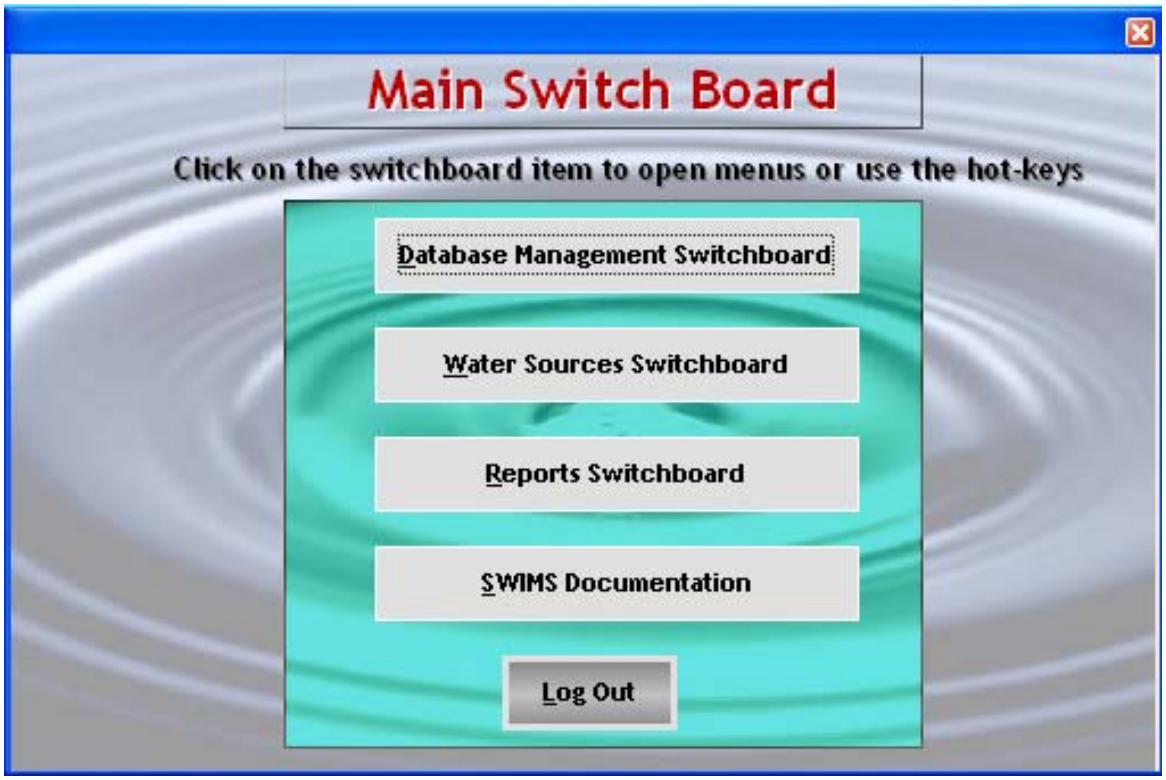

Somalia Water Sources Information Management System (SWIMS)

Technical Report No. W06

Vol. II – Software Guide

August 2006

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Funded by the European Union and implemented by the Food and Agriculture Organization of the United Nations

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This document should be cited as follows:

Muthusi F.M., Cody J., Njeru L.G. and Koton A.K. (2006), Somalia Water Sources Information Management System (SWIMS). Technical Report No W-06, Volume II – Software Guide, FAO-SWALIM, Nairobi, Kenya.

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1.0 SWIMS INSTALLATION, REGISTRATION AND ACTIVATION PROCESS

1.0 Introduction

The Somalia Water Sources Information Management System (SWIMS) is a data management software developed by the Somalia Water and Land Information Management project (SWALIM). The software provides a link to the agencies working in different regions in Somalia towards developing a water sources inventory for the entire country.

The SWIMS Database is a large application designed to store and manage a wide variety of data. At its core, SWIMS 2.0 contains 3 modules:

(i) The Source Location Module.

(ii) The Source Records Module.

(iii)The Source Interventions Module.

In the SWIMS 2.0 system architecture these modules are arranged in a 'data' hierarchy. The ***Source Locations Module*** occupies the top level of the hierarchy. The system is designed so that all the records in the ***Source Records Module*** and ***Source Interventions Module*** must be linked to an individual record in the ***Source Location Module*** (Figure 1.1). This design partially reflects the original concept of the Somalia Water Sources Database as a tool for storing spatial information to allow mapping of Water Sources in Somalia.

During the development of SWIMS 2.0 it became clear to the design team that the collection of spatial data alone would not be sufficient to allow SWIMS 2.0 meet user's expectations. The mobility of the Somali population, rapidly changing access conditions and the extremes of the hydrological cycle in Somalia create a dynamic working environment within the Water Sector. For SWIMS 2.0 to be used as a tool to support coordination it required the capability to store and manage data on a temporal and spatial basis.

To track the changes in a particular source functional status, its users and management, physical parameters and its water quality characteristics over time the ***Source Records Module*** was designed to provide a historical record. Based on the redesigned Essential Information and Detailed Information Sheets, a source history is built up by using the Detailed Information Sheets each time a source is visited. Once entered into the SWIMS 2.0 database, these records can be accessed in the user interface. The most current data for each of a source's attributes is accessible in an EXCEL spreadsheet; for every source in the local or national database if necessary. In addition, SWIMS 2.0 allows users to maintain a history of source visits for each individual entered in the database.

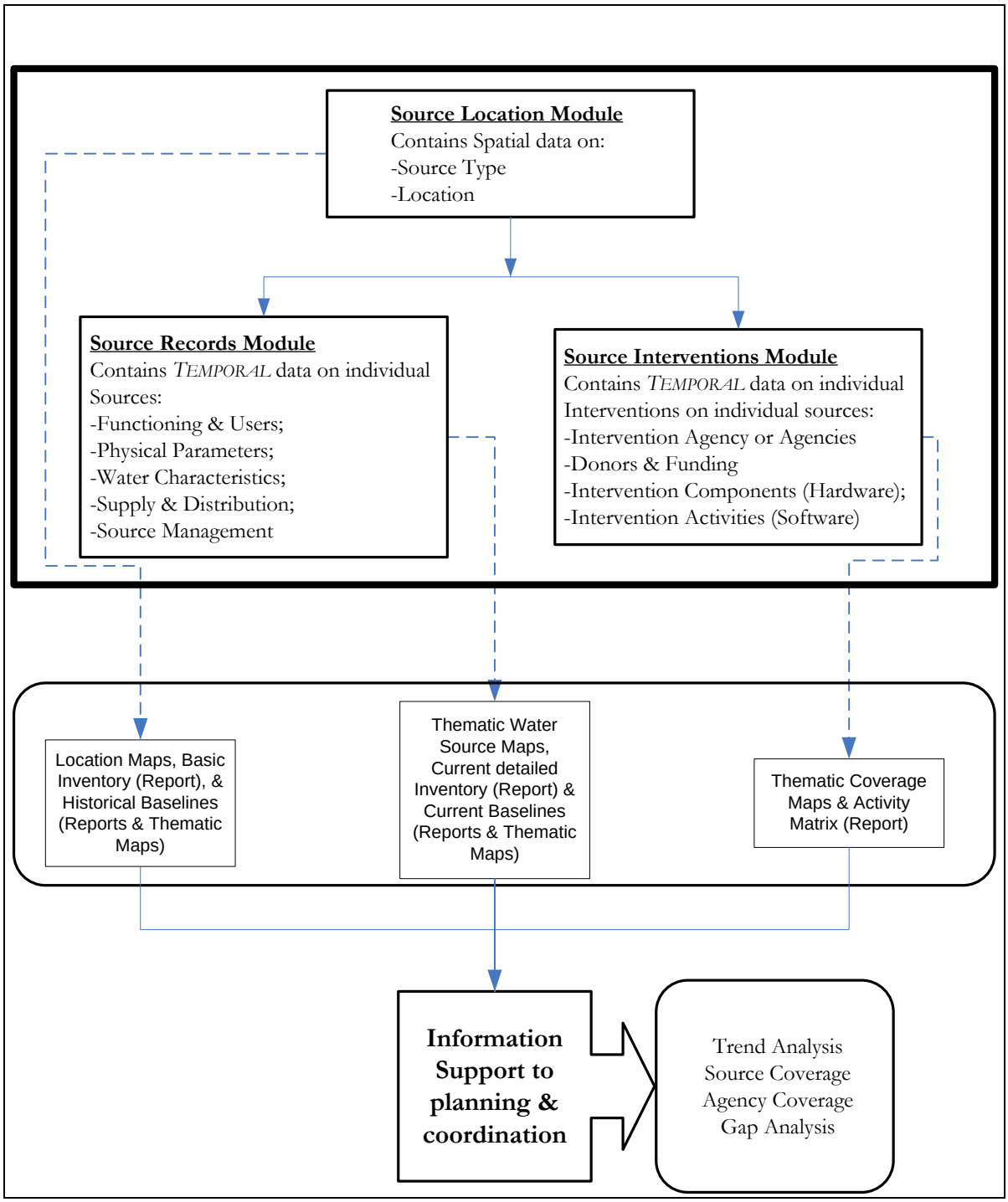


Figure 1.1 SWIMS 2.0 Component Modules and Functionality

The ***Source Records Module*** allows users to produce a series of snap shots of a sources condition and use over time, but does not include any information about work carried out on the source. In order to provide Programme Managers and Planners with the means to answer questions about what work was done on a source, when and by whom, the ***Source Interventions Module*** was developed. This module gives users the ability to record summary information on their interventions and programme activities. Similar to the Source Records Module, SWIMS 2.0 allows users to extract a history of interventions for a particular source or group of sources through its user interface and reporting routines. An important component of the ***Source Interventions Module*** is that it also allows users to store information on their planned activities for a source, and update each intervention record throughout the project cycle.

On their own, each of the individual modules provides limited functionality. However, by incorporating the three modules in a single application as shown in Figure 1.1, SWIMS 2.0 becomes a powerful tool for maintaining a history of activities for each source location on the system. It is a potentially powerful tool for supporting planning and coordination within the Water Sector.

Data entry to SWIMS is simplified to accommodate users with different levels of computer and GIS knowledge. The data fields are arranged in the same format as the SWALIM Field Data sheets to facilitate easy and fast means of transferring data to the system. The system requires that information for the water source identification and spatial analysis is provided before the attributes data entries are done.

SWIMS Field Data sheets are specifically designed for each source type, in order to capture all the relevant information regarding the water source. The water sources are classified into six taxonomies: Berkads, Drilled Wells, Dug wells, Springs, Dams and Other sources. The source information is divided into seven sections: Location, Data Management, Functioning and Use, Physical Parameters, Water Characteristics, Supply and Distribution and Source Management. The grouping of data into sections makes handling easy and saves on time.

There are two levels of database for SWIMS, client and master. The client database is created and managed within a SWIMS instance, while the master database is managed from SWALIM office in Nairobi. The master database constitutes datasets from different SWIMS instances. Clients licensed to use SWIMS are encouraged to regularly update the master database with new information they have in their databases. The updates to the master database are done through the internet, or by burning the data in a CD ROM and sending it to SWALIM.

Within a SWIMS instance, there are three access levels: Administrator, User and Guest. The person signed in during installation becomes an administrator by default, and can create other users within the same instance with any of the three access levels. The rights to the system are different for each access level:

i) A SWIMS administrator has full access to all menus.

ii) A user is limited in access to SWIMS menus:
- In the database management switchboard, a user is allowed to change password, but not add new users to the system or change profile of existing users.
- In the water sources switchboard, a user can access most of the menus. However, the "user" is denied the rights to edit water source location records, or create a master metadata.
- Full access is allowed to reports and SWIMS documentation.

iii) A guest has access to reports and SWIMS documentation, but cannot access the database management and water sources switchboards.

The SWIMS administrator for a particular SWIMS instance is responsible for updating the local database, and sending the updates to SWALIM for the master database.

There are two ways of accessing SWIMS menus: clicking on the menu using the mouse or by use of hot keys. In each menu you will find one letter underlined, which is the hot key. Type that letter while holding the ***Alt*** key in the computer keyboard to access the menu.

1.2 Software Installation and Registration Process

SWIMS software is distributed to the clients in a CD ROM. To install the software, it is required that the computer operating system should be a Windows98 or higher version. The CD auto-runs when loaded to the computer, opening the installation wizard. Incase the CD does not auto-run upon loading, then the installation wizard can be activated by exploring the contents of the CD and double clicking on the file ***SetupWiz***. The wizard guides on the installation process, and copies the application user resources i.e. documentation, data forms, etc. to the respective folders. The installation stops if the necessary minimum requirements for the system are not met.

Installation process starts by welcoming you to the SWIMS installation wizard, Figure 1.2 It is recommended that all running Windows programs be closed before the installation is done.

Figure 1.2 Introduction to SWIMS Installation Wizard

Read the instructions in the window, and click ***Next*** to continue. A window pops up (Figure 1.3) showing the SWIMS end user license agreement. Note that you cannot continue with the installation unless you go through the agreement and accept the terms. Scroll down this window to read the agreement terms to the end. If you agree with the terms, click on the button ***I Accept*** at the bottom. The ***Back*** and ***Next*** buttons become active for you to proceed with the installation.

Figure 1.3 License Agreement

Click ***Next***, and the window shown in Figure 1.4 will pop up. The system requires the user organization and location details to identify the installation. Fill in the required information e.g. SWALIM for the agency name and NAIROBI for the location.

Figure 1.4 System Identification Information

After filling the user information click on ***Next***, and a pop up appears (Figure 1.5), indicating that a license has been created and placed on your desktop. You are required to send this file to SWALIM with the subject "REGISTRATION" written in block letters, using the email address swims@faoswalim.org. This license is used to generate the activation key for your system, which is send back to you via email.

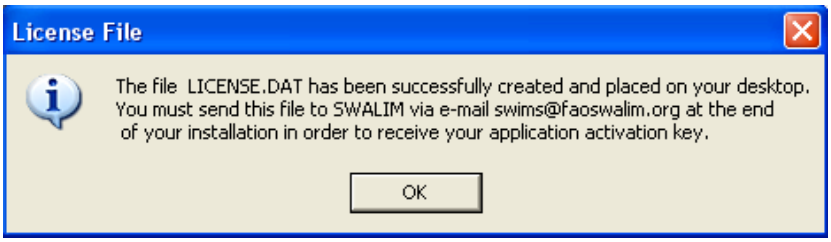


Figure 1.5 License Alert

Click ***Ok***, and the window shown in Figure 1.6 will pop up, indicating the start of the actual installation process.

Figure 1.6 Start of the Installation Process

To start the installation, click ***Next***.. The window shown in Figure 1.7 pops up.

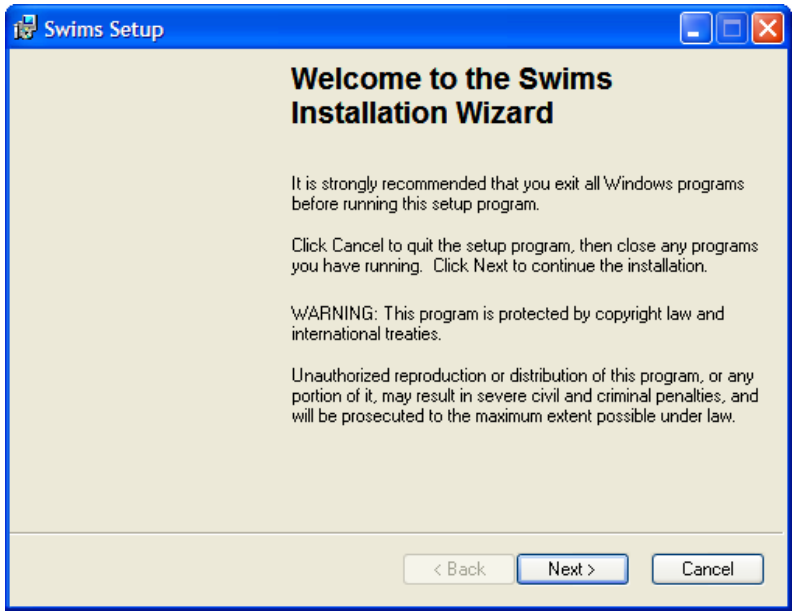


Figure 1.7 SWIMS Installation Wizard

It is assumed that you closed all the windows programs at the start of the installation. If not, close them now and click ***Next*** to proceed. The window in Figure 1.8 will open, which requires you to enter the details to personalize the installation. At the bottom of the window you are required to choose either to allow anyone who uses the computer to access the application, or limit access yourself. It is recommended you allow access to anyone using the computer.

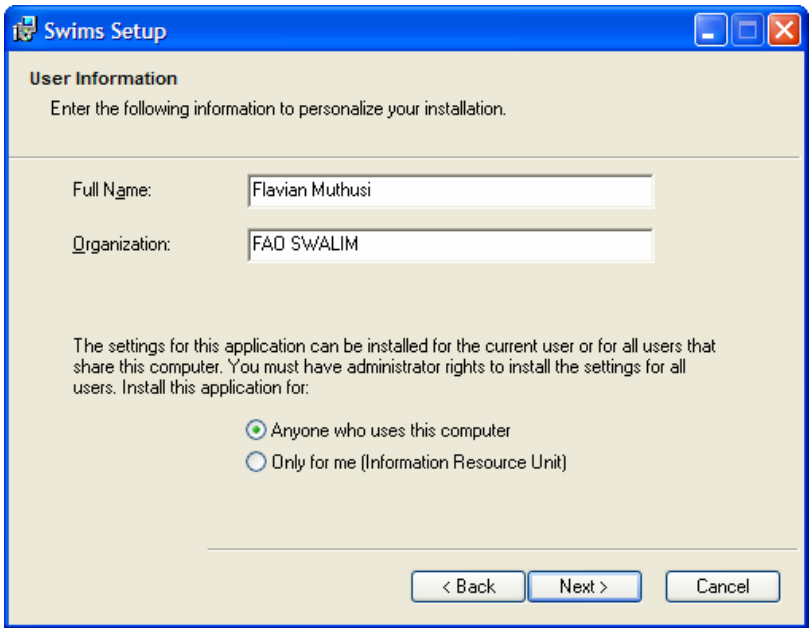


Figure 1.8 System Identification Information

Fill in the details and click ***Next***. The window in Figure 1.9 will appear, showing the destination folder for the installation. At the bottom of the window is a message showing the minimum hard disk space required for SWIMS. In case you do not have enough space in your computer you will be required to create the 100MB before continuing with the installation.

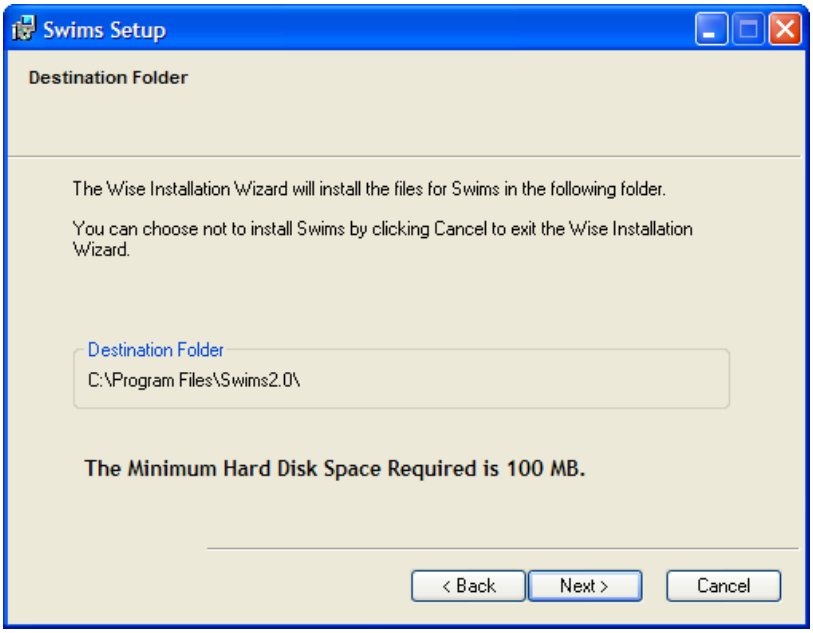


Figure 1.9 Destination Folder for SWIMS Installation

The system installs in ***C:/Program Files/Swims2.0/*** by default. Click ***Next*** to proceed. The actual installation starts at this point. If you need to change the installation information already entered, click on the ***Back*** button, otherwise click ***Next*** (Figure 1.10) to start the installation.

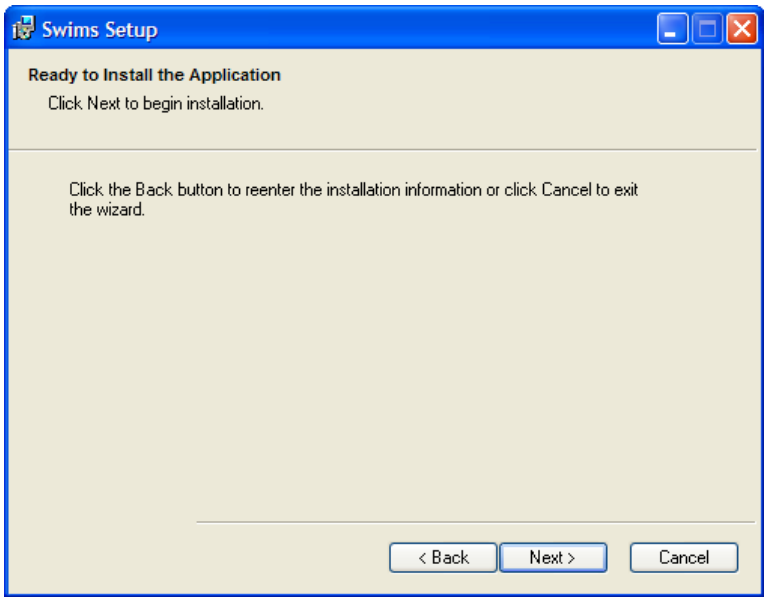


Figure 1.10 Start of Actual SWIMS Installation

Once the system starts installing into your computer, a thick blue line will display on the screen (Figure 1.11) showing the status of the installation.

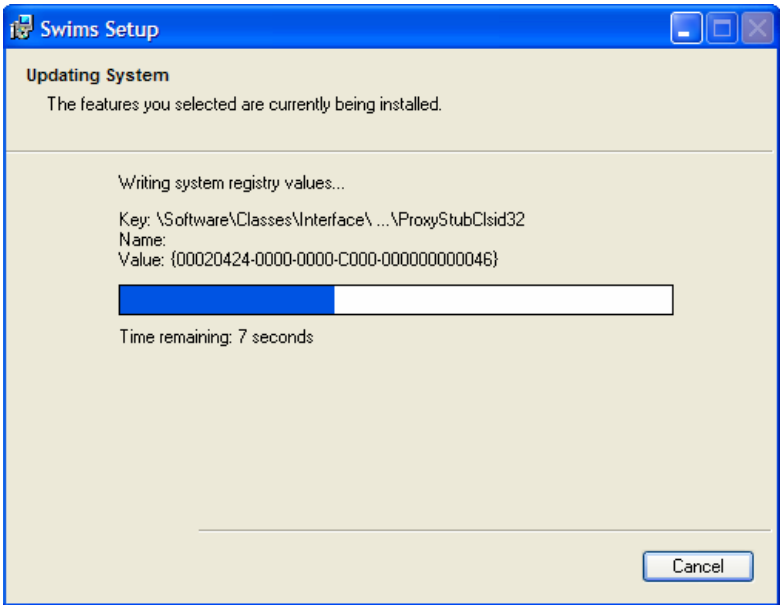


Figure 1.11 Installation Status

Allow the system enough time to complete the process. Once complete, the message shown in Figure 1.12 will be displayed. Note that the installation is not complete until you get this message. If you get a different message, close the window, and start the installation process a fresh.

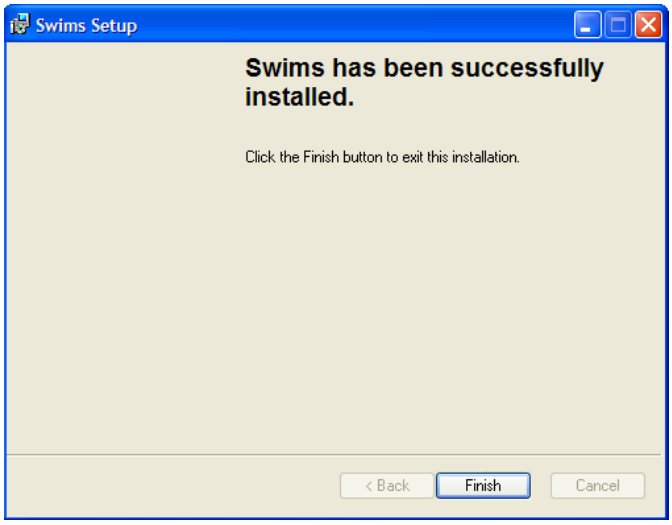


Figure 1.12 Confirmation Message for Successful Installation of SWIMS

Click on ***Finish*** to close the installation wizard.

At this point the SWIMS software has been fully installed into your computer. A shortcut to the application,  , is also created and posted to the desktop. However, the application cannot be used yet, since it has not been activated. When you double click on the shortcut to open SWIMS, the message shown in Figure 1.13 will open, reminding you that you need to activate the system. You should have already sent the license file to SWALIM as instructed earlier.

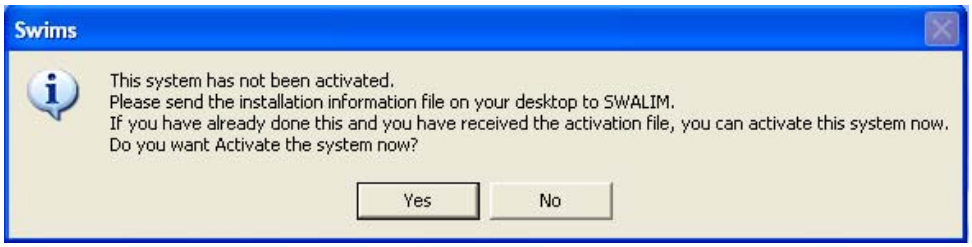


Figure 1.13 Alerting Message for SWIMS Activation

Click ***No*** to close the window, and wait for the activation key to be sent back to you from SWALIM.

1.3 System Activation Process

After receiving the activation key from SWALIM, download it to your computer. Then double click the shortcut to SWIMS for the window in Figure 1.13 above to pop up. Click ***Yes*** and the window shown in Figure 1.14 will open.

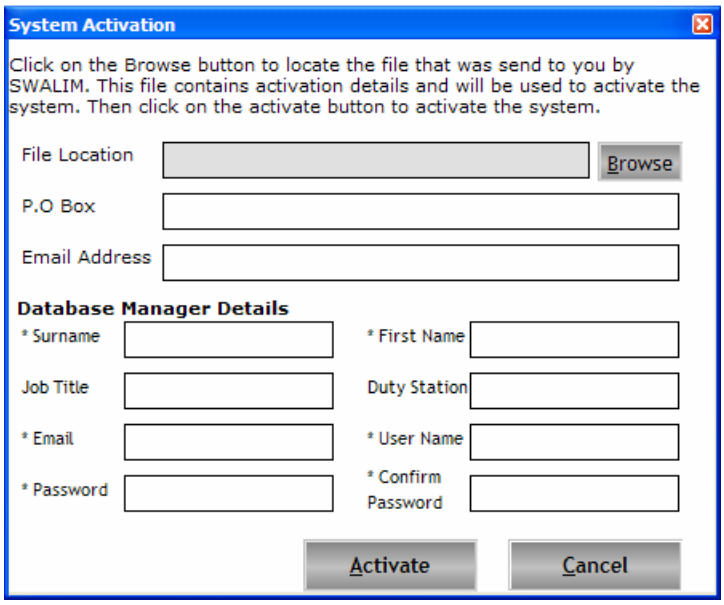


Figure 1.14 System Activation Window

Using the browse button, find the location where the activation key file from SWALIM was downloaded to, and click open to load the file into the system. Then fill in the Post Office Box and Email Address, and other database manager details as required. The fields marked with asteriks (*) must be filled before the system is activated. For the password, it is advisable that you avoid using the obvious names, which someone can easily guess to log into your system and interfere with your database. At the same time, avoid using words which you cannot easily remember, since you will not be able to log into the system once you have forgotten your password. After filling the fields click on ***Activate***. The SWIMS system becomes active, which is confirmed by the message displayed in Figure 1.15.

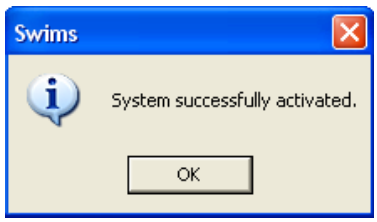


Figure 1.15 Confirmation Message after Successful Activation of SWIMS

Click ***Ok*** to close the window and exit to Windows.

1.4 System Login Process

By double clicking the shortcut to SWIMS in the desktop, the window shown in Figure 1.16 will display. This is the cover screen for SWIMS. Under the section "Product Licensed to" are the details you entered into the system during registration and activation process i.e. the name of your agency, box number and the email address. At the bottom there is the SWALIM email address, which you will use to send data and any other communication to SWALIM regarding SWIMS. Also in this window are the end user license agreement and a document about SWIMS, which are accessed by clicking on the ***View*** buttons.

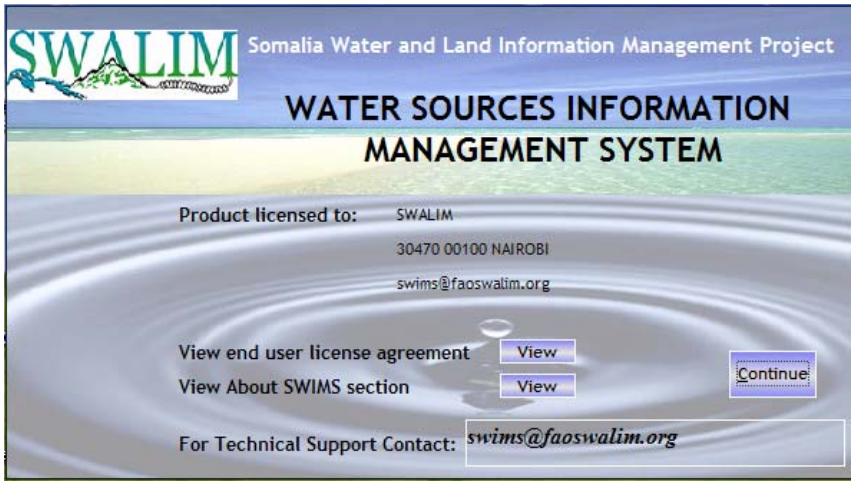


Figure 1.16 SWIMS Cover Screen

It should be noted that the person registered during installation of the software becomes a database manager by default. The type of user for any other person registered to use the application in the same SWIMS instance is specified when adding a new user.

To log into the system click ***Continue***, and fill in the user name and password in the window shown in Figure 1.17. Then click ***Login.***

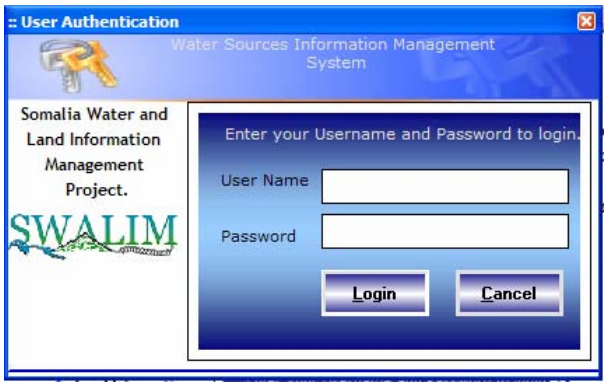


Figure 1.17 SWIMS Login Screen

The window shown in Figure 1.18 will display, showing SWIMS front screen. The screen contains the Main Switch Board and the logos for SWALIM, FAO, EU and UNICEF. The SWALIM project is implemented by FAO under the funding of EU (95%) and UNICEF (5%).

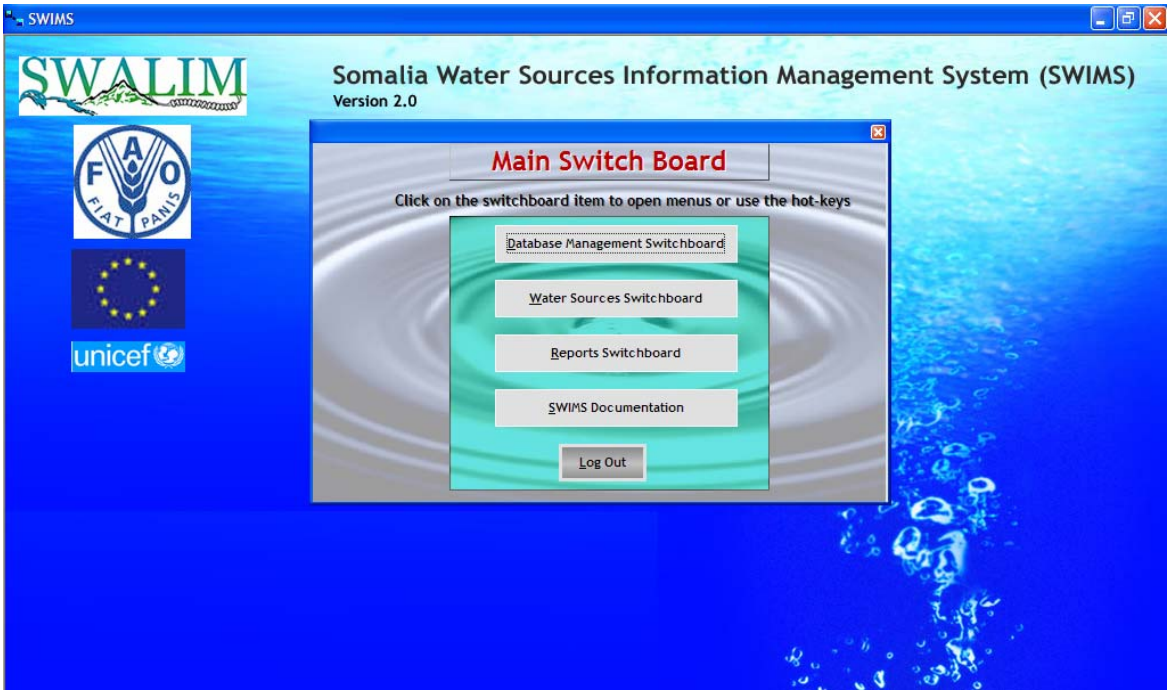


Figure 1.18 SWIMS Front Screen

At this point you have successfully installed and activated SWIMS. The proceeding chapters describe the application of the software.

Chapter

2

DATABASE MANAGEMENT

2.0 Introduction

SWIMS main switch board (Figure 2.1) consists of four menus: Database Management Switchboard, Water Sources Switchboard, Reports Switchboard and the SWIMS Documentation. Each of these menus contains several components, which are accessed by clicking on them from the switch board.

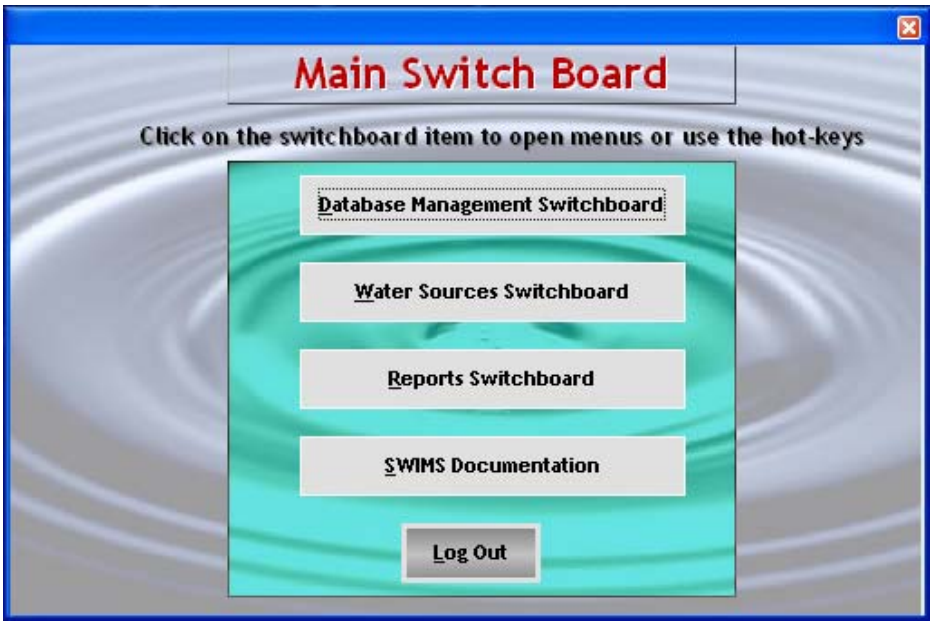


Figure 2.1 SWIMS Main Switch Board

2.1 Database Management

SWIMS database management components are shown in Figure 2.2 below. This menu allows the management of users' information, backup and restoration of database, importing and exporting of SWIMS database and addition/editing of SWIMS documents. Only the privileged have access to the database management menu. An administrator has access to all the database management menus in Figure 2.2, while a user can only access the user management menu.

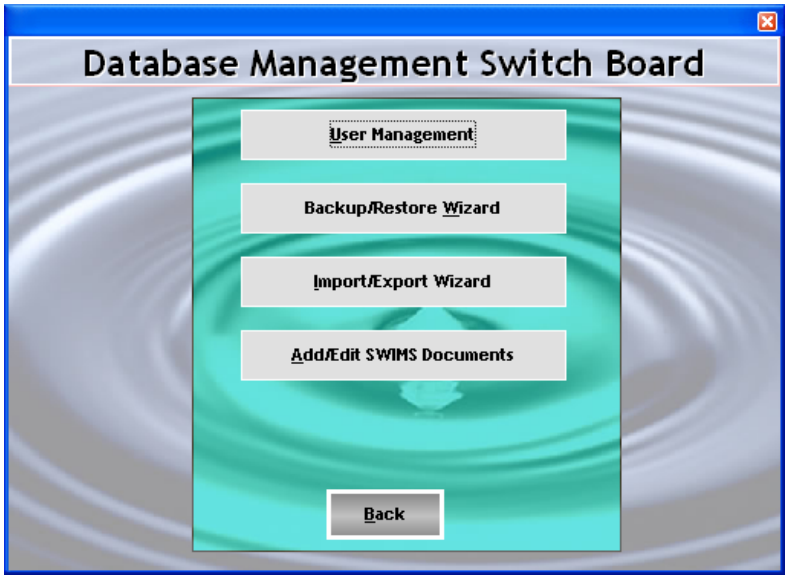


Figure 2.2 Database Management Switch Board

From the Database Management Switch Board, click on the ***User Management*** button to open User Management menu in Figure 2.3. In this menu there are options for adding/editing user profiles and changing passwords. Both administrators and users have the rights to change their passwords. However, only an administrator has the rights to add and edit user profiles.

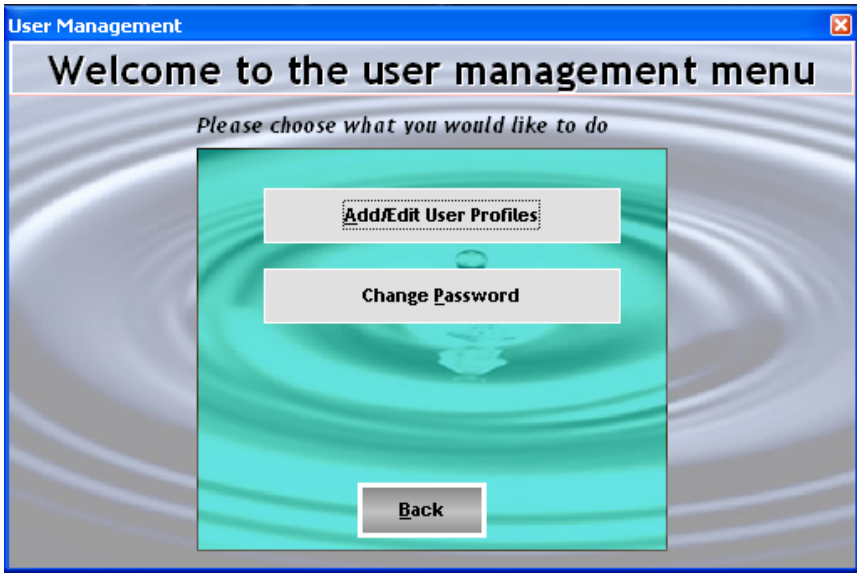


Figure 2.3 User Management Menu

To view, add or edit user profiles, click on the ***Add/Edit User Profiles*** from the User Management menu. The table shown in Figure 2.4 will open, which has a list of users already in the system.

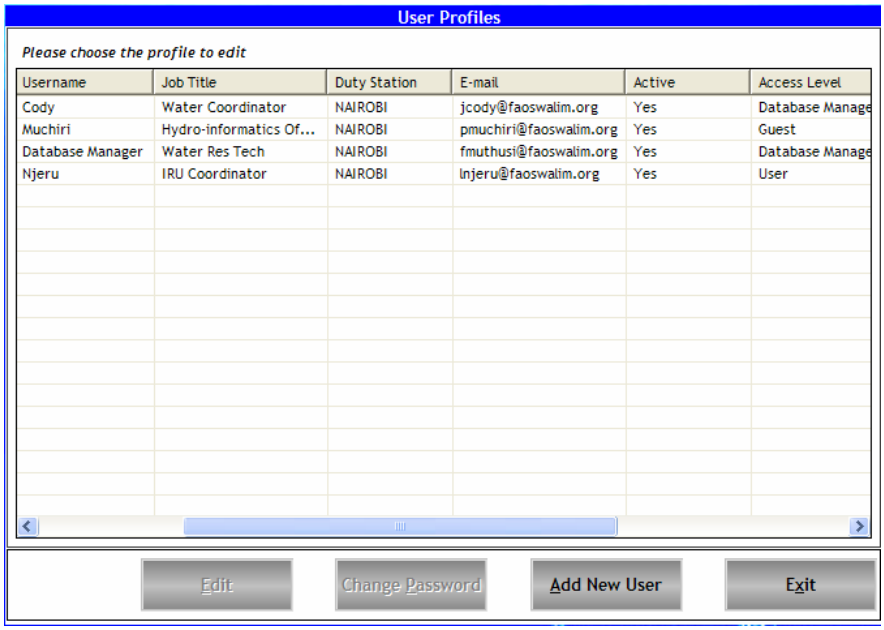


Figure 2.4 User Profile Table

At the bottom of the window is the ***Add New User*** button, used to add new users to the system. Click on it to open the window shown in Figure 2.5.

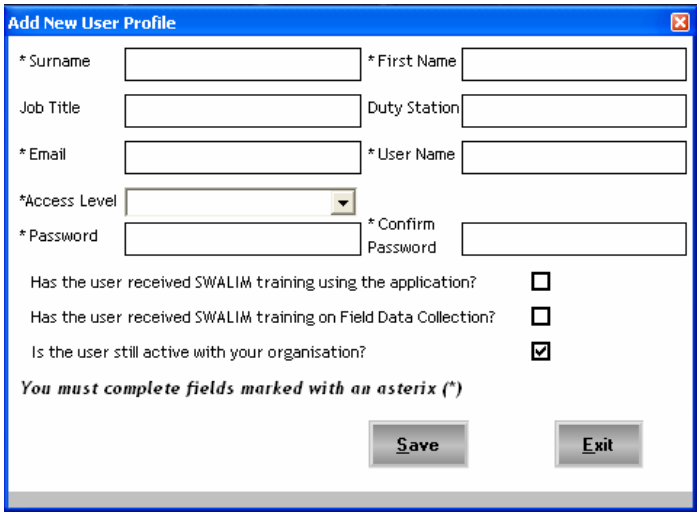


Figure 2.5 Creating New User Profile window

This window is used to fill in details for the new user. The fields marked with asterisks must be filled before the information is saved. The access level field has the three options described earlier. The administrator creating the user profile should allocate the new user one of the access levels, depending on the intended use of the system by the new user. The administrator is also expected to provide additional information about the new user by ticking the applicable box(s) at the bottom of this window i.e. say whether the new user is still active with the organization and whether s/he has received SWALIM training in field data collection and the use of the application. The password should contain at least six (6) characters.

Click on the ***Save*** button to add this information to your system. A message will pop up, confirming that the record has been successfully saved, and ask whether you want to create another user account (Figure 2.6). If you want to add another user, then click on ***Yes.*** The fields in Figure 2.5 above are reset to blank. Follow the same procedure to add another user and save. If no other user is being added then click on ***No*** to return to the User Profile table in Figure 2.4 above.

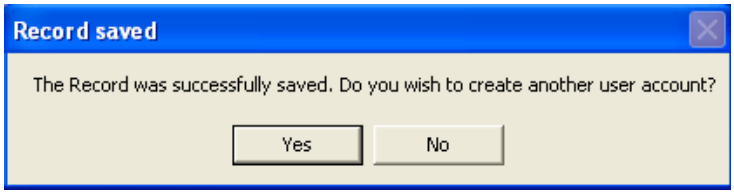


Figure 2.6 Pop up Message Confirming Successful Creation of New User Account

To edit user profile or change password, you need to select a current user from the list displayed in Figure 2.4 by clicking on it. The selected user becomes highlighted in blue, and the ***Edit*** and ***Change Password*** buttons at the bottom of the window become active. Clicking on the ***Edit*** button opens the left window in Figure 2.7, which has the same fields as the window for adding new profile. However, the password section is slightly different, in that instead of adding a new password you are required to change the existing one. The rest of the fields are filled in the same way explained above.

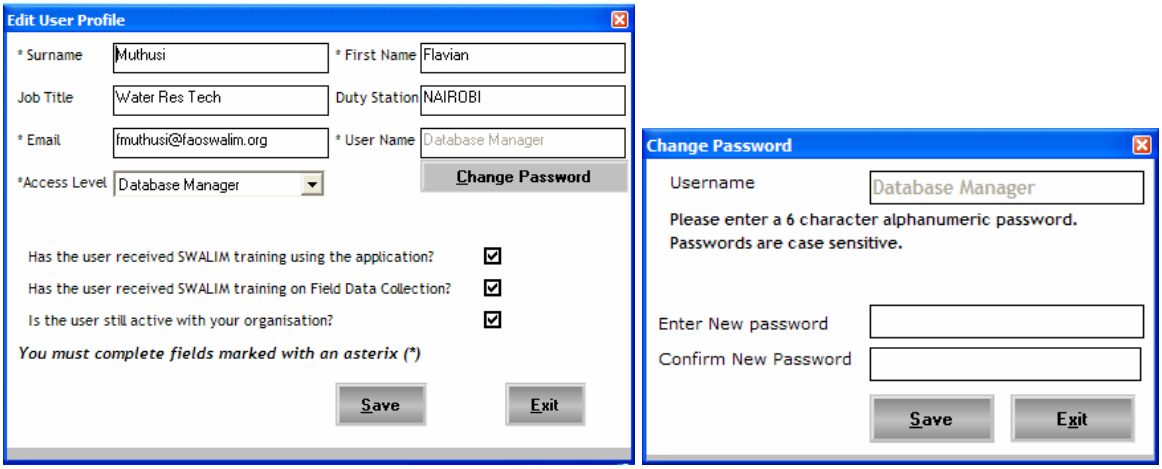


Figure 2.7 Editing User Profile

To change password from the current, click on the ***Change Password*** button. The window in the right of Figure 2.7 will open. The user name automatically fills from the database. The required fields are the new password and a confirmation of the new password (to make sure the right password was typed before the information is saved). Click on the ***Save*** button to add this information to the database. The message in Figure 2.8 will pop up confirming the updates. Click ***Ok*** to return to the User Profile table.

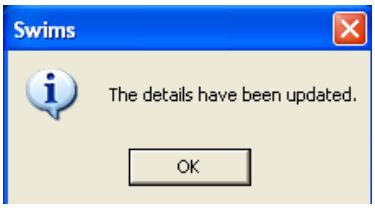


Figure 2.8 Message Confirming Successful Updates

Users logged into the system either as “SWIMS Administrator” or “User” can also change their passwords directly from the User Management menu (Figure 2.3) by clicking on the button ***Change Password*** . The window in Figure 2.9 opens.

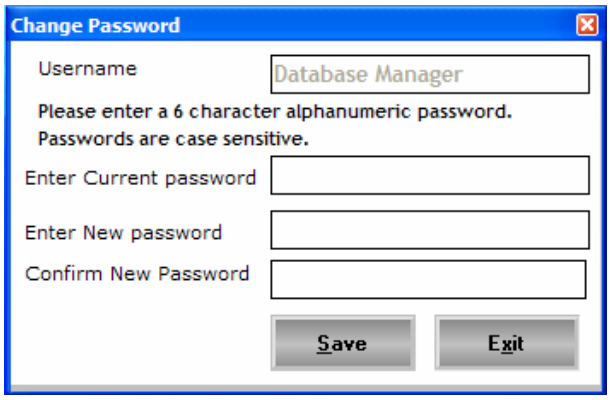


Figure 2.9 Changing Passwords

The user name is automatically filled from the database. What you are required to do is to fill in your current and new password, and a confirmation of the new password. Then click on ***Save***. The same confirmation message in Figure 2.8 will pop up. Click ***Ok*** to return to the User Management menu.

2.2 Database Backup and Restore

The backup/ restore wizard allows the user of the application to update the database through a back up process, or restore the database to a previous version. Regular backups are necessary to ensure that incase the system crashes or becomes in-operational for any other reason, the database can be recovered. There are two types of backups in SWIMS: Manual and Auto back up. The manual backup is done using the Backup/Restore wizard, accessed from the Database Management Switch Board shown in Figure 2.2 above. The backup is incremental, with new information being added to the information already in the system. It is recommended that a manual backup is done once every day.

If manual backups are not done for a full month, the system does an auto backup. In the auto back up, the existing backup database is replaced by the current system database.

For a manual backup, click the ***Back Up*** button from the Database Management Switchboard in Figure 2.2 above. The window in Figure 2.10 will open, giving the system user an option to choose either to backup or restore the database.

Figure 2.10 Backup and Restore Wizard Window

The ***Next*** button is not active until one of the two options is selected. Click on the ***Back Up Database*** option, then ***Next.***. The window shown in Figure 2.11 will pop up, giving the default location for the SWIMS backup folder. If you want to do the backup in a different folder, use the ***Browse*** button to locate the targeted folder. The system also has a default backup name, which has the name of your agency, location and date of the backup. You can choose to retain the same name, or name it differently.

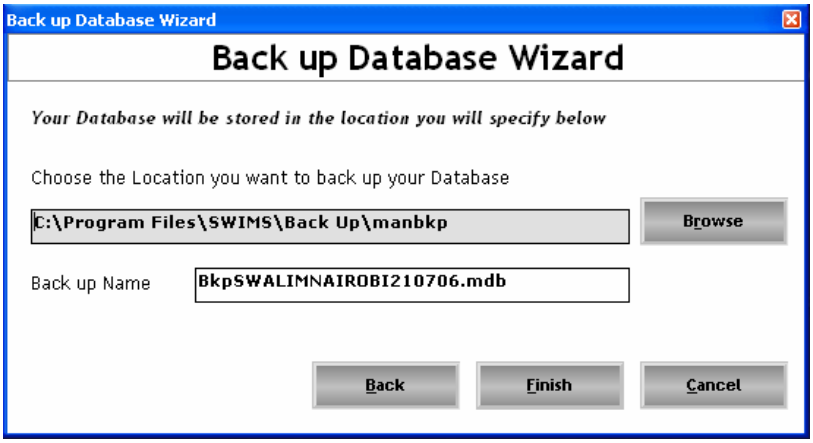


Figure 2.11 Database Backup Wizard

Clicking on the ***Back*** button takes you one step back to the Backup/Restore Wizard (Figure 2.10) while the ***Cancel*** button returns you to the Database Management Switchboard (Figure 2.2 above).

After selecting the backup folder and giving the backup name, click ***Finish***. The system will perform a back up and once complete a message (Figure 2.12) will pop up confirming the process was successful.

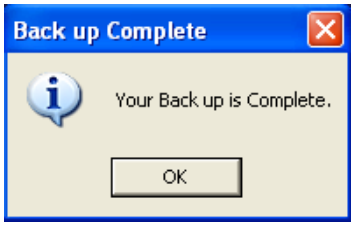


Figure 2.12 Pop up Message Confirming Successful Backup Process

Click ***Ok*** to return to the Database Management Switch Board (Figure 2.2 above).

Restore database function is used when the current database is found to be erroneous, such as deletion of some records or undesired information entered into the system. Performing a restore function returns a previous database before error occurred into the database.

From the Backup/Restore Wizard in Figure 2.10, select the ***Restore Database*** option and click ***Next***. The window in Figure 2.13 will open, with the message that the database will be restored to its original location. The system has the backup file as the default restore file. However, you may wish to restore the database from a different location, especially if you have been backing up your database to a different location. Use the browse button to find the location for the restore file.

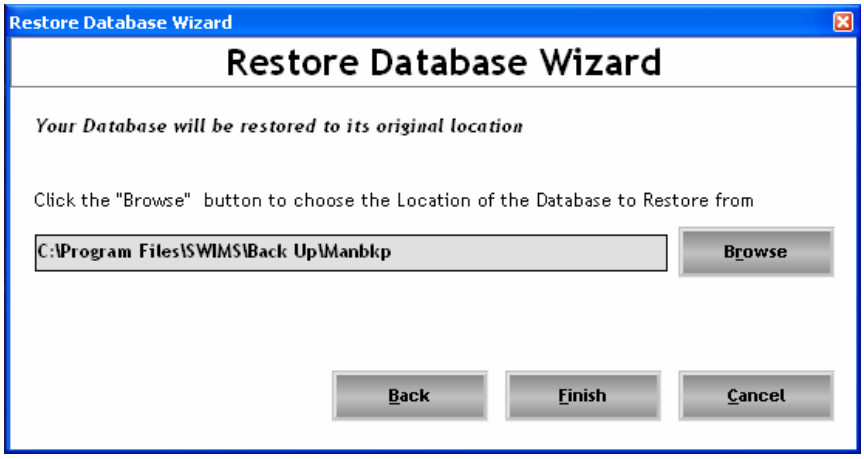


Figure 2.13 Restore Database Wizard

Then click on ***Finish.*** A message will pop up (Figure 2.14) asking you whether you are sure you want to overwrite your database. The system asks you this to confirm that you indeed want to replace the database, and it did not happen by mistake.

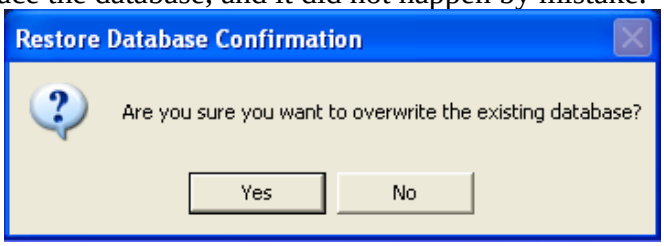


Figure 2.14 Alert Message Before Overwriting Database

Incase you did not intent to restore the database, or wish to change the database to restore from, click ***No***. The system takes you back to the window in Figure 2.13 to select the database. To proceed with the restoration process click ***Yes***. Allow the system enough time to finish the task, upon which a confirmation message (Figure 2.15) will pop up.

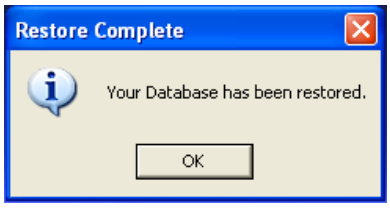


Figure 2.15 Confirmation Message for Successful Restore of Database

Click ***Ok*** to return to the Database Management Switch Board.

Note that these two operations affect the database, and are therefore restricted only to SWIMS administrators.

2.3 Data Import and Export

The application provides a means of importing and exporting data through the Import/Export Wizard. Only users logged into the system as administrators have the rights to update the database. The Import Wizard is used when importing data to a SWIMS instance from outside the database. The function adds data to the existing data tables, and differs from the restore operation where the entire database is replaced. However, the imported records are orphaned, such that they cannot be edited. SWIMS allows records to be edited only by the parent system. Such records are referred to as “Child” to the system. The Child-Orphan concept allows sharing of data/information amongst partner agencies while maintaining data integrity. If an error is noticed in a record, the agency responsible for the data entry into SWIMS has to be contacted to edit the data from the parent system.

From the Database Management Switchboard in Figure 2.2 above, click on ***Import/Export Wizard***. The window in Figure 2.16 will open.

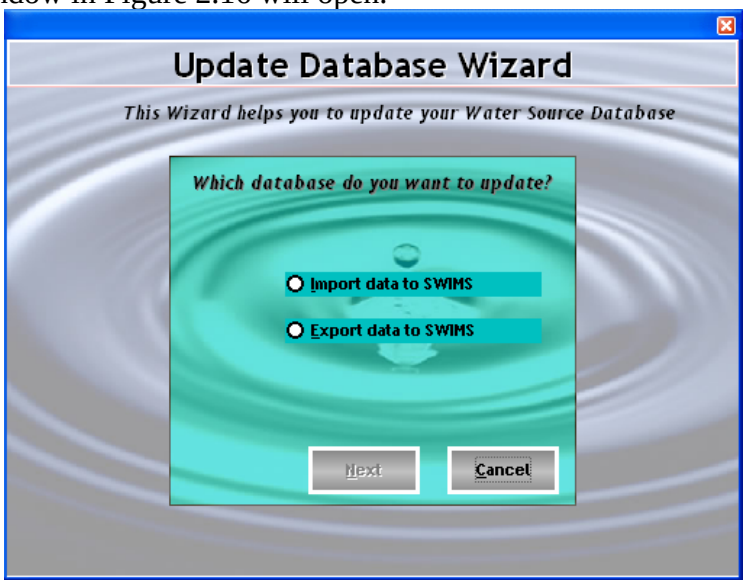


Figure 2.16 Update Database Wizard

To import data into SWIMS (updating the local database), click on the ***Import Data to SWIMS*** button, followed by ***Next***.. The window in the left of Figure 2.17 will open, with the application asking you to choose the database file you want to update from. Use the ***Browse*** button to locate the file. The ***Import*** button which was initially inactive becomes active. When you click on it the pop up message displayed in the right window of Figure 2.17 will appear, asking you to confirm if you are sure you want to import data to the local database. Selecting ***No*** closes the popup message, and gives you another chance of selecting the file to import from the left window of Figure 2.17. When you choose ***Yes***, the system starts the data importation process.

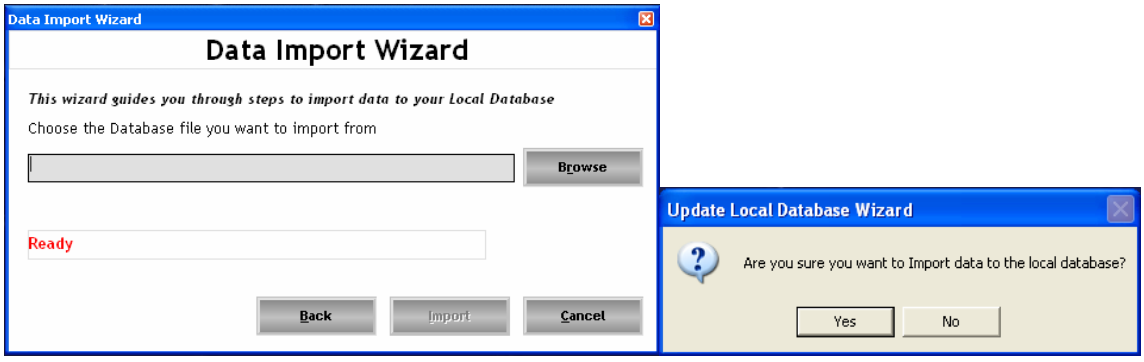


Figure 2.17 Data Import Wizard

The system will display the message that its in the process of importing data, and ask you to please wait. A status icon, , will also start moving to show the process is on (Figure 2.18). Allow the system enough time to complete the data import.

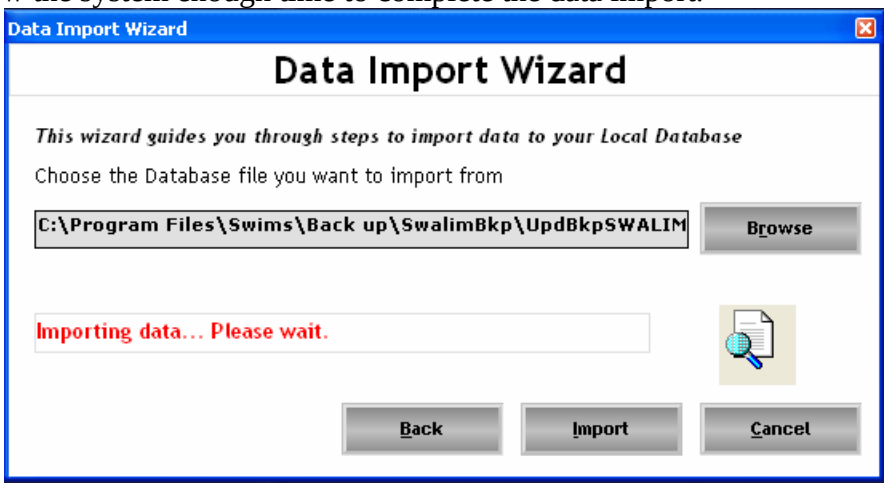


Figure 2.18 Data Import Status

Once the process is over the status icon will disappear, and a pop up message display (Figure 2.19) saying the data import was successfully completed.

Figure 2.19 Confirmation Message for Successful Data Import

Click ***Ok***, then ***Cancel*** to exit the Data Import Wizard. The message in Figure 2.20 will pop up, asking you to confirm the Exit.

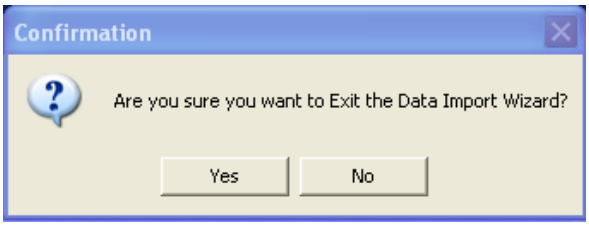


Figure 2.20 Pop up Message for Exiting Data Import Wizard

Click ***Yes***. The System returns to the Database Management Switchboard.

The Export data to SWIMS operation is used when sharing out data to another SWIMS instance or for the master database updates. Select the ***Export Data to SWIMS*** from Figure 2.16 above, then click on ***Next***.. The window shown in Figure 2.21 will open, with all the tables contained in the database.

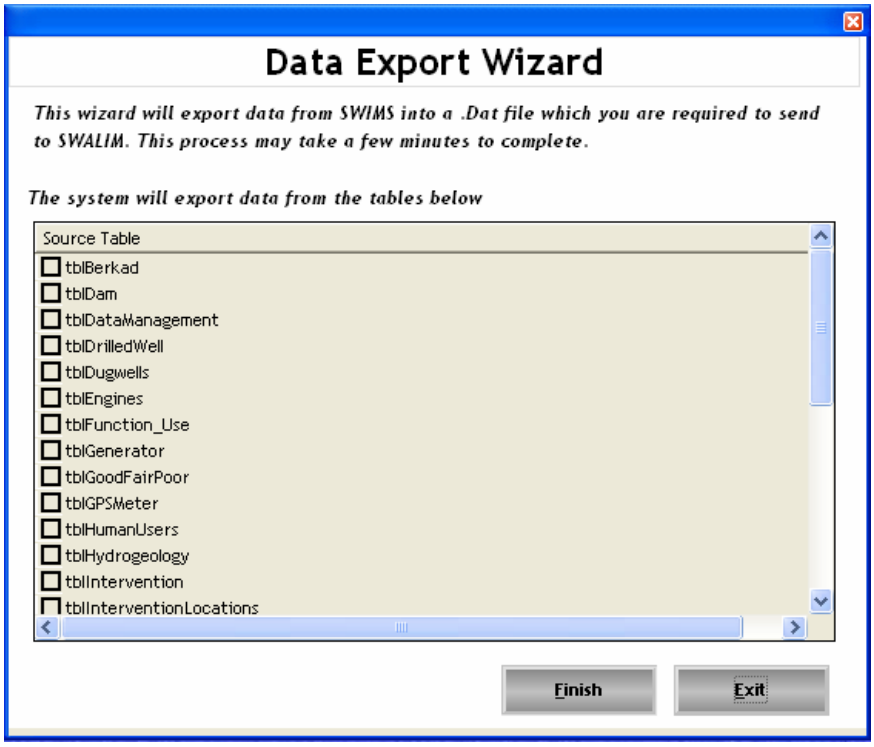


Figure 2.21 Data Export Wizard

Click on ***Finish*** to start the data export process. The tables are ticked in the boxes on the left as the data is exported. Once complete the message in Figure 2.22 is displayed, saying that two backup files have been created, which need to be send to SWALIM for the master database updates.

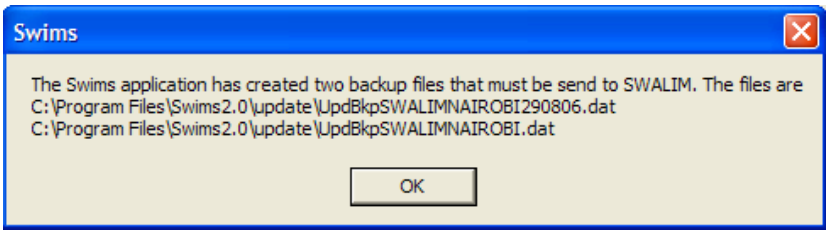


Figure 2.22 Location for SWALIM Master Database Update files

These two .dat files generated are required for the SWALIM master database updates. One file contains data, while the other has the license information. In the master database updates, the system checks the license information to determine whether the SWIMS instance from which the data originates has been licensed. If not, the data is rejected. If the data source has been licensed, the master system checks the records against the system identifier. All records which have the same identity as the originating SWIMS system are considered Child to that system. Such records are accepted by the master for the database updates. All other records which have a different identity from that in the license for that particular SWIMS instance are considered Orphan, and not used for the master database updates.

When you click ***Ok*** from Figure 2.22, the pop up message disappears, and the system opens the folder where the two files are saved. By default, the system stores these files in the folder C:\Program Files\Swims\Back up\SwalimBkp. You are required to copy the files and send them to SWALIM via email, using the address swims@faoswalim.org, or burn them into a CD and send it to SWALIM.

To return to the Database Management Switchboard from the Data Export Wizard click ***Exit.*** A message will open asking whether you are sure you want to exit the Data Export Wizard. Say ***Yes*** and the system takes you back to the Data Management Switch Board.

2.4 Adding and Editing SWIMS Documents

The Add/Edit SWIMS documents menu lists all the SWIMS related documents in the system and provides a means of adding more documents. These documents include the field data collection sheets, system user manual and the field data collection manual. All the documents are in .pdf format. Most of these documents are available from the SWALIM website: www.faoswalim.org. However for those using the SWIMS software they have been incorporated into the system for easy access.

SWIMS administrators have the rights to add more documents to the system. From the database management switch board (Figure 2.2 above), click on ***Add/Edit SWIMS Documents*** button. The window in Figure 2.23 will open. In the window is a list of all the documents incorporated into SWIMS.

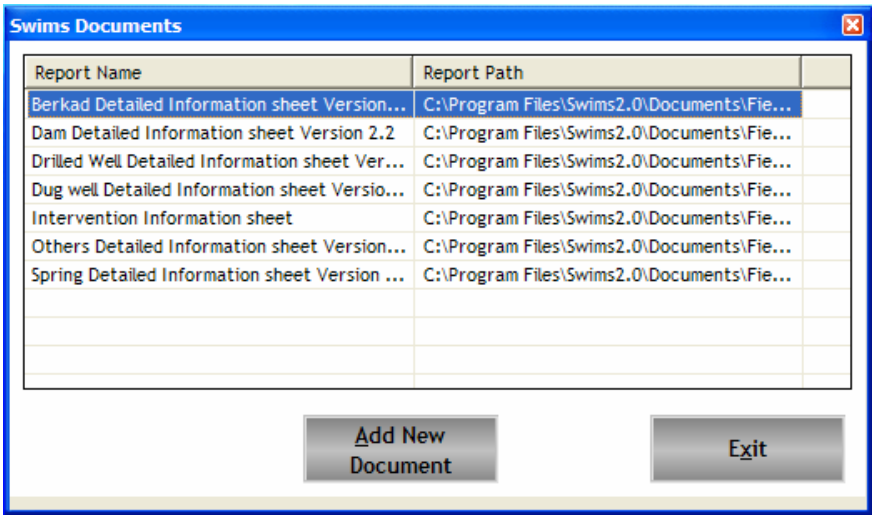


Figure 2.23 List of SWIMS Documents

To add new documents, click on ***Add New Document*** button. The window in Figure 2.24 will open.

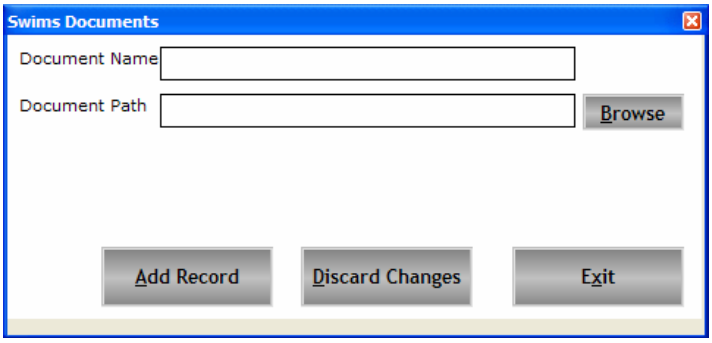


Figure 2.24 Adding SWIMS Documents

Fill in the name of the report in the provided space, then use the ***Browse*** button to located the .pdf report/document to be added. Once found, open the document. The path is displayed in the space next to the browse button. Next click on the ***Add Record*** button. The report is added to SWIMS, and a confirmation message pops up. Click ***Ok***, and follow the same procedure to add more reports to the system. When the process is over, click ***Exit*** to return to the database management switchboard.

Chapter

3

WATER SOURCES

3.0 Introduction

The Water Sources Section of SWIMS forms the main component for data entry into the system. The menus available in the water sources switch board are for adding and editing of metadata, water sources records, interventions and location records. The access to each of these menus depends on the access level of the user: SWIMS Administrators have full access to the water sources switch board; Users have access to metadata records, water source records and interventions, but do not have rights to edit water source location records; Guests have no access to the water sources switch board.

3.1 Water Sources Switch Board

The Water Sources Switchboard is accessed from the Main Switchboard shown in Figure 2.1 above. Click on the Water Sources menu to open the window shown in Figure 3.1.

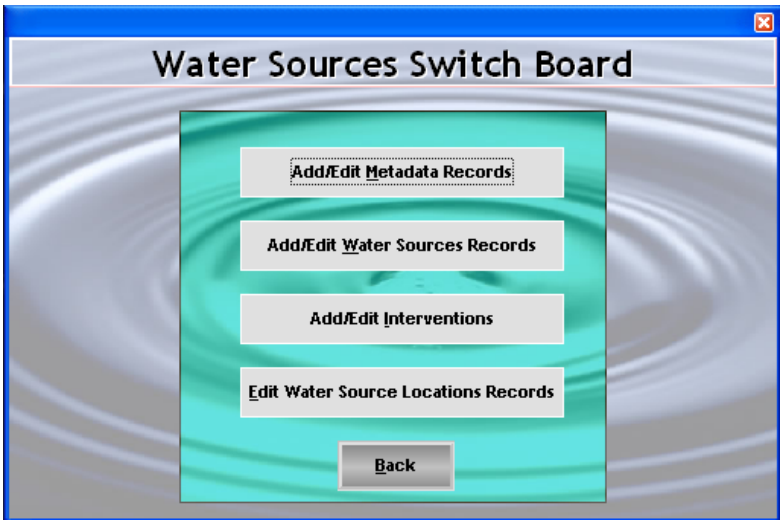


Figure 3.1 SWIMS Water Sources Switch Board

This switchboard provides a means of transferring data from the field data sheets to SWIMS. The menus in this switchboard have been designed that the interface tabs follow the same format as the SWIMS field data sheets.

3.1.1 Adding and Editing Metadata Records

This menu allows for the creation and edition of the metadata records into the system and is accessible to users with both user and administrative rights. Metadata provides summary information about the dataset such as the title of the dataset, the purpose for which it was created, who owns the datasets, methods used to create the data set, etc. It helps the data manager to maintain and easily manage datasets, while for the data users metadata assists to find relevant data and use it efficiently.

To add or edit a metadata record click on the ***Add/Edit Metadata Records*** button. The metadata records table in Figure 3.2 will open. For a SWIMS administrator, all the four options at the bottom of the window will be active. However, for those logged in as "User" the "Create Master Metadata Record" button will not be active since a "User" does not have the rights to create a master metadata.

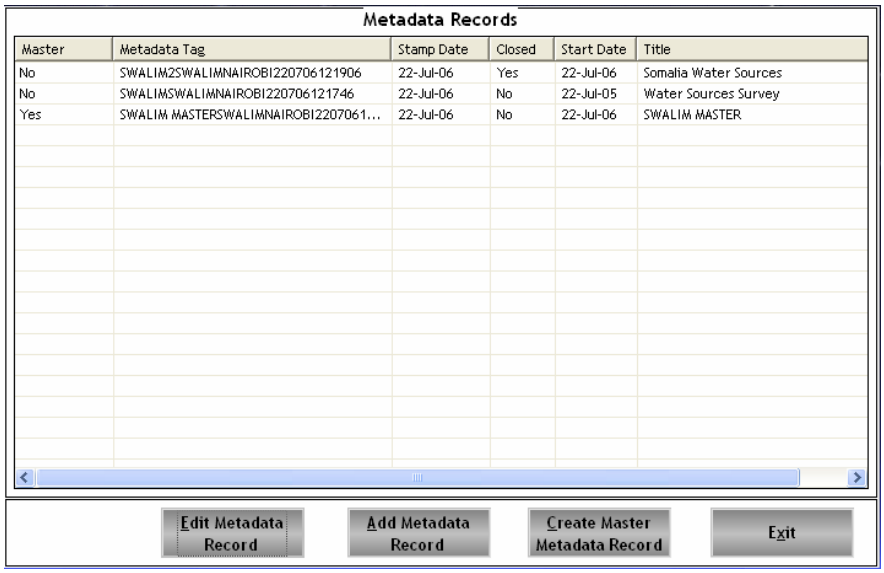


Figure 3.2 Metadata Records Table

To add a new metadata record, click on ***Add Metadata Record*** button. The window in Figure 3.3 below will open. The Agency Name and Location will be automatically filled from the database. The start date automatically picks the current date. The only field required to be filled is the Data Set Name. The system allows the user to type in a name of up to fifty characters, which best suits their organization's requirements. A metadata tag is then generated comprising of all the fields in this window.

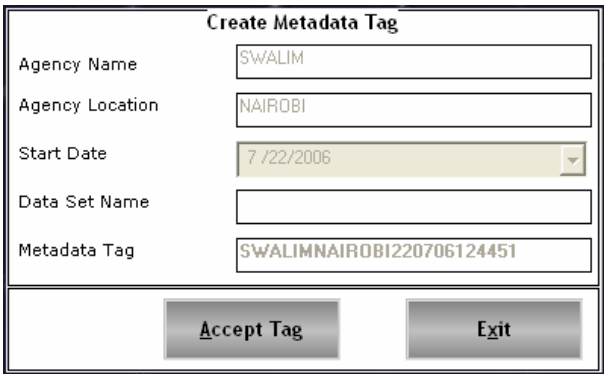


Figure 3.3 Creating a Metadata Tag

After filling the dataset name click on ***Accept Tag*** button to save the information. The message in Figure 3.4 pops up, informing that the metadata is the primary reference to the metadata and records associated with it, and cannot be edited after acceptance. If you are content with the metadata tag click ***Yes***. If there are changes to make click ***No*** and change the dataset name from Figure 3.3 above.

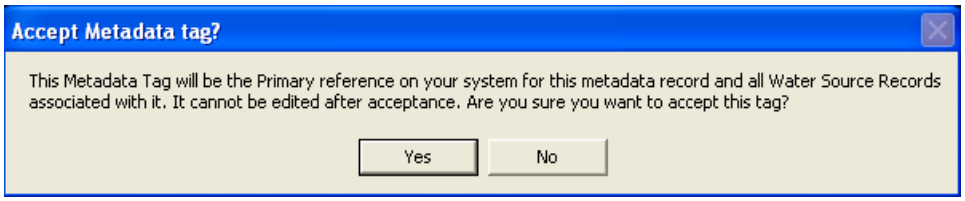


Figure 3.4 Alert Message Before Accepting Metadata Tag

Accepting the metadata tag opens the window shown in Figure 3.5, for creating metadata records. The metadata tag you created is automatically filled. You are required to fill all the other fields. However, none of the fields is mandatory. The system is flexible and allows the user to fill only available information.

If wrong information is filled, the information can be deleted by clicking on the ***Discard Changes button***, which re-sets all the fields to blank. The filling of the metadata fields can then be started afresh. Once satisfied with the filling of the metadata, save the records into the system by clicking on the ***Save Record*** button at the bottom of the window.

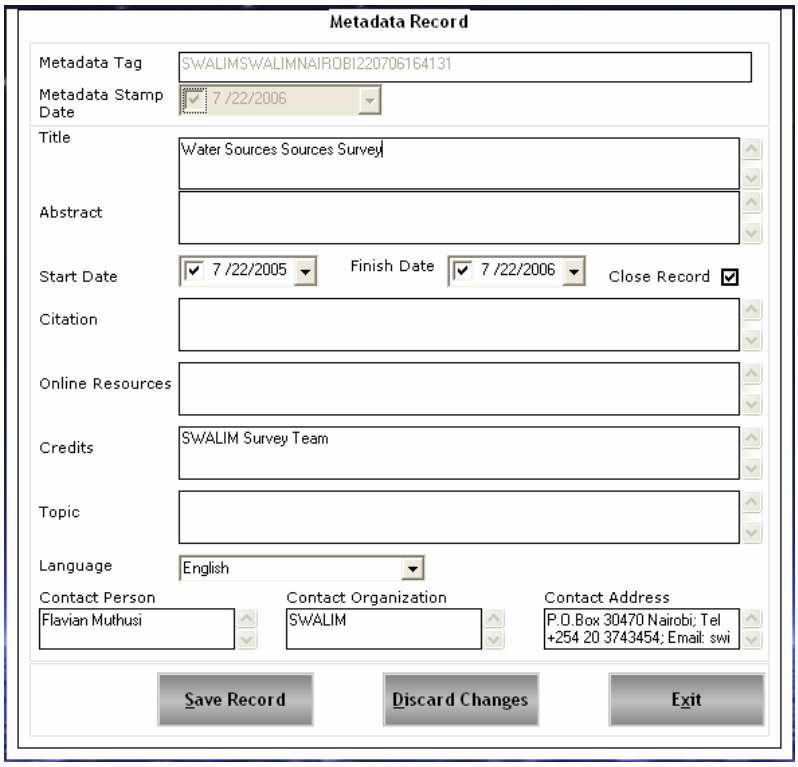


Figure 3.5 Creating a Metadata Record

Upon clicking the ***Save Record*** Button, a popup message opens asking whether you want to go ahead and save the metadata. Click ***Yes*** to save. When the "No" option is selected, the pop message is closed and focus returned to the metadata record window in Figure 3.5 above.

To edit metadata, select the record from the table shown in Figure 3.2 above by clicking on the record. The selected record becomes highlighted in blue. Next, click on the ***Edit*** button. The window in Figure 3.5 above will open, with the previously filled information. Make the required changes and save the record as explained above.

For SWIMS administrators with rights to create a master metadata, the same procedure for adding a metadata is followed. Click on the ***Create Master Metadata Record*** button in Figure 3.2 above. The window for adding a metadata tag (Figure 3.3) will open. Fill in the data set name, followed by ***Accept Tag***. The window shown in Figure 3.6 will open. Note that in addition to the three buttons available for a normal metadata, the master metadata has an extra button for attaching sub-records since a master metadata combines many metadata into one.

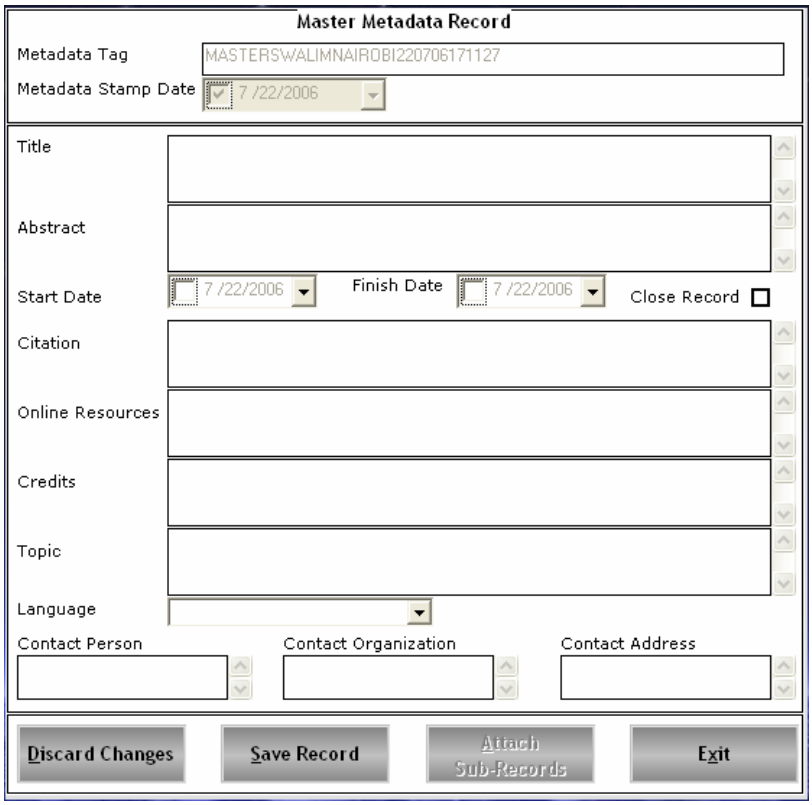


Figure 3.6 Creating a Master Metadata Record

However, the ***Attach Sub-Records*** button is not initially active. Fill in the metadata form, then click on ***Save Record***. The message in the left window of Figure 3.7 will pop up, reminding you that you need to attach sub-records to the master metadata. Click ***Yes***. The message on the right window of Figure 3.7 will pop up asking you to choose the metadata sub records to attach to the master.

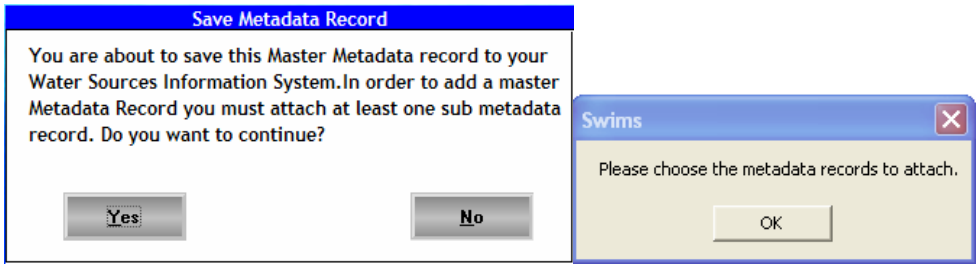


Figure 3.7 Alert Message for Selecting Metadata Sub Records

Click ***Ok*** and the table in Figure 3.8 will open listing all the metadata records in the database. Tick the boxes next to the metadata records you want to attach to the master. If a table is selected by mistake you can un select by clicking on the ticked box. The tick disappears. If many metadata boxes are ticked by mistake, then click on ***Discard Changes*** to reset all the selections and start a fresh.

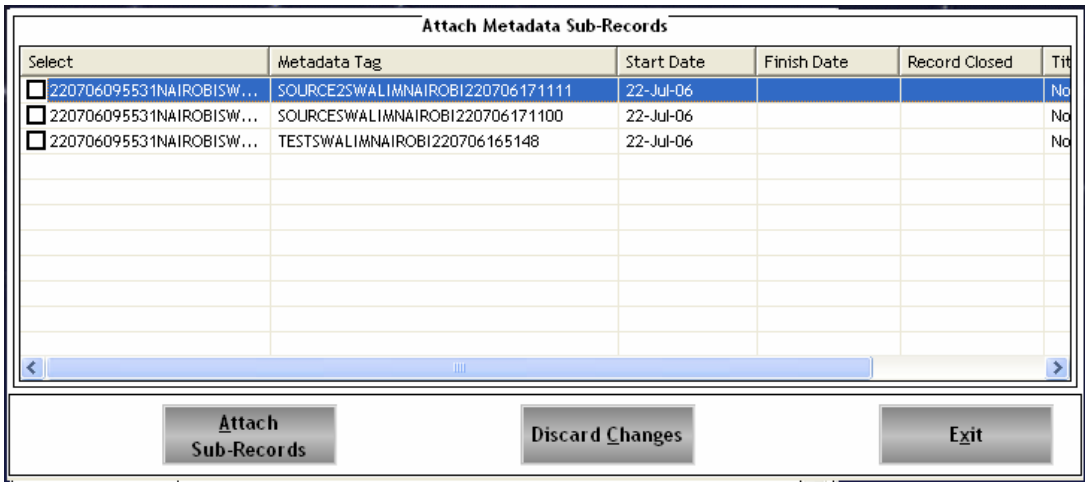


Figure 3.8 Selecting Master Metadata Sub Records

Next, click on ***Attach Sub-Records.*** A list of the selected sub records is displayed as shown in Figure 3.9.

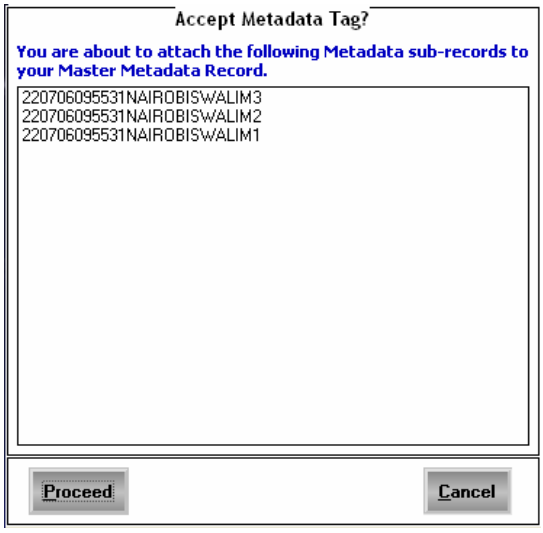


Figure 3.9 List of Selected Sub-records for Attaching to Master Metadata

This window is meant to allow the system user to confirm the records to ensure that no wrong records are attached. If there are changes to make, click on ***Cancel*** to return to the window for creating metadata. If you are in agreement with the list click ***Proceed.*** The records are saved, and the system returns to the metadata records table in Figure 3.2 above. You will notice that the entries of the normal and master metadata in the table are the same. However, the first column of the table differentiates the two by indicating whether a metadata is master or not.

At this point you have created the metadata records, and are ready to add the water sources records. Click ***Exit*** from the metadata record table in Figure 3.2 to return to the Water Sources Switchboard.

3.1.2 Adding and Editing Water Sources Records

The Add/Edit Water Sources Records menu is designed in the same format as the field data Collection Sheets to allow a fast means of transferring data into SWIMS. Click on the menu from the Water Sources Switch Board. The window shown in Figure 3.10 will open. The top part of the window provides the user with a means of selecting a particular record through filtering process. The lower window lists the water source records in the database.

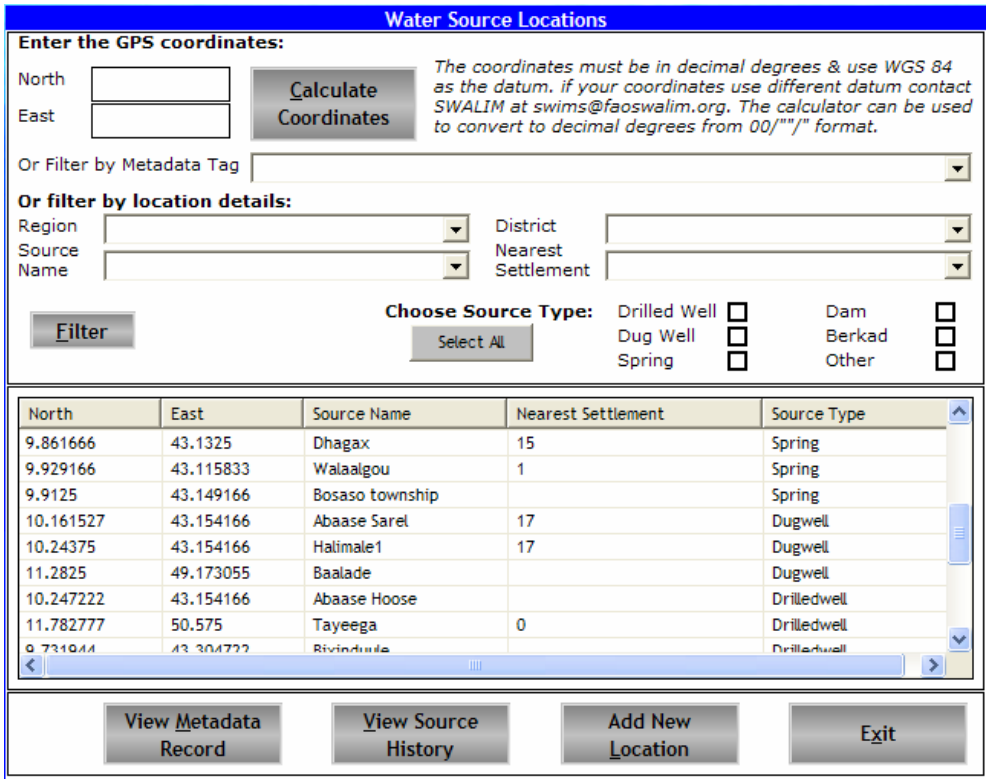


Figure 3.10 Water Sources Locations

To select a particular record from the list, you need to know the source type, the metadata tag, or the location details. Apart from the coordinates and the source name which are unique for every source type, filtering by the other options is likely to give more than one record for a large database. To be very specific on a particular record therefore requires filtering be done by combining more than one selection fields. Click on the ***Filter*** button after selecting. The filtered record will display in the lower window. A record can also be selected by scrawling down the displayed list, and clicking on the record from the lower window in Figure 3.10 above. You can then view the metadata record and source history of the selected record by clicking on the ***View Metadata Record*** and ***View Source History*** buttons respectively. The View Metadata Record displays the window shown in Figure 3.5 above, with the initially filled records.

To add new location information to the system, click on the ***Add New Location*** button. The window shown in Figure 3.11 will open. The required information here is for defining the location of the water source. As explained in the introduction section, all source records and source interventions are linked to a particular source location. The source location records are therefore ranked higher than the other records, and edits are allowed to only SWIMS administrators.

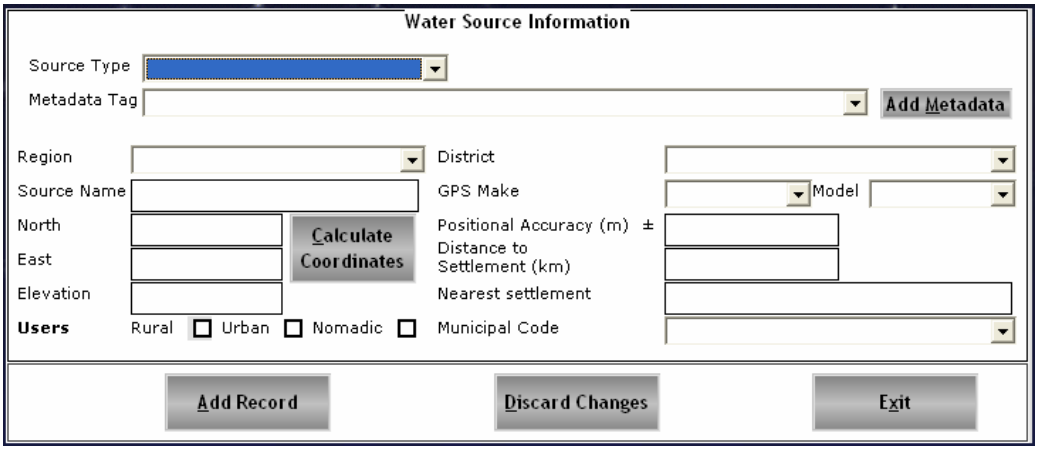


Figure 3.11 Adding Water Sources Locations

There are five mandatory fields in this window, which must be filled before the records are saved. These are the Source Type, Metadata Tag, Source Name, North and East coordinates. Attempting to add the record without filling these fields brings an error message. Consult the Field Data collection manual to get the data specifications for these fields.

The ***Discard Changes*** button resets the table fields to blank, while the ***Exit*** button returns you back to the water source switchboard in Figure 3.1 above.

To safe the records click on ***Add Record*** button. The message in Figure 3.12 pops up, notifying of the required information before the source location records are added to the system. The required information is about the data inspecting person and agency, as well as the date and agency responsible for the data entry into SWIMS. This information is important for a future follow up if some clarification on the data is required.

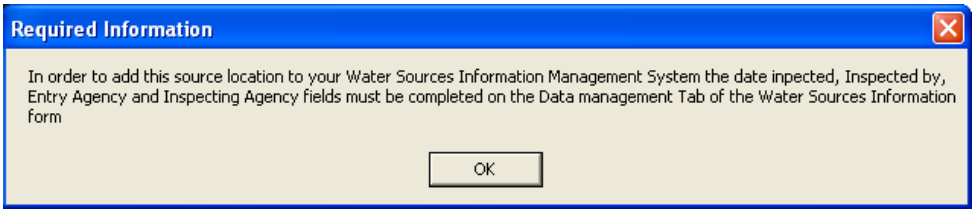


Figure 3.12 Required Information to Save a Record

Click ***Ok*** to continue. The window shown in Figure 3.13 will display. You will notice that it is only the data management tab which is active. The four fields mentioned in Figure 3.12 must be filled and saved before the other tabs are activated. Select the data inspection date from the calendar. All other fields are filled by selecting from the provided drop down lists.

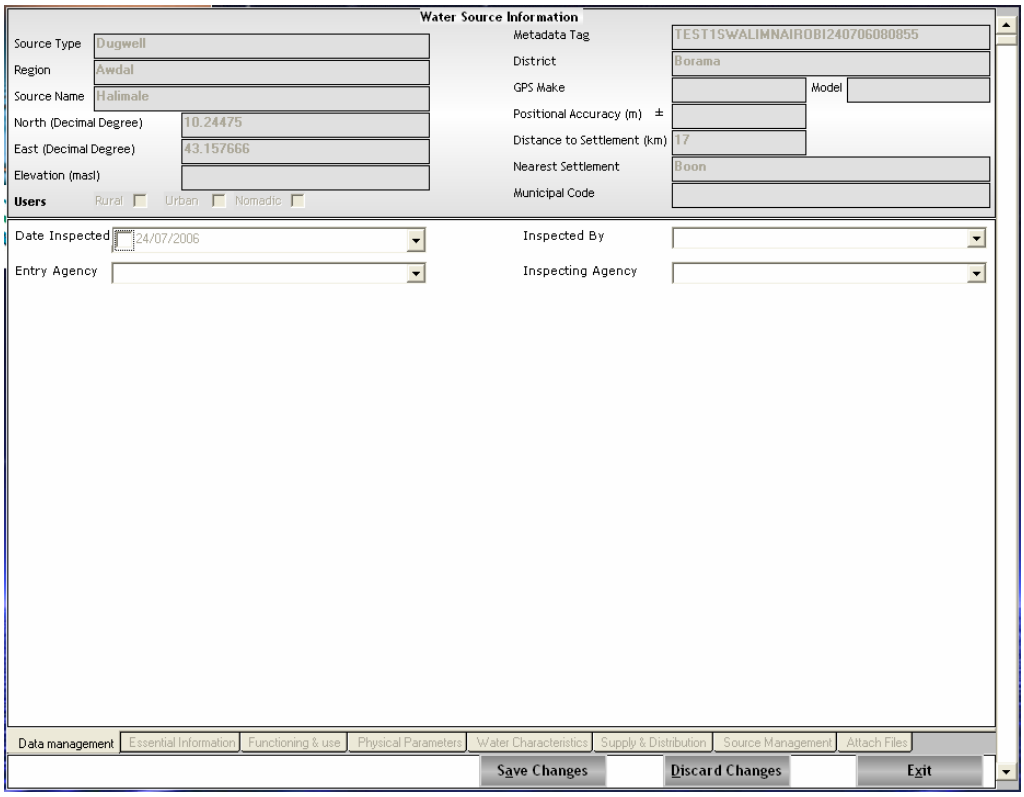


Figure 3.13 Data Management Tab of the Water Source Information

After filling the four fields use the ***Save Changes*** button to add this information into the database. All the other tabs become active, which is confirmed by a pop up message in Figure 3.14.

Figure 3.14 Message Confirming that Data Management Record has been saved

Click ***Ok*** to continue. Figure 3.15 show the activated water sources tabs. You are required to fill in information for each tab and save before proceeding to the next tab. As earlier mentioned, the structure of the tabs is the same as that of the Field Data Collection sheets. The open tab in Figure 3.15 is for Functioning and Use.

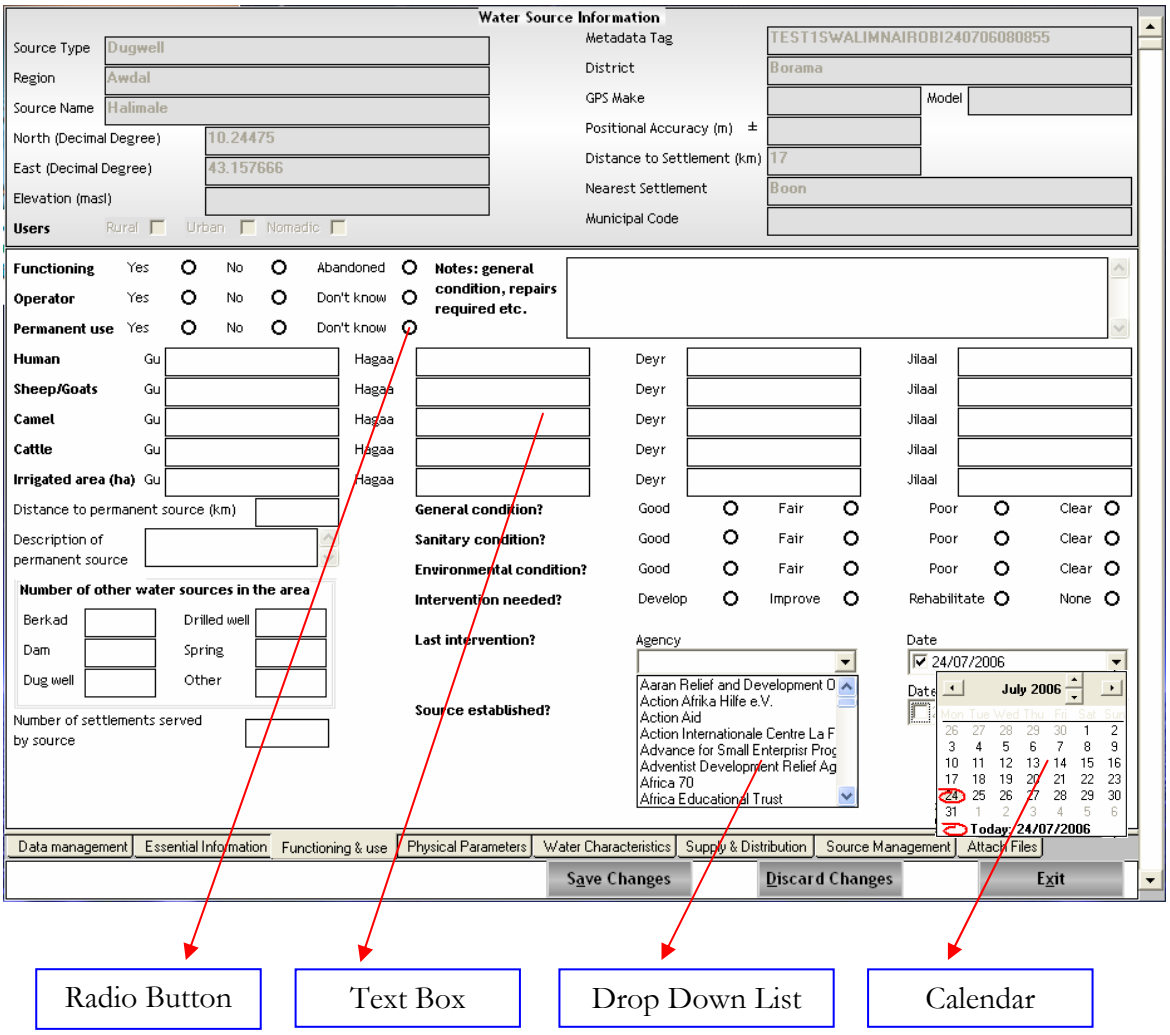


Figure 3.15 Functioning and Use Tab Showing Data Entry Options

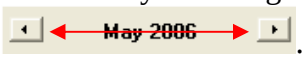
Each tab contains different information. However, the mode of data entry is the same for all the tabs. The entries are done in four ways: ticking radio buttons, typing in text boxes, selecting from drop down lists, and in the case of dates selecting from a calendar.

i) Radio Buttons: the radio buttons are provided for fields where several options are available. To select an entry using a radio button click inside the button. A black mark will appear at the centre of the radio button to show it is selected. Incase you select a button by mistake you can reset the selection using the Clear button. Note that where radio buttons exist you can only select one option.

ii) Text Boxes: data is typed in the provided space in the text box. Text boxes are formatted to accept either numericals or alphabeticals and in some cases both, depending the type of data required in that field.

iii) Drop Down Lists: the system has several drop down lists from which entries can be selected from. To find a particular entry, click on the scroll down button,  . A list of stored records will appear. Scroll down to find the entry you want, then click on it to enter it as a record. Alternatively, type in the first letters of the entry you are looking for, and it will display. Then click on it to register as an entry.

iv) Calendar: date entries into SWIMS are done by selecting the required date from a calendar. The calendar is activated by clicking on the scroll down button at the dates field. Years are selected by scrolling vertically 

, and months by scrolling horizontally 

. After getting the year and month, select the date by clicking inside the calendar. The selected date is displayed and the box on the left of the date field is automatically ticked.

Check Boxes are also provided in filling the location details. A check box is selected by clicking inside, in which a tick appears. To uncheck a box already ticked you need to click again on it. Unlike the radio buttons where only one option can be selected, with check boxes a multiple of options can be selected.

The Attach Files tab is different from the other tabs. It is used when there is some information about the source which could not be accommodated within the other tabs, but is necessary to include it into the system. This could be scanned documents, photographs etc. Click on the ***Attach Files*** button to open the window shown in Figure 3.16.

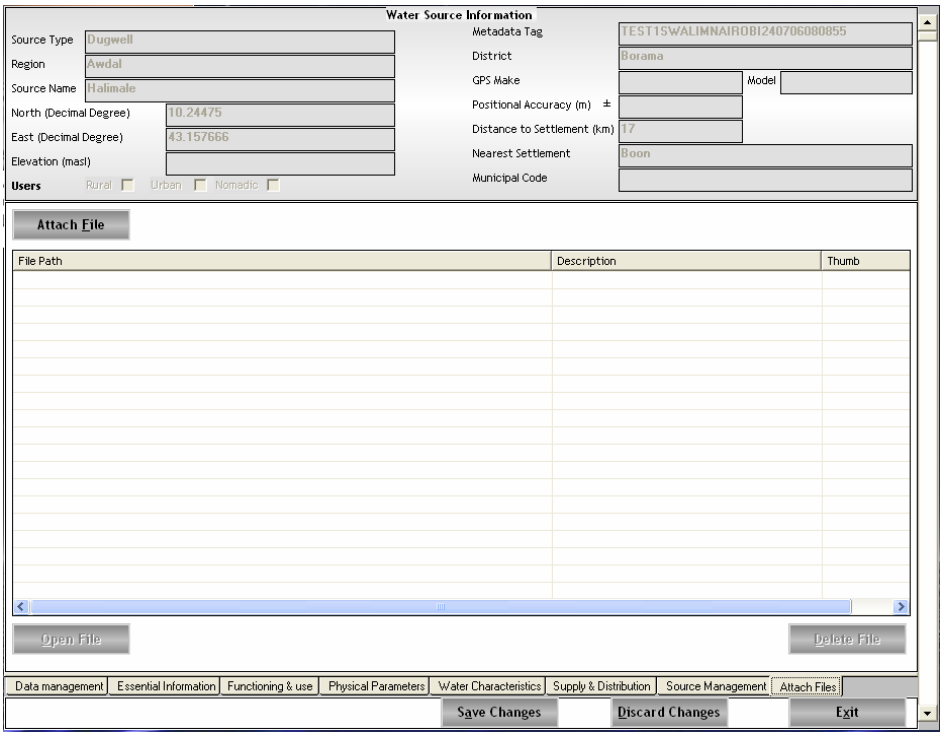


Figure 3.16 Attach Files Tab

To open the wizard for attaching files, click on the ***Attach File*** button from Figure 3.16. The window shown in Figure 3.17 will open.

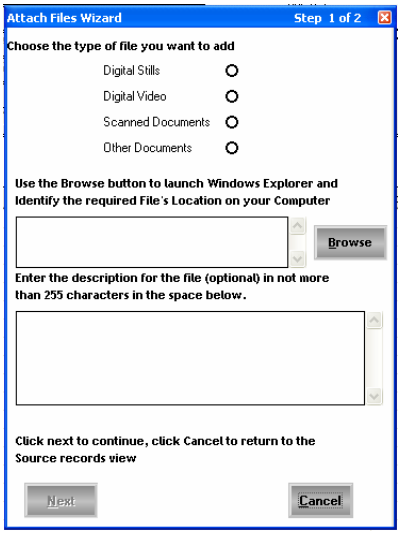


Figure 3.17 Step 1 of Attach Files Wizard

Choose the type of file you want to attach by clicking on the radio button next to it. Then use the browse button to locate the file to be attached, and open the file. Note that the Next button is not active until you select the file you want to attach. In the lower window, give a brief description of the attached file. Then click ***Next*** to get to step two of the attach file process (Figure 3.18).

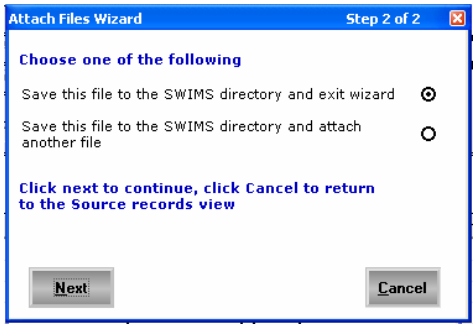


Figure 3.18 Step 2 of Attach Files Wizard

Select the first option if you have only one file to attach. If you have multiple files select the second option. Then click on ***Next***, for the selected file(s) to be attached to your system. After the process is complete the wizard will close and the system returns to the attach files tab in Figure 3.16 above. The path for the attached file and description will display in the window. This completes data entry for one source record. Click ***Exit*** to go back to the Source History table shown in Figure 3.19.

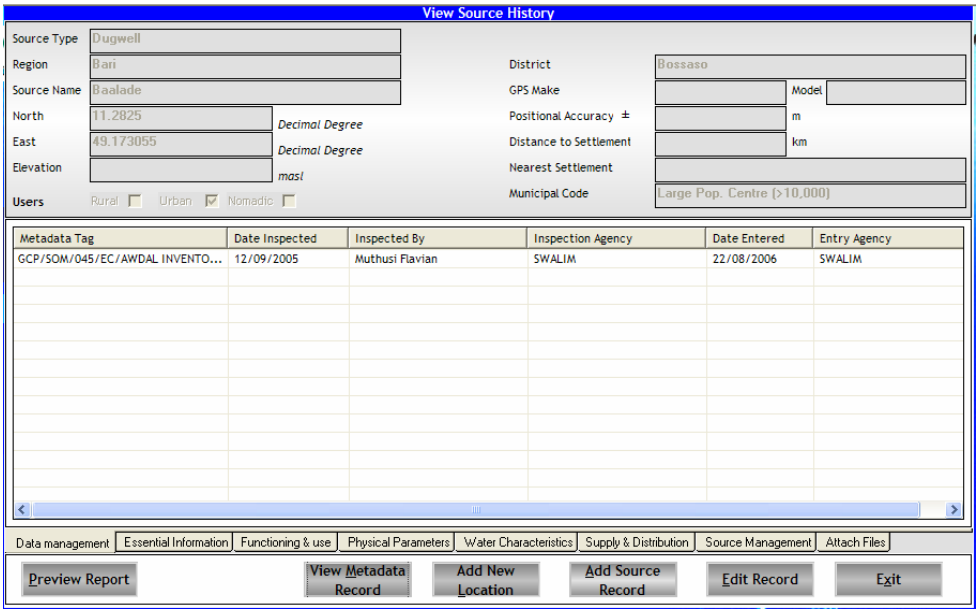


Figure 3.19 Source History Table

From this window you are able to view metadata record, add new location, add source record and edit existing records.

The ***Add New Location*** option is used when new source location is being added to the system. The way of adding a new source has been described earlier in this manual. However, there are cases where more than one source records need to be added to a source location already existing in the system. In such a case, the ***Add Source Record*** option is used.

To add a new source record to a location, select the record from Figure 3.19, then click on the ***Add Source Record*** button. The window shown in Figure 3.20 will open, which requires you to select the metadata tag for this record. Use the scroll button to select the Metadata Tag. Note also that in the event where a metadata has not been created before, the ***Add Metadata*** button can be used to create a metadata in the same way explained above.

Figure 3.20 Selecting Metadata

Select the metadata tag, followed by ***Next***. The message in Figure 3.12 above will display. Click ***Ok*** to open the window shown in Figure 3.13 above, and follow the same procedure explained into adding source record.

To edit a record, select the record from Figure 3.19, then click on ***Edit***. The window in Figure 3.13 above will open with the previously filled data. Do the required edits, saving the changes for every tab as earlier explained. The existing information is overwritten. To exit to the water sources switch board click ***Exit***.

3.1.3 Adding and Editing Interventions Records

Interventions occur when an existing water source is visited with aim of improving or replacing the existing facilities. The intervening agency is not necessarily the source agency. SWIMS provides a means of incorporating the intervention information into the system through the Add/Edit Interventions menu in the Water Sources Switch Board. Click on the menu from Figure 3.1 above to open the window in Figure 3.21.

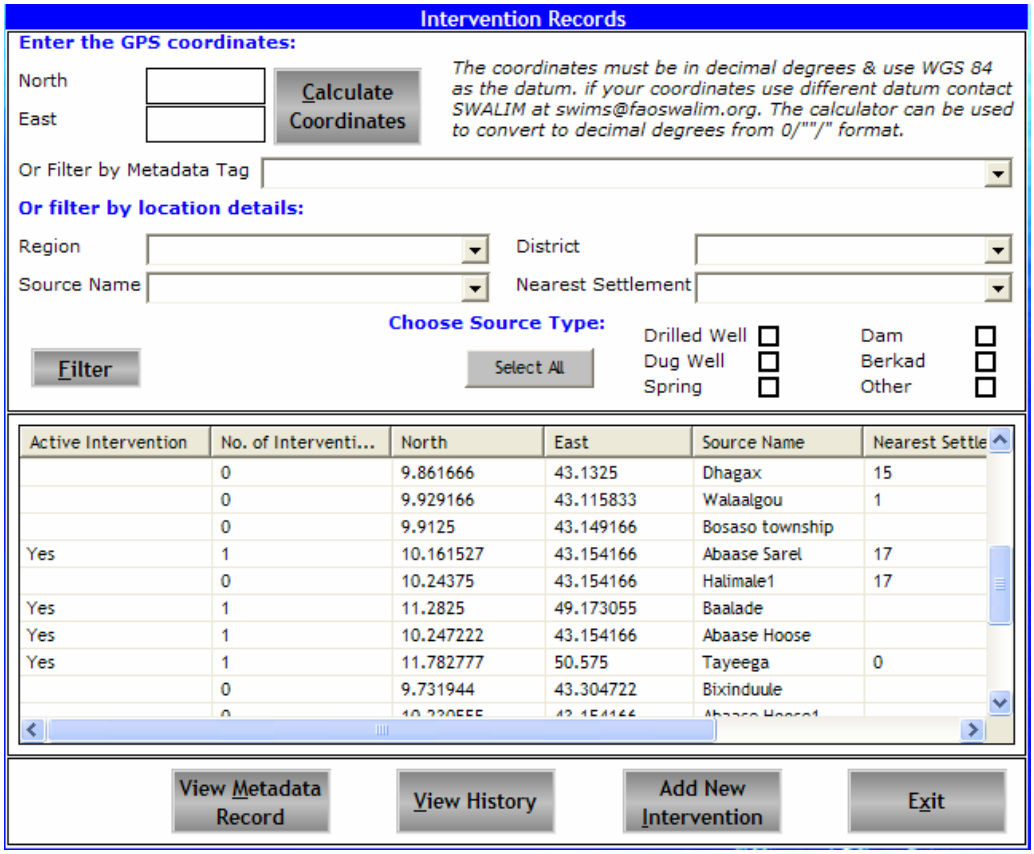


Figure 3.21 Interventions Records

The upper section of the window provides a means of filtering records as earlier explained. The ***View Metadata Record*** and ***View History Records*** have the same functions explained earlier in the Water Source Records section.

To add a new intervention record, select the associated location record either by filtering, or by clicking from the lower window. Then click on ***Add New Intervention*** button. The window in Figure 3.20 above will open, asking you to choose a metadata tag. Choose the tag and click ***Next***. The window in Figure 3.22 will open. The upper window has the location information for the source you selected. Fill in the data for the interventions as explained for the water source records. Again, the structure of the interventions tab is the same as the field data sheets for interventions, making the data entry easy.

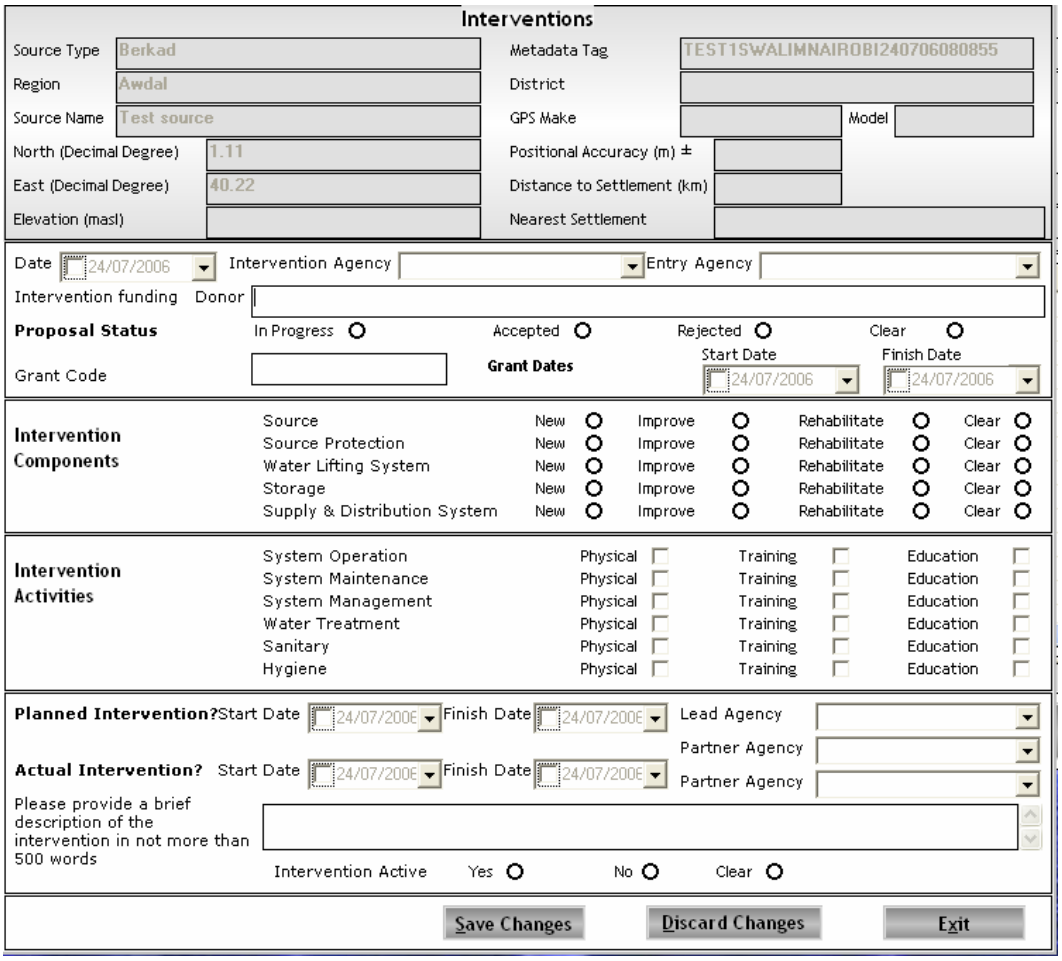


Figure 3.22 Interventions Tab

To save the entries made, click on the ***Save Changes*** button. The ***Discard Changes*** button resets the table to blank, while the ***Exit*** button returns you to the Interventions Records window in Figure 3.21 above. When the records are saved, a message pops up to confirm. When you click ***Ok***, the pop up message disappears, and the system returns to the Interventions Records window in Figure 3.21. At this point you have successfully added intervention record to the system. Follow the same procedure to add other records to the system. Once done, click ***Exit*** to return to the water sources switch board.

3.1.4 Editing Water Source Locations Records

As mentioned in the introduction, all source records and interventions in SWIMS are linked to a location record. Messing up with the location data therefore affects all data

entries related to the location. For this reason, the system prohibits any edits to location records other than by SWIMS administrators.
From the water sources switchboard, click on ***Edit Water Source Locations Records***. The window in Figure 3.23 will open. Again, to make sure the SWIMS administrator is sure of the location to edit, the system requires the four fields in the window be filled to find the record. If any of the four is left blank or filled incorrectly, an error message is generated.

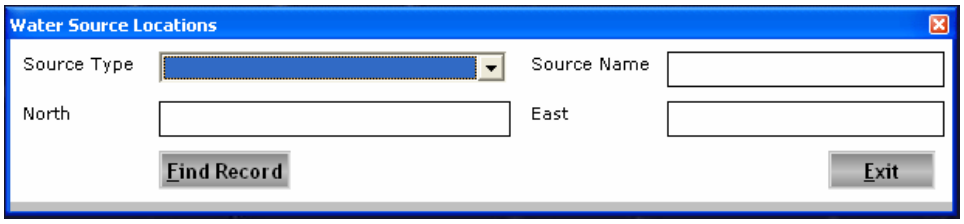


Figure 3.23 Finding Source Locations

To find the record, select the Source Type, then fill in the Source Name, North and East fields. Then click on ***Find Record*** button. The window shown in Figure 3.24 will open, which has the location details for the selected record.

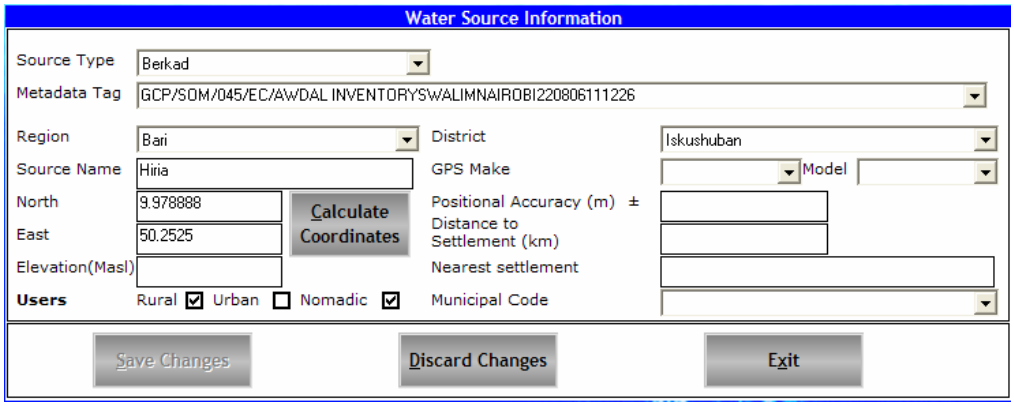


Figure 3.24 Water Sources Locations

Edit the record as required and click ***Save Changes*** to replace the existing information in the system. The ***Discard Changes*** button resets the table to blank, while the ***Exit*** button returns you to the window for finding source locations in Figure 3.23 above.

Up to this point, it is expected that you can do all the data entry into SWIMS. The next chapter guides you through the process of extracting reports from the database.

Chapter

4

REPORTS

4.0 Introduction

SWIMS provides a way of extracting information from the database inform of reports. Most of the reports are in MS Excel format, which allows manipulation to suit users' needs. The Reports Switch Board (Figure 4.1) is accessed from the Main Switch Board, and has three menus; Water Source Reports, Metadata Reports and Information Management Reports.

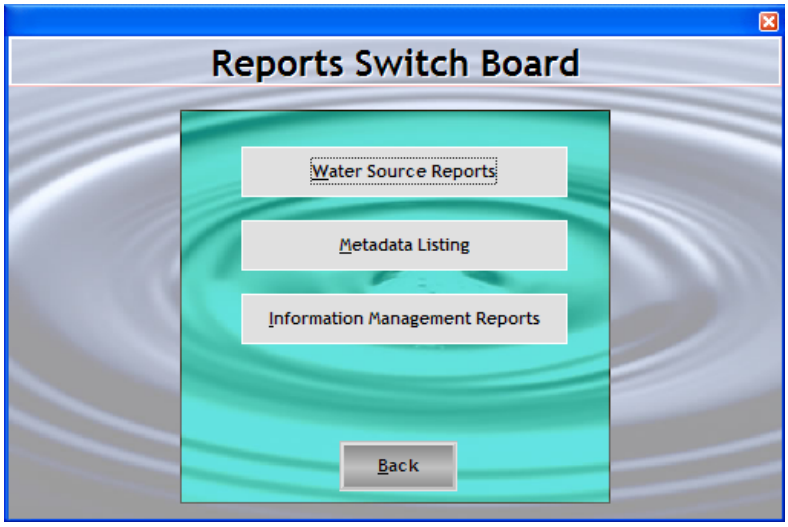


Figure 4.1 Reports Switch Board

4.1 Water Sources Reports

There are various types of reports available in the water source reports menu. Click on the ***Water Source Reports*** button to display the window shown in Figure 4.2. Each of these reports give information on a different aspect of the water sources, ranging from detailed information, essential information, interventions, source history and water source records.

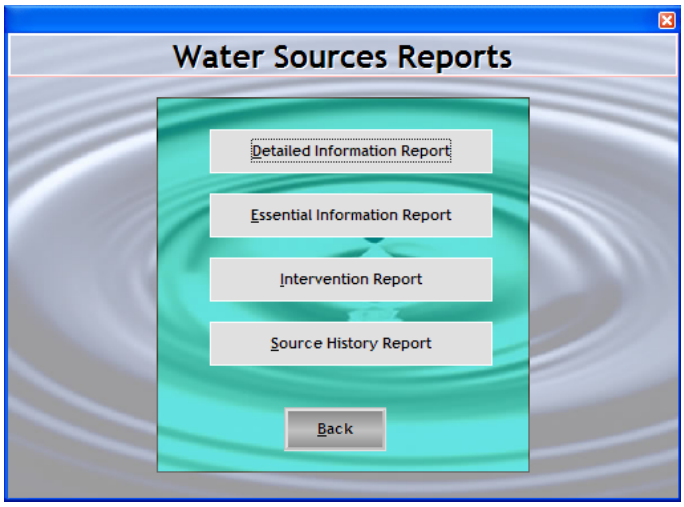


Figure 4.2 Types of Water Sources Reports

4.1.1 Detailed Information Reports

A detailed information report constitutes information of all the six taxonomies and different sections of the water sources. Open the window (Figure 4.3) for selecting information to be included in the report by clicking on the ***Detailed Information Report*** menu.

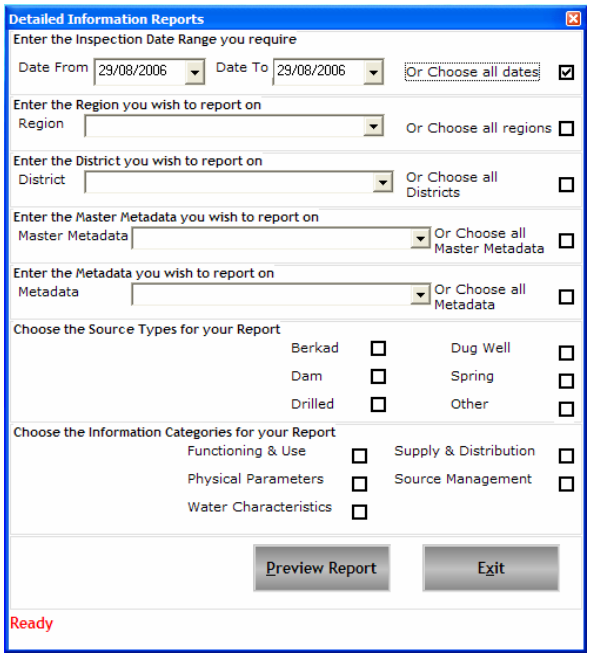


Figure 4.3 Selecting Information for a Detailed Information Report

The window is divided into five sections, from which selections can be done for the report. The user can select the range of dates for the reports, or choose all dates. A choice can also be made for a particular region, or all regions. The other available choices are for the source types and categories. Selection is done by ticking the box adjacent to options or using the drop down list in the case of regions and districts. The selection criteria allow the system users to choose only what they require rather than giving them the whole set of information in the database.

Initially, the ***Preview Report*** button is not active. However, it is activated as the selections are done. After getting the combinations you require for the report, click on ***Print Report.*** The computer starts generating the reports with an icon at the bottom of the window in Figure 4.4 showing some progress. The process may take some time if the report is large. Allow the computer enough time to finish.

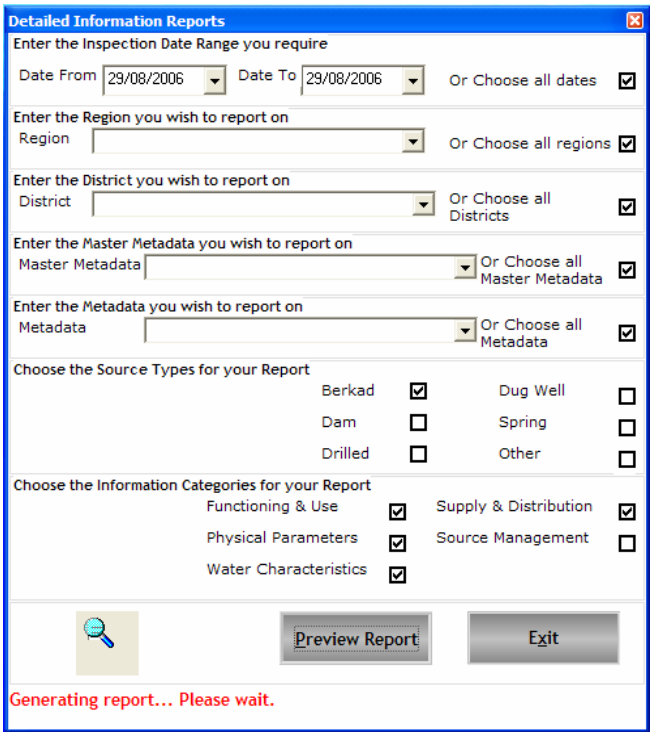
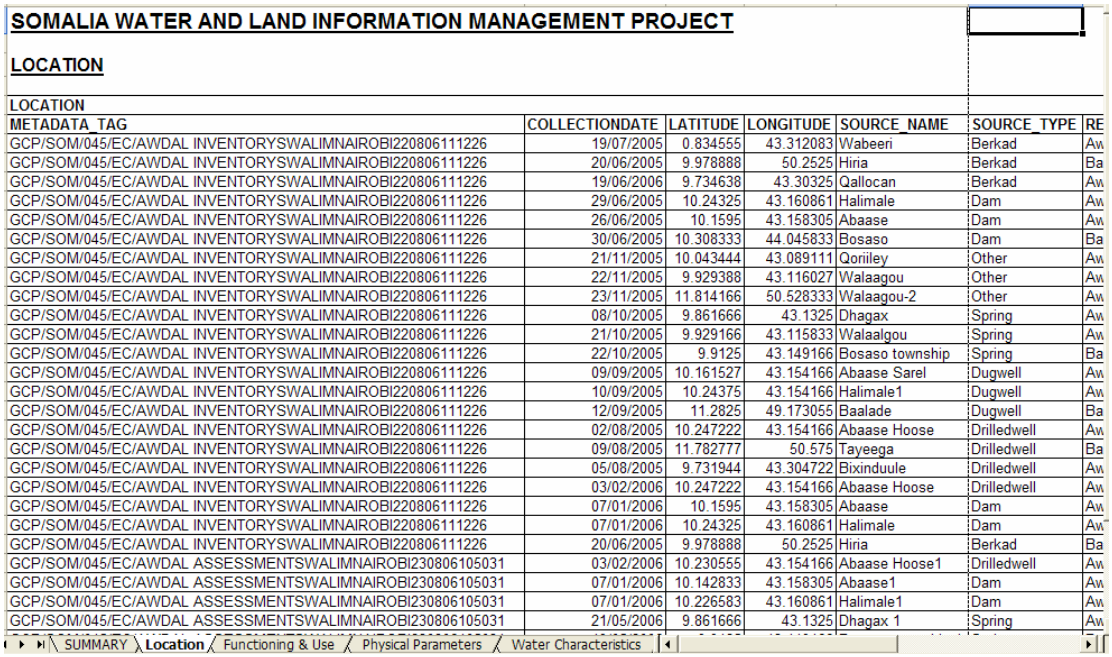


Figure 4.4 Progress in Reports Generation

When the reports are fully generated, the message at the bottom of the window changes from “Generating report……. Please wait” to “Ready”. The Excel work book in Figure 4.5 is also opened, which contains the reports.



SOMALIA WATER AND LAND INFORMATION MANAGEMENT PROJECT

LOCATION

LOCATION

METADATA_TAG	COLLECTIONDATE	LATITUDE	LONGITUDE	SOURCE_NAME	SOURCE_TYPE	RE
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	19/07/2005	0.834555	43.312083	Wabeeri	Berkad	Aw
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	20/06/2005	9.978888	50.2525	Hiria	Berkad	Ba
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	19/06/2006	9.734638	43.30325	Qallocan	Berkad	Aw
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	29/06/2005	10.24325	43.160861	Halimale	Dam	Aw
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	26/06/2005	10.1595	43.158305	Abaase	Dam	Aw
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	30/06/2005	10.308333	44.045833	Bosaso	Dam	Ba
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	21/11/2005	10.043444	43.089111	Qoriiley	Other	Aw
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	22/11/2005	9.929388	43.116027	Walaagou	Other	Aw
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	23/11/2005	11.814166	50.528333	Walaagou-2	Other	Aw
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	08/10/2005	9.861666	43.1325	Dhagax	Spring	Aw
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	21/10/2005	9.929166	43.115833	Walaalgou	Spring	Aw
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	22/10/2005	9.9125	43.149166	Bosaso township	Spring	Ba
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	09/09/2005	10.161527	43.154166	Abaase Sarel	Dugwell	Aw
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	10/09/2005	10.24375	43.154166	Halimale1	Dugwell	Aw
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	12/09/2005	11.2825	49.173055	Baalade	Dugwell	Ba
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	02/08/2005	10.247222	43.154166	Abaase Hoose	Drilledwell	Aw
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	09/08/2005	11.782777	50.575	Tayeega	Drilledwell	Ba
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	05/08/2005	9.731944	43.304722	Bixinduule	Drilledwell	Aw
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	03/02/2006	10.247222	43.154166	Abaase Hoose	Drilledwell	Aw
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	07/01/2006	10.1595	43.158305	Abaase	Dam	Aw
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	07/01/2006	10.24325	43.160861	Halimale	Dam	Aw
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	20/06/2005	9.978888	50.2525	Hiria	Berkad	Ba
GCP/SOM/045/EC/AWDAL ASSESSMENTSWALIMNAIROBI230806105031	03/02/2006	10.230555	43.154166	Abaase Hoose1	Drilledwell	Aw
GCP/SOM/045/EC/AWDAL ASSESSMENTSWALIMNAIROBI230806105031	07/01/2006	10.142833	43.158305	Abaase1	Dam	Aw
GCP/SOM/045/EC/AWDAL ASSESSMENTSWALIMNAIROBI230806105031	07/01/2006	10.226583	43.160861	Halimale1	Dam	Aw
GCP/SOM/045/EC/AWDAL ASSESSMENTSWALIMNAIROBI230806105031	21/05/2006	9.861666	43.1325	Dhagax 1	Spring	Aw

SUMMARY | Location | Functioning & Use | Physical Parameters | Water Characteristics

Figure 4.5 Detailed Information Report

There are six worksheets in the report, each having data for a different section of the water sources. However, the first six columns (Latitude, Longitude, Source Type, Region Name, District and Source Name) are common to all sheets, making mapping of reports for each section possible.

4.1.2 Essential Information Reports

The same procedure is followed when extracting reports for the essential information. The window for selecting reports details is however different from that of detailed information report. From the water sources reports menu in Figure 4.2 above, click on ***Essential Information Report***. The window shown in Figure 4.6 will open.

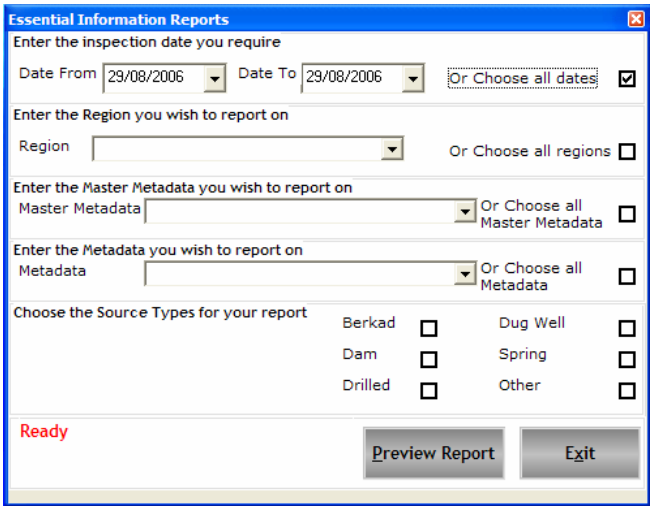


Figure 4.6 Selecting Information for Essential Information Report

Selection of the reports for the essential information is done by dates, region or the source type. After the selection is done, the ***Preview Report*** button becomes active. Click on it to start generating the reports. As the system starts extracting the reports, the status icon and message in Figure 4.4 will display. Once complete, the Excel workbook in Figure 4.7 will open.

SOMALIA WATER AND LAND INFORMATION MANAGEMENT PROJECT

ESSENTIAL INFORMATION REPORTS

BERKAD DETAILS

METADATA_TAG	COLLECTIONDATE	LATITUDE	LONGITUDE	SOURCE_NAME	SOURCE_TYPE	RE
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	19/07/2005	0.834555	43.312083	Wabeeri	Berkad	Aw
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	20/06/2005	9.978888	50.2525	Hiria	Berkad	Ba
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	20/06/2005	9.978888	50.2525	Hiria	Berkad	Ba
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	19/06/2006	9.734638	43.30325	Qallocan	Berkad	Aw
GCP/SOM/045/EC/AWDAL ASSESSMENTSWALIMNAIROBI230806105031	20/06/2005	9.978888	50.2525	Hiria	Berkad	Ba
GCP/SOM/045/EC/AWDAL ASSESSMENTSWALIMNAIROBI230806105031	20/06/2005	9.978888	50.2525	Hiria	Berkad	Ba
GCP/SOM/045/EC/AWDAL ASSESSMENTSWALIMNAIROBI230806105031	20/06/2006	9.962222	50.2525	Hiria 1	Berkad	Ba
GCP/SOM/045/EC/AWDAL ASSESSMENTSWALIMNAIROBI230806105031	05/01/2006	9.717972	43.30325	Qallocan 1	Berkad	Aw

DAM DETAILS

METADATA_TAG	COLLECTIONDATE	LATITUDE	LONGITUDE	SOURCE_NAME	SOURCE_TYPE	RE
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	29/06/2005	10.24325	43.160861	Halimale	Dam	Aw
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	29/06/2005	10.24325	43.160861	Halimale	Dam	Aw
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	26/06/2005	10.1595	43.158305	Abaase	Dam	Aw
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	26/06/2005	10.1595	43.158305	Abaase	Dam	Aw
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	30/06/2005	10.308333	44.045833	Bosaso	Dam	Ba
GCP/SOM/045/EC/AWDAL ASSESSMENTSWALIMNAIROBI230806105031	07/01/2006	10.1595	43.158305	Abaase	Dam	Aw
GCP/SOM/045/EC/AWDAL ASSESSMENTSWALIMNAIROBI230806105031	07/01/2006	10.1595	43.158305	Abaase	Dam	Aw
GCP/SOM/045/EC/AWDAL ASSESSMENTSWALIMNAIROBI230806105031	07/01/2006	10.24325	43.160861	Halimale	Dam	Aw
GCP/SOM/045/EC/AWDAL ASSESSMENTSWALIMNAIROBI230806105031	07/01/2006	10.24325	43.160861	Halimale	Dam	Aw
GCP/SOM/045/EC/AWDAL ASSESSMENTSWALIMNAIROBI230806105031	07/01/2006	10.142833	43.158305	Abaase1	Dam	Aw
GCP/SOM/045/EC/AWDAL ASSESSMENTSWALIMNAIROBI230806105031	07/01/2006	10.226583	43.160861	Halimale1	Dam	Aw

DRILLED WELL DETAILS

METADATA_TAG	COLLECTIONDATE	LATITUDE	LONGITUDE	SOURCE_NAME	SOURCE_TYPE	RE
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	02/08/2005	10.247222	43.154166	Abaase Hoose	Drilledwell	Aw

SUMMARY | Location | Essential Information Reports | Sheet1 | Sheet2 | Sheet3

Figure 4.7 Essential Information Reports

For the essential information report, there are only two worksheets, one containing the location details, and the other essential information. The essential information sheet contains information required to map the water sources plus all other entries done on the essential information tab of the water sources menu.

4.1.3 Intervention Reports

To generate the interventions report, click on the ***Intervention Report*** menu from Figure 4.2. The window in Figure 4.8 will open. The additional fields for selection from the detailed information report are the metadata and whether the intervention is active or not. Use the same process to select the fields, and click on ***Preview Report***.

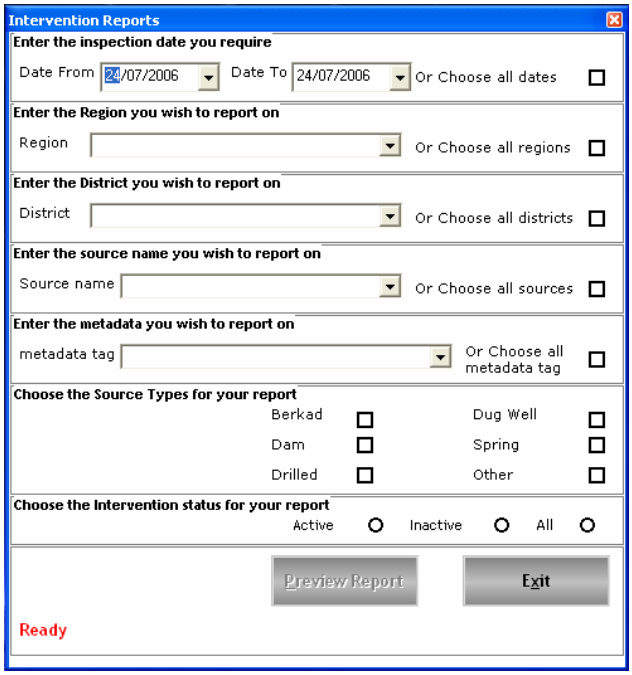


Figure 4.8 Selecting Information for Interventions Reports

After a short while the reports are generated, and open in Excel. A sample of the interventions report is shown in Figure 4.9.

SOMALIA WATER AND LAND INFORMATION MANAGEMENT PROJECT

INTERVENTION REPORTS

SOURCE_TYPE	SUBMISSION_DATE	ENTRYAGENCY	INTERVENTION_AGENCY	METADATA_REFERENCE
Drilledwell	10/04/2006	SWALIM	European Community Humanitarian Office	GCP/SOM/045/EC/AWDAL ASSESSMENTSWALIMNAIROBI2308
Drilledwell	15/04/2006	SWALIM	SWALIM	GCP/SOM/045/EC/AWDAL ASSESSMENTSWALIMNAIROBI2308
Dugwell	31/01/2006	SWALIM	SWALIM	GCP/SOM/045/EC/AWDAL ASSESSMENTSWALIMNAIROBI2308
Dugwell	15/02/2006	SWALIM	SWALIM	GCP/SOM/045/EC/AWDAL ASSESSMENTSWALIMNAIROBI2308

Figure 4.9 Interventions Report

4.1.4 Source History Reports

The other water sources reports are the source history report. To access this report, click on the ***Source History Report*** from the reports menu in Figure 4.2. The window in Figure 4.10 opens, from which the user can filter information to get a particular water source. The filtering process is done as earlier explained. The user is therefore expected to know details of at least one of the provided options: the coordinates (Northings and Eastings), the metadata tag, location details or the source type. Knowing details of more than one filter options makes the selection more specific.

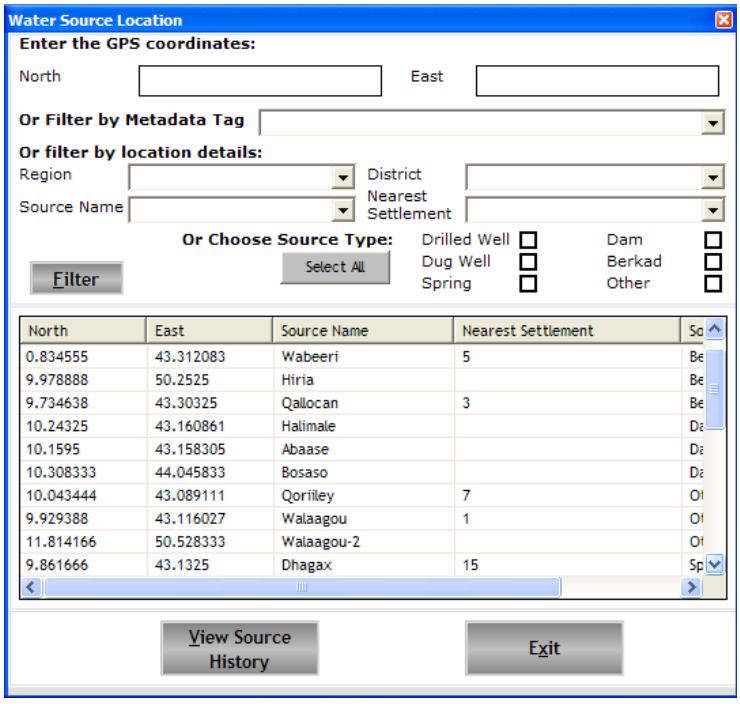


Figure 4.10 Selecting Information for Source History Reports

To view a record after filtering, click on it from the lower window. The record becomes highlighted in blue. Then click on the ***View Source History***. The window in Figure 4.11 will open.

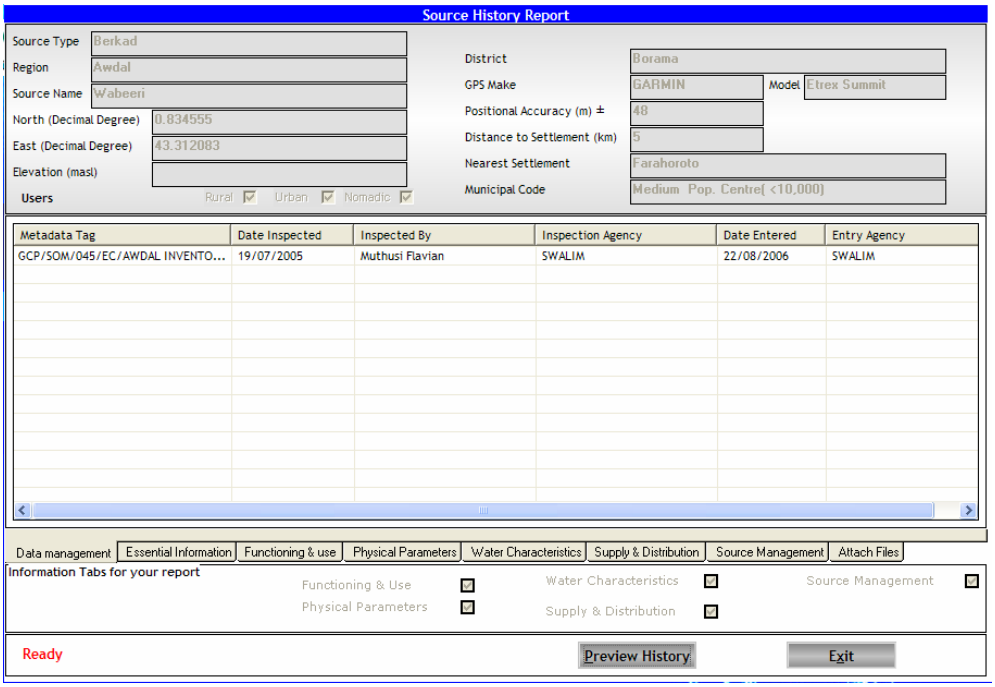
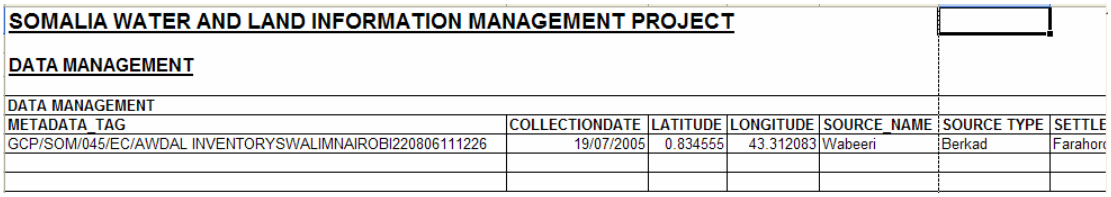


Figure 4.11 Source History Records in SWIMS

The window has the water sources tabs, each having information filled in during data entry. At the bottom of the window there are the options for selecting reports by each of the sections. When the window is opened, all the sections are ticked. A report generated is there inclusive of all the sections. However, the user can choose to include only a section of the water sources. Uncheck the sections which are not included in the report.

To generate a source history report, click on ***Preview History*** button, and allow the system enough time to generate the reports. Once done, the Excel report in Figure 4.12 will open.



SOMALIA WATER AND LAND INFORMATION MANAGEMENT PROJECT

DATA MANAGEMENT

DATA MANAGEMENT

METADATA_TAG	COLLECTIONDATE	LATITUDE	LONGITUDE	SOURCE_NAME	SOURCE TYPE	SETTLE
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	19/07/2005	0.834555	43.312083	Wabeeri	Berkad	Farahor

Figure 4.12 Source History Report

4.2 Meta Data Reports

The metadata reports gives a list of all metadata records in the system. To open the reports, click on ***Metadata Listing***. The window in Figure 4.13 will open, which the user can select the reports to print by master metadata or/and date.

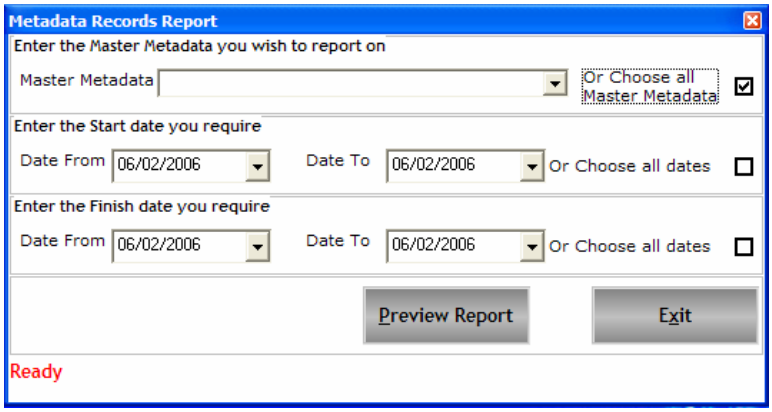


Figure 4.13 Selecting Information for Metadata Report

When you do the selection, the ***Preview Report*** button becomes active. Click on it, and allow the computer some time to generate the report. The generated report is as shown in Figure 4.14.

SOMALIA WATER AND LAND INFORMATION MANAGEMENT PROJECT

SWIMS METADATA RECORDS

METADATATAG	CLOSED	STAMPDATE	STARTDATE	ENDDATE	TITLE
GCP/SOM/045/EC/AWDAL ASSESSMENTSWALIMNAIROBI230806105031	Yes	23/08/2006	05/01/2007	15/06/2006	Assesment of the condition of the wa
GCP/SOM/045/EC/AWDAL ASSESSMENTSWALIMNAIROBI230806105031	Yes	23/08/2006	05/01/2007	15/06/2006	Assesment of the condition of the wa
GCP/SOM/045/EC/AWDAL ASSESSMENTSWALIMNAIROBI230806105031	Yes	23/08/2006	05/01/2007	15/06/2006	Assesment of the condition of the wa
GCP/SOM/045/EC/AWDAL ASSESSMENTSWALIMNAIROBI230806105031	Yes	23/08/2006	05/01/2007	15/06/2006	Assesment of the condition of the wa
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	Yes	22/08/2006	01/06/2005	30/11/2005	SWALIM Water Sources Survey for A
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	Yes	22/08/2006	01/06/2005	30/11/2005	SWALIM Water Sources Survey for A
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	Yes	22/08/2006	01/06/2005	30/11/2005	SWALIM Water Sources Survey for A
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	Yes	22/08/2006	01/06/2005	30/11/2005	SWALIM Water Sources Survey for A
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	Yes	22/08/2006	01/06/2005	30/11/2005	SWALIM Water Sources Survey for A
GCP/SOM/045/EC/AWDAL INVENTORYSWALIMNAIROBI220806111226	Yes	22/08/2006	01/06/2005	30/11/2005	SWALIM Water Sources Survey for A
MWMRSWALIMNAIROBI280806175932	Yes	28/08/2006	28/08/2006	28/08/2006	Togdheere Region Rural Water Supp

Figure 4.14 Metadata Report

4.3 Information Management Reports

The other form of reports generated by SWIMS is for information management. There are two sets of these reports, one set for the master database and the other for the client database. For the client database, the set of reports include: new records added from an update session; number of edited records; number of updated records; records not imported due to errors and user list and status.

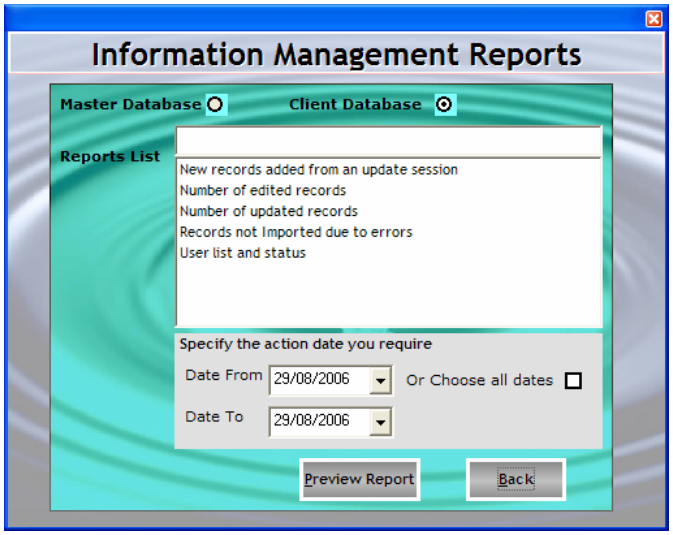


Figure 4.15 Selection of Information Management Reports

The client application of SWIMS cannot access the master database reports. To access the client database reports, click on the button next to the option in the window. A list of the above mentioned reports displays. Select the type of report you want from the list by ticking on it. Then select the range of dates for the report, or select all dates. Next, click on ***Preview Report***. After a short while the report is generated in Excel, as shown in Figure 4.16.

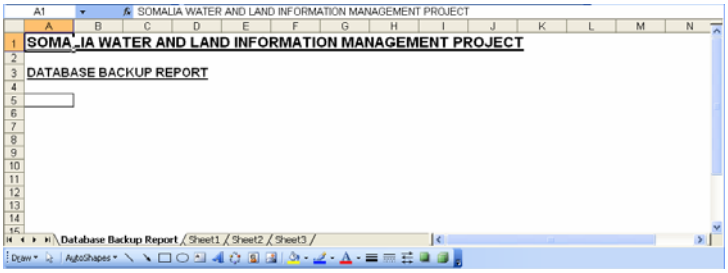


Figure 4.16 Information Management Report

To view the other reports, follow the same procedure; select the report from the list followed by the dates. Then click on ***Preview Report*** to generate the reports in Excel.

Chapter

5

SWIMS DOCUMENTATION

The SWIMS documentation switch board allows the user to access the various documents associated with the system. The documents include manuals for system use and field data collection, and the field data collection sheets. The documents are in .pdf format.

To access the documents, click on ***SWIMS Documentation*** from the Main Switch Board (Figure 2.1 above). The window shown in Figure 5.1 will open. By clicking on the scroll down arrow, a list of the system documents is displayed. Scroll down to identify the document you are interested in, and click on it to have its name displayed in the box written "SWIMS Documents (pdf)".

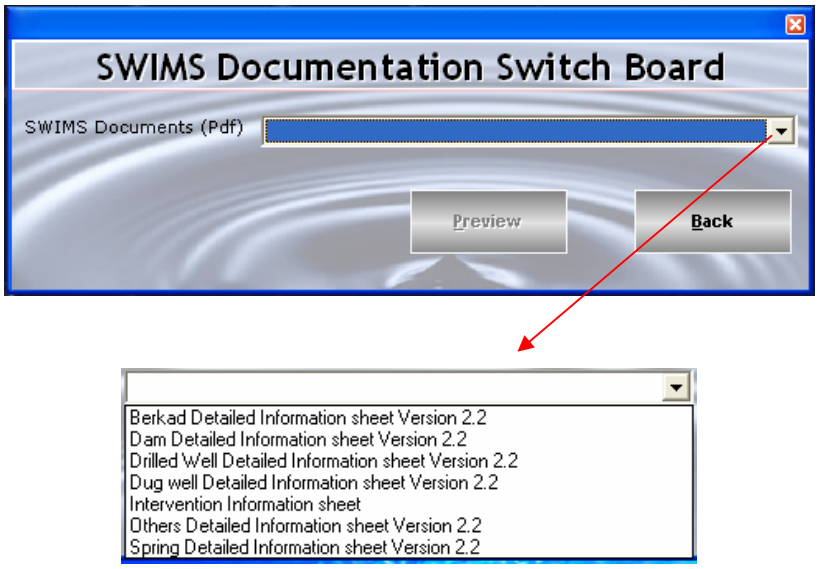


Figure 5.1 List of SWIMS Documents

The ***Preview*** button becomes active once the selected document displays in the box. Click on the button to open the document.