HUMBOLDT Alignment Editor (HALE)

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Who?
Who?

Contributions 2009 - 2014

Contributors
What?

Formats/Encoding
Reference Systems
Multiple Representations
Attribute types and -values
Classification Systems
Definitions and Semantics
What?

HUMBOLDT Alignment Editor (HALE) is a tool for creating mappings between different data models Open Source – licensed under GNU LGPL.
Now what about INSPIRE?
INSPIRE Download Services

INSPRERE data ➞ Pre-defined Dataset
INSPIRE Download Services

- INSPIRE data
- WFS-T
- WFS 2.0
  - Direct Access Download Service
  - e.g. Open Source with deegree
Schema Mapping & Transformation
Schema Mapping & Transformation

Data Schema → Target Model

Structure & semantics

Data
Schema Mapping & Transformation

Data

Schema Mapping

Target Model

Structure & semantics

Data
Schema Mapping & Transformation

Data Schema → Schema Mapping → Target Model

Structure & semantics → derive → Transformation

Data
Schema Mapping & Transformation

Data

Schema Mapping

Target Model

Structure & semantics

derive

Data

Transformation

Transformed data

Structure & semantics
Schema Mapping in HALE

- What do you need to get started?
  - Source and target schema (e.g. GML Application Schemas)
  - Your data

- Definition of relations between the two models
  - between Feature-Types and Attributes
  - extendable with custom transformation functions
Schema Mapping in HALE
Mapping Process

FEEDBACK
Transformation

- via User Interface in HALE
- via command line or web service

Transformation

Data

Transformed Data

<XML>

<CSV>

<GML>
What’s next?

- Direct export as Atom based INSPIRE Pre-defined data set
- Improved Integration with INSPIRE Code List registry
- Coordinate transformation
- …

- In-place schema editing and extension
Schema transformation is a complex task...
…that requires several kinds of Know-How
Work together on Schema Transformation projects

Alice:
- Create task
- View solution
- Accept solution
- How should I classify my objects correctly?

Bob:
- Oh, a new task in my domain!
- Load project
- Solve task
- Propose solution
- Tasks
- Schemas
- Data
- Projects
Work together on Schema Transformation projects

Load project
Edit project
How should I classify my objects correctly?
Create task
View solution
Accept solution

Oh, a new task in my domain!
Load project
Solve task
Propose solution

Projects
Schemas
Data
Tasks
Online Collaboration Platform

- Effectively work together
- Share knowledge and profit from the experience of others
- Manage and share your projects online
- Project versioning & backup
- Reference and sample projects for INSPIRE
- Tasks and comments for any resource (Schemas, Mappings, Code Lists, …)
- Tools and visualisations to support you in the mapping process
  - e.g. schema visualisation, sample data,…

Simon Templer
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Thank you for your attention!

- Questions welcome!

- Visit us at our booth at the INSPIRE conference exhibition
- Wednesday Data Transformation session (14:00)
  - Ready to Transform? Solving INSPIRE Implementation Project Challenges Together (14:30)

- We provide support, consulting and custom solutions

- Quick start with the HALE-Tutorial: http://www.dhpanel.eu/humboldt-framework/hale-tutorial.html