

Library Lab

Zone 1 (formerly known as Zone 1 > Zeega)

Final Report

November 15, 2013

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Overview:

We approached this project with the idea that we may have finally found a tool, Zone 1, appropriate for collecting research material – able to save text, image, audio and video files – and assign the necessary metadata. Then, if we could make Zone 1 communicate through an API to a discovery and learning system, Zeega, there would be a way for faculty and students to access and use this content. It was a good plan.

Even prior to beginning to load content into Zone 1 we encountered a change in the content. The faculty member we initially worked with no longer thought the initial concept was valid and shifted his research focus. We moved to using content that had been supplied by another faculty member and was important to the pedagogical history of the Harvard University Graduate School of Design.

As we started inputting this content into Zone 1 we began encountering problems and started to realize that Zone 1 was not in the place we hoped it to be: it was not content ready. We tried uploading various formats – images, video and audio – and each presented different challenges, introducing new bugs in the system. We started a dialogue with our colleagues at the Berkman Center about these issues which prompted them to use the system more, uncovering more bugs. This proved useful in that it exposed areas that needed attention in Zone 1 and helped us identify where to focus our work. Of primary interest, there was no user documentation for Zone 1 – something that would be extremely useful for system use.

At this point, we were in touch with Zeega about preparing that system for the API we were still hoping to build for Zone 1. The principals at Zeega informed us that Zeega's code had changed, making it "a new, lighter weight version that does not include the collection features...The previous code exists, but it would require substantial technical resources to set it up on Harvard servers, and more than anything, to commit to maintaining it." (Jesse Shapins, email, 07/30/2013) In addition to this code change, we learned that Zeega no longer supports video footage, a specific format in which we were interested. From Jesse Shapins's interim report dated September 6, 2013,

"The challenge that started to emerge was that it became clear to us that Zeega was no longer in a position to provide and maintain a hosted service of this Media Library. The costs are

substantial, and there was not a clearly viable model of revenue and sustainability. So, the question became who might potentially take responsibility for hosting the production instance and providing the support needed for such a service. We re-connected with the Zone 1 team at the Berkman Center and GSD Library Team in June to discuss these issues, with the same initial goal of connecting the Zone 1 API to the new Zeega Media Library. Through these conversations it became clear that to install and maintain a version of this highly advanced platform also far exceeded the resources of those at Harvard — it would require significant new technical resources to become familiar with the expansive, existing codebase and a service model to support users. For this reason, we decided to focus energy on enhancing Zone 1, an already-supported Harvard platform, as well as implementing a dramatically stripped down version of the most recent Zeega platform, a version that is focused on making slideshows very easy to create. “

This left us thinking, if we cannot use Zeega as our output system, maybe we can still focus on Zone 1 as the input system and build an API for Zone 1 to communicate with other systems to increase its usefulness. We talked with our colleagues at Berkman who thought this would work if Zone 1 is ready for it, however, our Berkman colleagues did more research and realized Zone 1 is not ready for an API.

What can we do for Zone 1 at this stage in hopes of making it useful in the future and scalable? We decided to begin creating user documentation for the system, thinking this documentation would prove useful to future users or in future iterations of Zone 1. We were, in the limited time remaining, able to produce a list of known bugs and system issues (Appendix B) and the first draft of “Zone 1 Documentation.” (Appendix C)

The Project:

Proposal

We proposed that this project will serve as a concrete use case to catalyze the integration of various Library Lab projects, specifically integrating Zone 1 and Zeega. The GSD proposed to build a robust and open API for the Zone 1 platform. This API would allow for the programmatic retrieval and storage of files on Zone 1. The project would take advantage of the work of another Library Lab project, Zeega, to test the implementation of the API and showcase the possibilities it opens up. Using the new API and Zeega, the GSD would build an online resource focusing on Indian architecture, urban planning and design to support and encourage emerging and growing research on India that is happening at the GSD as well as across Harvard.

Goal

Our goal was to build a robust and open API for the Zone 1 platform to enable Zone 1 to communicate with Zeega and other systems.

Outcome

The main reason the project did not reach our goal is that Zone 1 was not at a level of production that could support an API. Unfortunately, other factors contributed to incompleteness, including changes to Zeega that made it a less viable discovery/use tool and a change in faculty interest in regards to content.

Lessons learned

- It may be that our expectations didn't align with the state of Zone 1 when we started. Perhaps could have been mitigated by more technical investigation into Zone 1 before starting. (As it was not ready to ingest content.)
- We did not realize Zeega's new direction. While we're not sure its leads knew, either, maybe we could have questioned the future of Zeega further. (Not a viable output option.)
- Need more pledge of ongoing commitment to project from faculty.

Work completed

The Berkman Center worked with the End Point development team to develop "Zone 1 Documentation," which is in a Google doc. We can put that information into another format if desired. End Point felt they could put together some fairly thorough documentation of Zone 1's existing features.

In addition, the lead End Point developer and his colleague both worked on the original design of Zone 1 and have logged all bugs and incomplete functionality of which they were aware (these are the 'open' tickets in the Zone 1 and Zone 1 and Zeega Redmine projects.) If we do later revisit the idea of fixing these bugs and implementing missing features, they would be willing to do that work.

Hope for the future:

Our work on with Zone 1 exposed a variety of needs of our library and others across the university,

- An intermediate storage tool.
- A student/faculty coursework ingest and review tool.
- A transportable and shareable student/faculty data ingest tool.
(See Appendix D for use case quotes from Library Lab Showcase event.)

We hope that Zone 1 could be a model for these. If Zone 1 continues to receive support, we hope that an API can be built for it as it will be essential for it to communicate with other systems to enable it to become a viable and useful tool.

We see Zone 1 as a candidate for scaling as it may offer a foundation for the development of a tool that could help with Harvard's digital asset management needs.

Attached:

Appendix A: Budget narrative from Jesse Shapins, Zeega.

Appendix B: Zone1 Bug and Open Feature List.

Appendix C: Zone 1 Documentation commissioned by the Berkman Center.

Appendix D: Use cases from Library Lab Showcase.

Appendix A:

Report for Harvard Library Lab

Jesse Shapins

Media And Place (MAP) Productions

September 6, 2013

Zone 1 and Zeega > Coming together to create better tools for scholarship

In February, we began working on this new project and devoted 50% time of three engineers and one product manager to it through April (i.e. 3 months). In order to make the future Zone 1 API useful, we focused on completing a stable version of the Zeega Media Library that would meet the needs of the use cases outlined by the team at the GSD's Loeb Library. The core of this user experience is to allow a large collection of heterogeneous multimedia materials (e.g. images, audio, videos) to be explored through a single, integrated discovery interface that is tightly coupled with curation tools for building collections. These curated materials are then available for further use in an authoring environment for multimedia presentations, and these presentations then also become part of the overall library collection, available through the same core discovery and curation interface. Portions of this experience had already been completed through previous development of the Zeega Media Library, but the final hurdles of a single discovery environment directly coupled with curation, with this curation linked to authoring was not-yet-done. Technically, the major work needed to complete these linkages was implementing a synchronized version of a SOLR index and a MySQL database. The SOLR index enables rapid search, while the MySQL database is the primary data repository for live edits. The primary features we developed included:

- Full Media Library and My Media

- We implemented the ability to toggle between all media in the library and one's own personal collections and media. This feature enables the system to support a full-scale library index, available for discovery by any user. But then users can curate their own collections, and toggle to view only these items.

- My Collections and Media Library

- We updated the interface so that was possible to seamlessly view all of the media in the library and thumbnails of items in one's own collections in a sidebar (a la iTunes). We also made it possible to view the individual items in a collection within the main media browser and to search within the collection by keyword and tag.

- Annotating Collections as Items

- We made it possible to view and annotate the metadata for a collection, standardizing a collection as an item like other items in the system. (Previously, items were only individual photos, videos and audio recordings).

- Smart Collections

- We created "smart collections," which auto-populate with items of a common tag (e.g. dog). These collections are distinguished in the collections drawer visually from manually curated collections.

- Tagging Collections

- We made it possible to tag collections. These means that collections can also appear in smart collections.

- Tag Search

- We implemented the ability to search the media library for all items with a common tag (including collections as items). This tag search is made possible by the SOLR index

- Integration with the Zeega Authoring Environment

- We implemented the crucial link of enabling a user to access their own collections within the Zeega authoring environment. This means that a user who creates collections can then use this media in a multimedia presentation. This integration was executed by adding a dropdown to the media library portion of the Zeega editor; once a collection is selected, those items are made visible and can be dragged and dropped into a Zeega presentation.

- Zeega Presentations as Items in the Media Library

- The final work completed to close the loop was to make Zeega presentations themselves items that could be discovered and curated from within the core media library interface. Through the MySQL/SOLR sync, this work was completed, and Zeega presentations can be tagged just like all other items, and can also be brought into manually curated collections, as well as smart collections.

In these three months, we completed all of these features in a stable version of the platform. All of this code exists here:

<https://github.com/MAP-Productions/Harvard-Zeega-Media-Library>

The challenge that started to emerge was that it became clear to us that Zeega was no longer in a position to provide and maintain a hosted service of this Media Library. The costs are substantial, and there was not a clearly viable model of revenue and sustainability. So, the question became who might potentially take responsibility for hosting the production instance and providing the support needed for such a service. We re-connected with the Zone 1 team at the Berkman Center and GSD Library Team in June to discuss these issues, with the same initial goal of connecting the Zone 1 API to the new Zeega Media Library. Through these conversations it became clear that to install and maintain a version of this highly advanced platform also far exceeded the resources of those at Harvard — it would require significant new technical resources to become familiar with the expansive, existing codebase and a service

model to support users. For this reason, we decided to focus energy on enhancing Zone 1, an already-supported Harvard platform, as well as implementing a dramatically stripped down version of the most recent Zeega platform, a version that is focused on making slideshows very easy to create.

Appendix B: Zone 1 Bug and Open Feature List

Brief Description	Details
Download only works from Edit mode	Users cannot download a selected image from the results list, rather only when one goes into full edit mode. It tries to download selected record from search results, but an empty zip file is produced.
No image/thumbnail in Edit form	The image link appears broken when editing metadata associated with an image. It would be useful to have image size displayed here.
No results from searching, simple or advance	Looking for images/data that were uploaded between March 4, 2013 and September 26, 2013 yields no results.
SFTP feature does not work	Perhaps this is a configuration issue, but there is no means by which a user can configure the SFTP server from the front-end of the application.
App Configuration not accessible	Accessing Zone1 Admin --> App Configuration (http://zoneone.dev.berkmancenter.org/admin) produces a "We're sorry, but something went wrong. We've been notified about this issue and we'll take a look at it shortly." message.
Users cannot update own login information	There is no way for a non-admin user to update any of her own info (email address, password, name, etc). If a user has admin rights, she can update email address and name, but not password.
Thumbnails are not being created for uploaded content	Thumbnails are not being created for newly uploaded content.
App configuration screen returns error	Trying to load http://zoneone.dev.berkmancenter.org/admin gives an error screen.
rake assets:precompile throws error	We may be missing a 'comma' sign or 'semicolon' sign somewhere in our application.js file.
StoredFile Detail and Edit page need usability improvements	Detail page needs download link and export to Dash link. Needs full-edit link OR button on Detail page. Needs linked contributor, title, tags, creator, collections, original date, office from detail page. Change license to from radio buttons to a select box in search facets and StoredFile edits. This will

	make it match File Types and Permissions (AccessLevel) select boxes and present a more consistent UX.
Search results sorting should be case INsensitive	(It's currently case-sensitive.)
Confusing UI for edit/update elements	Clicking on the "update" button and getting an "edit" screen is confusing. Why are there two different screens for editing different pieces of the detail record?
Dynmically resize result sets	Evaluate dynamically re-sizing the result set display to take full advantage of screen real estate: for list display, auto-scale columns to fill full screen width; for thumbnail display, when result set consists of more than one page of results, display a sufficient number of thumbnails to fill the screen so that there are no blank spaces on any given page.
Discuss/Develop Simple UI for File Drag & Drop	Needs further discussion.
Keyword search of substrings in description field not working	This may be intentional because it may be too difficult, performance intensive, but a set of files containing the string: (http://lcweb2.loc.gov/ammem/afctshtml/) will not be found by searching for the substring: afctshtml
Metadata not inheriting permissions	As a user who has no permissions to see any files I can still see tags associated with those files. Since popular tags are listed out, I can see what files are on the system without access to them. This could apply to other metadata as well. This is probably not the optimal behavior, but should be on the low priority punchlist.
List view: Updated pop-up instead of text	Don't like the banner exclaiming that a file has been updated. Can we just have a pop-up that says "Updated" that fades after 2 or 3 seconds?
Handling of connection failed on upload	Right now, the upload AJAX doesn't elegantly handle a user connection failure during an upload. This could be handled more elegantly, but my suggestion is to hold off until more users are using the system to determine if it will be a frequent occurrence.

Thumbnail Generation	Right now, transparency defaults to a black background on thumbnail generation. Do we want to try to investigate making that white? Or should we modify to generate PNG thumbnails instead of JPGs, which would allow for transparency?
Email summary after SFTP	After an SFTP job is completed, it would be nice to send a summary (which includes a link to batch, blacklist errors, etc.)
Update Protected Thumbnails	Server with specific header that results in non-caching.
Finalize User Authentication hookup into Zone 1 Code	
Admin UI Design	Complete admin design. Requires delivery of designs.

Appendix C: Zone 1 Documentation

Zone1 Documentation

Search

Zone 1 provides basic keyword search entered in the text box in the left search column. This keyword search performs a search on the following fields:

- Author
- Contributor Name
- Copyright Holder
- Office
- Display Name
- Original Filename
- Description
- License Name

In addition to keyword search, files may be filtered by tag, entered in the text box in the left column, or via clicking on one of the ten most popular tags under the input field.

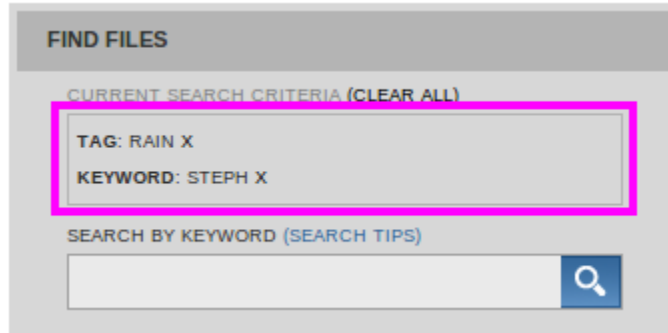
Files may be filtered by upload date and original document date. In both cases, a start and end date may be entered to specify a range, or a start or end date only for an open-ended range.

Files may be filtered by the creator, contributor, or copyright holder and may be entered in the text box under the “PEOPLE” tab.

Files may also be filtered by several file attributes, including:

- Collection Name
- Batch Number
- Flags (nominated for preservation, selected for preservation, preserved, may be university record, and university record)
- File Type (hierarchy of options)
- License Type
- Incomplete File Metadata Status

In all cases, once a search filter is applied, it may be removed independently from other filters that are applied on the current search, by clicking on the “X” in the box above the keyword search, as shown in the following image:



Search Listings

Files in the list view can be displayed in list or thumbnail view, as controlled by the option under the “DISPLAY OPTIONS” tab. The “DISPLAY OPTIONS” tab gives additional options to hide or show specific fields in the list view, as well as control the number of items per page. Thumbnails are generated for those files that can have thumbnails. For those files that can not have a thumbnail generated, generic icons may be uploaded by an administrator and assigned to display per file type, as shown in the image below.

File Type Category



In addition to controlling display options, results may be sorted by name, date, author, file size, batch ID. Each sort option has a default order (descending or ascending), and the non-default option may be chosen by clicking on the arrow next to the sort option, as shown in the following screenshot:



After selecting several files in the search listings, the “SELECTED” tab provides the ability to perform several abilities on the selected files:

- Export to Dash (export to the Dash Repository)
- Download (bulk download)
- Full Edit (bulk edit the selected files)
- CSV Edit Export (export a CSV file containing metadata for all checked files, which can be edited and uploaded later to edit in bulk)
- Delete (bulk delete)

While on the search listings page, the name of the file can be clicked on, which will display several “quick” options for that file, including the ability to download, edit, link to, delete, or edit the flags, tags, or permissions of that file.

Rights

Accessibility is controlled by various rights, that are assigned to a user either directly, through a role (see the “Roles” section), or a group. Here is a full set of base rights and the corresponding functionality when a user has this right:

- `add_preserved`: Can add the “preserved” flag
- `add_nominated_for_preservation_flag`: Can add the “nominated_for_preservation” flag
- `add_selected_for_preservation`: Can add the “selected_for_preservation” flag
- `add_university_record`: Can add the “university_record” flag
- `add_may_be_university_record`: Can add the “may_be_university_record” flag
- `toggle_open`: Can set the access level to open on any content
- `toggle_open_on_owned`: Can set the access level to open on any content owned by yourself
- `toggle_partially_open`: Can set the access level to partial open on any content

- toggle_partially_open_on_owned: Can set the access level to partially open on any content owned by yourself
- toggle_dark: Can set the access level to dark on any content
- toggle_dark_on_owned: Can set the access level to dark on any content owned by yourself
- manage_disposition: Can set the disposition attribute on any content
- delete_items: Can delete content
- delete_items_on_owned: Can delete content owned by yourself
- view_items: Can view all content
- view_items_on_owned: Can view all content owned by yourself
- view_preserved_flag_content: Can view all content with preservation flag
- delete_comments: Can delete all comments
- delete_comments_on_owned: Can delete comments on content owned by yourself
- edit_items: Can edit metadata of all content
- edit_items_on_owned: Can edit metadata of all content owned by yourself
- view_reports: Can view all reports
- view_reports_on_owned: Can view reports on content owned by yourself
- view_admin: Can access the admin interface
- remove_preserved: Can remove the “preserved” flag
- remove_nominated_for_preservation: Can remove the “nominated_for_preservation” flag
- remove_selected_for_preservation: Can remove the “selected_for_preservation” flag
- remove_university_record: Can remove the “university_record” flag
- remove_may_be_university_record: Can remove the “may_be_university_record” flag

Each right can be assigned to a user directly, through a role the user has, or through a group the user belongs to. See the sections “Roles”, “Groups”, and “File Visibility” to understand more about rights and accessibility.

Roles

Roles can be created via the admin, shown in the screenshot below.



Once a role is created, users may be assigned to this role via the admin interface, as shown in the screenshot below.

Edit/View User

Name

Email

Quota max (Bytes)

Quota used: 51.5 KB

Roles

- admin
- steward
- records_manager
- user

role assignment

After a role has been created and users assigned to the role, rights can be assigned to the role from the interface as shown in the screenshot below.

Edit Role

Name

- add_preserved
Ability to add PRESERVED flag.
- add_selected_for_preservation
Ability to add SELECTED_FOR_PRESERVATION flag.
- add_may_be_university_record
Ability to add MAY_BE_UNIVERSITY_RECORD flag.
- toggle_open_on_owned
Ability to set access level to open on content owned by you.
- toggle_partially_open_on_owned
Ability to set access level to partially open on content owned by you.

example of rights
that can be assigned
to roles

Once a role has been created and assigned to a user, that user may perform the allowed rights assigned to that role. See the “Rights” section of the documentation for a full list of assignable rights.

Groups

Groups are similar to roles in that they represent a subset of users. Groups are different to roles in that users are invited to join a group and must accept the invitation to receive the benefits of the group.

Groups act on two levels:

- A user that has the right to edit group rights may assign rights to that group. Any users in the group can then have a specific set of rights assigned to them. This is very similar to role and rights assignment, except that users must accept an invitation to join a group. The screenshot below shows an example of a group edit page for an administrator, where rights may be assigned to this group.

berkman_test x

Name

Assign rights to this group
Note: This is a dangerous field to play with.

Members	Owner	Remove
Daniel Collis Puro	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Laura Miyakawa	<input checked="" type="checkbox"/>	<input type="checkbox"/>
J S Diaz	<input checked="" type="checkbox"/>	<input type="checkbox"/>
J Diaz	<input type="checkbox"/>	<input type="checkbox"/>
Andrea Goethals	<input type="checkbox"/>	<input type="checkbox"/>
Wendy Gogel	<input type="checkbox"/>	<input type="checkbox"/>

Enter emails, one per line

- A user without the right to edit group rights that creates a group may assign file access to one or more files to a group they created. See “File Visibility” for more information. The screenshot below shows an example of a group edit page for a standard user. Note that a standard user may not assign rights to a group.

Test Group x

Name

	Members	Owner	Remove
Steph		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Admin (Invited by you less than a minute ago.) (Re-send invite)		<input type="checkbox"/>	<input type="checkbox"/>

Enter emails, one per line

File Visibility

File accessibility is controlled by several facets, described below.

The right to view all items (refer to “Rights” section, “view_items” right) can be assigned to a user directly, to a user through a role that user has, or to a user through a group that group belongs to. This permission is managed through the Zone1 admin interface.

Additionally, an owner of a file may mark it as “Partially Open” and may specify one or more groups of users that can view the file.

A file marked as “Dark” is only visible to the owner of the file and any user that has the right to view all items assigned to the user directly, to a role the user has, or to a group the user belongs to.

Additionally, a user with a right to view preserved flag content may view any file that has the preserved flag, regardless of its permissions status. This right is managed through the Zone1 admin.

The path of logic for whether a file is visible to a user is:

- If a file is marked as “Open”, it is visible to all. Note that regular users may not mark files as “Open” unless they have been given this right.
- If a file is marked as “Partially Open”, it is visible to the owner, any users in any group that the owner has given access to view the file, and any users that have been assigned the right to view all items either directly, through a role they have, or through a group they belong to. If the file has a preserved flag, it is also visible to any users that have the right to view preserved flag content.
- If a file is marked as “Dark”, it is visible to the owner and any users that have been assigned the right to view all items either directly, through a role they have, or through a group they belong to. If the file has a preserved flag, it is also visible to any users that have the right to view preserved flag content.

Flags

The system has five non-changing flags for which a file can have:

- nominated for preservation
- selected for preservation
- preserved
- may be university record
- university record

A standard user can assign only the “nominated for preservation” and “may be university record” flag to their items. The rights to add “selected for preservation”, “preserved”, and “university record” flags are managed via the admin interface and can be assigned to a user directly, through a role they have, or through a group they belong to.

Additionally, users with the right to view preserved flag content are allowed to access files with the “preserved” flag regardless of their permissions level.

Comments

Each file has a boolean value controlling the ability to add comments on the file. If that value is true, a text box is shown under the option to enter a new comment, as shown in the screenshot below.

Allow users to add comments

New Comment:

Comments are then visible and deletable (by users with the right to delete comments or delete comments on owned items) from both the “edit” and “show” page for that file, as shown in the screenshots below.

Allow users to add comments

Here is a comment! -Admin X

Here is another comment! -Admin X

Here is a comment by another user. -Steph X

New Comment:

Comment ability on “edit” page for file.

Allow users to add comments: Yes

Here is a comment! -Admin X

Here is another comment! -Admin X

Here is a comment by another user. -Steph X

Comment ability on “show” page for file.

On the bulk edit page (where you may edit properties of multiple files), the attribute for allowing comments on the set of files can be edited, but individual comments can not be added here, as shown in the screenshot below.

2 Files Selected

Contributor:

Title:

Test files

Tags:

Description:

Allow users to add tags

Allow users to add comments

File Upload & Metadata

One or more files can be uploaded to Zone One using the File Upload tool accessible via the “Upload Files” link at the upper right corner of the screen. Only logged-in users may upload files to Zone One.

The top portion of the file upload screen is where users can enter optional metadata about the files they plan to upload. In Zone One, the more metadata supplied for a file, the easier it will be to find via the search feature. Therefore, it is ideal to supply as much metadata as possible when uploading. Naturally, users can always edit the metadata for one or more files after they have been uploaded, but adding the metadata at upload time is easier and more efficient.

The bottom portion of the file upload screen is where users can queue up files for upload as well as enable the SFTP upload (described below) window. There are two ways to queue up files to upload; drag and drop them from your computer onto the upload box or click the upload box’s “Add Files” button. Both methods produce the same end result.

Once a user has their files queued up and their metadata entered, they can click the “Start Upload” button and their files will begin uploading one at a time. The upload box will show the progress of each file as well as any errors. Each uploaded file will get its own copy of the metadata from the form on this page when the Start Upload button is clicked. This enables workflows like “entering metadata, uploading a file, modifying the metadata on that page slightly, then uploading another file all, all without leaving that page.”

Behind the scenes, a “batch ID” is created every time the user visits the File Upload tool. Every file uploaded (via the upload box or SFTP) from that visit to the File Upload tool will get the same batch ID. This batch ID can be entered into the search interface to find all the files uploaded in that batch. The batch ID is not currently displayed on the File Upload page, but it is displayed in every file detail page.

If a user tries to upload a file that is larger than limit configured in Zone One, an error message will be displayed and the SFTP window will open next to the existing “Upload Files” window. The user can then choose to upload some or all of their files via SFTP. Files uploaded via SFTP get their metadata from the form on this page the same as files uploaded through the previously described upload box.

Export to DASH

Files stored in Zone1 can be exported directly from Zone1 into the DASH repository without the user needing to download files to their computer. Single files can be exported via the “Export” button on their file detail or edit pages, while one or more files can be exported from the search results page by checking each file’s checkbox and then choosing the “Export To DASH” option under the “Selected” menu. Either technique will display the Export pop-up that will prompt the user for their DASH repository username and password as well as the DASH collection to which

they wish to export their files. To refresh the list of collections, simply click the “refresh collections” link on that pop-up after entering your DASH username/password. Then, select the desired DASH collection from the list, and click “Export Now.” The user’s files will be exported to DASH behind the scenes.

SFTP File Upload

The SFTP (Secure FTP) functionality built into the Zone1 web application allows users to upload files to Zone1 using SFTP rather than the Zone1 web upload interface. SFTP has a few advantages over the web upload interface: It supports larger files than the web upload, it can recursively upload an entire tree of directories and their files, and it can upload files that are not located on the user’s local computer.

Workflow

Once you’re logged into Zone1, there are a few basic steps to uploading files to Zone1 using the SFTP feature:

Request a temporary SFTP login

1. Click the “Upload Files” link at the top of the page
2. At the bottom right of the page, click the “Enable SFTP Upload Mode” button
3. Temporary SFTP login credentials will be created and displayed

Upload your files using an SFTP client program

1. Using any number of freely available SFTP programs, use the previously mentioned login credentials displayed to log in and upload one or more files.

Tell Zone1 to fetch your files

1. Once your files are finished uploading through your SFTP client program, switch back to the Zone1 interface that’s still open in your web browser.
2. At this point, as with all uploads to Zone1, you have the option of supplying metadata about your files in the form at the top of the page.
3. Click the “Start Upload” button to the left of the SFTP login credentials box.
4. Zone1 will start importing your SFTP files behind the scenes.
5. (Notice how in the example screenshot, I also have files queued to upload via the web upload interface. Zone1 can handle both types at the same time)
6. Once Zone1 is finished importing those SFTP files, it will delete them from the SFTP server where you uploaded them. It will also delete those temporary credentials.
7. At this point, your files have been imported into Zone1 and will behave just like files uploaded through the normal web upload interface. You’re done!

Queued-up web upload files on the left, temporary SFTP credentials on the right

The screenshot displays a web interface for SFTP uploads. On the left, under the heading "Upload Files", there is a table with columns for "Filename", "Status", and "Size". Two files are listed: "ruby-best-practices_1-0.pdf" (2 MB) and "couchdb-ref.pdf" (249 KB), both with a "0%" status. Below the table, a summary bar shows "2 files queued" and a "Start Upload" button. On the right, under "SFTP Upload Instructions", there are four numbered steps. Below the instructions, there are two input fields: "Connect To:" with the value "userD9C2B224@127.0.0.1" and "Password:" with the value "bca468f34e39744c".

Filename	Status	Size
ruby-best-practices_1-0.pdf	0%	2 MB
couchdb-ref.pdf	0%	249 KB

2 files queued Start Upload 0% 2 MB

SFTP Upload Instructions

1. Login to the SFTP server with the account info below
2. Use SFTP to upload your large files or entire directories
3. Once you're done uploading through SFTP, click the "Start Upload" button to the left.
4. The files you uploaded via SFTP will be imported into Zone 1 in the background, and associated with the metadata you've entered on this page

Connect To: userD9C2B224@127.0.0.1

Password: bca468f34e39744c

SFTP Caveats

Once you've clicked Start Upload, and Zone1 has detected that you've uploaded one or more files to its SFTP server, it will take a snapshot of your files on its SFTP server and import them as part of this batch. (See section "File Upload & Metadata" for more details on batches.) It will only do this *one* time from this page. That means you'll want to make sure to upload all your SFTP upload files to the Zone1 SFTP server before you click that Start Upload button.

If you upload some of your files to the Zone1 SFTP server, then click the Start Upload button, then decide you want to upload more files to the Zone1 SFTP server, any files you add after clicking Start Upload will *not* get imported into Zone1. In that case, you would have to reload the File Upload page in your browser, re-enter your metadata, request new SFTP credentials and repeat the process of uploading your new files to the Zone1 SFTP server and clicking the Start Upload button.

Appendix D: Use cases from Library Lab Showcase

What could Zone 1 do for you?

“A shared space for secure holdings of image heavy data pre-DRS. Allowing multiple users to add metadata and view.”

“Hold faculty teaching collections.”

“To put a faculty member’s files in for preservation until we can do something with them...”

“Serve as a temporary slide upload, add metadata later.”