

# MARINE DATA ARCHIVE

## Manual on how to use the Marine Data Archive (MDA)

Version 2.0

November 2008

V L I Z





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**Prepared by**

**Simon Claus  
An Vanhoorne  
Johan Mares  
Leen Vandepitte  
Klaas Deneudt  
Francisco Hernandez**

**Flanders Marine Institute (VLIZ)  
Oostende, Belgium  
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# 1. How to make use of the Marine Data Archive?

## 1.1 Introduction

Data are often gathered in the framework of short-running projects, or student projects in the framework of a thesis. During the planning of such projects, data management beyond the duration of the project is not always given due consideration; this often leads to data loss, for example when people move jobs and the knowledge about data collection and formats of the data files disappears with them. Saving data on inappropriate media (think about the old floppy-discs) and not rewrite them to the modern media can cause data loss, as modern computers are often not able anymore to read these media ...

It is clear that there is a need for long-term activity, namely the protection of the physical integrity of datasets. Data files should be deposited in data repositories or archives, where taking care of these data becomes an institutional responsibility of the archive, rather than an individual responsibility of the data collector. Data – and their corresponding metadata (= data on the data) – are after all the foundation of good science. They can answer the five principle questions in science: what, where, when, who and how. The archiving, describing and safeguarding of datasets in a central system is thus of the utmost importance.

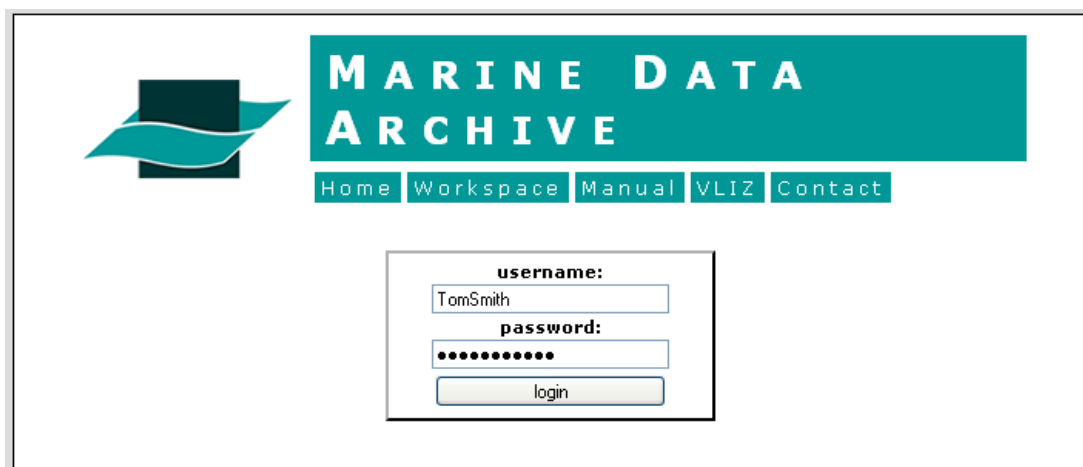
For this purpose, VLIZ has developed the Marine Data Archive (MDA). The Marine Data Archive is an online system specifically developed for scientists, research groups and project partners. It allows them to archive their data files in a fully documented way in an external archive. Each file in the Archive is saved together with its metadata, describing the content of the file. At least three copies of each file are saved on different locations outside the VLIZ building.

The MDA can be accessed online at <http://mda.vliz.be>.

## 1.2 Procedure

### □ Logging in :

- Contact the administrator at [mda@vliz.be](mailto:mda@vliz.be) to request a username and password.
- Log in at <http://mda.vliz.be/workspace.php>.

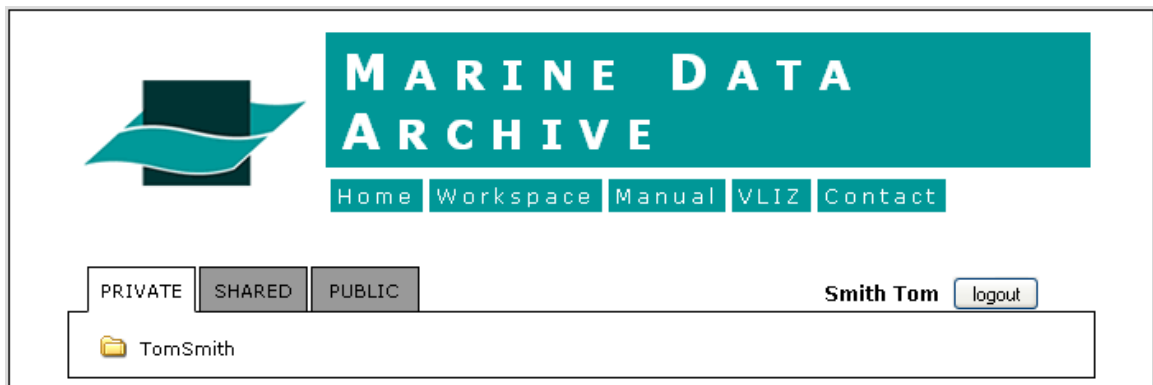


The screenshot shows the login interface of the Marine Data Archive. At the top left is a logo consisting of a dark teal square and a light teal wave. To the right, the text 'MARINE DATA ARCHIVE' is displayed in white on a dark teal background. Below this is a horizontal navigation bar with five buttons: 'Home', 'Workspace', 'Manual', 'VLIZ', and 'Contact'. The main content area contains a login form with the following elements:

- A label 'username:' above a text input field containing the text 'TomSmith'.
- A label 'password:' above a text input field filled with ten black dots.
- A 'login' button located below the password field.

Fig 1: Login Screen of the Marine Data Archive (MDA)

- **Workspaces:** once you are logged in to the context, you will see three workspaces: private, shared and public.
  - **Private workspace** is yours and yours alone. No one else has access to it
  - **Public workspace:** everything here is automatically readable by everyone who has access to the Marine Data Archive. Extra permissions (like write access) can be specified.
  - **Shared workspace:** within the Shared Workspace registered users can have access to project folders to share data between members. Permissions are necessary for viewing and/or writing information. This way multiple institutes or research organizations can work within the same folder without being aware of others presence.



*Fig 2: Private, Shared and Public Workspaces of user 'Tom Smith'*

#### □ **Security**

After requesting access to the Marine Data Archive, you will be sent an e-mail with your username and password. At the same time you get a private workspace. When you log in to the MDA website you will see your workspace with your root folder. You will have full access rights in your private workspace and read only access to all information in the public workspace. The shared workspace allows sharing files and metadata within a scientific research group or project. Uploading and downloading files can be done by all members of the defined group or project. In the shared workspace you can receive read only, full or limited read and write access to a folder (project or context).

There are four levels of access: none, **read only**, **write limited** and **write full**. This access is given at folder-level (project or context) and applies automatically to all subfolders and all files under this folder.

In your private workspace you have '**write full access**': this means that you can create, change and delete files and folders.

Having '**write limited access**' to a folder in the public or shared workspace means you can upload files and create folders. You can modify, move or delete your files and folders. You can't modify, move or delete data of other users within that specific folder.

'**Read only**' access means you can view the files and their metadata in a folder.

### **1.3 Folder Actions**

The Marine Data Archive has a directory system comparable with the tree view of Windows Explorer. Data will be uploaded into folders and/or subfolders. There are several actions that can be performed at folder-level. Each action is explained below with the corresponding icon beside.



Fig 3: For each created folder (except for the Root Folders) you can create a folder, modify or edit a folder, move a folder, delete the folder or upload a file in the folder.



New Folder:

You can create subfolders from your root directory. Click on the icon to add a Folder. You have to specify a folder name (mandatory) and can submit a description of the Folder. Click on the 'Create folder' button to create.

Fig 4: Add your Folder specifications



Modify or Edit Folder:

You can modify or edit the name and description of your folder.




Move Folder:

Use the Move Folder button to move your folder to a different directory and/or another Workspace. The Move Folder button allows also moving your personal folder to the shared or public folder (if you have the necessary permissions). You cannot drag your folder yourself but you have to choose the destination of your folder in the Move Folder form.

Fig 5: Move your folder to a different directory and/or another Workspace




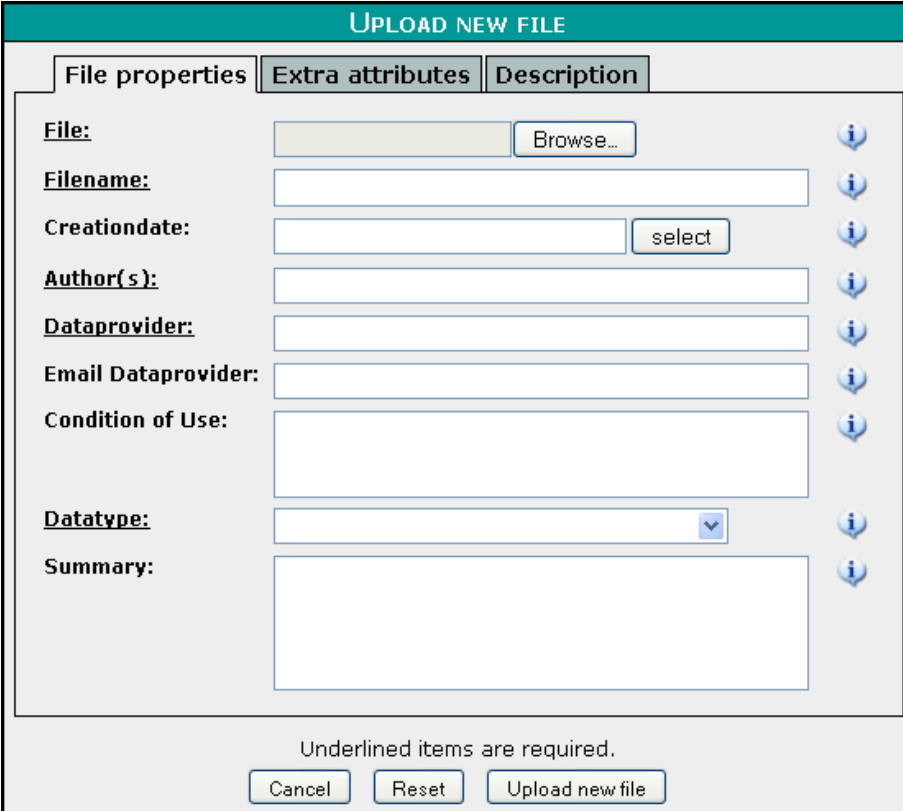
 Delete Folder: Folders can only be deleted if they are empty.

 Upload New File: This action will be explained in the next paragraph under the File Actions.

## 1.4 File Actions


All data are uploaded as files in the Marine Data Archive. This is actually an action performed at folder-level. Besides uploading the files there are several other actions at file-level that can be performed: Show Metadata, Print Metadata, Modify Metadata, Move file to another folder, Download XML Metadata, Download file, Upload New Version, Upload Similar File and Delete File.


 Upload New File: Upload a New file (in a Folder). When uploading a file you can specify File properties (tab 1), Extra attributes (tab 2) and give a Description of your file (tab 3). These are the metadata of a file. You need to specify a datatype which corresponds with your file; each datatype has a specific set of extra attributes. You can find more information about the different datatypes and their attributes in Chapter 2.





**UPLOAD NEW FILE**


File properties | **Extra attributes** | Description


File:  Browse... 


Filename:  


Creationdate:  select 


Author(s):  

Dataprovider:  

Email Dataprovider:  

Condition of Use:  

Datatype:  

Summary:  

Underlined items are required.

Cancel | Reset | Upload new file

Fig 6: Use the Upload new file form to specify the metadata of your datafiles. The metadata is structured in general File Properties, Extra Attributes and a Description.

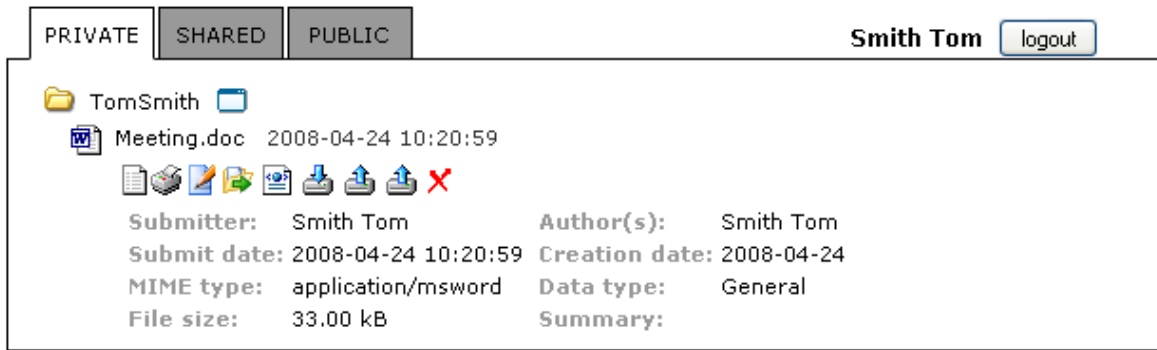










Fig 7: Different Icons represent the different File Actions that can be executed after uploading a File

- 
Show Metadata: This will display the metadata as entered in the 'Upload new file' form.
- 
Print Metadata: Print the metadata as a Printable file.
- 
Modify/Edit File Metadata: Modify or Edit the metadata of the uploaded file. Click on 'Save Changes' to save your modifications.
- 
Move file to another folder: Use the Move Folder button to move your file to another folder. The Move File button allows also moving your files in your Private Workspace to the Shared or Public Workspace (if you have the necessary permissions). You cannot drag your file yourself but you have to choose the destination of your file as shown on the form below.
- 
Download XML Metadata: You can download the metadata of a file as an XML file. Primary purpose of XML files is to facilitate the sharing of structured data across different information systems, particularly via the Internet.
- 
Download File: Download the datafile.
- 
Upload New Version: You can upload a new version of your file. When uploading a new version, the old version will not be accessible through the MDA anymore but is still archived in the system. You have to contact the administrator to retrieve the previous version(s) of a file.
- 
Upload Similar File: When uploading similar file(s), you can use the 'Upload Similar File' button. When clicking this button, the metadata of this file will be automatically copied to the next similar file(s) you will upload.



Delete File:

Delete the file from the MDA. If the file is deleted, he is not accessible through the MDA anymore, however every single uploaded file is still archived. You have to contact the administrator to retrieve your deleted file(s).

## 2. MDA datatypes

When uploading a file you should select a datatype to describe the content of your file. Currently the MDA has 10 different datatypes :

- |                            |                        |
|----------------------------|------------------------|
| 1. Biotic data             | 6. Remote sensing data |
| 2. In situ Instrument data | 7. Image and movies    |
| 3. Lab instrument data     | 8. Model Data          |
| 4. Experimental data       | 9. Models              |
| 5. Geographic data         | 10. Publication        |

+ General data type

Every datatype has a specific set of extra attributes to describe your file. We will explain in this chapter what kind of data corresponds to the different datatypes. Also the specific extra attributes of each datatype will be explained. Only the underlined items in the forms are mandatory to fill in, the others are optional.

### 2.1 File properties

When uploading a new file you will first need to specify the file properties in the first tab, which are similar for all 10 datatypes.

File: Choose a file from your directory

Filename: A valid filename, maximum 255 characters

Creationdata: Date that the file was created (format: YYYY-MM-DD)

Author(s): Author or authors of the file. By default the person who uploads the file is the author.

Dataprovider: Institute and/or person that provided the data

Email of dataprovider: Email of dataprovider

Conditions of use: The conditions by which the data can or may be used

Datatype: list of 10 datatypes, for specifications see further

Summary: Summary of datacontent, maximum 255 characters

The screenshot shows the 'UPLOAD NEW FILE' form with the 'File properties' tab selected. The form includes the following fields and controls:

- File:** Text input field with a 'Browse...' button and an information icon.
- Filename:** Text input field with an information icon.
- Creationdate:** Text input field with a 'select' button and an information icon.
- Author(s):** Text input field with an information icon.
- Dataprovider:** Text input field with an information icon.
- Email Dataprovider:** Text input field with an information icon.
- Condition of Use:** Text input field with up/down arrow buttons and an information icon.
- Datatype:** Dropdown menu with an information icon.
- Summary:** Text area with up/down arrow buttons and an information icon.

At the bottom of the form, there is a note: "Underlined items are required." and three buttons: "Cancel", "Reset", and "Upload new file".

Fig 8: Properties of a file

## 2.2 Description

The Description tab (3<sup>rd</sup> tab in the form 'Upload new file') is a free field to describe the data. This field is comparable with a Readme file.

The screenshot shows the 'UPLOAD NEW FILE' form with the 'Description' tab selected. The form contains the following elements:

- Description:** A large text area for entering a description, with an information icon to its right.

At the bottom of the form, there is a note: "Underlined items are required." and three buttons: "Cancel", "Reset", and "Upload new file".

Fig 9: Description of the uploaded data

## 2.3 Extra attributes

As already mentioned, after choosing one of the 10 datatypes in the File Properties you get specific attributes to fill in, in the second tab. The extra attributes are usually grouped in sets e.g. attributes about the geographical scope. To fill in extra attributes there are some general technical possibilities.

For **list boxes** you can choose an item from the list. When you don't find what you're looking for in the list, you can click on the three dots at the left to add your item to the list. Now you

can choose the inserted item in the list. Regularly these inserted items are evaluated and if the datacenter of VLIZ finds your item relevant, we will add it to the standard list. We call these list boxes '**Editable Lists**'.

Secondly it is possible to **enter multiple items** of a list box by clicking the plus sign at the right, one or several times. When you want to delete the inserted items, you must click on the minus sign.

The screenshot shows a web interface titled 'UPLOAD NEW FILE'. It has three tabs: 'File properties', 'Extra attributes', and 'Description'. The 'Description' tab is active. Under the heading 'CONTENT', there is a label 'Bio. composition:' followed by a dropdown menu, a plus sign button, and a minus sign button. An information icon is located to the right of the plus sign.

*Fig 10: General technical possibilities for list boxes*

For every datatype it is possible to fill in **specific characteristics**. This allows the users to add metadata that can't be filled in, in the standard fields. You must put in a characteristic name and Value. For some datatypes there are already some specific characteristics that are added to the list of characteristic names. We will further explain the characteristics per datatype.

The screenshot shows a section titled 'CHARACTERISTICS'. Below the title is a label 'Characteristics:' followed by a dropdown menu, a colon, a text input field, a plus sign button, and an information icon.

*Fig 11: Specific characteristics*

We will now go through the different datatypes and explain where the extra attributes for that particular datatype stand for. For every attribute the technical possibilities like type of field (e.g. Editable list, textfield, ...), mandatory/optional field, ... are mentioned between brackets.

## 2.4 The datatypes in detail

### 1. Biotic Data

Data files under biotic data can include: Abundance data | Biomass data | Biometrics data | Abiotic measurements | Taxonomic lists | In situ (field) experiment | Fisheries data | Aquaculture data

The screenshot shows a web form titled "UPLOAD NEW FILE" with three tabs: "File properties", "Extra attributes", and "Description". The "Description" tab is active. The form is organized into several sections, each with a title and a list of input fields:

- CONTENT**
  - Bio. composition: A dropdown menu with a plus sign and an information icon.
  - Description of file: A dropdown menu with a plus sign and an information icon.
- MATERIALS AND METHODS**
  - Sampling device: A dropdown menu with a plus sign and an information icon.
  - Protocol: A text input field with an information icon.
- PARAMETERS MEASURED**
  - Parameters: A dropdown menu with a plus sign and an information icon.
- TEMPORAL SCOPE**
  - First date: A date input field with an information icon.
  - Last date: A date input field with an information icon.
- GEOGRAPHIC SCOPE**
  - Location: A text input field with an information icon.
  - Min. longitude: A text input field with an information icon.
  - Max. longitude: A text input field with an information icon.
  - Min. latitude: A text input field with an information icon.
  - Max. latitude: A text input field with an information icon.
- CHARACTERISTICS**
  - Characteristics: A dropdown menu with a plus sign and an information icon.

At the bottom of the form, there is a note: "Underlined items are required." Below this note are three buttons: "Cancel", "Reset", and "Upload new file".

Fig 12: Attributes for Datatype 'Biotic data'

Information about the Content of the file:

- **Bio. composition**: Biological component (bacteria & viruses | fish - demersal fish | fish - pelagic fish | microphytobenthos | microzooplankton | phytobenthos | phytoplankton | zoobenthos - epibenthos | zoobenthos - hyperbenthos | zoobenthos - macrobenthos | zoobenthos - meiobenthos | zooplankton | birds | mammals...  
(Editable List; not required; multiple entries possible)
- **Description of file**: Description of file content  
(Editable List; not required; multiple entries possible)

Information about the Materials and Methods:

- **Sampling device**: Sampling gear and gear specification how the data was gathered  
(Editable List; not required; multiple entries possible)

- **Protocol:** Protocol how the data was gathered  
(Free textfield; not required)

*Information about the Measured Parameters:*

- **Parameters:** Based on Parameter groups of the BODC Parameter dictionary  
(Editable List; not required; multiple entries possible)

*Information about the Temporal Scope:*

- **First date:** First Date of sampling, valid formats: 2007, 2007-08 and 2007-08-30.  
(Date format; not required)
- **Last date:** Last Date of sampling, valid formats: 2007, 2007-08 and 2007-08-30.  
(Date format; not required)

*Information about the Geographic Scope:*

- **Location:** Description or name of the location; sea, country, island, area, ... of sampling area  
(Free textfield; not required)
- **Min. longitude:** Minimum longitude of sampling area (-180 to 180). Valid formats: 53.5, 53°16.2, 53°16'20.5 and 53°16'22".  
(Geographic format; not required)
- **Max. longitude:** Maximum longitude of sampling area (-180 to 180). Valid formats: 53.5, 53°16.2, 53°16'20.5 and 53°16'22".  
(Geographic format; not required)
- **Min. latitude:** Minimum latitude of sampling area (-90 to 90). Valid formats: 2.537, 2°16.2, 2°16'20.5 and 2°16'22".  
(Geographic format; not required)
- **Max. latitude:** Maximum latitude (-90 to 90). Valid formats: 2.537, 2°16.2, 2°16'20.5 and 2°16'22".  
(Geographic format; not required)

*Other information:*

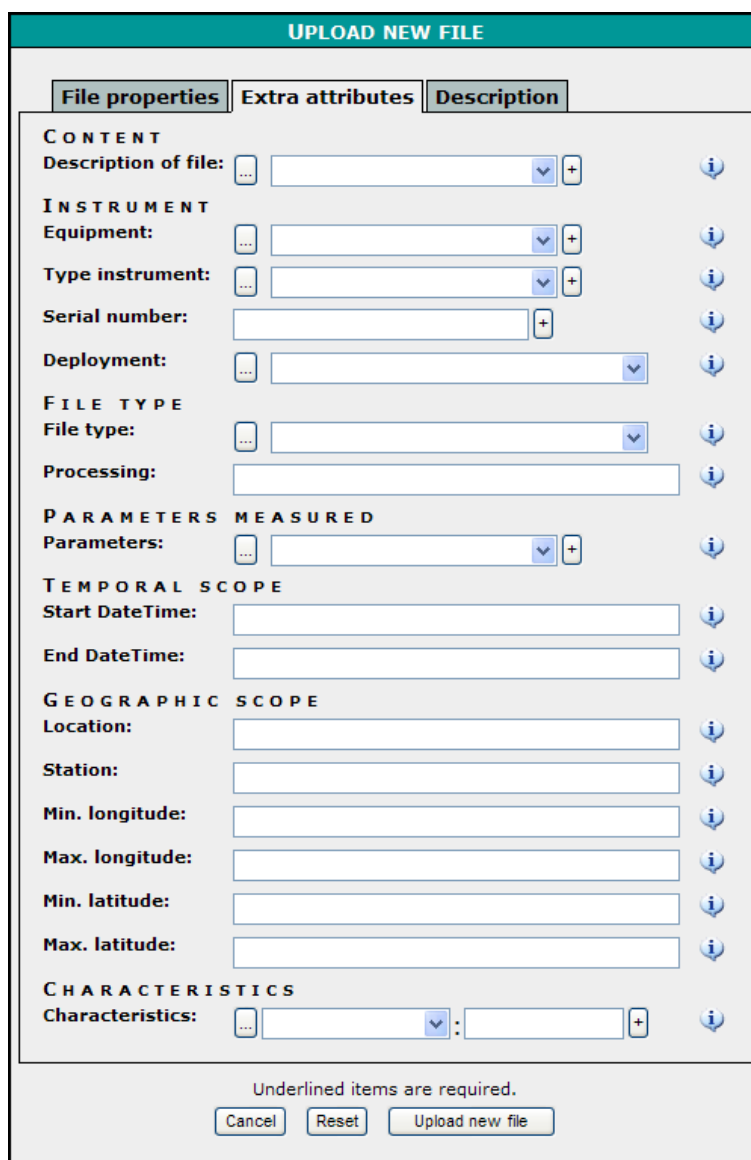
- **Characteristics:** Any special characteristics relevant for the uploaded file. Specify the characteristic name and the Value  
(Editable List; not required; multiple entries possible)



## 2. In situ Instrument data

Data files under In Situ Instrument data are all datafiles collected using (onboard) instruments. These data include Acoustics | Currents, sea level and waves | Optical properties | Other physical oceanographic measurements | Water column temperature and salinity | Gravity, magnetics and bathymetry | Sediment properties | Sonar and seismics | Suspended particulate matter | Atmospheric chemistry | Meteorology.

Examples of used instruments are CTD, ADCP, Buoys, multibeam, singlebeam, XBT, Seasoar or transmissometer.



**UPLOAD NEW FILE**

**File properties** | **Extra attributes** | **Description**

**CONTENT**  
Description of file: ... [dropdown] + [info]

**INSTRUMENT**  
Equipment: ... [dropdown] + [info]  
Type instrument: ... [dropdown] + [info]  
Serial number: [text] + [info]  
Deployment: ... [dropdown] + [info]

**FILE TYPE**  
File type: ... [dropdown] + [info]  
Processing: [text] + [info]

**PARAMETERS MEASURED**  
Parameters: ... [dropdown] + [info]

**TEMPORAL SCOPE**  
Start DateTime: [text] + [info]  
End DateTime: [text] + [info]

**GEOGRAPHIC SCOPE**  
Location: [text] + [info]  
Station: [text] + [info]  
Min. longitude: [text] + [info]  
Max. longitude: [text] + [info]  
Min. latitude: [text] + [info]  
Max. latitude: [text] + [info]

**CHARACTERISTICS**  
Characteristics: ... [dropdown] : [text] + [info]

Underlined items are required.

Cancel Reset Upload new file

Fig 13: Attributes for Datatype 'In situ Instrument'

*Information about the Content of the file:*

- **Description of file:** Description of file content (Editable List; not required; multiple entries possible)

*Information about the Instrument:*

- **Equipment:** Used instrument or equipment (Editable List; not required; multiple entries possible)

- **Type Instrument:** Type of the instrument  
(Editable List; not required; multiple entries possible)
- **Serial number:** Serial number for the device  
(Free textfield; not required, multiple entries possible)
- **Deployment:** Deployment of the equipment  
(Editable List; not required)

*Information about the File:*

- **File type:** Type of the uploaded file  
(Editable List; not required)
- **Processing:** Information about processing of the data  
(Free textfield; not required)

*Information about the Measured Parameters:*

- **Parameters:** Based on Parameter groups of the BODC Parameter dictionary  
(Editable List; not required; multiple entries possible)

*Information about the Temporal Scope:*

- **Start datetime:** Start Datetime of measurement, valid formats: 2007, 2007-08, 2007-08-30, 2007-08-30T14:15:32 and 2007-08-30 14:15:32  
(Datetime format; not required)
- **End datetime:** End Datetime of measurement, valid formats: 2007, 2007-08, 2007-08-30, 2007-08-30T14:15:32 and 2007-08-30 14:15:32  
(Datetime format; not required)

*Information about the Geographic Scope:*

- **Location:** Description or name of the location; sea, country, island, area, ... of sampling area  
(Free textfield; not required)
- **Station:** Station name or number  
(Free textfield; not required)
- **Min. longitude:** Minimum longitude of sampling area (-180 to 180). Valid formats: 53.5, 53°16.2, 53°16'20.5 and 53°16'22".  
(Geographic format; not required)
- **Max. longitude:** Maximum longitude of sampling area (-180 to 180). Valid formats: 53.5, 53°16.2, 53°16'20.5 and 53°16'22".  
(Geographic format; not required)
- **Min. latitude:** Minimum latitude of sampling area (-90 to 90). Valid formats: 2.537, 2°16.2, 2°16'20.5 and 2°16'22".  
(Geographic format; not required)
- **Max. latitude:** Maximum latitude (-90 to 90). Valid formats: 2.537, 2°16.2, 2°16'20.5 and 2°16'22".  
(Geographic format; not required)

*Other information:*

- **Characteristics:** Any special characteristics relevant for the uploaded file. Specify the characteristic name and the Value  
(Editable List; not required; multiple entries possible)

### 3. Lab instrument data

Data files under Lab instrument data are all datafiles compiled using Laboratory instruments. These data include Chemical, Biogeochemical (Carbon, nitrogen and phosphorus | Carbonate system | Dissolved gases | Fatty acids | Halocarbons (including freons) | Hydrocarbons | Isotopes | Metal concentrations | Nutrients | Other inorganic chemical measurements | Other organic chemical measurements | PCBs and organic micro pollutants | Suspended particulate matter | Atmospheric chemistry | Fluxes), Genetic, Bimolecular or Sediment analysis. Also data integrated from Laboratory Information Systems (e.g. LIMS) are considered as Lab Instrument data.

**UPLOAD NEW FILE**

**File properties** | **Extra attributes** | **Description**

**C O N T E N T**  
Description of file: ... [dropdown] + [info]

**I N S T R U M E N T**  
Equipment: ... [dropdown] + [info]  
Type instrument: ... [dropdown] + [info]  
Serial number: [text] + [info]

**F I L E T Y P E**  
File type: ... [dropdown] [info]  
Processing: [text] [info]

**P A R A M E T E R S M E A S U R E D**  
Parameters: ... [dropdown] + [info]  
Multiple related samples: [dropdown] [info]

**T E M P O R A L S C O P E**  
First date sample: [text] [info]  
Last date sample: [text] [info]  
Start DateTime: [text] [info]  
End DateTime: [text] [info]

**G E O G R A P H I C S C O P E**  
Location: [text] [info]  
Min. longitude: [text] [info]  
Max. longitude: [text] [info]  
Min. latitude: [text] [info]  
Max. latitude: [text] [info]

**C H A R A C T E R I S T I C S**  
Characteristics: ... [dropdown] : [text] + [info]

Underlined items are required.

Cancel Reset Upload new file

Fig 14: Attributes for Datatype 'Lab Instrument data'

Information about the Content of the file:

- **Description of file:** Description of file content (Editable List; not required; multiple entries possible)

*Information about the Instrument:*

- **Equipment:** Used instrument or equipment  
(Editable List; not required; multiple entries possible)
- **Type Instrument:** Type of the Instrument  
(Editable List; not required; multiple entries possible)
- **Serial number:** Serial number for the device  
(Free textfield; not required, multiple entries possible)

*Information about the File:*

- **File type:** Type of the uploaded file  
(Editable List; not required)
- **Processing:** Information about processing of the data  
(Free textfield; not required)

*Information about the Measured Parameters:*

- **Parameters:** Based on Parameter groups of the BODC Parameter dictionary  
(Editable List; not required; multiple entries possible)
- **Multiple related samples:** Is the datafile a combination of multiple related samples or not - for example datafiles from a Laboratory Information System might not be content related  
(Yes | No; not required)

*Information about the Temporal Scope:*

- **First date sample:** First date of sampling, valid formats: 2007, 2007-08, 2007-08-30  
(Date format, not required)
- **Last date sample:** Last date of sampling, valid formats: 2007, 2007-08, 2007-08-30  
(Date format, not required)
- **Start datetime:** Start Datetime of laboratory measurement, valid formats: 2007, 2007-08, 2007-08-30, 2007-08-30T14:15:32 and 2007-08-30 14:15:32  
(Datetime format; not required)
- **End datetime:** End Datetime of laboratory measurement, valid formats: 2007, 2007-08, 2007-08-30, 2007-08-30T14:15:32 and 2007-08-30 14:15:32  
(Datetime format; not required)

*Information about the Geographic Scope:*

- **Location:** Description or name of the location; sea, country, island, area, ... of sampling area  
(Free textfield; not required)
- **Min. longitude:** Minimum longitude of sampling area (-180 to 180). Valid formats: 53.5, 53°16.2, 53°16'20.5 and 53°16'22".  
(Geographic format; not required)
- **Max. longitude:** Maximum longitude of sampling area (-180 to 180). Valid formats: 53.5, 53°16.2, 53°16'20.5 and 53°16'22".  
(Geographic format; not required)

- **Min. latitude:** Minimum latitude of sampling area (-90 to 90). Valid formats: 2.537, 2°16.2, 2°16'20.5 and 2°16'22".  
(Geographic format; not required)
- **Max. latitude:** Maximum latitude (-90 to 90). Valid formats: 2.537, 2°16.2, 2°16'20.5 and 2°16'22".  
(Geographic format; not required)

*Other information:*

- **Characteristics:** Any special characteristics relevant for the uploaded file. Specify the characteristic name and the Value. Examples are the MinLabID and MaxLabID of the LIMS system, the project or the Analyst.  
(Editable List; not required; multiple entries possible)

#### 4. Experimental data

Data files under Experimental data are all datafiles that are collected during a laboratory or field experiment. These data include: ecological in-situ experiment | ecological lab experiment | ecotoxicological in-situ experiment | ecotoxicological lab experiment | mesocosm

The screenshot shows a dialog box titled "UPLOAD NEW FILE" with three tabs: "File properties", "Extra attributes", and "Description". The "Description" tab is active. It contains three sections: "CONTENT", "MATERIALS AND METHODS", and "CHARACTERISTICS". Each section has a label, a text input field, and an information icon (i). The "CONTENT" section includes "Exp. type" (a dropdown menu) and "Description of file" (a text input field with a plus sign). The "MATERIALS AND METHODS" section includes "Instrument" and "Protocol" (both text input fields). The "CHARACTERISTICS" section includes "Characteristics" (a text input field with a plus sign). At the bottom, there is a note "Underlined items are required." and three buttons: "Cancel", "Reset", and "Upload new file".

Fig 15: Attributes for Datatype 'Experimental data'

*Information about the Content of the file:*

- **Exp. type:** Type of the experiment (Editable List; not required)
- **Description of file:** Description of file content (Editable List; not required; multiple entries possible)

*Information about Materials and Methods:*

- **Instrument:** Used instrument or equipment (Free textfield; not required)
- **Protocol:** Protocol how the data was gathered (Free textfield; not required)

*Other information:*

- **Characteristics:** Any special characteristics relevant for the uploaded file. Specify the characteristic name and the Value. (Editable List; not required; multiple entries possible)

## 5. Geographic data

Data files under Geographic data are Vector or Raster datafiles. These data can include any kind of thematic GIS data (e.g. Bathymetric data, Biogeographic data, Socio-economic data, ...).

The screenshot shows a web form titled "UPLOAD NEW FILE" with three tabs: "File properties", "Extra attributes", and "Description". The "File properties" tab is active. The form is organized into several sections, each with a title and a list of input fields, each accompanied by an information icon (i):

- TYPE**
  - Geographic file type: [dropdown menu]
- SPECS ( RASTER )**
  - Raster-format: [dropdown menu]
  - Raster size x: [text input]
  - Raster size y: [text input]
- SPECS ( VECTOR )**
  - Vector-format: [dropdown menu]
  - Vector-type: [dropdown menu]
- GEOGRAPHIC SCOPE**
  - Min. longitude: [text input]
  - Max. longitude: [text input]
  - Min. latitude: [text input]
  - Max. latitude: [text input]
  - Location: [text input]
- CONTENT**
  - Attribute: [text input] [+]
- REFERENCE SYSTEM**
  - Projection: [dropdown menu]
  - Coordination system: [dropdown menu]
  - Datum: [dropdown menu]
  - Z Coordinate: [dropdown menu]
  - Z Reference: [dropdown menu]
  - UTM Zone: [text input]
- CHARACTERISTICS**
  - Characteristics: [dropdown menu] : [text input] [+]

At the bottom, there is a note: "Underlined items are required." and three buttons: "Cancel", "Reset", and "Upload new file".

Fig 16: Attributes for Datatype 'Geographic data'

*Information about the File:*

- **Geographic file type:** Raster or Vector file  
(Editable List; required)

*Information about the Specifications of the Raster file:*

- **Raster-format:** Format of the raster file (Erdas Imagine, ESRI Grid, GeoTiff, MrSid, Tiff...)  
(Editable List; not required)

- **Raster size x:** Raster size (x) in meters  
(Decimal; not required)
- **Raster size y:** Raster size (y) in meters  
(Decimal; not required)

*Information about the Specifications of the Vector file:*

- **Vector-format:** Format of the vector file (DXF, GML, Interchange file, MapInfofile, Shapefile...)  
(Editable List; not required)
- **Vector-type:** Type of the vector file (line, point, polygon)  
(Editable List; not required)

*Information about the Geographic Scope:*

- **Min. longitude:** Minimum longitude of sampling area (-180 to 180). Valid formats: 53.5, 53°16.2, 53°16'20.5 and 53°16'22".  
(Geographic format; not required)
- **Max. longitude:** Maximum longitude of sampling area (-180 to 180). Valid formats: 53.5, 53°16.2, 53°16'20.5 and 53°16'22".  
(Geographic format; not required)
- **Min. latitude:** Minimum latitude of sampling area(-90 to 90). Valid formats: 2.537, 2°16.2, 2°16'20.5 and 2°16'22".  
(Geographic format; not required)
- **Max. latitude:** Maximum latitude (-90 to 90). Valid formats: 2.537, 2°16.2, 2°16'20.5 and 2°16'22".  
(Geographic format; not required)
- **Location:** Description or name of the location; sea, country, island, area, ... of sampling area  
(Free textfield; not required)

*Information about the Content:*

- **Attribute:** Attributes or, more general, content description of the geographic file sampling area  
(Free textfield; not required; multiple entries possible)

*Information about the Reference System:*

- **Projection:** Projection (Universal Transverse Mercator (UTM) (Whole World) | Cylindrical Robinson (Whole World) | Pseudocylindrical Goode (Whole World) | UPS (Universal Polar Stereographic) | Lambert Conformal Conic (Navigation Charts) | Adlers Equal Area (Conic) (General) | Lambert Conformal Conic (België; Frankrijk) | Dubbelprojectie van Schreiber (Nederland)  
(List; required)
- **Coordination system:** Coordinate system (Lambert 72 | Lambert 08 | Lat/LonDMS | Lat/Lon DM.m | Lat/LonD.d | UTM (Easting/northing) | Longitude van 1 tot 60 | Latitude van C tot X (zonder I en O) | Gauß-Krüger (Germany) | RD (Netherlands))  
(List; required)
- **Datum:** Geographic datum (BD50 | BD72 | ED50 | ED79 | WGS84 | NAD27 | NAD83 | ETRS89 | NTF (Nouvelle Triangulation de la France)(France) | RGF93 (Réseau Geodétique Français) (France) | LUREF (Luxemburg) |



Rauenberg Datum (Germany, Netherlands) | Potsdam (Germany) | Ordnance Survey of Great Britain 1936 (OSGB36) | D\_Amersfoort datum (Netherlands)  
)  
(List; not required)

- **Z Coordinate:** For 3D (bathymetric) files, specify the Z Coordinate ((dm | fathom | ft | m)  
(List; not required)
- **Z Reference:** For 3D (bathymetric) files, specify the Z Reference (GLLWS | MSL | NAP | TAW)  
(List; not required)
- **UTM Zone:** Specify the zone (number) for Universal Transverse Mercator (UTM) files  
(Free textfield; not required)

*Other information:*

- **Characteristics:** Any special characteristics relevant for the uploaded file. Specify the characteristic name and the Value.  
(Editable List; not required; multiple entries possible)

## 6. Remote sensing data

Data files under Remote Sensing data can include satellite or airborne data. These data can include any kind of thematic GIS data.

The screenshot shows a web-based form titled "UPLOAD NEW FILE" with three tabs: "File properties", "Extra attributes", and "Description". The "File properties" tab is active. The form is organized into several sections, each with a title in all caps: "S P E C S", "T E M P O R A L S C O P E", "G E O G R A P H I C S C O P E", "F I L E", "P A R A M E T E R S M E A S U R E D", "P R O J E C T I O N", and "C H A R A C T E R I S T I C S". Each section contains various input fields, including dropdown menus, text boxes, and buttons. Information icons (i) are present next to many fields. At the bottom, there is a note: "Underlined items are required." and three buttons: "Cancel", "Reset", and "Upload new file".

Section	Field Name	Field Type	Required
S P E C S	Type:	Dropdown	Yes
	Type of sensor:	Dropdown	No
	Number of spectral bands:	Text	No
	Full Width at Half of Maximum (FWHM):	Text	No
	Spatial resolution:	Text	No
	Spatial precision:	Text	No
	Height:	Text	No
T E M P O R A L S C O P E	Start DateTime:	Text	No
	End DateTime:	Text	No
G E O G R A P H I C S C O P E	Min. longitude:	Text	No
	Max. longitude:	Text	No
	Min. latitude:	Text	No
	Max. latitude:	Text	No
	Location:	Text	No
F I L E	File Format:	Dropdown	No
	Unit:	Text	No
P A R A M E T E R S M E A S U R E D	Parameters:	Text (+)	No
P R O J E C T I O N	Projection:	Dropdown	No
	Coordination system:	Dropdown	No
	Datum:	Dropdown	No
C H A R A C T E R I S T I C S	Characteristics:	Text (+)	No

Fig 17: Attributes for Datatype 'Remote sensing data'

Information about the Specifications of the Remote Sensing datafile:

- **Type:** Define the origin of the Remote sensing data (satellite data | airborne data)  
(List; required)

- **Type of sensor:** Which sensor was used (optical VIS | optical NIR | optical SWIR | radar | thermal | laserscanner)  
(Editable List; not required)
- **Number of spectral bands:** Number of spectral bands  
(Integer; not required)
- **Full Width at Half of Maximum (FWHM):** Example : +/-6 nm  
(String; not required)
- **Spatial resolution:** Example : 1 to 2.2 m  
(String; not required)
- **Spatial precision:** Example : +/- 2 pixels  
(String; not required)
- **Height:** Height from measuring point in meters  
(Integer; not required)

*Information about the Temporal Scope:*

- **Start datetime:** Start Datetime of measurement, valid formats: 2007, 2007-08, 2007-08-30, 2007-08-30T14:15:32 and 2007-08-30 14:15:32  
(Datetime format; not required)
- **End datetime:** End Datetime of measurement, valid formats: 2007, 2007-08, 2007-08-30, 2007-08-30T14:15:32 and 2007-08-30 14:15:32  
(Datetime format; not required)

*Information about the Geographic Scope:*

- **Min. longitude:** Minimum longitude of sampling area (-180 to 180). Valid formats: 53.5, 53°16.2, 53°16'20.5 and 53°16'22".  
(Geographic format; not required)
- **Max. longitude:** Maximum longitude of sampling area (-180 to 180). Valid formats: 53.5, 53°16.2, 53°16'20.5 and 53°16'22".  
(Geographic format; not required)
- **Min. latitude:** Minimum latitude of sampling area (-90 to 90). Valid formats: 2.537, 2°16.2, 2°16'20.5 and 2°16'22".  
(Geographic format; not required)
- **Max. latitude:** Maximum latitude (-90 to 90). Valid formats: 2.537, 2°16.2, 2°16'20.5 and 2°16'22".  
(Geographic format; not required)
- **Location:** Description or name of the location; sea, country, island, area, ... of sampling area  
(Free textfield; not required)

*Information about the File:*

- **File Format:** Format of the file (Envi)  
(Editable List; not required)
- **Unit:** Example: Reflectance (%)  
(Free textfield; not required)

*Information about the Measured Parameters:*

- **Parameters:** Parameters (only if interpretation (e.a. classification) was performed  
(String; not required; multiple entries possible)

*Information about the Reference System:*

- **Projection:** Projection (Universal Transverse Mercator (UTM) (Whole World) | Cylindrical Robinson (Whole World) | Pseudocylindrical Goode (Whole World) | UPS (Universal Polar Stereographic) | Lambert Conformal Conic (Navigation Charts) | Adlers Equal Area (Conic) (General) | Lambert Conformal Conic (België; Frankrijk) | Dubbelprojectie van Schreiber (Nederland)  
(List; required)
- **Coordination system:** Coordinate system (Lambert 72 | Lambert 08 | Lat/LonDMS | Lat/Lon DM.m | Lat/LonD.d | UTM (Easting/northing) | Longitude van 1 tot 60 | Latitude van C tot X (zonder I en O) | Gauß-Krüger (Germany) | RD (Netherlands))  
(List; required)
- **Datum:** Geographic datum (BD50 | BD72 | ED50 | ED79 | WGS84 | NAD27 | NAD83 | ETRS89 | NTF (Nouvelle Triangulation de la France)(France) | RGF93 (Réseau Geodétique Français) (France) | LUREF (Luxemburg) | Rauenberg Datum (Germany, Netherlands) | Potsdam (Germany) | Ordnance Survey of Great Britain 1936 (OSGB36) | D\_Amersfoort datum (Netherlands)  
)  
(List; not required)

*Other information:*

- **Characteristics:** Any special characteristics relevant for the uploaded file. Specify the characteristic name and the Value. Examples are Atmospheric correction | Geometric calibration | Radiometric calibration performed  
(Editable List; not required; multiple entries possible)

## 7. Images and movies

This datatype is for all kind of images and movies. E.g. technical photos are photos that are more focused on experimental photographic data and can include Morphological drawings | Microscopic photos or Image tracking datasets.

The screenshot shows a web form titled "UPLOAD NEW FILE" with three tabs: "File properties", "Extra attributes", and "Description". The "Description" tab is selected. The form is organized into several sections:

- S P E C S**:
  - Description of file (tech):** A dropdown menu with an information icon (i).
  - Type:** A dropdown menu with an information icon (i).
  - Format:** A dropdown menu with an information icon (i).
  - Number of pics:** A text input field with an information icon (i).
  - Device (Techn pics):** A dropdown menu with an information icon (i).
- G E O G R A P H I C I N F O R M A T I O N**:
  - Location:** A text input field with an information icon (i).
  - Longitude:** A text input field with an information icon (i).
  - Latitude:** A text input field with an information icon (i).
- T E M P O R A L S C O P E**:
  - First date:** A text input field with an information icon (i).
  - Last date:** A text input field with an information icon (i).
- C H A R A C T E R I S T I C S**:
  - Characteristics:** A dropdown menu, a text input field, and a plus sign button, with an information icon (i).

At the bottom of the form, there is a note: "Underlined items are required." and three buttons: "Cancel", "Reset", and "Upload new file".

Fig 18: Attributes for Datatype 'Images and Movies'

*Information about the Specifications:*

- **Description of file:** Description of file content (Morphological drawings | Microscopic photos | Image tracking dataset)  
(Editable List; not required; multiple entries possible)
- **Type:** Type of file (images | movies | pictures | drawing)  
(Editable List; required)
- **Format:** Format of the file(s) (AVI | MOV (QuickTime) | MPG | WMV | JPG | PNG | TIFF)  
(Editable List; not required; ; multiple entries possible)
- **Number of pics:** Number of pictures in the datafile  
(Free textfield; not required)
- **Device (Techn pics):** Description or name of device (Camera | Scanning Electron Microscope (SEM) | Transmission Electron Microscope | Optical light Microscope | X-ray Microscope)  
(Editable List; not required)

*Information about the Geographic Scope:*

- **Location:** Description or name of the location; sea, country, island, area, ... of sampling area  
(Free textfield; not required)
- **Longitude:** Minimum longitude of sampling area (-180 to 180). Valid formats: 53.5, 53°16.2, 53°16'20.5 and 53°16'22".  
(Geographic format; not required)
- **Latitude:** Minimum latitude of sampling area (-90 to 90). Valid formats: 2.537, 2°16.2, 2°16'20.5 and 2°16'22".  
(Geographic format; not required)

*Information about the Temporal Scope of the experiment:*

- **First date:** Start Date of measurement, valid formats: 2007, 2007-08, 2007-08-30  
(Datetime format; not required)
- **Last date:** End Date of measurement, valid formats: 2007, 2007-08, 2007-08-30  
(Datetime format; not required)

*Other information:*

- **Characteristics:** Any special characteristics relevant for the uploaded file. Specify the characteristic name and the Value. Examples: interval | sharpness | contrast | gradation  
(Editable List; not required; multiple entries possible)

## 8. Model Data

Model data is input or output data of a Model.

The screenshot shows a dialog box titled "UPLOAD NEW FILE" with three tabs: "File properties", "Extra attributes", and "Description". The "Description" tab is active. The form is organized into several sections, each with a title and a list of fields:

- S P E C S**:
  - Type Data: A dropdown menu with a blue downward arrow and an information icon (i).
- C O N T E N T**:
  - Description of file: A text input field with an information icon (i).
  - State-variables: A text input field with a "+" button and an information icon (i).
  - Model Name: A text input field with an information icon (i).
- T E M P O R A L   S C O P E**:
  - Start DateTime: A text input field with an information icon (i).
  - End DateTime: A text input field with an information icon (i).
- G E O G R A P H I C   S C O P E**:
  - Location: A text input field with an information icon (i).
  - Min. longitude: A text input field with an information icon (i).
  - Max. longitude: A text input field with an information icon (i).
  - Min. latitude: A text input field with an information icon (i).
  - Max. latitude: A text input field with an information icon (i).
- F I L E**:
  - Format type: A dropdown menu with a blue downward arrow and an information icon (i).
- C H A R A C T E R I S T I C S**:
  - Characteristics:value: A dropdown menu with a blue downward arrow, an information icon (i), and a small square icon to its left.

At the bottom of the dialog, there is a note: "Underlined items are required." Below this note are three buttons: "Cancel", "Reset", and "Upload new file".

Fig 19: Attributes for Datatype 'Model data'

*Information about the Specifications of the Model data datafile:*

- **Type Data:** Input or output data  
(Editable List; required)

*Information about the Content:*

- **Description of file :** Description of file content  
(String; not required; multiple entries possible)
- **State-variables:** State variables of the model. These are the described components of the model  
(String; not required; multiple entries possible)
- **Model Name:** Name of the Model  
(String; not required)

*Information about the Temporal Scope:*

- **Start datetime:** Start Datetime of measurement, valid formats: 2007, 2007-08, 2007-08-30, 2007-08-30T14:15:32 and 2007-08-30 14:15:32  
(Datetime format; not required)

- **End datetime:** End Datetime of measurement, valid formats: 2007, 2007-08, 2007-08-30, 2007-08-30T14:15:32 and 2007-08-30 14:15:32 (Datetime format; not required)

*Information about the Geographic Scope:*

- **Min. longitude:** Minimum longitude of sampling area (-180 to 180). Valid formats: 53.5, 53°16.2, 53°16'20.5 and 53°16'22". (Geographic format; not required)
- **Max. longitude:** Maximum longitude of sampling area (-180 to 180). Valid formats: 53.5, 53°16.2, 53°16'20.5 and 53°16'22". (Geographic format; not required)
- **Min. latitude:** Minimum latitude of sampling area (-90 to 90). Valid formats: 2.537, 2°16.2, 2°16'20.5 and 2°16'22". (Geographic format; not required)
- **Max. latitude:** Maximum latitude (-90 to 90). Valid formats: 2.537, 2°16.2, 2°16'20.5 and 2°16'22". (Geographic format; not required)
- **Location:** Description or name of the location; sea, country, island, area, ... of sampling area (Free textfield; not required)

*Information about the File:*

- **Format type:** Format of file. Can be Ascii, Binary (Editable List; not required)

*Other information:*

- **Characteristics:** Any special characteristics relevant for the uploaded file. Specify the characteristic name and the Value. (Editable List; not required; multiple entries possible)



## 9. Models

A model is a schematic description of a system, theory, or phenomenon.

Underlined items are required.

Cancel Reset Upload new file

Fig 20: Attributes for Datatype 'Models'

*Information about the Specifications of the Model datafile:*

- **Model Name** : Name of the Model  
(String; required)
- **Version**: Version of the Model  
(String; not required)
- **Programming Language**: Program language of the Model. Can be Fortran | C | R | Matlab  
(Editable List; required)
- **Package** : Simulation package  
(String; not required)

*Information about the Content:*

- **Processes** : Information on the processes of the model  
(String; not required)
- **State-variables**: State variables of the model. These are the described components of the model  
(String; not required; multiple entries possible)
- **Type Model**: Type of the Model. Can be Forward Model | Inverse Model  
(Editable list, not required)

*Information about the Installation:*

- **InstallationInstructions:** Instructions how to use/run the model  
(Datetime format; not required)
- **Platform:** Platform or operating system to run the model  
(String; not required)

*Information about the File:*

- **File Format (model):** Format of file. Can be ZIP  
(Editable List; not required)

## 10. Software and Scripts

The Software and script datatype can be used to archive program codes.



**UPLOAD NEW FILE**

**File properties** | **Extra attributes** | **Description**

**NAME**  
Title:  ⓘ

**DESCRIPTION OF FILE CONTENT**  
Description of file content:  + ⓘ

**PROGRAM LANGUAGE**  
Programming Language:  ...  ⓘ

**VERSION**  
Version:  ⓘ

**COMPILER**  
Compiler:  ⓘ

**PUBLICATION**  
Publication:  ⓘ

**URL**  
URL:  + ⓘ

**VERSION DATE**  
Date:  ⓘ

**CHARACTERISTICS**  
Characteristics:  + ⓘ

Underlined items are required.

Fig 21: Attributes for Datatype 'Software and Scripts'

*Information about the Specifications of the Model datafile:*

- **Name**: Name of the Model  
(String; required)
- **Programming Language**: Program language of the Model. Can be Fortran | C | R | Matlab  
(Editable List; required)
- **Version**: Version of the Model  
(String; not required)
- **Compiler**: Information on how to compile the script or program list,  
(String;not required)
- **Publication**: Publication where the scripts or software have been described  
(String;not required)
- **URL**: URL where the scripts or software have been published  
(String;not required)

- **Version date:** Version data of the script  
(DateTime; not required)
- **Characteristics:** Any special characteristics relevant for the uploaded file.  
Specify the characteristic name and the Value.  
(Editable List; not required; multiple entries possible)

## 11. Publication

Publication data can include scientific articles, theses, books, maps, journals, poster presentations, work documents or any other publication.

The screenshot shows a dialog box titled "UPLOAD NEW FILE" with three tabs: "File properties", "Extra attributes", and "Description". The "Description" tab is active. It contains two main sections: "PUBLICATION" and "CHARACTERISTICS".

**PUBLICATION**

- Title:** A text input field with an information icon (i) to its right.
- Publication date:** A text input field with an information icon (i) to its right.
- Document type:** A dropdown menu with a plus sign (+) to its right and an information icon (i) to its right.

**CHARACTERISTICS**

- Characteristics:** A dropdown menu with an ellipsis (...) to its left, a plus sign (+) to its right, and an information icon (i) to its right.

At the bottom of the dialog, there is a note: "Underlined items are required." Below this note are three buttons: "Cancel", "Reset", and "Upload new file".

Fig 22: Attributes for Datatype 'Publications'

*Information about the Publication:*

- **Title:** Title of the publication  
(String; required)
- **Publication date:** Year of the publication  
(Integer; not required)
- **Document type:** Type of the document (Annual report | Draft | Manual | Master thesis | Meeting report | Other | PhD thesis | Poster | Postprint | Preprint | Project report | Scientific report | Work document | Presentation)  
(List; required)

*Other information:*

- **Characteristics:** Any special characteristics relevant for the uploaded file. Specify the characteristic name of the Author, Promotor, Co-promotor, Mentor, Supervisor or Editor  
(Editable List; not required; multiple entries possible)

## 12. General

All other datafiles which cannot be classified into one of the other defined datatypes can be put under General. Try to describe as detailed as possible your datafile under the description tab while uploading your file.

The screenshot shows a dialog box titled "UPLOAD NEW FILE" with three tabs: "File properties", "Extra attributes", and "Description". The "Description" tab is selected. It contains three sections: "GEOGRAPHIC SCOPE" with fields for "Location:", "Longitude:", and "Latitude:"; "TEMPORAL SCOPE" with fields for "First date:" and "Last date:"; and "CHARACTERISTICS" with a dropdown menu and a "+" button. Each field has an information icon (i) to its right. At the bottom, there is a note "Underlined items are required." and three buttons: "Cancel", "Reset", and "Upload new file".

Fig 23: Attributes for Datatype 'General'

### *Information about the Geographic Scope:*

- **Location:** Description or name of the location; sea, country, island, area, ... of sampling area  
(Free textfield; not required)
- **Longitude:** Minimum longitude of sampling area (-180 to 180). Valid formats: 53.5, 53°16.2, 53°16'20.5 and 53°16'22".  
(Geographic format; not required)
- **Latitude:** Minimum latitude of sampling area (-90 to 90). Valid formats: 2.537, 2°16.2, 2°16'20.5 and 2°16'22".  
(Geographic format; not required)

### *Information about the Temporal Scope:*

- **First date:** First Date of sampling, valid formats: 2007, 2007-08 and 2007-08-30.  
(Date format; not required)
- **Last date:** Last Date of sampling, valid formats: 2007, 2007-08 and 2007-08-30.  
(Date format; not required)

### *Other information:*

- **Characteristics:** Any special characteristics relevant for the uploaded file. Specify the characteristic name and the Value.  
(Editable List; not required; multiple entries possible)

### **3. How to add a new datatype?**

It is not possible to add a new datatype to the Marine Data Archive yourself. You have to contact the administrator of the MDA by sending an e-mail to [mda@vliz.be](mailto:mda@vliz.be). In the mail you have to motivate your request and describe the purpose of the datatype in a text. Also the extra attributes can be mentioned.

## 4. MDA Quality Mark

The MDA quality mark describes the Data Repository quality criteria of the MDA. This section contains also the terms and conditions that apply to the use of the MDA and its services, offered by VLIZ. By accessing or using the site, you agree to be bound by the terms and conditions set forth below. In case of problems or questions, please contact [mda@vliz.be](mailto:mda@vliz.be)

### Mission

One of the main tasks of the Marine Data Archive (MDA) is to map the research data of marine scientists. The online Marine Data Archive offers individual scientists, research groups or project participants the possibility to archive and share their data files within a selected group of people. The MDA makes it possible to store data in a fully documented way, including all necessary metadata (= data on the data). Although the focal point in this is marine research data from Flanders and Belgium, it is not limited to it.

### Intellectual property

All text, lay-out, images (including without limitation pictures, drawings and sketches) and data are protected by copyright and other laws, as well as international conventions ("intellectual property"). Copies, adjustments and/or alterations of any Intellectual Property (uploaded data, images ...) are prohibited without prior permission of the rightful owner of the information, unless stated or agreed otherwise (*stated: "conditions of use"; "agreed": in memoranda of understanding, data policy agreements, project-descriptions, ...*)

### Procedures for quality management

Archiving (even after data become publicly available) does not automatically imply other data management activities such as quality control or integration of the dataset(s) in online searchable databases.

Data in the 'shared' and 'public' archive will however be considered prime targets for these activities. Either the data provider or VLIZ can initiate communication on this. For data stored in the 'private' archive, the initiative for this can only be taken by the data provider.

VLIZ will never start quality control or integration without informing the data provider, and such initiatives will never be taken if they do not comply with the data policy agreement.

### Long-term perspectives

The development and maintenance of the MDA is an institutional activity. One of the key-activities of the data centre is to archive datasets and to ensure their long-term existence.

### Archiving criteria

The Marine Data Archive provides three workspaces for each user: private, shared and public. Archiving of a file can be done in either of these workspaces. For each file, a specific data type can be selected. Each data type has a number of compulsory and non-compulsory metadata fields, describing the file. Processes and procedures for archiving are described in the manual.

### Responsibility in giving access to the Archive

Access to the Archive is regulated through an account-based registration procedure, managed by VLIZ. Access can be given on different levels (read-only, limited writing, full writing; see manual) and to different folders, depending on the needs and wishes of the user(s) or user-group. Granting or denying (limited) access of a user to a certain part of the MDA is always decided in consultation with the users(group) and the data providers.



## **Using and citing the data**

Data and associated metadata can easily be downloaded from the MDA website. Access to the data is restricted through an account-based registration procedure. Each file in the MDA has received a unique identification and url, which can be used to refer to the data and as a citation.

## **Integrity of the data**

Next to storing the processed data, it is also possible to store the raw data and the programme(s) needed to view the data or process the raw data. Back-ups of each file are stored at different locations on physically separated media. The link between the data and the associated metadata is kept at all times.

## **Authenticity**

For each uploaded file, information on both the submitter and the original author of the file is saved. This makes it possible to keep track of the origin of the file. Next to the name of the submitter, the name of the corresponding institute is also a mandatory field, making traceability easier.

## **Code of Conduct**

### ***Legal framework***

VLIZ holds the right to investigate the content, origin or destination of the uploaded data, when we suspect that (part of) the communication is related to illegal or improper activities, or if the authorities give such an order. In case of illegal or improper content, VLIZ will immediately remove this information and deny the further use of the MDA to the responsible person.

VLIZ will not start quality control or integration of the data without informing the data provider, and such initiatives will never be taken if they do not comply with the data policy agreement.

In case access is denied due to improper use, one will still be able to recover all the previously uploaded information from the MDA.

### ***You agree that you will not:***

- Post or deliver any unsolicited advertisement, promotional materials, junk e-mail, bulk e-mail (also known as "spam"), chain letters, surveys or contests, or family or holiday pictures.
- Post or deliver any advertisement or solicitation via the MDA to buy or sell any products or services, or engage in commercial activities and/or sales.
- Post or deliver, or provide links to, any postings containing material that could be considered harmful, obscene, pornographic, indecent, lewd, violent, abusive, profane, insulting, threatening, tortuous, harassing, hateful or otherwise objectionable.
- Post or deliver, or provide links to, any postings containing material that harasses, victimizes, degrades, or intimidates an individual or group of individuals on the basis of medical condition, religion, race, ethnicity, sexual orientation, gender, age, or disability.
- Post or deliver, or provide links to, any postings containing defamatory, false or libellous material.
- Post or deliver information that you know is false, misleading or promotes illegal activities or conduct that is abusive, threatening, obscene, defamatory or libellous.

- Post or deliver any posting that infringes or violates any Intellectual Property or other right of any entity or person, including, without limitation, copyrights, patents, trademarks, laws governing trade secrets, rights to privacy, or publicity.
- Post or deliver any posting to that you do not have a right to make available under law or contractual or fiduciary relationships.
- Impersonate another person or entity or falsely state or otherwise misrepresent your affiliation with a person or entity, or adopt a false identity if the purpose of doing so is to mislead, deceive, or defraud another.
- Use the MDA in any manner which could damage, disable, overburden, or impair or otherwise interfere with the use of the MDA or other users' computer equipment, or cause damage, disruption or limit the functioning of any software, hardware, or telecommunications equipment.
- Attempt to gain unauthorized access to the different workspaces of the MDA, any related website, other accounts, computer system, or networks connected to this Service, through hacking, password mining, or any other means.
- Obtain or attempt to obtain any materials or information through any means not intentionally made available through this Service, including harvesting or otherwise collecting information about others such as e-mail addresses.

You are solely responsible and liable for postings delivered to the MDA using your account. Any violation of these provisions can subject to immediate termination of the use of the MDA.

VLIZ reserves the right to investigate and take appropriate legal action in its sole discretion against anyone who violates this provision, including without limitation, removing the offending communication from the MDA and terminating the use of the MDA of such violators.

#### ***Limitation of liability***

Under no circumstances, VLIZ will be liable for:

1. any incidental, consequential, or indirect damages (including, but not limited to, damages for loss of profits, business interruption, loss of programs or information, and the like) arising from the use of, or inability to use the MDA, or any information or transactions provided on the MDA, or downloaded from the MDA, or any delay of such information or service
2. incorrect or erroneous information on the MDA website, nor does it give the right to a financial compensation
3. the (temporarily) disfunctioning or failing of the service
4. any actions of those who violate this policy which may cause harm to the owner of the data or other third party users

VLIZ holds the right to modify this agreement at any time. The modified agreement will be posted on the MDA website (mda.vliz.be) and will automatically come into force 30 days after this initial announcement.

***Due to the nature of the Internet environment VLIZ cannot guarantee that violation of this policy will not occur and therefore will not be held liable for harm caused by any such violation.***