



# EMODnet Thematic Lot n°0 – *Bathymetry – High Resolution Seabed Mapping (HRSM2)*

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## **WP4 : User manual for WPS prototype as part of the Collaborative Virtual Environment (CVE)**

**Internal report**

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# Main window

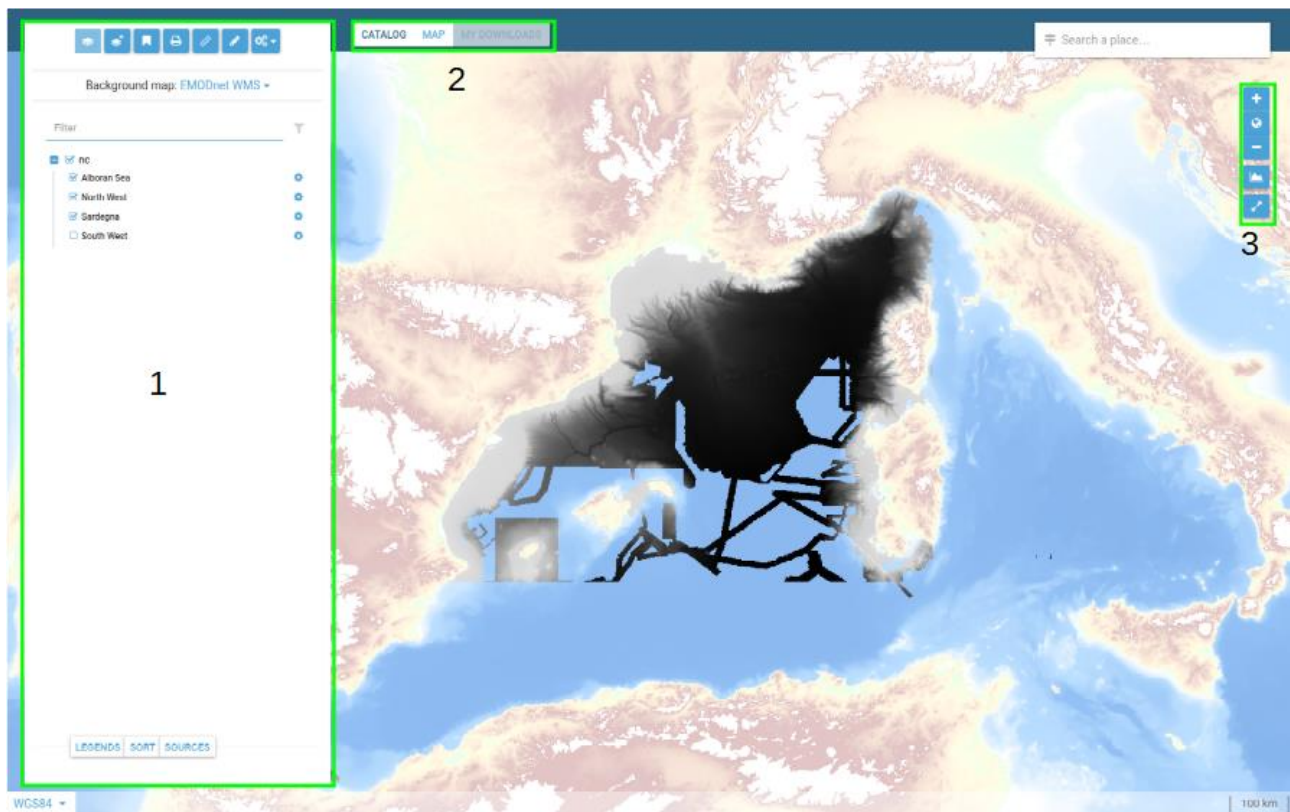
This manual describes the WPS prototype developed for EMODnet Bathymetry as part of the Collaborative Virtual Environment (CVE) providing tools and processing available for DTMs.

Access the prototype through the following URL:

[https://www.ifremer.fr/sextant\\_doc/emodnet\\_bathymetry/api/sardinia.html#/map](https://www.ifremer.fr/sextant_doc/emodnet_bathymetry/api/sardinia.html#/map)

Note: Logon requires registration with MarineID and the prototype is only open for project colleagues.

The main window is designed like the image below.



*Illustration 1: Main Window*

1 : Layers list pannel

2 : Map tab

3 : Zoom and profile tools

## Layers list panel

In this panel, you can see every already viewable layers for this project. There are also some useful buttons. Let's look it a bit further .



## The 'Layer' button

The layer button is the page you have when you access the URL of your project. Here, you can see every layer you can view.

By clicking in the checkbox on the left of a layer's name, you will enable or disable the view of this layer.

You can filter the layers by typing the name of layer in this box :



## The 'Add' button



If you need to add some layers which are not already loaded, you can add them through this button. You can add layers by :

- A WMS service URL
- A WMTS service URL
- A KML file's URL or by uploading a KMZ file

Once you have uploaded your data, a little folder icon should appear. When clicking on it, you will have a list of the available layers. You then have to click on what layer you want, to add them. By clicking on the 'Layer' button, you should now be able to see them in the list.

## The 'Maps' button



With this button you can access several options about the map :

- Restore the default map
- Import from a file
- Save the map : this option allows you to save the different layers you have. The generated file also keep the

## The 'Print' button



This button returns you a render of your results as a pdf. The title you enter in the box meant for isprinted on the top of the map.

## The 'Measure' button



With this tool, you will have to draw a path which can be a polygon. You will get, on the fly, the length and the surface of what you drawn. To end the drawing, you have to double click on the final spot.

## The 'Annotation' button



This tool allows you to put several types of annotations, such as point, line, polygon and text. There is no text shipped with the shapes.

## The 'Processes' button



Here you will find all the processes available for the project on which you are working. To add some process, you will have to ask to the project's maintainer.

## The other components of the main screen

### The top bar

By clicking on the « CATALOG » button, you will access to a list of layers which you can add to the map to view. Be careful, it won't allow you to execute the available processes on them.

By clicking on the « MAP » button, you will be back to the main window, here you can see the layers over the map background.

### Processing

The following processing are available for DTMs.

- Clip
- Contour
- Hillshade
- Slope
- Profile
- Multiraster
- Annotation
- Peak detector

**CAUTION:** This process can be really time consuming, depending on the layer's size you're working on.

Peak detector and annotation have been specifically developed in the framework of EMODnet Bathymetry, as demonstrator for a DTM validation package.

The service is now ready for integrating additional validation tools that will be suggested by the full technical group of the project.



# Processing description

## Generalities

### Inputs

Every field marked as **(required)** need to be filled to start a process.

There are several types of inputs:

- extent : for some processes, you have to pick the geographical extent on which you want it to be executed.  
You can fill it manually by typing the wanted coordinates, or you can use the  button which will provide you an utility to select the extent you want. If you're unsatisfied with the extent you pick, you can click on the  button, which will clear the fields
- inputraster : to execute a script, you will have to select a raster
- output... : this field (mostly required) allows you to select the name of you result

### Outputs

There are several types of output which are not excluding each other.

- the viewable layers : this output is really common, although some processes will not generate a viewable output
- the downloadable files : After a process complete, you may see a « Download » button on the « Execute » button's right.
- Error message : If you see an error message, please check the « Troubleshooting » section

## The available processing

### Clip

This script aims to render a part of layer, selected by a square.

#### Inputs :

- an extent
- a raster layer you have to choose
- an output name (which will be used in the layer tree)

### Outputs :

- a viewable layer

## **Contour**

This script aims to render contour lines

### Inputs :

- an extent
- field\_name : a netCDF's layer, 'elev' by default
- an input raster
- interval : an integer number, which sets up the depth between each contour line

### Outputs :

- a viewable layer with the contour lines

## **Hillshade**

This script aims to render the selected extent with shades.

### Inputs :

- azimuth :
- an extent
- an input raster
- light\_alt
- scale
- z\_factor
- an output raster

### Outputs :

- a viewable layer

## **Slope**

This script aims to display the slope of a hill



### Inputs :

- an extent
- an input raster
- Percent\_or\_Degrees : set to False
- Scale : set to 1
- an output raster


### Outputs :

- a viewable layer

## Profile

This script allows you to draw a polyline

### Inputs :

- vlayer :
  - a « Draw » button : when selected, the first click on the map will draw the starting point, each following click will draw a point and a line between the point you just draw and the previous one. To finish the drawing, you will need to double click, which will draw a final point
  - a « Modify » button : allows you to drag and drop the points you previously drawn, the lines are automatically updated.
  - a  button : delete all the points and lines you drawn
- rlayers : project on which you want this polyline. You can add this polyline to several project by clicking on « Add a value for this input »

### Outputs :

## Multiraster

Return the data from layers where the input line is present. When several layers are available, the script return the more accurate ones.

### Inputs :

- Vector line
- Input raster : you can add layers by selecting « Add a value for this input »

- Output Profile : name of the generated file

Outputs :

- a downloadable csv file

## Peak Detector

Inputs :

- an input layer

Outputs :

- a viewable layer

## Troubleshooting

### Contact

If you need any help , feel free to contact :

- [mickael.treguer@ifremer.fr](mailto:mickael.treguer@ifremer.fr)
- [Benoit.Loubrieu@ifremer.fr](mailto:Benoit.Loubrieu@ifremer.fr)

### Report an issue

If you encounter an issue, please, send us an email, describing how you get your issue. You can describe what you did step by step to get your issue or you can send us the parameters you used. Once we are able to reproduce your issue by our side, we will work on it.

### Known issues

- Scripts with an extent return much more than what you selected => this is under development.