ICARUS – An Extensible Graphical Search Tool for Dependency Treebanks

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Summary

- Interactive search and exploration tool for dependency treebanks
- Highly customizable user interface providing rich visualization features
- Supports various levels of user expertise
- Java-based, platform independent, requires no installation
- Portable design, rich plugin-based extensibility
- http://www.ims.uni-stuttgart.de/data/icarus.html

Tool Integration and Architecture

- Task focused user interfaces (tool specific, search and exploration)
- Extensible plugin architecture
- Integrates with automatic processing tools (e.g. mate-tools [Bohnet, 2010])
- Remote Tools (Webservices of the German CLARIN-D Initiative)
- Utility Tools for various formats (CoNLL and TCF)
- Export graphs to various formats (*.png, *.svg and *.xml)

Graphical and text-based query editor
- Wide range of search operators
- Grouping operator for result aggregation
- Disjunction, negation, regular expressions, numerical operators and others
- Convert between graphical and textual query representation
- Can use parser output as base for query

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Example: Search graph matching passive constructions grouped by the lemma of the passivized verb

Aggregated result visualization depending on the number of grouping operators (dimensions) for up to three groups (3D)

Realtime visualization of search progress
Manage multiple independent searches
Search history for current session

Choice between exhaustive and non-exhaustive search
Multiple search parameters:
- Search direction
- Optional result size limit

Example:

1D-Query

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