ARES

<!-- -->

Table of contents

1. Datasheet

Solution data	
Name	ARES
Result type	Semantic reconciliation engine
Description/functionality	ARES is the run-time engine for the execution of the semantic rules. To realize semantic reconciliation at run-time the real message exchange among different partners includes the semantic reconciliation process using the ATHENA Reconciliation Engine (ARES). This tool is integrated in the ATHENA architecture and can also easily be included in external frameworks because is completely built on top of a service-based architecture. ARES uses the semantic rules generated by ARGOS in order to apply reconciliation on messages that carry RDF payloads based on RDF models stored in THEMIS. ARES intercepts a message and extracts the payload. After that, ARES retrieves the reconciliation rules associated to that particular model using the service provided by ARGOS. Essentially, in order to perform the reconciliation of a document from a schema A into a Schema B, the reconciliation process will be the result of the composition of the forward rules for Schema A and backward rules for B. In the context of ATHENA the message is provided to the ARES tool by the ATHENA Service Execution Framework (i.e. Johnson).
Benefits to interoperability	The solution provides run-time transformation of messages.
Supported models/methodologies	-
Supported input interfaces	• Access to Themis for importing the models of the document to be reconciled • The tool will be used by Johnson as semantic mediator • Import from A6 repository to be still agreed
Supported output interfaces	• ARES will provide a basic set of services to finalize the reconciliation of messages and document • ARES will provide also a set of services for managing the logs information about the real execution of the engine

Validation/demonstration	• AIAG: eKanban Pilot • AIDIMA: eProcurement Pilot • EADS: Change management process • CRF: Automotive Pilot
Standards compliance	-
Availability	-
License	-
Status	-
Requirements/dependencies	-
Web references	-
ATHENA metadata	
Contact person	Lorenzo Pondrelli, FORMULA
Contributors	-
Provided by project/activity	• A3 – Knowledge Support and Semantic Mediation Solutions
Deliverables representing result	• D.A3.5: A reconciliation and mediation engine, capable to efficiently process semantic mediation and reconciliation rules (M24)
Contribution to key result	• 11. Ontology-based Semantic Annotation and Reconciliation method/language/tool
Used in pilot	• AIAG: eKanban Pilot • AIDIMA: eProcurement Pilot • EADS: Change management process • CRF: Automotive Pilot
Deliverable providing evaluation	-