	00222
000432	005002	A	1499	OCT3A1 TZB		RETURN HERE IF ERRORS IN	01	00223
000433	064204	A	1500	STB	EROVLY	ROOT SEGMENT, CLEAR OVERLAY ERROR FLAG	01	00224
000434	001000	A	1501	JMP	OCT3B1		01	00225
000435	000445	R						
000436			1502	VT\$OCY BSS	0	RETURN HERE FROM OVERLAY IF INT. ENABLED	01	00226
000436	001000	A	1503	JMP	VT\$OCZ+2	*****		
000437	000442	R						
000440			1504	VT\$OCZ BSS	0	RETURN HERE TO ENABLE INT.	01	00228
			1505	EINTS		ENABLE INTERRUPTS	01	00229
000440	100244	A						
000441	100147	A						
000442	054175	A	1506	STA	EROVLY		01	00230
000443	001000	A	1507	JMP	OCTGA	*****		
000444	000450	R						
000445	054167	A	1508	OCT3B1 STA	ERRCOD	SAVE ERROR CODE	01	00232
			1509 *				01	00233
			1510 *			DO CHECKING HERE FOR INCREMENTING OF DECREMENTING THE	01	00234
			1511 *			NUMBER OF TERMINALS OPEN ON A LINE, AND IF NECESSARY	01	00235
			1512 *			ISSUE A CLOSE ON THE LINE.	01	00236
			1513 *				01	00237
000446	001016	A	1514	JANZ	OCTM1	YES - GO TO END	01	00238
000447	000560	R						
			1515 *				01	00239
			1516 *			FIND LSD FOR LINE	01	00240
			1517 *				01	00241

VTAM AI	VT\$OCT	(62)	PAGE	5
000450 014160 A 1518	OCTGA	LDA LLNUM	GET LOG. LINE NO.	01 00242
000451 005002 A 1519		TZB		01 00243
000452 004541 A 1520		LLSR 1	CONVERT TO DISPLACMNT	01 00244
000453 124165 A 1521		ADD LLTBAS	ADD BASE ADRS FOR LLT	01 00245
000454 005111 A 1522		IAR	PLUS ONE	01 00246
000455 004460 A 1523		LLRL 16		01 00247
000456 026000 A 1524		LDB 0,B	FIND ENTRY IN LLT	01 00248
000457 004460 A 1525		LLRL 16		01 00249
000460 001026 A 1526		JBNZ OCTGC	RIGHT BYTE ?	01 00250
000461 000463 R				
000462 004350 A 1527		LSRA 8	NO. LEFT	01 00251
000463 150463 A 1528	OCTGC	ANA RHW	GET PHYS. LINE NO.	01 00252
000464 024147 A 1529		LDB CCMCAD		01 00253
000465 126023 A 1530		ADD DMPA,B	ADD BASE ADRS OF PHYS LINE TABLE	01 00254
000466 005111 A 1531		IAR	PLUS ONE	01 00255
000467 005012 A 1532		TAB		01 00256
000470 036000 A 1533		LDX 0,B	LSD ADRS IN X REGISTER	01 00257
000471 014140 A 1534		LDA OCFLG	CLOSE REQUEST ?	01 00258
000472 001016 A 1535		JANZ OCTGH	YES	01 00259
000473 000514 R				
000474 014143 A 1536		LDA EROVLY	NO. ERRORS ON OPEN ?	01 00260
000475 001016 A 1537		JANZ OCTGK	YES	01 00261
000476 000527 R				
000477 015020 A	1538	FETCHA X,LSNTO,LSNTOB,LSNTOZ	NO. INCREMENT	01 00262
000500 004350 A				
000501 150474 A				
000502 005111 A 1539		IAR	NO. OF OPEN	01 00263
000503 004250 A	1540	SETA X,LSNTO,LSNTOB,LSNTOZ	TERMINALS ON LINE	01 00264
000504 135020 A				
000505 004350 A				
000506 150474 A				
000507 004250 A				
000510 135020 A				
000511 055020 A				
000512 001000 A 1541		JMP OCTM1	GO TO END	01 00265
000513 000560 R				
000514 015020 A	1542	OCTGH FETCHA X,LSNTO,LSNTOB,LSNTOZ	CLOSE REQUEST -	01 00266
000515 004350 A				
000516 150474 A				
000517 005311 A 1543		DAR	DECREMENT NO. OF OPEN TERMINALS	01 00267
000520 004250 A	1544	SETA X,LSNTO,LSNTOB,LSNTOZ	ON THE LINE	01 00268
000521 135020 A				
000522 004350 A				
000523 150474 A				
000524 004250 A				
000525 135020 A				
000526 055020 A				
000527 015020 A	1545	OCTGK FETCHA X,LSNTO,LSNTOB,LSNTOZ	NO. OF OPEN TERMS = 0 ?	01 00269
000530 004350 A				
000531 150474 A				
000532 001016 A 1546		JANZ OCTM1	NO	01 00270
000533 000560 R				
000534 014074 A 1547		LDA LLNUM	YES -	01 00271
000535 054060 A 1548		STA OCTLCB+2	SET LLN IN LCB	01 00272
000536 014077 A 1549		LDA TCDADR		01 00273
000537 006140 A 1550		SUBI TCCLN		01 00274
000540 000003 A				
000541 005014 A 1551		TAX		01 00275
000542 015003 A	1552	FETCHA X,TCCLN,TCCLNB,TCCLNZ	GET LUN FOR CCM	01 00276
000543 150463 A				
000544 004550 A 1553		LLSR 8		01 00277
000545 014006 A 1554		LDA OCTL3+3	ADD LUN FOR	01 00278
000546 004350 A 1555		LSRA 8	CCM TO	01 00279
000547 004450 A 1556		LLRL 8	CLOSE MACRO	01 00280
000550 054003 A 1557		STA OCTL3+3		01 00281
000551 006505 A	1558	OCTL3 CLOSE OCTLCB,0	CLOSE LINE FOR TERMINAL	01 00282
000552 000371 E				
000553 100000 A				
000554 003400 A				
000555 000614 R				
000556 000000 A				
000557 000000 A				
000560 100444 A	1559	OCTM1 DINTS		01 00283
000561 100747 A				
000562 006027 A 1560		LDBE TC\$OCM	GET HEAD OF REQUEST QUEUE	01 00284
000563 000416 E				
000564 036004 A 1561		LDX RADNR,B	GET ADRS OF NEXT ENTRY	01 00285
000565 006077 A 1562		STXE TC\$OCM	PUT INTO QUEUE HEAD	01 00286
000566 000563 E				
000567 005004 A 1563		TZX		01 00287
000570 076004 A 1564		STX RADNR,B	ZERO THREAD PNTR ON CUR RQBLK	01 00288
000571 064254 A 1565		STB DUMTCD+TCRQH	PUT CUR. RQBLK IN DUMMY TCD	01 00289
000572 006030 A 1566		LDXI DUMTCD	GET ADRS OF DUMMY TCD	01 00290
000573 001045 R				
000574 014040 A 1567		LDA ERRCOD	ERRORS IN ROOT SEGMENT ?	01 00291
000575 002000 A 1568		CALL TC\$FRQ	GO TO COMPLETION REQUEST PROCESSING	01 00292
000576 000000 E				
000577 006017 A 1569		LDAE TC\$OCM	MORE OPEN/CLOSE REQS ON QUEUE	01 00293

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000600 000566 E
000601 001010 A 1570 JAZ OCTM2 NO 01 00294
000602 000607 R 1571 EINTS YES - 01 00295

000603 100244 A
000604 100147 A
000605 001000 A 1572 JMP OCT1C1 GO BACK 01 00296
000606 000031 R 1573 OCTM2 EINTS *****

000607 100244 A
000610 100147 A 1574 EXIT QUEUE EMPTY, EXIT *****

000611 006505 A
000612 000425 E
000613 000200 A 1575 OCTLCB DCB 0,0 01 00298

000614 000000 A
000615 000000 A
000616 000000 A 1576 TRMFCB FCB 120,INBUF,0,TRMFKY,'VT','$D','FT' 01 00299

000617 000170 A
000620 000655 R
000621 000306 A
000622 000000 A
000623 000000 A
000624 000000 A
000625 000000 A
000626 153324 A
000627 122304 A
000630 143324 A
000631 000000 A 1577 LLNUM DATA 0 01 00300
000632 000000 A 1578 OCFLG DATA 0 01 00301
000633 000000 A 1579 DSPSAV DATA 0 01 00302
000634 000000 A 1580 CCMCAD DATA 0 01 00303
000635 000000 A 1581 ERRCOD DATA 0 01 00304
000636 000000 A 1582 TCDADR DATA 0 01 00305
000637 000000 A 1583 TCMTYP DATA 0 01 00306
000640 000000 A 1584 EROVLY DATA 0 01 00307

000641 000000 A 1585 LLTBAS DATA 0 01 00308
1586 * 01 00309
1587 * ERROR CODES FOR TERMINAL OPEN/CLOSE 01 00310
1588 * 01 00311
000642 033000 A 1589 ERRA DATA 033000 INVALID TERMINAL ID 01 00312
000643 035000 A 1590 ERRB DATA 035000 TERMINAL DOWN (OPEN) 01 00313
000644 036000 A 1591 ERRC DATA 036000 TERMINAL ALREADY OPEN (OPEN) 01 00314
000645 034000 A 1592 ERRE DATA 034000 TERMINAL NOT OPEN (CLOSE) 01 00315
000646 037000 A 1593 ERRF DATA 037000 REQUESTS STILL PENDING (CLOSE) 01 00316
000647 002000 A 1594 ERRG DATA 020000 INVALID LUN FOR CCM 01 00317
000650 043000 A 1595 ERRH DATA 043000 INVALID TCM TYPE 01 00318
000651 044000 A 1596 ERRI DATA 044000 NO TEMP STORAGE AVAILABLE 01 00319
000652 000000 A 1597 TEM1 DATA 0 01 00320
000653 000000 A 1598 TEM2 DATA 0 01 00321
000654 000655 R 1599 INBFAD DATA INBUF 01 00322
000655 1600 INBUF BSS 120 01 00323
001045 1601 DUMTCD BSS TCDSIZ 01 00324

1602 * EJEC 01 00325
1603 * 01 00326
1604 * 01 00327
1605 * SUBROUTINE TO FIND CONTROLLER 01 00328
1606 * TABLE ENTRY, GIVEN THE LOGICAL 01 00329
1607 * UNIT NUMBER. 01 00330
1608 * 01 00331
1609 * CALLING SEQUENCE... 01 00332
1610 * 01 00333
1611 * LDA LUN 01 00334
1612 * JMPM LNCTAD 01 00335
1613 * 01 00336
1614 * RETURN WITH CONTROLLER TABLE 01 00337
1615 * ADDRESS IN A, B AND X ARE SAVED 01 00338
1616 * RETURNS WITH A NEGATIVE IF INVALID LUN 01 00339
001064 000000 A 1617 LNCTAD DATA 0 01 00340
001065 054066 A 1618 STA LNCT1 SAVE REGISTERS 01 00341
001066 064066 A 1619 STB LNCT2 01 00342
001067 144066 A 1620 SUB NBKLSN LUN BACKGROUND ASSIGNABLE ? 01 00343
001070 001002 A 1621 JAP LNCTB NO 01 00344
001071 001103 R
001072 020400 A 1622 LDB V$LUT1 YES - 01 00345
001073 016000 A 1623 LDA 0,B CHECK LUN 01 00346
001074 144057 A 1624 SUB LNCT1 01 00347
001075 001004 A 1625 JAN LNCTZ JUMP IF INVALID 01 00348
001076 001151 R
001077 010400 A 1626 LDA V$LUT1 01 00349
001100 124053 A 1627 ADD LNCT1 COMPUTE LUT ENTRY ADDRESS 01 00350
001101 001000 A 1628 JMP LNCTG 01 00351
001102 001132 R
001103 054050 A 1629 LNCTB STA LNCT1 01 00352
001104 144052 A 1630 SUB NFGLNS LUN UNASSIGNABLE ? 01 00353
001105 001002 A 1631 JAP LNCTD NO 01 00354
001106 001121 R
001107 020401 A 1632 LDB V$LUT2 YES - 01 00355
001110 016000 A 1633 LDA 0,B CHECK LUN 01 00356
001111 144042 A 1634 SUB LNCT1 01 00357
001112 001004 A 1635 JAN LNCTZ JUMP IF INVALID 01 00358
001113 001151 R
001114 010401 A 1636 LDA V$LUT2 01 00359
001115 124036 A 1637 ADD LNCT1 COMPUTE LUT ENTRY ADDRESS 01 00360
001116 005111 A 1638 IAR 01 00361

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001117 001000 A 1639      JMP      LNCTG      01 00362
001120 001132 R
001121 054032 A 1640 LNCTD STA      LNCT1      01 00363
001122 020402 A 1641      LDB      V$LUT3    LUN OPCOM ASSIGNABLE 01 00364
001123 016000 A 1642      LDA      0,B
001124 144027 A 1643      SUB      LNCT1      CHECK LUN      01 00365
001125 001004 A 1644      JAN      LNCTZ      JUMP IF INVALID 01 00366
001126 001151 R
001127 010402 A 1645      LDA      V$LUT3    01 00368
001130 124023 A 1646      ADD      LNCT1      COMPUTE LUT ENTRY ADRS 01 00369
001131 005111 A 1647      IAR
001132 005012 A 1648 LNCTG TAB
001133 016000 A 1649      LDA      0,B      GET DST NUMBER 01 00372
001134 150463 A 1650      ANA      RHW
001135 005311 A 1651      DAR
001136 054015 A 1652      STA      LNCT1      COMPUTE DST 01 00375
001137 004201 A 1653      ASLA     1          DISPLACEMENT 01 00376
001140 124013 A 1654      ADD      LNCT1
001141 120355 A 1655      ADD      V$DSTB     ADD DST BASE 01 00378
001142 005012 A 1656      TAB
001143 016002 A 1657      LDA      DSCTAD,B   GET CONTROLLER TABLE DISPLACEMENT 01 00380
001144 006150 A 1658      ANA     077
001145 000077 A
001146 120360 A 1659      ADD      V$CTAD     ADD BASE ADRS FOR CONTRLR 01 00382
001147 005012 A 1660      TAB      TABLE ADRS TABLE 01 00383
001150 016000 A 1661      LDA      0,B      GET ADRS OF CONTRLR TABLE 01 00384
001151 024003 A 1662 LNCTZ LDB      LNCT2      RESTORE B 01 00385
001152 001000 A 1663      JMP*     LNCTAD     RETURN 01 00386
001153 101064 R
001154 000000 A 1664 LNCT1 DATA 0 01 00387
001155 000000 A 1665 LNCT2 DATA 0 01 00388
001156 000145 A 1666 NBKLNLS DATA 101 01 00389
001157 000117 A 1667 NFGLNS DATA 79 01 00390
000002 A 1668 DSCTAD EQU 2 01 00391
000000 R 1669      END      VT$OCT 01 00392

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ENTRY NAMES

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000000 R VT$OCT 000436 R VT$OCY 000440 R VT$OCZ
EXTERNAL NAMES
000576 E TC$FRQ 000600 E TC$OCM 000174 E TC$TCD 000612 E V$EXEC
000552 E V$IOC 000402 E V$IOST 000233 E VT$LTT

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SYMBOLS

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000044 A APIM 000002 A B 000000 A B0 000001 A B1
000012 A B10 000013 A B11 000014 A B12 000015 A B13
000016 A B14 000017 A B15 000002 A B2 000003 A B3
000004 A B4 000005 A B5 000006 A B6 000007 A B7
000010 A B8 000011 A B9 000000 A BICNUM 000421 A BM1
000472 A BM17 000475 A BM177 000477 A BM1777 000464 A BM3
000473 A BM37 000463 A BM377 000467 A BM7 000474 A BM77
000476 A BM777 000441 A BR0 000442 A BR1 000453 A BR10
000454 A BR11 000455 A BR12 000456 A BR13 000457 A BR14
000460 A BR15 000443 A BR2 000444 A BR3 000445 A BR4
000446 A BR5 000447 A BR6 000450 A BR7 000451 A BR8
000452 A BR9 000421 A BS0 000422 A BS1 000433 A BS10
000434 A BS11 000435 A BS12 000436 A BS13 000437 A BS14
000440 A BS15 000423 A BS2 000424 A BS3 000425 A BS4
000426 A BS5 000427 A BS6 000430 A BS7 000431 A BS8
000432 A BS9 000634 R CCMCAD 000047 A CLOCK 000000 A COTAD1
000000 A CACT 000017 A CACTB 000001 A CACTZ 000001 A CTADN
000000 A CTADNB 000020 A CTADNZ 000011 A CTBIC 000000 A CTBICB
000020 A CTBICZ 000003 A CTDST 000000 A CTDSTB 000020 A CTDSTZ
000006 A CTDVA 000000 A CTDVAB 000020 A CTDVAZ 000012 A CTFCB
000000 A CTFCBB 000020 A CTFCBZ 000014 A CTFRC 000010 A CTFRCB
000010 A CTFRCZ 000014 A CTFRE 000000 A CTFREB 000010 A CTFREZ
000000 A CTIDB 000000 A CTIDBB 000017 A CTIOBZ 000007 A CTIOA
000000 A CTIOAB 000020 A CTIOAZ 000002 A CTOPM 000000 A CTOPMB
000020 A CTOPMZ 000005 A CTRCN 000000 A CTRCNB 000010 A CTRCNZ
000004 A CTRQB 000000 A CTRQBB 000020 A CTRQBZ 000005 A CTRTR
000010 A CTRTRB 000010 A CTRTRZ 000010 A CTSTA 000000 A CTSTAB
000020 A CTSTAZ 000013 A CTWDS 000000 A CTWOSB 000020 A CTWOSZ
000001 A DCBUFF 000002 A DCCNT 000000 A DCRECL 000747 A DISCLK
000745 A DISMP 000444 A DISPIM 000024 A DMCWA 000000 A DMCWAB
000020 A DMCWAZ 000017 A DMFPA 000000 A DMFPAB 000020 A DMFPAZ
000021 A DMLCA 000000 A DMLCAB 000020 A DMLCAZ 000022 A DMLTA
000000 A DMLTAB 000020 A DMLTAZ 000023 A DMPTA 000000 A DMPTAB
000020 A DMPTAZ 000016 A DMRPA 000000 A DMRPAB 000020 A DMRPAZ
000020 A DMSTA 000000 A DMSTAB 000020 A DMSTAZ 000025 A DMSWA
000000 A DMSWAB 000020 A DMSHAZ 000015 A DMTPA 000000 A DMTPAB
000020 A DMTPAZ 000002 A DSCTAD 000000 A DSDASS 000000 A DSDVDN
000002 A DSLCKO 000001 A DSNAME 000000 A DSNORQ 000002 A DSOPCM
000633 R DSPSAV 000002 A DSPSTI 000002 A DSREWD 000000 A DSUNAM
000002 A DSUNTN 001045 R DUMTCD 000424 A EIGHT 000147 A ENACKL
000645 A ENAMP 000244 A ENAPIM 000640 R EROVLY 000642 R ERRA
000643 R ERRB 000644 R ERRC 000635 R ERRCOD 000645 R ERRE
000646 R ERRF 000647 R ERRG 000650 R ERRH 000651 R ERRI

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000465 A FIVE 000423 A FOUR 000654 R INBFAD 000655 R INBUF
000300 A LC 000003 A LCABN 000013 A LCABNB 000001 A LCABNZ
000003 A LCASY 000012 A LCASYB 000001 A LCASYZ 000003 A LCCRC
000014 A LCCRCB 000003 A LCCRCZ 000006 A LCCWB 000014 A LCCWBB
000001 A LCCWBZ 000006 A LCCWC 000015 A LCCWCB 000001 A LCCWCZ
000006 A LCCWD 000013 A LCCWDB 000001 A LCCWDZ 000006 A LCCWI
000016 A LCCWIB 000001 A LCCWIZ 000006 A LCCWP 000012 A LCCWPB
000001 A LCCWPZ 000006 A LCCWR 000011 A LCCWRB 000001 A LCCWRZ
000006 A LCCWS 000017 A LCCWSB 000001 A LCCWSZ 000006 A LCCWT
000010 A LCCWTB 000001 A LCCWTZ 000001 A LCIBA 000000 A LCIBAB
000017 A LCIBAZ 000000 A LCIBF 000017 A LCIBFB 000001 A LCIBFZ
000000 A LCIBL 000000 A LCIBLB 000014 A LCIBLZ 000002 A LCICI

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000010 A LC1C1B 000010 A LC1C1Z 000002 A LC1C2 000000 A LC1C2B
000010 A LC1C2Z 000003 A LC1KE 000000 A LC1KEB 000004 A LC1KEZ
000050 A LCJF 000006 A LCLCB 000000 A LCLCBZ 000020 A LCLCBZ
000007 A LCLTB 000017 A LCLTBB 000001 A LCLTBZ 000005 A LCOBA
000000 A LCOBAB 000017 A LCOBAZ 000004 A LCOBF 000017 A LCOBFB
000001 A LCOBFZ 000004 A LCOBL 000000 A LCOBLB 000014 A LCOBLZ
000007 A LCOKE 000000 A LCOKEB 000004 A LCOKEZ 000003 A LCRCC
000017 A LCRCCB 000001 A LCRCCZ 000000 A LCSMB 000016 A LCSMBB
000001 A LCSMBZ 000462 A LHW 000631 R LLNUM 000641 R LLTBAS
001154 R LNCT1 001155 R LNCT2 001064 R LNCTAD 001103 R LNCTB
001121 R LNCTD 001132 R LNCTG 001151 R LNCTZ 000017 A LSABN
000015 A LSABNB 000001 A LSABNZ 000017 A LSASC 000011 A LSASCB
000001 A LSASCZ 000014 A LSASY 000013 A LSASYB 000001 A LSASYZ
000015 A LSCC1 000010 A LSCC1B 000010 A LSCC1Z 000015 A LSCC2
000000 A LSCC2B 000010 A LSCC2Z 000017 A LSCRC 000012 A LSCRCB
000003 A LSCRCZ 000012 A LSCA 000000 A LSCA 000020 A LSCAZ
000017 A LSDSF 000017 A LSDSFB 000001 A LSDSFZ 000013 A LSDST
000000 A LSDSTB 000020 A LSDSTZ 000016 A LSEPF 000016 A LSEPFZ
000001 A LSEPFZ 000014 A LSLSP 000000 A LSLSPB 000011 A LSLSPZ
000014 A LSMOD 000016 A LSMODB 000002 A LSMODZ 000020 A LSNTD
000010 A LSNTOB 000006 A LSNTOZ 000014 A LSPAR 000014 A LSPARB
000002 A LSPARZ 000016 A LSPLA 000000 A LSPLAB 000010 A LSPLAZ
000002 A LSRCA 000000 A LSRCAB 000020 A LSRCAZ 000003 A LSREM
000000 A LSREMB 000020 A LSREMZ 000016 A LSRRS 000010 A LSRRSB
000003 A LSRRSZ 000001 A LSRRZ 000000 A LSRRZB 000020 A LSRRZC
000004 A LSRTD 000000 A LSRTOB 000020 A LSRTOZ 000005 A LSSRS
000000 A LSSRSB 000020 A LSSRSZ 000011 A LSSWS 000000 A LSSWSB
000020 A LSSWSZ 000016 A LSTER 000017 A LSTERB 000001 A LSTERZ
000000 A LSTHD 000000 A LSTHDB 000020 A LSTHDZ 000006 A LSWCA
000000 A LSWCAB 000020 A LSWCAZ 000007 A LSWEM 000000 A LSWEMB

000020 A LSWEMZ 000016 A LSWRS 000013 A LSWRSB 000003 A LSWRSZ
000010 A LSWTO 000000 A LSWTOB 000020 A LSWTOZ 000014 A LSXMM
000011 A LSXMMB 000002 A LSXMMZ 000017 A LSYN 000016 A LSYNCB
000001 A LSYNCZ 000020 A LSYNR 000000 A LSYNRB 000010 A LSYNRZ
000017 A LSYNT 000000 A LSYNTB 000010 A LSYNTZ 000045 A MP
000045 A MPMR0 000145 A MPMR1 000245 A MPMR2 000345 A MPMR3
000420 A MT 001156 R NBKLS 000461 A NEG 001157 R NFGLNS
000470 A NINE 000001 A NTCTYP 000632 R OCFLG 000011 R OCT1B1
000031 R OCT1C1 000050 R OCT1C2 000073 R OCT1D1 000105 R OCT1D2
000116 R OCT1E1 000125 R OCT1E2 000130 R OCT1F1 000142 R OCT2A1
000153 R OCT2A2 000175 R OCT2B1 000207 R OCT2C1 000212 R OCT2C2
000220 R OCT2D1 000226 R OCT2D2 000246 R OCT2D3 000251 R OCT2E1
000370 R OCT2E3 000272 R OCT2EA 000303 R OCT2EB 000320 R OCT2EC
000336 R OCT2ED 000357 R OCT2EK 000410 R OCT2F1 000422 R OCT2F3
000432 R OCT3A1 000445 R OCT3B1 000450 R OCTGA 000463 R OCTGC
000514 R OCTGH 000527 R OCTGK 000551 R OCTL3 000614 R OCTLCB
000560 R OCTM1 000607 R OCTM2 000421 A ONE 000424 R OVLAY1
000001 A PCBSL 000011 A PCBSLB 000001 A PCBSLZ 000000 A PCCLN
000000 A PCCLNB 000010 A PCCLNZ 000002 A PCCTP 000014 A PCCTPB
000004 A PCCTPZ 000001 A PCECH 000014 A PCECHB 000001 A PCECHZ
000000 A PCLLN 000010 A PCLLNB 000010 A PCLLNZ 000002 A PCNTD
000000 A PCNTDB 000004 A PCNTDZ 000001 A PCPCH 000000 A PCPCHB
000010 A PCPCHZ 000001 A PCSWL 000010 A PCSWLB 000001 A PCSWLZ
000002 A PCTYP 000010 A PCTYPB 000004 A PCTYPZ 000001 A PCXMM
000012 A PCXMMB 000002 A PCXMMZ 000040 A PIM1 000041 A PIM2
000042 A PIM3 000043 A PIM4 000040 A PIM5 000040 A PIM6
000040 A PIM7 000040 A PIM8 000200 A POST 000003 A PSABN
000015 A PSABNB 000001 A PSABNZ 000000 A PSASY 000013 A PSASYB
000001 A PSASYZ 000002 A PSBADT 000000 A PSBEG 000001 A PSCC1
000010 A PSCC1B 000010 A PSCC1Z 000001 A PSCC2 000000 A PSCC2B
000010 A PSCC2Z 000003 A PSCRC 000012 A PSCRCB 000003 A PSCRCZ
000002 A PSDEF 000010 A PSDEFB 000001 A PSDEFZ 000003 A PSDSF
000017 A PSDSFB 000001 A PSDSFZ 000002 A PSDWN 000011 A PSDWNB
000001 A PSDWNZ 000004 A PSEND 000002 A PSEPF 000016 A PSEPFZ
000001 A PSEPFZ 000000 A PSLSP 000000 A PSLSPB 000011 A PSLSPZ
000000 A PSMOD 000016 A PSMODB 000002 A PSMODZ 000003 A PSNSEC
000000 A PSPAR 000014 A PSPARB 000002 A PSPARZ 000002 A PSPLA
000000 A PSPLAB 000010 A PSPLAZ 000001 A PSPROT 000002 A PSTER
000017 A PSTERB 000001 A PSTERZ 000000 A PSXMM 000011 A PSXMMB
000002 A PSXMMZ 000003 A PSYNC 000016 A PSYNCB 000001 A PSYNCZ
000004 A PSYNR 000000 A PSYNRB 000010 A PSYNRZ 000003 A PSYNT
000000 A PSYNTB 000010 A PSYNTZ 000040 A RA0 000000 A RA1

000004 A RADNR 000060 A RBO 000020 A RB1 000002 A RFB
000463 A RHW 000001 A ROPWD 000000 A RSTPR 000003 A RTIDB
000467 A SEVEN 000466 A SIX 000027 A TBATSK 000026 A TBCPTH
000011 A TBENTY 000003 A TBEVNT 000021 A TB10 000014 A TBISA
000015 A TB1SB 000017 A TB1SP 000020 A TB1SRS 000016 A TB1SX
000022 A TBKN1 000023 A TBKN2 000024 A TBKN3 000002 A TBPL
000004 A TBRSA 000005 A TBRSB 000030 A TBRSE 000007 A TBRSP
000010 A TBRSTS 000006 A TBRSX 000000 A TBS0 000001 A TBS1
000012 A TBS10 000013 A TBS11 000014 A TBS12 000015 A TBS13
000016 A TBS14 000017 A TBS15 000002 A TBS2 000003 A TBS3
000004 A TBS4 000005 A TBS5 000006 A TBS6 000007 A TBS7
000010 A TBS8 000011 A TBS9 000001 A TBS 000025 A TBTLC
000013 A TBTMIN 000012 A TBTMS 000000 A TBTRO 000576 E TC\$FRQ
000600 E TCIOCM 000174 E TC\$TCD 000004 A TCBSL 000011 A TCBSLB
000001 A TCBSLZ 000003 A TCCLN 000000 A TCCLNB 000010 A TCCLNZ
000004 A TCCON 000015 A TCCONB 000001 A TCCONZ 000002 A TCCTA
000000 A TCCTAB 000020 A TCCTAZ 000005 A TCCTP 000014 A TCCTPB
000004 A TCCTPZ 000636 R TCADR 000012 A TCDC 000000 A TCDCB
000020 A TCDCZ 000017 A TCDSIZ 000014 A TCDO 000000 A TCDOB
000020 A TCDOZ 000004 A TCECH 000014 A TCECHB 000001 A TCECHZ
000015 A TCID1 000000 A TCID1B 000020 A TCID1Z 000016 A TCID2
000000 A TCID2B 000020 A TCID2Z 000006 A TCLDF 000014 A TCLDFB
000001 A TCLDFZ 000003 A TCLLN 000010 A TCLLN 000010 A TCLLNZ
000637 R TCMTYP 000005 A TCNOD 000004 A TCNODB 000004 A TCNODZ
000005 A TCNTD 000000 A TCNTDB 000004 A TCNTDZ 000004 A TCPCH

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000000 A TCPCHB 000010 A TCPCHZ 000001 A TCPROT 000004 A TCRBC
000017 A TCRBCB 000001 A TCRBCZ 000013 A TCRBF 000000 A TCRBFB
000020 A TCRBFZ 000007 A TCRCB 000000 A TCRCAB 000020 A TCRCZ
000006 A TCRMD 000000 A TCRMDB 000003 A TCRMDZ 000001 A TCRQH
000000 A TCRQHB 000020 A TCRQHZ 000006 A TCRRS 000006 A TCRRSB
000003 A TCRRSZ 000010 A TCSTO 000000 A TCSTOB 000020 A TCSTOZ
000004 A TCSWL 000010 A TCSWLB 000001 A TCSWLZ 000000 A TCTCD
000000 A TCTCDB 000020 A TCTCDZ 000005 A TCTYP 000010 A TCTYPB
000004 A TCTYPZ 000004 A TCWBC 000016 A TCWBCB 000001 A TCWBCZ
000011 A TCWCA 000000 A TCWCAB 000020 A TCWCAZ 000006 A TCWMD
000003 A TCWMDB 000003 A TCWMDZ 000006 A TCWRS 000011 A TCWRSB
000003 A TCWRSZ 000004 A TCXMM 000012 A TCXMMB 000002 A TCXMMZ
000652 R TEM1 000653 R TEM2 000471 A TEN 000464 A THREE
000004 A TIBSIZ 000002 A TIDSP 000000 A TIDSPB 000007 A TIDSPZ
000002 A TIDWN 000017 A TIDWNB 000001 A TIDWNZ 000000 A TINET
000000 A TINETB 000020 A TINETZ 000003 A TIODN 000017 A TIODNB
000001 A TIODNZ 000003 A TIODP 000000 A TIODPB 000007 A TIODPZ

000003 A TIOSC 000007 A TIOSCB 000010 A TIOSCZ 000002 A TISEC
000007 A TISECB 000010 A TISECZ 000000 A TITU1 000000 A TITU1B
000020 A TITU1Z 000001 A TITU2 000000 A TITU2B 000020 A TITU2Z
000017 A TPFPA 000000 A TPFPAZ 000020 A TPFPAZ 000015 A TPRPA
000000 A TPRPAB 000020 A TPRPAZ 000016 A TPWPA 000000 A TPWPAZ
000020 A TPWPAZ 000617 R TRMFCB 000306 A TRMFKY 000152 A TRMLUN
000422 A TWO 000403 A V$1MIN 000415 A V$BFC 000075 A V$BGLB
000056 A V$BIC1 000315 A V$BTB 000414 A V$BVN 000334 A V$CAM
000353 A V$CKB 000411 A V$CKIT 000310 A V$CKPT 000301 A V$CPL
000076 A V$CRDM 000341 A V$CRDR 000354 A V$CRM 000302 A V$CRS
000360 A V$CTAD 000300 A V$CTL 000351 A V$CTMS 000070 A V$DATE
000355 A V$DSTB 000376 A V$ERFG 000612 E V$EXEC 000347 A V$FGLB
000306 A V$FLRS 000350 A V$FREE 000320 A V$IM 000410 A V$IOA
000552 E V$IOC 000402 E V$IOST 000412 A V$JCB 000055 A V$JCFB
000077 A V$JCTM 000050 A V$JNAM 000377 A V$JOP 000054 A V$LCNT
000313 A V$LER 000356 A V$LIT 000317 A V$LLUP 000307 A V$LRSK
000312 A V$LSAL 000345 A V$LUNT 000316 A V$LUP 000400 A V$LUT1
000401 A V$LUT2 000402 A V$LUT3 000330 A V$MPM 000362 A V$NCTR
000413 A V$OCB 000346 A V$OPCF 000311 A V$OPCL 000363 A V$PIMN
000074 A V$PLCT 000305 A V$PTVB 000361 A V$SCTL 000352 A V$SCV
000375 A V$SLFG 000303 A V$TB 000342 A V$TBGT 000416 A V$TFC
000314 A V$TJCP 000344 A V$TMN 000343 A V$TMS 000304 A V$UTB
000233 E V$LTT 000000 R VT$OCT 000436 R VT$OCY 000440 R VT$OCZ
000001 A X 000420 A ZERO
0 ERRORS ASSEMBLY COMPLETE

```

```

1 C THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES 02 00001
2 C 02 00002
3 C V.D.M. PART NO. 92L1105-019A 02 00003
4 C 02 00004
5 C RELEASED 03-26-7 02 00005
6 C 02 00006
7 C 02 00007
8 C ADVANC 02 00008
9 C 02 00009
10 C 02 00010
11 C TITLE ADVANC 02 00011

12 SUBROUTINE ADVANC 02 00012
13 C THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES *****
14 C *****
15 C V.D.M. PART NO. 92L1105-023A *****
16 C *****
17 C RELEASED 03-26-7 *****
18 C *****
19 C *****
20 C COMMON *****
21 C *****
22 C *****
23 C *****
24 C * DECLARE COMMON CELLS * *****
25 C *****
26 C COMMON ITEST , P1 , P2 , BUF , INCHAR , SECTOR , IN *****
27 C COMMON OUT , VT$DFL , VT$DFT , BLANK , LSDN , LSD , TUIDN *****
28 C COMMON TIB , TCD , LINE , LNCNT , LNMAX , PGCNT *****
29 C COMMON DFLFCB , DFTFCB , IVALUE , LFILE , NXTSCT , IDTSCT , IDTDSP *****
30 C INTEGER P1 , P2 , OUT , VT$DFL , VT$DFT , BLANK , PGCNT *****
31 C INTEGER BUF (160) , SECTOR(120) , LSD ( 5) , TUIDN ( 4) *****
32 C INTEGER TIB ( 4) , TCD ( 5) , DFLFCB( 13) , DFTFCB( 13) *****
33 C INTEGER LINE ( 80) *****
34 C *****
35 C * END OF COMMON DECLARATIONS * *****
36 C *****
37 C 02 00013
38 C THIS ROUTINE ADVANCES THE BACKUP POINTER, P2, UNTIL 02 00014
39 C IT IS EQUAL TO P1. ADVANC IS CALLED WHENEVER A TEST IS 02 00015
40 C SUCCESSFUL. INPUT CHARACTERS ADVANCED OVER ARE BLANKED OUT 02 00016
41 C 02 00017
42 C-----IF BACK UP POINTER(P2) IS UP WITH POINTER P1, SIMPLY RETURN 02 00018
43 10 IF (P1 - P2) 20, 20, 30 *****
44 C *****
45 C-----POINTERS ARE EQUAL, SO RETURN *****
46 20 RETURN *****
47 C *****
48 C-----ELSE, BLANK A COLUMN AND TEST AGAIN 02 00021
49 30 BUF(P2) = BLANK 02 00022
50 P2 = P2 + 1 *****
51 GO TO 10 02 00024
52 END 02 00025
02 00026

```

ENTRY/Common BLOCK NAMES

```

000051 R ADVANC
000646 C COMMON
EXTERNAL NAMES
SYMBOL TABLE
000050 R 000001
000001 C P1
000002 C P2
000435 C OUT
000436 C VT$DFL
000437 C VT$DFT
000440 C BLANK
000606 C PGCNT
000003 C BUF
000244 C SECTOR
000442 C LSD
000447 C TUIDN
000453 C TIB
000457 C TCD
000607 C DFLFCB
000624 C DFTFCB
000464 C LINE
000003 R 10
000000 C ITEST
000243 C INCHAR
000434 C IN
000441 C LSDN
000604 C LNCNT
000605 C LNMAX
000641 C IVALUE
000642 C LFILE
000643 C NXTSCT
000644 C IDTSCT
000645 C IDTDSP
000015 R 20
000017 R 30
000046 R 000002
000036 R 0$
000047 R $1
0 ERRORS COMPILATION COMPLETE

```

```

1      EJEC                                01 00001
2 *   THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES 01 00002
3 *   *                                     01 00003
4 *   V.D.M. PART NO.          92L1105-021A 01 00004
5 *   *                                     01 00005
6 *   *                                     01 00006
7 *   *                                     01 00007
8 *   *                                     01 00008
9 *   *                                     01 00009
10 *   *                                     01 00010
11 *   *                                     01 00011
12 *   TITLE BITSET                        01 00012
13 *   *                                     01 00013
14 *   *                                     * 01 00014
15 *   TITLE - BITSET SUBROUTINE          * 01 00015
16 *   *                                     * 01 00016
17 *   FUNCTION -                          * 01 00017
18 *   ENTRY POINT 'BITSET' SETS BITS IN A DATA WORD. * 01 00018
19 *   ENTRY POINT 'BITGET' GETS BITS IN A DATA WORD. * 01 00019
20 *   *                                     * 01 00020
21 *   CALLING SEQUENCE -                  * 01 00021
22 *   CALL BITSET(WORD, LBIT, RBIT, VALUE) * 01 00022
23 *   SETS THE FIELD SPECIFIED BY LBIT-RBIT IN WORD TO VALUE * 01 00023
24 *   *                                     * 01 00024
25 *   EXAMPLE - CALL BITSET(1, 5, 3, 4) SET I TO OCTAL XXXX4X * 01 00025
26 *   *                                     * 01 00026
27 *   CALL BITGET(VALUE, LBIT, RBIT, WORD) * 01 00027
28 *   RETRIEVES CONTENTS OF FIELD AND PLACES IN VALUE. * 01 00028
29 *   *                                     * 01 00029
30 *   EXAMPLE - CALL BITGET(1, 5, 3, 20) SETS I=Z * 01 00030
31 *   *                                     * 01 00031
32 *   ENTRY POINTS - BITSET(ALIAS BITPUT) AND BITGET * 01 00032
33 *   *                                     * 01 00033
34 *   *                                     01 00034

35      EJEC                                01 00035
36 *   *                                     01 00036
37 *   DECLARE EXTERNAL NAMES              * 01 00037
38 *   *                                     01 00038
39 *   NAME BITSET STORE BIT ENTRY POINT   01 00039
40 *   NAME BITGET FETCH BIT ENTRY POINT   01 00040
41 *   EXT  $SE CHAIN FOLLOWING ROUTINE     01 00042

43 *   *                                     01 00044
44 *   ENTRY POINT BITSET, SET ENTRY TYPE FLAG AND GO TO SETUP ROUTINE * 01 00045
45 *   *                                     01 00046
000000 000000 A 46 BITSET ENTR ENTRY CELL 01 00047
000001 006017 A 47 LDAE BITSET PICK UP ENTRY CELL 01 00051
000002 000000 R
000003 005012 A 48 TAB SETUP SET TYPE ENTRY FLAG TO STOW 01 00052
000004 001000 A 49 JMP SETUP GO TO SETUP ROUTINE 01 00053
000005 000103 R

51 *   *                                     01 00055
52 *   ENTRY POINT BITGET, SET ENTRY TYPE AND GO TO SETUP ROUTINE * 01 00056
53 *   *                                     01 00057
000006 000000 A 54 BITGET ENTR ENTRY CELL 01 00058
000007 005002 A 55 TZB SETUP SET TYPE ENTRY FLAG TO FETCH 01 00061
000010 006017 A 56 LDAE BITGET PICK UP ENTRY CELL 01 00062
000011 000006 R
000012 001000 A 57 JMP SETUP GO TO SETUP 01 00063
000013 000103 R

58      EJEC                                01 00064
59 *   *                                     01 00065
60 *   MAINLINE CODE - COMMON TO BOTH ENTRIES * 01 00066
61 *   *                                     01 00067
000014 R 62 MAIN EQU * TOP OF COMMON CODE 01 00068
000014 034076 A 63 LDX LBIT LOAD PARAMETER ADDRESS 01 00069
000015 015000 A 64 LDA 0,X LOAD LEFT BIT NUMBER 01 00070
000016 150472 A 65 ANA C15 TAKE MODULOUS WORD SIZE 01 00071
000017 054073 A 66 STA LBIT SAVE IN LOCAL CELL 01 00072
000020 034073 A 67 LDX RBIT LOAD PARAMETER ADDRESS 01 00073
000021 015000 A 68 LDA 0,X LOAD RIGHT BIT NUMBER 01 00074
000022 150472 A 69 ANA C15 TAKE MODULOUS WORD SIZE 01 00075
000023 054070 A 70 STA RBIT SAVE IN LOCAL CELL 01 00076
000024 034070 A 71 LDX SRC LOAD SOURCE ADDRESS 01 00077
000025 015000 A 72 LDA 0,X LOAD SOURCE WORD 01 00078
000026 054066 A 73 STA SRC SAVE IN LOCAL CELL 01 00079

75 *   *                                     01 00081
76 *   COMPUTE FIELD WIDTH (LBIT-RBIT+1) * 01 00082
77 *   *                                     01 00083
000027 014063 A 78 LDA LBIT LOAD LEFT BIT NUMBER 01 00084
000030 144063 A 79 SUB RBIT MINUS RIGHT BIT NUMBER 01 00085
000031 120421 A 80 ADD C1 PLUS ONE 01 00086
000032 150472 A 81 ANA C15 MODULOUS WORD SIZE 01 00087
000033 054057 A 82 STA SIZE SAVE 01 00088

84 *   *                                     01 00090
85 *   SETUP SHIFT INSTRUCTIONS * 01 00091
86 *   *                                     01 00092
000034 014057 A 87 LDA RBIT LOAD RIGHT BIT LOCATION 01 00093
000035 114066 A 88 ORA LSCON OR IN OP CODE 01 00094
000036 054067 A 89 STA LSHIFT AND USE AS EXECUTE OPERAND 01 00095
000037 014054 A 90 LDA RBIT LOAD RIGHT BIT LOCATION 01 00096
000040 114064 A 91 ORA RSCON OR IN OP CODE 01 00097

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000041	054065	A	92	STA	RSHIFT	AND USE AS EXECUTE OPERAND	01	00098
000042	014050	A	93	LDA	SIZE	RELOAD FIELD SIZE	01	00099
000043	114060	A	94	ORA	LSCON	OR IN OP CODE	01	00100
000044	054001	A	95	STA	MSHIFT	USE AS MASK SHIFT	01	00101
			96	EJEC			01	00102
			97	*****			01	00103
			98	*	SETUP BIT MASK, RIGHT JUSTIFIED (2**SIZE)-1		*	01 00104
			99	*****			01	00105
000045	010421	A	100	LDA	C1	LOAD SINGLE BIT	01	00106
000046	000000	A	101	MSHIFT	DATA	0	01	00107
000047	005311	A	102	DECR	011	MINUS ONE	01	00108
000050	001016	A	103	JANZ	STMASK	SKIP IF MASK IS NOT NULL	01	00109
000051	000053	R						
000052	010461	A	104	LDA	ONES	ELSE PICK UP SPECIAL ALL ONES MASK	01	00110
000053	054054	A	105	STMASK	STA	MASK	01	00111
			107	*****			01	00113
			108	*	ORIENT SOURCE WORD TO PROPER FORM		*	01 00114
			109	*****			01	00115
000054	014040	A	110	LDA	SRC	PICK UP SOURCE WORD	01	00116
000055	003020	A	111	XBZ	RSHIFT	IF FETCH, SHIFT RIGHT	01	00117
000056	000127	R						
000057	154050	A	112	ANA	MASK	MASK OUT EXTRA BITS	01	00118
000060	054034	A	113	STA	SRC	SAVE RESULT	01	00119
000061	001020	A	114	JBZ	MAI010	SKIP IF FETCH CASE	01	00120
000062	000074	R						
000063	003000	A	115	XEC	LSHIFT	SHIFT SOURCE INTO PLACE	01	00121
000064	000126	R						
000065	054027	A	116	STA	SRC	SAVE SHIFTED RESULT	01	00122
			118	*****			01	00124
			119	*	SETUP INVERSE MASK ON STORE CASE		*	01 00125
			120	*****			01	00126
000066	014041	A	121	LDA	MASK	PICK UP MASK	01	00127
000067	003000	A	122	XEC	LSHIFT	SHIFT LEFT INTO PLACE	01	00128
000070	000126	R						
000071	005211	A	123	COMPL	011	INVERT ALL BITS	01	00129
000072	001000	A	124	JMP	MAI020	SKIP TO MASK DATA WORD	01	00130
000073	000075	R						
			125	EJEC			01	00131
			126	*****			01	00132
			127	*	ON FETCH CASE, INVERSE MASK IS ALL ZERO		*	01 00133
			128	*****			01	00134
000074	005001	A	129	MAI010	ZERO	A	01	00135
			131	*****			01	00137
			132	*	NOW MASK OUT DESTINATION AND OR IN SOURCE		*	01 00138
			133	*****			01	00139
000075	034014	A	134	MAI020	LDX	DEST	01	00140
000076	155000	A	135	ANA	0,X	MASK OFF PREVIOUS FIELD CONTENTS	01	00141
000077	114015	A	136	ORA		OR IN NEW DATA	01	00142
000100	055000	A	137	STA	0,1	AND RESTORE	01	00143
			139	*****			01	00145
			140	*	ALL DONE, RETURN TO CALLER		*	01 00146
			141	*****			01	00147
000101	001000	A	142	JMP	0	RESTORE REG P	01	00154
000102	000000	A						
	000102	R	143	SAVEP	EQU	*-1	01	00155
			144	EJEC			01	00156
			145	*****			01	00157
			146	*	THIS CODE SETS UP FOR EXECUTION BY CALLING \$SE		*	01 00158
			147	*****			01	00159
000103	054002	A	148	SETUP	STA	SET010	01	00160
000104	001000	A	149	JMP	SET020	SKIP OVER CONSTANT	01	00162
000105	000107	R						
000106	000000	A	150	SET010	DATA	0	01	00163
000107	002000	A	151	SET020	JMPM	\$SE	01	00164
000110	000000	E						
000111	000004	A	152	DATA	4	FOUR PARAMETERS	01	00165
000112	000000	A	153	DEST	DATA	0	01	00166
000113	000000	A	154	LBIT	DATA	0	01	00167
000114	000000	A	155	RBIT	DATA	0	01	00168
000115	000000	A	156	SRC	DATA	0	01	00169
	000113	R	157	SIZE	EQU	LBIT	01	00170
000116	006017	A	158	LDAE	SET010	LOAD ADJUSTED RETURN ADDRESS	01	00171
000117	000106	R						
000120	006057	A	159	STAE	SAVEP	AND SAVE IN RETURN CELL	01	00172
000121	000102	R						
000122	001000	A	160	JMP	MAIN	BRANCH TO MAINLINE	01	00173
000123	000014	R						
			161	EJEC			01	00174
			162	*****			01	00175
			163	*	CONSTANTS AND WORK AREAS		*	01 00176
			164	*****			01	00177
	000001	A	165	A	EQU	1	01	00178
	000002	A	166	B	EQU	2	01	00179
	000001	A	167	X	EQU	1	01	00180
000124	004240	A	168	LSCON	LRLA	0	01	00181
000125	004300	A	169	RSCON	ASRA	0	01	00182
000126	000000	A	170	LSHIFT	DATA	0	01	00183
000127	000000	A	171	RSHIFT	DATA	0	01	00184
000130	000000	A	172	MASK	DATA	0	01	00185
	000421	A	173	C1	EQU	0421	01	00186
	000472	A	174	C15	EQU	0472	01	00187

```

000461 A 175 ONES EQU 0461 LOW-CORE CONSTANT 017777 01 00188
176 EJEC
177 NAME SYSGET SET NAME OF ENTRY POINT 01 00189
179 ***** 01 00193
180 * 01 00194
181 * TITLE - ROUTINE TO FETCH LOW-CORE JOB INFORMATION * 01 00195
182 * 01 00196
183 * PURPOSE - TO ALLOW ACCESS TO LOW-CORE LINE COUNT, JOB NAME, * 01 00197
184 * AND CURRENT DATE. * 01 00198
185 * 01 00199
186 * CALLING SEQUENCE - * 01 00200
187 * INTEGER WORK(9) * 01 00201
188 * CALL SYSGET(WORK) * 01 00202
189 * 01 00203
190 * ENTRANCE PARAMETERS - * 01 00204
191 * NAME OF NINE-WORD VECTOR IN FOLLOWING FORMAT - * 01 00205
192 * 1 V$DATE 4 V$DATE+3 7 V$JNAM+2 * 01 00206
193 * 2 V$DATE+1 5 V$JNAM 8 V$JNAM+3 * 01 00207
194 * 3 V$DATE+2 6 V$JNAM+1 9 V$LCNT * 01 00208
195 * 01 00209
196 * ERROR CONDITIONS - NONE. * 01 00210
197 * 01 00211
198 ***** 01 00212

200 ***** 01 00214
201 * SETUP FOR LOOP * 01 00215
202 ***** 01 00216
000131 014020 A 203 SYS10 LDA SYSVCT PICK UP OUTPUT VECTOR ADDRESS 01 00217
000132 120423 A 204 ADD FOUR POINT TO FIFTH WORD 01 00218
000133 005012 A 205 TAB PLACE IN B REGISTER 01 00219
000134 030423 A 206 LDX FOUR PICK UP COUNT 01 00220

208 ***** 01 00222
209 * ENTER WORD MOVE LOOP FOR FIVE ITERATIONS * 01 00223
210 ***** 01 00224
000135 015070 A 211 SYS20 LDA V$DATE,X LOAD ELEMENT OF DATE 01 00225
000136 056000 A 212 STA 0,B STOW IN OUTPUT VECTOR 01 00226
000137 015050 A 213 LDA V$JNAM,X LOAD ELEMENT OF NAME 01 00227
000140 056004 A 214 STA 4,B STOW IN OUTPUT VECTOR 01 00228
000141 005322 A 215 DBR BACK UP OUTPUT POINTER 01 00229
000142 005345 A 216 DECR 045 DECREMENT COUNT AND COPY TO A REGISTER 01 00230
000143 001002 A 217 JAP SYS20 CONTINUE WHILE REG A IS NON-NEGATIVE 01 00231

000144 000135 R
000145 001000 A 218 JMP 0 ELSE RETURN TO CALLER 01 00232
000146 000000 A

220 ***** 01 00234
221 * MAJOR ENTRY POINT IS HERE * 01 00235
222 ***** 01 00236
000146 R 223 SYSGET EQU *-1 CALL ENTRY POINT 01 00237
000147 002000 A 224 CALL $SE,1 RESOLVE INDIRECT THREAD 01 00238
000150 000110 E
000151 000001 A
000152
225 SYSVCT BSS 1 ADDRESS OF OUTPUT VECTOR 01 00239
000153 001000 A 226 JMP SYS10 JUMP TO SETUP LOOP 01 00240
000154 000131 R

228 ***** 01 00242
229 * LOW-CORE EQUATES * 01 00243
230 ***** 01 00244
000070 A 231 V$DATE EQU 070 LOCATION OF DATE VECTOR 01 00245
000050 A 232 V$JNAM EQU 050 LOCATION OF JOB NAME VECTOR 01 00246
000054 A 233 V$LCNT EQU 054 LOCATION OF LINE COUNT 01 00247
000423 A 234 FOUR EQU 0423 LOCATION OF CONSTANT FOUR 01 00248

236 END 01 00250

```

ENTRY NAMES

000006 R BITSET 000000 R BITSET 000146 R SYSGET

EXTERNAL NAMES

000150 E \$SE

SYMBOLS

```

000150 E $SE 000001 A A 000002 A B 000006 R BITSET
000000 R BITSET 000421 A C1 000472 A C15 000112 R DEST
000423 A FOUR 000113 R LBIT 000124 R LSCON 000126 R LSHIFT
000074 R MA1010 000075 R MA1020 000014 R MAIN 000130 R MASK
000046 R MSHIFT 000461 A ONES 000114 R RBIT 000125 R RSCON
000127 R RSHIFT 000102 R SAVEP 000106 R SET010 000107 R SET020
000103 R SETUP 000113 R SIZE 000115 R SRC 000053 R STMASK
000131 R SYS10 000135 R SYS20 000146 R SYSGET 000152 R SYSVCT
000070 A V$DATE 000050 A V$JNAM 000054 A V$LCNT 000001 A X
0 ERRORS ASSEMBLY COMPLETE

```

```

1 C THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES 06 00001
2 C 06 00002
3 C V.D.M. PART NO. 92L1105-022A 06 00003
4 C 06 00004
5 C RELEASED 03-26-7 06 00005
6 C 06 00006
7 C 06 00007
8 C CLEAR 06 00008
9 C 06 00009
10 C 06 00010
11 C TITLE CLEAR 06 00011

12 SUBROUTINE CLEAR 06 00012
13 C THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES *****
14 C *****
15 C V.D.M. PART NO. 92L1105-023A *****
16 C *****
17 C RELEASED 03-26-7 *****
18 C *****
19 C *****
20 C COMMON *****
21 C *****
22 C *****
23 C *****
24 C * DECLARE COMMON CELLS * *****
25 C *****
26 C COMMON ITEST , P1 , P2 , BUF , INCHAR, SECTOR, IN *****
27 C COMMON OUT , VT$DFL, VT$DFT, BLANK , LSDN , LSD , TUIDN *****
28 C COMMON TIB , TCD , LINE , LNCNT , LNMAX , PGCNT *****
29 C COMMON DFLFCB, DFTFCB, IVALUE, LFILE , NXTSCT, IDTSCT, IDTDSP *****
30 C INTEGER P1 , P2 , OUT , VT$DFL, VT$DFT, BLANK , PGCNT *****
31 C INTEGER BUF (160), SECTOR(120), LSD ( 5), TUIDN ( 4) *****
32 C INTEGER TIB ( 4), TCD ( 5), DFLFCB( 13), DFTFCB( 13) *****
33 C INTEGER LINE ( 80) *****
34 C *****
35 C * END OF COMMON DECLARATIONS * *****
36 C *****
37 C 06 00013
38 C THIS ROUTINE IS CALLED ONCE TO INITIALIZE THE NDL PROCESSOR 06 00014
39 C INTEGER FCBKEY, FCBNAM(4) 06 00015
40 C DATA FCBKEY /2H F/ 06 00016
41 C DATA FCBNAM(1), FCBNAM(2) /2HVT, 2HSD/ 06 00017
42 C DATA FCBNAM(3), FCBNAM(4) /2HFL, 2HFT/ 06 00018
43 C 06 00019
44 C-----INITIALIZE THE INPUT BUFFER AND POINTERS 06 00020
45 C BLANK = 160 06 00021
46 C DO 10 I = 1, 160 06 00022
47 10 BUF(I) = BLANK 06 00023
48 C P1 = 1 06 00024
49 C P2 = 1 06 00025
50 C INCHAR = BLANK 06 00026
51 C 06 00027
52 C-----INITIALIZE COMMON DATA CELLS 06 00028

53 C CALL SYSGET (SECTOR) 06 00029
54 C LNMAX = SECTOR(9) 06 00030
55 C LNCNT = LNMAX 06 00031
56 C PGCNT = 0 06 00032
57 C IN = 4 06 00033
58 C OUT = 5 06 00034
59 C VT$DFL = 10 06 00035
60 C VT$DFT = 11 06 00036
61 C NXTSCT = 2 06 00037
62 C IDTSCT = 0 06 00038
63 C IDTDSP = 120 06 00039
64 C ITEST = 1 06 00040
65 C LFILE = 0 06 00041
66 C 06 00042
67 C-----INITIALIZE THE SECTOR BUFFER AND RMD FCBS 06 00043
68 C DO 80 I = 1, 13 06 00044
69 C DFLFCB(I) = 0 06 00045
70 80 DFTFCB(I) = 0 06 00046
71 C DO 90 I = 1, 120 06 00047
72 90 SECTOR(I) = 0 06 00048
73 C DO 100 I = 1, 2 06 00049
74 C DFLFCB(I+7) = FCBNAM(I) 06 00050
75 C DFTFCB(I+7) = FCBNAM(I) 06 00051
76 100 CONTINUE 06 00052
77 C DFLFCB(10) = FCBNAM(3) 06 00053
78 C DFTFCB(10) = FCBNAM(4) 06 00054
79 C 06 00055
80 C 06 00056
81 C-----SET UP KEY FIELD IN FCB BEFORE OPEN 06 00057
82 C DFLFCB(3) = FCBKEY 06 00058
83 C DFTFCB(3) = FCBKEY 06 00059
84 C 06 00060
85 C-----REQUEST OPEN FOR FILE VT$DFL 06 00061
86 C CALL V$OPEN (VT$DFL, 106, DFLFCB, 1) 06 00062
87 C 06 00063
88 C-----CHECK FOR AT LEAST 11 SECTORS IN FILE 06 00064
89 C IF (DFLFCB(7) - DFLFCB(6) - 11) 160, 108, 108 *****
90 C 06 00066
91 C-----INITIALIZE FILE WITH 11 SECTORS OF ZEROS 06 00067
92 108 DO 110 ISECT = 1, 11 *****
93 C DFLFCB(4) = ISECT 06 00069
94 C WRITE (VT$DFL) SECTOR 06 00070

```

```

95          DFLFCB(4) = ISECT                      06 00071
96          IF (IOCHK(1)) 430, 110, 430           *****
97 110      CONTINUE                               06 00073
98          LFILE = 1                              06 00074
99 C                                               06 00075
100 C-----NOW GO TO HANDLE FILE VT$DFT         06 00076
101          GO TO 200                              06 00077
102 C                                               06 00078
103 C-----AT THIS POINT, FILE VT$DFL IS NOT LARGE ENOUGH 06 00079
104 160     CONTINUE                               06 00080
105          CALL HEADER(2)                        06 00081
106          WRITE (OUT, 169) DFLFCB(10)          06 00082
107 169     FORMAT (12H0**FILE VT$, A2, 10H TOO SMALL) 06 00083
108          IF (IOCHK(1)) 420, 180, 420           *****
109 C                                               06 00085
110 C-----MAKE FCB APPEAR TO BE CLOSED (TO PREVENT FUTURE USE) 06 00086
111 180     DFLFCB(5) = 0                          *****
112 C                                               06 00088
113 C-----REQUEST OPEN FOR FILE VT$DFT         06 00089
114 200     CONTINUE                               06 00090
115          CALL V$OPEN (VT$DFT, 106, DFTFCB, 1) 06 00091
116 C                                               06 00092
117 C-----NOW CHECK FOR AT LEAST 2 SECTORS     06 00093
118          IF (DFTFCB(7) - DFTFCB(6) - 2) 260, 210, 210 *****
119 C                                               06 00095
120 C-----INITIALIZE FILE VT$DFT, WITH ONE ZERO SECTOR 06 00096
121 210     DFTFCB(4) = 1                          *****
122          WRITE (VT$DFT) SECTOR                 06 00098
123          DFTFCB(4) = 1                          06 00099
124          IF (IOCHK(1)) 440, 250, 440           *****
125 250     LFILE = 2                              *****
126 C                                               06 00102
127 C-----GO TO NEXT INITIALIZATION STEP       06 00103
128          GO TO 300                              06 00104
129 C                                               06 00105
130 C-----AT THIS POINT, FILE VT$DFT WAS TOO SMALL 06 00106
131 260     CONTINUE                               06 00107
132          CALL HEADER(2)                        06 00108
133          WRITE (OUT, 169) DFTFCB(10)          06 00109
134          IF (IOCHK(1)) 420, 270, 420           *****
135 C                                               06 00111
136 C-----MAKE FILE VT$DFL APPEAR CLOSED (TO PREVENT USE) 06 00112

137 270     DFTFCB(5) = 0                          *****
138 C                                               06 00114
139 C-----AND RETURN TO THE CALLER              06 00115
140 300     CONTINUE                               06 00116
141          RETURN                                06 00117
142 C                                               *****
143 C-----BELOW ARE THE I/O STOP EXITS         *****
144 420     STOP 200                               *****
145 430     STOP 300                               *****
146 440     STOP 400                               *****
147          END                                  06 00118

ENTRY/Common Block Names
000751 R CLEAR
000646 C COMMON
EXTERNAL NAMES
000445 E $DO
000063 E SYSGET
000541 E V$OPEN
000640 E $WR
000000 E V$RERR
000000 E V$RER1
000644 E $I1
000650 E $ND
000652 E IOCHK
000635 E HEADER
000702 E $ST
SYMBOL TABLE
000706 R 000001
000720 R 000002
000714 R 000004
000001 C P1
000002 C P2
000435 C OUT
000436 C VT$DFL
000437 C VT$DFT
000440 C BLANK
000606 C PGCNT
000003 C BUF
000705 R 000240
000244 C SECTOR
000721 R 000170
000442 C LSO

000715 R 000005
000447 C TUIDN
000453 C TIB
000457 C TCD
000607 C DFLFCB
000724 R 000015
000624 C DFTFCB
000464 C LINE
000007 R FCBKEY
000003 R FCBNAM
000000 C ITEST
000243 C INCHAR
000434 C IN

```

```
000441 C LSDN
000604 C LNCNT
000605 C LNMAX
000641 C IVALUE
000642 C LFILE
000643 C NXTSCT
000644 C IDTSCT
000645 C IDTOSP
000663 R 0$
000022 R 10
000707 R I
000710 R 000002
000711 R $1
000445 E $DO
000063 E SYSGET
000712 R 000254
000713 R 000000
000716 R 000012
000717 R 000013
000206 R 80
000722 R 000606
000723 R 000623
000230 R 90
000725 R 000243
000310 R 100
000726 R 000615
000727 R $1 0
000730 R 000002
000731 R $1 1

000732 R 000632
000733 R 000005
000734 R 000620
000735 R 000006
000736 R 000635
000737 R 000611
000740 R 000626
000541 E V$OPEN
000741 R 000152
000742 R 000614
000462 R 160
000403 R 108
000444 R 110
000743 R ISECT
000744 R 000612
000640 E $WR
000000 E V$RERR
000000 E V$RER1
000644 E $11
000650 E $ND
000652 E IOCHK
000675 R 430
000540 R 200
000635 E HEADER
000501 R 169
000671 R 420
000533 R 180
000745 R 000613
000746 R 000631
000634 R 260
000567 R 210
000747 R 000627
000701 R 440
000624 R 250
000667 R 300
000662 R 270
000750 R 000630
000702 E $ST
0 ERRORS COMPILATION COMPLETE
```

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1 C THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES 04 00001
2 C V.D.M. PART NO. 92L1105-024A 04 00002
3 C 04 00003
4 C 04 00004
5 C RELEASED 03-26-7 04 00005
6 C 04 00006
7 C 04 00007
8 C COMPAR 04 00008
9 C 04 00009
10 C 04 00010
11 C TITLE COMPAR 04 00011

12 SUBROUTINE COMPAR(N) 04 00012
13 C THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES *****
14 C *****
15 C V.D.M. PART NO. 92L1105-023A *****
16 C *****
17 C RELEASED 03-26-7 *****
18 C *****
19 C *****
20 C COMMON *****
21 C *****
22 C *****
23 C *****
24 C * DECLARE COMMON CELLS * *****
25 C *****
26 C COMMON ITEST , P1 , P2 , BUF , INCHAR, SECTOR, IN *****
27 C COMMON OUT , VT$DFL, VT$DFT, BLANK , LSDN , LSD , TUIDN *****
28 C COMMON TIB , TCD , LINE , LNCNT , LNMAX , PGCNT *****
29 C COMMON DFLFCB, DFTFCB, IVALUE, LFILE , NXTSCT, IDTSCT, IDTDSP *****
30 C INTEGER P1 , P2 , OUT , VT$DFL, VT$DFT, BLANK , PGCNT *****
31 C INTEGER BUF (160), SECTOR(120), LSD ( 5), TUIDN ( 4) *****
32 C INTEGER TIB ( 4), TCD ( 5), DFLFCB( 13), DFTFCB( 13) *****
33 C INTEGER LINE ( 80) *****
34 C *****
35 C * END OF COMMON DECLARATIONS * *****
36 C *****
37 C INTEGER START, SIZE 04 00013
38 C 04 00014
39 C 04 00015
40 C SUBROUTINE COMPAR COMPARES A GIVEN LITERAL STRING AGAINST 04 00016
41 C THE CURRENT CONTENTS OF THE INPUT BUFFER. 04 00017
42 C THE TEST FLAG, ITEST, IS SET TO REFLECT THE OUTCOME OF THIS 04 00018
43 C TEST. ALL LITERAL STRINGS ARE DECLARED IN THE LOCAL VECTORS 04 00019
44 C STRING AND POOL. 04 00020
45 C 04 00021
46 C DIMENSION STRING( 53), POOL (287) 04 00022
47 C INTEGER STRING, POOL 04 00023
48 C 04 00025
49 C-----STRING 0 4HLINE 04 00026
50 C DATA STRING( 1)/ 1/, POOL ( 1)/ 4/ 04 00027
51 C DATA POOL ( 2)/2H L/, POOL ( 3)/2H I/, POOL ( 4)/2H N/ 04 00028
52 C DATA POOL ( 5)/2H E/ 04 00029

53 C 04 00030
54 C-----STRING 1 IH: 04 00031
55 C DATA STRING( 2)/ 6/, POOL ( 6)/ 1/ 04 00032
56 C DATA POOL ( 7)/2H :/ 04 00033
57 C 04 00034
58 C-----STRING 2 IH, 04 00035
59 C DATA STRING( 3)/ 8/, POOL ( 8)/ 1/ 04 00036
60 C DATA POOL ( 9)/2H ,/ 04 00037
61 C 04 00038
62 C-----STRING 3 7HADDRESS 04 00039
63 C DATA STRING( 4)/ 10/, POOL ( 10)/ 7/ 04 00040
64 C DATA POOL ( 11)/2H A/, POOL ( 12)/2H D/, POOL ( 13)/2H D/ 04 00041
65 C DATA POOL ( 14)/2H R/, POOL ( 15)/2H E/, POOL ( 16)/2H S/ 04 00042
66 C DATA POOL ( 17)/2H S/ 04 00043
67 C 04 00044
68 C-----STRING 4 IH= 04 00045
69 C DATA STRING( 5)/ 18/, POOL ( 18)/ 1/ 04 00046
70 C DATA POOL ( 19)/2H =/ 04 00047
71 C 04 00048
72 C-----STRING 5 7HCONNECT 04 00049
73 C DATA STRING( 6)/ 20/, POOL ( 20)/ 7/ 04 00050
74 C DATA POOL ( 21)/2H C/, POOL ( 22)/2H O/, POOL ( 23)/2H N/ 04 00051
75 C DATA POOL ( 24)/2H N/, POOL ( 25)/2H E/, POOL ( 26)/2H C/ 04 00052
76 C DATA POOL ( 27)/2H T/ 04 00053
77 C 04 00054
78 C-----STRING 6 6HDIRECT 04 00055
79 C DATA STRING( 7)/ 28/, POOL ( 28)/ 6/ 04 00056
80 C DATA POOL ( 29)/2H D/, POOL ( 30)/2H I/, POOL ( 31)/2H R/ 04 00057
81 C DATA POOL ( 32)/2H E/, POOL ( 33)/2H C/, POOL ( 34)/2H T/ 04 00058
82 C 04 00059
83 C-----STRING 7 5HMODEM 04 00060
84 C DATA STRING( 8)/ 35/, POOL ( 35)/ 5/ 04 00061
85 C DATA POOL ( 36)/2H M/, POOL ( 37)/2H O/, POOL ( 38)/2H D/ 04 00062
86 C DATA POOL ( 39)/2H E/, POOL ( 40)/2H M/ 04 00063
87 C 04 00064
88 C-----STRING 8 4HDIAL 04 00065
89 C DATA STRING( 9)/ 41/, POOL ( 41)/ 4/ 04 00066
90 C DATA POOL ( 42)/2H D/, POOL ( 43)/2H I/, POOL ( 44)/2H A/ 04 00067
91 C DATA POOL ( 45)/2H L/ 04 00068
92 C 04 00069
93 C-----STRING 9 IH- 04 00070
94 C DATA STRING( 10)/ 46/, POOL ( 46)/ 1/ 04 00071

```

95		DATA POOL (47)/2H -/					04 00072
96	C						04 00073
97	C-----	STRING 10 3HCRC					04 00074
98		DATA STRING(11)/ 48/, POOL (48)/ 3/					04 00075
99		DATA POOL (49)/2H C/, POOL (50)/2H R/, POOL (51)/2H C/					04 00076
100	C						04 00077
101	C-----	STRING 11 4HSTOP					04 00078
102		DATA STRING(12)/ 52/, POOL (52)/ 4/					04 00079
103		DATA POOL (53)/2H S/, POOL (54)/2H T/, POOL (55)/2H O/					04 00080
104		DATA POOL (56)/2H P/					04 00081
105	C						04 00082
106	C-----	STRING 12 4HECHO					04 00083
107		DATA STRING(13)/ 57/, POOL (57)/ 4/					04 00084
108		DATA POOL (58)/2H E/, POOL (59)/2H C/, POOL (60)/2H H/					04 00085
109		DATA POOL (61)/2H O/					04 00086
110	C						04 00087
111	C-----	STRING 13 3HEOM					04 00088
112		DATA STRING(14)/ 62/, POOL (62)/ 3/					04 00089
113		DATA POOL (63)/2H E/, POOL (64)/2H O/, POOL (65)/2H M/					04 00090
114	C						04 00091
115	C-----	STRING 14 5HFALSE					04 00092
116		DATA STRING(15)/ 66/, POOL (66)/ 5/					04 00093
117		DATA POOL (67)/2H F/, POOL (68)/2H A/, POOL (69)/2H L/					04 00094
118		DATA POOL (70)/2H S/, POOL (71)/2H E/					04 00095
119	C						04 00096
120	C-----	STRING 15 1H(					04 00097
121		DATA STRING(16)/ 72/, POOL (72)/ 1/					04 00098
122		DATA POOL (73)/2H (/					04 00099
123	C						04 00100
124	C-----	STRING 16 1H)					04 00101
125		DATA STRING(17)/ 74/, POOL (74)/ 1/					04 00102
126		DATA POOL (75)/2H)/					04 00103
127	C						04 00104
128	C-----	STRING 17 5HERROR					04 00105
129		DATA STRING(18)/ 76/, POOL (76)/ 5/					04 00106
130		DATA POOL (77)/2H E/, POOL (78)/2H R/, POOL (79)/2H R/					04 00107
131		DATA POOL (80)/2H O/, POOL (81)/2H R/					04 00108
132	C						04 00109
133	C-----	STRING 18 4HTYPE					04 00110
134		DATA STRING(19)/ 82/, POOL (82)/ 4/					04 00111
135		DATA POOL (83)/2H T/, POOL (84)/2H Y/, POOL (85)/2H P/					04 00112
136		DATA POOL (86)/2H E/					04 00113
137	C						04 00114
138	C-----	STRING 19 4HHALF					04 00115
139		DATA STRING(20)/ 87/, POOL (87)/ 4/					04 00116
140		DATA POOL (88)/2H H/, POOL (89)/2H A/, POOL (90)/2H L/					04 00117
141		DATA POOL (91)/2H F/					04 00118
142	C						04 00119
143	C-----	STRING 20 6HDUPLEX					04 00120
144		DATA STRING(21)/ 92/, POOL (92)/ 6/					04 00121
145		DATA POOL (93)/2H D/, POOL (94)/2H U/, POOL (95)/2H P/					04 00122
146		DATA POOL (96)/2H L/, POOL (97)/2H E/, POOL (98)/2H X/					04 00123
147	C						04 00124
148	C-----	STRING 21 7HSIMPLEX					04 00125
149		DATA STRING(22)/ 99/, POOL (99)/ 7/					04 00126
150		DATA POOL (100)/2H S/, POOL (101)/2H I/, POOL (102)/2H M/					04 00127
151		DATA POOL (103)/2H P/, POOL (104)/2H L/, POOL (105)/2H E/					04 00128
152		DATA POOL (106)/2H X/					04 00129
153	C						04 00130
154	C-----	STRING 22 7HRECEIVE					04 00131
155		DATA STRING(23)/ 107/, POOL (107)/ 7/					04 00132
156		DATA POOL (108)/2H R/, POOL (109)/2H E/, POOL (110)/2H C/					04 00133
157		DATA POOL (111)/2H E/, POOL (112)/2H I/, POOL (113)/2H V/					04 00134
158		DATA POOL (114)/2H E/					04 00135
159	C						04 00136
160	C-----	STRING 23 8HTRANSMIT					04 00137
161		DATA STRING(24)/ 115/, POOL (115)/ 8/					04 00138
162		DATA POOL (116)/2H T/, POOL (117)/2H R/, POOL (118)/2H A/					04 00139
163		DATA POOL (119)/2H N/, POOL (120)/2H S/, POOL (121)/2H M/					04 00140
164		DATA POOL (122)/2H I/, POOL (123)/2H T/					04 00141
165	C						04 00142
166	C-----	STRING 24 4HFULL					04 00143
167		DATA STRING(25)/ 124/, POOL (124)/ 4/					04 00144
168		DATA POOL (125)/2H F/, POOL (126)/2H U/, POOL (127)/2H L/					04 00145
169		DATA POOL (128)/2H L/					04 00146
170	C						04 00147
171	C-----	STRING 25 4HMODE					04 00148
172		DATA STRING(26)/ 129/, POOL (129)/ 4/					04 00149
173		DATA POOL (130)/2H M/, POOL (131)/2H O/, POOL (132)/2H D/					04 00150
174		DATA POOL (133)/2H E/					04 00151
175	C						04 00152
176	C-----	STRING 26 1HA					04 00153
177		DATA STRING(27)/ 134/, POOL (134)/ 1/					04 00154
178		DATA POOL (135)/2H A/					04 00155
179	C						04 00156
180	C-----	STRING 27 4HSYNC					04 00157
181		DATA STRING(28)/ 136/, POOL (136)/ 4/					04 00158
182		DATA POOL (137)/2H S/, POOL (138)/2H Y/, POOL (139)/2H N/					04 00159
183		DATA POOL (140)/2H C/					04 00160
184	C						04 00161
185	C-----	STRING 28 7HHRONOUS					04 00162
186		DATA STRING(29)/ 141/, POOL (141)/ 7/					04 00163
187		DATA POOL (142)/2H H/, POOL (143)/2H R/, POOL (144)/2H O/					04 00164
188		DATA POOL (145)/2H N/, POOL (146)/2H O/, POOL (147)/2H U/					04 00165
189		DATA POOL (148)/2H S/					04 00166
190	C						04 00167
191	C-----	STRING 29 6HPARITY					04 00168

192		DATA STRING(30)/ 149/, POOL (149)/ 6/	04 00169
193		DATA POOL (150)/2H P/, POOL (151)/2H A/, POOL (152)/2H R/	04 00170
194		DATA POOL (153)/2H I/, POOL (154)/2H T/, POOL (155)/2H Y/	04 00171
195	C		04 00172
196	C-----	STRING 30 4HNONE	04 00173
197		DATA STRING(31)/ 156/, POOL (156)/ 4/	04 00174
198		DATA POOL (157)/2H N/, POOL (158)/2H O/, POOL (159)/2H N/	04 00175
199		DATA POOL (160)/2H E/	04 00176
200	C		04 00177
201	C-----	STRING 31 3HODD	04 00178
202		DATA STRING(32)/ 161/, POOL (161)/ 3/	04 00179
203		DATA POOL (162)/2H O/, POOL (163)/2H D/, POOL (164)/2H D/	04 00180
204	C		04 00181
205	C-----	STRING 32 4HEVEN	04 00182
206		DATA STRING(33)/ 165/, POOL (165)/ 4/	04 00183
207		DATA POOL (166)/2H E/, POOL (167)/2H V/, POOL (168)/2H E/	04 00184
208		DATA POOL (169)/2H N/	04 00185
209	C		04 00186
210	C-----	STRING 33 5HSPEED	04 00187
211		DATA STRING(34)/ 170/, POOL (170)/ 5/	04 00188
212		DATA POOL (171)/2H S/, POOL (172)/2H P/, POOL (173)/2H E/	04 00189
213		DATA POOL (174)/2H E/, POOL (175)/2H D/	04 00190
214	C		04 00191
215	C-----	STRING 34 6HSTATUS	04 00192
216		DATA STRING(35)/ 176/, POOL (176)/ 6/	04 00193
217		DATA POOL (177)/2H S/, POOL (178)/2H T/, POOL (179)/2H A/	04 00194
218		DATA POOL (180)/2H T/, POOL (181)/2H U/, POOL (182)/2H S/	04 00195
219	C		04 00196
220	C-----	STRING 35 2HUP	04 00197
221		DATA STRING(36)/ 183/, POOL (183)/ 2/	04 00198
222		DATA POOL (184)/2H U/, POOL (185)/2H P/	04 00199
223	C		04 00200
224	C-----	STRING 36 4HDOWN	04 00201
225		DATA STRING(37)/ 186/, POOL (186)/ 4/	04 00202
226		DATA POOL (187)/2H D/, POOL (188)/2H O/, POOL (189)/2H W/	04 00203
227		DATA POOL (190)/2H N/	04 00204
228	C		04 00205
229	C-----	STRING 37 5HSTORE	04 00206
230		DATA STRING(38)/ 191/, POOL (191)/ 5/	04 00207
231		DATA POOL (192)/2H S/, POOL (193)/2H T/, POOL (194)/2H O/	04 00208
232		DATA POOL (195)/2H R/, POOL (196)/2H E/	04 00209
233	C		04 00210
234	C-----	STRING 38 7HHRONIZE	04 00211
235		DATA STRING(39)/ 197/, POOL (197)/ 7/	04 00212
236		DATA POOL (198)/2H H/, POOL (199)/2H R/, POOL (200)/2H O/	04 00213
237		DATA POOL (201)/2H N/, POOL (202)/2H I/, POOL (203)/2H Z/	04 00214
238		DATA POOL (204)/2H E/, POOL (205)/2H /, POOL (206)/2H /	04 00215
239		DATA POOL (207)/2H /, POOL (208)/2H /	04 00216
240	C		04 00217
241	C-----	STRING 39 4HHIGH	04 00218
242		DATA STRING(40)/ 209/, POOL (209)/ 4/	04 00219
243		DATA POOL (210)/2H H/, POOL (211)/2H I/, POOL (212)/2H G/	04 00220
244		DATA POOL (213)/2H H/	04 00221
245	C		04 00222
246	C-----	STRING 40 3HLOW	04 00223
247		DATA STRING(41)/ 214/, POOL (214)/ 3/	04 00224
248		DATA POOL (215)/2H L/, POOL (216)/2H O/, POOL (217)/2H W/	04 00225
249	C		04 00226
250	C-----	STRING 41 11HTRANSPARENT	04 00227
251		DATA STRING(42)/ 218/, POOL (218)/ 11/	04 00228
252		DATA POOL (219)/2H T/, POOL (220)/2H R/, POOL (221)/2H A/	04 00229
253		DATA POOL (222)/2H N/, POOL (223)/2H S/, POOL (224)/2H P/	04 00230
254		DATA POOL (225)/2H A/, POOL (226)/2H R/, POOL (227)/2H E/	04 00231
255		DATA POOL (228)/2H N/, POOL (229)/2H T/	04 00232
256	C		04 00233
257	C-----	STRING 42 1H.	04 00234
258		DATA STRING(43)/ 230/, POOL (230)/ 1/	04 00235
259		DATA POOL (231)/2H ./	04 00236
260	C		04 00237
261	C-----	STRING 43 8HTERMINAL	04 00238
262		DATA STRING(44)/ 232/, POOL (232)/ 8/	04 00239
263		DATA POOL (233)/2H T/, POOL (234)/2H E/, POOL (235)/2H R/	04 00240
264		DATA POOL (236)/2H M/, POOL (237)/2H I/, POOL (238)/2H N/	04 00241
265		DATA POOL (239)/2H A/, POOL (240)/2H L/	04 00242
266	C		04 00243
267	C-----	STRING 44 4HCODE	04 00244
268		DATA STRING(45)/ 241/, POOL (241)/ 4/	04 00245
269		DATA POOL (242)/2H C/, POOL (243)/2H O/, POOL (244)/2H D/	04 00246
270		DATA POOL (245)/2H E/	04 00247
271	C		04 00248
272	C-----	STRING 45 5HASCII	04 00249
273		DATA STRING(46)/ 246/, POOL (246)/ 5/	04 00250
274		DATA POOL (247)/2H A/, POOL (248)/2H S/, POOL (249)/2H C/	04 00251
275		DATA POOL (250)/2H I/, POOL (251)/2H I/	04 00252
276	C		04 00253
277	C-----	STRING 46 7HDEVICES	04 00254
278		DATA STRING(47)/ 252/, POOL (252)/ 7/	04 00255
279		DATA POOL (253)/2H D/, POOL (254)/2H E/, POOL (255)/2H V/	04 00256
280		DATA POOL (256)/2H I/, POOL (257)/2H C/, POOL (258)/2H E/	04 00257
281		DATA POOL (259)/2H S/	04 00258
282	C		04 00259
283	C-----	STRING 47 6HPROMPT	04 00260
284		DATA STRING(48)/ 260/, POOL (260)/ 6/	04 00261
285		DATA POOL (261)/2H P/, POOL (262)/2H R/, POOL (263)/2H O/	04 00262
286		DATA POOL (264)/2H M/, POOL (265)/2H P/, POOL (266)/2H T/	04 00263
287	C		04 00264
288	C-----	STRING 48 4HTTYI	04 00265


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289 DATA STRING( 49)/ 267/, POOL (267)/ 4/ 04 00266
290 DATA POOL (268)/2H T/, POOL (269)/2H T/, POOL (270)/2H Y/ 04 00267
291 DATA POOL (271)/2H I/ 04 00268
292 C 04 00269
293 C-----STRING 49 4HUNIT 04 00270
294 DATA STRING( 50)/ 272/, POOL (272)/ 4/ 04 00271
295 DATA POOL (273)/2H U/, POOL (274)/2H N/, POOL (275)/2H I/ 04 00272
296 DATA POOL (276)/2H T/ 04 00273
297 C 04 00274
298 C-----STRING 50 3HEND 04 00275
299 DATA STRING( 51)/ 277/, POOL (277)/ 3/ 04 00276
300 DATA POOL (278)/2H E/, POOL (279)/2H N/, POOL (280)/2H D/ 04 00277
301 C 04 00278
302 C-----STRING 51 1H0 04 00279
303 DATA STRING( 52)/ 281/, POOL (281)/ 1/ 04 00280
304 DATA POOL (282)/2H O/ 04 00281

305 C 04 00282
306 C-----STRING 52 4HTRUE 04 00283
307 DATA STRING( 53)/ 283/, POOL (283)/ 4/ 04 00284
308 DATA POOL (284)/2H T/, POOL (285)/2H R/, POOL (286)/2H U/ 04 00285
309 DATA POOL (287)/2H E/ 04 00286
310 C 04 00287
311 C-----BACKUP THE INPUT POINTER AND SET THE TEST FLAG TO FALSE 04 00288
312 CALL BACKUP 04 00289
313 ITEST = 0 04 00290
314 C 04 00291
315 C-----LOCATE THE REQUESTED STRING WITHIN THE LOCAL VECTORS 04 00292
316 START = STRING(N + 1) 04 00293
317 SIZE = POOL(START) 04 00294
318 C 04 00295
319 C-----NOW COMPARE EACH INPUT CHARACTER AGAINST THE LOCAL STRING 04 00296
320 DO 100 I = 1, SIZE 04 00297
321 J = START + I 04 00298
322 CALL GETCHR 04 00299
323 IF (INCHAR - (POOL(J) .AND. 255)) 200, 100, 200 *****
324 100 CONTINUE 04 00301
325 C 04 00302
326 C-----ALL CHARACTERS COMPARE, ADVANCE POINTERS AND SET TEST FLAG TRUE 04 00303
327 CALL ADVANC 04 00304
328 ITEST = 1 04 00305
329 C 04 00306
330 C-----AND RETURN TO THE CALLER 04 00307
331 200 RETURN 04 00308
332 END 04 00309

```

ENTRY/Common BLOCK NAMES

```

000660 R COMPAR
000646 C COMMON
EXTERNAL NAMES
000002 E $SE
000534 E BACKUP
000600 E GETCHR
000627 E $DO
000635 E ADVANC

```

SYMBOL TABLE

```

000654 R 000001
100004 R N
000002 E $SE
000001 C P1

000002 C P2
000435 C OUT
000436 C VT$DFL
000437 C VT$OFT
000440 C BLANK
000606 C PGCNT
000003 C BUF
000244 C SECTOR
000442 C LSD
000447 C TUIDN
000453 C TIB
000457 C TCD
000607 C DFLFCB
000624 C DFTFCB
000464 C LINE
000651 R START
000653 R SIZE
000007 R STRING
000074 R POOL
000000 C ITEST
000243 C INCHAR
000434 C IN
000441 C LSDN
000604 C LNCNT
000605 C LNMAX
000641 C IVALUE
000642 C LFILE
000643 C NXTSCT
000644 C IDTSCT
000645 C IDTDSF
000534 E BACKUP
000646 R 000000
000637 R 0$
000647 R 000007
000650 R $1
000652 R 000073
000626 R 100
000655 R 1
000656 R J

```

000600 E GETCHR
000657 R 000377
000644 R 200

000627 E \$DO
000635 E ADVANC
0 ERRORS COMPILATION COMPLETE

```

1 C THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES03 00001
2 C 03 00002
3 C V.D.M. PART NO. 92L1105-025A 03 00003
4 C 03 00004
5 C RELEASED 03-26-7 03 00005
6 C 03 00006
7 C 03 00007
8 C DIAG 03 00008
9 C 03 00009
10 C 03 00010
11 C TITLE DIAG 03 00011

12 SUBROUTINE DIAG 03 00012
13 C THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES*****
14 C *****
15 C V.D.M. PART NO. 92L1105-023A *****
16 C *****
17 C RELEASED 03-26-7 *****
18 C *****
19 C *****
20 C COMMON *****
21 C *****
22 C *****
23 C *****
24 C * DECLARE COMMON CELLS * *****
25 C *****
26 COMMON ITEST , P1 , P2 , BUF , INCHAR , SECTOR , IN *****
27 COMMON OUT , VT$DFL , VT$DFT , BLANK , LSDN , LSD , TUIDN *****
28 COMMON TIB , TCD , LINE , LNCNT , LNMAX , PGCNT *****
29 COMMON DFLFCB , DFTFCB , IVALUE , LFILE , NXTSCT , IDTSCT , IDT DSP *****
30 INTEGER P1 , P2 , OUT , VT$DFL , VT$DFT , BLANK , PGCNT *****
31 INTEGER BUF (160) , SECTOR(120) , LSD ( 5) , TUIDN ( 4) *****
32 INTEGER TIB ( 4) , TCD ( 5) , DFLFCB( 13) , DFTFCB( 13) *****
33 INTEGER LINE ( 80) *****
34 C *****
35 C * END OF COMMON DECLARATIONS * *****
36 C *****
37 C 03 00013
38 C THIS ROUTINE IS CALLED BY PARSE WHENEVER A SYNTAX ERROR *****
39 C IS SUSPECTED IN THE INPUT STREAM *****
40 C 03 00016
41 C IF (ITEST) 500, 100, 500 *****
42 C *****
43 C-----FIRST SHRINK UP THE INPUT BUFFER FOR THE MESSAGE 03 00017
44 100 CALL SHRINK *****
45 C 03 00019
46 C-----THEN PREPARE AND OUTPUT THE MESSAGE 03 00020
47 CALL HEADER(3) 03 00021
48 C 03 00022
49 C-----SHIFT CHARACTERS LEFT 03 00023
50 DO 10 I = 1, 80 03 00024
51 LINE(I) = 0 03 00025
52 10 CALL BITSET (LINE(I), 15, 08, BUF(I)) 03 00026

53 WRITE (OUT, 99) LINE 03 00027
54 IF (IOCHK(I)) 520, 500, 520 *****
55 99 FORMAT (1H0, 14H**SYNTAX ERROR, /, 1X, 80 A 1) 03 00029
56 C 03 00030
57 C-----AND RETURN TO THE CALLER 03 00031
58 500 RETURN *****
59 C *****
60 C-----BELOW IS THE I/O ERROR STOP *****
61 520 STOP 200 *****
62 END 03 00033

ENTRY/Common BLOCK NAMES
000150 R DIAG
000646 C COMMON
EXTERNAL NAMES
000015 E SHRINK
000017 E HEADER
000047 E BITSET
000055 E $DO
000063 E $WR
000000 E V$RERR
000000 E V$RERI
000067 E $I1
000073 E $ND
000075 E IOCHK
000131 E $ST
SYMBOL TABLE
000135 R 000001
000001 C P1
000002 C P2
000435 C OUT
000436 C VT$DFL
000437 C VT$DFT
000440 C BLANK
000606 C PGCNT
000003 C BUF
000244 C SECTOR
000442 C LSD
000447 C TUIDN
000453 C TIB
000457 C TCD
000607 C DFLFCB
000624 C DFTFCB

```

```
000464 C LINE
000147 R 000120
000000 C ITEST
000243 C INCHAR
000434 C IN
000441 C LSDN
000604 C LNCNT
000605 C LNMAX
000641 C IVALUE
000642 C LFILE
000643 C NXTSCT
000644 C IDTSCT
000645 C IDTDSP
000126 R 500
000014 R 100
000015 E SHRINK
000017 E HEADER
000134 R 000003
000035 R 10
000136 R 1
000036 R 0$
000141 R 000000
000137 R 000463
000140 R $1
000047 E BITSET
000145 R 000017
000146 R 000010
000142 R $1 0
000143 R 000002
000144 R $1 1
000055 E $DO
000063 E $WR
000000 E V$RERR
000000 E V$RER1
000105 R 99
000067 E $11
000073 E $ND
000075 E IOCHK
000130 R 520
000131 E $ST
0 ERRORS COMPILATION COMPLETE
```

```

1 C THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES 05 00001
2 C 05 00002
3 C V.D.M. PART NO. 92L1105-026A 05 00003
4 C 05 00004
5 C RELEASED 03-26-7 05 00005
6 C 05 00006
7 C 05 00007
8 C GETCHR 05 00008
9 C 05 00009
10 C 05 00010
11 C TITLE GETCHR 05 00011

12 SUBROUTINE GETCHR 05 00012
13 C THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES *****
14 C *****
15 C V.D.M. PART NO. 92L1105-023A *****
16 C *****
17 C RELEASED 03-26-7 *****
18 C *****
19 C *****
20 C COMMON *****
21 C *****
22 C *****
23 C *****
24 C * DECLARE COMMON CELLS * *****
25 C *****
26 C COMMON ITEST , P1 , P2 , BUF , INCHAR, SECTOR, IN *****
27 C COMMON OUT , VT$DFL, VT$DFT, BLANK , LSDN , LSD , TUIDN *****
28 C COMMON TIB , TCD , LINE , LNCNT , LNMAX , PGCNT *****
29 C COMMON DFLFCB, DFTFCB, IVALUE, LFILE , NXTSCT, IDTSCT, IDTDSP *****
30 C INTEGER P1 , P2 , OUT , VT$DFL, VT$DFT, BLANK , PGCNT *****
31 C INTEGER BUF (160), SECTOR(120), LSD ( 5), TUIDN ( 4) *****
32 C INTEGER TIB ( 4), TCD ( 5), DFLFCB( 13), DFTFCB( 13) *****
33 C INTEGER LINE ( 80) *****
34 C *****
35 C * END OF COMMON DECLARATIONS * *****
36 C *****
37 C 05 00013
38 C SUBROUTINE GETCHR FINDS THE NEXT NON-BLANK INPUT CHARACTER 05 00014
39 C 05 00015
40 C ***** 05 00016
41 C 05 00017
42 C-----FIRST ATTEMPT TO SATISFY THE REQUEST FROM THE CURRENT CARD 05 00018
43 I IF (BUF(P1) - BLANK) 10, 100, 10 *****
44 C 05 00021
45 C-----REQUEST CAN BE SATISFIED 05 00022
46 I 10 INCHAR = BUF(P1) *****
47 I P1 = P1 + 1 05 00024
48 I RETURN 05 00025
49 C 05 00026
50 C-----NEW CARD MUST BE READ, FIRST COMPRESS THE CURRENT CARD 05 00027
51 I 100 CONTINUE 05 00028
52 I CALL SHRINK 05 00029

53 C 05 00030
54 C-----THEN READ AND LIST THE NEXT CARD FROM P1 05 00031
55 I READ (IN, 99) (BUF(I), I = 81, 160) 05 00032
56 I 99 FORMAT ( 80 A 1) 05 00033
57 I IF (IOCHK(I)) 210, 110, 210 *****
58 C 05 00035
59 C-----NOW LIST OUT CARD IMAGE 05 00036
60 I 110 CALL HEADER(1) *****
61 I WRITE (OUT, 97) (BUF(I), I = 81, 160) 05 00038
62 I 97 FORMAT (1X, 80 A 1) 05 00039
63 I IF (IOCHK(I)) 220, 112, 220 *****
64 C 05 00041
65 C-----SHIFT DATA RIGHT IN EACH WORD 05 00042
66 I 112 DO 120 I = 81, 160 *****
67 I 120 CALL BITGET (BUF(I), 15, 08, BUF(I)) 05 00044
68 C 05 00045
69 C-----IF A SLASH CARD IS READ, TREAT AS AN I/O ERROR 05 00046
70 I IF (BUF(81) - 175) 122, 210, 122 *****
71 C 05 00048
72 C-----BLANK SEQUENCE NUMBER PORTION OF THE NEW CARD 05 00049
73 I 122 DO 130 I = 153, 160 *****
74 I 130 BUF(I) = BLANK *****
75 C 05 00053
76 C-----THEN COMPRESS THE NEW CARD IMAGE INTO THE OLD STRING 05 00054
77 I CALL SHRINK 05 00055
78 C 05 00056
79 C-----AND ATTEMPT TO SATISFY THE REQUEST AGAIN 05 00057
80 I GO TO 1 05 00058
81 C *****
82 C-----BELOW ARE THE I/O ERROR STOPS *****
83 I 210 STOP 100 *****
84 I 220 STOP 200 *****
85 I END 05 00059

ENTRY/Common BLOCK NAMES
000312 R GETCHR
000646 C COMMON
EXTERNAL NAMES
000264 E SHRINK
000053 E $RD
000000 E V$RERR
000000 E V$RER1
000142 E $11

```

```
000256 E $DO
000154 E $ND
000165 E IOCHK
000122 E HEADER
000125 E $WR
000207 E BITGET
000274 E $ST
SYMBOL TABLE
000301 R 000001
000001 C P1
000002 C P2
000435 C OUT
000436 C VT$DFL
000437 C VT$DFT
000440 C BLANK
000606 C PGCNT
000003 C BUF
000304 R 000240
000244 C SECTOR
000442 C LSD
000447 C TUIDN
000453 C TIB
000457 C TCD
000607 C DFLFCB
000624 C DFTFCB
000464 C LINE
000003 R 1
000000 C ITEST
000243 C INCHAR
000434 C IN
000441 C LSDN
000604 C LNCNT
000605 C LNMAX
000641 C IVALUE
000642 C LFILE
000643 C NXTSCT
000644 C IDTSCT
000645 C IDTDSP
000277 R 000002
000252 R 0$
000300 R $1
000023 R 10

000050 R 100
000264 E SHRINK
000053 E $RD
000000 E V$RERR
000000 E V$RER1
000105 R 99
000303 R 1
000302 R 000121
000142 E $11
000256 E $DO
000154 E $ND
000165 E IOCHK
000267 R 210
000121 R 110
000122 E HEADER
000125 E $WR
000157 R 97
000273 R 220
000175 R 112
000201 R 120
000207 E BITGET
000305 R 000017
000306 R 000010
000310 R 000257
000307 R 000123
000235 R 122
000241 R 130
000311 R 000231
000274 E $ST
0 ERRORS COMPILATION COMPLETE
```

```

1 C THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES 07 00001
2 C 07 00002
3 C V.D.M. PART NO. 92L1105-027A 07 00003
4 C 07 00004
5 C RELEASED 03-26-7 07 00005
6 C 07 00006
7 C 07 00007
8 C GETLSD 07 00008
9 C 07 00009
10 C 07 00010
11 C TITLE GETLSD 07 00011

12 SUBROUTINE GETLSD 07 00012
13 C THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES *****
14 C *****
15 C V.D.M. PART NO. 92L1105-023A *****
16 C *****
17 C RELEASED 03-26-7 *****
18 C *****
19 C *****
20 C COMMON *****
21 C *****
22 C *****
23 C *****
24 C * DECLARE COMMON CELLS * *****
25 C *****
26 C COMMON ITEST , P1 , P2 , BUF , INCHAR, SECTOR, IN *****
27 C COMMON OUT , VT$DFL, VT$DFT, BLANK , LSON , LSD , TUIDN *****
28 C COMMON TIB , TCD , LINE , LNCNT , LNMAX , PGCNT *****
29 C COMMON DFLFCB, DFTFCB, IVALUE, LFILE , NXTSCT, IDTSCT, IDTDSP *****
30 C INTEGER P1 , P2 , OUT , VT$DFL, VT$DFT, BLANK , PGCNT *****
31 C INTEGER BUF (160), SECTOR(120), LSD ( 5), TUIDN ( 4) *****
32 C INTEGER TIB ( 4), TCD ( 5), DFLFCB( 13), DFTFCB( 13) *****
33 C INTEGER LINE ( 80) *****
34 C *****
35 C * END OF COMMON DECLARATIONS * *****
36 C *****
37 C 07 00013
38 C THIS ROUTINE IS CALLED WHENEVER AN LSD IS NEEDED. 07 00014
39 C FIRST THE SECTOR AND DISPLACEMENT OF THE LSD IS COMPUTED. 07 00015
40 C THEN A CHECK IS PERFORMED TO SEE IF THIS SECTOR IS ALREADY 07 00016
41 C IN THE COMMON BUFFER. IF IT IS NOT, THEN IT IS READ 07 00017
42 C FROM THE FILE, VT$DFL. FINALLY THE LSD IS MOVED TO THE COMMON 07 00018
43 C VECTOR, 'LSD' AND A NORMAL RETURN IS MADE TO THE CALLER. 07 00019
44 C 07 00020
45 C ***** 07 00021
46 C 07 00022
47 C-----ZERO OUT LSD IN COMMON 07 00023
48 DO 100 I = 1, 5 07 00024
49 100 LSD(I) = 0 07 00025
50 C 07 00026
51 C-----IF FILE IS CLOSED, MERELY RETURN 07 00027
52 IF (DFLFCB(5)) 500, 500, 110 *****

53 C 07 00029
54 C-----FIRST COMPUTE THE SECTOR AND DISPLACEMENT WITHIN THE SECTOR 07 00030
55 110 ISECT = LSDN / 24 + 1 *****
56 IDISP = LSDN - (ISECT - 1) * 24 07 00032
57 IDISP = IDISP * 5 07 00033
58 C 07 00034
59 C-----THEN CHECK AND SEE IF WE REALLY HAVE TO DO THE READ 07 00035
60 IF (LFILE - 1) 130, 120, 130 *****
61 120 IF (DFLFCB(4) - ISECT) 130, 200, 130 *****
62 C 07 00037
63 C-----DIDN'T WORK, A READ IS REQUIRED 07 00038
64 130 LFILE = 1 *****
65 DFLFCB(4) = ISECT 07 00040
66 READ (VT$DFL) SECTOR 07 00041
67 DFLFCB(4) = ISECT 07 00042
68 IF (IOCHK(1)) 140, 200, 140 *****
69 C *****
70 C-----STOP ON FILE ERROR *****
71 140 STOP 300 *****
72 C 07 00044
73 C-----NOW MOVE THE LSD TO THE COMMON VECTOR LSD 07 00045
74 200 CONTINUE 07 00046
75 DO 210 I = 1, 5 07 00047
76 J = IDISP + I 07 00048
77 LSD(I) = SECTOR(J) 07 00049
78 210 CONTINUE 07 00050
79 C 07 00051
80 C-----THEN MAKE A NORMAL RETURN TO THE CALLER 07 00052
81 500 RETURN *****
82 END 07 00054

ENTRY/Common BLOCK NAMES
000241 R GETLSD
000646 C COMMON
EXTERNAL NAMES
000214 E $DO
000135 E $RD
000000 E $SRERR
000000 E $SRER1
000141 E $I1
000145 E $ND
000154 E IOCHK
000163 E $ST

```

SYMBOL TABLE

```
000223 R 000001
000001 C P1
000002 C P2
000435 C OUT
000436 C VT$DFL
000437 C VT$DFT
000440 C BLANK
000606 C PGCNT
000003 C BUF
000244 C SECTOR
000442 C LSD
000230 R 000005
000447 C TUIDN
000453 C TIB
000457 C TCD
000607 C DFLFCB
000624 C DFTFCB
000464 C LINE
000000 C ITEST
000243 C INCHAR
000434 C IN
000441 C LSDN
000604 C LNCNT
000605 C LNMAX
000641 C IVALUE
000642 C LFILE
000643 C NXTSCT
000644 C IDTSCT
000645 C IDTDSP
000007 R 100
000224 R I
000210 R 0$
000227 R 000000
000225 R 000441
000226 R $1
000214 E $DO
000231 R 000613
000221 R 500
000035 R 110
000233 R ISECT
000232 R 000030

000234 R IDISP
000121 R 130
000106 R 120
000235 R 000612
000166 R 200
000135 E $RD
000000 E V$RERR
000000 E V$RER1
000141 E $I1
000145 E $ND
000154 E IOCHK
000162 R 140
000163 E $ST
000213 R 210
000236 R J
000237 R 000243
000240 R $1 0
0 ERRORS COMPILATION COMPLETE
```



```

1 C THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES 05 00001
2 C 05 00002
3 C V.D.M. PART NO. 92L1105-028A 05 00003
4 C 05 00004
5 C RELEASED 03-26-7 05 00005
6 C 05 00006
7 C 05 00007
8 C HEADER 05 00008
9 C 05 00009
10 C 05 00010
11 C TITLE HEADER 05 00011

12 SUBROUTINE HEADER(N) 05 00012
13 C THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES *****
14 C *****
15 C V.D.M. PART NO. 92L1105-023A *****
16 C *****
17 C RELEASED 03-26-7 *****
18 C *****
19 C *****
20 C COMMON *****
21 C *****
22 C *****
23 C *****
24 C * DECLARE COMMON CELLS * *****
25 C *****
26 C COMMON ITEST , P1 , P2 , BUF , INCHAR, SECTOR, IN *****
27 C COMMON OUT , VT$DFL, VT$DFT, BLANK , LSDN , LSD , TUIDN *****
28 C COMMON TIB , TCD , LINE , LNCNT , LNMAX , PGCNT *****
29 C COMMON DFLFCB, DFTFCB, IVALUE, LFILE , NXTSCT, IDTSCT, IDTDSP *****
30 C INTEGER P1 , P2 , OUT , VT$DFL, VT$DFT, BLANK , PGCNT *****
31 C INTEGER BUF (160), SECTOR(120), LSD ( 5), TUIDN ( 4) *****
32 C INTEGER TIB ( 4), TCD ( 5), DFLFCB( 13), DFTFCB( 13) *****
33 C INTEGER LINE ( 80) *****
34 C *****
35 C * END OF COMMON DECLARATIONS * *****
36 C *****
37 C 05 00013
38 C THIS ROUTINE IS CALLED WHENEVER A NEW HEADING IS NEEDED 05 00014
39 C ON THE LISTING DEVICE(LO). 05 00015
40 C 05 00016
41 C 05 00017
42 C INTEGER NAMDTE(9), DATE(4), NAME(4) 05 00018
43 C EQUIVALENCE (NAMDTE(1), DATE(1)), (NAMDTE(5), NAME(1)) 05 00019
44 C *****
45 C-----INCREMENT LINE COUNTER BY USER AMOUNT 05 00020
46 C LNCNT = LNCNT + N 05 00021
47 C IF (LNCNT - LNMAX) 500, 500, 100 *****
48 C 05 00023
49 C-----NEW PAGE IS NEEDED, PREPARE TOP LINE 05 00024
50 C 100 PGCNT = PGCNT + 1 *****
51 C LNCNT = 3 05 00026
52 C CALL TIME (J,I) 05 00027

53 I = J / 60 05 00028
54 J = J - I * 60 05 00029
55 I = I * 100 + J 05 00030
56 CALL SYSGET (NAMDTE) 05 00031
57 WRITE (OUT, 99) PGCNT, DATE, NAME, I 05 00032
58 99 FORMAT (5H1PAGE, 15, 2X, 4A2, 2X, 4A2, 2X, 05 00033
59 1 6HVORTEX, 2X, 4HVTAM, 2X, 3HNDL, 14X, 14, 6H HOURS, /) 05 00034
60 IF (IOCHK(1)) 200, 500, 200 *****
61 C *****
62 C-----STOP ON PRINTER ERROR *****
63 200 STOP 200 *****
64 C 05 00036
65 C-----RETURN TO THE CALLER 05 00037
66 500 RETURN *****
67 END 05 00039

ENTRY/Common BLOCK NAMES
000231 R HEADER
000646 C COMMON
EXTERNAL NAMES
000002 E $SE
000054 E TIME
000106 E SYSGET
000111 E $WR
000000 E $SRERR
000000 E $SRER1
000131 E $I1
000135 E $ND
000207 E IOCHK
000216 E $ST
SYMBOL TABLE
000223 R 000001
100004 R N
000002 E $SE
000001 C P1
000002 C P2
000435 C OUT
000436 C VT$DFL
000437 C VT$DFT
000440 C BLANK
000606 C PGCNT
000003 C BUF
000244 C SECTOR

```

```
000442 C LSD
000447 C TUIDN
000453 C TIB
000457 C TCD
000607 C DFLFCB
000624 C DFTFCB
000464 C LINE
000007 R NAMDE
000007 R DATE
000013 R NAME
000000 C ITEST
000243 C INCHAR
000434 C IN
000441 C LSDN
000604 C LNCNT
000605 C LNMAX
000641 C IVALUE
000642 C LFILE
000643 C NXTSCT
000644 C IDTSCT
000645 C IDTOSP
000221 R 500
000036 R 100
000060 R 0$
000224 R 000003
000054 E TIME
000225 R J
000226 R I
000227 R 000074
000230 R 000144
000106 E SYSGET
000111 E $WR
000000 E VSRERR
000000 E VSRER1
000140 R 99
000131 E $11
000135 E $ND
000207 E IOCHK
000215 R 200
000216 E $ST
0 ERRORS COMPILATION COMPLETE
```

```

1 C THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES 02 00001
2 C 02 00002
3 C V.D.M. PART NO. 92L1105-029A 02 00003
4 C 02 00004
5 C RELEASED 03-26-7 02 00005
6 C 02 00006
7 C 02 00007
8 C NDL 02 00008
9 C 02 00009
10 C 02 00010
11 C TITLE NDL 02 00011

```

```

12 C 02 00012
13 C THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES *****
14 C *****
15 C V.D.M. PART NO. 92L1105-023A *****
16 C *****
17 C RELEASED 03-26-7 *****
18 C *****
19 C *****
20 C COMMON *****
21 C *****
22 C *****
23 C *****
24 C * DECLARE COMMON CELLS * *****
25 C *****
26 C COMMON ITEST , P1 , P2 , BUF , INCHAR, SECTOR, IN *****
27 C COMMON OUT , VT$DFL, VT$DFT, BLANK , LSDN , LSD , TUIDN *****
28 C COMMON TIB , TCD , LINE , LNCNT , LNMAX , PGCNT *****
29 C COMMON DFLFCB, DFTFCB, IVALUE, LFILE , NXTSCT, IDTSCT, IDTDSP *****
30 C INTEGER P1 , P2 , OUT , VT$DFL, VT$DFT, BLANK , PGCNT *****
31 C INTEGER BUF (160), SECTOR(120), LSD ( 5), TUIDN ( 4) *****
32 C INTEGER TIB ( 4), TCD ( 5), DFLFCB( 13), DFTFCB( 13) *****
33 C INTEGER LINE ( 80) *****
34 C *****
35 C * END OF COMMON DECLARATIONS * *****
36 C *****
37 C 02 00013
38 C-----INITIALIZE RMD FILES AND COMMON 02 00014
39 C CALL OVLAY (0, 0, 6HCLEAR ) *****
40 C 02 00016
41 C-----ANALYZE THE USER'S INPUT 02 00017
42 C CALL OVLAY (0, 0, 6HPARSE ) *****
43 C 02 00019
44 C-----PREPARE REPORT OF FINAL CONTENTS OF FILES 02 00020
45 C CALL OVLAY (0, 0, 6HREPORT) *****
46 C 02 00022
47 C-----THEN RETURN CONTROL TO VORTEX 02 00023
48 C CALL EXIT 02 00024
49 C END 02 00025

```

ENTRY/COMMON BLOCK NAMES

```

000043 R
000646 C COMMON

```

EXTERNAL NAMES

```

000034 E OVLAY
000041 E EXIT

```

SYMBOL TABLE

```

000001 C P1
000002 C P2
000435 C OUT
000436 C VT$DFL
000437 C VT$DFT
000440 C BLANK
000606 C PGCNT
000003 C BUF
000244 C SECTOR
000442 C LSD
000447 C TUIDN
000453 C TIB
000457 C TCD
000607 C DFLFCB
000624 C DFTFCB
000464 C LINE
000000 C ITEST
000243 C INCHAR
000434 C IN
000441 C LSDN
000604 C LNCNT
000605 C LNMAX
000641 C IVALUE
000642 C LFILE
000643 C NXTSCT
000644 C IDTSCT
000645 C IDTDSP
000034 E OVLAY
000042 R 000000
000041 E EXIT

```

```

0 ERRORS COMPILATION COMPLETE

```

```

1 C THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES 04 00001
2 C                                     04 00002
3 C V.D.M. PART NO.          92L1105-030A 04 00003
4 C                                     04 00004
5 C                                     04 00005
6 C                                     04 00006
7 C                                     04 00007
8 C NUMBER 04 00008
9 C                                     04 00009
10 C                                     04 00010
11 C TITLE NUMBER 04 00011
    
```

```

12 SUBROUTINE NUMBER(IRAD) 04 00012
13 C THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES *****
14 C *****
15 C V.D.M. PART NO.          92L1105-023A *****
16 C *****
17 C RELEASED 03-26-7 *****
18 C *****
19 C *****
20 C COMMON *****
21 C *****
22 C *****
23 C *****
24 C * DECLARE COMMON CELLS * *****
25 C *****
26 COMMON ITEST , P1 , P2 , BUF , INCHAR, SECTOR, IN *****
27 COMMON OUT , VT$DFL, VT$DFT, BLANK , LSDN , LSD , TUIDN *****
28 COMMON TIB , TCD , LINE , LNCNT , LNMAX , PGCNT *****
29 COMMON DFLFCB, DFTFCB, IVALUE, LFILE , NXTSCT, IDTSCT, IDTDSP *****
30 INTEGER P1 , P2 , OUT , VT$DFL, VT$DFT, BLANK , PGCNT *****
31 INTEGER BUF (160), SECTOR(120), LSD ( 5), TUIDN ( 4) *****
32 INTEGER TIB ( 4), TCD ( 5), DFLFCB( 13), DFTFCB( 13) *****
33 INTEGER LINE ( 80) *****
34 C *****
35 C * END OF COMMON DECLARATIONS * *****
36 C *****
37 C 04 00013
38 C SUBROUTINE NUMBER CONVERTS A NUMERIC CHARACTER STRING IN THE 04 00014
39 C INPUT BUFFER TO A BINARY VALUE. PARAMETER IRAD 04 00015
40 C DETERMINES THE DESIRED RADIX, FROM 1 TO 10. NUMBER IS ALWAYS 04 00016
41 C TRUE AND RETURNS THE BINARY VALUE IN COMMON CELL IVALUE 04 00017
42 C 04 00018
43 C-----SET TEST FLAG TRUE, ZERO RESULT AND BACKUP INPUT POINTERS 04 00019
44 ITEST = 1 04 00020
45 IVALUE = 0 04 00021
46 CALL BACKUP 04 00022
47 C 04 00023
48 C-----NOW SEE IF THE NEXT CHARACTER IS A NUMBER, IN THE SPECIFIED RADIX 04 00024
49 I CALL GETCHR 04 00025
50 IF (INCHAR - 176) 500, 200, 200 *****
51 200 IF (INCHAR - (175 + IRAD)) 210, 210, 500 *****
52 C 04 00027
53 C-----INCHAR IS A LEGAL DIGIT, ADVANCE POINTERS AND ADD INTO RESULT 04 00028
54 210 CALL ADVANC *****
55 IVALUE = IVALUE * IRAD + (INCHAR - 176) 04 00030
56 C 04 00031
57 C-----AND THEN GO BACK AND TRY THE NEXT DIGIT 04 00032
58 GO TO I 04 00033
59 C *****
60 C-----RETURN TO THE CALLER *****
61 500 RETURN *****
62 END 04 00034
    
```

ENTRY/Common BLOCK NAMES

```

000124 R NUMBER
000646 C COMMON
EXTERNAL NAMES
000002 E $SE
000024 E BACKUP
000026 E GETCHR
000064 E ADVANC
SYMBOL TABLE
000117 R 000001
100004 R IRAD
000002 E $SE
000001 C P1
000002 C P2
000435 C OUT
000436 C VT$DFL
000437 C VT$DFT
000440 C BLANK
000606 C PGCNT
000003 C BUF
000244 C SECTOR
000442 C LSD
000447 C TUIDN
000453 C TIB
000457 C TCD
000607 C DFLFCB
000624 C DFTFCB
000464 C LINE
000000 C ITEST
000243 C INCHAR
000434 C IN
000441 C LSDN
    
```

```
000604 C LNCNT
000605 C LNMAX
000641 C IVALUE
000642 C LFILE
000643 C NXTSCT
000644 C IDTSCF
000645 C IDTDSM
000106 R 0$
000120 R 000000
000024 E BACKUP
000025 R 1
000026 E GETCHR
000121 R 000260
000115 R 500
000041 R 200
000122 R 000257
000063 R 210
000064 E ADVANC
000123 R $1
0 ERRORS COMPILATION COMPLETE
```

```

1 C THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES 10 00001
2 C 10 00002
3 C V.D.M. PART NO. 92L1105-031A 10 00003
4 C 10 00004
5 C RELEASED 03-26-7 10 00005
6 C 10 00006
7 C 10 00007
8 C PARSE 10 00008
9 C 10 00009
10 C 10 00010
11 C TITLE PARSE 10 00011

12 SUBROUTINE PARSE 10 00012
13 C THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES *****
14 C *****
15 C V.D.M. PART NO. 92L1105-023A *****
16 C *****
17 C RELEASED 03-26-7 *****
18 C *****
19 C *****
20 C COMMON *****
21 C *****
22 C *****
23 C *****
24 C * DECLARE COMMON CELLS * *****
25 C *****
26 C COMMON ITEST , P1 , P2 , BUF , INCHAR, SECTOR, IN *****
27 C COMMON OUT , VT$DFL, VT$DFT, BLANK , LSDN , LSD , TUIDN *****
28 C COMMON TIB , TCD , LINE , LNCNT , LNMAX , PGCNT *****
29 C COMMON DFLFCB, DFTFCB, IVALUE, LFILE , NXTSCT, IDTSCT, IDTDSP *****
30 C INTEGER P1 , P2 , OUT , VT$DFL, VT$DFT, BLANK , PGCNT *****
31 C INTEGER BUF (160), SECTOR(120), LSD ( 5), TUIDN ( 4) *****
32 C INTEGER TIB ( 4), TCD ( 5), DFLFCB( 13), DFTFCB( 13) *****
33 C INTEGER LINE ( 80) *****
34 C *****
35 C * END OF COMMON DECLARATIONS * *****
36 C *****
37 C
38 C THIS SUBROUTINE PARSSES THE INPUT STREAM AND SETS UP ALL *****
39 C THE VTAM RMD TABLES *****
40 C *****
41 C 1 CONTINUE 10 00015
42 C ***** 10 00016
43 C ** ** 10 00017
44 C ** START OF LINE SECTION ** 10 00018
45 C ** ** 10 00019
46 C ***** 10 00020
47 C ('LINE' <BYTE> ':') :?BITSET(LSDN,15,00,IVALUE) 10 00021
48 C CALL COMPAR(0) 10 00022
49 C IF (ITEST) 500, 2 , 500 *****
50 C 500 CONTINUE *****
51 C ASSIGN 3 TO IRADD 10 00024
52 C GO TO 9001 10 00025

53 C 3 CONTINUE 10 00026
54 C CALL COMPAR(1) 10 00028
55 C CALL DIAG *****
56 C 10 00030
57 C -----SAVE LSD NUMBER AND SETUP DEFAULT LSD VALUES *****
58 C LSDN = IVALUE *****
59 C MODE = 0 *****
60 C LSD(1) = 0 *****
61 C LSD(2) = -30067 *****
62 C LSD(3) = -32512 *****
63 C LSD(4) = 150 *****
64 C LSD(5) = 150 *****
65 C 4 CONTINUE 10 00051
66 C ***** 10 00052
67 C CALL COMPAR(2) 10 00053
68 C /'ADDRESS' '=' <BYTE> :?BITSET(LSD(3),07,00,IVALUE) 10 00054
69 C 5 CONTINUE 10 00055
70 C CALL COMPAR(3) 10 00057
71 C IF (ITEST) 501, 7 , 501 *****
72 C 501 CONTINUE *****
73 C CALL COMPAR(4) 10 00059
74 C CALL DIAG *****
75 C ASSIGN 8 TO IRADD 10 00061
76 C GO TO 9001 10 00062
77 C 8 CONTINUE 10 00063
78 C CALL BITSET(LSD(3), 5, 0, IVALUE) 10 00065
79 C GO TO 4 *****
80 C /'CONNECT' '=' 10 00066
81 C 7 CONTINUE 10 00067
82 C CALL COMPAR(5) 10 00069
83 C IF (ITEST) 502, 9 , 502 *****
84 C 502 CONTINUE *****
85 C CALL COMPAR(4) 10 00071
86 C CALL DIAG *****
87 C ('DIRECT' :?BITSET(LSD(1),15,14,0) 10 00073
88 C CALL COMPAR(6) 10 00074
89 C IF (ITEST) 503, 10 , 503 *****
90 C 503 CONTINUE *****
91 C CALL BITSET(LSD(1),15,14,0) 10 00076
92 C GO TO 4 *****
93 C /'MODEM' :?BITSET(LSD(1),15,14,1) 10 00077
94 C 10 CONTINUE 10 00078

```

```

95      CALL COMPAR(7)                                10 00080
96      IF (ITEST) 504, 12 , 504                      *****
97 504  CONTINUE                                     *****
98      CALL BITSET(LSD(1),15,14,1)                   10 00082
99      GO TO 4                                       *****
100 C    /'DIAL'-'MODEM'                               :?BITSET(LSD(1),15,14,2)* 10 00083
101 12  CONTINUE                                     10 00084
102      CALL COMPAR(8)                                10 00086
103      CALL DIAG                                     *****
104      CALL COMPAR(9)                                10 00088
105      CALL DIAG                                     *****
106      CALL COMPAR(7)                                10 00090
107      CALL DIAG                                     *****
108      CALL BITSET(LSD(1),15,14,2)                   10 00092
109      GO TO 4                                       *****
110 C    )                                           10 00093
111 13  CONTINUE                                     10 00094
112 11  CONTINUE                                     10 00095
113 C    /'CRC'-'STOP'=' <BYTE>                       :?BITSET(LSD(4),12,10,IVALUE)* 10 00097
114 9   CONTINUE                                     10 00098
115      CALL COMPAR(10)                               10 00100
116      IF (ITEST) 505, 14 , 505                      *****
117 505 CONTINUE                                     *****
118      CALL COMPAR(9)                                10 00102
119      CALL DIAG                                     *****
120      CALL COMPAR(11)                               10 00104
121      CALL DIAG                                     *****
122      CALL COMPAR(4)                                10 00106
123      CALL DIAG                                     *****
124      ASSIGN 15 TO IRADD                            10 00108
125      GO TO 9001                                    10 00109
126 15  CONTINUE                                     10 00110
127 C                                           10 00112
128 C-----GO TO CHECK FOR SYNCHRONOUS                10 00113
129      ASSIGN 9915 TO IRADD                          10 00114
130      GO TO 9004                                    10 00115
131 9915 CONTINUE                                    10 00116
132      CALL BITSET(LSD(4),12,10,IVALUE)              10 00117
133      GO TO 4                                       *****
134 C    /'ECHO'=' <LOGIC>                             :?BITSET(LSD(3),14,14,LOGIC)* 10 00118
135 14  CONTINUE                                     10 00119
136      CALL COMPAR(12)                               10 00121

137      IF (ITEST) 506, 16 , 506                      *****
138 506 CONTINUE                                     *****
139      CALL COMPAR(4)                                10 00123
140      IF(ITEST.EQ.0)CALL DIAG                       10 00124
141      ASSIGN 17 TO IRADD                            10 00125
142      GO TO 9002                                    10 00126
143 17  CONTINUE                                     10 00127
144 C                                           10 00129
145 C-----GO TO CHECK FOR ASYNCHRONOUS              10 00130
146      ASSIGN 9917 TO IRADD                          10 00131
147      GO TO 9003                                    10 00132
148 9917 CONTINUE                                    10 00133
149      CALL BITSET(LSD(3),14,14,LOGIC)              10 00134
150      GO TO 4                                       *****
151 C    /'EOM'-'STOP'='                               10 00135
152 16  CONTINUE                                     10 00136
153      CALL COMPAR(13)                               10 00138
154      IF (ITEST) 507, 18 , 507                      *****
155 507 CONTINUE                                     *****
156      CALL COMPAR(9)                                10 00140
157      CALL DIAG                                     *****
158      CALL COMPAR(11)                               10 00142
159      CALL DIAG                                     *****
160      CALL COMPAR(4)                                10 00144
161      CALL DIAG                                     *****
162 C    ( 'FALSE'                                       :?BITSET(LSD(3),15,15,0)* 10 00146
163      CALL COMPAR(14)                               10 00147
164      IF (ITEST) 508, 19 , 508                      *****
165 508 CONTINUE                                     *****
166      CALL BITSET(LSD(3),15,15,0)                   10 00149
167      GO TO 4                                       *****
168 C    /'(' <BYTE>                                   :?BITSET(LSD(2),15,08,IVALUE)* 10 00150
169 19  CONTINUE                                     10 00151
170      CALL COMPAR(15)                               10 00153
171      IF (ITEST) 509, 21 , 509                      *****
172 509 CONTINUE                                     *****
173      ASSIGN 22 TO IRADD                            10 00155
174      GO TO 9001                                    10 00156
175 22  CONTINUE                                     10 00157
176      CALL BITSET(LSD(2),15,08,IVALUE)              10 00159
177 C    ' <BYTE>                                       :?BITSET(LSD(2),07,00,IVALUE)* 10 00160
178      CALL COMPAR(2)                                10 00161

179      CALL DIAG                                     *****
180      ASSIGN 23 TO IRADD                            10 00163
181      GO TO 9001                                    10 00164
182 23  CONTINUE                                     10 00165
183      CALL BITSET(LSD(2),07,00,IVALUE)              10 00167
184 C    ')'                                           :?BITSET(LSD(3),15,15,1)* 10 00169
185      CALL COMPAR(16)                               10 00169
186      CALL DIAG                                     *****
187      CALL BITSET(LSD(3),15,15,1)                   10 00171
188      GO TO 4                                       *****
189 C    /<BYTE>                                       :?BITSET(LSD(2),15,08,IVALUE)* 10 00172
190 21  CONTINUE                                     10 00173
191      ASSIGN 24 TO IRADD                            10 00175

```

192		GO TO 9001		10 00176
193	24	CONTINUE		10 00177
194		CALL BITSET(LSD(2),15,08,IVALUE)		10 00179
195		CALL BITSET(LSD(2),07,00,IVALUE)		10 00181
196		CALL BITSET(LSD(3),15,15,1)		10 00182
197		GO TO 4		*****
198	C	)		10 00183
199	25	CONTINUE		10 00184
200	20	CONTINUE		10 00185
201	C	/'ERROR''-'STOP''=' <LOGIC> :?BITSET(LSD(4),13,13,LOGIC)●		10 00187
202	18	CONTINUE		10 00188
203		CALL COMPAR(17)		10 00190
204		IF (ITEST) 510, 26 , 510		*****
205	510	CONTINUE		*****
206		CALL COMPAR(9)		10 00192
207		CALL DIAG		*****
208		CALL COMPAR(11)		10 00194
209		CALL DIAG		*****
210		CALL COMPAR(4)		10 00196
211		CALL DIAG		*****
212		ASSIGN 27 TO IRADD		10 00198
213		GO TO 9002		10 00199
214	27	CONTINUE		10 00200
215		CALL BITSET(LSD(4),13,13,LOGIC)		10 00202
216		GO TO 4		*****
217	C	/'LINE''-'TYPE''='		10 00203
218	26	CONTINUE		10 00204
219		CALL COMPAR(0)		10 00206
220		IF (ITEST) 511, 28 , 511		*****
221	511	CONTINUE		*****
222		CALL COMPAR(9)		10 00208
223		CALL DIAG		*****
224		CALL COMPAR(18)		10 00210
225		CALL DIAG		*****
226		CALL COMPAR(4)		10 00212
227		CALL DIAG		*****
228	C	('HALF''-'DUPLX' :?BITSET(LSD(1),10,09,0)●		10 00214
229		CALL COMPAR(19)		10 00215
230		IF (ITEST) 512, 29 , 512		*****
231	512	CONTINUE		*****
232		CALL COMPAR(9)		10 00217
233		CALL DIAG		*****
234		CALL COMPAR(20)		10 00219
235		CALL DIAG		*****
236		CALL BITSET(LSD(1),10,09,0)		10 00221
237		GO TO 4		*****
238	C	/'SIMPLEX''-'RECEIVE' :?BITSET(LSD(1),10,09,1)●		10 00222
239	29	CONTINUE		10 00223
240		CALL COMPAR(21)		10 00225
241		IF (ITEST) 513, 32 , 513		*****
242	513	CONTINUE		*****
243		CALL COMPAR(9)		10 00227
244		CALL DIAG		*****
245		CALL COMPAR(22)		10 00229
246		IF (ITEST) 514, 31 , 514		*****
247	514	CONTINUE		*****
248		CALL BITSET(LSD(1),10,09,1)		10 00231
249		GO TO 4		*****
250	C	/'SIMPLEX''-'TRANSMIT' :?BITSET(LSD(1),10,09,2)●		10 00232
251	31	CONTINUE		10 00233
252		CALL COMPAR(23)		10 00235
253		CALL DIAG		*****
254		CALL BITSET(LSD(1),10,09,2)		10 00237
255		GO TO 4		*****
256	C	/'FULL''-'DUPLX' :?BITSET(LSD(1),10,09,3)●		10 00238
257	32	CONTINUE		10 00239
258		CALL COMPAR(24)		10 00241
259		CALL DIAG		*****
260		CALL COMPAR(9)		10 00243
261		CALL DIAG		*****
262		CALL COMPAR(20)		10 00245
263		CALL DIAG		*****
264		CALL BITSET(LSD(1),10,09,3)		10 00247
265		GO TO 4		*****
266	C	)		10 00248
267	33	CONTINUE		10 00249
268	30	CONTINUE		10 00250
269	C	/'MODE''='		10 00252
270	28	CONTINUE		10 00253
271		CALL COMPAR(25)		10 00255
272		IF (ITEST) 515, 34 , 515		*****
273	515	CONTINUE		*****
274		CALL COMPAR(4)		10 00257
275		CALL DIAG		*****
276	C	('A''SYNC''HRONOUS' :?BITSET(LSD(1),11,11,0)●		10 00259
277		CALL COMPAR(26)		10 00260
278		IF (ITEST) 516, 35 , 516		*****
279	516	CONTINUE		*****
280		CALL COMPAR(27)		10 00262
281		CALL DIAG		*****
282		CALL COMPAR(28)		10 00264
283		CALL DIAG		*****
284	C	)		10 00266
285	C-----	GO TO CHECK FOR ASYNCHRONOUS		10 00267
286		ASSIGN 9935 TO IRADD		10 00268
287		GO TO 9003		10 00269
288	9935	CONTINUE		10 00270


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289      CALL BITSET(LSD(1),11,11,0)          10 00271
290      GO TO 4                               *****
291 C    /'SYNC''HRONOUS'                    :?BITSET(LSD(1),11,11,1)• 10 00272
292 35   CONTINUE                             10 00273
293     CALL COMPAR(27)                       10 00275
294     CALL DIAG                             *****
295     CALL COMPAR(28)                       10 00277
296     CALL DIAG                             *****
297 C                                         10 00279
298 C-----GO TO CHECK FOR SYNCHRONOUS      10 00280
299     ASSIGN 9937 TO IRADD                   10 00281
300     GO TO 9004                             10 00282
301 9937 CONTINUE                             10 00283
302     CALL BITSET(LSD(1),11,11,1)          10 00284
303     GO TO 4                               *****
304 C                                         10 00285

305 37   CONTINUE                             10 00286
306 36   CONTINUE                             10 00287
307 C    /'PARITY''='                        10 00289
308 34   CONTINUE                             10 00290
309     CALL COMPAR(29)                       10 00292
310     IF (ITEST) 517, 38 , 517             *****
311 517   CONTINUE                             *****
312     CALL COMPAR(4)                       10 00294
313     CALL DIAG                             *****
314 C    ( 'NONE'                             :?BITSET(LSD(1),13,12,0)• 10 00296
315     CALL COMPAR(30)                       10 00297
316     IF (ITEST) 518, 39 , 518             *****
317 518   CONTINUE                             *****
318     CALL BITSET(LSD(1),13,12,0)          10 00299
319     GO TO 4                               *****
320 C    /'ODD'                               :?BITSET(LSD(1),13,12,1)• 10 00300
321 39   CONTINUE                             10 00301
322     CALL COMPAR(31)                       10 00303
323     IF (ITEST) 519, 41 , 519             *****
324 519   CONTINUE                             *****
325     CALL BITSET(LSD(1),13,12,1)          10 00305
326     GO TO 4                               *****
327 C    /'EVEN'                             :?BITSET(LSD(1),13,12,2)• 10 00306
328 41   CONTINUE                             10 00307
329     CALL COMPAR(32)                       10 00309
330     CALL DIAG                             *****
331     CALL BITSET(LSD(1),13,12,2)          10 00311
332     GO TO 4                               *****
333 C                                         10 00312
334 42   CONTINUE                             10 00313
335 40   CONTINUE                             10 00314
336 C    /'SPEED''=' <BYTE>                 :?BITSET(LSD(1),08,00,IVALUE)• 10 00316
337 38   CONTINUE                             10 00317
338     CALL COMPAR(33)                       10 00319
339     IF (ITEST) 520, 43 , 520             *****
340 520   CONTINUE                             *****
341     CALL COMPAR(4)                       10 00321
342     CALL DIAG                             *****
343     ASSIGN 44 TO IRADD                    10 00323
344     GO TO 9001                             10 00324
345 44   CONTINUE                             10 00325
346 C                                         10 00327

347 C-----CONVERT SPEED FROM CHARS/SEC TO NO 500 MICRO/CHAR 10 00328
348     IF (IVALUE) 550, 550, 551           *****
349     IVALUE = 1                             *****
350 550   IVALUE = 2000 / IVALUE              *****
351 551   IF (IVALUE - 511) 553, 553, 552    *****
352 552   IVALUE = 0                          *****
353 553   CONTINUE                             *****
354 C                                         10 00332
355     CALL BITSET(LSD(1),08,00,IVALUE)     10 00333
356     GO TO 4                               *****
357 C    /'STATUS''='                         10 00334
358 43   CONTINUE                             10 00335
359     CALL COMPAR(34)                       10 00337
360     IF (ITEST) 521, 45 , 521             *****
361 521   CONTINUE                             *****
362     CALL COMPAR(4)                       10 00339
363     CALL DIAG                             *****
364 C    ( 'UP'                               :?BITSET(LSD(3),09,09,0)• 10 00341
365     CALL COMPAR(35)                       10 00342
366     IF (ITEST) 522, 48 , 522             *****
367 522   CONTINUE                             *****
368     CALL BITSET(LSD(3),09,09,0)          10 00344
369     GO TO 4                               *****
370 C    /'DOWN'                             :?BITSET(LSD(3),09,09,1)• 10 00345
371 46   CONTINUE                             10 00346
372     CALL COMPAR(36)                       10 00348
373     CALL DIAG                             *****
374     CALL BITSET(LSD(3),09,09,1)          10 00350
375     GO TO 4                               *****
376 C                                         10 00351
377 48   CONTINUE                             10 00352
378 47   CONTINUE                             10 00353
379 C    /'STORE''-'SYNC''=' <LOGIC>        :?BITSET(LSD(4),15,15,NLOGIC)• 10 00355
380 45   CONTINUE                             10 00356
381     CALL COMPAR(37)                       10 00358
382     IF (ITEST) 523, 49 , 523             *****
383 523   CONTINUE                             *****
384     CALL COMPAR(9)                       10 00360
385     CALL DIAG                             *****

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386		CALL COMPAR(27)		10 00362
387		CALL DIAG		*****
388		CALL COMPAR(4)		10 00364
389		CALL DIAG		*****
390		ASSIGN 50 TO IRADD		10 00366
391		GO TO 9002		10 00367
392	50	CONTINUE		10 00368
393	C			10 00370
394	C-----	GO TO CHECK FOR SYNCHRONOUS		10 00371
395		ASSIGN 9950 TO IRADD		10 00372
396		GO TO 9004		10 00373
397	9950	CONTINUE		10 00374
398		CALL BITSET(LSD(4),15,15,NLOGIC)		10 00375
399		GO TO 4		*****
400	C	/'SYNC''-'		10 00376
401	49	CONTINUE		10 00377
402		CALL COMPAR(27)		10 00379
403		IF (ITEST) 524, 57, 524		*****
404	524	CONTINUE		*****
405		CALL COMPAR(9)		10 00381
406		IF (ITEST) 525, 51, 525		*****
407	525	CONTINUE		*****
408	C			10 00383
409	C-----	GO TO CHECK FOR SYNCHRONOUS		10 00384
410		ASSIGN 9953 TO IRADD		10 00385
411		GO TO 9004		10 00386
412	9953	CONTINUE		10 00387
413	C	('TRANSMIT''=' <BYTE>	:?BITSET(LSD(4),07,00,IVALUE)*	10 00388
414		CALL COMPAR(23)		10 00389
415		IF (ITEST) 526, 52, 526		*****
416	526	CONTINUE		*****
417		CALL COMPAR(4)		10 00391
418		CALL DIAG		*****
419		ASSIGN 53 TO IRADD		10 00393
420		GO TO 9001		10 00394
421	53	CONTINUE		10 00395
422		CALL BITSET(LSD(4),07,00,IVALUE)		10 00397
423		GO TO 4		*****
424	C	/'RECEIVE''=' <BYTE>	:?BITSET(LSD(5),07,00,IVALUE)*	10 00398
425	52	CONTINUE		10 00399
426		CALL COMPAR(22)		10 00401
427		CALL DIAG		*****
428		CALL COMPAR(4)		10 00403
429		CALL DIAG		*****
430		ASSIGN 56 TO IRADD		10 00405
431		GO TO 9001		10 00406
432	56	CONTINUE		10 00407
433		CALL BITSET(LSD(5),07,00,IVALUE)		10 00409
434		GO TO 4		*****
435	C	)		10 00410
436	C	/'SYNCHRONIZE''=' <LOGIC>	:?BITSET(LSD(4),14,14,LOGIC)*	10 00414
437	51	CONTINUE		10 00415
438		CALL COMPAR(38)		10 00417
439		CALL DIAG		*****
440		CALL COMPAR(4)		10 00419
441		CALL DIAG		*****
442		ASSIGN 58 TO IRADD		10 00421
443		GO TO 9002		10 00422
444	58	CONTINUE		10 00423
445	C			10 00425
446	C-----	GO TO CHECK FOR SYNCHRONOUS		10 00426
447		ASSIGN 9958 TO IRADD		10 00427
448		GO TO 9004		10 00428
449	9958	CONTINUE		10 00429
450		CALL BITSET(LSD(4),14,14,LOGIC)		10 00430
451		GO TO 4		*****
452	C	/'TRANSMIT''-' 'SPEED''='		10 00431
453	57	CONTINUE		10 00432
454		CALL COMPAR(23)		10 00434
455		IF (ITEST) 527, 59, 527		*****
456	527	CONTINUE		*****
457		CALL COMPAR(9)		10 00436
458		CALL DIAG		*****
459		CALL COMPAR(33)		10 00438
460		CALL DIAG		*****
461		CALL COMPAR(4)		10 00440
462		CALL DIAG		*****
463	C			10 00442
464	C-----	GO TO CHECK FOR ASYNCHRONOUS		10 00443
465		ASSIGN 9957 TO IRADD		10 00444
466		GO TO 9003		10 00445
467	9957	CONTINUE		10 00446
468	C	('HIGH'	:?BITSET(LSD(4),15,15,1)*	10 00447
469		CALL COMPAR(39)		10 00448
470		IF (ITEST) 528, 60, 528		*****
471	528	CONTINUE		*****
472		CALL BITSET(LSD(4),15,15,1)		10 00450
473		GO TO 4		*****
474	C	/'LOW'	:?BITSET(LSD(4),15,15,0)*	10 00451
475	60	CONTINUE		10 00452
476		CALL COMPAR(40)		10 00454
477		CALL DIAG		*****
478		CALL BITSET(LSD(4),15,15,0)		10 00456
479		GO TO 4		*****
480	C)		10 00457
481	C	/'TRANSPARENT''=' <LOGIC>	:?BITSET(LSD(3),14,14,IVALUE)*	10 00461

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482 59 CONTINUE 10 00462
483 CALL COMPAR(41) 10 00464
484 IF (ITEST) 529, 63 , 529 *****
485 529 CONTINUE *****
486 CALL COMPAR(4) 10 00466
487 CALL DIAG *****
488 ASSIGN 64 TO IRADD 10 00468
489 GO TO 9002 10 00469
490 64 CONTINUE 10 00470
491 C 10 00472
492 C-----GO TO CHECK FOR SYNCHRONOUS 10 00473
493 ASSIGN 9964 TO IRADD 10 00474
494 GO TO 9004 10 00475
495 9964 CONTINUE 10 00476
496 CALL BITSET(LSD(3),14,14,IVALUE) 10 00477
497 GO TO 4 *****
498 C ) ' ' :?PUTLSD* 10 00478
499 63 CONTINUE 10 00479
500 6 CONTINUE 10 00480
501 CALL COMPAR(42) 10 00483
502 CALL DIAG *****
503 C 10 00485
504 C-----CHECK FOR MODE = ASYNCHRONOUS, ECHO = TRUE AND 10 00486
505 C-----LINE-TYPE .NE. HALF-DUPLEX 10 00487
506 CALL BITGET (I, 11, 11, LSD(1)) 10 00488
507 CALL BITGET (J, 14, 14, LSD(3)) 10 00489
508 CALL BITGET (K, 10, 09, LSD(1)) 10 00490
509 ASSIGN 9963 TO IRADD 10 00491
510 IF ((I .EQ. 0) .AND. (J .EQ. 1) .AND. (K .NE. 0)) GO TO 9005 10 00492
511 9963 CONTINUE 10 00493
512 C 10 00494
513 C-----REWRITE THE LSD TO THE FILE 10 00495
514 CALL PUTLSD 10 00496

515 GO TO 1 *****
516 C **-----***** 10 00497
517 C ** 10 00498
518 C ** END OF LINE SECTION ** 10 00499
519 C ** 10 00500
520 C **-----***** 10 00501
521 C ) 10 00502
522 2 CONTINUE 10 00503
523 C **-----***** 10 00506
524 C ** 10 00507
525 C ** START OF TERMINAL SECTION ** 10 00508
526 C ** 10 00509
527 C **-----***** 10 00510
528 C /('TERMINAL' 10 00511
529 CALL COMPAR(43) 10 00514
530 IF (ITEST) 530, 68 , 530 *****
531 530 CONTINUE *****
532 C 10 00516
533 C-----CLEAR OUT THE COMMON TCD *****
534 DO 9120 I = 1, 5 10 00518
535 9120 TCD(I) = 0 10 00519
536 LSDN = 0 10 00520
537 C **-----***** 10 00521
538 C ** SETUP TCD DEFAULT VALUES ** 10 00522
539 C **-----***** 10 00523
540 TCD(2) = 135 *****
541 TCD(3) = 1 *****
542 C 10 00526
543 C-----GO TO PARSE TUID AND SETUP TIB 10 00527
544 C :?TUID* 10 00528
545 CALL TUID 10 00529
546 CALL DIAG *****
547 C ' ' 10 00530
548 CALL COMPAR(1) 10 00531
549 CALL DIAG *****
550 C $( 10 00533
551 69 CONTINUE 10 00534
552 C ' ' 10 00535
553 CALL COMPAR(2) 10 00536
554 C /'CODE''=' 10 00538
555 CALL COMPAR(44) 10 00541
556 IF (ITEST) 531, 72 , 531 *****

557 531 CONTINUE *****
558 CALL COMPAR(4) 10 00543
559 CALL DIAG *****
560 C ( 'ASCII' :?BITSET(TCD(3),15,12,0)* 10 00545
561 CALL COMPAR(45) 10 00546
562 CALL DIAG *****
563 CALL BITSET(TCD(3),15,12,0) 10 00548
564 GO TO 69 *****
565 C ) 10 00549
566 C /'DEVICES''=' <BYTE> :?BITSET(TCD(3),03,00,IVALUE)* 10 00553
567 72 CONTINUE 10 00554
568 CALL COMPAR(46) 10 00556
569 IF (ITEST) 532, 75 , 532 *****
570 532 CONTINUE *****
571 CALL COMPAR(4) 10 00558
572 CALL DIAG *****
573 ASSIGN 76 TO IRADD 10 00560
574 GO TO 9001 10 00561
575 76 CONTINUE 10 00562
576 CALL BITSET(TCD(3),03,00,IVALUE) 10 00564
577 GO TO 69 *****
578 C /'ECHO''=' <LOGIC> :?BITSET(TCD(2),12,12,LOGIC)* 10 00565

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579 75 CONTINUE 10 00566
580 CALL COMPAR(12) 10 00568
581 IF (ITEST) 533, 77 , 533 *****
582 533 CONTINUE *****
583 CALL COMPAR(4) 10 00570
584 CALL DIAG *****
585 ASSIGN 78 TO IRADD 10 00572
586 GO TO 9002 10 00573
587 78 CONTINUE 10 00574
588 CALL BITSET(TCD(2),12,12,NLOGIC) 10 00576
589 GO TO 69 *****
590 C /'LINE''=' <BYTE> :?BITSET(TCD(1),15,08,IVALUE)● 10 00577
591 77 CONTINUE 10 00578
592 CALL COMPAR(0) 10 00580
593 IF (ITEST) 534, 79 , 534 *****
594 534 CONTINUE *****
595 CALL COMPAR(4) 10 00582
596 CALL DIAG *****
597 ASSIGN 80 TO IRADD 10 00584
598 GO TO 9001 10 00585

599 80 CONTINUE 10 00586
600 CALL BITSET(TCD(1),15,08,IVALUE) 10 00588
601 LSDN = IVALUE 10 00589
602 C 10 00590
603 C-----READ IN THE ASSOCIATED LSD 10 00591
604 CALL GETLSD 10 00592
605 GO TO 69 *****
606 C 10 00593
607 C /'PROMPT''=' <BYTE> :?BITSET(TCD(2),07,00,IVALUE)● 10 00594
608 79 CONTINUE 10 00595
609 CALL COMPAR(47) 10 00597
610 IF (ITEST) 535, 81 , 535 *****
611 535 CONTINUE *****
612 CALL COMPAR(4) 10 00599
613 CALL DIAG *****
614 ASSIGN 82 TO IRADD 10 00601
615 GO TO 9001 10 00602
616 82 CONTINUE 10 00603
617 CALL BITSET(TCD(2),07,00,IVALUE) 10 00605
618 GO TO 69 *****
619 C /'STATUS''=' 10 00606
620 81 CONTINUE 10 00607
621 CALL COMPAR(34) 10 00609
622 IF (ITEST) 536, 83 , 536 *****
623 536 CONTINUE *****
624 CALL COMPAR(4) 10 00611
625 CALL DIAG *****
626 C ( 'UP' :?BITSET(TCD(3),15,15,0)● 10 00613
627 CALL COMPAR(35) 10 00614
628 IF (ITEST) 537, 84 , 537 *****
629 537 CONTINUE *****
630 CALL BITSET(TIB(3), 15, 15, 0) 10 00616
631 GO TO 69 *****
632 C /'DOWN' :?BITSET(TCD(3),15,15,1)● 10 00617
633 84 CONTINUE 10 00618
634 CALL COMPAR(36) 10 00620
635 CALL DIAG *****
636 CALL BITSET(TIB(3), 15, 15, 1) 10 00622
637 GO TO 69 *****
638 C ) 10 00623
639 C /'TYPE''=' 10 00627
640 83 CONTINUE 10 00628

641 CALL COMPAR(18) 10 00630
642 IF (ITEST) 538, 87 , 538 *****
643 538 CONTINUE *****
644 CALL COMPAR(4) 10 00632
645 CALL DIAG *****
646 C ( 'TTY1' :?BITSET(TCD(3),11,08,0)● 10 00634
647 CALL COMPAR(48) 10 00635
648 CALL DIAG *****
649 CALL BITSET(TCD(3),11,08,0) 10 00637
650 GO TO 69 *****
651 C ) 10 00638
652 C /'UNIT''=' <BYTE> :?BITSET(TCD(1),07,00,IVALUE)● 10 00642
653 87 CONTINUE 10 00643
654 CALL COMPAR(49) 10 00645
655 IF (ITEST) 539, 90 , 539 *****
656 539 CONTINUE *****
657 CALL COMPAR(4) 10 00647
658 CALL DIAG *****
659 ASSIGN 91 TO IRADD 10 00649
660 GO TO 9001 10 00650
661 91 CONTINUE 10 00651
662 CALL BITSET(TCD(1),07,00,IVALUE) 10 00653
663 GO TO 69 *****
664 C ) 10 00654
665 90 CONTINUE 10 00655
666 CALL COMPAR(42) 10 00659
667 CALL DIAG *****
668 C ***** 10 00661
669 C ** GET TCXMM FROM LSXMM ** 10 00662
670 C ***** 10 00663
671 CALL BITGET(IVALUE,10,09,LSD(1)) 10 00665
672 CALL BITSET(TCD(2),11,10,IVALUE) 10 00667
673 C ***** 10 00668
674 C ** GET TCD SWITCHED LINE (TCSWL) FROM LSD (LSASY) ** 10 00669
675 C ***** 10 00670

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676      CALL BITGET(IVALUE,11,11,LSD(1))          10 00672
677      CALL BITSET(TCD(2),09,09,IVALUE)          10 00674
678 C **-----**                                10 00675
679 C *      HANDLE ASNYC/SYNC - GET TCSWL FROM LSMOD  ** 10 00676
680 C **-----**                                10 00677
681      CALL BITGET(IVALUE,15,15,LSD(1))          10 00679
682      CALL BITSET(TCD(2),08,08,IVALUE)          10 00681

683 C                                             10 00682
684 C-----OUTPUT THE NEW TCB AND TIB             10 00683
685      CALL PUTTCD                                10 00685
686 C **-----**                                10 00686
687 C **      END OF TERMINAL SECTION               ** 10 00687
688 C **-----**                                10 00688
689      GO TO 1                                     *****
690 C )                                             10 00689
691      68 CONTINUE                                 10 00690
692 C **-----**                                10 00692
693 C **      PROCESS 'END' DIRECTIVE                ** 10 00693
694 C **-----**                                10 00694
695      CALL COMPAR(50)                             10 00696
696      IF (ITEST) 540, 93 , 540                   *****
697      540 CONTINUE                                *****
698      CALL COMPAR(42)                             10 00698
699      CALL DIAG                                    *****
700 C                                             10 00700
701 C-----RETURN TO THE NDL DRIVER               10 00701
702      RETURN                                       10 00702
703 C                                             10 00703
704 C **-----**                                10 00704
705 C **      SERIOUS SYNTAX ERROR HAS OCCURED (ILLEGAL DIRECTIVE) ** 10 00705
706 C **      CALL DIAG TO LIST ERROR AND ADVANCE TO END OF STMT ** 10 00706
707 C **-----**                                10 00707
708 C /:?DIAG* $(-',':?ADVANC*)                    10 00708
709      93 CONTINUE                                 10 00709
710      CALL DIAG                                   10 00711
711      94 CONTINUE                                 10 00712
712      CALL COMPAR(42)                             10 00713
713      IF (ITEST) 95, 95, 1                       *****
714      95 CONTINUE                                *****
715      CALL ADVANC                                  10 00716
716      GO TO 94                                    *****
717 C **-----**                                10 00724
718 C **-----**                                10 00725
719 C **      INLINE SUBROUTINE TO PROCESS BYTE STRINGS ** 10 00726
720 C **-----**                                10 00727
721 C **-----**                                10 00728
722 C <BYTE> =                                       10 00729
723      9001 CONTINUE                                10 00730
724 C      '0'                                       :?NUMBER(08)* 10 00731

725      CALL COMPAR(51)                             10 00732
726      IF (ITEST) 541, 99 , 541                   *****
727      541 CONTINUE                                *****
728      CALL NUMBER(08)                              10 00734
729      GO TO IRADD                                  *****
730 C /                                             :?NUMBER(10)* 10 00735
731      99 CONTINUE                                 10 00736
732      CALL NUMBER(10)                              10 00738
733      GO TO IRADD                                  10 00743
734 C **-----**                                10 00744
735 C **-----**                                10 00745
736 C **      INLINE SUBROUTINE TO PROCESS LOGIC STRINGS ** 10 00746
737 C **-----**                                10 00747
738 C **-----**                                10 00748
739 C <LOGIC> =                                       10 00749
740      9002 CONTINUE                                10 00750
741 C ( 'TRUE'                                       :?BITSET(LOGIC,15,00,1)* 10 00751
742      CALL COMPAR(52)                             10 00752
743      IF (ITEST) 542, 101, 542                   *****
744      542 CONTINUE                                *****
745      LOGIC = 1                                    10 00754
746      NLOGIC = 0                                  10 00755
747      GO TO IRADD                                  *****
748 C /'FALSE'                                       :?BITSET(LOGIC,15,00,0)* 10 00756
749      101 CONTINUE                                 10 00757
750      CALL COMPAR(14)                              10 00759
751      CALL DIAG                                    *****
752      LOGIC = 0                                    10 00761
753      NLOGIC = 1                                   10 00762
754      GO TO IRADD                                  10 00772
755 C **-----**                                10 00773
756 C **      INLINE SUBROUTINE TO INSURE THAT MODE IS NOT SYNCHRONOUS ** 10 00774
757 C **-----**                                10 00775
758      9003 IF (MODE) 560, 560, 562                *****
759      560 MODE = 1                                  *****
760      562 IF (MODE - 1) 9005, 570, 9005           *****
761 C                                             *****
762 C **-----**                                10 00782
763 C **      INLINE SUBROUTINE TO INSURE THAT MODE IS NOT ASYNCHRONOUS ** 10 00783
764 C **-----**                                10 00784
765      9004 IF (MODE) 566, 566, 568                *****
766      566 MODE = 2                                  *****

767      568 IF (MODE - 2) 9005, 570, 9005           *****
768      570 GO TO IRADD                              *****
769 C                                             *****
770 C **-----**                                10 00791
771 C **      INLINE SUBROUTINE TO WRITE ERROR MESSAGE ** 10 00792

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772 C **-----** 10 00793
773 9005 CONTINUE 10 00794
774 CALL HEADER(2) 10 00795
775 WRITE (OUT, 9099) 10 00796
776 9099 FORMAT (35H0**ILLEGAL PARAMETER TYPE SPECIFIED) 10 00797
777 IF (IOCHK(1) .NE. 0) STOP 200 10 00798
778 C 10 00800
779 C-----RETURN TO THE CALLING RULE 10 00801
780 GO TO IRADD 10 00802
781 C END; MON; 10 00803
782 END 10 00804

ENTRY/Common Block Names
003342 R PARSE
000646 C COMMON

EXTERNAL NAMES
003036 E COMPAR
003041 E DIAG
002701 E BITSET
002673 E BITGET
002140 E PUTLSD
002172 E $DO
002220 E TUID
002424 E GETLSD
002707 E PUTTCD
002752 E ADVANC
003001 E NUMBER
003141 E HEADER
003144 E $WR
000000 E VSRERR
000000 E VSRER1
003150 E $ND
003200 E IOCHK
003213 E $ST

SYMBOL TABLE
003226 R 000001
003240 R 000002
003242 R 000004

000001 C P1
000002 C P2
000435 C OUT
000436 C VT$DFL
000437 C VT$DFT
000440 C BLANK
000606 C PGCNT
000003 C BUF
000244 C SECTOR
000442 C LSD
003243 R 000005
000447 C TUIDN
000453 C TIB
000457 C TCD
000607 C DFLFCB
003256 R 000015
000624 C DFTFCB
000464 C LINE
000003 R 1
000000 C ITEST
000243 C INCHAR
000434 C IN
000441 C LSDN
000604 C LNCNT
000605 C LNMAX
000641 C IVALUE
000642 C LFILE
000643 C NXTSCT
000644 C IDTSCT
000645 C IOTDSP
003036 E COMPAR
003224 R 000000
000015 R 500
002143 R 2
000024 R 3
003225 R IRADD
003217 R 0$
002755 R 9001
003041 E DIA0
003227 R MODE
003230 R 000442
003231 R 105215

003232 R 000443
003241 R 000003
003233 R 100400
003234 R 000444
003235 R 000226
003236 R 000445
003237 R 000446
000070 R 4
000073 R 5
000105 R 501
000131 R 7
000121 R 8
002701 E BITSET
000143 R 502
000243 R 9
003244 R 000006
000162 R 503
000172 R 10

```

003245 R 000017
003246 R 000016
003247 R 000007
000204 R 504
000214 R 12
003250 R 000010
003251 R 000011
000243 R 13
000243 R 11
003252 R 000012
000255 R 505
000322 R 14
003253 R 000013
000303 R 15
000312 R 9915
003103 R 9004
003254 R 000014
000334 R 506
000403 R 16
000364 R 17
003011 R 9002
000373 R 9917
003054 R 9003
003255 R LOGIC

000415 R 507
000577 R 18
000446 R 508
000456 R 19
000470 R 509
000544 R 21
000477 R 22
000521 R 23
003257 R 000020
000553 R 24
000577 R 25
000577 R 20
003260 R 000021
000611 R 510
000647 R 26
000637 R 27
000661 R 511
001041 R 28
003261 R 000022
003262 R 000023
000712 R 512
000734 R 29
003263 R 000024
003264 R 000025
000746 R 513
001012 R 32
003265 R 000026
000765 R 514
000775 R 31
003266 R 000027
003267 R 000030
001041 R 33
001041 R 30
003270 R 000031
001053 R 515
001154 R 34
003271 R 000032
001072 R 516
001123 R 35
003272 R 000033
003273 R 000034
001113 R 9935

001144 R 9937
001154 R 37
001154 R 36
003274 R 000035
001166 R 517
001254 R 38
003275 R 000036
001205 R 518
001215 R 39
003276 R 000037
001227 R 519
001237 R 41
003277 R 000040
001254 R 42
001254 R 40
003300 R 000041
001266 R 520
001361 R 43
001302 R 44
001313 R 550
001321 R 551
003301 R 003720
003302 R 000777
001351 R 553
001343 R 552
003303 R 000042
001373 R 521
001437 R 45
003304 R 000043
001412 R 522
001422 R 46

003305 R 000044
001437 R 48
001437 R 47
003306 R 000045
001451 R 523
001516 R 49
001477 R 50
001506 R 9950
003307 R NLOGIC
001530 R 524
001700 R 57

001542 R 525
001640 R 51
001551 R 9953
001563 R 526
001607 R 52
001577 R 53
001630 R 56
003310 R 000046
001661 R 58
001670 R 9958
001712 R 527
001777 R 59
001740 R 9957
003311 R 000047
001752 R 528
001762 R 60
003312 R 000050
003313 R 000051
002011 R 529
002044 R 63
002025 R 64
002034 R 9964
002044 R 6
003314 R 000052
002673 E BITGET
003315 R I
003316 R J
003317 R K
002137 R 9963
003320 R \$1
003321 R \$1 0
003140 R 9005
002140 E PUTLSD
003322 R 000053
002155 R 530
002712 R 68
002161 R 9120
003323 R 000458
002172 E \$00
003324 R 000207
003325 R 000460
003326 R 000461

002220 E TUID
002230 R 69
003327 R 000054
002245 R 531
002267 R 72
003330 R 000055
003331 R 000056
002301 R 532
002325 R 75
002315 R 76
002337 R 533
002363 R 77
002353 R 78
002375 R 534
002427 R 79
002411 R 80
003332 R 000457
002424 E GETLSD
003333 R 000057
002441 R 535
002465 R 81
002455 R 82
002477 R 536
002543 R 83
002516 R 537
002526 R 84
003334 R 000455
002555 R 538
002577 R 87
003335 R 000060
003336 R 000061
002611 R 539
002635 R 90
002625 R 91
002707 E PUTTCD
003337 R 000062
002724 R 540
002733 R 93
002735 R 94
002751 R 95
002752 E ADVANC
003340 R 000063

002767 R 541

003000 R 99
003001 E NUMBER
003341 R 000064
003023 R 542
003035 R 101
003065 R 560
003071 R 562
003132 R 570
003114 R 566
003120 R 568
003141 E HEADER
003144 E \$WR
000000 E V\$RERR
000000 E V\$RER1
003153 R 9099
003150 E \$ND
003200 E IOCHK
003213 E \$ST
0 ERRORS COMPILATION COMPLETE

```

1 C THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES 08 00001
2 C 08 00002
3 C V.D.M. PART NO. 92L1105-032A 08 00003
4 C 08 00004
5 C RELEASED 03-26-7 08 00005
6 C 08 00006
7 C 08 00007
8 C PUTLSD 08 00008
9 C 08 00009
10 C 08 00010
11 C TITLE PUTLSD 08 00011

12 SUBROUTINE PUTLSD 08 00012
13 C THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES *****
14 C *****
15 C V.D.M. PART NO. 92L1105-023A *****
16 C *****
17 C RELEASED 03-26-7 *****
18 C *****
19 C *****
20 C COMMON *****
21 C *****
22 C *****
23 C *****
24 C * DECLARE COMMON CELLS * *****
25 C *****
26 C COMMON ITEST , P1 , P2 , BUF , INCHAR, SECTOR, IN *****
27 C COMMON OUT , VT$DFL, VT$DFT, BLANK , LSDN , LSD , TUIDN *****
28 C COMMON TIB , TCD , LINE , LNCNT , LNMAX , PGCNT *****
29 C COMMON DFLFCB, DFTFCB, IVALUE, LFILE , NXTSCT, IDTSCT, IDTDSP *****
30 C INTEGER P1 , P2 , OUT , VT$DFL, VT$DFT, BLANK , PGCNT *****
31 C INTEGER BUF (160), SECTOR(120), LSD ( 5), TUIDN ( 4) *****
32 C INTEGER TIB ( 4), TCD ( 5), DFLFCB( 13), DFTFCB( 13) *****
33 C INTEGER LINE ( 80) *****
34 C *****
35 C * END OF COMMON DECLARATIONS * *****
36 C *****
37 C 08 00013
38 C THIS ROUTINE IS CALLED WHENEVER AN LSD IN THE COMMON VECTOR 08 00014
39 C 'LSD' IS TO BE REPLACE IN THE FILE 'VT$DFL'. COMMON CELL 08 00015
40 C 'LSDN' INDICATES THE NUMBER OF THE LSD THAT IS TO BE WRITTEN. 08 00016
41 C FIRST THE SECTOR NUMBER AND DISPLACEMENT OF THE LSD IS COMPUTED. 08 00017
42 C THEN A CHECK IS MADE TO SEE IF THE READ IS 08 00018
43 C NECESSARY. IF IT IS, THE SECTOR IS READ. THEN THE LSD IS 08 00019
44 C MOVED INTO THE SECTOR BUFFER, AT THE PROPER DISPLACEMENT, 08 00020
45 C AND THE SECTOR IS REWRITTEN. A NORMAL RETURN IS MADE TO THE 08 00021
46 C CALLER. 08 00022
47 C 08 00023
48 C-----RETURN IF FILE IS NOT OPEN 08 00024
49 C IF (DFLFCB(5)) 500, 500, 100 *****
50 C 08 00026
51 C-----COMPUTE THE SECTOR AND DISPLACEMENT OF THE LSD 08 00027
52 C 100 ISECT = LSDN / 24 + 1 *****

53 IDISP = LSDN - (ISECT - 1) * 24 08 00029
54 IDISP = IDISP * 5 08 00030
55 C 08 00031
56 C-----FIRST SEE IF REQUIRED SECTOR IS IN COMMON 08 00032
57 C IF ((LFILE .EQ. 1) .AND. (DFLFCB(4) .EQ. ISECT)) GO TO 200 08 00033
58 C 08 00034
59 C-----SECTOR IS NOT IN COMMON, THUS READ THE SECTOR 08 00035
60 C LFILE = 1 08 00036
61 C DFLFCB(4) = ISECT 08 00037
62 C READ (VT$DFL) SECTOR 08 00038
63 C DFLFCB(4) = ISECT 08 00039
64 C IF (IOCHK(1)) 530, 200, 530 *****
65 C 08 00041
66 C-----NOW MOVE LSD TO SECTOR AND REWRITE 08 00042
67 C 200 CONTINUE 08 00043
68 C DO 210 I = 1, 5 08 00044
69 C J = IDISP + I 08 00045
70 C SECTOR(J) = LSD(I) 08 00046
71 C 210 CONTINUE 08 00047
72 C WRITE (VT$DFL) SECTOR 08 00048
73 C DFLFCB(4) = ISECT 08 00049
74 C IF (IOCHK(1)) 530, 500, 530 *****
75 C 08 00051
76 C-----ZERO OUT COMMON LSD AND LSD NUMBER 08 00052
77 C 500 CONTINUE 08 00053
78 C DO 510 I = 1, 5 08 00054
79 C 510 LSD(I) = 0 08 00055
80 C LSDN = 0 08 00056
81 C 08 00057
82 C-----AND MAKE A NORMAL RETURN TO THE CALLER 08 00058
83 C RETURN 08 00059
84 C *****
85 C-----STOP OF FILE ERROR *****
86 C 530 STOP 300 *****
87 C END 08 00060

ENTRY/Common BLOCK NAMES
000307 R PUTLSD
000646 C COMMON
EXTERNAL NAMES
000121 E $RD
000000 E V$RERR
000000 E V$RER1

```

```
000210 E $I1
000214 E $ND
000223 E IOCHK
000250 E $DO
000204 E $WR
000266 E $ST
SYMBOL TABLE
000273 R 000001
000001 C P1
000002 C P2
000435 C OUT
000436 C VT$DFL
000437 C VT$DFT
000440 C BLANK
000606 C PGCNT
000003 C BUF
000244 C SECTOR
000442 C LSD
000276 R 000005
000447 C TUIDN
000453 C TIB
000457 C TCD
000607 C DFLFCB
000624 C DFTFCB
000464 C LINE
000000 C ITEST
000243 C INCHAR
000434 C IN
000441 C LSDN
000604 C LNCNT
000605 C LNMAX
000641 C IVALUE
000642 C LFILE
000643 C NXTSCT
000644 C IDTSCT
000645 C IDTOSP
000271 R 000613
000256 R 0$
000233 R 500
000013 R 100
000274 R ISECT
000272 R 000030

000275 R IDISP
000277 R 000612
000300 R $1
000150 R 200
000121 E $RD
000000 E V$RERR
000000 E V$RERI
000210 E $I1
000214 E $ND
000223 E IOCHK
000301 R I
000265 R 530
000175 R 210
000302 R J
000303 R 000243
000304 R 000441
000305 R $1 0
000250 E $DO
000204 E $WR
000237 R 510
000306 R 000000
000266 E $ST
0 ERRORS COMPILATION CC # .ETE
```

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1 C THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES 07 00001
2 C 07 00002
3 C V.D.M. PART NO. 92L1105-033A 07 00003
4 C 07 00004
5 C RELEASED 03-26-7 07 00005
6 C 07 00006
7 C 07 00007
8 C PUTTCD 07 00008
9 C 07 00009
10 C 07 00010
11 C TITLE PUTTCD 07 00011

12 SUBROUTINE PUTTCD 07 00012
13 C THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES *****
14 C *****
15 C V.D.M. PART NO. 92L1105-023A *****
16 C *****
17 C RELEASED 03-26-7 *****
18 C *****
19 C *****
20 C COMMON *****
21 C *****
22 C *****
23 C *****
24 C * DECLARE COMMON CELLS * *****
25 C *****
26 C COMMON ITEST , P1 , P2 , BUF , INCHAR, SECTOR, IN *****
27 C COMMON OUT , VT$DFL, VT$DFT, BLANK , LSDN , LSD , TUIDN *****
28 C COMMON TIB , TCD , LINE , LNCNT , LNMAX , PGCNT *****
29 C COMMON DFLFCB, DFTFCB, IVALUE, LFILE , NXTSCT, IDTSCT, IDTDSP *****
30 C INTEGER P1 , P2 , OUT , VT$DFL, VT$DFT, BLANK , PGCNT *****
31 C INTEGER BUF (160), SECTOR(120), LSD ( 5), TUIDN ( 4) *****
32 C INTEGER TIB ( 4), TCD ( 5), DFLFCB( 13), DFTFCB( 13) *****
33 C INTEGER LINE ( 80) *****
34 C *****
35 C * END OF COMMON DECLARATIONS * *****
36 C *****
37 C 07 00013
38 C-----IF FILE IS CLOSED, SKIP TO RETURN 07 00014
39 C IF (DFTFCB(5)) 500, 500, 10 *****
40 C 07 00016
41 C-----SEARCH INDEX BLOCK FOR DUPLICATE TUID 07 00017
42 10 ISECT = 1 *****
43 C LFILE = 2 07 00019
44 100 DFTFCB(4) = ISECT 07 00020
45 READ (VT$DFT) SECTOR 07 00021
46 DFTFCB(4) = ISECT 07 00022
47 IF (IOCHK(1)) 640, 120, 640 *****
48 C 07 00024
49 C-----IF NO ENTRIES, SKIP SEARCH LOOP 07 00025
50 120 IF (SECTOR(1)) 150, 150, 130 *****
51 C 07 00027
52 C-----NOW SEARCH THIS INDEX SECTOR FOR TUID MATCH 07 00028

53 130 IDISP = 0 *****
54 N = SECTOR(1) 07 00030
55 DO 140 I = 1, N 07 00031
56 IDISP = IDISP + 4 07 00032
57 IF (TIB(1) - SECTOR(IDISP+1)) 140, 138, 140 *****
58 138 IF (TIB(2) - SECTOR(IDISP+2)) 140, 400, 140 *****
59 140 CONTINUE 07 00035
60 C 07 00038
61 C-----NO MATCH IN CURRENT SECTOR, SEE IF THREAD IS NULL 07 00037
62 150 CONTINUE 07 00038
63 CALL BITGET (ISECT, 14, 7, SECTOR(3)) 07 00039
64 IF (ISECT) 160, 160, 100 *****
65 160 ISECT = DFTFCB(4) *****
66 C 07 00042
67 C-----NOW FIND SPACE FOR INDEX STORAGE 07 00043
68 IF (SECTOR(1) - 29) 240, 170, 170 *****
69 C 07 00045
70 C-----NEW INDEX SECTOR IS REQUIRED, ALLOCATE AND THREAD 07 00046
71 170 ISECT = NXTSCT *****
72 NXTSCT = NXTSCT + 1 07 00048
73 CALL BITSET (SECTOR(3), 14, 07, ISECT) 07 00049
74 WRITE (VT$DFT) SECTOR 07 00050
75 IF (IOCHK(1)) 640, 210, 640 *****
76 C 07 00052
77 C-----NOW ZERO AND WRITE OUT THE NEW SECTOR 07 00053
78 210 DO 220 I = 1, 120 *****
79 220 SECTOR(I) = 0 07 00055
80 DFTFCB(4) = ISECT 07 00058
81 WRITE (VT$DFT) SECTOR 07 00057
82 DFTFCB(4) = ISECT 07 00058
83 IF (IOCHK(1)) 640, 240, 640 *****
84 C 07 00060
85 C-----NOW REMEMBER LOCATION OF INDEX SLOT 07 00061
86 240 IDXSCT = ISECT 07 00062
87 IDXDSP = (SECTOR(1) + 1) * 4 07 00063
88 C 07 00064
89 C-----NOW FIND SPACE FOR DATA STORAGE 07 00065
90 ISECT = IDTSCT 07 00066
91 IDTDSP = IDTDSP + 5 07 00067
92 IDISP = IDTDSP 07 00068
93 IF (IDTDSP - 116) 340, 340, 310 *****
94 C 07 00070

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95 C-----NEW DATA SECTOR IS REQUIRED, ALLOCATE AND ZERO          07 00071
96 310 ISECT = NXTSCT          *****
97     IDTSCT = ISECT          07 00073
98     IDTOSP = 0              07 00074
99     NXTSCT = NXTSCT + 1     07 00075
100    IDISP = 0               07 00076
101    DO 320 I = 1, 120       07 00077
102 320 SECTOR(I) = 0         07 00078
103    DFTFCB(4) = ISECT      07 00079
104    GO TO 350               07 00080
105 C                          07 00081
106 C-----READ OLD DATA SECTOR          07 00082
107 340 DFTFCB(4) = ISECT     07 00083
108    READ (VTSDFT) SECTOR    07 00084
109    DFTFCB(4) = ISECT      07 00085
110    IF (IOCHK(1)) 640, 350, 640 *****
111 C                          07 00087
112 C-----NOW MOVE TCD TO SECTOR AND REWRITE 07 00088
113 350 DO 360 I = 1, 5       07 00089
114    J = IDISP + 1          07 00090
115 360 SECTOR(J) = TCD(I)    07 00091
116    WRITE (VTSDFT) SECTOR  07 00092
117    DFTFCB(4) = ISECT      07 00093
118    IF (IOCHK(1)) 640, 362, 640 *****
119 C                          07 00095
120 C-----NOW UPDATE TIB AND REPLACE IN INDEX SECTOR 07 00096
121 362 CONTINUE             *****
122    CALL BITSET(TIB(3), 14, 07, ISECT) 07 00097
123    CALL BITSET(TIB(3), 6, 0, IDISP)   07 00098
124    ISECT = IDXST           07 00099
125    IDISP = IDXOSP         07 00100
126    DFTFCB(4) = ISECT     07 00101
127    READ (VTSDFT) SECTOR  07 00102
128    DFTFCB(4) = ISECT     07 00103
129    IF (IOCHK(1)) 640, 368, 640 *****
130 C                          07 00105
131 C-----NOW MOVE TIB TO SECTOR AND REWRITE 07 00106
132 368 DO 370 I = 1, 4       *****
133    J = IDISP + 1          07 00108
134 370 SECTOR(J) = TIB(I)    07 00109
135    SECTOR(I) = SECTOR(I) + 1 07 00110
136    WRITE (VTSDFT) SECTOR  07 00111
137    DFTFCB(4) = ISECT     07 00112
138    IF (IOCHK(1)) 640, 500, 640 *****
139 C                          07 00117
140 C-----HERE DUPLICATE TUID WAS FOUND, FIRST ISSUE MESSAGE 07 00118
141 400 CALL HEADER(2)        07 00119
142    WRITE (OUT, 499) TIB(1), TIB(2)    07 00120
143 499 FORMAT (11H0**DUP TUID, 1X, 2 A 2) 07 00121
144    IF (IOCHK(1)) 620, 410, 620 *****
145 C                          07 00123
146 C-----ONLY POSSIBLE CHANGE TO TIB IS UP/DOWN SWITCH 07 00124
147 410 CONTINUE             *****
148    CALL BITGET(1, 15, 15, TIB(3))     07 00125
149    CALL BITSET(SECTOR(IDISP+3), 15, 15, 1) 07 00126
150 C                          07 00127
151 C-----REWRITE INDEX SECTOR           07 00128
152    WRITE (VTSDFT) SECTOR  07 00129
153    IF (IOCHK(1)) 640, 420, 640 *****
154 C                          07 00131
155 C-----EXTRACT POINTERS TO DATA SECTOR 07 00132
156 420 CONTINUE             *****
157    CALL BITGET(ISECT, 14, 07, SECTOR(IDISP+3)) 07 00133
158    CALL BITGET(IDISP, 6, 0, SECTOR(IDISP+3)) 07 00134
159 C                          07 00135
160 C-----READ DATA SECTOR             07 00136
161    DFTFCB(4) = ISECT     07 00137
162    READ (VTSDFT) SECTOR  07 00138
163    DFTFCB(4) = ISECT     07 00139
164    IF (IOCHK(1)) 640, 430, 640 *****
165 C                          07 00141
166 C-----MOVE TCD TO DATA SECTOR       07 00142
167 430 DO 440 I = 1, 5       *****
168    J = IDISP + 1          07 00144
169 440 SECTOR(J) = TCD(I)    07 00145
170 C                          07 00146
171 C-----REWRITE DATA SECTOR           07 00147
172    WRITE (VTSDFT) SECTOR  07 00148
173    DFTFCB(4) = ISECT     07 00149
174    IF (IOCHK(1)) 640, 500, 640 *****
175 C                          07 00151
176 C-----ZERO OUT COMMON CELLS         07 00152
177 500 CONTINUE             07 00153
178    DO 510 I = 1, 4        07 00154
179    TIB(I) = 0              07 00155
180 510 TUIDN(I) = BLANK      07 00156
181    DO 520 I = 1, 5        07 00157
182 520 TCD(I) = 0           07 00158
183 C                          07 00159
184 C-----AND RETURN TO THE CALLER       07 00160
185    RETURN                  07 00161
186 C                          *****
187 C-----BELOW ARE THE I/O ERROR STOPS *****
188 620 STOP 200              *****
189 640 STOP 400              *****
190    END                      07 00162

```

ENTRY/Common BLOCK NAMES

```
001404 R PUTTCD
000646 C COMMON
EXTERNAL NAMES
001135 E $RD
000000 E V$RERR
000000 E V$RER1
001226 E $11
001232 E $ND
001241 E IOCHK
001324 E $DO
001122 E BITGET
001051 E BITSET
001222 E $WR
000766 E HEADER
001340 E $ST
SYMBOL TABLE
001344 R 000001
001346 R 000002
001355 R 000004
000001 C P1
000002 C P2
000435 C OUT
000436 C VT$DFL
000437 C VT$DFT
000440 C BLANK
000606 C PGCNT
000003 C BUF
000244 C SECTOR
001367 R 000170

000442 C LSD
001372 R 000005
000447 C TUIDN
000453 C TIB
000457 C TCD
000607 C DFLFCB
000624 C DFTFCB
000464 C LINE
000000 C ITEST
000243 C INCHAR
000434 C IN
000441 C LSON
000604 C LNCNT
000605 C LNMAX
000641 C IVALUE
000642 C LFILE
000643 C NXTSCT
000644 C IDTSCT
000645 C IDTDSP
001343 R 000630
001314 R 0$
001251 R 500
000013 R 10
001345 R ISECT
000023 R 100
001347 R 000627
001135 E $RD
000000 E V$RERR
000000 E V$RER1
001226 E $11
001232 E $ND
001241 E IOCHK
001350 R I
001337 R 640
000060 R 120
001351 R 000244
000160 R 150
000070 R 130
001353 R IDISP
001352 R 000000
001354 R N
000152 R 140

001356 R $1
001357 R 000453
000131 R 138
001360 R 000245
001361 R 000454
000765 R 400
001324 E $DO
001122 E BITGET
001362 R 000016
001363 R 000007
001364 R 000246
000177 R 160
001365 R 000035
000342 R 240
000217 R 170
001051 E BITSET
001222 E $WR
000263 R 210
000267 R 220
001366 R 000243
001370 R IDXST
001371 R IDXOSP
001373 R 000164
000470 R 340
000406 R 310
000443 R 320
```

```
000525 R 350
000536 R 360
001374 R J
001375 R 000456
001376 R $1 0
000612 R 362
001377 R 000455
001400 R 000006
000667 R 368
000700 R 370
001401 R 000452
000766 E HEADER
001010 R 499
001333 R 620
001035 R 410
001402 R 000017

001101 R 420
001164 R 430
001175 R 440
001265 R 510
001403 R 000446
001313 R 520
001340 E $ST
0 ERRORS COMPILATION COMPLETE
```

```

1 C THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES 08 00001
2 C 08 00002
3 C V.D.M. PART NO. 92L1105-034A 08 00003
4 C 08 00004
5 C RELEASED 03-26-7 08 00005
6 C 08 00006
7 C 08 00007
8 C REPORT 08 00008
9 C 08 00009
10 C 08 00010
11 C TITLE REPORT 08 00011

12 SUBROUTINE REPORT 08 00012
13 C THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES *****
14 C *****
15 C V.D.M. PART NO. 92L1105-023A *****
16 C *****
17 C RELEASED 03-26-7 *****
18 C *****
19 C *****
20 C COMMON *****
21 C *****
22 C *****
23 C *****
24 C * DECLARE COMMON CELLS * *****
25 C *****
26 COMMON ITEST , P1 , P2 , BUF , INCHAR, SECTOR, IN *****
27 COMMON OUT , VT$DFL, VT$DFT, BLANK , LSDN , LSD , TUIDN *****
28 COMMON TIB , TCD , LINE , LNCNT , LNMAX , PGCNT *****
29 COMMON DFLFCB, DFTFCB, IVALUE, LFILE , NXTSCT, IDTSCT, IDTOSP *****
30 INTEGER P1 , P2 , OUT , VT$DFL, VT$DFT, BLANK , PGCNT *****
31 INTEGER BUF (160), SECTOR(120), LSD ( 5), TUIDN ( 4) *****
32 INTEGER TIB ( 4), TCD ( 5), DFLFCB( 13), DFTFCB( 13) *****
33 INTEGER LINE ( 80) *****
34 C *****
35 C * END OF COMMON DECLARATIONS * *****
36 C *****
37 C 08 00013
38 C THIS ROUTINE WRITES A FINAL REPORT OF THE CONTENTS OF THE 08 00014
39 C FILE VT$DFL AND VT$DFT. 08 00015
40 C 08 00016
41 C-----SKIP LSD REPORT IF FILE IS CLOSED 08 00017
42 IF (DFLFCB(5)) 200, 200, 10 *****
43 C 08 00019
44 C-----PRODUCE A BINARY REPORT FOR EACH LSD 08 00020
45 10 LNCNT = LNMAX *****
46 DO 100 LSDN = 0, 255 08 00022
47 CALL GETLSD 08 00023
48 C 08 00024
49 C-----SKIP REPORT IF LSD IS NOT DEFINED 08 00025
50 CALL BITGET (1, 8, 8, LSD(3)) 08 00026
51 IF (1) 100, 100, 20 *****
52 C 08 00028

53 C-----DUMP OUT THIS DEFINED LSD 08 00029
54 20 CALL HEADER(7) *****
55 WRITE (OUT, 199) LSDN 08 00031
56 199 FORMAT (1H0, 3HLSD, 14) 08 00032
57 IF (IOCHK(1)) 620, 30, 620 *****
58 C 08 00034
59 C-----DECOMPOSE EACH WORD AND BIT 08 00035
60 30 DO 90 I = 1, 5 *****
61 DO 80 J = 1, 16 08 00037
62 K = 16 - J 08 00038
63 CALL BITGET (BUF(J), K, K, LSD(I)) 08 00039
64 80 CONTINUE 08 00040
65 WRITE (OUT, 197) (BUF(J), J = 1, 16) 08 00041
66 197 FORMAT (4X, 16 I 2) 08 00042
67 IF (IOCHK(J)) 620, 90, 620 *****
68 90 CONTINUE 08 00044
69 100 CONTINUE 08 00045
70 C 08 00046
71 C-----NOW PRODUCE REPORT FOR FILE VT$DFT, FIRST INSURE FILE IS OPEN 08 00047
72 200 IF (DFTFCB(5)) 500, 500, 204 *****
73 204 LNCNT = LNMAX *****
74 C 08 00050
75 C-----INITIALIZE INDEX SECTOR POINTER 08 00051
76 INDEX = 1 08 00052
77 C 08 00053
78 C-----READ NEW INDEX SECTOR INTO CARD BUFFER 08 00054
79 210 DFTFCB(4) = INDEX 08 00055
80 LFILE = 0 08 00056
81 READ (VT$DFT) (BUF(I), I = 1, 120) 08 00057
82 IF (IOCHK(1)) 640, 212, 640 *****
83 C 08 00059
84 C-----GET NUMBER OF CURRENT ENTRIES AND MAKE CERTAIN THERE ARE SOME 08 00060
85 212 P2 = BUF(1) *****
86 IF (P2) 260, 260, 214 *****
87 214 P2 = P2 * 4 *****
88 C 08 00064
89 C-----NOW HANDLE EACH ENTRY IN THIS SECTOR 08 00065
90 DO 250 P1 = 4, P2, 4 08 00066
91 C 08 00067
92 C-----MOVE TO TIB VECTOR FOR EASY REFERENCE 08 00068
93 DO 220 I = 1, 4 08 00069
94 J = P1 + I 08 00070

```



```

95 220 TIB(1) = BUF(J) 08 00071
96 C 08 00072
97 C-----NOW EXTRACT ADDRESS OF DATA AREA 08 00073
98 CALL BITGET (ISECT, 14, 7, BUF(P1+3)) 08 00074
99 CALL BITGET (IDISP, 6, 0, BUF(P1+3)) 08 00075
100 C 08 00076
101 C-----SKIP READ IF SECTOR IS IN COMMON 08 00077
102 IF ((LFILE .EQ. 2) .AND. (DFTFCB(4) .EQ. ISECT)) GO TO 222 08 00078
103 C 08 00079
104 C-----SECTOR IS NOT IN COMMON, READ IS REQUIRED 08 00080
105 LFILE = 2 08 00081
106 DFTFCB(4) = ISECT 08 00082
107 READ (VTSDFT) SECTOR 08 00083
108 DFTFCB(4) = ISECT 08 00084
109 IF (IOCHK(1)) 640, 222, 640 *****
110 C 08 00086
111 C-----NOW THAT DATA SECTOR IS IN CORE, COPY TO VECTOR TCD 08 00087
112 222 DO 230 I = 1, 5 08 00088
113 J = IDISP + I 08 00089
114 230 TCD(I) = SECTOR(J) 08 00090
115 C 08 00091
116 C-----NOW DUMP OUT THE TIB 08 00092
117 CALL HEADER(9) 08 00093
118 WRITE (OUT, 299) TIB(1), TIB(2) 08 00094
119 299 FORMAT (4H0TIB, 1X, 2 A 2) 08 00095
120 IF (IOCHK(1)) 620, 232, 620 *****
121 C 08 00097
122 C-----DECOMPOSE TIB, WORD 3 08 00098
123 232 I = 3 *****
124 DO 240 J = 1, 16 08 00100
125 K = 16 - J 08 00101
126 240 CALL BITGET (LINE(J), K, K, TIB(I)) 08 00102
127 WRITE (OUT, 197) (LINE(J), J = 1, 16) 08 00103
128 IF (IOCHK(J)) 620, 234, 620 *****
129 C 08 00105
130 C-----DUMP OUT THE TCD 08 00106
131 234 CONTINUE *****
132 WRITE (OUT, 295) TIB(1), TIB(2) 08 00107
133 295 FORMAT (4H PCD, 1X, 2 A 2) 08 00108
134 IF (IOCHK(J)) 620, 236, 620 *****
135 C 08 00110
136 C-----NOW DECOMPOSE THE TCD 08 00111
*****
137 236 CONTINUE *****
138 DO 244 I = 1, 5 08 00112
139 DO 242 J = 1, 16 08 00113
140 K = 16 - J 08 00114
141 242 CALL BITGET (LINE(J), K, K, TCD(I)) 08 00115
142 WRITE (OUT, 197) (LINE(J), J = 1, 16) 08 00116
143 IF (IOCHK(J)) 620, 244, 620 *****
144 244 CONTINUE 08 00118
145 C 08 00119
146 C-----HERE ALL ENTRIES IN THIS SECTOR HAVE BEEN PROCESSED 08 00120
147 250 CONTINUE 08 00121
148 C 08 00122
149 C-----EXTRACT INDEX CHAIN, AND PROCESS IF NON-NULL 08 00123
150 260 CALL BITGET (INDEX, 14, 7, BUF(3)) 08 00124
151 IF (INDEX) 500, 500, 210 *****
152 C 08 00126
153 C-----NOW MAKE A NORMAL RETURN TO THE NDL DRIVER 08 00127
154 500 RETURN 08 00128
155 C *****
156 C-----BELOW ARE THE I/O ERROR STOPS *****
157 620 STOP 200 *****
158 640 STOP 400 *****
159 END 08 00129

```

ENTRY/Common BLOCK NAMES

```

001233 R REPORT
000646 C COMMON

```

EXTERNAL NAMES

```

000026 E GETLSD
001137 E BITGET
000612 E HEADER
001061 E $WR
000000 E $SRERR
000000 E $SRER1
001076 E $I1
001110 E $ND
001112 E IOCHK
001131 E $DO
000525 E $RD
001164 E $ST

```

SYMBOL TABLE

```

001175 R 000001
001223 R 000002

```

```

001214 R 000004
000001 C P1
000002 C P2
000435 C OUT
000436 C VTSDFL
000437 C VTSDFT
000440 C BLANK
000606 C PGCNT
000003 C BUF
000244 C SECTOR
001212 R 000170
000442 C LSD
001205 R 000005

```

000447 C TUIDN
000453 C TIB
000457 C TCD
000607 C DFLFCB
000624 C DFTFCB
000464 C LINE
000000 C ITEST
000243 C INCHAR
000434 C IN
000441 C LSDN
000604 C LNCNT
000605 C LNMAX
000641 C IVALUE
000642 C LFILE
000643 C NXTSCT
000644 C IDTSCT
000645 C IDTDSF
001167 R 000613
001145 R 0\$
000227 R 200
000013 R 10
000221 R 100
001170 R 000000
001206 R 000377
000026 E GETLSD
001137 E BITGET
001171 R I
001172 R 000010
001231 R 000003

001173 R 000444
000044 R 20
000612 E HEADER
001174 R 000007
001061 E \$WR
000000 E V\$RERR
000000 E V\$RERI
000063 R 199
001076 E \$I1
001110 E \$ND
001112 E IOCHK
001157 R 620
000103 R 30
000213 R 90
000134 R 80
001176 R J
001177 R 000020
001200 R K
001201 R 000002
001202 R \$1
001203 R 000441
001204 R \$1 0
001131 E \$00
000175 R 197
001207 R 000630
001155 R 500
000237 R 204
001210 R INDEX
000247 R 210
001211 R 000627
000525 E \$RD
001163 R 640
000324 R 212
001213 R 000003
001136 R 260
000340 R 214
001130 R 250
000374 R 220
001215 R 000452
001217 R ISECT
001220 R 000016
001216 R 000005

001221 R IDISP
001222 R 000006
000554 R 222
000565 R 230
001224 R 000456
001225 R 000243
001226 R 000011
000634 R 299
001227 R 000453
001230 R 000454
000655 R 232
000670 R 240
001232 R 000463
000756 R 234
000776 R 295
001017 R 236
001122 R 244
001034 R 242
001164 E \$ST

0 ERRORS COMPILATION COMPLETE

```

1 C THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES 03 00001
2 C 03 00002
3 C V.D.M. PART NO. 92L1105-035A 03 00003
4 C 03 00004
5 C RELEASED 03-26-7 03 00005
6 C 03 00006
7 C SHRINK 03 00007
8 C 03 00008
9 C 03 00009
10 C TITLE SHRINK 03 00010

11 SUBROUTINE SHRINK 03 00011
12 C 03 00012
13 C THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES *****
14 C *****
15 C V.D.M. PART NO. 92L1105-023A *****
16 C *****
17 C RELEASED 03-26-7 *****
18 C *****
19 C *****
20 C COMMON *****
21 C *****
22 C *****
23 C *****
24 C * DECLARE COMMON CELLS * *****
25 C *****
26 C COMMON ITEST , P1 , P2 , BUF , INCHAR, SECTOR, IN *****
27 C COMMON OUT , VT$DFL, VT$DFT, BLANK , LSDN , LSD , TUIDN *****
28 C COMMON TIB , TCD , LINE , LNCNT , LNMAX , PGCNT *****
29 C COMMON DFLFCB, DFTFCB, IVALUE, LFILE , NXTSCT, IDTSCT, IDTDSP *****
30 C INTEGER P1 , P2 , OUT , VT$DFL, VT$DFT, BLANK , PGCNT *****
31 C INTEGER BUF (160), SECTOR(120), LSD ( 5), TUIDN ( 4) *****
32 C INTEGER TIB ( 4), TCD ( 5), DFLFCB( 13), DFTFCB( 13) *****
33 C INTEGER LINE ( 80) *****
34 C *****
35 C * END OF COMMON DECLARATIONS * *****
36 C *****
37 C THIS ROUTINE IS CALLED TO LEFT-JUSTIFY ALL NON-BLANK 03 00013
38 C CHARACTERS IN THE INPUT BUFFER 03 00014
39 C 03 00015
40 C-----SET DESTINATION POINTER 03 00016
41 C J = 0 03 00017
42 C 03 00018
43 C-----SCAN WHOLE BUFFER, MOVING NON-BLANKS TO DESTINATION ADDRESS 03 00019
44 C DO 100 I = 1, 160 03 00020
45 C IF (BUF(I) - BLANK) 80, 100, 80 *****
46 C 03 00022
47 C-----COLUMN I IS NON-BLANK, THUS MOVE IT 03 00023
48 80 J = J + 1 *****
49 C BUF(J) = BUF(I) 03 00025
50 C 03 00026
51 C-----IF NOT IN THE SAME PLACE, BLANK OUT SOURCE ADDRESS 03 00027

52 C IF (I - J) 90, 100, 90 *****
53 90 BUF(I) = BLANK *****
54 100 CONTINUE 03 00029
55 C 03 00030
56 C-----ALL BUFFER IS COMPRESSED, NOW UPDATE CHARACTER POINTERS 03 00031
57 C P1 = P1 - P2 + 1 03 00032
58 C P2 = 1 03 00033
59 C 03 00034
60 C-----AND RETURN TO THE CALLER 03 00035
61 C RETURN 03 00036
62 C END 03 00037

ENTRY/Common BLOCK NAMES
000134 R SHRINK
000646 C COMMON
EXTERNAL NAMES
000075 E $DO
SYMBOL TABLE
000126 R 000001
000001 C P1
000002 C P2
000435 C OUT
000436 C VT$DFL
000437 C VT$DFT
000440 C BLANK
000606 C PGCNT
000003 C BUF
000133 R 000240
000244 C SECTOR
000442 C LSD
000447 C TUIDN
000453 C TIB
000457 C TCD
000607 C DFLFCB
000624 C DFTFCB
000464 C LINE
000000 C ITEST
000243 C INCHAR
000434 C IN
000441 C LSDN
000604 C LNCNT
000605 C LNMAX
000641 C IVALUE
000642 C LFILE

```

```
000643 C NXTSCT
000644 C IDTSCT
000645 C IDT DSP
000125 R J
000124 R 000000
000115 R 0$
000074 R 100
000127 R I
000130 R 000002
000131 R $1
000027 R 80
000132 R $1 0
000060 R 90
000075 E $DO
0 ERRORS COMPILATION COMPLETE
```

```

1 C THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES 08 00001
2 C 08 00002
3 C V.D.M. PART NO. 92L1105-036A 08 00003
4 C 08 00004
5 C RELEASED 03-26-7 08 00005
6 C 08 00006
7 C 08 00007
8 C TUID 08 00008
9 C 08 00009
10 C 08 00010
11 C TITLE TUID 08 00011

12 SUBROUTINE TUID 08 00012
13 C THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES *****
14 C *****
15 C V.D.M. PART NO. 92L1105-023A *****
16 C *****
17 C RELEASED 03-26-7 *****
18 C *****
19 C *****
20 C COMMON *****
21 C *****
22 C *****
23 C *****
24 C * DECLARE COMMON CELLS * *****
25 C *****
26 C COMMON ITEST , P1 , P2 , BUF , INCHAR, SECTOR, IN *****
27 C COMMON OUT , VT$DFL, VT$DFT, BLANK , LSDN , LSD , TUIDN *****
28 C COMMON TIB , TCD , LINE , LNCNT , LNMAX , PGCNT *****
29 C COMMON DFLFCB, DFTFCB, IVALUE, LFILE , NXTSCT, IDTSCT, IDTDSP *****
30 C INTEGER P1 , P2 , OUT , VT$DFL, VT$DFT, BLANK , PGCNT *****
31 C INTEGER BUF (160), SECTOR(120), LSD ( 5), TUIDN ( 4) *****
32 C INTEGER TIB ( 4), TCD ( 5), DFLFCB( 13), DFTFCB( 13) *****
33 C INTEGER LINE ( 80) *****
34 C *****
35 C * END OF COMMON DECLARATIONS * *****
36 C *****
37 C 08 00013
38 C THIS ROUTINE ATTEMPTS TO FIND A FOUR-CHARACTER TUID IN THE 08 00014
39 C INPUT STREAM. 08 00015
40 C 08 00016
41 C INTEGER CA , CZ , C0 , C9 08 00017
42 C DATA CA/193/, CZ/218/, C0/176/, C9/185/ 08 00018
43 C 08 00019
44 C-----FIRST CLEAR OUT THE TUIDN VECTOR IN COMMON 08 00020
45 C DO 10 I = 1, 4 08 00021
46 C 10 TUIDN(I) = BLANK 08 00022
47 C 08 00023
48 C-----NOW BACKUP POINTERS AND SET TEST FLAG FALSE 08 00024
49 C CALL BACKUP 08 00025
50 C ITEST = 0 08 00026
51 C 08 00027
52 C-----FETCH FIRST CHARACTER OF TUID AND INSIST THAT IT'S ALPHA 08 00028

53 CALL GETCHR 08 00029
54 IF (INCHAR - CA) 200, 20, 20 *****
55 20 IF (INCHAR - CZ) 30, 30, 200 *****
56 C 08 00031
57 C-----FIRST CHAR IS ALPHABETIC, SO SET FLAG TRUE AND STORE CHAR 08 00032
58 30 CALL ADVANC *****
59 ITEST = 1 08 00034
60 TUIDN(1) = INCHAR 08 00035
61 C 08 00036
62 C-----NOW ATTEMPT TO LOCATE THREE MORE ALPHANUMERIC CHARACTERS 08 00037
63 DO 100 I = 2, 4 08 00038
64 CALL GETCHR 08 00039
65 IF (INCHAR - C0) 200, 40, 40 *****
66 40 IF (INCHAR - CZ) 50, 50, 200 *****
67 50 IF (INCHAR - CA) 60, 70, 70 *****
68 60 IF (INCHAR - C9) 70, 70, 200 *****
69 C 08 00042
70 C-----ALPHANUMERIC CHARACTER HAS BEEN FOUND, STORE IT IN VECTOR 08 00043
71 70 CALL ADVANC *****
72 TUIDN(I) = INCHAR 08 00045
73 100 CONTINUE 08 00046
74 C 08 00047
75 C-----CLEAR TIB AND PACK TUID INTO TIB 08 00048
76 200 CONTINUE 08 00049
77 CALL BITSET (TIB(1), 15, 08, TUIDN(1)) 08 00050
78 CALL BITSET (TIB(1), 07, 00, TUIDN(2)) 08 00051
79 CALL BITSET (TIB(2), 15, 08, TUIDN(3)) 08 00052
80 CALL BITSET (TIB(2), 07, 00, TUIDN(4)) 08 00053
81 TIB(3) = 0 08 00054
82 TIB(4) = 0 08 00055
83 C 08 00056
84 C-----FOUR CHARACTER TUID IS COMPLETE, RETURN TO CALLER 08 00057
85 RETURN 08 00058
86 END 08 00059

ENTRY/Common BLOCK NAMES
000310 R TUID
000646 C COMMON
EXTERNAL NAMES
000215 E $DO
000036 E BACKUP
000117 E GETCHR
000177 E ADVANC

```

```
000245 E BITSET
SYMBOL TABLE
000266 R 000001
000275 R 000002
000272 R 000004
000001 C P1
000002 C P2
000435 C OUT
000436 C VT$DFL
000437 C VT$DFT
000440 C BLANK
000606 C PGCNT
000003 C BUF
000244 C SECTOR
000442 C LSD
000447 C TUIDN
000453 C TIB
000457 C TCD
000607 C DFLFCB
000624 C DFTFCB
000464 C LINE
000003 R CA
000004 R CZ
000005 R C0
000006 R C9
000000 C ITEST
000243 C INCHAR
000434 C IN
000441 C LSDN
000604 C LNCNT
000605 C LNMAX
000641 C IVALUE
000642 C LFILE
000643 C NXTSCT
000644 C IDTSCT
000645 C IDTDSP
000013 R 10
000267 R 1
000260 R 0$
000270 R 000446
000271 R $1
000215 E $DO
```

```
000036 E BACKUP
000273 R 000000
000117 E GETCHR
000222 R 200
000061 R 20
000075 R 30
000177 E ADVANC
000274 R 000447
000214 R 100
000132 R 40
000146 R 50
000162 R 60
000176 R 70
000245 E BITSET
000277 R 000017
000300 R 000010
000276 R 000453
000301 R 000007
000302 R 000450
000303 R 000454
000304 R 000451
000305 R 000452
000306 R 000455
000307 R 000456
0 ERRORS COMPILATION COMPLETE
```

```

1      EJEC 16 00001
2 * THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES 16 00002
3 * 16 00003
4 * V.D.M. PART NO. 92L1105-037A 16 00004
5 * 16 00005
6 * RELEASED 03-26-73 16 00006
7 * 16 00007
8 * 16 00008
9 * NCM *****
10 * 16 00010
11 * 16 00011
12 * TITLE NCM *****
13 * NLIS 16 00013
1289 * LIST *****
1290 * 16 00014
1291 * TITLE NCM MAJOR ENTRY POINT *****
1292 * ..... 16 00016
1293 * * 16 00017
1294 * TITLE - NETWORK CONTROL MODULE * 16 00018
1295 * * 16 00019
1296 * PURPOSE - * 16 00020
1297 * THIS IS THE MAIN ENTRY POINT FOR NCM. * 16 00021
1298 * * 16 00022
1299 * CALLING SEQUENCE - * 16 00023
1300 * JMP NETCON IN RESPONSE TO RTE SCHED * 16 00024
1301 * * 16 00025
1302 * ENTRANCE PARAMETERS - * 16 00026
1303 * NONE * 16 00027
1304 * * 16 00028
1305 * ..... 16 00029
000000 R 1306 NETCON EQU * TOP OF PARSING LOOP 16 00030
000000 R 1307 NCM EQU NETCON EQUATE FOR ENTRY POINT *****
1308 IOMAC FORM 1,3,4,8 FORMAT FOR I/O MACROS, WORD 3 16 00031

1310 * ..... 16 00033
1311 * SETUP AND ISSUE INITIAL MESSAGE * 16 00034
1312 * ..... 16 00035
000000 002000 A 1313 CALL MOVER,CNET,FLDI,LNET 16 00036
000001 002237 R
000002 002467 R
000003 002527 R
000004 000003 A
000005 002000 A 1314 CALL TYPE ISSUE INITIAL MESSAGE 16 00037
000006 002150 R
000007 002000 A 1315 CALL KEY READ INPUT DIRECTIVE 16 00038
000010 002162 R
000011 010421 A 1316 LDA BADSYN PICK UP SYNTAX ERROR CODE 16 00039
000012 006057 A 1317 STAE ERRTP STOW AS INITIAL ERROR CODE 16 00040
000013 002455 R

1318 EJEC 16 00041
1319 * ..... 16 00042
1320 * NOW BLANK OUT VERB HOLDER AND RESET BUFFER POINTER * 16 00043
1321 * ..... 16 00044
000014 034154 A 1322 LDX NC0602 PICK UP POINTER TO HOLDER 16 00045
000015 074155 A 1323 STX NC0620 STOW AS INITIAL HOLDER POINTER 16 00046
000016 006017 A 1324 NC0410 LDAE BLANK PICK UP AN UNPACKED BLANK 16 00047
000017 002463 R
000020 055000 A 1325 STA 0,X STOW IN HOLDER 16 00048
000021 005145 A 1326 INCR 045 BUMP X REG AND COPY TO A REG 16 00049
000022 144147 A 1327 SUB NC0604 COMPARE TO END OF HOLDER 16 00050
000023 001004 A 1328 JAN NC0410 IF INSIDE, CONTINUE LOOP 16 00051
000024 000016 R
000025 006010 A 1329 LDAI BUF POINT TO INPUT BUFFER 16 00052
000026 002766 R
000027 004241 A 1330 LRLA 1 CONVERT TO BYTE ADDRESS 16 00053
000030 006057 A 1331 STAE COLPTR STOW AS INITIAL FETCH POINTER 16 00054
000031 002453 R

1333 * ..... 16 00056
1334 * FETCH NEXT CHARACTER AND CHECK IF ALPHABETIC * 16 00057
1335 * ..... 16 00058
000032 002000 A 1336 NC0420 CALL FETCH,NC0500 FETCH NEXT NON-BLANK 16 00059
000033 001737 R
000034 000060 R
000035 006147 A 1337 SUBE CA COMPARE AGAINST LOWEST ALPHABETIC 16 00060
000036 002462 R
000037 001004 A 1338 JAN NC0500 IF LOWER, CANNOT BE IN ALPHABET 16 00061
000040 000060 R
000041 006147 A 1339 SUBE CZMA SUBTRACT RANGE OF ALPHABET 16 00062
000042 002464 R
000043 001002 A 1340 JAP NC0500 IF HIGHER, CANNOT BE IN ALPHABET 16 00063
000044 000060 R

1342 * ..... 16 00065
1343 * CHARACTER IS ALPHABETIC, STORE IN HOLDER * 16 00066
1344 * ..... 16 00067
000045 014125 A 1345 LDA NC0620 PICK UP CURRENT POINTER 16 00068
000046 144123 A 1346 SUB NC0604 COMPARE AGAINST HOLDER END 16 00069
000047 001002 A 1347 JAP SYNERR IF TOO LARGE, SIGNAL SYNTAX ERROR 16 00070
000050 000133 R
000051 034121 A 1348 LDX NC0620 PICK UP HOLDER POINTER 16 00071

000052 006017 A 1349 LDAE CHAR PICK UP THE CHARACTER 16 00072
000053 002454 R
000054 055000 A 1350 STA 0,X STOW IN VERB HOLDER 16 00073
000055 044115 A 1351 INR NC0620 BUMP HOLDER INDEX 16 00074

```

```

000056 001000 A 1352      JMP      NC0420      CONTINUE BUILDING THE VERB      16 00075
000057 000032 R

1354 ..... 16 00077
1355 *      END OF VERB HAS BEEN FOUND. PACK, IN PLACE, THE VERB      * 16 00078
1356 ..... 16 00079
000060 034110 A 1357 NC0500 LDX      NC0602      PICK UP START OF VERB      16 00080
000061 005042 A 1358      TXB              COPY TO B REG              16 00081
000062 015000 A 1359 NC0510 LDA      0,X          PICK UP A CHARACTER        16 00082
000063 004250 A 1360      LRLA           8          SHIFT TO LEFT-SIDE        16 00083
000064 115001 A 1361      ORA           1,X          OR IN RIGHT-SIDE          16 00084
000065 056000 A 1362      STA           0,B          STOW BACK IN HOLDER        16 00085
000066 005122 A 1363      IBR              BUMP DESTINATION POINTER    16 00086
000067 005144 A 1364      IXR              BUMP SOURCE POINTER        16 00087
000070 005145 A 1365      INCR          045         BUMP SOURCE POINTER AND COPY TO A REG 16 00088
000071 144100 A 1366      SUB      NC0604      COMPARE AGAINST END OF HOLDER    16 00089
000072 001004 A 1367      JAN      NC0510      IF INSIDE, CONTINUE PACKING      16 00090
000073 000062 R

1369 ..... 16 00092
1370 *      NOW LOOK UP PACKED VERB IN TABLE      * 16 00093
1371 ..... 16 00094
000074 006030 A 1372      LDXI      NC0630      POINT TO FIRST ROW IN TABLE    16 00095
000075 000174 R
000076 014062 A 1373 NC0520 LDA      NC0600      PICK UP WORD 1 OF VERB        16 00096
000077 145000 A 1374      SUB      0,X          COMPARE WORD 1            16 00097
000100 001016 A 1375      JANZ     NC0530      IF NOT EQUAL, TRY NEXT ROW      16 00098
000101 000116 R
000102 014057 A 1376      LDA      NC0600+1      PICK UP WORD 2 OF VERB        16 00099
000103 145001 A 1377      SUB      1,X          COMPARE WORD 2            16 00100
000104 001016 A 1378      JANZ     NC0530      IF NOT EQUAL, TRY NEXT ROW      16 00101
000105 000116 R
000106 014054 A 1379      LDA      NC0600+2      PICK UP WORD 3 OF VERB        16 00102
000107 145002 A 1380      SUB      2,X          COMPARE WORD 3            16 00103
000110 001016 A 1381      JANZ     NC0530      IF NOT EQUAL, TRY NEXT ROW      16 00104
000111 000116 R
000112 014051 A 1382      LDA      NC0600+3      PICK UP WORD 4 OF VERB        16 00105
000113 145003 A 1383      SUB      3,X          COMPARE WORD 4            16 00106
000114 001010 A 1384      JAZ      NC0540      IF EQUAL, VERB IS FOUND        16 00107
000115 000127 R

1386 ..... 16 00109
1387 *      ROW DID NOT MATCH, TRY NEXT ROW      * 16 00110
1388 ..... 16 00111
000116 005041 A 1389 NC0530 TXA              COPY ROW POINTER TO A REG    16 00112
000117 120465 A 1390      ADD      FIVE         BUMP TO NEXT ROW          16 00113
000120 005014 A 1391      TAX              COPY BACK TO X REG          16 00114
000121 006140 A 1392      SUBI     NC0634      COMPARE TO END OF TABLE      16 00115
000122 000232 R
000123 001004 A 1393      JAN      NC0520      IF INSIDE, CHECK NEXT ROW      16 00116
000124 000076 R
000125 001000 A 1394      JMP      SYNERR      ELSE FAILED TO MATCH ANY, SIGNAL ERROR 16 00117
000126 000133 R

1396 ..... 16 00119
1397 *      DIRECTIVE HAS BEEN RECOGNIZED, (X) POINTS TO MATCHING ROW      * 16 00120
1398 ..... 16 00121
000127 015004 A 1399 NC0540 LDA      4,X          PICK UP ADDRESS OF PROCESSOR    16 00122
000130 054001 A 1400      STA      NC0542      STOW IN JUMP              16 00123
000131 001000 A 1401      JMP      0           JUMP TO PROPER DIRECTIVE PROCESSOR 16 00124
000132 000000 A
000132 000132 R 1402 NC0542 EQU      *-1          POINT TO ADDRESS PORTION OF JUMP 16 00125

1404 ..... 16 00127
1405 *      SYNTAX ERROR HAS BEEN DETECTED, BLANK LINE AND ISSUE MESSAGE      * 16 00128
1406 *      THEN RETURN TO THE TOP OF THE MODULE.      * 16 00129
1407 ..... 16 00130
000133 014042 A 1408 SYNERR LDA      NC0640      PICK UP A DOUBLE BLANK        16 00131
000134 006057 A 1409      STAE     LINE        STORE IN THE START OF THE LINE    16 00132
000135 002526 R
000136 002000 A 1410      CALL     MOVER,LINE,LINE+1,LENEND-LINE-1 16 00133
000137 002237 R
000140 002526 R
000141 002527 R
000142 000047 A
000143 006017 A 1411      LDAE     ERR TYP      PICK UP ERROR CODE          16 00134
000144 002455 R
000145 006030 A 1412      LDXI     FLD1         POINT TO MESSAGE LOCATION      16 00135
000146 002527 R
000147 002000 A 1413      CALL     LSTCVT      CONVERT TO ASCII            16 00136

000150 001331 R
000151 006017 A 1414      LDAE     CNC          PICK UP 'NC'                16 00137
000152 002523 R
000153 006057 A 1415      STAE     FLD1         STOW AS HEADER              16 00138
000154 002527 R
000155 002000 A 1416      CALL     TYPE        ISSUE ERROR MESSAGE          16 00139
000156 002150 R
000157 001000 A 1417      JMP      NETCON      RETURN TO THE TOP OF MODULE    16 00140
000160 000000 R

1418      EJEC              16 00141
1419 ..... 16 00142
1420 *      CONSTANTS AND WORK AREAS      * 16 00143
1421 ..... 16 00144
000161 1422 NC0600 BSS      8          VERB HOLDER              16 00145
000171 000161 R 1423 NC0602 DATA     NC0600      ADDRESS CONSTANT, VERB HOLDER START 16 00146
000172 000171 R 1424 NC0604 DATA     NC0602      ADDRESS CONSTANT, VERB HOLDER END   16 00147

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000173	000000	A	1425	NC0620	DATA	0	POINTER TO NEXT SLOT IN HOLDER	16	00148
000174	142716	A	1426	NC0630	DATA	'END	',END	16	00149
000175	142240	A							
000176	120240	A							
000177	120240	A							
000200	000232	R							
000201	152720	A	1427		DATA	'UP	',UP	16	00150
000202	120240	A							
000203	120240	A							
000204	120240	A							
000205	000243	R							
000206	151305	A	1428		DATA	'REDIRECT'	,REDIR	16	00151
000207	142311	A							
000210	151305	A							
000211	141724	A							
000212	000347	R							
000213	151305	A	1429		DATA	'RESTORE	',RESTOR	16	00152
000214	151724	A							
000215	147722	A							
000216	142640	A							
000217	000473	R							
000220	142317	A	1430		DATA	'DOWN	',DOWN	16	00153
000221	153716	A							
000222	120240	A							
000223	120240	A							
000224	000546	R							
000225	146311	A	1431		DATA	'LIST	',LIST	16	00154
000226	151724	A							
000227	120240	A							
000230	120240	A							
000231	000761	R							
000232	R	1432	NC0634	EQU	*	END OF VERB TABLE		16	00155
000176	R	1433	NC0640	EQU	NC0630+2	POINT TO A DOUBLE BLANK		16	00156
			1434	EJEC				16	00157
			1435	*****				16	00158
			1436	*				16	00159
			1437	* TITLE - END DIRECTIVE PROCESSOR				16	00160
			1438	*				16	00161
			1439	* PURPOSE -				16	00162
			1440	* THIS CODE SCANS THE END DIRECTIVE.				16	00163
			1441	*				16	00164
			1442	* CALLING SEQUENCE -				16	00165
			1443	* JMP END				16	00166
			1444	*				16	00167
			1445	* ENTRANCE PARAMETERS -				16	00168
			1446	* NONE				16	00169
			1447	*				16	00170
			1448	*****				16	00171
000232	006017	A	1449	END	LDAE	CHAR	PICK UP THE CURRENT CHARACTER	16	00172
000233	002454	R							
000234	006147	A	1450		SUBE	PERIOD	COMPARE AGAINST A PERIOD	16	00173
000235	002456	R							
000236	001016	A	1451		JANZ	SYNERR	IF NOT PERIOD, SIGNAL ERROR	16	00174
000237	000133	R							
			1453	*****				16	00176
			1454	* NOW REQUEST RTE EXIT				16	00177
			1455	*****				16	00178
			1456	EXIT	EXIT		REQUEST RTE EXIT	16	00179
000240	006505	A							
000241	000000	E							
000242	000200	A							
			1457	EJEC				16	00180
			1458	*****				16	00181
			1459	*				16	00182
			1460	* TITLE - UP DIRECTIVE PROCESSOR				16	00183
			1461	*				16	00184
			1462	* PURPOSE -				16	00185
			1463	* THIS ROUTINE SCANS AND PROCESSES THE UP DIRECTIVE.				16	00186
			1464	*				16	00187
			1465	* CALLING SEQUENCE -				16	00188
			1466	* JMP UP				16	00189
			1467	*				16	00190
			1468	* ENTRANCE PARAMETERS -				16	00191
			1469	* NONE.				16	00192
			1470	*				16	00193
			1471	*****				16	00194
	000243	R	1472	UP	EQU	*	ENTRY POINT	16	00195
000243	002000	A	1473	NC1210	CALL	CHKCOM	CHECK FOR DELIMITING COMMA	16	00196
000244	002416	R							
000245	002000	A	1474		CALL	MOVER,CUP,FLD3,LUP		16	00197
000246	002237	R							
000247	002476	R							
000250	002535	R							
000251	000002	A							
			1476	*****				16	00199
			1477	* SETUP CONSTANT PORTION OF MESSAGE AND CALL FOR UNIT PARSE				16	00200
			1478	*****				16	00201
000252	002000	A	1479		CALL	UNIT,NC1600,NC2000		16	00202
000253	001353	R							
000254	000262	R							
000255	000315	R							
			1481	*****				16	00204
			1482	* IF CHARACTER IS A PERIOD, EXIT TO THE CALLER, ELSE TRY AGAIN				16	00205
			1483	*****				16	00206

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000256	002000	A 1484	NC1220	CALL	CHKPER	CHECK FOR TERMINATING PERIOD	16	00207
000257	002425	R						
000260	001000	A 1485		JMP	NC1210	IF MORE, CONTINUE SCAN	16	00208
000261	000243	R						
			1486		EJEC		16	00209
			1487		*****		16	00210
			1488	*	ENTRY POINT TO VARY A LINE ON-LINE		16	00211
			1489		*****		16	00212
000262	006037	A 1490	NC1600	LDXE	BLKPTR	POINT TO THE LSD	16	00213
000263	002451	R						
000264	005001	A 1491		TZA		ZERO A REG	16	00214
			1492	SETA	X,PSDWN,PSDWNB,PSDWNZ		16	00215
000265	004251	A						
000266	135002	A						
000267	004351	A						
000270	150421	A						
000271	004251	A						
000272	135002	A						
000273	055002	A						
000274	002000	A 1493		CALL	WRITE	AND ASK FOR THE SECTOR TO BE REWRITTEN	16	00216
000275	002043	R						
			1495		*****		16	00218
			1496	*	FORMAT AND ISSUE LINE 'UP' MESSAGE		16	00219
			1497		*****		16	00220
000276	006017	A 1498	NC1640	LDAE	LSDN	PICK UP THE CURRENT LSD NUMBER	16	00221
000277	002434	R						
000300	006030	A 1499		LDXI	FLD2	POINT TO THE MESSAGE AREA	16	00222
000301	002532	R						
000302	002000	A 1500		CALL	LSTCVT	CONVERT TO ASCII	16	00223
000303	001331	R						
000304	002000	A 1501		CALL	MOVER,CLNE,FLD1,LLNE		16	00224
000305	002237	R						
000306	002472	R						
000307	002527	R						
000310	000002	A						
000311	002000	A 1502		CALL	TYPE	OUTPUT THE 'UP' MESSAGE	16	00225
000312	002150	R						
000313	001000	A 1503		JMP	NC1220	GO TO TRY FOR ANOTHER UNIT	16	00226
000314	000256	R						
			1504		EJEC		16	00227
			1505		*****		16	00228
			1506	*	ROUTINE TO VARY A TUID ON-LINE		16	00229
			1507		*****		16	00230
000315	006037	A 1508	NC2000	LDXE	BLKPTR	POINT TO TIB	16	00231
000316	002451	R						
000317	005001	A 1509		TZA		ZERO A REG	16	00232
			1510	SETA	X,TIDWN,TIDWNB,TIDWNZ		16	00233
000320	004257	A						
000321	135002	A						
000322	004357	A						
000323	150421	A						
000324	004257	A						
000325	135002	A						
000326	055002	A						
000327	002000	A 1511		CALL	WRITE	REWRITE THE TIB	16	00234
000330	002043	R						
000331	002000	A 1512		CALL	MOVER,CTID,FLD1,LTID		16	00235
000332	002237	R						
000333	002474	R						
000334	002527	R						
000335	000002	A						
000336	002000	A 1513		CALL	MOVER,PTUID,FLD2,2		16	00236
000337	002237	R						
000340	002444	R						
000341	002532	R						
000342	000002	A						
000343	002000	A 1514		CALL	TYPE	ISSUE MESSAGE	16	00237
000344	002150	R						
000345	001000	A 1515		JMP	NC1220	GO BACK AND TRY THE NEXT UNIT FIELD	16	00238
000346	000256	R						
			1516		EJEC		16	00239
			1517		*****		16	00240
			1518	*			16	00241
			1519	*	TITLE - REDIRECT DIRECTIVE PROCESSOR		16	00242
			1520	*			16	00243
			1521	*	PURPOSE -		16	00244
			1522	*	THIS ROUTINE SCANS AND PROCESSES THE REDIRECT DIRECTIVE		16	00245
			1523	*			16	00246
			1524	*	CALLING SEQUENCE -		16	00247
			1525	*	JMP REDIR		16	00248
			1526	*			16	00249
			1527	*	ENTRANCE PARAMETERS -		16	00250
			1528	*	NONE		16	00251
			1529	*			16	00252
			1530		*****		16	00253
	000347	R 1531	REDIR	EQU	*	ROUTINE ENTRY POINT	16	00254
000347	002000	A 1532	NC2410	CALL	CHKCOM	CHECK FOR DELIMITING COMMA	16	00255
000350	002416	R						
000351	002000	A 1533		CALL	UNIT,SYNERR,NC2430		16	00256
000352	001353	R						
000353	000133	R						
000354	000361	R						
			1535		*****		16	00258
			1536	*	IF NOT TERMINATED BY A PERIOD, CONTINUE SCANNING THE DIRECTIVE		16	00259

			1537	*****				16	00260
000355	002000	A	1538	NC2420	CALL	CHKPER	CHECK FOR TERMINATING PERIOD	16	00261
000356	002425	R							
000357	001000	A	1539		JMP	NC2410	IF MORE, CONTINUE SCAN	16	00262
000360	000347	R							
			1541	*****				16	00264
			1542	*			CHECK FOR A TRAILING COMMA, AND SET UP MESSAGE	*	16 00265
			1543	*****				16	00266
000361	002000	A	1544	NC2430	CALL	CHKCOM	CHECK FOR DELIMITING COMMA	16	00267
000362	002416	R							
000363	002000	A	1545		CALL	MOVER,PTUID,FLD2,2		16	00268
000364	002237	R							
000365	002444	R							
000366	002532	R							
000367	000002	A							
000370	002000	A	1546		CALL	MOVER,CTID,FLD1,LTID		16	00269
000371	002237	R							
000372	002474	R							
000373	002527	R							
000374	000002	A							
000375	002000	A	1547		CALL	MOVER,CRED,FLD3,LRED		16	00270
000376	002237	R							
000377	002510	R							
000400	002535	R							
000401	000007	A							
000402	006017	A	1548		LDAE	SECTN	PICK UP SECTOR NUMBER OF TIB1	16	00271
000403	002447	R							
000404	054064	A	1549		STA	NC2500	AND SAVE IN TEMPORARY CELL	16	00272
000405	006017	A	1550		LDAE	DISP	PICK UP DISPLACEMENT OF TIB1	16	00273
000406	002450	R							
000407	054062	A	1551		STA	NC2510	AND SAVE IN TEMPORARY CELL	16	00274
000410	002000	A	1552		CALL	UNIT,SYNERR,NC2440		16	00275
000411	001353	R							
000412	000133	R							
000413	000416	R							
000414	001000	A	1553		JMP	SYNERR	SIGNAL ERROR IF WE RETURN NORMALLY	16	00276
000415	000133	R							
			1555	*****				16	00278
			1556	*			SAVE TUID OF SECOND TIB IN MESSAGE AND REREAD TIB1	*	16 00279
			1557	*****				16	00280
000416	002000	A	1558	NC2440	CALL	MOVER,PTUID,FLD7,2		16	00281
000417	002237	R							
000420	002444	R							
000421	002544	R							
000422	000002	A							
000423	006037	A	1559		LDXE	BLKPTR	POINT TO TIB2	16	00282
000424	002451	R							
			1560		FETCHA	X,TIDSP,TIDSPB,TIDSPZ+TISECZ		16	00283
000425	015002	A							
000426	006150	A							
000427	077777	A							
000430	005012	A	1561		TAB		AND COPY TO B REG	16	00284
000431	014037	A	1562		LDA	NC2500	PICK UP SECTOR NUMBER OF TIB1	16	00285
000432	006057	A	1563		STAE	SECTN	PLACE IN SECTOR NUMBER CELL	16	00286
000433	002447	R							
000434	014035	A	1564		LDA	NC2510	PICK UP TIB1 DISPLACEMENT	16	00287
000435	006057	A	1565		STAE	DISP	PLACE IN DISPLACEMENT CELL	16	00288
000436	002450	R							
000437	064031	A	1566		STB	NC2500	SAVE SECOND PCD POINTER	16	00289
000440	002000	A	1567		CALL	READ	REREAD FIRST TIB	16	00290
000441	002020	R							
000442	002000	A	1568		CALL	CALC	POINT TO FIRST TIB	16	00291
000443	001727	R							
			1569		FETCHA	X,TIODP,TIODPB,TIODPZ+TIOSCZ		16	00292
000444	015003	A							
000445	006150	A							
000446	077777	A							
000447	001016	A	1570		JANZ	NC2442	JUMP IF PREVIOUSLY REDIRECTED	16	00293
000450	000455	R							
			1571		FETCHA	X,TIDSP,TIDSPB,TIDSPZ+TISECZ		16	00294
000451	015002	A							
000452	006150	A							
000453	077777	A							
000454	055003	A	1572		STA	TIODP,X	STOW INTO LAST WORD	16	00295
000455	014013	A	1573	NC2442	LDA	NC2500	PICK UP SECOND PCD POINTER	16	00296
			1574		SETA	X,TIDSP,TIDSPB,TIDSPZ+TISECZ		16	00297
000456	135002	A							
000457	006150	A							
000460	077777	A							
000461	135002	A							
000462	055002	A							
000463	002000	A	1575		CALL	WRITE	AND REWRITE THE FIRST SECTOR	16	00298
000464	002043	R							
000465	002000	A	1576		CALL	TYPE	AND ISSUE REDIRECTED MESSAGE	16	00299
000466	002150	R							
000467	001000	A	1577		JMP	NC2420	AND CONTINUE TO LOOK FOR MORE TUID PAIRS	16	00300
000470	000355	R							
			1579	*****				16	00302
			1580	*			DATA AND WORK AREAS FOR REDIRECT PROCESSOR	*	16 00303
			1581	*****				16	00304
000471	000000	A	1582	NC2500	DATA	0	SAVE SECTOR OF TIB1	16	00305
000472	000000	A	1583	NC2510	DATA	0	SAVE DISPLACEMENT OF TIB1	16	00306
			1584		EJEC			16	00307

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1585 ..... 16 00308
1586 * ..... 16 00309
1587 * TITLE - RESTORE DIRECTIVE PROCESSOR ..... 16 00310
1588 * ..... 16 00311
1589 * PURPOSE - ..... 16 00312
1590 * THIS ROUTINE SCANS AND PROCESSES THE RESTORE DIRECTIVE. ..... 16 00313
1591 * ..... 16 00314
1592 * CALLING SEQUENCE - ..... 16 00315
1593 * JUMP RESTOR ..... 16 00316
1594 * ..... 16 00317
1595 * ENTRANCE PARAMETERS - ..... 16 00318
1596 * NONE. ..... 16 00319
1597 * ..... 16 00320
1598 ..... 16 00321
000473 R 1599 RESTOR EQU * ROUTINE ENTRY POINT 16 00322

1601 ..... 16 00324
1602 * CHECK FOR A DELIMITING COMMA AND SETUP MESSAGE ..... 16 00325
1603 ..... 16 00326
000473 002000 A 1604 NC2810 CALL CHKCOM CHECK FOR DELIMITING COMMA 16 00327
000474 002416 R .....
000475 002000 A 1605 CALL MOVER,CTID,FLD1,LTID 16 00328
000476 002237 R .....
000477 002474 R .....
000500 002527 R .....
000501 000002 A .....
000502 002000 A 1606 CALL MOVER,CRES,FLD3,LRES 16 00329
000503 002237 R .....
000504 002517 R .....
000505 002535 R .....
000506 000004 A .....
000507 002000 A 1607 CALL UNIT,SYNERR,NC2830 16 00330
000510 001353 R .....
000511 000133 R .....
000512 000517 R .....

1609 ..... 16 00332
1610 * IF NOT TERMINATED BY A PERIOD, CONTINUE SCANNING ..... 16 00333
1611 ..... 16 00334
000513 002000 A 1612 NC2820 CALL CHKPER CHECK FOR TERMINATING PERIOD 16 00335
000514 002425 R .....

000515 001000 A 1613 JUMP NC2810 IF MORE, CONTINUE SCAN 16 00336
000516 000473 R .....

1615 ..... 16 00338
1616 * THE TUID HAS BEEN PARSED, NOW DO THE RESTORE ACTION ..... 16 00339
1617 ..... 16 00340
000517 002000 A 1618 NC2830 CALL MOVER,PTUID,FLD2,2 16 00341
000520 002237 R .....
000521 002444 R .....
000522 002532 R .....
000523 000002 A .....
000524 006037 A 1619 LDXE BLKPTR POINT TO THE TID 16 00342
000525 002451 R .....
000526 015003 A 1620 LDA TIODP,X PICK UP ALTERED TCD POINTER 16 00343
000527 001010 A 1621 JAZ NC2840 SKIP IF NEVER REDIRECTED 16 00344
000530 000542 R .....
1622 SETA X,TIDSP,TIDSPB,TIDSPZ+TISECZ 16 00345

000531 135002 A .....
000532 006150 A .....
000533 077777 A .....
000534 135002 A .....
000535 055002 A .....
000536 005001 A 1623 TZA PICK UP A ZERO 16 00346
000537 055003 A 1624 STA TIODP,X AND CLEAR ALTERNATE POINTER 16 00347
000540 002000 A 1625 CALL WRITE REWRITE THE TIB TO RMD 16 00348
000541 002043 R .....

1627 ..... 16 00350
1628 * NOW ISSUE THE REDIRECT MESSAGE AND CONTINUE SCAN ..... 16 00351
1629 ..... 16 00352
000542 002000 A 1630 NC2840 CALL TYPE TYPE REDIRECT MESSAGE 16 00353
000543 002150 R .....
000544 001000 A 1631 JUMP NC2820 GO BACK TO TRY FOR ANOTHER UNIT 16 00354
000545 000513 R .....

1632 EJEC 16 00355
1633 ..... 16 00356
1634 * ..... 16 00357
1635 * TITLE - DOWN DIRECTIVE PROCESSOR ..... 16 00358
1636 * ..... 16 00359
1637 * PURPOSE - ..... 16 00360
1638 * THIS ROUTINE PROCESSES THE DOWN DIRECTIVE, FOR BOTH ..... 16 00361
1639 * LINES AND TERMINALS. ..... 16 00362
1640 * ..... 16 00363
1641 * CALLING SEQUENCE - ..... 16 00364
1642 * JUMP DOWN ..... 16 00365
1643 * ..... 16 00366
1644 * ENTRANCE PARAMETERS - ..... 16 00367
1645 * NONE. ..... 16 00368
1646 * ..... 16 00369
1647 ..... 16 00370
000546 R 1648 DOWN EQU * ROUTINE ENTRY POINT 16 00371
000546 002000 A 1649 NC3210 CALL CHKCOM CHECK FOR DELIMITING COMMA 16 00372
000547 002416 R .....

1651 ..... 16 00374
1652 * SET UP COMMON MESSAGE SECTION ..... 16 00375

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1653 ***** 16 00376
000550 002000 A 1654 CALL MOVER,CDWN,FLD3,LDWN 16 00377
000551 002237 R
000552 002500 R
000553 002535 R
000554 000002 A
000555 002000 A 1655 CALL UNIT,NC3600,NC4000 16 00378
000556 001353 R
000557 000565 R
000560 000711 R

1657 ***** 16 00380
1658 * IF NOT TERMINATED BY A PERIOD, CONTINUE SCANNING * 16 00381
1659 ***** 16 00382
000561 002000 A 1660 NC3220 CALL CHKPER CHECK FOR TERMINATING PERIOD 16 00383
000562 002425 R
000563 001000 A 1661 JMP NC3210 IF MORE, CONTINUE SCAN 16 00384
000564 000546 R

1662 EJEC 16 00385
1663 ***** 16 00386
1664 * AT THIS POINT, A LINE IS TO BE DOWNED, FIRST SETUP MESSAGE * 16 00387
1665 ***** 16 00388
000565 002000 A 1666 NC3600 CALL MOVER,CLNE,FLD1,LLNE 16 00389
000566 002237 R
000567 002472 R
000570 002527 R
000571 000002 A
000572 006030 A 1667 LDXI FLD2 POINT TO LINE NUMBER FIELD 16 00390
000573 002532 R
000574 006017 A 1668 LDAE LSDN PICK UP THE CURRENT CHARACTER 16 00391
000575 002434 R
000576 001000 A 1669 CALL LSTCVT CONVERT TO ASCII 16 00392
000577 001331 R

1671 ***** 16 00394
1672 * NOW TURN ON DOWNED BIT IN PSD AND REWRITE TO RMD * 16 00395
1673 ***** 16 00396
000600 006037 A 1674 LDXE BLKPTR POINT TO THE LSD 16 00397
000601 002451 R
000602 010421 A 1675 LDA ONE PICK UP A CONSTANT ONE 16 00398
1676 SETA X,PSDWN,PSDWNB,PSDWNZ 16 00399

000603 004251 A
000604 135002 A
000605 004351 A
000606 150421 A
000607 004251 A
000610 135002 A
000611 055002 A
000612 002000 A 1677 CALL WRITE REWRITE LSD SECTOR 16 00400
000613 002043 R

1678 EJEC 16 00401
1679 ***** 16 00402
1680 * NOW ISSUE I/O CLEAR FUNCTION FOR THE LINE * 16 00403
1681 ***** 16 00404
000614 006017 A 1682 LDAE LSDN PICK UP LINE NUMBER 16 00405
000615 002434 R
000616 114065 A 1683 ORA NC3740 OR IN FUNCTION CODE 16 00406
000617 054067 A 1684 STA NC3750+2 STOW IN LINE CONTROL BLOCK 16 00407
000620 006017 A 1685 LDAE CCMN PICK UP CCM NUMBER 16 00408
000621 002436 R
000622 114060 A 1686 ORA NC3720 OR INTO FUNC OP-CODE 16 00409
000623 054003 A 1687 STA NC3610+3 STOW IN MACRO EXPANSION 16 00410
1688 NC3610 FUNC NC3750,255,WAIT 16 00411

000624 006505 A
000625 000000 E
000626 100000 A
000627 002777 A
000630 000705 R
000631 000000 A
000632 000000 A

1690 ***** 16 00413
1691 * NOW SEARCH THREAD OF ALL CURRENT TCDS FOR TERMINAL OPEN * 16 00414
1692 * TO THIS LOGICAL LINE NUMBER AND CCM NUMBER. * 16 00415
1693 * WHEN A MATCH IS FOUND, ISSUE I/O CLEAR FOR THAT TUID. * 16 00416
1694 ***** 16 00417
000633 006017 A 1695 EXT TC$TCD EXTERNAL NAME OF TCD THREAD ORIGIN 16 00418
000634 002434 R 1696 LDAE LSDN PICK UP THE CURRENT LINE NUMBER 16 00419

000635 004250 A 1697 LRLA B SHIFT TO THE HIGH-ORDER BYTE 16 00420
000636 006117 A 1698 ORAE CCMN OR IN THE CCM NUMBER 16 00421
000637 002436 R
000640 054047 A 1699 STA NC3760 STOW IN TEMPORARY CELL 16 00422
000641 006027 A 1700 LOBE TC$TCD POINT TO FIRST TCD ON THREAD 16 00423
000642 000000 E
000643 001020 A 1701 NC3620 JBZ NC3650 IF NULL, STOP FOLLOWING THREAD 16 00424
000644 000677 R
000645 014042 A 1702 LDA NC3760 PICK UP TEMPORARY CELL 16 00425
000646 146003 A 1703 SUB TCLLN,B COMPARE TO THE CURRENT TCD 16 00426
000647 001016 A 1704 JANZ NC3640 IF NOT SAME, DO NOT DOWN 16 00427
000650 000674 R
000651 016015 A 1705 LDA TCID1,B PICK UP FIRST TWO CHARS OF TUID 16 00428

000652 006057 A 1706 STAE PTUID STOW IN DCB 16 00429
000653 002444 R
000654 016016 A 1707 LDA TCID2,B PICK UP SECOND TWO CHARS OF TUID 16 00430
000655 006057 A 1708 STAE PTUID+1 STOW IN DCB 16 00431

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000656 002445 R
000657 002000 A 1709      CALL   GETLTN      MAP TO LOGICAL TERMINAL NUMBER      16 00432
000660 002272 R
000661 001010 A 1710      JAZ    NC3640      IF NULL, CANNOT CLOSE              16 00433
000662 000674 R
000663 114074 A 1711      ORA    NC4120      OR IN FUNC OP-CODE                16 00434
000664 054003 A 1712      STA    NC3630+3    STOW INTO MACRO EXPANSION          16 00435
                                1713 NC3630 FUNC    PTUID,255,WAIT                    16 00436

000665 006505 A
000666 000625 E
000667 100000 A
000670 002777 A
000671 002444 R
000672 000000 A
000673 000000 A
000674 026000 A 1714 NC3640 LDB    TCTCD,B      PICK UP NEXT TCD THREAD            16 00437
000675 001000 A 1715      JMP    NC3620      AND CONTINUE SEARCH                16 00438
000676 000643 R
                                1716 *****                                16 00439
                                1717 *      LINE IS CLOSED AND DOWN, ALL TERMINALS TO THAT LINE * 16 00440
                                1718 *      ARE FLUSHED, NOW ISSUE THE DOWN MESSAGE AND GO TO TRY NEXT * 16 00441
                                1719 *      FIELD. * 16 00442
                                1720 *****                                16 00443
000677 002000 A 1721 NC3650 CALL   TYPE      ISSUE DOWN MESSAGE                16 00444
000700 002150 R
000701 001000 A 1722      JMP    NC3220      JUMP TO TRY NEXT UNIT              16 00445
000702 000561 R
                                1723 *****                                16 00446
                                1724 *      DATA AND WORK AREAS FOR DOWN-LINE DIRECTIVE PROCESSOR * 16 00447
                                1725 *****                                16 00448
000703 002400 A 1726 NC3720 IOMAC   WAIT,0,FUNCOP,0  16 00449
                                1727 NC3730 FORM    8,8      FORMAT FOR LCB MACRO                16 00450
000704 012400 A 1728 NC3740 NC3730 21,0      FUNCTION CODE FOR LCB                16 00451
000705 000000 A 1729 NC3750 DATA   0,0,0      LINE CONTROL BLOCK                  16 00452
000706 000000 A
000707 000000 A
000710 000000 A 1730 NC3760 DATA   0      TEMPORARY STORAGE                  16 00453
                                1731      EJEC                                16 00454
                                1732 *****                                16 00455
                                1733 *      AT THIS POINT, A TUID IS TO BE DOWNED, FIRST SETUP MESSAGE * 16 00456
                                1734 *****                                16 00457
000711 002000 A 1735 NC4000 CALL   MOVER,CTID,FLD1,LTID  16 00458
000712 002237 R
000713 002474 R
000714 002527 R
000715 000002 A
000716 002000 A 1736      CALL   MOVER,PTUID,FLD2,2          16 00459
000717 002237 R
000720 002444 R
000721 002532 R
000722 000002 A
                                1738 *****                                16 00461
                                1739 *      TURN ON DOWN SWITCH IN TIB AND REWRITE TO RMD * 16 00462
                                1740 *****                                16 00463
000723 006037 A 1741      LDXE   BLKPTR     POINT TO THE TIB                    16 00464
000724 002451 R
000725 010421 A 1742      LDA    ONE        PICK UP A CONSTANT ONE                16 00465
                                1743      SETA   X,TIDWN,TIDWNB,TIDWNZ      16 00466

000726 004257 A
000727 135002 A
000730 004357 A
000731 150421 A
000732 004257 A
000733 135002 A
000734 055002 A
000735 002000 A 1744      CALL   WRITE      REWRITE TIB SECTOR TO RMD          16 00467
000736 002043 R
                                1746 *****                                16 00469
                                1747 *      NOW LOOK UP LOGICAL TERMINAL NUMBER AND ISSUE I/O CLEAR * 16 00470
                                1748 *****                                16 00471
000737 002000 A 1749      CALL   GETLTN     FIND LOGICAL TERMINAL NUMBER          16 00472
000740 002272 R
000741 001010 A 1750      JAZ    NC4040      SKIP FUNC IF NOT CURRENTLY OPEN    16 00473
000742 000754 R
000743 114014 A 1751      ORA    NC4120      OR INTO OP-CODE                    16 00474
000744 054003 A 1752      STA    NC4110+3    STOW INTO I/O MACRO                16 00475
                                1753 NC4110 FUNC    PTUID,255,WAIT                    16 00476

000745 006505 A
000746 000666 E
000747 100000 A
000750 002777 A
000751 002444 R
000752 000000 A
000753 000000 A
                                1755 *****                                16 00478
                                1756 *      TERMINAL IS NOW DOWN AND ALL I/O IS PURGED, ISSUE MESSAGE * 16 00479
                                1757 *****                                16 00480
000754 002000 A 1758 NC4040 CALL   TYPE      ISSUE DOWN MESSAGE                16 00481
000755 002150 R
000756 001000 A 1759      JMP    NC3220      JUMP TO TRY NEXT UNIT              16 00482
000757 000561 R
                                1761 *****                                16 00484
                                1762 *      CONSTANTS AND WORK AREAS FOR DOWN TERMINAL PROCESSOR * 16 00485

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		1763	*****			16	00486
000760	002400	A 1764	NC4120	IOMAC	WAIT,0,FUNCOP,0	16	00487
		1765	EJEC			16	00488
		1766	*****			16	00489
		1767	*			16	00490
		1768	*	TITLE - LIST DIRECTIVE PROCESSOR		16	00491
		1769	*			16	00492
		1770	*	PURPOSE -		16	00493
		1771	*	THIS ROUTINE SCANS THE LIST DIRECTIVE		16	00494
		1772	*			16	00495
		1773	*	CALLING SEQUENCE -		16	00496
		1774	*	JMP LIST		16	00497
		1775	*			16	00498
		1776	*	ENTRANCE PARAMETERS -		16	00499
		1777	*	NONE		16	00500
		1778	*			16	00501
		1779	*****			16	00502
	000761	R 1780	LIST	EQU	ENTRY POINT	16	00503
000761	006017	A 1781	LDAE	CHAR	PICK UP THE CURRENT CHARACTER	16	00504
000762	002454	R					
000763	006147	A 1782	SUBE	PERIOD	COMPARE FOR A PERIOD	16	00505
000764	002456	R					
000765	001010	A 1783	JAZ	NC4600	IF PERIOD, PROCESS 'LIST ALL'	16	00506
000766	001011	R					
		1785	*****			16	00508
		1786	*	AT THIS POINT THE DIRECTIVE HAS AN OPERAND LIST		16	00509
		1787	*****			16	00510
000767	002000	A 1788	NC4410	CALL	CHKCOM CHECK FOR DELIMITING COMMA	16	00511
000770	002416	R					
000771	002000	A 1789	CALL	UNIT,NC4420,NC4430		16	00512
000772	001353	R					
000773	000777	R					
000774	001003	R					
000775	001000	A 1790	JMP	NC4440	ON 'OTHER', SKIP TO CHECK FOR PERIOD	16	00513
000776	001005	R					
		1791	EJEC			16	00514
		1792	*****			16	00515
		1793	*	AT THIS POINT A LINE WAS SENSED, CALL THE LINE LISTER		16	00516
		1794	*****			16	00517
000777	002000	A 1795	NC4420	CALL	LSTLN IF 'LINE', CALL LINE LISTER	16	00518
001000	001125	R					
001001	001000	A 1796	JMP	NC4440	AND SKIP TO COMMON CODE	16	00519
001002	001005	R					
		1798	*****			16	00521
		1799	*	AT THIS POINT, A TUID WAS SENSED, CALL THE TERMINAL LISTER		16	00522
		1800	*****			16	00523
001003	002000	A 1801	NC4430	CALL	LSTU IF 'TUID', CALL TUID LISTER	16	00524
001004	001243	R					
		1803	*****			16	00526
		1804	*	IF NOT TERMINATED BY A PERIOD, CONTINUE SCANNING		16	00527
		1805	*****			16	00528
001005	002000	A 1806	NC4440	CALL	CHKPER CHECK FOR TERMINATING PERIOD	16	00529
001006	002425	R					
001007	001000	A 1807	JMP	NC4410	IF MORE, CONTINUE SCAN	16	00530
001010	000767	R					
		1808	EJEC			16	00531
		1809	*****			16	00532
		1810	*	LIST ALL IS ISSUED HERE, PREPARE FOR READING LSD'S		16	00533
		1811	*****			16	00534
001011	005001	A 1812	NC4600	T	PLACE ZERO IN A REG	16	00535
001012	006057	A 1813	STOE	LSDN	TAKE AS INITIAL LSD NUMBER	16	00536
001013	002434	R					
001014	006017	A 1814	JAE	DFLPTR	PICK UP ADDRESS OF FCB	16	00537
001015	002465	R					
001016	006057	A 1815	JAE	FCBPTR	STOW AS CURRENT FCB	16	00538
001017	002452	R					
		1817	*****			16	00540
		1818	*	COMPUTE SECTOR NUMBER AND READ IN THE LSD		16	00541
		1819	*****			16	00542
001020	005001	A 1820	NC430	TZA	ZERO A REG FOR DIVISION	16	00543
001021	006027	A 1821	LDBE	LSDN	PICK UP THE CURRENT LSD NUMBER	16	00544
001022	002434	R					
001023	174100	A 1822	DIV	NC4700	COMPUTE SECTOR AND DISPLACEMENT	16	00545
001024	005122	A 1823	IBI		MAKE SECTOR NUMBER ONE'S ORIGIN	16	00546
001025	006067	A 1824	STIE	SECTN	STOW AS THE CURRENT SECTOR	16	00547
001026	002447	R					
001027	005012	A 1825	TJ		COPY REMAINDER TO B REG	16	00548
001030	005001	A 1826	TJ		ZERO A REG FOR MULTIPLY	16	00549
001031	160465	A 1827	MJ	NC4710	COMPUTE LSD DISPLACEMENT IN WORDS	16	00550
001032	006067	A 1828	STIE	DISP	STOW AS THE CURRENT DISPLACEMENT	16	00551
001033	002450	R					
001034	002000	A 1829	LL	READ	READ IN THE SECTOR	16	00552
001035	002020	R					
001036	002000	A 1830	LL	CALC	CALCULATE ADDRESS OF LSD	16	00553
001037	001727	R					
001040	002000	A 1831	CALL	LSTLN	PASS CONTROL TO LIST THE LINE	16	00554
001041	001125	R					
		1833	*****			16	00556
		1834	*	INCREMENT LSD NUMBER AND CONTINUE IF .LE. 255		16	00557
		1835	*****			16	00558
001042	006017	A 1836	LDAE	LSDN	PICK UP THE CURRENT LSD NUMBER	16	00559

001043	002434	R							
001044	005111	A	1837	IAR			INCREMENT IT		16 00560
001045	006057	A	1838	STAE	LSDN		SAVE IT		16 00561
001046	002434	R							
001047	140431	A	1839	SUB	NC4720		COMPARE FOR MAX + 1		16 00562
001050	001004	A	1840	JAN	NC4610		CONTINUE IF .LE. MAX		16 00563
001051	001020	R							
			1841	EJEC					16 00564
			1842	*****					16 00565
			1843	* NOW PASS THROUGH THE INDEX AND LIST ALL TUIDS *					16 00566
			1844	*****					16 00567
001052	006017	A	1845	LDAE	DFTPTR		PICK ADDRESS OF FCB		16 00568
001053	002466	R							
001054	006057	A	1846	STAE	FCBPTR		STOW AS CURRENT FCB		16 00569
001055	002452	R							
001056	010421	A	1847	LDA	ONE		PICK UP A COVSTANT ONE		16 00570
001057	006057	A	1848	NC4620	STAE	SECTN	STOW AS THE CURRENT SECTOR NUMBER		16 00571
001060	002447	R							
001061	005001	A	1849	TZA			PICK UP A ZERO VALUE		16 00572
001062	006057	A	1850	STAE	DISP		USE AS THE CURRENT DISPLACEMENT		16 00573
001063	002450	R							
001064	002000	A	1851	CALL	READ		READ THE REQUESTED SECTOR		16 00574
001065	002020	R							
001066	006017	A	1852	NC4630	LDAE	DISP	PICK UP THE CURRENT DISPLACEMENT		16 00575
001067	002450	R							
001070	120423	A	1853	ADD	FOUR		INCREMENT TO THE NEXT TIB		16 00576
001071	006057	A	1854	STAE	DISP		STOW AS THE CURRENT DISPLACEMENT		16 00577
001072	002450	R							
001073	004342	A	1855	LSRA	2		DIVIDE BY FOUR		16 00578
001074	006147	A	1856	SUBE	SECTOR		MINUS NUMBER OF TIBS IN THIS SECTOR		16 00579
001075	002576	R							
001076	005311	A	1857	DAR			ADJUST BEFORE JUMP TEST		16 00580
001077	001002	A	1858	JAP	NC4640		SKIP CALL IF NO MORE ON THIS SECTOR		16 00581
001100	001115	R							
001101	002000	A	1859	CALL	CALC		COMPUTE ADDRESS OF RECORD FOR ROUTINE		16 00582
001102	001727	R							
001103	074002	A	1860	STX	NC4632		STOW FROM LOCATION		16 00583
001104	002000	A	1861	CALL	MOVER		MOVE TO PTUID SLOT		16 00584
001105	002237	R							
001106	000000	A	1862	NC4632	DATA	0,PTUID,2	PARAMETER LIST		16 00585
001107	002444	R							
001110	000002	A							
001111	002000	A	1863	CALL	LSTTU		CALL TUID LISTER		16 00586
001112	001243	R							
001113	001000	A	1864	JMP	NC4630		SKIP BACK TO PROCESS ANOTHER TIB		16 00587
001114	001066	R							
			1866	*****					16 00589
			1867	* AT THIS POINT THE WHOLE INDEX SECTOR HAS BEEN PROCESSED *					16 00590
			1868	*****					16 00591
001115	006017	A	1869	NC4640	LDAE	SECTOR+2	PICK UP THE THREAD POINTER		16 00592
001116	002600	R							
001117	004347	A	1870	LSRA	7		SHIFT INTO POSITION		16 00593
001120	001016	A	1871	JANZ	NC4620		CONTINUE IF THREAD IS NOT NULL		16 00594
001121	001057	R							
001122	001000	A	1872	JMP	NETCON		ELSE, GO TO TOP OF MODULE		16 00595
001123	000000	R							
			1874	*****					16 00597
			1875	* DATA AND WORK AREAS FOR LIST ALL PROCESSOR *					16 00598
			1876	*****					16 00599
001124	000030	A	1877	NC4700	DATA	24	NUMBER OF TIB'S/SECTOR		16 00600
	000465	A	1878	NC4710	EQU	FIVE	SIZE OF EACH TCD		16 00601
	000431	A	1879	NC4720	EQU	BSB	MAX LSD NUMBER PLUS ONE		16 00602
			1880	EJEC					16 00603
			1881	*****					16 00604
			1882	* TITLE - LINE LIST ROUTINE *					16 00605
			1883	* TITLE - LINE LIST ROUTINE *					16 00606
			1884	* PURPOSE - *					16 00607
			1885	* PURPOSE - *					16 00608
			1886	* THIS ROUTINE IS CALLED TO LIST THE CURRENT STATUS OF A SINGLE *					16 00609
			1887	* LINE, WHOSE LSD IS POINTER TO BY 'BLKPTR'.					16 00610
			1888	* *					16 00611
			1889	* CALLING SEQUENCE - *					16 00612
			1890	* CALL LSTLN *					16 00613
			1891	* *					16 00614
			1892	* ENTRANCE PARAMETERS - *					16 00615
			1893	* 'BLKPTR' MUST POINT TO THE LSD OF THE LINE TO BE LISTED *					16 00616
			1894	* 'CCMN' MUST CONTAIN THE CCM NUMBER FOR THE LINE *					16 00617
			1895	* *					16 00618
			1896	*****					16 00619
001125	000000	A	1897	LSTLN	ENTR		ENTRY CELL		16 00620
001126	006027	A	1898	LDBE	BLKPTR		POINT TO THE LSD		16 00621
001127	002451	R							
001130	016002	A	1899	LDA	PSDEF,B		PICK UP DEFINED WORD		16 00622
001131	006450	A	1900	BT	PSDEFB+BTAOFF,NC4850				16 00623
001132	001241	R							
			1902	*****					16 00625
			1903	* NOW SETUP MESSAGE BUFFER *					16 00626
			1904	*****					16 00627
001133	002000	A	1905	CALL	MOVER,CLNE,FLDI,LLNE				16 00628
001134	002237	R							
001135	002472	R							
001136	002527	R							

001137	000002	A						
001140	006017	A	1906	LDAE	CP	LOAD ' P'		16 00629
001141	002525	R						
001142	006057	A	1907	STAE	FLD3-1	STOW ' P'		16 00630
001143	002534	R						
001144	006030	A	1908	LDXI	FLD2	POINT TO NUMERIC FIELD		16 00631
001145	002532	R						
001146	006017	A	1909	LDAE	LSDN	PICK UP BINARY VALUE		16 00632
001147	002434	R						
001150	002000	A	1910	CALL	LSTCVT	CONVERT TO ASCII		16 00633
001151	001331	R						
001152	006027	A	1911	LDBE	BLKPTR	POINT TO THE LSD		16 00634
001153	002451	R						
001154	016002	A	1912	LDA	PSPLA,B	PICK UP WORD 0		16 00635
			1913	ANAM	PSPLAZ	PICK OUT PHYSICAL LINE NUMBER		16 00636
001155	150463	A						
001156	006030	A	1914	LDXI	FLD3	POINT TO RESULT FIELD		16 00637
001157	002535	R						
001160	002000	A	1915	CALL	LSTCVT	CONVERT TO ASCII		16 00638
001161	001331	R						
001162	002000	A	1916	CALL	MOVER,COWN,FLD5,LDWN			16 00639
001163	002237	R						
001164	002500	R						
001165	002540	R						
001166	000002	A						
001167	002000	A	1917	CALL	MOVER,CCLS,FLD6,LCLS			16 00640
001170	002237	R						
001171	002505	R						
001172	002543	R						
001173	000003	A						
			1919	*****				16 00642
			1920	*	IF LINE IS UP, MOVE 'UP' TO MESSAGE	*	16 00643	
			1921	*****				16 00644
001174	006027	A	1922	LDBE	BLKPTR	POINT TO THE LSD		16 00645
001175	002451	R						
001176	016002	A	1923	LDA	PSDOWN,B	PICK UP SWITCH WORD		16 00646
001177	006411	A	1924	BT	PSDOWNB,NC4830	SKIP IF FLAGGED DOWN		16 00647
001200	001206	R						
001201	002000	A	1925	CALL	MOVER,CUP,FLD5,LUP			16 00648
001202	002237	R						
001203	002476	R						
001204	002540	R						
001205	000002	A						
			1927	*****				16 00650
			1928	*	IF LINE IS OPEN, MOVE 'OPEN' TO MESSAGE	*	16 00651	
			1929	*****				16 00652
			1930	EXT	C52LLT	EXTERNAL NAME OF LLT		16 00653
001206	006017	A	1931	NC4830 LDAE	LSDN	PICK UP LOGICAL LINE NUMBER		16 00654
001207	002434	R						
001210	006147	A	1932	SUBE	C52LLT	COMPARE AGAINST NUMBER IN TABLE		16 00655
001211	000000	E						
001212	001002	A	1933	JAP	NC4840	IF TOO LARGE, MUST BE CLOSED		16 00656
001213	001237	R						
001214	006017	A	1934	LDAE	LSDN	RESTORE LOGICAL LINE NUMBER		16 00657
001215	002434	R						
001216	005002	A	1935	TZB		XERO B REG TO RECEIVE BYTE FLAG		16 00658
001217	004541	A	1936	LLSR	1	SHIFT OUT BYTE FLAG TO B REG		16 00659
001220	006120	A	1937	ADDI	C52LLT	ADD IN BASE OF LLT		16 00660
001221	001211	E						
001222	005115	A	1938	INCR	015	INCREMENT OVER COUNT AND COPY TO X		16 00661
001223	015000	A	1939	LDA	0,X	PICK UP TWO BYTES		16 00662
001224	003020	A	1940	XBZ	NC7320	SHIFT RIGHT OVER BYTE IF FLAG IS ZERO		16 00663
001225	002017	R						
			1941	ANAM	8	MASK OFF HIGH-ORDER BYTE		16 00664
001226	150463	A						
001227	140463	A	1942	SUB	RHW	COMPARE TO 0377		16 00665
001230	001002	A	1943	JAP	NC4840	SKIP IS OUT OF RANGE		16 00666
001231	001237	R						
001232	002000	A	1944	CALL	MOVER,COPN,FLD6,LOPN			16 00667
001233	002237	R						
001234	002502	R						
001235	002543	R						
001236	000003	A						
			1946	*****				16 00669
			1947	*	ISSUE THE MESSAGE AND RETURN TO THE CALLER	*	16 00670	
			1948	*****				16 00671
001237	002000	A	1949	NC4840 CALL	TYPE	ISSUE THE MESSAGE		16 00672
001240	002150	R						
001241	001000	A	1950	NC4850 JMP*	LSTLN	RETURN TO THE CALLER		16 00673
001242	101125	R						
			1951	EJEC				16 00674
			1952	*****				16 00675
			1953	*				16 00676
			1954	*	TITLE - TUID LISTER ROUTINE			16 00677
			1955	*				16 00678
			1956	*	PURPOSE -			16 00679
			1957	*	THIS ROUTINE IS CALLED TO LIST THE CURRENT STATUS OF			16 00680
			1958	*	A SINGLE TUID, WHOSE TIB IS POINTED TO BY 'BLKPTR'.			16 00681
			1959	*				16 00682
			1960	*	CALLING SEQUENCE -			16 00683
			1961	*	CALL LSTTU			16 00684
			1962	*				16 00685
			1963	*	ENTRANCE PARAMETERS -			16 00686

		1964 *	'BLKPTR' MUST POINT TO THE TIB FOR THE TUID		* 16 00687
		1965 *			* 16 00688
		1966	.....		16 00689
001243	000000	A 1967	LSTTU ENTR	ENTRY CELL	16 00690
		1969	.....		16 00692
		1970 *	NOW SET UP MESSAGE LINE		* 16 00693
		1971	.....		16 00694
001244	002000	A 1972	CALL	MOVER,CTID,FLD1,LTID	16 00695
001245	002237	R			
001246	002474	R			
001247	002527	R			
001250	000002	A			
001251	002000	A 1973	CALL	MOVER,PTUID,FLD2,2	16 00696
001252	002237	R			
001253	002444	R			
001254	002532	R			
001255	000002	A			
001256	006017	A 1974	LDAE	CT ' T'	16 00697
001257	002524	R			
001260	006057	A 1975	STAE	FLD3-1 STOW ' T'	16 00698
001261	002534	R			
001262	002000	A 1976	CALL	GETLTN GET LOGICAL TERMINAL NUMBER	16 00699
001263	002272	R			
001264	006030	A 1977	LDXI	FLD3 POINT TO MESSAGE FIELD	16 00700
001265	002535	R			
001266	002000	A 1978	CALL	LSTCVT AND CONVERT TO ASCII	16 00701
001267	001331	R			
001270	002000	A 1979	CALL	MOVER,CDWN,FLD5,LDWN	16 00702
001271	002237	R			
001272	002500	R			
001273	002540	R			
001274	000002	A			
001275	002000	A 1980	CALL	MOVER,CCLS,FLD6,LCLS	16 00703
001276	002237	R			
001277	002505	R			
001300	002543	R			
001301	000003	A			
		1982	.....		16 00705
		1983 *	IF THE TUID IS UP, MOVE 'UP' TO MESSAGE		* 16 00706
		1984	.....		16 00707
001302	006027	A 1985	LDBE	BLKPTR POINT TO THE TIB	16 00708
001303	002451	R			
001304	016002	A 1986	LDA	TIDWN,B PICK UP THE UP/DOWN SWITCH WORD	16 00709
001305	006417	A 1987	BT	TIDWNB,NC5230 SKIP IF FLAGGED DOWN	16 00710
001306	001314	R			
001307	002000	A 1988	CALL	MOVER,CUP,FLD5,LUP	16 00711
001310	002237	R			
001311	002476	R			
001312	002540	R			
001313	000002	A			
		1990	.....		16 00713
		1991 *	IF THE TUID IS OPEN, MOVE 'OPEN' TO MESSAGE		* 16 00714
		1992	.....		16 00715
001314	006017	A 1993	NC5230 LDAE	LTTN PICK UP LTT NUMBER	16 00716
001315	002435	R			
001316	001010	A 1994	JAZ	NC5240 SKIP IF NOT FOUND	16 00717
001317	001325	R			
001320	002000	A 1995	CALL	MOVER,COPN,FLD6,LOPN	16 00718
001321	002237	R			
001322	002502	R			
001323	002543	R			
001324	000003	A			
		1997	.....		16 00720
		1998 *	MESSAGE IS NOW COMPLETE, SO ISSUE IT AND RETURN TO CALLER		* 16 00721
		1999	.....		16 00722
001325	002000	A 2000	NC5240 CALL	TYPE ISSUE THE MESSAGE	16 00723
001326	002150	R			
001327	001000	A 2001	JMP*	LSTTU RETURN TO THE CALLER	16 00724
001330	101243	R			
		2002	EJEC		16 00725
		2003	.....		16 00726
		2004 *			* 16 00727
		2005 *	TITLE - BINARY TO ASCII CONVERSION ROUTINE		* 16 00728
		2006 *			* 16 00729
		2007 *	PURPOSE -		* 16 00730
		2008 *	TO CONVERT A BINARY NUMBER, HELD IN THE A REG TO ASCII,		* 16 00731
		2009 *	POINTED TO BY THE X REG		* 16 00732
		2010 *			* 16 00733
		2011 *	CALLING SEQUENCE -		* 16 00734
		2012 *	CALL LSTCVT		* 16 00735
		2013 *			* 16 00736
		2014 *	ENTRANCE PARAMETERS -		* 16 00737
		2015 *	(A) CONTAINS THE INPUT BYTE		* 16 00738
		2016 *	(X) POINTS TO THE RESULT FIELD		* 16 00739
		2017 *			* 16 00740
		2018	.....		16 00741
001331	000000	A 2019	LSTCVT ENTR	ENTRY CELL	16 00742
001332	004550	A 2020	LLSR	B SHIFT BYTE INTO B REG	16 00743
001333	014016	A 2021	LDA	NC5700 LOAD DOUBLE ZEROS	16 00744
001334	055000	A 2022	STA	0,X STORE IN RESULT	16 00745
001335	055001	A 2023	STA	1,X STORE IN RESULT	16 00746
001336	005001	A 2024	TZA	ZERO A REG	16 00747

001337	004442	A	2025	LLRL	2	ROTATE OUT TWO BITS	16	00748
001340	115000	A	2026	ORA	0,X	OR INTO FIRST RESULT WORD	16	00749
001341	055000	A	2027	STA	0,X	RETURN TO RESULT	16	00750
001342	005001	A	2028	TZA		ZERO A REG	16	00751
001343	004443	A	2029	LLRL	3	ROTATE OUT NEXT THREE BITS	16	00752
001344	004245	A	2030	LRLA	5	ADD IN SOME SPACE	16	00753
001345	004443	A	2031	LLRL	3	GET LAST THREE BITS	16	00754
001346	115001	A	2032	ORA	1,X	OR INTO SECOND RESULT WORD	16	00755
001347	055001	A	2033	STA	1,X	RETURN TO RESULT FIELD	16	00756
001350	001000	A	2034	JMP*	LSTCVT	RETURN TO THE CALLER	16	00757
001351	101331	R						
			2036	*****			16	00759
			2037	*	CONSTANTS FOR CONVERSION ROUTINE		16	00760
			2038	*****			16	00761
001352	130260	A	2039	NC5700	DATA '00'	DOUBLE ZERO CONSTANT	16	00762
			2040	EJEC			16	00763
			2041	*****			16	00764
			2042	*			16	00765
			2043	* TITLE -	DECODE UNIT FIELD ROUTINE		16	00766
			2044	*			16	00767
			2045	* PURPOSE -			16	00768
			2046	*	CALLED BY DIRECTIVE PROCESSORS TO DECODE THE UNIT FIELD,		16	00769
			2047	*	LINE OR TUID, AS SPECIFIED ON THE USER DIRECTIVE.		16	00770
			2048	*	ALSO INITIAL HOUSEKEEPING IS PERFORMED FOR THE TYPE OF UNIE.		16	00771
			2049	*			16	00772
			2050	* CALLING SEQUENCE -			16	00773
			2051	*	CALL UNIT,LINE,TUID		16	00774
			2052	*			16	00775
			2053	* ENTRANCE PARAMETERS -			16	00776
			2054	*	LINE IS THE ADDRESS OF WHERE TO RETURN IF A LINE IS FOUND		16	00777
			2055	*	TUID IS THE ADDRESS OF WHERE TO RETURN IF A TUID IS FOUND		16	00778
			2056	*			16	00779
			2057	*****			16	00780
001353	000000	A	2058	UNIT	ENTR	ENTRY CELL	16	00781
			2060	*****			16	00783
			2061	*	SAVE CALLER'S REGISTERS AND SETUP RETURN LINKAGES		16	00784
			2062	*****			16	00785
001354	064054	A	2063	STB	NC6044	SAVE B REG	16	00786
001355	074055	A	2064	STX	NC6046	SAVE X REG	16	00787
001356	006037	A	2065	LDXE	UNIT	PICK UP PARM-LIST ADDRESS	16	00788
001357	001353	R						
001360	015000	A	2066	LDA	0,X	PICK UP LINE HANDLER ADDRESS	16	00789
001361	054036	A	2067	STA	NC6022	SAVE IN LINE RETURN SEQUENCE	16	00790
001362	015001	A	2068	LDA	1,X	PICK UP TUID HANDLER ADDRESS	16	00791
001363	054040	A	2069	STA	NC6032	SAVE IN TUID RETURN SEQUENCE	16	00792
001364	005144	A	2070	IXR		BUMP OVER PARM LIST	16	00793
001365	005144	A	2071	IXR		BUMP OVER PARM LIST	16	00794
001366	074025	A	2072	STX	NC6012	SAVE IN OTHER RETURN SEQUENCE	16	00795
			2073	EJEC			16	00796
			2074	*****			16	00797
			2075	*	NOW FETCH FIRST CHARACTER IN UNIT FIELD AND CHECK A NUMBER		16	00798
			2076	*****			16	00799
001367	002000	A	2077	CALL	FETCH,NC6010	FETCH NEXT CHARACTER	16	00800
001370	001737	R						
001371	001413	R						
001372	006147	A	2078	SUBE	C0	COMPARE AGAINST LOWEST NUMERIC	16	00801
001373	002461	R						
001374	001004	A	2079	JAN	NC6010	IF NOT ALPHANUMERIC, SKIP TO RETURN	16	00802
001375	001413	R						
001376	140471	A	2080	SUB	C9M0	REMOVE RANGE OF NUMERICS	16	00803
001377	001004	A	2081	JAN	NC6400	IF IN RANGE, SKIP TO LINE PARSER	16	00804
001400	001436	R						
			2083	*****			16	00806
			2084	*	NOW CHECK THE CHARACTER FOR BEING AN ALPHABETIC		16	00807
			2085	*****			16	00808
001401	006017	A	2086	LDAE	CHAR	PICK UP THE CURRENT CHARACTER	16	00809
001402	002454	R						
001403	006147	A	2087	SUBE	CA	COMPARE AGAINST LOWEST ALPHABETIC	16	00810
001404	002462	R						
001405	001004	A	2088	JAN	NC6010	IF NOT ALPHABETIC, SKIP TO RETURN	16	00811
001406	001413	R						
001407	006147	A	2089	SUBE	CZMA	REMOVE RANGE OF ALPHABETICS	16	00812
001410	002464	R						
001411	001004	A	2090	JAN	NC6800	IF IN RANGE, SKIP TO TUID ROUTINE	16	00813
001412	001605	R						
			2091	EJEC			16	00814
			2092	*****			16	00815
			2093	*	OTHER RETURN SEQUENCE		16	00816
			2094	*****			16	00817
001413	006010	A	2095	NC6010	LDAI 0	PICK UP OTHER RETURN ADDRESS	16	00818
001414	000000	A						
	001414	R	2096	NC6012	EQU *-1	CELL FOR OTHER RETURN ADDRESS	16	00819
001415	001000	A	2097	JMP	NC6040	SKIP TO COMMON RETURN SEQUENCE	16	00820
001416	001425	R						
			2099	*****			16	00822
			2100	*	LINE FOUND RETURN SEQUENCE		16	00823
			2101	*****			16	00824
001417	006010	A	2102	NC6020	LDAI 0	PICK UP LINE RETURN ADDRESS	16	00825
001420	000000	A						
	001420	R	2103	NC6022	EQU *-1	CALL FOR LINE RETURN ADDRESS	16	00826
001421	001000	A	2104	JMP	NC6040	SKIP TO COMMON RETURN SEQUENCE	16	00827
001422	001425	R						

		2106	*****				16	00829
		2107	*	TUID FOUND RETURN SEQUENCE			16	00830
		2108	*****				16	00831
001423	006010	A	2109	NC6030	LDAI	0		16 00832
001424	000000	A						
	001424	R	2110	NC6032	EQU	*-1		16 00833
		2112	*****				16	00835
		2113	*	COMMON RETURN SEQUENCE			16	00836
		2114	*****				16	00837
001425	054007	A	2115	NC6040	STA	NC6048		16 00838
001426	006017	A	2116		LDAE	CHAR		16 00839
001427	002454	R						
001430	006020	A	2117		LDBI	0		16 00840
001431	000000	A						
	001431	R	2118	NC6044	EQU	*-1		16 00841
001432	006030	A	2119		LDXI	0		16 00842
001433	000000	A						
	001433	R	2120	NC6046	EQU	*-1		16 00843
001434	001000	A	2121		JMP	0		16 00844
001435	000000	A						
	001435	R	2122	NC6048	EQU	*-1		16 00845
		2123	EJEC				16	00846
		2124	*****				16	00847
		2125	*	A NUMERIC CHARACTER WAS FOUND, PARSE THE FIRST NUMBER AND			16	00848
		2126	*	TAKE AS THE CCM HANDLER NUMBER. THE SECOND NUMBER			16	00849
		2127	*	IS TAKEN AS THE LOGICAL LINE NUMBER.			16	00850
		2128	*****				16	00851
001436	002000	A	2129	NC6400	CALL	NUMBER		16 00852
001437	001546	R						
001440	054775	A	2130		STA	CCMN		16 00853
001441	140431	A	2131		SUB	NC6520		16 00854
001442	001002	A	2132		JAP	SYNERR		16 00855
001443	000133	R						
		2134	*****				16	00857
		2135	*	NOW VERIFY THAT THE CCM UNIT NUMBER IS VALID			16	00858
		2136	*****				16	00859
		2137		EXT	CC\$MET			16 00860
001444	005001	A	2138		TZA			16 00861
001445	054771	A	2139		STA	CCMCAD		16 00862
001446	014767	A	2140		LDA	CCMN		16 00863
001447	002000	A	2141		CALL	GETCTA		16 00864
001450	002324	R						
001451	001004	A	2142		JAN	NC6430		16 00865
001452	001472	R						
001453	054763	A	2143		STA	CCMCAD		16 00866
001454	006030	A	2144		LDXI	CC\$MET		16 00867
001455	000000	E						
001456	025000	A	2145		LDB	0,X		16 00868
001457	005144	A	2146		IXR			16 00869
001460	001020	A	2147		JBZ	NC6430		16 00870
001461	001472	R						
001462	014754	A	2148	NC6420	LDA	CCMCAD		16 00871
001463	145000	A	2149		SUB	0,X		16 00872
001464	001010	A	2150		JAZ	NC6440		16 00873
001465	001476	R						
001466	005144	A	2151		IXR			16 00874
001467	005322	A	2152		DBR			16 00875
001470	001026	A	2153		JBNZ	NC6420		16 00876
001471	001462	R						
		2155	*****				16	00878
		2156	*	WE WERE UNABLE TO LOCATE THE CONTROLLER TABLE ADDRESS			16	00879
		2157	*	IN THE MULTIPLEXOR EQUIPEMENT TABLE, THUS SIGNAL AN ERROR.			16	00880
		2158	*****				16	00881
001472	010466	A	2159	NC6430	LDA	UDFCCM		16 00882
001473	054761	A	2160		STA	ERRTYP		16 00883
001474	001000	A	2161		JMP	SYNERR		16 00884
001475	000133	R						
		2163	*****				16	00886
		2164	*	CCM NUMBER IS OKAY, CONTINUE TO PARSE THE DIRECTIVE			16	00887
		2165	*****				16	00888
001476	002000	A	2166	NC6440	CALL	CHKCOM		16 00889
001477	002416	R						
001500	002000	A	2167		CALL	FETCH,SYNERR		16 00890
001501	001737	R						
001502	000133	R						
001503	144755	A	2168		SUB	C0		16 00891
001504	001004	A	2169		JAN	SYNERR		16 00892
001505	000133	R						
001506	140471	A	2170		SUB	C9M0		16 00893
001507	001002	A	2171		JAP	SYNERR		16 00894
001510	000133	R						
001511	002000	A	2172		CALL	NUMBER		16 00895
001512	001546	R						
001513	054720	A	2173		STA	LSDN		16 00896
001514	005012	A	2174		TAB			16 00897
		2176	*****				16	00899
		2177	*	NOW COMPUTE RMD ADDRESS OF PSD AND READ THE SECTOR			16	00900
		2178	*****				16	00901
001515	140431	A	2179		SUB	NC6520		16 00902
001516	001002	A	2180		JAP	SYNERR		16 00903
001517	000133	R						

Address	Operation	Register	Constant	Description	Page
001520	TZA	A 2181		ZERO A REG FOR DIVIDE	16 00904
001521	DIV	A 2182	NC6530	COMPUTE SECTOR ADDRESS AND REMAINDER	16 00905
001522	IBR	A 2183		MAKE ONE'S ORIGIN	16 00906
001523	STB	A 2184	SECTN	STOW AS THE SECTOR NUMBER	16 00907
001524	TAB	A 2185		COPY REMAINDER TO B REG	16 00908
001525	TZA	A 2186		ZERO A FOR MULTIPLY	16 00909
001526	MUL	A 2187	NC6540	COMPUTE DISPLACEMENT IN WORDS	16 00910
001527	STB	A 2188	DISP	STOW AS THE CURRENT DISPLACEMENT	16 00911
001530	LDA	A 2189	DFLPTR	PICK UP FCB POINTER CONSTANT	16 00912
001531	STA	A 2190	FCBPTR	STOW AS THE CURRENT FCB	16 00913
001532	CALL	A 2191	READ	READ THE SECTOR	16 00914
001533		R 002020			
001534	CALL	A 2192	CALC	CALCULATE ADDRESS OF BLOCK	16 00915
001535		R 001727			
		2194		*****	16 00917
		2195	*	NOW SEE THAT LSD IS DEFINED	16 00918
		2196		*****	16 00919
001536	LDA	A 2197	PSDEF,X	PICK UP WHOLE WORD	16 00920
001537	BT	A 2198	PSDEFB,NC6020	SKIP IF LSD IS DEFINED	16 00921
001540		R 001417			
		2200		*****	16 00923
		2201	*	ELSE SIGNAL ERROR CODE UDFLNE	16 00924
		2202		*****	16 00925
001541	LDA	A 2203	UDFLNE	PICK UP ERROR CODE	16 00926
001542	STA	A 2204	ERRTYP	STOW IN ERROR HOLDER	16 00927
001543	JMP	A 2205	SYNERR	JUMP TO SIGNAL ERROR	16 00928
001544		R 000133			
		2207		*****	16 00930
		2208	*	WORK AREAS AND EQUATES FOR LOCAL USE	16 00931
		2209		*****	16 00932
		2210	NC6520 EQU	B58 MAX LSD NUMBER (255) PLUS ONE	16 00933
001545		A 2211	NC6530 DATA	24 NUMBER OF LSD/SECTOR	16 00934
		A 2212	NC6540 EQU	FIVE SIZE OF EACH LSD	16 00935
		2213	EJEC		16 00936
		2214		*****	16 00937
		2215	*		16 00938
		2216	*	TITLE - NUMERIC EXTRACTION ROUTINE	16 00939
		2217	*		16 00940
		2218	*	PURPOSE -	16 00941
		2219	*	THIS ROUTINE CONVERTS ASCII NUMERIC INPUT CHARACTERS	16 00942
		2220	*	TO INTERNAL BINARY NUMBER. RESULT IS RETURNED	16 00943
		2221	*	IN THE A REG.	16 00944
		2222	*		16 00945
		2223	*	CALLING SEQUENCE -	16 00946
		2224	*	CALL NUMBER	16 00947
		2225	*		16 00948
		2226		*****	16 00949
001546		A 2227	NUMBER ENTR	ENTRY CELL	16 00950
001547	LDA	A 2228	CHAR	PICK UP THE CURRENT CHARACTER	16 00951
001550	SUB	A 2229	C0	REMOVE CHARACTER ZERO	16 00952
001551	STA	A 2230	NC6700	TAKE AS INITIAL VALUE	16 00953
001552	LDB	A 2231	TEN	LOAD CONSTANT TEN	16 00954
001553	STB	A 2232	NC6710	USE AS DEFAULT RADIX	16 00955
001554	JANZ	A 2233	NC6610	SKIP IS OTHER THAN ZERO	16 00956
001555		R 001560			
001556	LDA	A 2234	EIGHT	LOAD CONSTANT EIGHT	16 00957
001557	STA	A 2235	NC6710	USE AS OCTAL RADIX	16 00958
		2237		*****	16 00960
		2238	*	FETCH NEXT CHARACTER AND DETERMINE IF IT'S NUMERIC	16 00961
		2239		*****	16 00962
001560		A 2240	NC6610 CALL	FETCH,NC6620 OBTAIN NEXT INPUT CHARACTER	16 00963
001561		R 001737			
001562		R 001600			
001563	SUB	A 2241	C0	REMOVE CHARACTER ZERO	16 00964
001564	JAN	A 2242	NC6620	IF LESS THAN ZERO, CANNOT BE NUMERIC	16 00965
001565		R 001600			
001566	SUB	A 2243	NC6710	REMOVE RADIX	16 00966
001567	JAP	A 2244	NC6620	IF STILL POSITIVE, TOO LARGE A VALUE	16 00967
001570		R 001600			
		2245	EJEC		16 00968
		2246		*****	16 00969
		2247	*	THIS CHARACTER IS NUMERIC, ADD INTO RADIX	16 00970
		2248	*	ACC = ACC * RADIX + (CHAR - '0')	16 00971
		2249		*****	16 00972
001571	LDA	A 2250	CHAR	PICK UP THE CHARACTER	16 00973
001572	SUB	A 2251	C0	REMOVE CHARACTER ZERO	16 00974
001573	LDB	A 2252	NC6700	LOAD PREVIOUS ACCUMULATOR VALUE	16 00975
001574	MUL	A 2253	NC6710	TIMES RADIX, PLUS THIS DIGIT	16 00976
001575	STB	A 2254	NC6700	STOW BACK INTO ACCUMULATOR	16 00977
001576	JMP	A 2255	NC6610	CONTINUE NUMERIC SCAN	16 00978
001577		R 001560			
		2257		*****	16 00980
		2258	*	NUMBER IS NOW COMPLETE, SINCE A NON-NUMERIC WAS SENSED,	16 00981
		2259	*	LOAD THE RESULTING NUMBER INTO THE A REG AND	16 00982
		2260	*	RETURN TO THE CALLER	16 00983
		2261		*****	16 00984
001600		A 2262	NC6620 LDA	NC6700 PICK UP THE ACCUMULATED VALUE	16 00985
001601		A 2263	JMP*	NUMBER RETURN TO THE CALLER	16 00986
001602		R 101546			
		2265		*****	16 00988

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2266 * DATA AND WORK AREAS FOR NUMERIC EXTRACTION ROUTINE * 16 00989
2267 * 16 00990
001603 000000 A 2268 NC6700 DATA 0 NUMERICAL ACCUMULATOR 16 00991
001604 000000 A 2269 NC6710 DATA 0 RADIX STORAGE 16 00992

2270 EJEC 16 00993
2271 * 16 00994
2272 * A TUID WAS SENSED, INITIALIZE AND STORE THE FIRST CHARACTER * 16 00995
2273 * 16 00996
001605 014646 A 2274 NC6800 LDA CHAR PICK UP THE CURRENT CHARACTER 16 00997
001606 054631 A 2275 STA TUID TAKE AS FIRST CHARACTER OF TUID 16 00998
001607 014653 A 2276 LDA BLANK PICK UP A BLANK 16 00999
001610 054630 A 2277 STA TUID+1 CLEAR WORD 2 16 01000
001611 054630 A 2278 STA TUID+2 CLEAR WORD 3 16 01001
001612 054630 A 2279 STA TUID+3 CLEAR WORD 4 16 01002
001613 010422 A 2280 LDA TWO PICK UP A CONSTANT TWO 16 01003
001614 054111 A 2281 STA NC6900 AND USE AS INITIAL INDEX 16 01004

2283 * 16 01006
2284 * NOW FETCH NEXT CHARACTER AND CHECK FOR ALPHANUMERIC * 16 01007
2285 * 16 01008
001615 002000 A 2286 NC6810 CALL FETCH,NC6830 OBTAIN THE NEXT INPUT CHARACTER 16 01009
001616 001737 R
001617 001652 R
001620 144640 A 2287 SUB C0 COMPARE TO LOWEST NUMERIC 16 01010
001621 001004 A 2288 JAN NC6830 IF NOT ALPHANUMERIC, SKIP TO READ TIB 16 01011
001622 001652 R
001623 140471 A 2289 SUB C9M0 REMOVE RANGE OF NUMERICS 16 01012
001624 001004 A 2290 JAN NC6820 SKIP IF CHAR IS NUMERIC 16 01013
001625 001635 R
001626 014625 A 2291 LDA CHAR RESTORE CURRENT CHARACTER 16 01014
001627 144632 A 2292 SUB CA COMPARE AGAINST LOWEST ALPHABETIC 16 01015
001630 001004 A 2293 JAN NC6830 IF NOT IN ALPHABET, SKIP TO READ TIB 16 01016
001631 001652 R
001632 144631 A 2294 SUB CZMA REMOVE RANGE OF ALPHABET 16 01017
001633 001002 A 2295 JAP NC6830 IF NOT ALPHABETIC, SKIP TO READ TIB 16 01018
001634 001652 R

2297 * 16 01020
2298 * CHARACTER IS ALPHANUMERIC, STORE IN TUID VECTOR * 16 01021
2299 * 16 01022
001635 014070 A 2300 NC6820 LDA NC6900 PICK UP CURRENT INDEX 16 01023
001636 140465 A 2301 SUB FIVE COMPARE AGAINST MAX VALUE 16 01024
001637 001002 A 2302 JAP SYNERR IF TOO LARGE, SIGNAL SYNTAX ERROR 16 01025
001640 000133 R
001641 014064 A 2303 LDA NC6900 ELSE RESTORE INDEX 16 01026
001642 006120 A 2304 ADDI TUID-1 ADD IN BASE LOCATION 16 01027

001643 002437 R
001644 005014 A 2305 TAX COPY TO INDEX REGISTER 16 01028
001645 014606 A 2306 LDA CHAR PICK UP THE CHARACTER 16 01029
001646 055000 A 2307 STA 0,X AND STUFF INTO THE VECTOR 16 01030
001647 044056 A 2308 INR NC6900 THEN BUMP INDEX 16 01031
001650 001000 A 2309 JMP NC6810 LOOP TO TRY THE NEXT CHARACTER 16 01032
001651 001615 R

2310 EJEC 16 01033
2311 * 16 01034
2312 * END OF TUID HAS BEEN SENSED, NOW PACK TUID INTO PTUID * 16 01035
2313 * 16 01036
001652 014565 A 2314 NC6830 LDA TUID PICK UP FIRST CHARACTER 16 01037
001653 004250 A 2315 LRLA 8 SHIFT LEFT IN WORD 16 01038
001654 114564 A 2316 ORA TUID+1 OR IN SECOND CHARACTER 16 01039
001655 054566 A 2317 STA PTUID SAVE AS FIRST PACKED WORD 16 01040
001656 014563 A 2318 LDA TUID+2 PICK UP THIRD CHARACTER 16 01041
001657 004250 A 2319 LRLA 8 SHIFT LEFT IN WORD 16 01042
001660 114562 A 2320 ORA TUID+3 OR IN FOURTH CHARACTER 16 01043
001661 054563 A 2321 STA PTUID+1 SAVE AS SECOND PACKED WORD 16 01044

2323 * 16 01046
2324 * NOW READ ONE INDEX SECTOR FROM FILE VTSDFT * 16 01047
2325 * 16 01048
001662 014603 A 2326 LDA DFTPTR PICK UP FCB POINTER CONSTANT 16 01049
001663 054566 A 2327 STA FCBPTR USE AS CURRENT FCB 16 01050
001664 010421 A 2328 LDA ONE LOAD A CONSTANT ONE 16 01051
001665 054561 A 2329 NC6840 STA SECTN TAKE AS CURRENT SECTOR NUMBER 16 01052
001666 005001 A 2330 TZA ZERO A REG 16 01053
001667 054560 A 2331 STA DISP USE AS INITIAL DISPLACEMENT 16 01054
001670 002000 A 2332 CALL READ READ THE INDEX SECTOR 16 01055
001671 002020 R

2334 * 16 01057
2335 * SEARCH INDEX SECTOR FOR TUID MATCH * 16 01058
2336 * 16 01059
001672 014555 A 2337 NC6850 LDA DISP PICK UP OLD DISPLACEMENT 16 01060
001673 120423 A 2338 ADD FOUR INCREMENT BY TIB SIZE 16 01061
001674 054553 A 2339 STA DISP USE AS NEW DISPLACEMENT 16 01062
001675 004342 A 2340 LSRA 2 CONVERT DISPLACEMENT TO ORDINAL 16 01063
001676 144677 A 2341 SUB SECTOR COMPARE TO NUMBER OF TIB'S IN SECTOR 16 01064
001677 005311 A 2342 DAR ADJUST BEFORE JUMP TEST 16 01065
001700 001002 A 2343 JAP NC6860 IF GREATER THAN, SKIP TO READ NEW SECTOR 16 01066
001701 001716 R
001702 002000 A 2344 CALL CALC COMPUTE BLOCK ADDRESS IN X REG 16 01067
001703 001727 R
001704 015000 A 2345 LDA TITUI,X LOAD FIRST TWO CHARS OF TUID 16 01068
001705 144536 A 2346 SUB PTUID COMPARE AGAINST PACKED USER TUID 16 01069
001706 001016 A 2347 JANZ NC6850 IF NOT EQUAL, TRY NEXT TIB 16 01070
001707 001672 R
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001710 015001 A 2348      LDA      TITU2,X      LOAD SECOND TWO CHARS OF TUID          16 01071
001711 144533 A 2349      SUB      PTUID+1      COMPARE AGAINST PACKED USER TUID    16 01072
001712 001010 A 2350      JAZ      NC6030      IF EQUAL, RETURN TO THE CALLER      16 01073
001713 001423 R
001714 001000 A 2351      JMP      NC6850      ELSE, TRY THE NEXT TUID          16 01074
001715 001672 R

2353 ***** 16 01076
2354 * THIS SECTOR HAS BEEN COMPLETELY PROCESSED, WITHOUT A MATCH, * 16 01077
2355 * NOW SEE IF THERE IS ANOTHER INDEX SECTOR. * 16 01078
2356 ***** 16 01079
001716 014661 A 2357 NC6860 LDA SECTOR+TISEC PICK UP THE THREAD WORD          16 01080
001717 004347 A 2358      LSRA     TISECB      SHIFT OUT THE DISPLACEMENT          16 01081
001720 001016 A 2359      JANZ    NC6840      IF SECTOR NOT ZERO, CONTINUE LOOP    16 01082
001721 001665 R

2361 ***** 16 01084
2362 * AT THIS POINT, THE USER-SPECIFIED TUID WAS NOT FOUND. * 16 01085
2363 * SIGNAL ERROR CODE UDFTID * 16 01086
2364 ***** 16 01087
001722 010464 A 2365      LDA     UDFTID      PICK UP ERROR CODE          16 01088
001723 054531 A 2366      STA     ERRTP      STOW IN ERROR HOLDER          16 01089
001724 001000 A 2367      JMP     SYNERR      JUMP TO SIGNAL ERROR          16 01090
001725 000133 R

2369 ***** 16 01092
2370 * CONSTANTS AND WORK AHEAD FOR UNIT * 16 01093
2371 ***** 16 01094
2372 ***** 16 01095
001726 000000 A 2373 NC6900 DATA 0 WORKING STORAGE FOR ROUTINE          16 01096

2374      EJEC          16 01097
2375 ***** 16 01098
2376 * TITLE - CALCULATE ADDRESS OF BLOCK ROUTINE * 16 01099
2377 * * 16 01100
2378 * * 16 01101
2379 * PURPOSE - * 16 01102
2380 * CALC IS A GENERAL-PURPOSE ROUTINE TO CALCULATE THE * 16 01103
2381 * ADDRESS OF BLOCKS WITHIN THE DISK BUFFER. * 16 01104
2382 * THE RESULTING ADDRESS IS LEFT IN THE X REG AND * 16 01105
2383 * CELL 'BLKPTR'. * 16 01106
2384 * * 16 01107
2385 * CALLING SEQUENCE - * 16 01108
2386 * CALL CALC * 16 01109
2387 * * 16 01110
2388 * ENTRANCE PARAMETERS - * 16 01111
2389 * NONE * 16 01112
2390 * * 16 01113
2391 ***** 16 01114
001727 000000 A 2392 CALC ENTR ENTRY CELL          16 01115
001730 006010 A 2393      LDAI   SECTOR     POINT TO BUFFER START          16 01116
001731 002576 R
001732 124515 A 2394      ADD     DISP      ADD IN DISPLACEMENT          16 01117
001733 005014 A 2395      TAX     TAX        TRANSFER TO X REG          16 01118
001734 054514 A 2396      STA     BLKPTR     ALSO COPY TO 'BLKPTR'          16 01119
001735 001000 A 2397      JMP*    CALC       RETURN TO THE CALLER          16 01120
001736 101727 R

2398      EJEC          16 01121
2399 ***** 16 01122
2400 * TITLE - INPUT CHARACTER FETCH ROUTINE * 16 01123
2401 * * 16 01124
2402 * * 16 01125
2403 * PURPOSE - * 16 01126
2404 * FETCH IS CALLED WHENEVER THE NEXT INPUT CHARACTER * 16 01127
2405 * IS REQUIRED. THE CHARACTER IS GOTTEN FROM THE DIRECTIVE * 16 01128
2406 * BUFFER AND UNPACKED. THE RESULT IS PLACED BOTH IN THE A REG * 16 01129
2407 * AND THE CELL 'CHAR'. * 16 01130
2408 * * 16 01131
2409 * CALLING SEQUENCE - * 16 01132
2410 * CALL FETCH,RTN * 16 01133
2411 * * 16 01134
2412 * ENTRANCE PARAMETERS - * 16 01135
2413 * RTN IS THE ADDRESS OF A ROUTINE TO GAIN CONTROL IS * 16 01136
2414 * A PERIOD IS SENSED (END OF DIRECTIVE). * 16 01137
2415 * * 16 01138
2416 ***** 16 01139
001737 000000 A 2417 FETCH ENTR ENTRY CELL          16 01140

2419 ***** 16 01142
2420 * SETUP BOTH NORMAL AND EOF RETURN SEQUENCES * 16 01143
2421 ***** 16 01144
001740 006037 A 2422      LDXE   FETCH      PICK UP PARM-LIST ADDRESS          16 01145
001741 001737 R
001742 005041 A 2423      TXA     TXA        COPY TO A REG          16 01146
001743 005111 A 2424      IAR     IAR        BUMP TO SKIP OVER PARM          16 01147
001744 054046 A 2425      STA     NC7252     SAVE IN NORMAL RETURN SEQUENCE    16 01148
001745 015000 A 2426      LDA     0,X        GET ADDRESS OF EOF HANDLER          16 01149
001746 054047 A 2427      STA     NC7262     SAVE IN EOF RETURN SEQUENCE    16 01150

2429 ***** 16 01152
2430 * NOW CHECK NEXT CHARACTER TO INSURE IT'S INSIDE BUFFER * 16 01153
2431 ***** 16 01154
001747 014503 A 2432 NC7210 LDA COLPTR LOAD ADDRESS OF NEXT BYTE          16 01155
001750 004341 A 2433      LSRA     1         SHIFT OUT LEFT-RIGHT FLAG          16 01156
001751 006140 A 2434      SUBI    ENDBUF     COMPARE AGAINST END OF BUFFER        16 01157
001752 003036 R
001753 001004 A 2435      JAN     NC7220     IF INSIDE, SKIP TO FETCH CHAR        16 01158
001754 001761 R

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001755 014500 A 2436	LDA	PERIOD	ELSE, PICK UP A PERIOD	16 01159
001756 054475 A 2437	STA	CHAR	TAKE AS CURRENT CHARACTER	16 01160
001757 001000 A 2438	JMP	NC7260	AND SKIP TO EOF RETURN SEQUENCE	16 01161
001760 002014 R				
			2440 *****	16 01163
			2441 * COLPTR IS INSIDE BUFFER, OKAY TO GET NEXT CHARACTER *	16 01164
			2442 *****	16 01165
001761 014471 A 2443	NC7220 LDA	COLPTR	PICK UP NEXT BYTE ADDRESS	16 01166
001762 004541 A 2444	LLSR	1	SHIFT OUT LEFT-RIGHT FLAG	16 01167
001763 004157 A 2445	LSRB	15	RIGHT-JUSTIFY IN B REG	16 01168
001764 005014 A 2446	TAX		COPY TO INDEX REG	16 01169
001765 015000 A 2447	LDA	0,X	LOAD THE WHOLE WORD	16 01170
001766 003020 A 2448	XBZ	NC7320	SHIFT IF FLAG IS OFF	16 01171
001767 002017 R				
001770 150463 A 2449	ANA	RHW	MASK OFF LEFT BYTE	16 01172
001771 054462 A 2450	STA	CHAR	TAKE AS CURRENT CHARACTER	16 01173
001772 044460 A 2451	INR	COLPTR	BUMP INDEX POINTER TO NEXT BYTE ADDRESS	16 01174
			2453 *****	16 01176
			2454 * NOW CHECK FOR A BLANK, AND IF BLANK, IGNORE CHARACTER *	16 01177
			2455 *****	16 01178
001773 005012 A 2456	TAB		COPY CURRENT CHARACTER TO B REG	16 01179
001774 144466 A 2457	SUB	BLANK	COMPARE FOR A BLANK	16 01180
001775 001010 A 2458	JAZ	NC7210	IF EQUAL TO A BLANK, GO GET ANOTHER CHAR	16 01181
001776 001747 R				
001777 005021 A 2459	TBA		RESTORE CURRENT CHARACTER	16 01182
002000 144455 A 2460	SUB	PERIOD	COMPARE FOR A PERIOD	16 01183
002001 001010 A 2461	JAZ	NC7260	IF PERIOD, SKIP TO EOF SEQUENCE	16 01184
002002 002014 R				
002003 005021 A 2462	TBA		RESTORE CURRENT CHARACTER	16 01185
002004 144453 A 2463	SUB	EQUAL	COMPARE AGAINST EQUAL SIGN	16 01186
002005 001016 A 2464	JANZ	NC7250	IF NOT EQUAL, SKIP TO NORMAL RETURN	16 01187
002006 002011 R				
002007 014447 A 2465	LDA	COMMA	IF EQUAL SIGN, REPLACE WITH A COMMA	16 01188
002010 054443 A 2466	STA	CHAR	USE AS CURRENT CHARACTER	16 01189
			2467 EJEC	16 01190
			2468 *****	16 01191
			2469 * NORMAL RETURN SEQUENCE *	16 01192
			2470 *****	16 01193
002011 014442 A 2471	NC7250 LDA	CHAR	PICK UP CURRENT CHARACTER	16 01194
002012 001000 A 2472	JMP	0	RETURN TO THE USER	16 01195
002013 000000 A				
002013 002013 R 2473	NC7252 EQU	*-1	SAVE AREA FOR RETURN ADDRESS	16 01196
			2475 *****	16 01198
			2476 * EOF RETURN SEQUENCE *	16 01199
			2477 *****	16 01200
002014 014437 A 2478	NC7260 LDA	CHAR	PICK UP CURRENT CHARACTER	16 01201
002015 001000 A 2479	JMP	0	RETURN TO THE USER	16 01202
002016 000000 A				
002016 002016 R 2480	NC7262 EQU	*-1	SAVE AREA FOR RETURN ADDRESS	16 01203
			2482 *****	16 01205
			2483 * FETCH CONSTATS AND WORK AREAS *	16 01206
			2484 *****	16 01207
002017 004350 A 2485	NC7320 LSRA	8	SHIFT A REG RIGHT ONE BYTE	16 01208
			2486 EJEC	16 01209
			2487 *****	16 01210
			2488 *	16 01211
			2489 * TITLE - RMD READ/WRITE ROUTINE	16 01212
			2490 *	16 01213
			2491 * PURPOSE -	16 01214
			2492 * THESE ROUTINES PROVIDE AN INTERFACE FOR THE CALLER TO THE TWO	16 01215
			2493 * RMD-RESIDENT VTAM FILES, VT\$OFL AND VT\$DFT.	16 01216
			2494 *	16 01217
			2495 * CALLING SEQUENCE -	16 01218
			2496 * CALL READ	16 01219
			2497 * CALL WRITE	16 01220
			2498 *	16 01221
			2499 * ENTRANCE PARAMETERS -	16 01222
			2500 * SECTN IS THE DESIRED SECTOR NUMBER TO TRANSFER	16 01223
			2501 * FCBPTR IS THE FCB TO BE USED FOR THE TRANSFER	16 01224
			2502 *	16 01225
			2503 *****	16 01226
			2505 *****	16 01228
			2506 * READ SECTOR ENTRY POINT *	16 01229
			2507 *****	16 01230
002020 000000 A 2508	READ	ENTR	ENTRY CELL	16 01231
			2510 *****	16 01233
			2511 * FIRST CHECK TO SEE IF THE REQUESTED SECTOR IS ALREADY IN	16 01234
			2512 * IN THE SECTOR BUFFER. TRANSFER IS SKIPPED IF THE REQUESTED	16 01235
			2513 * SECTOR IS ALREADY RESIDENT.	16 01236
			2514 *****	16 01237
002021 014101 A 2515	LDA	NC7730	PICK UP LAST FCB-USED POINTER	16 01238
002022 144427 A 2516	SUB	FCBPTR	COMPARE AGAINST CURRENT FCB	16 01239
002023 001016 A 2517	JANZ	NC7610	IF NOT EQUAL, GO TO DO READ	16 01240
002024 002034 R				
002025 034424 A 2518	LDX	FCBPTR	POINT TO CURRENT FCB	16 01241
002026 015003 A 2519	LDA	3,X	PICK UP LAST SECTOR READ	16 01242
002027 144417 A 2520	SUB	SECTN	COMPARE AGAINST CURRENT SECTOR REQUEST	16 01243
002030 001016 A 2521	JANZ	NC7610	IF NOT EQUAL, GO TO DO READ	16 01244
002031 002034 R				
002032 001000 A 2522	JMP*	READ	RETURN TO THE CALLER	16 01245

002033 102020 R

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2524 ..... 16 01247
2525 * AT THIS POINT, A READ IS REQUIRED, DO FINAL SETUP * 16 01248
2526 ..... 16 01249
002034 014415 A 2527 NC7610 LDA FCBPTR PICK UP CURRENT FCB ADDRESS 16 01250
002035 054065 A 2528 STA NC7730 AND TAKE AS LAST FCB-USED 16 01251
002036 014062 A 2529 LDA NC7710 PICK UP READ OP-CODE 16 01252
002037 006037 A 2530 LDXE READ PICK UP THE RETURN ADDRESS 16 01253
002040 002020 R
002041 001000 A 2531 JMP NC7630 SKIP TO COMMON SEQUENCE 16 01254
002042 002047 R
2533 ..... 16 01256
2534 * WRITE SECTOR ENTRY POINT * 16 01257
2535 ..... 16 01258
002043 000000 A 2536 WRITE ENTR ENTRY CELL 16 01259
002044 014055 A 2537 LDA NC7720 PICK UP WRITE OP-CODE 16 01260
002045 006037 A 2538 LDXE WRITE PICK UP THE RETURN ADDRESS 16 01261
002046 002043 R
2540 ..... 16 01263
2541 * COMMON SEQUENCE * 16 01264
2542 ..... 16 01265
002047 054023 A 2543 NC7630 STA NC7654 STOW OP-CODE INTO MACRO 16 01266
002050 074036 A 2544 STX NC7668 SAVE RETURN ADDRESS 16 01267
2546 ..... 16 01269
2547 * NOW SEE IF FCB IS OPEN * 16 01270
2548 ..... 16 01271
002051 024400 A 2549 LDB FCBPTR PICK UP POINTER TO FCB 16 01272
002052 016004 A 2550 LDA 4,B PICK UP OPEN INDICATOR 16 01273
002053 001016 A 2551 JANZ NC7650 SKIP IF ALREADY OPENED 16 01274
002054 002065 R
2553 ..... 16 01276
2554 * OPEN IS REQUIRED FOR FCB * 16 01277
2555 ..... 16 01278
002055 064004 A 2556 STB NC7642 STORE FCB POINTER IN OPEN MACRO 16 01279
2557 NC7640 OPEN 0,RMDLUN,WAIT,1 16 01280
002056 006505 A
002057 000746 E
002060 100000 A
002061 013152 A
002062 000000 A
002063 000000 A
002064 000000 A
002062 R 2558 NC7642 EQU NC7640+4 POINTER TO THE FCB ADDRESS 16 01281
2560 ..... 16 01283
2561 * FILE IS NOW OPEN, COMPLETE REQUEST, ISSUE REQUEST, AND CHECK * 16 01284
2562 * RESULT. * 16 01285
2563 ..... 16 01286
002065 014361 A 2564 NC7650 LDA SECTN PICK UP REQUESTED SECTOR 16 01287
002066 056003 A 2565 STA 3,B STOW IN FCB 16 01288
002067 064004 A 2566 STB NC7656 STOW FCB ADDRESS IN MACRO 16 01289
2567 NC7652 READ 0,RMDLUN,WAIT,ASCII 16 01290
002070 006505 A
002071 002057 E
002072 100000 A
002073 010152 A
002074 000000 A
002075 000000 A
002076 000000 A
002073 R 2568 NC7654 EQU NC7652+3 EQUATE FOR OP-CODE 16 01291
002074 R 2569 NC7656 EQU NC7652+4 EQUATE FOR FCB ADDRESS 16 01292
2570 STAT NC7652,NC7670,NC7670,NC7670,NC7670 16 01293
002077 006505 A
002100 000000 E
002101 002070 R
002102 002110 R
002103 002110 R
002104 002110 R
002105 002110 R
2572 ..... 16 01295
2573 * TRANSFER WAS COMPLETED WITHOUT TROUBLE, RETURN TO THE CALLER * 16 01296
2574 ..... 16 01297
002106 001000 A 2575 JMP 0 RETURN TO CALLER 16 01298
002107 000000 A
002107 R 2576 NC7668 EQU *-1 SAVE AREA FOR P REG 16 01299
2578 ..... 16 01301
2579 * SOME ERROR WAS DETECTED ON THE LAST TRANSFER, SIGNAL I/O ERROR * 16 01302
2580 ..... 16 01303
002110 005021 A 2581 NC7670 TBA COPY FCB POINTER 16 01304
002111 020423 A 2582 LDB IOEDFL PICK UP DFL INDICATOR 16 01305
002112 144352 A 2583 SUB DFLPTR COMPARE FCB ADDRESS 16 01306
002113 001010 A 2584 JAZ NC7672 IF EQUAL, SKIP 16 01307
002114 002116 R
002115 020465 A 2585 LDB IOEDFT ELSE PICK UP OTHER CODE 16 01308
002116 064336 A 2586 NC7672 STB ERRTPY STOW IN ERROR HOLDER 16 01309
002117 001000 A 2587 JMP SYNERR JUMP TO SIGNAL ERROR 16 01310
002120 000133 R
2589 ..... 16 01312

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2590 *      CONSTANTS AND WORK AREAS FOR READ/WRITE ROUTINE      * 16 01313
2591 ..... 16 01314
002121 000152 A 2592 NC7710 IOMAC  WAIT,BIN,READOP,RMDLUN 16 01315
002122 000552 A 2593 NC7720 IOMAC  WAIT,BIN,WRITOP,RMDLUN 16 01316
002123 000000 A 2594 NC7730 DATA  0      FCB LAST USED POINTER 16 01317
2595 DFLFCB FCB    120,SECTOR,DIRECT,FLKEY,'VT','SD','FL' 16 01318

002124 000170 A
002125 002576 R
002126 001306 A
002127 000000 A
002130 000000 A
002131 000000 A
002132 000000 A
002133 153324 A
002134 122304 A
002135 143314 A

2596 DFTFCB FCB    120,SECTOR,DIRECT,FLKEY,'VT','SD','FT' 16 01319

002136 000170 A
002137 002576 R
002140 001306 A
002141 000000 A
002142 000000 A
002143 000000 A
002144 000000 A
002145 153324 A
002146 122304 A
002147 143324 A

2597      EJEC 16 01320
2598 ..... 16 01321
2599 * 16 01322
2600 * TITLE - TYPE AND KEY - I/O INTERFACE FOR OC UNIT * 16 01323
2601 * 16 01324
2602 * PURPOSE - 16 01325
2603 * THIS ROUTINE SERVES AS AN INTERFACE BETWEEN THE CALLER * 16 01326
2604 * AND THE OC DEVICE (OPERATOR COMMUNICATION). * 16 01327
2605 * 16 01328
2606 * CALLING SEQUENCE - * 16 01329
2607 * CALL TYPE * 16 01330
2608 * CALL KEY * 16 01331
2609 * 16 01332
2610 * ENTRANCE PARAMETERS - * 16 01333
2611 * IF CALLING TYPE, OUTPUT MESSAGE MUST BE IN 'LINE' BUFFER * 16 01334
2612 * IF CALLING KEY, INPUT MESSAGE WILL BE PLACED IN 'BUF' * 16 01335
2613 * 16 01336
2614 ..... 16 01337

2616 ..... 16 01339
2617 * WRITE TO KEYBOARD ENTRY POINT * 16 01340
2618 ..... 16 01341
002150 000000 A 2619 TYPE ENTR ENTRY CELL 16 01342
002151 006017 A 2620 LDAE TYPE PICK UP THE RETURN ADDRESS 16 01343
002152 002150 R
002153 054054 A 2621 STA NC8048 PLACE IN RETURN SEQUENCE 16 01344
002154 006010 A 2622 LDAI LINE POINT TO OUTPUT BUFFER 16 01345
002155 002526 R
002156 054055 A 2623 STA NC8180 STOW INTO DCB 16 01346
002157 014052 A 2624 LDA NC8140 PICK UP WRITE OP-CODE 16 01347
002160 001000 A 2625 JMP NC8020 SKIP TO COMMON SEQUENCE 16 01348
002161 002172 R

2627 ..... 16 01350
2628 * READ KEYBOARD ENTRY POINT * 16 01351
2629 ..... 16 01352
002162 000000 A 2630 KEY ENTR ENTRY CELL 16 01353
002163 006017 A 2631 LDAE KEY PICK UP THE RETURN ADDRESS 16 01354
002164 002162 R
002165 054042 A 2632 STA NC8048 PLACE IN RETURN SEQUENCE 16 01355
002166 006010 A 2633 LDAI BUF POINT TO INPUT BUFFER 16 01356
002167 002766 R

002170 054043 A 2634 STA NC8180 STOW INTO DCB 16 01357
002171 014037 A 2635 LDA NC8120 PICK UP READ OP-CODE 16 01358

2637 ..... 16 01360
2638 * COMMON SEQUENCE * 16 01361
2639 ..... 16 01362
002172 054003 A 2640 NC8020 STA NC8032 STOW OP-CODE IN MACRO 16 01363
2641 NC8030 READ NC8160,0,0,0 ISSUE REQUEST 16 01364

002173 006505 A
002174 002071 E
002175 100000 A
002176 000000 A
002177 002233 R
002200 000000 A
002201 000000 A
002176 R 2642 NC8032 EQU NC8030+3 POINTER TO OP-CODE SLOT 16 01365
2643 STAT NC8030,EXIT,EXIT,EXIT 16 01366

002202 006505 A
002203 002100 E
002204 002173 R
002205 000240 R
002206 000240 R
002207 000240 R
002210 000240 R

2645 ..... 16 01368
2646 * IF OPERATION WAS 'WRITE', LINE BUFFER MUST BE CLEARED * 16 01369
2647 ..... 16 01370
    
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002211	006017	A	2648	LDAE	NC8032	PICK UP LAST OP-CODE	16	01371	
002212	002176	R							
002213	144016	A	2649	SUB	NC8140	COMPARE TO WRITE OP-CODE	16	01372	
002214	001016	A	2650	JANZ	NC8040	IF NOT WRITE, SKIP TO RETURN	16	01373	
002215	002227	R							
002216	006030	A	2651	LDXI	LINE	POINT TO LINE BUFFER	16	01374	
002217	002526	R							
002218	014015	A	2652	LDA	NC8190	PICK UP A BLANK	16	01375	
002219	055000	A	2653	STA	0,X	STORE TWO BLANKS	16	01376	
002220	005145	A	2654	INCR	045	BUMP X AND COPY TO A	16	01377	
002221	006140	A	2655	SUBI	LNEND	COMPARE AGAINST END OF BUFFER	16	01378	
002222	002576	R							
002223	001004	A	2656	JAN	NC8038	IF INSIDE, CONTINUE LOOP	16	01379	
002224	002220	R							
			2658	*****				16	01381
			2659	*	RETURN SEQUENCE	*	16	01382	
			2660	*****				16	01383
002227	001000	A	2661	NC8040	JMP	0	RETURN TO THE CALLER	16	01384
002230	000000	A							
	002230	R	2662	NC8048	EQU	*-1	SAVE AREA FOR P REG	16	01385
			2664	*****				16	01387
			2665	*	LOCAL CONSTANTS AND WORK AREAS FOR KEY-TYPE	*	16	01388	
			2666	*****				16	01389
002231	010001	A	2667	NC8120	IOMAC	WAIT,ASCII,READOP,INLUN	16	01390	
002232	010401	A	2668	NC8140	IOMAC	WAIT,ASCII,WRITOP,OUTLUN	16	01391	
002233	000050	A	2669	NC8160	DATA	LNEND-LINE	FIXED-LENGTH READ	16	01392
002234	000000	A	2670	NC8180	DATA	0	VARIABLE RECORD ADDRESS	16	01393
002235	000000	A	2671		DATA	0		16	01394
002236	120240	A	2672	NC8190	DATA	'	DOUBLE BLANK CONSTANT	16	01395
			2673	EJEC				16	01396
			2674	*****				16	01397
			2675	*		*	16	01398	
			2676	*	TITLE - GENERAL WORD MOVER ROUTINE	*	16	01399	
			2677	*		*	16	01400	
			2678	*	PURPOSE -	*	16	01401	
			2679	*	THIS ROUTINE IS USED TO MOVE WORDS AROUND. IT'S	*	16	01402	
			2680	*	PRIMARY USE IS FOR SETTING UP THE VARIOUS MESSAGE FIELDS.	*	16	01403	
			2681	*		*	16	01404	
			2682	*	CALLING SEQUENCE -	*	16	01405	
			2683	*	CALL MOVER, FROM, TO, COUNT	*	16	01406	
			2684	*		*	16	01407	
			2685	*	ENTRANCE PARAMETERS -	*	16	01408	
			2686	*	FROM SOURCE ADDRESS	*	16	01409	
			2687	*	TO DESTINATION ADDRESS	*	16	01410	
			2688	*	COUNT NUMBER OF WORDS TO MOVE	*	16	01411	
			2689	*		*	16	01412	
			2690	*****				16	01413
			2692	*****				16	01415
			2693	*	PICK UP CALLING PARAMETERS	*	16	01416	
			2694	*****				16	01417
002237	000000	A	2695	MOVER	ENTR		ENTRY CELL	16	01418
002240	006037	A	2696		LDXE	MOVER	PICK UP PARAMETER LIST ADDRESS	16	01419
002241	002237	R							
002242	025000	A	2697		LDB	0,X	PICK UP FROM ADDRESS	16	01420
002243	015001	A	2698		LDA	1,X	PICK UP TO ADDRESS	16	01421
002244	054006	A	2699		STA	NC8410	SAVE FOR X REG	16	01422
002245	015002	A	2700		LDA	2,X	PICK UP WORD COUNT	16	01423
002246	054022	A	2701		STA	NC8500	SAVE IN COUNTER CELL	16	01424
002247	005041	A	2702		TXA		COPY PARM LIST TO A REG	16	01425
002250	120464	A	2703		ADD	THREE	BUMP OVER PARM LIST	16	01426
002251	054016	A	2704		STA	NC8458	SAVE AS RETURN ADDRESS	16	01427
002252	006030	A	2705		LDXI	0	PICK UP TO ADDRESS	16	01428
002253	000000	A							
	002253	R	2706	NC8410	EQU	*-1	POINTER TO TEMPORARY CELL	16	01429
			2707	EJEC				16	01430
			2708	*****				16	01431
			2709	*	NOW MOVE THE REQUESTED NUMBER OF WORDS	*	16	01432	
			2710	*****				16	01433
002254	014014	A	2711	NC8420	LDA	NC8500	PICK UP CURRENT COUNTER CELL	16	01434
002255	005311	A	2712		DAR		DECREMENT BY ONE	16	01435
002256	054012	A	2713		STA	NC8500	RESTORE IN COUNTER CELL	16	01436
002257	001004	A	2714		JAN	NC8450	SKIP OUT IF COUNT IS SATISFIED	16	01437
002260	002267	R							
002261	016000	A	2715		LDA	0,B	LOAD A WORD	16	01438
002262	055000	A	2716		STA	0,X	MOVE THE WORD	16	01439
002263	005122	A	2717		IBR		BUMP SOURCE POINTER	16	01440
002264	005144	A	2718		IXR		BUMP DESTINATION POINTER	16	01441
002265	001000	A	2719		JMP	NC8420	CONTINUE MOVING	16	01442
002266	002254	R							
			2721	*****				16	01444
			2722	*	RETURN LINKAGE TO CALLER	*	16	01445	
			2723	*****				16	01446
002267	001000	A	2724	NC8450	JMP	0	RETURN TO THE CALLER	16	01447
002270	000000	A							
	002270	R	2725	NC8458	EQU	*-1	SAVE AREA FOR RETURN ADDRESS	16	01448
			2727	*****				16	01450
			2728	*	CONSTANTS AND WORK AREAS FOR MOVER ROUTINE	*	16	01451	
			2729	*****				16	01452
002271	000000	A	2730	NC8500	DATA	0	AREA FOR WORD COUNTER	16	01453
			2731	EJEC				16	01454

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2732 ..... 16 01455
2733 * 16 01456
2734 * TITLE - FIND LOGICAL TERMINAL NUMBER ROUTINE 16 01457
2735 * 16 01458
2736 * PURPOSE - 16 01459
2737 * THIS ROUTINE MAPS A TUID TO A LOGICAL TERMINAL 16 01460
2738 * NUMBER. THIS NUMBER IS REQUIRED IN ALL VT$IOC REQUESTS 16 01461
2739 * FOR TERMINALS. 16 01462
2740 * 16 01463
2741 * FUNCTION - 16 01464
2742 * THE LOGICAL TERMINAL TABLE, LTT, IS SEARCHED FOR A 16 01465
2743 * NON-ZERO ENTRY. THIS ENTRY POINTS TO A TCD. IF THE 16 01466
2744 * TUID IN THE TCD MATCHES THE REQUESTED TUID, CELL LTTN IS SET TO 16 01467
2745 * THE ORDINAL OF THE MATCHING LTT ENTRY. IF NO MATCH IS FOUND, 16 01468
2746 * THEN THE TUID IS NOT CURRENTLY OPEN AND ZERO IS RETURNED IN CELL 16 01469
2747 * LTTN. 16 01470
2748 * 16 01471
2749 * CALLING SEQUENCE - 16 01472
2750 * CALL GETLTN 16 01473
2751 * 16 01474
2752 * ENTRANCE PARAMETERS - 16 01475
2753 * CELLS PTUID MUST CONTAIN THE TUID TO BE MAPPED. 16 01476
2754 * 16 01477
2755 ..... 16 01478

2757 ..... 16 01480
2758 * ENTRY POINT, SAVE REGS AND INITIALIZE FOR THE LOOP 16 01481
2759 ..... 16 01482
2760 EXT VT$LTT ADDRESS OF LTT 16 01483
002272 000000 A 2761 GETLTN ENTR ENTRY CELL 16 01484
002273 010421 A 2762 LDA ONE PICK UP A ONE 16 01485
002274 054140 A 2763 STA LTTN STORE IN RESULT CELL 16 01486
002275 006037 A 2764 LDXE VT$LTT PICK UP POINTER TO LTT 16 01487
002276 000000 E

2765 EJEC 16 01488
2766 ..... 16 01489
2767 * NOW CHECK THIS LTT ENTRY 16 01490
2768 ..... 16 01491
002277 025000 A 2769 NC8610 LDB 0,X PICK UP LTT ENTRY 16 01492
002300 001020 A 2770 JBZ NC8630 IGNORE IF ZERO 16 01493
002301 002312 R
002302 016015 A 2771 LDA TCID1,B PICK UP FIRST TWO CHARACTERS OF TUID 16 01494
002303 144140 A 2772 SUB PTUID COMPARE TO THE REQUESTED TUID 16 01495
002304 001016 A 2773 JANZ NC8630 IF NOT EQUAL, IGNORE THIS ENTRY 16 01496
002305 002312 R
002306 016016 A 2774 LDA TCID2,B PICK UP SECOND TWO CHARACTERS OF TUID 16 01497
002307 144135 A 2775 SUB PTUID+1 COMPARE TO REQUESTED TUID 16 01498
002310 001010 A 2776 JAZ NC8640 IF EQUAL, WE HAVE A MATCH 16 01499
002311 002321 R
002312 005144 A 2777 NC8630 IXR ELSE BUMP LTT POINTER 16 01500
002313 044121 A 2778 INR LTTN BUMP LTT NUMBER 16 01501
002314 014120 A 2779 LDA LTTN PICK UP CURRENT VALUE 16 01502
002315 140463 A 2780 SUB RHW COMPARE TO FINAL VALUE 16 01503
002316 001016 A 2781 JANZ NC8610 IF NOT EQUAL, CONTINUE SEARCH 16 01504
002317 002277 R

2783 ..... 16 01506
2784 * HERE MATCH WAS NOT FOUND, STORE ZERO IN LTTN, THEN RETURN 16 01507
2785 ..... 16 01508
002320 054114 A 2786 STA LTTN STOW ZERO IN RESULT CELL 16 01509
002321 014113 A 2787 NC8640 LDA LTTN PICK UP RESULT VALUE 16 01510
002322 001000 A 2788 JMP GETLTN RETURN TO THE CALLER 16 01511
002323 102272 R

2789 EJEC 16 01512
2790 ..... 16 01513
2791 * 16 01514
2792 * TITLE - FIND CONTROLLER TABLE ROUTINE 16 01515
2793 * 16 01516
2794 * PURPOSE - 16 01517
2795 * THIS ROUTINE LOCATES THE CONTROLLER TABLE, GIVEN THE UNIT NUMBER. 16 01518
2796 * 16 01519
2797 * CALLING SEQUENCE - 16 01520
2798 * LDA LUN 16 01521
2799 * CALL GETCTA 16 01522
2800 * 16 01523
2801 * ENTRANCE PARAMETERS - 16 01524
2802 * REG A CONTAINS THE VORTEX LOGICAL UNIT NUMBER 16 01525
2803 * REG A RETURNS NEGATIVE IF UNABLE TO LOCATE CONTROLLER TABLE 16 01526
2804 * 16 01527
2805 ..... 16 01528
002324 000000 A 2806 GETCTA ENTR ENTRY CELL 16 01529
002325 054065 A 2807 STA NC9100 SAVE A REG (REQUESTED LUN) 16 01530
002326 001010 A 2808 JAZ NC9040 SKIP IF REG A INITIALLY ZERO 16 01531
002327 002411 R
002330 144063 A 2809 SUB NC9120 IS LUN IN FIRST BLOCK? 16 01532
002331 001002 A 2810 JAP NC9010 NO, SKIP TO TRY SECOND BLOCK 16 01533
002332 002344 R

2812 ..... 16 01535
2813 * REQUESTED LUN IS IN RANGE 1:100 16 01536
2814 ..... 16 01537
002333 020400 A 2815 LDB V$LUT1 POINT TO THE FIRST BLOCK 16 01538
002334 016000 A 2816 LDA 0,B PICK UP NUMBER OF LUN'S IN THIS BLOCK 16 01539
002335 144055 A 2817 SUB NC9100 COMPARE TO REQUESTED LUN 16 01540
002336 001004 A 2818 JAN NC9040 IF OUTSIDE, LUN CANNOT BE FOUND 16 01541
002337 002411 R
002340 010400 A 2819 LDA V$LUT1 IF INSIDE, RESTORE BLOCK POINTER 16 01542

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2906 * * 16 01629
2907 * PURPOSE - * 16 01630
2908 * THIS ROUTINE TESTS THE CURRENT CHARACTERS FOR A PERIOD. * 16 01631
2909 * IF ONE IS DETECTED, THE CURRENT DIRECTIVE IS TERMINATED * 16 01632
2910 * BY RETURNING CONTROL TO NETCON. ELSE CONTROL IS RETURNED * 16 01633
2911 * TO THE CALLER. * 16 01634
2912 * * 16 01635
2913 * CALLING SEQUENCE - * 16 01636
2914 * CALL CHKPER * 16 01637
2915 * * 16 01638
2916 * ENTRANCE PARAMETERS - * 16 01639
2917 * NONE * 16 01640
2918 * * 16 01641
2919 * ..... 16 01642
002425 000000 A 2920 CHKPER ENTR ENTRY CELL 16 01643
002426 014025 A 2921 LDA CHAR PICK UP THE CURRENT CHARACTER 16 01644
002427 144026 A 2922 SUB PERIOD COMPARE TO A PERIOD 16 01645
002430 001010 A 2923 JAZ NETCON IF EQUAL, RETURN TO TOP 16 01646
002431 000000 R *
002432 001000 A 2924 JMP* CHKPER ELSE, RETURN TO THE CALLER 16 01647
002433 102425 R *

2925 EJEC 16 01648
2926 * ..... 16 01649
2927 * EQUATES FOR NETWORK CONTROL * 16 01650
2928 * ..... 16 01651
000001 A 2929 INLUN EQU 1 INPUT FROM OC UNIT 16 01652
000001 A 2930 OUTLUN EQU 1 OUTPUT TO OC UNIT 16 01653
000152 A 2931 RMDLUN EQU 106 UNIT FOR FOREGROUND LIBRARY 16 01654
000000 A 2932 READOP EQU 0 OP-CODE FOR READ 16 01655
000001 A 2933 WRITOP EQU 1 OP-CODE FOR WRITE 16 01656
000005 A 2934 FUNCOP EQU 5 OP-CODE FOR FUNC 16 01657
000007 A 2935 CLOSOP EQU 7 OP-CODE FOR CLOSE 16 01658
000025 A 2936 KILLLN EQU 21 FUNC CODE TO FLUSH LINE 16 01659
000004 A 2937 KILLTU EQU 4 FUNC CODE TO FLUSH TERMINAL 16 01660
000000 A 2938 WAIT EQU 0 WAIT OPERAND ON I/O MACROS 16 01661
000000 A 2939 BIN EQU 0 MODE OF RMD TRANSFERS 16 01662
000001 A 2940 ASCII EQU 1 MODE OF TRANSFERS TO OC DEVICE 16 01663
000002 A 2941 DIRECT EQU 2 MODE OF RMD ACCESS 16 01664
000306 A 2942 FLKEY EQU 'F' KEY FOR FOREGROUND LIBRARY 16 01665
000040 A 2943 BTAOFF EQU 040 EQUATE FOR 'BT' INSTRUCTION 16 01666

2944 EJEC 16 01667
2945 * ..... 16 01668
2946 * CONSTANTS AND WORK AREAS FOR NETWORK CONTROL * 16 01669
2947 * ..... 16 01670
002434 000000 A 2948 LSDN DATA 0 CURRENT LSD NUMBER 16 01671
002435 000000 A 2949 LTTN DATA 0 CURRENT LOGICAL TERMINAL NUMBER 16 01672
002436 000000 A 2950 CCMN DATA 0 CURRENT CCM NUMBER 16 01673
002437 000000 A 2951 CCMCAD DATA 0 CURRENT CCM CONTROLLER TABLE 16 01674
002440 2952 TUID BSS 4 UNPACKED CURRENT TUID 16 01675
002444 2953 PTUID BSS 2 PACKED CURRENT TUID 16 01676
002446 000004 A 2954 KILLTU DATA 4 FUNC CODE TO FLUSH A TERMINAL 16 01677
002447 000000 A 2955 SECTN DATA 0 CURRENT SECTOR NUMBER 16 01678
002450 000000 A 2956 DISP DATA 0 CURRENT DISPLACEMENT INTO SECTOR BUFFER 16 01679
002451 000000 A 2957 BLKPTR DATA 0 POINTER TO CURRENT BLOCK IN BUFFER 16 01680
002452 000000 A 2958 FCBPTR DATA 0 CURRENT FCB POINTER 16 01681
002453 000000 A 2959 COLPTR DATA 0 ADDRESS OF NEXT BYTE IN DIRECTIVE BUFFER 16 01682
002454 000000 A 2960 CHAR DATA 0 CURRENT CHARACTER 16 01683
002455 000001 A 2961 ERRTPY DATA 1 CURRENT ERROR CODE 16 01684
000421 A 2962 BADSYN EQU ONE ERROR CODE EQUATE 16 01685
000422 A 2963 UDFLNE EQU TWO ERROR CODE EQUATE 16 01686
000464 A 2964 UDFTID EQU THREE ERROR CODE EQUATE 16 01687
000423 A 2965 IOEDFL EQU FOUR ERROR CODE EQUATE 16 01688
000465 A 2966 IOEDFT EQU FIVE ERROR CODE EQUATE 16 01689
000466 A 2967 UDFCCM EQU SIX ERROR CODE EQUATE 16 01690
002456 000256 A 2968 PERIOD DATA 0256 CONSTANT PERIOD 16 01691
002457 000254 A 2969 COMMA DATA 0254 CONSTANT COMMA 16 01692
002460 000275 A 2970 EQUAL DATA 0275 CONSTANT EQUAL SIGN 16 01693
002461 000260 A 2971 C0 DATA 0260 CONSTANT ZERO 16 01694
002462 000301 A 2972 CA DATA 0301 CONSTANT A 16 01695
002463 000240 A 2973 BLANK DATA 0240 CONSTANT BLANK 16 01696
002464 000032 A 2974 CZMA DATA 26 RANGE OF ALPHABET 16 01697
000471 A 2975 C9M0 EQU TEN RANGE OF NUMERICS 16 01698
002465 002124 R 2976 DFLPTR DATA DFLFCB POINTER CONSTANT TO FCB 16 01699
002466 002136 R 2977 DFTPTR DATA DFTFCB POINTER CONSTANT TO FCB 16 01700

2978 EJEC 16 01701
2979 * ..... 16 01702
2980 * NETWORK CONTROL MESSAGES * 16 01703
2981 * ..... 16 01704
002467 147303 A 2982 CNET DATA 'NCM**' OPENING STATEMENT 16 01705
002470 146652 A *
002471 125240 A *
000003 A 2983 LNET EQU *-CNET LENGTH OF MESSAGE 16 01706
002472 146311 A 2984 CLNE DATA 'LINE' CONSTANT 16 01707
002473 147305 A *
000002 A 2985 LLNE EQU *-CLNE LENGTH OF CONSTANT 16 01708
002474 152325 A 2986 CTID DATA 'TUID' CONSTANT 16 01709
002475 144704 A *
000002 A 2987 LTID EQU *-CTID LENGTH OF CONSTANT 16 01710
002476 152720 A 2988 CUP DATA 'UP' CONSTANT 16 01711
002477 120240 A *
000002 A 2989 LUP EQU *-CUP LENGTH OF MESSAGE 16 01712
002500 142317 A 2990 CDWN DATA 'DOWN' CONSTANT 16 01713
002501 153716 A *
000002 A 2991 LDWN EQU *-CDWN LENGTH OF CONSTANT 16 01714
002502 147720 A 2992 COPN DATA 'OPEN' CONSTANT 16 01715
002503 142716 A *

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002504 120240 A
000003 A 2993 LOPN EQU *-COPN LENGTH OF CONSTANT 16 01716
002505 141714 A 2994 CCLS DATA 'CLOSED' CONSTANT 16 01717
002506 147723 A
002507 142704 A
000003 A 2995 LCLS EQU *-CCLS LENGTH OF CONSTANT 16 01718
002510 151305 A 2996 CRED DATA 'REDIRECTED TO ' 16 01719
002511 142311 A
002512 151305 A
002513 141724 A
002514 142704 A
002515 120324 A
002516 147640 A
000007 A 2997 LRED EQU *-CRED LENGTH OF MESSAGE 16 01720
002517 151305 A 2998 CRES DATA 'RESTORED' 16 01721
002520 151724 A
002521 147722 A
002522 142704 A
000004 A 2999 LRES EQU *-CRES LENGTH OF CONSTANT 16 01722
002523 147303 A 3000 CNC DATA 'NC' MESSAGE CONSTANT 16 01723
002524 120324 A 3001 CT DATA ' T' MESSAGE CONSTANT 16 01724
002525 120320 A 3002 CP DATA ' P' 16 01725
3003 EJEC 16 01726
3004 * 16 01727
3005 * NETWORK CONTROL MODULE BUFFERS * 16 01728
3006 * 16 01729
002526 120240 A 3007 LINE DATA 16 01730
002527 120240 A
002530 120240 A
002531 120240 A
002532 120240 A
002533 120240 A
002534 120240 A
002535 120240 A
002536 120240 A
002537 120240 A
002540 120240 A
002541 120240 A
002542 120240 A
002543 120240 A
002544 120240 A
002545 120240 A
002546 120240 A
002547 120240 A
002550 120240 A
002551 120240 A
002552 120240 A 3008 DATA 16 01731
002553 120240 A
002554 120240 A
002555 120240 A
002556 120240 A
002557 120240 A
002560 120240 A
002561 120240 A
002562 120240 A
002563 120240 A
002564 120240 A
002565 120240 A
002566 120240 A
002567 120240 A
002570 120240 A
002571 120240 A
002572 120240 A
002573 120240 A
002574 120240 A
002575 120240 A
002576 R 3009 LNEND EQU * 16 01732
002527 R 3010 FLD1 EQU LINE+1 MESSAGE FIELD EQUATE 16 01733
002532 R 3011 FLD2 EQU LINE+4 MESSAGE FIELD EQUATE 16 01734
002535 R 3012 FLD3 EQU LINE+7 MESSAGE FIELD EQUATE 16 01735
002536 R 3013 FLD4 EQU LINE+8 MESSAGE FIELD EQUATE 16 01736
002540 R 3014 FLD5 EQU LINE+10 MESSAGE FIELD EQUATE 16 01737
002543 R 3015 FLD6 EQU LINE+13 MESSAGE FIELD EQUATE 16 01738
002544 R 3016 FLD7 EQU LINE+14 MESSAGE FIELD EQUATE 16 01739
002576 3017 SECTOR BSS 120 RMD SECTOR BUFFER 16 01740
002766 3018 BUF BSS 40 DIRECTIVE BUFFER 16 01741
003036 R 3019 ENDBUF EQU * POINT TO THE END OF THE BUFFER 16 01742
003036 R 3020 NETEND EQU * LAST WORD OF NETCON 16 01743
000000 R 3021 END NETCON TERMINATE THE ASSEMBLY 16 01744
ENTRY NAMES
EXTERNAL NAMES
001221 E C52LLT 001455 E CC$MET 000642 E TC$TCD 000241 E V$EXEC
002174 E V$10C 002203 E V$10ST 002276 E VT$LTT
SYMBOLS
000044 A APIM 000001 A ASCII 000002 A B 000000 A B0
000001 A B1 000012 A B10 000013 A B11 000014 A B12
000015 A B13 000016 A B14 000017 A B15 000002 A B2
000003 A B3 000004 A B4 000005 A B5 000006 A B6
000007 A B7 000010 A B8 000011 A B9 000421 A BADSYN
000000 A BICNUM 000000 A BIN 002463 R BLANK 002451 R BLKPTR
000421 A BM1 000472 A BM17 000475 A BM177 000477 A BM1777
000464 A BM3 000473 A BM37 000463 A BM377 000467 A BM7
000474 A BM77 000476 A BM777 000441 A BR0 000442 A BR1
000453 A BR10 000454 A BR11 000455 A BR12 000456 A BR13
000457 A BR14 000460 A BR15 000443 A BR2 000444 A BR3
000445 A BR4 000446 A BR5 000447 A BR6 000450 A BR7

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000451 A BR8      000452 A BR9      000421 A BS0      000422 A BS1
000433 A BS10     000434 A BS11     000435 A BS12     000436 A BS13
000437 A BS14     000440 A BS15     000423 A BS2      000424 A BS3
000425 A BS4      000426 A BS5      000427 A BS6      000430 A BS7
000431 A BS8      000432 A BS9      000040 A BTAOFF  002766 R BUF
002461 R C0       001221 E C52LLT 000471 A C9M0    002462 R CA
001727 R CALC    001455 E CC$MET 002505 R CCLS    002437 R CCMCAD
002436 R CCMN    002500 R CDWN    002454 R CHAR    002416 R CHKCOM
002425 R CHKPER  002472 R CLNE    000047 A CLOCK   000007 A CLOSOP
002523 R CNC     002467 R CNET    002453 R COLPTR  002457 R COMMA

002502 R COPN    000000 A COTADI  002525 R CP      002510 R CRED
002517 R CRES    002524 R CT      000000 A CTACTION 000017 A CTACTB
000001 A CTACTZ 000001 A CTADN  000000 A CTADNB  000020 A CTADNZ
000011 A CTBIC  000000 A CTBICB  000020 A CTBICZ  000003 A CTDST
000000 A CTDSTB 000020 A CTDSTZ  000006 A CTDVA  000000 A CTDVAB
000020 A CTDVAZ 000012 A CTFCB  000000 A CTFCBB  000020 A CTFCBZ
000014 A CTFRC  000010 A CTFRCB  000010 A CTFRCZ  000014 A CTFRE
000000 A CTFREB 000010 A CTFREZ  002474 R CTID   000000 A CTIOB
000000 A CTIDBB 000017 A CTIDBZ  000007 A CTIOA  000000 A CTIOAB
000020 A CTIOAZ 000002 A CTOPM  000000 A CTOPMB  000020 A CTOPMZ
000005 A CTRCN  000000 A CTRCNB  000010 A CTRCNZ  000004 A CTRQB
000000 A CTRQBB 000020 A CTRQBZ  000005 A CTRTR  000010 A CTRTRB
000010 A CTRTRZ 000010 A CTSTA  000000 A CTSTAB  000020 A CTSTAZ
000013 A CTWDS  000000 A CTWDSB  000020 A CTWDSZ  002476 R CUP
002464 R CZMA    000001 A DCBUFF  000002 A DCCNT  000000 A DCRECL
002124 R DFLFCB 002465 R DFLPTR  002136 R DFTFCB  002466 R DFTPTR
000002 A DIRECT 000747 A DISCLK  000745 A DISMP  002450 R DISP
000444 A DISPM  000024 A DMCWA  000000 A DMCWAB  000020 A DMCWAZ
000017 A DMFPA  000000 A DMFPAB  000020 A DMFPAZ  000021 A DMLCA
000000 A DMLCAB 000020 A DMLCAZ  000022 A DMLTA  000000 A DMLTAB
000020 A DMLTAZ 000023 A DMPTA  000000 A DMPTAB  000020 A DMPTAZ
000016 A DMRPA  000000 A DMRPAB  000020 A DMRPAZ  000020 A DMSTA
000000 A DMSTAB 000020 A DMSTAZ  000025 A DMSWA  000000 A DMSWAB
000020 A DMSTAZ 000015 A DMTPA  000000 A DMTPAB  000020 A DMTPAZ
000546 R DOWN    000002 A DSCTAD  000000 A DSDASS  000000 A DSDVDN
000002 A DSLCKO 000001 A DSNAME  000000 A DSNORQ  000002 A DSOPCM
000002 A DSPSTI 000002 A DSREWD  000000 A DSUNAM  000002 A DSUNTN
000424 A EIGHT   000147 A ENACLK  000645 A ENAMP  000244 A ENAPIM
000232 R END     003036 R ENDBUF  002460 R EQUAL  002455 R ERRTP
000240 R EXIT   002452 R FCBPTR  001737 R FETCH  000465 A FIVE
002527 R FLD1   002532 R FLD2   002535 R FLD3   002536 R FLD4
002540 R FLD5   002543 R FLD6   002544 R FLD7   000306 A FLKEY
000423 A FOUR    000005 A FUNCOP  002324 R GETCTA  002272 R GETLTN
000001 A INLUN  000423 A IOEDFL  000465 A IOEDFT  002162 R KEY
000025 A KILLLN  000004 A KILLTU  000300 A LC      000003 A LCABN
000013 A LCABNB  000001 A LCABNZ  000003 A LCASY  000012 A LCASYB
000001 A LCASYZ  000003 A LCCRC  000014 A LCCRCB  000003 A LCCRCZ
000006 A LCCWB  000014 A LCCWBB  000001 A LCCWBZ  000006 A LCCWC
000015 A LCCWCB  000001 A LCCWCZ  000006 A LCCWD  000013 A LCCWDB
000001 A LCCWUZ  000006 A LCCWI  000016 A LCCWIB  000001 A LCCWIZ
000006 A LCCWP  000012 A LCCWPB  000001 A LCCWPZ  000006 A LCCWR
000011 A LCCWRB  000001 A LCCWRZ  000006 A LCCWS  000017 A LCCWSB

000001 A LCCWSZ  000006 A LCCWT  000010 A LCCWTB  000001 A LCCWTZ
000001 A LC1BA  000000 A LC1BAB  000017 A LC1BAZ  000000 A LC1BF
000017 A LC1BFB 000001 A LC1BFZ  000000 A LC1BL  000000 A LC1BLB
000014 A LC1BLZ 000002 A LC1C1  000010 A LC1C1B  000010 A LC1C1Z
000002 A LC1C2  000000 A LC1C2B  000010 A LC1C2Z  000003 A LC1KE
000000 A LC1KEB 000004 A LC1KEZ  000050 A LCJP   000006 A LCLCB
000000 A LCLCBB 000020 A LCLCBZ  000003 A LCLS  000007 A LCLTB
000017 A LCLTBB 000001 A LCLTBZ  000005 A LCOBA  000000 A LCOBAB
000017 A LCOBAZ 000004 A LCOBF  000017 A LCOBFB  000001 A LCOBFZ
000004 A LCOBL  000000 A LCOBLB  000014 A LCOBLZ  000007 A LCOKE
000000 A LCOKEB 000004 A LCOKEZ  000003 A LCRCC  000017 A LCRCCB
000001 A LCRCCZ 000000 A LCSMB  000016 A LCSMBB  000001 A LCSMBZ
000002 A LDWN   000462 A LHW    002526 R LINE  000761 R LIST
000002 A LLNE   002576 R LNEND  000003 A LNET  000003 A LOPN
000007 A LRED   000004 A LRES  000017 A LSABN  000015 A LSABNB
000001 A LSABNZ 000017 A LSASC  000011 A LSASCB  000001 A LSASCZ
000014 A LSASY  000013 A LSASYB  000001 A LSASYZ  000015 A LSCC1
000010 A LSCC1B 000010 A LSCC1Z  000015 A LSCC2  000000 A LSCC2B
000010 A LSCC2Z 000017 A LSCRC  000012 A LSCRCB  000003 A LSCRCZ
000012 A LSCTA  000000 A LSCTAB  000020 A LSCTAZ  002434 R LSDN
000017 A LSDSF  000017 A LSDSFB  000001 A LSDSFZ  000013 A LSDST
000000 A LSDSTB 000020 A LSDSTZ  000016 A LSEPF  000016 A LSEPFB
000001 A LSEPFZ 000014 A LSLSP  000000 A LSLSPB  000011 A LSLSPZ
000014 A LSMOD  000016 A LSMODB  000002 A LSMODZ  000020 A LSNT0
000010 A LSNT0B 000006 A LSNT0Z  000014 A LSPAR  000014 A LSPARB
000002 A LSPARZ 000016 A LSPLA  000000 A LSPLAB  000010 A LSPLAZ
000002 A LSRCB  000000 A LSRCAB  000020 A LSRCAZ  000003 A LSREM
000000 A LSREMB 000020 A LSREMB  000016 A LSRRS  000010 A LSRRSB
000003 A LSRRSZ 000001 A LSRRT  000000 A LSRRTB  000020 A LSRRTZ
000004 A LSRT0  000000 A LSRT0B  000020 A LSRT0Z  000005 A LSSRS
000000 A LSSRSB 000020 A LSSRSZ  000011 A LSSWS  000000 A LSSWSB
000020 A LSSWSZ 001331 R LSTCVT  000016 A LSTER  000017 A LSTERB
000001 A LSTERZ 000000 A LSTHD  000000 A LSTHDB  000020 A LSTHDZ
001125 R LSTLN  001243 R LSTTU  000006 A LSWCA  000000 A LSWCAB
000020 A LSWCAZ 000007 A LSWEM  000000 A LSWEMB  000020 A LSWEMZ
000016 A LSWRS  000013 A LSWRSB  000003 A LSWRSZ  000010 A LSWTO
000000 A LSWTOB 000020 A LSWTOZ  000014 A LSXMM  000011 A LSXMMB
000002 A LSXMMZ 000017 A LSYNC  000016 A LSYNCB  000001 A LSYNCZ
000020 A LSYNR  000000 A LSYNRB  000010 A LSYNRZ  000017 A LSYNT
000000 A LSYNTB 000010 A LSYNTZ  000002 A LTID  002435 R LTTN
000002 A LUP    002237 R MOVER  000045 A MP     000045 A MPMR0
000145 A MPMR1  000245 A MPMR2  000345 A MPMR3  000420 A MT

000016 R NC0410 000032 R NC0420 000060 R NC0500 000062 R NC0510
000076 R NC0520 000116 R NC0530 000127 R NC0540 000132 R NC0542

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000161 R NC0600 000171 R NC0602 000172 R NC0604 000173 R NC0620
 000174 R NC0630 000232 R NC0634 000176 R NC0640 000243 R NC1210
 000256 R NC1220 000262 R NC1600 000276 R NC1640 000315 R NC2000
 000347 R NC2410 000355 R NC2420 000361 R NC2430 000416 R NC2440
 000455 R NC2442 000471 R NC2500 000472 R NC2510 000473 R NC2810
 000513 R NC2820 000517 R NC2830 000542 R NC2840 000546 R NC3210
 000561 R NC3220 000565 R NC3600 000624 R NC3610 000643 R NC3620
 000665 R NC3630 000674 R NC3640 000677 R NC3650 000703 R NC3720
 000704 R NC3740 000705 R NC3750 000710 R NC3760 000711 R NC4000
 000754 R NC4040 000745 R NC4110 000760 R NC4120 000767 R NC4410
 000777 R NC4420 001003 R NC4430 001005 R NC4440 001011 R NC4600
 001020 R NC4610 001057 R NC4620 001066 R NC4630 001106 R NC4632
 001115 R NC4640 001124 R NC4700 000465 A NC4710 000431 A NC4720
 001206 R NC4830 001237 R NC4840 001241 R NC4850 001314 R NC5230
 001325 R NC5240 001352 R NC5700 001413 R NC6010 001414 R NC6012
 001417 R NC6020 001420 R NC6022 001423 R NC6030 001424 R NC6032
 001425 R NC6040 001431 R NC6044 001433 R NC6046 001435 R NC6048
 001436 R NC6400 001462 R NC6420 001472 R NC6430 001476 R NC6440
 000431 A NC6520 001545 R NC6530 000465 A NC6540 001560 R NC6610
 001600 R NC6620 001603 R NC6700 001604 R NC6710 001605 R NC6800
 001615 R NC6810 001635 R NC6820 001652 R NC6830 001665 R NC6840
 001672 R NC6850 001716 R NC6860 001726 R NC6900 001747 R NC7210
 001761 R NC7220 002011 R NC7250 002013 R NC7252 002014 R NC7260
 002016 R NC7262 002017 R NC7320 002034 R NC7610 002047 R NC7630
 002056 R NC7640 002062 R NC7642 002065 R NC7650 002070 R NC7652
 002073 R NC7654 002074 R NC7656 002107 R NC7668 002110 R NC7670
 002116 R NC7672 002121 R NC7710 002122 R NC7720 002123 R NC7730
 002172 R NC8020 002173 R NC8030 002176 R NC8032 002220 R NC8038
 002227 R NC8040 002230 R NC8048 002231 R NC8120 002232 R NC8140
 002233 R NC8160 002234 R NC8180 002236 R NC8190 002253 R NC8410
 002254 R NC8420 002267 R NC8450 002270 R NC8458 002271 R NC8500
 002277 R NC8610 002312 R NC8630 002321 R NC8640 002344 R NC9010
 002362 R NC9020 002373 R NC9030 002411 R NC9040 002413 R NC9100
 002414 R NC9120 002415 R NC9130 000000 R NCM 000461 A NEG
 000000 R NETCON 003036 R NETEND 000470 A NINE 001546 R NUMBER
 000421 A ONE 000001 A OUTLUN 000001 A PCBSL 000011 A PCBSLB
 000001 A PCBSLZ 000000 A PCCLN 000000 A PCCLNB 000010 A PCCLNZ
 000002 A PCCTP 000014 A PCCTPB 000004 A PCCTPZ 000001 A PCECH
 000014 A PCECHB 000001 A PCECHZ 000000 A PCLLN 000010 A PCLLNB
 000010 A PCLLNZ 000002 A PCNTD 000000 A PCNTDB 000004 A PCNTDZ

000001 A PCPCH 000000 A PCPCHB 000010 A PCPCHZ 000001 A PCSWL
 000010 A PCSWLB 000001 A PCSWLZ 000002 A PCTYP 000010 A PCTYPB
 000004 A PCTYPZ 000001 A PCXMM 000012 A PCXMMB 000002 A PCXMMZ
 002456 R PERIOD 000040 A PIM1 000041 A PIM2 000042 A PIM3
 000043 A PIM4 000040 A PIM5 000040 A PIM6 000040 A PIM7
 000040 A PIM8 000200 A POST 000003 A PSABN 000015 A PSABNB
 000001 A PSABNZ 000000 A PSASY 000013 A PSASYB 000001 A PSASYZ
 000002 A PSBADT 000000 A PSBEG 000001 A PSCC1 000010 A PSCC1B
 000010 A PSCC1Z 000001 A PSCC2 000000 A PSCC2B 000010 A PSCC2Z
 000003 A PSCRC 000012 A PSCRCB 000003 A PSCRCZ 000002 A PSDEF
 000010 A PSDEFB 000001 A PSDEFZ 000003 A PSDSF 000017 A PSDSFB
 000001 A PSDSFZ 000002 A PSDWN 000011 A PSDWNB 000001 A PSDWNZ
 000004 A PSEND 000002 A PSEPF 000016 A PSEPFB 000001 A PSEPFZ
 000000 A PSLSP 000000 A PSLSPB 000011 A PSLSPZ 000000 A PSMOD
 000016 A PSMODB 000002 A PSMODZ 000003 A PSNSEC 000000 A PSPAR
 000014 A PSPARB 000002 A PSPARZ 000002 A PSPLA 000000 A PSPLAB
 000010 A PSPLAZ 000001 A PSPROT 000002 A PSTER 000017 A PSTERB
 000001 A PSTERZ 000000 A PSXMM 000011 A PSXMMB 000002 A PSXMMZ
 000003 A PSYNC 000016 A PSYNCB 000001 A PSYNCZ 000004 A PSYNR
 000000 A PSYNRB 000010 A PSYNRZ 000003 A PSYNT 000000 A PSYNTB
 000010 A PSYNTZ 002444 R PTUID 000040 A RAO 000000 A RA1
 000004 A RADNR 000060 A RBO 000020 A RB1 002020 R READ
 000000 A READOP 000347 R REDIR 000473 R RESTOR 000002 A RFCB
 000463 A RHW 000152 A RMDLUN 000001 A ROPWD 000000 A RSTPR
 000003 A RT1DB 002447 R SECTN 002576 R SECTOR 000467 A SEVEN
 000466 A SIX 000133 R SYNERR 000027 A TBATSK 000026 A TBCPTH
 000011 A TBENTY 000003 A TBEVNT 000021 A TB10 000014 A TB1SA
 000015 A TB1SB 000017 A TB1SP 000020 A TB1SRS 000016 A TB1SX
 000022 A TBKN1 000023 A TBKN2 000024 A TBKN3 000002 A TBPL
 000004 A TBRSA 000005 A TBRSE 000030 A TBRSE 000007 A TBRSP
 000010 A TBRSTS 000006 A TBRSX 000000 A TBS0 000001 A TBS1
 000012 A TBS10 000013 A TBS11 000014 A TBS12 000015 A TBS13
 000016 A TBS14 000017 A TBS15 000002 A TBS2 000003 A TBS3
 000004 A TBS4 000005 A TBS5 000006 A TBS6 000007 A TBS7
 000010 A TBS8 000011 A TBS9 000001 A TBS10 000025 A TBTLC
 000013 A TBTMIN 000012 A TBTMS 000000 A TBTRD 000642 E TCSTCD
 000004 A TCBSL 000011 A TCBSLB 000001 A TCBSLZ 000003 A TCCLN
 000000 A TCCLNB 000010 A TCCLNZ 000004 A TCCON 000015 A TCCONB
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 000000 A TCDCB 000020 A TCDCZ 000014 A TCDO 000000 A TCDOB
 000020 A TCDOZ 000004 A TCECH 000014 A TCECHB 000001 A TCECHZ

000015 A TCID1 000000 A TCID1B 000020 A TCID1Z 000016 A TCID2
 000000 A TCID2B 000020 A TCID2Z 000006 A TCLDF 000014 A TCLDFB
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 000010 A TCPCHZ 000004 A TCRBC 000017 A TCRBCB 000001 A TCRBCZ
 000013 A TCRBF 000000 A TCRBFB 000020 A TCRBFZ 000007 A TCRCA
 000000 A TCR CAB 000020 A TCRCAZ 000006 A TCRMD 000000 A TCRMDB
 000003 A TCRMDZ 000001 A TCRQH 000000 A TCRQHB 000020 A TCRQHZ
 000006 A TCRRS 000006 A TCRRSB 000003 A TCRRSZ 000010 A TCSTO
 000000 A TCSTOB 000020 A TCSTOZ 000004 A TCSWL 000010 A TCSWLB
 000001 A TCSWLZ 000000 A TCTCD 000000 A TCTCDB 000020 A TCTCDZ
 000005 A TCTYP 000010 A TCTYPB 000004 A TCTYPZ 000004 A TCWBC
 000016 A TCWBCB 000001 A TCWBCZ 000011 A TCWCA 000000 A TCW CAB
 000020 A TCWCAZ 000006 A TCWMD 000003 A TCWMDB 000003 A TCWMDZ

000006 A TCWRS 000011 A TCWRSB 000003 A TCWRSZ 000004 A TCXMM
000012 A TCXMMB 000002 A TCXMMZ 000471 A TEN 000464 A THREE
000002 A TIDSP 000000 A TIDSPB 000007 A TIDSPZ 000002 A TIDWN
000017 A TIDWNB 000001 A TIDWNZ 000000 A TINET 000000 A TINETB
000020 A TINETZ 000003 A TIODN 000017 A TIODNB 000001 A TIODNZ
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000007 A TIOSCB 000010 A TIOSCZ 000002 A TISEC 000007 A TISECB
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000000 A TPFPAZ 000020 A TPFPAZ 000015 A TPRPA 000000 A TPRPAB
000020 A TPRPAZ 000016 A TPWPA 000000 A TPWPAB 000020 A TPWPAZ
002440 R TUID 000422 A TWO 002150 R TYPE 000466 A UDFCCM
000422 A UDFLNE 000464 A UDFTID 001353 R UNIT 000243 R UP
000403 A V\$1MIN 000415 A V\$BFC 000075 A V\$BGLB 000056 A V\$BICI
000315 A V\$BTB 000414 A V\$BVN 000334 A V\$CAM 000353 A V\$CKB
000411 A V\$CKIT 000310 A V\$CKPT 000301 A V\$CPL 000076 A V\$CRDM
000341 A V\$CRDR 000354 A V\$CRM 000302 A V\$CRS 000360 A V\$CTAD
000300 A V\$CTL 000351 A V\$CTMS 000070 A V\$DATE 000355 A V\$DSTB
000376 A V\$ERFG 000241 E V\$EXEC 000347 A V\$FGLB 000306 A V\$FLRS
000350 A V\$FREE 000320 A V\$IM 000410 A V\$IOA 002174 E V\$IOC
002203 E V\$IOST 000412 A V\$JCB 000055 A V\$JCFG 000077 A V\$JCTM
000050 A V\$JNAM 000377 A V\$JOP 000054 A V\$LCNT 000313 A V\$LER
000356 A V\$LIT 000317 A V\$LLUP 000307 A V\$LRSK 000312 A V\$LRSAL
000345 A V\$LUNT 000316 A V\$LUP 000400 A V\$LUT1 000401 A V\$LUT2
000402 A V\$LUT3 000330 A V\$MPM 000362 A V\$NCTR 000413 A V\$OCB
000346 A V\$OPCF 000311 A V\$OPCL 000363 A V\$PIMN 000074 A V\$PLCT
000305 A V\$PTVB 000361 A V\$SCTL 000352 A V\$SCV 000375 A V\$SLFG

000303 A V\$TB 000342 A V\$TBGT 000416 A V\$TFC 000314 A V\$TJCP
000344 A V\$TMN 000343 A V\$TMS 000304 A V\$UTB 002276 E V\$SLTT
000000 A WAIT 002043 R WRITE 000001 A WRITOP 000001 A X
000420 A ZERO
0 ERRORS ASSEMBLY COMPLETE

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1      EJEC                                02 00001
2 *   THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES 02 00002
3 *                                       02 00003
4 *   V.D.M. PART NO.          92L1105-039A 02 00004
5 *                                       02 00005
6 *                                       02 00006
7 *                                       02 00007
8 *                                       02 00008
9 *           C52FUN                                02 00009
10 *                                       02 00010
11 *                                       02 00011
12 *   TITLE C52FUN                                02 00012
13 *   NLIS                                02 00013
1289 *  LIST                                *****
1290 *                                       02 00014

1291      EJEC                                02 00015
1292 .....                                02 00016
1293 .....                                02 00017
1294 **   PROGRAM NAME -                        **02 00018
1295 **           C52FUN - 520X DCM QUEUED FUNCTION PROCEDURE **02 00019
1296 **                                       **02 00020
1297 **   ENTRY CONDITIONS -                    **02 00021
1298 **           (X) LSD ADDRESS                **02 00022
1299 **                                       **02 00023
1300 **   CALLING SEQUENCE -                    **02 00024
1301 **           JMPM C52FUN                    **02 00025
1302 **           (RETURN)                       **02 00026
1303 **                                       **02 00027
1304 **   EXIT CONDITIONS -                     **02 00028
1305 **           (A) DESTROYED                  **02 00029
1306 **           (B) DESTROYED                  **02 00030
1307 **           (X) UNCHANGED                  **02 00031
1308 **                                       **02 00032
1309 .....                                02 00033
1310 .....                                02 00034

1311      EJEC                                02 00035
1312      NAME C52FUN                            02 00036
000000 000000 A 1313 C52FUN ENTR                02 00037
000001 000001 A 1314 LSD SET X                  02 00038
1315 *                                       02 00039
1316 *   A QUEUED FUNCTION IS ALWAYS THE FIRST REQUEST ON THE THREAD 02 00040
1317 *                                       02 00041
000001 025001 A 1318 LDB LSRRT,LSD             02 00042
000002 000002 A 1319 RQST SET B                02 00043
000002 064631 A 1320 STB FURQST SAVE RQST ADDRESS 02 00044
1321 *                                       02 00045
1322 *   GET THE LCB ADDRESS FROM THE RQST AND SAVE 02 00046
1323 *                                       02 00047
000003 026002 A 1324 LDB RFCB,RQST            02 00048
000002 000002 A 1325 LCB SET B                 02 00049
000004 064630 A 1326 STB FULCB                02 00050
1327 *                                       02 00051
1328 *   GET FUNC CODE FROM LCB AND SAVE 02 00052
1329 *                                       02 00053
000005 016002 A 1330 LDA DCCNT,LCB             02 00054
000006 004350 A 1331 LSRA B                   02 00055
000007 054627 A 1332 STA FUFUNC                02 00056
1333 *                                       02 00057
1334 *   GET LINE CONTROL WORD ADDRESS 02 00058
1335 *                                       02 00059
1336 *   EXT CC$FCW                                02 00060
1337 *   PUSH CC$FCW                               02 00061

000010 100444 A
000011 100747 A
000012 002000 A
000013 000000 E
000014 000000 E
000015 064620 A 1338 STB FULCW SAVE LCW ADDRESS 02 00062
1339 *                                       02 00063
1340 *   GENERAL HOUSEKEEPING COMPLETED, CHECK IF INITIAL ENTRY OR 02 00064
1341 *   REENTRY DUE TO TIMEOUT OR INTERRUPT 02 00065
1342 *                                       02 00066
000016 025002 A 1343 LDB LSRCA,LSD           02 00067
000017 001020 A 1344 JNZ FU00 READ COMPLETION ADDR NON-ZERO, REENTRY. 02 00068
000020 000023 R
000021 006706 A 1345 IJMP 0,B JUMP TO CONTINUATION ADDRESS 02 00069
000022 000000 A

1346      EJEC                                02 00070
1347 *   INITIATION ENTRY                        02 00071
1348 *   VALIDATE FUNCTION CODE                  02 00072
1349 *                                       02 00073
000023 014613 A 1350 FU00 LDA FUFUNC           02 00074
000024 005012 A 1351 TAB                       02 00075
000025 144031 A 1352 SUB FUVECT SUBTRACT MAX FUNC CODE FROM THIS FUNC CODE 02 00076
000026 001002 A 1353 JAP FUZO FUNC CODE TOO HIGH, IGNORE 02 00077
000027 000570 R

1354 *                                       02 00078
1355 *   FUNC CODE IN RANGE, CHECK FOR EXCLUSIONS DUE TO MODE CONFLICTS 02 00079
1356 *                                       02 00080
1357 *   TESTF LSD,LSASY,LSASYB,LSASYZ 02 00081

000030 015014 A
000031 150434 A
000032 001010 A 1358 JAZ FU01 ASYNC LAD 02 00082
    
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000033 000042 R
000034 014602 A 1359 LDA FUFUNC SYNC LAD, 02 00083
000035 130466 A 1360 ERA SIX CHECK FOR TRANSMIT BREAKS FUNC CODE 02 00084
000036 001010 A 1361 JAZ FUZO CANT BREAK SYNC LINE, IGNORE FUNC RQST 02 00085
000037 000570 R
000040 001000 A 1362 JMP FU02 02 00086
000041 000047 R
000042 005122 A 1363 FU01 IBR ASYNC LAD, CHECK IF FUNC IS FOR SYNC ONLY 02 00087
000043 006016 A 1364 LDAE FUVECT,B 02 00088
000044 000057 R
000045 001004 A 1365 JAN FUZO IGNORE IF SYNC ONLY FUNC 02 00089
000046 000570 R
1366 * 02 00090
1367 * 02 00091
1368 * CALCULATE ORDINAL IN TRANSFER VECTOR TABLE AND JUMP TO FUNC 02 00092
1369 * PROCESSING ADDRESS 02 00093
000047 024567 A 1370 FU02 LDB FUFUNC 02 00094
000050 005122 A 1371 IBR 02 00095
000051 006016 A 1372 LDAE FUVECT,B 02 00096
000052 000057 R
000053 150460 A 1373 ANA BR15 02 00097
000054 005012 A 1374 TAB 02 00098
000055 006706 A 1375 IJMP 0,B 02 00099
000056 000000 A
1376 * TRANSFER VECTOR TABLE 02 00100
1377 * WORD 0 CONTAINS HIGHEST FUNC CODE ALLOWED 02 00101
1378 * WORDS 1 - N CONTAIN THE ADDRESS OF THE PROCESSING 02 00102
1379 * ROUTINE 02 00103
1380 * IF 2**15 IS SET, FUNC IS ALLOWED FOR SYNC LADS ONLY 02 00104
1381 * 02 00105
000057 000031 A 1382 FUVECT DATA FUCECE-FUVECT-1 02 00106
000060 000570 R 1383 DATA FUZO 0 INVALID 02 00107
000061 000570 R 1384 DATA FUZO 1 INVALID 02 00108
000062 000570 R 1385 DATA FUZO 2 INVALID 02 00109
000063 000125 R 1386 DATA FUA0 3 WAIT FOR EVENT 02 00110
000064 000167 R 1387 DATA FUB0 4 REVERSE CHANNEL ON 02 00111
000065 000203 R 1388 DATA FUC0 5 REVERSE CHANNEL OFF 02 00112
000066 000211 R 1389 DATA FUD0 6 XMIT BREAKS 02 00113
000067 000265 R 1390 DATA FUE0 7 CHANGE CONTROL CHARACTERS 02 00114
000070 000272 R 1391 DATA FUF0 8 ANSWER LINE 02 00115
000071 000300 R 1392 DATA FUG0 9 HANG UP LINE 02 00116
000072 100306 R 1393 DATA (FUH0)* 10 CHANGE SYNC CHARACTERS 02 00117
000073 000355 R 1394 DATA FUJ0 11 SET LSEPF 02 00118
000074 000362 R 1395 DATA FUJ0 12 CLEAR LSEPF 02 00119
000075 000367 R 1396 DATA FUK0 13 SET LSDSF 02 00120
000076 000374 R 1397 DATA FUL0 14 CLEAR LSDSF 02 00121
000077 000401 R 1398 DATA FUM0 15 SET LSTER 02 00122
000100 000406 R 1399 DATA FUN0 16 CLEAR LSTER 02 00123
000101 100413 R 1400 DATA (FU00)* 17 SET LSYNC 02 00124
000102 100420 R 1401 DATA (FUP0)* 18 CLEAR LSYNC 02 00125
000103 000425 R 1402 DATA FUQ0 19 SET LSABN 02 00126
000104 000432 R 1403 DATA FUR0 20 CLEAR LSABN 02 00127
000105 000570 R 1404 DATA FUZO 21 INVALID 02 00128
000106 000437 R 1405 DATA FUS0 22 SET LSASC 02 00129
000107 000444 R 1406 DATA FUT0 23 CLEAR LSASC 02 00130
000110 000451 R 1407 DATA FUU0 24 INITIALIZE LINE 02 00131
000111 R 1408 FUCECE EQU * 02 00132
1409
000111 000000 A 1410 FU10 EJEC 02 00133
000112 006017 A 1411 LDAE FU10 WAIT FOR READ INTERRUPT OR TIMEOUT 02 00134
000113 000111 R
000114 055002 A 1412 STA LSRCA,LSD *****
000115 001000 A 1413 JMP* C52FUN 02 00137
000116 100000 R
000117 000000 A 1414 FU11 ENTR WAIT FOR WRITE INTERRUPT OR TIMEOUT 02 00138
000120 006017 A 1415 LDAE FU11 02 00139
000121 000117 R
000122 055006 A 1416 STA LSWCA,LSD *****
000123 001000 A 1417 JMP* C52FUN 02 00141
000124 100000 R
1418 * PROCESS WAIT FOR EVENT 02 00142
1419 * FUNC CODE 03 02 00143
1420 * 02 00144
1421 FUA0 DINTS DISABLE INTERRUPTS 02 00145
000125 100444 A
000126 100747 A
1422
000127 002000 A 1423 EXT VTPUSH,C52SST BUILD CCM STATUS WORD 02 00146
JMPH VTPUSH 02 00147
000130 000013 E
000131 000000 E 1424 DATA C52SST 02 00148
000132 065013 A 1425 STB LSDST,LSD SAVE STATUS WORD IN DYNAMIC AND STATIC *****
000133 065005 A 1426 STB LSSRS,LSD WORDS IN LSD *****
000134 024500 A 1427 LDB FULCB 02 00151
000002 A 1428 LCB SET B STORE WORD 3 OF LCB (EVENT MASK) IN 02 00152
000135 016003 A 1429 LDA 3,LCB READ EVENT MASK IN LSD 02 00153
000136 055003 A 1430 STA LSREM,LSD 02 00154
000137 006010 A 1431 FUA1 LDAI 50 SET TIMEOUT TO 250 MS 02 00155
000140 000062 A
000141 055004 A 1432 STA LSRT0,LSD 02 00156
000142 002000 A 1433 JMPH FU10 WAIT FOR TIMEOUT OR INTERRUPT ON READ 02 00157
000143 000111 R
1434 * 02 00158
1435 * RETURN AFTER EVENT OR TIMEOUT 02 00159
1436 * 02 00160
1437 TESTF LSD,LSRRS,LSRRSB+1,1 02 00161
000144 015016 A
000145 150432 A

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000146	001016	A	1438	JANZ	FUA2	CHECK IF IO CLEAR	02 00162
000147	000163	R					
			1439	EXT	C52SST		*****
			1440	PUSH	C52SST	GET LATEST STATUS FROM LAD	*****
000150	100444	A					
000151	100747	A					
000152	002000	A					
000153	000130	E					
000154	000131	E					
000155	005021	A	1441	TBA			*****
000156	055013	A	1442	STA	LSDST,LSD	SAVE UPDATED STATUS	*****
000157	135005	A	1443	ERA	LSSRS,LSD	CHECK IF EVENT HAS OCCURED	*****
000160	155003	A	1444	ANA	LSREM,LSD		02 00165
000161	001010	A	1445	JAZ	FUA1	NO EVENTS, GO BACK TO TIMEOUT	02 00166
000162	000137	R					
			1446 *				02 00167
			1447 *				02 00168
			1448 *				02 00169
000163	005001	A	1449	FUA2	TZA	ZERO READ COMPLETION ADDRESS	02 00170
000164	055002	A	1450	STA	LSRCA,LSD	AND	02 00171
000165	001000	A	1451	JMP	FUZI	EXIT	02 00172
000166	000600	R					
			1452	EJEC			02 00173
			1453 *				02 00174
			1454 *				02 00175
			1455 *				02 00176
000167	024446	A	1456	FUB0	LDB	FULCW	SET 'C' BIT IN PCW
	000002	A	1457	LCW	SET	B	
			1458	SETF	LCW,LCCWC,LCCWCB,LCCWCZ		02 00177
000170	016006	A					02 00178
000171	110436	A					02 00179
000172	056006	A					
			1459 *				02 00180
			1460 *				02 00181
			1461 *				02 00182
000173	005021	A	1462	FUB1	TBA		02 00183
			1463	ADAT	LCLCB	CALCULATE ADDRESS OF PCW	02 00184
000174	120466	A					
000175	054002	A	1464	STA	FUB2		02 00185
			1465	EXT	C52RCW		02 00186
000176	006506	A	1466	JSR	C52RCW,B	WRITE CONTROL SEQUENCE	02 00187
000177	000000	E					
000200	000000	A	1467	FUB2	DATA	0	02 00188
000201	001000	A	1468	JMP	FUZO		02 00189
000202	000570	R					
			1469	EJEC			02 00190
			1470 *				02 00191
			1471 *				02 00192
			1472 *				02 00193
000203	024432	A	1473	FUC0	LDB	FULCW	CLEAR 'C' BIT IN PCW
	000002	A	1474	LCW	SET	B	
			1475	CLEARF	LCW,LCCWC,LCCWCB,LCCWCZ		02 00194
000204	016006	A					02 00195
000205	150456	A					02 00196
000206	056006	A					
000207	001000	A	1476	JMP	FUB1		02 00197
000210	000173	R					
			1477	EJEC			02 00198
			1478 *				02 00199
			1479 *				02 00200
			1480 *				02 00201
000211	024422	A	1481	FUD0	LDB	FURQST	
			1482	EXT	CC\$SCH		02 00202
000212	002000	A	1483	JMPM	CC\$SCH	BUILD LINE CONTROL WORDS	02 00203
000213	000000	E					02 00204
000214	024421	A	1484	LCW	LDB	FULCW	
	000002	A	1485	LCW	SET	B	SET 'B' AND 'T' IN PCW. CLEAR 'I'.
000215	016006	A	1486	LDA	LCLCB,LCW		02 00205
000216	006110	A	1487	ORAI	010400		02 00206
000217	010400	A					02 00207
000220	006150	A	1488	ANA1	0137777		02 00208
000221	137777	A					02 00209
000222	056006	A	1489	STA	LCLCB,LCW		02 00210
			1490	SETF	LCW,LCLTB,LCLTBB,LCLTBZ		02 00211
000223	016007	A					
000224	110440	A					
000225	056007	A					
000226	005001	A	1491	TZA			02 00212
			1492	SETA	LSD,LSWRS,LSWRSB,LSWRSZ		02 00213
000227	004253	A					
000230	135016	A					
000231	004353	A					
000232	150467	A					
000233	004253	A					
000234	135016	A					
000235	055016	A					
			1493 *				02 00214
000236	024377	A	1494	LDB	FULCW	INITIATE CONTROL WRITE SEQUENCE	02 00215
			1495	ADAT	LCLCB		02 00216
000237	120466	A					
000240	054002	A	1496	STA	FUD1		02 00217
000241	006506	A	1497	JSR	C52RCW,B		02 00218
000242	000177	E					
000243	000000	A	1498	FUD1	DATA	0	02 00219
			1499 *				02 00220

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000244 025012 A 1500 FUD2	LDB	LSCTA, LSD	02	00221
000002 A 1501 DMT	SET	B	02	00222
000245 016024 A 1502	LOA	DMCWA, DMT	02	00223
000246 001016 A 1503	JANZ	FUD2	02	00224
		LOOP UNTIL CONTROL NOT BUSY		
000247 000244 R				
000250 024365 A 1504	LDB	FULCW	02	00225
000002 A 1505 LCW	SET	B	02	00226
000251 001016 A 1506	JANZ	FUD2	02	00227
000252 000244 R				
			02	00228
			02	00229
			02	00230
000253 016006 A 1510	LDA	LCLCB, LCW	02	00231
000254 006150 A 1511	ANAI	0167377	02	00232
000255 167377 A				
000256 056006 A 1512	STA	LCLCB, LCW	02	00233
000257 002000 A 1513	JMPM	FUI0	02	00234
		WAIT FOR INTERRUPT		
000260 000111 R				
			02	00235
			02	00236
			02	00237
000261 005001 A 1517	TZA		02	00238
000262 055002 A 1518	STA	LSRCA, LSD	02	00239
000263 001000 A 1519	JMP	FUZO	02	00240
000264 000570 R				
			02	00241
			02	00242
			02	00243
			02	00244
000265 024347 A 1524 FUE0	LDB	FULCB	02	00245
000002 A 1525 LCB	SET	B	02	00246
000266 016003 A 1526	LDA	3, LCB	02	00247
000267 055015 A 1527	STA	LSCC1, LSD	02	00248
000270 001000 A 1528	JMP	FUZO	02	00249
000271 000570 R				
			02	00250
			02	00251
			02	00252
			02	00253
000272 024343 A 1533 FUF0	LDB	FULCW	02	00254
000002 A 1534 LCW	SET	B	02	00255
	SETF	LCW, LCCWD, LCCWDB, LCCWDZ	02	00256
		SET DTR BIT IN PCW		
000273 016006 A				
000274 110434 A				
000275 056006 A				
000276 001000 A 1536	JMP	FUB1	02	00257
000277 000173 R				
			02	00258
			02	00259
			02	00260
			02	00261
000300 024335 A 1541 FUG0	LDB	FULCW	02	00262
000002 A 1542 LCW	SET	B	02	00263
	CLEARF	LCW, LCCWD, LCCWDB, LCCWDZ	02	00264
		CLEAR DTR BIT IN PCW		
000301 016006 A				
000302 150454 A				
000303 056006 A				
000304 001000 A 1544	JMP	FUB1	02	00265
000305 000173 R				
			02	00266
			02	00267
			02	00268
			02	00269
000306 024327 A 1549 FUHO	LDB	FULCW	02	00270
000002 A 1550 FCW	SET	B	02	00271
	FETCHA	FCW, LCLCB, 0, 8	02	00272
000307 016006 A				
000310 150474 A				
000311 110430 A 1552	ORA	BS7	02	00273
000312 054040 A 1553	STA	FUHTS	02	00274
000313 110427 A 1554	ORA	BS6	02	00275
000314 054037 A 1555	STA	FUHRS	02	00276
			02	00277
			02	00278
			02	00279
000315 024317 A 1559	LDB	FULCB	02	00280
000002 A 1560 LCB	SET	B	02	00281
000316 016003 A 1561	LDA	3, B	02	00282
000317 150462 A 1562	ANA	LHW	02	00283
000320 114032 A 1563	ORA	FUHTS	02	00284
000321 054031 A 1564	STA	FUHTS	02	00285
000322 016003 A 1565	LDA	3, B	02	00286
000323 004250 A 1566	LRLA	B	02	00287
000324 150462 A 1567	ANA	LHW	02	00288
000325 114026 A 1568	ORA	FUHRS	02	00289
000326 054025 A 1569	STA	FUHRS	02	00290
			02	00291
			02	00292
			02	00293
000327 014024 A 1573	LDA	FUHRS	02	00294
000330 004350 A 1574	LSRA	B	02	00295
	SETA	LSD, LSYNR, LSYNRB, LSYNRZ	02	00296
000331 135020 A				
000332 150463 A				

000333	135020	A							
000334	055020	A							
				1576 *				02	00297
000335	014015	A		1577	LDA	FUHTS	STORE XMIT SYNC	02	00298
000336	004350	A		1578	LSRA	B		02	00299
				1579	SETA	LSD,LSYNT,LSYNTB,LSYNTZ		02	00300
000337	135017	A							
000340	150463	A							
000341	135017	A							
000342	055017	A							
				1580 *				02	00301
				1581 *			OUTPUT CONTROL WORDS	02	00302
				1582 *				02	00303
000343	006506	A		1583	JSR	C52RCW,B	XMIT	02	00304
000344	000242	E							
000345	000353	R		1584	DATA	FUHTS		02	00305
				1585 *				02	00306
000346	006506	A		1586	JSR	C52RCW,B	RCV	02	00307
000347	000344	E							
000350	000354	R		1587	DATA	FUHRS		02	00308
				1588 *				02	00309
000351	001000	A		1589	JMP	FUZO		02	00310
000352	000570	R							
				1590 *				02	00311
				1591 *				02	00312
000353	000000	A		1592	FUHTS	DATA	0	02	00313
000354	000000	A		1593	FUHRS	DATA	0	02	00314
				1594	EJEC			02	00315
				1595 *		SET	LSEPF (E/P BIT) IN LSD	02	00316
				1596 *				02	00317
				1597 *				02	00318
				1598	FUI0	SETF	LSD,LSEPF,LSEPFB,LSEPFZ	02	00319
000355	015016	A							
000356	110437	A							
000357	055016	A							
000360	001000	A		1599	JMP	FUZO		02	00320
000361	000570	R							
				1600	EJEC			02	00321
				1601 *		CLEAR	LSEPF IN LSD	02	00322
				1602 *				02	00323
				1603 *				02	00324
				1604	FUJ0	CLEARF	LSD,LSEPF,LSEPFB,LSEPFZ	02	00325
000362	015016	A							
000363	150457	A							
000364	055016	A							
000365	001000	A		1605	JMP	FUZO		02	00326
000366	000570	R							
				1606	EJEC			02	00327
				1607 *		SET	LSDSF (DS/S BIT) IN LSD	02	00328
				1608 *				02	00329
				1609 *				02	00330
				1610	FUK0	SETF	LSD,LSDSF,LSDSFB,LSDSFZ	02	00331
000367	015017	A							
000370	110440	A							
000371	055017	A							
000372	001000	A		1611	JMP	FUZO		02	00332
000373	000570	R							
				1612	EJEC			02	00333
				1613 *		CLEAR	LSDSF	02	00334
				1614 *				02	00335
				1615 *				02	00336
				1616	FUL0	CLEARF	LSD,LSDSF,LSDSFB,LSDSFZ	02	00337
000374	015017	A							
000375	150460	A							
000376	055017	A							
000377	001000	A		1617	JMP	FUZO		02	00338
000400	000570	R							
				1618	EJEC			02	00339
				1619 *		SET	LSTER (TERMINATE READ UPON RECEIPT OF CONTROL CHARACTERS)	02	00340
				1620 *				02	00341
				1621 *				02	00342
				1622	FUM0	SETF	LSD,LSTER,LSTERB,LSTERZ	02	00343
000401	015016	A							
000402	110440	A							
000403	055016	A							
000404	001000	A		1623	JMP	FUZO		02	00344
000405	000570	R							
				1624	EJEC			02	00345
				1625 *		CLEAR	LSTER	02	00346
				1626 *				02	00347
				1627 *				02	00348
				1628	FUN0	CLEARF	LSD,LSTER,LSTERB,LSTERZ	02	00349
000406	015016	A							
000407	150460	A							
000410	055016	A							
000411	001000	A		1629	JMP	FUZO		02	00350
000412	000570	R							
				1630	EJEC			02	00351
				1631 *		SET	LSYNC (CAUSES RESYNCHRONIZATION FOR EACH READ)	02	00352
				1632 *				02	00353
				1633 *				02	00354

	1634	FU00	SETF	LSD,LSYNC,LSYNCB,LSYNCZ		02 00355
000413	015017	A				
000414	110437	A				
000415	055017	A				
000416	001000	A	1635	JMP	FUZO	02 00356
000417	000570	R				
	1636		EJEC			02 00357
	1637	*	CLEAR	LSYNC		02 00358
	1638	*				02 00359
	1639	*				02 00360
	1640	FUP0	CLEARF	LSD,LSYNC,LSYNCB,LSYNCZ		02 00361
000420	015017	A				
000421	150457	A				
000422	055017	A				
000423	001000	A	1641	JMP	FUZO	02 00362
000424	000570	R				
	1642		EJEC			02 00363
	1643	*	SET	LSABN (TERMINATE READ UPON DETECTION OF ERROR) IN LSD		02 00364
	1644	*				02 00365
	1645	*				02 00366
	1646	FUQ0	SETF	LSD,LSABN,LSABNB,LSABNZ		02 00367
000425	015017	A				
000426	110436	A				
000427	055017	A				
000430	001000	A	1647	JMP	FUZO	02 00368
000431	000570	R				
	1648		EJEC			02 00369
	1649	*	CLEAR	LSABN		02 00370
	1650	*				02 00371
	1651	*				02 00372
	1652	FUR0	CLEARF	LSD,LSABN,LSABNB,LSABNZ		02 00373
000432	015017	A				
000433	150456	A				
000434	055017	A				
000435	001000	A	1653	JMP	FUZO	02 00374
000436	000570	R				
	1654		EJEC			02 00375
	1655	*	SET	LSASC (FORCES 2**7 = 1 FOR EACH BYTE INPUT) IN LSD		02 00376
	1656	*				02 00377
	1657	*				02 00378
	1658	FUS0	SETF	LSD,LSASC,LSASCB,LSASCZ		02 00379
000437	015017	A				
000440	110432	A				
000441	055017	A				
000442	001000	A	1659	JMP	FUZO	02 00380
000443	000570	R				
	1660		EJEC			02 00381
	1661	*	CLEAR	LSASC		02 00382
	1662	*				02 00383
	1663	*				02 00384
	1664	FUT0	CLEARF	LSD,LSASC,LSASCB,LSASCZ		02 00385
000444	015017	A				
000445	150452	A				
000446	055017	A				
000447	001000	A	1665	JMP	FUZO	02 00386
000450	000570	R				
	1666		EJEC			02 00387
	1667	*	INITIALIZE	LINE ADAPTOR AND LCH		02 00388
	1668	*				02 00389
	1669	*				02 00390
	1670	FUU0	FETCHA	LSD,LSPLA,LSPLAB,LSPLAZ		02 00391
000451	015016	A				
000452	150463	A				
000453	110427	A	1671	ORA	BS6 BUILD CW WITH A ZERO CONTROL BYTE	02 00392
000454	054112	A	1672	STA	FUUCH	02 00393
	1673	*				02 00394
	1674	*	PERFORM	WRITE CONTROL SEQUENCE TO CLEAR ALL CONTROL OPTIONS		02 00395
	1675	*				02 00396
000455	006506	A	1676	JSR	C52RCW,B	02 00397
000456	000347	E				
000457	000567	R	1677	DATA	FUUCH	02 00398
	1678	*				02 00399
	1679	*	BUILD	LCH FROM LSD INFO		02 00400
	1680	*				02 00401
	1681	*	WORD	ZERO		02 00402
	1682	*				02 00403
000460	024105	A	1683	LDB	FUULCH	02 00404
	1684		TESTF	LSD,LSASC,LSASCB,LSASCZ		02 00405
000461	015017	A				
000462	150432	A				
000463	001010	A	1685	JAZ	FUU1	02 00406
000464	000466	R				
000465	010437	A	1686	LDA	BS14	02 00407
000466	005031	A	1687	FUU1	MERGE 031 (A) .OR. (B) REPLACE (A)	02 00408
000467	024146	A	1688	LDB	FULCH	02 00409
	000002	A	1689	SET	B	02 00410
000470	056000	A	1690	STA	LCIBL,LCH	02 00411
	1691	*				02 00412
	1692	*	WORD	1		02 00413
	1693	*				02 00414
000471	005001	A	1694	TZA		02 00415
000472	056001	A	1695	STA	LCIBA,LCH	02 00416
	1696	*				02 00417

	1697 *	WORD 2		02 00418
	1698 *			02 00419
000473	015015 A 1699	LDA LSCC1, LSD		02 00420
000474	056002 A 1700	STA LCIC1, LCW		02 00421
	1701 *			02 00422
	1702 *	WORD 3		02 00423
	1703 *			02 00424
000475	005002 A 1704	TZB		02 00425
	1705	TESTF LSD, LSTER, LSTERB, LSTERZ		02 00426
000476	015016 A			
000477	150440 A			
000500	001010 A 1706	JAZ FUU2		02 00427
000501	000504 R			
000502	010440 A 1707	LDA BS15		02 00428
000503	005032 A 1708	MERGE 032 (A) .OR. (B) REPLACE (B)		02 00429
	1709 FUU2	FETCHA LSD, LSCRC, LSCRCB, LSCRCZ		02 00430
000504	015017 A			
000505	004352 A			
000506	150467 A			
000507	004254 A 1710	LRLA LCCRCB		02 00431
000510	005032 A 1711	MERGE 032		02 00432
	1712 *	IF LSABN SET, SET LCABN		02 00433
	1713	TESTF LSD, LSABN, LSABNB, LSABNZ		02 00434
000511	015017 A			
000512	150436 A			
000513	001010 A 1714	JAZ FUU3		02 00435
000514	000516 R			
000515	010434 A 1715	LDA BS11		02 00436
000516	005032 A 1716 FUU3	MERGE 032		02 00437
	1717 *	MOVE LSASY TO LCASY		02 00438
	1718	TESTF LSD, LSASY, LSASYB, LSASYZ		02 00439
000517	015014 A			
000520	150434 A			
000521	001010 A 1719	JAZ FUU3A		02 00440
000522	000524 R			
000523	010433 A 1720	LDA BS10		02 00441
000524	005031 A 1721 FUU3A	MERGE 031		02 00442
	1722 *	STORE WORD 3		02 00443
000525	024110 A 1723	LDB FULCH		02 00444
	000002 A 1724 LCW	SET B		02 00445
000526	056003 A 1725	STA LCIKE, LCW		02 00446
	1726 *			02 00447
	1727 *	WORD 4		02 00448
	1728 *			02 00449
000527	014036 A 1729	LDA FUULCH		02 00450
000530	056004 A 1730	STA LCOBF, LCW		02 00451
	1731 *			02 00452
	1732 *	WORD 5		02 00453
	1733 *			02 00454
000531	005001 A 1734	TZA		02 00455
000532	056005 A 1735	STA LCOBA, LCW		02 00456
	1736 *			02 00457
	1737 *	WORD 6		02 00458
	1738 *			02 00459
000533	024033 A 1739	LDB FUUCW IF LSDSF SET, SET LCCWS		02 00460
	1740	TESTF LSD, LSDSF, LSDSFB, LSDSFZ		02 00461
000534	015017 A			
000535	150440 A			
000536	001010 A 1741	JAZ FUU4		02 00462
000537	000542 R			
000540	010440 A 1742	LDA BS15		02 00463
000541	005032 A 1743	MERGE 032		02 00464
	1744 *	IF ASYNC LINE ADAPTOR, IGNORE LSEPF		02 00465
	1745 FUU4	TESTF LSD, LSASY, LSASYB, LSASYZ		02 00466
000542	015014 A			
000543	150434 A			
000544	001010 A 1746	JAZ FUU5		02 00467
000545	000553 R			
	1747 *	SYNCHRONOUS LINE ADAPTOR, CHECK LSEPF		02 00468
	1748	TESTF LSD, LSEPF, LSEPFB, LSEPFZ		02 00469
000546	015016 A			
000547	150437 A			
000550	001010 A 1749	JAZ FUU5		02 00470
000551	000553 R			
000552	010433 A 1750	LDA BS10		02 00471
000553	005031 A 1751 FUU5	MERGE 031		02 00472
000554	024061 A 1752	LDB FULCH		02 00473
	000002 A 1753 LCW	SET B		02 00474
000555	056006 A 1754	STA LCLCB, LCW		02 00475
	1755 *			02 00476
	1756 *	WORD 7		02 00477
	1757 *			02 00478
000556	005001 A 1758	TZA		02 00479
000557	056007 A 1759	STA LCOKE, LCW		02 00480
	1760 *			02 00481
	1761 *	IF SYNC LINE OUTPUT TRANSMIT AND RECEIVE SYNC BYTES		02 00482
	1762 *			02 00483
	1763	TESTF LSD, LSASY, LSASYB, LSASYZ		02 00484
000560	015014 A			
000561	150434 A			
000562	001010 A 1764	JAZ FUZ0		02 00485
000563	000570 R			
000564	001000 A 1765	JMP FUH0		02 00486
000565	000306 R			
	1766 *			02 00487
	1767 *	CONSTANTS		02 00488

```

000566 107777 A 1768 *
000567 000000 A 1769 FUULCW DATA 0107777
000567 000000 A 1770 FUUCH DATA 0
1771 * EJEC
1772 * WRAP-UP PROCESSING
1773 * NO DST RETURNED
000570 024043 A 1774 FUZO LDB FURQST
000571 005001 A 1775 TZA SET REQUEST STATUS TO NO ERRORS
000572 100444 A 1776 DINTS
000573 100747 A
1777 EXT CC$ORQ
000574 002000 A 1778 JMPM CC$ORQ
000575 000000 E
000576 001000 A 1779 JMP FUZ3
000577 000617 R
1780 *
1781 * DST RETURNED
1782 *
000600 015013 A 1783 FUZ1 FETCHA LSD, LSDST, LSDSTB, LSDSTZ
000601 005012 A 1784 TAB
000601 005012 A 1785 FETCHA LSD, LSRRS, LSRRSB, LSRRSZ
000602 015016 A
000603 004350 A
000604 150467 A
000605 150422 A 1786 ANA BS1 CHECK IF IO CLEAR
000606 001010 A 1787 JAZ FUZ2
000607 000611 R
000610 010430 A 1788 LDA BS7 SET IO CLEAR BIT IN STATUS
000611 005031 A 1789 FUZ2 MERGE 031
000612 024021 A 1790 LDB FURQST SET (B) TO REQUEST ADDRESS
000612 024021 A 1791 EXT CC$CRQ
000612 024021 A 1792 DINTS
000613 100444 A
000614 100747 A
000615 002000 A 1793 JMPM CC$CRQ COMPLETE THE REQUEST
000616 000000 E 1794 FUZ3 EINTS
000617 100244 A
000620 100147 A
000621 005001 A 1795 TZA ZERO READ COMPLETION ADDRESS
000622 055002 A 1796 STA LSRCA, LSD AND READ REQUEST STATUS
000622 055002 A 1797 SETA LSD, LSRRS, LSRRSB, LSRRSZ
000623 004250 A
000624 135016 A
000625 004350 A
000626 150467 A
000627 004250 A
000630 135016 A
000631 055016 A
000632 001000 A 1798 JMP* C52FUN
000633 100000 R
1799 * EJEC
1800 * CONSTANTS AND TEMPORARY STORAGE
1801 *
1802 *
000634 000000 A 1803 FURQST DATA 0
000635 000000 A 1804 FULCB DATA 0
000636 000000 A 1805 FULCW DATA 0
000637 000000 A 1806 FUFUNC DATA 0
000637 000000 A 1807 END

```

ENTRY NAMES

000000 R C52FUN

EXTERNAL NAMES

000456 E C52RCW 000154 E C52SST 000616 E CC\$CRQ 000014 E CC\$FCW

000575 E CC\$ORQ 000213 E CC\$SCH 000153 E VTPUSH

SYMBOLS

```

000044 A APIM 000002 A B 000000 A B0 000001 A B1
000012 A B10 000013 A B11 000014 A B12 000015 A B13
000016 A B14 000017 A B15 000002 A B2 000003 A B3
000004 A B4 000005 A B5 000006 A B6 000007 A B7
000010 A B8 000011 A B9 000000 A BICNUM 000421 A BM1
000472 A BM17 000475 A BM177 000477 A BM1777 000464 A BM3
000473 A BM37 000463 A BM377 000467 A BM7 000474 A BM77
000476 A BM777 000441 A BR0 000442 A BR1 000453 A BR10
000454 A BR11 000455 A BR12 000456 A BR13 000457 A BR14
000460 A BR15 000443 A BR2 000444 A BR3 000445 A BR4
000446 A BR5 000447 A BR6 000450 A BR7 000451 A BR8
000452 A BR9 000421 A BS0 000422 A BS1 000433 A BS10
000434 A BS11 000435 A BS12 000436 A BS13 000437 A BS14
000440 A BS15 000423 A BS2 000424 A BS3 000425 A BS4
000426 A BS5 000427 A BS6 000430 A BS7 000431 A BS8
000432 A BS9 000000 R C52FUN 000456 E C52RCW 000154 E C52SST
000616 E CC$CRQ 000014 E CC$FCW 000575 E CC$ORQ 000213 E CC$SCH
000047 A CLOCK 000000 A COTAD1 000000 A CTACTION 000017 A CTACTION
000001 A CTACTION 000001 A CTACTION 000000 A CTACTION 000020 A CTACTION
000011 A CTBIC 000000 A CTBICB 000020 A CTBICZ 000003 A CTDST
000000 A CTDSTB 000020 A CTDSTZ 000006 A CTDVA 000000 A CTDVAB
000020 A CTDVAZ 000012 A CTFB 000000 A CTFB 000020 A CTFB 000020 A CTFB
000014 A CTFRC 000010 A CTFRCB 000010 A CTFRCZ 000014 A CTFRE
000000 A CTFREB 000010 A CTFREZ 000000 A CTIOB 000000 A CTIOB
000017 A CTIOBZ 000007 A CTIOA 000000 A CTIOAB 000020 A CTIOAZ
000002 A CTOPM 000000 A CTOPMB 000020 A CTOPMZ 000005 A CTRCN
000000 A CTRCNB 000010 A CTRCNZ 000004 A CTRQB 000000 A CTRQBB

```

000020 A CTRQBZ 000005 A CTRTR 000010 A CTRTRB 000010 A CTRTRZ
 000010 A CTSTA 000000 A CTSTAB 000020 A CTSTAZ 000013 A CTWDS
 000000 A CTWDSB 000020 A CTWDSZ 000001 A DCBUFF 000002 A DCCNT
 000000 A DCRECL 000747 A DISCLK 000745 A DISMP 000444 A DISPIM
 000024 A DMCWA 000000 A DMCWAB 000020 A DMCWAZ 000017 A DMFPA
 000000 A DMFPAB 000020 A DMFPAZ 000021 A DMLCA 000000 A DMLCAB
 000020 A DMLCAZ 000022 A DMLTA 000000 A DMLTAB 000020 A DMLTAZ
 000023 A DMPTA 000000 A DMPTAB 000020 A DMPTAZ 000016 A DMRPA
 000000 A DMRPAB 000020 A DMRPAZ 000020 A DMSTA 000000 A DMSTAB
 000020 A DMSTAZ 000025 A DMSWA 000000 A DMSWAB 000020 A DMSHAZ
 000002 A DMT 000015 A DMTPA 000000 A DMTPAB 000020 A DMTPAZ
 000002 A DSCTAD 000000 A DSDASS 000000 A DSDVDN 000002 A DSLCKO
 000001 A DSNAME 000000 A DSNORQ 000002 A DSOPCM 000002 A DSPSTI
 000002 A DSREWD 000000 A DSUNAM 000002 A DSUNTN 000424 A EIGHT
 000147 A ENACLK 000645 A ENAMP 000244 A ENAPIM 000002 A FCW
 000465 A FIVE 000423 A FOUR 000023 R FU00 000042 R FU01
 000047 R FU02 000111 R FU10 000117 R FU11 000125 R FUA0
 000137 R FUA1 000163 R FUA2 000167 R FUB0 000173 R FUB1
 000200 R FUB2 000203 R FUC0 000211 R FUD0 000243 R FUD1
 000244 R FUD2 000265 R FUE0 000272 R FUFO 000637 R FUFUNC
 000300 R FUG0 000306 R FUH0 000354 R FUHRS 000353 R FUHTS
 000355 R FU10 000362 R FUJ0 000367 R FUK0 000374 R FUL0
 000635 R FULCB 000636 R FULCW 000401 R FUM0 000406 R FUN0
 000413 R FU00 000420 R FUP0 000425 R FUQ0 000432 R FUR0
 000634 R FURQST 000437 R FUS0 000444 R FUT0 000451 R FUU0
 000466 R FUU1 000504 R FUU2 000516 R FUU3 000524 R FUU3A
 000542 R FUU4 000553 R FUU5 000567 R FUUCW 000566 R FUULCW
 000111 R FUVECE 000057 R FUVECT 000570 R FUZ0 000600 R FUZ1
 000611 R FUZ2 000617 R FUZ3 000300 A LC 000003 A LCABN
 000013 A LCABNB 000001 A LCABNZ 000003 A LCASY 000012 A LCASYB
 000001 A LCASYZ 000002 A LCB 000003 A LCCRC 000014 A LCCRCB
 000003 A LCCRCZ 000006 A LCCWB 000014 A LCCWBB 000001 A LCCWBZ
 000006 A LCCWC 000015 A LCCWCB 000001 A LCCWCZ 000006 A LCCWD
 000013 A LCCWDB 000001 A LCCWDZ 000006 A LCCWI 000016 A LCCWIB
 000001 A LCCWIZ 000006 A LCCWP 000012 A LCCWPB 000001 A LCCWPZ
 000006 A LCCWR 000011 A LCCWRB 000001 A LCCWRZ 000006 A LCCWS
 000017 A LCCWSB 000001 A LCCWSZ 000006 A LCCWT 000010 A LCCWTB
 000001 A LCCWTZ 000001 A LCIBA 000000 A LCIBAB 000017 A LCIBAZ
 000000 A LCIBF 000017 A LCIBFB 000001 A LCIBFZ 000000 A LCIBL
 000000 A LCIBLB 000014 A LCIBLZ 000002 A LCIC1 000010 A LCIC1B
 000010 A LCIC1Z 000002 A LCIC2 000000 A LCIC2B 000010 A LCIC2Z
 000003 A LCIKE 000000 A LCIKEB 000004 A LCIKEZ 000050 A LCJP

000006 A LCLCB 000000 A LCLCBB 000020 A LCLCBZ 000007 A LCLTB
 000017 A LCLTBB 000001 A LCLTBZ 000005 A LCOBA 000000 A LCOBAB
 000017 A LCOBAZ 000004 A LCOBF 000017 A LCOBFB 000001 A LCOBFZ
 000004 A LCOBL 000000 A LCOBLB 000014 A LCOBLZ 000007 A LCOKE
 000000 A LCOKEB 000004 A LCOKEZ 000003 A LCRCC 000017 A LCRCCB
 000001 A LCRCCZ 000000 A LCSMB 000016 A LCSMBB 000001 A LCSMBZ
 000002 A LCW 000462 A LHW 000017 A LSABN 000015 A LSABNB
 000001 A LSABNZ 000017 A LSASC 000011 A LSASCB 000001 A LSASCZ
 000014 A LSASY 000013 A LSASYB 000001 A LSASYZ 000015 A LSCC1
 000010 A LSCC1B 000010 A LSCC1Z 000015 A LSCC2 000000 A LSCC2B
 000010 A LSCC2Z 000017 A LSCRC 000012 A LSCRCB 000003 A LSCRCZ
 000012 A LSCTA 000000 A LSCTAB 000020 A LSCTAZ 000001 A LSD
 000017 A LSDSF 000017 A LSDSFB 000001 A LSDSFZ 000013 A LSDST
 000000 A LSDSTB 000020 A LSDSTZ 000016 A LSEPF 000016 A LSEPFB
 000001 A LSEPFZ 000014 A LSLSP 000000 A LSLSPB 000011 A LSLSPZ
 000014 A LSMOD 000016 A LSMODB 000002 A LSMODZ 000020 A LSNT0
 000010 A LSNT0B 000006 A LSNT0Z 000014 A LSPAR 000014 A LSPARB
 000002 A LSPARZ 000016 A LSPLA 000000 A LSPLAB 000010 A LSPLAZ
 000002 A LSRC 000000 A LSRCAB 000020 A LSRCAZ 000003 A LSREM
 000000 A LSREMB 000020 A LSREMB 000016 A LSRRS 000010 A LSRRSB
 000003 A LSRRSZ 000001 A LSRRT 000000 A LSRRTB 000020 A LSRRTZ
 000004 A LSRT0 000000 A LSRT0B 000020 A LSRT0Z 000005 A LSSRS
 000000 A LSSRSB 000020 A LSSRSZ 000011 A LSSWS 000000 A LSSWSB
 000020 A LSSWSZ 000016 A LSTER 000017 A LSTERZ 000001 A LSTERZ
 000000 A LSTHD 000000 A LSTHDB 000020 A LSTHDZ 000006 A LSWCA
 000000 A LSWCAB 000020 A LSWCAZ 000007 A LSWEM 000000 A LSWEMB
 000020 A LSWEMZ 000016 A LSWRS 000013 A LSWRSB 000003 A LSWRSZ
 000010 A LSWTO 000000 A LSWTOB 000020 A LSWTOZ 000014 A LSXMM
 000011 A LSXMMB 000002 A LSXMMZ 000017 A LSYNC 000016 A LSYNCB
 000001 A LSYNCZ 000020 A LSYNR 000000 A LSYNRB 000010 A LSYNRZ
 000017 A LSYNT 000000 A LSYNTB 000010 A LSYNTZ 000045 A MP
 000045 A MPMR0 000145 A MPMR1 000245 A MPMR2 000345 A MPMR3
 000420 A MT 000461 A NEG 000470 A NINE 000421 A ONE
 000001 A PCBSL 000011 A PCBSLB 000001 A PCBSLZ 000000 A PCCLN
 000000 A PCCLNB 000010 A PCCLNZ 000002 A PCCTP 000014 A PCCTPB
 000004 A PCCTPZ 000001 A PCECH 000014 A PCECHB 000001 A PCECHZ
 000000 A PCLLN 000010 A PCLLNB 000010 A PCLLNZ 000002 A PCNT0
 000000 A PCNTDB 000004 A PCNTDZ 000001 A PCPCH 000000 A PCPCHB
 000010 A PCPCHZ 000001 A PCSWL 000010 A PCSWLB 000001 A PCSWLZ
 000002 A PCTYP 000010 A PCTYPB 000004 A PCTYPZ 000001 A PCXMM
 000012 A PCXMMB 000002 A PCXMMZ 000040 A PIM1 000041 A PIM2
 000042 A PIM3 000043 A PIM4 000040 A PIM5 000040 A PIM6

000040 A PIM7 000040 A PIM8 000200 A POST 000003 A PSABN
 000015 A PSABNB 000001 A PSABNZ 000000 A PSASY 000013 A PSASYB
 000001 A PSASYZ 000002 A PSABDT 000000 A PSBEG 000001 A PSCC1
 000010 A PSCC1B 000010 A PSCC1Z 000001 A PSCC2 000000 A PSCC2B
 000010 A PSCC2Z 000003 A PSCRC 000012 A PSCRCB 000003 A PSCRCZ
 000002 A PSDEF 000010 A PSDEFB 000001 A PSDEFZ 000003 A PSDSF
 000017 A PSDSFB 000001 A PSDSFZ 000002 A PSDWN 000011 A PSDWNB
 000001 A PSDWNZ 000004 A PSEND 000002 A PSEPF 000016 A PSEPFB
 000001 A PSEPFZ 000000 A PSLSP 000000 A PSLSPB 000011 A PSLSPZ
 000000 A PSMOD 000016 A PSMODB 000002 A PSMODZ 000003 A PSNSEC
 000000 A PSPAR 000014 A PSPARB 000002 A PSPARZ 000002 A PSPLA
 000000 A PSPLAB 000010 A PSPLAZ 000001 A PSPROT 000002 A PSTER
 000017 A PSTERB 000001 A PSTERZ 000000 A PSXMM 000011 A PSXMMB

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000002 A PSXMMZ 000003 A PSYNC 000016 A PSYNCB 000001 A PSYNCZ
000004 A PSYNR 000000 A PSYNRB 000010 A PSYNRZ 000003 A PSYNT
000000 A PSYNTB 000010 A PSYNTZ 000040 A RA0 000000 A RA1
000004 A RADNR 000060 A RBO 000020 A RB1 000002 A RFCB
000463 A RHW 000001 A ROPWD 000002 A RQST 000000 A RSTPR
000003 A RTIDB 000467 A SEVEN 000466 A SIX 000027 A TBATSK
000026 A TBCTPH 000011 A TBENTY 000003 A TBEVNT 000021 A TB10
000014 A TBISA 000015 A TBISH 000017 A TBISP 000020 A TBISRS
000016 A TBISX 000022 A TBKN1 000023 A TBKN2 000024 A TBKN3
000002 A TBPL 000004 A TBRSA 000005 A TBRSE 000030 A TBRSE
000007 A TBRSP 000010 A TBRST 000006 A TBRSE 000000 A TBS0
000001 A TBS1 000012 A TBS10 000013 A TBS11 000014 A TBS12
000015 A TBS13 000016 A TBS14 000017 A TBS15 000002 A TBS2
000003 A TBS3 000004 A TBS4 000005 A TBS5 000006 A TBS6
000007 A TBS7 000010 A TBS8 000011 A TBS9 000001 A TBST
000025 A BTLC 000013 A TBTMIN 000012 A TBTMS 000000 A TBTRO
000004 A TCBSL 000011 A TCBSLB 000001 A TCE 3LZ 000003 A TCCLN
000000 A TCCLNB 000010 A TCCLNZ 000004 A TCCON 000015 A TCCONB
000001 A TCCONZ 000002 A TCCTA 000000 A TCCTAB 000020 A TCCTAZ
000005 A TCCTP 000014 A TCCTPB 000004 A TCCTPZ 000012 A TCDC
000000 A TCDCB 000020 A TCDCZ 000014 A TCDO 000000 A TCDOB
000020 A TCDTOZ 000004 A TCECH 000014 A TCECHB 000001 A TCECHZ
000015 A TCID1 000000 A TCID1B 000020 A TCID1Z 000016 A TCID2
000000 A TCID2B 000020 A TCID2Z 000006 A TCLDF 000014 A TCLDFB
000001 A TCLDFZ 000003 A TLLN 000010 A TLLNB 000010 A TLLNZ
000005 A TCNOD 000004 A TCNODB 000004 A TCNODZ 000005 A TCNTD
000000 A TCNTDB 000004 A TCNTDZ 000004 A TCPCH 000000 A TCPCHB
000010 A TCPCHZ 000004 A TCRBC 000017 A TCRBCB 000001 A TCRBCZ
000013 A TCRBF 000000 A TCRBFB 000020 A TCRBFZ 000007 A TCRCA

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000000 A TCR CAB 000020 A TCR CAZ 000006 A TCR MD 000000 A TCR MDB
000003 A TCR MDZ 000001 A TCR QH 000000 A TCR QHB 000020 A TCR QHZ
000006 A TCR RS 000006 A TCR RSB 000003 A TCR RSZ 000010 A TCSTO
000000 A TCSTOB 000020 A TCSTOZ 000004 A TCSWL 000010 A TCSWLB
000001 A TCSWLZ 000000 A TCTCD 000000 A TCTCDB 000020 A TCTCDZ
000005 A TCTYP 000010 A TCTYPB 000004 A TCTYPZ 000004 A TCWBC
000016 A TCWBCB 000001 A TCWBCZ 000011 A TCWCA 000000 A TCWCAB
000020 A TCWCAZ 000006 A TCWMD 000003 A TCWMDB 000003 A TCWMDZ
000006 A TCWRS 000011 A TCWRSB 000003 A TCWRSZ 000004 A TCXMM
000012 A TCXMMB 000002 A TCXMMZ 000471 A TEN 000464 A THREE
000002 A TIDSP 000000 A TIDSPB 000007 A TIDSPZ 000002 A TIDWN
000017 A TIDWNB 000001 A TIDWNZ 000000 A TINET 000000 A TINETB
000020 A TINETZ 000003 A TIODN 000017 A TIODNB 000001 A TIODNZ
000003 A TIODP 000000 A TIODPB 000007 A TIODPZ 000003 A TIOSC
000007 A TIOSCB 000010 A TIOSCZ 000002 A TISEC 000007 A TISECB
000010 A TISECZ 000000 A TITU1 000000 A TITU1B 000020 A TITU1Z
000001 A TITU2 000000 A TITU2B 000020 A TITU2Z 000017 A TPFPA
000000 A TPFPAZ 000020 A TPFPAZ 000015 A TPRPA 000000 A TPRPAB
000020 A TPRPAZ 000016 A TPWPA 000000 A TPWPAZ 000020 A TPWPAZ
000422 A TWO 000403 A V$1MIN 000415 A V$BFC 000075 A V$BGLB
000056 A V$BIC1 000315 A V$BTB 000414 A V$BYN 000334 A V$CAM
000353 A V$CKB 000411 A V$CKIT 000310 A V$CKPT 000301 A V$CPL
000076 A V$CRDM 000341 A V$CRDR 000354 A V$CRM 000302 A V$CRS
000360 A V$CTAD 000300 A V$CTL 000351 A V$CTMS 000070 A V$DATE
000355 A V$DSTB 000376 A V$ERFG 000347 A V$FGLB 000306 A V$FLRS
000350 A V$FREE 000320 A V$IM 000410 A V$IOA 000412 A V$JCB
000055 A V$JCFG 000077 A V$JCTM 000050 A V$JNAM 000377 A V$JOP
000054 A V$LCNT 000313 A V$LER 000356 A V$LIT 000317 A V$LLUP
000307 A V$LSK 000312 A V$LSAL 000345 A V$LUNT 000316 A V$LUP
000400 A V$LUT1 000401 A V$LUT2 000402 A V$LUT3 000330 A V$MPM
000362 A V$NCTR 000413 A V$OCB 000346 A V$OPCF 000311 A V$OPCL
000363 A V$PIMN 000074 A V$PLCT 000305 A V$PTVB 000361 A V$SCTL
000352 A V$SCV 000375 A V$SLFG 000303 A V$TB 000342 A V$TBGT
000416 A V$TFC 000314 A V$TJCP 000344 A V$TMN 000343 A V$TMS
000304 A V$UTB 000153 E VTPUSH 000001 A X 000420 A ZERO

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0 ERRORS ASSEMBLY COMPLETE

```

1      EJEC                                02 00001
2 *   THIS IS A COPYRIGHTED PROGRAM, COPYRIGHT 1973 BY VARIAN DATA MACHINES 02 00002
3 *   V.D.M. PART NO.          92L1105-045A 02 00003
4 *   V.D.M. PART NO.          92L1105-045A 02 00004
5 *   V.D.M. PART NO.          92L1105-045A 02 00005
6 *   V.D.M. PART NO.          92L1105-045A 02 00006
7 *   V.D.M. PART NO.          92L1105-045A 02 00007
8 *   V.D.M. PART NO.          92L1105-045A 02 00008
9 *   V.D.M. PART NO.          92L1105-045A 02 00009
10 *   V.D.M. PART NO.         92L1105-045A 02 00010
11 *   V.D.M. PART NO.         92L1105-045A 02 00011
12 *   TITLE C52SST              02 00012
13 *   NLIS C52SST              02 00013
1289 *   LIST                   *****
1290 *   LIST                   02 00014

1291      EJEC                                02 00015
1292 .....                                02 00016
1293 .....                                02 00017
1294 **   PROGRAM NAME -                **02 00018
1295 **   C52SST - BUILD DCM STATUS WORD IN VTAM FORMAT **02 00019
1296 **   C52SST - BUILD DCM STATUS WORD IN VTAM FORMAT **02 00020
1297 **   ENTRY CONDITIONS -              **02 00021
1298 **   (VTSTAK+1) A REGISTER VALUE OF CALLING PROGRAM **02 00022
1299 **   (VTSTAK+2) B REGISTER VALUE OF CALLING PROGRAM **02 00023
1300 **   (VTSTAK+3) X REGISTER VALUE OF CALLING PROGRAM **02 00024
1301 **   INTERRUPTS DISABLED             **02 00025
1302 **   INTERRUPTS DISABLED             **02 00026
1303 **   CALLING SEQUENCE -              **02 00027
1304 **   DINTS          DISABLE INTERRUPTS **02 00028
1305 **   JPM  VTPUSH    REENRANT CALL VIA VOLATILE STACK **02 00029
1306 **   DATA C52SST   ADDRESS OF C52SST  **02 00030
1307 **   (RETURN WITH INTERRUPTS ON)     **02 00031
1308 **   (RETURN WITH INTERRUPTS ON)     **02 00032
1309 **   EXIT CONDITIONS -                **02 00033
1310 **   (VTSTAK+1) DESTROYED             **02 00034
1311 **   (VTSTAK+2) STATUS WORD           **02 00035
1312 **   (VTSTAK+3) UNCHANGED             **02 00036
1313 **   EXIT TO VTOP WHERE VTSTAK+1 THRU VTSTAK+3 ARE RESTORED **02 00037
1314 **   TO (A), (B) AND (X) RESPECTIVLY **02 00038
1315 **   TO (A), (B) AND (X) RESPECTIVLY **02 00039
1316 .....                                02 00040
1317 .....                                02 00041

1318      EJEC                                02 00042
1319      NAME C52SST                        02 00043
000000 000006 A 1320 C52SST DATA 6        NUMBER OF ADDITIONAL WORDS TO ALLOCATE 02 00044
1321      EINTS                               IN STACK. 02 00045

000001 100244 A
000002 100147 A

1322      EXT VTSTAK                        02 00046
1323      LOBE VTSTAK                        02 00047
000003 006027 A
000004 000000 E
000005 036003 A 1324 LDX 3,B                02 00048
000001 A 1325 SET X                          02 00049
1326 *                                       02 00050
1327 *   READ STATUS FROM DCM                02 00051
1328 *                                       02 00052
1329 *   FETCHA LSD,LSPLA,LSPLAB,LSPLAZ      02 00053

000006 015016 A
000007 150463 A
000010 110427 A 1330 ORA BS6                02 00054
000011 056001 A 1331 STA 1,B          STORE CONTROL WORD IN STACK 'A' CELL 02 00055
000012 005021 A 1332 TBA                    02 00056
000013 005111 A 1333 IAR                    02 00057
000014 056007 A 1334 STA 7,B          SET CONTROL WORD POINTER 02 00058
000015 005111 A 1335 IAR                    02 00059
000016 056010 A 1336 STA 8,B          SET STATUS WORD POINTER 02 00060
1337 *                                       02 00061
000017 014053 A 1338 LDA SSJSR           STORE JSR INSTRUCTION 02 00062
000020 056005 A 1339 STA 5,B                    02 00063
000021 014052 A 1340 LDA SSJSRA          STORE JSR ADDRESS 02 00064
000022 056006 A 1341 STA 6,B                    02 00065
000023 014051 A 1342 LDA SSJMP           STORE JMP INSTRUCTION 02 00066
000024 056011 A 1343 STA 9,B                    02 00067
000025 014050 A 1344 LDA SSJMPA          STORE JMP ADDRESS 02 00068
000026 056012 A 1345 STA 10,B           02 00069
000027 006706 A 1346 IJMP 5,B            02 00070
000030 000005 A

1347 *                                       02 00071
1348 *   RETURN AFTER READ CONTROL SEQUENCE 02 00072
1349 *                                       02 00073
000031 006027 A 1350 SS01 LOBE VTSTAK        02 00074
000032 000004 E
000033 036003 A 1351 LDX 3,B                02 00075
1352 *   FETCHA LSD,LSMOD,LSMODB,LSMODZ      02 00076

000034 015014 A
000035 004356 A
000036 001016 A 1353 JANZ SS02          IF NOT DIRECT CONNECT, JUMP 02 00077
000037 000044 R
000040 006010 A 1354 LDAI 013          DIRECT CONNECT, SET STATUS FOR DC MODEM 02 00078
000041 000013 A
000042 001000 A 1355 JMP SS03            02 00079
000043 000045 R
000044 005001 A 1356 SS02 TZA            02 00080
000045 030467 A 1357 SS03 LDX SEVEN       LOOP COUNTER AND MASK SELECTOR 02 00081

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000046 026002 A 1358 LDB 2,B (B) = STATUS WORD 02 00082
000047 006477 A 1359 SS04 BT R80+B15,SS05 02 00083
000050 000053 R
000051 006115 A 1360 ORAE SSBM-1,X SET BIT IN (A) IF BIT SET IN STATUS 02 00084
000052 000063 R
000053 004041 A 1361 SS05 LRLB 1 SHIFT NEXT STATUS BIT TO BIT POSITION 15 *****
000054 005344 A 1362 DXR DECREMENT LOOP COUNTER *****
000055 001046 A 1363 JXNZ SS04 02 00087
000056 000047 R
1364 *
1365 * STORE DCM STATUS WORD IN STACK 'B' CELL 02 00088
1366 * 02 00089
000057 006027 A 1367 LDBE VTSTAK 02 00090
000060 000032 E
000061 056002 A 1368 STA 2,B 02 00092
1369 *
1370 * RETURN TO REQUESTOR 02 00093
1371 *
1372 * EXT VTPOP 02 00094
1373 * JMP VTPOP 02 00095
000062 001000 A 1373 02 00096
000063 000000 E 02 00097
1374 *
1375 * BIT MASK TABLE 02 00098
1376 *
000064 000020 A 1377 SSBM DATA 020 2**4 CONTROL LINE (REVERSE CHANNEL) 02 00101
000065 000004 A 1378 DATA 4 2**2 RING 02 00102
000066 000000 A 1379 DATA 0 0 02 00103
000067 000000 A 1380 DATA 0 0 02 00104
000070 000001 A 1381 DATA 1 2**0 CLEAR-TO-SEND 02 00105
000071 000010 A 1382 DATA 010 2**3 CARRIER-ON 02 00106
000072 000002 A 1383 DATA 2 2**1 DATA-SET-READY 02 00107
1384 * 02 00108
1385 * READ CONTROL SEQUENCE 02 00109
1386 *
1387 * EXT C52RCR 02 00110
000073 006506 A 1388 SSJSR JSR C52RCR,B 02 00111
000074 000000 E 02 00112
000074 000074 R 1389 SSJSRA EQU *-1 02 00113
000075 001000 A 1390 SSJMP JMP SS01 02 00114
000076 000031 R 1391 SSJMPA EQU *-1 02 00115
000076 000076 R 1392 END 02 00116

```

ENTRY NAMES

000000 R C52SST

EXTERNAL NAMES

000074 E C52RCR 000063 E VTPOP 000060 E VTSTAK

SYMBOLS

```

000044 A APIM 000002 A B 000000 A B0 000001 A B1
000012 A B10 000013 A B11 000014 A B12 000015 A B13
000016 A B14 000017 A B15 000002 A B2 000003 A B3
000004 A B4 000005 A B5 000006 A B6 000007 A B7
000010 A B8 000011 A B9 000000 A B1CNUM 000421 A B1
000472 A B17 000475 A B177 000477 A B1777 000464 A B13
000473 A B137 000463 A B1377 000467 A B17 000474 A B177
000476 A B1777 000441 A B10 000442 A B11 000453 A B10
000454 A B11 000455 A B12 000456 A B13 000457 A B14
000460 A B15 000443 A B2 000444 A B3 000445 A B4
000446 A B5 000447 A B6 000450 A B7 000451 A B8
000452 A B9 000421 A B10 000422 A B11 000433 A B10
000434 A B11 000435 A B12 000436 A B13 000437 A B14
000440 A B15 000423 A B2 000424 A B3 000425 A B4
000426 A B5 000427 A B6 000430 A B7 000431 A B8
000432 A B9 000074 E C52RCR 000000 R C52SST 000047 A CLOCK
000000 A CTAD1 000000 A CTACT 000017 A CTACTB 000001 A CTACTZ
000001 A CTADN 000000 A CTADNB 000020 A CTADNZ 000011 A CTBIC
000000 A CTBICB 000020 A CTBICZ 000003 A CTDST 000000 A CTDSTB
000020 A CTDSTZ 000006 A CTDVA 000000 A CTDVAB 000020 A CTDVAZ
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000010 A CTFRCB 000010 A CTFRCZ 000014 A CTFRE 000000 A CTFREB
000010 A CTFREZ 000000 A CTIDB 000000 A CTIDBB 000017 A CTIDBZ
000007 A CTIOA 000000 A CTIOAB 000020 A CTIOAZ 000002 A CTOPI
000000 A CTOPIB 000020 A CTOPIZ 000005 A CTRCN 000000 A CTRCNB
000010 A CTRCNZ 000004 A CTRQB 000000 A CTRQBB 000020 A CTRQBZ
000005 A CTRTR 000010 A CTRTRB 000010 A CTRTRZ 000010 A CTSTA
000000 A CTSTAB 000020 A CTSTAZ 000013 A CTWDS 000000 A CTWDSB
000020 A CTWDSZ 000001 A DCBUFF 000002 A DCCNT 000000 A DCRECL
000747 A DISCLK 000745 A DISMP 000444 A DISPIM 000024 A DMCHA
000000 A DMCWAB 000020 A DMCAZ 000017 A DMFPA 000000 A DMFPAB
000020 A DMFPAZ 000021 A DMLCA 000000 A DMLCAB 000020 A DMLCAZ
000022 A DMLTA 000000 A DMLTAB 000020 A DMLTAZ 000023 A DMPTA
000000 A DMPTAB 000020 A DMPTAZ 000016 A DMRPA 000000 A DMRPAB
000020 A DMRPAZ 000020 A DMSTA 000000 A DMSTAB 000020 A DMSTAZ
000025 A DMSWA 000000 A DMSWAB 000020 A DMSWAZ 000015 A DMTPA
000000 A DMTPAB 000020 A DMTPAZ 000002 A DSCTAD 000000 A DSDASS
000000 A DSDVDN 000002 A DSLCKO 000001 A DSNAME 000000 A DSNORQ
000002 A DSOPCM 000002 A DSPSTI 000002 A DSREWD 000000 A DSUNAQ
000002 A DSUNTN 000424 A EIGHT 000147 A ENACLK 000645 A ENAMP
000244 A ENAPIM 000465 A FIVE 000423 A FOUR 000300 A LC
000003 A LCABN 000013 A LCABNB 000001 A LCABNZ 000003 A LCASY
000012 A LCASYB 000001 A LCASYZ 000003 A LCCRC 000014 A LCCRCB
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000000 A LCIBF 000017 A LCIBFB 000001 A LCIBFZ 000000 A LCIBL
 000000 A LCIBLB 000014 A LCIBLZ 000002 A LCIC1 000010 A LCIC1B
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 000001 A LCRCCZ 000000 A LCSMB 000016 A LCSMB8 000001 A LCSMBZ
 000462 A LHW 000017 A LSABN 000015 A LSABNB 000001 A LSABNZ
 000017 A LSASC 000011 A LSASCB 000001 A LSASCZ 000014 A LSASY
 000013 A LSASYB 000001 A LSASYZ 000015 A LSCC1 000010 A LSCC1B
 000010 A LSCC1Z 000015 A LSCC2 000000 A LSCC2B 000010 A LSCC2Z
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 000000 A LSCTAB 000020 A LSCTAZ 000001 A LSD 000017 A LSDSF
 000017 A LSDSFB 000001 A LSDSFZ 000013 A LSDST 000000 A LSDSTB
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000016 A LSMODB 000002 A LSMODZ 000020 A LSNT 000010 A LSNTOB
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 000000 A LSRTOB 000020 A LSRTOZ 000005 A LSRS 000000 A LSRSB
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 000145 A MPMR1 000245 A MPMR2 000345 A MPMR3 000420 A MT
 000461 A NEG 000470 A NINE 000421 A ONE 000001 A PCBSL
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 000010 A PCTYPB 000004 A PCTYPZ 000001 A PCXMM 000012 A PCXMMB
 000002 A PCXMMZ 000040 A PIM1 000041 A PIM2 000042 A PIM3
 000043 A PIM4 000040 A PIM5 000040 A PIM6 000040 A PIM7
 000040 A PIM8 000200 A POST 000003 A PSABN 000015 A PSABNB
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000010 A PSYNTZ 000040 A RA0 000000 A RA1 000004 A RADNR
 000060 A R80 000020 A RB1 000002 A RFCB 000463 A RHW
 000001 A ROPWD 000000 A RSTPR 000003 A RTIDB 000467 A SEVEN
 000466 A SIX 000031 R SS01 000044 R SS02 000045 R SS03
 000047 R SS04 000053 R SS05 000064 R SSBM 000075 R SSJMP
 000076 R SSJMPA 000073 R SSJSR 000074 R SSJSRA 000027 A TBATSK
 000026 A TBCPTH 000011 A TBENTY 000003 A TBEVNT 000021 A TBIO
 000014 A TBISA 000015 A TBISB 000017 A TBISP 000020 A TBISRS
 000016 A TBISX 000022 A TBKN1 000023 A TBKN2 000024 A TBKN3
 000002 A TBPL 000004 A TBRSA 000005 A TBRSE 000030 A TBRSE
 000007 A TBRSP 000010 A TBRSTS 000006 A TBRSX 000000 A TBS0
 000001 A TBS1 000012 A TBS10 000013 A TBS11 000014 A TBS12
 000015 A TBS13 000016 A TBS14 000017 A TBS15 000002 A TBS2
 000003 A TBS3 000004 A TBS4 000005 A TBS5 000006 A TBS6
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 000000 A TCRCAB 000020 A TCRCAZ 000006 A TCRCB 000000 A TCRCB
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 000001 A TCSWLZ 000000 A TCTCD 000000 A TCTCOB 000020 A TCTCDZ
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000012 A TCXMMZ 000002 A TCXMMZ 000471 A TEN 000464 A THREE
000002 A TIDSP 000000 A TIDSPB 000007 A TIDSPZ 000002 A TIDWN
000017 A TIDWNB 000001 A TIDWNZ 000000 A TINET 000000 A TINETB
000020 A TINETZ 000003 A TIODN 000017 A TIODNB 000001 A TIODNZ

000003 A TIODP 000000 A TIODPB 000007 A TIODPZ 000003 A TIOSC
000007 A TIOSCB 000010 A TIOSCZ 000002 A TISEC 000007 A TISECB
000010 A TISECZ 000000 A TITU1 000000 A TITU1B 000020 A TITU1Z
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000000 A TPFPAZ 000020 A TPFPAZ 000015 A TPRPA 000000 A TPRPAB
000020 A TPRPAZ 000016 A TPWPA 000000 A TPWPAZ 000020 A TPWPAZ
000422 A TWO 000403 A VS1MIN 000415 A VSBFC 000075 A VSBGLB
000056 A VSBIC1 000315 A VSBTB 000414 A VSBVN 000334 A VSCAM
000353 A VSCKB 000411 A V$CKIT 000310 A V$CKPT 000301 A V$CPL
000076 A V$CRDM 000341 A V$CRDR 000354 A V$CRM 000302 A V$CRS
000360 A V$CTAD 000300 A V$CTL 000351 A V$CTMS 000070 A V$DATE
000355 A V$DSTB 000376 A V$ERFG 000347 A V$FGLB 000306 A V$FLRS
000350 A V$FREE 000320 A V$IM 000410 A V$IOA 000412 A V$JCB
000055 A V$JCFG 000077 A V$JCTM 000050 A V$JNAM 000377 A V$JOP
000054 A V$LCNT 000313 A V$LER 000356 A V$LIT 000317 A V$LLUP
000307 A V$LRSK 000312 A V$LSAL 000345 A V$LUNT 000316 A V$LUP
000400 A V$LUT1 000401 A V$LUT2 000402 A V$LUT3 000330 A V$MPM
000362 A V$NCTR 000413 A V$OCB 000346 A V$OPCF 000311 A V$OPCL
000363 A V$PIMN 000074 A V$PLCT 000305 A V$PTVB 000361 A V$SCTL
000352 A V$SCV 000375 A V$SLFG 000303 A V$TB 000342 A V$TBGT
000416 A V$TFC 000314 A V$TJCP 000344 A V$TMN 000343 A V$TMS
000304 A V$UTB 000063 E VTPOP 000060 E VTSTAK 000001 A X
000420 A ZERO
0 ERRORS ASSEMBLY COMPLETE
```


VTAM REVISION A.1
RELEASE BULLETIN
VTAM A.1 OBJECT MODULES

92W9905-007A

7-17-73

I. INTRODUCTION

VTAM Supplement A.1 release replaces all previous releases of VTAM. This Release Bulletin describes the corrections and additions to VTAM that are included in this release.

II. USAGE DESCRIPTION

System Generation of a VORTEX-VTAM system is described in the VTAM Reference Manual (98A 9952 22R).

The object material released contains four parts:

1. TDF directives and binary object modules.
2. Job sequences to load ancillary VTAM modules to the system libraries.
3. Source of CC\$TLB.
4. Source of CTMX0A.

Each of the parts is terminated by an End-of-File. When supplied on magnetic tape or paper tape, part 3 above may be reached by skipping fourteen (14) files.

III. DESCRIPTION OF PROGRAMS

The following programs have been updated for this release as described below:

TC\$CEX, TYREAD

SMR-503

Return End-of-File condition if BELL character is the first character input for standard (ASCII) READ.

LOPNCLOS, TOPNCLS

SMR-533

Error indications not returned properly on line Open/Close errors. In particular, downed lines can be opened through JCP without any error indication.

ADVANC, BITSET, CLEAR, COMPAR, DIAG, GETCHR, GETLSD, HEADER, NDL, NUMBER, PARSE, PUTLSD, PUTTCD, REPORT, SHRINK, TUID, NETCON

SMR-535

NDL Processor (NDM) will not run in minimum background partition of 8K.

C52FUN, C52SST

SMR-534

Correction for "RING" problem and incorrect detail status returned by CCM.