



OSLC Requirements Management Version 2.1. Part 2: Vocabulary

Project Specification 01 03 September 2020

This stage:

<https://docs.oasis-open-projects.org/oslc-op/rm/v2.1/ps01/requirements-management-vocab.html> (Authoritative)
<https://docs.oasis-open-projects.org/oslc-op/rm/v2.1/ps01/requirements-management-vocab.pdf>

Previous stage:

<https://docs.oasis-open-projects.org/oslc-op/rm/v2.1/psd02/requirements-management-vocab.html> (Authoritative)
<https://docs.oasis-open-projects.org/oslc-op/rm/v2.1/psd02/requirements-management-vocab.pdf>
(published as Project Specification Draft on 01 October 2019)

Latest stage:

<https://docs.oasis-open-projects.org/oslc-op/rm/v2.1/requirements-management-vocab.html> (Authoritative)
<https://docs.oasis-open-projects.org/oslc-op/rm/v2.1/requirements-management-vocab.pdf>

Latest version:

<https://open-services.net/spec/rm/latest>

Latest editor's draft:

<https://open-services.net/spec/rm/latest-draft>

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Additional components:

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

- OSLC Requirements Management Version 2.1. Part 1: Specification. [requirements-management-spec.html](#)
- OSLC Requirements Management Version 2.1. Part 2: Vocabulary (this document). [requirements-management-vocab.html](#)

- *OSLC Requirements Management Version 2.1. Part 3: Constraints.* [requirements-management-shapes.html](#)
- *OSLC Requirements Management Version 2.1. Part 4: Machine-readable Vocabulary Terms.* [requirements-management-vocab.ttl](#)
- *OSLC Requirements Management Version 2.1. Part 5: Machine-readable Constraints.* [requirements-management-shapes.ttl](#)

Related work:

This specification is related to:

- *Open Services for Lifecycle Collaboration Requirements Management Specification Version 2.0.* <http://open-services.net/bin/view/Main/RmSpecificationV2>

RDF Namespaces:

<http://open-services.net/ns/rm#>

Abstract:

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

Status:

This document was last revised or approved by the [OASIS Open Services for Lifecycle Collaboration \(OSLC\) OP](#) on the above date. The level of approval is also listed above. Check the “Latest stage” location noted above for possible later revisions of this document. Any other numbered Versions and other technical work produced by the Open Project are listed at <https://open-services.net/about/>.

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Citation format:

When referencing this specification the following citation format should be used:

[OSLC-RM-2.1-Part2]

OSLC Requirements Management Version 2.1. Part 2: Vocabulary. Edited by Mark Schulte and Jad El-khoury. 03 September 2020. OASIS Project Specification 01. <https://docs.oasis-open-projects.org/oslc-op/rm/v2.1/ps01/requirements-management-vocab.html>. Latest stage: <https://docs.oasis-open-projects.org/oslc-op/rm/v2.1/requirements-management-vocab.html>.

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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]

R. Fielding, Ed.; J. Reschke, Ed.. [Hypertext Transfer Protocol \(HTTP/1.1\): Message Syntax and Routing](#). June 2014. Proposed Standard. URL: <https://httpwg.org/specs/rfc7230.html>

[LDP]

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

[OSLCCore3]

Jim Amsden; S. Speicher. [OSLC Core 3.0](#). Project Specification. URL: <https://docs.oasis-open.org/oslc-core/oslc-core/v3.0/oslc-core-v3.0-part1-overview.html>

[RFC2119]

S. Bradner. [Key words for use in RFCs to Indicate Requirement Levels](#). March 1997. Best Current Practice. URL: <https://tools.ietf.org/html/rfc2119>

1.2.2 Informative references

[WEBARCH]

Ian Jacobs; Norman Walsh. [Architecture of the World Wide Web, Volume One](#). 15 December 2004. W3C Recommendation. URL: <https://www.w3.org/TR/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.

Standards Track Work Product

The key words **MUST**, **MUST NOT**, **REQUIRED**, **SHOULD**, **SHOULD NOT**, **RECOMMENDED**, **MAY**, and **OPTIONAL** in this specification are to be interpreted as described in [RFC2119].

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:

- <https://github.com/oslc-op/oslc-specs/blob/master/specs/rm/requirements-management-vocab.ttl>

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](#), [satisfiedBy](#), [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.

constrains

<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.