A Guide to GrADS

Reference On-line help at
http://www.mmm.ucar.edu/wrf/users/graphics/WRF2GrADS/GrADS.htm
http://grads.iges.org/grads/grads.html

I. Setting up GrADS
   a. Download the full version of GrADS 1.9b4 linuxRH9 from http://grads.iges.org/grads/downloads.html
   b. Uncompress the file
      i. tar zxvf grads-1.9b4-linuxRH9.tar.gz
      ii. This make a directory called grads-1.9b4
   c. Download the font and map files called data.tar.Z
      i. Place in the bin directory
      ii. tar zxvf data.tar.Z
   d. To familiarize yourself with GrADS download example.tar.Z from http://grads.iges.org/grads/downloads.html and follow the tutorial located at http://grads.iges.org/grads/gadoc/tutorial.html
      i. Place example.tar.Z in the bin directory
      ii. tar zxvf example.tar.Z
      iii. download additional model.grb and model.gmp as directed by the tutorial

II. Running WRF2GrADS
   a. Download WRF2GrADS tar file from http://www.mmm.ucar.edu/wrf/users/download/get_source2.html
   b. Uncompress the file
      i. tar zxvf wrf2grads.tar.gz
   c. Edit the Makefile so it is compatible for our system
      All compiler information should be commented except the linux PGI

      # linux flags (PGI)

      LIBNETCDF = -L/home/netcdf/lib –lnetcdf –lm
      INCLUDE = -I/home/netcdf/include –I./
      FC = pgf90
      FCFLAGS = -g –C –Mfree –Ddirect
      FCFLAGS = -fast –Mfree –Ddirect
      CPP = /usr/bin/cpp
      CPPFLAGS = -I. –C –traditional -DRECL4
   d. Type **make** in the command line to compile the code and create the wrf_to_grads executable

e. Edit the control_file
    i. set times to be processed
    ii. set variables to be processed
    iii. define the input file
    iv. specify if the input is real/ideal/static data
    v. set levels to interpolate
f. Run wrf_2_grads
    i. wrf_to_grads control_file <name of output not the actual wrf output file> [-options]
        1. options are 2 debugging levels
            a. –v low debugging
            b. –V high debugging
        2. this creates 2 files
            a. name of output.ctl
            b. name of output.dat
g. now you are ready to run GrADS

III. Running GrADS

a. In the bin directory type gradsc
b. When prompted for landscape mode hit enter
c. Load your file by typing open **name of output.ctl** on the GrADS command line
d. Follow the online tutorial or quick reference guide