



Informatic infrastructure for Climatological and Oceanographic data based on THREDDS technology in a Grid environment

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CNR-ISAC-GOS is responsible for the Mediterranean Sea satellite operational system in the framework of MOON Patnership. This Observing System acquires satellite data and produces Near Real Time, Delayed Time and Re-analysis of Ocean Colour and Sea Surface Temperature products covering the Mediterranean and the Black Seas and regional basins. In the framework of several projects (MERSEA, PRIMI, Adricosm Star, SeaDataNet, MyOcean, ECOOP), GOS is producing Climatological/Satellite datasets based on optimal interpolation and specific Regional algorithm for chlorophyll, updated in Near Real Time and in Delayed mode.

GOS has built

- an informatic infrastructure data repository and delivery based on THREDDS technology

The datasets are generated in NETCDF format, compliant with both the CF convention and the international satellite-oceanographic specification, as prescribed by GHRSSST (for SST).

All data produced, are made available to the users through a THREDDS server catalog.

- A LAS has been installed in order to exploit the potential of NETCDF data and the OPENDAP URL. It provides flexible access to geo-referenced scientific data

- a Grid Environment based on Globus Technologies (GT4) connecting more than one Institute; in particular exploiting CNR and ESA clusters makes possible to reprocess 12 years of Chlorophyll data in less than one month.(estimated processing time on a single core PC: 9months).

In the poster we will give an overview of:

- the features of the THREDDS catalogs, pointing out the powerful characteristics of this new middleware that has replaced the “old” OPENDAP Server;
- the importance of adopting a common format (as NETCDF) for data exchange;
- the tools (e.g. LAS) connected with THREDDS and NETCDF format use.
- the Grid infrastructure on ISAC

We will present also specific basin-scale High Resolution products and Ultra High Resolution regional/coastal products available on these catalogs.