



About PoolParty

PoolParty is a thesaurus management system for the semantic web including text analysis functionalities. The system helps to build and maintain multilingual thesauri providing a simple user interface and a couple of semantic services. PoolParty makes use of RDF/SKOS specification (Simple Knowledge Organisation System) developed by the World Wide Web Consortium (W3C).

PoolParty is a product developed by punkt. netServices GmbH, Vienna/Austria.

Possible Applications

On top of the PoolParty service-interface a variety of semantic web applications can be realized, for example:

- semantic search engines
- recommender systems (similarity search)
- corporate bookmarking
- annotation- & tag recommender systems
- auto-complete and faceted browsing.

Technologies

PoolParty is implemented in Java and makes use of a couple of well established technology frameworks of the Semantic Web Community: text extraction algorithms (KEA), metadata management on top of RDF triple stores (Sesame), Lucene indexer, AJAX frontend (YUI) and best-of-breed document converter (Aperture).

System architecture was designed in a way that documents of any format (PDF, DOC, PPT etc.) and texts from any enterprise system can be attached to the thesaurus. This is the basis for any semantic index which helps to search over huge document collections in a comfortable way. A web service interface makes it possible that PoolParty can be integrated with existing platforms like Enterprise Wikis or Content Management Systems.



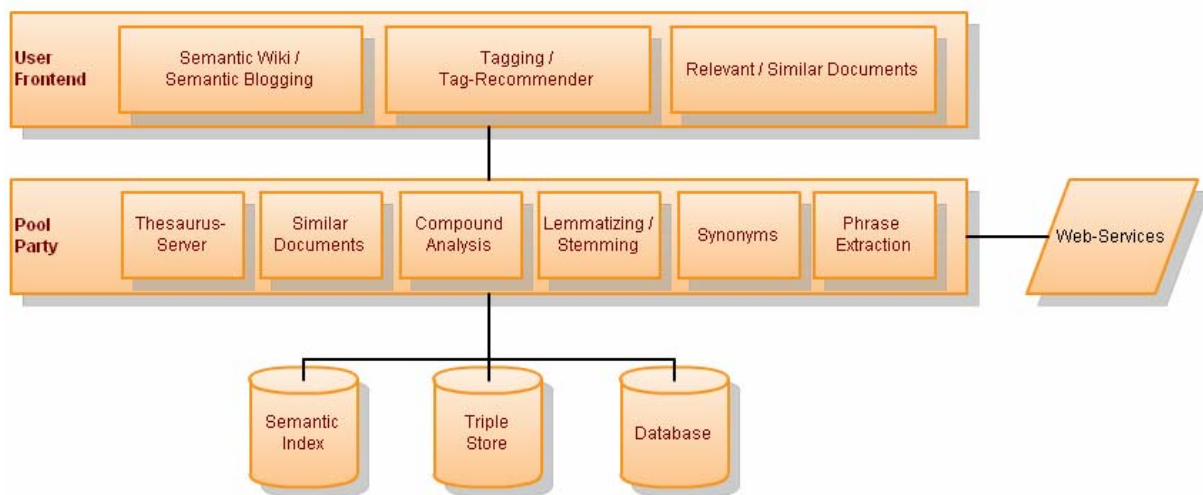


Figure: PoolParty system architecture at a glance

Thesaurus Management with PoolParty

PoolParty's web based environment needs on the client side only a Firefox browser 3.0+. The AJAX user interface is based on the Yahoo User Interface (YUI) and therefore it offers comfortable ways to maintain a thesaurus like drag & drop or auto-complete. Here are some important functionalities and features at a glance:

- maintenance of one or many thesaurus projects per server instance
- maintenance of multilingual thesauri
- import / export of SKOS thesauri (RDF/XML, Turtle, N3)
- thesaurus grabber (extracts concepts from Wikipedia)
- thesaurus statistics
- SPARQL query interface
- hierarchical view on Thesaurus / alphabetical index
- relation browser (graphical navigation exploring a thesaurus)
- add, delete, edit of concepts
- merge of two concepts
- quality assurance and plausibility tests via stored queries
- add, annotate and search for documents
- tag recommender based on machine learning algorithms
- tag cloud generator

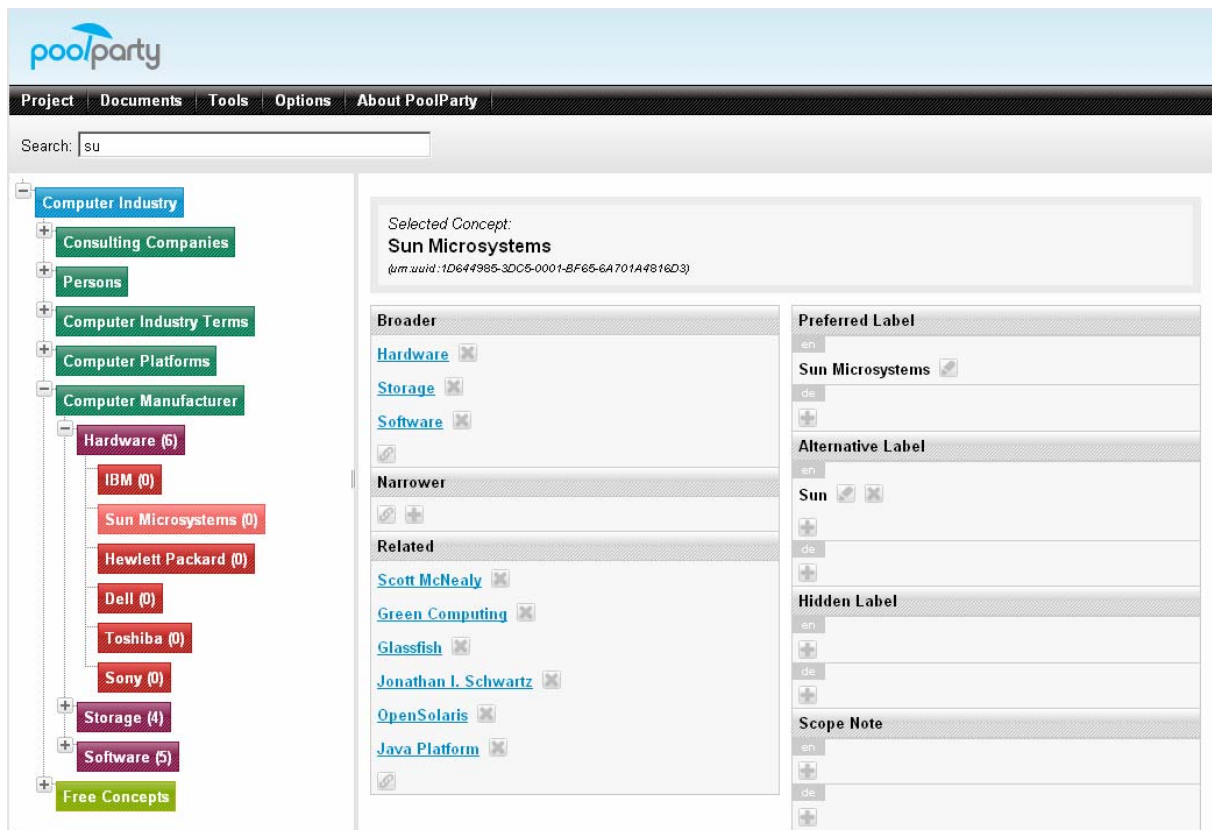


Figure: PoolParty user interface is easy to use

Building thesauri with PoolParty can be managed in different ways: import existing thesauri (PoolParty can also be shipped - as an option - together with domain thesauri like places, person's names, brand names etc.), manual extension of thesauri, add new relations and make use of tag recommendation on top of automatic text analysis. PoolParty thesaurus manager helps to add documents after their "semantic fingerprint" has been analysed automatically. Out of that the system generates tag recommendations, which will help to extend an existing thesaurus with new concepts. Automatic phrase extraction will improve constantly since PoolParty makes use of machine learning algorithms which learn rapidly from scratch.

Semantic Services

Besides comfortable ways to build and maintain thesauri, PoolParty framework also offers a variety of semantic services via web service interface (RESTful, SOAP):

- similarity search (search for similar documents)
- tag recommender & phrase extraction
- linguistic analysis
 - lemmatization
 - compound analysis
 - automatic categorisation (and generalisation)
 - synonym service
- thesaurus queries
- semantic index builder

References

- Sun Microsystems: Corporate Tagging
- EMTEBA: Emerging Technology Base
- ECOI: European Country of Origin Network
- KiWi - Knowledge in a Wiki: Thesaurus Management
- SCG - Semantic Culture Guide
- derStandard.at: Well-founded blogging

Further information & request for demo

- <http://www.punkt.at>
- Screencasts: <http://www.youtube.com/punktNetServices>
- Contact: Mag. Andreas Blumauer
 - blumauer@punkt.at
 - +43 1 897 41 22