

Clinical Specimen Repository Web Application

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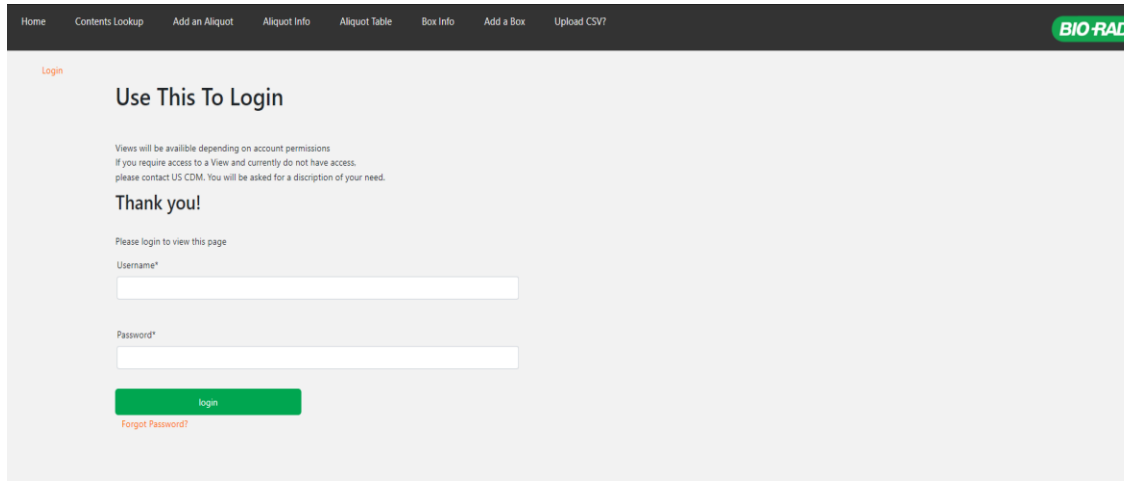
Clinical Specimen Repository Web App

Overview

- Built on the Django 2.0 Web Framework (python 3 is the language behind)
- Uses a Microsoft SQL Database to house data
- Running on Apache attached to Linux-CentOS 7 operating system

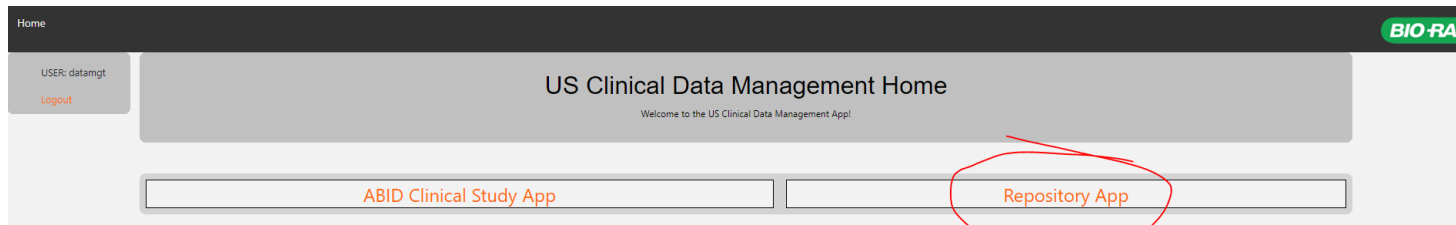
Clinical Specimen Repository Web App

- Enter uscdm.global.bio-rad.com into browser.
- Land on Login page



The screenshot shows the login page of the US Clinical Data Management Home. The header includes navigation links: Home, Contents Lookup, Add an Aliquot, Aliquot Info, Aliquot Table, Box Info, Add a Box, and Upload CSV?, along with the BIO-RAD logo. The main content area is titled "Use This To Login" and includes a message about account permissions. Below this, there is a "Thank you!" message and a prompt to login. The login form consists of two input fields: "Username*" and "Password*", followed by a green "login" button and a "Forgot Password?" link.

- Enter user name and password



The screenshot shows the dashboard of the US Clinical Data Management Home. The header includes the "Home" link and the BIO-RAD logo. The main content area displays the user's name "USER: datamgt" and a "Logout" link. Below this, the title "US Clinical Data Management Home" is shown, followed by a welcome message. At the bottom, there are two buttons: "ABID Clinical Study App" and "Repository App". The "Repository App" button is circled in red.

Clinical Specimen Repository Web App

- Contents Look Up page
- Use search if you know what contents you are looking for
- Use View All to scroll all contents.

[Contents Lookup](#) [Freezer Inventory](#) [Add an Aliquot](#) [Aliquot Table](#) [Add a Box](#) [Upload CSV?](#)

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Contents Lookup

Search.....

[Search](#) [Export Table to CSV](#) [View All Contents](#)

Box Type	Box ID	Contents	Insert Date	Inventory Status	Freezer
10x10	001A	ANA Positives	April 23, 2015, 5 p.m.	1	240B
9x9	001B	ANA Positives Negatives	April 23, 2015, 5 p.m.	1	240B
10x10	002A	SLE Positives - QCP inc Positives	April 23, 2015, 5 p.m.	1	240B
9x9	002B	SLE Positives	April 23, 2015, 5 p.m.	1	240B
10x10	003A	Anti-CMV Pos+ IgG	April 23, 2015, 5 p.m.	1	240B
9x9	004A	Anti-CMV Positive IgM Positives	April 23, 2015, 5 p.m.	1	240B
10x10	005A	Anti-EBV Positive	April 23, 2015, 5 p.m.	1	240B

Clinical Specimen Repository Web App

- To search for specific contents either use the search bar or the dropdowns to filter your view.

Contents Lookup

001A

Search Export Table to CSV View All Contents

Box Type	Box ID	Contents	Insert Date	Inventory Status	Freezer
10x10	001A	ANA Positives	April 23, 2015, 5 p.m.	1	240B
10x10	053A	HIV-1 Seroconversion Panels, Other, HIVSCP-001a,SV	April 23, 2015, 5 p.m.	0	Unknown

Contents Lookup

Search....

Search Export Table to CSV View All Contents

Box Type	Box ID	Contents	Insert Date	Inventory Status	Freezer
10x10	001A	ANA Positives	April 23, 2015, 5 p.m.	1	240B
9x9	001B	ANA Positives	April 23, 2015, 5 p.m.	1	240B
10x10	002A	ANA Positives	April 23, 2015, 5 p.m.	1	240B
9x9	002B	ANA Positives	April 23, 2015, 5 p.m.	1	240B
10x10	003A	ANA Positives	April 23, 2015, 5 p.m.	1	240B
9x9	004A	ANA Positives	April 23, 2015, 5 p.m.	1	240B
10x10	005A	ANA Positives	April 23, 2015, 5 p.m.	1	240B
9x9	005B	ANA Positives	April 23, 2015, 5 p.m.	1	240B

Clinical Specimen Repository Web App

- To export an excel file with the view the user has filtered, click on the 'Export Table to CSV'.

Ana positives

Search **Export Table to CSV** View All Contents

Box Type	Box ID	Contents	Insert Date	Inventory Status	Freezer
10x10	001A	ANA Positives	April 23, 2015, 5 p.m.	1	240B
9x9	001B	ANA Positives Negatives	April 23, 2015, 5 p.m.	1	240B

- Example of the exported content.

A	B	C	D	E	F
Box Type	Box ID	Contents	Insert Date	Inventory Status	Freezer
10x10	001A	ANA Positives	April 23: 2015: 5 p.m.	1	240B
9x9	001B	ANA Positives Negatives	April 23: 2015: 5 p.m.	1	240B

Clinical Specimen Repository Web App

- Aliquot Search Form view is the easiest way for a user to find specific aliquots meeting multiple criteria.
- After filling out any of fields press the submit button. (If a table does not start to populate under the form then try new criteria in the search.)

The screenshot shows the 'Aliquot Search Form' view of the Clinical Specimen Repository Web App. The top navigation bar includes links for Home, Contents Lookup, Freezer Inventory, Add an Aliquot, Aliquot Search Form (highlighted with a red circle), Add a Box, and Upload CSV?. The BIO-RAD logo is in the top right corner. On the left, a sidebar shows the user 'USER: datamgt' and a 'Logout' link. The main form area is titled 'Aliquot Search Form' and contains several search criteria, each with a text input field: 'Aliqd contains', 'Riskcategory contains', 'Samtypedesc contains', 'Volume is greater than', 'Volume is less than', 'Gender contains', 'Age is greater than', and 'Age is less than'. A yellow 'Submit' button is located at the bottom of the form.

Clinical Specimen Repository Web App

- AqlID contains – Searches the Aliquot ID's
- Riskcategory contains – As of right now the only search criteria is - **Disease**
- Samtypedesc contains – good way of narrowing search for **plasma** or **serum**
- Volume is greater than – Self explanatory (in mL)
- Volume is less than – Self explanatory (in mL)
- Gender contains – Search M or F
- Age is greater than – Self explanatory (enter whole numbers)
- Age is less than – Self explanatory (enter whole numbers)

Clinical Specimen Repository Web App

- After submitting the form please wait until the top header turns into dropdowns

Aliquot Search Form

Aqid contains

Riskcategory contains

Disease

Samtypedesc contains

plasma

Volume is greater than

Volume is less than

Gender contains

Age is greater than

Age is less than

Submit

Export Table to CSV

Cage	Cane	Stack	Freezer	Box ID	AQID	Original ID	Grid	Label Information	Volume (mL)	Insert Date	Study Desc	Sample Type Desc	Sample Prep Desc	Panel Name	Panel Desc	Risk Category	Risk Group Desc	Manufacturer	Member #	Blood Type	HIV 1	HIV 2	HVO	HBS	HBC	HAV	HCV	MMRV	Influenza	SAR COV
Cage	Cane	Stack	Freezer	Box ID	AQID	Original ID	Grid	Label Information	Volume (mL)	Insert Date	Study Desc	Sample Type Desc	Sample Prep Desc	Panel Name	Panel Desc	Risk Category	Risk Group Desc	Manufacturer	Member #	Blood Type	HIV 1	HIV 2	HVO	HBS	HBC	HAV	HCV	MMRV	Influenza	SAR COV

- Once the dropdowns appear the user can select any of them to narrow the search further.

[illegible]

Clinical Specimen Repository Web App

- When the user is satisfied with what is displayed in the table the user can export the table in csv format. This will automatically be downloaded in an excel file.

The screenshot displays the Clinical Specimen Repository Web App interface. At the top left, a user is logged in as 'USER: datamgt' with a 'Logout' link. The main area contains several search filters: 'Aqid contains', 'Riskcategory contains', 'Disease', 'Samtypedesc contains' (with 'plasma' entered), 'Volume is greater than', 'Volume is less than', 'Gender contains', 'Age is greater than', and 'Age is less than'. Below these filters is a yellow 'Submit' button. A red circle highlights the 'Export Table to CSV' button, which is located above a table of specimen data. The table has columns: Cage, Cane, Stack, Freezer, Box ID, AQID, Original ID, Grid, Label Information, Volume (mL), Insert Date, Study Desc, and Sample Type. The table contains two rows of data. Below the table, a red circle highlights a file explorer window showing the downloaded file 'aliquot_inventory (...csv)'.

Cage	Cane	Stack	Freezer	Box ID	AQID	Original ID	Grid	Label Information	Volume (mL)	Insert Date	Study Desc	Sample Type
1	01	A01	240B	001A	001A-F01	HP7-1604-0002	F01	HP7-1604-0002	1.000	April 23, 2015, 5 p.m.	ANA	Pla
1	01	A01	240B	001A	001A-F02	HP7-1604-0003	F02	HP7-1604-0003	1.000	April 23, 2015	ANA	Pla

Clinical Specimen Repository Web App

- If the user wants to check out an aliquot that is displayed in the search results table the user will press the hyperlink on the Aliquot ID of that aliquot.
- The user will then be taken to the box that the aliquot is located. From there the user will be able to select and check out the aliquot.

Submit														
Export Table to CSV														
▼	▼	▼	▼	▼	▼	Orig ▼	▼	Label ▼	▼	▼	Σ ▼	▼	S ▼	
Cage	Cane	Stack	Freezer	Box ID	AQID	Original ID	Grid	Label Information	Volume (mL)	Insert Date	Study Desc	Sample Type Desc	Sample Prep Desc	
1	01	A01	240B	001A	001A-F01	HP7-1604-0002	F01	HP7-1604-0002	1.000	April 23, 2015, 5 p.m.	ANA	Plasma	Unknown	
1	01	A01	240B	001A	001A-F02	HP7-1604-0003	F02	HP7-1604-0003	1.000	April 23, 2015, 5 p.m.	ANA	Plasma	Unknown	
1	01	A01	240B	001A	001A-F03	HP7-1604-0004	F03	HP7-1604-0004	1.000	April 23, 2015, 5 p.m.	ANA	Plasma	Unknown	
1	01	A01	240B	001A	001A-F04	HP7-1604-0005	F04	HP7-1604-0005	1.000	April 23, 2015, 5 p.m.	ANA	Plasma	Unknown	

Clinical Specimen Repository Web App

- Once a user has found the contents they are looking for they can click on any of the cells in the view and it will redirect them to the Aliquot and Box detail view.
- This is the main transaction page for the repository application.
- You can update the Box information, Export the Contents of the box to excel, checkout aliquots, and update aliquot information.

Aliquot and Box Detail											
You are in box: 001A . If you would like to update the box 001A click--> Update											
Select Aliquot	AQID	Cage	Cane	Stack	Freezer	Original ID	Grid	Label Information	Volume (mL)	Insert Date	Checked Out?
<input type="checkbox"/>	001A-A01- Update	1	01	A01	240B	00047303	A01	00047303	1.000	April 23, 2015, 5 p.m.	No
<input type="checkbox"/>	001A-A02- Update	1	01	A01	240B	00047303	A02	00047303	1.000	April 23, 2015, 5 p.m.	No
<input type="checkbox"/>	001A-A03- Update	1	01	A01	240B	00047303	A03	00047303	1.000	April 23, 2015, 5 p.m.	No
<input type="checkbox"/>	001A-A05- Update	1	01	A01	240B	00047281	A05	00047281	1.000	April 23, 2015, 5 p.m.	No

Clinical Specimen Repository Web App

- To checkout an aliquot the user will click the check boxes of all the aliquots they require and click the 'check out' button

USER: datamgt
[Logout](#)

Aliquot and Box Detail

[Export Table to CSV](#)

You are in box: **001A**. If you would like to update the box **001A** click--> [Update](#)

Select Aliquot	AQID	Cage	Cane	Stack	Freezer	Original ID	Grid	Label Information	Volume (mL)	Insert Date	Checked Out?
<input checked="" type="checkbox"/>	001A-A01-Update	1	01	A01	240B	00047303	A01	00047303	1.000	April 23, 2015, 5 p.m.	No

- Once the button is pressed the page will update with a success message in green and the column 'Select Aliquot' will no longer show check boxes where the aliquot is checked out. Also the 'Checked Out?' column will change from No to Yes.

USER: datamgt
[Logout](#)

Aliquots [001A-A01] Checked Out Successfully!

Aliquot and Box Detail

[Export Table to CSV](#)

You are in box: **001A**. If you would like to update the box **001A** click--> [Update](#)

[Check Out](#)

Select Aliquot	AQID	Cage	Cane	Stack	Freezer	Original ID	Grid	Label Information	Volume (mL)	Insert Date	Checked Out?
	001A-A01-Update	1	01	A01	240B	00047303	A01	00047303	1.000	April 23, 2015, 5 p.m.	Yes

Clinical Specimen Repository Web App

- To update the aliquot the user will click on the 'Update' link next to it's corresponding Aliquot ID in the AQID column.
- This procedure is also how a user will check an aliquot back into the box.
- The process is sped up by knowing the Aliquot ID

Aliquot and Box Detail											
Export Table to CSV											
You are in box: 001A . If you would like to update the box 001A click--> Update											
Select Aliquot ▼	AQID ▼	Cage ▼	Cane ▼	Stack ▼	Freezer ▼	Original ID ▼	Grid ▼	Label Information ▼	Volume (mL) ▼	Insert Date ▼	Checked Out? ▼
Select Aliquot	AQID	Cage	Cane	Stack	Freezer	Original ID	Grid	Label Information	Volume (mL)	Insert Date	Checked Out?
<input type="checkbox"/>	001A-A01- Update	1	01	A01	240B	00047303	A01	00047303	1.000	April 23, 2015, 5 p.m.	No
<input type="checkbox"/>	001A-A02- Update	1	01	A01	240B	00047303	A02	00047303	1.000	April 23, 2015, 5 p.m.	No

Clinical Specimen Repository Web App

- All fields of an Aliquot can be update on this page.
- Required Fields have an * after the label and if left blank a widget will notify the user and the submission will not go through.

Update an Aliquot

The current aliquot selected is 001A-A01

Lotid	Trialkey	Studyid	Studydesc	AliqId*	Originalid
20400047	Unknown	Unknown	ANA	001A-A01	0000047303
Saxid*	Grid	Insertdate	Invmum		
001A	A01	2020-04-09 00:00:00	59		
Checkout*	Volume	Age	Gender		
1	.000	Unknown	Unknown		
Demogroup	Riskcategory	Riskgroupdesc	Bloodtype		
Unknown	Disease	ANA	Unknown		
Hiv1	Hiv2	Hiv3	Hbs	Hbc	Hav
Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Hcv	Mmrv	Influenza	Sars cov2	Other	
Unknown	Unknown	Unknown	Unknown	ANA	
Manufacturer	Panelname	Paneldesc	Membernum		
Unknown	NA	NA	NA		
Samtydesc	Samprepdesc	Dup	Isconfirmed		
Serum	SST	0	1		
Invcment	Labelinfo	Notes	Reason*		
	00047303				

Submit

Clinical Specimen Repository Web App

- Note that the Aliquot ID(Aqid) cannot be updated.
- If the user entered an incorrect Aqid then they must add a new aliquot with the correct Aqid and dispose of the incorrect Aqid.

Clinical Specimen Repository Web App

- All fields of a Box can be update on this page.
- Required Fields have an * after the label and if left blank a widget will notify the user and the submission will not go through.

The screenshot displays the 'Box Update' interface of the Clinical Specimen Repository Web App. The top navigation bar includes links for Home, Contents Lookup, Add an Aliquot, Aliquot Info, Aliquot Table, Box Info, Add a Box, and Upload CSV?. The BIO-RAD logo is in the top right corner. On the left, a sidebar shows the user 'USER: datamgt' and a 'Logout' link. The main content area has a title 'Box Update' and a message 'The current box selected is 002B'. Below this, several input fields are listed: Boxid (containing '002B'), Freezer (containing 'freezertest'), Cage (containing '3cage'), Cane (containing '4cane'), Stack (containing '5cane'), Invnum (containing '1265'), Insertdate (empty), and Invcomments (empty text area). A Windows taskbar is visible at the bottom with various application icons and a system clock showing 8:08 AM on 2/10/2020.

Home Contents Lookup Add an Aliquot Aliquot Info Aliquot Table Box Info Add a Box Upload CSV? **BIO-RAD**

USER: datamgt
[Logout](#)

Box Update

The current box selected is 002B

Boxid
002B

Freezer
freezertest

Cage
3cage

Cane
4cane

Stack
5cane

Invnum
1265

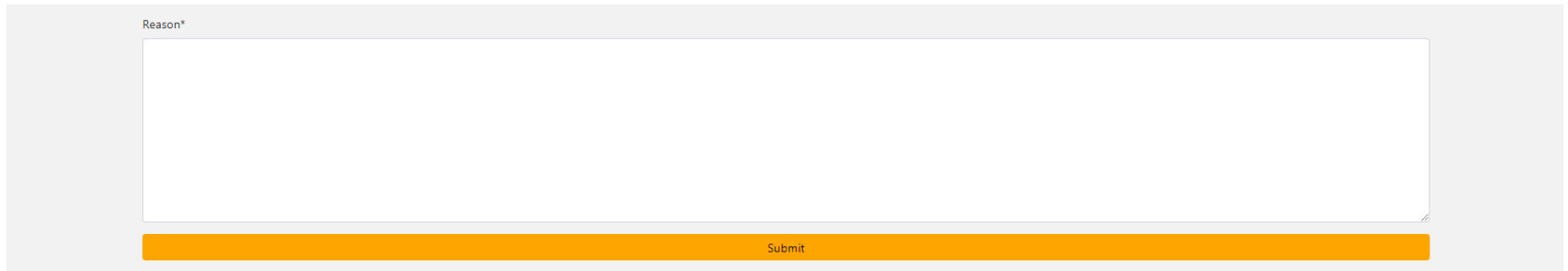
Insertdate

Invcomments

8:08 AM
2/10/2020

Clinical Specimen Repository Web App

- One of the required fields is the Reason*
- Give a brief and concise reason for the update



Reason*

Submit

Clinical Specimen Repository Web App

- To add an Aliquot fill out all fields
- Box ID's are in a dropdown and is required before submission of the form.

Add an Aliquot

Add the appropriate information in the fields below

lotid	trialkey	Studyid	Studydesc	Aqid*	Originalid					
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>					
Boxid*	Grid	Insertdate	Invinum							
<div>.....</div>	<input type="text"/>	<input type="text"/>	<input type="text"/>							
Checkout*	Volume	Age	Gender							
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>							
Demogroup	Riskcategory	Riskgroupdesc	Bloodtype							
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>							
Hiv1	Hiv2	Hiv3	Hbs	Hbc	Hav	Hcv	Mmr	Influenza	Sars cov2	Other
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Manufacturer	Panelname	Paneldesc	Membernum							
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>							
Sampdesc	Sampdesc	Dup	Isconfirmed							
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>							
nvcomment	Labelinfo	Notes								
<div></div>	<div></div>	<div></div>								
Submit										

Clinical Specimen Repository Web App

- Adding a box is simple, just add the box information in the fields shown and press submit.
- If the Box ID is already in the database the user will be notified and the submission will not go through.

The screenshot shows the 'Add Boxes' page of the Clinical Specimen Repository Web App. The page has a dark header with navigation links: Home, Contents Lookup, Add an Aliquot, Aliquot Info, Aliquot Table, Box Info, Add a Box, and Upload CSV?. The BIO-RAD logo is in the top right corner. On the left, a sidebar shows 'USER: Tester' and a 'Logout' link. The main content area is titled 'Add Boxes' with a subtitle 'Add the appropriate information in the fields below'. It contains several input fields: Boxid, Freezer, Cage, Cane, Stack, Invnum, Insertdate, and a larger text area for Invcomments.

Home Contents Lookup Add an Aliquot Aliquot Info Aliquot Table Box Info Add a Box Upload CSV? **BIO-RAD**

USER: Tester
[Logout](#)

Add Boxes

Add the appropriate information in the fields below

Boxid

Freezer

Cage

Cane

Stack

Invnum

Insertdate

Invcomments

Clinical Specimen Repository Web App

- CSV upload page is limited to the Clinical Data Management team.

The screenshot displays the web application interface. At the top, a dark navigation bar contains the following links: Home, Contents Lookup, Add an Aliquot, Aliquot Info, Aliquot Table, Box Info, Add a Box, and Upload CSV? (which is highlighted in light gray). Below the navigation bar, a message states: "Your account doesn't have access to this page. To proceed please contact US Clinical Data Management team". On the left side, the text "USER: Tester" is shown above a red "Logout" link. The main form area includes a "Username*" label above a text input field, a "Password*" label above another text input field, a green "login" button, and a red "Forgot Password?" link.