



CORA: In situ re-qualified dataset at the Coriolis data center

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Coriolis is a French programme that provide service to operational oceanography and research communities. It gathers global ocean in-situ observation data in real time, and contributes to continuous, automatic, and permanent observation networks. A new version of the comprehensive and qualified ocean in-situ dataset, the COriolis dataset for Re-Analysis (CORA), is produced for the period 1990 to 2010. This in-situ dataset of temperature and salinity profiles, built from different data sources (Argo, OceanSites, VOS ships, NODC historical and GTS data..) at global scale, is meant to be used for general oceanographic research purposes, for ocean model validation, and also for initialisation or assimilation of ocean models re-analysis. To generate this new version, new and updated data have been extracted from the Coriolis database and added to the previous CORA dataset spanning the period 1990-2008. To qualify this dataset, several tests have been developed to improve in a homogeneous way the quality of the raw database and to fit the quality level required by the physical ocean re-analysis activities. These tests include some simple systematic tests, a test against climatology and a more elaborate statistical test involving an objective analysis method Visual quality control (QC) is performed on all the suspicious T and S profiles and quality flag are modified in the dataset if necessary. This product is distributed through different channels (ftp, OPeNDAP and web)