

PLC200, Programmable Controller I

Search Lab for RSLogix500

Search functions in PLC programming software such as RSLogix500, RSLogix5 and RSLogix5000, is critical for efficiency in troubleshooting a PLC system. A Technician may have to troubleshoot a PLC that has thousands of rungs of ladder logic in the PLC program. This is quite different than a couple of rungs used to learn the operation of a timer or counter.

Objective: The objective of this lab is for student to utilize the RSLogix500 programming software learn the following:

1. Search for addresses and instructions in a program.
2. Navigate to a rung in a specific program file in the PLC program.
3. Interpret and navigate through the program with cross reference data.
4. Determine the symbol and descriptions of PLC addresses.
5. Interpret the I/O configuration.
6. Determine the processor type and processor name of a PLC program.
7. Determine/change the value in a data table address in a PLC program.

Rockwell created a demonstration program that it ships with the RSLogix500 software named **IC500DMO.ACH** (which was originally a DOS based file). Import this project into RSLogix500, open it offline and answer the following questions. A copy of the IC500DMO.RSS file may be found in Sakai.

1. How many ladder files are there in this project?
2. How many rungs are in each ladder file in the IC500DMO project?
3.
 - a. What rung will the OTE for B3:3/3 be found on?
 - b. What is the symbol for the B3:3/3 address?
 - c. What address would this bit be if it was displayed in the following format: B3/25?
4.
 - a. What rung will the OTE of O:3/2 be found on?
 - b. What is the Symbol for this address?
 - c. How many XIC and XIO instructions of this address are used in the program?

5.
 - a. What is the address for the output with the symbol of HEAT_OFF?
 - b. What rung will this output be found on?

6.
 - a. What rung will the user find the TON of T4:24 on?
 - b. What is the dwell time of this timer?
 - c. What does this timer do?

7. What PLC instruction will be found on rung 3:6?

8. What is the value found in T14:6.PRE?

9. List the cross reference information for O:3/7.

10. What two conditions will turn on the OTE for O:3/7?

11.
 - a. What type of output instruction is found on rung 2:59?
 - b. What does the instruction do?

12.
 - a. How many input modules would be found on the I/O rack that IC500DMO controls?
 - b. What slots are they in?
 - c. How many I/O points do they have?

13.
 - a. How many output modules would be found on the I/O rack that IC500DMO controls?
 - b. What slot are they in?
 - c. How many I/O points do they have?

14.
 - a. What is the symbol for T4:5?
 - b. What is the description for T4:5?

15. Turn off the symbols and descriptions while viewing the program.

16.
 - a. What is the symbol for B16/7?
 - b. What rung is the OTE in for this address?

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