

Chapter 1 : Section 1

Organizations are increasingly exposing data and resources on the Web. A popular approach to this is using web architecture to expose structured data on the web using the schema.org vocabulary. Doing this makes resources discoverable by a range of organizations leveraging this architecture to build indexes. These include major commercial indexes, large domain focused groups and community focused services.

The Ocean Data and Information System (ODIS) will provide a schema.org based interoperability layer and supporting technology to allow existing and emerging ocean data and information systems, from any stakeholder, to interoperate with one another. This will enable and accelerate more effective development and dissemination of digital technology and sharing of ocean data, information, and knowledge. As such, ODIS will not be a new portal or centralised system, but will provide a collaborative solution to interlink distributed systems for common goals. Together with global project partners and partners in the three regions, a process of co-design will enable a number of global and regional nodes to test the proof of concept for the ODIS.

The ODIS-architecture development is being supported by the Ocean InfoHub Project, and it has been tested initially on IOC and partner databases. However, the system and standards are open for any institution or initiative that is interested in accessing the global data ecosystem to adopt and implement.

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Chapter 2 : Section 2

Authoring Thematic Patterns

The ODIS OIH is working across five major thematic areas; Experts and Institutions, Documents, Projects, Training, Vessels. Examples of these thematic concepts are being hosted and developed with input from the community. Additionally, methods for validation and simple tooling for authoring and testing are hosted at this repository. Alongside these five thematic topics guidance on connecting services and spatial context on resources.

Publishing

Guidance on implementation the web architecture approach is also available. This includes approaches on leveraging robots.txt and sitemaps.xml file for expressing hosted resources to the net.

Indexing

The architecture approach is open and standards based. As such, many organizations will be able to leverage the authoring and publishing approaches above to index a providers resources. OIH will be providing reference implementations of software that can generate the index.

Interfaces and Services

During the development of the OIH a basic reference implementation for an interface has been generated. This is a development site meant to test and exercise the above elements. It serves to demonstrate how others could also implement this approach and how future interfaces could be developed.

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