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https://www.ukp.tu-darmstadt.de/uby

Navigating Sense-Aligned Lexical-Semantic Resources: The Web Interface to UBY

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Take Home Messages

Motivation: UBY Web Interface represents attributes of resources in UBY intuitively (only sources with license are shown).

Functionalities:
UBY Web Interface provides:
- A novel, intuitively understandable graph view for sense clusters.
- A textual, intuitively understandable graph view for sense clusters.
- A textual browser that allows to explore the offered information in greater detail.
- A option of comparing senses from different resources.

Technical Basis:
- UBY is deployed in MySQL database via hibernate, which is also the foundation of the UBY-API.
- The frontend of the Web application is based on Apache Wicket.

UBY

<table>
<thead>
<tr>
<th>UBXMLexicon</th>
<th>Lexical Entry</th>
<th>Sense</th>
<th>Sense Relation</th>
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</tr>
</tbody>
</table>

Visualisation of Aligned Senses

Two senses are compared in the left hand side. Aligned senses are grouped in the same node (e.g. Alignment 1) and visualized in the graph view.

UBY:

UBY-LMF:

 Sense Alignments

Enable semantic operability between resources in UBY:

- Senses linked by SenseAxis class
- Currently 758 435 SenseAxis instances
- Existing alignments
- Created by experts, users, or automatically
- Automatic alignments
- Created by Alignment Framework:
  - Cross-lingual alignment (OmegaWiki-DE – WordNet)
  - Based on semantic similarity (+ machine translation)
- Planned alignments
- OmegaWiki-EN – Wiktionary, …