# Europeana Data Model (EDM) Template for use with University of Chicago Library Digital Collections

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## 1 Triple Types

All triples should be typed. Choose from among these types.

a ore:ResourceMap a ore:Aggregation a edm:ProvidedCHO

a ore:Proxy # optional

a edm: WebResource

a rdfs:Resource # This is the default type. Use it when none of the preceding apply.

Of the above, a ore:Proxy is optional, but included if we are basing the descriptive metadata in a edm:ProvidedCHO on pre-existing descriptive metadata (e.g., a cataloging record).

## 2 Required Elements

In this section, mandatory Europeana elements are indicated by **boldface**. Mandatory Europeana elements governed by either/or or if/then statements are indicated by *italics*. Mandatory elements required by local usage are underlined.

The following is with reference to Definition of the Europeana Data Model v5.2.8  $06/10/2017.^1\,$ 

 $<sup>^1</sup>https://pro.europeana.eu/files/Europeana\_Professional/Share\_your\_data/Technical\_requirements/EDM\_Documentation//EDM\_Definition\_v5.2.8\_102017.pdf$ 

#### 2.1 ore:ResourceMap

The following are required for an edm:ResourceMap. The requirements are indicated by example.

```
<z9m865s34c01/rem>
dcterms:creator <https://dldc.lib.uchicago.edu/>;
dcterms:created "2022-02-09T11:21:52-06:00"^^xsd:dateTime;
dcterms:modified "2022-02-09T11:21:52-06:00"^^xsd:dateTime;
ore:describes <z9m865s34c01/aggregation>;
a ore:ResourceMap .
```

Note that when an ore:ResourceMap is being created, the values of dcterms:created and dcterms:modified are the same.

#### 2.2 ore:Aggregation

The following are mandatory Europeana elements for the ore: Aggregation.

- edm:aggregatedCHO
- edm:dataProvider
- Either edm:isShownAt or edm:isShownBy. If edm:isShownBy is used, then edm:object must be supplied. (See 3.2.27.)
- edm:provider
- edm:rights

"Use edm:isShownAt if you display the digital object with extra information (such as header, banner, etc.). Also use it for digital objects embedded in HTML pages (even when the page is extremely simple)." Definition of the Europeana Data Model, Section 3.2.21.Is Shown At. "[The property edm:isShownBy] will lead users to the digital object on the provider's website where they can view or play it. The digital object needs to be directly accessible by the URL and reasonably independent at that location. If the URL includes short copyright information or minimal navigation tools it can be entered in edm:isShownBy. Note: Use edm:isShownAt for digital objects embedded in HTML pages (even where the page is extremely simple)." Definition of the Europeana Data Model, Section 3.2.22.Is Shown By.

The following is an example of an ore: Aggregation.

```
<z9m865s34c01/aggregation>
edm:aggregatedCHO <z9m865s34c01> ;
edm:datasetName "CAILLA" ;
edm:dataProvider "University of Chicago Library" ;
edm:isShownBy <z9m865s34c01/file.wav> ;
edm:object <z9m865s34c01/file.wav> ;
edm:provider "University of Chicago Library" ;
edm:rights <https://rightsstatements.org/vocab/NoC-US/1.0/> ;
ore:isDescribedBy <z9m865s34c01/rem> ;
a ore:Aggregation .
```

The ore: Aggregation may contain edm:hasView [link to edm:WebResource]. The example above contains an optional edm:datasetName predicate.

#### 2.3 edm:ProvidedCHO

The following are mandatory Europeana elements for the edm:ProvidedCHO.

- Either dc:description or <u>dc:title</u> or both. Local usage requires <u>dc:title</u>.
- One or more the following: dc:coverage, dcterms:spatial, dc:subject, dcterms:temporal, or dc:type. Local usage requires dcterms:spatial. Values from Getty's Thesaurus of Geographical Names (TGN) are used.
- dc:language for TEXT objects. It is strongly recommended for other object types if there is a language aspect. Language codes conforming to ISO 639 are used as values.
- edm:type must occur and must use one of the following values (in upper case): TEXT, IMAGE, SOUND, VIDEO or 3D.

In addition to what is specified above, the following are also required by local usage for the *edm:ProvidedCHO*.

- <u>dcterms:identifier</u>. String-literal values for locally-created ARK identifiers are used, e.g., "https://n2t.net/ark:61001/z9m865s34c01" (dc:identifier may be used for any original identifiers occurring in provided metadata)
- <u>dc:date</u>. String-literal values conforming to ISO 8601 are used.

For the following, see "DCMI Kernel Metadata Community: Kernel Metadata and Electronic Resource Citations (ERCs)", Section 3, Kernel Stories, https://www.dublincore.org/groups/kernel/spec/#anchor3. They will

support responses to queries about the metadata when the appropriate syntax is provided to an ARK resolver: "ARK resolvers must support the '?info' inflection for requesting metadata." (https://datatracker.ietf.org/doc/html/draft-kunze-ark-28#section-1.2. See further in that document for the ?info inflection and the use of Electronic Resource Citations [ERCs].)

- <u>erc:who</u> The value is drawn from dc[terms]:creator, dc[terms]:contributor, or dc[terms]:publisher, in that order.
- <u>erc:what</u> The value is drawn from dc:title or dc:description, in that order.
- erc:when The value is drawn from dc:date.
- erc:where The value is drawn from dcterms:identifier.

Any values which cannot be assigned should be drawn from "DCMI Kernel Metadata Community: Kernel Metadata and Electronic Resource Citations (ERCs)", Section 9.3, Special Kernel Standardized Value Codes, https://www.dublincore.org/groups/kernel/spec/#anchor16. For a local copy see "Null Values", https://dldc.lib.uchicago.edu/dl/nullValues.html.

The following is an example of an edm:ProvidedCHO. This example does not include elements specific to a particular digital collection which may also be included in the edm:ProvidedCHO. It only includes those elements discussed in this section.

```
<z9m865s34c01>
dc:contributor "Hanks, William F.";
dc:contributor "Unnamed contributor (male)";
dc:description "Contents: \"History of Cooperativa\"" ;
dc:identifier "https://n2t.net/ark:61001/z9m865s34c01"; # a persistent link to the real
dc:language "spa" ;
dc:language "yua" ;
dc:title "Yucatec Maya field recordings (Hanks, 1979-1987) Yucatán Maya";
dcterms:spatial "7005600";
dcterms:temporal "1979" ;
dcterms:identifier "https://n2t.net/ark:61001/z9m865s34c01";
edm:type "SOUND" ;
erc:who "Hanks, William F., interviewer; Unnamed contributor (male), consultant";
erc: what "Yucatec Maya field recordings (Hanks, 1979-1987) Yucatan Maya";
erc:when "1979";
erc:where "https://n2t.net/ark:61001/z9m865s34c01";
a edm:ProvidedCHO.
```

#### 2.4 ore:Proxy

The following are required for an ore:Proxy, which is optional; it is used only if one is associating a file of original descriptive metadata, e.g., MARCXML or Dublin Core, with the aggregation. The requirements are indicated by example.

```
<z9m865s34c01/file.dc.xml>
dc:format "application/xml" ;
ore:proxyFor <b2nw3wm8552h> ;
ore:proxyIn <b2nw3wm8552h/aggregation> ;
a ore:Proxy .
```

Note that when an ore:ResourceMap is being created, the values of dcterms:created and dcterms:modified are the same.

#### 2.5 edm:WebResource

The following are required for an edm:WebResource. The requirements are indicated by example. For <u>dcterms:format</u>, string-literal values conforming to Internet Media Types (MIME) are used (http://www.iana.org/assignments/media-types/).

```
<z9m865s34c01/file.wav>
dc:identifier "https://n2t.net/ark:61001/z9m865s34c01" ; # a persistent link to the red
dcterms:format "audio/x-wav" ;
premis:fixity [
   rdf:type <https://id.loc.gov/vocabulary/preservation/cryptographicHashFunctions/sha5
   rdf:value "10b1a2959f2229ab52e3873651c1d99036caa1e5d641e0bf257"] ;
premis:originalName "FieldRecording1996-2.wav" ;</pre>
```

#### 2.6 rdfs:Resource

premis:size 44694436 ;
a edm:WebResource .

If rdfs:Resource is used, the following indicates its format. The example is for OCR data for a page object in Campus Publications.

```
<b2nw3wm8552h/00000001/file.xml>
dc:format "application/xml";
a rdfs:Resource . # This is the default type.
```

## 3 Example

This example consists of the required elements plus those specific to a particular digital collection. If anything in this example contradicts anything in the above, the above remains authoritative.

```
@base <https://ark.lib.uchicago.edu/ark:61001/>
@prefix ac: <http://www.audiocommons.org/ac-ontology/
   aco> .
@prefix aes60-2011: <https://www.aes.org/publications/
   standards/>
@prefix ark: <https://datatracker.ietf.org/doc/html/
   draft-kunze-ark-29/>.
@prefix audioMD: <a href="mailto://www.loc.gov/standards/amdvmd/">https://www.loc.gov/standards/amdvmd/</a>
   htmldoc/audioMD.html#>.
@prefix bf: <http://id.loc.gov/ontologies/bibframe/> .
@prefix cts: <http://marklogic.com/cts#> .
@prefix dc: <http://purl.org/dc/elements/1.1/>
@prefix dcterms: <http://purl.org/dc/terms/> .
@prefix dma: <http://lib.uchicago.edu/dma/> .
@prefix ebucore: <a href="mailto:ch/metadata/">https://www.ebu.ch/metadata/</a>
   ontologies/ebucore/> .
@prefix edm: <http://www.europeana.eu/schemas/edm/> .
@prefix erc: <http://purl.org/kernel/elements/1.1/> .
@prefix foaf: <http://xmlns.com/foaf/spec/>
@prefix http: <https://tools.ietf.org/html/rfc7230>.
@prefix lexvo: <a href="https://www.iso.org/standard/39534.html">https://www.iso.org/standard/39534.html</a>
   > .
@prefix madsrdf: <http://www.loc.gov/mads/rdf/v1#...
   http://www.w3.org/XML/1998/namespace>.
@prefix mix: <http://www.loc.gov/mix/v20/> .
@prefix olac: <http://www.language-archives.org/REC/
   role.html#>.
@prefix ore: <http://www.openarchives.org/ore/terms/> .
@prefix premis: <a href="mailto:kttps://id.loc.gov/ontologies/premis">https://id.loc.gov/ontologies/premis</a>
   -3-0-0.\text{html}>.
@prefix rdf: <http://www.w3.org/1999/02/22-rdf-syntax-
   ns\#>.
@prefix rdfs: \langle \text{http://www.w3.org/} 2000/01/\text{rdf-schema} \# \rangle.
```

```
@prefix role: <http://id.loc.gov/vocabulary/relators/>
@prefix skos: \langle \text{http://www.w3.org/} 2004/02/\text{skos/core} \# \rangle.
@prefix tgn: \langle http://vocab.getty.edu/tgn/>.
@prefix tgno: <http://vocab.getty.edu/ontology#> .
@prefix ucla: <http://lib.uchicago.edu/ucla/> .
@prefix vra: <http://purl.org/vra/> .
@prefix xml: <http://www.w3.org/XML/1998/namespace> .
@prefix xsd: <http://www.w3.org/2001/XMLSchema#>.
< z9m865s34c01/rem >
dcterms: creator <https://dldc.lib.uchicago.edu/>;
dcterms: created "2022-02-09T11:21:52-06:00"^^xsd:
   dateTime ;
dcterms: modified "2022-02-09T11:21:52-06:00"^^xsd:
   dateTime ;
ore: describes <z9m865s34c01/aggregation>;
a ore:ResourceMap .
<z9m865s34c01/aggregation>
edm:aggregatedCHO <z9m865s34c01>;
edm:datasetName "CAILLA" ;
edm: dataProvider "University of Chicago Library";
edm: hasView <z9m865s34c01/file.wav>;
edm:isShownAt <z9m865s34c01/website>;
edm:isShownBy <z9m865s34c01/file.wav>;
edm: object \langle z9m865s34c01/file.wav \rangle;
edm: provider "University of Chicago Library";
edm:rights <https://rightsstatements.org/vocab/NoC-US
   /1.0/>;
ore:isDescribedBy <z9m865s34c01/rem>;
a ore: Aggregation .
< z9m865s34c01 >
dc:contributor "Hanks, William F.";
dc:contributor "Unnamed contributor (male)";
dma: contributor
    foaf:name "Hanks, William F.";
    olac:role "interviewer"
];
```

```
dma: contributor [
    foaf:name "Unnamed contributor (male)";
    olac:role "consultant"
];
dc: description "Contents: \"History of Cooperativa\"";
dc:identifier "5548";
dc:language "spa";
dc:language "yua" ;
dma: language
    lexvo:iso639P3PCode "spa" ;
    dma: languageRole "primary"
];
dma:language [
    lexvo:iso639P3PCode "yua";
    dma:languageRole "subject"
] ;
dc: title "Yucatec Maya field recordings (Hanks,
   1979-1987) Yucatán Maya";
dc:type "PhysicalObject";
dcterms: rights "Restricted";
dcterms: spatial "7005600";
dcterms:temporal "1979";
dcterms: identifier "https://n2t.net/ark:61001/
   z9m865s34c01";
edm:type "SOUND" ;
erc: who "Hanks, William F., interviewer; Unnamed
   contributor (male), consultant";
erc: what "Yucatec Maya field recordings (Hanks,
   1979-1987) Yucatán Maya";
erc: when "1979";
erc: where "https://n2t.net/ark:61001/z9m865s34c01";
a edm: ProvidedCHO.
\langle z9m865s34c01/file.dc.xml \rangle
dc: format "application/xml";
ore:proxyFor <b2nw3wm8552h>;
ore:proxyIn <b2nw3wm8552h/aggregation>;
a ore: Proxy .
<z9m865s34c01/file.wav>
```

```
dcterms:format "audio/x-wav";
premis:fixity [
  rdf:type <https://id.loc.gov/vocabulary/preservation/
        cryptographicHashFunctions/sha512>;
  rdf:value "10
        b1a2959f2229ab52e3873651c1d99036caa1e5d641e0bf257
        "];
premis:originalName "FieldRecording1996-2.wav";
premis:size 44694436;
a edm:WebResource.
```