10 Semantic Role Labeling

Semantic role labeling (SRL), also known as semantic annotation, is the process of attributing semantic roles, such as agent, patient, or location, to the semantic arguments defined by a predicate or verb within a sentence. For Slovene, the system of semantic-role annotation, along with its semantic categories (or tags), draws upon the Prague Dependency Treebank system (PDT 2.0). This system, as applied in the Valency Lexicon of Czech Verbs (Vallex), has been tailored to the syntactic and semantic characteristics of Slovene.

- Introduction to Tags
- Annotation Guidelines
- References and Links

Introduction to Tags

This chapter summarises the tags for semantic-role labelling. A more detailed presentation can be found in the guidelines in the Annotation Guidelines chapter.

Tag some text	Semantic Role	Desription	Example
ACT	actor	acting participant, originator or bearer of the action, logical subject	*Zgodilo se je mesec dni po tem, ko sem izvedel, da me žena.ACT vara. Zdela se mi.ACT je veliko bolj vsakdanja.*
PAT	patient	affected object of the action	*Kuhajo kosilo.PAT. Županja je včeraj sklicala sestanek.PAT.; Dogodek v Ankaranu je bila dramatična nesreča.PAT.*
REC	addressee / benefactor	receiver, indirect participant of the action; non-acting participant benefiting or suffering from the action; characteristics of the object's possessor; communicative function (ethical dative)	*Miha je Maji.REC ujel pobeglega kanarčka. To sliko je narisal otrokom/za otroke.REC. Glava mu.REC počasi pada na prsi. Teče mu.REC za vrat. Ura mi.REC dobro dela. To ti.REC je žurka. Otroci nam.REC nočejo priti domov.*
ORIG	origin / inheritence	the initial state, origin/source/motive of the action; person (group) from whom someone inherits, adopts, receives something	*Pohištvo izdelujemo iz lesa.ORIG. Plašč je dobil po očetu.ORIG. Iz dobro obveščenih virov.ORIG smo izvedeli, da ...*
RESLT	effect	effect, result, goal of the action	*Imenovali so ga za predsednika.RESLT. Rok je dvoumen.RESLT.*
TIME	temporal: when / temporal: parallel / temporal: from when / temporal: to when	specific moment or interval of the action; moment or interval originating from the action; moment or interval following the action	*Odrinemo ob zori.TIME.. Med počitnicami.TIME ni niti enkrat posijalo sonce. Sestanek je prestavil s četrtka.TIME na petek.TIME.*
DUR	temporal: for how long / temporal: how long / temporal: since when / temporal: till	duration of the state; duration of the action; specific moment of start; specific moment of end	*Prišel je za en mesec.DUR. To mu je uspelo narediti v enem tednu.DUR. Od jutri.DUR dalje sem na dopustu. Do četrtka.DUR uredim še papirje.*

Tag ome text	Semantic Role	Desription	Example
FREQ	temporal: how often	frequency of the action	*Vsak dan.FREQ se mučimo s tem.*
LOC	locative / directional: which way	specific location, place, site of the action; direction in space	Sprehajajo se po gozdu.LOC.
SOURCE	directional: from	starting point in space	*S stropa.SOURCE odpada omet.*
GOAL	directional: where to	ending point in space	*Prišel je domov.GOAL*
EVENT	temporal-locative event	time-space specific event	*Sodelovati v skupnih akcijah.EVENT. Sploh ni padel v vojni.EVENT.*
AIM	aim / intent	purpose of the action; purpose of movement	*Telovadi, da bi shujšala.AIM.. Poslali so ga po malico.AIM.*
CAUSE	cause	cause of the action	*Umrl je zaradi srčne kapi.CAUSE.*
CONTR	concession / contradiction	unexpected consequentiality of the action	*Študijskim uspehom.CONTR navkljub službe ni dobil. Medtem ko se plače nižajo.CONTR, cene rastejo.*
COND	condition	condition for the existence of the action	*Če neha deževati.COND, gremo na kavo.*
REG	regard / criterion / comparison	in regard to; key criterion (rule) for evaluating the action; comparison	*Glede na vreme.REG ni mogoče ugotoviti … Preiskava je potekala v skladu z zakonom.REG. Za razliko.REG od mene ima posluh.*
ACMP	accompaniment	object, person, or event that accompanies the action or other participants	*Mama je s sinom.ACMP odšla v cirkus.*
RESTR	restriction	exception, limitation	*Vsi so bili tam razen tebe.REST.*
MANN	manner / result	manner aspect of the action; result at the end of the action	*Dela prepočasi.MANN. Govori tako potiho.MANN, da ničesar ne razumem.*
MEANS	means	means or tool for executing the action	*Piše s peresom.MEANS.*
QUANT	difference / extent	qualitative difference between events, states, objects; measure, range, or intensity of the action or circumstance	*Cena goriva se je podražila za 3 cente.QUANT. Za znamko je plačal 50 evrov.QUANT.*

Tag some text	Semantic Role	Desription	Example
MWPRED	multi-word predicate	phrases with infinitives; phasal and non-modal verbs	*Dati vedeti.MWPRED., Klinov ni videti.MWPRED nikjer. Se lahko nauči nasilju reči.MWPRED »ne«.*
MODAL	modal phrase	phrases of modal verb and infinitive; phrases of 'biti' + modal adverb	*Za neposredni prenos jih niso želeli prikrajšati.MODAL. je treba.MODAL poudariti*
PHRAS	dependant part of phraseological unit	dependent part of a verbal phraseological unit	*Iti na živce.PHRAS. Mi je beseda ostala v grlu.PHRAS.*

Annotation Guidelines

This chapter summarizes the annotation guidelines for semantic-role labelling as applied to Slovene texts. The guidelines are arranged from the latest, up-to-date version to the oldest version.

Version 1.0 (02-2023)

Project Development of Slovene in a Digital Environment
GANTAR, Polona, KREK, Simon, DOBROVOLJC, Kaja, ŠKRJANEC, Iza, MOŽE, Sara in MARKO, Dafne, 2022: *Smernice za semantično označevanje učnega korpusa v1.0*. Rezultat projekta Razvoj slovenščine v digitalnem okolju. [DOCX] [PDF] - only in Slovene

References and Links

This chapter compiles relevant references and provides links to projects where semantic-role labelling has been developed and applied to Slovene texts.

Projects, in which the system has been developed:

Communication in Slovene
Semantic Role Labeling in Slovene and Croatian

XLike - Cross-lingual Knowledge Extraction

Development of Slovene in a Digital Environment

References:

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MIKULOVÁ, Marie et al. 2006. Annotation on the tectogrammatical level in the Prague Dependency Treebank. Aannotation manual. Technical Report 30. 5–11.

VALLEX = The Valency Lexicon of Czech Verbs. https://ufal.mff.cuni.cz/vallex

PDT 2.0 = https://ufal.mff.cuni.cz/pdt2.0/doc/manuals/en/t-layer/html/index.html