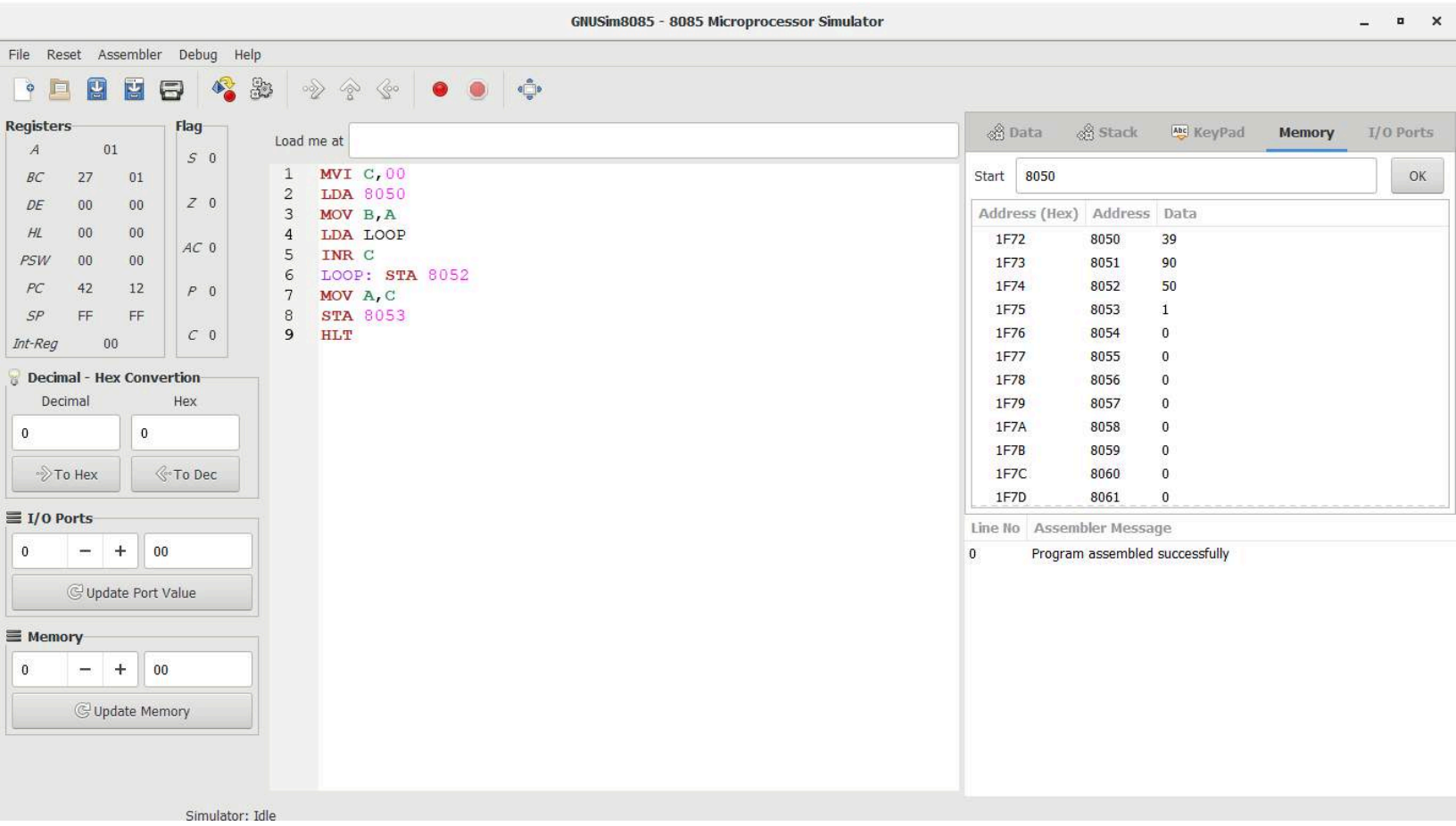

GNUSim8085 - 8085 Microprocessor Simulator
File
Reset
Assembler
Debug
Help
Registers
A 01
BC 27 01
DE 00 00
HL 00 00
PSW 00 00
PC 42 12
SP FF FF
Int-Reg 00
Flag
S 0
Z 0
AC 0
P 0
C 0
Decimal - Hex Convertion
Decimal
Hex
0
0
To Hex
To Dec
I/O Ports
0
00
Update Port Value
Memory
0
00
Update Memory
Load me at
1 MVI C,00
2 LDA 8050
3 MOV B,A
4 LDA LOOP
5 INR C
6 LOOP: STA 8052
7 MOV A,C
8 STA 8053
9 HLT
Data
Stack
KeyPad
Memory
I/O Ports
Start
8050
OK
Address (Hex) Address Data
1F72 8050 39
1F73 8051 90
1F74 8052 50
1F75 8053 1
1F76 8054 0
1F77 8055 0
1F78 8056 0
1F79 8057 0
1F7A 8058 0
1F7B 8059 0
1F7C 8060 0
1F7D 8061 0
Line No Assembler Message
0 Program assembled successfully
Simulator: Idle

GNUSim8085 - 8085 Microprocessor Simulator

File Reset Assembler Debug Help

Registers

A	00	
BC	04	00
DE	00	00
HL	00	00
PSW	00	00
PC	42	1A
SP	FF	FF
Int-Reg	00	

Flag

S 1
Z 0
AC 0
P 0
C 1

Decimal - Hex Convertion

Decimal: 0 — To Hex
Hex: 0 — To Dec

I/O Ports

0 − + 00
Update Port Value

Memory

0 − + 00
Update Memory

Load me at

```
1  LDA 8050
2  MOV B,A
3  LDA 8051
4  MVI C,00
5  LOOP: CMP B
6  JC LOOP1
7  SUB B
8  INR C
9  JMP LOOP
10 LOOP1: STA 8052
11 MOV A,C
12 STA 8053
13 HLT
```

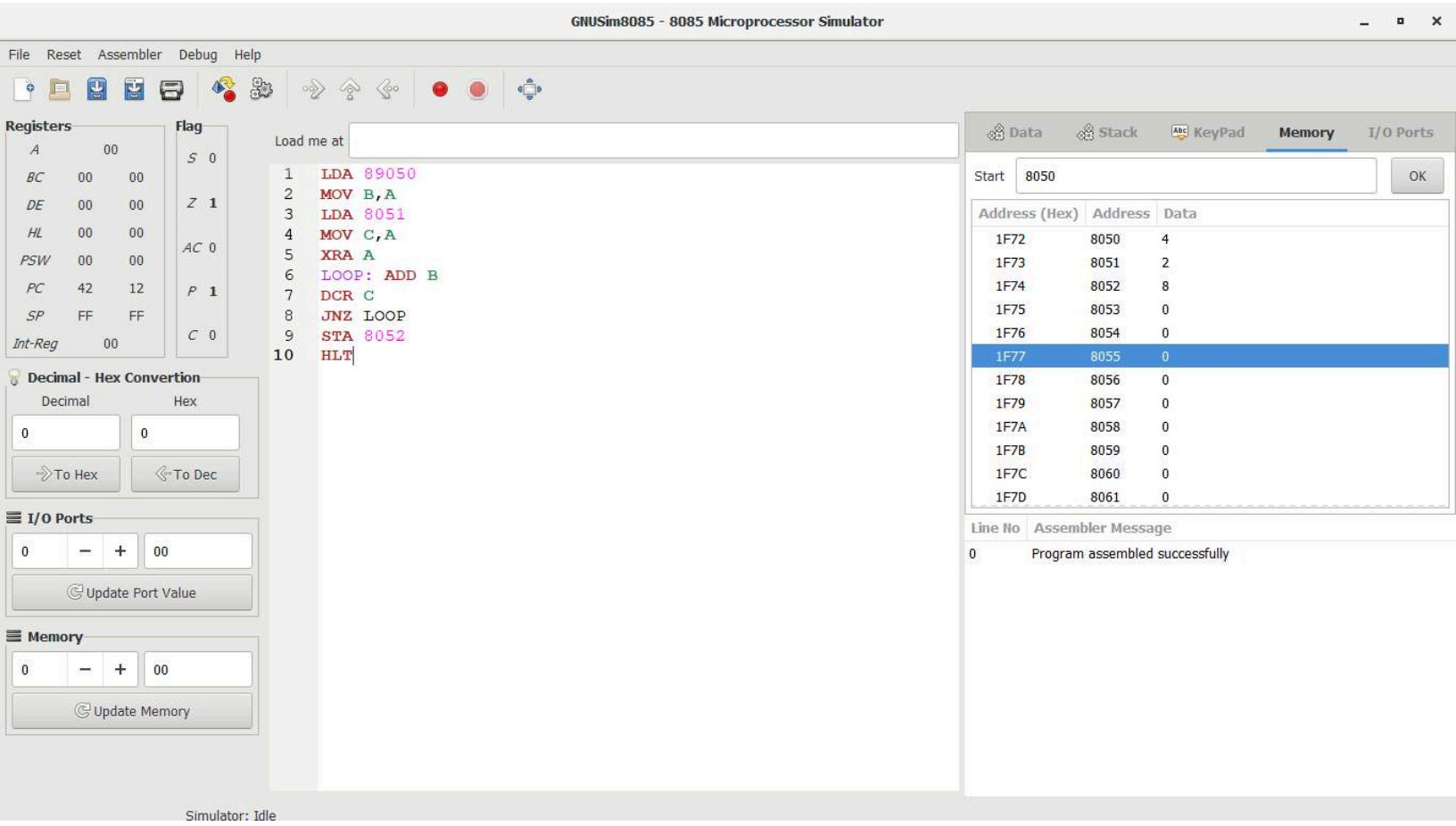
Data | Stack | KeyPad | **Memory** | I/O Ports

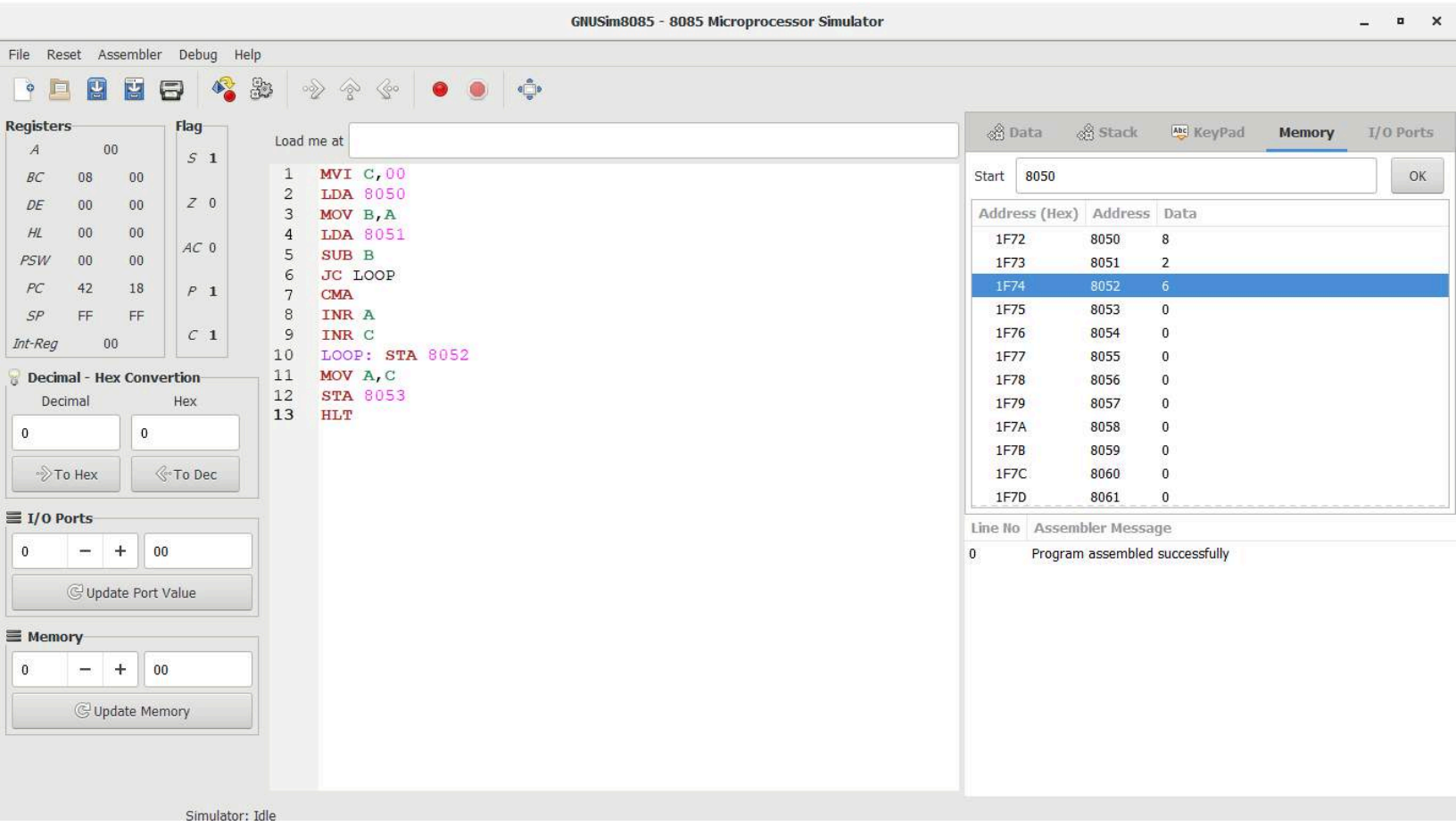
Start 8050 OK

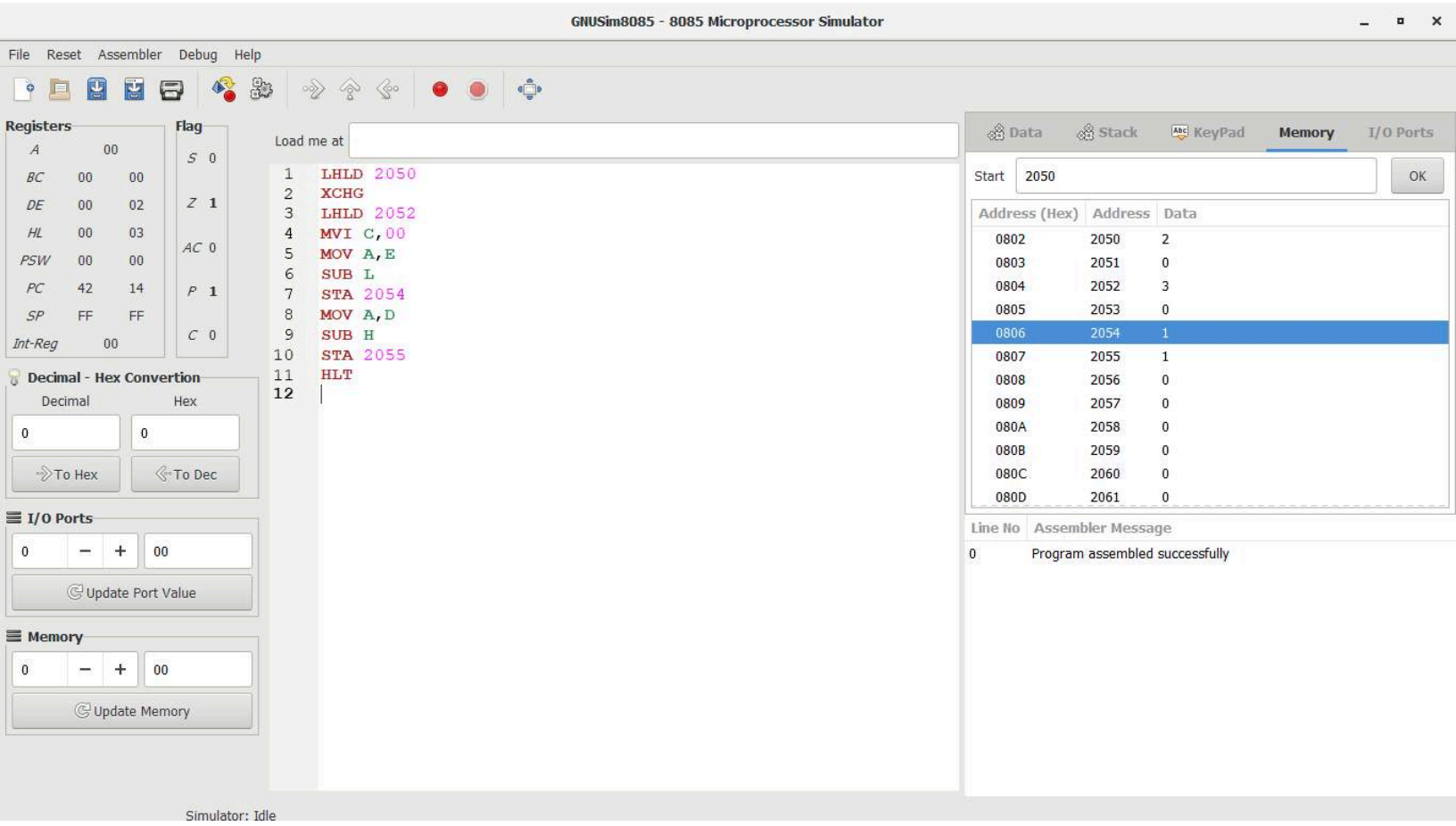
Address (Hex)	Address	Data
1F72	8050	4
1F73	8051	2
1F74	8052	2
1F75	8053	0
1F76	8054	0
1F77	8055	0
1F78	8056	0
1F79	8057	0
1F7A	8058	0
1F7B	8059	0
1F7C	8060	0
1F7D	8061	0

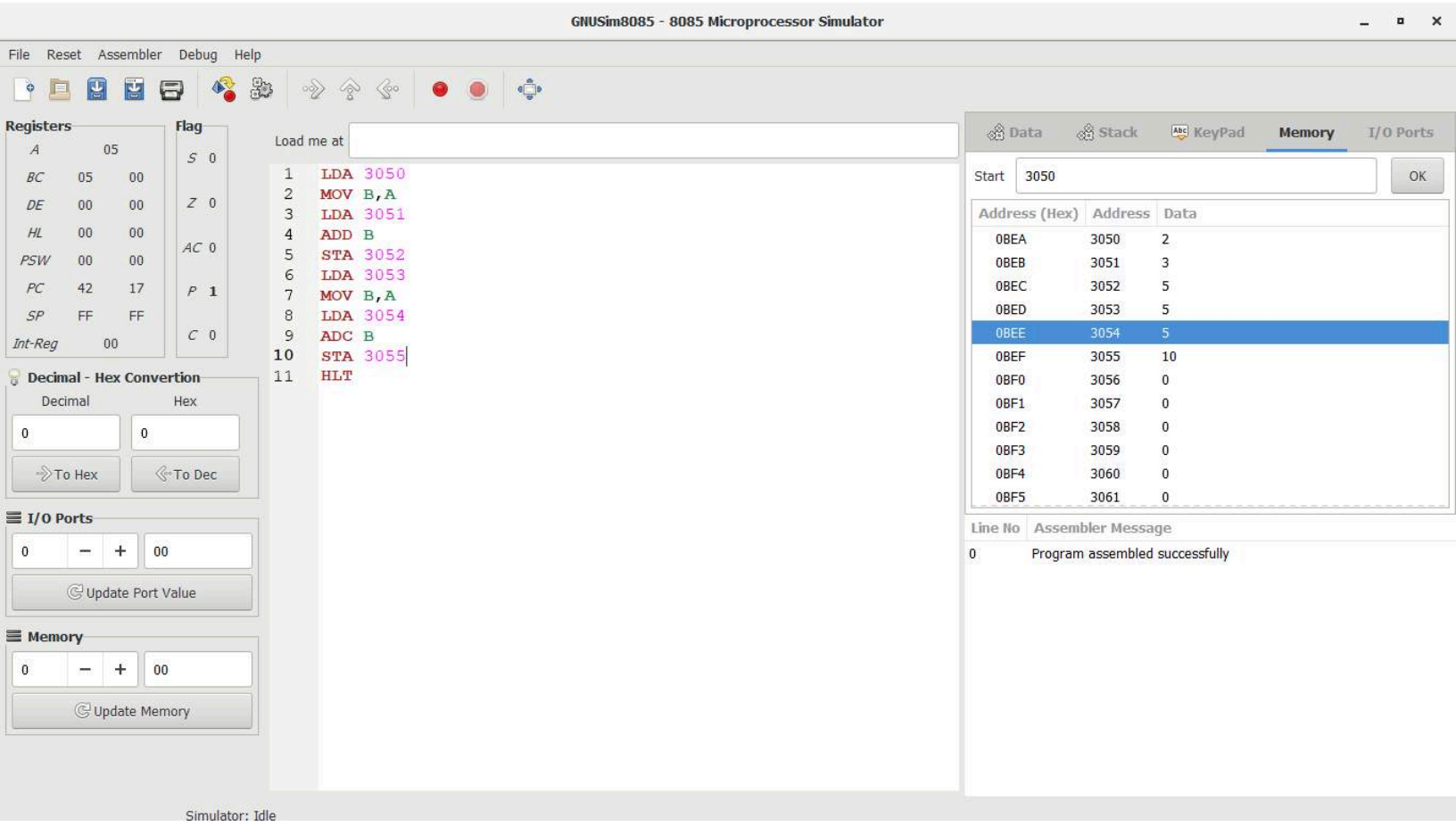
Line No	Assembler Message
0	Program assembled successfully

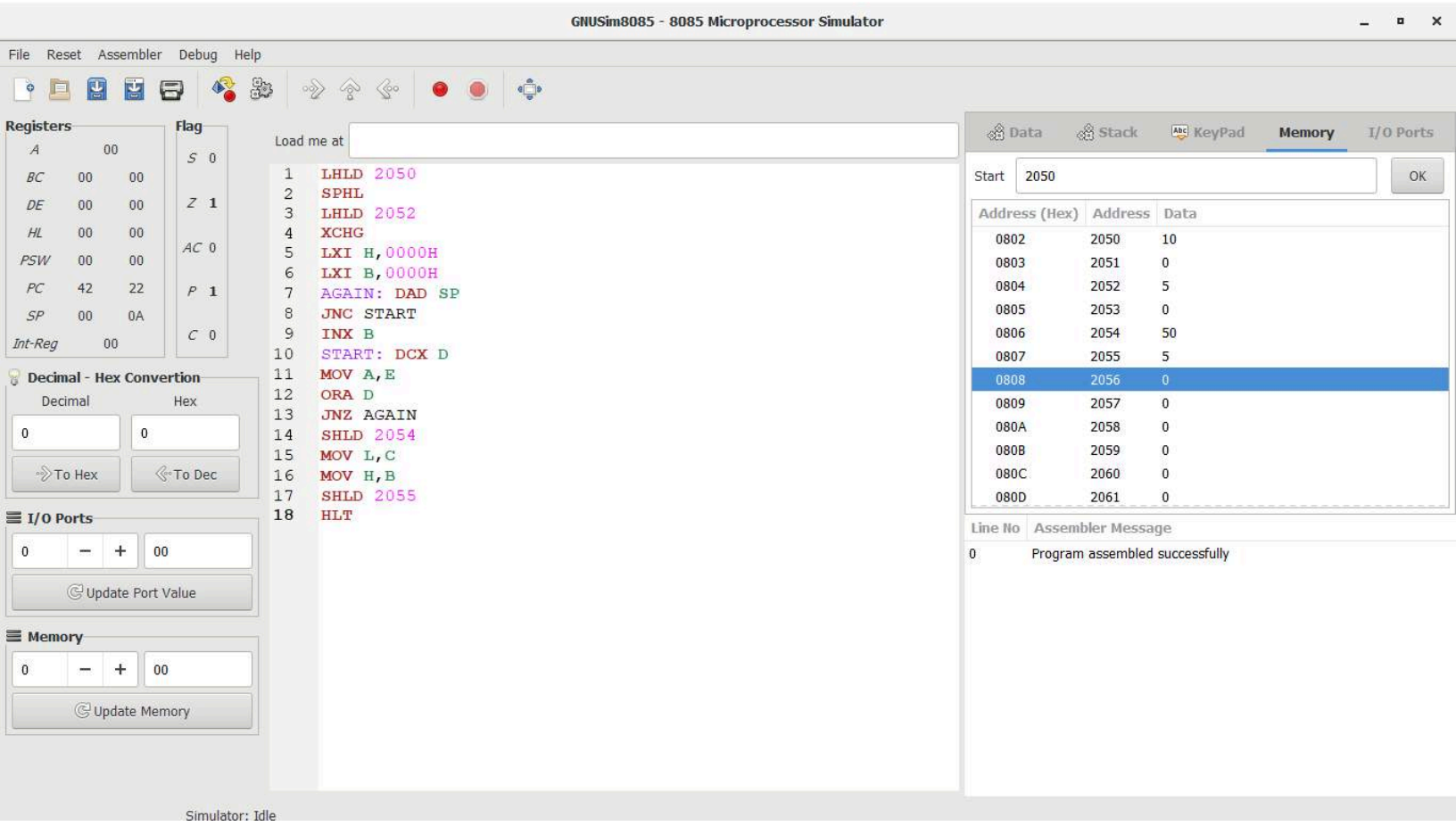
Simulator: Idle

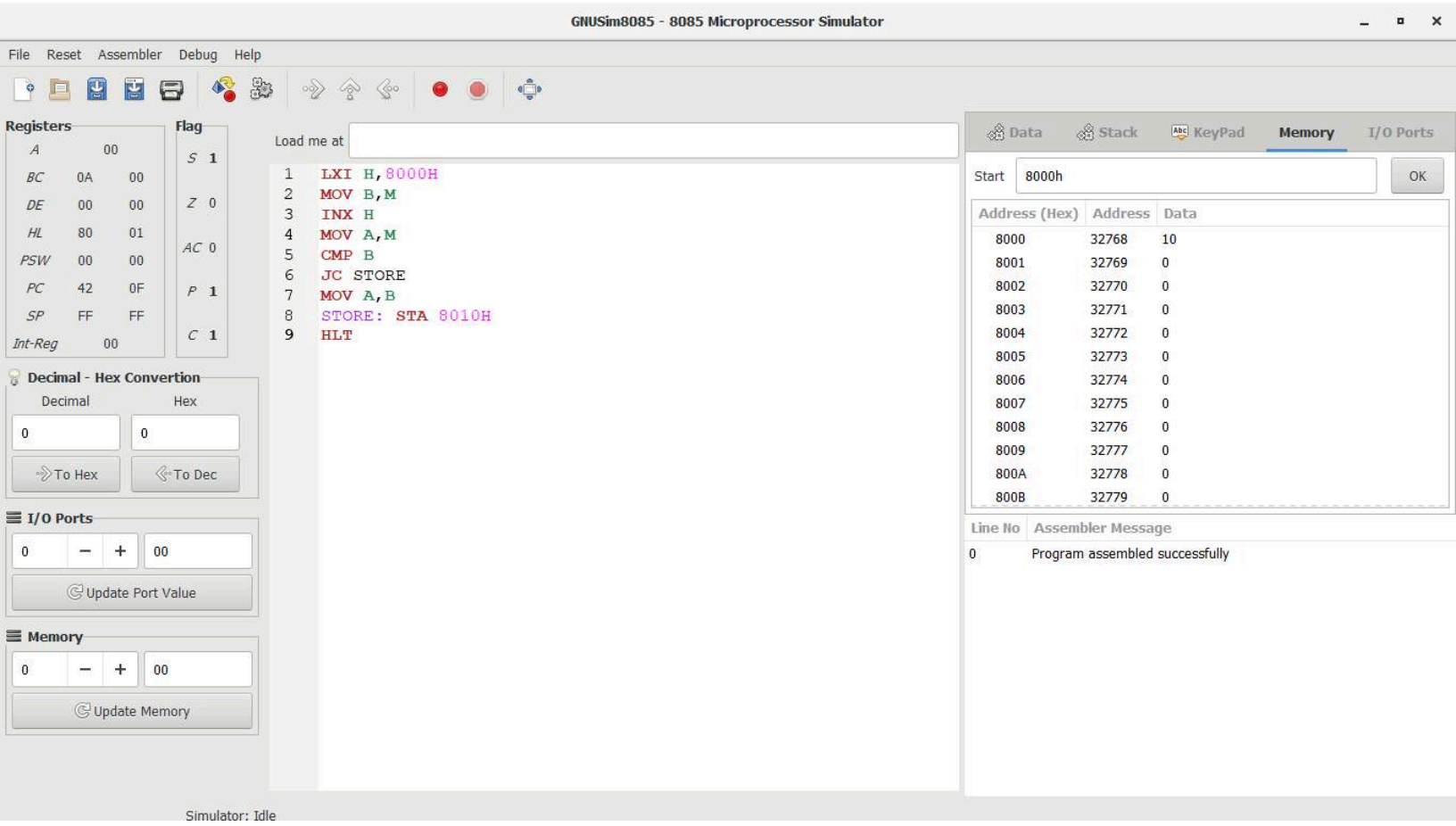

GNUSim8085 - 8085 Microprocessor Simulator
File
Reset
Assembler
Debug
Help
Registers
A 00
BC 00 00
DE 00 00
HL 00 00
PSW 00 00
PC 42 12
SP FF FF
Int-Reg 00
Flag
S 0
Z 1
AC 0
P 1
C 0
Decimal - Hex Convertion
Decimal
Hex
0
0
To Hex
To Dec
I/O Ports
0
00
Update Port Value
Memory
0
00
Update Memory
Load me at
1 LDA 89050
2 MOV B,A
3 LDA 8051
4 MOV C,A
5 XRA A
6 LOOP: ADD B
7 DCR C
8 JNZ LOOP
9 STA 8052
10 HLT
Data
Stack
KeyPad
Memory
I/O Ports
Start
8050
OK
Address (Hex) Address Data
1F72 8050 4
1F73 8051 2
1F74 8052 8
1F75 8053 0
1F76 8054 0
1F77 8055 0
1F78 8056 0
1F79 8057 0
1F7A 8058 0
1F7B 8059 0
1F7C 8060 0
1F7D 8061 0
Line No
Assembler Message
0
Program assembled successfully
Simulator: Idle

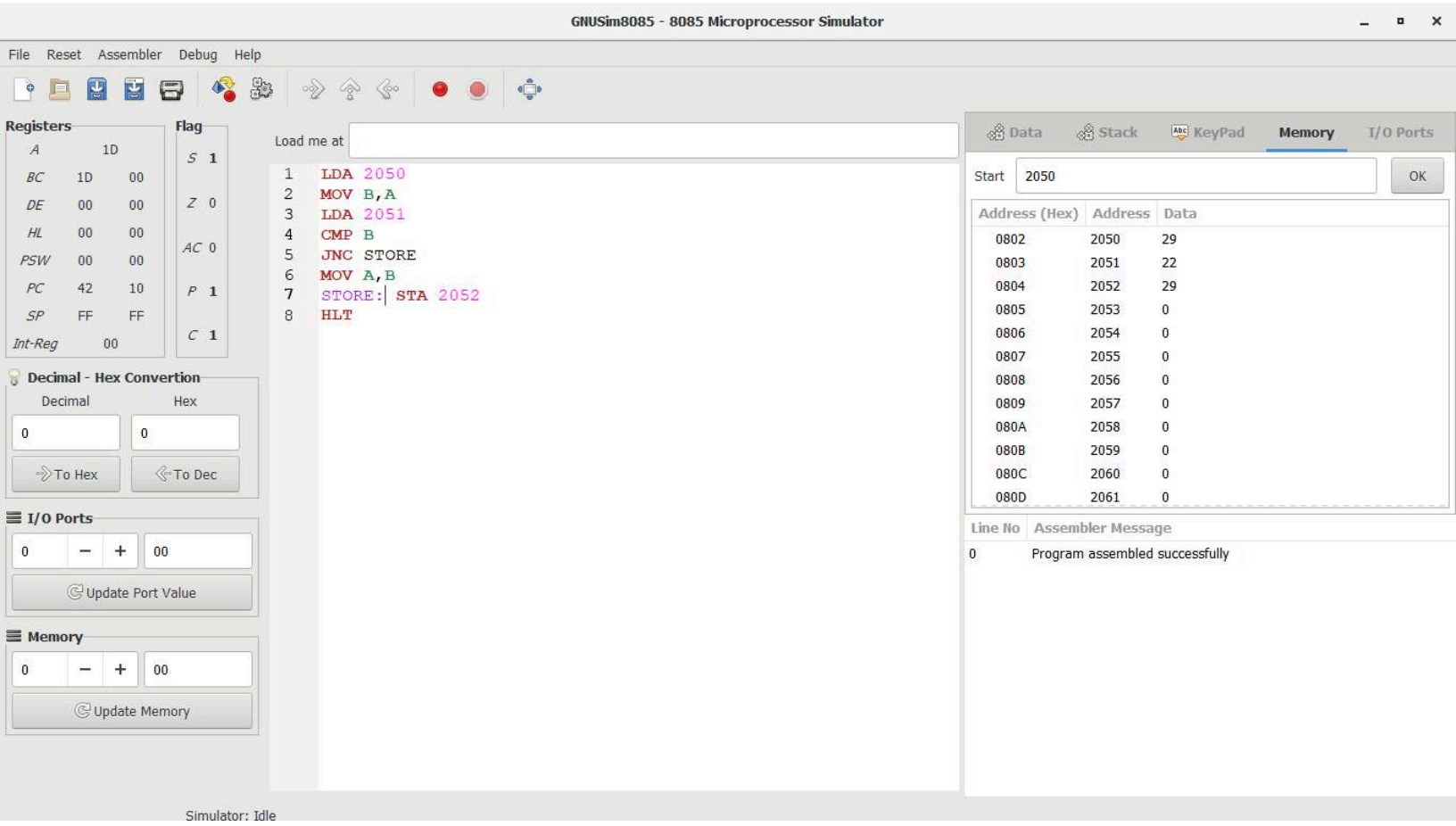

GNUSim8085 - 8085 Microprocessor Simulator
File
Reset
Assembler
Debug
Help
Registers
A 00
BC 08 00
DE 00 00
HL 00 00
PSW 00 00
PC 42 18
SP FF FF
Int-Reg 00
Flag
S 1
Z 0
AC 0
P 1
C 1
Decimal - Hex Convertion
Decimal
Hex
0
0
To Hex
To Dec
I/O Ports
0
00
Update Port Value
Memory
0
00
Update Memory
Load me at
1 MVI C,00
2 LDA 8050
3 MOV B,A
4 LDA 8051
5 SUB B
6 JC LOOP
7 CMA
8 INR A
9 INR C
10 LOOP: STA 8052
11 MOV A,C
12 STA 8053
13 HLT
Data
Stack
KeyPad
Memory
I/O Ports
Start
8050
OK
Address (Hex) Address Data
1F72 8050 8
1F73 8051 2
1F74 8052 6
1F75 8053 0
1F76 8054 0
1F77 8055 0
1F78 8056 0
1F79 8057 0
1F7A 8058 0
1F7B 8059 0
1F7C 8060 0
1F7D 8061 0
Line No
Assembler Message
0
Program assembled successfully
Simulator: Idle

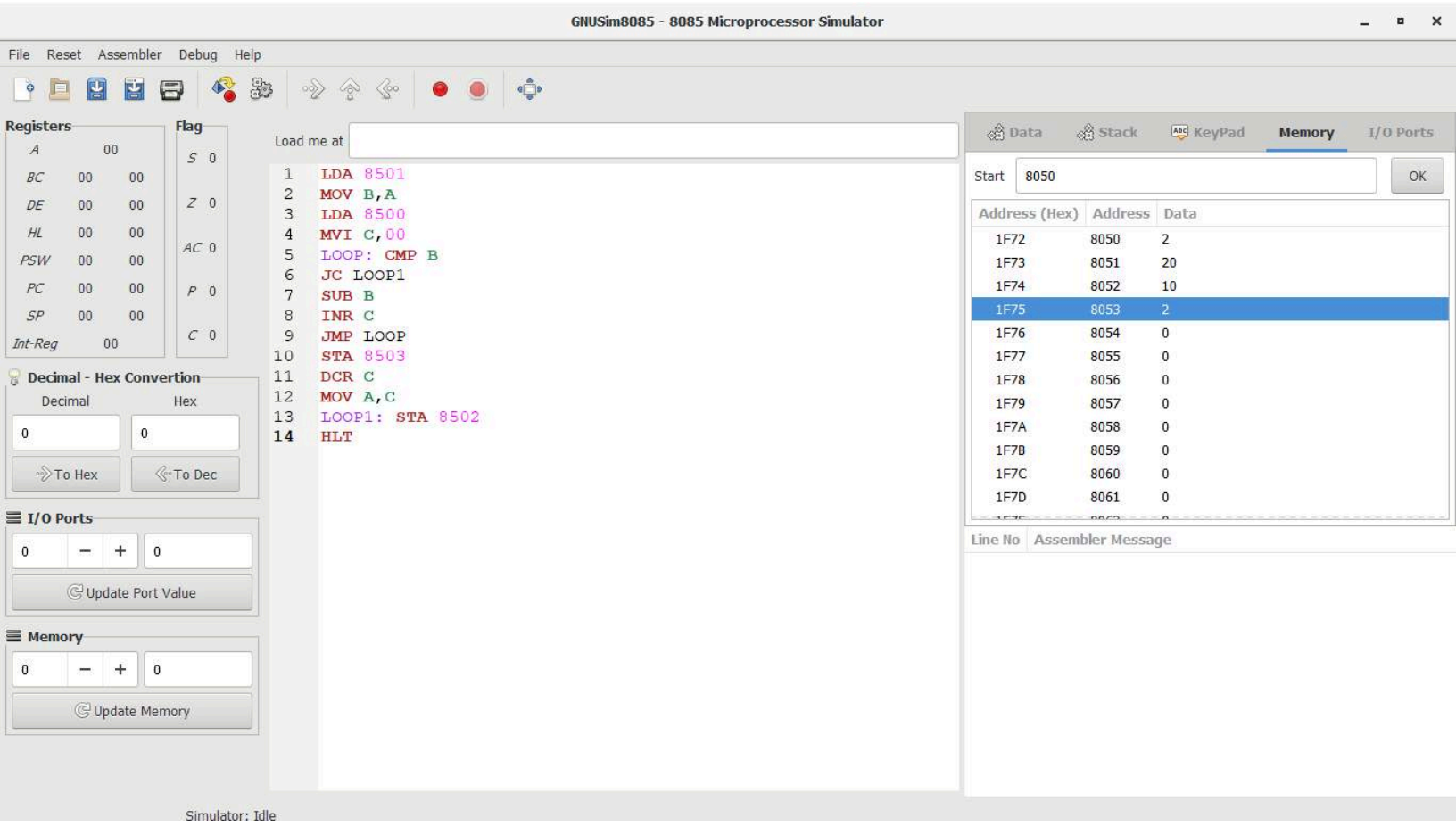

GNUSim8085 - 8085 Microprocessor Simulator
File
Reset
Assembler
Debug
Help
Registers
A 00
BC 00 00
DE 00 02
HL 00 03
PSW 00 00
PC 42 14
SP FF FF
Int-Reg 00
Flag
S 0
Z 1
AC 0
P 1
C 0
Decimal - Hex Convertion
Decimal
Hex
0
0
To Hex
To Dec
I/O Ports
0
00
Update Port Value
Memory
0
00
Update Memory
Load me at
1 LHLD 2050
2 XCHG
3 LHLD 2052
4 MVI C,00
5 MOV A,E
6 SUB L
7 STA 2054
8 MOV A,D
9 SUB H
10 STA 2055
11 HLT
12
Data
Stack
KeyPad
Memory
I/O Ports
Start
2050
OK
Address (Hex) Address Data
0802 2050 2
0803 2051 0
0804 2052 3
0805 2053 0
0806 2054 1
0807 2055 1
0808 2056 0
0809 2057 0
080A 2058 0
080B 2059 0
080C 2060 0
080D 2061 0
Line No Assembler Message
0 Program assembled successfully
Simulator: Idle

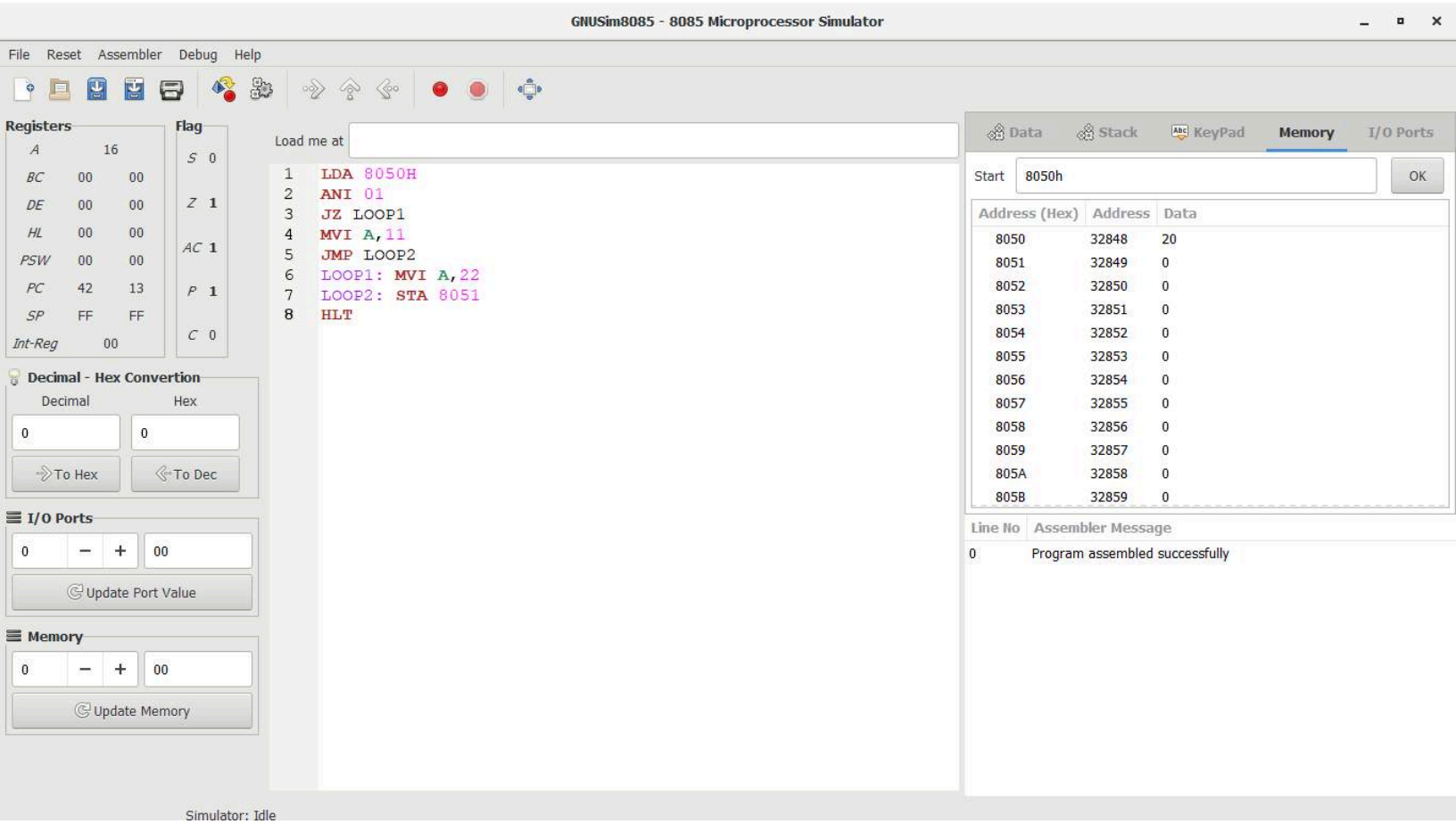

GNUSim8085 - 8085 Microprocessor Simulator
File
Reset
Assembler
Debug
Help
Registers
A 05
BC 05 00
DE 00 00
HL 00 00
PSW 00 00
PC 42 17
SP FF FF
Int-Reg 00
Flag
S 0
Z 0
AC 0
P 1
C 0
Decimal - Hex Convertion
Decimal
Hex
0
0
To Hex
To Dec
I/O Ports
0
00
Update Port Value
Memory
0
00
Update Memory
Load me at
1 LDA 3050
2 MOV B,A
3 LDA 3051
4 ADD B
5 STA 3052
6 LDA 3053
7 MOV B,A
8 LDA 3054
9 ADC B
10 STA 3055
11 HLT
Data
Stack
KeyPad
Memory
I/O Ports
Start
3050
OK
Address (Hex)
Address
Data
0BEA 3050 2
0BEB 3051 3
0BEC 3052 5
0BED 3053 5
0BEE 3054 5
0BEF 3055 10
0BF0 3056 0
0BF1 3057 0
0BF2 3058 0
0BF3 3059 0
0BF4 3060 0
0BF5 3061 0
Line No
Assembler Message
0
Program assembled successfully
Simulator: Idle

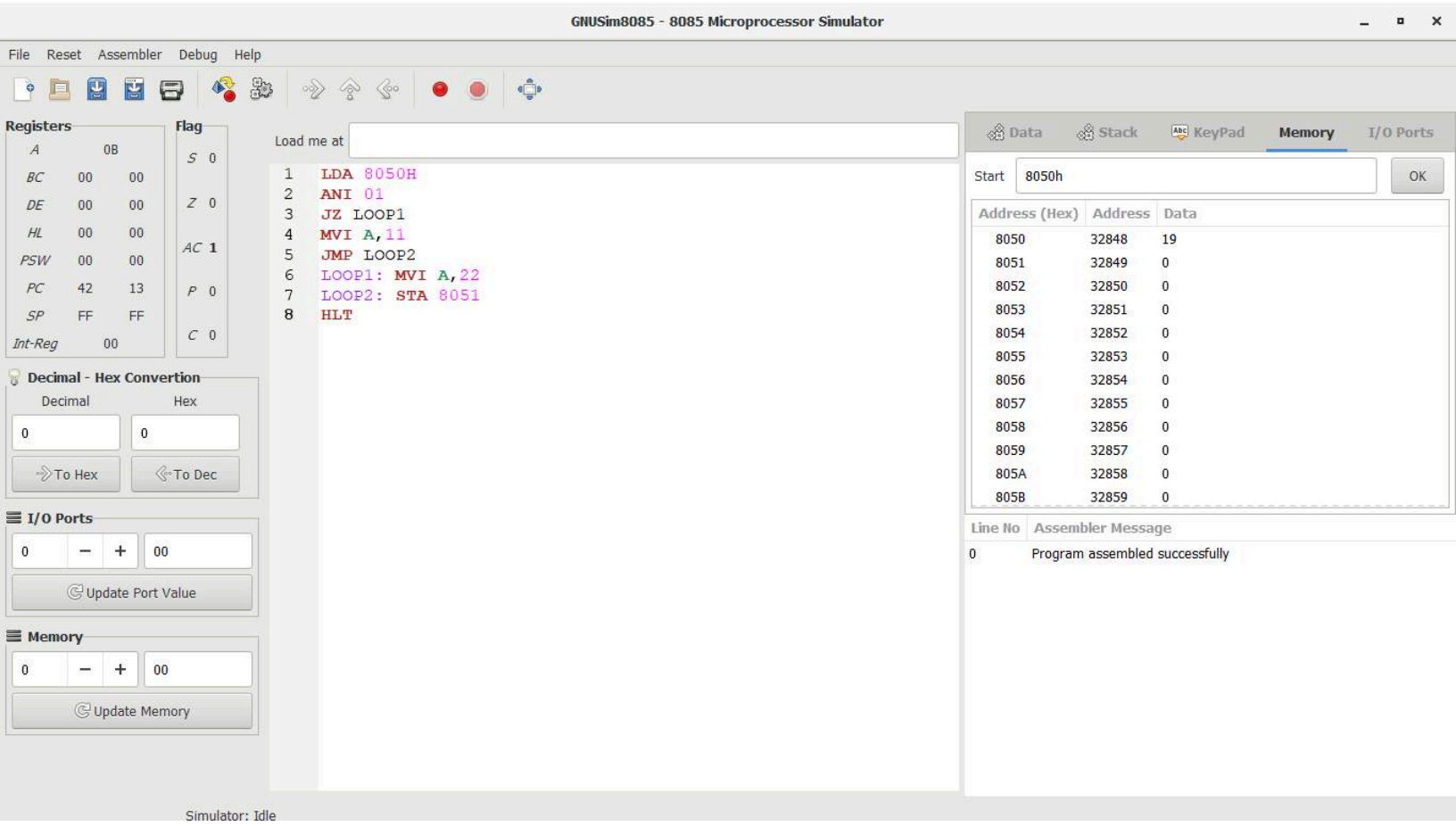

GNUSim8085 - 8085 Microprocessor Simulator
File
Reset
Assembler
Debug
Help
Registers
A 00
BC 00 00
DE 00 00
HL 00 00
PSW 00 00
PC 42 22
SP 00 0A
Int-Reg 00
Flag
S 0
Z 1
AC 0
P 1
C 0
Decimal - Hex Convertion
Decimal
Hex
0
0
To Hex
To Dec
I/O Ports
0
00
Update Port Value
Memory
0
00
Update Memory
Load me at
1 LHLD 2050
2 SPHL
3 LHLD 2052
4 XCHG
5 LXI H,0000H
6 LXI B,0000H
7 AGAIN: DAD SP
8 JNC START
9 INX B
10 START: DCX D
11 MOV A,E
12 ORA D
13 JNZ AGAIN
14 SHLD 2054
15 MOV L,C
16 MOV H,B
17 SHLD 2055
18 HLT
Data
Stack
KeyPad
Memory
I/O Ports
Start
2050
OK
Address (Hex) Address Data
0802 2050 10
0803 2051 0
0804 2052 5
0805 2053 0
0806 2054 50
0807 2055 5
0808 2056 0
0809 2057 0
080A 2058 0
080B 2059 0
080C 2060 0
080D 2061 0
Line No
Assembler Message
0
Program assembled successfully
Simulator: Idle

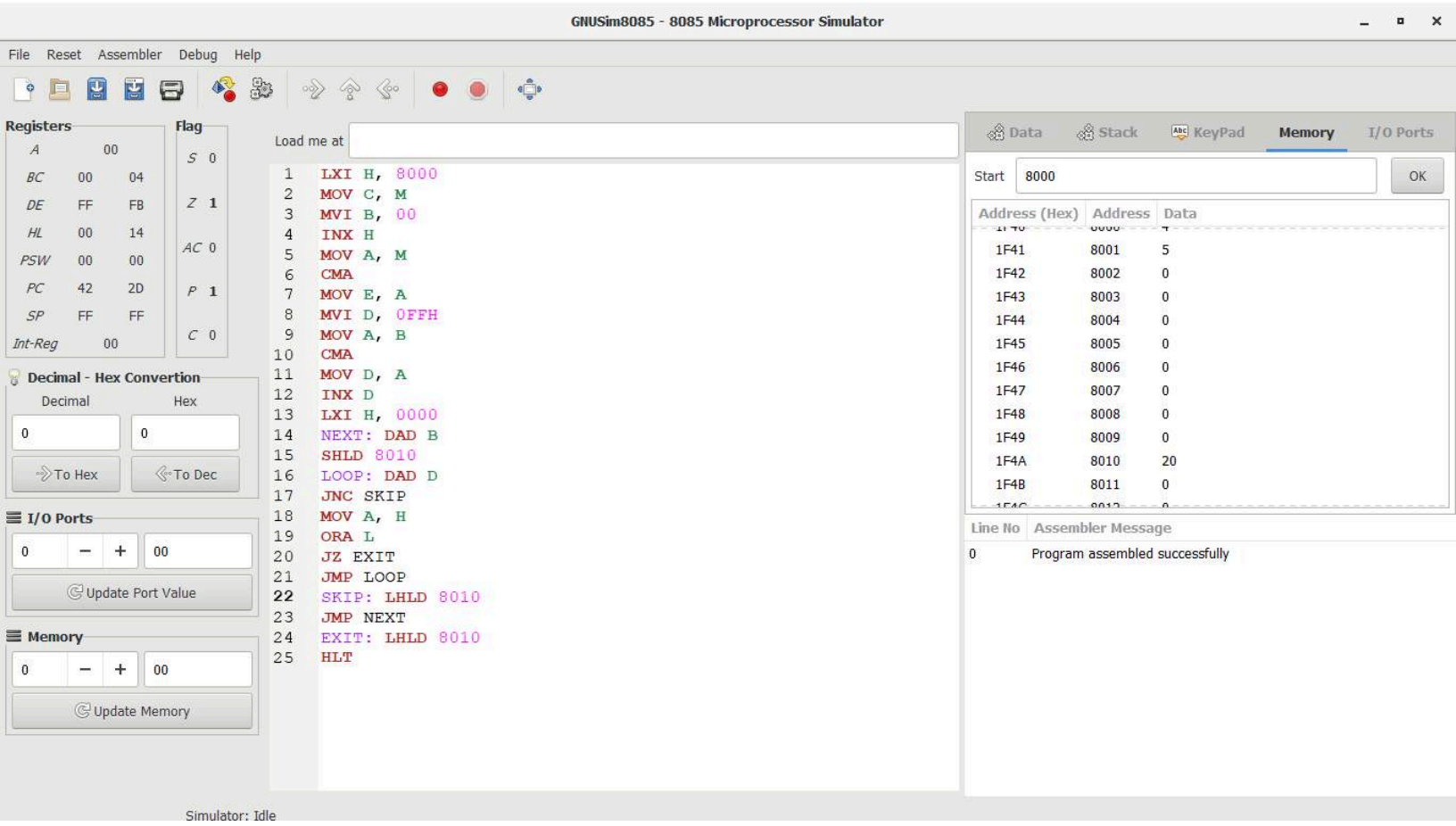

GNUSim8085 - 8085 Microprocessor Simulator
File
Reset
Assembler
Debug
Help
Registers
A 00
BC 0A 00
DE 00 00
HL 80 01
PSW 00 00
PC 42 0F
SP FF FF
Int-Reg 00
Flag
S 1
Z 0
AC 0
P 1
C 1
Decimal - Hex Convertion
Decimal
Hex
0
0
To Hex
To Dec
I/O Ports
0
00
Update Port Value
Memory
0
00
Update Memory
Load me at
1 LXI H,8000H
2 MOV B,M
3 INX H
4 MOV A,M
5 CMP B
6 JC STORE
7 MOV A,B
8 STORE: STA 8010H
9 HLT
Data
Stack
KeyPad
Memory
I/O Ports
Start
8000h
OK
Address (Hex) Address Data
8000 32768 10
8001 32769 0
8002 32770 0
8003 32771 0
8004 32772 0
8005 32773 0
8006 32774 0
8007 32775 0
8008 32776 0
8009 32777 0
800A 32778 0
800B 32779 0
Line No Assembler Message
0 Program assembled successfully
Simulator: Idle

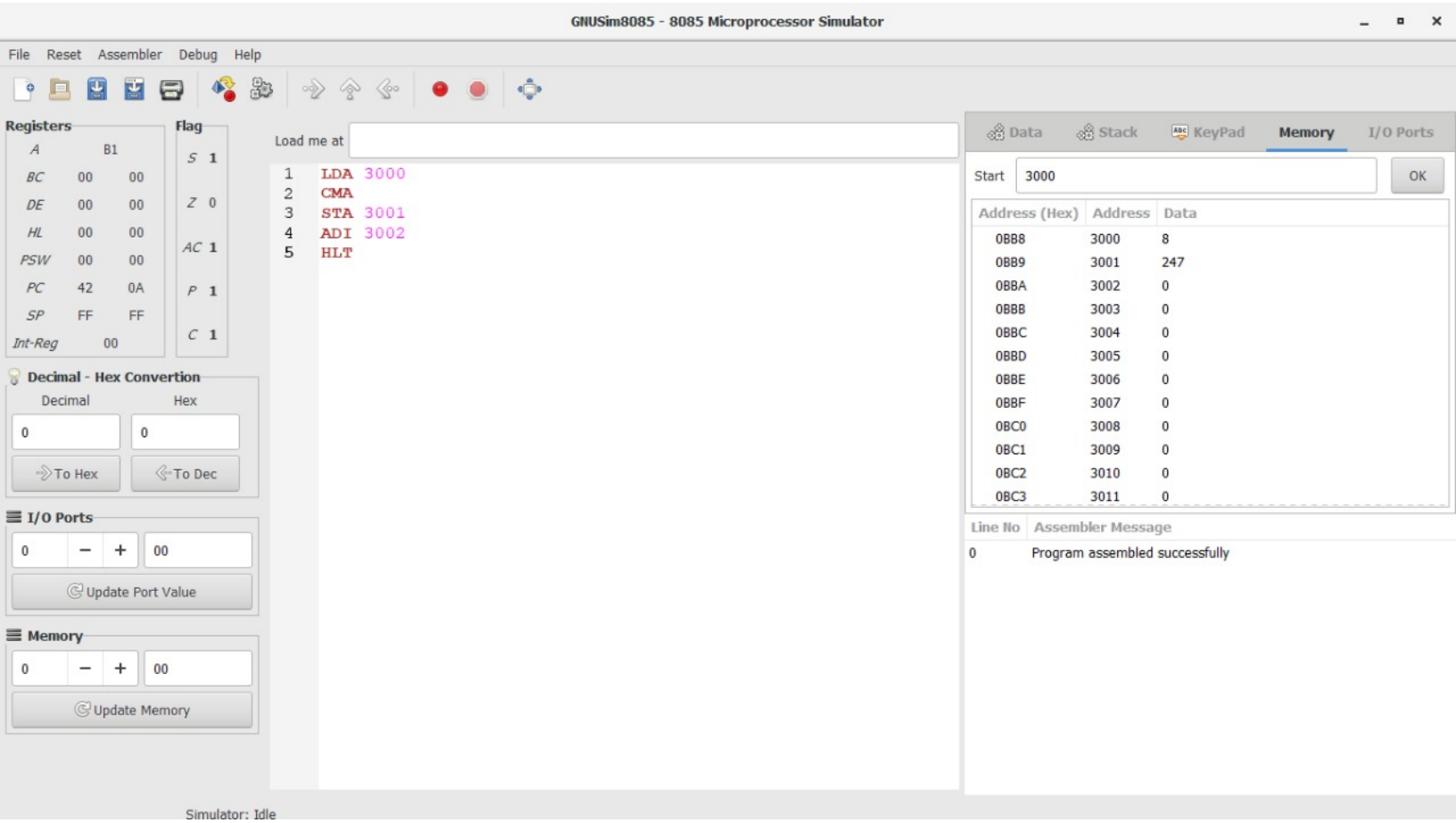

GNUSim8085 - 8085 Microprocessor Simulator
File
Reset
Assembler
Debug
Help
Registers
A 1D
BC 1D 00
DE 00 00
HL 00 00
PSW 00 00
PC 42 10
SP FF FF
Int-Reg 00
Flag
S 1
Z 0
AC 0
P 1
C 1
Decimal - Hex Convertion
Decimal
Hex
0
0
To Hex
To Dec
I/O Ports
0
00
Update Port Value
Memory
0
00
Update Memory
Load me at
1 LDA 2050
2 MOV B,A
3 LDA 2051
4 CMP B
5 JNC STORE
6 MOV A,B
7 STORE: STA 2052
8 HLT
Data
Stack
KeyPad
Memory
I/O Ports
Start
2050
OK
Address (Hex) Address Data
0802 2050 29
0803 2051 22
0804 2052 29
0805 2053 0
0806 2054 0
0807 2055 0
0808 2056 0
0809 2057 0
080A 2058 0
080B 2059 0
080C 2060 0
080D 2061 0
Line No Assembler Message
0 Program assembled successfully
Simulator: Idle

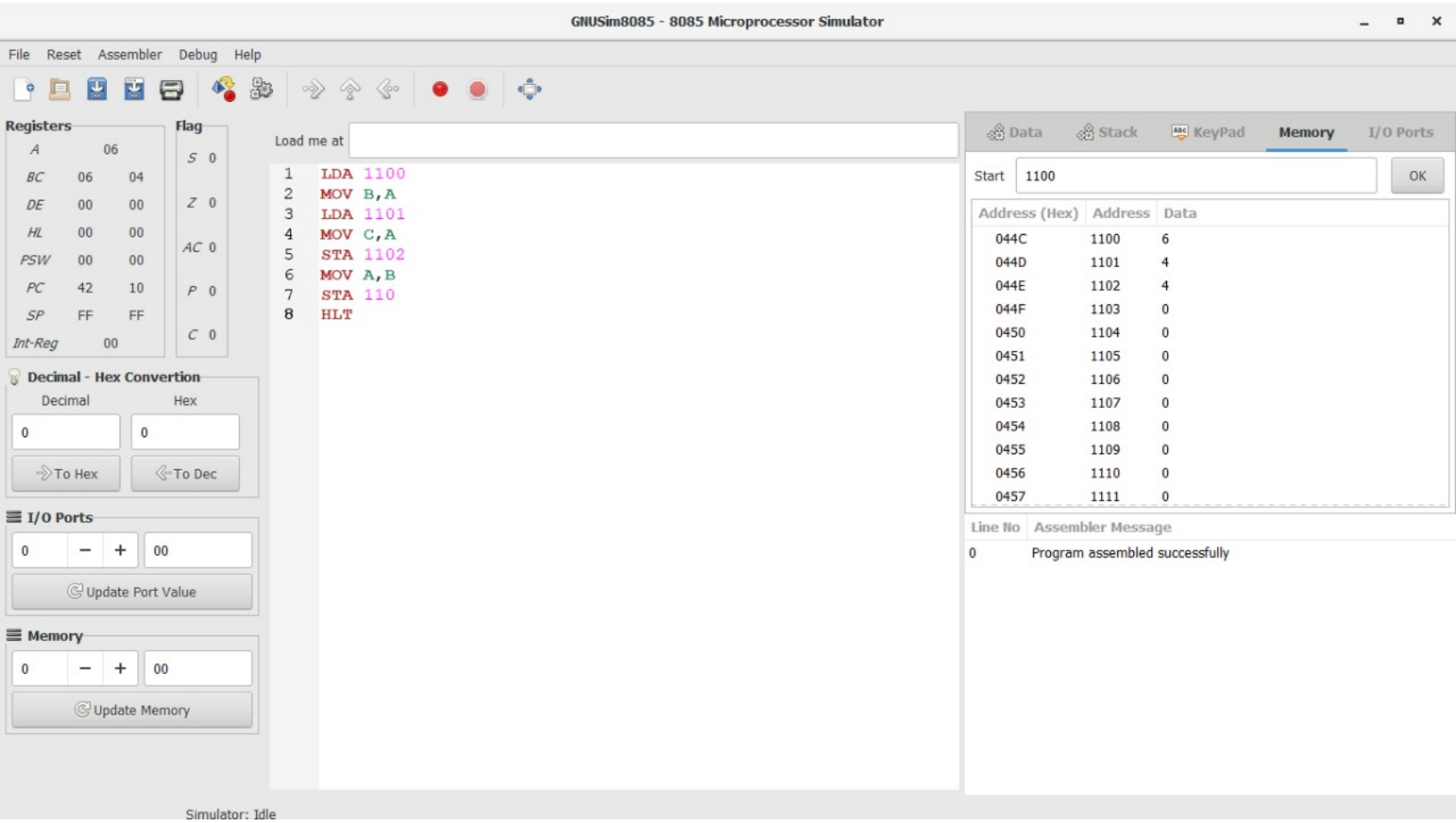

GNUSim8085 - 8085 Microprocessor Simulator
File
Reset
Assembler
Debug
Help
Registers
A 00
BC 00 00
DE 00 00
HL 00 00
PSW 00 00
PC 00 00
SP 00 00
Int-Reg 00
Flag
S 0
Z 0
AC 0
P 0
C 0
Decimal - Hex Convertion
Decimal
Hex
0
0
To Hex
To Dec
I/O Ports
0
0
Update Port Value
Memory
0
0
Update Memory
Load me at
1 LDA 8501
2 MOV B,A
3 LDA 8500
4 MVI C,00
5 LOOP: CMP B
6 JC LOOP1
7 SUB B
8 INR C
9 JMP LOOP
10 STA 8503
11 DCR C
12 MOV A,C
13 LOOP1: STA 8502
14 HLT
Data
Stack
KeyPad
Memory
I/O Ports
Start
8050
OK
Address (Hex) Address Data
1F72 8050 2
1F73 8051 20
1F74 8052 10
1F75 8053 2
1F76 8054 0
1F77 8055 0
1F78 8056 0
1F79 8057 0
1F7A 8058 0
1F7B 8059 0
1F7C 8060 0
1F7D 8061 0
Line No
Assembler Message
Simulator: Idle


GNUSim8085 - 8085 Microprocessor Simulator
File
Reset
Assembler
Debug
Help
Registers
A 16
BC 00 00
DE 00 00
HL 00 00
PSW 00 00
PC 42 13
SP FF FF
Int-Reg 00
Flag
S 0
Z 1
AC 1
P 1
C 0
Decimal - Hex Convertion
Decimal
Hex
0
0
To Hex
To Dec
I/O Ports
0
00
Update Port Value
Memory
0
00
Update Memory
Load me at
1 LDA 8050H
2 ANI 01
3 JZ LOOP1
4 MVI A,11
5 JMP LOOP2
6 LOOP1: MVI A,22
7 LOOP2: STA 8051
8 HLT
Data
Stack
KeyPad
Memory
I/O Ports
Start
8050h
OK
Address (Hex) Address Data
8050 32848 20
8051 32849 0
8052 32850 0
8053 32851 0
8054 32852 0
8055 32853 0
8056 32854 0
8057 32855 0
8058 32856 0
8059 32857 0
805A 32858 0
805B 32859 0
Line No Assembler Message
0 Program assembled successfully
Simulator: Idle


GNUSim8085 - 8085 Microprocessor Simulator
File
Reset
Assembler
Debug
Help
Registers
A 0B
BC 00 00
DE 00 00
HL 00 00
PSW 00 00
PC 42 13
SP FF FF
Int-Reg 00
Flag
S 0
Z 0
AC 1
P 0
C 0
Decimal - Hex Convertion
Decimal
Hex
0
0
To Hex
To Dec
I/O Ports
0
00
Update Port Value
Memory
0
00
Update Memory
Load me at
1 LDA 8050H
2 ANI 01
3 JZ LOOP1
4 MVI A,11
5 JMP LOOP2
6 LOOP1: MVI A,22
7 LOOP2: STA 8051
8 HLT
Data
Stack
KeyPad
Memory
I/O Ports
Start
8050h
OK
Address (Hex) Address Data
8050 32848 19
8051 32849 0
8052 32850 0
8053 32851 0
8054 32852 0
8055 32853 0
8056 32854 0
8057 32855 0
8058 32856 0
8059 32857 0
805A 32858 0
805B 32859 0
Line No Assembler Message
0 Program assembled successfully
Simulator: Idle


GNUSim8085 - 8085 Microprocessor Simulator
File
Reset
Assembler
Debug
Help
Registers
A 00
BC 00 04
DE FF FB
HL 00 14
PSW 00 00
PC 42 2D
SP FF FF
Int-Reg 00
Flag
S 0
Z 1
AC 0
P 1
C 0
Decimal - Hex Convertion
Decimal
Hex
0
0
To Hex
To Dec
I/O Ports
0
00
Update Port Value
Memory
0
00
Update Memory
Load me at
1 LXI H, 8000
2 MOV C, M
3 MVI B, 00
4 INX H
5 MOV A, M
6 CMA
7 MOV E, A
8 MVI D, 0FFH
9 MOV A, B
10 CMA
11 MOV D, A
12 INX D
13 LXI H, 0000
14 NEXT: DAD B
15 SHLD 8010
16 LOOP: DAD D
17 JNC SKIP
18 MOV A, H
19 ORA L
20 JZ EXIT
21 JMP LOOP
22 SKIP: LHLD 8010
23 JMP NEXT
24 EXIT: LHLD 8010
25 HLT
Data
Stack
KeyPad
Memory
I/O Ports
Start
8000
OK
Address (Hex)
Address
Data
1F41 8001 5
1F42 8002 0
1F43 8003 0
1F44 8004 0
1F45 8005 0
1F46 8006 0
1F47 8007 0
1F48 8008 0
1F49 8009 0
1F4A 8010 20
1F4B 8011 0
Line No
Assembler Message
0
Program assembled successfully
Simulator: Idle


GNUSim8085 - 8085 Microprocessor Simulator
File
Reset
Assembler
Debug
Help
Registers
A B1
BC 00 00
DE 00 00
HL 00 00
PSW 00 00
PC 42 0A
SP FF FF
Int-Reg 00
Flag
S 1
Z 0
AC 1
P 1
C 1
Decimal - Hex Convertion
Decimal
Hex
0
0
To Hex
To Dec
I/O Ports
0
00
Update Port Value
Memory
0
00
Update Memory
Load me at
1 LDA 3000
2 CMA
3 STA 3001
4 ADI 3002
5 HLT
Data
Stack
KeyPad
Memory
I/O Ports
Start
3000
OK
Address (Hex) Address Data
0BB8 3000 8
0BB9 3001 247
0BBA 3002 0
0BBB 3003 0
0BBC 3004 0
0BBD 3005 0
0BBE 3006 0
0BBF 3007 0
0BC0 3008 0
0BC1 3009 0
0BC2 3010 0
0BC3 3011 0
Line No
Assembler Message
0
Program assembled successfully
Simulator: Idle


GNUSim8085 - 8085 Microprocessor Simulator
File
Reset
Assembler
Debug
Help
Registers
A 06
BC 06 04
DE 00 00
HL 00 00
PSW 00 00
PC 42 10
SP FF FF
Int-Reg 00
Flag
S 0
Z 0
AC 0
P 0
C 0
Decimal - Hex Convertion
Decimal
Hex
0
0
To Hex
To Dec
I/O Ports
0
00
Update Port Value
Memory
0
00
Update Memory
Load me at
1 LDA 1100
2 MOV B,A
3 LDA 1101
4 MOV C,A
5 STA 1102
6 MOV A,B
7 STA 110
8 HLT
Data
Stack
KeyPad
Memory
I/O Ports
Start
1100
OK
Address (Hex) Address Data
044C 1100 6
044D 1101 4
044E 1102 4
044F 1103 0
0450 1104 0
0451 1105 0
0452 1106 0
0453 1107 0
0454 1108 0
0455 1109 0
0456 1110 0
0457 1111 0
Line No Assembler Message
0 Program assembled successfully
Simulator: Idle

GNUSim8085 - 8085 Microprocessor Simulator

File Reset Assembler Debug Help

Registers

A	13	
BC	13	00
DE	00	00
HL	17	71
PSW	00	00
PC	42	1B
SP	FF	FF
Int-Reg	00	

Flag

S 0 Z 1 AC 0 P 1 C 0

Decimal - Hex Convertion

Decimal: 0 To Hex

Hex: 0 To Dec

I/O Ports

0 − + 00 Update Port Value

Memory

0 − + 00 Update Memory

Load me at

```
1  LXI H, 6000
2  MOV A, M
3  INX H
4  MOV B, M
5
6  LOOP: CMP B
7        JZ STORE
8        JC EXG
9        SUB B
10       JMP LOOP
11
12 EXG: MOV C, B
13      MOV B, A
14      MOV A, C
15      JMP LOOP
16
17 STORE: STA 6009
18        HLT
```

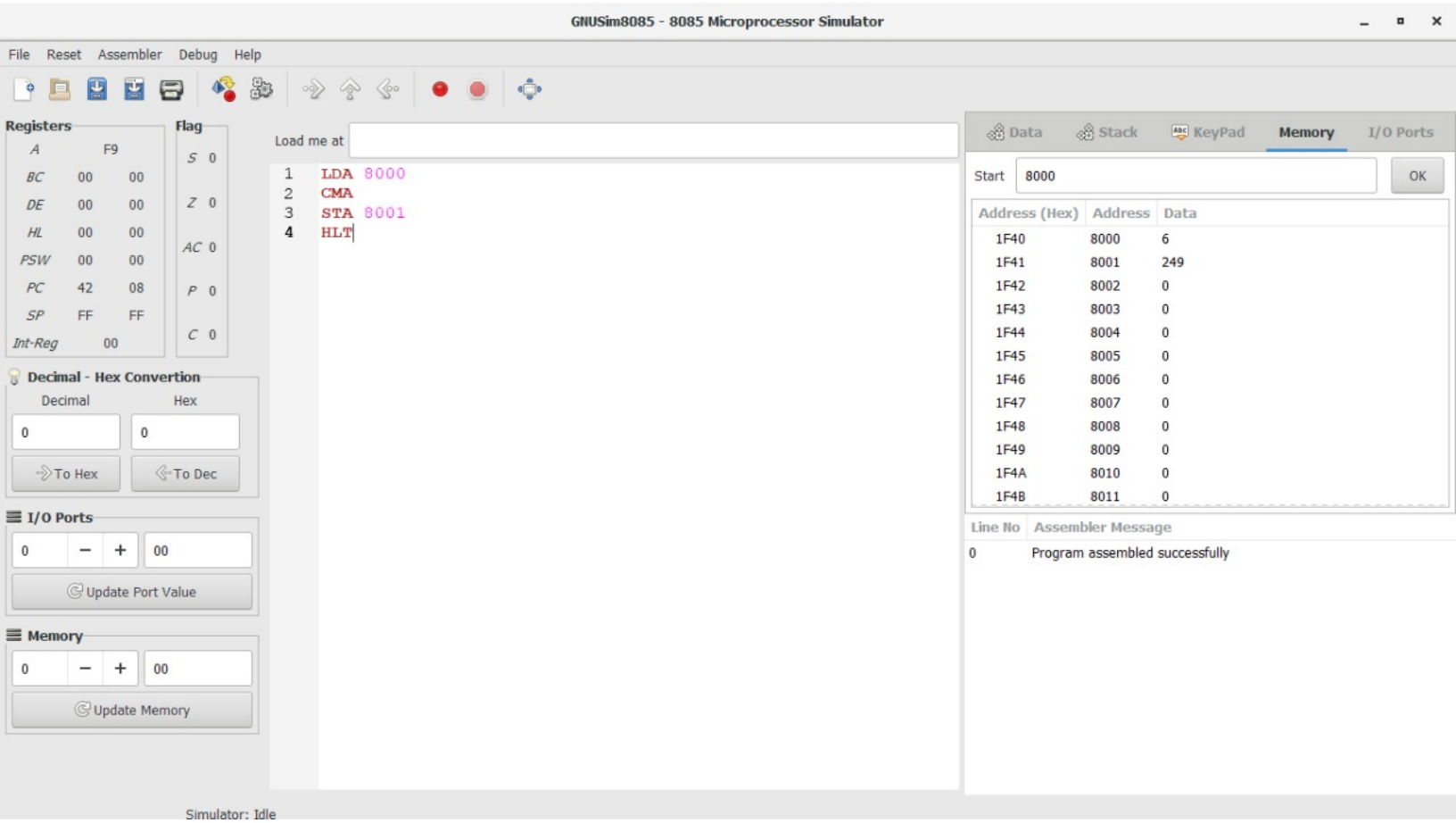
Data Stack KeyPad **Memory** I/O Ports

Start 6000 OK

Address (Hex)	Address	Data
1770	6000	38
1771	6001	19
1772	6002	0
1773	6003	0
1774	6004	0
1775	6005	0
1776	6006	0
1777	6007	0
1778	6008	0
1779	6009	19
177A	6010	0
177B	6011	0

Line No	Assembler Message
0	Program assembled successfully

Simulator: Idle


GNUSim8085 - 8085 Microprocessor Simulator
File
Reset
Assembler
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Help
Registers
A F9
BC 00 00
DE 00 00
HL 00 00
PSW 00 00
PC 42 08
SP FF FF
Int-Reg 00
Flag
S 0
Z 0
AC 0
P 0
C 0
Decimal - Hex Convertion
Decimal
Hex
0
0
To Hex
To Dec
I/O Ports
0
00
Update Port Value
Memory
0
00
Update Memory
Load me at
1 LDA 8000
2 CMA
3 STA 8001
4 HLT
Data
Stack
KeyPad
Memory
I/O Ports
Start
8000
OK
Address (Hex) Address Data
1F40 8000 6
1F41 8001 249
1F42 8002 0
1F43 8003 0
1F44 8004 0
1F45 8005 0
1F46 8006 0
1F47 8007 0
1F48 8008 0
1F49 8009 0
1F4A 8010 0
1F4B 8011 0
Line No
Assembler Message
0
Program assembled successfully
Simulator: Idle