OSLC PROMCODE Version 1.0. Part 2: Vocabulary

OASIS Standard

11 March 2022

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https://docs.oasis-open.org/oslc-promcode/promcode/v1.0/os/promcode-vocab.html (Authoritative)
https://docs.oasis-open.org/oslc-promcode/promcode/v1.0/os/promcode-vocab.pdf

Previous stage:
https://docs.oasis-open.org/oslc-promcode/promcode/v1.0/cs03/promcode-vocab.html (Authoritative)
https://docs.oasis-open.org/oslc-promcode/promcode/v1.0/cs03/promcode-vocab.pdf

Latest stage:
https://docs.oasis-open.org/oslc-promcode/promcode/v1.0/promcode-vocab.html (Authoritative)
https://docs.oasis-open.org/oslc-promcode/promcode/v1.0/promcode-vocab.pdf

Latest editor's draft:
http://tools.oasis-open.org/version-control/browse/wsvn/oslc-promcode/shape/trunk/vocab.html

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Additional artifacts:

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

- *OSLC PROMCODE Version 1.0. Part 1: Specification*. https://docs.oasis-open.org/oslc-promcode/promcode/v1.0/os/promcode-spec.html.

- *OSLC PROMCODE Version 1.0. Part 2: Vocabulary* (this document). https://docs.oasis-open.org/oslc-promcode/promcode/v1.0/os/promcode-vocab.html.
- *OSLC PROMCODE Version 1.0. Part 3: Constraints*. https://docs.oasis-open.org/oslc-promcode/promcode/v1.0/os/promcode-shapes.html.
- Machine-readable vocabulary terms: https://docs.oasis-open.org/oslc-promcode/promcode/v1.0/os/promcode-vocab.ttl.
- Machine-readable constraints: https://docs.oasis-open.org/oslc-promcode/promcode/v1.0/os/promcode-shapes.ttl.

Related work:

This document is related to:

- *OSLC PROMCODE Use Cases Version 1.0.* Edited by Mikio Aoyama, Yoshio Horiuchi, Tom Kamimura, Shinji Matsuoka, Shigeaki Matsumoto, Masaki Wakao, Kazuo Yabuta, and Hiroyuki Yoshida. Latest stage: https://docs.oasis-open.org/oslc-promcode/usecase/v1.0/usecase-v1.0.html.

Abstract:

This document describes vocabulary terms of the OSLC PROMCODE specification.

Status:

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Table of Contents

1. Introduction

This section is non-normative.

This specification describes the vocabulary of OSLC PROMCODE specification. Class as defined in [rdf-schema] is used as a grouping of resources in PROMCODE. Every PROMCODE resource is a member of some class defined in PROMCODE. Properties are instances of Class `rdf:Property` defined in [rdf-schema] and describe a relation between subject resources and object resources. PROMCODE specification introduces fourteen classes and twenty nine properties. Among the fourteen classes, two classes are used as "abstract class" of other classes as "subclasses". More specifically, ManagedItem is an abstract class that has ScopeItem, WorkItem, Artifact, Issue and Risk classes as subclasses. Also, ManagedItemCollection is an abstract class with Plan, Report, RiskCollection and IssueCollection classes as subclasses.

2. 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.

3. Vocabulary

3.1 Vocabulary Details

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

All vocabulary URIs defined in The OSLC PROMCODE namespace.

3.1.1 RDFS Classes in this namespace

Artifact, Issue, IssueCollection, ManagedItem, ManagedItemCollection, Measure, Measurement, Plan, Project, Report, Risk, RiskCollection, ScopeItem, WorkItem

3.1.2 RDF Properties in this namespace

actualEndDate, actualSize, actualStartDate, belongsTo, collects, correspondsTo, identifiedBy, identifiedDate, includes, isPartOf, measures, metricOfMeasure, metricOfScopeItemSize, observes, plannedEndDate, plannedSize, plannedStartDate, producedFor, raisedBy, raisedDate, representedBy, requiredBy, sequenceNumber, stateOfIssue, stateOfRisk, targets, unitOfMeasure, unitOfScopeItemSize, valueOfMeasure

3.1.3 Artifact

http://open-services.net/ns/promcode#Artifact

Artifact is an RDFS class.

Artifact is a subclass of ManagedItem class. An Artifact resource is a work product that is produced in a project such as design documents, source code, test report, and so on.

3.1.4 Issue

http://open-services.net/ns/promcode#Issue

Issue is an RDFS class.

Issue is a subclass of ManagedItem. An Issue resource represents a situation that must be resolved in order to meet the objectives of a project. Issue resources shared between an acquirer and a supplier must be managed. Internal issues which must be resolved by a supplier alone may not be shared. Failure to resolve the situation may result in negative consequences for the project, such as a schedule delay.

3.1.5 IssueCollection

http://open-services.net/ns/promcode#IssueCollection

IssueCollection is an RDFS class.

IssueCollection is a subclass of ManagedItemCollection. An IssueCollection resource is a collection of Issue resources. Once an Issue resource is collected, it continues to be included in the collection regardless of its state value. Depending on the situation, a collection may collect all Issues resources to be shared in the project on a specific date, or it may collect only certain Issues resources of some categories, such as certain status, priority, those related to a ScopeItem resource, and so on.

3.1.6 ManagedItem

http://open-services.net/ns/promcode#ManagedItem

ManagedItem is an RDFS class.

ManagedItem is a super class which abstracts its five concrete subclasses, that are, ScopeItem, WorkItem, Artifact, Issue, and Risk.

3.1.7 ManagedItemCollection

http://open-services.net/ns/promcode#ManagedItemCollection

ManagedItemCollection is an RDFS class.

A ManagedItemCollection resource is a collection of ManagedItem resources of a specific interest. A resource in the collection can be a resource of any subclass of ManagedItems, that is, ScopeItem, WorkItem, Artifact, Issue, or Risk. ManagedItemCollection has four concrete subclasses which are Plan, Report, IssueCollection, and RiskCollection. A ManagedItemCollection resource is linked to a Project resource it belongs to.

3.1.8 Measure

http://open-services.net/ns/promcode#Measure

Measure is an RDFS class.

A Measure resource represents an observation of some measurable aspect of an Artifact.

3.1.9 Measurement

http://open-services.net/ns/promcode#Measurement

Measurement is an RDFS class.

A Measurement resource has a link to an Artifact resource and a link to measure resources that represent actual measures of the Artifact. It also has the date on which the measures are taken.

3.1.10 Plan

http://open-services.net/ns/promcode#Plan

Plan is an RDFS class.

A Plan resource is a collection of ScopeItem resources, WorkItem resources and Artifact resources with associated Measure resources. A Plan resource represents a project plan that is agreed on between an acquirer and a supplier at project initiation. Plan is a subclass of ManagedItemCollection.

3.1.11 Project

http://open-services.net/ns/promcode#Project

Project is an RDFS class.

A Project resource represents the information on the project including the name of the project, the descriptions of the project, and start and end dates, both planned and actual, of the project. A Project resource also specifies the metric and the unit of size of ScopeItem resources, each of which is unique in the project.

3.1.12 Report

http://open-services.net/ns/promcode#Report

Report is an RDFS class.

A Report resource represents a project status information reported by a supplier to an acquirer at agreed timing as a project report. It is a ManagedItemCollection resource that collects ScopeItem resources, WorkItem resources, and Artifact resources whose properties are reported in the report. It is also linked to Measurement resources that represent the quality data of the Artifact resources collected in the ManagedItemCollection resource.

3.1.13 Risk

http://open-services.net/ns/promcode#Risk

Risk is an RDFS class.

Risk is a subclass of ManagedItem. A Risk resource represents a potential problem that must be controlled in order to meet the objectives of a project. Shared risks between an acquirer and a supplier must be managed. Internal risks which must be resolved by a supplier alone may not be shared. Failure to control the potential problem may result in negative consequences for the project, such as a schedule delay.

3.1.14 RiskCollection

http://open-services.net/ns/promcode#RiskCollection

RiskCollection is an RDFS class.

RiskCollection is a subclass of ManagedItemCollection. A RiskCollection resource is a collection, or a snapshot of shared risks. Shared risks of resolved status continue to be included in the collection. Only Risk resources can be collected in a RiskCollection resource. Examples are a collection of all Risk resources of the project on a specific date, a collection of Risk resources of some category, such as certain status, certain priority, related ScopeItem, and so on.

3.1.15 ScopeItem

http://open-services.net/ns/promcode#ScopeItem

ScopeItem is an RDFS class.

ScopeItem is a subclass of ManagedItem. A ScopeItem resource defines the scope of the work to be included in a project. It defines the binding between an acquirer and a supplier for the project.

3.1.16 WorkItem

http://open-services.net/ns/promcode#WorkItem

WorkItem is an RDFS class.

WorkItem is a subclass of ManagedItem. A WorkItem resource describes the work to be performed in a contract. It defines the work to be performed to create a (part of) content described by a ScopeItem. The work may typically include cost, schedule, and resource requirements. The set of all WorkItem resources in a project might form a work breakdown structure.

3.1.17 actualEndDate

http://open-services.net/ns/promcode#actualEndDate

actualEndDate is an RDF property.

actualEndDate is either a property of a WorkItem resource or a Project resource. It is the actual end date of the work described by the WorkItem resource or of the project described by the Project resource. Its value is a dateTime.

3.1.18 actualSize

http://open-services.net/ns/promcode#actualSize

actualSize is an RDF property.

actualSize is a property actual development size of the scope described by the ScopeItem resource.

3.1.19 actualStartDate

http://open-services.net/ns/promcode#actualStartDate

actualStartDate is an RDF property.

actualStartDate is either a property of a WorkItem resource or a Project resource. It is the actual start date of the work described by the WorkItem resource or of the project described by the Project resource. Its value is a dateTime.

3.1.20 belongsTo

http://open-services.net/ns/promcode#belongsTo

belongsTo is an RDF property.

belongsTo is a relation between ManagedItemCollections and a Project resource. An acquirer and a supplier may operate multiple projects in parallel. This relation is used to identify which collection belongs to which project.

3.1.21 collects

http://open-services.net/ns/promcode#collects

collects is an RDF property.

collects is a relation between a ManagedItemCollection resource and ManagedItem resources. A Plan resource and a Report resource collect any combination of resources of ScopeItem, WorkItem and Artifact. An IssueCollection resource collects only Issue resources and a RiskCollection collects only Risk resources.

3.1.22 correspondsTo

http://open-services.net/ns/promcode#correspondsTo

correspondsTo is an RDF property.

correspondsTo is a relation between a Plan resource and a Report resource. A Report resource has at most one correspondsTo relation to a Plan resource. If a new Plan resource is created, a Report resource may need to be related to the new Plan resource.

3.1.23 identifiedBy

http://open-services.net/ns/promcode#identifiedBy

identifiedBy is an RDF property.

identifiedBy is a relation between a Risk resource and ManagedItem resources. A Risk may be identified by one or more ManagedItem resources.

3.1.24 identifiedDate

http://open-services.net/ns/promcode#identifiedDate

identifiedDate is an RDF property.

identifiedDate is an optional property of a Risk resource. It is the identified date of the Risk resource. Its value is a dateTime.

3.1.25 includes

http://open-services.net/ns/promcode#includes

includes is an RDF property.

includes is a relation between a Report resource and Measurement resources. A Measurement resource linked from the Report resource measures a quality value of the Artifact resource in the collection of the ManagedItem resources of the Report resource.

3.1.26 isPartOf

http://open-services.net/ns/promcode#isPartOf

isPartOf is an RDF property.

isPartOf is a relation between a resource of type Artifact, ScopeItem or WorkItem and other resources of the same type. It represents the parent and child relationship of ManagedItem resources of the same type.

3.1.27 measures

http://open-services.net/ns/promcode#measures

measures is an RDF property.

measures is a relation between a Measurement resource and an Artifact resource. A Measurement measures an Artifact.

3.1.28 metricOfMeasure

http://open-services.net/ns/promcode#metricOfMeasure

metricOfMeasure is an RDF property.

metricOfMeasure is a relation between a Measure resource and a Metric resource. It defines a metric of Measure.

3.1.29 metricOfScopeItemSize

http://open-services.net/ns/promcode#metricOfScopeItemSize

metricOfScopeItemSize is an RDF property.

metricOfScopeItemSize is a relation between a Project resource and a Metric resource. It defines a metric of the size which all the ScopeItem resources in the project refer to.

3.1.30 observes

http://open-services.net/ns/promcode#observes

observes is an RDF property.

observes is a relation between a Measurement resource and a Measure resource. One Measurement observes zero or many Measures.

3.1.31 plannedEndDate

http://open-services.net/ns/promcode#plannedEndDate

plannedEndDate is an RDF property.

plannedEndDate is either a property of a WorkItem resource or a Project resource. It is the planned end date of the work described by the WorkItem resource or of the project described by the Project resource. Its value is a dateTime.

3.1.32 plannedSize

http://open-services.net/ns/promcode#plannedSize

plannedSize is an RDF property.

plannedSize is a property on the estimated development size of the scope described by a ScopeItem resource.

3.1.33 plannedStartDate

http://open-services.net/ns/promcode#plannedStartDate

plannedStartDate is an RDF property.

plannedStartDate is either a property of a WorkItem resource or of a Project resource. It is the planned start date of the work described by the WorkItem resource or of the project described by the Project resource. Its value is a dateTime.

3.1.34 producedFor

http://open-services.net/ns/promcode#producedFor

producedFor is an RDF property.

producedFor is a relation between an Artifact resource and a ScopeItem resource or a WorkItem resource. Artifact resources are produced as deliverables of the scope defined by a ScopeItem resource or the result of implementing the work described by a WorkItem resource.

3.1.35 raisedBy

http://open-services.net/ns/promcode#raisedBy

raisedBy is an RDF property.

raisedBy is a relation between an Issue resource and ManagedItem resources. An Issue may be raised by one or more ManagedItem resources.

3.1.36 raisedDate

http://open-services.net/ns/promcode#raisedDate

raisedDate is an RDF property.

raisedDate is an optional property of an Issue resource. It is the raised date of the Issue resource. Its value is a dateTime.

3.1.37 representedBy

http://open-services.net/ns/promcode#representedBy

representedBy is an RDF property.

representedBy is a relation between a WorkItem resource and a person in charge. A work item may be represented by a person who acts as the contact for the work item. This person is responsible for the progress of the work described by the WorkItem resource. This person may or may not actually do the required work.

3.1.38 requiredBy

http://open-services.net/ns/promcode#requiredBy

requiredBy is an RDF property.

requiredBy is a relation either between a WorkItem resource and an Artifact resource, or between a WorkItem resource and a ScopeItem resource. A WorkItem resource, such as reviewing the design, is required for producing an Artifact resource such as a review record. A WorkItem resource may also be required to implement the scope described by a ScopeItem resource.

3.1.39 sequenceNumber

http://open-services.net/ns/promcode#sequenceNumber

sequenceNumber is an RDF property.

sequenceNumber is a unique number which represents the position of the resource in a sequential order of all the resources of each subclass of ManagedItem.

3.1.40 stateOfIssue

http://open-services.net/ns/promcode#stateOfIssue

stateOfIssue is an RDF property.

stateOfIssue is a relation between an Issue resource and a State resource. The State resource defines a set of values which represent the state of an issue resource.

3.1.41 stateOfRisk

http://open-services.net/ns/promcode#stateOfRisk

stateOfRisk is an RDF property.

stateOfRisk is a relation between a Risk resource and a State resource. The State resource defines a set of values which represent the state of a Risk resource.

3.1.42 targets

http://open-services.net/ns/promcode#targets

targets is an RDF property.

targets is a relation between an Artifact resource and a Measure resource. The Measure resource represents a target goal of quality measure of the Artifact resource.

3.1.43 unitOfMeasure

http://open-services.net/ns/promcode#unitOfMeasure

unitOfMeasure is an RDF property.

unitOfMeasure is a relation between a Measure resource and a Unit resource. It is a unit of volume. If an acquirer sums

up the same type of measures in a report, the value should be converted according to the unit.

3.1.44 unitOfScopeItemSize

http://open-services.net/ns/promcode#unitOfScopeItemSize

unitOfScopeItemSize is an RDF property.

unitOfScopeItemSize is a relation between a Project resource and a Unit resource. It defines a unit of size which all the ScopeItem resources refer to in the project.

3.1.45 valueOfMeasure

http://open-services.net/ns/promcode#valueOfMeasure

valueOfMeasure is an RDF property.

valueOfMeasure is a property that represents a value for a Measure resource.

4. Conformance

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

PROMCODE servers **MAY** augment this vocabulary with additional classes, properties, and individuals.

Appendix A. References

A.1 Normative references

[HTTP11]
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