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OWL

Web Ontology Language (OWL)

- Publication date: 2012-12-11 (with a previous version published at: 2009-10-27)
- Created by: OWL Working Group ⧉
- List of documents at: http://www.w3.org/standards/techs/owl ⧉

Overview

The W3C Web Ontology Language (OWL) is a Semantic Web language designed to represent rich and complex knowledge about things, groups of things, and relations between things. OWL is a computational logic-based language such that knowledge expressed in OWL can be exploited by computer programs, e.g., to verify the consistency of that knowledge or to make implicit knowledge explicit. OWL documents, known as ontologies, can be published in the World Wide Web and may refer to or be referred from other OWL ontologies. OWL is part of the W3C's Semantic Web technology stack, which includes RDF, RDFS, SPARQL, etc.

The current version of OWL, also referred to as "OWL 2", was developed by the [W3C OWL Working Group ⧉] (now closed) and published in 2009, with a Second Edition published in 2012. OWL 2 is an extension and revision of the 2004 version of OWL developed by the [W3C Web

Ontology Working Group ✐] (now closed) and published in 2004. The deliverables that make up the OWL 2 specification include a Document Overview✐, which serves as an introduction to OWL 2, describes the relationship between OWL 1 and OWL 2, and provides an entry point to the remaining deliverables via a Documentation Roadmap✐.

Recommended Reading

As can be seen from the above mentioned Documentation Roadmap✐, OWL 2 is normatively defined by five core specification documents describing its conceptual structure, primary exchange syntax (RDF/XML), two alternative semantics (Direct and RDF-Based), and conformance requirements. Three additional specification documents describe optional features that may be supported by some implementations: the language profiles, and two alternative concrete syntaxes (OWL/XML and Manchester).

These documents are, however, all rather technical and mainly aimed at OWL 2 implementers and tool developers. Those looking for a more approachable guide to the features and usage of OWL 2 may prefer to consult one of the user documents, which include a Primer✐ and a Quick Reference Guide✐.

A number of textbooks have been published on OWL, and on Semantic Web in general. Please, refer to a separate page listing some of those, as maintained by the community. That list also includes references to conference proceedings and article collections that might be of general interest.

Tools that are listed as relevant to OWL

(Note that you can browse tools per tool categories or programming languages, too.)

Last modified and/or added

The description of the following tools have been added and/or modified most recently.

- GraphDB (last modified: 31 October 2016)
- Content Annotation Manager (last modified: 30 August 2016)
- Intelligent Topics Manager (last modified: 30 August 2016)
- Smart Content Factory (last modified: 29 August 2016)
- Profium Sense (last modified: 26 April 2016)

All relevant tools

This is a list of all tools listed on this wiki, and that are marked as relevant to OWL.

- OWL verbalizer in ACE (development environment).
- Alignment API (api, command line tool). Directly usable from Java
- AllegroGraph RDF Store (triple store, programming environment, reasoner, development environment, rdfs reasoner). Directly usable from Java, LISP, Python, Prolog, C, Ruby, Perl
- Anzo Suite (development environment, programming environment, visualizer, converter). Directly usable from Javascript, Java, .Net
- Jena, a Java RDF API and toolkit (triple store, programming environment, reasoner, rule reasoner, owl reasoner, rdfs reasoner, parser). Directly usable from Java
- BaseVISor (reasoner, programming environment, rule reasoner, owl reasoner). Directly usable from Java
- Blazegraph (Formerly Bigdata®) (triple store, reasoner, rdfs reasoner). Directly usable from Java
- Bossam (reasoner, programming environment, owl reasoner). Directly usable from Java

- [Content Annotation Manager](#) (api, tagging). Directly usable from Java
- [CEX](#) (modularization and diffing).
- [Common Lisp Reasoner](#) (programming environment, rule reasoner, owl reasoner, reasoner). Directly usable from LISP
- [CMap COE](#) (development environment, editor).
- [Closed World Machine (CWM)](#) (programming environment, rule reasoner, owl reasoner, command line tool). Directly usable from Python
- [Callimachus, a Linked Data management system](#) (programming environment, browser, sparql endpoint, special browser, visualizer, development environment). Directly usable from Java, Javascript
- [ClioPatria](#) (triple store, programming environment, reasoner, rule reasoner). Directly usable from Prolog, C
- [Description Logic Complexity Navigator](#) (development environment).
- [DOME](#) (development environment).
- [Datalift](#) (converter, triple store, programming environment, development environment). Directly usable from Java, Javascript
- [dlpconvert](#) (converter). Directly usable from Prolog
- [ELK](#) (reasoner, programming environment, owl reasoner). Directly usable from Java
- [ELMAR-to-GoodRelations](#) (converter, rdf generator).
- [Euler](#) (triple store). Directly usable from Java, C-sharp, Python, Javascript, Prolog
- [Eyeball](#) (validator).
- [FaCT++](#) (reasoner, programming environment, owl reasoner). Directly usable from C++
- [Fluent Editor, an Ontology Editor](#) (editor, development environment, validator, visualizer). Directly usable from R-language
- [... further results](#)

Categories: Work │ Recommendation

Facts about "OWL ⊕"

<div align="right">RDF feed ✦</div>

Creator	http://www.w3.org/2001/sw/#owl ⧉ + ⬕
Description	The W3C Web Ontology Language (OWL) is a Semantic Web language designed to represent rich and complex knowledge about things, groups of things, and relations between things. + ⬕
SameAs	http://www.w3.org/2002/01/tr-automation/techs#owl ⧉ + ⬕
SeeAlso	http://www.w3.org/standards/techs/owl ⧉ + ⬕
Date	11 December 2012 + ⬕

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