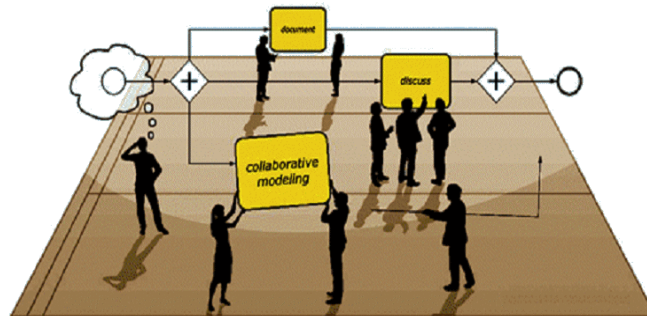


"Large and complex organizations are a tangible manifestation of advanced technology, more than machinery itself." (J.K. Galbraith)

Modeling and Simulation of Business Processes using BPMN 2.0



Tutorials

Mario G. Cimino, Department of Information Engineering, Center for Logistics Systems
Pisa, March-May 2013, Monday 15.30-18.30, Room: ADInform1

Logizian 10.x



- Suite to model and simulate the execution of business processes
- **Download:** <http://www.visual-paradigm.com/download/lz.jsp> (**no-install** version)
- **Unzip and execute** `bin/Logizian.exe`
- **Workspace:** select a folder to use as workspace
- **Evaluation:** 30 Days Free Evaluation, **Simulacian**, press "Evaluate"

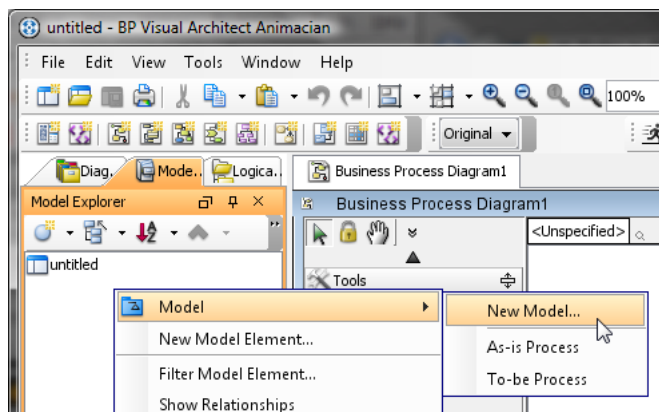


Drawing BPMN 2.0 business process diagram

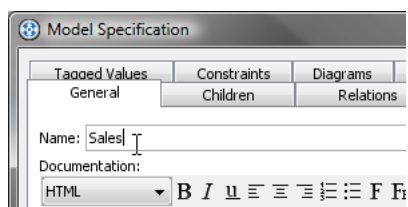
Written Date : October 30, 2009

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).

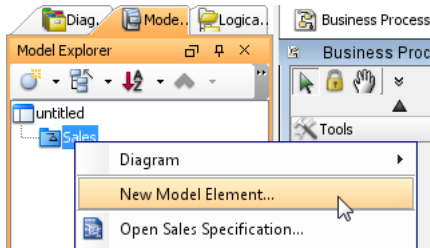
1. We first create a model in our project. Right click on the **Model Explorer** and select **Model > New Model...**



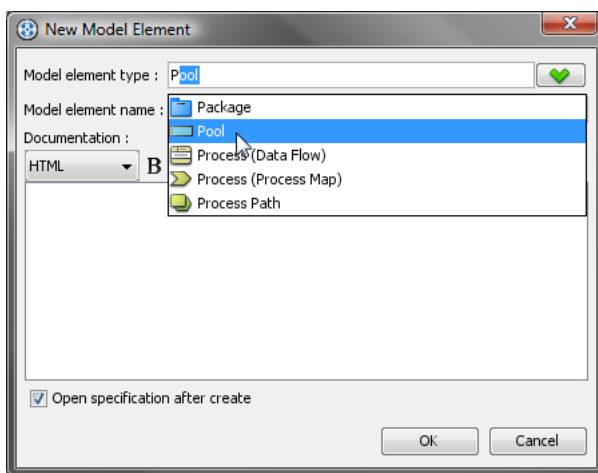
2. Name the model as *Sales*.



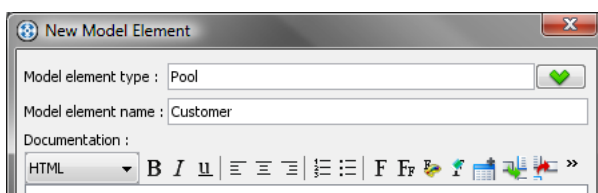
3. We can then create pools directly under *Sales* model without using diagram. Right click on *Sales* model and select **Model Element > New Model Element**.



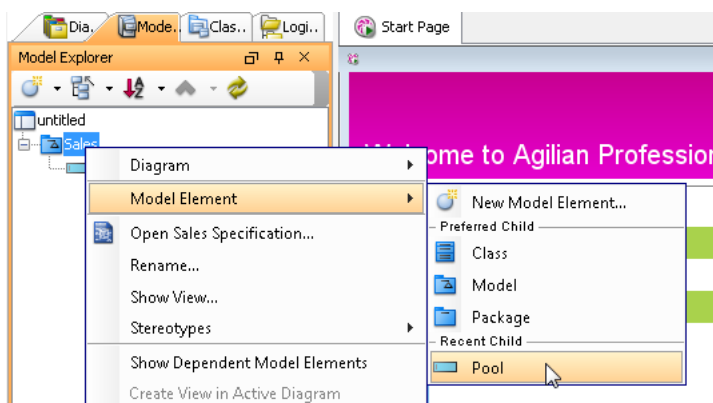
4. You can search the model you would like to create in the **New Model Element** dialog. Enter *Pool* in the **Model element type** text field to search for the **Pool**.



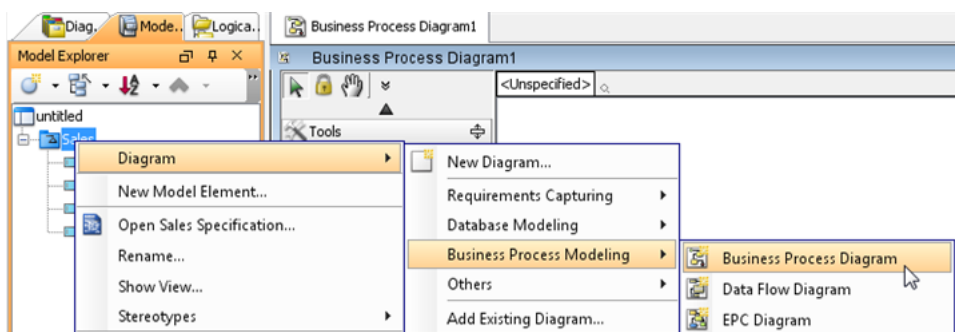
5. Name the pool as *Customer*. Press **OK** to proceed.



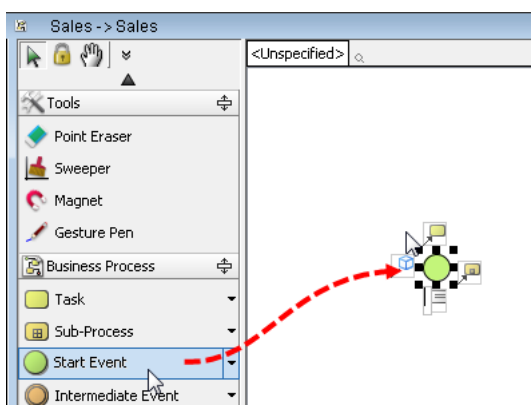
- Repeat the steps to create the pool *Bidder*, *Manufacturer* and *Supplier*. But this time you can directly select create pool from the popup menu.



- Right click on the *Sales* model and select **Diagram > Business Process Modeling > Business Process Diagram**.



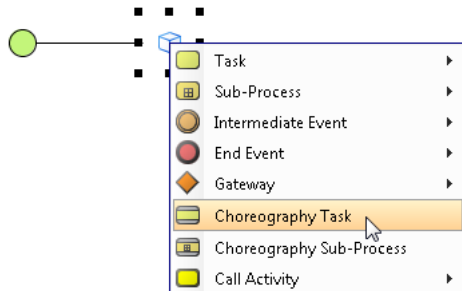
- We can now start to create the business process diagram. First let's create a start event. Click on the **Start Event** tool in the diagram toolbar, and then click on the empty area of the business process diagram.



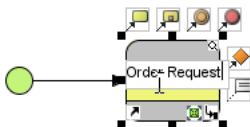
9. Now click on the start event and drag out the **Generic Resource** icon.



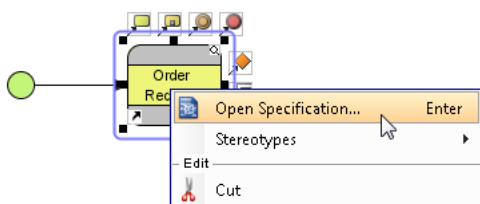
10. Release the mouse button at the blank area of the diagram, and select **Choreography Task** from the popup menu.



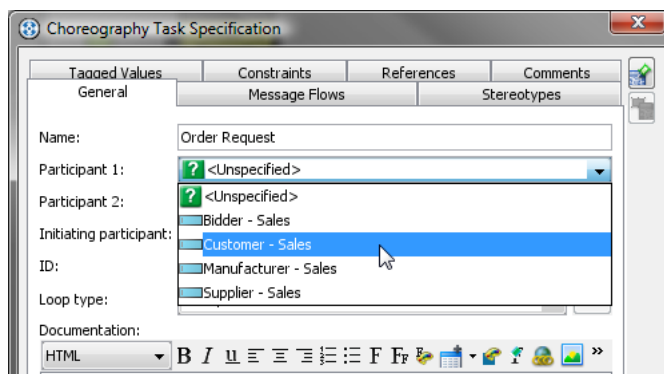
11. Name the task as *Order Request*.



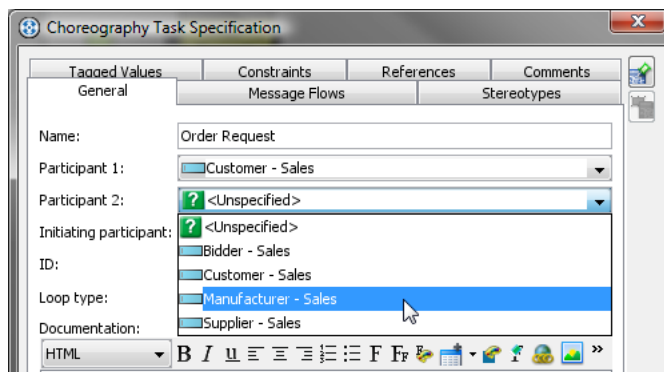
12. Right click on *Order Request* and select **Open Specification...**



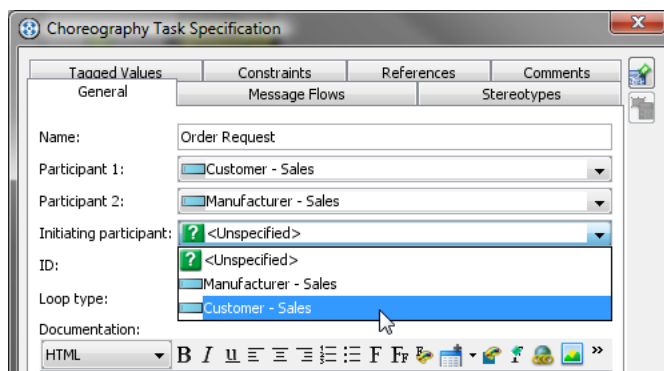
13. Specify *Customer* pool in **Participant 1**.



14. Specify *Manufacturer* pool in **Participant 2**.

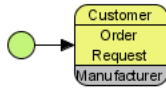


15. And select *Customer* pool in the **Initiating participant** field.

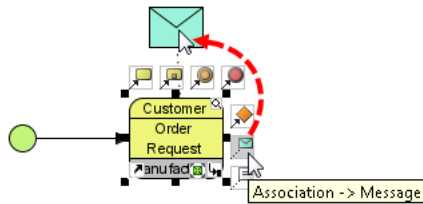


16. Press **OK** to commit.

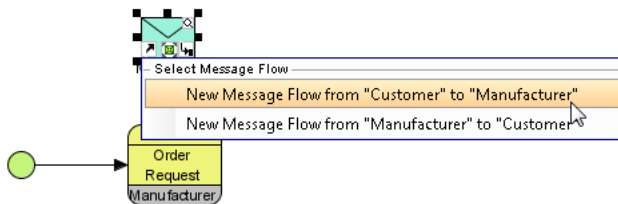
- Now the task *Order Request* is done. You can see that the initiating participant is showing in the same color of the task, and non-initiating participant is showing in gray.



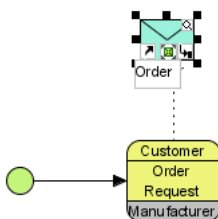
- Let's create a message between *Customer* and *Manufacturer*. Click on the *Order Request* task and drag out of **Association** > **Message** icon.



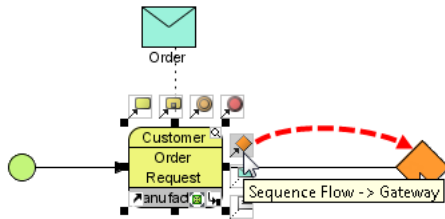
- Release the mouse button at the blank area of the diagram, and select **New Message Flow** from "Customer" to "Manufacturer".



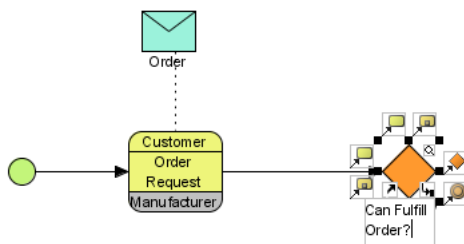
- Name the message as *Order*.



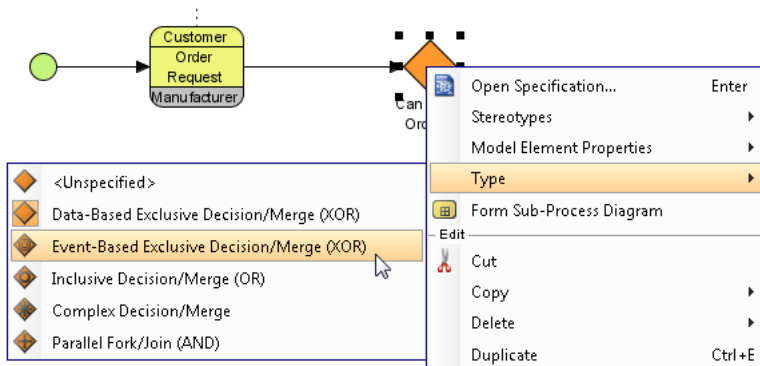
21. Create an **Event-based Exclusive Gateway** from *Order Request*. Click on *Order Request* and drag out the **Sequence Flow > Gateway** icon. Drop it on the blank area of the diagram.



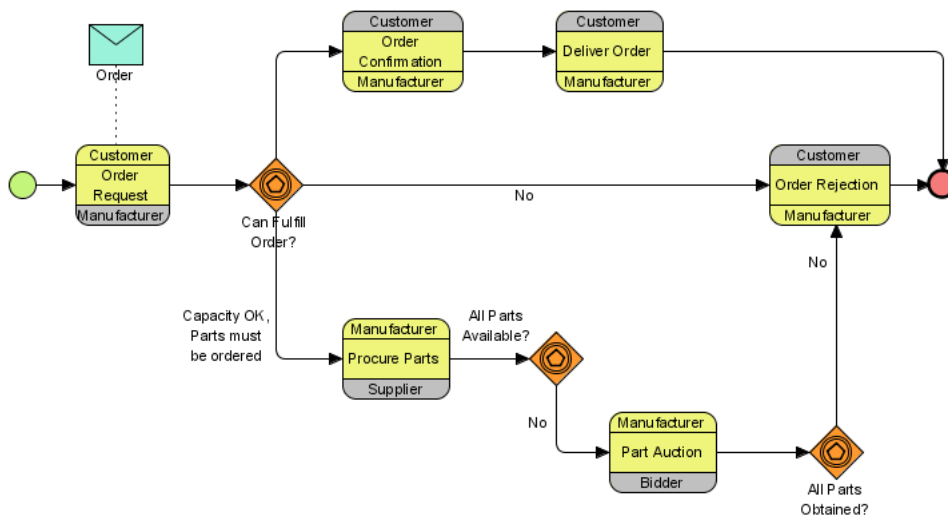
22. Name the gateway as *Can Fulfill Order?*



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

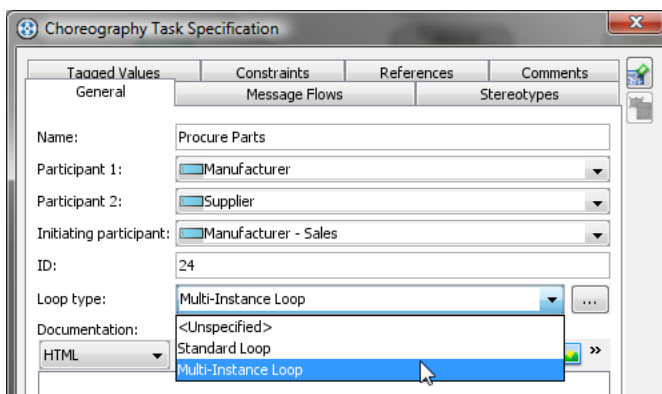


24. Repeat the steps to complete the following business process diagram.

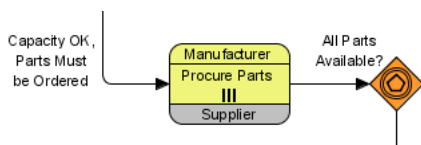


25. It could be multiple instance of procure parts activity doing at the same time. Let's specify it as multi-instance activity. Right click on the *Procure Parts* task and select **Open specification...**

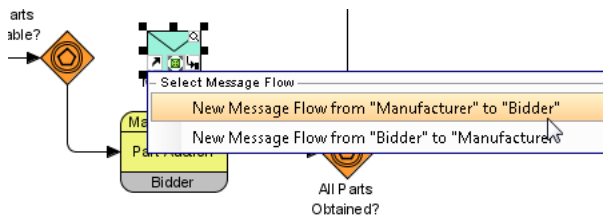
26. Select **Multi-Instance Loop** in the **Loop type** combo box.



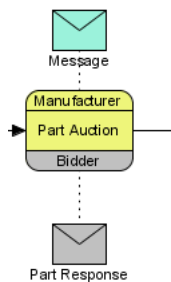
27. Press **OK** to commit. Now the **Multi-Instance loop** marker is showing in the *Procure Parts* task.



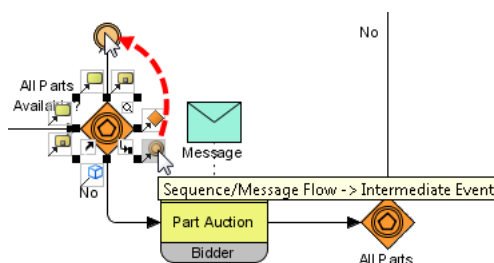
28. Let's create messages between *Manufacturer* and *Bidder* on the *Part Auction* activity. Click on the *Part Auction* activity and drag out the **Message** icon. Select **New Message Flow from "Manufacturer" to "Bidder"** from the popup menu.



29. Name the message as *Part Request*.
30. Repeat the step to create another message to *Part Auction* activity. The message should be **New Message Flow from "Bidder" to "Manufacturer"**. Name the message as *Part Response*.
31. You can see that the message from *Bidder* to *Manufacturer* is in different color since *Bidder* is non-initiating participant.

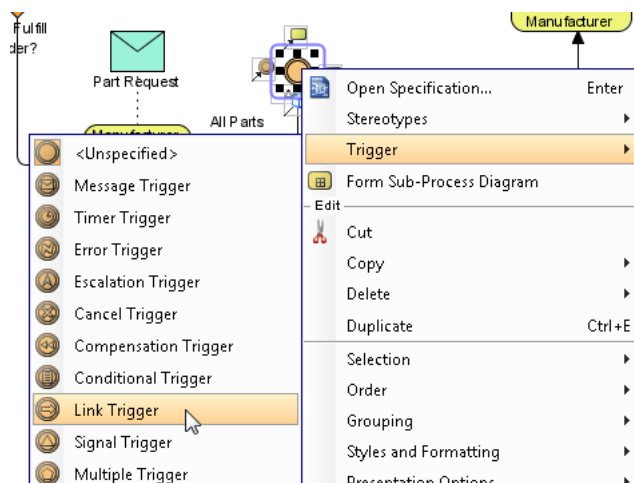


32. Now the gateway *All Parts Available?* and *All Parts Obtained?* in business process diagram only modeled the false situation. What about the true case? It should be go to *Order Confirmation* activity. We don't want the diagram become so much cross lines since they mess up the layout and make the diagram difficult to read. We can create **Link Event** to simplify the flow.
33. Click on the *All Parts Available?* gateway and drag out the **Sequence Flow > Intermediate Event** icon.

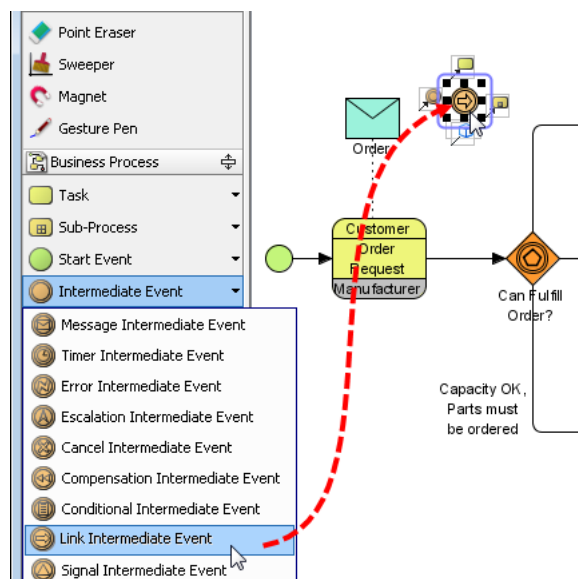


34. Name the intermediate event as *A*.

35. Right click on the intermediate event and select **Trigger > Link Trigger**.

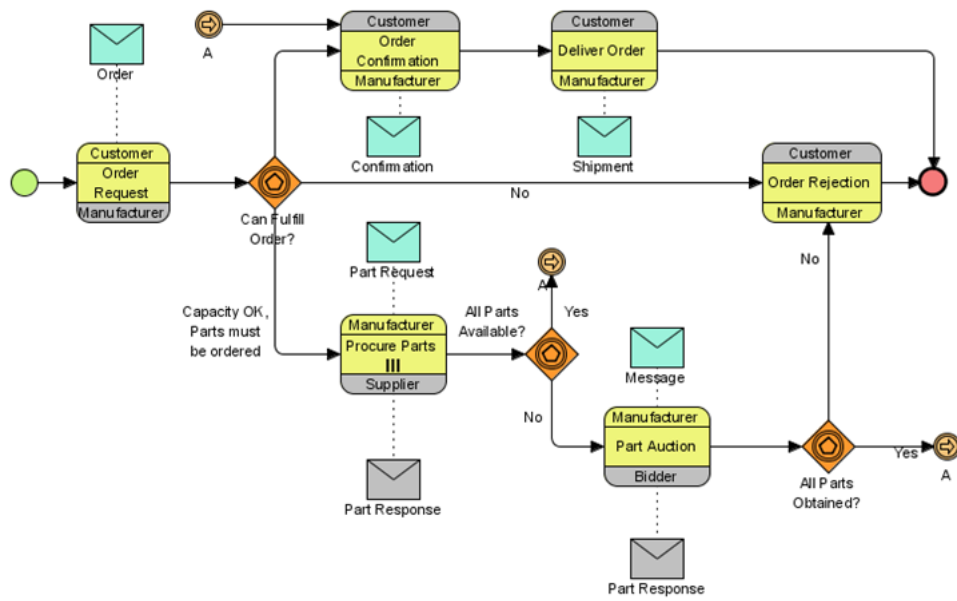


36. Repeat the steps to create another link event to *All Parts Obtained?* gateway.
37. Click on the **Link Intermediate Event** in the diagram toolbar, and click on the blank area of the diagram.
38. Name the intermediate event as *A*.



39. Click on the link event *A* and drag out the **Sequence Flow > Task** icon, drop it to the *Order Confirmation* task.

40. Now the business process diagram is done.



Logizian home page

(<http://www.visual-paradigm.com/product/lz/>)

BPM tutorials

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