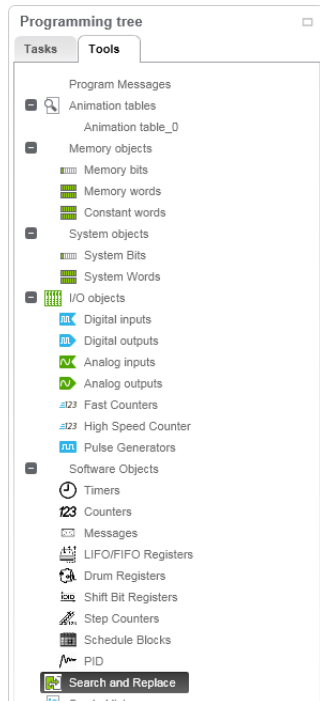


# Searching for Things

## Using the Search

The previous method of navigating around the project is possible if the rungs have been given meaningful names of the project is familiar. If not then the object must be searched for.

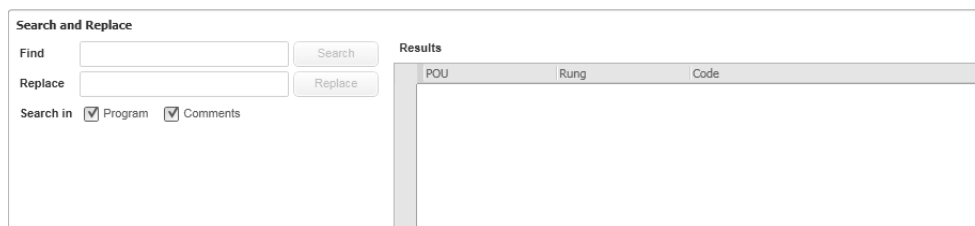
The search function in SoMachine Basic makes finding things easy. At the moment it only works on rung names or descriptions so when programming, make sure meaningful rung names and descriptions are entered. The search will not work for symbols.



To start a search, go to the **Programming** tab and select **Tools** in the **Programming Tree**. Near the bottom under **Software Objects**, select **Search and Replace**.

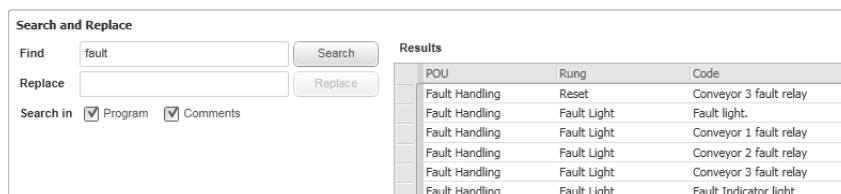
In the section that opens at the bottom of the screen, type the required search into the **Find** dialog box and click the **Search** button (Pressing the return key will not work). A list of matching descriptions will be displayed. The wildcard is not required as the list will include all descriptions that contain the matching string.

The search can only be used to search the code.



## Using what has been Found

After the search has produced a list of matching items, these can be used to navigate around the application.



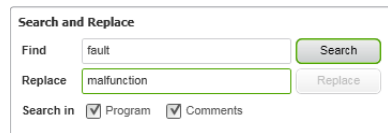
Clicking an item in the list will go to the rung where that object has been programmed and place the cursor on the object.

# Replacing Things

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## Using Replace

When something has been found, the replace may be used to a piece of text in a description to something. For example, if all descriptions contained the word "fault" and this needs to be changed to "malfunction", enter the word malfunction into the replace dialog box and click the **Replace** button (once again, pressing the return key will not work).



The image shows a 'Search and Replace' dialog box. It has a title bar 'Search and Replace'. Below the title bar, there are two input fields: 'Find' with the text 'fault' and 'Replace' with the text 'malfunction'. To the right of the 'Find' field is a 'Search' button, and to the right of the 'Replace' field is a 'Replace' button. Below these fields, there is a 'Search in' section with two checked checkboxes: 'Program' and 'Comments'.

This function can only be used for replacing ALL instances of a string.

# Exercise - Searching for Things

## Learning Outcomes

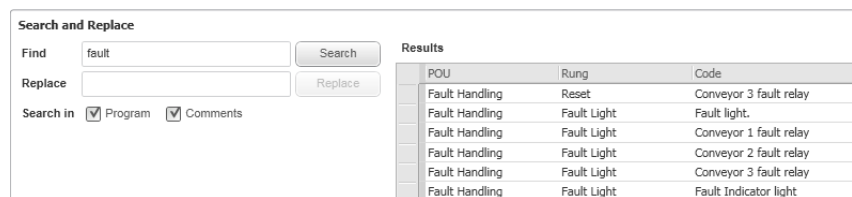
By the completion of this exercise you will:

- Search and replace in SoMachine Basic.

### 1 If SoMachine Basic is not running, start it and open the Conveyor Control Application.

### 2 Search for objects associated with faults.

- Click the **Programming** Tab.
- Click the **Tools** Tab in the **Programming Tree**.
- Select **Search and Replace** under **Software Objects**
- In the **Find** dialog box enter the word `fault` and click the **Search** button.



POU	Rung	Code
Fault Handling	Reset	Conveyor 3 fault relay
Fault Handling	Fault Light	Fault light.
Fault Handling	Fault Light	Conveyor 1 fault relay
Fault Handling	Fault Light	Conveyor 2 fault relay
Fault Handling	Fault Light	Conveyor 3 fault relay
Fault Handling	Fault Light	Fault Indicator light

### 3 Navigate using the search.

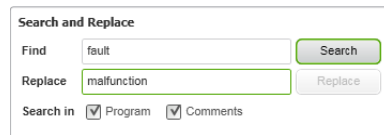
- Click one of the items in the search results and observe the effect on the ladder rungs displayed.
- Select the first item in the list.
- Select the second item in the list and observe the effect on the ladder rungs displayed. The rung should not change but the cursor will move to the next object.
- Click the third item in the list.
- Select other items to see other parts of the conveyor fault programming.

## Exercise - Searching for Things (cont.)

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### 4 Replacing items.

- i. In the Find dialog box enter the word `malfunction` and click the **Replace** Button. Note that all instances of "fault" have been replaced with "malfunction".



Search and Replace

Find

Replace

Search in  Program  Comments

- ii. Confirm this by clicking the **Search** button. SoMachine Basic will search for all occurrences of the word "fault" as this is still in the search box. The result will be the message "No search results available" as they have all been replaced.
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