

PREMIS Data Dictionary for preservation metadata

June 2015 – Revised November 2015

**Prepared and maintained by the
PREMIS Editorial Committee**

**PREMIS Data Dictionary for preservation metadata , June 2015 – Revised
November**

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INTRODUCTION

The PREMIS Data Dictionary is a comprehensive, practical resource for implementing preservation metadata in digital preservation systems. The Data Dictionary defines preservation metadata that

- Supports the viability, renderability, understandability, authenticity, and identity of digital objects in a preservation context;

- Represents the information most preservation repositories need to know to preserve digital materials over the long term;

- Emphasizes “implementable metadata”: rigorously defined, supported by guidelines for creation, management, and use, and oriented toward automated workflows; and,

- Embodies technical neutrality: no assumptions made about preservation technologies, strategies, metadata storage and management, etc

Attributes

Introduction

Attributes are associated with most of the elements contained in EAD. Attributes reflect named properties of an element and may take on different values, depending on the context in which they occur. In order to set one or more attributes, an encoder should include the name of the attribute(s) within the same angle brackets as the start tag, together with the value(s) to which the attribute(s) is/are to be set. That is, `<[tag] [attribute]="[value]">` or `<[tag] [attribute1]="[value1]" [attribute2]="[value2]">`

For example:

```
<unitdate unitdatatype="inclusive">1937-1992</unitdate>
```

or

```
<unitdate unitdatatype="inclusive" normal="1937/1992">1937-1992 </unitdate>
```

Most attributes are optional, though some are required. The attribute description indicates whether an attribute is required. This information is also available in the Attributes section of each element description.

The value of attributes may be constrained by the schema using specific attribute type values. For example, `@id` attribute is of type ID, which constrains its value to a string beginning with an alphabetic character. An `@id` value must be unique within the EAD instance within which it occurs, that is, no other tag in the entire document can have the same `@id` value. EAD attributes have the following data types:

anyURI:

A Uniform Resource Identifier. This may be a Uniform Resource Locator (URL) or a Uniform Resource Name (URN). Both relative and absolute URIs are allowed.

ENTITY:

The name of a nonparsed entity that has been declared in the declaration subset of the document. For example, `@entityref` must contain the name of an entity that has been declared in the declaration subset. Processing software can use the reference to the nonparsed entity to display the entity in the body of the text or in a new window.

ID:

Unique identifier. For example, most elements have an `@id`, so that a unique code can be established for and used to refer to that specific element. The content of the `@id` is of the type called "ID". Parsers verify that the value of attributes of type "ID" are unique. The values of `@id` must begin with an alpha, not numeric, character, either upper or lowercase, and may contain a . (period), : (colon), - (hyphen), or _ (underscore), but not a blank space. See also attributes of type "IDREF."

Capitalization of data types follows the documentation found in the W3C Recommendation XML Schema Part 2: Datatypes Second Edition (<http://www.w3.org/TR/xmlschema-2/>).

IDREF:

ID reference value; must match an existing ID of another element in the document. For example, the <ptr> element has a @target attribute that can only be an "IDREF," which means it has to reference a valid ID in another element.

IDREFS:

List of ID reference values.

NMTOKEN:

A name token, which can consist of any alpha or numeric character, as well as a . (period), : (colon), - (hyphen), or _ (underscore), but not a blank space. A number of attributes in EAD where a character string from a code list is to be used are of the type "NMTOKEN".

string:

The most general data type, a string can contain any sequence of characters allowed in XML. Certain characters may have to be represented with an entity reference, for example < for <, and & for &.

token:

A type of string that may not contain carriage return, line feed or tab characters, leading or trailing spaces, and any internal sequence of two or more spaces.

The attribute value definitions in the DTD versions of EAD3 differ slightly from those of the Relax NG and W3C Schema versions. The DTD has a limited set of attribute types so the anyURI, token, and string data types were converted to "CDATA" (i.e. Character Data).

When the EAD schema limits attribute values to a few choices, those values are declared in the schema in what is known as a "closed list." For example, the values of @audience are limited to either "external" or "internal." Other attributes are associated with semi-closed lists. Such lists include those values believed to be the most useful in many contexts, but other values are allowed. For example, <dsc> defines several values for @dsctype, including "otherdsctype" which may be used with @otherdsctype to specify values that are not in the semi-closed list for @dsctype. The definitions for some values in the closed and semi-closed lists appear below.

The following is a complete list of all the attributes that occur in EAD, and some discussion of how they may be used. Further, context-specific information about the use of certain attributes may be found in the "Attribute usage" section of the element descriptions.

@abbr **Abbreviation** (Table of Contents)

| | |
|------------|---|
| Summary: | An abbreviation for a word or phrase that is expressed in an expanded form in the text of the current element; used for searching and indexing purposes. Available only in <exp>. |
| Data Type: | token |

Elements

<abbr> Abbreviation (Table of Contents)

| | | |
|---------------------|---|--|
| Summary: | An element for encoding the shortened form of a word or phrase. | |
| May contain: | [text] | |
| May occur within: | abstract, addressline, archref, author, bibref, citation, container, conventiondeclaration, date, datesingle, didnote, dimensions, edition, emph, entry, event, fromdate, head, head01, head02, head03, item, label, localtypeddeclaration, materialspec, num, p, part, physdesc, physfacet, physloc, publisher, quote, ref, sponsor, subtitle, titleproper, todate, unitdate, unitid, unittitle | |
| Entity information: | <p>Used to record the abbreviated form of a word or phrase, for example, an acronym.</p> <p>Use <abbr> within <conventiondeclaration> to identify the code for a thesaurus, controlled vocabulary, or another standard used in creating the EAD description. To improve interoperability, it is recommended that the value be selected from an authorized list of codes such as the MARC Description Convention Source Codes (http://www.loc.gov/standards/sourcelist/descriptive-conventions.html).</p> <p>In other elements, use <abbr> with @expan to encode abbreviations as they occur within the description, if you wish to use an abbreviation while also providing its fuller form.</p> | |
| Attributes: | altrender audience expan id lang script | Optional Optional (values limited to: external, internal) Optional Optional Optional Optional |
| Availability: | Within <conventiondeclaration>: Optional, not repeatable Within other elements: Optional, repeatable | |
| Examples: | <conventiondeclaration> <abbr> ISAD(G) </abbr> <citation>ISAD(G): General International Standard Archival Description, second edition, Ottawa 2000</citation> </conventiondeclaration> <didnote>File also contains materials from the | |

```
<abbr expan="American Civil Liberties Union">
  ACLU </abbr>
</didnote>
<c02>
  <did>
    <unittitle>
      <abbr expan="United Nations Educational,
        Scientific and Cultural Organization"> UNESCO
      </abbr>
    </unittitle>
    [. . .] </did>
  </c02>
```

Semantic unit **objectIdentifier** (Table of Contents)

Semantic components: objectIdentifierType, objectIdentifierValue

Definition: A designation used to identify the Object uniquely within the preservation repository system in which it is stored.

Entity information: **Intellectual Entity / Representation**

| | |
|---------------|------------|
| Applicability | Applicable |
| Obligation | Mandatory |
| Repeatability | Repeatable |

Example

1. IE / Representation example

PREMIS File

| | |
|---------------|------------|
| Applicability | Applicable |
| Obligation | Mandatory |
| Repeatability | Repeatable |

Example

1. File example

PREMIS Bitstream

| | |
|---------------|------------|
| Applicability | Applicable |
| Obligation | Mandatory |
| Repeatability | Repeatable |

Example

1. Bitstream example

Rationale: Description you can use <to_get_anglebrackets>

Each Object held in the preservation repository must have a unique identifier to allow other entities to refer to it and to relate it to descriptive, technical, and other metadata unambiguously.

Data Type: Container.

Creation/Maintenance notes: An identifier may be created by the repository system at the time of ingest, or it may be created or assigned outside of the repository and submitted with an object as metadata.

Similarly, identifiers can be generated automatically or manually.

Usage notes:

The objectIdentifier is mandatory for all Objects stored.

The objectIdentifier is repeatable in order to allow both repository assigned and externally-assigned identifiers to be recorded. See “Creation/Maintenance” note above.

Primary identifiers must be unique within the repository. They may be preexisting, and in use in other digital object management systems. Ideally, secondary identifiers should also be unique but sometimes this is not possible (e.g., if the values are inherited from a legacy system which did not enforce this or only identified items at a higher level). Identifiers for each item must be sufficient to identify the item uniquely at the appropriate level of aggregation. For example, an Intellectual Entity that represents all books in the same edition could use an ISBN but this would be insufficient to identify a particular copy of that book.

A preservation repository needs to know both the type of object identifier and the value. If the value itself contains the identifier type (e.g., “oai:lib.uchicago.edu:1”), the identifier type does not need to be recorded explicitly. Similarly, if the repository uses only one type of identifier, the type can be assumed and does not need to be recorded.

Semantic unit **objectIdentifierType** (Table of Contents)

Definition: A designation of the domain within which the object identifier is unique.

Entity information: **Intellectual Entity / Representation**

| | |
|---------------|----------------|
| Applicability | Applicable |
| Obligation | Mandatory |
| Repeatability | Not-repeatable |

Examples

- | | |
|----|----------------------------|
| 1. | ISBN (Intellectual Entity) |
| 2. | DOI (Intellectual Entity) |
| 3. | DLC |
| 4. | DRS |
| 5. | hdl:4263537 |

PREMIS File

| | |
|---------------|----------------|
| Applicability | Applicable |
| Obligation | Mandatory |
| Repeatability | Not-repeatable |

Examples

- | | |
|----|-------------|
| 1. | DLC |
| 2. | DRS |
| 3. | hdl:4263537 |

PREMIS Bitstream

| | |
|---------------|------------|
| Applicability | Applicable |
| Obligation | Mandatory |
| Repeatability | Repeatable |

Examples

- | | |
|----|-------------|
| 1. | DLC |
| 2. | DRS |
| 3. | hdl:4263537 |

Rationale: Description you can use <anglebrackets>

Identifier values cannot be assumed to be unique across domains; the combination of <objectIdentifierType> and <objectIdentifierValue> should ensure uniqueness.

| | |
|--------------|---|
| Data Type: | Value should be taken from a controlled vocabulary. A controlled vocabulary is available at http://id.loc.gov/vocabulary/identifiers.html . |
| Usage notes: | The type of the identifier may be implicit within the repository as long as it can be explicitly communicated when the digital object is disseminated outside of it. |

Semantic unit **objectIdentifierValue** (Table of Contents)

Definition: The value of the <objectIdentifier>.

Entity information: **Intellectual Entity / Representation**

| | |
|---------------|----------------|
| Applicability | Applicable |
| Obligation | Mandatory |
| Repeatability | Not-repeatable |

Examples

- | | |
|----|---------------|
| 1. | 0 00 221804-6 |
| 2. | 0000000312 |

PREMIS File

| | |
|---------------|----------------|
| Applicability | Applicable |
| Obligation | Mandatory |
| Repeatability | Not-repeatable |

Examples

- | | |
|----|--|
| 1. | IU2440 |
| 2. | WAC1943.56 |
| 3. | AMNH |
| 4. | CD269/CD269/70/10 |
| 5. | 1001/dig/pres/2004-024 |
| 6. | http://nrs.harvard.edu/ urn-3:FHCL.Loeb:sa1 |

PREMIS Bitstream

| | |
|---------------|------------|
| Applicability | Applicable |
| Obligation | Mandatory |
| Repeatability | Repeatable |

Examples

- | | |
|----|----------|
| 1. | IU2440-1 |
| 2. | IU2440-2 |

Data Type: None

Semantic unit **objectCategory** (Table of Contents)

Definition: The category of object to which the metadata applies.

Entity information: **Intellectual Entity / Representation**

| | |
|---------------|----------------|
| Applicability | Applicable |
| Obligation | Mandatory |
| Repeatability | Not-repeatable |

Examples

1. intellectual entity representation

PREMIS File

| | |
|---------------|----------------|
| Applicability | Applicable |
| Obligation | Mandatory |
| Repeatability | Not-repeatable |

Examples

1. file

PREMIS Bitstream

| | |
|---------------|----------------|
| Applicability | Applicable |
| Obligation | Mandatory |
| Repeatability | Not-repeatable |

Examples

1. bitstream

Rationale: Description you can use <anglebrackets>

Preservation repositories are likely to treat different categories of objects (Intellectual Entities, Representations, Files, and Bitstreams) differently in terms of metadata and data management functions, it is therefore important to differentiate between the categories.

Data Type: Value should be taken from a controlled vocabulary. A controlled vocabulary is available at <http://id.loc.gov/vocabulary/preservation/objectCategory.html>.

Usage notes: A filestream should be considered a file.

Semantic unit **preservationLevel** (Table of Contents)

| | |
|----------------------|---|
| Semantic components: | preservationLevelType, preservationLevelValue, preservationLevelRole, preservationLevelRationale and preservationLevelDateAssigned |
| Definition: | Information indicating the decision or policy on the set of preservation functions to be applied to an object and the context in which the decision or policy was made. |

Entity information: **Intellectual Entity / Representation**

| | |
|---------------|------------|
| Applicability | Applicable |
| Obligation | Optional |
| Repeatability | Repeatable |

PREMIS File

| | |
|---------------|------------|
| Applicability | Applicable |
| Obligation | Optional |
| Repeatability | Repeatable |

PREMIS Bitstream

| | |
|---------------|----------------|
| Applicability | Non-applicable |
| Obligation | n/a |
| Repeatability | n/a |

| | |
|------------|---|
| Rationale: | <p>Description you can use <anglebrackets></p> <p>Some preservation repositories will offer multiple preservation options depending on factors such as the value or uniqueness of the material, the “preservability” of the format, the amount the customer is willing to pay, etc. In such circumstances the <preservationLevelValue> that applies may need to be directly associated with an Object. The choice of a particular preservation option for an object may also require further explanation. This can depend on the preservation functions expected to be applied to the object (which can be described by assigning a <preservationLevelType>) and/or the context in which a set of preservation options is applicable (which can be described by assigning a <preservationLevelRole>). The distinction between <preservationLevelType> and <preservationLevelRole> can be illustrated by examples. One possible preservation level type is “Bit preservation level”.</p> |
|------------|---|

This might have values of ‘Low’, ‘Medium’ or ‘High’, where, for example, in 2015 technology examples for:

- ‘Low’ means ordinary on-site backup
- ‘Medium’ means two copies on different media types with a minimum of 150 km distance between the stored copies, with separate checksums that are integrity checked annually
- ‘High’ means solutions a minimum of 5 independent copies on a variety of storage media distributed over different organizations in several continents with quarterly integrity checks.

The <preservationLevelRole> can then be used to distinguish, for example, if this level is an aim or has actually been achieved. It is also possible to assign the rationale for choosing the value (which can be described by adding a <preservationLevelRationale>).

Data Type:

Container

Creation/Maintenance notes:

The preservation level may be assigned by the repository or requested by the depositor and submitted as metadata. The repository may also choose to record additional metadata indicating the context for the assignment of the preservation level.

Usage notes:

If the repository offers only a single preservation level or the preservation level can be calculated externally (e.g., based on the information in a technical registry or by the type of collection), this value does not need to be explicitly recorded with Objects within the repository. Application of a particular set of <preservationLevel> semantic units may only cover a single Representation of an object: Representations in other technical forms or serving other functions may have a different <preservationLevel> applied. The container may be repeated if a preservation level value needs to be recorded in additional contexts (see <preservationLevelRole>, page 24) or part of a context (see preservationLevelType, page 22).

Semantic unit preservationLevelType (Table of Contents)

Semantic components: None

Definition: A value indicating the type of preservation functions expected to be applied to the Object for this preservation level.

Entity information: **Intellectual Entity / Representation**

| | |
|---------------|----------------|
| Applicability | Applicable |
| Obligation | Optional |
| Repeatability | Not repeatable |

IE / R Example

1. xxx

PREMIS File

| | |
|---------------|----------------|
| Applicability | Applicable |
| Obligation | Optional |
| Repeatability | Not repeatable |

File Example

1. xxx

PREMIS Bitstream

| | |
|---------------|----------------|
| Applicability | Not applicable |
| Obligation | xxx |
| Repeatability | xxx |

Bitstream Example

1. xxx

Rationale: Digital preservation functionality can be typed to express various aspects of the preservation. For instance bit-safety can represent a preservation level type, where values of this type can be used to express degree of replication and independence between copies. Likewise logical preservation can represent a type, where values of this type express whether functional preservation is done via format migration, emulation etc.

Data Type: Value should be taken from a controlled vocabulary.

Creation/Maintenance
notes:

The preservationLevelType may be assigned by the repository or requested by the depositor and submitted as metadata.

Usage notes:

Only one preservationLevelType may be recorded per preservationLevel container. If a further preservationLevelType applies to the Object in a different context, a separate preservationLevel container should be repeated.

Semantic unit preservationLevelValue (Table of Contents)

Semantic components: None

Definition: A value indicating the set of preservation functions expected to be applied to the object.

Entity information: **Intellectual Entity / Representation**

| | |
|---------------|----------------|
| Applicability | Applicable |
| Obligation | Mandatory |
| Repeatability | Not repeatable |

IE / R Example

- | | |
|----|---|
| 1. | For preservationLevelType “Logical Preservation”: |
| 2. | Migration |
| 3. | Emulation |

PREMIS File

| | |
|---------------|----------------|
| Applicability | Applicable |
| Obligation | Mandatory |
| Repeatability | Not repeatable |

File Example

- | | |
|----|---|
| 1. | For preservationLevelType “Bit Preservation”: |
| 2. | Low (e.g. backup) |
| 3. | Medium (e.g. min. 2 copies and integrity check) |
| 4. | High (e.g. min 5 copies, integrity check and high independence) |

PREMIS Bitstream

| | |
|---------------|----------------|
| Applicability | Not applicable |
| Obligation | xxx |
| Repeatability | xxx |

Bitstream Example

- | | |
|----|-----|
| 1. | xxx |
|----|-----|

Rationale: Allows a value to be assigned to the preservationLevel.

| | |
|-----------------------------|---|
| Data Type: | Value should be taken from a controlled vocabulary. If preservationLevelType and/or preservationLevelRole are used, then the available controlled vocabulary should be dependent on the values set for each of these types. |
| Creation/Maintenance notes: | The preservation level may be assigned by the repository or requested by the depositor and submitted as metadata. |
| Usage notes: | Only one preservationLevelValue may be recorded per preservationLevel container. If a further preservationLevelValue applies to the Object in a different context, a separate preservationLevel container should be repeated. |

Semantic unit **preservationLevelRole** (Table of Contents)

Semantic components: None

Definition: A value indicating the context in which a set of preservation options is applicable.

Entity information: **Intellectual Entity / Representation**

| | |
|---------------|----------------|
| Applicability | Applicable |
| Repeatability | Not repeatable |
| Obligation | Optional |

IE/R Example

- | | |
|----|-------------|
| 1. | requirement |
| 2. | intention |
| 3. | capability |

PREMIS File

| | |
|---------------|----------------|
| Applicability | Applicable |
| Repeatability | Not repeatable |
| Obligation | Optional |
| Repeatability | Not repeatable |

File Example

- | | |
|----|-------------|
| 1. | requirement |
| 2. | intention |
| 3. | capability |

PREMIS Bitstream

| | |
|---------------|----------------|
| Applicability | Not applicable |
| Obligation | xxx |
| Repeatability | xxx |

Bitstream Example

- | | |
|----|-----|
| 1. | xxx |
|----|-----|

Rationale: Repositories may assign preservationLevelValues in different contexts which must be differentiated, and may need to record more than one context. This allows a distinction, for example, between the intended preservation level and the current achievable preservation level.

| | |
|-----------------------------|---|
| | Note: This is distinct from the <code>preservationLevelType</code> which distinguishes the purpose of the <code>preservationLevel</code> . |
| Data Type: | Value should be taken from a controlled vocabulary. A controlled vocabulary list is available at: http://id.loc.gov/vocabulary/preservation/preservationLevelRole.html |
| Creation/Maintenance notes: | The preservation level may be assigned by the repository or requested by the depositor and submitted as metadata. |
| Usage notes: | <p>This optional semantic unit qualifies the sense or context in which the <code>preservationLevelValue</code> in the current <code>preservationLevel</code> container is applied.</p> <p>For example, a repository may have a legislated obligation to “fully preserve” object X (which is of format F) but is presently only capable of preserving objects of format F at a “bit-level”. The repository may need to record both the required or intended level of preservation (e.g. <code>preservationLevelRole</code>=“requirement”) and the current capability (e.g. <code>preservationLevelRole</code>=“capability”).</p> <p>In transferring custody of material from one repository to another, it may also be important for the receiving repository to know the sense in which <code>preservationLevelValue</code> should be understood. A receiving repository may not need to know a “capability” preservation level of which the transferring repository was capable (as this will have little bearing on its own capabilities), but it needs to know any preservation level “requirements” for material for which it is now taking responsibility.</p> <p>It is good practice to specify <code>preservationLevelRole</code> for clarity even if the repository only assigns <code>preservationLevelValue</code> in one sense or context. If more than one <code>preservationLevel</code> is recorded with the same <code>preservationLevelType</code>, <code>preservationLevelRole</code> should always be supplied.</p> <p>If more than one sense or context needs to be expressed for the same object, (e.g. both the “requirement” and “capability” are recorded), separate <code>preservationLevel</code> containers should be used.</p> |

Semantic unit **preservationLevelRationale** (Table of Contents)

Semantic components: None

Definition: The reason a particular preservationLevelValue was applied to the object.

Entity information: **Intellectual Entity / Representation**

| | |
|---------------|----------------|
| Applicability | Applicable |
| Repeatability | Not repeatable |
| Obligation | Optional |

IE/R Example

1. user pays
2. legislation

PREMIS File

| | |
|---------------|----------------|
| Applicability | Applicable |
| Repeatability | Not repeatable |
| Obligation | Optional |
| Repeatability | Not repeatable |

File Example

1. defective file
2. bit-level preservation only available for this format

PREMIS Bitstream

| | |
|---------------|----------------|
| Applicability | Not applicable |
| Obligation | xxx |
| Repeatability | xxx |

Bitstream Example

1. xxx

Rationale: Application of a particular preservationLevelValue may require justification, especially if it differs from that usually applied according to repository policy.

Data Type: None

Creation/Maintenance notes:

The preservation level may be assigned by the repository or requested by the depositor and submitted as metadata.

Usage notes:

This optional semantic unit records the reason for applying the preservationLevelValue.

This information can be particularly important when the assigned preservationLevelValue differs from usual repository policy.

For example, a repository may normally assign a preservationLevelValue of “full preservation” for JPEG2000 files, but detects that a particular file is defective. This may mean that the repository’s preservation strategy for JPEG2000 may not be effective for this particular file, so the repository may assign a preservationLevelValue of “bit -level preservation” to this file, recording “defective file” as the rationale.

Similarly, legislative requirements or contractual agreements may require a higher level of preservation to be assigned to a particular object than would be assigned to that class of object according to usual policy. In this case, the rationale for the assignment may be recorded as “legislation” or “user pays”, for example.

preservationLevelRationale may be repeated if more than one reason needs to be recorded.

Semantic unit **preservationLevelDateAssigned** (Table of Contents)

Semantic components: None

Definition: The date, or date and time, when a particular preservationLevelValue was assigned to the object.

Entity information: **Intellectual Entity / Representation**

| | |
|---------------|----------------|
| Applicability | Applicable |
| Repeatability | Not repeatable |
| Obligation | Optional |

IE/R Example

- | | |
|----|--------------------------|
| 1. | 2007-11-05 |
| 2. | 2007-11-05T08:15:30-5:00 |

PREMIS File

| | |
|---------------|----------------|
| Applicability | Applicable |
| Repeatability | Not repeatable |
| Obligation | Optional |
| Repeatability | Not repeatable |

File Example

- | | |
|----|--------------------------|
| 1. | 2007-11-05 |
| 2. | 2007-11-05T08:15:30-5:00 |

PREMIS Bitstream

| | |
|---------------|----------------|
| Applicability | Not applicable |
| Obligation | xxx |
| Repeatability | xxx |

Bitstream Example

- | | |
|----|-----|
| 1. | xxx |
|----|-----|

Rationale: The preservationLevel applicable to an object is expected to be reviewed and changed over time, in response to changes in repository preservation requirements, policies, or capabilities relevant to the object. The date that the current preservationLevelValue was assigned aids review of decisions.

Data Type: To aid machine processing, value should use a structured form. To facilitate exchange of PREMIS-conformant metadata, use of standard conventions, for instance as used in the date elements in the PREMIS schema, is recommended.

Elements

<abbr> Abbreviation (Table of Contents)

| | | |
|---------------------|---|--|
| Summary: | An element for encoding the shortened form of a word or phrase. | |
| May contain: | [text] | |
| May occur within: | abstract, addressline, archref, author, bibref, citation, container, conventiondeclaration, date, datesingle, didnote, dimensions, edition, emph, entry, event, fromdate, head, head01, head02, head03, item, label, localtypeddeclaration, materialspec, num, p, part, physdesc, physfacet, physloc, publisher, quote, ref, sponsor, subtitle, titleproper, todate, unitdate, unitid, unittitle | |
| Entity information: | <p>Used to record the abbreviated form of a word or phrase, for example, an acronym.</p> <p>Use <abbr> within <conventiondeclaration> to identify the code for a thesaurus, controlled vocabulary, or another standard used in creating the EAD description. To improve interoperability, it is recommended that the value be selected from an authorized list of codes such as the MARC Description Convention Source Codes (http://www.loc.gov/standards/sourcelist/descriptive-conventions.html).</p> <p>In other elements, use <abbr> with @expan to encode abbreviations as they occur within the description, if you wish to use an abbreviation while also providing its fuller form.</p> | |
| Attributes: | altrender audience expan id lang script | Optional Optional (values limited to: external, internal) Optional Optional Optional Optional |
| Availability: | Within <conventiondeclaration>: Optional, not repeatable Within other elements: Optional, repeatable | |
| Examples: | <conventiondeclaration> <abbr> ISAD(G) </abbr> <citation>ISAD(G): General International Standard Archival Description, second edition, Ottawa 2000</citation> </conventiondeclaration> <didnote>File also contains materials from the | |


```
<abbr expan="American Civil Liberties Union">
  ACLU </abbr>
</didnote>
<c02>
  <did>
    <unittitle>
      <abbr expan="United Nations Educational,
        Scientific and Cultural Organization"> UNESCO
      </abbr>
    </unittitle>
    [. . .] </did>
  </c02>
```

<objectIdentifier> objectIdentifier (Table of Contents)

Summary: A designation used to identify the Object uniquely within the preservation repository system in which it is stored.

Summary: An identifier may be created by the repository system at the time of ingest, or it may be created or assigned outside of the repository and submitted with an object as metadata. Similarly, identifiers can be generated automatically or manually.

May contain: objectIdentifierType, objectIdentifierValue

Entity information: Description you can use <to_get_anglebrackets>

Each Object held in the preservation repository must have a unique identifier to allow other entities to refer to it and to relate it to descriptive, technical, and other metadata unambiguously.

Entity information: Intellectual Entity / Representation

| | |
|---------------|------------|
| Applicability | Applicable |
| Obligation | Mandatory |
| Repeatability | Repeatable |

Example

1. IE / Representation example

PREMIS File

| | |
|---------------|------------|
| Applicability | Applicable |
| Obligation | Mandatory |
| Repeatability | Repeatable |

Example

1. File example

PREMIS Bitstream

| | |
|---------------|------------|
| Applicability | Applicable |
| Obligation | Mandatory |
| Repeatability | Repeatable |

Example

1. Bitstream example

Data Type:

Container.

The objectIdentifier is mandatory for all Objects stored.

The objectIdentifier is repeatable in order to allow both repository assigned and externally-assigned identifiers to be recorded. See “Creation/Maintenance” note above.

Primary identifiers must be unique within the repository. They may be preexisting, and in use in other digital object management systems. Ideally, secondary identifiers should also be unique but sometimes this is not possible (e.g., if the values are inherited from a legacy system which did not enforce this or only identified items at a higher level). Identifiers for each item must be sufficient to identify the item uniquely at the appropriate level of aggregation. For example, an Intellectual Entity that represents all books in the same edition could use an ISBN but this would be insufficient to identify a particular copy of that book.

A preservation repository needs to know both the type of object identifier and the value. If the value itself contains the identifier type (e.g., “oai:lib.uchicago.edu:1”), the identifier type does not need to be recorded explicitly. Similarly, if the repository uses only one type of identifier, the type can be assumed and does not need to be recorded.

Appendix :

Appendix A : Our appendix

A list of some sort

| Label | Item |
|-------|------|
|-------|------|