

Frozen Material Management System

«Selen Freezer v.1.02»

User's Manual

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General information

The program is designed to manage database of deep frozen material stored in freezers of liquid nitrogen tanks. It contains a server module (further "database") that contains the database itself and a client module (further "client") that is used to access the database.

The program works under OS Windows, and uses MS SQL database.

Several clients can access one database simultaneously (number of users depends on the license).

The database can be used within local area network, or locally.

With this system you can:

- Create and manage storage units of any configuration;
- Create and manage samples in the database;
- Create and manage material types;
- Easily navigate and search for samples;
- Use 3 types of users, organized in groups;
- Control storage period of materials;
- Control users' employment duration;
- Print reports;
- Print labels.

About this manual

Terms used throughout the manual

Operator – Administrator, Group leader or User.

Storage unit – Freezer or Liquid Nitrogen Tank

Section – place within the storage unit where you can place Rack, Drawer or Canister

Section element – Rack, Drawer, Shelf or Canister

Text labelling in the manual

Note

This way of labelling indicates an important note

User Privileges

This way of labelling indicates information related to operator privileges

Attention!

This way of labelling indicates critical comment

1. Launching Selen Freezer

To launch Selen Freezer, double click its icon in the program group or folder in which you installed the software. When the program is launched, authorization dialog box will appear (Fig.1).

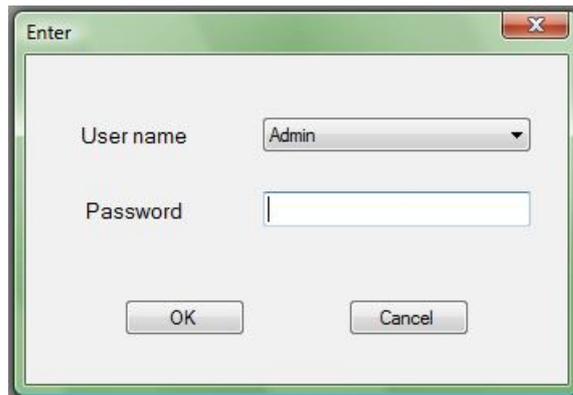


Fig.1 User authorization dialog box

It is necessary to fill following fields in this dialog box.

- **User name.** This field contains a drop down list of user names. Press arrow on the right side  to display the list of users and choose the desired one.
- **Password.** In this field you should type the password of the user chosen in the first field.

After filling these two fields press **OK** button. If the password is correct, the **Application Workspace** window will open (Fig.3 [2.1. Main program window](#)). If the password is incorrect, the message about the wrong password will appear (Fig. 2).



Fig.2. Wrong password dialog box

Note

If for any reason you do not want to launch Selen Freezer, press Cancel button in the authorization dialog box (Fig.1).

2. Using Selen Freezer

2.1. The application workspace

The application workspace contains information about all organization levels of the database.

Almost all actions are performed in the application workspace (Fig.3). It includes:

1. Control panel
2. List of storage units
3. Freezer structure display
4. Section element structure display
5. Box display
6. Sample information
7. User information

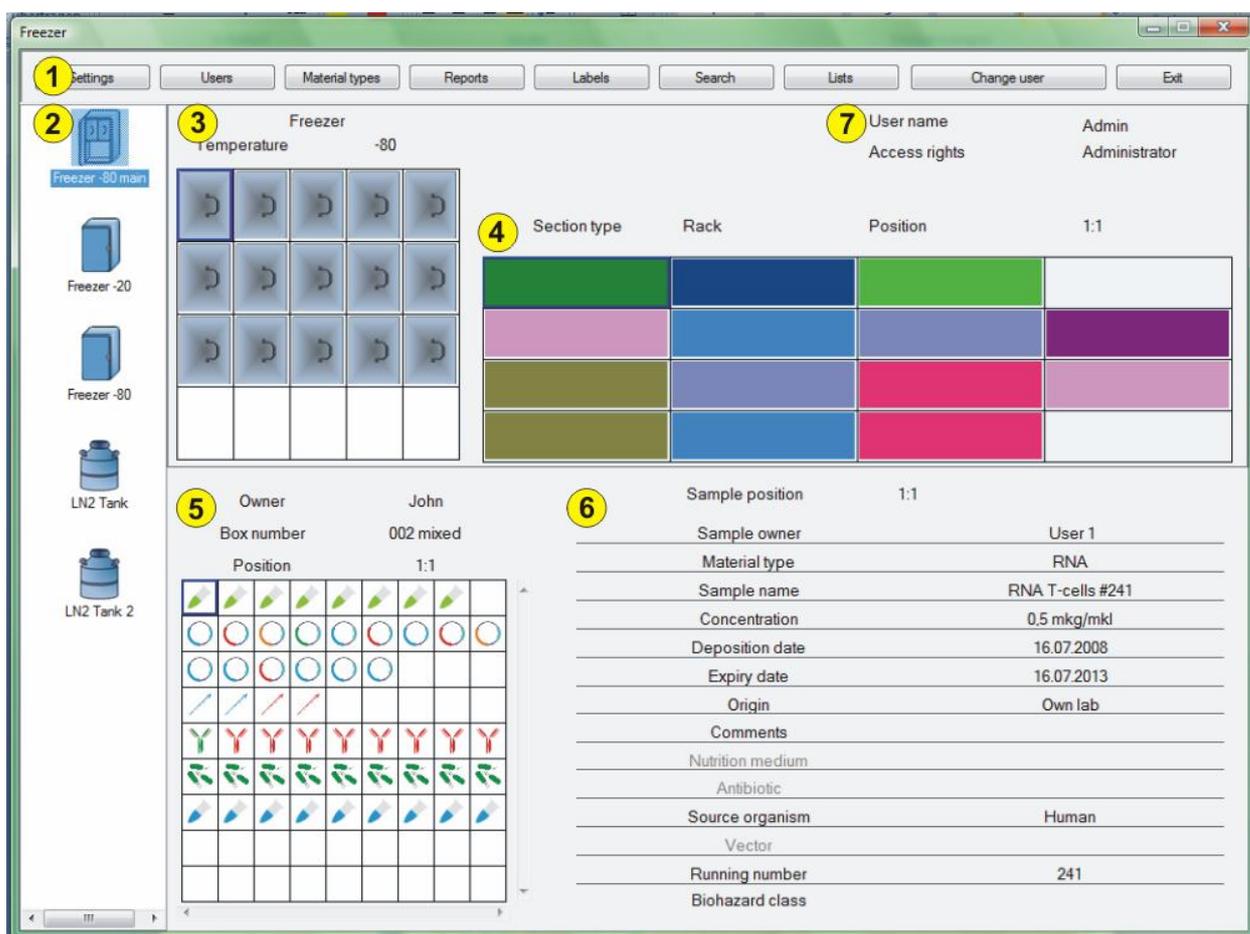


Figure 3. The Application Workspace

2.1.1. Control panel

The control panel (Fig.4) contains program functions and options buttons.



Fig.4. Control Panel

The short description of each of these buttons:

1. **Settings** – define parameters of the program.
2. **Users** - manage operators.
3. **Material types** –manage material types

4. **Reports** – generate reports
5. **Labels** – generate labels.
6. **Search** – search for samples.
7. **Lists** – manage standard lists.
8. **Change user** – change user without leaving the program.
9. **Exit**

Below you will find detailed description of each button functions.

2.1.1.1. Settings

To define program setting press **Settings** button. The Setting dialog will open (Fig.5).

User privileges

Only Administrators have access to this window. Users and Group leaders do not have access to program settings and do not have Settings button in the program interface.

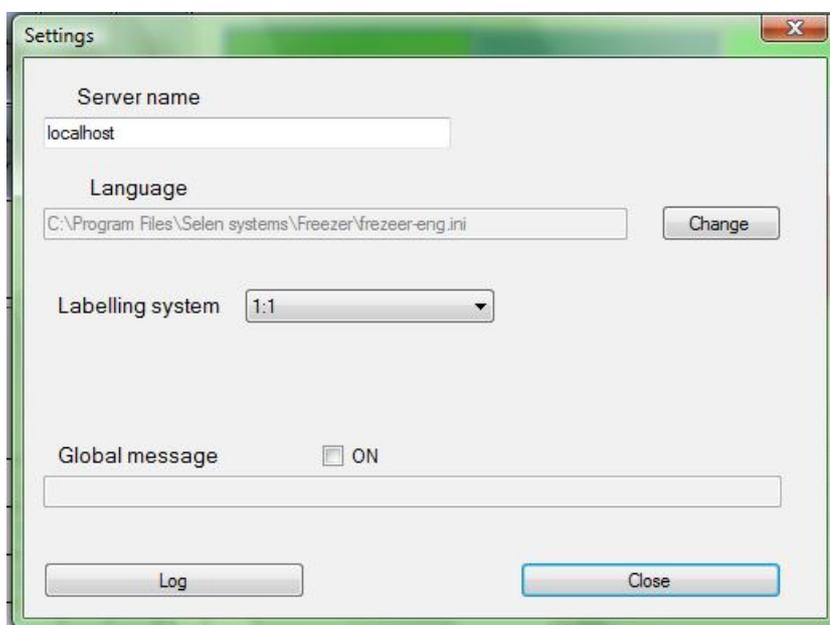


Fig.5. **Settings** dialog box

Following parameters can be changed in **Settings** dialog box.

- In the **Server name** text box enter the name of the server where the database is installed (if you use the program locally you can enter **localhost**)
- In the **Language** text box the path to the text settings of the client is displayed. You may change the language of the interface. To do so this press **Change** button, located next to this text box. The dialog box **Open** will appear (Fig.6). You may choose the language file from listed *.ini files. At the moment you may choose between Russian (freezer-rus.ini) and English (freezer-eng.ini) languages. Choose desired file and press **Open** button. Press **Close** button to close **Settings** dialog box and close application. New language settings will be active after the next launch of the application.

Note

If you do not want to change the language of the program interface, click Cancel button in the «Open» dialog box.

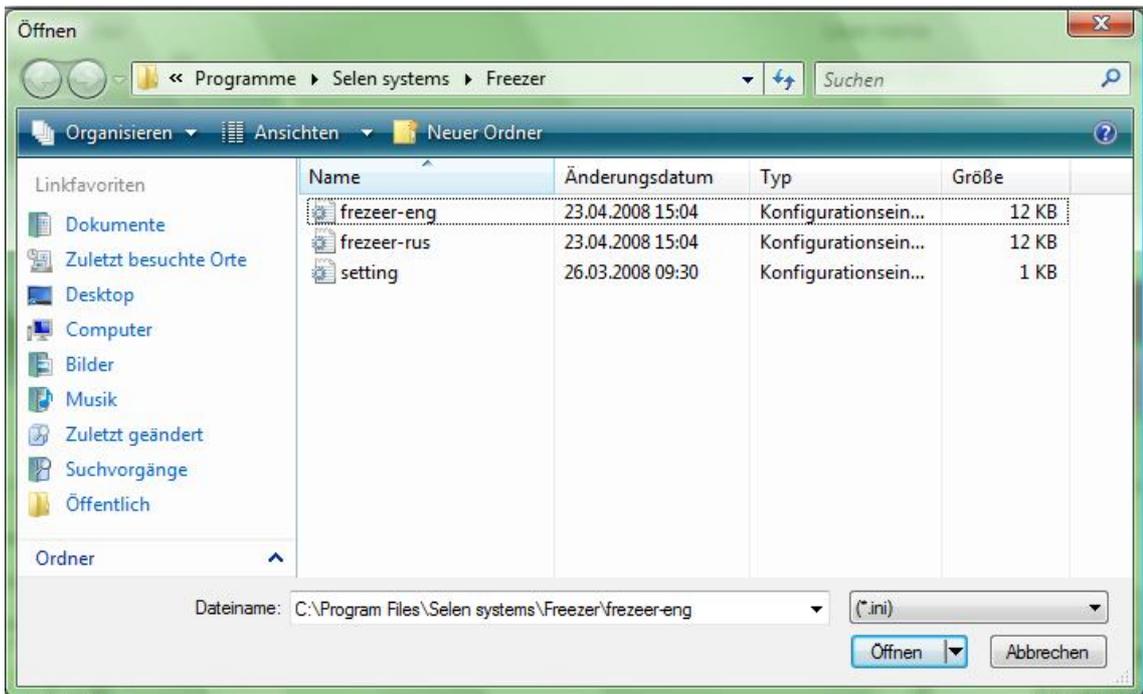


Fig.6. Dialog box «Open»

- To change numbering system use **Labelling system** option. At the moment 4 global numbering systems are available: 1:1, 1:A, A:1, A:A. Use drop-down menu to select desired numbering system.
- In the **Settings** dialog box you can activate and define a message that will be displayed after the application launch. To do so check the box **ON** next to the **Global message** setting. This will activate the text field below. Use this field to enter the message important for all users of the database. For example, if you enter «**Dear users, LN2 Tank will be replaced by LN2 Tank 2 in 3 weeks. Please transfer your material!**», every user will get this message (Fig. 7) after launching the application.

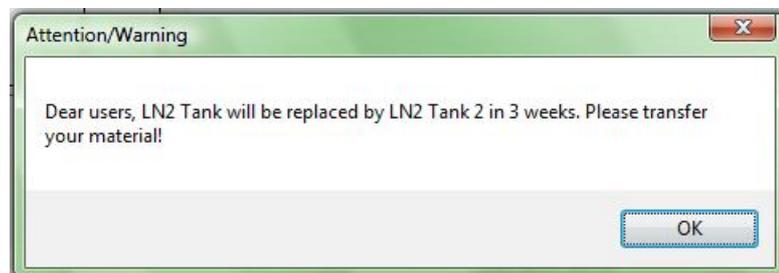


Fig.7. Message box displaying the global message

- Pressing **Log** button of the **Settings** dialog box will open **Event Log** window that contains information about the activities of the users during past 30 days (Fig.8).

Date/Time	User	Action	Object	Object ID
15.07.2008 17:52	Admin	Log in	0	0
15.07.2008 17:52	Admin	Add	User	1
15.07.2008 17:52	Admin	Log out	0	0
16.07.2008 08:27	Admin	Log in	0	0
16.07.2008 08:27	Admin	Add	Freezer / tank	1
16.07.2008 08:28	Admin	Add	Freezer / tank	2
16.07.2008 08:29	Admin	Add	Freezer / tank	3
16.07.2008 08:30	Admin	Add	Freezer / tank	4
16.07.2008 08:34	Admin	Change	User	1
16.07.2008 08:34	Admin	Add	User	1
16.07.2008 08:35	Admin	Add	User	1
16.07.2008 08:35	Admin	20	0	0
16.07.2008 08:35	Alex	User change	0	0
16.07.2008 08:35	Alex	Add	User	2
16.07.2008 08:36	Alex	Add	User	2
16.07.2008 08:36	Alex	20	0	0
16.07.2008 08:36	John	User change	0	0
16.07.2008 08:36	John	Change	User	3

Fig.8. Window «Event Log»

- To close Settings dialog box press **Close** button.

2.1.1.2. Users

Operators of the Selen system Freezer database are organized in groups and may have one out of following access privileges: **Administrator**, **Group leader** and **User**. The basic difference between user types is the right to modify samples in the database. **Administrator** can modify any sample, **Group leader** can modify any sample that belongs to a user of his/her group, and **User** can modify only his/her own samples. Other differences in privileges are described throughout this manual.

Pressing **Users** button will open a dialog box in which you can manage the list of operators (Fig.9).

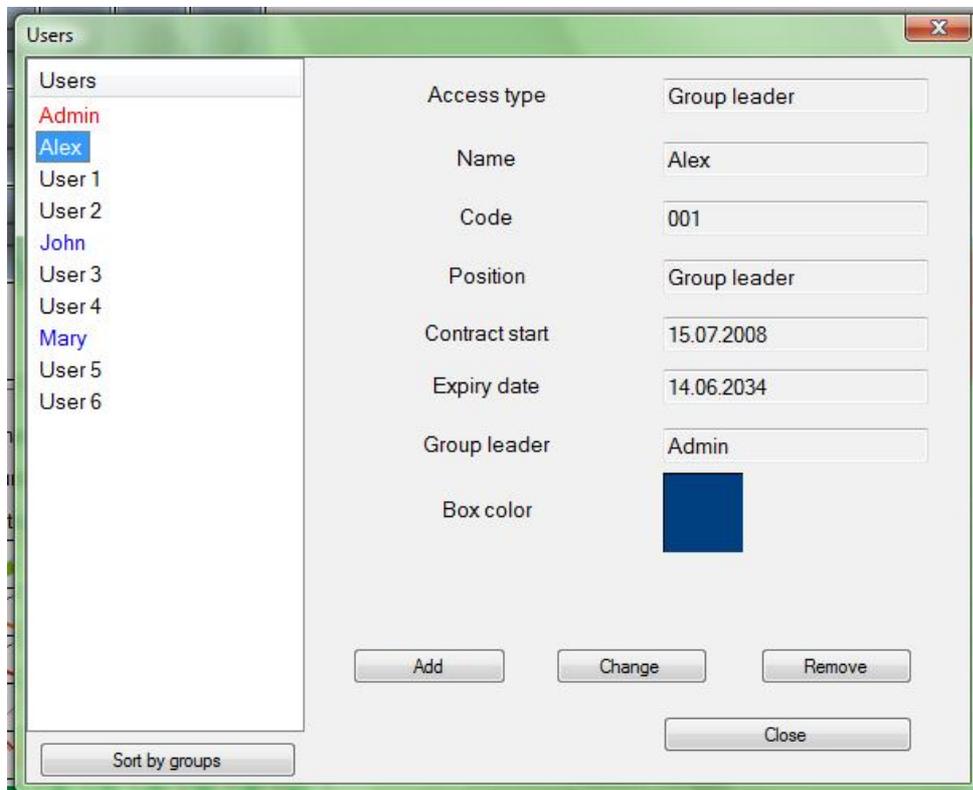


Fig.9. Dialog window **Users**

Left field contains the list of all operators registered and can be used to select a user. Names of **Administrators** are written in red, **Group leaders** – blue and **Users** – black. Pressing **User** header of the field will sort operators alphabetically. Pressing **Sort by groups** button will sort operators according to their groups.

In the right part of the dialog box following parameters of the selected user are displayed.

- **Access type.**
- **Name.**
- **Code.**
- **Position.**
- **Contract start.**
- **Expiry date.**
- **Group leader.**
- **Box colour.**

To add a new user press **Add** button and **User** dialog box (Fig 10) will appear.

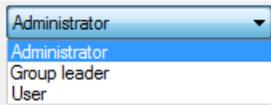
User privileges

The **Add** button is enabled only for **Administrators** and **Group leaders**.

Following information should be filled in to create a new operator.

The 'User' dialog box is a standard Windows-style window with a title bar and a close button. It contains several input fields and buttons. The 'Access type' field is a dropdown menu currently set to 'Administrator'. The 'Name', 'Code', and 'Position' fields are empty text boxes. The 'Contract start' and 'Expiry date' fields are date pickers showing '20 Juli 2008' and '20 Juli 2009' respectively. The 'Group leader' field is a dropdown menu set to 'Admin'. The 'New password' and 'Confirm password' fields are empty text boxes. The 'Box color' field shows a blue color swatch and a 'Change' button. At the bottom are 'OK' and 'Cancel' buttons.

Fig.10. Dialog box **User**

- In the field **Access type** use drop down menu  to choose the access type of the new operator

User privileges

Only **Administrator** can create **Administrators**, **Group leaders** or **Users**. **Group leader** can create only **User** that belongs to his/her group therefore the drop down list is disabled and has **User** as a default value.

- Enter the name of the user in the **Name** field.

Note

User names will be sorted alphabetically in the login field. It is recommended to use the same system for all user names (e.g. "Surname, Name").

- Enter unique alphanumeric code in the **Code** field.
- Enter a position of the user in the **Position** field (e.g. Head of the lab, Post Doc, Doctoral student Research assistant, Technical assistant, etc.).
- Enter contract commencement date in the **Contract start** field. Use a pop-up calendar, presented on the Fig. 11



Fig.11. Pop-Up calendar

- Use arrow buttons ◀ and ▶ within the upper part of the calendar to navigate between months. For fast navigation between months or years click month of year in the upper part of calendar. To set the date double click on the desired day.

Note

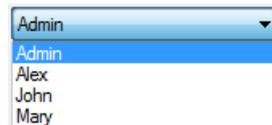
By default the actual date is indicated in the field **Contract start**

- Enter contract expiration date in the **Expiry date** field. Selection of the date is described above.

Note

By default the **Expiry date** field contains the date one year after the date in Contract start field.

- The field **Group leader** contains a drop-down list of Administrators and Group



leaders. Select a leader of the group the user belongs to.

User privileges

This drop-down list is enabled for **Administrators** only. **Group leaders** can create users for their groups only.

- Type password in the **New password** field.
- Re-type the password the **Confirm password** field.
- Box colour field shows the colour used for identification of user's boxes. To change the colour press Change button and choose desired colour from the dialog box (Fig.12).



Figure 12. Colour dialog

If desired colour is not present in this dialog box you can define new colours using dialog box shown below (Fig 13).



Figure 13. Extended colour dialog

After selection of desired color press **OK** button. The color will be used to paint the user's boxes.

After filling all field of the **User** dialog press **OK** button. The **User** dialog will close and new user will appear in the list of users. To cancel the process press **Cancel** button. This will close the dialog and the user will not be added.

Note

All fields in the **User** dialog are mandatory. If you forgot to fill in one of the fields and pressed **OK** button an error message will appear. For example if you forgot to fill in the **Position** field a message presented on Figure 14 will appear.



Figure 14. Error message of **User** dialog

To change user parameters choose an operator from the list in the **User** dialog and press **Change** button. The functionality of the **Change** button is different for different operator types.

User privileges

Administrator can change any parameter of any operator with the exception of himself/herself.

Group leader can change any parameter of any operator in his/her group.

User can change his/her own password and box colour.

Independent on access type in their own accounts operators can change password and box colour only.

To remove operator choose him/her from the list in the **User** dialog and press **Remove** button. Before the operator will be removed, the warning message will appear (Fig.15).

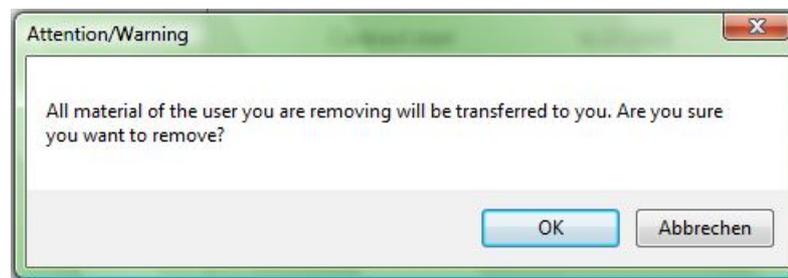


Figure 15. Warning message before removing the chosen user

If you are sure you want to remove the operator from the system, press **OK** button. After that the warning message will close and the operator will be removed. Otherwise press **Cancel** button. The functionality of the **Remove** button is different for different user types.

Note

After the removal of the operator all his/her material will be transferred to a **Group leader** or **Administrator** who removed the operator.

User privileges

Administrator can remove any operator with the exception of himself/herself.

Group leader can remove any operator in his/her group with the exception of himself/herself.

User – the **Remove** button is disabled.

Attention!

It is not possible to remove the global administrator **Admin**. This administrator is created by default during database installation. If you make an attempt to remove the global administrator in the name of another administrator the following message will appear (Fig.16).

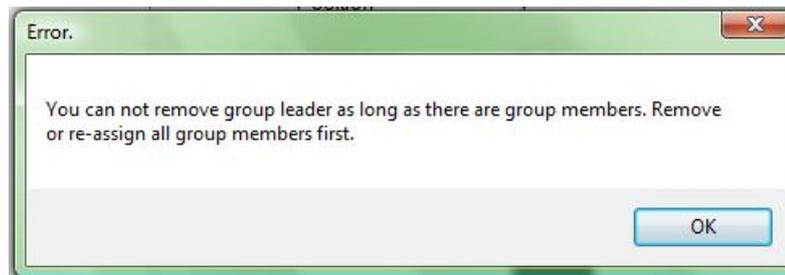


Figure 16. Error message about the impossibility of removing the global administrator.

To close the **User** dialog box press **Close** button.

2.1.1.3. Material types

Any sample stored in the database has to be associated with a **Material type**. Material type can be defined by operators using **Material types** dialog.

Note

No samples can be entered into the database if material types are not defined.

To open **Material types** dialog press **Material types** button. Dialog presented on Figure 17 will appear.

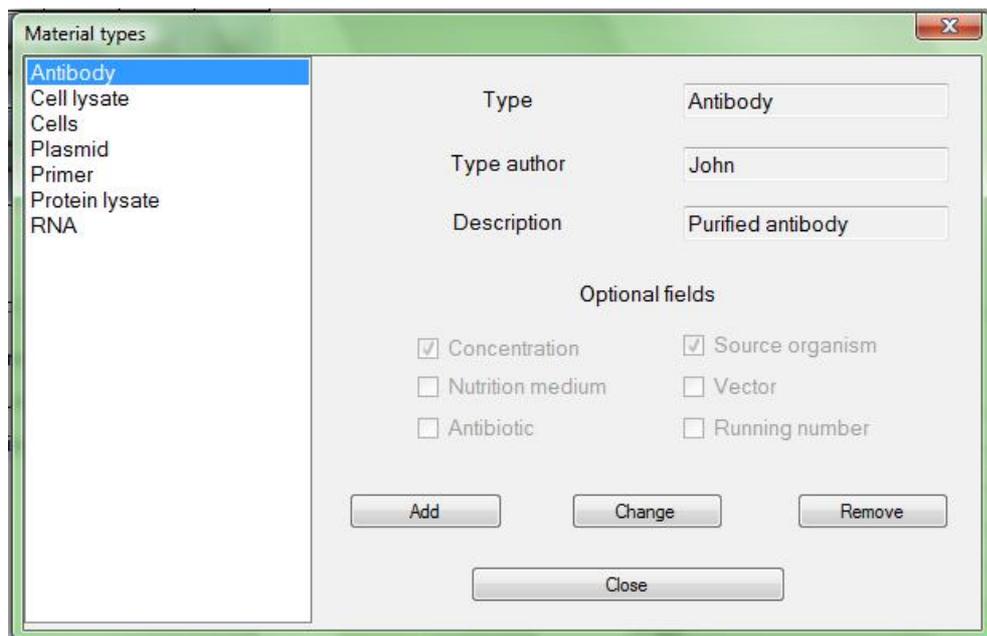


Figure 17. Material types dialog.

Left part of the window contains a list of **material types**. Right part of the window contains information about currently selected material type.

Note

All **material types** defined are sorted alphabetically by default (Fig.17).

- **Type** – in this field the name of selected material type is displayed;
- **Type author**– in this field the author of select material type is displayed;
- **Description** – in this field the additional information about selected material type is displayed.
- **Optional fields** section contains information about the activity of optional properties of selected **material type**. Optional properties are: concentration, nutrition medium, antibiotic, source organism, vector and running number. If activated, optional field will be available for description of properties of a sample.

To create new material press **Add** button. **Material** dialog will open (Fig.18).

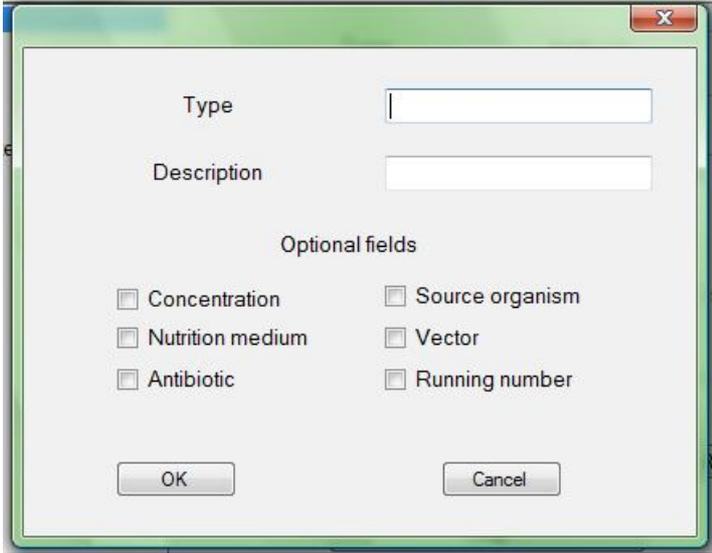


Figure 18. **Material** dialog

- Enter the name of material type you want to create in the **Type** field.
- Enter brief material type description in the **Description** field.
- Check appropriate **Optional fields** to make them available for samples of this type.

After filling in the corresponding fields press **OK** button. The dialog will close and in new material type will appear in the list.

Note

Please note, that fields **Type** and **Description** are mandatory. If you forget to fill one of them and press **OK** button an error message will appear (Fig. 19)



Figure 19. Error message Material type.

To change existing material type select desired material type in the list and press **Change** button. **Material** dialog containing information of the type you have chosen will appear. You can change material type as described above.

To remove **material type** select it in the list and press **Remove** button. Before the type will be removed a Warning message will appear (Fig. 20).



Figure 20. Material remove warning.

Please note, that you can remove a material type only if there are no samples of this type in the database. If there is at least one sample of material type you want to remove an error message will appear (Fig 21).

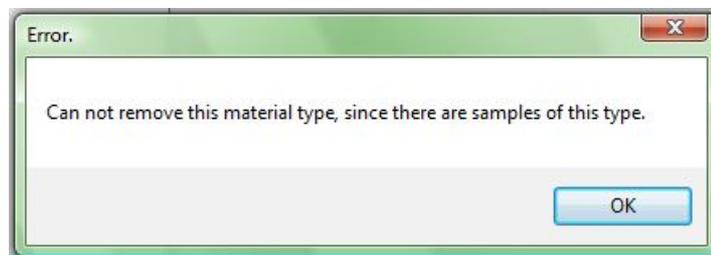


Figure 21. Error message Cannot remove material type

User privileges

Administrator can create material types, edit and remove any material types.

Group leader can create material types, edit and remove material types created by any member of his/her.

User can create material types, edit and remove material types created by him/her.

Use **Close** button to close **Material types** dialog.

2.1.1.4. Reports

Selen Freezer software contains a report function that enables users to monitor their samples, to analyse the usage of the freezer and to create a “paper backup” of their data.

To open Reports dialog (Fig.22) press **Reports** button.

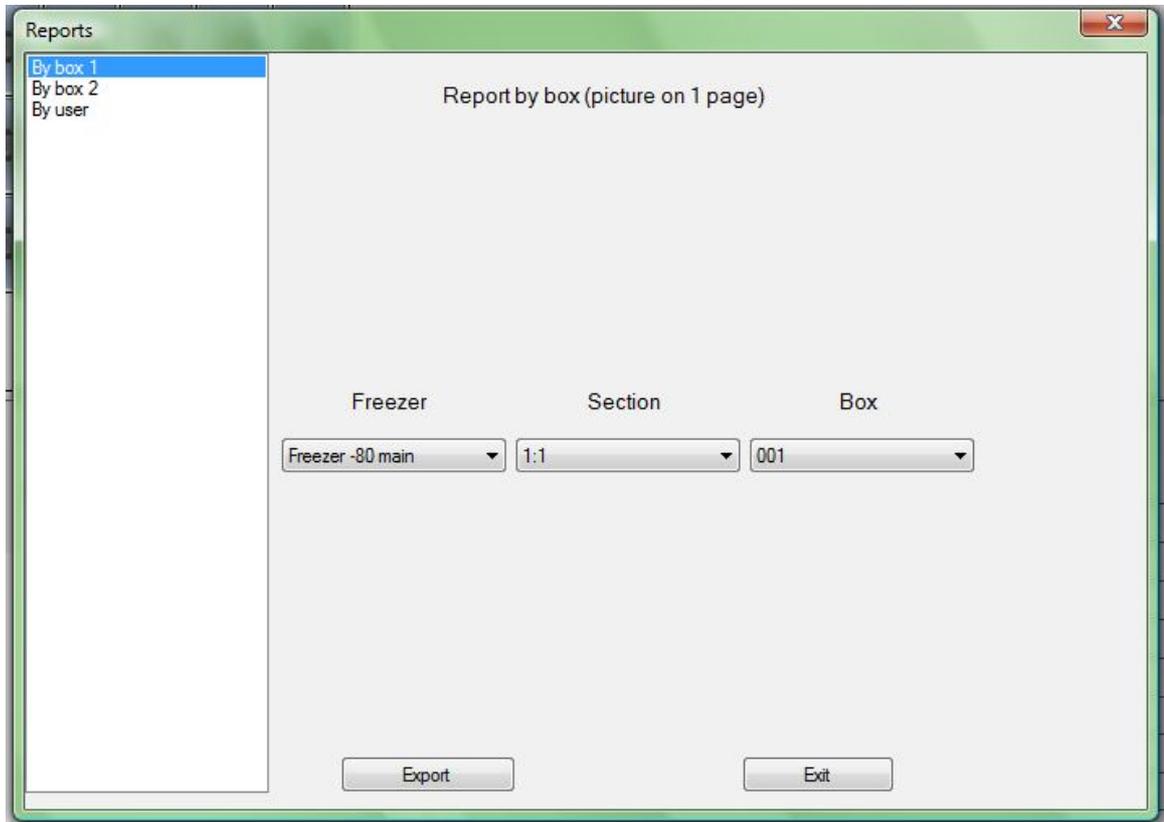


Figure 22. *Reports dialog*

In the version 1.02 three types of reports are available. They are listed in the left part of the Reports dialog.

- Report **By box 1** will generate a table that corresponds to the structure of the box and contains information about samples placed in the cells corresponding to the cells in the box (Fig XX). The header of the report contains the name of the freezer, coordinates of the section, coordinates of the box, name of the box owner, box number and print date of the report. By default a report on currently selected box will be generated. Otherwise the user can choose another box using **Freezer**, **Section** and **Box** drop down lists (Fig. 23).

By box 1

Freezer Section
Box
Owner
Box number
Time

Freezer -80 main
1:1
1:1
User 1
002 mixed
20.07.2008

RNA T-cells #241 RNA User 1 16.07.2008	RNA T-cells #242 RNA User 1 16.07.2008	RNA T-cells #243 RNA User 1 16.07.2008	RNA T-cells #244 RNA User 1 16.07.2008	RNA T-cells #245 RNA User 1 16.07.2008	RNA T-cells #246 RNA User 1 16.07.2008	RNA T-cells #247 RNA User 1 16.07.2008	RNA T-cells #248 RNA User 1 16.07.2008	
pVGR_CC12k Plasmid User 1 16.07.2008	pGBGF-23451 Plasmid User 1 16.07.2008	pBBER Plasmid User 1 16.07.2008	pSSER231 Plasmid User 1 16.07.2008	pgREG Plasmid User 1 16.07.2008	pSK124 Plasmid User 1 16.07.2008	pCOL14 Plasmid User 1 16.07.2008	pMUSC221 Plasmid User 1 16.07.2008	pBSF Plasmid User 1 16.07.2008
pVGR_CC12k Plasmid User 1 16.07.2008	pVGR_CC12k Plasmid User 1 16.07.2008	pVNTS225 Plasmid User 1 16.07.2008	pVGR_CC12k Plasmid User 1 16.07.2008	pVGR_CC12k Plasmid User 1 16.07.2008	pVGR_CC12k Plasmid User 1 16.07.2008			
GAPD F001 Primer Admin 17.07.2008	GAPD R001 Primer Admin 17.07.2008	actin F002 Primer Admin 17.07.2008	actin R002 Primer Admin 17.07.2008					
aTNF Antibody Admin 17.07.2008	a Fibronectin Antibody Admin 17.07.2008							
DH5alpha Cells Admin 17.07.2008	DH5alpha Cells Admin 17.07.2008	DH5alpha Cells Admin 17.07.2008	DH5alpha Cells Admin 17.07.2008	DH5alpha Cells Admin 17.07.2008	DH5alpha Cells Admin 17.07.2008	DH5alpha Cells Admin 17.07.2008	DH5alpha Cells Admin 17.07.2008	DH5alpha Cells Admin 17.07.2008
THP-1 Cell lysate Admin 17.07.2008	THP-1 Cell lysate Admin 17.07.2008	THP-1 Cell lysate Admin 17.07.2008	THP-1 Cell lysate Admin 17.07.2008	THP-1 Cell lysate Admin 17.07.2008	THP-1 Cell lysate Admin 17.07.2008	THP-1 Cell lysate Admin 17.07.2008	THP-1 Cell lysate Admin 17.07.2008	THP-1 Cell lysate Admin 17.07.2008

Figure 23. Report by box 1.

Press **Print** button  to print out the report.

Note

Printer has to be installed to be able to print the report.

Press **Export** button  to export the report in **xls** (Microsoft® Office Excel) or **pdf** (Adobe® Acrobat® Reader) format.

Note

By default the files will be exported into Freezer folder (usually C:\Program files\Selen Systems\Freezer). Another path can be chosen by the user.

Attention!

If the report is not displayed after pressing **Export** button in **Reports** dialog than there are probably no samples in selected box.

- Report **By box 2** shows the content of selected box in a way that every table row contains information about one sample. To generate report by box 2 operator has to define which sample properties have to be listed in the report. If **By box 2** is selected, the list of features appears in the right part of the window (Fig XX). To include feature in report check the box in front of the feature. Box selection system is the same as in **By box 1** report.

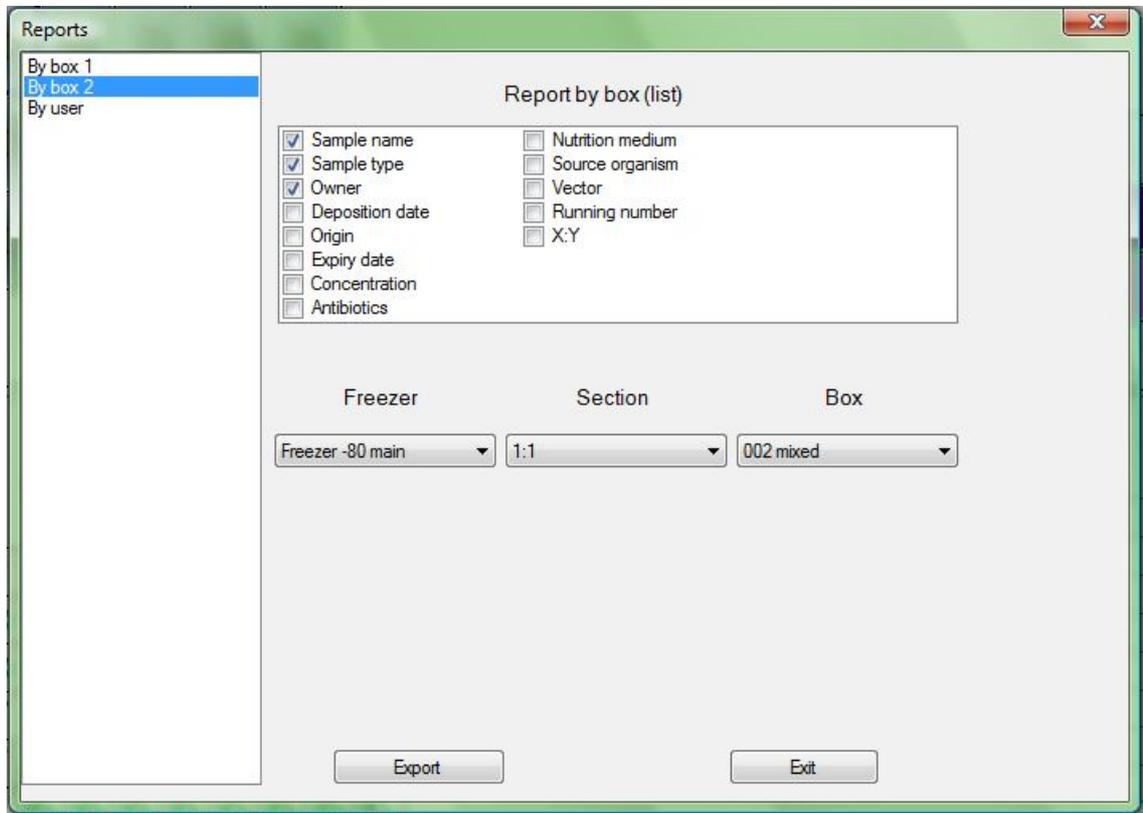


Figure 24. Report by box 2 dialog

Note

By default first 3 features (Sample name, Sample type and Owner) are activated. These features cannot be unchecked.

Typical report **By box 2** is presented on figure 25.

Sample name	Sample type	Owner	Deposition date	Origin	Running number	X:Y
RNA T-cells #241	RNA	User 1	16.07.2008	Own lab	241	1:1
RNA T-cells #242	RNA	User 1	16.07.2008	Own lab	242	2:1
RNA T-cells #243	RNA	User 1	16.07.2008	Own lab	243	3:1
RNA T-cells #244	RNA	User 1	16.07.2008	Own lab	244	4:1
RNA T-cells #245	RNA	User 1	16.07.2008	Own lab	245	5:1
RNA T-cells #246	RNA	User 1	16.07.2008	Own lab	246	6:1
RNA T-cells #247	RNA	User 1	16.07.2008	Own lab	247	7:1
RNA T-cells #248	RNA	User 1	16.07.2008	Own lab	248	8:1
pVGR_CC12k	Plasmid	User 1	16.07.2008	Peter Mustermann		1:2
pGBGF-23451	Plasmid	User 1	16.07.2008			2:2
pBBER	Plasmid	User 1	16.07.2008			3:2

Figure 25. Exported report by box 2

Report header contains following information: section position, box number, box owner and print date.

Buttons **Print** and **Export** have the same functions as in By box 1 report.

- Report **By user** shows samples that belong to a selected user. To generate this type of report select **By user** in the list of reports. The right part of the dialog box contains the list of sample features that have to be listed in the report. This list can be used as described above. The user can be selected from the drop-down list. One can define whether all samples, expired samples or samples that will expire between certain days will be displayed (see Figure 26).

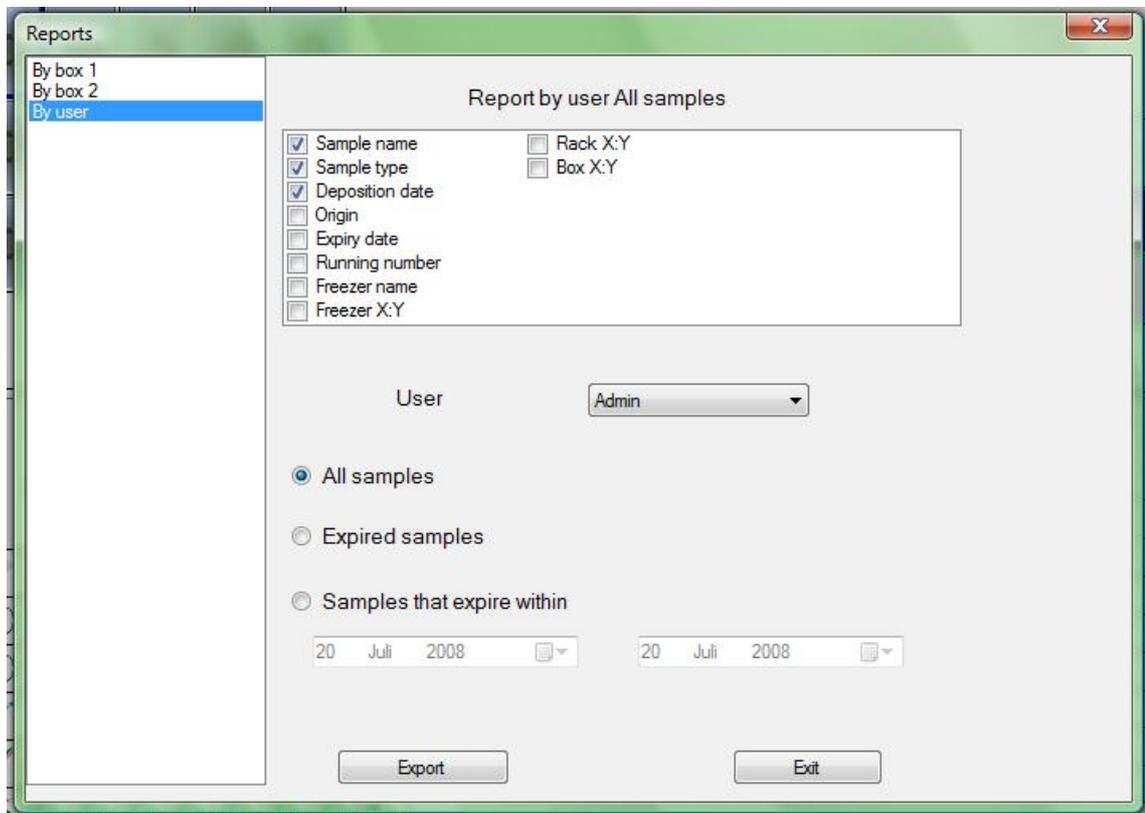


Figure 26. Report by user dialog

Note

By default first 3 features (Sample name, Sample type and Owner) are activated. These features cannot be unchecked.

Typical **By user** report is presented on figure 27.

Sample name	Sample type	Deposition date	Origin	Expiry date	Running number	Freezer name	Freezer X:Y	Rack X:Y	Box X:Y
GAPD F001	Primer	17.07.2008	Company	17.07.2009	001	Freezer -80 main	1:1	1:2	1:4
GAPD R001	Primer	17.07.2008	Company	17.07.2009	001	Freezer -80 main	1:1	1:2	2:4
actin F002	Primer	17.07.2008	Collaborator	17.07.2009		Freezer -80 main	1:1	1:2	3:4
actin R002	Primer	17.07.2008	Collaborator	17.07.2009		Freezer -80 main	1:1	1:2	4:4
aTNF	Antibody	17.07.2008	Company	17.07.2009		Freezer -80 main	1:1	1:2	1:5
a Fibronectin	Antibody	17.07.2008	Company	17.07.2009		Freezer -80 main	1:1	1:2	2:5
a Fibronectin	Antibody	17.07.2008	Company	17.07.2009		Freezer -80 main	1:1	1:2	3:5
a Fibronectin	Antibody	17.07.2008	Company	17.07.2009		Freezer -80 main	1:1	1:2	4:5
a Fibronectin	Antibody	17.07.2008	Company	17.07.2009		Freezer -80 main	1:1	1:2	5:5
a Fibronectin	Antibody	17.07.2008	Company	17.07.2009		Freezer -80 main	1:1	1:2	6:5
a Fibronectin	Antibody	17.07.2008	Company	17.07.2009		Freezer -80 main	1:1	1:2	7:5
a Fibronectin	Antibody	17.07.2008	Company	17.07.2009		Freezer -80 main	1:1	1:2	8:5
a Fibronectin	Antibody	17.07.2008	Company	17.07.2009		Freezer -80 main	1:1	1:2	9:5
DH5alpha	Cells	17.07.2008		17.07.2009		Freezer -80 main	1:1	1:2	1:6

Figure 27. Exported report by user

The report header contains user name, type of report (all samples or expired samples) and print date.

The table contains all sample features selected in **Reports** dialog.

Buttons **Print** and **Export** have the same functions as in By box 1 report.

- If instead of **All samples** option **Expired samples** will be selected, the report will contain expired sample only. All other properties of the report will be the same as in the case of **All samples**. Similarly if the option **Samples that expire within** will be selected the report will contain all samples that expire within the selected period of time. To set the dates a calendar described in 2.1.1.2 can be used.

Note

If the user has no expired samples or no samples that expire within set period of time than the report will contain only the header and no sample data.

To close **Reports** dialog press **Exit** button.

2.1.1.5. Labels

User can generate labels for boxes and sample tubes. To open Labels dialog (Fig.28) press Labels button.

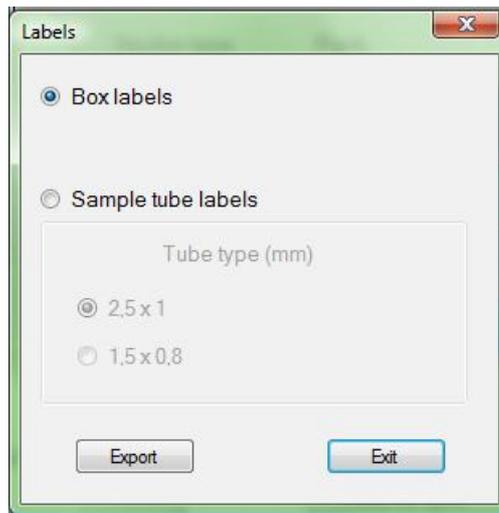


Figure 28. **Labels** dialog

Note

If not box was selected before you pressed **Labels** button an Error message (Fig. 29) will appear.



Figure 29. Error message

To generate a box label select **Box labels** option in the **Labels** dialog and press **Export** button. Window presented on figure 30 will appear.

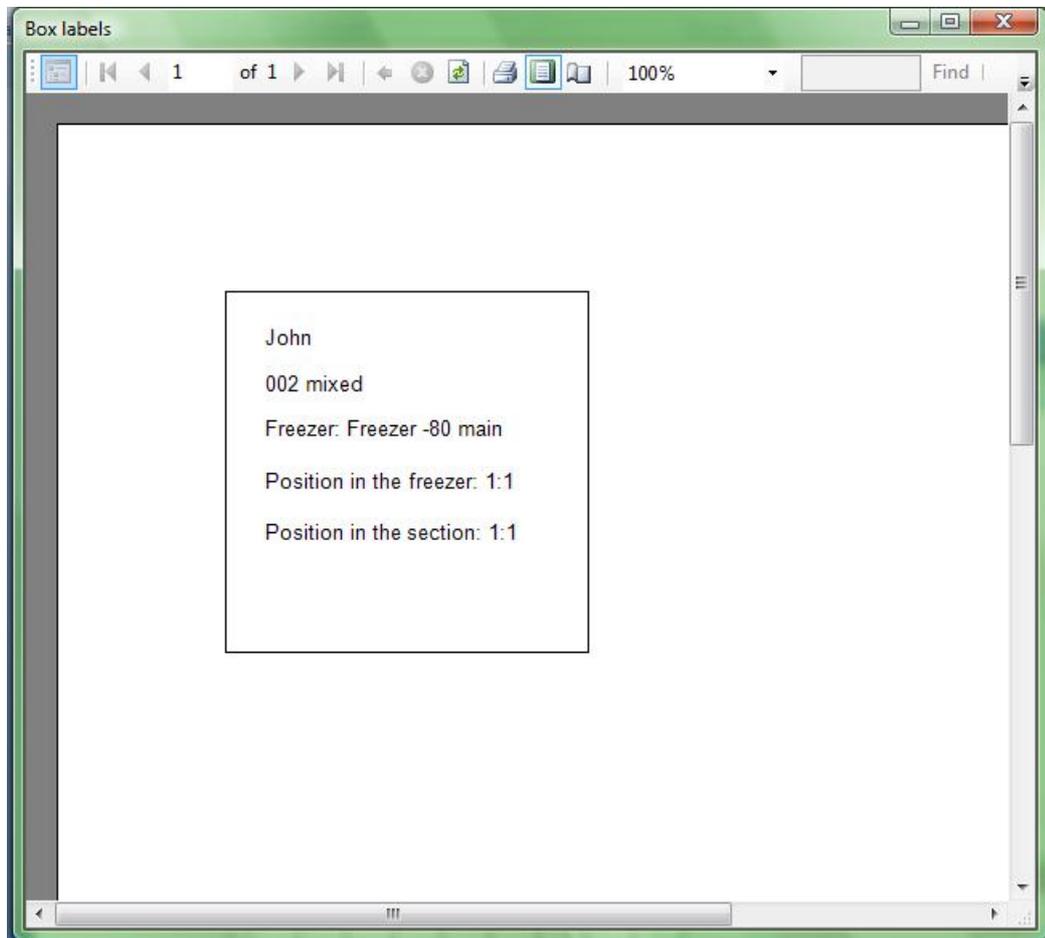


Figure 30. Exported **Box label**

This label contains following information:

- User name;
- Box number;
- Freezer name;
- Rack position in the freezer;
- Box position in the rack.

Use print button to print the label.

Note

Printer has to be installed to be able to print the report.

To generate labels for sample tubes select Sample tube labels in the **Labels** dialog. Next select the size of sample tube Labels. At the moment there are two options 2.5x1 mm suitable for standard 1.5 ml tube or bigger and 1.5x0.8 mm, suitable for 0.5 ml tube. Press enter to get labels (Fig. 31).

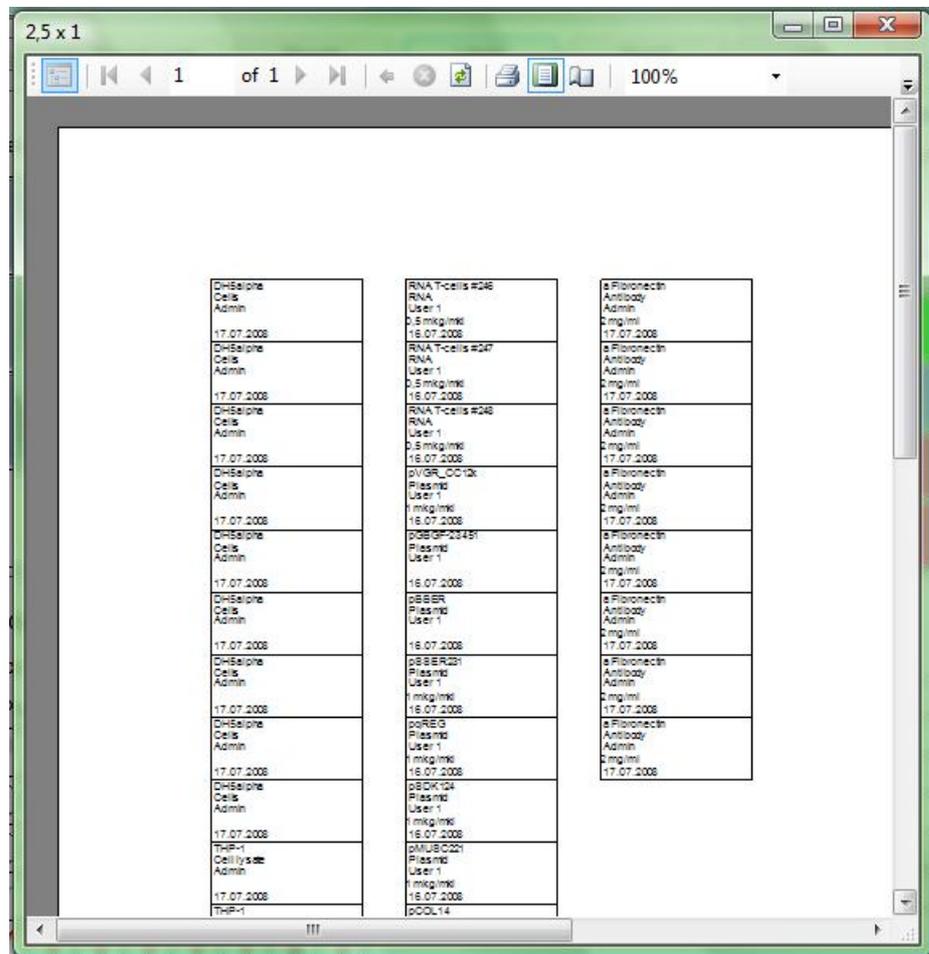


Figure 31. Exported sample tubes labels 2,5x1

Labels contain following information:

- sample name
- material type
- owner's name
- deposition date.

Using **Print** button you can print the label.

2.1.1.6. Search

User can search for samples using powerful search function. Press **Search** button to start searching for samples. **Search** dialog will open (Fig.32).

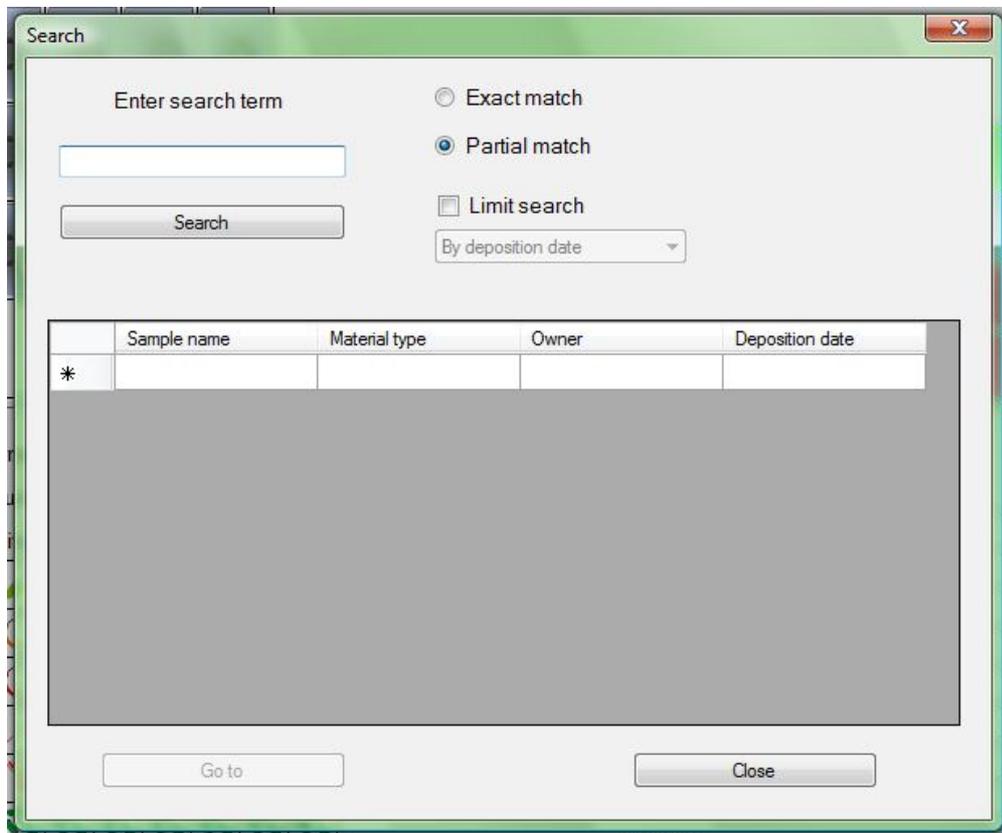


Figure 32. **Search** dialog

Enter search term is corresponding field and choose whether you search for exact match or partial match.

Search can be limited by deposition date, user or material type. To limit search check the corresponding box that will activate drop-down lists (Fig. 33). Choose parameter you want to use for limiting your search in the first list. And then choose the value for selected parameter.



Figure 33. Drop down lists for search limiting

Press **Search** button or Enter key on the keyboard. Search results will appear in the window below search parameters. Search results are presented in the form of list that contains Sample name, Material type, name of sample owner and sample deposition date.

Identify the sample you were searching for select it by clicking on the corresponding table row (Fig. 34). You can double click on the identified sample or press **Go to** button to reveal the location of the sample. The search dialog will be closed and the location of the sample will be shown in the application workspace.

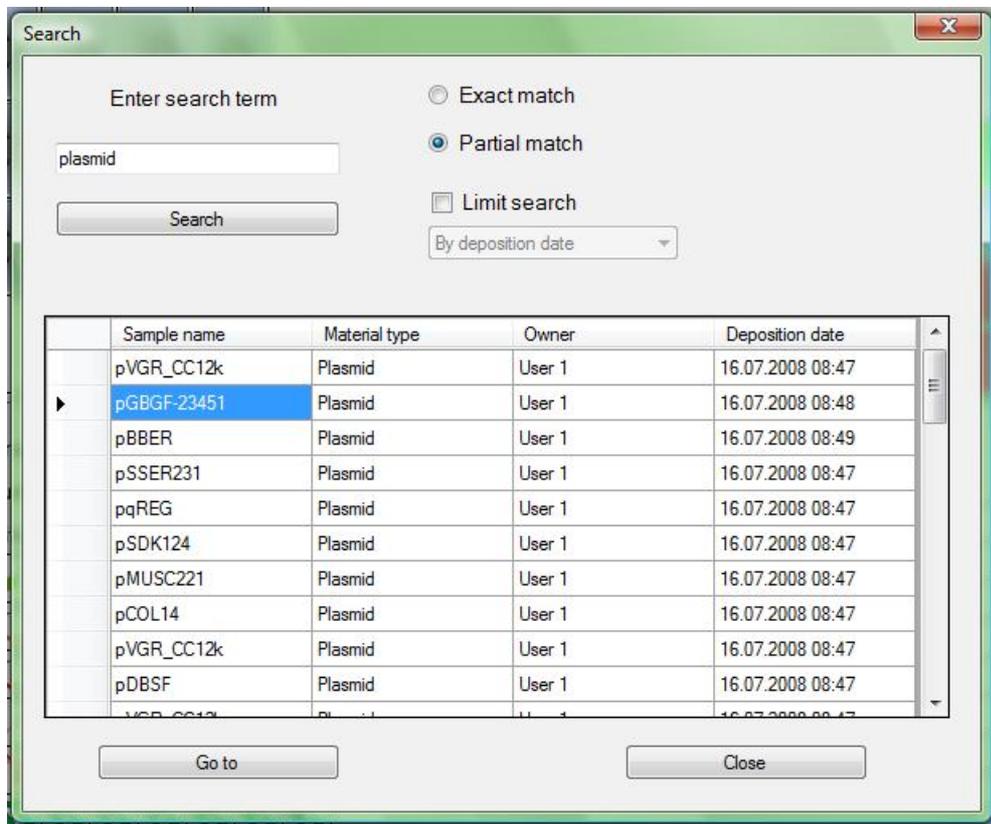


Figure 34. Search dialog with results.

To close **Search** dialog without proceeding to the sample press **Close** button.

2.1.1.7. Lists

The database uses lists of frequently used terms to simplify entering of sample information. Currently lists are available for Antibiotics, Vectors and Source organisms.

To open **Lists** dialog (Fig.35) press **Lists** button.

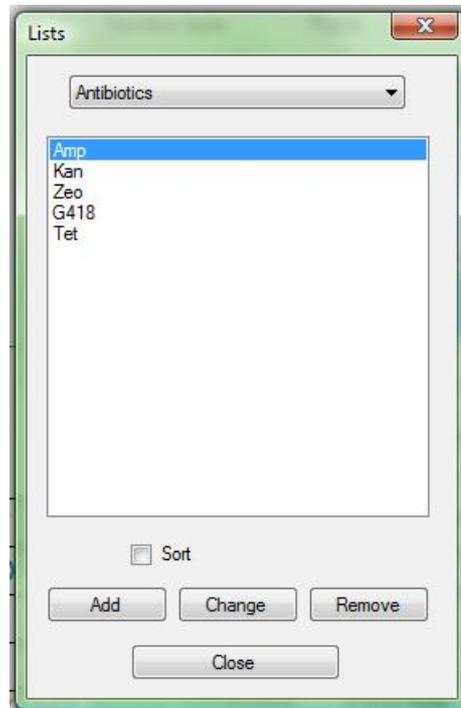


Figure 35. Lists dialog

In the upper part of the dialog a drop-down list of listed parameters is located. It contains 3 parameters: Antibiotics, Vectors and Source organisms



Select one of the parameters to display items in the list. To sort list items alphabetically check the **Sort** box located under the list. To add items press Add button in the bottom of the dialog. **Add new list item** dialog will appear (Fig. 36). Enter desired list item and press **OK** button. Alternatively press **Cancel** button.

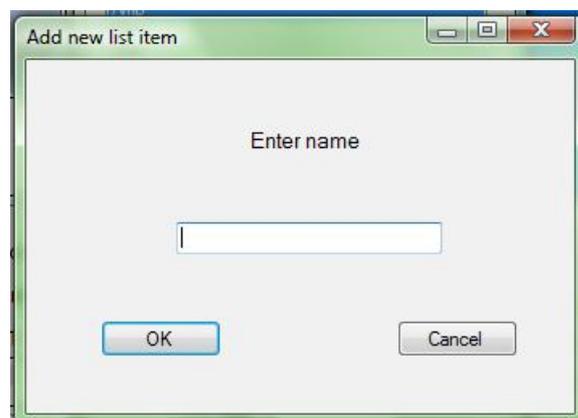


Figure 36. Add new list item dialog

Attention!

New list items will be added to the list that is currently active.

To modify List item select it in the list and press **Change** button. **Change list item** dialog will appear (Fig. 37). Modify the list item and press **OK** button. **Change list item** dialog will close and list item will be modified. To return to the Lists dialog press **Cancel** button.

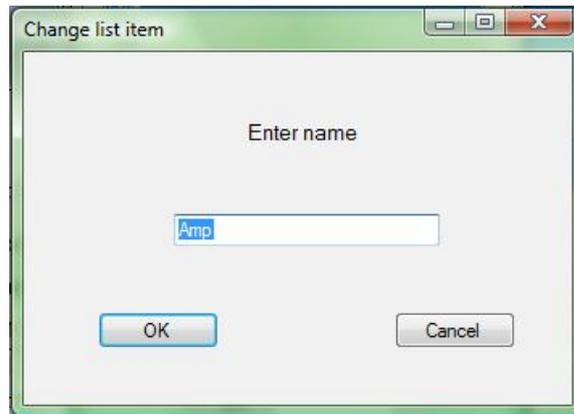


Figure 37. Change list item dialog

To remove list item select it in the list and press Remove button. A warning message will appear (Fig XX). If you are sure you want to remove this list item press OK button, otherwise press Cancel button.



Figure 38. Remove list item warning.

Note

You cannot remove a list item if it is used for description of one or more samples.

To close **Lists** dialog press **Close** button.

2.1.1.8. Change user

To change user without restarting the program press **Change user** button. **Change user** dialog will open (Fig.40). Select desired user name, type correct password in the password field and press **OK** button. The user will be changed. If you decided not to change the user – press **Cancel** button.



Figure 39. **Change user** dialog

2.1.1.9. **Exit**

To exit the program press **Exit** button.

Note

Please note that program will not ask for confirmation and will be closed immediately.

2.2. List of storage units

The list of storage units (freezers and nitrogen tanks) is located in the left part of the main program window (see [2.1. The Application Workspace](#)). An example of this list is presented on figure 40.



Figure 40. Storage units list

To add new freezer hold cursor over the list and click right mouse button. A context menu will appear (Fig. 41).

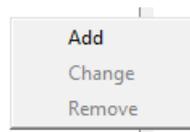


Figure 41. Context menu in freezer list

User privileges

Freezer list context menu is enabled for **Administrators** only!

Click with left mouse button on **Add** option in the context menu. (Options **Change** and **Remove** are active only if you right click on a storage unit). **Freezer parameters** dialog will appear (Fig.42).

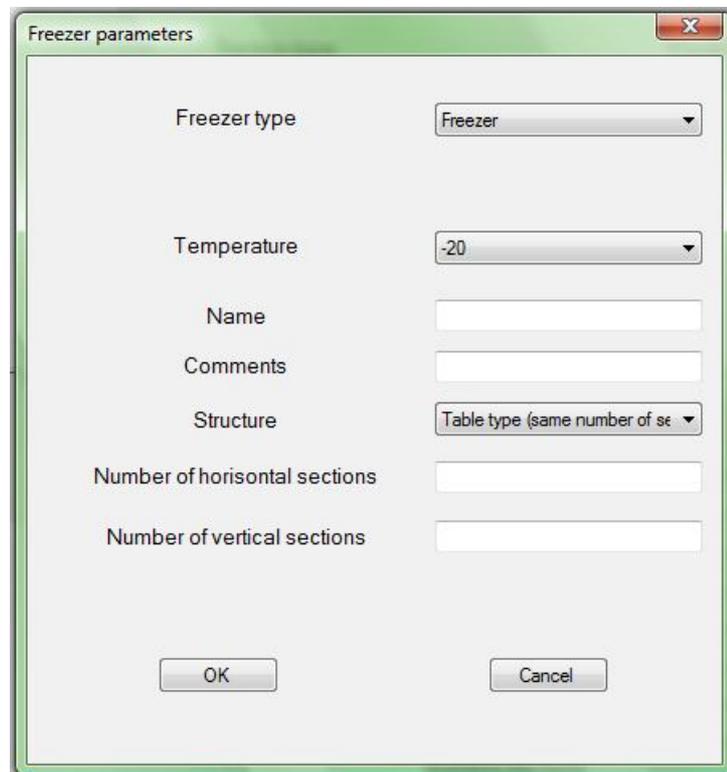


Figure 42. Freezer parameters dialog.

Use **Freezer parameters** dialog to configure new storage unit.

- **Freezer type** field contains a drop-down list with 2 items Freezer and Liquid nitrogen tank (Fig.43).

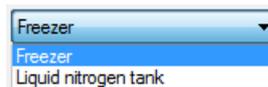


Figure 43. Drop-down list **Freezer type**

The list is displayed when you press the down-arrow button  on the right side of the field «**Freezer type**».

Note

Following filed descriptions are for the case when **Freezer** is selected as a storage unit.

- **Temperature** field contains a drop-down list of temperatures (Fig. 44).

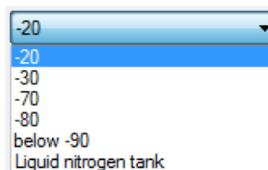


Figure 44. Drop down menu **Temperature**

The list is displayed when you press the down-arrow button  on the right side of the field **Temperatures**.

- **Name.** Enter the name of the freezer you want to create. This name will be displayed in the main program window if the freezer is selected.
- **Comments.**

- **Structure** field contains information about the structure of the freezer (Fig. 45). The list is displayed when you press the down-arrow button  on the right side of the field

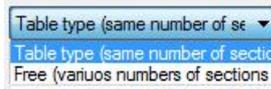


Figure 45. Drop-down menu «**Structure**»

There are 2 possible types of freezer structure:

Table type (same number of racks on every shelf) – choose this type if you have the same number of racks on every shelf. Please note that the racks may differ.

If you choose **Table type** structure the **Freezer parameters** dialog will contain following fields (Fig 46):

- **Number of horizontal sections.** Enter the number of racks you place on the shelf.
- **Number of vertical sections.** Enter the number of shelves here.
- Press **OK** button to create the freezer.

Figure 46. Freezer parameters dialog for table type freezer

If you entered Number of horizontal sections 5 and number of vertical sections 4 your freezer will look as presented on figure 47

Temperature		-20		

Figure 47. Typical table-type freezer.

Free (various numbers of sections on shelves) – choose this type if your freezer contains various numbers of racks on shelves.

If you choose **Free type** structure the **Freezer parameters** dialog will contain following fields (Fig. 48):

- **Number of shelves.** Enter the number of shelves in the new freezer.
- **Enter number or sections** button.

Figure 48. Freezer parameters dialog for free freezer

After you entered the number of shelves and pressed **Enter number of sections** button **Add sections** dialog will appear for every shelf starting from the top one. Enter desired number of sections and press **OK** button to proceed to the next shelf.

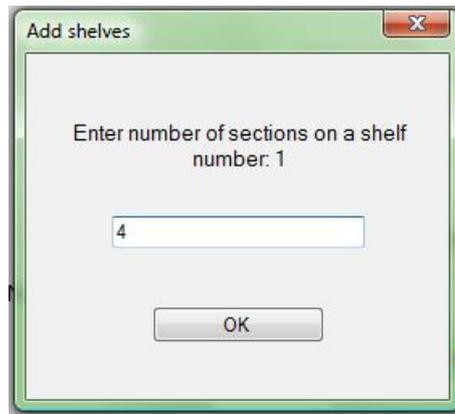


Figure 49. Add shelves dialog.

After specifying the number of sections for all shelves the **Add shelves** dialog will disappear. Press **OK** button to create the freezer.

If you enter 4 sections for shelf 1, 2 sections for shelf 2, 3 sections for shelf 3, 4 sections for shelf 4 and 5 sections for shelf 5, then you freezer will look as presented on figure 50.

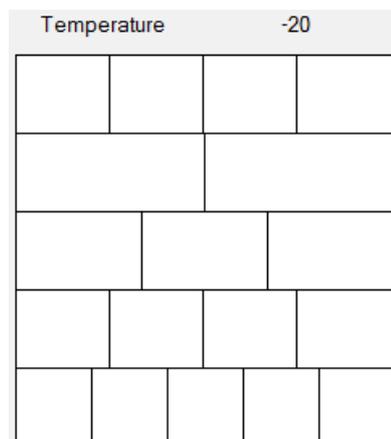


Figure 50. Example of a free freezer.

You can cancel the process anytime by pressing **Cancel** button.

Note

Following filed descriptions are for the case when Liquid nitrogen tank is selected.

If Liquid nitrogen tank is selected as a freezer type that Freezer parameters dialog looks as presented on figure 51.

Figure 51. Freezer parameters dialog for liquid nitrogen tank.

- **Tank type** field contains a drop-down list for selection of the structure of radial liquid nitrogen tank. At the moment tanks with 4, 6, 8 and 10 racks are available (Fig 52).

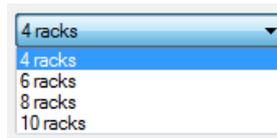


Figure 52. Tank type drop-down menu

- **Temperature** field is disabled and contains Liquid nitrogen tank as default.
- The list is displayed when you press the down-arrow button  on the right side of the field «**Tank type**».
- **Name.** Enter the name of the freezer you want to create. This name will be displayed in the main program window if the freezer is selected.
- **Comments.**

Press **OK** button to create the tank. Otherwise press **Cancel** button to cancel the process.

Note

You cannot create freezer of tank without a name. If you forgot to fill in the Name field and pressed OK button, an error message will appear (Fig 53).



Figure 53. Error message for Freezer parameters.

Administrator can change name and comments of already existing freezer. To do so right click on the freezer you wish to modify. A context menu will appear (Fig 54).



Figure 54. Context menu in freezer list

User privileges

This context menu is available for **Administrators** only.

Choose and click on the **Change** option to modify freezer parameters. Freezer parameters dialog will appear (Fig. 55).

 A dialog box titled "Freezer parameters" with a close button (X) in the top right corner. It contains several input fields:

- Freezer type: A dropdown menu showing "Freezer".
- Temperature: A dropdown menu showing "-80".
- Name: A text input field containing "Freezer -80 mix".
- Comments: A text input field containing "Free structure freezer".
- Structure: A dropdown menu showing "Free (variuos numbers of secti)".
- Number of shelves: A text input field containing "4".
- Below "Number of shelves" is a disabled text input field with the placeholder "Enter number of sections per".

 At the bottom of the dialog, there are two buttons: "OK" and "Cancel".

Figure 55. Freezer change dialog.

Enter desired text in **Name** and **Comments** fields and press **OK** button. Changed freezer will appear in the freezer list.

Note

Please note that it is not possible to edit the structure of the freezer.

To remove freezer right click on the freezer to get context menu (Fig. 54). Choose Remove option. You will be prompted to confirm the remove action (Fig. 56).



Figure 56. Freezer removal warning.

Press **OK** button. The dialog will close and the freezer will disappear from the freezer list. To cancel this action press **Cancel** button.

Attention!

You cannot undo remove action! If you remove the freezer its whole content will be removed! Only **Administrator** can remove freezers.

2.3. Freezer

This part of the main application workspace contains graphical representation of selected storage unit (Fig.56), and used for configuring, selection, copying and removal of section elements.

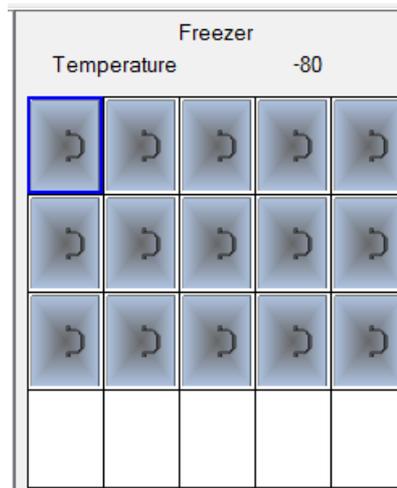


Figure 56. Graphic representation of a freezer

The upper part shows the temperature of the freezer programmed during freezer configuring. The graphical representation of the freezer contains images of racks  in every section where the racks were configured. If no section element was configured for a section it will be empty.

Radial liquid nitrogen tank will be displayed as presented on figure 57.

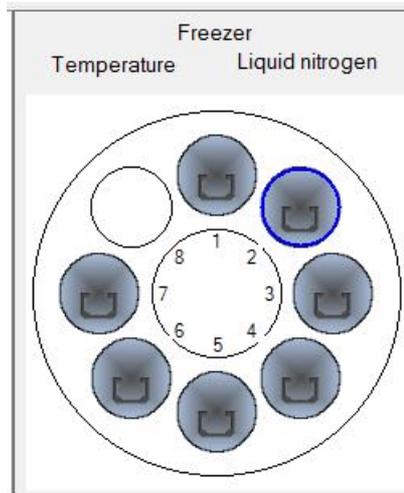


Figure 57. Graphic representation of a radial liquid nitrogen tank.

Note.

Selected section elements are shown by a blue contour (see Fig. 56, 57).

To choose section or section element click on it with left mouse button. Blue contour will indicate that the section or section element is selected and its content will appear in the right part of main application workspace.

To add section element to the storage unit right click on the empty section where you want to place it. A context menu (Fig 58) will appear.

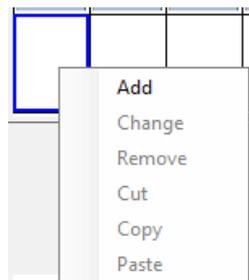


Figure 58. Section element context menu.

Click on Add option. A message (Fig 59) will appear.



Figure 59. Adding section element.

If you are sure that you want to create a rack or shelf, press OK button. Otherwise press Cancel button. A section parameters dialog will appear (Fig 60).

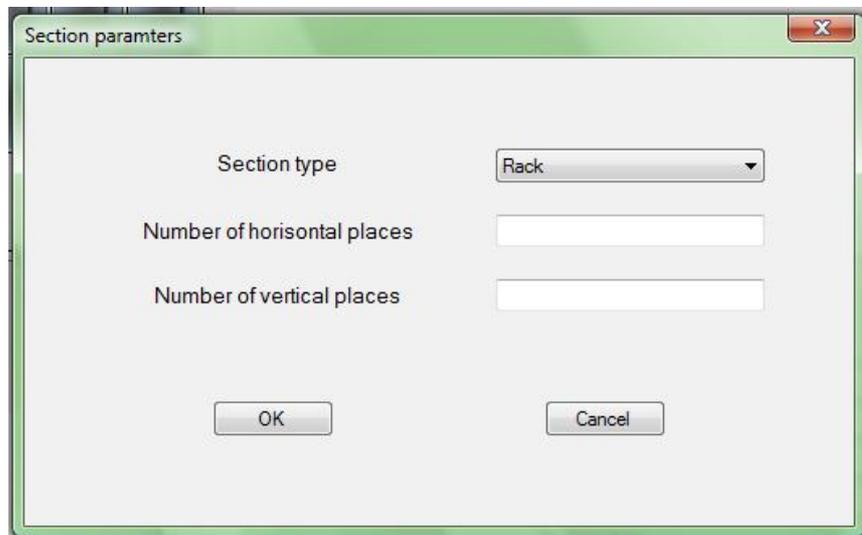
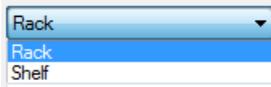
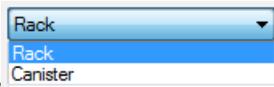


Figure 60. Section parameters dialog.

The section type field contains a drop-down menu where you can define the type of section element you want to add. In case of freezer there are Rack and Shelf options



, in the case of liquid nitrogen tank there are Rack and Canister options

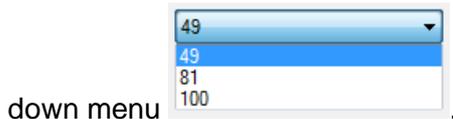


Choose rack option if you have a rack as a section element. You have to define the properties of the rack by entering corresponding numbers in the **Number of horizontal places** and **Number of vertical places** fields. If you enter 4 and 5 respectively, your rack will look as presented on figure 61.

Section type	Rack	Position	1:4

Figure 61. Typical rack structure.

Choose **shelf** option if you have a shelf or drawer as a section element. In this case you can only enter the maximal number of boxes you can place on the shelf/drawer using drop-



Choose **Canister** option if you have radial liquid nitrogen tank with canisters filled with straws. In this case you can enter the number of horizontal places only that corresponds to the number of straws in a canister.

User rights

Only **Administrators** and **Group leaders** can create section elements.

Administrators and Group leaders can copy, move or remove section elements. To copy a section element right-click on the section element you want to copy. A context menu (Fig 62) will appear. Choose and click on the option Copy.



Figure 62. Section element context menu.

Right-click on an empty section where you want to paste the section element. A context menu (Fig 63) will appear. Choose and click on the option Paste. The section element will appear.

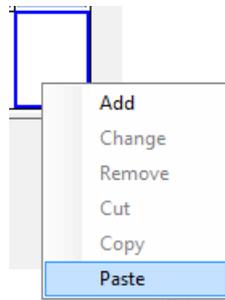


Figure 63. Pasting section element.

To move a section element right-click on the section element you want to move. A context menu (Fig. 62) will appear. Choose and click on the option Cut. Right-click on an empty section where you want to paste the section element. A context menu (Fig 63) will appear. Choose and click on the option Paste. The section element will be deleted in the old location and appear in the new one.

Note

Section elements are copied together with the whole content.

You can copy and move section elements between different storage units.

You can use standard shortcuts for copying (Ctrl-C), cutting (Ctrl-X) and pasting (Ctrl-V) section elements.

To a remove section element right click on the section element you want to remove. In the context menus choose option **Remove** and click on it. A warning will appear (Fig 64) showing the coordinates of the section elements you are going to remove.



Figure 64. Removing section element warning.

Press **OK** button if you are sure you want to remove selected section element. Otherwise press **Cancel** button.

Attention!

You cannot undo remove action! If you remove a section element its whole content will be removed! Only Administrator and Group leaders can remove section elements.

2.4. Section

The section panel of the main application workspace shows the structure of selected section element and used to create and manage boxes within the section element. (Fig.65).

Note

If empty section is selected the section panel stays blank.

Section type	Rack	Position	1:1
Green	Dark Blue	Bright Green	Light Blue
Pink	Blue	Light Purple	Dark Purple
Olive Green	Light Purple	Bright Pink	Pink
Olive Green	Blue	Light Blue	Light Blue

Figure 65. Graphic representation of a section

The upper part of section panel contains information about the section element and the coordinates of the section element in the freezer. Figure shows the structure of the section element. Coloured cells indicate the presence of boxes in the cells. Empty cells indicate empty positions in the section element.

Note.

Selected cell or box is indicated by a blue contour (see Fig.53,54).

To choose empty cell or box click on it with left mouse button. Blue contour will indicate that the box is selected and its content will appear in the box panel of the application workspace.

To add a box to the section element right click on the cell where you want to place it. A context menu (Fig 66) will appear.

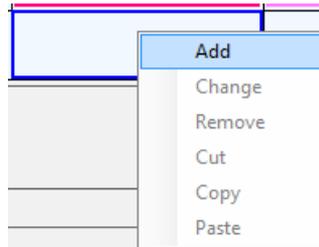


Figure 66. Section panel context menu.

Click on Add option. A box parameters dialog will appear (Fig. 67).

Figure 67. Box parameters dialog.

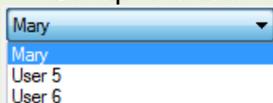
To configure a box fill following fields:

- **Owner** This field contains information about the box owner.

User privileges

Administrators can configure box for every user by choosing the user name from drop-down list.

Group leaders can configure boxes for users from their groups using drop-down list



Users can configure their own boxes only.

- **Box number** user specified box number has to be entered here.

- **Number of horizontal positions** enter X dimension of your box here
- **Number of vertical positions** enter Y dimension of your box here
- **Description** enter a brief description of the box content here
- **Typical tube volume** enter a typical volume of tubes that can be stored in this box.

With the exception of **Typical tube volume** field all fields in this dialog are mandatory.

Press **OK** button to create box. It will appear in the corresponding section element cell and will have a colour associated with its owner.

Note

You can open Box properties dialog also by double click on the desired cell of the section element.

Users can change their box parameters. To do so right-click on the box you want to modify. Select option Change from the context menu (Fig 68) and click on it.

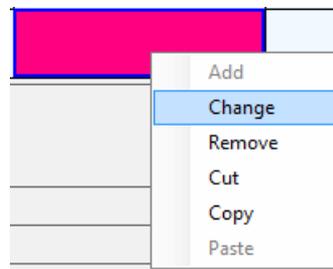


Figure 68. Section panel context menu.

Box parameters dialog will appear (Fig. 69).

Figure 69. **Box parameters** dialog.

In this dialog the fields used to specify box dimensions are inactivated. The field Owner is active only if box parameters are modified by Administrator or Group leader. Modify box parameters as desired and press **OK** button. Dialog will close and modified box will appear.

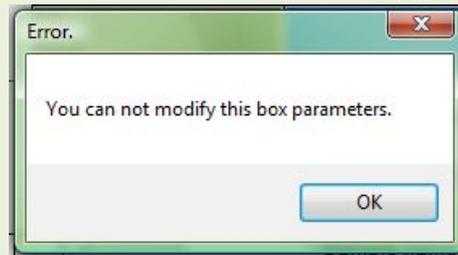
User privileges

Administrator can modify any box,

Group leader can modify boxes of users that belong to his/her group,

User can modify only his/her own boxes.

If User or Group leader right-clicks on a box that can not be modified because of user rights and error message will appear.



Box parameter dialog will be displayed also after a double click on the box.

Operator can copy, move or remove boxes.

User privileges

Administrator can copy, move and remove any box

Group leader can copy, move and remove boxes that belong to users of his/her group.

Users can copy, move and remove his/her own boxes.

To copy a box right-click on the box you want to copy. A context menu (Fig. 70) will appear. Choose and click on the option Copy.

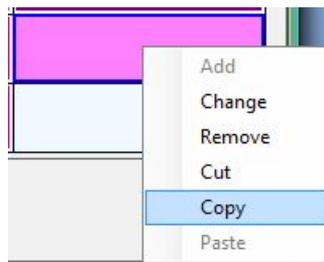


Figure 70. Section panel context menu.

Right-click on an empty cell in which you want to place the box. A context menu (Fig 71) will appear. Click on the option Paste. The box will appear.

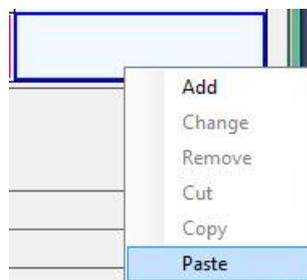


Figure 71. Section panel context menu.

To move a box right-click on the box you want to move. A context menu (Fig. 70) will appear. Choose and click on the option Cut. Right-click on an empty cell in which you want to place the box. A context menu (Fig. 71) will appear. Click on the option Paste. The box will appear. The box will be deleted in the old location and appear in the new one.

Note

Boxes are copied together with the whole content.

You can copy and move boxes between different section elements and storage units.

You can use standard shortcuts for copying (Ctrl-C) cutting (Ctrl-X) and pasting (Ctrl-V) section elements.

To remove a box right click on the box you want to remove. In the context menus click on **Remove** option. A warning will appear (Fig. 72) showing the number of the box you are going to remove.



Figure 72. Box removal warning.

Press **OK** button if you are sure you want to remove selected box. Otherwise press **Cancel** button.

Attention!

You cannot undo remove action! If you remove a box its whole content will be removed!

2.5. Box

The box panel of the main application workspace shows the structure of selected box and is used to create and manage samples (Fig. 73).

Note

If empty cell of a section element is selected the box panel stays blank.

Owner				John				
Box number				002 mixed				
Position				1:1				

Figure 73. **Box** panel

The upper part of section panel contains information about the owner of selected box, its number and coordinates in the section element. Figure shows the structure of the box. Box cells with pictures indicate samples placed in this box cells. Empty cells indicate empty positions in the box.

Note.

Selected cell or sample is indicated by a blue contour.

To choose empty cell or box click on it with left mouse button. Blue contour will indicate that the cell or sample is selected and its content will appear in the sample panel of the main application workspace.

To add sample right click on the cell where you want to place it. A context menu (Fig. 74) will appear.

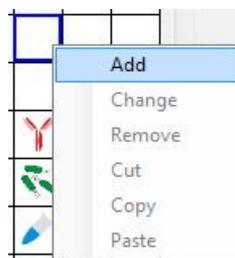


Figure 74. **Box** context menu.

Click on Add option. A sample parameters dialog will appear (Fig. 75).

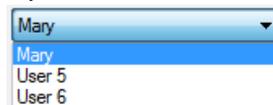
Figure 75. **Sample parameters** dialog box.

Note

Fields Concentration, Nutrition Medium, Antibiotic, Source organism, Vector and Running number are optional. Their activity is defined by Material type selected (see section XXX).

To configure a sample fill following fields:

- **Owner** This field contains information about the sample owner. Administrators can configure samples for every user by choosing the user name from drop-down list. Group leaders can configure samples for users from their groups using drop-down



list . Users can configure their own samples only.

- **Material type** choose desired material type from a drop-down list. If you cannot find material type that describes your sample you can create a new one using Material type dialog (see section 2.1.1.3).
- **Sample name** enter your sample name here.
- **Concentration** it is an optional field, enter concentration if applicable

- **Deposition date** enter deposition date here. Default date is the current date of your system.
- **Expiry date** enter sample expiration date here. Default date is in one year after the current date of your system.
- **Comment** enter comment to better describe your sample.
- **Nutrition medium** it is an optional field, enter desired value.
- **Antibiotic** it is an optional field, choose desired value from the drop-down list or enter desired value. If you enter a value it will be automatically added to the corresponding list.
- **Source organism** it is an optional field, choose desired value from the drop-down list or enter desired value. If you enter a value it will be automatically added to the corresponding list.
- **Vector** it is an optional field, choose desired value from the drop-down list or enter desired value. If you enter a value it will be automatically added to the corresponding list.
- **Running number** it is an optional field, enter desired value.
- **Source** enter the source of your sample (e.g. own lab, collaborator, company name).
- **Biohazard class** enter biohazard class if applicable.
- **Icon** click on the default icon to display icon list (Fig. 76). Click on desired icon to be used to display you sample in the box.

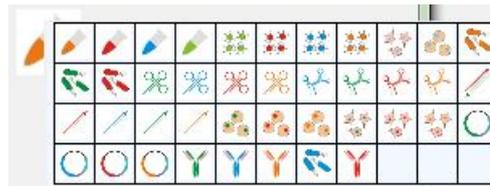


Figure 76. Icon selection table.

Mandatory fields are Owner, Material type, Sample name, Deposition and Expiration dates.

Press OK button to create sample. It will appear in the corresponding cell. Otherwise press Cancel button.

Note

You can open Sample properties dialog also by double click on the desired cell of the box.

Operators can change their box parameters. To do so right-click on the sample you want to modify. Click on the Change option in the context menu (Fig. 77).

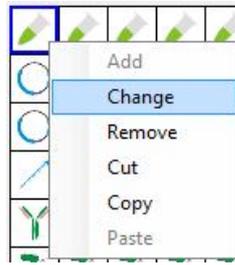


Figure 77. Box panel context menu.

Sample parameters dialog will appear (Fig. 78).

 A dialog box titled "Sample parameters" with a close button (X) in the top right corner. The dialog contains the following fields:

- Owner: User 1 (dropdown)
- Material type: RNA (dropdown)
- Sample name: RNA T-cells #241 (text input)
- Concentration: 0,5 mkg/mkl (text input)
- Deposition date: 16 Juli 2008 (calendar dropdown)
- Expiry date: 16 Juli 2013 (calendar dropdown)
- Comments: (empty text input)
- Nutrition medium: (empty text input)
- Antibiotic: (empty dropdown)
- Source organism: Human (dropdown)
- Vector: (empty dropdown)
- Running number: 241 (text input)
- Source: Own lab (text input)
- Biohazard class: (empty text input)
- Icon: (green leaf icon)

 At the bottom are "OK" and "Cancel" buttons.

Figure 78. Sample parameters dialog.

All sample parameters can be modified without restrictions.

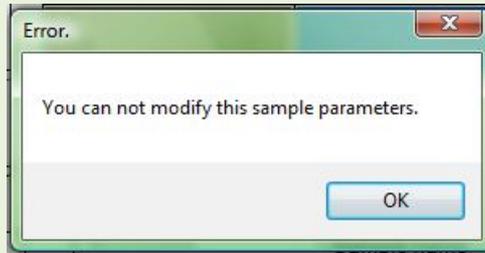
User privileges

Administrator can modify any sample,

Group leader can modify samples of users that belong to his/her group,

User can modify only his/her own samples.

If User or Group leader right-clicks on a box that can not be modified because of user rights and error message will appear.



Sample parameters dialog will be displayed also after a double click on the sample.

Operator can copy, move or remove boxes.

User rights

Administrator can copy, move and remove any sample

Group leader can copy, move and remove samples that belong to users of his/her group.

Users can copy, move and remove his/her own samples.

To copy a sample right-click on the sample you want to copy. A context menu (Fig. 79) will appear. Choose and click on the option Copy.

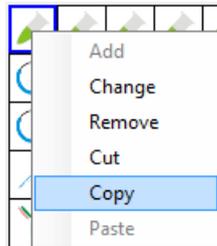


Figure 79. Box panel context menu.

Right-click on an empty cell in which you want to place the sample. A context menu (Fig. 80) will appear. Click on the option Paste. The sample will appear.

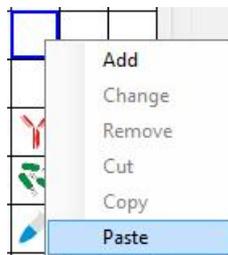


Figure 80. Box panel context menu.

To move sample right-click on the sample you want to move. A context menu (Fig. 79) will appear. Choose and click on the option Cut. Right-click on an empty cell in which you want to place the sample. A context menu (Fig. 80) will appear. Click on the option Paste. The sample will be deleted in the old location and appear in the new one.

Note

You can copy and move samples between different boxes, section elements and storage units.

You can use standard shortcuts for copying (Ctrl-C) cutting (Ctrl-X) and pasting (Ctrl-V) samples.

To remove sample right click on the sample you want to remove. In the context menus click on **Remove** option. A warning will appear (Fig 81) showing the number of the box you are going to remove.

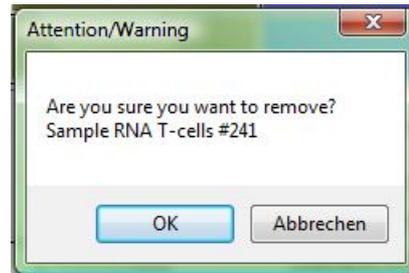


Figure 81. Sample removal warning.

Press **OK** button if you are sure you want to remove selected sample. Otherwise press **Cancel** button.

Attention!

You cannot undo remove action!

2.6. Sample

Sample panel contains information about currently selected sample (Fig. 82). In the upper part of the panel sample coordinates in the box are displayed.

Sample position	1:1
Sample owner	User 1
Material type	RNA
Sample name	RNA T-cells #241
Concentration	0,5 mkg/mkl
Deposition date	16.07.2008
Expiry date	16.07.2013
Origin	Own lab
Comments	
Nutrition medium	
Antibiotic	
Source organism	Human
Vector	
Running number	241
Biohazard class	

Figure 82. Sample information panel.

2.7. User

Mani application workspace contains brief information about the user that is currently logged in (Fig. 83). It includes User name and user access rights.

User name	Mary
Access rights	Group leader

Fig. 83. User information in the main application workspace

Appendix