Integrated Information Management System for Coastal and Marine Environment
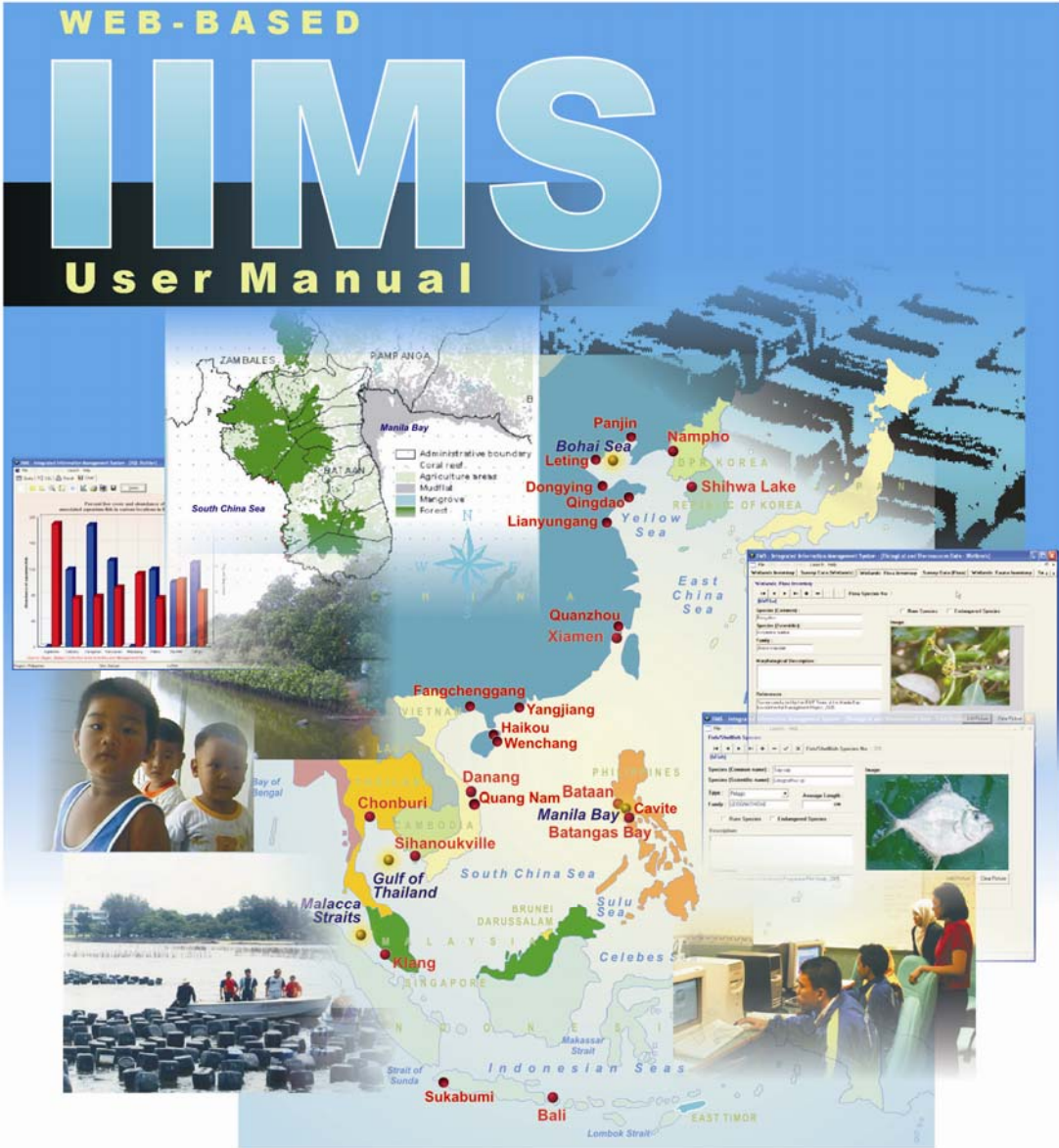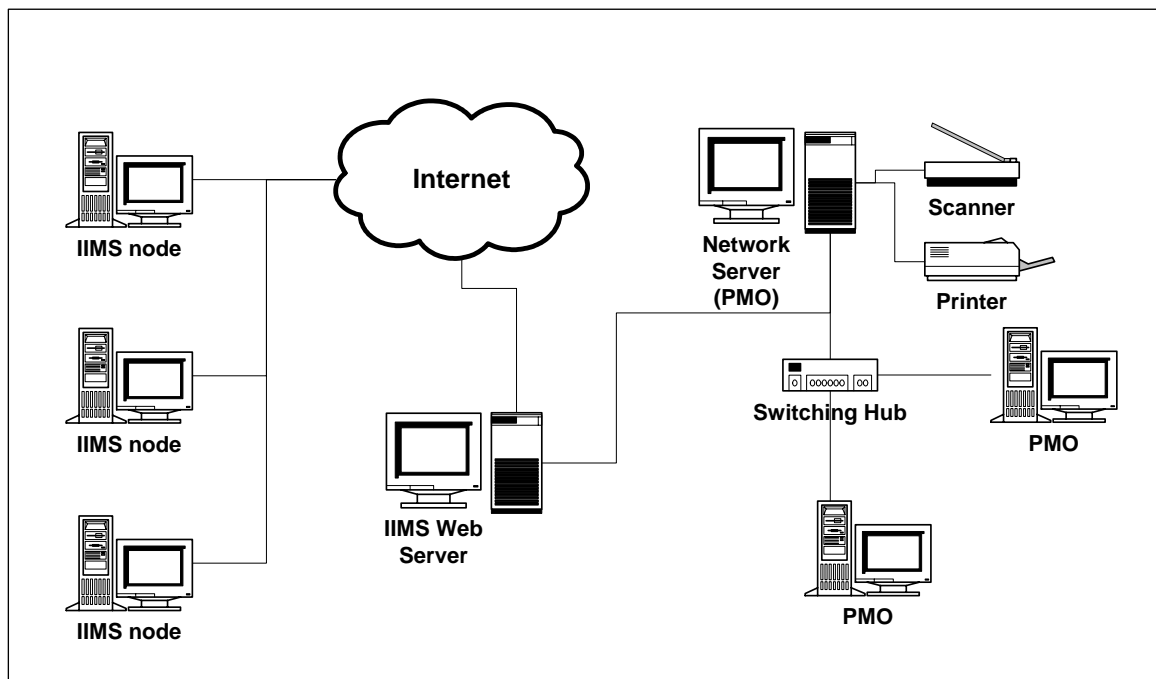
WEB-BASED
IIMS
User Manual

WEB-BASED IIMS USER MANUAL

The Web-based IIMS version enables sharing of data among stakeholders through the Internet. The IIMS database is installed in a file server at PMO or at an office hosting the Web server. The file server is then connected to a Web server so that stakeholders can access the database through the Internet. The Web-based version, however, does not replace the desk top version but it will complement it. The one that will be installed in the file server and at the nodes is the desktop version, and the Web-based version will be installed in the Web server.

The figure below shows the network of IIMS in a site where each of the node can update and access data through the Internet. The public can also access the database by providing the users with password.

This manual covers the steps in using the Web-based IIMS from uploading the database into the Internet, accessing the database through the query system and updating data from the IIMS nodes to the host server.

SETTING-UP THE WEB-BASED IIMS

1.   System Requirements

Before uploading the IIMS software and database into the Internet, the minimum requirements for the system should be met, however, if the site can afford the recommended requirements, the performance of the system will be enhanced. These are enumerated below.

a.   Server (File and Web)

1)   Hardware

Type	Minimum	Recommended
Processor	Pentium IV 2.0 Ghz	Pentium IV 3.0 Ghz or greater
Memory	512 Mb	1024 Mb or greater
Hard Disk	40 Gb	80 Gb or greater
Video	128 Mb AGP	128 Mb AGP or better
Network	10/100 Mbps	10/100Mbps
CD	CD Drive	DVD-ROM Drive
Monitor	15"	15" or larger
Floppy	3.5"	3.5"
Keyboard/Mouse	Any	any

2)   Software

Type	Specification
Operating System	Windows 2000 Advance Server
Support System	Microsoft .NET Framework v1.1 (included in the installation CD)
Database	Firebird v1.5.1.4481 ((included in the installation CD)
Database Interface	FlameRobin ((included in the installation CD)

3)   Internet Connection

Type	Specification
Connection	DSL/ADSL or better
IP Address	Fixed

If the site could not afford to put up two servers, the Web server can also be used as a file server.

b.   Client (IIMS Nodes)

1)   Hardware

Type	Minimum	Recommended
Processor	Pentium III 500 Mhz	Pentium IV 3.0 Ghz or greater
Memory	256 Mb	512 Mb or greater
Hard Disk	40 Gb	80 Gb or greater
Video	128 Mb AGP	128 Mb AGP or better

Network	10/100 Mbps	10/100Mbps
CD	CD Drive	DVD-ROM Drive
Monitor	14"	15" or larger
Floppy	3.5"	3.5"
Keyboard/Mouse	Any	Any

2) Software

Type	*Specification*
Operating System	Windows 98 / ME / 2000 / XP Professional
Internet Browser	Internet Explorer 5.0 or better
	Mozilla FireFox 1.0

3) Internet Connection

Type	*Specification*
Connection	Dial-up or better
IP Address	ISP assigned

**2.   Setup IIMS Web in the Server**

a.   Step 1: Install software needed

The software that will support the system are in the Step 1 Folder in the installation CD.

1)   Microsoft .NET Framework v1.1

The IIMS Web Software is based on Microsoft .NET Framework v1.1. Therefore, this is required to be installed in order to post form data from the client to the server. Double-click the file *dotnetfx.exe* in the *Microsoft .NET Framework v1.1* folder to start the installation.

Click the "Yes" button, when prompted to install.
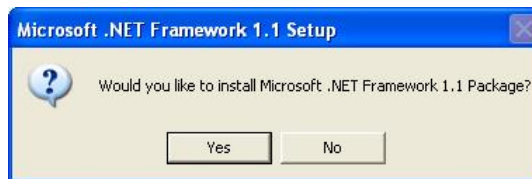
2)   Firebird v1.5.1.4481

Firebird is an open source relational database offering many ANSI SQL-92 features that runs on Linux, Windows, and a variety of Unix platforms. Firebird offers excellent concurrency, high performance, powerful language support for stored procedures and triggers. It has been used in many production systems within a large number of commercial companies since 1981.

Firebird is a commercially independent project of C and C++ programmers, technical advisors and supporters developing and enhancing a multi-platform relational database management system based on the source code released by Inprise Corp (now known as Borland Software Corp) under the [InterBase Public License V.1.0](#) on 25 July, 2000. (Source: www.ibphoenix .com)

Double-click the file *Firebird-1.5.1.4481-Win32.exe* in the *Firebird v1.5.1.4481* folder to start the installation. Click Next button to go through the welcome screen, license agreements and directory location (use the default folder).

In the Select Components dialog box, select *Full installation of Super Server and development tools.* Click next.

Selected options are:

- Super Server binary

- Server components

- Developer and admin tools components
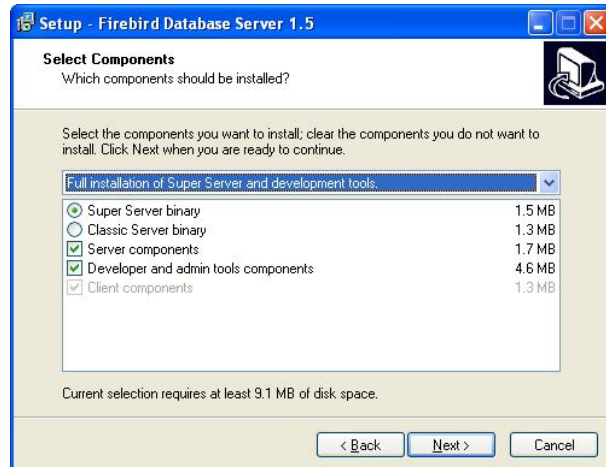
Additional tasks as shown below need to be selected. Click next. The database will them be converted from Paradox to Interbase

b.   Step 2: Setup Internet Information Services

The Internet Information Services (IIS) is the web service provider of Microsoft server operating systems, like Windows 2000 Server, providing

users from the Internet access to web sites in the server. If there is no operating system for server, Windows 2000 and Windows XP Pro can be used. Please note that the system does not work with Windows NT and Windows XP Home.

IMSWeb is required to be setup in the server after copying from the install CD, refer to Section 2.

1)   Create a web site

IIS is accessible from the Start menu: *Start >> Control Panel >> Administrative tools >> Internet Information Services.* The IIS dialog box, shows the current server and web sites currently running in the server.

To create a new web site, right-mouse click the server name and select *New >> Web Site* in the popup menu. The web site creation wizard dialog box will appear.
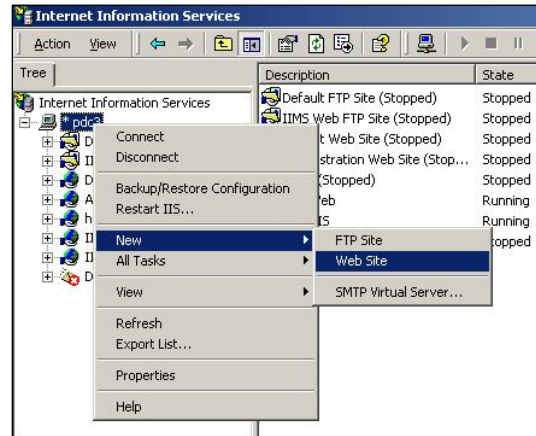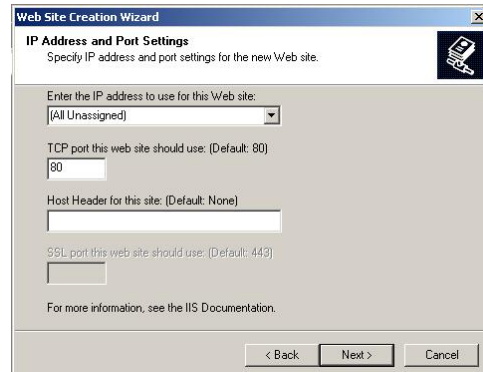
2)   Set the Description

Key-in any description to identify the web site in the server. Click *Next >* to continue.

3)   Set IP Address and Port

If the server does not have any other website, use the default TCP Port 80.   Alternative port number to use TCP Port 3128. Click *Next >* to continue.

4. Set Home Directory

Key-in or browse the folder location of the web site. Path: *C:\Inetpub\wwwroot\IIMS.* Click *Next >* to continue.

5. Set Access permissions

The following the required access permissions:

- Read
- Run scripts (such as ASP)
- Execute (such as ISAPI applications or CGI)

Click *Next >* to complete the wizard.

After the wizard, IIS console will show the web site created and if selected the files in site.

6. Select Additional setup

Right-mouse click the IIMS web site in IIS and select Properties. The web properties dialog box appears showing all the options in setting the web site.

In the Web Site tab, click the Advanced button to show the Advance Multiple Web Site Configuration dialog box.
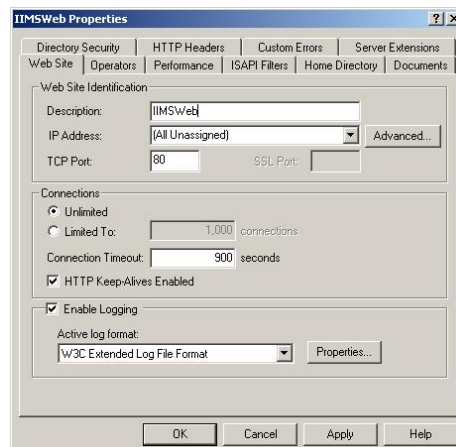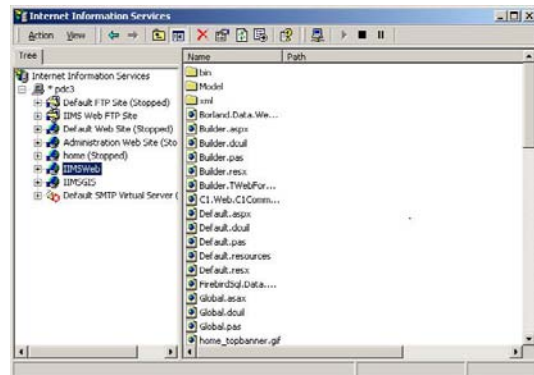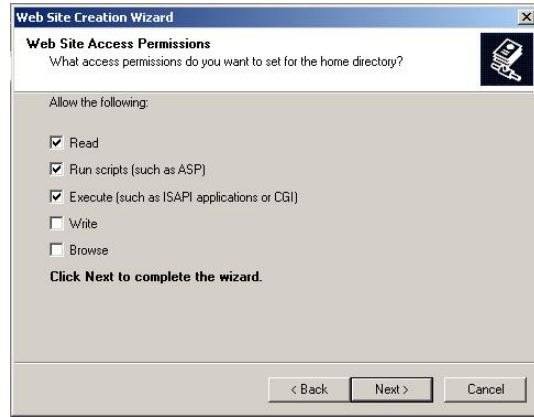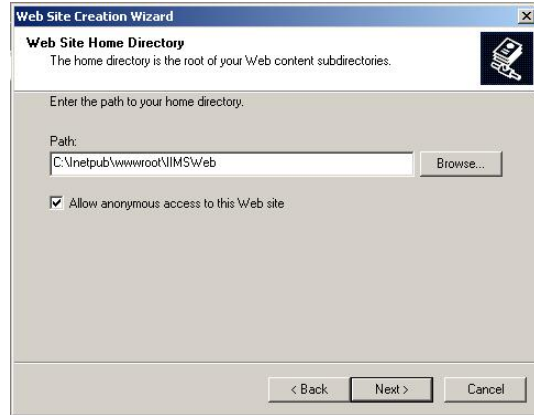
It shows the IP addresses for the web site. Click the Add button, to add the fixed IP address assigned by ISP. For example: 203.131.122.90, TCP Port 80.
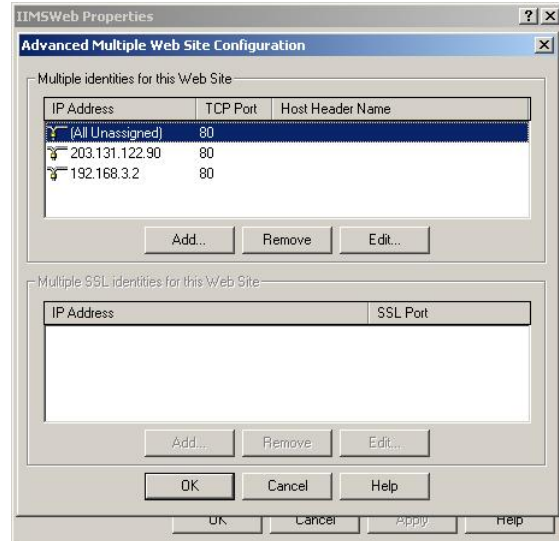
In the Documents tab, click the Add button and key-in Index.aspx to be the default document. The other documents names can be removed by clicking the Remove button.
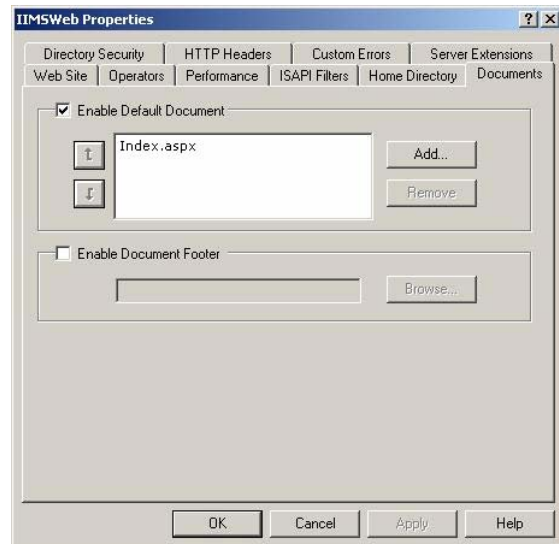
4) Setup Client

In order to access the IIMS Web, the client computer needs to have Internet Explorer v5.0 and above or Mozilla Firefox v1.0. Other browsers were not tested and may show difference in rendering the web page.

To access the IIMS web, the user must key-in the domain name or the fixed IP assigned by the Internet provider.
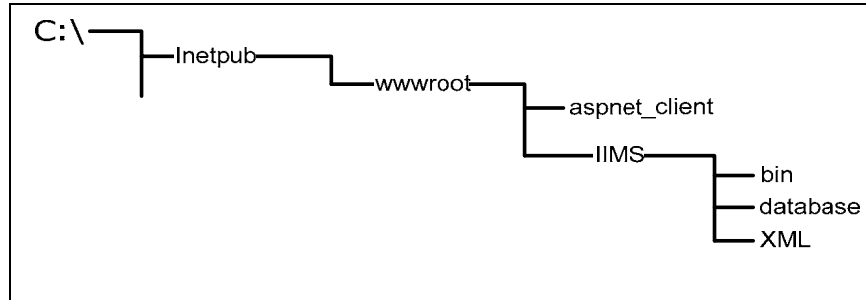
Examples:

a) *http://203.131.122.90:3128* - IP address of PEMSEA office and the web site is accessible at Port 3128.

b)   *http://iims.manila-bay.org* – registered domain name (example only).

5)   IIMS Web-based version

The Directory Structure of IIMS is shown below. IIMSWeb can be found in the installation CD Step 2 folder. Copy the folder to the following path: *C:\Inetpub\wwwroot*

3.   Step 3. Convert Paradox database into Interbase/Firebird

Currently, IIMS uses the Paradox database, which cannot be linked to the .NET Framework's data providers. Therefore, it must be converted to Interbase/Firebird.

K2Pump for Interbase is used to convert the database from Paradox to Interbase/Firebird. It has been developed by Aminoguana Kattunga (Email : kattunga@yahoo.com; WWW: http://www.kattunga.com.ar). A few revisions for the IIMS were done by the IIMS Technical Support Group.
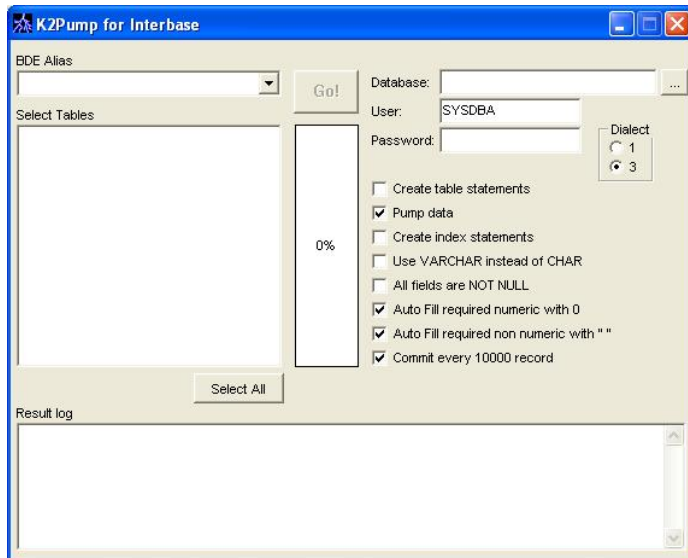
1)   Select Input and Output Database

In the BDE Alias dropdown, select the alias *IIMS* as the input database. All of the tables will be shown in a check list box.

The output database can be selected using the ellipsis button or by typing the path and filename (e.g., C:\IIMS\dat_interbase\ManilaBay.FDB. Type the username (SYSDBA) and password (masterkey).
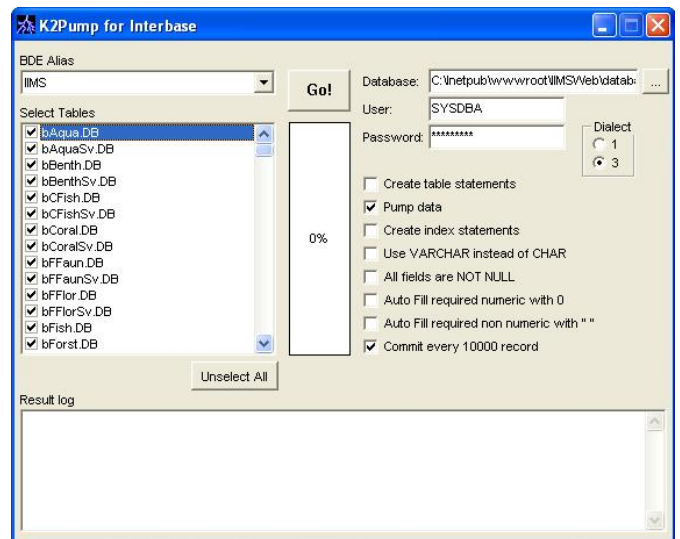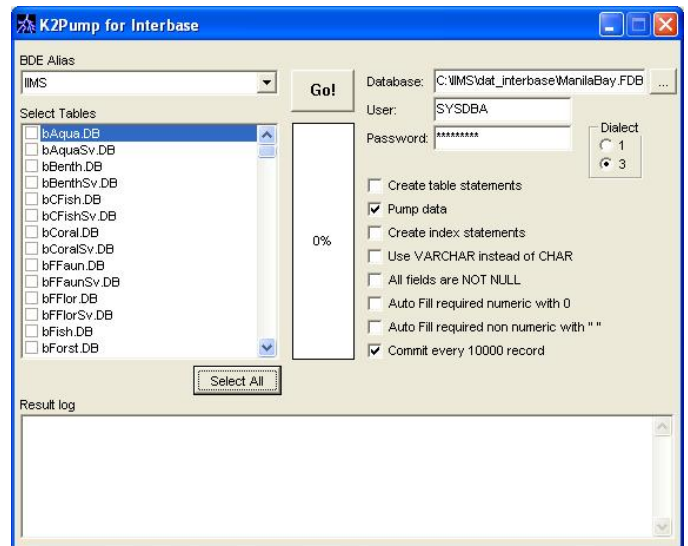
A blank database can be found in the installation CD (Filename: DAT_BLANK_DEFINED.FDB; Location: Step 3 (optional) folder. Key-in the username and password of the database.

2)   Select database tables and set options

Click the Select All button to select all tables to be imported. Then click Go button to pump data.

Default options are:
- Pump data
- Commit every 10000 record

3.   Install optional software

b)   FlameRobin (optional)

FlameRobin is a database administration tool for the FireBird DBMS. If there are other administration tools available, then these could be used.

Double-click the file *flamerobin-0.2.0-setup.exe* in the *FlameRobin* folder to start the installation. Click Next button to go through the welcome screen, license agreements and directory location (use the default folder).
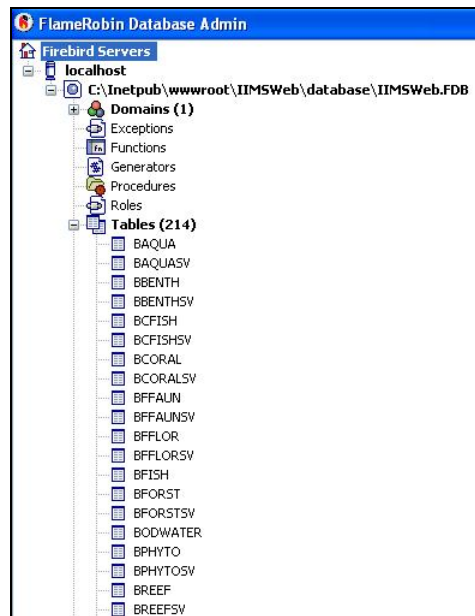
To view a Firebird/Interbase file, right-mouse click the *localhost*, as shown above. Select *Register existing database…* In the dialog box, key-in or search for the database to be registered. Key-in also the user name and password, then click the *Save* button.

ACCESSING DATABASE BY QUERYING IIMS THROUGH THE INTERNET

1. Logging-In

Go to the Website of IIMS or the site where IIMS Webpage can be found. Log-in as user. The administrator will provide a user name and a password for each user.


2. Querying the database

Once logged-in the user can access query system. There are two ways to query the IIMS: the **SQL Builder and Manual SQL**. The SQL Builder is like the SQL Builder in the IIMS Desktop version and the Manual SQL is the SQL tab of the SQL Builder in the IIMS Desktop version.

a. SQL Builder

Once the SQL Builder button is clicked, the SQL builder form is

displayed showing the two-step query. Supposing you want to generate data on the population of Cavite by municipality (in descending order, e.g., from Z to A) in 2000, whose population is greater than 10,000.

1) Select and join database tables.

i. Select tables. These are the tables where the data are stored. In A of the form, select the table by clicking on the arrow. Once a table is selected click Add Table button. Do the same to the other tables you want to select. In the example, you need to select four database tables: province, muncity, community and dcensus. The selected tables will be listed in the lower portion of the A. Table column.
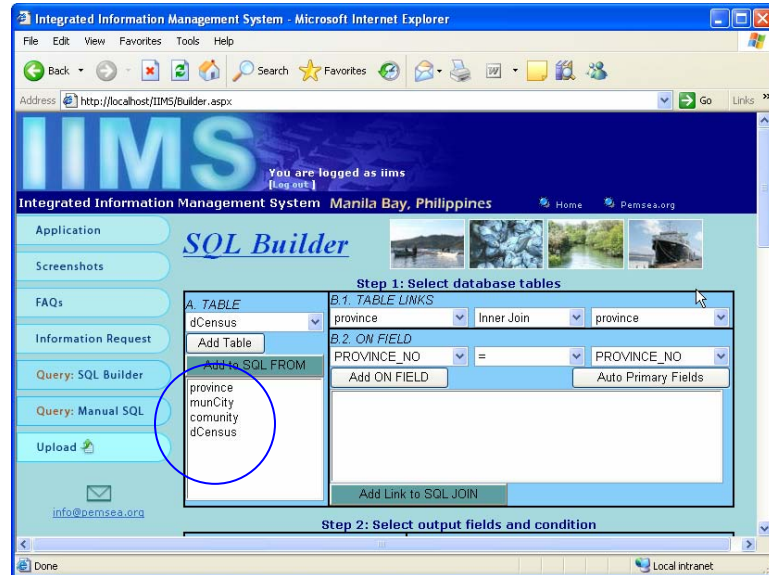
ii.   Join the tables. In A.1, click the first arrow and select the first table, then determine the kind of join, then select the table to be joined with the first table. Select the joining fields. Joining fields are the common fields on both tables or the primary fields. Once selected, click Add ON FIELD button. Alternatively, just click the Auto Primary Field, the joining fields will be displayed in the form. Then click on the Add Links to SQL JOIN. Join the tables one after the other.   In the example, you should join province and muncity, muncity and community, community and dCensus.
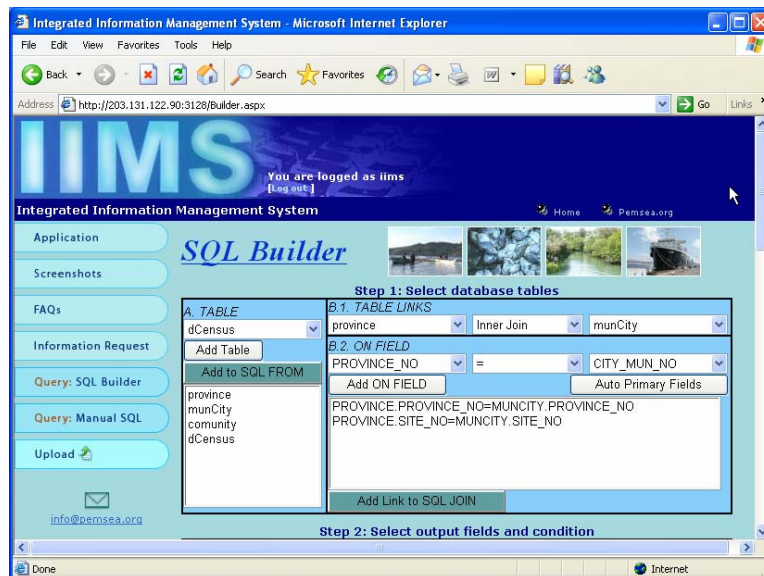

As the Add Link to SQL JOIN button is clicked, the join fields are displayed in t
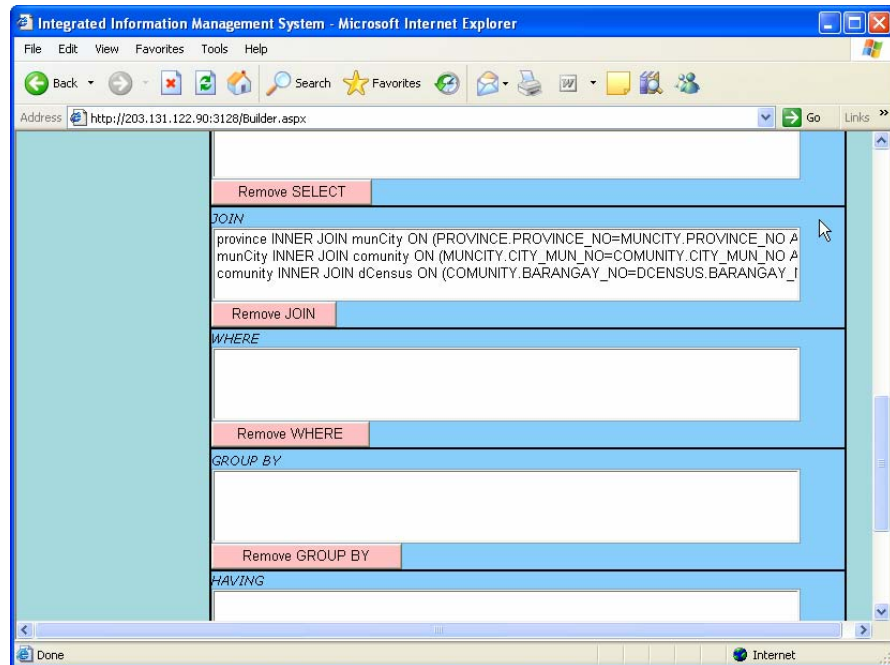
2) Select output fields and set conditions

    i.   In Step 2, select the table of the output field. Take note that the tables selected in Item 4.0 are dispalyed. Then select the output fields. All the output fileds of the talbe will be displayed. Select the field and type alias if desired. In typing alias, use a double quotation mark before and after the word or group of words.
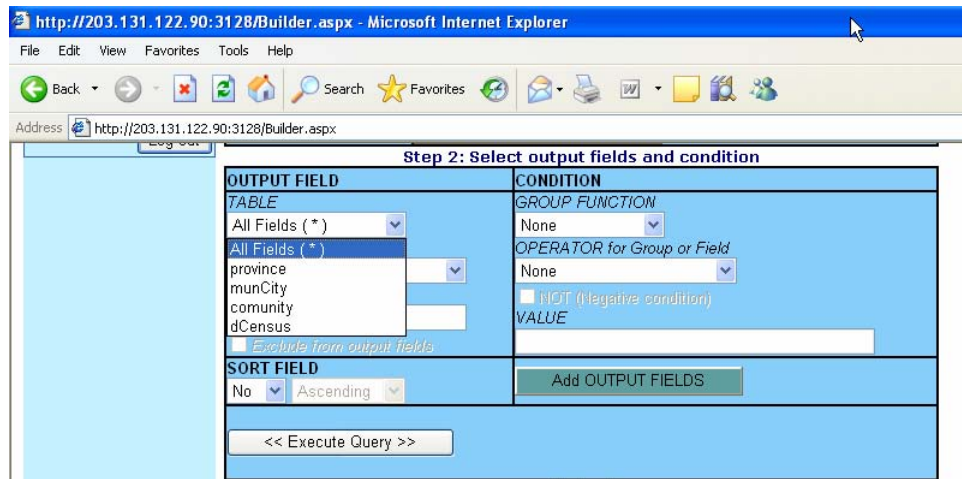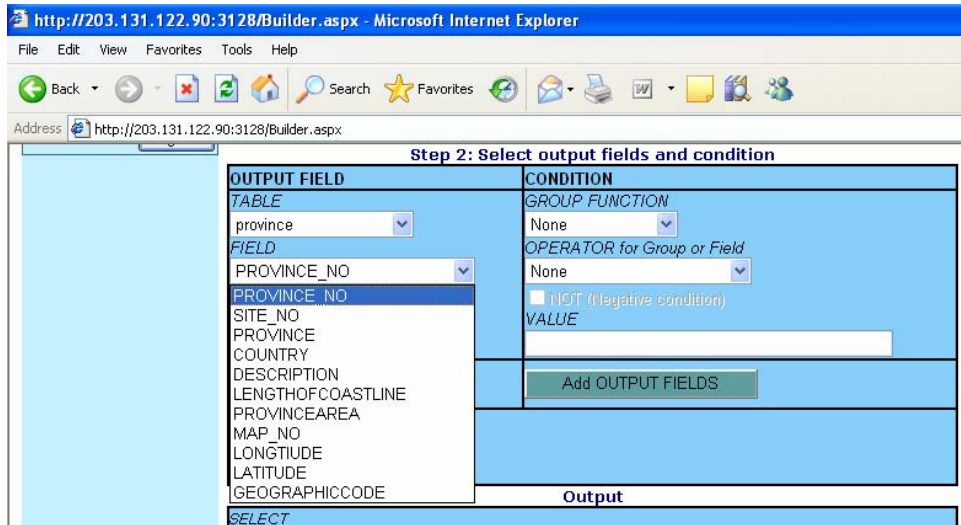
ii. In the example, select table province and field province. Type alias as "Province". Of the provinces that are stored in the database, we are only interested in Caviite. In setting this condition, select the OPERATOR for group or field. Select LIKE and fill-in the VALUE 'Cavite'. Use a single quotation mark when using the LIKE operator. Once this condition is set, click Add OUPUT FIELDS. Take note that in the Output under the WHERE panel, the condition is displayed.
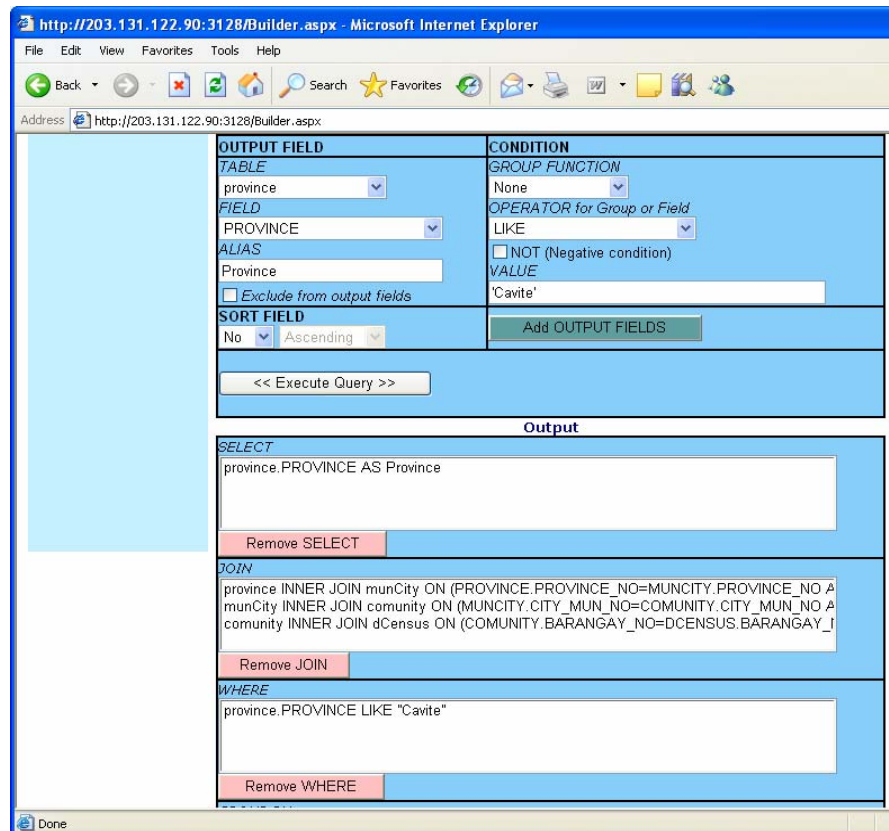
iii. Select the next table, munCity and field, municipality_city, type alias as "Municipality/City". Click sort button as descending. Click Add OUTPUT FIELD. The output form will show the selected field and condition on order by as shown below:
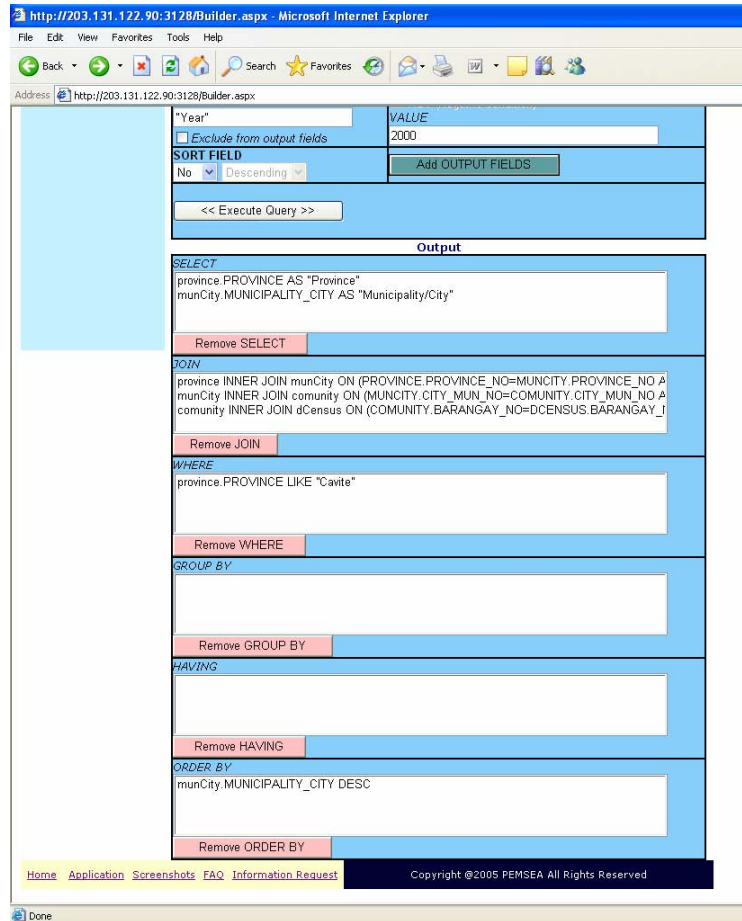
iv. Select dCensus and field datayear, type alias as "Year". Then select field tot_population and type alias as "Total Population". Set condition using OPERATOR >(greater than) and type value as 10000. Select the Group function as Sum. Take note that the data as encoded in IIMS are aggregated at the community level. We want to present the data at municipal level so we need to add the population per community to come up with the total population of a municipality. Click Add OUTPUT FIELD.

File   Edit   View   Favorites   Tools   Help

Back | Search   Favorites

Address http://203.131.122.90:3128/Builder.aspx

OUTPUT FIELD	CONDITION
TABLE	GROUP FUNCTION
dCensus	Sum
FIELD	OPERATOR for Group or Field
TOT_POPULATION	[>] Greater than
ALIAS	NOT (Negative condition)
"Total Population"	VALUE
☐ Exclude from output fields	10000
SORT FIELD	
No Descending	Add OUTPUT FIELDS

<< Execute Query >>

Take note that all selected fields and set conditions appear in the Output form like the one below:

Address http://203.131.122.90:3128/Builder.aspx

"Total Population"   VALUE
☐ Exclude from output fields   10000

SORT FIELD
No   Descending   Add OUTPUT FIELDS

<< Execute Query >>

Output

SELECT

province.PROVINCE AS "Province"
munCity.MUNICIPALITY_CITY AS "Municipality/City"
dCensus.DATAYEAR AS "Year"
SUM(dCensus.TOT_POPULATION) AS "Total Population"

Remove SELECT

JOIN

province INNER JOIN munCity ON (PROVINCE.PROVINCE_NO=MUNCITY.PROVINCE_NO A
munCity INNER JOIN comunity ON (MUNCITY.CITY_MUN_NO=COMUNITY.CITY_MUN_NO A
comunity INNER JOIN dCensus ON (COMUNITY.BARANGAY_NO=DCENSUS.BARANGAY_

Remove JOIN

WHERE

province.PROVINCE LIKE "Cavite"
dCensus.DATAYEAR = 2000

Remove WHERE

GROUP BY

province.PROVINCE
munCity.MUNICIPALITY_CITY
dCensus.DATAYEAR

Remove GROUP BY

HAVING

SUM(dCensus.TOT_POPULATION) > 10000

Remove HAVING

ORDER BY

munCity.MUNICIPALITY_CITY DESC

Remove ORDER BY

Done

v.   When all the fields and conditions are set, press Execute Query button.   If there are errors in your query, no information will be generated.   Following the example, the generated information is shown below:

vi.   Take note that there is a number (1) on top and at the bottom of the report.   This represents the page number of the report.   In this example, there is only one page of the report.   Each page can contain 50 rows.   Excess of 50 rows will flow to the next page.

b.   Manual SQL

The SQL statement can be typed directly in the SQL form as shown below. If the user is familiar with SQL statement, this option is faster than the SQL Builder. Following the example above, the SQL statement and the report generated are shown below.

Integrated Information Management System - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://203.131.122.90:3128/SQL.aspx

IIMS
You are logged as iims
[Log out]

Integrated Information Management System

Home Pemsea.org

- Application
- Screenshots
- FAQs
- Information Request
- Query: SQL Builder
- Query: Manual SQL
- Upload

info@pemsea.org

Manual SQL

Enter SQL:

```
SELECT province.PROVINCE,munCity.MUNICIPALITY_CITY,comunity.BARANGAY
 FROM province INNER JOIN munCity ON
(PROVINCE.PROVINCE_NO=MUNCITY.PROVINCE_NO AND
PROVINCE.SITE_NO=MUNCITY.SITE_NO) INNER JOIN comunity ON
(MUNCITY.CITY_MUN_NO=COMUNITY.CITY_MUN_NO AND
MUNCITY.SITE_NO=COMUNITY.SITE_NO)INNER JOIN dCensus ON (comunity.
Barangay_No=dcensus.Barangay_No and comunity.Site_No=dcensus.Site_No
where Province like "Cavite" and DataYear=200
and Tot_Population > 10000
order by munCity.Municipality_City desc
```

<< Execute >>

Copyright ©2005 PEMSEA
All Rights Reserved

Internet

0:3128/Result.aspx?Requery=1 - Microsoft Internet Explorer

Tools Help

Search Favorites

22.90:3128/Result.aspx?Requery=1

1

PROVINCE	MUNICIPALITY_CITY	DATAYEAR	TOT_POPULATION
Cavite	Trece Martires City	2000	41284
Cavite	Ternate	2000	17179
Cavite	Tanza	2000	109975
Cavite	Tagaytay City	2000	42183
Cavite	Silang	2000	151750
Cavite	Rosario	2000	73154
Cavite	Noveleta	2000	31939
Cavite	Naic	2000	72402
Cavite	Mendez	2000	22900
Cavite	Maragondon	2000	31225
Cavite	Magallanes	2000	18086
Cavite	Kawit	2000	62722
Cavite	Indang	2000	51138
Cavite	Imus	2000	195201
Cavite	Gen. Trias	2000	107077
Cavite	Gen. Mariano Alvarez	2000	112387
Cavite	Gen. Emilio Aguinaldo	2000	14300
Cavite	Dasmarinas	2000	379228
Cavite	Cavite City	2000	98971
Cavite	Carmona	2000	47706
Cavite	Bacoor	2000	305397
Cavite	Amadeo	2000	25678
Cavite	Alfonso	2000	39625

1

eenshots FAQ Information Request Copyright @2005 PEMSEA A

c.   Viewing information requests

Those who are not allowed to access the database through the query system can request data or information by clicking the Information request button and fill in the form. The information requested will be sent through an email. The administrator of the system can view the form using the separate program (See IIMS Web Maintenance section).
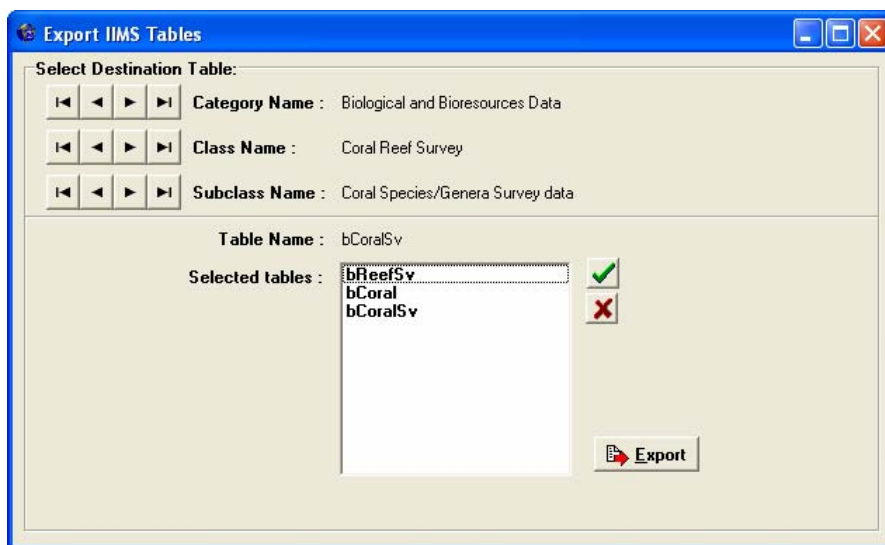
UPDATING IIMS DATABASE THROUGH THE INTERNET

Data to be uploaded through the Internet can be selected by table. This can be done through the Export functionality of IIMS.
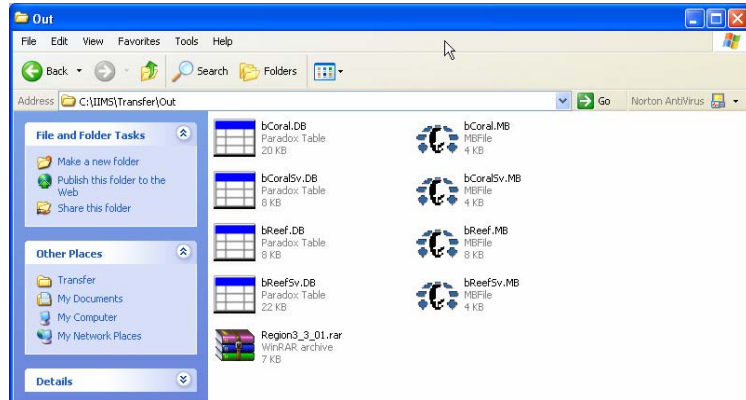
1.   Click the Export button of the File Menu.
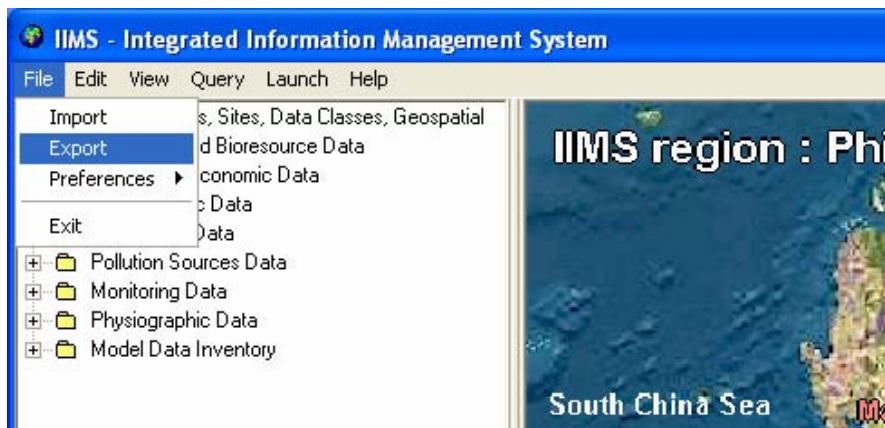
2.   Select the category, class and sub-class (table name). Click Export button. All exported files are stored in the folder IIMS/Transfer/Out.

3. Open the IIMS/Transfer/Out folder, which may be in your C or D drive. You can see the exported files in this folder. Before uploading, it is advisable to zip the files.

4. Access the IIMS Webpage, fill in user name and password, click Browse button and attach the file.
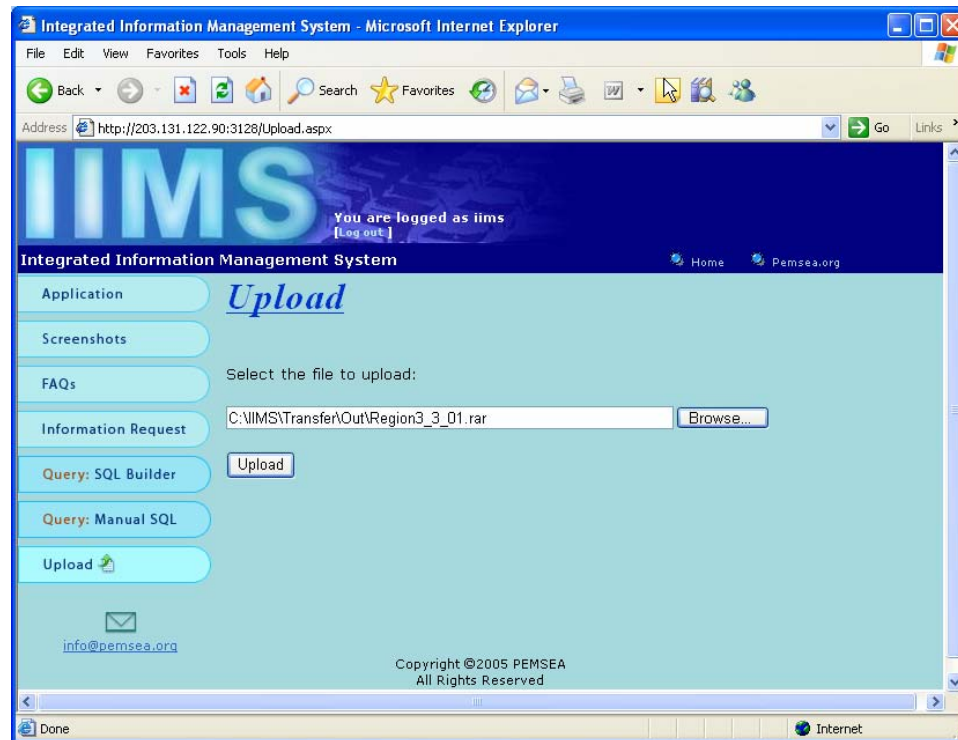
5. Click Upload button. The files will be sent to the host server. Note that a folder on 'ftproot' in the server InetWeb should be created before uploading will be done as files from remote IIMS or nodes will be stored in this folder where the administrator will download them.

6. The IIMS database at the file server will be updated manually in order to screen the data coming from the IIMS nodes. This will be done by importing the data to the appropriate tables using the Import functionality of IIMS.
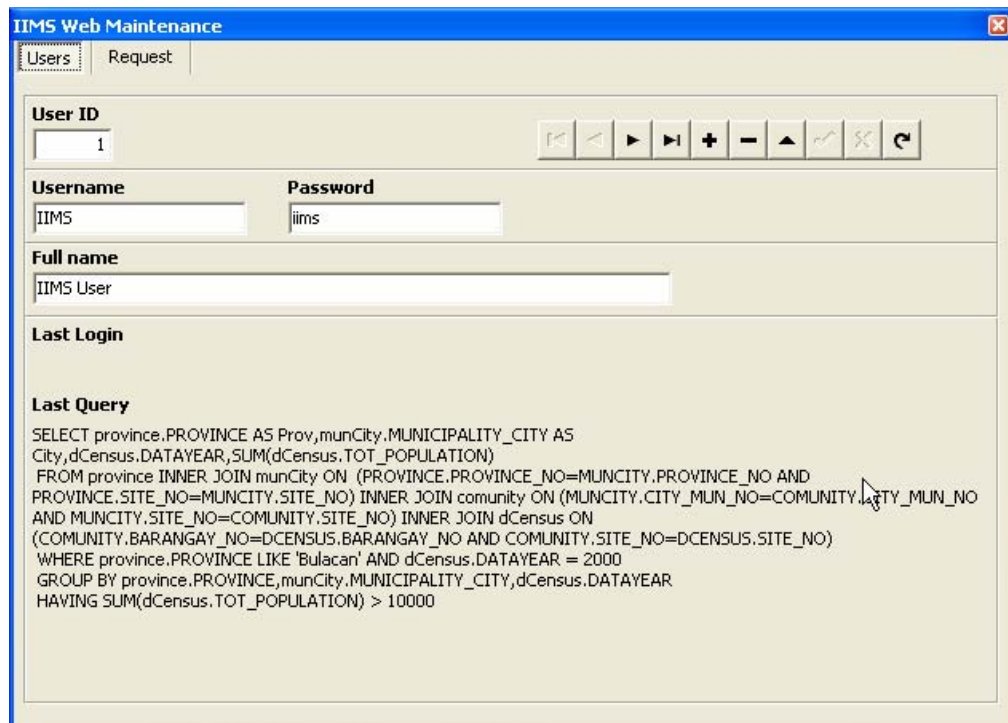
IIMS WEB MAINTENANCE

Assigning of user names and passwords, and viewing of information requests can be done through the IIMS Web Maintenance software.

1.   Install the IIMS Web Maintenance software in the Web server.

2.   To open the software, click the Backend.exe icon.
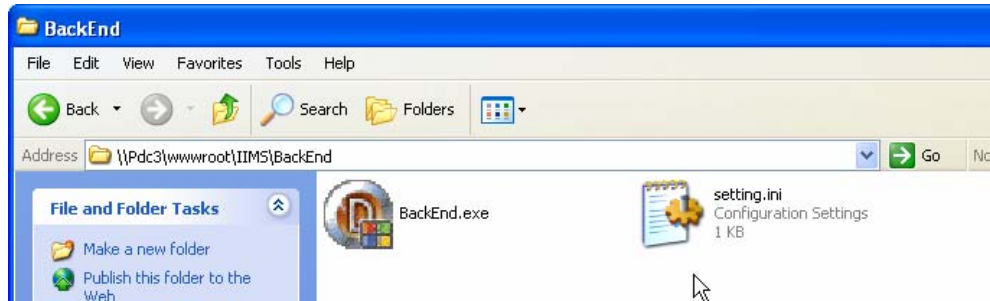
3.   The IIMS Web Maintenance will be displayed as shown below. The administrator can add or delete user name to control access to the database. The panel will also show the last log-in and query done by users.

4.   Requests from users not provided with access to the database or query system can be viewed with under the request tab.
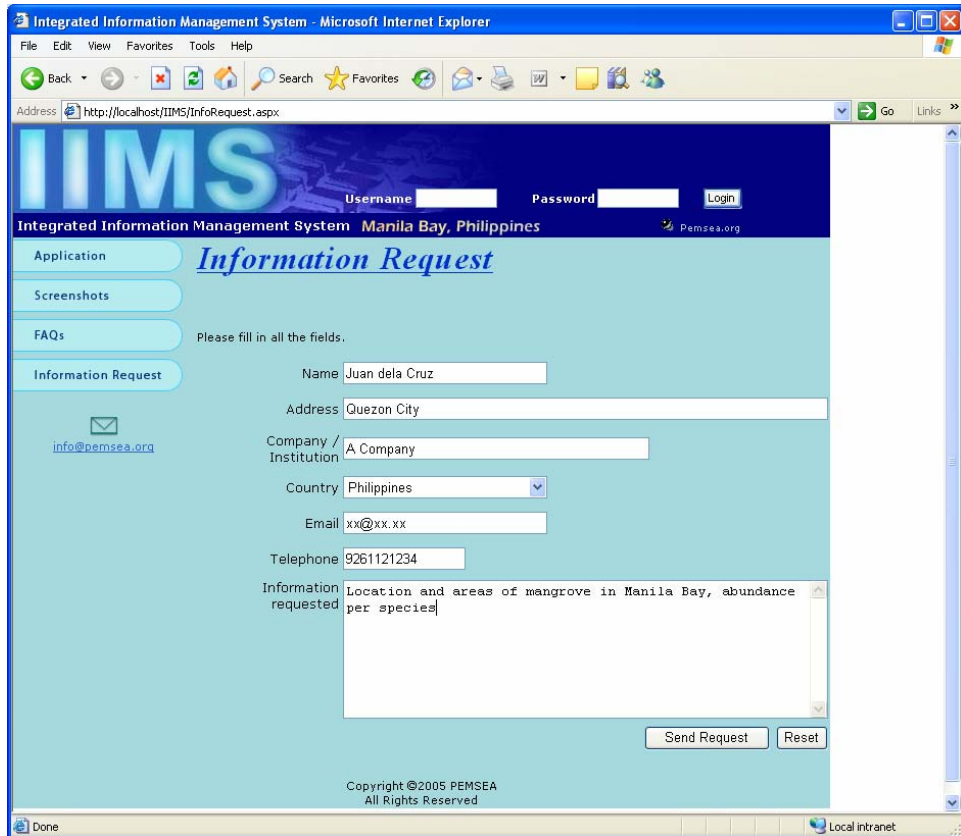
The request as shown above can be viewed by the administrator with the IIMS Web Maintenance.