

Named Entity Recognition

Depending on the language of your transcripts, you may be able to automatically tag dates and names of people, places and organisations, using the [Stanford Named Entity Recognizer \(NER\)](#).

The Stanford NER has recognizers for:

- Arabic
- Chinese
- English
- French
- German
- Hungarian
- Italian
- Spanish

Table 1: Example of named-entity tags

Enti- ties:	PER- SON	PER- SON	LOCA- TION	DATE
Words: President	Barack	Obama	was born in Hawaii.	He was elected in 2008.

Several classifiers for English are included in the default installation. You can download classifiers for other languages from the [Stanford CoreNLP site](#).

Different classifiers include different possible entity labels:

- *3 class* : LOCATION, PERSON, ORGANIZATION
- *4 class* : LOCATION, PERSON, ORGANIZATION, MISC
- *7 class* : LOCATION, PERSON, ORGANIZATION, MONEY, PERCENT, DATE, TIME

The steps for Named Entity tagging your corpus are:

1. Install the Layer Manager
2. Configure a Named Entity layer

Install the Layer Manager

1. In LaBB-CAT, select the *layer managers* option on the menu at the top.
2. At the bottom, follow the link labelled: *List of layer managers that are not yet installed*.
3. Find the *StanfordNERecognizer* layer manager in the list, and press its *Install* button, then *Install* again.
You will see a configuration page with some information about the tagger, and an option to upload a tagger file, which we don't need to do.
4. Press *Configure*.
You will see a progress bar while the layer manager downloads the Stanford POS Tagger files.

Once it's finished, you'll see a further information page.

Create a Named Entity layer

Now the layer manager is installed, we need to create a layer that is configured to use it to tag words that are names of entities...

- (1) Select *word layers* on the menu at the top.
- (2) You will see a list of word tag layers that have already been configured. The column headings at the top are also a form for creating a new layer, so we'll fill in that form now.
- (3) Fill in the following details on the form at the top:
 - *Layer ID:* namedEntity ¹
 - *Type:* Text
 - *Alignment:* None
 - *Manager:* Stanfond Named Entity Recognizer
 - *Generate:* Always
 - *Project:* This can be left as the default value, unless you want to add the layer to a category of your choice.
- (4) Press *New*
You will see the layer configuration form. Mostly you can leave the default values as they are.
- (5) By default, the *Classifier to use* options are all for English data; you can choose whether 3, 4, or 7 types of entities are tagged.

¹There may already a layer called `entity` in your LaBB-CAT configuration under *phrase layers*, so if you want to call this layer `entity`, you will have to delete the phrase layer first.

i Installing another Classifier

If your data is not in English, you can download a recognizer for your language from the [Stanford CoreNLP website](#)

To install a classifier:

1. Download the corresponding files from the CoreNLP website
 2. In the layer configuration form, set *Classifier to use* to [other classifier]
You will be asked to select a file.
 3. Select the file you just downloaded.
After a short delay while the file is uploaded, you'll see a message saying "Classifier(s) installed."
 4. In the layer configuration form, you can now set *Classifier to use* to the classifier you just installed.

- (6) Press *Set Parameters*.
 - (7) Now press *Regenerate* to run the Named Entity Recognizer on your whole corpus.
You will see a progress bar while the transcripts are being tagged.
 - (8) Once it's complete, select the *transcripts* option on the menu, and click the first transcript in the list.
 - (9) Tick the new *namedEntity* layer to display the tags.
You will see that some words have a tag above them - these identify the type of named entity found by the classifier.

AP511_MikeThorpe

ah w~ . well I have a - m~ fairly vivid recollection um of

DATE

the first one being September fourth, where I had arrived

LOCATION

LOCATION

ah in Hornby . so ah coming from Greendale it

Figure 1: Named Entity tags

Editing tags

The NER tags can be manually corrected if required.

To change the label of a tag on the transcript page:

1. Hover the mouse over the tag you want to change.
An 'edit' button will appear to the right.

hquake hit . um - she most certai

PERSON 
come from Napier . I've ah :

2. Press the edit button.
The tag will become a text box you can type in.

hquake hit . um - she most certai

LOCAT 
come from Napier . I've ah :

3. Change the tag's label as desired.

4. Press then save button  to save your changes.
You will see a message asking "Are you sure you want to save this tag?"
5. Press *OK* to confirm your change.

To delete a tag, follow the steps to change the label, and set the label to be blank before saving.

To add a new tag for a word that the NER has not recognized:

1. Hover the mouse in the space above the word you want tag, where the tag would be if it had been recognized.

An ‘add tag’ button will appear.

‘the doorway a~ about six



because Victoria Street was

2. Press the ‘add tag’ button.

An empty text box will appear.

‘the doorway a~ about six



namedE

because Victoria Street v

3. Type in the desired label.

‘doorway a~ about six of us I'm not



LOCATION DATE

use Victoria Street was so badly a

Save changes to tag

4. Press the save button to save your changes.

You will see a message asking “Are you sure you want to create this tag?”

5. Press *OK* to confirm your change.

If you manually add or edit Named Entity tags, and then run the StanforNER again, the manual changes will be preserved, although the tagger will re-create deleted entity tags.