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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.
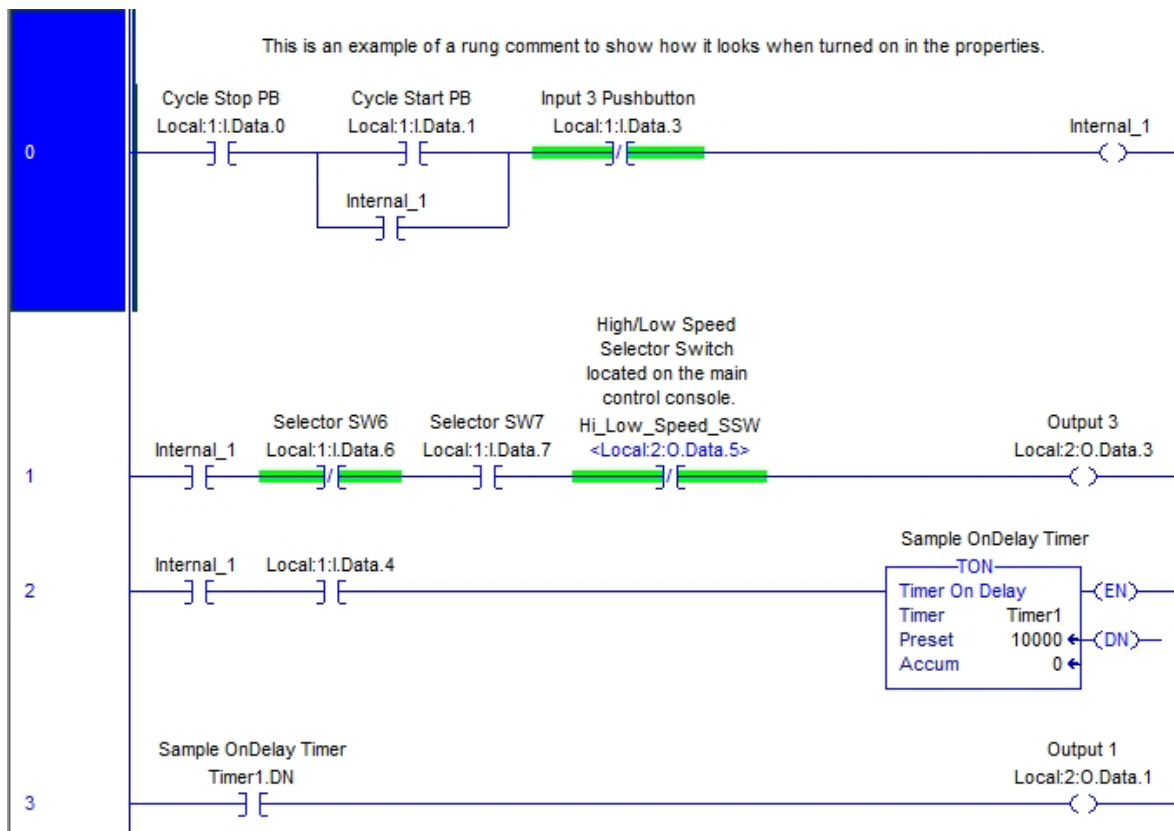

Figure 1-A. The ladder logic of the search routine.

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

Search and Replace can only be performed offline

Open the MainRoutine
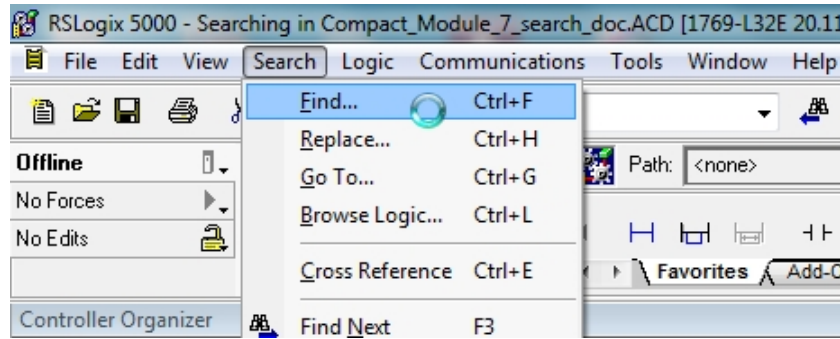
1.   Search for Tags using Search -> Find

Figure 2-A. Choosing the Find option.

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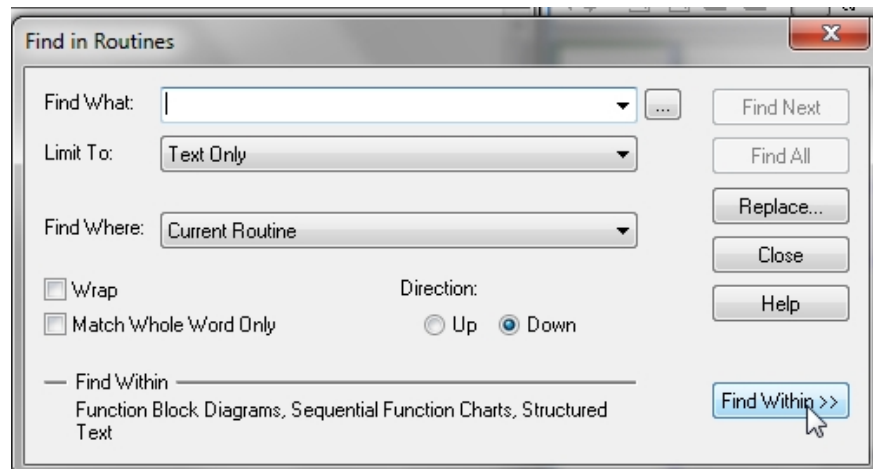Search -> Find

The Find in Routines window opens

Figure 3-A. Click the Find Within.

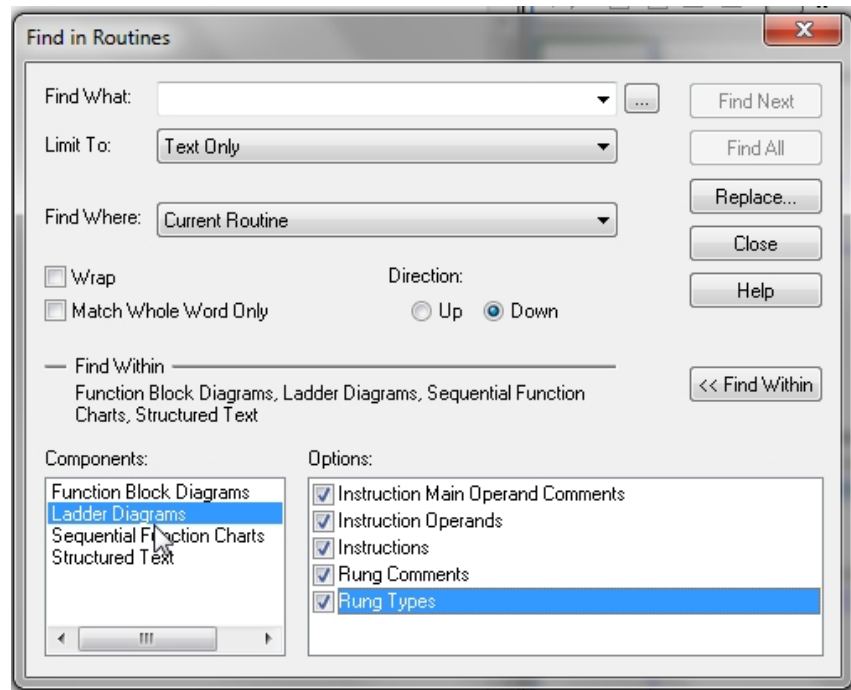Click the Find Within>> button to configure Search criteria.

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

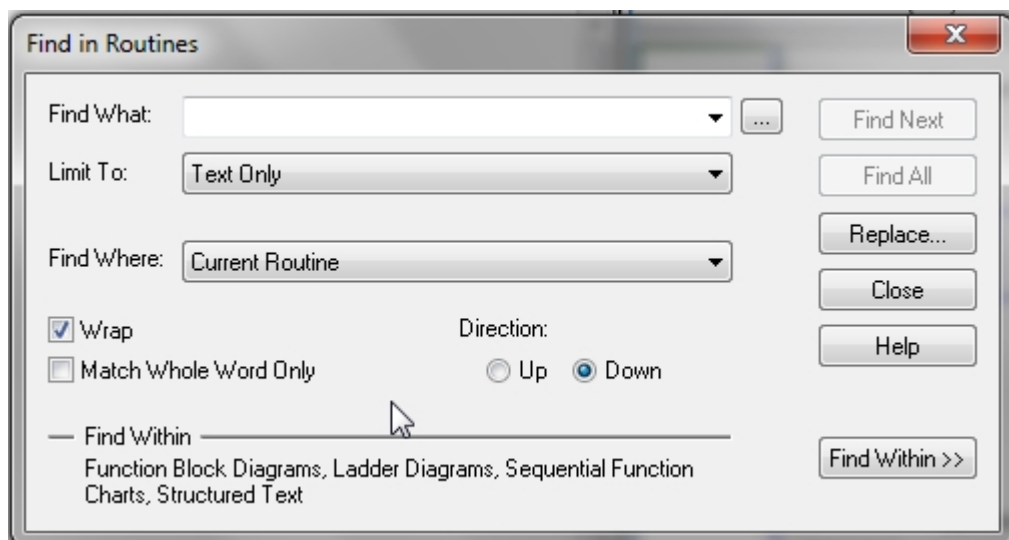Click the << Find Within button to close Components and Option boxes

Figure 5-A. Parameter for finding objects.

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Ensure Wrap box is checked
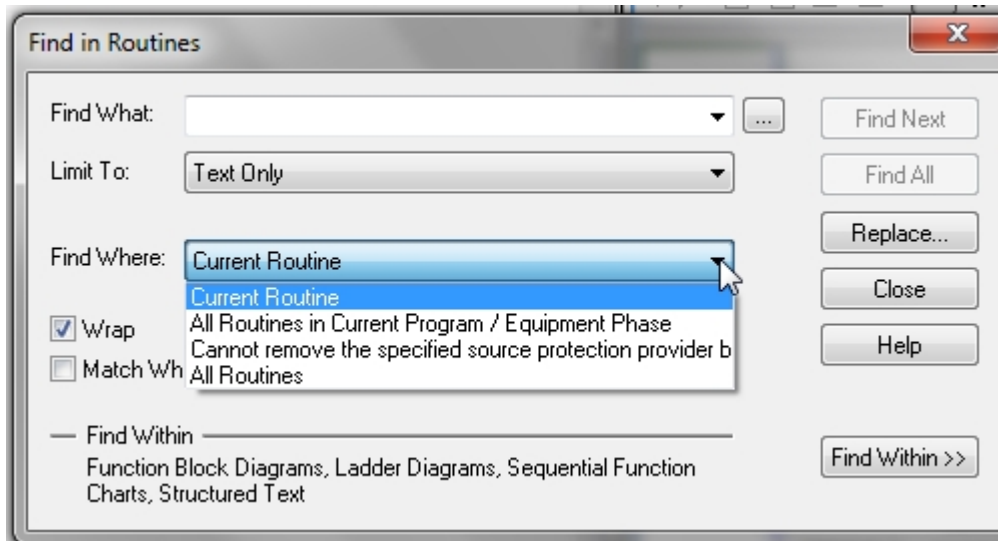
Direction: Down

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
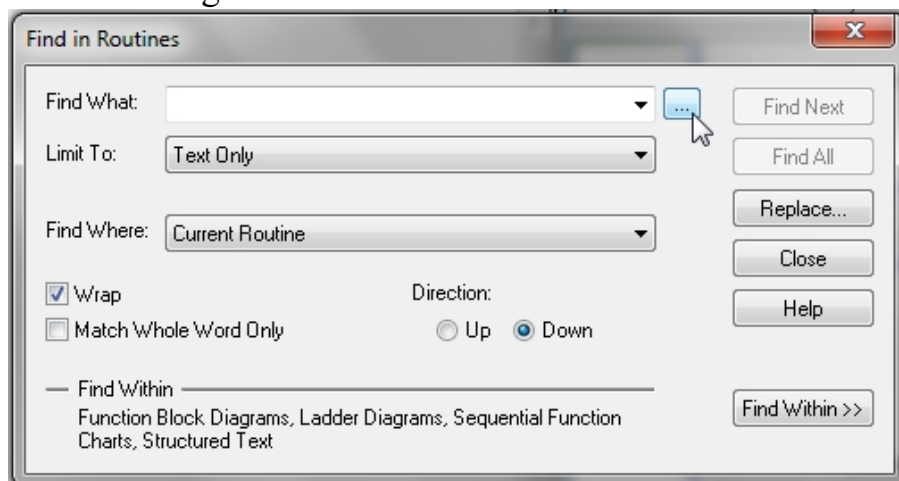

Figure 7-A. The lookup find what option.

The Search Item Browser window opens
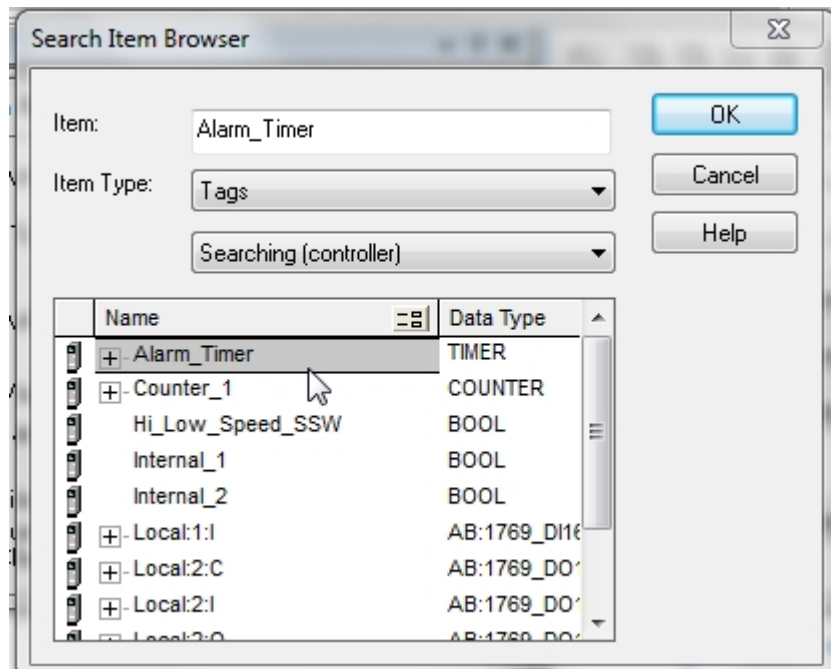This window shows project Tags.
Select the Alarm Timer tag.

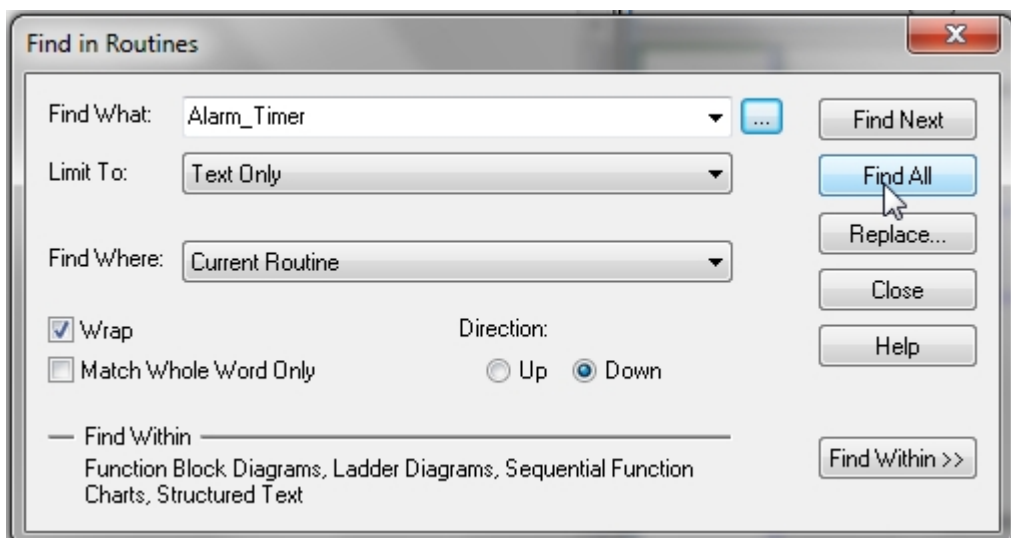Figure 8-A. Choosing a tag to find.

Click the OK button

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.
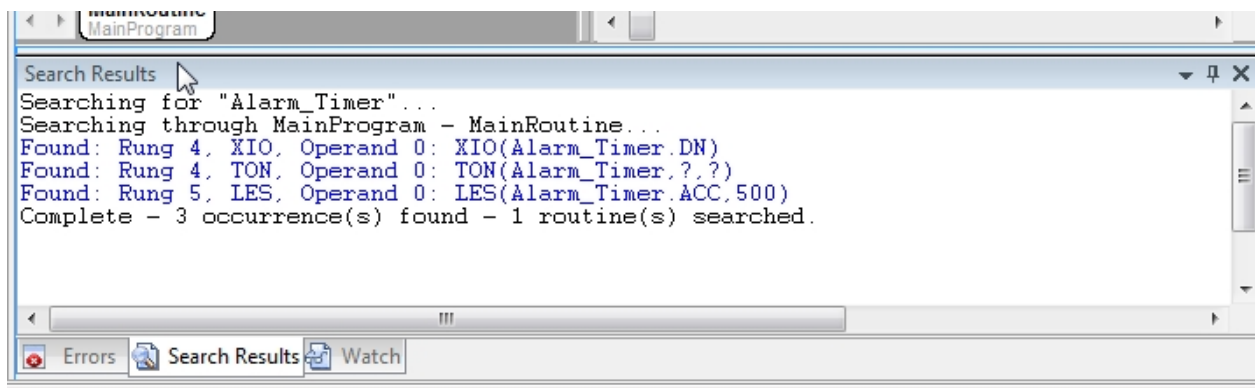

Figure 10-A. The search results window.

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

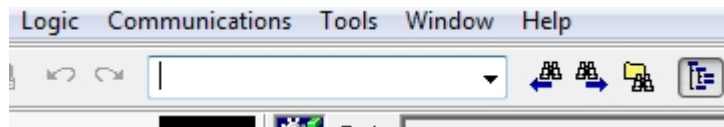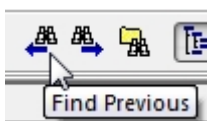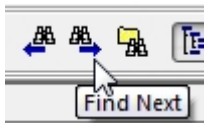The Quick Search / Generic Search Box is located in the Standard Toolbar.
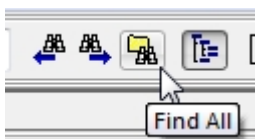

Figure 11-A. The quick search box.

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.

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
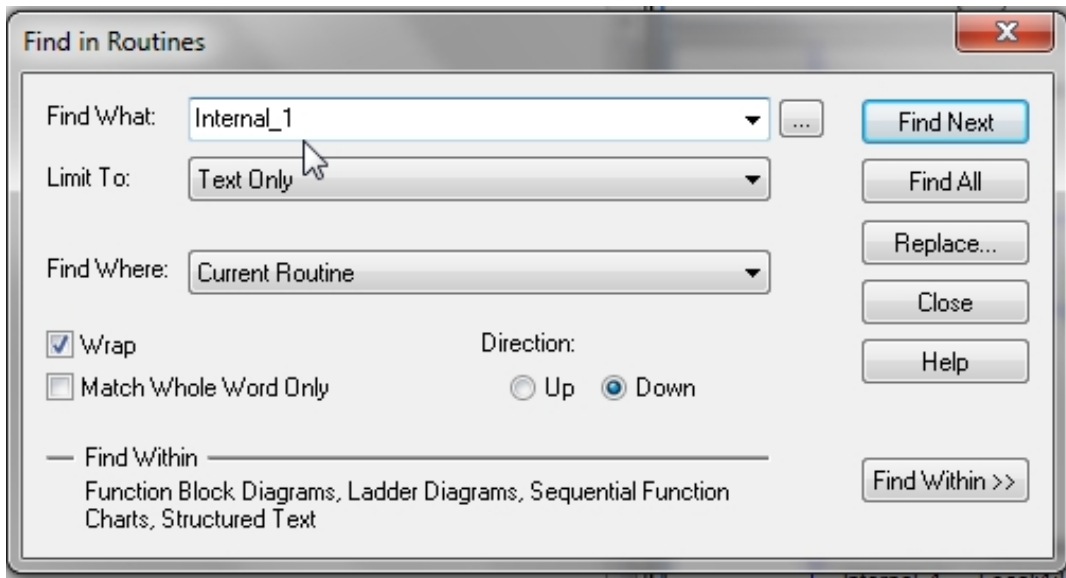 listed in the Find What: selection box

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

Click the Find All button.

List the occurrences of the Timer1 tag

_____

_____

_____

_____

3.	Search for Tags using Cross Reference

Open MainRoutine

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

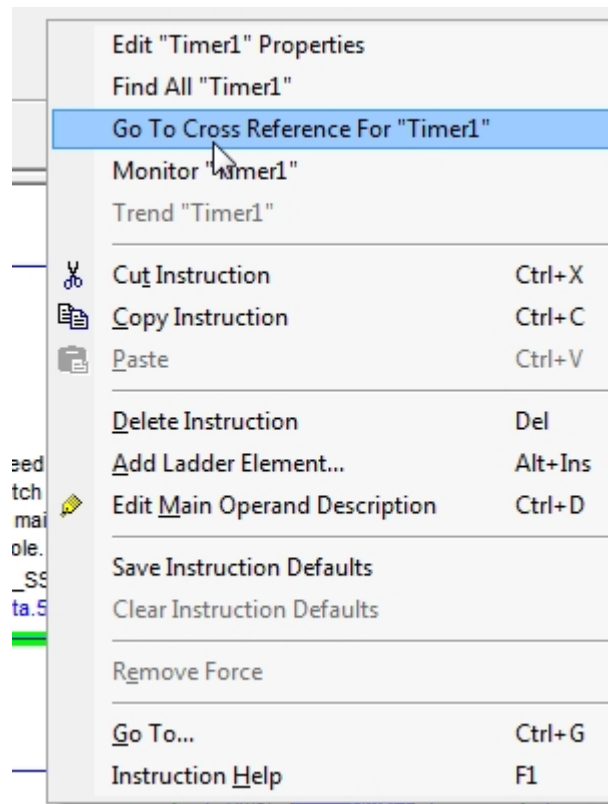From the selection menu – choose

Go To Cross Reference For "Timer1"

Figure 15-A. Search cross reference.

Click Cross Reference For "Timer1"

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Element	Container	▽	Routine	Location	Reference	BaseTag	Destructi
TON	MainProgram		MainRoutine	Rung 2	Timer1		Y
XIC	MainProgram		MainRoutine	Rung 3	Timer1.DN		N

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.
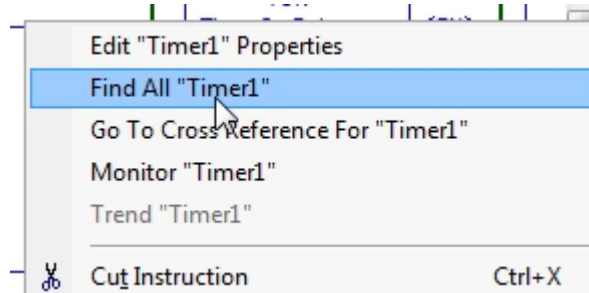
From the selection menu – choose

Find All "Timer1"

Figure 17-A. Right click on a tag and Find All.

Click Find All "Timer1"

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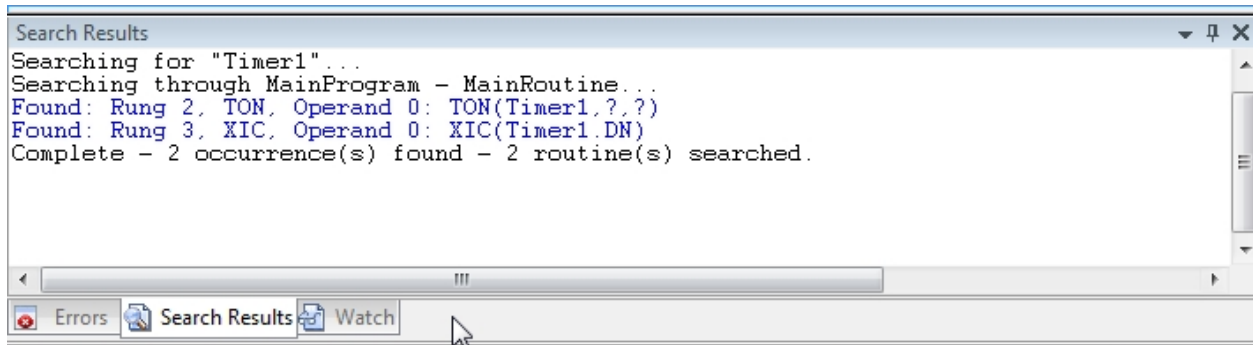shows the occurances of Timer1

Figure 18-A. The Find All search results.

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

_____

_____

_____

_____

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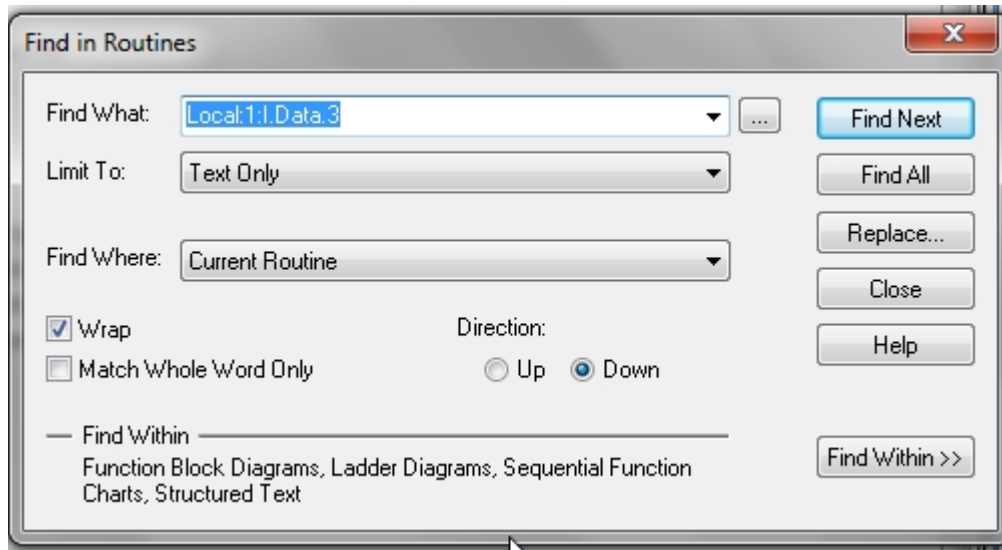
Ensure MainRoutine is opened in Ladder window

Figure 19-A. Finding an input in a routine.

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?_____
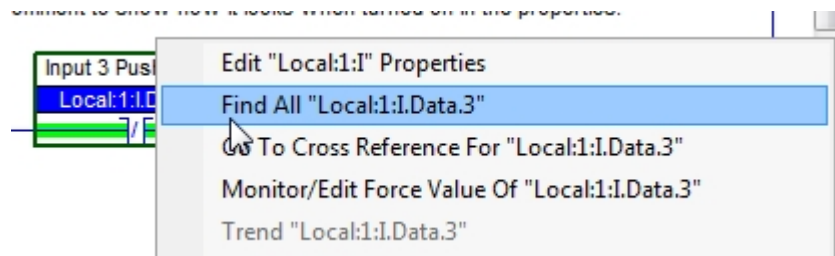

Figure 20-A. Performing a Find All on a tag.

Explain: _____

 _____

 _____

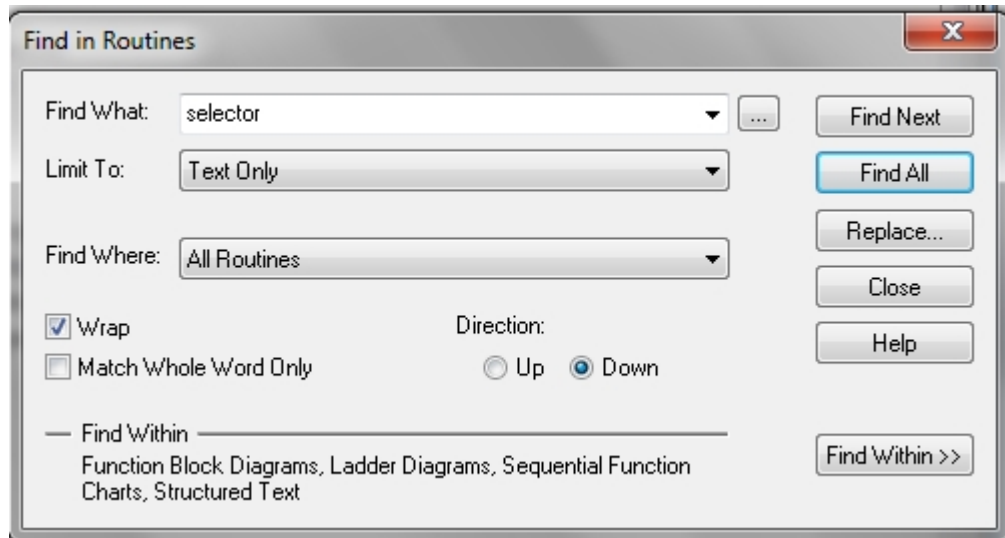5.   Search for documentation using Search -> Find

Figure 21-A. Searching for words in the documentation.

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

_____

_____

_____

_____

_____

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

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

_____

_____

_____

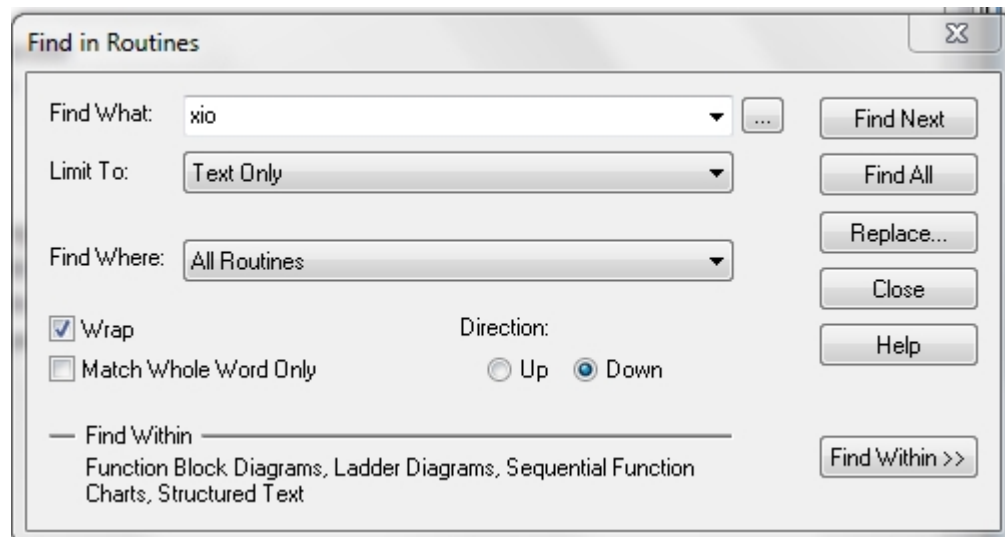7.   Search for type of instructions using Search -> Find

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

_____

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_____

_____

_____

_____

_____

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

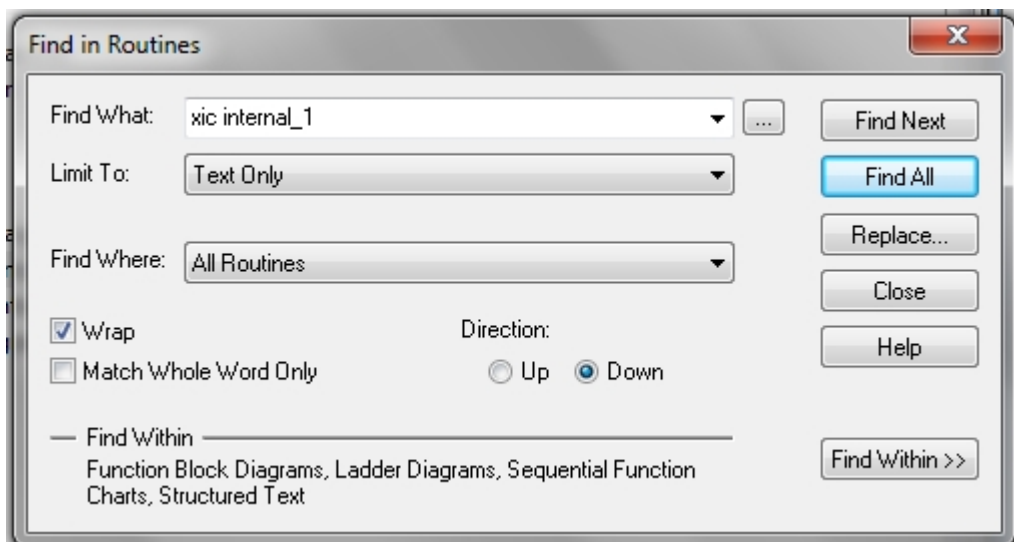8. Search for type of instructions and tags using Search -> Find

Figure 24-A. Searching for a tag and instruction type.

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

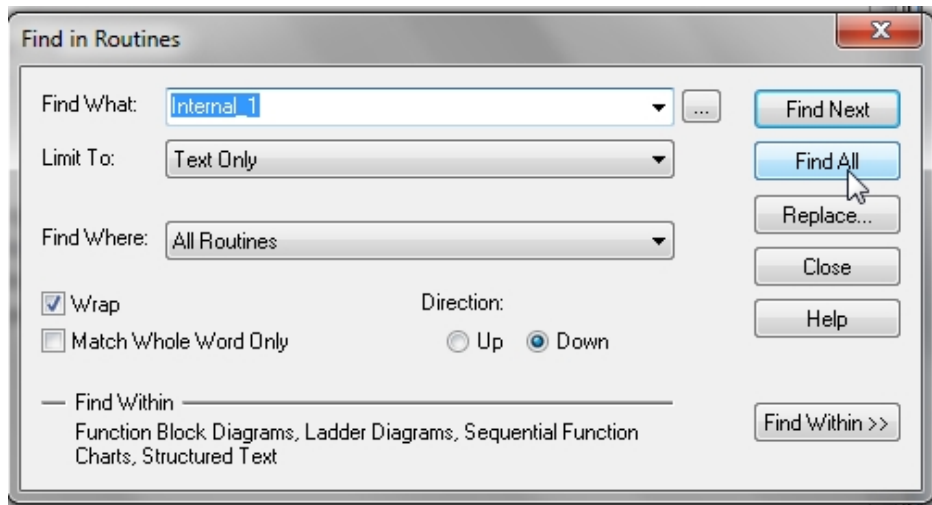Navigate to the Find in Routines window and search for the tag
Internal_1

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
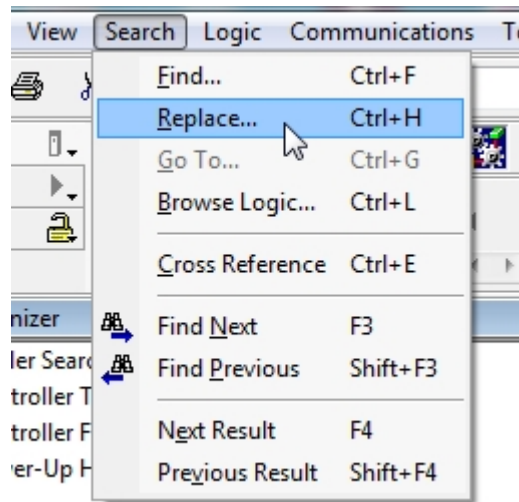On the Menu Bar click Search -> Replace

Figure 26-A. Performing a search replace.
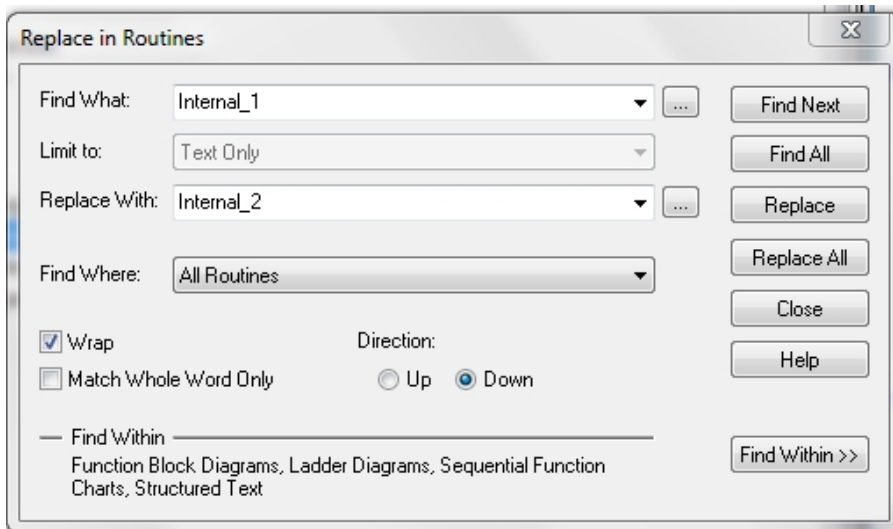
The Replace in Routine window opens.

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

_____

_____

_____

_____

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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