An overview on integrated data system for archiving and sharing marine geology and geophysical data in Korea Institute of Ocean Science & Technology (KIOST)

Sang-Hwa Choi, Sung Dae Kim, Hyuk Min Park, and SeungHa Lee
Korea Institute of Ocean Science & Technology, Korea, Republic Of (choish@kiost.ac.kr)

We established and have operated an integrated data system for managing, archiving and sharing marine geology and geophysical data around Korea produced from various research projects and programs in Korea Institute of Ocean Science & Technology (KIOST). First of all, to keep the consistency of data system with continuous data updates, we set up standard operating procedures (SOPs) for data archiving, data processing and converting, data quality controls, and data uploading, DB maintenance, etc. Database of this system comprises two databases, ARCHIVE DB and GIS DB for the purpose of this data system. ARCHIVE DB stores archived data as an original forms and formats from data providers for data archive and GIS DB manages all other compilation, processed and reproduction data and information for data services and GIS application services. Relational data management system, Oracle 11g, adopted for DBMS and open source GIS techniques applied for GIS services such as OpenLayers for user interface, GeoServer for application server, PostGIS and PostgreSQL for GIS database. For the sake of convenient use of geophysical data in a SEG Y format, a viewer program was developed and embedded in this system. Users can search data through GIS user interface and save the results as a report.