ARGOS

<!-- -->

Table of contents

1. Datasheet

Solution data	
Name	ARGOS
Result type	Reconciliation rules generation tool
Description/functionality	This result is used to define, create, store and manage the transformation rules used to reconcile heterogeneous documents. ARGOS supports rules that are executable by a machine; semantic driven rules where rule creation is driven by the Reference Ontology and by the semantic annotations associated to the resources to be reconciled; and bi-directional rules that define both forward (to be applied to transform a document instance into an ontology instance) and backward rules (to be applied to transform a ontology instance into an document instance). While annotations represent conceptual correspondences between the business resource and the Reference Ontology, transformation rules represent a procedural way for transforming ground resources (i.e., data) into ontology instances (forward transf. from the resource schema to the ontology) and viceversa (backward transf. from the ontology to the resource schema). ARGOS helps the users to create the correct semantic rules, applicable at runtime for the semantic reconciliation of message instances using the ARES result. Those semantic rules are built and stored using ARGOS. The sets of rules are related to the models stored into THEMIS.
Benefits to interoperability	• The result is aimed at supporting the typical user (a domain expert, working for an organization, that deeply knows the processes and documents that has to be made interoperable but not necessarily an IT expert) in defining rules that, executed at run-time by the ARES tool, transform document instances into/from a standard, commonly agreed format. • This goal has been reached by developing a graphical high-level environment in which formal models and ontology are represented as graphs and rules are generated by filling in pre-defined templates. • Web-based accessibility: Ares is accessible by a

	browser, from everywhere within or outside the enterprise. • The executable language for the rules supports the formalisms adopted for the document models and provides reasoning capabilities. • The solution is integrated into the A3 tool chain.
Supported models/methodologies	Internally ARGOS works with RDFS and OWL files. Output (generated rules) is compliant with the JENA syntax. Services provided externally are described through WSDL files
Supported input interfaces	• Access to ATHOS for importing the ontology graphical presentation • Access to the RDF visualisation service to import the RDF graphical presentation • Access to A* to retrieve annotation relevant for an RDF document
Supported output interfaces	• ARGOS provides access to the Reconciliation Rules repository via a web service
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	Eva Coscia, TXT
Contributors	-
Provided by project/activity	• A3 – Knowledge Support and Semantic Mediation Solutions
Deliverables representing result	D.A3.4 System for reconciliation rules specification, storage and management (M22)
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	-