ArchivesSpace 1.0 and Beyond

David Millman, New York University
Mark Matienzo, Yale University
Brad Westbrook, ArchivesSpace
Katherine Kott, ArchivesSpace

DLF Forum
Austin, TX
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Overview

- Application development
- Community development
- Projections
ArchivesSpace: Project Becomes Program

- Once a project, now a program with an organizational home and dedicated staff but capable of managing funded projects
- Instigated for integrating the best features of the Archivists’ Toolkit and Archon
- Generously funded by the Andrew W. Mellon Foundation
- A community effort, led by the libraries of New York University, the University of Illinois at Urbana-Champaign, the University of California, San Diego, and LYRASIS, the organizational home
- Two core objectives: 1) developing an archives information management application responsive to the needs of archivists and 2) developing a community capable of supporting and informing the application
Project Team

- **Steering Group:** Luc Declerck, David Millman, Beth Sandore, with Robin Dale
- **Technical Architect:** Mark Matienzo
- **Development Manager:** Katherine Kott
- **Stakeholder Team:** Mark Matienzo (Product Owner), Chris Prom, Kyle Rimkus, Scott Schwartz, Annie Ross, Brad Westbrook (Archivists/Business Analysts), Joe Pawletko (Technical Advisor)
- **Development Team (Hudson Molonglo):** James Bullen, Mark Triggs, Payten Giles, Brian Hoffman
- **Testing and Release Team:** Sai Tadikonda, Brian Tingle, Adrian Turner (CDL); with Hudson Molonglo, Mark Matienzo, and Katherine Kott
- **Migration Team:** Joe Pawletko (NYU), Nathan Stevens (AT), Chris Prom (Archon) plus Stakeholders and UIUC programmers
Application Development
# Design & Implementation Phase

<table>
<thead>
<tr>
<th>Date Range</th>
<th>Activity Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 2011</td>
<td>Phase begins</td>
</tr>
<tr>
<td>Aug. 2011-June 2012</td>
<td>Development planning and analysis</td>
</tr>
<tr>
<td>Oct. 2011</td>
<td>Technical planning meeting at UCSD</td>
</tr>
<tr>
<td>July 2012</td>
<td>Hudson Molonglo announced as vendor</td>
</tr>
<tr>
<td>July 2012-July 2013</td>
<td>Application development subcontract</td>
</tr>
<tr>
<td>Sep. 2012-Aug 2013</td>
<td>Development of migration tools</td>
</tr>
<tr>
<td>July 2013-Aug 2013</td>
<td>Development of XSLT stylesheets</td>
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</table>
Development Planning/Analysis

- Primary area of emphasis for first year of development phase
- Specification analysis and revision
- Creation and iterative revision of draft data models, object workflow, and position statements
- Guiding principle: focus on functional needs and avoid specific technical solutions
Development Cycles

0.1 Basic front & back end infrastructure (July-Aug)
0.2 API, record editing, authentication, import/export prototypes (Sept-Oct)
0.3 Workflow, search, EAD import/export (Nov-Dec)
0.4 All required import/export, UI templating, customization (Jan-Feb)
0.5 Repository management workflow, user management (Mar-Apr)
0.6 Full application testing, beta release (May-July)
Application Release History

- 1.0.0 (September 30, 2013)
- 0.6.2 (July 23, 2013)
- 0.5.0 (April 29, 2013)
- 0.4.0 (March 4, 2013)
- 0.3.1-1 (January 8, 2013)
- 0.2.0-1 (October 29, 2012)
- 0.1.0 (September 3, 2012)

https://github.com/archivesspace/archivesspace/wiki/Changelog
ArchivesSpace Product Vision

- A best of breed, open source archives management system, supporting core archival functions and standards ...
- ... that can both scale up and scale down ...
- ... that is flexible, efficient, and easy to use, maintain, and administer ...
- ... that is extensible and can interoperate easily with other applications and systems ...
- ... with a healthy ecosystem of users, developers, and partners dedicated to sustaining the product in the open source environment.
Migration Tools

- Separate migration tools developed for each existing application
- Archivists’ Toolkit: migration plugin, used with new maintenance release
- Archon: separate migration tool, used with forthcoming maintenance release
- Does not require exporting data as EAD, etc. before migration
ArchivesSpace 1.0 Features

- Accession management
- Multilevel archival description with rapid data entry, with drag and drop user interface
- Digital object metadata management
- Relationships between records
- Location management
- Event records for preservation / collection management actions
- Authority control for people, corporate bodies, families, subjects, classifications, software

- Public discovery interface
- Import and export of EAD and MARCXML; import of CSV; export of MODS, METS, & DC
- Support for multiple repositories and multi-tenancy
- REST API
- Full-text search
- Plugin architecture
- Controlled value lists
- Configurable permission “groups”
- LDAP authentication
Development Team

- Hudson Molonglo formed in 2011
- ASpace dev team: Mark Triggs, Payten Giles, Brian Hoffman, James Bullen - 4 members with over 40 years combined experience.
- Specialists in open source software, system architecture, user interface, archives metadata
- Experience with developing, deploying, integrating, maintaining and customizing similar software
Technology

- JRuby, Sinatra, Rails
- jQuery, Twitter Bootstrap
- JSON, MySQL, Derby, Solr
- RSpec, Selenium, SimpleCov
- Git, Ant
Architecture

• Backend application takes care of data persistence and presents a RESTful API

• Frontend applications present user interfaces and exchange JSON data with the backend via the API

• Shared libraries for consistent and efficient handing of operations on JSON data objects

• An indexer ensures that as data changes it is accurately reflected in the search indexes
Development Methodology

- Agile – Scrum
- Test driven
- Frequent code reviews
- Remote ... very remote
Building a Sustaining Community
## Membership Fees

### Tiered membership fee model

<table>
<thead>
<tr>
<th>Tier</th>
<th>Fee</th>
</tr>
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<tbody>
<tr>
<td>Very Large</td>
<td>$7,500</td>
</tr>
<tr>
<td>Large</td>
<td>$5,000</td>
</tr>
<tr>
<td>Medium</td>
<td>$3,000</td>
</tr>
<tr>
<td>Small</td>
<td>$1,000</td>
</tr>
<tr>
<td>Very Small</td>
<td>$300</td>
</tr>
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</table>
Member Enrollment

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Charter Members</th>
<th>General Members</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very large</td>
<td>27</td>
<td>1</td>
<td>28</td>
</tr>
<tr>
<td>Large</td>
<td>8</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td>Medium</td>
<td>5</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Small</td>
<td>4</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Very Small</td>
<td>10</td>
<td>9</td>
<td>19</td>
</tr>
<tr>
<td>Undetermined</td>
<td>14</td>
<td></td>
<td>14</td>
</tr>
<tr>
<td>Total Members</td>
<td>54</td>
<td>36</td>
<td>90</td>
</tr>
</tbody>
</table>
Governance

Community

Board of Trustees

Application

User Advisory Council

Technical Advisory Council
<table>
<thead>
<tr>
<th>Partners</th>
<th>Carol Mandel, New York University</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Brian Schottlaender, UC San Diego</td>
</tr>
<tr>
<td></td>
<td>John P. Wilkin, University of Illinois, Urbana-Champaign</td>
</tr>
<tr>
<td></td>
<td>Robin Dale, LYRASIS</td>
</tr>
<tr>
<td>Elected Officers</td>
<td>Megan Sniffin-Marinoff, Harvard University, Very Large</td>
</tr>
<tr>
<td></td>
<td>Tim Pyatt, Pennsylvania State University, Large</td>
</tr>
<tr>
<td></td>
<td>Gerald Gaidmore, William and Mary College, Medium</td>
</tr>
<tr>
<td></td>
<td>Lynda Kachurek, University of Richmond</td>
</tr>
<tr>
<td></td>
<td>Chris Ervins, Mojave Desert Heritage and Cultural Association</td>
</tr>
<tr>
<td>Ex Officio</td>
<td>Cynthia Howard, LYRASIS Board of Directors</td>
</tr>
<tr>
<td></td>
<td>Brad Westbrook, ArchivesSpace Program Manager</td>
</tr>
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Membership Benefits

• Access to user instruction manual, video tutorials, help support

• Request new features

• Persistent application and community
Organizational Home
Projections
The Path Forward

• Build robust governance structure

• Develop additional functionality identified through user testing
Governance Structure

- Board in place
- Advisory groups to be established soon
  - User Advisory
  - Technical Advisory
- Groups will create processes for
  - Setting development priorities
  - Integrating community based development
Additional Functionality

- Development roadmap in place based on user feedback
- Additional funding for transition=additional HM development cycles
Development Roadmap

- Public discovery
- Rapid data entry
- Bulk editing
- Reporting
- Import/export
- Identification & development of high priority plug-ins
Resources

• ArchivesSpace website: http://www.archivesspace.org/
• ArchivesSpace Github: https://github.com/archivesspace/archivesspace
To Request Membership

Contact Brad Westbrook, ArchivesSpace Program Manager
(brad.westbrook@lyrasis.org or ArchivesSpaceHome@lyrasis.org)
QUESTIONS?
THANK YOU!