netCDF-CF-OPeNDAP

The trio netCF-CF-OPeNDAP provides a powerful and complete software stack to work with data as written in this OceanObs09 paper.

- netCDF from UniData is standard syntax for data files. NetCDF is (i) an open format for which (ii) two open implementations (C, java) are available. NetCDF is a NASA and OGC standard. Note that netCDF4, the latest release, uses HDF5 under the hood.
- CLimate Forecast (CF) is a semantic extenstion to netCDF to annotate data. The CF extension for geospatial meta-data is an OGC standard. CF also includes controlled vocabularies for quantities, units, time, statistical aggregation methods.
- OPeNDAP is a network protocol. When the netCDF libraries are compiled with OPeNDAP, this is bascially web-enablement of netCDF. OPeNDAP and netCDF will be integrated.

These netCF-CF-OPeNDAP standards are an important part of the suite of layered standards OpenEarth identified. netCF-CF-OPeNDAP provides standard data for grid data and vector data. For the full user range they need to be accompanied though by standards for exchange of relational data (PostgreSQL-PostGIS), for raw data (subversion), and for tailored data, graphics of data and catalogs of data.
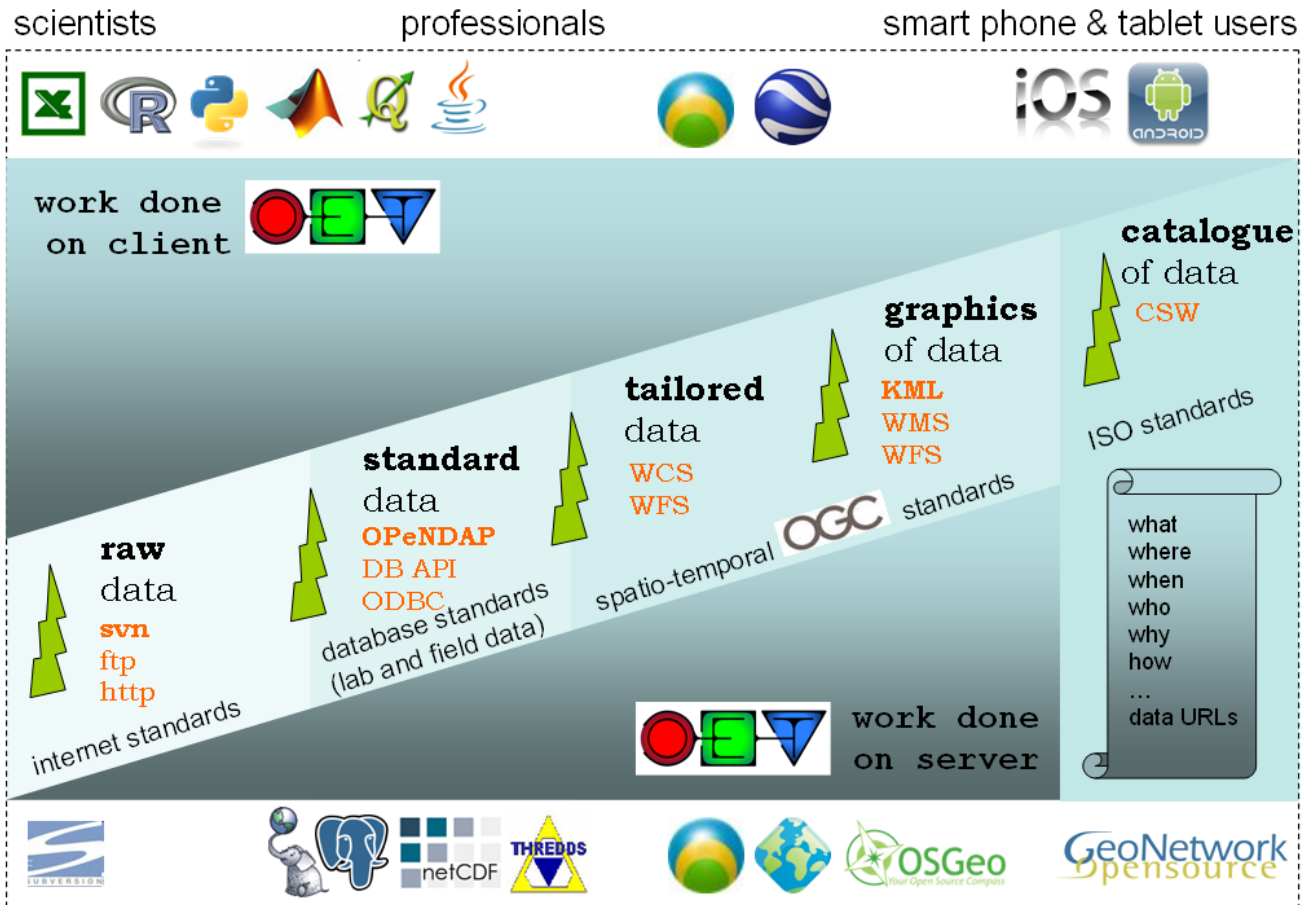
Automatic tree of OpenEarth Tech Notes

On this wiki we provide tutorials how to work with netCDF-CF-OPeNDAP.