

Archivematica Metadata: PREMIS in METS in the AIP



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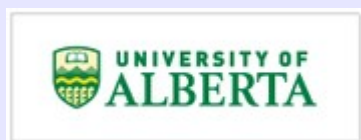
artefactual

systems inc.



digital preservation consulting
open-source software for archives and libraries

archivematica® atom
access to memory



Yale UNIVERSITY LIBRARY



What is Archivematica?

- free and open-source digital preservation system (AGPLv3)
- fulfills requirements of the ISO-OAIS functional model, community best practices and standards
- implements format normalization upon ingest and preserves originals to support emulation and migration strategies
- outputs high-quality, standards-compliant Archival Information Packages
 - Bagit, Dublin Core, METS, PREMIS

What is Archivemática?



DONUTASTIC™

COMMERCIAL GRADE DOUGHNUT MAKING MACHINE



Time to make the donuts

- 🍩 Multiple ways to get metadata into the AIP METS profile
 - 🍩 metadata.csv for ingest of simple Dublin Core and other metadata with the simple or compound object(s)
 - 🍩 Simple Dublin Core dashboard form for entry during Ingest
 - 🍩 PREMIS rights form(s) for entry during Ingest



A Bag containing

- ingested digital objects
- preservation versions of the objects
- submission documentation
- logs
- the METS file

the Archival Information Package (AIP)

The METS file

<dmdSec> (descriptive metadata)

Dublin Core XML

<amdSec> (administrative metadata)

<techMD>

PREMIS: object

<digiProvMD>

PREMIS: events

PREMIS: agents

<rightsMD>

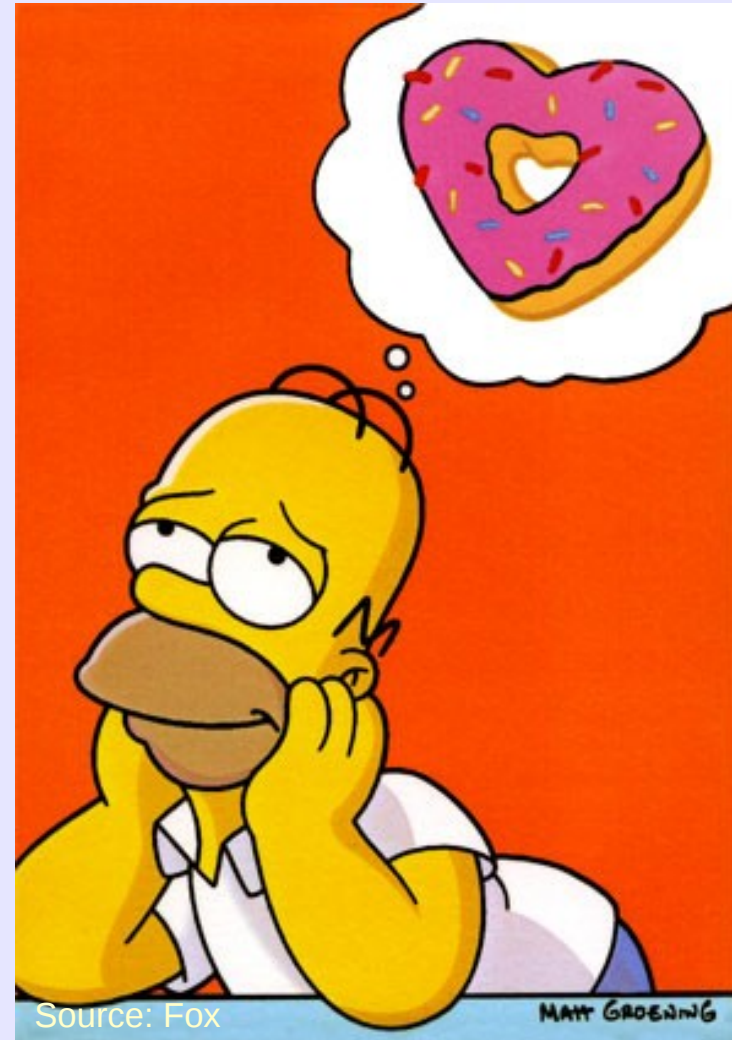
PREMIS: rights

<fileSec> (a list of the files and their roles and relationships)

<structMap> (a representation of the physical structure of the AIP)

PREMIS agents

- 🍩 User(s)
- 🍩 System (Archivematica 1.0)
- 🍩 Repository



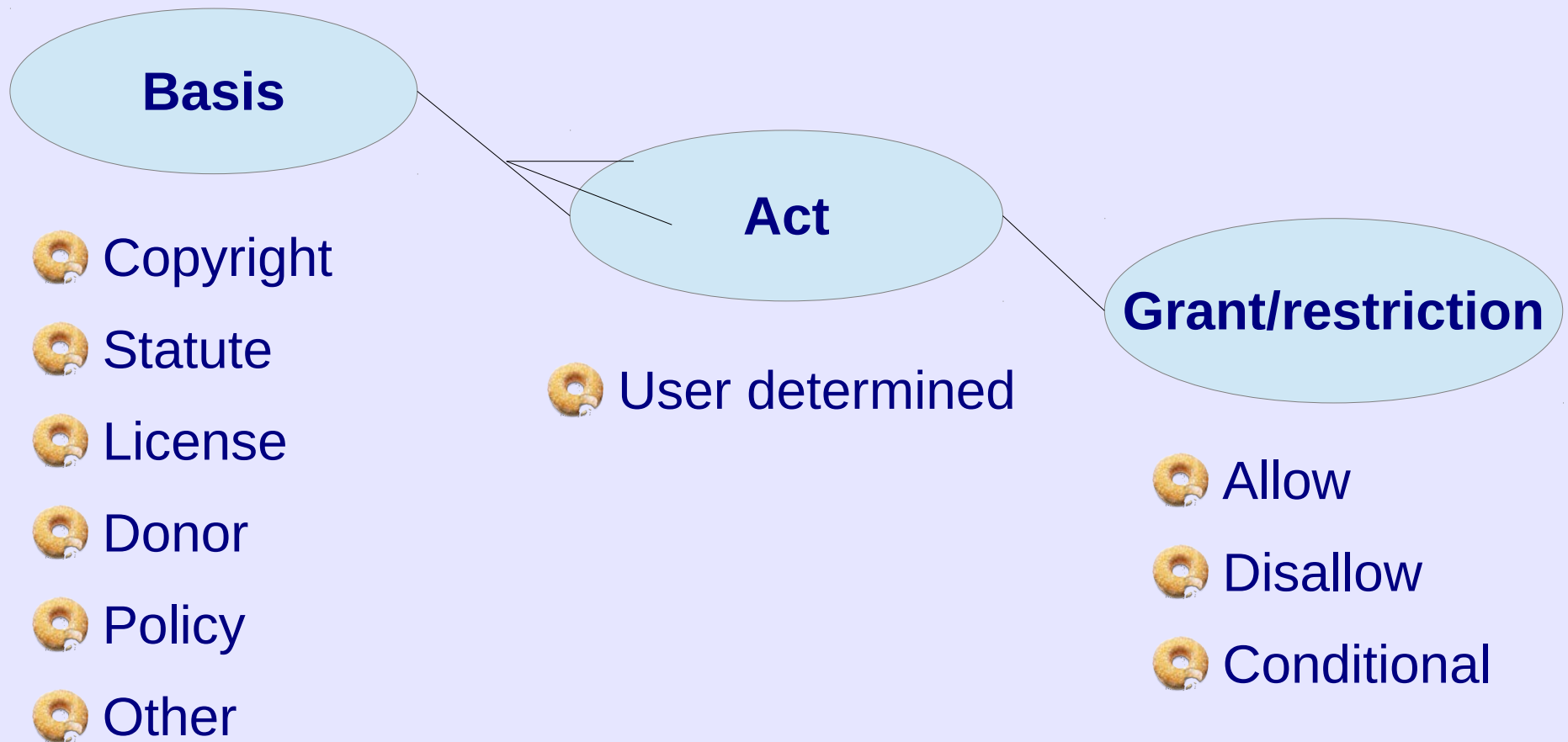
PREMIS events

- 🍩 Registration
- 🍩 Image capture
- 🍩 Ingestion
- 🍩 Fixity check
- 🍩 Message digest calculation
- 🍩 Identifier assignment
- 🍩 Unpacking
- 🍩 Quarantine/Unquarantine
- 🍩 Virus check
- 🍩 Name cleanup
- 🍩 Format identification
- 🍩 Validation
- 🍩 Normalization
- 🍩 Creation

Identifier assignment

Semantic unit	Semantic component	Sample value(s)	Notes
eventIdentifier	eventIdentifierType	UUID	
eventIdentifier	eventIdentifierValue	90n50321-6d7b-6453-89ag-a8b0fhc1f250	
eventType	none	Identifier assignment	Sample value source: Proposed PREMIS event terms (http://pigpen.lib.uchicago.edu:8888/pigpen/32)
eventDateTime	none	2010-08-01T09:08:46-01:00	
eventDetail	none	program="UUID"; version="1.6.2"	
eventOutcomeInformation	eventOutcome		
eventOutcomeDetail	eventOutcomeDetailNote	270bd067-0483-4c5f-bdec-f2cbd6e651aa	
linkingAgentIdentifier	linkingAgentIdentifierType	preservation system	
linkingAgentIdentifier	linkingAgentIdentifierValue	Archivematica-0.10	

PREMIS rights



[Ingest](#) / [Cat_videos](#) / [Rights](#) / Add

Rights

Cat_videos

Basis

Copyright ▼

Copyright status

Under copyright

Copyright jurisdiction

the Internet

Copyright determination date

2010/04/05

Use ISO 8061 (YYYY-MM-DD)

Copyright start date

2010/04/05

Use ISO 8061 (YYYY-MM-DD)

Copyright end date

2014/05/01

Use ISO 8061 (YYYY-MM-DD)

☐ Open End Date

Copyright documentation identifier:

Type

donor form

Value

oca-2010-34

Role

copyright holder statement

Copyright note

Copyright held by donor

Save

Next

Cancel

[Ingest](#) / [Cat_videos](#) / [Rights](#) / [Edit](#)

Rights

Cat_videos

Act

Exhibit

Grant/restriction

Conditional ▼

Start

2010/04/05

Use ISO 8601 (YYYY-MM-DD)

End

Use ISO 8601 (YYYY-MM-DD)

☒ Open End Date

Grant/restriction note

Exhibits only with signed permission of the copyright owner.

Save

Done

Cancel

```

- <premis>
- <rights>
  - <rightsStatement>
    - <rightsStatementIdentifier>
      <rightsStatementIdentifierType>UUID</rightsStatementIdentifierType>
      <rightsStatementIdentifierValue>14cbad80-70nd-4f46-887f-
      k1gv7f9f30h6</rightsStatementIdentifierValue>
    </rightsStatementIdentifier>
    <rightsBasis>Statute</rightsBasis>
  - <statuteInformation>
    <statuteJurisdiction>British Columbia, Canada</statuteJurisdiction>
    - <statuteCitation>
      Freedom of Information and Protection of Privacy Act [RSBC 1996] Chapter 165
    </statuteCitation>
    <statuteInformationDeterminationDate>2004-06-06</statuteInformationDeterminationDate>
  - <statuteNote>
    Social insurance numbers, health information covered by personal privacy provisions
    </statuteNote>
  - <statuteDocumentationIdentifier>
    <statuteDocumentationIdentifierType/>
    <statuteDocumentationIdentifierValue/>
    <statuteDocumentationRole/>
    </statuteDocumentationIdentifier>
  - <statuteApplicableDates>
    <startDate>1996-01-01</startDate>
    <endDate>open</endDate>
    </statuteApplicableDates>
  </statuteInformation>
- <rightsGranted>
  <act>Disseminate</act>
  <restriction>Conditional</restriction>
  - <termOfRestriction>
    <startDate>2011-09-19</startDate>
    <endDate>open</endDate>
    </termOfRestriction>
  - <rightsGrantedNote>
    Researcher must sign form CCA-12.56-1, Personal Data Research Agreement
    </rightsGrantedNote>
  - <rightsGrantedNote>
    Information can be published only in anonymized aggregate form
    </rightsGrantedNote>
  </rightsGranted>
- <linkingObjectIdentifier>

```

METS review: PREMIS in METS validator

Enter XML Document:

```
<?xml version='1.0' encoding='ASCII'?>
<mets xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xlink="http://www.w3.org/1999/xlink" xmlns="http://www.loc.gov/METS/" xsi:schemaLocation="http://www.loc.gov/METS/
http://www.loc.gov/standards/mets/version18/mets.xsd">
  <metsHdr CREATEDATE="2013-08-07T00:34:30"/>
  <amdSec ID="amdSec_1">
    <techMD ID="techMD_1">
      <mdWrap MDTYPE="PREMIS:OBJECT">
        <xmlData>
          <object xmlns="info:lc/xmlns/premis-v2" xsi:type="file" xsi:schemaLocation="info:lc/xmlns/premis-v2 http://www.loc.gov/standards/premis/v2/premis-v2-2.xsd" version="2.2">
            <objectIdentifier>
              <objectIdentifierType>UUID</objectIdentifierType>
              <objectIdentifierValue>f74a7e9f-655b-4baf-bale-af86115eddaa</objectIdentifierValue>
            </objectIdentifier>
            <objectCharacteristics>
              <compositionLevel>0</compositionLevel>
              <fixity>
                <messageDigestAlgorithm>sha256</messageDigestAlgorithm>
                <messageDigest>e2acc855ff0591695581787d7739d4e4f5d4fala2b03f1de7809f4b40264be94</messageDigest>
              </fixity>
              <size>1437840</size>
              <format>
                <formatDesignation>
                  <formatName>Tagged Image File Format</formatName>
                  <formatVersion/>
                </formatDesignation>
                <formatRegistry>
                  <formatRegistryName/>
                  <formatRegistryKey/>
                </formatRegistry>
              </format>
              <objectCharacteristicsExtension/>
            </objectCharacteristics>
            <originalName>%SIPDirectory%objects/799px-Euroleague-LE_Roma_vs_Toulouse_IC-27-f74a7e9f-655b-4baf-bale-af86115eddaa.tif</originalName>
            <relationship>
              <relationshipType>derivation</relationshipType>
              <relationshipSubType>has source</relationshipSubType>
              <relatedObjectIdentification>
                <relatedObjectIdentifierType>UUID</relatedObjectIdentifierType>
                <relatedObjectIdentifierValue>31468abd-3e77-4ecd-863d-10c9b30e620c</relatedObjectIdentifierValue>
              </relatedObjectIdentification>
              <relatedEventIdentification>
                <relatedEventIdentifierType>UUID</relatedEventIdentifierType>
                <relatedEventIdentifierValue>1034e538-7e2c-4f7a-9119-18d86786fd51</relatedEventIdentifierValue>
              </relatedEventIdentification>
            </relationship>
          </object>
        </xmlData>
      </mdWrap>
    </techMD>
  </amdSec>
</mets>
```

Validate

pimtools

v1.0.1

[about](#)

[validation](#)

[conversion](#)

[describe](#)

[resources](#)

P I M

PREMIS:METS

conversion & validation tools

FCLA

Validation Results

Document is well-formed

Document is valid

Document conforms to PREMIS in METS best practice

[PIM](#)

Valid [XHTML](#) | [CSS](#)

METS file indexed and searchable via the dashboard

The screenshot shows the Archivematica Dashboard interface. The browser address bar displays `localhost/archival-storage/`. The dashboard header includes the Archivematica logo and navigation tabs: Transfer, Ingest, Archival storage, Preservation planning, Access, and Administration. A user profile dropdown for 'courtney' is visible. The main content area features a search bar with a dropdown menu open, showing options: Any, File UUID, File path, File extension, AIP UUID, and AIP name. The search bar also includes a 'Keyword' dropdown, a 'Search archival storage' button, and a 'Show files?' checkbox. Below the search bar, the text 'Browse archival' and 'Total size: 84.49 MB' is visible. A table lists the archived files with columns for AIP, Size, UUID, and Date stored.

AIP	Size	UUID	Date stored
Cat_videos	27.80 MB	5e33f023-bec2-419a-9d69-60922cad2c71	2013-08-06 17:34
OR2013	28.21 MB	86b2de50-27d8-495a-832c-df838600ecd5	2013-07-08 11:51
pittsburgh	28.21 MB	160083a2-486c-483e-8525-835322bd64c3	2013-07-10 11:30
Struct map sample	0.26 MB	a7b3b3d2-6bbd-4f86-8fed-ce85728081b9	2013-07-08 07:30

MMM... DONUTS!



Place to get more info
about our MD profile:
archivematica.org

Place to get donuts
(*beignets*): Cafe Du
Monde, Cafe Beignet

courtney
[@artefactual.com](mailto:courtney@artefactual.com)