

POS Tagsets

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UIC CS 421

POS Tagsets

In order to determine which POS tag to assign to a word, we first need to decide which **tagset** we will use

Tagset: A finite set of POS tags, where each tag defines a distinct grammatical role

Can range from very coarse to very fine

Penn Treebank Tagset

- **Most common POS tagset**
- 36 POS tags + 12 other tags (punctuation and currency)
- Used when developing the Penn Treebank, a **corpus** created at the University of Pennsylvania containing more than 4.5 million words of American English
- Link to documentation:
<https://catalog.idc.upenn.edu/docs/LDC95T7/cl93.html>

Penn Treebank Tagset

CC	Coordinating Conjunction	NNS	Noun, plural	TO	to
CD	Cardinal Number	NNP	Proper noun, singular	UH	Interjection
DT	Determiner	NNPS	Proper noun, plural	VB	Verb, base form
EX	Existential <i>there</i>	PDT	Predeterminer	VBD	Verb, past tense
FW	Foreign word	POS	Possessive ending	VBG	Verb, gerund or present participle
IN	Preposition or subordinating conjunction	PRP	Personal pronoun	VBN	Verb, past participle
JJ	Adjective	PRP\$	Possessive pronoun	VBP	Verb, non-3 rd person singular present
JJR	Adjective, comparative	RB	Adverb	VBZ	Verb, 3 rd person singular present
JJS	Adjective, superlative	RBR	Adverb, comparative	WDT	Wh-determiner
LS	List item marker	RBS	Adverb, superlative	WP	Wh-pronoun
MD	Modal	RP	Particle	WP\$	Possessive wh-pronoun
NN	Noun, singular or mass	SYM	Symbol	WRB	Wh-adverb

What do some of these distinctions mean?

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cities

Chicago

Chicagos

city

What do some of these distinctions mean?

CC	Coordinating Conjunction	NNS	Noun, plural	eat	to	
CD	Cardinal Number	NNP	Proper noun, singular	ate	UH	Interjection
DT	Determiner	NNPS	Proper noun, plural		VB	Verb, base form
EX	Existential <i>there</i>	PDT	Predeterminer		VBD	Verb, past tense
FW	Foreign word	POS	Possessive ending	eating	VBG	Verb, gerund or present participle
IN	Preposition or subordinating conjunction	PRP	Personal pronoun	eaten	VBN	Verb, past participle
JJ	Adjective	PRP\$	Possessive pronoun		VBP	Verb, non-3 rd person singular present
JJR	Adjective, comparative	RB	Adverb	eat	VBZ	Verb, 3 rd person singular present
JS	Adjective, superlative	RBR	Adverb, comparative	eats	WDT	Wh-determiner
LS	List item marker	RBS	Adverb, superlative		WP	Wh-pronoun
MD	Modal	RP	Particle		WP\$	Possessive wh-pronoun
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MD	Modal verb	RP	Particle	WP\$	Possessive wh-pronoun
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weird

weirder

weirdest

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JJR	Adjective, comparative	RB	Adverb	VBZ	Verb, 3 rd person singular present
JJS	Adjective, calmer	RBR	Adverb, comparative	WDT	Wh-determiner
LS	List item marker	RBS	Adverb, superlative	WP	Wh-pronoun
MD	Modal	RP	Particle	WP\$	Possessive wh-pronoun
NN	Noun, singular calmest	SYM	Symbol	WRB	Wh-adverb

As a general (but not perfect!) rule....

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Closed Class

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Open Class

Other Popular POS Tagsets

Brown Corpus

- ~1 million words of American English text
- 82 (!) POS tags

C5 Tagset

- 61 POS tags

C7 Tagset

- 146 (!!) POS tags

So ...how can we assign POS tags?

Time	flies	like	an	arrow;	fruit	flies	like	a	banana

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