

CLEWs

Hands-on lecture 1: Setting up the infrastructure

Useful links:

- 1) [Discussion forum](#) for CLEWs

Activity 1 – Install the interface

N.B. In order to carry out this activity and all the ones that follow in the course, you need a computer that has **Windows 10 Operating System. In case you have no access to a computer with Windows 10, please contact immediately the course administrators through the above-indicated discussion forum.**

Through this activity, you will install the browser-based interface you will be using for creating models throughout the course. The interface is called MoManI (which stands for Model Management Infrastructure) and it is used for creating OSeMOSYS models. It opens in your browser, but only you have access to the models you create with it. You have access to those models only on the computer where you install MoManI.

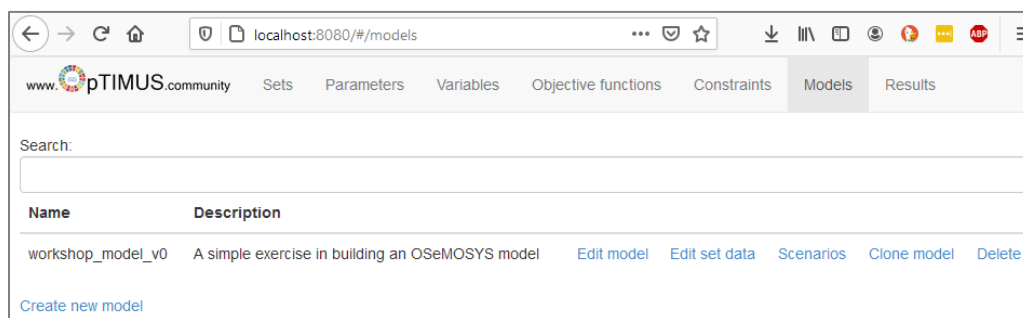
Together with the interface, a template model will be installed, which you will use in the next hands-on sessions and slowly develop to create a CLEWs model.

To install MoManI and the template model file:

1. Download the .zip installation folder (named momani v1.10.zip) from [here](#).
2. Move the .zip folder from your download folder to a folder where you have administrator privileges. This may be for instance inside the folder: **users** → ***name_of_the_user*** or any other folder you prefer.
3. Unzip the folder.
4. Open the unzipped folder and find the file '**deploy.cmd**'. Right-click on it and '**Run as administrator**'.

binaries	2021-06-03 15:50	File folder
data	2021-06-03 15:50	File folder
execs	2021-06-03 15:50	File folder
exported	2021-06-03 15:50	File folder
scripts	2021-06-03 15:50	File folder
config.ps1	2018-04-15 14:40	Windows PowerShell ...
deploy.cmd	2017-02-17 21:03	Windows Command ...
export.cmd	2017-02-17 21:04	Windows Command ...
osemosys.zip	2019-07-19 19:50	zip Archive
RunDeploy.ps1	2018-05-16 18:10	Windows PowerShell ...
RunExport.ps1	2017-02-17 21:04	Windows PowerShell ...

- In the black window that appears, **press 'y'** to say 'Yes' both times you are asked.
- Wait for the installation window to close automatically (**do not interrupt it!**). MoManI will be installed, together with the template model you will be using in the next hands-on sessions. If you run into any problems during this process, contact the course team at the forum indicated at the top of this file.
- Go to <http://localhost:8080/#/models> to confirm that MoManI and the initial workshop model file have been uploaded correctly. If so, the page will show the same as in the figure below.



The initial workshop model template already contains some inputs that we have fixed for you. You will add more inputs on top of these in the next hands-on sessions. The inputs that are pre-loaded concern the SETs (see Lecture 3). They are:

- Set **REGION**: it contains a region called EXAMPLE
- Set **YEAR**: it contains the years 2019, 2020, 2021, 2022
- Set **TIMESLICE**: it contains 4 TimeSlices, SD (summer-day), SN (summer-night), WD (winter-day), WN (winter-night)



- Set **MODE_OF_OPERATION**: it contains one mode of operation called '1'. This basically means that every technology can, for now, only work in one 'mode', where it has a certain input and a certain output with a fixed ratio between the two

The sets EMISSIONS, COMMODITY and TECHNOLOGY contain no inputs for now and you will enter more inputs in the following activities. All the other SETs contain no inputs and will not be used in this course.

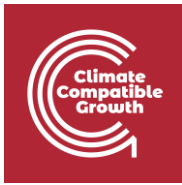
Activity 2 – Set up the cloud account to run the models

Now you have installed MoManI, which is a graphical interface that will help you build your model and input numerical values. However, once your model is ready, you need to run the optimisation, where your inputs and the equations of OSeMOSYS are used to calculate the least-cost configuration of the system. After that, you also need to visualize the results of the optimization. Although MoManI could do both, in principle, we offer here a service that will allow you to run optimisations and visualize results more easily. The service is on a cloud and we will now guide you to creating an account to access the cloud.

1. Go to: <https://www.osemosys-cloud.com>



2. In the page that appears, click **Register**.
3. Enter all information that you are asked (shown in the figure below) and then click **Sign up**



Sign up

Full name .*

Country .*

Email .*

Password .*

8 characters minimum

Password confirmation .*

Language .*

[Sign up](#)

[Log in](#)

- Once you have an account, log in using the email and password you provided in the registration.



Log in

Email

Password

Remember me

[Log in](#)

[Sign up](#)

[Forgot your password?](#)

- Once logged in, click on **New model** to start a new project.



Welcome! You have signed up successfully. ✕

My models

[New model](#)

Id	Name
----	------



6. Name your project, for instance **Workshop_Model** (do not include spaces in the name!) and click **Create model**

Osemosys Cloud (alpha) My models

New model

Name .:

7. Now you need to create a version of the model you just added. Click on 'New version' in the top-right corner, as in the figure. Name your version again 'Workshop_model' and click 'Create version'.

Model created ×

Workshop_model

Versions

Id	Name
----	------

8. Now you are all set for starting modelling. You will pick up your model again in the Hands-on exercise after lecture 3.