

SeaDataNet II data products: the North Atlantic Ocean Region

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During the SeaDataNet II (SDN) EU-project, a quality control (QC) strategy has been implemented and continuously reviewed aiming at improving the quality of the global dataset and creating the best products. This strategy has been developed in collaboration with MyOcean In-Situ Thematic Assemble Centre (INS-TAC) at regional levels to serve operational and scientific oceanography communities. Temperature and salinity historical data collections were created by sea basins, as aggregated datasets and climatology products, and covering the time period 1900-2013. Those ODV qualified dataset collections are available through the SDN web catalog at <http://sextant.ifremer.fr/en/web/seadatanet/>.

A specific procedure has been implemented to assure and certify the best quality for the datasets (Fig. 1). After the dataset harvesting from the central CDI catalogue, QC has been performed at regional levels in a coordinate way, using the ODV software as a common and basic QC analysis tool. Those datasets have also been scrutinized by the MyOcean regional coordinators, which have sent feedbacks to the SDN regional partners.

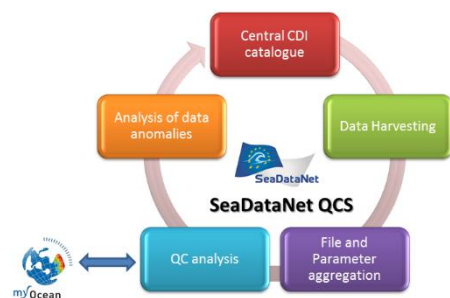


Fig. 1: Quality Check Strategy implemented during SDN project

This loop allowed to highlight doubtful data and to organize the data anomalies in lists that have been sent to each concerned data originator together with a guideline to explain the expected corrections. This implemented QC strategy involved the National Oceanographic Data Centers (NODC), on the base of those lists, to check and eventually correct the original data and then to resubmit the corrected data in the SDN dataflow. The QC procedure has also been designed to be iterative in order to facilitate the update and improvement of SDN database content.

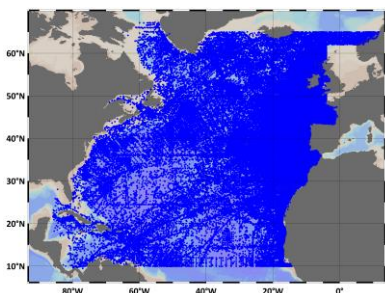


Fig. 2: North Atlantic data collection

Detailed descriptions of the SDN data sets for the North Atlantic Ocean are given. The general description of the dataset, the data quality assessment procedure and results are presented. During SDN, several releases have been produced and the insertion of new data has showed a large increase of the data collection for the North Atlantic Area (Fig. 2). Regarding the number of stations, only a small number of data have been detected as bad.

The final dataset aimed to study in details the water masses circulation in this area (Fig. 3) but integration of new data should improve the quality of the product. Future releases should have to more sustain the QC strategy and encourage NODCs to provide new data and take into account the data quality assessment outcomes.

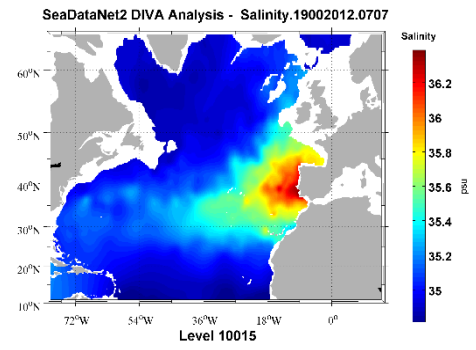


Fig. 3: Salinity maximum at 1000m showing the Mediterranean outflow.