

RDF

From Semantic Web Standards



- Publication date: 2004-02-10 (with a previous version published at: 1999-02-22)
- Created by: RDF Working Group (<http://www.w3.org/2001/sw/#rdf>)
- List of documents at: <http://www.w3.org/standards/techs/rdf>

Resource Description Framework (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 Specification consists of a suite of W3C Recommendations (<http://www.w3.org/standards/techs/rdf>) , published in 2004. This suite also includes an RDF Primer (<http://www.w3.org/TR/2004/REC-rdf-primer-20040210/>) . See also Tim Berners-Lee’s writings on Web Design Issues (<http://www.w3.org/DesignIssues/>) , including Metadata Architecture (<http://www.w3.org/DesignIssues/Metadata>) . Other technologies, like OWL or SKOS (http://www.w3.org/2004/02/skos/wiki/Main_Page) , 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

There is, currently, a discussion on the Semantic Web Interest Group (<http://www.w3.org/2001/sw/interest/>) on whether an update of RDF is necessary and, if yes, what form should that take. There is a separate page on this Wiki on that discussion.

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.

- StrixDB (last modified: 21 July 2010)
- StrixStore (last modified: 20 July 2010)
- RDFa Developer (last modified: 17 July 2010)
- RedStore (last modified: 5 July 2010)
- EasyRdf (last modified: 5 July 2010)

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).
- 4Suite (programming environment). Directly usable from Python
- 4store (triple store).
- ARC RDF Store (triple store). Directly usable from PHP
- ActiveRDF (programming environment). Directly usable from Ruby
- Allegro Graph RDF Store (triple store, programming environment, reasoner, development environment). Directly usable from Java, LISP, Python, Prolog
- any23 (rdf generator). Directly usable from Java
- Anzo Suite (development environment, programming environment, visualizer, converter). Directly usable from Javascript, Java, .Net
- Asio (development environment, rdf generator).
- babel (converter).
- BaseVISor (reasoner, programming environment). Directly usable from Java
- Bigdata® (triple store, reasoner).
- Bossam (reasoner, programming environment). Directly usable from Java
- Brahms (programming environment). Directly usable from C++
- BrowseRDF.com (special browser, rdf or owl browser). Directly usable from Ruby
- CARA (programming environment, api). Directly usable from Perl
- ClioPatria (development environment, programming environment). Directly usable from Prolog
- Conceptual Resource Search Engine (Corese) (programming environment, reasoner). Directly usable from Java
- Cuebee: Knowledge Driven Query Formulation (visualizer, special browser). Directly usable from Javascript
- cvs2rdf (converter, rdf generator).
- Closed World Machine (CWM) (programming environment, reasoner). Directly usable from Python
- D2R Server (sparql endpoint).
- D2RQ (triple store, programming environment). Directly usable from Java
- DartGrid (programming environment). Directly usable from Java
- Disco (special browser, semantic web browser).
- ... further results

Retrieved from "http://www.w3.org/2001/sw/wiki/RDF"

Categories: Work | Recommendation

Creator	http://www.w3.org/2001/sw/#rdf +
Date	2004 00:00:00 +
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 +

- This page was last modified on 7 March 2010, at 07:34.