



SEA ODC – An Implementation of Web Portal and B2B Services for Managing of Oceanographic Data Sets Collected in South-East Adriatic

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As a result of efforts to standardize oceanographic data sets collected since year 2002 in the area of south-east Adriatic, relational data model suitable for storage of meta-data and in situ measurements was designed and implemented. Using combination of customized tools developed for extraction of meta-data and data records from CTD files as well as standard office applications, data were extracted, transformed, processed and unified by attributes and units of measurement. To make those data available for wider scientific community, we have developed web portal able to be used for data retrieval based on various filters (spatial, temporal, by project and/or by sampling instrument). Selected data model proves to be also very efficient for generating of data-exchange formats required by various projects and initiatives (e.g. SeaDataNet) so extended by particular dictionaries it can allow fast implementation of integration services.

As a part of Ecoport 8 project, newly available type of data was recently introduced. Real-time data provided by permanent sensors need to be automatically collected and stored into database. Visualization of such data was also required as well as exchange with project data center. To fulfill those requirements, additional data scheme and appropriate B2B services were developed. Additional care was taken about data transfer security as database was not hosted at the same place as workstation used for remote access to sensor equipment.

Third section of portal is “Tide T@bles”, interactive, graphical application that visualize tide predictions for ports of Bar and Kotor, allowing also correction by atmospheric pressure. Developed in Java, based on well known Mike Foreman’s Fortran 77 code it can be used as stand-alone product without Internet connection.

Last section of portal is Google Earth file containing position of stations as well as some spatial features that can be useful during planning of future oceanographic cruises in this area (e.g. explosives dumping grounds, administrative lines and depth contours).

Technically speaking, present level of implementation can provide fast response to any future requirement. However, some administrative issues need to be resolved. Multilateral (or bilateral) data-exchange policies need to be signed by all interested parties before all data can become fully available to wider scientific community.