**Visual Statechart Tree View**

This view gives detailed information about states and transitions has many features to control state machines and their properties

**Edit Tool bar – fundamental state machine manipulation**

C:\visualsc\scformview\resources\cardboardboxnew.png Insert State

Inserts a new child state for the selected state

C:\visualsc\scformview\resources\rightarrowhollownew.pngInsert Transition

Inserts a new transition from the selected state as the source state to the selected target state from the selection window pop up

C:\visualsc\scformview\resources\family.png Reselect Parent

State selected: The selected target state becomes the new parent of the state selected

Transition selected: The selected target state becomes the new source state of the transition

C:\visualsc\scformview\resources\reselect.png Reselect Target

Only for transitions

The selected target state will become the new target state for a transition

C:\visualsc\scformview\resources\cancelw10.png Delete

Deletes the selected item, and any children that belong to it

C:\visualsc\scformview\resources\framein.png Bring to front

Sets the Z value of the selected item to be higher than any other item.   
Note about Z values and Qt: Hierarchical Z values limit the control of this functionality. Child items will always appear in front of their parent regardless of Z value. Additionally, if State A has a higher Z value than State B, and they are on the same level of hierarchy with the same parent, then A and children of A will always be in front of B and children of B.

C:\visualsc\scformview\resources\frameout.png Send to back

Sets the Z value of the selected item to be lower than any other item.

Tree View

The tree view gives a list of all states and transitions of the root state machine in a hierarchical view.

How to select an item:

* Clicking on any item in the tree will select it.
* Arrow keys can be used to move between selected items.
* Clicking the item in the graphics view will also select the item.

**Attribute Table**

The attributes associated with the selected item. States and transitions have different attributes. The code generated state machines use these attributes accordingly, so it is important to ensure you have these set properly. See code generator section for more information on how each attribute affects the code.

State Attributes

name name of the state

entryAction custom entry actions can be created here. For multiple entry actions, use a comma separated list. Spaces are acceptable for each action (becomes camel case in code).

exitAction custom exit actions can be created here. For multiple exit actions, use a comma separated list. Spaces are acceptable for each action (becomes camel case in code).

finalState true/false sets the state to a final state

* Final states are optional
* A state machine can have any number of final states set, including none

initialState true/false sets the state to an initial state

* Every state machine needs an initial state set (unless the state machine is parallel)
* Parallel state machines should not have an initial state set

parallelState true/false sets the state machine to be parallel.

* Parallel states will emit their finished() signal only when all of its children states emit their finished signal

Position parent-item-relative position of the item

Size size of the item

Type not used currently

Uid Globally Unique Identifier generated when the item is created. This prevents naming collision problems when saving and exporting to code. The same name can be given to multiple states and transitions with this.

Transition Attributes

Event name of transition, appears in graphics view text block

Target name of target state

Comments will appear in the constructor for the code generator, on the addTransition call belonging to this transition

connectToFinished true/false code generator will add an additional addTransition call for the source state’s finished signal to the target state of the transition

path position of the elbows of the transition

uid Globally Unique Identifier generated when the item is created. This prevents naming collision problems when saving and exporting to code. The same name can be given to multiple states and transitions with this.

**Custom Attributes**



One can add and delete custom attributes to a state or transition. These will be saved.

**Text Block Attribute Table**

To be implemented