



### **CESM Postprocessing**

David Bailey
National Center for Atmospheric Research

### Quick look tools.

module load neview

module load nco

module load netcdf

ncview file.nc

ncra files.nc files\_avg.nc

ncdump -h file.nc | less

ncdiff file1.nc file2.nc diff.nc

## Some canned plots.

```
cd /glade/u/home/dbailey/polar_tutorial
  ice_north.ncl / ice_south.ncl
  ice_north.py / ice_south.py
module load ncl
ncl ice_north.ncl
```

## Some canned plots (2).

Open a geyser window:

execgy

module load python/2.7.14

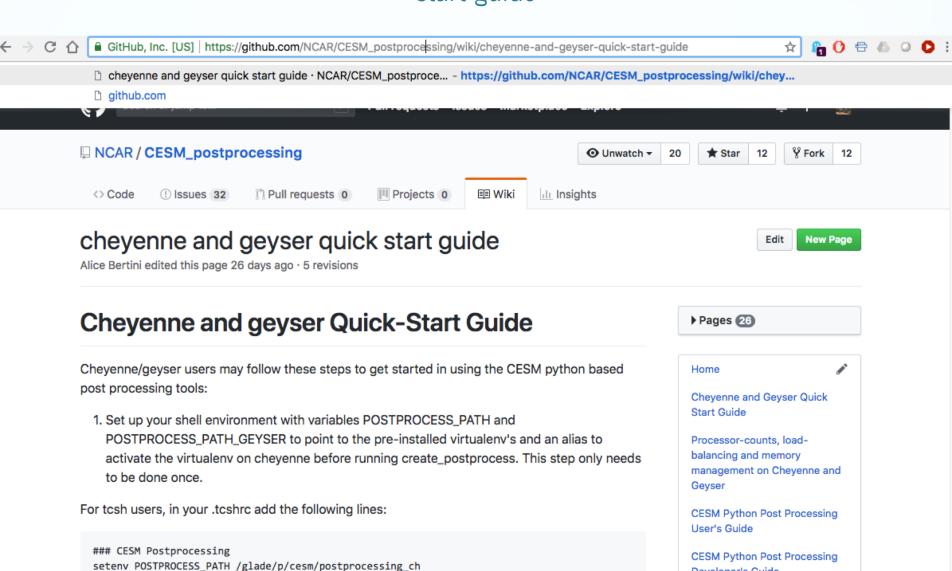
Open python virtual environment:

ncar\_pylib

python ice\_north.py

\* Note that Python 2.7 only works here.

#### https://github.com/NCAR/CESM\_postprocessing/wiki/cheyenne-and-geyser-quickstart-guide



setenv POSTPROCESS\_PATH\_GEYSER /glade/p/cesm/postprocessing\_geyser

alias cesm pp\_activate 'source \$POSTPROCESS\_PATH/cesm-env2/bin/activate.csh'

setenv PATH /glade/apps/contrib/virtualenv/12.0.7:\$PATH

Developer's Guide

Git Workflow

CESM Python Post Processing

# CESM Postprocessing Quick Start

cesm\_pp\_activate

create\_postprocess --caseroot \$CASEROOT

Edit env\_postprocess.xml for standalone case.

Edit evn\_diags\_(\$comp).xml file.

qsub (\$comp)\_averages

Check logs in logs subdirectory.

qsub (\$comp)\_diagnostics

\* I will have ascii instructions in:

/glade/u/home/dbailey/polar\_tutorial/polar3.txt and polar4.txt

# CESM Postprocessing Exercise

- 1. Set up standalone post-processing for your first model case. Note, you have only 5 days in your simulation.
- 2. Run the diagnostic suite for your component of interest (atm, ice, Ind, ocn).
- 3. Copy the html files back to your laptop and use a web browser to look at them.

# CESM Postprocessing Exercise cont

But Dave, I only have 5 days! That's o.k. because like a cooking show, I have already baked some simulations for you!

/glade/scratch/dbailey/archive/polar\_case1

/glade/scratch/dbailey/archive/polar\_case2



# CESM Postprocessing Exercise cont

- 4. Set up standalone post-processing for your second model case. Note, you have only 5 days in your simulation.
- 5. Run the diagnostic suite, but this time comparing polar\_case2 back to polar\_case1, for your component of interest (atm, ice, Ind, ocn).
- 6. Copy the html files back to your laptop and use a web browser to look at them.

# CESM Postprocessing Exercise cont

What if my diagnostics did not come out? Again, like a cooking show, I have already baked some diagnostic plots for you:

http://webext.cgd.ucar.edu/B1850/polar\_case1

http://webext.cgd.ucar.edu/B1850/polar\_case2

