**TMT location:**

1. Log in to TMT (<http://vtest11.wustl.edu:8080/catissuetmt/Home.do>).
2. Select Test cases tab.
3. Expand caTissue product from the tree view.
4. Expand Mater List-v2.0 version
5. Expand Biospecimen Component
6. Expand Specimen test area
7. Select Test case ID 408 with short title PRIVILEGES\_End\_to\_end\_verification\_of\_privileges

**Purpose:** Test to ensure that users are able to perform actions as per the default privileges. Also to verify that the labels will not be generated automatically when the label generator is off.

**Pre-requisite:**

Import latest dump located at

Oracle: https://ncisvn.nci.nih.gov/svn/catissue\_persistent/caTissue Database Dump/v2.0/Oracle

MySQL: https://ncisvn.nci.nih.gov/svn/catissue\_persistent/caTissue Database Dump/v2.0/MySQL and deploy application with label generator values as follows:

specimenLabelGeneratorClass=

storageContainerLabelGeneratorClass=

specimenBarcodeGeneratorClass=edu.wustl.catissuecore.namegenerator.DefaultSpecimenBarcodeGenerator

storageContainerBarcodeGeneratorClass=edu.wustl.catissuecore.namegenerator.DefaultStorageContainerBarcodeGenerator

speicmenCollectionGroupLabelGeneratorClass= speicmenCollectionGroupBarcodeGeneratorClass=edu.wustl.catissuecore.namegenerator.DefaultSCGBarcodeGenerator

collectionProtocolRegistrationBarcodeGeneratorClass= protocolParticipantIdentifierLabelGeneratorClass=

Print label settings should be ON for the entire specimen.

**Procedure:**

1. Login as Super administrator, login ID [admin@admin.com](mailto:admin@admin.com) password: Test123.
2. Navigate to Administrative Data >> Storage Container >> Add page.
3. Select “**Vial LN2 Box Large 10x10**” from Storage Type drop down. (Refer Expected Output)
4. Select Parent Site as “**Laboratory of Translational Pathology**”. Select Specimen Class as “**All**”. Enter container label as “**Laboratory of Translational Pathology\_test**”.
5. Click on Submit button. (Refer Expected Output)
6. Navigate to Administrator Data >> Collection Protocol >> Add Page.
7. Enter following data:

Collection Protocol Details:

|  |  |
| --- | --- |
| **Attribute** | **Value** |
| Principal Investigator | Administrator, Administrator |
| Title | Alcohol Dependence |
| Short Title | Alcohol Dependence |
| IRB-ID | B08-32 |

Select consents tab, enter following data:

1. Agree to be interviewed by a trained staff member who will ask questions about your medical history, personality traits, mood, thinking, family relationships, and information about the history of your relatives
2. Agree to blood samples being drawn for use in genetic analyses to understand alcohol dependence and other related psychiatric conditions.
3. Agree to donate blood to the National Cell Repository. Cells from your blood will be used to develop cell lines. You agree that DNA, plasma and cell lines may be shared with investigators doing research in similar fields at other medical centers and research institutions from around the world.
4. Agree that your DNA, Plasma, and cell lines may also be used for study in other genetic studies.
5. Agree that other research data collected in the interview, such as sex, age, family structure, vital statistics, psychopathology, and diagnosis may be shared with investigators doing research in similar fields at other medical centers and research institutions from around the world.
6. Grant permission for the investigators to contact you in the future to invite you to participate in future research studies.

Select privileges tab. Select “**Laboratory of Translational Pathology**” site and click on “**Save Privilege**” button.

1. Click on “**Add Events >>**” button. (Refer Expected Output)
2. Enter following data:

|  |  |
| --- | --- |
| **Attribute** | **Value** |
| Collection Point label | Undefined |
| Clinical Diagnosis | Not Specified |
| Clinical Status | Not Specified |

1. Click on “**Add Specimen Requirements**” button. (Refer Expected Output)
2. Enter following data:

|  |  |
| --- | --- |
| **Attribute** | **Value** |
| Class | Fluid |
| Type | Whole Blood |
| Tissue Site | Blood |
| Pathological Status | Non-Malignant |
| Storage Location | Virtual |
| Initial Quantity | 10.0 |
| Collection Procedure | Venipuncture |
| Collection Container | EDTA Vacutainer |

Derive Specimen(s)

|  |  |
| --- | --- |
| **Attribute** | **Value** |
| Class | Cell |
| Type | Frozen Cell Pellet |
| Storage Location | Virtual |
| Quantity | 3.0E7 |

1. Click on “**Save Specimen Requirements**” button. (Refer Expected Output)
2. Select Derive specimen from tree view on LHS. Enter aliquot details as follows:

|  |  |
| --- | --- |
| **Attribute** | **Value** |
| Count | 3 |
| Quantity | 1.0E7 |
| Storage Location | Manual |

1. Click on “**Save Specimen Requirements**” button. (Refer Expected Output)
2. Click on “**Save Collection Protocol**” button. (Refer Expected Output)
3. Logout as Super Administrator.
4. Login as Administrator of site “**Laboratory of translational Pathology**”, login ID [ltp\_admin@gmail.com](mailto:ltp_admin@gmail.com) password: Test123.
5. Navigate to Biospecimen >> Collection protocol Based View page. (Refer Expected Output)
6. Select “**Alcohol Dependence**” Collection Protocol from drop down.
7. Click on “**Register New**” button. (Refer Expected Output)
8. Enter following data:

|  |  |
| --- | --- |
| **Attribute** | **Value** |
| SSN | 345-56-2451 |
| Last Name | Montgomery |
| First Name | Andrew |
| Vital Status | Alive |
| Gender | Male Gender |
| Race | American Indian or Alaska Native |
| Protocol Registration(s) | |
| Barcode | AD\_1 |
| Participant Protocol ID | AD\_PPID\_1 |

1. Click on “**Register Participant**” button. (Refer Expected Output)
2. Logout as Administrator.
3. Login as Supervisor of site “**Laboratory of Translational Pathology**”, login ID [sup\_ltp@gmail.com](mailto:sup_ltp@gmail.com) password: Test123.
4. Navigate to Biospecimen Data >> Collection Protocol Based View page. (Refer Expected Output)
5. Select “**Alcohol Dependence**” from Collection Protocol drop down. (Refer Expected Output)
6. Select “**0.0 Undefined**” event point from the tree view on LHS. (Refer Expected Output)
7. Enter following data:

|  |  |
| --- | --- |
| **Attribute** | **Value** |
| Collection Site | Laboratory of Translational Pathology |
| Collection Status | Complete |
| SCG Name | Alcohol Dependence\_01 |

1. Click on “**Submit**” button. (Refer Expected Output)
2. Select “**Coll?**” and “**Print**” Check box for Parent specimen and derivative.
3. Enter label for Parent specimen as “**0904050P**” and derivative as “**0904050**”.
4. Click on “**Add to My List**” button. (Refer Expected Output)
5. Select “**0904050**” derivative specimen from tree view on LHS.
6. Select “**Create Aliquot/Derived Specimen as per CP**” radio button.
7. Click on “**Submit**”. (Refer Expected Output)
8. Select Storage Container “**Laboratory of Translational Pathology\_test (1, 1)**” using **MAP** button. Click on “**Apply First Location To All**”. (Refer Expected Output)
9. Check “**Print Labels**” check box. Click on “**Submit**” button. (Refer Expected Output)
10. Logout as Supervisor.
11. Login as Technician, login ID [tech\_ltp@gamil.com](mailto:tech_ltp@gamil.com) password: Test123
12. Navigate to Biospecimen Data >> Specimen >> Edit page.
13. Search for Specimen label equal to “**0904050P**”. (Refer Expected Output)
14. Select “**Derive**” radio button. (Refer Expected Output)
15. Check “**Print** **Labels**” check box. Enter 1 as count. Click on “**Submit**” button. (Refer Expected Output)
16. Enter following data:

|  |  |
| --- | --- |
| **Attribute** | **Value** |
| Class | Fluid |
| Type | Plasma |
| Initial Quantity | 3.0 |
| Storage Container | Virtual |
| Label | 0904051 |

1. Select “**Aliquot**” radio button from create child specimen section. (Refer expected Output)
2. Enter count as 3 and quantity as 1.0.
3. Check “**Print Labels**” check box. Click on “**Add to My List**” button. (Refer Expected Output)
4. Check “**Print Labels**” check box. Click on “**Submit**” button. (Refer Expected Output)

**Expected Output:**

3) Selecting Storage Type will automatically fill up details for Storage Capacity, Specimen restrictions.

5) Storage Container will successfully be created with success message “Storage Container successfully created”.

8) Add Events page will be displayed.

10) Event would be successfully added and Specimen requirements page will be displayed.

12) Specimen requirements will be successfully added. Add events page will be displayed to allow adding more specimen requirements.

14) Aliquot requirement will be successfully added to derivative specimen requirement.

15) Collection Protocol will be successfully created with success message “Collection Protocol successfully created.

18) Only that collection protocol will be displayed in the drop down to which the administrator has access such as CAKUT, GAML, GAML\_Study, High Risk Breast Cancer, KTRC – Adult, Late Stage Breast Cancer, Z6041 and Alcohol Dependence. Administrator will not be able to view ACS, B and B Study Protocols as they are associated to some other site.

20) Register New participant details page will be displayed on RHS. Barcode and Participant Protocol ID text box will be available since barcode and PPID label generator is OFF.

22) “Participant successfully created” success message will be displayed. Anticipated Specimen Collection Group and Specimen as per CP definition will be displayed on the LHS.

25) Supervisor will be able to view all the collection protocols that are associated to “Laboratory of Translational Pathology” site and will be able to register new participant.

26) “Montgomery, Andrew” will be automatically populated in the Participant drop down list as he is the only participant registered to the protocol. Participant details will be displayed on RHS.

27) Edit Specimen Collection Group page will be displayed on RHS with Name field available since label generator for Specimen Collection Group is OFF.

29) “Specimen Collection Group successfully updated” success message will be displayed on Specimen summary page. Label field will be available for specimens since Label generator for Specimen is OFF.

32) “2 records are successfully added to the List” success message will be displayed and

Specimen will be successfully created. “Printed successfully” success message will be displayed. .cmd files will be generated under JBOSS\_HME/print/printer folder of Label Printing Jboss. The details displayed in the files will be in accordance with the print\_rules.xls file.

35) Aliquot summary page will be displayed with auto label generator for aliquots as “0904050\_1”, “0904050\_2” and “0904050\_3”.

36) Clicking on MAP button would display a new window with all the containers available under “Laboratory of Translational Pathology” site. Selecting “Apply First Location To All” will display same container for the remaining two aliquots.

37) Aliquots will be successfully created. “Printed successfully” success message will be displayed. .cmd files will be generated under JBOSS\_HME/print/printer folder of Label Printing Jboss. The details displayed in the files will be in accordance with the print\_rules.xls file.

41) Specimen will be displayed in edit mode.

42) Count filed will get enabled.

43) Specimen successfully updated success message will be displayed and add new derivative page will be displayed. “Printed successfully” success message will be displayed. .cmd files will be generated under JBOSS\_HME/print/printer folder of Label Printing Jboss. The details displayed in the files will be in accordance with the print\_rules.xls file.

45) Count and quantity field gets enabled.

47) Derivative will be successfully created and added to My List View page with success message as “1 records are added in the List”. Aliquot details page will be displayed. Aliquot label would be “0904051\_1”, “0904051\_2” and “0904051\_3” and AUTO storage location. “Printed successfully” success message will be displayed. .cmd files will be generated under JBOSS\_HME/print/printer folder of Label Printing Jboss. The details displayed in the files will be in accordance with the print\_rules.xls file.

48) Aliquots will be successfully created. “Printed successfully” success message will be displayed. .cmd files will be generated under JBOSS\_HME/print/printer folder of Label Printing Jboss. The details displayed in the files will be in accordance with the print\_rules.xls file.

**Verification Logic:**

1. Newly registered Participant will be displayed in the search result for “Participant Last Name equal to Montgomery” Simple search.
2. Recently collected Specimen Collection Group will be displayed in the search result for “Specimen Collection Group Name equal to Alcohol Dependence\_01” Simple Search.
3. Recently collected and created Specimen will be displayed in the search result for “Specimen Label starts with 090405” Simple search.
4. Following changes will be displayed in the AUDIT table:

For Participant:

* In CATISSUE\_AUDIT\_EVENT table new record should be entered with IP address equal to the IP address of the machine from which the action was performed and Event\_Timepstamp equal to the date on which the action was performed. Event\_Type should contain INSERT.
* In CATISSUE\_DATA\_AUDIT\_EVENT\_LOG table Object\_Name should contain CATISSUE\_PARTICIPANT, CATISSUE\_RACE, CATISSUE\_COLL\_PROT\_REG and CATISSUE\_PART\_MEDICAL\_ID. Object\_ID is the unique ID of the object inserted. Parent\_ID will be null for the main object (Participant). Containment or reference type objects getting added will have a parent\_id equal to the ID of the main Object being inserted. This table refers to CATISSUE\_AUDIT\_EVENT\_LOG table which relates to the CATISSUE\_AUDIT\_EVENT table.
* In CATISSUE\_AUDIT\_EVENT\_DETAILS table Element\_name contains the list of attributes that are in CATISSUE\_PARTICIPANT, CATISSUE\_COLL\_PROT\_REG CATISSUE\_RACE and CATISSUE\_PART\_MEDICAL\_ID tables. Previous\_value will be null and Current\_value will be the values added through UI. CATISSUE\_SITE will have their ID's audited only as they have reference association with the main object. ID of CATISSUE\_RACE and CATISSUE\_PART\_MEDICAL\_ID will also be audited along with their attributes as it is a containment type attribute.

For Specimen Collection Group:

* In CATISSUE\_AUDIT\_EVENT table new record should be entered with IP address equal to the IP address of the machine from which the action was performed and Event\_Timepstamp equal to the date on which the action was performed. Event\_Type should contain INSERT for Specimen and Specimen\_Collection\_Group. Event\_Type will be update for Collection Protocol and CP Registration.
* In CATISSUE\_DATA\_AUDIT\_EVENT\_LOG table Object\_Name should contain CATISSUE\_SPECIMEN\_COLL\_GROUP, CATISSUE\_COLL\_EVENT\_PARAM, CATISSUE\_RECEIVED\_EVENT\_PARAM and CATISSUE\_CONSENT\_TIER\_RESPONSE.
* In CATISSUE\_AUDIT\_EVENT\_DETAILS table Element\_name contains the list of attributes that are in CATISSUE\_SPECIMEN\_COLL\_GROUP, CATISSUE\_COLL\_EVENT\_PARAM, CATISSUE\_RECEIVED\_EVENT\_PARAM and CATISSUE\_CONSENT\_TIER\_STATUS table. Previous\_value will be null and Current\_value will be the values updated through UI. CATISSUE\_SITE will have their ID's audited only as they have reference association with the main object. CATISSUE\_SPECIMEN\_EVENT\_PARAM and CATISSUE\_CONSENT\_TIER\_STATUS will have their ID's along with their attributes audited as they have containment association with SCG.

For Specimen/Derivative/Aliquot:

* In CATISSUE\_AUDIT\_EVENT table new record should be entered with IP address equal to the IP address of the machine from which the action was performed and Event\_Timepstamp equal to the date on which the action was performed. Event\_Type should contain INSERT for catissue\_<specimen type>\_specimen.
* In CATISSUE\_AUDIT\_EVENT\_LOG table Object\_Name should contain catissue\_<specimen type>\_specimen, CATISSUE\_EXTERNAL\_IDENTIFIER (if added), CATISSUE\_SPECIMEN\_EVENT\_PARAM, CATISSUE\_SPECIMEN\_POSITION, CATISSUE\_CONSENT\_TIER\_STATUS and CATISSUE\_SPECIMEN\_CHAR. Object\_ID is the unique ID of the object inserted. Parent\_ID will be null for the main object (Specimen). Containment or reference type objects getting added will have a parent\_id equal to the ID of the main Object being inserted. This table refers to CATISSUE\_AUDIT\_EVENT\_LOG table which relates to the CATISSUE\_AUDIT\_EVENT table.
* In CATISSUE\_AUDIT\_EVENT\_DETAILS table Element\_name contains the list of attributes that are in catissue\_<specimen type>\_specimen, CATISSUE\_SPECIMEN\_EVENT\_PARAM, CATISSUE\_SPECIMEN\_POSITION, CATISSUE\_EXTERNAL\_IDENTIFIER (if added), CATISSUE\_CONSENT\_TIER\_STATUS and CATISSUE\_SPECIMEN\_CHAR tables. Previous\_value will be null for aliquots/derivatives/new specimen and Current\_value will be the values updated/added through UI. ID of CATISSUE\_STORAGE\_CONTAINER, CATISSUE\_BIOHAZARD (if added) will only be audited as they are reference association. ID of CATISSUE\_SPECIMEN\_CHAR, CATISSUE\_SPECIMEN\_EVENT\_PARAM (Collected and received events), CATISSUE\_CONSENT\_TIER\_STATUS, CATISSUE\_SPECIMEN\_POSITION and CATISSUE\_EXTERNAL\_IDENTIFIER will also be audited along with their attributes as it is a containment type attribute.

Refer the data model and audit metadata.xml to find out the classes with containment and reference association with the main class. All the classes and attributes should be audited in respective audit tables.