Unidata's Python Efforts

Report to Users Committee

16 September 2014

Community Involvement

- Attend SciPy regularly
  - Iris, Cartopy, Biggus
  - IPython -> Project Jupyter
  - coLaboratory
  - Conda/Binstar

Community Involvement (cont.)

- Hosting two-day Python workshop
- Occasional bug fixes and enhancements to Matplotlib
  - Animation fixes
  - Skew-T support

NetCDF4-Python

- Continuing to host on our GitHub
- Help out occasionally on support
- Would like to enhance to full support of NetCDF-4 extended data model

NetCDF4-Python (cont.)

- Add support for CDM Remote access
- Still relying extensively on Jeff Whitaker

PyUDL

- Python Unidata Library
- Current collection of Python library and recipes for working with Unidata technology
- Main code comes from workshop

Cloud Computing

- IPython/Project Jupyter is a clear solution for using Python for cloud computing
- Wakari is an out of the box solution

Cloud Computing (cont.)

- Florita Rodriguez's NHC archive browser written using IPython
- Potential to use IPython in the cloud for data-proximate analysis

SciTools (UKMet)

- The UKMet office has fully embraced Python
  - IRIS data analysis library
  - Cartopy mapping project
  - Biggus library for lazy array manipulations

SciTools (cont.)

- These are extremely interesting projects that we want to investigate and possibly collaborate upon
- Unfortunately no such investigations have taken place yet

PyCDM

- Implementing CDM in Python has been proposed internally many times
- Have been approached by Martin Schultz with an early prototype

PyCDM (cont.)

- Not clear how this fits or duplicates Iris
- Have not examined prototype implementation yet

Closing

- Unidata is actively involved in the Python community
- Unidata has kept up to date on many exciting areas of development
- Very limited dedicated resources