Streamlining Oceanic Biogeochemical Dataset Assembly in Support of Global Data Products

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Data assembly in support of global data products, such as GLODAP, and submission of data to national data centers to support long-term preservation, demands significant effort. This is in addition to the effort required to perform quality control on the data prior to submission. Delays in data assembly can negatively affect the timely production of scientific indicators that are dependent upon these datasets, including products such as GLODAP. What if data submission, metadata assembly and quality control can all be rolled into a single application? To support more streamlined data management processes in the NOAA Ocean Acidification Program (OAP) we are developing such an application. This application has the potential for application towards a broader community.

This application addresses the need that data contributing to analysis and synthesis products are high quality, well documented, and accessible from the applications scientists prefer to use. The Scientific Data Integration System (SDIS) application developed by the PMEL Science Data Integration Group, allows scientists to submit their data in a number of formats. Submitted data are checked for common errors. Metadata are extracted from the data that can then be complemented with a complete metadata record using the integrated metadata entry tool that collects rich metadata that meets the Carbon science community requirements. Still being developed, quality control for standard biogeochemical parameters will be integrated into the application. The quality control routines will be implemented in close collaboration with colleagues from the Bjerknes Climate Data Centre (BCDC) within the Bjerknes Centre for Climate Research (BCCR). This presentation will highlight the capabilities that are now available as well as the implementation of the archive automation workflow, and it's potential use in support of GLODAP data assembly efforts.