

## Open Source HUMBOLDT Software

### Going Public – Milestone 1

**The HUMBOLDT framework is concerned with the most important part within the project – to enable organizations to document and harmonize their spatial information, supporting the implementation of a European Spatial Data Infrastructure (ESDI) that integrates the diversity of spatial data available for a multitude of organizations.**

The HUMBOLDT framework has three tiers: The **HUMBOLDT Harmonisation Toolkit** contains applications that can be used by geodata experts to specify conceptual schemas and to define the transformation between them. The **HUMBOLDT Service Integration Framework** defines cross-cutting service components that allow the collaborative usage across organizations, countries and domains. The final tier of the HUMBOLDT Framework is formed by **individual transformation services**, each of which can address a specific harmonisation problem.

One of the major goals of the framework is to be minimal invasive, i.e. not to replace existing systems but rather support and amend them with specific capabilities needed in the data harmonisation process. Therefore the functionalities of the HUMBOLDT framework are well-isolated from the interfaces by which they are accessed, resulting in components that can be adopted easily for different deployments and process synchronization styles.

First components of the HUMBOLDT framework have been published under the GNU Lesser General Public

License version 3 (LGPL v3). They are available for free download at the HUMBOLDT project Web site. This release includes the following software components:

- ⊞ The **HUMBOLDT Model Editor**, a UML editor that is specifically geared towards the creation of UML application schemas;
- ⊞ The **HUMBOLDT Alignment Editor**, a tool that allows to define conceptual schema transformations;
- ⊞ The **Mediator Service**, a proxy service that executes transformation chains to provide harmonised geodata;
- ⊞ The **Workflow Service**, a service that analyses data sets and decides which processing is required to match a target product description;
- ⊞ The **Context Service**, an easy to use-service that can be used to define transformation products;
- ⊞ Several transformation services exposed as OGC **Web Processing Services**, such as Coordinate Transformation Service and an Edge Matching Service.



Detailed documentation for all these services and applications, such as full specifications, will be made available under the same license as the software itself. Furthermore, a forum, wiki and bugtracker are prepared for your information and feedback.

With this first major step towards the creation of an Open Source Community the HUMBOLDT consortium invites developers to test the design and expandability of the framework. Suggestions and contributions are highly welcome.

In February 2009 the development process for the second version of the HUMBOLDT framework will be initiated. This milestone of the HUMBOLDT framework will be published in October 2009.

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