Clinical Informatics System for Trials and Research



Specimen Tracking and Management System

User Guide CISTAR Operation Team

Revision Sheet

Release No.	Date	Revision Description
Rev. 0	9/01/2020	STAMS User's Guide for first cistar release.

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1 GENERAL INFORMATION

System Overview

Specimen Tracking and Management System (STAMS) is a web-based application built by NINDS Intramural IT, Information Management Section, for sample tracking and management solution for samples in a repository (tank) of alaboratory.

STAMS automatically assigns a unique identifier (barcode) to each sample and provides traceability and the ability to easily find the sample and its history.

STAMS is used primarily by researchers; it is suitable for anyone wanting to track samples in a laboratory. It is flexible enough to handle any number of different sample types. For each different sample type that you create, you can add fields to store the different information t. Each sample type can be represented by unique image of your choice.

Every sample has an owner (or source), An owner or source of a sample is the entity on whose behalf you are storing the sample. This may be a patient, derived samples or anything you want to associate the samples with. As with sample types, you add the fields to hold the information that you want to keep like protocol number, volume, passage, etc.

STAMS provides full searching of samples using Sample Id, protocol number and other fields associated with sample. You can search and then export all the information into spreadsheet.

STAMS allows any repository to be replicated. As well as showing you the path to where containers are stored, it also shows you where exactly in a certain container specific samples are. STAMS allows containers of any shape (box, circular or Pie configuration) and size to be replicated and also allow the user to custom build the container for the needs.

STAMS incorporates advanced functionality such as bar-coding, barcode reading, import/export and much more.

Points of Contact

STAMS team may be contacted at cimssupport@mail.nih.gov for installation, technical issues or any other trouble shooting.

Help Desk

The NIH help desk website can be accessed at http://itservicedesk.nih.gov/support/ (assign tickets to NINDS_CIMS_SUPPORT) for any emergency assistance.

2 SYSTEM SUMMARY

STAMS is a web-based application and is accessible directly through the CiSTAR platform i. This system is used for tracking and managing the specimen stored in the labs. STAMS have various roles (Principal Investigator, Lab User, Lab Admin & System Admin) and privileges based on the roles and privileges the accessibility of samples and various features of the application are controlled. The information related to samples is entered using the web user interface; the system assigns a unique id for the sample stored in the database. This id is utilized to generate the barcode, which can be printed using the barcode printer on the label. The label is struck on the vial and stored in the box/container/freezer. The barcode reader is used scan the barcode; the system will automatically pull the sample information on the screen based on the input from barcode reader.

System Configuration

STAMS is web-based application.. The user will also need the barcode printer and barcode reader to print the label or lookup the sample while retrieving the sample from the repository.

User Access Levels

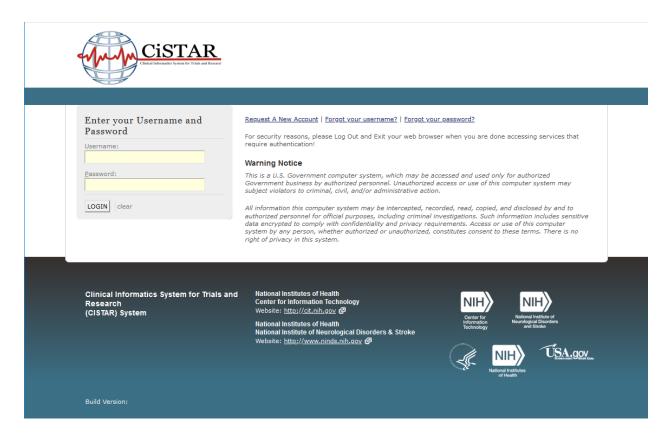
STAMS have various roles and privileges to control accessibility the system and samples stored in the repository. Below are the roles in STAMS application

- Lab User (LU): The LU can access the protocols and sample to which the PI has provided access. Lab user can add patient/source and enroll them into a protocol.
- 2. Lab Admin (LA): The LA can add Sources, Printers, Repository, Box Types and Cell Types to the system
- 3. System Admin (SA): The SA has all the privileges of LA plus access to all the protocols of the lab and add/edit users into the system.

3 GETTING STARTED

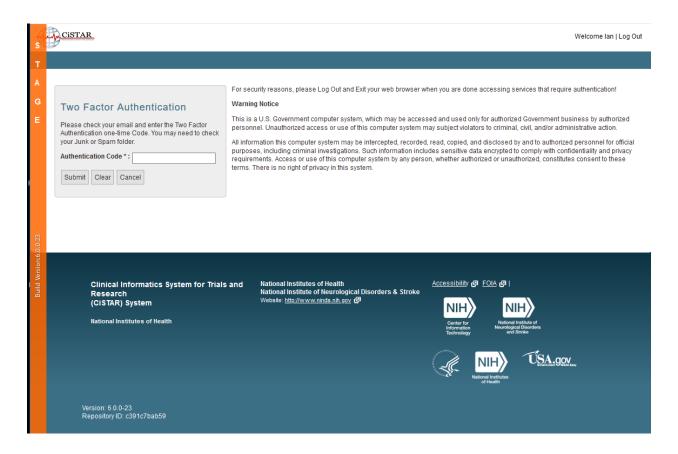
3.1 How to login to CiSTAR

In order to access STAMS, the user must login to the CISTAR platform using the following website address. https://cistar.ninds.nih.gov/



The user will provide their username and password and click on "LOGIN" button.

3.1.2. Two Factor Authentication



After logining in, the "Two Factor Authentication" page will be open.

The user will receive an email form "DCB BRICS". The user has to copy/paste the one-time code and click on the "Submit" button.

An example of Two Factor Autothentication Code email from DCB BRICS:

Two Factor Authentication Code: - CISTAR - STAGE



This email is to inform you that your Two Factor Authentication one-time Code is 88146; this code will expire in 10 minutes.

Please do not respond to this email as this mailbox is unmonitored, direct any questions to dcbbrics@nih.gov.

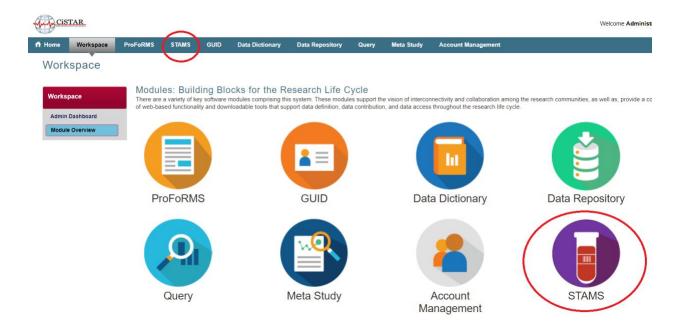
Thank you, CISTAR Operations at NIH/CIT

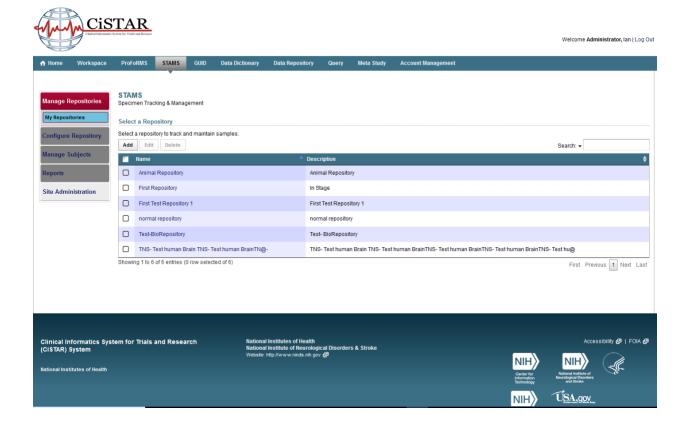
3.1.3 STAMS System Home Page

After passing the "Two Factor Authentication", the "Workspace" page is open.

<u>User's Guide</u> Revision Sheet

The user clicks on "STAMS" image or clicks on "STAMS" tab to go into the STAMS system.





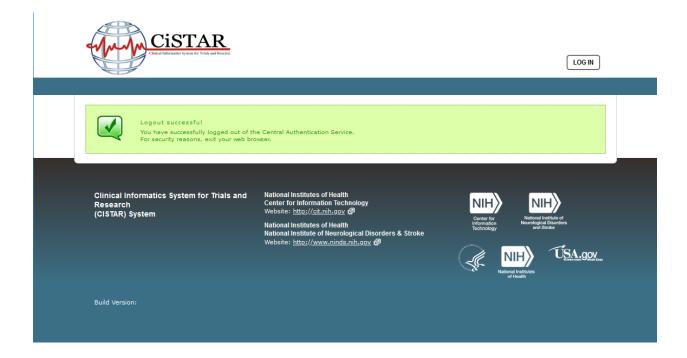
Enter your Username and Request A New Account | Forgot your username? | Forgot your password?

3.3 Exit System

To exit the application, click on "Log Out" link at right top corner of the user interface.



The system will display the below page



4 USING THE SYSTEM

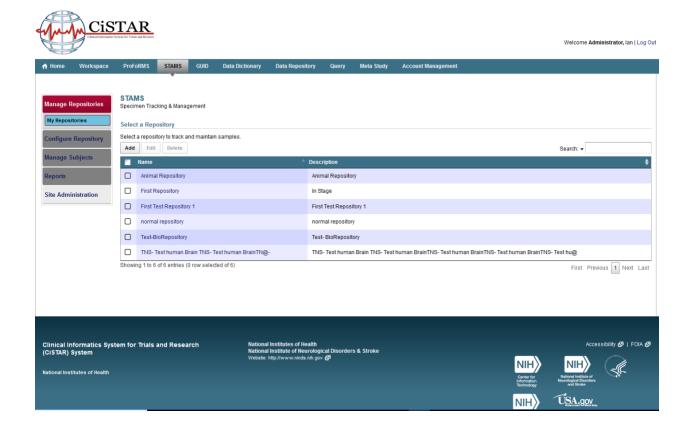
Following are the list of features, functions and different UI constructs of the STAMS system. Each of them are further described in subsections

4.1 Home Page

STAMS homepage contains the following features for all roles

- Username and current role are displayed on the top of the page.
- The left navigation bar contains the following menu items
 Manage Repository, Configure Repository, Manage Subjects, Reports, and Site Administration.

Select a repository by clicking on the name of the Repository to track and maintain samples.



4.2 Add/Edit/Delete a Repository

4.2.1 Adda Repository

To add a Repository in the STAMS system, click on "Add" and enter the name and description of the Repository.



Edit a Repository

To change the name or description of a Repository, select the Repository and click on "Edit"

Delete a Repository

To delete a Repository, select the Repository and click on "Delete"

4.2.2 Access to Repository

4.2.2.1. Configure Repository

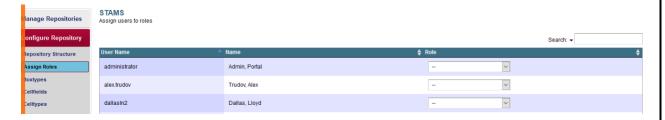
In order to access the features under Configure Repository menu, the user needs the "Configure Repository" privilege. To give a user 'Configure Repository' privilege, go to "Site Administration" then "Roles & Privileges" and select "Configure Repository"

Under the "Configure Repository" mentu the following features are available: Assign Roles, Boxtypes, Cellfields, Celltypes, Label Template, Diagnosis, Printers, Virtual Samples.



4.2.2.2. Assign Roles

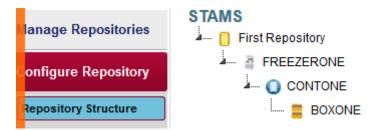
To add user to repository, click on "Assign Roles" link from left menu:



Select any role through the "Role" dropdown following the username and "Save". The user will be able to access the repository.

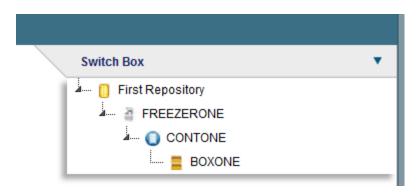
4.2.3 Access the repository menu tree

Click on the "Repository Structure" left menu



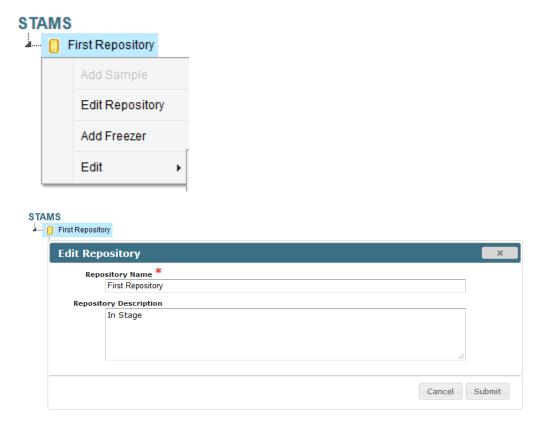
4.2.3.2 Switch Box shortcut.

Click on "Switch Box" at right top of the user interface.



4.2.4 Modify a Repository

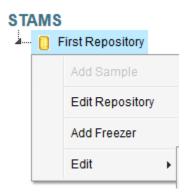
Right click on the repository to "Edit Repository"



4.3 Add/Modify/Delete a Freezer

4.3.1 Add a Freezer to a Repository

To add a Freezer to repository, select "Add Freezer" in the right click context menu on a repository



System displays a text field to enter name for the new Freezer as in below picture. Enter the name of the Freezer and click enter to save the new name.

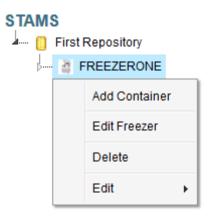


New freezer will be added the repository as shown in the menu tree below.



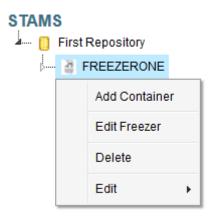
4.3.2 Modify a Freezer

Following actions are available to perform on a Freezer on right click on the freezer name: Add Container, Edit Freezer, Delete, and Edit.



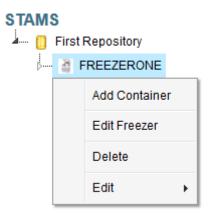
4.3.3 Add Container to a Freezer

Refer to section 4.4.



4.3.4 Delete a Freezer

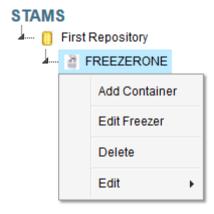
To delete a Freezer, right click on the freezer name and select "Delete" . It deletes the Freezer from the system.



4.4 Add/Delete a Container

4.4.1 Add a Container to a Freezer

To add a Container to a Freezer, select "Add Container" in the right click context menu, the system will display the pop-up window as shown below.

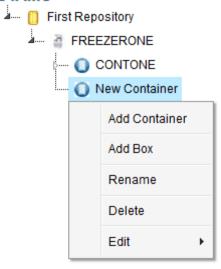


the "New Container" is created as in below.



Right-click on the "New Container" and click on "Rename" to give it a new name.

STAMS



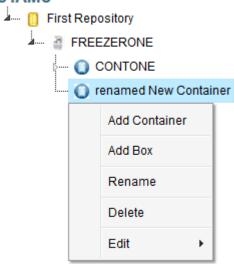
STAMS



4.4.2 Actions on a Container

Five actions can be performed to a Container: Add Container, Add Box, Rename, Delete, and Edit.

STAMS

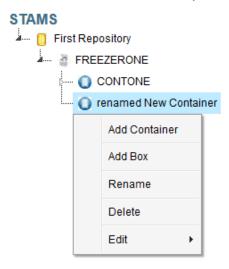


4.4.2.1 Add Container

A Container can have another containers within it.

Click "Add Container" on a Container, a new container will be added.

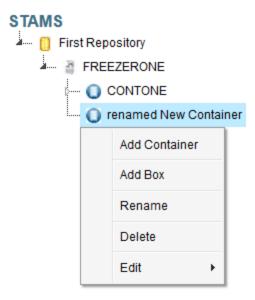
User can rename the newly created container b.





4.4.2.2 Rename Container

To rename a new container, right click on the container and click on 'Rename'. Enter the modified name and click enter to save the new name.

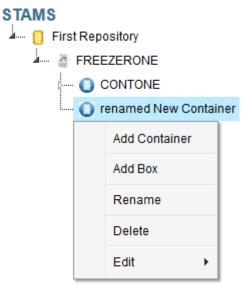


4.4.2.3 Add Box

Refer to section 4.5

4.4.2.4 Delete Container

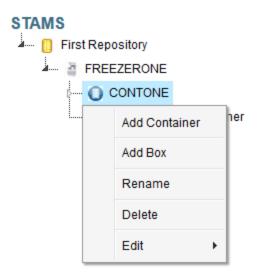
To delete a Container, right click on the container name and select "Delete". It deletes the Container from the system.



4.5 Add a Box to a Container

Note: In order to add 'New boxes', the 'Box types' have to be defined in the system Refer to section 4.5.2 and 4.5.2.1 on how to define Box Types in the system.

To add a box to the Container, select "Add Box" in the right click context menu of a Container



System will display the pop-up window as shown below.



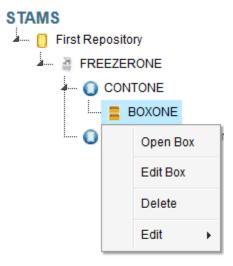


Enter the Box name and select "Submit" button to add a Box to the selected Container, new Box will be added to the Container as shown in the menu tree below.

STAMS First Repository FREEZERONE CONTONE BOXONE

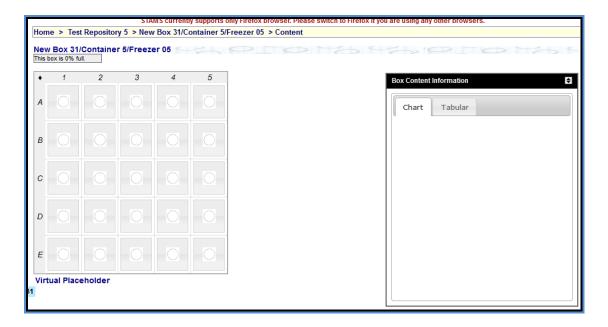
4.5.1 Open/Modify/Delete a Box

The following actions are available to perform on a Box: Open Box, Edit Box, Delete, and Edit.



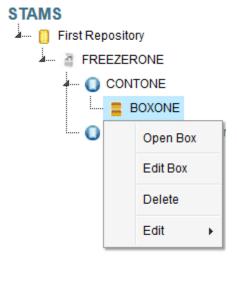
4.5.1.1 Open Box

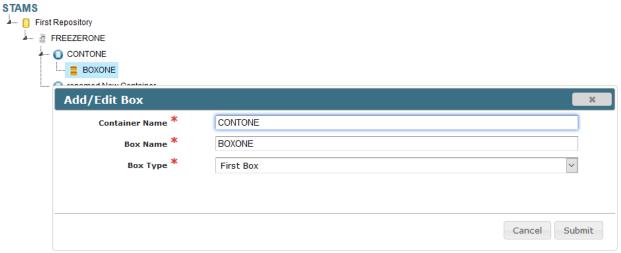
This menu action will display the box information as shown below



4.5.1.2 Edit a box

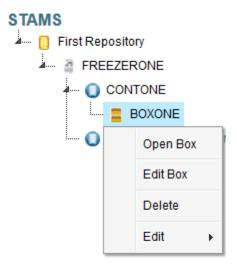
To edit the Box as shown below. When this menu is selected, UI allows user to edit the Box and to save the Box.





4.5.1.3 Delete a Box

To delete a Box, right click on it and select the "Delete" button. It deletes the Box from the system



4.5.2 Add a Box Type.

To define/add a "Box Type" in the system, user should be assigned to one of "System Admin" & "Lab Admin" roles.

On the left menu, click on a "Boxtypes" sub menu under "Configure Repository" menu.

A table is displayed where the user can "Add" a Box Type by clicking on "Add" button.



4.5.2.1 Add a Box Type Details:

Enter the following information to add a Box Type:

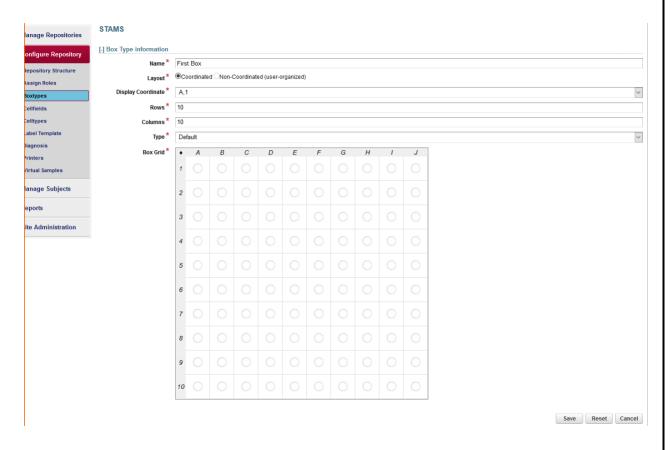
"Name" – Name of the "Box Type"

"Coordinated" or "Non-coordinated" radio buttons -

Display "Coordinate" -

Four options are available in this drop down. A selection indicates the Row & Column header names format either as Number and/or Alpha combination. This is a flexible feature to suffice the needs of a Lab.

Row & Column text boxes – System allows specifying the number of rows and columns to the "Box Type" table. This feature allows user to control the table size and display.



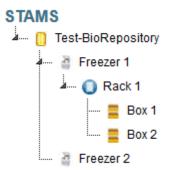
After entering/selecting above information, click "Save" button to save the Box Type or "Cancel" to cancel the operation. A table is displayed for all boxes created for a Container



4.6 Organizing Repository/ organizing the tree structure:

The system organizes and arranges items (boxes, freezers, and containers) in an alphabetical order based on the title of the freezers, containers, and boxes,.

System will automatically sort the values for freezer/container/ box names in ascending or descending order.



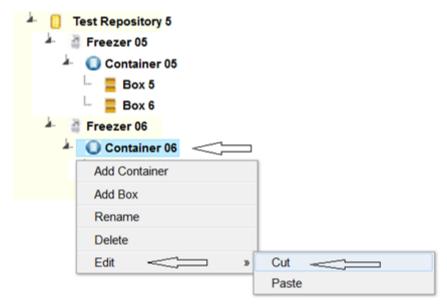
4.7 Move boxes to different containers and containers to different freezers:

4.7.1 Move containers to different freezer:

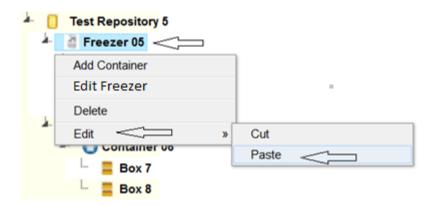
To move containers to different freezer, follow the steps below and see the examples:

(In order to move container from Freezer 06 to Freezer 05:

Step 1: Right click on the container (Container 06) under the freezer (Freezer 06) to see "Edit" button. "Cut" and "Paste" options will be displayed after hover on "Edit" button. Click on "Cut" button to move the container to different freezer.



Step 2: Right click on different freezer (Freezer 05) to see "Edit" button. "Cut" and "Paste" options will be displayed after hover on "Edit" button. Click on "Paste" button to move the container (container 06) to different freezer (Freezer 05).



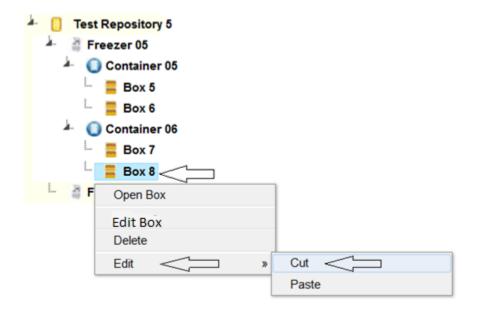
Step 3: The container will be moved to the different freezer like below (container 06 from Freezer 06 to Freezer 05).



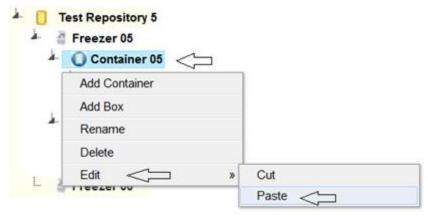
4.7.2 Move boxes to different containers:

To move boxes from one container to different container: Follow below steps and see examples:

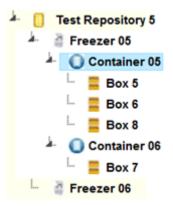
Step 1: In order to move boxes from one container to another, right click on the Box to see "Edit" button. "Cut" and "Paste" options will be displayed after hover on "Edit" button. Click on "Cut" button to move the Box to different container. (For example, Box 8 under Container 06)



Step 2: Right click on container (container 05) to see "Edit" button. "Cut" and "Paste" options will be displayed after hover on "Edit" button. Click on "Paste" button to move the Box 8 to different container as shown below.



Step 3: The Box will be moved to the different container like below (from container 06 to container 05):



4.8 Add/Modify/Delete Cell Types

Cell Type

To define/add a "Cell Type" in the system, user should be assigned to one of "System Admin" & "Lab Admin" roles. Go to left menu, click on "Celltypes" sub menu under "Configure Repository" menu.

A table is displayed where the user can add a "Cell Type" with clicking on "Add" button.



4.8.1 Add New Cell Type

Enter the following information to add a Cell Type and click "Save" button to save the Cell type or click "Cancel" button to cancel the operation.

Cell Icon—Click on any Cell Icon (required).

Cell Name: Cell name is mandatory (required).

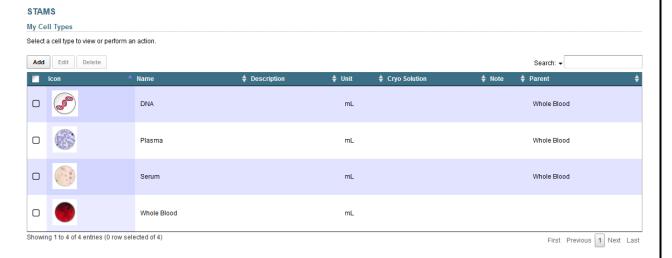
Description: Enter the description of the cell

Cryo solution: Other/ 30% BSA + CRYOSOLUTION (1.1)/FCS+DMSO+MEM

Note: Additional notes related to the cell type



The new cell type will appear in the table as shown below.



4.8.2 Edit cell type information

To edit a cell type, check on cell type and click on "Edit" button.





The system will pop up the below window. Select a cell icon (required), enter the name (required), other fields and select the image to represent cell type and click on the "Save" button to update the Cell Type.



4.8.3 Delete cell type from the system

To delete a "Cell Type", check on cell type and click on "Delete" button to delete "Cell Type" from the system.





System will pop up window: "Are you sure you wish to delete the selected cell type?"

Click on "OK" button to delete the cell type from the system.

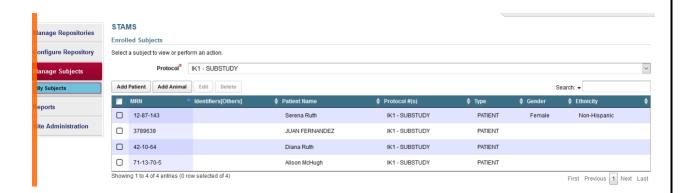
4.9 Add/Import Patients/Animals to Protocols

A patient/animal information can be added directly into STAMS or it can be imported from ProFoRMS moldule.**4.9.1 To add Patients/Animals**

To add Patients/Animals, click "Manage Subjects" from left menu and select protocol number from dropdown. Click on "Add Patient" to add a patient or click on "Add Animal" to add an animal.

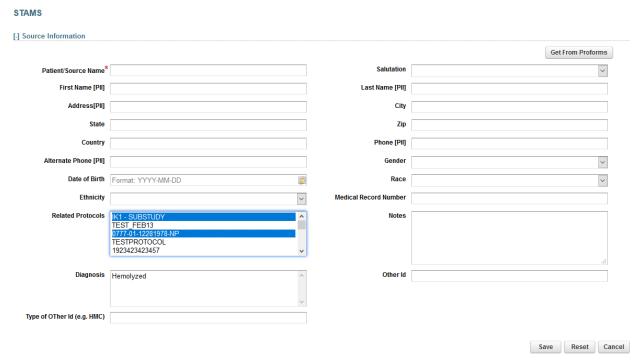
4.9.1.1 To add Patients

Click on "Add Patient" to add a patient.



To add patient, click "Add Patient" button, create patient page opens. Enter the required fields to add new patient to the protocol. Important point to note here is

that, new patient created here can be assigned/added to other protocols as well using the multi select list "Related Protocols" as shown in below picture.



4.9.1.2 To import Patients from ProFoRMS moldule

The user can click "Get From Proforms" button to import patient from proforms.

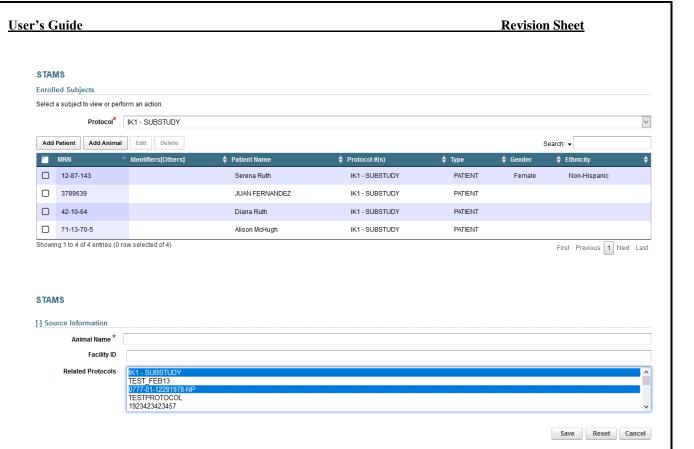
Get From Proforms

Click Save to add/create the new Patient. A page appears here that display all the added Patients to the selected Protocol.

4.9.1.3 To add animal

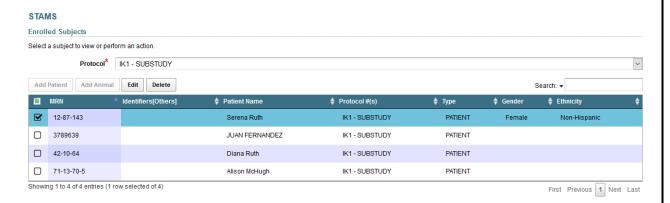
To add Patients/Animals, click "Manage Subjects" from left menu and select protocol number from dropdown. Click on "Add Patient" to add a patient or click on "Add Animal" to add an animal.

Select protocol number from dropdown and click on "Add Patient" to add a patient.



4.9.2 Edit/Delete Patients/Animals information

Here user can choose to "Edit" or "Delete" the Patients/Animals from the system.



4.10 Add /Modify/Delete Virtual Sample

4.10.1 Add Virtual Sample

Any user that has access to a Repository can add a Sample.

Note: A Cell Type, Protocol, and Patient must be added in the system before adding a sample.

A Sample can be added to the System via

- 1. Virtual Placeholder
- 2. From a Box context menu This feature allows directly creating a Sample to the Box without going through a Virtual Placeholder

Option 1 is used when user does not exactly know the location of the Container/Freezer/Box to add the Sample. This could occur in the practical scenarios and system allows users to add Samples using this option

Option 2 is used when user is certain of the location where the Sample should be added. (Refer to section 4.12 for details on how to use this Option)

Using Option 1, to add a Sample in the system, click on "Virtual Samples" sub menu under "Configure Repository" menu.



STAMS Virtual Placeholder

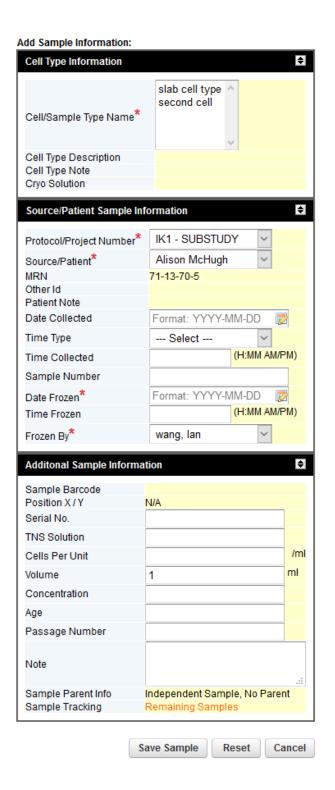
To work with a sample, while creating it, system provides a feature to save the sample information until it is finalized. A temporary area holds the sample information and is termed as a "Virtual Placeholder" in the system. System takes the UI directly to create the Virtual Placeholder when a new sample is added.

The UI for virtual place holder display look like in below:

- 1. "Configure Repository"->"Virtual Samples"-> Virtual Placeholder
- 2. Add sample information on the right side

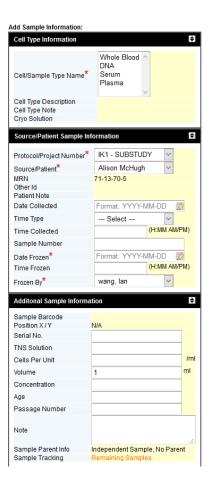
Select all mandatory * information and click "Save Sample" button.

- 1. Cell type name (refer to section 4.6 on how to add a Cell type)
- 2. Project protocol number (from proforms)
- 3. Source/Patient (refer to section 4.7 on how to add a Patient to a Protocol)
- 4. Date Frozen (this is not required for some repository)
- 5. Frozen by

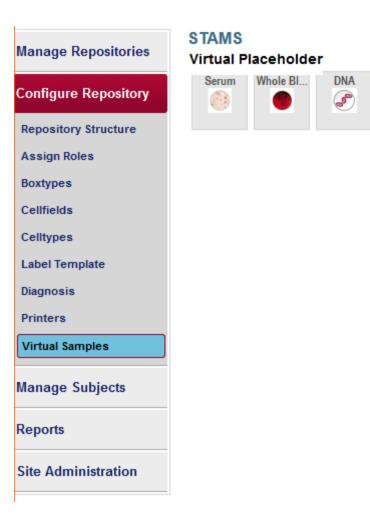


Sample will be saved and shown under Virtual place holder.





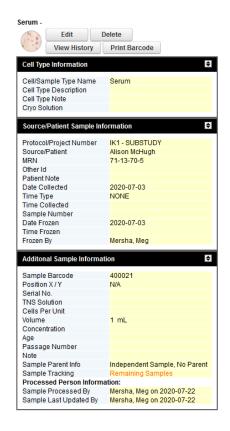
The link "Virtual Samples" available on the left sub menu



4.10.2 Edit Virtual Sample

In order to edit virtual sample from Virtual Placeholder, click on the virtual Sample and click "Edit" button.

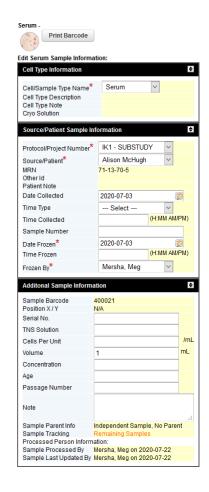


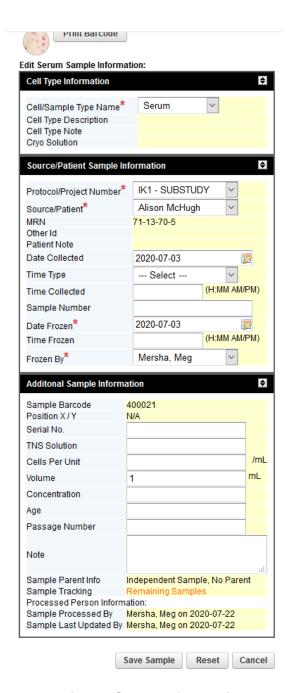


Update the Cell Type name, Protocol/Project Number, Source/Patient, Date Frozen and click on "Save Sample" button to edit sample.

<u>User's Guide</u> Revision Sheet



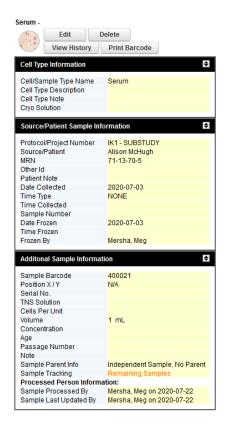




4.10.3 Delete Virtual Sample from Virtual place holder:

To delete a sample, click a sample and click on the "Delete" button.



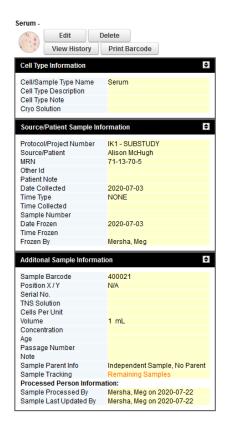


The system will prompt you to confirm as shown below Click "OK" button to delete the sample from the Virtual place holder.

4.10.4 View History of a Virtual Sample

To view the history of a sample, select a sample and click on the "View History" button.





System displays the history of the sample in a new tab as shown below.



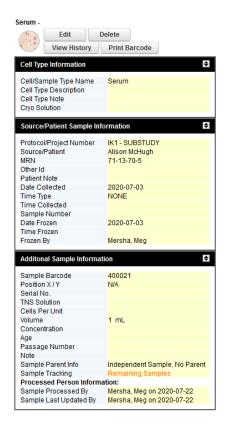


4.10.5 Print Barcode from Virtual place holder

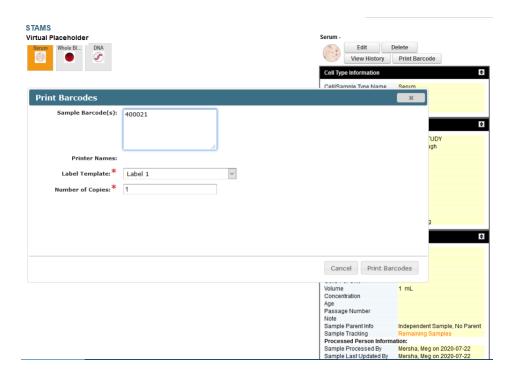
A barcode can be printed to affix on the vial where the Sample is stored. To print the barcode of a sample, select a virtual Sample (Note: The sample information display time varies from 1 to 5 seconds depending on the network speed).

from Virtual place holder and click "Print Barcode" icon





System will provide to select options like below to select printer names, label template, and number of copies to print.



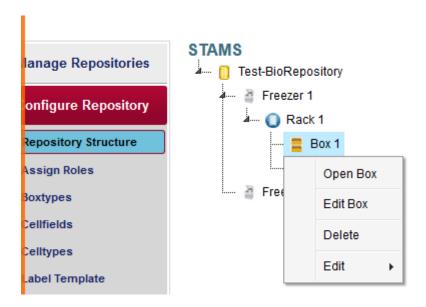
Select the options and click "Print Barcodes" button.

System will print sample barcode information on the label utilizing the predesigned sample barcode template.

4.10.6 Copy/Cut/Paste Virtual Sample

A sample can be taken from a Virtual Placeholder to new or existing box

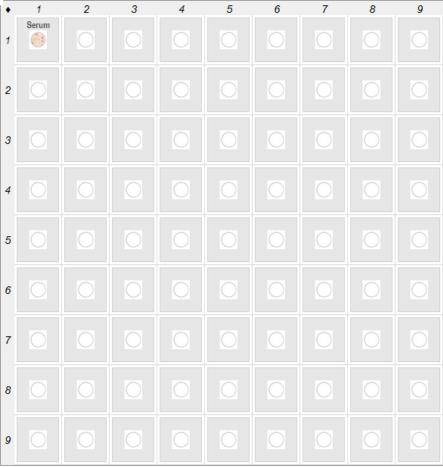
Right click on the box and select the "Open Box" button.



Virtual Samples added to the Virtual Placeholder will display underneath the Box.

STAMS

Box 2/Rack 1/Freezer 1



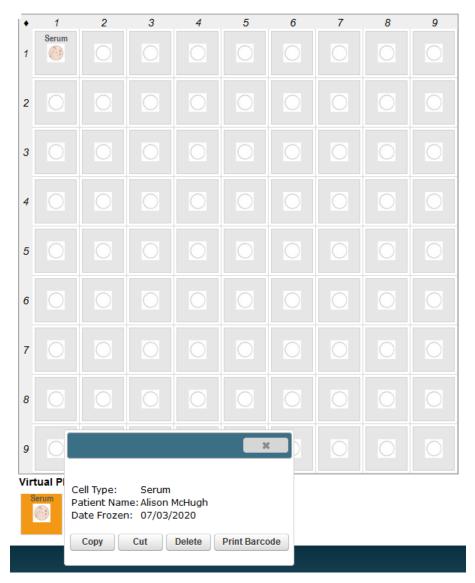
Virtual Placeholder



Copy sample from Virtual place holder to Box:

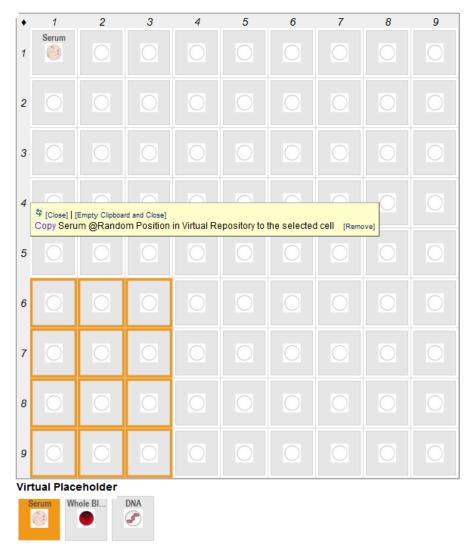
To copy a sample, select a sample and click on the "Copy" button, the system will display the context menu as shown below.

STAMS Box 2/Rack 1/Freezer 1



Click "Copy" button to copy the Virtual Sample. Now on the main table above the placeholder area, user can select one or more cells in it. To do that, select a cell in the box do a left click on mouse, hold and drag the mouse to select multiple cells. Here system will show a context popup with menu as shown in below picture.

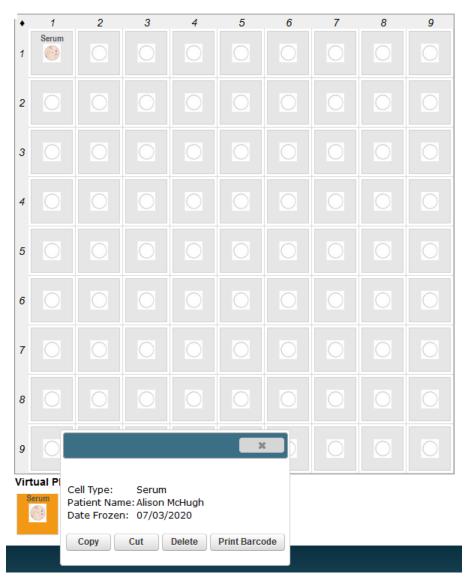
STAMS Box 2/Rack 1/Freezer 1



Click "Copy" button Copy in the box to paste the Sample copied from Virtual Placeholder area. This will paste the selected sample into all of selected cells within the table for the Box.

To relocate the sample from virtual Placeholder area, select the sample and click on "**Cut**" button, the sample will be copied to the clip board. Select a new empty space in the box where it has to be relocated

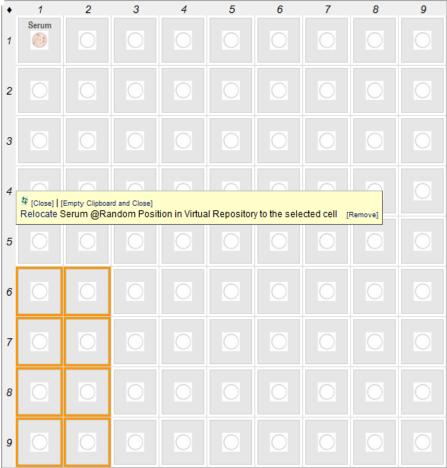
STAMS Box 2/Rack 1/Freezer 1



Select the cell in the Box and click on Relocate link Relocate in the context menu to move the sample to new space.

STAMS

Box 2/Rack 1/Freezer 1



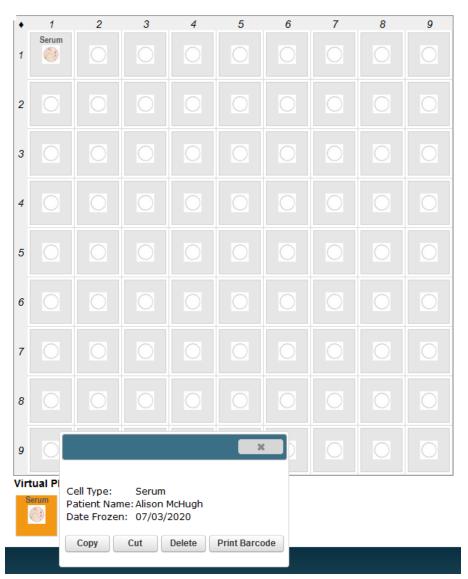
Virtual Placeholder



4.10.7 Delete a Virtual Sample under a box

STAMS

Box 2/Rack 1/Freezer 1

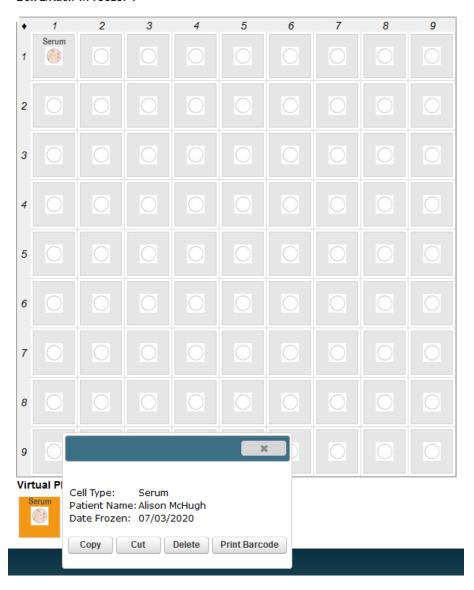


4.10.8 Print barcode of a Virtual Sample or multiple virtual samples under a box.

There is only "Print Barcode" action for multiple selected virtual samples at "Virtual Placeholder" under a box

STAMS

Box 2/Rack 1/Freezer 1





4.11 Add /Edit/Delete a Sample directly to a Box

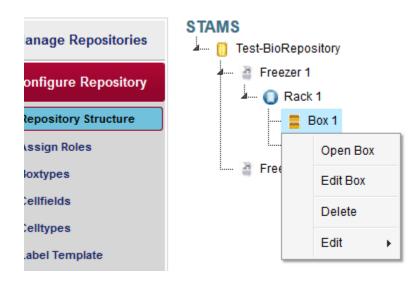
4.11.1 Add Sample to a New/ Existing BOX of a Repository

4.11.1.1 Open a box of a repository

To add a sample directly to a Box in the system, there are two ways to open a box of a repository.

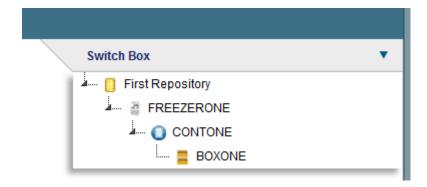
Option 1: select a repository, then, click "Configure Repository" left menu, the repository structure tree shows up for the selected Repository.

Following actions are available to perform on a Box that appears on the right click context menu as shown below. Click on "Open box" link to open the box.



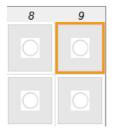
Option 2: use "Switch Box" shortcut to open the box -

Click on "Switch Box" at right top of the user interface.



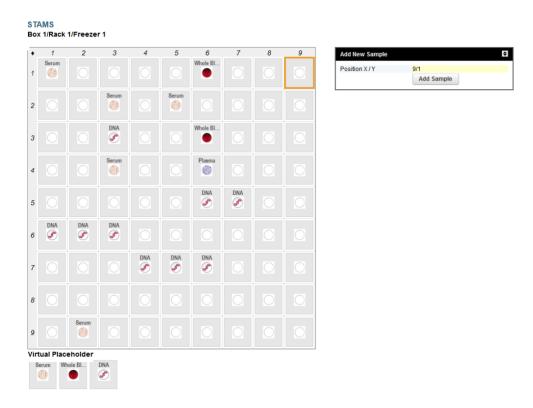
4.11.1.2 Add a Sample to the box

To add a sample, select an empty cell and "Add New Sample" frame appears on the right of the page. It will display the position of the cell.



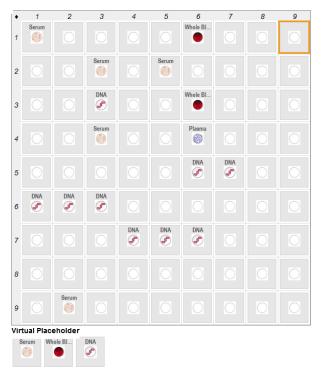


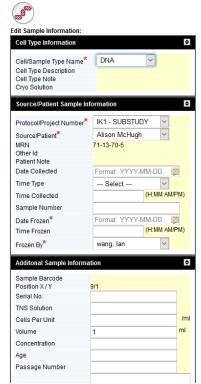
Click on the "Add Sample" button.

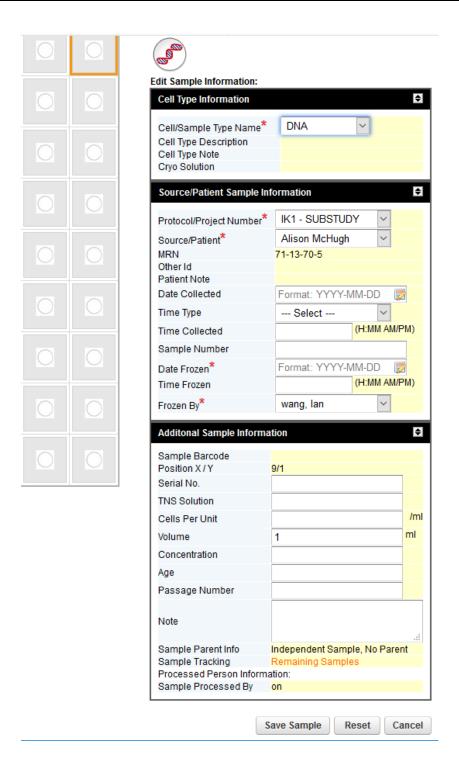


The system will display the fields to be entered next the box as shown below.

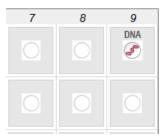
STAMS Box 1/Rack 1/Freezer 1





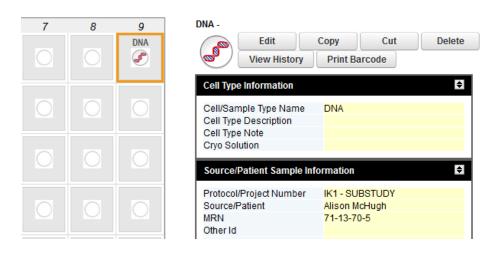


Select the Cell Type name, Protocol /Project number, Source/Patient, Date frozen, frozen by and click on "Save Sample" button to add new sample. New Sample will be added to the selected cell.

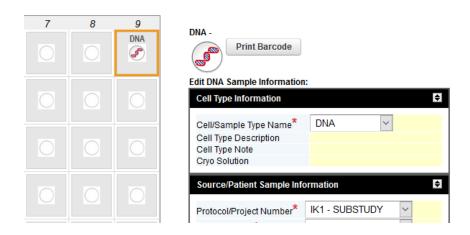


4.11.2 Edit Sample from the Box

To edit a sample, select a sample and click on the "Edit" button.

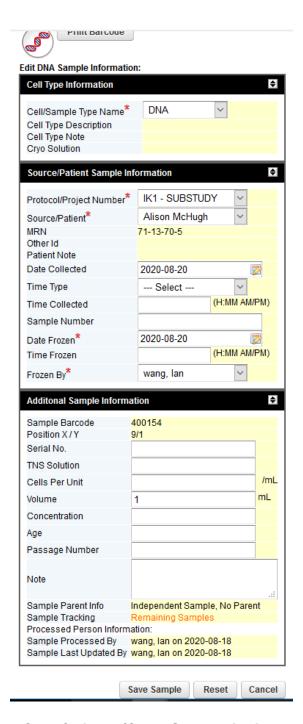


System will display the fields regarding sample information next to the box as shown below.



Edit the Values in all fields and click "Save Sample" button.

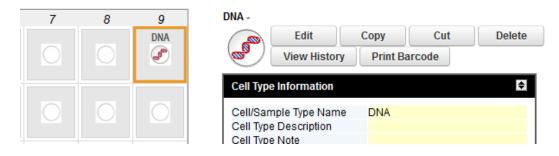
Update the Protocol/Project Number, Source Patient, Date, Frozen by and click on "Save Sample" button to edit sample.



4.11.3 Copy/Aliquot/Cut a Sample inside a BOX:

4.11.3.1 Copy/Aliquot sample inside the same BOX:

To copy/Aliquot a sample from one Cell to different cell, select a Sample and click on the "Copy" button next to the box.

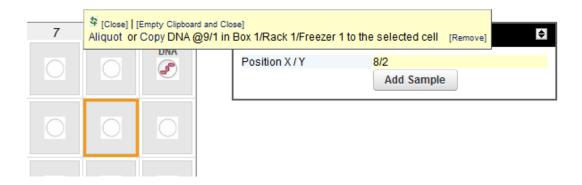


Click on the empty cell inside the box and "copy" link Copy and "Aliquot" link will be displayed as below.

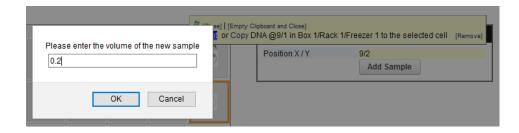
Sample will be copied to the selected cell after clicking "copy" link Copy from the clipboard.

Or, Sample will be aliquoted to the selected cell after clicking "Aliquot" link Aliquot from the clipboard.

as below.



Note: click on "Aliquot" link Aliquot, System will give small popup message like below to enter the volume of the new sample. Enter the volume as 0.2 for example and click "OK" button:



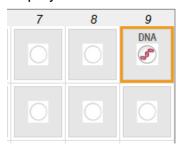
The new sample will be saved with 0.2 ML volume to the selected cell inside the box.

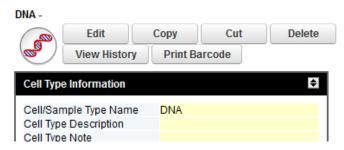
Original sample value will change to original volume minus 0.2 ML.

Original sample value will change to original volume minus (0.2* cell number) ML for multiple cells.

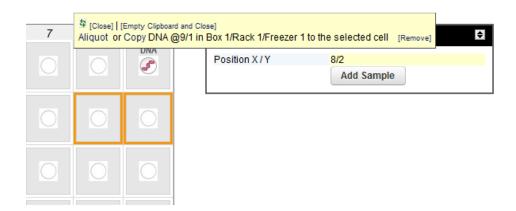
4.11.3.2 Copy/Aliquot sample to multiple cells inside the same BOX:

To copy/aliquot a sample from one cell and paste to multiple cells, select a sample and click on the "Copy" button next to the box. To Paste Copy or Aliquot the copied sample click on an empty space in the box, the system will display the context menu as shown below.





Select the empty cell and hold left mouse button and drag to select multiple cells to paste Copyl or to aliquot Aliquot.



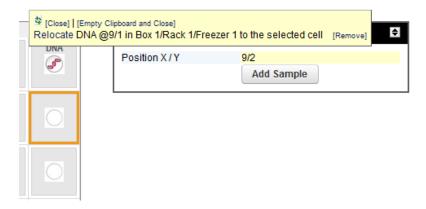
4.11.3.3 Cut/relocate sample inside the same BOX

To relocate the sample in the box, select a sample and click on the "Cut" button next to the box

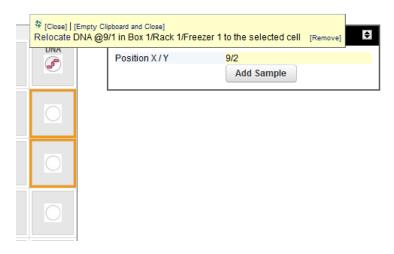


To relocate click on an empty space in the box, the system will display the context menu as shown below.

Click on the Relocate link Relocate in the context menu to move the sample to new space.



4.11.3.4 Cut/relocate sample to multiple cells inside the same BOX

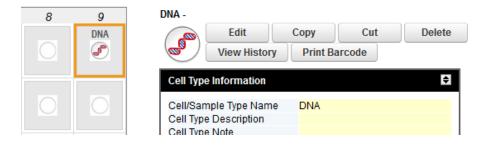


4.11.4 Copy/aliquot/cut sample from one box to another box:

4.11.4.1 Copy/aliquot sample from one box to another box:

Step 1:

Open a Box and select a Sample and click on the "Copy" button next to the box.



Step 2:

Open another box. Click on the cell inside the box to view "Copy" link Copy and "Aliquot" link Aliquot from clipboard and click on "copy" Copy or "aliquot" Aliquot from the clipboard.



Sample will be copied to the different box after clicking "copy" link Copy or "aliquot" link Aliquot from the clipboard.

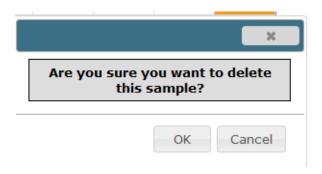
4.11.4.2 Copy/aliquot sample from one box to multiple cells in another box. Note: Sample can be copied/aliquoted/relocated from one box to multiple cells in a different box.

4.11.5 Delete Sample from the Existing Box

To delete a Sample, select a sample and click on the "Delete" button. The system will prompt you to confirm as shown below



Click "OK" button, the system will prompt you "Are you sure you want to delete this sample".



Click on "OK" button to delete the Sample from the box.

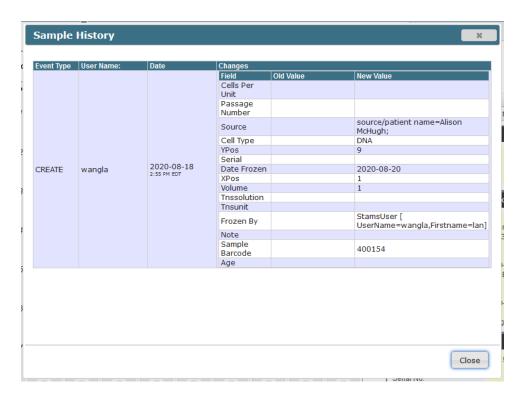
4.11.6 View History of a Sample

To view the history of a sample, select a sample and click on the "View History" button. The system displays the history of the sample in a new tab as shown below.

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Sample history will be displayed like below.

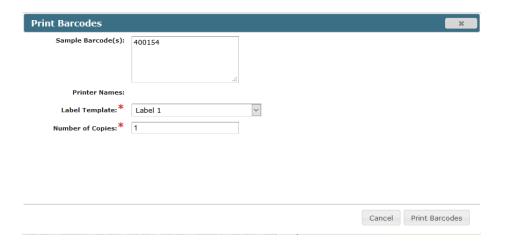


4.11.7 Print Sample Barcode

To print the barcode of a Sample, select a Sample from box, select click on the "Print Barcode" button.



System will provide to select options like below to select Printer Names (refer to section 4.15), Label template (Refer to section 4.14) and number of copies to print.



Select the options and click "Print Barcode" button.

The system will print sample barcode information on the label utilizing the predesigned sample barcode template.

4.12 Search & Export Samples

Samples can be searched using the Search feature in the system. Also, they can be exported into a spreadsheet. To search for a Sample, under the "Reports" menu on the left side, select the "Search & Export".





Click , pick up one from the dropdown. Options in the drop down are "Barcode" or "Protocol Number" or "Patient" or "Source Name" or "Cell Type" or "Cell Type Note/Description" or "Stored By" or "Created Date" or "MRN" or "Other ID" or "Comments"

Select one of the options and click on to finish one condition.

Continue to click for the next condition.

When all conditions are done, hit the "Search" button to get the results.

STAMS

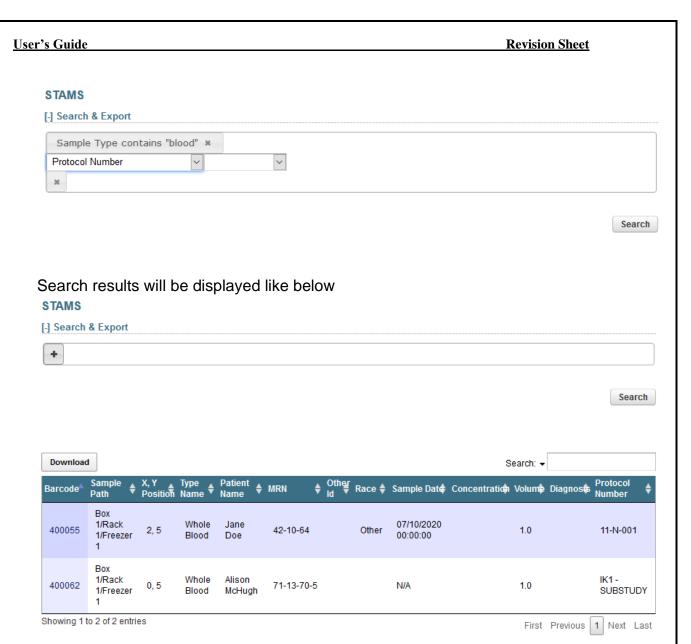


Search

STAMS

[-] Search & Export

Sample Type contains "blood" ×



4.13 Scanning the Labels:

System assigns a unique id for the sample stored in the database. This id is utilized to generate the barcode, which can be printed using the barcode printer on the label. The label is struck on the vial and stored in the box/container/freezer. The barcode reader is used scan the barcode; the system will automatically pull the sample information on the screen based on the input from barcode reader while searching using "Search" field by using the Scanner instrument. After searching using scanner, system redirects to the page where it will retrieve and list all the samples.

On the sub menu "Summary Report" under "Reports", enter sample barcode 400154, for example, and click "Search" button.





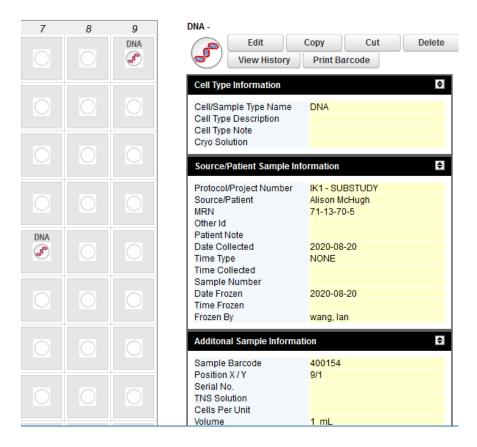
STAMS



The list of samples with barcode 400154 will be listed.



Click on the barcode link (400154 link), it will bring the user to the box with the sample.



4.14 Assign User to the system (System admin only)

To assign a user to STAMS system through "Account Management" application.



Step 1:

Click on the "Account Management/Request Additional Privileges" left menu, Add "Stams" and/or "Stams Admin" in "Privileges" table.





Request Additional Privileges

Account Privileges



Step 2: Click on the "Account Admin/Account List" menu on the left side.

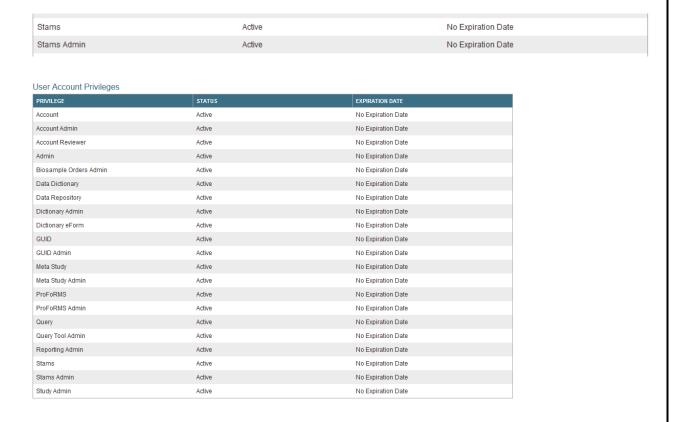


Under the "Account List" table, find and click on the user's username.





Add "Stams" and/or "Stams Admin" in "User Account Privileges" table. Edit and "Save" this page.



4.15 Add Users to a protocol (Lab Admin only)

To add user to Protocol through **PROFORMS** application.

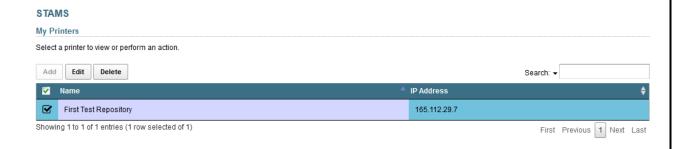
4.16 Add/Edit/Delete a printer (System Admin & Lab Admin)

To add a Printer in the system, click "Printers" left sub menu under "Configure Repository" for the selected Repository.

To add a printer, click on "Add" button.



To Edit/Delete a printer, select (check) a printer, and click on "Edit" or "Delete" button.



Enter the name of the new printer (required) and the IP Address (required)



Enter the name of the new printer (required) and the IP Address (required)

Select "Save" to add/update the printer.

4.17 Label Template (System Admin and Lab admin only)

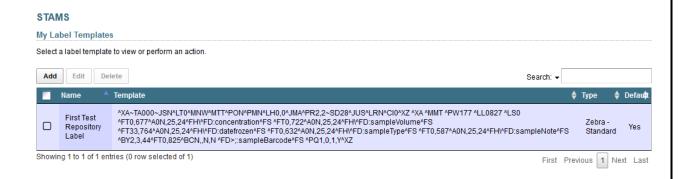
To add a Label Template in the system, click "Label Template" left sub menu under "Configure Repository" for the selected Repository.



To add/Edit/Delete a Label Template, on the left side, selects "Label Template".



To add a new Label Template, click "Add" button from below page.



To edit/delete a Label Template, click "Edit" or "Delete" button from below page.



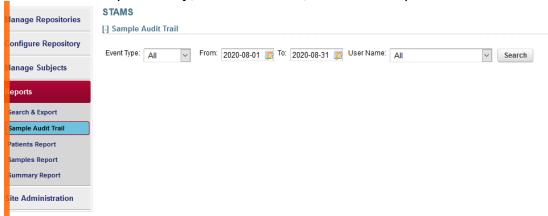
Enter the Label Name; Select the Type ("Zebra – Standard") and the Template (The "Template" text area above is for the text generated for the label designed using the respective printer label design software. It is entered by IT support team.) and click "Save" button to save the Template.

4.18 Audit Trail (Available for all roles)

To view the sample history, click "Sample Audit Trail" left sub menu under "Report" menu for the selected Repository.

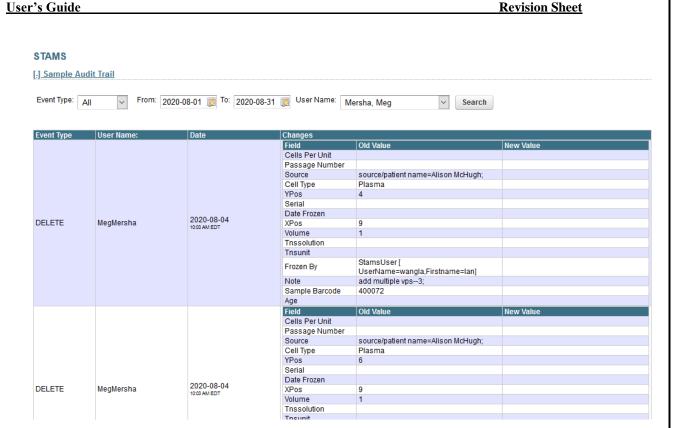


To view the sample history, on the left side, selects "Sample Audit Trail".



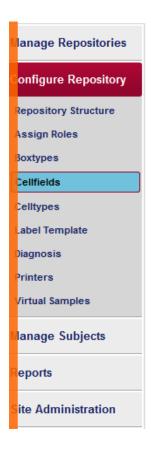
Select Audit trail event type as All/create/Update/Delete, From Date, To Date information and User, and Click "Search" button to view the Sample history.

Sample History for the entire system will be displayed based on the search.



4.19 Cell Fields (System Admin and Lab admin only)

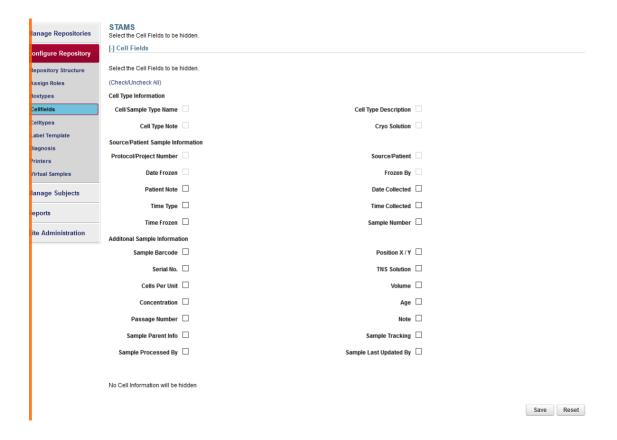
To set the Selected Cell fields to display for the Sample (While adding new sample in the system), click "Celltypes" left sub menu under "Configure Repository" menu for the selected Repository.



Select "Cell fields" from the Left menu and click.

It will show below page where the user can select the checkboxes of the cell fields to make it hidden. Cell type is administrative screen which provides hard and soft attributes specific to a cell. Hard attributes are required for a cell to define. Soft attributes are flexible which can be included or excluded for a cell. Cell fields UI allows system admin /Lab admin to exclude or include the soft attributes visibility on the "add or modify" sample UI fields.





4.20 Projects/Protocols (System Admin)

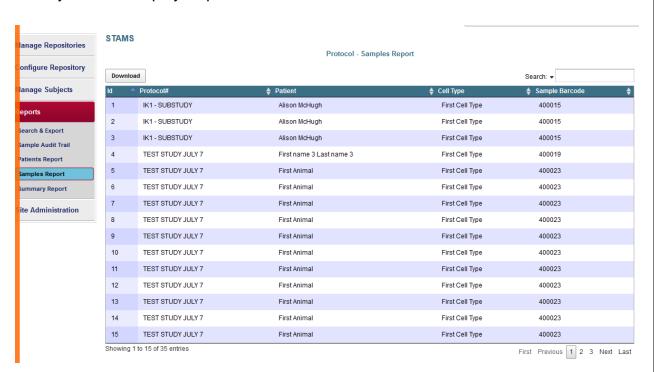
Projects/Protocols are automatically populated or show for every user. Protocols are created and assigned at Proforms application.

4.21 Reports (Available for all roles)

To View the STAMS report click on the left side "Reports" menu. There are **Patients Report**, **Samples Report and Summary Report**.



This system will display Reports as shown below



<u>User's Guide</u> Revision Sheet

5 ACRONYMS AND ABBREVIATIONS

STAMS: Specimen Tracking and Management System

PI: Principal Investigador

LU : Lab Usar LA : Lab Admin SA : System Admin