ARCHER 1.0

ARCHER Toolset

End User Guide

- XDMS
- ARCHER Collaborative Workspace
- Hermes

What is the ARCHER Data Tool Set?

In this topic:
Introduction
Description
The individual tools

Introduction

ARCHER is an initiative:

- to develop software tools for the research community, and
- funded by the Australian Department of Innovation, Industry, Science and Research (DIISR) via an SII Grant.

Description

The software tools developed by ARCHER operate in a secure environment, and assist researchers to:

- collect, capture and retain large data sets from a range of different sources including scientific instruments
- populate eResearch data repositories with associated metadata
- permit data set annotation and discussion in a collaborative environment, and
- support next-generation methods for research publication, dissemination and access.

The individual tools

The ARCHER Data Services tool set is made up of:

Software Tool	What it Does

DIMSIM	Captures and monitors data. Passes data from instruments to the research repository or SRB (Storage Resource Broker).
	Note: A Storage Resource Broker(SRB):
	   – is a uniform interface for dissimilar data storage resources over a network.
	   – allows distributed storage and monitoring of large files.

Hermes	Transfers data from a desktop to the SRB.
XDMS	Manages project data and meta data to a Storage Resource Broker(SRB). A web-based dataset management tool used to
MDE	Allows editing of Metadata.
Archer Collaborative Workspace	Allows document publishing and collaboration. Built with Plone it consists of the ARCHER SRB content and Plone.

Next Topic – How the ARCHER Tool Set is Established and Operated

Back to Table of Contents

How the ARCHER Tool Set is Established and Operated

In this topic:

Roles

The roles of people establishing and using the ARCHER Tool Set would usually be:

- Systems Administrator
- Research Department Head
- Project Administrator
- Team Member, and
- External Research Collaborator

Establishment

These 2 stages describe how to establish ARCHER for use by researchers.

Stage	Description	What Happens
1	Establishing the platform	The **Systems Administrator** sets up and manages the: • configuration, and • XDMS Super Admin access.
2	Establishing the project	The **Research Head (Super Admin)** sets up for each project the: • definition including types of permitted: – experiment(s) – sample(s) – dataset(s), and – metadata schema. • administrator group, and • team group. **Note:** Access to the research repository is by membership of a project. The Research Head may change the Project Admin and Team group(s) for a specific project.

Operation

There are 8 stages in the operation of ARCHER.

Stage	Description	What Happens
1	Maintaining the project	The **Project Administrator** sets up the project structure and: • creates project folder(s) • creates experiment(s) • creates sample(s) • creates datasets and deposits data • edits metadata within an experiment, and • moves data and datasets within a project. **Note:** Only the **Research Head (Super Admin)** can delete experiment(s), sample(s), or dataset(s).

Stage	Description	What Happens
2	Managing Instruments and Collecting Data	The **system**: • monitors the experiment, and • collects instrument data.
3	Transferring and managing project data	The **Project Team Member** (or Administrator): • accesses the project • creates datasets, transfers data, and • edits metadata for individual files.
4	Managing Desk Top Data	The **Project Team Member** (or Administrator): • downloads • analyses, and • uploads data.
5	Collaborating	The **Project Team Member** (or Administrator): • accesses experimental data • manages personal content, and • publishes data sets for collaboration. The **External Collaborator** accesses specified datasets with read permission only.
6	Creating and Managing Metadata	The **Project Team Member** (or Administrator): • enters metadata, and • manages metadata.

Next Topic – How Information is Organised In XDMS

Previous Topic – What is the ARCHER Data Tool Set?

ARCHER Tool Set Table of Contents
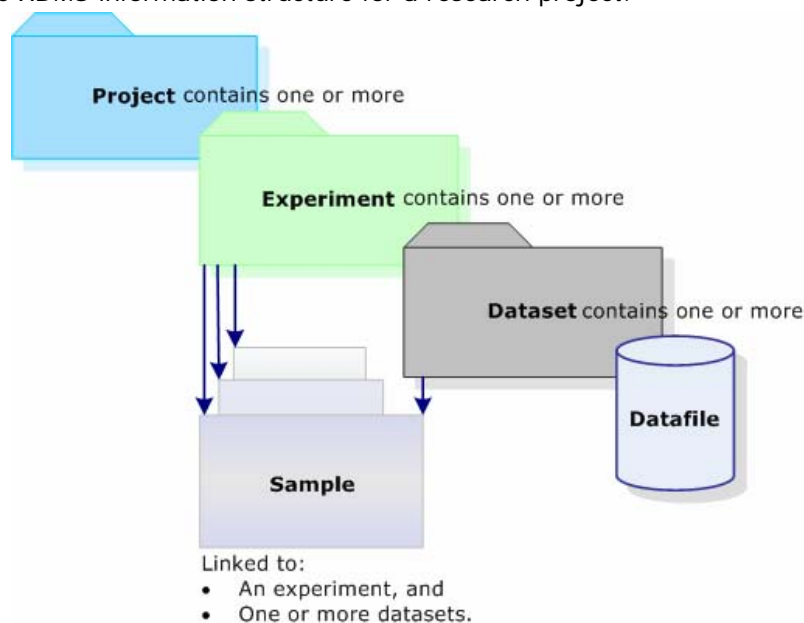
How Information is Organised in XDMS

In this topic:

Introduction

XDMS is the web based interface for managing the datasets that describe the outputs of a research project

Information structure

This is the XDMS information structure for a research project.

How the information structure works

- A Project has a Manager and may contain many Experiments.
- An Experiment may be linked to many Samples and may have one or more Datasets.
- A Dataset may be linked to either one Sample or none. The linked Sample must be associated with the Experiment to which the Dataset belongs.
- A Dataset may contain many data files but not another Dataset. Dataset types may be configured.

Source of the data structure

The information structure for XDMS is derived from the CCLRC metadata model.
See: CCLRC Scientific Metadata Model: version 2

Specific XDMS Terms

- Project corresponds to Study in the CCLRC's, and
- Experiment corresponds to Investigation the CCLRC.

Definitions

Term	ARCHER Meaning
Project	A group of activities to explore some area of science. Typically funded as a single item.
Experiment	A group of activities to resolve a single research question. Generally they: • test a particular hypothesis, or • gather information about a particular phenomenon.
Dataset	A collection of datafiles relating to an experiment. Datasets come in different types, depending on the kind of information they contain. XDMS recognises the following dataset types: • Data collection • Processing results • Solution results • Published results • Other
Data Collection datasets	Datasets that contain observations of the world typically generated by scientific instruments. All files needed to make sense of the observation are included in the dataset. Examples include: • image files • sensor outputs, and • sensor logs.
Processing datasets	Datasets that contain the files generated when other datasets are transformed or filtered. Typically this is the result of running software over a dataset. Processing datasets are intermediate results of working with the primary data (Data Collection datasets). They can also be generated from other Processing datasets.
Solution datasets	Datasets that contain the final stage of data processing, which answer the research question for the experiment.
Publication datasets	Datasets that connect the experiment to the version of the data as published in the scientific literature.
Sample	The subject matter of a dataset. In astronomy, it would be a star; in biology, a specimen; in crystallography, a particular crystal. The sample does not involve datafiles, and is not stored on the research repository. It is a description, used to make sense of where the data came from.

Next Topic – How to Login to XDMS

Previous Topic – <u>How ARCHER is Established and Operated</u>

Back to the ARCHER Tool Set <u>Table of Contents</u>

How to Login to XDMS

In this topic:
When to use
Before you begin
What you will see
Fields and functions
Logging in
What happens next

When to use

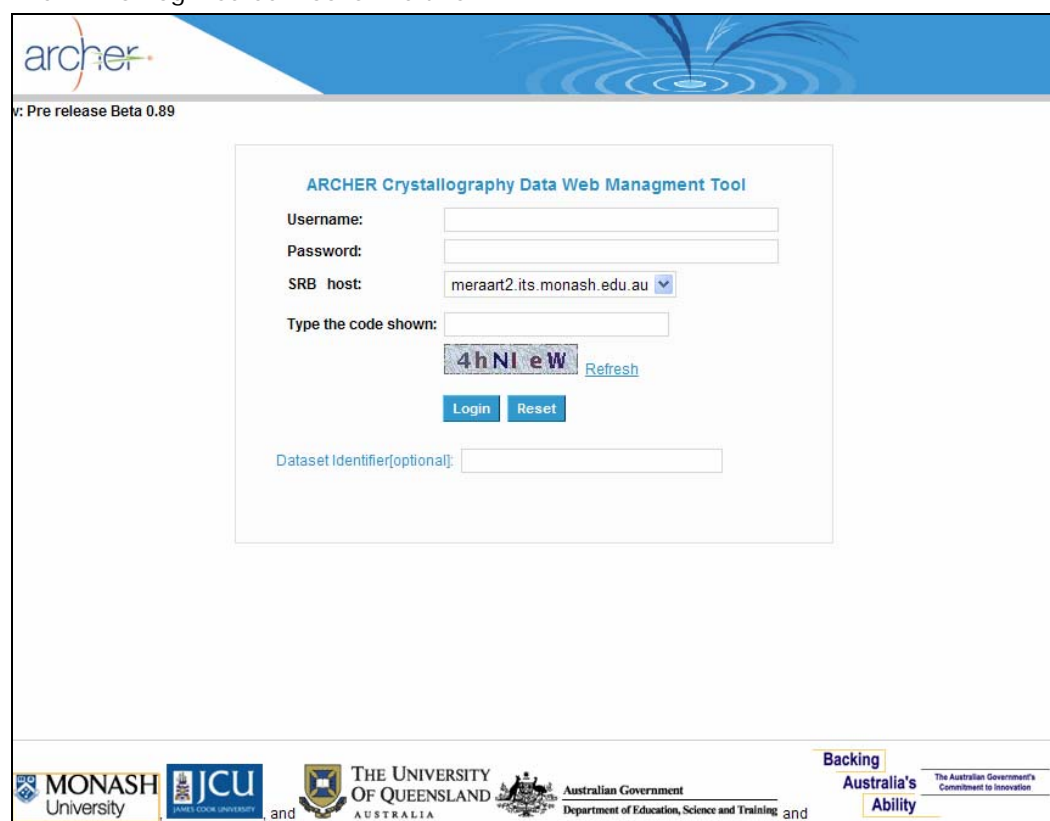You will use this procedure when you wish to log on to XDMS to review, maintain, or transfer project data.

Before you begin

Ensure you have the correct level of access for what you want to do.

See: How ARCHER is Established and Operated

What you will see

The XDMS Login screen looks like this.

Fields and functions

These are the fields and functions of the XDMS Login screen.

Field	Function
Username	Your identifier given to you by your Research Head/Project Administrator.
Password	Your password, given to you by your Research Head/Project Administrator.
SRB Host	Displays the address of your research database.
Security Code	Enter the letters and numbers shown. Not case-sensitive.
Dataset Identifier [optional]:	Allows input of a unique identifier for a dataset so that when you log on you go directly to that dataset. **Example:** 102.100.archer/6MWZ7Y4RH

Logging in

Follow these steps to log in.

Step	Action
1	• Type in your Username, and • press [Tab]. **Result:** The cursor moves to Password.
2	Type in your Password.
3	Type in the Security Code.
4	Do you want to enter a Dataset Identifier to open a specific dataset? • If **yes**, then press [Tab] until the cursor is in Dataset Identifier [optional], and type in the Dataset Identifier. Go to Step 4. • If **no**, then go to Step 4.
5	Click on **Login**. **Result:** You are logged in to XMDS, and depending on how you logged in, to either the: • specific dataset, or • common project area.

What happens next

Once you are logged in you may go on to:

- Create:
  - a project
  - an experiment
  - a dataset, and/or
  - sample.
- Edit metadata for a Sample
- Edit metadata for a Dataset
- Transfer data
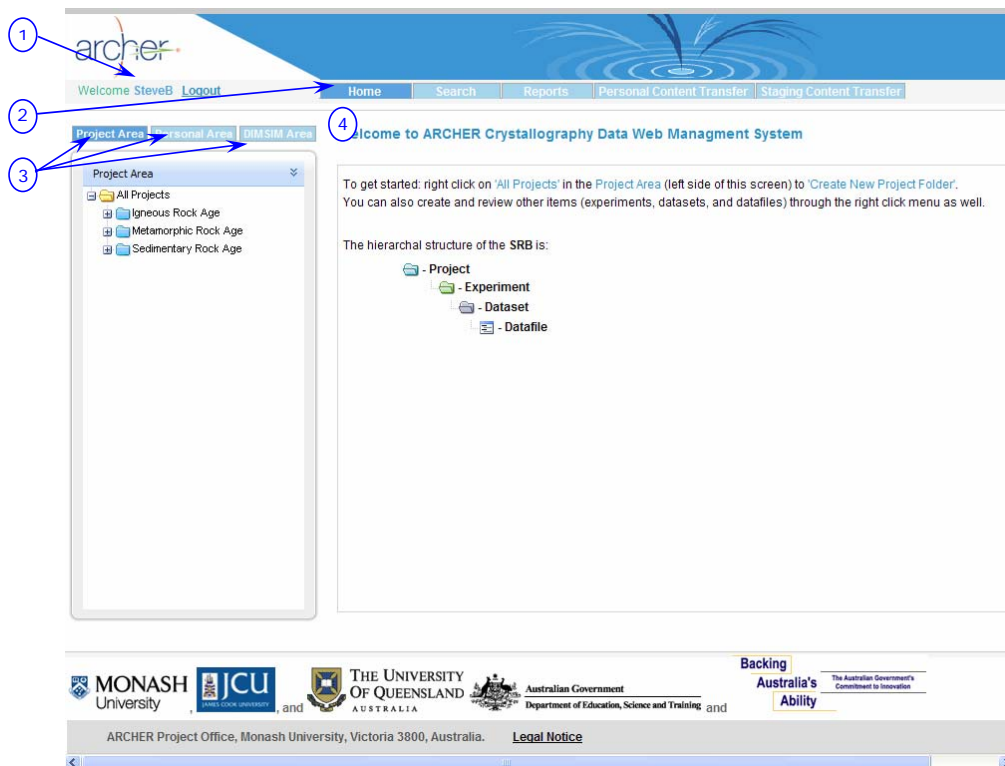- Publish data

About the XDMS Main Screen

In this topic:
What you will see
Fields and functions

What you will see

The first screen of XDMS looks like this.

Fields and functions

These are the fields and their functions on the first screen of XDMS.

No	Field	Function
1	ID and logout	Displays the : • ID of the person logged in, and • prompt for Logout – click on to log out.
2	Function buttons	The function buttons are: <table><tr><th>Button</th><th>Function</th></tr><tr><td>Home</td><td>Returns/displays the XDMS first page.</td></tr><tr><td>Search</td><td>Allows search by: • project and status • experiment: name/type/number/</td></tr></table>

No	Field	Function	
			investigator name • sample • dataset: name/type, and/or • datafile: name/format/ date last modified
		Reports	Reports on all datasets associated with a selected experiment including: • name • dataset type • status • identifier • name of associated sample, and • file size of the dataset
		Personal Content Transfer	Transfers data uploaded via Hermes, to a dataset in the Common Project area.
		Staging Content Transfer	Transfers data uploaded via DIMSIM to a dataset in the Common Project area.
3	Data areas	There are three data areas:	

Area	Function
Personal	holds data from your desktop for eventual transfer to the Common Project area.
DIMSIM staging	holds data from an instrument for eventual transfer to the Common Project area.
Common Project	displays your project folders, and on: • right click – tasks for the folder level you have clicked, or • left click - the experiment or dataset folder(s) in the selected folder.

No	Field	Function
4	Current area	Displays the contents of a selected data area.

Next Topic – <u>How to Create a Project Folder in XDMS</u>

Previous Topic – <u>How to Log on to XDMS</u>

Back to the ARCHER Tool Set <u>Table of Contents</u>

How to Create a New Project Folder in XDMS

In this topic:

When to use

Use this procedure whenever you are:

- funded for a new project, and
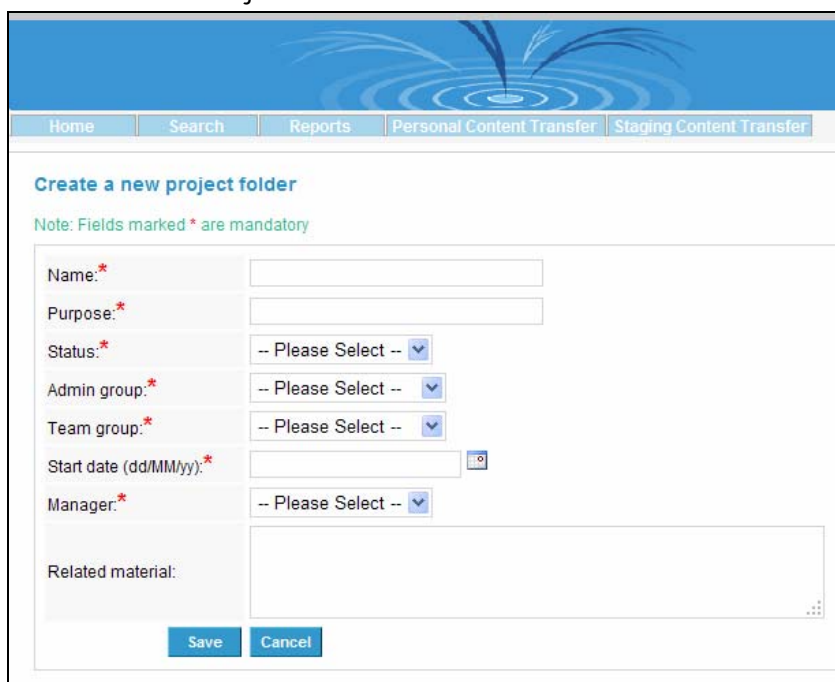- setting up the project in the research repository.

Before you begin

You require Research Head access to create a new project folder. You will need to enter the Project Status, Admin and Team Groups, and Manager so ensure you are familiar with Rules for Project Folder Creation.

Note: The Admin and Team Groups are set up outside XDMS.

What you will see

The Create New Project Folder screen looks like this.
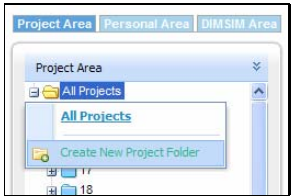
Fields and entries

These are the new project folder fields and what to enter in them.

Project	Entry
name	Alphanumeric, follow your standard naming conventions.
purpose	Free format, use to state the project intention.
status	Defined by your Research Head, select from the list. **Note:** These terms may be changed during initial database setup. **See:** The XDMS Developers Reference. | Use...	For... | |---|---| | New | new projects. | | WIP | work in progress | | Funded | funded projects. | | Complete | completed projects |
admin group	Defined by the Research Head, select from the list. Membership of this group allows users to set up a project structure. **Rule:** Must be different from team group.
team group	Defined by the Research Head, select from the list. Membership of this group allows users to access the project and add data. **Rule:** Must be different from admin group.
start date	Type in or select from the calendar. Can be backdated.
manager	Select the project lead from the drop down list of names.
related material	Alphanumeric, free format. Supporting information for the project. Can include citations.

Creating a new project folder

Follow these steps to create a new project folder.

Step	Action
1	In the Common Project area, **Right** Click on the highest level or first folder. **Result:** The Create New Project Folder prompt displays.
2	Click on Create New Project Folder. **Result:** The Create a New Project Folder screen displays.

Step	Action
3	Enter the Project: • name • purpose • status from the list • admin group from the list • team group from the list • start date • manager from the list, and • related material
4	Is all the project folder information correct? • If **yes**, then click on `Save`. **Result:** The project folder is created. • If **no**, then correct the information and go to Step 5.
5	Are you satisfied that all the information is correct? • If **yes**, then click on `Save`. **Result:** The new project folder is created. • If **no**, and you decide not to create a new project folder, click on `Cancel`. **Result:** The creation of a new project folder is cancelled.

What happens next

After you have created a new project folder any member of the Project Admin Group may go on to create one or more new experiment folder(s).

Next Topic – How to Create a New Experiment Folder in XDMS

Previous Topic – About the XDMS Main Screen

Back to the ARCHER Tool Set Table of Contents

How to Create a New Experiment Folder in XDMS

In this topic:

When to use
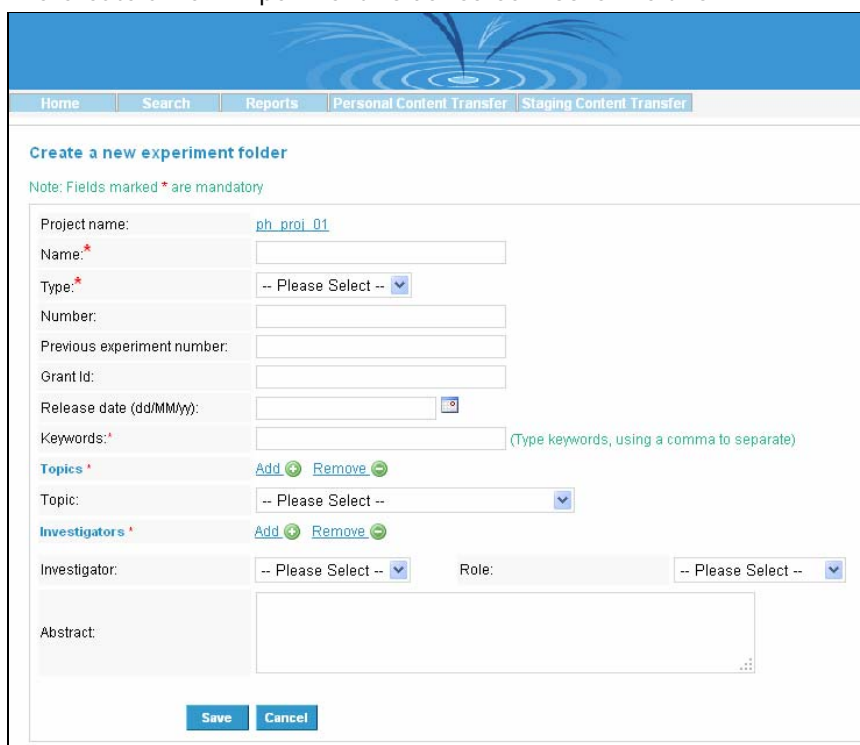
Use this procedure whenever you:

- want to set up a new experiment area under an existing project, or
- you are about to run a new experiment and need somewhere to manage the resulting data.

Before you begin

You require Project Administrator access to create a new experiment folder. Your Research Head will tell you the Experiment type to select.

What you will see

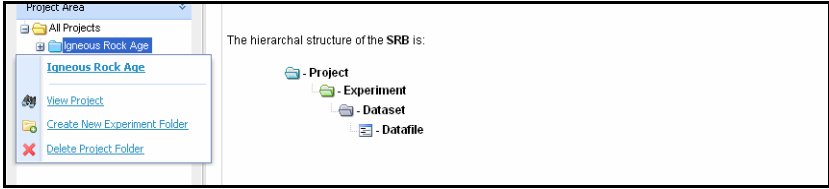The Create a New Experiment Folder screen looks like this.

Fields and entries

These are the new experiment folder fields and what to enter in them.

Field	Entry
Name	Alphanumeric, follow your standard naming conventions.
Type	Defined by your Research Head, select from the list.
Number	Numeric, follow your standard numbering conventions.
Previous experiment number	Numeric, follow your standard numbering conventions. Use this field if an experiment follows on from a previous experiment. **Example:** 02 if this is a experiment following from the original of 01.
Grant ID	If this experiment has received a grant, then the name or id of the grant.
Release date	The release date of the experiment.
Keywords	Comma separated list of keywords, following your conventions.
Topics	One or more topics for the experiment. Click "Add" to add second and subsequent topics. **Note:** To change the list of available topics, ask your system administrator to edit the database.
Investigator	One or more investigators assigned to the experiment. For each, also choose a role. Click "Add" to add second and subsequent investigators. **Note:** To change the list of available investigators, ask your system administrator to edit the database.
Experiment abstract	Up to 4000 characters of free text summary of the experiment.

Creating a new experiment folder

Follow these steps to create a new experiment folder

Step	Action
1	In the Common Project area: • select the project for the new experiment folder, and • **Right** Click. **Result:** The project task prompt displays.

Step	Action
2	Click on "Create New Experiment Folder". **Result:** The create new experiment folder screen displays. **Alternative:** You may click on `Add new experiment folder ▶` on the right hand side of the "View Project" screen.
3	Enter the experiment: • name • type • number • previous experiment number • grant id, and • release date • keywords • topics • investigators • abstract
4	Is all the experiment information correct? • If **yes**, then click on `Save`. **Result:** The experiment folder is created. • If **no**, then correct the information and go to Step 5.
5	Are you satisfied that all the information is correct? • If **yes**, then click on `Save`. **Result:** The experiment folder is created. • If **no**, and you decide not to create a new experiment folder, click on `Cancel`. **Result:** The creation of a new experiment folder is cancelled.

What happens next

After you have created a new experiment folder you may go on to create one or more related:

- sample(s), or
- dataset folder(s).

Next Topic – How to Create a New Sample in XDMS

or

Next Topic – How to Create or Modify a Dataset Folder In XDMS

Previous Topic – How to Create a New Project Folder in XDMS

Back to the ARCHER Tool Set Table of Contents

How to Create a New Sample in XDMS

In this topic:

When to use
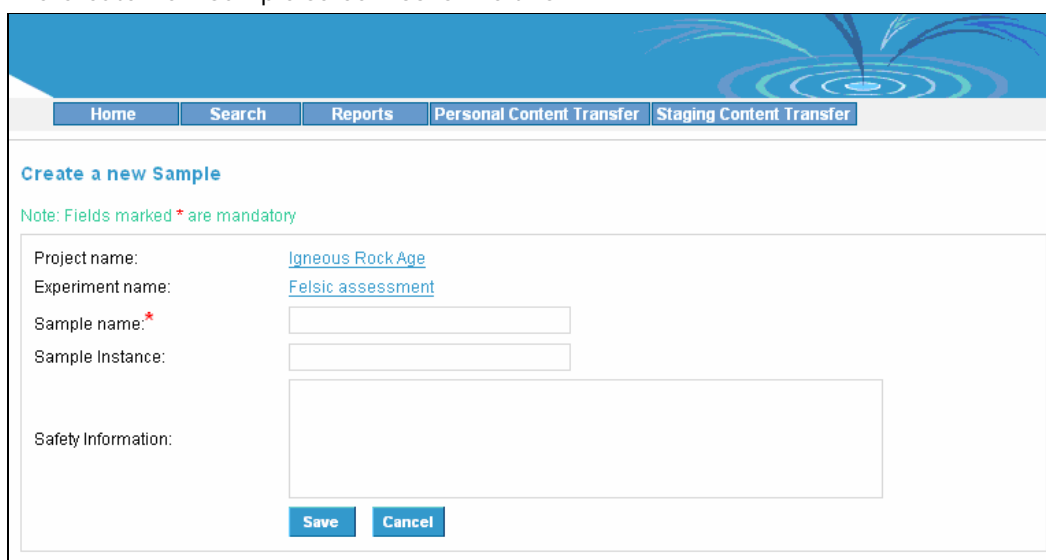
Use this procedure whenever you want to provide descriptions of the sample(s) used in an experiment. A sample must be created before it can be associated to a dataset within an experiment.

Before you begin

You require Project Administrator access to create a new sample.

What you will see

The Create New Sample screen looks like this.
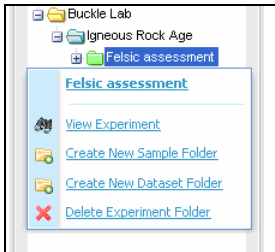
Fields and entries

These are the new sample fields and what to enter in them.

Field	Entry
Sample name	Alphanumeric, follow your standard naming conventions.
Sample instance	Any aspect of this sample instance that you should record. **Use:** When two samples have the same name and more information is required to distinguish them.
Safety information	Warning information for handling and storage.

Creating a New Sample

Follow these steps to create a new sample.

Step	Action
1	In the Common Project area: • select the experiment for the new sample, and • **Right** Click. **Result:**　　The experiment task prompt displays.
2	Click on "Create New Sample". **Alternative:**　You may click on ![Create a new sample] on the right hand side of the "View Experiment" screen. **Result:**　The Create a New Sample Screen displays.
3	Enter the sample: • name • instance information, and • safety information.
4	Is all the sample information correct? • If **yes**, then click on ![Save]. 　**Result:** The sample with basic metadata is created. • If **no**, then correct the information and go to Step 5.
5	Are you satisfied that all the information is correct? • If **yes**, then click on ![Save]. 　**Result:** The sample with basic metadata is created. • If **no**, and you decide not to create a new sample , click on ![Cancel]. 　**Result:** The creation of a new sample is cancelled.

What happens next

After you have created a new sample, you may go on to:

- edit the metadata for the sample, and/or
- create one or more new sample(s) or dataset(s).

Next Topic – How to Create or Modify a Dataset Folder in XDMS

or

How to Edit the Metadata in XDMS

Previous Topic – <u>How to Create a New Experiment Folder in XDMS</u>

Back to the ARCHER Tool Set <u>Table of Contents</u>

How to Create or Modify a Dataset Folder in XDMS

In this topic:

When to use

Use this procedure whenever you need to:

- assign an area for data before it is uploaded, or
- modify an existing dataset.

Not used: If you are moving datasets from the Transfer areas, then the transfer procedure creates the required dataset folder.

Before you begin

You require Project Team membership access to create a new dataset folder.

What you will see

The Create or Modify Dataset folder screen looks like this.

Fields and entries

These are the dataset folder fields and what to enter in them.

Field	Entry
Dataset name	Alphanumeric, follow your standard naming conventions.

Field	Entry	
Dataset type	Select from the list. Standard defaults are:	
	Use...	**For...**
	Data Collection	raw data from an instrument.
	Processing Results	intermediate results from manipulating data.
	Published Results	data in the form it was externally published.
	Solution Results	final results answering the experiment research question.
	Other	data not described by any other category.
Dataset status	Select from the list. Tells how the experiment's research question was addressed. Only for solution or published dataset types.	
	Use...	**For datasets which...**
	Solved	confirm the research hypothesis.
	Failed	disprove the research hypothesis.
	Unsolved	are inconclusive about the research hypothesis.
Associated sample	Select from the drop down list of samples already attached to this experiment in this project.	
Dataset Description	Alphanumeric, free format.	

Creating a new dataset folder

Follow these steps to create a new dataset folder.

Step	Action
1	In the Common Project area: • select the experiment for the new dataset folder, and • **Right** Click. **Result:**　The experiment task prompt displays.
2	Click on "Create New Dataset Folder". **Result:**　The Create a New Dataset Folder screen displays.

Step	Action
3	Enter the dataset: • name • type • status • associated sample, and • description.
4	Is all the dataset information correct? • If **yes**, then click on **Save**. **Result:** The dataset folder is created. • If **no**, then correct the information and go to Step 5.
5	Are you satisfied that all the information is correct? • If **yes**, then click on **Save**. **Result:** The sample folder is created. • If **no**, and you decide not to create a new sample folder, click on **Cancel**. **Result:** The creation of a new sample folder is cancelled.

What happens next

After you have created a new dataset folder you may go on to:

• create one or more new dataset(s) folder(s)
• edit the metadata for the dataset or
• upload data.

Next Topic – How to Edit Metadata in XDMS

Previous Topic – How to Create a New Sample in XDMS

or

How to Create a New Experiment Folder in XDMS

Back to the ARCHER Tool Set Table of Contents

How to Upload Data to XDMS

In this topic:

<complete>

Uploading one Datafile in XDMS
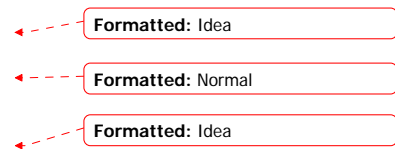
How to Edit Metadata in XDMS

In this topic:
When to use
Example of a Crystal Metadata schema
Fields and entries
What happens next

When to use

Follow this procedure to add to or change metadata.   The metadata you add will depend on the schema set up for your type of project, experiment, sample, or dataset.

Example of a Crystal Sample Metadata schema

The metadata page for a crystal sample looks like this.

Fields and entries

This table describes how to use each of the numbered fields.

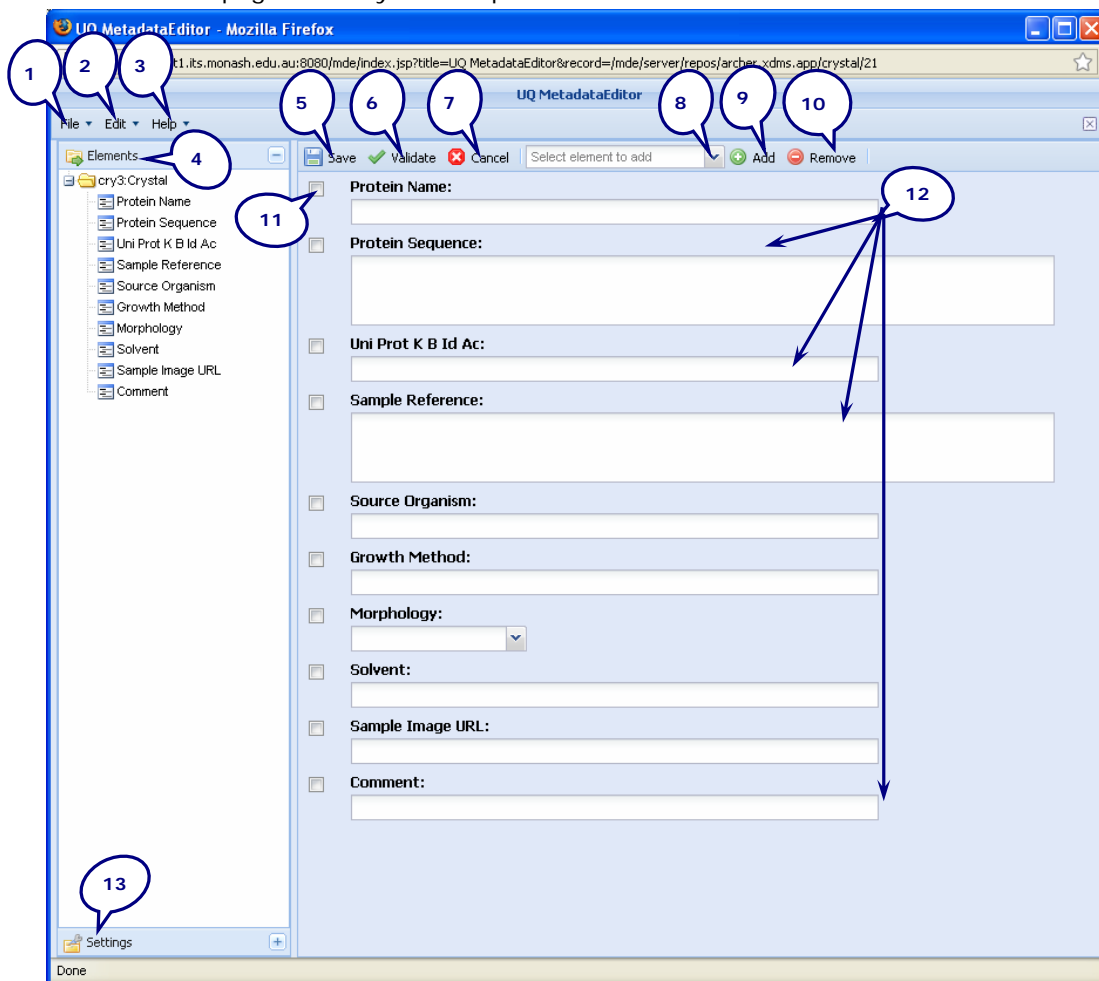| Number	Field	Use
1	File Menu	Select from three functions of: • Save the metadata record • Cancel the metadata record without saving, or • Close and prompt to Save or not Save any values entered.
2	Edit Menu	To validate all entered metadata.
3	Help Menu	Select from three functions of: • Help to open a PDF user document. • Release Notes to open the MDE release notes in a browser window, or • About … to see the current version information.
4	Elements	Displays the element names of all of the elements in the record. Position the mouse pointer over an element to see a more detailed description as hover-text.
5	Save	Save the metadata record.
6	Validate	Validates the values entered to schema and schema rules.
7	Cancel	• Cancels the metadata record, and • prompts to Save or not Save any values entered.
8	Drop Down List	Displays a list of other elements that may be added to the schema for this record.
9	Add	Adds the element selected from the drop down list.
10	Remove	Removes the selected element
11	Check Box	Selects an element for removal.
12	Data Fields	Editable values of the metadata schema.
13	Settings	Records Editor setting which can only be changed if you have access to do so.

What happens next

When you have added a metadata record you may add more records or go on to another type of transaction.

Next Topic – How to Create a New Sample in XDMS

or

Next Topic – How to Create or Modify a Dataset Folder in XDMS

Back to the ARCHER Tool Set Table of Contents

Using the Archer Collaborative Workspace

Introduction

The Archer Collaborative Workspace is Plone. Plone is an open source CMS for:

- Content Management
- Document Management, and
- Knowledge Management.

Plone is built using Zope, an object oriented application server. The language that drives Zope and Plone is Python. It is distributed under the GNU GPL license.

When to use

Use Plone to share information collaboratively and to:

- post documents
- browse the SRB
- upload information
- comment on items
- paste links to items in the SRB
- email documents of interest to others, or
- co-locate documents and make them available to others

How to use Plone

For information about how to use Plone go to http://plone.org/

Back to the ARCHER Tool Set Table of Contents

Using Hermes to Transfer Data

In this topic:

Introduction

Hermes is used to transfer data between network data sources to which you have access. The data is transferred to the research repository personal storage area.

Connecting for the first time

The first time that you connect to a directory for file transfers you will need to Create a new Connection. Select New Connection from the File Menu.

Result: The Create New Connection dialogue box displays.

New connection fields and entries

These are the new connection fields and what to enter in them.

Field	Entry
Protocol	• srb:// (Storage Resource Broker) – most likely use. • gsiftp:// (gridFTP)

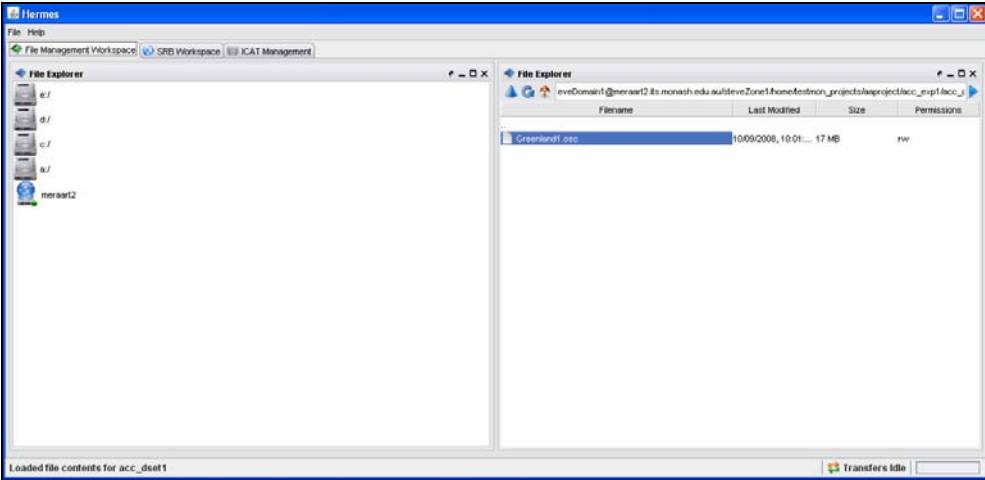| Field	Entry
	• sftp:// (secure file transfer protocol) - unlikely use • ftp:// (file transfer protocol) - unlikely use
Options for srb protocol	
Display Name	A unique name to identify the server in Hermes.
Host	The IP address for the server. **Example:** gftp.university.edu.au.
Port	The network port to connect to the server on. Default 5544.
Zone	Optional. The name of the zone to which this server belongs. See http://www.sdsc.edu/srb/index.php/Zones
Domain	Optional. The name of the SRB domain.
Home	Optional. <name of home directory on SRB?>
Resource	Optional. Which SRB resource is being used. Generally corresponds to the name of a hard disk, a database, etc. If left blank, the default resource of "demoResc" is used.
Options for gsiftp protocol	
Display Name	A name to identify the server in Hermes.
Host	The IP address for the GridFTP server **Example:** gftp.university.edu.au.
Port	The network port to connect to the server on. Default 2811.
User Path	Not used.
Mode	Not used.
sftp/ftp protocol	
Display Name	A name to identify the server in Hermes.
Host	The IP address for the SFTP server. **Example:** gftp.university.edu.au.
Port	The network port to connect to the server on. Default FTP 21 and SFTP 22.
User Path	Not used.
Mode	Not used.

How to transfer data in the File Management workspace

Follow these steps to transfer data.

Step	Action
1	Select the file directory and data file. **Example:** The Hermes workspace tab with a Datafile selected.
2	Drag and drop the selected file to the file directory where you want to transfer the data. **Result:** The file is transferred.

SRB Workspace

Not used or tested extensively in the ARCHER Project.

ICAT Management

Not used or tested extensively in the ARCHER Project.

Back to the ARCHER Tool Set <u>Table of Contents</u>

Error Messages

In this topic:

Errors creating a new project folder

You may see these error messages when creating a new project folder.

Error Message	Reason and Response
You must enter a project name	All projects must have a unique name; type in a name.
You must enter a purpose for the project	All projects must have a unique purpose; type in a purpose.
Project status is required.	All projects must have a unique status; type in a purpose.
Project admin group name is required.	All projects must have an admin group. Either: • select a group from the list, or • ask the Research Head to create a new one.
Project team group name is required.	All projects must have an team group. Either: • select a group from the list, or • ask the Research Head to create a new one.
Project admin and team group cannot be same.	The admin and team groups should be kept distinct even if they have the same members. **Recommendation:** Some users should not be able to change the experimental structure.
Project start date is required.	All projects must have a starting date; select a date from the calendar. Projects can be backdated.
Project manager id is required.	All projects must have a user named as Project Manager responsible for the project
Service unavailable at the moment. Please try again later.	There is a problem with the network connection between XDMS and the resource repository. Please wait.

Errors creating a dataset folder

You may see these error messages when creating a dataset.

Error Message	Reason and Response
Dataset already exists: PPPP/EEEE/DDDD	You have tried to create a duplicate record. A dataset with the same name already exists.

Errors transferring data

You may see these error messages when transferring data.

Error Message/Condition	Reason and Response
Data not transferring	You have used an illegal character in the project folder name. Illegal characters are: • * • ? • () • () • []{} • ! • @ • # • $ • % • ^ • & • = • + • , • < > • / • | • \

Back to the ARCHER Tool Set Table of Contents

Glossary of Terms Used in the Archer Tool Set

In this topic:
Archer Terms
XDMS Terms
Database Terms

Archer Terms

These terms are specific to Archer.

Term	Meaning
Archer	The ARCHER project is to: • analyse e Research data collection, information management needs and requirements, and • build on the DART and ARROW projects' prototype software to provide a set of tools for the collection and manipulation of research data in a collaborative environment.
Hermes	A dataset management tool used to transfer data from a desktop to XDMS.
XDMS	A web-based dataset management tool used to upload Project data to a Storage Resource Broker(SRB). **Note:** A Storage Resource Broker(SRB) is a uniform interface for dissimilar data storage resources over a network.
MDE	Metadata editing tool
DIMSIM	Data capture and monitoring tool that passes data to XDMS.
Hydrant	Web-based Kepler Workflow management tool
XTAL	A document publishing and collaboration tool built with Plone.

XDMS Terms

These terms have a specific meaning in XDMS.

Term	Meaning
Folder	A data file.
Project	A Project folder is the data file for a group of related experiments.
Experiment	An Experiment folder is the data file for a group of related datasets.
Dataset	A Dataset folder is the data file for a group of related measurements.
Sample	A Sample folder is the data file for a sample that will be measured.

Database Terms

These are database terms.

Term	Meaning
Metadata	Metadata is a way of describing or cataloguing information to assist in the finding of that information. **Example:** On an MP3 player, the metadata embedded in the music files is the: • album names • song titles, and • album art This metadata is used to generate the artist and song listings.
Metadata Schema	A metadata schema is the standard tags or labels applied to the data providing a set of consistent elements for searching, finding and reporting data. **Example:** A subset of the Dublin Core metadata schema is: • Title • Creator • Subject • Description • Publisher • Contributor • Date.
CCLRC	The Council for the Central Laboratory of Research Councils has published a metadata schema for scientific data. The CCLRC schema has provided a base for the Archer software tools.
SRB	The Storage Resource Broker provides a uniform interface to heterogeneous data storage resources over a network. It implements a logical namespace and maintains metadata on files, users, groups, resources, collections, and other items in an SRB Metadata Catalogue (MCAT) stored in a relational database management system.
MCAT	Metadata Catalogue
ICAT	• XDMS database, and • the repository for the database.

Back to the ARCHER Tool Set