Visual Paradigm
How to Use Profile Diagram to Manage Stereotypes?
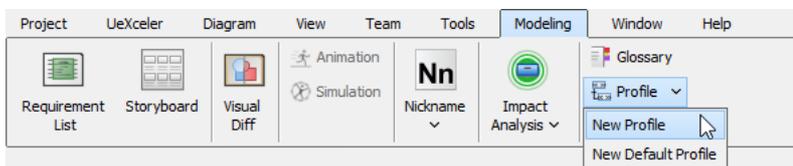
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Written Date : Aug 16, 2021
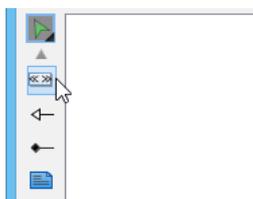
Drawing a UML Profile Diagram

1. Create a profile by selecting **Modeling > Profile > New Profile** from the application toolbar.
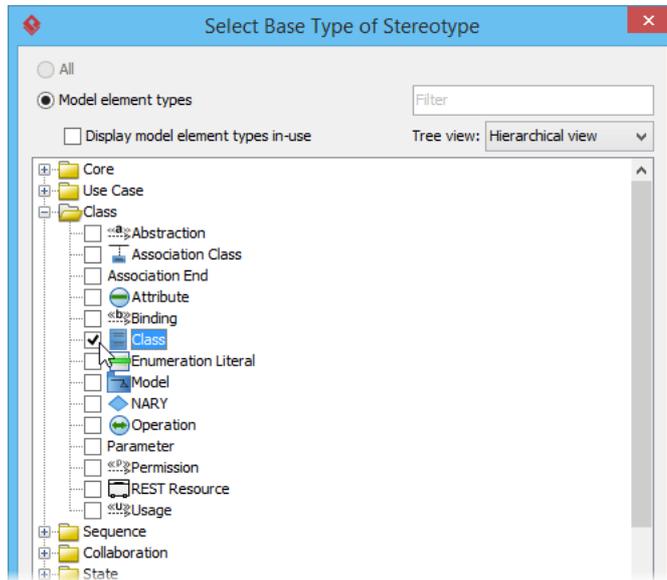

2. A new profile diagram is created, and you are prompted to enter a name. Enter *Vehicle Engineering Profile* as the name and press **Enter** to confirm.
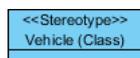

3. You are going to model your profile in this diagram. Let's create a stereotype first. Select the **Stereotype** tool from the diagram toolbar.
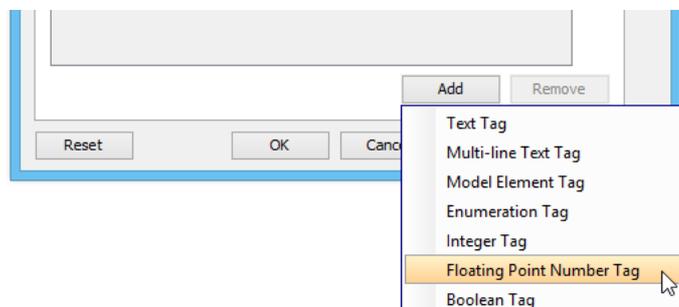
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4. Click on the diagram to create a stereotype. You are immediately prompted to choose the base type of this stereotype, which is the type of element for which the stereotype will be used. Expand the **Class** node and select **Class**.
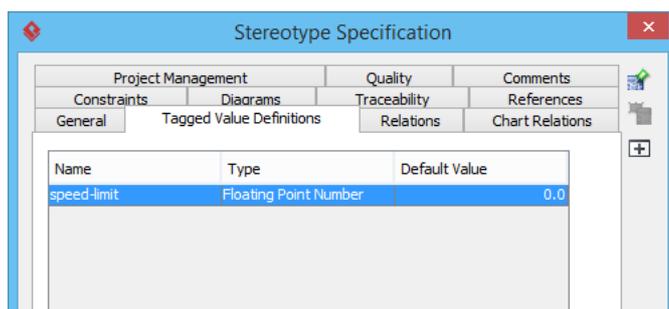

5. Click **OK** to confirm.

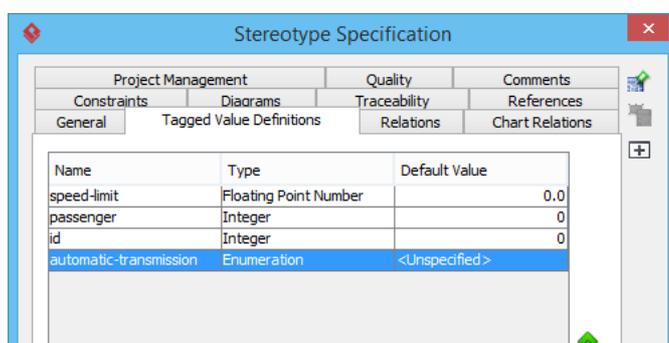6. A stereotype is created in the diagram. Enter *Vehicle* as its name and press **Enter** to confirm.

7. Let's define some tags associated with this stereotype. Right-click on the *Vehicle* stereotype and select **Open Specification...** from the popup menu.

8. Open the **Tagged Value Definitions** tab.

9. At the bottom of the tab, click **Add** and then select **Floating Point Number Tag** from the popup menu.

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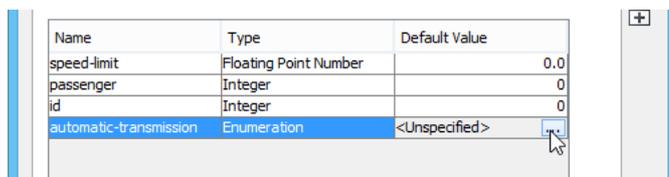
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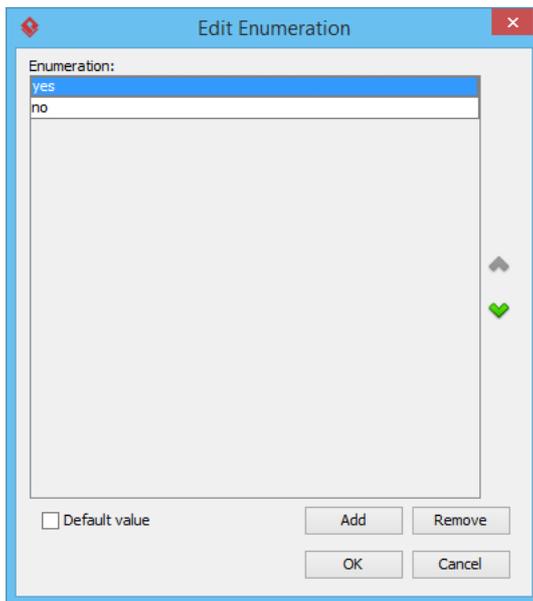10. Enter *speed-limit* as the tag name and press **Enter** to confirm.

11. Create two integer tags, *passenger* and *id*, and one enumeration tag, *automatic-transmission*.
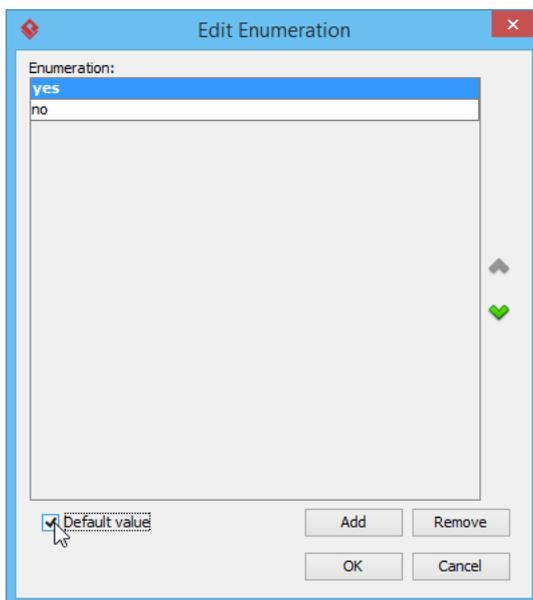

12. Let's configure the possible values for the enumeration tag *automatic-transmission*. Click on the **...** button in its **Default Value** cell.

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13. In the **Edit Enumeration** window, click **Add** to add, and then enter *yes* as the value. Add another value, *no*.
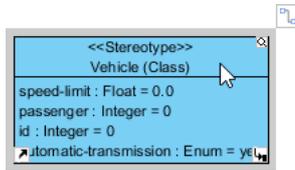

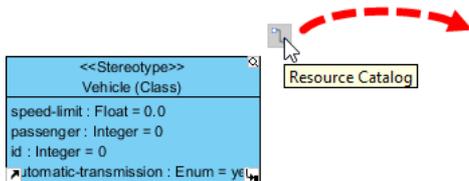14. Select *yes* and check **Default value** to make it the default option.

15. Click **OK** to confirm and return to the specification window.

16. Click **OK** in the specification window to return to the diagram.

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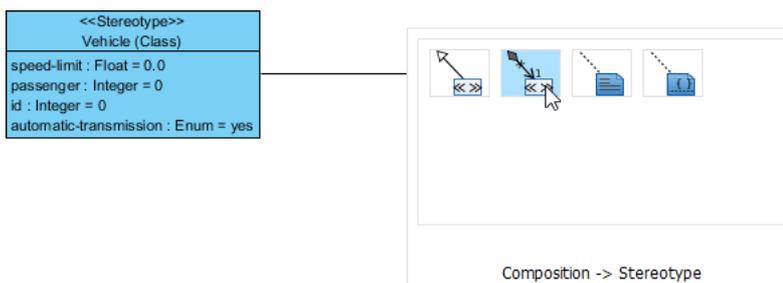
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17. Let's create the other stereotypes in this profile. Move your mouse pointer over the *Vehicle* stereotype.
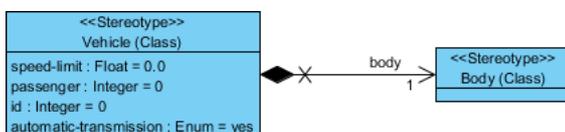
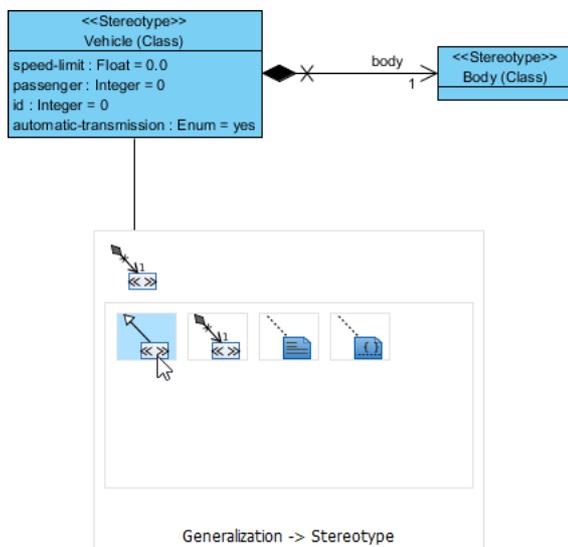18. Press the **Resource Catalog** button that appears at the top right of the shape. Drag it out.

19. Release the mouse button in empty space. Select **Composition -> Stereotype** from the Resource Catalog.
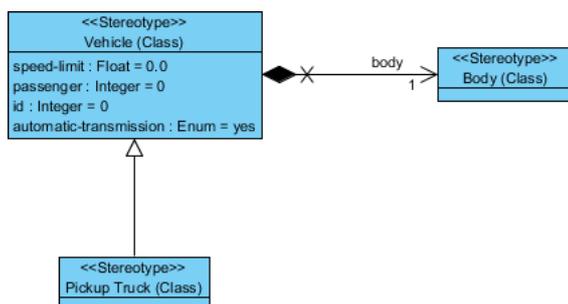
20. A new stereotype is created and has **Class** automatically chosen as the base type. Enter *Body* as the name and press **Enter** to confirm.

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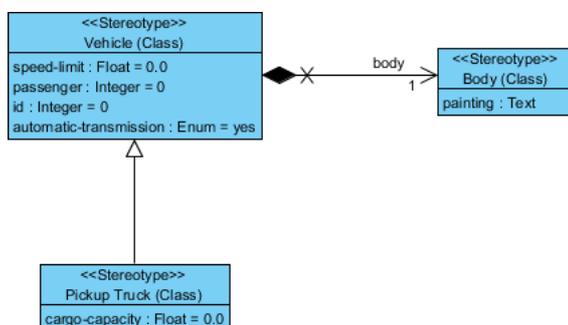How to Use Profile Diagram to Manage Stereotypes?

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21. Besides composition, you can also create specialized stereotypes. Let's create a stereotype *Pickup Truck*, which is a specialized type of vehicle, using the Resource Catalog. This time, choose the resource **Generalization -> Stereotype**.
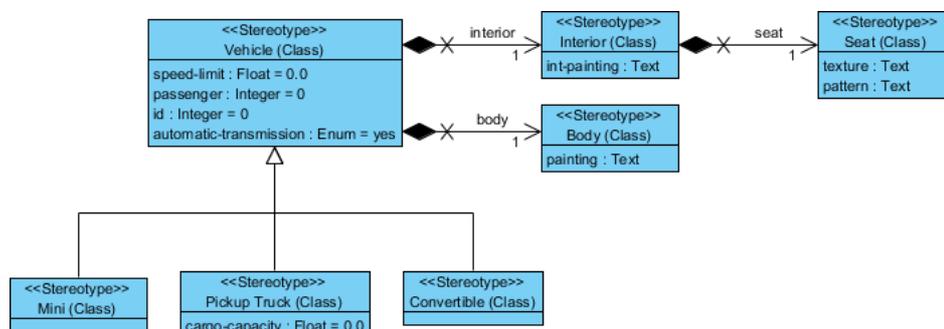
22. Up to now, your profile diagram should look like this:

23. Apply the techniques taught above to add tags to the new stereotypes. Add a text tag *painting* to *Body* and a floating-point number tag *cargo-capacity* to *Pickup Truck*.

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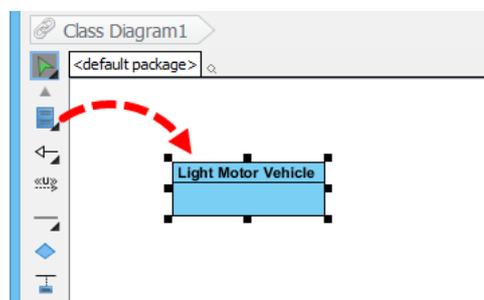
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24. Draw two more specialized stereotypes, *Mini* and *Convertible*, from *Vehicle*. Draw another composite stereotype, *Interior*, from *Vehicle*, and another composite stereotype, *Seat*, from *Interior*. Add a text tag *int-painting* to *Interior* and two text tags, *texture* and *pattern*, to *Seat*. Your diagram should look like this:
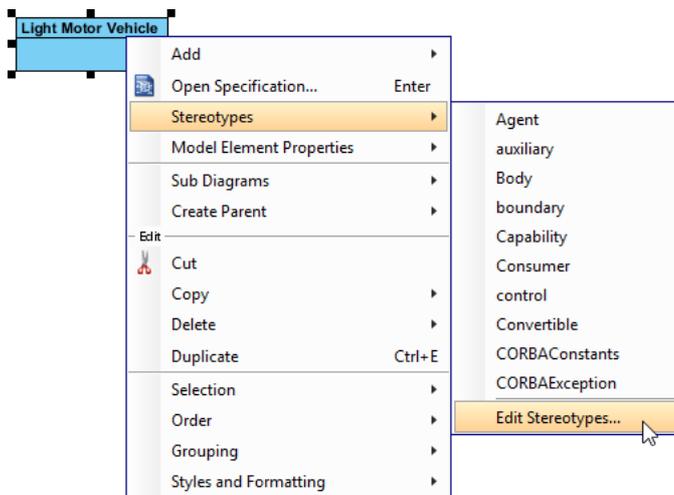

Creating a Class with a Stereotype

The profile is now ready to use. Let's create a class diagram with the stereotype defined in the Profile Diagram.
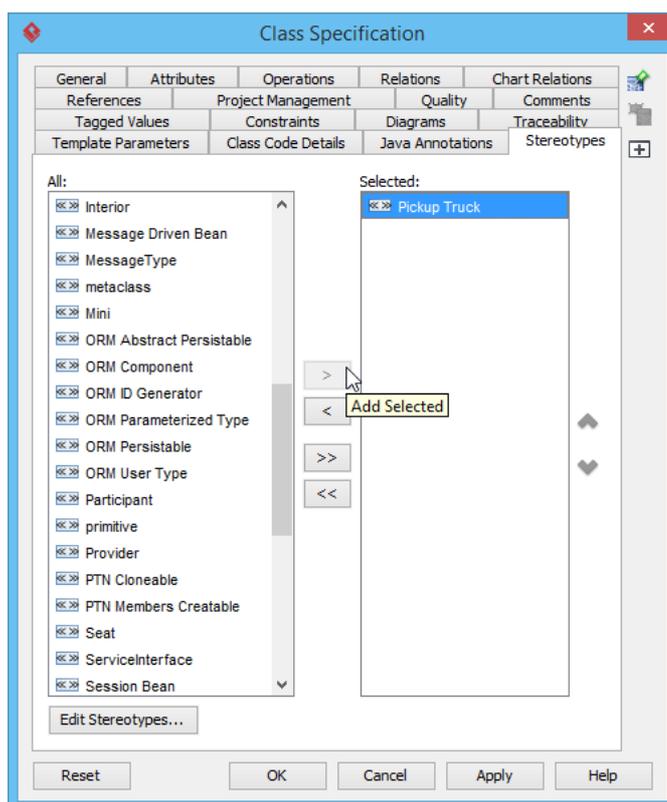
1. Create a class diagram by selecting **Diagram > New** from the application toolbar. Select **Class Diagram** in the **New Diagram** window and click **Next**. Keep the diagram name as provided and click **OK** to confirm.

2. Create a class *Light Motor Vehicle*.

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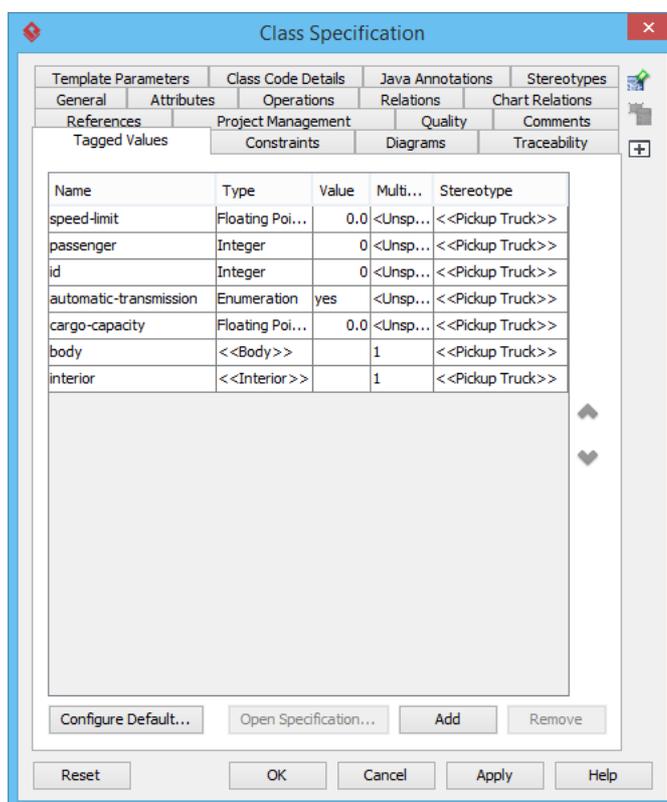
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3. Right-click on *Light Motor Vehicle* and select **Stereotypes > Edit Stereotypes** from the popup menu.

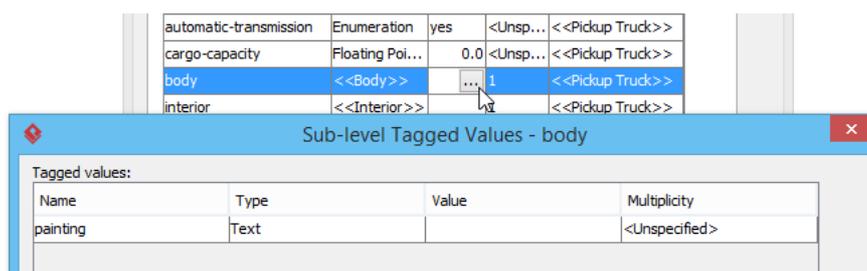4. Select **Pickup Truck** on the left-hand side and then click **>** to add it.

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5. Open the **Tagged Values** tab. The tags defined in the stereotypes are listed. Besides the tag defined in <<Pickup Truck>>, there are tags defined under its generalized stereotype <<Vehicle>> and its composited stereotypes.

6. Click the **...** button in the **Value** cell of the *Body* tag. The **Sub-level Tagged Values** window is shown. You can specify the tagged values of the *Body* stereotype there.

Related Links

*   [What is Profile Diagram in UML?](#)

*   [Know-how: Define and specify stereotype in BPD](#)

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