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LOCTR OBJECT TEXT      STMT SOURCE STATEMENT      COPYRIGHT IBM CORP 1976
3  ***** COPY LOG7820 ***** ** MAP EC HISTORY **
4  *****
5  *
6  *
7  *      *** PREREQUISITES ***
8  *
9  *      NONE
10 *****
11 *
12 *      *** MODIFICATIONS ***
13 *
14 *      CHANGES MADE TO MEET PROGRAM REQUIREMENTS
15 *****
16 *
17 *      *** REA'S INCORPORATED ***
18 *
19 *
20 *      NONE
21 *****
22 *
23 *      *** SPECIAL INSTRUCTIONS ***
24 *
25 *
26 *      NONE
27 *****
28 *
29 *      *** E. C. HISTORY ***
30 *
31 *
32 *      DATE 17DEC76  DATE 04MAR77  DATE 10JUN77  DATE 01MAP78
33 *      E.C. 578486  E.C. 578638  E.C. 578625  E.C. 755285
34 *****
35 *****
37 I7820  START X'2500'          START ADDRESS OF ALL 'I' TYPE PROG
000100  @QUES  EQU X'0100'          EQUATED VALUE FOR MDI STATEMENT
000101  @FIXT  EQU X'0101'          EQUATED VALUE FOR MDI STATEMENT
000102  @STOP  EQU X'0102'          EQUATED VALUE FOR MDI STATEMENT
000200  @GOTO  EQU X'0200'          EQUATED VALUE FOR MDI STATEMENT
000201  @CALL  EQU X'0201'          EQUATED VALUE FOR MDI STATEMENT
000300  @INPT  EQU X'0300'          EQUATED VALUE FOR MDI STATEMENT
000400  @QUXX  EQU X'0400'          EQUATED VALUE FOR MDI STATEMENT
000500  @SVLD  EQU X'0600'          EQUATED VALUE FOR MDI STATEMENT
000600  @EQ    EQU X'0000'          EQUATE FOR EQUAL
000000  @NE    EQU X'0004'          EQUATE FOR NOT EQUAL
000008  @HI    EQU X'0008'          EQUATE FOR HIGH
00000C  @NH    EQU X'000C'          EQUATE FOR NOT HIGH
000010  @LO    EQU X'0010'          EQUATE FOR LOW
000014  @NL    EQU X'0014'          EQUATE FOR NOT LOW
000010  @LT    EQU X'0010'          EQUATE FOR LESS THAN
00000C  @LE    EQU X'000C'          EQUATE FOR LESS THAN OR EQUAL TO
000008  @GT    EQU X'0008'          EQUATE FOR GREATER THAN
000014  @GN    EQU X'0014'          EQUATE FOR GREATER THAN OR EQUAL TO
000200  @ON    EQU X'0200'          EQUATE FOR ON
000202  @OF    EQU X'0204'          EQUATE FOR OFF
000204  @MX    EQU X'0204'          EQUATE FOR MIXED
000000  @EBC   EQU X'0000'          EQUATE FOR EBCDIC DATA TRANSFER
000001  @HEX   EQU X'0001'          EQUATE FOR HEX DATA TRANSFER
000001  @XTRNL EQU X'0001'          EQUATE FOR EXTERNAL REFERENCE
000000  @INTRNL EQU X'0000'          EQUATE FOR INTERNAL REFERENCE
000000  @PARM  EQU X'0000'          EQUATE INDICATING PARAMETER
000001  @DA    EQU X'0001'          EQUATE FOR DEVICE ADDRESS
000002  @UA    EQU X'0002'          EQUATE FOR UNIT ADDRESS
000000  @DUMMY EQU X'0000'          DUMMY EQUATE
000000  @PID   EQU *-X'0D00'          ADDRESS OF PROCESSOR TYPE FIELD
000100  @ETYPE EQU *-X'0D00'          ADDRESS OF DEPTM. STEP NUMBER
000100C @STERNUM EQU PID+X'000C'        ADDRESS OF DECIMAL STEP NUMBER
000100E @OPWD1  EQU PID+X'000E'        ADDRESS OF OPTION WORD ONE
0001010 @OPWD2  EQU PID+X'0010'        ADDRESS OF OPTION WORD TWO
0001018 @TUSTATUS EQU PID+X'0018'        ADDRESS OF TU STATUS WORD
000101A @TWORK  EQU PID+X'001A'        ADDRESS OF TU WORK AREA
000189A @TUPARM1 EQU PID+X'009A'        ADDRESS OF PARM 1 POINTER
000189C @TUPARM2 EQU PID+X'009C'        ADDRESS OF PARM 2 POINTER
000189E @TUPARM3 EQU PID+X'009E'        ADDRESS OF PARM 3 POINTER
00018A0 @TUPARM4 EQU PID+X'00A0'        ADDRESS OF PARM 4 POINTER
00018A2 @TUPARM5 EQU PID+X'00A2'        ADDRESS OF PARM 5 POINTER
00018A4 @TUPARM6 EQU PID+X'00A4'        ADDRESS OF PARM 6 POINTER
00018A6 @TUPARM7 EQU PID+X'00A6'        ADDRESS OF PARM 7 POINTER
00018A8 @TUPARM8 EQU PID+X'00A8'        ADDRESS OF PARM 8 POINTER
00018AA @TUPARM9 EQU PID+X'00AA'        ADDRESS OF PARM 9 POINTER
00018AC @TUPARM10 EQU PID+X'00AC'        ADDRESS OF PARM 10 POINTER
00018AE @TUPARM11 EQU PID+X'00AE'        ADDRESS OF PARM 11 POINTER
00018B0 @TUPARM12 EQU PID+X'00B0'        ADDRESS OF PARM 12 POINTER
00018B2 @TUPARM13 EQU PID+X'00B2'        ADDRESS OF PARM 13 POINTER
00018B4 @TUPARM14 EQU PID+X'00B4'        ADDRESS OF PARM 14 POINTER
00018B6 @TUPARM15 EQU PID+X'00B6'        ADDRESS OF PARM 15 POINTER
00018B8 @TUPARM16 EQU PID+X'00B8'        ADDRESS OF PARM 16 POINTER
00018BA @TUMSGWTR EQU PID+X'00BA'        ADDRESS OF -> TO COMMON MSG WRITER
00018BE @TUA    EQU PID+X'00BE'        ADDRESS OF UNIT ADDRESS IN EBC
00018C0 @TUD    EQU PID+X'00C0'        ADDRESS OF DEVICE ADDRESS IN EBC
00018C2 @TUDFF  EQU PID+X'00C2'        ADDRESS OF LAST USED WORD IN MAP
00018C4 @TULAST EQU PID+X'00C4'        ADDRESS OF LAST ADDRESSABLE WORD
00018C6 @TURSULN EQU PID+X'00C6'        ADDRESS OF LENGTH OF TU RESULTS
00018C8 @TURSUL  EQU PID+X'00C8'        ADDRESS OF TU RESULTS FIELD
00018FC @MAPNAME EQU PID+X'00FC'        ADDRESS OF MAP NAME FIELD IN HEX
0001948 @TUINPT EQU PID+X'0148'        ADDRESS OF SINPT DATA
000196E @PARNARA EQU PID+X'016E'        ADDRESS OF SINPT INPUT AREA
0001988 @DCADD1 EQU PID+X'0188'        MDI POINTER
00019BA @DCADD2 EQU PID+X'01BA'        MDI POINTER
00019C4 @SUPSTAT EQU PID+X'01C4'        ADDRESS OF MDI STATUS
00019D0 @DEVADD  EQU PID+X'01D0'        ADDRESS OF DEVICE ADDRESS TABLE 0
00019DA @DEVADD1 EQU PID+X'01DA'        ADDRESS OF DEVICE ADDRESS TABLE 1
00019E4 @DEVADD2 EQU PID+X'01E4'        ADDRESS OF DEVICE ADDRESS TABLE 2
00019EE @DEVADD3 EQU PID+X'01EE'        ADDRESS OF DEVICE ADDRESS TABLE 3
00019F8 @DEVADD4 EQU PID+X'01F8'        ADDRESS OF DEVICE ADDRESS TABLE 4
0001A02 @DEVADD5 EQU PID+X'0202'        ADDRESS OF DEVICE ADDRESS TABLE 5
0001A0C @DEVADD6 EQU PID+X'020C'        ADDRESS IF DEVICE ADDRESS TABLE 6
0001A16 @DEVADD7 EQU PID+X'0216'        ADDRESS OF DEVICE ADDRESS TABLE 7
113 *****
PRINT OFF

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LOCTR OBJECT TEXT      STMT SOURCE STATEMENT      COPYRIGHT IBM CORP 1976
002500 262C 198 ***** DC A(ENPT) ***** POINT TO MAP ENTRY POINT TABLE
199 *****
200 *****
201 *****
202 ** THE FOLLOWING TABLES ARE USED BY THE MDI SUPERVISOR (D3C00)
203 ** TO LOCATE THE CORRECT RULE TO INVOKE TO OBTAIN THE PROPER
204 ** PARAMETERS TO PASS TO THE TU'S AND TO PASS TO THE OPEFATOR
205 ** THE INDICATED MESSAGE(S). THERE ARE FOUR TABLES USED FOR THIS
206 ** PURPOSE THEY ARE:
207 **
208 ** STEP AND RULE ADDRESS TABLE
209 ** THIS TABLE GIVES THE ADDRESS OF THE RULE TO INVOKE AND
210 ** THE ASSOCIATED STEP DECIMAL STEP NUMBER OF THAT RULE.
211 ** ENTRIES ARE AS FOLLOWS
212 ** A) AN ADDRESS OF THE RULE DC START AREA
213 ** B) THE STEP NUMBER IN DECIMAL
214 ** C) AN EQUATE FOR THE STEP NUMBER
215 **
216 ** RULE INFORMATION TABLE
217 ** THIS TABLE CONTAINS THE REQUIRED INFORMATION TO EXECUTE
218 ** THE APPROPRIATE RULE UNDER MDI. EACH RULE HAS ITS OWN
219 ** UNIQUELY DEFINED AREA INDICATED BELOW. END OF TABLE IS
220 ** INDICATED WITH A X'0000' FOR THE PULE EQUATE.
221 **
222 ** $QUES
223 ** A) RULE EQUATE X'0100'
224 ** B) ADDRESS OF THE YES LEG RULE
225 **
226 ** $FIXT
227 ** A) RULE EQUATE X'0101'
228 ** B) ADDRESS OF MESSAGE TO PRINT
229 **
230 ** $STOP
231 ** A) RULE EQUATE X'0102'
232 ** B) ADDRESS OF MESSAGE
233 **
234 ** $GOTO
235 ** A) RULE EQUATE X'0200'
236 ** B) ADDRESS OF MESSAGE
237 ** C) NAME OF MAP TO GO TO
238 ** D) ENTRY POINT WITHIN GO TO MAP TO USE
239 ** E) INDICATOR FOR EXTERNAL OR INTERNAL REFERENCE
240 **
241 ** $CALL
242 ** A) RULE EQUATE X'0201'
243 ** B) ADDRESS OF MESSAGE
244 ** C) NAME OF MAP TO CALL
245 ** D) ENTRY POINT WITHIN CALLED MAP TO USE
246 ** E) INDICATOR FOR EXTERNAL OR INTERNAL REFERENCE
247 **
248 ** $INPT
249 ** A) RULE EQUATE X'0300'
250 ** B) INPUT TYPE (EBCDIC OR HEX)
251 ** C) ADDRESS OF YES LEG RULE
252 ** D) DESTINATION LOCATION OF INPUT DATA
253 ** E) LENGTH OF INPUT DATA
254 ** F) LOWER LIMIT OF GOOD DATA
255 ** G) HIGHER LIMIT OF GOOD DATA
256 **
257 ** $QUXX
258 ** A) RULE EQUATE X'0400'
259 ** B) ADDRESS OF YES LEG RULE
260 ** C) TU BRANCH TO ADDRESS (INITIAL)
261 ** D) TU BRANCH TO ADDRESS (SECONDARY)
262 ** E) LENGTH OF PARAMETER IN BYTES
263 ** F) PARAMETER TO PASS TO TU
264 ** G) STORE ADDRESS FOR FIRST 8 WORDS OF PARAMETER
265 **
266 ** $TUXX
267 ** A) RULE EQUATE X'0500'
268 ** B) ADDRESS OF YES LEG RULE
269 ** C) TU BRANCH TO ADDRESS
270 ** D) TYPE OF COMPARE TO MAKE ON RESULTS
271 ** E) LENGTH OF COMPARED RESULTS
272 ** F) MASK FIELD FOR COMPARE
273 ** G) LENGTH OF PARAMETER IN BYTES
274 ** H) PARAMETER TO PASS TO THE TU
275 ** I) STORE ADDRESS FOR FIRST 8 WORDS OF PARAMETER
276 **
277 ** $NVLD
278 ** A) RULE EQUATE X'0600'
279 **
280 **
281 **
282 ** ENTRY POINT TABLE
283 ** THIS TABLE CONTAINS THE ENTRY POINTS WITHIN THE MAP THAT
284 ** THE MAP CAN BE ENTERED FROM THESE ENTRY POINTS ARE
285 ** REFERENCED BY NAME AND ADDRESS. ENTRIES ARE AS FOLLOWS:
286 **
287 ** A) NAME OF ENTRY POINT
288 ** B) ADDRESS OF ENTRY POINT RULE TABLE
289 **
290 ** THE ENTRY POINT TABLE END IS INDICATED BY A X'0000'
291 **
292 ** MESSAGE TABLE
293 ** THIS TABLE CONTAINS THE MESSAGE PASSED TO THE OPERATOR
294 ** VIA THE MDI SUPERVISOR. THE TABLE IS AS FOLLOWS:
295 **
296 ** A) EQUATE FOR START OF MESSAGE BLOCK
297 ** B) NUMBER OF LINES OF MESSAGE
298 ** C) LENGTH OF FOLLOWING LINE
299 ** D) FIRST LINE OF MESSAGE
300 ** E) LENGTH OF FOLLOWING LINE
301 ** F) SECOND LINE OF MESSAGE
302 ** G) ETC.
303 **
304 *****
305 *****

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 308 *****
 309 *****
 310 **
 311 ** STEP AND RULE ADDRESS TABLE **
 312 **
 313 *****
 314 *****
 315 DC AL2(N00001)
 316 DC XL2'0001'
 317 EQN00001 EQU 0001
 318 DC AL2(N00002)
 319 DC XL2'0002'
 320 EQN00002 EQU 0002
 321 DC AL2(N00003)
 322 DC XL2'0003'
 323 EQN00003 EQU 0003
 324 DC AL2(N00004)
 325 DC XL2'0004'
 326 EQN00004 EQU 0004
 327 DC AL2(N00005)
 328 DC XL2'0005'
 329 EQN00005 EQU 0005
 330 DC AL2(N00006)
 331 DC XL2'0006'
 332 EQN00006 EQU 0006
 333 DC AL2(N00007)
 334 DC XL2'0007'
 335 EQN00007 EQU 0007
 336 DC AL2(N00008)
 337 DC XL2'0008'
 338 EQN00008 EQU 0008
 339 DC AL2(N00009)
 340 DC XL2'0009'
 341 EQN00009 EQU 0009
 342 DC AL2(N00010)
 343 DC XL2'0010'
 344 EQN00010 EQU 0010
 345 DC AL2(N00011)
 346 DC XL2'0011'
 347 EQN00011 EQU 0011
 348 DC AL2(N00012)
 349 DC XL2'0012'
 350 EQN00012 EQU 0012
 351 DC AL2(N00013)
 352 DC XL2'0013'
 353 EQN00013 EQU 0013
 354 DC AL2(N00014)
 355 DC XL2'0014'
 356 EQN00014 EQU 0014
 357 DC AL2(N00015)
 358 DC XL2'0015'
 359 EQN00015 EQU 0015
 360 DC AL2(N00016)
 361 DC XL2'0016'
 362 EQN00016 EQU 0016
 363 DC AL2(N00017)
 364 DC XL2'0017'
 365 EQN00017 EQU 0017
 366 DC AL2(N00018)
 367 DC XL2'0018'
 368 EQN00018 EQU 0018
 369 DC AL2(N00019)
 370 DC XL2'0019'
 371 EQN00019 EQU 0019
 372 DC AL2(DUMHY)
 373 *****
 374 *****
 375 **
 376 ** RULE INFORMATION TABLE **
 377 **
 378 *****
 379 *****
 380 N00001 STUXX T7860,02,0000,EQ,QT=(Q00076),YES=N00007,CT=(C00075), X
 381+N00001 DC A(@STUXX)
 382 DC AL2(N00007)
 383 DC A(T7860)
 384 DC AL2(ON)
 385 DC X'0000'
 386+ ALIGN WORD
 387+ DC AL2(0)
 388+ DC C'AA'
 389+ ALIGN WORD
 390+ DC AL2(PARMARA)
 391+ STUXX T3C02,02,0008,ON,QT=(Q00080),YES=N00006,CT=(C00079)
 392+N00002 DC A(@STUXX)
 393+N00002 DC AL2(N00006)
 394+ DC A(T3C02)
 395+ DC AL2(ON)
 396+ DC X'0000'
 397+ ALIGN WORD
 398+ DC AL2(0)
 399+ DC C'AA'
 400+ ALIGN WORD
 401+ DC AL2(PARMARA)
 402+ STUXX T3C02,02,0002,ON,QT=(Q00083),YES=N00005,CT=(C00082)
 403+N00003 DC A(@STUXX)
 404+N00003 DC AL2(N00005)
 405+ DC A(T3C02)
 406+ DC AL2(ON)
 407+ DC X'0000'
 408+ ALIGN WORD
 409+ DC AL2(0)
 410+ DC C'AA'
 411+ ALIGN WORD
 412+ DC AL2(PARMARA)
 413+ SFIXT FT=(F00004),CT=(C00048)
 414+ DC A(@SFIXT)
 415+ DC A(F00004)
 416+N00004 DC SFIXT FT=(F00011),CT=(C00048)
 417+N00004 DC A(@SFIXT)
 418+ DC A(F00011)
 419+N00005 SFIXT FT=(F00011),CT=(C00048)
 420+N00005 DC A(@SFIXT)
 421+ DC A(F00011)

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00258E 0201 422 N00006 SCALL TYPE=XTRNL,MAP=7802,EP=A,FT=(F00127),GTO=((7802,A))
 002590 275A 423+N00006 DC A(@CALL)
 002590 275A 424+ DC A(F00127)
 002592 27F8F0F2 425+ DC CL4'7802'
 002592 C140 426+ DC CL2'A'
 002598 0001 427+ DC A2(XTRNL)
 00259A 0500 428 N00007 STUXX T7861,02,0000,EQ,QT=(Q00092),YES=N00011,CT=(C00091)
 00259C 25C6 429+N00007 DC A(@STUXX)
 00259E 2FBA 430+ DC AL2(N00011)
 0025A0 0000 431+ DC A(T7861)
 0025A2 0002 432+ DC AL2(ON)
 0025A4 0000 433+ DC X'0000'
 0025A6 0000 434+ ALIGN WORD
 0025A8 C1C1 435+ DC AL2(0)
 0025AA 196E 436+ DC C'AA'
 0025AC 0500 437+ ALIGN WORD
 0025AE 25C2 438+ DC AL2(PARMARA)
 0025B0 27CC 439+ STUXX T3C02,02,0002,ON,QT=(Q00095),YES=N00010,CT=(C00094)
 0025B2 0200 440+N00008 DC A(@STUXX)
 0025B4 0002 441+N00008 DC AL2(N00010)
 0025B6 0002 442+ DC A(T3C02)
 0025B8 0000 443+ DC AL2(ON)
 0025BA 0000 444+ DC AL2(ON)
 0025BC 196E 445+ DC X'0000'
 0025BE 0101 446+ ALIGN WORD
 0025C0 2632 447+ DC AL2(0)
 0025C2 0101 448+ DC C'AA'
 0025C4 2700 449+ ALIGN WORD
 0025C6 0500 450+ DC AL2(PARMARA)
 0025C8 25F2 451+ SFIXT FT=(F00004),CT=(C00048)
 0025CA 33F0 452+ DC A(@SFIXT)
 0025CC 0000 453+N00009 DC A(F00004)
 0025CE 0002 454+ DC A(F00011),CT=(C00048)
 0025D0 0000 455+N00010 DC A(@SFIXT)
 0025D2 0000 456+N00010 DC A(F00011)
 0025D4 C1C1 457+ STUXX T7862,02,0000,EQ,QT=(Q00104),YES=N00015,CT=(C00103)
 0025D6 196E 458+N00011 DC A(@STUXX)
 0025D8 0500 459+N00011 DC AL2(N00015)
 0025DA 25EE 460+ DC A(T7862)
 0025DC 07C0 461+ DC A(T3C02)
 0025DE 0002 462+ DC AL2(ON)
 0025E0 0002 463+ DC AL2(ON)
 0025E2 0002 464+ DC X'0000'
 0025E4 0000 465+ ALIGN WORD
 0025E6 C1C1 466+ DC AL2(0)
 0025E8 196E 467+ DC C'AA'
 0025EA 0101 468+ ALIGN WORD
 0025EC 2632 469+ DC AL2(PARMARA)
 0025EE 0101 470+N00012 STUXX T3C02,02,0002,ON,QT=(Q00107),YES=N00014,CT=(C00106)
 0025F0 2700 471+N00012 DC A(@STUXX)
 0025F2 0500 472+ DC AL2(N00014)
 0025F4 261E 473+ DC A(T3C02)
 0025F6 36C4 474+ DC AL2(ON)
 0025F8 0000 475+ DC AL2(ON)
 0025FA 0002 476+ DC X'0000'
 0025FC 0000 477+ ALIGN WORD
 0025FE 0000 478+ DC AL2(0)
 002600 C1C1 479+ DC C'AA'
 002602 196E 480+ ALIGN WORD
 002604 0500 481+ DC AL2(PARMARA)
 002606 261A 482+ SFIXT FT=(F00004),CT=(C00048)
 002608 27CC 483+ DC A(@SFIXT)
 00260A 0200 484+ DC A(F00004)
 00260C 0002 485+N00014 SFIXT FT=(F00011),CT=(C00048)
 00260E 0002 486+N00014 DC A(@SFIXT)
 002610 0000 487+ DC A(F00011)
 002612 C1C1 488+N00015 STUXX T7863,02,0000,EQ,QT=(Q00116),YES=N00019,CT=(C00115)
 002614 196E 489+N00015 DC A(@STUXX)
 002616 0101 490+ DC AL2(N00019)
 002618 2632 491+ DC A(T7863)
 00261A 0101 492+ DC AL2(ON)
 00261C 2700 493+ DC AL2(ON)
 00261E 0200 494+ DC X'0000'
 002620 2772 495+ ALIGN WORD
 002622 C140 496+ DC AL2(0)
 002624 0001 497+ DC C'AA'
 002626 0000 498+ ALIGN WORD
 002628 0000 499+ DC AL2(PARMARA)
 00262C 2550 500+N00016 STUXX T3C02,02,0002,ON,QT=(Q00119),YES=N00018,CT=(C00118)
 00262E 2550 501+N00016 DC A(@STUXX)
 002630 2772 502+ DC AL2(N00018)
 002632 C140 503+ DC A(T3C02)
 002634 0001 504+ DC AL2(ON)
 002636 0000 505+ DC AL2(ON)
 002638 0000 506+ DC X'0000'
 00263A 0000 507+ ALIGN WORD
 00263C 0000 508+ DC AL2(0)
 00263E 0000 509+ DC C'AA'
 002640 0000 510+ ALIGN WORD
 002642 196E 511+ DC AL2(PARMARA)
 002644 0101 512+N00017 SFIXT FT=(F00004),CT=(C00048)
 002646 2632 513+N00017 DC A(@SFIXT)
 002648 0101 514+ DC A(F00004)
 00264A 0101 515+N00018 SFIXT FT=(F00011),CT=(C00048)
 00264C 2700 516+N00018 DC A(@SFIXT)
 00264E 0200 517+ DC A(F00011)
 002650 0200 518+N00019 SGO TO TYPE=XTRNL,EP=A,MAP=7821,FT=(F00130),GTO=((7821,A))
 002652 2772 519+N00019 DC A(@GOTO)
 002654 C140 520+ DC A(F00130)
 002656 0001 521+ DC CL4'7821'
 002658 0000 522+ DC CL2'A'
 00265A 0000 523+ DC AL2(XTRNL)
 00265C 0000 524+ DC AL2(DUMHY)
 525 ENTPT EQU *
 526 *****
 527 *****
 528 **
 529 ** ENTRY POINT TABLE **
 530 **
 531 *****
 532 *****
 533 ENTPT EP=A STEP=0001
 534 DC CL4'A'
 535 DC A(N00001)

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002630 0000 536 DC AL2(DUMMY)
537 *****
538 *****
539 **
540 **
541 **
542 *****
543 *****
544 F00004 EQU *
545 DC AL2(0005)
546 DC A(0040)
547 DC C10040'REPLACE 4962 CARDS A-A1C2,A-A1D2,ATTACH.'
548 DC A(0046)
549 DC C10046'INSPECT AND RESEAT CABLES BETWEEN ATTACH. AND '
550 DC A(0036)
551 DC C10036'4962. REPLACE A-A1G2, A-A1H2. BEFORE'
552 DC A(0044)
553 DC C10044'REPLACING CARDS, CHECK 4962 VOLTAGE, SEE MAP'
554 DC A(0028)
555 DC C10028'7885 FOP CHECK OUT PPOCEDURF'
556 F00011 EQU *
557 DC AL2(0002)
558 DC A(0042)
559 DC C10042'REPLACE 4962 ATTACHMENT CAPD, INSPECT AND '
560 DC A(0042)
561 DC C10042'RESEAT CABLES BETWEEN ATTACHMENT AND 4962 '
562 F00127 EQU *
563 DC AL2(0001)
564 DC A(0020)
565 DC C10020'GO TO MAP7802,EP=A. '
566 F00130 EQU *
567 DC AL2(0001)
568 DC A(0016)
569 DC C10016'MAP 7820 CORRECT'
570 HDIT 00B2
571 DC X'0000' PPOGRAM OPTION CONTROL WORD 1
572+OPTN1 DC X'0000' PPOGRAM OPTION CONTROL WORD 2
573+**
574+OPTN2 DC X'0000'
575+** BIT HEX
576+B48 EQU 16 0 8
577+B49 EQU 17 1 4
578+B50 EQU 18 2 2
579+B51 EQU 19 3 2
580+B52 EQU 20 4 8
581+B53 EQU 21 5 4
582+B54 EQU 22 6 2
583+B55 EQU 23 7 1
584+B56 EQU 24 8 8
585+B57 EQU 25 9 4
586+B58 EQU 26 10 2
587+B59 EQU 27 11 1
588+B60 EQU 28 12 8
589+B61 EQU 29 13 4
590+B62 EQU 30 14 2
591+B63 EQU 31 15 2
592+** EQU 30 14 2
593+** EQU 31 15 2
594+** EQU 30 14 2
595+** EQU 31 15 2
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618+** EQU 30 14 2
619+** EQU 31 15 2
620+** EQU 30 14 2
621+** EQU 31 15 2
622+** EQU 30 14 2
623+** EQU 31 15 2
624+** EQU 30 14 2
625+** EQU 31 15 2
626+** EQU 30 14 2
627+** EQU 31 15 2
628+** EQU 30 14 2
629+** EQU 31 15 2
630+** EQU 30 14 2
631+** EQU 31 15 2
632+** EQU 30 14 2
633+** EQU 31 15 2
634+** EQU 30 14 2
635+** EQU 31 15 2
636+** EQU 30 14 2
637+** EQU 31 15 2
638+** EQU 30 14 2
639+** EQU 31 15 2
640+** EQU 30 14 2
641+** EQU 31 15 2
642+** EQU 30 14 2
643+** EQU 31 15 2
644+** EQU 30 14 2
645+** EQU 31 15 2
646+** EQU 30 14 2
647+** EQU 31 15 2
648+** EQU 30 14 2
649+** EQU 31 15 2
650+** EQU 30 14 2
651+** EQU 31 15 2
652+** EQU 30 14 2

LOCTR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976
0027B8 0000 653+CSL7 DC A(*-*)
0027BA 0000 654+CSL8 DC A(*-*)
655+**
656+**SUBN DC A(*-*)
657+**DATA DC 2A(*-*)
658+**INTL DC X'0021'
659+**UPTN DC A(*-*)
660+**VVID DC X'00B2'
661+**SVCAL DC A(DEVADD)
662+** DC A(*-*)
663+**
664+** THIS TEST UNIT WILL RETURN TO MDI WITHOUT DOING ANY PPOGRAM
665+** FUNCTION. THE RESULTS THAT WERE SET UP IN THE RESULTS AREA ARE
666+** STILL VALID BUT A DIFFERENT TEST IS TO BE PERFORMED.
667+**
668+**I3C02 MVWI X'3C02',STUID SET UP TEST UNIT ID
669+** BXS (R7) RETURN TO MDI SUPVR
670+** COPY COMEQH
671+**
672+*****
673+**
674+** EQUATED NAMES FOR SUPPORTED SVC'S
675+**
676+*****
677 OUT EQU 0 OUT SVC
678 OUTIN EQU 1 OUTIN SVC
679 IDLE EQU 2 IDLE SVC
680 ASCII EQU 3 HEX TO ASCII SVC
681 CHNGE EQU 4 CHANGE LEVEL SVC
682 PGHCK EQU 5 ALLOW RETURN ON PROGRAM CHECK SVC
683 EXIT EQU 6 EXIT SVC
684 TERM EQU 7 TERMINATE SVC
685 RESET EQU 8 RESET DEVICE SVC
686 PID EQU 9 READ ID SVC
687 START EQU 10 START CYCLE STEAL SVC
688 STCSS EQU 11 START CYCLE STEAL STATUS SVC
689 PREP EQU 12 PREPARE DEVICE SVC
690 READ0 EQU 13 READ WITH FUNCTION BIT 3 OFF SVC
691 READ1 EQU 14 READ WITH FUNCTION BIT 3 ON SVC
692 RSTAT EQU 15 READ STATUS SVC
693 WRIT0 EQU 16 WRITE WITH FUNCTION BIT 3 OFF SVC
694 WRIT1 EQU 17 WRITE WITH FUNCTION BIT 3 ON SVC
695 CTRL EQU 18 CONTROL SVC
696 RIBC EQU 19 RELEASE INTERUPT CONTROL BLOCK SVC
697 ICIB EQU 20 CONNECT INTERUPT CONTROL BLOCK SVC
698 HIO EQU 21 HALT ALL I/O
699 RECSO EQU 22 REQUEST USE OF DCP DISK SVC
700 RELSD EQU 23 RELEASE USE OF DCP DISK SVC
701 HALT EQU 24 HALT SVC
702 ETOH EQU 25 ERCDIC TO HEX SVC (STRING)
703 HTOE EQU 26 HEX TO ERCDIC SVC (STRING)
704 ATOH EQU 27 ASCII TO HEX SVC (STRING)
705 HIOA EQU 28 HEX TO ASCII SVC (STRING)
706 ETOA EQU 29 ERCDIC TO ASCII SVC (STRING)
707 ATOB EQU 30 ASCII TO ERCDIC SVC (STRING)
708 ATOU EQU 31 READ DATA SETS FOR MDI/UTIL
709 WRITI EQU 32 WRITE DATA SETS FOR UTIL
710 *****
711 *****
712 *****
713 ***** EQUATES USED BY TU'S AS CONSTANTS
714 *****
715 *****
716 PLUS EQU C+'+' PLUS CHAR
717 MINUS EQU C-'-' MINUS CHAR
718 ZEP EQU 0
719 ONE EQU 1
720 TWO EQU 2
721 THREE EQU 3
722 FOUR EQU 4
723 FIVE EQU 5
724 SIX EQU 6
725 SEVEN EQU 7
726 EIGHT EQU 8
727 NINE EQU 9
728 TEN EQU 10
729 ELEVEN EQU 11
730 TWELV EQU 12
731 THIRN EQU 13
732 FIVN EQU 14
733 SIXTN EQU 15
734 SEVNTN EQU 16
735 THRY2 EQU 32
736 SIXT4 EQU 64
737 ONE28 EQU 128
738 TWO56 EQU 256
739 ONEK EQU 1024
740 TWOK EQU 2048
741 THREEK EQU 3072
742 FOURK EQU 4096
743 M1 EQU -1
744 M2 EQU -2
745 M3 EQU -3
746 M4 EQU -4
747 *****
748 *****
749 *****
750 *****
751 ***** THE FOLLOWING ARE EQUATES FOR BIT DISPLACEMENTS FROM THE
752 ***** BEGINNING OF THE BYTE TO EACH BIT IN THE WORD OF SWITCHES.
753 *****
754 *****
755 BS0 EQU 0
756 BS1 EQU 1
757 BS2 EQU 2
758 BS3 EQU 3
759 BS4 EQU 4
760 BS5 EQU 5
761 BS6 EQU 6
762 BS7 EQU 7
763 BS8 EQU 8
764 BS9 EQU 9
765 BS10 EQU 10
766 BS11 EQU 11
767 BS12 EQU 12
768 BS13 EQU 13
769 BS14 EQU 14
770 BS15 EQU 15
771 *****
772 COPY CK78DCB 01DEC76

LOCTR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976
773 ** (T78DCB) 13AUG76
774 *****
775 *
776 * DCB TABLES AND DC'S
777 *
778 *****
779 *
780 ***** DIAGNOSTIC DCB *****
781 *
782 DGDCB DC X'2008' DIAGNOSTIC DCB
783 DC X'0000' NOT USED
784 DC X'0000' NOT USED
785 DC X'0000' NOT USED
786 DC X'0000' NOT USED
787 DC A(*-*) CHAINING ADDRESS
788 DC X'0100' BYTE COUNT
789 DC A(*-*) DATA ADDRESS
790 *
791 *
792 ***** RECALIBRATE DCB *****
793 *
794 CLDCB DC X'0007' RECALIBRATE DCB
795 DC 7A(*-*)
796 *
797 ***** WRITE SECTOR ID **
798 *
799 WSDCB DC X'0002' WRITE SECTOR ID CONTROL WORD
800 DC X'0000' NOT USED
801 DC A(*-*) 0-7 = PHYSICAL SECTOR # MINUS ONE
802 DC A(*-*) NOT USED
803 DC A(*-*) NOT USED
804 DC A(*-*) CHAIN ADDRESS
805 DC X'0006' BYTE COUNT
806 DC A(WRSID) ADDR OF SECTOR ID DATA
807 ***** READ SECTOR ID DCB *****
808 *
809 RSDCB DC X'200A' READ SECTOR ID
810 DC X'0000' NOT USED
811 DC X'0000' 0-7 = PHYSICAL SECTOR # MINUS ONE
812 DC X'0000' NOT USED
813 DC X'0000' NOT USED
814 DC X'0000' CHAIN ADDRESS
815 DC X'0006' BYTE COUNT FOR READ SECTOR ID
816 DC A(SCTID) SECTOR ID DATA ADDRESS
817 *
818 *
819 ***** READ SECTOR ID IMMEDIATE DCB *****
820 *
821 RIDCB DC X'200E' READ SECTOR ID
822 DC X'0000' NOT USED
823 DC X'0000' NOT USED
824 DC X'0000' NOT USED
825 DC X'0000' NOT USED
826 DC A(*-*) CHAIN ADDRESS
827 DC X'0006' BYTE COUNT FOR READ SECTOR ID
828 DC A(SCTID) SECTOR ID DATA ADDRESS
829 *
830 *
831 ***** SEEK DCB *****
832 *
833 SKDCB DC X'0005' SEEK DCB
834 DC X'0000' BIT 0-3=0;BIT4=DIRECTION;5-15=DIFFER
835 DC F'0'
836 DC F'0'
837 DC X'0000' 0-7 = HEAD;8-15 NOT USED
838 DC A(*-*) CHAIN ADDRESS
839 DC F'0' NOT USED
840 DC F'0' NOT USED
841 *
842 ***** CYCLE STEAL STATUS DCB *****
843 *
844 CSDCB DC X'2000' CONTROL WORD
845 DC F'0' NOT USED
846 DC F'0' NOT USED
847 DC F'0' NOT USED
848 DC F'0' NOT USED
849 DC F'0' NOT USED
850 DC X'0008' 4 WORDS OF STATS
851 DC A(CSBUF) ADDRESS OF CYCLE STEAL STATUS DATA
852 *
853 ***** WRITE DCB *****
854 *
855 WRDCB DC X'0001' WRITE CONTROL WORD
856 DC F'0' NOT USED
857 DC X'0000' 0-7=0;8-15 = FLAG BYTE
858 DC X'0000' SEARCH ARGUMENT CYLINDER
859 DC X'0000' SEARCH ARGUMENT HEAD-SECTOR
860 DC A(*-*) CHAIN ADDRESS
861 DC F'0' BYTE COUNT
862 DC A(*-*) WRITE DATA ADDRESS
863 *
864 ***** VERIFY DCB *****
865 *
866 VRDCB DC X'200C' CONTROL WORD
867 DC F'0' NOT USED
868 DC X'0000' 0-7=0;8-15 = FLAG BYTE
869 DC X'0000' CYLINDER
870 DC X'0000' HEAD - SECTOR
871 DC A(*-*) CHAIN ADDRESS
872 DC F'0' BYTE COUNT
873 DC A(*-*) VERIFY DATA ADDRESS
874 *
875 ***** READ DCB *****
876 *
877 RDDCB DC X'2009' READ DCB CONTROL WORD
878 DC F'0' NOT USED
879 DC X'0000' 0-7=0;8-15 = FLAG BYTE
880 DC X'0000' SEARCH ARGUMENT CYLINDER
881 DC X'0101' SEARCH ARGUMENT H-R
882 DC A(*-*) CHAIN ADDRESS
883 DC F'0' BYTE COUNT
884 DC A(*-*) READ DATA ADDRESS
885 *
886 ***** WRITE SECTOR ID SKEWED *****

LOCTR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976
887 *
888 WKDCB DC X'0003' CONTROL WORD
889 DC X'0000' NOT USED
890 DC A(*-*) 0-7 = PHYSICAL SECTOR # MINUS ONE
891 DC A(*-*) NOT USED
892 DC A(*-*) NOT USED
893 DC A(*-*) CHAIN ADDRESS
894 DC X'0006' BYTE COUNT
895 DC A(WRSID) ADDR OF SECTOR ID DATA
896 *
897 ***** READ SECTOR ID SKEWED *****
898 *
899 RKDCB DC X'200B' CONTROL WORD
900 DC X'0000' NOT USED
901 DC X'0000' 0-7 = PHYSICAL SECTOR # MINUS ONE
902 DC X'0000' NOT USED
903 DC X'0000' NOT USED
904 DC X'0006' CHAIN ADDRESS
905 DC A(*-*) BYTE COUNT FOR READ SECTOR ID
906 DC A(SCTID) SECTOR ID DATA ADDRESS
907 *
908 * CONSTANTS AND DEFINED STORAGE LOCATIONS
909 ZERO0 DC X'0000' CONSTANT ZERO
910 ONE1 DC X'0001' CONSTANT ONE
911 LGSECC DC X'0000' LOGICAL SECTOR #
912 PHYSC DC X'0000' CONVERTED PHYSICAL SEC #
913 CB29 DC X'1D00' CONSTANT BYTE 29
914 FIVE9 DC X'3B00' CONSTANT BYTE 59
915 WPSID DC X'0000' FLAG,CYLINDER (WRT SECTOR ID DATA)
916 DC X'0000' CYLINDER,HEAD
917 DC X'0000' IDG SECTOR,NOT USED
918 WSIDT DC X'1F90' WRITE SECTOR ID TEST DATA
919 DC X'5678' *
920 DC X'9A00' *
921 SCTST DC X'0000' READ SECTOR ID TEST DATA BUFFER
922 DC X'0000' *
923 DC X'0000' *
924 CTR01 DC X'0000' COUNTER
925 DIFF DC X'0000' DIFFERENCE LOC
926 XXX DC X'0000' DIRECTION
927 *
928 * COPY T78DPCIO 01DEC76
929 ** (T78DPCIO) ** 2/07/77
930 *
931 * EXECUTE DPC INPUT/OUTPUT COMMANDS
932 * THIS ROUTINE HAS THE FOLLOWING ENTRIES:
933 *
934 *
935 * 1 BAL CEOP1,R6 CE DIAGNOSTIC OP1(TURN ON DIAG MODE)
936 *
937 * 2 BAL CEOP2,R6 WRITE DIAG CLOCK STEP DATA
938 *
939 * 3 BAL SENS0,P6 CE READ SENSE WORD ZERO
940 *
941 * 4 BAL SENS1,P6 CE READ SENSE WORD ONE
942 *
943 * 5 BAL WRAP,R6 READ DIAGNOSTIC WFP
944 *
945 * BXS (R6,2) RETURN
946 *
947 *****
948 *
949 * CE DIAGNOSTIC OP2 DATA WORD (CLOCK STEP)
950 *
951 * BIT 00 - SET READY
952 * BIT 01 - RESET READY
953 * BIT 02 - SET WRITE CLOCK
954 * BIT 03 - SET READ CLOCK
955 * BIT 04 - INDEX PULSE
956 * BIT 05 - SECTOR PULSE
957 * BIT 06 - STANDARD READ DATA
958 * BIT 07 - SPEED PULSE
959 * BIT 08 - BEHIND HOME
960 * BIT 09 - SET SEEK COMPLETE
961 * BIT 10 - RESET SEEK COMPLETE
962 * BIT 11 - PLO OUT OF SYNC
963 * BIT 12 - RST RD/WRT CLOCK
964 * BIT 13 -
965 * BIT 14 -
966 * BIT 15 - RESET DIAGNOSTIC MODE
967 *
968 *****
969 *
970 *
971 WRAP MVW R6,LISTIO SAVE ADDRESS OF LAST IO
972 MVB DEVADD,IDCBRAP+1 LOAD DEVICE ADDRESS IN IDCB
973 IO IDCBRAP FEAD SENSE WORD 1
974 BNCC 7,CCERP CHECK COND CODE
975 BXS (R6,2) RETURN TO CALLER
976 *
977 CEOP1 MVW R6,LISTIO SAVE ADDRESS OF LAST IO
978 MVB DEVADD,IDCBCE1+1 LOAD DEVICE ADDRESS IN IDCB
979 IO IDCBCE1 SET DIAGNOSTIC MODE
980 BNCC 7,CCERP CHECK COND CODE
981 BXS (R6,2) RETURN TO CALLER
982 *
983 CEOP2 MVW R6,LISTIO SAVE ADDRESS OF LAST IO
984 MVB DEVADD,IDCBCE2+1 LOAD DEVICE ADDRESS IN IDCB
985 IO IDCBCE2 WRITE DIAG CLOCK STEP
986 BNCC 7,CCERP CHECK COND CODE
987 BXS (R6,2) RETURN TO CALLER
988 *
989 *
990 SENS1 MVW R6,LISTIO SAVE ADDRESS OF LAST IO
991 MVB DEVADD,IDCB1+1 LOAD DEVICE ADDRESS IN IDCB
992 IO IDCB1 FEAD SENSE WORD 2
993 BNCC 7,CCERP CHECK COND CODE
994 BXS (R6,2) RETURN TO CALLER
995 *
996 SENS0 MVW R6,LISTIO SAVE ADDRESS OF LAST IO
997 MVB DEVADD,IDCB0+1 LOAD DEVICE ADDRESS IN IDCB
998 IO IDCB0 READ SENSE WORD 1
999 BNCC 7,CCERP CHECK COND CODE
1000 BXS (R6,2) RETURN TO CALLER
1001 *

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LOCTR OBJECT TEXT STMT SOURCE STATEMENT
00291C 706E 1002 CCERR DC X'706E' COPY STATUS ANY LEVEL INTO R3
00291E 336A 1013 SRL 13,R3 POSITION CC CODE TO BITS 13-15
002920 C328 278E 1004 MVB R3,SIOIN * PUT IN LOG AREA
002924 68D2 0000 1005 B (R6)* RETURN TO USER
1006 *
1007 IORST DC X'6F05' RESET IO
1008 IDCBO DC X'2205' SENSE WORD ZERO
1009 RDATA0 DC A(*-*) DATA WORD
1010 IDCBI DC X'2105' SENSE WORD ONE
1011 RDATA DC A(*-*) CE DIAG OP1
1012 IDCBC1 DC X'4005' SENSE DATA
1013 CEDAT DC A(*-*) CE DIAG OP2
1014 IDCBC2 DC X'4105' SENSE DATA
1015 CEDAT2 DC A(*-*) READ DIAG WRAP
1016 IDCBFAP DC X'2F05' SENSE DATA
1017 RAPDAT DC A(*-*) CPU ID
1018 CPUID EQU X'0232'
1019 *
1021 ** COPY CK78IO 01DEC76
1022 ** (T78IO) 01DEC76
1023 *
1024 * EXECUTE INPUT & OUTPUT COMMANDS
1025 * TO EXECUTE ALL I/O COMMANDS FROM A COMMON PLACE.
1026 * EACH OF THESE ENTRIES SET R7 WITH THE ADRS OF ITS PARAMETER
1027 * LIST AND ANY SPECIAL SWITCHES BEFORE BRANCHING TO THE
1028 * SUPVR CALL.
1029 *
1030 * THIS SUBROUTINE WILL CHECK FOR THE FOLLOWING:
1031 *
1032 * 1. LOST INTERRUPTS BY TIMING OUT A COUNTING LOOP
1033 * 2. ERROR INTERRUPTS RECEIVED FROM SUPVR
1034 * 3. LOOP ON ERROR, THE CALL MUST HAVE A 'DC' STATEMENT AFTER
1035 * THE CALL WITH THE ADDRESS OF THE RTRY STATEMENT
1036 * 4. CYCLE STEAL IN PROGRESS WITH AN ERROP
1037 * 5. SOMETHING ELSE
1038 *
1039 * THIS ROUTINE HAS THE FOLLOWING ENTRIES:
1040 *
1041 * 1 BAL \$RKEW,R6 READ SECTOR ID SKEWED
1042 *
1043 * 2 BAL \$WKST,R6 WRITE SECTOR ID SKEWED (TEST)
1044 *
1045 * 3 BAL \$RWST,R6 READ SECTOR ID SKEWED (TEST)
1046 *
1047 * 4 BAL \$RIDS,R6 READ SECTOR ID (TEST)
1048 *
1049 * 5 BAL \$WKEW,R6 WRITE SECTOR ID SKEWED
1050 *
1051 * 6 BAL \$WSEC,R6 WRITE SECTOR ID
1052 *
1053 * 7 BAL \$WSTS,R6 WRITE SECTOR ID (TEST)
1054 *
1055 * 8 BAL \$DIAG,R6 DIAGNOSTIC
1056 *
1057 * 9 BAL \$XIOCS,R6 CYCLE STEAL STATUS
1058 *
1059 * 10 BAL \$SEEK,R6 SEEK
1060 *
1061 * 11 BAL \$RECL,R6 RECALIBRATE
1062 *
1063 * 12 BAL \$RDID,R6 READ SECTOR ID
1064 *
1065 * 13 BAL \$RD,R6 READ
1066 *
1067 * 14 BAL \$RDVY,R6 READ VERIFY
1068 *
1069 * 15 BAL \$WRT,R6 WRITE
1070 *
1071 *
1072 \$SEEK MVA SKDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
1073 J XIO
1074 *
1075 \$RECL MVA CLDCB,IODCB SET UP BLOCK FOR SVC CALL
1076 J XIO
1077 *
1078 \$RDID MVA RSDCB,IODCB SET UP BLOCK FOR SVC CALL
1079 MVB X'FF',R3 SET BUFFER TO P'S
1080 MVA SCTID,R5 SETUP PEAD SECTOR ID BUFFER ADRS
1081 MVWI 6,R7 SETUP BUFFER LENGTH
1082 FPN R3,(R5) INIT READ SECTOR ID BUFFER
1083 MVA SCTID,RSDCB+14 DATA ADDR
1084 J XIO
1085 *
1086 \$RD MVA RDDCB,IODCB SET UP BLOCK FOR SVC CALL
1087 J XIO
1088 *
1089 \$RDVY MVA VRDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
1090 J XIO
1091 *
1092 \$WRT MVA WRDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
1093 J XIO
1094 *
1095 \$RKEW MVA RKDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
1096 MVA SCTID,RKDCB+14 DATA ADDR
1097 J XIO
1098 *
1099 \$WKST MVA WKDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
1100 MVA WSIDT,WKDCB+14 DATA ADDR
1101 J XIO
1102 *
1103 \$RWST MVA RKTDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
1104 MVA SCTST,RKDCB+14 DATA ADDR
1105 J XIO
1106 *
1107 \$RIDS MVA RSDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
1108 MVB X'FF',R3 SET BUFFER TO P'S
1109 MVA SCTST,R5 SETUP READ SECTOR ID BUFFER ADPS
1110 MVWI 6,R7 SETUP BUFFER LENGTH
1111 FPN R3,(R5) INIT READ SECTOR ID BUFFER
1112 MVA SCTST,RSDCB+14 DATA ADDR
1113 J XIO
1114 *
1115 \$WKEW MVA WKDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
1116 MVA WRSID,WKDCB+14 DATA ADDR

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LOCTR OBJECT TEXT STMT SOURCE STATEMENT
0029D0 5012 1117 J XIO
1118 *
1119 \$WSEC MVA WSDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
1120 MVA WRSID,WSDCB+14 DATA ADDR
1121 J XIO
1122 \$WSTS MVA WSDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
1123 MVA WSIDT,WSDCB+14 DATA ADDR
1124 J XIO
1125 *
1126 \$DIAG MVA DGDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
1127 J XIO
1128 XEQIT
1129 *****29JUL76**
1130 **
1131 ** SUB-ROUTINE
1132 **
1133 ** EXECUTE INPUT AND OUTPUT COMMANDS
1134 **
1135 ** PURPOSE
1136 **
1137 ** TO EXECUTE ALL I/O COMMANDS FROM A COMMON PLACE.
1138 ** THIS SUBROUTINE WILL DO THE FOLLOWING FUNCTIONS:
1139 **
1140 ** 1. SAVE THE ADDRESS THAT POINTS TO THE INSTRUCTION THAT STARTED
1141 ** THE I/O COMMAND.
1142 ** 2. SAVES THE DCB BLOCK USED UNLESS IT IS A START CYCLE STATUS
1143 ** ISSUED BY THIS SUBROUTINE.
1144 ** 3. CLEAR OUT THE CYCLE STEAL STATUS STORAGE UNLESS THE
1145 ** START CYCLE STATUS WAS ISSUED BY THIS SUBROUTINE.
1146 ** 4. RESETS THE INTERRUPT INDICATOR AND CHECKS FOR ANY INTERRUPT,
1147 ** SINCE THE LAST EXPECTED INTERRUPT. IF AN INTERRUPT IS FOUND,
1148 ** MYSTERY INTERRUPT (MI) CONTROL BIT IS SET.
1149 ** 5. MOVES THE ADDRESS OF THE I/O CONTROL BLOCK IN R7, SET THE
1150 ** EXPECTED INTERRUPT CONTROL BIT AND ISSUE THE 'SVC START'.
1151 ** 6. WHEN THE SUPVR RETURNS AFTER ISSUING THE I/O COMMAND, TIMING
1152 ** STARTS TO DETERMINE A LOST INTERRUPT.
1153 ** 7. EXCEPT THE INTERRUPT AND GATHER INFORMATION TO DETERMINE IF IT
1154 ** WAS AN ERROR OR OKAY AND EXIT OFF THE INTERRUPT LEVEL.
1155 ** 8. CHECK IF THERE WAS A WRONG INTERRUPT LEVEL.
1156 ** 9. CHECK IF AN ERROR WAS EXPECTED AND IF THERE WAS RETURN.
1157 ** 10. CHECK IF THERE WAS AN ERROR CONDITION, IF NOT RETURN.
1158 ** 11. CHECK TO SEE IF THE EXERCISER IS TO BE TERMINATED.
1159 ** 12. CHECK IF A CYCLE STEAL OPERATION WAS IN PROGRESS THAT WAS
1160 ** ISSUED BY THIS SUBROUTINE.
1161 ** 13. CHECK THE ISB BITS THAT ARE ON. IF BIT 0 IS ON, ISSUE A
1162 ** CYCLE STEAL STATUS COMMAND. CHECK FOR ANY OTHER BIT BEING ON,
1163 ** COUNT IT AND SET UP THE PROPER ERROR MESSAGE TO BE PRINTED.
1164 **
1165 ** CALLING SEQUENCE
1166 **
1167 ** THIS ROUTINE HAS THE FOLLOWING ENTRIES:
1168 **
1169 ** --> BAL XIO OR XEQ ANY CYCLE STEAL COMMAND, MOD=0
1170 ** --> BAL XIO1 MOD PARM PRELOADED IN 'IOMOD'
1171 ** --> BAL XIOCS,R6 OR XEQ START CYCLE STEAL STATUS, MOD=XIO
1172 ** --> BAL XIOCS-4,R6 AUTO CS STATUS (FOLLOWING OTHER XIO
AND DOES NOT POST INTERRUPT STATUS)
1173 **
1174 **
1175 ** RETURN CONTROL
1176 **
1177 ** BXS (R6,2) RETURN TO USER NO ERROR
1178 ** OR B (R6)* RETURN AND RETRY ON ERROR
1179 *****
1181 XIO MVWZ IOMOD,R3 SET MOP OF 0 FOR CYCLE STEAL OP
1182 J XIO1 CS I/O'S ARE NOT REIFIED
1183 **
1184 ** TBTR (R4,CE) RESET CS STATUS INTER ERROP INDICAT.
1185 ** TBTS (R4,CS) SET 'CYCLE STEAL STATUS' IN PROGRESS
1186 ** XIOCS MVA CSDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
1187 ** MVWI X'000F',IOMOD SET CYCLE STEAL MODIFIER
1188 ** TBT (R4,CS) IS CS IN PROGRESS, ERROR CONDITION
1189 ** JON X'02' * YES, BYPASS SAVING I/O ADRS
1190 ** XIO1 MVA R6,LSTIO SAVE IAR FOR RETRY IF REQUESTED
1191 ** MVA DCBUP,R3 SET UP TO ADRS TO MOVE DCB TABLE
1192 ** MVW IODCB,R5 * AND THE FROM ADRS, ALONG WITH
1193 ** MVB 16,R7 * THE NUMBER OF MOVES
1194 ** MVFN (R5),(R3) MOVE 1 STATUS WORD AND ADJUST
1195 ** MVBI 255,R3 CLEAR CYCLE STATUS BUFFER
1196 ** MVA CSBUP,R5 * TO ALL ONES *
1197 ** MVB 16,R7 *
1198 ** FPN R3,(R5) *
1199 ** MVWI X'0708',SIOIN OVERLAY OLD CONDITION CODES
1200 ** MVWZ \$ISB,R3 ZERO OUT OLD ISB VALUE
1201 **
1202 ** TBTR (R4,EE) RESET ANY ERROR BEFORE I/O COMMAND
1203 ** XIO2 TBTR (R4,IN) CLEAR INTERRUPT RECEIVED CNTL BIT
1204 ** MVA IOBLK,P7 SET UP CONTROL BLOCK FOR SUPVR
1205 ** TBTR (R4,\$IE) RESET LEVEL ERROR INDICATOR
1206 ** TBTS (R4,XI) SET EXPECTED INTR CONTROL BIT
1207 ** SVC START CALL SUPVR FOR I/O COMMAND
1208 **
1209 ** TBTP (R4,NI) IS AN INTR EXPECTED
1210 ** BN (R6,2) * NO, RETURN TO USER
1211 **
1212 ** THE INTR SHOULD OCCUR WHILE SPINNING IN THE NEXT SECTION
1213 **
1214 ** MVBI X'00',R5 SET UP WORK REG FOR 'LOST INTP'
1215 ** XIO8 TBTR (R4,IN) HAS INTERRUPT BEEN RECEIVED
1216 ** JON XIOCK * YES, CHECK IF ALL WAS SATISFACTORY
1217 ** SVC IDLE ALLOW ANOTHER PROGRAM A CHANCE TO RUN
1218 **
1219 ** AWI 1,R5 SUPVR WILL RETURN HERE
1220 ** JNZ XIO8 ADVANCE TIME OUT COUNT
1221 ** TBTS (R4,ER) BCH IF TIME OUT NOT REACHED
1222 ** B (R6)* SET ON ERROR CONTROL BIT
1223 ** *****ERR 'NO INTERRUPT'*****
1224 *****03FEB76**
1225 **
1226 ** SUBROUTINE
1227 **
1228 ** I/O EXECUTE ERROR HANDLING ROUTINE
1229 **
1230 ** PURPOSE
1231 **
1232 ** THIS ROUTINE WILL COLLECT INFORMATION TO HELP DETERMINE THE

LOCTR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976
1233** PROBLEM THAT WAS FOUND WHEN THE I/O COMMAND WAS ISSUED BY THE
1234** SUPERVISOR AND IT WAS NOT ACCEPTED.
1235**
1236** CALLING SEQUENCE
1237**
1238** SUPVR WILL ENTER WHEN AN ERROR OCCURS ON AN I/O COMMAND
1239**
1240** RETURN CONTROL
1241**
1242** B (R6)* RETURN TO USERS EPROR HANDLER
1243**
1244**
1245**
1246** CC 0= DEVICE NOT ATTACHED
1247** FOR 1= DEVICE BUSY
1248** I/O 2= DEVICE BUSY AFTER RESET
1249** 3= COMMAND REJECT
1250** 4= INTERVENTION REQUIRED
1251** 5= INTERFACE DATA CHECK
1252** 6= CONTROLLER BUSY
1253** 7= I/O COMMAND EXCEPTED
1254**
002A5C 706E X'706E' COPY STATUS ANY LEVEL INTO R3
002A5E 336A SRL 13,R3 POSITION CC CODE TO BITS 13-15
002A60 C328 278E MVA OPTN1,R4 SET UP BASE ADRS
002A64 68D2 0000 TBT (R4,CS) IS 'CS IN PROGRESS
* NO
* YES, BCH AROUND UPDATE
SAVE INTERRUPTING CC CODE
SAVE INTR STATUS AND DEV ADRS
CURRENT LEVEL COPIED BY DCP
POSITION INTR LEVEL AND PUT
* IN '1' BIT
IS THIS THE CORRECT INTR LEVEL
* YES, GO EXIT THIS LEVEL
SET INTR LEVEL ERROR CONTROL BIT
SET ERROR ON I/O COMMAND CNTL BIT
WAS INTERRUPT EXPECTED
* YES, EXIT OFF THIS INTR LEVEL

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1349+ TETS (R4,MI) * NO, SET MYSTERY INTR CONTROL BIT
1350+ CBI 4,R3 ATTENTION INTERRUPT?
1351+ JF INTRX YES
1352+ TETS (R4,NG) ERROR UNEXPECTED INTERRUPT
1353+INTRX SVC EXIT THIS LEVEL VIA SUPVR TO PGM
1354+*****EXIT THIS LEVEL VIA SUPVR TO PGM
1355+*****EXIT THIS LEVEL VIA SUPVR TO PGM
1356+*****EXIT THIS LEVEL VIA SUPVR TO PGM
1357+ THIS IS THE CONTINUATION OF EXECUTE I/O AFTER THE INTERRUPT
1358+ HAS BEEN SERVICED. THE EXERCISER FINDS AN INTERRUPT HAS BEEN
1359+ RECEIVED AND BRANCHES HERE TO CHECK FOR ANY ERROR CONDITIONS.
1360+
1361+
002ABE 4CA4 1362+XIOCK TETR (R4,XE) WAS AN ERROR EXPECTED
002AC0 6AC0 0002 1363+ BN (R6,2) * YES, EXIT THIS ROUTINE
002AC4 4CA8 1364+ TETR (R4,CS) WAS AUTO CS IN PROGRESS
002AC6 1006 1365+ JOFF XIOCV * NO, CONTINUE CHECKING
002AC8 4C2A 1366+ TBT (R4,CE) IS CS IN AN ERR CONDITION
002ACA 1002 1367+ JOFF XIOCO * NO, BCH
002ACC 68D2 0000 1368+ B (R6)* CS ERROR
1369+XIOCO TETS (R4,CSA) TURN ON CS STATS AVAIL FLAG
002AD0 4C69 1370+ BXS (R6,2) GO TO USER
002AD2 5601 1371+XIOCV TBT (R4,ER) WAS ERROR INTR CONTROL BIT ON
002AD4 4C21 1372+ JOFF XIOCX * NO, EXIT THIS ROUTINE
002AD6 100B 1373+
002AD8 C520 278F 1374+ MVB \$IOIN+1,R5 GET LAST INTP CC CODE
002ADC F502 1375+ CBI 2,R5 IS THIS CC=2
002ADE 68D1 0000 1376+ BNE (R6)* * NO, BCH TO ERROR HANDLER
002AE2 C520 2790 1377+XIOCV MVB \$ISB,R5 GET LAST ISB DATA BYTE AND IF CS
002AE6 6A00 29FC 1378+ BN XIOCS-4 * AVAILABLE, GO AND GET IT
002AEA 68D2 0000 1379+ B (R6)* ERROR
002AEE CB25 278A 1380+XIOCK MVWZ OPTN3,R3 CLEAR OUT OPTION 3 CNTL BITS
002AF2 5601 1381+ BXS (R6,2) RETURN TO USER VIA REG 6
1382+
1383+ I/O PARAMETER LIST
1384+
002AF4 19D0 1385+TOBLK DC A(DEVADD) ADRS OF DEVICE ADRS
002AF6 2A5C 1386+ DC A(XIOER) ERROR ROUTINE ADRS
002AF8 0000 1387+IODCB DC A(*-*) DCB ADRS OR LEVEL & INTR
002AFA 0000 1388+IOMOD DC A(*-*) MODIFIER
002AFE 0000 1389+ DC A(*-*) ADRS OF LAST SVC CALL
1390+IORSR DC A(*-*) SECOND WORD OF LAST IDCB
1391+
1392+ INTERRUPT CONTROL BLOCK FOR I/O COMMANDS
1393+
002B00 19D0 1394+INTBL DC A(DEVADD) ADRES OF DEVICE ADRES
002B02 2A8C 1395+ DC A(INTOK) INTERRUPT OK RETURN ADRES
002B04 2A58 1396+ DC A(INTR) INTERRUPT ERROR ADRES
002B06 0003 1397+INTCC DC X'0003' INTERRUPT CODE EXPECTED
1399+*****11MAY76**
1400+
1401+ SUBROUTINE
1402+
1403+ CONNECT INTERRUPT CONTROL BLOCK & PREPARE DEVICE
1404+
1405+ PURPOSE
1406+
1407+ TO CONNECT THE INTERRUPT CONTROL BLOCK TO THIS DEVICE AND
1408+ PREPARE ON THE DESIRED INTERRUPT LEVEL AND TO ALLOW THE DEVICE
1409+ TO INTERRUPT.
1410+
1411+ CALLING SEQUENCE
1412+
1413+ THIS SUBROUTINE HAS THE FOLLOWING ENTRIES:
1414+
1415+ --> BAL \$CONC,R6 CLEAR DEV DEP STG AND CONNECT I/O BLK
1416+ --> BAL \$CONP,R6 PREPARE DEVICE ONLY, ALREADY CONNECT
1417+
1418+ RETURN CONTROL
1419+
1420+ OR BXS (R6,2) RETURN TO USER VIA REG 6 IF OKAY
1421+ OR B (R6)* IF THE DEVICE COULD NOT BE CONNECTED
1422+
1423+*****
1424+\$CONC MVBI 6,R7 NUMBER OF BYTE TO CLEAR
1425+ MVBI 0,R3 * AND THE DATA TO USE
1426+ MVA DEV1,R5 * ALONG WITH THE ADRS TO USE
1427+ FPN R3,(R5) *
1428+ MVWZ OPTN3,R3 CLEAR OLD CONTROLS FOR NEW ROUTINE
1429+ MVA INTBL,R7 SET R7 TO CONTROL BLOCK AND
1430+ SVC CIBC * CONNECT IT TO THIS DEVICE
1431+ BN (R6)* ERROR RETURN TO USER
1432+
002B20 8828 27C2 2AF8 1433+\$CONP MVW \$INTL,IODCB PUT IN LEVEL & INTR PARAMETER
002B26 4724 2AF4 1434+ MVA IOBLK,R7 SET R7 TO CONTROL BLOCK TO PREPARE
002B2A 4020 278E 0708 1435+ MVW X'0708', \$IOIN INITIALIZE CONDITION CODE STOFAGE
002B30 CB25 2790 1436+ MVWZ \$ISB,R5 * AND CLEAR OLD ISB VALUE
002B34 6E0D 2792 1437+ MVA R6,\$STIO * AND CLEAR THAT STARTED LAST I/O
002B38 600C 1438+ SVC PREP * AND CALL ON SUPVR
002B3A 5601 1439+ BXS (R6,2) RETURN TO USER
1441+*****06APR76**
1442+
1443+ SUBROUTINE
1444+
1445+ DISCONNECT THE INTERRUPT CONTROL BLOCK AND LOG ERRORS
1446+
1447+ PURPOSE
1448+
1449+ DISCONNECT THE INTERRUPT CONTROL BLOCK TO THIS DEVICE AND
1450+ SET THE 'NO GOOD' CONTROL BIT THEN LOG THE DATA THAT HAS
1451+ BEEN FOUND TO HELP THE OPERATOR DEFINE THE ERROR CONDITION.
1452+
1453+ CALLING SEQUENCE
1454+
1455+ THIS SUBROUTINE HAS THE FOLLOWING ENTRIES:
1456+
1457+ --> B \$ERRS SET 'NG' BIT AND CONVERT DATA TO LOG
1458+ --> B \$CONX RETURN TO MDI SUPERVISOR TO TEST STS
1459+
1460+ RETURN CONTROL
1461+
1462+ OR B TURTN* RETURN TO MDI
1463+ OR B (R6)* IF THE DEVICE COULD NOT BE CONNECTED
1464+
1465+*****

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0030B8 6E03 2A00 1923 BAL XIOCS,R6 START CYCLE STEAL STATS
0030BC 30DA 1924 DC A(T61ER) OIO CC ERROR
0030BE 4CA1 1925 T61R (R4,ER) TEST FOR ERROR
0030C0 1201 1926 T61R (R4,ER) ERROR
0030C2 27AE 3258 1927 AN CSTAT2,T61U ADD CYCLE STEAL DATA TO SUM CHECK
0030C8 882B 3258 3260 1928 CW T61U,T61RE ERROR COMPARE RESULTS
0030CE 180C 1929 JNE T61E ERROR
0030D0 802B 325A 3262 1930 CB T61U+2,T61RE+2 COMPARE RESULTS
0030D6 1808 1931 JNE T61E ERROR
0030D8 500A 1932 J T61X
1933 *
0030DA 402C 18C8 0002 1934 T61ER OWI X'0002',TURESUL SET OIO CC ERROR
0030E0 5006 1935 J T61X
0030E2 4724 2AF4 1936 T61I MVA IOBLK,R7 ISSUE DEVICE RESET
0030E4 6008 1937 T61E SVC RESET
0030E8 402C 18C8 0001 1938 T61E OWI X'0001',TURESUL SET CLOCK STEP ERROR
0030EE 6802 2B8C 1939 T61X TXIT
1940+T61X B \$CONX RETURN TO MDI CONTROLLER
1941+*****
1942 *
1943 *
1944 T61CC MVW R5,T61C+2 SET RETURN ADDRESS
1945 CWI -1,(R2) CHK FOR END OF STIMULATE TABLE
1946 BE T61F BCH IF END OF TABLE
1947 CWI X'FFFE',(R2) TEST FOR DATA
1948 JE T61F YES
1949 CWI X'FFFD',(R2) TEST FOR CLOCKS
1950 JE T61F YES
1951 B T61E
1952 T61M AWI 2,R2 INC TABLE ADDRESS
1953 MVW (R2),R0 GET CLOCK COUNT
1954 T61N CWI 0,R0 COUNT ZERO?
1955 BE T61FF RETURN
1956 MVWI X'3000',CEDAT2 SEND CEOP2 USING '3000' DATA
1957 BAL CEOP2,R6 *
1958 DC A(T61ER) *
1959 BAL T61SS,R5 SENSE DATA
1960 MVWI X'0008',CEDAT2 SEND CEOP2 USING '0008' DATA
1961 BAL CEOP2,R6 *
1962 DC A(T61ER) *
1963 BAL T61SS,R5 SENSE DATA
1964 SWI 1,R0 DECREMENT CLOCK COUNT
1965 J T61N LOOP
1966 T61T AWI 2,R2 INC TABLE ADDRESS
1967 CWI X'FFFE',(R2) END OF DATA?
1968 JE T61FF YES
1969 CWI X'FFFC',(R2) REPEAT READ DATA?
1970 JE T61R YES
1971 BAL T61L,R5 READ DATA
1972 J T61T *
1973 T61R AWI 2,R2 INC TABLE ADDRESS
1974 MVW (R2),R1 REPEAT COUNT
1975 CWI 0,R1 REPEAT COUNT ZERO?
1976 JE T61T YES
1977 AWI 2,R2 INC TABLE ADDRESS
1978 T61V BAL T61L,R5 READ DATA
1979 SWI 1,R1 DECREMENT REPEAT COUNT
1980 CWI 0,R1 REPEAT COUNT ZERO?
1981 JE T61T YES
1982 J T61T REPEAT DATA LOOP
1983 T61L MVW R5,T61JJ+2 SET UP RETURN ADDRESS
1984 MVWI 0,CTR01 INIT SHIFT COUNTER
1985 MVW (R2),R0 GET DATA
1986 T61LL SWI 1,R0 TEST IF DATA '1'
1987 JNCY T61G NO
1988 MVWI X'3000',CEDAT2 SEND CEOP2 USING '3000' DATA
1989 BAL CEOP2,R6 *
1990 DC A(T61ER) *
1991 BAL T61SS,R5 SENSE DATA
1992 MVWI X'0200',CEDAT2 SEND CEOP2 USING '0200' DATA
1993 BAL CEOP2,R6 *
1994 DC A(T61ER) *
1995 BAL T61SS,R5 SENSE DATA
1996 MVWI X'0008',CEDAT2 SEND CEOP2 USING '0008' DATA
1997 BAL CEOP2,R6 *
1998 DC A(T61ER) *
1999 BAL T61SS,R5 SENSE DATA
2000 J T61G
2001 T61G MVWI X'3000',CEDAT2 SEND '3000' DATA
2002 BAL CEOP2,R6 *
2003 DC A(T61ER) *
2004 BAL T61SS,R5 SENSE DATA
2005 MVWI X'0008',CEDAT2 SEND '0008' DATA
2006 BAL CEOP2,R6 *
2007 DC A(T61ER) *
2008 BAL T61SS,R5 SENSE DATA
2009 T61HH AWI 1,CTR01 ADD ONE TO SHIFT COUNTER
2010 CWI 16,CTR01 SHIFT COUNT = 16?
2011 JE T61JJ YES
2012 J T61JJ
2013 T61JJ B *- * RETURN TO CALLER
2014 T61EE MVW (R2),CEDAT2 LD DATA INTO IO BLOCK
2015 BAL CEOP2,R6 WRITE CLOCK DATA
2016 DC A(T61ER) *
2017 T61FF AWI 2,R2 INC TABLE ADDRESS
2018 T61C B RETURN TO CALLER
2019 *
2020 T61SS BAL SENS0,R6 READ SENSE WORD ONE
2021 DC A(T61ER) *
2022 T61T T61 (R4,IN) INTERRUPT?
2023 JOFF NO
2024 OWI X'4000',RDAT0 SET INTERRUPT BIT IN SENSE WORD
2025 T61A MVW RDAT0,T61TP SAVE DATA
2026 BAL SENS1,R6 READ SENSE WORD ONE
2027 DC A(T61ER) *
2028 RETWI X'4E7F',RDATA RESET UNUSED BITS
2029 TWI X'0080',RDATA MOVE BIT FROM BYTE TO BYTE
2030 JOFF T61B BIT NOT ON
2031 OWI X'0200',RDATA SET BIT ON
2032 T61B MVW RDATA,R7 SAVE DATA
2033 AS R7,T61U+2 DEVELOP SUM CHECK
2034 JNCY T61R JUMP IF NO CARRY
2035 AWI 1,R61U *
2036 T61PR AW T61TP,T61U *

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003246 C323 325E 2037 XB T61TP+2,R3 XOR EXPECT DATA
00324A 6E03 325C 2038 XW T61TP,R3 *
00324E 4C2B 325C 2039 T61K T61 (R4,IN) TEST FOR INTER IN GEN MODE
003250 1002 2040 JOFF T61J,IN NO INTERRUPT
003252 4080 FFFF 2041 MVWI X'FFFF',(R2) INSERT END OF TABLE CHAR
003256 5500 2042 T61J BXS RETURN TO CALLER
2043 *
2044 *
2045 *
2046 T61U DC 2A(*-*)
2047 T61TP DC 2A(*-*)
2048 T61RE DC X'C68E' EXPECTED RESULTS
2049 DC X'3200' *
2050 T61XR DC X'92BF' *
2051 RDBUF DC 128A(*-*) READ BUFFER
2052 *
003366 8048 2053 T61ST EQU * WRITE CLOCK STIMULATE TABLE
00336E 0400 2054 DC X'8048' READ DATA
003368 0400 2055 DC X'0400'
00336A 0400 2056 DC X'0400'
00336C FFFF 2057 DC X'FFFF'
00336E 0049 2058 DC X'0049' CLOCKS
003370 3000 2059 DC X'3000'
003372 0200 2060 DC X'0200'
003374 0008 2061 DC X'0008'
003376 3000 2062 DC X'3000'
003378 0200 2063 DC X'0200'
00337A 0008 2064 DC X'0008'
00337C FFFF 2065 DC X'FFFF' START ID FIELD
00337E 0E00 2066 DC X'0E00' 'OE'-F
003380 00FF 2067 DC X'00FF' C-C
003382 0112 2068 DC X'0112' H-S
003384 DF2D 2069 DC X'DF2D' CRC
003386 FFFF 2070 DC X'FFFF'
003388 3000 2071 DC X'3000'
00338A 0008 2072 DC X'0008'
00338C 3000 2073 DC X'3000'
00338E 0008 2074 DC X'0008'
003390 3000 2075 DC X'3000'
003392 0008 2076 DC X'0008'
003394 3000 2077 DC X'3000'
003396 0008 2078 DC X'0008'
003398 FFFF 2079 DC X'FFFF' SEND WRITE CLOCKS
00339A 004D 2080 DC X'004D'
00339C 3000 2081 DC X'3000'
00339E 0200 2082 DC X'0200'
0033A0 0008 2083 DC X'0008'
0033A2 3000 2084 DC X'3000'
0033A4 0200 2085 DC X'0200'
0033A6 0008 2086 DC X'0008'
0033A8 3000 2087 DC X'3000'
0033AA 0008 2088 DC X'0008'
0033AC 3000 2089 DC X'3000'
0033AE 0008 2090 DC X'0008'
0033B0 3000 2091 DC X'3000'
0033B2 0008 2092 DC X'0008'
0033B4 3000 2093 DC X'3000'
0033B6 0008 2094 DC X'0008'
0033B8 3000 2095 DC X'3000'
0033BA 0200 2096 DC X'0200'
0033BC 0008 2097 DC X'0008'
0033BE 3000 2098 DC X'3000'
0033C0 0200 2099 DC X'0200'
0033C2 0008 2100 DC X'0008'
0033C4 3000 2101 DC X'3000'
0033C6 0200 2102 DC X'0200'
0033C8 0008 2103 DC X'0008'
0033CA 3000 2104 DC X'3000'
0033CC 0008 2105 DC X'0008'
0033CE FFFF 2106 DC X'FFFF' DATA FIELD
0033D0 0123 2107 DC X'0123'
0033D2 4567 2108 DC X'4567'
0033D4 89AB 2109 DC X'89AB'
0033D6 CDEF 2110 DC X'CDEF'
0033D8 FFFF 2111 DC X'FFFF'
0033DA FFFF 2112 DC X'FFFF'
0033DC FFFF 2113 DC X'FFFF'
0033DE 007C 2114 DC X'007C'
0033E0 0000 2115 DC X'0000' REPEAT READ DATA (TOTAL COUNT 7C)
0033E2 7B8B 2116 DC X'7B8B' *
0033E4 FFFF 2117 DC X'FFFF' 'DATA'
0033E6 FFFF 2118 DC X'FFFF' CRC
0033E8 0105 2119 DC X'0105' SEND CLOCKS
0033EA 3000 2120 DC X'3000'
0033EC FFFF 2121 DC X'FFFF'
0033EE FFFF 2122 DC X'FFFF'
2123 T7862 COPY T7862 01DEC76
2124 TUIT T62ER
2125 *****06FEB76***
2126 **
2127 ** TEST UNIT
2128 **
2129 **
2130 ** 4962 CONTROL CLOCK STEP DIAGNOSTIC (WRITE SECTOR ID) 3/11/77
2131 **
2132 ** PURPOSE
2133 **
2134 **
2135 ** CALLING SEQUENCE
2136 **
2137 ** THIS ROUTINE WILL SIMULATE FILE 'CLOCK AND DATA' INFORMATION
2138 ** VIA THE 'CLOCK STEP DIAGNOSTIC' TO TEST THE 4962 CONTROL CARDS.
2139 **
2140 ** PROGRAM PASSES STATUS OF ALL LINES IN FOLLOWING FORMAT:
2141 ** . TURESUL BIT 0-----NOT USED
2142 ** . TURESUL BIT 1-----NOT USED
2143 ** . TURESUL BIT 2-----NOT USED
2144 ** . TURESUL BIT 3-----NOT USED
2145 ** .
2146 ** . TURESUL BIT 4-----NOT USED
2147 ** . TURESUL BIT 5-----NOT USED
2148 ** . TURESUL BIT 6-----NOT USED
2149 ** . TURESUL BIT 7-----NOT USED
2150 ** .
2151 ** . TURESUL BIT 8-----NOT USED

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0036B8 0008 2380 DC X'0008' *
0036BA 3000 2381 DC X'3000' *
0036BC 0008 2382 DC X'0008' *
0036BE 3000 2383 DC X'3000' *
0036C0 0008 2384 DC X'0008' *
0036C2 FFFF 2385 DC X'FFFF' *
2386 *
2387 *
2389 COPY T7863 01DEC76
2390 T7863 TUIT T63ER
2391 ***** 06FEB76**
2392**
2393** TEST UNIT
2394**
2395** 4962 CONTPOL CLOCK STEP DIAGNOSTIC (WRITE DATA) 3/11/77
2396**
2397** PURPOSE
2398**
2399**
2400** CALLING SEQUENCE
2401**
2402** THIS ROUTINE WILL SIMULATE FILE 'CLOCK AND DATA' INFORMATION
2403** VIA THE 'CLOCK STEP DIAGNOSTIC' TO TEST THE 4962 CONTROL CARDS.
2404**
2405** PROGRAM PASSES STATUS OF ALL LINES IN FOLLOWING FORMAT:
2406** . TURESUL BIT 0-----NOT USED
2407** . TURESUL BIT 1-----NOT USED
2408** . TURESUL BIT 2-----NOT USED
2409** . TURESUL BIT 3-----NOT USED
2410** .
2411** . TURESUL BIT 4-----NOT USED
2412** . TURESUL BIT 5-----NOT USED
2413** . TURESUL BIT 6-----NOT USED
2414** . TURESUL BIT 7-----NOT USED
2415** .
2416** . TURESUL BIT 8-----NOT USED
2417** . TURESUL BIT 9-----NOT USED
2418** . TURESUL BIT 10-----NOT USED
2419** . TURESUL BIT 11-----NOT USED
2420** .
2421** . TURESUL BIT 12-----NOT USED
2422** . TURESUL BIT 13-----NOT USED
2423** . TURESUL BIT 14-----OIO CC ERROR
2424** . TURESUL BIT 15-COMPARE ERROR BETWEEN EXPECT TABLE & SENSE
2425** . INFORMATION
2426**
2427** RETURN CONTROL
2428**
2429** B TURTN* RETURN TO MDI SUPERVISOR
2430**
2431*****
2432+T7863 MVW R7,TURTN SAVE RETURN ADDRESS
2433+ MVWI X'7863',STUID SAVE PU ID FOR DISPLAY
2434+ MVA OPTN1,R4 SET UP POINTER ADRS IN R4
2435+ BAL \$CONX,R6 CLEAR DEV DEP STG AND CONNECT I/O BL
2436+ DC A(T63ER) ERROR ADRS FOR INVALID PREP
2437**
2438 MVB DEVADD,DCB1+1 LOAD DEVCE ADDRESS IN IDCE
2439 MVA T63ST,R2 ADDRESS OF CLOCK STEP BUFFER
2440 MVWI O,T63U CLEAR SUM COUNTERS
2441 MVWI O,T63U+2 *
2442 MVWZ TURESUL,R5 CLEAR RESULTS WORD
2443 MVA IOBLK,R7 ISSUE DEVICE RESET
2444 SVC RESET *
2445 MVWZ TURESUL+2,R5 CLEAR RESULTS WORD 2
2446 MVWI O,CEDAT,R6 SET DIAGNOSTIC MODE
2447 BAL CEOP1,R6 *
2448 DC A(T63ER) *
2449 TBTS (R4,XI) *
2450 MVWI X'8000',CEDAT2 *
2451 BAL CEOP2,R6 *
2452 DC A(T63ER) *
2453 TBTR (R4,IN) *
2454 BOFF T63ER *
2455 CWI X'0704',IOIN *
2456 JE T63H *
2457 T63ER *
2458 T63H MVWI X'0704',R0 *
2459 MVWI X'0200',CEDAT2 *
2460 BAL CEOP2,R6 *
2461 DC A(T63ER) *
2462 MVWI X'0400',CEDAT2 *
2463 BAL CEOP2,R6 *
2464 DC A(T63ER) *
2465 T63S MVWI X'3000',CEDAT2 *
2466 BAL CEOP2,R6 *
2467 DC A(T63ER) *
2468 MVWI X'0200',CEDAT2 *
2469 BAL CEOP2,R6 *
2470 DC A(T63ER) *
2471 MVWI X'0008',CEDAT2 *
2472 BAL CEOP2,R6 *
2473 DC A(T63ER) *
2474 SWI TCTP01 *
2475 JNZ T63S *
2476 TBTS (R4,NI) *
2477 MVWI X'0000',WRDCB+4 *
2478 MVWI X'00FF',WRDCB+6 *
2479 MVWI X'0112',WRDCB+8 *
2480 MVWZ X'0100',WRDCB+12 *
2481 MVA WRBUF,WRDCB+14 *
2482 BAL WRBUF,R6 *
2483 DC A(T63ER) *
2484 MVWI T024,R0 *
2485 JCT * *
2486 MVWI X'FFFF',R3 *
2487 T63D BAL T63CC,R5 *
2488 BAL T63SS,R5 *
2489 J T63D *
2490 *
2491 *
2492 T63F TBTR (R4,IN) *
2493 JOFF T63H *
2494 MVWI T,CEDAT2 *
0037AC 4CA3
0037AB 101E
0037AD 4020 2938 0001

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0037B6 6E03 28E0 2495 BAL CEOP2,R6 *
0037BA 37E4 2496 DC A(T63ER) *
0037BC CB24 396E 2497 CW T63XR,R3 *
0037C0 1818 2498 JNE T63E *
0037C2 6E03 2A00 2499 BAL XI0CS,R6 *
0037C6 37E4 2500 DC A(T63ER) *
0037C8 4CA3 2501 TBTR (R4,IN) *
0037CA 120C 2502 T63ER *
0037CC A828 27AE 3962 2503 AW CCTL2,T63U *
0037D2 882B 3962 396A 2504 CW T63U,T63RE *
0037D8 180C 2505 JNE T63E *
0037DA 802B 3964 396C 2506 CB T63U+2,T63RE+2 *
0037E0 1808 2507 JNE T63E *
0037E2 500A 2508 J T63X *
2509 *
0037E4 402C 18C8 0002 2510 T63ER OWI X'0002',TURESUL *
0037EA 5006 2511 J T63X *
0037EC 4724 2AF4 2512 T63I MVA IOBLK,R7 *
0037E8 6008 2513 *
0037F2 402C 18C8 0001 2514 T63E SVC *
2515 T63X TXIT *
2516 T63X B \$CONX *
2517 ***** RETURN TO MDI CONTROLLER *****
2518 *
2519 *
2520 T63CC MVW R5,T63C+2 *
2521 CWI -1,(R2) *
2522 BE T63F *
2523 CWI X'FFFE',(R2) *
2524 JE T63T *
2525 CWI X'FFFD',(R2) *
2526 T63E *
2527 B T63EE *
2528 T63M AWI 2,R2 *
2529 MVW (R2),R0 *
2530 T63N CWI 0,R0 *
2531 BE T63FF *
2532 MVWI X'3000',CEDAT2 *
2533 BAL CEOP2,R6 *
2534 DC A(T63ER) *
2535 BAL T63SS,R5 *
2536 MVWI X'0008',CEDAT2 *
2537 BAL CEOP2,R6 *
2538 DC A(T63ER) *
2539 BAL T63SS,R5 *
2540 SWI 1,R0 *
2541 T63N *
2542 T63T AWI 2,R2 *
2543 CWI X'FFFE',(R2) *
2544 JE T63FF *
2545 CWI X'FFFC',(R2) *
2546 JE T63R *
2547 BAL T63L,R5 *
2548 J T63T *
2549 T63R AWI 2,R2 *
2550 MVW (R2),R1 *
2551 CWI 0,R1 *
2552 JE T63T *
2553 AWI 2,R2 *
2554 T63V BAL T63L,R5 *
2555 SWI 1,R1 *
2556 CWI 0,R1 *
2557 JE T63T *
2558 T63V *
2559 MVW R5,T63JJ+2 *
2560 MVWI O,T63R0 *
2561 MVW (R2),R0 *
2562 T63LL SWI 1,R0 *
2563 T63J *
2564 MVWI X'3000',CEDAT2 *
2565 BAL CEOP2,R6 *
2566 DC A(T63ER) *
2567 BAL T63SS,R5 *
2568 MVWI X'0200',CEDAT2 *
2569 BAL CEOP2,R6 *
2570 DC A(T63ER) *
2571 BAL T63SS,R5 *
2572 MVWI X'0008',CEDAT2 *
2573 BAL CEOP2,R6 *
2574 DC A(T63ER) *
2575 BAL T63SS,R5 *
2576 J T63H *
2577 T63G MVWI X'3000',CEDAT2 *
2578 BAL CEOP2,R6 *
2579 DC A(T63ER) *
2580 BAL T63SS,R5 *
2581 MVWI X'0008',CEDAT2 *
2582 BAL CEOP2,R6 *
2583 DC A(T63ER) *
2584 BAL T63SS,R5 *
2585 T63HH *
2586 T63HH *
2587 JE T63JJ *
2588 J T63LL *
2589 T63JJ *
2590 T63EE MVW (R2),CEDAT2 *
2591 BAL CEOP2,R6 *
2592 DC A(T63ER) *
2593 T63FF AWI 2,R2 *
2594 T63C B *
2595 *
2596 T63SS BAL SENS0,R6 *
2597 DC A(T63ER) *
2598 TBTR (R4,IN) *
2599 JOFF T63A *
2600 OWI X'4000',RDATA0 *
2601 T63A MVW RDATA0,T63TP *
2602 BAL SENS1,R6 *
2603 DC A(T63ER) *
2604 RBTWI X'4E7F',RDATA *
2605 TWI X'0080',RDATA *
2606 JOFF T63B *
2607 OWI X'0200',RDATA *
2608 T63B MVW RDATA,R7 *
2609 *
00390A 6E03 2908 2596 BAL SENS0,R6 *
00390B 37E4 2597 DC A(T63ER) *
00390C 4C23 2598 TBTR (R4,IN) *
00390D 1003 2599 JOFF T63A *
003914 402C 292C 4000 2600 OWI X'4000',RDATA0 *
00391A 8828 292C 3966 2601 T63A MVW RDATA0,T63TP *
003920 6E03 28F4 2602 BAL SENS1,R6 *
003924 37E4 2603 DC A(T63ER) *
003926 402D 2930 4E7F 2604 RBTWI X'4E7F',RDATA *
00392C 402B 2930 0080 2605 TWI X'0080',RDATA *
003932 1003 2606 JOFF T63B *
003934 402C 2930 0200 2607 OWI X'0200',RDATA *
00393A C720 2930 2608 T63B MVW RDATA,R7 *
2609 *

```

LOCTR OBJECT TEXT STMT SOURCE STATEMENT
00393E C72E 3964 2609 AB R7 T63U+2
003942 1F03 2610 JNCY R7 T63U
003944 4029 3962 0001 2611 JWI T63U
00394A A828 3966 3962 2612 T63RR AWI T63TP T63U
003950 C323 3968 2613 T63TP+2,R3
003954 6B0B 3966 2614 XW T63TP,R3
003958 4C23 2615 T63K TBT (R4,N)
00395A 1002 2616 JOFF T63J
00395C 4080 FFFF 2617 MVWI X'FFFF',(R2)
003960 5500 2618 BXS X'FFFF',(R5)
*
*
*
003962 00000000 2620 *
003966 00000000 2621 *
00396A 3307 2622 T63U DC 2A(*-*)
00396C 1600 2623 T63TP DC 2A(*-*)
00396E 93B7 2624 T63RE DC X'3307'
003970 0123 2625 DC X'A600'
003972 4567 2626 T63XR DC X'93B7'
003974 89AB 2627 WRBUF DC X'0123'
003976 CDEF 2628 DC X'4567'
003978 0000000000000000 2629 DC X'89AB'
2630 DC X'CDEF'
2631 DC 124A(*-*)
*
*
003A70 8048 2632 * T63ST EQU X'8048'
003A72 0400 2633 DC X'0400'
003A74 0400 2634 DC X'0400'
003A76 FFFD 2635 DC X'FFFD'
003A78 0049 2636 DC X'0049'
003A7A 3000 2637 DC X'3000'
003A7C 0200 2638 DC X'0200'
003A7E 0008 2639 DC X'0008'
003A80 3000 2640 DC X'3000'
003A82 0200 2641 DC X'0200'
003A84 0008 2642 DC X'0008'
003A86 0000 2643 DC X'0000'
003A88 0000 2644 DC X'0000'
003A8A 00FF 2645 DC X'00FF'
003A8C 0112 2646 DC X'0112'
003A8E DF2D 2647 DC X'DF2D'
003A90 FFFE 2648 DC X'FFFE'
003A92 3000 2649 DC X'3000'
003A94 0008 2650 DC X'0008'
003A96 3000 2651 DC X'3000'
003A98 0008 2652 DC X'0008'
003A9A 3000 2653 DC X'3000'
003A9C 0008 2654 DC X'0008'
003AA0 0008 2655 DC X'0008'
003AA2 0000 2656 DC X'0000'
003AA4 0077 2657 DC X'0077'
003AA6 3000 2658 DC X'3000'
003AA8 0200 2659 DC X'0200'
003AAA 0008 2660 DC X'0008'
003AAC 3000 2661 DC X'3000'
003AAE 0200 2662 DC X'0200'
003AB0 0008 2663 DC X'0008'
003AB2 3000 2664 DC X'3000'
003AB4 0008 2665 DC X'0008'
003AB6 0000 2666 DC X'0000'
003AB8 0008 2667 DC X'0008'
003ABA 3000 2668 DC X'3000'
003ABC 0008 2669 DC X'0008'
003ABE 3000 2670 DC X'3000'
003AC0 0008 2671 DC X'0008'
003AC2 3000 2672 DC X'3000'
003AC4 0200 2673 DC X'0200'
003AC6 0008 2674 DC X'0008'
003AC8 3000 2675 DC X'3000'
003ACA 0200 2676 DC X'0200'
003ACC 0008 2677 DC X'0008'
003ACE 3000 2678 DC X'3000'
003AD0 0200 2679 DC X'0200'
003AD2 0008 2680 DC X'0008'
003AD4 3000 2681 DC X'3000'
003AD6 0008 2682 DC X'0008'
003AD8 FFFE 2683 DC X'FFFE'
003ADA 0123 2684 DC X'0123'
003ADC 4567 2685 DC X'4567'
003ADE 89AB 2686 DC X'89AB'
003AE0 CDEF 2687 DC X'CDEF'
003AE2 FFFE 2688 DC X'FFFE'
003AE4 FFFE 2689 DC X'FFFE'
003AE6 FFFC 2690 DC X'FFFC'
003AE8 007C 2691 DC X'007C'
003AEA 0000 2692 DC X'0000'
003AEC 78BB 2693 DC X'78BB'
003AEE FFFF 2694 DC X'FFFF'
003AF0 FFFD 2695 DC X'FFFD'
003AF2 0100 2696 DC X'0100'
003AF4 3000 2697 DC X'3000'
003AF6 FFFF 2700 DC X'FFFF'
003AF8 FFFF 2701 DC X'FFFF'
000000 000000 2702 DC X'FFFF'
2704 END

```

```

DECLARED NAME CROSS-REFERENCE LISTING
0 .R0. ABSOLUTE. HEX VALUE(00000000)
1624 1625 1669 1670 1680 1701 1702 1908 1909
1953 1954 1964 1985 1986 2218 2219 2263 2264
2274 2295 2296 2484 2485 2529 2530 2540 2561
2562
0 .R1. ABSOLUTE. HEX VALUE(00000001)
1472 1475 1478 1481 1690 1691 1695 1696 1974
1975 1979 1980 2284 2285 2289 2290 2550 2551
2555 2556
0 .R2. ABSOLUTE. HEX VALUE(00000002)
1477 1478 1523 1661 1663 1665 1668 1669 1693
1669 1682 1683 1684 1689 1690 1690 1690 1693
1971 1971 1971 1991 1993 1997 1997 1863 1945 1947
1949 1952 1953 1953 1953 1966 1967 1969 1973
1974 1974 1974 1977 1985 1985 1985 2014 2017
2041 2174 2255 2257 2259 2262 2263 2263 2263
2276 2277 2279 2283 2284 2284 2284 2287 2295
2295 2295 2324 2327 2351 2439 2521 2523 2525
2528 2529 2529 2529 2542 2543 2545 2549 2550
2550 2550 2553 2561 2561 2561 2590 2593 2617
0 .R3. ABSOLUTE. HEX VALUE(00000003)
1003 1004 1079 1082 1108 1111 1181 1191 1194
1477 1478 1480 1482 1487 1492 1498 1502 1502
1337 1350 1380 1426 1427 1428 1436 1470 1471
1475 1487 1626 1637 1753 1754 1910 1921 2032
2038 2220 2231 2347 2348 2486 2497 2613 2614
0 .R4. ABSOLUTE. HEX VALUE(00000004)
1184 1185 1188 1202 1203 1205 1206 1209 1215
1221 1293 1294 1296 1300 1304 1333 1334 1335
1345 1346 1347 1349 1352 1362 1364 1366 1369
1371 1568 1582 1593 1597 1620 1632 1641 1738
1755 1858 1873 1877 1900 1916 1925 2022 2039
2169 2184 2188 2211 2226 2235 2332 2349 2434
2449 2453 2476 2492 2501 2598 2615
0 .R5. ABSOLUTE. HEX VALUE(00000005)
1011 1109 1113 1119 1194 1196 1198 1214
1219 1341 1342 1343 1374 1375 1377 1426 1427
1469 1482 1576 1579 1627 1628 1660 1675 1679
1687 1694 1699 1707 1711 1715 1720 1724 1758
1866 1869 1911 1912 1944 1959 1963 1971 1978
1983 1991 1995 1999 2004 2008 2042 2177 2180
2221 2222 2254 2269 2273 2281 2288 2293 2301
2305 2309 2314 2318 2352 2442 2445 2487 2488
2520 2535 2539 2547 2554 2559 2567 2571 2575
2580 2584 2618
0 .R6. ABSOLUTE. HEX VALUE(00000006)
1000 1005 1107 1281 1283 1285 1363 1368 1370
1376 1379 1381 1431 1437 1439 1474 1479 1480
1569 1580 1591 1595 1604 1607 1610 1613 1616
1622 1635 1639 1673 1677 1705 1709 1713 1718
1722 1731 1736 1742 1859 1871 1875 1884 1887
1890 1893 1896 1906 1919 1923 1957 1961 1989
1993 1997 2002 2006 2015 2020 2026 2170 2182
2186 2195 2198 2201 2204 2207 2216 2229 2233
2267 2271 2299 2303 2307 2312 2316 2325 2330
2336 2435 2447 2451 2460 2463 2466 2469 2472
2482 2495 2499 2533 2537 2565 2569 2573 2578
2582 2591 2596 2602
0 .R7. ABSOLUTE. HEX VALUE(00000007)
1429 1434 1467 1473 1476 1488 1491 1566 1577
1652 1748 1749 1856 1867 1936 2032 2033 2167
2178 2246 2342 2343 2432 2443 2512 2608 2609
1424 $CONC ADDRESS. HEX LOCATION(00002B08) IN CSECT(I7820 ) LENGTH(2)
1569 1859 2170 2435
1490 $CONX ADDRESS. HEX LOCATION(00002B8C) IN CSECT(I7820 ) LENGTH(1)
1589 1656 1940 2250 2516
658 $INTL ADDRESS. HEX LOCATION(000027C2) IN CSECT(I7820 ) LENGTH(2)
1343 1433
628 $IOIN ADDRESS. HEX LOCATION(0000278E) IN CSECT(I7820 ) LENGTH(2)
1004 1199 1257 1337 1374 1435 1599 1879 2190
2455
629 $ISB ADDRESS. HEX LOCATION(00002790) IN CSECT(I7820 ) LENGTH(2)
1200 1338 1377 1436
613 $LE ABSOLUTE. HEX VALUE(00000026)
1205 1345
1086 $RD ADDRESS. HEX LOCATION(00002968) IN CSECT(I7820 ) LENGTH(6)
1906
1078 $RDID ADDRESS. HEX LOCATION(0000294E) IN CSECT(I7820 ) LENGTH(6)
1622
627 $TUID ADDRESS. HEX LOCATION(0000278C) IN CSECT(I7820 ) LENGTH(2)
668 1487 1521 1567 1857 2168 2433
1092 $WRT ADDRESS. HEX LOCATION(00002978) IN CSECT(I7820 ) LENGTH(6)
2482
1119 $WSEC ADDRESS. HEX LOCATION(000029D2) IN CSECT(I7820 ) LENGTH(6)
2216
42 @CALL ABSOLUTE. HEX VALUE(00000201)
423
102 @DCADD1 ADDRESS. HEX LOCATION(000019B8) IN CSECT(I7820 ) LENGTH(1)
1484
103 @DCADD2 ADDRESS. HEX LOCATION(000019BA) IN CSECT(I7820 ) LENGTH(1)
1485
39 @FIXT ABSOLUTE. HEX VALUE(00000101)
417 420 453 456 483 486 513 516
41 @GOTO ABSOLUTE. HEX VALUE(00000200)
513
45 @TUXX ABSOLUTE. HEX VALUE(00000500)
381 393 405 429 441 459 471 489 501
1495 BEGIN ADDRESS. HEX LOCATION(00002B96) IN CSECT(I7820 ) LENGTH(2)
1512
1516 BIT0080 ABSOLUTE. HEX VALUE(00000080)
1486
1511 BUFPT ADDRESS. HEX LOCATION(00002C9E) IN CSECT(I7820 ) LENGTH(2)
1471
1002 CCERR ADDRESS. HEX LOCATION(0000291C) IN CSECT(I7820 ) LENGTH(2)
971 980 986 993 999
617 CE ABSOLUTE. HEX VALUE(0000002A)
1184 1296 1366
1013 CEDAT ADDRESS. HEX LOCATION(00002934) IN CSECT(I7820 ) LENGTH(2)
1590 1870 2181 2446

```

XOR EXPECT DATA

*
TEST FOR INTER IN GEN MODE
NO INTERRUPT
INSERT END OF TABLE CHAR
RETURN TO CALLER

EXPECTED RESULTS (DUTCHESS)

*
WRITE BUFFER

ZEROS

*
WRITE CLOCK STIMULATE TABLE
WRITE DATA

CLOCKS

START ID FIELD
OEI-F
C-C
H-S
CRC

SEND WRITE CLOCKS

DATA FIELD

*
REPEAT READ DATA (TOTAL COUNT 7C)
*

CRC

SEND 256 CLOCKS
*

CROSS-REFERENCE LISTING

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DECLARED	NAME	ATTRIBUTES AND REFERENCES
1015	CEDAT2	ADDRESS. HEX LOCATION(00002938) IN CSECT(I7820) LENGTH(2) 1594 1603 1606 1609 1612 1615 1618 1621 1624 1627 1676 1704 1708 1712 1717 1721 1730 1874 1883 1896 1889 1892 1895 1918 1956 1960 1988 1992 1996 2001 2005 2014 2185 2194 2197 2200 2203 2206 2228 2266 2270 2298 2302 2306 2311 2315 2324 2450 2459 2462 2465 2468 2471 2494 2532 2536 2564 2568 2572 2577 2581 2590
977	CEOP1	ADDRESS. HEX LOCATION(000028CC) IN CSECT(I7820) LENGTH(4) 1591 1871 2182 2447
983	CEOP2	ADDRESS. HEX LOCATION(000028E0) IN CSECT(I7820) LENGTH(4) 1595 1604 1607 1610 1613 1616 1635 1673 1677 1705 1709 1713 1718 1722 1731 1875 1884 1887 1890 1893 1896 1918 1957 1961 1989 1993 1997 2002 2006 2015 2186 2195 2198 2201 2204 2207 2229 2267 2271 2299 2303 2307 2312 2316 2325 2451 2460 2463 2466 2469 2472 2495 2533 2537 2565 2569 2573 2578 2582 2591
697	CICB	ABSOLUTE. HEX VALUE(00000014) 1430
794	CLDCB	ADDRESS. HEX LOCATION(000027E4) IN CSECT(I7820) LENGTH(2) 1075
615	CS	ABSOLUTE. HEX VALUE(00000028) 1185 1188 1294 1335 1364
616	CSA	ABSOLUTE. HEX VALUE(00000029) 1368
646	CSBUF	ADDRESS. HEX LOCATION(000027AC) IN CSECT(I7820) LENGTH(1) 851 1196
844	CSDCB	ADDRESS. HEX LOCATION(00002834) IN CSECT(I7820) LENGTH(2) 1186
648	CSTL2	ADDRESS. HEX LOCATION(000027AE) IN CSECT(I7820) LENGTH(2) 1584 1643 1927 2237 2503
649	CSTL3	ADDRESS. HEX LOCATION(000027B0) IN CSECT(I7820) LENGTH(2) 1586
654	CSTL8	ADDRESS. HEX LOCATION(000027BA) IN CSECT(I7820) LENGTH(2) 1297 1298
924	CTR01	ADDRESS. HEX LOCATION(000028B2) IN CSECT(I7820) LENGTH(2) 1602 1618 1700 1725 1726 1882 1898 1984 2009 2010 2193 2209 2294 2319 2320 2458 2474 2560 2585 2586
636	DCBUF	ADDRESS. HEX LOCATION(0000279C) IN CSECT(I7820) LENGTH(1) 1191
1512	DC2PT	ADDRESS. HEX LOCATION(00002CA0) IN CSECT(I7820) LENGTH(2) 1485
105	DEVADD	ADDRESS. HEX LOCATION(000019D0) IN CSECT(I7820) LENGTH(1) 661 972 978 984 991 997 1385 1394 1491 1572 1862 2173 2438
631	DEV1	ADDRESS. HEX LOCATION(00002794) IN CSECT(I7820) LENGTH(2) 635 1426
782	DGDCB	ADDRESS. HEX LOCATION(000027D4) IN CSECT(I7820) LENGTH(2) 1126
67	DUMMY	ABSOLUTE. HEX VALUE(00000000) 372 524 536
525	ENTPT	ADDRESS. HEX LOCATION(0000262C) IN CSECT(I7820) LENGTH(1) 198
47	EQ	ABSOLUTE. HEX VALUE(00000000) 384 432 462 492
608	ER	ABSOLUTE. HEX VALUE(00000021) 1202 1221 1304 1346 1371 1582 1641 1925 2235 2501
683	EXIT	ABSOLUTE. HEX VALUE(00000006) 1353
1514	FAKETU	ADDRESS. HEX LOCATION(00002CA4) IN CSECT(I7820) LENGTH(2) 1484
544	F00004	ADDRESS. HEX LOCATION(00002632) IN CSECT(I7820) LENGTH(1) 418 454 484 514
556	F00011	ADDRESS. HEX LOCATION(00002700) IN CSECT(I7820) LENGTH(1) 421 457 487 517
562	F00127	ADDRESS. HEX LOCATION(0000275A) IN CSECT(I7820) LENGTH(1) 424
566	F00130	ADDRESS. HEX LOCATION(00002772) IN CSECT(I7820) LENGTH(1) 520
1520	HEBLK	ADDRESS. HEX LOCATION(00002CA6) IN CSECT(I7820) LENGTH(2) 1467
703	HIOE	ABSOLUTE. HEX VALUE(0000001A) 1468
1012	IDCBCE1	ADDRESS. HEX LOCATION(00002932) IN CSECT(I7820) LENGTH(2) 978 979
1014	IDCBCE2	ADDRESS. HEX LOCATION(00002936) IN CSECT(I7820) LENGTH(2) 984 985
1016	IDCBRAP	ADDRESS. HEX LOCATION(0000293A) IN CSECT(I7820) LENGTH(2) 972 973
1008	IDCB0	ADDRESS. HEX LOCATION(0000292A) IN CSECT(I7820) LENGTH(2) 997 998
1010	IDCB1	ADDRESS. HEX LOCATION(0000292E) IN CSECT(I7820) LENGTH(2) 991 992 1572 1862 2173 2438
679	IDLE	ABSOLUTE. HEX VALUE(00000002) 1217
610	IN	ABSOLUTE. HEX VALUE(00000023) 1203 1215 1334 1597 1632 1738 1755 1877 1916 2022 2039 2188 2226 2332 2349 2453 2492 2598 2615
1394	INTBL	ADDRESS. HEX LOCATION(00002B00) IN CSECT(I7820) LENGTH(2) 1429
1291	INTER	ADDRESS. HEX LOCATION(00002A68) IN CSECT(I7820) LENGTH(2) 1396
1300	INTES	ADDRESS. HEX LOCATION(00002A80) IN CSECT(I7820) LENGTH(2) 1295
1304	INTET	ADDRESS. HEX LOCATION(00002A88) IN CSECT(I7820) LENGTH(2) 1301
1331	INTOK	ADDRESS. HEX LOCATION(00002A8C) IN CSECT(I7820) LENGTH(2) 1395
1353	INTRX	ADDRESS. HEX LOCATION(00002ABC) IN CSECT(I7820) LENGTH(2) 1348 1351
1334	INTF1	ADDRESS. HEX LOCATION(00002A94) IN CSECT(I7820) LENGTH(2) 1299 1303 1305
1339	INTF2	ADDRESS. HEX LOCATION(00002AA2) IN CSECT(I7820) LENGTH(1) 1336
1347	INTR3	ADDRESS. HEX LOCATION(00002AB0) IN CSECT(I7820) LENGTH(2) 1344
1385	TOBLK	ADDRESS. HEX LOCATION(00002AF4) IN CSECT(I7820) LENGTH(2)

CROSS-REFERENCE LISTING

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DECLARED	NAME	ATTRIBUTES AND REFERENCES
1387	IODCB	ADDRESS. HEX LOCATION(00002AF8) IN CSECT(I7820) LENGTH(2) 1204 1434 1577 1652 1867 1936 2178 2246 2443 2542
1388	IOMOD	ADDRESS. HEX LOCATION(00002AFA) IN CSECT(I7820) LENGTH(2) 1072 1075 1078 1086 1089 1092 1095 1099 1103 1107 1115 1119 1122 1126 1186 1192 1433
37	I7820	CSECT. START(00002500) LENGTH(5626) ESDID(0) 37
1501	LINE1	ADDRESS. HEX LOCATION(00002BCE) IN CSECT(I7820) LENGTH(40) 1472
630	LSTIO	ADDRESS. HEX LOCATION(00002792) IN CSECT(I7820) LENGTH(2) 971 977 983 990 996 1190 1437
607	MI	ABSOLUTE. HEX VALUE(00000020) 1349
1475	MVBUF	ADDRESS. HEX LOCATION(00002B5A) IN CSECT(I7820) LENGTH(2) 1479 1482
619	NG	ABSOLUTE. HEX VALUE(0000002C) 1352
614	NI	ABSOLUTE. HEX VALUE(00000027) 1209 1620 1900 2211 2476
381	N00001	ADDRESS. HEX LOCATION(00002550) IN CSECT(I7820) LENGTH(2) 315 535
393	N00002	ADDRESS. HEX LOCATION(00002562) IN CSECT(I7820) LENGTH(2) 318
405	N00003	ADDRESS. HEX LOCATION(00002574) IN CSECT(I7820) LENGTH(2) 324
417	N00004	ADDRESS. HEX LOCATION(00002586) IN CSECT(I7820) LENGTH(2) 327 406
420	N00005	ADDRESS. HEX LOCATION(0000258A) IN CSECT(I7820) LENGTH(2) 339
423	N00006	ADDRESS. HEX LOCATION(0000258E) IN CSECT(I7820) LENGTH(2) 330 394
429	N00007	ADDRESS. HEX LOCATION(0000259A) IN CSECT(I7820) LENGTH(2) 333 382
441	N00008	ADDRESS. HEX LOCATION(000025AC) IN CSECT(I7820) LENGTH(2) 336
453	N00009	ADDRESS. HEX LOCATION(000025BE) IN CSECT(I7820) LENGTH(2) 339
456	N00010	ADDRESS. HEX LOCATION(000025C2) IN CSECT(I7820) LENGTH(2) 342 442
459	N00011	ADDRESS. HEX LOCATION(000025C6) IN CSECT(I7820) LENGTH(2) 345 430
471	N00012	ADDRESS. HEX LOCATION(000025D8) IN CSECT(I7820) LENGTH(2) 348
483	N00013	ADDRESS. HEX LOCATION(000025EA) IN CSECT(I7820) LENGTH(2) 351
486	N00014	ADDRESS. HEX LOCATION(000025EE) IN CSECT(I7820) LENGTH(2) 354 472
489	N00015	ADDRESS. HEX LOCATION(000025F2) IN CSECT(I7820) LENGTH(2) 357 460
501	N00016	ADDRESS. HEX LOCATION(00002604) IN CSECT(I7820) LENGTH(2) 360
513	N00017	ADDRESS. HEX LOCATION(00002616) IN CSECT(I7820) LENGTH(2) 363
516	N00018	ADDRESS. HEX LOCATION(0000261A) IN CSECT(I7820) LENGTH(2) 366 502
519	N00019	ADDRESS. HEX LOCATION(0000261E) IN CSECT(I7820) LENGTH(2) 369 490
57	ON	ABSOLUTE. HEX VALUE(00000200) 371 408
572	OPTN1	ADDRESS. HEX LOCATION(00002786) IN CSECT(I7820) LENGTH(2) 1253 1333 1568 1858 2169 2434
595	OPTN3	ADDRESS. HEX LOCATION(0000278A) IN CSECT(I7820) LENGTH(2) 1380 1428
101	PARMARA	ADDRESS. HEX LOCATION(0000196E) IN CSECT(I7820) LENGTH(1) 391 403 415 439 451 469 481 499 511
69	PID	ADDRESS. HEX LOCATION(00001800) IN CSECT(I7820) LENGTH(1) 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 1483
1515	PIDMSG10	ABSOLUTE. HEX VALUE(0000F1F0) 1483
689	PREP	ABSOLUTE. HEX VALUE(0000000C) 1438
1011	RDATA	ADDRESS. HEX LOCATION(00002930) IN CSECT(I7820) LENGTH(2) 1744 1745 1747 1748 2028 2029 2031 2032 2338 2339 2341 2342 2604 2605 2607 2608
1009	RDATA0	ADDRESS. HEX LOCATION(0000292C) IN CSECT(I7820) LENGTH(2) 1740 1741 2024 2025 2334 2335 2600 2501
2051	RDBUF	ADDRESS. HEX LOCATION(00003266) IN CSECT(I7820) LENGTH(2) 1905
877	RDDCB	ADDRESS. HEX LOCATION(00002864) IN CSECT(I7820) LENGTH(2) 1086 1901 1902 1903 1904 1905
685	RESET	ABSOLUTE. HEX VALUE(00000008) 1578 1653 1868 1937 2179 2247 2444 2513
696	RTCB	ABSOLUTE. HEX VALUE(00000013) 1492
899	RKDCB	ADDRESS. HEX LOCATION(00002884) IN CSECT(I7820) LENGTH(2) 1095 1096 1103 1104
809	RSDCB	ADDRESS. HEX LOCATION(00002804) IN CSECT(I7820) LENGTH(2) 1078 1083 1107 1112 1621
635	SCTID	ADDRESS. HEX LOCATION(00002794) IN CSECT(I7820) LENGTH(2) 816 828 906 1080 1083 1096
921	SCTST	ADDRESS. HEX LOCATION(000028AC) IN CSECT(I7820) LENGTH(2) 1104 1109 1112
996	SENS0	ADDRESS. HEX LOCATION(00002908) IN CSECT(I7820) LENGTH(4) 1736 2020 2330 2596
990	SENS1	ADDRESS. HEX LOCATION(000028F4) IN CSECT(I7820) LENGTH(4) 1742 2026 2336 2602
833	SKDCB	ADDRESS. HEX LOCATION(00002824) IN CSECT(I7820) LENGTH(2) 1072
687	START	ABSOLUTE. HEX VALUE(0000000A) 1207
104	SUPSTAT	ADDRESS. HEX LOCATION(000019C4) IN CSECT(I7820) LENGTH(1) 1486
92	TUMSGWTR	ADDRESS. HEX LOCATION(000018BA) IN CSECT(I7820) LENGTH(1) 1488
98	TURESUL	ADDRESS. HEX LOCATION(000018C8) IN CSECT(I7820) LENGTH(1)

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DECLARED	NAME	ATTRIBUTES AND REFERENCES
659	TURTN	1576 1579 1588 1650 1654 1866 1869 1934 1938 2177 2180 2244 2248 2442 2445 2510 2514 ADDRESS. HEX LOCATION(000027C4) IN CSECT(I7820) LENGTH(2)
74	TUSTATUS	1493 1566 1856 2167 2432 ADDRESS. HEX LOCATION(00001818) IN CSECT(I7820) LENGTH(1)
75	TUWORK	1466 ADDRESS. HEX LOCATION(0000181A) IN CSECT(I7820) LENGTH(1)
668	T3C02	1470 1522 ADDRESS. HEX LOCATION(000027CC) IN CSECT(I7820) LENGTH(6)
1741	T60A	395 407 443 473 503 ADDRESS. HEX LOCATION(00002F10) IN CSECT(I7820) LENGTH(6)
1748	T60B	1739 ADDRESS. HEX LOCATION(00002F30) IN CSECT(I7820) LENGTH(4)
1734	T60C	1746 ADDRESS. HEX LOCATION(00002EFC) IN CSECT(I7820) LENGTH(4)
1660	T60CC	1660 ADDRESS. HEX LOCATION(00002DF2) IN CSECT(I7820) LENGTH(4)
1627	T60D	1627 ADDRESS. HEX LOCATION(00002D98) IN CSECT(I7820) LENGTH(4)
1654	T60E	1629 ADDRESS. HEX LOCATION(00002DE8) IN CSECT(I7820) LENGTH(6)
1730	T60EE	1638 1645 1647 ADDRESS. HEX LOCATION(00002EEB) IN CSECT(I7820) LENGTH(4)
1650	T60ER	1667 ADDRESS. HEX LOCATION(00002DDA) IN CSECT(I7820) LENGTH(6)
1632	T60F	1570 1581 1583 1592 1596 1598 1601 1605 1608 1611 1614 1617 1623 1636 1640 1642 1674 1678 1706 1710 1714 1719 1723 1732 1737 1743 ADDRESS. HEX LOCATION(00002DA2) IN CSECT(I7820) LENGTH(2)
1733	T60FF	1662 ADDRESS. HEX LOCATION(00002EF8) IN CSECT(I7820) LENGTH(4)
1717	T60G	1671 1684 ADDRESS. HEX LOCATION(00002EBA) IN CSECT(I7820) LENGTH(6)
1602	T60H	1703 ADDRESS. HEX LOCATION(00002D36) IN CSECT(I7820) LENGTH(6)
1725	T60HH	1600 ADDRESS. HEX LOCATION(00002EDA) IN CSECT(I7820) LENGTH(6)
1652	T60I	1716 ADDRESS. HEX LOCATION(00002DE2) IN CSECT(I7820) LENGTH(4)
1758	T60J	1633 ADDRESS. HEX LOCATION(00002F56) IN CSECT(I7820) LENGTH(2)
1729	T60JJ	1756 ADDRESS. HEX LOCATION(00002EEA) IN CSECT(I7820) LENGTH(4)
1699	T60L	1699 1727 ADDRESS. HEX LOCATION(00002E78) IN CSECT(I7820) LENGTH(4)
1702	T60LL	1687 1694 ADDRESS. HEX LOCATION(00002E84) IN CSECT(I7820) LENGTH(2)
1668	T60M	1728 ADDRESS. HEX LOCATION(00002F0E) IN CSECT(I7820) LENGTH(4)
1670	T60N	1666 ADDRESS. HEX LOCATION(00002E14) IN CSECT(I7820) LENGTH(4)
1689	T60R	1681 ADDRESS. HEX LOCATION(00002E58) IN CSECT(I7820) LENGTH(4)
1764	T60RE	1686 ADDRESS. HEX LOCATION(00002F60) IN CSECT(I7820) LENGTH(2)
1752	T60RR	1644 1646 ADDRESS. HEX LOCATION(00002F40) IN CSECT(I7820) LENGTH(6)
1609	T60S	1750 ADDRESS. HEX LOCATION(00002D54) IN CSECT(I7820) LENGTH(6)
1736	T60SS	1619 ADDRESS. HEX LOCATION(00002F00) IN CSECT(I7820) LENGTH(4)
1768	T60ST	1628 1675 1679 1707 1711 1715 1720 1724 ADDRESS. HEX LOCATION(00002F66) IN CSECT(I7820) LENGTH(1)
1682	T60T	1573 ADDRESS. HEX LOCATION(00002E42) IN CSECT(I7820) LENGTH(4)
1590	T60TE	1664 1688 1692 1697 ADDRESS. HEX LOCATION(00002D0A) IN CSECT(I7820) LENGTH(6)
1763	T60TP	1587 ADDRESS. HEX LOCATION(00002F5C) IN CSECT(I7820) LENGTH(2)
1762	T60U	1741 1752 1753 1754 ADDRESS. HEX LOCATION(00002F58) IN CSECT(I7820) LENGTH(2)
1694	T60V	1574 1575 1643 1644 1646 1749 1751 1752 ADDRESS. HEX LOCATION(00002E68) IN CSECT(I7820) LENGTH(4)
1656	T60X	1698 ADDRESS. HEX LOCATION(00002DEE) IN CSECT(I7820) LENGTH(4)
1766	T60XP	1648 1651 ADDRESS. HEX LOCATION(00002F64) IN CSECT(I7820) LENGTH(2)
1588	T60ZZ	1637 ADDRESS. HEX LOCATION(00002D00) IN CSECT(I7820) LENGTH(6)
2025	T61A	1585 1694 ADDRESS. HEX LOCATION(00003210) IN CSECT(I7820) LENGTH(6)
2032	T61B	2023 ADDRESS. HEX LOCATION(00003230) IN CSECT(I7820) LENGTH(4)
2018	T61C	2030 ADDRESS. HEX LOCATION(000031FC) IN CSECT(I7820) LENGTH(4)
1944	T61CC	1944 ADDRESS. HEX LOCATION(000030F2) IN CSECT(I7820) LENGTH(4)
1911	T61D	1911 ADDRESS. HEX LOCATION(00003098) IN CSECT(I7820) LENGTH(4)
1938	T61E	1913 ADDRESS. HEX LOCATION(000030E8) IN CSECT(I7820) LENGTH(6)
2014	T61EE	1922 1929 1931 ADDRESS. HEX LOCATION(000031EE) IN CSECT(I7820) LENGTH(4)
1934	T61ER	1951 ADDRESS. HEX LOCATION(000030DA) IN CSECT(I7820) LENGTH(6)
1916	T61F	1860 1872 1876 1878 1881 1885 1888 1891 1894 1897 1907 1920 1924 1926 1958 1962 1990 1998 2003 2007 2016 2021 2027 ADDRESS. HEX LOCATION(000030A2) IN CSECT(I7820) LENGTH(2)
2017	T61FF	1946 ADDRESS. HEX LOCATION(000031F8) IN CSECT(I7820) LENGTH(4)
2001	T61G	1955 1968 ADDRESS. HEX LOCATION(000031BA) IN CSECT(I7820) LENGTH(6)
1882	T61H	1987 ADDRESS. HEX LOCATION(0000301E) IN CSECT(I7820) LENGTH(6)
2009	T61HH	1880 ADDRESS. HEX LOCATION(000031DA) IN CSECT(I7820) LENGTH(6)
1936	T61I	2000 ADDRESS. HEX LOCATION(000030E2) IN CSECT(I7820) LENGTH(4)
2042	T61J	1917 ADDRESS. HEX LOCATION(00003256) IN CSECT(I7820) LENGTH(2)

DECLARED	NAME	ATTRIBUTES AND REFERENCES
2013	T61JJ	2040 ADDRESS. HEX LOCATION(000031EA) IN CSECT(I7820) LENGTH(4)
1983	T61L	1983 2011 ADDRESS. HEX LOCATION(00003178) IN CSECT(I7820) LENGTH(4)
1986	T61LL	1971 1978 ADDRESS. HEX LOCATION(00003184) IN CSECT(I7820) LENGTH(2)
1952	T61M	2012 ADDRESS. HEX LOCATION(0000310E) IN CSECT(I7820) LENGTH(4)
1954	T61N	1950 ADDRESS. HEX LOCATION(00003114) IN CSECT(I7820) LENGTH(4)
1973	T61R	1965 ADDRESS. HEX LOCATION(00003158) IN CSECT(I7820) LENGTH(4)
2048	T61RE	1970 ADDRESS. HEX LOCATION(00003260) IN CSECT(I7820) LENGTH(2)
2036	T61ER	1928 1930 ADDRESS. HEX LOCATION(00003240) IN CSECT(I7820) LENGTH(6)
1889	T61S	2034 ADDRESS. HEX LOCATION(0000303C) IN CSECT(I7820) LENGTH(6)
2020	T61SS	1899 ADDRESS. HEX LOCATION(00003200) IN CSECT(I7820) LENGTH(4)
2053	T61ST	1912 1959 1963 1991 1995 1999 2004 2008 ADDRESS. HEX LOCATION(00003366) IN CSECT(I7820) LENGTH(1)
1966	T61T	1863 ADDRESS. HEX LOCATION(00003142) IN CSECT(I7820) LENGTH(4)
2047	T61TP	1948 1972 1976 1981 ADDRESS. HEX LOCATION(0000325C) IN CSECT(I7820) LENGTH(2)
2046	T61U	2025 2036 2037 2038 ADDRESS. HEX LOCATION(00003258) IN CSECT(I7820) LENGTH(2)
1978	T61V	1864 1865 1927 1928 1930 2033 2035 2036 ADDRESS. HEX LOCATION(00003168) IN CSECT(I7820) LENGTH(4)
1940	T61X	1982 ADDRESS. HEX LOCATION(000030EE) IN CSECT(I7820) LENGTH(4)
2050	T61XR	1932 1935 ADDRESS. HEX LOCATION(00003264) IN CSECT(I7820) LENGTH(2)
2335	T62A	1921 ADDRESS. HEX LOCATION(00003640) IN CSECT(I7820) LENGTH(6)
2342	T62B	2333 ADDRESS. HEX LOCATION(00003660) IN CSECT(I7820) LENGTH(4)
2328	T62C	2340 ADDRESS. HEX LOCATION(0000362C) IN CSECT(I7820) LENGTH(4)
2254	T62CC	2254 ADDRESS. HEX LOCATION(00003522) IN CSECT(I7820) LENGTH(4)
2221	T62D	2221 ADDRESS. HEX LOCATION(000034C8) IN CSECT(I7820) LENGTH(4)
2248	T62E	2223 ADDRESS. HEX LOCATION(00003518) IN CSECT(I7820) LENGTH(6)
2324	T62EE	2232 2239 2241 ADDRESS. HEX LOCATION(0000361E) IN CSECT(I7820) LENGTH(4)
2244	T62ER	2261 ADDRESS. HEX LOCATION(0000350A) IN CSECT(I7820) LENGTH(6)
2226	T62F	2171 2183 2187 2189 2192 2196 2199 2202 2205 2208 2217 2230 2234 2236 2268 2272 2300 2304 2308 2313 2317 2326 2331 2337 ADDRESS. HEX LOCATION(000034D2) IN CSECT(I7820) LENGTH(2)
2327	T62FF	2256 ADDRESS. HEX LOCATION(00003628) IN CSECT(I7820) LENGTH(4)
2311	T62G	2265 2278 ADDRESS. HEX LOCATION(000035EA) IN CSECT(I7820) LENGTH(6)
2193	T62H	2297 ADDRESS. HEX LOCATION(00003454) IN CSECT(I7820) LENGTH(6)
2319	T62HH	2191 ADDRESS. HEX LOCATION(0000360A) IN CSECT(I7820) LENGTH(6)
2246	T62I	2310 ADDRESS. HEX LOCATION(00003512) IN CSECT(I7820) LENGTH(4)
2352	T62J	2227 ADDRESS. HEX LOCATION(00003686) IN CSECT(I7820) LENGTH(2)
2323	T62JJ	2350 ADDRESS. HEX LOCATION(0000361A) IN CSECT(I7820) LENGTH(4)
2293	T62L	2293 2321 ADDRESS. HEX LOCATION(000035A8) IN CSECT(I7820) LENGTH(4)
2296	T62LL	2281 2288 ADDRESS. HEX LOCATION(000035B4) IN CSECT(I7820) LENGTH(2)
2262	T62M	2322 ADDRESS. HEX LOCATION(0000353E) IN CSECT(I7820) LENGTH(4)
2264	T62N	2260 ADDRESS. HEX LOCATION(00003544) IN CSECT(I7820) LENGTH(4)
2283	T62R	2275 ADDRESS. HEX LOCATION(00003588) IN CSECT(I7820) LENGTH(4)
2358	T62RE	2280 ADDRESS. HEX LOCATION(00003690) IN CSECT(I7820) LENGTH(2)
2346	T62RR	2238 2240 ADDRESS. HEX LOCATION(00003670) IN CSECT(I7820) LENGTH(6)
2200	T62S	2344 ADDRESS. HEX LOCATION(00003472) IN CSECT(I7820) LENGTH(6)
2330	T62SS	2210 ADDRESS. HEX LOCATION(00003630) IN CSECT(I7820) LENGTH(4)
2362	T62ST	2222 2269 2273 2301 2305 2309 2314 2318 ADDRESS. HEX LOCATION(00003696) IN CSECT(I7820) LENGTH(1)
2276	T62T	2174 ADDRESS. HEX LOCATION(00003572) IN CSECT(I7820) LENGTH(4)
2357	T62TP	2258 2282 2286 2291 ADDRESS. HEX LOCATION(0000368C) IN CSECT(I7820) LENGTH(2)
2356	T62U	2335 2346 2347 2348 ADDRESS. HEX LOCATION(00003688) IN CSECT(I7820) LENGTH(2)
2288	T62V	1775 2176 2237 2238 2240 2343 2345 2346 ADDRESS. HEX LOCATION(00003598) IN CSECT(I7820) LENGTH(4)
2250	T62X	2292 ADDRESS. HEX LOCATION(0000351E) IN CSECT(I7820) LENGTH(4)
2360	T62XR	2242 2245 ADDRESS. HEX LOCATION(00003694) IN CSECT(I7820) LENGTH(2)
2601	T63A	2231 ADDRESS. HEX LOCATION(0000391A) IN CSECT(I7820) LENGTH(6)
2608	T63B	2599 ADDRESS. HEX LOCATION(0000393A) IN CSECT(I7820) LENGTH(4)
2594	T63C	2606 ADDRESS. HEX LOCATION(00003906) IN CSECT(I7820) LENGTH(4)
2520	T63CC	2220 ADDRESS. HEX LOCATION(000037FC) IN CSECT(I7820) LENGTH(4)
2487	T63D	2487 ADDRESS. HEX LOCATION(000037A2) IN CSECT(I7820) LENGTH(4)

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DECLARED	NAME	ATTRIBUTES AND REFERENCES
2514	T63E	ADDRESS. HEX LOCATION(000037F2) IN CSECT(I7820) LENGTH(6)
2590	T63EE	ADDRESS. HEX LOCATION(000038F8) IN CSECT(I7820) LENGTH(4)
2510	T63ER	ADDRESS. HEX LOCATION(000037E4) IN CSECT(I7820) LENGTH(6) 2436 2448 2452 2454 2457 2461 2464 2467 2470 2473 2483 2496 2500 2502 2534 2538 2566 2570 2574 2579 2583 2592 2597 2603
2492	T63F	ADDRESS. HEX LOCATION(000037AC) IN CSECT(I7820) LENGTH(2)
2593	T63FF	ADDRESS. HEX LOCATION(00003902) IN CSECT(I7820) LENGTH(4)
2577	T63G	ADDRESS. HEX LOCATION(000038C4) IN CSECT(I7820) LENGTH(6)
2458	T63H	ADDRESS. HEX LOCATION(00003728) IN CSECT(I7820) LENGTH(6)
2585	T63HH	ADDRESS. HEX LOCATION(000038E4) IN CSECT(I7820) LENGTH(6)
2512	T63I	ADDRESS. HEX LOCATION(000037EC) IN CSECT(I7820) LENGTH(4)
2618	T63J	ADDRESS. HEX LOCATION(00003960) IN CSECT(I7820) LENGTH(2)
2589	T63JJ	ADDRESS. HEX LOCATION(000038F4) IN CSECT(I7820) LENGTH(4)
2559	T63L	ADDRESS. HEX LOCATION(00003882) IN CSECT(I7820) LENGTH(4)
2562	T63LL	ADDRESS. HEX LOCATION(0000388E) IN CSECT(I7820) LENGTH(2)
2528	T63M	ADDRESS. HEX LOCATION(00003818) IN CSECT(I7820) LENGTH(4)
2530	T63N	ADDRESS. HEX LOCATION(0000381E) IN CSECT(I7820) LENGTH(4)
2549	T63R	ADDRESS. HEX LOCATION(00003862) IN CSECT(I7820) LENGTH(4)
2624	T63RE	ADDRESS. HEX LOCATION(0000396A) IN CSECT(I7820) LENGTH(2)
2612	T63RR	ADDRESS. HEX LOCATION(0000394A) IN CSECT(I7820) LENGTH(6)
2465	T63S	ADDRESS. HEX LOCATION(00003746) IN CSECT(I7820) LENGTH(6)
2596	T63SS	ADDRESS. HEX LOCATION(0000390A) IN CSECT(I7820) LENGTH(4)
2633	T63ST	ADDRESS. HEX LOCATION(00003A70) IN CSECT(I7820) LENGTH(1)
2542	T63T	ADDRESS. HEX LOCATION(0000384C) IN CSECT(I7820) LENGTH(4)
2623	T63TP	ADDRESS. HEX LOCATION(00003966) IN CSECT(I7820) LENGTH(2)
2622	T63U	ADDRESS. HEX LOCATION(00003962) IN CSECT(I7820) LENGTH(2)
2554	T63V	ADDRESS. HEX LOCATION(00003872) IN CSECT(I7820) LENGTH(4)
2516	T63X	ADDRESS. HEX LOCATION(000037F8) IN CSECT(I7820) LENGTH(4)
2626	T63XR	ADDRESS. HEX LOCATION(0000396E) IN CSECT(I7820) LENGTH(2)
1566	T7860	ADDRESS. HEX LOCATION(00002CAC) IN CSECT(I7820) LENGTH(4)
1856	T7861	ADDRESS. HEX LOCATION(00002FBA) IN CSECT(I7820) LENGTH(4)
2167	T7862	ADDRESS. HEX LOCATION(000033F0) IN CSECT(I7820) LENGTH(4)
2432	T7863	ADDRESS. HEX LOCATION(000036C4) IN CSECT(I7820) LENGTH(4)
866	VPDCB	ADDRESS. HEX LOCATION(00002854) IN CSECT(I7820) LENGTH(2)
888	WKDCB	ADDRESS. HEX LOCATION(00002874) IN CSECT(I7820) LENGTH(2)
2627	WRBUF	ADDRESS. HEX LOCATION(00003970) IN CSECT(I7820) LENGTH(2)
855	WRDCB	ADDRESS. HEX LOCATION(00002844) IN CSECT(I7820) LENGTH(2)
915	WRSID	ADDRESS. HEX LOCATION(000028A0) IN CSECT(I7820) LENGTH(2)
799	WSDCB	ADDRESS. HEX LOCATION(000027F4) IN CSECT(I7820) LENGTH(2)
918	WSIDT	ADDRESS. HEX LOCATION(000028A6) IN CSECT(I7820) LENGTH(2)
611	XE	ABSOLUTE. HEX VALUE(00000024)
609	XI	ABSOLUTE. HEX VALUE(00000022)
1181	XIO	ADDRESS. HEX LOCATION(000029F6) IN CSECT(I7820) LENGTH(4) 1206 1347 1593 1873 2184 2449 1073 1076 1084 1087 1090 1093 1097 1101 1105 1113 1117 1121 1124 1127
1362	XIOCK	ADDRESS. HEX LOCATION(00002ABE) IN CSECT(I7820) LENGTH(2)
1369	XIOCO	ADDRESS. HEX LOCATION(00002AD0) IN CSECT(I7820) LENGTH(2)
1186	XIOCS	ADDRESS. HEX LOCATION(00002A00) IN CSECT(I7820) LENGTH(6)
1371	XIOCV	ADDRESS. HEX LOCATION(00002AD4) IN CSECT(I7820) LENGTH(2)
1380	XIOCX	ADDRESS. HEX LOCATION(00002ABE) IN CSECT(I7820) LENGTH(4)
1255	XIOER	ADDRESS. HEX LOCATION(00002A5C) IN CSECT(I7820) LENGTH(2)
1190	XIO1	ADDRESS. HEX LOCATION(00002A10) IN CSECT(I7820) LENGTH(4)
1203	XIO2	ADDRESS. HEX LOCATION(00002A36) IN CSECT(I7820) LENGTH(2)
1215	XIO8	ADDRESS. HEX LOCATION(00002A4A) IN CSECT(I7820) LENGTH(2)
62	XTRNL	ABSOLUTE. HEX VALUE(00000001) 427 523