

# PLC127 LAB 1.4: ALLEN BRADLEY SLC-500 TON AND MOV INSTRUCTION

Student Name: \_\_\_\_\_

Student ID: \_\_\_\_\_

## LAB OUTCOMES:

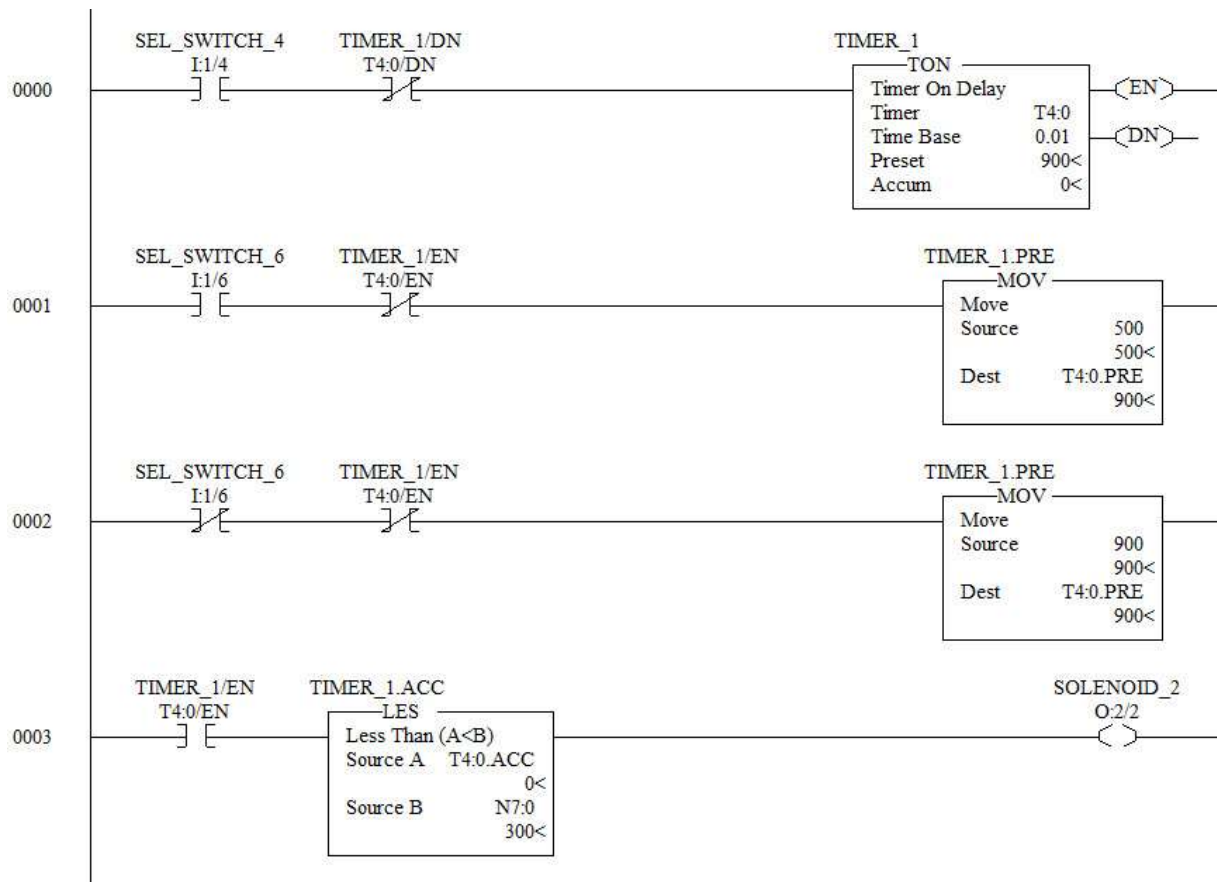
1. Explain the operation of a MOV instruction in an SLC-500 system
2. Explain how a MOV instruction can be used to manipulate a timer preset value
3. Demonstrate how to change the value of a constant on a MOV instruction
4. Demonstrate how to change the value in an Integer word

## LAB PROCESS:

Write the program as shown in part 1 and then save it to the hard drive of the computer. You will then download the program to the SLC-500 processor. Once that it is complete you will go online with the SLC-500 and place the processor in RUN mode.

### Part 1

1. Key in the following program and save it to the hard drive. Name the project something you will be able to easily remember.



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 the source location of the MOV in the rung 0001?

### 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 0001 and 0002?
7. What program file is the ladder program stored in for this lab?

*The outcomes of this exercise (listed on page 1) specifies the skills that the Student must demonstrate to the Instructor. Once the Instructor is satisfied with the demonstration of Knowledge & Skills by the individual student, they will sign this document (for the student), then enter a 100% into the Hands-On Lab grade in Sakai.*

I verify that this student has completed all of the requirements of this Hands-On Assessment:

Student Name: \_\_\_\_\_

Faculty Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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