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