iCollect 1.1.50

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. <u>Note</u>: 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.

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

<u>Notice</u>: An asterisk symbol (*) in Figure 2.1.1 specifies the field need to be completed.

🔜 Collection Settings				×	
Create Collection Edit Collecti	on Delete Collection				
Collection Description					
Collection Name:				*	2.1.1
Collection Code:	*	Material Type:	~	•	
Collection Description:			<		
Data Columns					
Choose Excel File:			Browse		2.1.21
Choose Work Sheet:		*			2.1.22
iCollect Templete:		~		J	
List of Fields					
Select Colum	nn Name	Description	Is Code		
					2.1.23
				•	
Select All Columns		Delete Selected	I Column(s) Add Colum	n	
			Create C	ollection	

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 Additional. 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 Create Collection 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.

Jser Management		
ate User Edit/Drop Use	Collection Privileges	
Host Name : locaino	t	
Login Information	(mayiny micharacters : 15)	
User Manie .		
Password :	(maximum characters : 15)	
	Allow access to/from other servers	
Additional Information-		
Full Name :		
Email :		
Contact Information :		~
		~
Description :		~
		-
		\sim

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

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

Contormation

• Create User Button: Click Create User 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 Save to record your modification. In case of dropping a user name, click on a user name from *List of Users* and click on Drop User to remove user from the system.

last oser management
Create User Edit/Drop User Collection Privileges
List of Users UserTest3 UserTest3 UserTest4 UserTest6 User's Details Administrator Allow access to/from other servers Full Name : Email : Description : Drop User Save

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 Change

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.

🖶 User Management	_				
Create User Edit/Drop User	Collection Privileges	3			
List of Users					
userTest3		Collection	Grant	Permission	
userTest4		Test2		Read	×
user l'estb		Test3		Read	~
		Test4	 Image: A start of the start of	Write	*
		Test5		Write	~
		Test6			~
		BCC		Read	*
		test1			*
		Nao1			*
		Test7			*
				Save	

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.

When you finish, click doubte user's permissi

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



🖷 Material Type		X
List of Materials		
Name	Description	Save Delete
Algae	·	Save Delete
Animal Cell	•	Save Delete
Antibody	•	Save Delete
Bacteria	•	Save Delete
DNA	•	Save Delete
Fungal	•	Save Delete
Human Cell	•	Save Delete
Microbial	-	Save Delete
Plant	-	Save Delete
Plant Cell	•	Save Delete
Plasmid	•	Save Delete
Virus	•	Save Delete
Yeast	•	Save Delete
Name :		
Description :		
		Add Clear

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 Save.
- 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 Specimen's Application to add/update information about specimen's utilizations.
- Click Specimen's Reference to add/update a list of references to a specimen record. (See detail in Section 3.4)
- Click Specimen's Images to add/update images into specimen records.
- Click Specimen's Files to add/update files into specimen records.

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

- Click Quality Control Log to view the quality checking records
- Click Deposition Log 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 Search

Step 4: Select sample to display on the map.

Step 5: Click View Map

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 <u>input sequence</u> contain invalid character
 - Step 6: Click Save to add the sequence information into database

arch Samples	Detail		
elect collection :	Code :	Show on Catalogue Online	
Show Lolumn name Unteria	File Path :		Browse
	Name :		
	Gene Type ;	Sequence Type :	~
	Sequence :	Sequence Validated format	
Gene Type	•		1
equence Type	~		
Search			
arch Result	_		
			3
	Note ;		
	16		

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

🖳 Sequence		^
Search Samples	Detail	
Select collection : Biotec culture collection	Code : A0M00005	
Show Column name Criteria	File Path :	
Strain code A0M00005		
Scientific name	Name : test	
Type strain	Gene Type : Beta tubulin 💌 Sequence Type : DNA	
Order 🗸 🗸	Sequence : Sequence Maintend format	
Gene Type	attraccoggggggg	:
Sequence Type		
Search		Ш
Search Result		
AUMUUUU5 Linest		

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
 - $_{\circ}$ Enter a reference title into "Reference Title" and Click \square .
 - 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 \bowtie to delete the reference on that row
- Import the references from the BibTex file
 - Click on Import (BibTex Format) 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 Save
 - $_{\circ}$ Click 🔛 to delete the reference on that row

3.4.2 Set/Remove references to a specimen/sample

Refere	nce(s)								
Search Title:				Add Refe	New Reference rence Title				
Year:	Resultíe)	List of F	ISBN:	Show All Search	ode Generate ('Ri	ef' +	Auto Number)	port (BibTex Forr	mat)
	(Sociato)	Select	Code	Title	Туре		Author(s)	Month	1
X	Save		00106	Affective-CognitiveLearningandDecisio.	. Inproceedings	~	HyungilAhnandRosalindW	2	
X	Save		00107	ResponsetoSloman'sReviewofAffectiv	Article	~	RosalindW.Picard	22	-
X	Save		00109	ReviewolAffectiveComputing	Article	~	AaronSloman		
X	Save		00112	TheYankeeYears	Book	*	JoeTorreandTomVerducci	3	
X	Save		00113	DesignofaCarbonFiberCompositeGridSt.	Book	~	vonHicks,III,Michael	-	
X	Save		00114	xxxx	24	~	2	20	
X	Save		00117	LearningProcessesinanAsymmetricThr	Inproceedings	~	LeCun,Y.		
X	Save		00118	AtheoreticalframeworkforBack-Propag	Inproceedings	Y	LeCun,Y.		-
1			Ú.				9	l.	>
Collect Biotec	tion culture (collection	List of List of AOM AOM AOM AOM AOM AOM AOM AOM	Specimens List of Specimen 00001 00002 03 00002 03 00002 04 00004 00005 00007 V	n's Reference (Co	le)	F	Set Reference lemove Selected Reference	

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 <u>Set Reference</u> 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

Bemove Selected

Specimen's Reference" and click	Reference	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.

- \circ Click on the \square checkbox to select the specimen/sample
- Click ≡ to expand the tree branch to view the list of samples
- \circ 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

Select coll	lection : biotec animal celline	на Соморода ко
Show	V Column name Criteria Name Species Type of cell Source of cell line Characteristics Life expectancy	Conductors Step 2
	Brief history since Culture medium	Selected sample(s)
	Subcultivation pr	k0M00004
	Name of originating	

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 <u>Create</u> to select and submit samples from the selected specimens/samples to be appear in "Create samples". See detail in Section "Create samples".
- Click Remove 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".

Create samples							e
Remove sample	25						6
Specimen	Lot	Sample	Position	Cancel	Select reason	Reason	
AOM00002.03	1 3	3	-/-	Cancel	Select reason		
<				Ш		>	
-Input by barcode	e scanner	Add N	lew Reason	Go to Stor	age Map	Remove Sample	

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.

🖳 Sample Log					_ D
Search	Log				
Select collection :	Code	Sample	Action	By	Update date
Biotec culture collection	A0M00002.03	1	Create Sample	root	27/3/2553 11:35
	A0M00002.03	1	Remove Sample	root	27/3/2553 11:35
Sample Code	A0M00002.03	1	Quality Checking	root	27/3/2553 11:35
A0M00002.03	A0M00002.03	2	Create Sample	root	27/3/2553 11:35
Sample No.	A0M00002.03	2	Remove Sample	root	27/3/2553 11:35
	A0M00002.03	2	Quality Checking	root	27/3/2553 11:35
	A0M00002.03	3	Create Sample	root	27/3/2553 11:35
Reset Search	A0M00002.03	3	Remove Sample	root	27/3/2553 11:35
	A0M00002.03	3	Quality Checking	root	27/3/2553 11:35

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/aliguots from the selected specimens/samples within the following steps.



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

• At the row corresponding to the specimen/sample you want to remove, click <u>Select reason</u> to choose reason in removing the sample. The "Select reason" frame will appear on the right.

In "Select Reason" frame, select a reason in removing the sample and click Select. Click Select for all samples to select reason for all samples you want to remove.

3 Click Remove Sample to remove the samples. The samples removed with quality checking reason will appear in the menu "Quality Control Records".

					0					2	
Remove sample	25							6			6
Specimen	Lot	Sample	Position	Cancel	Select reason	Reason			elect reas	on –	
AOM00002.03	1	3	- -	Cancel	Select reason				Select	Reason	_^
								_		Quality Checking	
								_		Used	
										Disappear	=
								_		Loss	
										Discard	
										Cancel	
					AFTERENT		_			Service	
- Input by barcode	e scapper			IIII	6						_
	socariner	Add I	New Reason	Go to Stor	age Map	Remove Sample		Ľ	Select for	all samples Se	lect

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.

Profiles
Format

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.

Catalog Profile Preview		
Collection	Profile Detail]
Select Collection American Type Culture Collection 💙	Name	test
List of Profile	Display name	test
test	Туре	Public
	Create By	root
	Create Date	2010-04-07 15:56:32
	Update By	•
	Last Update	
	🔽 In Use	Add New Cancel Save Profile

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)

- Name: Type catalog profile name.
- Display Name: Type the catalog name used for display
- 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.

Column		Show	Operator	Filter(AND)	Operator	Filter(OR)	Operator	Filter(OR)	
Strain code	~	V	~		*		*		
Scientific name	~	V	~		*		*		
Type strain	~	V	*		*		*		
Isolated by	~	V	~		*		*		
Isolate from	~	V	~		*		*		
Isolate date	~	V	*		*		*		
Location	~	V	~		*		*		
Medium	~	v	~		*		*		
Temperature	~	V	~		*		*		
Hazardous st	~	V	~		*		*		

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



	Select	Strain code	Scientific name	Type stra	ain Isolate	d by	Isolate from	Isolate date	Location	
	V	D0M00002.04	Melanommataceae	11	3		16		15	1
	~	COM00002.03	Sirindhorn Resea	30	5		34		2	
	V	COM00002.04	Sirindhorn Resea	22	2		201	12	22	1
	~	COM00004	Sirindhorn Resea	•0			-0		-3	
	~	COM00005	Sirindhorn Resea				1 %	8	10	1
	~	СОМ00007	Sirindhorn Resea	23			34		20	
	¥	COM00008	Sirindhorn Resea	20	12		237	12	10	
	~	POM00001	Xylariales	•0			•:(-1	
	~	P0M00002	Pleosporales				18	1.2	16	
	~	POM00002.03	Pleosporales	23			30		20	
	~	POM00002.04	Pleosporales	20	2		20	1	10	
	~	POM00003	Incertae sedis	10			•0		•8	
	~	P0M00004	Hypocreales	11	3		1 8		16	
	~	P0M00005	Xylariales	20	5		34)		10	
	V	P0M00007	Pleosporales	-	2		11	12	22	
	~	P0M00008	Incertae sedis	-8			-0		•3	
	- Vieter - I		107						>	I
	🗹 Ch	eck All								
			Of the Collection (Specimen)	Of th (Spe	e Preview catalog cimen)	Termir (Speci	nated imen)			
T	otal Spe	cimens :	52		38		10			
3	Safe dep	iosit and Patent	11		0	1	7 S	ave Catalog	Remove	7

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

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

Search Select Collection Biotec	Catalog Format
Format	
Column title	Select Column
Strain code	Strain code
Family	Family
Identified by	Identified by
Medium	Medium
Order	Order
Substrate	Substrate
	Reset

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.

• To add a new type of containers, enter the container *name* and set the

container properties as below and Click Add.

- 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.

• 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 Save to record your changes.

• To delete the container, click on the row corresponding to the container you want, click Delete .

🖳 Container Type				X	
Container Type					
Name	Is Strorage	Is Freezer	Save	Delete	
Bag			Save	Delete	
Вох			Save	Delete	
Cabinet	~	 Image: A start of the start of	Save	Delete	
Cane			Save	Delete	
Canister			Save	Delete	
CoolRoom	V	✓	Save	Delete	
Plate			Save	Delete	← 0,8
Rack			Save	Delete	
Room	V		Save	Delete	
Shelf			Save	Delete	
Tank	V	✓	Save	Delete	
Tray			Save	Delete	
Tube			Save	Delete	
Well			Save	Delete	
Create New Container Type					
News					
Name:	-				
Is Storage	Is Freezer			Save	

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 <u>New Container</u> to define a new container configuration within three steps.

• 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

• Determine the sample capacity of container: single position and multiple positions.

- (a) For single position container, click "single position" and click Save.
- (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-contianers 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.

O Create Storage Tab: This tab allows user to create a new storage facility into the database.

O Storage Organization Tab: Storages created in **O** 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.

• 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 New Storage 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
- o Click Save

🖳 Storage Ma	nagement				
Create Storage	Storage Organization	Copy Storage	Move Container		
List of Stora test1 [Cat test1-A [C	jes inet_LG150] abinet_LG150]			Storage Detail Storage Configuration Storage Label Set Warning Condition Minimum Volur Maximum Temperatu	Cabinet_LG150 ▼ test1 ns ns 19 < 100 Liter
				more than one s Label (Running) Label Type Label Start at	torage
L		R	emove Storage	New Storag	ge Save

Figure 6.2.1 Create Storage Tab

6.2.2 Storage Organization Tab

🖳 Storage Ma	anagement			$\overline{\mathbf{X}}$
Create Storage	Storage Organization	Copy Storage	Move Container	
Storage Organi	zation t1 [Cabinet_LG150] A [Rack_108ox] B [Rack_108ox] C [Rack_108ox] E [Rack_108ox] F [Rack_108ox] rack1-A [Rack_108ox] rack1-A [Rack_108ox] rack1-B [Rack_108ox] rack1-C [Rack_108ox] rack1-F [Rack_108ox] rack1-F [Rack_108ox] rack1-F [Rack_108ox] rack1-F [Rack_108ox] t1-A [Cabinet_LG150]			Add Container to Storage Container Configuration Label (Specified) Content one container. Cabel (Running) Label Type Label Type Label Start at Quantity Add to Selected Storage
	Remove Selected C	Container	Clear Selection	

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 Add to Selected Storage to finish the process.

6.2.3 Copy Storage Tab

ireate Storage	Storage Organization	Copy Storage	Move Container		
Storage Conf test1 Dimensions	iguration	~	Qua	ntity	V
	TacLi # [rad.1000x] rack1-0 [Rad.1000x] rack1-0 [Rad.1000x] rack1-F [Rad.1000x] A [Rad.1000x] A [Rad.1000x] C [Rad.1000x] D [Rack_1000x] F [Rad.1000x]		Name ((Specified) Storage Nar Running) Label Type Label Start at	ne V
					Copy Storages

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 Copy Storages to generate copies of storage facilities

6.2.4 Move Container Tab

0

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

 \circ $\;$ 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

Treate Storage	Storage Organization	Copy Storage	Move Container		
Select a source - test1 - A - B - C - D - E - rack1 - ra	-A -B -C -D -E -F		Move >>	Select a 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.

🖶 Storage Map							
Collection Biotec culture collection	Storage Map	tainer: test1					
New Container Predefined	🕀 test1 [0	Cabinet_LG150)	Sp	ecimen	Sample	Lot No.	Collection
	- rack	1-A [Rack_10Box]					Biotec culture collection
Create New Container	- rack	1-C [Rack_10Box]		A0M00001	2	21	Biotec culture collection
Container Config	- rack	1-D [Rack_10Box]		A0M00004	2	1	Biotec culture collection
Label	- rack	1-F [Rack_10Box]		A0M00004	1	1	Biotec culture collection
Create Container	test1-A	[Cabinet_LG150] [Cabinet_LG150] Remove Selected	Container		Remove Selected San	ples	Remove All Samples
	Search S	Specimen's samples					0
	List of u	nallocated samples					(3)
	Select	Specimen	Lot	Sample	Preserve Date		Container
		A0M00001	1	7		1	Vell
		AOM00001	2	8		t	iox3x4
		AOM00001	2	9		5	10X3X4
		AOM00001	2	10		1	10X.5X4
		AOM00001	2	12		C	icarPlate
		AOM00001	2	13			IgarPlate
		AOM00001	2	14		4	AgarPlate
		AOM00001	2	15		4	IgarPlate
		AOM00001	2	16		4	AgarPlate
Send to Storage	Select A	4	Ad	id to Container	Add to Container (a	uto)	Set Preserve Date

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 Remove Selected Samples . If you want to move all samples in the containers, click Remove All Samples

- 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 Add to Container

6.3.2. Viewing samples or containers in storage

Storage Map Selected Container : cabinet1/A																	
test1 [Cabinet_LG150]		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	^
test1-A [Cabinet_LG150]	А	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15	
iai∝ testi -b [Cabinet_Ld 150]	В	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13	B14	B15	
A [Tray22x26]	С	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	
	D	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15	= =
	E	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12	E13	E14	E15	_
	F	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12	F13	F14	F15	_
	G	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12	G13	G14	G15	_
	н	H1	H2	НЗ	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	
	1	н	12	13	14	15	16	17	18	19	110	111	112	113	114	115	_
	J	J1	J2	J3	J4	J5	J6	J7	J8	J9	J10	J11	J12	J13	J14	J15	_
	к	К1	К2	кз	К4	К5	К6	К7	К8	К9	K10	K11	K12	К13	K14	K15	_
	L	LI	12	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14	L15	_
	м	М1	M2	М3	M4	M5	M6	M7	M8	М9	M10	М11	M12	M13	M14	M15	
	<		110	110	114	• IE	NC	117	10	10	1110		1110	1110	1 14 A	>	
Remove Selected Container						Rem	ove S	elect	ed Sa	ample	s (Remo	ve A	l Sam	ples	

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.
 - o 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.

Search Specimer	n's samples						
Filters			Search Result				
Column	Criteria	^	Specimen	Sample	Lot	Pos	^
Strain code			AOM00001	1	1	-	
Scientific name			AOM00001	2	1	test1/-	
Type strain		Ξ	AOM00001	3	1	test1/-	
Order			AOM00001			test1/rack1-A/-	
Family			AOM00001	5	1	test1/rack1-A/-	
Identified by			AOM00001	6	1	test1/rack1-A/-	
Isolated by			AOM00001	7	1	-	
Isolate date			AOM00001	8	2	-	
Substrate			AOM00001	9	2	-	
Clea	ar Filter Searc	h N	· · · · ·		Selec	t FileExport : Export	

6.3.3. Searching samples in storage

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 <u>Search</u> 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.

torage is freezer list	History			
	Temperature	Date	User	Delete
AddCoolroom200L	34	18/3/2553 22:57:59	root	Delete
AddTank100L	23.3	16/3/2553 23:14:16	root	Delete
- T200-1	23.5	16/3/2553 23:14:02	root	Delete
pdate				

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.

Souccuon	*	Storage Map					
Select Mode		Selected Containe	er∶c1-B				
New Container Precedent Preced	defined	<u>⊕-c1-A</u>		Specimen	Sample	Lot No.	Collection
		teres [] teres []			1	1	-
Create New Container				3	3	1	boo
Container Config	*						
Label							
Creat	e Container						
List of New Container(s)							
Name Container Confi	g Del						
			((
			Remove Selected Contai	ner	Remove Selected Sar	nples	Remove All Sampl
		-					
		Select	Specimen	Lot Sample	Preserve Date		Container
		Select	Specimen	Lot Sample	Preserve Date		Container
Send	to Storage	Select	Spedmen	Lot Sample	Preserve Date		Container
Send	to Storage	Select	Specimen	Lot Sample	Preserve Date		Container
Send	to Storage	Select	Specimen	Lot Sample	Preserve Date		Container
Send Input by barcode scamer or enter barcode number	to Storage	Select	Specimen	Lot Sample	Preserve Date		Container
Input by barcode scanner or enter barcode number Example: 0062.00001.0004	to Storage	Select	Specimen	Lot Sample	Preserve Date		Container
Send Input by barcode scanner or enter barcode number Example: 0062.00001.0004	to Storage	Select	Specimen	Lot Sample	Preserve Date		Container
Send Input by barcode scanner or enter barcode number Example: 0062.00001.0004	to Storage	Select	Specimen	Lot Sample	Preserve Date		Container

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 Add to Container 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 Remove Selected Samples

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 Search

Input by barcode scanner or enter ba	rcode number
+ 0 0 + 2 + 0 0 0 0 1 + 0 15888, Acetobacter Iovani	Example: 0000.00000 Search
Here is an example of a barcode.	
Search Result	
Collection	
Specimen Code	
Lot No.	
Sample No.	
and the second se	
Preserve Date	
Preserve Date	

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 . 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

Preview 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:

Print or click 🗐 on the toolbar in To print all the labels, you can click "Show Barcode" tab.



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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 New Profile, a dialog box as shown in Figure 8.1.1 will appear.

Type the profile name and Click $\square K$. The new profile will be found in the table 'List of Quality Control Profiles'.

iCollect	
Please specify a new profile name	OK Cancel
<u> </u>	

Figure 8.1.1 Add a New Profile Name

Step 2: Click at the row containing the new profile name, and click New Result 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 \bigcirc K. The added result type will be displayed in the table "*Result Set*". You can add more than one result type for each profile.

iCollect	
Please specify a result type.	OK Cancel

Figure 8.1.2 Add a Result Type

• Edit a profile

You can click Search 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 New Result 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 Save. Click Del 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 Save, and
- Click Del 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 Add.
- 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 Save to record your changes.
- Click on the row corresponding to the service type you want, click Delete to delete that type.

	Delete	Service Type	Description
Save	Delete	Exchange Samples	
Save	Delete	Identification	Identification of different organisma 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
New Se	vice Type a:		
New Se ype Nam escriptior	vice Type e:		

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 Add.
- 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 Save to record your changes.
- Click on the row corresponding to the document type you want, click Delete to delete the document type.

	Do	ocument for Service				×
C	Lis	t of Document(s)				
[Document Name	Description	Save	Delete	
		Deposit Form	•	Save	Delete	
		MTA	Material Transfer Agreement	Save	Delete	
	_	Order Form		Save	Delete	
	_	Identification Form		Save	Delete	
	Ad	d New Document				
	D	ocument Name:				1
		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.

ist of Service Profile(s)	Service	Profile Data					
jype: Safe Deposit 🗾 🐱	Nam	e: Supply-Microorganism					
Filter by Type	Тур	e: Supply of Materials				•	~
Deposit-Microorganisms	Detai	s:					
	Servi	ce's Condition:		Request Doo	cument		
		Criteria			Document		
	Li	sted prices are for single s	×	MTA		<u> </u>	
	E	xclude packaging and shi	×	Order Fo	m		
	Ontio	15					
		Option Name	PP	NPP	POR	YC	
		Freeze dried culture	200	100			
		Active culture on agar	300	175			Ī.
	•	Culture extract	500	350			
	*						Ť.
		2	Ň		k si		

Step 4: Click <u>Save</u> to record the profile

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.

earch Customer			Customer's Details			
Column name	Criteria	e ()	Name	222	* Password	
Customer Name			Mane	D Profit Condo	r Male	
Office Name						
Customer Address			Home Address	123 aaa		
Office Address			Users Tel.	-	Manage Para	
			Home rec	-	numerax	
	_	<u></u>	Email	aaa@mail.com		
		Search		Inal O Fore	Ign	
			Select Nationality			×
Name	Telephone	Fax	Office Name	aaa		
3 8 8		1	Office Address	999 xyz		
Zzz						
tttt				1		
			Office Tel.	-	Office Fax	
			Office Email			
			Billing Address			
			O Home Add	dress 123 aaa		
			O Office Add	tress		
			Shipping Addres	s		
			O 11 A 1	. 999 xyz		
				tress		
			O Onice Add			
				ation		
			Descrip	otion		
<]			>			
				1		1

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

- o Click "New" to start the registration for a new customer
- \circ Enter the following information of the customer
- **•** Name: Type the customer name
- **Profit:** Checked if is affiliated with a profit organization
- **8** Home Address: Specify the customer's home address
- Email: Type an email address
- **6** 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

o 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
- \circ If you make changes on the customer, click <u>Save</u> 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

- o Click "New Account" to open a new account for a customer
- o Enter the following information of the account
 - Customer Name: Select the registered customer name
 - **2** Account Name: Specify the account name

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.

• Active Account: Click if the account is active



Discount: Enter the discount rate for this account

o 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				
Account Search Customer name Code Account name List of Account(s) Customer aaa aaa aaa aaa aaa aaa aaa aaa aaa	Account aaa1 aaa2 aaa3 aaa4 t1 Z1	 ▼ Pearch Reset 50020 53022 53023 53026 53104 53105 	Account Details Customer Name Account Code Account Name	aaa S3023 aaa3 Billing Address Customer Office Customer Home Customer Billing Address Customer Shipping Address Other 939 xyzff Shipping Address Customer Office Customer Home Customer Billing Address Customer Shipping Address Other 939 xyz
<	III Delete Account	New Account]	Active Account Discount 100 % Total Order 1 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

Name	Description	Save	Delete	<u>^</u>
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	~

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.

ervice Data	s Reasons E	xchange		List of specime	ent (s)	all: Anna Plata	Pairs	t maxima for all -				
elect Collection	Rister culture col	laction		Select quant	ity for a	all: 2		A leasons for all .				
Canvies Drafiles	Describ Misses	ecour		Accent/Reie	et for a	all: Accept						
Service Fronie:	Deposit-Microorga	aniistas	× ·	Acceptitiele	scenore	Accept						
Account:	BIOTEC:53020		× *	Accept/Re	eject	Strain code	Scientific name	Container Type	Qua	antity	Delete	F
Order Date:	21 เม.ย. 2553	💌 🗙 *		Accept	~	T0M00001	Astrocystis	AgarPlate N	2	~	Delete	_
Service Date:	21 เม.ย. 2553	💌 🗙 *		Accept	~	TOM00002	Astrosphaeriella	AgarPlate N	2	~	Delete	
Service Lenght:	1	Vear(s)		Accept	~	TOM00002.03	Astrosphaeriella	AgarPlate	2	~	Delete	
Bemark:				Accept	~	TOM00002.04	Astrosphaeriella	AgarPlate	2	~	Delete	_
Tromane.				Accept	~	TOM00003	Diplococcium	AgarPlate N	2	~	Delete	_
				Accept	~	TOM00004	Bionectria	AgarPlate N	2	~	Delete	_
			2	Accept	*	TOM00005	Stilbohypoxylon	AgarPlate	2	~	Delete	_
			and the second se			that was a ready to the the the	Astrophysically on	A application (1)	2	100	Delete	
				Accept	~	TUMUUUU/	Astrospridenciid sp.	Ayarriate	4		0.01010	_
nport Sample Select Excel File: Select Work She	D:\iCollect\E et: Sheet1	xFile\Example1.xls	Browse	Accept	> > >	T 0 M 00007	Goidanichiella	AgarPlate	2	× (Delete	
nport Sample Select Excel File: Select Work She Select Des	D:\iCollect\E et: Sheet1 tination Column	Source Colu	Browse	Accept	× ×	TOM00007	Goidanichiella	AgarPlate	2	× (Delete	
nport Sample Select Excel File: Select Work She Select Des	et: D:\iCollect\E Sheet1 stination Column	Source Colu	Browse	Accept	>	TOMODOU/ TOMODOOS	Coidanichiella	AgarPlate	2	× (Delete	
nport Sample Select Excel File: Select Work She Select Des Select Des Scier	D:\iCollect\E et: Sheet1 stination Column n code strain	Source Colu OriginalCode Genus	Browse	Accept	> >	TOM00007	Goidanichiella	AgarPlate	2		Delete	
Aport Sample Select Excel File: Select Work She Select Des Select Des Scier Scier Type Order	D:\Collect\E et: Sheet1 tination Column n code utilic name: strain	Source Colu OriginalCode Genus Order	Browse	Accept	>		Goidanichiella	AgarPlate V	2	× (Delete	
Aport Sample Select Excel File: Select Work She Select Des Select Des Steier Contemport Scier Drde Famil	D:\iCollect\E et: Sheet1 tination Column n code titlic name strain t	Source Colu OriginalCode Genus Order Family	Browse	Accept	>		Goidanichiella	Agarlae	2		Delete	
Aport Sample Select Excel File: Select Work She Select Des Select Des Scient Sc	D:\iCollect\E et: Sheet1 tination Column n code titlic name strain r y fied by	Source Colu OriginalCode Genus Order Family	Browse	Accept			Goidanichiella	AgarPlate	2		Delete	
Select Excel File: Select Work She Select Work She Select Des Select Des Sele	D:\iCollect\E Sheet1 tinston Column n code tific name strain f y ified by ed by	Source Colu Source Colu DriginalCode Genus Order Family	Browse	Accept			Goidanichiella	Agariae	2		Delete	
select Excel File. Select Work She Select Work She V Scier Type Order Famil I Identi I Isolal	D:\iCollect\& Sheet1 tination Column n code Milic name strain f y fifed by ed by e date	Source Colu Source Colu OriginalCode Genus Order Family	Browse		× × ×		Goldanichiella	Agariae	2		Delete	
Nport Sample Select Excel File: Select Work She Select Work She Select Des Select Des Select Des Star Star Ident Isolat Isolat	D:\iCollect\& Sheet1 tination Column n code tiltic name stain r y ified by red by red by red by tified by tified by	Source Colu Source Colu DriginalCode Genus Dider Family Substrate	Browse	Accept		TOMO007 TOM00008	Goldanichiells	AgarPate	2		Delete	
select Excel File: Select Excel File: Select Work She Select Work She Select Orde Family Ident Isolat Solat	D:\iCollect\E Sheet1 tination Column frode thilic name stain y fied by e date trate	Source Colu OriginalCode Genus Order Family Substrate	Browse			TOM0007 TOM00008	Goidanichiella	AgarPate	2		Delete	

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 Create data
- 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 Save & Receive

S [Service Data Details Options Reasons Exchange							
	Select Options:							
		Select	OptnNm	On Request	Yearly Charge	Profit Price	Non-Profit Price	
			Annual			500	100	
			rvation			1000	300	
ļ		-	-	_	-	-		

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
- o Specify Order date
- Click Get Samples 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 \checkmark . In case of deposit service, the specimens/samples for deposit must be previously imported through the "Import/export Specimens" menu.

- Click Save 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.
- o 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 <u>Save</u>. Total price will be calculated and shown.

 Click Receive 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 o 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

changes in the previous step. Click	
click Cancel.	

Service		
Find Services	Service Data	
Service Profile: For Bcc Sell	Details Options Reasons Exchange	540003
Account:	Service Profile: For Bcc Sell	*
Customer:	Account: AccountDemo: 54100	*
Order date:	Order Date: 20 w.n. 2554	
	Status: Order	
Status:	Total Sample(s): 1 Total Specimen(s): 1 Remark:	
Clear S	earch Price	^
Search Benult(s) (Code, Date)	Price: 0 (without discount)	
540003 · 20 w.n. 2554	Total Price: 0 Total Yearly Charge: 0	
540002 - 20 พ.ศ. 2554 540001 - 16 พ.ศ. 2554	% Discount: 10. Calculate	1
	Collection Code Sample Status Reie	ct Reason
	BCC For Test DP00001 Lot1 +#5 accept V	Remove
	accept	
	cancel	
	Change Samples	Add Samples Save
	Status: Order	

Figure 9.3.2-1 Make a Service Order

Select Collection:	Select Catalogue Profile:		
American Type Culture Col 🔽	test 💌		
Select Specimen	Select Sample		Selected Sample(s)
AOM00007 AOM00008 2 3 AOM000012 AOM000022 AOM000022 04 AOM000022 04 AOM000033 AOM000044 AOM000055 AOM000077 AOM00002 COM00002 COM00002 COM00002 COM00002 COM00002 COM00003 COM00003 COM00003 COM00003 COM00003 COM00003 COM00003 COM00003 COM00004 COM00005 COM00005 COM00005 COM00007 COM00005 COM00007 COM00007 COM00007 COM00003 COM00002 COM00003 COM00003 COM00002 COM00003 COM000000 COM000000 COM00000 COM00000 COM00000 COM00000 COM00000 COM	[3199] - Lot#1 - Sample#2	>	[3198] - COM00002 - Lot#1 - Sample#1

Figure 9.3.2-2 Select Samples for Services

Select	OptnNm	On Request	Yearly Charge	Profit Price	Non-Profit Price	
	Freeze dried culture			200	100	
	Active culture on a			300	175	
	Culture extract			500	350	
Specimer Collection	n(s): Code	Sample	1	Status	Reject Reason	1
Specimer	n(s): Code	Sample	1	Status	Reject Reason	0
Specimer Collection Intec cultu	(s) Code r A0M00003	Sample Lot1 - #5	acci	Status ept 🔽	Reject Reason	Remove
Specimer Collection otec cultu	(s): Code A0M00003	Sample Lot1 - #5	acci	Status ept 💌	Reject Reason	Remove

Figure 9.3.2-3 Select a pricing option

Find Services	Service Data						
Service Profile:	Details Optio	ns Reasons	Exchange				540001
Account:	Service F	Profile: For Bod S	iell			*	8
Customer:	Acc	count: samnao i	oksii: 45003			*	
Order date:	🖌 , Order	Date: 16 พ.ศ. 2	554	Service I	Date:	××	
	S S	tatus: Receive	~				
Status:	▼ Total Sam	ple(s): 3	Total Specimer	n(s): 3	1	Remark:	
Clear	Search						0
	Pri	ce: 0	(without discoun	t)			
Search Result(s) (Code, Date)	Total Pri	ce: 0	Total Yearly Chi	arge: 0			
540001 · 15 w.n. 2554	% Discou	unt 0	Calculate				
							M
	List of Specimenf	s):					
	Collection	Code	Sample	Status		Reject Reason	
	BCC	MY00006		accept			
	BCC	MY00007		accept			
	BCC	MY00008		reject	-		
				Chang	e Samp	les Add Samples	Save
	16						
	200						

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 Renewal to open "Renewal " window to renew the deposit of selected specimens (Figure 9.3.3-3)
- Click Destroy 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 Terminate 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 Shipped Back to open the service windows for processing the termination service with shipping and handling fee

icc.						
Search		Search				
Select Collection	American Type Cultu 🔽	Select Collection	American Type Cultu 🔽			
Account	~	Account	~			
Deposit type	~	Deposit type	~			
Service Code		Service Code				
 Maintenance p 	eriod has expired	O Maintenance p	eriod has expired			
O Maintenance p	eriod has not expired	 Maintenance p 	eriod has not expired			
O Remaining mai	ntenance period	 Remaining maintenance period 				
1 😂 M	onth	1 🛟 Month				
Clear	select Search	Clea	r select Search			
Specimen Manage	ement	Specimen Manage	ement			
	Destroy		Destroy			
F	enewal	Renewal				
	erminate	Т	erminate			
Shi	oped Back	Shi	pped Back			

(a) Search for expired deposits

(b) Search for non-expired deposits

Figure 9.3.3-1 Search deposits by the maintenance period conditions

Search		Specimer	1				
Select Collection	American Type Cult. 🗸	Select	Code	Service Code	Account Name	Deposit date	Expired
Account	<u> </u>		D0M00003	530022	BIOTEC	21/4/2553	21/4/255
Deposit type	×		DOM00004	530022	BIOTEC	21/4/2553	21/4/255
Service Code			DOM00005	530022	BIOTEC	21/4/2553	21/4/255
	and the strength of		DOM00007	530022	BIOTEC	21/4/2553	21/4/25
) Maintenance p	eriod nas expired		DOM00008	530022	BIOTEC	21/4/2553	21/4/25
Maintenance p	eriod has not expired		COM00001	530023	BIOTEC	21/4/2553	21/4/25
Remaining mai	ntenance period		COM00002	530023	BIOTEC	21/4/2553	21/4/25
	lonth		COM00002.03	530023	BIOTEC	21/4/2553	21/4/25
Clea	r select Search		COM00002.04	530023	BIOTEC	21/4/2553	21/4/25
			СОМ00003	530023	BIOTEC	21/4/2553	21/4/25
pecimen Manage	ement		COM00004	530023	BIOTEC	21/4/2553	21/4/25
	Destroy		COM00005	530023	BIOTEC	21/4/2553	21/4/25
	lonewal		COM00007	530023	BIOTEC	21/4/2553	21/4/25
	ionomai		COM00008	530023	BIOTEC	21/4/2553	21/4/25
		711					
T	erminate						
chi	pped Pack			104		9	

Figure 9.3.3-2 Select a list of specimens for termination

🔡 Renewal Deposit		
Select deposit data		530039 Speciment List
Details Options Reasons Ex	change	T0M00002
Service Profile:	Deposit-Microorganisms 💌 🗙	
Account:	BIOTEC : 53020 💉 *	
Order Date:	22 KM. 81. 2553 💌 🗙 *	
Service Date:	22 เม.ย. 2553 💌 🗙	
Deposition length (year):	1 😂	
Remark:		
Total Specimen(s):	1	
Price		
Price:	300 (without discount)	
Total Price:	150 Total Yearly Charge: 300	
% Discount:	50 Calculat	
		Save

Figure 9.3.3-3 Make a renewal deposit

Select deposit data	hange		530039	Speciment List Specimen Code TOM00007	
Service Profile: Account: Order Date: Service Date: Deposition length (year): Remark:	termination BIOTEC : 53020 22 \$41.52 2553 ¥ X * 22 \$41.52 2553 ¥ X 1 \$	*			
Total Specimen(s) Price Price: Total Price: % Discount:	1 120 (without discount) 60 Total Yearly Charge: 50 Calculat	0			Save

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

Systems lab © 20

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 <u>Search</u> to retrieve the history logs. **Step 2**: The following items in Search Result will be displayed in "Data Log" table.

- User Domain Name: Display the Network Domain name where the computer used by user is located.
- Computer Name: Display the Computer Name where the user logon to the system.
- User Name: Display the User name of who made the action.
- Action: Display the type of actions that users acted to the data including insert, update and delete.
- Action Detail: Display the detail on data attributes that were changed.
- **• Data Group:** Display the data group that was affected by the action
- **• 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 Export file

Data Log								
Search data			Show C	olumns		Export data		
User name :			Show		Column	Select file	type to export :	
Action :	insert	~	M	User domai	n name		Export file]
Date				Computer n	ame	Export st	atus	
Data group :			~	User name				
bata gioup .			~	Action				
		earch	~	Action deta	il .	~		
Data log					14			
User domain name	Computer name	User name		Action	Action detail	Data Group	Date	
BIOTEC-natee	521-89	root	1	nsert	add new service	Service	3/11/2010 10:09	
BIOTEC-natee	521-89	root	1	nsert	add sample''s rea	Sample	3/11/2010 10:42	
BIOTEC-natee	521-89	root	1	nsert	add new sample,	Sample	3/11/2010 11:47	
BIOTEC-natee	521-89	root	1	nsert	add new sample,	Sample	3/11/2010 11:47	
BIOTEC-natee	521-89	root	1	nsert	add new sample,	Sample	3/11/2010 11:47	
BIOTEC-natee	521-89	root	1	nsert	add new sample,	Sample	3/11/2010 11:47	
BIOTEC-natee	521-89	root	1	nsert	add sample''s rea	Sample	3/11/2010 11:47	
BIOTEC-natee	521-89	root	1	nsert	add new specime	Specimen	3/11/2010 3:32:	
BIOTEC-natee	521-89	root	1	nsert	add new sample,	Sample	3/11/2010 5:20:	
BIOTEC-natee	521-89	root	1	nsert	add new sample,	Sample	3/11/2010 5:20:	
BIOTEC-natee	521-89	root	3	nsert	add new sample,	Sample	3/11/2010 5:20:	
BIOTEC-natee	521-89	root	1	nsert	add new sample,	Sample	3/11/2010 5:20:	
DINTER notan	E01 00	root	1	naart	add aamolo"a roa	Comolo	2/11/2010 5-20-	

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 Browse 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.

o service management	ew data type from web service					
reate data	Data Source	Calumna	Manalan			
Calcul dataset Tuna Load Schema	Select espele data	Columns Columns	mapping act all 🔲 Refer to col	umon defined in a u	uab canuica	
Select dataset Type Lodd Scholla	Select sample reference	Colori		Destination	IED SELVICE	
File Path	Select sample image	Select	Source	Destination	_	
C:\sml.sml	Select From Catalogue Profile		ReciD		100	
	Select sample application		BUULode	CollectionCode	M	
Browse	Select sequence data		Genus Name	Genus	~	
Select Table	Select Collection		Species epithet	SpecificEpithet	×	
ThaiDarwinCorePlus 🖌	Reverse File Connect DB		SciNm	0	~	
	Select Table		Family	SubClass		-
	Seect Table		Other Collection Nu	SuperOrder Order		
List of Datasets	Filters Select From Catalogue Profile	~	Country	SubOrder		
Dataset Name Type Remark	Column Column	1	Province	Family		
	Columns Criteria		IdenBy	SubFamily	~	
			IdenDate			
		V	Application			
			Reference type			
Get Data Select All Clear S	election Add Row Add Column	Selected =	0 of 0 rows	Select column(s)		

Entormation

Figure	11.2.	.1-1	Upload	Schema	in	Create	Data	Tab

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

Data Source
Select sample data
Select sample reference Select sequence data
Select sample image
Select From Catalogue Profile Select Collection
Browse File Connect DB
Select Table
Filters Select From Catalogue Profile
Columns Criteria
N

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".

Select	Source	Destination		
4	RecID		*	
~	BCC Code	BCC Code	~	
	Genus Name	Genus Name	~	
~	Species epithet	SeiNm	×	
V	SciNm	SciNm	*	
~	Family	Family	~	
	Other Collection Nu			
	Country			
	Province			
	IdenBy			
	IdenDate			
	Application		2	
	Reference type		1	

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 Get Data

elect dataset ly		ai -					Mapping	and the second second			
	pe Load Schemi		Select sample data	a 🔣 Select sa	mple application	Sele	ectall 🔽 R	lefer to col	lumns defin <mark>ed in a</mark>	web	servi
🕤 Data Set		<u>I</u>	Select sample refe	erence 🔝 Select se	quence data	Select	Source	e	Reference obje	ect	3
String array	(String[])		Select sample ima	ge		V	RecID		ThaiDarwinC	•	set_
🗊 Integer array	(Integer[], Int32[]	0	Select From Catal	ogue Profile		1	OriginalCode	•_	ThaiDarwinC	•	set_
Decimal array	y (Decimal[])		Select Collection	CC	•	1	BCCCode_		ThaiDarwinC	•	set_
Bitmap array	(Bitmap[])	<u>[[]</u>	Browse File	Connect	DB	J	BBHCode_		ThaiDarwinC	•	set_
Other Tha	iDarwinCorePlus[]	-	Select Table		¥	V	Genus_		ThaiDarwinC	•	set_
Export file			Filters Coloct From	Catalogue Profile			Epithet_				
y Export no			Select From	Catalogue Frome			Authority_				
of Datasets			Columns	Criteria	<u>^</u>		Kingdom_				
)ataset Name	Туре	Remark	OriginalCode_				Phylum_				
			BCCCode_				Class_				
			BBHCode_				Order1_				
			Genus_		-		Family_				
ate <mark>d</mark> ata			Genus_	Þ	-		Family_			•	Lo
ate data Get Data Select	Select All erbatimCoordina	Clear Selection	Genus_ Entitlest Add Row to st_FootprintSpati	Add Column	* Selected = noc set_Sex	2 of 198	Family_ 3 rows	Select co	lumn(s) ct all	•	Lo
ate data Get Data Select	Select All erbatimCoordina 1	Clear Selection ateS)_GeoreferencePro MY00001	Genus_ Cablest III. Add Row to st_FootprintSpati	Add Column alFi et_CollectingMeth 9973	Selected = noc set_Sex Cordyceps	2 of 198	Family_ 3 rows	Select co	lumn(s) ct all VerbatimCoordinate SeoreferenceProto	• Syst	Lo
ate data Get Data Select V	Select All erbatimCoordina 1 2	Clear Selection steS)_GeoreferencePro MY00001 MY00002	Genus_ Cablest III Add Row Add Row to st_FootprintSpati 16757	Add Column alFi et_CollectingMeth 9973 10001	Selected = Selected = Cordyceps Cordyceps Cordyceps	2 of 198	Family_	Select co Select Select Set_V Set_C Set_C Set_C	lumn(s) ct.all VerbatimCoordinate SeoreferenceProto SootprintSpatialFit	▼ Syst col	Lo
ate data Get Data Select V V	Select All erbatimCoordina 1 2 3	Clear Selection ste5) _GeoreferencePro MY00001 MY00002 MY00003	Genus_ Add Row Add Row to st_FootprintSpati 16757	Add Column alFi et_CollectingMeth 9973 10001 10002	Selected = Selected = Cordyceps Cordyceps Cordyceps	2 of 198	Family_	Select co Select Set_	lumn(s) st all VerbatimCoordinate GeoreferenceProto Gootprint SpatialFit CollectingMethod Sex	▼ Syst col	Lo
ate data Get Data Select V V	Select All erbatimCoordina 1 2 3 4	Clear Selection steSy _GeoreferencePro MY00001 MY00002 MY00003 MY00004	Genus_ Add Row Add Row to st_FootprintSpati 16757	Add Column alFi et_CollectingMeth 9973 10001 10002 10003	Selected = Selected = Cordyceps Cordyceps Cordyceps Cordyceps Cordyceps	2 of 198	Family_	Select co Select Set_ Set_ Set_ Set_ Set_S	lumn(s) ct all VerbatimCoordinate Seoreference Proto Footprint Spatial Fit Collecting Method Sex	▼ Syst col	Lo
ate data Get Data Select V V	Select All erbatimCoordina 1 2 3 4 5	Clear Selection ateSy _GeoreferencePro MY00001 MY00002 MY00003 MY00004 MY00005	Genus_ Add Row Add Row to st_FootprintSpati 16757	Add Column alFi et_CollectingMeth 9973 10001 10002 10003	Selected = Selected = Cordyceps Cordyceps Cordyceps Cordyceps Cordyceps Cordyceps Cordyceps	2 of 198	Family_	Select co Select Set_	lumn(s) ct all VerbatimCoordinate Seoreference Proto Footprint Spatial Fit Collecting Method Sex	▼ Syst col	Lo
ate data Get Data Select V V C	Select All erbatimCoordina 1 2 3 4 5 6	Clear Selection ateSy _GeoreferencePro MY00001 MY00002 MY00003 MY00004 MY00005 MY00006	Genus_ Add Row Add Row to st_FootprintSpati 16757	Add Column alFi et_CollectingMeth 9973 10001 10002 10003 10004	Selected = Selected = Cordyceps Cordyceps	2 of 198	Family_	Select co Select Set_	lumn(s) ct all VerbatimCoordinate Seoreference Proto Footprint Spatial Fit Collecting Method Sex	▪ Syst col	Lo
ate data Get Data Select V V C C C C C C C C C C C C C C C C C	Select All erbatimCoordina 1 2 3 4 5 6 6 7	Clear Selection steSy GeoreferencePro MY00001 MY00002 MY00003 MY00003 MY00004 MY00005 MY00006 MY00007	Genus_ Add Row Add Row to st_FootprintSpati 16757 16473	Add Column alFi et_CollectingMeth 9973 10001 10002 10003 10004 10005	Selected = Selected = Cordyceps Cordyceps	2 of 198	Family_	Select co Select Select Set_ Set_ Set_ Set_S	lumn(s) ct all VerbatimCoordinate Seoreference Proto Footprint Spatial Fit Collecting Method Sex	▼	Lo em
ate data Get Data Select V V C C C C C C C C C C C C C C C C C	Select All erbatimCoordina 1 2 3 4 5 6 6 7 8	Clear Selection ateSy _GeoreferencePro MY00001 MY00002 MY00003 MY00004 MY00005 MY00006 MY00007 MY00008	Genus_ Add Row Add Row to st_FootprintSpati 16757 16473 16474	Add Column alFi et_CollectingMeth 9973 10001 10002 10003 10004 10005 10006	Selected = Selected = Cordyceps Cordyceps	2 of 198	Family	Select co Select Set_ Set_ Set_ Set_ Set_S	lumn(s) et all VerbatimCoordinate Seoreference Proto Footprint Spatial Fit Collecting Method Sex	▼	Lo

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 \checkmark 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 Save. 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 Find to load the WSDL or Web Service Definitions for parsing and analyzing **①** what services are available, **②** what are needed for input parameters and **③** 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.

	iew web service method RL : http://localhost/BRC/S	irvSubmitData.ası	mx 🔽	Find]←	URL
F	Web service function list				7	
(SumitData					
9	getAttribute					
0	GetShowAtt					0
N	/iewCollection					
9	SumitDataANDImage					
L	_oadNewOrder					
F	RecorcdedOrder					
L	LoadOrderStatus					
ι	JpDateOrderData					
	~					
\bigcap	Parameter name	Туре	Input parameter			
0	CollectionNm	String				
9	ShowAttribute	String				
C	DS	DataSet			-	2
l	usNm	String				
F	Pass	String				

Figure 11.2.2 Accessing to the web service APIs

- o 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.

Select dataset Type Load Schema
⊙ DataSet
◯ String array (String[])
Integer array (Integer[], Int32[])
🔿 Decimal array (Decimal[])
Bitmap array (Bitmap[])
🔿 Other 🔍
O Export file

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

ata Source	
Z Select sample data Select sample application	
Select sample reference 🔲 Select sequence data	Columns Mapping
Select sample image	Select Source Destination
Select From Catalogue Profile	RealD
Select Collection BCC	
Browse File Connect DB	Serus Name Genus Name
	Species epithet Species epithet
Select Table	SciNm SciNm V
Filters Select From Catalogue Profile	🔽 Family 🗸
Columns Criteria	Other Collection Nu
OriginalCode_	Country
BCCCode_	Province
BBHCode_	ldenBy
Genus_	ldenDate
Enithet	Application
	Reference type

(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

Create data Get Data	Select áll	Clear Selection	Add Bow	Add Column		(1000	
					Selected = 9	ewor 8801 to	Select column(s)
Select	RecID	BCC Code	Genus Name	Species epithet	SciNm	Family 🤗	BedD
\checkmark	1	15888	Acetobacter	lovaniensis	Acetobacter lova	Acetobacterace	▼ BCC Code
V	2	15851	Acetobacter	sp.	Acetobacter sp.	Acetobacterace	Genus Name
V	3	15839	Acetobacter	sp.	Acetobacter sp.	Acetobacterace	Species epithet
V	4	15939	Acetobacter	sp.	Acetobacter sp.	Acetobacterace	Family
 Image: A set of the set of the	5	15938	Acetobacter	sp.	Acetobacter sp.	Acetobacterace	
Image: A start of the start	6	15937	Acetobacter	sp.	Acetobacter sp.	Acetobacterace	
~	7	15936	Acetobacter	sp.	Acetobacter sp.	Acetobacterace	
V	8	15908	Acetobacter	sp.	Acetobacter sp.	Acetobacterace	
	a	15907	Asstabastar	00	Apotobastor on	Acatobactoraar	
ataset Name :	DataSet∣	Create Data	aset		Select FileB	xport :	Export file
:mark :							

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 Create Dataset created will appear in the "List of Datasets".

. The dataset

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

Select dataset Type Load Schema
🔘 DataSet
◯ String array (String[])
🔿 Integer array (Integer[], Int32[])
🔿 Decimal array (Decimal[])
🔿 Bitmap array (Bitmap[])
💿 Other 📔 🔽
Export fi ThaiDarwinCorePlus[]



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.

- Columns f	Mapping ectall 🔽 Refertocolu	imns defined in a wet	o service	
Select	Source	Reference object	Method 🗠	
 Image: A start of the start of	RecID			
~	BCC Code	ThaiDarwinC 🔽	•	
v	Genus Name		set_Kingdom	^
v	Species epithet		set_Synonym	
v	SciNm		set_Family set Genus	
 Image: A start of the start of	Family		set_SpecificEpithet	_
 Image: A start of the start of	Other Collection Nu		set	×
	Country			
 Image: A set of the set of the	Province			
 Image: A start of the start of	IdenBy			
	IdenDate			
	Application			
	Reference type		~	

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

Step 5: click Get Data

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 \checkmark 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 <u>Create Dataset</u>. 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 .

-View w	eb service method-							
URL :	http://localhost/B	RC/WebService.asmx	*	Fin	d			
Web	service function list							
HelloV	HelloWorld							
SentD	ata							
SentD	ata2							
ViewT	ext							
ViewA	rray							
Paran	neter name	Туре	Input parameter					
Data		ThaiDarwinCorePlus						

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".

Veb service managemen	t Create data Create	e new data type from	web service			
- Find Parameter						
Member Detail :				List of Datasets :		
Member list	Request	Туре	Input parameter	Dataset name	Туре	Remark
set Kinadom	value	String	insertdata1	dataset1	ThaiDarwinCorePlus	
set_ScientificName	value	String	insertdata2			
	value	String	insertdata3			
setFamily	value	String				
set_Genus	value	String				
set_SpecificEpithet	value	String				
Dataset name : dat	aset1					
Remark :						
			Create dataset			

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

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

iew web service method	-			Created dataset			_
RL: http://localhost/	BRC/WebServio	e.asmx 🔽	Find	Dataset Name	Туре	Remark	
Web service function lis	ι		70	DataName1	ThaiD		
HelloWorld							
SentData							
				14			
				Web service result			_
				xml version="1.0" e</td <td>encoding="ut</td> <td>f-16"?></td> <td></td>	encoding="ut	f-16"?>	
				<arrayofthaidarwin< td=""><td>CorePlus</td><td></td><td></td></arrayofthaidarwin<>	CorePlus		
				xmins:xsi="nttp://www xmins:xsd="http://www	/.w3.org/2001 ww3.org/200	/XMLSchema-Instance"	
^D arameter name	Tune	Input parameter		ThaiDarwinCorePl	₩.₩3.0rg/200 lus>	WANESCHEING >	
Lashara .	China	Lised.	10	<_Kingdom xmlns=	"http://tempu	iri.org/" />	
isenvane	China	- Costin		<_ScientificName	xmins="http://	/tempuri.org/">Acetobacter	
assword	String	plassw		Iovaniensis Scient Svnonvm vmlns:	titicName> ="http://tempi	uri ora/" />	
ollectionName	String	BCC		< Family	- nicp.j/temp	an.org/ 7*	
lata	ThaiD	DataName1	~	xmlns="http://tempuri	i.org/">Aceto	bacteraceae _Family	
				<_Genus xmlns="h	ttp://tempuri.	org/">Acetobacter _Genus	
				<_SpecificEpithet	ora#Novan	ionoio// SpecificEpithet	
				Applications xm	ins="http://ter	mouri ora/">	
				<application></application>			
				<_ApplicationsD	lata />		
				_Applications	N		
				(TheiDerwinCoreP	nus>		
				< Kingdom xmlns=	"http://tempi	ri ora/" />	
				< ScientificName	kmins="http://	/tempuri.org/">Acetobacter	
				sp. _ScientificName</td <td>∋> '''</td> <td>, ,</td> <td></td>	∋> '''	, ,	
				<_Synonym xmlns	="http://temp	uri.org/" />	
				<_Family			
				xmins="http://tempuri	.org/">Aceto	bacteraceae _Family	
					AND A DESCRIPTION OF A	CONTRACTOR CONTRACTOR CONTRACTOR	

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 "<u>http://soap.genome.jp/KEGG.wsdl</u>", 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 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 and the fungal database at www.indexfungorun.org. Figure 11.3.4 illustrates a part of the "Check Taxonomy" window.

colle	ection : Biotec cul	ure collection	~		F	leference To	www.sp20	00. org		
Show	Column nam	e	Criteria	^	С	Check Spelling	O Check	Taxonomy		
	Strain code	2			Г	Column	name	Col	umn Maping	
	Scientific name				+	Strain code				~
	Type strain				-	Order		Order Name		~
	Order					Family		Family Name		~
V	Family			1				_		
	Identified by									
	Isolated by				D	ata not found	MMMM 90200	10 collection : 20	00	
	Isolate date					ata is correct	*******sp200	20	0.0	
					U					
h Resi	Substrate		Reset	Search		valid Taxonomic	Relations Check	Update Sar	nple	
h Resi Select	Substrate	Order	Family	Search		ivalić Taxonomic	Check	Update San	nple	
h Rest	Substrate ult 10 Sample(s) t Strain code 1	Order	Family	Search		valid Taxonomic	Check	Update Sar	nple	
h Resi	Substrate ult 10 Sample(s) t Strain code 1 AOM00001	Order Xylariales	Reset Family Xylariaceae	Search		valid Taxonomi	Check	Update Sar	nple	
h Resu Select	Substrate ult 10 Sample(s) t Strain code 1 AOM00001 AOM00002	Order Xylaniales Pleosporales	Reset Family Xylariaceae Melanommataceae	Search		valid Texterionia	Check	Update Sar	nple	
h Resu Select	Substrate ult 10 Sample(s) t Strain code 1 ADM00001 ADM00002 ADM00002 03	Order Xylariales Pteosporales Pteosporales	Reset Fanily Vylariaceae Melanomrataceae Melanomrataceae	Search		vald Taxosinia	Check	Update San	nple	
h Resi	Substrate ult 10 Sample(s) t Strain code 1 A0M00001 A0M00002 A0M00002.03 A0M00002.04	Order Xylariales Pleosporales Pleosporales Pleosporales	Reset Family Xylariaceae Melanormataceae Melanormataceae	Search		vald Taxosinia	Check	Update San	nple	
h Rest	Substrate ult 10 Sample(s) t Strain code 1 ADM00001 ADM00002 ADM00002 03 ADM00002 04 ADM00003	Order Vylaniales Pleosporales Pleosporales Pleosporales Incettae sedis	Reset Family Xylariaceae Melanommataceae Melanommataceae Incertae sedis	Search		valid Textony id	Check	Update San	nple	
h Results Select	Substrate UI 10 Sample(s) UI 10 Sample(s) UI 10 Sample(s) UI 10 Sample(s) UI A0M00001 A0M00002 A0M00002 A0M00002 A0M00002 A0M00002 A0M000003 A0M00003 A0M00004	Order Xylaniales Pleosporales Pleosporales Pleosporales Incertae sedis Hypocreales	Reset Family Xylariaceae Melanommataceae Melanommataceae Incertae sedis Bionectriaceae	Search		valid Textorogia	Check	Update Sar	nple	
h Result Select	Substrate	Order Xylariales Pleosporales Pleosporales Pleosporales Incertae sedia Hypocreales Xylariales	Reset Family Xylariaceae Melanommataceae Melanommataceae Melanommataceae Incertae sodis Bionechiaceae Xylariaceae	Search		valid Taxonyic	Check	Update San	nple	
h Ress Select V V V	Substrate ult 10 Sample(s) t Strain code 1 AOM00001 AOM00002 03 AOM00002 04 AOM00002 04 AOM00004 AOM00004 AOM00005 AOM00007	Order Xylanales Pleosporales Pleosporales Pleosporales Incertae cedis Hypocreales Xylanales Pleosporales	Reset Family Xylariaceae Melanommataceae Melanommataceae Incertae sedis Bionectisceae Xylariaceae Melanommataceae	Search			Check	Update Sar	nple	

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. 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 <u>Check</u> 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 Update Sample 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)

Select Source	·				
Select a Collection		•			
Browse File		Browse			
Connect to DB Server	- Host		Port	Schema	Connect
	Username		Password		
Select Column(s) & Set Crite	eria 📃 Select All				_
Columns	Select	Criteria	Set Column Name for Catalogue	Set as Code	Select Table
					•
					Get Data
Data for Submit to BRC Wel	Site 📃 Select All				Cuburit Data
Select					Submit Data
					Specifier
					Reference
					Application
					Molecular Sequence
					File (Voice)
					File (Video)
					Select a Collection on Web
					▼ New
					Set Material Type
					
					Import Export
					Submit Data

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. Brose 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.

Select Source				
Select a Collection	•			
Browse File	Browse			
Connect to DB Server Host		Port	Schema	Connect
Username		Password		

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.

		Step 3	Step 4	Step 5
Select Column(s) & Set Criteria	Select All	•		•
Columns	Select	Criteria	Set Column Name for Catalogue	Set as Code
OriginalCode_	V		OriginalCode_	
BCCCode_	V		BCCCode_	
BBHCode_ Step 2			BBHCode_	
Genus_			Genus_	

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

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 📤
	MY00001		9973	Cordyceps	sp.	(Fr.) Link (1
V	MY00002	16757	10001	Cordyceps	sp.	(Fr.) Link (1
1	MY00003		10002	Cordyceps	sp.	(Fr.) Link (1
V	MY00004		10003	Cordyceps	sp.	(Fr.) Link (1
V	MY00005			Cordyceps	sp.	(Fr.) Link (1
V	MY00006		10004	Cordyceps	sp.	(Fr.) Link (1
V	MY00007	16473	10005	Cordyceps	sp.	(Fr.) Link (1
V	MY00008	16474	10006	Cordyceps	sp.	(Fr.) Link (1
V	MY00009	16475	10007	Cordyceps	sp.	(Fr.) Link (1
V	MY00010		10008	Cordyceps	sp.	(Fr.) Link (1
1	MY00011		10009	Hirsutella	formicarum	Koval (1984
V	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 _____.

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	Specimen Code
16 พ.ศ. 2554	root	samnao	всс	BCC 16052554	OriginalCode, B	10	MY00001, MY00
16 พ.ศ. 2554	root	samnao	BCC	BCC16052554	OriginalCode, B	5	MY00001, MY00
16 พ.ศ. 2554	root	samnao	BCC	BCC16052554	OriginalCode_, B	5	MY00001, MY00
13 พ.ศ. 2554	root	samnao	sponge	testAddNewColu		20	MUS-A-01, MUS
13 พ.ศ. 2554	root	samnao	sponge	testAddNewColu		20	MUS-A-01, MUS
13 พ.ศ. 2554	root	samnao	sponge	testAddNewColu		10	MUS-A-01, MUS
13 พ.ศ. 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.

	Order(s)											
Serv	ice Code	Order By	Order Date		Quantity	Total Price Service Type		е Туре	Se	Refresh		
2011-	5-34-41 san	nnao noksiri	13 พฤษภา	13 พฤษภาคม 2554		13 พฤษภาคม 2554 2		0 -		-		
2011-	5-34-4-206 san	nnao noksiri	16 พฤษภา	าคม 2554	5	0	-		-			
										Select a service profile		
										•		
-									Þ	Save		
▲ List of	Sample(s)								۴	Save		
 List of No. 	Sample(s) Specimen Code	Collection (Quantity	Match Co	ollection	in Stock	Accept	Reject	۲	Save		
 List of No. 1 	Sample(s) Specimen Code 10	Collection (Quantity	Match Co	ollection	in Stock ?	Accept	Reject	۲	Save		
List of No.	Sample(s) Specimen Code 10 100	Collection Plant_natee Plant_natee	Quantity 1 1	Match Co	ollection	in Stock ? ?	Accept	Reject	4	Save		
List of No. 1 2	Sample(s) Specimen Code 10 100	Collection (Plant_natee Plant_natee	Quantity	Match Co	ollection	in Stock ? ?	Accept	Reject	4	Save		

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 appears on the screen as shown in Figure 11.4.3-2, login using your BRC account.

Please enter us	ser name and password.
User Name:	
Password:	
	OK Cancel

Figure 11.4.3-2 "Login to BIOTEC BRC" window

Save

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.

Service Code Deposit By Deposit Date Quantity Total Price Service Type Servic Refr 2011-5-34-1-69 18 พฤษภาคม 2554 3 0.00 Patent Deposit BCC Pate To Colle 2011-5-43-1-67 18 พฤษภาคม 2554 3 0.00 Safe Deposit BCC Safe Select A 2011-5-43-1-68 18 พฤษภาคม 2554 4 0.00 Safe Deposit BCC Safe Select A 2011-5-43-1-72 19 พฤษภาคม 2554 7 0.00 Safe Deposit BCC Safe Select A 2011-5-43-1-72 19 พฤษภาคม 2554 7 0.00 Safe Deposit BCC Safe Select A 2011-5-43-1-72 19 พฤษภาคม 2554 7 0.00 Safe Deposit BCC Safe Select A 10 เป็น 5 19 พฤษภาคม 2554 7 0.00 Safe Deposit BCC Safe Select A 11 storf Sample(s) 10 เป็น 5 10 เป	List of Order(s))						
2011-5-34-1-69 18 маралец 2554 3 0.00 Patent Deposit BCC Pate 2011-5-43-1-67 18 маралец 2554 3 0.00 Safe Deposit BCC Safe 2011-5-43-1-68 18 маралец 2554 4 0.00 Safe Deposit BCC Safe 2011-5-43-1-68 18 маралец 2554 7 0.00 Safe Deposit BCC Safe 2011-5-43-1-72 19 маралец 2554 7 0.00 Safe Deposit BCC Safe select a Image: Safe Deposit BCC Safe 19 маралец 2554 7 0.00 Safe Deposit BCC Safe Image: Safe Deposit BCC Safe <td< td=""><td>Service Code</td><td>Deposit By</td><td>Deposit Date</td><td>Quantity</td><td>Total Price</td><td>Service Type</td><td>Servic</td><td>Refresh</td></td<>	Service Code	Deposit By	Deposit Date	Quantity	Total Price	Service Type	Servic	Refresh
2011-5-43-1-67 18 мажалан 2554 3 0.00 Safe Deposit BCC Safe 2011-5-43-1-68 18 мажалан 2554 4 0.00 Safe Deposit BCC Safe Select a 2011-5-43-1-72 19 мажалан 2554 7 0.00 Safe Deposit BCC Safe Select a 2011-5-43-1-72 19 мажалан 2554 7 0.00 Safe Deposit BCC Safe Select a 10 19 мажалан 2554 7 0.00 Safe Deposit BCC Safe Select a 11 19 мажалан 2554 7 0.00 Safe Deposit BCC Safe Select a 12 19 мажалан 2554 7 0.00 Safe Deposit BCC Safe Select a 13 19 мажалан 2554 7 0.00 Safe Deposit BCC Safe Select a 14 11 19	2011-5-34-1-69	9	18 พฤษภาคม 2554	3	0.00	Patent Deposit	BCC Pate	
2011-5-43-1-68 18 мажллям 2554 4 0.00 Safe Deposit BCC Safe Select a 2011-5-43-1-72 19 мажллям 2554 7 0.00 Safe Deposit BCC Safe Select a 4	2011-5-43-1-67	57	18 พฤษภาคม 2554	3	0.00	Safe Deposit	BCC Safe	To Collection
2011-5-43-1-72 19 พญษภาคม 2554 7 0.00 Safe Deposit BCC Safe Sent 1 List of Sample(s)	2011-5-43-1-68	i8	18 พฤษภาคม 2554	4	0.00	Safe Deposit	BCC Safe	Select a service profile
<pre> Sent Sent List of Sample(s) </pre>	2011-5-43-1-72	72	19 พฤษภาคม 2554	7	0.00	Safe Deposit	BCC Safe	
List of Sample(s)								Sent To Service: New Deposit
List of Sample(s)	•						Þ	
	List of Sample(s)	(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 appears 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 Sent To Service: New Deposit



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).

Deposit	10: samnao	noksiri		•	Select	: OriginalCode	BCCCode	BBHCode	Genus	E
ect Collect	ion: BCC De	BCC Deposit Demo				MY00001		9973	Cordyceps	sp.
Deposit Tv	pe: Safe De	Safe Depository				MY00002	16757	10001	Cordyceps	sp.
					V	MY00003		10002	Cordyceps	sp
Order D	ate: 18 พ.ค.	2554 - 🗴	•			MY00004		10003	Cordyceps	sp
ervice Len	gth: 1	✓ Year	(s)		V	MY00005			Cordyceps	sp
Rem	ark:	*				MY00006		10004	Cordyceps	sp.
	-	ę.		*		MY00007	16473	10005	Cordyceps	s
Sourc	e Collection	BCC	_	•		MY00008	16474	10006	Cordyceps	s
	BCC Deposit	BCC Column	_	*	V	MY00009	16475	10007	Cordyceps	s
	Demo Colum	in BCC Column			V	MY00010		10008	Cordyceps	s
	MacroHabitat	MacroHabitat_	•		V	MY00011		10009	Hirsutella	fi
	SubSite	SubSite_	•			MY00012		10010	Hirsutella	f
	Site	Site_	•		V	MY00013		10011	Unidentified	U
	District	District_	-		V	MY00014		10012	Ophiocordyceps	n
	Location	Province_	•		V	MY00015		10013	Akanthomyces	s
	Country	Country_	•		1	MY00016	16476	14479	Unidentified	U
	Latitude	Latitude_	-		V	MY00017		10015	Ophiocordyceps	s
	NorthSouth	NorthSouth_	-	=	V	MY00018	16477	10016	Hirsutella	s
	Longtitude	Longtitude_	•		V	MY00019		10017	Unidentified	L
	EastWest	EastWest_	•	-	1	MY00020		10018	Ophiocordyceps	n
	Elevation	Elevation_	-		V	MY00021		10019	Ophiocordyceps	n
	GPSStatus	GPSStatus_	-		V	MY00022	16446	10020	Cordyceps	n
	Reference	Reference_	-	÷	4 1	n	kis.		kis.	,

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_	•	
Longtitude	Longtitude_	•	=
EastWest	EastWest_	•	
Elevation	Elevation_	•	
GPSStatus	GPSStatus_	•	
Reference	Reference_	•	Ŧ
		-	

Figure 11.4.5-2 Map columns

Get Data

Step 9: click Get Data Step 10: select sample to be deposited. See figure 11.4.5-3 for an example

Select	OriginalCode	BCCCode	BBHCode	Genus	E¢	*
V	MY00001		9973	Cordyceps	sp.	_
V	MY00002	16757	10001	Cordyceps	sp.	-
V	MY00003		10002	Cordyceps	sp.	
v	MY00004		10003	Cordyceps	sp.	
V	MY00005			Cordyceps	sp.	
V	MY00006		10004	Cordyceps	sp.	
V	MY00007	16473	10005	Cordyceps	sp.	
V	MY00008	16474	10006	Cordyceps	sp.	
V	MY00009	16475	10007	Cordyceps	sp.	
v	MY00010		10008	Cordyceps	sp.	
v	MY00011		10009	Hirsutella	for	
v	MY00012		10010	Hirsutella	for	
v	MY00013		10011	Unidentified	Uni	
v	MY00014		10012	Ophiocordyceps	my	
v	MY00015		10013	Akanthomyces	sp.	
v	MY00016	16476	14479	Unidentified	Uni	
v	MY00017		10015	Ophiocordyceps	spł	
v	MY00018	16477	10016	Hirsutella	sp.	
v	MY00019		10017	Unidentified	Uni	
v	MY00020		10018	Ophiocordyceps	nui	
v	MY00021		10019	Ophiocordyceps	nui	
v	MY00022	16446	10020	Cordyceps	nin	÷
۰ III		Î	i	i	۴	

Figure 11.4.5-3 Select sample to submit.

Step 11: click	Send
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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.

💀 Backup & Restore	
Backup Restore	
Backup Database	
Backup location D: \collect\ExFlie\BAK_TSK	Browse Backup
💀 Backup & Restore	
Backup Restore	
Restore Database	
Select backup folder	Browse Restore

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 Browse to change to other folders.
 - Click Backup to start the backup process
 - Click on "*Restore*" tab to restore the backup files to database
 - Browse to locate the backup folder
 - Click Restore 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