Web Admin User Guide

This User Guide describes features available in the current production release of DRS2 Web Admin.

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1. Connecting to Web Admin

Link to Web Admin (prod): http://nrs.harvard.edu/urn-3:hul:drs2-admin
Link to Web Admin (test/qa): http://nrs.harvard.edu/urn-3:hul:drs2qa-admin

Access rules: Web Admin is accessible to authorized users by HUID and PIN. Note that a user's DRS2 roles combined with authorized owner codes will determine Web Admin viewing and editing capabilities. If you notice that you are not authorized for a function you think you should be able to perform, please contact LTS and we will adjust your DRS2 roles accordingly.

Browser support: Web Admin works well in Firefox, Google Chrome and Safari. Internet Explorer is not a supported browser at this time.

Session timeout: Your Web Admin session will timeout after 60 minutes of inactivity. Five minutes before timeout you will see a pop-up message “Your session is about to expire.” You will have an option to log out or stay connected.

If you do not respond to the Session Timeout warning within 5 minutes, you will be logged off automatically. A message that your session has expired will display along with a link to log back in.

Once you log back in with your HUID and PIN, you will be returned to the screen you were on before the session expired.

DRS2 user roles

The ability to deposit content and use Web Admin functions is determined by which DRS2 roles and owner codes you are assigned. Each DRS2 role governs a limited set of related functions and several roles may be assigned to cover the functions you need to perform.

DRS2 user roles:

- **content_viewer**: Search and view metadata and content; download content; view system announcements, view batch loader queue; view DRS owner account information.
- **sensitive_content_viewer**: Download sensitive data content. For Harvard definition of sensitive data see: http://security.harvard.edu/pages/glossary-terms-0
- **metadata_editor**: Edit object and file metadata; add incorrect metadata flag; change which billing code is assigned to an object, create admin categories in Wordshack.
- **content_editor**: Add files to an object; delete or recover batches, objects and files.
- **depositor**: Can deposit content.
• **account_editor**: Edit DRS owner account information, including the ability to add/update owner and billing contacts, billing number, and project name.

You can manage controlled vocabulary via Wordshack and there is a single Wordshack role available for this purpose.

Wordshack role:

• **term_editor**: This Wordshack role allows the user to create and manage controlled terms (organizations, people, topics, email address terms).

LTS has established DRS2 and Wordshack roles for DRS2 users that have been mapped as closely as possible to their existing DRS1 roles.
2. Overview of the User Interface

Topics in this section provide basic descriptions of major areas in the DRS2 Web Admin interface and provide links to related information and procedures in other parts of this User Guide.

Major functional areas are accessible from the Web Admin main menu -- the horizontal gray bar near the top of the screen. Menu bar options that are not clickable are features not yet implemented in this release.

Topics in this section include:

- Search screen
- Batch loader queue screen
- Object screen
- File screen
- Wordshack screen
- Batch Loader screen
- Accounts screen

2.1 Search screen

The Search screen is where you will land after connecting to Web Admin. From this screen you can:

- Perform a quick or advanced keyword search for batches, objects and files stored in DRS.
- Browse your list of search results by administrative metadata facets.
- Download and upload results sets.
- Perform bulk processing on batches, objects and files, including delete/recovery of objects and files as well as bulk download.
- Open the metadata page for an individual batch, object or file.

Key options on the Search screen are described below.
1. **Quick**: Use this option in conjunction with the **Search for** pick list to quickly look up a batch, object, files, or events by DRS ID, DRS object URN, DRS delivery URN, or owner supplied name. For example, to search for a still image file by its DRS ID, select "Files" from the **Search for** list and enter the number in the **Quick Search** box. See Quick search for more information.

2. **Advanced**: Options in this area allow you to search for data in a specific metadata field, combine multiple searches with Boolean operators, and group searches with parentheses to control the Boolean logic in your query. Use the **Search for** pick list to specify whether you are searching for batches, objects, files, or events. See Advanced search for more information.

3. **CSV File**: Use this area to upload a comma-delimited text file of search results. Click **Upload** and you will be prompted to choose a `.csv` file from your local drive. See Download and upload of result sets for more information.

4. **Action**: This dropdown list has the role appropriate actions available for your search results. Certain options require first selecting items from the result list.
1. **Bulk edit metadata**: Allows you to change the Owner or Billing code of selected objects or the Access Flag of selected files. See Bulk edit access flag and billing code section for more information.

2. **Display facets**: Lets you browse the administrative metadata values (facets) available in your current results set. Clicking on a facet will refine the set based on the facet. See Faceted browse for more information.

3. **Show/Hide columns**: Displays a pick list of all data columns available in the results list. To activate a data column on the list, click its Show option. Note that changing the “Search for” option or clicking “Reset” will reset the results list back to default columns.

4. **Download search results**: Generates a comma-delimited text file (a .csv file) of the current search result that you can save. See Downloading a search result set section for more information.

5. **Download objects or files**: Generates a zip archive containing objects or files selected from a search result. See Bulk download section for more information.

6. **Delete objects or files**: Delete all objects or files selected in a search result. See Bulk deletion section for more information.

7. **Recover objects or files**: Recover previously deleted objects of files selected in a search result. See Bulk recovery section for more information.

5. **Select**: The Select dropdown lets you select and deselect all items on the current page or result set.

6. **Result columns can be sorted, resized and moved**: Click a column header to sort the results list by that value in ascending order. Click again to sort in descending order. To resize columns, hover over the header until you get a resize cursor (↑), then click and drag. To move a column, hover over the boundary between headers until you get a move cursor (.moves), then click and drag. Note that changing the “Search for” option or clicking “Reset” will reset the results list back to its default appearance.

### 2.2 Batch screen

The **Batch screen** is a hub for information about a batch deposited to the DRS. You get to a Batch screen by clicking the DRS ID of a batch in search results, or by clicking a link to the batch name on related File and Object screens.

The Batch screen provides a summary of information about a batch and links to the objects contained in the batch.

Key options on the Batch screen are described below.
1. **Batch ID**: The DRS ID of the batch, assigned at deposit.

2. **Download batch**: Click this link to download the batch as a zip archive file. You’ll see two options: by DRS ID or by original name. Select DRS ID to get an archive with DRS IDs used as file names. Select original name to get an archive with original file names and contents arranged in original batch directories. See [Downloading content](#) for more information.

3. **Delete this batch**: Click this link to delete the batch. You will be prompted to supply a reason for deletion. See [Deleting and recovering content](#) for more information.

4. **Inventory list of objects**: Each row in this list represents an object in the batch, accompanied by metadata about the object. You can use the **Show/Hide Columns** link to expose additional metadata for these objects or click the Object ID to open an Object summary in a separate browser window or tab.

### 2.3 Object screen

The **Object screen** is a hub for information about an object stored in the DRS. You get to an Object screen by clicking the DRS ID of an object in search results, or by clicking a link to the object ID in related Batch or File screens.

The Object screen defaults to a summary of object information, including key descriptive and administrative metadata and links to related content (object descriptor, related batch and constituent files).

Key options on the Object screen are described below.
1. **Object metadata menu**: Select a menu choice to view detailed metadata views for the object. Editing options are available for Descriptive metadata, Administrative metadata, Rights, and Relationship views.

2. **Object persistent ID**: New in DRS2, this is a unique internal identifier assigned by DRS to the object. The DRS URN is used to uniquely identify an object and to establish relationships with this object.

3. **DRS ID**: This is the DRS ID of the object.

4. **PDS Delivery URN**: Only PDS objects have a delivery URN. A delivery URN is not assigned to objects in other content models, only to deliverable files associated with the object.

5. **Download options**: Click the download descriptor option to view the object's descriptor file (will open in current browser window). Click the download object option to get a zip archive of the object descriptor and associated files, with DRS IDs used as file names. Enable the Original Name radio button to get a zip archive of the object with original file names.

6. **Thumbnail**: This feature is not yet active.

7. **Descriptive Summary**: A summary view of MODS metadata for the object. Use the descriptive metadata menu choice to view and edit descriptive metadata for the object.

8. **Admin Summary**: A summary view of administrative metadata for the object. Use the Admin metadata menu choice to view and edit all admin metadata for the object.

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Revised: April 27, 2015
9. **Batch Summary**: A summary view of metadata for the batch that this object was part of. Click the batch name to view details about the batch.

10. **Inventory list of the files** in this object accompanied by some file metadata. Each row in the list corresponds to a file belonging to this object. You can use the **Show/Hide Columns** link to expose additional metadata for these files or click the File ID to open a **File screen** in a separate browser window or tab.

### 2.4 File screen

The **File screen** is a hub for information about a file stored in the DRS. You get to a File screen by clicking the DRS ID of a file in search results, or by clicking a link to the file ID on the related **Object** screen.

The File screen defaults to a summary of file information, including key administrative metadata and links to related content (object descriptor, related batch, download of file).

Key options on the File screen are described below.

1. **Object metadata menu**: Select a menu choice to view detailed metadata views for the file. Editing options are available for Administrative, Rights and Relationship views. The Technical metadata view is read-only in this release.

2. **File DRS ID**: This is the DRS ID of the file.
3. **File delivery URN:** If the file is deliverable, its delivery URN displays here. Click the URN to open the file.

4. **Download options:** Click the download file option to download the file with DRS ID as file name. Enable the Original Name radio button to download the file with original file name.

5. **Thumbnail:** This feature is not yet active.

6. **File summary:** A summary view of administrative metadata for the file. Full administrative metadata is available from the Admin metadata menu choice.

7. **Object summary:** A summary view of metadata for the associated object. Click the object's DRS ID to go to the object.

8. **Batch summary:** A summary view of metadata for the associated batch. Click the batch name to go to the batch.

### 2.5 Wordshack screen

Wordshack is a central vocabulary maintenance system designed for use in the context of digital repositories and digital preservation services. In DRS2 Web Admin, authorized users will be able to add or update controlled terms managed in Wordshack and then apply these terms to objects and files stored in DRS2.

See the [Working in Wordshack](#) section for information about features available in this part of Web Admin.

### 2.6 Batch Loader Queue screen

Batches scheduled in Batch Builder appear in the Batch Loader Queue in Web Admin. The loader queue displays the status of batches uploaded to the drop box. There are no role restrictions on viewing this screen.

Key options on the Batch Loader Queue screen are described below.
1. **Loader Schedule**: The schedule according to which the DRS 2 loader processes batches submitted through the SFTP drop boxes by DRS depositors.

2. **Drop Box**: DRS Secure FTP drop box for the batch.

3. **Batch Directory**: Name of the batch directory created in Batch Builder.

4. **Depositor**: Name of person who deposited the batch. This name is the WordShack person term that is mapped to the HUID supplied in BatchBuilder.

5. **State**: WAITING indicates that a batch is in the queue waiting for processing. LOADING indicates that the loader is actively processing the batch.

### 2.7 Accounts screen

Every DRS contributor has an owner account. DRS uses these accounts to track ownership of deposited content and to send billing reports or other notifications. You can use the **System Management > Accounts > Owner Accounts** area of Web Admin to view and change owner contacts and billing codes. You can also view total number and size of files deposited under each billing code in the account.

See [Managing Owner Accounts](#) for tasks associated with this area of Web Admin.

Key options on the owner accounts summary screen are described below:
The Owner Accounts summary screen will present an A-to-Z list of owner codes and associated billing codes for which the user has a content_viewer, account_editor or account_manager role.

1. **Owner code:** Click the owner code to view owner account details and associated billing codes.
2. **Billing code:** All billing codes associated with an owner code display on the summary screen. Click the billing code to view details.

Key options on the individual owner account screen are described below:

1. **Unit:** Name of the owning Harvard organization, pulled from an Organization term in Wordshack.
2. **Owner contact:** Name of the primary DRS contact in the organization, pulled from a Person term in Wordshack. One owner contact is required but additional contacts can be added as needed. This contact receives quarterly billing reports and excessive content deletion reports.
3. **Library director:** Name of organization’s director, pulled from a Person term in Wordshack. This contact receives excessive content deletion reports. This contact receives excessive content deletion reports.
4. **Proxy:** A proxy contact is someone in the organization (besides the library director) who needs to receive DRS notifications about excessive deletion of content. Pulled from a Person term in Wordshack. One proxy contact is required but additional contacts can be added as needed.
5. **Billing contact:** Name of a contact associated with a specific billing code, pulled from a Person term in Wordshack. This contact receives quarterly billing reports.
6. **Project contact:** Name of a project contact associated with a specific billing code, pulled from a Person term in Wordshack. This contact receives quarterly billing reports.

Web Admin users with the content_viewer role can view owner and billing account information. Users with the account_editor role can update this information. Users will see only the accounts for which they are authorized. See [DRS2 user roles](#) for more information about DRS2 roles.

Revised: April 27, 2015
3. Searching and Search Results

To retrieve and manage objects, files, batches, and events in DRS, you perform a search. You can use a **quick search** to retrieve content by an identifier (DRS ID, URN, owner supplied name). Or perform an **advanced search** on specific metadata values and combine search terms with boolean operators.

From search results, you can use **Display facets** to browse the administrative metadata values of what you retrieved. You can also download or upload the results set and perform bulk processing.

| Web Admin enforces owner code restrictions on viewing content in DRS. Your search results will be limited to content under your owner code. |

Topics in this section:

- Quick search
- Advanced search
- Faceted browse
- Download and upload of results set

### 3.1 Quick search by DRS ID, URN, OSN

Use quick search to retrieve batches, files or objects by DRS ID, DRS object URN, DRS delivery URN, or owner supplied name. These identifiers are available in your DRS2 batch deposit report.

**Tip:** To clear all search forms and results, click the **Reset** button (below the search form).

How to use quick search:

1. Use the **Search for** list to select batch, object, file, or event.
2. Enter the ID, URN, or owner supplied name in the text box on the right. Note that the wildcard (*) is not supported in a quick search.
3. Press Enter or click the **Quick Search** button to execute the search.

Quick search performs a query across all identifier types but limits results to the content selected in the **Search for** list (batch, object, file).

**Example:** quick search for object with DRS ID 400675606:

| Quick Search for: | Objects | 400675606 | Search |

If you get confusing results, check your "Search for" selection and the identifier that you entered. Also, use the "Show/Hide Columns" link from the ‘Actions’ dropdown list and expose one or more metadata columns that indicate a relationship (e.g. Has object with ID). This may help to explain the results you receive.

Here are two scenarios in which your quick search results may not seem to make sense.

- **Mis-match between ID and "Search for" selection.** If you accidentally specify "file" when quick searching for an object's DRS ID, you will retrieve all files associated with that object.

- **Quick search query matching is loose.** Quick search results will include identifiers that match or contain the query term. In most cases, if you search a complete identifier you will retrieve a single result, but if you search for a value that happens to be contained within another identifier, you may retrieve multiple hits.
3.2 Advanced search

Use an advanced search when you need to search a specific metadata field or need to compose a more complex search that includes multiple terms combined with boolean operators.

**Tip:** To clear all search forms and results, click the **Reset** button (below the search form).

**How to use advanced search:**

1. **Select a content type** (batch, object, file, or event) from the Search for list.
2. **Select metadata to search.** Click below **Column Name** and scroll the list of values that appears.
   
   **Note:** The list of metadata values will vary based on the content type selected in the Search for list.
3. **For date or size searches,** select the appropriate operator (Equals, > <).
4. **Enter your search terms.** Click below **Value** and type your search terms. Use a wildcard (*) to substitute for one or more characters. For date searches, a calendar picker will display. Click the **Save** button to continue.
5. [Optional] To find deleted content, include “status=deleted” (column=Status and Value=deleted) as a component in your search.
6. [Optional] To add another search term, click plus on the right side to add another search row and repeat steps 2-4. (To remove a search row, click minus.)
7. [Optional] To group your search into sub-queries, click in the parenthesis column on left and right as needed.
8. Click the **Search** button to execute the search. Results will display below the search form.

**Example:** Find batches by load date:

![Example: Find batches by load date](image)

**Example:** Find objects by content model (CMID-4.0 is a PDS object):

![Example: Find objects by content model](image)

**Example:** Find files by owner code, format and content model of object:

![Example: Find files by owner code, format and content model](image)
Example: Find objects by MODS metadata, using grouping and Boolean operators:

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODS Title</td>
<td>duke</td>
</tr>
<tr>
<td>MODS Title</td>
<td>pretty</td>
</tr>
<tr>
<td>MODS Title</td>
<td>collection</td>
</tr>
</tbody>
</table>

3.3 Faceted browse

Faceted browse displays the administrative metadata values (facets) available in your current results set and lets you progressively refine the set based on these facets. Facets provide a quick way to see the administrative characteristics of your result set and can help narrow a list of objects or files in preparation for bulk processing.

To use faceted browse, perform a search and then choose Display facets from the Action dropdown menu. A pop-up window displays containing facet values for the current results list. In parentheses next to each metadata value is the number of items in results with that value. To narrow results by facet value, click a value in the facet window and your current results list will be limited to items with that value.

Facets are supported for these administrative fields:

**Object-level facets**
- Admin Category
- Admin Flag
- Billing Code
- Content Model
- Owner Code
- Producer
- Role
- Status
- Has file with MIME media type

**File-level facets**
- Admin Category
- Admin Flag
- Billing Code
- File format
- First generation in DRS
- MIME media type
- Owner Code
- Quality
- Role
Has file with format

Status
In object with admin category
In object with content model
Has event of type

Revised: April 27, 2015
3.4 Download and upload of result sets

Use the **Download search results** option to save metadata in your result set for use outside of Web Admin. You might download a CSV file for easier review of metadata in a tool like Excel.

Use the **CSV File Upload** option to insert a result set for management in Web Admin. You might upload a custom result set in preparation for downloading content or bulk processing.

A CSV file is a text file containing comma-separated data that can be viewed in a text editor or spreadsheet application.

For more information, see these topics:

- [Downloading a search result set](#)
- [Uploading a result set](#)

**Downloading a search result set**

Use the Download search results option to generate a comma-delimited text file (a .csv file) of the current search result that you can save to a local drive. The CSV file captures the currently active results, including the column headers in use and a row of metadata for each item in the result set. Results in the file are based on the search only; results filtered out by using facets will still be included in a downloaded file. The search query that produced the results is not included.

How to download a result set:

1. Select the DownloadSearch results option from the Action dropdown menu.
2. The browser will prompt you to save the file search-results.csv to a local drive. Save it to a convenient location. You can change the file name as needed. If you plan to upload this search result later, keep the .csv file extension.

**Uploading a results set**

Use the **CSV File Upload** option to insert a result set into the Web Admin search results table. The uploaded set will replace any current results in the results table. Manually-created csv files will be accepted as long as they comply with these requirements:

- File must be plain text with a .csv extension. File name can be any alphanumeric string.
- File contents must follow format of the Download CSV file. A single CSV file can contain a maximum of 100,000 items.
- At minimum, a csv file must contain a column for DRS ID, owner supplied name, or URN.

How to upload a csv file:

1. Click the **CSV File Upload** button. A pop-up window will display.
2. Under **Load**, select the content type (objects, files, batches, or events,).
3. Under **Using**, select the identifier by which the content will be retrieved. Accept the default DRS IDs option if your csv file includes DRS IDs, otherwise select OSNs or URNs as appropriate.
4. Click the **Upload** button and the uploaded results will be inserted into the results table.
3.5 Bulk processing

Web Admin supports bulk processing -- the ability to make changes to a group of objects or files and the associated metadata. In this release, you can perform bulk download and bulk deletion/recovery of content in search results as well as limited bulk metadata editing (file access flags and object DRS Billing Codes).

Note that bulk processing a large set of objects or files can generate a high volume of background transactions -- especially descriptor updates and indexing changes. These transactions will take time to complete. There may be extra delay before your changes are visible in search results or individual object and file metadata summaries.

For more information, see these topics later in this Guide:

- Bulk download of content
- Bulk delete and recovery of content
- Bulk editing of metadata

4. Managing Metadata

DRS2 Web Admin supports editing of descriptive, administrative, rights, relationship and file structure metadata associated with objects and files. This section provides general guidelines about metadata editing in Web Admin and "how to" instructions for editing selected metadata fields that are particularly complex.

For definitions of all file and object metadata fields, please consult the DRS2 Metadata Reference [PDF].

See these topics for more information:

- Editing guidelines
- Editing descriptive metadata
- Editing administrative metadata
- Editing file structure [PDS objects]
- Editing rights metadata
- Editing relationship metadata

4.1 Editing guidelines

Web Admin users need the metadata_editor role to edit object or file metadata. If Web Admin metadata forms are grayed out, you are not authorized for editing. This release supports metadata editing of individual objects and files.

Editing tips:

- **Record locking is not supported.** If two users edit the same metadata field concurrently, the last saved change wins!

- **Save changes button.** On metadata editing screens, the "save changes" button is yellow before a change is made and green after a change is made. If you make a change but button is still yellow, click somewhere on the form and the button should turn green.

- **System message area.** Web Admin will display confirmation and error messages in a yellow bubble above the metadata form. This message bubble will persist, even if you navigate to another metadata screen, until you click the bubble's close button.
• **Using "x" to remove a value.** In multi-value fields such as Admin. categories, you can remove individual values by clicking the red "x" next to that value. This will cross out the value, but you must click **save changes** to commit the change. To undo the delete (before the change is saved), click the red "x" again.

![Admin. categories: Supporting Documentation □ □ □ □ Special Attention](image)

• **Using "x delete" in rights, review and relationship blocks.** To delete an existing rights or relationship metadata block, click the red "x delete" button next to the block. This will mark the block for deletion but you must click **save changes** to commit the change. To undo deletion of a rights/review block (before change is saved), click the red **UNDO** button. To undo deletion of a relationship block (before change is saved), click the red "x delete" button again.

Sample "x delete" for relationships block:

![Sample "x delete" for relationships block](image)

Sample "x delete" for review block:

![Sample "x delete" for review block](image)

### 4.2 Editing descriptive metadata

DRS2 lets you associate descriptive metadata with deposited objects. These descriptions are stored in the object descriptor. Adding descriptive metadata can be done at the point of deposit using Batch Builder or after the object is deposited using Web Admin. This section describes options available in Web Admin.

Use options on an object’s **Descriptive metadata** tab to edit descriptive information about the object. A user with the metadata_editor role can perform the following actions:

• **Upload MODS descriptive metadata:** by supplying an external MODS xml file or by importing descriptions from Aleph.

• **Add a METS label:** by using MODS data or by adding custom text.

• **Reference related metadata:** by adding Harvard Metadata or Related Links. (These fields were previously displayed on the Admin Metadata tab.)

For more information, see these topics:

- [Uploading MODS](#)
- [Updating the METS label](#)
Adding Harvard Metadata
Adding Related Links

Uploading MODS

Uploading MODS by importing from Aleph or by uploading an external MODS file will replace any MODS descriptions already in place. Uploading MODS will also replace the MODS-generated label but will not change the existing METS label.

**Note:** DRS2 accepts files up to MODS version 3.4. MODS versions higher than 3.4 will be rejected. The MODS version delivered by Aleph import and the PRESTO service will always be acceptable.

**Uploading MODS by Aleph ID**

1. Obtain the Aleph record ID number.
2. Display the object’s metadata summary and select the **Descriptive metadata** tab.
3. Open the **Replace MODS** pane by clicking the arrow.
4. Enter the ID in the **Upload MODS by Aleph ID** field.
5. Click the **Replace MODS** button to import the MODS and save this change.
   
   You may need to click once anywhere on the form to activate the Replace button.
6. The new MODS is imported at this point. There may be a few minutes delay before the MODS display is refreshed with new data.

**Uploading an external MODS file**

Descriptive metadata for an object can be imported from a locally-supplied MODS file. This section describes how to extract MODS from HOLLIS or VIA using the PRESTO service and how to create a MODS file from scratch using a template.

**To import an external MODS file:**

1. Create the MODS file and save it to a convenient location on your file system.
2. Display the object’s metadata summary and select the **Descriptive metadata** tab.
3. Open the **Replace MODS** pane by clicking the arrow.
4. Under **Upload MODS File**, click the **Choose file** button.
5. Navigate to the MODS file on your file system and select it.
6. Click the **Replace MODS** button to import the MODS and save this change.
   
   You may need to click once anywhere on the form to activate the Replace button.

The new MODS file is imported at this point. There may be a few minutes delay before the MODS display is refreshed with new data.

**Using PRESTO to extract MODS from HOLLIS or VIA:**

If there is cataloging for an object in HOLLIS or VIA, you can use the Harvard Library PRESTO service to extract a MODS version of the record.

1. Identify the ID of the record you want to extract.
2. Construct a PRESTO request url for the record:
3. Paste the PRESTO request url into a browser. The MODS XML file for the record will display. If you don't see the XML, view source.

4. Use the browser's Save As option to save the xml file to a local directory. Web Admin has no particular requirements for file name, but the file extension should be xml.

5. Follow the import external MODS procedure above to import this MODS file into an object’s descriptor.

Note about VIA: A PRESTO request for VIA will return the record with all components (e.g., a work plus all surrogates). Typically, what you need for object-level description in DRS2 is an individual surrogate description. Before inserting a VIA MODS file into your batch, you may need to edit the file to remove surrogate descriptions that do not apply to the object you are depositing.

Full details about using PRESTO are available in the PRESTO Data Lookup User Guide (http://hul.harvard.edu/ois/systems/webservices/lookup-userguide/).

To create MODS from scratch using a template:

It is easiest to create a MODS file from scratch by starting with a valid MODS template and inserting your descriptions. You can use a MODS full record example from the Library of Congress MODS web site: http://www.loc.gov/standards/mods/v3/mods-userguide-examples.html.

1. Create a text file with a .xml extension. Make the file name whatever you want.


3. Copy the entire LC MODS record and paste into your local MODS file.

4. Add descriptions to the template as needed. Remove elements that are not needed.

5. Save the file.

6. Follow the import external MODS procedure above to import this MODS file into an object’s descriptor.

Updating the METS label

The METS label provides a short descriptive label that identifies an object delivered by the Page Delivery Service (PDS). The METS label displays in the top pane of the PDS user interface. You can add a METS label at the point of deposit using Batch Builder or after an object is deposited via the object’s Descriptive Metadata tab in Web Admin.

Note: If a PDS object lacks a METS label, the PDS user interface will substitute the author and title from MODS data associated with the object (if this data is available).

You can create a METS label by copying in the MODS-generated label that is provided by default (if MODS data is associated with the object). Or you can create a custom label by entering text into the editor. Contents of the METS label is limited to 1,000 characters.
To add or update the METS label:

1. Display the object’s metadata summary and select the Descriptive metadata tab. Locate the Current METS label field.

2. To update the METS label with the MODS-generated label, press the Replace with MODS-generated label button.
   
   If the MODS-generated label is blank, MODS metadata is not associated with the object. Follow instructions in the Uploading MODS section to add MODS descriptions to the object.

3. To add a custom label, enter text directly in the Current METS label field.

4. Click the Save Changes button to commit this change.

**Adding Harvard Metadata**

There are two descriptive metadata fields that let you reference associated metadata in another system: Harvard Metadata and Related Links.

*What is the purpose of the Harvard Metadata field?* Use the Harvard Metadata field to reference Harvard metadata about an object that resides in another system. The most common use of this field is to add a live link to a cataloging record in Aleph or a finding aid in OASIS. Or use this field to reference a record number (but no live link) in OCLC or several other mostly legacy systems (e.g., HULPR, RLIN). These legacy Harvard metadata types were carried over from DRS1 in order facilitate the migration of DRS1 PDS document objects.

*How is the Harvard Metadata field used?* For PDS objects, Harvard Metadata links will display in the Related Links window of the PDS public interface. For objects in other content models, Harvard Metadata links currently display only in Web Admin.

*Note:* Entering an identifier in Harvard Metadata will not affect current MODS metadata or the METS label.

To add a Harvard Metadata reference:

1. Display the object’s metadata summary and select the Descriptive metadata tab. Locate the Harvard Metadata section.
2. Click +add Harvard Metadata and a data entry pop up will display.
3. Select a Type value from the dropdown and then enter an appropriate Identifier.
   - **Aleph:**
     Produces a live link to a bibliographic record in the HOLLIS catalog. The Identifier for this link type must be a 9-digit Aleph system number.
     In the PDS Related Links window, this link type is labeled “HOLLIS”.
   - **Finding Aid:**
     Produces a live link to a finding aid document. For OASIS finding aids, the identifier can be an EADID (a finding aid identifier, e.g. “hou01822”) or an OASIS urn (e.g. http://nrs.harvard.edu/urn-3:FHCL.Hough:hou01822). For a finding aid in another system, provide a URN.
     Note: The Finding Aid type is not a live link when displayed in Web Admin. This is a known bug that will be addressed in a future release.
   - **Gale:**
     Produces a reference to the OCLC identifier for a page-turned object from the Making of the Modern Economy online library produced by Thomson Gale (a DRS1 data loading project executed on behalf of Baker Library/Harvard Business School). The Identifier should be a valid OCLC value, such as 17346710.
   - **HULPR** (called Old HOLLIS in DRS1)
     Produces a reference to a bibliographic record in the HOLLIS Catalog by way of a HULPR record number (HULPR was Harvard Library’s cataloging system prior to Aleph). The Identifier must be a HULPR system number in the form ABC1234.
   - **Local**
     The Local type is designed to reference information associated with the object that is not accessible by URI (such as a local system number or other note). The Identifier should be an identification number or note that explains the entry.
   - **OCLC**
     Produces a reference to a record in the OCLC system (http://www.worldcat.org/). The Identifier should be a valid OCLC identifier, such as 2505627.
   - **RLIN**
     Produces a reference to a record in the old RLIN system. The Identifier should be a valid RLIN number.
4. Click Add to add the Harvard Metadata reference.
5. Click Save Changes to commit this change.

**Adding Related Links**
There are two descriptive metadata fields that let you reference associated metadata in another system: Harvard Metadata and Related Links.

**What is the purpose of the Related Links field?** Use the Related Links field to link to a URL that provides information related to the object. You might use this field to reference a record in VIA
How is the Related Links field used? For PDS objects, Related Links will display in the Related Links window of the PDS public interface. The Relationship value will be used as link text, preceded by the label “Link”. For objects in other content models, Related Links currently display only in Web Admin.

**Note:** Entering a URL in Related Links will not affect current MODS metadata or the METS label.

To add a Related Link:

1. Display the object’s metadata summary and select the **Descriptive metadata** tab. Locate the **Related Links** section.
2. Click **+add Related Links** and a data entry pop up will display.
3. Enter a **Relationship** value. This is a string of text that in the case of PDS objects, will be used as link text in the PDS Related Links window.

   Note: In the PDS Related Links window, there is a bug that will truncate a Relationship value that contains a space. For example, the Relationship value “Previous Issues” will be truncated to “Previous” when the link displays in PDS. This will be fixed in a future release. To avoid truncation, use a dash, underscore or other character to connect separate words; e.g., “Previous_Issues”.
4. Enter **Related URI**. This will be a fully qualified URN or URL.
5. Click **Add** to add the Related Link.
6. Click **Save Changes** to commit this change.

### 4.3 Editing administrative metadata

Administrative metadata provides information to help manage an object or file, such as when and how it was created, file type, identifiers, owner/billing information. Metadata of this type can be viewed and edited on the **Admin. metadata** tab for an object or file.

More information about editing:

- **Owner supplied name**
- **Delivery URN**
- **Owner and billing code**
- **Access flag**
- **Admin categories**
- **Admin flag**
- **Image caption**
- **Harvard metadata**
- **View text**
- **Related links**

**Owner supplied name**

An owner supplied name (OSN) serves as an identifier that can be used to associate an object or file deposited into the DRS with local information such as a local accession number or classification number. An OSN is required for objects and must be unique within an owner code.
An owner supplied name is generally optional for files and need not be unique, except in the case of:

- Images linked to Shared Shelf.
- Audio files, if a playlist is in use.

Failure to supply a unique OSN in these cases will prevent access to these files.

An owner supplied name must:

- Not exceed 100 characters in length.
- Include only alpha-numeric characters, periods (.), underscores (_), hyphens (-) and curly brackets { }.

**To edit owner supplied name:**
1. Display the object or file summary and select the Admin. metadata tab (on the left).
2. Add or update the value in the owner supplied name field.
3. Click the save changes button to commit this change. If the Save button is not active (green), click once anywhere on the form to activate it.

**Delivery URN**

Web Admin lets you create URNs for deliverable content in the DRS. For still image, audio, document and text objects, delivery URNs are at the file level. For PDS objects, delivery URNs are at the object-level.

Using Web Admin, you can create a new URN or add an existing URN created directly in NRS.

**To add a delivery URN:**

1. Open the Admin Metadata tab for the object or file. Look for the Delivery URN field. For still image, audio, document and text objects, it will be in file admin metadata. For PDS objects, look in object admin metadata.
2. Click the + add URN link to open the add form.
3. Click the Existing tab if you want to add an existing URN that was created directly in NRS.
   a. Enter the URN.
   b. Click Add to add the URN and close the window.
4. Click the New tab if you want to create a new URN.
a. Select the authority path.

b. **Enter a resource name.** You can assign a specific resource name (such as a local accession number), use a URN mask to generate a resource name, or a combination of these. The result must be a resource name that is unique within the selected authority path.


   Note: if you leave the resource name empty and click Add, no URN will be created. If you want DRS to assign the next available number, enter \{n\} in this field.

c. Click **Add** to add the URN and close the window.

5. Click **save changes** to commit this change.

New URNs will work in a browser about 10 minutes after you create them. If you delete a URN, it takes about 24 hours for the URN to be deactivated.

**Owner and billing code**

A DRS owner code is a coded representation of the Harvard organizational owner associated with an object. Transferring ownership of content (changing an object’s owner code) is limited to users with the account_manager role. This role is limited to LTS staff.

A DRS billing code is a short alphanumeric code that represents the Harvard accounting code used to bill organizations for DRS-related project and service charges. Billing codes are associated with objects only. Users with the metadata_editor role will have the ability to change an object’s billing code. Users will only be able to select billing codes associated with the owner code for which they are authorized.

This procedure describes how to change the billing code for an object.

1. Display the object summary and select the **Admin. metadata** tab (on the left).

2. To change billing code, in the **Owner & Billing codes** field, select the appropriate value from the pull down list.

3. Click the **save changes** button to commit this change. If the Save button is not active (green), click once anywhere on the form to activate it.

**Access flag**

The DRS access flag specifies who can access a digital object if it is deliverable. There are three options to choose from: P for public, R for restricted (available only to the Harvard Community) and N for no access (available only to collection managers through Web Admin).
Note: The access flag value B stands for "bypass" and is reserved for content in systems that manage their own delivery and access control (e.g., the Web Archiving Service). Do not assign this flag value to your content via Web Admin.

Both objects and files have access flags that can be independently set. However, an object’s access flag cannot be more restrictive than the access flag of any of its files (e.g., you can’t set an object’s access flag to R if any of its files is set to P).

To edit an access flag:
1. Display the object or file summary and select the Admin. metadata tab (on the left).
2. Locate the Access flag field and select the appropriate value.
3. Click the save changes button to commit this change. If the Save button is not active (green), click once anywhere on the form to activate it.

Admin categories

An administrative category is a curator-assigned label, such as an exhibit name, project name, etc., that can be used to group together a set of objects or files. For example, you can search by category to retrieve a set of objects or files for viewing or editing. Multiple categories can be assigned to an object or file.

This procedure describes how to assign an admin category to an object or file. Note that admin categories are controlled terms managed by the Wordshack vocabulary management service. Before you can assign category metadata, you need to create it via the Wordshack interface in Web Admin.

To assign a category:
1. Display the object or file summary and select the Admin. metadata tab (on the left).
2. In the Admin. Categories field, click the + add option to open the Add Category window.
3. To display a list of category values, click into the input box and either type an asterisk (*) to see all values, or begin typing the term to see matching values.
4. Select the term and click Add.
5. Click the save changes button to commit this change. If the Save button is not active (green), click once anywhere on the form to activate it.

To remove a category:
1. Display the object or file screen and select the Admin. metadata tab (on the left).
2. In the **Admin. Categories** field, click the little red x next to the category. This will cross out the value. To undo the delete (before the change is saved), click the red "x" again.

3. Click the **save changes** button to commit this change. If the Save button is not active (green), click once anywhere on the form to activate it.

**Admin flag**

An administrative flag indicates a possible issue with an object or file that may require additional processing. In most cases, admin flags are automatically assigned during upload to the DRS. You can search by admin flag to retrieve a set of objects or files for viewing and editing. Multiple flags can be assigned to an object or file.

This procedure describes how to assign an admin flag. Note that admin flags are controlled terms managed by the Wordshack vocabulary management service. Before you can assign flag metadata, you need to create it via the [Wordshack interface](#) in Web Admin.

**To assign a flag:**

1. Display the object or file summary and select the **Admin. metadata** tab (on the left).
2. In the **Admin. flags** field, click the + **add** option to open the Add New Flag window.
3. To display a list of flag values, click into the input box and either type an asterisk (*) to see all values, or begin typing the term to see matching values.
4. **Select the term** and click Add.
5. Click the **save changes** button to commit this change. If the Save button is not active (green), click once anywhere on the form to activate it.

**To remove a flag:**

1. Display the object or file screen and select the **Admin. metadata** tab (on the left).
2. In the **Admin. flags** field, click the little red x next to the flag. This will cross out the value. To undo the delete (before the change is saved), click the red "x" again.
3. Click the **save changes** button to commit this change. If the Save button is not active (green), click once anywhere on the form to activate it.

**Image captions**

This section describes the format of DRS2 image captions and how to add them.

A caption is a string of descriptive information that you can append to the deliverable versions of still images, including page images delivered as part of a PDS object. Image captions are generated on-the-fly and appear together with the image in the browser. You can use the default caption format or create your own custom caption.

Note these caption features:

- Captions can be applied to JPEG and JPEG2000-based still images.
- Captions will not be applied to images with a width of 300 pixels or less.
- The length of the entire caption (all components, including the Harvard University prefix) must not exceed 500 characters.

Below is a sample still image with default caption:
Format of the DRS2 caption

A default still image caption consists of:

Harvard University, [unit name], [object owner supplied name].

e.g., Harvard University, Baker Library, Harvard Business School, W80671_1.

You can customize either of these fields by changing the Caption unit name or the Caption description on the Admin Metadata screen of the object.

Note about PDS captions. PDS objects have captions that appear just below each page image in the document and also on each page of the PDF created by the PDS “Print” feature. The default PDF caption format differs from the default still image caption described above. The PDF caption format is:

Harvard University – [unit name] / [METS label of the PDS object].

e.g., Harvard University –Collection Development Department, Widener Library, HCL / The Radcliffe magazine. Cambridge, Mass : Radcliffe College, 1899-.

The METS label is descriptive text that also displays in the top frame of the PDS user interface. In the absence of a METS label, MODS title will be used (if present in object metadata). Like the still image caption, the [unit name] can be customized by changing the Caption unit name field in Web Admin. Since the [METS label] is used as caption description, you can customize the METS label on the object’s Descriptive metadata tab or you can add text to the Caption description field.

Adding a caption

Caption behaviors are controlled by options in object metadata that can be set in Batch Builder or Web Admin. Although the following procedure is specific to Web Admin, the same fields are available in the object template in Batch Builder.

To add a default or custom caption:

1. Display the object summary and select the Admin. metadata tab (on the left). Captions are always defined at the object level.
2. Set the Caption behavior field to **On**.

3. **For default captions**, leave the Caption unit name and Caption description fields blank.

4. **To customize the caption**, add text to the Caption unit name and/or Caption description fields.

5. Click the **save changes** button to commit the change. If the button is not active (green), click once anywhere on the form to activate it.

6. To check the resulting caption:
   - To check the caption on an individual still image (JPEG or JP2), append the file ID to this IDS URL:
     
     http://ids.lib.harvard.edu/ids/view/[DRS_ID_of_file]
   - To check captions on a PDS object, open the object by clicking the delivery URN that displays in the object’s metadata summary.
   
   **Note**: If you previously viewed the file or object, remember to reload the browser window to see changes in the caption.

**View text**

View Text is an object-level field that controls the View Text menu option in the PDS user interface. Set this field on and a user can click View Text to display the OCR for a selected page. Set View Text off and the menu option will be grayed out and unavailable.

Below is an example of an active View Text option. Clicking this option will display OCR text for the selected page.

View Text can be enabled in Batch Builder when a PDS object is deposited or in Web Admin after deposit.

Revised: April 27, 2015
To activate View Text in Web Admin:
1. Display the object summary and select the Admin. metadata tab (on the left).
2. Set the View Text radio button to On.
3. Click save changes button to commit the change.

Bulk edit access flag and billing code
In this release file access flag and object billing code values can be updated in bulk from the search results screen. Note that when editing billing code, all objects in the result set need to have the same owner code.

Transfers of objects from one owner code to a different owner code can be executed only by repository manager. If you need owner code transfer, please contact the DRS Support Team.

Bulk edit access flag
Only files have access flags. In order to bulk edit file access flags:
1. Search for the files that you want to edit using quick search or advanced search.
2. (optional) We recommend that you download the search results in CSV format and make sure the CSV includes the current access flag values (in case you make a mistake when you bulk edit and need to revert).
3. Select the items you want to edit from the search results. Use either the selection checkboxes next to each item or select pages at a time or the whole results set using the Select drop-down.
4. Choose “Bulk edit metadata” from the Action drop-down (to the right and above the Select drop-down).
5. From the Field name drop-down select “Access Flag”.
6. Choose the access flag value you want to set for your items. “N” = no access, “R” = restricted to Harvard and “P” = public. “B” = bypass and is for internal use.
7. Click on “Bulk Edit Metadata” button. You will get an “Are you sure?” prompt. Bulk metadata changes are not reversible so make sure you selected the correct items and correct access flag.
8. Click “OK”
9. You will get a pop-up message that says: “Success: Your bulk operation has been initiated. A detailed email message will be sent describing results.”
10. You will get an email with the subject “Results of bulk update.” Depending on the number of items being updated it can take a while for the results email to arrive. The email will include information about updated files and a CSV attachment listing each file’s DRS ID and the transaction outcome. If some files could not be updated, the email will report on that as well and include another attachment with a list of DRS IDs for files that could not be updated and the reason for failure. If all files could not be updated, the email will include the attachment with the list of files that could not be updated and the reason for failure.

Bulk edit billing code
Only objects have billing codes. In order to bulk edit object billing code:
1. Search for the object that you want to edit using quick search or advanced search. Note that all the objects in your result set need to be in the same DRS Owner Code.
2. (optional) We recommend that you download the search results in CSV format and make sure the CSV includes the current billing code values (in case you make a mistake when you bulk edit and need to revert).

3. Select the items you want to edit from the search results. Use either the selection checkboxes next to each item or select pages at a time or the whole results set using the Select drop-down.

4. Choose “Bulk edit metadata” from the Action drop-down (to the right and above the Select drop-down).

5. From the Field name drop-down select “Owner & Billing Code”.

6. Choose the current Owner Code and then select the Billing Code value you want to set for your items. If you have access to more than one Owner Code, make sure that you select the Owner Code that is the same as the current Owner Code for the result set.

7. Click on “Bulk Edit Metadata” button. You will get an “Are you sure?” prompt. Bulk metadata changes are not reversible so make sure you selected the correct items and correct access flag.

8. Click “OK”

9. You will get a pop-up message that says: “Success: Your bulk operation has been initiated. A detailed email message will be sent describing results.”

You will get an email with the subject “Results of bulk update.” Depending on the number of items being updated it can take a while for the results email to arrive. The email will include information about updated objects and a CSV attachment listing each object’s DRS ID and the transaction outcome. If some objects could not be updated, the email will report on that as well and include another attachment with a list of DRS IDs for objects that could not be updated and the reason for failure. If all objects could not be updated, the email will include the attachment with the list of objects that could not be updated and the reason for failure.

4.4 Editing file structure [PDS objects]

This section describes how to edit the structure of a PDS object and how to control other aspects of the PDS public interface.

To edit structure, open the PDS object’s metadata summary and select File Structure from the left-hand menu. The object’s structure will display in an expandable/collapsible hierarchical tree. The structure and nearby editing options are referred to as the structure editor in this document.

The DRS2 structure editor lets you make the same types of structural changes as DRS1 PDS Maintenance, but with an updated user interface that delivers many editing options using a right-click context menu and lets you use drag and drop to move page and section nodes around the structure tree.

Some important tips related to editing PDS objects:

- **Merges not available.** Merging of PDS objects is not supported in the first production release of DRS2, but will be available in a future release.

- **PDS public interface options are controlled by fields in an object’s admin and descriptive metadata.** See the section Controlling PDS public interface options for more information.

See these topics for more information about structure editing:

- About the structure editor
- Adding page numbers and labels
- Inserting a section node and attaching page nodes

Revised: April 27, 2015
Inserting a section break in the middle of a page
Inserting a page node and linking to page files
Deleting nodes and unlinking files
Assigning a URN
Controlling PDS public interface options
About the structure editor

- Citation node
- Section node
- Page node

Edit attributes of selected node

Indicates split page node

Page thumbnail (jp2, jpg only)

URN assigned to page node

Unlinked files associated with the object that can be attached to a node
Adding page numbers and labels

You can select a single page node and apply number and label using the Node Attributes panel. Or you can number and label a range of page nodes using the “Number Pages” button. It is also possible to Rename a page label by right-clicking a page node, but this option changes the label only and not the page number.

Using the Node Attributes panel to label a single page node

1. Select a page node and view the Node Attributes panel on the right.
2. Enter a value in Page Number. This is the physical number printed on the page. Values in this field power the “Go to page” option in the PDS user interface.
3. Enter a value in Page Label. This will normally be a label plus page number, but can be any type of label. The page label displays in the table of contents panel in the PDS user interface.
   Note: There is no automatic page labeling (enter page number “1” and get a “page 1” label by default). If you leave this field blank, there will be no page label.
4. Click Update Attributes to apply the change.
5. Click Save Structmap to commit the change.
Using “Number Pages” to label a range of page nodes

1. Click the Number Pages button. A Sequential Numbering panel will open on the right.
2. Enter the sequence range to be numbered.
3. Select a number format and starting page number.
4. Enter a label format. Insert a label before or after the curly braces (representing the page number). Do not delete the braces or insert data between them.
5. Click Update Numbering to apply these changes.
6. Click Save Structmap to commit these changes.

Inserting a section node and attaching page nodes

To group pages into chapters, sections etc. you can insert a section node into the structure tree using a right-click contextual menu and then drag and drop page nodes onto the section. Lines connect the parent section node with its child page nodes to form a branch. Nested sections (subsections) are also supported.
1. To insert a section before or after an adjacent page node, right-click the page node and select Create > Create Section Before (or After).

2. Click into the new section node and type a label. Or at any point, you can change the label by right click > Rename or by using the Node Attributes panel on the right.

3. Click and drag a page node onto the section node. Use shift+click to select a group of page nodes and drag the group onto the section node.

   When dragging page nodes, you should drop them (unclick) when the target section node is highlighted.

4. To insert a subsection, right-click over the parent section and select Create > Create Subsection. Or right-click over a page node in the section and select Create > Create Section.

5. Click into the subsection node and type a label.

6. Click **Save Structmap** to commit these changes.

**Inserting a section break in the middle of a page**

This topic describes how to depict a chapter or section that starts in the middle of a page. The procedure involves splitting a page node into two copies and inserting a section node between them.

Note: Split page nodes must stay paired and can be separated only by a section node. The structure editor will prevent you from saving a structure in which split nodes are more widely separated.
1. Create a split page node. Right-click over the page node where the new section starts and select Split. A duplicate page node will be inserted. Both nodes will be marked with a link icon.

2. Give the split nodes labels. The easiest way is to use Number Pages to number and label all pages including the split nodes. Or, select each node and add a number and label in the Node Attributes panel.

   Note: Right-click menu options are limited on the first split node and aren’t available on the second split node.

3. Insert a section node between the split nodes. Right-click over the first split node and select Create Section After. In a later step, you will attach the second split node to this section.

4. Insert a new section node that is positioned somewhere above the first split node. In a later step, you will attach the first split node to this section.

5. Drag and drop page nodes (including the first split node) onto the first section.

6. Drag and drop page nodes (including the second split node) onto the second section.

7. Give each section a label. Select a section and right-click to Rename or enter a label in the Node Attributes panel.

8. Click Save Structmap to commit these changes.

   If you need to undo a split node, right click over the first node in the pair and select Unsplit. The result will be a single page node.

### Inserting a page node and linking to page files

This topic describes how to insert a new page node into a structure and how to associate page files (images, OCR/plain text, or layout files) with it. Use techniques described here to add a new page to a document or to replace files associated with an existing page node (e.g., replacing a poor quality page image).

The page files that you associate with a page node must already be part of the object. They may have been orphaned when deleting another page node in the structure, or were uploaded to the object using the Add a File option available on the object summary page.

1. Insert a new page node. Right-click over an adjacent node and select Create > Create Page Before (or After).

2. [Optional] Give the new page node a page number and label. Select the node and input a page number and label in the Node Attributes panel on the right.
3. Link page files to the new node. Files available to link are listed under the **Add Files** area at bottom of the Node Attributes panel. With the page node selected, choose a file and click the **Add File** button. Repeat this step if there are additional files to be linked.

4. Click **Save Structmap** to commit these changes.

**Deleting nodes and unlinking files**

This topic describes options for unlinking/deleting associated page files (page images, OCR plain text, layout files) and deleting section or page nodes.

**Unlinking and deleting page files**

The structure editor lets you remove a file from a page node by unlinking or deleting.

- **Unlinking a file** removes it from the page node but retains the file in the object. Unlinked files will be listed under **Add Files** at the bottom of the Node Attributes panel and will also be listed in file inventory on the object summary page.

- **Deleting a file** will unlink it from the page node and delete the file from DRS. Delete from the structure editor has the same effect as deleting a file from the file summary page.
1. Select the page node.

2. Under **Page Attributes** in the right panel, select the file to be removed.

3. Click the **Unlink** button to unlink the file from the node but keep it in the object. Or click the **Delete** button to unlink the file and delete it from DRS.

4. Click **Save Structmap** to commit this change.

**Deleting section nodes**

You can delete a section node only or delete a section plus its child page nodes. If you delete a section only, any child page nodes will be outdented to the next level up in the hierarchy. If you delete a section and its page nodes, any files associated with the deleted page nodes will be unlinked and listed in the **Add Files** area at bottom of the Node Attributes panel.

1. Right-click the section node to be deleted and select **Delete section** (to delete just the section) or **Delete section & its content** (to delete the section and any child page nodes).

2. Click **Save Structmap** to commit this change.
Deleting a page node

You can delete a page node using the right-click menu. When you delete a page node, any linked page files will be unlinked and listed in the Add Files area at bottom of the Node Attributes panel.

1. Right-click the page node to be deleted and select Delete from the menu.
2. Click Save Structmap to commit this change.

Assigning a URN

At batch deposit, a PDS object is automatically assigned a citation (title-level) persistent identifier (URN). In the structure editor, you can see this citation URN associated with the first page node.

This topic describes structure editor options for assigning additional PDS URNs to an object after deposit. (A “PDS URN” resolves to a PDS URL.) You can assign a URN to individual page nodes or use the Auto Name option to assign URNs to all pages or to the first page node in all sections down to a specified depth.

If you need to assign more than one URN to the citation level (first page node) of a document, use the DRS delivery URNs field on the object’s Admin metadata page.

When is a new URN actionable? About 10 minutes after you create a URN, you can use it in a browser.

See these topics for more information about assigning URNs:
- Assigning a URN to a selected page
- Assigning many URNs using Auto Naming
- Using a URN mask
- Deleting/deactivating a URN

Assigning a URN to a selected page

In this method, you select a page node and assign a URN using options in the Naming portion of the Node Attributes panel.
1. Select a page node and view the **Naming** portion of the **Node Attributes** panel on the right.

2. Select an **Authority Path**. The drop-down list will include authority paths that are compatible with the tub-level of the DRS owner code for the document.

3. Enter a **Resource Name**. You can assign a specific resource name (such as a local accession number), use a URN mask to request that the resource name be generated by NRS, or a combination of these. The result must be a resource name that is unique within the selected authority path.

   For more about URN mask options, see [Using a URN mask](#).

4. Click **Add URN** to apply the change.

5. Click **Save Structmap** to commit the change.

6. The newly created URN is now associated with that page node.
The URN will be actionable about 10 minutes after creation. To use it in a browser, prepend http://nrs.harvard.edu/ (in production) or http://nrtest.harvard.edu:9031/ (in beta). Using the URN created in this example, the production form would be:

http://nrs.harvard.edu/urn-3:hul.ois:269033

**Assigning many URNs using Auto Naming**

Use the Auto Naming option to assign URNs to all pages in the document, or to all intermediate section nodes down to a specified depth from the citation node.

Use this feature only when there is a need for URNs to all pages or to all sections in a document. If access to the citation (top) level of PDS document is sufficient, use the citation level URN that was assigned to the document at DRS deposit. If access to selected individual parts of the document is needed, assign individual URNs using the Naming option in the Node Attributes panel.

1. Click the **Auto Naming** button and an Auto Naming panel will display on the right.
2. Select an **Authority Path**. The drop-down list will include authority paths that are compatible with the tub-level of the DRS owner code for the document.
3. Enter a **Resource Name**. You can assign a specific resource name (such as a local accession number), use a URN mask to request that the resource name be generated by NRS, or a combination of these. The result must be a resource name that is unique within the selected authority path.
   
   For more about URN mask options, see [Using a URN mask](#).
4. Select **Name All Pages** if you want to name all pages in the document.
5. Select **Name Sections** if you want to name sections in a document.

   Then specify a **Depth** value. A depth of 1 will assign a URN to all sections one level below the citation node. Entering no depth value will assign a URN to all sections at every level of the document.

   Remember that naming sections involves naming the first sequential page under the section. Notice in the screenshot below that the first sequential page node below Chapter 1 is the first node under the subsection Part A.

6. Click **Add Names** to apply this change. The URN icon will appear next to every page node that has been named.
7. Click **Save Structmap** to commit the change.

8. The newly created URNs are now associated with page nodes.

   Each URN will be actionable about 10 minutes after creation. To use it in a browser, prepend http://nrs.harvard.edu/ (in production) or http://nrstest.harvard.edu:9031/ (in beta).

**Using a URN mask**

This topic describes the URN mask – a method for composing the resource name portion of a URN by inserting values that will be auto-generated by NRS.

A URN mask is a placeholder that will be replaced with actual values by NRS. Mask components include a unique integer generator as well as various date and time stamps.

URN mask components may be added anywhere in the resource name string, and may be repeated, if desired. They are enclosed in braces ('{', '}') to distinguish them from other parts of the resource name string. This means that brace characters **may not** be part of a name (brace characters are not part of the valid NRS name character set in any event). The components are:

<table>
<thead>
<tr>
<th>URN mask component</th>
<th>Replacement values</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>{dd}</td>
<td>01 – 31</td>
<td>Current day of the month</td>
</tr>
<tr>
<td>{hh24}</td>
<td>01 – 24</td>
<td>Current hour, 24 hour clock</td>
</tr>
<tr>
<td>{mo}</td>
<td>01 – 12</td>
<td>Current month</td>
</tr>
</tbody>
</table>

Revised: April 27, 2015
Note that using a URN mask does not guarantee that the string created will be unique. Submitting URN masks that generate non-unique values will result in an error, and the rejection of the request to generate a name. Best practice to guarantee generation of a unique name would be to include the unique integer value component, '{n}', in the mask.

Examples:

**URN mask**

| {n} | 0 – 10^77 | Unique integer value |
| {ss} | 00 – 59 | Current second |
| {yyyy} | 1999 – 9999 | Current year |

**Created value (resource name is highlighted)**

<table>
<thead>
<tr>
<th>urn-3:RAD.SCHL:28732</th>
<th>urn-3:RAD.SCHL:HOD:28733</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;HOD&quot; is a literal string combined with the URN mask {n}</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>urn-3:HMS.Count:2005-28734</th>
</tr>
</thead>
<tbody>
<tr>
<td>(unique only for one object on any given day)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>urn-3:FHCL:20051201</th>
</tr>
</thead>
<tbody>
<tr>
<td>(always unique)</td>
</tr>
</tbody>
</table>

**Deleting/deactivating a URN**

When in the structure editor, page nodes assigned a URN are marked. To delete a URN, select the page node and in the right panel, click the **Remove button** to mark the URN for deletion. Then click the **Save Structmap button** to commit the change.

Removing a URN deactivates the URN in the NRS database but does not actually delete it. This change takes effect the next day, when the NRS resolver is updated.

**Controlling PDS public interface options**

While the current DRS (DRS1) and new DRS (DRS2) systems operate in parallel, the existing PDS public interface will deliver PDS objects stored in either system. For DRS2 objects, this topic describes how options in the PDS public interface can be controlled by making changes to a PDS object’s metadata in DRS2 Web Admin.

In the PDS public interface screenshot that follows, options circled in yellow are controlled by PDS object metadata.
1. **METS label:** This label is controlled by fields in an object’s descriptive metadata. See [Updating the METS label](#) for details.

2. **Search:** This option lets the user keyword search text of the document. The Search button is activated automatically if the PDS Object includes OCR text for some or all pages. If OCR files are not present, this option is grayed out.

3. **View Text:** This option lets the user view the OCR text version of the page. This option is controlled by the View Text field in PDS object admin metadata. A View Text value (on/off) can be set in Batch Builder or after deposit in Web Admin. If this field is not set in Batch Builder, the default value is OFF and the View Text button will be grayed out.

4. **Related Links:** This option displays links and metadata associated with the PDS object. In DRS2, both the Harvard Metadata and Related Links fields in object descriptive metadata contribute to the Related Links display. If neither of these Link fields contains data, the Related Links button will be grayed out.

5. **Go to Page navigation:** This option lets the user navigate to a specified physical page number. It’s powered by the presence of page numbers associated with some or all page nodes in the document. If page numbers are not assigned to any page node, this option will be grayed out.

6. **Image size:** The maximum size of a JPEG200-based page image can be controlled in file-level metadata. See [How to limit still image delivery size](#) for more information.

7. **Page image caption:** The ability to display a default or custom caption below each page image is controlled by caption fields in object admin metadata.

### 4.5 Editing rights metadata

DRS2 supports rights metadata that specifies the terms and restrictions on stored content. Rights metadata is optional and should be applied to objects and files as needed.
Rights metadata can be applied by a depositor using Batch Builder or by a curator using Web Admin. This section describes how to add rights metadata to objects and files using the DRS2 Web Admin.

For more information:

- About rights metadata
- How to limit still image delivery size
- How to prohibit download of audio
- How to indicate a delivery embargo
- Adding a review date or note
- Preparing rights documentation

**About rights metadata**

Rights metadata can be found under the **Rights** tab for objects and files. Rights metadata is a set of fields collectively known as a rights segment. More than one rights segment can be present if there is more than one rights basis, rights document or restriction that applies to the content.

If you need to document multiple restrictions (i.e. content needs secure storage and a delivery embargo), you will need to create separate rights segments for each restriction. The same is true if there is more than one rights basis or documentation that applies.

Each rights segment includes these parts:

- **Rights basis:** the statute, license, policy, etc. that is the basis for the rights granted and any restrictions associated with the content. Possible values include:
  - Harvard policy: Rights and restrictions that derive from Harvard policies (e.g., “Vote of the President and Fellows of Harvard College, October 3, 1988”).
  - License: Legal agreement between two or more parties (e.g., contracts, donor agreements).
  - Risk assessment: Rights and restrictions that arise from a curator's judgment (e.g., risk assessment in the absence of specific license, statute, or policy).
  - Statute: Governmental regulations and laws (federal, state, city, etc.).

- **Rights document:** includes two components:
  - A link to a document already stored in the DRS that documents the selected rights basis. The pull-down list of rights documents (identified by object owner supplied name) is limited to documentation stored in your owner code. For the characteristics of rights documentation, see Preparing rights documentation for deposit.
  - Rights document note: Free text note if additional information about the basis documentation is needed. For example, add a note to identify the applicable section or regulation within a document.

- **Restrictions** that apply to the content as derived from the basis. Restrictions are available only when applicable – the list of possible restrictions is conditional based on the object content model or file type. For example, the restriction “download prohibited” will only be available for audio files.

  This value is available at the object level:

  - Embargo: Indicates a delivery embargo on the content. Select this value and you will be prompted to supply start date, duration and/or end date of the embargo.
Note that selecting a delivery embargo does not result in automated action. Curators must still set the DRS access flag appropriately.

These values are available at the file level:

- **Download prohibited** (audio files only). Select this value and the audio content may be streamed or rendered, but it will not be provided to the user as savable content.

- **Maximum image delivery dimension** (JPEG2000 image files only). Select this value and you will be prompted to supply the maximum pixel size for the longest dimension. The Image Delivery Service will restrict delivery of this image to the specified maximum dimensions.

**How to limit still image delivery size**

You can assign file-level rights metadata that will limit the maximum size of a JPEG2000-based delivery still image delivered by the Image Delivery Service (IDS). By default, the maximum size IDS can deliver is 2400 pixels in the longest dimension. For example, if a donor agreement or license restricts delivery size below this default, use file rights metadata to set a lower maximum size.

Documentation for the rights basis (for example, donor agreement or license) needs to be stored in the DRS before following this procedure. See [Preparing rights documentation](#) for more information. When following this procedure, have ready the owner supplied name of the document -- OSN is used to identify these objects in the rights document pull-down list.

1. Display the file’s summary page and select the **Rights** tab (on the left).

   1. Click **+ add rights block** to create a new rights segment.

   2. Select the **rights basis** (required). This indicates the type of rights document (license, policy or statute) that is the basis for restricting delivery size. Or select **risk assessment** if this restriction arises from the curator’s judgment.

   3. Select the **rights document** (required if basis is license, policy or statute). The pull-down list displays the object owner supplied name of eligible documents in your owner code. See [Preparing rights documentation](#) for information on eligibility requirements.

   4. Enter the maximum image delivery dimension. Add an integer that indicates the maximum pixel size of the image’s longest dimension.

   5. Click the **Save changes** button to commit this change. If the Save button is not active (green), click once anywhere on the form to activate it.

**How to prohibit download of audio files**

You can assign file-level rights metadata that will prohibit download of an audio file. This prohibition will allow streaming delivery of the audio but will prevent it from being provided as savable content. For example, if you acquire digital audio accompanied by a license that prohibits download, use file rights metadata to enforce this requirement.

Documentation for the rights basis (for example, donor agreement or license) needs to be stored in the DRS before following this procedure. See [Preparing rights documentation](#) for more information. When following this procedure, have ready the owner supplied name of the document -- OSN is used to identify these objects in the rights document pull-down list.

1. Display the file’s summary page and select the **Rights** tab (on the left).
2. Click + add rights block to create a new rights segment.

3. Select the rights basis (required). This indicates the type of rights document (license, policy or statute) that is the basis for restricting delivery size. Or select risk assessment if this restriction arises from the curator’s judgment.

4. Select the rights document (required if basis is license, policy or statute). The pull-down list displays the object owner supplied name of eligible documents in your owner code.

   See Preparing rights documentation for information on eligibility requirements.

5. Check the Download Prohibited box.

6. Click the Save changes button to commit this change. If the Save button is not active (green), click once anywhere on the form to activate it.

How to indicate a delivery embargo

If access to content needs to be prohibited for a fixed period of time, you can specify the embargo delivery restriction. This restriction is applied in object-level metadata.

Note that embargo metadata is informational and there is no automated system action associated with it. To enforce the embargo, you will need to set the DRS access flag for deliverable files to “N” (no access).

Documentation for the rights basis (for example, Harvard policy, donor agreement or license that specifies the need for an access embargo) needs to be stored in the DRS before following this procedure. See Preparing rights documentation for more information. When following this procedure, have ready the owner supplied name of the document -- OSN is used to identify these objects in the rights document pull-down list.

1. Display the file’s summary page and select the Rights tab (on the left).

2. Click + add rights block to create a new rights segment.

3. Select the rights basis (required). This indicates the type of rights document (license, policy or statute) that is the basis for restricting delivery size. Or select risk assessment if this restriction arises from the curator’s judgment.

4. Select the rights document (required if basis is license, policy or statute). The pull-down list displays the object owner supplied name of eligible documents in your owner code.

   See Preparing rights documentation for information on eligibility requirements.

5. Select the embargo restriction.

6. Specify a State date and either a Duration or End date. Click the Calculate embargo button and the system will fill in the third value.

7. Click the Save changes button to commit this change. If the Save button is not active (green), click once anywhere on the form to activate it.

Adding a review date or note

A review note or review date is optional metadata that indicates the need for further review of the content. Review metadata is perceived as related to rights metadata, so it is located on the rights tab of an object or file. You can search for objects or files by review date or keywords in review note, but in this release there is no automated functionality associated with either value.

To add a review date or review note:
1. Display the object or file summary and select the **Rights** tab (on the left).
2. Click + **add review date** to create a new Needs Review segment.
3. Click into the **review date field** to open a calendar and select a date. Or, press Escape to close the calendar and input the date manually (format must be MM/DD/YYYY).
4. Click into the **review note field** to add a free text note.
5. Click the **save changes** button to commit this change. If the Save button is not active (green), click once anywhere on the form to activate it.

### Preparing rights documentation for deposit

When the rights basis value is license, statute, or Harvard policy, a pointer to rights documentation stored in DRS is required. In this release, you can point to rights documentation deposited under your owner code. In a future release, you will also be able to point to rights documentation under a shared owner code that is accessible to all owners.

The rights documentation that you deposit should:

- Be in the image, text, or document (pdf) object content models.
- Be assigned one of these roles:
  - Donor agreement
  - Harvard Policy
  - License
  - Statute
- Have a meaningful object owner supplied name (OSN is used to identify these objects in the rights document pull-down list).
- Have descriptive metadata such as:
  - Title of license, policy, statute
  - Licensed product name
  - Citation of policy or statute
  - Issuing authority/jurisdiction or contractual partner
  - Effective date
  - Summary description

### 4.6 Editing relationship metadata

Relationships between files and objects can be automatically determined during batch processing or explicitly set by a user in Batch Builder or in Web Admin. When relationships exist, most will display in the **Relationships** tab for an object or file for the file or object that is the **source** of the relationship. The relationships will not display in the **Relationships** tab for an object or file which is the **target** of the relationships. This section describes how to add or delete relationship metadata in Web Admin.

**Which relationships display under the Relationships tab?**

Typically, derivative relationships (e.g., HAS_SOURCE) and associative relationships (e.g.,
HAS_TARGET, HAS_DOCUMENTATION) explicitly display under the Relationships tab. Structural relationships, such as relating a component file to a target object (e.g., IS_PART_OF), are implicitly represented in object and file displays and do not appear in the Relationships tab.

For more information:
Adding a relationship
Updating and deleting a relationship

Adding a relationship

The type of relationship you can add will vary by content model and also within content model, by level (file-to-file, file-to-object, object-to-object). The Web Admin +add relationships feature will limit you to relationships that are valid for the content model and level in which you are working. You can only add relationships from the file or object which is the source of the relationship. For a complete list of relationships you can add (by content model), see the Adding Relationships chapter in the Batch Builder User Guide.

When using Web Admin, you are always establishing a relationship between objects or files that are already stored in the DRS. To add a relationship, you would need to open the source item and create a relationship to a target item. For example, to relate an image file to a color profile object, you would create the relationship from image file metadata.

To establish a relationship, you will need the DRS ID of the target item. If the target is an object, you can also use its object persistent ID or owner supplied name.

1. Display the summary page for the object or file which is the source of the relationship you need to create and select the Relationships tab (on the left).
2. Click + add relationships to open a relationships pop-up window.
3. Locate the appropriate relationship and input the identifier of the target item. If you are entering a value other than DRS ID, select type of identifier from the pull down list. Optionally, you can click the nearby "i" icon to expose summary metadata for the target object or file associated with the identifier you just entered. This information can help you verify the relationship will point to the correct target.
4. Click the Add button to add the relationship. The pop-up window will close.
5. Back on the Relationship tab, click the save changes button to commit this change.

![Image showing relationships with save changes and cancel buttons]

**Updating and deleting a relationship**

It is not possible to update an existing relationship in place, but you can delete a relationship and add a new one. As with adding relationships, you need to start this procedure from the source object or file. For example, if you want to delete the relationship between an image file and color profile object, you would initiate the action from image file metadata.

**To delete a relationship:**

1. Display the summary page for the object or file which is the source of the relationship and select the Relationships tab (on the left).
2. Locate the relationship and click the "x delete" button. This action crosses out the owner supplied name of the target, indicating that the relationship is marked for deletion.
   
   The relationship is not deleted yet. To reverse the action, click "x delete" again and the delete request will be cancelled.
3. Click the save changes button to commit the deletion.

---

**5. Managing Content**

This section describes options for managing your content. You must have the content_editor role to access these features.

For more information, see these sections:

- Adding files to an object
- Deleting and recovering content
- Downloading content

**5.1 Adding files to an object**

You can add files to an existing object using Web Admin. For example, you might add a file to replace an existing file of poor quality.

**MD5 checksums.** Each file added via Web Admin must be accompanied by a 32-digit MD5 checksum created by a third-party application, such as MD5 Summer. DRS will use the MD5 checksum to verify the integrity of files after they are transferred. See the LTS web site (http://hul.harvard.edu/ois/support/docs-dr2.html#md5) for a list of MD5 application.

**File name rules.** File names must conform to DRS requirements -- no more than 100 characters, can include letters, numbers, period, single underscore, single hyphen. Do not include spaces in file names.

**Relationships.** Once the file is added, you can relate it to other files or objects already in DRS. Use options on the Relationships tab. For example, if the added file is a derivative of another file already in the object, you can create a HAS SOURCE relationship between these files.
To add a file:
1. Using a third-party utility, generate an MD5 checksum for the file.
2. Display the summary page for the object.
3. Scroll down until you see the Add a File box.
4. Click the Browse button, navigate to the file you want to add, and click Open.
5. Copy the generated MD5 checksum into the Checksum field.
6. If the file is first generation (an archival master, for example), enable the First Generation radio button.
   
   **Note:** You cannot set two files in the same object to ‘first generation’.
7. Select the DRS Access Flag. Select P for public, R for restricted (Harvard Community only), N for no access (available only to collection managers through Web Admin). Do not select B (Bypass).
8. Select the Usage Class. Select LOWUSE for master files and HIGHUSE for deliverables.
9. Click the add file button.
   
   If the MD5 checksum fails, a checksum error message appears. If the file is added successfully, a confirmation message appears.
10. Adding relationships. When you add a file in Web Admin, the file Owner Supplied Name (OSN) is set to null and no relationships are created. Only the administrative metadata specified in the “Add a File” dialog is added. The file OSN and any relationships to other files and objects need to be added after the fact. To add these, go to the Admin. Metadata section and Relationships section on the file summary page once the file has been successfully added.
   
   Here is the procedure for adding a HAS_SOURCE relationship between a deliverable still image you just added and the existing archival master file:
   a. Have on hand the DRS ID of the archival master file.
   b. Open the file summary page for the deliverable file you just added.
   c. Click on Relationships from the menu on the right side.
d. Click on **add relationships**.

e. In the HAS_SOURCE field paste the DRS ID of the archival master file.

f. Click **Add**.

g. You will see a HAS_SOURCE relationship appear in the Relationships section of the file, highlighted in green.

h. Click on **save changes** button to save the new relationship.

i. You will see a **File was successfully updated** message.

11. If you added a file to a PDS object, go to the **File Structure** tab to add the file to object’s structure. See 5.2 Editing file structure (PDS objects) for more information.
5.2 Deleting and recovering content

A user with the content_editor role can delete a single object, file or batch from its summary screen or bulk delete a set of content from search results. Deleted content can be recovered for 60 days.

- **Deleting a file** deletes the physical file and suppresses file metadata.
- **Deleting an object** suppresses the object descriptor and deletes all included files.
- **Deleting a batch** deletes metadata about the batch, suppresses the object descriptor(s), and deletes all included files. Batch metadata cannot be recovered, but objects and files contained within can be recovered for 60 days.

You can delete a batch within 120 hours after deposit. For batches older than 120 hours, a delete action becomes a deletion request sent to the DRS content manager, who will perform the deletion.

**Re-deposit tip:** If you plan to replace a deleted object, you can re-deposit it using the original owner supplied name. During deletion, DRS renames the object's owner supplied name (OSN) by appending the status “deleted” and DRS ID. This frees you to re-use the OSN.

For more information, see these topics:
- Delete or recovery from the summary screen
- Bulk delete or recovery from search results
- Searching for deleted content

**Delete or recovery from the summary screen**

**Deleting a single batch, object or file**

1. Display the summary page for the object, file or batch.
2. Click the **delete this object** | **file** | **batch** option in the upper right.

3. When the confirmation screen appears, type an optional reason for the deletion and click the **Delete** button. For files and objects, a second confirmation screen will appear. At this time, there is no second confirmation screen when deleting a batch.
4. Click **OK** to confirm the deletion (objects and files only).
5. Once deleted, the summary screen for the object, file or batch will be marked as deleted. A **recover** option displays for objects and files (batches cannot be recovered although individual objects and files within a deleted batch can be recovered).
**Note:** When an object is deleted, to facilitate redeposit of the object the system will modify the owner supplied name by appending the word “deleted” and the original DRS ID. Note the modified owner supplied name in the following screenshot of a deleted object’s metadata summary:

![Object summary screenshot](image)

**Recovering a single object or file**

Note that deleted batches cannot be recovered, but individual objects and files within a deleted batch can be recovered.

1. On the Search page, retrieve the deleted object or file using an advanced search that includes `status=deleted`.
2. Select the object or file to display its summary page.
3. Click the **recover this object | file** link. If **unrecoverable** displays, the 60-day recovery window has expired and the content cannot be recovered.
4. When the confirmation screen appears, type the reason for the recovery and click the **Recover** button. A second confirmation screen appears.
   - If you really want to recover the object or file, click **OK**.

**Bulk delete or recovery from search results**

Note that bulk processing a large set of objects or files can generate a high volume of background transactions -- especially descriptor updates and indexing changes. These transactions will take time to complete. There may be extra delay before your changes are visible in search results or individual object and file metadata summaries.

**Bulk deletion**

You can request bulk deletion of multiple objects and files from search results. A small-scale bulk delete request -- less than 500 files or one object (containing any number of files) -- will be processed immediately. A large-scale bulk delete request -- two or more objects; more than 500 files -- will send a request to digital preservation program staff, who will perform the deletion.

1. **Perform a search** that produces the appropriate results list.
2. **Select items for deletion.** Check the box of individual items on the list, or use the Select dropdown to select all items on the page or all items in the result set.
3. Select the **Delete objects** (or **Delete files**) option from the Action drop-down menu (to the right and above the Select drop-down). This opens a delete window.
3. Enter a **Reason for deletion** (required). This is a short note of explanation that will be stored with the deletion event in the associated object’s descriptor.

4. Click **Delete** (or **Request deletion**) and then click **OK** to confirm deletion.

5. Another pop-up window confirms the deletion (or the request for deletion). Click **OK** to close the window.

6. When deletion is complete, you will receive an email that lists the amount of content deleted and the reason. Attached to the message will be text files that list DRS IDs of the deleted content and of the associated deletion events.

**Bulk recovery**

Content deleted in the previous two months can be recovered. You can request bulk recovery of multiple deleted objects and files from search results. A small-scale bulk recovery request -- less than 500 files or one object (containing any number of files) -- will be processed immediately. A large-scale bulk recovery request -- two or more objects; more than 500 files) will send a request to digital preservation program staff, who will perform the recovery.

Remember that deleted content does not appear by default in Web Admin search results. To expose deleted content, include “status=deleted” as part of your search query. It is not possible to use a Quick Search to find deleted content.

1. **Perform a search** that produces the appropriate results list. Be sure to include “status=deleted” in the query to expose deleted content.

2. **Select items for recovery**. Check the box of individual items on the list, or use the Select dropdown to select all items on the page or all items in the result set.

3. Select the **Recover objects (or Recover files)** option from the Action drop-down menu (to the right and above the Select drop-down). This opens a delete window.

4. Enter a **Reason for recovery** (required). This is a short note of explanation that will be stored with the recovery event in the associated object’s descriptor.

5. Click **Recover** (or **Request recovery**) and then click **OK** to confirm.

6. Another pop-up window confirms the recovery (or the request for recovery). Click **OK** to close the window.

7. When recovery is complete, you will receive an email that lists the amount of content recovered and the reason. Attached to the message will be text files that list DRS IDs of the recovered content and of the associated recovery events.

**Searching for deleted content**

**Searching for deleted files and objects.** During the 60-day recovery window, deleted files and objects are still in the DRS file system but do not appear in regular search results. But you can retrieve deleted files and objects through an **advanced search** on metadata that includes status=deleted. Note that deleted content cannot be retrieved by a quick search.

**Note:** To view deleted files in an object’s file inventory, check the **Include Deleted Files** box on the object summary page.
Example 1: Searching by owner supplied name and status=deleted. Since the system appends data to an object’s owner supplied name at time of deletion, you need to append a wildcard (*) to the owner supplied name for the search to succeed.

Example 2: Searching by a specific depositor. To retrieve all deleted objects deposited by a specific deposit agent, this search combines status=deleted with the metadata value Has Event with Agent ID. The agent ID is the Wordshack URI for the person who deposited the object.
Searching for a deleted batch. In this release, batch metadata lacks a status value needed for Web Admin to identify a batch as deleted in search results. This means deleted batches will be included in your batch search results if they match your search criteria. Also note that once a batch is deleted, there is a lag in indexing. This means deleted objects and files in the deleted batch can still be retrieved in a search for 5 minutes or more after the deletion.

5.3 Downloading content

Users with the content_viewer role can download content from the summary screen of an individual batch, object or file or perform a bulk download of content from search results. The result of a download request is a zip archive file that you save to a local drive. Download is a real-time process that begins in your browser as soon as you submit the request.

Are there download limits? Web Admin does not limit the amount of content you can download, but the amount of local drive space and speed of your network connection will influence how long a download takes and whether it completes successfully. From a Harvard high-speed wired connection, the transfer rate is an estimated 9 GB per hour. That means downloading a 50 GB archive across a high speed connection would take approximately 6 hours.

What unzip tool should I use? To support downloads larger than 4GB, DRS2 uses the ZIP64 standard. You will need to use a ZIP client that can handle ZIP64 archive files. In most cases, the built-in ZIP support available on Windows and Macs does not handle ZIP64 files very well. (One exception may be downloads of less than 4GB from an individual object or file summary.)

- **Windows tools:** Most major tools support ZIP64, including PeaZip, 7-ZIP, PK-ZIP, and WinZip.
- **Mac ZIP tools:** UnArchiver GUI, UnArchiver command line, ExpressZIP GUI, BetterZip2 GUI.

For more information, see these topics:

- Downloads from the summary screen
- Bulk download

Download from the summary screen

You can download a batch, object or file from its summary screen. The result of a download request is a zip archive file that you save to a local drive. Download is a real-time process that begins in your browser as soon as you submit the request.

Here is the procedure:

1. Display the batch, object or file summary screen.
2. Click the Download link in upper right. This opens a download window.
3. Select the file naming option. The default “DRS ID” option uses DRS ID as file name and all files will be grouped into a single directory. The “Original Name” option uses original file names and files will be arranged in the original batch directory structure.
4. Click the Download button to start the download. While the download is in process, do not close the browser session. The browser will prompt you to save the archive file when download is complete.
Bulk download

You can request bulk download of multiple objects and files from search results. The result of a bulk download request is a zip archive file that you save to a local drive. Bulk download is a real-time process that begins as soon as you submit the request.

Here is the procedure.

**Tip:** You should be aware of the total size of content you are downloading, since size is a factor in download success. A download set larger than 50 GB may not be successful. The size of an item displays by default in the results list (“Total Size” for objects and “Size in Bytes” for files). If not visible, click Show/Hide columns to expose this column.

1. **Perform a search** that produces the appropriate results list.
2. **Select items for download.** Either check the box of individual items on the list, or use the Select dropdown to select all items on the page or all items in the result set.
3. Select **Download Objects (or Files)** from the Action drop-down menu (to the right and above the Select drop-down). This opens a download window.

![Download objects](image)

**Download content pop-up window**

4. (Optional) Change the default zip file name if desired.
5. Select the file naming option. The default “DRS ID” option uses DRS ID as file name and all files will be grouped into a single directory. The “Original Name” option uses original file names and files will be arranged in the original batch directory structure.
6. Click the **Download** button to start the download. A ZIP file named with the owner supplied name will be saved to a local drive. While the download is in process, do not close the browser session. The browser will prompt you to save the archive file when download is complete.

6. **Working in Wordshack**

Wordshack is a central vocabulary maintenance system designed for use in the context of digital repositories and digital preservation services. Wordshack is a separate system that has been
integrated into DRS2 Web Admin to allow easy access for managing controlled terms and applying these terms to objects and files stored in DRS.

This section describes how to view terms managed in Wordshack and how to create new terms.

Users with the DRS2 metadata_editor role will be able to create admin category terms. Users will need the Wordshack term_editor role to be able to create organizations, persons, topics, and email terms.

**Limitations on editing terms:** Deleting a Wordshack term is not supported. You can update an existing term in Wordshack, but existing instances of that term in DRS2 metadata will not be updated. For example, if you update an admin category, any existing instances of that category term in object and file metadata will not be updated. You also cannot apply the updated term to DRS2 metadata. And if you try to add the updated category to DRS2 metadata, it will revert to the original term. These flaws will be fixed in a future release of DRS2.

For more information see these topics:

- Viewing Wordshack terms
- Creating an admin category term
- Creating an email term
- Creating an organization term (and producer)
- Creating a person term (and producer)
- Creating a topic term

### 6.1 Viewing Wordshack terms

Select **Wordshack** from the Web Admin main menu to open the Wordshack area. Click an option on the Wordshack menu (on the left) to view or manage a particular type of term. Most terms can be viewed by users with any Web Admin role.

1. **Menu of term types:** Click the menu choice to view or edit terms of a particular type.
   - **Administrative categories:** A curator-assigned label, such as an exhibit name, project name, etc., that is used to classify a set of content. Users with the DRS2 metadata_editor role will be able to create admin categories; all others have view-only access.
o **Administrative flags:** These flags indicate an issue associated with a file or object that may require administrative action. Admin flags are defined by the Wordshack administrator and most flags are automatically assigned during batch processing. One exception is the INCORRECT_METADATA flag, which can be set by the user in Batch Builder and also in Web Admin. This flag usually indicates a problem with the technical metadata applied to a file. Users with the DRS2 term_manager role can edit these terms; all others have view-only access.

o **Email addresses:** Email addresses being managed as controlled vocabulary (for EAS archived email collections). Accessible to users with the Wordshack term_editor role.

o **Organization names** are used in owner account management, to identify the producer of deposited content, and can be affiliated with person terms. Users with the DRS2 term_editor role can edit these terms; all others have view-only access.

o **Person terms** are created for deposit agents, content producers, owner account contacts, Wordshack and DRS2 users, and can be linked to email address terms. This term type makes it possible to associate a name and identifier with actions performed in DRS2 or Wordshack. Users with the DRS2 term_editor role can edit these terms; all others have view-only access.

o **Software:** Names of software agents that act on content (e.g., software used to deposit, delete, or transform content) in the context of digital repository and preservation services. Users with the DRS2 term_manager role can edit these terms; all others have view-only access.

o **Topics:** Currently, these are topical terms originating from tags applied to content in EAS archived email collections. Users with the Wordshack term_editor role can edit these terms; all others have view-only access.

2. **Searching for terms:** Instead of the typical pull-down list, Wordshack uses an auto-complete search feature. Type one or more letters in the box and a list of matching terms will display. The more letters you type, the more refined the list of matching terms becomes.

Or, type an asterisk and a list of all defined terms will display.

Select a term from the list to view its complete record.

### 6.2 Creating an admin category term

An admin category is a curator-assigned label, such as an exhibit name, project name, etc., that is used to classify a set of content. The admin category is designed for administrative use within Web Admin; e.g., you can use this category to retrieve a group of objects or files in a search.
In this release, admin categories are shared across all owner codes and all categories are visible to all users. If you need a category that applies only to your content, include a project or organization name to make it more specific (e.g., Houghton Theatrical Photographs).

**To create a new admin category:**

1. Click Wordshack on the main menu. Then click the **Admin. Categories** option on the Wordshack menu.

2. Type your new category term in the search box. If no match is found, click the **Create New** button to open a New Admin Category Term form.

3. Enter the category term in the **Value** field. You also have the option to add a note about the term in the **Note** field.

4. For **Authority**, select a value from the drop-down or accept the default value “unspecified”.

5. Click **Save New Term** and the category will be created.

![Edit Admin. Category](image)

**To add admin category relationships:**

Once you create an admin category, a Relationships form will appear. Use this form to relate one category to another category.

1. Open the admin category term.

2. Scroll down to the **Relationships** area.

3. Select a **Relation Type**.

   - **Has earlier form** relates the current term to an earlier form already defined in Wordshack.
   - **Has later form** relates the current term to a later form already defined in Wordshack.
   - **Supersedes** indicates that the current term should be used instead of another term already defined in Wordshack. Choosing this relation type will suppress the superseded term from displaying in auto-search results in Wordshack.
   - **Is superseded by** indicates that the current term is superseded by another term already defined in Wordshack. Choosing this relation type will suppress the superseded term from displaying in auto-search results in Wordshack.

4. Type all or part of the category term into the **Select a related term** auto-search box. A list of matching terms will display. Click a term to select it.

   If no match is found, you will need to create an admin category term before completing this task.

5. Click the **Save Term-to-Term Relations** button to create the relationship.
6.3 Creating an email term

This section describes how to add email address terms and how to relate an address term to a Person term or another address term in Wordshack.

Addresses that come with archived email messages are controlled Wordshack terms. Most email address terms are added automatically when email is pre-processed in EAS (Electronic Archiving System) and deposited in DRS. However, curators can also pre-create addresses in Wordshack if desired. Once an address term is added, a common next step is to create a person term associated with the address and then link these terms together.

To create an email address term:

1. Click Wordshack on the main menu. Then click the Email Addresses choice on the Wordshack menu.

2. Type all or part of the email address in the search box. If no match is found, click the Create New button to open a New Email Address Term form.

   **Warning:** there is a high volume of address terms in Wordshack. Typing just a few letters into the search box may match hundreds of addresses and slow down retrieval. The more you type, the more precise the match and faster the retrieval.

3. Enter the email address term.

   a. In the **Value** field, enter the email address. When you save this term, this Value will be copied to the **Display as** field. **Display as** is the value that appears in the search box.

   b. [Optional] Enter a note about the term in the **Note** field.

   c. [Optional] Enter a **Display Name** value. This is the person’s name associated with the address. Click the plus sign to add another display name if desired.

4. Click **Save New Term** and the email term will be created.
To add email address relationships:

You can relate an email address term to a Person term defined in Wordshack and/or to another email address term defined in Wordshack. Once you create an email address term, a “Relationships” form appears.

1. Open the email address term.
2. Scroll down to the Relationships area.
3. To associate a person term, type all or part of the person’s name into the Associate with auto-search box. A list of matching names will display. Click an email address term to select it.

   If auto search has no matches, there is no term for the email address in Wordshack. You will need to add an email term in Wordshack before completing this task.

4. To relate another email address term, enter data in the Add a Term-to-Term Relation area:
   a. Select a relation type.
      - Has earlier form relates the current email term to an earlier form already defined in Wordshack.
      - Has later form relates the current email term to a later form already defined in Wordshack.
      - Supersedes indicates that the current email term should be used instead of another address term already defined in Wordshack. Choosing this relation type will suppress the superseded address from displaying in email auto-search results in Wordshack.
      - Is superseded by indicates that the current email term is superseded by another address term already defined in Wordshack. Choosing this relation type will suppress the superseded address from displaying in email auto-search results in Wordshack.
   a. Type all or part of the address into the Select a related term auto-search box. A list of matching addresses will display. Click an address to select it.

   Warning: there is a high volume of address terms in Wordshack. Typing just a few letters into the search box may match hundreds of addresses and slow down retrieval. The more you type, the more precise the match and faster the retrieval.

5. Click the Save Term-to-Term Relations button to create the relationship.

6.4 Creating an organization term [and producer]

DRS2 uses organization names as part of owner account management and also to identify the producer of deposited content. In addition, curators pre-processing email collections in EASi can create an organization term in Wordshack and associate it with email before deposit to DRS.

This section describes how to create a new organization term, relate one organization term to another or to an outside authority, and designate an organization as a producer. A producer is a person or organization responsible for producing digital content for deposit to the DRS. Producer is an optional admin metadata field that can be assigned to an object in Batch Builder and Web Admin.

To create an organization term:
1. Click Wordshack on the main menu. Then click the Organizations option on the Wordshack menu.
2. Type all or part of the organization name in the auto-search box. If no match is found, click the **Create New** button to open a New Organization Term form.

3. Enter the organization term.

![New Organization Term](image)

   a. In the **Name Part** field, enter the organization name. If it is a multi-part name, click the plus sign (+) to add an additional Name Part field.

      When you save this term, the name will be copied to the **Display as** field. **Display as** is the value that appears in the search box. If you entered multiple Name Parts, these will be concatenated and added to the Display as field.

   b. [Optional] Check **Producer** to put this organization on the Producer list available in Batch Builder and Web Admin.

   c. [Optional] Enter a note about the term in the **Note** field.

   d. Select an **Authority** or accept the default value “unspecified”.

   e. [Optional] Enter an **Organization Date**. This might be a start date or start date and end date.

4. Click **Save New Term** and the organization term will be created.

**To add a term variant:**

Once you create an organization term, a **New Variant** option will appear. A variant is another form of name that differs from the preferred form. If a user searches for this variant form, a cross-reference to the preferred term will appear.

1. Open the organization term.

2. Enter the variant organization name:

   a. In the **Name Part** field, enter the variant form of organization name. If it is a multi-part name, click the plus sign (+) to add an additional Name Part field.

      When you save this term, the name will be copied to the **Display as** field. **Display as** is the value that appears in the search box. If you entered multiple Name Parts, these will be concatenated and added to the **Display as** field.

   b. Select the **Variant Type**. Note that type “Preferred” will make this variant the preferred term.

   c. [Optional] Enter a note about the term in the **Note** field.
d. Select an **Authority** or accept the default value “unspecified”.

e. [Optional] Enter an **Organization Date**. This might be a start date or start date and end date.

3. Click **Save Variant** and the variant name will be created.

**To add organization relationships:**

Once you create an organization term, a Relationships form will appear. You can relate one organization to another or to an organization term in an outside vocabulary.

1. Open the organization term.
2. Scroll down to the **Relationships** area.
3. To relate this organization with another organization term, enter data in the **Add a Term-to-Term Relation** area:
   a. Select a relation type.
      - **Has earlier form** relates the current term to an earlier form already defined in Wordshack.
      - **Has later form** relates the current term to a later form already defined in Wordshack.
      - **Supersedes** indicates that the current term should be used instead of another organization term already defined in Wordshack. Choosing this relation type will suppress the superseded term from displaying in auto-search results in Wordshack.
      - **Is superseded by** indicates that the current term is superseded by another organization term already defined in Wordshack. Choosing this relation type will suppress the superseded term from displaying in auto-search results in Wordshack.
      - **Has subsidiary org** relates the current organization term to a subsidiary organization term also defined in Wordshack.
      - **Has parent org** relates the current organization term to a parent organization also defined in Wordshack.
   b. Type all or part of the organization name into the **Select a related term** auto-search box. A list of matching names will display. Click a name to select it.
   c. Click the **Save Term-to-Term Relations** button to create the relationship.

4. To relate this organization with an outside vocabulary:
   a. Select a **Type**.
   b. Enter the term from the outside vocabulary.
   c. Click the **Save Same Concept Relations** button to create the relationship.

**6.5 Creating a person term [and producer]**

A person term is an authorized form of personal name. DRS2 uses person terms in a variety of ways:

- All owner, billing, and project contact fields in the Owner Accounts area are powered by person terms.
- All DRS deposit agents require a person term. When a batch is processed, the depositor’s HUID supplied in Batch Builder will be verified against the ID code of the person term.
- All authorized Web Admin and Wordshack users must have a person term.
• The “Producer” field in object metadata is powered by person terms. A producer is a person or organization that produces content for DRS deposit.

• Curators pre-processing email collections in EASi can use a person term to establish an authorized form of name and associate that name with an email address term.

This section describes how to create a new person term, relate one person term to another, relate a person to an email address term, and designate a person as a producer.

To create a person term:

1. Click Wordshack on the main menu. Then click the Persons option on the Wordshack menu.
2. Type all or part of the person’s name in the search box. If no match is found, click the Create New button to open a New Person Term form.
3. Enter the person term.

   Note: If the new person term represents an owner account contact, DRS deposit agent, Web Admin or Wordshack user, an ID code (HUID) and email address are required. Note that a Person term identified as Producer is not required to have an HUID unless he/she is Harvard staff who needs to be an account contact, deposit agent, Web Admin or Wordshack user.

   a. In the Name field, enter the person’s name. Use inverted order: Surname, Firstname. When you save this term, the name will be copied to the Display As field. Display As is the value that you match on when using the auto search box.

   b. [Optional] Check Producer to put this person name on the Producer list available in Batch Builder and Web Admin.

   c. [Optional] Enter a note about the term in the Note field.

   d. Check Undifferentiated if this is an undifferentiated personal name; i.e., it represents two or more persons. Use the Note field to record any citations that relate to the persons represented by this term (similar to the MARC 670 field).
e. Select an Authority or accept the default value “unspecified”.

f. Enter an Email Address. This field is required if the person is an owner account contact, DRS depositor, Web Admin or Wordshack user.

g. Enter an ID code (HUID). This field is required if the person is an owner account contact, DRS depositor, Web Admin or Wordshack user.

h. All other fields are optional. Use these as needed.

4. Click Save New Term and the person term will be created.

**To add a term variant:**

Once you create a person term, a New Variant option will appear. A variant is another form of name that differs from the preferred form. If a user searches for this variant form, a cross-reference to the preferred term will appear.

1. Open the person term.

2. Click the NEW VARIANT bar to open a data entry form.

3. Select a Variant Type. Note that type “Preferred” will make this variant the preferred term.

4. Select an authority or accept the default value “unspecified”.

5. In the Name field, enter the variant name. Use inverted order: Surname, Firstname.

   When you save this term, the name will be copied to the Display as field. Display as is the value that appears in the search box.

6. All other fields are optional. Use these as needed.

7. Click Save Variant and the variant name will be created.

**To add person relationships:**

Once you create a person term, a Relationships form will appear. You can relate one person to another person, to an email term, or to a term in an outside vocabulary.

1. Open the person term.

2. Scroll down to the Relationships area.

3. To relate this person to an email term, enter data in the Associate an Email Term form. Type all or part of the address into the Associate with auto-search box. A list of matching addresses will display. Click an address to select it.

   If no match is found, you will need to create an email address term before completing this task.

4. To relate this person to another person term, enter data in the Add a Term-to-Term Relation form:

   a. Select a relation type.

      **Has earlier form** relates the current person term to an earlier form already defined in Wordshack.

      **Has later form** relates the current person term to a later form already defined in Wordshack.

      **Supersedes** indicates that the current person should be used instead of another address term already defined in Wordshack. Choosing this relation type will suppress the superseded person from displaying in auto-search results in Wordshack.
Is superseded by indicates that the current person term is superseded by another term already defined in Wordshack. Choosing this relation type will suppress the superseded person from displaying in auto-search results in Wordshack.

b. Type all or part of the person name into the Select a related term auto-search box. A list of matching names will display. Click a name to select it.

   If no match is found, you will need to create a person term before completing this task.

c. Click the Save Term-to-Term Relations button to create the relationship.

5. To relate this person with an outside vocabulary:

   a. Select a Type.

   b. Enter the term from the outside vocabulary.

   c. Click the Save Same Concept Relations button to create the relationship.

6.6 Creating a topic term

Topics are subject-like terms applied to email collections that are pre-processed in EASi before deposit to DRS. Topic terms are created in Wordshack and applied in EASi; this DRS2 release does not support associating topic terms to content stored in DRS2.

To create a topic term:

1. Click Wordshack on the main menu. Then click the Topics option on the Wordshack menu.

2. Type all or part of the topic in the search box. If no match is found, click the Create New button to open a New Topic Term form.

3. Enter the topic term.

   a. In the Value field, enter the topic.

      When you save this term, the value will be copied to the Display As field. Display As is the value that you match on when using the auto search box.

   b. [Optional] Enter a note about the term in the Note field.

   c. Select an Authority or accept the default value “unspecified”.

4. Click Save New Term and the topic term will be created.
To add a term variant:

Once you create a topic term, a **New Variant** option will appear. A variant is another form that differs from the preferred form. If a user searches for this variant form, a cross-reference to the preferred term will appear.

1. Open the topic term.
2. Click the **NEW VARIANT** bar to open a data entry form.
3. Select a **Variant Type**. Note that type “Preferred” will make this variant the preferred term.
4. Select an **Authority** or accept the default value “unspecified”.
5. In the **Value** field, enter the variant topic.
   - When you save this term, the value will be copied to the **Display As** field. The Display As value is what appears in the search box.
6. Click **Save Variant** and the variant name will be created.

To add topic relationships:

Once you create a topic term, a Relationships form will appear. You can relate one topic to another topic or to a term in an outside vocabulary.

1. Open the topic term.
2. Scroll down to the **Relationships area**.
3. To relate this topic to another topic term, enter data in the **Add a Term-to-Term Relation** form:
   a. Select a relation type.
      - **Has earlier form** relates the current term to an earlier form already defined in Wordshack.
      - **Has later form** relates the current term to a later form already defined in Wordshack.
      - **Supersedes** indicates that the current topic should be used instead of another topic already defined in Wordshack. Choosing this relation type will suppress the superseded term person from displaying in auto-search results in Wordshack.
      - **Is superseded by** indicates that the current topic is superseded by another topic already defined in Wordshack. Choosing this relation type will suppress the superseded term from displaying in auto-search results in Wordshack.
      - **Has narrower term** indicates that the current topic has a narrower topic term available.
      - **Has broader term** indicates that the current topic has a broader topic term available.
   b. Type all or part of the topic into the **Select a related term** auto-search box. A list of matching topics will display. Click a name to select it.
      - If no match is found, you will need to create a topic term before completing this task.
   c. Click the **Save Term-to-Term Relations** button to create the relationship.
4. To relate this topic with an outside vocabulary:
   a. Select a **Type**.
   b. Enter the term from the outside vocabulary.
   c. Click the **Save Same Concept Relations** button to create the relationship.
7. Managing Owner Accounts

This section describes common tasks associated with DRS owner accounts.

Every DRS contributor has an owner account. DRS uses these accounts to track ownership of deposited content and to send billing reports or other notifications. You can use the System Management > Accounts > Owner Accounts area of Web Admin to view and change owner contacts and billing codes. You can also view total number and size of files deposited under each billing code in the account.

Web Admin users with the content_viewer role can view owner and billing account information. Users with the account_editor role can update this information. Users will see only the accounts for which they are authorized.

Owner account tasks:
- How to view an owner account
- How to change the primary owner contact
- How to add an additional owner contact
- How to add a library director proxy contact

Billing account tasks:
- How to view a billing account
- How to add a billing contact
- How to add a project contact

7.1 Owner account tasks

Note that the ability to create new owner accounts is limited to LTS staff.

When adding or updating a contact, you are selecting from a Wordshack list of Person terms. In order to assign someone as a contact, a Person term (including email address) must be established in Wordshack first. See Creating a person term for more information.

How to view an owner account:
1. From the main menu, go to System Management > Accounts > Owner Accounts.
2. A summary of owner accounts you are authorized to view will display.
3. Click an owner code to view owner account details. Or click an associated billing account to view billing details.

How to change the primary owner contact:
Every account must have a primary owner contact. The owner contact receives excessive deletion notifications (“deletion summary reports”) for that owner code and quarterly billing reports at the owner level. To change this contact:
1. Click Change Owner Contact.
2. Type all or part of the contact’s name into the auto search box and a list of matching names will display. Click a name to select it.
   If auto search has no matches, there is no term for the person in Wordshack. You will need to add a person term in Wordshack before completing this task.
3. Click the Change button and then close the window.

How to add an additional owner contact:
An account can have multiple owner contacts. If you add an additional owner contact and later need to change it, delete it and add a new one.

1. Click an owner code to view owner account details.
2. Click **Add Owner Contact**.
3. Type all or part of the contact’s name into the auto search box and a list of matching names will display. Click a name to select it.

   If auto search has no matches, there is no term for the person in Wordshack. You will need to add a person term in Wordshack before completing this task.
4. Click the **Add** button and then close the window.

**How to add a library director proxy contact:**

A proxy contact is someone in the organization (besides the library director) who needs to receive DRS notifications about excessive deletion of content. The library director and proxies will be notified when large amounts of the library’s content are deleted from DRS. See Section 5.2 Deleting and recovering for more about deleting objects and files.

1. Click an owner code to view owner account details.
2. Click **Add Proxy**.
3. Type all or part of the contact’s name into the auto search box and a list of matching names will display. Click a name to select it.

   If auto search has no matches, there is no term for the person in Wordshack. You will need to add a person term in Wordshack before completing this task.
4. Click the **Add** button and then close the window.

### 7.2 Billing account tasks

Note that the ability to create new billing accounts is limited to LTS staff.

**How to view a billing account:**

1. From the main menu, go to **System Management > Accounts > Owner Accounts**.
2. A summary of owner accounts you are authorized to view will display. Next to each is a list of all associated billing accounts.
3. Click a billing account code to view details. Click **Edit Billing** to edit it.

**How to add a billing contact:**

A billing contact is someone who will receive quarterly billing reports at the billing code level. Each billing account must have one billing contact, although additional billing contacts are supported. To change a billing contact, delete it and add a new one.

1. Click a billing account code to view details. Click **Edit Billing** to edit it.
2. Click the **Add Billing Contact** button.
3. Type all or part of the contact’s name into the auto search box and a list of matching names will display. Click a name to select it.

   If auto search has no matches, there is no term for the person in Wordshack. You will need to add a person term in Wordshack before completing this task.
4. Click the **Add** button, then close the window.

5. Click the **save changes** button.

**How to add a project contact:**

A project contact is an optional contact who will receive quarterly billing reports at the billing code level. A billing account can have multiple project contacts. To change a project contact, delete it and add a new one.

1. Click a billing account code to view details. Click **Edit Billing** to edit it.

2. Click the **Add Project Contact** button.

3. Type all or part of the contact’s name into the auto search box and a list of matching names will display. Click a name to select it.

   If auto search has no matches, there is no term for the person in Wordshack. You will need to add a person term in Wordshack before completing this task.

4. Click the **Add** button, then close the window.

5. Click the **save changes** button.