 AquaSafe Workshop Odyssea 

*5-9 March 2018, Crete (Greece)*

1. AquaSafe Installation

To install the AquaSafe Client Desktop access to <http://odyssea.hidromod.com/AquaSafeClient/> and install the programme.

After the installation you may open the application and log in with the following credentials:

User: odysseaplatform

Pass: Cr3t32018

1. Add a new user



Select “Administration controls > Users” and **add** a new user. Define the **username**, the role **Admin**, introduce your mail account, select the language and define your time zone. Then, access to AquaSafe using the username and the password received in your email.

1. Add a new monitoring station



Select “Administration controls > Monitoring stations” and **add a location** from the following list of stations. Fill the fields according to the information present in this table: **Location name** (location), **longitude**, **latitude**, **sampling code** (code) and a short **description** (optional).

|  |  |  |  |
| --- | --- | --- | --- |
| ***Code*** | ***Name*** | ***Latitude*** | ***Long*** |
| syro | Syros | 37.438 | 24.9411 |
| haif | Haifa | 32.822454 | 35.007042 |
| vale | Valencia | 39.44203 | -0.31128 |
| said | Marrocos | 35.112 | -2.2929 |

1. Download



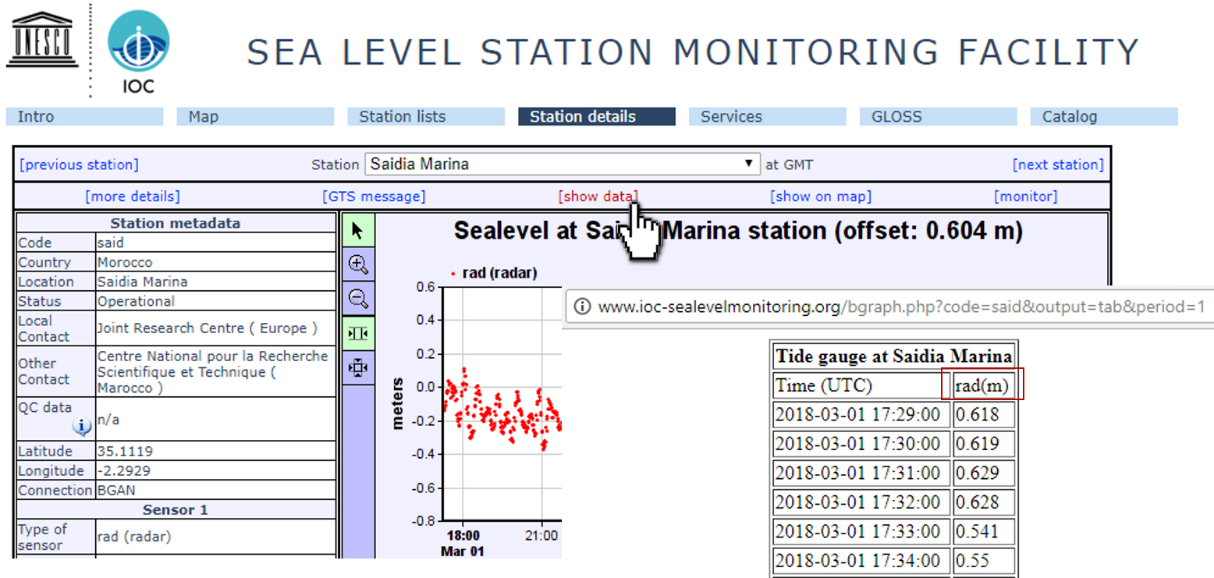
Select “Administration controls > Operational downloads” and add a **new data source**.

Define the **name** – GLOSS\_YourName (ex., GLOSS\_User), a short **description** (optional), the **time zone** UTC and click Next. Active the **Enable task scheduling** and **schedule by time** bottoms and insert the following **cron scheduling**: **0 0 \* \* \* ?**. Define **2-day** for the hindcast and **0-day** for the forecast. Next, select the **downloader** HTTP Downloader, the grid (in the location XXXXX) and then the **address** <http://www.ioc-sealevelmonitoring.org/bgraph.php>?. After create a **New File**, define the **name** (the code of your station; ex: said) and a short **description** (optional) and in the next window, select the **enumerator** “Simple Enumerator”. Next, **click to add new item** and insert: ***code=codeofstation&output=tab&period=1*** (ex: ***code=said&output=tab&period=1***), and click Next twice.

In the following window, click **add storage data**, define the:

* 1. Storage Type – StorageTimeSeries;
  2. Extractor – Unesco Sea level station Time Series Extractor;
  3. Model parameters – AquaSafe Grid Parameters.

Next, click **add parameter**, select on **parameter** – sea level in the list of parameters and in the field **File Parameter** insert the legend of the table when you click in “show data” of your station (in the sample: **raw(m)**).



Select the monitoring station created in the step 3 and click in **Finish** twice.

1. Create a model



Select “Administration controls > Calculation Models” and add a **new model**. Define the **name** and a description (note that the name of the model should be explanatory with the structure name of the model + provider + Region + resolution, ex: MOHID Hidromod – Thracia Sea – 1 km).

Were created 3 demo models that can be download here:

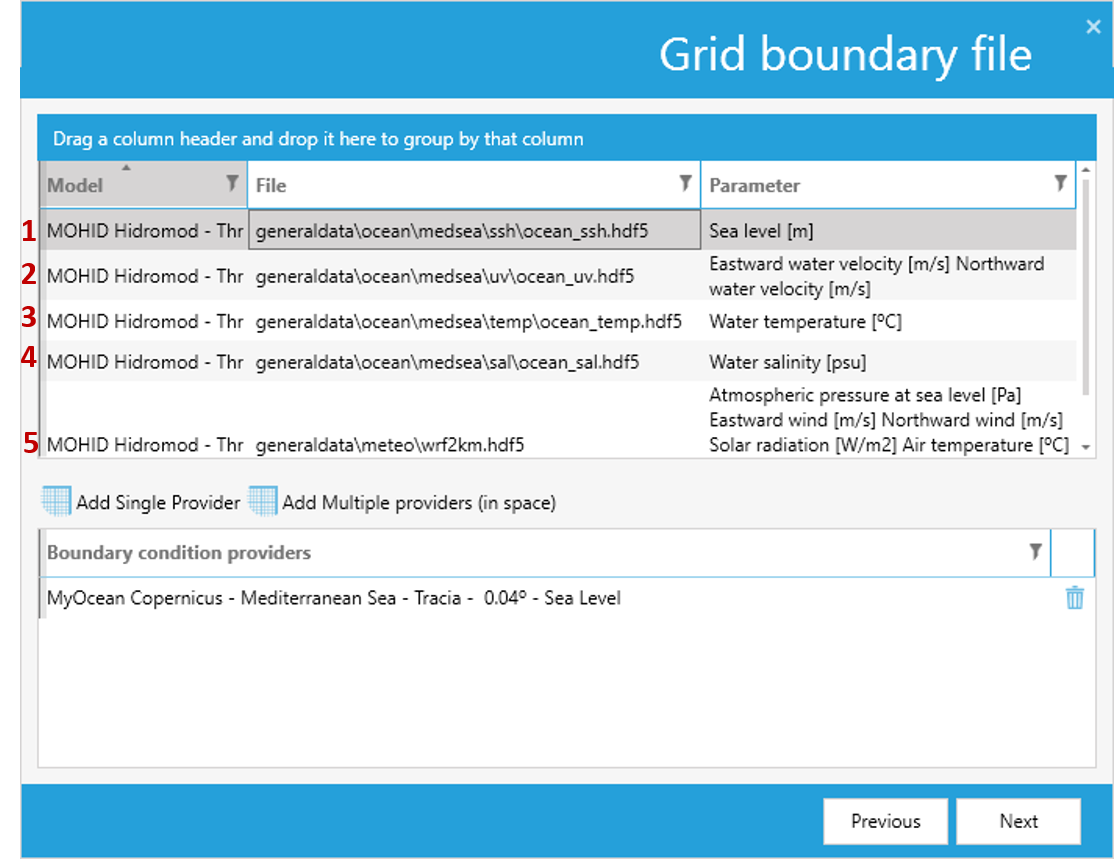
Odyssea.Hidromod.com\Greece2018\public\Mohid\_Case1.zip -> Spain area

Odyssea.Hidromod.com\Greece2018\public\Mohid\_Case2.zip -> Morocco area

Odyssea.Hidromod.com\Greece2018\public\Mohid\_Case3.zip -> Israel area

Then, define the **Model Importer** – MOHID Water Mpich, select the folder of the **Project** and click in the cloud icon at the right. The project is correctly import when “Successful import” is write in the import log. In the following windows:

* 1. Rename the levels names of the model and write a description for each level (option);
  2. Select the model executable – Model MOHID;
  3. Attribute the boundary Time Series; click in each time series and click in Add timeserie;
  4. Attribute the grid boundary files; click in each time series and then Add Single Provider:
     1. CASE<X> - CMEMS - <area> - SSH;
     2. CASE<X> - CMEMS - <area> - Currents;
     3. CASE<X> - CMEMS - <area> - Temperature;
     4. CASE<X> - CMEMS - <area> - Salinity;
     5. GFS - Case <X>.



* 1. Select the time series to save in AquaSafe by assigning to each one a parameter and a monitoring station;
  2. Select the grid files to save in AquaSafe. In this window, the extraction of time series from a grid can be done;
  3. Active the enable task scheduling bottom, define the hindcast and the forecast and schedule by time: insert the cron scheduling: 0 0 \* \* \* ?;
  4. The final settings include the options to:
     1. Run the model using all data or not;
     2. Run the model in hotstart (give the spin up duration);
     3. Cancel the model after a determine time;
     4. Active/enable the debug mode.

1. Execute the model



Select “Administration controls > Task manager” and find the configured model. Select the model and click Run now.

1. Create a netcdf



Select “Administration controls > Reports” and create a new **Report**.

Define the **name**, a short **description** (optional) and the time zone of your country. Then, in **Report Creator** select **Export best datasets as Netcdf** and in the conversion **Convert NetCDF program** select the executable **ConvertHDFToNetCDF**. Next, select the Grid and Finish the report.

* 1. Geoserver

Geoserver is a open source service that allow to display geospatial data. And example can be found in:

http://odyssea.hidromod.com/Greece2018/public

1. Report (PDF or excel)

The reporting configuration and publication progress involve four step:

* 1. Create the template in excel. Select “Administration controls > Report template”, define a name for the template and a description (optional) and upload an empty template in excel. As an example, we will import a template in Excel format (open the file ReportTemplate\_v2.xlsx). This example template contains graphics, an image and a table in the first sheet. The second sheet will receive the data sources from AQUASAFE and the third sheet contain the data analysis. As a rule, the sheet that receives data sources cannot be the first one and it should be empty (cannot contains graphics/ tables/images or calculations).



* 1. Create the report. Select “Administration controls > Report” and create a new report clicking in Report. Then give a name for the report, description and select the time zone of your country. Then, select the Report Creator – Generic Excel report and in Template choose the template create in the previous step. Next, select the time series for your report and give the location in the excel, according to the information on the top: Number of the Sheet|Letter of the column|Number of the Row (ex., 2|A|1).

Note that each extracted time series has a column of dates and values. Thus, in the present example, the time of the time series is written in column A and the values in column B of the second sheet, in the second row.



For the sample report, select the following time series and insert respective location.

|  |  |
| --- | --- |
| **Data source** | **Location** |
| *GLOSS - Sea level Station Monitoring Saidia [SaidiaMar] Sea level [m]* | 2|D|4 |
| *Hydrodynamic Model - Casa 2 - Level 2 Saidia [SaidiaMar] Sea level [m]* | 2|B|4 |

Configured images in the platform can also be inserted in the report. And, in the last step of the report configuration you can choice create the report in excel format or pdf format (the user can select the export page range). In this sample, active pdf format and the range (1-2).

* 1. Create the list of distribution. Select “Administration controls > Distribution list” and Create a new Distribution List. Define a list name, an optional description and select the user/users to whom you want to send the report and provide other contacts (beyond users) to whom you want to distribute the report.



* 1. Create the publication of your report. Select “Administration controls > Publications” and click Add Publication. Give a name, select the type of publisher Hidromod Host and write a description (optional). Active the option Schedule by time (active by default) and insert the cron scheduling: 0 0 \* \* \* ?. Then, define the hind cast (2 days) and forecast (3 days) to produce your report.



1. Create a line chart

To create a line chart, double-click in “Users controls > Line charts”. Define the data to display in the chart using the pencil icon display in the tool box on the top right of the chart. The menu contains the fields to fill: chart title; hindcast and forecast or start date and end date; Select time series; Calculate time series; select message groups. Click **Select time series** and choose the time series to display and click ok. Then, you can change the colour or unit of the time series. The legend position and the formatting of the charts can be changed with a double click in these elements.



1. Create a Report in AquaSafe

To create a line chart, double-click in “Users controls > Report”. Using the option with a pencil icon, the user can generate reports configured in the platform.



1. Create a table (Dashboard)

To create a dashboard, double-click in “Users controls > Dashboard”. Using the option with a pencil icon, the user can configure your information table in the platform.



The next sample was create using this control and display the last information for each place (meteorology, waves and level, measures or forecast):

