



ArchivesSpace

a community served by ✦ LYRASIS

A Bug's Life: From JIRA to Fix

April 11, 2018 – Webinar

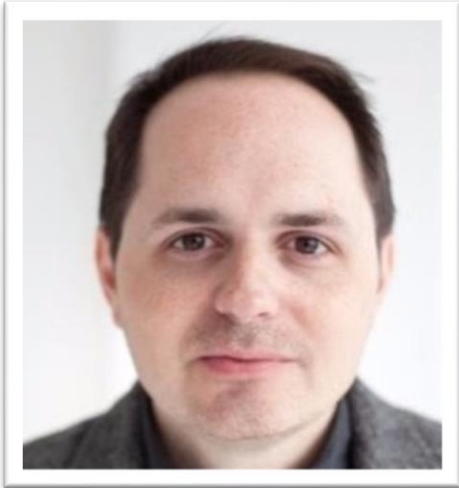


ArchivesSpace

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Presenters



Jason Loeffler
American Academy
in Rome



Patrick Galligan
Rockefeller Archive Center



Lydia Tang
Michigan State
University



Laney McGlohon
ArchivesSpace



Introducing Grace Hopper

Jason Loeffler

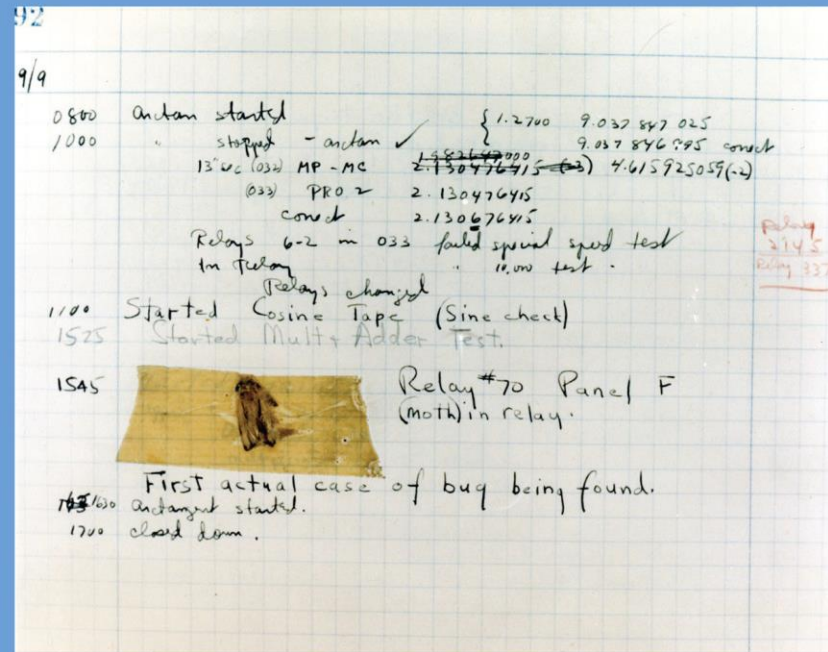
Introducing Grace Hopper



Hopper at the
816 cubic foot
Harvard Mark II
1947

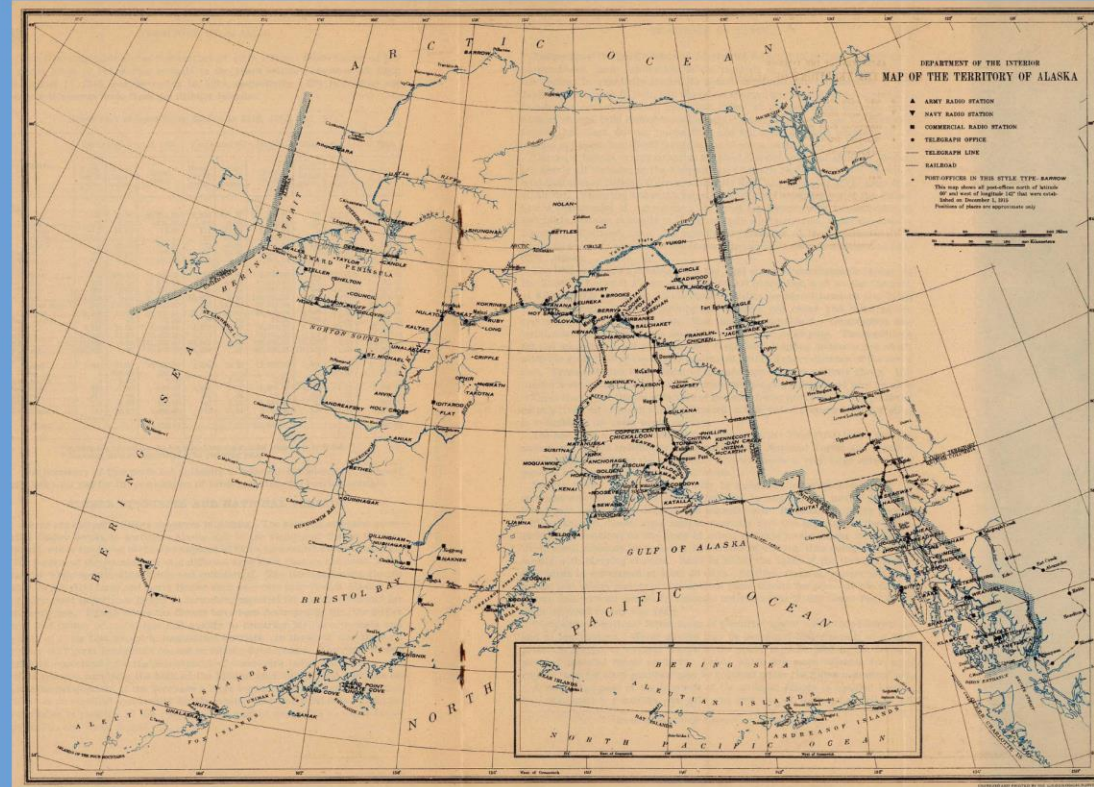
What the
#\$@&%!?*

The first bug was just that:
a dead moth stuck between
two electromechanical relays.



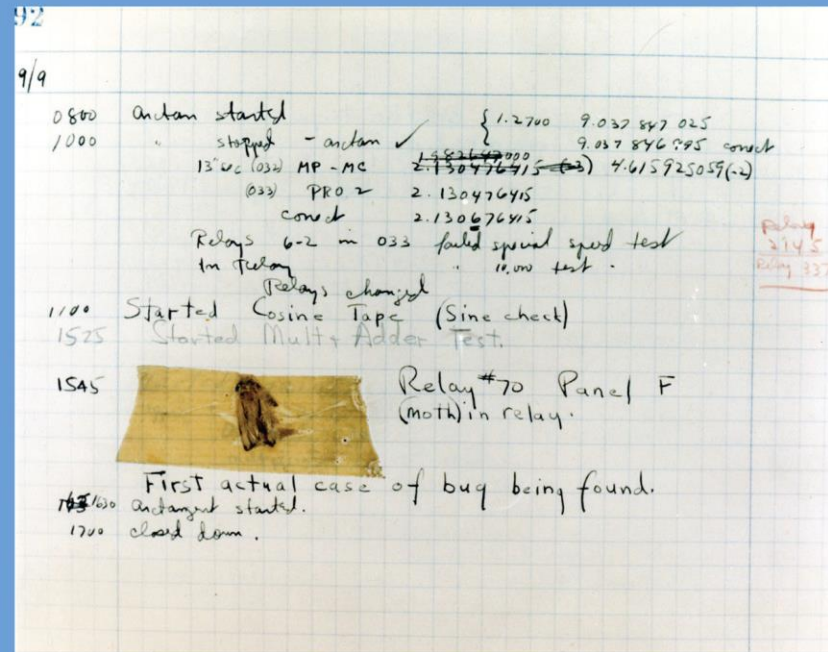
Hopper dutifully collected the specimen
and deposited them in her log
dated September 9, 1947, 3:45 pm.

There's one wolf in Alaska, how do you find it?



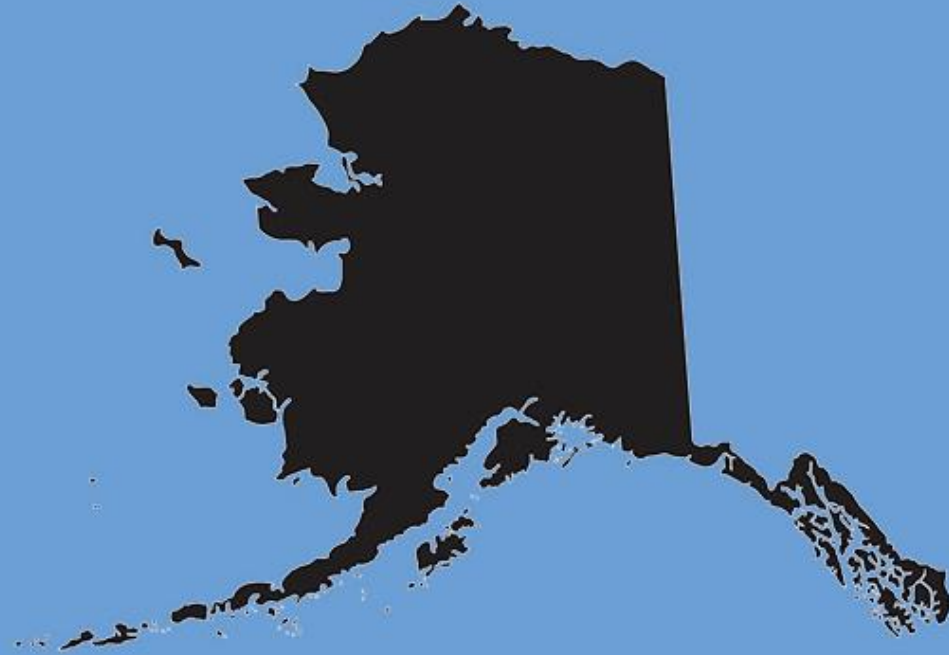
First build a fence down the middle of the state,
wait for the wolf to howl, determine which side
of the fence it is on. Repeat process on that side
only, until you get to the point where you can
see the wolf.

The first bug was just that:
a dead moth stuck between
two electromechanical relays.



Hopper dutifully collected the specimen
and deposited them in her log
dated September 9, 1947, 3:45 pm.

Outlining the problem



Begin by understanding a little about the application and its components.

How is ArchivesSpace built?

ArchivesSpace is a server-side application built on the JRuby on Rails framework and runs on top of a Java Virtual Machine.

ArchivesSpace includes a REST interface, a search engine, and a pluggable architecture.

How is ArchivesSpace built?

ArchivesSpace has a front end

What the end user interacts with

and a back end

*Generally the runtime
environment and a database*

Causes of bugs

Human error

Flawed code

Incompletely implemented feature

Incompletely scoped product requirements

Problems arising from
unanticipated use cases are,
strictly speaking,
not bugs.

(vid. “feature requests” and plugins)

Bug reporting

Most bugs reported by the community arise from interaction with the front end.

Other sources of bugs include issues resulting from migrations, code updates, and deployment (i.e. the back end).

*BE
LIKE
GRACE*

~

*DOCUMENT
YOUR BUGS*

Reporting a Bug

Dr. Lydia Tang

Development Prioritization subteam co-leader



Step #1: replicate and verify

- Try replicating it in the [ArchivesSpace sandbox](#):



The screenshot shows the ArchivesSpace website homepage. At the top, the ArchivesSpace logo is displayed, featuring a stylized blue 'A' and the text 'ArchivesSpace a community served by LYRISIS'. A navigation menu is visible with items: ABOUT, COMMUNITY, MEMBER AREA, REGISTERED SERVICE PROVIDERS, DEVELOPERS, USING ARCHIVSPACE, and APPLICATION. A search icon and a hamburger menu icon are in the top right corner. The main content area features a large white heading: 'Release v2.3.1 is out!' followed by the sub-heading 'CHECK OUT THE NEW FEATURES'. Below this is a white button with the text 'DOWNLOAD NOW'. On the right side, a dark sidebar menu is open, listing: Demo, Sandbox, Download the Latest (with a download icon), Technical Documentatio, and Accessibility and VPAT. A left navigation arrow is visible on the far left.



ArchivesSpace

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Sign In



Welcome to the ArchivesSpace Sandbox.

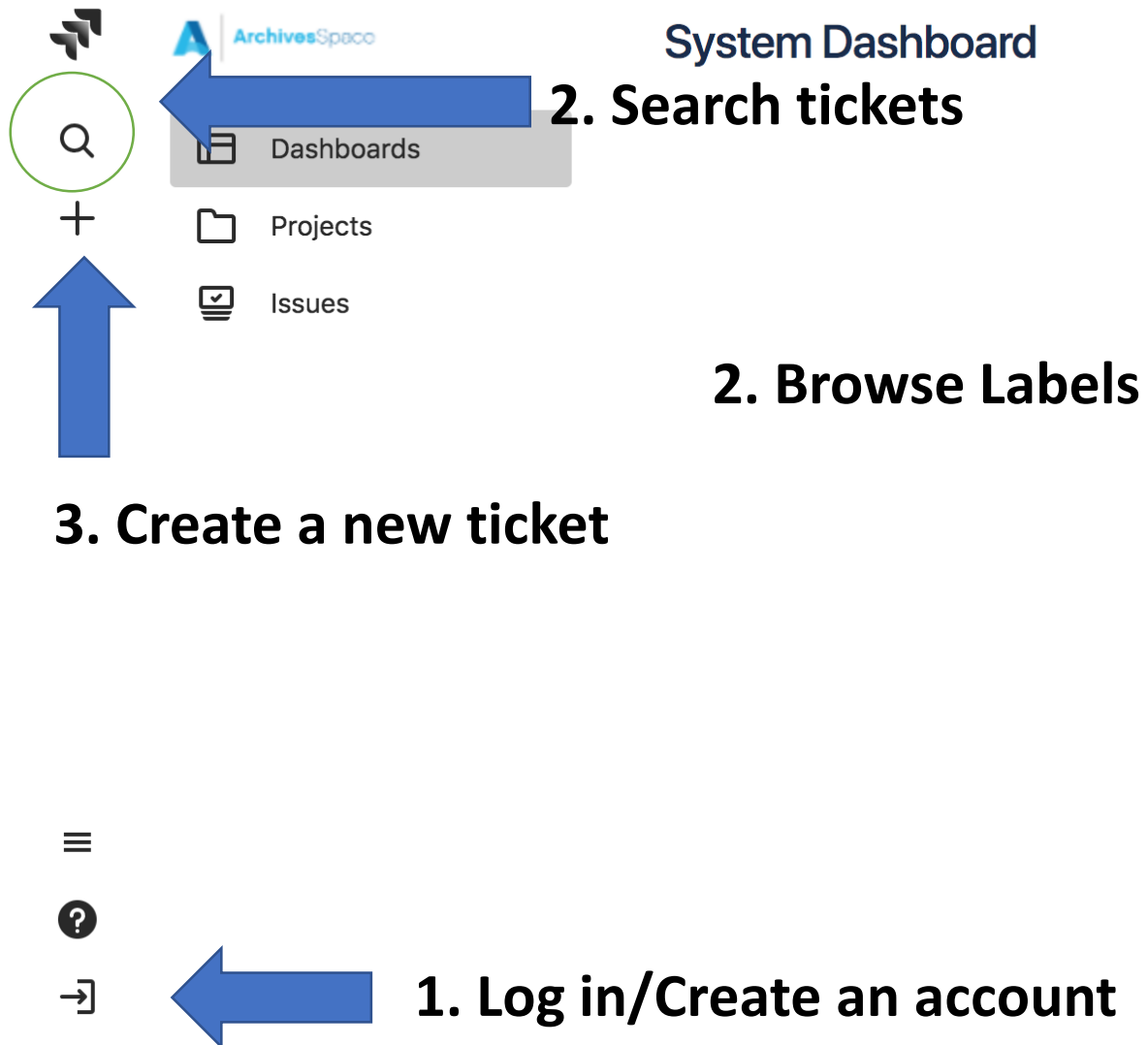
Search across our collections, digital materials, and more.

2.3.1 | [Public site](#) | [Resources](#) | [Issue Tracker](#) | LYRASIS support



- Post a message to the [ArchivesSpace users group](#) (including searching archives)
- Search the existing JIRA tickets in the [Development Project](#) :
<http://development.archivesspace.org>

Create JIRA ticket



Labels: Labels in ArchivesSpa... ⋮

A

- API
- AR-Icebox
- ATMigrator
- Agents
- ArchonMigrator
- accessibility
- accessions
- agents
- application_administration
- application_management
- assessments
- authentication

B-C

- barcodes
- browsing
- bulk_delete
- bulk_edit
- chores
- chores_uiuc
- citation
- classifications
- collection_management
- containers
- controlled_value_lists
- csv
- customization



Create issue

Configure fields ▾

Project*

 ArchivesSpace New Work... ▾

Issue Type*

 Bug ▾ 







Some issue types are unavailable due to incompatible field configuration and/or workflow associations.

Summary*

Component/s

None

Description

Style ▾ | B | I | U | A ▾ | ~~A~~ ▾ |  ▾ |  ▾ |  |  |  ▾ | + ▾ | 

Create another

Create

Cancel

Create issue

Configure fields ▾



Fix Version/s

Start typing to get a list of possible matches or press down to select.

Priority

Major ▾



Labels

Begin typing to find and create labels or press down to select a suggested label.

Environment

Style ▾ | B | I | U | A ▾ | A ▾ | Link ▾ | U ▾ | Bulleted list ▾ | Numbered list ▾ | Smiley ▾ | + ▾

Suggestions

- staff_interface
- AR-Icebox
- public_interface
- export
- resources
- reports
- import
- digital_objects
- 2018Q2DevCycle
- public_displav

Release ▾



WILL NOT DO 10

ANW-450

Review and

Finding Aid

Tool tip
clarification

Create issue

Configure fields ▾



For example operating system, software platform and/or hardware specifications (include as appropriate for the issue).

Attachment

Drop files to attach, or [browse](#).

Affects Version/s

Start typing to get a list of possible matches or press down to select.

Assignee

Automatic ▾

[Assign to me](#)

Epic Link

- ### Unreleased Versions
- v2.0.0
 - v2.1.0
 - 2.0.0-RC1
 - 2.0.1
 - v2.1.0-RC2
 - 2.1.0
 - 1.5.4
 - 1.5.3
 - 2.1.1
 - 2.1.0

Release ▾

WILL NOT DO 10

ANW-430

Review and

Finding Aid

Tool tip clarification

Sample “model” JIRA tickets

Example of gathering membership input to draft up detailed specifications of a new Feature:

<https://archivesspace.atlassian.net/browse/ANW-617>



ArchivesSpace ...
Software project



Feature reques...



Backlog



Kanban board



Reports



Releases



Issues



Pages



Components

ANW-617

As an archivist, I would like to have human-readable URLs based on identifiers.

Edit

Comment

Assign

Assign to Sprint/Version

Back to Prioritization



Type:

+ New Feature

Status:

READY FOR IMPLEM...

Priority:

Major

Resolution:

Unresolved

Affects Version/s:

None

Fix Version/s:

None

Labels:

public_interface

Epic Link:

Public Interface Epic

Description

The system currently generates URIs based on an internal identifier value, rather than identifiers recorded in the metadata for a resource or archival object. It would be easier to provide users with a friendly URL alias that incorporates a local or unique call number.

Attachments



Drop files to attach, or [browse](#)

Assignee:



Unassigned

[Assign to me](#)

Reporter:



Cory Nimer

Votes:

14

[Remove vote for this issue](#)

Watchers:

10

[Stop watching this issue](#)

Created:

31/Aug/16 2:29 PM

Updated:

02/Apr/18 11:18 AM

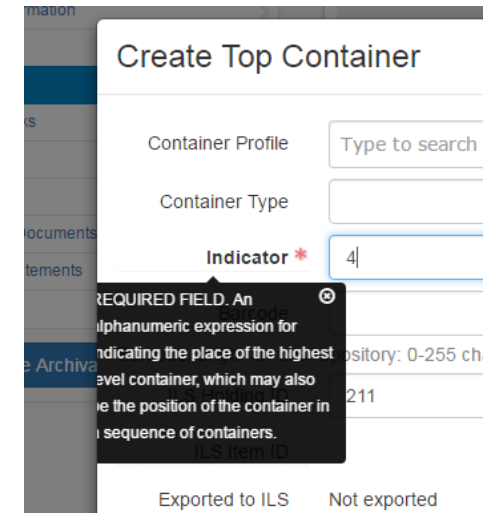
Agile

[View on Board](#)

Sample “model” JIRA tickets

Minor bug relating to tool tip falling off the edge of screen – succinct description with screen shot:

<https://archivesspace.atlassian.net/browse/ANW-160>



Descriptions, commentary, and screenshots relating to classification breadcrumbs:

<https://archivesspace.atlassian.net/browse/ANW-256>

For more information:

“How to Report a Bug”

[https://archivesspace.atlassian.net/wiki/spaces/ADC/pages/19202056/](https://archivesspace.atlassian.net/wiki/spaces/ADC/pages/19202056/How+to+Report+a+Bug)

How+to+Report+a+Bug

Development Prioritization and Bugs

Patrick Galligan

Who we are

- Cross-Council Subteam
 - UAC
 - TAC
 - ArchivesSpace Development Team
 - Laney McGlohon
 - Lora Woodford

What we do

- Review requests
 - Feature Requests
 - Bugs
- Prioritize the work
 - Need more information?
 - Ready for development
 - Criticality

The general process

- Assign work
 - Each member gets 4-5 tickets for a meeting
- Read and test
- Add comments
- Review and discuss
- Prioritize

The ticket

ArchivesSpace New Workflow / ANW-292

conflicting_record response contains nonexistent record URIs

[Edit](#) [Comment](#) [Assign](#) [Priority Assigned](#) [Duplicate, so close](#) [Workflow](#) ↗ ↓ ⋮

Type:	🔴 Bug	Status:	AWAITING PRIORITI... (View workflow)	Assignee:	? Unassigned Assign to me
Priority:	✓ Minor	Resolution:	Unresolved	Reporter:	👤 alexduryee
Affects Version/s:	2.2.0	Fix Version/s:	None	Votes:	0 Vote for this issue
Labels:	agents import			Watchers:	2 Start watching this issue
				Created:	28/Dec/17 12:10 PM
				Updated:	28/Feb/18 2:05 PM

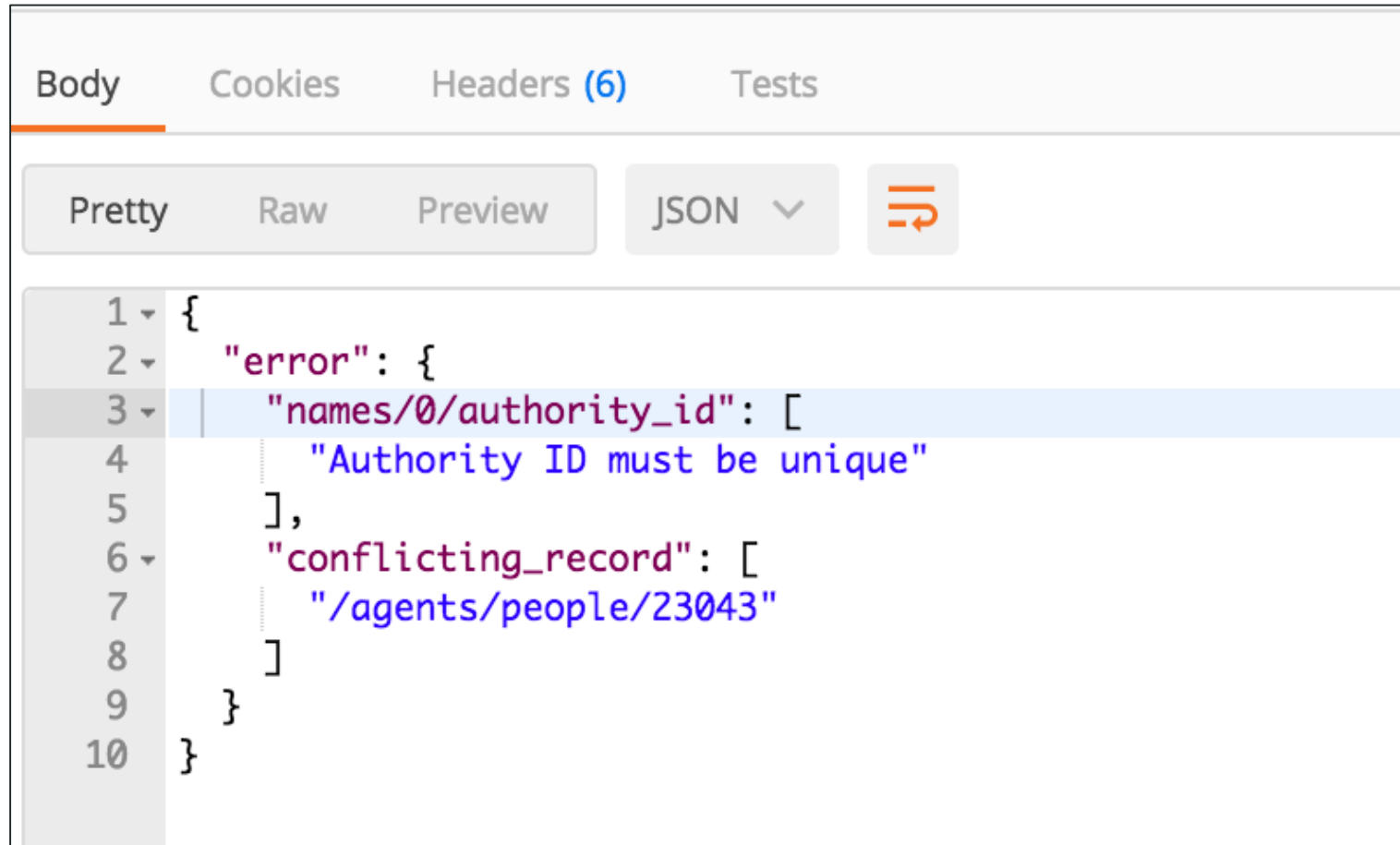
Description

When POSTing new Agent records via the API, if a duplicate Agent is found to already exist, ASpace will respond with an error and a conflicting_record identifier. When the POSTed Agent object duplicates the name of an existing Agent, the conflicting_record identifier provides the URI of the already-existing record.

However, when the POSTed Agent differs in the name of existing Agents, but has the same Authority ID as one, ASpace returns the URI that the new record *would* have had. For example, if there are 100 Agents in an instance, and I POST an object with a duplicate Authority ID as /agents/people/50, the error response will provide a conflicting_record URI of /agents/people/101.

Agile
[View on Board](#)

Testing



The image shows a screenshot of a web browser's developer tools interface. The 'Body' tab is selected, and the response is displayed in a 'Pretty' JSON format. The JSON object contains an 'error' field with a list of messages. The first message is 'Authority ID must be unique', which is highlighted in blue. The second message is '/agents/people/23043'. The interface includes tabs for 'Body', 'Cookies', 'Headers (6)', and 'Tests'. Below the tabs are buttons for 'Pretty', 'Raw', and 'Preview', along with a 'JSON' dropdown menu and a refresh icon.

```
1 {  
2   "error": {  
3     "names/0/authority_id": [  
4       "Authority ID must be unique"  
5     ],  
6     "conflicting_record": [  
7       "/agents/people/23043"  
8     ]  
9   }  
10 }
```

Review and discuss

- Introduce the ticket
- Share results of testing
- Provide information on current prioritization
- Discuss as a group

Prioritize

- Past factors influencing prioritization
 - Number of votes on Jira ticket
 - Themes and epics targeted for release
 - Anecdotal evidence of community priorities
 - Sufficient specification
 - Capacity of developers



Fixing the Bug

Laney McGlohon



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Fork the ArchivesSpace GitHub Repository

Login to GitHub and go to the ArchivesSpace repository:

<https://github.com/archivesspace/archivesspace>

The screenshot shows the GitHub interface for the repository `archivesspace / archivesspace`. The top navigation bar includes 'This repository', 'Search', 'Pull requests', 'Issues', 'Marketplace', and 'Explore'. The repository name is displayed as `archivesspace / archivesspace`. Below the name are buttons for 'Unwatch' (62), 'Star' (152), and 'Fork' (123). The 'Fork' button is circled in blue. Below the repository name are tabs for 'Code', 'Issues' (23), 'Pull requests' (8), 'Projects' (0), 'Wiki', 'Insights', and 'Settings'. The repository description is 'The ArchivesSpace archives management tool' with a link to <http://archivesspace.org/> and an 'Edit' button. There is also a link to 'Add topics'.





Testing

- Create branch in forked code using the JIRA ticket number in the branch name:

```
git checkout -b ANW-123-fix
```

- Determine where in the code to make the changes
- Write and run failing test(s) to confirm problem behavior

```
build/run bootstrap
```

```
build/run backend:test
```





Modify/Enhance Code

- Make required code changes
- Re-run test(s) verify JIRA ticket resolution
- Check code changes into fork. This will create a branch in the forked repository

```
git push -u origin ANW-123-fix
```





Create Pull Request

Create a pull request from the forked repository to the ArchivesSpace master branch

Branch: shelflist-repo... ▾ New pull request

Create new file Upload files Find file Clone or download ▾

This branch is 2 commits ahead, 🔗 Pull request 📄 Compare

Comparing changes

Choose two branches to see what's changed or to start a new pull request. If you need to, you can also [compare across forks](#).

🔗 base fork: harvard-library/aspace-imp... ▾ base: master ▾ ← head fork: lmcglohon/aspace-import-e... ▾ compare: master ▾

✗ **Can't automatically merge.** Don't worry, you can still create the pull request.

🔗 Create pull request Discuss and review the changes in this comparison with others. ?





Example Pull Request

ANW-238 Migrate and disallow nulls in archival objects publish #1203

Edit

[Open](#) lorawoodford wants to merge 1 commit into `archivesspace:master` from `lorawoodford:ANW-238_no_nulls_ao`

Conversation 0

Commits 1

Files changed 1

+29 -0



lorawoodford commented 15 hours ago

Member



Renumber migration


ANW-238 Migrate and disallow nulls in archival objects publish ... ✗ 5c6427e

Add more commits by pushing to the `ANW-238_no_nulls_ao` branch on `lorawoodford/archivesspace`.



✗ **All checks have failed**
1 failing check

[Hide all checks](#)

✗  **continuous-integration/travis-ci/pr** — The Travis CI build failed

[Details](#)

✓ **This branch has no conflicts with the base branch**
Merging can be performed automatically.

Merge pull request

You can also [open this in GitHub Desktop](#) or view [command line instructions](#).

Reviewers



No reviews

Assignees



No one—assign yourself

Labels



None yet

Projects



None yet

Milestone



No milestone

Notifications

Unsubscribe

You're receiving notifications



Core Committers Group

- Group of active community members assembled to encourage code contributions and review code modifications and additions for inclusion in the core code base
(<https://archivesspace.atlassian.net/wiki/spaces/ADC/pages/102893918/Core+Committers+Group>)
- <https://archivesspace.atlassian.net/wiki/spaces/ADC/pages/125861898/Pull+Request+Process>





Pull Request Review

Code changes in the pull request are reviewed with these possible outcomes:

1. It is accepted as is and merged into master branch
2. There is conversation back and forth through comments on the pull request and then it is merged into master branch
3. It is rejected
 - Code changes not generally applicable for community
 - Incomplete implementation
 - Needs further discussion in community





Timeframe

- Road Map (<https://archivesspace.atlassian.net/wiki/spaces/ADC/pages/18710568/Roadmap>) has information about the upcoming releases
- In order to have enough time for the testing sub-team to test a release, code is frozen on the third Friday of the month that a release is expected to happen
- There are milestones attached to the pull requests that will indicate which version the pull request will be included in





Questions?

Thank you for joining us today!



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