

**Nalaprop 1.0b2 for Mojave**  
*Release Notes*  
Howard Oakley <https://eclecticlight.co>

These release notes describe the features of **Nalaprop**, an app which uses macOS 10.14 Mojave's natural language processing to parse text, and mark it up according to detected parts of speech ('lexical classes').

One of many new features in Mojave, which were detailed and demonstrated at WWDC 2018, built-in support for parsing natural language is one of the most exciting. Primarily intended to support natural (spoken) language interaction with iOS devices, its tools will be of great value to many macOS users interested in language.

Nalaprop is an exploration of natural language parsing which brings to your Mac what was demonstrated at WWDC.

### **What you need**

- A Mac running Mojave. This release doesn't run on any earlier releases of macOS, which lack the features which it relies on.
- A copy of the latest release of Nalaprop from <https://eclecticlight.co/downloads/> (This is delivered by secure HTTPS download.)

### **Getting started**

Nalaprop comes compressed as a Zip file, which you should decompress, and move the app to your preferred folder, such as /Applications. It is not fussy where it is run from, though.

Nalaprop not only uses my developer signature, but is notarized for Mojave. It cannot access documents in private areas of your Mac's storage, such as emails or Photos libraries. If you experience any difficulties opening the app the first time, please contact me immediately.

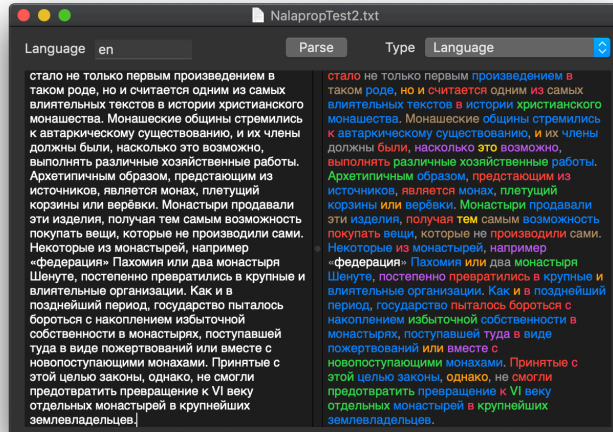
This is the second beta release of Nalaprop.

### **Use**

To open a plain text or rich text (RTF) file, use the **Open...** command in the **File** menu. To paste in plain text, if necessary create a new window using the **New** command, then paste that text into the lefthand pane of any document window. Rich text files are read in as plain text, as Nalaprop will impose its own styling to their text.

To parse the text in the lefthand pane and display its marked-up coloured text in the righthand pane, click on the **Parse** button.

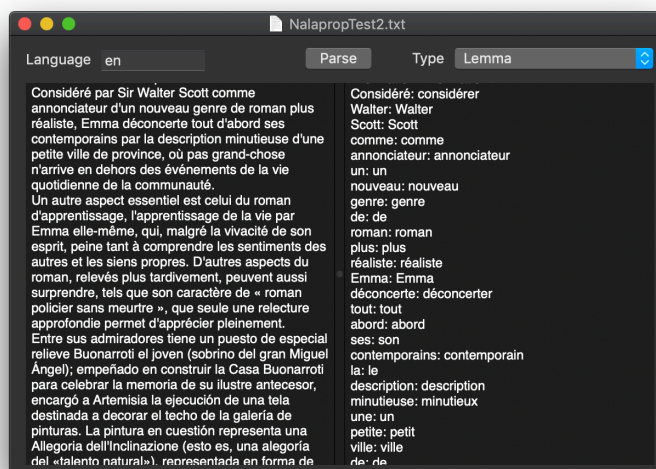
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Nalaprop then uses Mojave to parse the text, discovering which is the predominant language (currently, that is invariably the first to be encountered in the text), and displaying the marked-up text at the right. For supported languages, parsing also enables the **Type** popup menu and adds options to it. These enable you to perform additional parsing on your text.

For fully-supported languages, you will see the following options in the **Type** popup menu:

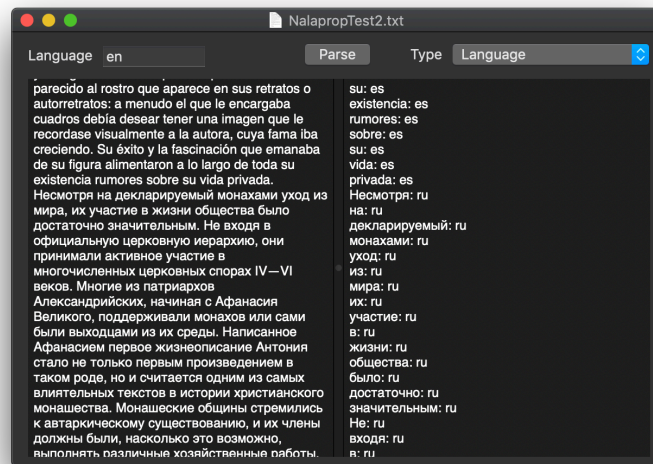
- **Language** - this reports the detected language of each word in your text;
- **Script** - this reports the script system for each word, e.g. Latn for Latin;
- **TokenType** - this marks each word according to broad category, e.g. word;
- **LexicalClass** - this marks each word according to part of speech, e.g. noun, verb;
- **NameType** - this marks each word according to whether it is a personal, organisational, or place name;
- **nameTypeOrLexicalClass** - this combines LexicalClass with NameType, and is that used in the main Parse command;
- **Lemma** - this gives a stem or base form of the word, e.g. in French, le, la and les are given the lemma le.



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Simply select which you wish to view. All the words (but not whitespace or punctuation) will then be listed, with your chosen Type shown next to them. To restore the original marked-up text, simply click on **Parse** again.

Nalaprop also handles mixtures of languages, in which case the **Language** box will display what Mojave considers to be the dominant language in your text. Select **Language** in the popup menu, and you will see each word classified according to the language detected.



Nalaprop can fully parse English, French, Russian, and additional languages as supported by Mojave. The parsed text shown in the righthand pane uses the following colour mappings:

- nouns, blue
- verbs, red
- adjectives, green
- adverbs, purple
- pronouns, yellow
- determiners, brown
- particles, grey
- numbers, grey
- prepositions, pink
- conjunctions, orange
- classifiers, orange
- idioms, green
- interjections, orange
- personal, organisational, and place names, white or black (according to Light/Dark mode at the time)
- others, including punctuation and any unparsed text, grey.

Once parsing is complete, the international code for the detected language is displayed in the **Language** text box.

Currently, the **Save...** command has been disabled to help prevent you from overwriting original files. When you **Save as...**, select the Rich text (RTF) option to preserve colour coding in the parsed output. Saving only saves the text displayed in the righthand panel, not the original text in the lefthand one.

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To print the text in the left hand panel, click on the text there so that the insertion cursor is within it, then use the **Print** command. To print that in the right hand panel, place the insertion cursor within the text in that panel, then use the **Print** command.

### Technical information

Swift 4.2 code used to achieve the parsing includes:

```
import NaturalLanguage

let theMASOut = NSMutableAttributedString()
let tagger = NLTagger(tagSchemes: [.nameTypeOrLexicalClass])
tagger.string = theStr
let options: NLTagger.Options = []
tagger.enumerateTags(in: theStr.startIndex..
```

Why the name Nalaprop? It's a pun on Mrs Malaprop, and **Natural Language Processing**.

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**Change list**

*1.0b2:*

- added support for opening RTF files as plain text
- enabled printing support
- built using Xcode 10.0 release.

*1.0b1:*

- tidied the interface, removing superfluous controls
- notarized for Mojave
- built using Xcode 10β5.

*1.0a2:*

- fixed a crash when language not recognised/supported yet
- added second stage parsing with popup menu.

*1.0a1:*

- initial release
- crashes when trying to parse Chinese.

21 September 2018.