**Manual Report to add pdf lines to PostgreSQL table.**

Following three steps are required to complete the task.

1. **Add not exiting points to egon\_etrago\_bus table:**

Use “points\_to\_postgresql.py” code to upload “egon\_etrago\_line\_pdf\_points” table to PostgreSQL. The name of “egon\_etrago\_bus\_new” in python code needs to be changed to the name which the data need to be uploaded, like “egon\_etrago\_bus”.

1. **Fill all required data to “egon\_etrago\_line\_pdf.csv”**

Use below python codes in sequence to upload required data to “egon\_etrago\_line\_pdf.csv”.

* 1. egon\_etrago\_line\_HV.py
  2. egon\_etrago\_line\_transfer\_buses.py
  3. egon\_etrago\_line\_MV.py
  4. egon\_etrago\_bus.py

1. **upload “egon\_etrago\_line\_pdf.csv” data to PostgreSQL relevant table:**

use “line\_to\_postgresql.py” code to upload “egon\_etrago\_line\_pdf.csv” to relevant table like “egon\_etrago\_line”.

Also modify below points before uploading:

* 1. Extra columns, which has extra information is not necessary to be uploaded to PostgreSQL table and the data up to column AA is required, other columns from the csv file should be deleted.
  2. The value in column name v\_ang\_min is -infinity, this need to be manually changed in csv file to “ ‘-infinity “.