

Semantic Technology and ISO 15926

Announcement of an introductory tutorial

September 12th, 2008

A Module-Based Tutorial

- ▶ The POSC Caesar Association is currently developing a module-based introductory course in semantic technology and ISO 15926.
- ▶ Having several (semi-)independent modules allows for tailoring the course to the needs and interests, available time, and background knowledge of the audience.
- ▶ Course materials will be available from the POSC Caesar Association. The course materials will consist of, for each module,
 - ▶ A detailed set of lecture notes (pdf); and
 - ▶ an accompanying set of slides (ppt).

Modules under Development

Two modules are currently being developed:

Module 1: [General Introduction](#) (available shortly)

A three-hour (approx.) general introduction to semantic technology and ontologies in general, and ISO 15926 in particular. Aimed at a general audience. Emphasis on role of semantic technology and ISO 15926 in data integration. Prerequisites: none.

Module 2: [The Core Structure of ISO 15926](#) (Fall 2008)

A 1–2 day detailed introduction to the core class and relationship structure of ISO 15926 (Data Model and Reference Data Library). Aimed, in particular, at those who need to master enough of the structure to be able to model specific domains in ISO 15926. Prerequisites: Module 1.

Planned Modules

Two further modules are planned:

Module 3: Template Design and Development A course in designing and constructing templates. Prerequisites: Yes, including (parts of) Module 2.

Module 4: How to Use Templates An end-user course in template use, i.e. in how to map information into 15926 format using templates. Prerequisites: Module 1.

Module 1: Introduction to Semantic Technology

- ▶ High level introduction aimed at a general audience—managers, engineers, students, etc. The audience is not assumed to have any background knowledge, and technical terms and details are kept to a minimum.
- ▶ Suitable for a short 3×45 minutes lecture. No exercises.
- ▶ Emphasis on three basic points:
 - ▶ the problem of data integration;
 - ▶ how semantic technology can be used to solve it; and
 - ▶ what ISO 15926 is, and how to use it.

Module 1 Contents

- Background problem and business case.** A presentation of the background problem—called the ‘datasheet problem’—using a concrete example for illustration.
- Ontologies and semantic technology.** Stating what an ontology is, and explaining how ontologies can be used to solve the datasheet problem.
- ISO 15926: what it is and how to use it.** Giving a brief outline of ISO 15926 and its different parts, and explaining how ISO 15926, in particular, can be used to solve the datasheet problem. Particular emphasis on the purpose and function of templates.

Module 2: Classes and Relations

- ▶ Module 2 is a detailed introduction to the class and relationship structure of ISO 15926, that is, to part 2 (the data model) and part 4 (reference data).
- ▶ Module 2 should prepare the audience to be able to construct reference data on their own. It will also be relevant to those moving on to Module 3 (constructing templates).
- ▶ Length TBD, but approximately spanning a couple of days, including time to do and present exercises.
- ▶ Consists of two sub-modules:
 1. The basis structure of ISO 15926: an introduction to part 2 (data model).
 2. Reference data: an introduction to part 4, including how to navigate and construct reference data using tools such as the RDL Explorer.

The Development of Current and Future Modules

Suggestions or comments concerning the contents and structure of the modules currently under construction as well as future modules is most welcome!