AMFIBIA: A Meta-Model for the Integration of Business Process Modelling Aspects

AMFIBIA is a meta-model that formalises the essential aspects and concepts of business processes. Though AMFIBIA is not the first approach to formalising the aspects and concepts of business processes, it is more ambitious in the following respects: Firstly, it is independent from particular modelling formalisms of business processes and it is designed in such a way that any formalism for modelling some aspect of a business process can be plugged into AMFIBIA. Therefore, AMFIBIA is formalism-independent. Secondly, it is not biased toward any aspect of business processes; the different aspects can be considered and modelled independently of each other. Moreover, AMFIBIA is not restricted to a fixed set of aspects; new aspects of business processes can be easily integrated. Thirdly, AMFIBIA does not only name and relate the concepts of business process modelling, as it is typically done in ontologies or architectures for business process modelling. Rather, AMFIBIA also captures the interaction among the different aspects and concepts and therefore fully defines the dynamic behaviour of a business process model, with its different aspects modelled in different notations. To prove this claim, we implemented a prototype of a formalism-independent workflow engine based on AMFIBIA. This workflow engine, also called AMFIBIA, is open for new aspects of business processes and new formalisms can be easily integrated. In this paper, we present the concepts of AMFIBIA and discuss the principles and concepts of its design.

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