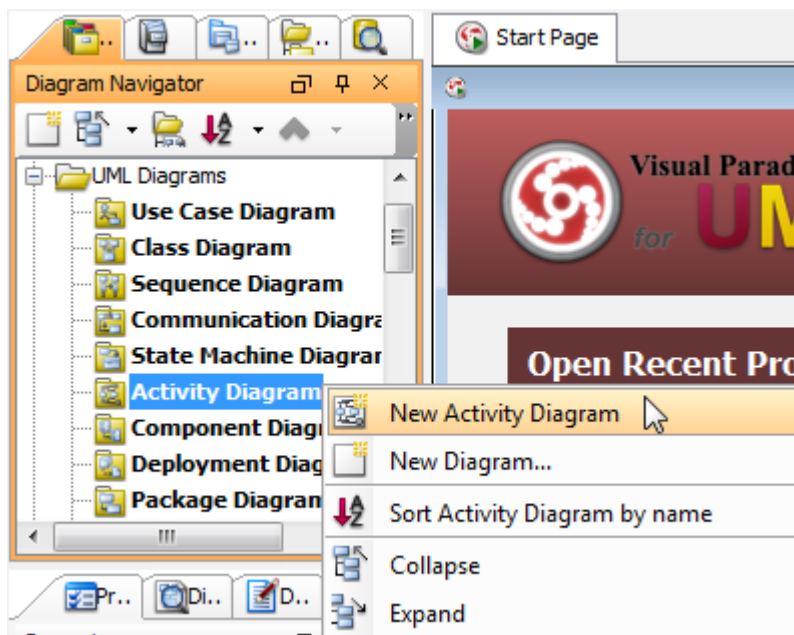


## Drawing activity diagrams

**Activity diagram** is a flowchart-based diagram showing flow of control from activity to activity. It shows concurrency, branch, control flow and object flow. Swimlane, furthermore, is used for partitioning the activity states.

Creating activity diagram

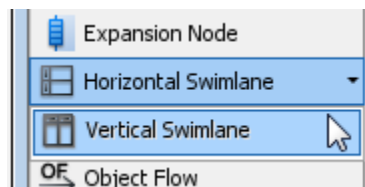
- Click on **UML** on toolbar and select **Activity Diagram** from the drop down menu.
- Right click on **Activity Diagram** in **Diagram Navigator** and select **New Activity Diagram** from the popup menu.
- Select **File > New Diagram > UML Diagrams > Activity Diagram** from the main menu.



Create activity diagram

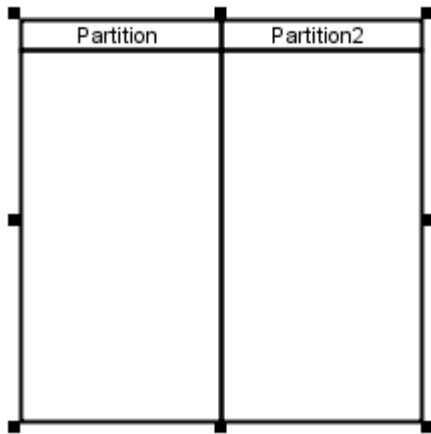
Creating swimlane

You can click either **Horizontal Swimlane** or **Vertical Swimlane** on the diagram toolbar.



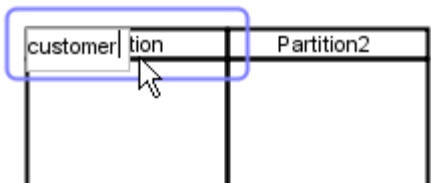
Create swimlane

Click on the diagram to create the swimlane.



Swimlane created

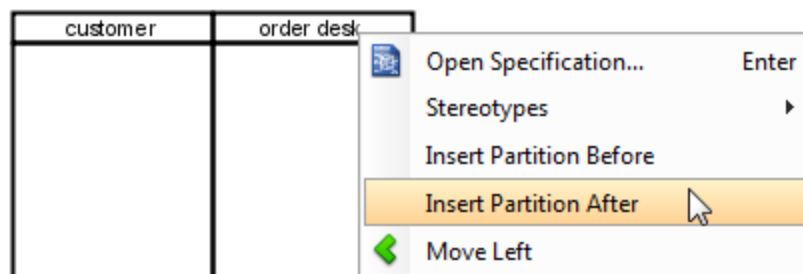
Double-click the partition name to rename it.



Rename partition

Inserting partition to swimlane

To insert partition to swimlane, right-click on a partition and select either **Insert Partition Before** or **Insert Partition After** from the pop-up menu.



Insert partition to swimlane

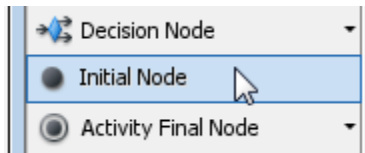
A partition is inserted.



Partition inserted

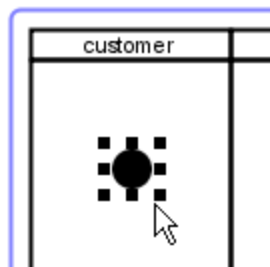
Creating initial node

Click **Initial Node** on the diagram toolbar.



Create initial node

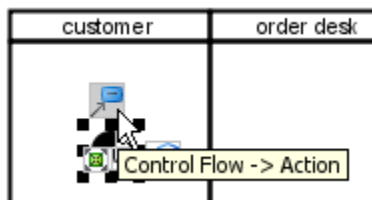
Click inside the partition to create the initial node there.



Initial node created

Creating action

Mouse over the initial node until its resources are visible. Click on the **Control Flow -> Action** resource and drag.



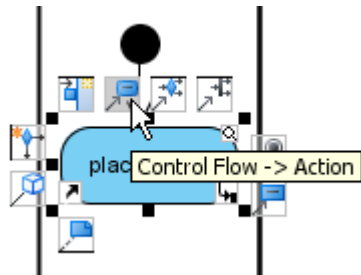
Create action

Move the mouse to where you want to place the action to, and then release the mouse button. An action is created and is connected to the initial node with a control flow.



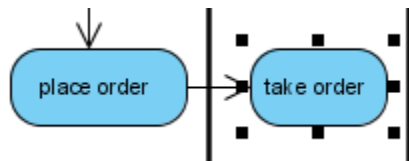
Action created

Similarly you can create a new action using the **Control Flow -> Action** resource of an action.



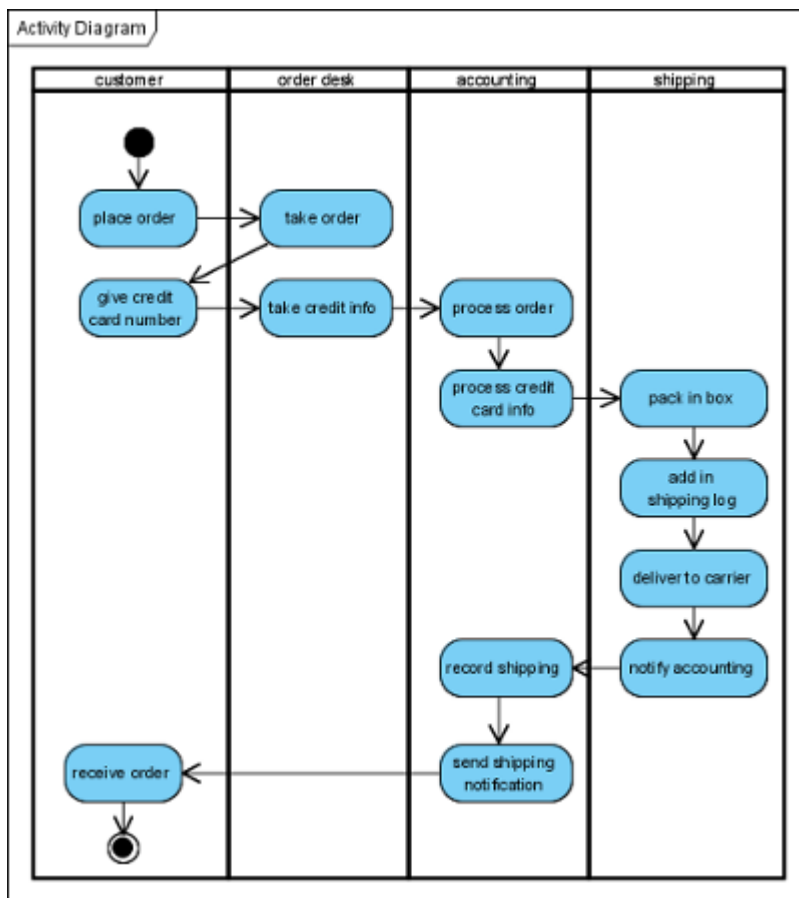
Create a new action from an action

A new action is created and is connected to the action with a control flow.



Action created

Continue to complete the activity diagram.



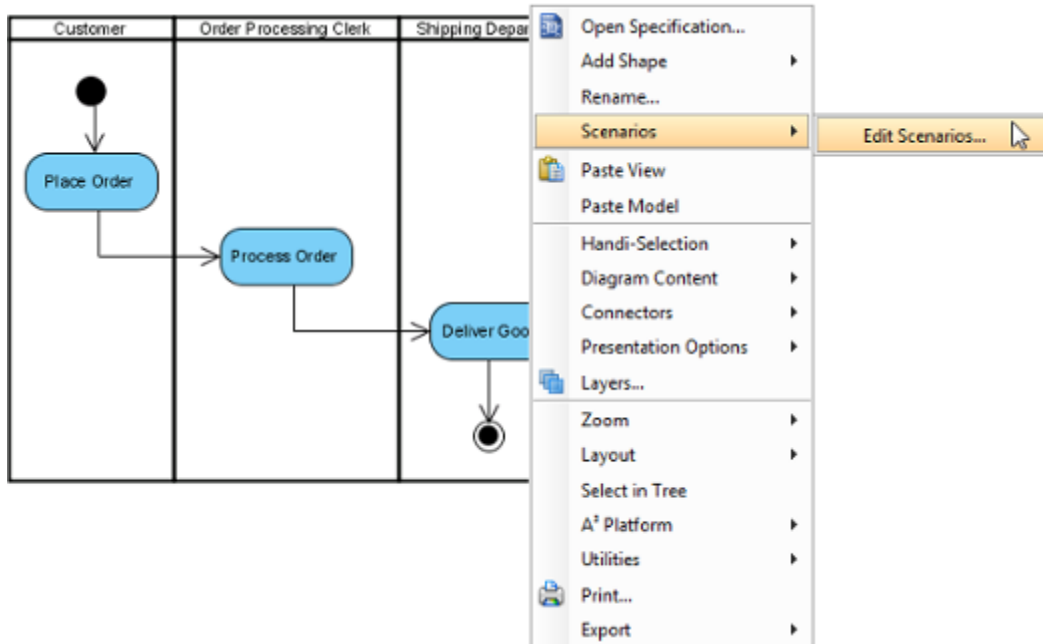
Completed activity diagram

Working with scenario

A scenario is a diagram formed by the internal interaction of a sequence of action, modeled by their sub-diagrams. With scenario, you can produce a diagram which presents an overview of an execution path in activity diagram, so as to know how user and system communicate with each other in order to complete the flow.

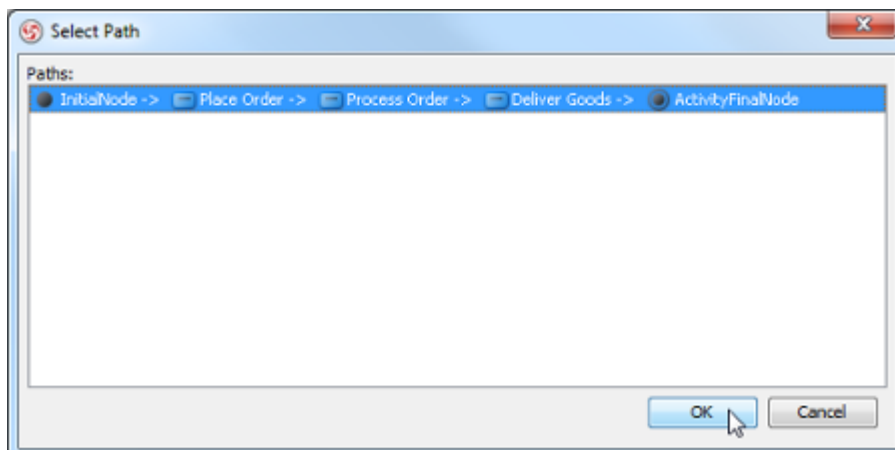
Producing scenario from activity diagram

1. Right click on the activity diagram that contains the flows that you want to produce a scenario, and select **Scenarios > Edit Scenarios...** from the popup menu.



Edit scenarios

2. In the **Edit Scenarios** dialog box, click **Add...** button at the bottom left corner.
3. Select a path for generating scenario. Click **OK** to confirm.

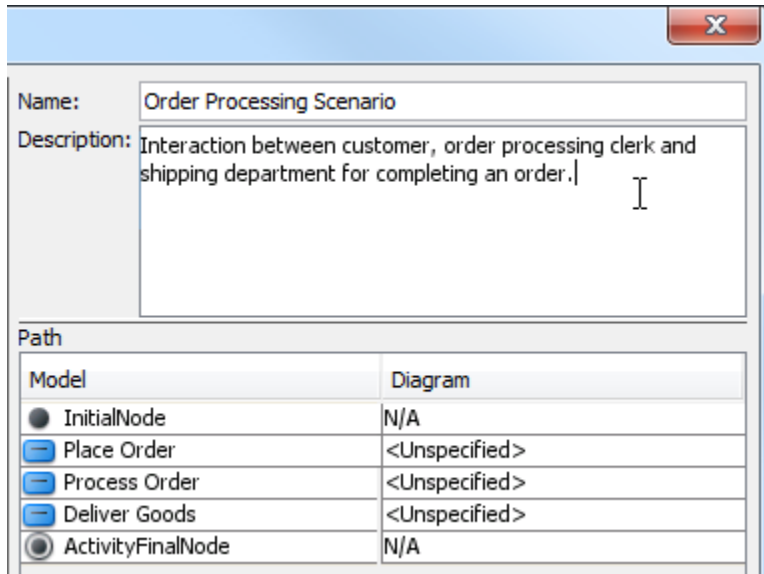


Select a path for generating scenario

A path is a continuous flow of actions in the diagram, with an initial node placed

NOTE: at the beginning of the actions. Multiple paths are obtained by determining the existence of decision nodes within the flow.

5. Name the scenario. Add description if necessary.



Name: Order Processing Scenario

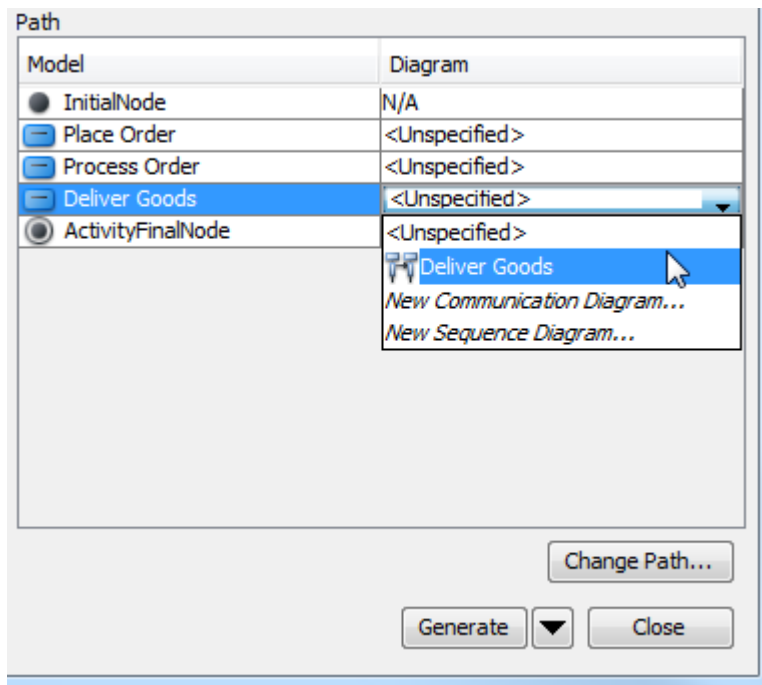
Description: Interaction between customer, order processing clerk and shipping department for completing an order.

Path

Model	Diagram
● InitialNode	N/A
☐ Place Order	<Unspecified>
☐ Process Order	<Unspecified>
☐ Deliver Goods	<Unspecified>
● ActivityFinalNode	N/A

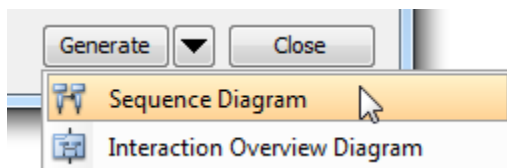
Name and describe scenario

6. The actions being involved in the flow are listed in the **Path** table. For actions that have sub-diagram(s), pick up the sub-diagram in **Diagram** column, or just create a new one. You may, however, leave it unspecified, which cause that action to be ignored when producing scenario.



Select diagram for action

- Click on the arrow beside the **Generate** button and select the type of diagram of the scenario.



Generate scenario with specific diagram type

Updating scenario

Whenever the sub-diagram(s) of action(s) are updated, you can update the scenario to make it represents the latest information of interaction. To update scenario, right click on the activity diagram that have scenario produced before, select **Scenarios**, then the name of scenario from the popup menu.