

Collaborative Editing of Large Ontologies in SEMEDA

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SEMEDA (Semantic Meta Database) is an application for semantic database integration. One of its key components is its ontology editor. Like many other tools, SEMEDA uses a relational database to store ontologies. Most ontology editors, as for example GOs DAG-edit, load the data-structure of the ontology to memory, where it is edited and finally written back to the database. However, this approach has some disadvantages: i) When several users edit ontologies at the same time, conflicts between different versions have to be resolved when the ontology is written back to the database. ii) Users cannot immediately see changes that other users apply to the ontology. iii) The size of the ontology is limited by the size of the data-structure that the application, which loads the ontology from the database to memory, can handle.

SEMEDA avoids these disadvantages by editing the ontologies directly in the database. The implemented 3-tier architecture that supports collaborative editing of large ontologies via a web browser is described. Among other things, principles and methods for multi user support and “tree processing” within relational DBMSs are discussed. SEMEDA is available at <http://www-bm.ipk-gatersleben.de/semeda/>