

ORSD for the OWLChangeOntology

Diego Conde

December 19, 2024

Ontology Requirements Specification Document
1. Purpose
The purpose of the ontology is to be able to model changes between different versions of OWL ontologies so that they can be machine-readable and easy to query using SPARQL.
2. Scope
The ontology is focused solely on ontologies that follow the OWL specification, it is expected that classes and properties are defined according to the OWL specification. It does not contemplate individuals, advanced class relationships, advanced properties, and the OWL2 profiles, as defined in the OWL2 documentation.
3. Implementation Language
The ontology is to be implemented in the OWL2 language.
4. Intended End-Users
User 1. Ontology Engineer User 2. Knowledge Engineer
5. Intended Uses
Use 1. Documenting changes between OWL ontology versions on a high level in RDF, so that said changes are propagated to other semantic artifacts, such as RML mappings, or SHACL shapes. Use 2. Documenting changes between OWL ontology versions on a high level, so that changes can be queried alongside other useful metadata with SPARQL.
6. Ontology Requirements
Functional Requirements: : Lists requirements written as Competency Questions and sentences
CQ1. What are the changes that have happened between two versions of an ontology? CQ2. Does this change involve a class, a property, or both? CQ3. What change operation is applied to the given term? CQ4. What is the specific type of ontological term involved in said change? CQ5. What are the ontological terms involved in a given change operation?