

Département Informatique et Données Marines

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Version 1.1.2

**ifremer**

# SeaDataNet

MIKADO V1.5: user manual





# SeaDataNet

## MIKADO V1.5: user manual

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# SeaDataNet

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## 1. Introduction

In the framework of the European program SEA-SEARCH, IFREMER has designed the MIKADO tool for the generation of XML files that are entries for the following directories:

- the Marine Environmental Datasets (EDMED),
- the Cruise Summary Reports (CSR),
- the Common Data Index to individual datasets (CDI).

In the framework of the European program SeaDataNet, IFREMER proposed to upgrade this tool to support new functionalities and to include the European Directory of Marine Environmental Research Projects (EDMERP) and the European Directory of the Ocean Observing System (EDIOS) in a later version. MIKADO V1 is compliant with the SeaDataNet V1 XML schemas and uses the SeaDataNet web services for standards and common vocabularies.

The XML schemas used by MIKADO for EDMED, CSR, CDI and EDMERP are available on the SeaDataNet BSCW workspace at the following address (login/password required):

<https://www.ifremer.fr/bscw/bscw.cgi/0/67755>

([SeaDataNet](#) / [SDN Technical Task Team](#) / [ISO](#) / [Application of ISO 19115 within SeaDataNet V1](#))

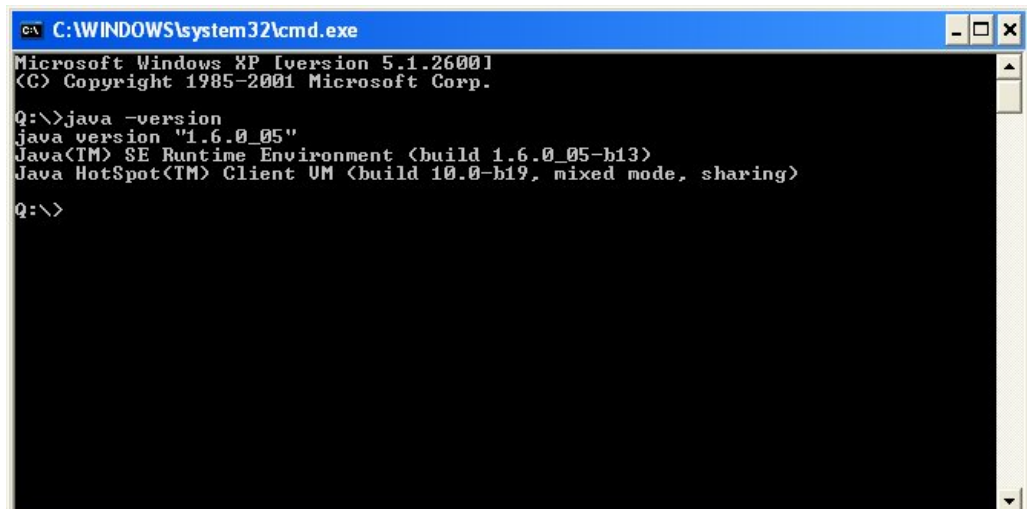


## 2. Technical characteristics

- Written in **Java** Language (Version > 1.5)
- Available under multiple environments :
  - Microsoft : Windows 2000, XP, VISTA,
  - APPLE
  - Unix - Solaris
  - Linux
- Use of the **SeaDataNet common vocabularies** web services
  - to update lists of values of the SeaDataNet common vocabularies
    - need network connections in order to have up to date lists of values.
    - But Mikado works offline once the list are up-to-date

### 3. Requirements

- Make sure that the java version on your computer is  $\geq 1.6$
- To know if Java is available on your computer, in the right version, follow these steps:
  - Open 'Start' menu, then 'Execute'
  - On the displayed window, enter: 'cmd', then click on 'OK' button
  - Enter 'java -version'
- Check if command has been executed:
  - If not, download the last java version at <http://java.com/en/download/index.jsp>.
  - Else, check the version displayed. The version should be greater than or equal to 1.6.



```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

Q:\>java -version
java version "1.6.0_05"
Java(TM) SE Runtime Environment (build 1.6.0_05-b13)
Java HotSpot(TM) Client VM (build 10.0-b19, mixed mode, sharing)

Q:\>
```

*Figure 1: Check Java version installed on your computer*

## 4. Installation

### 4.1. Download MIKADO software

The last version of MIKADO is available and downloadable on the SeaDataNet website: [http://www.seadatanet.org/services/software\\_\\_1/mikado](http://www.seadatanet.org/services/software__1/mikado).

To install MIKADO, you have to download the MIKADO zip file, to unzip it and to copy the MIKADO directory on your computer.

To uninstall MIKADO, you have just to delete the MIKADO directory.

### 4.2. Run MIKADO software

To run MIKADO:

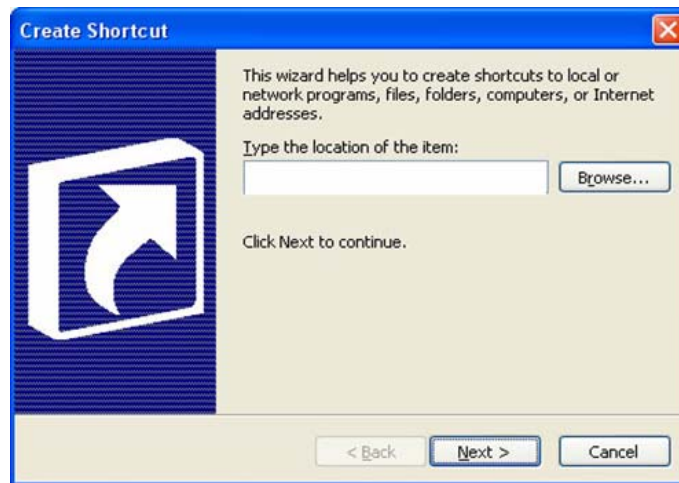
- **under Windows:** double click on the **mikado.bat** file in the MIKADO directory,
- **under Solaris:** run the mikado.csh file in the MIKADO directory.

In order to access MIKADO more easily under Windows, you can create a shortcut on your desktop (see 4.3).

### 4.3. For Windows: Create an MIKADO shortcut on your desktop

The quickest method to access MIKADO is to create a shortcut on your desktop. To do so, proceed as follow:

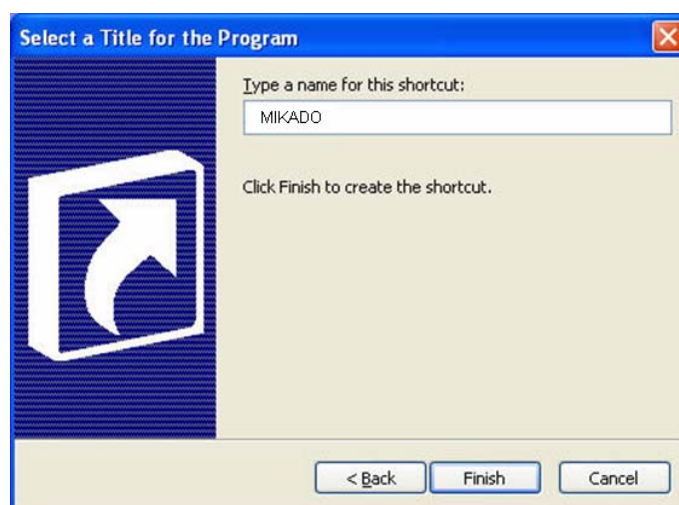
- 1- Right click on your desktop and select **New** and the **Shortcut** options. This window opens:




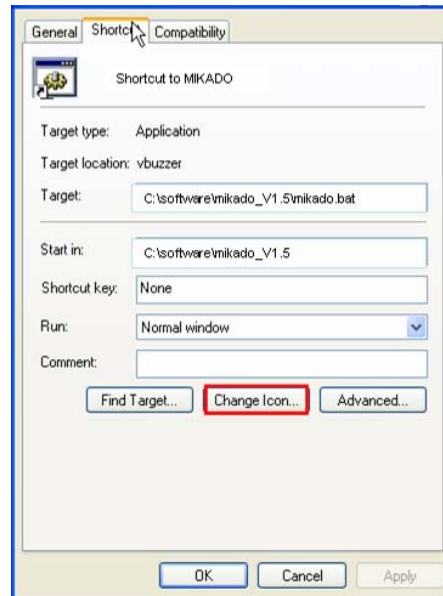
- 2- Select the Mikado.bat file in the MIKADO directory by clicking on the Browse button. Click on the Next button.



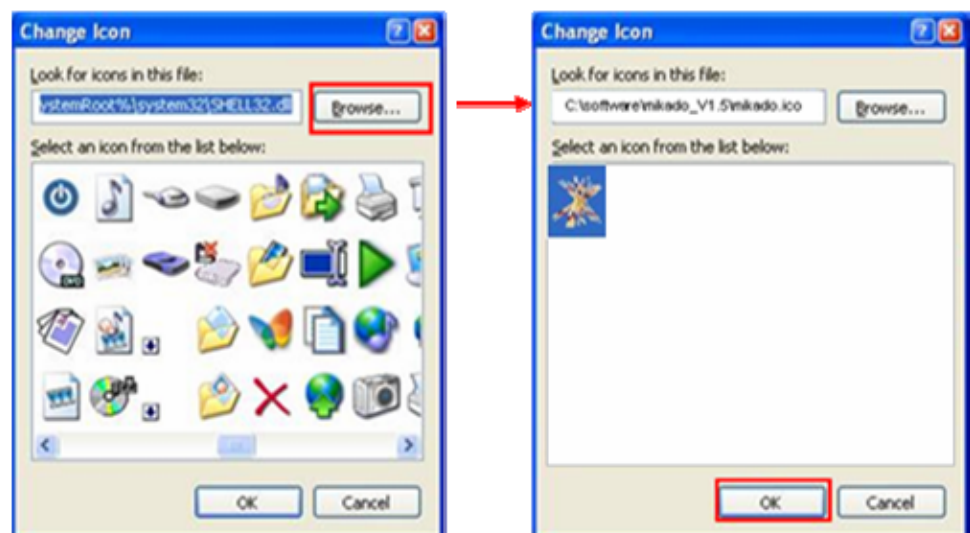
- 3- Select a title for this shortcut: MIKADO for example. Click on the Finish button.



- 4- The MIKADO shortcut will appear on your desktop: 
- 5- You can associate the MIKADO icon with the Mikado shortcut. To do so, right click on the Mikado shortcut and select **Properties**. Click on the **Change icon** button in the MIKADO Shortcut Properties window.



- 6- Click on the **Browse** button and select the Mikado.ico file provided in the MIKADO directory. And click on **OK** button.



- 7- The MIKADO icon will appear on your desktop: 

## 5. Main menu of MIKADO

When you run MIKADO tool, you can access four different menus:

- “Manual” menu
- “Automatic” menu
- “Options” menu
- “?” menu.



*Figure 2: First screen of the Mikado tool*

### 5.1. “Manual” menu

The first “**Manual**” menu (Figure 2) enables you to run the manual way of MIKADO which allows to input manually the relevant information for all the fields in order to generate XML files for one directory.

### 5.2. “Automatic” menu

The second “**Automatic**” menu (Figure 2) enables you to run the automatic way of MIKADO which allows to generate these descriptions automatically if information is catalogued in a relational database.

### 5.3. “Options” menu

The “**Options**” menu (Figure 3) allows you:

- To enable the automatic check and download of the controlled vocabularies (see 6).

- To select the data centre type:
  - SDN V1 is the type for the SeaDataNet partners
  - ECOOP V1 is the type for the ECOOP (*European Coastal sea Operational observing and Forecasting system*) partners.
  - Those two data centre types in MIKADO need to be identified in the CDI input: for ECOOP partners, the URL distribution website is free whereas for the SDN partners, the URL distribution website is fixed (see 8.1.3).



*Figure 3: Options menu*

## 5.4. “?” menu

The “?” menu (Figure 4) provides you information about the MIKADO tool (Version and Date).



*Figure 4: About Mikado menu (?)*



## 6. Controlled vocabularies

### 6.1. Check and import the controlled vocabularies

MIKADO includes functionality to import the controlled vocabularies, EDMERP and EDMO lists for CDI, EDMED, CSR and EDMERP. When MIKADO starts, it checks automatically the version of the vocabulary lists and uploads locally the latest version of each list.

The SeaDataNet controlled vocabularies used by MIKADO are available at the following address: [http://seadatanet.maris2.nl/v\\_bodc\\_vocab/welcome.aspx](http://seadatanet.maris2.nl/v_bodc_vocab/welcome.aspx)

MIKADO uses the following lists:

List code	List Name
C16	SeaDataNet Sea Areas
C77	ICES ROSCOP data types
C174	SeaDataNet CSR ship metadata
C320	ISO countries
C371	Ten-degree Marsden Squares
C381	Ports Gazetteer
L05	SeaDataNet device categories
L021	SeaDataNet Geospatial Feature Types
L031	SeaDataNet Measurement Periodicity Classes
L061	SeaDataNet Platform Classes
L081	SeaDataNet Data Access Restriction Policies
L101	SeaDataNet geographic co-ordinate reference frames
L111	Height and Depth Vertical Co-ordinate Reference Datum
L181	ROSCOP sample quantification units
L231	SeaDataNet metadata entities
L241	SeaDataNet data transport formats
P021	BODC Parameter Discovery Vocabulary
P081	SeaDataNet Parameter Disciplines
EDMO	European marine organisations
EDMERP	European marine projects

It is possible to enable-disable the automatic check of the lists and to work offline. To do so, use the **Options** main menu and select “On” or “Off” in the **Vocabulary Update** sub-menu.



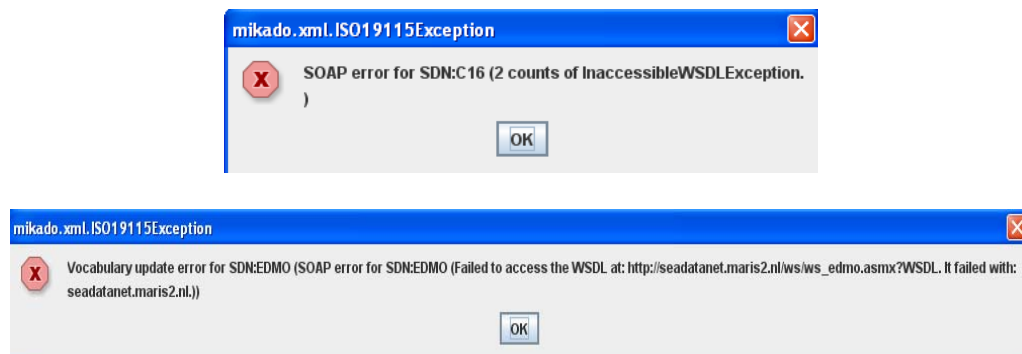
*Figure 5: Enable/disable the automatic check of vocabularies*

After clicking on “On” radiobutton, it is not necessary to restart MIKADO: MIKADO checks directly the version of the vocabulary lists and uploads locally the latest version of each list.



*Figure 6: Download of the controlled vocabularies*

If there are any network problems, MIKADO detects them and does not check the versions of controlled vocabularies. You will have an error message but it will be possible to work off line.



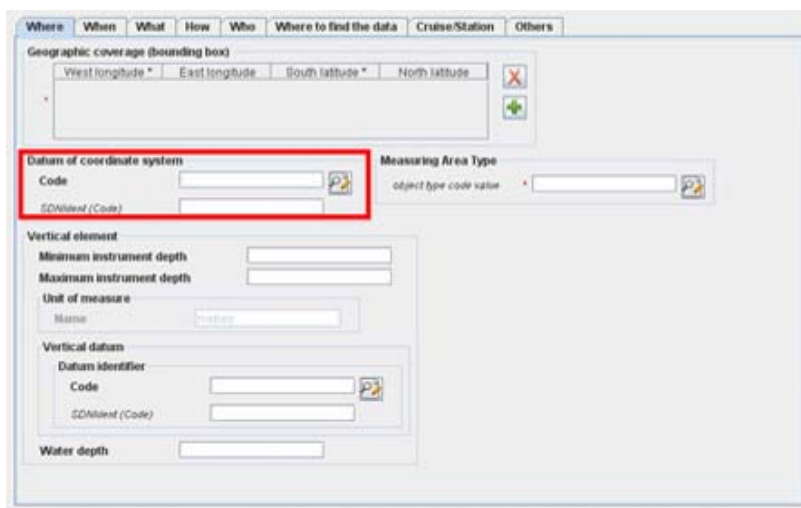
*Figure 7: SOAP errors*


## 6.2. Use of the controlled vocabularies

### 6.2.1. Manual input

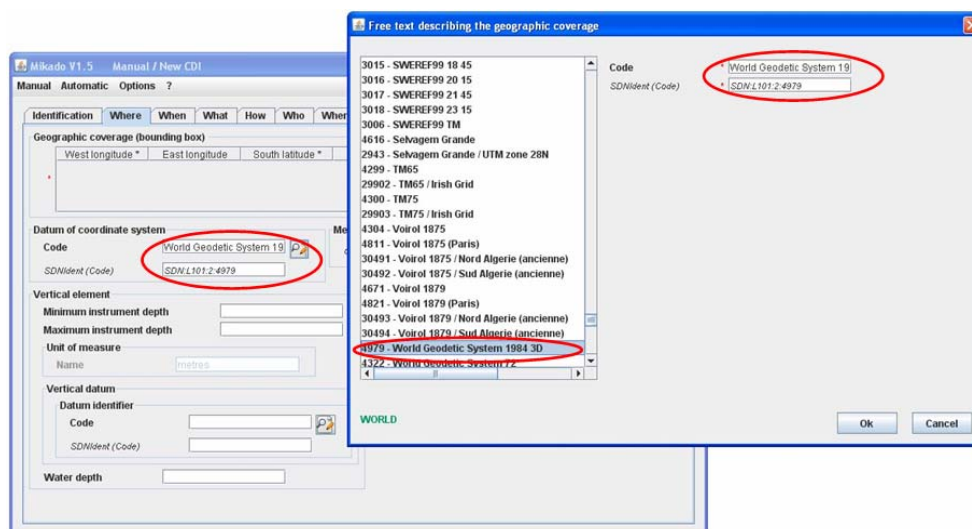
The lists of values used by MIKADO Manual version are the SeaDataNet common vocabularies. For each field associated with a list of values, you have to choose the correct value in the corresponding common vocabulary list.

To do so, click on the  icon on the right of the field.



*Figure 8: Empty field: Click on the  icon to fulfill it*

A new window opens, allowing you to select a value in a list. Select the corresponding value and click on the **OK** button on the bottom of the window.



*Figure 9: Select the corresponding value in the list*

It is possible to set a filter in order to find a specific value in a vocabulary list. To do so, see 7.2.

## 6.2.2. Automatic generation – Incremental Mapping

### 6.2.2.1. Manual mapping

MIKADO V1 allows you to create an incremental local mapping between the information of your database and the common vocabularies. This mapping is done during the XML generation:

- Each time that MIKADO does not recognized a value (entrykey or entryterm) which should come from the common vocabulary, it asks the user for mapping.
- MIKADO manages a demand-driven continuous (incremental) extension of a local mapping: mapping of the local database to the common vocabulary.

In the mapping window, you will find in a red field at the top of the window, the value to map with the common vocabulary list. Select the corresponding value in the list and click on OK button at the bottom of the window.

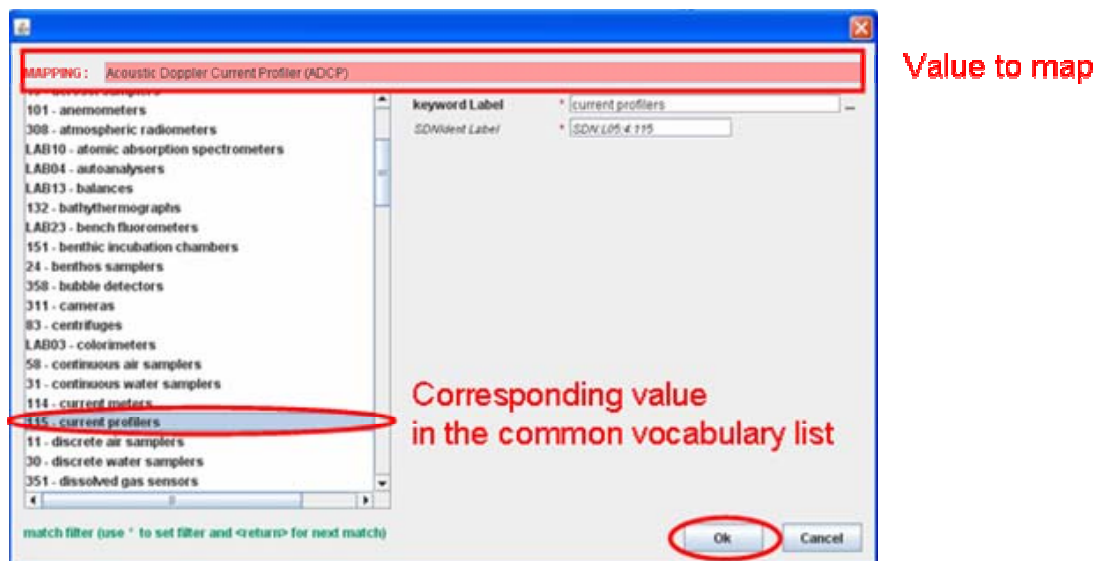


Figure 10: Mapping window for paramaters

It is possible to set a filter in order to find a specific value in a vocabulary list. To do so, see 7.2.

#### 6.2.2.2. Automatic mapping

MIKADO V1.5 includes also a functionality to download automatically existing mappings between different vocabulary lists. The available mappings are provided by the BODC Vocabulary Server Mappings Index (C970):

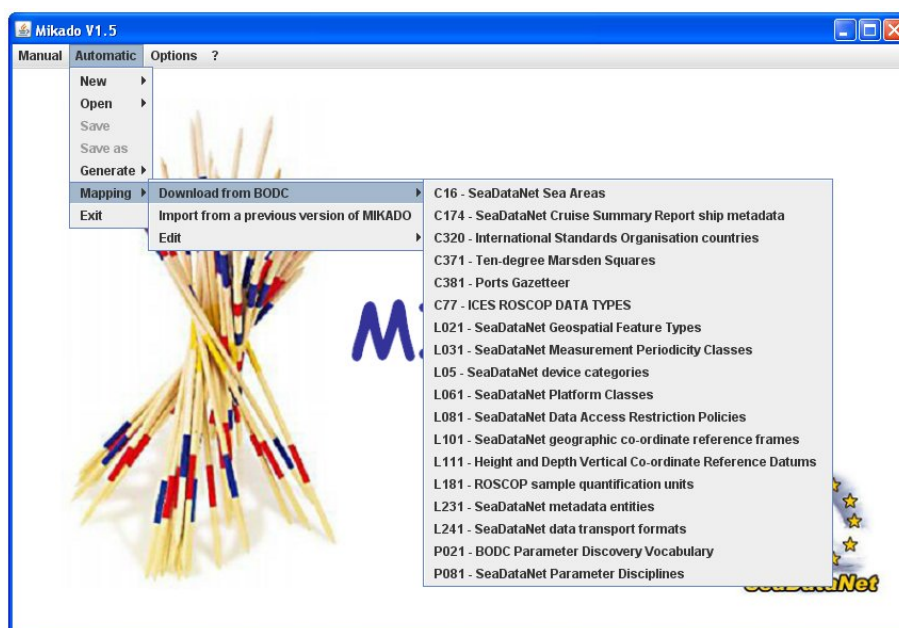
[http://seadatanet.maris2.nl/v\\_bodc\\_vocab/search.asp?name=\(C970\)%20Vocabulary+Server+Mappings+Index&l=C970](http://seadatanet.maris2.nl/v_bodc_vocab/search.asp?name=(C970)%20Vocabulary+Server+Mappings+Index&l=C970)

In the available mappings, the SeaDataNet vocabulary lists are mapped with other vocabulary lists using only the exact and narrow matches defined by BODC as follows:

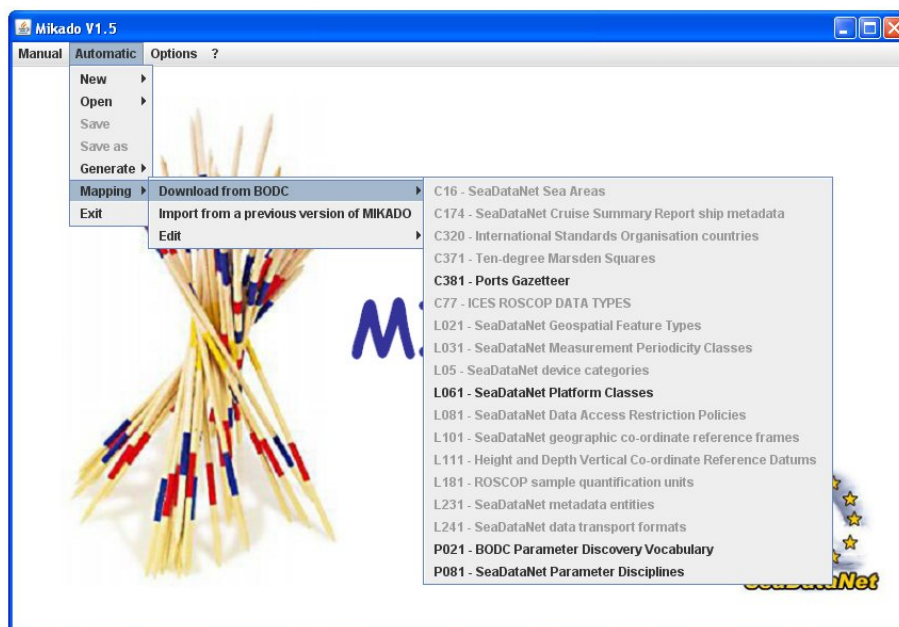
- If MIKADO finds an exact match for a local value in the Seadatanet vocabulary selected list, it maps the local value with this exact match.
- If MIKADO does not find an exact match but finds a narrow match, it maps the local value with the narrow match.
- If MIKADO finds neither exact match nor narrow match, it does not map the local value and then ask the user to define manually the mapping.
- If a local value can be mapped with several SDN values, MIKADO does not map it and ask the user to define manually the mapping.

To use this functionality, follow the different steps:

- 1- Select **Mapping > Download from BODC** in the **Automatic** main menu. The available vocabulary lists appear in a dropdown list.

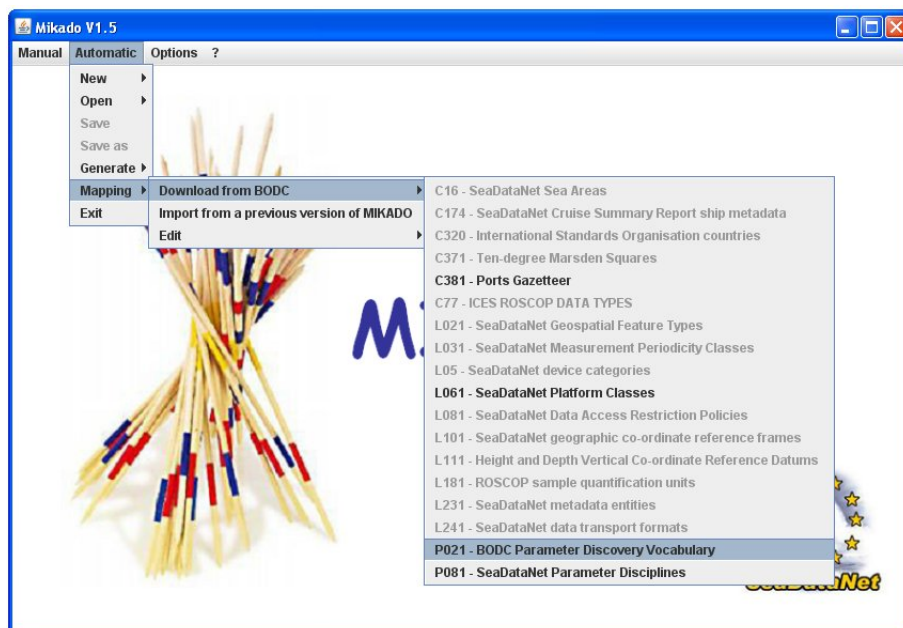


MIKADO checks the available mappings. If no mapping exist for a list, the vocabulary list will appear painted with grey in the dropdown list and the user can not select it.

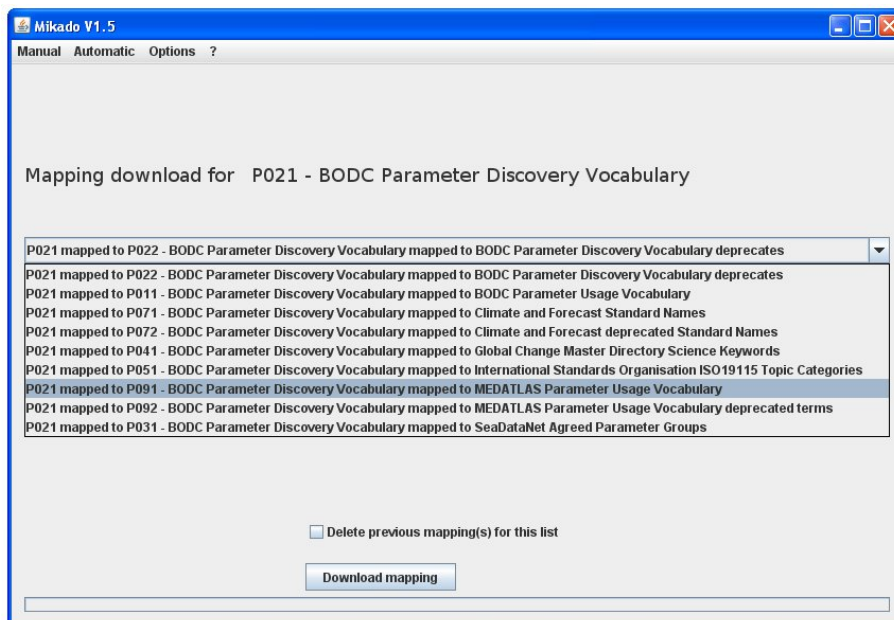


- 2- Select the vocabulary list you want to map automatically with an other one. For example, select the P021 list (BODC Parameter Discovery Vocabulary)

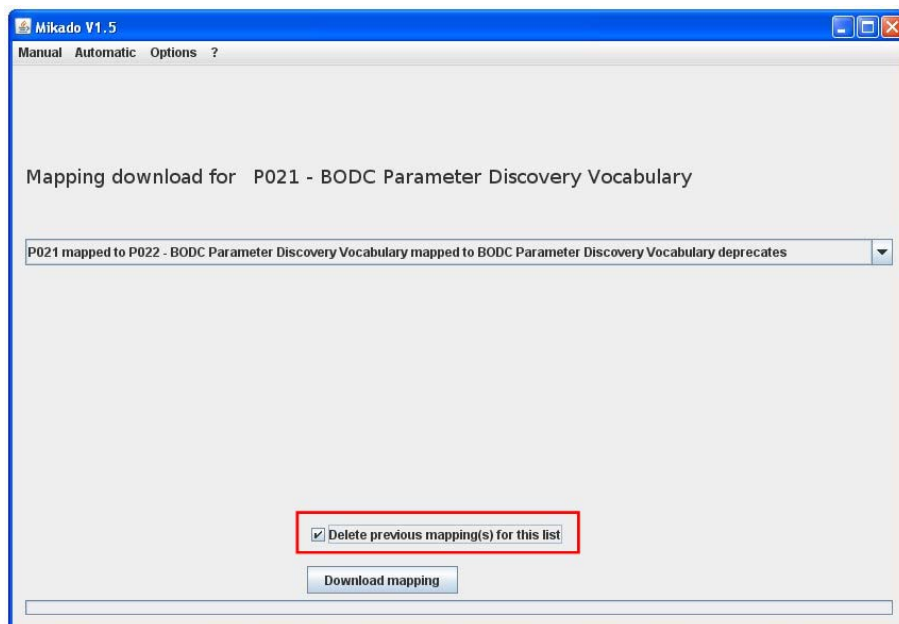




- 3- Select the mapping to upload in MIKADO. For example, select the mapping between the P021 list and the P091 list if P021 corresponds to your local data.

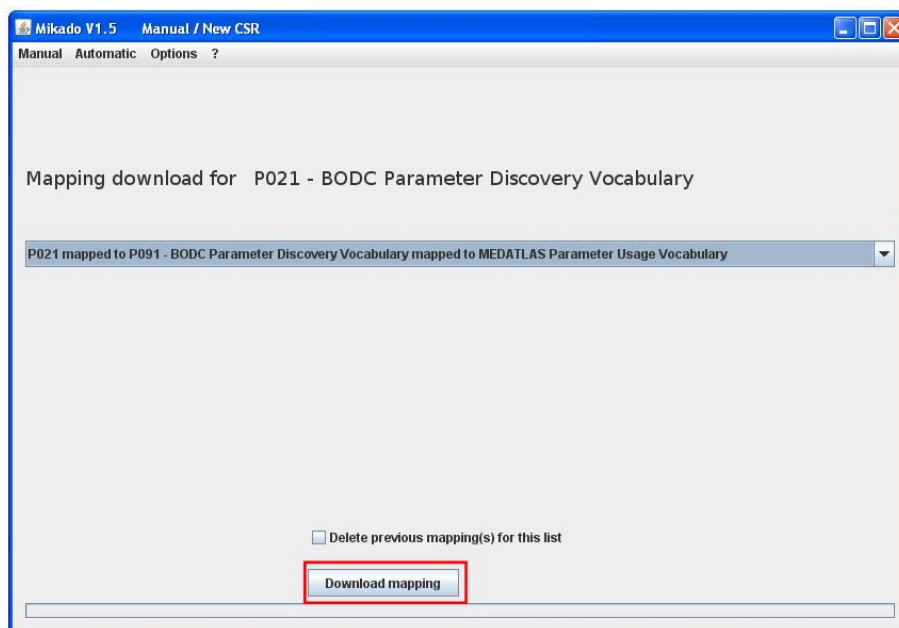


- 4- Tick the check box if you want to delete the previous mappings (manual or automatic) of the selected list.



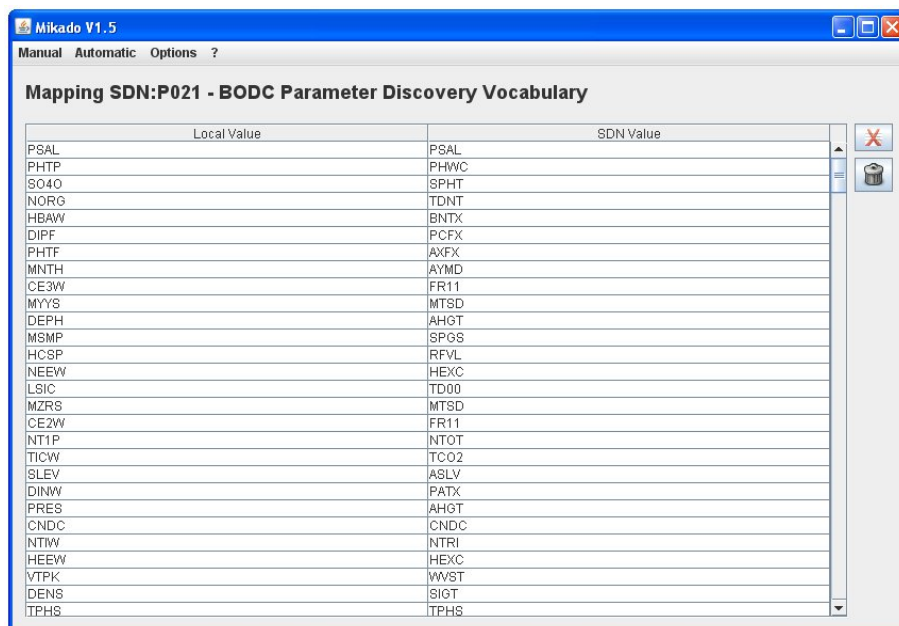
**Important:** The manual and automatic mappings are saved in the same file. If you choose to delete the previous mappings, you can loose a previous manual mapping and you will have to make it again if you want to use it later. So, be careful using the check box!

- 5- Click on the **Download mapping** button. A progress bar indicates the upload progress.



- 6- It is possible to edit and to check the uploaded mapping by selecting **Mapping > Edit** in the **Automatic** main menu.

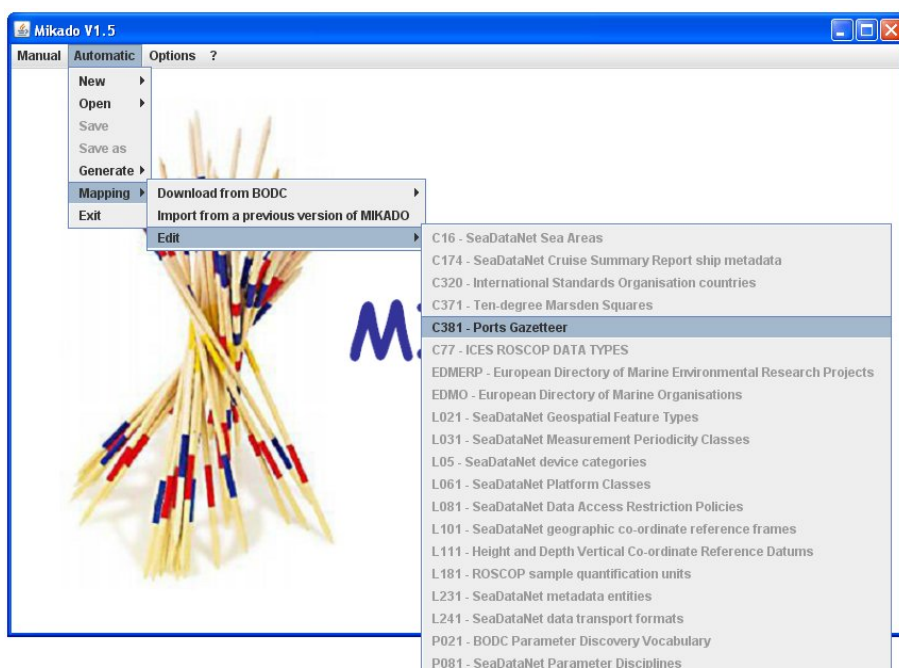




Local Value	SDN Value
PSAL	PSAL
PHTP	PHWC
SO4O	SPHT
NORG	TDNT
HBAW	BNTX
DIPF	PCFX
PHTF	AXFX
MNTH	AYMD
CE3W	FR11
MYYS	MTSD
DEPH	AHGT
MSMP	SPGS
HCSP	RFVL
NEEW	HEXC
LSIC	TD00
MZRS	MTSD
CE2W	FR11
NT1P	NTOT
TICW	TCO2
SLEV	ASLV
DINW	PATX
PRE8	AHGT
CNDC	CNDC
NTW	NTRI
HEEW	HEXC
VTPK	VWST
DENS	SIGT
TPHS	TPHS



### 6.2.2.3. Edit the mapping

To edit the incremental mapping, select **Mapping > Edit** in the **Automatic** main menu and choose a vocabulary list. The different vocabulary lists appear in a dropdown list. If the mapping does not exist, the vocabulary list appears painted with grey in the dropdown list and the user can not select it.




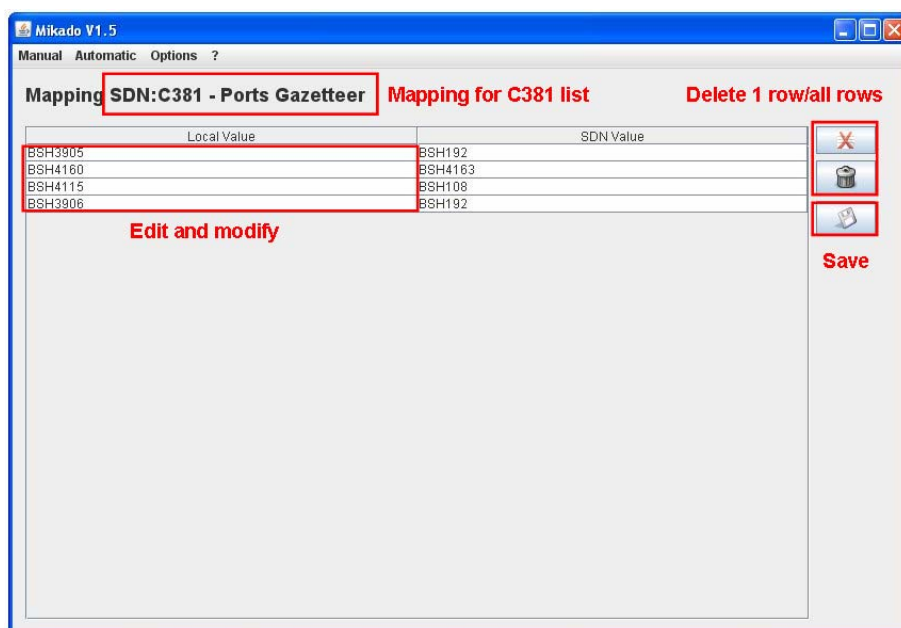
*Figure 11: Edit local mapping*

For each vocabulary list, you can access the mapping table and you can update it:

- modify the first column of the table (local value) by double clicking on the field you want to update,
- delete a row by selecting the row and by clicking on the  button,
- delete all the rows by clicking on the  button.

**Important: Do not forget to press on “Return” when you update a field in the mapping table.**

Once the mapping table is updated, you have to save it by clicking on the  button.

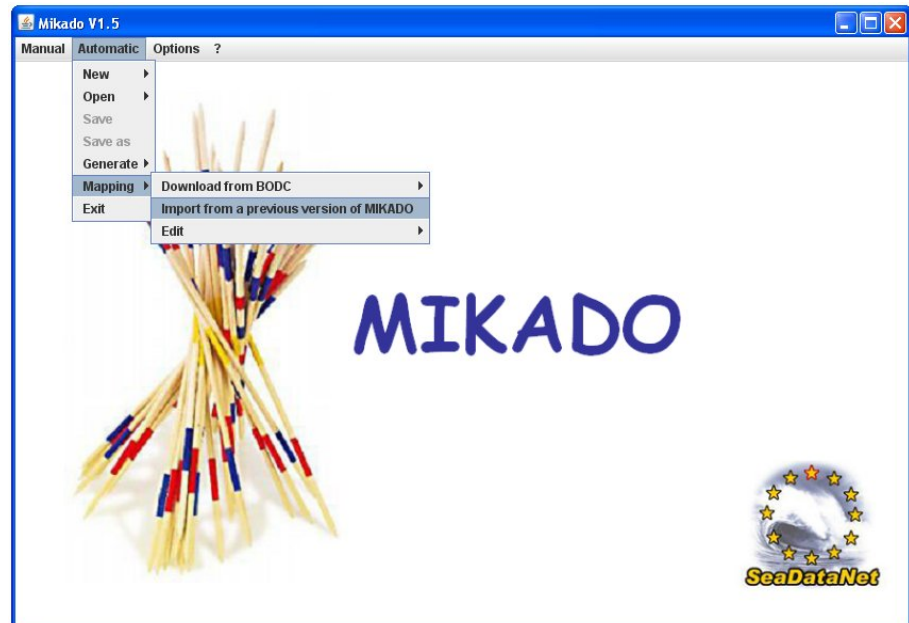


*Figure 12: Update local mapping – C381 list*

#### 6.2.2.4. Import the mapping

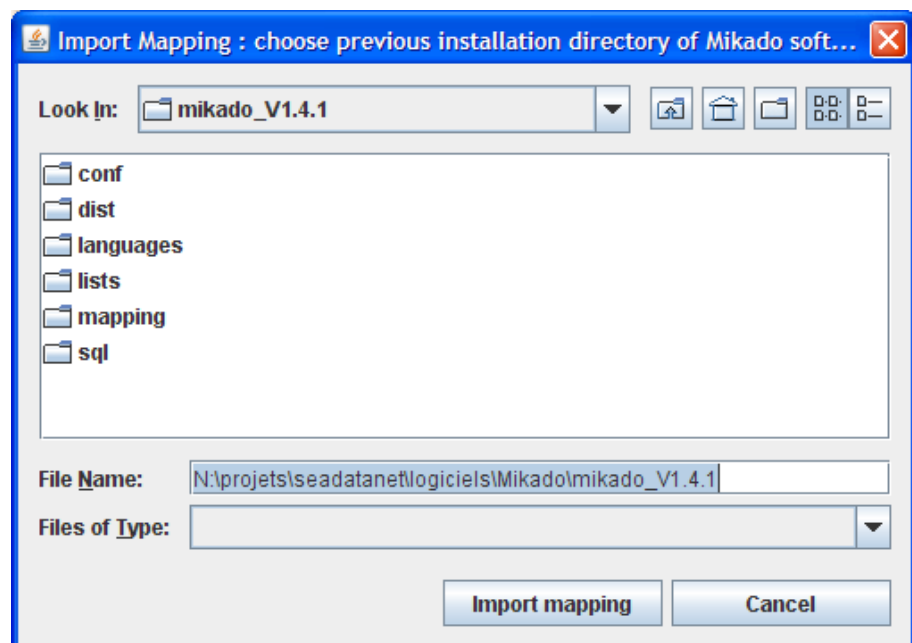
For each release of MIKADO, the local mapping cannot be delivered with the software because it is a local mapping depending on each local database. So, it is possible to import the mapping already done with a previous release of MIKADO.

To do so, select **Mapping > Import from a previous version of MIKADO** in the **Automatic** main menu:



*Figure 13: Import local mapping*

This opens a window where you have to browse your directories to tell MIKADO where the path of the previous installation of MIKADO was:



*Figure 14: Select the path of the previous installation of MIKADO*

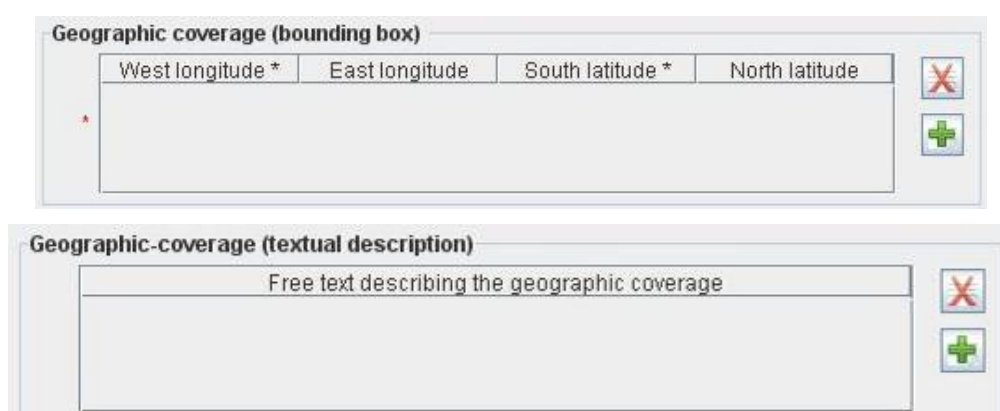
Then click on “Import mapping” button and you will get all the mapping to your local database that you have already done.

## 7. Common functionalities

### 7.1. Tables


#### 7.1.1. Free text table

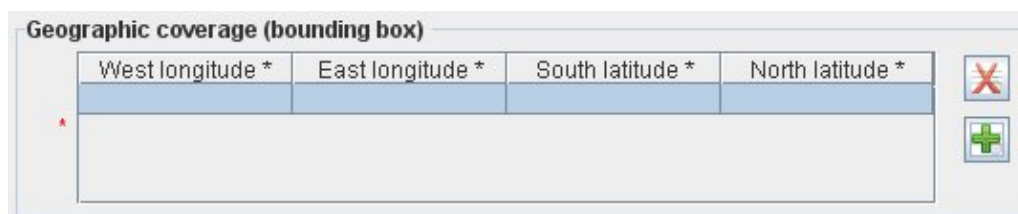
The following figure shows examples of free text tables that you will find in the MIKADO Manual interface:



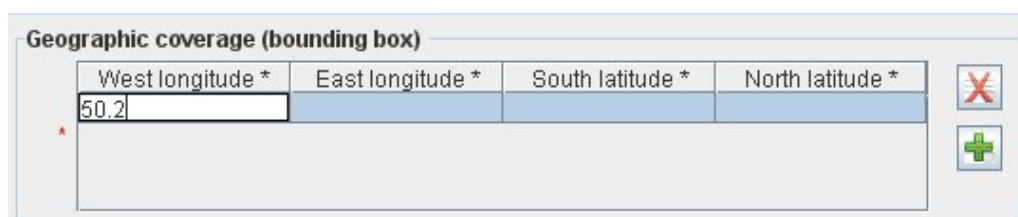
*Figure 15: Free text table*

##### 7.1.1.1. Add a row

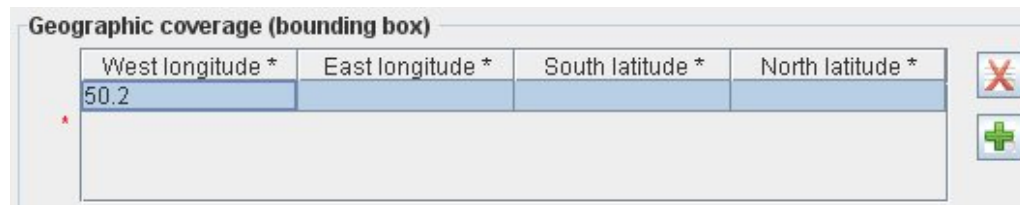
To add information in a free text table, click on the  button. A row will be added to the table. The new row appears in blue.




To complete the added row, double click on the row or on the field you want to complete. The field to complete appears in white:



**Important: To validate your update, do not forget to press on “Return”.**  
The updated field appears in blue.



#### 7.1.1.2. Delete a row

To delete a row in a table, select the row to delete by clicking on it and click on the  button. The row will be deleted.


#### 7.1.1.3. Update a row/a field

To update a row/field, double click on it. The selected row/field will appear in white. Update it.


**Important: To validate your update, do not forget to press on “Return”.**  
The updated field appears in blue.

### 7.1.2. Common vocabularies content table

The following figure shows you examples of tables containing values from a vocabulary list:

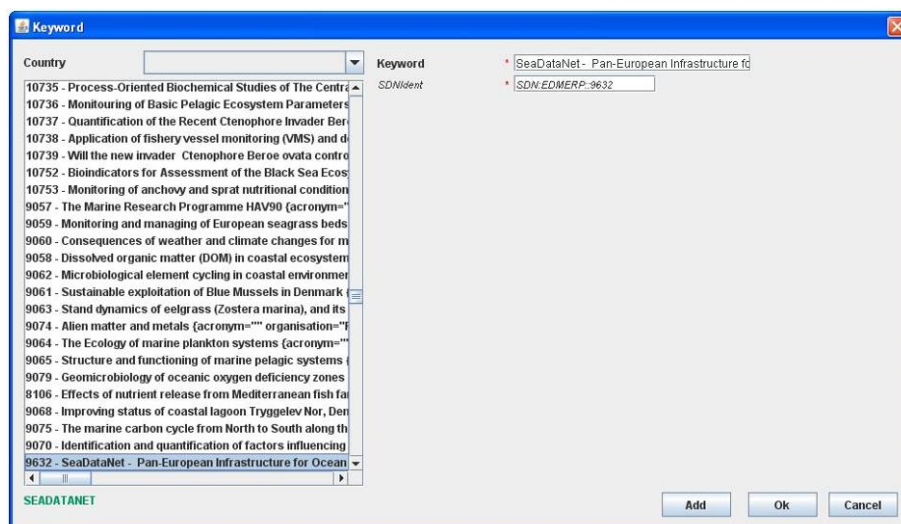


#### 7.1.2.1. Add a row/several rows




To add information in this kind of tables, click on the  button. A window which allows you to select a value in a vocabulary list opens.

- If you want to add only one value into the table, select the value and click on the **Ok** button.


- If you want to add several values into the table, select the value and click on the **Add** button and do it again to the last value. After selecting the last value, click on the **Ok** button.




The selected value(s) will appear in the table:

Projects	SDNIdent	
SeaDataNet- Pan-European Infrastru...	SDN:EDMERP::9632	 
		

#### 7.1.2.2. Delete a row

To delete a row in a table, select the row to delete by clicking on it and click on the  button. The row will be deleted.

#### 7.1.2.3. Update a row

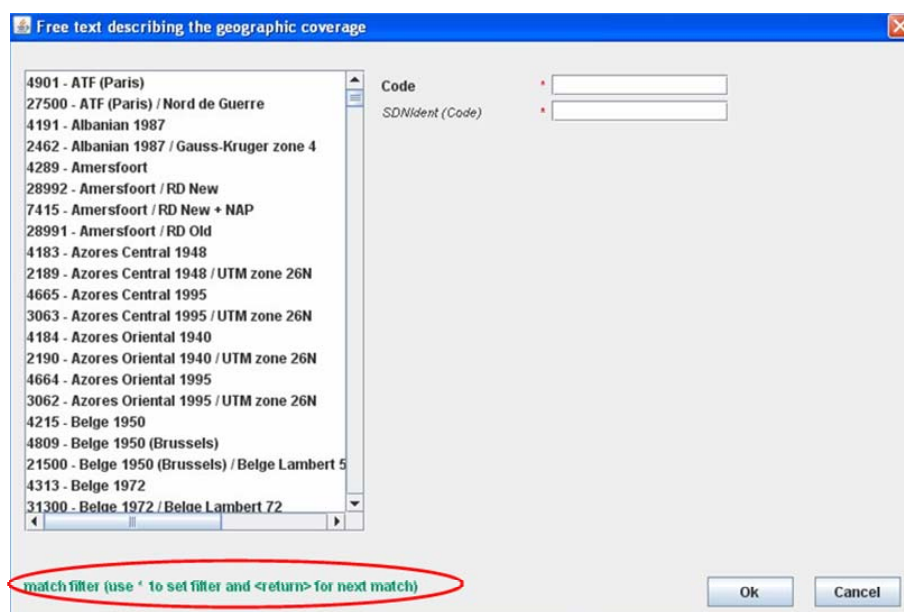
To update a row in a table, select the row to update by clicking on it and click on the  button. A window which allows you to select a value in a vocabulary list opens. Select the value and click on the OK button.

## 7.2. Vocabulary list

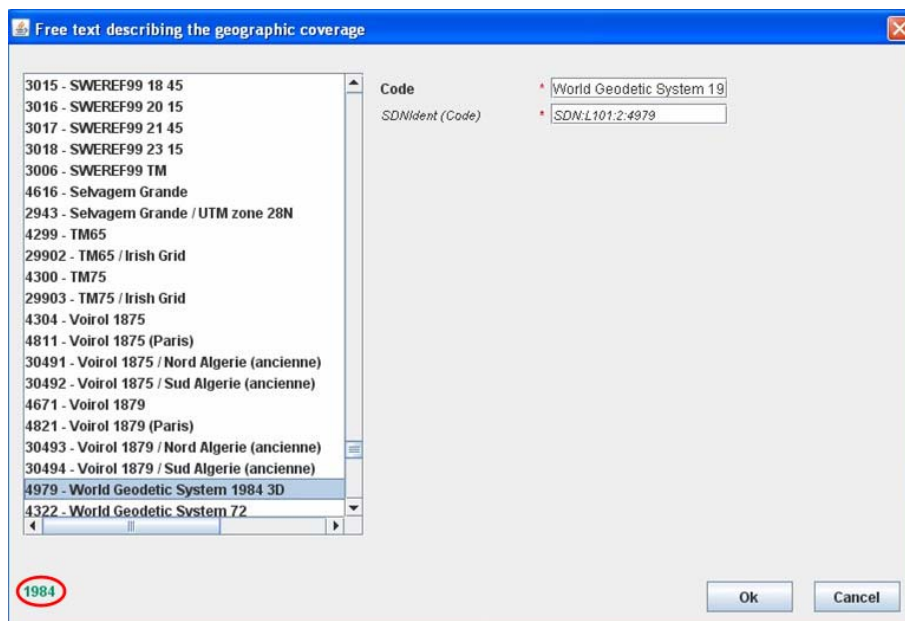
### 7.2.1. Find a specific value in a vocabulary list

If you want to find a specific value in a vocabulary list, it is possible to match a filter:

- Select the list by clicking on any value,
- Use \* to set filter. For example, if you want to find “World Geodetic System 1984” in the L101 vocabulary list, type **\*1984**. The used filter appears in green at the left bottom of the window.
- Press “Return” to go to the next match.

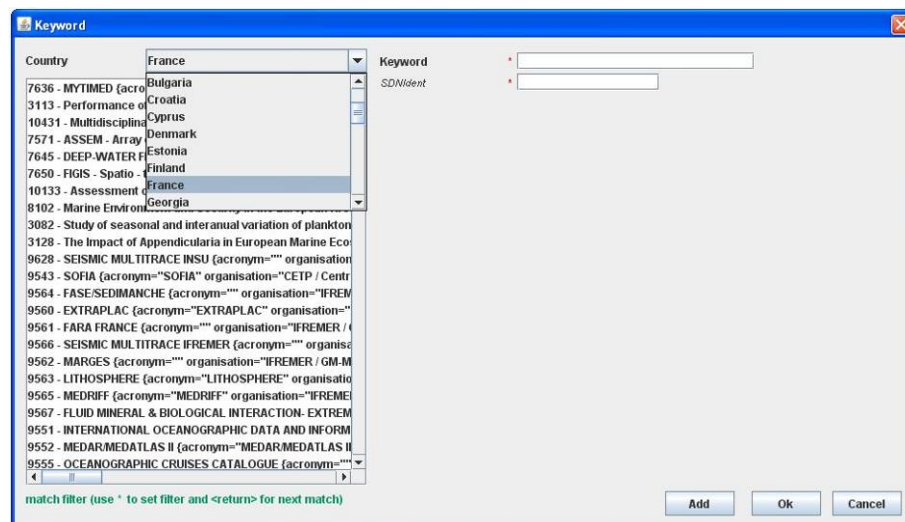






### 7.2.2. Find EDMERP or EDMO values for a particular country

MIKADO allows to find the EDMERP or EDMO values for a particular country in the EDMERP or EDMO lists. To do so, select the country in the dropdown list as shown in the following figure:



The EDMERP (respectively EDMO) list will be shortened and will contain only the projects (respectively organizations) of the selected country.

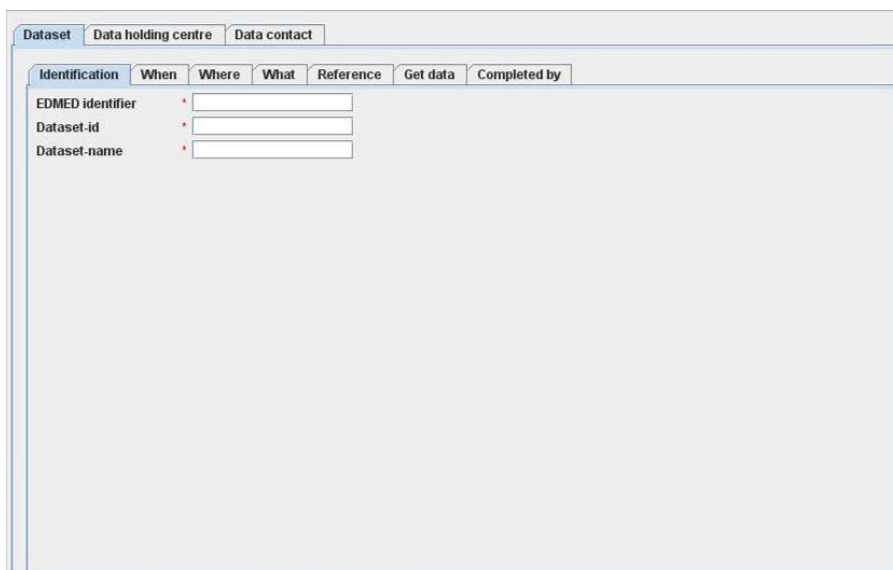
After that, it is possible to match an other filter to find a specific value in the EDMERP or EDMO lists (see 7.2.1).



## 7.3. Common screen characteristics for MIKADO manual input

### 7.3.1. Mandatory fields

In the different interfaces, the mandatory fields are highlighted with a red star:



The screenshot shows the 'Dataset' tab in the MIKADO manual input interface. The 'Identification' sub-tab is active, displaying three input fields: 'EDMED identifier', 'Dataset-id', and 'Dataset-name'. Each field is preceded by a red star, indicating it is a mandatory field. The interface also includes tabs for 'When', 'Where', 'What', 'Reference', 'Get data', and 'Completed by'.

*Figure 16: Mandatory fields highlighted with a red star*

### 7.3.2. Specific formats

#### 7.3.2.1. MIKADO manual

Specific formats, like date, are given as comment on the windows when necessary:



The screenshot shows the 'Dataset' tab in the MIKADO manual input interface. The 'When' sub-tab is active, displaying four input fields: 'Description', 'Period', 'Start date', and 'End date'. The 'Start date' and 'End date' fields are preceded by a red star, indicating they are mandatory. The 'Start date' field has a comment 'yyy (2007)' and the 'End date' field has a comment 'yyy (2008)'. The 'Revision date' field is also preceded by a red star and has a comment 'dd/mm/yyyy hh:mm:ss -24 hr (25/01/2007 15:05:00)'. The interface also includes tabs for 'Where', 'What', 'Reference', 'Get data', and 'Completed by'.

*Figure 17: Specific formats*

### 7.3.2.2. MIKADO automatic

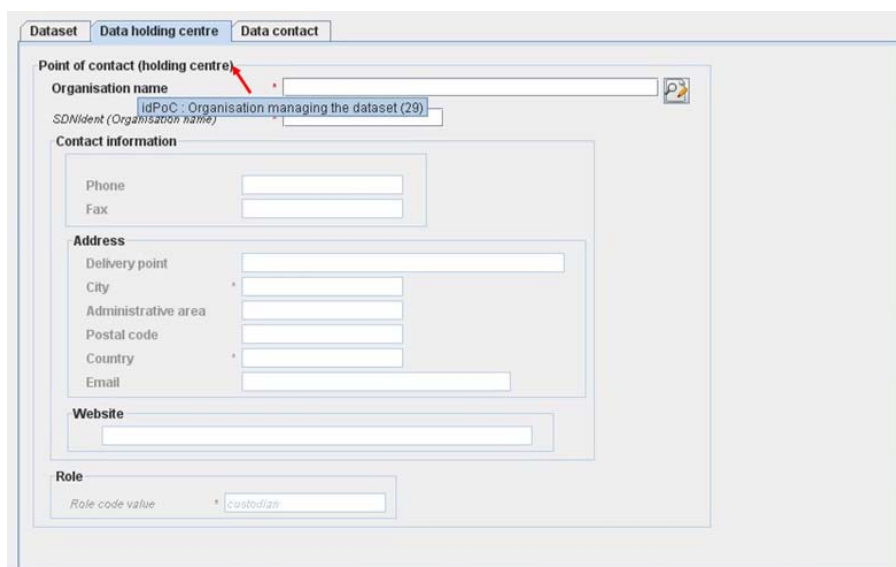
The dates must be extracted from the database (or Excel file) at ISO 19115 format: yyyy-mm-ddThh:mm:ss (time is not mandatory).

### 7.3.3. Tooltips

MIKADO provides two kinds of tooltips:

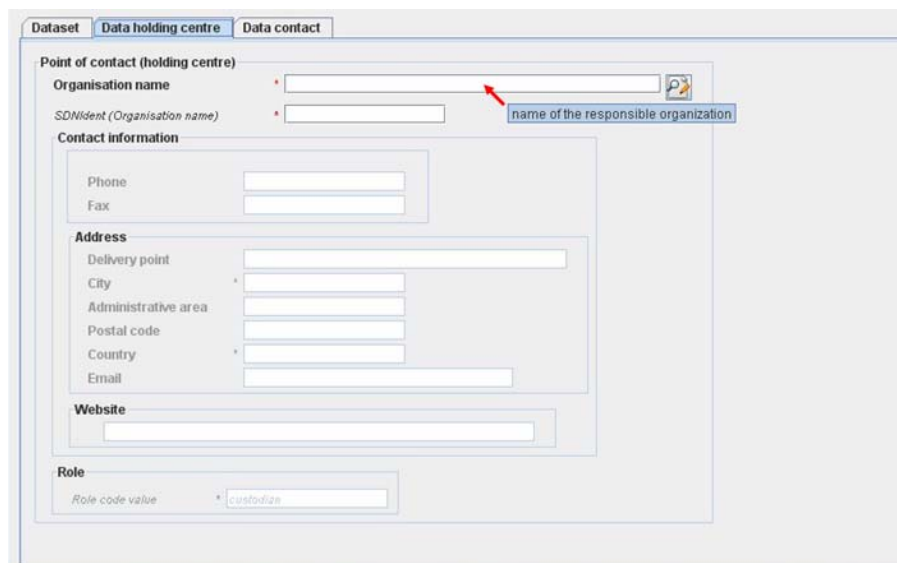
- Title tool tip which indicates the XML field associated with the selected title and its definition.
- Field tool tip which gives supplementary information in order to help to fulfill the field;

To access tool tips, put the mouse cursor over an item (title or empty field), without clicking it, and a small box will appear with supplementary information regarding the chosen item.



The screenshot shows the 'Data contact' tab of the MIKADO interface. A tooltip is displayed over the 'Point of contact (holding centre)' field, showing the XML field 'idPoC : Organisation managing the dataset (29)' and its definition 'SDNident (Organisation name)'. The form includes fields for 'Organisation name', 'Contact information' (Phone, Fax), 'Address' (Delivery point, City, Administrative area, Postal code, Country, Email), 'Website', and 'Role' (Role code value).

*Figure 18: Title tool tip*



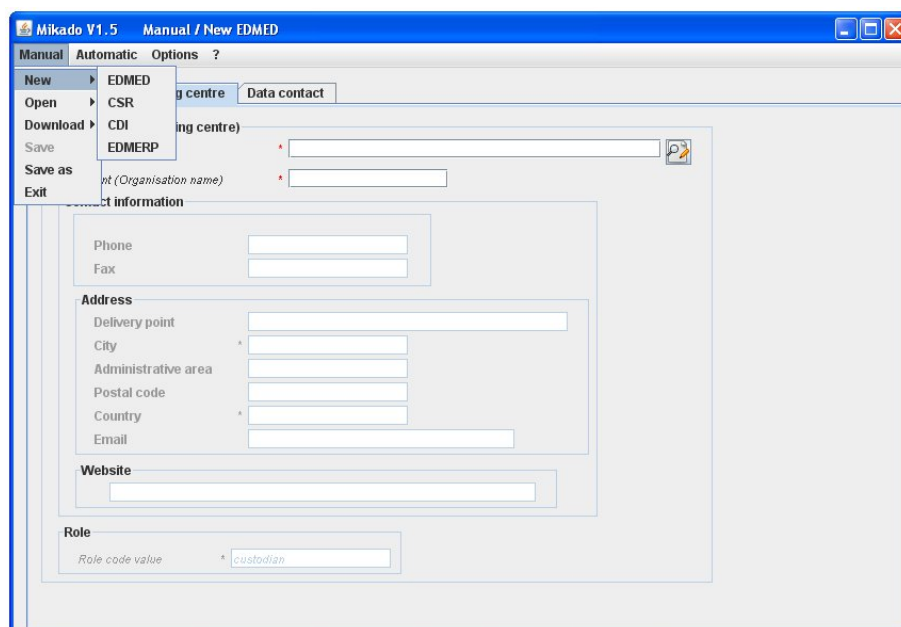
The screenshot shows the 'Data contact' tab in the MIKADO V1.5 user interface. The form is divided into several sections: 'Point of contact (holding centre)' with 'Organisation name' and 'SDNident (Organisation name)' fields; 'Contact information' with 'Phone' and 'Fax' fields; 'Address' with 'Delivery point', 'City', 'Administrative area', 'Postal code', 'Country', and 'Email' fields; 'Website' with a single text field; and 'Role' with a 'Role code value' field. A red arrow points to the 'Organisation name' field, and a tooltip displays 'name of the responsible organization'.

*Figure 19: Field tool tip*

## 8. Manual entries of EDMED, CSR, CDI and EDMERP descriptions

The manual version of the software is well adapted if there is a small amount of EDMED, CSR, CDI or EDMERP entries.

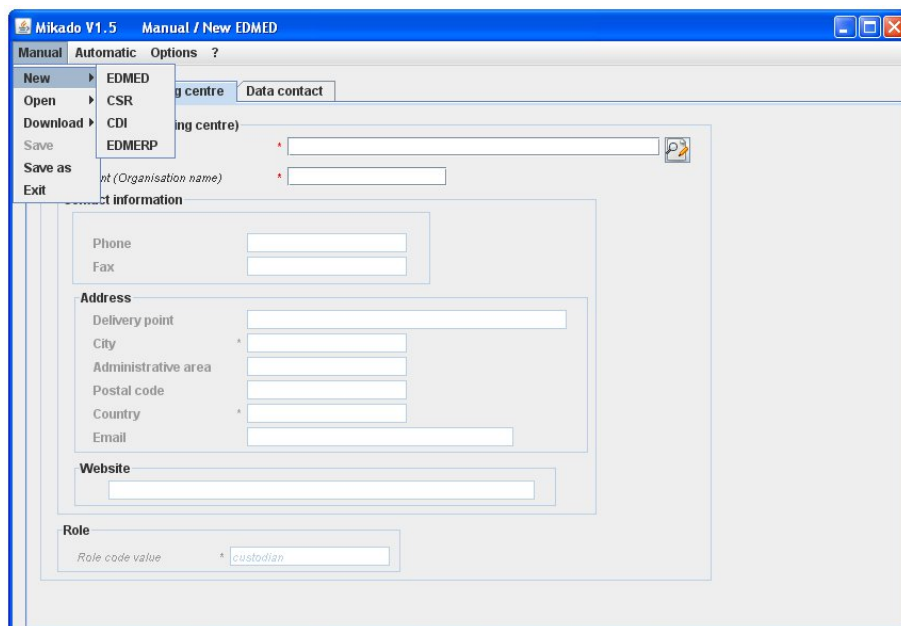
The input screens have been updated to be compliant with the new XML schemas and the lists of values used by MIKADO Manual are the SeaDataNet common vocabularies (see 6).



*Figure 20: Manual menu*

### 8.1. Create a new XML file

To create a new XML file, select **New** in the **Manual** main menu and choose EDMED, CSR, CDI or EDMERP.



*Figure 21: Create a new XML file with MIKADO*

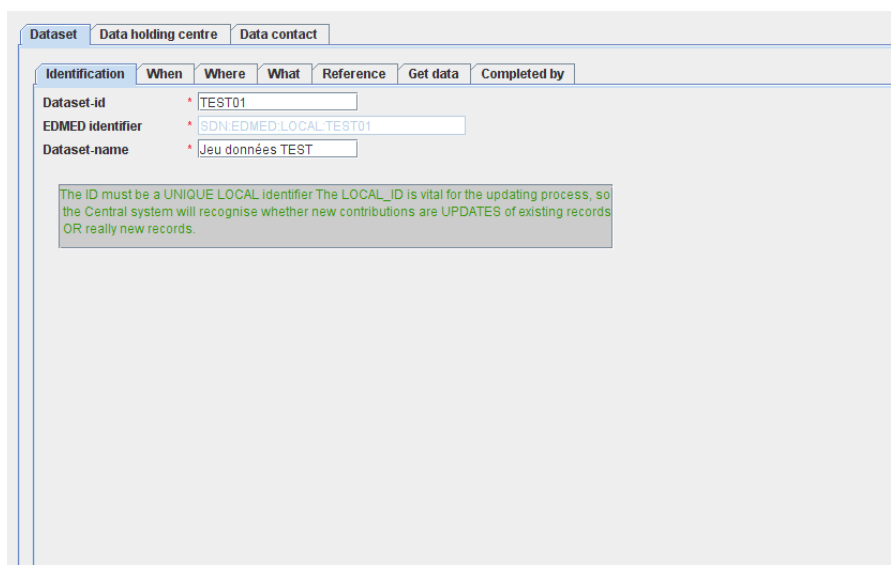
### 8.1.1. Manual EDMED input

There are 3 main tabs for the EDMED information: 'Dataset', 'Data holding centre' and 'Data contact'

The first tab gives the dataset description (Figure 22 to Figure 28) and is divided into 7 tabs which enable to enter information about:

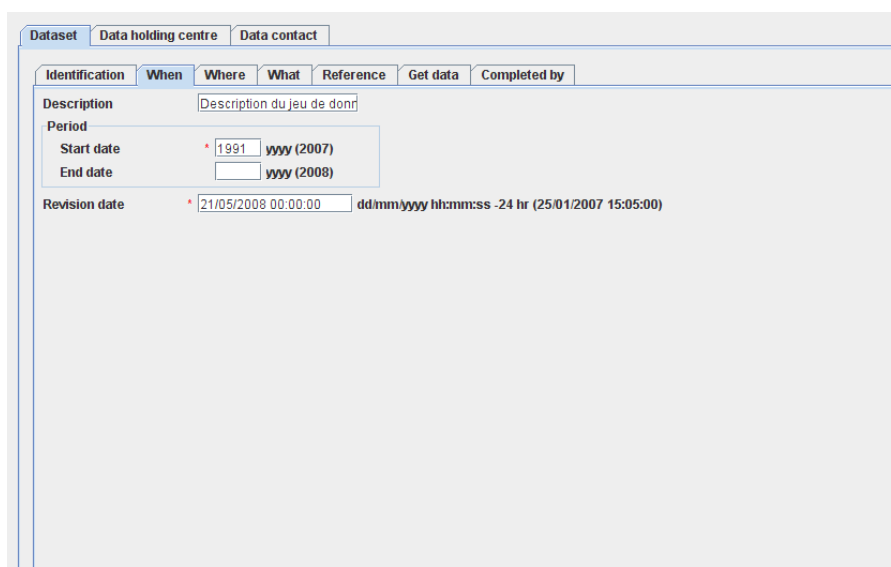
- Identification of the dataset which is very important. **The ID must be a UNIQUE LOCAL identifier. Because the LOCAL\_ID is vital for the updating process, it is through this LOCAL\_ID than the central system will be able to recognise whether new contributions are updates of existing records or really new records.**
- When and where the dataset was collected.
- What are the data in the dataset (data themes, parameters, instruments, summary, related project).
- References on the data set (bibliography, web site).
- Where and how to get the dataset.
- Responsible of the dataset description.

.

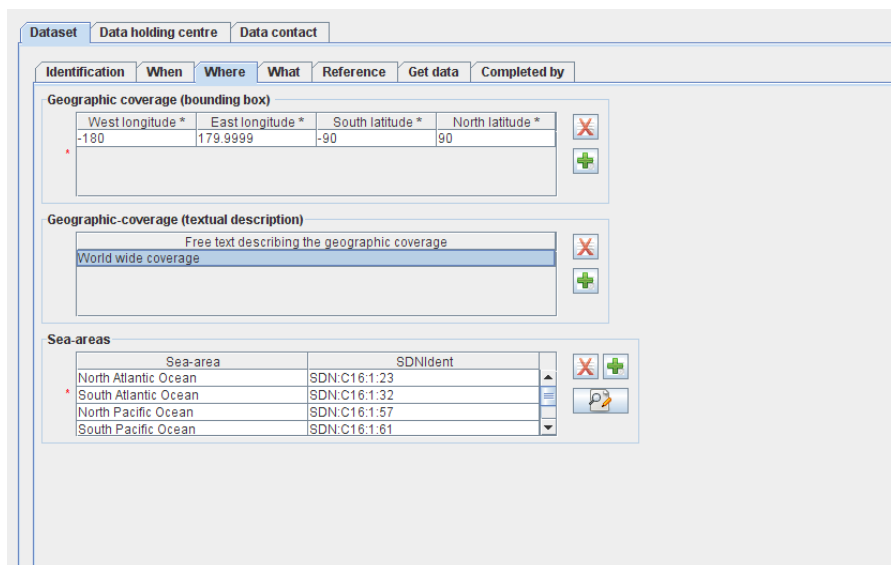


*Figure 22: Dataset information window – ‘Identification’*

The identification of the dataset is the **unique** LOCAL dataset ID and the dataset name. Both fields are mandatory.



*Figure 23: Dataset information – ‘When’*



**Dataset** | **Data holding centre** | **Data contact**

Identification | **When** | **Where** | What | Reference | Get data | Completed by

**Geographic coverage (bounding box)**

West longitude *	East longitude *	South latitude *	North latitude *
-180	179.9999	-90	90

**Geographic coverage (textual description)**

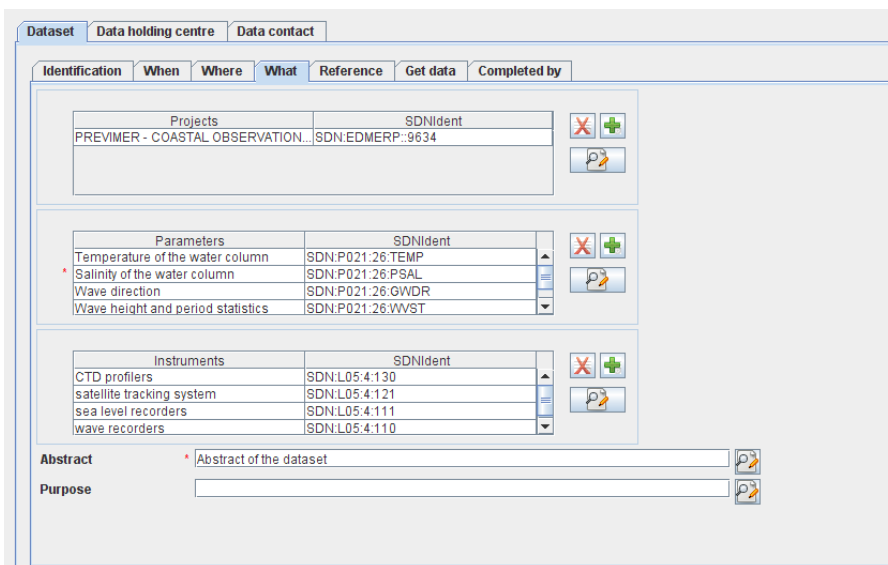
Free text describing the geographic coverage

World wide coverage

**Sea-areas**

Sea-area	SDNident
North Atlantic Ocean	SDN:C16:1:23
South Atlantic Ocean	SDN:C16:1:32
North Pacific Ocean	SDN:C16:1:57
South Pacific Ocean	SDN:C16:1:61

*Figure 24: Dataset information window – ‘Where’*



**Dataset** | **Data holding centre** | **Data contact**

Identification | **When** | **Where** | **What** | Reference | Get data | Completed by

**Projects**

Projects	SDNident
PREVIMER - COASTAL OBSERVATION...	SDN:EDMERP:9634

**Parameters**

Parameters	SDNident
Temperature of the water column	SDN:P021:26:TEMP
Salinity of the water column	SDN:P021:26:PSAL
Wave direction	SDN:P021:26:GWDR
Wave height and period statistics	SDN:P021:26:VWST

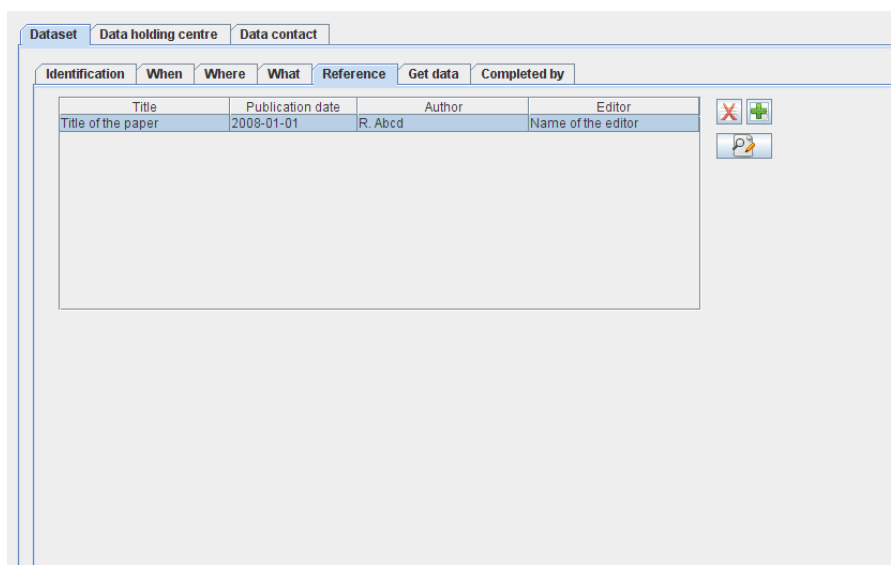
**Instruments**

Instruments	SDNident
CTD profilers	SDN:L05:4:130
satellite tracking system	SDN:L05:4:121
sea level recorders	SDN:L05:4:111
wave recorders	SDN:L05:4:110

**Abstract** \* Abstract of the dataset

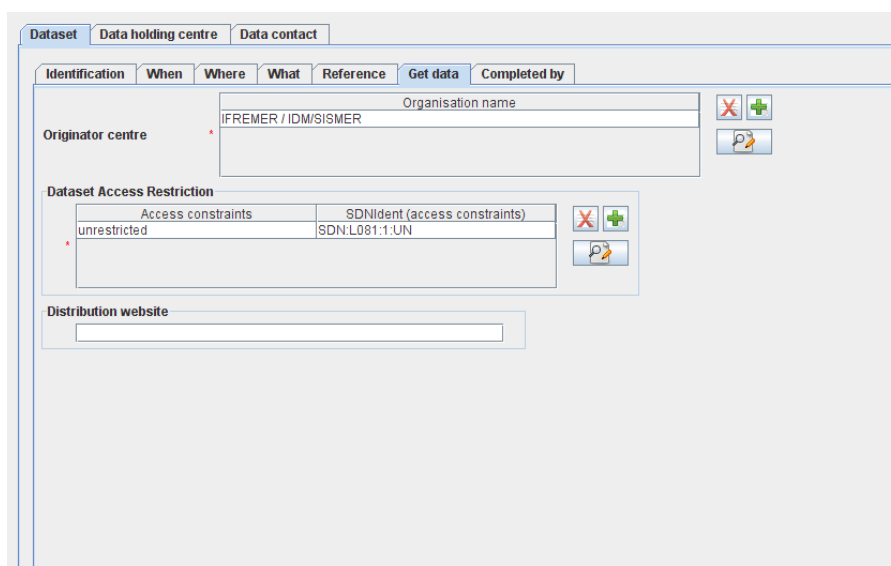
**Purpose**

*Figure 25: Dataset information window – ‘What’*



Title	Publication date	Author	Editor
Title of the paper	2008-01-01	R. Abcd	Name of the editor

*Figure 26: Dataset information window – ‘Reference’*



Originator centre: Organisation name: IFREMER / IDN/SISMER

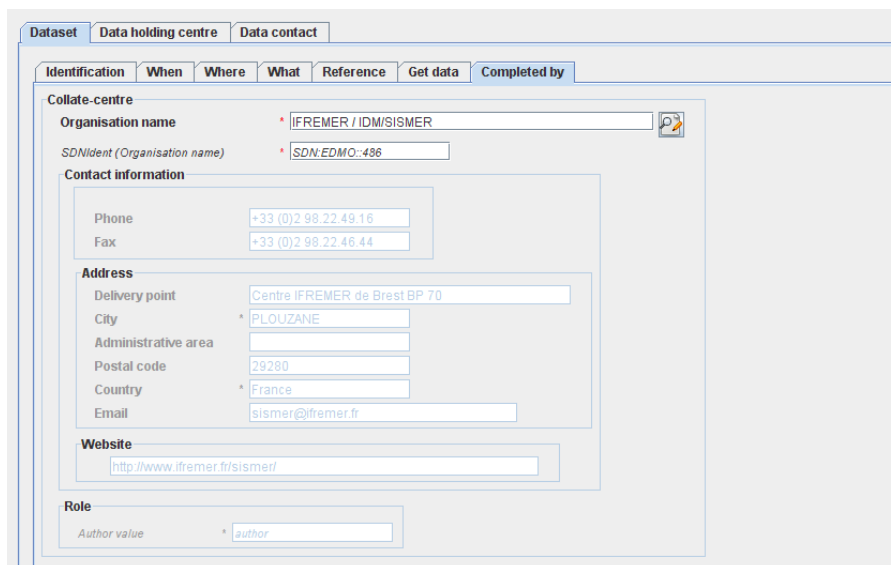
Dataset Access Restriction:

Access constraints	SDNident (access constraints)
unrestricted	SDN.L081:1.UN

Distribution website:

*Figure 27: Dataset information window – ‘Get data’*





Dataset | Data holding centre | Data contact

Identification | When | Where | What | Reference | Get data | **Completed by**

**Collate-centre**

Organisation name \* IFREMER / IDM/SISMER

SDNident (Organisation name) \* SDN EDMO:486

**Contact information**

Phone +33 (0)2 98 22 49 16

Fax +33 (0)2 98 22 46 44

**Address**

Delivery point Centre IFREMER de Brest BP 70

City \* PLOUZANE

Administrative area

Postal code 29280

Country \* France

Email sismer@ifremer.fr

**Website**

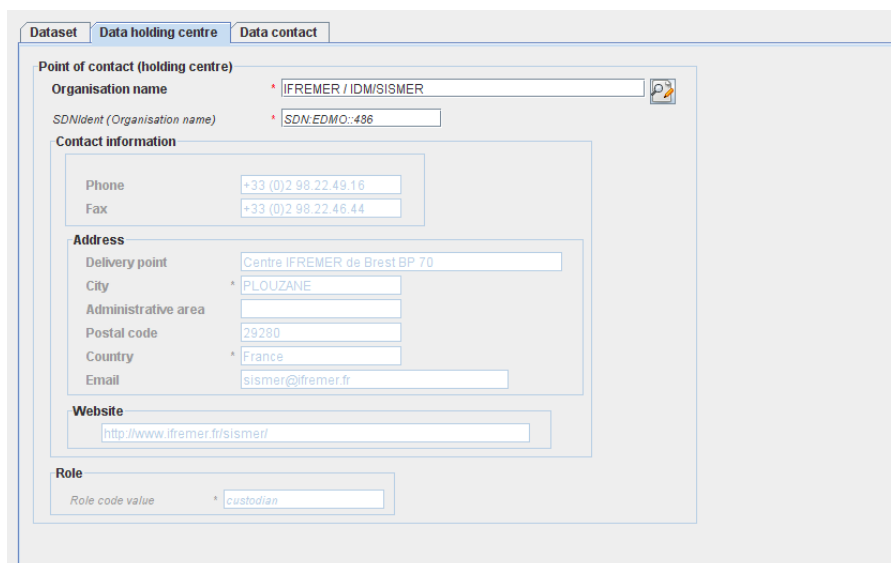
http://www.ifremer.fr/sismer/

**Role**

Author value \* author

*Figure 28: Dataset information window – 'Completed by'*

The second tab describes the data holding centre:



Dataset | **Data holding centre** | Data contact

**Point of contact (holding centre)**

Organisation name \* IFREMER / IDM/SISMER

SDNident (Organisation name) \* SDN EDMO:486

**Contact information**

Phone +33 (0)2 98 22 49 16

Fax +33 (0)2 98 22 46 44

**Address**

Delivery point Centre IFREMER de Brest BP 70

City \* PLOUZANE

Administrative area

Postal code 29280

Country \* France

Email sismer@ifremer.fr

**Website**

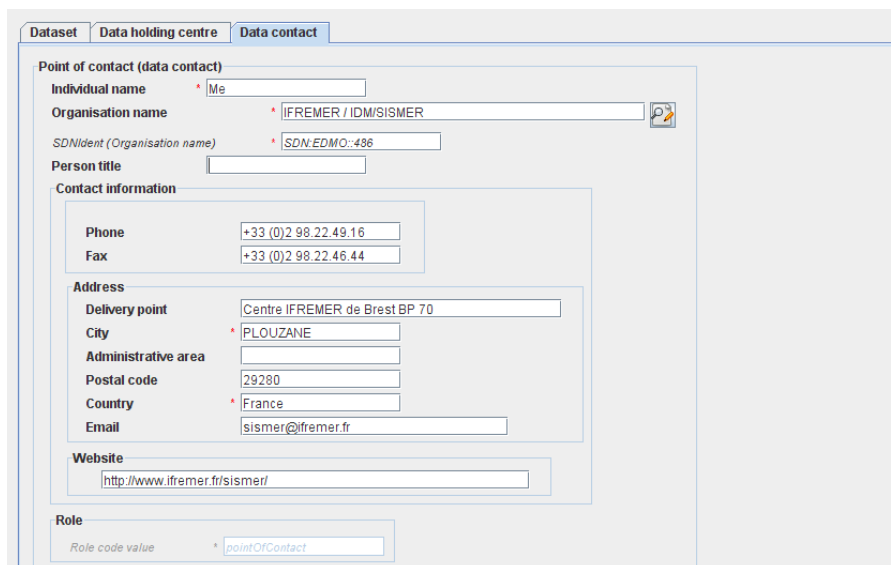
http://www.ifremer.fr/sismer/

**Role**

Role code value \* custodian

*Figure 29: Data Holding centre information window*

The last tab identifies the contact point within the data holding centre (defined in the previous window) able to deal with requests concerning the data sets held by the centre:



*Figure 30: Data Contact information window*

Here the phone and fax which are related to the organisation name (retrieved from EDMO catalogue) may be modified to be related to the identified person, point of contact for the dataset.

Once all the information related to the EDMED dataset has been fulfilled, the xml file will be created by selecting **Save as** in the **Manual** main menu. The created XML file has a “.xml” extension.

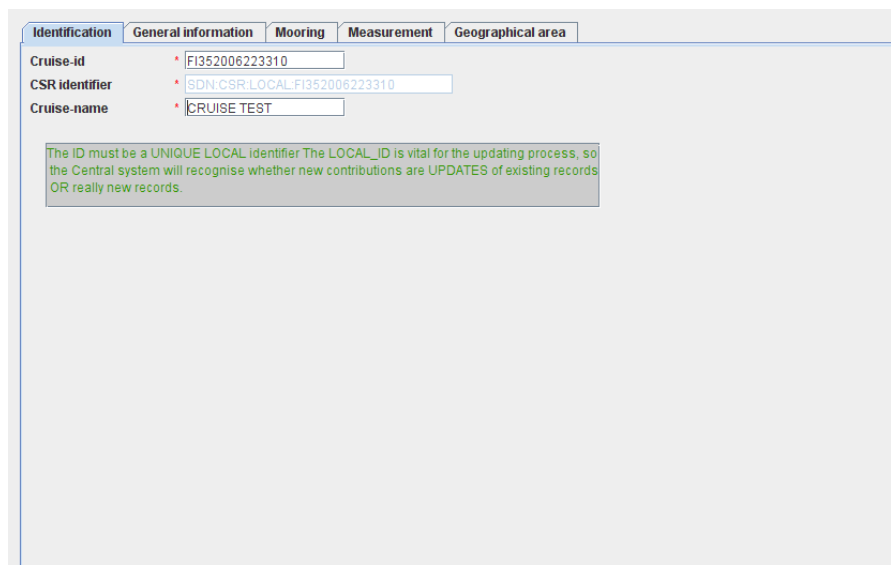
### 8.1.2. Manual CSR input

There are 5 main input tabs for the CSR information, which are directly inspired by the original ROSCOP form:

- Identification of the cruise which is **very important and the ID must be a UNIQUE LOCAL identifier**. Because the **LOCAL\_ID** is vital for the updating process, it is through this **LOCAL\_ID** than the central system will be able to recognise whether new contributions are **updates** of existing records or really **new records**.
- General information about the cruise.
- Information about the moorings.
- Information about the measurements done during the cruise.
- Information about the geographical areas of the cruise.

#### 8.1.2.1. Identification of the cruise

The identification of the cruise is the **unique** LOCAL cruise ID and the cruise name. Both fields are mandatory.

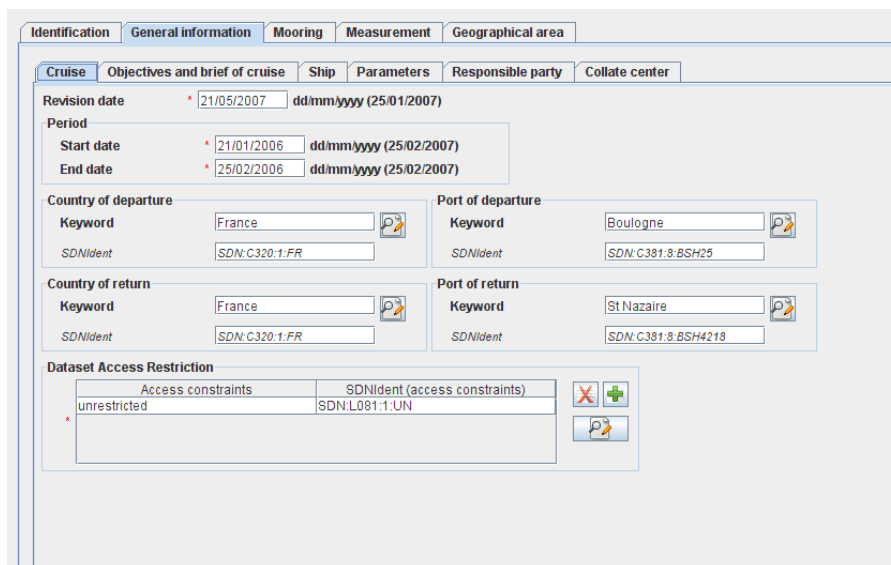


*Figure 31: Unique identification of a cruise*

#### 8.1.2.2. General information about the cruise

This window is divided into 6 tabs (Figure 32 to Figure 37) which enable to input information about:

- the cruise (identification, begin and end dates, ports of departure and return),
- the objectives of the cruise : purpose and nature of the cruise as to provide the context in which the data were collected and the projects related to the cruise,
- the ship : ship name and ship type (research, opportunity, naval survey vessel),
- the parameters measured during the cruise and the instruments used for these measurements,
- the responsible party : person(s) in charge of the scientific work (chief scientist) and laboratory responsible for coordinating the scientific planning of the cruise,
- the information about the collate centre.

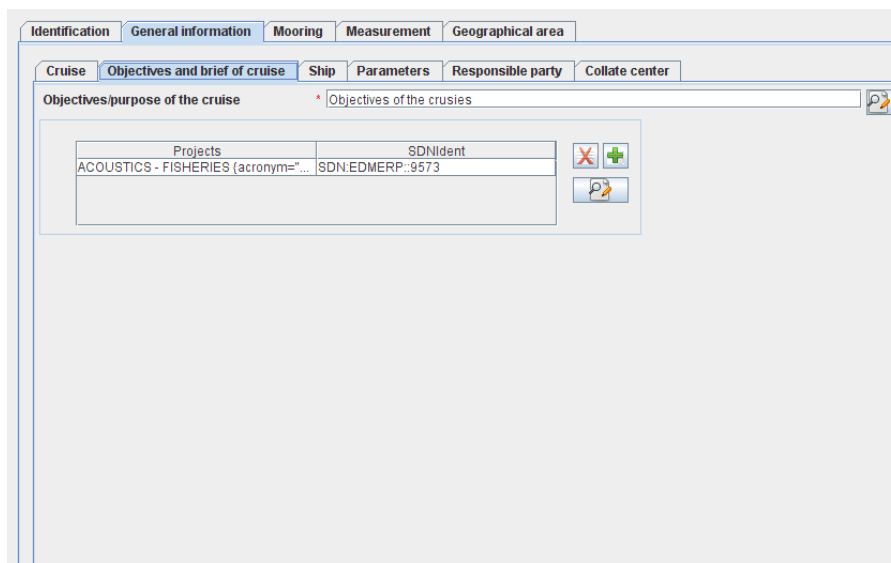


The screenshot shows the 'General information' window with the 'Cruise' tab selected. The window contains several sections:

- Revision date:** 21/05/2007 (dd/mm/yyyy (25/01/2007))
- Period:**
  - Start date: 21/01/2006 (dd/mm/yyyy (25/02/2007))
  - End date: 25/02/2006 (dd/mm/yyyy (25/02/2007))
- Country of departure:**
  - Keyword: France
  - SDNident: SDN:C320:1:FR
- Port of departure:**
  - Keyword: Boulogne
  - SDNident: SDN:C381:8:BSH25
- Country of return:**
  - Keyword: France
  - SDNident: SDN:C320:1:FR
- Port of return:**
  - Keyword: St Nazaire
  - SDNident: SDN:C381:8:BSH4218
- Dataset Access Restriction:**

Access constraints	SDNident (access constraints)
unrestricted	SDN:L081:1:UN

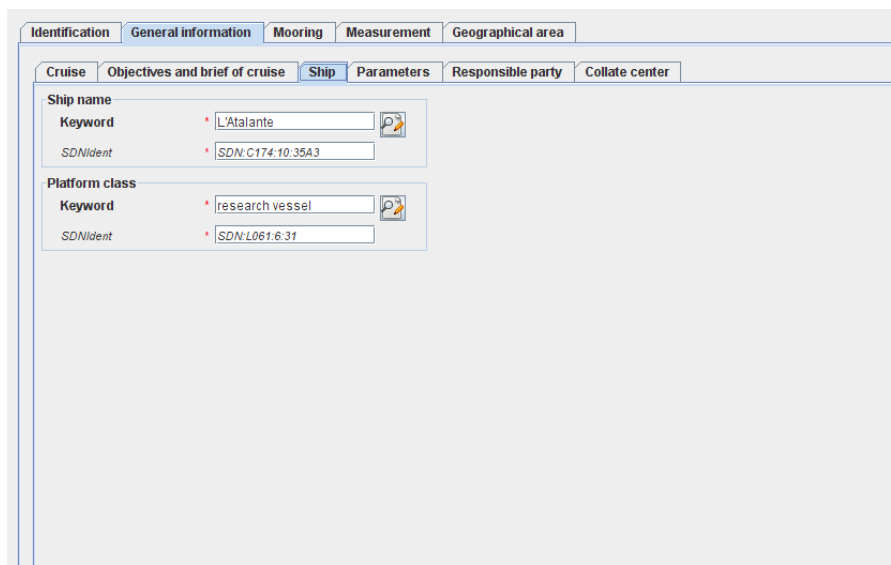
*Figure 32: General information window – Cruise*



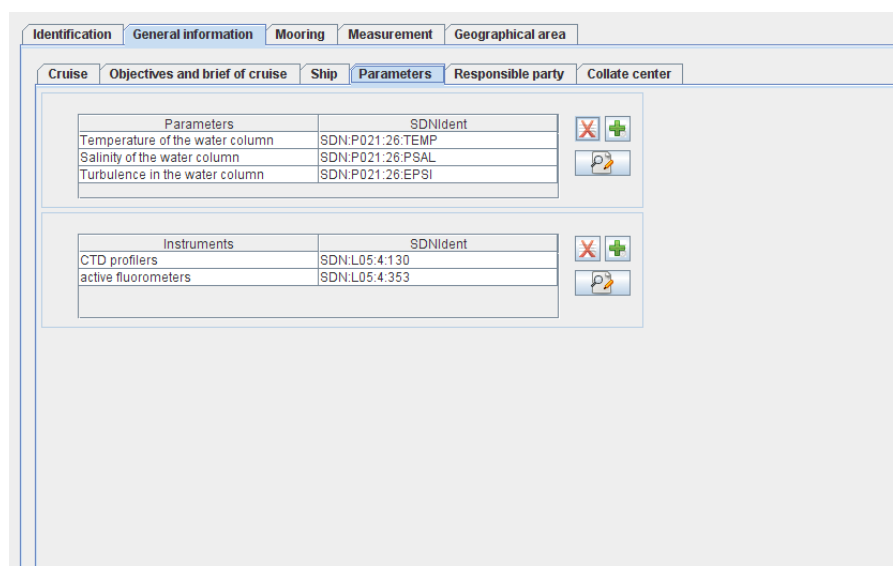
The screenshot shows the 'General information' window with the 'Objectives and brief of cruise' tab selected. The window contains a table for projects and SDNident:

Projects	SDNident
ACOUSTICS - FISHERIES (acronym="...)	SDN:EDMERP.:9573

*Figure 33: General information window – Objectives and brief of Cruise*



*Figure 34: General information window – Ship*

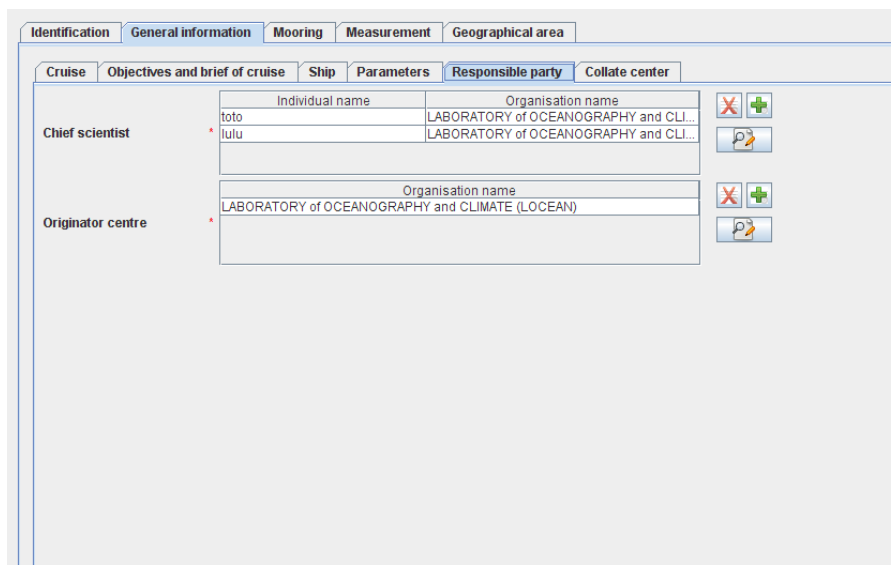


Parameters	SDNident
Temperature of the water column	SDN:P021:26:TEMP
Salinity of the water column	SDN:P021:26:PSAL
Turbulence in the water column	SDN:P021:26:EPSI

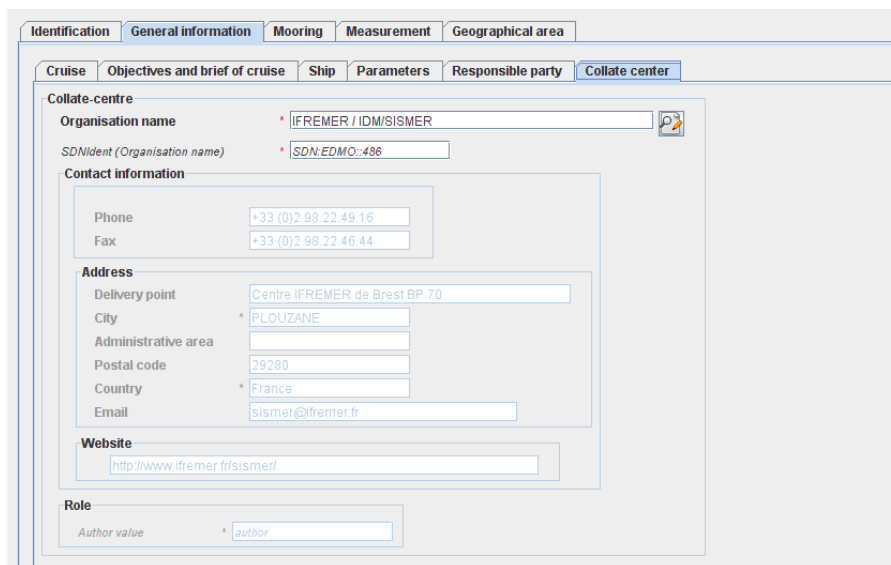
  

Instruments	SDNident
CTD profilers	SDN:L05:4:130
active fluorometers	SDN:L05:4:353

*Figure 35: General information window – Parameters*



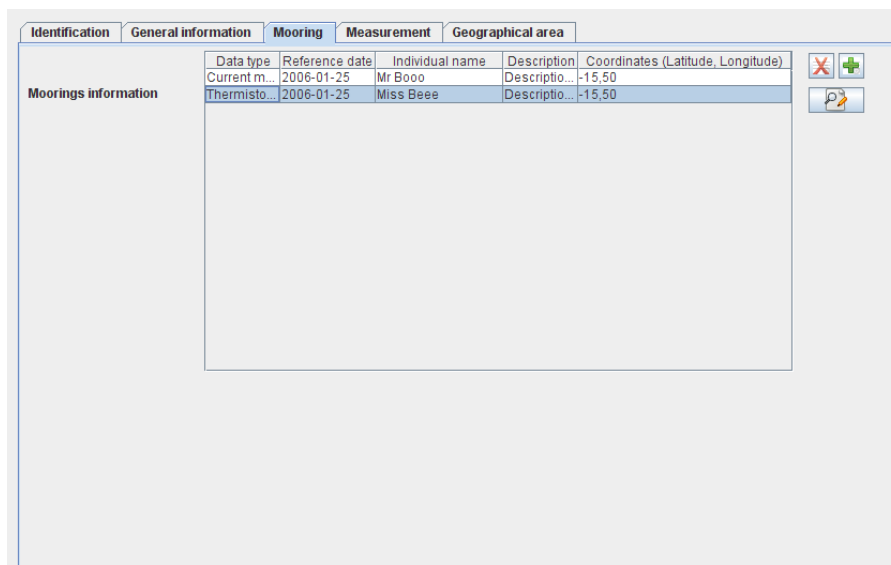
*Figure 36: General information window – Responsible party*



*Figure 37: General information window – Collate centre*

### 8.1.2.3. Moorings information

Information about moorings are not mandatory, the window enables to input the information about several moorings.

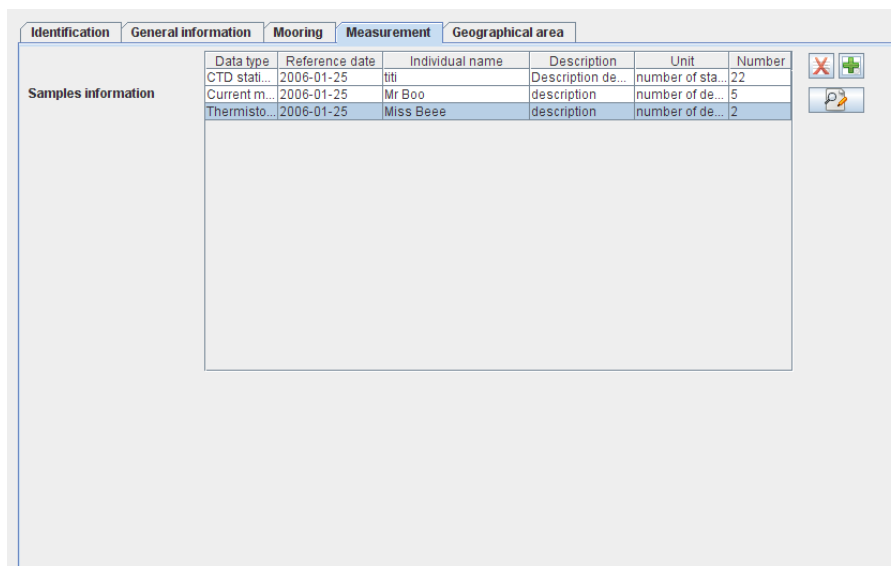


Data type	Reference date	Individual name	Description	Coordinates (Latitude, Longitude)
Current m...	2006-01-25	Mr Booo	Descriptio...	-15,50
Thermisto...	2006-01-25	Miss Beee	Descriptio...	-15,50

*Figure 38: Mooring information window*

#### 8.1.2.4. Measurements information

Information about measurements are not mandatory, the window enables to input the information about several type of measurements.

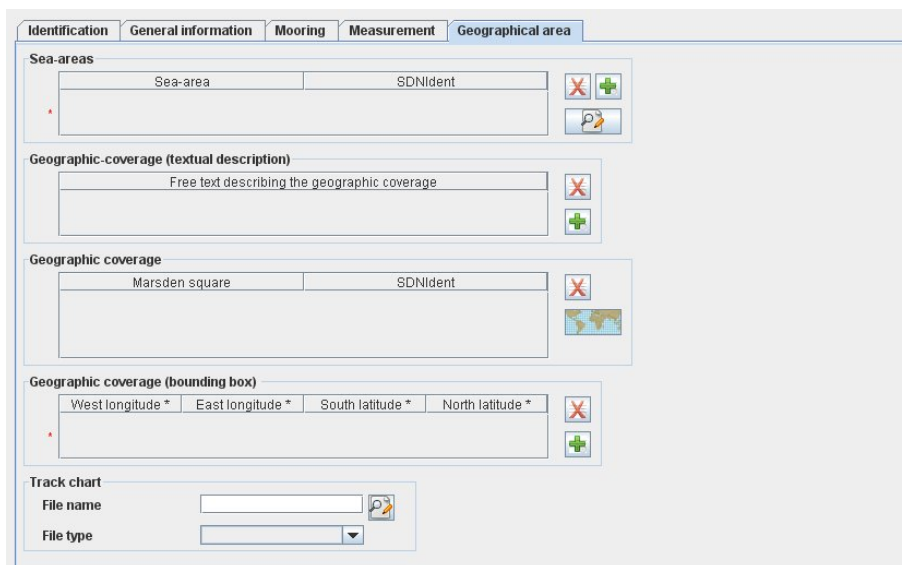


Data type	Reference date	Individual name	Description	Unit	Number
CTD stati...	2006-01-25	titi	Description de...	number of sta...	22
Current m...	2006-01-25	Mr Boo	description	number of de...	5
Thermisto...	2006-01-25	Miss Beee	description	number of de...	2

*Figure 39: Measurement information window*


#### 8.1.2.5. Geographical area information

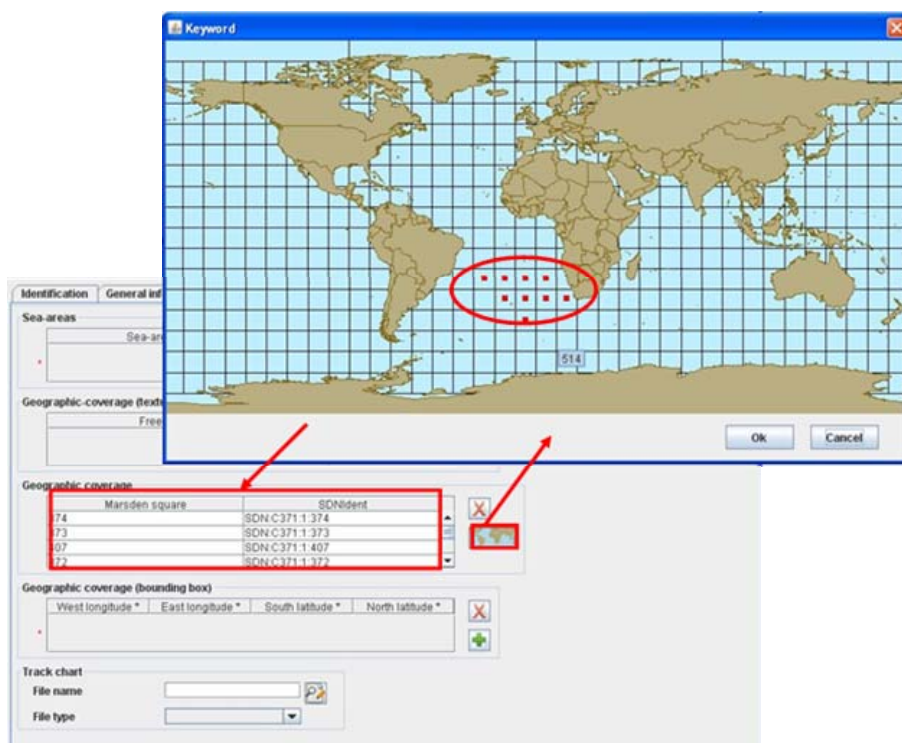
The “Geographical area” window enables to input information about the geographical area of the cruise.



*Figure 40: Geographical area window*

If a track chart is available for the cruise, browse to select the file name, File description must be 'track chart', File type can be GML', 'GIF', 'PNG', 'JPEG' or 'PDF'.

In "Geographic coverage" frame, the  button opens a map with the Marsden squares. Clicking on one or several MARSDEN square(s) and clicking on Ok button add its (their) value(s) in the "Geographic coverage" table.



Marsden square	SDNIdent
74	SDN C 371.1.374
73	SDN C 371.1.373
07	SDN C 371.1.407
72	SDN C 371.1.372

*Figure 41: Geographical area – Marsden Squares*



Once all the information related to the CSR has been fulfilled, the xml file will be created by selecting **Save as** in the **Manual** main menu. The created XML file has an “.xml” extension.

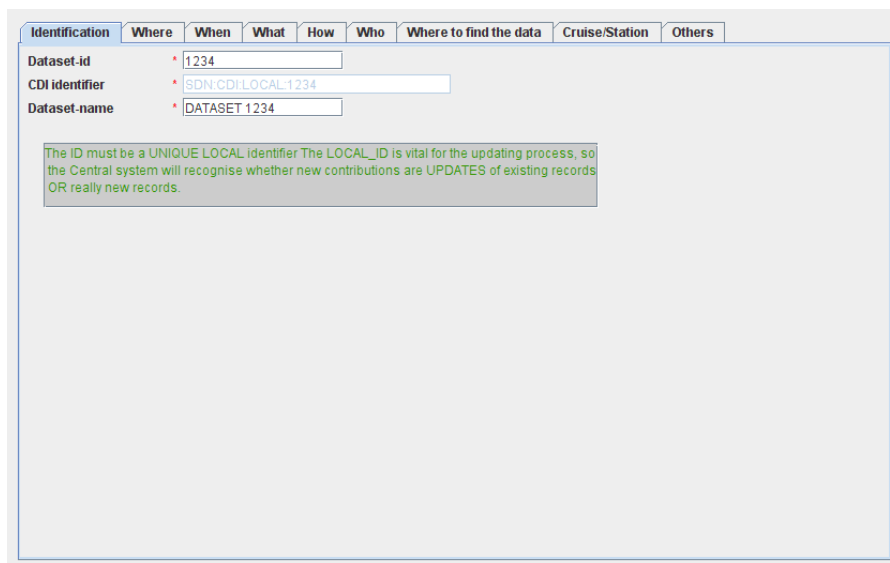
### 8.1.3. Manual CDI input

There are 9 tabs for the CDI information (Figure 42 to Figure 51) corresponding to the following basic questions defined in the CDI documentation:

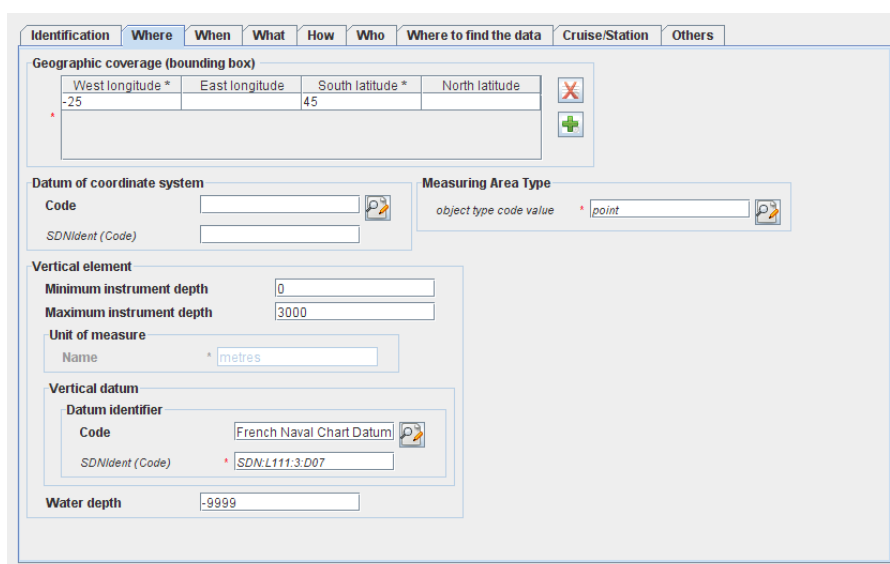
- Identification of the CDI record which is **very important**. The ID must be a **UNIQUE LOCAL** identifier. Because the LOCAL\_ID is vital for the updating process, it is through this LOCAL\_ID than the central system will be able to recognise whether new contributions are **updates** of existing records or really **new records**
- Where?
- When?
- What?
- How?
- Who?
- Where to find the data?
- Dataset information (Cruise, Station)
- Other relevant information.

The content of the “Where to find the data” tab will depend on the selected options in **Data centre type** in the **Options** main menu:

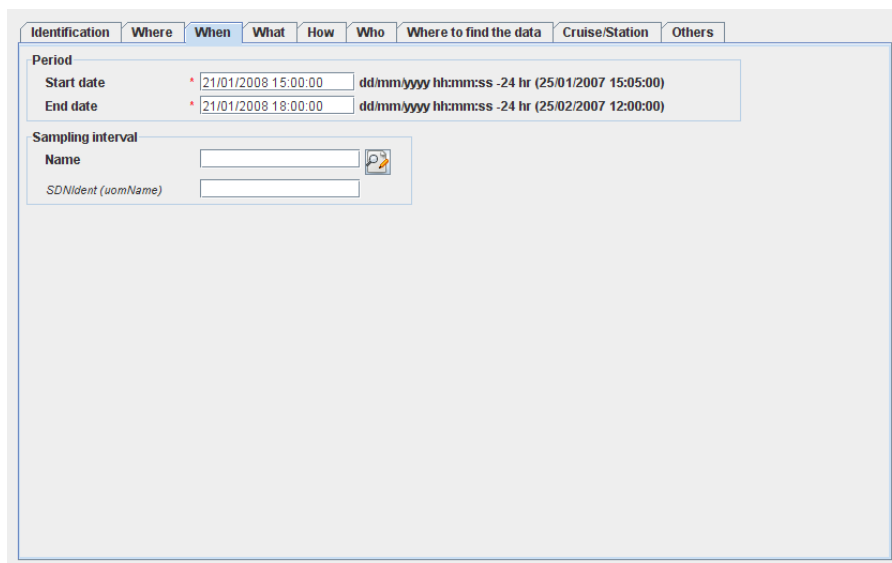
- If the selected data centre type is SDN V1, the URL distribution website will be fixed and the user could not change it (see Figure 48).
- If the selected data centre type is ECOOP V1, the URL distribution website will be free (see Figure 49).



*Figure 42: CDI 'Identification' window*



*Figure 43: CDI 'Where' window*



Identification Where **When** What How Who Where to find the data Cruise/Station Others

Period

Start date \* 21/01/2008 15:00:00 dd/mm/yyyy hh:mm:ss -24 hr (25/01/2007 15:05:00)

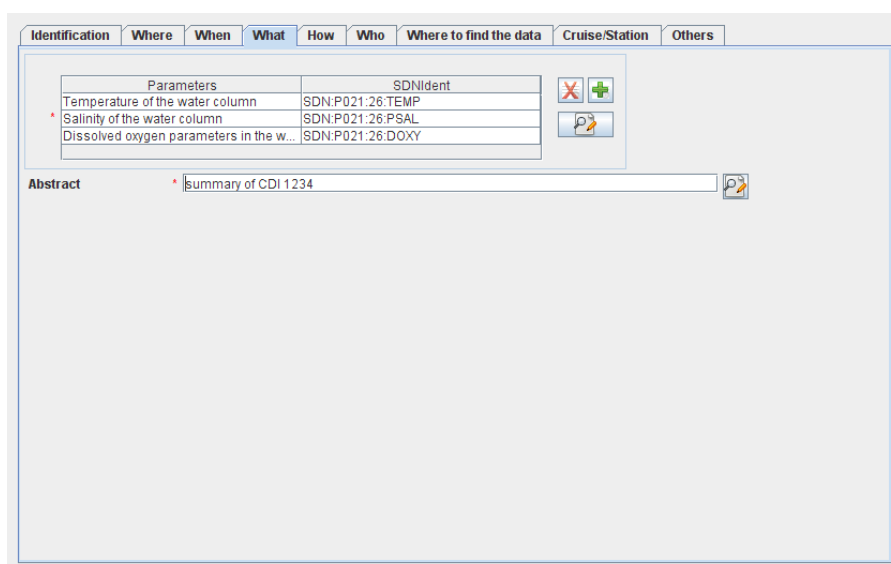
End date \* 21/01/2008 18:00:00 dd/mm/yyyy hh:mm:ss -24 hr (25/02/2007 12:00:00)

Sampling interval

Name

SDNident (uomName)

*Figure 44: CDI 'When' window*

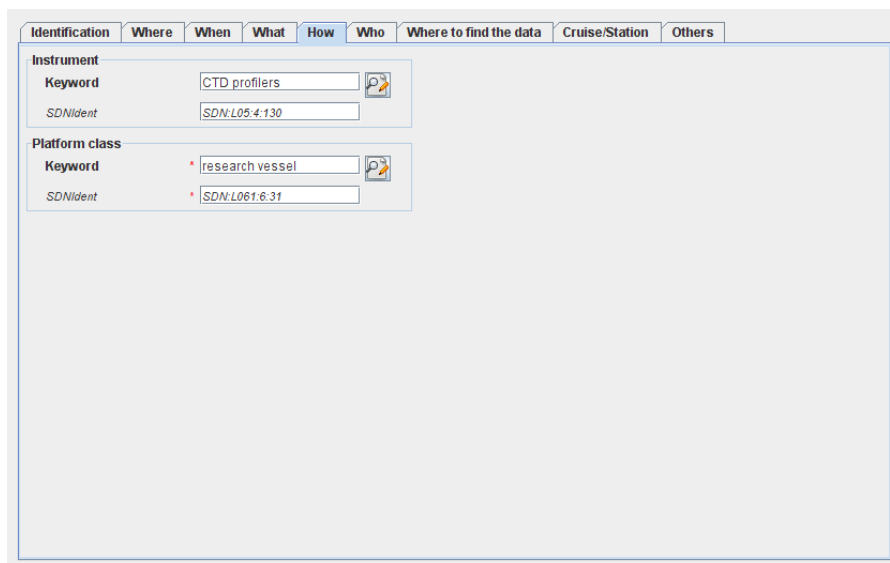


Identification Where When **What** How Who Where to find the data Cruise/Station Others

Parameters	SDNident
Temperature of the water column	SDN:P021:26:TEMP
* Salinity of the water column	SDN:P021:26:PSAL
Dissolved oxygen parameters in the w...	SDN:P021:26:DOXY

Abstract \* summary of CDI 1234

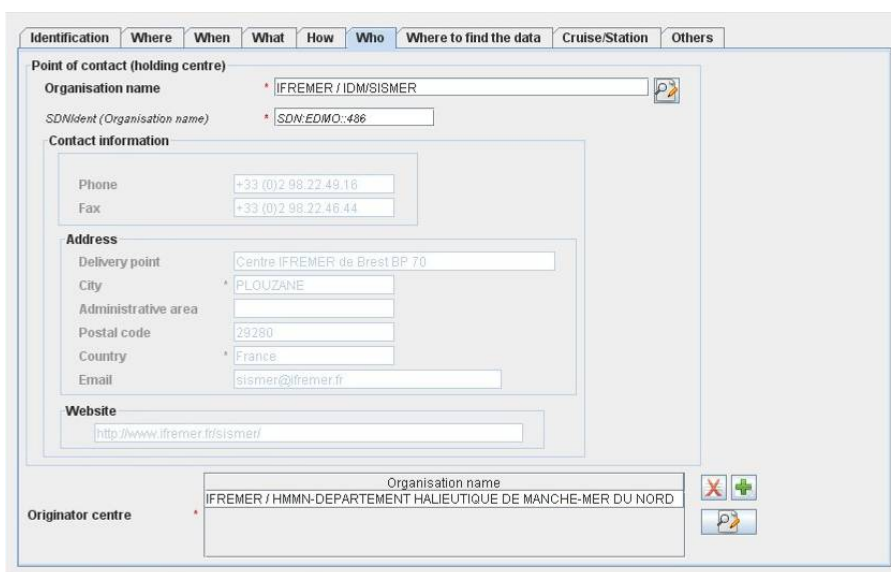
*Figure 45: CDI 'What' window*



The 'How' window contains two main sections for defining search criteria:

- Instrument:**
  - Keyword: CTD profilers
  - SDNIdent: SDN.L05.4.130
- Platform class:**
  - Keyword: \* research vessel
  - SDNIdent: \* SDN.L061.6.31

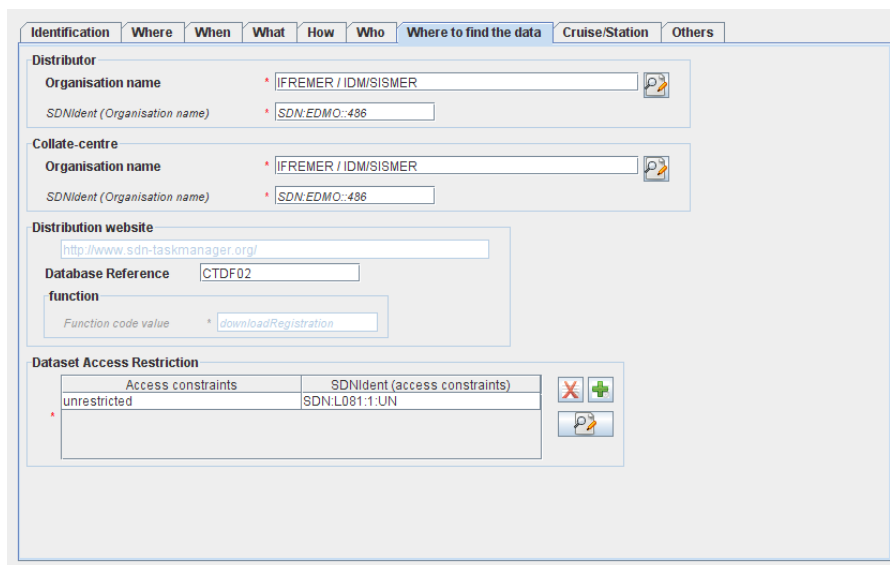
*Figure 46: CDI 'How' window*



The 'Who' window is used to define the point of contact and originator centre. It includes the following fields:

- Point of contact (holding centre):**
  - Organisation name: \* IFREMER / IDMSISMER
  - SDNIdent (Organisation name): \* SDN.EDMO:436
- Contact information:**
  - Phone: +33 (0)2 98 22 49 18
  - Fax: +33 (0)2 98 22 46 44
- Address:**
  - Delivery point: Centre IFREMER de Brest BP 70
  - City: \* PLOUZANE
  - Administrative area:
  - Postal code: 29280
  - Country: \* France
  - Email: sismer@ifremer.fr
- Website:**
  - http://www.ifremer.fr/sismer/
- Originator centre:**
  - Organisation name: IFREMER / HMMN-DEPARTEMENT HALIEUTIQUE DE MANCHE-MER DU NORD

*Figure 47: CDI 'Who' window*



**Identification** **Where** **When** **What** **How** **Who** **Where to find the data** **Cruise/Station** **Others**

**Distributor**

Organisation name \* IFREMER / IDM/SISMER

SDNident (Organisation name) \* SDN:EDMO:486

**Collate-centre**

Organisation name \* IFREMER / IDM/SISMER

SDNident (Organisation name) \* SDN:EDMO:486

**Distribution website**

<http://www.sdn-taskmanager.org/>

Database Reference CTDF02

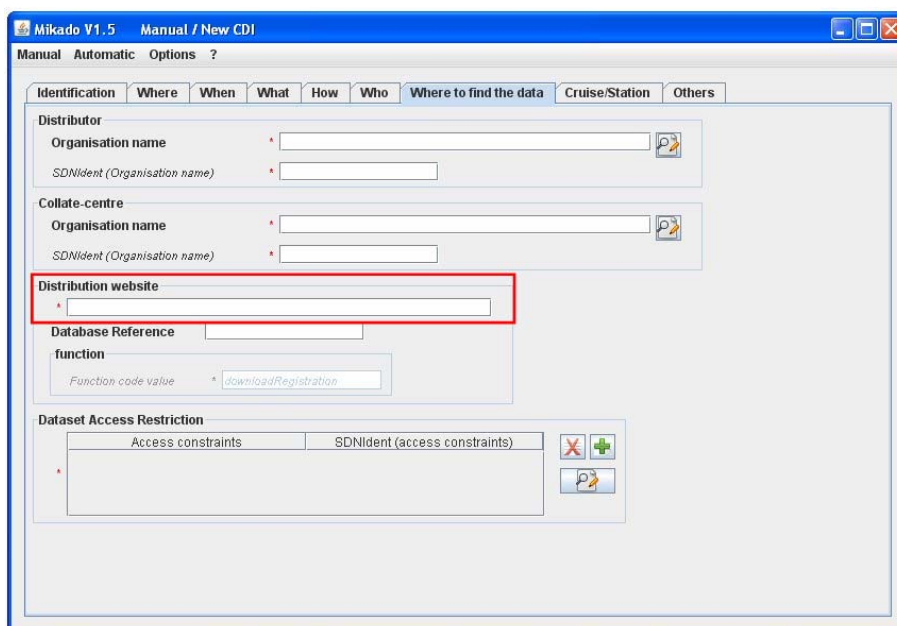
function

Function code value \* downloadRegistration

**Dataset Access Restriction**

Access constraints	SDNident (access constraints)
unrestricted	SDN:L081:1:UN

*Figure 48: CDI 'Where to find data' window – SDN V1*



**Mikado V1.5** **Manual / New CDI**

Manual Automatic Options ?

**Identification** **Where** **When** **What** **How** **Who** **Where to find the data** **Cruise/Station** **Others**

**Distributor**

Organisation name \*

SDNident (Organisation name) \*

**Collate-centre**

Organisation name \*

SDNident (Organisation name) \*

**Distribution website**

\*

Database Reference

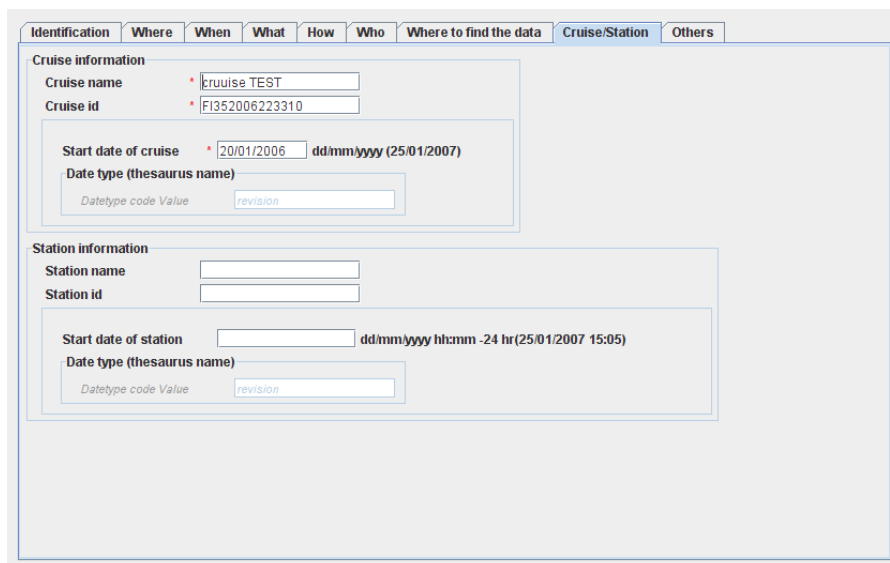
function

Function code value \* downloadRegistration

**Dataset Access Restriction**

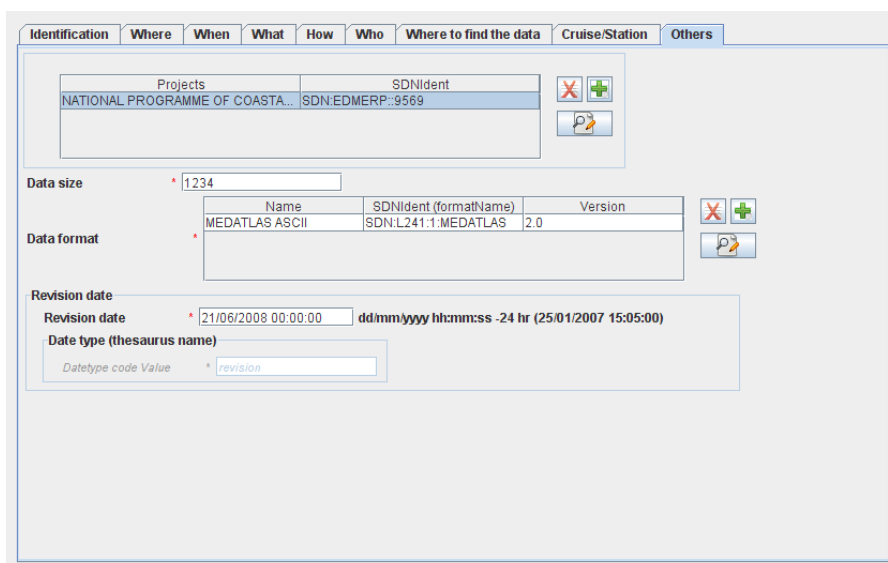
Access constraints	SDNident (access constraints)

*Figure 49: CDI 'Where to find data' window – ECOOP V1*



*Figure 50: 'Cruise/Station' window for the CDI*

In the Cruise/Station tab, at least cruise information or station information is mandatory, The 3 fields (for cruise or for station) are mandatory.



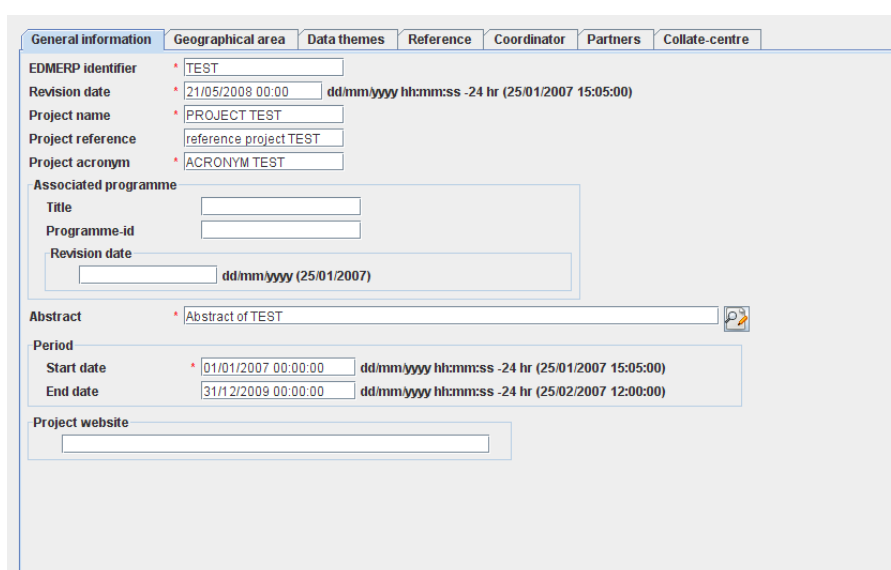
*Figure 51: 'Others' window for the CDI*

Once all the information related to the CDI has been fulfilled, the xml file will be created by selecting **Save as** in the **Manual** main menu. The created XML file has a “.xml” extension.

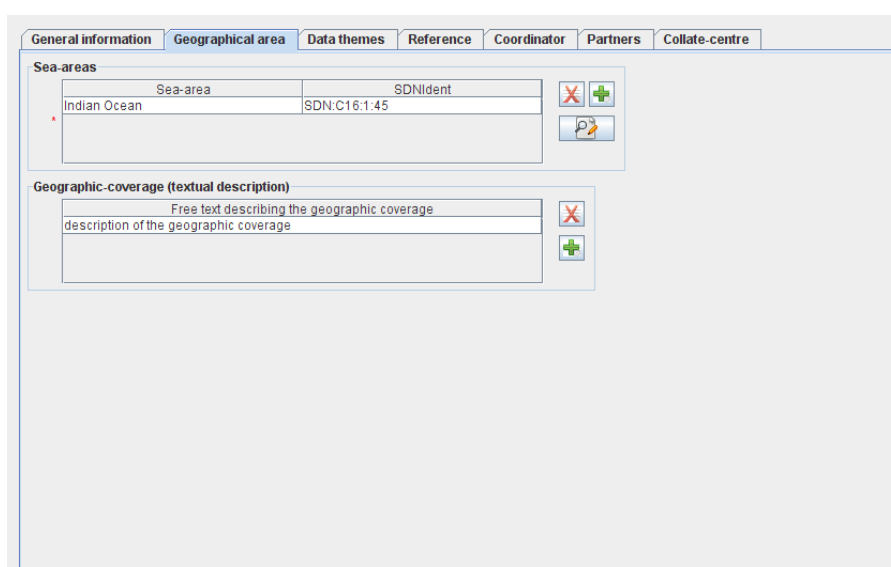
#### 8.1.4. Manual EDMERP input

There are 7 tabs (Figure 52 to Figure 58) for the EDMERP information which enable to input information about:

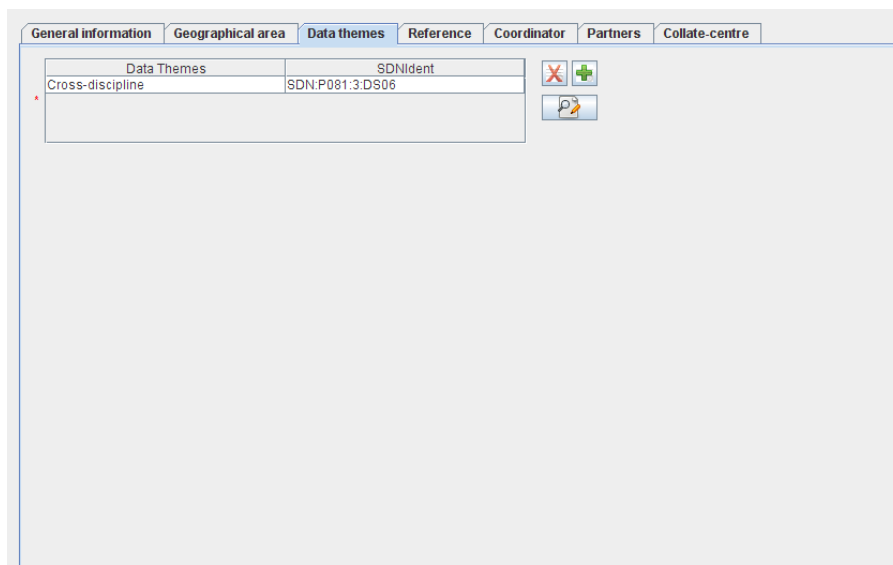
- General information
- Geographical area
- Data themes
- Reference
- Coordinator
- Partners
- Collate Centre.



*Figure 52 : EDMERP – ‘General information’ window*

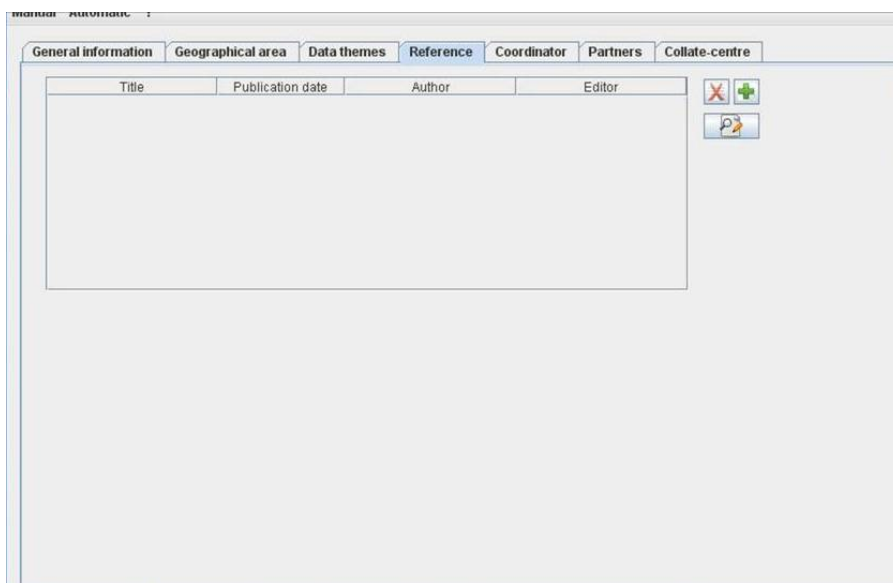


*Figure 53: EDMERP – ‘Geographical area’ window*



Data Themes	SDNIdent
Cross-discipline	SDN.P081:3.DS06

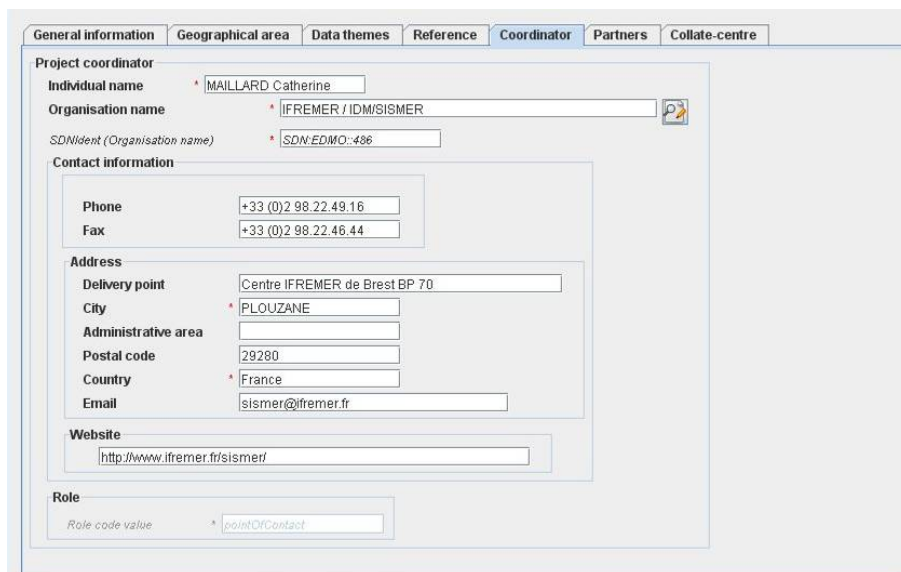
*Figure 54: EDMERP – ‘Data themes’ window*



Title	Publication date	Author	Editor
-------	------------------	--------	--------

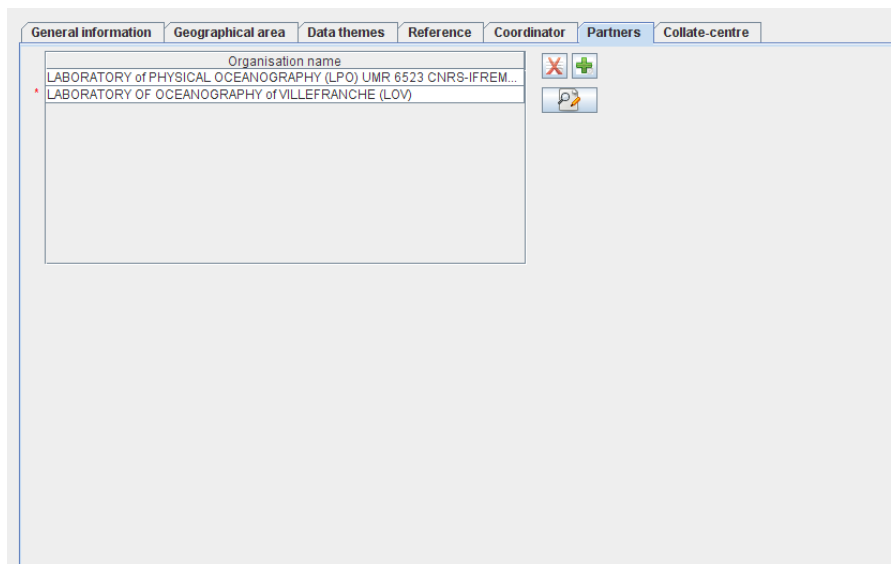
*Figure 55: EDMERP – ‘Reference’ window*



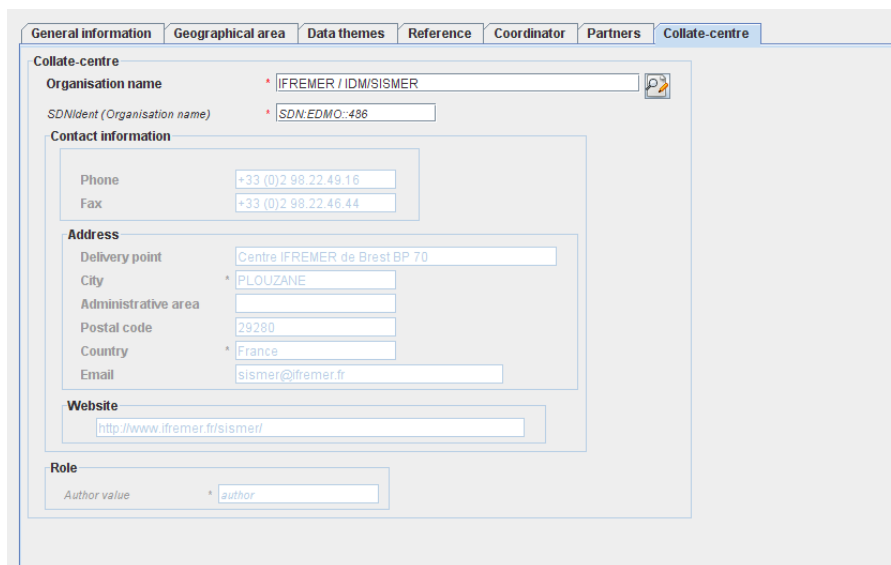


*Figure 56: EDMERP – ‘Coordinator’ window*

Here the phone, fax and email which are related to the organisation name (retrieved from EDMO catalogue) may be modified to be related to the identified person, the project coordinator.



*Figure 57: EDMERP - 'Partners' window*

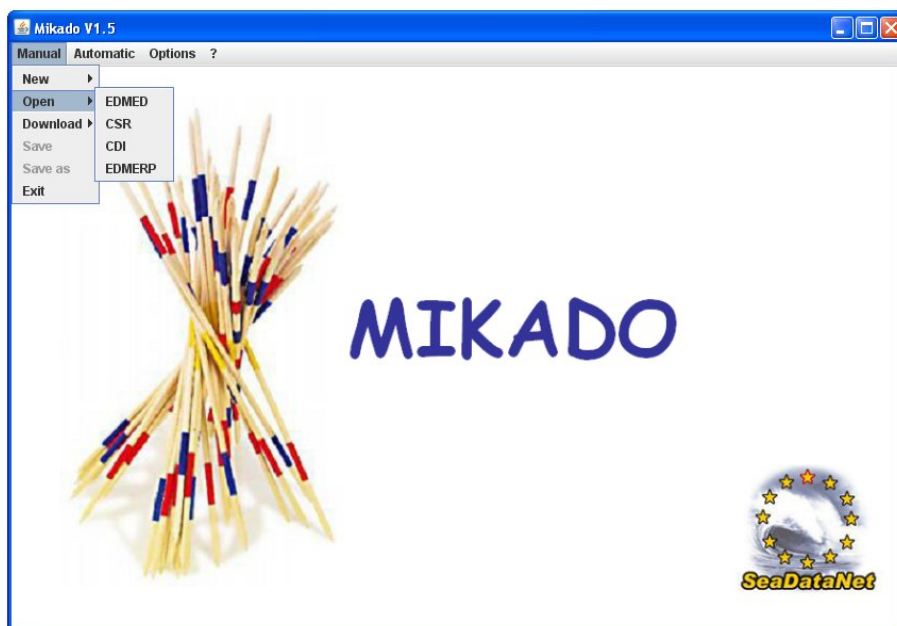


*Figure 58: EDMERP – 'Collate centre' window*

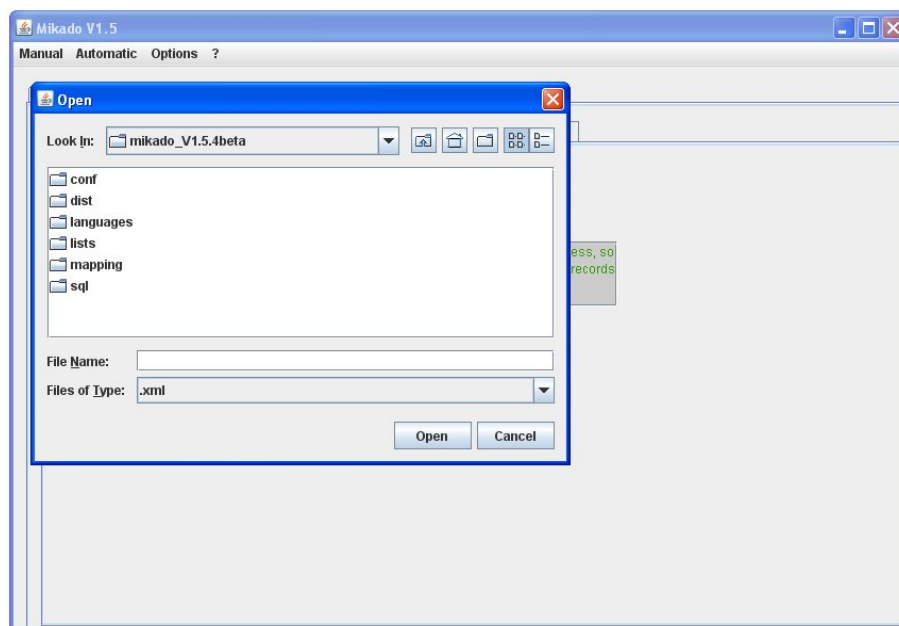
Once all the information related to the EDMERP has been fulfilled, the xml file will be created by selecting **Save as** in the **Manual** main menu. The created XML file has a “.xml” extension.

## 8.2. Open an existing XML file

It is possible to open an existing XML file using MIKADO. To do so, select **Open** in the **Manual** main menu and choose EDMED, CSR, CDI or EDMERP. Then, select the XML file to open).



*Figure 59: Open an XML file with MIKADO*



*Figure 60 : Select the XML file to open*

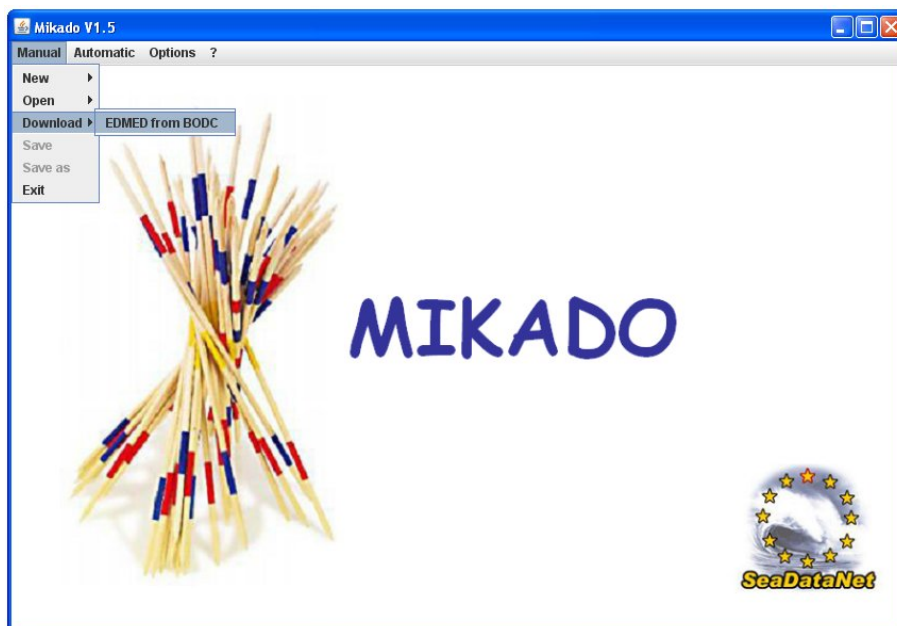
Update your information using the MIKADO interface and save your modifications by selecting **Save** or **Save as** in the **Manual** main menu.

### 8.3. Download EDMED entries from BODC

MIKADO V1.5 includes a functionality to download EDMED entries from the EDMED central catalogue managed by BODC. This functionality allows you to download one of your EDMED entries and to update it before sending it again to the EDMED central catalogue.

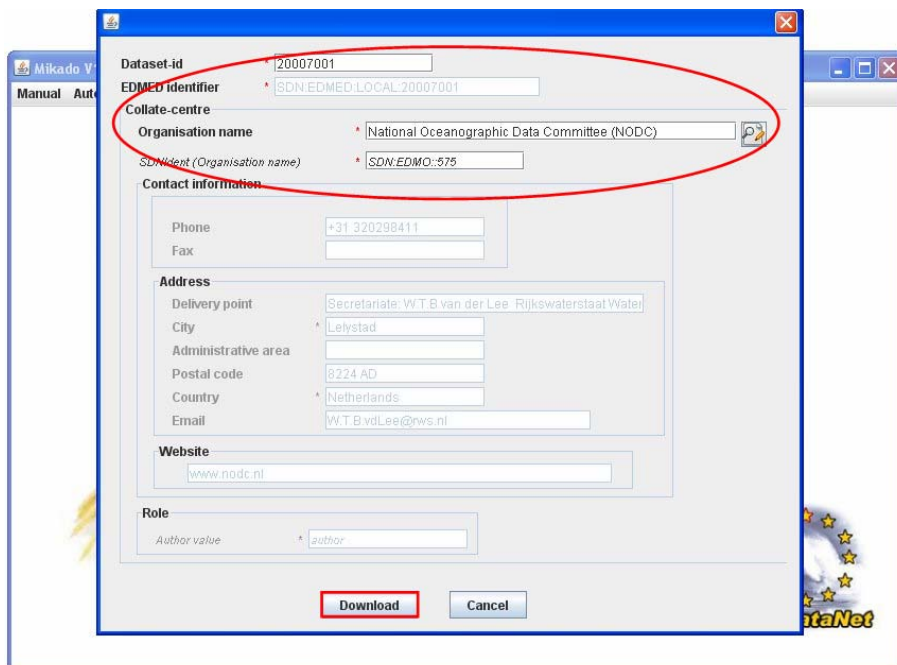
To download an EDMED entry:

- 1- Select **Download > EDMED from BODC** in the **Manual** main menu.



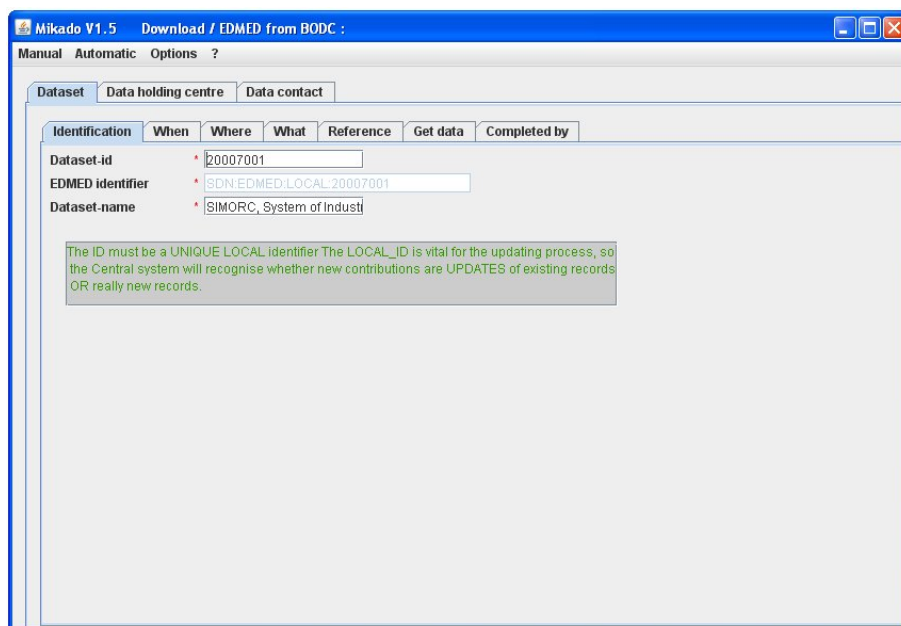
*Figure 61: Download EDMED from BODC*

- 2- Fill in the Dataset-id and the Collate centre fields for the EDMED entry you want to download and click on **Download** button.



*Figure 62: Select the EDMED entry to download*

- 3- MIKADO will open the downloaded EDMED entry in its EDMED manual interface. It is now possible to update it and save it (see 8.1.1) before sending it again to the EDMED central catalogue.



Mikado V1.5 Download / EDMED from BODC :

Manual Automatic Options ?

Dataset Data holding centre Data contact

Identification When Where What Reference Get data Completed by

Dataset-id \* 20007001

EDMED identifier \* SDN:EDMED:LOCAL:20007001

Dataset-name \* SIMORC, System of Industri

The ID must be a UNIQUE LOCAL identifier The LOCAL\_ID is vital for the updating process, so the Central system will recognise whether new contributions are UPDATES of existing records OR really new records.

*Figure 63: Downloaded EDMED entry*

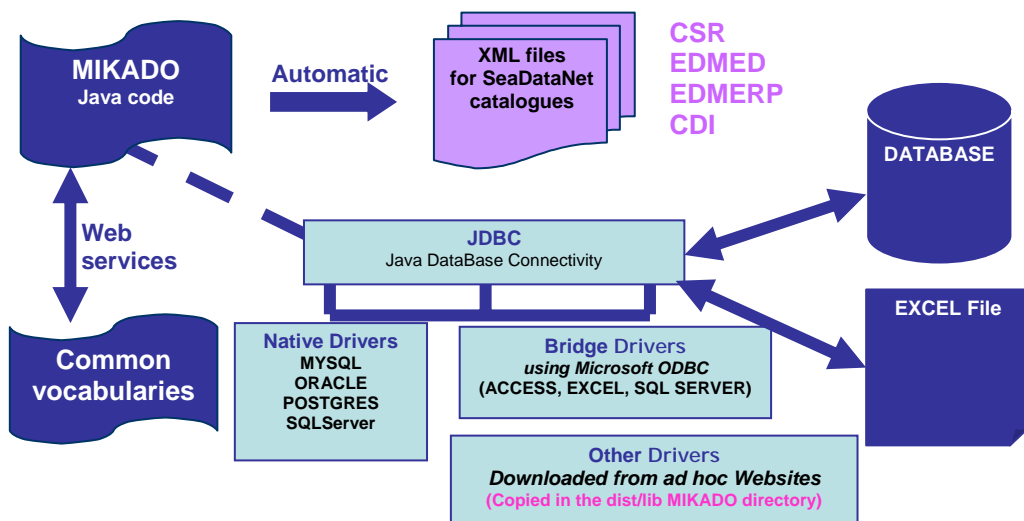
## 9. Automatic generation of EDMED, CSR, CDI and EDMERP XML files

### 9.1. General principle

Instead of manually typing information using the forms provided by the tool, in order to describe EDMED, CSR, CDI or EDMERP, the Mikado software is also able to generate these descriptions automatically if elementary information are catalogued in a relational database which can be queried with SQL language through a JDBC driver (Java Data Base Connectivity).

JDBC drivers are available for most popular relational database management system: ORACLE, Microsoft Access, Microsoft Excel, Microsoft SQLServer, MySQL, POSTGRES, Sybase... Please refer to the web site <http://developers.sun.com/product/jdbc/drivers> for more information.

If the driver you want to use is not released in MIKADO, you can download it from ad hoc websites and copy it in the **dist/lib MIKADO** directory.



*Figure 64: MIKADO - Automatic way*

The different steps of MIKADO automatic version are:

- Configuration of the tool:
  - o Definition of the connection parameters to access the local database

- Definition of the queries to retrieve the information in the local database.
- Saving of the configuration and the queries.
- Generation of the XML files.

## 9.2. Configuration of the tool

MIKADO V1 provides a help for JDBC connection – connection checking and SQL query writing – query checking.



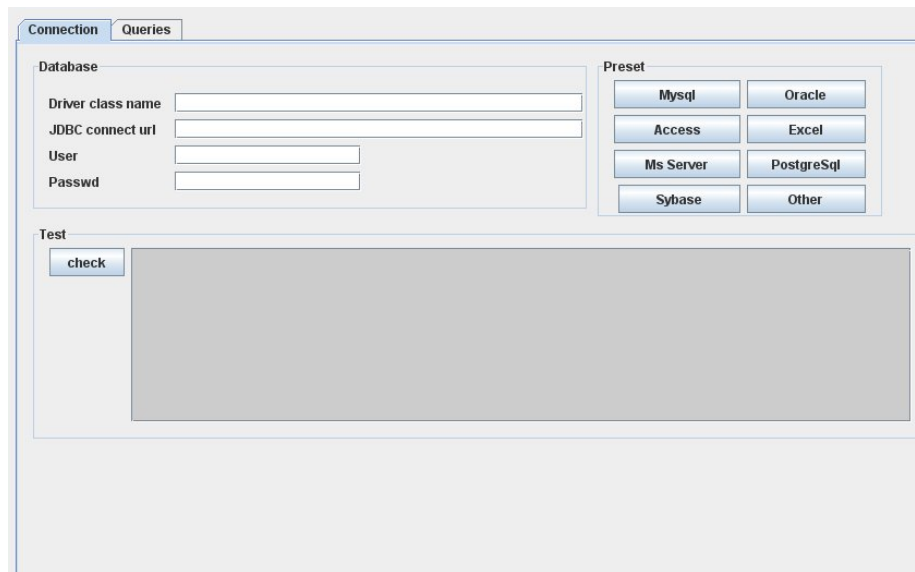
*Figure 65: Automatic menu*

### 9.2.1. Create a new configuration

To create a new configuration (connection to the database + queries), select **New** in the **Automatic** main menu and choose EDMED, CSR, CDI or EDMERP.

There are 2 tabs which enable to input information about:

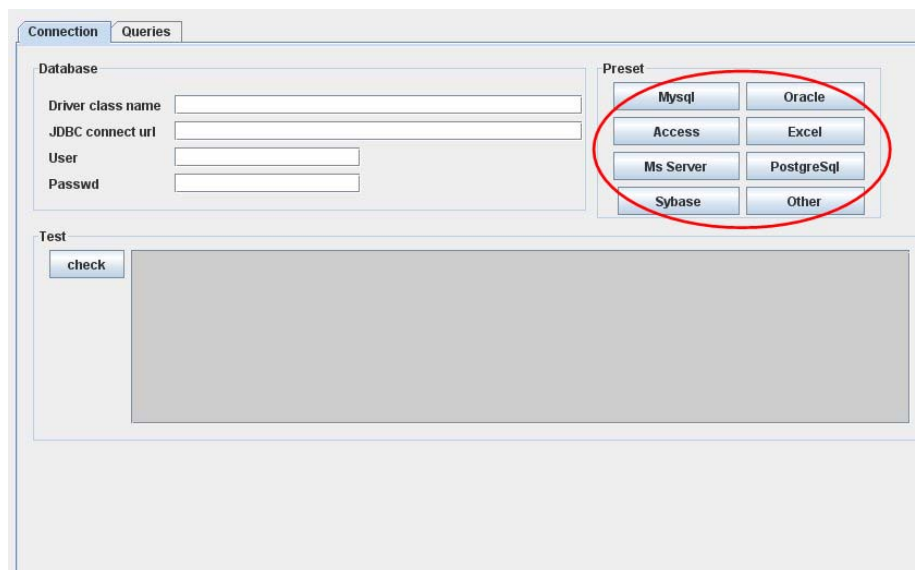
- Connection to the database
- Queries.



*Figure 66: New configuration*

#### 9.2.1.1. Define the JDBC connection parameter

- 1 - Choose the database management system by clicking on the corresponding button.



*Figure 67: Connection interface- Select the database management system*

- 2 - Complete or replace the pre-filled JDBC connect url field (URL of database, user name and password if required by your database). **Please, do not modify the driver class name field.**

If you have chosen the “**Other**” button to define another database management system, you will have to fulfill the **JDBC connect url** field and also the driver class name field to connect to your database (make sure that the driver file is saved in the **dist/lib** MIKADO directory).



Database	
Driver class name	<input type="text" value="com.mysql.jdbc.Driver"/>
JDBC connect url	<input type="text" value="jdbc:mysql://localhost/database"/>
User	<input type="text"/>
Passwd	<input type="text"/>

*Figure 68: Pre-filled connection parameters for MySQL*

Database	
Driver class name	<input type="text" value="oracle.jdbc.driver.OracleDriver"/>
JDBC connect url	<input type="text" value="jdbc:oracle:thin:@server:port:instance"/>
User	<input type="text"/>
Passwd	<input type="text"/>

*Figure 69: Pre-filled connection parameters for Oracle*

Database	
Driver class name	<input type="text" value="com.microsoft.jdbc.sqlserver.SQLServerDriver"/>
JDBC connect url	<input type="text" value="jdbc:sqlserver://serverName;instanceName:portNumber;property=va"/>
User	<input type="text"/>
Passwd	<input type="text"/>

*Figure 70: Pre-filled connection parameters for SQLServer*

Database	
Driver class name	<input type="text" value="org.postgresql.Driver"/>
JDBC connect url	<input type="text" value="jdbc:postgresql://server/instance"/>
User	<input type="text"/>
Passwd	<input type="text"/>

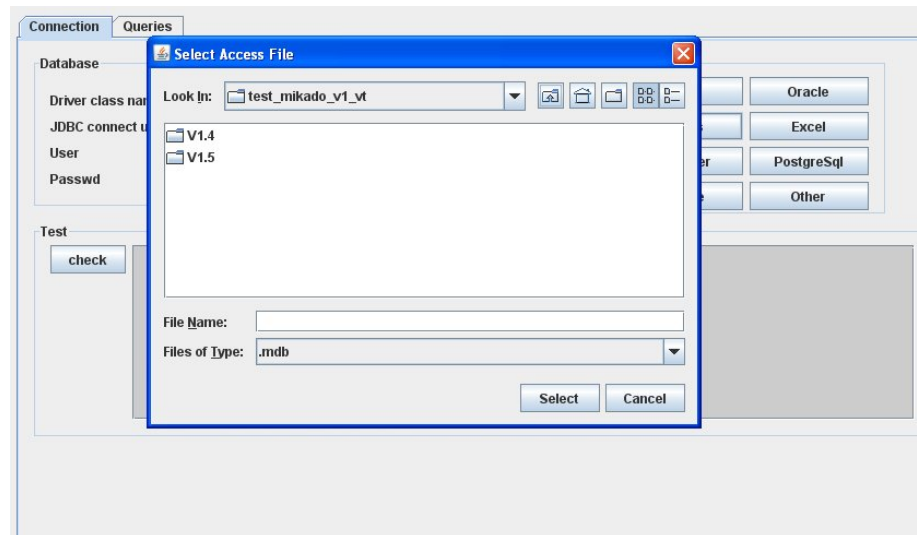
*Figure 71: Pre-filled connection parameters for PostgreSQL*

Database	
Driver class name	<input type="text" value="com.sybase.jdbc3.jdbc.SybDriver"/>
JDBC connect url	<input type="text" value="jdbc:sybase:Tds:server:port/instance[?charset=]"/>
User	<input type="text"/>
Passwd	<input type="text"/>

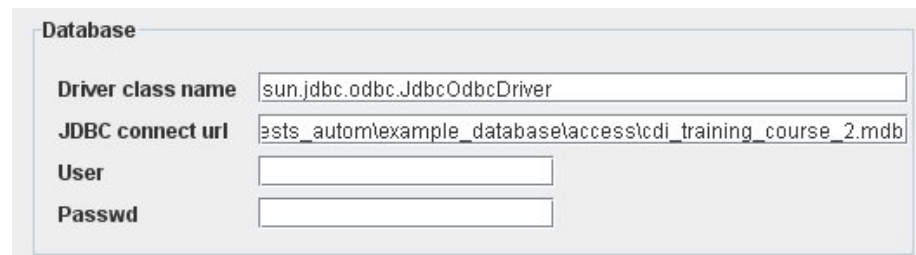
*Figure 72 : Pre-filled connection parameters for Sybase*

For Sybase database connection, the part [?charset=] of the **JDBC connect URL** is optional and allows to choose the right set of characters.

Ex : jdbc:sybase:Tds:wallis:7545/quadrige?charset=iso\_1



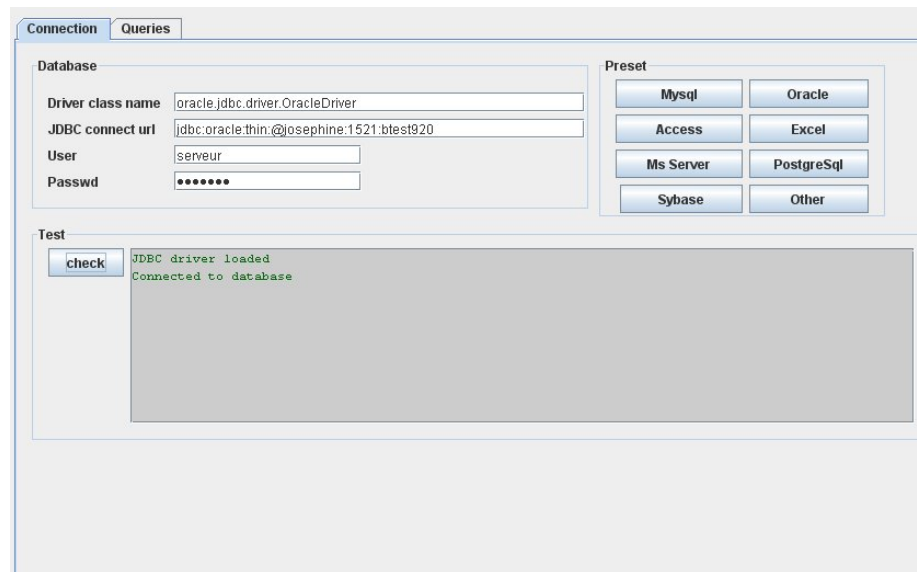
*Figure 73: Access and Excel: select the database file*



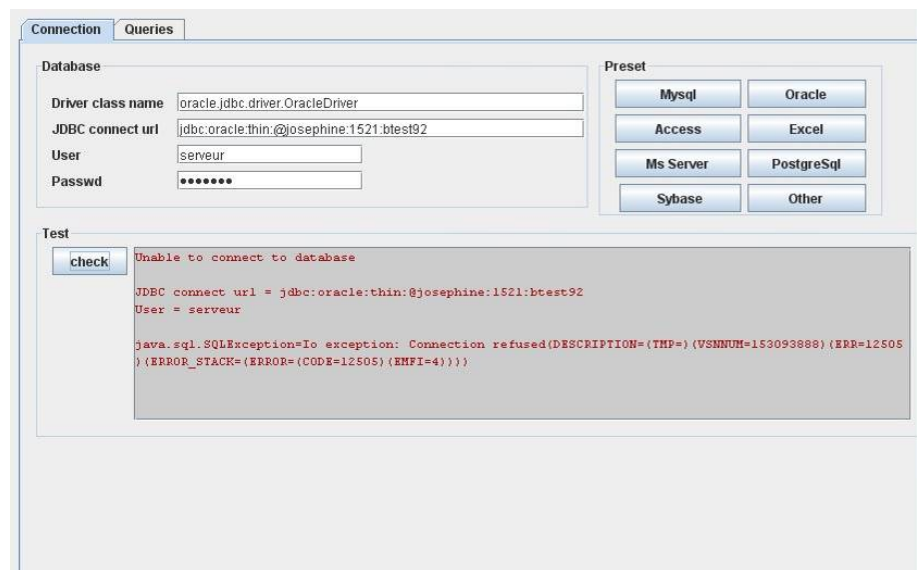
*Figure 74: Pre-filled connection parameters for Access and Excel*

3- Check the database connection using the **Check** button.

If MIKADO cannot connect to the database: check connection parameters, user and password. For Microsoft Access and Excel, check ODBC parameters too. Refer to your database and JDBC driver documentation.



*Figure 75: Successful connection to the database- Green message*

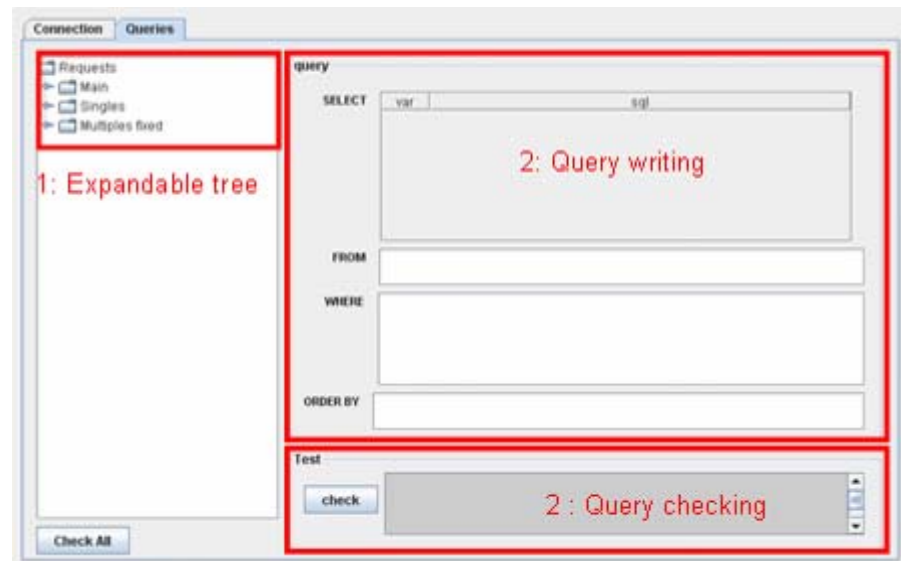


*Figure 76: Unable to connect the database – Red message*

### 9.2.1.2. Define the queries

The MIKADO interface for writing queries is divided into 3 parts:

- An expandable tree
- A frame for query writing
- A frame for query checking.



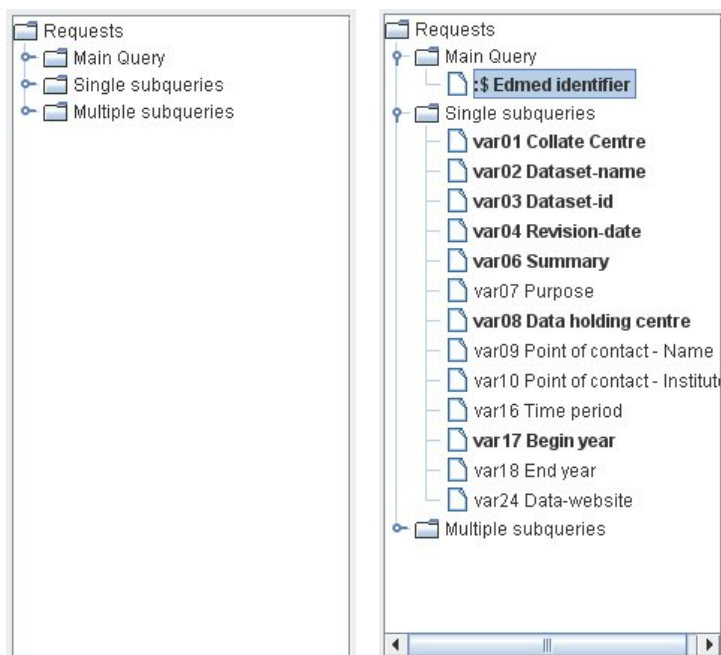
*Figure 77 : Queries interface*



*Figure 78: Query frame: SELECT, FROM, WHERE, ORDER BY frames*

The query frame can be divided into 4 sub-frames: SELECT, FROM, WHERE, ORDER BY. The free text frames (FROM, WHERE, ORDER BY) can be completed directly by typing in them. The SELECT frame works as in a free text table (see 7.1.1).

The expandable tree on the left part of the interface makes it possible to explore the different variables by expending the tree. In order to navigate in this tree, you have to click on the names of the nodes. After clicking, the corresponding query appears in the right part of the interface, in the 'Query' frame. And these queries can be checked using the query checking frame.



*Figure 79: Expandable tree*

MIKADO distinguishes different kinds of queries:

- the **main query**: It is the query which identifies all EDMED, CSR, CDI or EDMERP entries that must be exported. This request must return only one column which is the identifier (primary key) of each entry and that will be used for sub-queries. The returned identifiers could be numerical or textual.
- the **single subqueries**: These queries return **only one** row for one identifier returned in the main query.
- the **multiple subqueries**: These queries return **1 to n** rows for one identifier returned in the main query.

The character ‘:\$’ indicates the identifier of the entry as it has been returned by the main query. **One identifier symbol must be used in each sub-query WHERE condition to identify the entry within the list. It will be automatically replaced by the current identifier in the list.** If identifiers are non numerical, :\$ must be enclosed by quotes (‘:\$’)

```
select station_name from mikafdo_station
where station_id = :$ (or ':$' if non numerical)
```

**For all these queries, the SQL syntax (for Oracle, Excel, MySQL ...) and SQL variables must be adapted to your own data base.**

- 1- Click on the main variable in the expandable tree.
- 2- Fulfil the main query in the query frame.
- 3- Check the query using the check button (see 9.2.1.3).

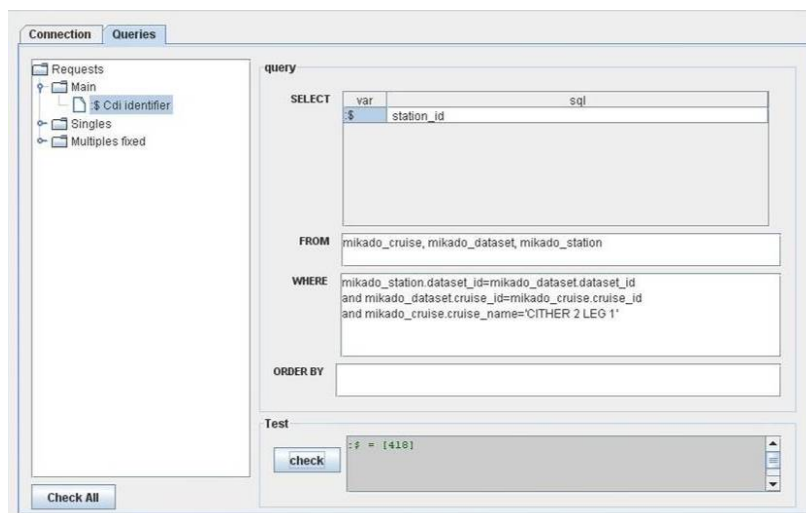


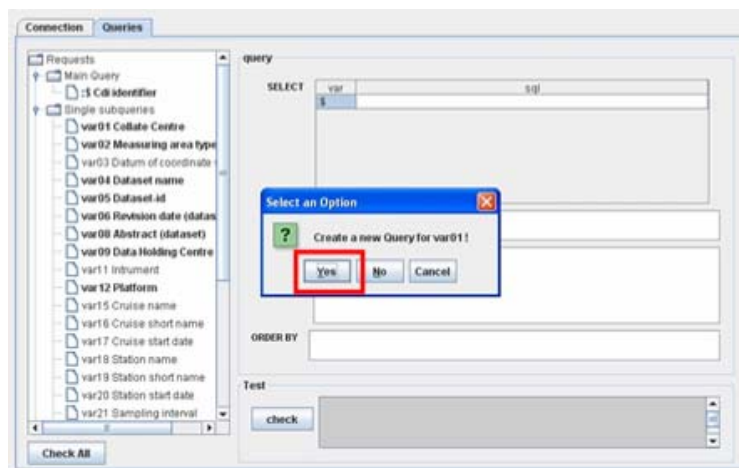
Figure 80 : Main query

#### 9.2.1.2..2 Single subqueries

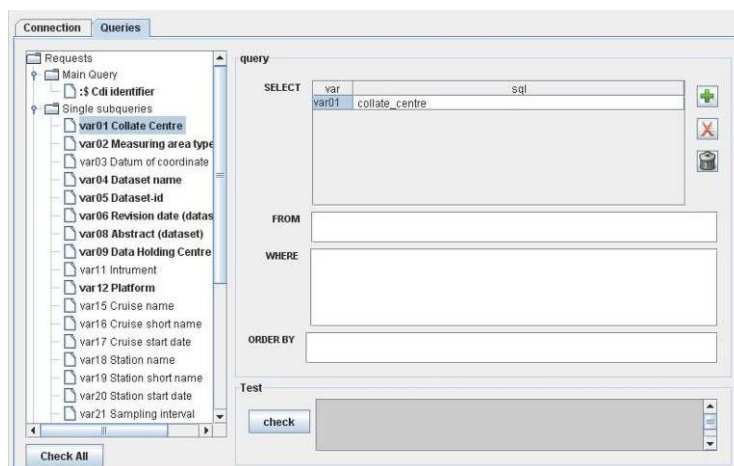
All the XML variables are listed in the expandable tree. The mandatory ones are written in bold characters: they must be fulfilled, null values are not allowed for mandatory variables. One to n single subqueries can be written, each of which can contain as many variables as necessary. Once a variable has been fulfilled, it is highlighted in green in the expandable tree.


To create a single query:

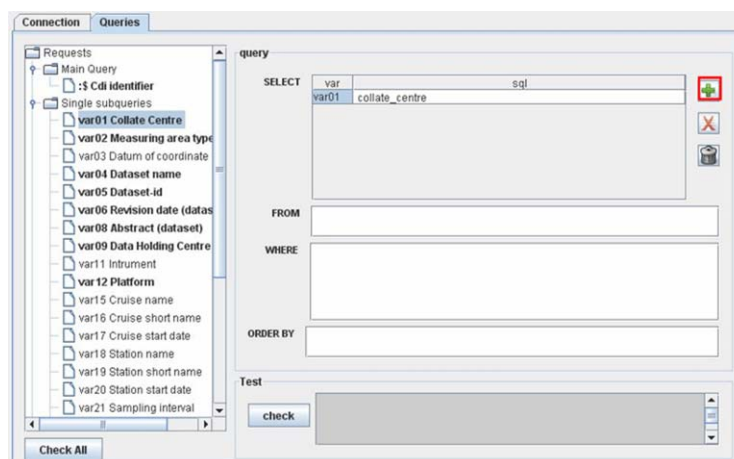
- 1- Select the first variable in the expandable tree to create a new query,



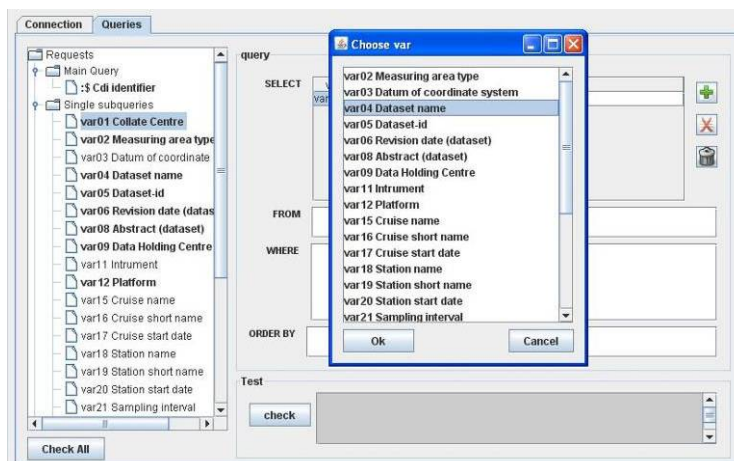
- 2- Complete the corresponding SELECT for this variable in the query frame,



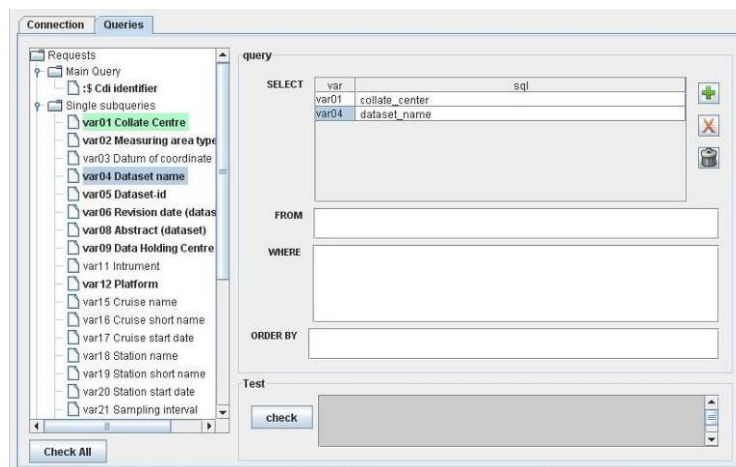
3- If needed, add another variable by clicking on the  button



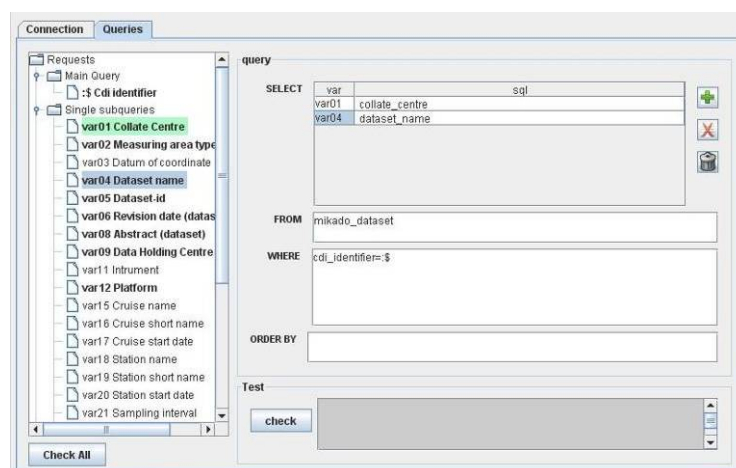
4- Choose the second variable in the list then press OK and complete the SELECT clause for this variable and so on, as many time as you need to add variable in the query,







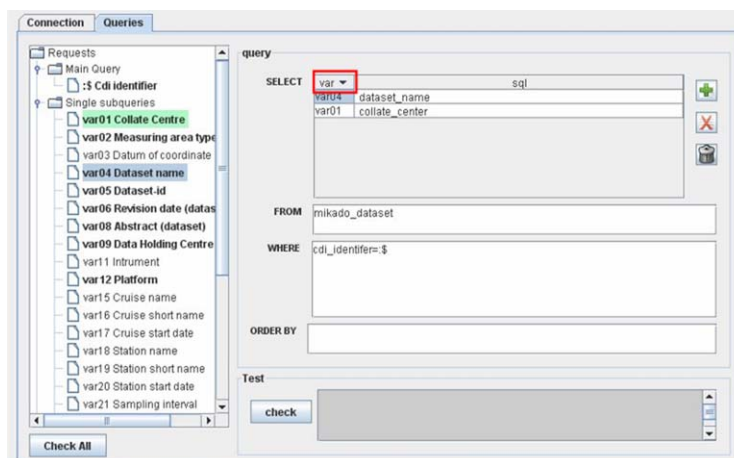
5- Fulfil the FROM, WHERE and ORDER BY clauses of the query.



**Don't forget that one identifier symbol ('\$') must be used in each sub-query WHERE condition to identify the entry within the list. It will be automatically replaced by the current identifier in the list.**

It is possible to sort the different variables of a particular query. To do so, click on the 'var' column; an arrow will appear allowing you to sort the variables by clicking on it:





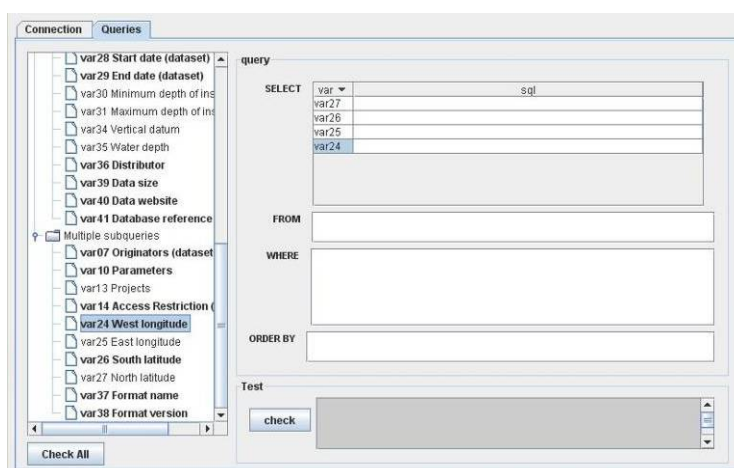
6- Check the query using the checking frame (see 9.2.1.3).

#### 9.2.1.2..3 Multiple subqueries

All the XML variables are listed in the expandable tree. The mandatory ones are written in bold characters: they must be fulfilled, null values are not allowed for mandatory variables. The number of multiple queries and the list of variables per queries are pre-defined. Once a variable has been fulfilled, it is highlighted in green in the expandable tree.

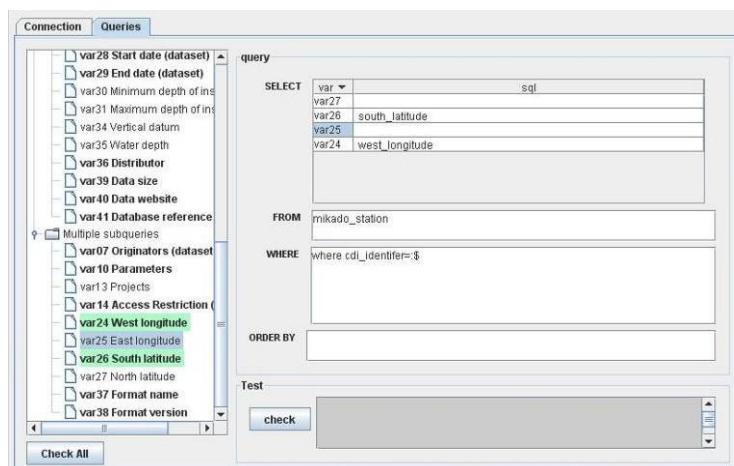
To fulfil a multiple query:

- 1- Select the first variable in the expandable tree to fulfil the corresponding multiple query,



- 2- Complete the corresponding SELECT, FROM, WHERE, ORDER BY clauses for this variable (and associated variables) in the query frame,

**Don't forget that one identifier symbol ('\$') must be used in each sub-query WHERE condition to identify the entry within the list. It will be automatically replaced by the current identifier in the list.**



If your database does not contain information for some non mandatory variables, let them empty in the SELECT clause.

- 3- Check the query using the checking frame (see 9.2.1.3).
- 4- Fulfil another multiple query by clicking on an empty variable.

### 9.2.1.3. Queries checking

MIKADO allows to check:

- Each query one by one. To do so, use the **Check** button in the query checking frame.
- All queries at the same time. To do so, use the **Check All** button above the expandable tree. All queries will be checked one after one. Use this button before generating the XML files.

The results of the query checking appear in the query checking frame. A **green** message informs that the query is correct; an **orange** message is a warning to tell the user that a reference to the IDs returned by the main query is missing and a **red** message informs that the query is wrong and gives information about the error.

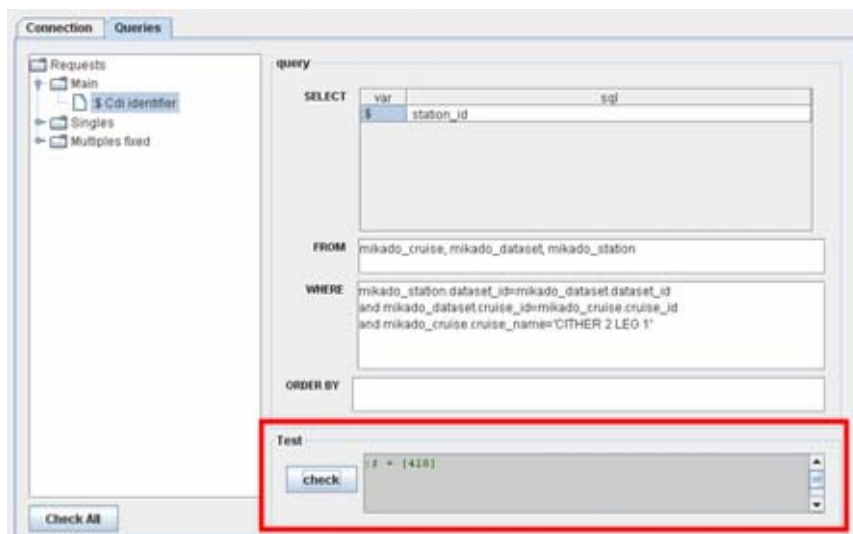


Figure 81: Right query – Green message

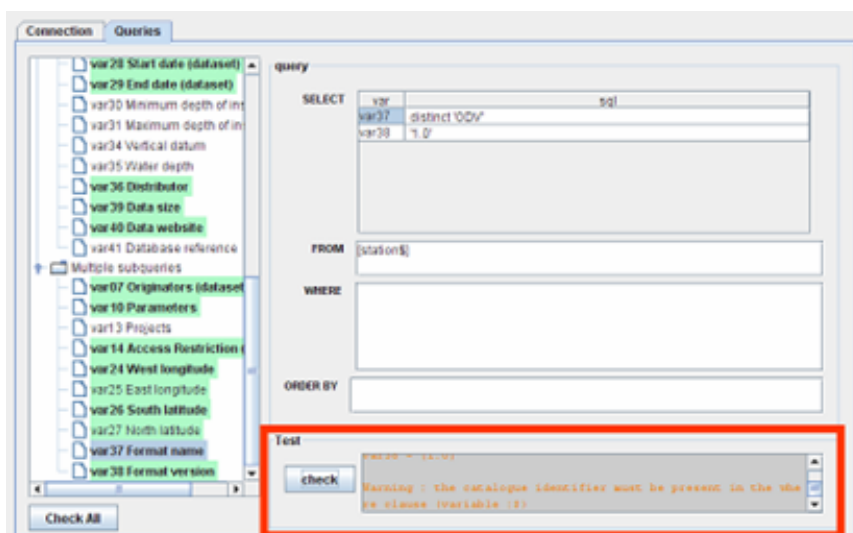


Figure 82: Missing reference to ID - Orange message

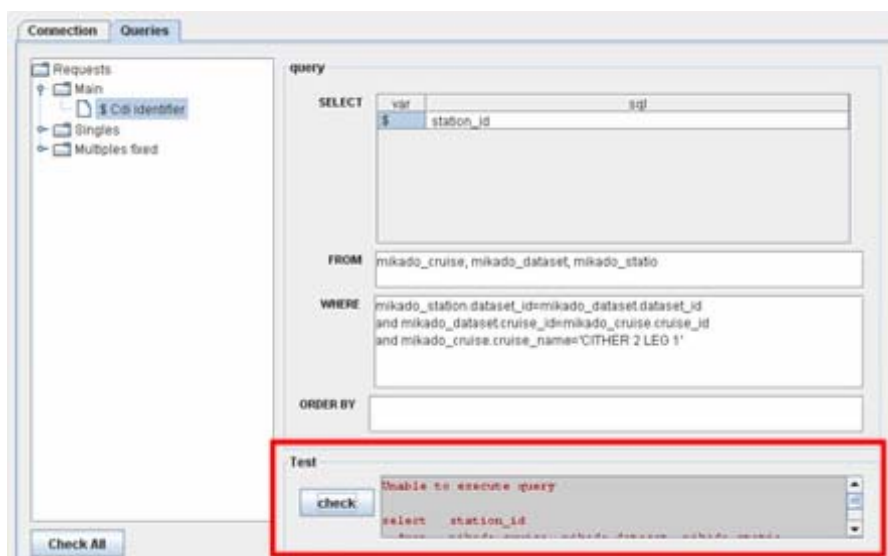


Figure 83: Wrong query – Red message

### 9.2.2. Save the configuration file

Once the connection parameters and the queries have been fulfilled and checked, you can save the configuration file by selecting **Save** or **Save as** in the **Automatic** menu. The configuration file has an “.xml” extension.

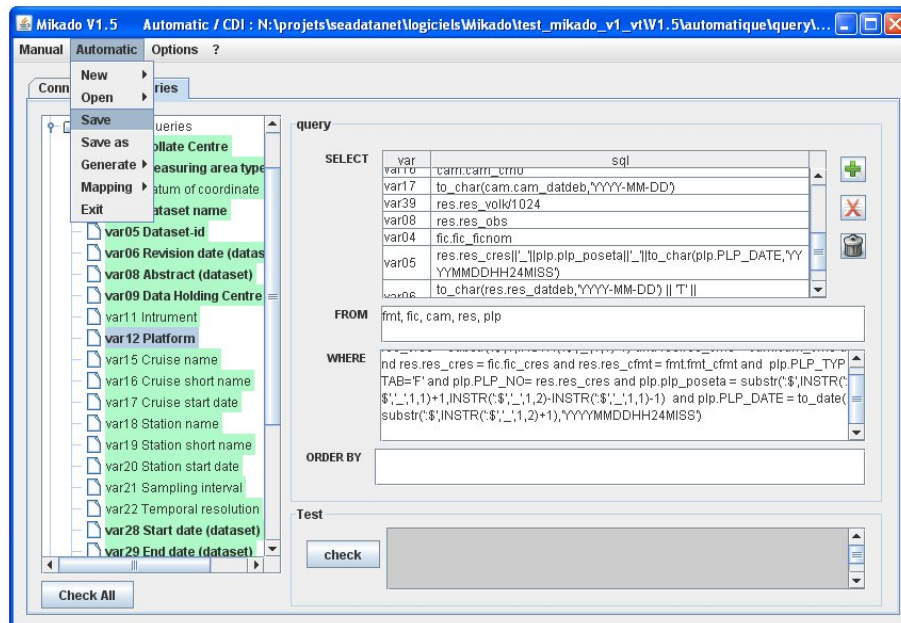
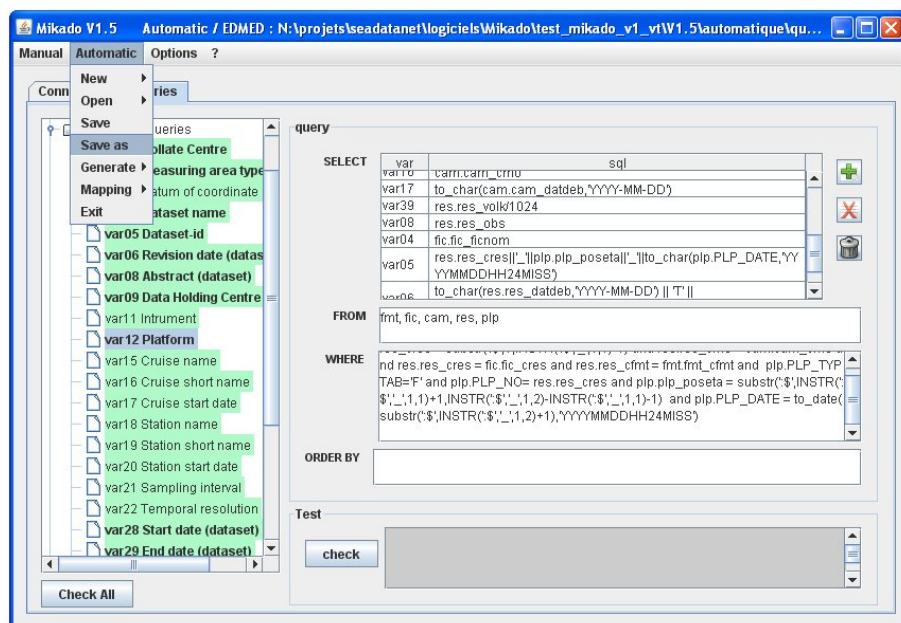
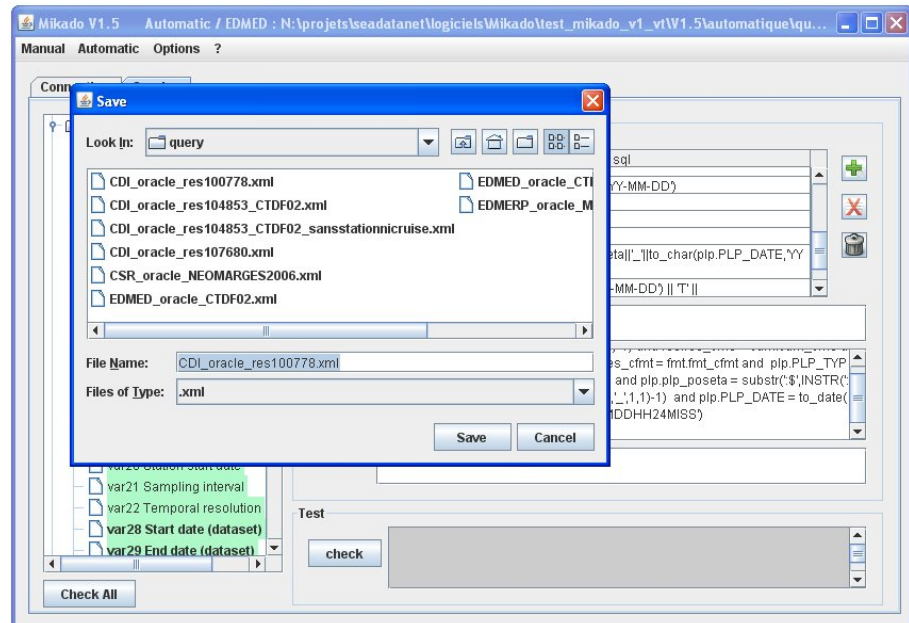


Figure 84: Save the configuration file

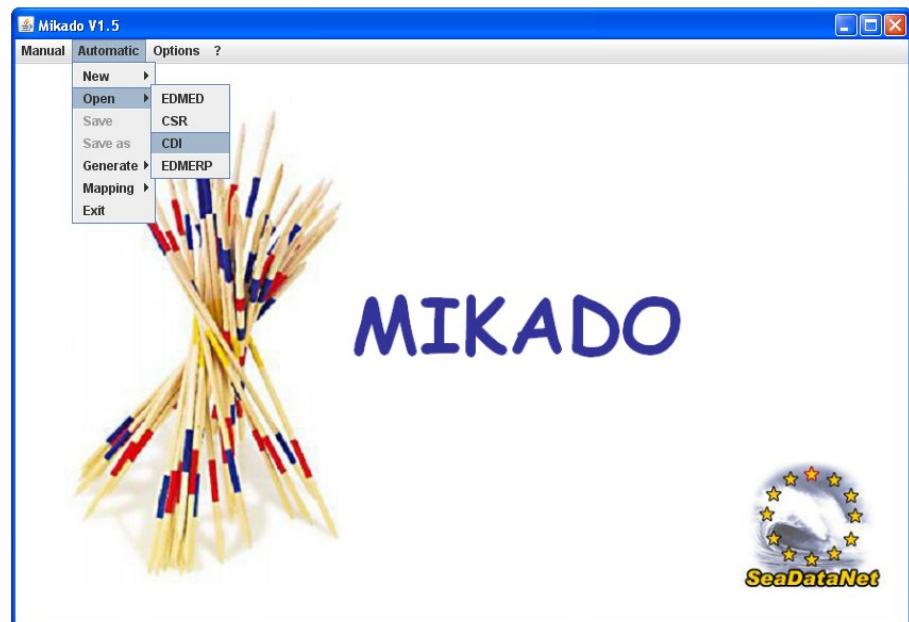




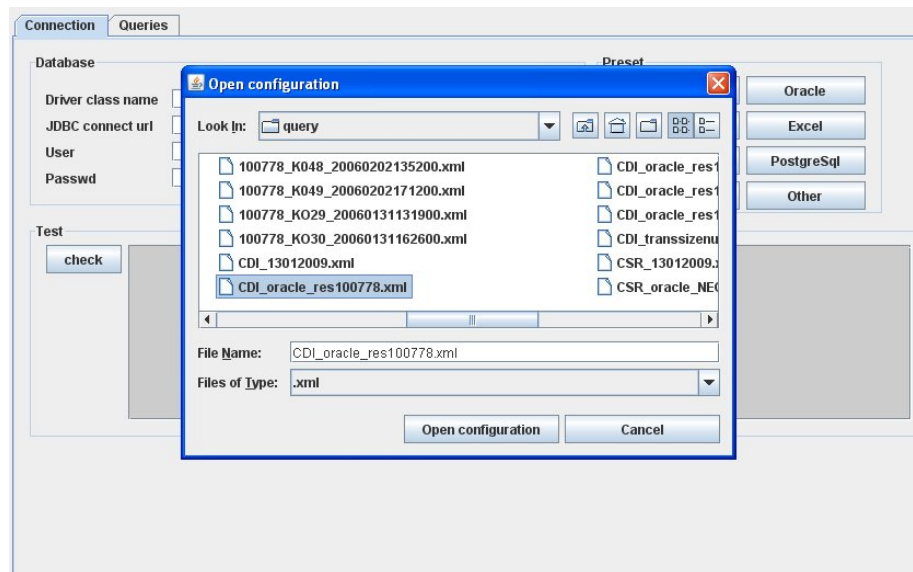
*Figure 85: “Save As” the configuration file- Steps 1 and 2*

### 9.2.3. Open an existing configuration

It is possible to open an existing configuration file using MIKADO. To do so, select **Open** in the **Automatic** main menu and choose EDMED, CSR, CDI or EDMERP. Next, select the configuration file to open.

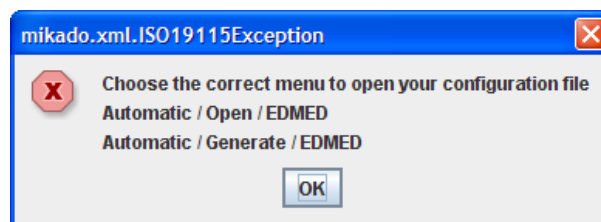


*Figure 86: Open a configuration file with MIKADO*



*Figure 87: Select the configuration file to open*

If there is an incoherence between the selected catalogue and the file opened (for example: the user has click on open, CDI and then has selected an XML file related to EDMED) the following message will appear:



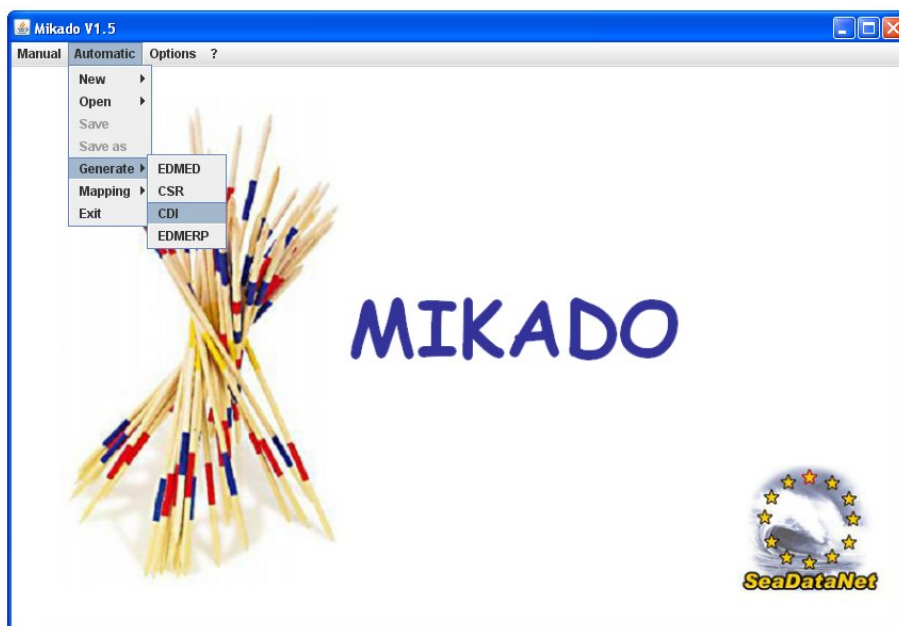
*Figure 88: Error message – Wrong selected menu*

### 9.3. Run the automatic generation

The second step in MIKADO Automatic version is the XML generation. The tool must have been configured before generating the XML files (see 9.2).

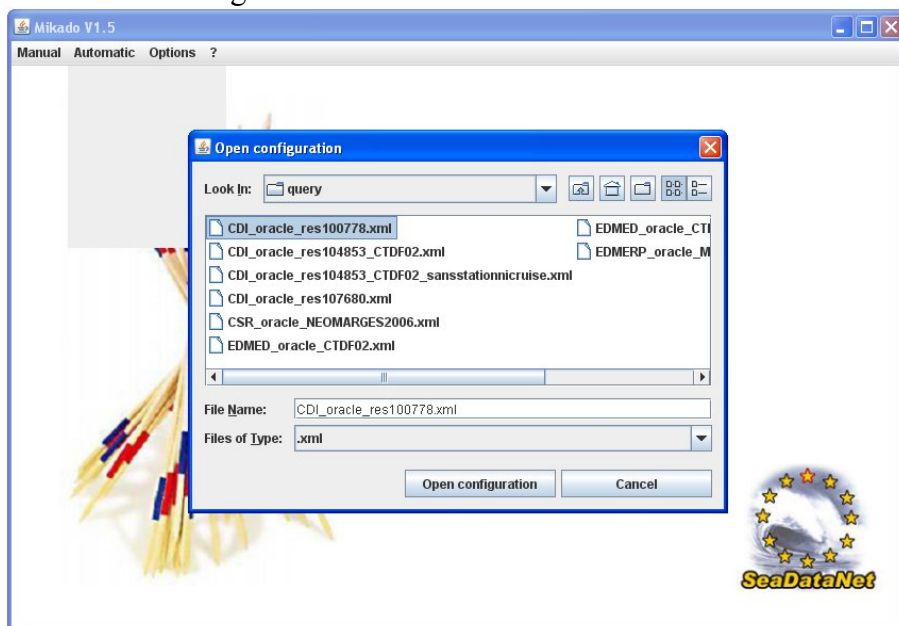
- 1- Select **Generate** in the **Automatic** Menu.
- 2- Select the catalogue you want to generate: EDMED, CSR, CDI or EDMERP.





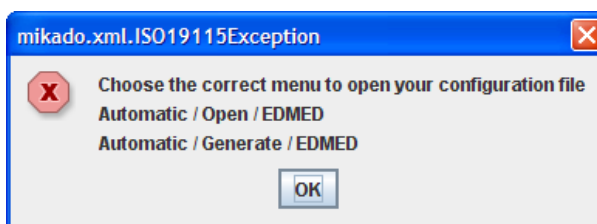
*Figure 89: Automatic generation of XML files*

3-Select the configuration file.



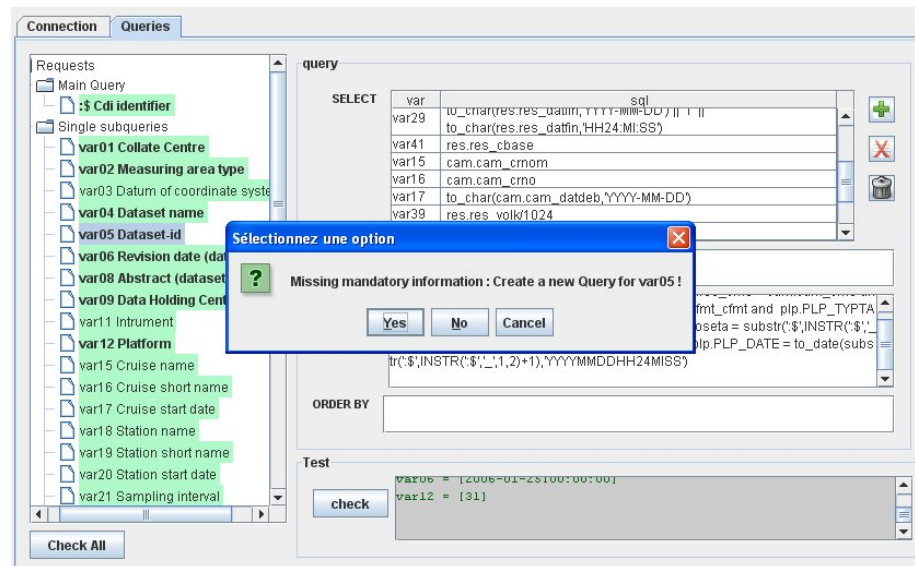
*Figure 90: Select the configuration file*

If there is incoherence between the selected catalogue and the file opened (for example: the user has click on open, CDI and then has selected an XML file related to EDMED) the following message will appear:



*Figure 91: Error message – Wrong selected menu*

MIKADO checks if all the mandatory variables had been filled in in the configuration file. If a mandatory variable is missing, MIKADO asks the user to complete it in the configuration file. After that, the user has to save the updated configuration file by selecting **Save** in the **Automatic Menu** and has to run again the generation by selecting **Generate** in the **Automatic Menu**.



4- Select the directory in which you want to create the export XML files.

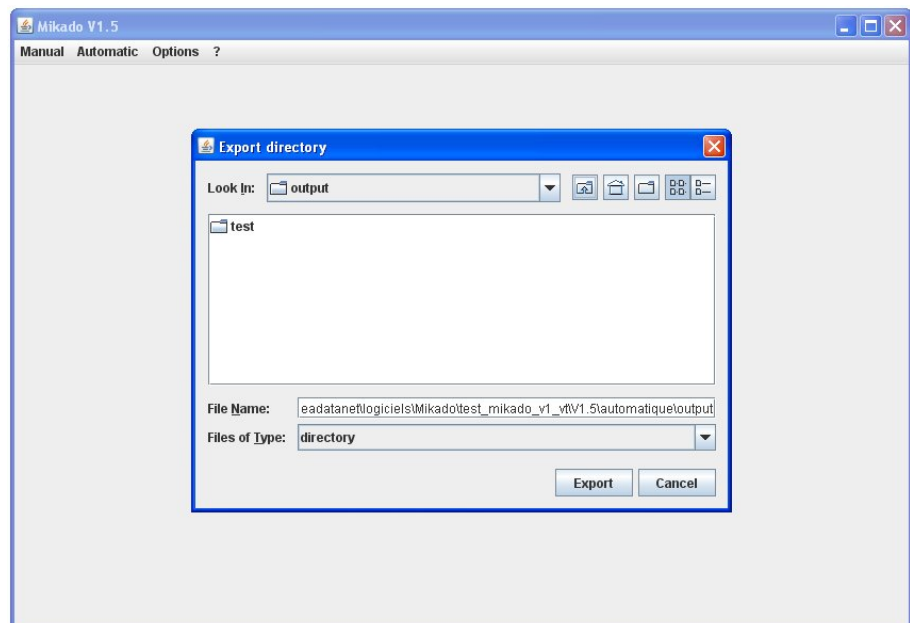
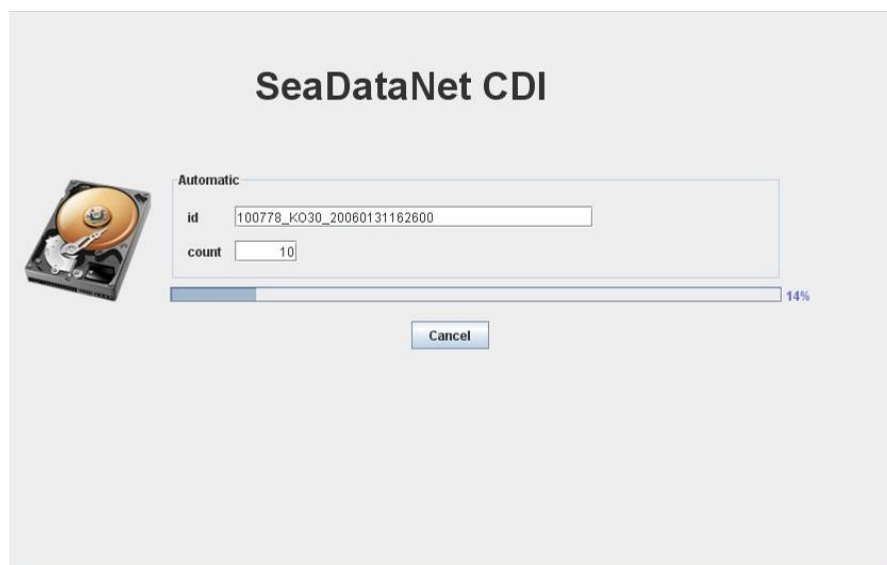


Figure 92: Choose the output directory

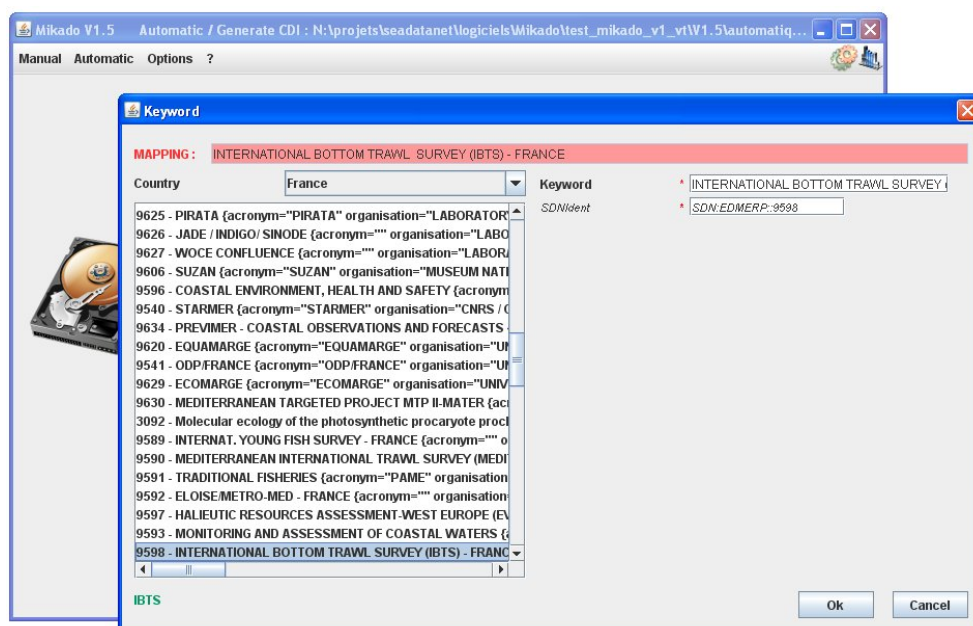
5- Control the XML generation (SQL error, XML error). A progress bar and a percentage indicate the progress of the generation and a **Cancel** button allows to cancel the generation.





*Figure 93: XML generation: Ongoing work*

- 6- During the generation, complete the mapping (if necessary see 6.2.2 for more details).



*Figure 94: Complete the mapping*

All the XML files (extension .xml) will be then created in the chosen directory.