PRISM:

Publishing Requirements for Industry Standard Metadata

PRISM Specification: Modular: Version 2.1

The PRISM Rights Language Namespace

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1 Status

1.1 Document Status

The status of this document is:

✓	Draft
✓	Released for Public Comment
✓	Released

1.2 Document Location

The location of this document is:

http://www.prismstandard.org/ specifications/2.1/PRISM_rights_namespace_2.1.pdf

1.3 Version History

Version Number	***Release Date***	***Editor***	***Description***
1.2	1/26/05	McConnell	Converted from unmodularized PRISM spec v 1.2
1.3A	6/17/05	Kennedy	Clarify element defs and examples, Add RDF discussion
1.3B	7/13/05	Kennedy	Resolve group comments
Final	10/01/0-5	Kennedy	Resolve Industry Comments
2.0A	4/25/07	Kennedy	Initiate version 2.0
2.0 Final Draft	07/12/07	Kennedy	Prepare for public comment
2.0 FD w Edits	09/14/07	Kennedy	Prepare for comment resolution
2.0 Final	10/15/07	Kennedy	Final with comments resolved
2.0 Release	2/19/08	Kennedy	Final for Release
2.0 w Errata	7/03/08	Kennedy	Final with Errata
2.1 Draft A	7/10/08	Kennedy	First Draft PRISM 2.1
2.1 Final Draft	10/14/08	Kennedy	Draft for Public Comment
2.1 Final	05/15/09	Kennedy	Final Spec with Comments Resolved

2 PRISM Documentation Structure

PRISM is described in a set of formal, modularized documents that, taken together, represent “the PRISM Specification.” Together these documents comprise the PRISM Documentation Package.

2.1 Normative and Non-normative Sections

Documents in the PRISM Documentation Package may contain both normative and non-normative material; normative material describes element names, attributes, formats, and the contents of elements that is required in order for content or systems to comply with the PRISM Specification. Non-normative material explains, expands on, or clarifies the normative material, but it does not represent requirements for compliance. Normative material in the PRISM Documentation Package is explicitly identified as such; any material not identified as normative can be assumed to be non-normative.

2.1.1 Requirement Wording Note

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [RFC-2119]. The PRISM Specification also uses the normative term, “STRONGLY ENCOURAGES”, which should be understood as a requirement equivalent to MUST in all but the most extraordinary circumstances.

Capitalization is significant; lower-case uses of the key words are intended to be interpreted in their normal, informal, English language way.

2.2 The PRISM Documentation Package

Document	Description
PRISM Introduction [PRISMINT] http://www.prismstandard.org/specifications/2.1/PRISM_introduction_2.1.pdf	Overview, background, purpose and scope of PRISM; examples; contains no normative material.
PRISM Compliance [PRISMCOMP] http://www.prismstandard.org/specifications/2.1/PRISM_compliance_2.1.pdf	Describes two profiles of PRISM compliance for content and systems; includes normative material.
The PRISM Namespace [PRISMPRISMNS] http://www.prismstandard.org/specifications/2.1/PRISM_prism_namespace_2.1.pdf	Describes the elements contained in the PRISM namespace; includes normative material.
The PRISM Subset of the Dublin Core Namespace [PRISMDCNS] http://www.prismstandard.org/specifications/2.1/PRISM_dublin_core_namespaces_2.1.pdf	Describes the elements from the Dublin Core namespace that are included in PRISM; includes normative material.
The PRISM Inline Markup Namespace [PRISMIMNS] http://www.prismstandard.org/specifications/2.1/PRISM_inline_markup_namespace_2.1.pdf	Describes the elements contained in the PRISM Inline Markup Namespace; includes normative material.
The PRISM Rights Language Namespace [PRISMRLNS] http://www.prismstandard.org/specifications/2.1/PRISM_rights_namespace_2.1.pdf	Describes the elements contained in the PRISM Rights Language Namespace; includes normative material.
The PRISM Usage Rights Namespace [PRISMURNS] http://www.prismstandard.org/specifications/2.1/PRISM_usage_rights_namespace_2.1.pdf	Describes the elements contained in the PRISM Usage Rights Namespace; includes normative material. This namespace will supersede elements in both the prism: and prl: namespaces in version 3.0 of the specification.
The PRISM Controlled Vocabulary Namespace [PRISMCVNS] http://www.prismstandard.org/specifications/2.1/PRISM_controlled_vocabulary_namespace_2.1.pdf	Describes the elements contained in the PRISM Controlled Vocabulary Namespace; includes normative material. The PRISM Controlled Vocabularies are now documented in this document.
The PRISM Aggregator Message Namespace [PRISMAMNS]	Describes the elements contained in the PRISM Aggregator Message Namespace; includes

http://www.prismstandard.org/specifications/2.1/PRISM_prism_aggregator_message_namespace_2.1.pdf	normative material.

Table 1.0: PRISM Documentation Package

2.2.1 Additional PRISM Documentation

The PRISM Aggregator Message (PAM), an XML-based application of PRISM, adds a small namespace of its own, formally described in [PRISMAMNS]. The structure and use of PAM are described separately in Guide to the PRISM Aggregator Message V. 2.1 [PAMGUIDE].

The PRISM Cookbook [PRISMCB] documents implementation strategies for PRISM Profile 1 applications.

The Guide to Profile 1 PRISM Usage Rights [RIGHTSGUIDE] documents an XML-based PRISM Profile 1 application for the expression of PRISM Usage Rights. The Guide is accompanied by an XSD that can be used as the basis for developing a digital rights management system based on PRISM Usage Rights.

2.2.2 Access to PRISM Documentation

The PRISM Documentation Package, the PAM Guide (see above), the PAM DTD and PAM XSD, and a range of other information concerning PRISM are all publicly and freely available on the PRISM website, www.prismstandard.org.

3 Introduction

3.1 Purpose and Scope

The purpose of this document is to describe the basic metadata elements that the PRISM Working Group has defined and included in the PRISM Rights Language namespace. All of section 4 of this document is normative.

Note: *Additional examples of PRISM Rights can be found in the PRISM Introduction [PRISMINTRO].*

Note: *This document describes element models and provides examples for all PRISM profiles. In addition, Profile 1 PRISM (well formed XML, with no requirement for RDF), is described in Guide to the PRISM Aggregator Message V. 2.1 [PAMGUIDE].*

3.2 This Namespace will Be Superseded in PRISM 3.0

This namespace will be superseded by new elements in the pur: namespace in version 3.0 of the specification. Recommended best practice is to eliminate use of elements in this name space and transition to elements from the new pur: namespace.

4 PRISM Rights Language Namespace

The PRISM WG put only the most commonly-needed rights elements into the PRISM namespace. For more involved treatment of rights and permissions in PRISM description, elements from another namespace must be used. Because of the considerable activity around specifying rights and permissions, the PRISM Working Group could not recommend an existing standard to follow, as they were able to do with XML, RDF, and Dublin Core. Therefore, the working group has defined a small, simple, extensible language for expressing common rights and permissions. That language is known as the PRISM Rights Language (PRL). This section specifies that language. Note that implementations of PRISM MAY also implement PRL, but it is not mandatory. The PRISM Working Group expects PRL to be supplanted in time, once the activity around many different rights languages has settled down.

The recommended namespace for PRISM Rights Language is:
xmlns:prl="http://prismstandard.org/namespaces/prl/2.0/"

4.1 Rights Processing Model in RDF Domain

Collections of PRL statements are known as PRL expressions. The purpose of a PRL expression is to determine if a person or organization may or may not make use of a resource in a particular way. PRL expressions evaluate to a Boolean value that indicates if a particular use is allowed (if the expression evaluates to true) or not (if the expression evaluates to false).

Note: *PRL evaluation is described in RDF domain,* ***not*** *in the XML syntax domain. PRL expressions do not describe the resource directly. They describe the real or virtual agreement under which the sender and receiver are operating. PRL expressions consist of one or more clauses. A clause, in the RDF domain, is a resource that represents a real or virtual clause in the agreement between the sender and receiver. It is the RDF subject of statements that convey the intent of the clause. The dc:rights statement contains the clause, or an rdf:Bag element if there are multiple clauses.*

Note: *A new PRISM activity is working to develop a Rights Processing Model for the XML syntax domain.*

Each clause has a possibly empty set of usage statements and a possibly empty set of condition statements. If no usage is specified, the default usage is #use. (#use will be defined later in this section.) If no conditions are specified, the default condition evaluates to 'true'.

Conditions evaluate to Boolean true or false. Conditions are expressed in XML using elements from the PRL namespace, such as prl:geography and prl:industry. Two elements from the PRISM namespace, prism:embargoDate and prism:expirationDate, also express PRL conditions. To evaluate a condition, a comparison is made between the value(s) supplied in the XML element and the current state of the system or the intended use of content. The exact nature of the comparison depends on the condition being tested. True values mean that the condition applies. For example, the prism:embargoDate condition evaluates to 'true' if the current system date and time is greater than or equal to the date and time specified in that element's content. The prl:industry condition evaluates to 'true' if the content is intended to be used in the specified industry. This specification does not define how the current state of the system and the intended use(s) of the content are made available for evaluating the conditions.

Usages do not evaluate to Booleans. Instead, they evaluate to a set of URI references (which is typically of length 1). The URI references govern what the receiving system can do with the described resource. PRL defines only the four URI references shown in [PRISMCOMP], Rights and Usage Vocabularies. Others can be defined, but this is expected to be an exceedingly rare form of extension.

To evaluate a clause, the logical AND of the conditions in the clause is computed. If that is false, the clause evaluates to the PRL usage #notApplicable. If the logical AND is true, the set of usages in the clause is evaluated and returned as the value of the clause.

To evaluate a PRL expression, all the clauses are evaluated and their results are merged according to the following rules, which MUST be applied in the following order:

1. U, the UNION of the sets of URI references is computed. If multiple PRL expressions exist because the described resource had multiple dc:rights elements, those usages are also included in the computation of U.
2. If #none is a member of U, the expression evaluates to false.
3. Any special rules needed by extension elements are applied.
4. If #use is a member of U, the expression evaluates to true.

If the PRL expression evaluates to true, the resource may be used. If it evaluates to false, it may not be used. Typically, human intervention at runtime will be needed to convert the URI references, such as #permissionsUnknown, to a Boolean value.

Note that because PRL defines both #none and #use, the NOT operator is not needed.

PRL can be extended by defining new conditions and usages in other namespaces. Conditions MUST be defined to return a Boolean where true means the condition applies to the current state of the system or intended use of the content. Also, the conditions MUST be side-effect-free. Usages MUST return a URI reference. Another extension mechanism exists in PRL. The content model of the prl:usage element allows text content. When text content is given, implementations MUST convert it to a URI reference. This specification does not specify how that is to happen, however, a common means of doing so is expected to be showing the text to a user and asking them if the result should be #use or #none.

Note: *While PRISM rights elements may occur within dc:rights, this is no longer a requirement.*

4.2 PRISM XML/RDF Element and Attribute Models

In combining XML with RDF, there is far greater flexibility in tagging than we are used to when we define XML elements and attributes with an XML DTD. The remainder of this section contains the most likely element/attribute models for profile 2 PRISM. Other profile 2 models are possible based on the interaction between XML and RDF.

4.2.1 prl:geography

Name	Geography (as condition on use of a resource)
Identifier	prl:geography
Definition	Name of, or authority file reference to, a geographic region of interest.
Occurrence	Occurs 0 or more times
Comment	Recommended practice is to use the ISO 3166-1 and 3166-2 country and region codes. For profile 2, if more than one geography is related to a resource, PRISM recommends listing the multiple locations inside one prl:geography element using the RDF containers such as rdf:Bag, rdf:Seq or rdf:Alt to be XMP compatible. For profile 1, just repeat the prl:geography element multiple times. **Note:** *This namespace will be superseded by new elements in the pur: namespace in version 3.0 of the specification.*
PAM	No
Profile #1 (XML)	
Element Content	String
Attributes	
Example	`<prl:geography>Oklahoma</prl:geography>`
Profile #2 (RDF)	
Model #1	
Element Content	URI Resource (no element content)
Attributes	Authority Reference.(rdf:resource)
Model #2	
Element Content	Plain Literal
Attributes	xml:lang (optional) designed for identifying the human language used
Model #3	
Element Content	XML Literal
Attributes	rdf:parseType=”Literal” xml:lang (optional) designed for identifying the human language used

Examples	`Model #1`
	`<prl:geography rdf:resource=”http://prismstandard.org/vocabs/ISO-3166/GB”/>`
	
	`Model #2`
	`<prl:geography>Oklahoma</prl:geography>`
	
	`Model #3`
	`<prl:geography rdf:parseType=”Literal”>South &amp; East Counties</prl:geography>`

Profile #3 (XMP)	
Property Value	bag Text

4.2.2 prl:industry

Name	Industry (as condition on use of a resource)
Identifier	prl:industry
Definition	Name of, or authority file reference to, an industry or industrial sector of interest.
Occurrence	Occurs 0 or more times
Comment	This element must be used in conjunction with prl:usage. Recommended practice is to specify the industry sector using the SIC or NAICS industrial classification system. **Note:** prl:industry differs from prism:industry and pim:industry as prl:industry is rights related. For profile 2, if there is more than one industry related to a resource, PRISM recommends listing the multiple industries inside one prl:industry element using the RDF containers such as rdf:Bag, rdf:Seq or rdf:Alt to be XMP compatible. For profile 1, just repeat the prl:industry element multiple times. **Note:** *This namespace will be superseded by new elements in the pur: namespace in version 3.0 of the specification.*
PAM	No
Profile #1 (XML)	
Element Content	String
Attributes	
Example	`<prl:industry>11111</prl:industry>` `<prl:usage>Not usable for this industry</prl:usage>`
Profile #2 (RDF)	
Model #1	
Element Content	URI Resource (no element content)
Attributes	Authority Reference.(rdf:resource)
Model #2	
Element Content	Plain Literal
Attributes	xml:lang (optional) designed for identifying the human language used

Examples	`Model #1`
	`<prl:industry rdf:resource=”http://www.census.gov/epcd/naics02/naicod02.htm#11111”/>`
	
	`Model #2`
	`<prl:industry>11111</prl:industry>`
	`<prl:usage>Not usable for this industry</prl:usage>`

Profile #3 (XMP)	
Property Value	bag Text

4.2.3 prl:usage

Name	Resource Usage
Identifier	prl:usage
Definition	A standard phrase or phrases, defined by the publisher that describes the usage or restriction criteria for the content.
Occurrence	Occurs 0 or more times
Comment	For profile 1,if more than one usage statement is related to a resource, just repeat the prl:usage element multiple times. For profile 2, if more than one usage statement is related to a resource, PRISM recommends listing the multiple usage statements inside one prl:usage element using the RDF containers such as rdf:Bag, rdf:Seq or rdf:Alt to be XMP compatible. The value from the PRISM Usage Vocabulary (#notReusable) can be used, but for the first time prl:usage can also take free text as input. **Note:** *This namespace will be superseded by new elements in the pur: namespace in version 3.0 of the specification.*
PAM	Yes
Profile #1 (XML)	
Element	String
Attribute	
Example	`<prl:usage>***ELECTRONIC REPUBLICATION AND DISTRIBUTION RESTRICTED***</prl:usage>`
Profile #2 (RDF)	
Model #1	
Element Content	Plain Literal
Attributes	xml:lang (optional) designed for identifying the human language used
Example	`Model #1` `<prl:usage>***ELECTRONIC REPUBLICATION AND DISTRIBUTION RESTRICTED***</prl:usage>`
Profile #3 (XMP)	
Property Value	bag Text