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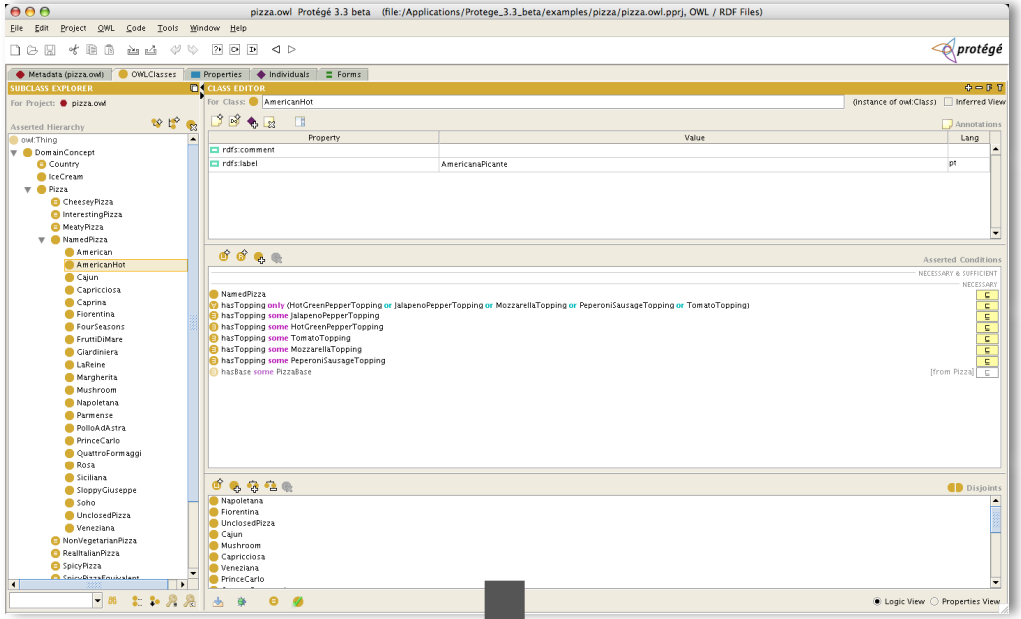
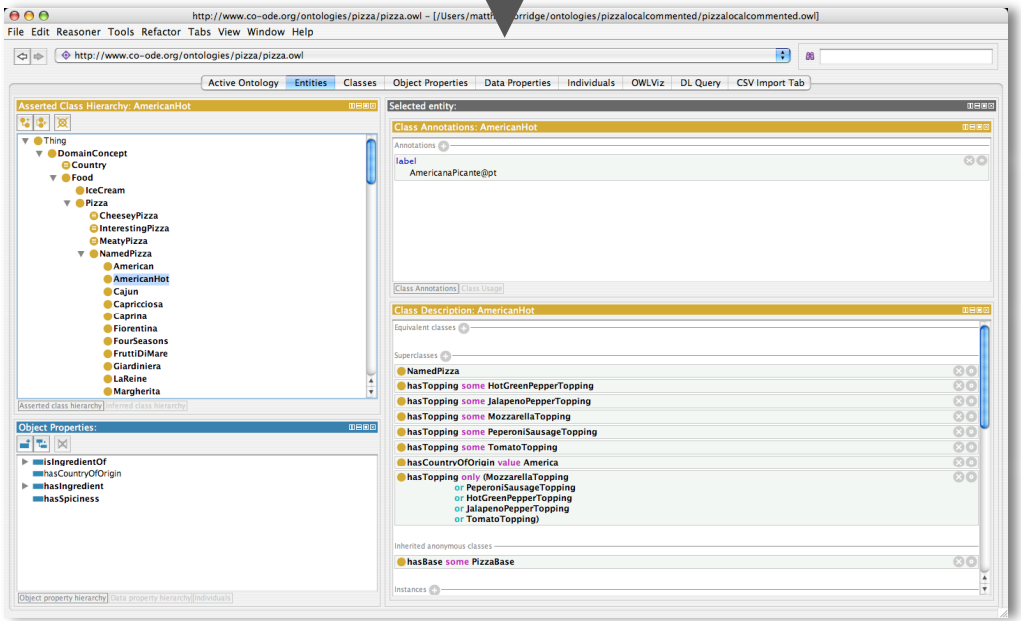
The Protégé 4 OWL Editor

Matthew Horridge and Colleagues





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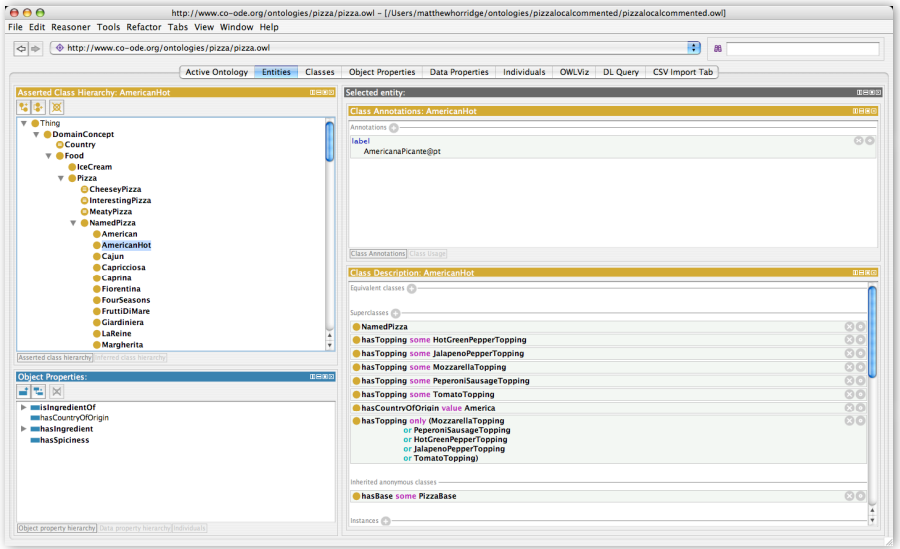
OWL Editor Architecture



Tools: Species validation, Change history, Debugging

Ontology Management

Reasoners

OntologyFactories

OntologyStorers

ParserRegistry

RendererRegistry

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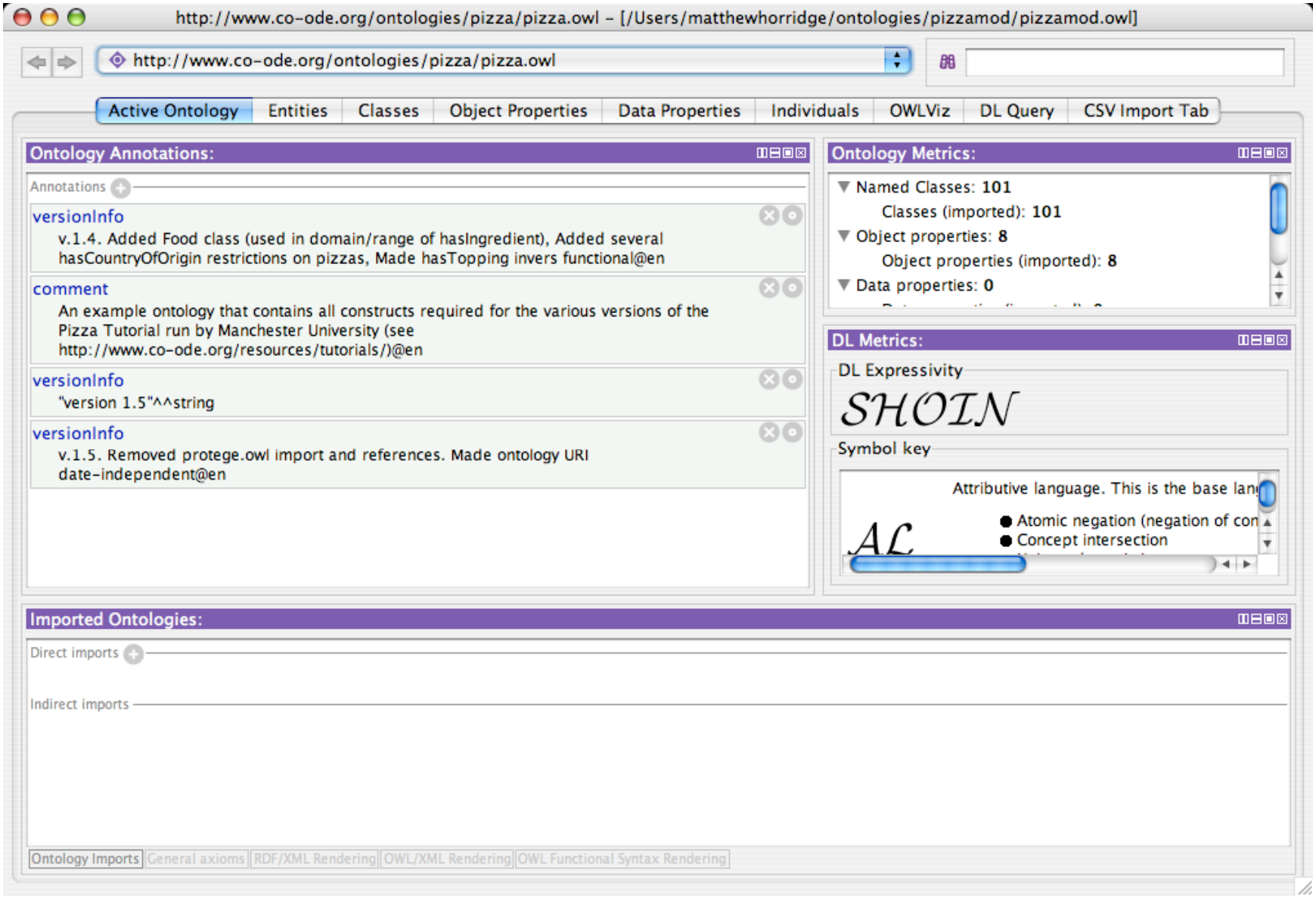
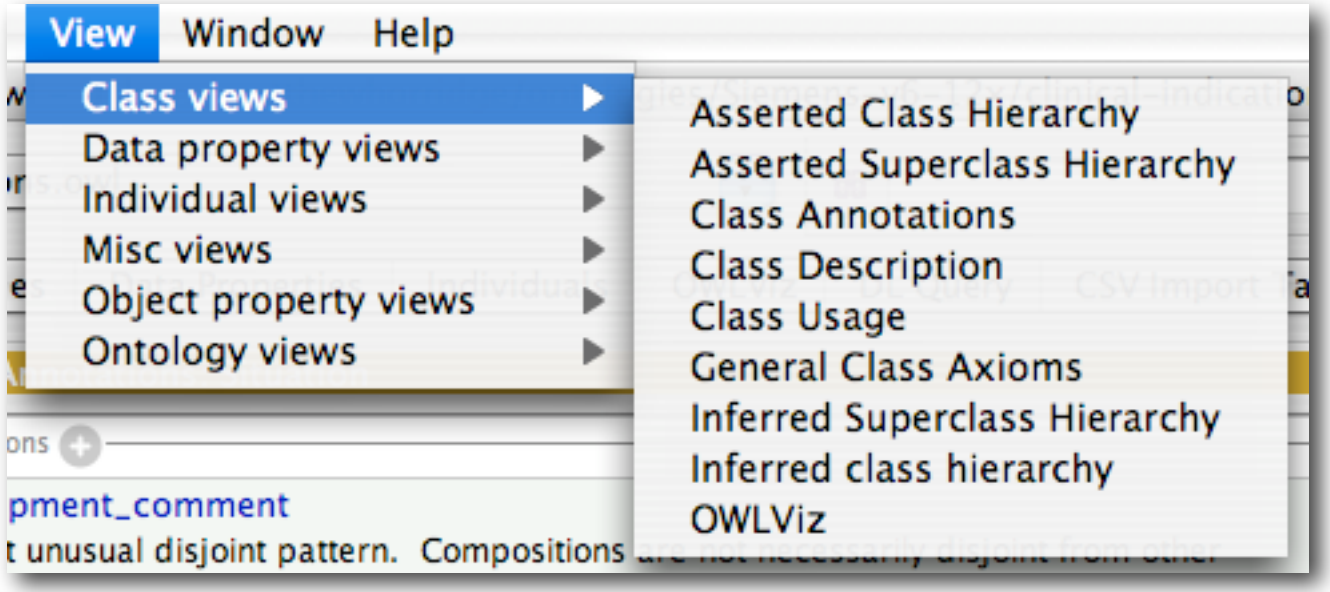
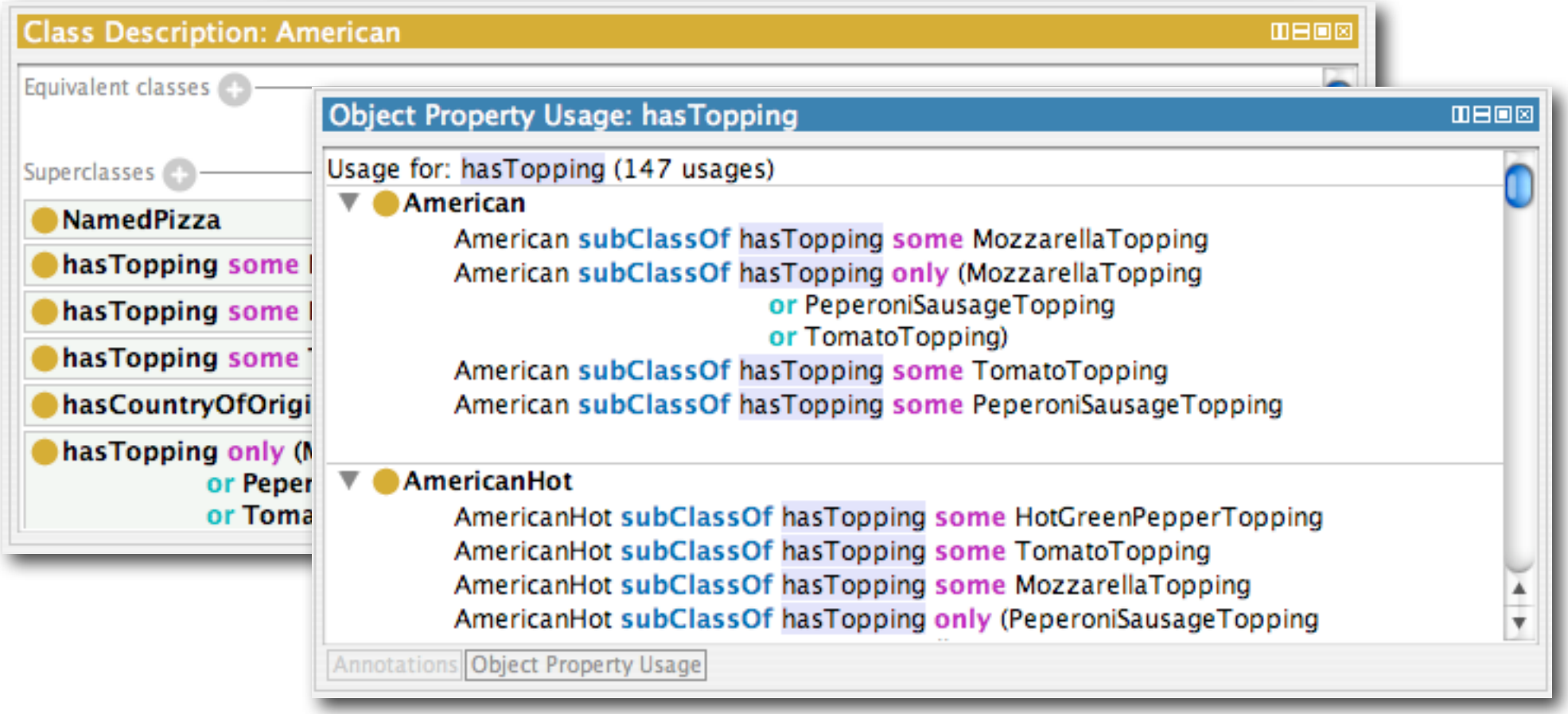
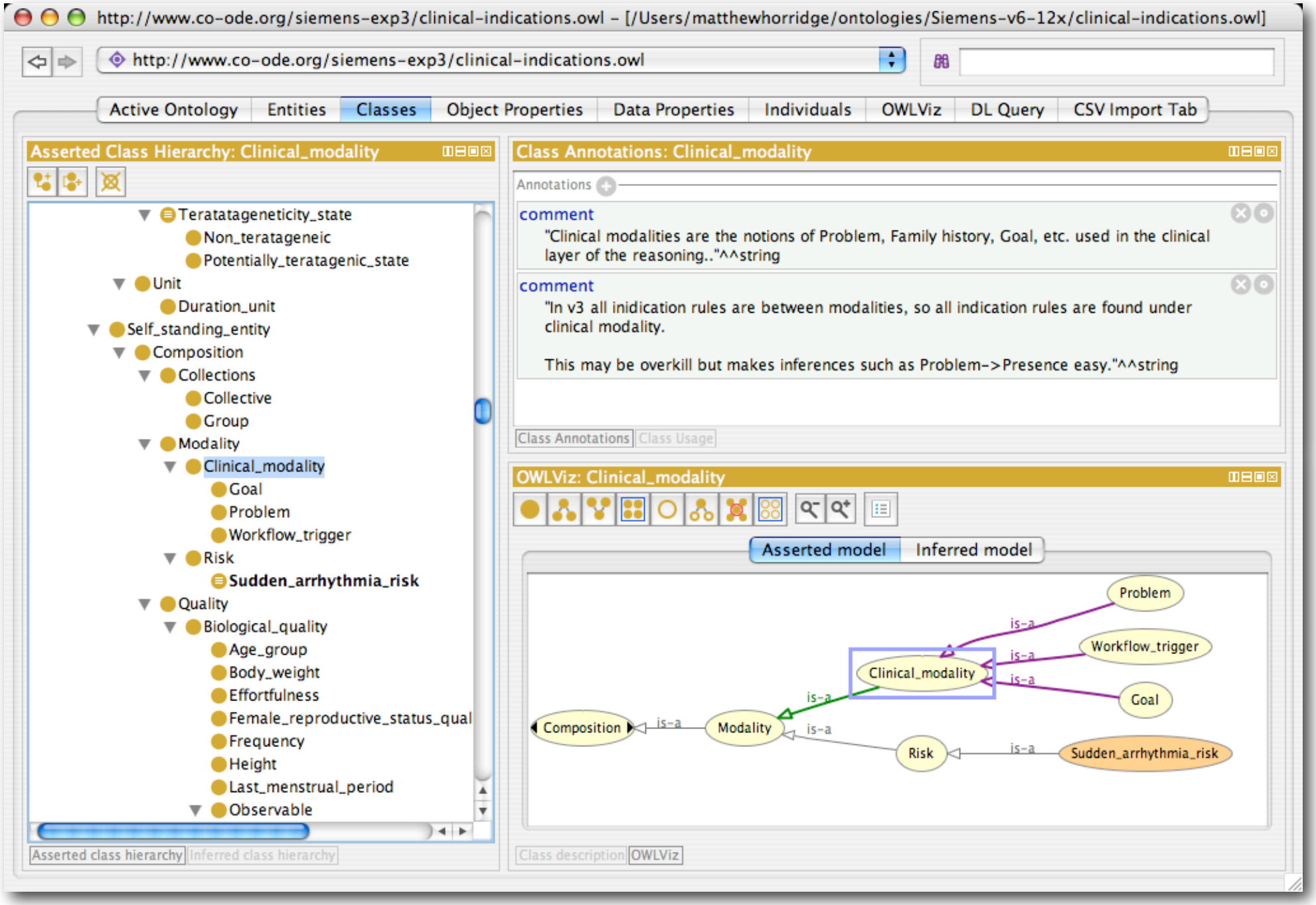
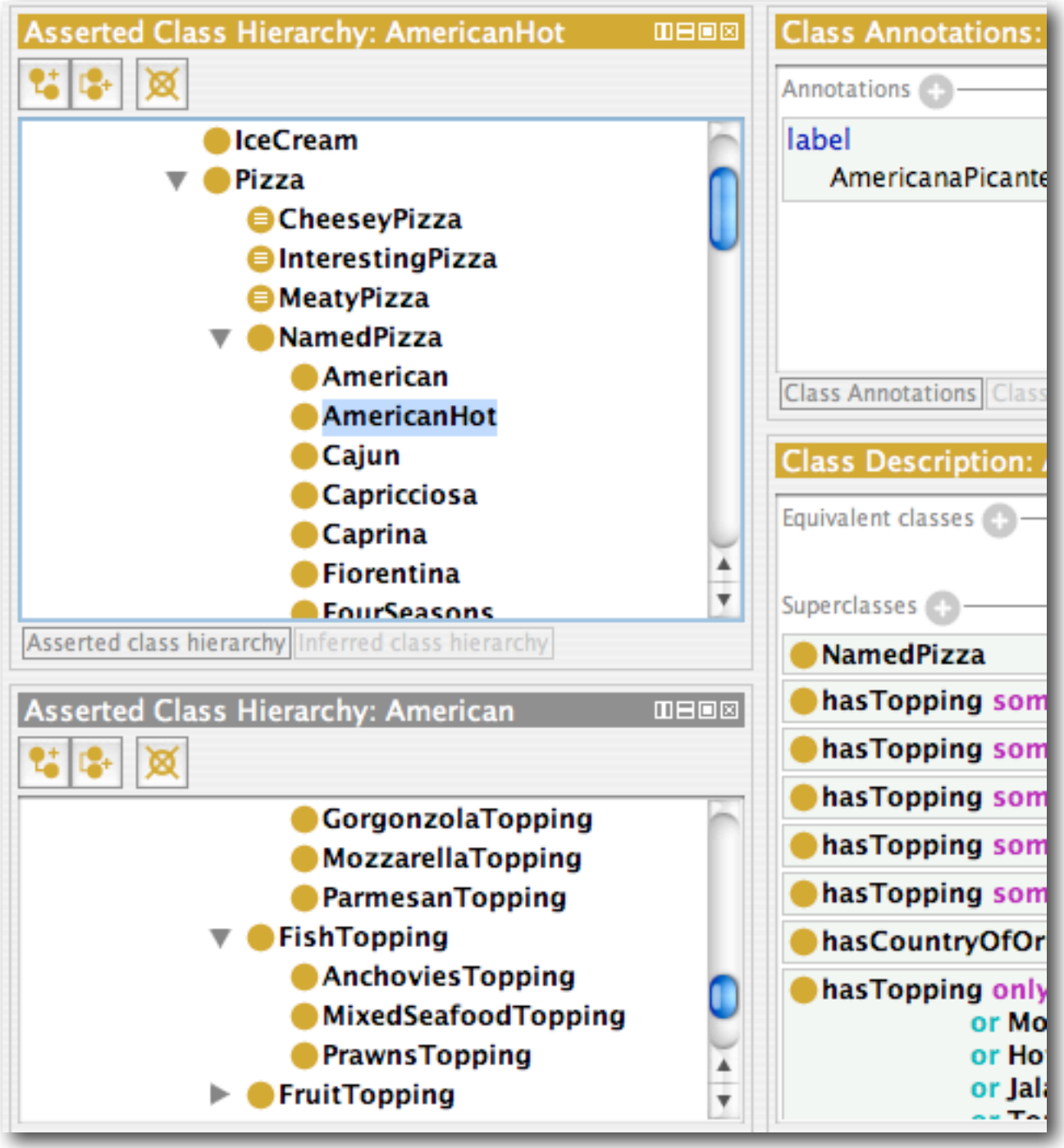
Protégé 4 UI

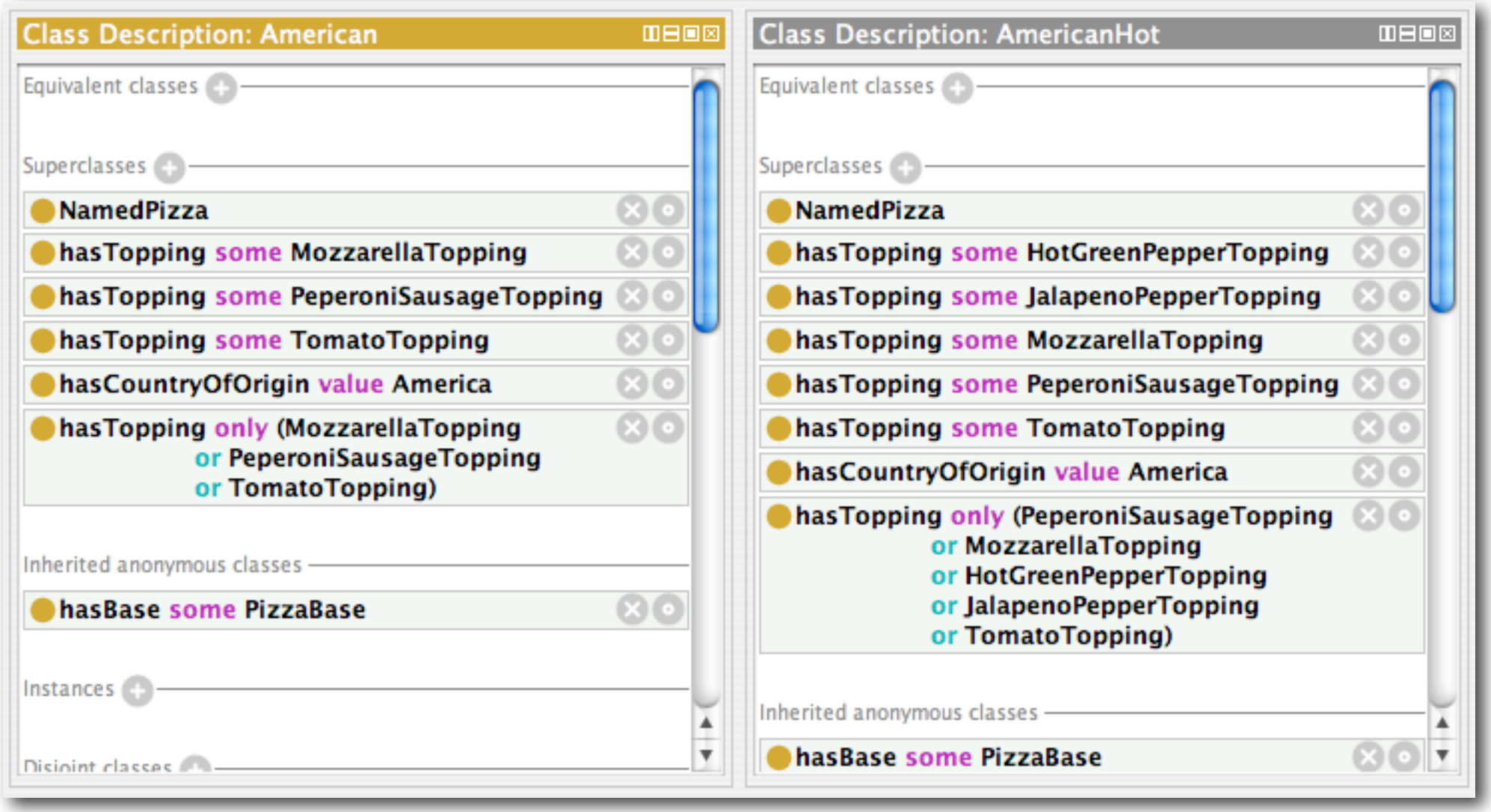




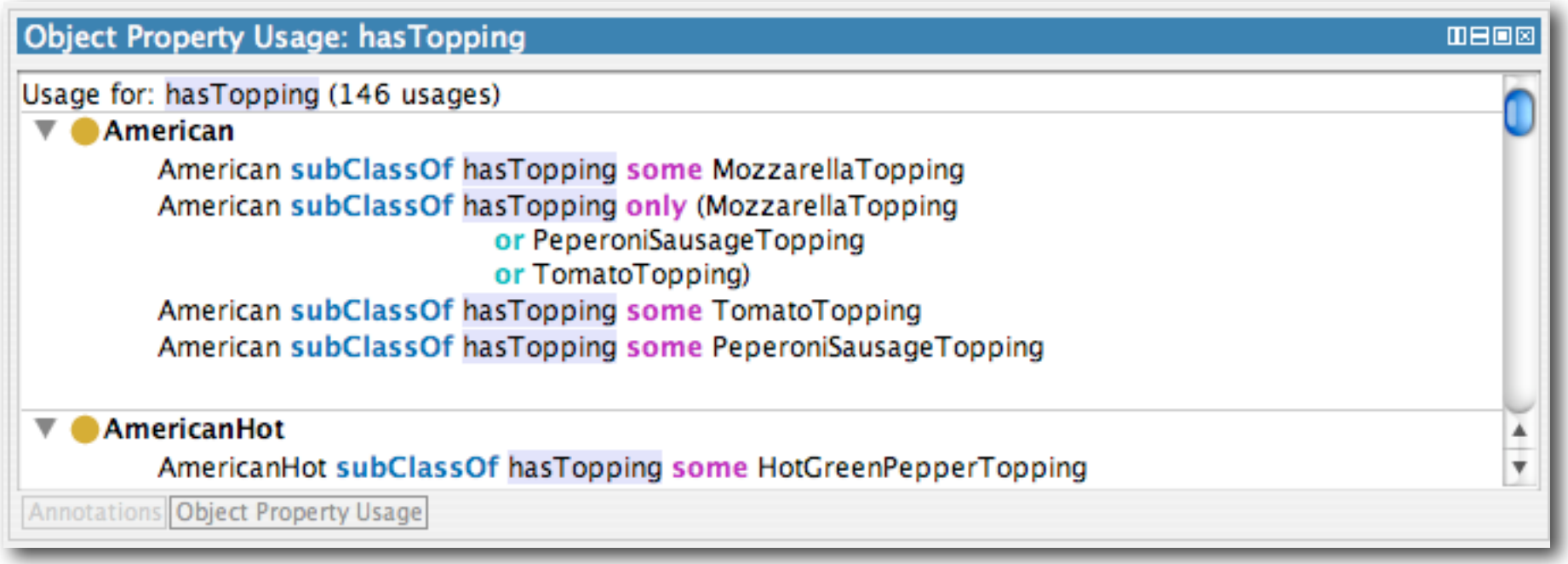




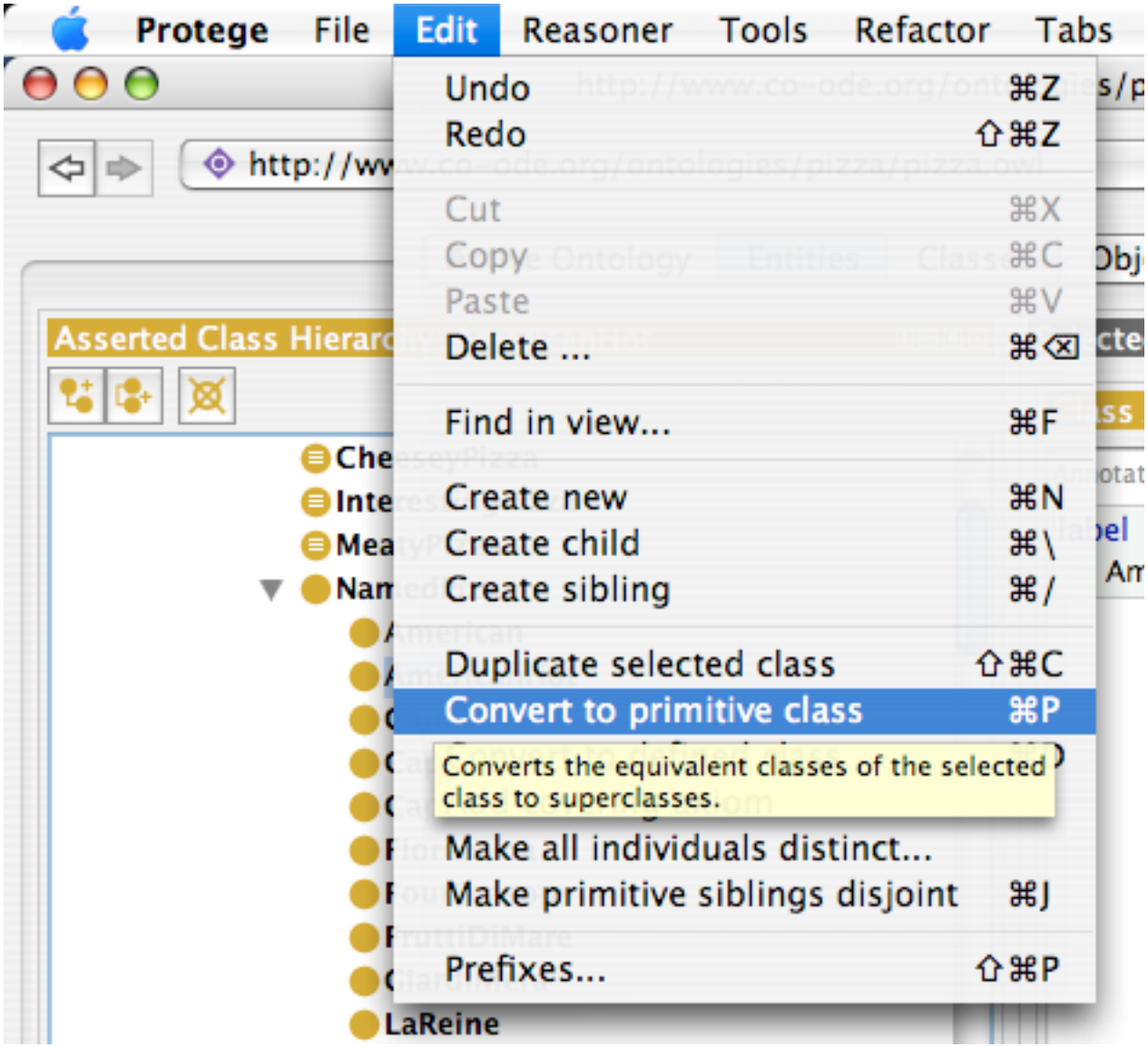


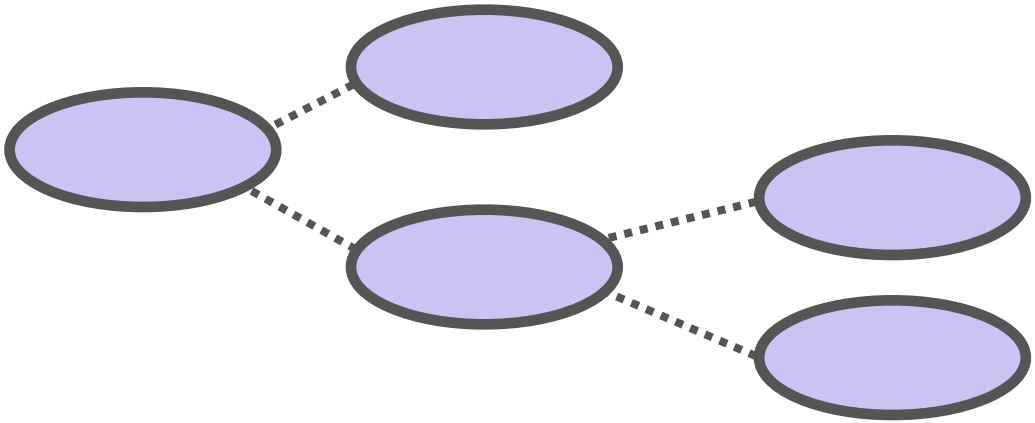


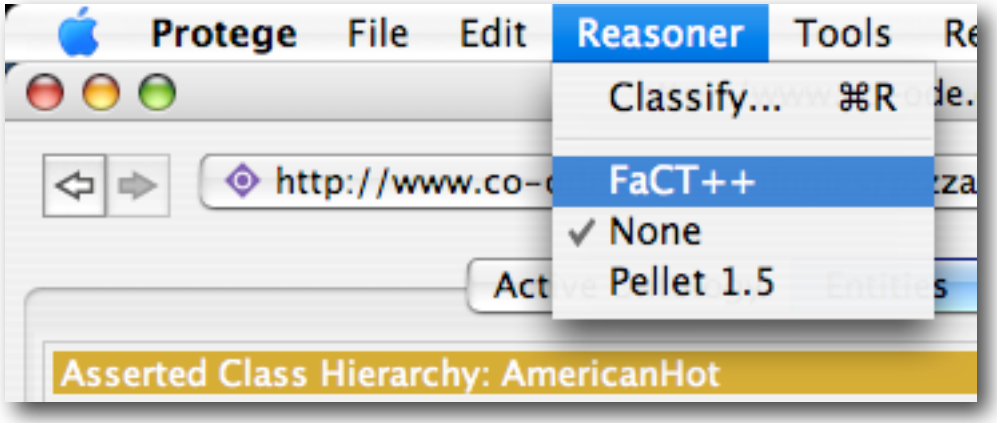
Navigation



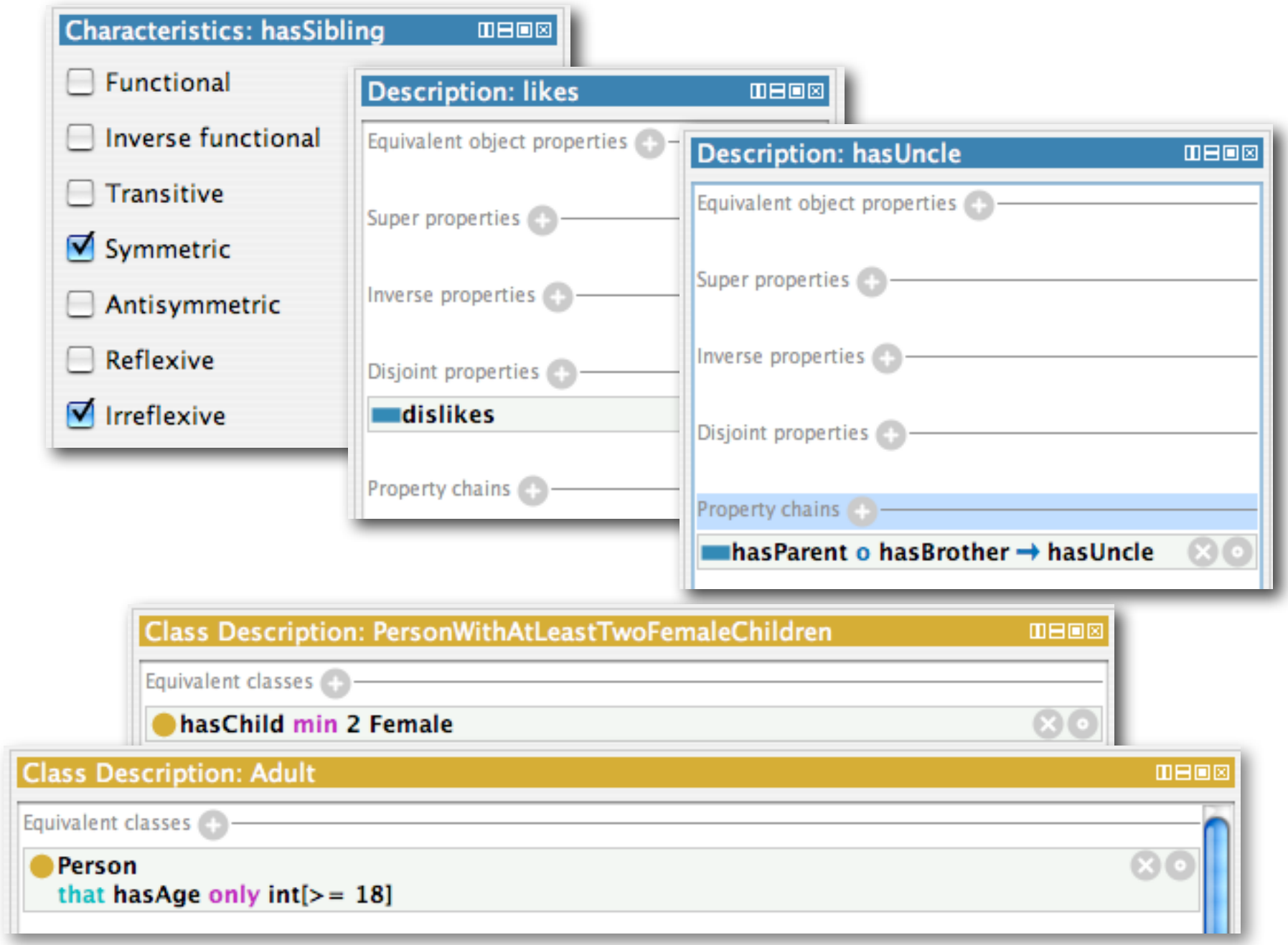
Plugins



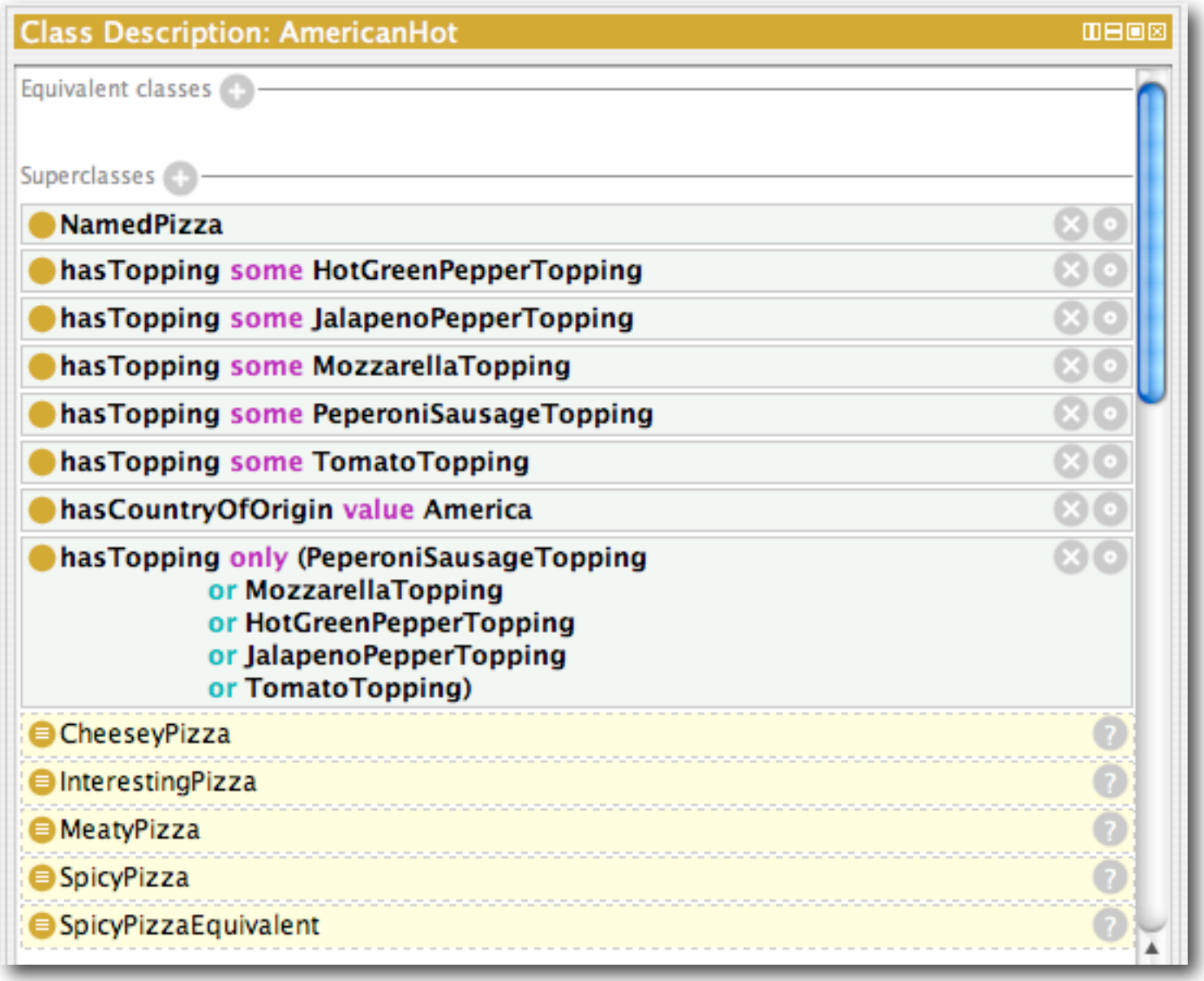


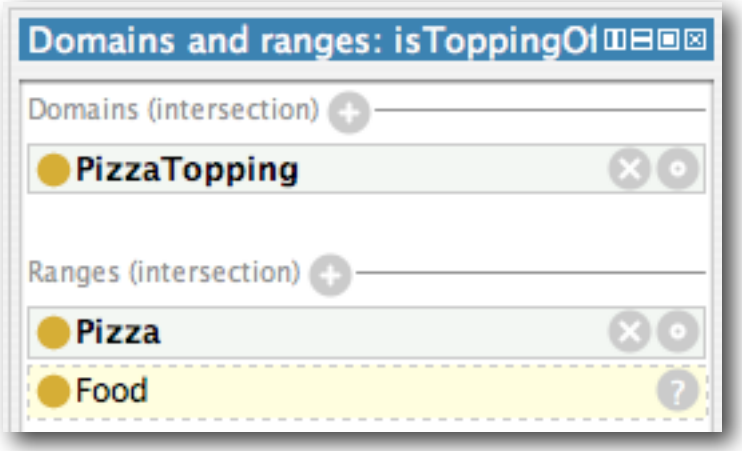


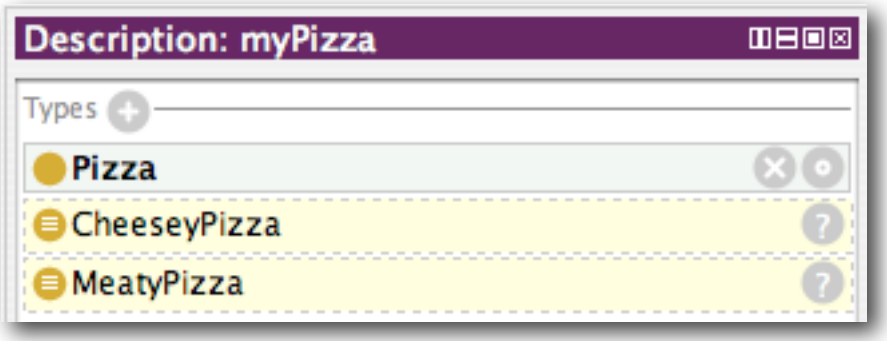
OWL 1.1

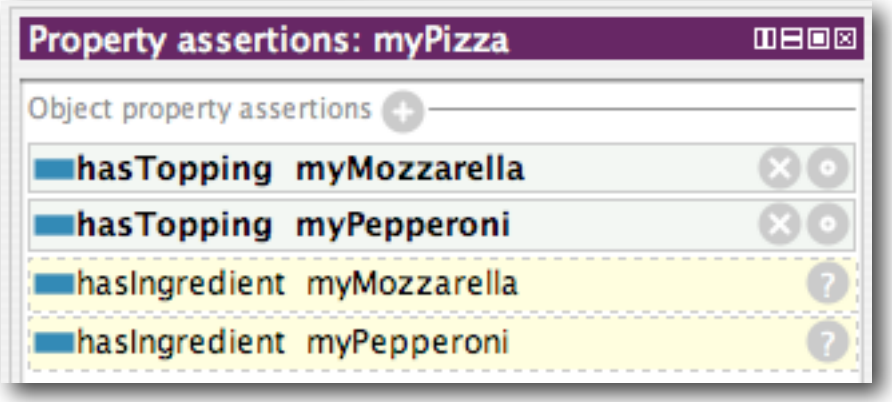


Asserted vs. Inferred




Domains and ranges: isToppingOf
Domains (intersection)
PizzaTopping
Ranges (intersection)
Pizza
Food


Description: myPizza
Types
Pizza
CheeseyPizza
MeatyPizza


Property assertions: myPizza
Object property assertions
hasTopping myMozzarella
hasTopping myPepperoni
hasIngredient myMozzarella
hasIngredient myPepperoni

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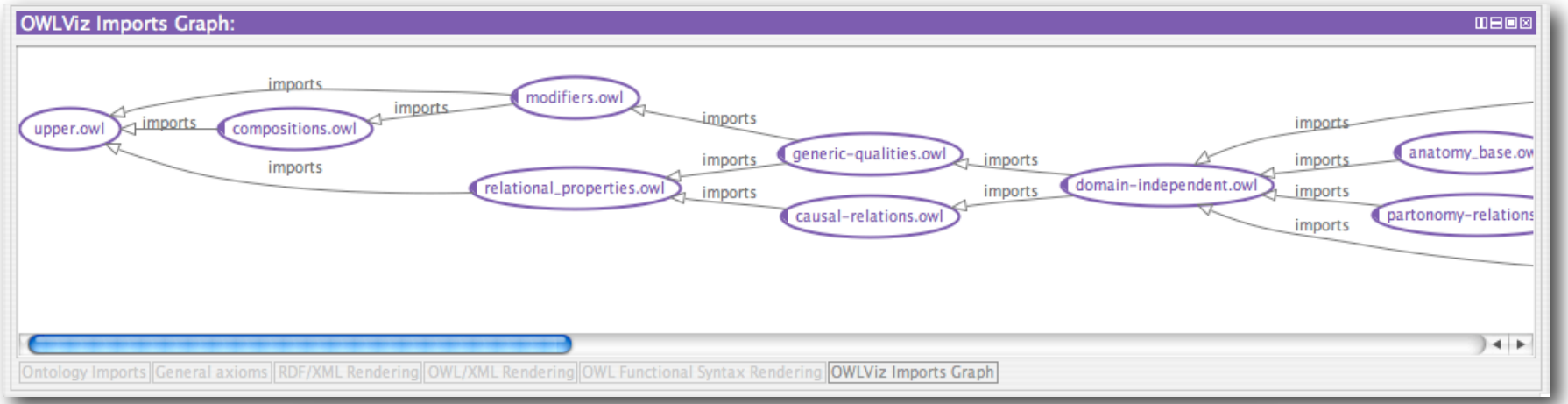
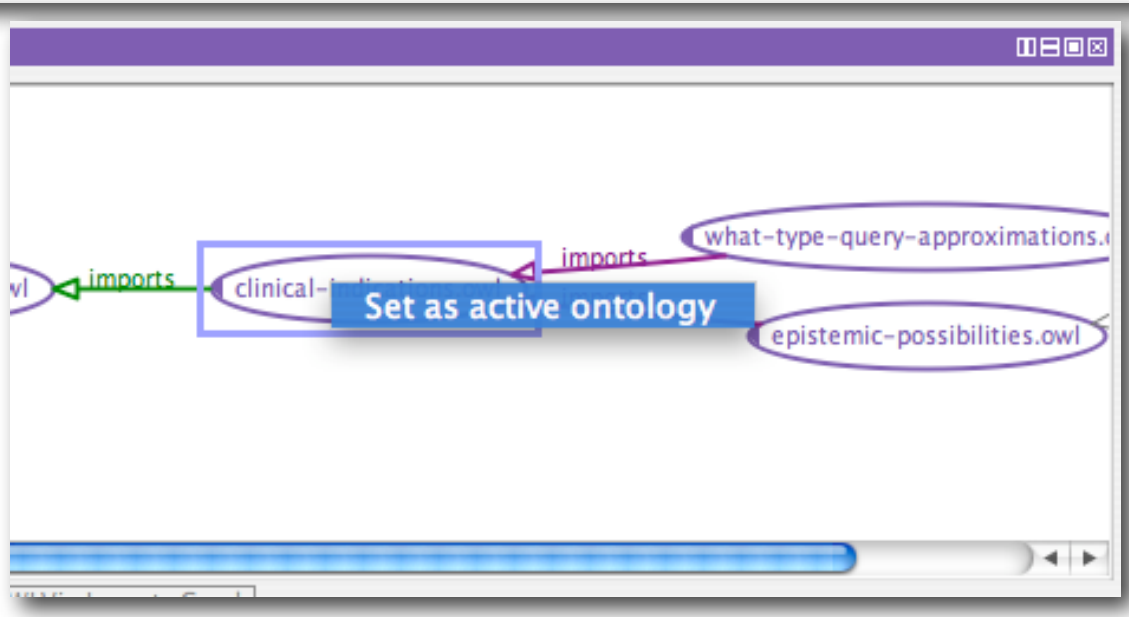
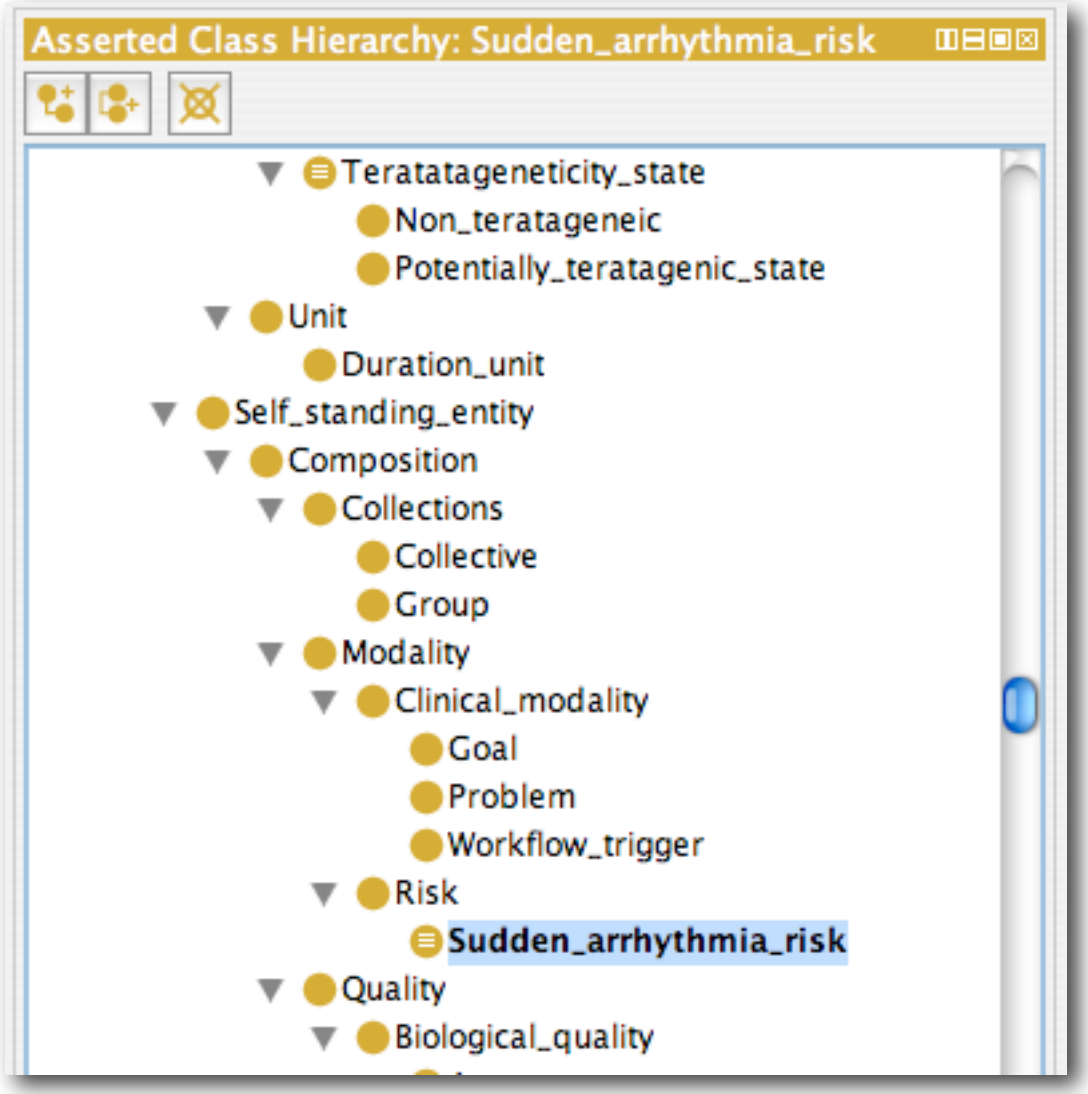
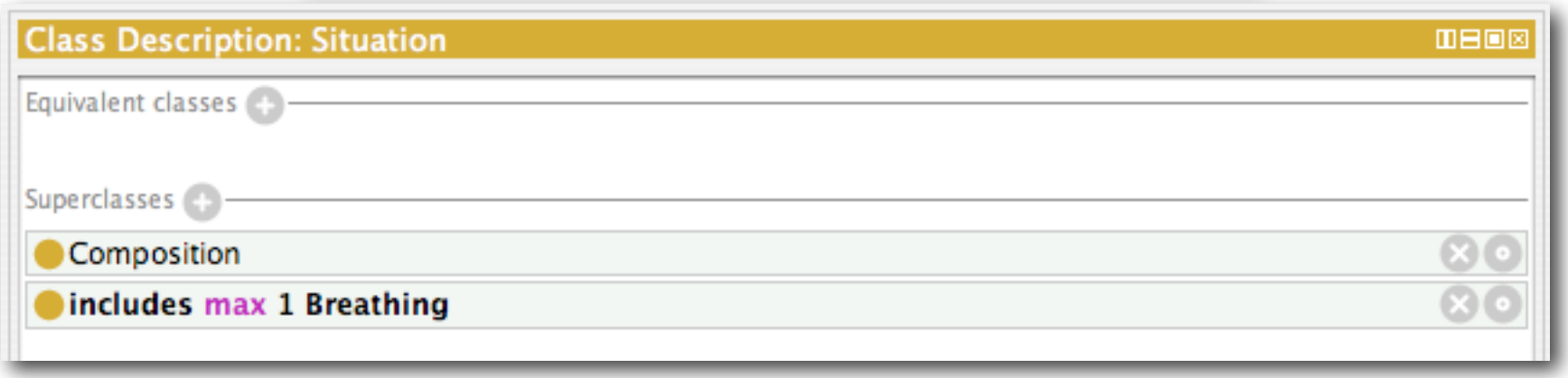
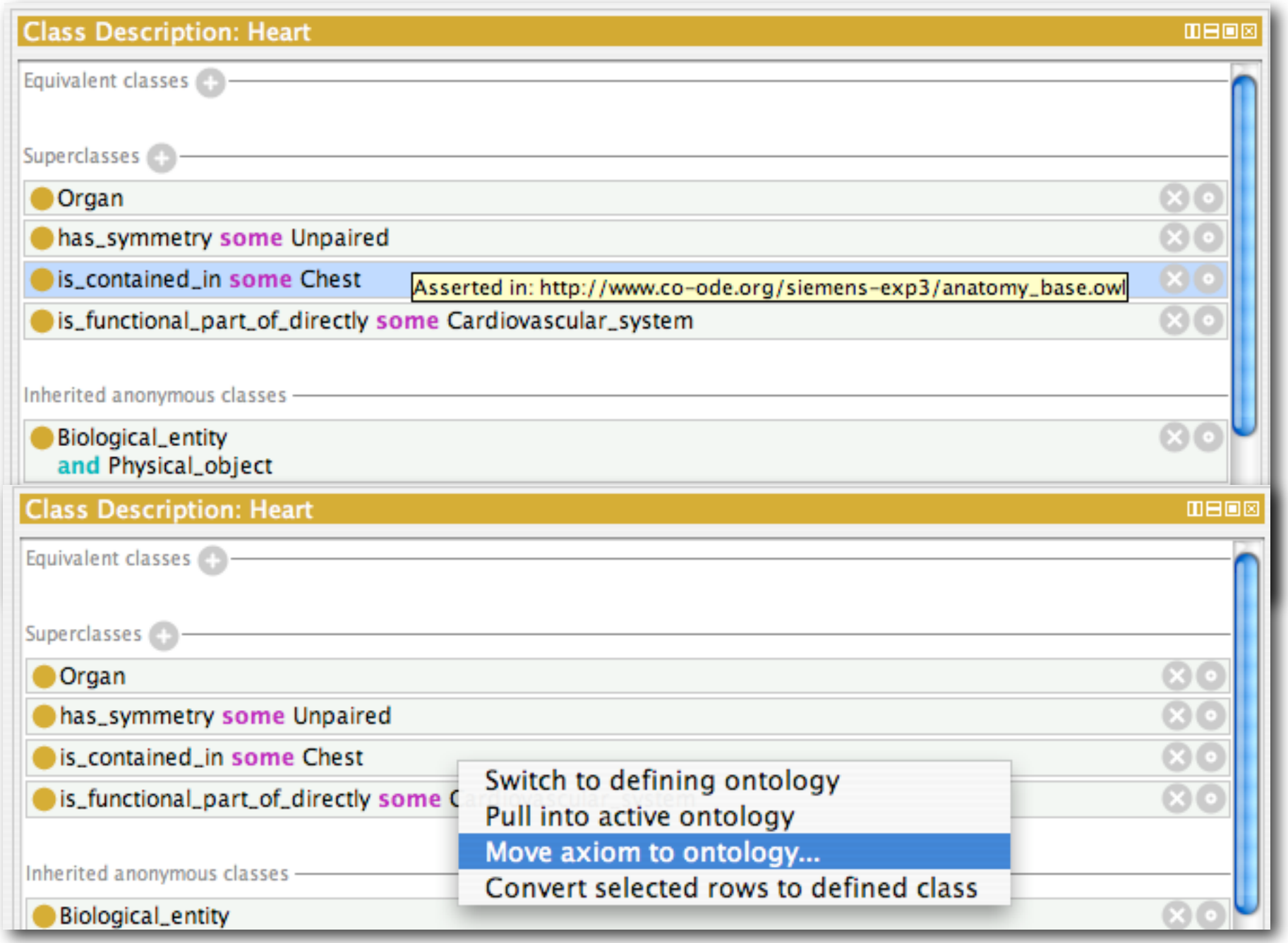
Working with Multiple Ontologies





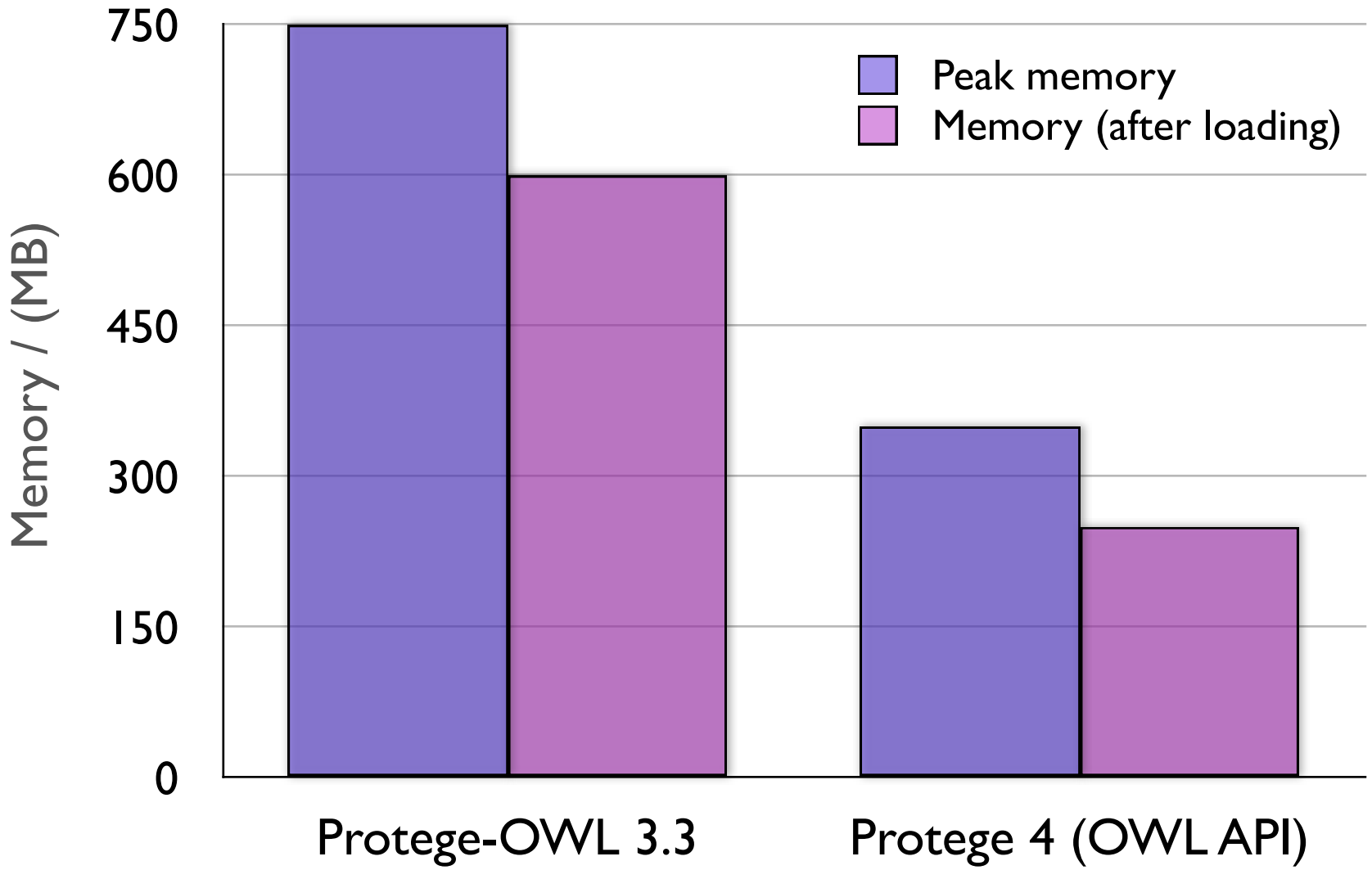




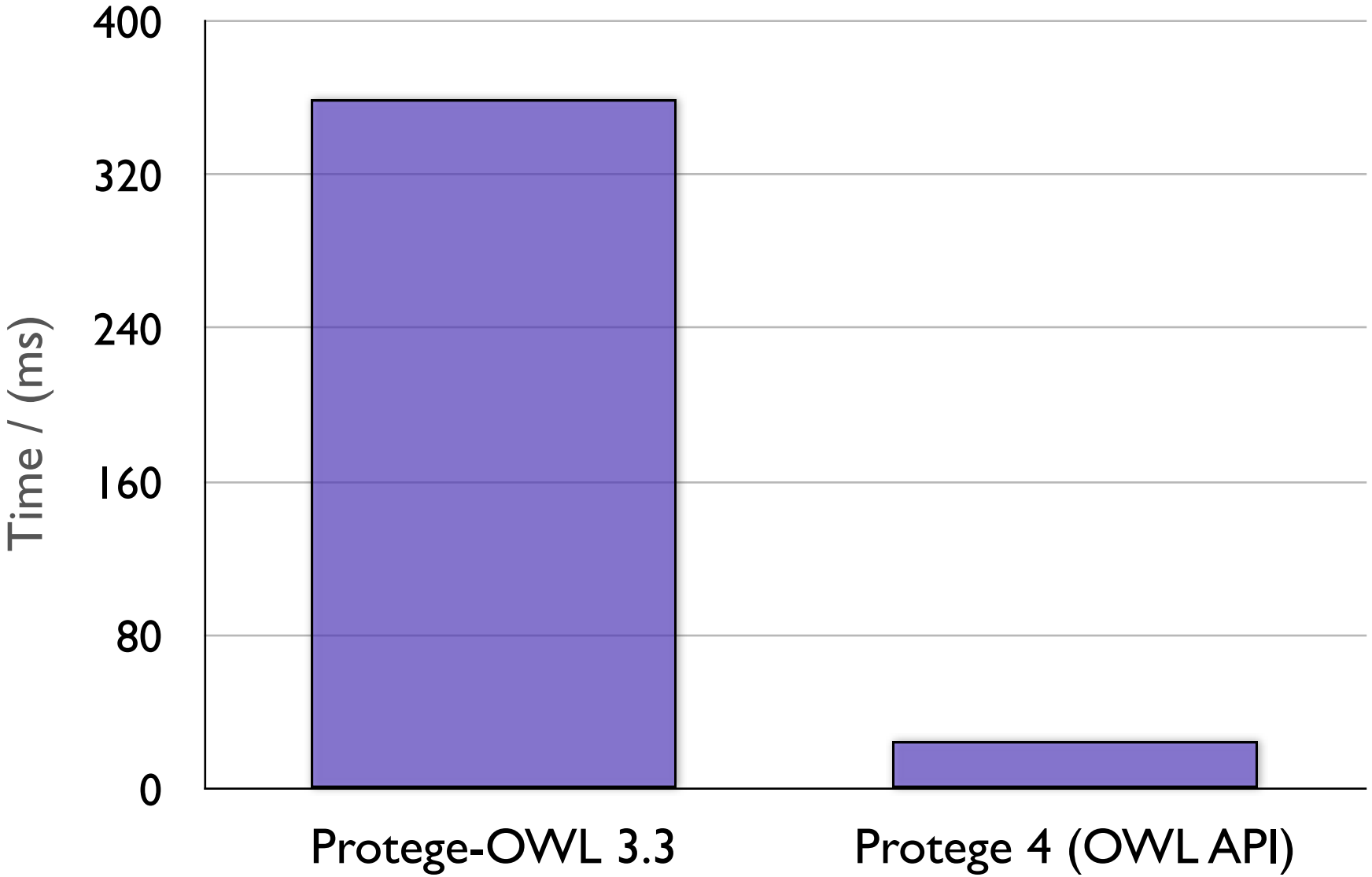


Performance

NCI Thesaurus: Memory Required to load from RDF/XML



NCI Thesaurus Load Time



Conclusions

- New architecture, with a “Native” OWL API
- Flexible dynamically configurable GUI
- Large performance improvements

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Resources

http://protege.stanford.edu/download/registered.html#p4

http://www.co-ode.org

http://owlapi.sourceforge.net

http://www.webont.org/owl/1.1/