

This document gives a description of how the TEG process is implemented in NeqSim. The model is developed using the NeqSim process unit operations such as streams, absorbers, heat exchanger, etc. The model is set up according to the process flow diagram in Figure 1. The names of the unit operation (eg. “TEG absorber”) given in the figure is used for accessing the unit operation from Java and Python code.



In Appendix 2 the TEG process is opened in Python, new input parameters are set and calculations are run. The calculations can be run in a single process or as a thread where multiple calculations can be run at the same time. When a calculation is run in a single process the program will wait for the process to converge before further calculations can be done.

Appendix 1:

The following Java process script is used to set up the TEG process and store the process in the binary file TEGprocess.neqsim.

<https://github.com/equinor/neqsimprocess/blob/master/src/neqsimprocess/glycol/TEGprocess.java>

Appendix 2

Python process script

<https://github.com/equinor/neqsimprocess/blob/master/example/TEGprocess.py>

To run the script:

1. Install the neqsim package in python. (pip install neqsim)
2. Download the TEGprocess.neqsim file to your local computer (process files stored [here](#))
3. Modify input conditions and run calculations