D2R MAP
A Database to RDF Mapping Language

The vision of the Semantic Web is to give data on the web a well-defined meaning by representing it in RDF and linking it to commonly accepted ontologies. Most formatted data today is stored in relational databases. To be able to use this data on the Semantic Web, we need a flexible but easy to use mechanism to map relational data into RDF. This poster presents D2R MAP, a declarative language to describe mappings between relational database schemata and OWL ontologies.

Language Features
- Flexible mapping of complex relational structures without having to change existing database schema.
- Handling of highly normalized table structures, where instance data is spread over several tables.
- References to resources and blank nodes created on the fly.
- Support for multivalued class properties and RDF containers like rdf:Bag, rdf:Alt or rdf:Seq.
- Property value transformations using patterns and value substitution tables.

Processor Prototype
- Exports data as RDF, N3, N-TRIPLES and Jena models.
- Compliant with all relational databases offering JDBC or ODBC access.
- Implemented in Java, based on the Jena API.
- Available under GNU LGPL license.

Example
The following example illustrates the use of a D2R MAP to export data about authors and their publications from a database into RDF.

More Information about D2R MAP is found at http://www.wiwiss.fu-berlin.de/suhl/bizer/d2rmap/D2Rmap.htm