PLC210 Lab Exercise 15: Searching in RSLogix5000

Download the project Compact_Module_7_search_doc.ACD, go Online and put the CompactLogix into the Run mode to do the following lab.

The I/O tag names in this lab may need to be changed to match the addresses on your hardware trainer.

Figure 1-A. The ladder logic of the search routine.

Note: For CompactLogix processors – Searching can be accomplished either online or offline.

Search and Replace can only be performed offline.
Open the MainRoutine

1. Search for Tags using Search -> Find

   ![Image of RSLogix 5000 application with Find option selected](image1.png)

   Figure 2-A. Choosing the Find option.

   On the Menu Bar of the RSLogix 5000 application, select Search -> Find

   The Find in Routines window opens

   ![Image of RSLogix 5000 Find in Routines window](image2.png)

   Figure 3-A. Click the Find Within.

   Click the Find Within>> button to configure Search criteria.
Figure 4-A. The Find in Routines option.

In the Components box – select Ladder Diagrams
In the Options box ensure all the boxes are checked.
Note: Options filters specific searches
Click the << Find Within button to close Components and Option boxes

Figure 5-A. Parameter for finding objects.
Ensure Wrap box is checked
Direction: Down

Figure 6-A. Choosing to search in current routine.

In the Find Where selection box choose Current Routine
Note: Current Routine is the routine shown in the right-side window of the RSLogix 5000 software.

Click the button to the right of the Find What: selection box

Figure 7-A. The lookup find what option.
The Search Item Browser window opens
This window shows project Tags.
Select the Alarm Timer tag.

![Search Item Browser](image)

**Figure 8-A. Choosing a tag to find.**

Click the OK button

![Find in Routines](image)

**Figure 9-A. Find all instances of the tag.**
The tag selected in the Search Item Browser windows appears in the Find What: selection box.

Note: A tag name could be directly type in the Find What: selection box.

Click the Find All button

A Search Results window opens at the bottom of the Ladder screen.

![Search Results Window](image)

Figure 10-A. The search results window.

The lines in blue are the occurrences of the selected tag.

Ensure MainRoutine window is opened.
Return to the Search -> Find on Menu Bar to open the Find in Routines window

Search for the tag Timer1
List the occurrences of the Timer1 tag

Open the Speed Control routine

Return to the Search -> Find on Menu Bar to open the Find in Routines window
Search for the tag Timer1
List the occurrences of the Timer1 tag

Explain:

2. Search for Tags using Quick Search / Generic Search Box
The Quick Search / Generic Search Box is located in the Standard Toolbar.

Figure 11-A. The quick search box.

Three icons associated with the Quick Search / Generic Search Box are:

Steps up the Ladder routine to find an occurrence
Steps down the Ladder routine to find an occurrence
Finds all the occurrences – opens Search Result window

Figure 12-A

Open MainRoutine
Type in the tag name of Internal_1 in the Quick Search box.

![Search Box]

Figure 13-A. Typing in a tag in the quick search box.

Click the Find All icon

The Find in Routines window opens with the tag Internal_1 listed in the Find What: selection box

![Find in Routines]

Figure 14-A. Searching to find the next instance.

Click the Find All button.

List the occurrences of the Timer1 tag

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3. **Search for Tags using Cross Reference**

Open MainRoutine

Right mouse click on the timer tag Timer1 on Rung 2.

From the selection menu – choose

Go To Cross Reference For “Timer1”

![Figure 15-A. Search cross reference.](image)

Click Cross Reference For “Timer1”
Figure 16-A. The cross reference search results.

The Cross reference window lists the occurrences of the selected tag - Timer1

Open the MainRoutine
At Rung 4 – Cross Reference the tag Local:1:I.Data.5

List Element - Routine - Location information for Local:1:I.Data.5

4. Search for Tags using Find All
   Note: Find All is similar to using Cross Reference
   Open MainRoutine
   Right mouse click on the timer tag Timer1 on Rung 2.
   From the selection menu – choose
   Find All “Timer1”
Click Find All “Timer1”

A Search Result window opens at the bottom of the Ladder window that shows the occurrences of Timer1

Open the MainRoutine

At Rung 0 – use Find All for tag Local:1:I.Data.3

List Instruction type – Routine location - Rung number information for the occurrences of Local:1:I.Data.5

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Open the Find in Routines window using Search -> Find
Ensure MainRoutine is opened in Ladder window

Configure the Find in Routines widow as shown
Click the Find All button
List Instruction type – Routine location - Rung number information for the occurrences of Local:1:I.Data.5

Are the results the same as with using Find All method?_____
5. **Search for documentation using Search -> Find**

Configure the Find in Routine window as shown.

Click the Find All button.

List Instruction type – Routine location - Rung number – full comment information for the occurrences of selector:

- __________________________
- __________________________
- __________________________
- __________________________
- __________________________
- __________________________
6. Search for documentation using Quick Search / Generic Search Box

![Quick Search Example]

Figure 22-A. Searching for words in Quick Search.

Type the word –cycle- into to the Quick Search / Generic Search Box
Click the Find All icon
List Instruction type – Routine location - Rung number – full comment information for the occurrences of - cycle

7. Search for type of instructions using Search -> Find

![Instruction Search Example]

Figure 23-A. Searching for a type of instruction.

Configure the Find in Routine window as shown.
Click the Find All button.
List Instruction type – Routine location - Rung number – tag information for the occurrences of - xio

Note: The Quick Search / Generic Search Box can also be used to search for instruction types

8. Search for type of instructions and tags using Search -> Find

![Figure 24-A. Searching for a tag and instruction type.](image)

Configure the Find in Routine window as shown.

Click the Find All button.

List Instruction type – Routine location - Rung number – tag information for the occurrences of – xic internal_1
Does the output instruction at Rung 0 of the MainRoutine show-up in the Search Results window?____________

Explain: ____________________________________________________________

________________________________________________________

Note: The Quick Search / Generic Search Box can also be used to search for instruction types and tags.

9. Search and Replace

Note: Must be Offline for Search and Replace

Navigate to the Find in Routines window and search for the tag Internal_1

Figure 25-A. Searching for text only.

Configure the Find in Routine window as shown.

Click the Find All button.

List Instruction type – Routine location - Rung number – for the Internal_1 tag
Navigate to the Replace in Routines window
On the Menu Bar click Search -> Replace

The Replace in Routine window opens.

Figure 26-A. Performing a search replace.

Figure 27-A. The search and replace tags.
Configure the Replace in Routine window as shown.
Click the Replace All button.
View the information in the Search Results window.
Do a Find All for the Internal_2 tag
   List Instruction type – Routine location - Rung number – for the Internal_2 tag

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Compare the information between Internal_1 search and the Internal_2 search
Explain: __________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
Do a search for the Internal_1 tag.
What are results of the search?__________________________________________

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