Organization for the Advancement of Structured Information Standards
(OASIS)

Rights Language Technical Committee
(RLTC)

Requirements

Last Modified: August 22, 2002

Introduction

An attached matrix contains the collected requirements. This document explains the analysis process and contains the actual RLTC requirements. Each requirement received is numbered and is cross-referenced throughout the analysis process.

Revision History

Version	Date	Description
1	2002-07-12	Started this document
2	2002-07-22	Added description of System and Rights Language Requirements; added more information pertaining to the analysis method. Parsed again OeBF raw requirements set.
3	2002-07-30	Partially parsed Reuters Requirements. Updated description of "Interoperable".
4	2002-08-06	Added mapping of requirements to rights language architecture.
5	2002-08-16	Added first proposed RLTC Requirements.
6	2002-08-17	Added more proposed RLTC Requirements. Cleaned up introduction and moved sections around.
7	2002-08-19	Added more proposed RLTC Requirements.
8	2002-08-21	Added more proposed RLTC Requirements.
9	2002-08-22	Added more proposed RLTC Requirements (SAM,EFF,WS,HL7, EbXML Registry)

Analysis Process

The following analysis process was used to formulate the actual RLTC requirements.

1. Raw requirements data was collected from the source entities.
2. System and/or Rights Language Categorization
   Requirements data is categorized as being either relating to a Rights Language, a System that would use a rights language or both. For those requirements that relate to a System, the requirement is rewritten to reflect a rights language requirement that may be required to enable the particular System requirement.
3. Rights Language Attribute Categorization
   The Rights Language requirements are categorized to reflect their utility to a Rights Language. The category groups were developed as part of the RLTC Charter.
4. Architecture Categorization
   The Rights Language requirements are categorized to reflect their architectural placement in the core, standard extension, or domain-specific extension.

System and/or Rights Language Categories

Category	Description
Rights Language Requirement	A requirement that calls for the expressiveness of a function.
System Requirement	A requirement that calls for the execution of a function. (A system acts on the expression to perform an action.)
Both	A requirement that that contains both System and the Rights Language requirements.
Rewording Needed	A requirement that must be reworded to clarify intention.

Rights Language Attribute Categories

Category	Description
Comprehensive	Requirements that call for the ability to specify a wide array of rights expressions ranging from simple to complex.
Generic	Requirements that call for the applicability of the rights language to a wide variety of realms.
Precise	Requirements that call for a precise meaning to all expressions in the language.
Interoperable	Requirements that drive the need for the language design to address implementation as part of an integrated system.
Agnostic	Requirements that call for neutrality among realms.

Rights Language Architecture Categories

Category	Description
Core	Requirements that impart an architectural feature common to all.
Standard Extension	Requirements that are shared amongst many domains but are not critical to the architecture of the language. Implicit in such requirements is the requirement of the core to support such an extension.
Domain Extension	Requirements that are pertinent mainly to a specific domain. Implicit in such requirements is the requirement of the core to support such an extension.
All	Requirements that apply to the Core, Standard Extension, and Domain Extensions, but that cannot be satisfied by any one of them alone.

Definitions

The definitions for the words used in the RLTC requirements document are those found at http://www.m-w.com/. The words used in the RLTC requirements document do *not* take their definitions from any source requirements documents or any other documents (including the XrML specification) submitted to the RLTC.

RLTC Requirements

Rights Language Core Requirements

R01. Specifying Conditions

The language architecture must allow for expressions of conditions.

Reference: OEBF-M-2.1.1, OEBF-2.2.8, OEBF-2.2.12, OEBF-M-2.4.3, OEBF-2.6.1, OEBF-2.6.2, OEBF-2.6.3, OEBF-2.6.4, OEBF-2.6.5, OEBF-2.6.6, OEBF-2.7.1, OEBF-2.7.3, OEBF-2.7.4, OEBF-2.7.5, OEBF-2.7.6, OEBF-2.7.7, OEBF-2.7.8, OEBF-M-2.8.3, OEBF-M-2.8.5, OEBF-2.8.6, OEBF-2.8.7, OEBF-M-2.8.10, OEBF-M-2.8.12, OEBF-M-2.8.15, OEBF-M-2.8.17, OEBF-M-2.8.18, OEBF-M-2.9.1, OEBF-M-2.9.2, OEBF-2.9.3, OEBF-2.9.4, OEBF-2.9.6, OEBF-M-2.11.1, OEBF-M-2.11.3, OEBF-2.12.1, OEBF-2.12.2, OEBF-2.12.3, ODRL-2.2.4, ODRL-2.2.5, ODRL-2.2.6, ODRL-2.2.7, ODRL-2.2.8, ODRL-2.2.9, SBL-M-3, SBL-M-4, SBL-M-5, MPEG-2.1.1, MPEG-2.1.19, MPEG-2.1.20, MPEG-2.2.10, MPEG-2.3.9, MPEG-2.4.1, MPEG-2.4.2, MPEG-2.5.1, MPEG-2.5.2, MPEG-2.5.3, REU-3.1.1.1, REU-3.1.2.1, REU-3.1.2.2, REU-3.2.1.1, REU-3.2.1.2, REU-3.2.1.3, REU-3.2.1.4, REU-3.2.5.1, REU-3.2.6.2, REU-3.2.6.3, REU-3.2.6.4, REU-3.2.8.1, REU-3.2.8.3, REU-3.2.8.4, REU-3.2.8.5, REU-3.2.8.7, REU-3.2.10.1, REU-3.2.10.2, REU-3.2.11.1, REU-3.2.11.2, REU-3.3.1.2, REU-3.3.1.3, REU-3.3.1.4, REU-3.3.1.5, REU-3.3.2.1, REU-3.3.2.2, REU-3.3.3.1, REU-3.3.3.2, REU-3.3.3.3, REU-3.3.4.1, REU-3.3.4.2, REU-3.3.4.3, REU-3.3.6.1, REU-3.3.7.1, REU-3.3.7.2, REU-3.3.7.3, REU-3.3.7.4, REU-3.3.8.1, REU-3.3.8.2, REU-3.3.8.3, REU-3.3.8.4, REU-3.3.8.5, REU-3.3.8.6, REU-3.3.8.7, REU-3.3.8.8, REU-3.3.8.9, REU-3.3.8.10, REU-3.3.8.13, REU-3.3.9.1, REU-3.3.10.1, REU-3.3.10.2, REU-3.3.10.3, REU-3.3.10.5, REU-3.3.11.1, REU-3.4.1.1, REU-3.4.1.2, REU-3.4.2.1, REU-3.4.2.2, REU-3.4.3.1, REU-3.5.2.1, REU-3.5.2.2, REU-3.5.3.1, REU-3.5.3.2, REU-3.5.3.3, REU-3.5.4.1, REU-3.5.5.1, REU-3.5.6.1, REU-3.5.7.1, REU-3.5.7.2, REU-3.5.7.3, REU-3.5.8.1, REU-3.5.8.2, REU-3.6.1.2, REU-M-3.3.1.1, EFF-M-4, EFF-M-5, EFF-7, SAM-2, WS-7, WS-12, WS-13, HL7-1.1, HL7-2.1, HL7-2.2, HL7-2.3, HL7-3.1, HL7-3.2, HL7-4.1, EBXML-1.1, EBXML-2.1, EBXML-2.2, EBXML-2.3

R02. Specifying Verbs

The language architecture must allow for expressions of verbs.

Reference: OEBF-M-2.1.1, OEBF-2.2.8, OEBF-2.2.12, OEBF-M-2.4.3, OEBF-M-2.8.1, OEBF-M-2.8.3, OEBF-2.8.9, OEBF-M-2.8.10, OEBF-M-2.8.15, OEBF-M-2.8.17, OEBF-M-2.8.18, OEBF-M-2.9.1, OEBF-M-2.9.2, OEBF-2.9.3, OEBF-2.9.4, OEBF-2.10.1, OEBF-M-2.11.1, OEBF-M-2.11.3, OEBF-2.12.1, OEBF-2.12.2, OEBF-2.12.3,

OEBF-M-2.13.1, ODRL-2.2.9, SBL-M-3, SBL-M-4, SBL-M-5, MPEG-2.1.19, MPEG-2.2.10, MPEG-2.3.1, MPEG-2.3.2, MPEG-2.3.3, MPEG-2.3.4, MPEG-2.3.5, MPEG-2.3.6, MPEG-2.3.7, REU-3.1.1.1, REU-3.1.2.1, REU-3.1.2.2, REU-3.2.5.1, REU-3.2.10.1, REU-3.2.10.2, REU-3.2.11.1, REU-3.3.1.2, REU-3.3.1.3, REU-3.3.1.4, REU-3.3.1.5, REU-3.3.3.1, REU-3.3.3.2, REU-3.3.3.3, REU-3.3.7.1, REU-3.3.7.2, REU-3.3.7.3, REU-3.3.7.4, REU-3.3.8.1, REU-3.3.8.2, REU-3.3.8.3, REU-3.3.8.4, REU-3.3.8.6, REU-3.3.8.7, REU-3.3.8.9, REU-3.3.8.10, REU-3.3.8.11, REU-3.3.8.12, REU-3.3.8.13, REU-3.3.9.1, REU-3.5.7.2, REU-3.6.1.2, EFF-M-2, EFF-M-4, EFF-M-5, SAM-4, SAM-5, SAM-6,WS-12, WS-13, HL7-1.1, HL7-2.1, HL7-2.2, HL7-2.3, HL7-3.1, HL7-3.2, HL7-4.1, EBXML-1.1, EBXML-2.1, EBXML-2.2

R03. Specifying Noun

The language architecture must allow for expressions of nouns.

Reference: OEBF-M-2.1.1, OEBF-2.2.8, OEBF-2.2.10, OEBF-2.2.11, OEBF-2.3.1, OEBF-2.4.2, OEBF-M-2.4.3, OEBF-M-2.8.10, OEBF-M-2.8.13, OEBF-M-2.8.14, OEBF-2.10.1, OEBF-M-2.11.1, OEBF-M-2.11.3, OEBF-2.12.1, OEBF-2.12.2, OEBF-2.12.3, ODRL-2.1.3, ODRL-2.1.4, ODRL-2.2.9, SBL-M-3, SBL-M-4, SBL-M-5, MPEG-2.1.4, MPEG-2.1.11, MPEG-2.1.19, MPEG-2.1.21, MPEG-2.2.1, MPEG-2.2.2, MPEG-2.2.3, MPEG-2.2.4, MPEG-2.2.5, MPEG-2.2.9, MPEG-2.2.10, MPEG-2.2.11, MPEG-2.4.1, REU-3.1.1.1, REU-3.1.2.1, REU-3.1.2.2, REU-3.2.2.1, REU-3.2.2.2, REU-3.2.2.3, REU-3.2.3.1, REU-3.2.4.1, REU-3.2.4.2, REU-3.2.4.3, REU-3.2.5.1, REU-3.2.5.4, REU-3.2.5.8, REU-3.2.6.3, REU-3.2.6.4, REU-3.2.7.6, REU-3.2.10.1, REU-3.2.10.2, REU-3.2.11.1, REU-3.3.1.2, REU-3.3.1.3, REU-3.3.1.4, REU-3.3.1.5, REU-3.3.2.1, REU-3.3.2.2, REU-3.3.3.1, REU-3.3.3.2, REU-3.3.3.3, REU-3.3.4.1, REU-3.3.4.2, REU-3.3.4.3, REU-3.3.5.1, REU-3.3.5.2, REU-3.3.7.1, REU-3.3.7.2, REU-3.3.7.3, REU-3.3.7.4, REU-3.3.8.1, REU-3.3.8.2, REU-3.3.8.3, REU-3.3.8.4, REU-3.3.8.5, REU-3.3.8.6, REU-3.3.8.7, REU-3.3.8.8, REU-3.3.8.9, REU-3.3.8.10, REU-3.3.8.13, REU-3.3.9.1, REU-3.5.1.1, REU-3.5.1.2, REU-3.5.2.1, REU-3.5.2.2, REU-3.5.3.1, REU-3.5.3.2, REU-3.5.3.3, REU-3.5.5.1, REU-3.5.6.1, REU-3.5.7.1, REU-3.5.7.3, REU-3.6.1.1, REU-3.6.1.2, REU-M-3.3.1.1, EFF-M-4, EFF-M-5, WS-8, WS-12, WS-13, HL7-1.1, SAM-6, HL7-1.2, HL7-2.1, HL7-2.2, HL7-2.3, HL7-3.1, HL7-3.2, HL7-4.1, EBXML-1.1, EBXML-1.2, EBXML-1.3, EBXML-2.1, EBXML-2.2

R04. Specifying Permissions

The language architecture must allow for the building of expressions of permission based on the expressions of conditions, nouns (permitted, permitted-upon, and permitting), and verbs.

Reference: OEBF-M-2.1.1, OEBF-2.2.8, OEBF-M-2.4.3, OEBF-2.5.1, OEBF-2.6.1, OEBF-2.6.2, OEBF-2.6.3, OEBF-2.6.4, OEBF-2.7.1, OEBF-2.7.1, OEBF-2.7.3, OEBF-2.7.4, OEBF-2.7.5, OEBF-2.7.6, OEBF-2.7.7, OEBF-2.7.8, OEBF-M-2.8.1, OEBF-M-2.8.3, OEBF-M-2.8.4, OEBF-M-2.8.5, OEBF-2.8.9, OEBF-M-2.8.10, OEBF-M-2.8.12, OEBF-M-2.8.13, OEBF-M-2.8.14, OEBF-M-2.8.15, OEBF-M-2.8.17, OEBF-M-2.8.18, OEBF-M-2.9.1, OEBF-M-2.9.2, OEBF-2.9.3, OEBF-2.9.4, OEBF-2.9.5, OEBF-2.9.6, OEBF-2.10.1, OEBF-M-2.11.1, OEBF-2.11.2, OEBF-M-2.11.3, OEBF-M-2.11.4,

OEBF-2.11.5, OEBF-2.12.1, OEBF-2.12.2, OEBF-2.12.3, OEBF-M-2.12.4, OEBF-M-2.13.1, ODRL-2.1.1, ODRL-2.1.5, ODRL-2.2.4, ODRL-2.2.5, ODRL-2.2.6, ODRL-2.2.7, ODRL-2.2.8, ODRL-2.2.9, SBL-M-3, SBL-M-4, SBL-M-5, MPEG-2.1.1, MPEG-2.1.8, MPEG-2.1.10, MPEG-2.1.15, MPEG-2.1.19, MPEG-2.2.2, MPEG-2.2.3, MPEG-2.2.10, MPEG-2.3.9, MPEG-2.5.1, MPEG-2.5.2, MPEG-2.5.3, REU-3.1.1.1, REU-3.1.2.1, REU-3.1.2.2, REU-3.2.1.1, REU-3.2.1.2, REU-3.2.5.1, REU-3.2.5.5, REU-3.2.6.4, REU-3.2.6.5, REU-3.2.7.6, REU-3.2.8.1, REU-3.2.8.4, REU-3.2.8.5, REU-3.2.9.1, REU-3.2.10.1, REU-3.2.10.2, REU-3.2.11.1, REU-3.2.11.2, REU-3.3.1.2, REU-3.3.1.3, REU-3.3.1.4, REU-3.3.1.5, REU-3.3.2.1, REU-3.3.2.2, REU-3.3.3.1, REU-3.3.3.2, REU-3.3.3.3, REU-3.3.4.1, REU-3.3.4.2, REU-3.3.4.3, REU-3.3.5.1, REU-3.3.5.2, REU-3.3.7.1, REU-3.3.7.2, REU-3.3.7.3, REU-3.3.7.4, REU-3.3.8.1, REU-3.3.8.2, REU-3.3.8.3, REU-3.3.8.4, REU-3.3.8.5, REU-3.3.8.6, REU-3.3.8.7, REU-3.3.8.8, REU-3.3.8.9, REU-3.3.8.10, REU-3.3.8.13, REU-3.3.9.1, REU-3.3.10.2, REU-3.3.10.3, REU-3.3.11.1, REU-3.5.4.1, REU-3.5.6.1, REU-3.5.7.1, REU-3.5.7.2, REU-3.5.7.3, REU-3.5.8.1, REU-3.5.8.2, REU-3.6.1.2, REU-M-3.3.1.1, EFF-M-2, EFF-M-4, EFF-M-5, EFF-7, SAM-M-1, SAM-4, SAM-5, SAM-6, WS-4, WS-12, WS-13, HL7-1.1, HL7-1.2, HL7-2.1, HL7-2.2, HL7-2.3, HL7-3.1, HL7-3.2, HL7-4.1, EBXML-1.1, EBXML-1.2, EBXML-2.1, EBXML-2.2, EBXML-2.3

R05. Extensibility

Hooks must be provided in the language architecture for the use of extensions wherever sensible (specifically, at least for Conditions, Verbs, Nouns, R11?, R15?, R17?, R18?).

Reference: OEBF-2.2.3, OEBF-2.2.8, OEBF-2.2.12, OEBF-2.2.14, OEBF-2.6.3, OEBF-2.6.6, OEBF-2.7.5, OEBF-2.7.8, OEBF-M-2.8.10, OEBF-M-2.8.12, OEBF-2.9.3, OEBF-2.9.4, OEBF-2.9.6, OEBF-2.11.2, ODRL-2.1.1, ODRL-2.2.2, ODRL-2.2.3, ODRL-2.2.7, SBL-1, MPEG-2.1.2, MPEG-2.1.6, MPEG-2.1.7, MPEG-2.1.10, MPEG-2.1.16, MPEG-2.1.19, MPEG-2.1.20, MPEG-2.1.21, MPEG-2.2.10, MPEG-2.2.11, MPEG-2.3.1, MPEG-2.3.2, MPEG-2.3.3, MPEG-2.3.4, MPEG-2.3.5, MPEG-2.3.6, MPEG-2.3.7, MPEG-2.4.1, MPEG-2.4.2, MPEG-2.5.1, MPEG-2.5.2, MPEG-2.5.3, REU-3.1.1.1, REU-3.1.1.3, REU-3.1.1.4, REU-3.1.1.6, REU-3.1.2.1, REU-3.1.2.2, REU-3.2.1.3, REU-3.2.1.4, REU-3.2.2.1, REU-3.2.2.2, REU-3.2.2.3, REU-3.2.5.1, REU-3.2.5.2, REU-3.2.5.3, REU-3.2.5.4, REU-3.2.5.7, REU-3.2.5.8, REU-3.2.6.4, REU-3.2.7.1, REU-3.2.7.2, REU-3.2.7.3, REU-3.2.7.4, REU-3.2.7.5, REU-3.2.8.7, REU-3.2.11.2, REU-3.3.3.1, REU-3.3.3.2, REU-3.3.3.3, REU-3.3.6.1, REU-3.3.7.1, REU-3.3.7.2, REU-3.3.7.3, REU-3.3.7.4, REU-3.3.11.1, REU-3.4.3.1, REU-3.5.1.2, REU-3.6.1.1, REU-3.6.1.2, WS-6, WS-7, WS-8, WS-12, WS-13

R06. Machine Readable

Significant semantics must be assigned according to grammatical rules rather than arising from the expression as a whole so that machines can make decisions based on architectural features in the expressions without necessarily reading the entire expression.

Reference: OEBF-2.2.4, MPEG-2.1.9, REU-3.6.2.1

R07. Language Definition

The language must be defined using XML Schema and all defined names must reside in a namespace.

Reference: OEBF-2.2.5, OEBF-2.2.11, ODRL-2.3.1, ODRL-2.3.2, ODRL-2.3.3, ODRL-2.3.4, SBL-2, MPEG-2.1.11, MPEG-2.1.17, REU-3.2.3.1, REU-3.2.4.3, REU-3.2.7.1, REU-3.2.10.1, REU-3.2.10.2, REU-3.2.11.1, REU-3.6.2.1

R08. Well-defined Semantics

Each expression written in the language must have exactly one meaning.

Reference: OEBF-2.2.6, MPEG-M-2.1.5, MPEG-2.1.13, MPEG-2.1.18, MPEG-2.2.11, REU-3.2.5.4, REU-3.6.2.1, HL7-1.3

R09. Roles, Groups, and Attributes

The language must be able to express the permissions for a noun to act in a role, become a member of a group, or assume an attribute.

Reference: OEBF-2.2.9, OEBF-2.6.3, OEBF-2.7.5, OEBF-2.7.8, OEBF-M-2.8.10, OEBF-2.9.6, OEBF-2.11.2, OEBF-M-2.12.4, ODRL-2.1.2, ODRL-2.2.7, MPEG-2.1.2, REU-3.2.6.1, REU-3.2.6.3, REU-3.2.6.4, REU-3.3.1.6, REU-3.3.2.1, REU-3.3.2.2, REU-3.3.4.1, REU-3.3.4.2, REU-3.3.4.3, REU-3.3.7.4, REU-3.4.2.2, REU-3.5.1.1, REU-3.5.1.2, REU-3.5.2.1, REU-3.5.2.2, REU-3.5.3.1, REU-3.5.3.2, REU-3.5.3.3, REU-3.5.6.1, REU-3.5.7.1, REU-3.5.7.3, REU-3.6.1.1, REU-M-3.3.1.1, EFF-M-5, EFF-M-6, EFF-7, WS-1, WS-6, HL7-2.1, HL7-2.2, HL7-2.3, HL7-3.2, HL7-4.1, EBXML-1.2, EBXML-1.3, EBXML-2.1

R10. Syntax Does Not Impart Semantics

The semantics of the language must not depend on the natural-language meaning of any name defined in the schema.

Reference: OEBF-2.2.13, ODRL-2.2.1, SBL-1, MPEG-2.1.3

R11. Collections of Conditions, Nouns, and Verbs

The language architecture must allow for the building of a concise expression of an arbitrarily large and potentially infinite number of permissions where that collection of permissions is related to one or more arbitrarily large and potentially infinite collections of conditions, nouns, or verbs.

Reference: OEBF-2.4.1, ODRL-2.1.2, MPEG-2.1.21, REU-3.2.2.1, REU-3.2.2.2, REU-3.2.2.3, REU-3.2.5.1, REU-3.2.5.2, REU-3.2.5.3, REU-3.2.5.7, REU-3.2.6.1, REU-3.2.6.2, REU-3.2.6.4, REU-3.2.7.5, REU-3.3.1.6, REU-3.3.2.1, REU-3.3.2.2, REU-3.3.4.1, REU-3.3.4.2, REU-3.3.4.3, REU-3.3.8.8, REU-3.4.2.2, REU-3.5.1.2, REU-3.5.2.1, REU-3.5.2.2, REU-3.5.3.1, REU-3.5.3.2, REU-3.5.3.3, REU-3.5.6.1, REU-

3.5.7.1, REU-3.5.7.3, REU-3.6.1.1, REU-M-3.3.1.1, SAM-3, WS-2, WS-3, HL7-2.1, HL7-2.2, HL7-2.3, HL7-3.2, HL7-4.1, EBXML-1.1, EBXML-1.2

R12. Ability to Increase Permissions by Increments of One

For any (potential) expression in the language that expresses a single permission together with other permissions, there must be another (potential) expression in the language that expresses that same single permission together with no other permissions.

Reference: OEBF-2.5.1, MPEG-2.1.10, MPEG-2.1.22, REU-3.2.5.5, REU-3.2.6.5, REU-3.3.5.3, REU-3.3.10.5

R13. Permission to Permit

The language must be able to express the permission for a noun to be the permitting noun in another selected permission.

Reference: OEBF-2.7.3, OEBF-M-2.8.4, OEBF-M-2.8.5, OEBF-2.8.6, OEBF-2.8.7, OEBF-2.8.8, OEBF-M-2.11.1, OEBF-M-2.11.3, ODRL-2.2.9, MPEG-2.1.8, MPEG-2.1.21, MPEG-2.2.10, REU-3.1.2.1, REU-3.1.2.2, REU-3.2.2.1, REU-3.2.2.2, REU-3.2.2.3, REU-3.2.5.1, REU-3.3.10.2, REU-3.3.10.4, REU-3.5.5.1, WS-5, HL7-2.2, HL7-2.3, EBXML-2.2

R14. Permission to Acquire Permissions

The language must be able to express the permission for a noun to acquire (through a certain procedure) a selected expression of permission.

Reference: OEBF-M-2.8.11, OEBF-M-2.8.14, OEBF-2.11.2, OEBF-M-2.11.4, OEBF-2.11.5, OEBF-M-2.12.4, ODRL-2.1.5, ODRL-2.2.6, MPEG-2.1.8, REU-3.2.8.4, REU-3.2.8.5, REU-3.2.9.1, REU-3.3.10.2, REU-3.3.10.4, REU-3.3.11.1

R15. Security Features

The language should make standard security features available where appropriate (for example, XML Digital Signature Syntax and Processing and XML Encryption Syntax and Processing).

Reference: OEBF-M-2.8.13, OEBF-M-2.13.2, MPEG-2.1.12, MPEG-2.2.7, MPEG-2.2.8, REU-3.2.10.1, REU-3.2.10.2, REU-3.2.11.1, REU-3.3.1.2, REU-3.3.1.6, REU-3.5.1.1, REU-3.5.1.2, REU-3.5.2.1, REU-3.5.2.2, REU-3.5.3.1, REU-3.5.3.2, REU-3.5.3.3, REU-3.5.5.1, REU-3.5.8.2, WS-12, WS-13, HL7-3.2

R16. Permissions Exercisable Offline

The language architecture must allow some expressions in the language (and future extensions) to express permissions that can be exercised without being connected.

Reference: OEBF-M-2.9.5

R17. Revocation

The language must indicate which permissions are subject to possible revocation and how that revocation should be discovered if it were to occur.

Reference: OEBF-M-2.11.1, OEBF-M-2.11.3, ODRL-2.2.9, MPEG-2.1.10, MPEG-2.3.8, REU-3.2.8.2, REU-3.2.8.3, REU-3.2.8.6, WS-9

R18. Revoke

The language must be able to express the permission to revoke the permissions in a selected expression.

Reference: OEBF-M-2.11.1, OEBF-M-2.11.3, ODRL-2.2.9, MPEG-2.1.10, MPEG-2.3.8, REU-3.2.8.2, REU-3.2.8.3, WS-9, EBXML-2.2

R19. The Unauthenticated User (Identity Not Required)

The language must be able to express permissions where the permitted noun is the noun without identity.

Reference: OEBF-M-2.12.4

R20. Reference to Frequently Used Expression Fragments

The language architecture should allow for references to frequently used expression fragments in order to reduce repetition and associated license size.

Reference: ODRL-2.3.5, MPEG-2.1.22, REU-3.3.5.3

R21. The Multi-authenticated User (More Than One Identity Required)

The language must be able to express permissions where the permitted noun is a noun with more than one identity.

Reference: ODRL-2.3.6, REU-3.2.6.4, REU-3.3.10.4, REU-3.5.5.1

R22. Multiple Conditions

The language must be able to express permissions involving more than one condition.

Reference: ODRL-2.3.6, MPEG-2.5.1, REU-3.2.5.1, REU-3.2.6.4, REU-3.2.6.5, REU-3.3.10.3, REU-3.5.5.1, HL7-2.3, EBXML-2.3

R23. Multiple Permissions

When expressing permissions to permit (see R13), the language must be able indicate a permission to permit, but only if all in one expression, an arbitrarily large and potentially infinite collection of permissions. Such indication must clearly disambiguate this case from the case of a permission to permit only a single permission out of an arbitrarily large and potentially infinite collection of permissions.

Reference: ODRL-2.3.6, MPEG-2.1.8, MPEG-2.1.21, MPEG-2.2.10, REU-3.1.2.1, REU-3.1.2.2, REU-3.2.2.1, REU-3.2.2.2, REU-3.2.2.3, REU-3.2.5.1, REU-3.3.10.2, REU-3.5.5.1, EFF-7, WS-10, WS-11, HL7-3.2, EBXML-2.2

R24. Ready to Be Profiled

The language specification must not require any system to support any expression in the language. Note that the language specification may still specify the semantics of an expression in the language, should a system choose to support it; in fact, this is a requirement (see R08).

Reference: MPEG-2.1.7, MPEG-2.1.22, REU-3.3.5.3

R25. Permissions Conditional Upon Permissions

The language must be able to express a condition upon the existence of an expression of other permissions in the language. The language must also be able to express a condition upon the exercise of other permissions.

Reference: MPEG-2.1.21, REU-3.2.2.1, REU-3.2.2.2, REU-3.2.2.3

R26. Unconditional Permissions

The language must allow for the building of permissions that are unconditional.

Reference: REU-3.3.11.1

Rights Language Standard Extension Requirements

SX01. Extensibility

Hooks must be provided in the language for the use of extensions wherever it is worthwhile and sensible to extend the standard extension rather than extending the core.

Reference: OEBF-2.2.3, OEBF-2.2.8, OEBF-2.2.12, OEBF-2.2.14, OEBF-2.6.3, OEBF-2.6.6, OEBF-2.7.5, OEBF-2.7.8, OEBF-M-2.8.10, OEBF-M-2.8.12, OEBF-2.9.3, OEBF-2.9.4, OEBF-2.9.6, OEBF-2.11.2, ODRL-2.1.1, ODRL-2.2.2, ODRL-2.2.3, ODRL-2.2.7, SBL-1, MPEG-2.1.2, MPEG-2.1.6, MPEG-2.1.7, MPEG-2.1.10, MPEG-2.1.16, MPEG-2.1.19, MPEG-2.1.20, MPEG-2.1.21, MPEG-2.2.10, MPEG-2.2.11, MPEG-2.3.1, MPEG-2.3.2, MPEG-2.3.3, MPEG-2.3.4, MPEG-2.3.5, MPEG-2.3.6, MPEG-2.3.7, MPEG-2.4.1, MPEG-2.4.2, MPEG-2.5.1, MPEG-2.5.2, MPEG-2.5.3, REU-3.1.1.1, REU-3.1.1.3, REU-3.1.1.4, REU-3.1.1.6, REU-3.1.2.1, REU-3.1.2.2, REU-3.2.1.3, REU-3.2.1.4, REU-3.2.2.1, REU-3.2.2.2, REU-3.2.2.3, REU-3.2.5.1, REU-3.2.5.2, REU-3.2.5.3, REU-3.2.5.4, REU-3.2.5.7, REU-3.2.5.8, REU-3.2.6.4, REU-3.2.7.1, REU-3.2.7.2, REU-3.2.7.3, REU-3.2.7.4, REU-3.2.7.5, REU-3.2.8.7, REU-3.2.11.2, REU-3.3.3.1, REU-3.3.3.2, REU-3.3.3.3, REU-3.3.6.1, REU-3.3.7.1, REU-3.3.7.2, REU-3.3.7.3, REU-3.3.7.4, REU-3.3.11.1, REU-3.4.3.1, REU-3.5.1.2, REU-3.6.1.1, REU-3.6.1.2, WS-6, WS-7, WS-8, WS-12, WS-13

SX02. Machine Readable

Significant semantics must be assigned according to grammatical rules rather than arising from the expression as a whole so that machines can make decisions based on architectural features in the expressions without necessarily reading the entire expression.

Reference: OEBF-2.2.4, MPEG-2.1.9, REU-3.6.2.1

SX03. Language Definition

The language must be defined using XML Schema and all defined names must reside in a namespace.

Reference: OEBF-2.2.5, OEBF-2.2.11, ODRL-2.3.1, ODRL-2.3.2, ODRL-2.3.3, ODRL-2.3.4, SBL-2, MPEG-2.1.11, MPEG-2.1.17, REU-3.2.3.1, REU-3.2.4.3, REU-3.2.7.1, REU-3.2.10.1, REU-3.2.10.2, REU-3.2.11.1, REU-3.6.2.1

SX04. Well-defined Semantics

Each expression written in the language must have exactly one meaning.

Reference: OEBF-2.2.6, MPEG-M-2.1.5, MPEG-2.1.13, MPEG-2.1.18, MPEG-2.2.11, REU-3.2.5.4, REU-3.6.2.1, HL7-1.3

SX05. Syntax Does Not Impart Semantics

The semantics of the language must not depend on the natural-language meaning of any name defined in the schema.

Reference: OEBF-2.2.13, ODRL-2.2.1, SBL-1, MPEG-2.1.3

SX06. Time-based Conditions

The language must be able to express conditions on time. Examples include fixed, floating, and metered intervals.

Reference: OEBF-2.6.2, OEBF-2.8.7, MPEG-2.4.1, REU-3.2.8.1, REU-3.2.11.2, REU-3.3.7.1, REU-3.3.7.2, REU-3.4.1.1, REU-3.4.1.2, REU-3.6.1.2

SX07. Count-based Conditions

The language must be able to express conditions on counters. Examples include number of exercises.

Reference: OEBF-2.6.5, OEBF-2.8.6, MPEG-2.4.1, MPEG-2.4.2, REU-3.2.8.7, REU-3.2.11.2, REU-3.6.1.2

SX08. One-time Fee Condition

The language must be able to express a condition on the payment of a one-time fee.

Reference: OEBF-2.6.6, OEBF-2.7.1, OEBF-2.7.5, OEBF-2.7.8, OEBF-M-2.8.3, MPEG-2.4.1, MPEG-2.5.1, REU-3.2.11.2, REU-3.3.2.2, REU-3.3.11.1, REU-3.6.1.2

SX09. Fee-per-exercise Condition

The language must be able to express a condition on the payment of a fee for a particular exercise.

Reference: OEBF-2.6.6, OEBF-2.7.1, OEBF-2.7.3, OEBF-2.7.4, OEBF-2.7.5, OEBF-2.7.8, OEBF-M-2.8.3, MPEG-2.4.1, MPEG-2.5.1, REU-3.2.11.2, REU-3.3.2.2, REU-3.3.11.1, REU-3.6.1.2

SX10. Time-based Pricing

The language must be able to express a condition on the payment of a fee for a period of time (for all exercises that may occur during that time) or the payment of a fee for a period of time for a particular exercise.

Reference: OEBF-2.6.6, OEBF-2.7.5, OEBF-2.7.6, OEBF-2.7.7, OEBF-2.7.8, OEBF-M-2.8.3, MPEG-2.4.1, MPEG-2.5.1, REU-3.2.11.2, REU-3.3.2.2, REU-3.3.11.1, REU-3.6.1.2

SX11. Ready to Be Profiled

The language specification must not require any system to support any expression in the language. Note that the language specification may still specify the semantics of an expression in the language, should a system choose to support it; in fact, this is a requirement (see SX04).

Reference: MPEG-2.1.7, MPEG-2.1.22, REU-3.3.5.3

SX12. Territory Conditions

The language must be able to express conditions on location. Examples include physical regions, countries, and digital domains.

Reference: MPEG-2.4.1, REU-3.2.11.2, REU-3.4.2.1, REU-3.4.2.2

SX13. Tracking

The language must be able to express conditions on the reporting of usage information.

Reference: MPEG-2.5.1, REU-3.2.1.4, REU-3.2.11.2, REU-3.3.2.1, REU-3.3.2.2, REU-3.5.4.1, REU-3.6.1.2

SX14. Rights Sequencing

The language must be able to express conditions on previously reported exercises.

Reference: REU-3.2.1.4, REU-3.2.11.2, REU-3.6.1.2

SX15. Permission Conditional Upon Approval for Each Exercise

The language must be able to express conditions upon obtaining approval for a specific exercise.

Reference: REU-3.3.10.5

Rights Language Governance Requirements

G01. Backward-compatible Revisions

The governance of the language must provide for corrections and backward-compatible feature additions.

Reference: OEBF-M-2.2.2

G02. Coordination

The rights language shall be specified, documented, and otherwise managed in a way that meets general coordination requirements of industry standards.

Reference: OEBF-2.2.7, MPEG-2.6.1, REU-3.1.1.5