Speed-forming your ontology or how to improve reasoning performance for your OWL ontology

Volker Haarslev

Department of Computer Science and Software Engineering
Concordia University
Montreal, Canada

Abstract—In this talk we describe the OWL reasoning landscape and its obstacles. We overview the three tractable OWL fragments and discuss dramatic speed improvements achieved by corresponding specialized reasoners. Furthermore, various combinations of OWL constructors and their impact on practical reasoning performance are analyzed. In the last part we give a brief overview of promising approaches to speed up reasoning for OWL ontologies that are outside of the three tractable OWL fragments.