

5) 16 BIT ADDITION

The screenshot shows the GNUSim8085 - 8085 Microprocessor Simulator interface. The main window displays the assembly code for a 16-bit addition program. The registers and flags are shown on the left, and the memory dump is on the right.

Registers:

Register	Value
A	02
BC	02 04
DE	08 06
HL	0D 0A
PSW	00 00
PC	42 0C
SP	FF FF
Int-Reg	00

Flags:

Flag	Value
S	0
Z	1
AC	0
P	1
C	0

Assembly Code:

```
1 LHL 2000
2 XCHG
3 LHL 2002
4 DAD D
5 SHLD 2004
6 HLT
```

Memory Dump:

Address (Hex)	Address	Data
07D0	2000	6
07D1	2001	8
07D2	2002	4
07D3	2003	5
07D4	2004	10
07D5	2005	13
07D6	2006	0
07D7	2007	0
07D8	2008	2
07D9	2009	0
07DA	2010	0
07DB	2011	0

Assembler Message:

```
0 Program assembled successfully
```

6) 16 BIT SUBTRACTION

The screenshot shows the GNUSim8085 - 8085 Microprocessor Simulator interface. The main window displays the assembly code for a 16-bit subtraction program. The registers and flags are shown on the left, and the memory dump is on the right.

Registers:

Register	Value
A	04
BC	04 04
DE	08 00
HL	00 00
PSW	00 00
PC	42 19
SP	FF FF
Int-Reg	00

Flags:

Flag	Value
S	0
Z	0
AC	0
P	0
C	0

Assembly Code:

```
1 LDA 2000
2 MOV B,A
3 LDA 2001
4 MOV C,A
5 LDA 2002
6 MOV D,A
7 LDA 2003
8 SUB C
9 STA 2005
10 MOV A,D
11 SUB B
12 STA 2004
13 HLT
```

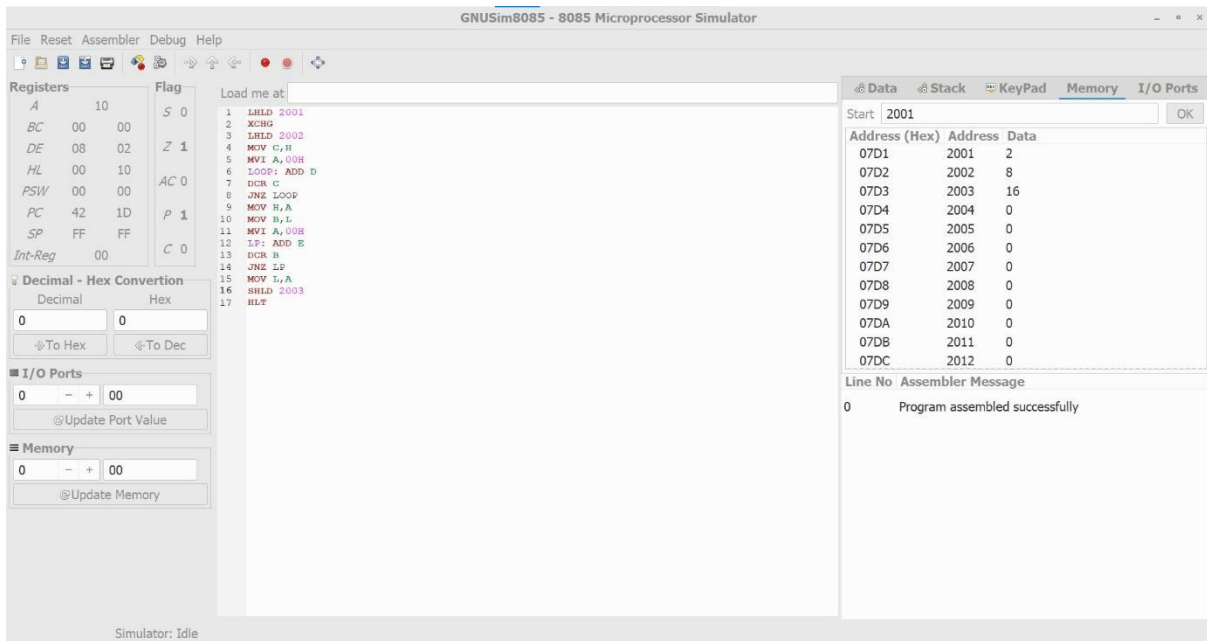
Memory Dump:

Address (Hex)	Address	Data
07D0	2000	4
07D1	2001	4
07D2	2002	8
07D3	2003	8
07D4	2004	4
07D5	2005	4
07D6	2006	0
07D7	2007	0
07D8	2008	0
07D9	2009	0
07DA	2010	0
07DB	2011	0

Assembler Message:

```
0 Program assembled successfully
```

7) 16 BIT MULTIPLICATION



8)16 BIT DIVISION

