

# ProtAnt (Windows)

## Build 1.0.1 (Released October 21, 2015)

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## 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 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 "Target Corpus" label, the corpus files will removed from the list.

**Step 3:** Choose the keyness statistic, keyness threshold value (p-value), and keyword minimum frequency you would like to use to generate keywords for the target corpus.

**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**

If a very large file is copied to the "Input Text" box and segmented, once the results are generated, copying the results might use up all the available system memory and cause the program to crash. To avoid this problem, large files should always be segmented using the "Input File" option.

### **REVISION HISTORY**

1.0.1

This is minor update

Bug fix: When a general Unicode character class token definition was supplied (e.g. \p{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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