# Estonian Universal Dependencies v 1.4

December 2016

NB! Estonian UD is a part of data for the shared task "Multilingual Parsing from Raw Text to Universal Dependencies" and because of that sentences belonging to the test set of this shared task have been removed from the Estonian UD versions 1.3 and 1.4 until May 15, 2017.

#### Introduction

This dependency treebank is part of the *Universal Dependencies* initiative <a href="http://universaldependencies.org/">http://universaldependencies.org/</a>

NB! This version of Estonian UD follows the *Universal Dependencies* v1 guidelines. *Universal Dependencies* v2 annotation scheme was published in December 2016 and Estonian UD will be converted to it during 2017.

The Estonian UD treebank is based on the Estonian Dependency Treebank <a href="https://github.com/EstSyntax/EDT">https://github.com/EstSyntax/EDT</a>, created at the University of Tartu.

The morphological and syntactic annotation of the Estonian UD treebank is created through automatic conversion of EDT data tu UD format and manual post-editing of the outcome.

#### **Tokenization**

The tokenization of the Estonian UD treebank is a straightforward whitespace-based tokenization with conventional separation of punctuation. The current version of Estonian UD treebank does not contain multiword tokens.

### **Estonian POS tags**

ADJ adjective

ADP adposition

ADV adverb

AUX auxiliary verb

CONJ coordinating conjunction

INTJ interjection

NOUN noun

NUM numeral

PRON pronoun

PROPN proper noun

**PUNCT** punctuation

SCONJ subordinating conjunction

SYM symbol

VERB verb

X other

#### **Estonian Features**

Abbr=Yes abbreviation

AdpType=Post adposition: postposition

AdpType=Prep adposition: preposition Abbr=Yes abbreviation

Case=Abe case: abessive Case=Abl case: ablative

Case=Add case: aditive (short illative)

Case=Ade case: adessive
Case=All case: allative
Case=Com case: comitative
Case=Ela case: elative

Case=Ess case: essive
Case=Gen case: genitive
Case=Ill case: illative
Case=Ine case: inessive
Case=Nom case: nominative
Case=Par case: partitive
Case=Ter case: terminative
Case=Tra case: translative

Connegative=Yes verb as a part of a negative verb form; e.g. tee in ei tee.

Degree=Cmp degree: comparative Degree=Pos degree: positive Degree=Sup degree: superlative

Foreign=Yes Hyph=Yes

Mood=Cnd mood: conditional Mood=Imp mood: imperative Mood=Ind mood: indicative Mood=Qot mood: quotative Negative=Neg negation Number=Plur number: plural Number=Sing number: singular

NumForm=Digit numeral form: written as digits

NumForm=Letter numera forml: written as words NumForm=Roman numeral form: written as

Roman numbers

NumType=Card numeral type: cardinal NumType=Ord numeral type: ordinal

Person=1 person: 1 Person=2 person: 2 Person=3 person: 3

Poss=Yes possessive (for pronouns only)
PronType=Dempronoun: demonstrative
PronType=Ind pronoun: indefinite
PronType=Int pronoun: interrogative
PronType=Prs pronoun: personal
PronType=Rcp pronoun: reciprocal
PronType=Rel pronoun: relative

PronType=Tot pronoun: total or collective Reflex=Yes reflexive (for pronouns only)

Tense=Past tense: past
Tense=Pres tense: present
VerbForm=Fin verb form: finite
VerbForm=Ger des-form

VerbForm=Inf verb form: infinite (da-infinitive)

VerbForm=Part verb form: participle

VerbForm=Sup verb form: supine (ma-infinitive)

Voice=Act active verb form

Voice=Pass passive (impersonal) verb form

#### **Estonian Relations**

root: root

### Core dependents of clausal predicates

nsubj: nominal subject of a non-copular clause: *Kass nägi koera*.

nsubj:cop: nominal subject of a copular clause: Kass on triibuline.

csubj: clausal subject: Tüdrukule meeldib <u>tantsida</u>. Tundus, et oleme asjast aru <u>saanud</u>.

csubj:cop: clausal subject in copular sentences: *Laenu on kerge* <u>võtta</u>. *Tema sõnul on väheusutav, et vaatajate arv edaspidi tõuseks*.

dobj: nominal direct object: Kass nägi koera.

Note that in Estonian an impersonal passive clause does not have a subject, and what in English would be considered as passive subject, is in Estonian a direct object: *Kook söödi ära*. *'The cake was eaten up'* 

xcomp: open clausal complement. In the current version of Estonian UD:

- all infinitival complements of a verb, except da-infinitival predicative (subject complement): *hakkan <u>tegema</u>, jäi <u>magama</u>, ajab <u>nutma</u>, tahan <u>teha</u>*
- secondary predicates: nominal or adjectival subject and object complements in translative and essive case forms: *President nimetas Juhani ministriks*; *Ta tahtis saada rikkaks*; *Need majad on luksusliku eluviisi võrdpildiks*; *See tundus meile olulisena*.

ccomp: - clausal complement, mainly complementing verbs of communication (e.g. *ütlema*) or mental activity (e.g. *arvama*). Most common complementizer is *et*.

Clauses complementing nouns are labelled acl:relcl.

- da-infinitival predicative: Mõlema hobi on kassipilte netti riputada.

# Non-core dependents of clausal predicates nmod advcl advmod neg

advcl adverbial clause modifier

advmod adverbial modifier; also question particle *kas*.

advmod:quant adverbial or nominal quantifier. For numeral quantifiers the type nummod is used.

neg ei, ära, ärge, ärgem, ärgu as part of a negative verb form nmod nominal modifier

#### Noun dependents

acl clausal modifier of noun

acl:relcl relative clauses, also clauses complementing nouns

amod adjectival modifier

appos appositional nominal modifier

nmod nominal modifier

nummod numeric modifier

det determiner, in this version of Estonian UD words like see, too, ise, oma, kõik, esimene (as pronoun), teine (as pronoun), kolmas (in plural, e.g. kolmandad riigid), miski, nihuke, sihuke, siuke, teistsugune, minusugune, meiesugune, temasugune are annotated using that relation.

# Adpositions

case adpositions

# Compounding and unanalyzed

compound numerical expressions consisting of multiple tokens. The last word of the numerical expression is the governor, and the other numbers are its dependents.

compound:prt particle component of a particle verb

name name; proper names constisting of more than one word. The last word is the head and the other words are its direct dependents.

foreign foreign words (not loanwords or even direct loans)

### **Special clause dependents**

aux auxiliary; *olema* 'be' in compound tense forms; *saama* 'can', *võima* 'may', *pidama* 'must' in modal constructions.

cop copula; verb *olema* 'be' in copular clauses with nominal or adjectival predicative. discourse: discourse element; interjections.

mark marker; subordinating conjunctions, comparative conjunctions, interrogative pronouns. In this version following words in the beginning of a clause or in comparative construction are marked with this dependency type: <code>ehkki</code>, <code>et</code>, <code>justkui</code>, <code>kuhu</code>, <code>kui</code>, <code>kuidas</code>, <code>kuigi</code>, <code>kuivõrd</code>, <code>kuna</code>, <code>kuni</code>, <code>kus</code>, <code>kusjuures</code>, <code>kust</code>, <code>kustkohast</code>, <code>miks</code>, <code>mil</code>, <code>milleks</code>, <code>nagu</code>, <code>otsekui</code>, <code>selmet</code>, <code>sest</code> and also abbreviation <code>st</code> in the beginning of a clause.

punct punctuation
vocative vocative

#### Coordination

cc coordinating conjunction; the preceding coordinated word is the head.

cc:preconj preconjunction marks the first part of those two-part coordinating conjunctions where the two parts are separated by coordinated elements. In the current version following words are annotated using that type:  $nii \mid niih\ddot{a}sti \mid niiv\ddot{o}rd$  (conjunct: kui); kas (või); küll (küll); nii | sellepärast (et); selle asemel | vaatamata | hoolimata | enam (et); siis | samal ajal (kui); nii (nagu) conj: conjunct; first coordinated element is the governor and the rest its dependents. cop: copula; verb olema in copular clauses with nominal or adjectival predicative.

# Loose joining relations

list numbers or letters introducing list elements

parataxis in sentences with direct speech, the main verb of reporting clause is annotated using that dependency type. Also sentences containing reported speech, but having no complementizer word are annotated using parataxis.