



Realizing Maximum Transparency of Oceanographic Data Processing and Data Quality Control for Different End-User Communities

Manuela Köllner, Mayumi Wilms, Anne-Christin Schulz, Martin Moritz, Katrin Latarius, Holger Klein, Kai Herklotz, and Kerstin Jochumsen

Federal Maritime and Hydrographic Agency, Hamburg, Germany (manuela.koellner@bsh.de)

Reliable data are the basis for successful research and scientific publishing. Open data policies assure the availability of publicly financed field measurements to the public, thus to all interested scientists. However, the variety of data sources and the availability or lack of detailed metadata cause a huge effort for each scientist to decide if the data are usable for their own research topic or not. Data end-user communities have different requirements in metadata details and data handling during data processing. For data providing institutes or agencies, these needs are essential to know, if they want to reach a wide range of end-user communities.

The Federal Maritime and Hydrographic Agency (BSH, Bundesamt für Seeschifffahrt und Hydrographie, Hamburg, Germany) is collecting a large variety of field data in physical and chemical oceanography, regionally focused on the North Sea, Baltic Sea, and North Atlantic. Data types vary from vertical profiles, time-series, underway measurements as well as real-time or delayed-mode from moored or ship-based instruments. Along other oceanographic data, the BSH provides all physical data via the German Oceanographic Data Center (DOD). It is crucial to aim for a maximum in reliability of the published data to enhance the usage especially in the scientific community.

Here, we present our newly established data processing and quality control procedures using agile project management and workflow techniques, and outline their implementation into metadata and accompanied documentation. To enhance the transparency of data quality control, we will apply a detailed quality flag along with the common data quality flag. This detailed quality flag, established by Mayumi Wilms within the research project RAVE Offshore service (research at alpha ventus) enables data end-users to review the result of several individual quality control checks done during processing and thus to identify easily if the data are usable for their research.