BPMN Execution Level Metamodel: Simple Control Flow Partition

Classes with Stereotypes are the ones that show up in a notation. None Stereotyped classes are used to organize and define the notation. This model shows 4 (four) basic types of graphics: definition (e.g., for a process); AtomicActivity (for all atomic activities); ActivityBlock (for all non-atomic activities and other elements that contain activitities); and DirectedLine (to show the connection or order between elements). The AtomicActivity and ActivityBlock types will probably have variations to show the actual element.

Control Flow links do not have a corresponding BPML element, but they do depict the relationships between sub-activities of an activityset. They will the order of activities in a sequence and the activities that relate to a case in a switch and the options of a choice. They will also depict the looping feature of the foreach, while, and until elements.

bpml::**activity**
+name : NCName (XSD)

«DirectedLine»
bpmn::**ControlFlowLink**
+name : NCName (XSD)

«block»
bpmn::**context**
-connect : connect
-property : property
+perimeter

«Anchor»
bpmn::**EventAnchor**

bpml::**ActivitySet**

«DirectedLine»
bpmn::**EventFlowLink**
+name : NCName (XSD)

«Anchor»
bpmn::**StartAnchor**

«Anchor»
bpmn::**EndAnchor**

«block»
bpmn::**transaction**
-name : NCName (XSD)
-type : transactionType = atomic
-retries : QName (XSD)
-perimeter

«Anchor»
bpmn::**TransactionAnchor**

These Container classes are included to reduce the number of lines on the diagram, since they handle relationships that are common to a lot of activities (e.g., sequence, switch, etc.).

bpmn::***ActivityContainer***
+perimeter

bpmn::***LinedContainer***
-perimeter

«block»
bpmn::**process**
+name : NCName (XSD)
+instantiation : instantiationType (BPML) = Message
+inputs : ListQName (BPML)

«DirectedLine»
bpmn::**TransactionFailureLink**
+name : NCName (XSD)

bpmn::***SimpleContainer***

«AtomicActivity»
bpmn::**compensate**

«AtomicActivity»
bpmn::**join**
+count : QName (XSD)

«AtomicActivity»
bpmn::**spawn**

«AtomicActivity»
bpmn::**call**

«ActivityBlock»
bpmn::**choice**

«ActivityBlock»
bpmn::**until**

«ActivityBlock»
bpmn::**while**

«ActivityBlock»
bpmn::**sequence**

«ActivityBlock»
bpmn::**switch**

«ActivityBlock»
bpmn::**foreach**

«ActivityBlock»
bpmn::**all**

bpml::**condition**

bpml::**default**

bpml::**case**

bpml::**expression**

«AtomicActivity»
bpmn::**delay**
+property : QName (XSD)
+type : timeConstraintType (BPML) = duration
+reference : timeReference (BPML)

«AtomicActivity»
bpmn::**action**
+portType : QName (XSD)
+operation : NCName (XSD)
+locator : locator (BPML)
+correlate : correlate (BPML)

The definition of the Action is expanded in the data flow partition metamodel and in the complete BPMN metamodel

The condition or message can be displayed only with the control flow link that source from the start and/or of complex elements that create alternatives. That is, the links that represent switch cases, or the start of a foreach or a while, the end of an until, or the choice message. It should not be considered a "guard" of the link.

bpml::***EventHandler***
+name : NCName (XSD)

bpml::**OnMessage**

This is used when the onMessage is not part of a Choice, but is used as a generic event handler.

bpml::***anyEventHandler***

«ActivityBlock»
bpmn::**OnTimeout**

«ActivityBlock»
bpmn::**OnFault**

«ActivityBlock»
bpmn::**onMessage**