NetCDF in SeaDataNet Development Process

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Outline

- Objectives
- Methodology
- Progress to Date
- Future Work

Objectives

- Specify a CF 1.6 compliant NetCDF encoding for data delivery following a CDI search
- This will:
  - Provide a NetCDF alternative to ODV ASCII and MEDATLAS
  - Facilitate delivery of data that cannot be encoded into existing formats (e.g. grids, high volume data)
- Maintain the CDI linkage and standardised semantics available in the existing formats
- Take account of interoperability with MyOcean and point data NetCDF in the USA and Australia

Methodology

- Group of experts recruited from
  - SeaDataNet Technical Task Team
  - OceanSITES/MyOcean
  - UNIDATA (including the author of the CF point data conventions)
  - USNODC (USA)
  - IMOS and METOC (Australia)
- Group developed specifications through an e-mail discussion list

Methodology

- Development of SeaDataNet profiles for CF 1.6 feature types such as:
  - Profiles (e.g. CTD)
  - Time series (e.g. sea level)
  - Trajectories (e.g. thermosalinograph)
  - Profile time series (e.g. moored ADCP)
  - Profile trajectories (e.g. vessel-mounted ADCP)

Methodology

- Profiling process involves
  - Imposition of standardised naming conventions (based on MyOcean)
  - Hardening up CF by making more attributes mandatory
  - Inclusion of SeaDataNet namespace variables and attributes

Progress to Date

- SeaDataNet profiles have been designed for:
  - Profiles
  - Time series
  - Trajectories
- Specifications have been written up as draft format documentation

Future Work

- SeaDataNet profiling for remaining feature types
- Consider requirements for gridded data profiling
- Consider profiles for data with a non-spatio-temporal dimension (e.g. wave spectra, spectral light data, etc.)
- Develop a specification for semantically-aware aggregation