RHESSys Setup

Today we will be running RHESSys on our computers so that we can see how we interface with the model and what outputs it can produce.

**Set up a folder on your computer for RHESSys training files**

Set up new folder called *rhessys\_training*

Put the *rhessys\_training.rmd* in the folder

**Navigating to a folder in windows through Linux**

First, here are some basic commands for navigating the command line in Linux

*ls* # See what is in your current folder

*cd <subfolder name>* # Move down a folder

*cd ..* # Move up a folder

In Linux, change the directory by navigating to a new folder

*cd ../../mnt/c/Users/morefolders/rhessys\_training*

**Downloading and compiling RHESSys**

To download RHESSys from Github, type:

*git clone https://github.com/RHESSys/RHESSys.git*

You should now see RHESSys folder in your directory. You will now need to navigate to the directory with the RHESSys makefile in it, which is used to compile the RHESSys.

*cd RHESSys/rhessys*

Within git (and github), RHESSys model code is organized by branches. To determine which branch you are on, type:

*git branch*

For today’s session, we will need to you the model version on the *develop* branch. To change branches to *develop*, type:

*git checkout develop*

Now we need to compile RHESSys. If you have not compiled RHESSys previously, you can simple type:

*make*

Wait for the program to cycle through lots (lots!) of lines. This can take several minutes and sometimes pauses for a while. As long as you don’t get an error, everything is still going fine. Once you see the command prompt return, you can type *ls*. If you see a file with rhessys7.3, then you are good to go.

If you have previously compile RHESSys and either got an error or you are simply trying to compile a new version, you have to empty the RHESSys objects folder before compiling again. These objects get recreated by the makefile and can sometimes cause errors if you don’t start fresh each time.

*rm objects/\*.o*

After clearing the objects folder, you can type *make* again.

**Install Rtools40**

**Load R libraries**

Open R or Rstudio

We will be using a

On the console window in R, type:

*install.packages(devtools)*

*remotes::install\_github(repo = “RHESSys/RHESSysIOinR”, ref = “develop”)*