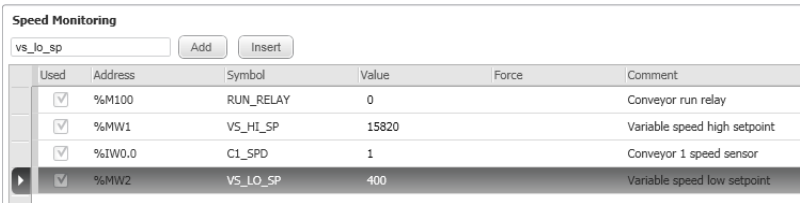


# Looking at Values

## Animation Tables

If the values of many objects need to be viewed at the same time then animation tables provide a way of doing this.



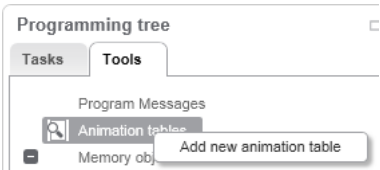
The screenshot shows a window titled "Speed Monitoring" with a search bar containing "vs\_lo\_sp" and "Add" and "Insert" buttons. Below is a table with columns: Used, Address, Symbol, Value, Force, and Comment.

Used	Address	Symbol	Value	Force	Comment
<input checked="" type="checkbox"/>	%M100	RUN_RELAY	0		Conveyor run relay
<input checked="" type="checkbox"/>	%MW1	VS_HI_SP	15820		Variable speed high setpoint
<input checked="" type="checkbox"/>	%IW0.0	CI_SPD	1		Conveyor 1 speed sensor
<input checked="" type="checkbox"/>	%MW2	VS_LO_SP	400		Variable speed low setpoint

Animation tables allow multiple objects to be displayed in a single table along with their values. Multiple animation tables can be created and saved for different debugging sessions.

## How to Create an Animation Table

To create an animation table, go to the **Tools** tab of the **Programming tree**. Right-click **Animation tables** and select **Add new animation table** from the menu.



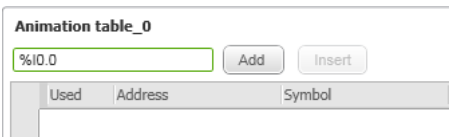
An empty animation table will be created where new objects can be added.



The screenshot shows a window titled "Animation table\_0" with a search bar and "Add" and "Insert" buttons. Below is a table with columns: Used, Address, Symbol, Value, Force, and Comment.

Used	Address	Symbol	Value	Force	Comment
------	---------	--------	-------	-------	---------

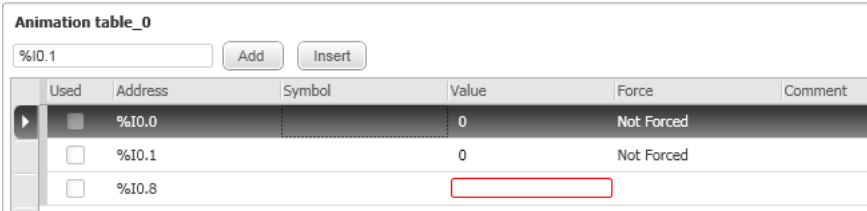
In the entry box, enter either the symbol or address of an object and click the **Add** button.



The screenshot shows the "Animation table\_0" window with "%I0.0" entered in the search bar. The "Add" button is highlighted. The table below has columns: Used, Address, Symbol.

Used	Address	Symbol
------	---------	--------

If the object is found, the value will be displayed if known. If the object is not found, a red box will be displayed indicating an error.



The screenshot shows the "Animation table\_0" window with "%I0.1" entered in the search bar. The table below has columns: Used, Address, Symbol, Value, Force, and Comment.

Used	Address	Symbol	Value	Force	Comment
<input checked="" type="checkbox"/>	%I0.0		0	Not Forced	
<input type="checkbox"/>	%I0.1		0	Not Forced	
<input type="checkbox"/>	%I0.8				

## Looking at Vales (cont.)

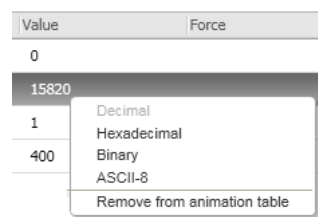
---

### Changing the Display Format

The format of values displayed in animation tables can be changed to help when displaying data in different addressing formats. The allowable display formats are:

Decimal	(65)
Hexadecimal	(0041)
Binary	(0000000001000001)
ASCII	(A)

Right-click a value displayed in an animation table and a list of display formats will be listed in the pop-up menu. Choose the appropriate format for the data displayed.



# Exercise - Animation Tables

## Learning Outcomes

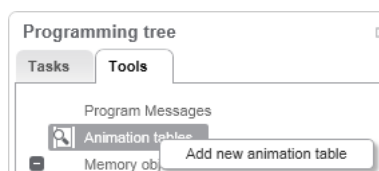
By the completion of this exercise you will:

- Create an animation table to show values of objects.

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

**2 Create an animation table.**

- Go to the **Tools** tab of the **Programming tree**. Right-click **Animation tables** and select **Add new animation table** from the menu.



- In the entry box enter the object %M100. Click the **Add** button.



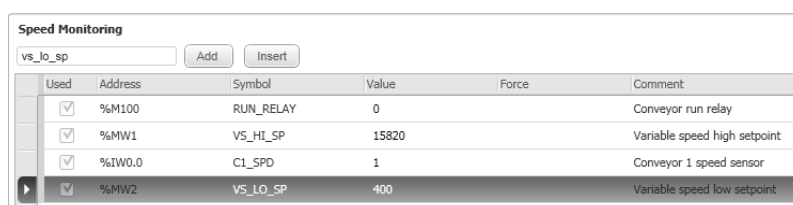
- Add the following objects to the animation table:

VS\_HI\_SP

C1\_SPD

VS\_LO\_SP

This table will allow the speed check to be carried out very quickly. If the system is running, the actual speed should be between the low and high setpoints.



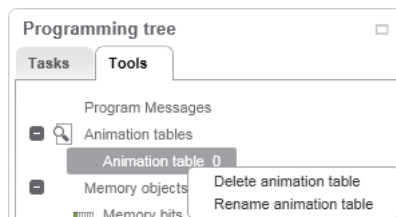
Used	Address	Symbol	Value	Force	Comment
<input checked="" type="checkbox"/>	%M100	RUN_RELAY	0		Conveyor run relay
<input checked="" type="checkbox"/>	%MW1	VS_HI_SP	15820		Variable speed high setpoint
<input checked="" type="checkbox"/>	%IW0.0	C1_SPD	1		Conveyor 1 speed sensor
<input checked="" type="checkbox"/>	%MW2	VS_LO_SP	400		Variable speed low setpoint

The order of the objects in the table has been carefully chosen so that when everything is running correctly, the analogue values decrease from top to bottom. If they do not, this indicates a problem.

## Exercise - Animation Tables (cont.)

### 3 Rename the animation table to indicate its purpose.

- i. In the Programming tree, right-click the animation table **Animation table\_0** and select **Rename animation table** from the menu.



- ii. Change the name to Speed Monitoring.

The screenshot shows the 'Speed Monitoring' configuration window. At the top, there's a search bar with 'vs\_lo\_sp' and 'Add'/'Insert' buttons. Below is a table with columns: Used, Address, Symbol, Value, Force, and Comment.

Used	Address	Symbol	Value	Force	Comment
<input checked="" type="checkbox"/>	%M100	RUN_RELAY	0		Conveyor run relay
<input checked="" type="checkbox"/>	%MW1	VS_HI_SP	15820		Variable speed high setpoint
<input checked="" type="checkbox"/>	%IW0.0	CL_SPD	1		Conveyor 1 speed sensor
<input checked="" type="checkbox"/>	%MW2	VS_LO_SP	400		Variable speed low setpoint

### 4 Save the application.

