

Experiment - VI

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1 Aim:

Write a program using 8085 & test for typical data for converting BCD to HEX.

2 Code

```
# ORG D050H
# DB 35
# ORG C000H
    MVI A,35
    STA D050
    XRA A
    LDA D050H
    MOV B,A
    ANI 0F
    MOV C,A
    MOV A,B
    ANI F0
    RRC
    RRC
    RRC
    RRC
    MOV D,A
    MVI E,0A
    XRA A

LOOP:  ADD D
        DCR E
        JNZ LOOP

        ADD C
        STA D051H
        HLT
```

3 Observations:

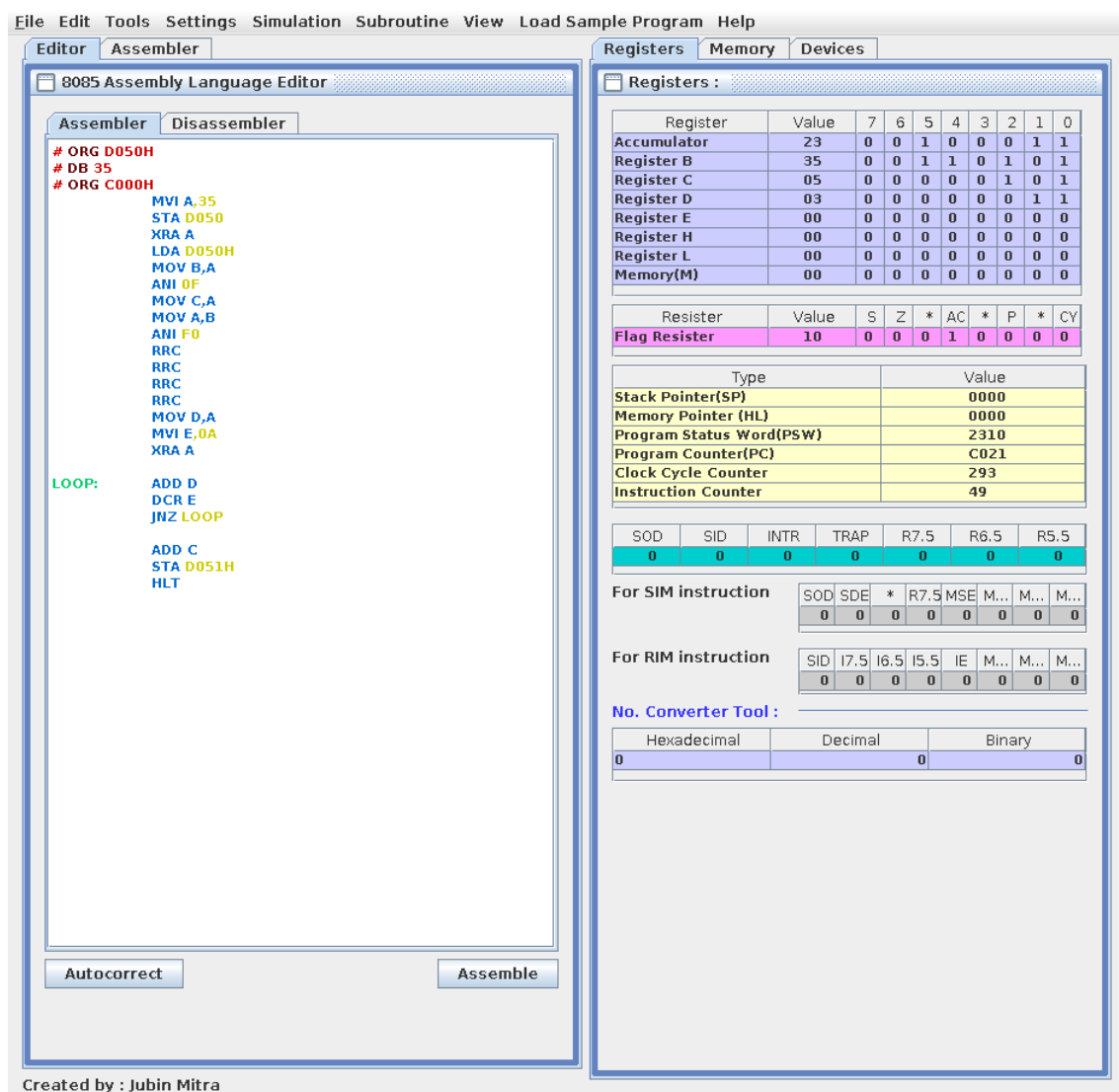


Figure 1: (a) BCD to HEX

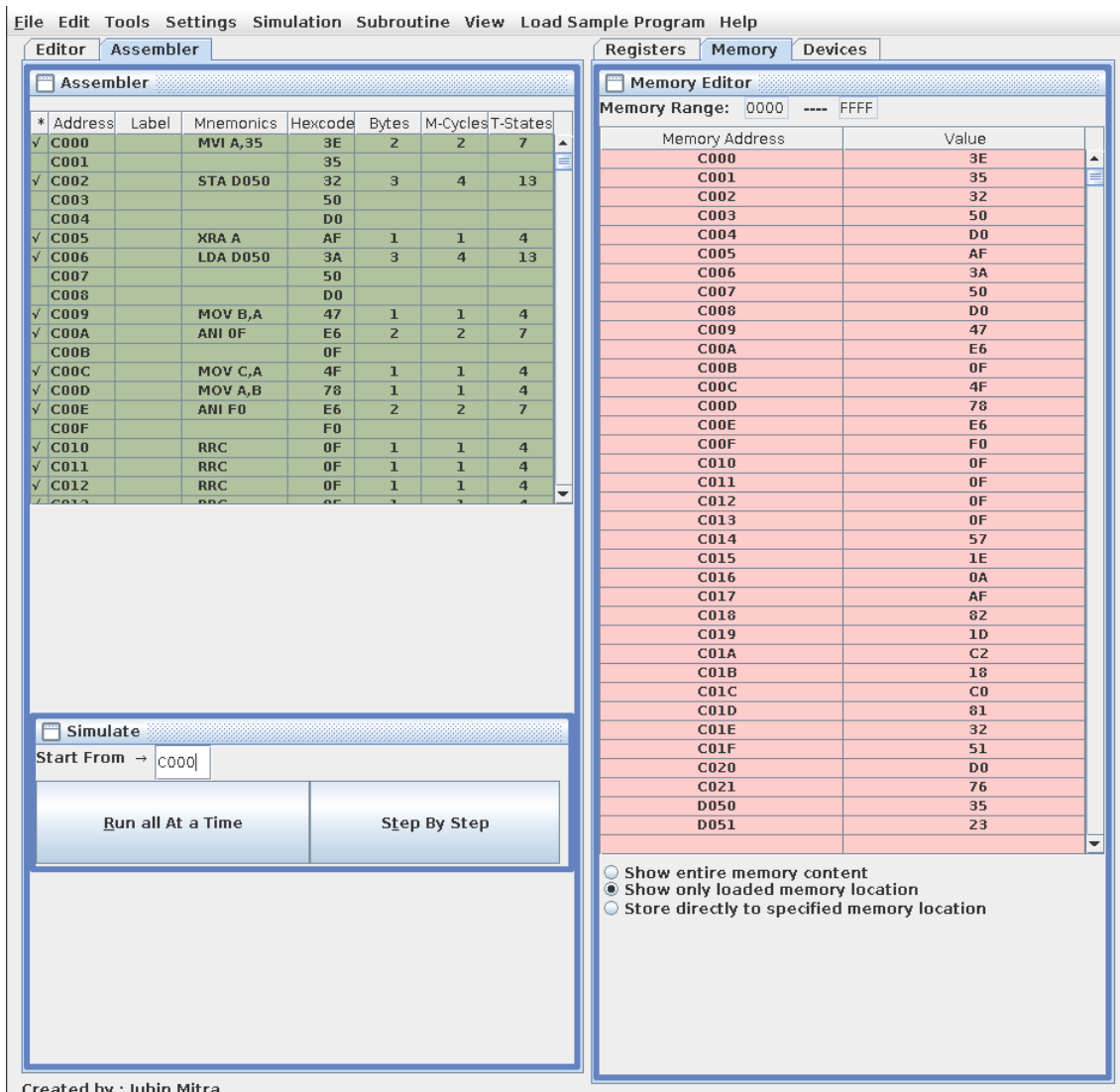


Figure 2: (b) BCD to HEX

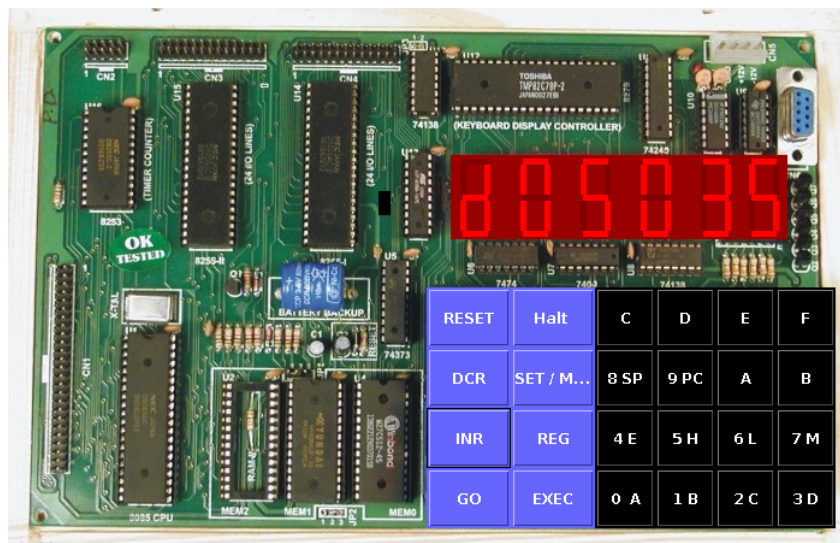


Figure 3: (c) BCD to HEX

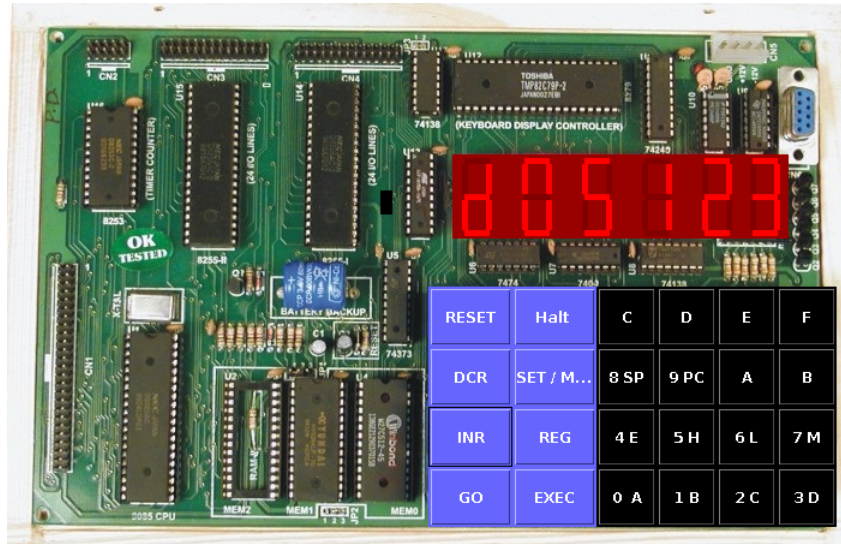


Figure 4: (d) BCD to HEX

4 Conclusion:

Input: $D050 = 35H$
Output: $D051 = 23H$

Hence the program for bcd to hex conversion of a 8-bit numbers given in [section 2](#) works as expected for 8085 microprocessor.