ATHENA Modelling Tool Suite for Eclipse/RSM

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1. Datasheet

Solution data	
Name	ATHENA Modelling Tool Suite for Eclipse/RSM
Result type	Tool suite
Description/functionality	The PIM4SOA project aims to develop open-source modelling tools and modelling services in the Eclipse environment to support the design of service-oriented architectures (SOAs) in a platform-independent or technology-neutral manner following the OMG MDA approach. The tools and services are released under the Eclipse Public License (EPL).
	PIM4SOA is closely aligned and has been based on the Business Process Definition Metamodel that is in the process of standardisation by OMG. However as the standardization did not completed in the timeframe of ATHENA, the PIM4SOA metamodel was developed as a simplified version. The PIM4SOA metamodel covers four important aspects: service, process, information and quality of service.
	• Information: in the context of virtual enterprises information represents one of the most important elements that need to be described. In fact the other aspects manage or are based on information elements. • Service: our main intention is to be able to describe SOA independently from the technology used. Service represents business accessible functionality. • Process: processes describe a set of interactions amongst services in terms of messages exchange. • Quality of service (QoS): a suitable feature is the description and the modelling of non-functional aspects related with the services described.
Benefits to interoperability	One important result is the PIM4SOA metamodel which defines an abstract language to specify executable business processes that execute within an enterprise and may collaborate between otherwise independent business processes executing in different business units or enterprises.The main objective of the specification is: • The ability to exchange business process specifications between modelling tools, and

	between tools and execution environments.
Supported models/methodologies	-
Supported input interfaces	-
Supported output interfaces	-
Validation/demonstration	-
Standards compliance	-
Availability	-
License	Eclipse Public License
Status	Prototype
Requirements/dependencies	-
Web references	-
Composed of the following solutions	
Conceptual	• PIM4SOA
Applicative	-
Technical	• BPEL Metamodel Feature for Eclipse • EKA Metamodel Feature for Eclipse • EKA to PIM4SOA Transformation Feature for Eclipse • PIM4SOA Metamodel Feature for Eclipse • PIM4SOA to BPEL Transformation Feature for Eclipse • PIM4SOA to JACK model transformation • PIM4SOA to WSDL Transformation Feature for Eclipse • PIM4SOA to XSD Transformation Feature for Eclipse • RSM PIM4SOA Profiles Feature • RSM PIM4SOA(UML) to PIM4SOA(EMF) Transformation Feature • RSM POP* Profiles Feature • RSM POP*(UML) to EKA(EMF) Transformation Feature • RSM Web Services Profiles Feature
ATHENA metadata	
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Provided by project/activity	• A1 – Enterprise Modelling in the Context of Collaborative Enterprises • A5 – Planned and Customisable Service-Oriented Architectures • A6 – Model-driven and Adaptive Interoperability Architectures
Deliverables representing result	-
Contribution to key result	• 9. Collaborative Enterprise Modelling Platform • 12. Service Composition Framework • 13. Model-driven and Adaptable Interoperability Framework and Infrastructure
Used in pilot	-
Deliverable providing evaluation	-