ANU Data Commons
Web Interface User Manual

RESPONSIBLE AREA: University Librarian, ANU Library

CONTACT: repository.admin@anu.edu.au

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Table of Contents

Overview *4*

License *4*

Data Commons Data Model *4*

Features at a Glance *4*

Data Commons Web Interface *5*

System Requirements **5**

Accessing the Web Site **5**

Searching for Public records **5**

Logging in **5**

Search **6**

Simple Search 6
Advanced Search 7
Browse 8
Records 9
Add a new collection record 9
Edit Fields 10
Linking Records 11
Modify Links 12
Delete Record 12
Add other types of records 13

Data Files **13**

Upload files to Collection 13
Create folders in Collection 15
Deleting files from a Collection 16
Managing External References 17
Downloading Files from a Collection 18

Collection Requests **18**

Submitting a Collection Request 18
Collection Request Approval 19
Collection Request Administration 20
Viewing all Collection Requests 23
Review Collection Requests 23
Assign Questions to Collection Requests 24
Dropboxes 24

Minting Digital Object Identifiers **25**

Record Validation **25**

Publishing **26**

Review Lists **28**

Validating Multiple Records **28**

Bulk Validation........29

Reports........30

Single Record Report........30

View scheduled reports........30

Schedule a report to run........31

User Account Administration........32

Overview

This document explains how to use the ANU Data Commons system as a User, after it has been deployed and configured, as described in the System Administrator's manual.

This user manual contains screenshots from a development/testing environments. Please make appropriate changes when working in the production environment. For example, record identifiers are of the format 'test:xxx' in development and testing environments, and 'anudc:xxx' in production.

License

Data Commons Data Model

Data Commons is designed primarily to store data about research projects, research datasets, services and researchers. The system stores this information as a **Record**. Each record can be of one of the following types:

- **Activity:** An activity record contains information about a research activity that generates one or more outputs.
- **Collection:** A collection record contains information about one or more datasets or other related digital objects that can be uploaded to the system for storage. Data hosted on other systems are assigned URL reference pointer(s).
- **Service:** A service record contains information about a service that assists or supports a research activity.
- **Party:** A party record contains information about a person or an organisation that performs a role in relation to a research activity, collection or service.

Features at a Glance

- Ability to store details of research activities, resources, and people as records in the system.
- Ability to store datasets and collection data in the system for digital preservation of data.
- Ability to restrict the accessibility of records.
- Workflow to allow users to request access to datasets and allowing access to requestors on a case-by-case basis.
- Ability to share records with other systems, such as Research Data Australia.

Data Commons Web Interface

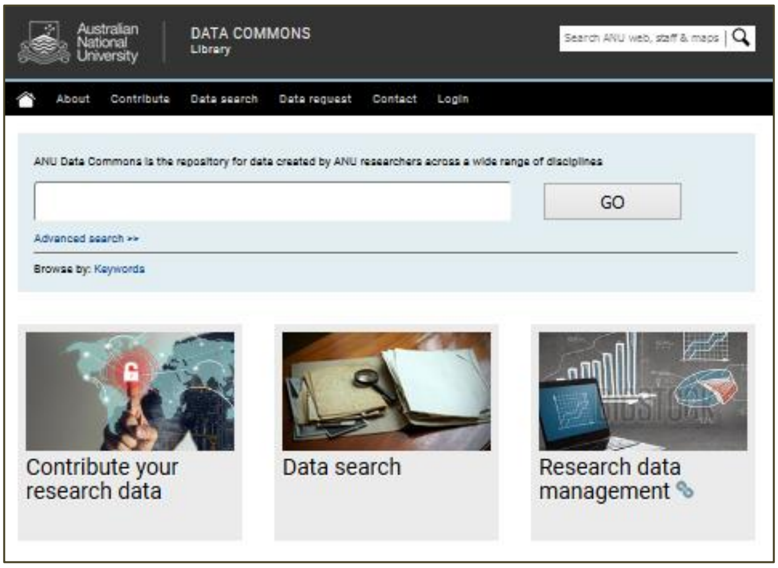
System Requirements

Accessing the Data Commons Web Interface requires the following software on the user's machine:

- A compatible web browser: a desktop variant of Firefox, Google Chrome is recommended. Microsoft Edge and Safari may work but are untested.
- Java Runtime Environment 6+: Only required to upload files to collections from the web interface. The Java Browser Plugin must be installed and configured in the web browser.

Accessing the Web Site

Type https://datacommons.anu.edu.au/DataCommons in the address bar of your web browser and press Enter. The home page similar to the one below will appear:



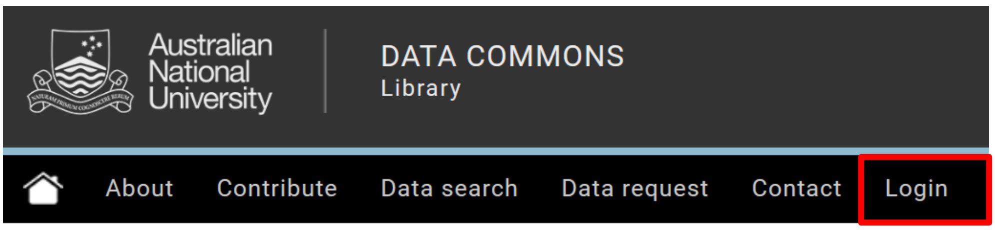
Searching for Public records

To search for publicly available records, enter search terms in the large text box and click **GO**.

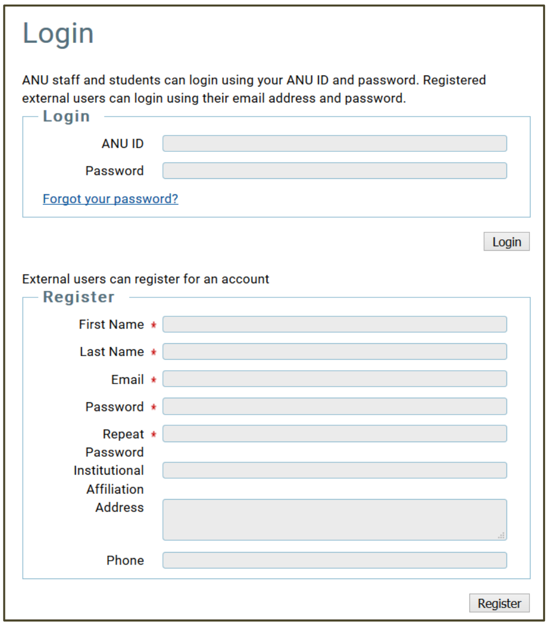
Logging in

A valid ANU university ID and password or registered external account is required to log into the system. Contact the system administrator to discuss your access requirements.

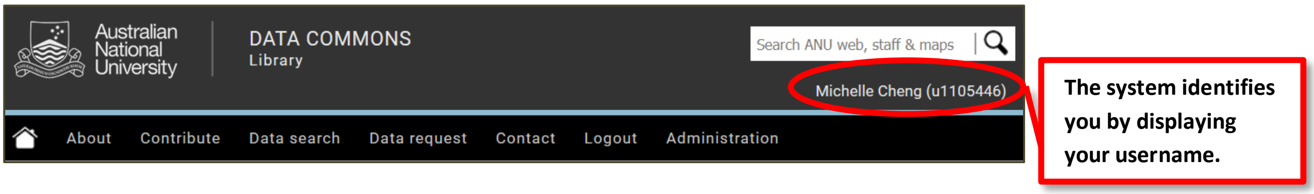
Click on the **Login** link in the top right corner.



On the following page, enter your ANU username and password, or register for an account.



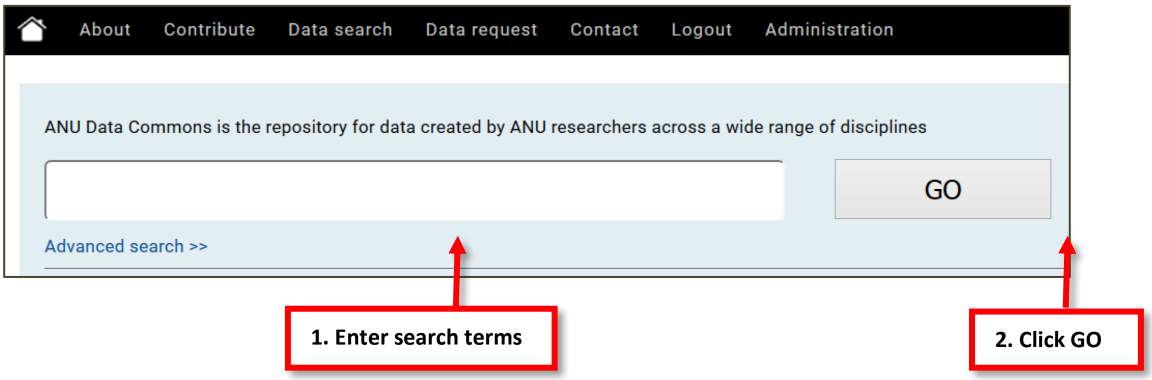
Once loged in, your username will appear in the top right-hand corner of the screen.



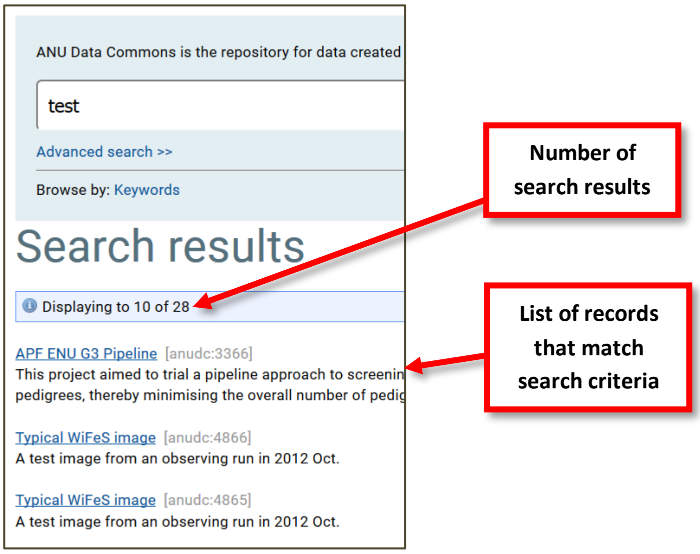
Search

Simple Search

Once logged in, a user can search all public records and all records that belong to the groups the user is authorised to access.

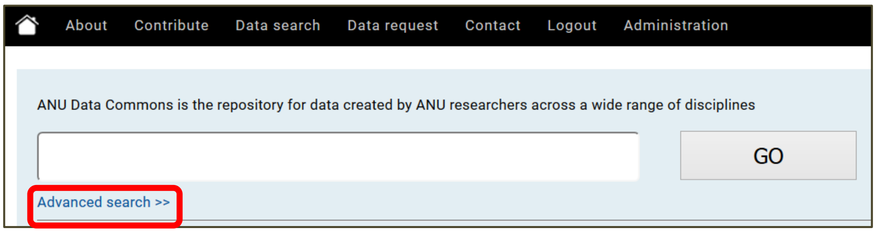


The search results appear as below listing the title and brief description:



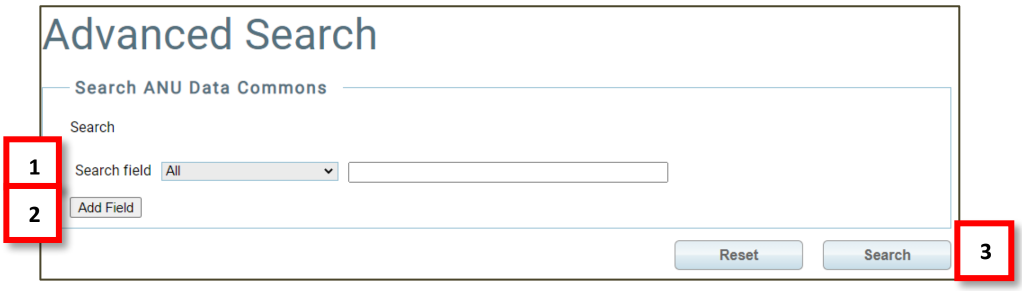
Advanced Search

To access the Advanced Search, click the **Advanced Search** link in the search box area.



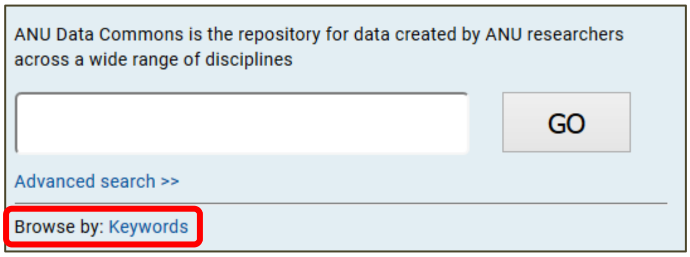
Within advanced search, there are two drop down menus:

1. **Search field** can be specified to:
    a. Type
    b. Title
    c. Brief description
    d. Full description
    e. Keywords
    f. Field of Research
    g. Socio-Economic Objective
    h. Type of Research activity
2. To search several fields, click **Add Field.**
3. Click **Search** when complete.



Browse

To access the system via Browse click **Browse by: Keywords**

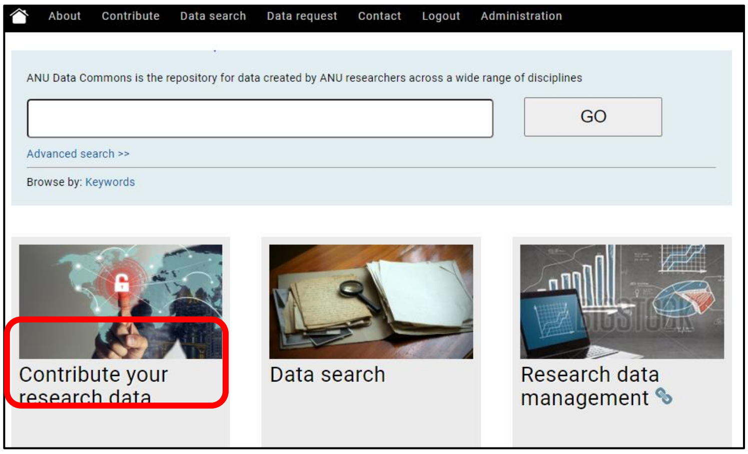


This will bring up the browse page, which browses by keywords. If logged in, keywords can be filtered by All, Team, and Published.

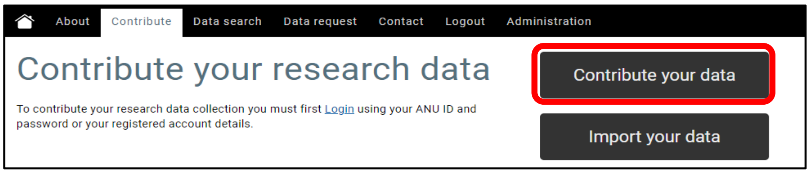
Clicking one of the browse keyword links will display records related to that keyword.

Records
Add a new collection record

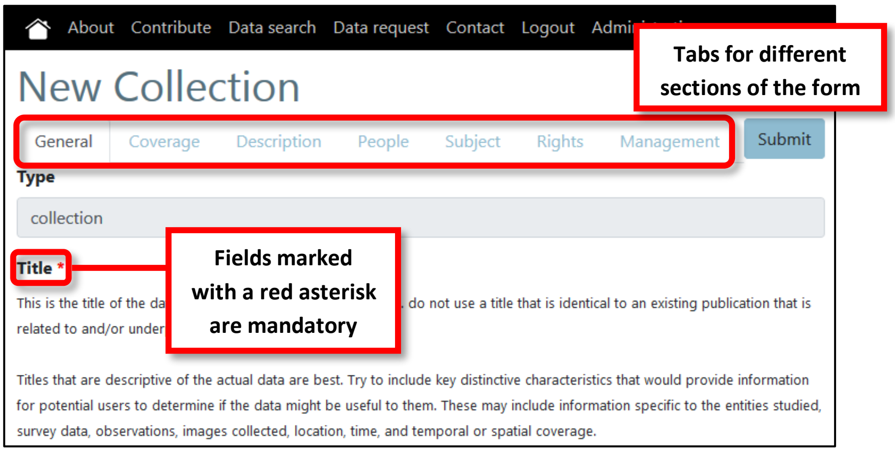
After login, Click on **Contribute your research data.**



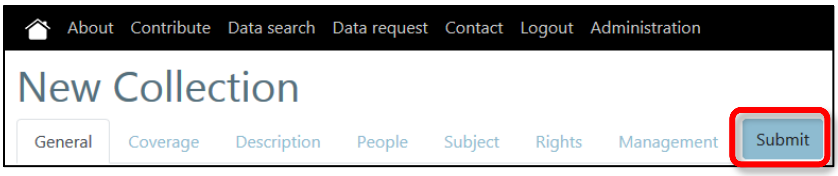
Click on **Contribute your data**



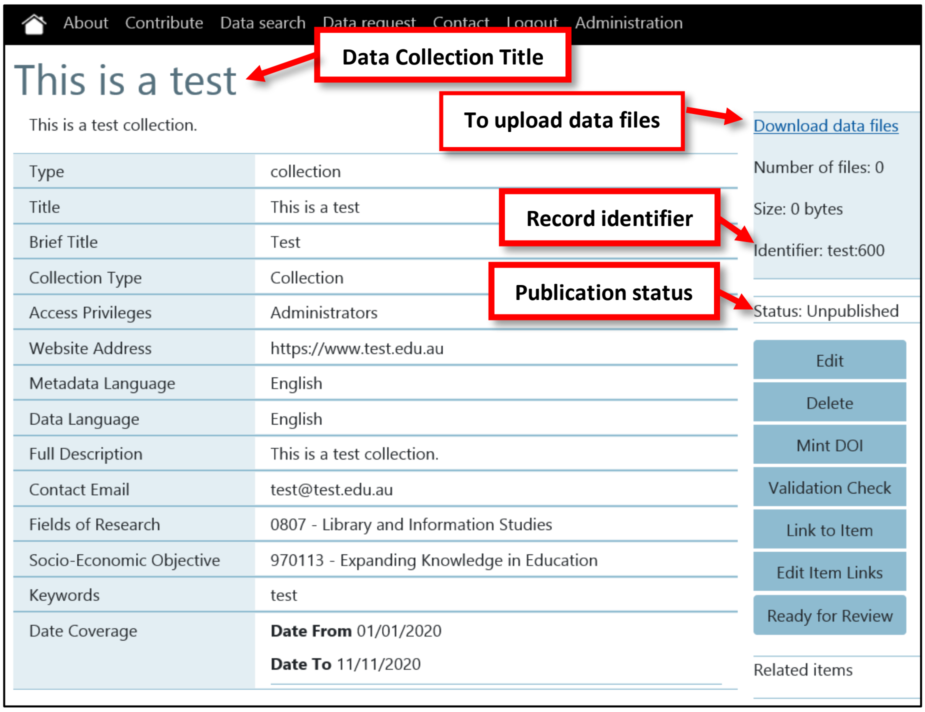
Fill in the template form with as much detail as possible



Click on **Submit** when complete

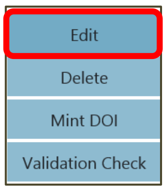


After clicking **Submit**, the display will change to show the page for the newly created collection. Click on **Edit** to return to the template form to update information, or, click on **Download data files** to upload.

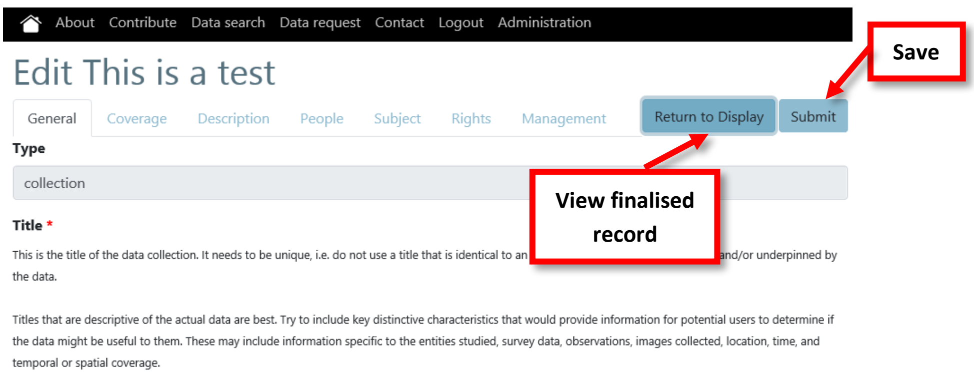


Edit Fields

To edit the value of a field, click on the **Edit** button on the right hand side. This will return to the template form.



Once editing has been completed, click **Submit** to save, then **Return to Display** to view finalised record.



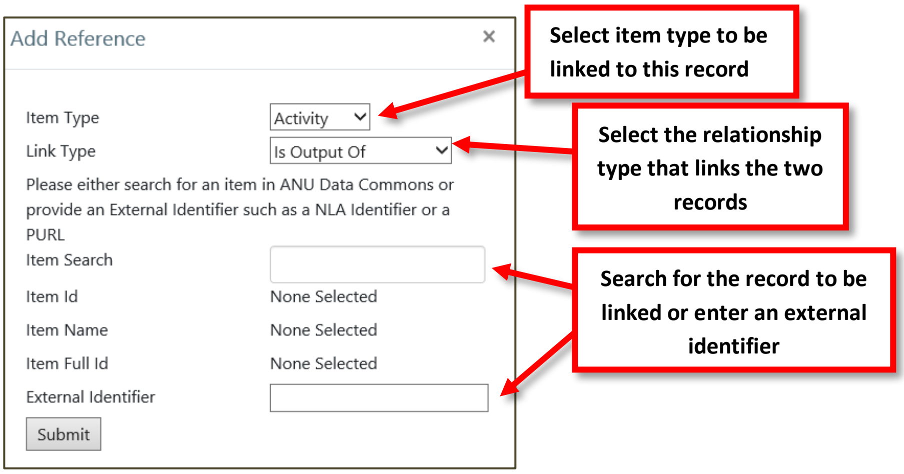
Linking Records

A relationship can be established between two records that have something in common. The commonality is described by the relationship itself. For example, a collection may belong to a research project that is managed by a researcher. Linking such records with each other enables discovery of all related records.

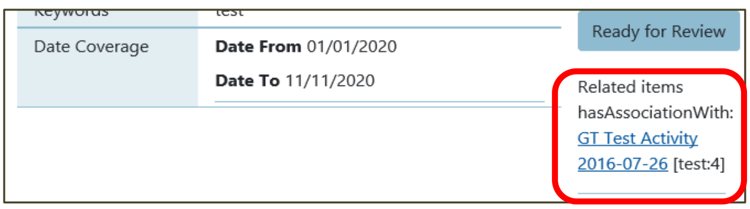
To link a record with another record, click on the **Link to Item** button on the record's page. To add other types of records in order to link together, go to section "**Add other types of records**" or **Administration.**

A dialogue box will appear.

1. Select the type of target record: Activity, Collection, Party or Service.
2. Select the link type that describes the relationship between the **current record** and the **target record**. The available options depend on the current and target record types.
3. Enter search terms to search for the target record. Select the correct record from the drop down options. Alternatively, enter an external identifier.



Click **Submit** to save. Once saved, all linked records appear on the record page as shown below.

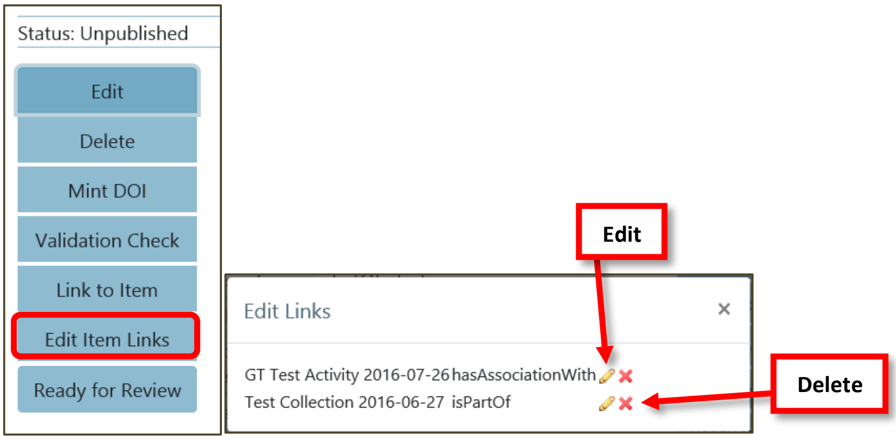


Click on the link to navigate to a linked record's page. Repeat the steps above to link additional records.

> *Linking a record to another record creates a bidirectional link. For example, when collection A describes Collection B, and a link is created to represent the relation between A & B, a corresponding link is created that translates to Collection B is described by Collection A.*

Modify Links

To modify existing links between records, navigate to either of the two linked record's pages, then click on **Edit Item Links** button. A dialog appears similar to the following that lists all links to other records.



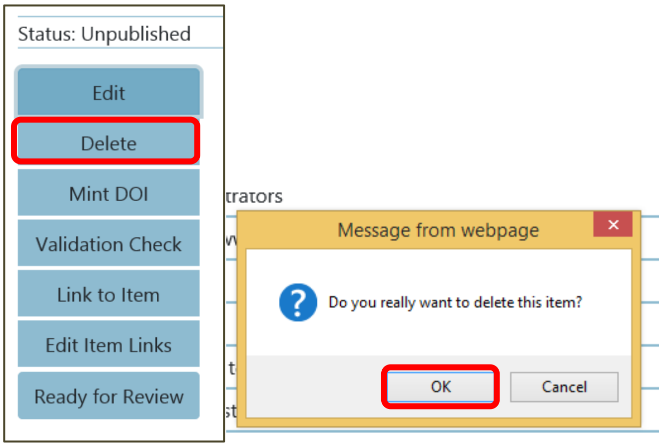
To **edit** a link, click on the pencil icon, which will display the item link dialog box. Follow the steps in the section

Linking Records to make changes as required. Then click on **Submit** button to save changes.

To **delete** a link, click on the red cross icon.

Delete Record

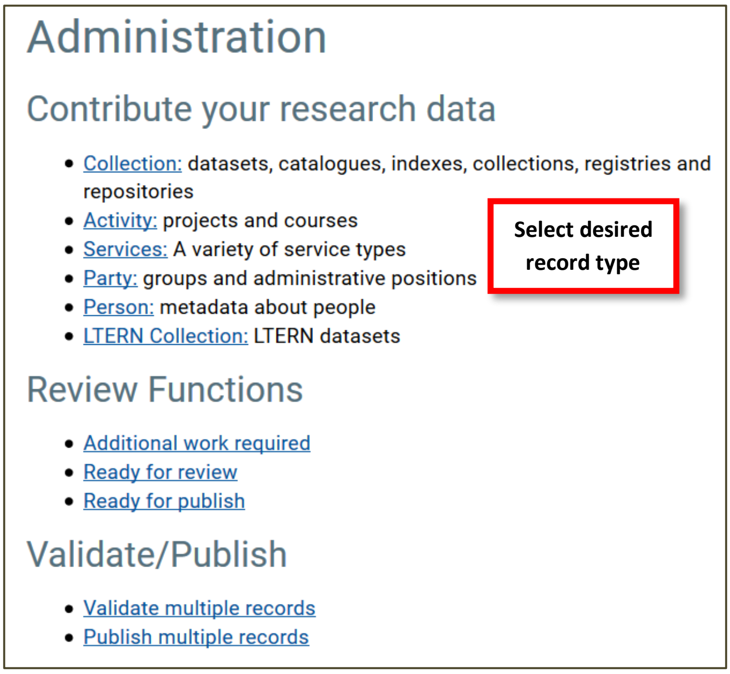
To delete a record click on the **Delete** button and click **OK** in the pop- up window. This should then return you to a screen that indicates that the item has the status of deleted.



Add other types of records

To add other types of records, The **Administration** page lists functions that can be performed depending on the permissions assigned to the user. Contact your System Administrator to request a change to your permissions, if required. Currently Administration features are performed by Open Research Team.

To add a new record into Data Commons, click on the record type to be created.



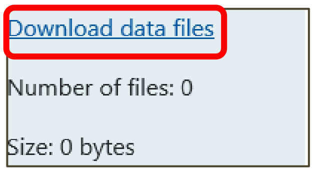
Note: Created records can be linked with each other and do not require creation in a specific order.

Data Files

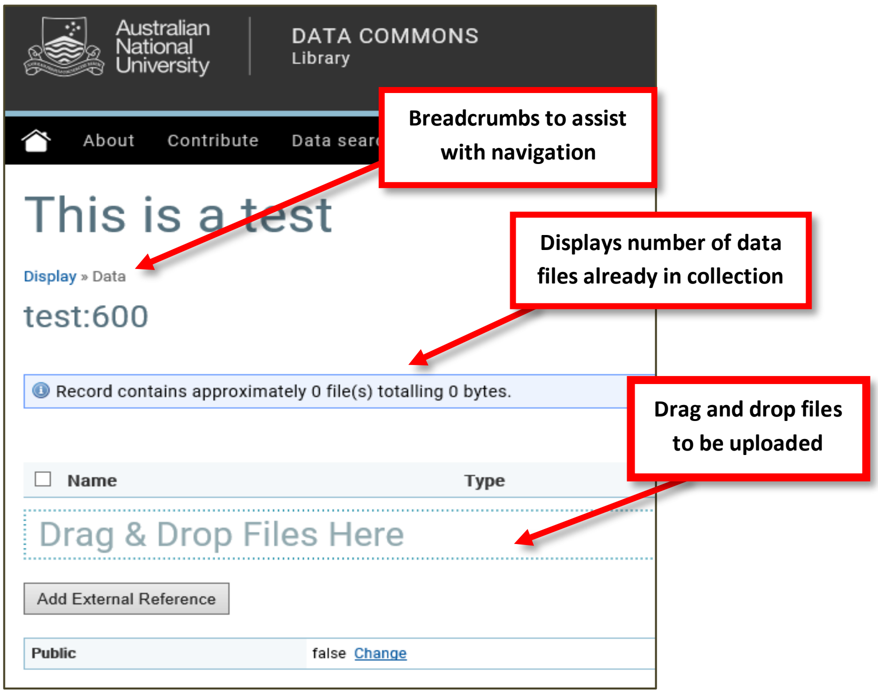
Upload files to Collection

Files can be uploaded to Collection records. This allows storage and preservation of digital objects in a collection. Data can be stored in the system, or a reference URL that resolves to the data location can be stored.

To upload one or more files to a collection, click on the **Download data files** link on the record page

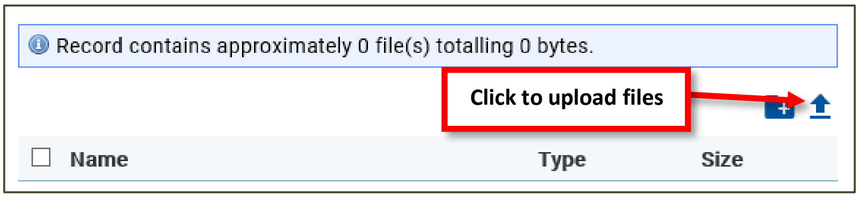


Drag files in the **Drag & Drop Files Here** box. Multiple files can be selected and dragged at once for upload.



For some browsers the Drag & Drop facility is unavailable. Files can be added by clicking the blue up arrow icon.

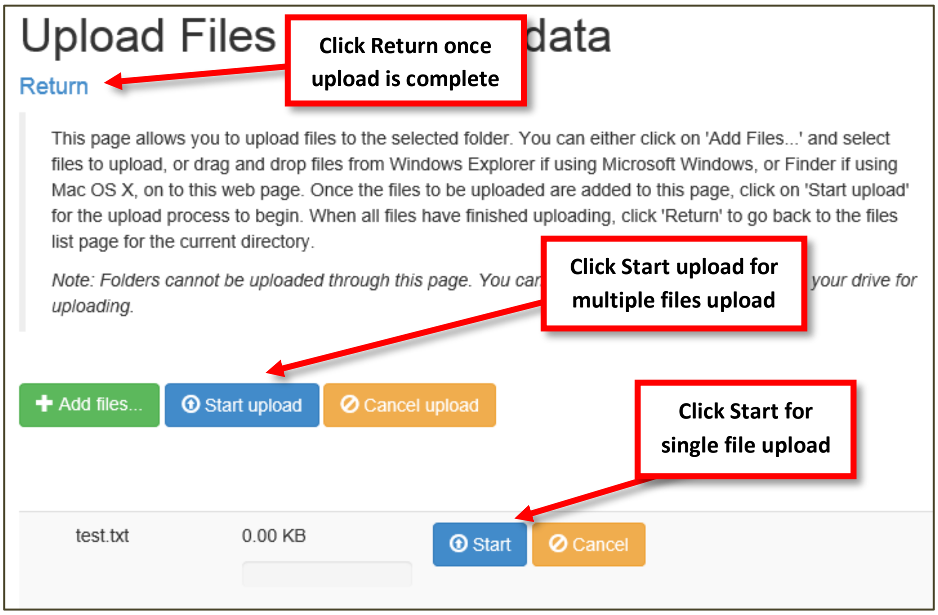
Note: Please ensure the latest version of Java is configured to run on the web browser to upload files to the server. If required, please download from http://www.oracle.com/technetwork/java/javase/downloads/index.html. In other cases, refer to your web browser's user guide to download the appropriate plugin.

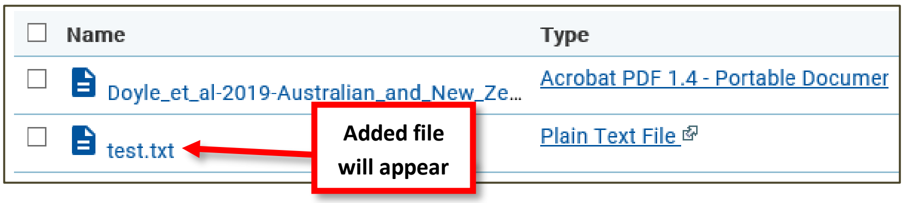


The following page will appear. Click on the green **+ Add files** button and select your file.

Click on **Start** to upload. For multiple files, click **Start upload** once all files are added to the page.

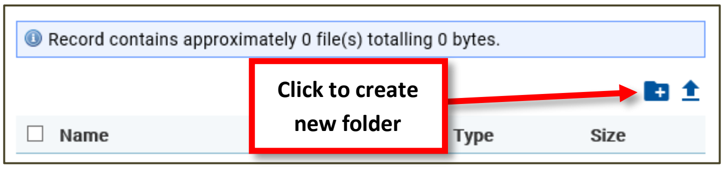
Once complete, click **Return** to see the file added to the file list.

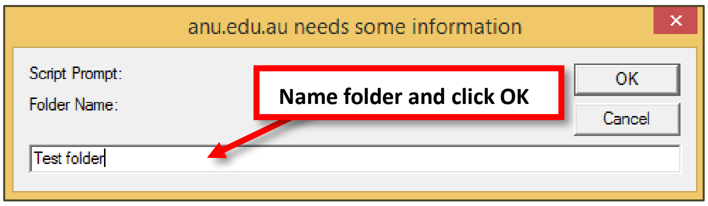


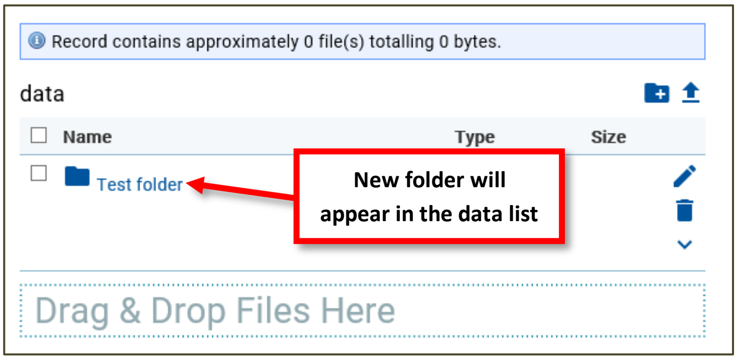


Create folders in Collection

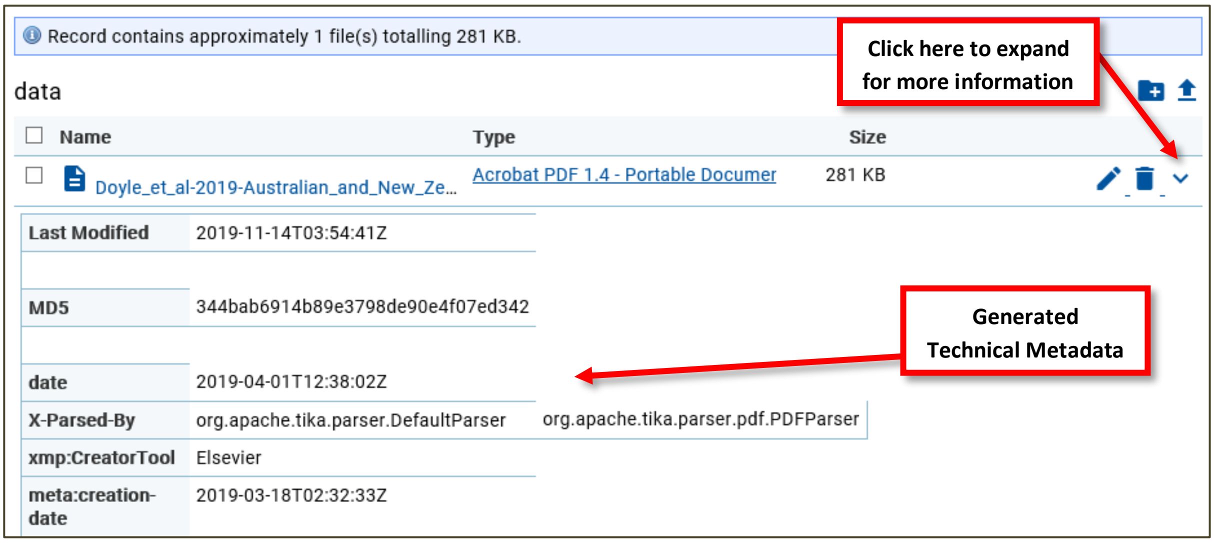
Folders can be created by clicking on the blue folder icon with the plus sign. Once the new folder is named, the page will refresh with the new folder added. Click on the new folder name, and Drag and Drop files, the uploaded files will appear under the new folder.







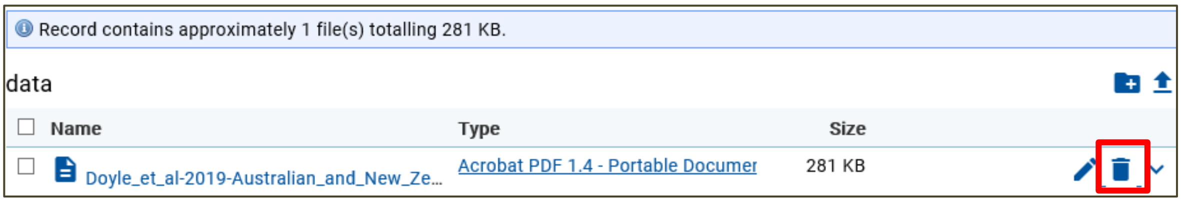
Technical Metadata of a file is hidden by default. To view this information about a file, click on **Expand** icon.



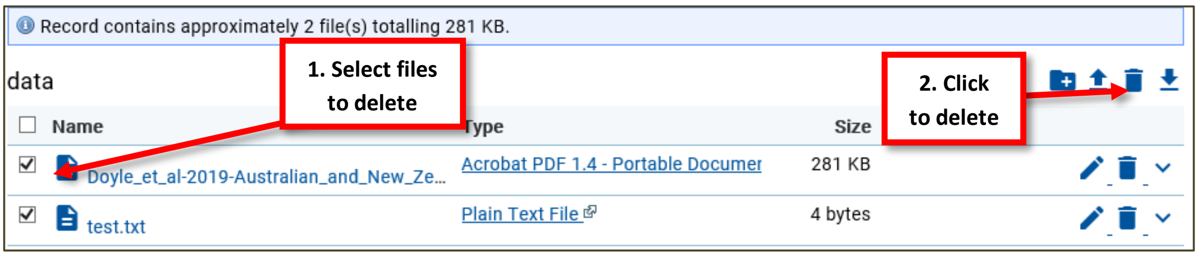
The system's ability to recognise a file format depends on the format's presence in the PRONOM file identification database. Similarly, the system's ability to extract metadata from a file depends on Apache Tika's support for the file format. Refer to http://tika.apache.org for more information.

Deleting files from a Collection

To delete a previously uploaded file in a collection, navigate to its Data Files page. Click on the **Rubbish bin** icon against the file and click **OK** to confirm deletion. The page will reload displaying the remaining files in the collection.

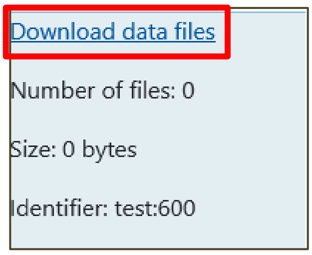


If there are multiple files to be deleted select the checkboxes of the files to delete and click the **Rubbish bin** icon above the file list.



Managing External References

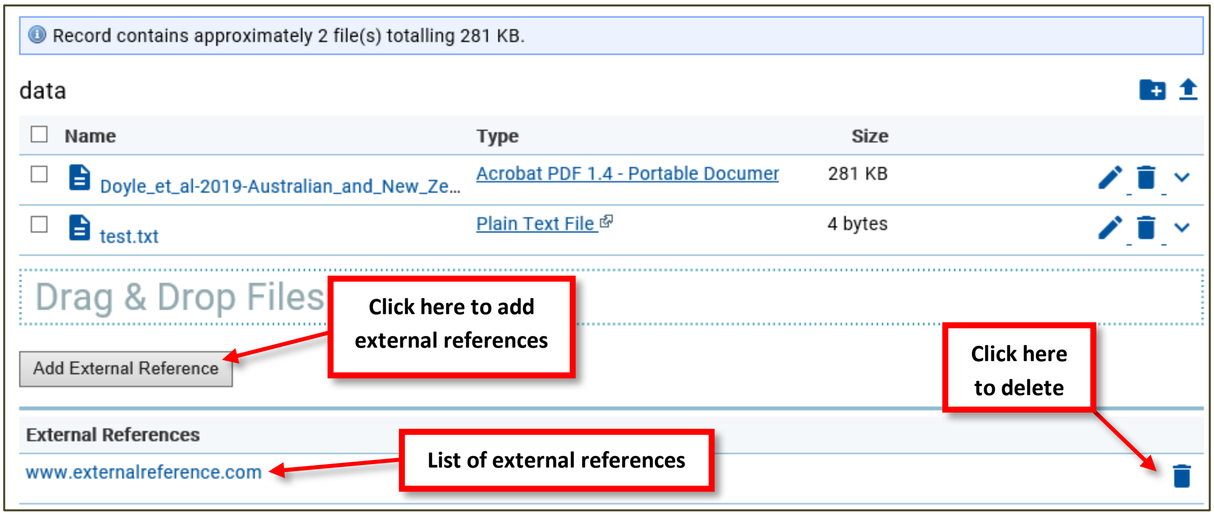
In addition to being able to store files that belong to a collection, the system can refer to files stored outside the system. A URL points to a network location of external file. To view and manage external references, click on **Download data files**.



To add an external reference, click on the button **Add External Reference**, enter a URL in the dialog box that follows, and click OK.

The page then refreshes displaying all external references associated with the collection.

To delete an external reference, click on the **Rubbish bin** icon beside the external link to be deleted. Click OK in the confirmation dialog that follows. The page will then refresh with the remaining list of external references.



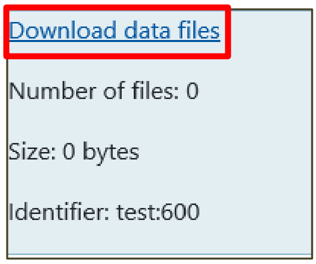
Downloading Files from a Collection

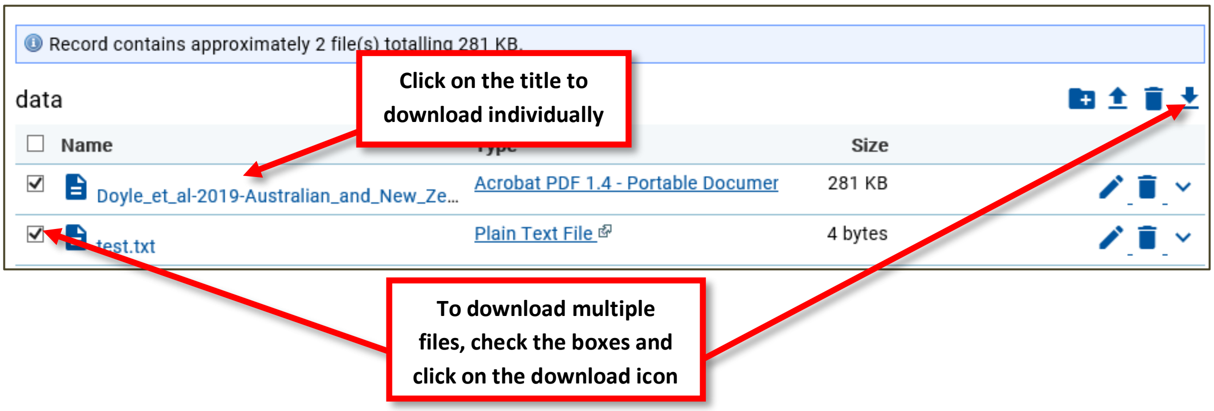
Files uploaded to a collection can be downloaded individually or as multiple files in a ZIP file.

To download individual files, click on **Download data files** and click on the link of the filename to be downloaded.

Depending on the configuration of your web browser, you will be prompted to open or save the file, or the file download will begin saving the file into the default download directory. Refer to your web browser's user manual for details.

To download multiple files in a collection as a ZIP file, click on the **Down arrow** icon at the top of the table that lists the files in the collection.



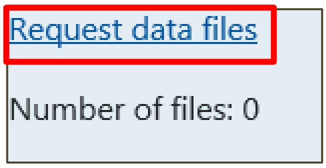


Collection Requests

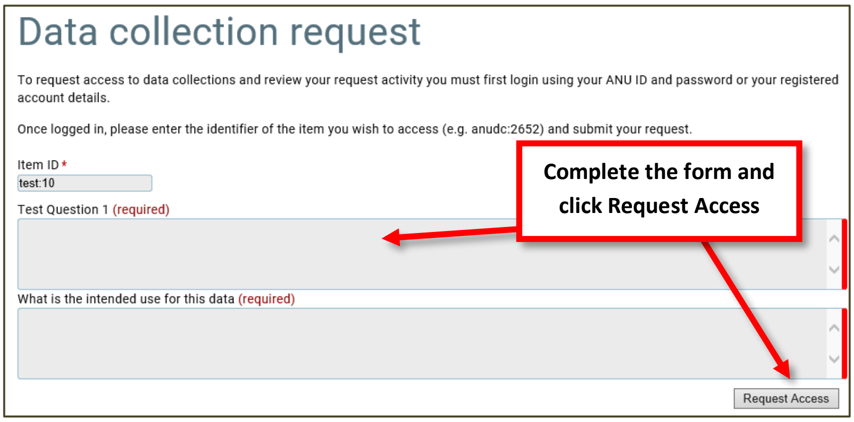
Submitting a Collection Request

A user can request access to the files in a collection.

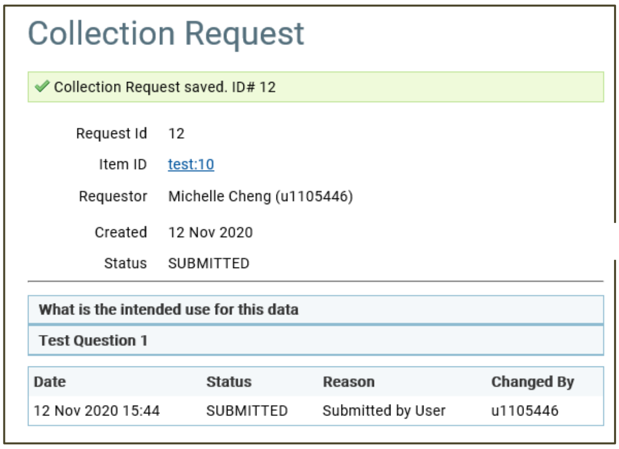
On the record's page, click on the **Request data files** link.



On the following page, provide **all** relevant information in the Data collection request form to allow the assessor to make an informed decision on approval the request.



Then click on the **Request Access** button to submit the request. The following page lists the details of the request including the **Request ID**.



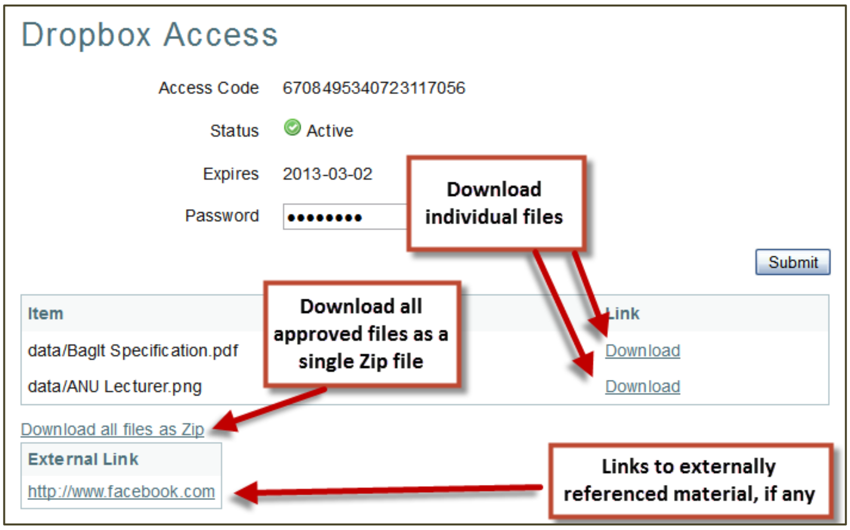
Collection Request Approval

When an assessor accepts a request, the requestor is emailed with the details of the status change similar to the following.

```
From: ANU Data Commons [mailto:no-reply@anu.edu.au]
To: John Smith
Subject: Collection Request# 67 Status Changed

Dear John,
This is to let you know that the status of your Collection Request has
changed to the following...

ID: 67
Changed By: Bob Smith
Changed On: Thu Sep 06 10:55:10 EST 2012
New Status: ACCEPTED
Reason: The requestor conveyed a genuine need for the data files.

Dropbox Access Link: https://dc7-
dev1.anu.edu.au:8443/DataCommons/rest/collreq/dropbox/access/35802558962741
80096?p=3Veq6ffw

If the link above didn't work, please try the following:
```

```
<a
href="https://dacommons.anu.edu.au:8443/DataCommons/rest/collreq/dropbox/access/3580255896274180096?p=3Veq6ffw">https://datacommons.anu.edu.au:8443/DataCommons/rest/collreq/dropbox/access/3580255896274180096?p=3Veq6ffw</a>

Regards,
ANU
```

To allow access to the approved set of files in the request a secured access mechanism that provides only the requestor access to the approved files, called a **Dropbox** gets created. Instructions to download the files from this secured mechanism are included in the email. The requestor is required to click on the web link to the approved files in the email. Clicking on the link opens the Dropbox Access page similar to the following. The user may be required to log in using his credentials.



The user can then download individual approved files, download all approved files as a single Zip file, or click through to externally referenced material.

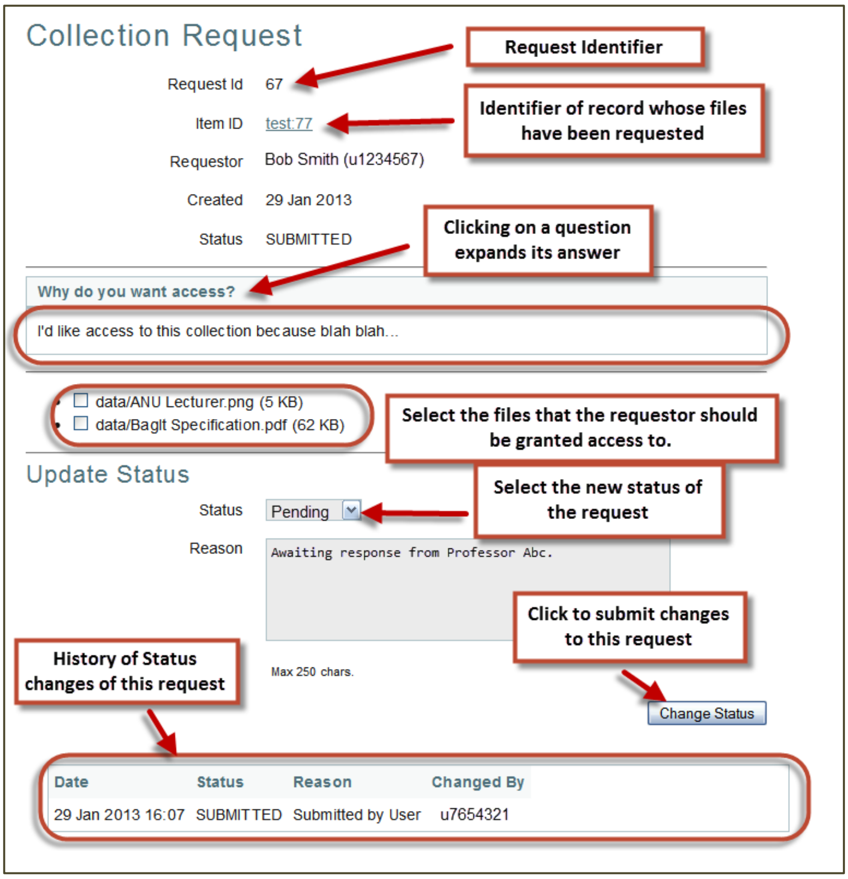
If a collection request is accepted without any approved files or the collection is of non-digital items, a Dropbox is not created. The assessor is expected to contact the requestor and make arrangements to provide access to the requested contents.

Collection Request Administration

Once a collection request is submitted, the system sends an email to all the addresses listed in the Contact Email field of the collection. The email addresses listed in that field are generally those who can approve requests. The email looks similar to the following:

```
From: ANU Data Commons [mailto:no-reply@anu.edu.au]
To: abc@xyz.com, xyz@abc.com
Subject: Collection data requested
A Collection Request has been submitted for the collection ID test:77 that
requires your action. To view the request, please visit
https://datacommons.anu.edu.au:8443/DataCommons/rest/collreq/67 to take an
appropriate action.

Regards,
ANU
```

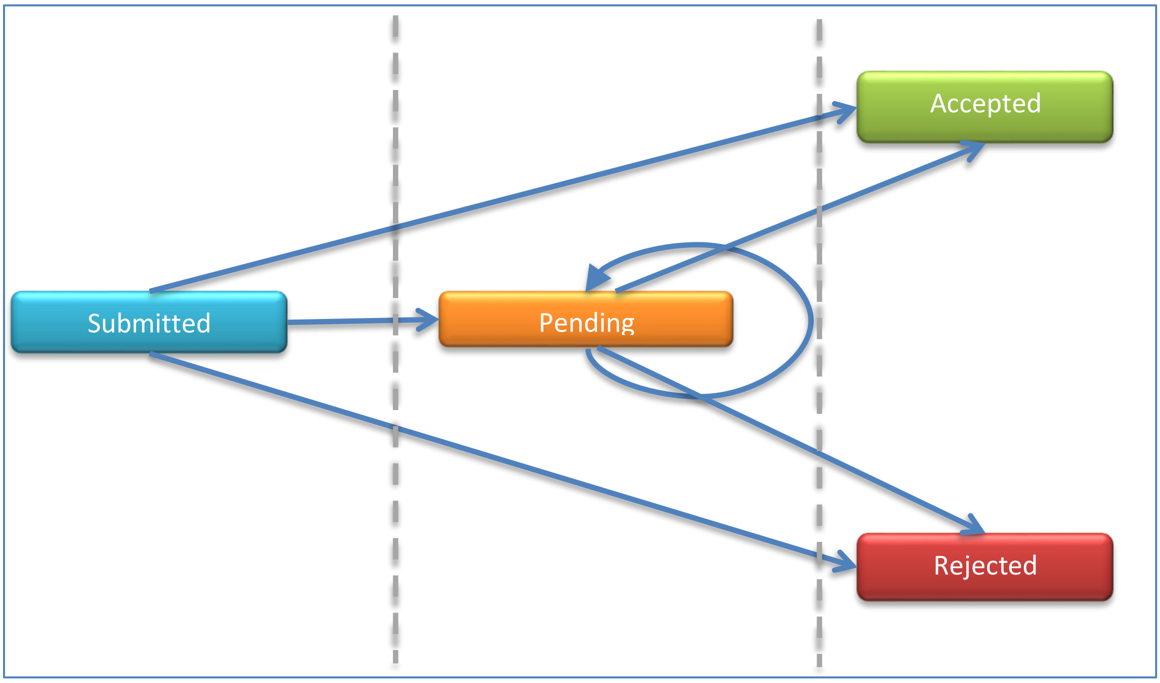
To view the collection request, click on the link in the email. You may be required to log into the Data Commons system. The page similar to the one below displayed:



The page displays the following information:

- **Request ID:** The unique identifier of that collection request.
- **Item ID:** The unique identifier of the record for which that collection request was submitted.
- **Requestor:** The name and University ID, or email address of the requestor.
- **Created:** The date this request was created
- **Status:** The current status of this request. When a user submits a request, the status is shown as SUBMITTED. A status change can only be performed by the assessor(s).
- **Questions:** Requestor need to answer the listed questions in order to access data files.
- **Files in the collection:** Lists the files uploaded to the collection. The assessor must select the files that the requestor will be able to download if and when the status of the request is changed to Accepted.
- **Update Status:** This section allows the assessor to update the status of that collection request and enter a reason for the change.
- **Status History:** This table displays the statuses the request has been through along with the reason for that change.

A collection request goes through the following status changes:



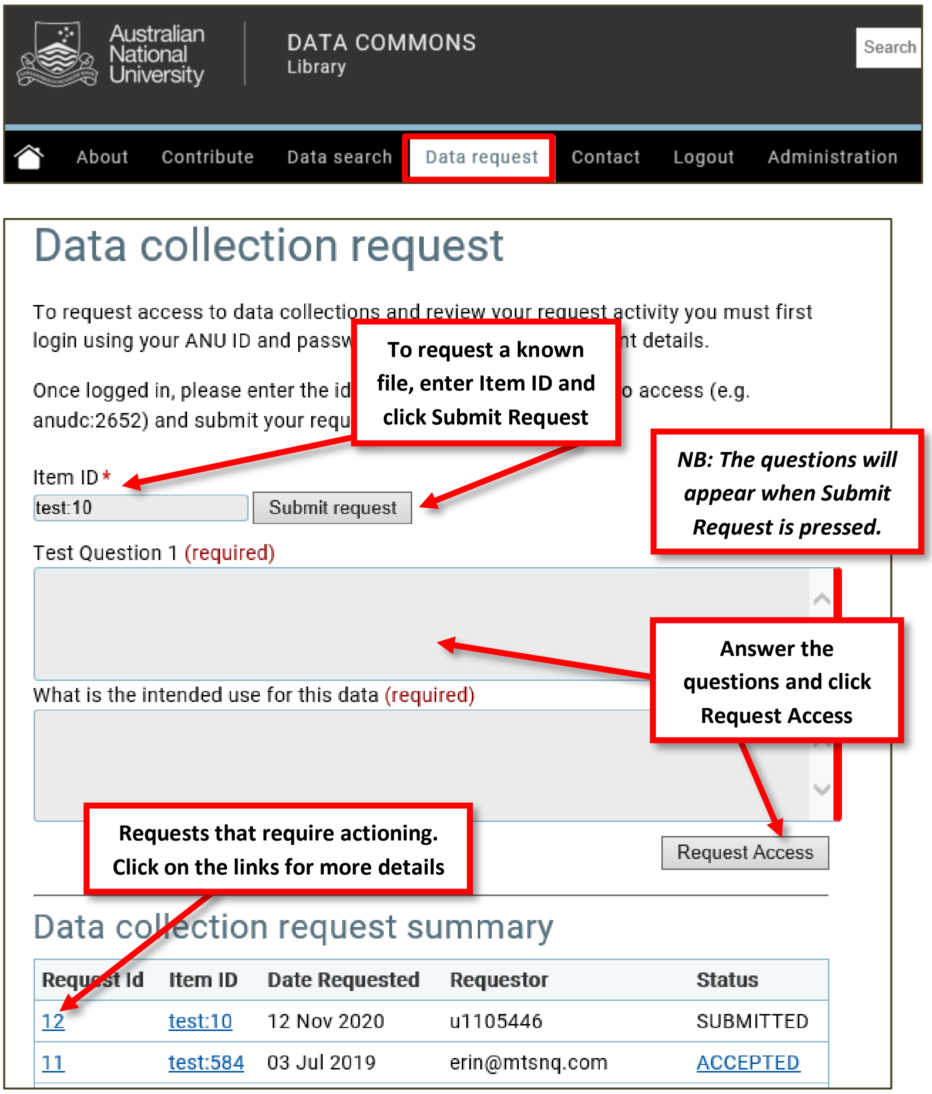
- **Submitted:** when a requestor submits a request this is the initial status assigned to it.
- **Pending:** when the assessor requires either additional information from the requestor, or necessary permissions from authorities. An assessor can change the status to Pending status by entering a reason for it. This allows the requestor to be informed if an approval is continually delayed for multiple reasons.
- **Accepted:** when the assessor approves a request allowing the requestor access to some or all files held within a collection. Before the status of a request is changed to Accepted, the assessor may be expected to select the files that the requestor should be granted access to. Occasionally, the access may be limited to non-digital material or externally hosted files that require an approval of the request without granting access to files of the collection hosted within Data Commons. Once accepted, a request's status cannot be changed.
- **Rejected:** when the assessor believes that the requestor should not be granted access to any of the data in a collection. Once rejected, a request's status cannot be subsequently changed. The requestor may, however, resubmit a request with additional information.

It is highly recommended that a reason be specified when a status change occurs. A status change results in an email being sent to the requestor informing about the change in status and the reason for it.

Viewing all Collection Requests

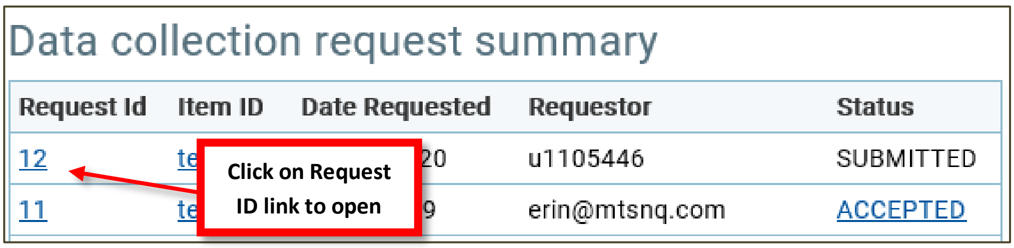
After log in, collection reviewers or Administration users can view a list of collection requests submitted into Data Commons through the **Data request** tab.

Requests can also be placed if Item ID is known. Enter the **Item ID** then click **Submit Request**.



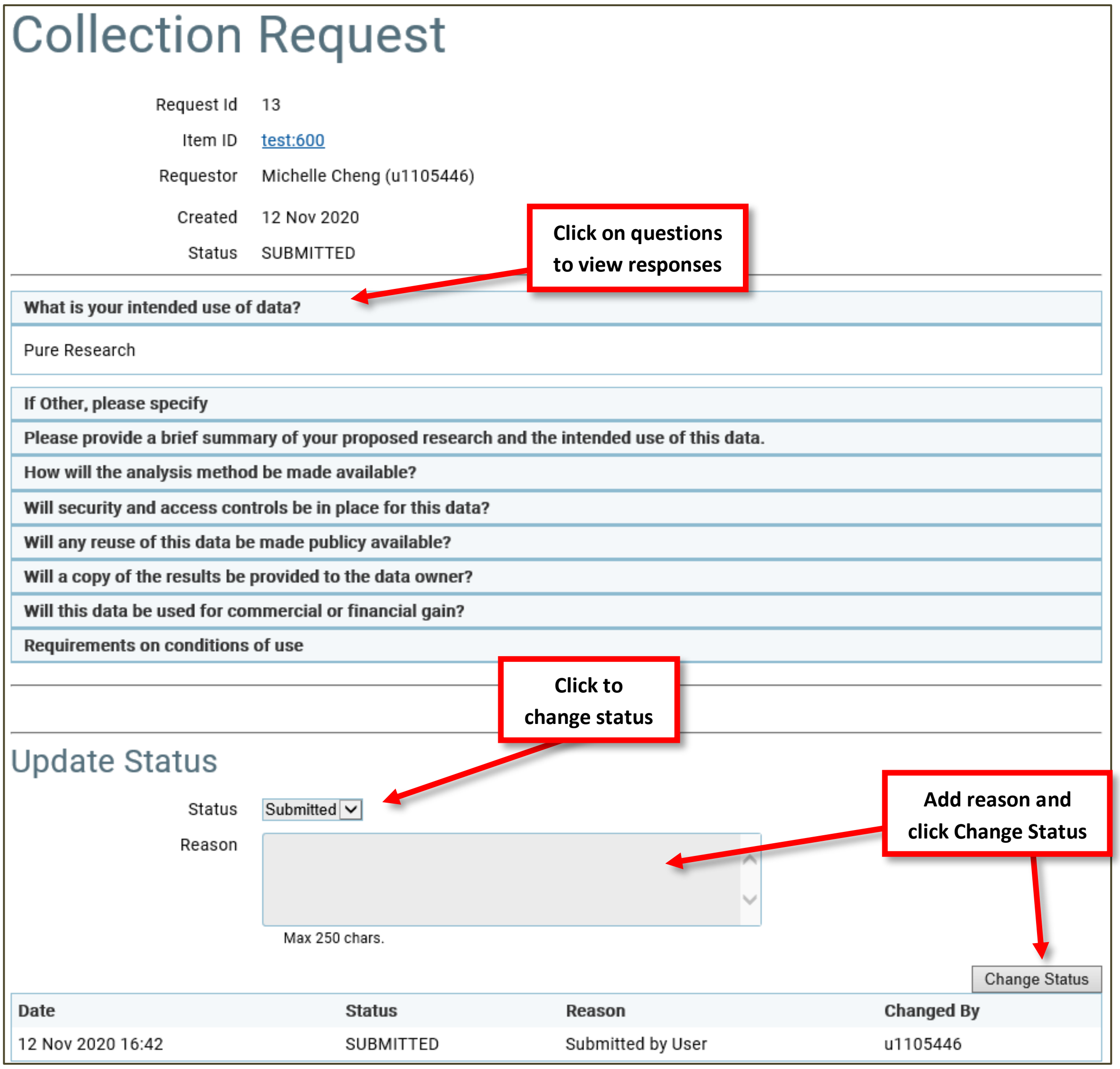
Review Collection Requests

Once an assessor receives a notification email of an awaiting collection request, the collection request can be opened to update status. Click on the **Request ID** to open request.



Click on the questions to review responses.

Click on the **Status** dropdown menu and choose the appropriate option (Accepted, Rejected, or Pending). Include a reason for your decision is necessary and click **Change Status.**



Assign Questions to Collection Requests

Set questions are assigned based on the group the collection is within. Questions can only be altered by system administrators. Please contact system administrators for more information.

Dropboxes

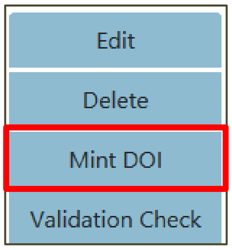
Dropboxes are created when a collection request with an approved set of files hosted in Data Commons is accepted. Once a Dropbox is created, it is valid for 30 days from the date of creation. During this time, the approved files can be downloaded multiple times by the requestor. Once a Dropbox has expired, any attempts to access it will display an error message.

Minting Digital Object Identifiers

A Digital Object Identifier (DOI) is a unique and persistent identifier assigned to datasets and collections, both digital and physical, allowing them to be cited, for example by researchers to refer to datasets used in their research. Refer to http://ands.org.au/cite-data/ for more information about DOIs. Australian National Data Service (ANDS) as a registration agent of DataCite (http://datacite.org/whatisdatacite) provide a DOI minting service that is used by ANU Data Commons to mint and assign DOIs to collection records in the system. Refer to http://ands.org.au/cite-data/id_decision_tree.pdf to determine if a DOI should be minted for a collection. Once determined that a collection is eligible for a DOI, check that the following field values have been specified in the record. These fields constitute the minimum set of metadata required for minting a DOI.

1. **Creators:** one or more creators must be specified in the record.
2. **Titles:** one or more titles must be specified in the record.
3. **Publisher:** name of the party who published the dataset or collection must be specified in the record.
4. **Publication year:** year in which the dataset or collection was published must be specified in the record.

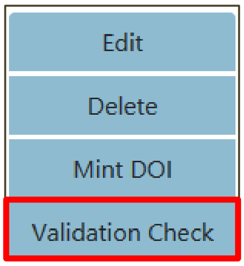
1. Click on **Mint DOI** button on that record's page.



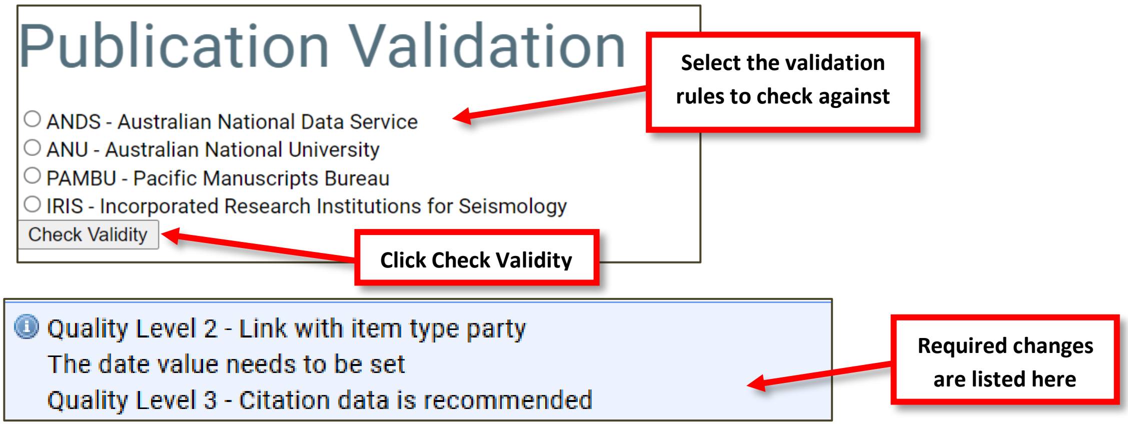
This will be followed by a confirmation dialog asking you to confirm the minting of the DOI. Clicking the Yes button will mint a DOI and add it to the DOI field of the record.

Record Validation

Before a record can be published to an external system it must meet a set of validation rules specified by that external system. To validate a record against the criteria imposed by an external system, click on the **Validation Check** button on that record's page.

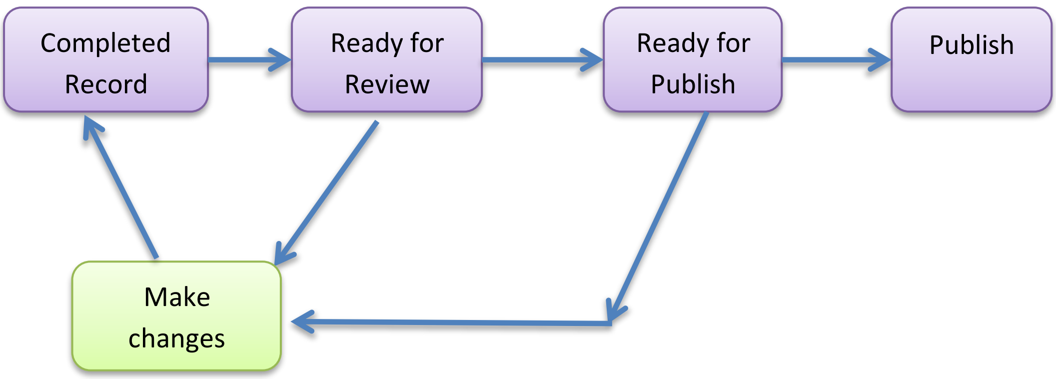


Then select the external system whose rules to validate the record against. Click the button **Check Validity.** This will display the changes required if any, to meet the requirements of the external system.

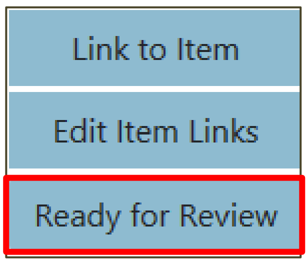


Publishing

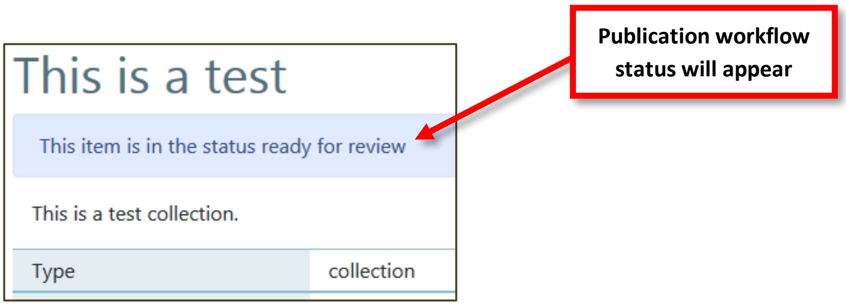
Before a record can be published it must go through a workflow that involves a multi-step review process.



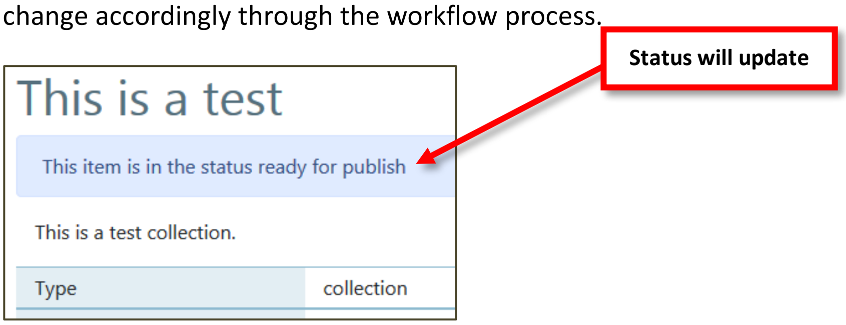
To mark a record as Ready for Review, click on **Ready for Review** button on the record's page.



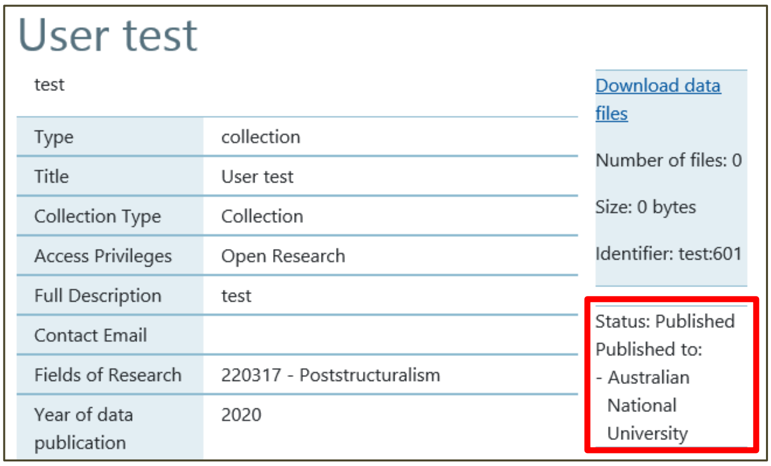
The status of the record is then changed to Ready for Review and the current status in the publishing workflow is displayed at the top of the record's page.



At this point, a reviewer can approve the item for publishing or make further changes. The status will change accordingly through the workflow process.



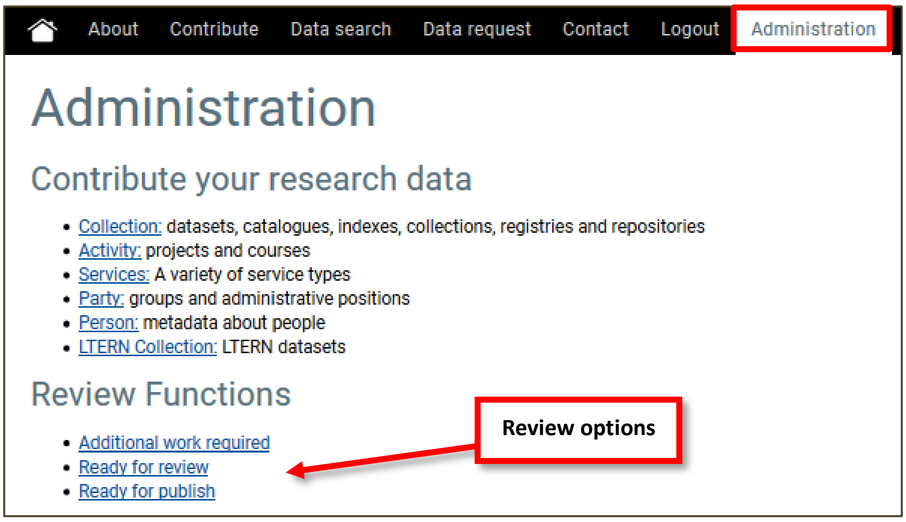
Once published, the collection record will be updated.



Review Lists

This page lists all the collections you have review permissions for and require you to review to publish the record.

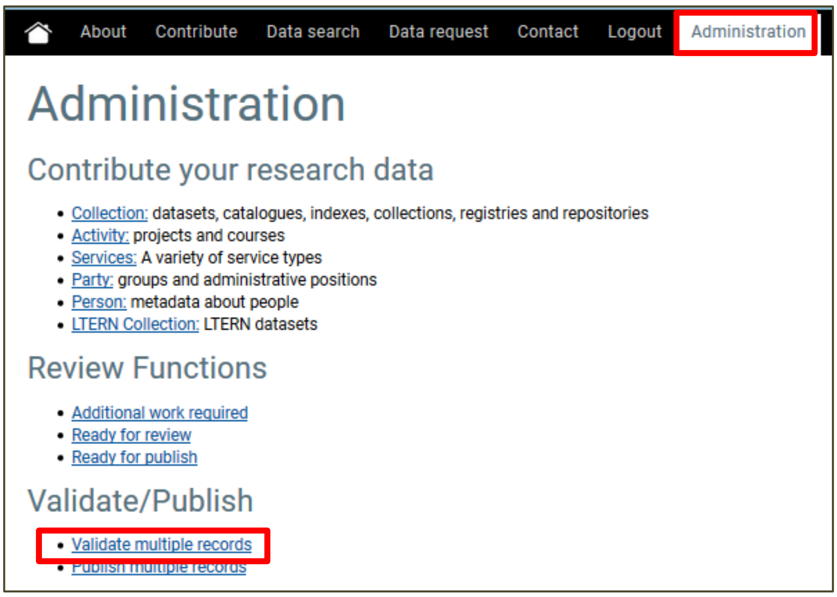
To go to this page, click on **Administration** in the main menu area. Then click on one of the submenu items under **Review Functions**.



- **Additional Work Required** lists records that have been rejected
- **Ready for Review** lists records that require a Quality Assurance check to be performed on the records
- **Ready for Publish** lists records that have passed the Quality Assurance check and are ready to be published.

Validating Multiple Records

This page provides the ability to select multiple records for validation without having to go to the individual page of each record. Navigate to this page by clicking on Administration in the main menu bar. Then click on **Validate multiple records** of the submenu items under **Validate/ Publish.**

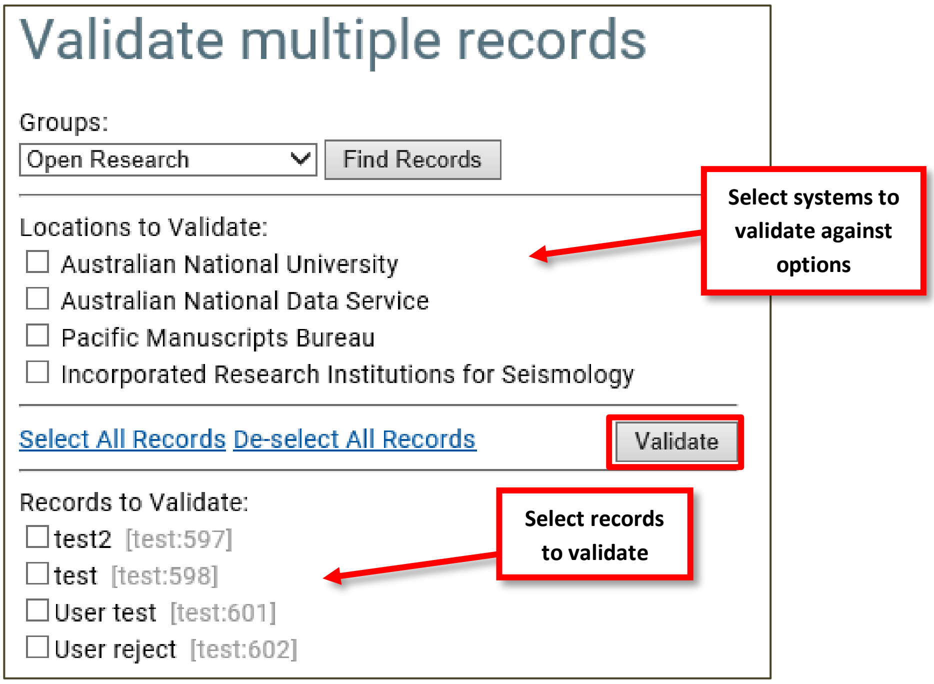


Bulk Validation

To validate multiple records, click on **Validate Multiple Records** submenu item. On the web page that comes up select from the dropdown the group whose records are to be validated.

Then click on the **Find Records** button.

On the page that follows, select the external systems that the records are to be validated against. Then select the records to be validated from the list below. Click on the **Validate** button.

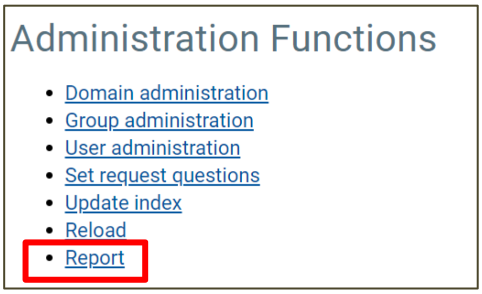


Each record is then validated against the requirements of each selected system. Violations, if any, are displayed to let the user know of the changes required for a record's compliance with that system. Refer to the section **Record Validation** for more information.

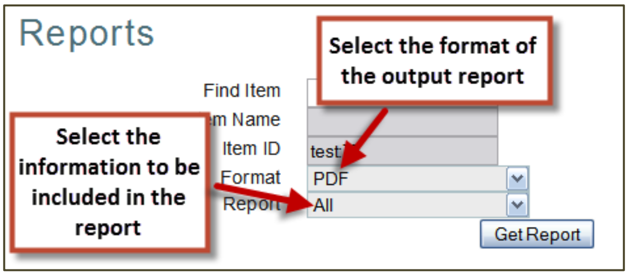
Reports

Single Record Report

To generate a report for a single record, click on the **Single Item Reports** button in the admin section of the Data Commons menu.



On the following page enter the details of the information required about the record.



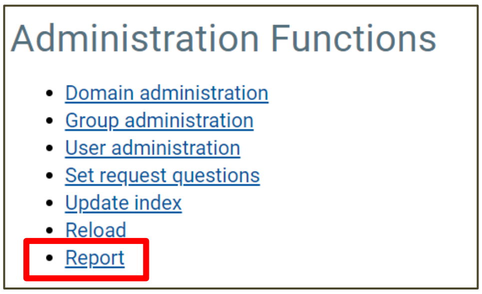
The following information can be included in a generated report:

- **Modifications:** includes details of all modifications performed on the record.
- **Published:** includes details of published status of the record.
- **Logs:** includes access logs for that record.
- **Dropbox Access:** includes details of collection requests for that record and the files approved for each of those requests.
- **All:** includes all of the above.

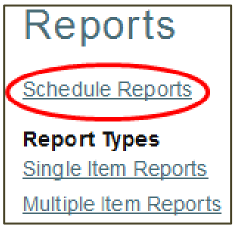
Then click **Get Report**. This will generate a report in the specific format containing the specified details of the record and display it.

View scheduled reports

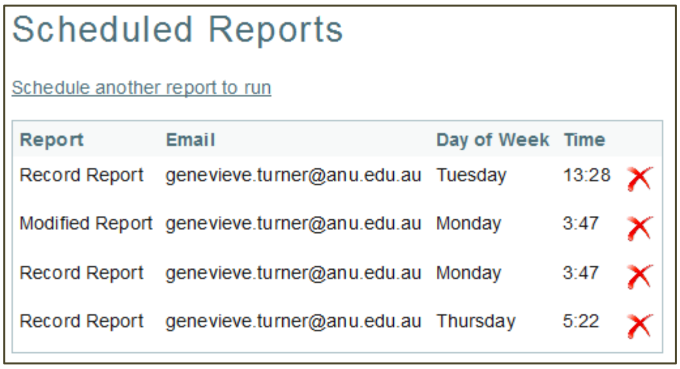
To view the scheduled reports navigate to the reports page via the link in the admin section of the Data Commons menu.



Then select to “Schedule Reports” from the Reports page.



This will then display the list of currently scheduled reports. This list indicates which report is to be run, the email address to send the report to, and the day and time in the week that the report will run.

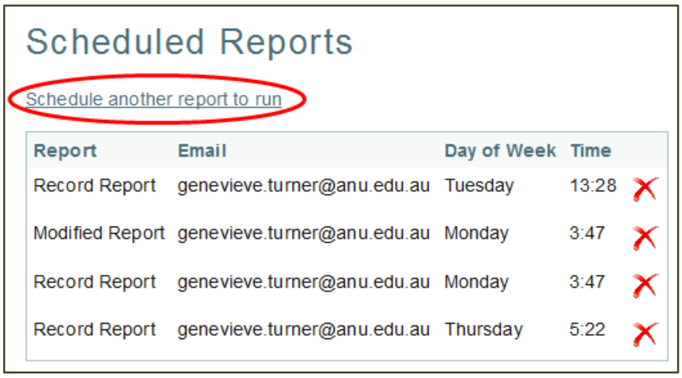

Scheduled Reports

Schedule another report to run

Report	Email	Day of Week	Time
Record Report	genevieve.turner@anu.edu.au	Tuesday	13:28
Modified Report	genevieve.turner@anu.edu.au	Monday	3:47
Record Report	genevieve.turner@anu.edu.au	Monday	3:47
Record Report	genevieve.turner@anu.edu.au	Thursday	5:22

Schedule a report to run

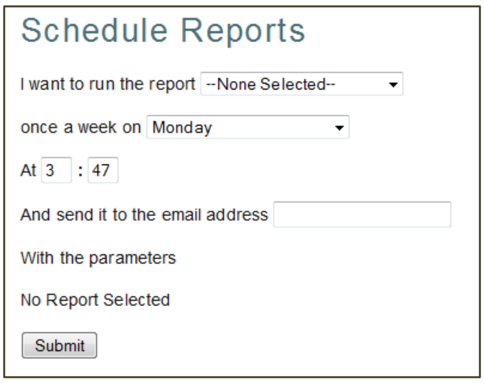
From the Scheduled Reports web page, click the “Schedule another report to run” link.


Scheduled Reports

Schedule another report to run

Report	Email	Day of Week	Time
Record Report	genevieve.turner@anu.edu.au	Tuesday	13:28
Modified Report	genevieve.turner@anu.edu.au	Monday	3:47
Record Report	genevieve.turner@anu.edu.au	Monday	3:47
Record Report	genevieve.turner@anu.edu.au	Thursday	5:22

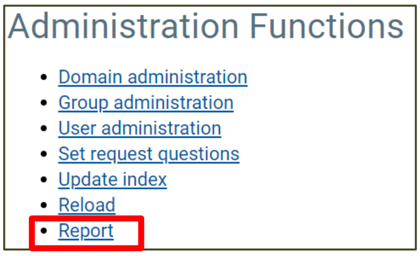
On the schedule reports page you need to specify which report to run, when, which email address to send the report to, and fill out the appropriate parameters for the selected report.



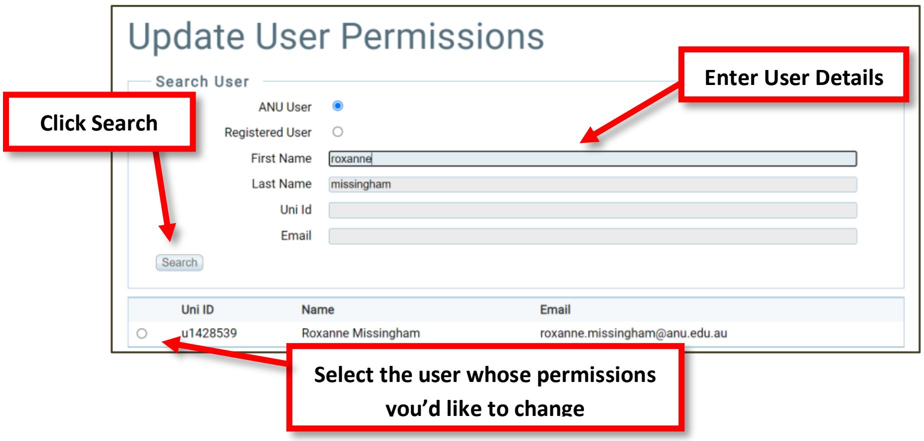
User Account Administration

A user requires permissions for one or more groups to be able to access unpublished records that belong to that group. The user assigning the permissions requires sufficient permissions to perform that task.

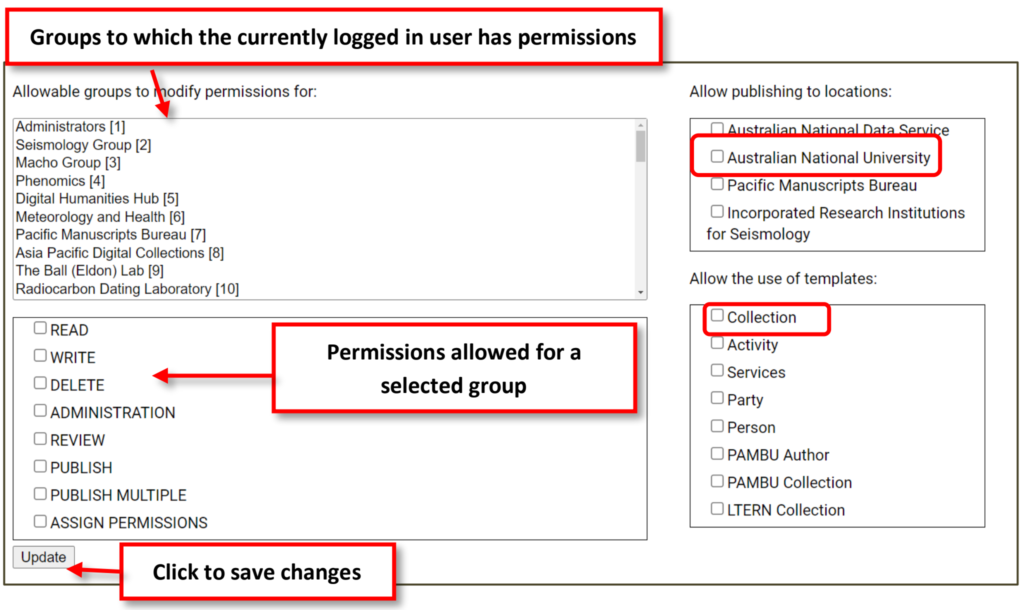
Navigate to the User Administration page by clicking on the **User Administration** link in the menu area on the left of the screen.



On the following page, search for the user whose permissions are to be modified. To search for a user, enter the user's Uni ID, first name, last name or a combination thereof. Then click the **Search** button.



On selecting a user from the search results the following section appears on the page:



Select a group that the user should be given permission to. Then select the permissions that the user should have for the records that belong to that group and its subgroups.

The following permissions can be assigned:

- **Read:** gives read-only access to collections in the specified group.
- **Write:** gives read and write access to collections in the specified group.
- **Delete:** gives permission to delete records for the collections in the specified group.
- **Administration:** gives permission to perform system administration tasks such as search index updates and reporting.
- **Review:** gives the permission to review records in the publishing workflow
- **Publish:** gives the ability to publish individual records
- **Publish Multiple:** gives the ability to publish multiple records
- **Assign Permissions:** gives the ability to assign permissions to other users.

Click on the Update button to save the changes.

To view the permissions assigned to a user, simply perform the aforementioned steps without making any changes to the permissions assigned to a group for that user.