

AIM: To compute swapping of numbers using 8085 processor.

ALGORITHM:

- 1) Load a 8-bit number from memory location into accumulator.
- 2) Move value of accumulator into register H.
- 3) Load a 8-bit number from next memory location into accumulator.
- 4) Move value of accumulator into register D.
- 5) Exchange both the registers pairs.
- 6) Halt

PROGRAM:

```
LDA 2001
MOV B,A
LDA 2002
STA 2001
MOV A,B
STA 2002
HLT
```

INPUT :

Address (Hex)	Address	Data
07D1	2001	23
07D2	2002	32

OUTPUT:

GNUSim8085 - 8085 Microprocessor Simulator

File Reset Assembler Debug Help

Registers: A 17, BC 17 00, DE 00 00, HL 0D B3, PSW 00 00, PC 42 0F, SP FF FF, Int-Reg 00. Flag: S 0, Z 1, AC 0, P 1, C 0.

Decimal - Hex Conversion: Decimal 0, Hex 0. To Hex, To Dec.

I/O Ports: 0, 00. Update Port Value.

Memory: 0, 00. Update Memory.

Load me at: 1 LDA 2001, 2 MOV B,A, 3 LDA 2002, 4 STA 2001, 5 MOV A,B, 6 STA 2002, 7 HLT, 8, 9.

Memory: Start 2001. Address (Hex) Address Data. 07D1 2001 32, 07D2 2002 23, 07D3 2003 0, 07D4 2004 0, 07D5 2005 0, 07D6 2006 0, 07D7 2007 0, 07D8 2008 0, 07D9 2009 0, 07DA 2010 0, 07DB 2011 0, 07DC 2012 0, 07DD 2013 0, 07DE 2014 0.

Line No Assembler Message. 0 Program assembled successfully.

Simulator: Idle

98°F Partly sunny. Search. ENG IN. 14:39 23-07-2024.

RESULT: Thus the program was executed successfully using 8085 processor simulator.