



The Gargonza Experiment

Building
interoperable
SPARQL
applications
for the
Semantic Web

Gargonza

The experiment was named after the castle of Gargonza, a 13th century walled village in the hills above the town of Monte San Savino in Tuscany where we had the first face-to-face meeting in April 2005



Aim:

to try and glue together some SPARQL applications by gathering people with data and code ...

...and plying them with wine :-)

SPARQL

- Simple (-ish) query language for RDF data
- RDF access without RDF syntax; returns XML
- Coming soon! (and stabilizing now)

Gargonza inputs

geeks + data + libraries = applications?

Gargonza outputs

- Several Sparql end points with data
- “RuSH” (RDF and Sparql over HTTP)
- Pushing on with libraries
- Some first applications
- A community of developers

Sparql endpoints

- 4 end points, all respecting LIMIT, all containing similar photo data
- Morten (Sparqlette, over Redland), Zac (Zparqler over RDFStore), Greg (Perl over Redland), Libby (Sparqler/ Joseki)
- Interoperability! (kinda)

'RuSH'

- Ian Davis suggested the idea of Ajax for RDF (Sparql + an http protocol + javascript + DOM)
- Damian Steer and I wrote a simple API for accessing Sparql data stores written in Javascript
- An example:

Example

```
query = "PREFIX foaf: <http://xmlns.com/foaf/0.1/>  
SELECT $photo $thumbnail WHERE {$photo foaf:thumbnail $thumbnail}";
```

```
endpoint = "http://demo2.asemantics.com/zparqler/exe/";
```

```
callback = somefunction;
```

```
sparqlReq = new SparqlRequest();  
sparqlReq.endpoint = endpoint;  
sparqlReq.query = query;  
sparqlReq.callback = callback;
```

Returns an array of hashes (rows) of objects (Bnode, Resource, Literal).

Data!

- 3(!) different ways to get data out of iPhoto
- [http://rdf4food.asemantics.org/
GeneratingDataFromIphoto](http://rdf4food.asemantics.org/GeneratingDataFromIphoto)

Sparqling Applications

- 4 end points, offering Sparql access to photo data
- Javascript app: distributed Flickr?
- Zparqler showing query over date ranges, sort, limit
- RDFAuthor with Sparql queries, SparqlingNaut, SparqlSphere
- <http://rdf4food.aseantics.org/OffWikiLinks>
- <http://rdf4food.aseantics.org/FirstExamples>

Community

- A mailing list, a site and a wiki: open to all (you'll need a foaf file)
- <http://www.gargonza.org/>
<http://rdf4food.aseantics.org/>
dev@gargonza.org (<http://lists.aseantics.com/archives/gargonza/>)
- More events? perhaps a larger workshop later this year

A few tiny nits

- Protocol currently varies between implementations:

?lang=SPARQL&query-lang=http://rdfstore.sourceforge.net/sparql/extended&graph-id=rdfstore://localhost:1234/sphotos&query-lang=sparql&format=xml&charset=utf8&raw=1&limit=20&query=

- Query syntax and results format in flux in this period

Trickier issues

- Data structures must be the same (or overlapping) for cross-querying
- How do we choose, define, query these data points?

Saddle++?

- Simple OWL-based description of datasource contents
- Use this to generate Sparql queries
- by Damian Steer (HP Labs)
- Example:

Example

```
<owl:Class rdf:about="http://rdfweb.org:8080/joseki/jena-dev#class1">
  <rdfs:subClassOf rdf:resource="&foaf;Person"/>
  <rdfs:label>Person</rdfs:label>
  <rdfs:subClassOf>
    <owl:Restriction>
      <owl:onProperty rdf:resource="&foaf;name"/>
      <owl:minCardinality>1</owl:minCardinality>
    </owl:Restriction>
  </rdfs:subClassOf>
  <rdfs:subClassOf>
    <owl:Restriction>
      <owl:onProperty rdf:resource="&foaf;name"/>
      <owl:allValuesFrom rdf:resource="&rdfs;Literal"/>
    </owl:Restriction>
  </rdfs:subClassOf>
  <rdfs:subClassOf>
    <owl:Restriction>
      <owl:onProperty rdf:resource="&foaf;mbox"/>
      <owl:minCardinality>1</owl:minCardinality>
    </owl:Restriction>
  </rdfs:subClassOf>
  <rdfs:subClassOf>
    <owl:Restriction>
      <owl:onProperty rdf:resource="&yahoo;profile"/>
      <owl:minCardinality>0</owl:minCardinality>
    </owl:Restriction>
  </rdfs:subClassOf>
  <rdfs:subClassOf>
    <owl:Restriction>
      <owl:onProperty rdf:resource="&yahoo;profile"/>
      <owl:allValuesFrom rdf:resource="&rdfs;Literal"/>
    </owl:Restriction>
  </rdfs:subClassOf>
</owl:Class>
```

```
SELECT *
WHERE
{
  ?subj <http://xmlns.com/foaf/0.1/name> ?obj0 .
  ?subj <http://xmlns.com/foaf/0.1/mbox> ?obj1 .
  OPTIONAL { ?subj <http://rdfweb.org/people/damian/2004/10/
yahoogroups.rdf#profile> ?obj2 } .
}
LIMIT 10
```

Next steps

- Workshop(s)?
- More virtual collaboration

Join us!



Alberto Reggiori, Dan Brickley, Dave Beckett, Morten Frederiksen, Libby Miller, Graham Klyne, Dirk-Willem van Gulik, Matt Biddulph, Sergio Simone, David Norheim, Danny Ayers, Eric Prud'hommeaux, Masahide Kanzaki, Steve Harris, Zavis Bjelogrić, Damian Steer, Jim Ley, Leandro Mariano Lopez, Charles McCathieNeville, Russell Cloran, Chris Schmidt, Greg Williams, Benjamin Nowack, Jeen Broekstra, Ian Davis, Leo Sauermann, Jamie Pitts, Giovanni Tummarello, Richard Newman

<http://www.gargonza.org/>
<http://rdf4food.asemantics.org/>
dev@gargonza.org (<http://lists.asemantics.com/archives/gargonza/>)