



Semantic Web Applications Bridging from SemWeb to the Web

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The Themes

- (undigested) information vs. (usable, adequately credible, actionable) knowledge
- From undirected mash-up to considered information merging
- Web presentation of (digested) Semantic Web information to enable action
- TopBraid Suite (or similar) to bridge from Semantic Web to the Web



The Players

- **Ontologist**
 - Assesses information sources (both SW and enterprise): fitness for purpose
 - Designs ontologies transforms
 - Merges information
- **Rich Client Designer**
 - Designs information presentation
 - Configures/extends rich client platform
- **Server administrator**
 - Permits appropriate access to enterprise information
 - Manages reliability



The Tools

- **An Ontologist Workbench**
 - E.g. TopBraid Composer
- **A Semantic Web enabled Rich Client Platform**
 - E.g. TopBraid ensemble
- **A Semantic Web enabled Web Server**
 - E.g. TopBraid Live
- **An integrated framework**
 - E.g. TopBraid Suite



TopBraid Composer

The screenshot displays the TopBraid Composer interface within the Eclipse SDK. The main window is titled "TopBraid - www.topbraid.org/2007/05/reau1000.owl - Eclipse SDK". The interface is divided into several panes:

- Classes:** A tree view on the left showing the ontology structure, including classes like owl:Thing, person:Person, realestate:RealEstate, and world:Address.
- Resource Form:** The central pane shows a form for the resource "reau:REA103938651". It includes fields for Name, label, bedrooms (3), bathrooms (3), carports (2), price (\$AU) (759000.0), location (au:RUNAWAY_BAY_QLD), and a description. An image field shows a photograph of a waterfront townhouse.
- Properties:** A list of properties on the right, including realestate:agent, realestate:address, and world:state.
- Instances:** A table at the bottom showing a list of instances with columns for [Resource], rdf:type, realestate:loc..., realestate:be..., realestate:bat..., and realestate:pric....

[Resource]	rdf:type	realestate:loc...	realestate:be...	realestate:bat...	realestate:pric...
reau:REA10...	realestate:Apa...	au:WOY_WOY...	3	2	399000.0
reau:REA10...	realestate:Apa...	au:WOY_WOY...	3	2	389000.0
reau:REA10...	realestate:Apa...	au:WOY_WOY...	3	2	389000.0
reau:REA10...	realestate:Apa...	au:FORSTER_...	2	1	395000.0
reau:REA10...	realestate:Apa...	au:LAKES_ENT...	3	2	365000.0
reau:REA10...	realestate:Apa...	au:COOLANGA...	2	2	599000.0
reau:REA10...	realestate:Apa...	au:WOY_WOY...	2	1	249000.0
reau:REA10...	realestate:Apa...	au:BUDERIM_...	2	1	285000.0
reau:REA10...	realestate:Apa...	au:MELBOURN...	2	1	399000.0



TopBraid Ensemble

TopBraid Ensemble

User: aldi Logout Nodes: 391 Triples: 564 TopQuadrant

Project: reau1000.owl

Concept Navigator

- Address
- Agent (359)
- Area
- Country (5)
- Person (1)
- Query
- Real estate
 - Apartment (113)
 - House (347)
 - Townhouse
- State

Search **Basket**

Location:

Bedrooms: Min Max

Bathrooms: Min Max

Price (\$AU): Min Max

Results

Name	Location	Bedroom	Bathroom	Price (\$A
MIDDLE_RIDGE(QLD) Apar	MIDDLE RIDGE	3	2	595000.0
WENTWORTHVILLE(NSW)	WENTWORTHV	2	1	345000.0
MIDDLE_RIDGE(QLD) Apar	MIDDLE RIDGE	3	2	595000.0
REDCLIFFE(QLD) Apartmer	REDCLIFFE QLE	3	1	315000.0
MALANDA(QLD) Apartment	MALANDA QLD	3	1	460000.0
POMONA(QLD) Apartment-	POMONA QLD	3	2	549000.0

Geography

Map Satellite Hybrid

Graph RUNAWAY_BAY(QLD) Apartment-3/3: Superb Waterfront Townhouse

RUNAWAY_BAY(QLD) Apartment-3/3: Superb Waterfront Townhouse:Apartment

Label: RUNAWAY_BAY(QLD) Apartment-3/3: Superb Waterfront Townhouse

Image:

Bedrooms: 3 Bathrooms: 3 Carports: 2

Price (\$AU): 759000.0

Location: RUNAWAY BAY QLD

Description:

location → RUNAWAY BAY QLD

state → Queensland

Transferring data from localhost...



Summary

- Building a SW Application on the Web
 - Diverse Problems
 - Integrating appropriate information
 - Presenting usable information
 - Linking it all together
- Easiest to use an integrated platform
 - TopBraid Suite



Technical Topics

- Please chat to me about:
 - Integrating ontologist workbench and server
 - Importance of client side caching
 - Choice of Rich Client Platform framework

