NetCDF Overview

What is NetCDF?

NetCDF (Network Common Data Form) is a binary format for array-oriented scientific data. The full specification of the format, as used in Metview, can be found on the NetCDF overview page.

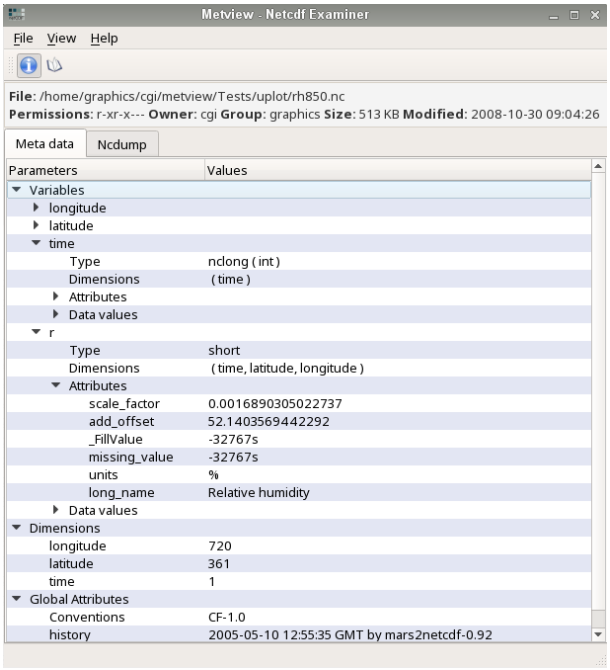
The official homepage of NetCDF is hosted by UCAR: http://www.unidata.ucar.edu/software/netcdf/.

The NetCDF icon

NetCDF files are represented by this icon in the user interface:

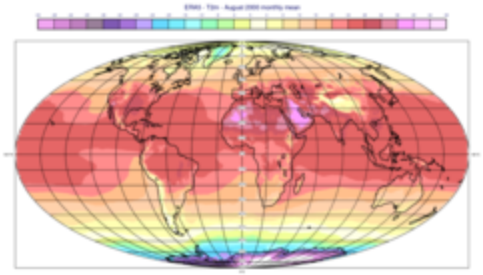
Examining NetCDF contents

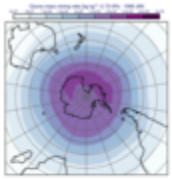
The contents of a NetCDF file can be inspected with the **NetCdf Examiner**, which can be started up from the user interface (right-click **examine** on the icon).

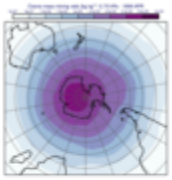


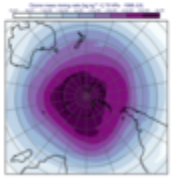
Visualisation

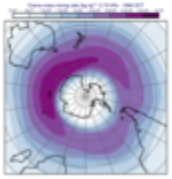
Direct visualisation of NetCDF is not available in Metview but it is implemented via the NetCDF Visualiser icon. With this icon we can specify the view type, the variable and the dimensions (with slicing) to generate the actual plot. Visualisation is supported both on maps and xy-charts for scalar and vector data, as well.

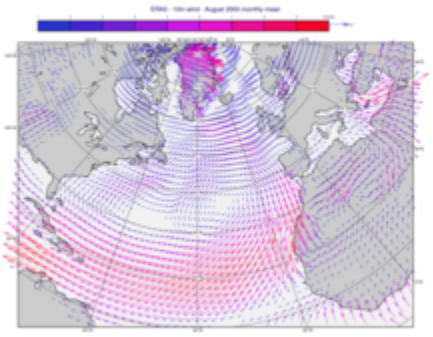


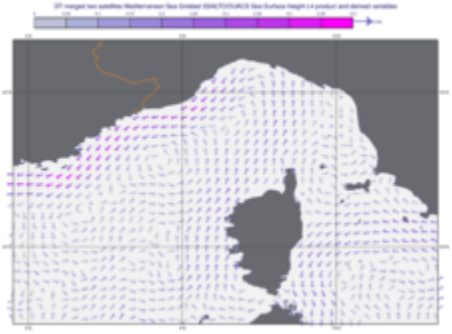


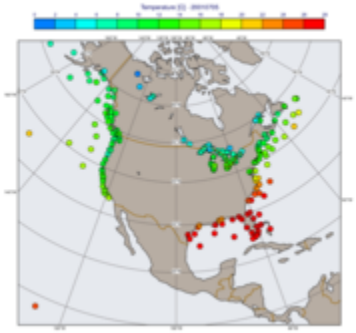












NetCDF as storage format for analysis views

Metview uses NetCDF as an internal format to store the data prepared for the so-called analysis views (various sections and profiles). The data preparation icons of these views (including Cross Section Data, Average Data, Hov moeller Data, Thermo Data and Vertical Profile Data) all store their results in NetCDF.

Script language support

Metview provides support for NetCDF from its Macro and Python interfaces. This includes:

- accessing dimensions, variables and attributes
- performing arithmetic on variables' values

The list of available **functions** for NetCDF can be found on the NetCDF Functions page.

Tutorials
Data analysis and visualisation using Metview

Script
NetCDF in scripts

Functions
NetCDF Functions

Other resources
Metview FAQ
Gallery
Jupyter Notebooks