Multi-modal Visualization and Search for Text and Prosody Annotations
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PARAMETRIC REPRESENTATION OF INTONATION EVENTS (PAINE) T EVENTS

PaINE Model [1]

Parameters:
- a:1/a:2 steepness of rise and fall
- b: location of peak
- c:1/c:2 amplitude of rise and fall
- d: absolute height of peak

PaINE Editor

- Visualizes multiple sets of PaINE parameters
- Helps users to get familiar with PaINE curves
- Supports import and export of parameter sets
- Provides a persistent storage of PaINE curves with identifiers and description

PaINE Model [1] vs PaINE Editor

SEARCH

ICARUS for intonation integrates the ability to query syllable-based annotations into the existing search engine of the ICARUS platform, allowing to use syllable constraints for both dependency and coreference search. Queries can be defined graphically or in plain text and a variety of syllable constraints is available. Below are examples of how intonation-based search constraints can be combined with existing features of the search engine (screenshots include graphical queries and snippets of the result outlines).

Search query for adjective-noun sequences, where the adjective is tonally more prominent than the adjacent noun.

Example-based search making use of one of the similarity measures available for PaINE constraints.

SUMMARY

- Visualization of F0 contours using the PaINE model
- Interactive graphical interface integrated in ICARUS [2, 3]
- Supports fine-grained audio-playback on different levels
- Highly customizable visualization and search features
- Flexible reader for tabular formats
- Java-based, platform independent, requires no installation

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REFERENCES


The latest version can be found here:
http://www.ims.uni-stuttgart.de/data/icarus.html

Audio-Playback

- Play parts of the original audio data directly from within the visualizations
- Available for both exploration views
- Reads Waveform Audio File Format (*.wav)
- Very fine-grained playback (on either document, sentence, scope, word or syllable level)
- Uses common timestamp annotations to extract the desired audio section

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