GraphOnto: Ontology Editing & Mapping, Ontology-based Definition of MPEG-7 Metadata for Multimedia Content

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GraphOnto Description

- ☐ A Software Component that facilitates:
    - ■ OWL Ontology Editing & Definition
    - ■ OWL Ontology Mapping
    - ■ Ontology-based Metadata Definition
    - ■ Ontology-based Query Translation based on Ontology Mappings
- ☐ Support for Core (standard-based) & Domain Ontologies
- ☐ Support for OWL/RDF & MPEG-7 Metadata
- ☐ Multiple Ontology Management Support
- ☐ Personalization Support
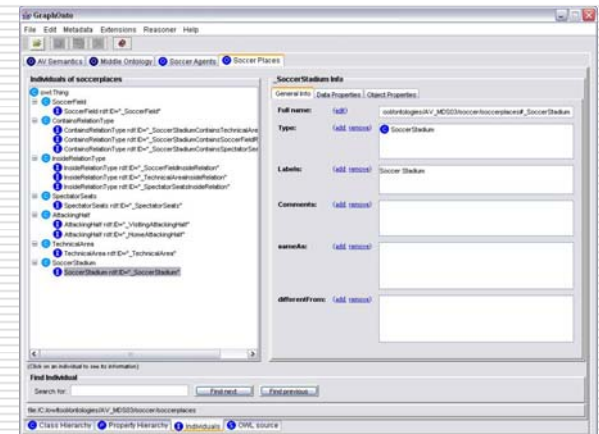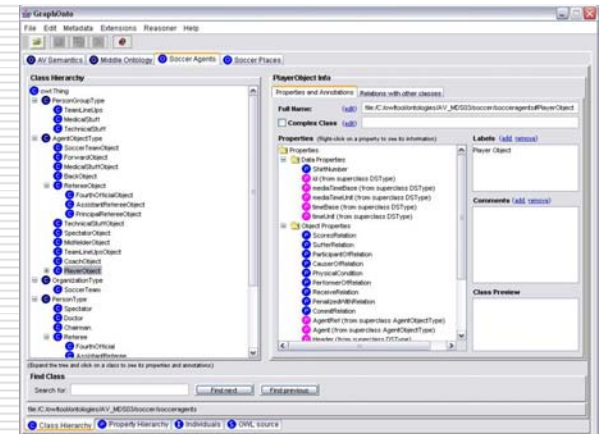
Technical Features

- Java Application
- Uses the OWL API, which is extended for Ontology Editing
- Consistency & Reasoning
  - Ontology Validation takes place
  - Ontology Consistency is checked during editing
    - If an ObjectProperty is InverseFunctional, the Property Values are Unique
    - If two classes are Disjoint, an individual may belong only to one of them
    - If an ObjectProperty is Functional, only one Property Value is allowed
    - Symmetric and InverseProperty Automatically Fill the Property Values
    - allValluesFrom and hasValue are checked in Individual Definitions
  - The Pellet Reasoner is being integrated in GraphOnto
- Interoperation with an MPEG-7 Repository, based on the Berkeley DB

Further Information & Availability

- ☐ GraphOnto available for download at:
  - ■ http://astral.ced.tuc.gr/delos/content/demostrators/graphonto.zip
- ☐ GraphOnto Documentation:
  - ■ http://astral.ced.tuc.gr/delos/cls_resource_description.jsp?id=104 10
- ☐ C. Tsinaraki, P. Polydoros, S. Christodoulakis: "GraphOnto: A Component and a User Interface for the Definition and Use of Ontologies in Multimedia Information Systems". In Proc. of AvivDiLib 2005, pp. 99-102 (http://astral.ced.tuc.gr/delos/cls_resource_description. jsp?id=10163)