# **UAlbany Arclight Update and Outlook**

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The M.E. Grenander Department of Special Collections & Archives at UAlbany has had a local Arclight instance up since March 2018. It has proven to be very stable deploying via Passenger and Nginx on a CentOS server. We have a separate Solr 7.2.1 server running on Windows Server 2012.

We successfully indexed all of our 677 EADs, which are unaltered ArchivesSpace v1.5.1 exports. We experienced two types of EAD index errors, and rectified these by improving description in ArchivesSpace. One was a long and inappropriate Chronological list in a Historical Note, more problematic than a standard <chronlist>. The other issue was with invalid date ranges, like 1956-9999, which was a problematic local practice.

Our 677 indexed EADs make up about 230,000 Solr docs. We only have 8GB of RAM allocated to Solr, and while it's minimally-usable right now, we have to do some tuning and potentially add more memory. We have been experiencing timeout errors during indexing which are rectified by optimizing the index. I expect that tuning Solr will fix this issue.

Overall, we find Arclight to be a major step forward in the display and usability of archival description. Arclight seems to make complex archival hierarchies more usable by allowing users to dive quickly into the lower levels. It leverages the strengths of archival description by presenting materials within the context of scope notes and inherited description. Still, there are persistent usability concerns as we find that users are still challenged to understand their place within a collection's hierarchy and navigate through it. With the results of our user testing, we plan to make some more minor design changes before launching, and hope to re-examine the layout and navigation to a component's contents in future iterations, hopefully based on more testing and the experiences of others.

While it is imperfect, as-is Arclight is a substantial improvement to our current XTF system in both design, flexibility, and maintainability. We find it substantially easier and more efficient to edit ERB templates than working in XTF, and the Nginx/Passenger/Rails stack with a separate Solr to be more stable and dependable than XTF and Tomcat. Despite limited technical staff, we are confident in maintaining Arclight long term. We are now currently implementing a production instance and hope to go live with Arclight as our collections access system in February 2019.

**Technical Issues** 

Design Issues

Unresolved Issues Local Modifications Planned Local Modifications Future Priorities Public API Access

## **Technical Issues**

#### Supporting Multiple Dates

Arclight does not support multiple dates in components, and will only display the first date. This is an indexing issue, as only the first date is added to normalized\_date, which is then appended to normalized\_title. This means it will still include other dates when faceting by dates, just not display them. Allowing multiple dates is a longstanding local practice here and is supported by DACS. Our solution to this is here: <u>https://github.com/sul-dlss/arclight/pull/491</u>

New York State Coalition for Criminal Justice Records, 1971-1986

Correctional Restitution, 1976, 1980, 1983

#### **Displaying Component-Level Contents**

Arclight only shows child components for collections, and lower level components (such as file series) have no access to their children without returning to the collection level or searching. It was relatively easily to implement this and performance is the same as navigating down from the collection level. Our method for this is here: <u>https://github.com/sul-dlss/arclight/pull/489</u>

We did however find that we could not easily add Google Form request links here in the long list view, as rendering this partial potentially 100s+ times was really inefficient and created performance issues:

#### https://github.com/UAlbanyArchives/arclight-UAlbany/commit/5f8797a1d51f5cf867cbb80f458eb 2971d29c262

Obviously, adding component contents is likely to display very long list, which might be problematic for UX reasons. We use a fixed header to alleviate this, but this is an imperfect fix. We also had to do some custom styling to make the titles and containers smaller, and this could still use more attention.

Series 1. New York State Coalition for Crimin	Bookmark	
Coalition Administration	Files, 1975-1984	
In person	Overview Contents No online content	
COLLECTING AREA:	Access, Disabled Persons Access To Churches, 1981 Box 1, Folder 1	Bookmark
Political Archive	Alternatives To Incarceration, 1975-1982	Bookman
• Contact 🏦 Visit	American Friends Service Committee, 1982 Box 1, Folder 1	Bookman
Terms & Conditions	Amnesty International, 1981-1982 Box 1, Folder 4	Bookmark
	Anchor Association, 1980	Bookman
	Attica Clemency Legislation, Undated Box 1 Solder 6	Bookman

#### Lower Level Access Restrictions Repeats

Lower level <accessrestrict> tags will each show up in a parent's "Terms & Conditions" card. Thus, if a series does not have an access note, but some of its children do, it will display the restrictions of all its children.

This is an indexing issue, and fixing it potentially creates a design issue. Child access restrictions are added to a components accessrestrict\_ssm field. The fix to solr\_ead\_indexer\_ext.rb here fixes that:

https://github.com/UAlbanyArchives/arclight-UAlbany/commit/f66382b7f6b7f1ef1793d7377317b 330385ae2c8#diff-ab385a02a8028462403d51dff1f3d568

However, this potentially creates a design issue, as a child note should override its parent, but if a parent has a note that states that its unrestricted, it still shows up in the "Terms & Conditions" card for lower lever components that have an overriding access restriction note. The change to \_context\_card.html.erb in that commit overrides the parent restriction in the "Terms & Conditions" card when an access restriction note is present, but this might be problematic from a UX perspective, as the restriction in the "Terms & Conditions" card refers to parent restrictions when this is not the case.

Michael Mello Papers. 1800-2008. bulk 197	-2004	D Bookman		
UCI Inmate Records, [Res	ricted] (4 of 9), 1975-1995	Restricted		
In person	Overview No online content			
REQUEST:	ABOUT THIS FILE CONTAINERS: Box 1 (1-joseph spaziano), Folder 15			
COLLECTING AREA: National Death Penalty Archive	RESTRICTIONS: Must consult archivist to view material	>		
Contact Interview Contact Interview Contact	National Death Penalty Archive	Collection ID: apap28		
Terms & Conditions	Michael Mello Papers, 1800-2008, bulk 1970-2004			
RESTRICTIONS:	Joseph Spaziano, 1932-2008 182 children			
unrestricted.	SCOPE AND CONTENTS			
TERMS OF ACCESS: This page may contain links to	This series contains materials related to the various trials of Joseph Spaziano and represents Spazianos defense or during the writing of Michael Mellos book The Wrong Man: A True Sto series are legal materials, correspondence, notes, and research materials.	material created or used by Michael Mello in Joseph my of Innocence and the Death Row induded in this		
digital objects. Access to these images and the technical capacity	ese UCI Inmate Records, [Restricted] (3 of 9), 1975-1995 (2010)			

## **Design Issues**

Lauren Puzier, UAlbany's User Experience Librarian did some user testing our test Arclight implementation and wrote up a report here:

https://docs.google.com/document/d/1etPr-b1B13nwuDa0eXgKrYXFAzZ5vvYJ\_NS7VmbrBxI/e dit

## Contents Tab

We find the biggest design issue to be the layout of the component pages. We find that users' eyes are drawn towards the middle of the page and often miss vital information. For collection-level pages, the title may not stand out as much as it should. We added a box-shadow to that panel, and while it may help, it is likely a "band-aid" for a broader problem.

We find that users often miss the Contents tab, so we tried replacing the existing Bootstrap Pills with Tabs. This did make the layout more transparent and users were more likely to understand that there is more content behind the "Overview" tab, but lack of color/contrast made them less likely to spot it. We think that the "Contents" tab is very important, as it allows users to navigate down the collection hierarchy. While we hope to experiment with this layout in future iterations, we do not have actionable ideas for improvement. The multi-tab view seems like the least bad option.

## No Single Page Display

During their very help evaluation of Arclight, the Bentley library stated their desire for a complete collection view on a single page. We do not think this is necessary, as we think that this is a view that archivists are very familiar with, but is problematic for many users. While providing the option of a full collection view in itself would not be detrimental, conversations focusing on single-page views could potentially distract from making real usability advances that benefit everyone.

## **Unresolved Issues**

## **Online Content Badges**

Only collections display badges when a child has online content. This is an indexing issue that we haven't resolved yet. If a lower level component has online content, the has\_online\_content\_ssm field is true, yet its patent series will be false, but its top level collection will be true.

#### **Bookmarks Checkbox**

Sometimes checking or unchecking a bookmarks checkbox returns a JS alert error. This seems to be always fixed by a refresh.

6		Bookmark
	Error	
nts I	ок	
sons Access	To Churches, 1981	Bookmark
ceration, 197	/5-1982	🗹 Saving

## Search Behavior

Collections are not prioritized as we would have expected. Searching for a known collection often returns lower level materials from other collections over the collection we expect. Its might be more of an issue for archivists than end-users.

		Daniel zvan sotton vagent, 1962-1971 x Case Viet, 1963-1971, Undated	
Date range	>	Donovan, Edward J., 1969	
		Donevan. Edward J., 1969	
Names	>		
		New York State Modern Political Archive	Bookmark
lace	>	League Of Women Voters of Albany County Records, 1938-2001 + Audio-Visual Material, 1983-2001	
	1221	Donovan, Hope, 1993 November	
ubject	>	Donovan Hope, 1993 November	
		University Archives	Bookmark
		Faculty Reference Collection, 1845-present = 0, 1851-2005	
		Donovan, Robert Alan, Undated	
		Donevan, Robert Alan, Undated	
		New York State Modern Political Archive	Bookmark
		Ronald 8. Stafford Papers, 1956-2002 + Adirondack Park Agency, 1956-2000, Undated	
		Donovan, Senator James H., 1975	
		Donovan, Senator James H., 1975	
		New York plate Modern Political Allowine using 168	Bookmark
	10	Hope Donovan Papers, 1970-2003	
		Renovan Hope 1970-2003	
		This collection exercise of a undate of metadole collected by Mana Danauta during her under as an incommental	total and according to

## **Local Modifications**

The largest changes we made were adding local headers and footers, styling changes, and some minor changes to views. Most of this section is specific to UAlbany, but I wrote them up to see if anything would be generalizable enough to incorporate in to Arclight itself.

## Using Repositories for Collecting Areas

We do not have a use for the multitenancy of Arclight, yet since we have defined collecting areas, we decided to try using this feature to categorize these as repositories. It was technically very simple to alter repositories.yml for this, though we made additional changes to the view and added a tagline in the yml file. Functionally it works well and faceting by collecting area is very useful. Our testing did find that users had some confusion with collecting areas as they did comprehending other hierarchical levels.



#### **Indented Breadcrumbs**

We thought indenting the breadcumbs would solve the problem of really long component names, and would help users better understand the hierarchy of materials. From our testing you can see that getting users to comprehend the hierarchy is still problematic. The commit for this is here:

https://github.com/UAlbanyArchives/arclight-UAlbany/commit/bc63a1973dfb3affdc71862ece04c 8b9e4c5a096



#### Support for Creative Commons URIs in Usage Restrictions

We added support for Creative commons license URIs in Usage restriction notes. The language is not finalized, but this does demonstrate how easily customizable Arclight is. Arclight might consider supporting Creative Commons or RightStatements URIs like this in the future.



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## Left side "In Person" Card

We altered the information in this area to display the collecting area and buttons for those seeking more information. For items without any children (folders, series without more detailed description, etc.) it also displays a request button that calls a modal with more information on how to view materials. Users had difficulty in discovering and understanding this information, so we will probably revisit this.



## **Restriction tags**

We try to prioritize making access restrictions obvious and transparent to users. In the past we've relied on a number of imperfect practices, like adding "[RESTRICTED]" at the end of a

folder title, or using a collection-level access restriction note to describe specific lower level restrictions that only apply to certain parts of the collection. With some minor modifications, Arclight allows us to effectively display restrictions using lower-level notes and inheritance as archival description requires. For non-collection level items with accessrestrict\_ssm information, we added Bootstrap badge-danger tags next to titles, and alter-danger in the "About This File" section. Additionally, if a non-collection level parent has an accessrestrict\_ssm note, but its children do not, it inherits the parent's restriction as an alert-warning. Some of this still relies on string matching to distinguish restrictions from notes that say "is unrestricted" or similar, so long-term this should require local standards for restrictions or potentially URIs. The code for our changes is here:

https://github.com/UAlbanyArchives/arclight-UAlbany/commit/529d8dbbe62ef21c13041a0c86b8 28d4777cdc2b and here:

https://github.com/UAlbanyArchives/arclight-UAlbany/commit/96d414b13a86d8618234ed1879d e2cc95dcf1bb9



Willowbrook Audits [RESTRICTED], 1977-1978

Subseries 3.1. Willowbrock Review Panel Records. 1968-1981 Willowbrook Audits [RESTRICTED], 1975-1980		Bookmark	
		Restricted	
In person	Overview Contents No online content		
COLLECTING AREA:	Surveys, Dental Clinic [RESTRICTED], 1975 [Restricted] Box 1, Folder 1	Bookman	
Political Archive O Contact	Surveys, Dining Room Conditions [RESTRICTED], 1975 [Resoluted] Box 1, Folder 2	Bookman	
	Surveys, Food Service and Nutrition [RESTRICTED], 1975 Restricted Box 1, Folder 3	Bookman	
Terms & Conditions	Surveys, Policy and Procedure Manual [RESTRICTED], 1975 Retricted Box 1, Folder 4	Bookmari	
	Surveys, New Personal Service Items [RESTRICTED], 1975 [Resolution] Box 1, Folder 5	Bookmark	
	Surveys, Deficiencies and Plans of Correction [RESTRICTED], 1975-1976 Restricted Box 1, Folder 6	Bookmark	
	Education Reinstatement Audit [RESTRICTED], 1975-1976 [Restricted] Box 1, Folder 7	Bookmark	

a sectory consistence and maximum president corp. (3) a

Willowbrook Review Panel Records, 1968-1981

Surveys, Food Service and Nutrition [RESTRICTED], 1975

In person	Overview No online conten	No online content			
REQUEST: Request COLLECTING AREA: New York State Modern Postical Anchive Contact Contact	ABOUT THIS FILE CONTAINERS: RESTRICTIONS:	Box 1 (3-audits and surveys [restricted]), Folder 3 Must consult archivist before viewing this material.			
	COLLECTION CONTEXT				
	New York State Modern Political Archive Collection		Collection ID: apap127		
1.000 C	Willowbrook Review Panel Records, 1968-1981, bulk 1975-1981				

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Office of the President Records, 1827 - 2017 July 17				Bookmark	
Committee Appointmer	nts and Relate	ed Materials	, 1947-1962		
In person	Overview	No online conter	nt		
REQUEST:	ABOUT THIS	FILE CONTAINERS:	Box 11, Folder 5		
COLLECTING AREA:	PARE	INT RESTRICTIONS:	This file series is semi-processed and may contain some records that public records laws. Please consult an archivist for more information.	must be withheld due to	
€ Contact 💼 Visit	COLLECTION	CONTEXT			
	University Ar	rchives		Collection ID: ua000	
Terms & Conditions	Office of	f the President	Records, 1827 - 2017 July 17	unline content	

## **Planned Local Modifications**

Bookmark

Rentals

#### **DAO** Integration

For digital objects, for at least the medium term future we are planning on presenting digital objects in another system, with only Links from the Online Content tab. Since the Hyrax repository we are implementing exposes JSON with an item's data and thumbnail, we are planning on replacing the link in the Online Content tab that's in Arclight now with a stock thumbnail, and have a CORS request replace it with data and the thumbnail from Hyrax.

## **Future Priorities**

#### Analytics

We utilize analytics data to inform processing decisions. Currently we are planning to use an existing proprietary system to parse the logs from Nginx. It would be ideal if Arclight had a view that listed and graphed the most heavily utilized pages.

#### Aeon/Requests

We do not plan to implement Aeon, but modifying Arclight so it sends an Aeon-friendly post request would be useful. Right now, we customized the Bookmarks page with a "Schedule a Visit" button that sends a GET request that partially completes a Drupal form with all of the IDs on that page as params. This only minimally works due to URL limits and items on other pages, but it is as far as we could get without modifying the controller. If Arclight it setup to deliver a POST request with this data in a format that Aeon uses, we could set up our Drupal form to manage that as well.

#### Bookmarks

1 - 3 of 3	Sort by relevance *	10 per page 🝷	1 11	Clear Bookmarks
Schedule a Visit to view all of the material on this page:				
a Schedule a Visit				
National Death Penalty Archive				In Bookmarks
Virginians for Alternatives to the Death Penalty, 1937-2008 - Subject Files, 1937-2007 1000th Execution, 2005				
National Death Penalty Archive				In Bookmarks
The Abraham Bonowitz Papers, 1977-2015 • Communications, 1983-2013				
10.10 is A World Day, 10 years of World Coalition against the Death F	Penalty, 2012			
National Death Penalty Archive				In Bookmarks
Ernest Van Den Haag Papers, 1935-2000 + Publications, 1949-2000 + Numbered, 1950-2000				
104. "History as Factualized Fiction, "In "Philosophy and History", edit	ted by Sidney Hook, Ne	w York Press, 19	963	

## **Public API Access**

We think it is worthwhile to mention that one of the features we found most useful in Arclight is that it functions as a completely open API. Arclight serves data in JSON as well as a human-readable view by merely appending "?format=json" to the end of each URL. This allows for computational use for archival description and is extremely useful for easy system integration.

## **Computational Access Potential**

Arclight's pubic API has the potential to allow end-users to parse archival description computationally at scale. Not only can users request collection-level description in JSON, but this call (/catalog?f[parent\_ssi][]=\$ID&view=hierarchy&format=json) will allow them to iterate over child components. With the addition of a call to return a list of collection-level URIs, users could potentially iterate over all of the archival description in Arclight. Providing this access separately from the ArchivesSpace API is also good practice, as Arclight should only contain publically available description, and does not require authentication. We expect this feature of Arclight to become progressively more useful as archivists potentially incorporate licenses for description (<u>https://github.com/saa-ts-dacs/dacs/pull/14</u>), and need to provide computational access to their collections as data within the context of archival description.

## Systems Integration

Our planned digital repository might serve as a small example of how useful Arclight can be for system integration. We plan to use Cross-Origin Resource Sharing (CORS) to access archival description from Arclight with client side JavaScript. This is useful for archivists uploading digitized content with existing archival description, as entering a component's ID can retrieve titles, dates, parent description, and other useful information from Arclight without any authentication. We plan to include IDs of parents, and when objects are rendered, another JavaScript call can return that parent's title, dates, and scope and content notes directly from Arclight. There is a tremendous potential for Arclight to allow archivists to utilize description in new and powerful ways.