

ICES data type guidelines - data and metadata

ICES Working Group on Marine Data Management*

The International Council for the Exploration of the Sea (ICES) organises many working, study and steering groups to examine general and specific issues related to the ocean environment. One such group, the Working Group on Marine Data Management (WGMDM), takes an active role in promoting proper data management practices for the marine community.

Over the past several years, the WGMDM has worked toward a set of guidelines designed to describe the elements of data and metadata important to the ocean research community. These guidelines are targeted toward physical-chemical-biological data types traditionally collected on oceanographic cruises. Each guideline addresses the data and metadata requirements of a specific data type. Although there is much overlap between guidelines, individual guidelines exist to make the process of selecting the proper one more client-friendly.

The guidelines promote the proper documentation of data. For example, the provider is reminded that all processing applied to the dataset should be documented. This includes such things as flagging procedures, precision of methods, and handling of null values. Submission formats are suggested, although data centres will accept submissions in a variety of formats. Cruise collection information is also itemised, which can serve as a metadata checklist to ensure the collector acquires all required metadata at the source and time of initial sample collection.

The guidelines also emphasize the value-added service provided by the ICES member data centres. In this avenue, the guidelines describe quality control procedures applied to the dataset by the centre. During these procedures, any detected problems with the dataset are brought to the attention of the provider and problem resolution between the centre and provider is sought. The data centre also maintains procedure and problem histories to provide value-added information to the dataset. This value-added information is provided to other clients requesting the data.

The guidelines also include information on the general service of data delivery provided by the data centres. This service includes data descriptions and a full history of procedures and processing. Data quality flagging is described and any changes made to the dataset are noted. In the event a data centre cannot fulfil a client's need, the centre will provide a referral service to other data centres or experts.

Finally, a reference section includes links to other guidelines, quality control procedures or data management techniques specific to that data type. This provides valuable information and acknowledgement of other related activities in the international community.

For the list of currently approved guidelines, go to <http://www.ices.dk/committe/occ/mdm/guidelines>.

* contactperson:

A.W. Isenor (Fisheries and Oceans, Canada, Bedford Institute of Oceanography, PO Box 1006, Dartmouth, Nova Scotia, Canada, B2Y 4A2; E-mail: isenora@mar.dfo-mpo.gc.ca)