The 2022 Revision of the PREMIS Rights Entity

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**Abstract – As digital preservation practice has matured, our understanding of what is covered by the Rights landscape broadened significantly. However, the Rights entity in the PREMIS data model has not kept pace with these changes, undergoing only minor revisions. In 2019, the PREMIS Editorial Committee formed a working group on Rights to review how the entity could be changed to better reflect the evolving use cases of our community. The initial phase of this work has involved gathering use cases in order to perform a gap analysis with the current definition of Rights within the PREMIS model. Ahead of an official White Paper describing the scope of the revisions to be considered, this paper presents a discussion of the use cases that have informed this work, and the gaps we have identified, before briefly outlining the next steps to be taken.**

**Keywords – PREMIS, Rights, Datamodel**

**Conference Topics – Community**

# Introduction and background

With the revision in version 3.0 in 2015 [1], Rights in PREMIS underwent a minor revision to align it more with community needs. During the work to create the PREMIS OWL Ontology [2], which was released in 2018, the Editorial Committee determined that additional work was needed for the Rights part of PREMIS to better serve the community needs.

The Rights entity in version 2 was designed to support the “assertion” of the rights basis for the repository to perform preservation actions, and therefore offers 4 mutually exclusive options for a *rightsBasis*, in combination with a semantic unit to define the actions for which rights have been granted (possibly with restrictions). As digital preservation practice has matured over time, the usage of Rights has broadened.

Within digital archives it is often necessary to capture many different types of rights as well as their changes over time. In addition to the right to preserve an object, aspects such as copyrights and usage rights form relevant information for OAIS-based processes. Knowledge such as “am I allowed to migrate this object” needs to be connected to each object in an archive in order to allow for automated preservation processes. In support of provenance and chain of custody it also becomes essential to capture the history of rights information, and there may be a need to document rights to perform actions that are not strictly defined as preservation. An example of this is access to archived objects on the basis of pre-defined trigger events. Here, the archive might be obliged to prove during which time a trigger event took place and that access to an object was granted under this right. There is also a need to cover not only granted rights but also obligations that the repository is committed to.

As seen in these examples, the rights landscape for digital objects is not a simple one. While PREMIS allows for a connection of rights, agents and events to objects, questions have been raised about whether the data model sufficiently supports the complexity of objects which are subject to multiple restrictions and rules, more than one rights holder, internal users that have different roles, uncertain expiration dates, a range of different trigger events, documenting the outcomes of rights reviews, and so on.

In September 2019, a working group was formed to address the issue of Rights in PREMIS. The first assignment for the working group was to define the scope of the project and the issues to be resolved. For this, the group collected use cases from their respective institutions. These use cases form the basis of current work and are presented in the next section before briefly concluding this short paper with an outlook on further work. The use cases articulate new assertions that a future revision of the Rights Entity would express more precisely. These will be discussed within the PREMIS Editorial Committee and with the digital preservation community on whether they have to be adopted within the scope of a future version of PREMIS.

# use cases group 1: Documenting Obligations and ‘target’ Agents

The first version of PREMIS limited the Rights Entity to expressing **permissions held by an Agent and granted to the digital preservation system**. Thus the only two different assertions that the Rights Entity allowed in PREMIS 1 were:

“Agent A holds this right to Object B” and “Agent A grants [the repository] this permission related to Object B.” [3].

PREMIS 2 introduced the option to define prohibition as a restriction in relation to a granted right, e.g., an embargo is seen as a restriction on dissemination for X years before it is allowed. Nevertheless, restrictions were limited to a free-text, human-readable description in a restriction semantic unit. Moreover, the term “restriction” seems very specific for some use cases where a condition has to be in place in order for the repository to be allowed to do something.

The following examples illustrate the needs of some users to express:

* An “obligated condition” or in other words an obligation;
* The ‘target’ Agent of a Rights rule (to whom the rule applies). In particular, the Agent would not always be implicitly the repository. It could be a human or software Agent. As such it might be part of the repository, but doesn’t have to be;
* The restrictions / conditions of a rule in a machine-actionable way, be it a permission or an obligation; possibly in a metadata schema other than PREMIS.

## Example 1: Service Level Agreements Between Producer and Archive

BnF and its Producers negotiate service level agreements, defining among other things the storage media type, the transfer mode, the SIP’s maximum size, etc. These commitments can be defined in terms of permissions (ingest) under a certain restriction (e.g. only to submit packages from Monday to Friday, 8 am to 8 pm). Part of the agreement may well be certain overall obligations (e.g., to perform yearly fixity audits). The PREMIS schema should in this case not only support restrictions, but also obligations that go with the granted right.

To support this example, PREMIS should be able to express with sufficient precision the following assertions (non-comprehensive list):

* SLAs (*rightsStatement*), based on a contract (*rightsBasis*), allow Agents P (‘target’ Agents) to transfer Objects [to Agent Z] provided that the maximum number of files is N files, whose format should be either F, G or H.
* SLAs (*rightsStatement*) obliges Agent Z (‘target Agent’) to perform preservation actions such as annual audits, characterization and filename change, on Object O, and to store three copies of Object O, one of them on disk, and the two others on magnetic tape.

## Example 2: Format and Tool Policies

BnF needs to specify the relationship between the format and its associated tools (characterization, validation, rendering, migration, etc.). Describing and publishing its format policies (e.g., this Object must be analyzed by this software Agent, migrated by this other tool, etc.) would help sharing and discussing good practices of preservation operations. This provides another example of obligations in relation to the permission to a preservation action on a certain format.

Note that there is currently no way to specify a relationship between the Object format and the Rights Entity in PREMIS. This means that the obligation to perform an action on a certain Object cannot be related in a standard way to the fact that the Object is of format X.

To support this example, PREMIS should be able to express with sufficient precision the following assertions:

* Format policies (*rightsStatement*) based on an institutional policy (*rightsBasis*) obliges Agent A to perform the following actions:
  + Characterizing Object O’ with tool T [because of its format I];
  + Normalizing Object O’ with tool U [because of its format I];
  + Validating Object O’ with tool V [because of its format I].

## Example 3: Access and Use Embargo

At the U.S. National Archives (NARA), a "72-Year Rule" restricts access to United States decennial census records to all but the individual named on the record or their legal heir. Congressional/ Legislative records can have 20, 30, and 50-year embargos. The repository requires item-level metadata indicating these access and use restrictions relating to permanent records based on federal statutes.

This example shows the impact of extending the scope of the Rights entity from granting a preservation action to giving access for reuse. To support this example, PREMIS should be able to express with sufficient precision the following assertions:

* Access rules (*rightsStatement*) based on a statue (*rightsBasis*) grants the repository to perform the following actions:
  + Give access to the census record to any other individual provided (*Restriction*) the expiration of the 20/30/50/72-year embargo periods;
  + Give access to the census record to the individual Q named in the record (‘target’ Agents).

# Use cases group 2: Different levels of conditional rights

Rights can be tied to specific temporal or spatial conditions. And at a certain point in time separate *rightsStatements* may have a different outcome on whether an action is granted or prohibited. These different *rightsStatements* have to be assessed on their mutual outcome. And this may need to be re-assessed whenever a change in conditions is triggered.

The following examples illustrate the needs of some users to express:

* the order in a stack of Rights;
* the way a change in conditions can cause one rule to overtake another rule.

## Example 1: License to lift copyright, given a specific time or context

At the Netherlands Institute for Sound and Vision, the audio-visual collection is largely copyrighted, and the rights have to be cleared by the producer (often a broadcast company) before giving access for re-use to the materials. In that case the broadcast company provides a license for re-use for a specific period in time in a specific context.

To support this example, PREMIS should be able to express with sufficient precision the following assertions:

* Copyright law (*rightsBasis*) prohibits any representation, reuse and copy of Object O.
* A license (*rightsBasis*) allows re-use under some circumstances and takes precedence over the copyright law.

## Example 2: Privacy Rights

At the Netherlands Institute for Sound and Vision, regardless of the fact that most material is protected under copyright, Dutch national legislation has given the repository the rights basis for showing the material to the public on the premises of the repository. It has therefore created a public museum. Even so, all programs that are shown in the museum need to be screened on possible privacy and ethical issues. This is to prevent claims from persons that are being depicted on the program and may in some way be offended by it. This adds a fourth level of rights, adding up: copyright, licensing, statute and privacy (other rights).

In addition to the assertions mentioned in III. A. above, PREMIS should be able to express with sufficient precision the following assertions:

* National legislation (statute *rightsBasis*) allows the Archive to visualize Object O in the institution's premises (condition).
* The national legislation takes precedence over the copyright law.
* Privacy laws and institutional policy (statute *rightsBasis*) prevent the Archive to visualize Object O. and takes precedence over any other applicable rights basis.

## Example 3: Changing rights on trigger

TIB - as well as many other institutions or services who archive materials like e-journals - gives access to some content only when specific conditions are met. The submission agreement and legal contract between the digital archive (in this use case: TIB) and the depositor (in this use case: a publisher) define trigger events which need to be met in order for the materials to be made available under different usage rights. An example can be a publication that is archived under all-rights reserved. If the publisher’s website, through which subscription based access is usually granted, becomes unavailable for e.g. 90 days, TIB has the right to make the content available through its own website. In some cases content may only be triggered for a specific period (e.g., while the publishing website is down for a specific duration). Each trigger event is tied to a set of rights which are either active or inactive based on whether conditions connected to the rights are met or not. It is the digital archive’s responsibility to keep an audit trail of which right was active during which time periods and for what reason - this includes past and present rights as well as the documentation of future rights in their connection to trigger events.

To support this example, PREMIS should be able to express with sufficient precision the following assertions:

* Usage right 1 (*rightsStatement*) based on contractual agreement with publisher (license *rightsBasis*) prevents the Repository from publishing Object O;
* Usage right 2 (*rightsStatement*) based on a contractual agreement with publisher (license *rightsBasis*) goes into effect when trigger event conditions (*Restrictions*) are met. It allows the repository to publish Object O as long as the condition is met;
* The history right 1 and 2 being effective over time is been documented;
* An Event of type ‘unavailability report’ is recorded which relates to rights 1 and 2.

# Use cases group 3: Reviewing Rights Status and Documenting Outcomes

Cultural heritage institutions are familiar with restrictions put in place by contract (donor agreements) or under Copyright protections, but restrictions may also be put in place by executive order, legislation, government regulations, or security classification. These can affect not just access and use, but the ability for staff to view objects and take preservation actions on them.

Regardless of the source of the restrictions, those restrictions must be reviewed, documenting the results of those restrictions to make them machine-actionable for integration into preservation systems. PREMIS should be able to link an Object to multiple review Events, each with a review type, a review date, and properties that specify what triggered the review, the outcome of the review, and which rights have been changed and applied to all or part, which also link to rights statement in the Rights entity. The rights basis may reflect multiple statutes or classifications that apply simultaneously to all or part of the content; reviews correspond to the restrictions put in place by those statutes or classification. Review outcomes may refer to subsections of an object, and the review events will accrue over time, resulting in a situation where the current status must be programmatically determined.

This may also potentially apply to the review of Copyright or contractually restricted objects, although such objects are less likely to have multiple reviews or partial restrictions. These use cases have a strong dependency on the use cases on accumulating rights.

## Example 1: Restriction by Regulation

Local, State, or Federal government records may have restrictions put in place by executive order, legislation, or regulation, where the rights basis is Statute. This is not limited to access rights, but can also apply to the staff of the custodial organization, limiting the staff who are allowed to perform preservation actions or even view the records. These are restrictions on preservation storage (restricted, secured servers), as well as restrictions on staff who may interact with the records, which are in force simultaneously with the granting of preservation action rights in rights granted. The U.S. National Archives (NARA) must enforce restrictions for the records in its holdings that can fall under several simultaneous statutes, and may be reviewed for release several times.

To support this example, PREMIS should be able to express with sufficient precision the following assertion:

* Access right 1 (*rightsStatement*) granting access to Object O, to user U (‘target’ Agent), provided user U has role K

## Example 2: Restriction by Security Classification

At The U.S. National Archives (NARA), an object that is restricted due to national security concerns can have both Classified and Unclassified content at the same time, with the status applying to different sections of the object. The classification may also be assigned by multiple agencies as Agents. When the NARA reviews objects for declassification and release, they may be released in part or in full, or not released at all. Redactions to the objects when released are marked with a Redaction Code: additional metadata that identifies the statute(s) under which the information remains redacted. Multiple review Events will be performed over time, the history of which must be retained.

To support this example, PREMIS should be able to express with sufficient precision the following assertion:

* Multiple Rights Entities, each representing a classification (*rightsStatement*) and linking the agency M that has imposed it;
* An Event of type ‘review classification’ is recorded for Object O, specifying the classifications that have been under review;
* The outcome of the review for Object O is documented with dates and restrictions that are fully or partially lifted.

# Outlook and further work

The next step for this working group will be the publication of a draft White Paper accompanied by a request for feedback from the community. This will help us to define the final scope of the project.

All proposals and changes for the Data Dictionary within scope will be considered by the PREMIS Rights Working Group. The Working Group will put forward the proposals to the Editorial Committee for review of major decisions. These will be published and open for comments

After closing the community review, all comments will be evaluated and a final proposal will be presented to the Editorial Committee.

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