

# Documentation

(**Note**: The scripts are tested inside a Linux Environment. The .ps1 scripts for Windows users may contain some bugs. Please use .sh scripts if possible.)

## Requirements

---

- The program is tested with **g++ (GCC) 14.1.1 20240522**
- Please **upgrade** when necessary or use the contained **setup-docker.sh**.
- The python script require **pandas** and **matplotlib**.
- Run **setup.sh** (Mac/Linux) or **setup.ps1** (Windows).
- Please select the virtual environment as interpreter.

## Run with Defaults

---

- Run **run.sh** (Mac/Linux) and **run.ps1** (Windows)

## Run with Custom Values

---

- Run **make** inside the /Cpp/ folder
- Run **./main** start\_value step\_count step\_size "../Output/tmt.out"
- Run **python** show.py
  - Add the **Code-block** below to output more plots

(**Note**: There are not many safety features inside the scripts. Errors can be possible.)

## Output

---

The Output can be found in the **./Output/** folder.

It contains **some** examples as plots and a list of **all** measured values.

(**Note**: If using Docker, please remember to copy the output to your host system.)

## Code-block for show.py

---

```
data.reset()
```

language-python

```
data.draw('s_a', 'p_a', 'p', 'Time/s', <n>, <m>)
data.draw('s_b', 'p_b', 'p', 'Time/s', <n>, <m>)
data.draw('s_c', 'p_c', 'p', 'Time/s', <n>, <m>)
```

```
data.save("../Output/<name>.png")
```