

Toggle in test programs PDP8

Program 20

Group 1 Microinstructions

```

200/7200 CLA 0 0000
201/7100 CLL 0 0000
202/7040 CMA 0 7777
203/7020 CML 1 7777
204/7020 CML 0 7777
205/7010 RAR 1 3777
206/7004 RAL 0 7777
207/7012 RTR 1 5777
210/7006 RTL 0 7777
211/7001 IAC 1 0000
212/7001 IAC 1 0001
213/7002 BSW 1 0100
214/7402 HLT 1 0100
    
```

At final HLT AC = 0100

LINK = 1

Program 21

Group 2 Microinstructions

```

200/7300 CLA CLL
201/7440 SZA
202/7402 HLT
203/7430 SZL
204/7402 HLT
205/7020 CML 10000
206/7420 SNL
207/7402 HLT
210/7001 IAC 10001
211/7450 SNA
212/7402 HLT
213/7510 SPA
214/7402 HLT
215/7410 SKP
216/7402 HLT
217/7012 RTR 06000
220/7500 SMA
221/7402 HLT
222/7404 CSR 06001
223/7402 HLT
    
```

SR = 0001

AC = 6001

Program 23 ISZ instructions

```

200/7500
201/3300
202/7001
203/2300
204/5202
205/7440
206/7402
207/7402
    
```

This program should halt at loc 207  
(address reads 0210) AC = 0000

Program 22 Operate instructions

```

200/7240 CLA CMA
201/7001 IAC by 0202
202/7640 SZA, CLA
203/7402 ERROR HLT should not halt
204/7120 Set lnk to 1
205/7010 RAR AC=4000
206/7510 Skip if AC bit 0=0
207/7410 SKP
210/7402 HLT - should not halt
211/7001 IAC +1
212/7002 BSW AC=0140
213/1202 Add 7640 to 0140
214/7420 Skp if lnk=1
215/7402 HLT on error
216/7402 GOOD HLT AC=0000
    
```

This program should halt at loc 216  
(Address reads 0216) AC = 0000

Program 24 JMS instruction test

200/ 7300 Clear AC Clear link  
 201/ 3300 Zero pass counter  
 202/ 3204 Zero entry  
 203/ 4204 JMS  
 204/ 0000 Return addr. written here  
 205/ 1204 Get return addr.  
 206/ 7041 Complement and index AC  
 207/ 1215 Add to known good addr.  
 210/ 7440 SKP on AC=0  
 211/ 7402 Error halt  
 212/ 2300 Inc pass counter  
 213/ 5202 do again  
 214/ 7402 Good HLT  
 215/ 0204 constant

This program should halt at loc 214  
 (address reads 0215) AC = 0000

Program 26 Visible AC increment

200/ 7001  
 201/ 2300  
 202/ 5201  
 203/ 5200  
 Runs endless

Program 27 Checker board

7777/0000  
 0000/7300  
 0001/1007  
 0002/7040  
 0003/3007  
 0004/1007  
 0005/3410  
 0006/5000  
 0007/0000  
 0010/0011

MD alternates between 0000 and 7777  
 Only visible when single stepping  
 Runs endless

Program 25 JMP instruction test

200/ 5210 JMP 210  
 201/ 7402 ERROR HLT  
 202/ 5206 JMP 206  
 203/ 7402 ERROR HLT  
 204/ 5212 JMP 212  
 205/ 7402 ERROR HLT  
 206/ 5204 JMP 204  
 207/ 7402 ERROR HLT  
 210/ 5204 JMP 202  
 211/ 7402 ERROR HLT  
 212/ 2300 LOOP TO DO 4096  
 213/ 5200 START PROG. AGR  
 214/ 7402 GOOD HLT AFTER  
 4096 TIMES

This program should halt at loc 215  
 (address reads 0216)

Program 30 Checker board

0020/ 7300  
 0021/ 7020  
 0022/ 7420  
 0023/ 5025  
 0024/ 5027  
 0025/ 1032  
 0026/ 7410  
 0027/ 1033  
 0030/ 3410  
 0031/ 5021  
 0032/ 5252  
 0033/ 2525  
 0010/ 0035

MD alternates between 5252 and 2525  
 Only visible when single stepping  
 Runs endless

Program 31 Print character  
placed in Switch register

0000/ 7604  
0001/ 6046  
0002/ 6041  
0003/ 5002  
0004/ 5000

Program 32 Console print test

0000/ 7001  
0001/ 6046  
0002/ 6041  
0003/ 5002  
0004/ 5000

Program 33 echo test  
for terminal at 03/04

0000/6032  
0001/6031  
0002/ 5001  
0003/ 6036  
0004/ 6046  
0005/ 6041  
0006/ 5005  
0007/ 5001

Program 34 echo test 1-4  
terminals on KL8A / M8319

200/ 7300  
201 / 1205  
202 / 6412  
203/ 6401  
204/ 5203  
205/ 0210  
206/ 6406  
207/ 5203  
210/ 7000  
211/ 7000  
212/ 7000  
213/ 5206  
214/ 7000  
215/ 7000  
216/ 7000  
217/ 6405  
220/ 6404  
221/ 5203

Program 35 PC04 Punch  
alternating 1's and 0's

200/ 7001  
201 / 6026  
202/ 6021  
203/ 5202  
204/ 5200

Program 36 PC04  
reads the tape

200/ 7300  
201 / 6016  
202/ 6011  
203/ 5202  
204/ 5200