

Literary Toolbox

Name: Literary Toolbox
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Last Update: 3 December 2018
Requires: Keyboard Maestro v8, v
Optional: Various Perl modules, Nisus Thesaurus, Spell Catcher

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INTRO

This set of macros can be used to evaluate text in several different ways. They can be helpful to authors but also to readers evaluating or studying various texts.

They each work on a text selection rather than a discrete file, parsing the selection copied to the clipboard and stripping it of any style information before analysis.

That helps (if isn't quite a cure) for text selected in a word processor. But you should have no problem with text selections made in any editor or within a Web browser.

Some of the tools push the limits of what an algorithm can tell us about human communication but we still find them useful if not for raw data at least for comparisons or trends.

We've used some of these for years and some for a few months. And while they do tap into the power of some third-party code, only a couple rely on commercial software and even those have free equivalents.

Keyboard Maestro provides a simple interface to these tools. A palette (with an optional custom color scheme) organizes them for easy recall. And custom HTML forms that use the same color scheme as the palette provide easy-to-read reports.

DESCRIPTION

The zip file contains several macros grouped into four sections on one palette. Many of the macros execute Perl scripts that report via custom HTML windows.

Perl 5, required for the scripts, is included in all OS X installations. The modules required to extend Perl 5 for the Literary Toolbox are free.

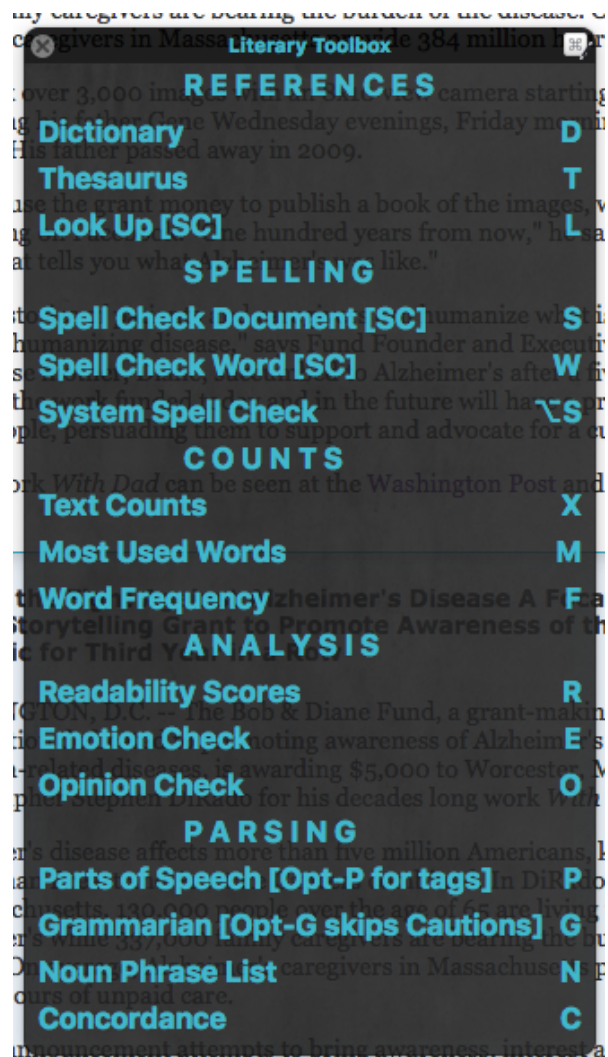
The palette also taps into a free thesaurus from Nisus and the built-in OS X Dictionary. And it can tap into the commercial package Spell Catcher if installed.

The **References** section contains:

- **Dictionary:** to look up the currently selected word in the free Dictionary application included with various versions of the Macintosh operating system.
- **Thesaurus:** to look up the currently selected word in the free Nisus Thesaurus (<https://nisus.com/Thesaurus/>) containing over 120,000 words.
- **Look Up:** to find the currently selected word in Spell Catcher's references.

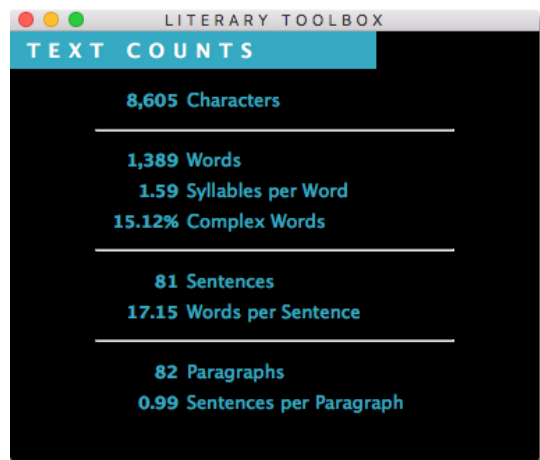
The **Spelling** section contains:

- **Spell Check Document:** to check spelling in the document using Spell Catcher. You can delete this if you don't use Spell Catcher.
- **Spell Check Word:** to check spelling of a single word in the document using Spell Catcher. You can delete this if you don't use Spell Catcher.
- **System Spell Check:** to check spelling in a document using the macOS spell check in applications that support it.



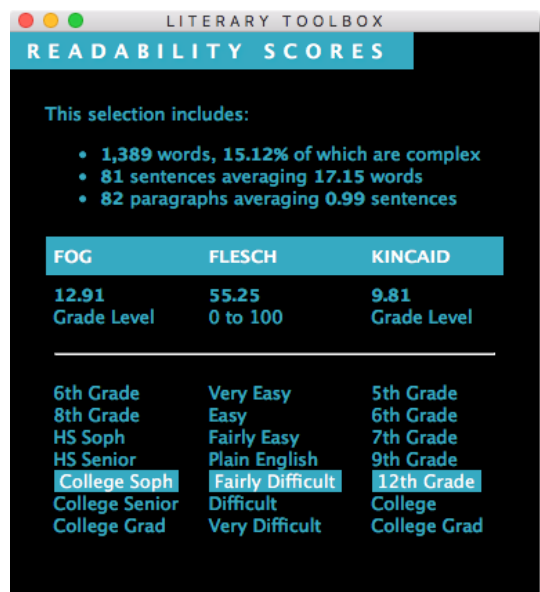
The **Counts** section contains:

- **Text Counts:** provides eight counts of characters, words, syllables per word, complex words, sentences, words per sentence, paragraphs and sentences per paragraph for the selected text, helpful in navigating toward a better readability score.
- **Most Used Words:** to display a list of the most frequently used words (anything used more than once) in your selection. The list is sorted by number of occurrences over a single occurrence and omits small words like "the, and, or, an, a, in, to, of, on, for, by, in, but."
- **Word Frequency:** to display an alphabetical list of all the words in a selection with their count.



The **Analysis** section contains:

- **Readability Scores:** to report readability scores for the Fog, Flesch and Flesch-Kincaid indices both by number and on a scale of reading difficulty or grade level. Some related counts are also reported.
- **Emotion Check:** to display the sentences that most evince several emotions.
- **Opinion Check:** to display sentences that are positive or negative.



The **Parsing** section contains:

- **Parts of Speech:** a colorized version of the selection in which each word is colored by its part of speech. Includes counts for each part of speech. When invoked with the **Option** key, the document includes gray tags for each word indicating the precise part of speech plus an extended color-coded legend in a separate window (see screenshots on next page).
- **Grammarian:** to check your selection for grammar errors and cautions with totals for each (see below). If the macro is invoked with the **Option** key, Cautions are skipped. Note that paragraphs are not always accurately detected so using the Concordance below (especially with Cautions) can be helpful.

- **Noun Phrase List:** to display noun phrases sorted by number of occurrences.
- **Concordance:** display sentences which contain a particular word or phrase (see below). This can help track down Cautions cited by Grammarian below.

NB: Spell Catcher, a commercial product that has not been supported for some years now, is required for a couple of the above as noted. The palette code [SC] indicates which macros are Spell Catcher dependent. If you don't use Spell Catcher, simply disable the macros.

LITERARY TOOLBOX		
TAGGED TEXT LEGEND		
LEGEND		
CC	Conjunction, coordinating	and, or
CD	Adjective, cardinal number	3, fifteen
DET	Determiner	this, each, some
EX	Pronoun, existential there	there
FW	Foreign words	
IN	Preposition/Conjunction	for, of, although, that
JJ	Adjective	happy, bad
JJR	Adjective, comparative	happier, worse
JJS	Adjective, superlative	happiest, worst
LS	Symbol, list item	A, A.
MD	Verb, modal	can, could, 'll
NN	Noun	aircraft, data
NNP	Noun, proper	London, Michael
NNPS	Noun, proper, plural	Australians, Methodists
NNS	Noun, plural	women, books
PDT	Determiner, prequalifier	quite, all, half
POS	Possessive	's, '
PRP	Determiner, possessive	mine, yours
PRPS	Determiner, possessive	their, your
RB	Adverb	often, not, very, here
RBR	Adverb, comparative	faster

LITERARY TOOLBOX		
TAGGED TEXT		
COUNTS		
The selection contains:		
106 Adjectives	502 Nouns	53 Pronouns
51 Adverbs	223 Verbs	218 Prepositions
53 Conjunctions	172 Determiners	217 Punctuation
1 Possessives	4 Symbols	Foreign Words
Interjections	Untagged	1,600 Tagged
NB: A legend explaining the tags is available from the main palette.		
TAGGED TEXT		
Literary-NNP Toolbox-NNP Name-NN :PPS Literary-NNP Toolbox-NNP Author-NN :PPS Mike-NNP Pasini-NNP Version-NNP :PPS 1.0a-NNP Last-JJ Update-NNP :PPS 26-CD November-NNP 2018-CD INTRO-NNP This-NNP set-VBD of-IN macros-NNS can-MD be-VB used-VBN to-TO evaluate-VB text-NN in-IN several-JJ different-JJ ways-NNS .PP While-IN some-DET of-IN the-DET tools-NNS have-VBP traditionally-RB been-VBN used-VBN by-IN writers-NNS on-IN their-PRPS own-JJ texts-NNS .PPC they-PRP can-MD all-RB just-RB as-IN easily-RB be-VB applied-VBN to-TO text-NN others-NNS have-VBP written-VBN .PP And-CC that-IN aspect-NN of-IN these-DET tools-NNS makes-VBZ them-PRP even-RB more-JJR useful-JJ .PP They-PRP all-DET work-NN on-IN a-DET text-NN selection-NN rather-RB than-IN a-DET discrete-JJ file-NN .PPC parsing-VBG the-DET selection-NN copied-VBD to-TO the-DET clipboard-NN and-CC stripping-VBG it-PRP of-IN any-DET style-NN information-NN before-IN analysis-NN .PP That-DET helps-VBZ (-LRB but-CC is-VBZ n't-RB a-DET cure-NN)-RRB for-IN text-NN selected-VBD in-IN a-DET word-NN processor-NN .PP But-CC you-PRP should-MD have-VB no-DET problem-NN with-IN text-NN selections-NNS made-VBD in-IN any-DET editor-NN or-CC within-IN		

LITERARY TOOLBOX		
CONCORDANCE		
Results: macros was found a total of 8 times. Elapsed time: 00:01 (mm:ss).		
Selection contains 8 instances:		
This set of macros can be used to evaluate text in several different ways. While some of the tools have traditionally been used by writers on their own texts, they can all just as easily be applied to text others have written. And that aspect of these tools makes them even more useful.		
The zip file contains several macros grouped into three sections on one palette. Many of the macros execute Perl scripts that report via custom HTML windows.		
Some of the macros require installation of third-party software.		
Lingua::EN::Fathom is a free Perl module required for the Word Frequency, Most Frequent Words and Statistics macros . Lingua::EN::Opinion is a free Perl module for the Emotion and Opinion macros . Lingua::EN::Tagger is also a free Perl module required here by the macros in the Parsing section. Lingua::EN::Grammarian, also free, is a Perl module providing grammar cautions and errors.		
The Dictionary and Thesaurus macros work on a word selection but the others will analyze any length text selection.		

LITERARY TOOLBOX

GRAMMARIAN

A grammar check of your selection reveals 8 Errors and 49 Cautions:

Error	Graf	Explanation	Suggestion
--	4	Repeated word	-
--	4	Repeated word	-
--	4	Repeated word	-
cpanm cpanm	4	Repeated word	cpanm
cpanm cpanm	5	Repeated word	cpanm
cpanm cpanm	5	Repeated word	cpanm
//	6	Repeated word	/
than we	8	Prepositions must be followed by an accusative pronoun	than us

Caution	Graf	Explanation	Suggestion
their	7	their: belonging to them they're: they are there: at that location	their there they're
that	7	that: what follows is essential to the meaning of the sentence which: what follows merely	that which

INSTALLATION

Some of the macros require installation of third-party software.

Nisus Thesaurus

Simply download Nisus Thesaurus (<https://nisus.com/Thesaurus/>) and install it in your Applications folder.

Lingua::EN::Fathom

Lingua::EN::Opinion

Lingua::EN::Tagger

Lingua::EN::Grammarian

Lingua::EN::Fathom is a free Perl module required for the Word Frequency, Most Frequent Words and Statistics macros. Lingua::EN::Opinion is a free Perl module for the Emotion and Opinion macros. Lingua::EN::Tagger is also a free Perl module required here by the macros in the Parsing section. Lingua::EN::Grammarian, also free, is a Perl module providing grammar cautions and errors.

There are several ways to install Perl modules but here's what we did (and you can do by copying and pasting the following command lines) using the Terminal application:

1. Install cpanm

```
curl -L http://cpanmin.us | perl - --sudo App::cpanminus
```

NB: If you don't have XCode installed, run this command first:

```
xcode-select --install
```

2. Install Lingua::EN::Fathom using cpanm

```
cpanm Lingua::EN::Fathom --sudo
```

3. Install Lingua::EN::Opinion using cpanm

```
cpanm Lingua::EN::Opinion --sudo
```

4. Install Lingua::EN::Tagger using cpanm

```
cpanm Lingua::EN::Tagger --sudo
```

5. Install Lingua::EN::Grammarian

```
cpanm Lingua::EN::Grammarian --sudo
```

You'll also need to download the distribution from cpan at:

<https://metacpan.org/pod/Lingua::EN::Grammarian>

to retrieve the caution and error files, which have to be installed manually.

Copy the `grammarian_cautions` and `grammarian_errors` files to any one of the following locations:

```
/usr/local/share/grammarian/  
/Users/[username]/  
/Users/[username]/Desktop/
```

You may hide both files by prepending a period to the file names, if you want.

If you prefer the first solution, open terminal and execute these two commands (after moving the :

```
mkdir /usr/local/share/grammarian  
  
cp ~/Desktop/grammarian* /usr/local/share/grammarian
```

Notes

The `--sudo` switch will cause the process to ask you for your password. Keep an eye out for it.

Note that the modules have dependencies on other modules which `cpanm` will find and install as well. You need about 60K for all three modules, a modest allocation.

UNINSTALLING MODULES

You can uninstall these modules using `cpanm` (which is another good reason to have installed it):

```
cpanm --uninstall Lingua::EN::Fathom --sudo
```

And if you installed Grammarian, remember to remove the caution and error files you manually installed.

AN OPTIONAL PALETTE THEME

Keyboard Maestro permits one Custom Palette Theme installed via Terminal. We've written a theme that matches the color scheme of the toolbox reports.

To install the theme paste this command after the prompt in Terminal:

```
defaults write com.stairways.keyboardmaestro.engine  
CustomPaletteTheme "0,0,0, 190,72,76, 0,0,100"
```

And in the Keyboard Maestro editor select "Custom" for the palette theme.

This will overwrite any previously installed Custom Palette Theme, so skip it if you've already installed one you rely on.

USAGE

We use these tools from a palette that is active in applications that display text, including editors, email software, browsers, word processors, etc.

We find it useful not only for evaluating what we produce but for measuring the readability of other sources.

The Dictionary and Thesaurus macros work on a word selection. Spell Check Word works on any size selection down to a word. Document spell checks select all the text in the current document. The others will analyze a text selection of any length.

NOTES

There isn't much documentation let alone discussion of the Perl modules that report emotion or opinion and parse parts of speech. And we've found these tools a bit less accurate than we might have hoped.

But we still find value in them.

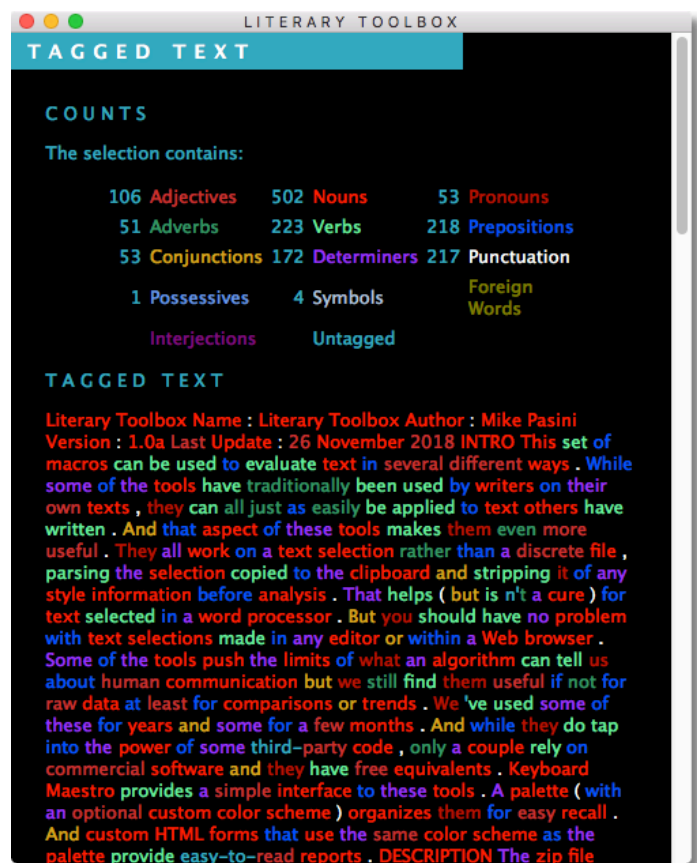
For example, while a single word seems to be able to trigger an emotion and other words in the same sentence trigger other emotions, it's helpful to list sentences that may trigger a reaction you might not be expecting.

The same goes for opinions (mainly whether the sentence is positive or negative).

As for parts of speech, the task is very difficult but the relevant module seems to do a passable job (you don't have to upgrade to Mojave to get text parsing).

The colorization (which is also tonal) helps visualize the logical flow of the text. You can easily perceive if nouns or verbs are modified, the ratio of nouns or noun phrases to verbs and watch for conjunctions and prepositions. In short, you get a painting of your text.

We've lumped together variants of several of the tags. So all verbs have the same color and all nouns have the same color, regardless of variant. Adverbs have the same hue



but a different tone than verbs. And adjectives have the same hue but a different tone than nouns.

You can easily change tag colors in the Execute Shell Script action under the section titled `# set colors`. There are three color lists that should (but don't have to) match.

The default arrangement should make it easy to see nouns (red) and verbs (green) and their modifiers (shades of each). Which should stand out from everything else, generally speaking.

Grammarians' cautions list every problematic word it finds whether it is used correctly or not. It just can't tell. When you become familiar with the cautions, you can skip them by invoking Grammarians with the `option-g` trigger.

RELEASE NOTES

13 December 2018

- Manual updated with installation tips.

v1.0a on 3 December 2018

- Initial release.

CONTACT

I'm happy to promptly address any concerns you may have. I can't do anything about the modules themselves but I can address interface issues.

You can reach me at <http://mikepasini.com> or on the Keyboard Maestro forum as mrpasini.