

1. Record Nr.	UNISA996465381303316
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Titolo	Intelligent Information Integration for the Semantic Web [[electronic resource] /] / by Ubbo Visser
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2004
ISBN	3-540-28636-5
Edizione	[1st ed. 2004.]
Descrizione fisica	1 online resource (X, 142 p.)
Collana	Lecture Notes in Artificial Intelligence ; ; 3159
Disciplina	025.04
Soggetti	Computer science Database management Artificial intelligence Information storage and retrieval Application software Computers Popular Computer Science Database Management Artificial Intelligence Information Storage and Retrieval Information Systems Applications (incl. Internet) Theory of Computation
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	and Related Work -- Related Work -- The Buster Approach for Terminological, Spatial, and Temporal Representation and Reasoning -- General Approach of Buster -- Terminological Representation and Reasoning, Semantic Translation -- Spatial Representation and Reasoning -- Temporal Representation and Reasoning -- Implementation, Conclusion, and Future Work -- Implementation Issues and System Demonstration -- Conclusion and Future Work -- References.
Sommario/riassunto	The Semantic Web o?ers new options for information processes. Dr. Visser is dealing with twocore issuesin this area:the integrationofdata

on the semantic level and the problem of spatio-temporal representation and reasoning. He tackles existing research problems within the field of geographic information systems (GIS), the solutions of which are essential for an improved functionality of applications that make use of the Semantic Web (e.g., for heterogeneous digital maps). In addition, they are of fundamental significance for information sciences as such. In an introductory overview of this field of research, he motivates the necessity for formal metadata for unstructured information in the World Wide Web. Without metadata, an efficient search on a semantic level will turn out to be impossible, above all if it is not only applied to a terminological level but also to spatial-temporal knowledge. In this context, the task of information integration is divided into syntactic, structural, and semantic integration, the last class by far the most difficult, above all with respect to contextual semantic heterogeneities. A current overview of the state of the art in the field of information integration follows. Emphasis is put particularly on the representation of spatial and temporal aspects including the corresponding inference mechanisms, and also the special requirements on the Open GIS Consortium.
