

Task monitoring within automotive product development lifecycle using semantics

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Motivation

- **Engineering data within automotive development lifecycle** is disseminated over different repositories
- **Activities overview** requires high communication effort in face to face meetings

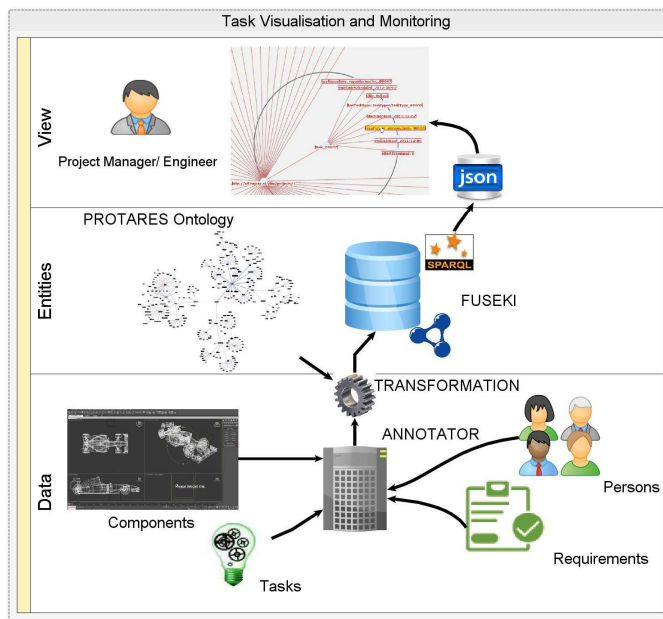
Goals

- Providing **flexible data insights on tasks in product lifecycle**
- **Knowledge based browsing and visualization of automotive development**
- **Semantically customized views for monitoring and reflection of engineering interaction**
- **Visual support for decision making** in early phases of the automotive development

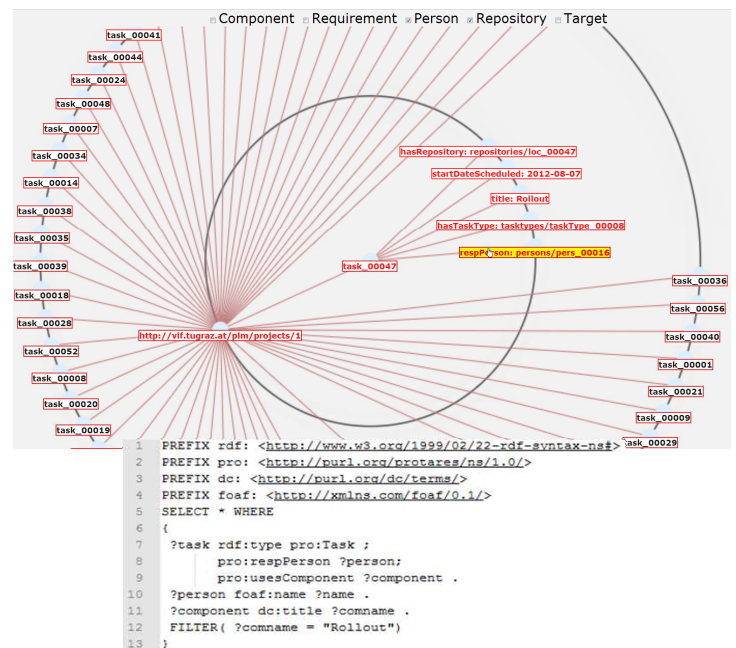
Approach

Using state of the art semantic technologies **RDF, OWL** and **SPARQL** with a **self-defined domain specific ontology PROTARES (PROject Tasks RESources)** as service infrastructure to *interlink, describe and query domain knowledge about the product.*

Concept



Results



Data from: TU Graz Racing Team

Use case: Task Analysis

Entities:

- Persons
- Tasks
- Requirements
- Components
- Targets

- ✓ **TaskRadar – a dashboard for product lifecycle monitoring**
- ✓ Visual “Task analysis” with corresponding entities
- ✓ Overview over project activities and resources

Conclusions and future work

- Ontology based interlinking of engineering artifacts **delivers overview on product development with small effort**
- Semantic approach leads to **activity focused view of product**
- **Usability** survey
- **Integration of external PLM systems** e.g. requirements management or test management