

# Lifeline

A lifeline represents an individual participant in the Interaction. The lifeline represents only one interacting entity, symbolized by a rectangle.

The following steps show you how to work with a lifeline:

- [Assigning a type to a lifeline](#)
- [Showing/hiding a base classifier](#)
- [Displaying lifelines](#)
- [Deeply nested parts](#)
- [Activation bars on lifelines](#)

## Assigning a type to a lifeline

To assign a type (classifier) to a lifeline, do one of the following:

- In the lifeline Specification window, in the Type property value, click the ... button, and in the open dialog, select the type. When you are finished, click **OK**.
- On the diagram, from the lifeline shortcut menu, select **Type**. In the open list, select the type.
- On the diagram, click a lifeline, and then, on the smart manipulator toolbar, click **T**. In the open list, select the type.
- On the diagram, click a lifeline, and then press Ctrl+T. In the open list, select the type.
- On the diagram, select a lifeline, and in the name area, type the ":" and the name of the type. Press Enter or click anywhere on the diagram. The type is created and assigned.



Type the ":", press Ctrl+Space, or Ctrl+Backspace. In the open list, select the type.

- In the Containment tree, select an element and drag it to the lifeline shape.

## Showing/hiding a base classifier

To hide/show a base classifier

- On the diagram, right-click the lifeline. From the shortcut menu, select the **Show Classifier** check box.

## Displaying lifelines

You can display lifelines on the Sequence or Communication diagram in the following ways:

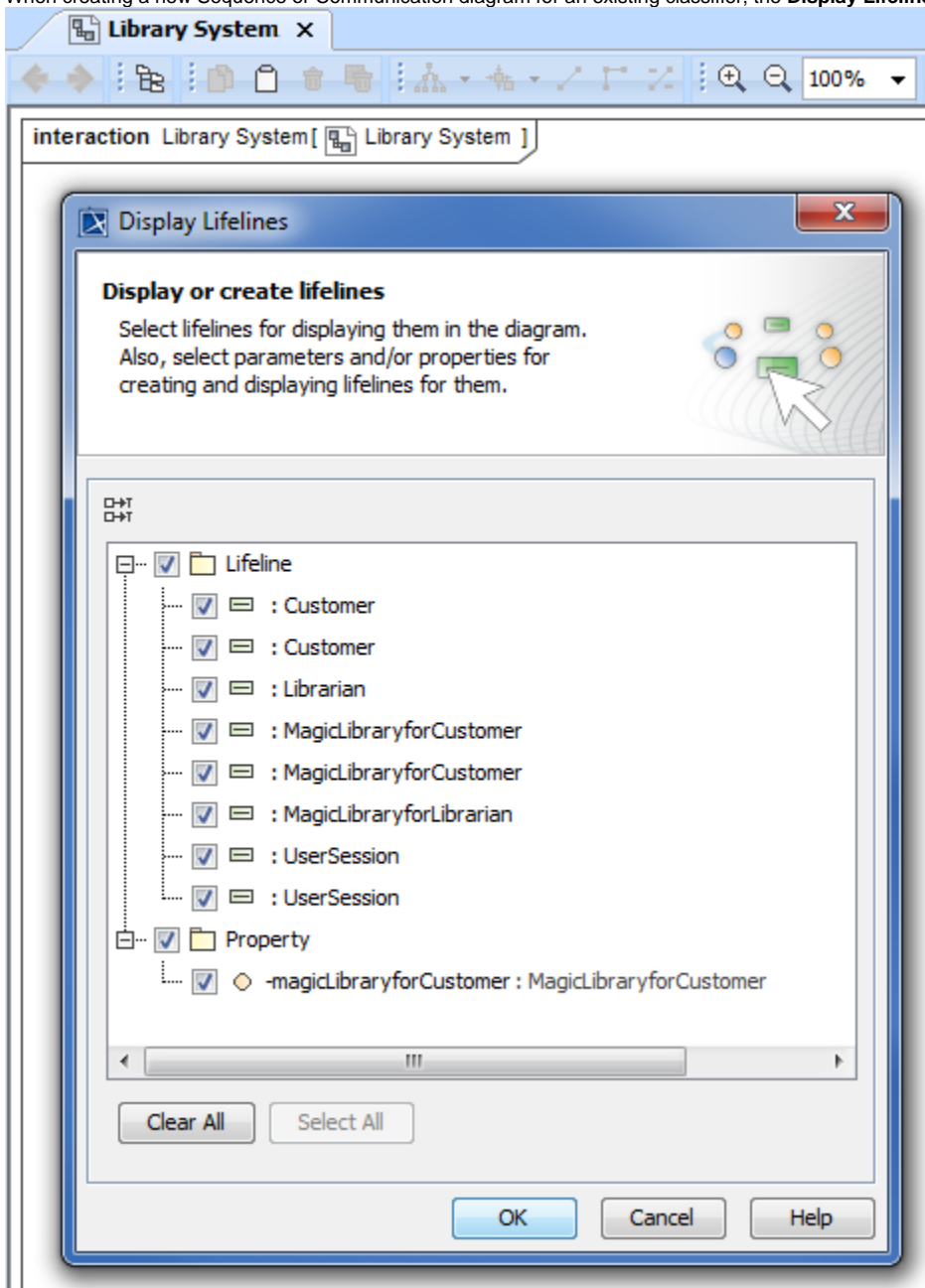
- By manually dragging lifeline elements from the Containment tree.
- By automatically using the **Display Lifelines** dialog.

There are two situations in which you can use the **Display Lifelines** dialog to automatically display lifelines:

- [When creating a new diagram](#).
- [When modifying a pre-existing diagram](#).

To display lifelines when creating a new diagram

1. When creating a new Sequence or Communication diagram for an existing classifier, the **Display Lifelines** dialog opens automatically.

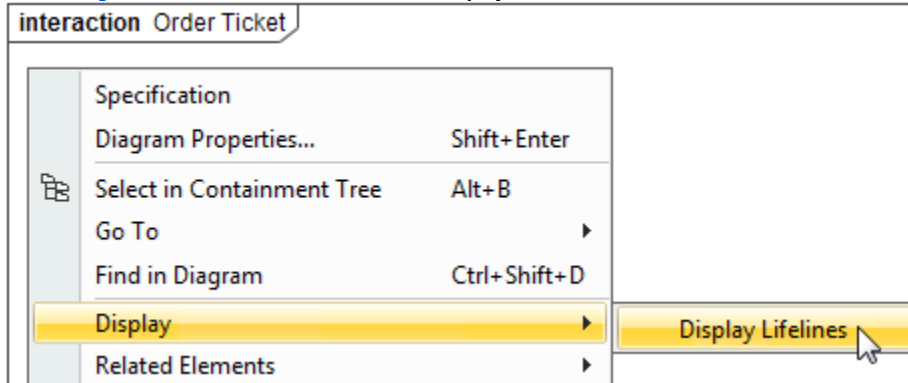


2. In the opened **Display Lifelines** dialog, select the lifelines you want to display, and click **OK**.  
Selected lifelines are displayed on the diagram pane.

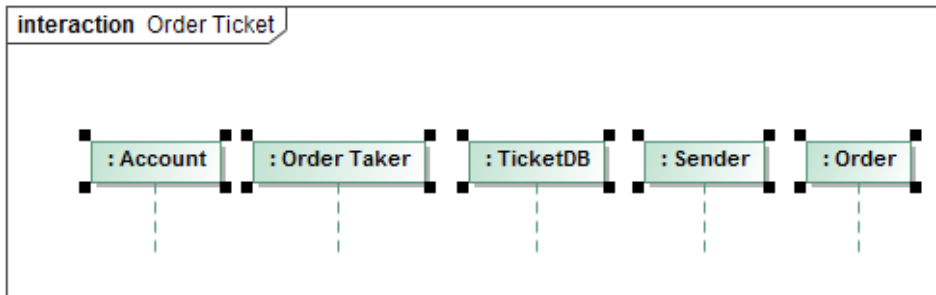
To display lifelines in a preexisting diagram

1. Select the [diagram pane](#).
2. Open the **Display Lifelines** dialog by performing one of the following steps:
  - From the diagram shortcut menu, select **Display > Display Lifelines**.

- On the [diagram toolbar](#), click  and select **Display Lifelines**.



- In the dialog, select the lifelines you want to display, and click **OK**.  
Selected lifelines are displayed on the diagram pane.




## Deeply nested parts

The "dot notation" is available for the lifelines. Now you can send messages directly to the deeply nested parts.

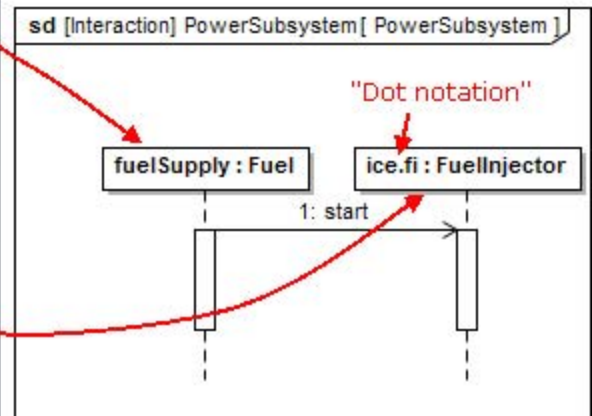
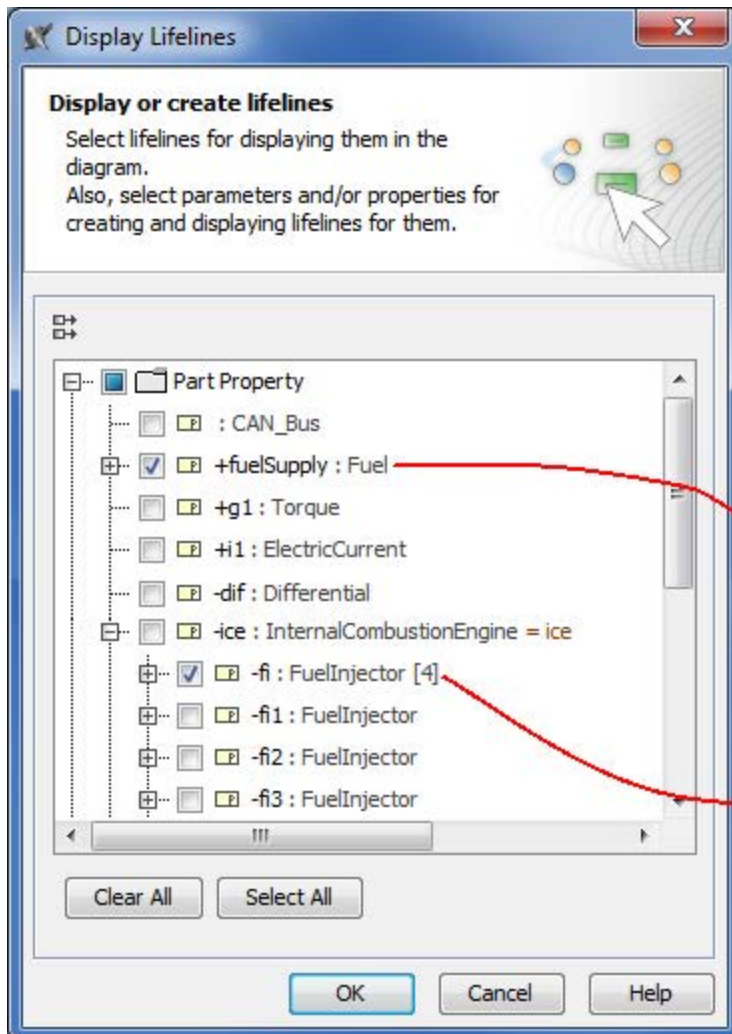
To display a deeply nested part

- Create a Sequence diagram. The **Display Lifelines** dialog opens.

 You can open the **Display Lifelines** dialog in the existing diagram. On the diagram pane, click the right mouse button and from the shortcut menu, select **Related Elements > Display Lifelines**.

- Select a nested part you want to display.

 Make sure that the nesting part is not selected, otherwise it will be displayed instead of the nested part.



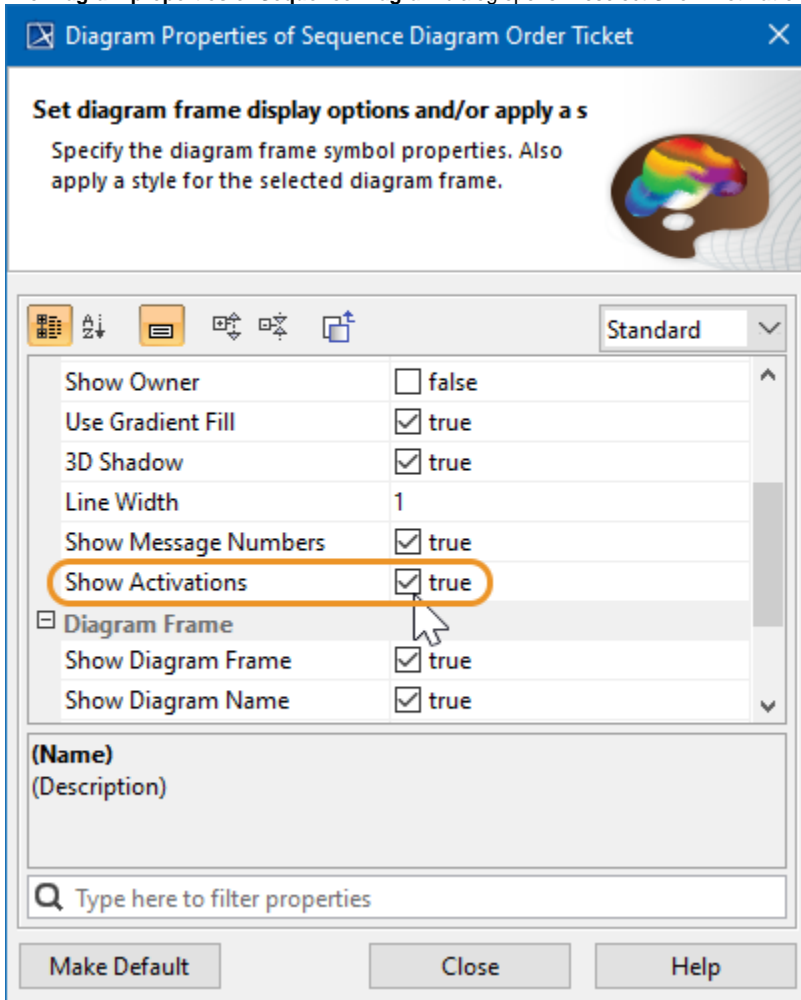
## Activation bars on lifelines

By default, when there is a message sent between lifelines in a sequence diagram, the lifelines are displayed with activation bars on them. However, you can hide the activation bars from the diagram.

To hide activation bars from lifelines in a sequence diagram

1. Right-click on the diagram pane. From the shortcut menu, select **Diagram properties**.

2. The **Diagram properties of Sequence Diagram** dialog opens. Deselect **Show Activations** check box, setting the value from **true** to **false**.



#### Related pages

- [Sequence diagram](#)
- [Communication diagram](#)
- [Creating diagrams](#)
- [Model Elements](#)

#### Sample model

The models used in the figures of this page is the **Communication diagram** and **Sequence diagram** sample models that comes with MagicDraw. To open this sample do one of the following:

- Download:
  - [communication diagram.mdzip](#).
  - [sequence diagram.mdzip](#).
- Find in modeling tool:
  - <modeling tool installation directory>\samples\diagrams\communication diagram.mdzip.
  - <modeling tool installation directory>\samples\diagrams\sequence diagram.mdzip.