User Manual of BoAT v2

BoAT is an acronym for BOUN Annotation Tool, used for dependency parsing.
v1 & v2

Installing the application

This application requires Python 3.
Firstly, it's advised to create a virtual environment in the application's folder, using the command line. A virtual environment can be created by the command

`python -m venv boat_venv` in Windows.
`python3 -m venv boat_venv` in Linux & Mac OS.

It can be activated afterwards by the command

`boat_venv/Scripts/activate` in Windows.
`source boat_venv/bin/activate` in Linux & Mac OS.

The dependent libraries of Python can be installed with the command

`python -m pip install -r requirements.txt` in Windows,
`python3 -m pip install -r requirements.txt` in Linux & Mac OS,

in the app's folder.

Starting the application

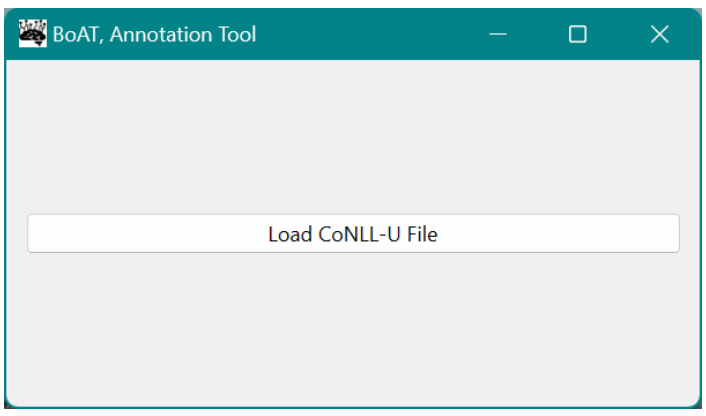
The app can be started from the command line. The application has optional command line arguments. They are `-file` and `-lang`. If a file is specified in the command line, the file is automatically loaded. If not specified, the file dialog in the initial window should be used to load the file. If the file is not in the right format, it warns the user.

Examples:

```
python main.py
python main.py -file sentences.conllu -lang tr
```

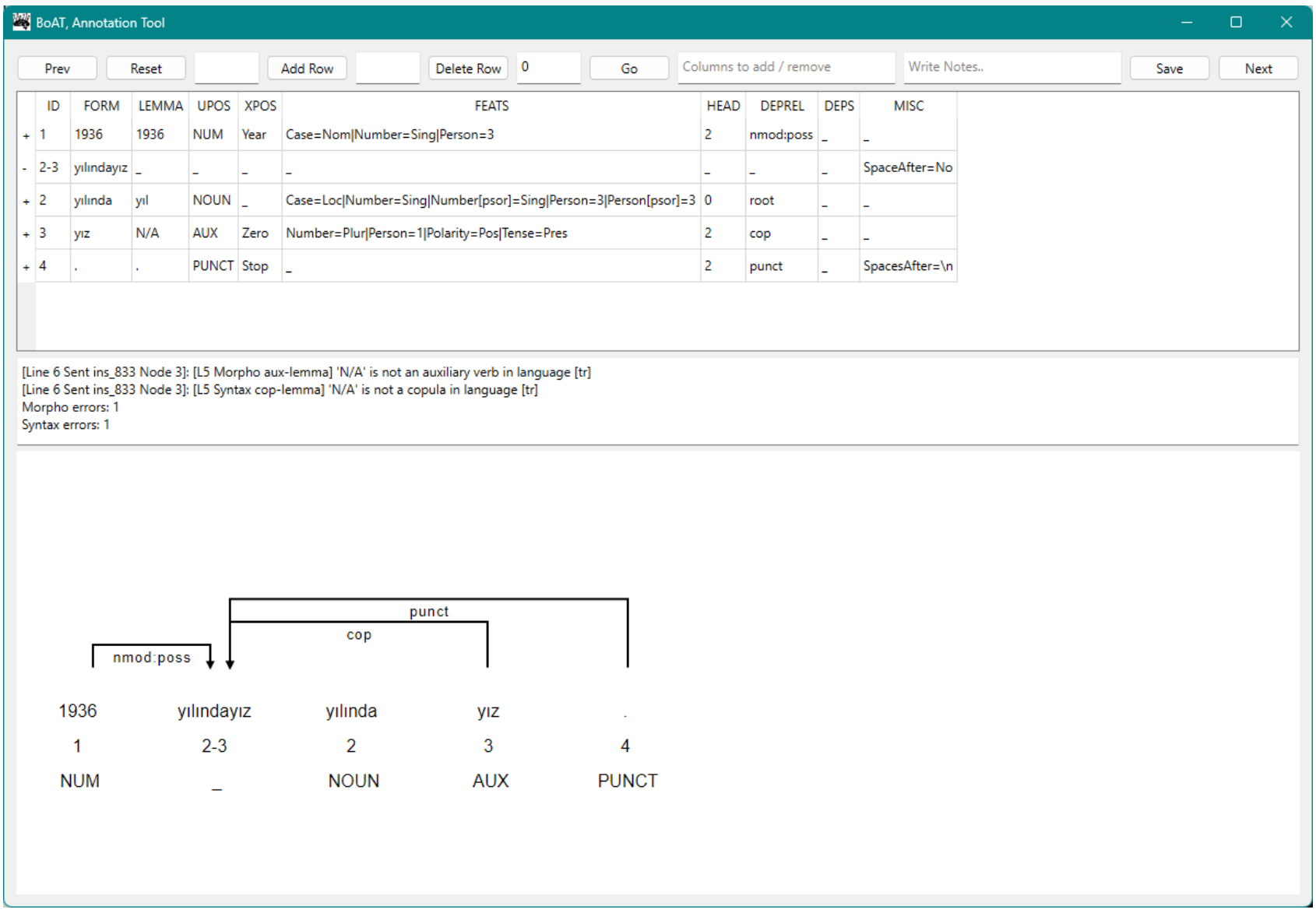
Loading the file with the file dialog

Load the `conllu` file by clicking the `Load a CoNLL-U File` button. Then, choose your file from the file dialog and click `Open`. If the file is not in the right format, the user is asked to load a file again, in the right format.



Annotating

After the file is loaded successfully, the window can be made full size for effective use. The current sentence is written below the table with the indices of the *FORM*s. The tree at the bottom shows the dependency structure. The errors are written under the sentence in the middle, if they exist. The table, the sentence textbox and the tree parts all can be resized according to needs.



Resetting

To reset an annotation, click the button `Reset`. The shortcut is `CTRL+R`.

Columns

Sentences in the file is shown one by one along with the default fields (ID, FORM, LEMMA, UPOS, XPOS, FEATS, HEAD, DEPREL, DEPS and MISC) and the parse tree of the sentence. The remaining columns are the features which are obtained from the *FEATS* field. The features are obtained by parsing *FEATS*. The cells in the first column of the table (filled with **+** or **–**) are clickable and used for MWE manipulation. Arrow keys are used to move between cells in the table.

Customizing columns

To customize the columns, the textbox atop with the placeholder text `Columns to add / remove` is used, the shortcut of which to focus is `CTRL+C`. This textbox has a shorthand writing system where one can write the initials of a column and then press enter, and the column appears or disappears depending on its previous state. For example, if one writes *fore* and presses enter, the column *Foreign* appears if it was hidden & disappears if it was on. If one writes a non-existing name for a column, it's just discarded.

Changing sentences

`Prev` and `Next` buttons are used to move between sentences. The button `Prev` has a shortcut `CTRL+P` and the button `Next` has a shortcut `CTRL+N`. To directly go to a specific sentence, write the index of the sentence and click the button `Go`. The indices of the sentences are ordered by the order they appear in the file.

Editing

The value in the cells are edited by directly typing on a certain cell. To finish editing, press `Enter`. If one of the features is edited, *FEATS* is updated accordingly. `_` can be used for default fields. Editing a cell has an error-preventing feature where one can fill the cells during annotation and the program checks whether the text filled is compatible with the column's type. If it's not compatible, it's just discarded. It also has a shorthand writing system where one can just write the initials (e.g. *s* for *Sing* under the column *Number*).

Saving annotation

To save the file, use the `Save` button (or `CTRL+S`). The file is also saved after attempting to close the app.

Errors
If your annotation is found to be invalid, error messages are written under the table, beneath the current sentence text.

Notes
Each sentence may have a note attached. Notes are written atop in a textbox, the placeholder of which is *Write Notes...*. It has a shortcut `CTRL+M`. The note is saved by using the buttons `Prev` or `Next`. Notes are stored in a separate `notes-FILENAME.txt` file in the working directory. A note is stored together with the index of the sentence.

Add / Delete rows
To add a new row, enter a row ID and click the button `Add Row`. A new row is added on top of the row with the entered ID. The entered row ID shouldn't belong to a multiword expression.

To delete an existing row, enter a row ID and click the button `Delete Row`. The row with the entered ID is deleted. The entered row ID shouldn't belong to a multiword expression and a *HEAD* of another token.

Exiting
Click the X atop to quit the application or use the shortcut `CTRL+Q`. A message box asks if you want to save the edits, if there were. The file is saved if answered yes, so it may take a couple seconds.

All Keyboard Shortcuts

Column textbox:	`CTRL+C`
Next sentence:	`CTRL+N`
Note textbox:	`CTRL+M`
Previous sentence:	`CTRL+P`
Exit app:	`CTRL+Q`
Reset:	`CTRL+R`
Save:	`CTRL+S`
Table focus:	`CTRL+T`

Adapted from the v1 User Manual.