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Tutorial 5: OWL 2 Rules (Half Day)

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The revision 2 of the Web Ontology Language OWL is much richer than its predecessor OWL 1.0 with respect to modelling with rules. In particular, a significant portion of OWL 2 DL is already expressible using rules (called SROIQ Rules). The tractable profile OWL 2 EL can be extended by rules Ð within OWL 2 DL Ð while retaining tractability. Further rules lying outside OWL 2 DL, in particular a generalisation of DL-safe Datalog rules, can further be added while still retaining tractability, resulting in a language called ELP, which covers all three tractable profiles of OWL 2. ELP in turn can be extended by local closed-world reasoning such that data complexity still remains polynomial.
This tutorial introduces OWL 2 and the abovementioned rules fragments and extensions in detail. It is aimed for the theoretician as well as the ontology engineer who would like to learn about the intimate relationship between OWL 2 and rules.
Homepage: http://semantic-web-grundlagen.de/wiki/ESWC09_Tutorial