ENABLING NEXT GENERATION AGILE, ADAPTIVE AND PROCESS-MANAGED ENTERPRISE

Process Designer Tutorial Introduction

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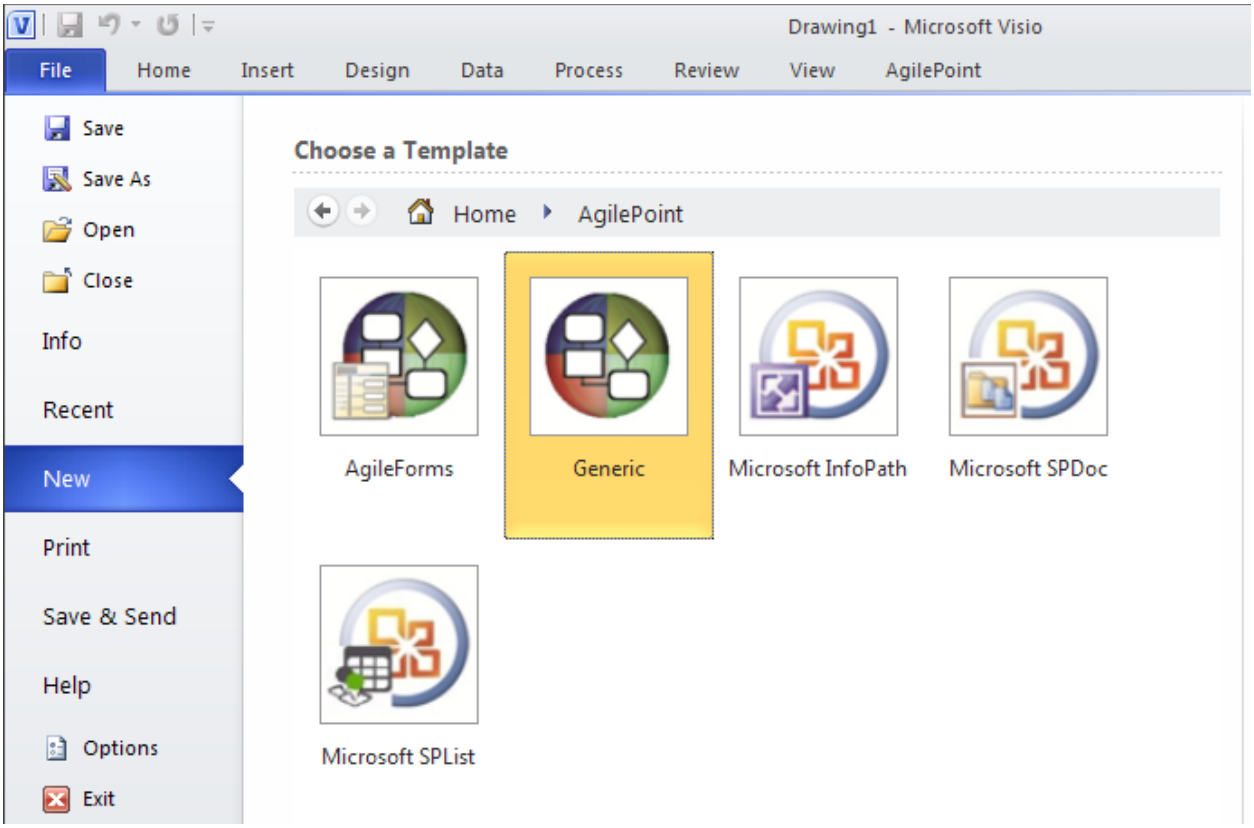
Introduction

AgilePoint Envision is a component for designing the business processes. The Envision component is add-on to the Microsoft Visio program. The Envision component leverages Microsoft Visio user experience. It has different types of templates to start process design: Generic, InfoPath, SPList, SP Document Library and AgileForm. An emphasis of this document is to design a process excluding form technology, so the document uses Generic process template. An example used to explain the Envision component is IT Equipment Request.

Envision Feature Overview

AgilePoint Envision has process template called “Generic”, which is going to be used for designing IT Equipment Request. The IT Equipment Request has some data, which needs to be stored. AgilePoint provides a couple options to deal with data. First option is Custom Attribute and the other one is Schema. The schema option is going to be discussed in detail for this process design.



Picture: Generic process template in AgilePoint Envision

Demo Scenario

Demo scenario is going to mimic IT Equipment Request. Anybody can put a request for IT equipment. The IT equipment list includes hardware, server, landline phone and mobile device. User should be able to enter hardware and server details if they opt for it. All requests need manager approval, except landline phone. If Manager rejects, the workflow should be routed back to the process initiator for further changes. Manager approval follows IT fulfillment process, which goes to a group of IT Engineer.

Let's start developing a solution to the above mentioned scenario. Follow the steps mentioned below to develop the solution.

1. Design schema: Design the schema needed to fulfill the requirement.
2. Design process: Design the process with AgilePoint Envision for IT equipment request.

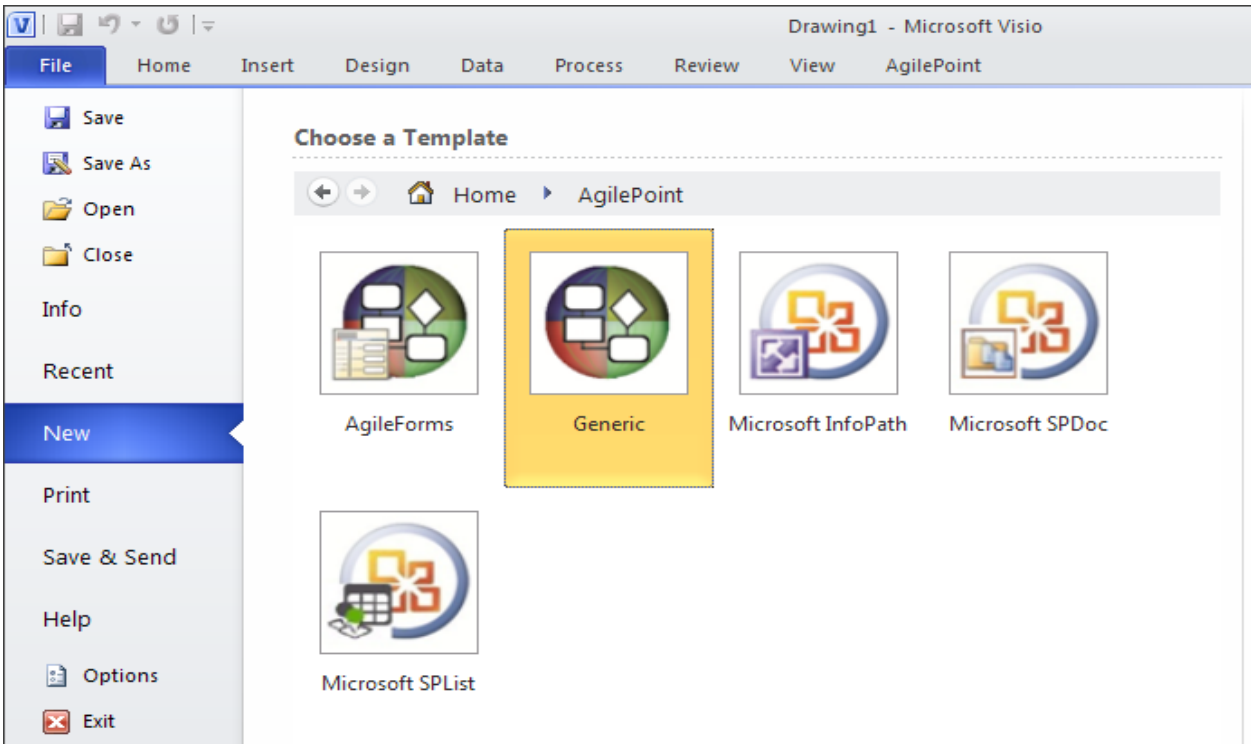
Design Schema

The schema is required to integrate data used on the ASP.Net pages with the process model. It's always a best practice to design a schema before designing a process. The data fields are needs to be identified to start designing schema.

1. User ID: text box to enter user id of a requester
2. Date: date picker for request date
3. Full Name: text box to enter full name of the requester
4. Title: text box to enter title of requester
5. Department: drop down to select department of requester
6. Email ID: text box to enter email id of requester
7. RequesterComments: text box to enter requester comments
8. Computer Hardware: check box to request computer hardware
9. Hardware Name: drop-down to select hardware
10. Server Specification: text box to enter server specifications
11. Mobile Device: check box to request mobile device
12. Device Name: drop down to enter name of the mobile device
13. Landline Phone: check box to request landline phone
14. Tracking Number: label to display unique tracking number

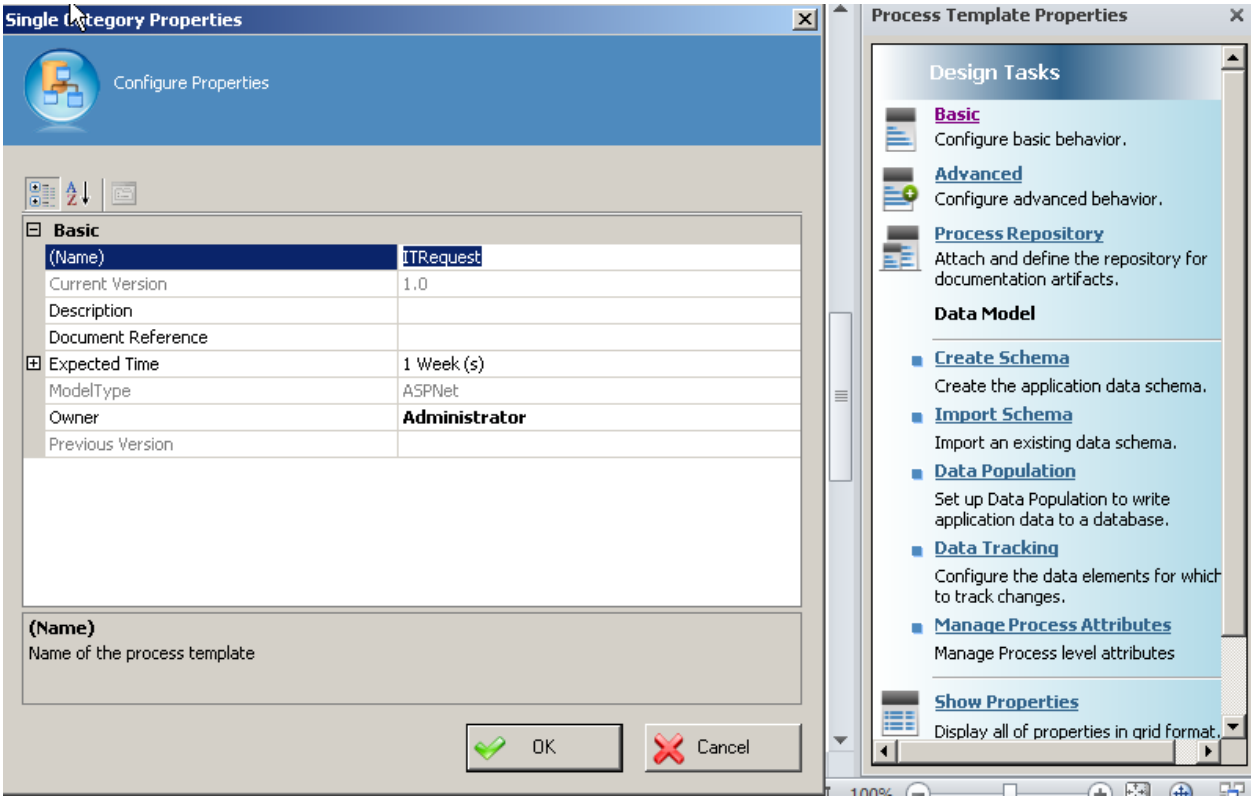
Let's create generic process model to put the above schema.

1. Open AgilePoint Envision and create new process by selecting "Generic" process template.



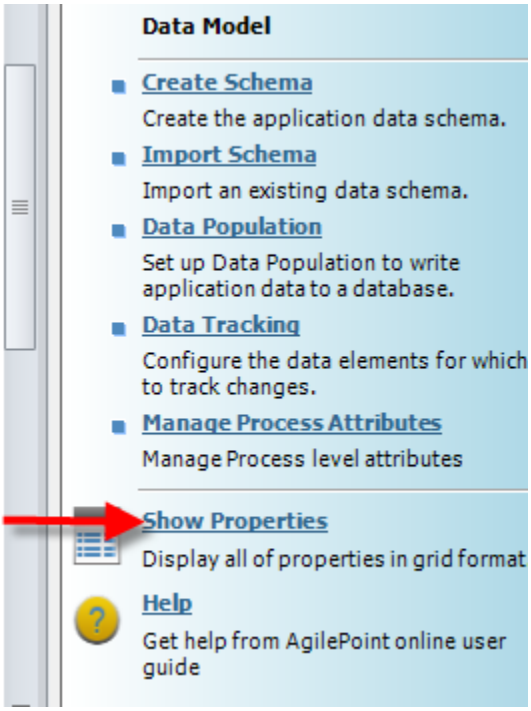
Picture: Create Generic process template with AgilePoint Envision

2. Click on “Basic” property link on the right hand side and name the process as “ITRequest” as shown below.

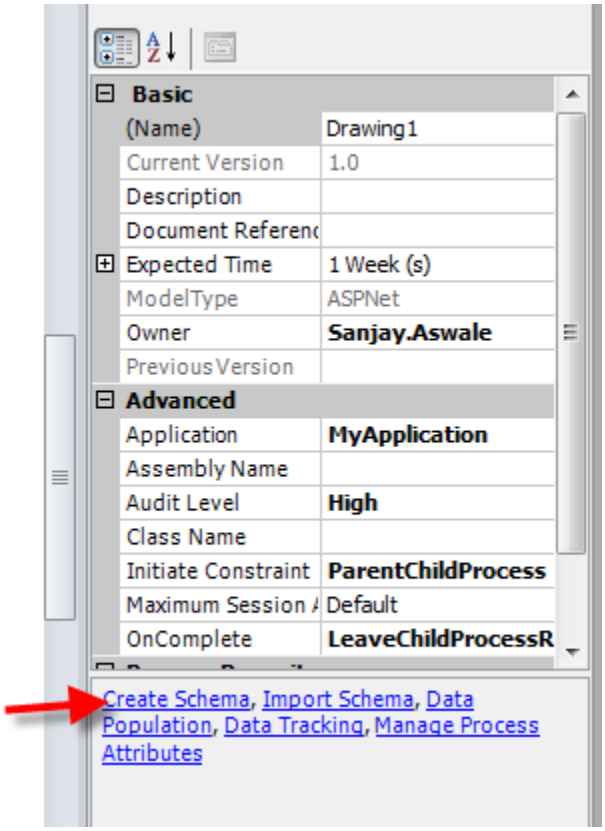


Picture: Process name using AgilePoint Envision

3. Click the “Show Properties” link on the right side property pane.

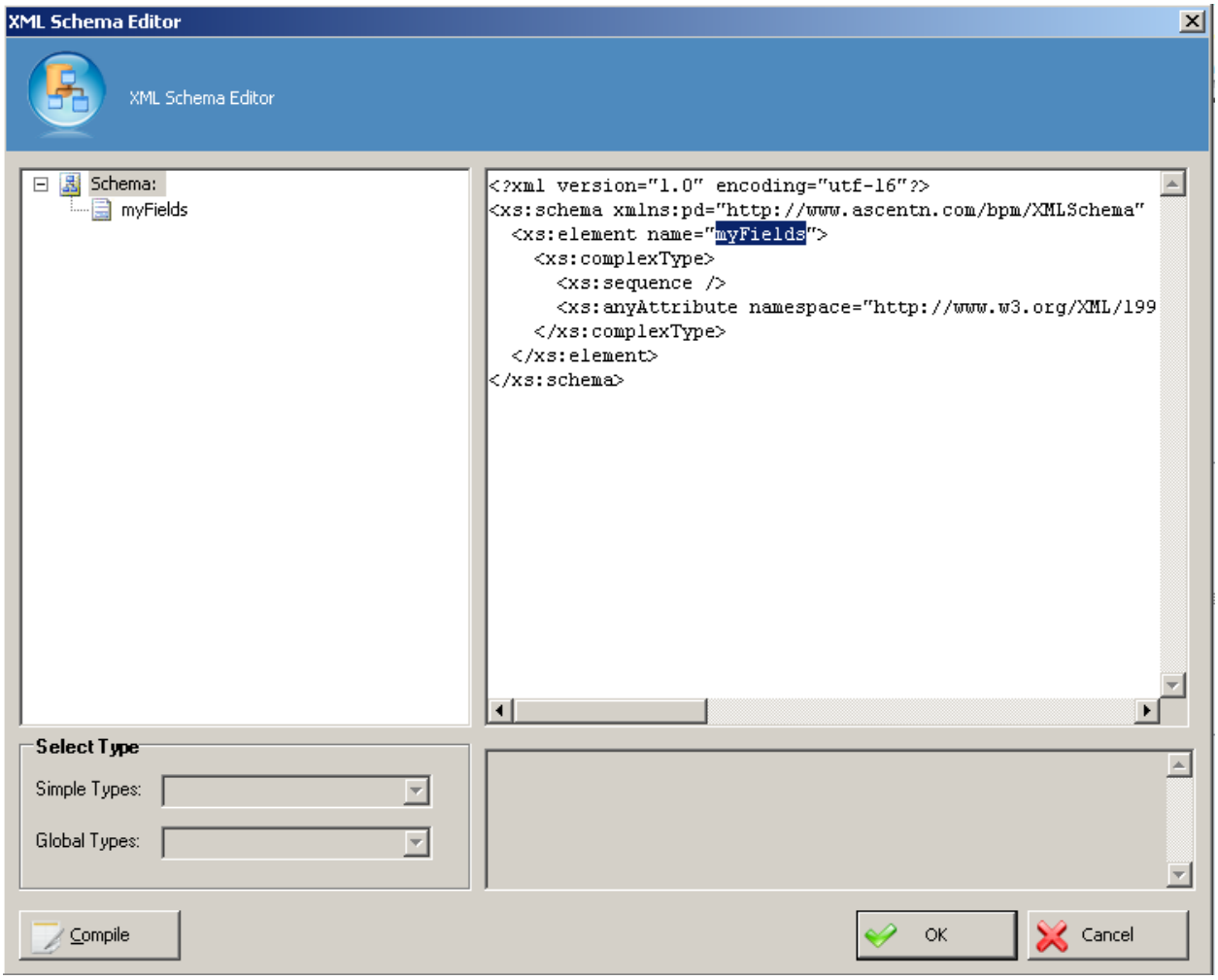


4. Click the “Create Schema” link in the property panel on the right side.



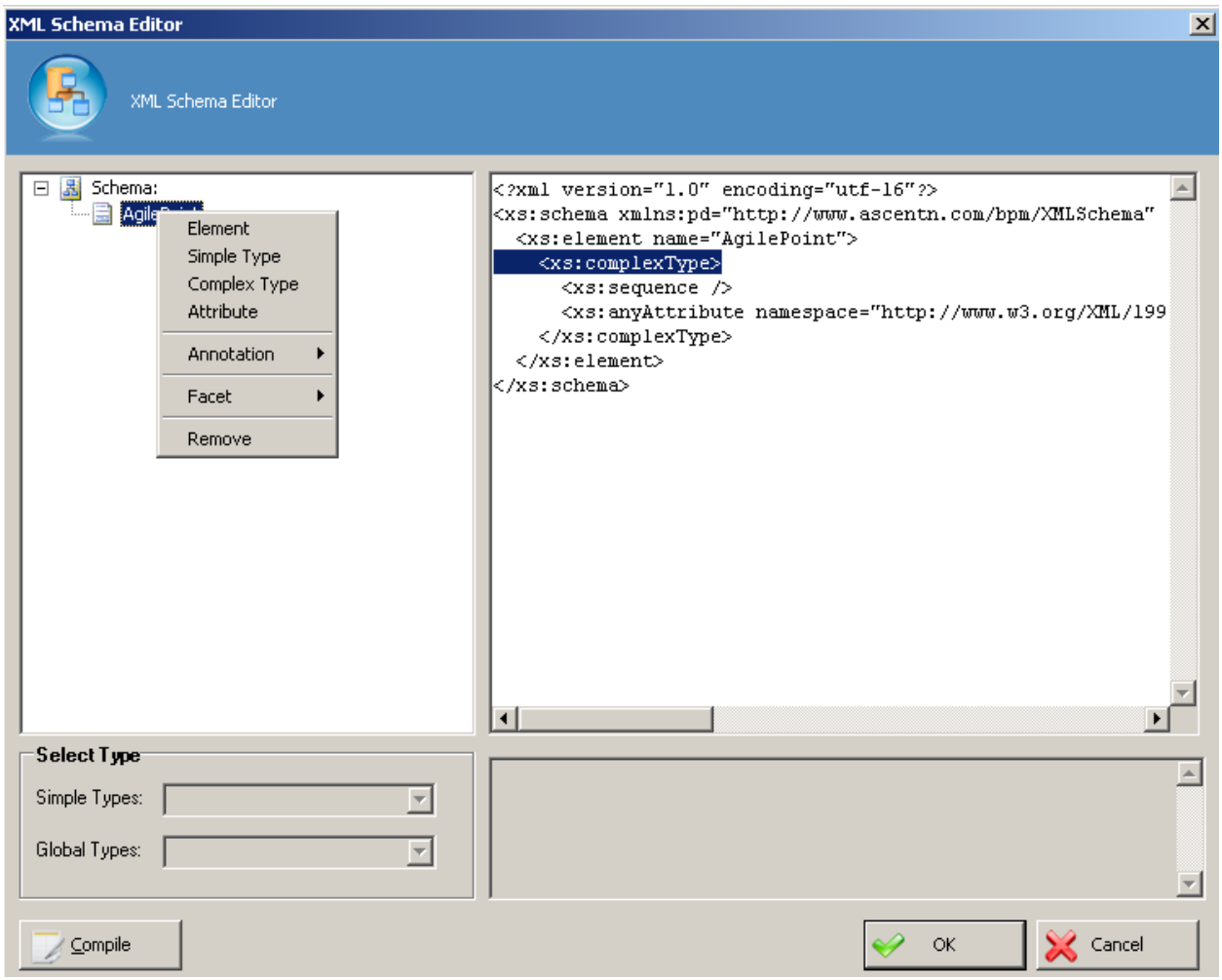
5. “Create Schema” dialog box shows two panes. The left side pane is to add/remove xml nodes and right hand pane shows the generated schema.

6. “MyFields” is the default top level node. Usually organization name or project name should appear as top level node. Do not rename top level node by right click. Go to right hand side pane and rename “MyFields” to appropriate value. For demo purpose the top level node is “AgilePoint”.



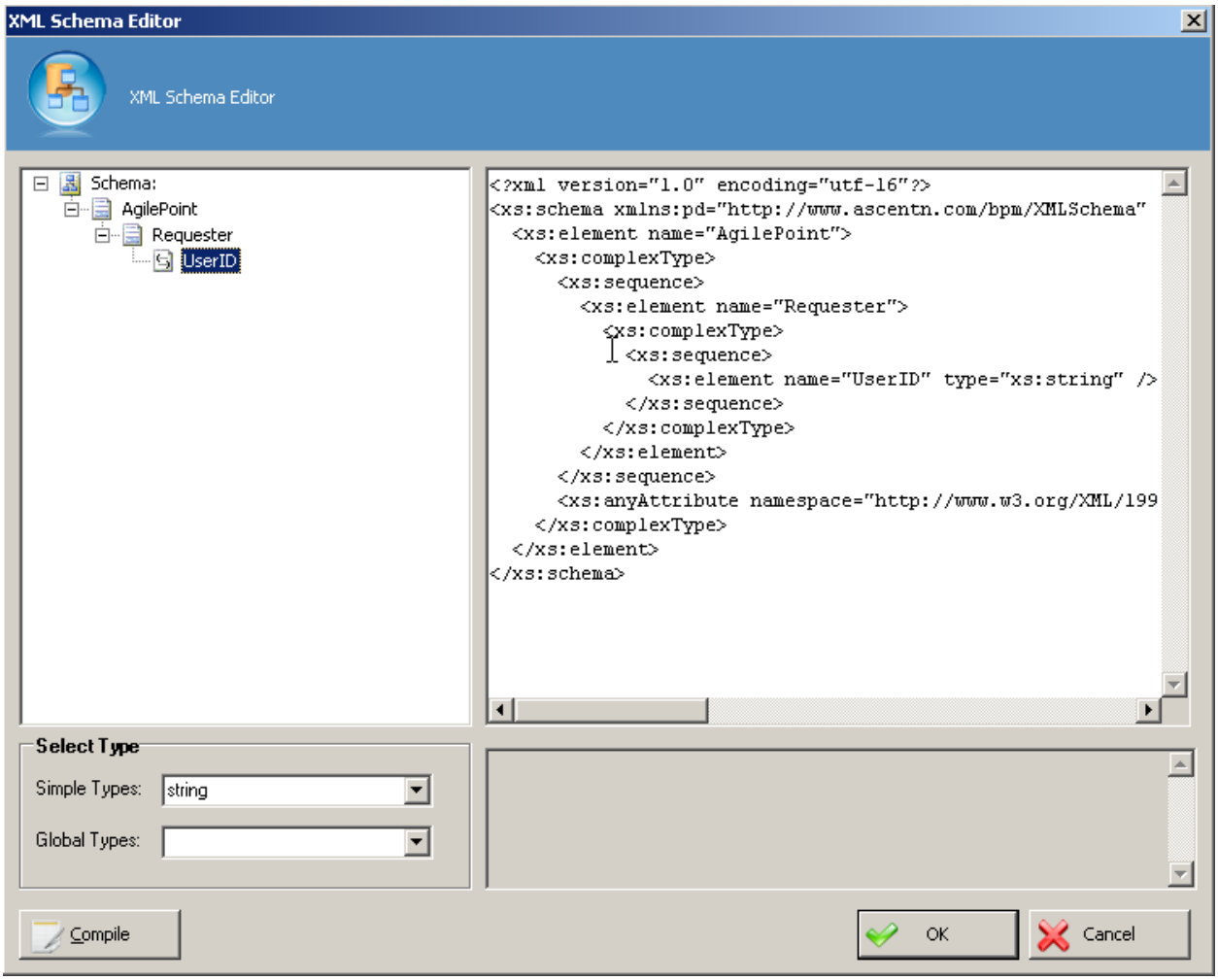
Picture: Create Schema dialog in AgilePoint Envision

7. Select the “AgilePoint” node by left click (do not select any node by right click). Then right click on selected node, and click the “Complex Type” link to add a category for requester information. Name the newly created complex type as “Requester”.



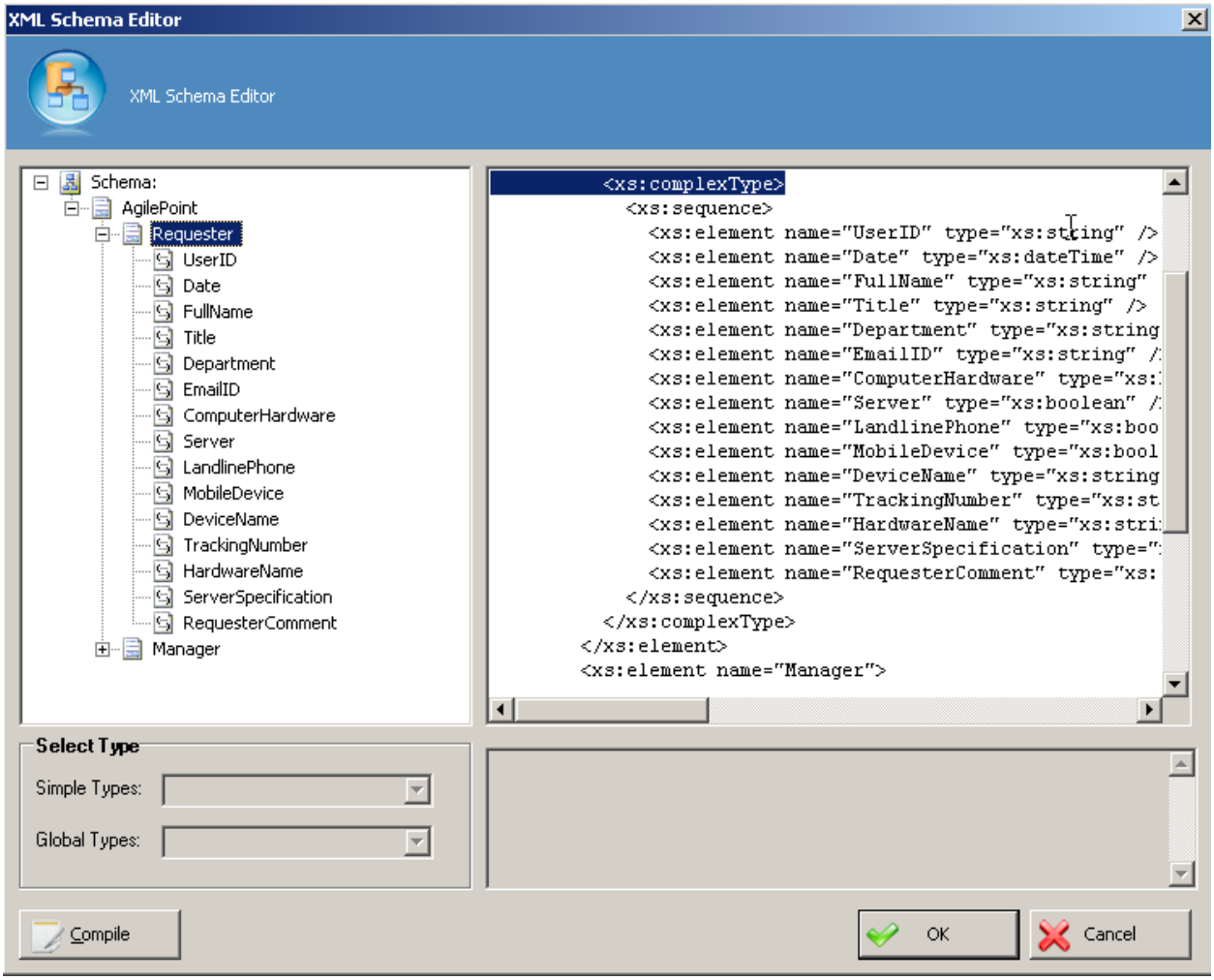
Picture: "Create Schema" dialog box to add xml nodes

8. Create an element called "UserID". Default data type of an element is string. If required, the data type can be changed by selecting appropriate data type from the "Simple Types" drop down box at the left hand side panel towards bottom of the screen.



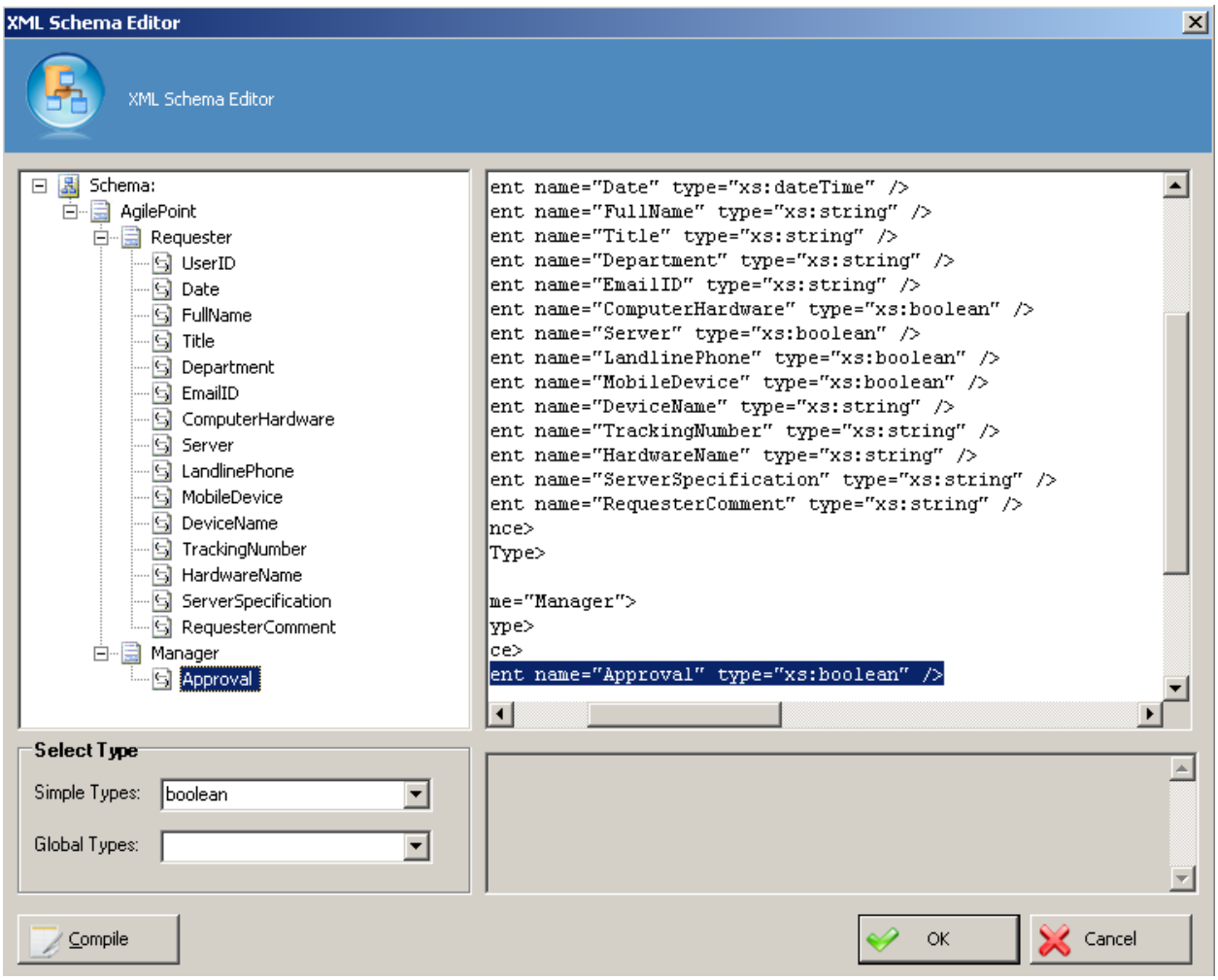
Picture: Creating "UserID" element in AgilePoint Envision.

9. Repeat the action in step # 8 to create rest of the fields - Date(DateTime), FullName(string), Title(string), Department(string), EmailID(string), ComputerHardware(boolean), HardwareName(string), Server(Boolean), ServerSpecifcation(string), MobileDevice(boolean), DeviceName(string), LandlinePhone(boolean), RequesterComment(string) and TrackingNumber(string) elements under "Requester" category. Value in parenthesis indicates data type.



Picture: Requester schema in xml editor

10. Create “Manager” as a category under AgilePoint. Create “Approval” element with data type Boolean under “Manager” category as shown below.

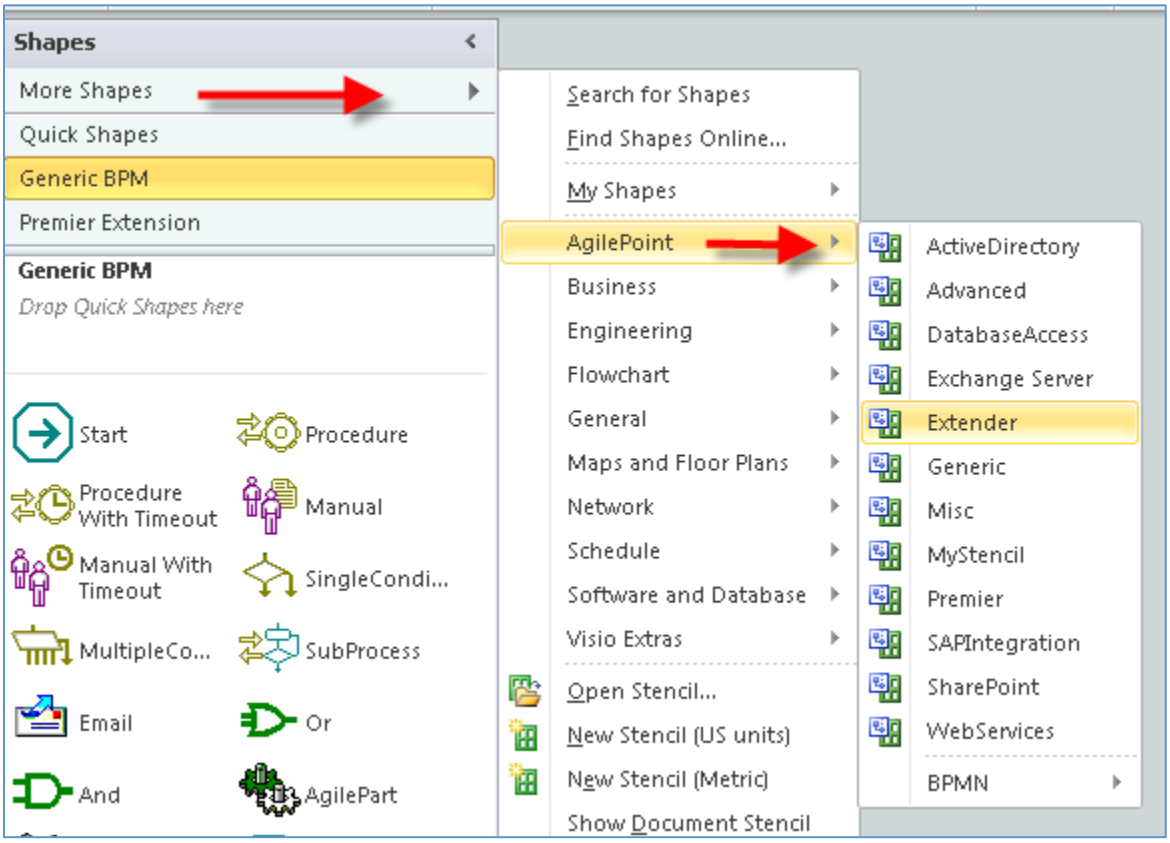


Picture: Manger category to store manager response.

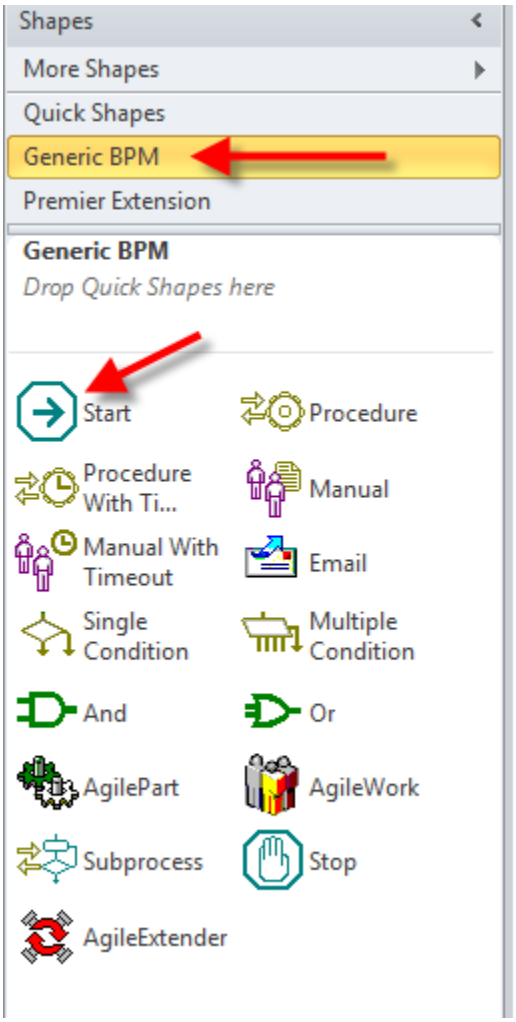
Design Process

At this point the schema is designed and ready to be utilized in the process design. Let's start process design by adding shapes and their configuration.

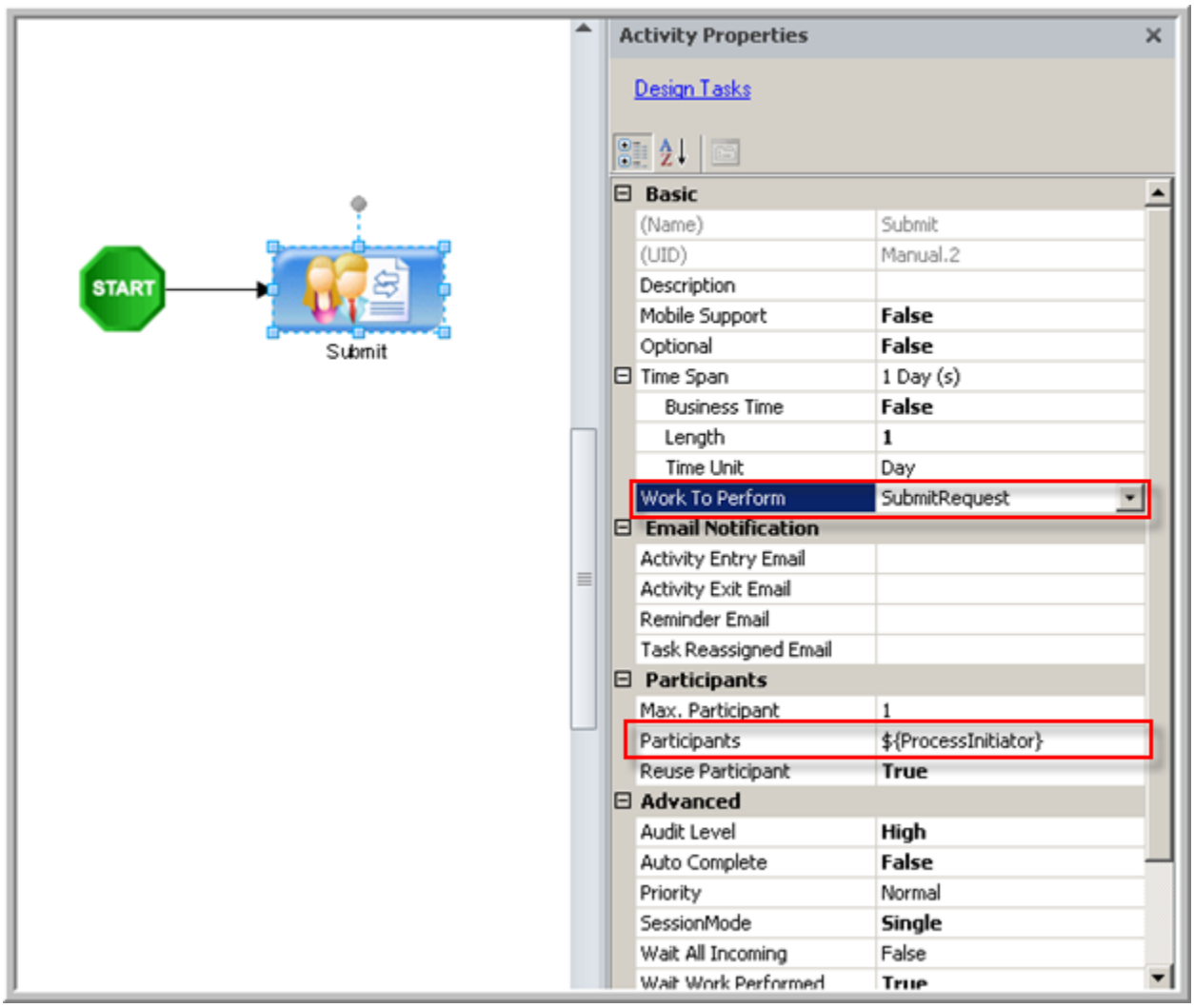
1. Before we begin, please take a moment to review the out-of-the-box AgilePoint stencils and shapes available in the process designer. You can navigate to these stencils by clicking on More Shapes --> AgilePoint. The screenshot shown below is from Visio 2010 but these stencils are available in Visio 2007 as well. These stencils include 100+ OOTB SOA services available with AgilePoint.



2. Drag and drop the "Start" shape from the "Generic" stencil on the process designer.

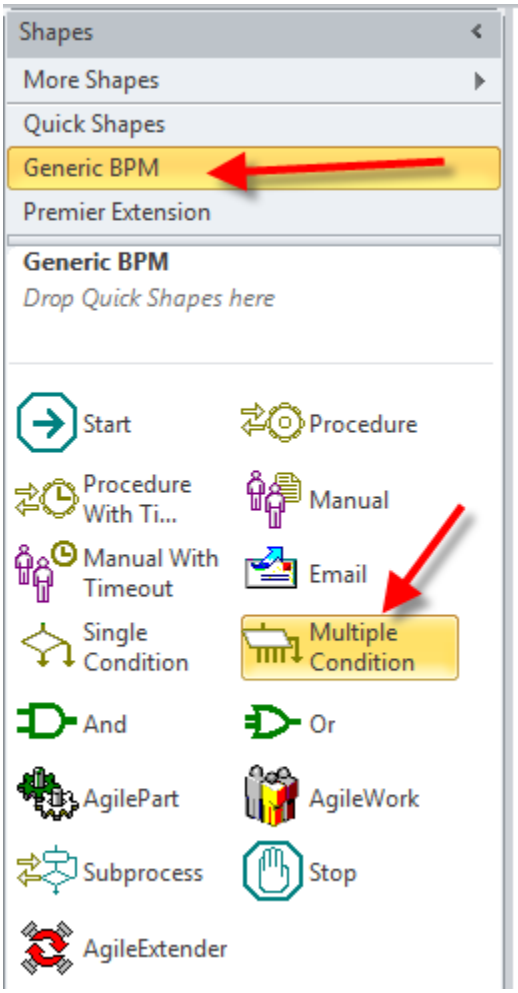


3. Drag and drop the “Manual” shape from the “Generic” shape category on the process designer. Set the “Work To Perform” property to the “SubmitRequest”, and the “Participants” property to “${ProcessInitiator}”. Double click the manual shape to change the description of the shape under it to “Submit”.

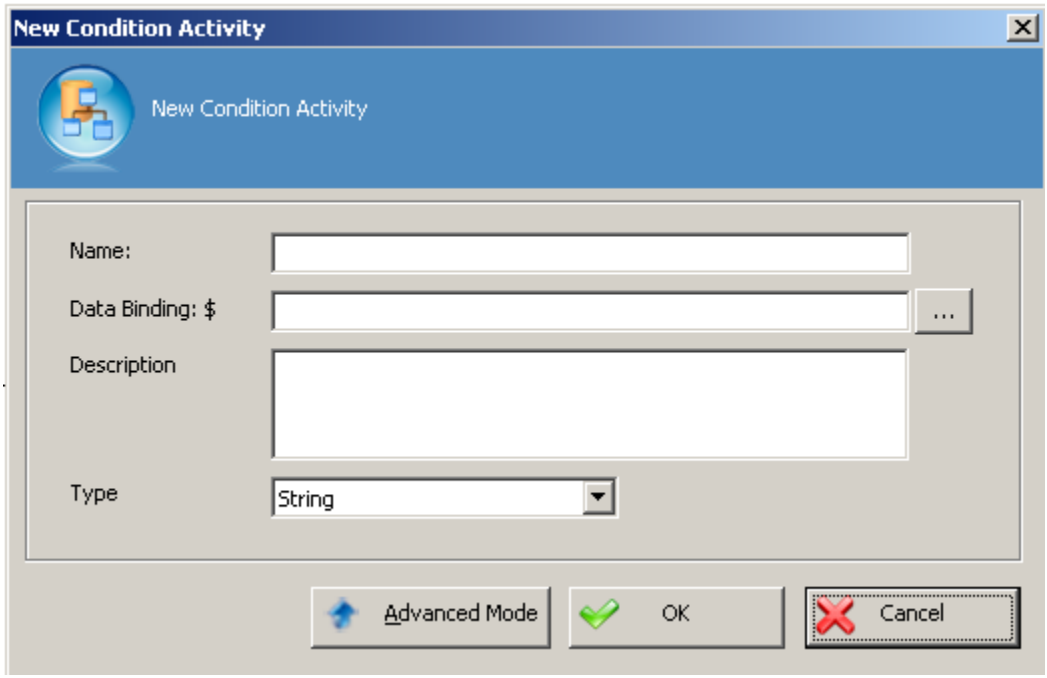


Picture: Submit step of IT equipment request

4. As per the business rule, all requests except landline phone should go through the requester's manager approval. To configure this business rule, drag and drop the "MultipleCondition" shape on the process designer from the "Generic" shape category.

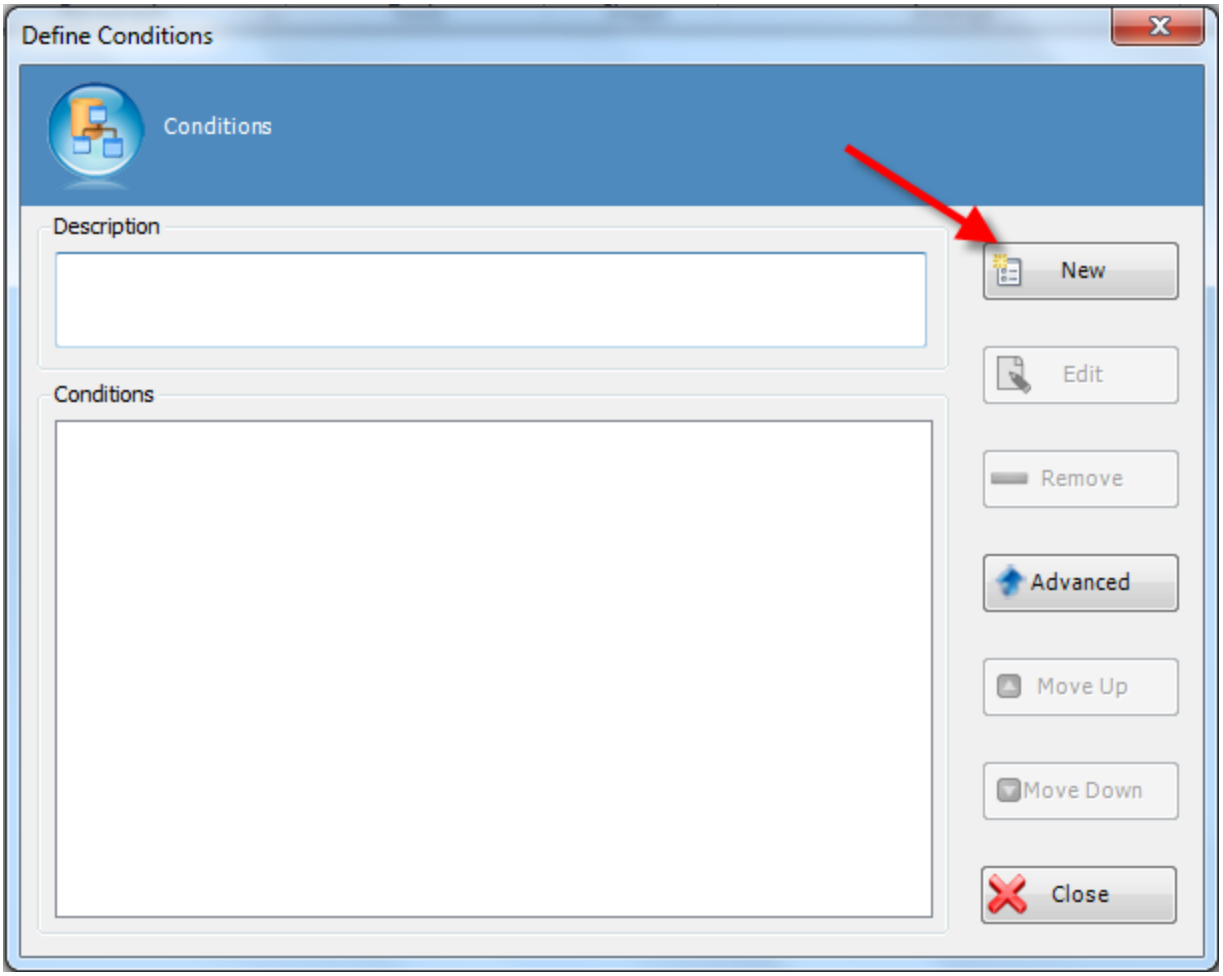


5. Click the "Advanced Mode" button as shown in the picture below.

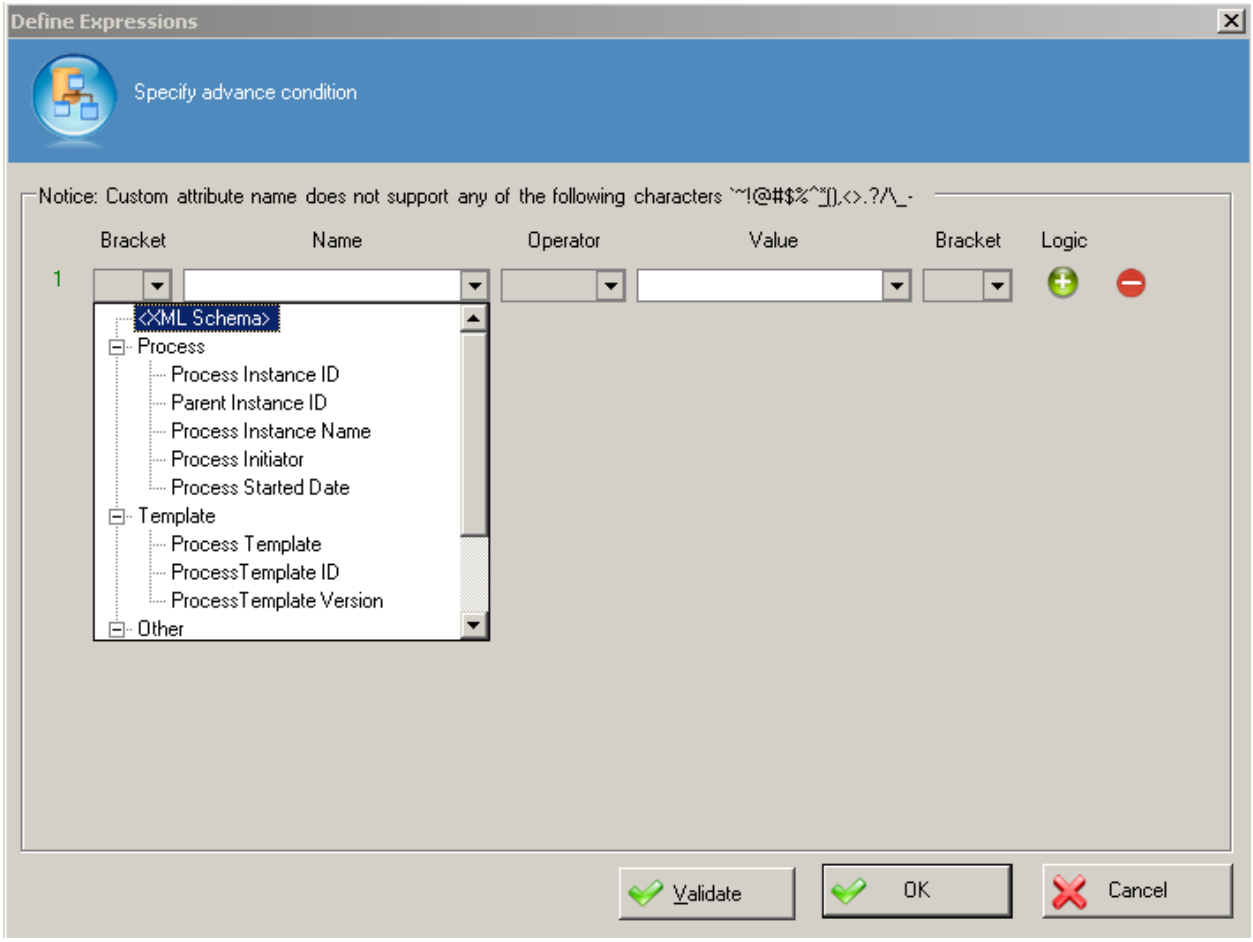


Picture: Multiple Condition configurations

6. Click the “New” button on the right side of next dialog box.

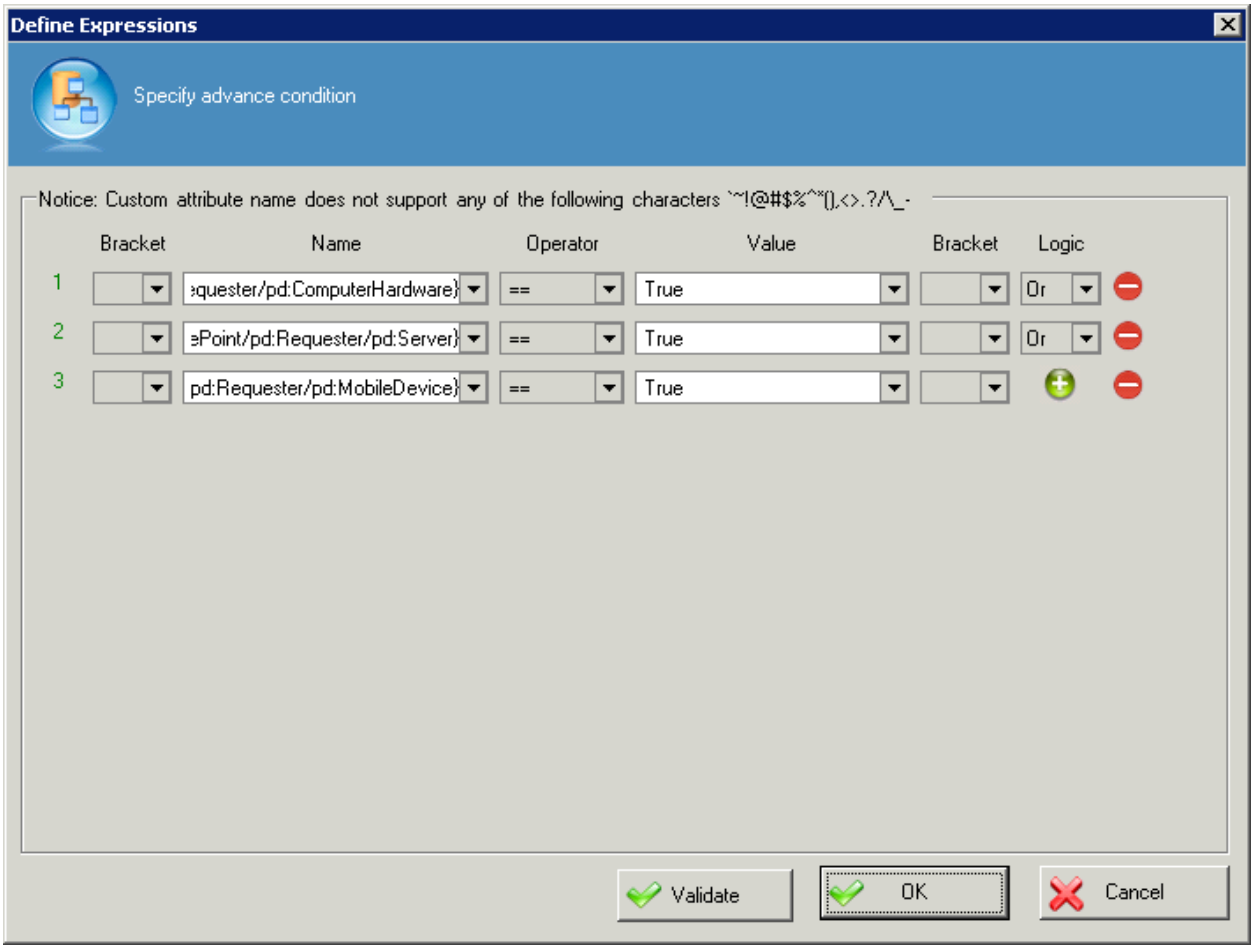


7. Select “XML Schema” from the “Name” drop down as shown in the picture below.



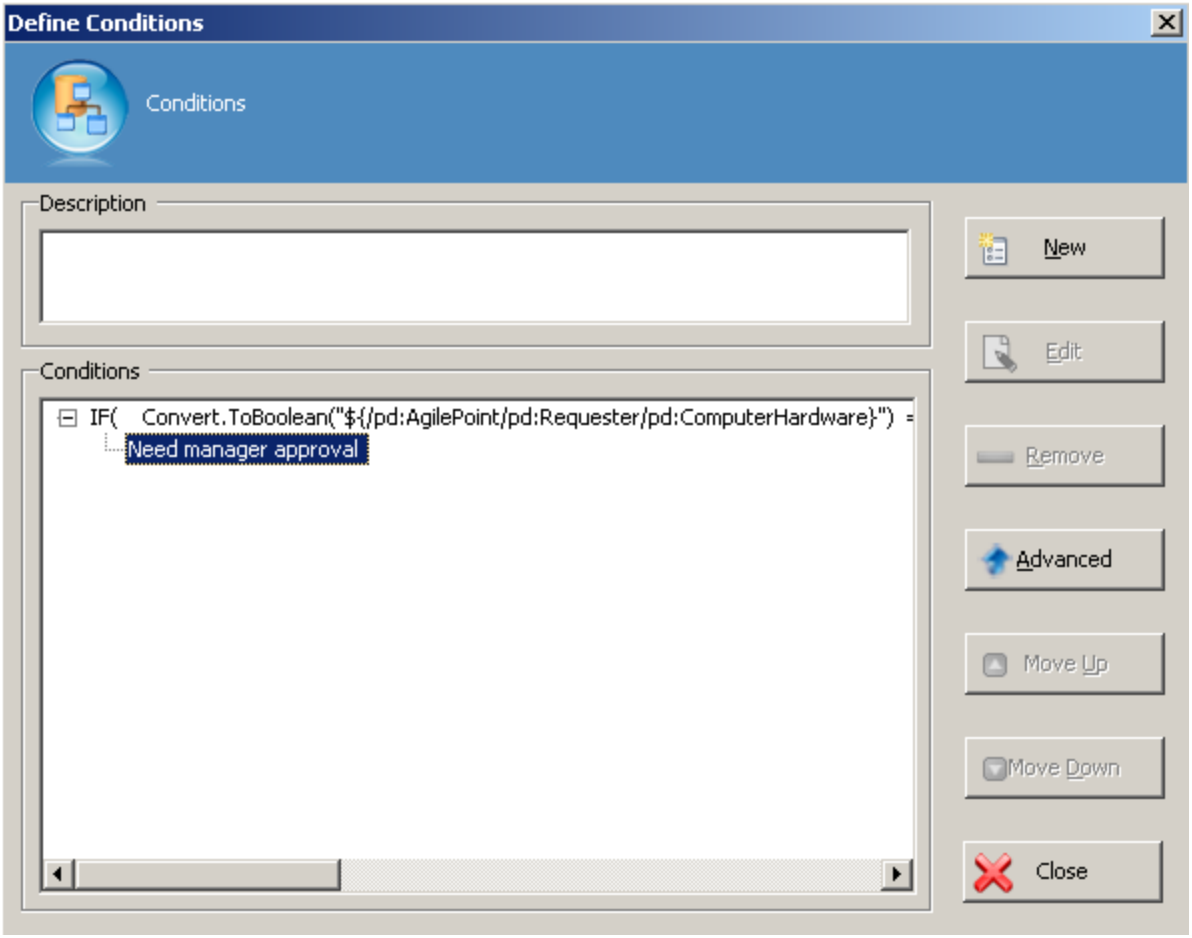
Picture: Multiple Condition configurations

8. Select the “ComputerHardware” schema node from the dialog box. Select the “==” operator from Boolean category and set value to “True”. Click the green plus button from the right hand side. It adds another row. Select the “Server” schema node from the dialog box, and repeat rest of the steps as mentioned for “ComputerHardware”. Repeat the above steps for the “MobileDevice” schema node, as well. Select the “Or” condition in the “Logic” drop-down for all the conditions. Once all three conditions added, your configuration would look like the screenshot shown below. This rule would check if any of the equipment except Landline Phone is selected.



Picture: Multiple Condition configurations

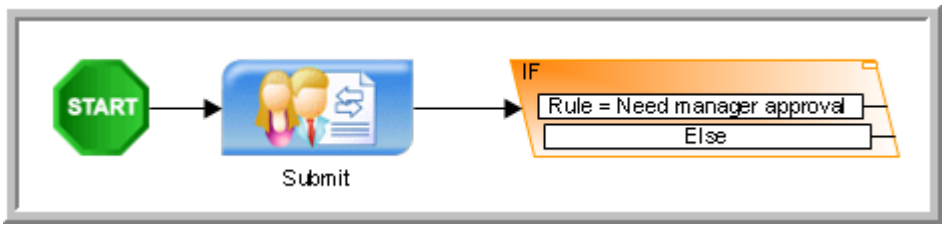
9. Click the "OK" button. It brings another dialog box which shows the configured condition with the default description as "Please input your description1". Change the default description by clicking on it or by pressing. Set the description as "Need manager approval", and click the "Close" button to close the dialog box.



Picture: Multiple condition configurations

10. Connect the 3 shapes using Visio connector available in home page tab of Visio ribbon as shown below.

11. The process design should look like the one shown in the picture below.

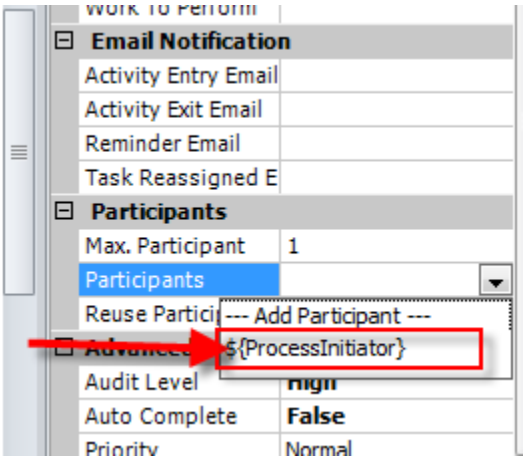


Picture: Process model after adding multiple conditions

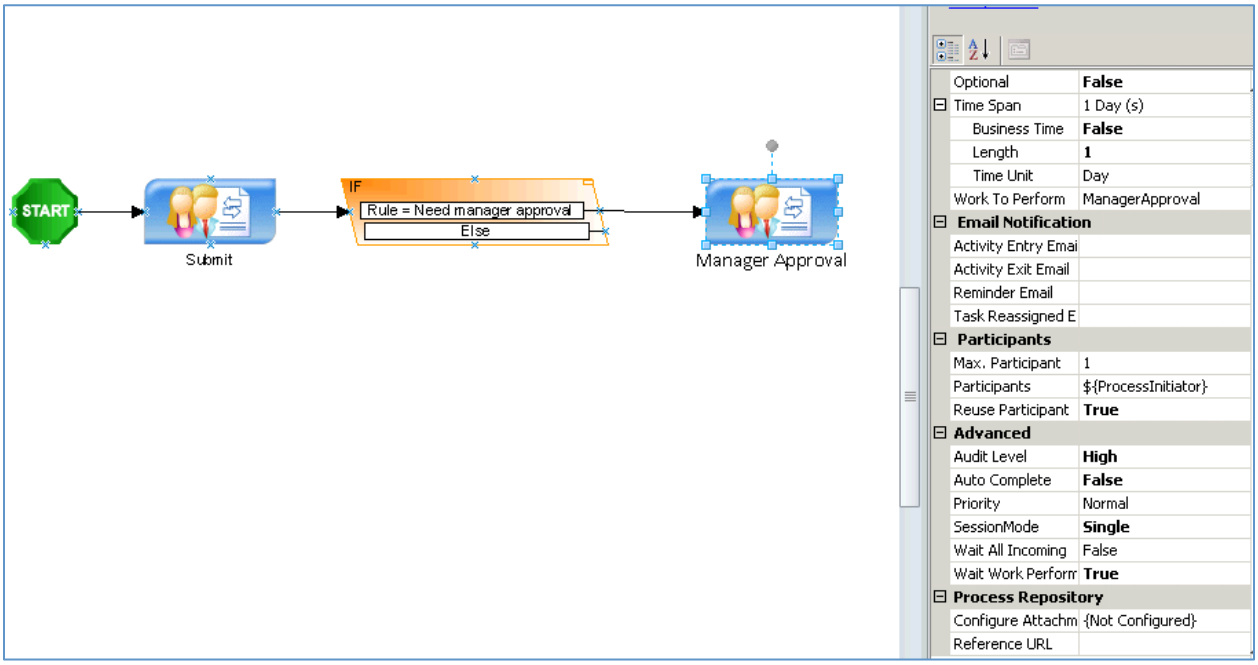
12. Add another manual shape next to multiple condition shape for manager approval. Double-click the shape to rename it to "Manager Approval". Set "Work To Perform" property as "ManagerApproval".

13. Click the Participant drop-down and select "${ProcessInitiator}".

    NOTE: For our first exercise we will keep ProcessInitiator as the participant of all manual activities. In the next exercises will learn how to use complex expressions for participant's field like "$MANAGER(${ProcessInitiator}) or $ROLE(SalesManagers) or $GROUP(EnggGroup)".

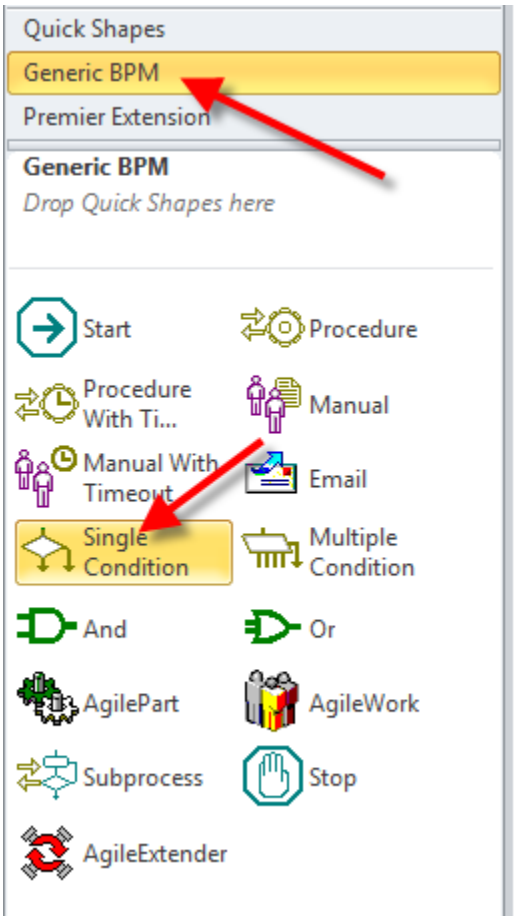


14. Connect "Need manager approval" node of multiple conditions to the Manager Approval manual shape.

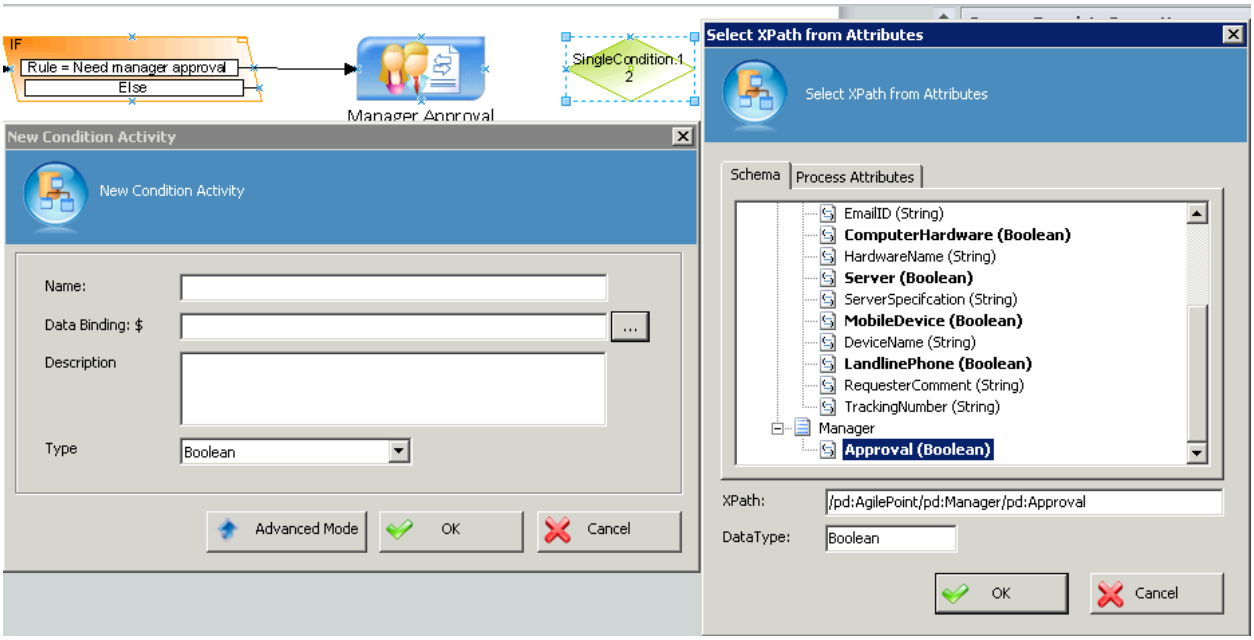


Picture: Manager Approval step configuration

15. Drag and drop the “SingleCondition” shape from Generic stencil. Place this next to Manager Approval step.

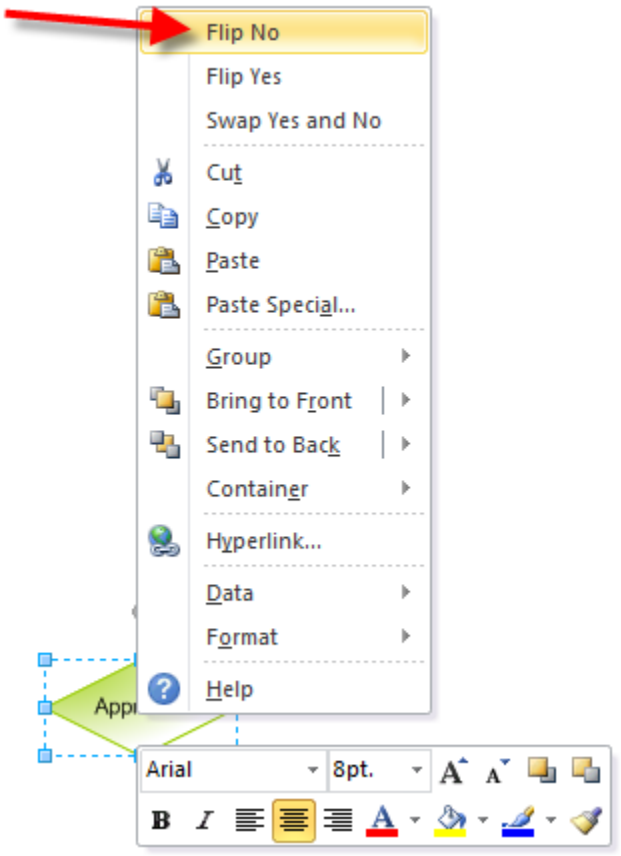


16. A configuration dialog box is displayed. Click the ellipses button next to DataBinding. Select "Approval" schema node as shown below.

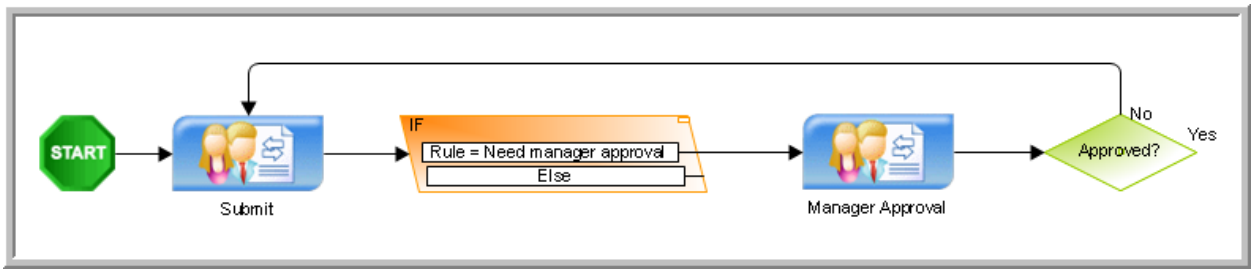


Picture: Single condition to capture manager decision

17. Once the Single Condition shape is configured, right-click on it to flip the “No” connection point for achieving a better layout of the process model flow.



18. Connect the “No” node of single condition back to the Submit step.



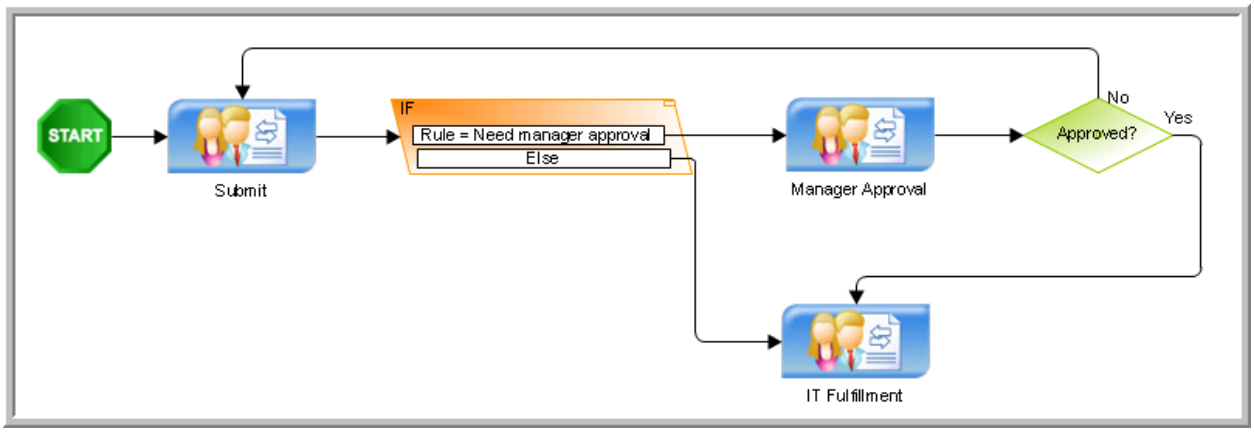
Picture: Connecting Single Condition to Submit step.

19. Drag and drop manual shape from “Generic BPM” shape category on the process designer. Double-click on the shape to name the shape as “IT Fulfillment”. Set “Work To Perform” property as “ITFulfillment”.

20. Click on the Participant drop-down, and select “${ProcessInitiator}”

    NOTE: For our first exercise, we will keep ProcessInitiator as the participant of all manual activities. In the next exercises we will learn how to use complex expressions for the participant’s field like “$MANAGER(${ProcessInitiator}) or $ROLE(SalesManagers) or $GROUP(EnggGroup)”.

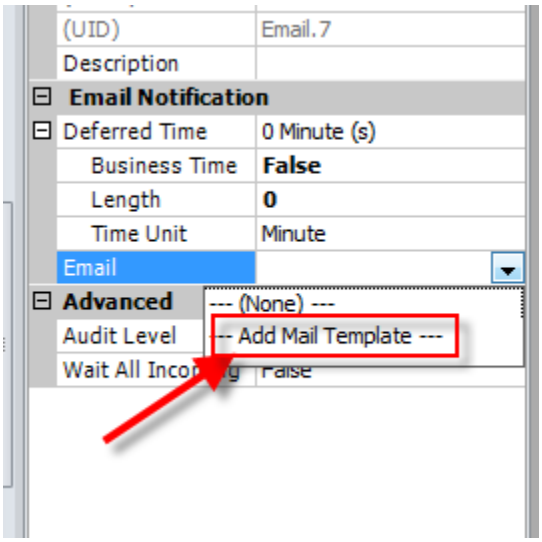
21. Connect the “Else” node of multiple condition shape to “IT Fulfillment” as shown below. Also connect the “Yes” node of single condition shape to “IT Fulfillment” as shown below.



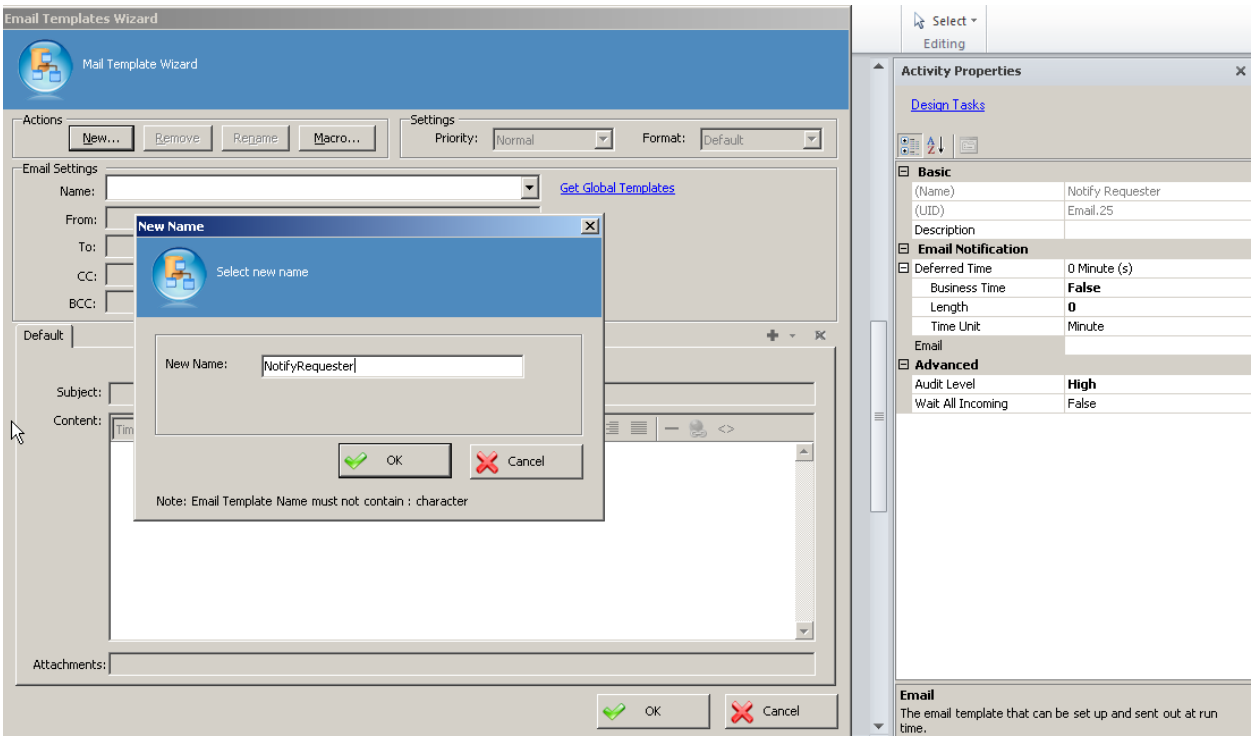
Picture: Adding “IT Fulfillment” step

22. Drag and drop the Email shape from “Generic” shape category on to process designer.

23. Double-click the shape and rename it as “Notify Requester”. Go to the Email property of the shape and click on “Add Mail Template” from the drop-down.

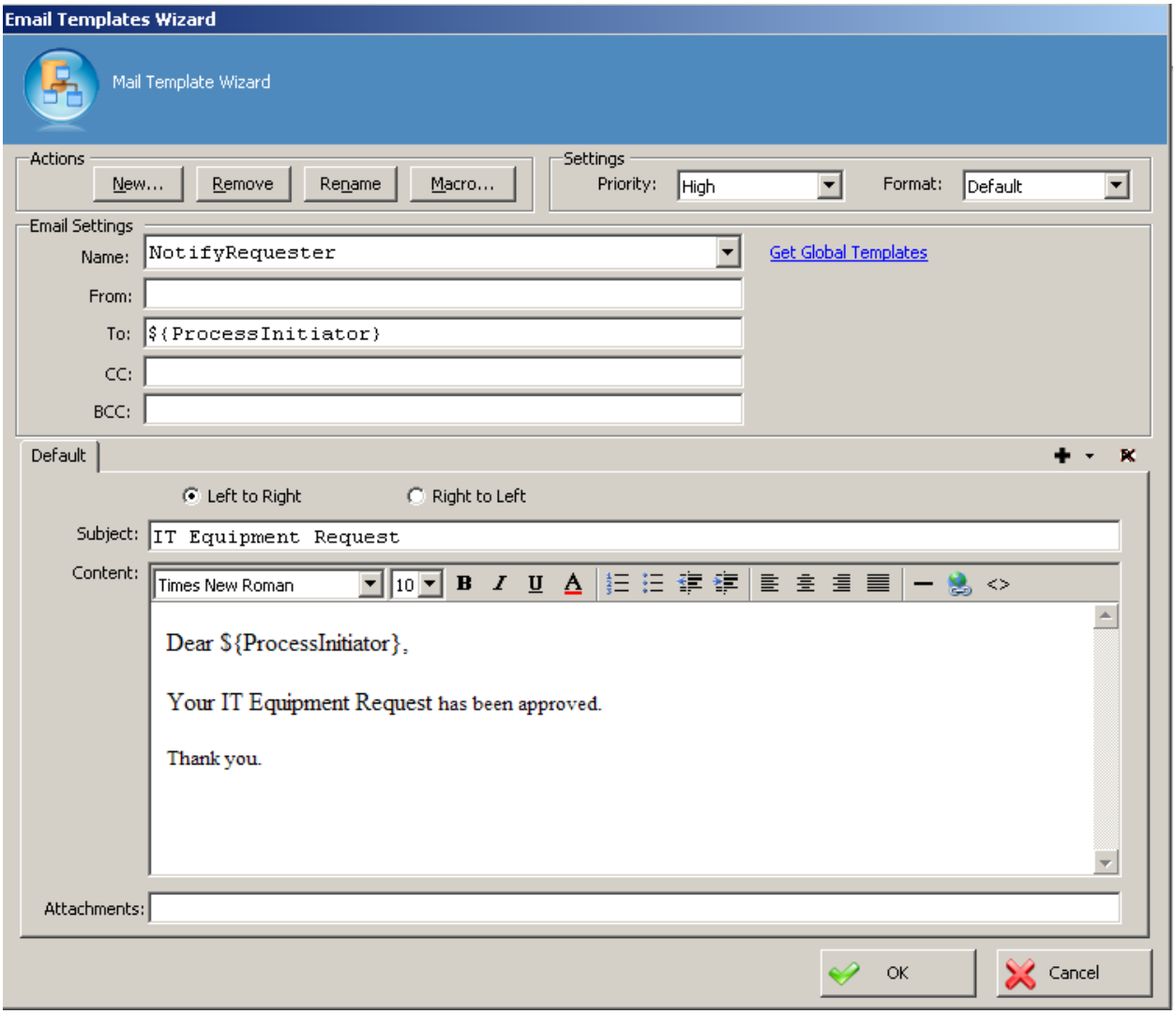


24. Click the "New…" button at the top in the Mail Template Wizard. Name the email template as "NotifyRequester", and click "OK".



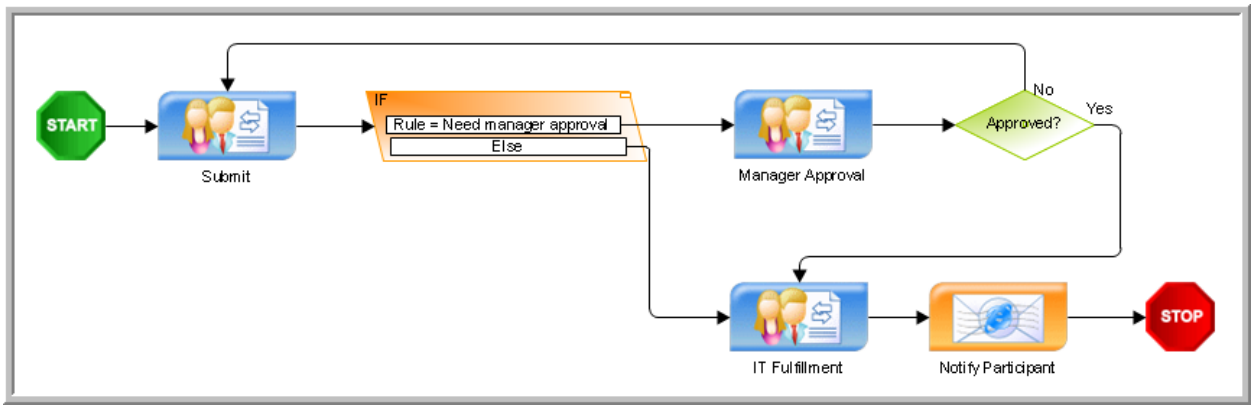
Picture: Email template configuration

25. Enter ${ProcessInitiator} in the “To” field of the email template. Enter “IT Equipment Request” in the “Subject” field. Enter the content shown in the picture below in email content text area. Click “OK” button to save and close the email template wizard.



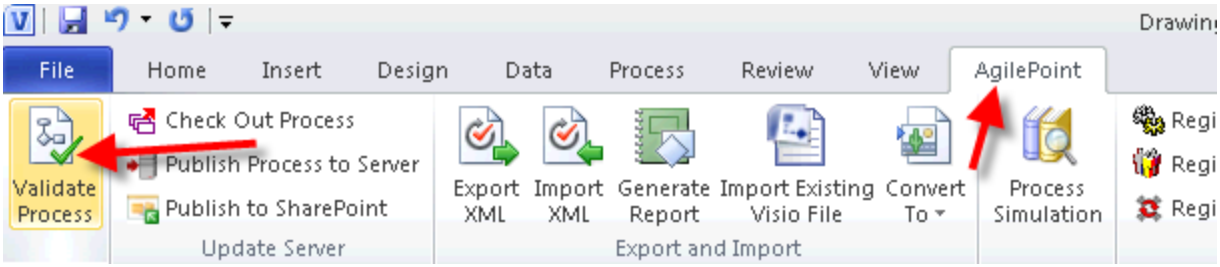
Picture: Email template configuration

26. Connect the “IT Fulfillment” shape to the email shape.

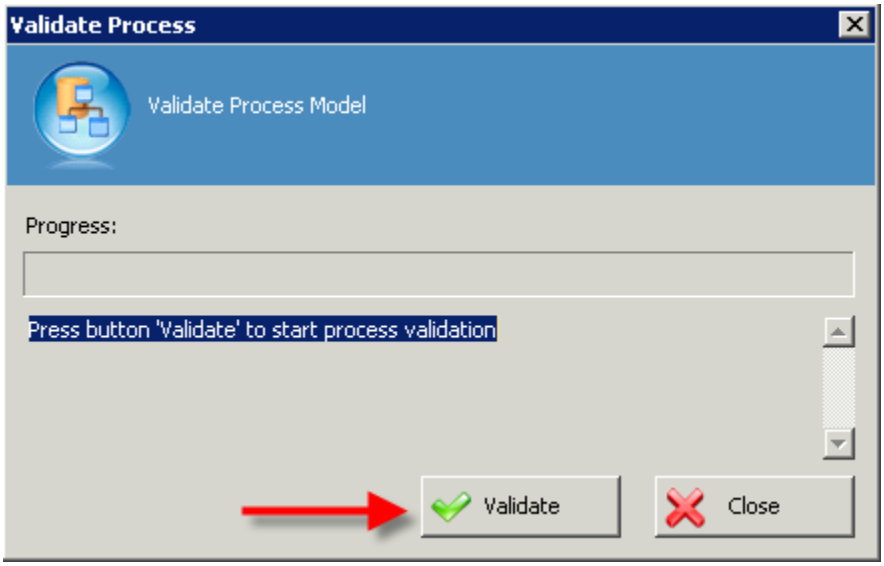


Picture: IT Fulfillment Request process design

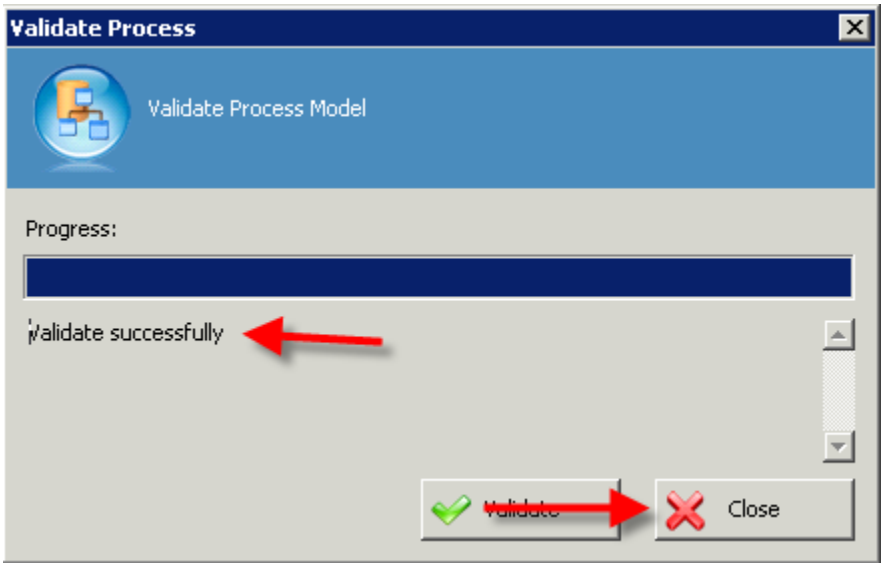
27. Now your process is ready to publish to AgilePoint Server. Before that click the “Validate Process” button in AgilePoint ribbon to check if there is no error in the process template, and it is good to publish to server.



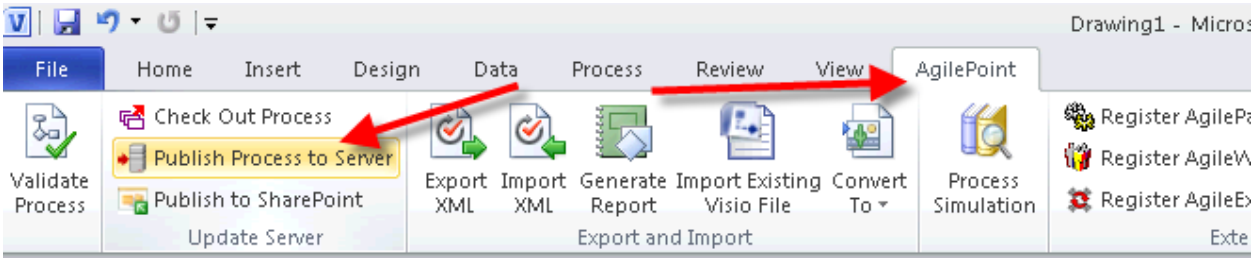
28. Click the Validate button.



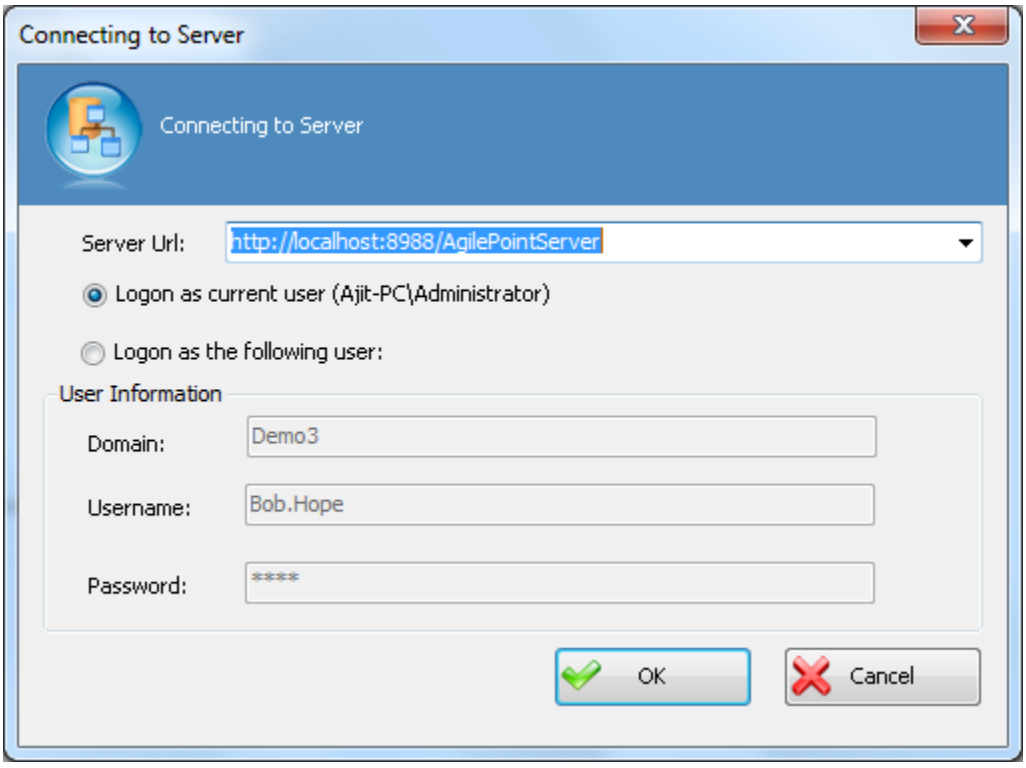
29. Once the process is validated successfully click on close button.



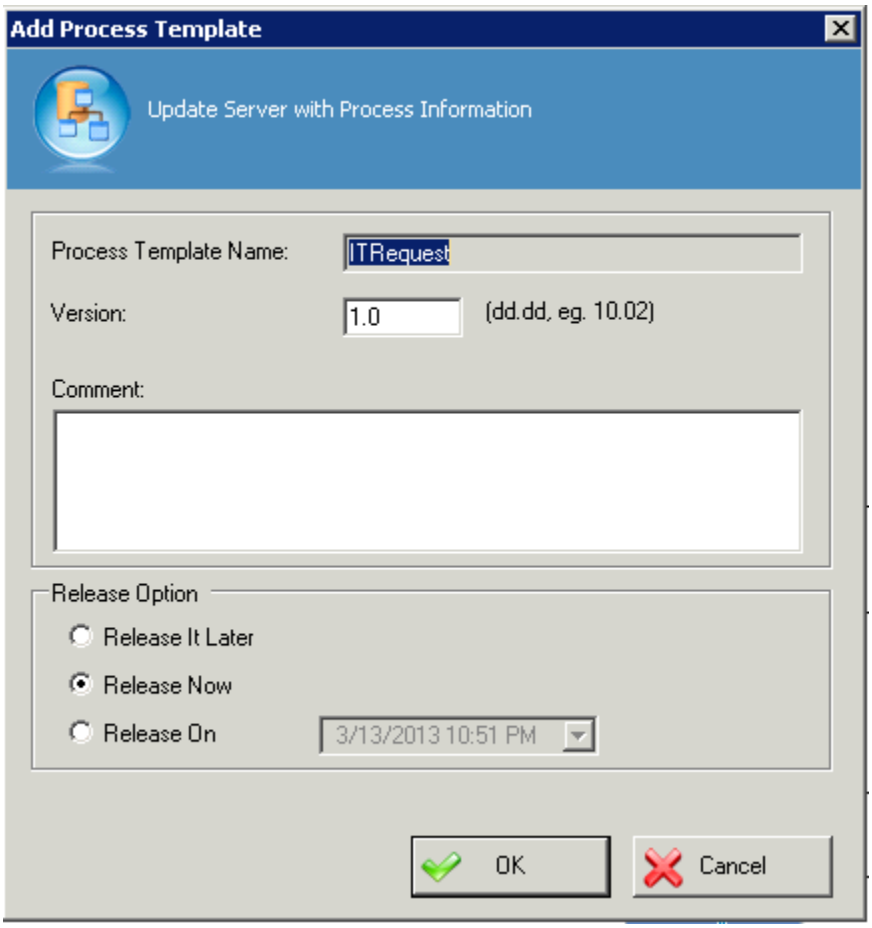
30. Click the “Publish Process to Server” button from the “AgilePoint” ribbon menu.



31. This will open up a dialog to provide your AgilePoint Service URL and credentials to connect to the server. Provide the information as explained below, and click OK.



32. Leave the default settings as they are, and click the OK button to publish the first version (1.0) of ITRequest process to AgilePoint Server.



Summary

AgilePoint Envision is a process design tool for business users to design the processes. It leverages Microsoft Visio experience to design the processes. AgilePoint provides set of shapes to be used in a process design. A process design becomes simple with drag and drop feature in the Visio. A property pane in the Visio allows configuration of the shapes. Xml Schema helps to define data structure to be used for a process. A connector allows joining the shapes and defining the process flow.