

## **iCollect: User's Guide**

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## 1. Getting started with iCollect

- 1.1. After the installation of **iCollect** on your machine. The iCollect icon will be placed on your desktop. Now you can start **iCollect** by Double-click on the icon to open the *Log In* page (Figure 1.1) of the system
- 1.2. Select 'DB Server' you want to connect. The default DB Server is *localhost*. If you want to connect to other **iCollect**'s DB server, type the IP address or server name at the 'DB Server' box.
- 1.3. Type your username and password. Click 'Login' to connect to **iCollect**.  
**Note:** A **MySQL root** account is required for initially setup the **iCollect** system. The *root* user has all privileges within the **iCollect** system.



Figure 1.1 Login Screen

- 1.4. Once you sign in, you can begin using **iCollect**. The menu panel appears at the left of the screen as shown in Figure 1.2. It contains, from top to bottom, **Specimen Menu**, **Sample Menu**, **Storage/Container Menu**, **Barcode Menu**, **Quality Control menu**, **Catalogue Menu**, **Services Menu**, **Other Menu**, **Statistics Menu**, **Administration Menu**, **Current User Menu**, **Help Menu** and **Logout Menu**. The Administration menu will not appear for user without administrative rights. To open or navigate menus, drag mouse over the menu bar/title, then left-click (or just click with a single button mouse) on the item you want.
- 1.5. At the bottom-left corner of the menu panel, you can see current logon user name. The current logon user can click on '**Change password**' to edit the account profile such as *Password, Address and E-mail* and click on the **Logout** when want to exit from the system.



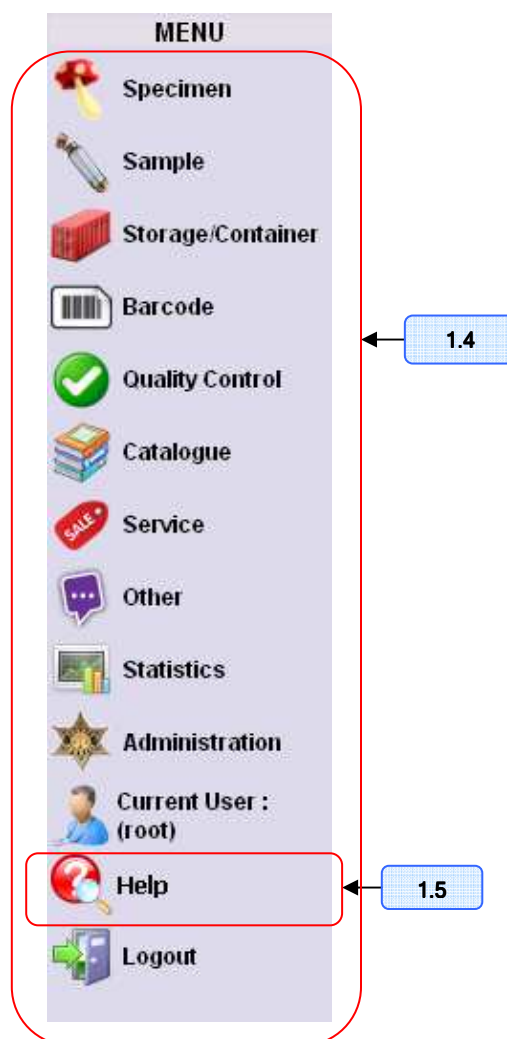


Figure 1.2 Menu panel

## 2. iCollect Configuration Settings

Before you can start using iCollect, the necessary settings in several menus (described in Section 2.1 to Section 2.8) need to be done by the *root* user or user with administrative privilege.

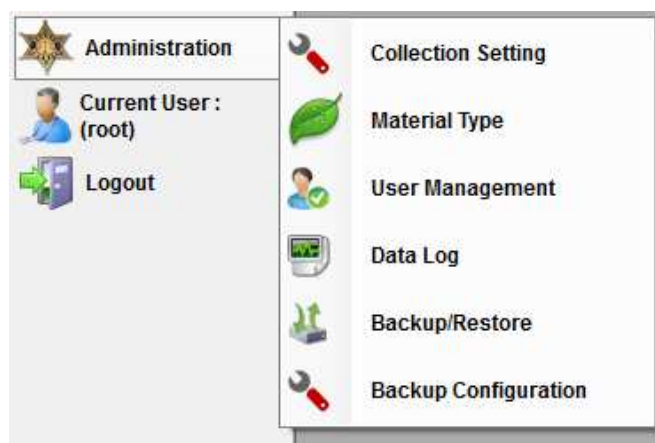


Figure 2-1 Administration Menu



## 2.1. Collection Settings

Under the **Administration** menu shown in Figure 2-1, you can click on ‘*Collection Settings*’ to define and create the data structure of each collection. There are three options in creating a new collection including import from CSV file, use templates, and interactively specify field names and constraints. Figure 2.1.1 illustrates three tabs for creating, editing and deleting the collection settings. In “Create Collection” tab, you can configure a new collection in three steps described in Section 2.1.1 to Section 2.1.3.

### 2.1.1. Collection Description

This section contains three following items.

- ❶ **Collection Name:** Type collection name. For example, BIOTEC CULTURE COLLECTION.
- ❷ **Collection Code:** Type Collection Code. For example, BCC is the code of BIOTEC Culture Collection.
- ❸ **Material Type:** Select a type of biological materials from the list
- ❹ **Collection Description:** Specify the description of collection.

**Notice:** An asterisk symbol (\*) in Figure 2.1.1 specifies the field need to be completed.

Figure 2.1.1 Collection Settings

### 2.1.2. Collection Data Structure

This part involves how to define the data structure of a new collection. You can perform one of the following options.

#### 2.1.2.1. Import from an MS-Excel file

You can add a new collection by importing the collection data and structure from an Excel file. Click **Browse** to browse a file containing the collection data and select which worksheet you want to import from the file. In the installed folder, you can find for example files in subfolder ‘ExFile’. Go to step 2.1.3.




### 2.1.2.2. Use Template

Several templates are included as examples of collection data structure. You can choose which one, appears in *iCollect Template*, that would suit your needs and go to step 2.1.3.


### 2.1.2.3. Specify column names and constraints

In this option, you can add a column to a collection data structure by clicking

on .

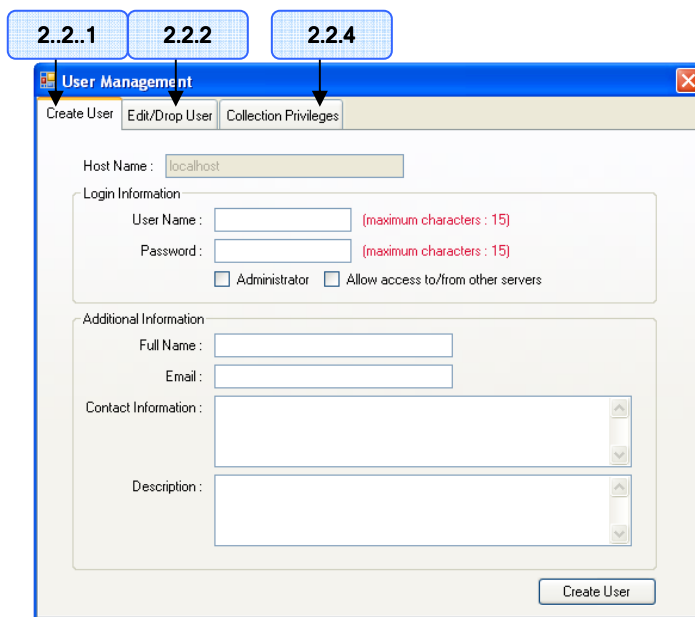
After all required columns have been added, you need to determine which column is a key of the collection. A key column is one that uniquely identifies a particular record in the collection.

- Click on the *isCode* checkbox at the row corresponding to the column you want to select as a key column.
- Click on the *Select* checkbox at the row corresponding to the column you want to include in the collection or click *Select All Columns* checkbox if you want to select all columns and go to step 2.1.3.

2.1.3. Click  to create a new collection. The description and structure of collections created from previous step can be modified in “Edit Collection” tab and deleted in “Delete Collection” tab.

## 2.2. User Account Settings

Under the **Administration** menu, you can click on ‘*User Management*’ to add new user accounts, edit/drop existing users and grant permission to access and use collection data.



The screenshot shows the 'User Management' application window. At the top, there are three tabs: 'Create User', 'Edit/Drop User', and 'Collection Privileges'. The 'Create User' tab is selected. Below the tabs, there are several input fields and checkboxes. The 'Host Name' field is set to 'localhost'. The 'Login Information' section includes 'User Name' and 'Password' fields, both with a note '(maximum characters : 15)'. Below these are two checkboxes: 'Administrator' and 'Allow access to/from other servers'. The 'Additional Information' section includes 'Full Name', 'Email', 'Contact Information', and 'Description' fields. A 'Create User' button is located at the bottom right of the window.

Figure 2.2.1 Create a new user account

### 2.2.1. New User Accounts



Open the “Create User” tab as shown in Figure 2.2.1, to add a new user account, and enter the following user information

- ① **User Name:** Type user name.
- ② **Password:** Type user’s password.
- ③ **Administrator Checkbox:** Specify user security level with administrative rights. **Allow access to/from other servers:** Specify user permission to access the database remotely.
- ④ **Full Name:** This part includes *First name, Middle name and Last name*.
- ⑤ **E-mail:** Fill out user’s email address
- ⑥ **Contact Information:** Fill out user’s contact information.



⑥ **Create User Button:** Click  to add a new user in the database.

### 2.2.2. Edit and Drop User

To edit user information, select a user name from *List of Users* in “Edit/Drop User” tab. The information of selected user name including *Full Name*, *Email*, and *Contact* will appear. You can edit information and click  to record your modification. In case of dropping a user name, click on a user name from *List of Users* and click on  to remove user from the system.

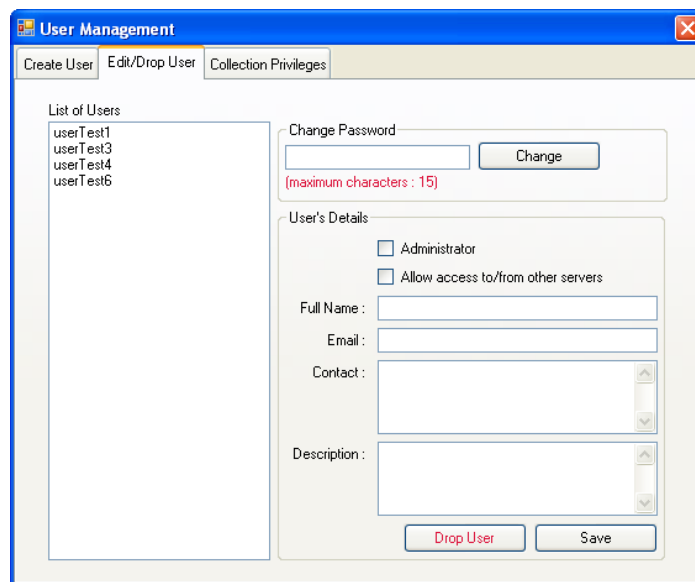



Figure 2.2.2 Edit/Drop User

### 2.2.3. Reset Password

In general, user already knows the password, he or she can change the password by going to “Change Password” menu as described above. In case you forget password, you can ask any users with administrative security level to set your new password. To reset a user’s password, select a user name from *List of Users* shown in Figure 2.2.2. Type new password and click .

### 2.2.4. Grant Privileges

iCollect provides privileges that apply in different contexts and different level of operations.

- Administrative privilege enables users to manage and customize iCollect configurations under the **Administration** menu.
- Privilege for collections within iCollect system can be granted to users in “Collection Privilege” tab. This privilege provides user permission to read and write access on a specific collection.



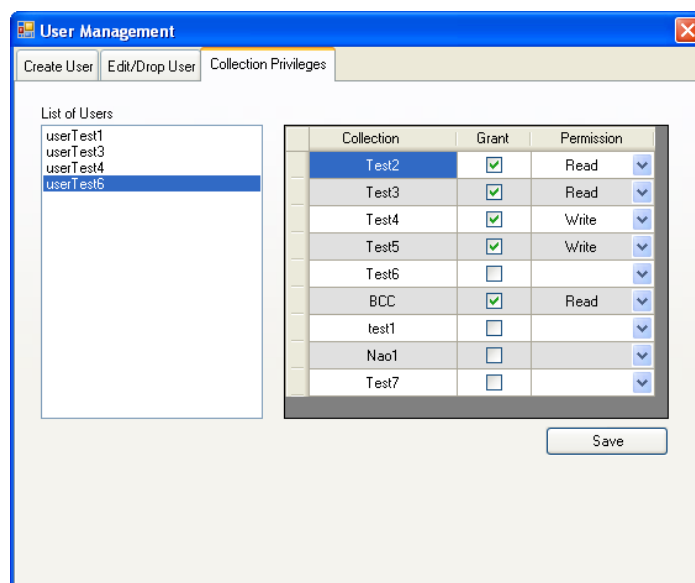


Figure 2.2.3 Grant Privileges on Collections to User

In Figure 2-2.3, open “Collection Privilege” tab and select a user name you want to grant or revoke collection privilege from *List of Users*. On the right-hand side, in the table, at the row corresponding to the collection you want, check “Grant” checkbox to grant *read* or *write* access permission on the collection to selected user and uncheck the “Grant” checkbox to revoke the permission from the user.

When you finish, click **Save** to update user’s permissions.

### 2.3. Material Type Settings

Under the **Administration** menu, open the “*Material type*” window (Figure 2.3) to add, edit and delete a type of biological materials. A list of default material types has also been included in the iCollect system.

- To add a new type of material, enter the material *name* and *description*, and then click **Add**.
- To edit a material type, click on the row corresponding to the material you want. Make your changes to the material name and description. Click **Save** to record your changes.
- Click on the row corresponding to the material type you want, click **Delete** to delete the material type



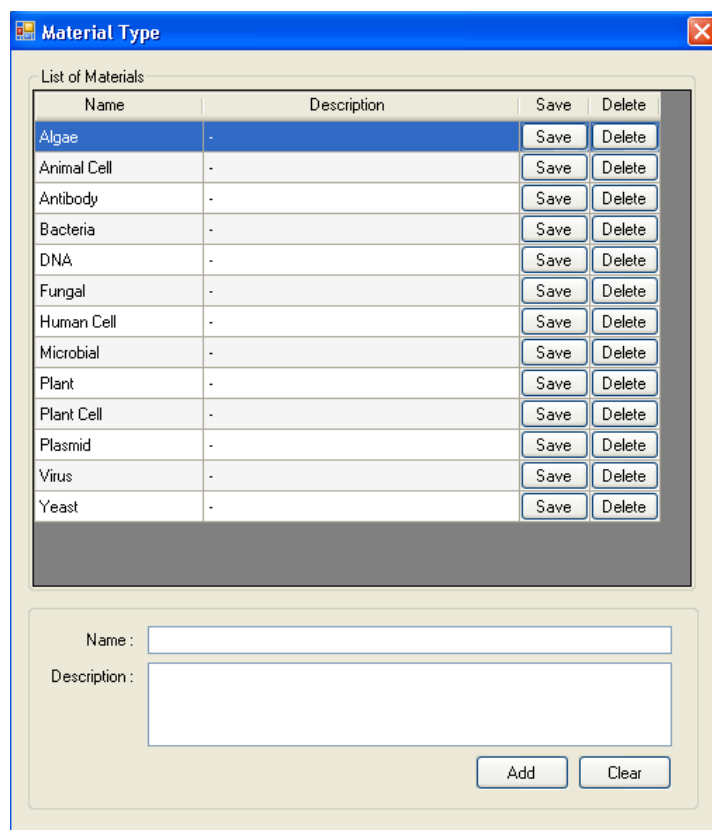


Figure 2.3 Material Type Settings

#### 2.4. Automatic Backup Setting

Under the **Administration** menu, select '*Backup Configuration*' to do the following tasks.

- Schedule the backup to automatically run daily, weekly, monthly or at certain times.
- Specify the location where the backup database will be saved.
- Change and turn off the backup schedule.

The scheduled backup files will be maintained in the user-defined folder. However, you can manually copy the backup files to other folders to maintain several backups.

#### 2.5. Storage /Container Setting

Under the menu "**Storage/Container**", users can define container type and storage structure. (See detail in Section 6)

#### 2.6. Quality Control Profiles Setting

Under the menu "**Quality Control**", you can click on 'Profiles' to add a new profile. (See detail in Section 8)

#### 2.7. Service Configuration Settings

Under the menu "**Services**", you can define a new service type and its profile. (See detail in Section 9)




### 3. Specimen

This part allows user to enter basic specimen information in a collection as defined in collection settings, record-by-record through the menu “specimen management” or “Import/Export Specimens”.

#### 3.1 Management

When you open the “Specimen Management” window, you will find three tabs including “Add New Record”, “Edit a Single Record” and “Edit /Delete Record (Sheet view)”.


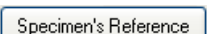
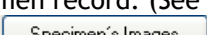
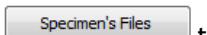
**3.1.1 Add New Record:** In this tab, you first choose a collection, the collection data structure of a single record will appear. You can then enter information on a specimen for the selected collection and click .

**3.1.2 Edit a Single Record:** There are three steps in updating the specimen information.

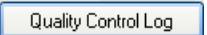

**Step 1:** Choose a collection you want, the list of specimens of that collection will display.

**Step 2:** Locate a specimen from the list to edit the data presented in the “Specimen’s Detail” frame.

**Step 3:** Other types of specimen information including images, references, and applications can be added to each specimen as well.

- Click  to add/update information about specimen’s utilizations.
- Click  to add/update a list of references to a specimen record. (See detail in Section 3.4)
- Click  to add/update images into specimen records.
- Click  to add/update files into specimen records.


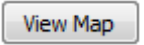
In addition, iCollect provides you to view the deposit and quality check records for each specimen.

- Click  to view the quality checking records
- Click  to view the deposit history for the selected specimen.

**3.1.3 Edit/Delete Record (Sheet View):** This tab allows user to search, view and update multiple specimen records.

#### 3.2 Geographic Coordinates

If the specimen contains the information of location in latitude and longitude format, user can view the location on map via this menu.

- To view map
  - Step 1: Select a collection from “select collection” combo box.
  - Step 2: Specify criteria and choose column to display data in filters box (optional)
  - Step 3: Click 
  - Step 4: Select sample to display on the map.
  - Step 5: Click 

#### 3.3 Molecular Sequences

Users can add, update, delete and search the molecular sequences. When you click “Molecular Sequences” from the menu panel, the “Sequence” window will be display. The “Sequence” window is vertically separated into two main parts. On the left-hand side, you can search the molecular sequences of the specimens/samples in a collection. On the right hand side, you can add a new



sequence (file), update and remove the existing sequence file to a specimen/sample.

- To **add** a sequence,
  - Step 1:** Select a collection from “Search collection” in “Search Samples” frame”.
  - Step 2:** Choose a specimen/sample from the list in “Code”.
  - Step 3:** Browse for a sequence file or enter a sequence directly in the “Sequence” tab.
  - Step 4:** Type “Name” , select “ Gene Type” and “Sequence Type”
  - Step 5:** If the input sequence contain invalid character
  - Step 6:** Click **Save** to add the sequence information into database

Figure 3.3-1 Molecular Sequence Interface

- To **modify** or **delete** a sequence
  - Step 1:** Select a collection from “Search collection” in “Search Samples” frame”.
  - Step 2:** Specify the criteria to retrieve the record you want to modify or delete. For example, specify the “strain code” column as “AOM0005” and click “Search”. The results will be shown in the “Search Result” tree view.
  - Step 3:** Select a sequence you want to update/delete. For example, click on “test” in the tree, iCollect will display the sequence information of “test” in the “Detail” frame.
    - a. If you want to update the data, modify any information as you want and click **Save** to record your changes.
    - b. If you want to delete the data, click **Delete**.



The screenshot shows the 'Sequence' window in iCollect. On the left, the 'Search Samples' section has a 'Select collection' dropdown set to 'Biotec culture collection'. Below it is a table with columns 'Show', 'Column name', and 'Criteria'. The table contains one row: 'Strain code' with the value 'ADM00005', which is checked in the 'Show' column. Other rows for 'Scientific name', 'Type strain', and 'Order' are unchecked. Below the table are 'Gene Type' and 'Sequence Type' dropdowns, and a 'Search' button. At the bottom left, the 'Search Result' section shows a tree view with 'ADM00005' and a sub-item 'test'. On the right, the 'Detail' section contains fields for 'Code' (ADM00005), 'File Path', 'Name' (test), 'Gene Type' (Beta tubulin), and 'Sequence Type' (DNA). Below these are tabs for 'Sequence' and 'Validated format', with the 'Sequence' tab active, displaying the text 'attccccggggggg'.

Figure 3.3-2 Search and Update Sequence Data

### 3.4 References

The “Reference” menu provides user to manage information on references of a specimen/sample. The “References” information includes journal articles, books, book chapters, proceeding articles and reports. In this part, users can perform two following tasks.

#### 3.4.1 Add/Import the references

- *Enter directly a single record of reference to the system*
  - Enter a reference title into “Reference Title” and Click .
  - iCollect will add and display a row containing the reference title from previous step into the “Search Result(s)-List of Reference(s)” table.
  - Update the data for each row of reference and set the reference code. Click .
  - Click to delete the reference on that row
- *Import the references from the BibTex file*
  - Click on to browse and select for a file containing the references data in BibTex format.
  - iCollect will upload the file into “Search Result(s)-List of Reference(s)” table.
  - Update the data for each row of reference and click .
  - Click to delete the reference on that row

#### 3.4.2 Set/Remove references to a specimen/sample



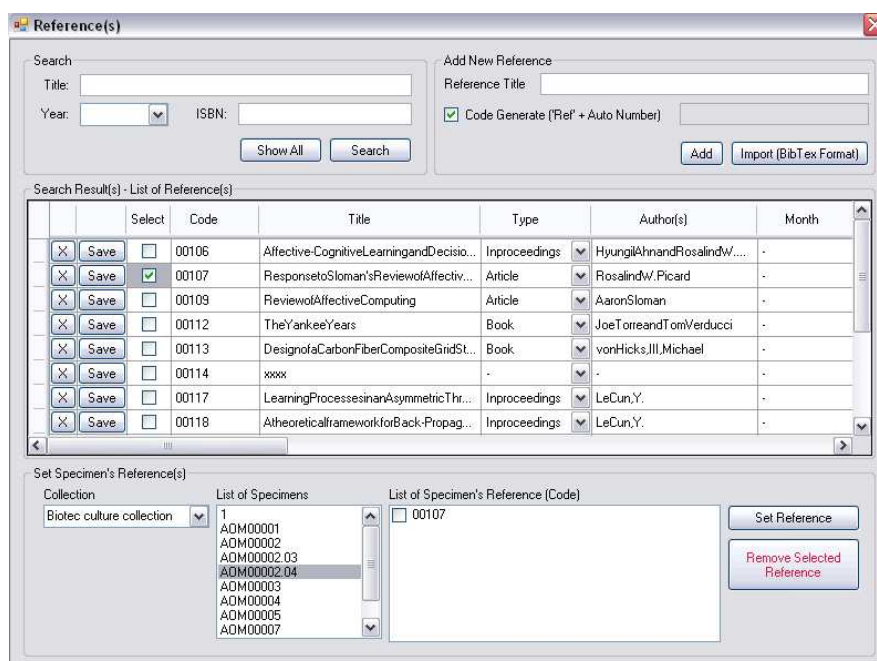

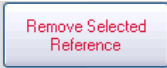


Figure 3.4.2 Set Specimen's references

- Step 1:** Select a collection and click a specimen in the “*List of Specimens*” from *Reference(s)* window (Figure 3.4.2) to select a specimen you want to add references
- Step 2:** In “*Search Result(s)-List of Reference(s)*” table, click “Select” checkbox on the row corresponding to the reference you want
- Step 3:** Click  to set the selected references to the specimen. The list of selected references of the active specimen will then appear in the “*List of Specimen's Reference*”
- Step 4:** Click on the checkbox in front of the reference code appear in the “*List of Specimen's Reference*” and click  to remove the checked reference from the specimen

## 4. Sample Management



Figure 4-1 “Sample” Menu

In Sample Management (Figure 4-1), this part allows users to search, create and remove samples of biological materials.



### 4.1 Search Specimen/Samples

Users can search for specimens/samples in a particular collection and perform actions on the selected specimen/samples in three steps as shown in Figure 4.2.1-1.

**Step 1:** Choose a collection from the list shown in “Select collection”. The columns of selected collection will appear. Users can specify values of each column to search the specimen/samples and Click “Search”.



**Step 2:** Search result will display in “List of Samples” treeview, a visual presentation of hierarchical node data. There are three types of icons displayed at each branch of the tree. Within “List of Samples” treeview, users can use to do following.

- Click on the ☐ checkbox to select the specimen/sample
- Click  to expand the tree branch to view the list of samples
- Click  to collapse all levels within that branch
- Right click on the tree node to view the history log of the specimen/sample within that branch or edit the reason in creating/removing the sample on that node

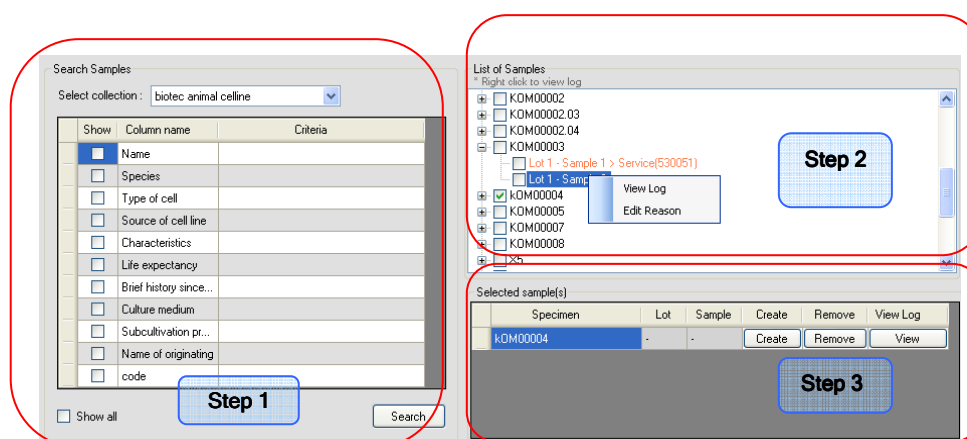
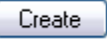



Figure 4.2.1-1 Search and Select Specimens/Samples within three steps

**Step 3:** The selected specimens/samples will display in “Selected sample (s)”. Users can click on

- Click  to select and submit samples from the selected specimens/samples to be appear in “Create samples”. See detail in Section “Create samples”.
- Click  to submit samples to “Remove samples” datagrid as shown in Figure 4.2.1-2 to be further removed, see detail in Section “Remove samples”.

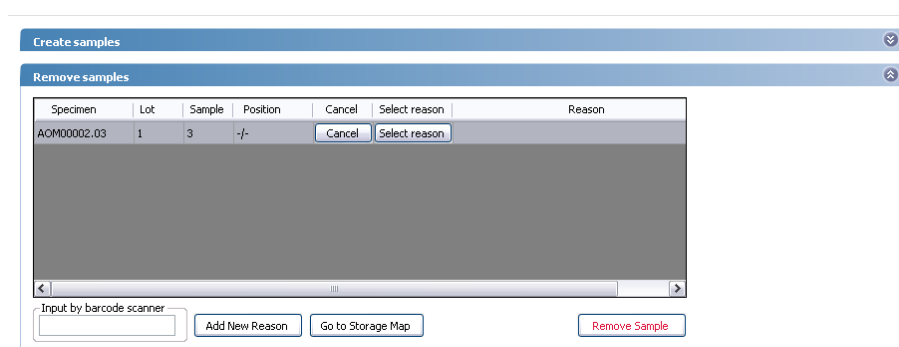



Figure 4.2.1-2 A Selected sample appear in “Remove samples” datagrid

- Click  in to view the history log of the selected specimens/samples as illustrated in Figure 4.2.1-3.



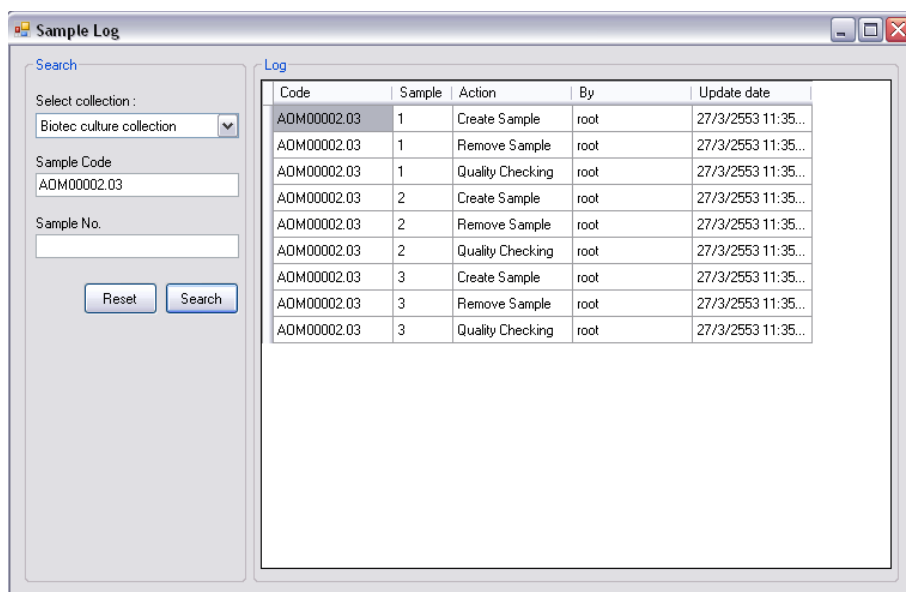


Figure 4.2.1-3 History of actions performed on the selected sample

## 4.2 Create Samples

From previous section, some specimens/samples has already been selected and displayed in “Create samples” data-grid. Each row in “Create samples” can be used to increase a number of samples/aliquots from the selected specimens/samples within the following steps.

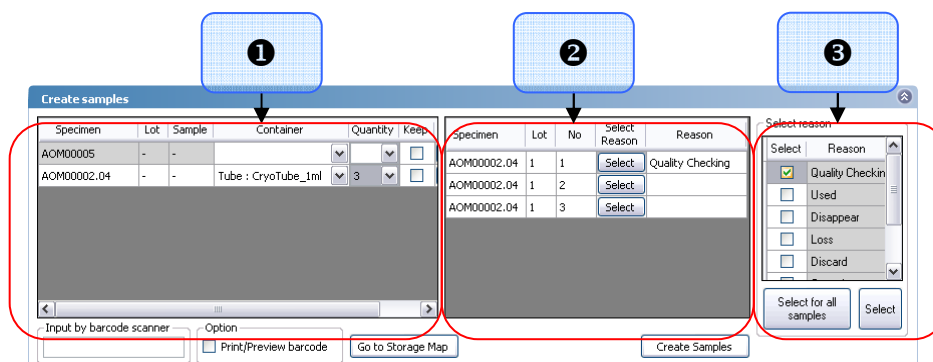


Figure 4.2.2 Steps to increase the number of samples

- At each row as shown in Figure 4.2.2, specify the specimen/sample *container* and *quantity* of samples you want to create. Check ☒ “Keep” to keep the source specimen/sample.
- The quantity of samples specified will be generated into the data-grid on the right as shown in Figure 4.2.2. You can click **Create Samples** to create samples for preservation, otherwise click **Select** to open the “Select reason” frame to choose reasons for each sample. After that, click **Go to Storage Map** to store and preserve the created samples into storage.
- In “Select Reason” frame, select a reason for creation of the samples without storing into any storage facilities and click **Select**. Click **Select for all samples**.



to select the selected reason for all samples you want to create. Then, click  to create the samples.

### 4.3 Remove Samples

In “Remove samples” as shown in Figure 4.2.3, you can perform the following steps to remove the samples.

- ❶ At the row corresponding to the specimen/sample you want to remove, click  to choose reason in removing the sample. The “Select reason” frame will appear on the right.
- ❷ In “Select Reason” frame, select a reason in removing the sample and click . Click  to select reason for all samples you want to remove.
- ❸ Click  to remove the samples. The samples removed with quality checking reason will appear in the menu “Quality Control Records”.

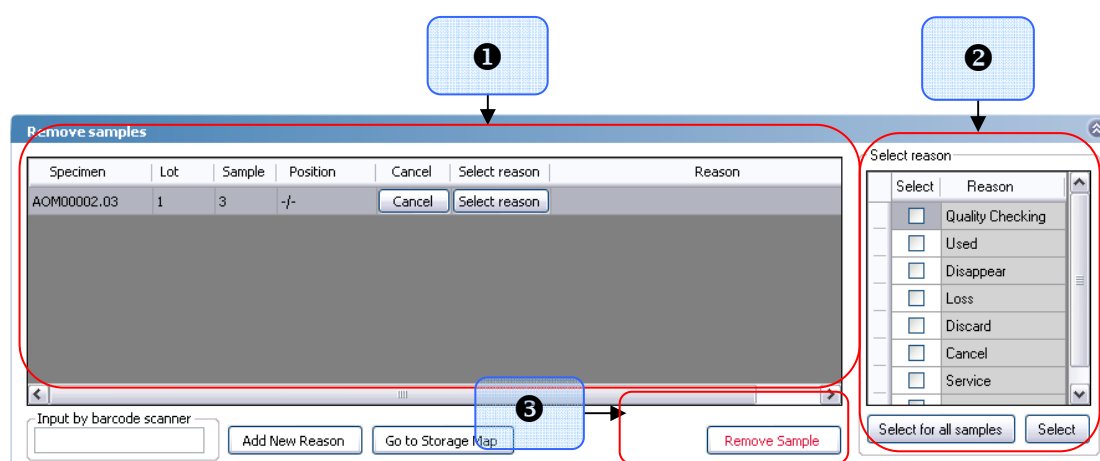


Figure 4.2.3 Removing a sample

## 5. Catalog

This part allows users to create custom catalog printing for distribution or report. Users can determine criteria for data selection in creating their own personalized collection of specimens/samples.



Figure 5 Catalogue Menu

### 5.1 Catalog profiles

Users are able to create the catalog profiles in order to select a set of specimens/samples to be public available.



Figure 5.1-1 Profile Detail

In *Profile* Tab, a catalog profile can be created within five steps.

**Step 1:** Select a collection and enter the following items in the “Profile Detail” (Figure 5.1-1)

- ❶ **Name:** Type catalog profile name.
  - ❷ **Display Name:** Type the catalog name used for display
  - ❸ **Type:** Select a type of catalogs: Private and Public.
- In Use:** Specify the description of collection.

**Step 2:** Click **Save Profile** to add the new profile

**Step 3:** Add/Set the criteria for selection of the specimen/sample the catalog profile in the “Profile’s criteria “ as illustrated in Figure 5.1-2.

**Step 4:** Click **Save Catalog** to record the profile’s criteria and update the list of specimens/strains that will be included in the catalog.

**Step 5:** Click **Preview Catalog** to open the “preview” tab to view the data that will be shown in the catalog.

*Notice that specimens from safe and patent deposits will not included in the catalog.*

Figure 5.1-2 Profile’s criteria settings

**Step 6:** In “*Preview* “tab, the data that matches the profile criteria will be shown in a table. You can select specimens by clicking on the checkbox and click

**Remove** to remove them from the catalog. Click **Save Catalog** to save the catalog list.

After saving the catalog list, you can perform the following tasks.

- Click **View Report** to open the “catalog format” window to view the catalog
- Click **Export to XML** to export the data into an XML file



- Click **Export to Excel** to export the data into an Excel file

Preview 38 Sample(s)

Select	Strain code	Scientific name	Type strain	Isolated by	Isolate from	Isolate date	Location
<input checked="" type="checkbox"/>	DOM00002.04	Melanomataceae	-	-	-	-	-
<input checked="" type="checkbox"/>	COM00002.03	Siirindhorn Resea...	-	-	-	-	-
<input checked="" type="checkbox"/>	COM00002.04	Siirindhorn Resea...	-	-	-	-	-
<input checked="" type="checkbox"/>	COM00004	Siirindhorn Resea...	-	-	-	-	-
<input checked="" type="checkbox"/>	COM00005	Siirindhorn Resea...	-	-	-	-	-
<input checked="" type="checkbox"/>	COM00007	Siirindhorn Resea...	-	-	-	-	-
<input checked="" type="checkbox"/>	COM00008	Siirindhorn Resea...	-	-	-	-	-
<input checked="" type="checkbox"/>	POM00001	Xylariales	-	-	-	-	-
<input checked="" type="checkbox"/>	POM00002	Pleosporales	-	-	-	-	-
<input checked="" type="checkbox"/>	POM00002.03	Pleosporales	-	-	-	-	-
<input checked="" type="checkbox"/>	POM00002.04	Pleosporales	-	-	-	-	-
<input checked="" type="checkbox"/>	POM00003	Incertae sedis	-	-	-	-	-
<input checked="" type="checkbox"/>	POM00004	Hypocreales	-	-	-	-	-
<input checked="" type="checkbox"/>	POM00005	Xylariales	-	-	-	-	-
<input checked="" type="checkbox"/>	POM00007	Pleosporales	-	-	-	-	-
<input checked="" type="checkbox"/>	POM00008	Incertae sedis	-	-	-	-	-

☒ Check All

	Of the Collection (Specimen)	Of the Preview catalog (Specimen)	Terminated (Specimen)
Total Specimens :	52	38	10
Safe deposit and Patent	11	0	7

Save Catalog Remove

View Report Export to XML Export to Excel

Figure 5.1-3 Catalog Preview

## 5.2 Catalog formats

This part allows user to view the catalog report generated from the specified catalog profile within the following steps.

- Select a collection and its catalog profile
- You can change the column title if you want
- Click **View** to view the catalog report

**Catalog Format**

Search

Select Collection: Biotec culture collection Catalog Profile: xxx

Format

Column title	Select Column
Strain code	Strain code
Family	Family
Identified by	Identified by
Medium	Medium
Order	Order
Substrate	Substrate

Reset View

Figure 5.2 Catalog Format



## 6. Storage/Container Management

The Storage/Container management module allows user to configure and customize the physical layout of the storage capacity at the laboratory.

Container and Storage are two generic terms used in this module:

- **Container** - There are two types of containers as below.
  - **Containers** that are used to store aliquots or samples of biological materials. Containers, for instance, boxes, tubes, plates, cane and bags can be with both single-position and multiple positions.
  - **Containers** that will be stored inside the storage for holding sub-containers. Shelves, drawers and racks are considered this type.
- **Storage** - Storages include storage cabinets, compartments and rooms. Most often this will be freezers and refrigerators which used to preserve the aliquots or samples at a very low temperature.

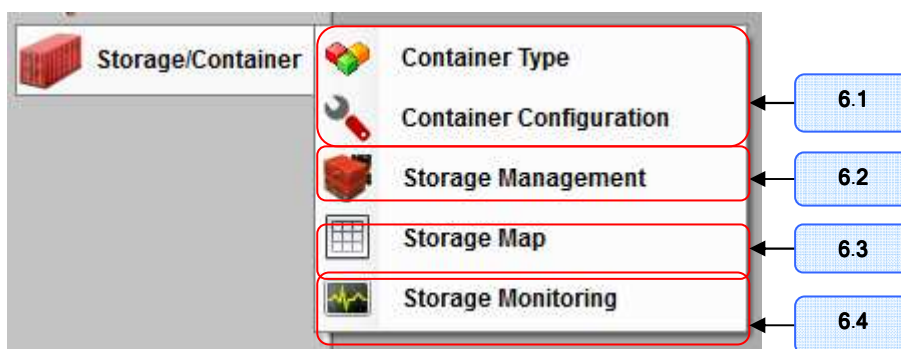


Figure 6 Storage/Container menu

### 6.1. Container Settings

The two main steps involved in the configuration process are:

**Step 1:** Open 'Container Type' from the menu 'Storage/Container' to create generic container and storage types as shown in Figure 6.

- ① To add a new type of containers, enter the container *name* and set the container properties as below and Click .
  - If both "*Is Freezer*" and "*Is Storage*" are not checked, the container will be used to store the samples of biological materials.
  - If both "*Is Freezer*" and "*Is Storage*" are checked, the container is considered Freezer. For example, the refrigerated cabinets where biomaterials can be preserved at a very low temperature could be specified as freezers.
  - If "*Is Storage*" is checked, the container is considered Storage or what containers can be stored inside.
- ② To edit a container type, click on the row corresponding to the container you want. Make your changes to the container name and properties. Click  to record your changes.
- ③ To delete the container, click on the row corresponding to the container you want, click .



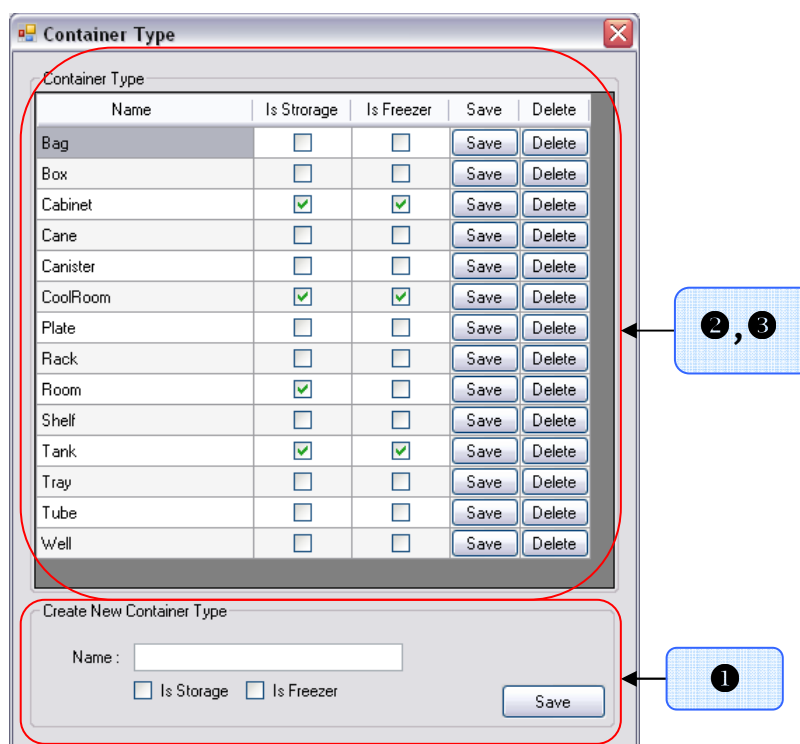




Figure 6.1.1 Container Type Settings

**Step 2:** Select 'Container Configuration' from the menu 'Storage/Container' to create container configurations that represent actual containers used in the lab and where the container configurations will be stored. In "Container Configuration" window as shown

in Figure 6.1.2, click  to define a new container configuration within three steps.

- ① Choose a Container Type defined in Step 1 and enter the configuration name.
- ② If the selected container type is Freezer, the "Freezer Details" will be enabled otherwise will be disabled.
  - In "Freezer Detail", users need to specify a type of coolant such as liquid nitrogen, liquid carbondioxide, temperature, and volume
- ③ Determine the sample capacity of container: single position and multiple positions.
  - (a) For **single position** container, click "single position" and click .
  - (b) If **multiple positions** checked, there are two options as below
 

**Option I:** Specify "Maximum sub-containers" to limit the number of samples stored in the container, but the storage-position assignment is not required.

**Option II:** Select "Assign Position" if position assignment is required for
  - (c) For both options, at the "Sub-Container Relation" section, you can define what types of sub-containers can store inside the container.



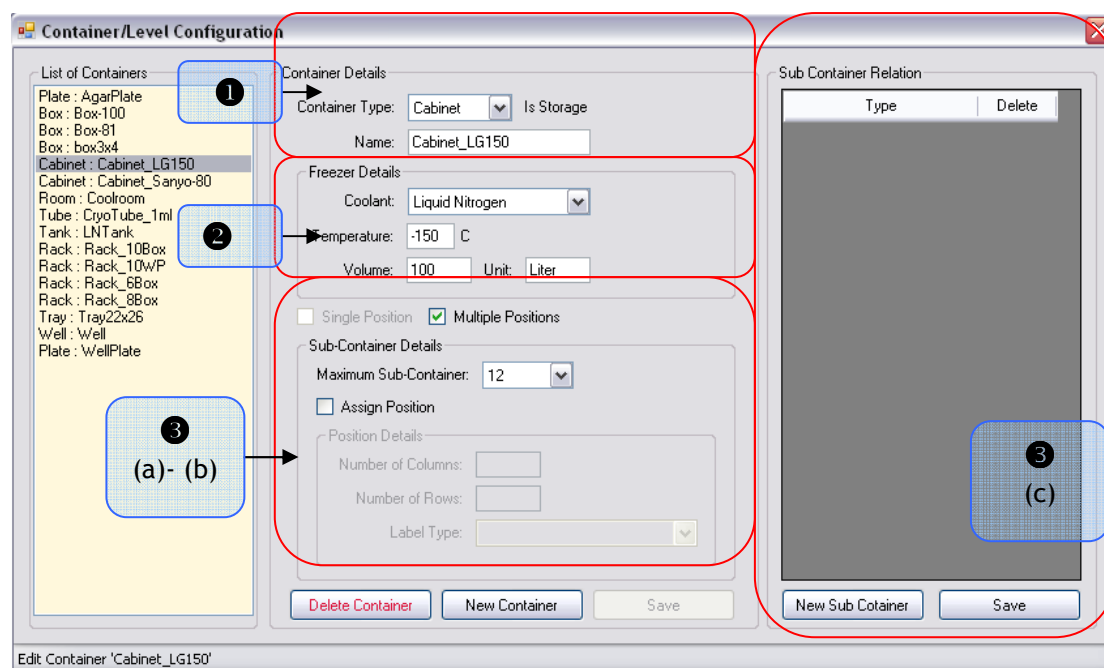



Figure 6.1.2 Container Configuration Settings


## 6.2. Storage Configuration

Select 'Storage Management' from the menu 'Storage/Container' to create storage configurations that use the predefined container configurations into storage structure hierarchy. There are four main tabs to support the storage management.

- ① **Create Storage Tab:** This tab allows user to create a new storage facility into the database.
- ② **Storage Organization Tab:** Storages created in ① will be defined their storage structure hierarchy in this tab.
- ③ **Copy Storage Tab:** The structure of existing storages can be copied to a new storage that has the same model.
- ④ **Move Container Tab:** Sometime, the existing storage facility might be failed, it is necessary to transfer specimens/samples and their data to another storage. This part allows user to move the container between storages.

### 6.2.1 Create Storage Tab

To create a new storage, click  and enter the storage information as below.

- Select a type of storage from the list of "Storage Configuration" previously defined in the "Container Type" setting.
- Enter the storage facility name in Storage Label
- Specify the warning condition for storage monitoring : the minimum liquid volume and maximum temperatures
- Click 



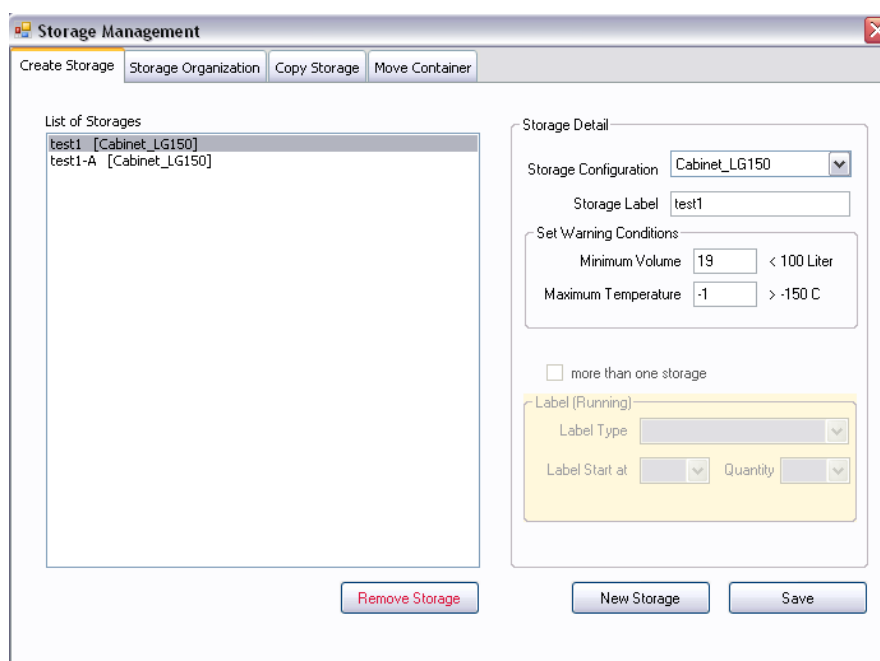


Figure 6.2.1 Create Storage Tab

### 6.2.2 Storage Organization Tab

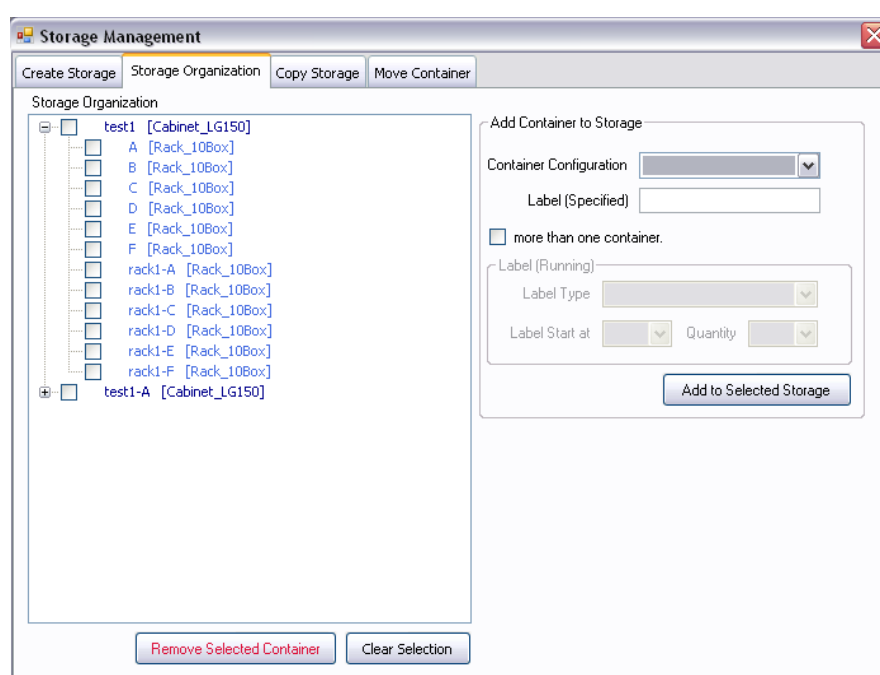




Figure 6.2.2 Storage Organization Tab

- As illustrated in Figure 6.2.2, to define the storage structure,
- click on the node containing storage name you want from the “Storage organization” treeview
  - Select a container type to be stored inside the storage from the list of “Container Configuration”



- If you want to store only one container inside the storage, just enter the name at “**Label (Specified)**” and click  to finish the process.
- If you want to store more than one container, click “more than one containers” checkbox to enable the “**Label (Running)**” part.
  - Choose the label type to be alphabetic or numeric
  - Specify the letter or number used in running the container label name
  - Specify the quantity of containers you want to store inside the selected storage
- Click  to finish the process.

### 6.2.3 Copy Storage Tab

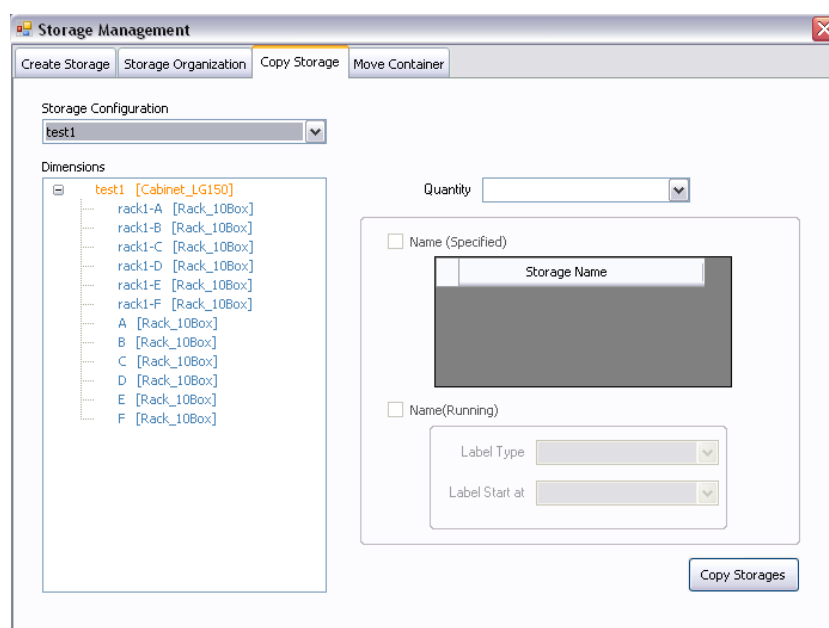



Figure 6.2.3 Copy Storage Tab

To copy a storage structure,


- Click to open “*Copy Storage*” tab as illustrated in Figure 6.2.3
- Select a storage configuration shown in the list of “Storage Configuration”
- Enter the quantity of storages to be copied
- Specify the name for new storages copied from the selected configuration in the following two alternatives.
  - **Name (Specified)**: you can manually specify the individual storage name
  - **Name (Running)**: The storage name will be automatically running by user-defined label type and start of the label.
- Click  to generate copies of storage facilities

### 6.2.4 Move Container Tab

To move container between storage facilities,

- Click to open “*Move Container*” tab as shown in Figure 6.2.4
- Select a container you want to move out from the left source-container treeview
- Locate and select a target container that you want to move the source-container in



- Click  to move the source-container into the target/destination container

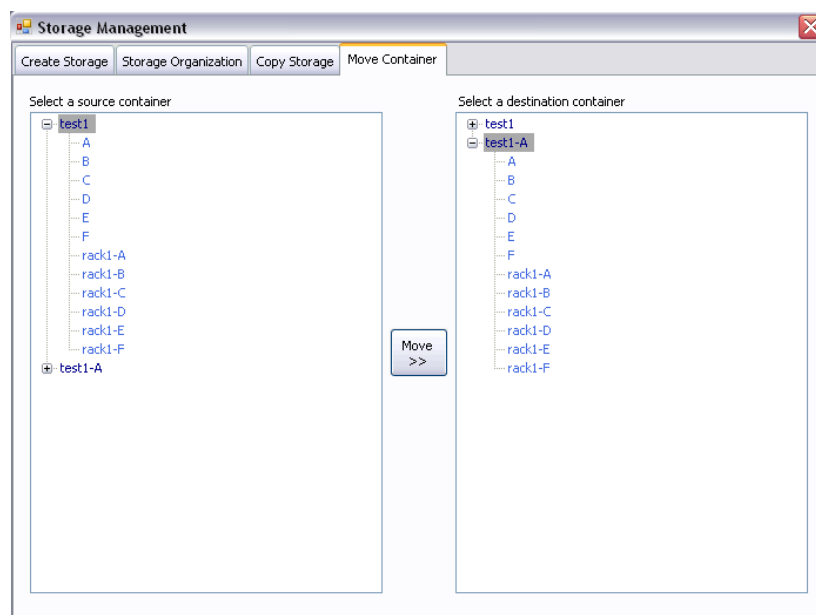


Figure 6.2.4 Move Storage Tab

### 6.3. Storage Operations

In the “Storage Map” menu, the in and out movement of samples in the storage are recorded and tracked for audit trail. Moreover, the graphical tree view of the samples can be used to trace the aliquot/sample back to its original parent.

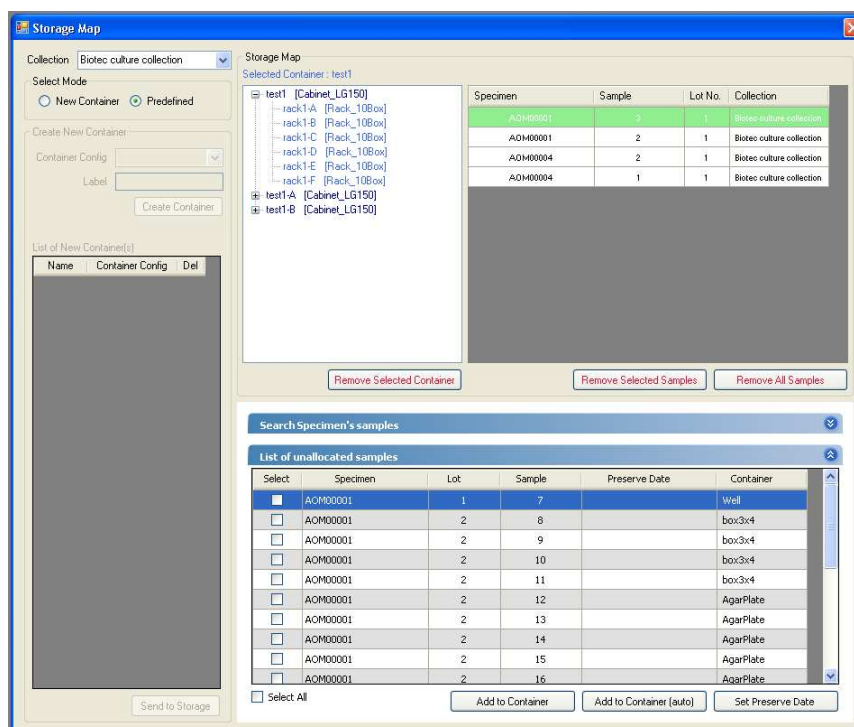



Figure 6.3.1 Add Samples to Storage




### 6.3.1. Moving samples into storage

In “Storage Map” menu as shown in Figure 6.3.1, you can move sample to and from storage within the following steps

- Select a container containing the sample you want or you can search for location of the samples
- When the container is selected, the samples stored inside will appear.

Click on the sample you want to move and click . If you want to move all samples in the containers, click

.

- All removed samples from previous steps will display in the “List of unallocated samples”. Select the samples you want to move and locate the target container in the tree

- Select the target container, click .

### 6.3.2. Viewing samples or containers in storage

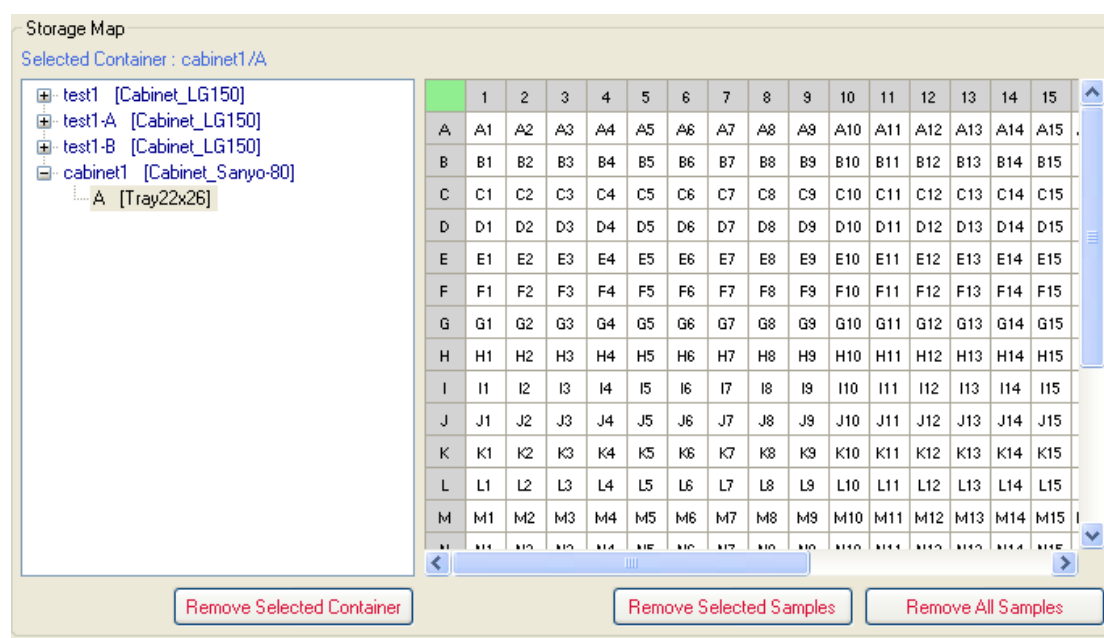





Figure 6.3.2 Storage Tree and Map

There are two main parts in viewing samples and containers in storage facilities as shown in Figure 6.3.2.

- **Storage Tree:** On the left, a list of defined storages is display in a visual presentation of hierarchical storage structure.
  - The  icon indicates the container can be expanded to view the next level or the list of samples. You can click  to expand the branches of the tree.
  - Click  to collapse all levels within that branch
- **Storage Map and Table :** On the right, a list of samples in the containers will display in the map or table.
  - If the container is assigned the exact position dimension, the samples will be presented in a map.
  - If the container is not assigned the exact positions, the samples in the container will be presented in a table.



### 6.3.3. Searching samples in storage

Column	Criteria
Strain code	
Scientific name	
Type strain	
Order	
Family	
Identified by	
Isolated by	
Isolate date	
Substrate	

Specimen	Sample	Lot	Pos
AOM00001	1	1	-
AOM00001	2	1	test1/-
AOM00001	3	1	test1/-
AOM00001	4	1	test1/rack1-A/-
AOM00001	5	1	test1/rack1-A/-
AOM00001	6	1	test1/rack1-A/-
AOM00001	7	1	-
AOM00001	8	2	-
AOM00001	9	2	-

Figure 6.3.3 Search Samples in Storage

To search samples in storage,

- Open “*Search Specimen’s samples*” part (Figure 6.3.3) in “Storage Map” window, specify the search criteria for each column and click . You can leave all criteria blank and click to get all the samples in the selected collection
- Search results will appear on the right. Samples stored in storage facilities will display with its location in the “Pos” column.
- You can also export the search result to a file in a particular format such as CSV, EXCEL. Select a file format, enter the filename and click

### 6.4. Storage Monitoring

This part provides users to manually keep history of storage status for monitoring and alarm needs. Users can regularly record liquid nitrogen level and temperature of freezers. If the recording liquid level and temperature are under/over the specified threshold values, the storage name with warning message will display in red. In Figure 6.4, open “*Liquid level*” tab to make a record of liquid level for a specific storage and switch to “*Temperature*” tab to update the temperature of storage.

Temperature	Date	User	Delete
34	18/3/2553 22:57:59	root	
23.3	16/3/2553 23:14:16	root	
23.5	16/3/2553 23:14:02	root	

Figure 6.4 Storage Monitoring Records



## 7. Barcode

This part allows user to easily find a sample's position in the storage, and add a sample to a selected storage position using the barcode assigned by iCollect. Users can also print barcode labels in any compatible printers and paste label on each sample container. The barcode number found on the sample container can be read from the barcode scanner or entered directly into iCollect system to search for sample information. In the “Barcode” module, there are three following menus.

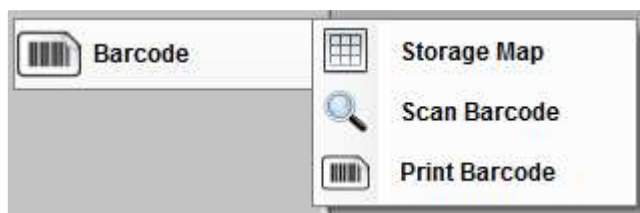


Figure 7-1 Barcode Menu

### 7.1. Storage Map Using Barcode Scanner

You can use the barcode scanner to read the barcode number from the sample container in order to move sample to and from the storage.

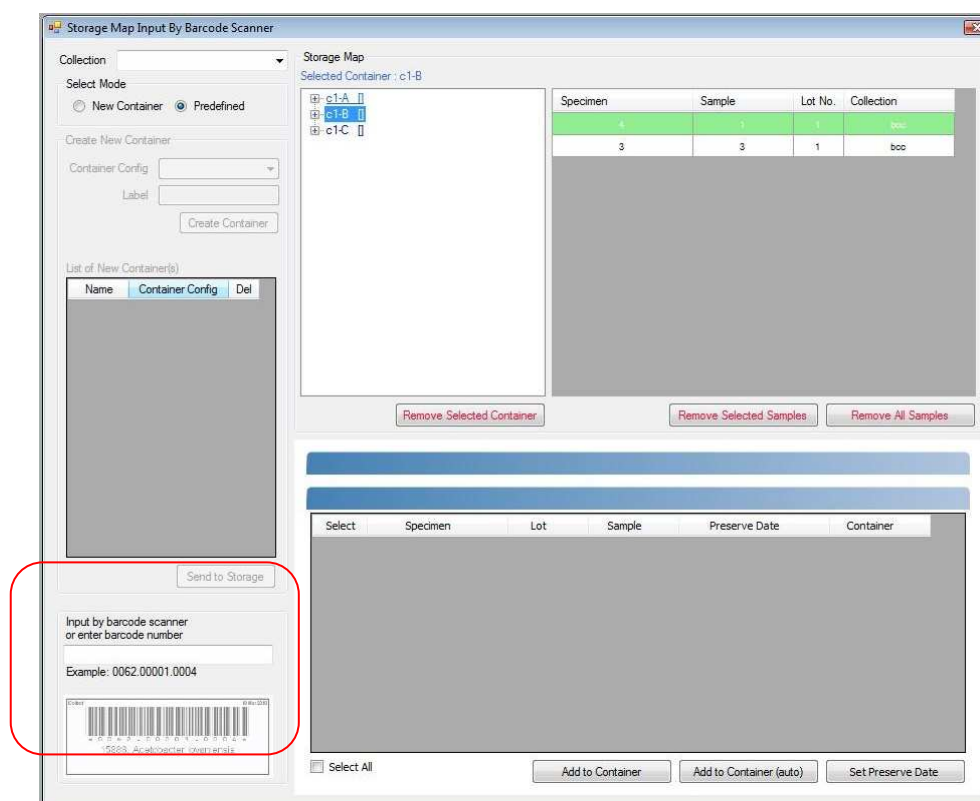
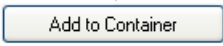


Figure 7.1.1 Storage Map using Barcode Number


- Add sample to storage

After reading the barcode, iCollect will retrieve and display a row of sample information in the table in “*List of unallocated samples*”. You can click on a row corresponding to the sample/specimen you want to store into storage. At the ‘Storage




Map' treeview, click on the storage you want to keep the specimen/sample and click .

- Remove sample from storage

The sample stored in the storage facilities can be searched using barcode number. Search result will appear in **“Search Specimen's Sample”**. The container position, where sample is stored, will display in “Storage Map” or “Storage Table” so that you can remove the sample from the storage by clicking .

## 7.2. Scan Barcode

To retrieve basic information of a sample, you can use barcode scanner to read the barcode number labeled on the container. If no barcode scanners are available, you can type the barcode number found on the label to search for sample information. In Figure 7.2.1 enter the barcode number and click .



Input by barcode scanner or enter barcode number

Example: 0000.00000.0000 

Here is an example of a barcode.

Search Result

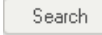
Collection	
Specimen Code	
Lot No.	
Sample No.	
Preserve Date	
Location	
Reason	

Figure 7.2.1 Scan Barcode/ Enter Barcode Number

## 7.3. Print Barcode

Under the menu “Print barcode”, three main steps are involved in printing the barcode labels.

- **Step 1: Sample Selection:**

Select a collection you want to print the barcode label, specify the search condition and click . Search results will appear as a list of samples/specimens presented in the “Tree view” tab.

- **Step 2: Label and Printer setting:**

In this step, you can create the customized barcode label with including sample information with the barcode image. At the top-right frame of “Print Barcode” window, you can also setup a custom printing layout according to number of barcode labels within a single page, page margins, label width & height, barcode image size, font size and horizontal & vertical pitch, so the labels can

be printed in compatible printer. Click  to open “Show Barcode” tab, and you can preview a page of barcode labels before printing.

- **Step 3: Barcode Labels Printing:**

To print all the labels, you can click  or click  on the toolbar in “Show Barcode” tab.



## 8. Quality Control

This part allows user to create definable quality control profiles. Each profile allows test methods to be defined and data to be recorded for each sample. Under the menu “Quality Control” which illustrated by figure 8-1, you can perform the following tasks.




Figure 8-1 Quality Control Menu

### 8.1. Quality Control Profiles

This part allows users to create and edit the quality control profiles.

- **Add a new profile**

**Step 1:** Click , a dialog box as shown in Figure 8.1.1 will appear.




Type the profile name and Click . The new profile will be found in the table ‘List of Quality Control Profiles’.



Figure 8.1.1 Add a New Profile Name

**Step 2:** Click at the row containing the new profile name, and click  to add a type of quality control result. A dialog box in Figure 8.1.2 will appear so you can enter the result type and click . The added result type will be displayed in the table “Result Set”. You can add more than one result type for each profile.

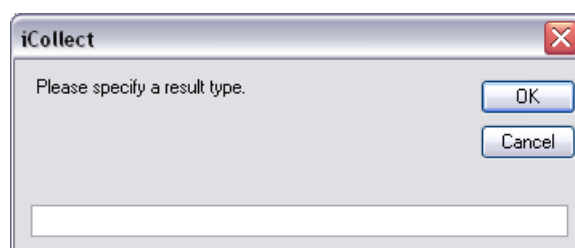
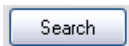


Figure 8.1.2 Add a Result Type

- **Edit a profile**

You can click  to retrieve all quality control profiles from the database. Search results will display in the table ‘List of Quality Control Profiles’.

**Step 1:** In the ‘List of Quality Control Profiles’, click at the row containing the profile name you want to edit. The result types of that profile will appear in the table “Result Set”.



**Step 2:** Click  if you want to add a new type of quality control result.

**Step 3:** In the table “*Result Set*”, click the row you want to modify, make change on the result type and click . Click  to remove the result type.

## 8.2. Quality Control Records

Two main functions are allowed in the menu “Quality Control Records” as below.

### 8.2.1. Search Sample/Specimen in Quality Control Records

You can specify search criteria and click Search. Search results will display in the *List of Quality Checking Samples*.

### 8.2.2. Update the Quality Check Results

In the *List of Quality Checking Samples*, you can

- update the result for each row by specifying the result values for “Result type” and “Check Date” and click , and
- Click  to remove the quality check record.

## 9. Services

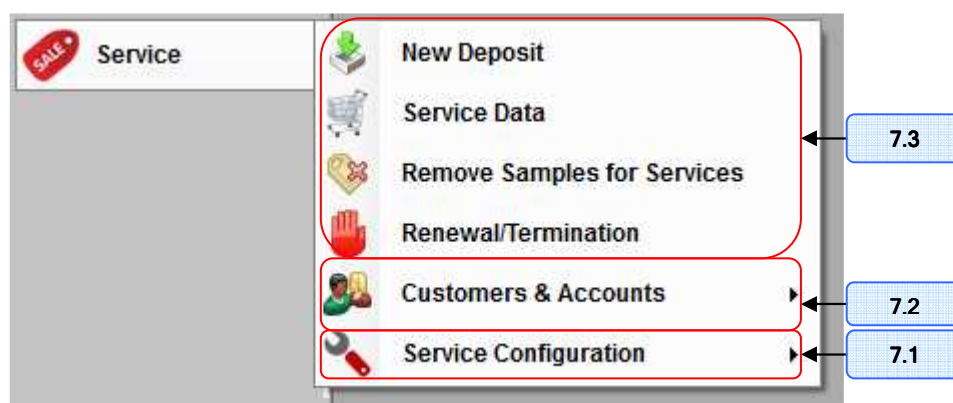


Figure 9-1 Services Menu

### 9.1. Service Configuration

Under the **Service Configuration** menu, iCollect allows user to create custom types of services.

#### 9.1.1. Service Types

In “**Service types**” menu, you can add, edit and delete a type of services. A list of default service types has been included in the iCollect system as shown in Figure 9.1.1.

- To add a new type of services, enter the *service type* and *description*, and then click .
- To edit a type of services, click on the row corresponding to the service type you want. Make your changes to the *service type* and *description*. Click  to record your changes.
- Click on the row corresponding to the service type you want, click  to delete that type.



Save	Delete	Service Type	Description
Save	Delete	Exchange Samples	
Save	Delete	Identification	Identification of different organisms and cultures
Save	Delete	Loan Samples	
Save	Delete	Patent Deposit	Provides storage and quality control of materials for patent purposes
Save	Delete	Public Deposit	Provides storage and quality control of material for public access
Save	Delete	Safe Deposit	Offers secure, confidential storage and quality control of proprietary material...
Save	Delete	Supply of Materials	Distribute the materials deposited in the public collection to the third parties ...
Save	Delete	Termination of Maintenance	Termination of Maintenance

Add New Service Type

Type Name:

Description:

Add Clear

Figure 9.1.1 Service Type Definitions

### 9.1.2. Documents for services

This part allows user to register the generic types of required documents that must be submitted by the customers in the service process. In “Documents for services” menu, you can add, edit and delete a document type. A list of default document types has been included in the iCollect system as shown in Figure 9.1.2.

- To add a new type of documents, enter the *Document Name* and *Description*, and then click .
- To edit a type of documents, click on the row corresponding to the document type you want. Make your changes to the *Document Name* and *Description*. Click  to record your changes.
- Click on the row corresponding to the document type you want, click  to delete the document type.

Document Name	Description	Save	Delete
Deposit Form	-	Save	Delete
MTA	Material Transfer Agreement	Save	Delete
Order Form	-	Save	Delete
Identification Form		Save	Delete

Add New Document

Document Name:

Description:

Add Clear

Figure 9.1.2 Documents used in service process



### 9.1.3. Service Profiles

This part gives user to define each profile for services. After specifying the service and document types, open the “Service Profiles” window (as shown in Figure 9.1.3) to define the service profile in following steps.

**Step 1:** Enter the profile name of service and determine the service type. For example, the profile name “supply-bacteria” is in “supply of materials” service type. In “Details” textbox, users can optionally add the more detailed description of service profile

**Step 2:** Specify the conditions of service and the required documents for service requests.

**Step 3:** Define pricing options for each service profile. For example, pricing depends on the costs of different sample preparations.

**Step 4:** Click **Save** to record the profile

**Service Profiles**

List of Service Profile(s):

Type: Safe Deposit

Filter by Type

Deposit-Microorganisms

Service Profile Data

Name: Supply-Microorganism

Type: Supply of Materials

Details:

Service's Condition:

Criteria	
Listed prices are for single s...	<input checked="" type="checkbox"/>
Exclude packaging and shi...	<input checked="" type="checkbox"/>
VAT will be charged	<input checked="" type="checkbox"/>

Request Document:

Document	
VTA	<input checked="" type="checkbox"/>
Order Form	<input checked="" type="checkbox"/>

Options:

Option Name	PP	NPP	PQR	YC	
Freeze dried culture	200	100	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Active culture on agar	300	175	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Culture extract	500	360	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
*			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

New Delete Save

Figure 9.1.3 Service Profile Settings

## 9.2. Customers & Accounts Registration

To request the services, customers need to register an account within the following steps.



Figure 9.2.1 Customer Registration

### 9.2.1. Customer Registration

To register a new customer, open the “Customer Data” window as shown in Figure 9.2.1

- Click “New” to start the registration for a new customer
- Enter the following information of the customer
  - ① **Name:** Type the customer name
  - ② **Profit:** Checked if is affiliated with a profit organization
  - ③ **Home Address:** Specify the customer’s home address
  - ④ **Email:** Type an email address
  - ⑤ **Office Address:** Specify the customer’s office address
  - ⑥ **Billing Address and/or Shipping Address:** Specify if it is the same as customers’ Home Address or Office Address
- Click Save

The registered customer will appear in the bottom-left table, you can click on the row containing the customer name you want to edit or delete.

- If you want to delete the customer, click Delete
- If you make changes on the customer, click Save to record your changes.

### 9.2.2. Account Registration

To open an account for a registered customer, open “Account” window as shown in Figure 9.2.2

- Click “New Account” to open a new account for a customer
- Enter the following information of the account
  - ① **Customer Name:** Select the registered customer name
  - ② **Account Name:** Specify the account name
  - ③ **Billing Address and/or Shipping Address:** Specify if it is the same as customers’ Home, Office, Billing or Shipping Address. You can enter other address by clicking “Other” checkbox to enable typing other address.
  - ④ **Active Account:** Click if the account is active



⑤ **Discount:** Enter the discount rate for this account

- Click **Save**

The opened account will appear in the bottom-left table, you can click on the row containing the account name you want to edit or delete.

- If you want to delete the account, click **Delete**
- If you make changes on the account, Click **Save** to record your changes.

Account

Search

Customer name

Code

Account name

**Search** **Reset**

List of Account(s)

Customer	Account	Code
aaa	aaa1	52020
aaa	aaa2	53022
aaa	aaa3	53023
aaa	aaa4	53026
ttt	tt1	53104
Zzz	Z1	53105

**Account Details**

Customer Name

Account Code

Account Name

Billing Address

☐ Customer Office ☐ Customer Home ☐ Customer Billing Address

☐ Customer Shipping Address ☒ Other

Shipping Address

☐ Customer Office ☐ Customer Home ☐ Customer Billing Address

☐ Customer Shipping Address ☒ Other

☒ Active Account Discount  % Total Order

**Delete Account** **New Account** **Save**

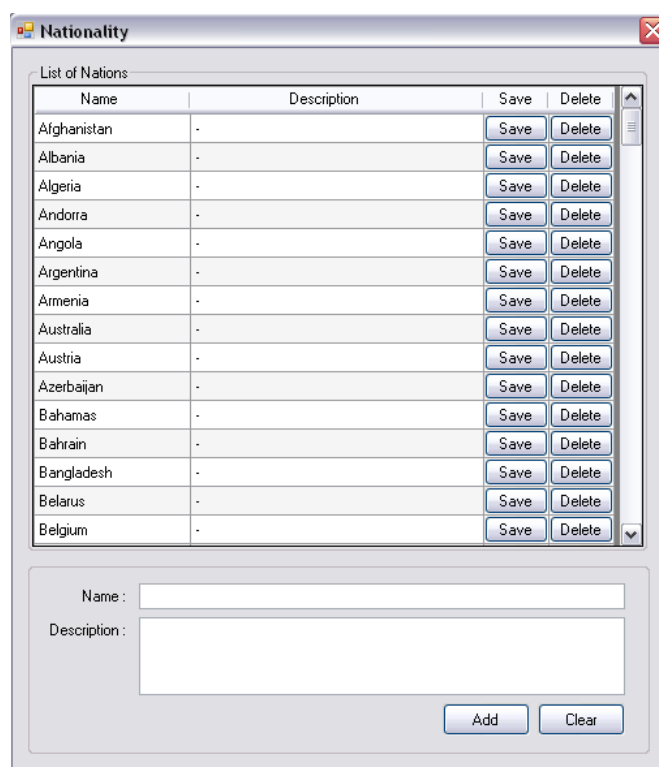
Figure 9.2.2 Account Registration

### 9.2.3. Nationality

Under the **Nationality** menu, you can add, edit and delete a nationality. A list of default nationality has been included in the iCollect system as shown in Figure 9.2.3.

- To add a new type of material, enter the nationality *name* and *description*, and then click **Add**.
- To edit a nationality, click on the row corresponding to the nationality you want. Make your changes to the nationality name and description. Click **Save** to record your changes.
- Click on the row corresponding to the nationality you want, click **Delete** to delete the nationality





The 'Nationality' window displays a 'List of Nations' table with columns for Name, Description, Save, and Delete. Below the table are input fields for Name and Description, and 'Add' and 'Clear' buttons.

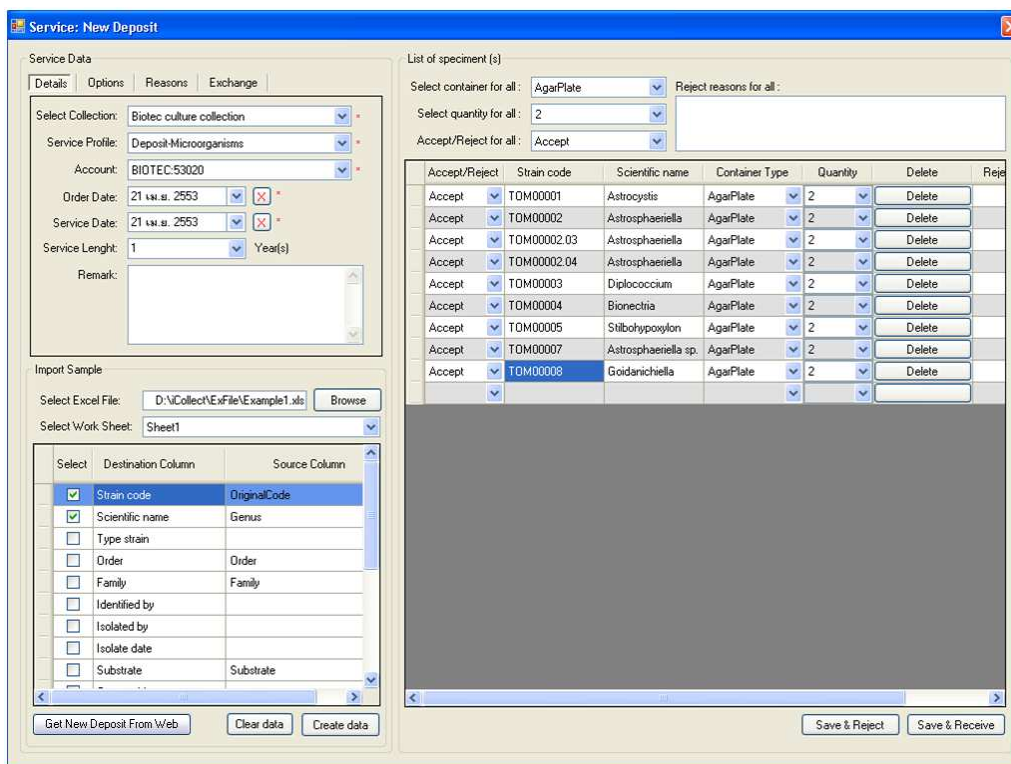
Name	Description	Save	Delete
Afghanistan	-	Save	Delete
Albania	-	Save	Delete
Algeria	-	Save	Delete
Andorra	-	Save	Delete
Angola	-	Save	Delete
Argentina	-	Save	Delete
Armenia	-	Save	Delete
Australia	-	Save	Delete
Austria	-	Save	Delete
Azerbaijan	-	Save	Delete
Bahamas	-	Save	Delete
Bahrain	-	Save	Delete
Bangladesh	-	Save	Delete
Belarus	-	Save	Delete
Belgium	-	Save	Delete

Name :   
 Description :   
 Add Clear

Figure 9.2.3 Nationality Data Settings

### 9.3. Service Operations

This part allows users to manage the service process using the predefined service profiles.



The 'Service: New Deposit' window is divided into several sections for managing specimen deposits.

**Service Data:**

- Details | Options | Reasons | Exchange
- Select Collection: Biotec culture collection
- Service Profile: Deposit-Microorganisms
- Account: BIOTEC-53020
- Order Date: 21 Nov. 2553
- Service Date: 21 Nov. 2553
- Service Length: 1 Year(s)
- Remark:

**Import Sample:**

- Select Excel File: D:\Collect\ExFile\Example1.xls
- Select Work Sheet: Sheet1

Select	Destination Column	Source Column
<input checked="" type="checkbox"/>	Strain code	OriginalCode
<input checked="" type="checkbox"/>	Scientific name	Genus
<input type="checkbox"/>	Type strain	
<input type="checkbox"/>	Order	Order
<input type="checkbox"/>	Family	Family
<input type="checkbox"/>	Identified by	
<input type="checkbox"/>	Isolated by	
<input type="checkbox"/>	Isolate date	
<input type="checkbox"/>	Substrate	Substrate

**List of specimen (s):**

- Select container for all: AgarPlate
- Select quantity for all: 2
- Accept/Reject for all: Accept
- Reject reasons for all:

Accept/Reject	Strain code	Scientific name	Container Type	Quantity	Delete	Reject
Accept	TOM00001	Astrocystis	AgarPlate	2	Delete	
Accept	TOM00002	Astrosphaeriella	AgarPlate	2	Delete	
Accept	TOM00002.03	Astrosphaeriella	AgarPlate	2	Delete	
Accept	TOM00002.04	Astrosphaeriella	AgarPlate	2	Delete	
Accept	TOM00003	Diplococcium	AgarPlate	2	Delete	
Accept	TOM00004	Bionechnia	AgarPlate	2	Delete	
Accept	TOM00005	Stilbohysylon	AgarPlate	2	Delete	
Accept	TOM00007	Astrosphaeriella sp.	AgarPlate	2	Delete	
Accept	TOM00008	Goidanichiella	AgarPlate	2	Delete	

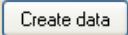
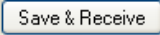
Buttons: Get New Deposit From Web, Clear data, Create data, Save & Reject, Save & Receive

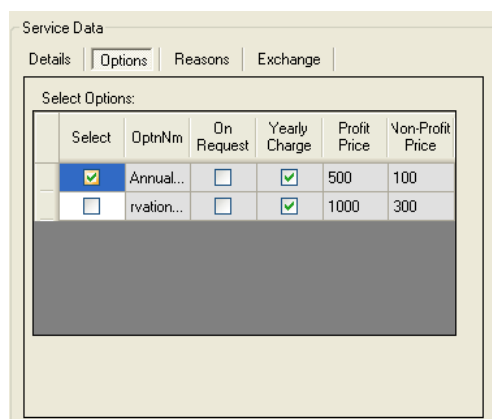
Figure 9.3.1-1 New Deposit Interface



### 9.3.1. Deposit

To make a deposit transaction of specimens/samples, user can process a deposit via the “New Deposit” Menu as described below.

- Open “*Detail*” tab, as illustrated in Figure 9.3.1-1
- Select Collection, Service Profile, Account for the deposit transaction
- Specify **Order date** and **Service Date**
- Import the specimens/samples from the Excel file and click 
- Imported data will appear in the List of Specimen(s). You can select the container type, quantity and deposit decision for all or each specimen/sample
- Switch to “*Options*” tab, select a pricing option as shown in Figure 9.3.1-2
- Back to “*Detail*” tab, click 

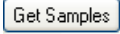


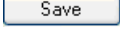




Select	OptNm	On Request	Yearly Charge	Profit Price	Non-Profit Price
<input checked="" type="checkbox"/>	Annual...	<input type="checkbox"/>	<input checked="" type="checkbox"/>	500	100
<input type="checkbox"/>	Reservation...	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1000	300

Figure 9.3.1-2 Selection on Pricing Options

### 9.3.2. Make a Service order

To make a service order, open the “Service Data” menu

- Locate the “*Detail*” tab, as illustrated in Figure 9.3.2-1
- Select Service Profile, Account for the deposit transaction
- Specify Order date
- Click  to open “**Select Sample(s) for Service**” window as shown in Figure 9.3.2-2
- Select a collection and its catalogue you want to retrieve specimens and samples for services
- Click on a specimen, the list of samples will appear. Click on a sample and click  to send the sample into “Selected Sample(s)”. To remove a sample from the selected list, click on the sample and click . In case of deposit service, the specimens/samples for deposit must be previously imported through the “**Import/export Specimens**” menu.
- Click  to finish samples selection and close “**Select Sample(s) for Service**” window. The selected samples will appear in “List of Specimen(s)” in “*Detail*” tab.
- Switch to “*Options*” tab, select a pricing option as shown in Figure 9.3.2-3
- Back to “*Detail*” tab, update status (accept or reject) for each row and click . Total price will be calculated and shown.
- Click  to receive the order. The order status bar will display at the bottom of the window. The received order will be display as in Figure 9.3.2-4



- iCollect will display a confirmation dialog box asking user to save changes that have been made. Click **Yes** to confirm, otherwise click **Cancel**.
- The “confirm receive order” dialog box will appear after user has saved changes in the previous step. Click **Yes** to receive order, otherwise click **Cancel**.

Figure 9.3.2-1 Make a Service Order

Figure 9.3.2-2 Select Samples for Services



Service Data 530003

Details Options Reasons Exchange

Select Options:

Select	OptnNm	On Request	Yearly Charge	Profit Price	Non-Profit Price
<input checked="" type="checkbox"/>	Freeze dried culture	<input type="checkbox"/>	<input type="checkbox"/>	200	100
<input type="checkbox"/>	Active culture on a...	<input type="checkbox"/>	<input type="checkbox"/>	300	175
<input type="checkbox"/>	Culture extract	<input type="checkbox"/>	<input type="checkbox"/>	500	350

List of Specimen(s):

Collection	Code	Sample	Status	Reject Reason
Biotec cultur...	ADM00003	Lot1 - #5	accept	

Change Samples Add Samples Save

Figure 9.3.2-3 Select a pricing option

Service 540001

Details Options Reasons Exchange

Service Profile: For Eco Sell

Account: samnao nolkam: 450003

Order Date: 16 Nov. 2554 Service Date:

Status: Receive

Total Sample(s): 3 Total Specimen(s): 3 Remark:

Price: 0 (without discount)

Total Price: 0 Total Yearly Charge: 0

% Discount: 0 Calculate

List of Specimen(s):

Collection	Code	Sample	Status	Reject Reason
BCC	MY00006	-	accept	-
BCC	MY00007	-	accept	-
BCC	MY00008	-	reject	-

Change Samples Add Samples Save

Status: Received, By root [20 Nov. 2554]

Delete New Get New Order From Web Site Receive Reject Cancel

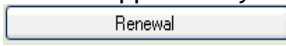
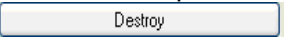
Figure 9.3.2-4 Received Order

### 9.3.3. Renewal and Termination of Maintenance

This part allows user to handle requests from depositors to renew or terminate their deposit. After the deposition period has expired, the depositors may request to renew or terminate their deposit. To make a renewal deposit, you may search



for specimens/strains that their maintenance period has expired (Figure 9.3.3-1a). A list of specimen will appear for your selection.

- Click  to open “Renewal “ window to renew the deposit of selected specimens (Figure 9.3.3-3)
- Click  to remove all the samples of selected specimens/strains from storage, destroyed and terminate the deposit, if depositors *not responding to your requests for renewal* of maintenance.

However, depositors *may request termination* of their deposit at any time. Figure 9.3.3-1b illustrates how to search for specimens/strains for termination request before the end of maintenance period.


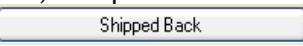
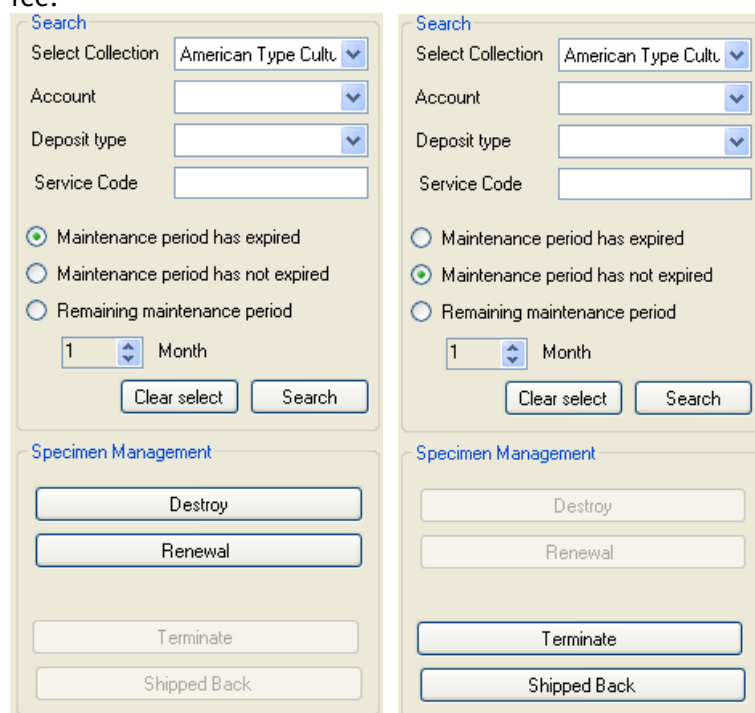
- Select a collection and click “*Maintenance period has not expired*” or specify the “*Remaining maintenance period*”
- Click search and select the required specimens as illustrated in Figure 9.3.3-2
- Click  to open “Termination of Maintenance” service windows as shown in Figure 9.3.3-4
- Select a created service profile for termination of maintenance and click “Save”. After the termination request has been processed, iCollect will remove all the samples of selected specimens/strains from storage, destroyed and terminate the deposit.
- Alternatively, materials will be shipped back to the depositor for additional shipping and handling fee, if depositors send their request. As shown in

Figure 9.3.3-1b, click  to open the service windows for processing the termination service with shipping and handling fee.



The figure displays two side-by-side screenshots of the iCollect search interface, labeled (a) and (b).

**(a) Search for expired deposits:** This screenshot shows the search criteria where the radio button for "Maintenance period has expired" is selected. The "Remaining maintenance period" is set to 1 month. The "Specimen Management" section at the bottom includes buttons for "Destroy", "Renewal", "Terminate", and "Shipped Back".

**(b) Search for non-expired deposits:** This screenshot shows the search criteria where the radio button for "Maintenance period has not expired" is selected. The "Remaining maintenance period" is also set to 1 month. The "Specimen Management" section at the bottom includes buttons for "Destroy", "Renewal", "Terminate", and "Shipped Back".

(a) Search for expired deposits      (b) Search for non-expired deposits

Figure 9.3.3-1 Search deposits by the maintenance period conditions



**Check Expired Date**

**Search**

Select Collection: American Type Cult. v

Account: v

Deposit type: v

Service Code:

☐ Maintenance period has expired  
☒ Maintenance period has not expired  
☐ Remaining maintenance period: 1 Month

Clear select Search

**Specimen Management**

Destroy Renewal Terminate Shipped Back

**Specimen**

Select	Code	Service Code	Account Name	Deposit date	Expired date
<input checked="" type="checkbox"/>	DOM00003	530022	BIOTEC	21/4/2553	21/4/2554
<input type="checkbox"/>	DOM00004	530022	BIOTEC	21/4/2553	21/4/2554
<input type="checkbox"/>	DOM00005	530022	BIOTEC	21/4/2553	21/4/2554
<input type="checkbox"/>	DOM00007	530022	BIOTEC	21/4/2553	21/4/2554
<input type="checkbox"/>	DOM00008	530022	BIOTEC	21/4/2553	21/4/2554
<input type="checkbox"/>	COM00001	530023	BIOTEC	21/4/2553	21/4/2554
<input type="checkbox"/>	COM00002	530023	BIOTEC	21/4/2553	21/4/2554
<input type="checkbox"/>	COM00002.03	530023	BIOTEC	21/4/2553	21/4/2554
<input type="checkbox"/>	COM00002.04	530023	BIOTEC	21/4/2553	21/4/2554
<input type="checkbox"/>	COM00003	530023	BIOTEC	21/4/2553	21/4/2554
<input type="checkbox"/>	COM00004	530023	BIOTEC	21/4/2553	21/4/2554
<input type="checkbox"/>	COM00005	530023	BIOTEC	21/4/2553	21/4/2554
<input type="checkbox"/>	COM00007	530023	BIOTEC	21/4/2553	21/4/2554
<input type="checkbox"/>	COM00008	530023	BIOTEC	21/4/2553	21/4/2554

Figure 9.3.3-2 Select a list of specimens for termination

**Renewal Deposit**

Select deposit data

Details Options Reasons Exchange

530039

Service Profile: Deposit-Microorganisms v

Account: BIOTEC : 53020 v

Order Date: 22 Jan. 2553 v x

Service Date: 22 Jan. 2553 v x

Deposition length (year): 1 v

Remark:

Total Specimen(s): 1

Price

Price: 300 (without discount)

Total Price: 150 Total Yearly Charge: 300

% Discount: 50 Calculate

**Specimen List**

Specimen Code

TOM00002

Save

Figure 9.3.3-3 Make a renewal deposit



Figure 9.3.3-4 Termination of specimens/samples maintenance

## 10. Statistics & Log

iCollect provides feature for BRC administrators and collection managers to summarize and analyze trends of collection data and usages of storages. Under the menu “Statistics”, you can find three types of summary statistics.



Figure 10-1 Statistics Menu

### 10.1. Collection Summary

When you open the menu “Collection Summary”, iCollect will give you a summary on all specimen collections including

- Total number of collections registered
- Total number of specimens and samples
- Maximum, Average and Minimum number of specimens and samples per collection and storage
- Maximum, Average and Minimum number of samples per specimen

In the “Collection Summary” tab, choose a collection to see the summary of number of specimens and samples. Two in-built comparison charts of collections are included to give you see the different number of specimen/samples registered within the collections.

### 10.2. Storage Summary

In the menu “Storage Summary”, you can find the summary and charts of storage usages by storage types and storage configurations.

- Total number of storages included in iCollect
- Total number and Percentage of occupied positions for each storage
- Total number and Percentage of empty/available positions for specimens in each storage



- Comparison charts of storage usages

### 10.3. User Summary

iCollect provides the summary of collections and specimens/samples created by each user. When you open “User Summary” window, you will find the following

- Total number of user accounts registered within iCollect
- Average number of collections created by a user
- Number of collections and samples per user account
- Charts of collection distribution

Click on Refresh to reload the update summary.


### 10.4. Data Log

In addition to usage statistics, the full audit trail history of any individual user within iCollect is provided. Under the **Administration** menu, open the “**Data Log**” (as show in Figure 10.4) to search and view who acted what to which data from which terminal and when.

**Step 1:** Specify the search criteria and Click  to retrieve the history logs.

**Step 2:** The following items in Search Result will be displayed in “Data Log” table.

- ❶ **User Domain Name:** Display the Network Domain name where the computer used by user is located.
- ❷ **Computer Name:** Display the Computer Name where the user logon to the system.
- ❸ **User Name:** Display the User name of who made the action.
- ❹ **Action:** Display the type of actions that users acted to the data including insert, update and delete.
- ❺ **Action Detail:** Display the detail on data attributes that were changed.
- ❻ **Data Group:** Display the data group that was affected by the action
- ❼ **Date:** Display the date when the action was done.

**Step 3:** Check or Uncheck “Show” checkbox to select the column from search result. You can also export the data log to a specified file by selecting a file format and clicking the .

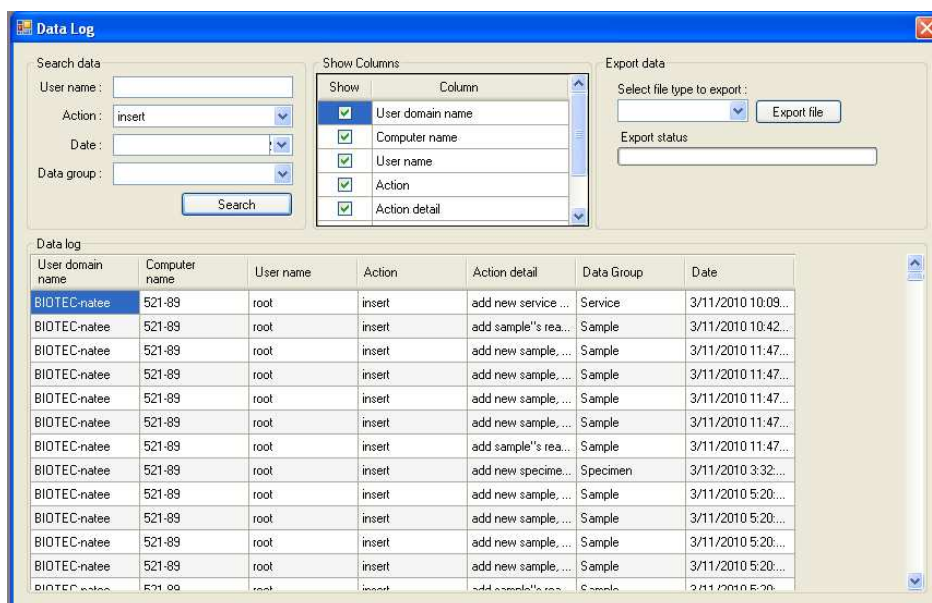


Figure 10.4 Data Log



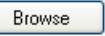
## 11. Other

### 11.1 Import/Export

This part allows you to import/export specimen data from/to data file.

- The “Import” tab provides users to import the data from an MS-excel file in three steps.

**Step 1:** Choose a collection you want to import the data.

**Step 2:** Click  to open the specimen data file and choose the worksheet that contains the data.

**Step 3:** You need to map the column from the excel file with the collection data column. At each row in the mapping table, choose the value under “Source Column” that you want to import into the column in “Destination Column”. When you finish the column mapping, click Import.

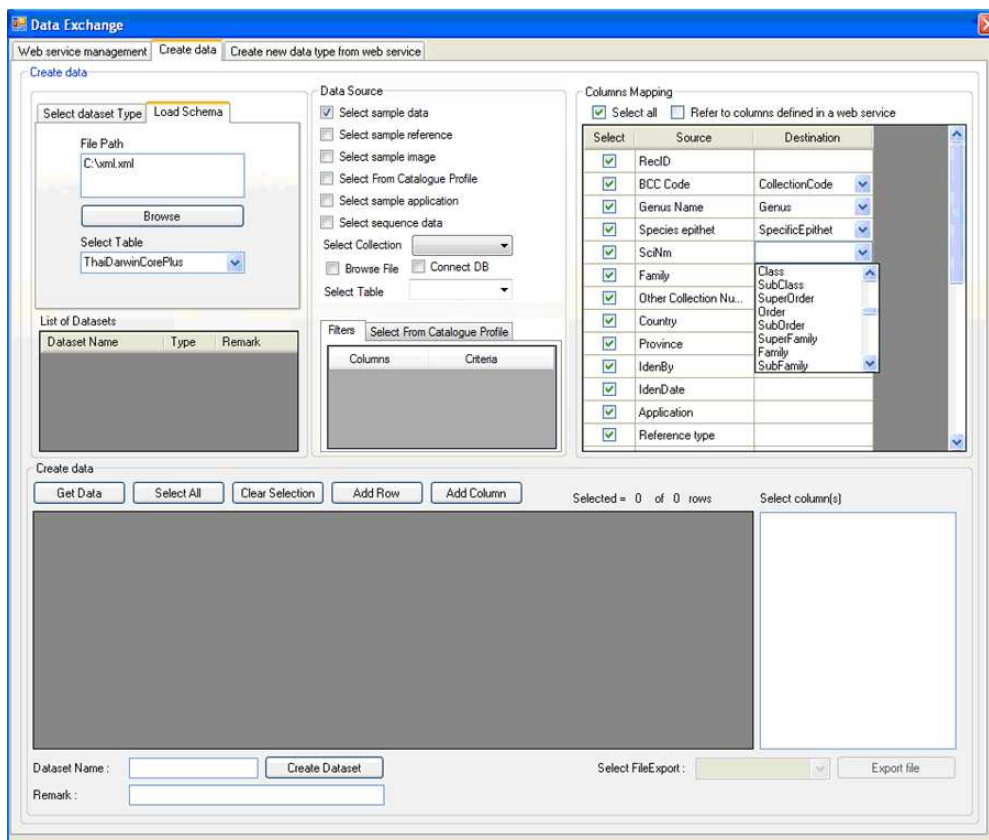
- The “Export” tab allows users to export the specimen data from iCollect into a file in particular format including Excel, CSV, TXT, and XML. First, choose a collection and its columns you want to export the data and click View. Next, choose the file format “Select Fileexport” and click Export.

### 11.2 Data Exchange

In “Data Exchange” menu, there are two options provided for schema mapping, data mapping and exchanging the data with other organizations: Standard Schema and Web Services.

#### 11.2.1 Data Exchange using a Specific Schema

This part allows user to upload the target Data Schema from the specified schema file (e.g., Excel, XML File formats) to use in data mapping. In “Create data” tab as shown in Figure 11.2.1-1, select “Load Schema” tab to create the dataset by mapping data columns of source schema (iCollect) and target schema within following steps.



The screenshot shows the 'Data Exchange' application window with the 'Create data' tab selected. The 'Load Schema' sub-tab is active. The 'File Path' field contains 'C:\xml.xml' and the 'Browse' button is visible. The 'Select Table' dropdown shows 'ThaDarwinCorePlus'. Below this is a 'List of Datasets' table with columns 'Dataset Name', 'Type', and 'Remark'. The 'Data Source' section has several checkboxes: 'Select sample data' (checked), 'Select sample reference', 'Select sample image', 'Select From Catalogue Profile', 'Select sample application', and 'Select sequence data'. The 'Columns Mapping' table on the right has columns 'Select', 'Source', and 'Destination'. It lists various biological data fields like RecID, BCC Code, Genus Name, Species epithet, ScNm, Family, Other Collection Nu..., Country, Province, IdemBy, IdemDate, Application, and Reference type, each with a 'Select' checkbox and a 'Destination' dropdown. At the bottom, there are buttons for 'Get Data', 'Select All', 'Clear Selection', 'Add Row', and 'Add Column'. The 'Dataset Name' field is empty, and the 'Remark' field is also empty. The 'Select FileExport' dropdown is set to 'xml', and the 'Export file' button is visible.



Figure 11.2.1-1 Upload Schema in Create Data Tab

- Step 1:** Click  to load the schema file  
**Step 2:** Select Table from the following choices

Figure 11.2.1-2 Specifying the Data Source

- Select Collection - select a data set that has been stored by iCollect itself.
- Browse File - import a dataset from ms excel file (.xls) or ms access file (.mdb)
- Connect DB - retrieve dataset from MySQL or MS SQL database server.

**Step 3:** Determine what data you want to retrieve from database in “*Data Source*” by clicking on the checkboxes and choose a collection from the list shown in “Select Collection”. When you change the ‘*Data Source*’ selection, you need to refresh “*Data Source*” by reselecting the collection in “Select Collection”.



Columns Mapping

☐ Select all ☐ Refer to columns defined in a web service

Select	Source	Destination
<input checked="" type="checkbox"/>	RecID	
<input checked="" type="checkbox"/>	BCC Code	BCC Code
<input checked="" type="checkbox"/>	Genus Name	Genus Name
<input checked="" type="checkbox"/>	Species epithet	SciNm
<input checked="" type="checkbox"/>	SciNm	SciNm
<input checked="" type="checkbox"/>	Family	Family
<input type="checkbox"/>	Other Collection Nu...	
<input type="checkbox"/>	Country	
<input type="checkbox"/>	Province	
<input type="checkbox"/>	IdenBy	
<input type="checkbox"/>	IdenDate	
<input type="checkbox"/>	Application	
<input type="checkbox"/>	Reference type	

Figure 11.2.1-3 Customized Column Mapping

**Step 4:** Go to “Column Mapping”, specify the destination column (from loaded schema) that will be mapped with the source column

**Step 5:** Click ☒ to select the column on that row or Click “Select all” to select all columns and click

Create data

Select dataset Type

☐ DataSet  
☐ String array (String[])  
☐ Integer array (Integer[], Int32[])  
☐ Decimal array (Decimal[])  
☐ Bitmap array (Bitmap[])  
☒ Other ThaiDarwinCorePlus[]  
☐ Export file

List of Datasets

Dataset Name	Type	Remark

Data Source

☒ Select sample data ☐ Select sample application  
☐ Select sample reference ☐ Select sequence data  
☐ Select sample image  
☐ Select From Catalogue Profile  
Select Collection BCC  
☐ Browse File ☐ Connect DB

Select Table

Filters

Columns	Criteria
OriginalCode_	
BCCCode_	
BBHCode_	
Genus_	

Columns Mapping

☐ Select all ☒ Refer to columns defined in a web service

Select	Source	Reference object
<input checked="" type="checkbox"/>	RecID	ThaiDarwinC...
<input checked="" type="checkbox"/>	OriginalCode_	ThaiDarwinC...
<input checked="" type="checkbox"/>	BCCCode_	ThaiDarwinC...
<input checked="" type="checkbox"/>	BBHCode_	ThaiDarwinC...
<input checked="" type="checkbox"/>	Genus_	ThaiDarwinC...
<input type="checkbox"/>	Epithet_	
<input type="checkbox"/>	Authority_	
<input type="checkbox"/>	Kingdom_	
<input type="checkbox"/>	Phylum_	
<input type="checkbox"/>	Class_	
<input type="checkbox"/>	Order1_	
<input type="checkbox"/>	Family_	

Create data

Selected = 2 of 198 rows

Select column(s)

Select	erbatiCoordinateS	_GeoreferenceProto	at_FootprintSpatialR	et_CollectingMethod	set_Sex
<input checked="" type="checkbox"/>	1	MY00001		9973	Cordyceps
<input checked="" type="checkbox"/>	2	MY00002	16757	10001	Cordyceps
<input checked="" type="checkbox"/>	3	MY00003		10002	Cordyceps
<input type="checkbox"/>	4	MY00004		10003	Cordyceps
<input type="checkbox"/>	5	MY00005			Cordyceps
<input type="checkbox"/>	6	MY00006		10004	Cordyceps
<input type="checkbox"/>	7	MY00007	16473	10005	Cordyceps
<input type="checkbox"/>	8	MY00008	16474	10006	Cordyceps
<input type="checkbox"/>	9	MY00009	16475	10007	Cordyceps

☒ Select all  
☒ set\_VerbatimCoordinateSystem  
☒ set\_GeoreferenceProtocol  
☒ set\_FootprintSpatialFit  
☒ set\_CollectingMethod  
☒ set\_Sex


Dataset Name :

Remark :

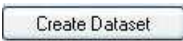
Select FileExport :


Figure 11.2.1-4 Mapping Data




**Step 6:** Mapped and retrieved data will appear in the “*Create data*” as shown in Figure 11.2.1-4, click “Select All” to select all rows to be exported or click  only the rows you want to export to the file

**Step 7:** You can filter the number of columns by selecting column displayed in “Select column (s)”

**Step 8:** Specify the file format for data export and click  .

**Step 9:** Type filename and click  . The progress bar will display during export process. When the export finished, a message appears saying “Export completed”.

### 11.2.2 Data Exchange via Web Services

This part allows user to select and submit a dataset to a destination via SOAP protocol. In “*Web Service Management*” tab as shown in Figure 11.2.2, you can specify **URL** or a web service location and click  to load the WSDL or Web Service Definitions for parsing and analyzing ❶ what services are available, ❷ what are needed for input parameters and ❸ what will be returned. The available services will appear in “*Web service function list*”. When you double-click on a service in “*Web service function list*”, its required input parameters will be listed and displayed in the bottom-left table.

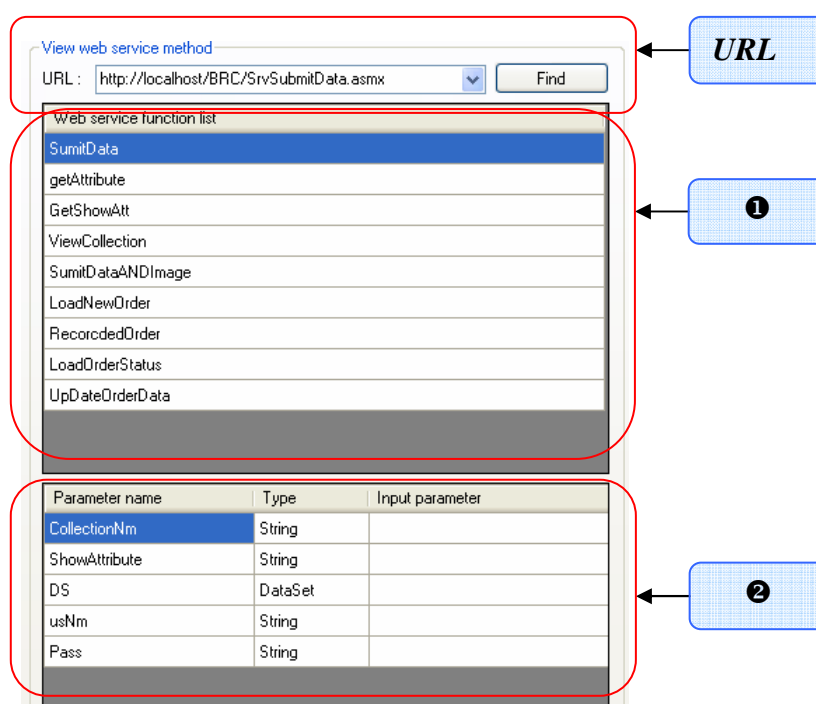


Figure 11.2.2 Accessing to the web service APIs

- If the types of required parameters are
  - Generic and single such as String, you can directly enter the data value into the “Input parameter”.
  - DataSet and Array type, you need to construct a set of multiple data values for this parameter. See detail in Section 11.2.2-1
  - Web-services Defined Type, you must load the web-service defined type and perform the data mapping. See detail in Section 11.2.2-2



- After all required input parameters are ready, you can input the parameter and click **Call Service**.
- Results will return and appear in the “Web service results”.

### 11.2.2.1 Data Preparation for DataSet and Array Type

To prepare the DataSet or Array type, you can perform the following steps.

**Step 1:** In “Create Data” tab, open “Select dataset type” tab

**Step 2:** Select the data type you want to create (Figure 11.2.2-1)

- Click “DataSet” to select the DataSet type
- Click “String Array” for an array of string values.
- Click “Integer Array” to prepare an array of integer values.
- Click “Decimal Array” to prepare an array of decimal values.
- Click “Bitmap Array” to prepare an array of bitmaps.

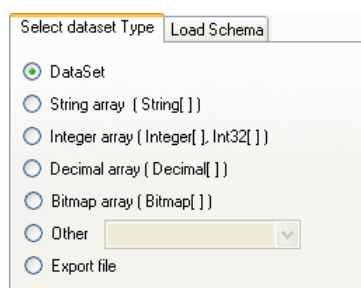
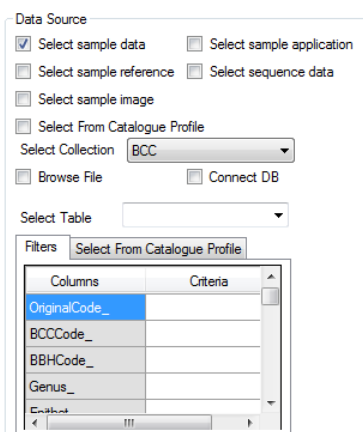
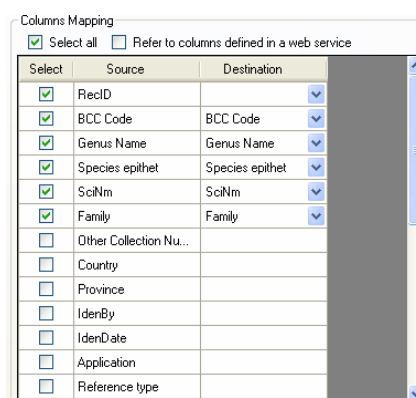


Figure 11.2.2-1 Select a type of dataset

**Step 3:** Determine what data you want to retrieve from database for the preparation. At the “Source Data” in Figure 11.2.2-2(a), click ☒ to select the data source and choose a collection from the list shown in “Select Collection”. Or you can import data from a file and database server which use the same procedure as described in section 9.2.1



(a) Data Source



(b) Column Mapping

Figure 11.2.2-2 Data Source and Data Mapping

**Step 4:** Go to “Column Mapping” as shown in Figure 11.2.2-2(b), specify the destination column that will be mapped with the source column. Click ☒ to select the column on that row or Click “Select all” to select all columns.

**Step 5:** click **Get Data**



**Step 6:** Mapped and retrieved data will appear in the “Create data” as shown in Figure 11.2.2-3, click “Select All” to select all rows to be exported or click ☒ only the rows you want to include in the dataset

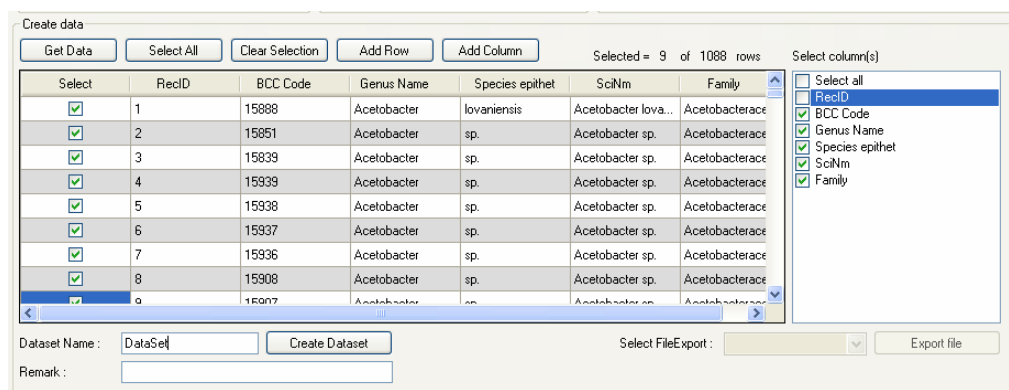



Figure 11.2.2-3 Mapped Dataset Result

**Step 7:** You can filter the number of columns by selecting column displayed in “Select column (s)”. In case of Array data types (String Array, Integer Array, Decimal Array and Bitmap Array), you can choose only one column that its data type is not mismatch.

**Step 8:** Type the dataset name and click . The dataset created will appear in the “List of Datasets”.

#### 11.2.2.2 Data Preparation for an Array of Web-Service Defined Type

To prepare an array of Web-Service Defined type, you can perform the following steps.

**Step 1:** In “Create Data” tab, open “Select dataset type” tab

**Step 2:** Click “Other” (Figure 11.2.2-4) to select a web-service defined type

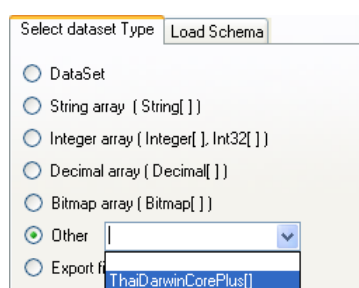


Figure 11.2.2-4 Web-service Defined Data type

**Step 3:** Determine what data you want to retrieve from database for the preparation. At the “Source Data”, click on the checkboxes to select the data source and choose a collection from the list shown in “Select Collection”

**Step 4:** Go to “Column Mapping” as shown in Figure 11.2.2-5,

- Click ☒ “Refer to columns defined in a web service” to be checked
- Specify the “Reference object” and its “Method” that will be used in mapping with the source column.
- Click on ☒ to select the column on that row or Click “Select all” to select all columns.



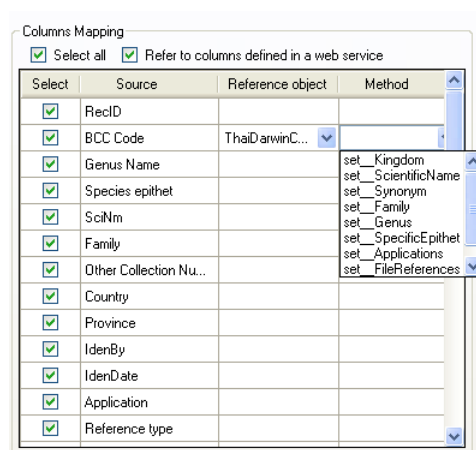


Figure 11.2.2-5 Reference Objects and Methods defined by Web Services

**Step 5:** click

**Step 6:** Mapped and retrieved data will appear in the “Create data” as shown in

Figure 11.2.2-5, click “Select All” to select all rows to be exported or click ☒ to select only the rows you want to include in the dataset

**Step 7:** You can filter the number of columns by selecting column displayed in “Select column (s)”.

**Step 8:** Type the dataset name and click . The dataset created will appear in the “List of Datasets”.

### 11.2.2.3 Data Preparation for a single record of Web-Service Defined Type

To prepare a single record of Web-Service Defined type, you can perform the following steps.

**Step 1:** Double click on the row containing the web-service defined type (Figure and open the “create new data type from web service” tab .

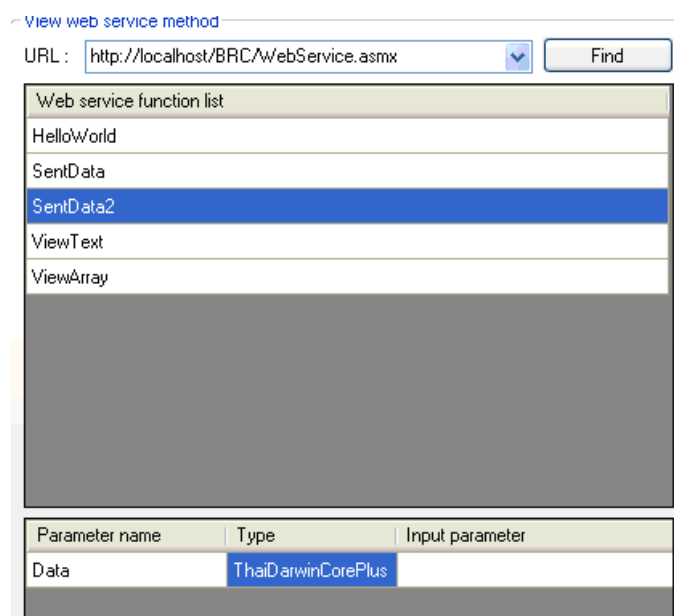
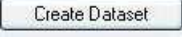


Figure 11.2.2-6 Double-click on the web-service defined type



**Step 2:** Input the values for each parameter in the “Input Parameter Value” column.

When finished, specify the dataset name and click  (Figure 11.2.2-7). The created dataset will appear in a table “List of Datasets”.

Web service management | Create data | Create new data type from web service

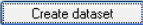
Find Parameter

Member Detail :

Member list	Request parameter name	Type	Input parameter value
set__Kingdom	value	String	insertdata1
set__ScientificName	value	String	insertdata2
set__Synonym	value	String	insertdata3
set__Family	value	String	
set__Genus	value	String	
set__SpecificEpithet	value	String	

Dataset name :

Remark :



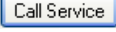
List of Datasets :

Dataset name	Type	Remark
dataset1	ThaiDarwinCorePlus	

Figure 11.2.2-7 Create a single record of a web-service defined type

#### 11.2.2.4 Calling Web Service

After finishing data preparation, the dataset created will appear in “Created dataset” table in “Web Service Management” tab. You can select the created dataset from the list to specify for “Input Parameter” of the web service. When you have already specified all input parameters for the service function, click

 to invoke the web service function. Return results will display in the “Web service result” as shown in Figure 11.2.2-8



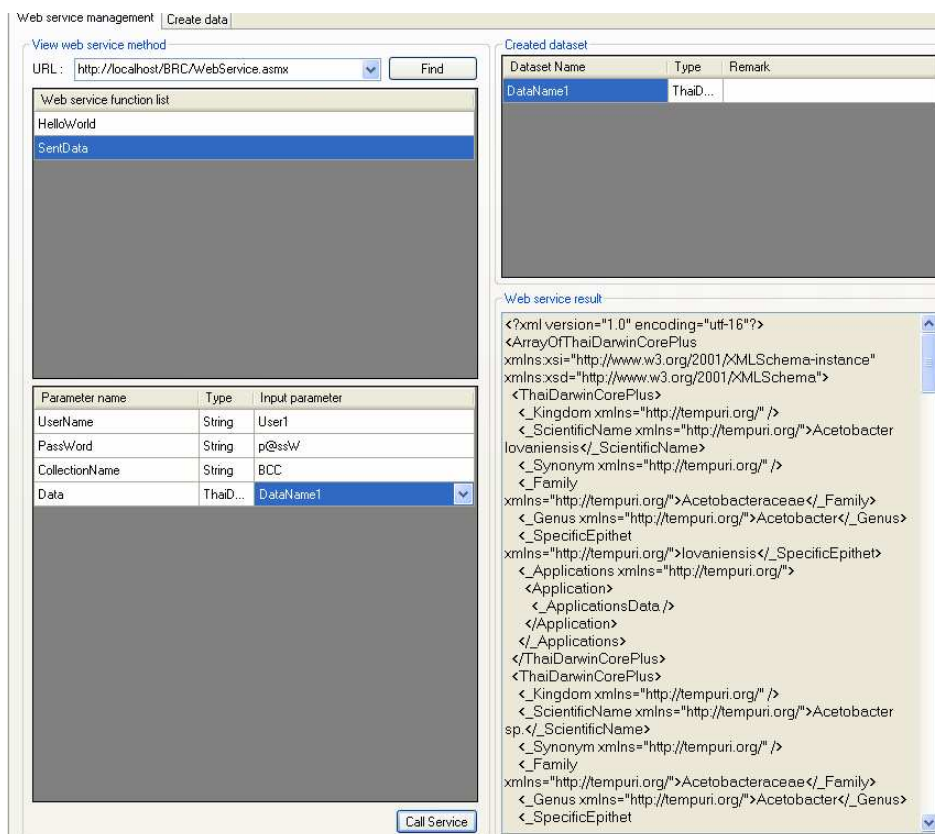


Figure 11.2.2-8 Invoke a web service function

Figure 11.2.2-9 demonstrates how to access KEGG database through web services. Accessing the URL "<http://soap.genome.jp/KEGG.wsdl>", available web services will be listed. In Figure 11.2.2-9, a web service "[get\\_html\\_of\\_colored\\_pathway\\_by\\_elements](#)" was selected and invoked to get the html page of a color pathway map for a specified pathway "*hsa00010*". You can get the html page at [http://www.genome.jp/tmp/color\\_pathway.127121207110735/hsa00010.html](http://www.genome.jp/tmp/color_pathway.127121207110735/hsa00010.html) from result in "Web service result". You can use a web browser to access the html result to view the pathway map as shown in Figure 11.2.2-10.



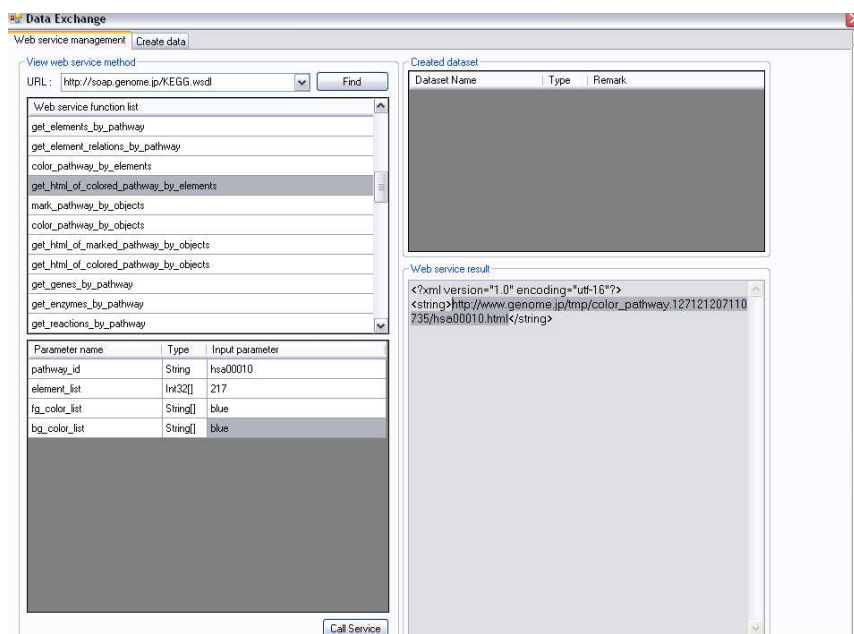


Figure 11.2.2-9 Accessing web services at KEGG

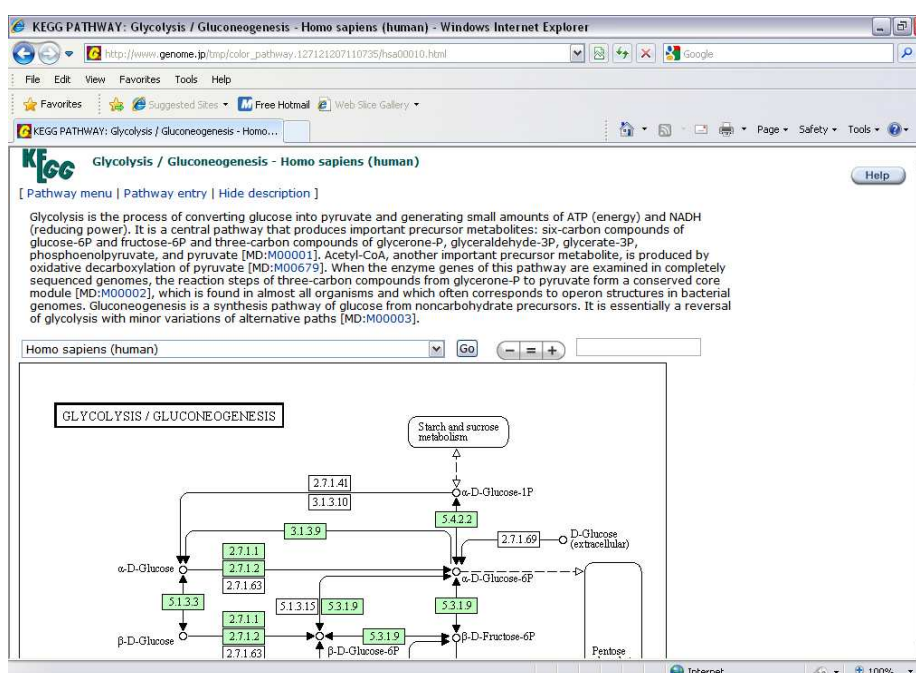


Figure 11.2.2-10 View the returned HTML via a web browser

### 11.3 Taxonomical Data Checking

In several cases, the collection data will include taxonomic data which need validation and update of taxonomical classification. iCollect provides this feature to enable user to check the taxonomic data with the Global Check list at [www.sp2000.org](http://www.sp2000.org) and the fungal database at [www.indexfungorum.org](http://www.indexfungorum.org). Figure 11.3.4 illustrates a part of the “Check Taxonomy” window.



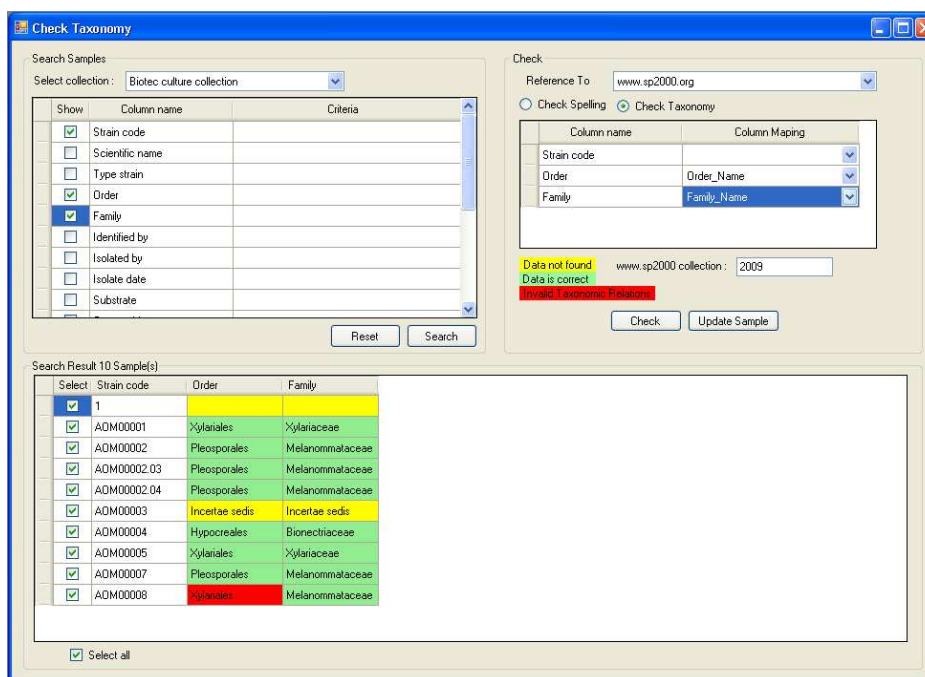


Figure 11.3.4 Check taxonomy data

There are two validation modes of taxonomic data: Check Spelling and Check Taxonomy. You can process the validation of taxonomic data within three steps.

**Step 1:** Choose a collection and its taxonomic columns such as Family, Genus, and Species and click . Search Results will appear in the bottom sheet view and the selected columns will be shown in the table within the frame “Check”.

**Step 2:** Choose a data reference from “Reference To”. There are two modes of data validation.

- Click “Check Taxonomy” if you want to validate the hierarchy of taxonomic relationship. Otherwise click “Check Spelling” to verify only the spelling of the data.
- Specify the column from the reference in “Column Mapping” for each row. You can select more columns by clicking the checkbox in the Search table on the top-left of the screen. In “Check spelling” mode, you can select only one column at a time of validation.
- Click to start the validation. Results from validation will display by coloring the sample data with different colors:
  - **Green** if the data is correct spelling or containing the valid taxonomic classification.
  - **Yellow** if the data is not found from the Global Check list or the selected reference website.
  - **Red** if the data contains the invalid taxonomical classification.

**Step3:** For the invalid taxonomic data or **Red** record, you can click to update the data as specified in the Check List.

#### 11.4 Link to BIOTEC BRC

This menu provides a convenient way to send and receive data to BIOTEC BRC web service. In this menu, user can submit, deposit, and order samples or collections through BRC.

##### 11.4.1 Submit Data

This part allows user to submit samples to BIOTEC BRC (as shown in Figure 11.4.1-1)



Figure 11.4.1-1. Submit data form

**Step 1:** select source (as shown in Figure 11.4.1-2)

- i. Select data - choose samples data from collections that has been stored in iCollect.
- ii. Browse file - import samples from ms excel file (.xls) or ms access file (.mdb)
- iii. Connect to DB Server - retrieve samples from MySQL or MS SQL Database server.

Figure 11.4.1-2. Select source option

**Step 2:** Go to select column(s) & criteria (as shown in Figure 11.4.1-3) to include whether columns to be sent with sample data. \*\*If you choose to browse file or connect to DB server, please select table first.

Figure 11.4.1-3. Set column criteria and column name for catalogue



**Step 3:** Set column criteria.

**Step 4:** Set column name for catalogue.

**Step 5:** Check set as code checkbox at the column that used to stored sample code.

**Step 6:** Click

Get Data

**Step 7:** Specify the samples that you want to submit. See figure 11.4.1-4 for the example.

Data for Submit to BRC Web Site ☒ Select All

Select	OriginalCode_	BCCCode_	BBHCode_	Genus_	Epithet_	Authority
<input checked="" type="checkbox"/>	MY00001		9973	Cordyceps	sp.	(Fr.) Link (1
<input checked="" type="checkbox"/>	MY00002	16757	10001	Cordyceps	sp.	(Fr.) Link (1
<input checked="" type="checkbox"/>	MY00003		10002	Cordyceps	sp.	(Fr.) Link (1
<input checked="" type="checkbox"/>	MY00004		10003	Cordyceps	sp.	(Fr.) Link (1
<input checked="" type="checkbox"/>	MY00005			Cordyceps	sp.	(Fr.) Link (1
<input checked="" type="checkbox"/>	MY00006		10004	Cordyceps	sp.	(Fr.) Link (1
<input checked="" type="checkbox"/>	MY00007	16473	10005	Cordyceps	sp.	(Fr.) Link (1
<input checked="" type="checkbox"/>	MY00008	16474	10006	Cordyceps	sp.	(Fr.) Link (1
<input checked="" type="checkbox"/>	MY00009	16475	10007	Cordyceps	sp.	(Fr.) Link (1
<input checked="" type="checkbox"/>	MY00010		10008	Cordyceps	sp.	(Fr.) Link (1
<input checked="" type="checkbox"/>	MY00011		10009	Hirsutella	formicarum	Koval (1984
<input checked="" type="checkbox"/>	MY00012		10010	Hirsutella	formicarum	Koval (1984

Figure 11.4.1-4. Select sample to submit

**Step 7:** Choose submit data option.

**Step 8:** Select a collection on web that the samples will be stored on BIOTEC BRC.

**Step 9:** Set material type.

**Step 10:** Click

Submit Data

. The program will open a confirm dialog

ask you for a confirmation, click

Yes

**Step 11:** The login to BRC dialog will appear on the screen. Specify username and

password and then click

OK

**Step 12:** iCollect will display a submit result message on the screen.

#### 11.4.2 View submit log

Submit log records the information of your collection that has been submitted to BIOTEC BRC. See figure 11.4.2-1 for more details.

Submit Date	iCollect Login	BRC Web Login	iCollect's Collection	BRC Web's Collection	Submit Columns	Number of Specimen	LIST OF Specimen Code
16 พ.ค. 2554	root	samnao	BCC	BCC16052554	OriginalCode, B...	10	MY00001, MY00...
16 พ.ค. 2554	root	samnao	BCC	BCC16052554	OriginalCode, B...	5	MY00001, MY00...
16 พ.ค. 2554	root	samnao	BCC	BCC16052554	OriginalCode, B...	5	MY00001, MY00...
13 พ.ค. 2554	root	samnao	sponge	testAddNewColu...		20	MUS-A-01, MUS-...
13 พ.ค. 2554	root	samnao	sponge	testAddNewColu...		20	MUS-A-01, MUS-...
13 พ.ค. 2554	root	samnao	sponge	testAddNewColu...		10	MUS-A-01, MUS-...
13 พ.ค. 2554	root	samnao	sponge	testAddNewColu...		10	MUS-A-01, MUS-...

Figure 11.4.2-1. "Submit log" window



### 11.4.3 New Order From BRC

This menu is used to retrieve order that has been sent from BIOTEC BRC. See figure 11.4.3-1 for more details.

List of Order(s)

Service Code	Order By	Order Date	Quantity	Total Price	Service Type	Status
2011-5-34-41	samnao noksiri	13 พฤษภาคม 2554	2	0	-	-
2011-5-34-4-206	samnao noksiri	16 พฤษภาคม 2554	5	0	-	-

Refresh

Select a service profile

Save

List of Sample(s)

No.	Specimen Code	Collection	Quantity	Match Collection	in Stock	Accept	Reject
1	10	Plant_natee	1		?	<input type="checkbox"/>	<input type="checkbox"/>
2	100	Plant_natee	1		?	<input type="checkbox"/>	<input type="checkbox"/>

Figure 11.4.3-1. New Order from BRC Interface

- To manage order

**Step 1:** Select new order from BRC tab.

**Step 2:** The “login window” will appear on the screen as shown in Figure 11.4.3-2, login using your BRC account.

Please enter user name and password.

User Name:

Password:

OK Cancel

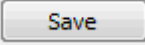
Figure 11.4.3-2 “Login to BIOTEC BRC” window

**Step 3:** iCollect will retrieve and list orders from BRC automatically.

**Step 4:** Click on certain order to view sample list.

**Step 5:** Map the ordered sample with your collection in iCollect.

**Step 6:** To accept order, check accept. Otherwise check reject.

**Step 7:** Select service profile then click .



#### 11.4.4 New Deposit From BRC

This menu is used to retrieve sample that has been deposited to you from BIOTEC BRC. See figure 11.4.4-1 for the screen example.

The screenshot displays the 'New Deposit From BRC' interface. At the top, there is a 'List of Order(s)' table with columns: Service Code, Deposit By, Deposit Date, Quantity, Total Price, Service Type, and Service. The table contains four rows of data. To the right of the table is a 'Refresh' button. Below the table, there are two dropdown menus: 'To Collection' and 'Select a service profile'. At the bottom right, there is a button labeled 'Sent To Service: New Deposit'. Below the table, there is a section titled 'List of Sample(s)' which is currently empty.

Service Code	Deposit By	Deposit Date	Quantity	Total Price	Service Type	Service
2011-5-34-1-69		18 พฤษภาคม 2554	3	0.00	Patent Deposit	BCC Pat
2011-5-43-1-67		18 พฤษภาคม 2554	3	0.00	Safe Deposit	BCC Safe
2011-5-43-1-68		18 พฤษภาคม 2554	4	0.00	Safe Deposit	BCC Safe
2011-5-43-1-72		19 พฤษภาคม 2554	7	0.00	Safe Deposit	BCC Safe

Buttons: Refresh, To Collection, Select a service profile, Sent To Service: New Deposit

Section: List of Sample(s)

Figure 11.4.4-1. New Deposit Interface

- To manage deposit order

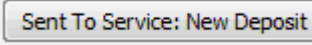
**Step 1:** Click on “New Deposit from BRC” tab. The “login” window will appear on the screen, login using your BIOTEC BRC account.

**Step 2:** iCollect will retrieve and list orders from BIOTEC BRC automatically.

**Step 4:** Click on certain order to view sample list.

**Step 4:** Select collection to save sample.

**Step 5:** Select a service profile

**Step 6:** Click 



### 11.4.5 Deposit to BRC

This menu is used to deposit sample to the specified user (as shown in Figure 11.4.5-1).

**Service Data**

Deposit To:

Select Collection:

Deposit Type:

Order Date:

Service Length:  Year(s)

Remark:

Source Collection:

BCC Deposit Demo Column	BCC Column
MacroHabitat	MacroHabitat_
SubSite	SubSite_
Site	Site_
District	District_
Location	Province_
Country	Country_
Latitude	Latitude_
NorthSouth	NorthSouth_
Longitude	Longitude_
EastWest	EastWest_
Elevation	Elevation_
GPSStatus	GPSStatus_
Reference	Reference_

Select	OriginalCode	BCCCode	BBHCode	Genus	Ex
<input checked="" type="checkbox"/>	MY00001		9973	Cordyceps	sp.
<input checked="" type="checkbox"/>	MY00002	16757	10001	Cordyceps	sp.
<input checked="" type="checkbox"/>	MY00003		10002	Cordyceps	sp.
<input checked="" type="checkbox"/>	MY00004		10003	Cordyceps	sp.
<input checked="" type="checkbox"/>	MY00005			Cordyceps	sp.
<input checked="" type="checkbox"/>	MY00006		10004	Cordyceps	sp.
<input checked="" type="checkbox"/>	MY00007	16473	10005	Cordyceps	sp.
<input checked="" type="checkbox"/>	MY00008	16474	10006	Cordyceps	sp.
<input checked="" type="checkbox"/>	MY00009	16475	10007	Cordyceps	sp.
<input checked="" type="checkbox"/>	MY00010		10008	Cordyceps	sp.
<input checked="" type="checkbox"/>	MY00011		10009	Hirsutella	for
<input checked="" type="checkbox"/>	MY00012		10010	Hirsutella	for
<input checked="" type="checkbox"/>	MY00013		10011	Unidentified	Un
<input checked="" type="checkbox"/>	MY00014		10012	Ophiocordyceps	my
<input checked="" type="checkbox"/>	MY00015		10013	Akanthomyces	sp.
<input checked="" type="checkbox"/>	MY00016	16476	14479	Unidentified	Un
<input checked="" type="checkbox"/>	MY00017		10015	Ophiocordyceps	spl
<input checked="" type="checkbox"/>	MY00018	16477	10016	Hirsutella	sp.
<input checked="" type="checkbox"/>	MY00019		10017	Unidentified	Un
<input checked="" type="checkbox"/>	MY00020		10018	Ophiocordyceps	nu
<input checked="" type="checkbox"/>	MY00021		10019	Ophiocordyceps	nu
<input checked="" type="checkbox"/>	MY00022	16446	10020	Cordyceps	nin

Get Data    ☒ Select All    Send

Figure 11.4.5-1 Deposit to BRC Interface

- Step 1:** Select recipient from deposit to combo box.
  - Step 2:** Select collection
  - Step 3:** Select deposit type
  - Step 4:** Set order date
  - Step 5:** Set service length
  - Step 6:** Add remark (optional)
  - Step 7:** Select source collection
  - Step 8:** Map source collection's columns with BIOTEC BRC collection's columns.
- Figure 11.4.5-2 illustrates the example of column mapping.



BCC Deposit Demo Column	BCC Column
MacroHabitat	MacroHabitat_ ▼
SubSite	SubSite_ ▼
Site	Site_ ▼
District	District_ ▼
Location	Province_ ▼
Country	Country_ ▼
Latitude	Latitude_ ▼
NorthSouth	NorthSouth_ ▼
Longitude	Longitude_ ▼
EastWest	EastWest_ ▼
Elevation	Elevation_ ▼
GPSStatus	GPSStatus_ ▼
Reference	Reference_ ▼

Figure 11.4.5-2 Map columns

**Step 9:** click

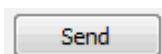
**Step 10:** select sample to be deposited. See figure 11.4.5-3 for an example

Select	OriginalCode	BCCCode	BBHCode	Genus	Ep
<input checked="" type="checkbox"/>	MY00001		9973	Cordyceps	sp.
<input checked="" type="checkbox"/>	MY00002	16757	10001	Cordyceps	sp.
<input checked="" type="checkbox"/>	MY00003		10002	Cordyceps	sp.
<input checked="" type="checkbox"/>	MY00004		10003	Cordyceps	sp.
<input checked="" type="checkbox"/>	MY00005			Cordyceps	sp.
<input checked="" type="checkbox"/>	MY00006		10004	Cordyceps	sp.
<input checked="" type="checkbox"/>	MY00007	16473	10005	Cordyceps	sp.
<input checked="" type="checkbox"/>	MY00008	16474	10006	Cordyceps	sp.
<input checked="" type="checkbox"/>	MY00009	16475	10007	Cordyceps	sp.
<input checked="" type="checkbox"/>	MY00010		10008	Cordyceps	sp.
<input checked="" type="checkbox"/>	MY00011		10009	Hirsutella	for
<input checked="" type="checkbox"/>	MY00012		10010	Hirsutella	for
<input checked="" type="checkbox"/>	MY00013		10011	Unidentified	Un
<input checked="" type="checkbox"/>	MY00014		10012	Ophiocordyceps	my
<input checked="" type="checkbox"/>	MY00015		10013	Akanthomyces	sp.
<input checked="" type="checkbox"/>	MY00016	16476	14479	Unidentified	Un
<input checked="" type="checkbox"/>	MY00017		10015	Ophiocordyceps	spl
<input checked="" type="checkbox"/>	MY00018	16477	10016	Hirsutella	sp.
<input checked="" type="checkbox"/>	MY00019		10017	Unidentified	Un
<input checked="" type="checkbox"/>	MY00020		10018	Ophiocordyceps	nu
<input checked="" type="checkbox"/>	MY00021		10019	Ophiocordyceps	nu
<input checked="" type="checkbox"/>	MY00022	16446	10020	Cordyceps	nin

Figure 11.4.5-3 Select sample to submit.



Step 11: click



## 12. Backup and Restore

Backup and restore operations are available to users with administrative rights. Under the **Administration** menu, select '**Backup/Restore**' to backup the database to any folder specified by users and restore the backup file to database. The backup/restore process will start if no other users still logged in iCollect system.

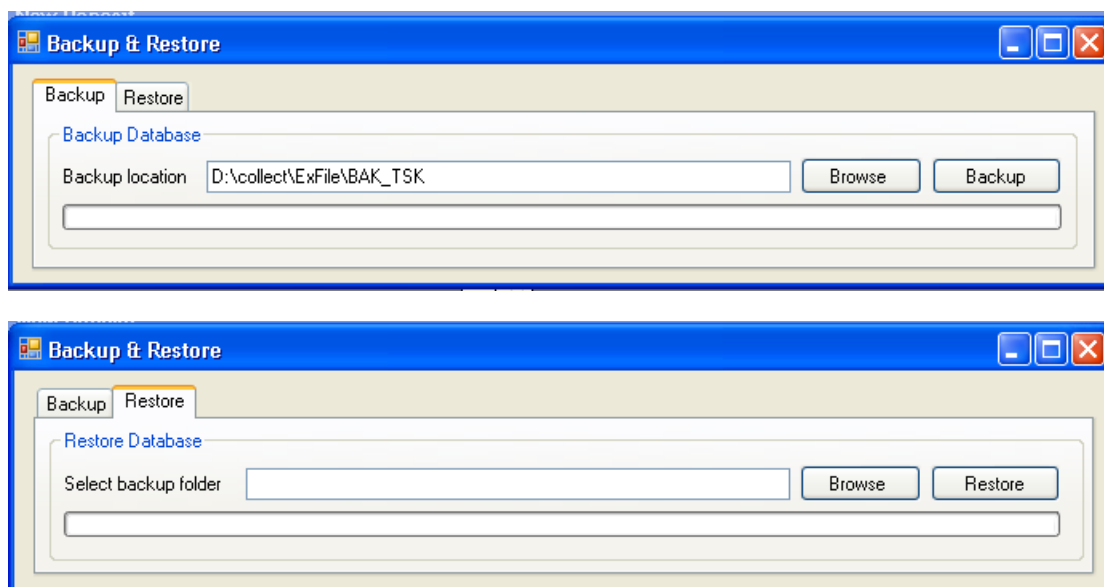





Figure 12.1 Backup and restore

As shown in Figure 12.1, you are allowed to perform the following tasks.

- Click on "*Backup*" tab to backup the database
  - Default Backup location will appear. Click  to change to other folders.
  - Click  to start the backup process
- Click on "*Restore*" tab to restore the backup files to database
  - Browse to locate the backup folder
  - Click  to restore the backup data into database

## 13. Help

Help menu provides a user manual for new user to getting start with the program.

### 13.1 View Manual

To view user manual, please click on view menu. The user manual will be displayed as shown in Figure 13.1



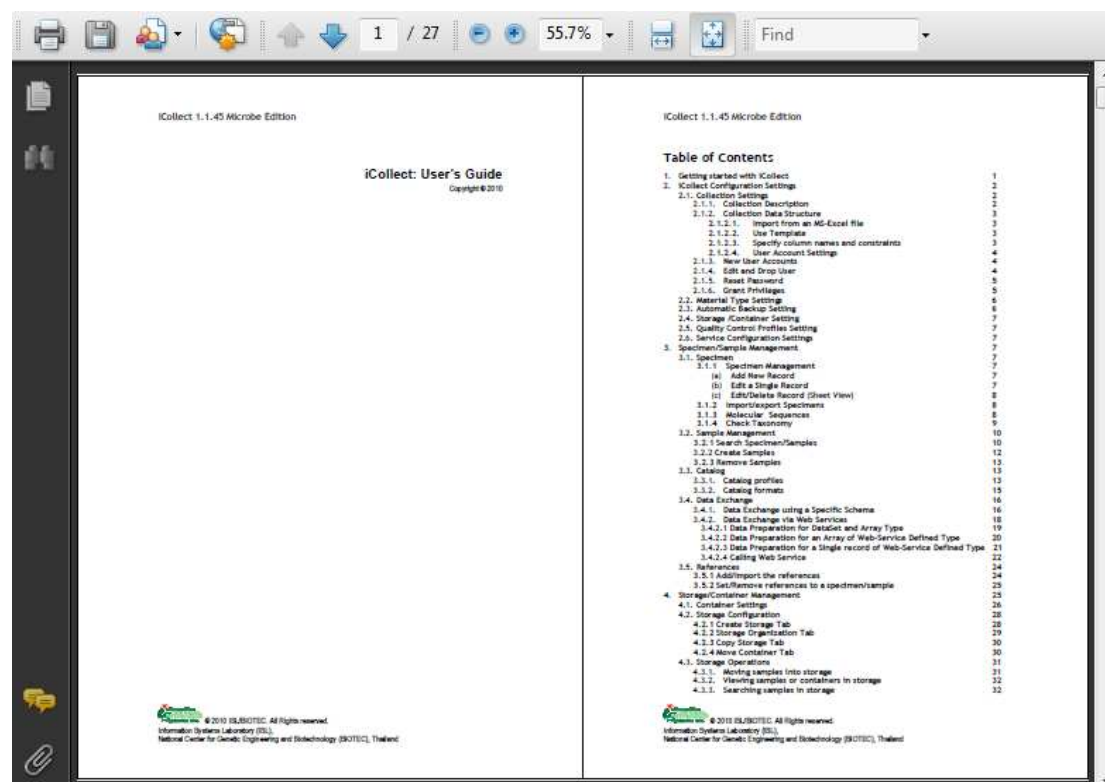


Figure 13.1 “User manual” window