

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.

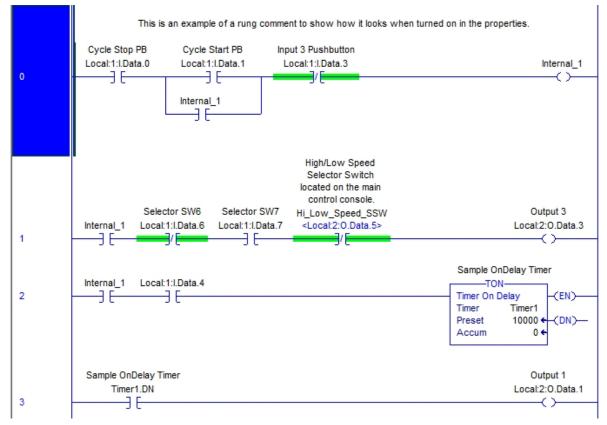


Figure 1-A. The ladder logic of the search routine.

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

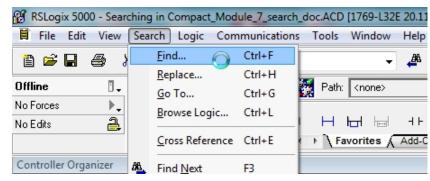


Figure 2-A. Choosing the Find option.

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

The Find in Routines window opens

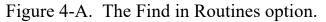
Find in Routin	es	×
Find What:	I	Find Next
Limit To:	Text Only 💌	Find All
Find Where:	Current Routine	Replace Close
🗖 Wrap	Direction:	Help
📃 Match Wł	ole Word Only 💿 Up 💿 Down	
— Find With Function I Text	n Block Diagrams, Sequential Function Charts, Structured	Find Within >>

Figure 3-A. Click the Find Within.

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



Find in Routines						
Find What: Limit To: Text Or	Find Next					
	Routine					
Wrap Match Whole Word Find Within	Wrap Direction: Match Whole Word Only Up Oup					
i i i i i i i i i i i i i i i i i i i	agrams, Ladder Diagrams, Sequential Function <a> <					
Function Block Diagra Ladder Diagrams Sequential F(Action C Structured Text	Instruction Operands					
•	4					



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

Find in Routin	es	×
Find What:	· · · · · · · · · · · · · · · · · · ·	Find Next
Limit To:	Text Only 💌	Find All
Find Where:	Current Routine	Replace Close
🔽 Wrap	Direction:	Help
📃 Match Wł	nole Word Only 💿 Up 💿 Down	
	in Block Diagrams, Ladder Diagrams, Sequential Function ructured Text	Find Within >>

Figure 5-A. Parameter for finding objects.



Ensure Wrap box is checked

Direction: Down

Find in Routine	25	×
Find What:	· · · · · · · · · · · · · · · · · · ·	Find Next
Limit To:	Text Only 💌	Find All
Find Where: Wrap Match Wh	Current Routine Current Routine All Routines in Current Program / Equipment Phase Cannot remove the specified source protection provider b All Routines	Replace Close Help
	n	Find Within >>

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

Find in Routin	25	×
Find What:		Find Next
Limit To:	Text Only	Find All
Find Where:	Current Routine	Replace
🔽 Wrap	Direction:	Help
📃 Match Wh	ole Word Only 💿 Up 💿 Down	
	n Block Diagrams, Ladder Diagrams, Sequential Function ructured Text	Find Within >>

Figure 7-A. The lookup find what option.



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

earch Item Brow	wser				Σ
Item: 📈	Alarm_Timer				OK
Item Type:	Tags			•	Cancel
	Searching (control	ler)		•	Help
Name		==	Data Type		
Alarm_	Timer		TIMER		
- Counter	r_1 🖁		COUNTER		
	_Speed_SSW		BOOL	=	
Internal	_1		BOOL		
Internal	2		BOOL		
Internal	:1		AB:1769_DI1	6	
j +-Local:2	:C		AB:1769_DO	•	
🛉 🕂 Local:2	:1		AB:1769_DO		
a Loool 2	·0		AB-1760 DO		

Figure 8-A. Choosing a tag to find.

Click the OK button

Find in Routin	es	-	×
Find What:	Alarm_Timer	•	Find Next
Limit To:	Text Only	•	Find All
Find Where:	Current Routine	•	Replace Close
📝 Wrap	Direction:		Help
📃 Match Wł	iole Word Only 💿 Up 💿 Down		Пер
	in ————————————————————————————————————	_	Find Within >>

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.

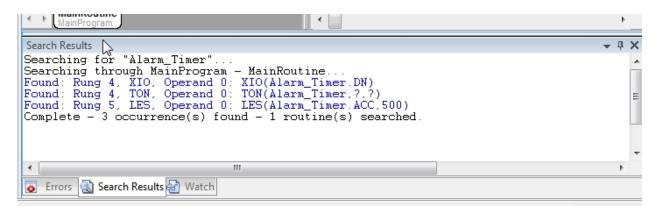


Figure 10-A. The search results window.

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

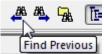
Explain: _____

 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.

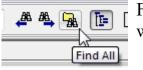
Three icons associated with the Quick Search / Generic Search Box are:



E 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.

Internal_1	•	# 8	<i>8</i> 8	B

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 Routin	es	1 (A P		×
Find What:	Internal_1		•	Find Next
Limit To:	Text Only		•	Find All
Find Where:	Current Routine		•	Replace
🔽 Wrap	Direc	tion:		Help
📃 Match Wł	ole Word Only 🛛 🦳) Up 💿 Down		
	in ————————————————————————————————————	Sequential Functio	 on	Find Within >>

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"

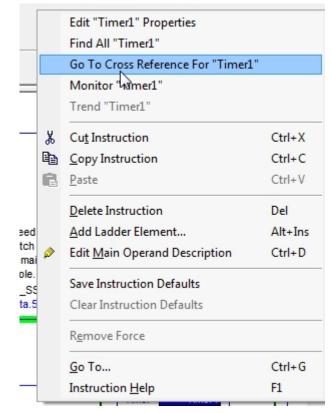


Figure 15-A. Search cross reference.

Click Cross Reference For "Timer1"



Type: Tag	Scope:	🛐 Searching	Show: Show All	•		
Name: Timer1	-		R	efresh		
Element	Container		Location	Reference	BaseTag	Destructi
TON	🕞 MainProgram	🚺 MainRo	utine Rung 2	Timer1		Y
XIC	🕞 MainProgram	🚹 MainRo	utine Rung 3	Timer1.DN		Ν

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"



_		the state teach		
		Edit "Timer1" Properties		
		Find All "Timer1"		
		Go To Cross Reference For "Timer1"		
		Monitor "Timer1"		
		Trend "Timer1"		
-	ж	Cu <u>t</u> Instruction	Ctrl+	X

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

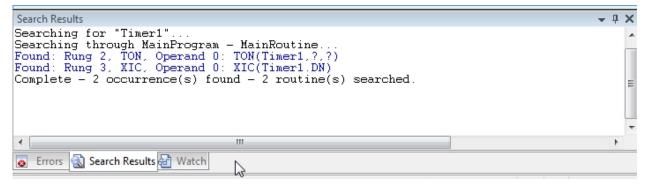


Figure 18-A. The Find All search results.

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

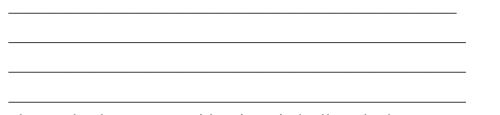
Find in Routin	25	×
Find What:	Local:1:I.Data.3	Find Next
Limit To:	Text Only 🔹	Find All
Find Where:	Current Routine	Replace Close
🔽 Wrap	Direction:	Help
📃 Match Wh	ole Word Only 💿 Up 💿 Down	
	n	Find Within >>
	K	

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?_____

	on noone mentanee en n'ne propertee.	
Input 3 Pusl	Edit "Local:1:I" Properties	
Local:1:I.E	Find All "Local:1:I.Data.3"	
/	To Cross Reference For "Local:1:I.Data.3"	
	Monitor/Edit Force Value Of "Local:1:I.Data.3"	
	Trend "Local:1:I.Data.3"	

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



Explain:	

5. Search for documentation using Search -> Find

Find in Routin	25	×
Find What:	selector 👻	Find Next
Limit To:	Text Only	Find All
Find Where:	All Routines 🔹	Replace Close
📝 Wrap 📄 Match Wh	Direction: ole Word Only	Help
	n	Find Within >>

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

Searching



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

Find in Routin	25	23
Find What:	xio 👻	Find Next
Limit To:	Text Only 🔹	Find All
Find Where:	All Routines 🔹	Replace Close
📝 Wrap	Direction:	Help
📃 Match Wł	ole Word Only 💿 Up 💿 Down	Пер
	n	Find Within >>

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

Find in Routin	es				×
Find What:	xic internal_1		•	·	Find Next
Limit To:	Text Only			·	Find All
Find Where:	All Routines			·	Replace Close
📝 Wrap		Direction:			Help
📃 Match Wł	nole Word Only	🔘 Up	💿 Down		Пер
 Find Within ———— Function Block Diagrams, Ladder Diagrams, Sequential Function Charts, Structured Text 			_	Find Within >>	

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

Find in Routin	es	×
Find What:	Internal_1	 Find Next
Limit To:	Text Only 🗸	Find All
Find Where:	All Routines 🔹	Replace
☑ Wrap □ Match Wł	Direction: nole Word Only 💿 Up 💿 Down	Close Help
	in ————————————————————————————————————	Find Within >>

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



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Navigate to the Replace in Routines window On the Menu Bar click Search -> Replace

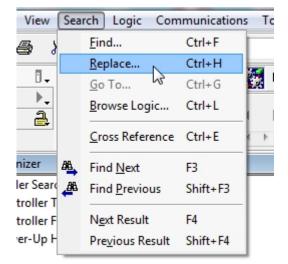


Figure 26-A. Performing a search replace.

The Replace in Routine window opens.

Replace in Routi	nes		X
Find What:	Internal_1	•	Find Next
Limit to:	Text Only	-	Find All
Replace With:	Internal_2	•	Replace
Find Where:	All Routines	•	Replace All
✓ Wrap Match Whole	Direction: e Word Only 💿 Up 💿 Down		Help
— Find Within Function Blo Charts, Stru	ck Diagrams, Ladder Diagrams, Sequential Function stured Text		Find Within >>

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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