How to draw a Component Diagram in UML

Component diagram is a kind of UML diagram. shows the physical aspect of an object-oriented software system. It illustrates the architectures of the software components and dependencies between them.
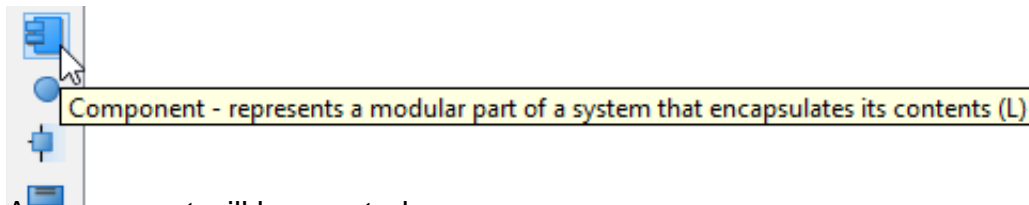
Creating component diagram

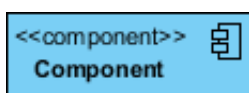Perform the steps below to create a UML component diagram in Visual Paradigm.

1. Select **Diagram > New** from the application toolbar.
2. In the **New Diagram** window, select **Component 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 component

To create component in component diagram, click **Component** on the diagram toolbar and then click on the diagram.
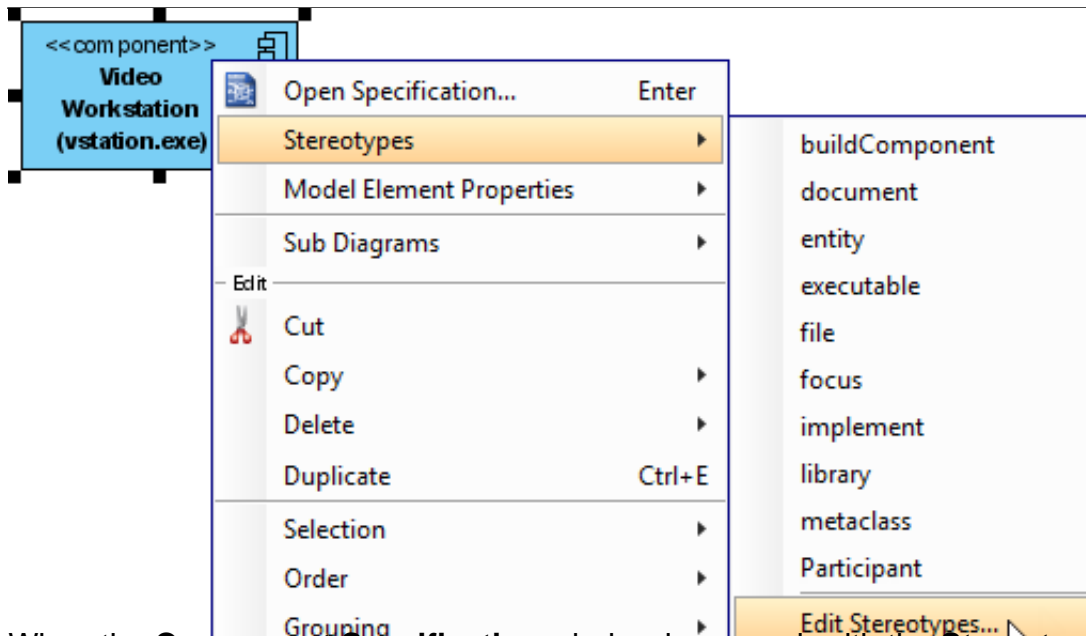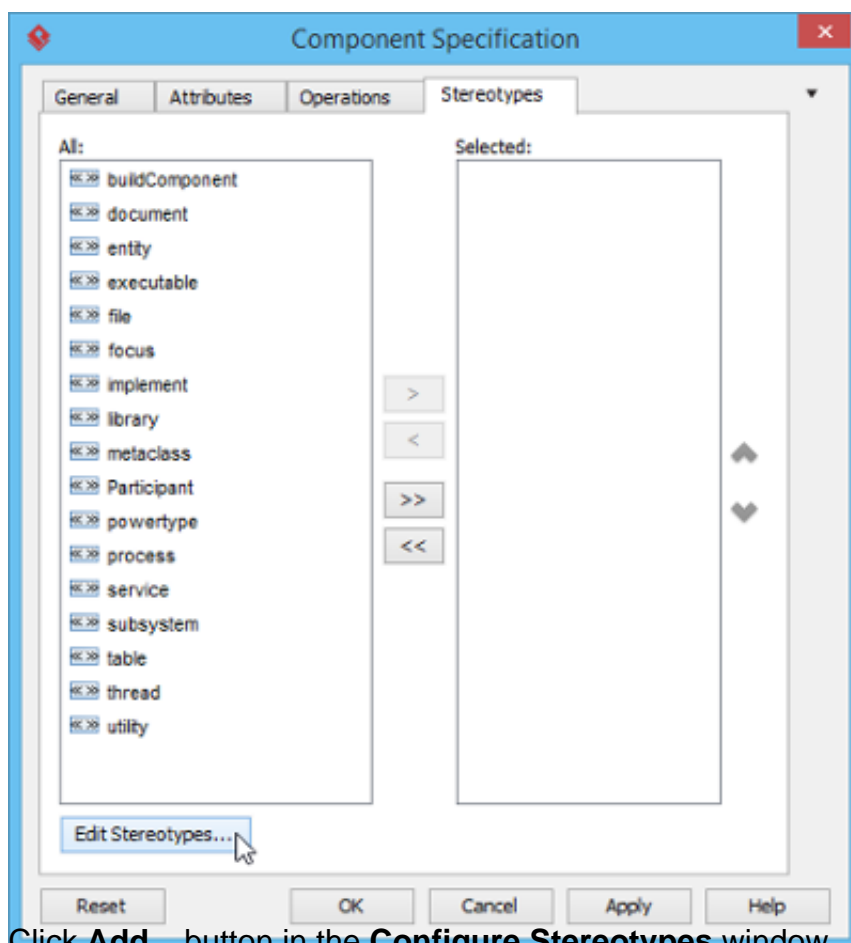

A component will be created.

Assigning stereotypes

Right click on the package and select **Stereotypes** > **Edit Stereotypes**... from the pop-up menu.

	<< component>>		吕			Open Specification...	Enter

The menu items:

- Open Specification...   Enter
- Stereotypes   ▶
- Model Element Properties   ▶
- Sub Diagrams   ▶

Edit
- ✂ Cut
- Copy   ▶
- Delete   ▶
- Duplicate   Ctrl+E
- Selection   ▶
- Order   ▶
- Grouping   ▶

Stereotypes submenu:
- buildComponent
- document
- entity
- executable
- file
- focus
- implement
- library
- metaclass
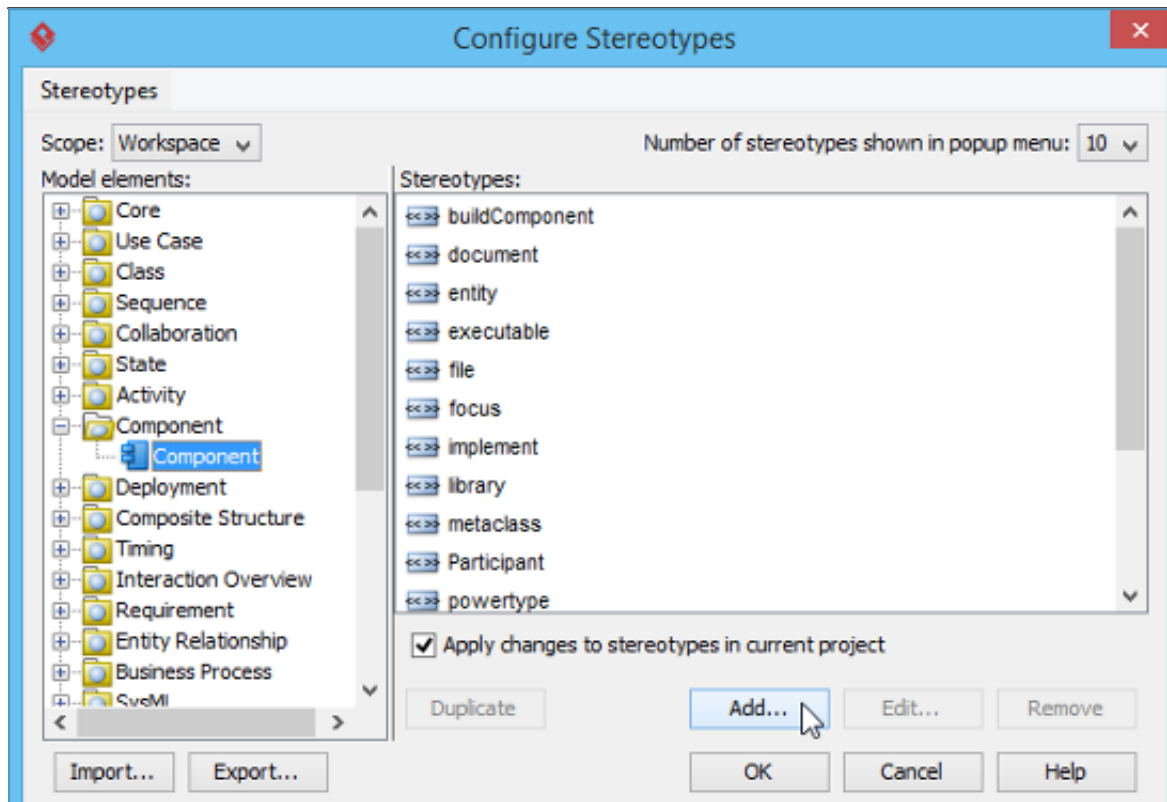- Participant
- Edit Stereotypes...

When the **Component Specification** window is opened, with the **Stereotypes** tab selected.
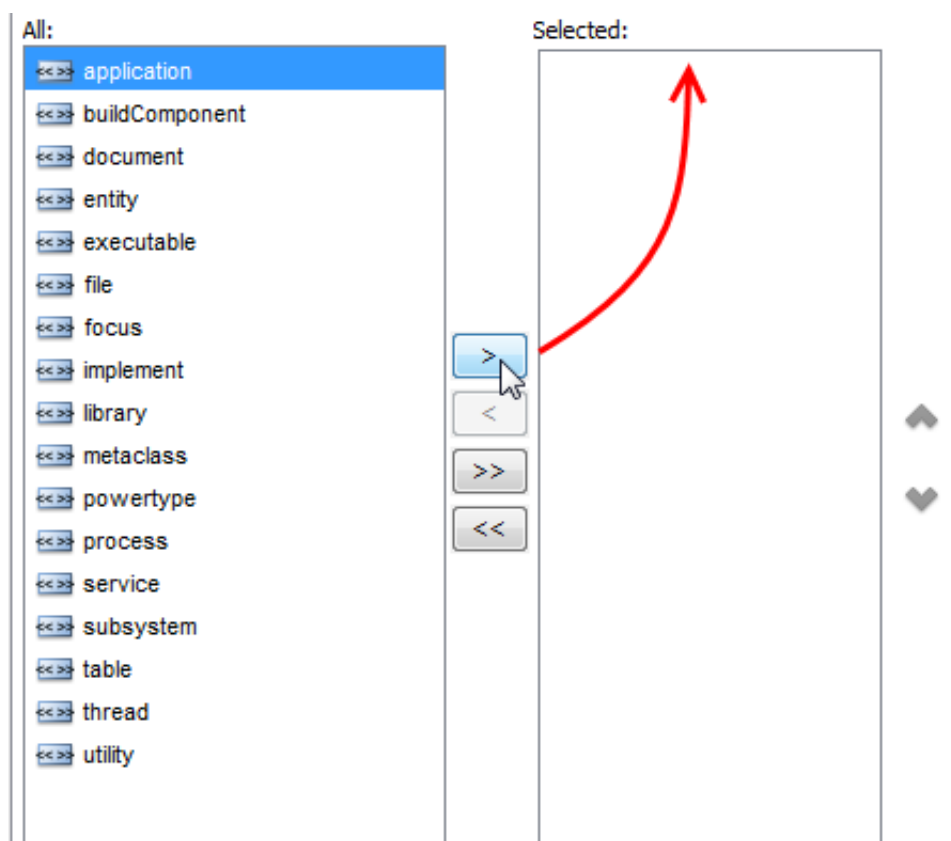The list on the left shows the selectable stereotypes.

If the stereotype you want to use is not on the list, click **Edit Stereotypes...** button.

Click **Add...** button in the **Configure Stereotypes** window.

Name the stereotype (e.g. *application*) in the **Stereotype Specification** window and then click **OK** button to close it. Click **OK** button in the **Configure Stereotypes** window. The added stereotype will then be shown on the list in the **Component Specification** window. Select it and click **Add Selected**button. Finally, click **OK** button to confirm.

Close the specification window. Stereotypes will be applied to the package.
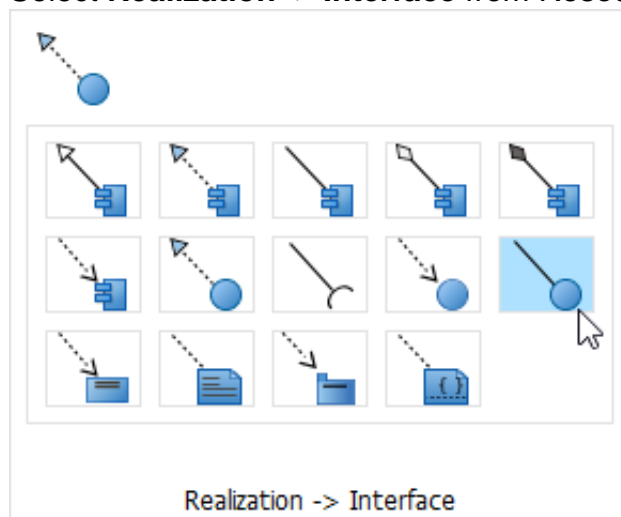
Creating provided interface

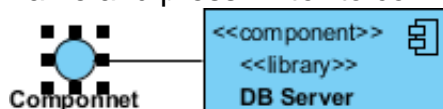To create provided interface for a component:

1. Move your mouse pointer over the source component.
2. Press on the **Resource Catalog** button and drag it out.

3. Release the mouse button at the place where you want the interface to be created.
4. Select **Realization** -> **Interface** from Resource Catalog.
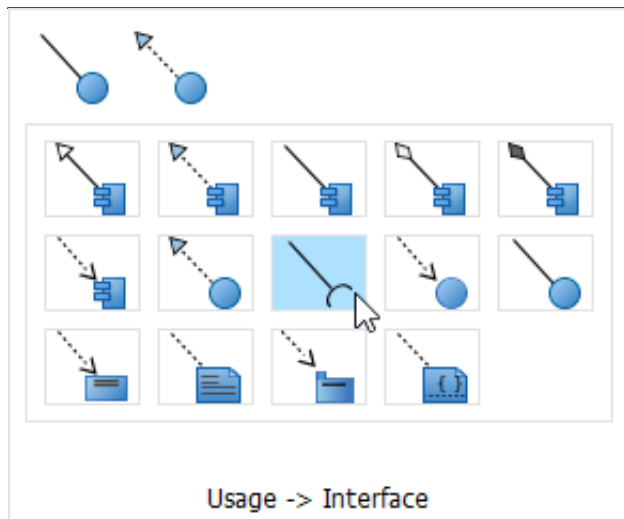

Realization -> Interface

5. A new interface will be created and is connected to the source component. Enter its name and press **Enter** to confirm editing.
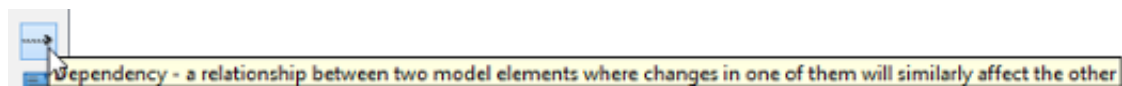

Creating required interface

To create required interface for a component, just follow the steps described above for creating provided interface, but change to select **Usage**-> **Interface** in Resource Catalog.
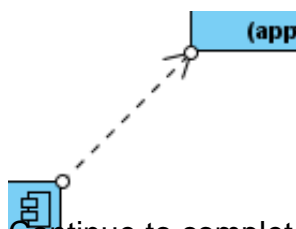
Usage -> Interface
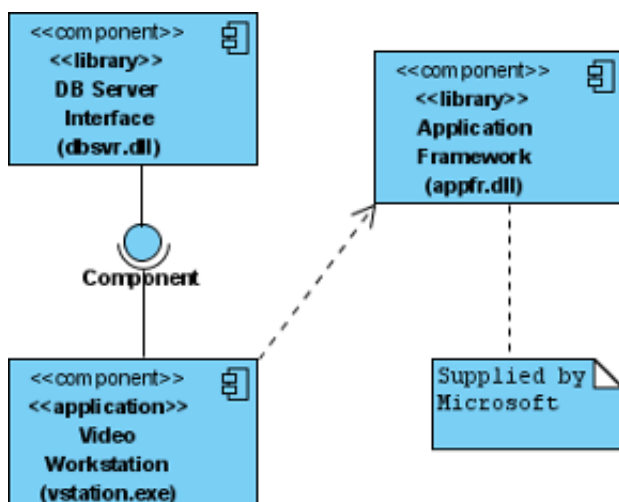
Creating dependency

To create dependency, click **Dependency** on the diagram toolbar.

Dependency - a relationship between two model elements where changes in one of them will similarly affect the other

Drag from the source shape, move the mouse over the target shape and then release the mouse button to create the dependency.

Continue to complete the diagram.

Showing/hiding attributes in component

Per diagram

You can add attributes to a component. To show/hide the attributes for all components in a diagram:

1. Right click on the background of the component diagram.
2. Select **Presentation Options > Component Display Options** from the popup menu.
3. Select/De-select **Show Attributes** to cause attributes to be shown or hidden.

Per component

You can add attributes to a component. To show/hide the attributes for a specific component:

1. Right click on the desired component.
2. Select **Presentation Options > Show Attributes Mode** from the popup menu.
3. Select **Follow Diagram/Show All/Hide All/Customized...** from the popup menu. If you have selected the **Customized** option, you can select the specific attribute(s) to be shown or hidden.

Showing/hiding operations in component

Per diagram

You can add operations to a component. To show/hide the operations for all components in a diagram:

1. Right click on the background of the component diagram.
2. Select **Presentation Options > Component Display Options** from the popup menu.
3. Select/De-select **Show Operations** to cause attributes to be shown or hidden.

Per component

You can add operations to a component. To show/hide the operations for a specific component:

1. Right click on the desired component.
2. Select **Presentation Options > Show Operations Mode** from the popup menu.
3. Select **Follow Diagram/Show All/Hide All/Customized...** from the popup menu. If you have selected the **Customized** option, you can select the specific operation(s) to be shown or hidden.