



ProtAnt (Windows)

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Help file version: 001.

File	Key Types	Key Tokens	NormKey Types	NormKey Tokens
1 8.txt	30	140	70.4225	140
2 4.txt	33	171	68.1818	146.029
3 7.txt	30	140	67.5676	134.1
4 5.txt	33	161	61.7978	133.278
5 13.txt	25	199	54.8246	168.644

File	Key 1	Key 2	Key 3	Key 4	Key 5	Key 6	Key 7
1 8.txt	religious	islam	east	assad	school	extremism	religion
2 4.txt	religious	islam	east	egyptian	assad	school	saudi
3 7.txt	islam	east	assad	school	saudi	benjamin	extremism
4 5.txt	religious	islam	east	egyptian	assad	qa	saudi
5 13.txt	melvyn	broadcasts	east	clubs	harvey	fans	football

Keyword	Freq	Keyness	Effect
1 levi	17	78.7975	311.016
2 batten	17	78.7975	311.016
3 brotherhood	14	64.8903	256.131
4 babolat	14	64.8903	256.131
5 joffrey	12	55.6193	219.541
6 bates	12	55.6193	219.541

Introduction

ProtAnt is a freeware prototypical text detection tool developed in collaboration with Paul Baker of Lancaster University, UK. *ProtAnt* takes a corpus of texts (**UTF-8 encoded**) and compares them against a reference corpus (**UTF-8 encoded**) to find keywords that represent the characteristic features of the corpus as a whole. Then, *ProtAnt* looks at each individual file and counts how many keywords are in them. The corpus files are then ranked by the number of keywords they contain normalized in various ways. *ProtAnt* runs on any computer running Microsoft Windows (tested on Win 98/Me/2000/NT, XP, Vista, Win 7, Win 8) and Macintosh OS X computers (tested up to OS X 10.9 Mavericks). *ProtAnt* is developed in Python and Qt using the *PyInstaller* compiler to generate executables for the different operating systems.

Getting Started (No installation necessary)

Windows

On Windows systems, simply double click the *ProtAnt* icon to launch the program.

Macintosh OS X

On Macintosh systems, simply double click the *ProtAnt* zip file. The zip file will unzip the *ProtAnt* application. Then, you can drag the *ProtAnt* application to your application folder, your desktop, or anywhere else you like. Throw away the zip file when you are finished.

Finding prototypical texts

Step 1: Select the target files of the corpus you want to analyze. You can do this in four ways:

- a) Click on the File->Open Target File(s) menu option and select the files you want to analyze;
- b) Click on the File->Open Target Dir menu option and select a directory of files you want to analyze;
- c) Click on the "Add Corpus Files" button below the "Target Corpus" label and select the files you want to analyze;
- d) Drag and drop files directly onto the *ProtAnt* application.

Note 1: If you click on the File->Close Target Files menu option or click the "Clear" button below the "Target Corpus" label, the corpus files will be removed from the list.

Step 2: Select the reference corpus files that you want to use. You can do this in four ways:

- a) Click on the File->Open Reference File(s) menu option and select the files you want to analyze;
- b) Click on the File->Open Reference Dir menu option and select a directory of files you want to analyze;
- c) Click on the "Add Corpus Files" button below the "Reference Corpus" label and select the files you want to analyze;
- d) Drag and drop files directly onto the *ProtAnt* application.

Note 1: If you click on the File->Close Reference Files menu option or click the "Clear" button below the "Reference Corpus" label, the corpus files will be removed from the list.

Step 3: Choose the keyness statistic, keyness threshold value (p-value), effect size measure, and effect size threshold (the cutoff rank) you would like to use to generate keywords for the target corpus. Note that a keyness threshold of 0 means all (positive) keywords will be considered, and an effect size threshold of -1 means that all effect values will be shown. A positive keyword means that it is relatively more frequent in the target corpus than the reference corpus. In *ProtAnt*, negative keywords (relatively more frequent in the reference corpus than the target corpus) are not considered.

Step 4: Choose the normalization function for frequencies displayed in the results window.

Step 5: Choose to ignore case in the target corpus (change all words to lowercase) and decide a suitable token definition based on regular expression (regex) syntax.

Step 6: Click "Start" to begin the segmenting process.

Note 1: The results of the prototypical text detection are shown in the top right window. The keywords appearing in each (ranked) corpus file are shown in the middle right window. The complete list of keywords is shown in the bottom right window. All columns can be sorted in either ascending or descending order by clicking on the column headers.

Note 2: The prototypical text detection analysis can be stopped at any time by clicking the "Stop" button.

Additional Features

The output display can be selected, copied, and pasted as is standard on the operating system:

Windows:	CTRL-A ⇔ Select All	CTRL-C ⇔ Copy	CTRL-V ⇔ Paste
Macintosh:	CMD-A ⇔ Select All	CMD -C ⇔ Copy	CMD -V ⇔ Paste

NOTES

Comments/Suggestions/Bug Fixes

All new editions and bug fixes are listed in the revision history below. However, if you find a bug in the program, or have any suggestions for improving the program, please let me know and I will try to address the issues in a future version.

This software is available as 'freeware' according to the license below. It is important for my funding to hear about any successes that people have with the software. Therefore, if you find the software useful, please send me an e-mail briefly describing how it is being used.

CITING/REFERENCING *ProtAnt*

Use the following method to cite/reference *ProtAnt* according to the APA style guide:

Anthony, L. and Baker, P. (YEAR OF RELEASE). *ProtAnt* (Version VERSION NUMBER) [Computer Software]. Tokyo, Japan: Waseda University. Available from <http://www.laurenceanthony.net/>

For example if you download *ProtAnt 1.0.0*, which was released in 2015, you would cite/reference it as follows: Anthony, L. and Baker, P. (2015). *ProtAnt* (Version 1.0.0) [Computer Software]. Tokyo, Japan: Waseda University. Available from <http://www.laurenceanthony.net/>

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KNOWN ISSUES

None at present.

REVISION HISTORY

1.0.2

This is minor update

Bug fixes:

1. When files were dragged and dropped on the target corpus or reference corpus boxes, they were not loaded correctly. Drag and drop is now working.
2. When the Log Ratio option was chosen, in some cases no results were generated. This is now fixed.
3. In previous versions of ProtAnt, the keyness statistic (Log Likelihood) was based on a 2-term version of the calculation that is commonly used in corpus linguistics. This is an estimate of the more accurate 4-term calculation which is now the default. For backwards compatibility, the 2-term version is left as an option.
4. Although not strictly a bug, rather than allowing a ranking of keywords by keyness values (effectively a ranking by p-values) as in previous versions, ProtAnt now encourages rankings of keywords by an effect size measure. Two effect size measures are provided.

1.0.1

This is minor update

Bug fix: When a general Unicode character class token definition was supplied (e.g. $\{L\}$ for letters), non-English texts were not being processed correctly. This is now fixed.

1.0.0

This is the first version of the program

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