Water Quality Database

User Manual

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SOPAC Miscellaneous Report 396

Prepared by

Lina Channan
Water Resources Unit
SOPAC

Contents:

Foreword

This manual is a user handbook for the Water Quality Database. This system is based on Microsoft Access 97 and describes how to navigate around the Water Quality Database.

This manual is not intended to tutor you on how to use Microsoft Access. Instead it is a guide which describes how to operate and troubleshoot the Water Quality Database system and will help familiarise you with all aspects of the package and provide a reference tool for questions you might have in future.

It is strongly recommended that the users read the appropriate user manuals for further knowledge of Microsoft Access.

The Water Quality Database is designed to be fast and takes full advantage of modern PCs. It is easy to master and can be easily installed and run by personnel with very basic computer skills.
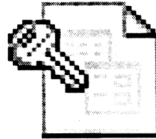

Requirements:

Microsoft Windows 95/98

Full installation of MS Access 97 version

Getting Started.

Entering the Water Quality Database

Locate the icon from the Windows 97 screen for the above database and double click it with the left button of your mouse.


SOPAC Water Quality Database

The database has a security system which requires access for Administrator and User Group.

Administrator – has full access for maintenance and modification of the application. Also he or she is the one assigning username and password to the authorised personnel.

The username and password is given to the people who would be entering data, viewing and quering data.

The following prompt comes up to verify the right username and the privilege.
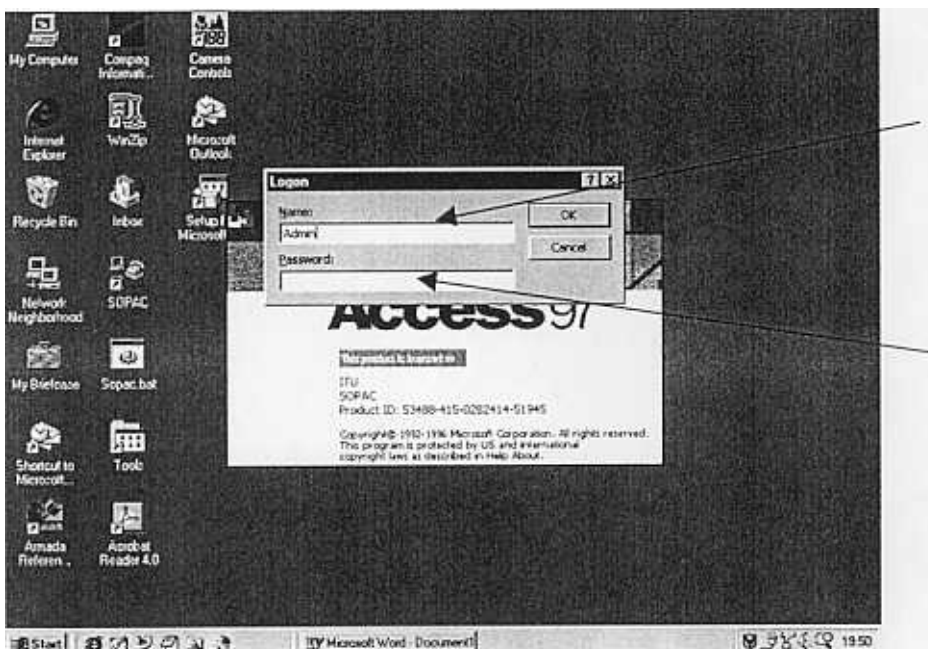
Type Login Name Here

Type in Password Here.
Note you will not see what you are typing.
Your Password will show ******* on the screen.

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If you have access as an Administrator type in your login name: Administrator
Now type in your Password.

If you are a user type in login name: Guest

After typing in the login and password Click on OK button.

As soon as you have entered in the correct login name and password, Access will open up the database.

Main Screen or "Switchboard"

Upon clicking a startup form would appear similar to this.

This can be viewed as the control centre for the database, from which the user can navigate their way around the different facilities of the data entry, querying and presentation in report form.
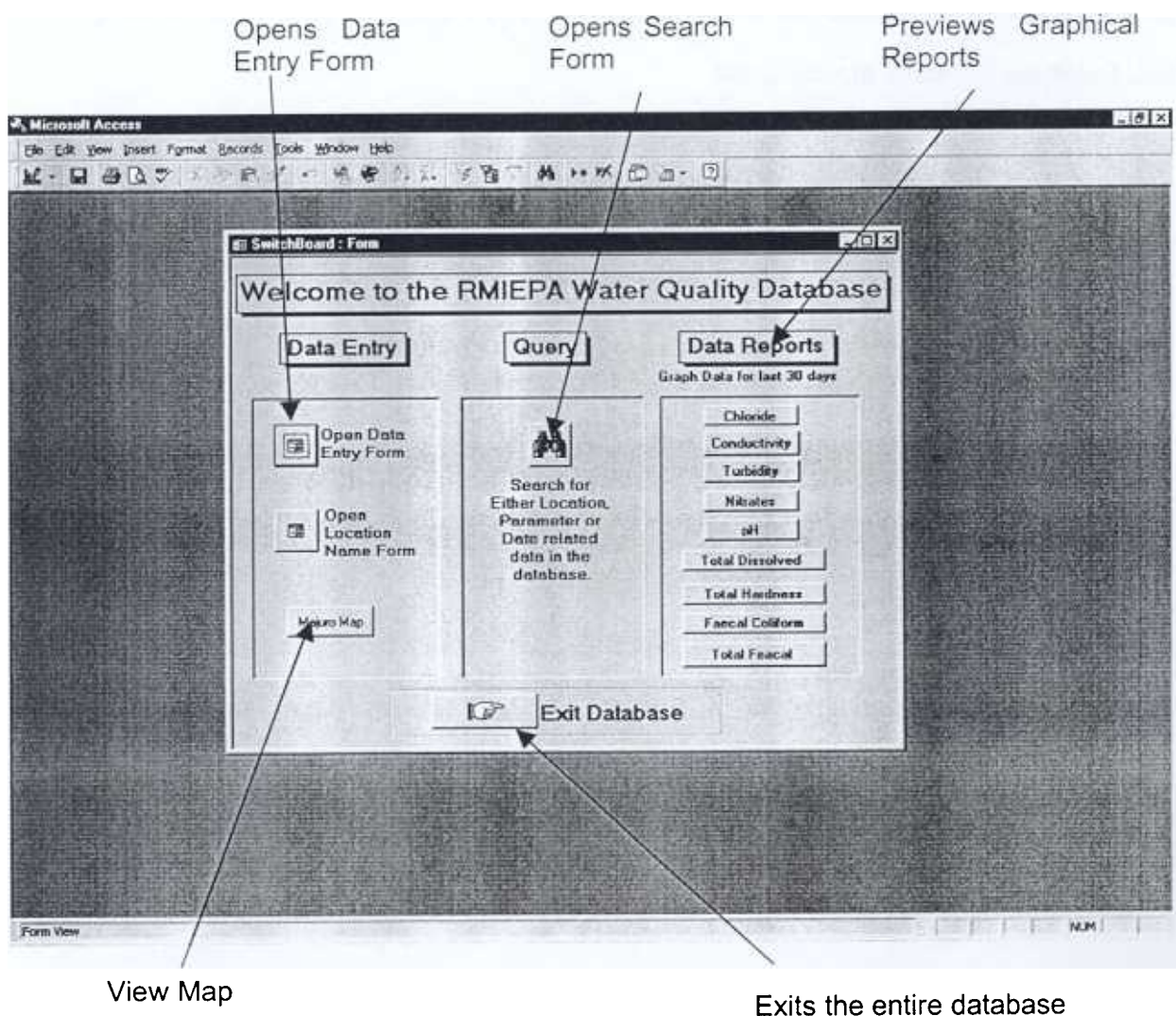
Open Data Entry Form – This lets you into the Water Quality Database Form for you to enter data.
Parameter Data includes:
Conductivity
Turbidity
Chloride
Total Dissolved Solids
Total Coliform
Feacal Coliform
pH
Nitrates
Total Hardness

Open Location Name Form – To enter in New Location Sites that are not in the list.
Important: Do Not Type in Location Name Twice into database.

Majuro Map – Shows a map of Marshall Islands

Query – Opens up a Search Form for you to find data related to Location, Parameter or Date.

Data Reports – Opens Graphical Reports analysized by Parameter for the last 30 days.

Exit Database – Closes the database.

Data Entry

Data is input through an entry form that will look like the one below.

Results from water testing is entered into this form.
Each record entered automatically receives a number which is unique for each data entry.

Features to note on Form

Forms are designed to be user-friendly, and the user should be aware of the following:

Fields – these are the items of information to be stored in the database. Each time a new record is entered on a form, a new record is added to the table.

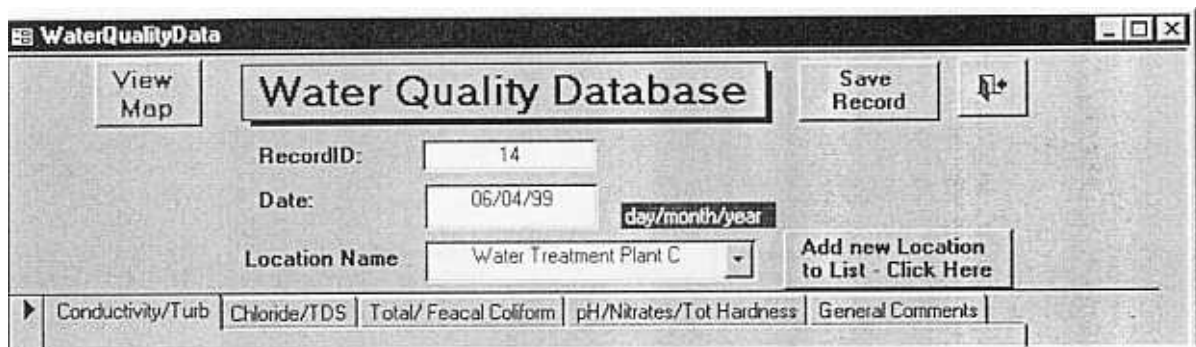**Navigation buttons** – these help the user to move or 'navigate' through the records.

Combo boxes – A combo box can make data entry easier, quicker and more accurate by presenting a scrollable list from which to select.

To enter Date field Day/Month/Year format is used.

To enter data for the different fields, click on the Tabs, which will show the parameters that are available for data entry.

Help - The database has a customised Help file which tells you in simple ways how to use the database.

Error Messages – these will come up when data has not been entered properly.

Sample location can be selected from the drop-down list **Combo Box**, if the location name is not in the list, then Click on the **Add New Location to List button** which opens up a form for adding in new locations.

Enter date in the **Sampling Date** Field FIRST, then the Sampling Site **Location Name** Field next.

NOTE: These are the required Fields.

If these fields are not entered first then the database will not enter any other data.

When selecting Location Name from the Combo Box check that the Name you are looking for is there.
NOTE: This Combo Box List arranges the list of Location Names in alphabetical order.

You can now enter in any of the parameter listed below.
Parameter Data includes:
Conductivity
Turbidity
Chloride
Total Dissolved Solids
Total Coliform
Feacal Coliform
pH
Nitrates
Total Hardness

NOTE: This database only accepts data for the above parameters and units that the data should be entered in.

Enter in any of the required parameters listed above where data is available.

If parameter has no data, field can be left blank.

When data has been entered, the database checks the value you entered with the WHO Standard Limit.
IMPORTANT NOTE: This is NOT a Error, it is there just to make sure that the data you entered is correct.

Eg. If you entered 0.37uS/cm in the conductivity field and try to enter the next field, a Message Box will appear saying that the data is **'Within Limits'** compared to the WHO Standard.
Click on OK to continue.

Message Box saying Data Entered is **Within Limits**
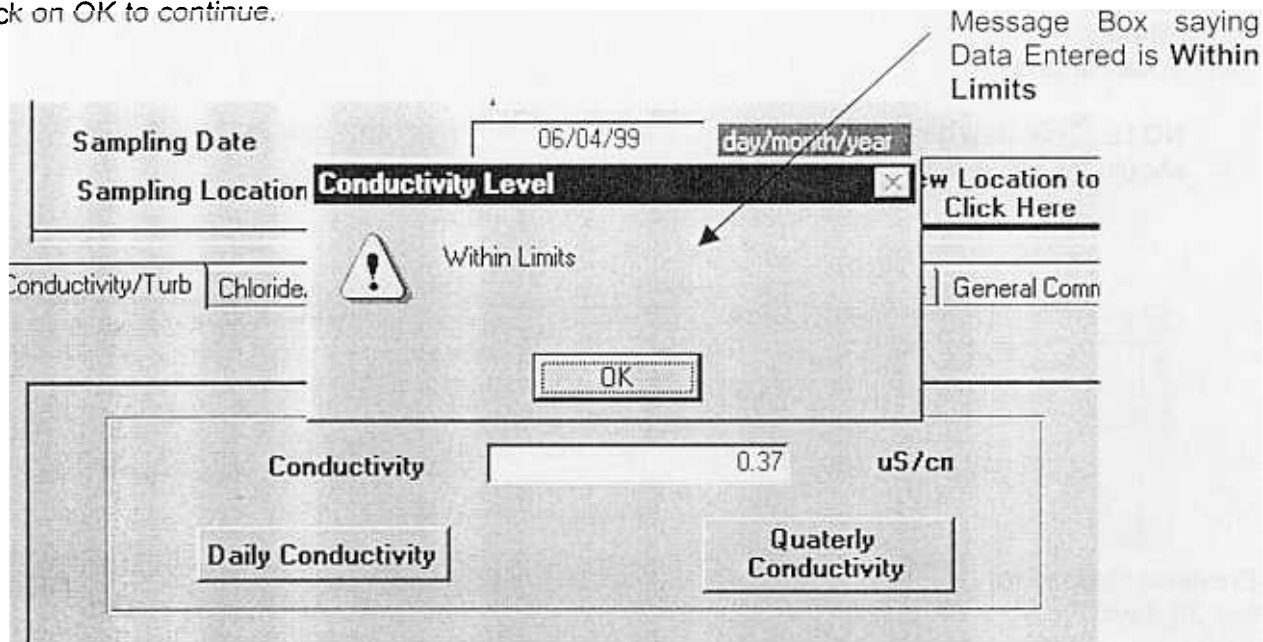
If the value you entered into the form in too High compared to the WHO Standard then an Message Box will appear.

Eg. If you entered in 400uS/cm in the conductivity field and try to enter into the next field, another Message Box will appear saying that '**Conductivity Level is too High**' compared to the WHO Standard.

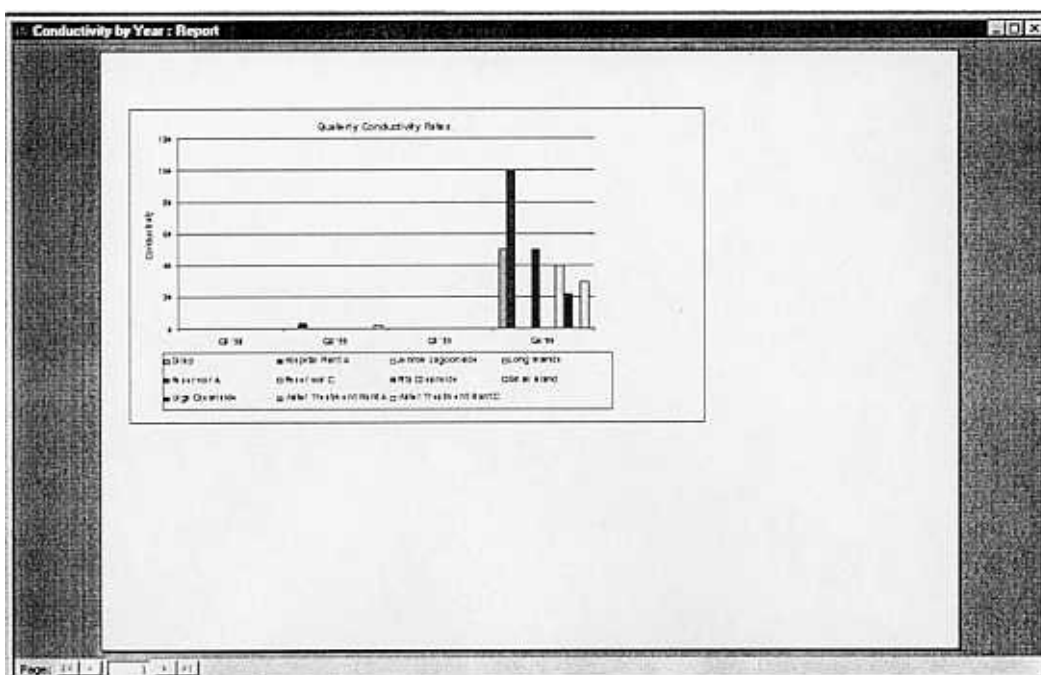Message Box saying Data Entered is **Conductivity Level is too High.**
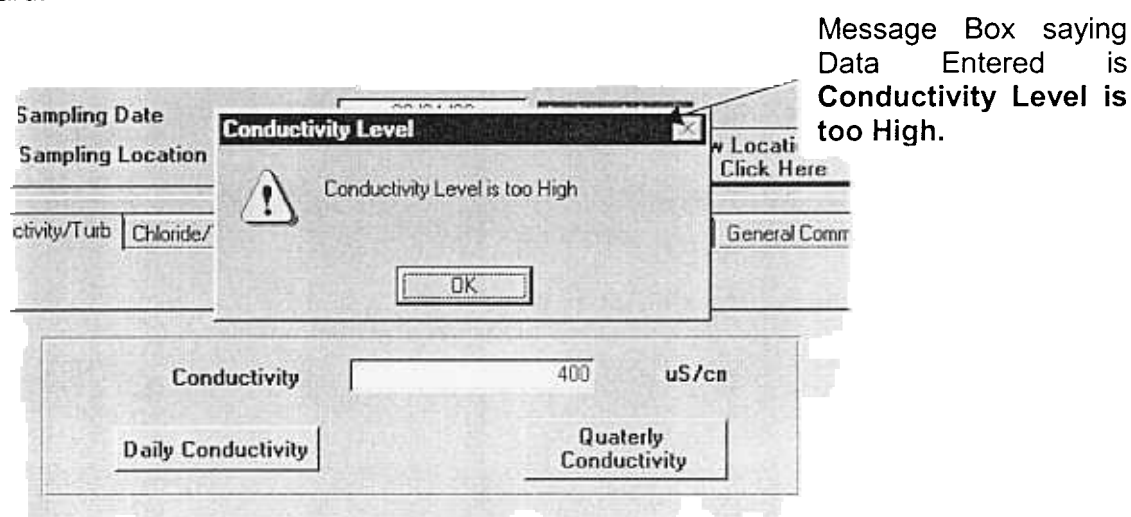
Click on OK to continue.

To view **Daily Graphs** of parameter data:
Clicking this button will automatically graph data from the past 30 days.

Eg. See Below: Graph of Conductivity vs Date.
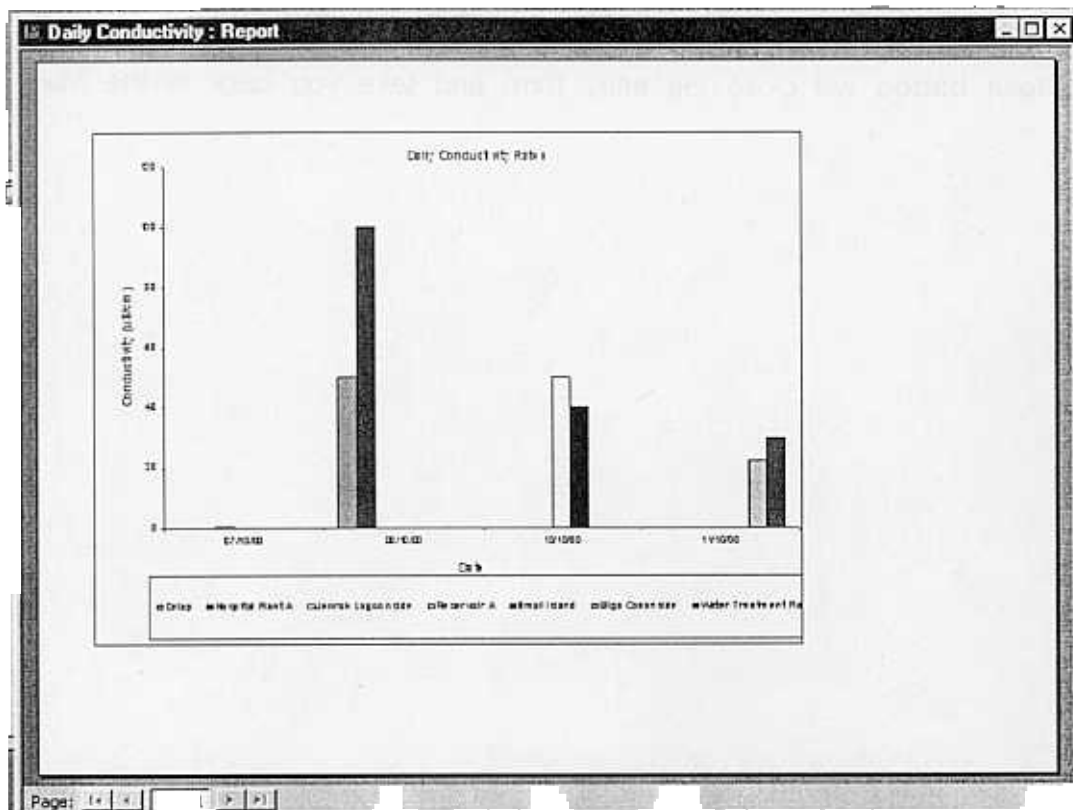
To view **Quarterly Graphs**:
Click button for the data displayed automatically for every quarter.

Saving a New Entry

Once entries have been made into the fields, save the record. Clicking the **Save Record** button, located on the top of the form.

You can go to the Search Form by Clicking the Open Search Button.

Clicking the **Close button** will close the entry form and take you back to the Main Switchboard.

Adding in New Location

The **Location Form** also has a autonumber where each location name entered is given a unique number. After a location is typed in it is important that the site does not already exist. Upon closing the Location Form the new site is added to the drop down list.

If the Location Name is NOT in the List then, Click on the **ADD NEW LOCATION TO LIST-CLICK HERE** button.

This will open up a form for you to add in the Location Name to the List.

After you have done this, close the Location Name Entry Form.

Now when you select the New Location Name that you entered from the Combo Box it should be added to the list.

NOTE: This Combo Box List arranges the list of Location Names in alphabetical order.

Record Selectors:

Current Record Number

Opens up a new entry form

Number of existing records in the database.

Record: |◄ ◄ | 1 | ► ►| ►* | of 58

Selects the last record done for data entry.

Moves to the first record

Selects the previous record

Selects the next record entry.

Search Query

To search the records of data inputted, click on the Search Records button. This can be accessed from the database switchboard or from the data entry form.
Clicking the Search Record, opens a form.

In searching for data, it is not necessary to fill in all of the fields: Location Name, Parameter and Date.

You can select only one field, a combination of fields or all three depending on how you want your result.

Error Messages

'The text you entered isn't an item in the list' – Choose from the Combo Box.

This applies to Combo Boxes when you try to enter a data that is not in the list.

Date is not entered in the MONTH/DAY/YEAR format. If you use a different format the Results for your search will NOT be Correct.

Message Box saying 'No Criteria Specified' – You have not entered any information for the query to run its search.

To view the results of your search click on the **FIND RECORD** button.

The database will automatically search for what you asked it.
Once it has found those records then it will display it in another form for you to view the results.

If you want to make another Search:

Clicking the **REFRESH** button will clear all the text boxes so you can make the next selection for your search.

Search Results:

To view the results of your search a form similar to the one below will appear on your screen.

Closes Search
Results \

/ Preview Report for
printing

Record Selectors

Data Table

Preview Report

Upon clicking the Preview Report button, your screen should show a formatted report with the data resulting from your search.
This can be printed out for your report.

Map

An added feature is the Map of Majuro where Site location can be viewed.

Print Map

Close Map

MajuroMap : Form

Majuro   Print Map   [Close Map]

MAJURO ATOLL