



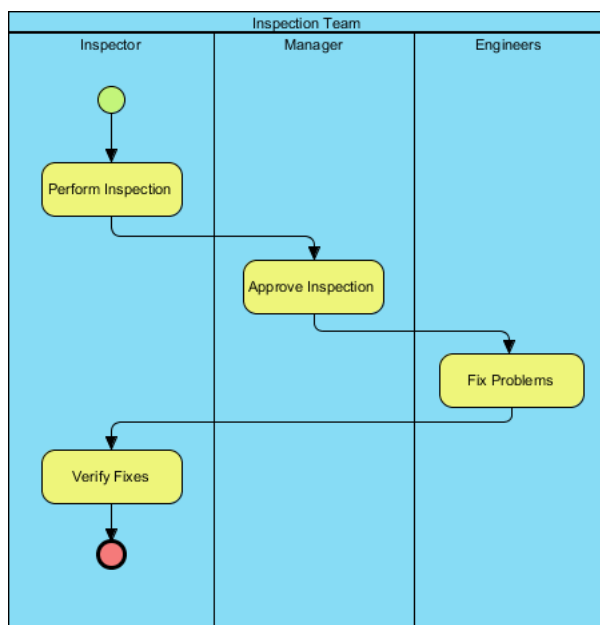
BPMN Tutorial: How to Use BPMN Data Object?

Written Date : February 06, 2016

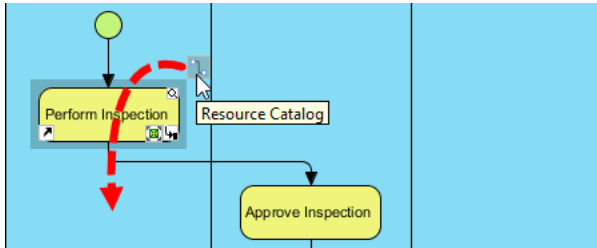
The state of a data object may keep changing throughout a process or processes. Just take an invoice as an example. Typically, an invoice will undergo states like open, canceled, unpaid, pending, paid, overpaid, and underpaid. In this tutorial, we will show you how to create a data object in a BPD and how to define its states. You will also learn how to reuse a data object in a process, with different states selected for different instances.

Creating a Data Object with State

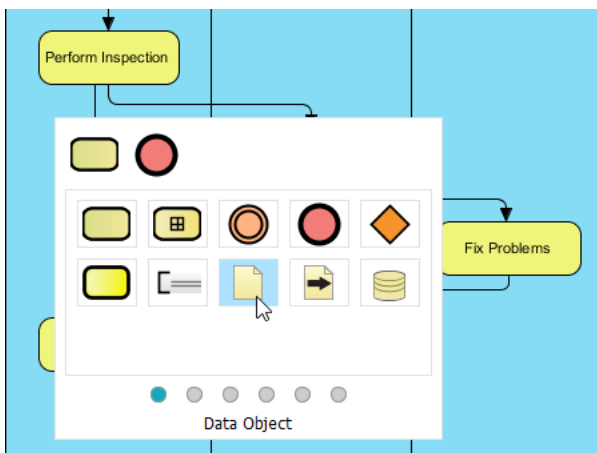
1. Download [Tutorial.vpp](#). You can also find this file at the bottom of this tutorial.
2. Open the downloaded .vpp file in Visual Paradigm. To open a project, select **Project > Open** from the application toolbar.
3. Open the [business process diagram](#) *Inspection*. You should see the diagram below:



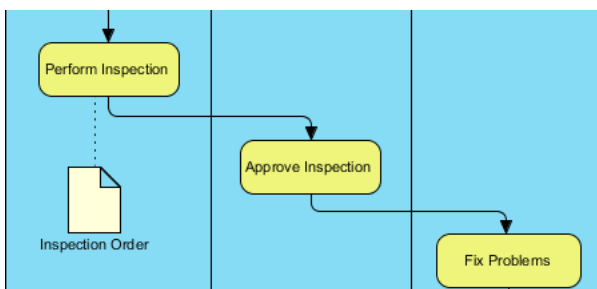
- Let's create a data object from the task *Perform Inspection*. Move your mouse pointer over the task. Click on the **Resource Catalog** icon and drag it out.



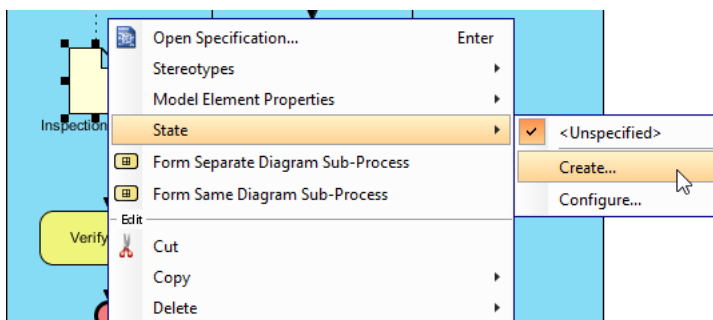
- Release the mouse button and select **Data Object** from the Resource Catalog.



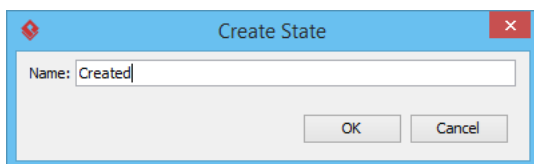
- Enter *Inspection Order* as the name of the data object and press **Enter** to confirm.



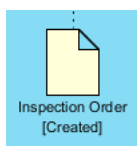
- Let's set the state of the *Inspection Order*. Right-click on it and select **State > Create...** from the popup menu.



- In the **Create State** dialog box, enter *Created* as the (state) name and then click **OK**.

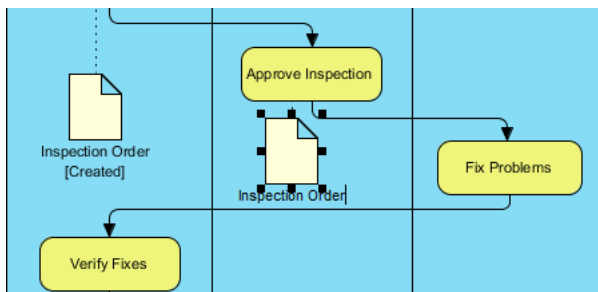


You should see the name of the data object appear, like this:

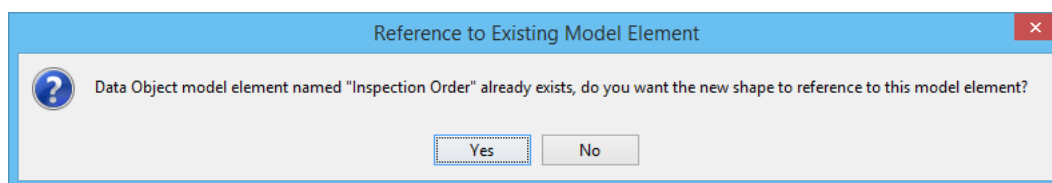


Reusing a Data Object

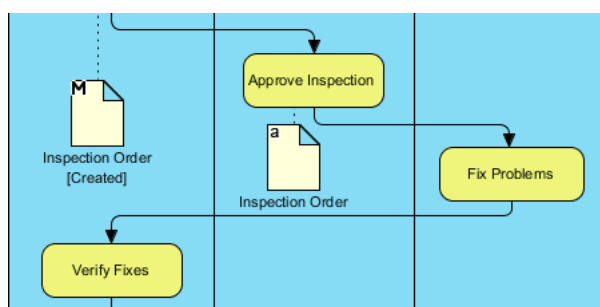
- Let's continue with the remaining flow of the diagram. Let's say after the task *Approve Inspection*, the *Inspection Order* will be in an 'approved' state. Let's represent this. First, create a data object from the task *Approve Inspection* and name it *Inspection Order*, which is the same as the previously created data object.



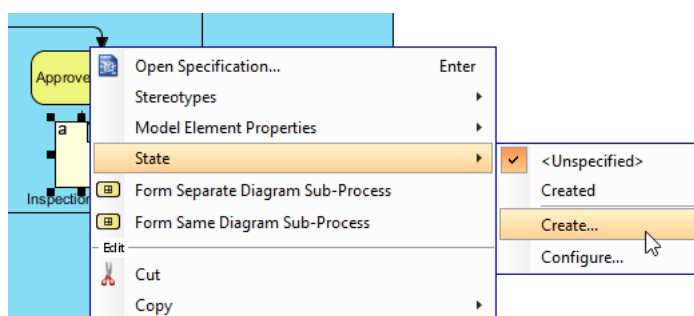
2. Press **Enter** and you will be prompted to confirm the reuse of the data object. Click **Yes**.



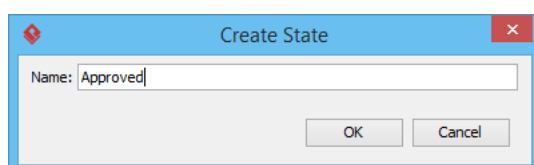
You can see the data object is created with the letter 'a' appearing at the top left, while the original data object (shape) has an 'M' appearing at the same position. The letter 'a' stands for auxiliary view, while 'M' stands for master view. Each model element can have one master view and an unlimited number of auxiliary views. The placement of the element in the model hierarchy is controlled by the master view.



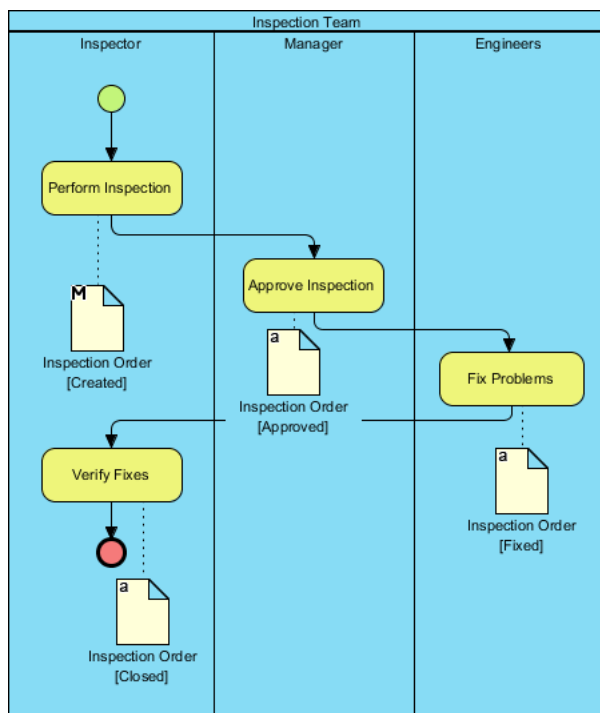
3. Let's create a state for *Inspection Order*. Right-click on it and select **State > Create...** from the popup menu. By the way, in the popup menu you can see the state **Created** available for selection. In case you need to represent a state that has been created before, you can simply select the state there.



4. In the **Create State** dialog box, enter *Approved* as the (state) name and then click **OK**.



5. Repeatedly reuse *Approve Inspection* on other parts of the business process diagram, with different states selected. Finally, your diagram should look like this:



Resources

1. [Tutorial.vpp](#)

Related Links

- [Tutorial: Introduction to BPMN Part IV - Data and Artifacts](#)



Visual Paradigm home page
(<https://www.visual-paradigm.com/>)

Visual Paradigm tutorials
(<https://www.visual-paradigm.com/tutorials/>)