

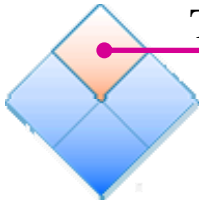


Building Ontference

From Concept to Application in 5 weeks

Ralph Hodgson, TopQuadrant
Geoff Chappell, Intellidimension

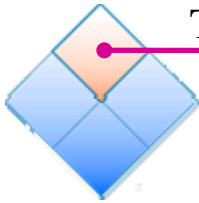
March 8, 2006



Why did we build Ontference?



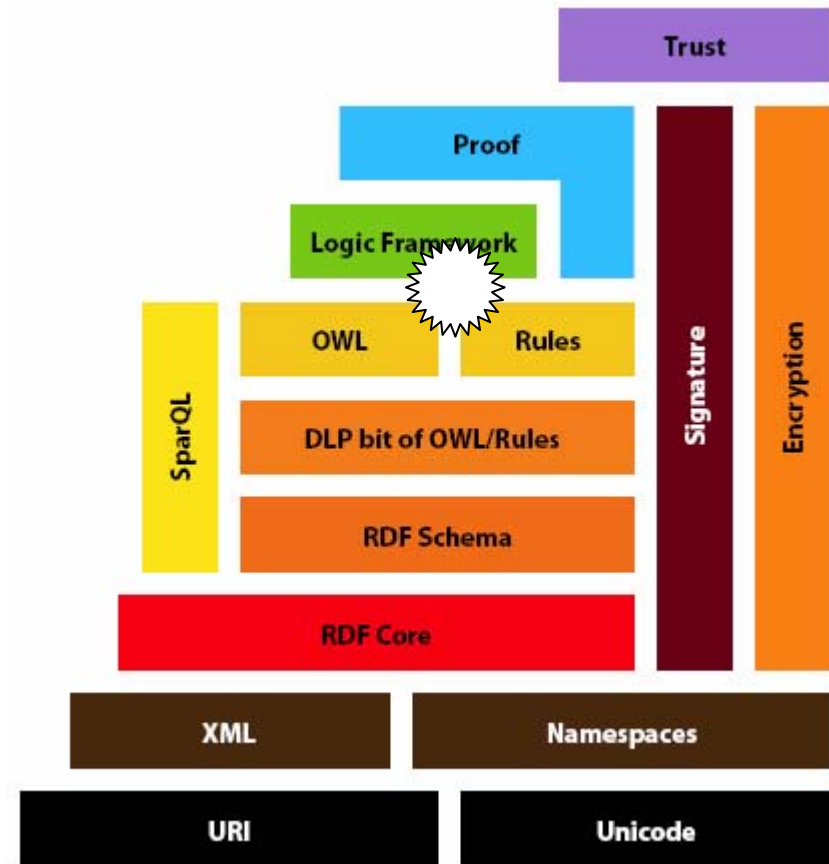
- ❑ To “enhance the event experience”
- ❑ To help conference attendees connect better to each other
 - People are as interested in interacting with others who share their interests as they are in attending talks
 - Semantic Web as an emerging technology needs a strong community of users - the motivation for a *Semantic Guild*
- ❑ To show what is possible with OWL standards and technologies
 - Semantic Web applications can be built quickly
 - Demonstrator of the differences and similarities between semantic and more conventional applications and development processes
 - Demonstrator of specific points of value of semantic technology
 - To serve as a pedagogical example

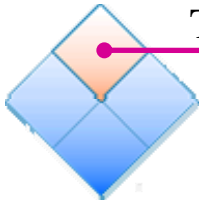


The 'eventprogram' ontology

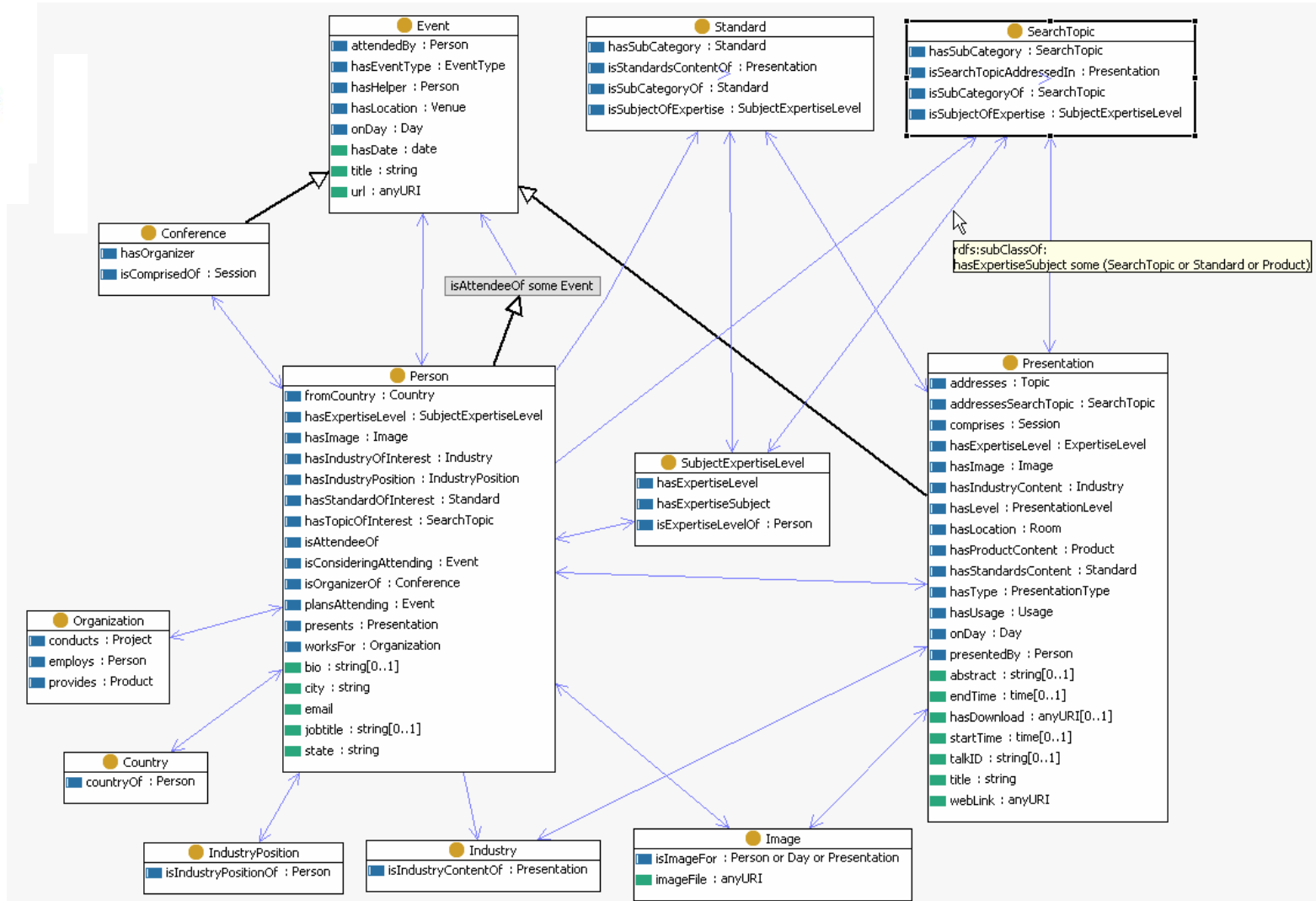


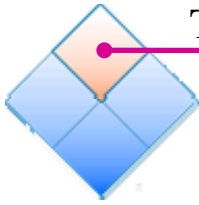
- ❑ OWL-DL
- ❑ Uses
 - OWL Restrictions
 - Equivalent Classes
 - 'SameAs'
 - Datalog rules
- ❑ Schema separate from Instances





The 'eventprogram' ontology

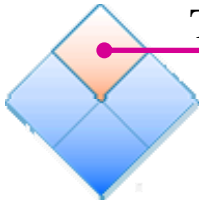




Challenges in working with the Conference Content



- ❑ Multiple Formats:
 - PDF
 - Spreadsheets
 - HTML Web pages
- ❑ Converted using:
 - LAPIS extraction techniques
 - Prolog
- ❑ Evolved and Managed as datasets in TopBraid *inConcert*
 - a Web-based Semantic Content Manager



TopQuadrant

STC2006 Datasets in TopBraid *inConcert*



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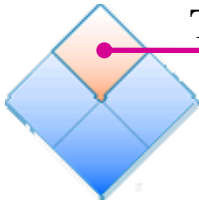
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Current Project: STC2006

Datasets	Based on Ontology	Includes Datasets	Created	Modified	Size
industries	eventprogram		2/25/2006 16:32	2/25/2006 16:3	72
stc2006-categories	eventprogram	stc2006-program-v3, industries	2/25/2006 15:50	2/28/2006 9:46	443
stc2006-networkinginterests	eventprogram		3/1/2006 8:51	3/1/2006 9:0	30
stc2006-program-v3	eventprogram	industries	2/25/2006 16:11	2/28/2006 18:13	2607
stc2006-times	eventprogram	stc2006-program-v3	2/25/2006 16:11	2/25/2006 16:11	210
stc2006-urls	eventprogram	stc2006-program-v3	2/25/2006 15:41	2/25/2006 15:41	106
stc2006-v2	eventprogram	stc2006-categories, stc2006-times, stc2006-program-v3, stc2006-urls, industries	2/25/2006 16:12	2/25/2006 16:12	0
topont-facets	TopOnt		2/3/2006 15:26	2/3/2006 15:38	18

[Create Dataset](#)



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- Monday (16)
- Tuesday (34)
- Wednesday (41)
- Thursday (14)

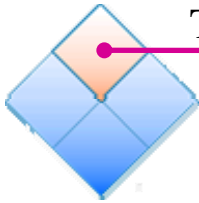
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Sunday					
Semantics in Perspective 6:30 PM - 7:30 PM Gold Room					
Monday					
Ontology 101 Revisited 8:30 AM - 12:00 PM Regency 1 Ballroom	Formal Ontology 8:30 AM - 12:00 PM Sacramento Room	Semantic Web Programming 8:30 AM - 12:00 PM Regency 2 Ballroom	Semantic Web Services: Tools and Applications 8:30 AM - 12:00 PM Gold Room	Turning Unstructured Data into Gold 8:30 AM - 12:00 PM Crystal Room	
Taxonomy Development and Implementation 1:15 PM - 4:45 PM Regency 2 Ballroom	Building Semantic Applications Using Jena 1:15 PM - 4:45 PM Gold Room	OWL and Semantic Web Platforms for Life Sciences 1:15 PM - 4:45 PM Sacramento Room	Semantics and Business Rules 1:15 PM - 4:45 PM Crystal Room	Semantics for the Enterprise Architect 1:15 PM - 4:45 PM Regency 1 Ballroom	
Geospatial Semantic Web: An Interoperability Experiment 5:00 PM - 6:00 PM Sacramento Room	Ontology Engineering - the Role of Ontology Architecture in an Integrated Lifecycle Approach 5:00 PM - 6:00 PM Regency 2 Ballroom	Strategies for Managing Navigational Taxonomies with Descriptive Ontologies 5:00 PM - 6:00 PM Regency 1 Ballroom	The NCI caCORE: Leveraging Standards and Business Vocabulary for Semantic Interoperability 5:00 PM - 6:00 PM Piedmont Room	Web Logic: Open Networks and the (Proposed) Common Logic Standard 5:00 PM - 6:00 PM Crystal Room	Working Introduction to Semantic Web Logics, and Beyond 5:00 PM - 6:00 PM Gold Room

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Ontference – “Shopping” for Talks



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Ontference For **2006 Semantic Technology Conference**

Ontology Engineering - the Role of Ontology Architecture in an Integrated Lifecycle Approach

abstract With the increasing use of semantic technology in enterprise systems, there is a growing need for effective methodologies for developing, populating, integrating and maintaining ontologies. A number of ontology development methods have been published, but there has been little work to integrate ontology engineering into a complete life-cycle method based on established methods such as the Rational Unified Process (RUP). This talk will present some approaches to this integration, emphasizing the need for ontology architecture and the need to integrate competency/capability questions into a Use Case and Capability Case approach. A focus will be given to how the early (and most critical) stages of the lifecycle can be supported using techniques from Stakeholder Analysis, Organizational Domain Modeling (ODM), Solution Envisioning using Capability Cases and Use Case Modeling.

addresses Developing Ontologies in RDF/OWL

search topic

download http://www.semantic-conference.com/2up_BW/Hodgson-Coyne-bw.pdf

end time 18:00:00

has industry Government

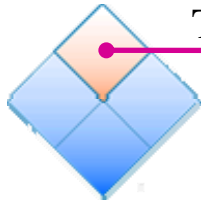
content Recruitment and Human Resources, Ontologies in RDF/OWL

will be attended by Ralph Hodgson, Brett Jones, Dan McCreary, Alan Greenblatt, Eric Hoffer, Saul Kravitz, Geoff Chappell, Tammi Pierce, John M. Linebarger, Dean Allemang, Wade Wickman

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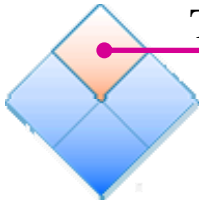
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Alberto Reggiori

CTO, [Asemantics S.r.l.](#)

Alex Kass ★★

Senior Research Manager, [Accenture Technology Labs](#)



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The matrix of matching interests

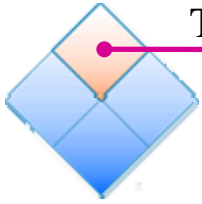


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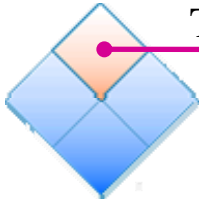
<i>hasMatchingInterest</i>	<u>Collaborating on a research topic/project</u>	<u>Collaborating on the development of a product</u>	<u>Developing/evolving a standard</u>	<u>Discussing problems that Semantic Technology might address</u>	<u>Envisioning how semantic capabilities might address problems</u>	<u>Finding Finance for a new venture</u>	<u>Investing/providing finance</u>	<u>Meeting others from my organization</u>	<u>Meeting people from my locale</u>	<u>Meeting people with similar interests/problems</u>	<u>Organizing a community/forum on a specific topic</u>	<u>Participating in a Semantic Guild</u>
<u>Collaborating on a research topic/project</u>	x											
<u>Collaborating on the development of a product</u>		x										
<u>Developing/evolving a standard</u>			x									
<u>Discussing problems that Semantic Technology might address</u>				x	x							
<u>Envisioning how semantic capabilities might address problems</u>				x	x							
<u>Finding Finance for a new venture</u>							x					
<u>Investing/providing finance</u>						x						
<u>Meeting others from my organization</u>								x				
<u>Meeting people from my locale</u>									x			
<u>Meeting people with similar interests/problems</u>										x		
<u>Organizing a community/forum on a specific topic</u>											x	
<u>Participating in a Semantic Guild</u>												x



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Building Ontference on RDF Gateway

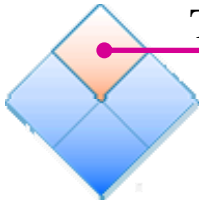


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Overall Goals



- Ontology-driven
- Performance
- Control Data Visibility
- SOA

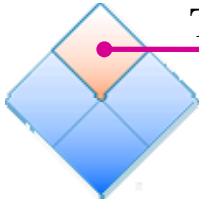


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Ontology-Driven Applications



- Put application logic in ontology + rules
 - Simplifies application model
 - Flexible, evolvable
 - Easier to manage and maintain
 - System ontology + Application Ontology
 - Easily separate UI layer

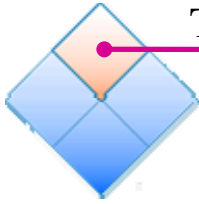


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Performance



- Dynamic OWL model w/incremental inferencing
- Simple queries / complex rules (i.e. pay it once)
- On-demand data-retrieval (i.e. Ajax)

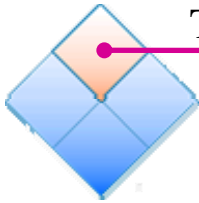


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Data Visibility



- Private data in separate context within same table
- Rules determine which private data is visible in public context
- System level security possible w/context permissions



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SOA



- Clear separation between application logic, data access & UI
- Easy to replace presentation layer (e.g. to move to PHP, JSP, ASP, etc.)
- Easier maintenance