Building NLP Pipeline for Russian with a Handful of Linguistic Knowledge

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Pipeline workflow

Plain Text

Segmentation module

Mystem
- Tokenization
- Lemmatization
- Morphology

TreeTagger
- Case/number disambiguation

Postprocessing
- Undeclined nouns
- Multiword correction
- Tokenization fixes

MaltParser
- Syntactic annotation

CONLL Text
Evaluation

**Morphology**
- Part of speech accuracy: 97%
- Part of speech and features accuracy: 88%

**Syntax**
- Labeled attachment score (LAS): 85%
- Unlabeled attachment score (UAS): 90.7%

**Overall Pipeline Quality**
- Labeled attachment score (LAS): 76.7%
- Unlabeled attachment score (UAS): 84.1%
Web interface and Command line tool

http://web-corpora.net/wsgi3/ru-syntax/

https://github.com/tiefling-cat/ru-syntax