Bimloq

***B**usiness **M**odel**l**s **O**ptimization for **Q**uality* (**BIMLOQ**)

- MNiSW Research Grant no. N516 422338
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- **Timeline:** 2010-05→2012-12
- **Duration:** 32 months

Motivation

The main aim of Business Models Optimization for Quality (BIMLOQ) is to build a declarative model for business processes, including business rules specification, with an emphasis on analysis and optimization of those processes.

- **Semantic:** lack of a common ontology, lack of unified semantics, difficult unambiguous logical representation.
- **Functional:** aims and tasks in the business logic layer cannot be mapped to logical quality assessment methods.
- **Technical:** technologies used in the visual design layer are incompatible with the declarative logical representation.

Intended results

- **Conceptual:** declarative model for logical business process representation and analysis.
- **Practical:**
  - new tools for analysis and optimisation of specification quality,
  - integration of visual BPMN tools and logical knowledge processing.
- **Evaluative:** modeling and analysis of real-life application use cases.

Expected benefits:

- Real-time quality assessment during development.
- Maintainability assurance.
- Formal analysis of business software quality.
- High adaptability in dynamic environments.

News

- **14.04.2011** *The BIMLOQ Project Overview* presentation during the Explicite Seminar (more on the Explicite website) presentation.pdf

Publications

<BIBTEX: file=bimloq>

Tools

0.1 BPMN to XTT Translator

0.2 Oryx-HQEd

0.3 Loki

Description

Loki is a semantic wiki that uses strong logic-based knowledge representation. It implements semantic annotation mechanism as well as enable intelligent aggregation and querying. It serves as a flexible platform for collaborative knowledge engineering.

Papers

- JUCS paper: Collective Knowledge Engineering with Semantic Wikis (2010)
- TCCI III LNCS paper: Loki Semantic Wiki with Logical Knowledge Representation (2011,

0.4 HeaRT in Wiki

0.5 Pellet-HeaRT

Description

PelletHeaRT is a prototype of a hybrid rule reasoner for ontologies. It assumes an integration of classic forward chaining rule reasoning implemented by HeaRT with the Pellet resoner. The project and implementation is based on a proposal of integrating *Attribute Logic with Set Values over Finite Domains (ALSV(FD))* and *Description Logics (DL)*.

Papers

- LNCS/LNAI 6359/2010 Paper: Pellet-HeaRT – Proposal of an Architecture for Ontology Systems with Rules (2010)
- TCCI II, LNCS/LNAI 6450/2010 Paper: Integration Proposal for Description Logic and Attributive Logic – Towards Semantic Web Rules (2010)

0.6 SEWiki

Cases

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