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LOCTR OBJECT TEXT      STMT SOURCE STATEMENT      COPYRIGHT IBM CORP 1976
3      COPY LOG7841      ** MAP EC HISTORY **
4      *****
5      *
6      *      ***      PREREQUISITES      ***
7      *
8      *      NONE
9      *
10     *****
11     *
12     *      ***      MODIFICATIONS      ***
13     *
14     *      CHANGES MADE TO MEET PROGRAM REQUIREMENTS
15     *
16     *****
17     *
18     *      ***      REA'S INCORPORATED      ***
19     *
20     *      NONE
21     *
22     *****
23     *
24     *      ***      SPECIAL INSTRUCTIONS      ***
25     *
26     *      NONE
27     *
28     *****
29     *
30     *      ***      E. C. HISTORY      ***
31     *
32     *      DATE 17DEC76  DATE 18JAN77  DATE 04MAR77  DATE 10JUN77
33     *      E.C. 578486  E.C. 578573  E.C. 578638  E.C. 578625
34     *
35     *      DATE 01MAR78  DATE
36     *      E.C. 755285  E.C.
37     *
38     *****
39     *
40     I7841  START X'2500'  START ADDRESS OF ALL 'I' TYPE PROG
41     @QUES  EQU X'0100'  EQUATED VALUE FOR MDI STATEMENT
42     @FIXT  EQU X'0101'  EQUATED VALUE FOR MDI STATEMENT
43     @STOP  EQU X'0102'  EQUATED VALUE FOR MDI STATEMENT
44     @GOTO  EQU X'0200'  EQUATED VALUE FOR MDI STATEMENT
45     @CALL  EQU X'0201'  EQUATED VALUE FOR MDI STATEMENT
46     @INPT  EQU X'0300'  EQUATED VALUE FOR MDI STATEMENT
47     @UXXY  EQU X'0400'  EQUATED VALUE FOR MDI STATEMENT
48     @TUXY  EQU X'0500'  EQUATED VALUE FOR MDI STATEMENT
49     @NVLD  EQU X'0600'  EQUATED VALUE FOR MDI STATEMENT
50     EQ     EQU X'0000'  EQUATE FOR EQUAL
51     NE     EQU X'00J4'  EQUATE FOR NOT EQUAL
52     HI     EQU X'0008'  EQUATE FOR HIGH
53     NH     EQU X'000C'  EQUATE FOR NOT HIGH
54     LO     EQU X'0010'  EQUATE FOR LOW
55     NL     EQU X'0014'  EQUATE FOR NOT LOW
56     LT     EQU X'0010'  EQUATE FOR LESS THAN
57     LE     EQU X'000C'  EQUATE FOR LESS THAN OR EQUAL TO
58     GT     EQU X'0008'  EQUATE FOR GREATER THAN
59     GE     EQU X'0014'  EQUATE FOR GREATER THAN OR EQUAL TO
60     ON     EQU X'0200'  EQUATE FOR ON
61     OF     EQU X'0202'  EQUATE FOR OFF
62     MX     EQU X'0204'  EQUATE FOR MIXED
63     EBC    EQU X'0000'  EQUATE FOR EBCDIC DATA TRANSFER
64     HEX    EQU X'0001'  EQUATE FOR HEX DATA TRANSFER
65     XTRNL  EQU X'0001'  EQUATE FOR EXTERNAL REFERENCE
66     INTRNL EQU X'0000'  EQUATE FOR INTERNAL REFERENCE
67     FARM   EQU X'0000'  EQUATE INDICATING PARAMETER
68     DA     EQU X'0001'  EQUATE FOR DEVICE ADDRESS
69     UA     EQU X'0002'  EQUATE FOR UNIT ADDRESS
70     DUMMY  EQU X'0000'  DUMMY EQUATE
71     *-X'0D00'  ADDRESS OF MDI HEADER
72     PTYPE  EQU *-X'22CE'  ADDRESS OF PROCESSOR TYPE FIELD
73     STEPNUM EQU PID+X'000C'  ADDRESS OF DECIMAL STEP NUMBER
74     OPWD1  EQU PID+X'000E'  ADDRESS OF OPTION WORD ONE
75     OPWD2  EQU PID+X'0010'  ADDRESS OF OPTION WORD TWO
76     TUSTATUS EQU PID+X'0018'  ADDRESS OF TU STATUS WORD
77     TUWORK EQU PID+X'001A'  ADDRESS OF TU WORK AREA
78     TUPARM1 EQU PID+X'009A'  ADDRESS OF PARM 1 POINTER
79     TUPARM2 EQU PID+X'009C'  ADDRESS OF PARM 2 POINTER
80     TUPARM3 EQU PID+X'009E'  ADDRESS OF PARM 3 POINTER
81     TUPARM4 EQU PID+X'00A0'  ADDRESS OF PARM 4 POINTER
82     TUPARM5 EQU PID+X'00A2'  ADDRESS OF PARM 5 POINTER
83     TUPARM6 EQU PID+X'00A4'  ADDRESS OF PARM 6 POINTER
84     TUPARM7 EQU PID+X'00A6'  ADDRESS OF PARM 7 POINTER
85     TUPARM8 EQU PID+X'00A8'  ADDRESS OF PARM 8 POINTER
86     TUPARM9 EQU PID+X'00AA'  ADDRESS OF PARM 9 POINTER
87     TUPARM10 EQU PID+X'00AC'  ADDRESS OF PARM 10 POINTER
88     TUPARM11 EQU PID+X'00AE'  ADDRESS OF PARM 11 POINTER
89     TUPARM12 EQU PID+X'00B0'  ADDRESS OF PARM 12 POINTER
90     TUPARM13 EQU PID+X'00B2'  ADDRESS OF PARM 13 POINTER
91     TUPARM14 EQU PID+X'00B4'  ADDRESS OF PARM 14 POINTER
92     TUPARM15 EQU PID+X'00B6'  ADDRESS OF PARM 15 POINTER
93     TUPARM16 EQU PID+X'00B8'  ADDRESS OF PARM 16 POINTER
94     TUMSGWTR EQU PID+X'00BA'  ADDRESS OF -> TO COMMON MSG WRITER
95     TUSA   EQU PID+X'00BE'  ADDRESS OF UNIT ADDRESS IN EBC
96     TUDA   EQU PID+X'00C0'  ADDRESS OF DEVICE ADDRESS IN EBC
97     TUBUFF EQU PID+X'00C2'  ADDRESS OF LAST USED WORD IN MAP
98     TULAST EQU PID+X'00C4'  ADDRESS OF LAST ADDRESSABLE WORD
99     TURESUL EQU PID+X'00C6'  ADDRESS OF LENGTH OF TU RESULTS
100    TURESUL EQU PID+X'00C8'  ADDRESS OF TU RESULTS FIELD
101    MAPNAME EQU PID+X'00FC'  ADDRESS OF MAP NAME FIELD IN HEX
102    TUINPT EQU PID+X'0148'  ADDRESS OF SINPT DATA
103    FARMARA EQU PID+X'014E'  ADDRESS OF SINPT INPUT AREA
104    @DCADD1 EQU PID+X'01B8'  MDI POINTER
105    @DCADD2 EQU PID+X'01BA'  MDI POINTER
106    SUPSTAT EQU PID+X'01C4'  ADDRESS OF MDI STATUS
107    DEVADD EQU PID+X'01D0'  ADDRESS OF DEVICE ADDRESS TABLE 0
108    DEVADD1 EQU PID+X'01DA'  ADDRESS OF DEVICE ADDRESS TABLE 1
109    DEVADD2 EQU PID+X'01E4'  ADDRESS OF DEVICE ADDRESS TABLE 2
110    DEVADD3 EQU PID+X'01EE'  ADDRESS OF DEVICE ADDRESS TABLE 3
111    DEVADD4 EQU PID+X'01F8'  ADDRESS OF DEVICE ADDRESS TABLE 4
112    DEVADD5 EQU PID+X'0202'  ADDRESS OF DEVICE ADDRESS TABLE 5
113    DEVADD6 EQU PID+X'020C'  ADDRESS OF DEVICE ADDRESS TABLE 6
114    DEVADD7 EQU PID+X'0216'  ADDRESS OF DEVICE ADDRESS TABLE 7
115    PRINT  OFF
116

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002500
000100
000101
000102
000200
000201
000300
000400
000500
000600
000000
000004
000008
00000C
000010
000014
000010
00000C
000008
000014
000200
000202
000204
000000
000001
000001
000000
000000
000001
000002
000000
001800
000232
00180C
00180E
001810
001818
00181A
00181A
00181A
00181C
00181E
001820
001822
001824
001826
001828
00182A
00182C
00182E
001830
001832
001834
001836
001838
00183A
00183C
00183E
001840
001842
001844
001846
001848
00184A
00184C
00184E
001850
001852
001854
001856
001858
00185A
00185C
00185E
001860
001862
001864
001866
001868
00186A
00186C
00186E
001870
001872
001874
001876
001878
00187A
00187C
00187E
001880
001882
001884
001886
001888
00188A
00188C
00188E
001890
001892
001894
001896
001898
00189A
00189C
00189E
001900
001902
001904
001906
001908
00190A
00190C
00190E
001910
001912
001914
001916

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LOCTR OBJECT TEXT      STMT SOURCE STATEMENT      COPYRIGHT IBM CORP 1976
002500 297C
201     DC      A(ENTPT)      POINT TO MAP ENTRY POINT TABLE
202     *****
203     *****
204     *
205     *      THE FOLLOWING TABLES ARE USED BY THE MDI SUPERVISOR (D3C00)
206     *      TO LOCATE THE CORRECT RULE TO INVOKE, TO OBTAIN THE PROPER
207     *      PARAMETERS TO PASS TO THE TU'S AND TO PASS TO THE OPERATOR
208     *      THE INDICATED MESSAGE(S). THERE ARE FOUR TABLES USED FOR THIS
209     *      PURPOSE THEY ARE:
210     *
211     *      STEP AND RULE ADDRESS TABLE
212     *      THIS TABLE GIVES THE ADDRESS OF THE RULE TO INVOKE AND
213     *      THE ASSOCIATED STEP DECIMAL STEP NUMBER OF THAT RULE.
214     *      ENTRIES ARE AS FOLLOWS
215     *      A) AN ADDRESS OF THE RULE DC START AREA
216     *      B) THE STEP NUMBER IN DECIMAL
217     *      C) AN EQUATE FOR THE STEP NUMBER
218     *
219     *      RULE INFORMATION TABLE
220     *      THIS TABLE CONTAINS THE REQUIRED INFORMATION TO EXECUTE
221     *      THE APPROPRIATE RULE UNDER MDI. EACH RULE HAS ITS OWN
222     *      UNIQUELY DEFINED AREA INDICATED BELOW. END OF TABLE IS
223     *      INDICATED WITH A X'0000' FOR THE RULE EQUATE.
224     *
225     *      $QUES
226     *      A) RULE EQUATE X'0100'
227     *      B) ADDRESS OF THE YES LEG RULE
228     *
229     *      $FIXT
230     *      A) RULE EQUATE X'0101'
231     *      B) ADDRESS OF MESSAGE TO PRINT
232     *
233     *      $STOP
234     *      A) RULE EQUATE X'0102'
235     *      B) ADDRESS OF MESSAGE
236     *
237     *      $GOTO
238     *      A) RULE EQUATE X'0200'
239     *      B) ADDRESS OF MESSAGE
240     *      C) NAME OF MAP TO GO TO
241     *      D) ENTRY POINT WITHIN GO TO MAP TO USE
242     *      E) INDICATOR FOR EXTERNAL OR INTERNAL REFERENCE
243     *
244     *      $CALL
245     *      A) RULE EQUATE X'0201'
246     *      B) ADDRESS OF MESSAGE
247     *      C) NAME OF MAP TO CALL
248     *      D) ENTRY POINT WITHIN CALLED MAP TO USE
249     *      E) INDICATOR FOR EXTERNAL OR INTERNAL REFERENCE
250     *
251     *      $INPT
252     *      A) RULE EQUATE X'0300'
253     *      B) INPUT TYPE (EBCDIC OR HEX)
254     *      C) ADDRESS OF YES LEG RULE
255     *      D) DESTINATION LOCATION OF INPUT DATA
256     *      E) LENGTH OF INPUT DATA
257     *      F) LOWER LIMIT OF GOOD DATA
258     *      G) HIGHER LIMIT OF GOOD DATA
259     *
260     *      $QUXX
261     *      A) RULE EQUATE X'0400'
262     *      B) ADDRESS OF YES LEG RULE
263     *      C) TU BRANCH TO ADDRESS (INITIAL)
264     *      D) TU BRANCH TO ADDRESS (SECONDARY)
265     *      E) LENGTH OF PARAMETER IN BYTES
266     *      F) PARAMETER TO PASS TO TU
267     *      G) STORE ADDRESS FOR FIRST 8 WORDS OF PARAMETER
268     *
269     *      $TUXX
270     *      A) RULE EQUATE X'0500'
271     *      B) ADDRESS OF YES LEG RULE
272     *      C) TU BRANCH TO ADDRESS
273     *      D) TYPE OF COMPARE TO MAKE ON RESULTS
274     *      E) LENGTH OF COMPARE TO MAKE ON RESULTS
275     *      F) MASK FIELD FOR COMPARE
276     *      G) LENGTH OF PARAMETER IN BYTES
277     *      H) PARAMETER TO PASS TO THE TU
278     *      I) STORE ADDRESS FOR FIRST 8 WORDS OF PARAMETER
279     *
280     *      $NVLD
281     *      A) RULE EQUATE X'0600'
282     *
283     *      ENTRY POINT TABLE
284     *      THIS TABLE CONTAINS THE ENTRY POINTS WITHIN THE MAP THAT
285     *      THE MAP CAN BE ENTERED FROM THESE ENTRY POINTS ARE
286     *      REFERENCED BY NAME AND ADDRESS. ENTRIES ARE AS FOLLOWS:
287     *
288     *      A) NAME OF ENTRY POINT
289     *      B) ADDRESS OF ENTRY POINT RULE TABLE
290     *
291     *      THE ENTRY POINT TABLE END IS INDICATED BY A X'0000'
292     *
293     *      MESSAGE TABLE
294     *      THIS TABLE CONTAINS THE MESSAGE PASSED TO THE OPERATOR
295     *      VIA THE MDI SUPERVISOR. THE TABLE IS AS FOLLOWS:
296     *
297     *      A) EQUATE FOR START OF MESSAGE BLOCK
298     *      B) NUMBER OF LINES OF MESSAGE
299     *      C) LENGTH OF FOLLOWING LINE
300     *      D) FIRST LINE OF MESSAGE
301     *      E) LENGTH OF FOLLOWING LINE
302     *      F) SECOND LINE OF MESSAGE
303     *      G) ETC.
304     *
305     *
306     *
307     *****
308     *****

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311 *****
312 *****
313 **
314 **
315 **
316 *****
317 *****
318 *****
319 DC AL2(N00001)
320 EQN00001 EQU XL2'0001'
321 DC 0001
322 AL2(N00002)
323 EQN00002 EQU XL2'0002'
324 DC 0002
325 AL2(N00003)
326 EQN00003 EQU XL2'0003'
327 DC 0003
328 AL2(N00004)
329 EQN00004 EQU XL2'0004'
330 DC 0004
331 AL2(N00005)
332 EQN00005 EQU XL2'0005'
333 DC 0005
334 AL2(N00006)
335 EQN00006 EQU XL2'0006'
336 DC 0006
337 AL2(N00007)
338 EQN00007 EQU XL2'0007'
339 DC 0007
340 AL2(N00008)
341 EQN00008 EQU XL2'0008'
342 DC 0008
343 AL2(N00009)
344 EQN00009 EQU XL2'0009'
345 DC 0009
346 AL2(N00010)
347 EQN00010 EQU XL2'0010'
348 DC 0010
349 AL2(N00011)
350 EQN00011 EQU XL2'0011'
351 DC 0011
352 AL2(N00012)
353 EQN00012 EQU XL2'0012'
354 DC 0012
355 AL2(N00013)
356 EQN00013 EQU XL2'0013'
357 DC 0013
358 AL2(N00014)
359 EQN00014 EQU XL2'0014'
360 DC 0014
361 AL2(N00015)
362 EQN00015 EQU XL2'0015'
363 DC 0015
364 AL2(N00016)
365 EQN00016 EQU XL2'0016'
366 DC 0016
367 AL2(N00017)
368 EQN00017 EQU XL2'0017'
369 DC 0017
370 AL2(N00018)
371 EQN00018 EQU XL2'0018'
372 DC 0018
373 AL2(N00019)
374 EQN00019 EQU XL2'0019'
375 DC 0019
376 AL2(N00020)
377 EQN00020 EQU XL2'0020'
378 DC 0020
379 AL2(N00021)
380 EQN00021 EQU XL2'0021'
381 DC 0021
382 AL2(N00022)
383 EQN00022 EQU XL2'0022'
384 DC 0022
385 AL2(N00023)
386 EQN00023 EQU XL2'0023'
387 DC 0023
388 AL2(N00024)
389 EQN00024 EQU XL2'0024'
390 DC 0024
391 AL2(N00025)
392 EQN00025 EQU XL2'0025'
393 DC 0025
394 AL2(N00026)
395 EQN00026 EQU XL2'0026'
396 DC 0026
397 AL2(N00027)
398 EQN00027 EQU XL2'0027'
399 DC 0027
400 AL2(N00028)
401 EQN00028 EQU XL2'0028'
402 DC 0028
403 AL2(N00029)
404 EQN00029 EQU XL2'0029'
405 DC 0029
406 AL2(N00030)
407 EQN00030 EQU XL2'0030'
408 DC 0030
409 AL2(N00031)
410 EQN00031 EQU XL2'0031'
411 DC 0031
412 AL2(N00032)
413 EQN00032 EQU XL2'0032'
414 DC 0032
415 AL2(N00033)
416 EQN00033 EQU XL2'0033'
417 DC 0033
418 AL2(N00034)
419 EQN00034 EQU XL2'0034'
420 DC 0034
421 AL2(N00035)
422 EQN00035 EQU XL2'0035'
423 DC 0035
424 AL2(N00036)
425 EQN00036 EQU XL2'0036'
426 DC 0036
002502 2630
002503 0001
000001
002506 2634
002508 0002
000002
00250A 2638
00250C 0003
000003
00250E 264A
002510 0004
000004
002512 265C
002514 0005
000005
002516 2660
002518 0006
000006
00251A 2672
00251C 0007
000007
00251E 2684
002520 0008
000008
002522 2688
002524 0009
000009
002526 269A
002528 0010
00000A
00252A 26AC
00252C 0011
00000B
00252E 26B8
002530 0012
00000C
002532 26CA
002534 0013
00000D
002536 26DC
002538 0014
00000E
00253A 26EE
00253C 0015
00000F
00253E 2700
002540 0016
000010
002542 2712
002544 0017
000011
002546 2724
002548 0018
000012
00254A 2736
00254C 0019
000013
00254E 2748
002550 0020
000014
002552 2756
002554 0021
000015
002556 2764
002558 0022
000016
00255A 2768
00255C 0023
000017
00255E 276C
002560 0024
000018
002562 277A
002564 0025
000019
002566 2788
002568 0026
00001A
00256A 278C
00256C 0027
00001B
00256E 279A
002570 0028
00001C
002572 279E
002574 0029
00001D
002576 27AC
002578 0030
00001E
00257A 27B0
00257C 0031
00001F
00257E 27B4
002580 0032
000020
002582 27C2
002584 0033
000021
002586 27C6
002588 0034
000022
00258A 27D8
00258C 0035
000023
00258E 27DC
002590 0036

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000024
002592 27EA
002594 0037
000025
002596 27F8
002598 0038
000026
00259A 27FC
00259C 0039
000027
00259E 2800
0025A0 0040
000028
0025A2 280E
0025A4 0041
000029
0025A6 2812
0025A8 0042
00002A
0025AA 2816
0025AC 0043
00002B
0025AE 2822
0025B0 0044
00002C
0025B2 282E
0025B4 0045
00002D
0025B6 283A
0025B8 0046
00002E
0025BA 2846
0025BC 0047
00002F
0025BE 2852
0025C0 0048
000030
0025C2 285E
0025C4 0049
000031
0025C6 286A
0025C8 0050
000032
0025CA 2876
0025CC 0051
000033
0025CE 2888
0025D0 0052
000034
0025D2 289A
0025D4 0053
000035
0025D6 289E
0025D8 0054
000036
0025DA 28A8
0025DC 0055
000037
0025DE 28AE
0025E0 0056
000038
0025E2 28B2
0025E4 0057
000039
0025E6 28C4
0025E8 0058
00003A
0025EA 28C8
0025EC 0059
00003B
0025EE 28DA
0025F0 0060
00003C
0025F2 28EC
0025F4 0061
00003D
0025F6 28F8
0025F8 0062
00003E
0025FA 2906
0025FC 0063
00003F
0025FE 2908
002600 0064
000040
002602 291A
002604 0065
000041
002606 291E
002608 0066
000042
00260A 2922
00260C 0067
000043
00260E 2926
002610 0068
000044
002612 2934
002614 0069
000045
002616 2936
002618 0070
000046
00261A 2942
00261C 0071
000047
00261E 2954
002620 0072
000048
002622 2966
002624 0073
000049
002626 296A
002628 0074
425 EQN00036 EQU 0036
426 DC AL2(N00037)
427 DC XL2'0037'
428 EQN00037 EQU 0037
429 DC AL2(N00038)
430 DC XL2'0038'
431 EQN00038 EQU 0038
432 DC AL2(N00039)
433 DC XL2'0039'
434 EQN00039 EQU 0039
435 DC AL2(N00040)
436 DC XL2'0040'
437 EQN00040 EQU 0040
438 DC AL2(N00041)
439 DC XL2'0041'
440 EQN00041 EQU 0041
441 DC AL2(N00042)
442 DC XL2'0042'
443 EQN00042 EQU 0042
444 DC AL2(N00043)
445 DC XL2'0043'
446 EQN00043 EQU 0043
447 DC AL2(N00044)
448 DC XL2'0044'
449 EQN00044 EQU 0044
450 DC AL2(N00045)
451 DC XL2'0045'
452 EQN00045 EQU 0045
453 DC AL2(N00046)
454 DC XL2'0046'
455 EQN00046 EQU 0046
456 DC AL2(N00047)
457 DC XL2'0047'
458 EQN00047 EQU 0047
459 DC AL2(N00048)
460 DC XL2'0048'
461 EQN00048 EQU 0048
462 DC AL2(N00049)
463 DC XL2'0049'
464 EQN00049 EQU 0049
465 DC AL2(N00050)
466 DC XL2'0050'
467 EQN00050 EQU 0050
468 DC AL2(N00051)
469 DC XL2'0051'
470 EQN00051 EQU 0051
471 DC AL2(N00052)
472 DC XL2'0052'
473 EQN00052 EQU 0052
474 DC AL2(N00053)
475 DC XL2'0053'
476 EQN00053 EQU 0053
477 DC AL2(N00054)
478 DC XL2'0054'
479 EQN00054 EQU 0054
480 DC AL2(N00055)
481 DC XL2'0055'
482 EQN00055 EQU 0055
483 DC AL2(N00056)
484 DC XL2'0056'
485 EQN00056 EQU 0056
486 DC AL2(N00057)
487 DC XL2'0057'
488 EQN00057 EQU 0057
489 DC AL2(N00058)
490 DC XL2'0058'
491 EQN00058 EQU 0058
492 DC AL2(N00059)
493 DC XL2'0059'
494 EQN00059 EQU 0059
495 DC AL2(N00060)
496 DC XL2'0060'
497 EQN00060 EQU 0060
498 DC AL2(N00061)
499 DC XL2'0061'
500 EQN00061 EQU 0061
501 DC AL2(N00062)
502 DC XL2'0062'
503 EQN00062 EQU 0062
504 DC AL2(N00063)
505 DC XL2'0063'
506 EQN00063 EQU 0063
507 DC AL2(N00064)
508 DC XL2'0064'
509 EQN00064 EQU 0064
510 DC AL2(N00065)
511 DC XL2'0065'
512 EQN00065 EQU 0065
513 DC AL2(N00066)
514 DC XL2'0066'
515 EQN00066 EQU 0066
516 DC AL2(N00067)
517 DC XL2'0067'
518 EQN00067 EQU 0067
519 DC AL2(N00068)
520 DC XL2'0068'
521 EQN00068 EQU 0068
522 DC AL2(N00069)
523 DC XL2'0069'
524 EQN00069 EQU 0069
525 DC AL2(N00070)
526 DC XL2'0070'
527 EQN00070 EQU 0070
528 DC AL2(N00071)
529 DC XL2'0071'
530 EQN00071 EQU 0071
531 DC AL2(N00072)
532 DC XL2'0072'
533 EQN00072 EQU 0072
534 DC AL2(N00073)
535 DC XL2'0073'
536 EQN00073 EQU 0073
537 DC AL2(N00074)
538 DC XL2'0074'

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I7841 --- READ PROBLEM MAP P/N=1635260 EC=755285 PAGE 03

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00004A 296E 539 EQN00074 EQU 0074
00262A 0075 540 DC AL2(N00075)
00004B 0000 541 DC IL2'0075'
00262E 0000 542 EQN00075 EQU 0075
543 DC AL2(DUMMY)
544 *****
545 *****
546 *****
547 *****
548 *****
549 *****
550 *****
551 N00001 $QUES QT=(Q00071),YES=N00003,CT=(C00052),ST=(S00062)
552+N00001 DC A(@QUES)
553+ DC AL2(N00003)
554 N00002 $FIXT FT=(F00074)
555+N00002 DC A(@FIXT)
556+ DC A(F00074)
557 N00003 $TUXX T7884,02,0002,ON,PLNG=02,PARM=00,QT=(Q00077),YES=N00057,X
558+N00003 DC A(@TUXX)
559+ DC AL2(N00057)
560+ DC A(T7884)
561+ DC AL2(ON)
562+ DC AL2(02)
563+ DC X'0002'
564+ ALIGN WORD
565+ DC AL2(02)
566+ DC C'00'
567+ ALIGN WORD
568+ DC AL2(PARMARA)
569 N00004 $TUXX T3C02,02,0020,OF,PLNG=02,PARM=00,QT=(Q00085),YES=N00006,X
570+N00004 DC A(@TUXX)
571+ DC AL2(N00006)
572+ DC A(T3C02)
573+ DC AL2(OF)
574+ DC AL2(02)
575+ DC X'0020'
576+ ALIGN WORD
577+ DC AL2(02)
578+ DC C'00'
579+ ALIGN WORD
580+ DC AL2(PARMARA)
581 N00005 $FIXT FT=(F00088),ST=(S00094)
582+N00005 DC A(@FIXT)
583+ DC A(F00088)
584 N00006 $TUXX T7884,02,0002,ON,PLNG=02,PARM=01,QT=(Q00100),YES=N00056,X
585+N00006 DC A(@TUXX)
586+ DC AL2(N00056)
587+ DC A(T7884)
588+ DC AL2(ON)
589+ DC AL2(02)
590+ DC X'0002'
591+ ALIGN WORD
592+ DC AL2(02)
593+ DC C'01'
594+ ALIGN WORD
595+ DC AL2(PARMARA)
596 N00007 $TUXX T3C02,02,0020,OF,PLNG=02,PARM=01,QT=(Q00104),YES=N00009,X
597+N00007 DC A(@TUXX)
598+ DC AL2(N00009)
599+ DC A(T3C02)
600+ DC AL2(OF)
601+ DC AL2(02)
602+ DC X'0020'
603+ ALIGN WORD
604+ DC AL2(02)
605+ DC C'01'
606+ ALIGN WORD
607+ DC AL2(PARMARA)
608 N00008 $FIXT FT=(F00107),ST=(S00108)
609+N00008 DC A(@FIXT)
610+ DC A(F00107)
611 N00009 $TUXX T7812,02,0800,ON,QT=(Q00113),YES=N00051
612+N00009 DC A(@TUXX)
613+ DC AL2(N00051)
614+ DC A(T7812)
615+ DC AL2(ON)
616+ DC AL2(02)
617+ DC X'0800'
618+ ALIGN WORD
619+ DC AL2(0)
620+ DC C'AA'
621+ ALIGN WORD
622+ DC AL2(PARMARA)
623 N00010 $TUXX T7812,02,C000,MX,QT=(Q00115),YES=N00012
624+N00010 DC A(@TUXX)
625+ DC AL2(N00012)
626+ DC A(T7812)
627+ DC AL2(MX)
628+ DC AL2(02)
629+ DC X'C000'
630+ ALIGN WORD
631+ DC AL2(0)
632+ DC C'AA'
633+ ALIGN WORD
634+ DC AL2(PARMARA)
635 N00011 $GOTO TYPE=INTRNL,EP=B,FT=(F00117),GTO=(N00020)
636+N00011 DC A(@GOTO)
637+ DC A(F00117)
638+ DC CL4'3C00'
639+ DC CL2'B'
640+ ALIGN WORD
641 N00012 $TUXX T7884,02,0002,ON,PLNG=02,PARM=80,QT=(Q00120),YES=N00050,X
642+N00012 DC A(@TUXX)
643+ DC AL2(N00050)
644+ DC A(T7884)
645+ DC AL2(ON)
646+ DC AL2(02)
647+ DC X'0002'
648+ ALIGN WORD
649+ DC AL2(02)
650+ DC C'80'
651+ ALIGN WORD
652+ DC AL2(PARMARA)

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I7841 --- READ PROBLEM MAP P/N=1635260 EC=755285 PAGE 03A

LOCTR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976

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653 N00013 $TUXX T7884,02,0002,ON,PLNG=02,PARM=81,QT=(Q00124),YES=N00049,X
654+N00013 DC A(@TUXX)
655+ DC AL2(N00049)
656+ DC A(T7884)
657+ DC AL2(ON)
658+ DC AL2(02)
659+ DC X'0002'
660+ ALIGN WORD
661+ DC AL2(02)
662+ DC C'81'
663+ ALIGN WORD
664+ DC AL2(PARMARA)
665 N00014 $TUXX T7884,02,0002,ON,PLNG=02,PARM=82,QT=(Q00128),YES=N00048,X
666+N00014 DC A(@TUXX)
667+ DC AL2(N00048)
668+ DC A(T7884)
669+ DC AL2(ON)
670+ DC AL2(02)
671+ DC X'0002'
672+ ALIGN WORD
673+ DC AL2(02)
674+ DC C'82'
675+ ALIGN WORD
676+ DC AL2(PARMARA)
677 N00015 $TUXX T7884,02,0002,ON,PLNG=02,PARM=83,QT=(Q00132),YES=N00047,X
678+N00015 DC A(@TUXX)
679+ DC AL2(N00047)
680+ DC A(T7884)
681+ DC AL2(ON)
682+ DC AL2(02)
683+ DC X'0002'
684+ ALIGN WORD
685+ DC AL2(02)
686+ DC C'83'
687+ ALIGN WORD
688+ DC AL2(PARMARA)
689 N00016 $TUXX T7884,02,0002,ON,PLNG=02,PARM=84,QT=(Q00136),YES=N00046,X
690+N00016 DC A(@TUXX)
691+ DC AL2(N00046)
692+ DC A(T7884)
693+ DC AL2(ON)
694+ DC AL2(02)
695+ DC X'0002'
696+ ALIGN WORD
697+ DC AL2(02)
698+ DC C'84'
699+ ALIGN WORD
700+ DC AL2(PARMARA)
701 N00017 $TUXX T7884,02,0002,ON,PLNG=02,PARM=85,QT=(Q00140),YES=N00045,X
702+N00017 DC A(@TUXX)
703+ DC AL2(N00045)
704+ DC A(T7884)
705+ DC AL2(ON)
706+ DC AL2(02)
707+ DC X'0002'
708+ ALIGN WORD
709+ DC AL2(02)
710+ DC C'85'
711+ ALIGN WORD
712+ DC AL2(PARMARA)
713 N00018 $TUXX T7884,02,0002,ON,PLNG=02,PARM=86,QT=(Q00144),YES=N00044,X
714+N00018 DC A(@TUXX)
715+ DC AL2(N00044)
716+ DC A(T7884)
717+ DC AL2(ON)
718+ DC AL2(02)
719+ DC X'0002'
720+ ALIGN WORD
721+ DC AL2(02)
722+ DC C'86'
723+ ALIGN WORD
724+ DC AL2(PARMARA)
725 N00019 $TUXX T7884,02,0002,ON,PLNG=02,PARM=87,QT=(Q00148),YES=N00043,X
726+N00019 DC A(@TUXX)
727+ DC AL2(N00043)
728+ DC A(T7884)
729+ DC AL2(ON)
730+ DC AL2(02)
731+ DC X'0002'
732+ ALIGN WORD
733+ DC AL2(02)
734+ DC C'87'
735+ ALIGN WORD
736+ DC AL2(PARMARA)
737 N00020 $QUXX T7834,CT=(Q00153),YES=N00024,CT=(C00151),ST=(S00154)
738+N00020 DC A(@QUXX)
739+ DC AL2(N00024)
740+ DC A(T7834)
741+ DC AL2(DUMMY)
742+ DC AL2(0)
743+ DC C'AA'
744+ ALIGN WORD
745+ DC AL2(PARMARA)
746 N00021 $QUXX T7834,CT=(Q00161),YES=N00023,CT=(C00159),ST=(S00036)
747+N00021 DC A(@QUXX)
748+ DC AL2(N00023)
749+ DC A(T7834)
750+ DC AL2(DUMMY)
751+ DC AL2(0)
752+ DC C'AA'
753+ ALIGN WORD
754+ DC AL2(PARMARA)
755 N00022 $FIXT FT=(F00044),CT=(C00008)
756+N00022 DC A(@FIXT)
757+ DC A(F00044)
758 N00023 $FIXT FT=(F00167),CT=(C00008)
759+N00023 DC A(@FIXT)
760+ DC A(F00167)
761 N00024 $QUXX T7834,CT=(Q00174),YES=N00032,CT=(C00172),ST=(S00036)
762+N00024 DC A(@QUXX)
763+ DC AL2(N00032)
764+ DC A(T7834)
765+ DC AL2(DUMMY)
766+ DC AL2(0)

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LOCTR	OBJECT TEXT	STMT	SOURCE STATEMENT	COPYRIGHT IBM COPP 1976
002776	C1C1	767+	DC C'AA'	
		768+	ALIGN WORD	
002778	196E	769+	DC AL2 (PARMARA)	
		770	\$QUXX T7834, CT=(Q00179), YES=N00027, CT=(C00177), ST=(S00036)	
		771+N00025	DC A (@QUXX)	
00277A	0400	772+	DC AL2 (N00027)	
00277C	278C	773+	DC A (T7834)	
00277E	3512	774+	DC AL2 (DUMMY)	
002780	0000	775+	DC AL2 (0)	
002782	0000	776+	DC C'AA'	
002784	C1C1	777+	ALIGN WORD	
		778+	DC AL2 (PARMARA)	
002786	196E	779	\$FIXT FT=(F00027), CT=(C00008)	
		780+N00026	DC A (@FIXT)	
002788	0101	781+	DC A (F00027)	
00278A	2DCC	782	\$QUXX T7834, CT=(Q00187), YES=N00029, CT=(C00185), ST=(S00036)	
		783+N00027	DC A (@QUXX)	
		784+	DC AL2 (N00029)	
00278E	0400	785+	DC A (T7834)	
002790	279E	786+	DC AL2 (DUMMY)	
002792	3512	787+	DC AL2 (0)	
002794	0000	788+	DC C'AA'	
002796	C1C1	789+	ALIGN WORD	
		790+	DC AL2 (PARMARA)	
002798	196E	791	\$FIXT FT=(F00015), CT=(C00008), ST=(S00046)	
		792+N00028	DC A (@FIXT)	
00279A	0101	793+	DC A (F00015)	
00279C	2DFC	794	\$QUXX T7834, CT=(Q00196), YES=N00031, CT=(C00194), ST=(S00036)	
		795+N00029	DC A (@QUXX)	
		796+	DC AL2 (N00031)	
00279E	0400	797+	DC A (T7834)	
0027A0	27B0	798+	DC AL2 (DUMMY)	
0027A2	3512	799+	DC AL2 (0)	
0027A4	0000	800+	DC C'AA'	
0027A6	0000	801+	ALIGN WORD	
0027A8	C1C1	802+	DC AL2 (PARMARA)	
		803	\$FIXT FT=(F00027), CT=(C00008)	
		804+N00030	DC A (@FIXT)	
0027AC	0101	805+	DC A (F00027)	
0027AE	2DCC	806	\$FIXT FT=(F00044), CT=(C00008)	
		807+N00031	DC A (@FIXT)	
		808+	DC A (F00044)	
0027B0	0101	809	\$QUXX T7834, CT=(Q00207), YES=N00034, CT=(C00205), ST=(S00036)	
0027B2	2D62	810+N00032	DC A (@QUXX)	
		811+	DC AL2 (N00034)	
0027B4	0400	812+	DC A (T7834)	
0027B6	27C0	813+	DC AL2 (DUMMY)	
0027B8	3512	814+	DC AL2 (0)	
0027BA	0000	815+	DC C'AA'	
0027BC	0000	816+	ALIGN WORD	
0027BE	C1C1	817+	DC AL2 (PARMARA)	
		818	\$FIXT FT=(F00210)	
		819+N00033	DC A (@FIXT)	
0027C0	196E	820+	DC A (F00210)	
		821	\$TUXX T7884, 02, 0001, ON, PLNG=02, PARM=00, QT=(Q00213), YES=N00036, X	
		822+N00034	DC A (@TUXX)	
0027C2	0101	823+	DC AL2 (N00036)	
0027C4	2E22	824+	DC A (T7884)	
		825+	DC AL2 (ON)	
		826+	DC AL2 (2)	
		827+	DC X'0001'	
		828+	ALIGN WORD	
		829+	DC AL2 (02)	
		830+	DC C'00'	
		831+	ALIGN WORD	
		832+	DC AL2 (PARMARA)	
0027D0	196E	833	\$FIXT FT=(F00216), ST=(S00222)	
		834+N00035	DC A (@FIXT)	
0027D2	0101	835+	DC A (F00216)	
0027D4	2E3C	836	\$QUXX T7834, CT=(Q00228), YES=N00040, CT=(C00226), ST=(S00036)	
		837+N00036	DC A (@QUXX)	
		838+	DC AL2 (N00040)	
		839+	DC A (T7834)	
		840+	DC AL2 (DUMMY)	
		841+	DC AL2 (0)	
		842+	DC C'AA'	
		843+	ALIGN WORD	
		844+	DC AL2 (PARMARA)	
		845	\$QUXX T7834, CT=(Q00233), YES=N00039, CT=(C00231), ST=(S00036)	
		846+N00037	DC A (@QUXX)	
		847+	DC AL2 (N00039)	
		848+	DC A (T7834)	
		849+	DC AL2 (DUMMY)	
		850+	DC AL2 (0)	
		851+	DC C'AA'	
		852+	ALIGN WORD	
		853+	DC AL2 (PARMARA)	
0027E0	0400	854	\$FIXT FT=(F00044), CT=(C00008)	
0027E2	2800	855+N00038	DC A (@FIXT)	
0027E4	3512	856+	DC A (F00044)	
0027E6	0000	857	\$FIXT FT=(F00027), CT=(C00008)	
0027E8	0000	858+N00039	DC A (@FIXT)	
0027EA	0000	859+	DC A (F00027)	
0027EC	C1C1	860	\$QUXX T7834, CT=(Q00245), YES=N00042, CT=(C00242), ST=(S00036)	
		861+N00040	DC A (@QUXX)	
		862+	DC AL2 (N00042)	
		863+	DC A (T7834)	
		864+	DC AL2 (DUMMY)	
		865+	DC AL2 (0)	
		866+	DC C'AA'	
		867+	ALIGN WORD	
		868+	DC AL2 (PARMARA)	
002800	196E	869	\$FIXT FT=(F00248), CT=(C00008)	
		870+N00041	DC A (@FIXT)	
002802	0101	871+	DC A (F00248)	
002804	2FC6	872	\$FIXT FT=(F00251), CT=(C00008)	
		873+N00042	DC A (@FIXT)	
		874+	DC A (F00251)	
		875	\$GOTO TYPE=XTRNL, MAP=7844, EP=H, FT=(F00035), GTO=((7844, H))	
		876+N00043	DC A (@GOTO)	
		877+	DC A (F00035)	
		878+	DC CL4'7844'	
		879+	DC CL2'H'	
		880+	DC AL2 (XTRNL)	

LOCTR	OBJECT TEXT	STMT	SOURCE STATEMENT	COPYRIGHT IBM COPP 1976
002822	0200	881	\$GOTO TYPE=XTRNL, MAP=7844, EP=G, FT=(F00035), GTO=((7844, G))	
		882+N00044	DC A (@GOTO)	
		883+	DC A (F00035)	
		884+	DC CL4'7844'	
		885+	DC CL2'G'	
		886+	DC AL2 (XTRNL)	
		887	\$GOTO TYPE=XTRNL, MAP=7844, EP=F, FT=(F00035), GTO=((7844, F))	
00282E	0200	888+N00045	DC A (@GOTO)	
		889+	DC A (F00035)	
002830	2FF8	890+	DC CL4'7844'	
002832	F7F8F4F4	891+	DC CL2'F'	
002834	C640	892+	DC AL2 (XTRNL)	
002838	0001	893	\$GOTO TYPE=XTRNL, MAP=7844, EP=E, FT=(F00035), GTO=((7844, E))	
		894+N00046	DC A (@GOTO)	
		895+	DC A (F00035)	
		896+	DC CL4'7844'	
		897+	DC CL2'E'	
		898+	DC AL2 (XTRNL)	
		899	\$GOTO TYPE=XTRNL, MAP=7844, EP=D, FT=(F00035), GTO=((7844, D))	
002842	0200	900+N00047	DC A (@GOTO)	
		901+	DC A (F00035)	
		902+	DC CL4'7844'	
		903+	DC CL2'D'	
		904+	DC AL2 (XTRNL)	
		905	\$GOTO TYPE=XTRNL, MAP=7844, EP=C, FT=(F00035), GTO=((7844, C))	
		906+N00048	DC A (@GOTO)	
		907+	DC A (F00035)	
		908+	DC CL4'7844'	
		909+	DC CL2'C'	
		910+	DC AL2 (XTRNL)	
		911	\$GOTO TYPE=XTRNL, MAP=7844, EP=B, FT=(F00035), GTO=((7844, B))	
		912+N00049	DC A (@GOTO)	
		913+	DC A (F00035)	
		914+	DC CL4'7844'	
		915+	DC CL2'B'	
		916+	DC AL2 (XTRNL)	
		917	\$GOTO TYPE=XTRNL, MAP=7844, EP=A, FT=(F00035), GTO=((7844, A))	
		918+N00050	DC A (@GOTO)	
		919+	DC A (F00035)	
		920+	DC CL4'7844'	
		921+	DC CL2'A'	
		922+	DC AL2 (XTRNL)	
		923	\$TUXX T7884, 02, 0002, ON, PLNG=02, PARM=02, QT=(Q00393), YES=N00055, X	
		924+N00051	DC A (@TUXX)	
		925+	DC AL2 (N00055)	
		926+	DC A (T7884)	
		927+	DC AL2 (ON)	
		928+	DC AL2 (02)	
		929+	DC X'0002'	
		930+	ALIGN WORD	
		931+	DC AL2 (02)	
		932+	DC C'02'	
		933+	ALIGN WORD	
		934+	DC AL2 (PARMARA)	
002886	196E	935	\$TUXX T3C02, 02, 0020, OF, PLNG=02, PARM=02, QT=(Q00401), YES=N00054, X	
		936+N00052	DC A (@TUXX)	
		937+	DC AL2 (N00054)	
		938+	DC A (T3C02)	
		939+	DC AL2 (OF)	
		940+	DC AL2 (02)	
		941+	DC X'0020'	
		942+	ALIGN WORD	
		943+	DC AL2 (02)	
		944+	DC C'02'	
		945+	ALIGN WORD	
		946+	DC AL2 (PARMARA)	
002894	0002	947	\$FIXT FT=(F00030), GTO=((7869, A))	
002896	F0F2	948+N00053	DC A (@FIXT)	
		949+	DC A (F00030)	
		950	\$GOTO TYPE=INTFNL, EP=B, FT=(F00407), GTO=(N00020)	
		951+N00054	DC A (@GOTO)	
		952+	DC A (F00407)	
		953+	DC CL4'3C00'	
		954+	DC CL2'B'	
		955+	DC AL2 (INTFNL)	
		956	\$FIXT FT=(F00409), CT=(C00008)	
		957+N00055	DC A (@FIXT)	
		958+	DC A (F00409)	
		959	\$FIXT FT=(F00254), GTO=((7840, A))	
		960+N00056	DC A (@FIXT)	
		961+	DC A (F00254)	
		962	\$TUXX T7884, 02, 0002, ON, PLNG=02, PARM=01, QT=(Q00262), YES=N00059, X	
		963+N00057	DC A (@TUXX)	
		964+	DC AL2 (N00059)	
		965+	DC A (T7884)	
		966+	DC AL2 (ON)	
		967+	DC AL2 (02)	
		968+	DC X'0002'	
		969+	ALIGN WORD	
		970+	DC AL2 (02)	
		971+	DC C'01'	
		972+	ALIGN WORD	
		973+	DC AL2 (PARMARA)	
		974	\$FIXT FT=(F00265)	
		975+N00058	DC A (@FIXT)	
		976+	DC A (F00265)	
		977	\$TUXX T7812, 02, 0800, ON, QT=(Q00272), YES=N00071	
		978+N00059	DC A (@TUXX)	
		979+	DC AL2 (N00071)	
		980+	DC A (T7812)	
		981+	DC AL2 (ON)	
		982+	DC AL2 (02)	
		983+	DC X'0800'	
		984+	ALIGN WORD	
		985+	DC AL2 (0)	
		986+	DC C'AA'	
		987+	ALIGN WORD	
		988+	DC AL2 (PARMARA)	
0028B8	196E	989	\$TUXX T7812, 02, C000, MX, QT=(Q00274), YES=N00062	
		990+N00060	DC A (@TUXX)	
		991+	DC AL2 (N00062)	
		992+	DC A (T7812)	
		993+	DC AL2 (MX)	
		994+	DC AL2 (02)	

Table with columns: LOCTR, OBJECT TEXT, STMT, SOURCE STATEMENT, COPYRIGHT IBM CORP 1976. Contains assembly code for problem map I7841.

Table with columns: LOCTR, OBJECT TEXT, STMT, SOURCE STATEMENT, COPYRIGHT IBM CORP 1976. Contains assembly code for problem map I7841, including message table and entry point table.

LOCTR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976

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002E3E 001E 1223 DC A(0030)
002E40 C3C8C5C3D240C3C1C 1224 DC CL0030 'CHECK CABLE A-A1Y3 TO D-W1B6. '
002E5E 001E 1225 DC A(0030)
002E60 C3C8C5C3D240C3C1C 1226 DC CL0030 'CHECK CABLE A-A1Y1 TO D-W1B5. '
002E7E 0014 1227 DC A(0020)
002E80 D9C5D7D3C1C3C540C 1228 DC CL0020 'REPLACE CARD A-A1J2.'
002E94 0002 1229 DC A(0002)
002E96 4040 1230 DC CL0002 '
002E98 001A 1231 DC A(0026)
002E9A D9C5D7D3C1C3C5404 1232 DC CL0026 'REPLACE (DE) CARD D-W1B3. '
002EB4 0002 1233 DC A(0002)
002EB6 4040 1234 DC CL0002 '
002EB8 0014 1235 DC A(0026)
002EBA D9C5D7D3C1C3C5404 1236 DC CL0026 'REPLACE (DE) CARD D-W1A5. '
002ED4 0002 1237 DC A(0002)
002ED6 4040 1238 DC CL0002 '
002ED8 0014 1239 DC A(0020)
002EDA D9C5D7D3C1C3C540C 1240 DC CL0020 'REPLACE CARD A-A1H2.'
002EEE 0002 1241 DC A(0002)
002EF0 4040 1242 DC CL0002 '
002EF2 0028 1243 DC A(0040)
002EF4 C9C640D9C5C1C440C 1244 DC CL0040 'IF READ FAILURES OCCUR AGAIN AFTER CARD '
002F1C 002E 1245 DC A(0046)
002F1E D9C5D7D3C1C3C5D4C 1246 DC CL0046 'REPLACEMENT, FORMAT CYLINDERS 0002 , 0003 AND '
002F4C 0014 1247 DC A(0020)
002F4E F0F1F2C540E4E2C9D 1248 DC CL0020 '012E USING MAP 7869.'
002F62 0002 1249 DC A(0002)
002F64 4040 1250 DC CL0002 '
002F66 002A 1251 DC A(0042)
002F68 C9C640D9C5C1C440C 1252 DC CL0042 'IF READ FAILURES CONTINUE, FEPLACE THE DE '
002F92 0004 1253 DC A(0004)
002F94 E4D5C9E3 1254 DC CL0004 'UNIT'
002F98 002C 1255 DC A(0044)
002F9A 4DE2C5C540F4F9F6F 1256 DC CL0044 '(SEE 4962 MIM , PARAGRAPH 3.5 FOR PROCEDURE.'
002FC6 0002 1257 EQU *
002FC8 000C 1258 DC AL2(0002)
002FCA D9C5D7D3C1C3C540C 1260 DC A(0012) 'REPLACE CARD'
002FD6 0006 1261 DC CL0006 '
002FD8 C160C1F1C8F2 1262 DC CL0006 'A-A1H2'
002FDE 0002 1263 EQU *
002FEO 000C 1264 DC AL2(0002)
002FE2 D9C5D7D3C1C3C540C 1266 DC A(0012) 'REPLACE CARD'
002FEE 0008 1267 DC A(0008)
002FF0 C160C1F1D1F24B40 1268 DC CL0008 'A-A1J2. '
002FF8 0001 1269 EQU *
002FFA 001A 1270 DC AL2(0001)
002FFC E2E4E2D7C5C3E340C 1272 DC A(0026)
003016 0003 1273 EQU *
003018 002C 1274 DC CL0026 'SUSPECT HEAD SELECT EPROR.'
00301A E3C5E2E340E2C5C3E 1276 DC AL2(0003)
003046 002A 1277 DC A(0044)
003048 F3F0F25D40E4E2C9D 1278 DC CL0044 'TEST SECTOP ID FIELDS ON CE TRACK (CYLINDER '
003072 0018 1279 DC A(0042)
003074 E3C8C5D540D9E4D54 1280 DC CL0042 '302) USING HAP 7869. FORMAT ANY BAD ID''S , '
00308C 0001 1281 DC A(0024)
00308E 0002 1282 DC CL0024 'THEN RUN MAP 7811 AGAIN.'
003090 4040 1283 EQU *
003092 0002 1284 DC AL2(0001)
003094 001A 1285 DC A(0002)
003096 D9C5D7D3C1C3C5404 1286 DC CL0002 '
0030B0 0014 1287 DC AL2(0002)
0030B2 D9C5D7D3C1C3C540C 1288 DC A(0026)
0030C6 0008 1289 DC CL0026 'REPLACE (DE) CAPD D-W1B3. '
0030C8 001A 1290 DC A(0020)
0030CA E2E4E2D7C5C3E340C 1291 DC CL0020 'REPLACE CARD A-A1H2.'
0030E4 0002 1292 EQU *
0030E6 4040 1293 DC AL2(0008)
0030E8 002E 1294 DC A(0026)
0030EA C7D640E3D640D4C1D 1296 DC CL0026 'SUSPECT HEAD SELECT EPROR.'
003118 0024 1297 DC CL0026 '
00311A D3C9D5C5E24B404DD 1300 DC CL0002 '
00313E 0002 1301 DC A(0046)
003140 4040 1302 DC CL0046 'GO TO MAP 7840 EP=A AND CHECK THE HEAD SELECT '
003142 0022 1303 DC A(0036)
003144 C9C640E8D6E440D9C 1304 DC CL0036 'LINES. (LOAD AND EXECUTE MAP 7840). '
003166 001A 1305 DC A(0002)
003168 D9C5D7D3C1C3C5404 1306 DC CL0002 '
003182 0014 1307 DC CL0002 '
003184 D9C5D7D3C1C3C540C 1308 DC A(0046)
003198 0007 1309 DC CL0046 'GO TO MAP 7840 EP=A AND CHECK THE HEAD SELECT '
00319A 001A 1310 DC A(0036)
00319C E2E4E2D7C5C3E340C 1312 DC CL0046 'GO TO MAP 7840 EP=A AND CHECK THE HEAD SELECT '
0031B6 0002 1313 DC A(0036)
0031B8 4040 1314 DC CL0036 'LINES. (LOAD AND EXECUTE MAP 7840). '
0031BA 002E 1315 DC A(0002)
0031BC C7D640E3D640D4C1D 1316 DC CL0002 '
0031EA 0024 1317 DC CL0002 '
0031EC D3C9D5C5E24B404DD 1318 DC A(0046)
003210 0002 1319 DC CL0046 'GO TO MAP 7840 EP=A AND CHECK THE HEAD SELECT '
003212 4040 1320 DC A(0036)
003214 002E 1321 DC CL0036 'LINES. (LOAD AND EXECUTE MAP 7840). '
003216 C9C640E8D6E440D9C 1322 DC A(0002)
003244 0026 1323 DC CL0002 '
003246 D4C1D740F7F8F5F24 1324 DC CL0046 'IF YOU RETURN TO THIS STEP AGAIN , THEN GO TO '
00326C 0001 1325 DC A(0038)
00326E 0002 1326 DC CL0038 'MAP 7852. (LOAD AND EXECUTE MAP 7852). '
003270 4040 1327 EQU *
003272 0001 1328 DC AL2(0001)
003274 002A 1329 DC A(0002)
003276 7D5D67D40C9E240D 1332 DC CL0002 '
0032A0 0004 1333 EQU *
0032A2 001A 1334 DC AL2(0001)
0032A4 D9C5D7D3C1C3C5404 1336 DC A(0042)
DC CL0042 'NO' IS NOT VALID , CONTINUE AT NEXT STEP.'
DC AL2(0004)
DC A(0026)
DC CL0026 'REPLACE (DE) CAPD D-W1A2. '

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0032BE 000E 1337 DC A(0014)
0032C0 D9C5D4D6E5C540D1E 1338 DC CL0014 'REMOVE JUMPER.'
0032CE 0002 1339 DC A(0002)
0032D0 4040 1340 DC CL0002 '
0032D2 0012 1341 DC A(0018)
0032D4 E5C5D9C9C6E840E3C 1342 DC CL0018 'VERIFY THE REPAIR.'
0032E6 0009 1343 EQU *
0032E8 0022 1344 DC AL2(0009)
0032EA D9C5D7D3C1C3C540C 1345 DC A(0034)
003300 0002 1346 DC CL0030 'REPLACE CARD A-A1G2. (SEE NOTE 1) '
00330E 4040 1347 DC A(0002)
003310 002A 1348 DC CL0002 '
003312 C9C640F4F9F6F240C 1349 DC A(0042)
00333C 002E 1350 DC CL0042 'IF 4962 AGAIN FAILS , TRACE THE SUSPECTED '
00333E E2C5D3C5C3E340D3C 1351 DC A(0046)
00336C 0024 1352 DC CL0046 'SELECT LINE FOR A SHORT TO GROUND ON THE A-A1 '
00336E C226C1D9C440D6D94 1353 DC A(0036)
003392 002C 1354 DC CL0036 'BOARD OR THE CABLE A-A1Y2 TO D-W1B2.'
003394 000C 1355 DC A(0044)
003396 E2C5C540E2C6F3F2F 1356 DC CL0044 'SEE SF325 AND SF308 , MLD VOLUME 01 POP HOPE'
0033C0 000C 1357 DC A(0012)
0033C2 C9D5C6D6D9D4C1E3C 1358 DC CL0012 'INFORMATION.'
0033CE 0002 1359 DC A(0002)
0033D0 4040 1360 DC CL0002 '
0033D2 0012 1361 DC A(0018)
0033D4 E5C5D9C9C6E840E3C 1362 DC CL0018 'VERIFY THE REPAIR.'
0033E6 0001 1363 EQU *
0033E8 0002 1364 DC AL2(0001)
0033EA 4040 1365 DC A(0002)
0033EC 000C 1366 DC CL0002 '
0033EE 0008 1367 EQU *
0033F0 001A 1368 DC AL2(0008)
0033F2 E2E4E2D7C5C3E340C 1369 DC A(0026)
003400 0002 1370 DC CL0026 'SUSPECT HEAD SELECT EPROR.'
00340E 4040 1371 DC A(0002)
003410 C7D640E3D640D4C1D 1372 DC CL0002 '
00343E 0024 1373 DC A(0046)
003440 D3C9D5C5E24B404DD 1374 DC CL0046 'GO TO MAP 7843 EP=A AND CHECK THE HEAD SELECT '
003464 0002 1375 DC A(0036)
003466 4040 1376 DC CL0036 'LINES. (LOAD AND EXECUTE MAP 7843). '
003468 0022 1377 DC A(0002)
00348C 001A 1378 DC CL0002 '
00348E D9C5D7D3C1C3C5404 1379 DC A(0034)
0034AA 0014 1380 DC CL0034 'IF YOU RETURN TO THIS STEP AGAIN , '
0034AB D9C5D7D3C1C3C540C 1381 DC A(0026)
0034BE 0001 1382 DC CL0026 'REPLACE (DE) CARD D-W1B3. '
0034C0 0002 1383 DC A(0020)
0034C2 4040 1384 DC CL0020 'REPLACE CARD A-A1H2.'
0034E6 0001 1385 EQU *
0034E8 0002 1386 DC AL2(0001)
0034F0 0002 1387 DC A(0002)
0034F2 4040 1388 DC CL0002 '
0034F4 0000 1389 HDIT 00B2
DC X'0000'
0034C6 0000 1391+OPTN1 DC X'0000'
1392+*
1393+OPTN2 DC X'0000'
1394+*
1395+B48 EQU 16 0 8
1396+B49 EQU 17 1 4
1397+B50 EQU 18 2 2
1398+B51 EQU 19 3 1
1399+B52 EQU 20 4 8
1400+B53 EQU 21 5 4
1401+B54 EQU 22 6 2
1402+B55 EQU 23 7 1
1403+B56 EQU 24 8 8
1404+B57 EQU 25 9 4
1405+B58 EQU 26 10 2
1406+B59 EQU 27 11 1
1407+B60 EQU 28 12 8
1408+B61 EQU 29 13 4
1409+B62 EQU 30 14 2
1410+B63 EQU 31 15 1
1411+CH EQU 31 14 2
1412+CHP EQU 31 15 1
1413+*
1414+OPTN3 DC X'0000'
1415+*
1416+* 0 MYSTERY INTERRUPT MI 8 CS STATUS IN PROGRESS CS
1417+* 1 ERROR INTERRUPT EP 9 CS AVAILABLE CSA
1418+* 2 EXPECTED INTERRUPT XI 10 CS STATUS INTERRUPT ERP CE
1419+* 3 INTERRUPT RECEIVED IN 11 ISB BITS ON (1-7) ISBON
1420+*
1421+* 4 EXPECTED EPR/ATTENT XE 12 TEST UNIT RESULTS VOID NG
1422+* 5 HARD ERROR FOUND HE 13 OIO CC ERROR IOCC
1423+* 6 WPOG INTR LEVEL $IE 14 NO INTERRUPT NOIN
1424+* 7 NO INTR EXPECTED NI 15 INTERRUPT CC EPROR INCC
1425+*
1426+MI EQU 32 0 8
1427+ER EQU 33 1 4
1428+XI EQU 34 2 2
1429+IN EQU 35 3 1
1430+XE EQU 36 4 8
1431+HE EQU 37 5 4
1432+$IE EQU 38 6 2
1433+NI EQU 39 7 1
1434+CSA EQU 40 8 8
1435+CSA EQU 41 9 4
1436+CE EQU 42 10 2
1437+ISBON EQU 43 11 8
1438+HG EQU 44 12 8
1439+IOCC EQU 45 13 8
1440+NOIN EQU 46 14 2
1441+INCC EQU 47 15 1
1442+*
1443+* COMMON BUFFER FOR PRINTING DATA
1444+*
1446+STUID DC A(*-*)
1447+$IOIN DC A(*-*)
1448+$ISB DC A(*-*)
1449+$STIO DC A(*-*)
1450+DEV1 DC A(*-*)
1451+DEV2 DC A(*-*)
1452+DEV3 DC A(*-*)
1453+DEV4 DC A(*-*)
000020
000021
000022
000023
000024
000025
000026
000027
000028
000029
00002A
00002B
00002C
00002D
00002E
00002F
0034CA 0000
0034CC 0000
0034CE 0000
0034D0 0000
0034D2 0000
0034D4 0000
0034D6 0000
0034D8 0000

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LOCTR  OBJECT TEXT    STMT SOURCE STATEMENT
0034D2  1454+SCTID EQU DEV1
0034DA  1455+DCBUP EQU *
0034DC  1456+DCB1 DC A(*-*)
0034DE  1457+DCB2 DC A(*-*)
0034DF  1458+DCB3 DC A(*-*)
0034E0  1459+DCB4 DC A(*-*)
0034E2  1460+DCB5 DC A(*-*)
0034E4  1461+DCB6 DC A(*-*)
0034E6  1462+DCB7 DC A(*-*)
0034E8  1463+DCB8 DC A(*-*)
0034EA  1464+*
0034EB  1465+CSBUF EQU *
0034EC  1466+CSL1 DC A(*-*)
0034ED  1467+CSL2 DC A(*-*)
0034EE  1468+CSL3 DC A(*-*)
0034EF  1469+CSL4 DC A(*-*)
0034F2  1470+CSL5 DC A(*-*)
0034F4  1471+CSL6 DC A(*-*)
0034F6  1472+CSL7 DC A(*-*)
0034F8  1473+CSL8 DC A(*-*)
0034FA  1474+*
0034FB  1475+$SUBN DC A(*-*)
0034FC  1476+$DATA DC 2A(*-*)
003500  1477+$INTL DC X'0021'
003502  1478+TURTN DC A(*-*)
003504  1479+$DVID DC X'00B2'
003506  1480+$VCAL DC A(DEVADD)
003508  1481+$DCAL DC A(*-*)
1482+*
1483+* THIS TEST UNIT WILL RETURN TO MDI WITHOUT DOING ANY PPROGRAM
1484+* FUNCTION. THE RESULTS THAT WERE SET UP IN THE RESULTS AREA ARE
1485+* STILL VALID BUT A DIFFERENT TEST IS TO BE PERFORMED.
00350A  4020 34CA 3C02
003510  5700
1486+*
1487+T3C02 MVWI X'3C02',STUID SET UP TEST UNIT ID
1488+ BXS (R7) RETURN TO MDI SUPVR
1490 COPY COMEQU
1491 *****
1492 *
1493 * EQUATED NAMES FOR SUPPORTED SVC'S
1494 *
1495 *****
1496 OUT EQU 0 OUT SVC
1497 OUTIN EQU 1 OUTIN SVC
1498 IDLE EQU 2 IDLE SVC
1499 ASCII EQU 3 HEX TO ASCII SVC
1500 CHNGE EQU 4 CHANGE LEVEL SVC
1501 PGNCK EQU 5 ALLOW RETURN ON PROGRAM CHECK SVC
1502 EXIT EQU 6 EXIT SVC
1503 TERM EQU 7 TERMINATE SVC
1504 RESET EQU 8 RESET DEVICE SVC
1505 RPD EQU 9 READ ID SVC
1506 START EQU 10 START CYCLE STEAL SVC
1507 STCSS EQU 11 START CYCLE STEAL STATUS SVC
1508 PRFP EQU 12 PREPARE DEVICE SVC
1509 READ0 EQU 13 READ WITH FUNCTION BIT 3 OFF SVC
1510 READ1 EQU 14 READ WITH FUNCTION BIT 3 ON SVC
1511 FSTAT EQU 15 READ STATUS SVC
1512 WRITO EQU 16 WRITE WITH FUNCTION BIT 3 OFF SVC
1513 WRIT1 EQU 17 WRITE WITH FUNCTION BIT 3 ON SVC
1514 CTRL EQU 18 CONTROL SVC
1515 RIBC EQU 19 RELEASE INTERRUPT CONTROL BLOCK SVC
1516 CIBC EQU 20 CONNECT INTERRUPT CONTROL BLOCK SVC
1517 HIO EQU 21 HIT I/O
1518 RECSD EQU 22 REQUEST USE OF DCP DISK SVC
1519 RELSD EQU 23 RELEASE USE OF DCP DISK SVC
1520 HALT EQU 24 HALT SVC
1521 ETOH EQU 25 EBCDIC TO HEX SVC (STRING)
1522 HTOH EQU 26 HEX TO EBCDIC SVC (STRING)
1523 ATOH EQU 27 ASCII TO HEX SVC (STRING)
1524 HTOA EQU 28 HEX TO ASCII SVC (STRING)
1525 ETOA EQU 29 EBCDIC TO ASCII SVC (STRING)
1526 ATOA EQU 30 ASCII TO EBCDIC SVC (STRING)
1527 PEADI EQU 31 READ DATA SETS FOR MDI/UTIL
1528 WRITI EQU 32 WRITE DATA SETS FOR UTIL
1530 *****
1531 *
1532 * EQUATES USED BY TU'S AS CONSTANTS
1533 *
1534 *****
1535 PLUS EQU C'+' PLUS CHAR
1536 MINUS EQU C'-' MINUS CHAR
1538 ZERO EQU 0
1539 ONE EQU 1
1540 TWO EQU 2
1541 THREE EQU 3
1542 FOUR EQU 4
1543 FIVE EQU 5
1544 SIX EQU 6
1545 SEVEN EQU 7
1546 EIGHT EQU 8
1547 NINE EQU 9
1548 TEN EQU 10
1549 ELEVN EQU 11
1550 TWELV EQU 12
1551 THRTH EQU 13
1552 FIVTN EQU 15
1553 SIXTN EQU 16
1554 THRYT EQU 17
1555 SIKT4 EQU 18
1556 ONE28 EQU 128
1557 TWO56 EQU 256
1558 ONEK EQU 1024
1559 TWOK EQU 2048
1560 THREK EQU 3072
1561 FOURK EQU 4096
1563 M1 EQU -1
1564 M2 EQU -2
1565 M3 EQU -3
1566 M4 EQU -4
1569 *
1570 * THE FOLLOWING ARE EQUATES FOR BIT DISPLACEMENTS FROM THE
1571 * BEGINNING OF THE BYTE TO EACH BIT IN THE WORD OF SWITCHES.
1572 *

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LOCTR  OBJECT TEXT    STMT SOURCE STATEMENT
000000 1573 *****
000001 1574 BS0 EQU 0
000002 1575 BS1 EQU 1
000003 1576 BS2 EQU 2
000004 1577 BS3 EQU 3
000005 1578 BS4 EQU 4
000006 1579 BS5 EQU 5
000007 1580 BS6 EQU 6
000008 1581 BS7 EQU 7
000009 1582 BS8 EQU 8
00000A 1583 BS9 EQU 9
00000B 1584 BS10 EQU 10
00000C 1585 BS11 EQU 11
00000D 1586 BS12 EQU 12
00000E 1587 BS13 EQU 13
00000F 1588 BS14 EQU 14
000010 1589 BS15 EQU 15
000011 1590 COPY T7834
000012 1591 TUIT S1H
000013 1592 T7834 TUIT S1H
000014 1593 *****
000015 1594+*
000016 1595+* TEST UNIT
000017 1596+*
000018 1597+* T78S11 WRITE ,PEAD ID TEST LOOP
000019 1598+*
000020 1599+* PURPOSE
000021 1600+*
000022 1601+* FUNCTION:
000023 1602+*
000024 1603+* - SELECT HEAD ZERO0
000025 1604+* - WRITE ID ON SECTOR #30 ('55')
000026 1605+* - READ AND COMPARE ID BYTES
000027 1606+* - SELECT HEAD ONE AND REPEAT WRITE ID
000028 1607+* - SELECT HEAD TWO AND REPEAT WRITE ID (IF INSTALLED)
000029 1608+* - RESTOPE CE TRACK WITH ORGINAL ID BYTES
000030 1609+* - LOOP UNTIL CE INPUTS ANSWER TO MAP QUESTION.
000031 1610+*
000032 1611+*
000033 1612+* CALLING SEQUENCE
000034 1613+*
000035 1614+* PROGRAM PASSES STATUS OF ALL LINES IN FOLLOWING FORMAT:
000036 1615+* - NO STATUS PASSED BACK TO MDI
000037 1616+*
000038 1617+* EXITS NORPMAL
000039 1618+* - MDI TERMINATES LOOP
000040 1619+*
000041 1620+* EXITS ERROR
000042 1621+* - NONE
000043 1622+*
000044 1623+* RETURN CONTROL
000045 1624+*
000046 1625+* B TURTN* RETURN TO MDI SUPERVISOR
000047 1626+*
000048 1627+* *****
000049 1628+T7834 MVW R7,TURTN SAVE RETURN ADDRESS
000050 1629+ MVWI X'7834',STUID SAVE TU ID FOR DISPLAY
000051 1630+ MVA OPTN1,R4 SET UP POINTER ADRS IN R4
000052 1631+ BAL $CONC,R6 CLEAR DEV DEP STG AND CONNECT I/O BL
000053 1632+ DC A(S11H) ERFOR ADPS FOR INVALID PFEP
000054 1633+*
000055 1634 MVWI 0,SKDCB+2 SETUP SEEK NO-OP (HEAD SELECT)
000056 1635 MVWI 0,SKDCB+8 SELECT HEAD ZERO
000057 1636 S11S BAL $SEEK,R6 SEEK
000058 1637 DC A(S11H) ERROR-EXIT
000059 1638 MVWI 30,LGSEC SETUP LOGICAL SECTOR TO 30
000060 1639 BAL CNWT,R6 CONVERT FROM LOG TO PHY
000061 1640 S11K HVB PHYSC+1,RSDCB+4 LOAD DCB WITH PHY SEC #
000062 1641 HVB PHYSC+1,WSDCB+4 LOAD DCB WITH PHY SEC#
000063 1642 HVB PHYSC+1,HKDCB+4 LOAD DCB WITH PHY SEC#
000064 1643 HVB PHYSC+1,RKDCB+4 LOAD DCB WITH PHY SEC #
000065 1644 BAL $RDID,R6 READ SECTOR ID
000066 1645 DC A(S11H) ERFOR-EXIT
000067 1646 MVWI X'5555',WSIDT SETUP DATA '55' FOR WR ID
000068 1647 MVWI X'5555',WSIDT+2 *
000069 1648 MVWI X'5555',WSIDT+4 *
000070 1649 BAL S11WR,R6 GO TO WRITE SECTOR ID ROUTINE
000071 1650 BAL LNSID,R6 MOV & ADJ RD SECT DATA TO WP SEC DAT
000072 1651 BAL $SEC,R6 WRITE SECTOR ID
000073 1652 DC A(S11H) ERROR-EXIT
000074 1653 MVA IOBLK,R7 READ DEVICE ID
000075 1654 SVC RID *
000076 1655 CWI X'00CA',IOMOD+4
000077 1656 JE S11B YES
000078 1657 CWI X'0100',SKDCB+8 CHECK FOR HEAD 1 SELECTED
000079 1658 JE S11H YES
000080 1659 MVWI X'0100',SKDCB+8 SELECT HEAD ONE
000081 1660 J LOOP
000082 1661 S11B CWI X'0200',SKDCB+8
000083 1662 JE S11H
000084 1663 AWI X'0100',SKDCB+8
000085 1664 J S11S
000086 1665 S11E AWI 1,LGSEC INCREMENT LOG SECT
000087 1666 CWI 60,LGSEC CHECK FOP END OF TPACK
000088 1667 JNE S11K NO
000089 1668 S11H TXIT EXIT
000090 1669+S11H B $CONX RETUPN TO MDI CONTPOLLEP
000091 1670+*****
000092 1671 *
000093 1672 S11WP MVW R6,S11P+2 SET UP RETURN ADDRESS
000094 1673 BAL $STS,P6 WRITE SECTOR ID (TEST)
000095 1674 DC A(S11H) ERROR-EXIT
000096 1675 BAL $IDS,R6 PEAD SECTOR ID (TEST)
000097 1676 DC A(S11H) ERROR-EXIT
000098 1677 BAL CNPRT,R6 COMPARE TEST ID DATA
000099 1678 DC A(S11G) COMPARE ERROR
000100 1679 S11R B -* RETURN TO CALLER
000101 1680 S11G TBTS (R2,13) COMPARE ERROR
000102 1681 J S11P RETURN
000103 1682 *
000104 1683 *
000105 1684 *****
000106 1685+* COPY T7812 01DEC76
000107 1686+* T7812 TUIT $ERRS
000108 1687+*****
000109 1688+*

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LOCTR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976
1689** TEST UNIT
1690**
1691** FILE ATTACHMENT DEVICE ID'S 12/01/76
1692**
1693** PURPOSE
1694**
1695** CALLING SEQUENCE
1696**
1697** THE TU WILL DETERMINE THE MODEL AND FEATURES THAT ARE INSTALLED
1698** ON THE FILE BEING TESTED.
1699**
1700** PROGRAM PASSES STATUS OF ALL LINES IN FOLLOWING FORMAT:
1701** . TURESUL BIT 0-----9.3 M BYTE (VTL) WITH FIXED HEADS
1702** . TURESUL BIT 1-----9.3 M BYTE (DUT) WITH FIXED HEADS
1703** . TURESUL BIT 2-----9.3 M BYTE (VTL)
1704** . TURESUL BIT 3-----9.3 M BYTE (DUTCHESS)
1705** . TURESUL BIT 4-----LARGE FILE
1706** . TURESUL BIT 5-----NOT USED
1707** . TURESUL BIT 6-----NOT USED
1708** . TURESUL BIT 7-----NOT USED
1709** . TURESUL BIT 8-----NOT USED
1710** . TURESUL BIT 9-----NOT USED
1711** . TURESUL BIT 10-----NOT USED
1712** . TURESUL BIT 11-----NOT USED
1713** . TURESUL BIT 12-----NOT USED
1714** . TURESUL BIT 13-----NOT USED
1715** . TURESUL BIT 14-----NOT USED
1716** . TURESUL BIT 15-----NOT USED
1717**
1718**
1719**
1720** RETURN CONTROL
1721**
1722** B TURTN* RETURN TO MDI SUPERVISOR
1723**
1724** *****
1725** T7812 MVW R7,TURTN SAVE RETURN ADDRESS
1726** MVWI X'7812',STUID SAVE TU ID FOR DISPLAY
1727** MVA OPTN1,R4 SET UP POINTER ADRS IN R4
1728** BAL \$CONC,R6 CLEAR DEV DEP STG AND CONNECT I/O BL
1729** DC A(\$ERR\$) ERROR ADRS FOR INVALID PREP
1730**
1731** MVWZ TURESUL,R2 CLEAR RESULTS WORD
1732** MVA TURESUL,R2 ADDRESS OF RESULTS
1733** MVA IOBLK,R7 RESET DEVICE
1734** SVC PESET *
1735** MVA IOBLK,R7 READ DEVICE ID
1736** SVC RID *
1737** CWI X'00B2',IOMOD+4 VTL WITH FIXED HEADS?
1738** JE T12A YES
1739** CWI X'00BA',IOMOD+4 DUTCHESS WITH FIXED HEADS?
1740** JE T12B YES
1741** CWI X'00A2',IOMOD+4 VTL,NO FIXED HEADS?
1742** JE T12C YES
1743** CWI X'00AA',IOMOD+4 DUTCHESS, NO FIXED HEADS?
1744** JE T12D YES
1745** CWI X'00CA',IOMOD+4 LARGE FILE?
1746** JE T12F YES
1747** B \$ERRS INVALID ID, TU RESULTS NG
1748** T12A TBTS (R2,0) VTL WITH FIXED HEADS
1749** T12E TXII * YES
1750** T12E B \$CONX RETURN TO MDI CONTROLLER
1751** *****
1752** *
1753** T12B TBTS (R2,1) DUTCHESS WITH FIXED HEADS
1754** J T12E EXIT
1755** T12C TBTS (R2,2) VTL NO FIXED HEADS
1756** J T12E EXIT
1757** T12D TBTS (R2,3) DUTCHESS NO FIXED HEADS
1758** J T12E EXIT
1759** T12F TBTS (R2,4) LARGE FILE
1760** J T12E EXIT
1761** *
1763** COPY T7820 01DEC76
1764** T7820 TUIT \$ERR\$
1765** *****06FEB76**
1766**
1767** TEST UNIT
1768**
1769** T7820 SETUP FOR SCOPE LOOPS 12/01/76
1770**
1771** PURPOSE
1772**
1773** FUNCTION:
1774** . PROGRAM INITIALIZES ATTACHMENT.
1775** . RECALIBRATE
1776** . SEEK TO CE TRACK
1777** .
1778** .
1779** .
1780** CALLING SEQUENCE
1781**
1782** PROGRAM PASSES STATUS OF ALL LINES IN FOLLOWING FORMAT:
1783** . NO STATUS PASSED BACK TO MDI
1784** .
1785** EXITS NPFMAL
1786** . MDI TERMINATES LOOP
1787**
1788** EXITS ERROR
1789** . NONE
1790**
1791** RETURN CONTROL
1792**
1793** B TURTN* RETURN TO MDI SUPERVISOR
1794**
1795** *****
1796** T7820 MVW R7,TURTN SAVE RETURN ADDRESS
1797** MVWI X'7820',STUID SAVE TU ID FOR DISPLAY
1798** MVA OPTN1,R4 SET UP POINTER ADRS IN R4
1799** BAL \$CONC,R6 CLEAR DEV DEP STG AND CONNECT I/O BL
1800** DC A(\$ERR\$) ERROR ADPS FOR INVALID PREP
1801**
1802** S20A MVA IOBLK,R7 SETUP IOBLK
1803** MVB CPUID,R0 DETERMINE TYPE OF PROCESSOR

LOCTR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976
1804 CPI 37,R0 *
1805 JNE T20TC JUMP IF NOT 4955
1806 MVWI X'254C',T20T1+2 LOAD TIME CONSTANT FOR 2 SEC
1807 J T20T2 *
1808 T20TC MVWI X'0C0E',T20T1+2 (4953) LOAD TIME CONS FOR 2 SEC
1809 T20T2 SVC PESET ISSUE IO PESET
1810 T20T1 MVWI X'0000',R0 TIME OUT 2 SEC
1811 T0720 SVC IDLE *
1812 JCT T0720,P0 *
1813 BAL \$RECL,R6 RECALIBRATE
1814 DC A(\$ERR\$) ERROR-EXIT
1815 TBTF (R4,R) INTERRUPT ERROR?
1816 BON \$ERR\$ YES-EXIT
1817 MVWI 302,SKDCB+2 SEEK TO CE TRACK
1818 MVWI 5,SKDCB SEEK CONTROL WORD
1819 MVWI 0,SKDCB+8 SELECT HEAD ZERO
1820 BAL \$SEEK,R6 SEEK TO CE TRACK
1821 DC A(\$ERR\$) EPROR-EXIT
1822 TBTR (R4,EP) INTEPPUPT EPPOP?
1823 BON \$ERR\$ YES-EXIT
1824 MVWI X'200A',RSDCB READ SECTOR ID CONTROL WORD
1825 0,LGSEC INIT LOG SECT LOC
1826 S20B BAL \$CNVT,R6 CONVERT LOG SECT TO PHYS-1
1827 MVB PHYS+1,RSDCB+4 LOAD PHYS SECT -1 IN PDSEC DCF
1828 BAL \$RDID,R6 READ SECTOR ID
1829 DC A(\$ERR\$) EPPOR-EXIT
1830 TBTR (R4,EP) INTERRUPT EPROR?
1831 BON S20D YES-EXIT
1832 CB ZER00,SCTID+1 FLAG ZERO?
1833 JNE S20C NO
1834 CWI 302,SCTID+2 CE TRACK?
1835 JE S20D YES
1836 S20C CWI 59,LGSEC END OF TRACK?
1837 BE \$ERRS YES-BAD TRACK-RESTART ROUTINE
1838 AWI 1,LGSEC INCREMENT LOG SECT NUM
1839 J S20B LOOP
1840 S20D TXIT
1841** S20D B \$CONX RETUPN TO MDI CONTROLLER
1842** *****
1843** *
1844** *
1845** *
1847** COPY T7872 01DEC76
1848** *****
1849** *T7872
1850** THIS TU INHIBITS INTERPUPT 12/01/76**
1851** CALLING ROUTINE LOOPS ON T72A *****
1852** *****
1853** T7872 MVW R7,TURTN SAVE RETURN ADDRESS
1854** MVWI X'0020',IODCB PREP TO LEVEL 2 WITH THE 'I' BIT OFF
1855** MVA IOBLK,R7 *
1856** SVC PREP *
1857** J T72B *
1858** T72A MVW R7,TURTN SAVE RETURN ADDRESS
1859** T72B B \$CONX EXIT
1860** *
1862** COPY T7884 01DEC76
1863** T7884 TUIT \$ERR\$
1864** *****06FEB76**
1865**
1866** TEST UNIT
1867**
1868** T084 WRITE AND READ ID TEST 12/01/76
1869**
1870** PURPOSE
1871**
1872** FUNCTION:
1873** . PROGRAM INITIALIZES ATTACHMENT.
1874** . RECALIBRATE
1875** . SEEK TO CE TRACK
1876** .
1877** . SELECT HEAD FROM CE INPUT (0-1 OF 0-7 FIXED)
1878** . WRITE ID ON SECTOR #0 OR NEXT GOOD SECTOR (55)
1879** . READ AND COMPARE ID BYTES
1880** . WRITE ID ON SECTOR #0 OF NEXT GOOD SECTOR (AA)
1881** . READ AND COMPARE ID BYTES
1882** . RESTORE CE TRACK WITH ORIGINAL ID BYTES
1883** .
1884** .
1885** CALLING SEQUENCE
1886**
1887** PROGRAM PASSES STATUS OF ALL LINES IN FOLLOWING FORMAT:
1888** . TURESUL BIT 0---NOT USED
1889** . TURESUL BIT 1---NOT USED
1890** . TURESUL BIT 2---NOT USED
1891** . TURESUL BIT 3---NOT USED
1892** .
1893** . TURESUL BIT 4---NOT USED
1894** . TURESUL BIT 5---NOT USED
1895** . TURESUL BIT 6---READ ID
1896** . TURESUL BIT 7---INTERRUPT
1897** .
1898** . TURESUL BIT 8---RECAL
1899** . TURESUL BIT 9---SEEK
1900** . TURESUL BIT 10---ALL SECTORS ARE BAD(FLAG NOT 0 OR ERR'S)
1901** . TURESUL BIT 11---NOT READY
1902** .
1903** . TURESUL BIT 12---EXCEPTION END OTHER THAN (11,14 OR 15)
1904** . TURESUL BIT 13---ID TEST PATTERN WRT/RD ERROR
1905** . TURESUL BIT 14---UNSAFE
1906** . TURESUL BIT 15---ECHO CHECK
1907** . TURESUL BITS 16-32 CS STATUS
1908**
1909** EXITS NORMAL
1910** . RETURNS TO MDI SUPERVISOR WHEN DONE.
1911**
1912** EXITS ERROR
1913** . RETURNS TO MDI SUPERVISOR.
1914**
1915** RETURN CONTROL
1916**
1917** B TURTN* RETURN TO MDI SUPERVISOR
1918**
1919** *****

Table with columns: LOCTR, OBJECT TEXT, STMT, SOURCE STATEMENT, COPYRIGHT IBM COPP 1976. Contains assembly code for I7841, including instructions like MVW, MVA, BAL, DC, and TBTR.

Table with columns: LOCTR, OBJECT TEXT, STMT, SOURCE STATEMENT, COPYRIGHT IBM COPP 1976. Contains assembly code for I7841, including instructions like TBTR, J, TBTS, and BAL.

LOCTR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976
2149 *
2150 ***** SEEK DCB *****
2151 *
2152 SKDCB DC X'0005' SEEK DCB
2153 DC X'0000' BIT 0-3=0;BIT4=DIRECTION;5-15=DIFFER
2154 DC F'0'
2155 DC F'0'
2156 DC X'0000' 0-7 = HEAD;8-15 NOT USED
2157 DC A(*-*) CHAIN ADDRESS
2158 DC F'0' NOT USED
2159 DC F'0' NOT USED
2160 *
2161 ***** CYCLE STEAL STATUS DCB *****
2162 *
2163 CSDCB DC X'2000' CONTROL WORD
2164 DC F'0' NOT USED
2165 DC F'0' NOT USED
2166 DC F'0' NOT USED
2167 DC F'0' NOT USED
2168 DC F'0' NOT USED
2169 DC X'0008' 4 WORDS OF STATS
2170 DC A(CSBUF) ADDRESS OF CYCLE STEAL STATUS DATA
2171 *
2172 ***** WRITE DCB *****
2173 *
2174 WRDCB DC X'0001' WRITE CONTROL WORD
2175 DC F'0' NOT USED
2176 DC X'0000' 0-7=0;8-15 = FLAG BYTE
2177 DC X'0000' SEARCH ARGUMENT CYLINDER
2178 DC X'0000' SEARCH ARGUMENT HEAD-SECTOR
2179 DC A(*-*) CHAIN ADDRESS
2180 DC F'0' BYTE COUNT
2181 DC A(*-*) WRITE DATA ADDRESS
2182 *
2183 ***** VERIFY DCB *****
2184 *
2185 VRDCB DC X'200C' CONTROL WORD
2186 DC F'0' NOT USED
2187 DC X'0000' 0-7=0;8-15 = FLAG BYTE
2188 DC X'0000' CYLINDER
2189 DC X'0000' HEAD - SECTOR
2190 DC A(*-*) CHAIN ADDRESS
2191 DC F'0' BYTE COUNT
2192 DC A(*-*) VERIFY DATA ADDRESS
2193 *
2194 ***** READ DCB *****
2195 *
2196 RDDCB DC X'2009' READ DCB CONTROL WORD
2197 DC F'0' NOT USED
2198 DC X'0000' 0-7=0;8-15 = FLAG BYTE
2199 DC X'0000' SEARCH ARGUMENT CYLINDER
2200 DC X'0101' SEARCH ARGUMENT H-R
2201 DC A(*-*) CHAIN ADDRESS
2202 DC F'0' BYTE COUNT
2203 DC A(*-*) READ DATA ADDRESS
2204 *
2205 ***** WRITE SECTOR ID SKEWED *****
2206 *
2207 WKDCB DC X'0003' CONTROL WORD
2208 DC X'0000' NOT USED
2209 DC A(*-*) 0-7 = PHYSICAL SECTOR # MINUS ONE
2210 DC A(*-*) NOT USED
2211 DC A(*-*) NOT USED
2212 DC A(*-*) CHAIN ADDRESS
2213 DC X'0006' BYTE COUNT
2214 DC A(WRSID) ADDR OF SECTOR ID DATA
2215 *
2216 ***** READ SECTOR ID SKEWED *****
2217 *
2218 RKDCB DC X'200B' CONTROL WORD
2219 DC X'0000' NOT USED
2220 DC X'0000' 0-7 = PHYSICAL SECTOR # MINUS ONE
2221 DC X'0000' NOT USED
2222 DC X'0000' NOT USED
2223 DC A(*-*) CHAIN ADDRESS
2224 DC X'0006' BYTE COUNT FOR READ SECTOR ID
2225 DC A(SCTID) SECTOR ID DATA ADDRESS
2226 *
2227 * CONSTANTS AND DEFINED STORAGE LOCATIONS
2228 ZERO DC X'0000' CONSTANT ZERO
2229 ONE DC X'0001' CONSTANT ONE
2230 TIMEOUT DC 2A(*-*) TIMEOUT COUNT
2231 TONE DC X'0000' CONSTANT FOR ADD DOUBLE
2232 COUNT DC F'1280' BYTE COUNT (1280)
2233 DIFF DC A(*-*) SEEK DIFFERENCE
2234 XXX DC A(*-*) WORK WORD INT TO ZEPO
2235 BCNT DC X'0000' BYTE COUNT
2236 JOE DC A(*-*) WRITE PARAMETER POINTER
2237 JOE1 DC A(*-*) SAVE LOC FOR PARM LIST ADDRESS
2238 WDATA DC X'DEB6' WRITE DATA
2239 DC X'6EBE'
2240 *
2241 TABLE DC A(*-*) ADDR OF WPT PAR LIST FOR FORMAT RTNS
2242 LGSEC DC X'0000' LOGICAL SECTOR #
2243 PHYS DC X'0000' CONVERTED PHYSICAL SEC #
2244 CB29 DC X'1D00' CONSTANT BYTE 29
2245 FIVE9 DC X'2800' CONSTANT BYTE 59
2246 WRSID DC X'0000' FLAG CYLINDER (WRT SECTOR ID DATA)
2247 WRSID DC X'0000' CYLINDER HEAD
2248 DC X'0000' LOG SECTOR NOT USED
2249 CDAT DC X'00FF' INVALID DATA CONSTANT
2250 WSIDT DC X'FF34' WRITE SECTOR ID TEST DATA
2251 DC X'5678'
2252 DC X'9A00'
2253 SCTST DC X'0000' READ SECTOR ID TEST DATA BUFFER
2254 DC X'0000'
2255 DC X'0000'
2256 CTR01 DC X'0000' COUNTER
2257 CTR02 DC X'0000' COUNTER
2258 CTR03 DC X'0000' COUNTER
2259 CTR04 DC X'0000' COUNTER
2260 CTR05 DC X'0000' COUNTER
2261 CTR06 DC X'0000' COUNTER
2262 SAVR3 DC X'0000' SAVE AREA

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003A42 0000 2263 SAVR5 DC X'0000' SAVE AREA
003A44 0000 2264 WR2 DC X'0000'
003A46 0000 2265 SVSEK DC X'0000'
003A48 0000 2266 LCT DC X'0000'
003A4A 0000 2267 T56AA DC X'0000'
003A4C 0000 2268 T56BB DC X'0000'
003A4E 0000 2269 T56CC DC X'0000'
003A50 0000 2270 T56DD DC X'0000'
003A52 0000 2271 T56EE DC X'0000'
003A54 0000 2272 T56FF DC X'0000'
003A56 0000 2273 T56GG DC X'0000'
003A58 0000 2274 T86AA DC X'0000'
003A5A 0000 2275 T86BB DC X'0000'
003A5C 0000 2276 T86CC DC X'0000'
003A5E 0000 2277 T86DD DC X'0000'
003A60 0000 2278 T86EE DC X'0000'
003A62 0000 2279 T86FF DC X'0000'
003A64 0000 2280 T86GG DC X'0000'
003A66 0000 2281 T41D DC X'0000'
003A68 0000 2282 T41LP DC X'0000'
003A6A 0000 2283 WRUCT DC X'0000'
003A6C 0000 2284 CYLOC DC X'0000'
003A6E 0000 2285 PASS1 DC A(*-*)
003A70 0000 2286 HEAD0 DC A(*-*)
003A72 0000 2287 HEAD1 DC A(*-*)
003A74 0000 2288 GDSE0 DC A(*-*)
003A76 0000 2289 GDSE1 DC A(*-*)
003A78 0000 2290 ER00 DC A(*-*)
003A7A 0000 2291 ER01 DC A(*-*)
003A7C 0000 2292 HDOSV DC A(*-*)
003A7E 0000 2293 HD1SV DC A(*-*)
003A80 0000 2294 EROSV DC A(*-*)
003A82 0000 2295 ER1SV DC A(*-*)
003A84 0000 2296 PATTR DC A(*-*)
003A86 0000 2297 CECYL DC A(*-*)
003A88 0000 2298 STATS DC A(*-*)
2299 *
2300 ** COPY T78DPCIO 01JUN76
2301 ** (T78DPCIO)
2302 *
2303 * EXECUTE DPC INPUT/OUTPUT COMMANDS 2/07/77
2304 * THIS ROUTINE HAS THE FOLLOWING ENTRIES:
2305 *
2306 *
2307 * 1 BAL CEOP1,R6 CE DIAGNOSTIC OP1(TURN ON DIAG MODE)
2308 *
2309 * 2 BAL CEOP2,R6 WRITE DIAG CLOCK STEP DATA
2310 *
2311 * 3 BAL SENS0,R6 CE READ SENSE WOPD ZERO
2312 *
2313 * 4 BAL SENS1,P6 CE READ SENSE WORD ONE
2314 *
2315 * 5 BAL WRAP,R6 READ DIAGNOSTIC WPAF
2316 *
2317 * BXS (R6,2) RETURN
2318 *
2319 *****
2320 *
2321 * CE DIAGNOSTIC OP2 DATA WORD (CLOCK STEP)
2322 *
2323 * BIT 00 - SET READY
2324 * BIT 01 - RESET RFADY
2325 * BIT 02 - SET WRITE CLOCK
2326 * BIT 03 - SET READ CLOCK
2327 * BIT 04 - INDEX PULSE
2328 * BIT 05 - SECTOR PULSE
2329 * BIT 06 - STANDARD READ DATA
2330 * BIT 07 - SPEED PULSE
2331 * BIT 08 - BEHIND HOME
2332 * BIT 09 - SET SEEK COMPLETE
2333 * BIT 10 - RESET SEEK COMPLETE
2334 * BIT 11 - PLO OUT OF SYNC
2335 * BIT 12 - RST RD/WRT CLOCK
2336 * BIT 13 -
2337 * BIT 14 -
2338 * BIT 15 - RESET DIAGNOSTIC MODE
2339 *
2340 *****
2341 *
2342 *
2343 WRAP MVB R6,LISTIO SAVE ADDRESS OF LAST IO
2344 IO DEVADD,IDCBRAP+1 LOAD DEVICE ADDRESS IN IDCB
2345 IO IDCBRAP READ SENSE WORD 1
2346 BNCC 7,CCERP CHECK COND CODE
2347 BXS (R6,2) RETURN TO CALLER
2348 *
2349 CEOP1 MVB R6,LISTIO SAVE ADDRESS OF LAST IO
2350 MVB DEVADD,IDCBCE1+1 LOAD DEVICE ADDRESS IN IDCB
2351 IO IDCCE1 SET DIAGNOSTIC MODE
2352 BNCC 7,CCERR CHECK COND CODE
2353 BXS (R6,2) RETURN TO CALLER
2354 *
2355 CEOP2 MVB R6,LISTIO SAVE ADDRESS OF LAST IO
2356 MVB DEVADD,IDCBCE2+1 LOAD DEVICE ADDRESS IN IDCB
2357 IO IDCCE2 WRITE DIAG CLOCK STEP
2358 BNCC 7,CCERP CHECK COND CODE
2359 BXS (R6,2) RETURN TO CALLER
2360 *
2361 *
2362 SENS1 MVB R6,LISTIO SAVE ADDRESS OF LAST IO
2363 MVB DEVADD,IDCB1+1 LOAD DEVICE ADDRESS IN IDCB
2364 IO IDC1 READ SENSE WORD 2
2365 BNCC 7,CCERP CHECK COND CODE
2366 BXS (R6,2) RETURN TO CALLER
2367 *
2368 SENS0 MVB R6,LISTIO SAVE ADDRESS OF LAST IO
2369 MVB DEVADD,IDCB0+1 LOAD DEVICE ADDRESS IN IDCB
2370 IO IDC0 READ SENSE WORD 1
2371 BNCC 7,CCERP CHECK COND CODE
2372 BXS (R6,2) RETURN TO CALLER
2373 *
2374 CCEPP DC X'706E' COPY STATUS ANY LEVEL INTO R3
2375 SRL 13,3 POSITION CC CODE TO BITS 13-15
2376 MVB F3,STOIN * PUT IN LOG AREA
2377 B (R6) * RETURN TO USER

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2378 *
2379 IORST DC X'6F05' RESET IO
2380 IDCBO DC X'2205' SENSE WORD ZERO
2381 RDATA0 DC A(*-*) DATA WORD
2382 IDCBI DC X'2105' SENSE WORD ONE
2383 RDATA DC A(*-*)
2384 IDCBCB1 DC X'4005' CE DIAG OP1
2385 CEDAT DC A(*-*) SENSE DATA
2386 IDCBCB2 DC X'4105' CE DIAG OP2
2387 CEDAT2 DC A(*-*) SENSE DATA
2388 IDCBRAP DC X'2F05' READ DIAG WRAP
2389 RAPDAT DC A(*-*) SENSE DATA
2390 CPUID EQU X'0232' CPU ID
2391 *
2392 * COPY T7810 01DEC76
2393 ** (T7810)
2394 *****12/01/76*****
2395 *
2396 * SUBROUTINE
2397 *
2398 * PURPOSE
2399 *
2400 * COMPARE READ SECTOR ID DATA TO WRITE SECTOR ID DATA
2401 * NORMAL AND TEST DATA.
2402 *
2403 * CALLING SEQUENCE
2404 *
2405 * BAL CMPRW,R6 (NORMAL)
2406 * BAL CHERT,R6 (TEST)
2407 *
2408 * RETURN
2409 *
2410 * BXS (R6,2) - NORMAL
2411 *
2412 *
2413 *
2414 *****
2415 *
2416 CMPPT MVWI 5,R7 BYTE COUNT
2417 MVA SCTST+1,R3 ADDR OF RD SECT ID DATA (TEST)
2418 MVA WSIDT,R5 ADDR OF WR SECT ID DATA (TEST)
2419 J TT47
2420 CMPRW MVWI 5,R7 COMPARE BYTE COUNT
2421 MVA SCTID+1,R3 ADDR OF RD SEC ID DATA
2422 MVA WRSID,R5 ADDR OF WR SEC ID DATA
2423 TT4Y CFNEN (R3),(R5) COMPARE ID DATA
2424 BE (R6,2) BCH IF WRITE ID DATA OK
2425 B (R6,*) COMPARE ERROR
2426 *
2427 *****
2428 *
2429 * SUBROUTINE
2430 *
2431 * PURPOSE
2432 * CONVERT LOGICAL SECTOR NUMBER TO A PHYSICAL SECTOR MINUS
2433 * ONE
2434 * SETUP LOGICAL SECTOR # IN LOCATION 'LGSEC'
2435 * PHYSICAL SECTOR # WILL BE LOADED IN LOCATION 'PHYS'
2436 *
2437 * LOGICAL SECTOR# TO PHYSICAL SECTOR# CONVERSION
2438 * LOGICAL- X 00, 1E, 01, 1F, 02, 20, 03, 21, 04, 22, 05, 23, 06, 24,
2439 * PHYSICAL X 00, 01, 02, 03, 04, 05, 06, 07, 08, 09, 0A, 0B, 0C, 0D,
2440 *
2441 * LOGICAL- 07, 25, 08, 26, 09, 27, 0A, 28, 0B, 29, 0C, 2A, 0D, 2B,
2442 * PHYSICAL 0E, 0F, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 1A, 1B,
2443 *
2444 * LOGICAL- 0E, 2C, 0F, 2D, 10, 2F, 11, 2F, 12, 30, 13, 31, 14, 32,
2445 * PHYSICAL 1C, 1D, 1E, 1F, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29,
2446 *
2447 * LOGICAL- 15, 33, 16, 34, 17, 35, 18, 36, 19, 37, 1A, 38, 1B, 39,
2448 * PHYSICAL 2A, 2B, 2C, 2D, 2E, 2F, 30, 31, 32, 33, 34, 35, 36, 37,
2449 *
2450 * LOGICAL- 1C, 3A, 1D, 3B, X
2451 * PHYSICAL 38, 39, 3A, 3B, X
2452 *
2453 *
2454 * CALLING SEQUENCE
2455 *
2456 * BAL CONVNT,R6
2457 *
2458 * RETURN
2459 *
2460 * B (TT304+2)
2461 *
2462 *****
2463 *
2464 CONVNT MVW R6,TT304+2 SETUP RETURN ADDR
2465 CB ZERO0,LGSEC+1 CK FOR LOG # ZERO
2466 JE TT303 BCH IF LOG # IS ZERO
2467 CB LGSEC+1,CB29 COMP LOG TO 29
2468 MVE RTT01 BCH IF LGSEC EQ OR LESS THAN CB29
2469 MVWI R0 SETUP MULTIPLIER
2470 MB ZLGSEC+1,R0 LOG SECTOR # TIMES 2
2471 SWI 60,R0 LOG SEC TIMES 2 MINUS 60
2472 MVB R0,PHYS+1 PHYSICAL SECTOR NUMBER
2473 J TT304 RETURN TO CALLER
2474 TT303 MVB FIVE9,PHYS+1 PHYSICAL SECTOR # 59
2475 J TT304 RETURN TO CALLER
2476 RTT01 MVWI 2,R0 LOAD MULTIPLIER
2477 MB LGSEC+1,R0 LOG SECTOR # TIMES 2
2478 SWI 1,R0 SUBTRACT ONE
2479 MVB R0,PHYS+1 LOAD PHYSICAL SECTOR #
2480 TT304 B *-* RETURN TO CALLER
2481 *
2482 *****
2483 *
2484 * SUBROUTINE
2485 *
2486 * PURPOSE
2487 *
2488 * LOAD WRITE SECTOR ID DATA BUFFER FROM RD SEC ID BUFFER
2489 *
2490 * CALLING SEQUENCE
2491 *
2492 * BAL LWSID,R6

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2493 *
2494 * RETURN
2495 *
2496 * BXS (P6)
2497 *
2498 *****
2499 *
2500 *
2501 LWSID MVWI 5,R7 BYTE COUNT
2502 MVA SCTID+1,R3 ADDR OF RD SECT ID DATA BUFFER
2503 MVA WRSID,R5 ADDR OF WR SECT ID DATA BUFFER
2504 MVFN (R3),(R5) MOV DATA FROM RD TO WR BUFFER
2505 BXS (R6) RETURN TO CALLER
2506 *
2507 *
2508 * EXECUTE INPUT & OUTPUT COMMANDS
2509 * TO EXECUTE ALL I/O COMMANDS FROM A COMMON PLACE.
2510 * EACH OF THESE ENTRIES SET R7 WITH THE ADRS OF ITS PARAMETER
2511 * LIST AND ANY SPECIAL SWITCHES BEFORE BRANCHING TO THE
2512 * SUPVR CALL.
2513 *
2514 * THIS SUBROUTINE WILL CHECK FOR THE FOLLOWING:
2515 *
2516 * 1. LOST INTERRUPTS BY TIMING OUT A COUNTING LOOP
2517 * 2. ERROR INTERRUPTS RECEIVED FROM SUPVR
2518 *
2519 * THIS ROUTINE HAS THE FOLLOWING ENTRIES:
2520 *
2521 * 1 BAL \$RKEW,R6 READ SECTOR ID SKEWED
2522 *
2523 * 2 BAL \$WKST,R6 WRITE SECTOR ID SKEWED (TEST)
2524 *
2525 * 3 BAL \$RWST,R6 READ SECTOR ID SKEWED (TEST)
2526 *
2527 * 4 BAL \$RIDS,R6 READ SECTOR ID (TEST)
2528 *
2529 * 5 BAL \$WKEW,R6 WRITE SECTOR ID SKEWED
2530 *
2531 * 6 BAL \$WSEC,R6 WRITE SECTOR ID
2532 *
2533 * 7 BAL \$WSTS,R6 WRITE SECTOR ID (TEST)
2534 *
2535 * 8 BAL \$DIAG,R6 DIAGNOSTIC
2536 *
2537 * 9 BAL \$XOCS,R6 CYCLE STEAL STATUS
2538 *
2539 * 10 BAL \$SEEK,R6 SEEK
2540 *
2541 * 11 BAL \$RECL,R6 RECALIBRATE
2542 *
2543 * 12 BAL \$RDID,R6 READ SECTOR ID
2544 *
2545 * 13 BAL \$RD,R6 PEAD
2546 *
2547 * 14 BAL \$RDVY,R6 READ VERIFY
2548 *
2549 * 15 BAL \$WRT,R6 WRITE
2550 *
2551 *
2552 *
2553 \$SEEK MVA J SKDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
2554 XIO
2555 *
2556 \$RECL MVA J CLDCB,IODCB SET UP BLOCK FOR SVC CALL
2557 XIO
2558 *
2559 \$RDID MVA RSDCB,IODCB SET UP BLOCK FOR SVC CALL
2560 MVBI X'FF',R3 SET BUFFER TO F'S
2561 MVA SCTID,R5 SETUP READ SECTOR ID BUFFER ADPS
2562 MVWI 6,R7 SETUP BUFFER LENGTH
2563 FFN R3,(R5) INIT READ SECTOR ID BUFFER
2564 MVA SCTID,RSDCB+14 DATA ADDR
2565 J
2566 *
2567 \$RD MVBI X'FF',R3 SETRD BUFFER TO ALL F'S
2568 MVW RDCB+14,R5 SET UP READ BUFFER ADRS
2569 MVWI X'0100',R7 SET UP BUFFER LENGTH
2570 FFN R3,(R5) CLEAR READ BUFFER
2571 \$RDS MVA RDCB,IODCB SET UP BLOCK FOR SVC CALL
2572 J XIO
2573 *
2574 \$RDVY MVA VRDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
2575 J XIO
2576 *
2577 \$WRT MVA WRDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
2578 J XIO
2579 *
2580 \$RKEW MVA RKDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
2581 MVBI X'FF',R3 SET BUFFER TO F'S
2582 MVA SCTID,R5 SETUP READ SECTOR ID BUFFER ADRS
2583 MVWI 6,R7 SETUP BUFFER LENGTH
2584 FFN R3,(R5) INIT READ SECTOR ID BUFFER
2585 MVA SCTID,RKDCB+14 DATA ADDR
2586 J XIO
2587 *
2588 \$WKST MVA WKDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
2589 MVA WSIDT,WKDCB+14 DATA ADDR
2590 J XIO
2591 *
2592 \$RWST MVA RKDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
2593 MVA SCTST,RKDCB+14 DATA ADDR
2594 J XIO
2595 *
2596 \$RIDS MVA RSDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
2597 MVBI X'FF',R3 SET BUFFER TO F'S
2598 MVA SCTST,R5 SETUP READ SECTOR ID BUFFER ADRS
2599 MVWI 6,R7 SETUP BUFFER LENGTH
2600 FFN R3,(R5) INIT READ SECTOR ID BUFFER
2601 MVA SCTST,RSDCB+14 DATA ADDR
2602 J XIO
2603 *
2604 \$WKEW MVA WKDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
2605 MVA WRSID,WKDCB+14 DATA ADDR
2606 J XIO
2607 *

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003C32 4020 3D58 395A 2608 \$WSEC MVA WSDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
003C38 4020 3968 3A20 2609 MVA WRSID,WSDCB+14 DATA ADDR
003C3E 500B 2610 J XIO
003C40 4020 3D58 395A 2611 \$WSTS MVA WSDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
003C46 4020 3968 3A28 2612 MVA WSIDT,WSDCB+14 DATA ADDR
003C4E 4020 3D58 393A 2614 *
003C54 5000 2615 \$DIAG MVA DGDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
2616 J XIO
2617 XEQIT
2618 *****29JUL76**
2619**
2620** SUB-ROUTINE
2621**
2622** EXECUTE INPUT AND OUTPUT COMMANDS
2623**
2624** PURPOSE
2625**
2626** TO EXECUTE ALL I/O COMMANDS FROM A COMMON PLACE.
2627** THIS SUBROUTINE WILL DO THE FOLLOWING FUNCTIONS:
2628**
2629** 1. SAVE THE ADDRESS THAT POINTS TO THE INSTRUCTION THAT STARTED
2630** THE I/O COMMAND.
2631** 2. SAVES THE DCB BLOCK USED UNLESS IT IS A STAPT CYCLE STATUS
2632** ISSUED BY THIS SUBROUTINE.
2633** 3. CLEAR OUT THE CYCLE STEAL STATUS STORAGE UNLESS THE
2634** START CYCLE STATUS WAS ISSUED BY THIS SUBROUTINE.
2635** 4. RESETS THE INTERRUPT INDICATOR AND CHECKS FOR ANY INTERRUPT
2636** SINCE THE LAST EXPECTED INTERRUPT. IF AN INTERRUPT IS FOUND,
2637** MYSTERY INTERRUPT (MI) CONTROL BIT IS SET.
2638** 5. MOVES THE ADDRESS OF THE I/O CONTROL BLOCK IN R7, SET THE
2639** EXPECTED INTERRUPT CONTROL BIT AND ISSUE THE 'SVC START'.
2640** 6. WHEN THE SUPVR RETURNS AFTER ISSUING THE I/O COMMAND, TIMING
2641** STARTS TO DETERMINE A LOST INTERRUPT.
2642** 7. EXCEPT THE INTERRUPT AND GATHER INFORMATION TO DETERMINE IF IT
2643** WAS AN ERROR OF OKAY AND EXIT OFF THE INTEPRPT LEVEL.
2644** 8. CHECK IF THERE WAS A WRONG INTERRUPT LEVEL.
2645** 9. CHECK IF AN EPROR WAS EXPECTED AND IF THERE WAS RETURN.
2646** 10. CHECK IF THERE WAS AN ERROR CONDITION, IF NOT RETURN.
2647** 11. CHECK TO SEE IF THE EXERCISER IS TO BE TERMINATED.
2648** 12. CHECK IF A CYCLE STEAL OPERATION WAS IN PROGRESS THAT WAS
2649** ISSUED BY THIS SUBROUTINE.
2650** 13. CHECK THE ISB BITS THAT ARE ON. IF BIT 0 IS ON, ISSUE A
2651** CYCLE STEAL STATUS COMMAND. CHECK FOR ANY OTHER BIT BEING ON,
2652** COUNT IT AND SET UP THE PROPER ERROR MESSAGE TO BE PRINTED.
2653**
2654** CALLING SEQUENCE
2655**
2656** THIS ROUTINE HAS THE FOLLOWING ENTRIES:
2657**
2658** --> BAL XIO OR XEO ANY CYCLE STEAL COMMAND, MOD=0
2659** --> BAL XIO1 MOD PARM PRELOADED IN 'IOMOD'
2660** --> BAL XIOCS,R6 OR XEO START CYCLE STEAL STATUS, MOD=P
2661** --> BAL XIOCS-4,R6 AUTO CS STATUS (FOLLOWING OTHER XIO
2662** AND DOES NOT POST INTERRUPT STATUS)
2663**
2664** RETURN CONTROL
2665**
2666** BXS (R6,2) RETURN TO USER NO ERROR
2667** OR B (R6)* RETURN AND RETRY ON ERROR
2668** *****
2669** XIO MVWZ IOMOD,R3 SET MOF OF 0 FOR CYCLE STEAL OP
2670** XIO1 J XIO1 CS I/O'S ARE NOT RETRIED
2671**
2672**
2673** TBTR (R4,CE) RESET CS STATUS INTER ERROR INDICAT.
2674** TBTS (R4,CS) SET 'CYCLE STEAL STATUS' IN PROGRESS
2675** XIOCS MVA CSDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
2676** MVWI X'000F',IOMOD SET CYCLE STEAL MODIFIER
2677** TBTR (R4,CS) IS CS IN PROGRESS, EPROR CONDITION
2678** JON XIO2 * YES, BYPASS SAVING I/O ADRS
2679** XIO1 MVW R6,LSIO SAVE IAP FOR RETRY IF REQUESTED
2680** MVA DCBUF,R3 SET UP TO ADRS TO MOVE DCB TABLE
2681** MVW IODCB,R5 * AND THE FROM ADRS ALONG WITH
2682** R7 * THE NUMBER OF MOVES
2683** MVBI (R5,R3) MOVE 1 STATUS WORD AND ADJUST
2684** MVEI (R5,R3) CLEAR CYCLE STATUS BUFFER
2685** MVA CSBUF,R5 * TO ALL ONES *
2686** MVBI 16,R7 *
2687** FPN R3,(R5) *
2688** MVWI X'0708',SIOIN OVERLAY OLD CONDITION CODES
2689** MVWZ \$ISB,R3 ZERO OUT OLD ISB VALUE
2690**
2691** TBTR (R4,ER) RESET ANY EPROR BEFORE I/O COMMAND
2692** XIO2 TBTR (R4,IN) CLEAR INTERRUPT RECEIVED CNTL BIT
2693** MVA IOBLK,R7 SET UP CONTROL BLOCK FOR SUPVR
2694** TBTR (R4,\$LE) RESET LEVEL EPROR INDICATOP
2695** TBTS (R4,XI) SET EXPECTED INTR CONTROL BIT
2696** SVC STAPT CALL SUPVR FOR I/O COMMAND
2697**
2698** TBTR (R4,NI) IS AN INTR EXPECTED
2699** BN (R6,2) * NO, RETURN TO USEP
2700**
2701** THE INTR SHOULD OCCUR WHILE SPINNING IN THE NEXT SECTION
2702**
2703** MVBI X'00',R5 SET UP WORK REG FOR 'LOST INTR'
2704** XIO8 TBTP (R4,IN) HAS INTERRUPT BEEN RECEIVED
2705** JON XIOCK * YES, CHECK IF ALL WAS SATISFACTORY
2706** SVC IDLE ALLOW ANOTHER PROGRAM A CHANCE TO RUN
2707**
2708** AWI 1,R5 ADVANCE TIME OUT COUNT
2709** JNZ XIO8 BCH IF TIME OUT NOT REACHED
2710** TBTS (R4,ER) SET ON ERROR CONTROL BIT
2711** B (R6)* ERF 'NO INTERRUPT'
2712** *****03FEB76**
2713**
2714** SUBROUTINE
2715**
2716** I/O EXECUTE EPROR HANDLING ROUTINE
2717**
2718** PURPOSE
2719**
2720** THIS ROUTINE WILL COLLECT INFORMATION TO HELP DETERMINE THE
2721** PROBLEM THAT WAS FOUND WHEN THE I/O COMMAND WAS ISSUED BY THE
2722** SUPREVISOR AND IT WAS NOT ACCEPTED.
2723**

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2724** CALLING SEQUENCE
2725**
2726** SUPVR WILL ENTER WHEN AN ERROR OCCURS ON AN I/O COMMAND
2727**
2728** RETURN CONTROL
2729**
2730** B (R6)* RETURN TO USEPS EPROR HANDLER
2731**
2732** *****
2733**
2734**
2735** CC 0= DEVICE NOT ATTACHED
2736** FOR 1= DEVICE BUSY
2737** I/O 2= DEVICE BUSY AFTER RESET
2738** 3= COMMAND REJECT
2739** 4= INTERVENTION REQUIRED
2740** 5= INTERFACE DATA CHECK
2741** 6= CONTROLLER BUSY
2742** 7= I/O COMMAND EXCEPTED
2743**
2744** XIOER DC X'706E' COPY STATUS ANY LEVEL INTO R3
2745** SRL 13,F3 POSITION CC CODE TO BITS 13-15
2746** MVB R3,SIOIN * PUT IN LOG OUT AREA
2747** B (R6)* RETURN TO USER EPROR HANDLER
2748** *****14APR76**
2749**
2750** SUB-ROUTINE
2751**
2752** ERROR INTERRUPT RUNS ON INTERRUPT LEVEL 'SINTL'
2753**
2754** PURPOSE
2755**
2756** THIS ROUTINE WILL BE ENTERED WHEN THE SUPVR DETECTS AN ERROR
2757** OF THE INTERRUPTING CONDITION CODE DOES NOT AGREE WITH THE
2758** EXPECTED CODE.
2759**
2760** CALLING SEQUENCE
2761**
2762** SUPVR WILL ENTER WHEN AN ERROR OCCURS ON AN I/O INTERRUPT
2763**
2764** RETURN CONTROL
2765**
2766** SVC EXIT RETURN TO USEP VIA SUPVR
2767**
2768** *****
2769**
2770**
2771** CC 0= CONTROLLER END ISF 0= ADD STATUS
2772** FOR 1= PROGRAM CONTROL INTEPRUPT BITS 1= COMD REJECT
2773** INTR 2= EXCEPTION INTERRUPT FOR 2= INCR LENGTH
2774** 3= DEVICE END INTERRUPT INTR 3= DCB SPEC CK
2775** 4= ATTENTION INTERRUPT 4= STG DATA CK
2776** 5= ATTENTION / PROGRAM CNTL INTR 5= INW STG ADPS
2777** 6= ATTENTION / EXCEPTION INTR 6= PROTCT CK
2778** 7= ATTENTION / DEVICE END INTR 7= I-FACE DATA
2779**
2780** INTER DC X'706E' COPY STATUS ANY LEVEL INTO R3
2781** SRL 13,F3 POSITION INDICATORS IN R3
2782** MVA OPFN1,R4 SET UP BASE ADRS
2783** TBT (R4,CS) IS CS IN PROGRESS
2784** JOFF INTES * NO
2785** TBTS (R4,CE) TURN ON CYCLE STEAL INTR EPROR
2786** MVW R7,CSTL8 SAVE CS EPR ISB VALUE, BITS 0-7
2787** MVB R3,CSTL8+1 * AND THE COND CODE
2788** J INTR1
2789** INTES TBT (R4,XE) TEST EXPECTED ATREN / EPROR IND
2790** JOFF INTR1 BCH IF NOT EXPECTED
2791** CBI 4,R3 IS THIS AN 'ATTENTION' INTR
2792** JE INTR1 * YES, BCH TO END INTR SEQUENCE
2793** INTET TBTS (R4,ER) SET ERROR ON I/O COMMAND CNTL BIT
2794** J INTR1
2795**
2796** THE EPROR INTERRUPT USES THE SAME
2797** ENDING SEQUENCE AS THE NORMAL INTR
2798** *****14APR76**
2799**
2800** SOUBROUTINE
2801**
2802** OKAY INTERRUPT RUNS ON INTERRUPT LEVEL 'SINTI'
2803**
2804** PURPOSE
2805**
2806** TO CHECK THE INTERRUPT AND CONTINUE THE TEST
2807**
2808** CALLING SEQUENCE
2809**
2810** SUPERVISOR WILL ENTER HERE IF INTR CC IS AS REQUESTED
2811** THE ERROR INTERRUPT HANDLER WILL BRANCH TO THIS ROUTINE
2812** AFTER THE SPECIAL PART HAS BEEN COMPLETED AND THE
2813** COMMON SECTION IS HANDLED HERE.
2814**
2815** RETURN CONTROL
2816**
2817** SVC EXIT RETURN TO USEP VIA SUPVR
2818**
2819** *****
2820** INTOK DC X'706E' COPY STATUS ANY LEVEL INTO R3
2821** SRL 13,R3 POSITION INDICATORS IN R3
2822** MVA OPFN1,R4 SET UP BASE ADRS
2823** INTF1 TBTS (R4,IN) SET INTERRUPT RECEIVED
2824** TBT (R4,CS) IS 'CS' IN PROGRESS
2825** JON INTF2 * YES, BCH AROUND UPDATE
2826** MVB R3,SIOIN+1 SAVE INTERRUPTING CC CODE
2827** MVW R7,\$ISB SAVE INTR STATUS AND DEV ADRS
2828** INTR2 EQU *
2829** CPCL R5 CURRENT LEVEL COPIED BY DCP
2830** SLL 4,R5 POSITION INTR LEVEL AND PUT
2831** ABI 1,R5 * IN 'I' BIT
2832** CW \$INTL,R5 IS THIS THE CORRECT INTR LEVEL
2833** JE INTR3 * YES, GO EXIT THIS LEVEL
2834** TBTS (R4,\$LE) SET INTR LEVEL EPROR CONTROL BIT
2835** TBTS (R4,ER) SET ERROR ON I/O COMMAND CNTL BIT
2836** INTR3 TBTR (R4,XI) WAS INTERRUPT EXPECTED
2837** JON INTR4 * YES, EXIT OFF THIS INTR LEVEL
2838** TBTS (R4,MI) * NO, SET MYSTERY INTR CONTROL BIT
2839** CBI 4,R3 ATTENTION INTERRUPT?

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003D18 1001 2840+ JE INTRX YES IL
003D1A 4C6C 2841+ TETS (R4,NG) ERROR,UNEXPECTED INTERRUPT IL
003D1C 6006 2842+INTRX SVC EXIT EXIT THIS LEVEL VIA SUPVR TO PGM IL
2844+*****03FEB76**
2845+** THIS IS THE CONTINUATION OF EXECUTE I/O AFTER THE INTERRUPT
2846+** HAS BEEN SERVICED. THE EXECISER FINDS AN INTERRUPT HAS BEEN
2847+** RECEIVED AND BRANCHES HERE TO CHECK FOR ANY ERROR CONDITIONS.
2848+**
2849+**
2850+**
2851+XIOCK TBTR (R4,XE) WAS AN ERROR EXPECTED
2852+** BN (R6,2) * YES, EXIT THIS ROUTINE
2853+** TBTR (R4,CS) WAS AUTO CS IN PROGRESS
2854+** JOFF XIOCV * NO, CONTINUE CHECKING
2855+** TBT (R4,CE) IS CS IN AN EPR CONDITION
2856+** JOFF XIOCO * NO, BCH
2857+** B (R6)* CS ERROR
2858+XIOCO TETS (R4,CSA) TURN ON CS STATS AVAIL FLAG
2859+** BXS (R6,2) GO TO USER
2860+XIOCV TBT (R4,ER) WAS ERROR INTF CONTROL BIT ON
2861+** JOFF XIOCK * NO, EXIT THIS ROUTINE
2862+**
2863+** MVB \$IOIN+1,R5 GET LAST INTR CC CODE
2864+** CBI 2,R5 IS THIS CC=2
2865+** BNE (R6)* * NO, BCH TO ERROR HANDLER
2866+XIOCV MVB \$ISB,R5 GET LAST ISB DATA BYTE AND IF CS
2867+** BN XIOCS-4 * AVAILABLE, GO AND GET IT
2868+** B (R6)* ERROR
2869+XIOCV MVWZ OPT#3,R3 CLEAR OUT OPTION 3 CNTL BITS
2870+** BXS (R6,2) RETURN TO USER VIA REG 6
2871+**
2872+** I/O PARAMETER LIST
2873+**
2874+IOBLK DC A (DEVADD) ADRS OF DEVICE ADRS
2875+** DC A (XIOER) ERROR ROUTINE ADRS
2876+IODCB DC A (*-*) DCB ADRS OR LEVEL & INTR
2877+IOMOD DC A (*-*) MODIFIER
2878+** DC A (*-*) ADRS OF LAST SVC CALL
2879+IORSF DC A (*-*) SECOND WORD OF LAST IDCB
2880+**
2881+** INTERRUPT CONTROL BLOCK FOR I/O COMMANDS
2882+**
2883+INTBL DC A (DEVADD) ADRS OF DEVICE ADRS
2884+** DC A (INTOK) INTERRUPT OR RETURN ADRS
2885+** DC A (INTER) INTERRUPT ERROR ADRS
2886+INTCC DC X'0003' INTERRUPT CODE EXPECTED
2888+*****11MAY76**
2889+**
2890+** SUBROUTINE
2891+**
2892+** CONNECT INTERRUPT CONTROL BLOCK & PREPARE DEVICE
2893+**
2894+** PURPOSE
2895+** TO CONNECT THE INTERRUPT CONTROL BLOCK TO THIS DEVICE AND
2896+** PREPARE ON THE DESIRED INTERRUPT LEVEL AND TO ALLOW THE DEVICE
2897+** TO INTERRUPT.
2898+**
2899+**
2900+** CALLING SEQUENCE
2901+**
2902+** THIS SUBROUTINE HAS THE FOLLOWING ENTRIES:
2903+**
2904+** --> BAL \$CONC,R6 CLEAR DEV DEP STG AND CONNECT I/O BLK
2905+** --> BAL \$CONP,R6 PREPARE DEVICE ONLY, ALREADY CONNECT
2906+**
2907+** RETURN CONTROL
2908+**
2909+** BXS (R6,2) RETURN TO USER VIA REG 6 IF OKAY
2910+** OR B (R6)* IF THE DEVICE COULD NOT BE CONNECTED
2911+**
2912+*****06APR76**
2913+\$CONC MVBI 6,R7 NUMBER OF BYTE TO CLEAR
2914+** MVBI 0,R3 * AND THE DATA TO USE
2915+** MVA DEV1,R5 * ALONG WITH THE ADRS TO USE
2916+** FPN R3,R5 *
2917+** MVWZ OPT#3,R3 CLEAR OLD CONTROLS FOR NEW ROUTINE
2918+** MVA INTBL,R7 SET R7 TO CONTROL BLOCK AND
2919+** SVC CIOCB * CONNECT IT TO THIS DEVICE
2920+** BN (R6)* ERROR RETURN TO USER
2921+**
2922+\$CONP MVW \$INTL,IODCB PUT IN LEVEL & INTR PARAMETER
2923+** MVA IOBLK,R7 SET R7 TO CONTROL BLOCK TO PREPARE
2924+** MVWI X'0708', \$IOIN INITIALIZE CONDITION CODE STORAGE
2925+** MVWZ \$ISB,R3 * AND CLEAR OLD ISB VALUE
2926+** MVW R6, LSTIO SET UP ADDRESS THAT STARTED LAST I/O
2927+** SVC PREP * AND CALL ON SUPVR
2928+** BXS (R6,2) RETURN TO USER
2929+**
2930+*****06APR76**
2931+**
2932+** SUBROUTINE
2933+**
2934+** DISCONNECT THE INTERRUPT CONTROL BLOCK AND LOG ERRORS
2935+**
2936+** PURPOSE
2937+**
2938+** DISCONNECT THE INTERRUPT CONTROL BLOCK TO THIS DEVICE AND
2939+** SET THE 'NO GOOD' CONTROL BIT, THEN LOG THE DATA THAT HAS
2940+** BEEN FOUND TO HELP THE OPERATOR DEFINE THE ERROR CONDITION.
2941+**
2942+** CALLING SEQUENCE
2943+**
2944+** THIS SUBROUTINE HAS THE FOLLOWING ENTRIES:
2945+**
2946+** --> B \$ERRS SET 'NG' BIT AND CONVERT DATA TO LOG
2947+** --> B \$CONX RETURN TO MDI SUPERVISOR TO TEST STS
2948+**
2949+** RETURN CONTROL
2950+**
2951+** B TURTN* RETURN TO MDI
2952+** OR B (R6)* IF THE DEVICE COULD NOT BE CONNECTED
2953+**
2954+*****
2955+\$ERRS MVWI X'8000',TUSTATUS SET ON 'NO GOOD' STATUS BIT
2956+** MVA HEBLK,R7 GET ADRS OF CONTROL BLOCK

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003DA6 601A 2957+ SVC HTOE CONVERT HEX TO EBC VIS DCP
003DA8 0D03 2958+\$PRNT MVBI 3,P5
003DAA 4324 181A 2959+ MVA TWORK,R3 SET UP BUFFER STORAGE
003DAB 6B0D 3EFE 2960+ MVW R3,BUFPT
003DB2 4124 3E2E 2961+ MVA LINE1,R1
003DB6 0F04 2962+ MVBI 4,R7
003DB8 0E08 2963+ MVBI 8,R6
003DBA 2B04 2964+MVBUF MVFN (R3), (R1)
003DBC 0F04 2965+ MVBI 4,R7
003DBE 0A40 2966+ MVBI X'40',R2
003DC0 C258 2967+ MVB P2, (R1)+
003DC2 BEFB 2968+ JCT MVBUF,R6
003DC4 0E08 2969+ MVBI 8,R6
003DC6 7921 002C 2970+ ANI 44,R1
003DCA BDF7 2971+ JCT MVBUF,R5
003DCC 4020 1802 F1F0 2972+ MVWI PIDMSG10, PID+2
003DD2 4020 19B8 3F04 2973+ MVA FAKETU,@DCADD1
003DD8 4020 19BA 3F00 2974+ MVA DC2PT,@DCADD2
003DDE 402C 19C4 0080 2975+ OVI BIT0080,SUPSTAT
003DE4 4324 34CA 2976+ MVA STUID,R3
003DE8 6F13 18BA 2977+ BAL TMSG4TR*,P7 SET UP BUFFER STORAGE
2978+** GO TO MESSAGE WRITER
2979+\$CONX EQU *
2980+** C720 19D0 MVB * DEVADD,P7 GET DEVICE ADDRESS FROM MDI
2981+** 6013 SVC RICB RELEASE INTERRUPT CONTROL BLOCK
2982+** 6812 3502 B TURTN* RETURN TO MDI SUPERVISOR
2983+**
2984+BEGIN DC A (0007) NUMBER OF LINES TO PRINT
2985+** DC A (0008) LINE LENGTH = 8 CHAP
2986+** DC C** ABORT'
2987+** A (0040)
2988+** C'TUID IOIN ISB INST LINE LENGTH = 40 CHAR
2989+** DC A (0040) DEV1 DEV2 DEV3 DEV4 '
2990+LINE1 DC A (0040) LINE LENGTH = 40 CHAP
2991+** DC C'
2992+** DC A (0040) LINE LENGTH = 40 CHAR
2993+** DC C'CNL DCB2 DCB3 DCB4 DCB5 CHAD EYCT ADRS '
2994+LINE2 DC A (0040) LINE LENGTH = 40 CHAR
2995+** DC C'
2996+** DC A (0040) LINE LENGTH = 40 CHAR
2997+** DC C'RSID CS-2 CS-3 CS-4 CS-5 CS-6 CS-7 CS-8 '
2998+LINE3 DC A (0040) LINE LENGTH = 40 CHAP
2999+** DC C'
3000+BUFPT DC A (*-*)
3001+DC2PT DC A (BEGIN)
3002+FIXTU DC X'0101'
3003+FAKETU DC X'0101'
3004+PIDMSG10 EQU X'F1F0'
3005+BIT0080 EQU X'0080'
3006+**
3007+** DATA CONTROL BLOCK FOR CONVERTING HEX TO EBCDIC
3008+**
3009+HEBLK DC A (48) NUMBER OF BYTES TO CONVERT
3010+** DC A (STUID) FROM ADRS
3011+** DC A (TWORK) AND THE TO ADRS
3012+** END
003F06 0030
003F08 34CA
003F0A 181A
000000

CROSS-REFERENCE LISTING

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DECLARED	NAME	ATTRIBUTES AND REFERENCES
0	.R0.	ABSOLUTE. HEX VALUE (00000000) 1893 1804 1810 1812 1926 1927 1934 1936 2469
0	.R1.	ABSOLUTE. HEX VALUE (00000001) 2470 2471 2472 2476 2477 2478 2479
0	.R2.	ABSOLUTE. HEX VALUE (00000002) 1680 1731 1732 1748 1753 1755 1757 1759 1937 1938 1939 1953 2013 2016 2019 2023 2041 2046 2060 2063 2066 2070 2079 2081 2082 2085 2087 2966 2967
0	.R3.	ABSOLUTE. HEX VALUE (00000003) 1945 2375 2376 2417 2421 2423 2502 2504 2560 2563 2567 2570 2581 2584 2597 2600 2670 2680 2693 2684 2687 2689 2745 2746 2781 2787 2791 2891 2826 2839 2869 2914 2916 2917 2925 2959 2960 2966 2976
0	.R4.	ABSOLUTE. HEX VALUE (00000004) 1630 1727 1798 1815 1822 1830 1922 1942 1949 1960 1968 1982 1989 1992 2007 2026 2052 2054 2074 2673 2674 2677 2691 2692 2694 2695 2698 2704 2710 2782 2783 2785 2789 2793 2822 2823 2824 2834 2835 2836 2838 2841 2851 2853 2855 2858 2860
0	.R5.	ABSOLUTE. HEX VALUE (00000005) 2010 2011 2014 2017 2020 2057 2058 2061 2064 2067 2418 2422 2423 2503 2504 2561 2563 2568 2570 2584 2587 2598 2600 2681 2683 2685 2687 2703 2708 2800 2831 2832 2863 2864 2866 2915 2916 2958 2971
0	.R6.	ABSOLUTE. HEX VALUE (00000006) 1631 1636 1639 1644 1649 1650 1651 1672 1673 1675 1677 1728 1799 1813 1820 1826 1828 1923 1940 1947 1958 1964 1966 1980 1984 1990 1999 2003 2004 2005 2024 2028 2032 2049 2050 2072 2076 2343 2347 2349 2353 2355 2359 2362 2366 2368 2372 2377 2424 2425 2464 2505 2679 2699 2711 2747 2852 2857 2859 2865 2868 2870 2920 2926 2928 2963 2968 2969
0	.R7.	ABSOLUTE. HEX VALUE (00000007) 1488 1638 1653 1725 1733 1735 1796 1802 1853 1855 1858 1920 1932 2420 2501 2562 2569 2583 2599 2682 2686 2693 2786 2827 2913 2918 2923 2956 2962 2965 2977 2980
2913	\$CONC	ADDRESS. HEX LOCATION (00003D68) IN CSECT (I7841) LENGTH (2)
2979	\$CONX	ADDRESS. HEX LOCATION (00003DEC) IN CSECT (I7841) LENGTH (1)
2955	\$ERR\$	ADDRESS. HEX LOCATION (00003D9C) IN CSECT (I7841) LENGTH (6)
1477	\$INTL	ADDRESS. HEX LOCATION (00003500) IN CSECT (I7841) LENGTH (2)
1447	\$IOIN	ADDRESS. HEX LOCATION (000034CC) IN CSECT (I7841) LENGTH (2)
1448	\$ISB	ADDRESS. HEX LOCATION (000034CE) IN CSECT (I7841) LENGTH (2)
1432	\$LE	ABSOLUTE. HEX VALUE (00000026) 2694 2834
2559	\$PDID	ADDRESS. HEX LOCATION (00003B96) IN CSECT (I7841) LENGTH (6)
2556	\$RECL	ADDRESS. HEX LOCATION (00003B8E) IN CSECT (I7841) LENGTH (6)
2596	\$RIDS	ADDRESS. HEX LOCATION (00003C0A) IN CSECT (I7841) LENGTH (6)
2553	\$SEEK	ADDRESS. HEX LOCATION (00003B86) IN CSECT (I7841) LENGTH (6)
1446	\$TUID	ADDRESS. HEX LOCATION (000034CA) IN CSECT (I7841) LENGTH (2)
2608	\$WSEC	ADDRESS. HEX LOCATION (00003C32) IN CSECT (I7841) LENGTH (6)
2611	\$WSTS	ADDRESS. HEX LOCATION (00003C40) IN CSECT (I7841) LENGTH (6)
105	@DCADD1	ADDRESS. HEX LOCATION (000019B8) IN CSECT (I7841) LENGTH (1)
106	@DCADD2	ADDRESS. HEX LOCATION (000019BA) IN CSECT (I7841) LENGTH (1)
42	@FIXT	ABSOLUTE. HEX VALUE (00000101) 555 582 609 756 759 780 792 804 807 819 834 855 858 870 873 948 957 960 975 1034 1037 1081 1084
44	@GOTO	ABSOLUTE. HEX VALUE (00000200) 636 876 882 888 894 900 906 912 918 951 1002 1051 1087
49	@NVLD	ABSOLUTE. HEX VALUE (00000600) 1017 1049
41	@QUES	ABSOLUTE. HEX VALUE (00000100) 852 1031
47	@QUXX	ABSOLUTE. HEX VALUE (00000400) 738 747 762 771 783 795 810 837 846 861 1008 1040
48	@TUXX	ABSOLUTE. HEX VALUE (00000500) 558 570 585 597 612 624 642 654 666 678 690 702 714 726 822 924 936 963 978 990 1019 1057 1069
2984	BEGIN	ADDRESS. HEX LOCATION (00003DF6) IN CSECT (I7841) LENGTH (2)
3005	BIT0080	ABSOLUTE. HEX VALUE (00000080) 2975
3000	BUFPT	ADDRESS. HEX LOCATION (00003EFE) IN CSECT (I7841) LENGTH (2)
2244	CB29	ADDRESS. HEX LOCATION (00003A1C) IN CSECT (I7841) LENGTH (2)
2374	CCERR	ADDRESS. HEX LOCATION (00003AEE) IN CSECT (I7841) LENGTH (2)
1436	CE	ABSOLUTE. HEX VALUE (0000002A) 2673 2785 2855
1516	CICB	ABSOLUTE. HEX VALUE (00000014) 2919
2113	CLDCB	ADDRESS. HEX LOCATION (0000394A) IN CSECT (I7841) LENGTH (2)

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DECLARED	NAME	ATTRIBUTES AND REFERENCES
2416	CMPRT	ADDRESS. HEX LOCATION (00003B10) IN CSECT (I7841) LENGTH (4)
2420	CMPRW	ADDRESS. HEX LOCATION (00003B1E) IN CSECT (I7841) LENGTH (4)
2464	CONVT	ADDRESS. HEX LOCATION (00003B34) IN CSECT (I7841) LENGTH (4)
2390	CPUID	ABSOLUTE. HEX VALUE (00000232) 1639 1826 1964 1984
1434	CS	ABSOLUTE. HEX VALUE (00000028) 1803 1926
1435	CSA	ABSOLUTE. HEX VALUE (00000029) 2674 2677 2783 2824 2853
1465	CSBUF	ADDRESS. HEX LOCATION (000034EA) IN CSECT (I7841) LENGTH (1)
2163	CSDCB	ADDRESS. HEX LOCATION (0000399A) IN CSECT (I7841) LENGTH (2)
1473	CSTL8	ADDRESS. HEX LOCATION (000034F8) IN CSECT (I7841) LENGTH (2)
1455	DCBUF	ADDRESS. HEX LOCATION (000034DA) IN CSECT (I7841) LENGTH (1)
3001	DC2PT	ADDRESS. HEX LOCATION (00003F00) IN CSECT (I7841) LENGTH (2)
108	DEVADD	ADDRESS. HEX LOCATION (000019D0) IN CSECT (I7841) LENGTH (1)
1450	DEV1	ADDRESS. HEX LOCATION (000034D2) IN CSECT (I7841) LENGTH (2)
2101	DGDCB	ADDRESS. HEX LOCATION (0000393A) IN CSECT (I7841) LENGTH (2)
70	DUMMY	ABSOLUTE. HEX VALUE (00000000) 543 741 750 765 774 786 798 813 840 849 864 1092 1113
1093	ENTPT	ADDRESS. HEX LOCATION (0000297C) IN CSECT (I7841) LENGTH (1)
1427	ER	ABSOLUTE. HEX VALUE (00000021) 1815 1822 1830 1942 1949 1960 1968 1982 1992 2026 2052 2074 2691 2710 2793 2835 2860
1502	EXIT	ABSOLUTE. HEX VALUE (00000006) 2842
3003	FAKETU	ADDRESS. HEX LOCATION (00003F04) IN CSECT (I7841) LENGTH (2)
2245	FIVE9	ADDRESS. HEX LOCATION (00003A1E) IN CSECT (I7841) LENGTH (2)
1211	F00015	ADDRESS. HEX LOCATION (00002DFC) IN CSECT (I7841) LENGTH (1)
1207	F00027	ADDRESS. HEX LOCATION (00002DCC) IN CSECT (I7841) LENGTH (1)
1273	F00030	ADDRESS. HEX LOCATION (00003016) IN CSECT (I7841) LENGTH (1)
1269	F00035	ADDRESS. HEX LOCATION (00002FF8) IN CSECT (I7841) LENGTH (1)
1197	F00044	ADDRESS. HEX LOCATION (00002D62) IN CSECT (I7841) LENGTH (1)
1121	F00074	ADDRESS. HEX LOCATION (0000298E) IN CSECT (I7841) LENGTH (1)
1125	F00088	ADDRESS. HEX LOCATION (000029A4) IN CSECT (I7841) LENGTH (1)
1171	F00107	ADDRESS. HEX LOCATION (00002BF4) IN CSECT (I7841) LENGTH (1)
1193	F00117	ADDRESS. HEX LOCATION (00002D5C) IN CSECT (I7841) LENGTH (1)
1203	F00167	ADDRESS. HEX LOCATION (00002D9C) IN CSECT (I7841) LENGTH (1)
1215	F00210	ADDRESS. HEX LOCATION (00002E22) IN CSECT (I7841) LENGTH (1)
1221	F00216	ADDRESS. HEX LOCATION (00002E3C) IN CSECT (I7841) LENGTH (1)
1257	F00248	ADDRESS. HEX LOCATION (00002FC6) IN CSECT (I7841) LENGTH (1)
1263	F00251	ADDRESS. HEX LOCATION (00002FDE) IN CSECT (I7841) LENGTH (1)
1291	F00254	ADDRESS. HEX LOCATION (000030C6) IN CSECT (I7841) LENGTH (1)
1309	F00265	ADDRESS. HEX LOCATION (00003198) IN CSECT (I7841) LENGTH (1)
1325	F00276	ADDRESS. HEX LOCATION (0000326C) IN CSECT (I7841) LENGTH (1)
1333	F00320	ADDRESS. HEX LOCATION (000032A0) IN CSECT (I7841) LENGTH (1)
1343	F00322	ADDRESS. HEX LOCATION (000032E6) IN CSECT (I7841) LENGTH (1)
1363	F00340	ADDRESS. HEX LOCATION (000033E6) IN CSECT (I7841) LENGTH (1)
1367	F00382	ADDRESS. HEX LOCATION (000033EC) IN CSECT (I7841) LENGTH (1)
1385	F00389	ADDRESS. HEX LOCATION (000034BE) IN CSECT (I7841) LENGTH (1)
1281	F00407	ADDRESS. HEX LOCATION (0000308C) IN CSECT (I7841) LENGTH (1)
1285	F00409	ADDRESS. HEX LOCATION (00003092) IN CSECT (I7841) LENGTH (1)
3009	HEBLK	ADDRESS. HEX LOCATION (00003F06) IN CSECT (I7841) LENGTH (2)
1522	HTOE	ABSOLUTE. HEX VALUE (0000001A) 2957
2384	IDCBCE1	ADDRESS. HEX LOCATION (00003B04) IN CSECT (I7841) LENGTH (2)
2386	IDCBCE2	ADDRESS. HEX LOCATION (00003B08) IN CSECT (I7841) LENGTH (2)
2388	IDCBRAP	ADDRESS. HEX LOCATION (00003B0C) IN CSECT (I7841) LENGTH (2)
2380	IDCBO	ADDRESS. HEX LOCATION (00003AFC) IN CSECT (I7841) LENGTH (2)
2382	IDCB1	ADDRESS. HEX LOCATION (00003B00) IN CSECT (I7841) LENGTH (2)
1498	IDLE	ABSOLUTE. HEX VALUE (00000002) 1811 1935 2706
1429	IN	ABSOLUTE. HEX VALUE (00000023) 2692 2704 2823
2883	INTBL	ADDRESS. HEX LOCATION (00003D60) IN CSECT (I7841) LENGTH (2)
2780	INTER	ADDRESS. HEX LOCATION (00003CC8) IN CSECT (I7841) LENGTH (2)

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DECLARED	NAME	ATTRIBUTES AND REFERENCES
2789	INTES	2885 ADDRESS. HEX LOCATION(00003CE0) IN CSECT(I7841) LENGTH(2)
2793	INTET	2784 ADDRESS. HEX LOCATION(00003CE8) IN CSECT(I7841) LENGTH(2)
2820	INTOK	2790 ADDRESS. HEX LOCATION(00003CEC) IN CSECT(I7841) LENGTH(2)
66	INTRNL	2884 ABSOLUTE. HEX VALUE(00000000)
2842	INTRX	640 955 ADDRESS. HEX LOCATION(00003D1C) IN CSECT(I7841) LENGTH(2)
2823	INTR1	2837 2840 ADDRESS. HEX LOCATION(00003CF4) IN CSECT(I7841) LENGTH(2)
2828	INTR2	2788 2792 2794 ADDRESS. HEX LOCATION(00003D02) IN CSECT(I7841) LENGTH(1)
2836	INTR3	2825 ADDRESS. HEX LOCATION(00003D10) IN CSECT(I7841) LENGTH(2)
2874	IOBLK	2833 ADDRESS. HEX LOCATION(00003D54) IN CSECT(I7841) LENGTH(2)
2876	IODCB	1653 1733 1735 1802 1855 1932 2693 2923 ADDRESS. HEX LOCATION(00003D58) IN CSECT(I7841) LENGTH(2)
2877	IOMOD	1854 2553 2556 2559 2571 2574 2577 2580 2592 2596 2604 2608 2611 2615 2675 2681 2922 ADDRESS. HEX LOCATION(00003D5A) IN CSECT(I7841) LENGTH(2)
40	I7841	1655 1737 1739 1741 1743 1745 2670 2676 CSECT. START(00002500) LENGTH(6668) ESDID(0)
2242	LGSEC	40 ADDRESS. HEX LOCATION(00003A18) IN CSECT(I7841) LENGTH(2)
2990	LINE1	1638 1665 1666 1825 1836 1838 1953 1974 1976 ADDRESS. HEX LOCATION(00003E2E) IN CSECT(I7841) LENGTH(40)
1449	LSTIO	2961 ADDRESS. HEX LOCATION(000034D0) IN CSECT(I7841) LENGTH(2)
2501	LWSID	2343 2349 2355 2362 2368 2679 2926 ADDRESS. HEX LOCATION(00003B76) IN CSECT(I7841) LENGTH(4)
1426	MI	1650 2004 ABSOLUTE. HEX VALUE(00000020)
2964	MVBUF	2838 ADDRESS. HEX LOCATION(00003DBA) IN CSECT(I7841) LENGTH(2)
62	MX	2968 2971 ABSOLUTE. HEX VALUE(00000204)
1438	NG	627 993 ABSOLUTE. HEX VALUE(0000002C)
1433	NI	2841 ABSOLUTE. HEX VALUE(00000027)
552	N00001	2698 ADDRESS. HEX LOCATION(00002630) IN CSECT(I7841) LENGTH(2)
555	N00002	318 1103 ADDRESS. HEX LOCATION(00002634) IN CSECT(I7841) LENGTH(2)
558	N00003	321 ADDRESS. HEX LOCATION(00002638) IN CSECT(I7841) LENGTH(2)
570	N00004	324 553 ADDRESS. HEX LOCATION(0000264A) IN CSECT(I7841) LENGTH(2)
582	N00005	327 ADDRESS. HEX LOCATION(0000265C) IN CSECT(I7841) LENGTH(2)
585	N00006	330 ADDRESS. HEX LOCATION(00002660) IN CSECT(I7841) LENGTH(2)
597	N00007	333 571 ADDRESS. HEX LOCATION(00002672) IN CSECT(I7841) LENGTH(2)
609	N00008	336 ADDRESS. HEX LOCATION(00002684) IN CSECT(I7841) LENGTH(2)
612	N00009	339 ADDRESS. HEX LOCATION(00002688) IN CSECT(I7841) LENGTH(2)
624	N00010	342 598 ADDRESS. HEX LOCATION(0000269A) IN CSECT(I7841) LENGTH(2)
636	N00011	345 ADDRESS. HEX LOCATION(000026AC) IN CSECT(I7841) LENGTH(2)
642	N00012	348 ADDRESS. HEX LOCATION(000026B8) IN CSECT(I7841) LENGTH(2)
654	N00013	351 625 ADDRESS. HEX LOCATION(000026CA) IN CSECT(I7841) LENGTH(2)
666	N00014	354 ADDRESS. HEX LOCATION(000026DC) IN CSECT(I7841) LENGTH(2)
678	N00015	357 ADDRESS. HEX LOCATION(000026EE) IN CSECT(I7841) LENGTH(2)
690	N00016	360 ADDRESS. HEX LOCATION(00002700) IN CSECT(I7841) LENGTH(2)
702	N00017	363 ADDRESS. HEX LOCATION(00002712) IN CSECT(I7841) LENGTH(2)
714	N00018	366 ADDRESS. HEX LOCATION(00002724) IN CSECT(I7841) LENGTH(2)
726	N00019	369 ADDRESS. HEX LOCATION(00002736) IN CSECT(I7841) LENGTH(2)
738	N00020	372 ADDRESS. HEX LOCATION(00002748) IN CSECT(I7841) LENGTH(2)
747	N00021	375 1106 ADDRESS. HEX LOCATION(00002756) IN CSECT(I7841) LENGTH(2)
756	N00022	378 ADDRESS. HEX LOCATION(00002764) IN CSECT(I7841) LENGTH(2)
759	N00023	381 ADDRESS. HEX LOCATION(00002768) IN CSECT(I7841) LENGTH(2)
762	N00024	384 ADDRESS. HEX LOCATION(0000276C) IN CSECT(I7841) LENGTH(2)
771	N00025	387 739 ADDRESS. HEX LOCATION(0000277A) IN CSECT(I7841) LENGTH(2)
780	N00026	390 ADDRESS. HEX LOCATION(00002788) IN CSECT(I7841) LENGTH(2)
783	N00027	393 ADDRESS. HEX LOCATION(0000278C) IN CSECT(I7841) LENGTH(2)
792	N00028	396 772 ADDRESS. HEX LOCATION(0000279A) IN CSECT(I7841) LENGTH(2)
795	N00029	399 ADDRESS. HEX LOCATION(0000279E) IN CSECT(I7841) LENGTH(2)
804	N00030	402 784 ADDRESS. HEX LOCATION(000027A0) IN CSECT(I7841) LENGTH(2)
807	N00031	405 ADDRESS. HEX LOCATION(000027B0) IN CSECT(I7841) LENGTH(2)
810	N00032	408 796 ADDRESS. HEX LOCATION(000027B4) IN CSECT(I7841) LENGTH(2)
819	N00033	411 763 1109 ADDRESS. HEX LOCATION(000027C2) IN CSECT(I7841) LENGTH(2)
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DECLARED	NAME	ATTRIBUTES AND REFERENCES
822	N00034	417 811 ADDRESS. HEX LOCATION(000027C6) IN CSECT(I7841) LENGTH(2)
834	N00035	420 ADDRESS. HEX LOCATION(000027D8) IN CSECT(I7841) LENGTH(2)
837	N00036	423 823 1112 ADDRESS. HEX LOCATION(000027DC) IN CSECT(I7841) LENGTH(2)
846	N00037	426 ADDRESS. HEX LOCATION(000027EA) IN CSECT(I7841) LENGTH(2)
855	N00038	429 ADDRESS. HEX LOCATION(000027F8) IN CSECT(I7841) LENGTH(2)
858	N00039	432 847 ADDRESS. HEX LOCATION(000027FC) IN CSECT(I7841) LENGTH(2)
861	N00040	435 838 ADDRESS. HEX LOCATION(00002800) IN CSECT(I7841) LENGTH(2)
870	N00041	438 ADDRESS. HEX LOCATION(0000280E) IN CSECT(I7841) LENGTH(2)
873	N00042	441 862 ADDRESS. HEX LOCATION(00002812) IN CSECT(I7841) LENGTH(2)
876	N00043	444 ADDRESS. HEX LOCATION(00002816) IN CSECT(I7841) LENGTH(2)
882	N00044	447 ADDRESS. HEX LOCATION(00002822) IN CSECT(I7841) LENGTH(2)
888	N00045	450 703 ADDRESS. HEX LOCATION(0000282E) IN CSECT(I7841) LENGTH(2)
894	N00046	453 691 ADDRESS. HEX LOCATION(0000283A) IN CSECT(I7841) LENGTH(2)
900	N00047	456 679 ADDRESS. HEX LOCATION(00002846) IN CSECT(I7841) LENGTH(2)
906	N00048	459 667 ADDRESS. HEX LOCATION(00002852) IN CSECT(I7841) LENGTH(2)
912	N00049	462 655 ADDRESS. HEX LOCATION(0000285E) IN CSECT(I7841) LENGTH(2)
918	N00050	465 443 ADDRESS. HEX LOCATION(0000286A) IN CSECT(I7841) LENGTH(2)
924	N00051	468 613 ADDRESS. HEX LOCATION(00002876) IN CSECT(I7841) LENGTH(2)
936	N00052	471 ADDRESS. HEX LOCATION(00002888) IN CSECT(I7841) LENGTH(2)
948	N00053	474 ADDRESS. HEX LOCATION(0000289A) IN CSECT(I7841) LENGTH(2)
951	N00054	477 937 ADDRESS. HEX LOCATION(0000289E) IN CSECT(I7841) LENGTH(2)
957	N00055	480 925 ADDRESS. HEX LOCATION(000028AA) IN CSECT(I7841) LENGTH(2)
960	N00056	483 886 ADDRESS. HEX LOCATION(000028AE) IN CSECT(I7841) LENGTH(2)
963	N00057	486 859 ADDRESS. HEX LOCATION(000028B2) IN CSECT(I7841) LENGTH(2)
975	N00058	489 ADDRESS. HEX LOCATION(000028C4) IN CSECT(I7841) LENGTH(2)
978	N00059	492 964 ADDRESS. HEX LOCATION(000028C8) IN CSECT(I7841) LENGTH(2)
990	N00060	495 ADDRESS. HEX LOCATION(000028DA) IN CSECT(I7841) LENGTH(2)
1002	N00061	498 ADDRESS. HEX LOCATION(000028EC) IN CSECT(I7841) LENGTH(2)
1008	N00062	501 991 ADDRESS. HEX LOCATION(000028F8) IN CSECT(I7841) LENGTH(2)
1017	N00063	504 ADDRESS. HEX LOCATION(00002906) IN CSECT(I7841) LENGTH(2)
1019	N00064	507 1009 ADDRESS. HEX LOCATION(00002908) IN CSECT(I7841) LENGTH(2)
1031	N00065	510 ADDRESS. HEX LOCATION(0000291A) IN CSECT(I7841) LENGTH(2)
1034	N00066	513 ADDRESS. HEX LOCATION(0000291E) IN CSECT(I7841) LENGTH(2)
1037	N00067	516 1032 ADDRESS. HEX LOCATION(00002922) IN CSECT(I7841) LENGTH(2)
1040	N00068	519 920 ADDRESS. HEX LOCATION(00002926) IN CSECT(I7841) LENGTH(2)
1049	N00069	522 ADDRESS. HEX LOCATION(00002934) IN CSECT(I7841) LENGTH(2)
1051	N00070	525 1041 ADDRESS. HEX LOCATION(00002936) IN CSECT(I7841) LENGTH(2)
1057	N00071	528 979 ADDRESS. HEX LOCATION(00002942) IN CSECT(I7841) LENGTH(2)
1069	N00072	531 ADDRESS. HEX LOCATION(00002954) IN CSECT(I7841) LENGTH(2)
1081	N00073	534 ADDRESS. HEX LOCATION(00002966) IN CSECT(I7841) LENGTH(2)
1084	N00074	537 1070 ADDRESS. HEX LOCATION(0000296A) IN CSECT(I7841) LENGTH(2)
1087	N00075	540 1058 ADDRESS. HEX LOCATION(0000296E) IN CSECT(I7841) LENGTH(2)
61	OF	ABSOLUTE. HEX VALUE(00000202)
60	ON	573 600 939 1072 ABSOLUTE. HEX VALUE(00000200)
1391	OPTN1	561 588 615 645 657 669 681 693 705 717 729 825 927 966 981 1022 1060 ADDRESS. HEX LOCATION(000034C4) IN CSECT(I7841) LENGTH(2)
1414	OPTN3	1630 1727 1798 1922 2782 2822 ADDRESS. HEX LOCATION(000034C8) IN CSECT(I7841) LENGTH(2)
104	PARMARA	2863 2917 ADDRESS. HEX LOCATION(0000196E) IN CSECT(I7841) LENGTH(1)
2243	PHYSC	560 580 595 607 622 634 652 664 676 688 700 712 724 736 745 754 769 778 790 802 817 832 844 853 868 934 946 973 988 1000 1015 1029 1047 1067 1079 ADDRESS. HEX LOCATION(00003A1A) IN CSECT(I7841) LENGTH(2)
72	PID	1640 1641 1642 1643 1827 1965 1985 1986 1987 1988 2472 2474 2479 ADDRESS. HEX LOCATION(00001800) IN CSECT(I7841) LENGTH(1)
3004	PIDMSG10	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 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 2972 ABSOLUTE. HEX VALUE(0000F1F0)
1508	PREP	2972 ABSOLUTE. HEX VALUE(0000000C)
		1856 2927

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DECLARED	NAME	ATTRIBUTES AND REFERENCES
2196	RDDCB	ADDRESS. HEX LOCATION(000039CA) IN CSECT(I7841) LENGTH(2)
1504	RESET	ABSOLUTE. HEX VALUE(00000008)
1515	RICB	ABSOLUTE. HEX VALUE(00000013)
1505	RID	ABSOLUTE. HEX VALUE(00000009)
2218	RKDCB	ADDRESS. HEX LOCATION(000039EA) IN CSECT(I7841) LENGTH(2)
2128	RSDCB	ADDRESS. HEX LOCATION(0000396A) IN CSECT(I7841) LENGTH(2)
2476	RTO01	ADDRESS. HEX LOCATION(00003B62) IN CSECT(I7841) LENGTH(4)
1454	SCTID	ADDRESS. HEX LOCATION(000034D2) IN CSECT(I7841) LENGTH(2)
2253	SCTST	ADDRESS. HEX LOCATION(00003A2E) IN CSECT(I7841) LENGTH(2)
2152	SKDCB	ADDRESS. HEX LOCATION(0000398A) IN CSECT(I7841) LENGTH(2)
1506	START	ABSOLUTE. HEX VALUE(0000000A)
2298	STATS	ADDRESS. HEX LOCATION(00003A88) IN CSECT(I7841) LENGTH(2)
107	SUPSTAT	ADDRESS. HEX LOCATION(000019C4) IN CSECT(I7841) LENGTH(1)
1661	S11B	ADDRESS. HEX LOCATION(0000359E) IN CSECT(I7841) LENGTH(6)
1680	S11G	ADDRESS. HEX LOCATION(000035DA) IN CSECT(I7841) LENGTH(2)
1669	S11H	ADDRESS. HEX LOCATION(000035BC) IN CSECT(I7841) LENGTH(4)
1639	S11K	ADDRESS. HEX LOCATION(0000353E) IN CSECT(I7841) LENGTH(4)
1679	S11R	ADDRESS. HEX LOCATION(000035D6) IN CSECT(I7841) LENGTH(4)
1636	S11S	ADDRESS. HEX LOCATION(00003532) IN CSECT(I7841) LENGTH(4)
1672	S11WR	ADDRESS. HEX LOCATION(000035C0) IN CSECT(I7841) LENGTH(4)
1826	S20B	ADDRESS. HEX LOCATION(000036B6) IN CSECT(I7841) LENGTH(4)
1836	S20C	ADDRESS. HEX LOCATION(000036DC) IN CSECT(I7841) LENGTH(6)
1841	S20D	ADDRESS. HEX LOCATION(000036EE) IN CSECT(I7841) LENGTH(4)
1811	TO720	ADDRESS. HEX LOCATION(0000367C) IN CSECT(I7841) LENGTH(2)
2474	TT303	ADDRESS. HEX LOCATION(00003B5A) IN CSECT(I7841) LENGTH(6)
2480	TT304	ADDRESS. HEX LOCATION(00003B72) IN CSECT(I7841) LENGTH(4)
2423	TT4Y	ADDRESS. HEX LOCATION(00003B2A) IN CSECT(I7841) LENGTH(2)
95	TUMSGWTR	ADDRESS. HEX LOCATION(000018BA) IN CSECT(I7841) LENGTH(1)
79	TUPARM1	ADDRESS. HEX LOCATION(0000189A) IN CSECT(I7841) LENGTH(1)
101	TURESUL	ADDRESS. HEX LOCATION(000018C8) IN CSECT(I7841) LENGTH(1)
1478	TURTN	ADDRESS. HEX LOCATION(00003502) IN CSECT(I7841) LENGTH(2)
77	TUSTATUS	ADDRESS. HEX LOCATION(00001818) IN CSECT(I7841) LENGTH(1)
78	TUWORK	ADDRESS. HEX LOCATION(0000181A) IN CSECT(I7841) LENGTH(1)
1748	T12A	ADDRESS. HEX LOCATION(00003632) IN CSECT(I7841) LENGTH(2)
1753	T12B	ADDRESS. HEX LOCATION(00003638) IN CSECT(I7841) LENGTH(2)
1755	T12C	ADDRESS. HEX LOCATION(0000363C) IN CSECT(I7841) LENGTH(2)
1757	T12D	ADDRESS. HEX LOCATION(00003640) IN CSECT(I7841) LENGTH(2)
1750	T12E	ADDRESS. HEX LOCATION(00003634) IN CSECT(I7841) LENGTH(4)
1759	T12F	ADDRESS. HEX LOCATION(00003644) IN CSECT(I7841) LENGTH(2)
1808	T20TC	ADDRESS. HEX LOCATION(00003670) IN CSECT(I7841) LENGTH(6)
1810	T20T1	ADDRESS. HEX LOCATION(00003678) IN CSECT(I7841) LENGTH(4)
1809	T20T2	ADDRESS. HEX LOCATION(00003676) IN CSECT(I7841) LENGTH(2)
1487	T3C02	ADDRESS. HEX LOCATION(0000350A) IN CSECT(I7841) LENGTH(6)
1858	T72A	ADDRESS. HEX LOCATION(00003704) IN CSECT(I7841) LENGTH(4)
1859	T72B	ADDRESS. HEX LOCATION(00003708) IN CSECT(I7841) LENGTH(4)
1725	T7812	ADDRESS. HEX LOCATION(000035DE) IN CSECT(I7841) LENGTH(4)
1628	T7834	ADDRESS. HEX LOCATION(00003512) IN CSECT(I7841) LENGTH(4)
1935	T784	ADDRESS. HEX LOCATION(00003740) IN CSECT(I7841) LENGTH(2)
1853	T7872	ADDRESS. HEX LOCATION(000036F2) IN CSECT(I7841) LENGTH(4)
1920	T7884	ADDRESS. HEX LOCATION(0000370C) IN CSECT(I7841) LENGTH(4)
2043	T84A	ADDRESS. HEX LOCATION(000038BA) IN CSECT(I7841) LENGTH(6)
2081	T84AA	ADDRESS. HEX LOCATION(00003924) IN CSECT(I7841) LENGTH(2)
2071	T84B	ADDRESS. HEX LOCATION(00003908) IN CSECT(I7841) LENGTH(2)

CROSS-REFERENCE LISTING

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DECLARED	NAME	ATTRIBUTES AND REFERENCES
2082	T84BB	ADDRESS. HEX LOCATION(00003926) IN CSECT(I7841) LENGTH(2)
2020	T84C	ADDRESS. HEX LOCATION(00003880) IN CSECT(I7841) LENGTH(2)
2014	T84CC	ADDRESS. HEX LOCATION(00003874) IN CSECT(I7841) LENGTH(2)
2017	T84DD	ADDRESS. HEX LOCATION(0000387A) IN CSECT(I7841) LENGTH(2)
2079	T84E	ADDRESS. HEX LOCATION(00003920) IN CSECT(I7841) LENGTH(2)
2085	T84EE	ADDRESS. HEX LOCATION(00003932) IN CSECT(I7841) LENGTH(2)
2024	T84F	ADDRESS. HEX LOCATION(0000388C) IN CSECT(I7841) LENGTH(4)
1945	T84FF	ADDRESS. HEX LOCATION(0000375E) IN CSECT(I7841) LENGTH(4)
2064	T84GG	ADDRESS. HEX LOCATION(000038F6) IN CSECT(I7841) LENGTH(2)
2041	T84H	ADDRESS. HEX LOCATION(000038B6) IN CSECT(I7841) LENGTH(2)
2061	T84HH	ADDRESS. HEX LOCATION(000038F0) IN CSECT(I7841) LENGTH(2)
2036	T84J	ADDRESS. HEX LOCATION(000038B2) IN CSECT(I7841) LENGTH(4)
2046	T84JJ	ADDRESS. HEX LOCATION(000038C8) IN CSECT(I7841) LENGTH(2)
1984	T84K	ADDRESS. HEX LOCATION(000037FA) IN CSECT(I7841) LENGTH(4)
2072	T84KK	ADDRESS. HEX LOCATION(0000390A) IN CSECT(I7841) LENGTH(4)
2067	T84L	ADDRESS. HEX LOCATION(000038FC) IN CSECT(I7841) LENGTH(2)
2078	T84R	ADDRESS. HEX LOCATION(0000391C) IN CSECT(I7841) LENGTH(4)
2087	T84T	ADDRESS. HEX LOCATION(00003936) IN CSECT(I7841) LENGTH(2)
1931	T84TC	ADDRESS. HEX LOCATION(00003730) IN CSECT(I7841) LENGTH(6)
1934	T84T1	ADDRESS. HEX LOCATION(0000373C) IN CSECT(I7841) LENGTH(4)
1932	T84T2	ADDRESS. HEX LOCATION(00003736) IN CSECT(I7841) LENGTH(4)
2049	T84WR	ADDRESS. HEX LOCATION(000038CC) IN CSECT(I7841) LENGTH(4)
1955	T84Z	ADDRESS. HEX LOCATION(00003782) IN CSECT(I7841) LENGTH(6)
1974	T84Z	ADDRESS. HEX LOCATION(000037D0) IN CSECT(I7841) LENGTH(6)
1978	T843	ADDRESS. HEX LOCATION(000037E2) IN CSECT(I7841) LENGTH(6)
1964	T844	ADDRESS. HEX LOCATION(000037AC) IN CSECT(I7841) LENGTH(4)
2185	VRDCB	ADDRESS. HEX LOCATION(000039BA) IN CSECT(I7841) LENGTH(2)
2207	WKDCB	ADDRESS. HEX LOCATION(000039DA) IN CSECT(I7841) LENGTH(2)
2174	WRDCB	ADDRESS. HEX LOCATION(000039AA) IN CSECT(I7841) LENGTH(2)
2246	WRSID	ADDRESS. HEX LOCATION(00003A20) IN CSECT(I7841) LENGTH(2)
2118	WSDCB	ADDRESS. HEX LOCATION(0000395A) IN CSECT(I7841) LENGTH(2)
2250	WSIDT	ADDRESS. HEX LOCATION(00003A28) IN CSECT(I7841) LENGTH(2)
1430	XE	ABSOLUTE. HEX VALUE(00000024)
1428	XI	ABSOLUTE. HEX VALUE(00000022)
2670	XIO	ADDRESS. HEX LOCATION(00003C56) IN CSECT(I7841) LENGTH(4)
2851	XIOCK	ADDRESS. HEX LOCATION(00003D1E) IN CSECT(I7841) LENGTH(2)
2858	XIOCO	ADDRESS. HEX LOCATION(00003D30) IN CSECT(I7841) LENGTH(2)
2675	XIOCS	ADDRESS. HEX LOCATION(00003C60) IN CSECT(I7841) LENGTH(6)
2860	XIOCV	ADDRESS. HEX LOCATION(00003D34) IN CSECT(I7841) LENGTH(2)
2869	XIOCX	ADDRESS. HEX LOCATION(00003D4E) IN CSECT(I7841) LENGTH(4)
2744	XIOER	ADDRESS. HEX LOCATION(00003CBC) IN CSECT(I7841) LENGTH(2)
2679	XIO1	ADDRESS. HEX LOCATION(00003C70) IN CSECT(I7841) LENGTH(4)
2692	XIO2	ADDRESS. HEX LOCATION(00003C96) IN CSECT(I7841) LENGTH(2)
2704	XIO8	ADDRESS. HEX LOCATION(00003CAA) IN CSECT(I7841) LENGTH(2)
65	XTRNL	ABSOLUTE. HEX VALUE(00000001)
2228	ZER00	ADDRESS. HEX LOCATION(000039FA) IN CSECT(I7841) LENGTH(2)

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