**Script for Kansas test case KANSAS01 (Part 2)**
*ATM419/563 Spring 2022*

---

**Verification of KANSAS01: START in your own KANSAS directory**

---

**** PART A –Network-averaged statistics***
* create new subdirectories, and move files

```
mkdir KANSAS01
mkdir KANSAS01/postprd
mkdir KANSAS01/wrfprd
mv wrfout* KANSAS01/wrfprd
cd KANSAS01
```

• IF YOU DO NOT HAVE WRF OUTPUT FROM KANSAS PART 1, do this:

```
cd wrfprd
cp $LAB/KANSAS/wrfout_d01* .
cd ..
```

* Get required scripts

cp **$LAB/KANSAS/SETUP_MET.TAR** .
*unpack this file [you are in your KANSAS/KANSAS01 directory]*

* Step (1): **execute run_unipost_frames**. The script already edited (see PPT)

```
bash run_unipost_frames
```

*[if this fails right away, make sure you created subdirectory* postprd*]*

* Step (2): **execute MET6_run_ASCII2_ASOS.sh**. Script already edited (see PPT)

```
bash MET6_run_ASCII2_ASOS.sh
```

* Step (3): **execute network_plots.sh**. See PPT for more details

```
sh network_plots.sh
```

* Step (4): **run python program** [after setting environment with 'dopython' cmd]

```
dopython
python read_output3.py
```

*[The python program should bring up a graphics window with a 4-panel plot. Click the close box when you are ready to continue. Output saved as four_panel.png]*
[Ignore warnings like "libGL error: No matching fbConfigs or visuals found
libGL error: failed to load driver: swrast"]

**** PART B – Station-based statistics***

* Step (1): 10 m wind speed analysis: bias plot (see PPT). The directory `STATIONS/wind` is created and populated

sh run_stations_F10M.sh

ls STATIONS/wind *(see new files are there)*

sh sum_and_average_F10M.sh > input_for_grads

sh grads_plot.sh *(this creates the GrADS script stations.gs)*

launch GrADS, open kansas01.ctl
**[file is in directory above $pwd. open ../kansas01.ctl ]**
../terrain.gs *(runs script located one directory level up)*
stations.gs *(plots station locations with mean bias info)*

[see PPT for more analysis]

* Step (2): 2 m temperature analysis: bias plot (see PPT). The directory `STATIONS/temp` is created and populated

sh run_stations_T2M.sh

ls STATIONS/temp *(see new files there)*

sh sum_and_average_T2M.sh > input_for_grads

sh grads_plot.sh *(this creates the GrADS script stations.gs)*
*(and overwrites the older one…)*

launch GrADS, open kansas01.ctl
**[file is in directory above $pwd. open ../kansas01.ctl ]**
../terrain.gs *(runs script located one directory level up)*
stations.gs *(now temperature bias is plotted)*

[see PPT for more analysis]