How to draw a State Machine Diagram in UML

State machine diagram is a kind of UML diagram that shows flow of control from state to state within single object. It usually contains simple states, composite states, composite states, transitions, events and actions.

## Creating state machine diagram

Perform the steps below to create a UML state machine diagram in Visual Paradigm.

1. Select **Diagram > New** from the application toolbar.
2. In the **New Diagram** window, select **State Machine Diagram**.
3. Click **Next**.
4. Enter the diagram name and description. The **Location** field enables you to select a model to store the diagram.
5. Click **OK**.

Creating states and transitions

After creating a state machine diagram, an initial pseudo state appears by default. You can create other states by using Resource Catalog:
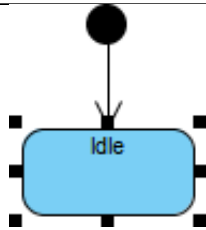
1. Move your mouse pointer over the source state.
2. Press on the **Resource Catalog** button and drag it out.
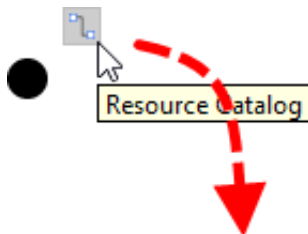
3. Release the mouse button at the place where you want the state to be created.
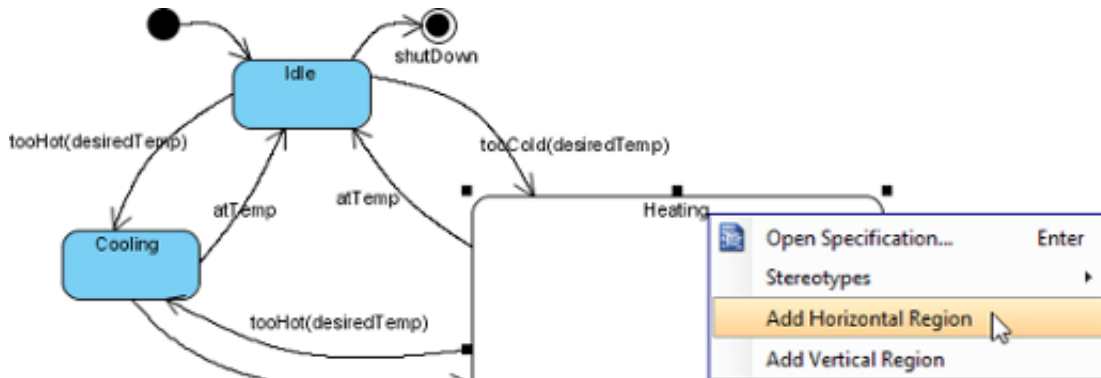4. Select the state to be created from Resource Catalog.
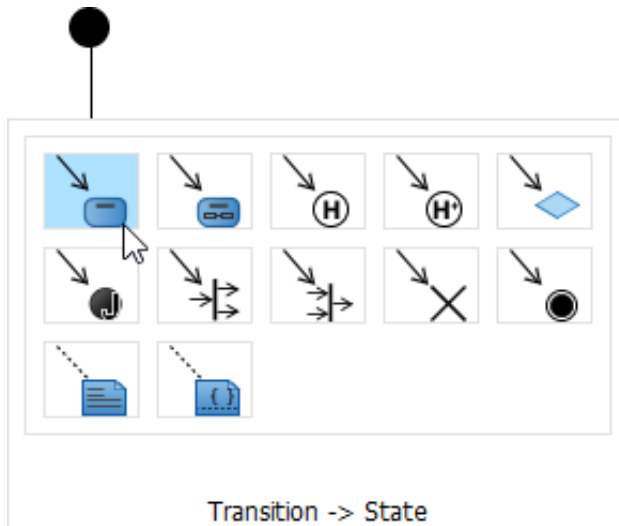
5. A new state will be created and is transited from the source state. Enter its name and press **Enter** to confirm editing.
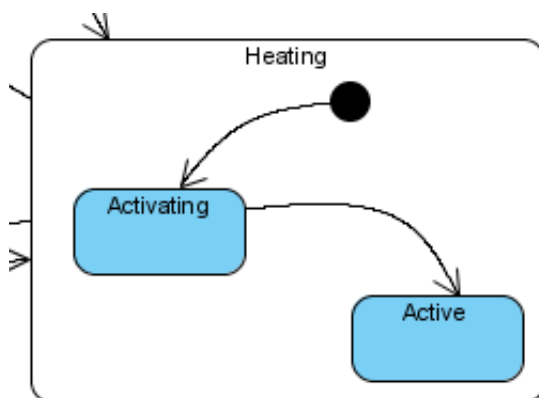
Adding region to state

To model substates of a composite state, you need to add one or more regions to it. To add a region, right-click the state and select **Add Horizontal Region** from the popup menu.
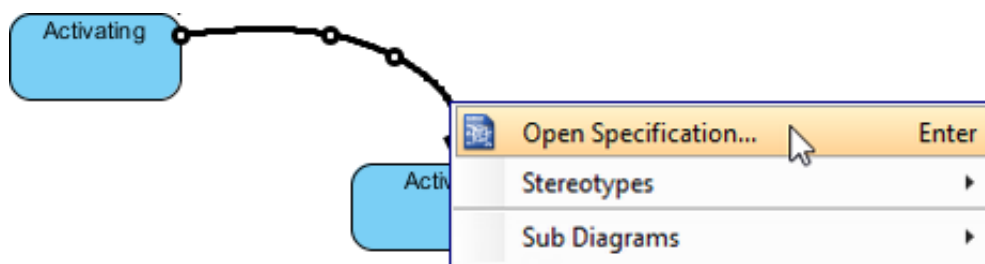

Next, you can draw the substates inside the region.

Modeling properties of transition

To model properties of transition such as effect and guard, right-click the transition and select **Open Specification...** from the pop-up menu.

When the **Transition Specification** pops out, you can edit its name, effect and guard. Next, select **Create Activity...** from the **Effect** property.

In **Activity Specification (Effect)** window, change its name and then click **OK** button to apply the change.

Click **OK** in the **Transition Specification** to close it. The name and effect are shown on the transition caption.