

W3C Community Group Knowledge Graph Construction

<http://w3id.org/kg-construct>

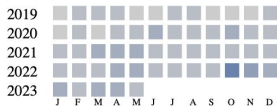
W3C Community Group - Knowledge Graph Construction

KNOWLEDGE GRAPH CONSTRUCTION COMMUNITY GROUP

The overall goal of this community group is to support its participants into developing better methods for Knowledge Graphs construction. The Community Group will (i) study current Knowledge Graph construction methods and implementations, (ii) identify the corresponding requirements and issues that hinder broader Knowledge Graph construction, (iii) discuss use cases, (iv) formulate guidelines, best practices and test cases for Knowledge Graph construction, (v) develop methods, resources and tools for evaluating Knowledge Graphs construction, and in general (vi) continue the development of the W3C-recommended R2RML language beyond relational databases. The proposed Community Group could be instrumental to advance research, increase the level of education and awareness and enable learning and participation with respect to Knowledge Graph construction.

[kg-construct](#)

Group's public email, repo and wiki activity over time



Note: Community Groups are proposed and run by the community. Although W3C hosts these conversations, the groups do not necessarily represent the views of the W3C Membership or staff.

No Reports Yet Published

Chairs, when logged in, may publish draft and final reports. Please see [report requirements](#).

PUBLISH REPORTS

biweekly meetings

Tools for this group

Mailing List

IRC

Github repositories

RSS

Contact This Group

Get involved

Anyone may join this Community Group. All participants in the group have signed the [W3C Community Contributor License Agreement](#).

JOIN OR LEAVE THIS GROUP



Anastasia Dimou



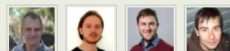
David Chaves-Fraga



Alessandro Negro

Chairs

Participants (162)



162 participants (~25 active)

Bi-weekly meetings



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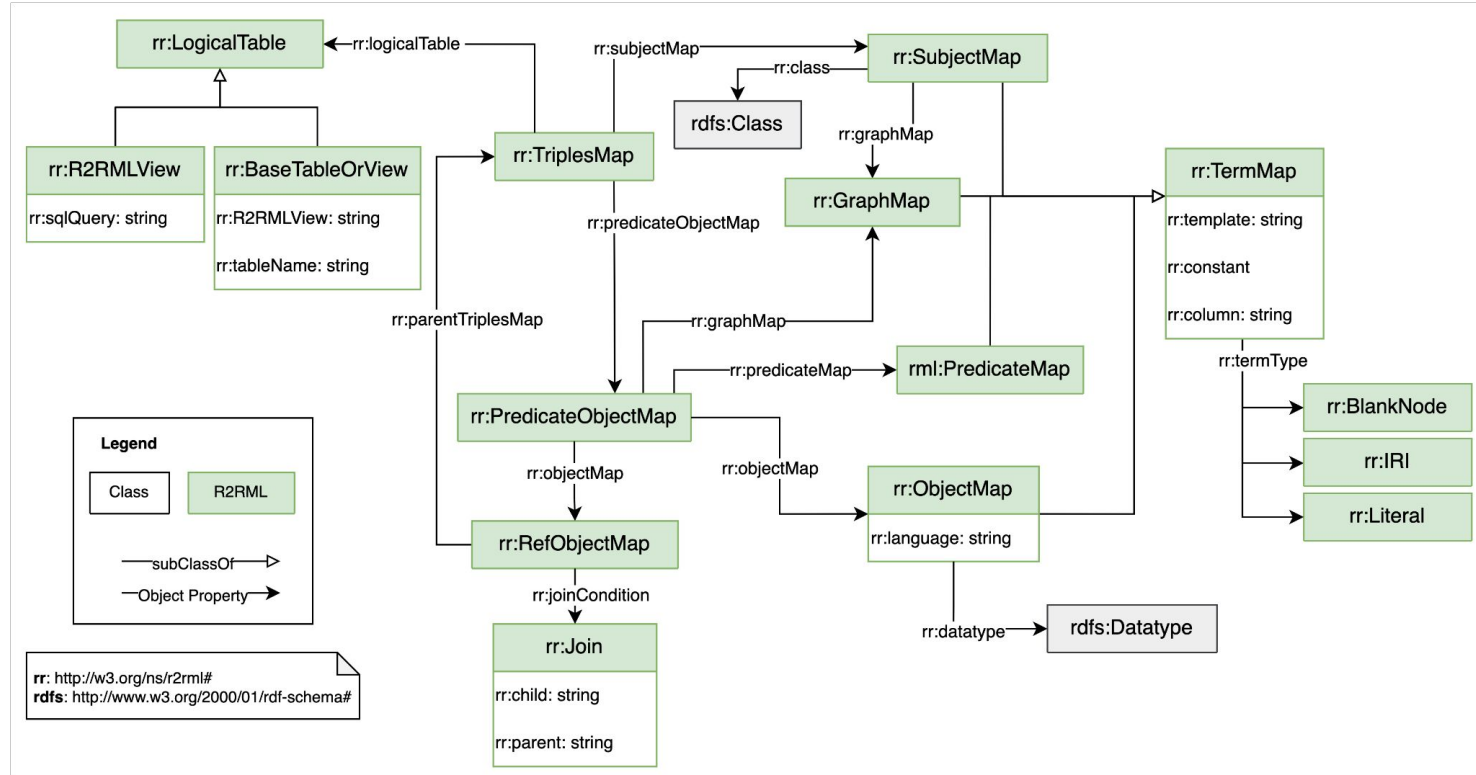


<http://github.com/kg-construct>

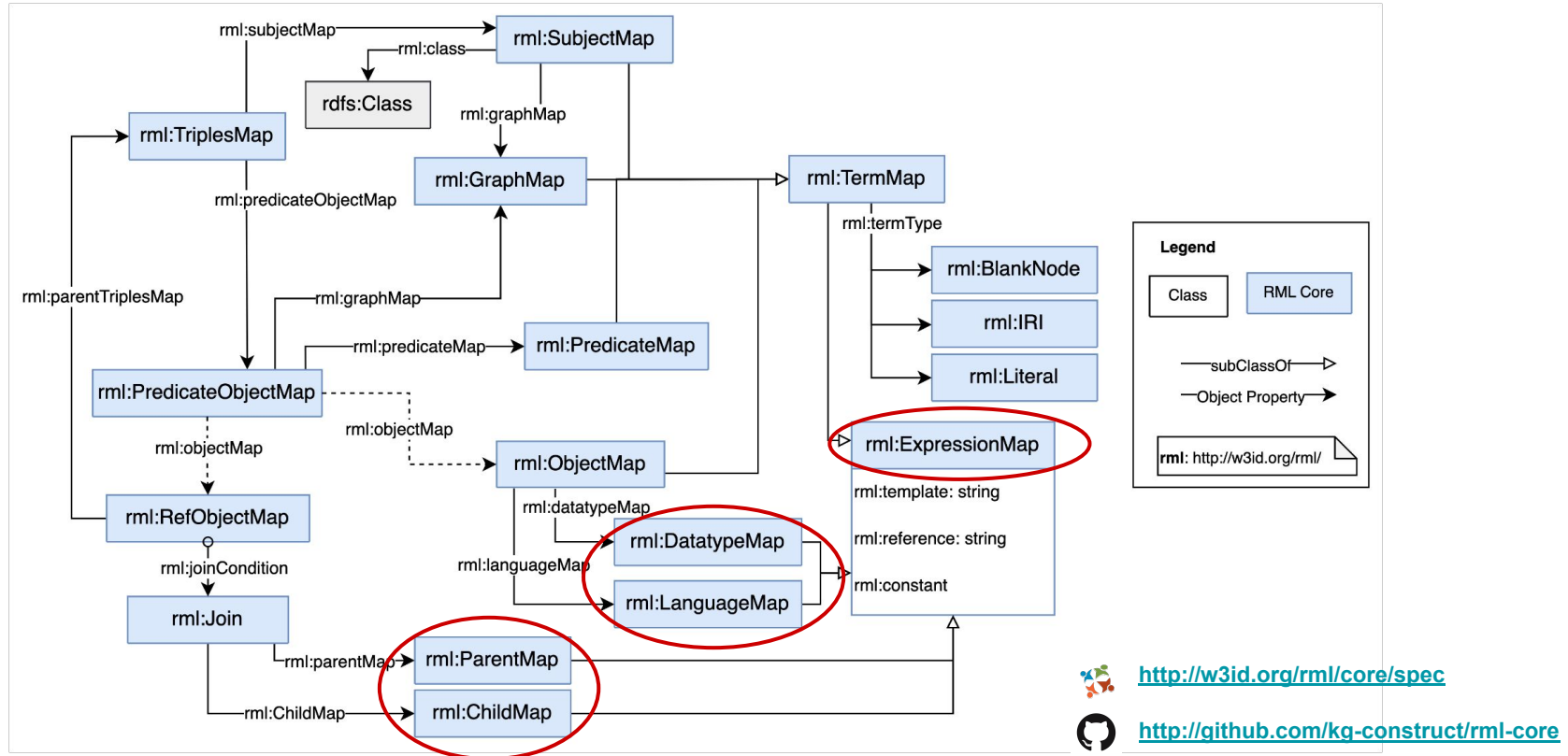
Towards the RML standarization

- Five on-going specs:
 - RML-Core: Schema transformations
 - RML-IO: Source and target
 - RML-CC: Collection and containers
 - RML-FNML: Data transformation functions
 - RML-star: RDF-star
- Modular approach
- Unification of prefixes ~> w3id.org/rml/

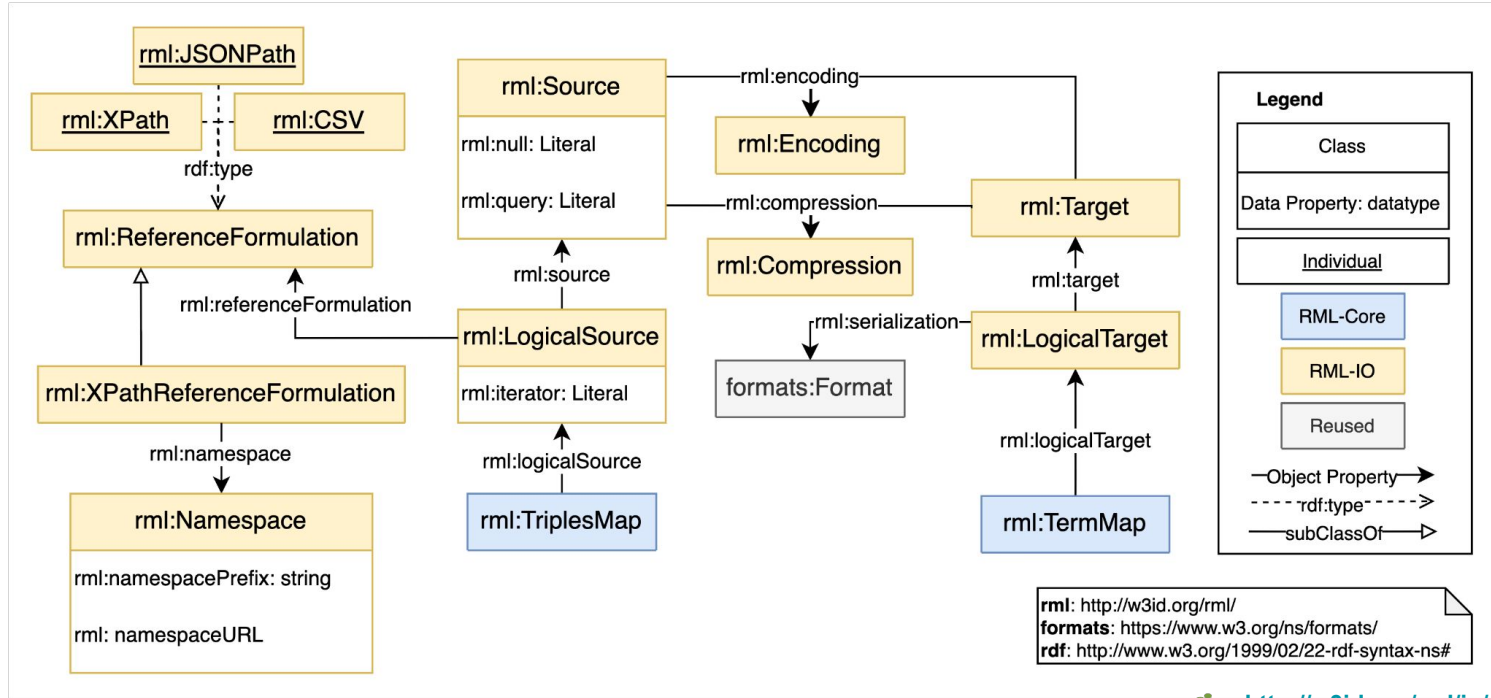
From R2RML



RML-Core: Schema transformations



RML-IO: Source and target

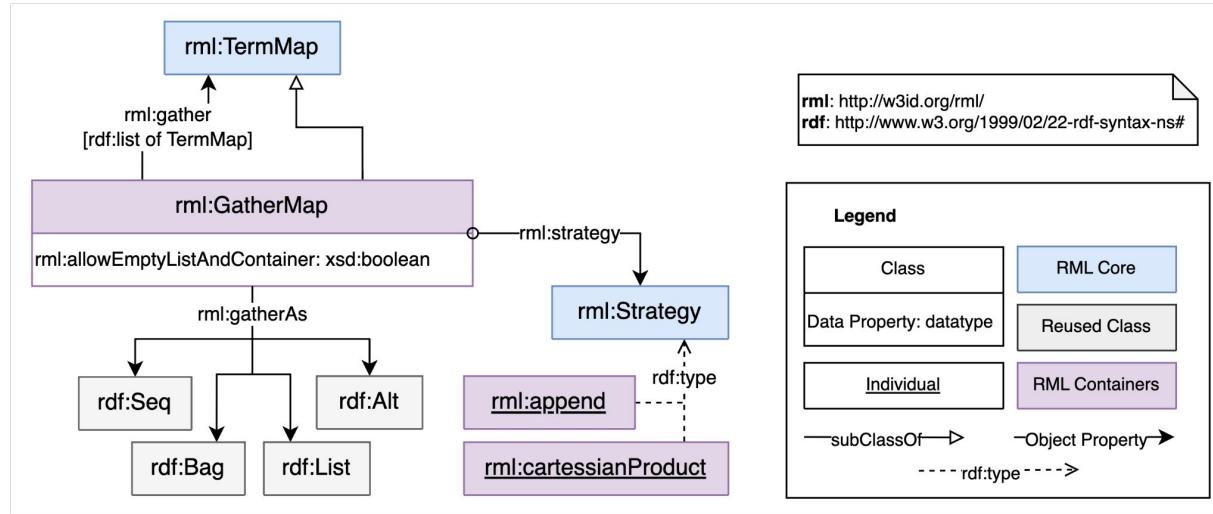


<http://w3id.org/rml/io/spec>



<http://github.com/kg-construct/rml-io>

RML-CC: Collections and containers

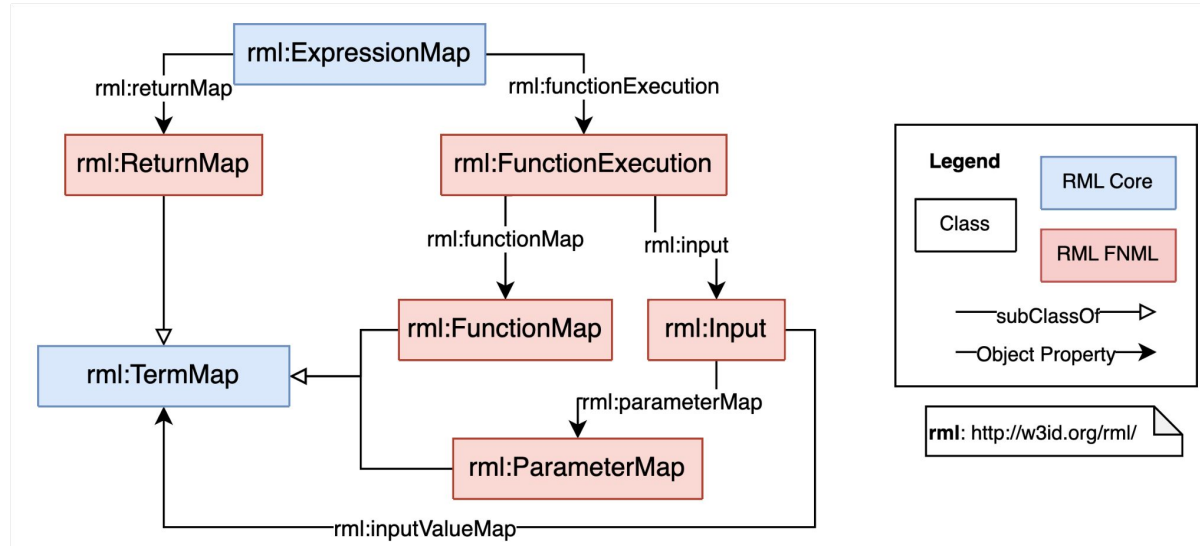


<http://w3id.org/rml/cc/spec>



<http://github.com/kg-construct/rml-cc>

RML-FNML: Functions

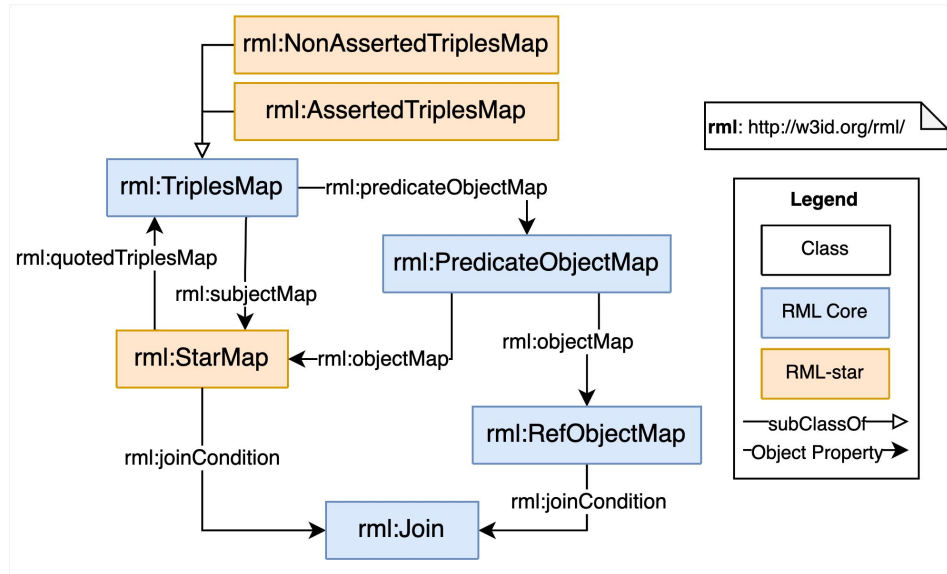


<http://w3id.org/rml/fnml/spec>



<http://github.com/kg-construct/rml-fnml>

RML-star

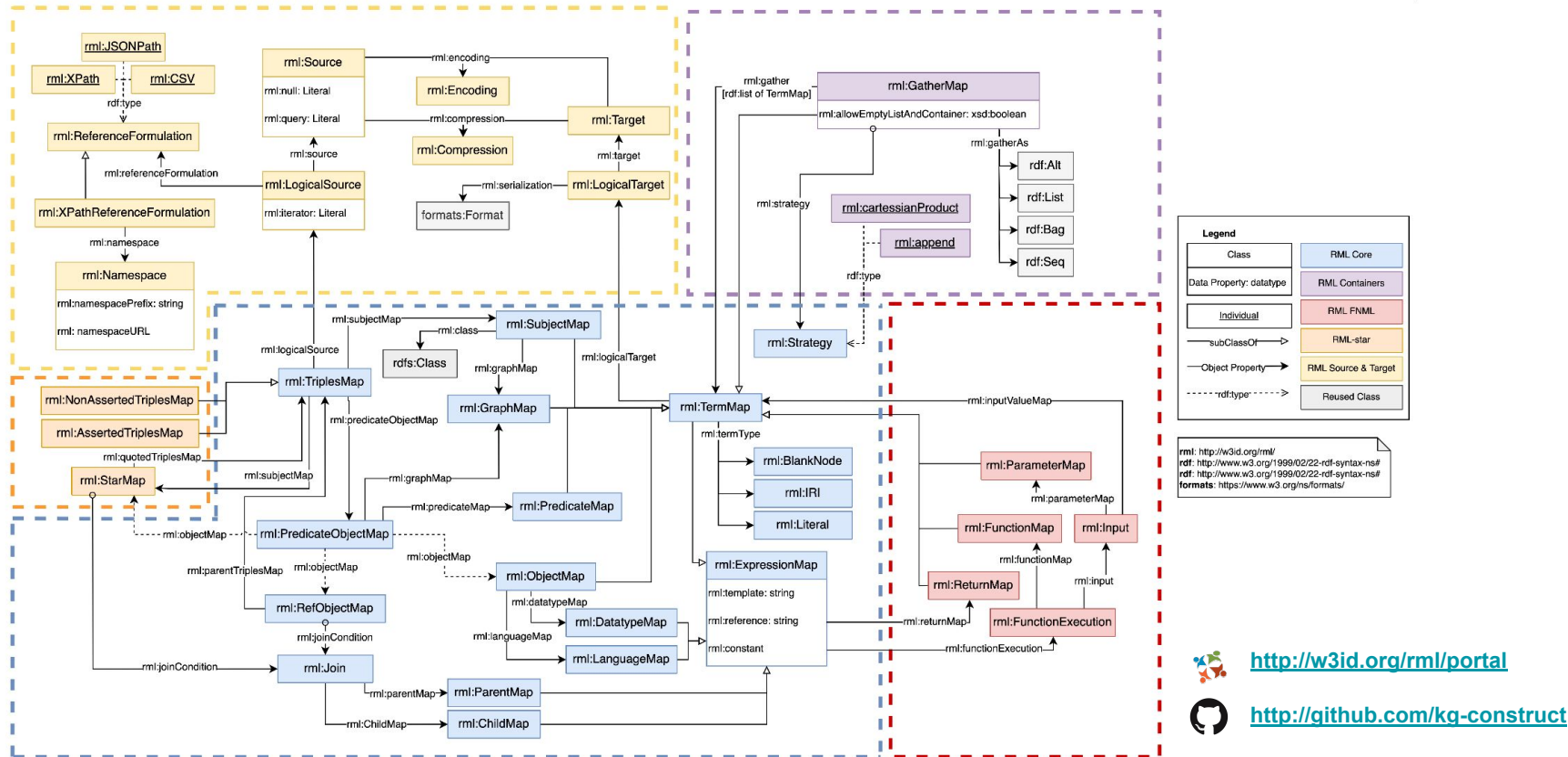


<http://w3id.org/rml/star/spec>



<http://github.com/kq-construct/rml-star>

RML overview



Feature comparison

R2RML	Previous RML	New RML
Schema transformations	Schema transformations	Extended schema transformation
RDBs	Heterogeneous input data formats	Heterogeneous input data formats and target output
	Link to FnO	Module for functions
		Collections and containers
		RDF-star generation

Complete set of resources per module

- Specifications
- OWL ontologies
- SHACL shapes for mapping validation
- Test cases
- Backwards compatibility

Ontologies Guidelines Backwards Compatibility					
RML Ontology Modules					
Here you can find the list of modules of the mapping language RML.					
Ontology	Serialization	License	Language	Links	Description
RML-Core	rdf+xml ttl	CC-BY	en	Repository Issues Requirements Specification Shapes	Core ontology that defines the necessary resources to create a mapping.
RML-IO: Source and Target	rdf+xml ttl	CC-BY	en	Repository Issues Requirements Specification Shapes	Ontology module that allows the description of input data sources and target outputs.
RML-CC: Collections and Containers	rdf+xml ttl	CC-BY	en	Repository Issues Requirements Specification Shapes	Ontology module that allows the generation of collections and containers.
RML-FNML: Functions	rdf+xml ttl	CC-BY	en	Repository Issues Requirements Specification Shapes	Ontology module that allows the application of data transformation functions.
RML-Star	rdf+xml ttl	CC-BY	en	Repository Issues Requirements Specification Shapes	Ontology module that allows the construction of RDF-star graphs.

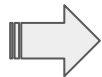
<http://w3id.org/rml/portal>

...but we are not done!

Continuously looking for:

- Feedback on current work
- Opinions about current open issues
- Uncovered use cases
- And more importantly → **Engines to implement the new specs!**

Join us!



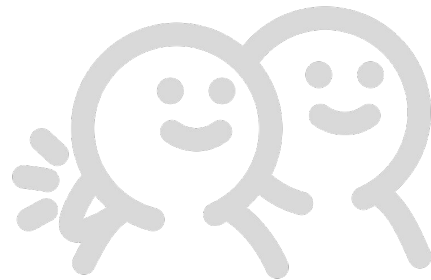
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kg-construct.slack.com



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