

RDF

Resource Description Framework (RDF)



- Publication date: 2014-02-25 (with a previous version published at: 2004-02-10)
- Created by: [RDF Working Group](#)
- List of documents at: <http://www.w3.org/standards/techs/rdf>

Overview

RDF is a standard model for data interchange

on the Web. RDF has features that facilitate data merging even if the underlying schemas differ, and it specifically supports the evolution of schemas over time without requiring all the data consumers to be changed.

RDF extends the linking structure of the Web to use URIs to name the relationship between things as well as the two ends of the link (this is usually referred to as a “triple”). Using this simple model, it allows structured and semi-structured data to be mixed, exposed, and shared across different applications.

This linking structure forms a directed, labeled graph, where the edges represent the named link between two resources, represented by the graph nodes. This *graph view* is the easiest possible mental model for RDF and is often used in easy-to-understand visual explanations.

Recommended Reading

The RDF 1.1 specification consists of a [suite of W3C Recommendations](#) and Working Group Notes, published in 2014. This suite also includes an [RDF Primer](#). See also Tim Berners-Lee’s writings on [Web Design Issues](#), including [Metadata Architecture](#). Other technologies, like [OWL](#) or [SKOS](#), build on RDF and provide language for defining structured, Web-based ontologies which enable richer integration and interoperability of data among descriptive communities.

A number of textbooks have been published on RDF 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.

Discussions on a possible next version of RDF

W3C has recently set up a new [RDF Working Group](#), whose charter is to make a minor revision of RDF.

Tools that are listed as relevant to RDF

(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)
- [SKOS Shuttle, Thesaurus & Document Management as a Service + API](#) (last modified: 5 October 2016)
- [RDFLINK](#) (last modified: 5 October 2016)
- [Intelligent Topics Manager](#) (last modified: 30 August 2016)
- [Content Annotation Manager](#) (last modified: 30 August 2016)

All relevant tools

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

- [3Store](#) (triple store).
- [outdated-4Suite](#) (programming environment). Directly usable from Python
- [4store](#) (triple store).
- [outdated-ARC RDF Store](#) (triple store). Directly usable from PHP
- [ActiveRDF](#) (programming environment). Directly usable from Ruby
- [Alchemy API](#) (rdf generator, tagging).
- [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
- [Apache Any23](#) (programming environment, rdf generator, converter, api). Directly usable from Java
- [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

- [Asio](#) (development environment, rdf generator).
- [BMEcat2GoodRelations](#) (converter, rdf generator, command line tool).
- [babel](#) (converter).
- [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
- [Brahms](#) (programming environment). Directly usable from C++
- [BrowseRDF](#) (semantic web browser).
- [BrowseRDF.com](#) (special browser, rdf or owl browser). Directly usable from Ruby
- [Content Annotation Manager](#) (api, tagging). Directly usable from Java
- [outdated-CARA](#) (programming environment, api). Directly usable from Perl
- [Common Lisp Reasoner](#) (programming environment, rule reasoner, owl reasoner, reasoner). Directly usable from LISP
- [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
- ... further results

Categories: [Work](#) | [Recommendation](#)

Facts about "RDF" ⓘ

RDF feed ⓘ

Creator	http://www.w3.org/2001/sw/#rdf ⓘ + ⓘ
Description	RDF is a standard model for data interchange on the Web. + ⓘ
SameAs	http://www.w3.org/2002/01/tr-automation/techs#rdf ⓘ + ⓘ
SeeAlso	http://www.w3.org/standards/techs/rdf ⓘ + ⓘ
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