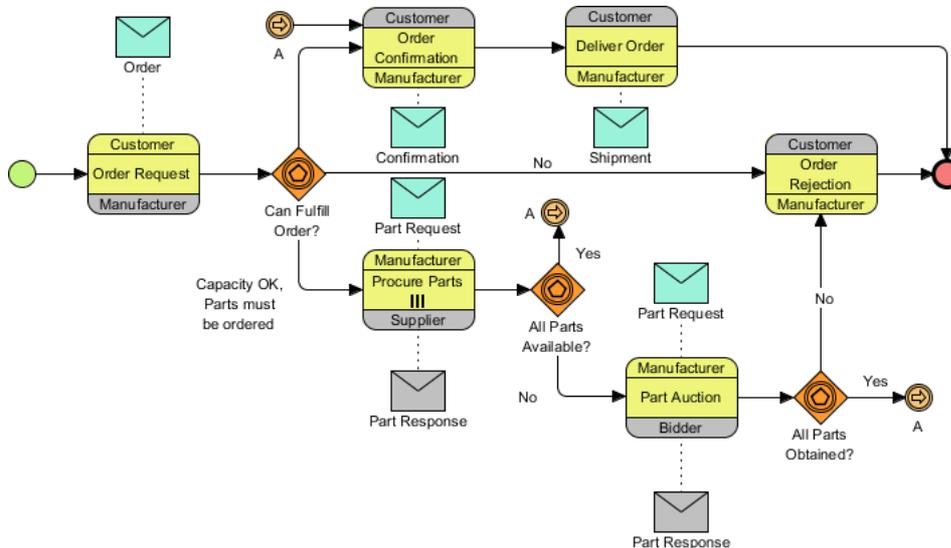




## How to Draw BPMN 2.0 Business Process Diagram?

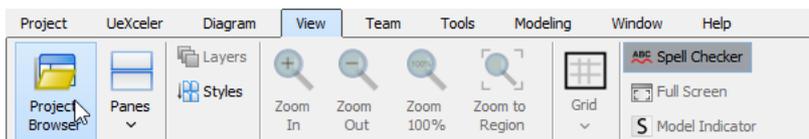
Written Date : March 9, 2016

Business Process Modeling Notation 2.0 makes a great improvement in business process modeling. There are number of new notations introduced in [BPMN 2.0](#). In this tutorial, we will show you how to draw choreography task and message. We will draw the example diagram of BPMN 2.0 draft specification (An example of stand-alone Choreography diagram). By finishing this tutorial, you will be able to draw a business process diagram that looks like this:



### Drawing a BPMN 2.0 business process diagram

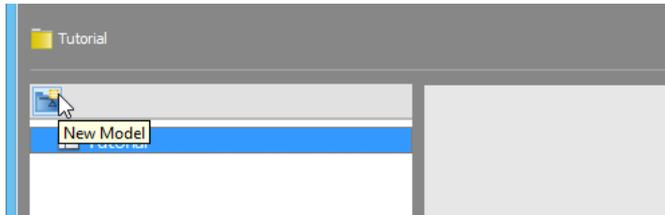
1. Create a new project by selecting **Project > New** from the application toolbar. In the **New Project** window, enter *Tutorial* as project name and click **Create Blank Project**.
2. Let's create a model first. Select **View > Project Browser** from the application toolbar.



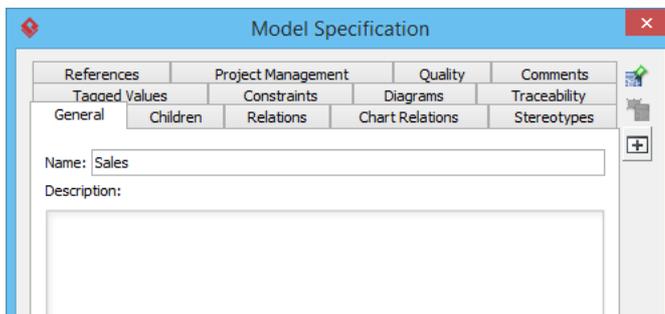
3. Open the **Model Structure** page in **Project Browser**



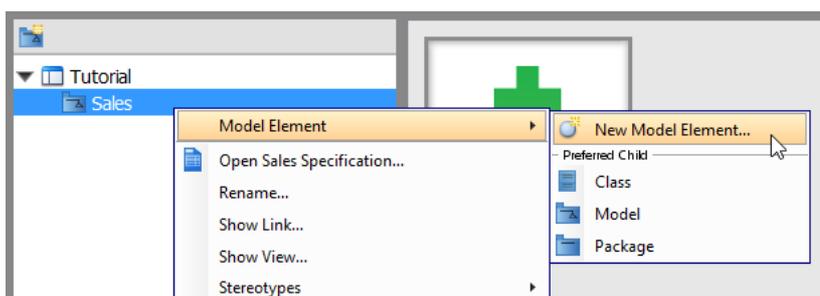
4. Click on the **New Model** button on top of the model list on the left hand side.



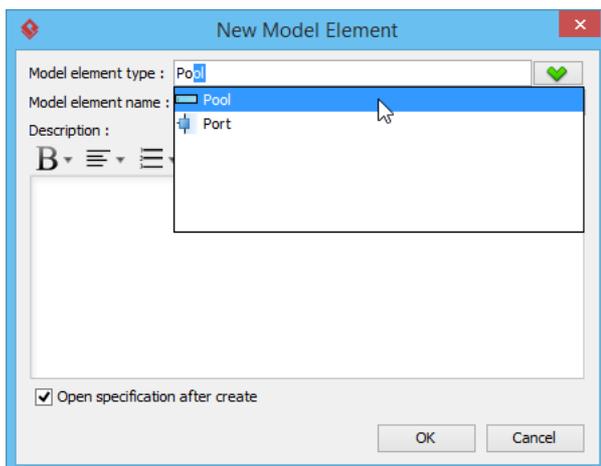
5. Name the model *Sales* and click **OK** to confirm.



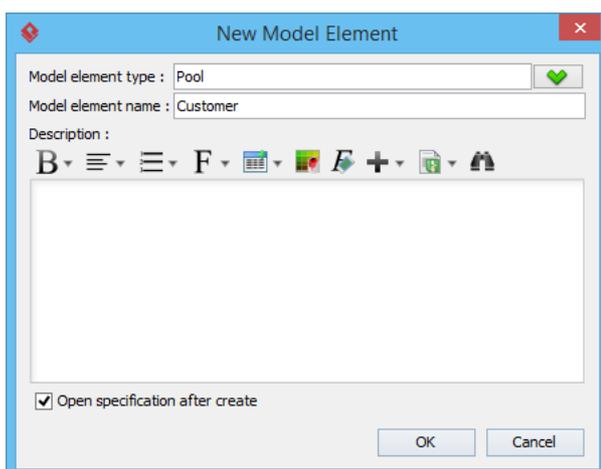
6. We can create pools directly under *Sales* model without using diagram. Let's try. Right-click on *Sales* model and select **Model Element > New Model Element...** from the popup menu.



7. You can search the model you would like to create in the **New Model Element** window. Enter *Pool* in the **Model element type** text field to search for **Pool**.

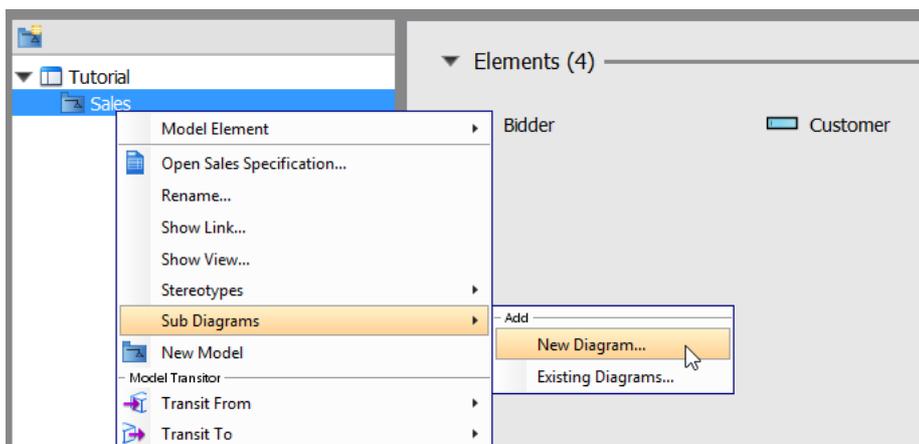


8. Enter *Customer* as **Model element name**.

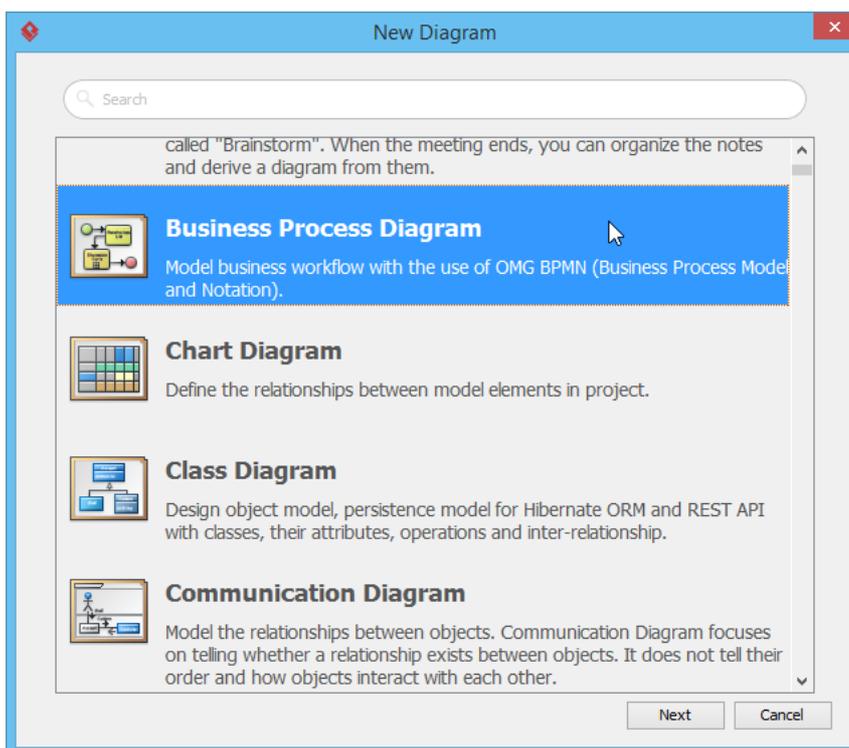


9. Uncheck **Open specification after create** and click **OK** to continue.
10. Repeat the steps to create the pool *Bidder*, *Manufacturer* and *Supplier*.

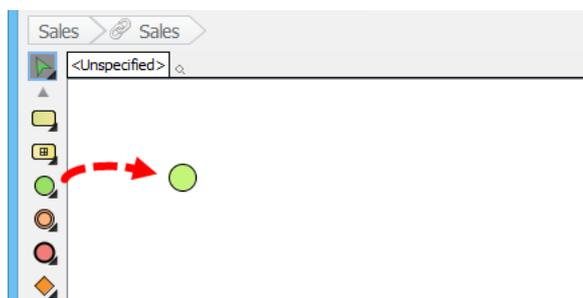
11. Right-click on the *Sales* model and select **Sub Diagrams > New Diagram...** from the popup menu.



12. In the **New Diagram** window, select **Business Process Diagram** and click **Next**. Keep the diagram name as provided and click **OK** to create the diagram.



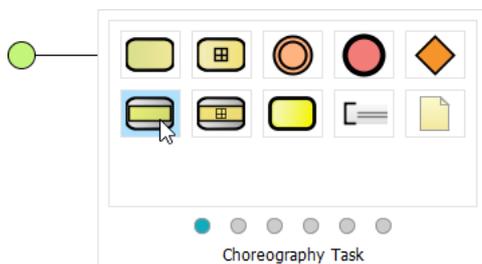
13. We can now start creating the [business process diagram](#). First, let's create a start event. Select the **Start Event** tool from the diagram toolbar, and then click on the empty area of the business process diagram.



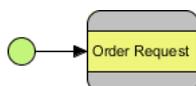
14. Now click on the start event and drag out the **Resource Catalog** icon.



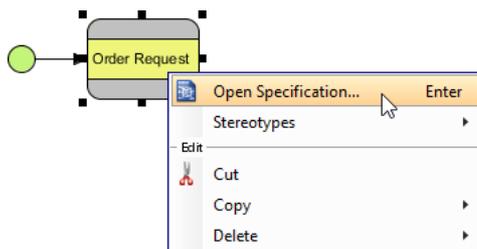
15. Release the mouse button on the blank area of the diagram, and select **Choreography Task** from Resource Catalog.



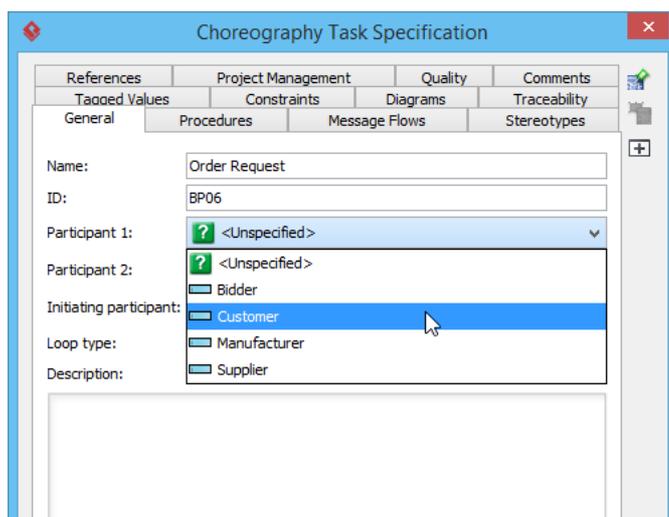
16. Enter *Order Request* as the name of the choreography task and press **Enter** to confirm.



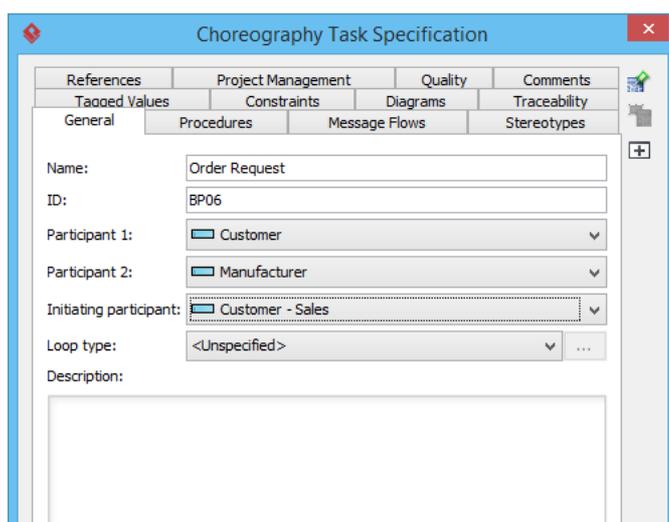
17. Right-click on *Order Request* and select **Open Specification...**



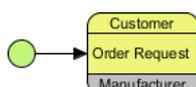
18. Select *Customer* pool as **Participant 1**.



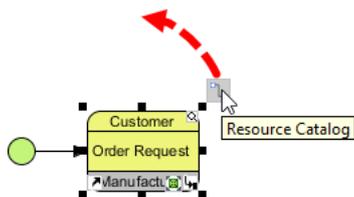
19. Select *Manufacturer* pool as **Participant 2**.
20. Select *Customer* pool as the **Initiating participant**.



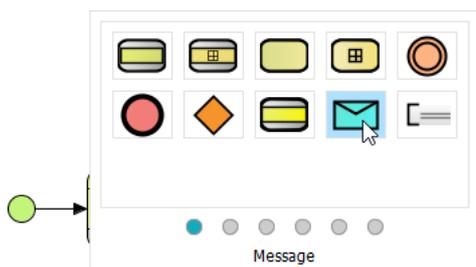
21. Click **OK** to confirm. Now the task *Order Request* is done. You can see that the initiating participant is showing in the same color of the task, with the non-initiating participant showing in gray.



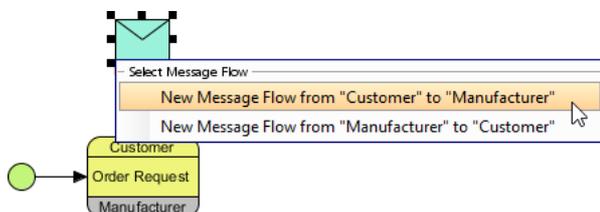
22. Let's create a message between *Customer* and *Manufacturer*. Click on the *Order Request* task and drag out the **Resource Catalog** icon.



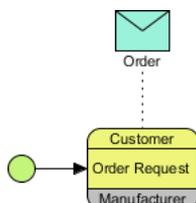
23. Release the mouse button above the choreography task and select **Message** from Resource Catalog.



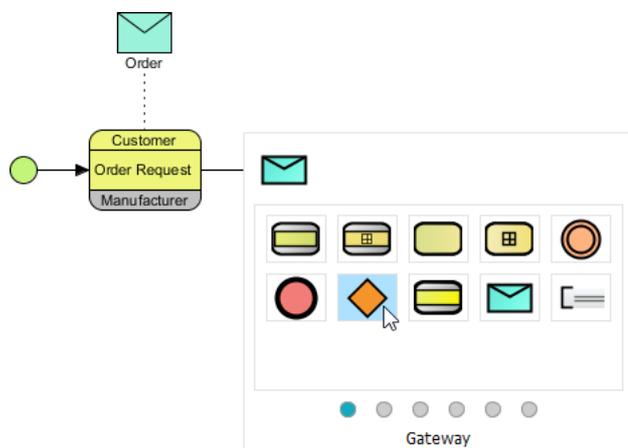
24. Then, select **New Message Flow from "Customer" to "Manufacturer"** from the popup menu.



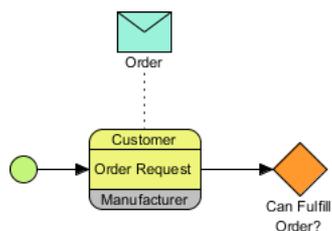
25. Enter *Order* as the name of message and then press **Enter** to confirm.



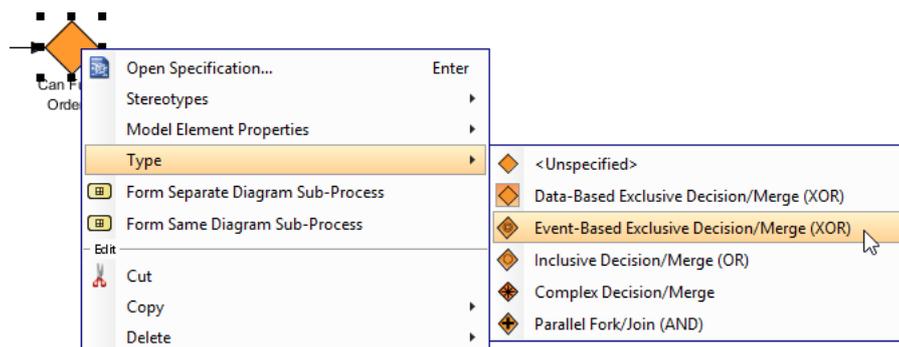
26. Create an **Event-based Exclusive Gateway** from *Order Request*. Again, click on *Order Request* and then drag out the **Resource Catalog** icon. Release the mouse button in the empty space of the diagram and select **Gateway** from Resource Catalog to create a gateway.



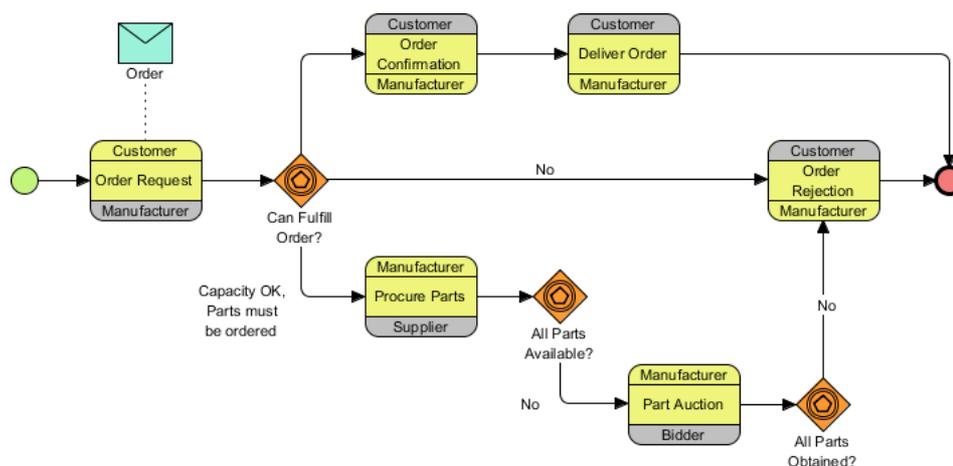
27. Enter *Can Fulfill Order?* as the name of gateway and press **Enter** to confirm. You can insert a line break by pressing **Alt + Enter**.



28. Right-click on the gateway and select **Type > Event-Based Exclusive Decision/Merge (XOR)**.

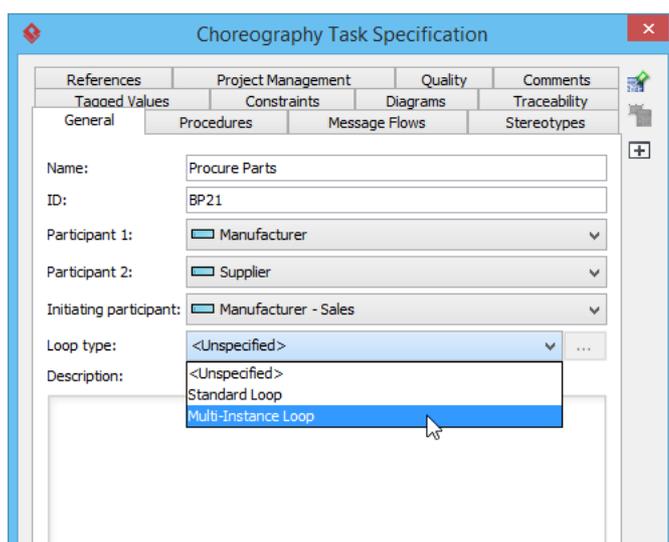


29. Repeat the steps to complete the business process diagram, like this:

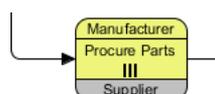


30. There could be multiple instances of 'procure parts' activity running simultaneously. Let's represent this by setting the loop type of task *Procure Parts* to Multi-Instance Loop. Right-click on the *Procure Parts* task and select **Open specification...** from the popup menu.

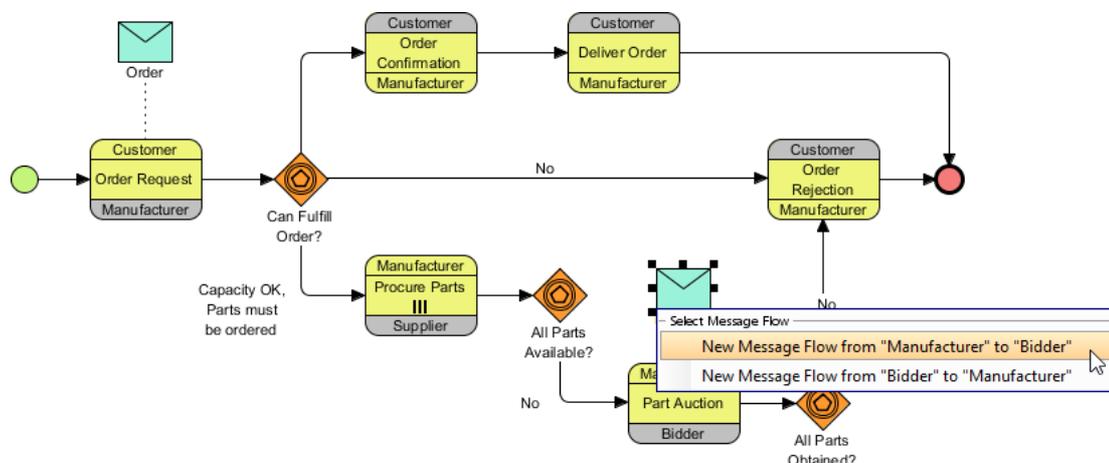
31. Select **Multi-Instance Loop** for **Loop type** combo box.



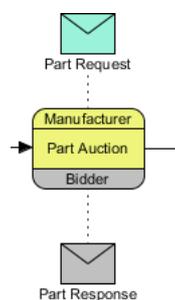
32. Click **OK** to confirm. Now the **Multi-Instance loop** marker is shown in the *Procure Parts* task.



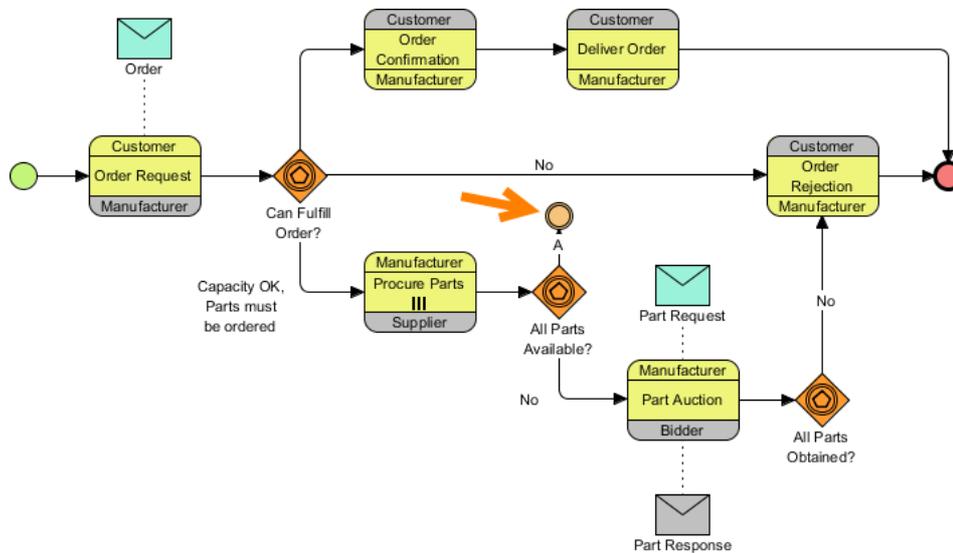
33. Let's create messages between *Manufacturer* and *Bidder* on the *Part Auction* task. With the use of Resource Catalog, create a **Message** from the *Part Auction* activity. Select **New Message Flow from "Manufacturer" to "Bidder"** from the popup menu.



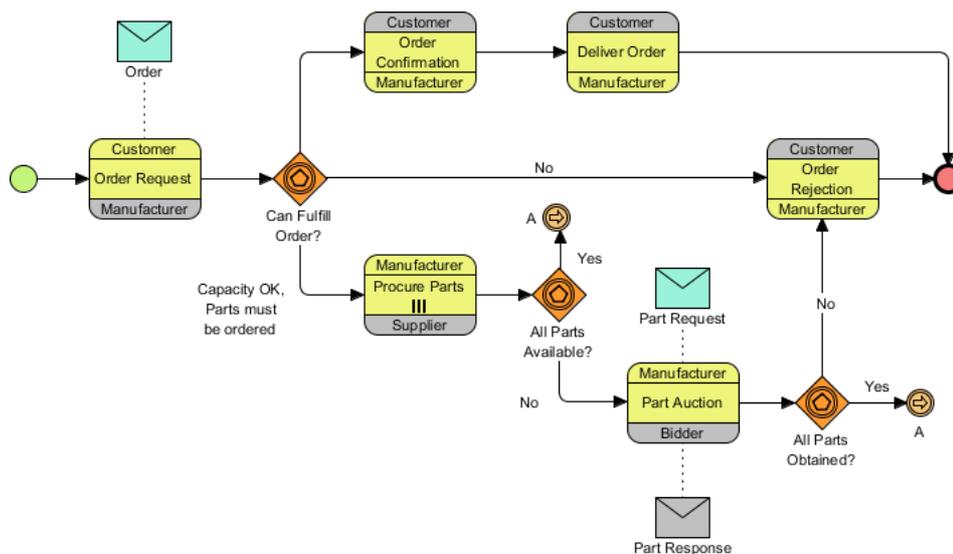
34. Name the message as *Part Request*.
35. Repeat the step to create another message to *Part Auction* task. This time, select **New Message Flow from "Bidder" to "Manufacturer"** during creation. Name the message as *Part Response*. You can see that the message from *Bidder* to *Manufacturer* is in different color since *Bidder* is non-initiating participant.



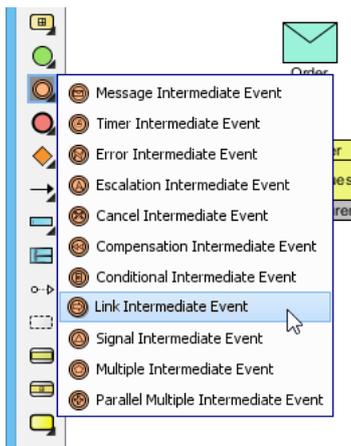
36. Now the gateway *All Parts Available?* and *All Parts Obtained?* in business process diagram only modeled the false situation. What about the true case? Assuming that the flow should flow back to the *Order Confirmation* task. We don't want to make the diagram too complicated by having too many connector lines. Let's represent the flow with the use of a pair of intermediate events. Click on the *All Parts Available?* gateway and drag out the **Resource Catalog** icon. Release the mouse button above the gateway and select **Intermediate Event** from Resource Catalog. Enter *A* as name and press **Enter**.



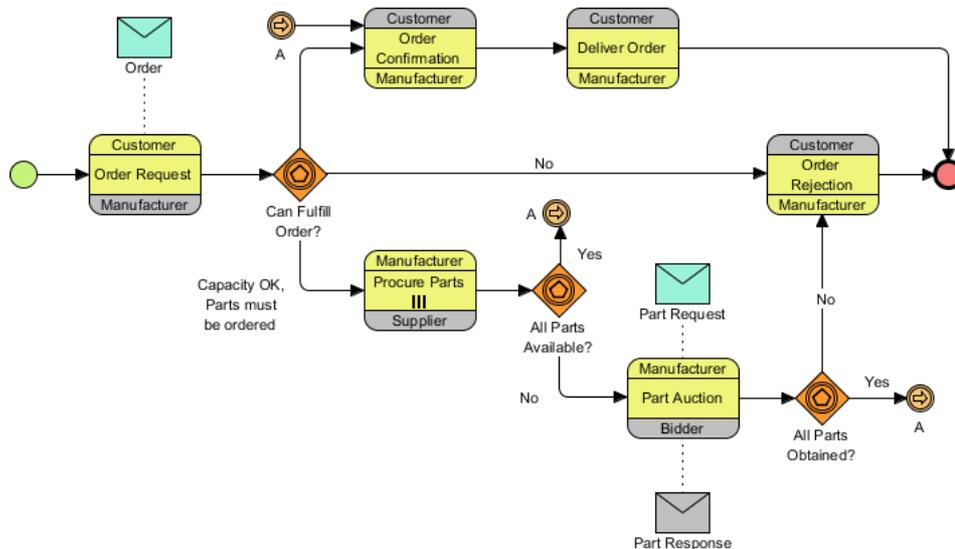
37. Name the connector *Yes*.
38. Right-click on the intermediate event and select **Trigger > Link Trigger**.
39. Repeat the steps to create another link event from *All Parts Obtained?* gateway.



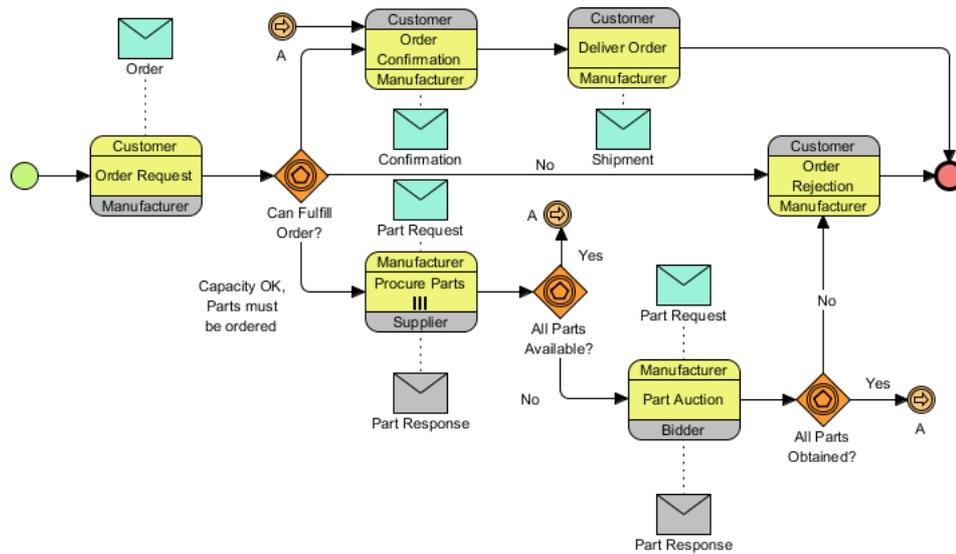
40. Select **Link Intermediate Event** from the diagram toolbar.



41. Click on the left hand side of the *Order Confirmation* task and name it A. Connect it with the task. Up to now your diagram should look like this:



42. Create the other messages. Finally, your business process diagram should look like this:



#### Resources

1. [Complete Project - Tutorial.vpp](#)

#### Related Links

- [Introduction to BPMN](#)
- [How to Define Working Procedures for Business Tasks](#)



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

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