

Lotus Root

tracking sequencing data

LotusRoot Manual

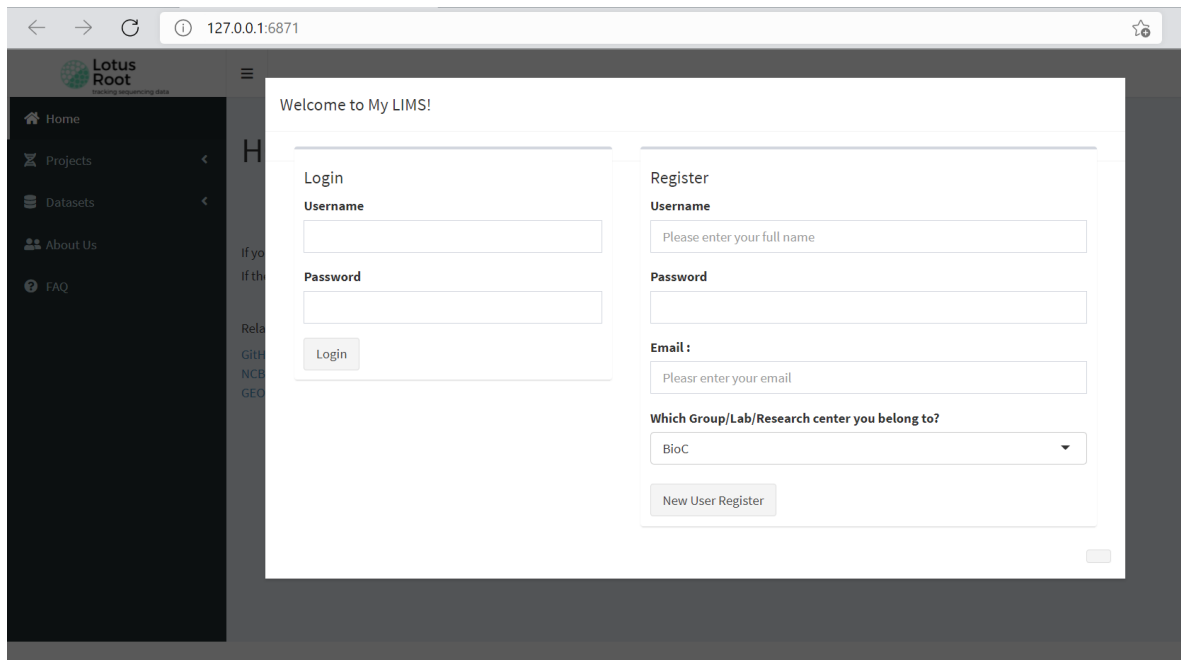
XU Mingyu

LotusRoot Web Address: <http://bifx-core3.bio.ed.ac.uk:3838/LotusRoot/>

Login & Register

New users need to register first.

The right side of this page is the registration page. You need to enter “Username”, “Password”, and “Email” and choose which group/lab/research center you belong to.



The screenshot shows a web browser window with the address bar displaying '127.0.0.1:6871'. The page has a dark sidebar on the left with navigation links: Home, Projects, Datasets, About Us, and FAQ. The main content area is titled 'Welcome to My LIMS!' and contains two forms: 'Login' and 'Register'.

Login Form:

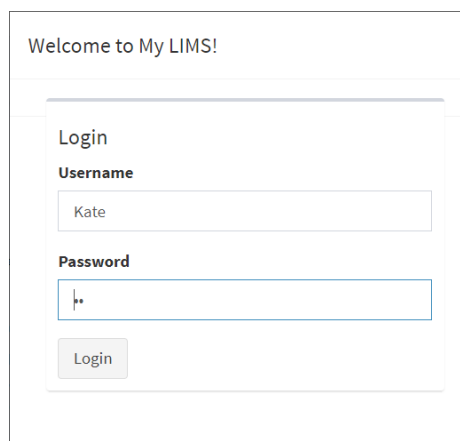
- Username:
- Password:
- Login button

Register Form:

- Username:
- Password:
- Email:
- Which Group/Lab/Research center you belong to? (Dropdown menu with 'BioC' selected)
- New User Register button

On the left side of the page is the login part. Enter correct username and password to login.

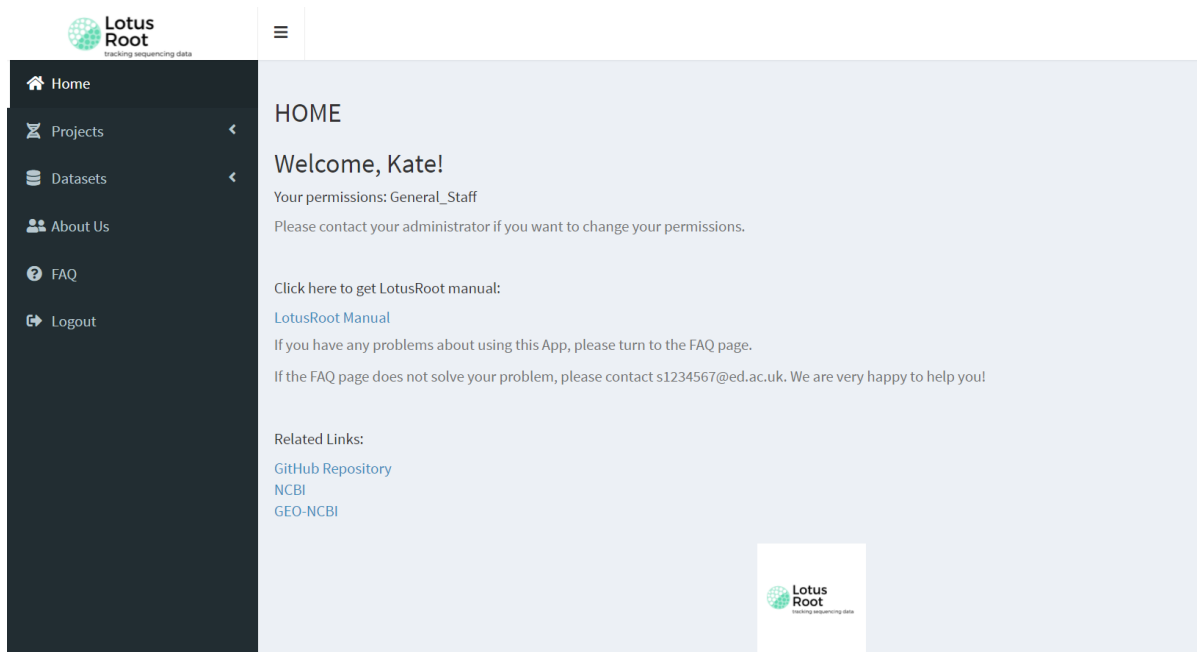
If you forget your password, please contact your administrator to reset it.



This is a close-up of the login form. The title 'Welcome to My LIMS!' is at the top. Below it is a 'Login' section with the following fields:

- Username:
- Password:
- Login button

Home



The screenshot shows the Lotus Root web application interface. On the left is a dark sidebar with navigation links: Home, Projects, Datasets, About Us, FAQ, and Logout. The main content area is titled 'HOME' and welcomes the user 'Kate!'. It displays the user's permissions as 'General_Staff' and provides instructions on how to change permissions by contacting an administrator. There are links to the 'LotusRoot Manual' and the 'FAQ' page. A section for 'Related Links' includes 'GitHub Repository', 'NCBI', and 'GEO-NCBI'. A small Lotus Root logo is visible in the bottom right corner of the main content area.

You can see your permissions at the Home page.

We divided the permissions into four: General_Staff, Project_Supervisor, Data_Administrator, System_Maintenance.

All new users only have minimum permissions (General_Staff). Please contact your administrator if you want to change your permissions.

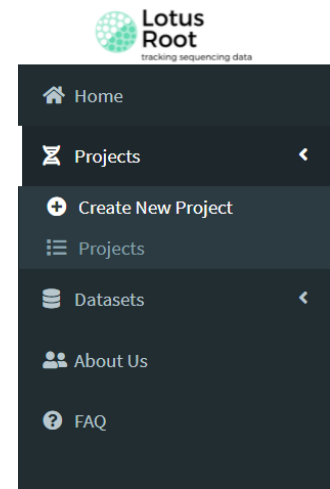
At the bottom of home page, there are some hyperlinks such as GitHub Repository of LotusRoot, NCBI and GEO-NCBI.

Table 1. Permissions introduction

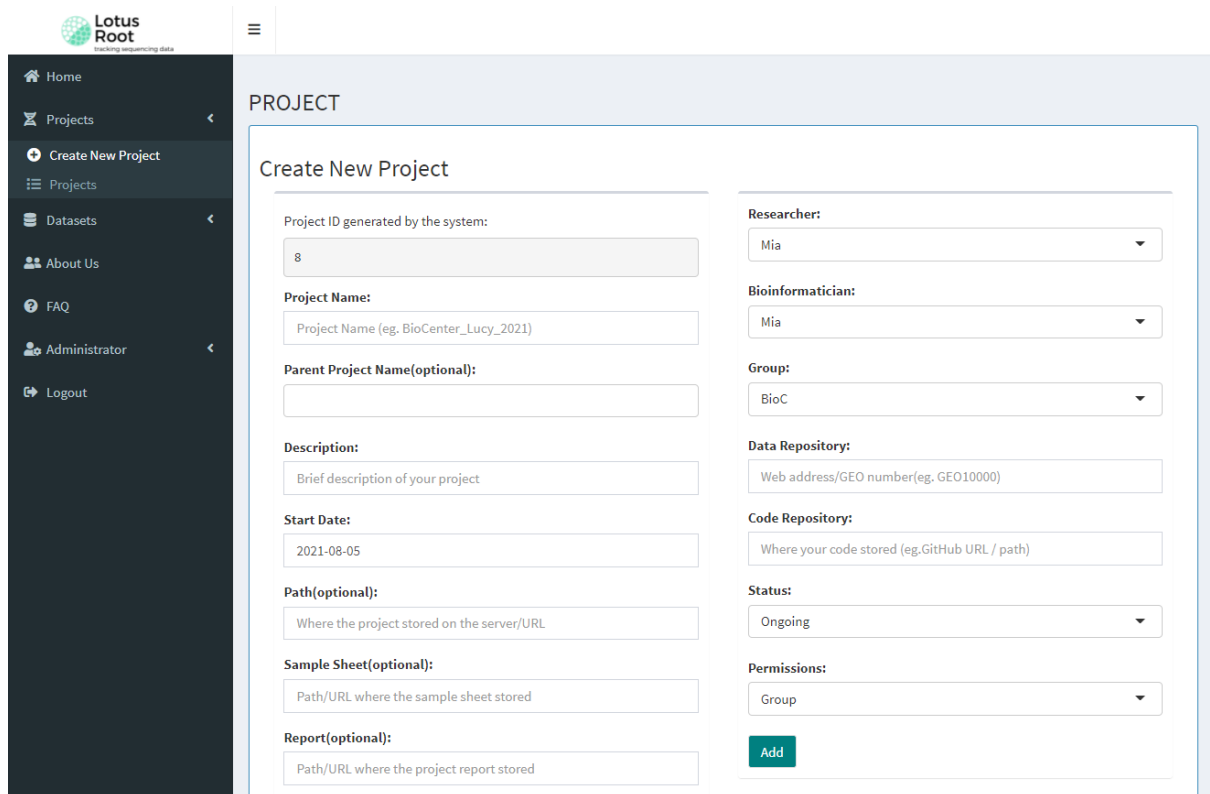
Permissions	General_Staff	Project_Supervisor	Data_Administrator	System_Maintenance
Search	✓	✓	✓	✓
Add/Edit/Delete projects		✓	✓	✓
Add/Edit/Delete datasets		✓	✓	✓
Manage project options		✓	✓	✓
Manage dataset options		✓	✓	✓
Manage User Information				✓

Projects

This part is divided into two parts. One is “Create New Project” and the other is “Projects”. The former is used to add new projects. The latter is used to search for projects and project-related datasets.



Create new project



PROJECT

Create New Project

Project ID generated by the system:

8

Project Name:

Project Name (eg. BioCenter_Lucy_2021)

Parent Project Name(optional):

Description:

Brief description of your project

Start Date:

2021-08-05

Path(optional):

Where the project stored on the server/URL

Sample Sheet(optional):

Path/URL where the sample sheet stored

Report(optional):

Path/URL where the project report stored

Researcher:

Mia

Bioinformatician:

Mia

Group:

BioC

Data Repository:

Web address/GEO number(eg. GEO10000)

Code Repository:

Where your code stored (eg. GitHub URL / path)

Status:

Ongoing

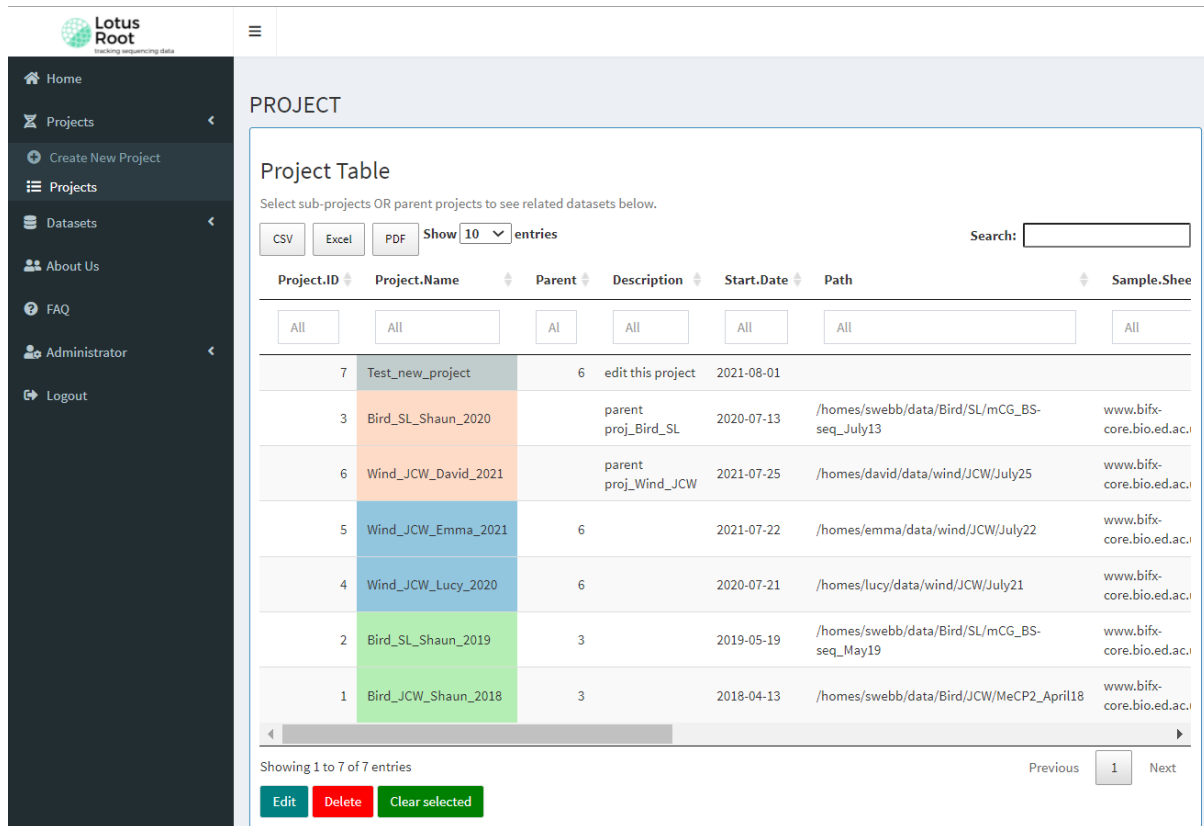
Permissions:

Group

Add

- Project ID is generated by the system automatically.
- You can input other information in input boxes.
- Click the ‘Add’ button when your input is completed. Then you will see the successfully added message.
- Then you can go to “Projects” page to do some search.

Projects



PROJECT

Project Table
Select sub-projects OR parent projects to see related datasets below.

CSV Excel PDF Show 10 entries Search:

Project.ID	Project.Name	Parent	Description	Start.Date	Path	Sample.Sheet
All	All	All	All	All	All	All
7	Test_new_project	6	edit this project	2021-08-01		
3	Bird_SL_Shaun_2020	parent proj_Bird_SL		2020-07-13	/homes/swebb/data/Bird/SL/mCG_BS-seq_July13	www.bifx-core.bio.ed.ac.uk
6	Wind_JCW_David_2021	parent proj_Wind_JCW		2021-07-25	/homes/david/data/wind/JCW/July25	www.bifx-core.bio.ed.ac.uk
5	Wind_JCW_Emma_2021	6		2021-07-22	/homes/emma/data/wind/JCW/July22	www.bifx-core.bio.ed.ac.uk
4	Wind_JCW_Lucy_2020	6		2020-07-21	/homes/lucy/data/wind/JCW/July21	www.bifx-core.bio.ed.ac.uk
2	Bird_SL_Shaun_2019	3		2019-05-19	/homes/swebb/data/Bird/SL/mCG_BS-seq_May19	www.bifx-core.bio.ed.ac.uk
1	Bird_JCW_Shaun_2018	3		2018-04-13	/homes/swebb/data/Bird/JCW/MeCP2_April18	www.bifx-core.bio.ed.ac.uk

Showing 1 to 7 of 7 entries Previous 1 Next

Edit Delete Clear selected

In “Project Table”, all the projects are listed. You can search, **Edit**, **Delete** projects here.

The different colours you see represent the different states of the projects. We set up four states: **Ongoing**, **On Hold**, **Published**, and **Completed**.

If you want to deselect all the selected projects, you can click on “**Clear selected**” button.

There are 3 buttons in the upper left corner. You can export this table as csv, excel, and pdf file.

The number in the column named “Parent” means the ID number of its parent project. For example, the Project ID below is 1. And it has a parent project with the Project ID 3. In other words, Project 1 is a sub-project of Project 3 and Project 3 is the parent-project of Project 1.

Project.ID	Project.Name	Parent	Description	Start.Date	Path
All	All	All	All	All	All
1	Bird_JCW_Shaun_2018	3		13/04/2018	/homes/swebb/data/Bird/

How to search projects

Each column in the table has a search box. There is also a search box in the upper right corner. You can enter keywords to search. Parts that match the keywords will be highlighted.

Here, I searched “jcw” in Project.Name search box. And it listed all the matched projects.

Project Table

CSV

Excel

PDF

Show **10** entries

Project.ID ▲	Project.Name	Parent	Description
All	<input type="text" value="jcw"/>	All	All
1	Bird_JCW_Shaun_2018	3	
4	Wind_JCW_Lucy_2020	6	
5	Wind_JCW_Emma_2021	6	
6	Wind_JCW_David_2021		wind_2020_JCW +2021

Showing 1 to 4 of 4 entries (filtered from 12 total entries)

Edit

Delete

Clear selected

Click the column name can sort the column alphabetically.

How to search related datasets

1. Click one (or more) project in the “Project Table”.
2. “Related Datasets” will display all the datasets that belong to all the parent and sub projects.
“Related Projects” will display the parent project and its sub projects.

Here is an example.

Select Project 3 in the “Project Table”.

Project Table

No SearchPanes

CSV

Excel

PDF

Show **10** entries

Project.ID ▲	Project.Name	Parent	Description	Start.Date	Path
All	All	All	All	All	All
1	Bird_JCW_Shaun_2018	3		13/04/2018	/homes/swebb/data/
2	Bird_SL_Shaun_2019	3		19/05/2019	/homes/swebb/data/seq_May19
3	Bird_SL_Shaun_2020		bird_2020_SL + 2018 +2019	13/07/2020	/homes/swebb/data/seq_July13
4	Wind_JCW_Lucy_2020	6		21/07/2020	/homes/lucy/data/wi

It is a parent project which contains several sub-projects.

So, “Related Datasets” shows all the datasets that belong to all the parent and sub projects.

Related Datasets

Show entries

Search:

Data.ID	Related.ProjectID	Data.Name	Description	Date	Path	Data.Repository	Method
11	1	test_data	please edit this dataset	2021-08-05			ChIP-seq
4	2	mCG_BS_WT2	mCG_BS_WT	2018-05-14	/library/Bird/SL/mCG/B2.fq	GEO:GSM1500	BS-seq
3	2	mCG_BS_WT1	mCG_BS_WT	2018-05-13	/library/Bird/SL/mCF/B1.fq	GEO:GSM1501	BS-seq
2	1	MeCP2_ChIP_2	MeCP2_ChIP	2018-04-13	/library/Bird/JCW/MeCP2/0002.fq.gz	GEO:GSM1300	ChIP-seq
1	1	MeCP2_ChIP_1	MeCP2_ChIP	2018-04-13	/library/Bird/JCW/MeCP2/0001.fq.gz	GEO:GSM1301	ChIP-seq

Showing 1 to 5 of 5 entries

Previous Next

And “Related Projects” displays the parent project itself and its sub projects.

Related Projects

Show entries

Search:

Project.ID	Project.Name	Parent	Description	Start.Date	Path	Sample.Sheet
3	Bird_SL_Shaun_2020		parent proj_Bird_SL	2020-07-13	/homes/swebb/data/Bird/SL/mCG_BS-seq_July13	www.bifx-core.bio.ed.ac.uk
2	Bird_SL_Shaun_2019	3		2019-05-19	/homes/swebb/data/Bird/SL/mCG_BS-seq_May19	www.bifx-core.bio.ed.ac.uk
1	Bird_JCW_Shaun_2018	3		2018-04-13	/homes/swebb/data/Bird/JCW/MeCP2_April18	www.bifx-core.bio.ed.ac.uk

Showing 1 to 3 of 3 entries

Previous Next

Select one sub-project here then you will see the related datasets of this project in the below 'Datasets for One Project' table.

If you select one row in “Related Projects”, you will see the related datasets to this project in the “Datasets per project” table below.

Here, I select the Project 1. And it shows all the datasets related to Project 1 in “Datasets per project” table.



Lotus Root

tracking sequencing data

Related Projects

Show entries

Search:

Project.ID	Project.Name	Parent	Description	Start.Date	Path	Sample.Sheet
3	Bird_SL_Shaun_2020		parent proj_Bird_SL	2020-07-13	/homes/swebb/data/Bird/SL/mCG_BS- seq_July13	www.bifx- core.bio.ed.ac.uk
2	Bird_SL_Shaun_2019	3		2019-05-19	/homes/swebb/data/Bird/SL/mCG_BS- seq_May19	www.bifx- core.bio.ed.ac.uk
1	Bird_JCW_Shaun_2018	3		2018-04-13	/homes/swebb/data/Bird/JCW/MeCP2_April18	www.bifx- core.bio.ed.ac.uk

Showing 1 to 3 of 3 entries

Previous Next

Select one sub-project here then you will see the related datasets of this project in the below 'Datasets for One Project' table.

Datasets per project

Show entries

Search:

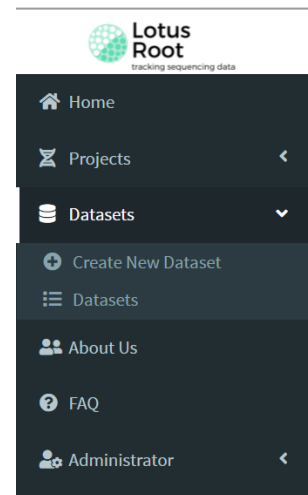
Data.ID	Related.ProjectID	Data.Name	Description	Date	Path	Data.Repository	Method
11	1	test_data	please edit this dataset	2021- 08-05			ChIP-seq
2	1	MeCP2_ChIP_2	MeCP2_ChIP	2018- 04-13	/library/Bird/JCW/MeCP2/0002.fq.gz	GEO:GSM1300	ChIP-seq
1	1	MeCP2_ChIP_1	MeCP2_ChIP	2018- 04-13	/library/Bird/JCW/MeCP2/0001.fq.gz	GEO:GSM1301	ChIP-seq

Showing 1 to 3 of 3 entries

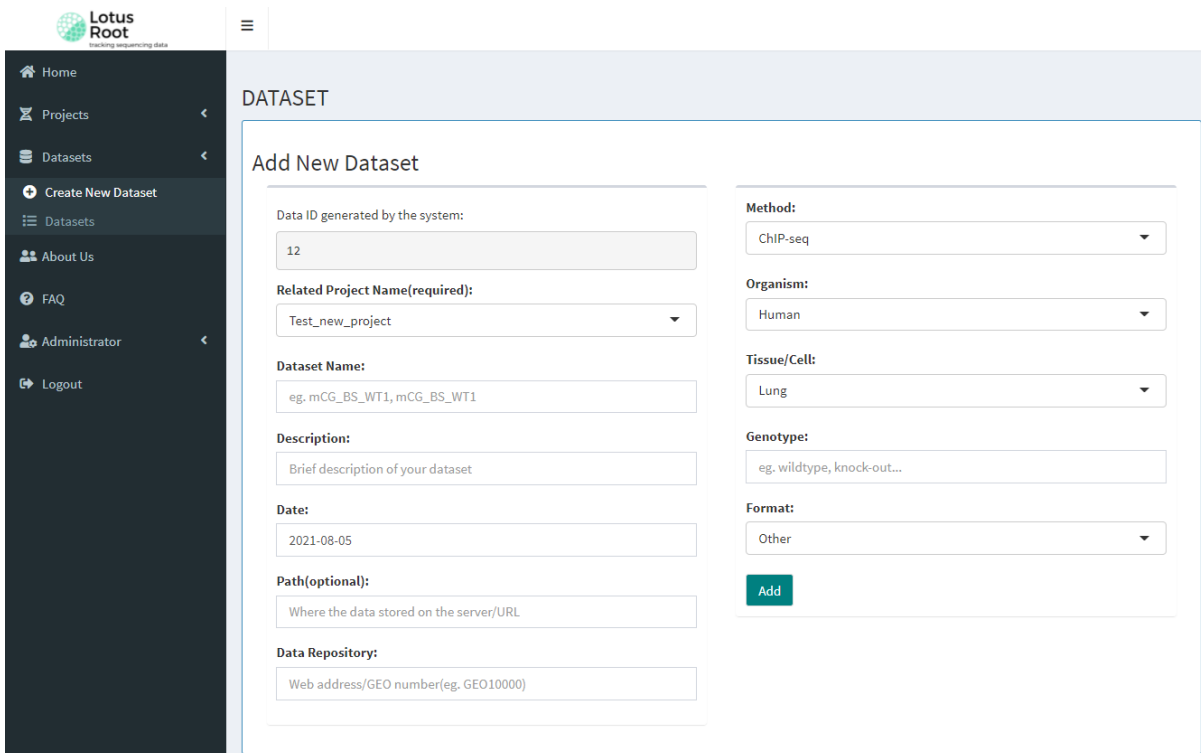
Previous Next

Datasets

This part is divided into two parts. One is “Create New Dataset” and the other is “Datasets”. The former is used to add new datasets. The latter is used to search for datasets and dataset-related projects.



Create new dataset



DATASET

Add New Dataset

Data ID generated by the system:
12

Related Project Name(required):
Test_new_project

Dataset Name:
eg. mCG_BS_WT1, mCG_BS_WT1

Description:
Brief description of your dataset

Date:
2021-08-05

Path(optional):
Where the data stored on the server/URL

Data Repository:
Web address/GEO number(eg. GEO10000)

Method:
ChIP-seq

Organism:
Human

Tissue/Cell:
Lung


Genotype:
eg. wildtype, knock-out...

Format:
Other

Add

- Dataset ID is generated by the system automatically.
- You can input other information in input boxes.
- Click the ‘Add’ button when your input is completed. Then you will see the successfully added message.
- Then you can go to “Datasets” page to do some search.

Datasets



- Home
- Projects
- Datasets
- Create New Dataset
- Datasets
- About Us
- FAQ
- Administrator
- Logout

DATASET

Dataset Table

Note: If you want to select multiple options for the same class, hold down the 'Ctrl' key to select.

Filters Active - 0 Clear All

Organism

Human 5

Mouse 4

Tissue.Cell

Brain 2

Kidney 2

Liver 2

Lung 1

Neuron 2

Genotype

No Data 1

TG(transgenic) 2

WT(wildtype) 6

Format

fastq 2

fastq.gz 6

Other 1

CSV

Excel

PDF

Show 10 entries

Search:

Data.ID	Related.ProjectID	Data.Name	Description	Date	Path	Data.Repository	Method
11	1	test_data	please edit this dataset	2021-08-05			ChIP-seq
10	5	Hum_2_3	human2	2021-05-26	/library/Wind/SL/Hum/A3.fq	GEO:GSM600	ChIP-seq
9	5	Hum_2_2	human2	2021-05-26	/library/Wind/SL/Hum/A2.fq	GEO:GSM601	ChIP-seq
7	4	Hum_1_3	human1	2019-07-26	/library/Hill/SL/Hum/003.fq	GEO:GSM700	ChIP-seq
6	4	Hum_1_2	human1	2019-07-26	/library/Hill/SL/Hum/002.fq	GEO:GSM701	ChIP-seq
4	2	mCG_BS_WT2	mCG_BS_WT	2018-05-14	/library/Bird/SL/mCG/B2.fq	GEO:GSM1500	BS-seq
3	2	mCG_BS_WT1	mCG_BS_WT	2018-05-13	/library/Bird/SL/mCF/B1.fq	GEO:GSM1501	BS-seq
2	1	MeCP2_ChIP_2	MeCP2_ChIP	2018-04-13	/library/Bird/JCW/MeCP2/0002.fq.gz	GEO:GSM1300	ChIP-seq
1	1	MeCP2_ChIP_1	MeCP2_ChIP	2018-04-13	/library/Bird/JCW/MeCP2/0001.fq.gz	GEO:GSM1301	ChIP-seq

Showing 1 to 9 of 9 entries

Previous

1

Next

Edit

Delete

Clear selected

In “Dataset Table”, all the datasets are listed. You can search (with the search pane), [Edit](#), [Delete](#) datasets here.

If you want to deselect all the selected datasets, you can click on “[Clear selected](#)” button.

There are 3 buttons in the upper left corner. You can export this table as csv, excel, and pdf file.

The number in the column named “Related.ProjectID” means the ID number of its related project. For example, the Data.ID below is 10. And it has a related project with the Project ID 5. In other words, Dataset 10(named ‘Hum_2_3’) is used in Project 5.

Data.ID ▼	Related.ProjectID	Data.Name	Description	Date	Path
All	All	All	All	All	All
10	5	Hum_2_3	human2	26/05/2021	/library/Wind/

How to search datasets

Each column in the table has a search box. There is also a search box in the upper right corner. You can enter keywords to search. Parts that match the keywords are highlighted in yellow.

Here, I searched “human” in Description search box. And it listed all the matched projects.

Data.ID	Related.ProjectID	Data.Name	Description	Date	Path
All	All	All	human	All	All
10	5	Hum_2_3	human2	26/05/2021	/library/V
9	5	Hum_2_2	human2	26/05/2021	/library/V
8	5	Hum_2_1	human2	26/05/2021	/library/V
7	4	Hum_1_3	human1	26/07/2019	/library/t
6	4	Hum_1_2	human1	26/07/2019	/library/t
5	4	Hum_1_1	human1	15/05/2019	/library/t

Showing 1 to 6 of 6 entries (filtered from 10 total entries)

[Edit](#) [Delete](#) [Clear selected](#)

Click on the column name to sort it alphabetically.

How to search related projects

1. Click one (or more) dataset in the “Dataset Table”.
2. ‘Related Projects’ table will display all the projects that contain the dataset.

Here is an example.

Select the dataset named “mG_BS_WT2” in the “Dataset Table”.

CSV

Excel

PDF

Show 10 entries

Search:

Data.ID	Related.ProjectID	Data.Name	Description	Date	Path	Data.Repository	Method	Org
All	All	<input type="text" value="wt"/>	All		All	All	All	
4	2	mCG_BS_WT2	mCG_BS_WT	2018-05-14	/library/Bird/SL/mCG/B2.fq	GEO:GSM1500	BS-seq	Mou
3	2	mCG_BS_WT1	mCG_BS_WT	2018-05-13	/library/Bird/SL/mCF/B1.fq	GEO:GSM1501	BS-seq	Mou

Showing 1 to 2 of 2 entries (filtered from 9 total entries)

Previous

1

Next

Edit

Delete

Clear selected

Then “Related Projects” table displays the project related to “mG_BS_WT2” dataset.

Related Projects

Show 10 entries

Search:

Project.ID	Project.Name	Parent	Description	Start.Date	Path	Sample.Sheet
2	Bird_SL_Shaun_2019	3		2019-05-19	/homes/swebb/data/Bird/SL/mCG_BS-seq_May19	www.bifx-core.bio.ed.ac.uk/swebb/E

Showing 1 to 1 of 1 entries

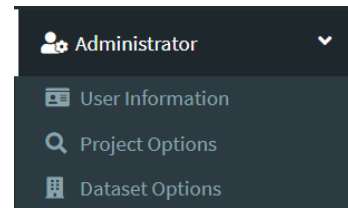
Previous

1

Next

Administrator/System Management

If you login as a system administrator, you can manage user information, user permissions, project input options and dataset input options.



User Information

You can **Add**/**Delete** user information here.

You cannot see the passwords here. So, if someone want to reset his/her password, you need to delete his/her information first and ask him/her to re-register.

Datasets

About Us

FAQ

Administrator

User Information

Project Options

Dataset Options

User Information

Username

Please enter full name

Password

Email :

Group

BioC

User Permissions:

General_Staff

Add

CSV

Excel

PDF

Show 10 entries

Search:

Name	Email	Group.Lab.Center	Permissions
All	All	All	All
xmy	123@ed.ac.uk	Hill	System_Maintenance
a	emma@ed.ac.uk	Wind	System_Maintenance
Bobby	bb@gmail.com	Bird	Project_Supervisor
Lucy	ee@ed.ac.uk	Wind	Project_Supervisor
Ying	ying@ed.ac.uk	Cat	General_Staff
Debby	debby@ed.ac.uk	Dog	General_Staff
Kate	kk@ed.ac.uk	Hill	General_Staff
zz	zz@ed.ac.uk	Bird	Data_Administrator
David	David@ed.ac.uk	Bird	Data_Administrator
Emma	emma@ed.ac.uk	Dog	Data_Administrator

Showing 1 to 10 of 10 entries

Previous

1

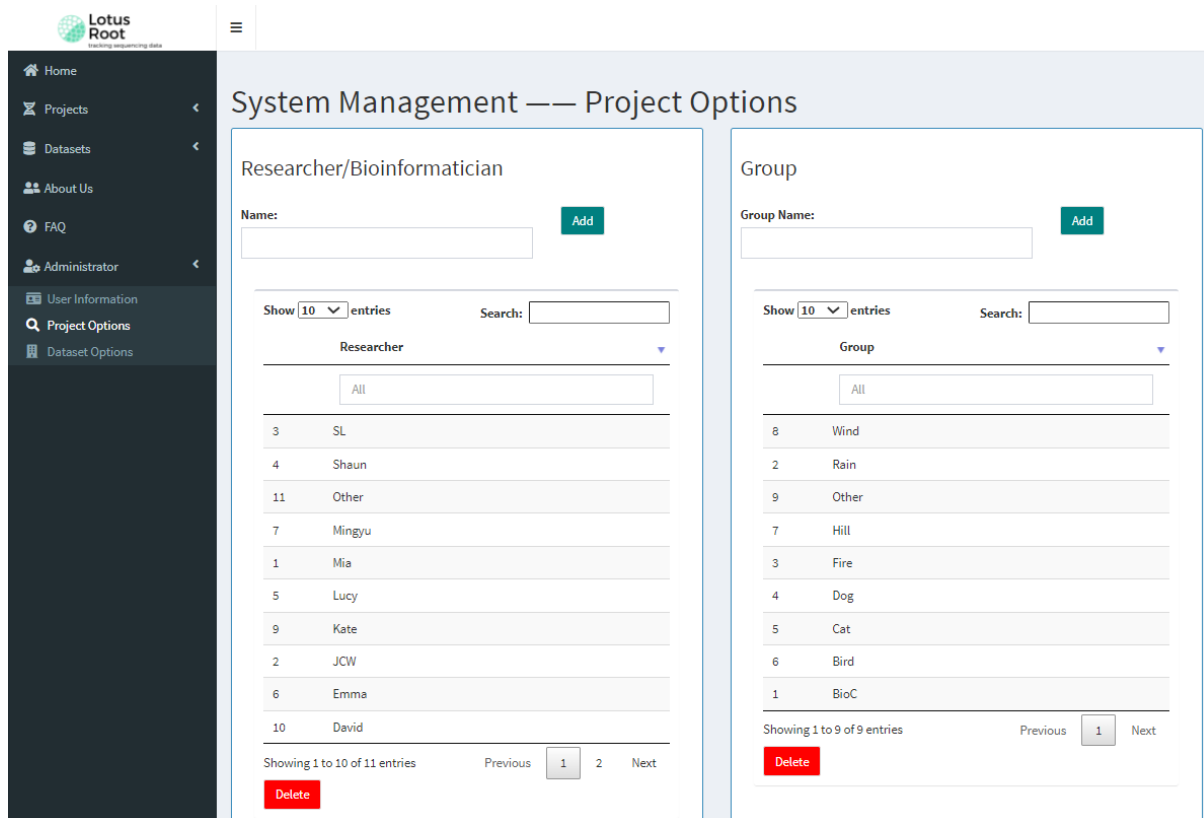
Next

Delete

Project Options

You can **Add/Delete** project options here. It contains 2 tables (Researcher/Bioinformatician and Group).

This section is associated with the 'Create New Project' input boxes. The content in the input box changes as you add or delete options here.



System Management — Project Options

Researcher/Bioinformatician

Name: **Add**

Show **10** entries Search:

Researcher

All
3 SL
4 Shaun
11 Other
7 Mingyu
1 Mia
5 Lucy
9 Kate
2 JCW
6 Emma
10 David

Showing 1 to 10 of 11 entries Previous **1** 2 Next

Delete

Group

Group Name: **Add**

Show **10** entries Search:

Group

All
8 Wind
2 Rain
9 Other
7 Hill
3 Fire
4 Dog
5 Cat
6 Bird
1 BioC


Showing 1 to 9 of 9 entries Previous **1** Next

Delete

Dataset Options

You can **Add/Delete** dataset options on this page. It contains 4 boxes (Method, Organism, Tissue/Cell, and Format).

This section is associated with the "Create New Dataset" input boxes. The content in the input box changes as you add or delete options here.



tracking sequencing data

- Home
- Projects
- Datasets
- About Us
- FAQ
- Administrator
- User Information
- Project Options
- Dataset Options

System Management — Dataset Options

Method

Method: Add

Show entries Search:

Method	
	<input type="text" value="All"/>
1	ChIP-seq
2	BS-seq
3	Other

Showing 1 to 3 of 3 entries Previous Next

Delete

Organism

Organism Name: Add

Show entries Search:

Organism	
	<input type="text" value="All"/>
1	Rat
2	Horse
3	Pig
4	Human
5	Mouse
6	E. coli
7	Dog
8	Zebrafish
9	Rhesus Monkey
10	Cat

Showing 1 to 10 of 13 entries Previous 2 Next

Delete

Tissue/Cell

Tissue/Cell Name: Add

Show entries

Search:

Tissue.Cell	
	<input type="text" value="All"/>
1	Brain
2	Lung
3	Epithelial cells
4	Liver
5	Kidney
6	Heart
7	Neuron
8	Other

Showing 1 to 8 of 8 entries Previous Next

Delete

Format

Format Name: Add

Show entries Search:

Format	
	<input type="text" value="All"/>
1	fastq.gz
2	fastq
3	fasta
4	BED
5	BAM
6	SAM

Showing 1 to 6 of 6 entries Previous Next

Delete

Logout

Click “Logout” button and you will see a pop-up window.

