

# An Introduction to NetCDF

Part I - Fortran and NetCDF

FAPCRD - 21 Jan. 2011

# Why NetCDF?

- Provides a platform-independent file format conducive to sharing data.
- A number of software tools and programming languages can read/write it.



# What is NetCDF?

- From the user guide:
  - The netCDF software functions as an I/O library, callable from C, FORTRAN, C++, Perl, or other language for which a netCDF library is available. The library stores and retrieves data in self-describing, machine-independent datasets.
- <http://www.unidata.ucar.edu/software/netcdf/>

# How do I get it?

- NetCDF downloads and builds rather easily.
- The build produces .inc and .mod files for inclusion in the fortran program, lib files for linking, and binaries that let one do simple inspection of netcdf files.



# NetCDF formats

- Guaranteed backward compatible.
- Classic, 64-bit offsets (v3.6.0 and later) and netcdf-4 (based on HDF5)

# Documentation

- <http://www.unidata.ucar.edu/software/netcdf/docs>
- Sample programs there.