

KJ11

STACK LIMIT TEST
MD-11-DCKBF-C

EP-DCKBF-C-DL-B
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DCKBF-C STACK LIMIT REGISTER TEST
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IDENTIFICATION

PRODUCT CODE: MAINDEC-11-DCKBF-C-D
PRODUCT NAME: STACK LIMIT TEST
STANDARD ON 11/45
KJ11-A OPTION ON 11/40
DATE RELEASED: MARCH, 1977
MAINTAINER: DIAGNOSTIC GROUP
AUTHORS: ;JOHN ADAMS

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1.0 ABSTRACT

THIS PROGRAM INCREMENTLY TESTS THE STACK LIMIT FUNCTION.

THE PROGRAM USES THE CONTENTS OF LOCATION 176 AS THE VALUE OF THE SWITCHES IF NO HARDWARE SWITCH REGISTER IS FOUND. THE OPERATOR IS RESPONSIBLE FOR LOADING THE DESIRED VALUE BEFORE STARTING THE PROGRAM. LOCATION 174 WILL BE USED AS THE SOFTWARE DISPLAY REGISTER.

2.0 REQUIREMENTS

2.1 EQUIPMENT

BASIC 11/45 SYSTEM OR
11/40 WITH STACK LIMIT OPTION

2.2 STORAGE

THIS PROGRAM USES 0 THRU 17500

2.3 PRELIMINARY PROGRAMS

DOAA THRU DOMA

3.0 LOADING PROCEDURE

LOAD PROGRAM USING ABS LOADER.

4.0 STARTING PROCEDURE

LOAD ADDRESS 200, PRESS START, THE PROGRAM WILL LOOP AND RING BELL AND PRINT '#' ON PASS COMPLETION.

5.0 OPERATING PROCEDURE

5.1 SWITCH SETTINGS

NONE

5.2 SUBROUTINE ABSTRACTS

5.2.1 SCOPE

SCOPE IS A MOVE PC,R1 AND STORES THE PC+2 IN R1.

5.2.2 HLT

HLT IS A HALT INSTRUCTION.

6.0 ERRORS

ALL ERRORS WILL CAUSE A HALT. TRAP AND INTERRUPT ERRORS WILL CAUSE A HALT AT VECTOR+2.

6.1 ERROR RECOVERY

PRESS CONTINUE TO PROCEED TO NEXT TEST.

6.2 ERROR LOOPING

TO LOOP ON AN ERROR, PLACE A BRANCH TO THE PREVIOUS SCOPE INSTRUCTION IN PLACE OF THE HALT INSTRUCTION. NOTE THAT IF THE ERROR IS INTERMITTANT THAT THE TEST WILL DROP THRU THE HALT AND PROCEED TO THE NEXT TEST. THEREFORE, TO LOOP THE TEST CONTINUOUSLY REPLACE THE BEQ .+4 INSTRUCTION IMMEDIATELY PRECEDING THE HALT WITH A BRANCH BACK TO THE PREVIOUS SCOPE.

TO LOOP ON TRAP FAILURES, PATCH IN THE FOLLOWING ROUTINE AT THE ADDRESS OF THE TRAP VECTOR.

```
TRAPVEC:      TRAPVEC+4
TRAPVEC+2:    0
TRAPVEC+4:    012716      ;MOVE SCOPE ADDRESS TO STACK
TRAPVEC+6:    ADDRESS    ;ADDRESS OF PREVIOUS SCOPE
TRAPVEC+10:   000006    ;RETURN TO TEST AT SCOPE
```

RESTORE ALL LOCATIONS BEFORE PROCEEDING TO NEXT TEST.

7.0 RESTRICTIONS

NONE

8.0 MISCELLANEOUS

ON TRAP ERRORS THE STACK POINTER (R6) WILL CONTAIN ADDRESS WHERE THE TRAP OCCURRED.

8.1 EXECUTION TIME

EACH PROGRAM TAKES ABOUT 1 MINUTE.

9.0 PROGRAM DESCRIPTIONS

THIS IS A TEST OF THE STACK LIMIT REGISTER AND INSURES CORRECT OPERATION OF THE RED AND YELLOW ZONE BOUNDARIES. OVERFLOW TRAPS ARE TESTED FOR ALL VALUES OF THE STACK LIMIT REGISTER.


```

151
152
153
154
155
156
157
158
159
160
161
162
163
164
165
166
167      000000
168      000001
169      000002
170      000003
171      000004
172      000005
173      000006
174      000007
175
176
177      177776
178      177770
179      177570
180      177564
181      177566
182      177570
183      000000
184      022626
185      010701
186      000340
187      000004
188
189      000000
190
191
192      000046
193      000046 002230
194      000052
195      000052 000000
196
197      000174
198      000174 000000
199      000176 000000
200
201      000200
202      000200 000167 000604
203
204      000500
205
206      000500 000000
    
```

```

;TEST DCKBFC- STACK LIMIT REGISTER TEST
;THE STACK LIMIT REGISTER ALLOWS THE 'OVERFLOW' BOUNDARIES TO BE CHANGED.
;FOR EXAMPLE IF THE STACK LIMIT REGISTER IS CLEAR THE BOUNDARY IS AT
;400 (YELLOW ZONE) AND 340 (RED ZONE). IN ALL CASES THE YELLOW ZONE
;BOUNDARY IS AT 400(8) PLUS THE VALUE IN THE STACK LIMIT REGISTER, AND
;THE RED ZONE BEGINS 20(8) WORDS BELOW THE YELLOW ZONE. THIS TEST
;CHECKS THAT THE STACK LIMIT IS 400 GREATER THAN THE CONTENTS OF THE
;STACK LIMIT REGISTER (CORE PERMITTING), AND CHECKS THE LENGTH OF THE
;YELLOW ZONE AND THE BEGINNING OF THE RED ZONE.
    
```

```

;STARTING PROCEDURE
;      LOAD ADDRESS=200
;      PRESS START
;      BELL WILL RING WHEN TEST IS COMPLETE
    
```

```

;EQUATE STATEMENTS
RO=%0
R1=%1
R2=%2
R3=%3
R4=%4
R5=%5
SP=%6
PC=%7
    
```

```

;REGISTER ADDRESSES
PSW=177776
UBREAK=177770
DSWR=177570
TPS=177564
TPB=177566
DDISP=177570
    
```

```

;ADDRESS OF PROCESSOR STATUS WORD
;ADDRESS OF PDP11/45 MICRO BREAK REGISTER
;ADDRESS CONSOLE SWITCH REGISTER
    
```

```

;ADDRESS OF CONSOLE DISPLAY REGISTER
    
```

```

HLT=HALT
POP2=22626
SCOPE=010701
PRTY7=340
ERRVEC=4
    
```

```

;MOVE PC TO R1
;PRIORITY LEVEL 7
;ADDRESS OF ERROR VECTOR
    
```

```

.=0
.=46
$ENDAD
.=52
000000
.=174
DISPREG:0
SWREG: 0
    
```

```

.=200
JMP START
    
```

```

.=500
;TAGS
ICNT: 0
    
```

```

;CONTAINS PASS COUNT
    
```

```

207 000502 000000
208 000504 177570
209 000506 177570
210 000510 000760
211 000512 177774
212 000514 177775
213 000516 000000
214 000520 000000
215
216 001010 001010
217 001010 016706 177474
218 001014 012737 000340 177776
219 001022 023737 000042 000046
220 001030 001500
221 001032 005767 177462
222 001036 001037
223 001040 012700 001064
224 001044 105710
225 001046 001433
226 001050 105767 176510
227 001054 100375
228 001056 112067 176504
229 001062 000770
230 001064 005015 042177 045503
231 001072 043102 041455 020054
232 001100 052123 041501 020113
233 001106 044514 044515 020124
234 001114 042522 044507 052123
235 001122 051105 052040 051505
236 001130 006524 077412 000
237
238 001136 012767 000001 177354
239
240
241 001144 013746 000004
242 001150 012737 001204 000004
243 001156 012767 177570 177320
244 001164 012767 177570 177314
245 001172 022777 177777 177304
246 001200 001012
247
248 001202 000403
249 001204 012716 001212
250 001210 000002
251 001212 012767 000176 177264
252 001220 012767 000174 177260
253 001226 012637 000004
254 001232 005067 177242
255 001236 005767 177240
256 001242 001412
257 001244 022767 177777 000762
258 001252 001006
259 001254 022767 001477 177216
260 001262 001002
261 001264 005067 177212
262

```

```

ICNTA: 0
SWR: DSWR
DISPLAY: DDISP
SPBOT: 760
SLR: 177774
SLH: 177775
TEMP: 0
FTITLE: 0
;ADDRESS OF STACK LIMIT REGISTER
;HIGH (ODD BYTE)
;TITLE PRINTED = 1

START: . =1010
MOV SPBOT,%6 ;INITIALIZE STACK POINTER
MOV #PRTY7,%#PSW ;LOCK OUT INTERRUPTS
CMP #42,%#46 ;ARE WE IN ACT11 AUTOMATIC MODE?
BEQ STARTB ;YES, SKIP THE TITLE
TST FTITLE ;TITLE PRINTED YET?
BNE STARTA ;YES, SKIP TITLE
MOV #TITLE,RO ;GET MESSAGE ADDRESS
IS: TSTB (0) ;END OF MESSAGE?
BEQ STARTA ;YES, GET OVER THE ASCII
TSTB TPS
BPL .-4
MOVB (0)+,TPB ;PRINT CHARACTER
BR IS

TITLE: .ASCIZ <15><12><177>/DCKBF-C, STACK LIMIT REGISTER TEST/<15><12><177>

.EVEN
STARTA: MOV #1,FTITLE ;SET TITLE PRINTED FLAG
;;SIZE FOR A HARDWARE SWITCH REGISTER. IF NOT FOUND OR IT IS
;;EQUAL TO A "-1" SETUP FOR A SOFTWARE SWITCH REGISTER.
MOV #ERRVEC,-(SP) ;SAVE ERROR VECTOR
MOV #645,%ERRVEC ;SET UP ERROR VECTOR
MOV #DSWR,SWR ;SETUP FOR A HARDWARE SWICH REGISTER
MOV #DDISP,DISPLAY ;AND A HARDWARE DISPLAY REGISTER
CMP #-1,%SWR ;TRY TO REFERENCE HARDWARE SWR
BNE 66$ ;BRANCH IF NO TIMEOUT TRAP OCCURRED
;AND THE HARDWARE SWR IS NOT = -1
BR 65$ ;BRANCH IF NO TIMEOUT
64$: MOV #65$,(SP) ;SET UP FOR TRAP RETURN
RTI
65$: MOV #SWREG,SWR ;POINT TO SOFTWARE SWR
MOV #DISPREG,DISPLAY
66$: MOV (SP)+,%ERRVEC ;RESTORE ERROR VECTOR
STARTB: CLR ICNT ;CLEAR PASS COUNT
TST ICNTA
BEQ BEGIN
CMP #-1,SENDAD+4
BNE BEGIN
CMP #1477,ICNT
BNE BEGIN
CLR ICNTA

```



```

263 001270 016706 177214 BEGIN: MOV SPBOT,%6 ;INITIALIZE STACK POINTER
264 001274 016777 177200 177204 MOV ICNT,%DISPLAY ;DISPLAY PASS COUNT
265 001302 032777 000400 177174 BIT #400,%SWR ;LOAD PDP11/45 MICRO BREAK REGISTER?
266 001310 001403 BEQ .+10
267 001312 117737 177166 177770 MOVB %SWR,%UBREAK ;LOAD MICRO BREAK REG WITH SPO-7
268
269 ;CHECK THAT CP CAN TIME OUT TRAP
270 001320 012737 001336 000004 MOV #TORET,%ERRVEC ;LOAD TIMEOUT TRAP VECTOR
271 001326 005037 173000 CLR %173000 ;ADDRESS 173000 ALWAYS TIMES OUT ON
272 ;DATIP/DATO BUS CYCLE
273 001332 000000 HLT ;ERROR! FAILED TO TIME OUT TRAP
274 001334 000755 BR BEGIN ;LOOP TEST
275 001336 022626 TORET: CMP (6)+,(6)+ ;RESTORE THE STACK
276
277 ;TEST THAT THE STACK LIMIT REGISTER CAN BE REFERENCED USING DATI,
278 ;DATIP/DATO
279 001340 010701 TO: SCOPE
280 001342 012767 001364 176434 MOV #TOA,ERRVEC ;LOAD ERROR VECTOR
281 001350 005067 176432 CLR ERRVEC+2
282 001354 017737 177132 177774 MOV %SLR,%177774 ;REFERENCE STACK LIMIT REGISTER
283 001362 000403 BR TOB ;GO TO NEXT TEST
284 001364 022626 TOA: POP2
285 001366 000000 HLT ;ERROR: CANNOT REFERENCE STACK LIMIT REG.
286 001370 000763 BR TO ;LOOP TEST IF ERROR
287
288 ;USING DATI, DATIP/DATOB
289
290 001372 012767 001410 176404 TOB: MOV #TOC,ERRVEC ;LOAD ERROR VECTOR
291 001400 117777 177106 177106 MOVB %SLR,%SLH ;REFERENCE ODD BYTE
292 001406 000403 BR TOD
293 001410 022626 TOC: POP2
294 001412 000000 HLT ;ERROR! CANNOT REFERENCE STACK LIMIT
295 001414 000766 BR TOB ;USING BYTE INSTRUCTION.
296
297 001416 012767 000006 176360 TOD: MOV #6,ERRVEC ;RESTORE ERROR TRAP VECTOR
298 001424 000400 BR T1 ;GO TO NEXT TEST
299
300 ;TEST THAT EACH BIT OF THE STACK LIMIT REGISTER BITS CAN BE SET
301 ;AND CLEARED. THIS TEST ROTATES A BIT THROUGH THE STACK LIMIT REGISTER.
302
303 001426 010701 T1: SCOPE
304 001430 012702 000400 MOV #400,R2 ;LOAD TEST VALUE
305 001434 010277 177052 T1A: MOV R2,%SLR ;LOAD TEST VALUE INTO STACK LIM. REG.
306 001440 017700 177046 MOV %SLR,R0 ;GET RESULT
307 001444 020002 CMP R0,R2 ;CHECK RESULT
308 001446 001401 BEQ .+4 ;BRANCH IF RESULT IS CORRECT
309 001450 000000 HLT ;ERROR! INCORRECT RESULT. R2 HAS CORRECT
310 ;RESULT AND R0 HAS INCORRECT RESULT.
311 001452 005077 177034 CLR %SLR ;CLEAR STACK LIM. REG.
312 001456 017700 177030 MOV %SLR,R0 ;GET AND CHECK RESULT
313 001462 001401 BEQ .+4
314 001464 000000 HLT ;ERROR! INCORRECT RESULT
315 001466 006302 ASL R2 ;SHIFT TEST VALUE
316 001470 103361 BCC T1A ;BRANCH IF NOT DONE
317 001472 000746 BR T2
318 001410 .=1410

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319
320 ;THIS TEST INCREMENTS THE STACK LIMIT REGISTER
321
322 001410 010701 T2: SCOPE
323 001412 005067 177100 CLR TEMP
324 001416 005077 177070 CLR @SLR ;CLEAR STACK LIMIT REGISTER
325 001422 017700 177064 T2A: MOV @SLR,R0 ;GET RESULT
326 001426 020067 177064 CMP R0,TEMP ;CHECK RESULT
327 001432 001401 BEQ .+4
328 001434 000000 HLT ;ERROR! STACK LIM. REG. WAS INCORRECT DATA
329 ;TEMP # CORRECT RESULT
330 001436 105277 177052 INCB @SLH ;INCREMENT VALUE IN STACK LIM. REG.
331 001442 105267 177051 INCB TEMP+1 ;INCREMENT TEST VALUE
332 001446 001365 BNE T2A ;BRANCH IF ALL VALUES NOT TESTED
333
334 ;TEST THAT RESET CLEARS THE STACK LIMIT REGISTER
335
336 001450 010701 T3: SCOPE
337 001452 012777 177777 177032 MOV #-1,@SLR ;PRESET SLR
338 001460 017700 177026 MOV @SLR,R0 ;SAVE SLR
339 001464 022700 177400 CMP #177400,R0 ;CHECK THAT SLR WAS LOADED
340 001470 001401 BEQ .+4
341 001472 000000 HLT ;! SLR FAILED TO LOAD
342 001474 000005 RESET ;RESET CLEARS SLR
343 001476 017700 177010 MOV @SLR,R0 ;GET RESULT OF RESET AND CHECK RESULT
344 001502 001402 BEQ T4 ;GO TO NEXT TEST IF RESET CLEARED SLR
345 001504 000000 HLT ;ERROR! RESET FAILED TO CLEAR SLR
346 001506 000760 BR T3 ;LOOP TEST IF ERROR
347
348 ;TEST THAT THE CLEAR INSTRUCTION CLEARS THE STACK LIMIT REGISTER
349
350 001510 010701 T4: SCOPE
351 001512 112777 177777 176774 MOVB #-1,@SLH ;PRESET ODD BYTE
352 001520 017700 176766 MOV @SLR,R0 ;GET RESULT
353 001524 022700 177400 CMP #177400,R0 ;CHECK RESULT
354 001530 001401 BEQ .+4
355 001532 000000 HLT ;ERROR! SLR DID NOT PRESET
356 001534 005077 176752 CLR @SLR
357 001540 017700 176746 MOV @SLR,R0 ;GET RESULT OF CLEAR & BRANCH IF CLEAR
358 001544 001402 BEQ T5 ;GO TO NEXT TEST
359 001546 000000 HLT ;ERROR! CLR INST FAILED TO CLEAR SLR
360 001550 000757 BR T4 ;LOOP TEST IF ERROR
361
362
363 ;TEST THAT AN OVERFLOW ERROR OCCURS FOR ALL STACK LIMIT REGISTER VALUES.
364 ;(PROVIDED CORE IS AVAILABLE).
365
366 001552 010701 T5: SCOPE
367 001554 012702 000010 MOV #10,R2 ;INITIALIZE STACK VALUE AND
368 001560 012703 177400 MOV #-400,R3 ;STACK LIMIT REGISTER VALUE
369 001564 062702 000400 T5A: ADD #400,R2 ;LOAD NEW STACK VALUE
370 001570 062703 000400 ADD #400,R3 ;AND NEW STACK LIM. REG. VALUE
371 001574 005037 000000 CLR @#0 ;CLEAR ADDRESS 0
372 001600 016706 176704 MOV SPBOT,SP ;INITIALIZE THE STACK POINTER
373 001604 012767 002072 176172 T5B: MOV #LIMX,ERRVEC ;LOAD TIME OUT TRAP
374 001612 016204 177776 MOV -2(2),R4 ;SAVE STACK LOCATIONS

```


| | | | | | | | | |
|-----|--------|--------|--------|--------|------------|---------------|--|---|
| 375 | 001616 | 016205 | 177774 | | MOV | -4(2),R5 | | ;EXIT TEST IF EITHER INST TIMES OUT |
| 376 | 001622 | 012767 | 001646 | 176154 | MOV | #LIMA,ERRVEC | | ;LOAD OVERFLOW VECTOR |
| 377 | 001630 | 010206 | | | MOV | R2,SP | | ;LOAD STACK POINTER |
| 378 | 001632 | 010377 | 176654 | | MOV | R3,@SLR | | ;LOAD STACK LIM. REG. |
| 379 | 001636 | 016666 | 177770 | 177770 | MOV | -10(6),-10(6) | | ;REFERENCE LIMIT ADDRESS |
| 380 | 001644 | 000401 | | | BR | .+4 | | ;SHOULD NOT HAVE TRAPPED |
| 381 | 001646 | 000000 | | | LIMA: HLT | | | ;ERROR! REFERENCE TO LIMIT ADDRESS |
| 382 | | | | | | | | ;CAUSED AN OVERFLOW |
| 383 | 001650 | 010206 | | | MOV | R2,SP | | ;REPOINT STACK POINTER |
| 384 | 001652 | 012767 | 001670 | 176124 | MOV | #LIMB,ERRVEC | | ;REPOINT OVERFLOW VECTOR |
| 385 | 001660 | 016666 | 177766 | 177766 | MOV | -12(6),-12(6) | | ;REFERENCE FIRST 'YELLOW' ADDRESS |
| 386 | 001666 | 000000 | | | HLT | | | ;ERROR! SHOULD HAVE TRAPPED |
| 387 | 001670 | 005737 | 000000 | | LIMB: TST | @#0 | | ;WAS IT 'RED' OVERFLOW? |
| 388 | 001674 | 001401 | | | BEQ | .+4 | | |
| 389 | 001676 | 000000 | | | HLT | | | ;ERROR! A 'RED' OVERFLOW OCCURRED WHEN |
| 390 | | | | | | | | ;A 'YELLOW' ADDRESS WAS REFERENCED. |
| 391 | 001700 | 010206 | | | MOV | R2,SP | | ;REPOINT STACK POINTER |
| 392 | 001702 | 005037 | 000000 | | CLR | @#0 | | ;CLEAR ADDRESS 0 |
| 393 | 001706 | 012767 | 001724 | 176070 | MOV | #LIMC,ERRVEC | | ;REPOINT OVERFLOW VECTOR |
| 394 | 001714 | 016666 | 177730 | 177730 | MOV | -50(6),-50(6) | | ;REFERENCE LAST 'YELLOW' ADDRESS |
| 395 | 001722 | 000000 | | | HLT | | | ;ERROR! SHOULD HAVE TRAPPED |
| 396 | 001724 | 005737 | 000000 | | LIMC: TST | @#0 | | ;WAS IT 'RED' OVERFLOW |
| 397 | 001730 | 001401 | | | BEQ | .+4 | | |
| 398 | 001732 | 000000 | | | HLT | | | ;ERROR! A 'RED' OVERFLOW OCCURRED WHEN |
| 399 | | | | | | | | ;THE LAST 'YELLOW' ADDRESS WAS REFERENCED |
| 400 | 001734 | 005037 | 000000 | | CLR | @#0 | | ;CLEAR ADDRESS 0 |
| 401 | 001740 | 010206 | | | MOV | R2,SP | | ;REPOINT THE STACK POINTER |
| 402 | 001742 | 012767 | 002010 | 176034 | MOV | #LIMD,ERRVEC | | ;REPOINT THE OVERFLOW TRAP |
| 403 | 001750 | 016267 | 177726 | 176540 | MOV | -52(2),TEMP | | ;GET 'RED' LOCATION |
| 404 | 001756 | 005166 | 177726 | | COM | -52(6) | | ;REFERENCE 'RED' ADDRESS |
| 405 | 001762 | 000000 | | | LIMCC: HLT | | | ;ERROR! NO OVERFLOW TRAP WHEN 'RED' ADDRESS |
| 406 | 001764 | 000411 | | | BR | LIMD | | ;WAS REFERENCED |
| 407 | | 002010 | | | | =2010 | | |
| 408 | 002010 | 026267 | 177726 | 176500 | LIMD: CMP | -52(2),TEMP | | ;WAS INSTRUCTION ABORTED? |
| 409 | 002016 | 001401 | | | BEQ | .+4 | | |
| 410 | 002020 | 000000 | | | HLT | | | ;ERROR! COM -52(6) WAS ALLOWED TO CHANGE |
| 411 | | | | | | | | ;A 'RED' ADDRESS. |
| 412 | 002022 | 016762 | 176470 | 177726 | MOV | TEMP,-52(2) | | ;RESTORE 'RED' LOCATION IN ANY EVENT |
| 413 | 002030 | 005706 | | | TST | %6 | | ;WAS STACK POINTER CHANGED TO 0? |
| 414 | 002032 | 001401 | | | BEQ | .+4 | | |
| 415 | 002034 | 000000 | | | HLT | | | ; 'RED' OVERFLOW DID NOT ASSUME NEW STACK |
| 416 | 002036 | 022737 | 001762 | 000000 | CMP | #LIMCC,@#0 | | ;IS RETURN ADDRESS ON NEW STACK? |
| 417 | 002044 | 001401 | | | BEQ | .+4 | | |
| 418 | 002046 | 000000 | | | HLT | | | ;ERROR! RETURN ADDRESS NOT SAVED ON NEW |
| 419 | | | | | | | | ;STACK |
| 420 | 002050 | 005077 | 176436 | | CLR | @SLR | | ;GET READY TO GET NEW VALUES FOR TEST |
| 421 | 002054 | 016706 | 176430 | | MOV | SPBOT,SP | | ;INITIALIZE THE STACK POINTER |
| 422 | 002060 | 010462 | 177776 | | MOV | R4,-2(2) | | ;RESTORE STACK ADDRESS DATA |
| 423 | 002064 | 010562 | 177774 | | MOV | R5,-4(2) | | |
| 424 | 002070 | 000635 | | | BR | T5A | | ;GET NEW VALUES |
| 425 | 002072 | 012767 | 000006 | 175704 | LIMX: MOV | #6,ERRVEC | | ;RESTORE TIME OUT TRAP VECTOR |
| 426 | | | | | | | | |
| 427 | | | | | | | | |
| 428 | 002100 | 005767 | 176376 | | TST | ICNTA | | ;TEST FOR |
| 429 | 002104 | 001013 | | | BNE | END | | |
| 430 | 002106 | 022767 | 177777 | 000120 | CMP | #-1,SENDAD+4 | | ;SCRIPT |

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| | | | | | | | | |
|-----|--------|--------|--------|--------|---------|-------------|---------|----------------------------------|
| 431 | 002114 | 001417 | | | BEQ | DONE | | ;CONDITION |
| 432 | 002116 | 026767 | 175724 | 175716 | CMP | 46,42 | | ;AND |
| 433 | 002124 | 001003 | | | BNE | END | | ;SET |
| 434 | 002126 | 005267 | 176350 | | INC | ICNTA | | ;FLAG |
| 435 | 002132 | 000410 | | | BR | DONE | | |
| 436 | 002134 | 005267 | 176340 | | END: | INC | | |
| 437 | 002140 | 026727 | 176334 | 001500 | CMP | ICNT, #1500 | | ;HAVE 1500 PASSES BEEN COMPLETED |
| 438 | 002146 | 001402 | | | BEQ | DONE | | |
| 439 | 002150 | 000167 | 177114 | | JMP | BEGIN | | |
| 440 | 002154 | 012767 | 000007 | 175404 | DONE: | MOV | #7, TPB | ;RING BELL |
| 441 | 002162 | 105767 | 175376 | | TSTB | TPS | | |
| 442 | 002166 | 100375 | | | BPL | .-4 | | |
| 443 | 002170 | 012767 | 000052 | 175370 | MOV | #52, TPB | | ;PRINT '*' |
| 444 | 002176 | 105767 | 175362 | | TSTB | TPS | | |
| 445 | 002202 | 100375 | | | BPL | .-4 | | |
| 446 | 002204 | 012767 | 000000 | 175354 | MOV | #0, TPB | | ;INSERT |
| 447 | 002212 | 105767 | 175346 | | TSTB | TPS | | ;NULL |
| 448 | 002216 | 100375 | | | BPL | .-4 | | ;CHARACTER |
| 449 | 002220 | 013702 | 000042 | | MOV | #42, %2 | | ;GET MONITOR RETURN ADDRESS |
| 450 | 002224 | 001410 | | | BEQ | DONE1 | | ;DO NOT RETURN IF (42)=0 |
| 451 | 002226 | 000005 | | | RESET | | | |
| 452 | 002230 | 004712 | | | SENDAD: | JSR | 7, (2) | ;RETURN TO MONITOR |
| 453 | 002232 | 000240 | | | NOP | | | ;ACT11 |
| 454 | 002234 | 000240 | | | NOP | | | ;OVERLAY |
| 455 | 002236 | 000240 | | | NOP | | | ;AREA |
| 456 | 002240 | 005000 | | | CLR | RO | | ;DELAY FOR ACT11 |
| 457 | 002242 | 005200 | | | INC | RO | | |
| 458 | 002244 | 001376 | | | BNE | .-2 | | |
| 459 | 002246 | 000167 | 176536 | | DONE1: | JMP | START | ;RESTART |
| 460 | | | | | | | | |
| 461 | | 000001 | | | | .END | | |

L01

DCKBF-C STACK LIMIT REGISTER TEST
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SYMBOL TABLE

| | | | | | | | | | |
|---------|--------|---------|--------|---------|--------|-------|--------|---------|----------|
| BEGIN | 001270 | ICNT | 000500 | SCOPE = | 010701 | TORET | 001336 | T2A | 001422 |
| DDISP = | 177570 | ICNTA | 000502 | SLH | 000514 | TPB = | 177566 | T3 | 001450 |
| DISPLA | 000506 | LIMA | 001646 | SLR | 000512 | TPS = | 177564 | T4 | 001510 |
| DISPRE | 000174 | LIMB | 001670 | SPBOT | 000510 | TO | 001340 | T5 | 001552 |
| DONE | 002154 | LINC | 001724 | START | 001010 | TOA | 001364 | T5A | 001564 |
| DONE1 | 002246 | LIMCC | 001762 | STARTA | 001136 | TOB | 001372 | T5B | 001604 |
| DSMR = | 177570 | LIMD | 002010 | STARTB | 001232 | TOC | 001410 | UBREAK= | 177770 |
| END | 002134 | LIMX | 002072 | SWR | 000504 | TOD | 001416 | SENDAD | 002230 |
| ERRVEC= | 000004 | POP2 = | 022626 | SWREG | 000176 | T1 | 001426 | . | = 002252 |
| FTITLE | 000520 | PRTY7 = | 000340 | TEMP | 000516 | T1A | 001434 | | |
| HLT = | 000000 | PSW = | 177776 | TITLE | 001064 | T2 | 001410 | | |

. ABS. 002252 000

ERRORS DETECTED: 0
DEFAULT GLOBALS GENERATED: 0

DSKZ:DCKBFC,DSKZ:DCKBFC/SOL=DSKZ:DCKBFC.SML,DSKZ:DCKBFC.P11
RUN-TIME: 20 21 .1 SECONDS
RUN-TIME RATIO: 78/42=1.8
CORE USED: 31K (61 PAGES)