DSM2 Learning Series: DSM2 Planning Studies

Session 1: Input pre-processing, running DSM2

The goals for this session include:

1. Running the pre-processor for DSM2 planning studies
2. Plotting input with Jupyter notebook
3. Running DSM2 planning studies

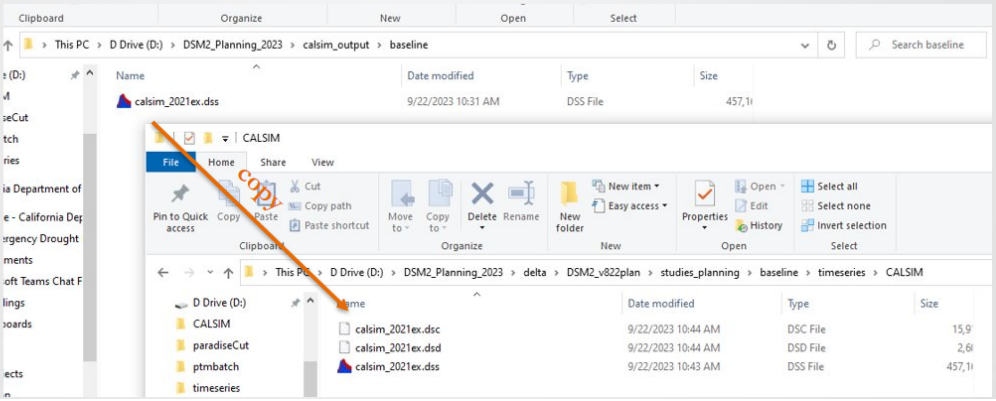
Instructions

For the baseline and alternative scenarios, copy the CalSim output file for the scenario into the DSM2 planning study folder:

Running the DSM2 Pre-processor

baseline scenario: copy CalSim output to DSM2 folder

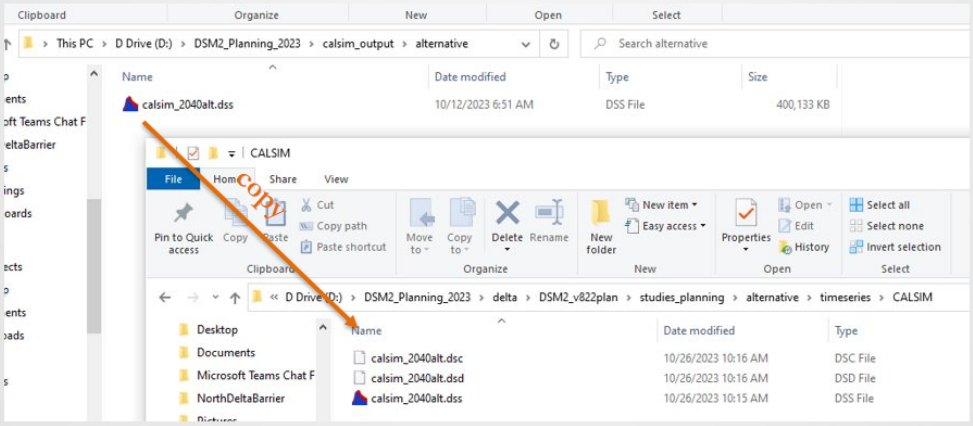
- For the baseline scenario,
  - Copy the CalSim output file for the scenario into the DSM2 planning study folder



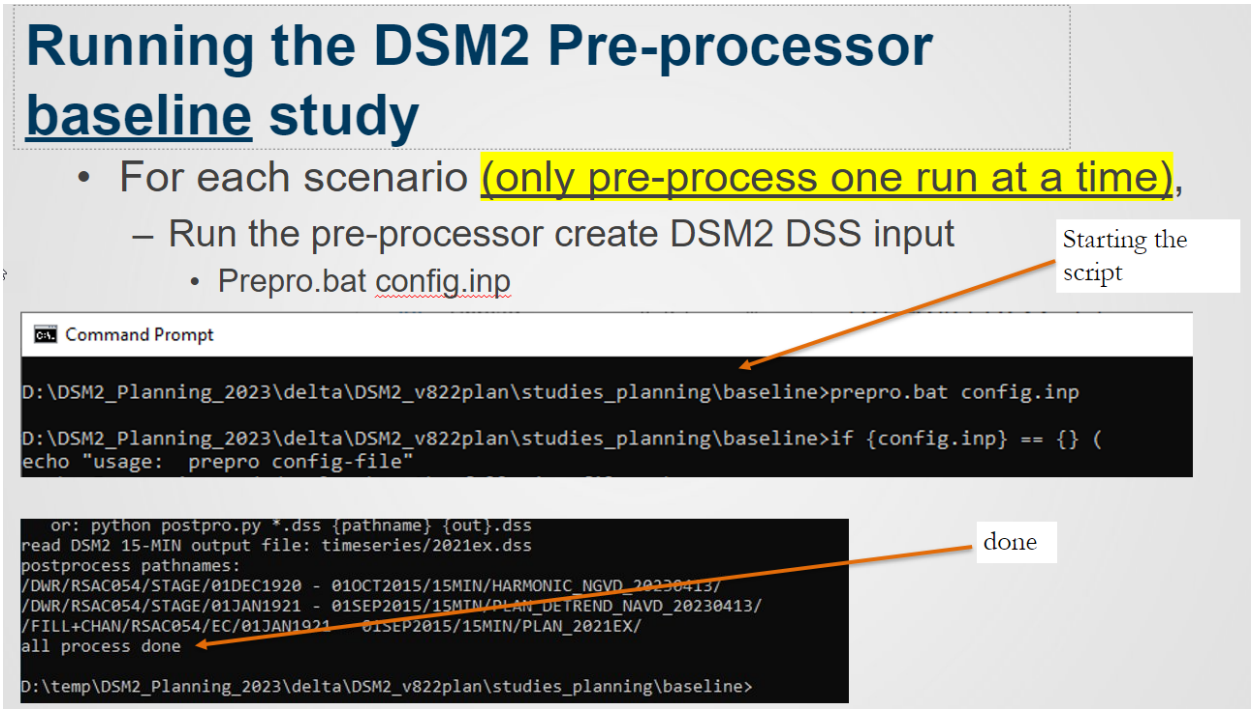
Running the DSM2 Pre-processor

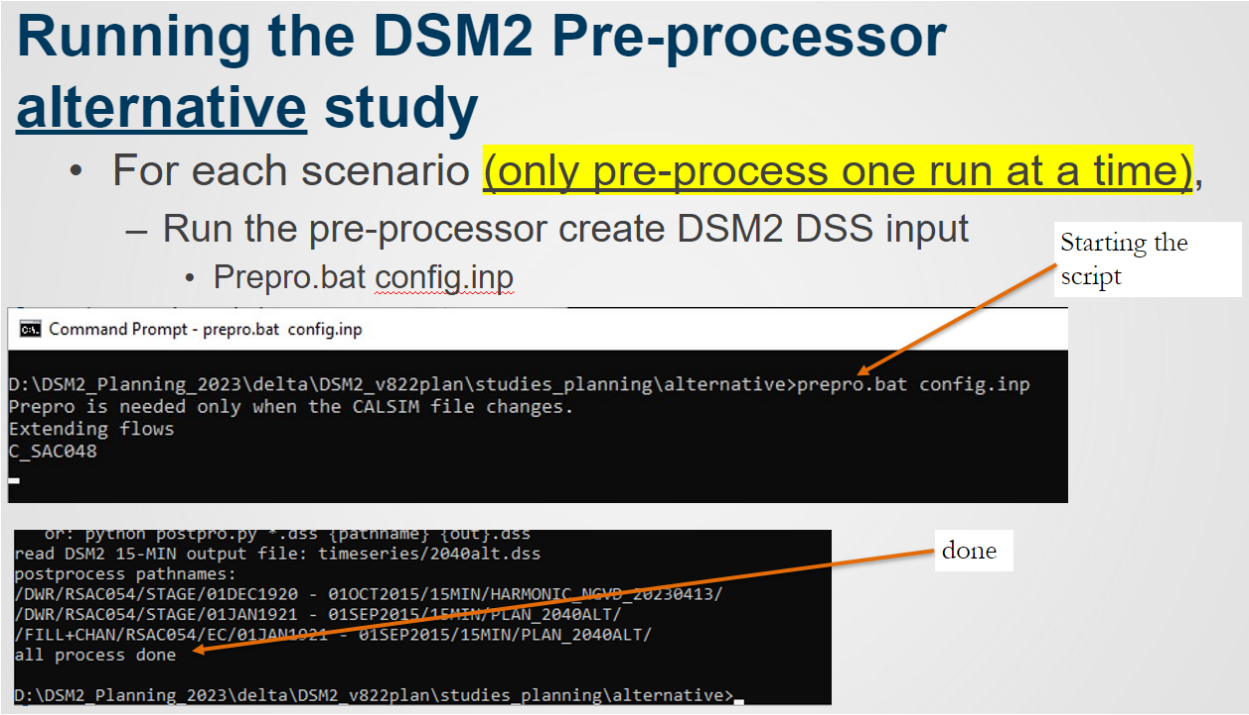
alternative scenario: copy CalSim output to DSM2 folder

- For the alternative scenario,
  - Copy the CalSim output file for the scenario into the DSM2 planning study folder



For the baseline and alternative scenarios, execute the following command:
prepro.bat config.inp





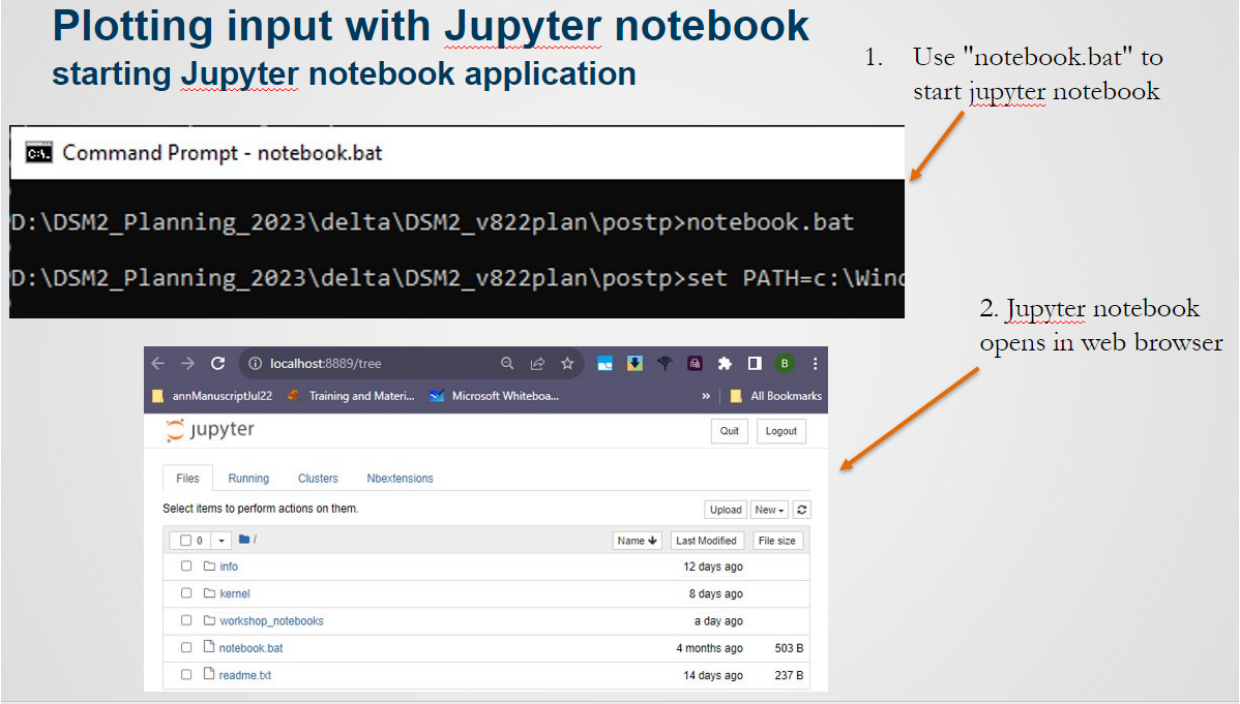
Jupyter notebook for plotting model input

Notebook filename	Purpose
2021_example_bnd.ipynb	Compare DSM2 boundary inputs (flow, stage, EC) from multiple scenarios.

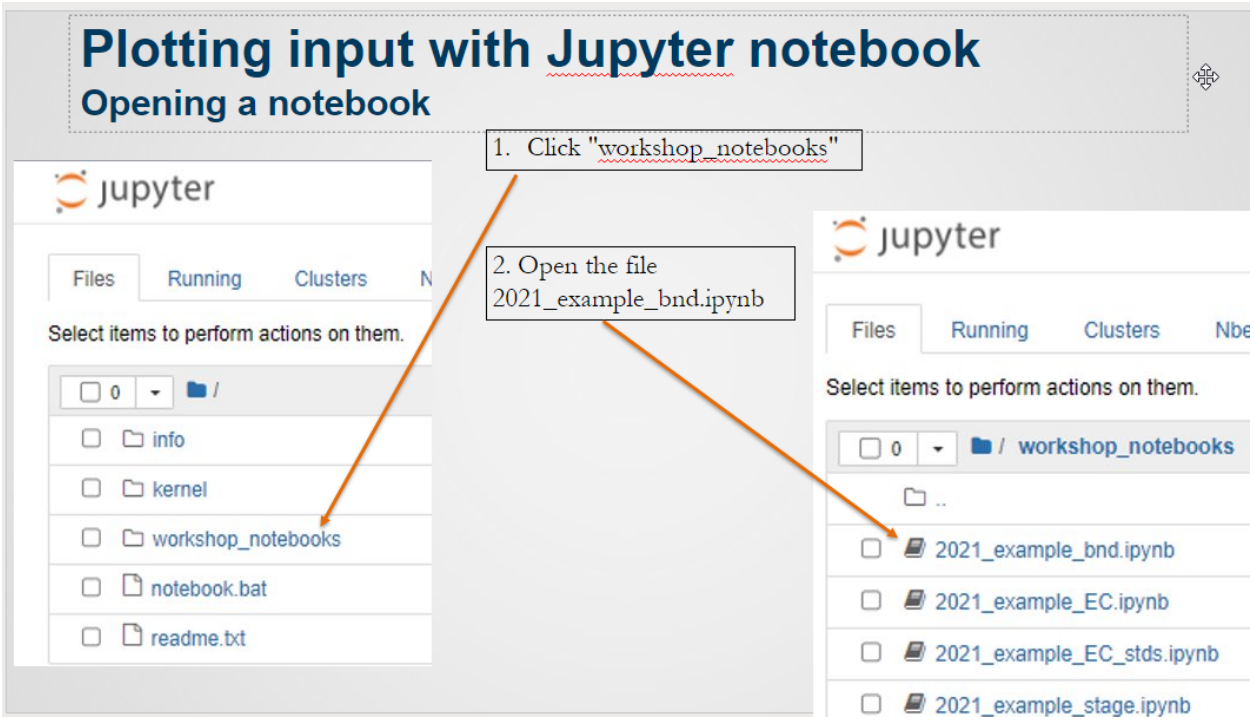
Plotting input with Jupyter notebook

Start the jupyter notebook application, by executing the batch file “notebook.bat”.

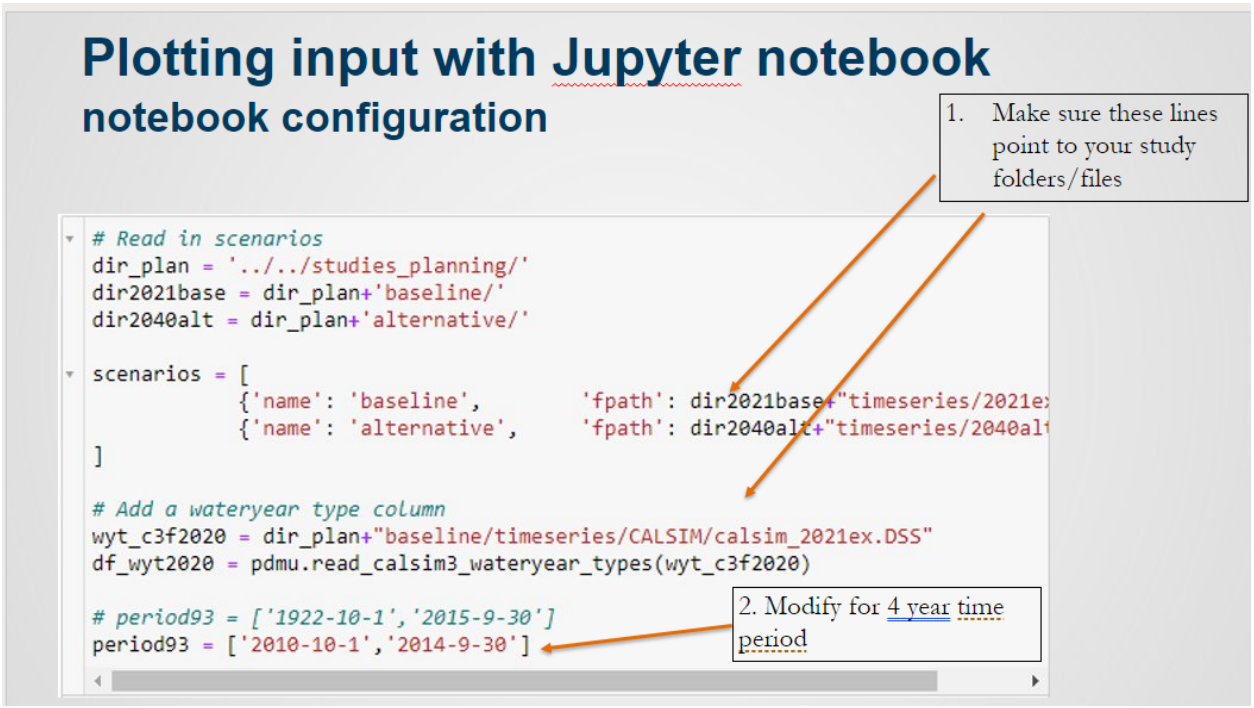
The Jupyter notebook application will open in your web browser.



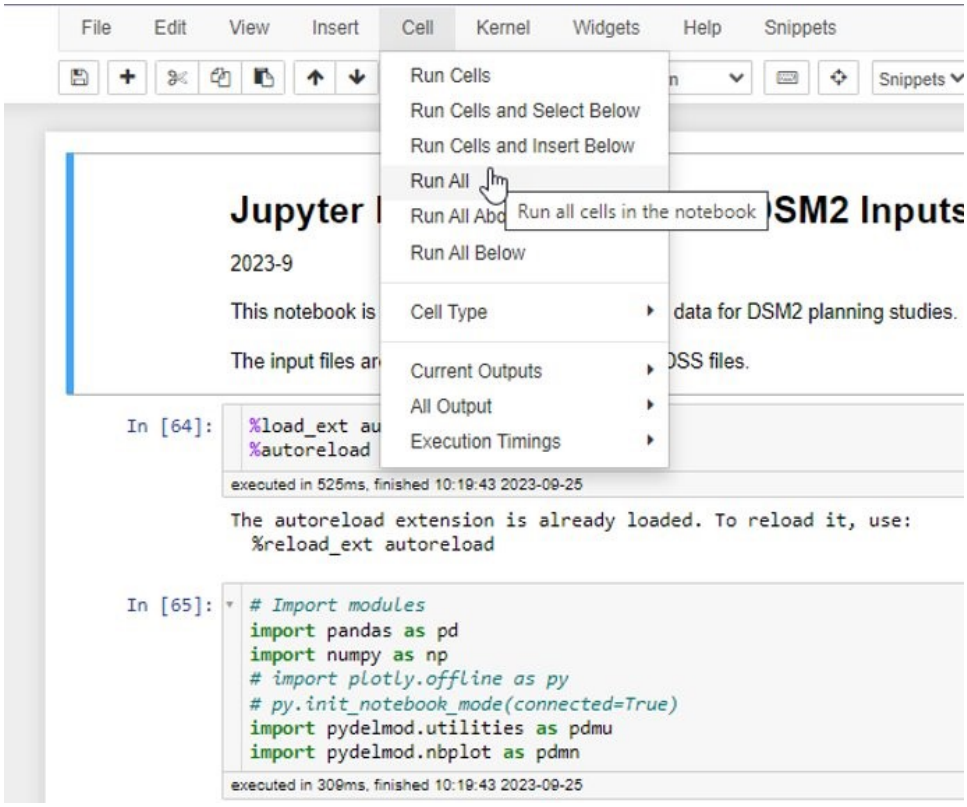
1. Click “workshop_notebooks”
2. Open the file *2021_example_bnd.ipynb*
3. Edit or add lines to point to your study folders



Make sure the notebook is loading data files from the correct locations.
Make sure the variable “period93” is set to the 4 year time window from 2020-10-1 to 2014-9-30.



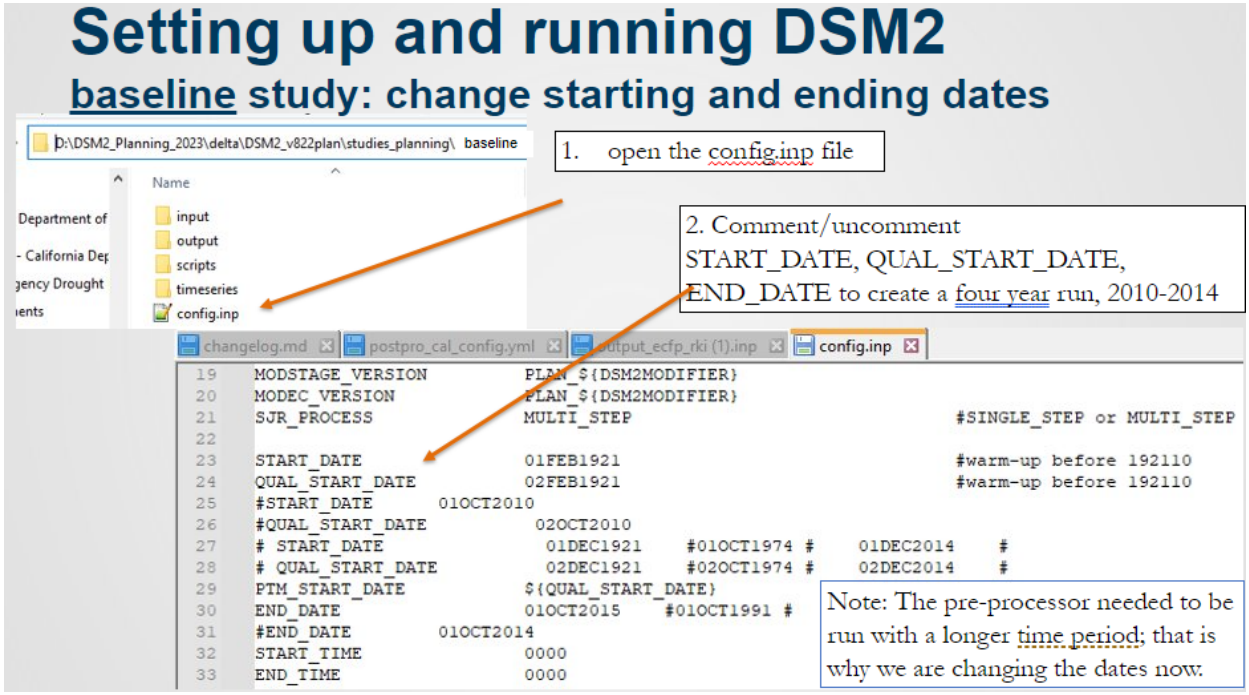
To run every cell in the notebook, select *Cell-Run All*.

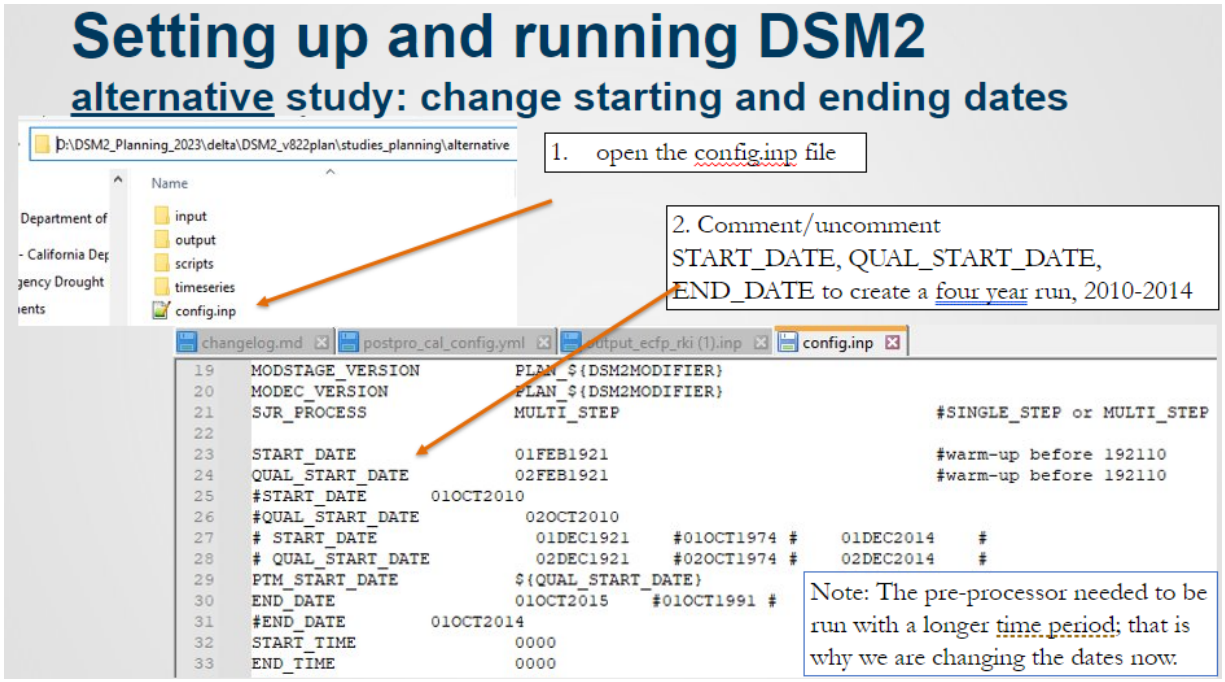


Some plots allow you to select a different variable or station, using the dropdowns.

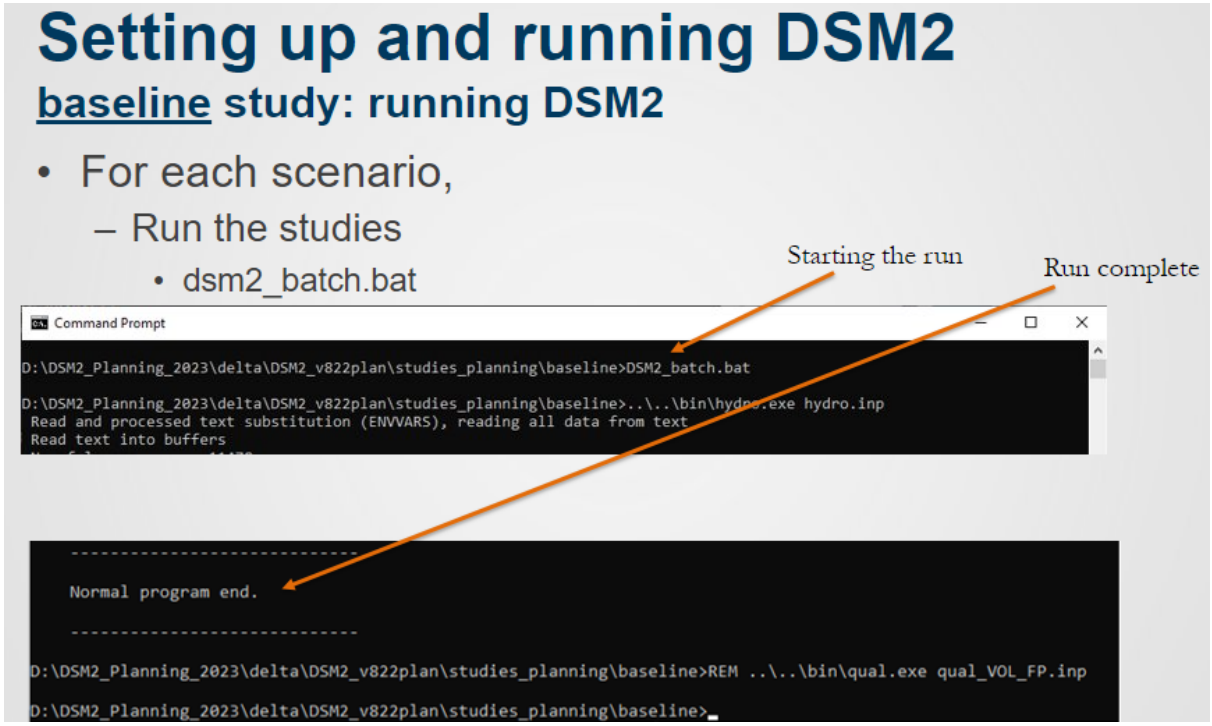
Running the studies

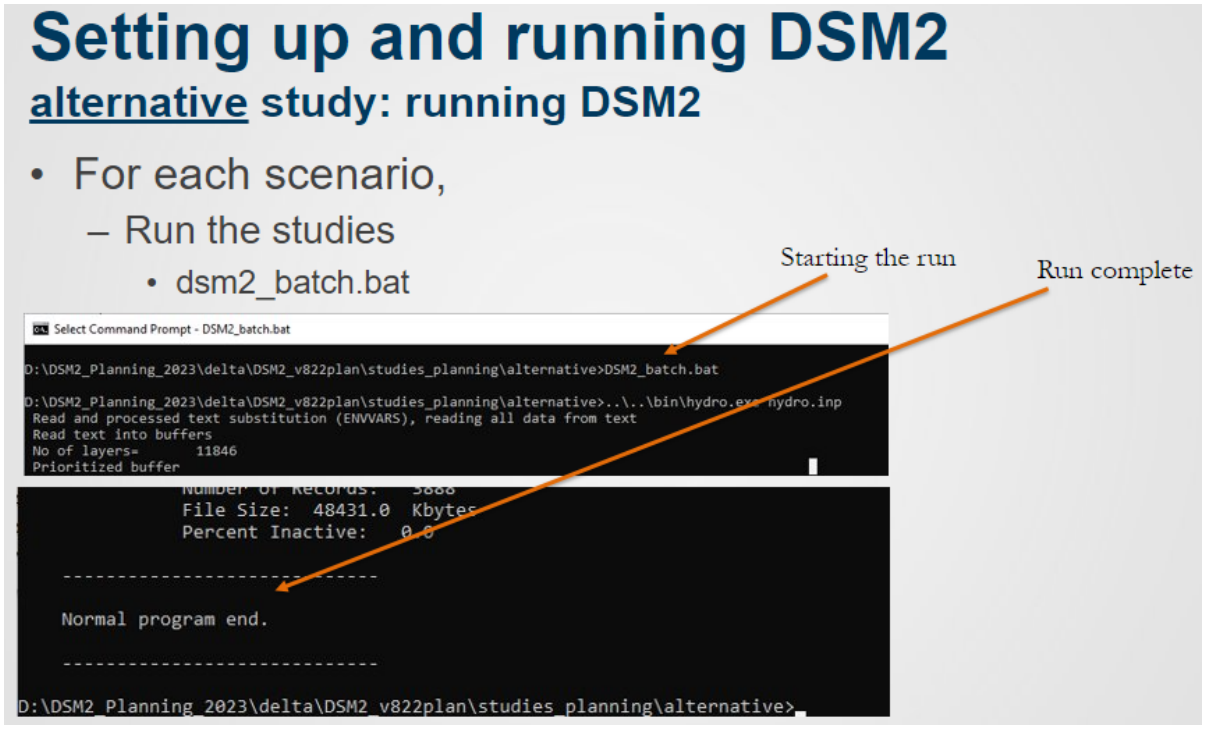
For the baseline and alternative studies, open the config.inp file and comment/uncomment the following lines to define a four year simulation period: START_DATE, QUAL_START_DATE, and END_DATE.





Run the studies, using a command prompt window.





DSM2 outputs are available for download

If you would prefer to download the DSM2 outputs rather than running that models, you can do so here:
https://data.cnra.ca.gov/dataset/dsm2-example-planning-study-output