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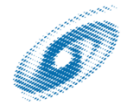
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# SI 678 Preserving Sound and Motion

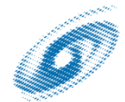
Class 7 – Preservation metadata



# Themes

## Themes

- Preservation and access
- Description
- PREMIS
- MPEG21 Alternative
- Project management



# Preservation & Access

## Access

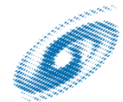
Description

METS

PREMIS

MPEG21

- Inventory control
- Recording change
- Access inside the object
- Facilitating reuse



# Digital Metadata Trends

## Access

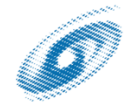
Description

METS

PREMIS

MPEG21

- Adoption of formal standards
- XML as a common language
- Automating metadata generation
- Preservation intent embedded in metadata



# Describing AV Materials

Access

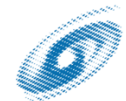
**Description**

METS

PREMIS

MPEG21

- AACR2 and object description
  - MARC records (exchange format)
- Dublin Core framework (digital objects)
  - ? Simplified MARC
- FRBR (IFLA 1998)
  - Functional Requirements for Bibliographic Records
  - Work, expression, manifestation, item
- LC Working Group on the Future of Bibliographic Control <http://www.loc.gov/bibliographic-future/>



# METS 101

Access

Description

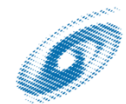
METS

PREMIS

MPEG21

- Origins in early digital library work (Berkeley, Stanford, Penn State, Cornell, NYPL) and DLF
- Descriptive, administrative, structural metadata
- Maintained by the Library of Congress

<http://www.loc.gov/standards/mets/profiles/00000007.html>





•Guenther and Xie, *Implementing PREMIS* (2007).

# PREMIS

Access

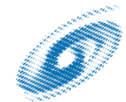
Description

METS

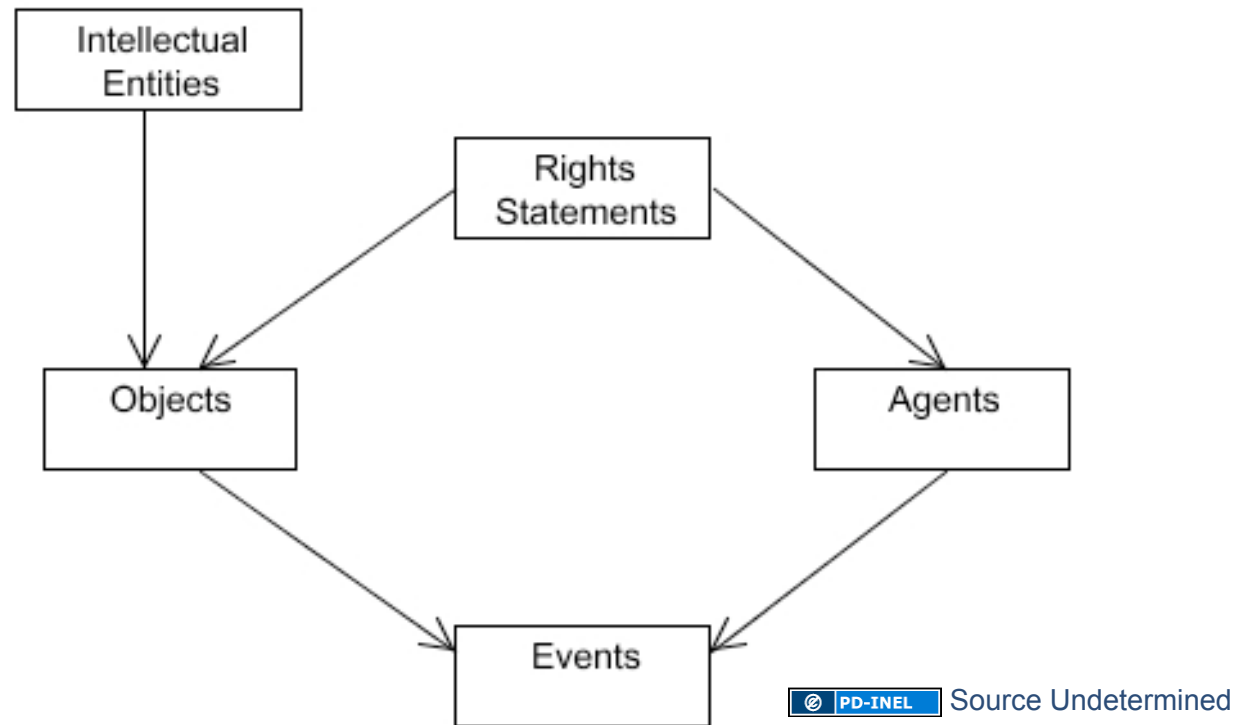
PREMIS

MPEG21

- Origins in Waters/Garrett 1996
- Spurred by international attention to OAIS
  - Reference, Fixity, Context, Provenance
- Seeks to balance fixity and change



## Core Elements: Data Model



## Sample data dictionary entry

<b>Semantic unit</b>	size		
<b>Semantic components</b>	None		
<b>Definition</b>	The size of a file or bitstream in bytes.		
<b>Rationale</b>	Size is useful for knowing whether you have retrieved the correct number of bytes from storage and whether an application has enough room to move or process files. It might also be used when billing for storage.		
<b>Data constraint</b>	Integer		
<b>LEVEL</b>	<b>Representation</b>	<b>File</b>	<b>Bitstream</b>
<b>Scope</b>	Not applicable	Applicable	Applicable
<b>Examples</b>		2038927	
<b>Repeatability</b>		Not repeatable	Not repeatable
<b>Obligation</b>		Optional	Optional
<b>Notes</b>	May be repeated for embedded files.		

# MPEG21 Alternative

Access

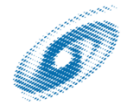
Description

METS

PREMIS

MPEG21

- Digital Item Declaration
- Supports richer user functions
- Most appropriate for interactive works, distributed authorship, and collaborative projects



• Bekaert, et al. “Representing digital assets” (2006).

# MPEG 21

MPEG 21

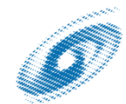
File Formats

Hollywood Vaults

Exam Review

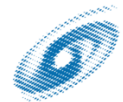
Evaluations

- Metadata containers needed for complex digital objects
- “User” interactions with the digital system
- Machine processing of metadata to build system and exchange data



# MPEG-21 Digital Item Declaration (DID)

- ISO/IEC 21000-2: Digital Item Declaration
- A promising alternative to represent Digital Objects
- Starting to get supported by some repositories, e.g., aDORe, DSpace, Fedora
- A flexible and expressive model that easily represents compound objects (recursive “item”)
- Attach well-formed XML from persistent namespaces as metadata
- Strong industry support



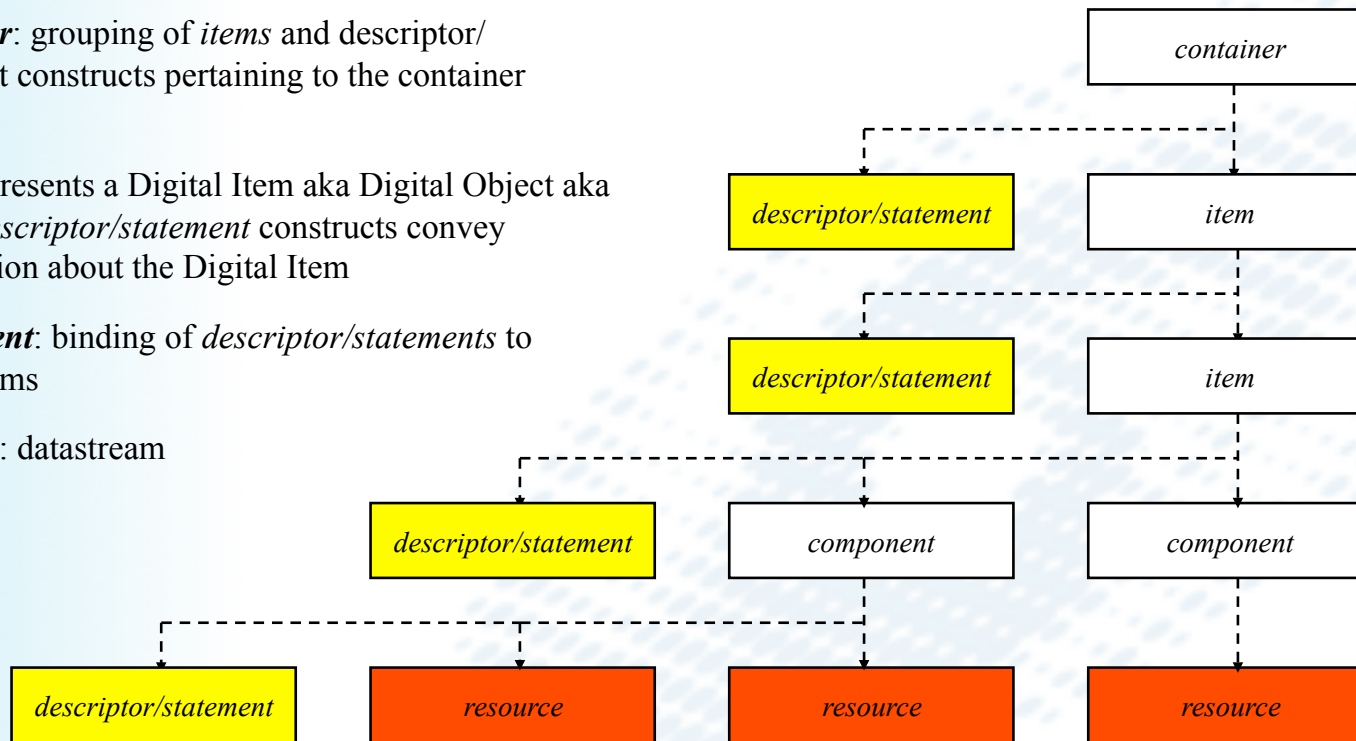
# Abstract Model for MPEG-21 DID

**container:** grouping of *items* and descriptor/statement constructs pertaining to the container

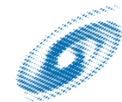
**item:** represents a Digital Item aka Digital Object aka asset. *Descriptor/statement* constructs convey information about the Digital Item

**component:** binding of *descriptor/statements* to datastreams

**resource:** datastream

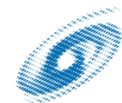
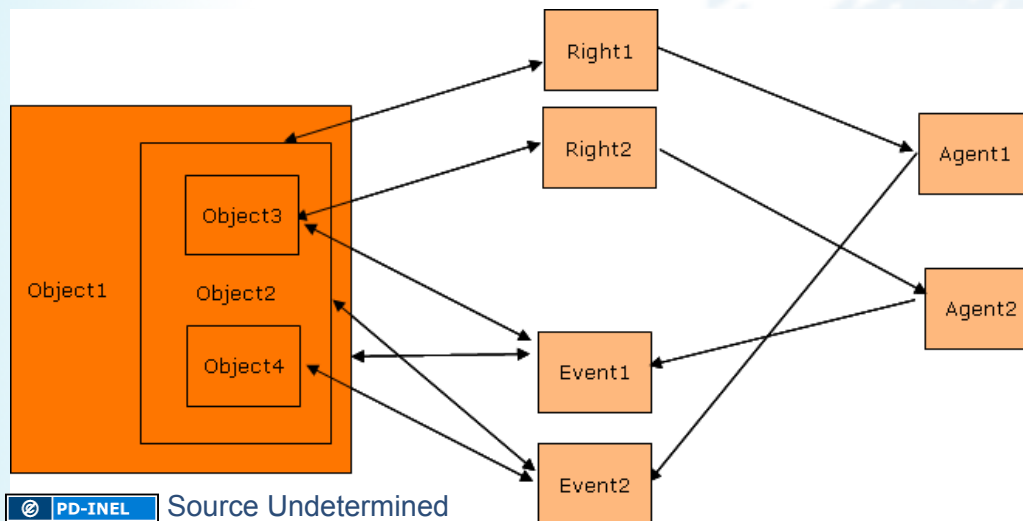


PD-INEL Source Undetermined



# Implementing PREMIS in DID

- DID abstract model is an object-centric containment model
- Semantically, *Descriptor/statement* constructs under a certain level are the metadata “about” that level of DID container or item or component.
- *Descriptor/statement* about the DID container should be mapped to OAIS packaging information, therefore out of the PREMIS scope
- Rights, Agents, and Events in the PREMIS model are **linked** to the objects, but not **about** the objects.
- However, the PREMIS metadata as a whole (premis:premis), is about an object (the target of the preservation)





• Gracy, *Preserving Film* (2006).

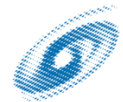
# Managing a preservation project

Digital cinema

Intermediates

**Project management**

- Process and opportunities for digital
- Vendor relationships
- Future directions



# Thank you!

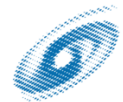
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