OSLC Requirements Management Version 2.1. Part 2: Vocabulary

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Additional components:
This specification is one component of a Work Product that also includes:


Related work:
This specification is related to:


RDF Namespaces:
http://open-services.net/ns/rm#

Abstract:
This specification defines a vocabulary for the OSLC Requirements Management domain.

Status:
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1. Introduction

This section is non-normative.

This specification defines a vocabulary for the OSLC Requirements Management resources. The intent is to define resources needed to support common integration scenarios and not to provide a comprehensive definition of a Requirement. The resource formats may not match exactly the native models supported by requirement management service providers, but are intended to be compatible with them. The approach to supporting these scenarios is to delegate operations, as driven by service provider contributed user interfaces, as much as possible and not require a service provider to expose its complete data model and application logic.

1.1 Terminology

This section is non-normative.

Terminology is based on OSLC Core Overview [OSLCCore3], W3C Linked Data Platform [LDP], W3C's Architecture of the World Wide Web [WEBARCH], Hyper-text Transfer Protocol [HTTP11]. Terminology for this specification is defined in part 1 of the multi-part specification.

1.2 References

1.2.1 Normative references

[HTTP11]

[LDP]
Steve Speicher; John Arwe; Ashok Malhotra. Linked Data Platform 1.0. W3C, 26 February 2015. W3C Recommendation. URL: https://www.w3.org/TR/ldp/

[OSLCCore3]
Jim Amsden; S. Speicher. OSLC Core Version 3.0. Part 1: Overview OASIS. Project Specification. URL: https://docs.oasis-open-projects.org/oslc-op/core/v3.0/oslc-core.html

[RFC2119]

[RFC8174]

1.2.2 Informative references

[WEBARCH]

1.3 Typographical Conventions and Use of RFC Terms
As well as sections marked as non-normative, all authoring guidelines, diagrams, examples, and notes in this specification are non-normative. Everything else in this specification is normative.

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "NOT RECOMMENDED", "MAY", and "OPTIONAL" in this specification are to be interpreted as described in BCP 14 [RFC2119] [RFC8174] when, and only when, they appear in all capitals, as shown here.

In addition to the namespace URIs and namespace prefixes oslc, rdf, dcterms and foaf defined in the OSLC Core specification, OSLC RM defines the namespace URI of http://open-services.net/ns/rm# with a namespace prefix of oslc_rm
2. Conformance

Requirements Management servers **MUST** use the vocabulary terms defined here where required, and with the meanings defined here.

Requirements Management servers **MAY** augment this vocabulary with additional classes, properties, and individuals.
3. Requirements Management Vocabulary Terms

This specification defines the root superclasses, properties and values. Servers may define additional subclasses and provide additional properties as needed.

3.1 Vocabulary Details

The namespace URI for this vocabulary is: http://open-services.net/ns/rm#

All vocabulary URIs defined in the OSLC Requirements Management (RM) namespace.

See Also:

3.1.1 Classes in this namespace (2)

- Requirement, RequirementCollection

Requirement

http://open-services.net/ns/rm#Requirement

Requirement is an RDFS class.

Statement of need.

RequirementCollection

http://open-services.net/ns/rm#RequirementCollection

RequirementCollection is an RDFS class.

Collection of requirements. A collection uses zero or more requirements.

3.1.2 Properties in this namespace (15)

- affectedBy, constrainedBy, constrains, decomposedBy, decomposes, elaboratedBy, elaborates, implementedBy, satisfiesBy, satisfies, specifiedBy, specifies, trackedBy, uses, validatedBy

affectedBy

http://open-services.net/ns/rm#affectedBy

affectedBy is an RDF property.

Expresses an affects relationship between entities, where the object entity in some way affects the subject entity. For example, a requirement is affected by a defect.

constrainedBy

http://open-services.net/ns/rm#constrainedBy

constrainedBy is an RDF property.
Expresses a constraining relationship between entities, where the object entity constrains the subject entity. For example, a functional requirement is constrained by a safety requirement.

c​onstrains

http://open-services.net/ns/rm#constrains

`constrains` is an RDF property.

Expresses a constraining relationship between entities, where the subject entity constrains the object entity. For example, a safety requirement constrains a functional requirement.

decomposedBy

http://open-services.net/ns/rm#decomposedBy

decomposedBy is an RDF property.

Expresses a decomposition relationship between entities, where the object entity decomposes the subject entity. For example, a system requirement is decomposed into a collection of system requirements.

decomposes

http://open-services.net/ns/rm#decomposes

decomposes is an RDF property.

Expresses a decomposition relationship between entities, where the subject entity decomposes the object entity. For example, a collection of system requirements decompose a system requirement.

elaboratedBy

http://open-services.net/ns/rm#elaboratedBy

`elaboratedBy` is an RDF property.

Expresses an elaboration relationship between entities, where the object entity elaborates the subject entity. For example, a requirement is elaborated by a model element.

elaborates

http://open-services.net/ns/rm#elaborates

`elaborates` is an RDF property.

Expresses an elaboration relationship between entities, where the subject entity elaborates the object entity. For example, a model element elaborates a requirement.

implementedBy

http://open-services.net/ns/rm#implementedBy

`implementedBy` is an RDF property.

Expresses an implementation relationship between entities, where the object entity is a necessary or desirable aspect of an implementation of the subject entity.

satisfiedBy
http://open-services.net/ns/rm#satisfiedBy

`satisfiedBy` is an RDF property.

The subject is satisfied by the object. For example, a user requirement is satisfied by a system requirement.

`satisfies`

http://open-services.net/ns/rm#satisfies

`satisfies` is an RDF property.

Expresses a relationship between entities, where the subject entity satisfies the object entity. For example, a system requirement satisfies a user requirement.

`specifiedBy`

http://open-services.net/ns/rm#specifiedBy

`specifiedBy` is an RDF property.

Expresses a specification relationship between entities, where the object entity further clarifies or specifies the subject entity. For example, a requirement is specified by a model element.

`specifies`

http://open-services.net/ns/rm#specifies

`specifies` is an RDF property.

Expresses a specification relationship between entities, where the subject entity further clarifies or specifies the object entity. For example, a model element specifies a requirement.

`trackedBy`

http://open-services.net/ns/rm#trackedBy

`trackedBy` is an RDF property.

Expresses a tracking relationship between entities, where the object entity in some way tracks or governs the evolution of the subject entity. For example, a requirement may be said to be tracked by a change request, in that it governs the changes to a requirement according to some process machinery.

`uses`

http://open-services.net/ns/rm#uses

`uses` is an RDF property.

Expresses a use relationship between entities, where the object entity is used by the subject entity. For example, a requirement collection may use a requirement.

`validatedBy`

http://open-services.net/ns/rm#validatedBy

`validatedBy` is an RDF property.

Expresses a validation relationship between entities, where the object entity in some way validates the subject entity. For
example, a requirement collection may be said to be validated by a test plan.