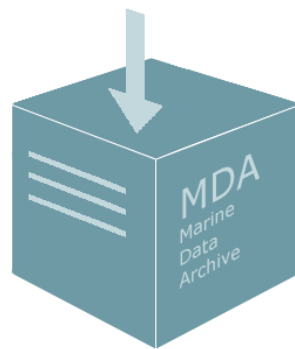


User Manual for the Marine Data Archive (MDA) version 2.2



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Marine Data Archive

Introduction

The Marine Data Archive (MDA) is an online repository specifically developed to archive data files in a fully documented manner. The MDA can serve individuals, consortia, working groups and institutes

1. to manage data files and file versions for a specific context (project, report, analysis, monitoring campaign)
2. as a personal or institutional archive or back-up system
3. as an open repository for data publication

The 1.0 version was upgraded in 2016 in order to improve the archiving and management process. A first upgraded version 2.0 was launched in May 2016. Version 2.2 can be accessed online: <http://mda.vliz.be>

Concept of new version

The new version 2.2 adds the following functionalities to version 1.0:

1. Search on the files stored in the Data Archive
2. Description tool: add the same metadata to a set of files using templates
3. Bulk upload for files and folders
4. Perform actions on a selected set of files
5. Optimized version management: group files without duplicating

1. Getting started

1.1 Access the Archive

The archive is an online but secured data system. Each user needs to register to access the archive.

Registration: <http://mda.vliz.be/account.php>

The user will receive a confirmation of the approval of the account. At this point the user has access to a private folder, the public folders and a general shared folder in the Marine Data Archive. To request access to another shared folder or create a new shared folder the user needs to contact mda@vliz.be.

1.2 The structure

The MDA is a set of folders and files linked to user activities.



Free search: Fysico-chemie

FOLDER TREE VIEW

- NIOO-CEME Monitoring Taskgroup
- NIOO-CEME Spatial Ecology
- NIOO-Microbial Ecology
- NIOO-Terrestrial Ecology
- NSBP
- O&M Data Archief
 - Quarantine
 - Bewerkte databestanden
 - Datarapporten
 - Metadata
 - Originele databestanden
 - Diversiteit habitats
 - Diversiteit soorten
 - Ecologisch functioneren
 - Fysico-chemie**
 - Hydrodynamiek
 - Morfodynamiek
 - Tools
- O&M Datarapportages
- O&M Projecten
- O&M Projectmanagement
- O&M T2009 data (private)

FILE PROPERTIES VIEW

Files	Type	Datatype	Dataprovider	Archive date
Sedimentkarakteristiekwal.zip	zip	Geographic data	INBO - Instituut voor Natuur- en Bos	2016-04-14
NOD en CBOD voor 2010.xlsx	xlsx	Lab Instrument data	OMES	2016-03-21
2014 verzamelstaat 10-minuutgemiddelde Definitief.xlsx	xlsx	General	RWS - Rijkswaterstaat	2015-08-14
2012 verzamelstaat 10-minuutgemiddelde Definitief.xlsx	xlsx	General	RWS - Rijkswaterstaat	2015-08-14
2013 verzamelstaat 10-minuutgemiddelde Definitief.xlsx	xlsx	General	RWS - Rijkswaterstaat	2015-08-14
Biota_2015.zip	zip	Lab Instrument data	RWS - Rijkswaterstaat	2016-06-28
inbiota2014_levering_aug2015.txt	txt	Biotic data	RWS - Rijkswaterstaat	2015-08-04
inbiota2014_sept2015.txt	txt	Biotic data	RWS - Rijkswaterstaat	2015-09-01
inbiota_11.dia	dia	Biotic data	RWS - Rijkswaterstaat	2014-02-10
inbiota_2013.dia	dia	Biotic data	RWS - Rijkswaterstaat	2014-05-15
inbiota_bot_2011.dia	dia	Biotic data	RWS - Rijkswaterstaat	2014-02-10
moneos2012bi_micro.dia	dia	Biotic data	RWS - Rijkswaterstaat	2014-02-10
moneos_bodem2012-2013.dia	dia	Lab Instrument data	RWS - Rijkswaterstaat	2014-08-22
MONEOS_DONAR_1990-2008chemie.zip	zip	General	RWS - Rijkswaterstaat	2011-02-07
MONEOS_DONAR_2010chemie.zip	zip	General	RWS - Rijkswaterstaat	2011-06-01
Scanmetingen_Troebelheid_westerschelde2015.zip	zip	General	RWS - Rijkswaterstaat	2016-03-15

FILE VIEW

Submitter: Goffin Annelies
 Submit date: 2014-02-10 14:00:49
 Archived by: Goffin Annelies
 Archive date: 2014-02-10 14:00:49
 Author(s): RWS - Rijkswaterstaat
 Dataprovider(s): RWS - Rijkswaterstaat
 Data type: Biotic data
 File size: 728.88 KB
 Path: O&M Data Archief/Originele databestanden/Fysico-chemie/
 Summary: microverontreiniging in bot en mossel data 2011
 Start Year: 2011

FOLDER TREE VIEW

FILE PROPERTIES VIEW

The root folders and subfolders are structured in a tree view:

Root folders:



Private folder

This is a private domain for the user. No one else has access to it.



Public folders

These folders are a public domain. All files under these folders are automatically accessible by everyone with access to the Marine Data Archive. However it is not always required to log in in order to download files from these folders. Data files can also be made publically available by means of a direct link for download. An example is the access to data files published under a DOI ([4. Archiving versus data distribution](#)). Contact mda@vliz.be if you want more information regarding this subject.



Shared folders

Registered users can request a shared domain to manage data files between project partners, consortia or at institutional or department level. Shared folders can have different and multiple access rights depending on the purpose of its use ([1.3 Access Rights](#)).

Ex: the coordinator (write full right), invites partners (write limited right) to centralize their data files on the archive and invite the financiers to follow-up the progress (read only)

Subfolders



Quarantine folder (5)

Each root folder has a quarantine folder. This folder is a temporary destination for uploaded files. In the quarantine folder users will describe the data files [using templates](#) and archive the data files when finalized. Data files stay available until 6 months. In case these files are not described within that period, the user will be notified that files will be removed. The number of the data files still in the quarantine folder is highlighted between brackets.



Subfolder

The root folders in the archive can consist of one or more subfolders depending on how the user manages the folders.



Empty folder

This is a folder with no content (yet). This can be part of a predefined structure or indicate that the folder can be removed.

1.3 Access Rights

There are three levels of controlled access to the folders: **read only**, **write limited** and **write full**. Access is granted on the root folder and applies automatically to all subfolders and files stored under this folder. A user can have thus different access rights depending on the root folder he visits.

The Access rights regulate the different actions a user can perform. These actions are listed in an [action bar](#) and are represented by an individual icon.

Group	Icon	Action	Read Only	Write limited	Write full
Explore & Download					
		Search for files	Y	Y	Y
		View files & metadata	Y	Y	Y
		Download files, folders and fileset(s)	Y	Y	Y

Manage					
		Group in fileset		Y	Y
		Upload new version		restricted to own files	Y
		Create new folders		Y	Y
		Delete files & folders		restricted to own files& folders	Y
		Edit folder metadata		restricted to own files & folders	Y
		Edit metadata for a file, fileset or template		restricted to own files & folders	Y
		Move files & folders		restricted to own files & folders	Y
Archive					
		Upload files		Y	Y
		Create Template		Y	Y
		Apply Template		Y	Y
		Archive files		Y	Y

2. User activity

To be able to use all functionalities offered in the archive, it is important to manage & describe the files in an efficient way. The traceability and usability of a file highly depends on how the files and folders were managed and described. The more standardized and completed the metadata fields are the more representative the search result in the Archive will be.

2.1 Explore, share & Download

A user or manager can explore the content of the Archive to create an overview of the data files that were archived within a project, for a department or specific year, or to be able to download a specific file or selection of files from the Archive. The following actions are linked to the exploration and download in the Archive.

2.1.1 Search for files

A user can always see the file properties in the [file properties view](#) by clicking on the file. Even though only a set of standard metadata fields are shown, this information enables the user to decide if this data file is what he is looking for. To see all the metadata or to select the unique URL to the file in the archive, the user can select 'view metadata'.



View metadata: Select a file and click on 'view metadata'.

The user can also search on the metadata of the files. He selects a folder in the root structure and goes to the search functionality in the action bar. At this stage the user has different options. (See 2.3.2)

Free search: one word or a combination of words (*use " " to search for the exact string combination*)

Predefined search fields: data provider, submitted by me, period...

The search result is a list of files and its attributes in the [file view](#). The search result is totally depended on the completeness of the metadata fields. The user can perform actions on all or a set of files from this result list: download, create filesets, move, delete, ,...

Within the search result a user can decide to sort the result list based on the header of the list: Dataprovider, Archived date, Type, Files. In this way he can use the sort functionality in support of the search.

2.1.3 Download

A registered user can download a file, a folder or fileset from all folders he has access to. The user selects the items he wants to download.



Download file(s) and/or fileset(s)



Download folder

2.1.4 Share

The user can share a unique link to a file or fileset with a partner or colleague with access to the folder where the file or fileset is archived. Select the file and pick 'view metadata'. This metadata overview includes a [direct link](#) to the file.

http://mda.vliz.be/mda/directlink.php?fid=VLIZ_00000106_1439540306

2.2 Manage your Archive

2.2.1 Manage Folders

Each user can manage his data files as he prefers. Users can define the structure of the folder in the [folder tree view](#) using actions below.



Add New Folder: Create subfolders in your root directory. Specify a clear folder name and give a short description of the context.



Delete Folder: Folders can only be deleted if empty.



Edit Folder: Modify or edit the name and description of a folder.



Move Folder: Move a folder and its content to a destination of your choice.

2.2.2 Manage Files

To perform an action on a file or several files, the user needs to select the file(s). Actions that are allowed according to the access rights are visible in the [action bar](#). The user can also select an action with a right click on the mouse. A new functionality is "group files". This action enables the user to link archived files under a theme such as PhD, report, project without duplicating them. The fileset is made downloadable as a zip-file.



Delete File(s): Delete file(s) from the MDA. If the file is deleted, it is not available anymore.



Upload New Version: The user can upload a new version of a file. This can be a replacement or an extended version of the file. The version management will be upgraded in the MDA version 2.2.



Edit File Metadata: Modify or Edit the metadata of the selected file, fileset or Template. Click on 'Save Changes' to save your modifications.



Move file(s) to another folder: The Move File action allows the user to move the selected file, fileset or template to another folder. Pick a new destination from the list.

2.2.3. Group files in a fileset

In order to link files under a context without duplicating the files in the archive (project, report, product, analysis,...), the function 'group in a fileset' was added.



Group in Fileset : The user can link a set of files. Files are not duplicated.

The screenshot shows a dialog box titled "GROUP IN FILESET". It contains a "Select existing fileset" dropdown menu and a "New fileset" button. Below these is a "Summary of selected fileset" label. At the bottom, there are "Cancel" and "Add files" buttons.

The user can select two or more files and group them in a fileset. In case the fileset already exist, the user can select this fileset. A description of the fileset appears below.

In case the files need to be grouped as a new fileset, the user selects 'new fileset' and is redirected to a form to create a new fileset.

The screenshot shows a form titled "GROUP IN FILESET" for creating a new fileset. It includes the following fields and elements:

- Fileset name: A text input field.
- Destination folder: A dropdown menu.
- Dataprovider: A text input field.
- Email Dataprovider: A text input field.
- Condition of Use: A text area with a resize handle.
- Summary: A text area with a resize handle.
- Number of files to be linked: 2
- A note: Underlined items are required.
- Buttons: Cancel, Reset, and Save.

2.3 Archive data files

With the Marine Data Archive, VLIZ offers an online, though secured domain to save data files in a quick, but well-documented manner. Archiving data files is a three step procedure: upload, describe & archive.

2.3.1 Upload

The user selects a folder under which he wants to upload files and selects Upload. The uploaded files are automatically saved in the quarantine (orange) subfolder. The files stored under a quarantine folder are NOT archived because they lack sufficient metadata to be accepted as an archived file. This quarantine folder is a domain where the user can describe the data files before archiving. The quarantine folder can be managed by the user the same way as a root folder. The files in this folder stay available for 6 months. The submitter of the file will be notified when the files exceed the residence time of 6 months before they will be deleted.



Upload files: drag the file(s) from your computer into the upload form. The file(s) will be saved in the [quarantine folder](#) of the selected root folder. In Chrome and Opera the user can drag and drop folders. The content of the folders will be uploaded.

2.3.2 Describe

In order to archive the files, the user needs to add a minimum of information. The more standardized and completed the metadata fields are, the better the search result will be. The user can add metadata for an individual file or simultaneously for a selection of files using [a template](#).



Edit metadata: The user selects an individual file he wants to describe and selects 'Edit metadata'.



Apply Template: The user selects different files where he/she wants to add the same information to, and selects 'apply Template.' The user can choose to pick an existing template or create a new template. The information added to the template will be saved for all the files that were selected. The user is able to use several templates for one file or selection of files ([3.Using Templates to describe your data](#)).

Ex:

Step 1: select files x, y, p and t to apply Template 1 to fill in 'data provider' and keyword 'evaluation report'





Step 2: select files x, z, b and t to apply Template 2 to fill in 'startyear' 'endyear'



Create Template: An empty metadata form will appear. The user can fill in all the required fields or part of the fields and save the Template. The user needs to pick a clear Template name. ([3.Using Templates to describe your data](#)).

When all required fields are added, the data file will be automatically marked. At this stage the user will be able to archive the data file.

Unmarked and marked files in the quarantine folder

-  export_eerstelijnsrapp_golven_2014.xlsx
-  export_eerstelijnsrapp_golven_2014.xlsx
-  export_eerstelijns_deltares.xlsx
-  Golven_2014.zip

2.3.3 Archive file(s)

The files are ready to be archived and will disappear from the quarantine folder to destination folder of your choice.



Archive file(s): The user can archive several files at once in destination folder of his choice. Only the marked files will be archived, even when an unmarked file was selected as well.

3 Using Templates to describe your data.

3.1 Structure of a Template

A Template is a form that enables the user to add information on the file properties or content of the file.

The form displays several attribute fields. Some fields are underlined as they are seen as 'required fields'. This means that in order to archive the files, the minimum of information from these fields is needed. Archiving becomes only possible when these required fields are completed.

The other metadata fields are not required, but the information can be of added value. A user can decide for his project or institute if a field is important in order to be able to search on it, or if information should be added because that information is not available in the file itself.

File properties

Author(s): Author or authors of the file. By default this is the person who uploaded the file. The user should change this if needed.

Data provider: Institute and/or person responsible for the delivery of the data file. This is an important field to search on, it is highly recommended to use a standardized name.

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

Data type: list of 10 data types to select from. Depending on the choice made by the user, the extra attributes in the form will differ.

Summary: A short description of the file content. Can be a maximum of 255 characters.

CREATE AND APPLY NEW TEMPLATE

File properties | Extra attributes | Description

Template name:

TEMPLATE

Author(s):

Dataprovider:

Email Dataprovider:

Condition of Use:

Datatype:

Summary:

Underlined items are required to be able to archive your file(s).

Cancel Reset Save & Apply

Extra attributes

Depending on the choice of the data type, the Template will adapt automatically and display the attributes linked to a data type.

The extra attributes enable the user to store more information on the

- Content Characteristics
- File Characteristics
- Material and methods
- Measurements
- Temporal scope
- Geographic Information

In case a metadata file or document with more information on the datasets is available, the user has the option to link a file to the data file using the [Link file](#) button.

The screenshot shows a web interface for creating a new template, specifically the 'Extra attributes' tab. The dialog has a title bar 'CREATE NEW TEMPLATE' and three tabs: 'File properties', 'Extra attributes', and 'Description'. The 'Extra attributes' tab is active. It contains several form fields:

- Biotic composition:** A dropdown menu with a '+' button.
- Data origin:** A dropdown menu.
- Parameter group:** A dropdown menu with a '+' button.
- Parameters:** A dropdown menu with a '+' button.
- Sampling device:** A dropdown menu with a '+' button.
- Protocol:** A text input field.
- First Date:** A text input field.
- Last Date:** A text input field.
- Sea area:** A dropdown menu with a '+' button.
- Location:** A text input field.
- Coordinate Reference:** A dropdown menu.
- Other info:** A dropdown menu with a '+' button and a text input field.
- Link File:** A text input field with a file selection button ('...') and a delete button ('del').

At the bottom, there is a note: 'Underlined items are required to be able to archive your file(s).' and three buttons: 'Cancel', 'Reset', and 'Save'.

Description

Here the user can store an extended description of the file content. This field can be used to add search terms to the file.

3.2 Data types

Each data file can be categorized under a data type. A user can have a different opinion on the datatype of his file for example: a file with biogeographic information can be part of data type biotic data or geographic data. Remote sensing data products can be described under remote sensing or geographic data. The user is free to decide where he thinks the file belongs. Depending on the choice of datatype the metadata attributes in the template will change.

Currently the MDA has 10 different data types:

- | | |
|----------------------------|------------------------|
| 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. Software-Scripts |
| 5. Geographic data | 10. Documents |

An extra datatype General is offered in case the user wants to describe a data file that includes more than one datatype or in case the datatype of the file cannot be found in the list.

Biotic data:

All data files concerning biotic measurements: Occurrence, Biodiversity, Biomass, Morphometric, Taxonomic information, Stock assessments, Fishing statistics, Behavioral observations,...

In situ Instrument data

Concerning data measured in situ onboard of a ship or from a platform. 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 seismic | Suspended particulate matter | Atmospheric chemistry | Meteorology.
Examples of used instruments are CTD, ADCP, multi beam, single beam, XB, Sea sonar ...

Lab instrument data

Concerning measurements for which samples were analyzed in a Laboratory. These data can include Chemical, Biogeochemical measurements, sediment characteristics,...

Geographic data

Data files under Geographic data are Numeric, Vector or Raster data files. These data can include any kind of thematic GIS data e.g. Bathymetric data, Biogeographic data, Socio-economic data, Height profiles, X-Y_Z data or calculated data products.

Remote sensing

Data files under Remote Sensing can include satellite and airborne data .

Model data

Includes all input and output files used in a modelling activity.

Images and movies

Technical photos or drawings used for research activities. These can include Morphological drawings | Microscopic photos or Image tracking datasets, otolith photos, photos of research sites,...

Software & Scripts

Versions of Software, Scripts or algorithms that can be archived as such or as extra information on the methods used in processing the data of a data file.

Documents

This includes scientific articles, reports, theses, books, maps, journals, poster presentations, work documents or any other publication.

4. Archiving versus Data distribution

Archiving does not automatically imply other data management activities such as quality control or integration of the dataset(s) in online searchable databases. It can however be the first step in facilitating this.

1. The user can choose to communicate on an archived dataset. In this case, VLIZ will create a dataset description in the information system and include a link to the file. At this moment the file is not public, but can be requested for use.

Ex: <http://www.vliz.be/nl/imis?module=dataset&daside=588>

2. The user can decide that his data file can be made publically available. VLIZ will create a metadata record, include a link to the archived file and request a DOI.

Ex: <http://www.vliz.be/nl/imis?module=dataset&daside=5096>

3. The user can decide that the data in the data file should be integrated in existing online data systems. VLIZ will create a metadata record, include a link to the archived file, request a DOI, integrate the data in the system or transfer it to the data managers and add a link for download in the metadata record.

Ex: <http://www.vliz.be/nl/imis?module=dataset&daside=4450>

More questions on these actions: mda@vliz.be