



## **The HNODC Management System: A Geospatial Web Services Application**

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During the past fifteen years the Hellenic National Oceanographic Data Centre (HNODC) through its participation in several national and international projects has obtained a large archive of more than 300.000 observational in-situ stations of physical, chemical and biological parameters. For the efficient management and exploitation of these data a multidisciplinary oceanographic database has been developed using a relational database management system. All the information related to the data such as oceanographic cruises (ROSCOP), descriptions of environmental datasets (EDMED) and descriptions of monitoring systems (EDIOS) are also organized in relational databases compliant with internationally established standards for metadata and common vocabularies for data exchange as these are developed in the framework of the SeaDataNet Project (<http://www.seadatanet.org>). Both raw data and metadata are subjected to quality controls checks in conformity to ICES, IOC and EU recommendations. By exploiting the increasing capabilities of the Geospatial Web Services, HNODC has built a new integrated management system that follows the basic concepts of a Service Oriented Architecture (SOA). The main advantages of the new system are: a) inherit interoperability between data centers and data providers and this is an already ongoing implementation within SeaDataNet Project, b) interchange and combination of data sets with minimum programming efforts offering the capability of integration between oceanographic and other geospatial data (eg. land observations, satellite data, land networks, etc), c) production of comprehensive and self explained new data products combining various and diverse data sources and in the future version, WPS Services will be available in order to produce on demand “on-line” data products, and d) capability for end users to navigate through a wide range of information. The new system web interface is available at the address: <http://hnodc.hcmr.gr/services.html>.