

SemiA

HOW TO USE

The screenshot shows the SemiA web application interface. At the top, the title "SemiA" is displayed in a large, white, sans-serif font, followed by the subtitle "A tool to help you link and analyze parts of speech" in a smaller, white, sans-serif font. Below this, there is a large, white, rounded rectangular input field with the placeholder text "Start typing..". To the right of the input field is a blue button with the text "SUBMIT" in white. Below the input field, the interface is divided into two main sections. On the left, there is a white box with a blue border containing the text "Welcome to SemiA" in bold, followed by a paragraph: "This is a tool to help segment and explore hierarchies between the parts of speech of a given sentence or phrase. Your journey with SemiA begins when you see the demonstration video." On the right, there is a blue box with a white border containing the text "SemiA" in a large, white, sans-serif font, and below it, a white button with the text "HOW TO USE" in blue. At the bottom right of the interface, there is a small, white, rounded rectangular box containing the text "mourhaf kazzaz © 2016".

Semi Automatic Recognition is a tool that helps you transform a given sentence into segmented and bracketed form without the need on your part to deal with the mess of parent-child relationships or bracket counting and maintaining.

SemiA

A tool to help you link and analyze parts of speech

Please fill in the following grid and click process when you're ready

ID	Element	Group Tag	Group Starter	Specific Tag	Follows Group Starter	Tag Needed
1	Samuel	<input type="text" value="NP"/>	<input type="button" value="No"/>	<input type="text" value="N"/>	<input type="text"/>	<input type="button" value="Yes"/>
2	likes	<input type="text" value="VP"/>	<input type="button" value="Yes"/>	<input type="text" value="V"/>	<input type="text"/>	<input type="button" value="Yes"/>
3	cars	<input type="text" value="NP"/>	<input type="button" value="No"/>	<input type="text" value="N"/>	<input type="text" value="2-likes-VP"/>	<input type="button" value="Yes"/>

With Specific Tags ▾

Result

(ROOT (NP(Samuel-N))(VP(likes-V)(NP(cars-N))))

mourhaf kazzaz © 2016

Example :

Input : Samuel likes cars

Output 1 : (ROOT (S (NP(Samuel))(VP(likes)(NP(cars)))))

Output 2 : (ROOT (S (NP(Samuel-N))(VP(likes-V)(NP(cars-N)))))

STEP 1 ENTER A SENTENCE OR PHRASE AND CLICK SUBMIT

SUBMIT

SemiA will now generate a table based on your input
The elements of your input will be assigned properties and given specific ids and tags

Please fill in the following grid and click process when you're ready

ID	Element	Group Tag	Group Starter	Specific Tag	Follows Group Starter	Tag Needed
1	The	<input type="text"/>	No ▼	<input type="text"/>	<input type="text"/>	Yes ▼
2	weather	<input type="text"/>	No ▼	<input type="text"/>	<input type="text"/>	Yes ▼
3	is	<input type="text"/>	No ▼	<input type="text"/>	<input type="text"/>	Yes ▼
4	nice	<input type="text"/>	No ▼	<input type="text"/>	<input type="text"/>	Yes ▼

With Specific Tags ▼

PROCESS

STEP 2 ENTERING DETAILS

Please fill in the following grid and click process when you're ready

ID	Element	Group Tag	Group Starter	Specific Tag	Follows Group Starter	Tag Needed
1	The	<input type="text"/>	No ▼	<input type="text"/>	<input type="text"/>	Yes ▼
2	weather	<input type="text"/>	No ▼	<input type="text"/>	<input type="text"/>	Yes ▼
3	is	<input type="text"/>	No ▼	<input type="text"/>	<input type="text"/>	Yes ▼
4	nice	<input type="text"/>	No ▼	<input type="text"/>	<input type="text"/>	Yes ▼

With Specific Tags ▼ **PROCESS**

GROUP TAG is an essential part of segmenting an input.

Its values are based on the grammatical function in relation to other elements of the element e.g. NP nominal phrase, VP verbal phrase ...

Element	Group Tag
The	N Save Changes NP VP

While you type the desired tag SemiA will try to try to suggest the nearest tags to your purpose and it will learn your choice for future application.

STEP 2 ENTERING DETAILS

Please fill in the following grid and click process when you're ready

ID	Element	Group Tag	Group Starter	Specific Tag	Follows Group Starter	Tag Needed
1	The	<input type="text" value="NP"/>	<input type="text" value="No"/> ▼	<input type="text"/>	<input type="text"/>	<input type="text" value="Yes"/> ▼
2	weather	<input type="text" value="NP"/>	<input type="text" value="No"/> ▼	<input type="text"/>	<input type="text"/>	<input type="text" value="Yes"/> ▼
3	is	<input type="text" value="VP"/>	<input type="text" value="No"/> ▼	<input type="text"/>	<input type="text"/>	<input type="text" value="Yes"/> ▼
4	nice	<input type="text" value="NP"/>	<input type="text" value="No"/> ▼	<input type="text"/>	<input type="text"/>	<input type="text" value="Yes"/> ▼

▼

GROUP STARTER is an anchor that related elements attach to. For instance, 'weather' is attached to 'The' and both of them happen to be in the same group of NP. This could be extended by using many adjectives and pre-modifiers for example.

SemiA has only two values for this property and you need to select 'Yes' only to the element that starts the group.

In this example only 'The' and 'is' are anchors. The user should select 'Yes' accordingly.

STEP 2 ENTERING DETAILS

Please fill in the following grid and click process when you're ready

ID	Element	Group Tag	Group Starter	Specific Tag	Follows Group Starter	Tag Needed
1	The	<input type="text" value="NP"/>	<input type="button" value="Yes"/>	<input type="text"/>	<input type="text"/>	<input type="button" value="Yes"/>
2	weather	<input type="text" value="NP"/>	<input type="button" value="No"/>	<input type="text"/>	<input type="text"/>	<input type="button" value="Yes"/>
3	is	<input type="text" value="VP"/>	<input type="button" value="Yes"/>	<input type="text"/>	<input type="text"/>	<input type="button" value="Yes"/>
4	nice	<input type="text" value="NP"/>	<input type="button" value="No"/>	<input type="text"/>	<input type="text"/>	<input type="button" value="Yes"/>

SPECIFIC TAG is an optional part of segmenting an input in this process. Its values are also based on the specific grammatical function of the element e.g. Noun ,Verb, ADJ, ...

Specific Tag

[Save Changes](#)
[DET](#) [NOUN](#) [VERB](#)

While you type the desired tag SemiA will try to try to suggest the nearest tags to your purpose and it will learn your choice for future application.

STEP 2 ENTERING DETAILS

Please fill in the following grid and click process when you're ready

ID	Element	Group Tag	Group Starter	Specific Tag	Follows Group Starter	Tag Needed
1	The	<input type="text" value="NP"/>	<input type="button" value="Yes ▼"/>	<input type="text" value="DET"/>	<input type="text"/>	<input type="button" value="Yes ▼"/>
2	weather	<input type="text" value="NP"/>	<input type="button" value="No ▼"/>	<input type="text" value="NOUN"/>	<input type="text"/>	<input type="button" value="Yes ▼"/>
3	is	<input type="text" value="VP"/>	<input type="button" value="Yes ▼"/>	<input type="text" value="VERB"/>	<input type="text"/>	<input type="button" value="Yes ▼"/>
4	nice	<input type="text" value="NP"/>	<input type="button" value="No ▼"/>	<input type="text" value="ADJ"/>	<input type="text"/>	<input type="button" value="Yes ▼"/>

Follows Group Starter is a property that helps SemiA recognize parent-child relationships between elements.

Follows Group Starter

[Save Changes](#)

[1-The-NP](#)

[3-is-VP](#)

It is important to remember that only anchor elements with a value of 'Yes' will show up in the suggestions. Also, SemiA will not recognize an input that is not in the suggestions.

STEP 2 ENTERING DETAILS

Please fill in the following grid and click process when you're ready

ID	Element	Group Tag	Group Starter	Specific Tag	Follows Group Starter	Tag Needed
1	The	<input type="text" value="NP"/>	<input type="button" value="Yes"/>	<input type="text" value="DET"/>	<input type="text"/>	<input type="button" value="Yes"/>
2	weather	<input type="text" value="NP"/>	<input type="button" value="No"/>	<input type="text" value="NOUN"/>	<input type="text" value="1-The-NP"/>	<input type="button" value="Yes"/>
3	is	<input type="text" value="VP"/>	<input type="button" value="Yes"/>	<input type="text" value="VERB"/>	<input type="text"/>	<input type="button" value="Yes"/>
4	nice	<input type="text" value="NP"/>	<input type="button" value="No"/>	<input type="text" value="ADJ"/>	<input type="text" value="3-is-VP"/>	<input type="button" value="Yes"/>

With Specific Tags

TAG NEEDED is a property that helps reduce redundancy when processing your input.

For example , in “The serene quite weather...”

All of these elements are related and share the same Group Tag i.e. NP.

Thus, a Group Tag is needed only for the first element ‘The’.

In our example, ‘weather’ and ‘The’ are in the same group and share the same tag so a Group Tag for ‘weather’ is not needed and we select ‘No’

STEP 3 Processing

Please fill in the following grid and click process when you're ready

ID	Element	Group Tag	Group Starter	Specific Tag	Follows Group Starter	Tag Needed
1	The	<input type="text" value="NP"/>	<input type="button" value="Yes ▼"/>	<input type="text" value="DET"/>	<input type="text"/>	<input type="button" value="Yes ▼"/>
2	weather	<input type="text" value="NP"/>	<input type="button" value="No ▼"/>	<input type="text" value="NOUN"/>	<input type="text" value="1-The-NP"/>	<input type="button" value="No ▼"/>
3	is	<input type="text" value="VP"/>	<input type="button" value="Yes ▼"/>	<input type="text" value="VERB"/>	<input type="text"/>	<input type="button" value="Yes ▼"/>
4	nice	<input type="text" value="NP"/>	<input type="button" value="No ▼"/>	<input type="text" value="ADJ"/>	<input type="text" value="3-is-VP"/>	<input type="button" value="Yes ▼"/>

The example input now is ready for processing. All we need to do is pressing “PROCESS”

STEP 4 The result

We have two options:

OPTION 1 WITHOUT SPECIFIC TAGS

This is the default and the result of which is more general as it skips the specific tag column altogether.

Result

```
(ROOT (NP(The)(weather))(VP(is)(NP(nice))))
```

OPTION 2 WITH SPECIFIC TAGS

A more specific approach and the result of which is useful in educational and introductory classes of linguistics.

Result

```
(ROOT (NP(The-DET)(weather-NOUN))(VP(is-VERB)(NP(nice-ADJ))))
```

FEATURES

SemiA gives you the ability to easily visualize the output using two methods.

- 1) Random coloring of brackets while maintaining the parent-child relationships.
- 2) Hovering over an element with the mouse will highlight the element and its closing bracket making it easier to instantly identify it and its child elements.

Result

```
(ROOT (NP(The-DET)(weather-NOUN))(VP(is-VERB)(NP(nice-ADJ))))
```

FEATURES cont'd

For those who are interested in differentiating between what is a fragment and what is a sentence in a given input, SemiA enables you to double click the part that is a fragment and it will wrap it in an additional (FRAG()) Tag. Otherwise it is assumed that the input is a sentence.

Example : A given input “The car” is obviously a fragment and it shows up by default as

Result

```
(ROOT (NP(The-DET)(car-NOUN)))
```

Double clicking the first element (NP(TH~~E~~-DET))

Will make SemiA transform the result into

Result

```
(ROOT (FRAG (NP(The-DET)(car-NOUN))))
```

Final Thoughts

SemiA is designed as a first step on the way of machine learning and NLP. Future features already in the making include:

AutoSuggestion: SemiA will be able to tell the Group Tag and Specific Tag of an element on its own based on cues from the sentence and previous user input.

FEEDBACK , BUG REPORTS, and SUGGESTIONS are most welcome .

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