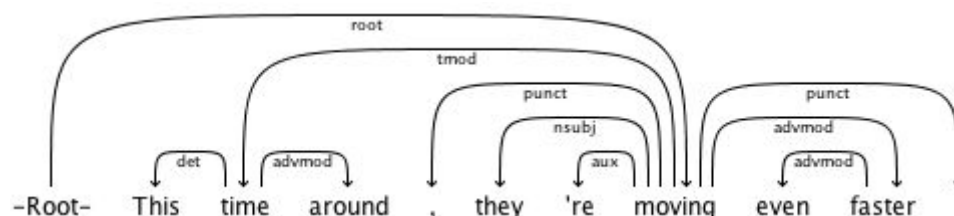# Deep Parser MALT Polish

Description

A dependency parser analyzes the grammatical structure of a sentence, establishing relationships between "head" words and words which modify those heads. The figure below shows a dependency parse of a short sentence. The arrow from the word moving to the word faster indicates that faster modifies moving, and the label advmod assigned to the arrow describes the exact nature of the dependency.

MaltParser is a system for data-driven dependency parsing, which can be used to induce a parsing model from treebank data and to parse new data using an induced model. MaltParser is developed by Johan Hall, Jens Nilsson and Joakim Nivre at Växjö University and Uppsala University, Sweden. MaltParser can be characterized as a data-driven parser-generator. While a traditional parser-generator constructs a parser given a grammar, a data-driven parser-generator constructs a parser given a treebank. MaltParser is an implementation of inductive dependency parsing, where the syntactic analysis of a sentence amounts to the derivation of a dependency structure, and where inductive machine learning is used to guide the parser at nondeterministic choice points (Nivre, 2006).

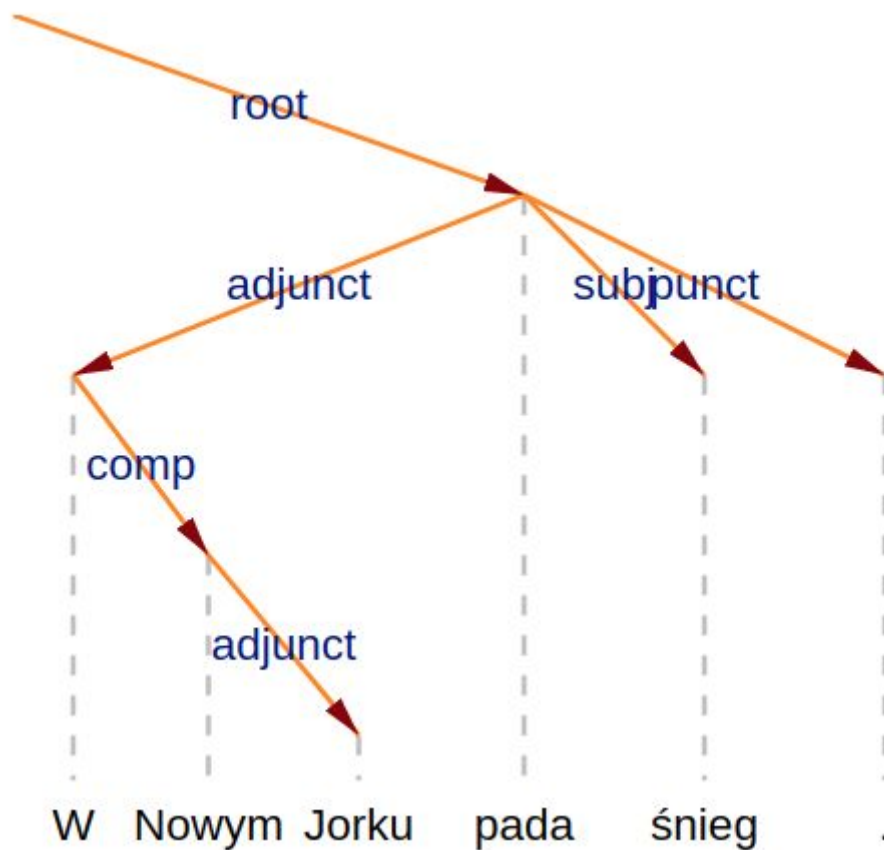In case of Malt Parser for Polish for the example input sentence:

```
PL:              W Nowym Jorku pada śnieg.
EN: It is snowing in New   York.
```
the output is:

```
1   W     w     prep  prep acc|nwok   4    adjunct    _    _
2   Nowym nowa  subst subst pl|dat|f   1    comp _     _
3   Jorku Jork  subst subst sg|gen|m3  2    adjunct    _    _
4   pada  padać verb  fin   sg|ter|imperf  0    root _    _
5   śnieg śnieg subst subst sg|nom|m3  4    subj _     _
6   .     .     interp      interp    _    4    punct _    _
```

Details of the output format are available [here]. You can visualise this output as the following dependency tree:

W Nowym Jorku pada śnieg .

Input

Plain text file (UTF-8) in Polish.

Output

File in CONLL format, specific for MaltParser, described here.