Avalon Media System update

Open Repositories 2014
13 June 2014

Jon Dunn, Indiana University
Claire Stewart, Northwestern University
Project Objectives

**Goal:** Create an open source system to enable libraries and archives to provide online access to video and audio collections

- Digital audio/video management and delivery system, focused on needs of libraries and archives
- Follow an agile, open source development model
- Leverage existing technologies, where feasible
- Communicate and market the project broadly to increase awareness and grow the community of users and developers
Project Overview

• Funded in part by a National Leadership Grant from the Institute of Museum and Library Services

• Original name: Variations on Video

• Planning grant:
  – August 2010 – July 2011

• Implementation grant:
  – September 2011 – October 2014

• Partnership between libraries at Indiana University and Northwestern University
Project Partners and Advisors

hydra
INDIANA UNIVERSITY
NEW YORK UNIVERSITY
opencast
ROCK AND ROLL HALL OF FAME & MUSEUM
Berkeley
UNIVERSITY OF CALIFORNIA
Miami
UNIVERSITY OF MIAMI
Virginia
UNIVERSITY OF VIRGINIA
WGBH
The University of York
Project Partners and Collaborators
Project Progress

• Development team hired
• Trained on agile development (Scrum), May 2012
• Releases:
  – Release 0, July 2012
  – Release 0.5, October 2012
  – Release 1.0, May 2013
  – Release 2.0, November 2013
  – Release 3.0, April 2014
• Participation in Hydra and Matterhorn communities
0 – 2.0 Release Functionality

- Secure delivery of video and audio to desktop browsers and iOS (iPad/iPhone) devices
- Integration with a variety of authentication systems are supported, along with management of group-based authorization
- Content can be added using manual upload and description, or using the batch import facility (dropbox + spreadsheet)
- Server-side transcoding using ffmpeg/Matterhorn
- For fast and easy discovery, faceted search is based on the Blacklight discovery tool using MODS metadata
- Support for both Adobe Media Server and the Red5 open source media server for audio and video streaming
- Hierarchical permissions model: for each Unit and Collection, 3 assignable roles: Manager, Depositor, Editor
# Permissions model

<table>
<thead>
<tr>
<th>Task</th>
<th>Administrator</th>
<th>Manager</th>
<th>Editor</th>
<th>Depositor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create Administrative Units</td>
<td></td>
<td>✔️</td>
<td></td>
<td></td>
</tr>
<tr>
<td>View All Collections</td>
<td>✔️</td>
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<tr>
<td>Create Collections</td>
<td>✔️</td>
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<tr>
<td>Edit Collection Information</td>
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<tr>
<td>Set Default Collection Access Controls</td>
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<tr>
<td>Delete Collections</td>
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<td>✔️</td>
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<tr>
<td>Manage Groups</td>
<td>✔️</td>
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<tr>
<td>Add/Remove Managers</td>
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<tr>
<td>Add/Remove Editors</td>
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<td>Add/Remove Depositors</td>
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<tr>
<td>Add Items</td>
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<tr>
<td>Set Item Access Control</td>
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<tr>
<td>Add Metadata</td>
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<td>Publish Items</td>
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<td>Edit Published Items</td>
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<td>Delete Published Items</td>
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<td>Unpublish Items</td>
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<td>Edit Unpublished Items</td>
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<td>Delete Unpublished Items</td>
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<tr>
<td>Batch Upload</td>
<td>✔️</td>
<td>✔️</td>
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<tr>
<td>View Administrative Metadata</td>
<td>✔️</td>
<td>✔️</td>
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</tr>
</tbody>
</table>
3.0 Release April 2014

- Learning Tools Interoperability (LTI) support for secure integration with learning management systems
- Embedding with authentication
- Support for permanent URLs (e.g. PURL at IU, Hdl at NU)
- Skip transcoding option
- Configurable options for handling master files: delete, move, do nothing
- Privacy between dropboxes
- Media player improvements, better Android support
Demo ? of Version 3.0
Avalon home, Northwestern branding
Faceted browse via Blacklight
Manage Content

Repository | audio + video

My Collections

<table>
<thead>
<tr>
<th>Collection</th>
<th>Items</th>
<th>Manager</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Claire collection</td>
<td>3 items (3 unpublished)</td>
<td>1 manager</td>
<td>It's for testing and interestingness</td>
</tr>
</tbody>
</table>

Create Collection
Role based permissions

Repository | audio + video

Claire collection

Description: It's for testing and interestingness
Unit: Digital Collections

Assign Staff Roles

Manager
Editor
Depositor

claire-stewart@northwestern.edu

Or learn how to create items using batch upload.
Collection: default access control

Set Default Access Control for New Items

Item discovery
- Hide this item from search results

Item access
- Available to the general public
- Logged in users only
- Collection staff only

Assign special access

User

Group

Class

Save Access Settings
Add item: upload or dropbox

Claire collection > Untitled item

Manage file(s)

Upload through the web

Uploaded files must not exceed 250 MB

- trippy-fish.MOV

Upload | Change | Remove | □ Skip transcoding

Import from a dropbox

Use the dropbox to import large files. Attach selected files after uploading. Files will be begin processing when you click Save and continue.

Open Dropbox

Save | Save and continue
Metadata: MODS

Resource description

Fields followed by an asterisk (*) are required.

Title *

Standing in the fish cylinder

Main contributor(s) *

Stewart, Claire

Publication date *

2014-06-12

Creation date
Add sections, rearrange structure
LTI integration: class permissions

Access Control

Item discovery

☐ Hide this item from search results

Item access

☐ Available to the general public
☐ Logged in users only
☒ Collection staff only

Assign special access

User

Add

Group

Add

Class

201

Save  Save and continue
Permanent URL minted on Publish

Standing in the fish cylinder

Main contributor
Stewart, Claire

Date
2014-06-12

Collection
Claire collection

Unit
Digital Collections

Share this resource
Embed

Copy the link below to share this resource

Item
http://hdl.handle.net/2166/avalon_j82k225m3h

Section
Viewing a media set from Canvas
Avalon 3.0 Rollouts

Northwestern
• First production system going live (any second now):
  – (Matterhorn) = (Hardware) 20 Cores/40 Threads
  – (Web) = (Virtual) 4 Cores
  – (Database) = (Virtual) 2 Cores
  – (Solr) = (Virtual) 4 Cores
• Summer 2014 soft rollout with NU courses in Canvas; Archival collections: Marcellus audio, Northwestern football films
• MultiMedia Learning Center (MMLC) non-library pilot partner

Indiana
• Pilot site live:
  – (Matterhorn) = (Hardware) 12 Cores/24 Threads
  – (Web and Solr) = (Virtual) 4 Cores
  – (Database) = (Virtual) 4 Cores (shared)
• Film Archive exhibit in Omeka, conference proceedings in OJS, music course pilots
• Production in August 2014: migration of video e-reserves
• MDPI in Fall 2014
Future Releases – 3.1 and beyond

• Release 3.1 – key improvements planned
  – LDAP groups support
  – Legacy permalinks

• Release 4 and beyond
  – Metadata import from ILS
  – Bulk actions
  – Media processing prioritization
  – Structural metadata, playlists
  – Accessibility, transcripts
  – Array of metadata improvements

Track the roadmap:
https://wiki.dlib.indiana.edu/display/VarVideo/Road+Map+Post+R1
Development process

• A single, blended team
• Scrum & JIRA
• F2F for scrum training, prioritization
• Daily standups, IRC
• Pulling in sysadmins, testers as needed
• More PO time
Community and future directions

- Lessons learned in development process
- Multiple implementations going on in community
- Exploring roles beyond library/archives
- Working with Hydra community, sustaining development after grant is over
- Building teaching and research tools: Avalon project or community project? Role of standards?
- HydraDAM and Avalon, other preservation-specific integrations
Learn More About Avalon

- **Website:** [http://avalonmediasystem.org/](http://avalonmediasystem.org/)
- **Listserv:** E-mail avalon-discuss-l-subscribe@indiana.edu to subscribe
- **Social media:**
  - @avalonmediasys
  - facebook.com/avalonmediasys

- **Or contact:**
  - Jon Dunn: jwd@indiana.edu
  - Claire Stewart: claire-stewart@northwestern.edu

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