



Australian  
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# Submitting a dataset to ANU Data Commons

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**RESPONSIBLE AREA:** University Librarian, ANU Library

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## 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.
- **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.

A collection record is different from other record types as it allows digital objects in the form of data files that it describes to be uploaded to the system for storage. For data already hosted on other systems, a reference can be stored as one or more URLs that point to the network locations of those datasets or files.

## Data Commons Security Model

Data Commons uses a security model to ensure that only authenticated users are able to perform tasks limited by the permissions assigned to them. Each user in the system can be assigned 0, 1 or more groups. For each group that is assigned to the user a set of permissions is assigned to determine the level of access that the user has to the records that belong to that group. Groups also follow a tree-like hierarchy where a user's permissions for a specific group allows the same level of access to all child-groups of that group, but not its parent group. A user who has permissions for no groups will only be able to see published records even when logged in.

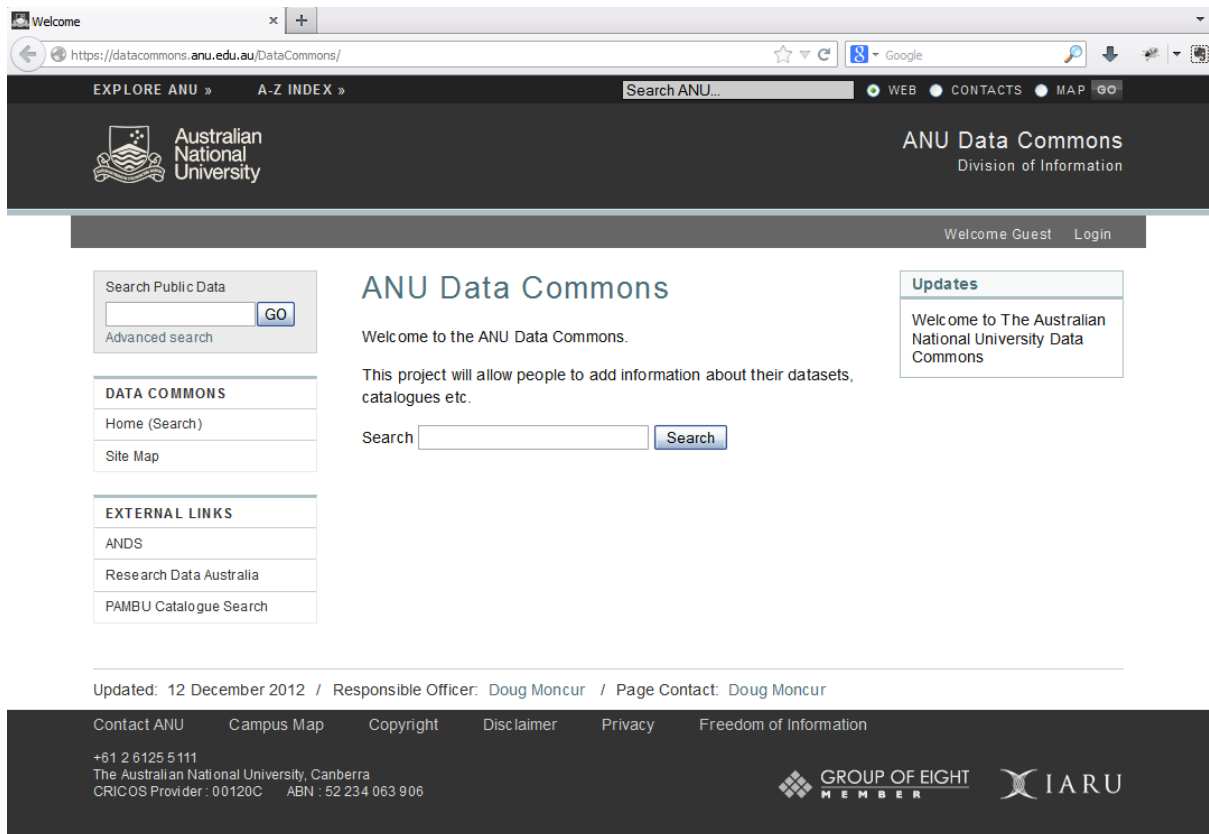
When a record is created, a group is assigned to it as its owner. All members of that group will then be able to access the record limited by their own permissions set for that group.

## 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.

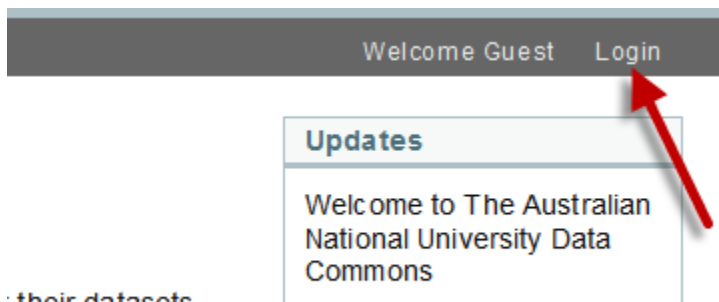
## Accessing the Web Site

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:



## Logging in

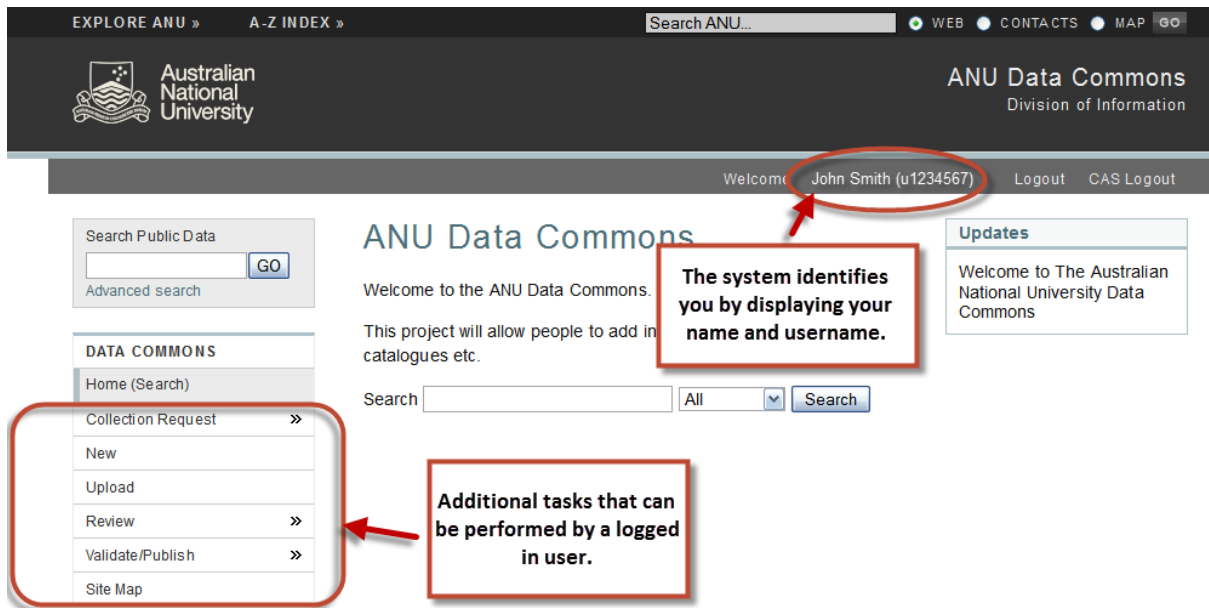
To log into the system you either must have a valid ANU university ID and password, or must be registered as a registered user with an external email address as username. Click on the Login link in the top right corner. Contact the system administrator to discuss your access requirements.



: their datasets,

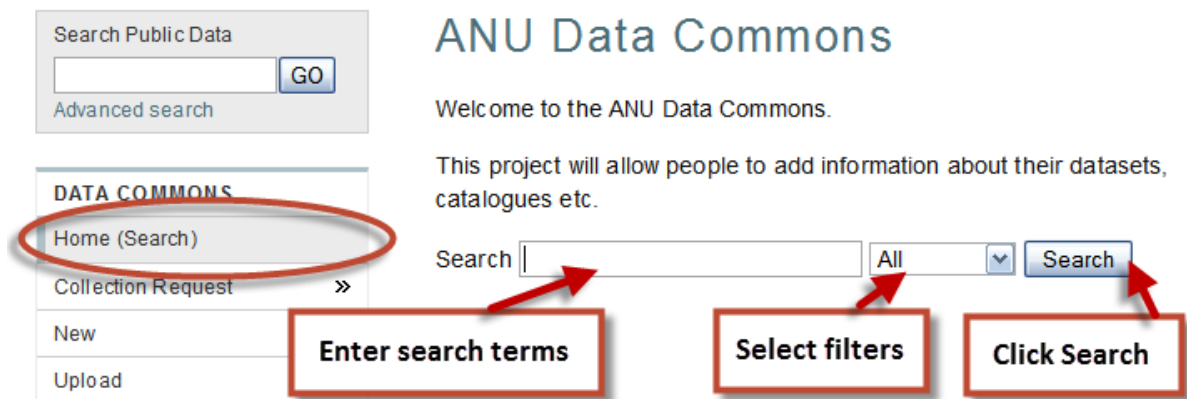
Once logged in, the home page should identify you by your display name and your username in the login bar. The menu area may list additional tasks that can be performed depending on the permissions assigned to the user in the system.

Contact [repository.admin@anu.edu.au](mailto:repository.admin@anu.edu.au) to request a change to your permissions, if required.



## Search

Once logged in, a user can search all records that belong to groups to which the user has access. To search for records, click on the Home (Search) link in the menu area on the left of the screen that will open a page similar to the following:



Enter search terms in the search textbox and select a filter, if required from the dropdown list. One of the following filters can be selected:

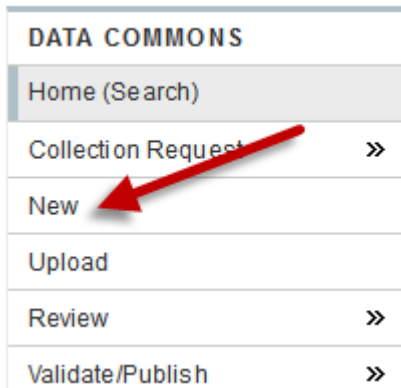
- **All:** includes all records that the user has permissions to.
- **Published:** restricts search to those records that have been published.
- **Team:** restricts search to those records that belong to the user's team.

Then click Search. The search results appear as below listing the title and brief description of all records that the user has access to, meet the filter criteria, and contains one or more of the search terms specified:

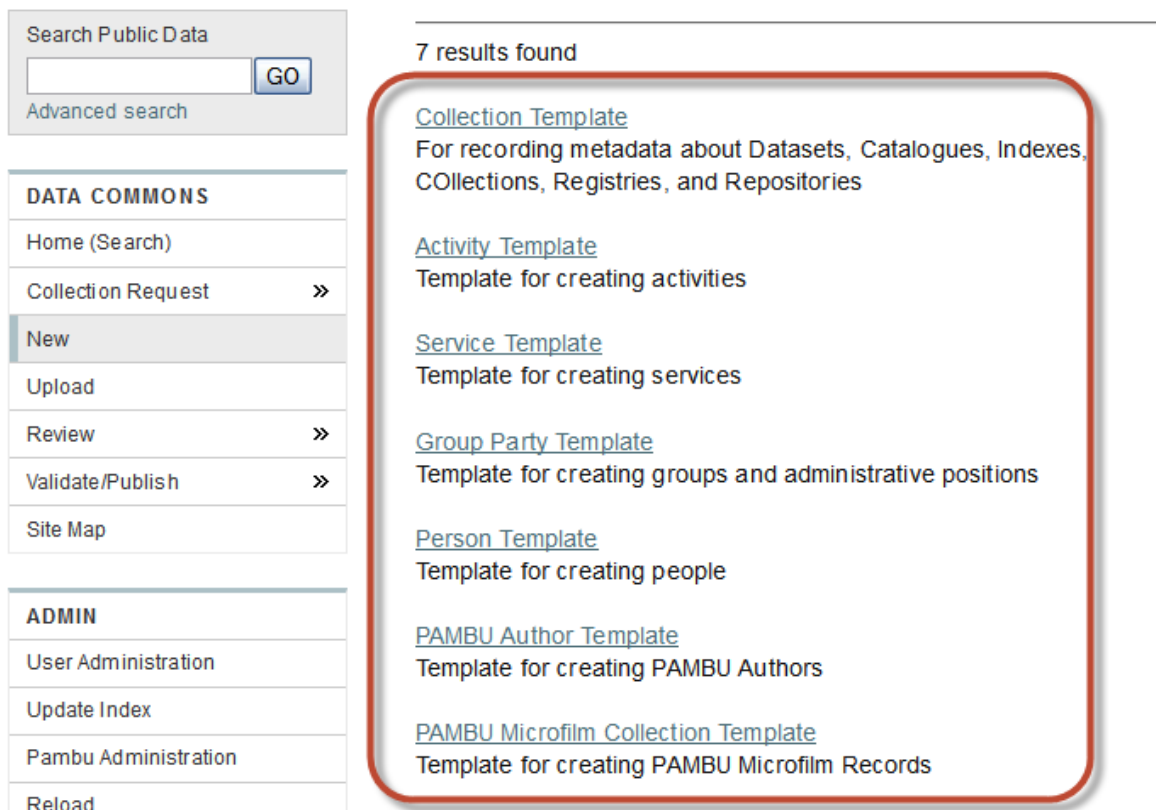
## Records

### Add a New Record

To add a new record into Data Commons, click on the **New** menu item.



Click on the template corresponding to the type of record to be created.



A screenshot of the Data Commons search results page. On the left, there is a search box with the text "Search Public Data" and a "GO" button. Below the search box is a navigation menu with the following items: "DATA COMMONS", "Home (Search)", "Collection Request" with a double arrow, "New" (highlighted), "Upload", "Review" with a double arrow, "Validate/Publish" with a double arrow, and "Site Map". Below the navigation menu is an "ADMIN" section with the following items: "User Administration", "Update Index", "Pambu Administration", and "Reload". On the right, there is a search results section titled "7 results found". The results are listed as follows: "Collection Template" (For recording metadata about Datasets, Catalogues, Indexes, COlections, Registries, and Repositories), "Activity Template" (Template for creating activities), "Service Template" (Template for creating services), "Group Party Template" (Template for creating groups and administrative positions), "Person Template" (Template for creating people), "PAMBU Author Template" (Template for creating PAMBU Authors), and "PAMBU Microfilm Collection Template" (Template for creating PAMBU Microfilm Records). The search results section is enclosed in a red rounded rectangle.

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

The next page lists a form that must be filled out for a record to be created. Some fields will be prefilled, some are mandatory, while the rest are recommended, but optional. The form will be divided into sections. Each section can be accessed by clicking on its relevant tab on top.

## Collection Template

Active Section

A Tab for each Section of the form

- General
- Coverage
- Description
- People
- Subject
- Rights
- Management

Submit

Type  
Collection

**Title\***  
This is the title of the data collection. It needs to be unique, i.e. do not use that is related to and/or underpinned by the data.  
Titles that are descriptive of the actual data are best. Try to include key distinctive characteristics that would provide information for potential users to determine if the data might be useful to them. These may include information specific to the entities studied, survey data, observations, images collected, location, time, and temporal or spatial coverage.  
Examples:  
Net levels of greenhouse gas emission and sources in the New South Wales Hunter Valley, 1990 - 1998.

**Brief Title**  
Please include a brief title if your title is very long

**Alternate Title**  
If there is an alternative title for your data collection, please include it here.

**Collection Type\***  
Catalogue or Index - a collection of descriptions describing the content of one or more collective works at the item level.  
Collection - compiled content created as separate and independent works and assembled into a collective whole  
Registry - a collection of registry objects compiled to support the business of a given community  
Repository - a collection of physical or digital objects compiled for information and documentation purposes and/or for storage and safekeeping  
Dataset - a collection of physical or digital objects generated by research activities.  
 Dataset  
 Catalogue or Index  
 Collection  
 Registry  
 Repository

**Access Privileges\***  
Please choose the access privilege group for the collection  
- No Value Selected -

**DOI - Digital Object Identifier**  
The Digital Object Identifier for this record. Please note that if this does not already exist a DOI will be created when the record is published

**Website Address**  
Websites at which the collections data is held

**Metadata Language**  
Please select the language that you are using to describe this data  
- No Value Selected -

**Data Language**  
Please select the language the data is in  
- No Value Selected -

This area gets updated with the fields in the active section of the form.

responsible Officer: Doug Moncur / Page Contact: Doug Moncur

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*Note: It is highly recommended that all relevant fields be filled out to describe the record as verbosely and accurately as possible. Providing more details about a record makes it easier to find.*

Once the form has been filled out, click on the Submit button in the top right of the window, which will create the record with the specified data and take you to that record's page that looks like the following:

**Record Title**

**Publish Status and Record Identifier**

**Status:** Unpublished  
**Identifier:** test:77

<b>Type</b>	Collection
<b>Title</b>	Some New Collection
<b>Brief Title</b>	Some Brief Title
<b>Alternate Title</b>	Some Alternate Title
<b>Collection Type</b>	Collection
<b>Group Affiliation</b>	administrators
<b>Metadata Language</b>	English
<b>Data Language</b>	English
<b>Significance Statement</b>	Some sig statement
<b>Brief Description</b>	some brief desc
<b>Full Description</b>	some full desc
<b>Contact Email</b>	abc@xyz.com xyz@abc.com
<b>Contact Address</b>	Some contact address
<b>Contact Phone Number</b>	123456789 987654321
<b>Contact Fax Number</b>	321654987 789456123
<b>Website Address</b>	http://webaddress.anu.edu.au http://web2.anu.edu.au

**Record Field Values**

**Actions that can be performed on this record.**

- Request Collection Files
- Get Report
- Edit Metadata
- Edit Whole Metadata
- Upload Files
- Set Request Questions
- Mint DOI
- Validation Check
- Ready for Review
- Link to Item
- Edit Item Links

**Note:** Any link can be opened in a new tab by holding the Control key down while clicking on the link. To open a link in a new window hold down the Shift key while clicking on the link.

### Edit a Single Field

To edit the value of a single field, click on the Edit Metadata button.



**Status:** Unpublished  
**Identifier:** test:77

Request Collection Files

Get Report

Edit Metadata

Edit Whole Metadata

Upload Files

Then from the Edit Fields dropdown select the field whose value is to be changed, select or enter the new value in the area below it, then click the **Submit** button.

Some New Collection

Type	Collection
Title	Some New Collection
Brief Title	Some Brief Title
Alternate Title	Some Alternate Title
Collection Type	Collection
Group Affiliation	administrators
Metadata Language	English
Data Language	English
Significance Statement	Some sig statement
Brief Description	some brief desc

**Old field value**

**1. Select field to edit from dropdown**

**2. Enter new value**

**3. Click Submit**

**Status:** Unpublished  
**Identifier:** test:77

Edit Fields:

Brief Title

Brief Title ⓘ

New Brief Title

Submit Delete

Cancel Edit

Link to Item

Edit Item Links

### Edit Multiple Fields

If you want to update multiple fields in a record, editing individual fields as explained in section Edit a Single Field, can be quite cumbersome. To edit multiple fields at one time, click on **Edit Whole Metadata** button on the record's page. This will open the record's form just as when the record was being entered for the first time as explained in section Add a New Record.

<b>Alternate Title</b>	Some Alternate Title	<a href="#">Get Report</a>
<b>Collection Type</b>	Collection	<a href="#">Edit Metadata</a>
<b>Group Affiliation</b>	administrators	<a href="#">Edit Whole Metadata</a>
<b>Metadata Language</b>	English	<a href="#">Upload Files</a>
<b>Data Language</b>	English	<a href="#">Set Request Questions</a>
<b>Significance</b>	Some sig statement	

Make the changes to one or more fields as required, then click Submit button in the top right corner.

### Linking Records

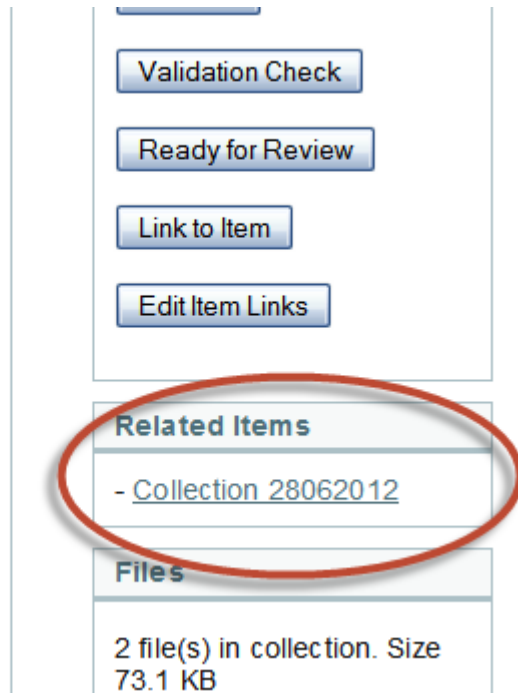
A relationship can be established between two records that have something in common. The commonality is described by the relationship itself. For example, a collection may belong to a research project that is managed by a researcher. Linking such records with each other enables discovery of all related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

To link a record with another record, click on the **Link to Item** button on the record's page.

That pops up a dialog similar to the one below:



Click on the type of the target record – Activity, Collection, Party or Service. Then select the link type that describes the relationship between the **current record** and the **target record**. The available options depend on the type of current record and the target record. Then enter a few search terms to search for the target record. Once a list of search results appear, select one of them as the target record. That automatically populates the Item ID and Item Name fields. Click the **Submit** button to save. Once saved, all linked records show up on the record page as follows.



You can 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 links 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 make changes to a link click on the edit icon as shown above 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 delete icon beside the link to be deleted as shown above.

## Data Files

### Upload files to Collection

The system allows you to upload files to records of the type Collections. This allows storage and preservation of digital objects that a collection comprises of. Data can be either stored in the system itself or a reference can be stored in the form of a URL that resolves to the location of the data.

To upload one or more file to a collection, click on the Upload Files button on the record's page.

<b>Group Affiliation</b>	administrators	<input type="button" value="Edit Whole Metadata"/>
<b>Metadata Language</b>	English	<input type="button" value="Upload Files"/>
<b>Data Language</b>	English	<input type="button" value="Set Request Questions"/>
<b>Significance</b>	Some sig statement	

On the following page, enter one or more URLs to external references, if any. For each additional external reference, click on the Add URL button to add a new row to enter an external URL. Leave the textbox blank, no external references are to be added. Then click on the browse button to select files and directories to upload.

*Note: The upload page uses JUpload Java Applet to upload files to the server. The web browser must be configured to run Java Applets. In most cases, simply installing the latest version of the Java Runtime Environment from <http://www.oracle.com/technetwork/java/javase/downloads/index.html> should suffice as the Java installer automatically installs the necessary plugins in web browsers installed on the system. In other cases, refer to your web browser's user guide to get the plugin to work with the browser. Some browsers actively prevent you from using an older version of Java. If that's the case, download and install the latest version of Java to re-enable the plugin.*

**Upload**

Fedora Object

**URL References**

**Select one or more files and/or directories to be uploaded.**

**Click Open**

JUpload applet 5.0.7 [build 1583] - 14/10/2011

Then click on Upload.

## Upload

**Fedora Object**

Item \* test77

**URL References**

URL

URL

Click here if there are only external references without any files

Name	Size	Directory	Modified
2M.txt	2.00 MiB	C:\Path\Temp\UploadTest	2012-02-13 01:55 PM
ANU Lecturer.png	5.69 KiB	C:\Path\Temp\UploadTest	2012-07-25 12:00 PM
Baglt Specification.pdf	62.16 KiB	C:\Path\Temp\UploadTest	2012-05-10 05:10 PM

Click Upload

0%

JUpload applet 5.0.7 [build 1583] - 14/10/2011

If there aren't any files to upload but only external references, then click on the button **Submit URL References only**.

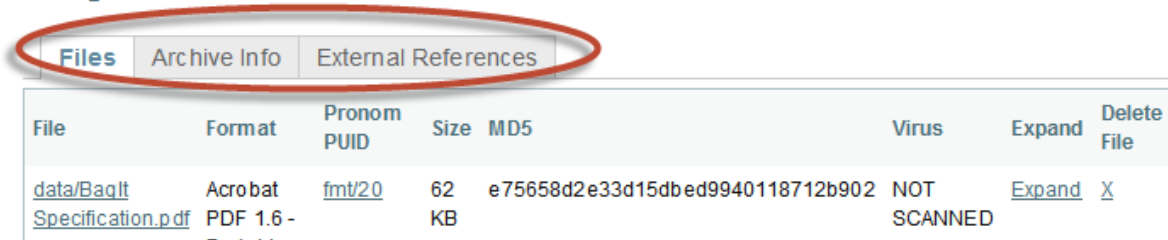
*This process only adds files to a collection. Existing files in a collection remain untouched unless one or more files have the same name as the files already uploaded. If newly uploaded file has the same name as an existing file in a collection, the existing file is archived and replaced with the uploaded file.*

During the upload process, the progress bar at the bottom continually updates to show upload progress. Once the upload has finished, the Bag Files pages opens that lists the files and external references that have been uploaded. The bag page that that time only lists the files that have been

uploaded. Additional information such as MD5 checksum, virus scan and metadata extraction happens as a separate process in the background and may take a while before their results appear on the Bag Files page.

Information about the files uploaded to a collection is categorized into sections that can be accessed by clicking on the relevant tab.

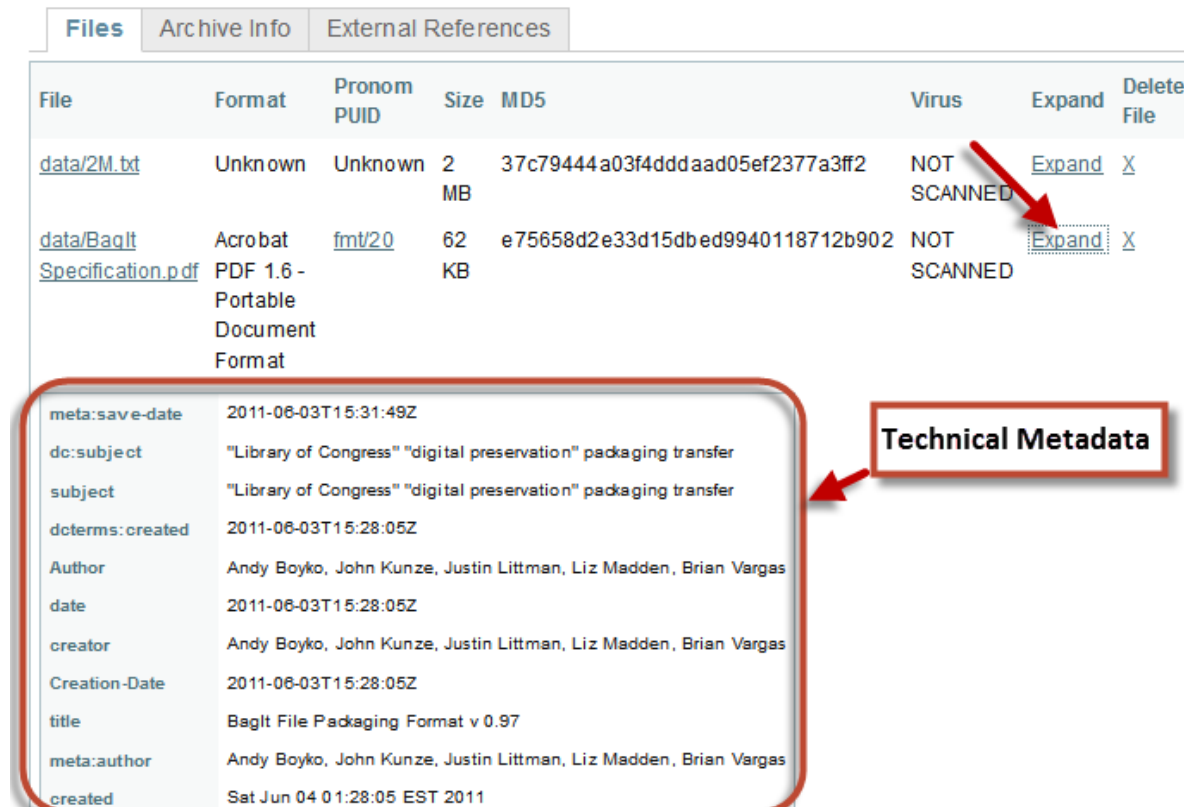
## Bag Files



File	Format	Pronom PUID	Size	MD5	Virus	Expand	Delete File
<a href="#">data/BagIt Specification.pdf</a>	Acrobat PDF 1.6 - Portable Document Format	<a href="#">fmt/20</a>	62 KB	e75658d2e33d15dbed9940118712b902	NOT SCANNED	<a href="#">Expand</a>	<a href="#">X</a>

The **Files** tab lists information about each file stored in the system against the record. A file's name, format, Pronom Format ID, size, MD5 checksum, Virus Status and technical metadata can be viewed on this page.

Technical Metadata of a file is hidden by default. To view this information about a file, click on **Expand** for the file whose information you'd like to view.



File	Format	Pronom PUID	Size	MD5	Virus	Expand	Delete File
<a href="#">data/2M.txt</a>	Unknown	Unknown	2 MB	37c79444a03f4ddd05ef2377a3ff2	NOT SCANNED	<a href="#">Expand</a>	<a href="#">X</a>
<a href="#">data/BagIt Specification.pdf</a>	Acrobat PDF 1.6 - Portable Document Format	<a href="#">fmt/20</a>	62 KB	e75658d2e33d15dbed9940118712b902	NOT SCANNED	<a href="#">Expand</a>	<a href="#">X</a>

meta:sav e-date 2011-06-03T15:31:49Z

dc:subject "Library of Congress" "digital preservation" packaging transfer

subject "Library of Congress" "digital preservation" packaging transfer

dcterms:created 2011-06-03T15:28:05Z

Author Andy Boyko, John Kunze, Justin Littman, Liz Madden, Brian Vargas

date 2011-06-03T15:28:05Z

creator Andy Boyko, John Kunze, Justin Littman, Liz Madden, Brian Vargas

Creation-Date 2011-06-03T15:28:05Z

title BagIt File Packaging Format v 0.97

meta:author Andy Boyko, John Kunze, Justin Littman, Liz Madden, Brian Vargas

created Sat Jun 04 01:28:05 EST 2011

*The system's ability to recognise a file format depends on that 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.

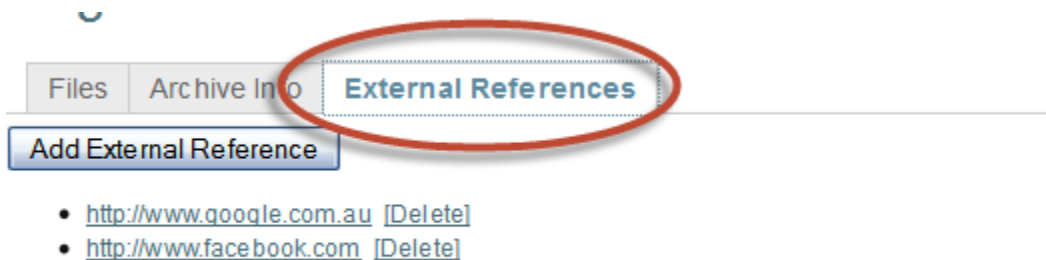
### Deleting files from a Collection

To delete a previously uploaded file in a collection, navigate to its Bag Files page. Then click on the **X** link against the file to be deleted. Click OK in the confirmation dialog box. Once the file's deleted, the page reloads displaying the files that remain in the collection. These steps can be repeated for each additional file to be deleted.

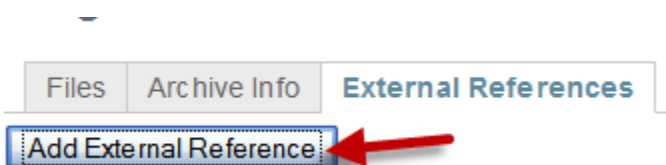
File	Format	Pronom PUID	Size	MD5	Virus	Expand	Delete File
<a href="#">data/2M.bt</a>	Unknown	Unknown	2 MB	37c79444a03f4ddd aad05ef2377a3ff2	NOT SCANNED	<a href="#">Expand</a>	<a href="#">X</a>

### Managing External References

In addition to being able to store files that belong to a collection, the system provides the means to refer to files stored outside the system. This reference is in the form of a URL that points to a network location of said file. External references can be viewed by clicking on the External References tab on the Bag Files page.



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 **[Delete]** link 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.

Files Archive Info External References

Add External Reference

- <http://www.google.com.au> [Delete]
- <http://www.facebook.com> [Delete]

### Downloading Files from a Collection

Files uploaded to a collection can be downloaded individually or as a single ZIP file containing all files belonging to a collection.

To download individual files, open the Bag Files page and click on the link of the filename to be downloaded.

<a href="#">Lecturer.png</a>	Network Graphics	
<a href="#">data/BaqIt Specification.pdf</a>	Acrobat PDF 1.6 - Portable Document Format	<a href="#">fmt/</a>

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 all files in a collection as a single ZIP file, click on the **Download all as Zip** link at the bottom of the table that lists all files in the collection.

<a href="#">data/BaqIt Specification.pdf</a>	Acrobat PDF 1.6 - Portable Document Format	<a href="#">fmt/20</a>	62 KB	e75658d2e33d15dbed9940118712b902
<a href="#">Download all as Zip</a>				

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.