

18-Rotate right operation

Program

MVI A,04

RRC

RRC

RRC

RRC

STA 2002

HLT

Output

The screenshot displays the GNUSim8085 - 8085 Microprocessor Simulator interface. The main window is titled "GNUSim8085 - 8085 Microprocessor Simulator". The interface includes a menu bar (File, Reset, Assembler, Debug, Help) and a toolbar with various icons. The central area is divided into several panels:

- Registers:** A table showing the current values of the 8085 registers. The Accumulator (A) contains 40. The Status Flag (S) is 1. The Zero Flag (Z) is 0. The Auxiliary Carry Flag (AC) is 0. The Parity Flag (P) is 0. The Carry Flag (C) is 0. The Program Counter (PC) contains 42. The Stack Pointer (SP) contains FF. The Interrupt Register (Int-Reg) contains 00.
- Flag:** A table showing the current values of the 8085 flags. The Status Flag (S) is 1. The Zero Flag (Z) is 0. The Auxiliary Carry Flag (AC) is 0. The Parity Flag (P) is 0. The Carry Flag (C) is 0.
- Decimal - Hex Conversion:** A section for converting between decimal and hexadecimal values. It includes input fields for decimal and hex values, and buttons for "To Hex" and "To Dec".
- I/O Ports:** A section for managing I/O ports. It includes input fields for port addresses and buttons for "Update Port Value" and "Update Memory".
- Memory:** A section for managing memory. It includes input fields for memory addresses and buttons for "Update Port Value" and "Update Memory".
- Assembler Message:** A panel showing the output of the assembler. It displays the line number (0) and the message "Program assembled successfully".

The assembly program is loaded into the simulator, and the execution results are displayed in the "Assembler Message" panel. The program consists of the following instructions:

```
1 MVI A, 04
2 RRC
3 RRC
4 RRC
5 RRC
6 STA 2002
7 HLT
```