


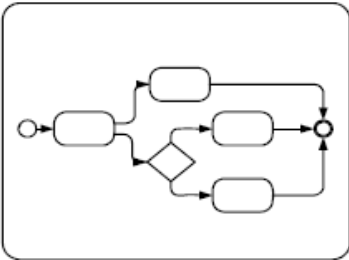
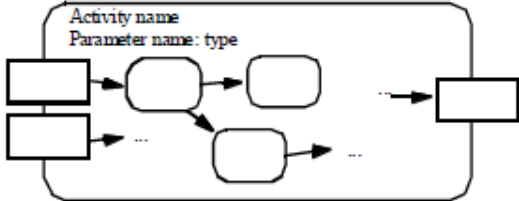

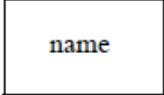

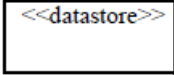


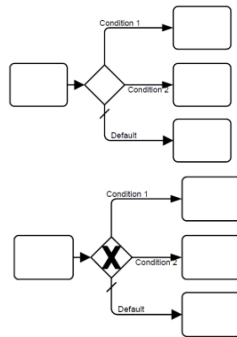
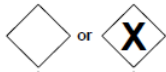
Especificación de la Transformación **de Proceso BPD en BPMN a Diagrama de Actividades UML**

M. C. Ariste, J. Ponisio, L. Nahuel, R. Giandini

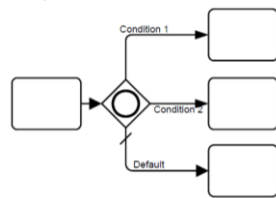
PID MAPS – Modelado Ágil del Proceso Software. Laboratorio LINSI – UTN – FRLP (La Plata)

Metalinguaje origen	Metalinguaje destino
BPMN	UML
Artefactos en diagrama origen	Artefactos en diagrama destino
BPMNDiagram (BPD - Business Process Diagram BPMN)	Model (Modelo - Activity Diagram UML)
<p>Lane and Pool</p>  <p>(A <i>pool</i> is usually used to represent a process in an organization, a <i>lane</i>, on the other hand, represents an activity of a department within that organization)</p>	<p>ActivityPartition</p>  <p><i>a) Partition using a swimlane notation</i></p>  <p><i>b) Partition using a hierarchical swimlane notation</i></p>
<p>Subprocess</p> 	<p>Activity</p> 
<p>DataObject</p> 	<p>ObjectNode</p>  <p><i>Object node</i></p>
<p>DataStore</p> 	<p>DataStore</p> 

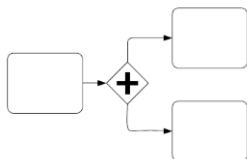
ExclusiveGateway



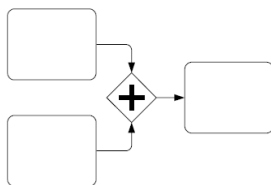
And InclusiveGateway



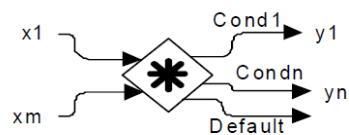
ParallelGateway



Synchronizing ParallelGateway

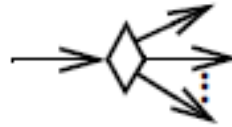


ComplexGateway

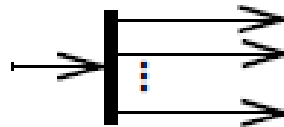


(Según una condición de guarda puede continuar por 1 o n caminos)

DecisionNode (with control flows)



ForkNode

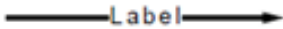




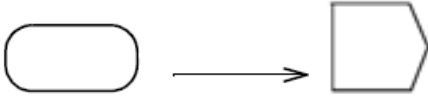

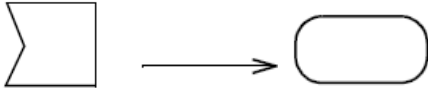





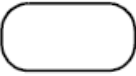

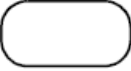
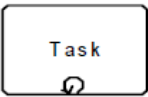







JoinNode






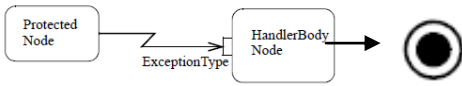

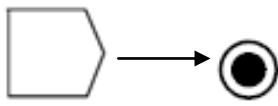





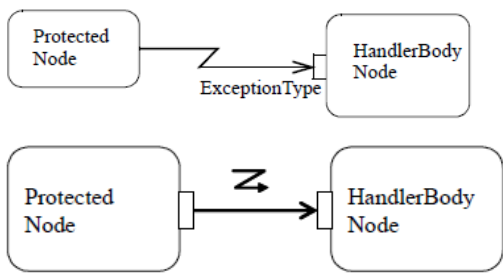




JoinNode+DecisionNode



SequenceFlow 	ControlFlow 
Abstract Task 	Action 
Send Task 	Action+ ControlFlow+ SendSignalAction 
Receive Task 	Accept Event Action+ ControlFlow + Action 
UserTask 	Action 
ServiceTask 	Action 
ScriptTask 	Action 
ManualTask 	Action 
Activity Looping 	Action + ControlFlow + DecisionNode + ControlFlow (de retorno) 
Data Input, Data Input Collection, Data Output, Data Output Collection	VariableName (para entradas y salidas de acciones)

<div>  <p>Label</p> </div> <hr/> <div>  <p>Label</p> </div> <hr/> <div>  <p>Label</p> </div> <hr/> <div>  <p>Label</p> </div>	<div> <div> name [state] </div> <div> {stream} </div> <div> Input pin, streaming </div> </div> <div> <div> name [state] </div> <div> {stream} </div> <div> Output pin, streaming </div> </div>
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<p>EndEvent</p> 	<p>FinalNode o ActivityFinalNode</p> 
<p>Cancel End Event</p> 	<p>FlowFinalNode</p> 
<p>ErrorEndEvent</p> 	<p>ExceptionHandler + ControlFlow + ActivityFinalNode</p> 
<p>MessageEndEvent</p> 	<p>SendObjectAction + ControlFlow + ActivityFinalNode</p> 
<p>IntermediateTimerEvent</p> 	<p>AcceptTimeEvent</p> 
<p>IntermediateMessageEvent</p> 	<p>SendObjectAction</p> 
<p>IntermediateErrorEvent</p> 	<p>ExceptionHandler</p> 
<p>IntermediateSignalEvent</p> 	<p>SendSignalAction</p> 

Referencias

- 1) **Capítulo 10 de Especificación BPMN 2.0 (2011) de OMG**
Business Process Model and Notation (BPMN) Version 2.0
OMG Document Number: formal/2011-01-03 Standard document URL:
<http://www.omg.org/spec/BPMN/2.0>
- 2) **Capítulo 12.4 de Especificación UML (Superstructure 2.4.1 2011) de OMG**
OMG Unified Modeling Language™ (OMG UML), Superstructure Version 2.4.1
OMG Document Number: formal/2011-08-06 Standard document URL:
<http://www.omg.org/spec/UML/2.4.1/Superstructure>
- 3) Archivos ECORE con los metamodelos de los lenguajes BPMN y UML que utiliza MOSKITT en la transformación de BPD en BPMN a modelo de Casos de Uso UML (trabajada por equipo de Leandro Roca, Matias Caputti e Ivan Zugnoni). Van adjuntos en el email.
- 4) Paper que se utilizó para corroborar la especificación de la transformación entre BPD en BPMN y Diagrama de Actividades UML.
M. Argañaraz, A. Funes, A. Dasso. An MDA Approach to Business Process Model Transformations. Universidad Nacional de San Luis. SADIO Electronic Journal of Informatics and Operations Research vol. 9, no. 1, pp. 24-48 (2010) - <http://www.dc.uba.ar/sadio/ejs>