

Semantically enhanced Business Process Modelling Notation

Position paper

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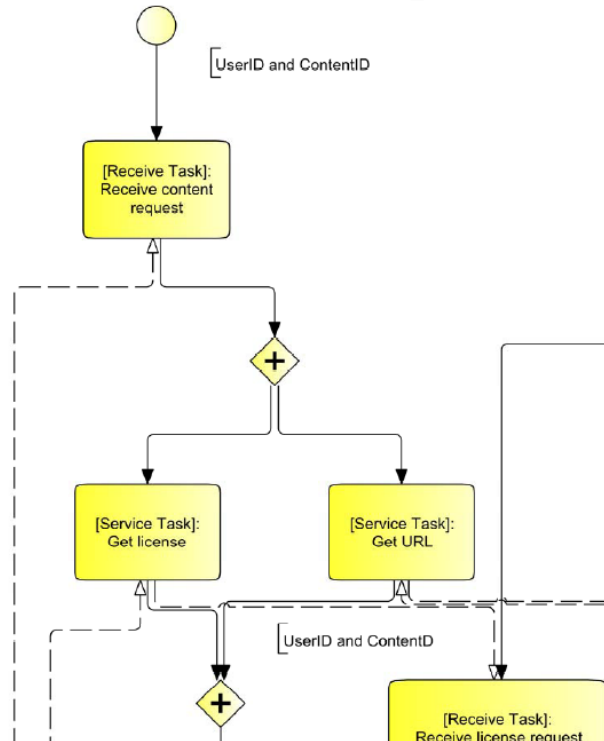
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Business Process Modeling Notation

- created by the BPMI group
- a notation standard over many existing notations e.g. UML ADs, IDEF, ebXML, EPCs, with fast growing popularity among tool vendors
- main aim:
 - *to create a standardized bridge for the gap between business process design and process implementation allowing for the automatic translation from the graphical process diagram into the BPEL process representation*
- However...



BPMN in practice



```

<?xml version="1.0" encoding="UTF-8"?>
<process>
<partnerLinks>
  <partnerLink name="PartnerLink1"
    partnerLinkType="ns1:CreditFlow"
    myRole="CreditFlowProvider"
    partnerRole="CreditFlowRequester" />
  ...
</partnerLinks>
<variables>
  <variable name="GetDailyStockQuoteOut1"
    messageType="ns3:GetDailyStockQuoteResponse" />
  ...
</variables>
<sequence>
  ...
</process>

```

- BPMN is a graph-oriented language and its mapping to the block-structured BPEL representation is challenging
- BPMN allows designing not well-formed processes that cannot be translated directly into a set of the BPEL executable instructions
- ...



Where does sBPMN fit in?

- Semantic Business Process Modeling Notation
 - adds meaning to each of the process elements and makes them machine-readable
 - makes reasoning on the process description possible
 - when enhanced with SWS extensions
 - it may also become possible to automatically assign to each task a Web service (or WS composition)
 - generate BPEL process representation → deployed on the execution engine and then executed

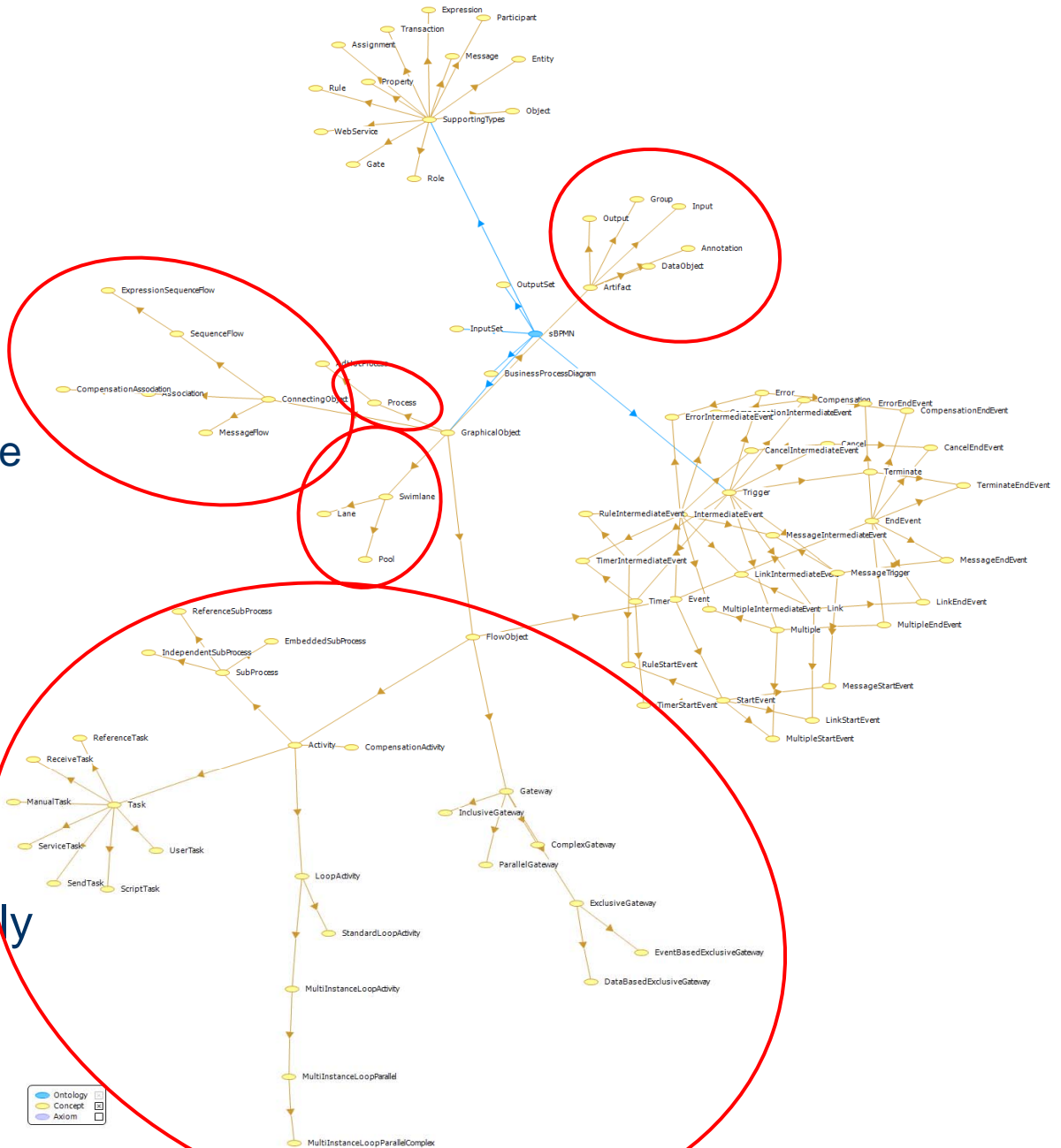


sBPMN

- Main concepts:

- Flow Objects - Events, Activities and Gateways
- Connecting Objects – Sequence Flow, Message Flow and Association
- Swimlanes – Pools and Lanes.
- Artefacts - Data Object, Group and Annotation
- Process

- The current sBPMN ontology has approximately 95 concepts and over 50 axioms



sBPMN - summary

- sBPMN ontology is to overcome problems with composition and execution of processes, but
 - what scope of the BPMN specification should be modelled?
 - what restrictions should be imposed on business analysts creating a BPMN diagram, that is to be mapped to the BPEL representation?
 - what level of expressiveness of a formal language is required to model BPMN?



Thank you for your attention!

Questions?



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