



DMDU 2018 Annual Meeting

Training Day Software Installation Instructions

During the training day, there will be a set of hands-on workshops where you can try out various tools and techniques yourself. Three of these workshops will involve live demos of Python libraries. These libraries are SALib, Rhodium, and ema_workbench. ***If you want to participate in the live demos and try these libraries yourself, it is recommended that you install these libraries prior to the training day.***

We suggest the following installation:

The Anaconda distribution – this is a distribution of the Python programming language targeted at scientific computing. Please install Python 3.7, 64 bit. <https://www.anaconda.com/download>

Seaborn – this is a python library that makes various visualizations easier. See <https://seaborn.pydata.org> for details. The suggested way of installing it is by using the package manager that comes with anaconda. Open an anaconda prompt / terminal /shell and type `conda install seaborn`. See the seaborn website for more detailed installation instructions.

SALib – SALib contains a variety of sensitivity analysis techniques. See <https://salib.readthedocs.io/en/latest/> for details. SALib can be installed using the default python package manager pip. Open an anaconda prompt / terminal /shell and type `pip install SALib` (this is case sensitive).

PRIM – PRIM contains the Patient Rule Induction Algorithm which is often used for scenario discovery. It can be installed using pip. Open an anaconda prompt / terminal /shell and type `pip install PRIM` (this is case sensitive).

Platypus-opt – Platypus-opt is Python port of the Java MOEAFramework. It offers support for a wide range of Many Objective Evolutionary Algorithms. See <https://platypus.readthedocs.io/en/latest/> for more details. It can be installed using pip. Open an anaconda prompt / terminal /shell and type `pip install Platypus-Opt`.

EMA-workbench – The exploratory modelling workbench is a collection of tools and methods for performing exploratory modelling with simulation models developed in Python or a range of other simulation packages. See <https://emaworkbench.readthedocs.io/en/latest/> for more details. It can be installed using pip. Open an anaconda prompt / terminal /shell and type `pip install ema_workbench`.

Rhodium – Rhodium is a python port of the MORDM toolkit developed for R. Project scope is similar to the ema_workbench. Detailed installation instructions can be found online: <https://github.com/Project-Platypus/Rhodium/blob/master/INSTALL.md>

In summary, install anaconda first. Next, open an anaconda prompt/terminal/shell and type the following commands.

```
conda install seaborn  
pip install SALib  
pip install Platypus-opt  
pip install PRIM  
pip install ema_workbench
```

If you want to try Rhodium, follow the link provided.

