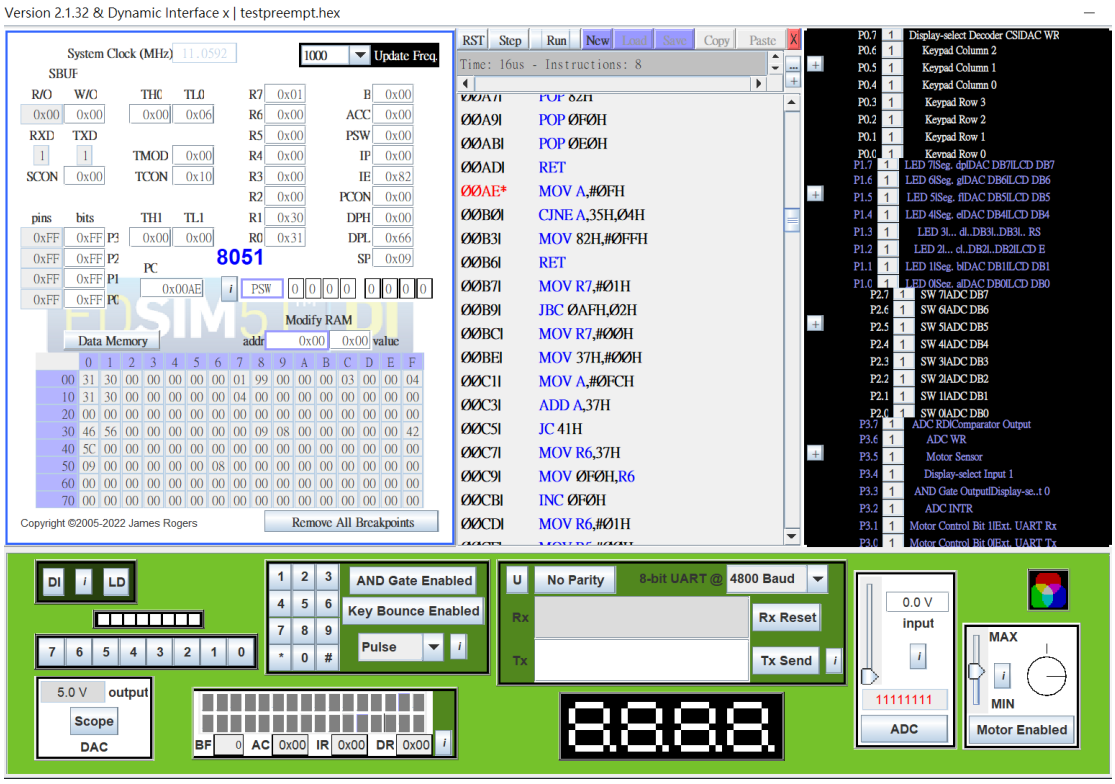
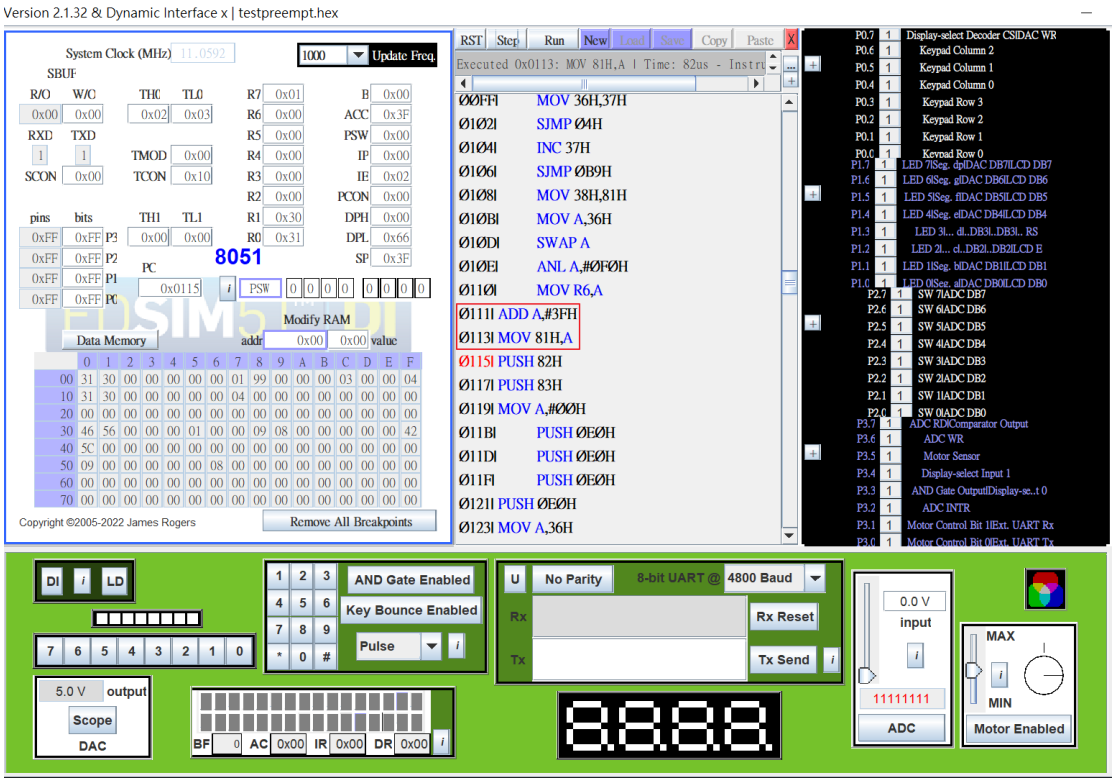
109062318 簡弘哲

1. Stack changes before and after ThreadCreate call

   According to .map file, the address of _ThreadCreate is 00AE, so I set a breakpoint there and SP is 0x09 now

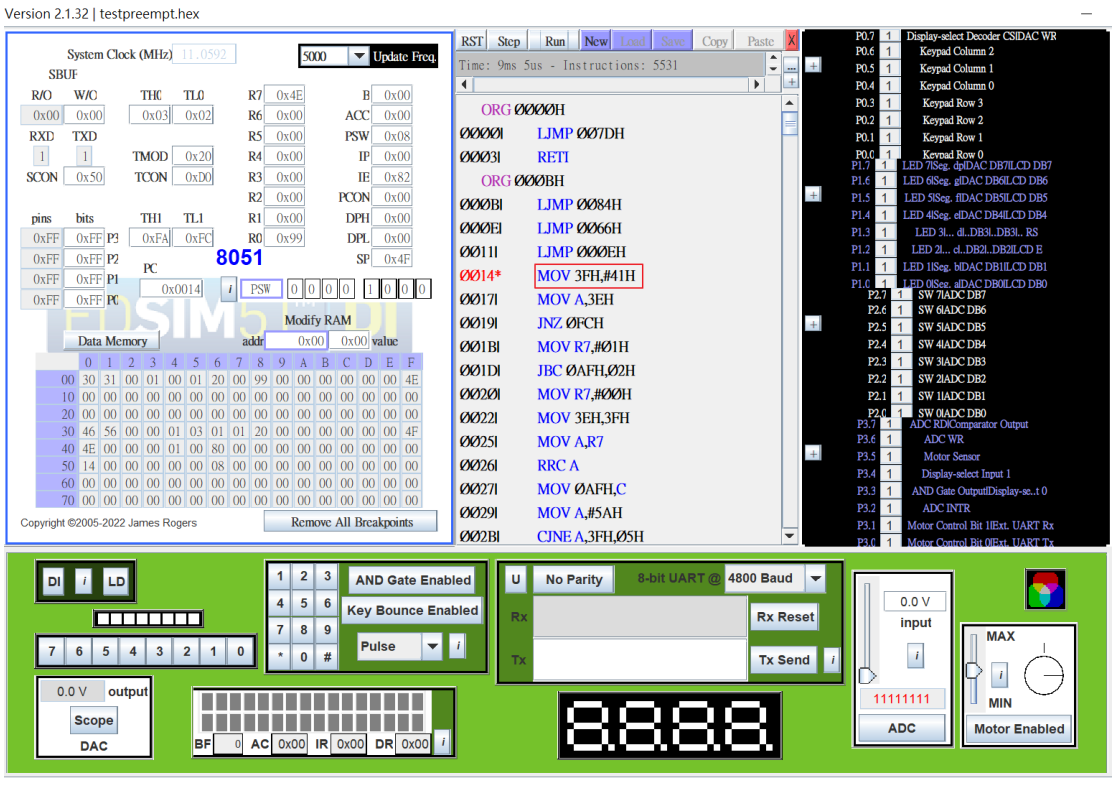


After I press step button several times, I came to the red block part, which change the SP to 0x3F(SP address = 81H)



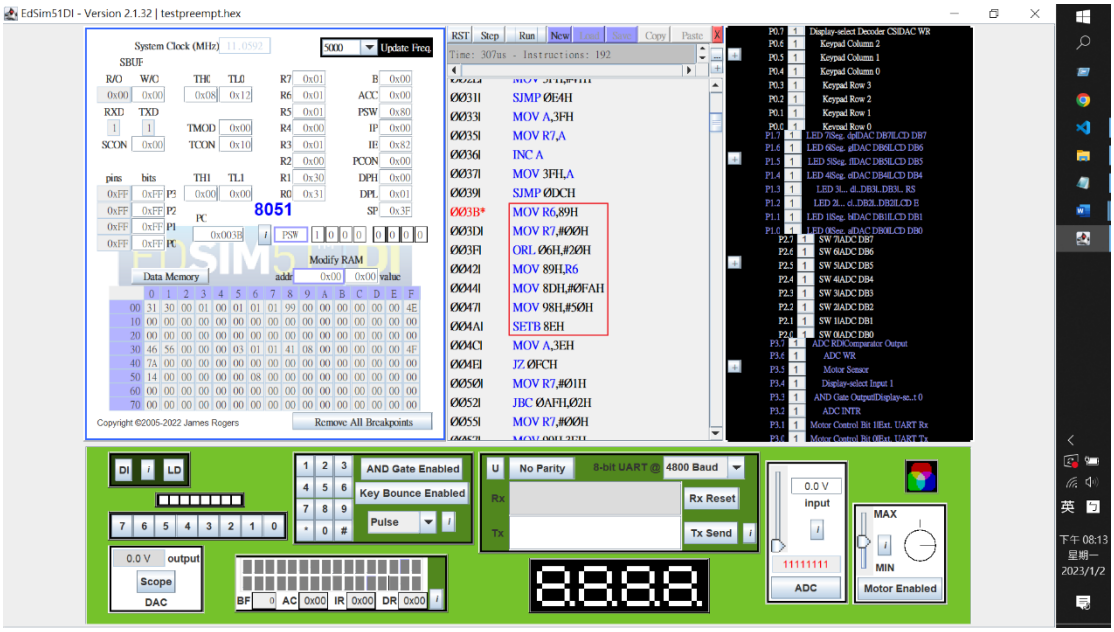
2. Producer running

According to .map file, the address of _Producer is 0014, so I set a breakpoint there, and the red block corresponds to the code that I init the variable ch='A'



3. Consumer running

   According to .map file, the address of _Consumer is 003B, so I set a breakpoint there and the red block corresponds to the code that I initialize TMOD, TH1,…



4. Interrupt triggering

   We can observe TH0,TL0 since T0 is for preemption. We have “TMOD |= 0x20” in Consumer, which choose mode 2(8-bit auto reload) for timer

5. Typescript

```
daneil@MS-DanielNB:/mnt/d/Profile/Daniel/OneDrive/桌面/OS Project/Checkpoint 2$ make clean
rm *.hex *.ihx *.lnk *.lst *.map *.mem *.rel *.rst *.sym
rm: cannot remove '*.ihx': No such file or directory
rm: cannot remove '*.lnk': No such file or directory
make: *** [Makefile:25: clean] Error 1
daneil@MS-DanielNB:/mnt/d/Profile/Daniel/OneDrive/桌面/OS Project/Checkpoint 2$ make
sdcc -c  testpreempt.c
testpreempt.c:24: warning 158: overflow in implicit constant conversion
sdcc -c  preemptive.c
preemptive.c:82: warning 85: in function ThreadCreate unreferenced function argument : 'fp'
sdcc  -o testpreempt.hex testpreempt.rel preemptive.rel
```