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MATTR USER MANUAL

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caspr
COMPUTER ANALYSIS OF SPEECH
FOR PSYCHOLOGICAL RESEARCH

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Introduction

MATTR, version 1, is a computer program that computes the moving-average type-token ratio (also called MATTR) for ASCII or Unicode text. This method of computing type-token ratio is independent of text length and makes no statistical assumptions.

Authorship and version history

MATTR was coded by Michael A. Covington around a central algorithm implemented by Joe McFall. This program is a product of the CASPR project (Computer Analysis of Speech for Psychological Research) at The University of Georgia. It is distributed free for noncommercial use.

For scientific integrity, **when using MATTR in research, you should always give the exact version and date,** which are displayed when you select *Help, About...* in the main menu. The version is also written at the beginning of each saved output file.

Installation requirements

For Windows 2000 and above

The file **mattr.exe** is usually all you need. Extract it from the supplied ZIP file, place it in any convenient folder (or on your desktop), and launch it. If your computer does not include .NET Framework 2.0, you will get an error message saying so, and you should perform Windows Update or go to *www.microsoft.com* to download and install the current framework.

For Linux and MacOS X

In addition to **mattr.exe** you will need to obtain and install the current version of Mono (http://www.mono-project.com).

MacOS users will also need to install the X11 windowing system. To do this, insert the OS X install disc, scroll down to find "Optional Installs", double-click on that package, then choose X11 in the list of packages presented by the installer.

Once all this is set up, in either operating system, go to a command prompt, **cd** into the directory that contains **mattr.exe,** and execute the command:

mono mattr.exe

Note that the authors of MATTR are not equipped to assist users of operating systems other than Microsoft Windows.

Basic operation

The main MATTR screen looks like this:
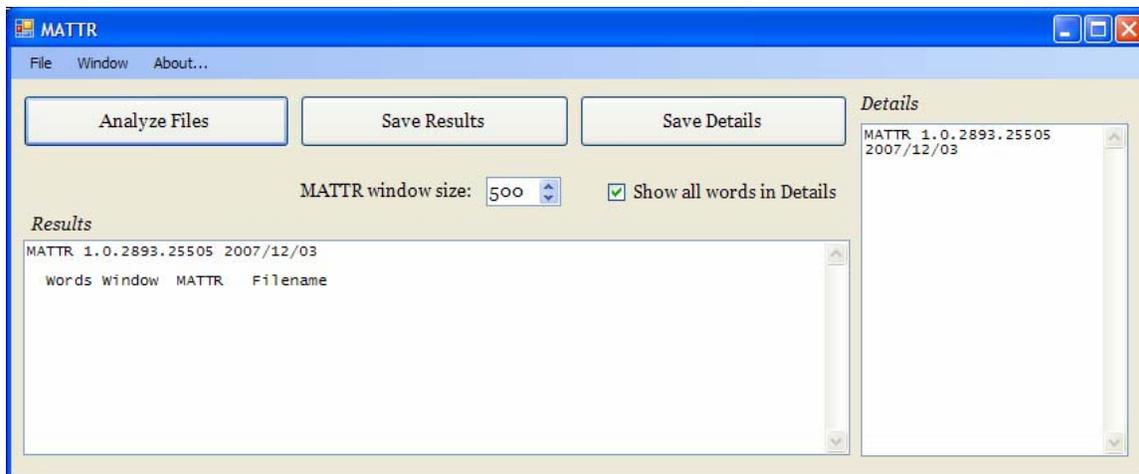
To start, choose "Analyze Files" and choose one or more text files for analysis. The moving-average type-token ratio for each file will be shown in the Results window. If "Show all words in Details" is checked, every word of the text will be shown in the Details window, and after the first window is complete, the MATTR for each window position will be shown. Here is an example:
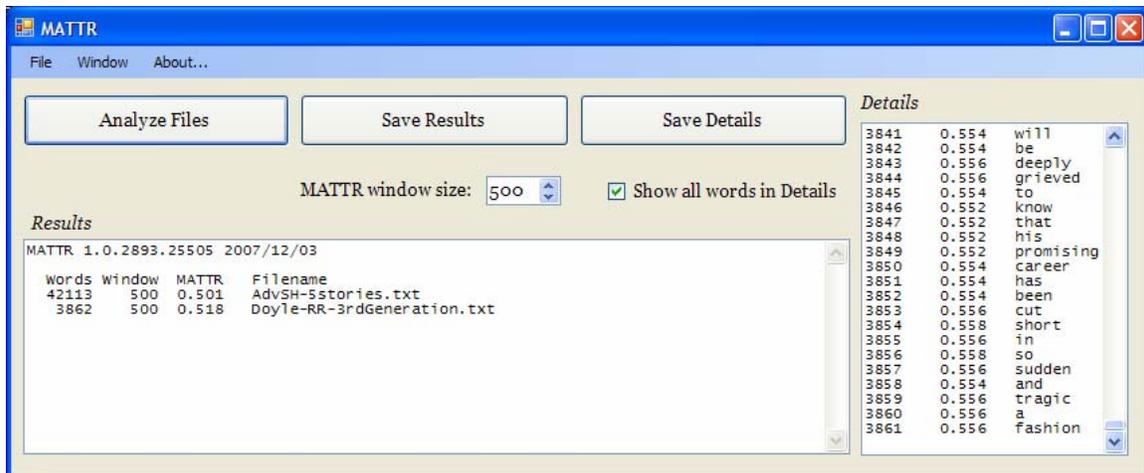
You can save the contents of the Results and Details windows to tab-delimited text files using the appropriate buttons, then open the files with Excel for statistical analysis or plotting.

Note that the MATTR window size is adjustable. We suggest a small window size (100 words or less) if you mainly want to detect repetition, or a large window (up to the full length of the shortest text you want to analyze) if your main goal is to determine the size of the writer's vocabulary.

References

See http://www.ai.uga.edu/caspr for related ongoing work and publications.