

Avalon Media System Demonstration and Roadmap

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What is Avalon?

- Hydra Solution Bundle for audio/video access
- Goals:
 - Easily installable and configurable
 - Serve a variety of use cases and institutions
 - Create a basis for sustainable development

Why Avalon?

- Existing repository systems don't work well for time-based media
 - DSpace, Fedora, Digital Commons, ContentDM, ...
 - Issues: integration with streaming servers; hard to support time-based navigation; difficulties in integrating access control
- Existing media systems don't work well with repositories
 - Kaltura, Brightcove, Ensemble, ShareStream, ...
 - Issues: focus on short-term access for teaching and learning; limited metadata and access control capabilities; integration with preservation workflows

Project Funding

- 2011-2015: National Leadership Grant from the Institute of Museum and Library Services
- 2015-2016: Andrew W. Mellon Foundation
- Partnership between libraries at Indiana University and Northwestern University

Project Partners and Advisors



INDIANA UNIVERSITY



NORTHWESTERN
UNIVERSITY



NEW YORK UNIVERSITY



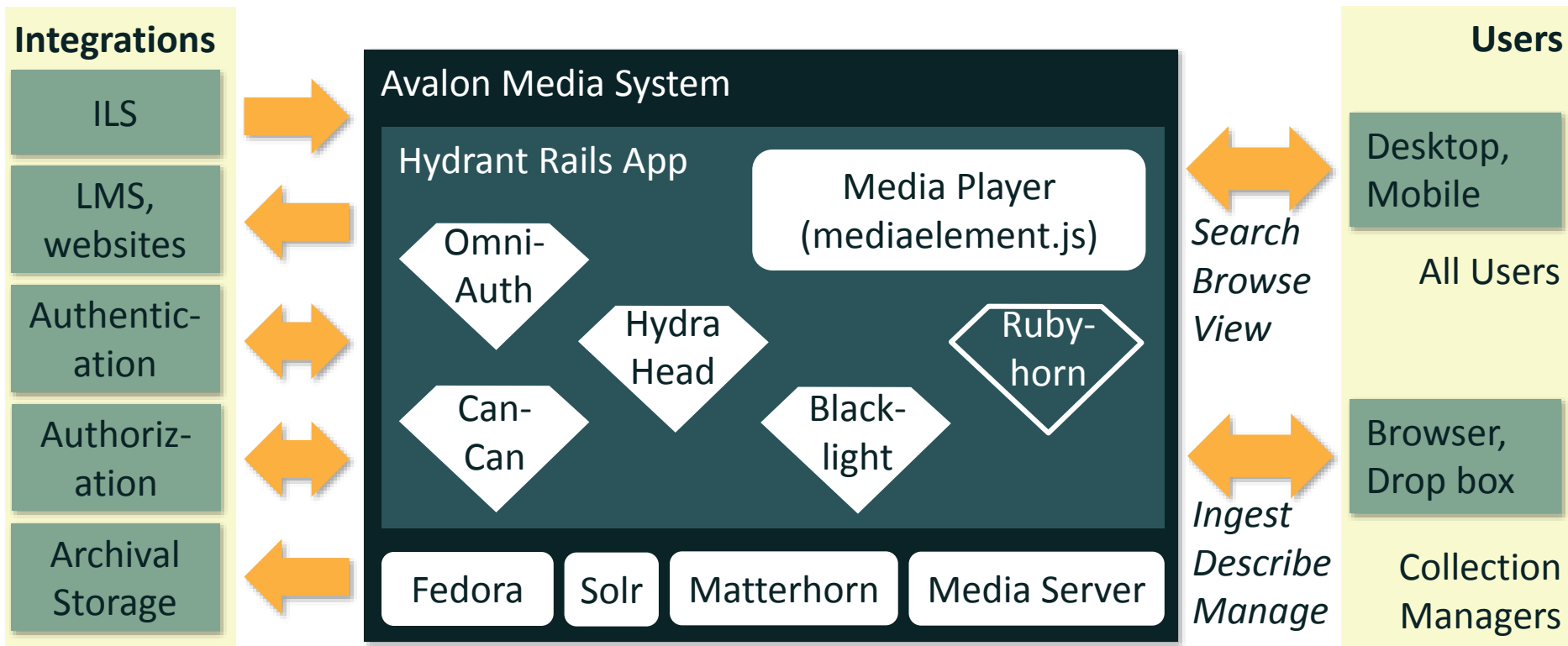
STANFORD
UNIVERSITY



THE UNIVERSITY *of York*

avalon
MEDIA SYSTEM

Avalon Architecture



- Avalon code – consists of Hydrant Rails App and the Rubyhorn gem. Other pieces are leveraged.

Release History

- 0.1 – July 2012
- 0.5 – October 2012
- 1.0 – May 2013
- 2.0 – October 2013
- 3.0 – May 2014
- 3.1 – July 2014
- 3.2 – January 2015
- 3.3 – March 2015
- 4.0 – September 2015

Current Use Cases

- Video e-reserves
- Hosting of licensed educational video content
- Access to archival audio, video, film collections
- Access to teaching collections
- Mass digitization

Faceted browse via Blacklight

The screenshot displays the Avalon Media System interface for search results. The top navigation bar includes 'Browse', 'Manage Content', and 'Manage Groups', along with a search bar and a 'Sign out' button. The left sidebar contains two sections: 'Browse by' with filters for Format (Moving Image, 31), Date, Genres, Collection, and Unit; and 'Limit to' with filters for Published and Created by. The main content area shows the search criteria 'Format > Moving Image' and a 'Start Over' button. Below this, pagination and sorting options are visible: '« Previous | 1 - 10 of 31 | Next »', '10 per page', and 'Sort by Relevance'. The search results list four items:

1. avalon:1246 (00:29) - Thumbnail image of a color calibration chart.
2. avalon:1335 (00:06) - Thumbnail image of a person with the text 'I'd look like this'.
3. Fête (Excerpt) (01:03) - Thumbnail image of a person playing a piano. Metadata: Main contributors: Langlais, Jean, 1907-1991; Date: 2010; Summary: Recorded on May 2, 2010, Auer Concert Hall, Indiana University, Bloomington.
4. Bibliotecarios Friendly (00:40) - Thumbnail image of a person. Metadata: Main contributors: Vero ; Ramiro; Laura


Desktop/Mobile Player

avalon
MEDIA SYSTEM

Sign in >>

Browse

Search



Seward Organ Dedication April 30 2010

Share this resource

Embed

Copy the link below to share this resource

Item

https://pawpaw.dlib.indiana.edu:443/media_objects/avalon:

Section

https://pawpaw.dlib.indiana.edu:443/media_objects/avalon:

Fête (Excerpt)

Main contributor
Langlais, Jean, 1907-1991

Date
2010

Summary
Recorded on May 2, 2010, Auer Concert Hall, Indiana University, Bloomington.

Contributor
Young, Christopher C. (Christopher Clark)

Publisher
William and Gayle Cook Music Library

Subject
Organ music

Collection
Sample Collection

Unit
Default Unit

Embedding



» [Indiana University Libraries Moving Image Archive](#)

» [IU Audio-Visual Center Exhibit](#)

» [WWII Exhibit](#)

» [Browse Collections](#)

» [Browse Items](#)


» [IU Libraries Moving Image Archive Blog](#)

Control Center



About this item

Learning Tools Interoperability



[Courses](#) ▾[Grades](#)[Calendar](#)

Julie RudderInboxSettingsLogoutHelp

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SBX_MEDIA

Home

Announcements

Assignments

Discussions

Conferences

Course Reserves

Library Media

Modules

Collaborations

Files

Quizzes

Outcomes

Syllabus

Grades

People

Pages


Settings

SBX_MEDIA

j-rudder@northwestern.edu | Sign out | Help

Repository | audio + video

Click to Open Audio/Video Repository in a New Window



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[Contact Us](#)
For more information contact Digital Collections
Northwestern University Library; 1970 Campus Drive; Evanston, IL 60208-2300
Phone: 847-467-1080; E-mail: digitalcollections@northwestern.edu
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Learning Tools Interoperability

Repository | audio + video


[Browse](#) [Media in Canvas](#)

Browse by


- Format** >
 - Moving Image (2)
 - Sound Recording (1)
- Date** >
- Genres** >
- Collection** >
- Unit** >

You searched for External Group > Media in Canvas x [Start Over](#)


1 - 3 of 3 10 per page ▾ Sort by Relevance ▾

1. Marching Band, 1957 (16:31)

Main contributors: Northwestern University
Date: 1957

2. Clarinet Master Class 1990-06-21 (2:09:02)

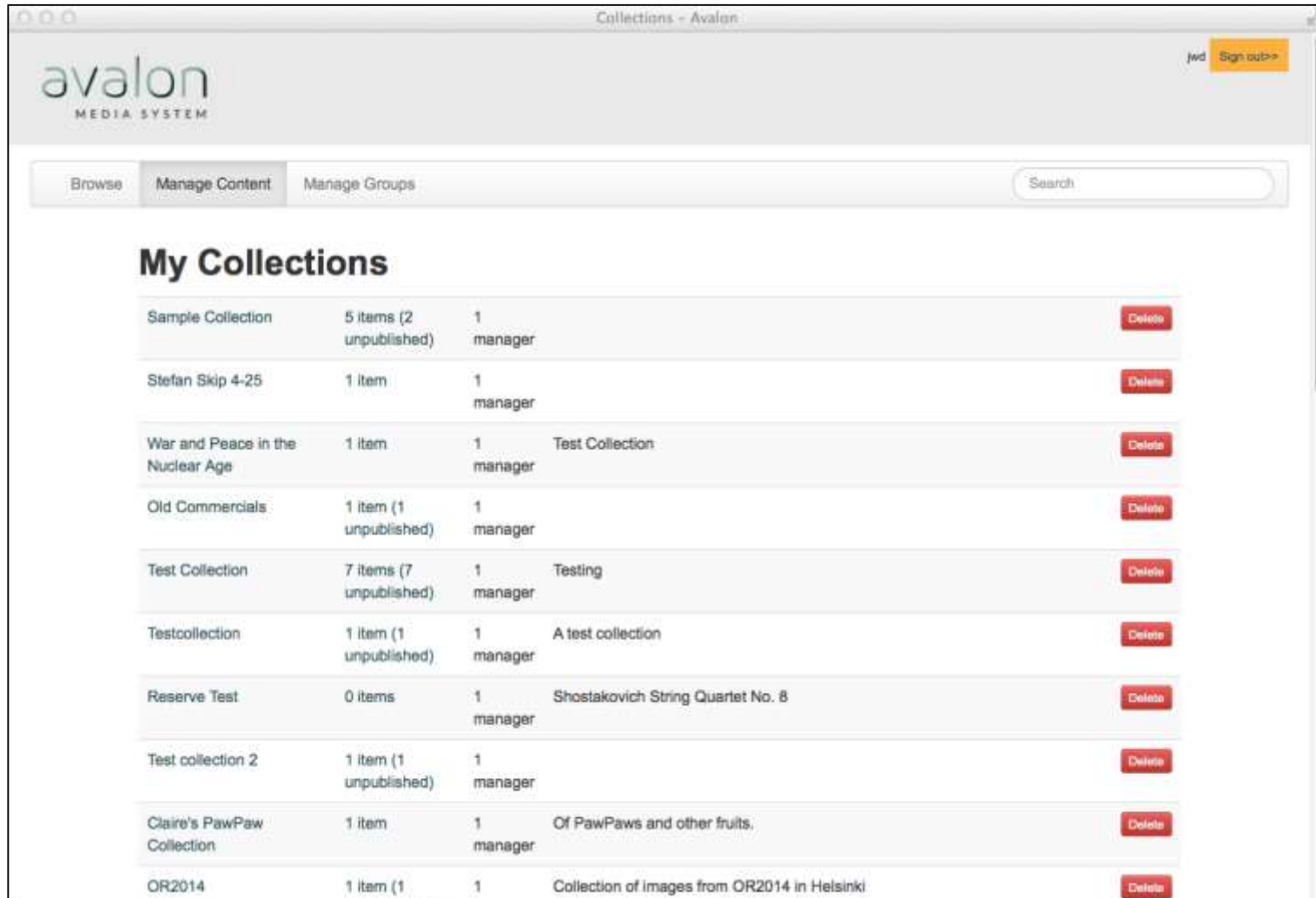
Main contributors: Brody, Clark; Marcellus, Robert; Smith, Gregory
Date: 1990-06-21
Summary: 1. Mock auditions with Robert Marcellus, Clark Brody, and Gregory Smith with excerpts from Beethoven "Symphony No. 4," Brahms "Symphony No. 3," and Rimsky-Korsakov "Capriccio Espagnol" 2. Mock au...

3. Northwestern Football practice, 1971 (22:39)

Main contributors: Northwestern University (Evanston, Ill.)

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MEDIA SYSTEM

Manage Content



The screenshot shows the 'Collections - Avalon' interface. At the top, there's a header with the 'avalon MEDIA SYSTEM' logo and a 'Sign out>>' button. Below the header, there are three tabs: 'Browse', 'Manage Content' (which is active), and 'Manage Groups'. A search bar is located to the right of these tabs. The main section is titled 'My Collections' and displays a table of collections. Each row in the table includes the collection name, the number of items (with a note if unpublished), the number of managers, a description, and a 'Delete' button.

Collection Name	Items	Managers	Description	Action
Sample Collection	5 items (2 unpublished)	1 manager		Delete
Stefan Skip 4-25	1 item	1 manager		Delete
War and Peace in the Nuclear Age	1 item	1 manager	Test Collection	Delete
Old Commercials	1 item (1 unpublished)	1 manager		Delete
Test Collection	7 items (7 unpublished)	1 manager	Testing	Delete
Testcollection	1 item (1 unpublished)	1 manager	A test collection	Delete
Reserve Test	0 items	1 manager	Shostakovich String Quartet No. 8	Delete
Test collection 2	1 item (1 unpublished)	1 manager		Delete
Claire's PawPaw Collection	1 item	1 manager	Of PawPaws and other fruits.	Delete
OR2014	1 item (1 unpublished)	1 manager	Collection of images from OR2014 in Helsinki	Delete

Add item: Upload, Dropbox, or Batch

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

Dropbox view

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Browse

Manage Content

Manage file(s)

Associated bitstreams

Resource description

Metadata about the item

Structure

Organization of resources

Access Control

Who can access the item

Preview

How end users see the item

Delete this item

j-rudder@northwestern.edu

Sign out>>

Source: File Dropbox

Name	Size	Kind	Modified
▼ Avalon demo	4 KB	application/x-directory	2014-10-19 13:45
lunchroom_manners_512kb.mp4	39.7 MB	video/mp4	2013-04-12 09:47
NUVMiami1971-01_1Mbit.mp4	7.37 MB	video/mp4	2014-08-15 11:15
▶ untitled folder	4 KB	application/x-directory	2014-10-19 13:44

0 files selected

☐ Skip transcoding

Cancel

Submit

Import from a dropbox

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

Open Dropbox

Save

Save and continue

Batch Folder

Name	Date Modified	Size	Kind
▼ assets	Sep 27, 2013 7:56 PM	--	Folder
🎵 agz3068a.wav	Apr 8, 2013 9:39 AM	350.2 MB	Wavefo...audio
🎵 agz3068b.wav	Apr 8, 2013 9:39 AM	675.5 MB	Wavefo...audio
🎬 lunchroom_manners_512kb.mp4	Apr 12, 2013 9:47 AM	41.6 MB	MPEG-4 movie
🎞 OrganClip.mov	Apr 8, 2013 1:35 PM	57.1 MB	Quick...movie
📄 SuccessTestBatch.xlsx	Jul 3, 2014 3:42 PM	183 KB	Micro...rkbook

Descriptive Metadata: MODS

The screenshot shows a web browser window with the URL https://pawpaw.dlib.indiana.edu/media_objects/avalon:sample-fete-excerpt/edit?step=resource-description. The page is titled "Resource description" and is part of the "avalon MEDIA SYSTEM".

On the left side, there is a sidebar with the following links: "Manage file(s)", "Associated bitstreams", "Resource description", "Metadata about the item", "Structure", "Organization of resources", "Access Control", "Who can access the item", "Preview", and "How end users see the item". A red button labeled "Delete this item" is at the bottom of the sidebar.

The main content area is titled "Resource description" and includes a note: "Fields followed by an asterisk (*) are required". The "Bibliographic ID" field is circled in red. Below it are fields for "Title*", "Main contributor(s)*", "Publication date*", and "Creation date*", each with a help icon. The "Summary" field is at the bottom.

The form contains the following data:

- Bibliographic ID**: (empty field)
- Title***: Fête (Excerpt)
- Main contributor(s)***: Langlais, Jean, 1907-1991
- Publication date***: 2010
- Creation date**: (empty field)
- Summary**: Recorded on May 2, 2010, Auer Concert Hall, Indiana University, Bloomington.

Access Control

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jwd Sign out>>

BrowseManage ContentManage Groups

Search

Manage file(s)
Associated bitstreams

Resource description
Metadata about the item

Structure
Organization of resources

Access Control
Who can access the item

Preview
How end users see the item

Delete this item

Sample Collection > Fête (Excerpt)

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

Avalon User ?

* Add

cjcolvar×

bdwheele×

bkeese×

Avalon Group ?

Stefan 4-25

↓ Add

External Group ?

MUS-M215

* Add

SaveSave and continue

Bulk actions

The screenshot shows the Avalon Media System interface in a web browser. The address bar displays <https://pawpaw.dlib.indiana.edu/bookmarks>. The page title is "Avalon MEDIA SYSTEM". The navigation bar includes links for "Browse", "Manage Content", "Manage Groups", and "Manage Selected Items (3)". A search bar is located on the right. The main section is titled "Selected Items" and shows "1 - 3 of 3" items. A red circle highlights the bulk action buttons: "Update access control", "Move", "Publish", "Unpublish", and "Delete". The first item, "1. Beginning Responsibility: Lunchroom Manners (09:31)", is selected. The second item, "2. Fête (Excerpt) (01:03)", is also selected. The third item, "3. Symphony no. 3 (1:36:54)", is selected. The footer includes the Avalon Media System Project Website - Contact Us link and the version number "Avalon Media System Release 4.0.1".

Avalon Media System

← → ↻ <https://pawpaw.dlib.indiana.edu/bookmarks>

Search

avalon
MEDIA SYSTEM

Browse Manage Content Manage Groups **Manage Selected Items (3)**


Selected Items

1 - 3 of 3 Sort by Relevance ▾ 10 per page ▾


Update access control Move Publish Unpublish Delete

☒ **Select All**
☒ Selected


1. Beginning Responsibility: Lunchroom Manners (09:31)


 Main contributors: Coronet Films
Date: 1959
Summary: The rude, clumsy puppet Mr. Bungle shows kids how to behave in the school cafeteria - the assumption being that kids actually want to behave during lunch. This film has a cult following since it ap...

2. Fête (Excerpt) (01:03)

 Main contributors: Langlais, Jean, 1907-1991
Date: 2010
Summary: Recorded on May 2, 2010, Auer Concert Hall, Indiana University, Bloomington.

3. Symphony no. 3 (1:36:54)

 Main contributors: Mahler, Gustav, 1860-1911.
Date: 1996 (Creation date: 1995-01-17/1995-01-18)
Summary: Recorded Jan. 17-18, 1995, in the Musical Arts Center, Bloomington, Ind. Compact disc. Program notes and biographical notes by David Pickett, and text of the 4th and 5th movements in German with En...

 - Avalon Media System Project Website - Contact Us

Avalon Media System Release 4.0.1

avalon
MEDIA SYSTEM

4.0: Structural metadata creation

Manage Groups





Manage Selected Items (0)

Search

Kevin Ingest Test > Beginning Responsibility: Lunchroom Manners

Structure

Drag files to reorder them.

Type	Section label	File name	Size	Structure
	Lunchroom 1	lunchroom_manners_512kb.mp4	75 MB	
Lunchroom Manners				<div>Upload Edit Remove</div>
Introduction				
1. Part 1				
2. Part 2				
Manners				
3. Wash Hands				
4. No Elbows				
5. Inside Voices				
6. Conclusion				
	Lunchroom Again	avalon_3220-lunchroom_manners_512kb.mp4	75 MB	

Save

Save and continue


Get Website - Contact Us

Avalon Media System

avalon

MEDIA SYSTEM

4.0: Structural metadata navigation



00:00 00:32

Beginning Responsibility: Lunchroom Manners

Main contributor
Coronet Films

Date
1950

Summary
The rude, clumsy puppet Mr. Bungle shows kids how to behave in the school cafeteria - the assumption being that kids actually want to behave during lunch. This film has a cult following since it appeared on a Pee Wee Herman HBO special.

Publisher
Coronet Films

Subjects
Social engineering; Puppet theater

Collection
Kevin Ingest Test

Unit
Default Unit

Notes
LOCAL NOTE
This was batch ingested with skip transcoding and with structure

[View Raw Metadata](#) [View Fedora Objects](#)

Share

Expand All

1. Lunchroom Manners (09:32)

Introduction


- 1. Part 1 (01:00)
- 2. Part 2 (01:00)

Manners


- 3. Wash Hands (00:30)
- 4. No Elbows (01:00)
- 5. Inside Voices (01:30)

6. Conclusion (04:32)

4.0: Accessibility Improvements

Sign in

Browse



Fête (Excerpt)

Main contributor
Langlais, Jean, 1907-1991

Date
2010

Summary
Recorded on May 2, 2010, Auer Concert Hall, Indiana University, Bloomington.

Contributor
Young, Christopher C. (Christopher Clark)


Publisher
William and Gayle Cook Music Library

Subject
Organ music

Collection
Kevin R4 Safari Test2

Unit
Default Unit

[Share](#)

 - Avalon Media System Project Website - Contact Us

Avalon Media System Release 4.0

Other Avalon 4.0 Improvements

- Support for Wowza media server
- Upgrade to Hydra 8 (Fedora 3.x)
- Transcoding API
 - ActiveEncode allows alternative transcoding engines
- New metadata fields
- oEmbed support
- Media URLs can point to specific time offsets

Avalon 5.0 (Expected 1Q16)

- Updated player
- Player API (possible)
- Content ingest API
- IP-based access control
- Improved structural metadata editor
- More accessibility improvements
- Fedora 4 / Hydra 9?
- Preparation for SaaS pilot

Future Feature Development

- [See https://wiki.dlib.indiana.edu/display/VarVideo/Avalon+Release+Road+Map](https://wiki.dlib.indiana.edu/display/VarVideo/Avalon+Release+Road+Map)
- Bookmarking, clip making, playlists
- Annotation
- Spotlight integration
- Synchronized transcripts
- Publishing out to external media sites (e.g. YouTube)
- Dynamic adaptive streaming
- Additional access control options
- Reporting and metrics tools
- Internationalization
- More flexible metadata
- Supplemental materials
- PCDM / RDF
- Modularization
- Integration with external tools, e.g. annotation

Questions?

- www.avalonmediasystem.org
- github.com/avalonmediasystem