

User Input Manual

CHG 4343 Column Calculator

Thank you for using the column calculator, created for the calculation and optimization of an absorption column. Before running this program, there are a few important things to remember.

1. The column calculator is a sophisticated program that uses options available in a later version of Java. It is therefore necessary to use JDK 8.0 and above as the compiler in order to run the column calculator. A link to where this software can be downloaded is provided below. Simply choose your operating system from the list entitled Java SE Development Kit 8u191 and follow the instructions to download the software. The program cannot be compiled with earlier versions of Java, such as the Eclipse 4.5 compiler.

https://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html?fbclid=IwAR0kiQQnYtuf4xa7y3Q8M5Nt_WXAZNZ9ftEdwb3y_cnD1pJxPWzjmUV0gSY

2. Once compiled, the program may be run from the class entitled RunMe. The user can then view the column calculator through the interactions pane of the desired Java run program.
3. The program has the ability to use either user inputs or .txt files for the column inputs. The test files for the equilibrium and system inputs are entitled equilibrium.txt and inputs.txt respectively.
4. The system input file must be written in the following order with the corresponding value immediately following the “=”. The equilibrium inputs must be left in increasing power order, with zeros in place for any powers not present in the equation up to the highest power. As with the system inputs the coefficients must be written immediately following the “=”. Any additional files should be saved to the folder holding the code.

```
Inlet gas flow ==#  
Starting gas mole fraction ==#  
Inlet liquid flow ==#  
Starting gas mole fraction ==#  
Recovery value ==#  
Packing =PACKTYPE
```

5. When inputting a new file for either the equilibrium data or the system inputs, it is necessary to use the full name of the file, including .txt. Otherwise the program is unable to find the file.

Thank you again for using the column calculator!