

About some practical problems concerning UML, BPMN and database integration

Till Mossakowski

Otto-von-Guericke University of Magdeburg



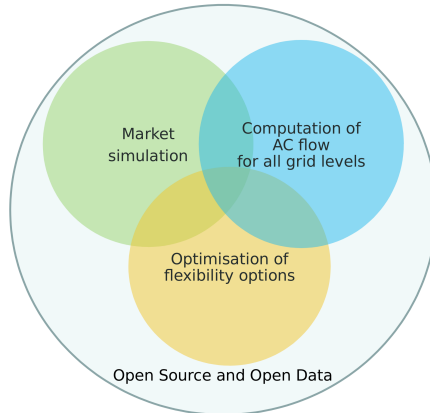
OTTO VON GUERICKE
UNIVERSITÄT
MAGDEBURG

INF

FAKULTÄT FÜR
INFORMATIK

Talk at IFIP WG 1.3 meeting, Eindhoven

Project open_eGo



Web platform (Django)

About

We are a grass root initiative of modellers from various universities and research institutes across Europe.

Aim

Open models and open data will advance knowledge and lead to better energy policies. Open up energy models improves quality, transparency, and credibility, leading to better research and policy advice.

[View manifesto »](#)

Activities

The openmod initiative is a network, an interest group, and a platform. We exchange ideas and source code, lobby for policy support for open projects, and actively share data, code and knowhow.

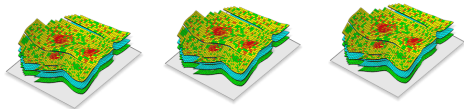
[View Projects »](#)

Connect!

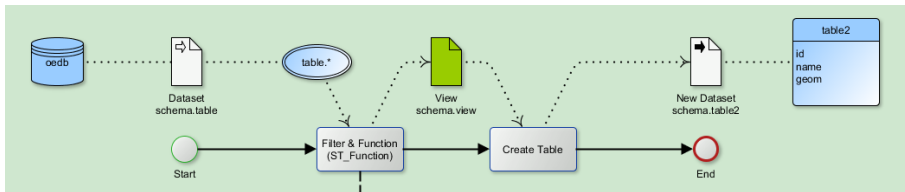
- Come to our next workshop: **28-29 April at KTH Stockholm**
- Join our [mailing list](#)
- Add/find open-data and open models on the [wiki](#)
- Write us an e-mail: [mail\[at\]openmod-initiative.org](mailto:mail@openmod-initiative.org)

Content licensed [Creative Commons Attribution](#) unless otherwise noted | [Contact Us](#) | [Impressum](#)

Energy net simulations (Python)



Databases (PostgreSQL)



Practical problem: Modelling with UML, BPMN

- UML use cases
- BPMN / UML activities for data integration, database setup
 - derive or annotate PostgreSQL implementation
- UML class diagrams + OCL for data models
 - consistency?
 - compatibility with Django data models
- possibly: UML state machines for workflows
 - derive Python implementation

Are there formal-methods-based and off-the-shelf usable tools for UML and BPMN?

- Hugo-RT, UMLtoCSP, EMFtoCSP, ...

Database schema integration

- Different energy grid modeling tools
- Based on different but overlapping databases

This cries for a database schema morphsim/colimit based approach for integration ...

Are there formal-methods-based and off-the-shelf usable tools for database schema integration?