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

Open Project:
OASIS Open Services for Lifecycle Collaboration (OSLC) OP

Project Chairs:
Jim Amsden (jamsden@us.ibm.com), IBM
Andrii Berezovskyi (andriib@kth.se), KTH

Editors:
Mark Schulte (mark.d.schulte@boeing.com), The Boeing Company
Jad El-khoury (jad@kth.se), KTH The Royal Institute of Technology

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:
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/.

Comments on this work can be provided by opening issues in the project repository or by sending email to the project’s public comment list oslc-op@lists.oasis-open-projects.org.

Note that any machine-readable content (Computer Language Definitions) declared Normative for this Work Product is provided in separate plain text files. In the event of a discrepancy between any such plain text file and display content in the Work Product's prose narrative document(s), the content in the separate plain text file prevails.

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

Notices

Copyright © OASIS Open 2020. All Rights Reserved.

All capitalized terms in the following text have the meanings assigned to them in the OASIS Intellectual Property Rights Policy (the "OASIS IPR Policy"). The full Policy may be found at the OASIS website.

This specification is published under the Attribution 4.0 International (CC BY 4.0). Portions of this specification are also provided under the Apache License 2.0.

All contributions made to this project have been made under the OASIS Contributor License Agreement (CLA).

For information on whether any patents have been disclosed that may be essential to implementing this specification, and any offers of patent licensing terms, please refer to the Open Projects IPR Statements page.

This document and translations of it may be copied and furnished to others, and derivative works that comment on or otherwise explain it or assist in its implementation may be prepared, copied, published, and distributed, in whole or in part, without restriction of any kind, provided that the above copyright notice and this section are included on all such copies and derivative works. However, this document itself may not be modified in any way, including by removing the copyright notice or references to OASIS, except as needed for the purpose of developing any document or deliverable produced by an OASIS Open Project or OASIS Technical Committee (in which case the rules applicable to copyrights, as set forth in the OASIS IPR Policy, must be followed) or as required to translate it into languages other than English.

The limited permissions granted above are perpetual and will not be revoked by OASIS or its successors or assigns.

This document and the information contained herein is provided on an "AS IS" basis and OASIS DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY THAT THE USE OF THE INFORMATION HEREIN WILL NOT INFRINGE ANY OWNERSHIP RIGHTS OR ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

OASIS requests that any OASIS Party or any other party that believes it has patent claims that would necessarily be infringed by implementations of this OASIS Project Specification or OASIS Standard, to notify the OASIS TC Administrator and provide an indication of its willingness to grant patent licenses to such patent claims in a manner consistent with the IPR Mode of the OASIS Technical Committee that produced this specification.

OASIS invites any party to contact the OASIS TC Administrator if it is aware of a claim of ownership of any patent claims that would necessarily be infringed by implementations of this specification by a patent holder that is not willing to provide a license to such patent claims in a manner consistent with the IPR Mode of the OASIS Open Project that produced this specification. OASIS may include such claims on its website, but disclaims any obligation to do so.

OASIS takes no position regarding the validity or scope of any intellectual property or other rights that might be claimed to pertain to the implementation or use of the technology described in this document or the extent to which any license under such rights might or might not be available; neither does it represent that it has made any effort to identify any such rights. Information on OASIS' procedures with respect to rights in any document or deliverable produced by an OASIS Technical Committee can be found on the OASIS website. Copies of claims of rights made available for publication and any assurances of licenses to be made available, or the result of an attempt made to obtain a general license or permission for the use of such proprietary rights by implementers or users of this OASIS Open Project Specification or OASIS Standard, can be obtained from the OASIS TC Administrator. OASIS makes no representation that any information or list of intellectual property rights will at any time be complete, or that any claims in such list are, in fact, Essential Claims.

The name "OASIS" is a trademark of OASIS, the owner and developer of this specification, and should be used only to refer to the organization and its official outputs. OASIS welcomes reference to, and implementation and use of, specifications, while reserving the right to enforce its marks against misleading uses. Please see https://www.oasis-open.org/policies-guidelines/trademark for above guidance.
Table of Contents

1. Introduction
   1.1 Terminology
   1.2 References
   1.3 Typographical Conventions and Use of RFC Terms

2. Conformance

3. Requirements Management Vocabulary Terms
   3.1 Vocabulary Details
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. 26 February 2015. W3C Recommendation. URL: https://www.w3.org/TR/ldp/

[OSLCCore3]  

[RFC2119]  

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, 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:


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.