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OMERO.webadmin User Guide

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1. Introduction

This document provides a brief guide to the Beta 2.2 version of the OMERO.webadmin software, released for general use in October 2007. The OMERO.webadmin tool provides a simple interface to administer an OMERO server.

The software has been developed as part of the Open Microscopy Environment (OME) consortium. For more information on OMERO, including information on bugs and updated versions, visit http://www.openmicroscopy.org

The rest of the guide is arranged as follows:

- Section 2 **- Glossary**.
- Section 3 **- Configuration**. Information about configuration.
- Section 4 **- Frequently Asked Question**. How to use the tool.

We hope you enjoy using the software.

The OMERO development team, University of Dundee, UK.

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2. Glossary

This section contains the meaning of some terms frequently used in this document.

- **Group** Corresponds to a research group, the scientist or experimenter is a member of.
- **Hostname** The server host name.
- **Login** The unique string used for accessing the system.
- **Password** The personal private string used for accessing the system.
- **Port** The server port.
- **User** Corresponds to a scientist or an experimenter.
- **Username** The unique string used for accessing the system.

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3. Technical background and configuration.

Web Admin is the basic application which allows managing users and groups in Omero server. WebAdmin was build by the JavaServer Faces (JSF), which is a Java technology-based Web application framework that simplifies the development of user interfaces for Java EE applications. Unlike to other traditional request-driven Model-View-Controller web frameworks, JSF uses a component-based approach. The state of UI components are saved when the client requests a new page and then they are restored when the request is returned. Out of the box, JSF uses JavaServer Pages for its display technology, but JSF can also accommodate other display technologies. JSF includes:

- A set of APIs for representing user interface components and managing their state, handling events and input validation, converting values, defining page navigation, and supporting internationalization and accessibility.
- A default set of user interface components.
- A server-side event model.
- State management.
- Managed Beans (JavaBeans created with dependency injection).

The list below presents the files that can be configured.

- **web.xml** is the main web-application configuration file. You can set the following parameters

    a. ***defaultServerHost*** : the value sets in the ***Hostname*** field of the login page (see Section 4.1). The default value is **localhost**.
    b. ***defaultServerPort*** : the value sets in the ***Port*** field of the login page (see Section 4.1). The default value is **1099**.
    c. ***topTenValue*** : the number of users using most of the drive space (see Section 4.18). The default value is **5**.
    d. ***usersListsDir*** : path where the intermediary files will be stored with users' details (see Section 4.5). The default value is **/OMERO/WebAdmin**. (**WARNING**: if you change this directory name please, remember to change ***uploadRepositoryPath*** . The default value is **/OMERO/WebAdmin**).
    e. ***ldapAttributes*** : list of Ldap search attributes (see Section 4.20). The defult values are: **sn,givenName,cn,mail,employeeNumber,uidNumber,gidNumber**

- **log4j.properties** - Log4j is used to collect logs statement. You can edit log4j.properties to specify the location of the log file.
- **faces-config.xml** - sets the parameter ***ome.admin.bundle.messages*** to specify the language used, which supporting internationalization and accessibility (default language: en, supported: de, nl, fr, sp, it, pl, ect.). (**WARNING**: For adding new language needs to be duplicated the tag: `<supported-locale>lang</supported-locale>` and creates the new file under ***WebAdmin/src/omero/admin/boundle/*** with specified name:

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messages_LANG.properties and context with translated sentences)

- **message.properties** - defines the internationalization context.

To build the application from your IDE you need to run build.xml. Every changes needs to rebuild the application.

To start the tool, use your favorite web browser and enter the following link:
http://localhost:1099/WebAdmin/

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4. How to do ...?

The section contains a list of the most commonly asked questions about OMERO.webadmin, as well as solutions to a variety of common problems.

Check the list below for the answer to your question.

4.1.How to log in?
4.2.How to manage users?
4.3.How to add a new user?
4.4.How to add list new users in the one time?
4.5.How to delete a user?
4.6.How to edit an existing user's details?
4.7.How to deactivate an account?
4.8.How to modify the list of groups the user belongs to?
4.9.How to set user as administrator?
4.10.How to manage groups?
4.11.How to add new group?
4.12.How to delete a group?
4.13.How to edit a group?
4.14.How to manage users within a group?
4.15.How to manage enumerations?
4.16.How to add a new enumeration?
4.17.How to edit an existing enumeration?
4.18.How to manage drive space?
4.19.How to manage my account?
4.20.How to search and add new users from Ldap?

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4.1. How to log in?

The **Login** page gives the access to the application. In order to connect to an OMERO server, the user has to specify:

- the name of the server: field ***Hostname*** ;
- the port used: field ***Port*** ;
- a username: field ***Login*** ;
- a password: field ***Password*** .

for more details about fields see Section 3 or Section 2 .

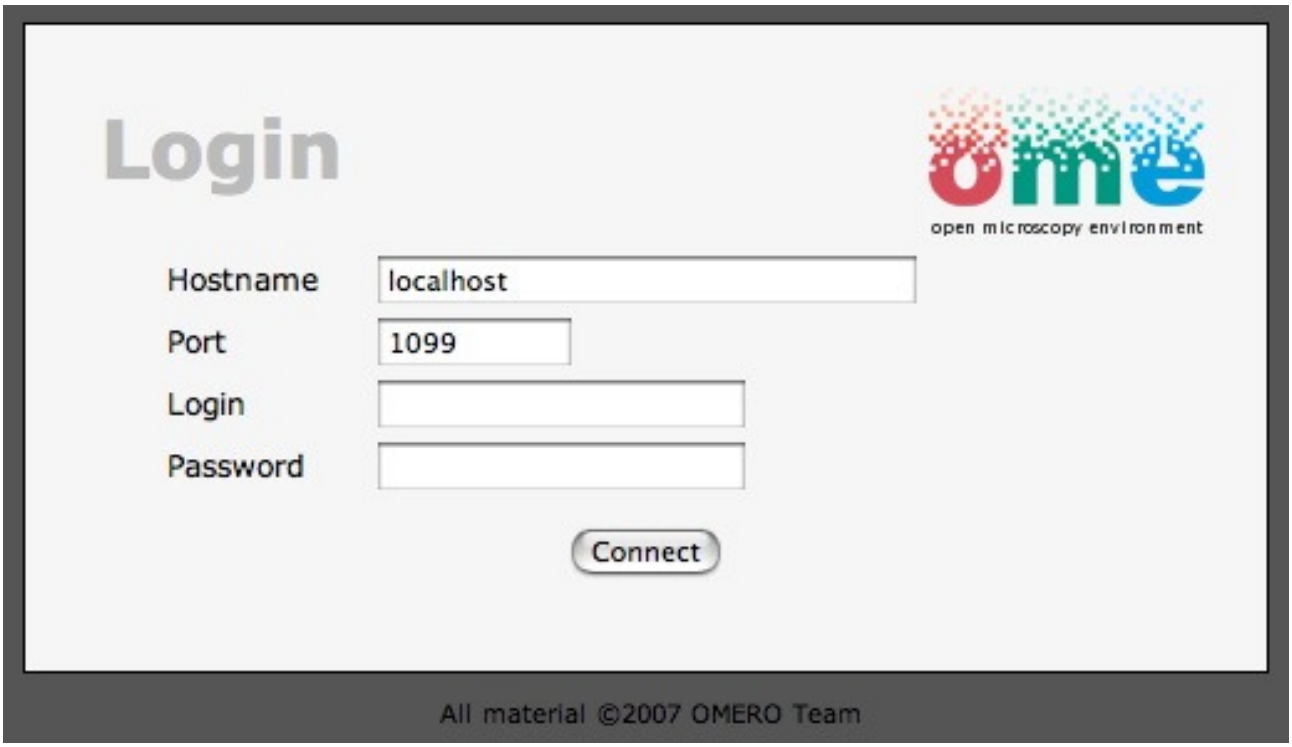

Figure 4.1-1 : Login Form

NB

Usernames are case sensitive, so alexandra would be a different user from Alexandra.

NB

If user has forgotten your password but know his username, and if he have a current email address in his OMERO registration details **Forgotten Password?** will be able to send him an email containing NEW password and informations..

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After log in you can see main view:

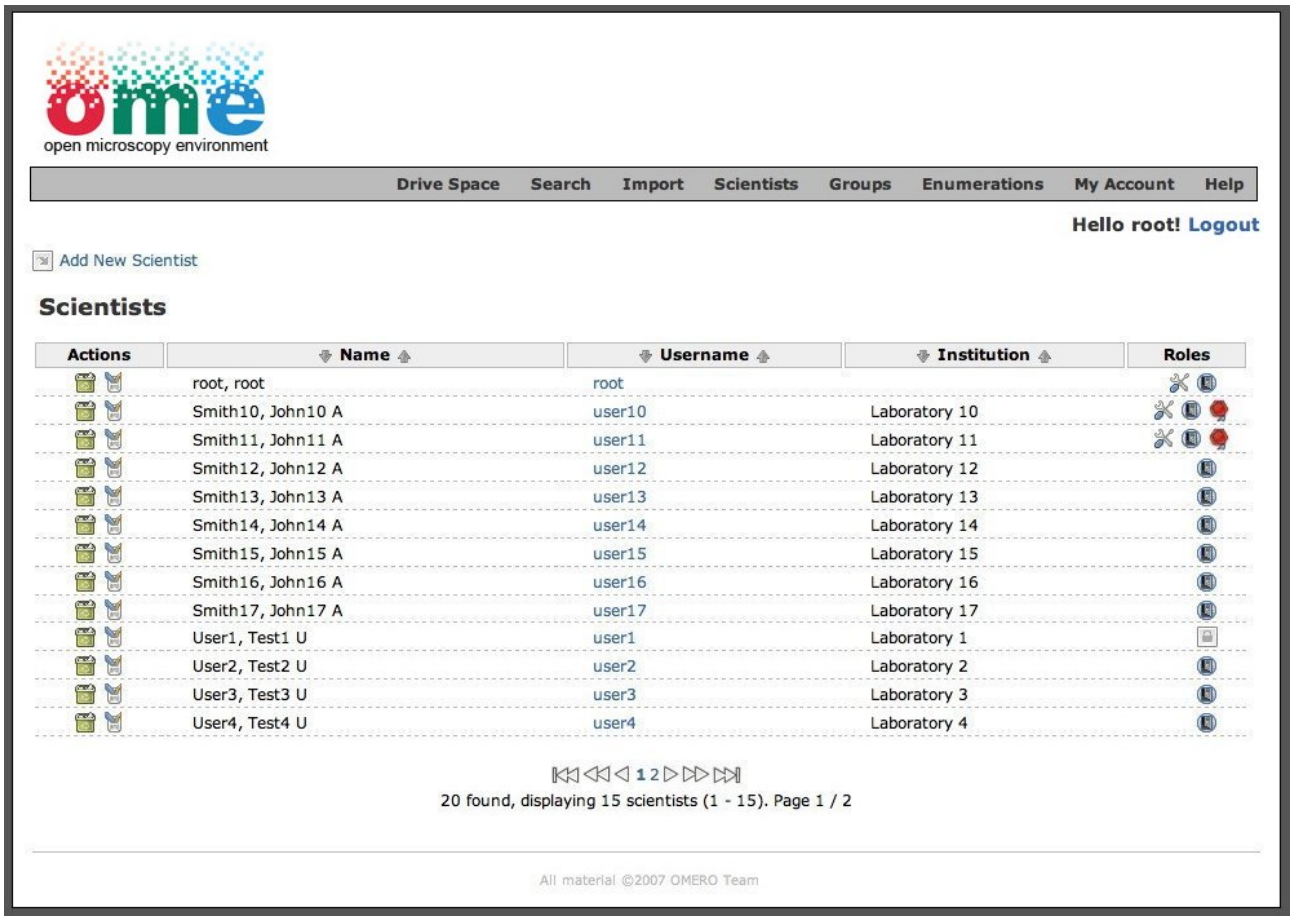

Figure 4.1-2 : Main view

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4.2. How to manage users?

To manage users, click on the ***Scientists*** button in the toolbar to display the list of existing users (see Figure 4.1-2). You can then perform various ***Actions*** :

- add a new user (see Section 4.3),
- import many users from external source (see Section 4.4),
- delete a user (Section 4.5),
- edit user (see Section 4.6).

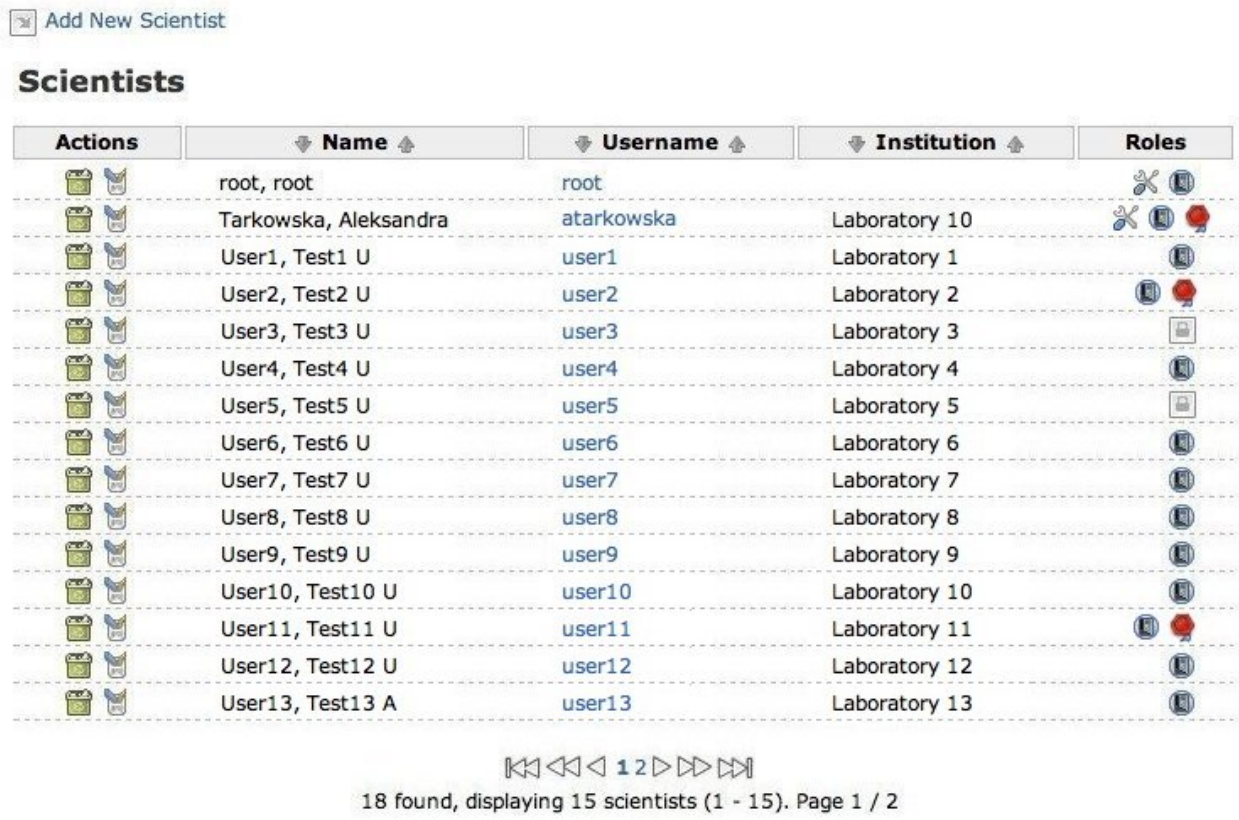

Figure 4.2-1 : List of Users

On the table **Role** column we can see icons which represent user attributes:

- - User is active and can log in to the system.
- - User is not active and cannot log in to the system.
-

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- - User is in administration role.
- - User is authenticated by Ldap server.

Under the table will appear the data scroller if the list includes more than fifteen users. Arrows or numbers are links and allows you to switch between pages

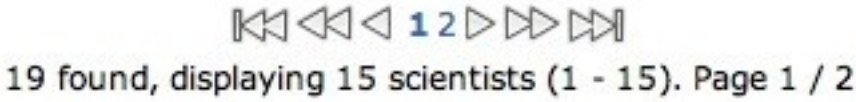

Figure 4.2-2 : List of Users

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4.3. How to add a new user?

To add a new user,

1. Click on the ***Scientists*** button in the toolbar to display the list of existing users (see Figure 4.1-2).
2. Click on the ***Add new Scientist*** button .

Then enter the following required information:

- Enter a login name identifying the new user: field ***Username*** .
- Enter the user's first name: field ***First Name*** .
- Enter the user's last name: field ***Last Name*** .

Additional optional information can be entered:

- The user's middle name: field ***Middle Name*** .
- The user's e-mail address: field ***Email*** .
- The institution the user is a member of: field ***Institution*** . Select ***Save*** to confirm.

NB

To be a valid email address, you need to enter a string including the following characters `@` for `at` and `.` for `dot`.

NB

The `Default group` should be one of the groups the user is a member of. If not specified, the newly created user is added to the internal `default` group.

If you want the user to be an administrator, tick the ***Administrator*** box.

If you want the user to be an active user (user can log in to the application), tick the ***Active*** box.

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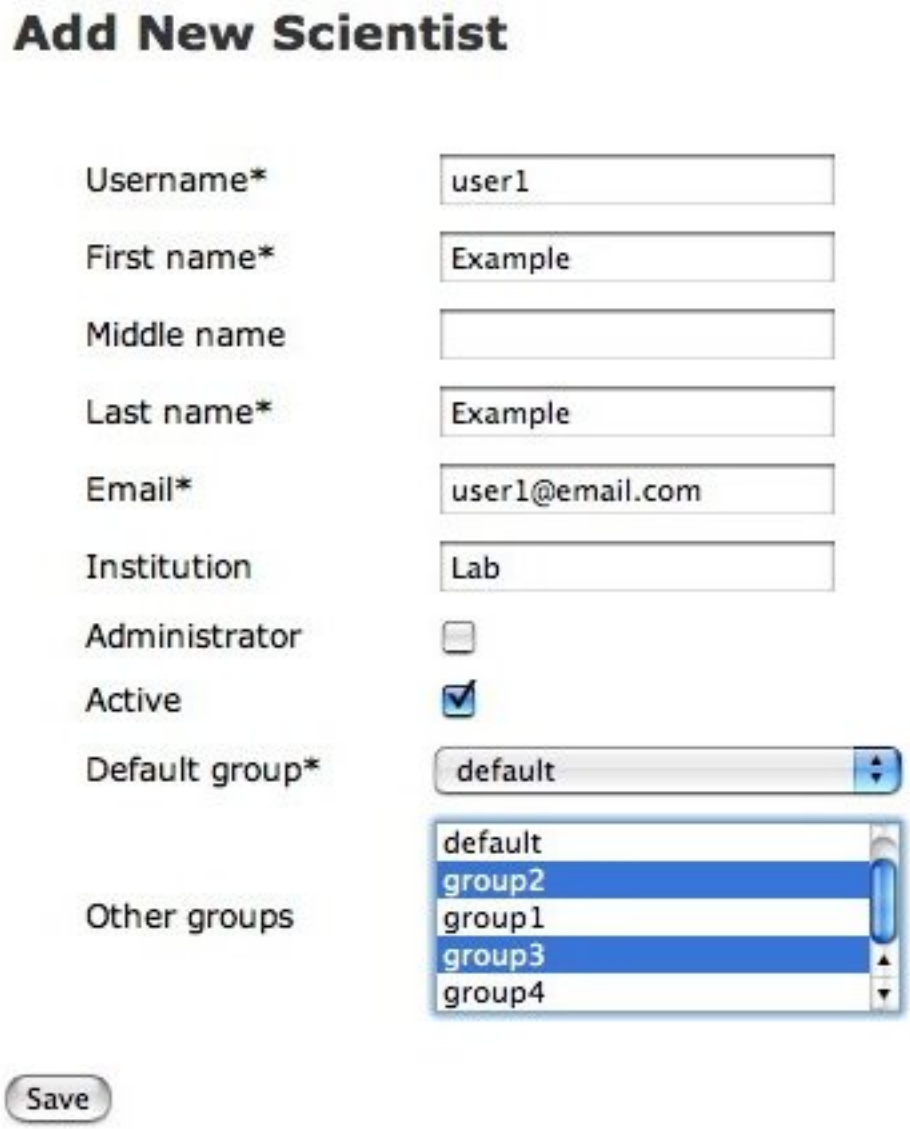

Figure 4.3-1 : Create a new user

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4.4. How to add list new users in the one time?

The different possibility to add new users is to add them from an additional source. For this reason should be prepared file with user's details. At he moment there is possibility to import only XLS (Excel) and CSV files.

Example Microsoft Excel file please, find here (see Figure 4.4-1).

	A	B	C	D	E	F
1	Omename	FirstName	Middlename	Lastname	Email	Institution
2	user1	John	A	Smith1	j.smith@email.com	Laboratory 1
3						
4						

Figure 4.4-1 : Example content of file.

To add new users click on the ***Import*** button in the toolbar to display the import file tree (see Figure 4.1-2).

Click on the ***Upload new File*** button . Chose the file from hardrive with using **Broswer** button and click **Import** (see Figure 4.4-2)

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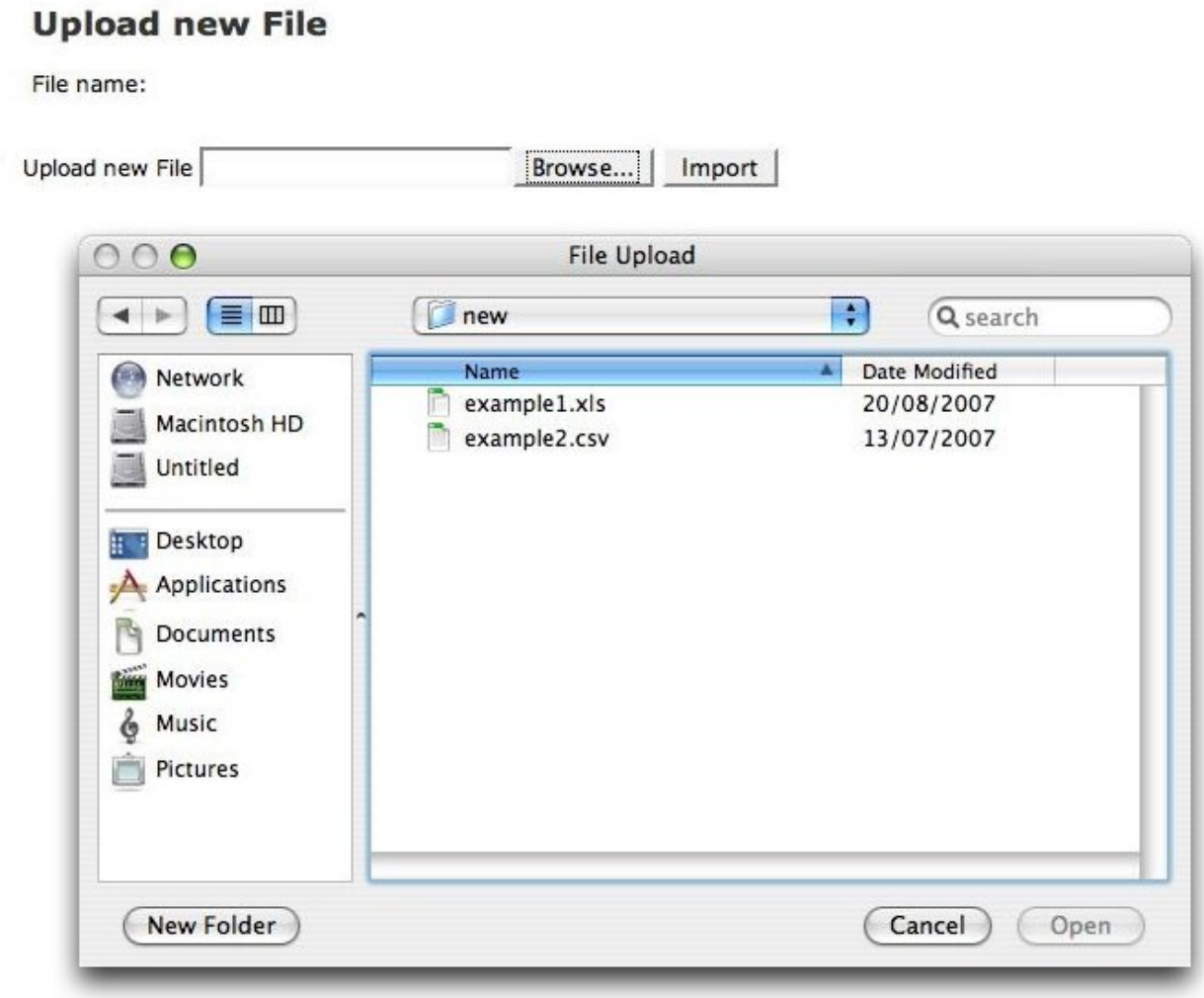

Figure 4.4-2 : Import file from the hard drive.

For keeping uploaded files each of them is stored on the hard drive under the ***OmeName*** directory on the path ***/OMERO/WebAdmin*** . Each user is recognized by the icon . The name includes date when file was uploaded.

If file has been uploaded, click to select the file under the branch (see Figure 4.4-3).

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Figure 4.4-3 : Choosing the file.

Recognized users will appear in a table (see Figure 4.4-4)

Import scientist from file

/Users/tmp/UsersLists/root/example1.2007-10-04-11-59-46.xls

Username	Name	Email	Institution	Actions
user1	Smith1, John A	j.smith@email.com	Laboratory 1	
user2	Smith2, John2 A	j.smith2@email.com	Laboratory 2	
user3	Smith3, John3 A	j.smith3@email.com	Laboratory 3	
user4	Smith4, John4 A	j.smith4@email.com	Laboratory 4	
user5	Smith5, John5 A	j.smith5@email.com	Laboratory 5	
user6	Smith6, John6 A	j.smith6@email.com	Laboratory 6	
user7	Smith7, John7 A	j.smith7@email.com	Laboratory 7	
user8	Smith8, John8 A	j.smith8@email.com	Laboratory 8	
user9	Smith9, John9 A	j.smith9@email.com	Laboratory 9	
user10	Smith10, John10 A	j.smith10@email.com	Laboratory 10	☑
user11	Smith11, John11 A	j.smith11@email.com	Laboratory 11	☑
user12	Smith12, John12 A	j.smith12@email.com	Laboratory 12	☑

Import

Figure 4.4-4 : Recognized users from external source.

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NB

The ***Actions*** column includes checkboxes that allow us to specify which of users should be imported. If user has empty field it means that the user with this username or email address exists in the database.

Click in the Actions column to select users to import. Select the import button. If the Import is successful the displey will return to the Import page (see Figure 4.1-2).

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4.5. How to delete a user?

In the ***Scientists*** page (see Figure 4.1-2), click on the ***Delete*** button , for the user you wish to remove, found in the ***Actions*** column on the left-end side of the page.

An alert window is brought up on screen for confirm his action (see Figure 4.5-1)

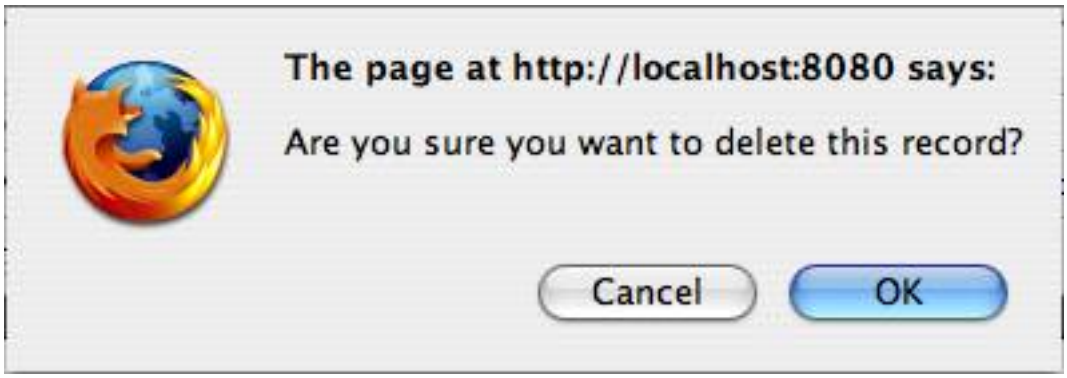

Figure 4.5-1 : Alert window

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4.6. How to edit an existing user's details?

From the ***Scientists*** page (see Figure 4.1-2), click on the ***Edit*** button in the ***Actions*** column.

Then modify the following required information:

- Edit the user's first name: field ***First Name*** .
- Edit the user's last name: field ***Last Name*** .

Additional optional information can be updated:

- Edit the user's middle name: field ***Middle Name*** .
- Edit the user's e-mail address: field ***Email*** .
- Edit the institution the user is a member of: field ***Institution*** .
- Select ***Save*** to confirm.

NB

Modifying the username of a given user is possible if only if the new username is not already used.

NB

To be a valid email address, you need to enter a string including the following characters `@` for `at` and `.` for `dot`.

Roles and groups information:

- Edit ***Active*** parameter to allow to log in to the system (see Section 4.7).
- Edit ***Administrator*** parameter to allow log in to the system as administrator (see Section 4.9).
- Edit ***Default Group*** .
- Edit ***Other Groups*** multi selection (see Section 4.8).

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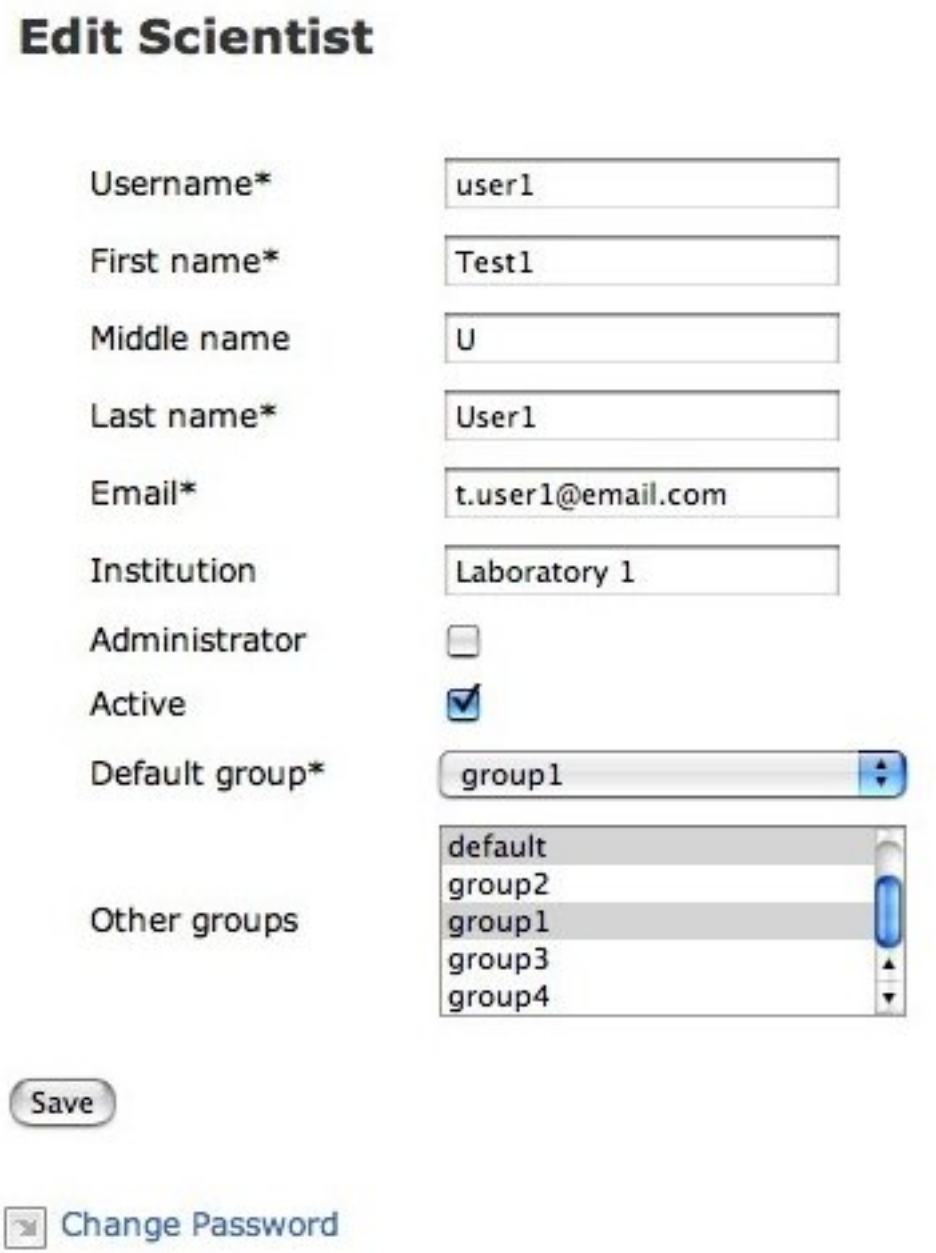

Figure 4.6-1 : Edit an existing user

This section allows a user's password to be changed. For changing password click on the ***Change password*** button .

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NB

If user is authenticated by LDAP server it is not possibility to change the password form the WebAdmin. This link will not appear.

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4.7. How to deactivate an account?

To desactivate an account, you need to uncheck the ***Active box*** (see Figure 4.6-1). The user will no longer be able to connect to the OMERO server but the account is **not deleted** from the system.

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4.8. How to modify the list of groups the user belongs to?

A user can belong to more than one group. How create a group you can find on section Section 4.11. The list ***Other groups*** displays a collection of existing groups (see Figure 4.8-1).

From the ***Edit User*** page, select groups (single or multi selection - multi selection can be done by ***SHIFT*** or ***CTRL*** key) from the ***Other groups*** list, you want the user to be a member of.

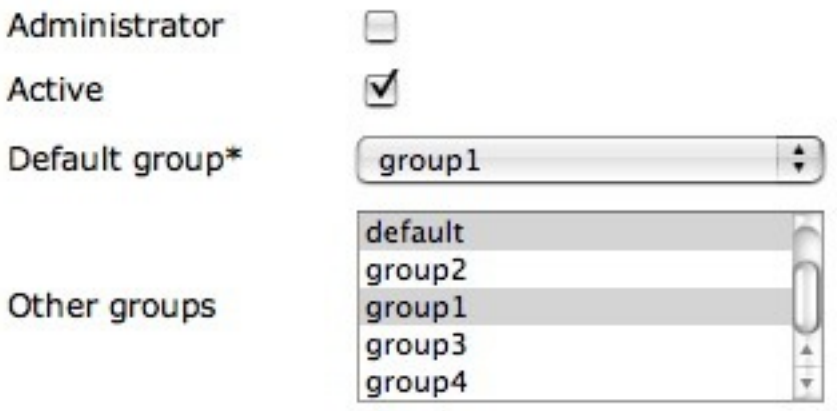

Figure 4.8-1 : Change user groups.

To remove the user from the groups is a member of, select from the ***Edit User*** page, the **Blank** item from the ***Other groups*** .

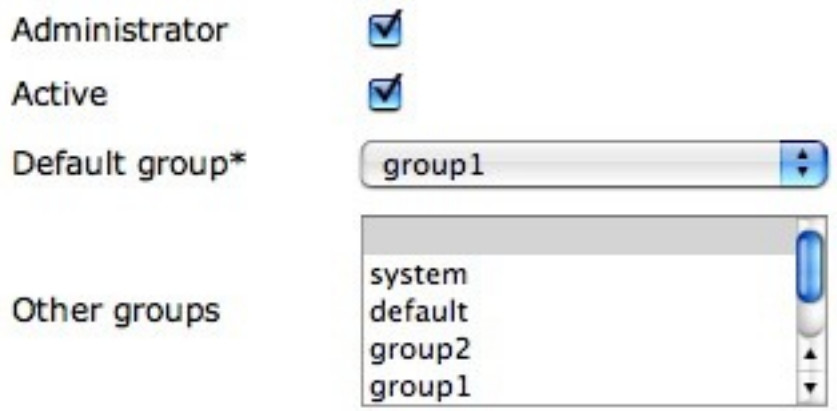

Figure 4.8-2 : Delete user from group.

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4.9. How to set user as administrator?

To change an account to administration role, you need to check the ***Administration box*** (see Figure 4.6-1). This will enable the user to connect to the OMERO server as administrator and have access to whole functionality.

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4.10. How to manage groups?

Click on the ***Groups*** button in the toolbar to display the list of existing groups (see Figure 4.10-1) You can then perform various ***Actions*** :

- add new group (see Section 4.11),
- delete group (Section 4.12)
- edit groups (see Section 4.13),
- edit users in the groups (see Section 4.14),

Figure 4.10-1 : List of groups.

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4.11. How to add new group?

To add a new group:

1. Click on the ***Groups*** button in the toolbar to display the list of existing groups (see Figure 4.9-1).
2. Click on the ***Add new group*** button .

Then enter the following information:

- The name of the group: field ***Group name*** .
- The description of the group (optional): field ***Description*** .
- The owner of the group: field ***Owner*** .
- Select ***Save*** to confirm.

Figure 4.11-1 : Add new group.

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4.12. How to delete a group?

The current version of the system **does not** allow to deletion of a group.

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4.13. How to edit a group?

From the ***Groups*** page (see Section 4.10), click on the ***Edit*** button in the ***Actions*** column.

Then modify the following information:

- The name of the group: field ***Group name*** .
- The description of the group (optional): field ***Description*** .
- The owner of the group: field ***Owner*** .
- Select ***Save*** to confirm.

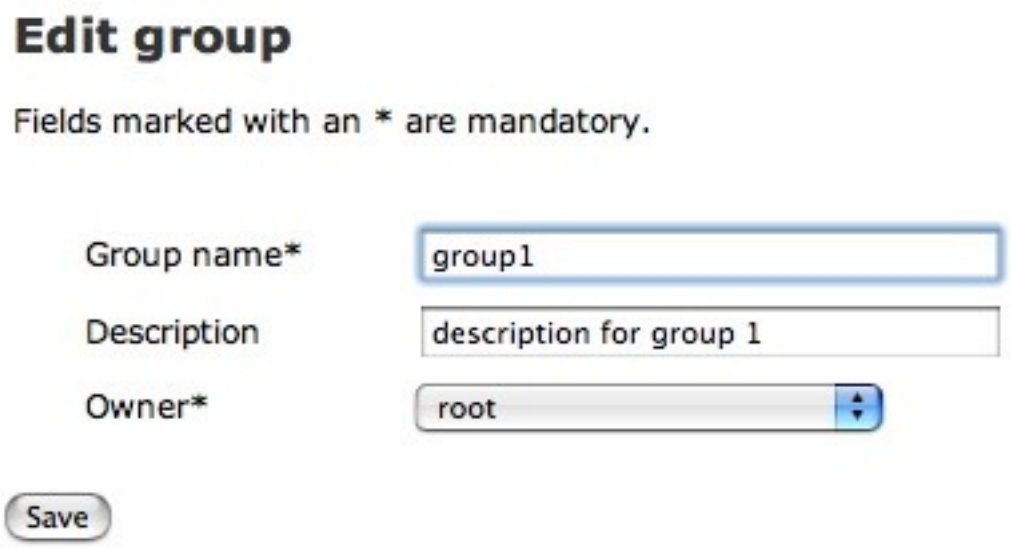

Figure 4.13-1 : Edit group.

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4.14. How to manage users within a group?

From the ***Groups*** page (see Section 4.10), to manage users wihtin the selected group, click on the ***Edit users in group*** button in the ***Actions*** column.

You can now add or remove users from a group e.g. `system`.

- To add users: Select the users displayed in the left-hand pane and click on
- To delete users: Select the users displayed in the right-hand pane and click on

The ***** displayed next to the user's name indicates that the currently selected group e.g. `system` is the default group of the user. In that case, it is **not possible** to delete the user from the group unless the user's default group is changed.

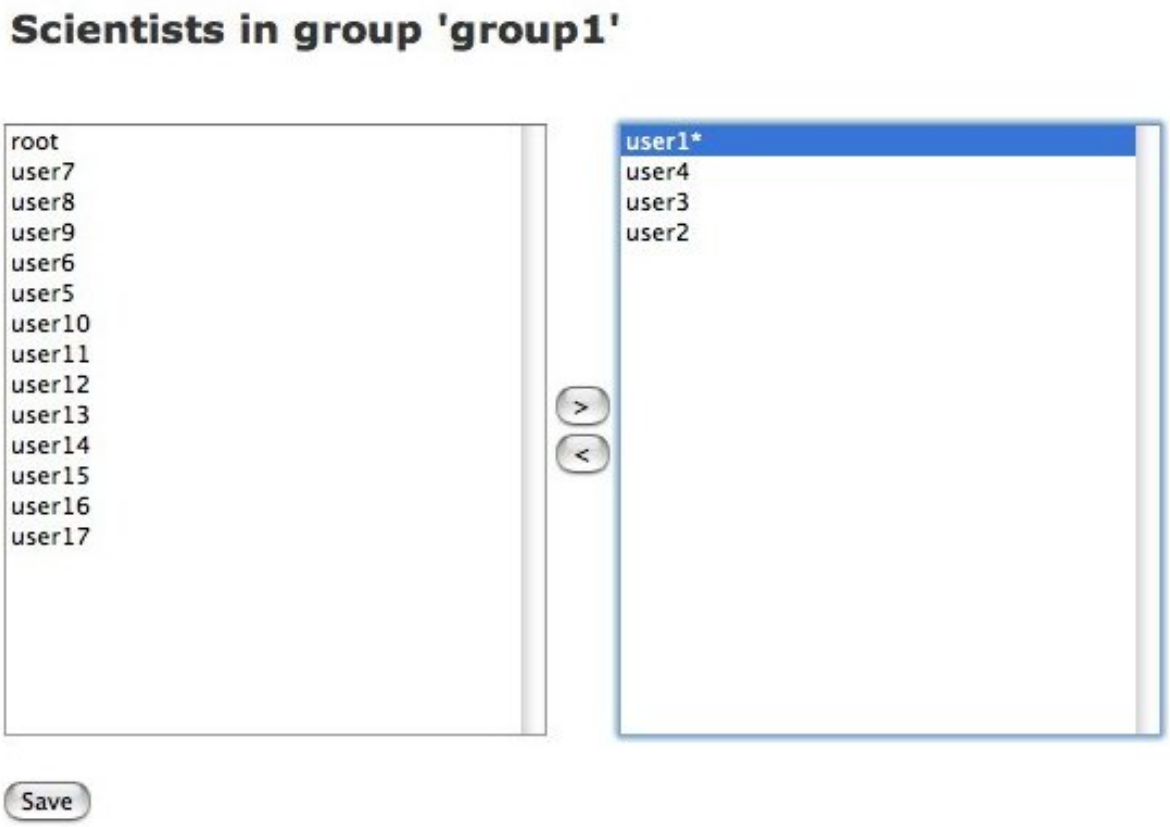

Figure 4.14-1 : Manage users within a group.

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4.15. How to manage enumerations?

To manage enumerations, click on the ***Enumerations*** button in the toolbar to display the list of existing enumerations (see Figure 4.1-2). You can then perform various ***Actions*** :

- add a new enumeration (see Section 4.16),
- edit enumeration (see Section 4.17).
- reset enumerations to default value (see Figure 4.15-2).

Figure 4.15-1 : List of Enumerations

On the table **Actions** column we can see two types of cleaning icons:

- - Enumeration values was changed and this button allows to reset to default values.
- - Enumeration values have oryginal values, there is no reason to reset them.

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4.16. How to add a new enumeration?

To add a new enumeration,

1. Click on the ***Enumerations*** button in the toolbar to display the list of existing enumerations (see Figure 4.1-2).
2. Click on the ***Add new enumeration*** button .

Then enter the following required information:

- Choose from the select list ***Type of enumeration*** .
- Enter the enumeration's name: field ***Enumeration Name*** .

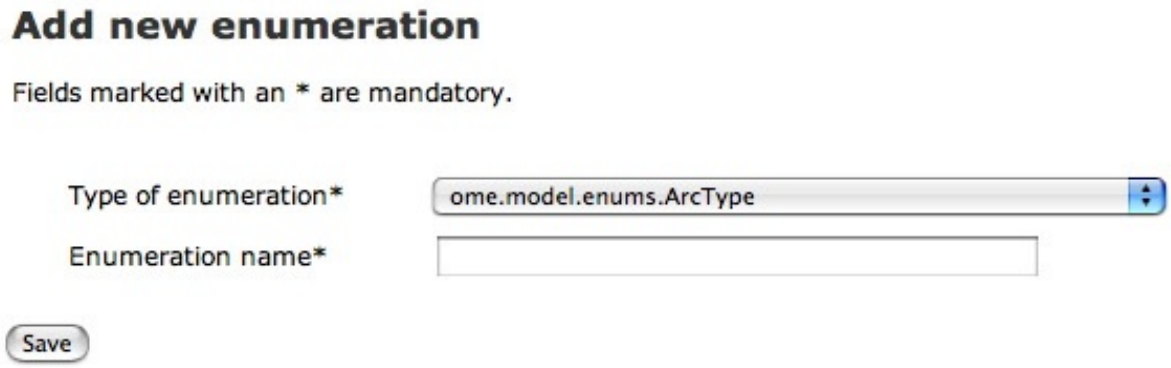

Figure 4.16-1 : Add new enumeration

NB

To be a valid enumeraton name, you need to enter a string which is not on the list. If this name exist error message will appear.

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4.17. How to edit an existing enumeration?

From the ***Enumerations*** page (see Figure 4.1-2), click on the ***Edit*** button in the ***Actions*** column.
Then modify the following required information:

- Edit the enumeration's name: field ***Name*** .

Additional optional information can be updated:

- Delete enumeration by the button .

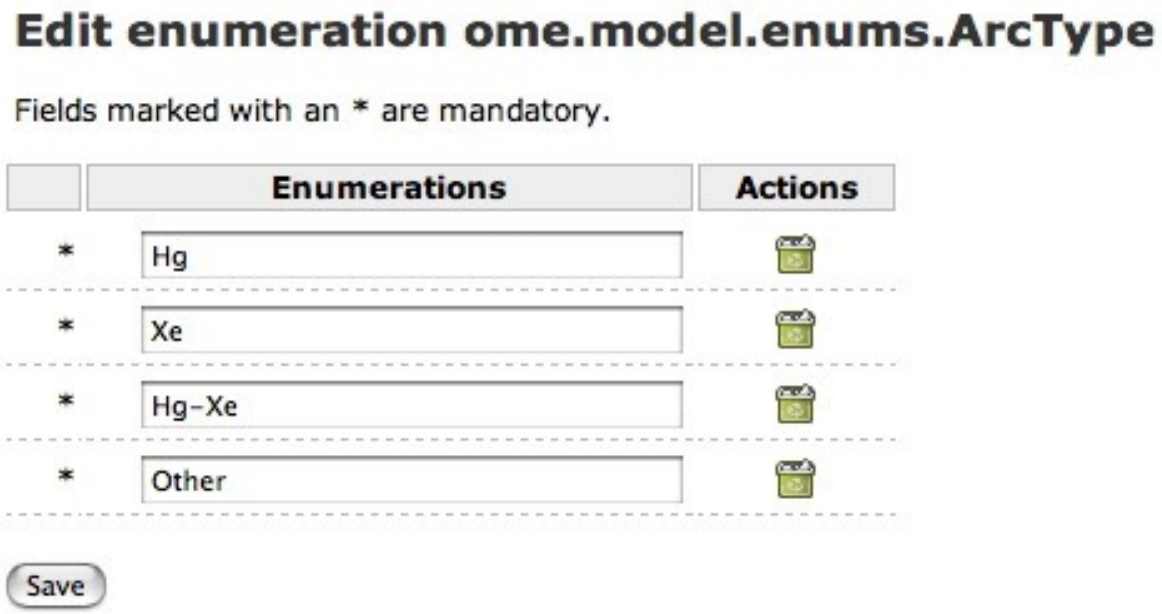

Figure 4.17-1 : edit type of Enumeration

NB

To be a valid enumeraton name, you need to enter a string which is not on the list. If this name exist error message will appear.

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4.18. How to manage drive space?

Click on the ***Drive Space*** button in the toolbar to display a graphical representation of the space currently available.

The graphics presents the space used by the number of users defined the ***topTenValue*** (see Section 3) i.e. the number of users using most of the drive space.

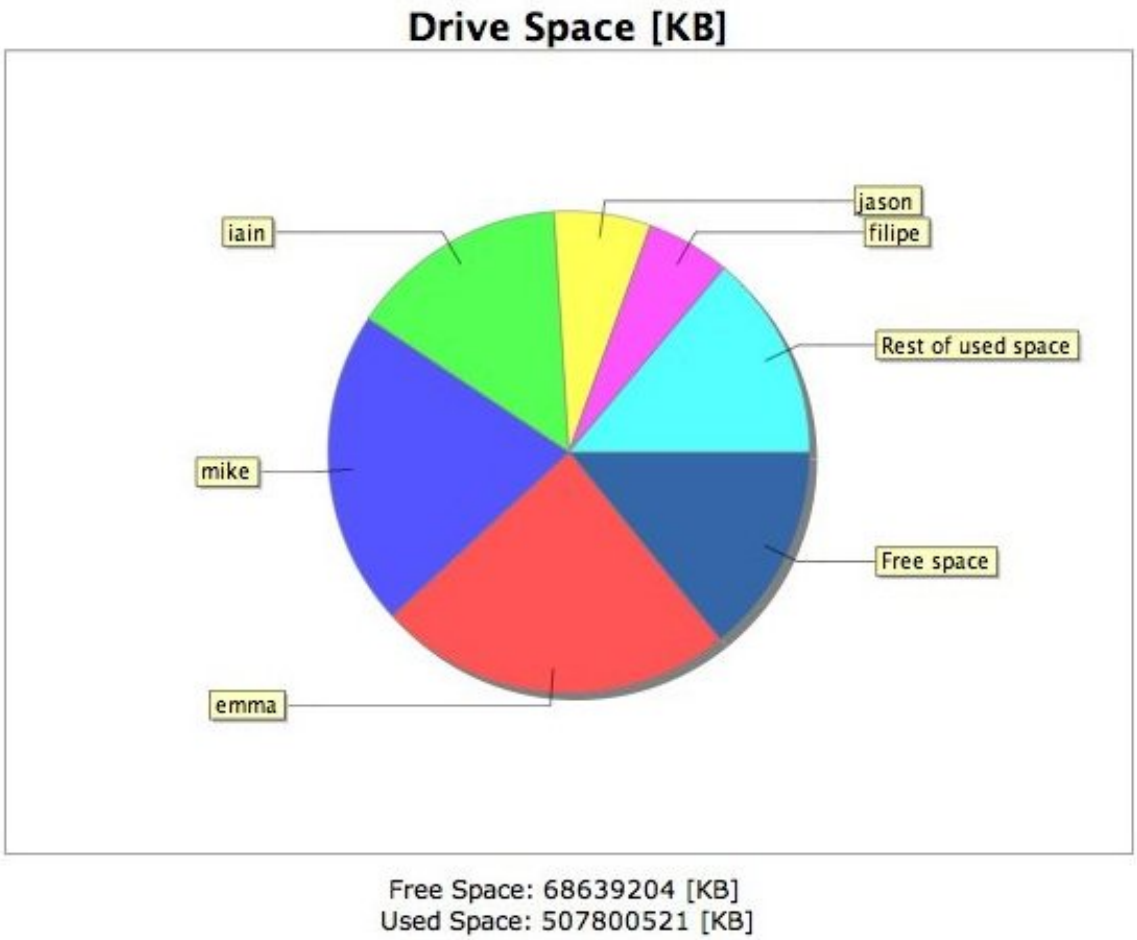

Figure 4.18-1 : Drive space

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4.19. How to manage my account?

When user logs in with ***USER permission*** he/she can change his/her details and default group. The user can modify the following required information:

- Edit the user's first name: field ***First Name*** .
- Edit the user's last name: field ***Last Name*** .

Additional optional information can be updated:

- Edit the user's middle name: field ***Middle Name*** .
- Edit the user's e-mail address: field ***Email*** .
- Edit the institution the user is a member of: field ***Institution*** .
- Select ***Save*** to confirm.

NB

Modifying the username of a given user is not possible.

NB

To be a valid email address, you need to enter a string including the following characters `@` for `at` and `.` for `dot`.

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Figure 4.19-1 : Edit an existing user

This section allows to change their password as well. For changing password click on the ***Change password*** button .

NB

If user is authenticated by LDAP server it is not possibility to change the password form the WebAdmin. This link will not appear.

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4.20. How to search and add new users from Ldap?

The different possibility to add new users is to search them in Ldap server if Ldap server was configured on omero.properties.

Example of omero.properties configuration file:

- **omero.ldap.config=true/false** 'turn on/off plugin'
- **omero.ldap.urls=** 'ldap://host:port'
- **omero.ldap.username=** 'if log in to Ldap require special user. Not required'
- **omero.ldap.password=** 'for above user'
- **omero.ldap.base=** 'place from where starts subtree'
- **omero.ldap.groups=** 'groups'
- **omero.ldap.attributes=** 'attributes'
- **omero.ldap.values=** 'values of attributes'

To search and add new users click on the ***Search*** button in the toolbar to display the search page (see Figure 4.1-2).

Figure 4.20-1 : Search in Ldap.

Select box contains various parameters for searching on Ldap, what is configured on web.xml (see Section 3). When searching parameter was specified and value was set, click search.

Result of searching appear below (see Figure 4.20-2).

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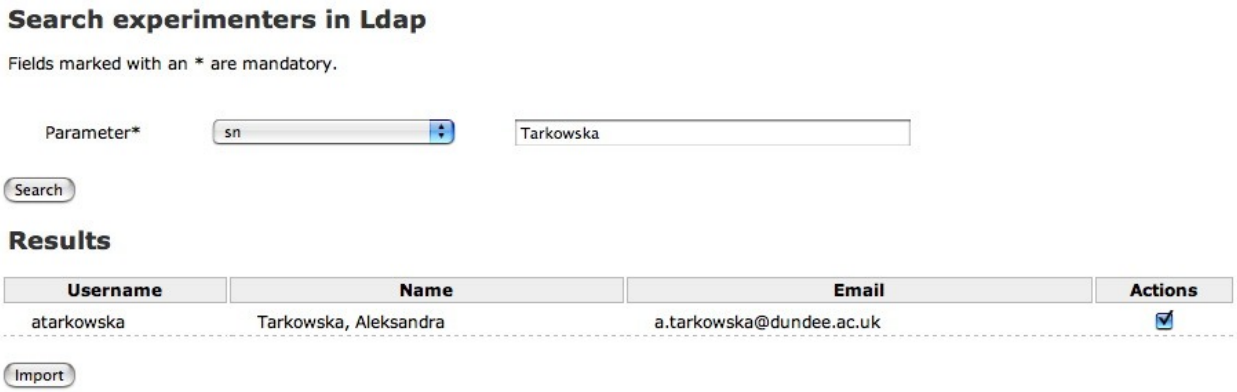

Figure 4.20-2 : Search results.

NB

The ***Actions*** column includes checkboxes that allow us to specify which of users should be imported. If user has empty field it means that the user with this username or email address exists in the database.

Click in the Actions column to select users to import. Select the import button. If the Import is successful the displey will return to the Experimenters page (see Figure 4.1-2).

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5. Troubleshooting

The section contains a list of the most commonly problem solving. It is the systematic search for the source of a problem so that it can be solved. Troubleshooting is often a process of elimination - eliminating potential causes of a problem in OMERO.webadmin.

5.1.What to do if I cannot log in?
5.2.What to do if I cannot change my password?

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5.1. What to do if I cannot log in?

The **Login** page gives the access to the application. If you cannot log in:

- check that CAPSLOCK on your keyboard is not on,
- be sure, that you use correct password,
- be sure that the server details are correct for the OMERO server you wish to connect to,
- ask administrator about activating your account.

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5.2. What to do if I cannot change my password?

If user is authenticated by LDAP server there is no possibility to change the password form the WebAdmin. This link will not appear (see Section 4.19).

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