

A Proposal for a Shared Symptom Ontology for OWL Applications

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Proposal

Development of a common, shared Ontology for describing Symptoms of inconsistencies and possible errors in OWL documents.

Motivation for Symptom Ontology

- Why “Symptoms”?
 - Specific errors cannot always be identified but you can always observe the symptoms
- Machine readable output from OWL tools
 - Consistent with the objectives of the Semantic Web
 - Permits automated processing and piping of OWL tool output
- Justification for stated system results (e.g. OWL Test Cases)
 - Desirable to have connection to specific OWL axioms violated
- Shared common language
 - Rather than N independent ontologies why not collaborate on one

Symptom Ontology Use Cases

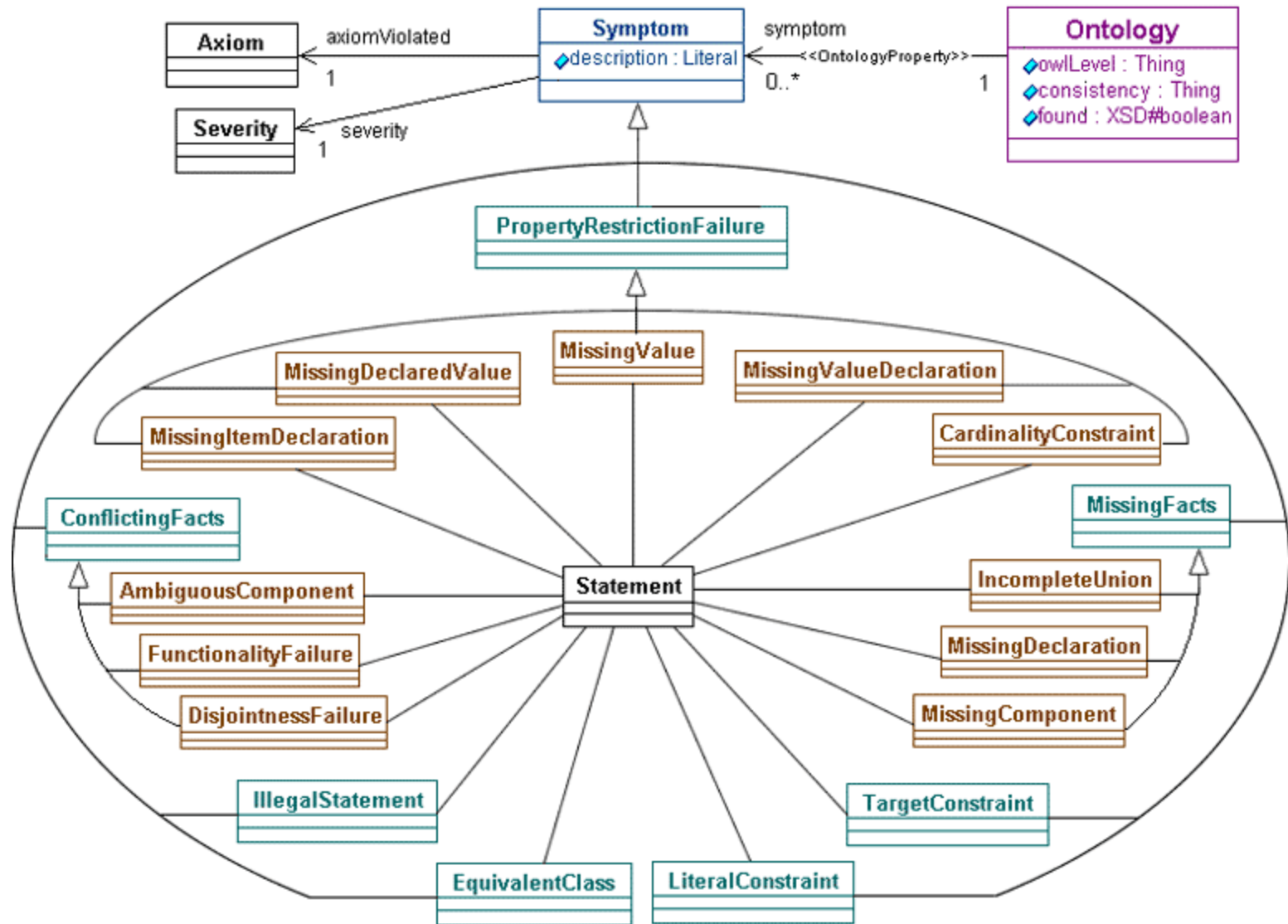
- Validation Tools
- Tools that require consistent OWL Docs
- Justification of Tool Conclusions
- Meta Reasoning Tools
- Co-Reference
- Rule Validation



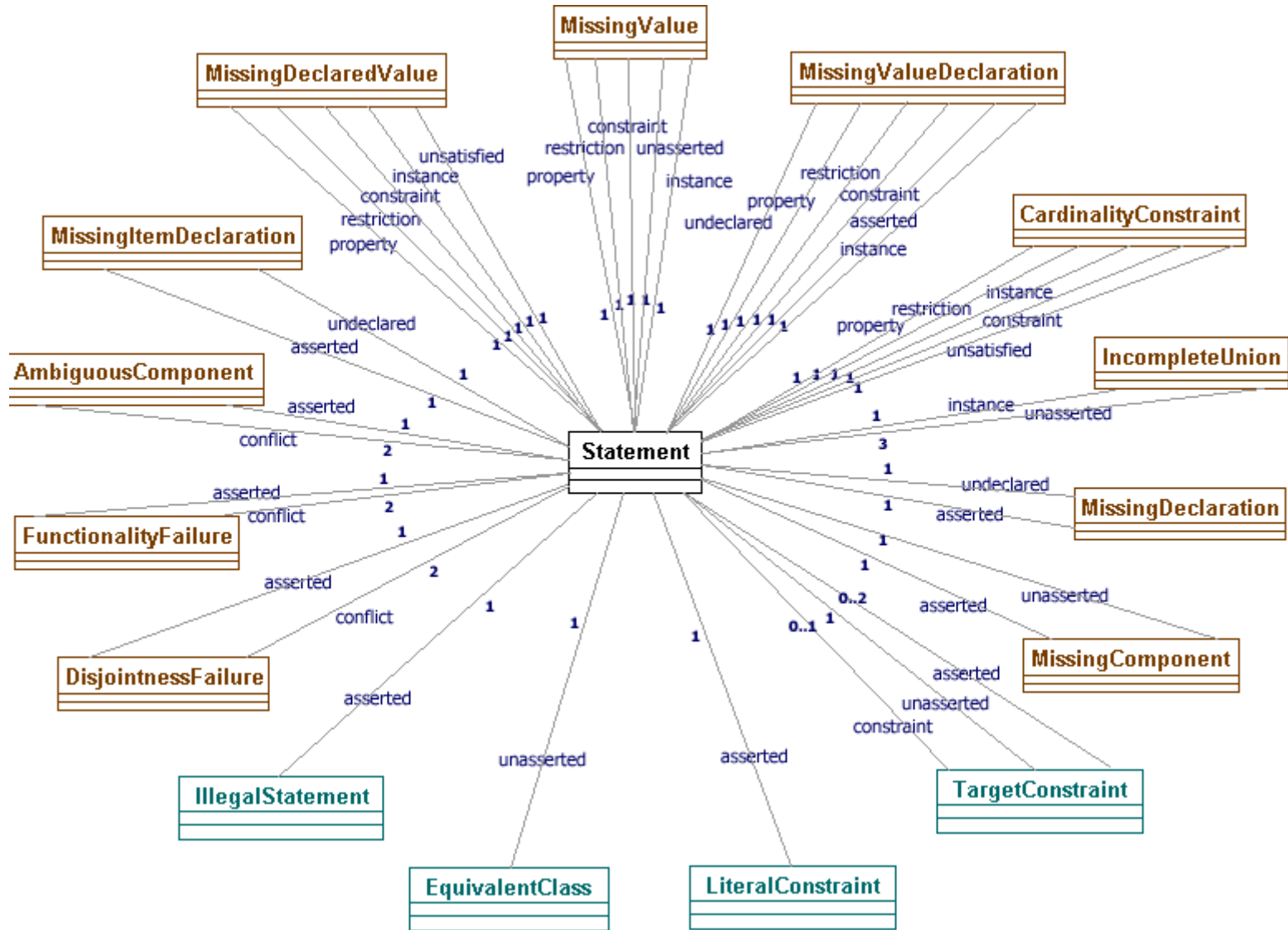
ConsVISor Symptom Ontology

- ConsVISor's Objective: identify symptoms of errors & possible errors in OWL documents and provide helpful diagnostic information to authors
- Symptom ontology driven mostly by desire to produce output as OWL annotations
- Symptoms categorized by the information needed to describe them and their implicated statements
- Symptoms linked to specific OWL/RDF axioms being violated
- Severity Levels: Info, Warnings, Errors, Failures
 - documents can be problematic without being inconsistent

ConsVISor Symptom Ontology



Symptom Properties



Explicit Example

- <http://www.vistology.com/consvisor>

Next Steps?

- Gather feedback from Semantic Web community on the general concept of a shared symptom ontology
- Encourage tool-based use of ConsVISor service and solicit feedback (e.g., AeroSwarm)
- Find tool developers interested in using and extending the current symptom ontology
- Organize team interested in establishing a single shared symptom ontology for Semantic Web applications. Challenge:
 - Categorize symptoms and associate them with axioms



Interested?

- Talk to us: Chris Matheus or Mitch Kokar
- Visit Web Site: <http://www.vistology.com>
- Send Email to: symptom@vistology.com

