The SPARQL2XQuery framework

Bridging the gap between the XML and the Semantic Web

The SPARQL2XQuery framework bridges the heterogeneity gap and creates an interoperable environment between the Web of Data (OWL/RDF/SPARQL) and the XML (XML Schema/XML/XQuery) worlds. Using the SPARQL2XQuery framework, XML sources can be turned into SPARQL endpoints.

In our working scenario, mappings between RDF/S–OWL and XML sources may be both automatically derived and/or manually specified. Using these mappings, the SPARQL queries are translated – on the fly – into XQuery expressions, which access the XML data.

The SPARQL2XQuery framework supports the following operations: (a) **Query translation** (SPARQL to XQuery), (b) **Mapping specification & generation** (Ontologies to XML Schemas), and (c) **Schema transformation** (XML Schema to OWL).

---

**See Also**

- The SPARQL2XQuery Interoperability Framework | WWWJ 2014
- Supporting SPARQL Update Queries in RDF-XML Integration | ISWC 2014

---

**The SPARQL-RW framework**

Ontology mapping and SPARQL query rewriting

The SPARQL-RW (SPARQL-ReWriting) framework provides transparent query access over mapped RDF datasets in the Web of Data.

The SPARQL-RW framework offers a method for SPARQL query rewriting, with respect to a set of predefined mappings between ontology schemas. To this end, a set of rich and flexible mapping types are supported by the SPARQL-RW framework.