

UCSD Libraries' Digital Asset Management System

Object Characteristics

November 15, 2007

This document describes the fundamental characteristics of all digital objects stored in the UCSD Libraries' Digital Asset Management System (DAMS). This object description is intended to ensure that UCSD Libraries' digital objects are constructed in a uniform manner that promotes interoperability among the objects, more efficient management, and more robust end user services. This description is formulated to accommodate use requirements, as yet unknown, that may occur in the future. The four fundamental characteristics of all DAMS digital objects are as follows:

1. Metadata associated with digital objects will be expressed and stored as RDF (subject, predicate, object) statements, where:
 - a. The "subject" component of every statement will be the ¹*most significant characters of the ARK*, otherwise known as the root ARK or object identifier, associated with that digital object.
 - b. The "predicate" component of every statement will be the most significant characters of the ARK associated with the URL defining the desired namespace.
 - c. The "object" component of every statement will be either:
 - i. A simple literal value.
 - ii. A JSON encoded representation of the sub-element structure of the associated predicate, wherever such sub-structure exists.
 - iii. An arbitrary URL or the most significant characters of another local ARK URL.
2. Metadata in the objects will partake of the standardized schemas and local data elements that have been authorized for use in DAMS digital objects per the UCSD Libraries Metadata Policy.

¹ Whereas a full ARK URL is:

<http://libraries.ucsd.edu/20775/bb1234567>

the "most significant" characters of the ARK URL are simply 'bb1234567'.

3. The following table is a selective representation of how literals and JSON encoded values will be used in the DAMS objects.

Subject [ARK]	Predicate [ARK]	Object Literal or [JSON Notation]
bb21168844	mods:titleInfo	[{ "mods:title":" <i>metadata value</i> ", "mods:subTitle":" <i>metadata value</i> ", }, { "@type":"translated", "mods:title":" <i>metadata value</i> ", "mods:subTitle":" <i>metadata value</i> " }, { "@type":"uniform", "mods:title":" <i>metadata value</i> " }, { "@type":"alternative", "mods:title":" <i>metadata value</i> " }]
bb21168847	mods:genre	{ "@authority":"local", "#text":" <i>metadata value</i> " }
bb21168857	mix:SourceType	metadata literal
bb21168858	mix:SourceID	metadata literal
bb21168867	pre:messageDigest	metadata literal
bb21168868	pre:size	metadata literal
bb21168872	rts:RightsHolderName	metadata literal
bb21168873	rts:RightsDeclaration	metadata literal
bb21168874	rts:Constraints	[{ "@CONSTRAINTTYPE":"TRANSFERPERMISSIONS", "#text":" <i>metadata value</i> " }, { "@CONSTRAINTTYPE":"RE-USE",

		<pre> "#text":"metadata value" }] </pre>
--	--	---

4. To be a valid UCSD digital object, every object in the DAMS needs to meet the following minimal object requirements.

- Object Identifier (ARK)
- Descriptive metadata
 - ◆ title
 - ◆ type of resource
 - ◆ note
 - attribute "Digital object made available by"
 - name of the UCSD Libraries' data provider that is primarily responsible for making the resource available digitally, e.g. Art and Architecture Library
- Rights metadata
 - ◆ Rights Declaration
 - RIGHTSCATEGORY attribute value as one of:
 - COPYRIGHTED
 - PUBLIC DOMAIN
 - OTHER
 - Rights Declaration value as one of:
 - The work is copyrighted
 - The work is copyright by the UC Regents
 - The work is in the public domain
 - Copyright status of the work has not been determined by the UCSD Libraries
 - ◆ Constraint Description
- Content file(s)
 - ◆ at least one digital content file
 - ◆ a File Use attribute for each file that contains one of the following values:
 - Application-PDF*
 - Application-PS*
 - Audio-Master*
 - Audio-Master-Edited*
 - Audio-Service
 - Audio-Streaming
 - Audio-Clip

Image-Master*
Image-Master-Edited*
Image-Service
Image-Service-LowRes
Image-Service-MedRes
Image-Service-HighRes
Image-Service-Edited
Image-Thumbnail
Text-OCR-Edited*
Text-OCR-Unedited*
Text-TEI-Translated*
Text-TEI-Transcribed*
Text-Georeference*
Text-Data*
Text-Data Definition*
Text-Codebook*
Video-Master*
Video-Master-Edited*
Video-Service
Video-Streaming
Video-Clip

- ◆ technical metadata for each file when that file contains one of the file use attributes marked by an asterisk* above
 - Object Identifier Type
 - Object Identifier Value
 - Preservation Level with value of either “full” or “Bit-level”
 - Object Category with value of “File”
 - Composition Level with value of “1” or “0”
 - Message Digest Algorithm
 - Message Digest
 - Object Size element
 - Format Name
 - Date Created by Application

All digital objects will be viewable throughout the DAMS Triplestore Viewer. Viewing of the “native” digital objects will be one method for affirming their adherence to object assembly specifications and to the object requirements stated above.