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Introduction for the data integration and analysis system (DIAS)

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Data Integration and Analysis System (DIAS) was launched in 2006 as part of the Earth Observation and Ocean Exploration System, which is one of five National Key Technologies defined by the 3rd Basic Program for Science and Technology of Japan. The mission of DIAS is:

- to coordinate the cutting-edge information science and technology and the various research fields addressing the earth environment;
- to construct data infrastructure that can integrate earth observation data, numerical model outputs, and socio-economic data effectively;
- to create knowledge enabling us to solve the earth environment problems; and
- to generate socio-economic benefits.

It is expected that there will be a large increase in the volume and diversity of earth observations from inhomogeneous data sources during the next decade. DIAS is developing a core system for data integration and analysis that includes the supporting functions of life cycle data management, data search, information exploration, scientific analysis, and partial data down-loading.

For improving data interoperability, DIAS is developing a system for identifying the relationship between data by using ontology on technical terms and ideas, and geography. DIAS also is acquiring data base information from various sources by developing a cross-sectoral search engine for various data bases.

Keywords: Earth observation data, Data Integration, Information Fusion, Large data storage system, Ontology