Allen Bradly SLC-500 TONMOV Lab

Upon completion of this lab, the student should be able to:

1. Explain the operation of a MOV instruction in an SLC-500 system.
2. Explain how a MOV instruction can be used to manipulate a timer preset value.
3. Change the value of a constant on a MOV instruction.
4. Change the value in an Integer word.

Key in the following program, download it to an SLC-500 processor unit, and follow the instructions that follow.
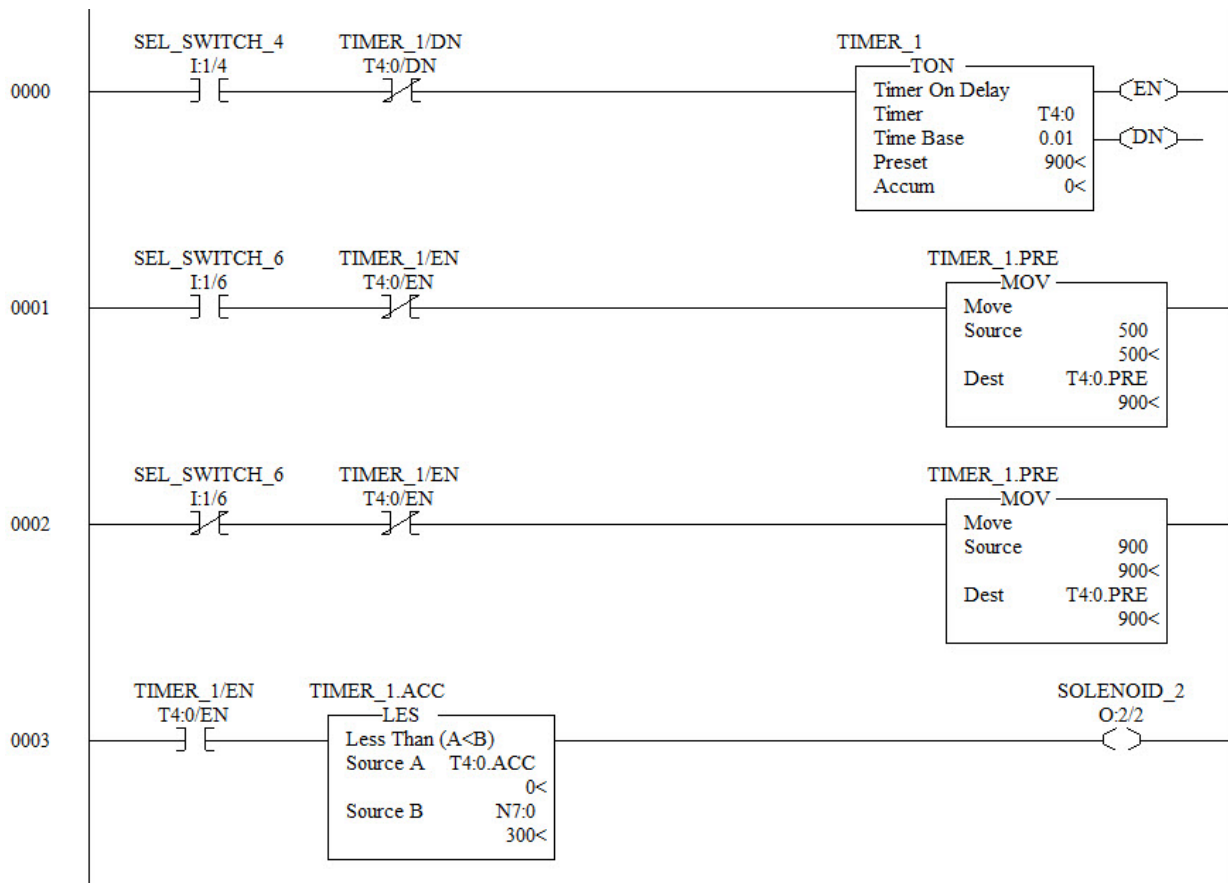

Figure 1. Ladder logic program with the MOV instructions.

1. Go online to the processor and make sure the unit is in the Run Mode.

2. Turn on the **SEL_SWITCH_6** input.

What value is in the Preset of T4:0?

How did this value get into the TIMER_1 Preset?

Turn on the **SEL_SWITCH_4** input to start the timer.

How long does **SOLENOID_2** stay on?

How long does **SOLENOID_2** stay off?

3. Turn off the **SEL_SWITCH_6** input.

    Toggle the **SEL_SWITCH_4** input off, then back on.

    What value is in the **TIMER_1** preset?

    How long does **SOLENOID_2** stay on?

    How long does **SOLENOID_2** stay off?

4. Change the value in **N7:0** to 400.

    How long does **SOLENOID_2** stay on?

    How long does **SOLENOID_2** stay off?

5. How would the user change the value in Source location of the MOV in the second rung?

Questions:

1. What data file is the output image table stored in?

2. What data file is the input image table stored in?

3. What data file is the timer status bits used in this lab stored in?

4. What causes the timer to reset and start timing again?

5. How would the user change the value in location N7:0?

6. What is the purpose of the XIO T4:0/EN instructions in rung 1 & 2?

7. What program file is the ladder program stored in, for this lab?

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