

# Deferred Events

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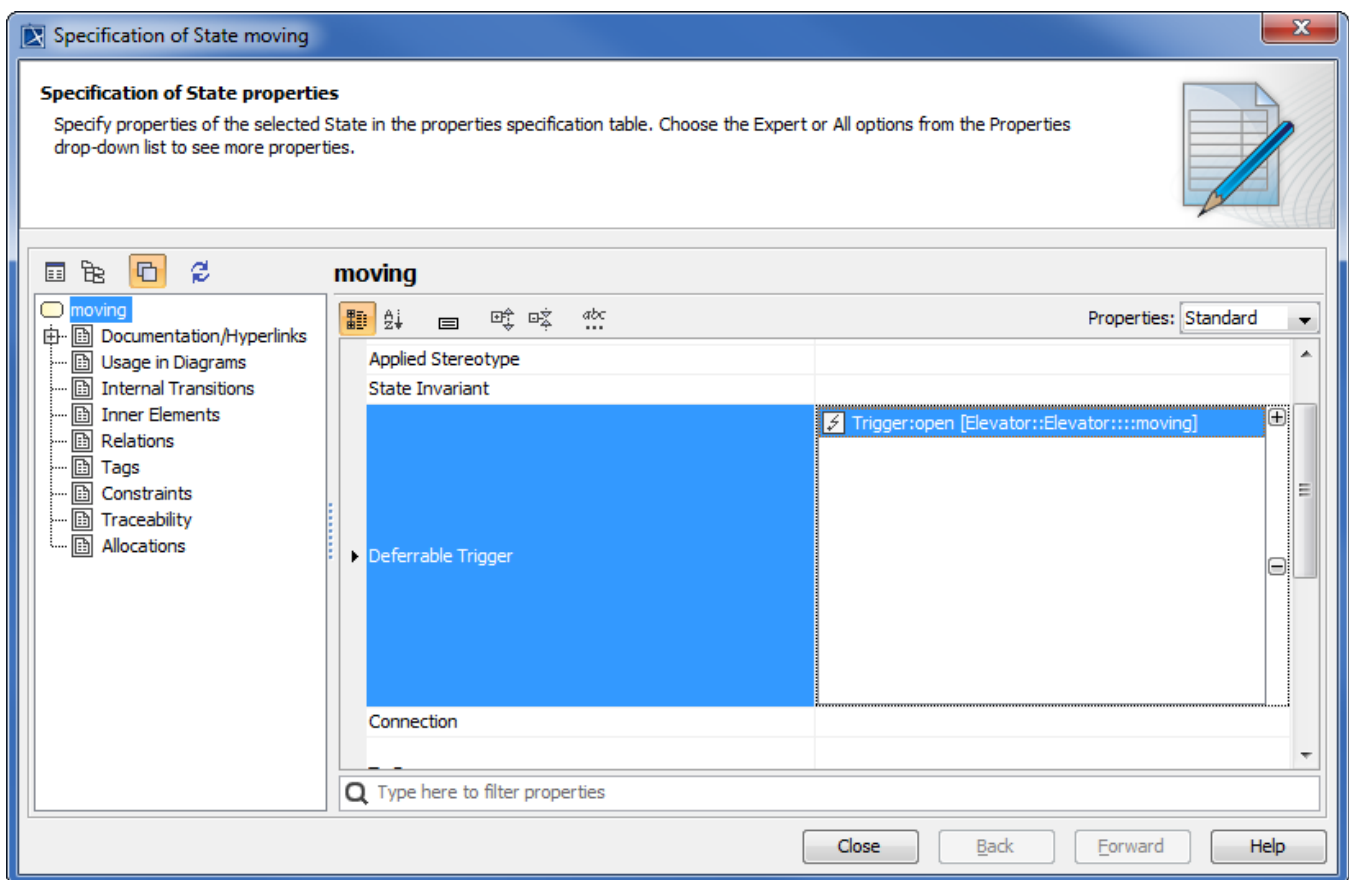
- [Deferrable Trigger](#)

UML State Machines provide a special mechanism for deferring Events in States. In every State, you can include a clause [Event list]/defer. If an Event in the current State's deferred Event list occurs, the Event will be saved (deferred) for future processing until a State is entered that does not list the Event in its deferred Event list. Upon entry to such a State, the UML State Machine will automatically recall any saved Event(s) that are no longer deferred and will then either consume or discard these Events.

- A deferred Event is activated as soon as it enters a State where it is not deferred.
- A deferred Event can only be added to a State Machine diagram at this time.

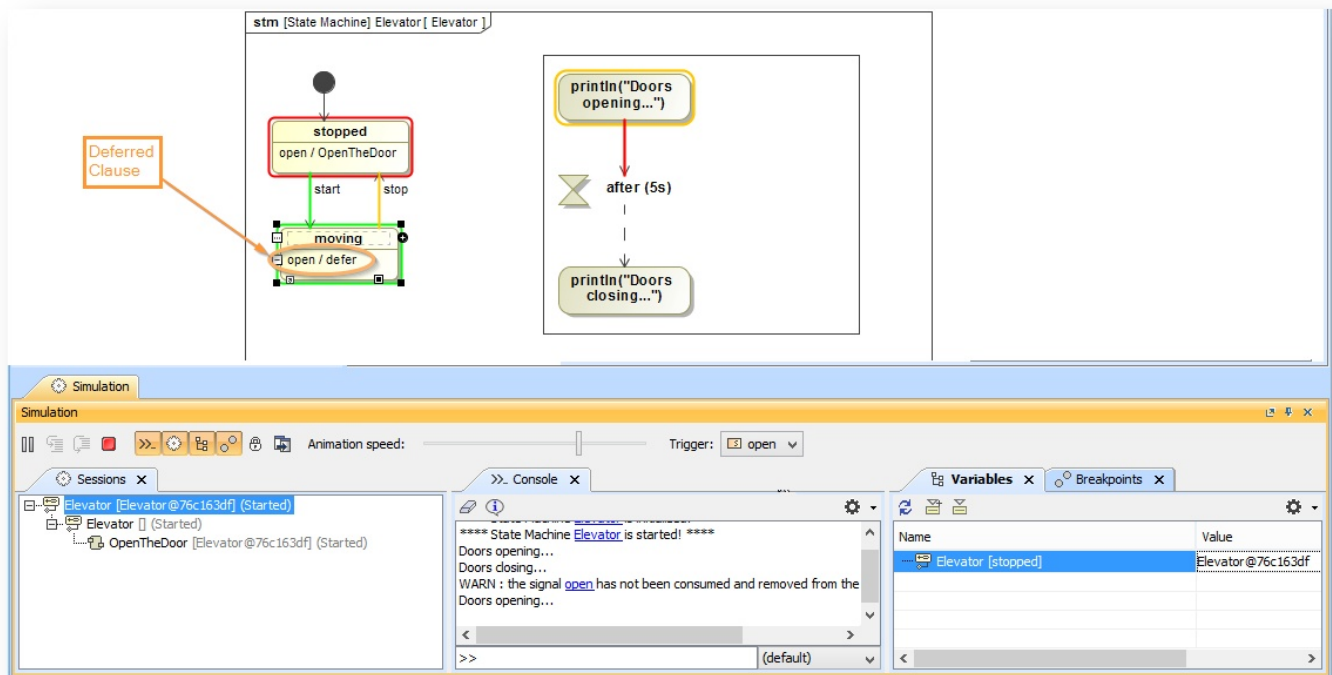
## Deferrable Trigger

A list of Triggers that are candidates to be retained by the State Machine if they trigger no transitions out of the State (not consumed). A deferred Trigger is retained until the State Machine reaches a State configuration where it is no longer deferred.



The Specification window for Event State moving - showing the editable Deferrable Trigger tag.

As in the State Machine diagram in the following figure, the Elevator '**open**' Event is deferred as long as the Elevator is moving. Only when the State transitions to '**stopped**' State again, the '**open**' Event will be executed because it is no longer deferred at this point.



A deferred clause added to Event moving which causes the Event to delay until it is no longer deferred.



#### Important

This version of Cameo Simulation toolkit does not support **Deferred Events** for Activity diagrams. They can now only be added to a State in a State Machine diagram.

#### Related page

- [State Machine](#)
- [State Machine diagram](#)