

CONSOLIDATION METADATA IN THE FIELD OF ENVIRONMENTAL SCIENCES

*Evgeny Vyazilov (All-Russia HIII of the Hydrometeorological Information – World Data Centre,
Obninsk, e-mail: vjaz@meteo.ru)*

Now in many countries actively there is a work on creation metadata. The basic attention is given to creation of the basic object metadata - item of information on files and databases. So within the framework of the European community the system EDMED, including more than 3000 descriptions, is created, in NASA USA the system metadata Global Change Master Directory is developed. In this system are submitted more than 10 thousand descriptions. It is much and other metadata systems. Last years the process of creation of new objects metadata was sped up. In frameworks Pan - European project «Sea Search» the metadata bases are created for information on: the scientific and observant projects, cruises of scientifically research vessels. On portal of Intergovernmental oceanographic commission of UNESCO the systems GLODIR and OceanPortal are developed. GLODIR is information on the experts in the field of sea sciences; OceanPortal is item of information about web - sites of organizations in the field of marine sciences. There are many other systems with various metadata objects. The basic lack of such realization is the duplication of separate sections of the descriptions in various objects metadata. So, for example, information on organizations are necessary in such metadata objects, as the information on data sets and databases, the information on observant networks, projects, observant platforms, etc.

Within the framework of creation of Unified system of the information on the World ocean condition (ESIMO) 15 objects metadata develops: information on organizations, experts, formats, software, observant platforms, parameters, other. In these objects the elementary classes are allocated which can be used in any metadata object. On the majority of metadata objects it is possible to execute search inquiries on ESIMO web - portal (<http://data.meteo.ru:8080/resource/index.jsp>). On the basis of these classes the unified scheme of metadata for all these objects is created. Thus, there is a consolidation metadata depending on needs of this or that metadata object.

Unfortunately, such approach does not provide all completeness metadata, therefore for each metadata object the list of addresses web - sites is created, on which there are systems with metadata. The support of urgency and updating of these addresses by the new references is carried out through special object metadata "Information on links". Thus, the user may receive a consolidated metadata from one source. For some metadata objects the automated transfer of search criteria's in other of system are possible.

Metadata are widely used by the database managers and without consolidation of metadata to organize effective operation of big information system very difficultly.

In lecture will be considered:

- necessity of metadata creation;
- brief history of metadata development;
- the characteristics of the most known systems metadata for various metadata objects;
- metadata structure, on an example ЕСИМО;
- documentary given - metadata sources;
- problems of development and use metadata;
- metadata as a basis of monitoring of a condition of information resources in the field of an environment.