Sharing Data in OMERO

Introduction

Groups are used in OMERO to enable sharing of data between users. Groups are created by the OMERO system administrator and usually have one or more group owners. Group owners and administrators can add or remove users.

There are four levels of group permissions allowing members different degrees of interaction with the data owned by other users in the group. In all groups, you retain ownership of your own data, and there are no limitations on the operations and actions you can perform on your own data. You can be in many groups, each with different permissions.

As group permissions are set at a server level, they apply to OMERO.insight, OMERO.web or any other application or script being used to access the data. Data can only be in one group, and can be moved between groups.

User roles

There are three levels of role in any group:

Member - the level most users will be at
- can always see and interact fully their own data in any type of group
- how much they can see and interact with data belonging to other group members depends on the type of the group.

Owner - typically used by laboratory or research group leaders
- groups can have more than one owner
- can manage group membership
- can increase the permissions level on a group
- can view, annotate, edit and delete data belonging to other members in the group
- other interactions with data belonging to other group members depends on group type.

Admin - this role is typically reserved for the OMERO server administrator
- practically speaking, Administrators can do anything they like to any user's data, in any group.

Group types

For the purposes of describing the actions permitted within each type of group, the following terms are used:

Save rendering settings means:
- selecting channels
- setting pixel intensity range
- allocating channel colour
- these are saved under the user's name and can be viewed by other group members
- the owner's settings are not affected.

Draw Regions of Interest (ROIs) means:
- add and save shapes or text drawn on images.

Annotate means adding:
- ratings
- tags
- file attachments
- key-value pairs
- comments.

Edit means:
- change the name of an Project, Dataset and Image
- add or edit a description
- remove annotations added by other users including you
- delete data.

Change group means:
- move images from one group to another.

There are three types of group in OMERO:

Private

- only you and group owners can see or interact with your data
- a group owner can view your data, change rendering settings and draw their own ROIs, but these will not be saved
- they can also edit the names of your images, remove any ROIs or annotations you have added to your data and delete your data.

Read-Only

- all members of the group can see and interact with your data on a read-only basis
- other members can see and interact with your data but cannot change anything you have saved
- a group owner can do anything they like with your data except move it out the group.

Read-Annotate

- all members of the group can see and interact with your data
- other members can change rendering settings which can all be viewed
- can draw ROIs and add annotations
- they cannot edit, delete or change group on your data
- a group owner can do anything to any member's data except move it out of the group.

The main points can be summarised as:

- you always retain ownership of your data
- you can be in many groups, each with different permissions
- your rendering settings cannot be over-written by any other user
- you can remove any annotations, comments or ROIs added by other group members
- no other non-administrator members can move your data between groups
- only you, a group owner, or an Administrator can delete your data.

- **Summary of the roles and permissions in groups**

Private Group

Action on Other Users Data	Private Group		
	Member	*Owner*	*Admin*
View data, view and draw ROIs	✗	✔	✔
Annotate, create and save ROIs, render	✗	✗	✗
Delete, de-annotate, delete ROIs	✗	✔	✔
Edit name, delete data	✗	✔	✔
Move data between groups	✗	✗	✔
Remove annotations made by others on your data	✗	✔	✔

Read-Only Group

Action on Other Users Data	Read Only		
	Member	*Owner*	*Admin*
View data, view and draw ROIs	✔	✔	✔
Annotate, create and save ROIs, render	✗	✔	✔
Delete, de-annotate, delete ROIs	✗	✔	✔
Edit name, delete data	✗	✔	✔
Move data between groups	✗	✗	✔
Remove annotations made by others on your data	✗	✔	✔

Read-Annotate Group

Action on Other Users Data	Read-Annotate		
	Member	*Owner*	*Admin*
View data, view and draw ROIs	✔	✔	✔
Annotate, create and save ROIs, render	✔	✔	✔
Delete, de-annotate, delete ROIs	✗	✔	✔
Edit name, delete data	✗	✔	✔
Move data between groups	✗	✗	✔
Remove annotations made by others on your data	✗	✔	✔

Note: Permission levels on groups can be changed by Group Owner or Admin users, therefore possibly making your data accessible to other users.

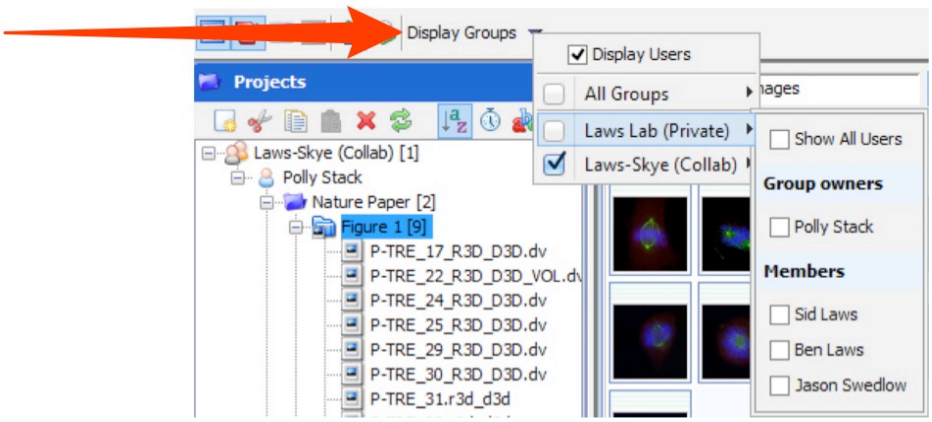
There is also a danger that some annotations such as tags, attachments and key-value pairs associated with data in the group might be lost if the permission levels are changed. This is more likely to occur when changing a group to a more restricted access level, e.g. from Read-annotate to Private.

Viewing data by groups

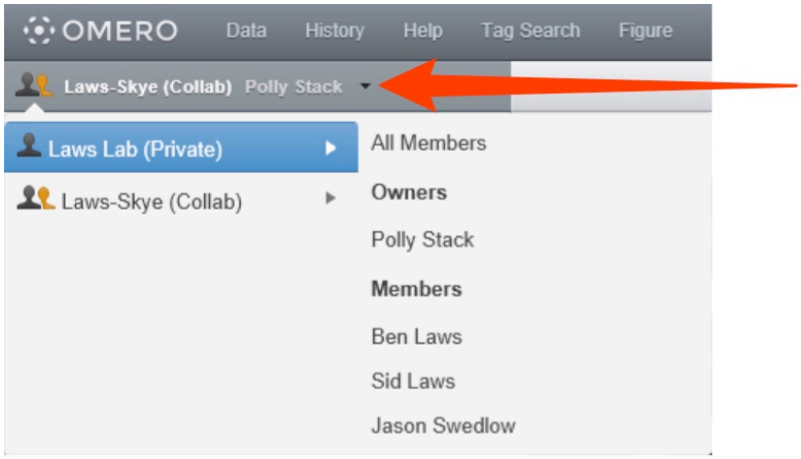
If you are a member of more than one group, your default group shows in the data tree on start-up (left hand panel).

1 Click on the **Display Groups** menu to select another group.
In OMERO.insight more than one group can be displayed at a time.

OMERO.insight

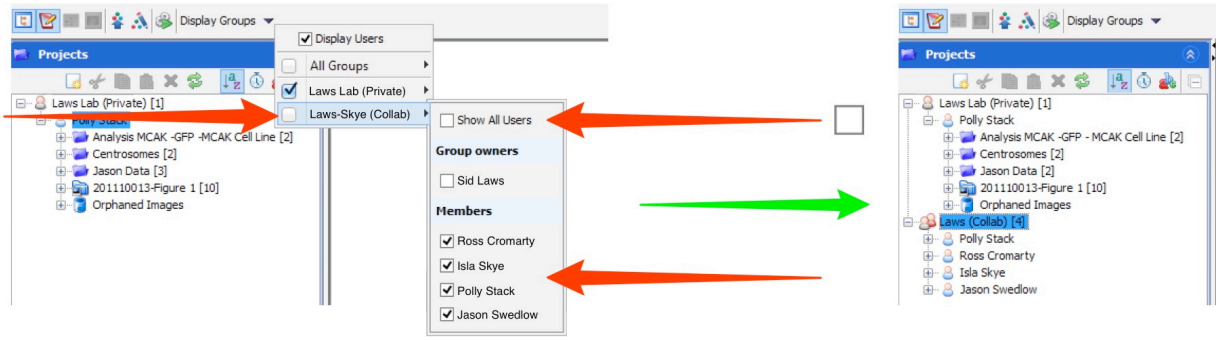


OMERO.web

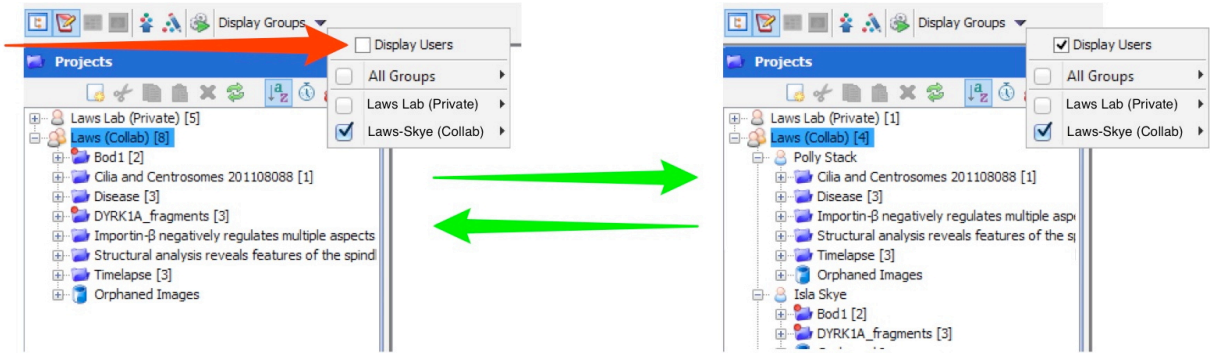


In OMERO.insight:

1 Select a group in the first tier of the menu to display your data in that group in the data tree.
Select **Show All Users** to display all users in the group in the data tree.
Select individual users to toggle the display of their data in the data tree.

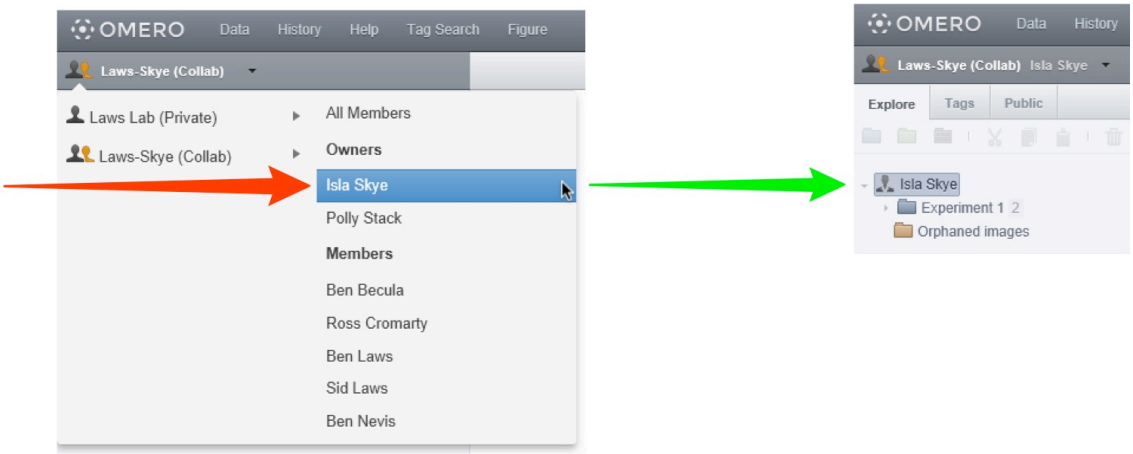


2 By default, data is shown according to the owner of the data.
Uncheck the **Display Users** checkbox to see all data from the group combined, irrespective of the owner.

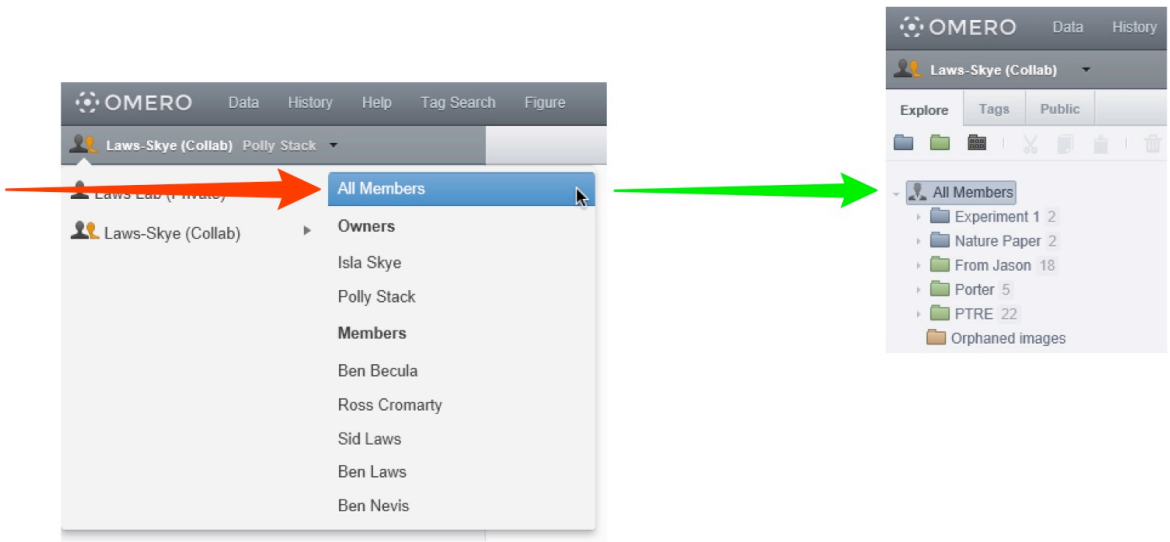


In OMERO.web:

1 Select an individual user to view their data in the data tree.



2 Select **All Members** to display all the data belonging to all users in that group.



Moving data between groups

If you are a member of more than one group, you can move data between groups.

Warning! It is likely that any tags, attachments, key-value pairs, comments or other annotations will not be moved to the new group and will be lost.

Right-click on a Project, Dataset or one or more Images and select **Move to Group** from the menu.

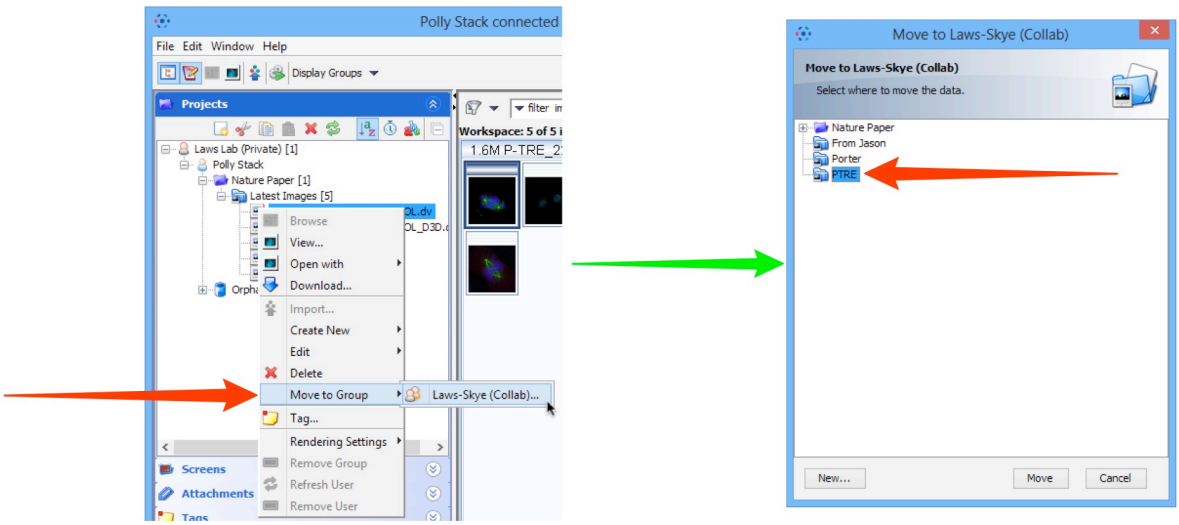
Select the destination group from the options.

Select an existing Project and/or Dataset as the destination.

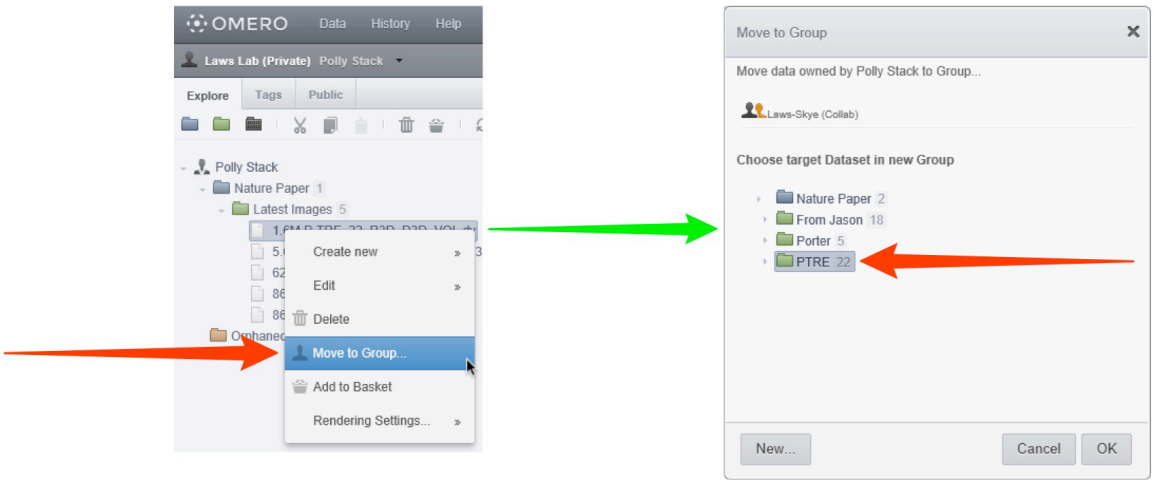
Click **OK** when done.

If no destination is selected the images will be placed in **Orphaned** in the destination group.

OMERO.insight



OMERO.web

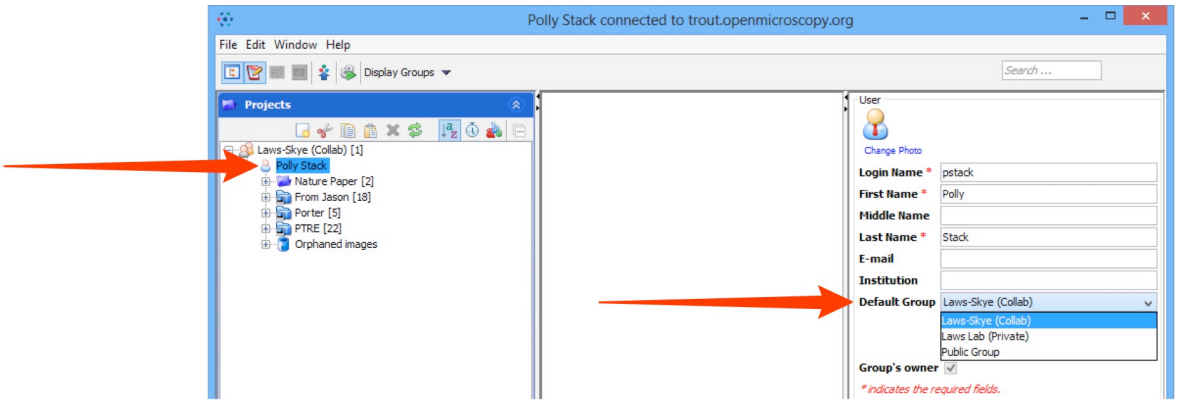


Changing your default group

OMERO.insight

To change your default group, the group that's shown when you log in, select your name in the Projects tab.

In the **User** pane on the right-hand side, select the new default group from the drop-down list.

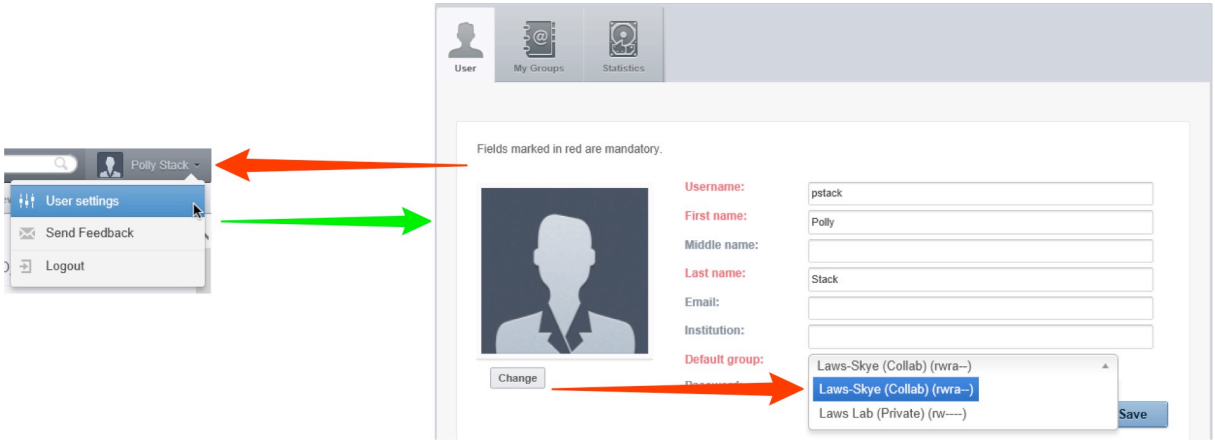


OMERO.web

To change your default group, the group that's shown when you log in, select **User settings** from the drop-down menu in the top right-hand corner.

In the **User** tab, select the new default group from the drop-down list.

Click **Save** to save your new default group.



Managing groups as a Group Owner

As an owner of a group, you can:

- manage the membership of that group
- import data for other members of the group
- view disk space usage for the group and members.

Adding and removing members

OMERO.insight

Right-click on the group in the **Administration** tab.

Select **Edit group membership...**.

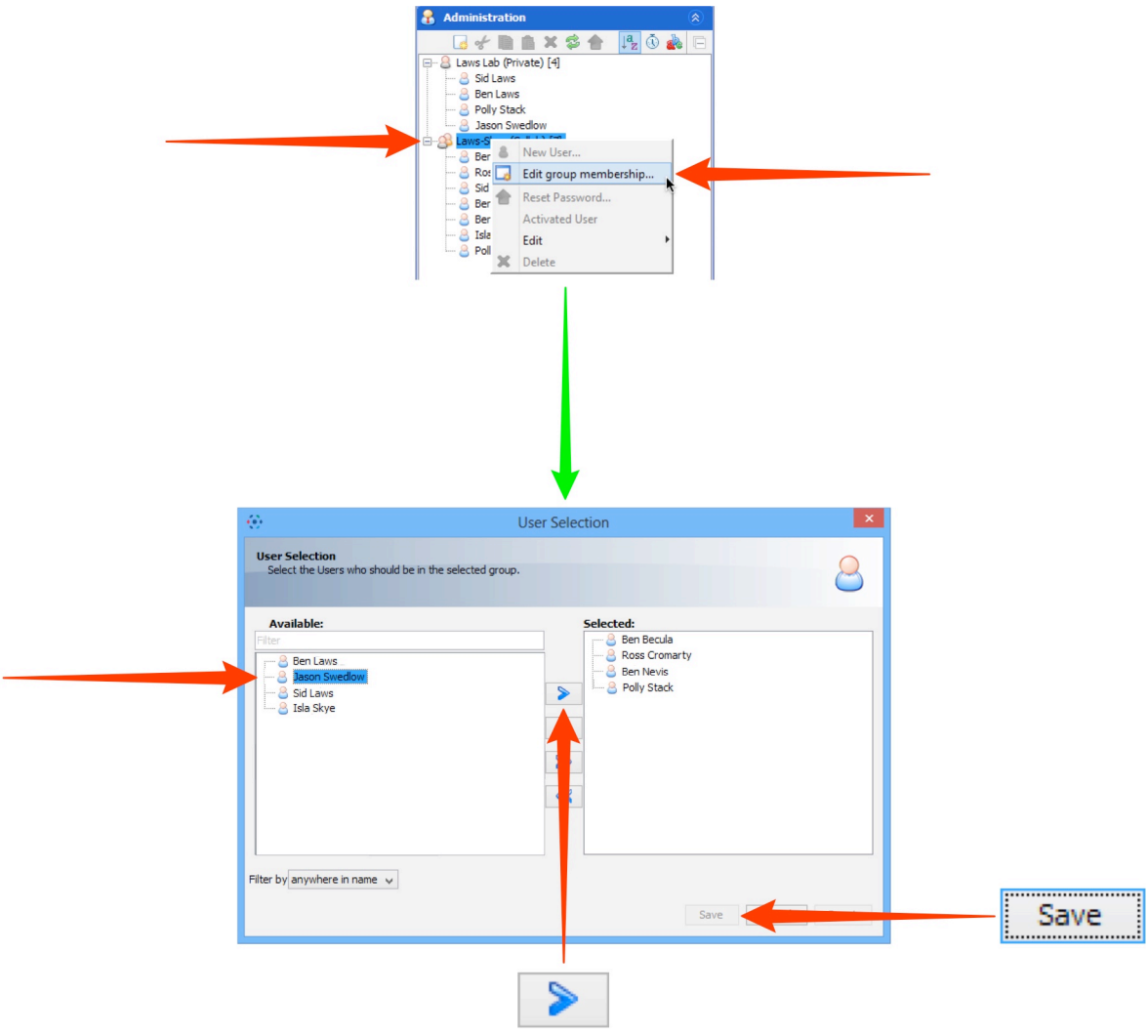
Select one or more users in the Available list box of the User Selection window.

Click the right arrow to add them to the group.

To remove a user from a group, select them in the Selected list and click the left arrow.

Click **Save** to make the changes and close the window.

Note: A user cannot be removed from the group if it is the only one they belong to.



OMERO.web

Select **User settings** from the drop-down menu in the top right-hand corner.

Click on the **My Groups** tab.

Click on the **Edit** button for the group you wish to edit.

Select one or more users in the Available list box of the User Selection window.

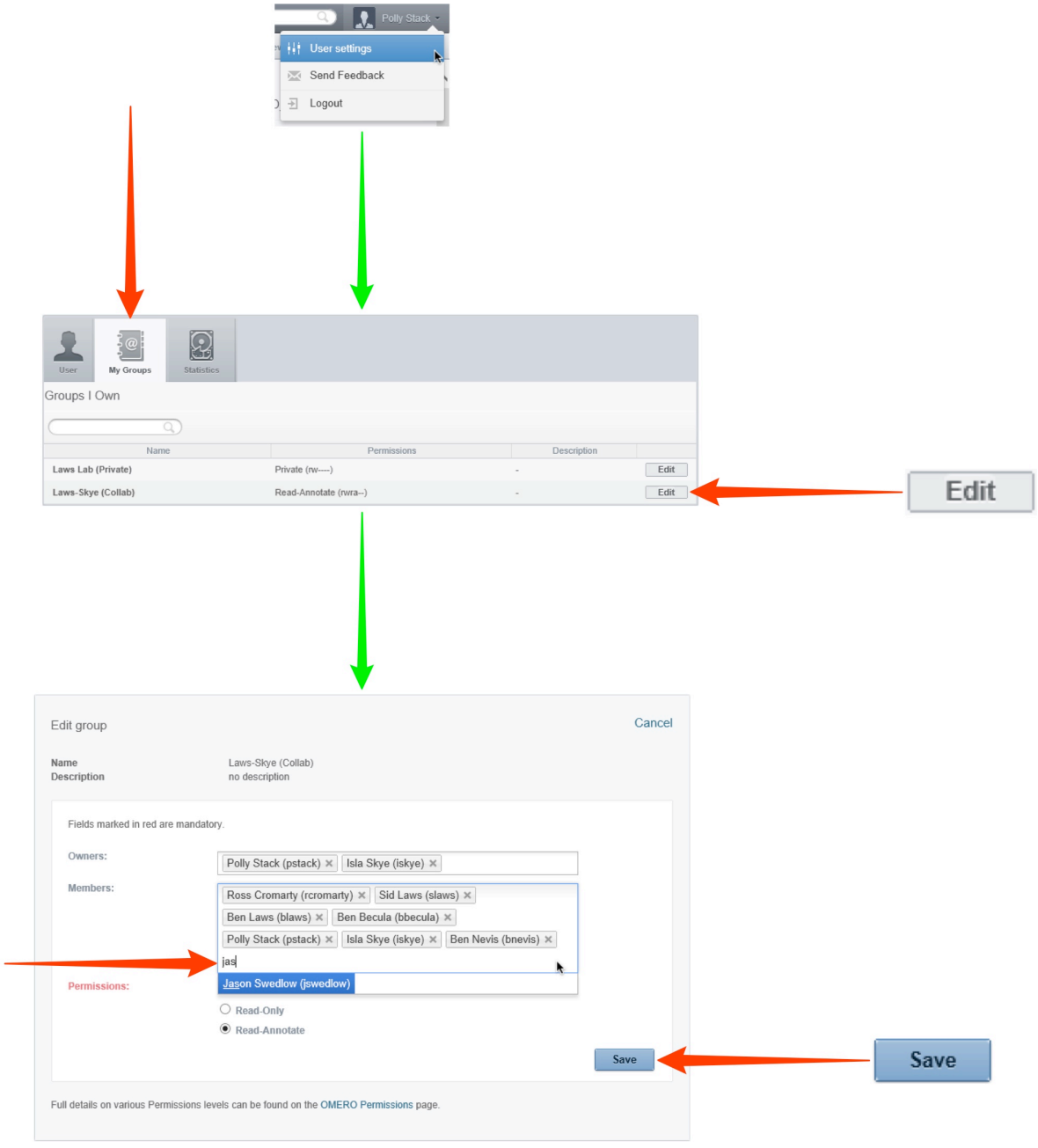
Click into the **Members** box and start typing the name of the user to add to the group.

A filtered list of users matching the letters typed will appear.

Select the user to add them to the group.

To remove a user from a group, click the **x** after their name.

Click **Save** to make the changes and close the window.



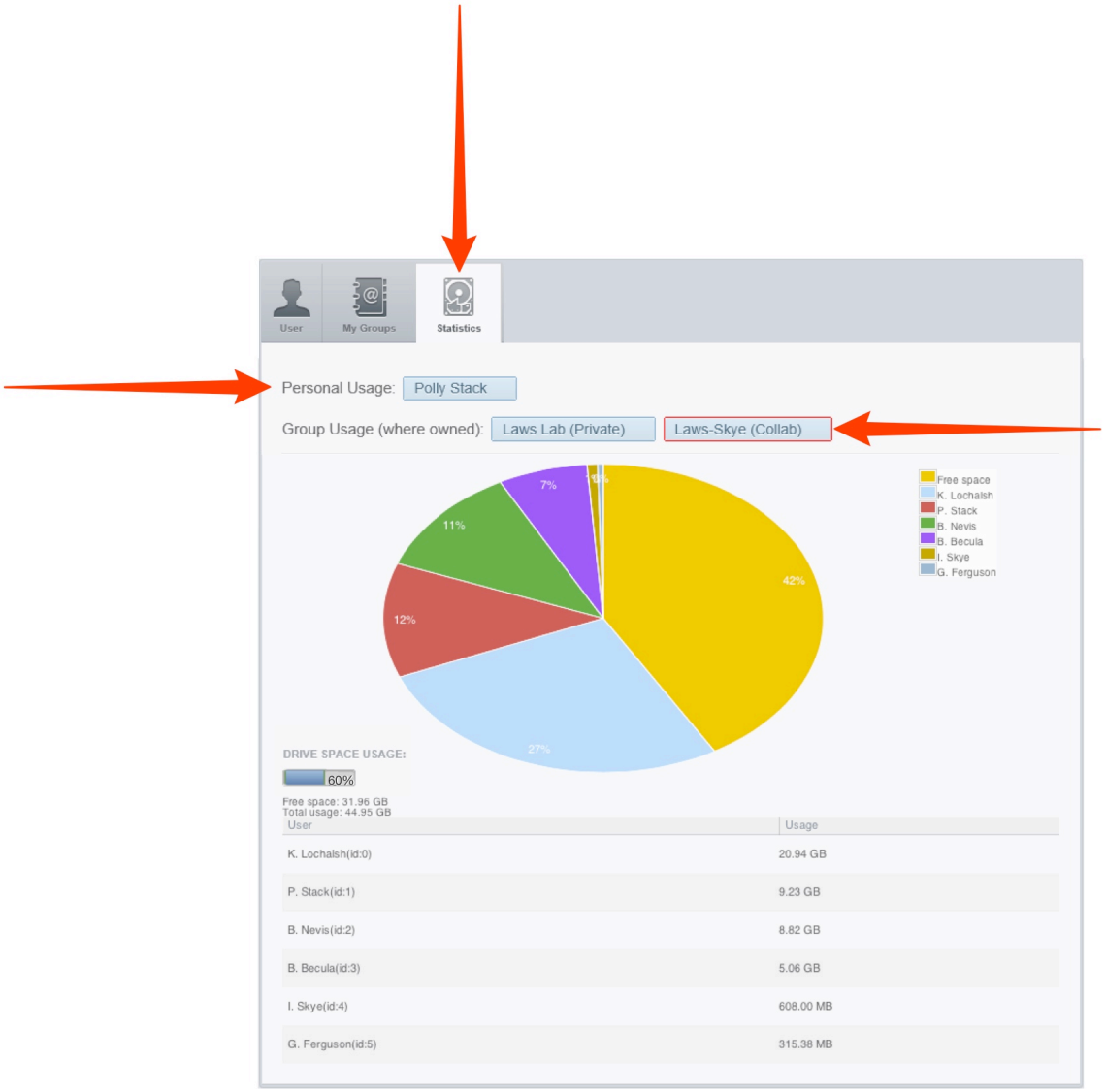
Disk space statistics

Group owners can use OMERO.web to see the disc space statistics for data usage in their groups.

Click on the **Statistics** tab in the User Settings window.

Use the buttons to select personal usage, according to group, or group usage for all users in the group.

Group usage statistics are only available to group owners.



Managing groups as an OMERO system Administrator

Note. The points described below apply only if you are an OMERO system **Administrator**.

Administrators can:

- create new users and groups
- manage the membership of all groups
- view disk usage statistics for all groups and users
- email users or groups

1 OMERO.web offers the best interface for Administrative tasks.

Click on the **Admin** button on the left in the top toolbar.

To create a new user, select the **Users** tab.

Click on **Add New User** to bring up the new user form.

Fill in the details and add the groups you wish the user to be in to the **Groups** box.

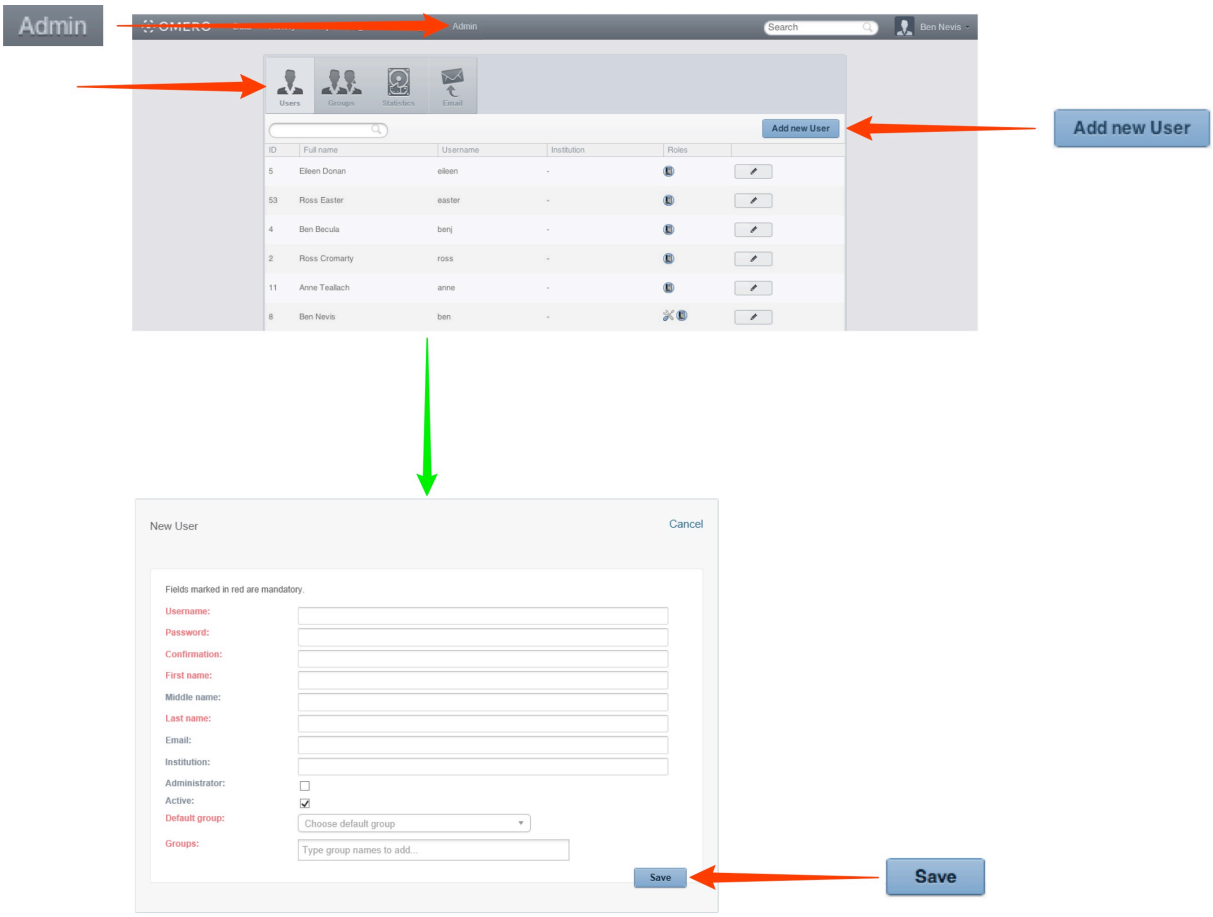
Click into the **Groups** box and start typing the name of the.

A filtered list of groups matching the letters typed will appear.

Select the group to add the user to it.

To remove a user from a group, click the **x** after the group name.

After completing click **Save**.



2 Click on the **Group** tab to create a new group.

Click on the **Add New Group** button.

Enter the details of the group.

Add any users to be owners to the **Owners** box.

Click into the **Owners** box and start typing the name of the user to add to the group.

A filtered list of users matching the letters typed will appear.

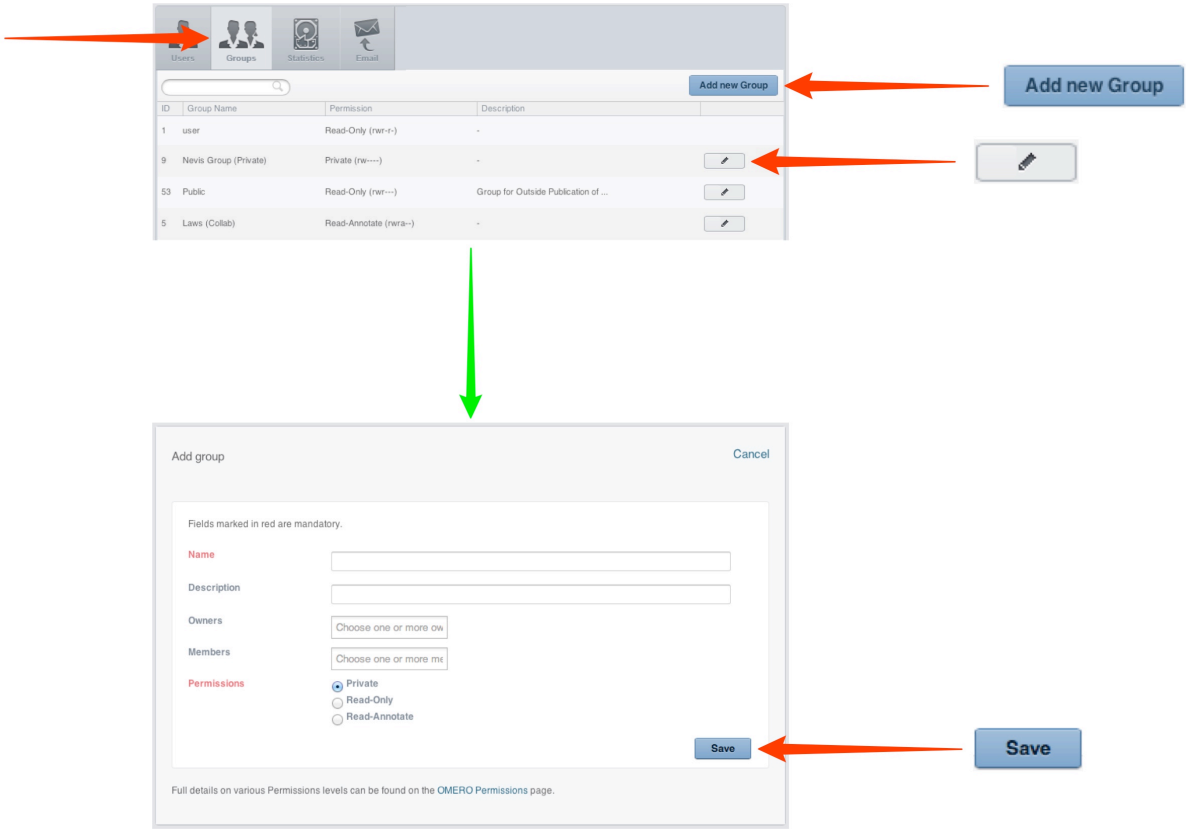
Select the user to make them an owner of the group.

To remove a user from a group, click the **x** after their name.

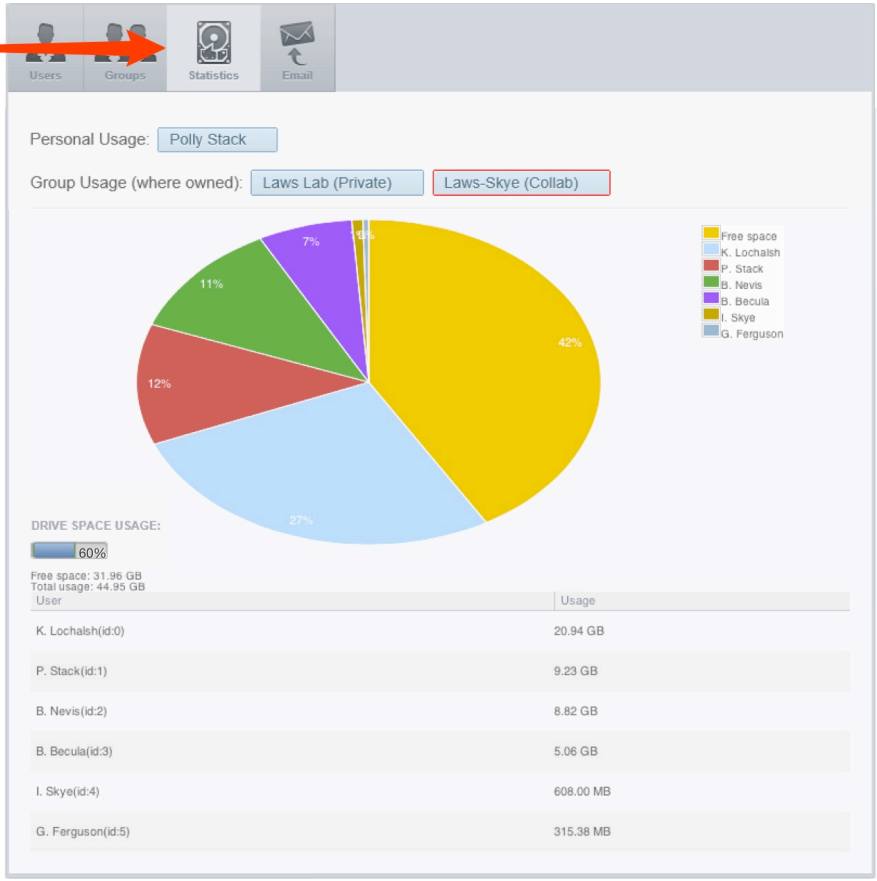
Add any users to be members to the **Members** box as described above.

To add a user to an existing group, click on the **Edit** icon and add users as above.

Individual members can also be added to an existing group via their user details page.



3 Click on the **Statistics** tab to see the disc usage for all users and groups on the OMERO server.



4 Click on the **Email** tab to send emails to OMERO users or groups.

