

WORKSHOP EXERCISE – NEXT STEPS

To continue to use this exercise on your own computer later, or to share this resource with a colleague, you will need to do the following:

1. Obtain the datasets (NEX gridded data, ARRM station-based data, and observed station-based data), the code files, and the sample excel and powerpoint files by **emailing or downloading?** [who? Ashwini? Anne?].

Put all the code in one directory. Put all the data in another directory. And make a third directory for output; it will be empty until you run the program. Write down the names of the directories so you can enter them when the program asks for them.

2. Install R and R Studio on your computer. These two programs are free.

If you have a Mac, you will need to download R from here:

<https://cran.rstudio.com/bin/macosx/>

And R Studio from here: <https://www.rstudio.com/products/rstudio/download/>

You can use the instructions here: <https://www.r-bloggers.com/installing-r-on-os-x/>

If you have a PC, you will need to download R from here: <https://cran.r-project.org/bin/windows/base/>

And R Studio from here: <https://www.rstudio.com/products/rstudio/download/>

And follow the instructions here: <http://a-little-book-of-r-for-bioinformatics.readthedocs.io/en/latest/src/installr.html>

3. Install the **ncdf** package that you need to open the gridded files. To do this, open R Studio. Go to the “Packages” tab and click on “Install Packages”. The first time you’ll do this you’ll be prompted to choose a “CRAN mirror” server. Just choose the location closest to you. Type “ncdf4” and you will see it appear in a list. Select it, make sure “Install dependencies” is checked, and click “Install”. Wait until it is installed. That’s it!
4. Install Panoply on your computer. It is also free. You can find it here: <https://www.giss.nasa.gov/tools/panoply/download/>
To run Panoply, you may also need to update your Java Runtime Environment. You can do that here (click on “Free Java Download”) <https://www.java.com/en/>
5. Make sure you have Microsoft Excel and Powerpoint installed on your computer as well. These programs are not free, but many institutions already have a licence you can use.

Questions about the climate projections? Contact Anne Stoner anne.stoner@ttu.edu

Questions about the observational data? Contact Ranjini Swaminathan ranjini.swaminathan@ttu.edu