

# DaTaMea



## User Manual

# 1. Table of Contents

<b>1. Table of Contents</b>	<b>1</b>
<b>2. Basics</b>	<b>2</b>
2.1 About the Software	2
2.1.1 Overview	2
2.1.2 Minimum Software & Hardware Requirements	2
2.2 Software Development	3
2.3 Privacy Policy	3
2.4 Glossary	4
<b>3. Getting Started</b>	<b>5</b>
3.1 Software Download	5
3.2 Software Installation & Running DataMea	5
3.2.1 Windows	5
3.2.2 Mac	7
<b>4. Screen Reference</b>	<b>8</b>
4.1 Top Senders Graph	8
4.2 Sent vs Received Graph	8
4.3 Folder Structure Graph	9
4.4 Domains Graph	9
4.5 Attachments Graph	10
4.6 Reply Rate Graph	10
4.7 Sentiment Graph	11
4.8 Email Frequency Graph	11
4.9 Languages Graph	12
<b>5. Troubleshooting &amp; Known Issues</b>	<b>12</b>
<b>6. FAQ</b>	<b>12</b>

## 2. Basics

### 2.1 About the Software

#### 2.1.1 Overview

DataMea is an application that outputs general statistics in a user-friendly dashboard. A user will need to have a Gmail email account. After logging in to your Gmail email account, DataMea will run its engine analysis on all your email within the account. Afterward, the main interface will display graphs on noteworthy statistics about your email regarding sent and received mail.

DataMea has a brief tutorial that can be found on the analysis progress window. This window appears as soon as the user logs in with their Gmail account. It can also be found on the application's website: [DataMea.github.io](https://DataMea.github.io)

#### 2.1.2 Minimum Software & Hardware Requirements

DataMea is only built for Windows and Mac. The installer files are .exe and .dmg respectively.

OS: Windows 7 (SP2+) / 8.1 / 10, Mac OSX 10.10+

Processor: 2 Ghz

Memory: 2 GB RAM

Graphics: 256 MB Video Memory

Storage: 650 MB Available Space

A Gmail account is required for the analysis to work. If the user does not have a Gmail account, the user can go to the following link to create a free, Gmail account:

<https://accounts.google.com/signup>

Please note: two-factor authentication (2FA) must be disabled for the application to run the analysis as well.

## 2.2 Software Development

DataMea was developed at the State University of New York: Oswego. Professor Bastian Tenbergen, the project manager, can be contacted at [insertemailhere@oswego.edu](mailto:insertemailhere@oswego.edu) for any questions.

The rest of the software design project team consists of the following ten individuals in their respective groups:

<u>Database/Networking</u> Breton, Raynier Carroll, Michael Dominick, Tyler Hansen, Cedric Lin, Gaoping Myrdek, Douglas Osborne, Ethan Pericles, Sylvia Rizzo, Dylan Vadnais, Andrew	<u>Engine</u> Dominick, Tyler Hansen, Cedric Lin, Gaoping Myrdek, Douglas Rizzo, Dylan Vadnais, Andrew	<u>GUI</u> Breton, Raynier Myrdek, Douglas Rizzo, Dylan Vadnais, Andrew
<u>Quality Assurance</u> Hansen, Cedric Lin, Gaoping Myrdek, Douglas Pericles, Sylvia Vadnais, Andrew	<u>Requirements</u> Carroll, Michael Dominick, Tyler Osborne, Ethan Rizzo, Dylan	<u>Usability</u> Breton, Raynier Carroll, Michael Osborne, Ethan Pericles, Sylvia

## 2.3 Privacy Policy

### General

DataMea is committed to respecting your privacy and respect the measures in which to take to protect your personally identifiable information "personal information" that you share with it. All data capture through your Gmail email account is locally stored on the computer in which DataMea is installed on within an encrypted folder.

### Opt-in/Opt-out

DataMea also features a default opt-in component; anytime DataMea has the ability to save your login information to make it easier for future logins, the respected checkbox is "unchecked". You, the user have the option to opt-in to that feature -- DataMeas does not do it for you. You also have the ability in the future -- at any time during the login screen -- to have the application to forget the login information.

### **Data Storing/Collecting**

In regards to your personal emails, no "data mining" occurs for exploitation or DataMea to sell in the future. The engine's sentiment analysis will read through emails to give a proper sentiment score on whether how negative or positive your inbox is currently. No email text/body (encrypted or plain text) is stored anywhere at any point. This has been implemented to safeguard your privacy.

The read and write files which help DataMea run your statistics on your email are encrypted. These files hold numbers for incrementing and decrementing for certain graphs. Sent and received user email account names are also disguised by the encryption. There need to be stored so that the analysis does not need to run fully each time you start up DataMea. No text/body/letter portion of emails are saved in such files or anywhere besides in your Gmail email account which DataMea cannot access unless you sign in. Once you close out of the application, the connection between DataMea and your Gmail email account will be severed until you next sign in.

DataMea also provides a reset function. For any reason you wish to reset DataMea so that has no record of your emails and respective statistics, you may go into SETTINGS and click RESET to erase all stored information on and about your Gmail email account. Note, this will not affect anything in your actual Gmail email account -- just DataMea's stored information.

### **Notifications**

When you the user check the box stating "Notify Me When Ready", you give the right for DataMea to send you an email via its own Gmail account reading that the general analysis is done. Afterward, DataMea will no longer email you until another analysis is performed with said checkbox checked. Your email will not be shared with anyone except for the DataMea software and DataMea Email account. The email address in which you would be receiving notifications from is DataMeaApp@gmail.com.

### **Ownership**

DataMea and all parties involved in its development do not take ownership of any of the your emails. The application is the property of the SUNY Oswego Computer Science Department and its developers stated in section 2.2.

## **2.4 Glossary**

DataMea: an application that can be installed on compatible computers to then analyze a user's emails from a GMail server.

Data Mining: the action of examining large amounts of data to generate new information for external use.

Email Client: also known as mail user agent (MUA), is a computer program designed to read, write, and edit a user's email.

Sentiment Analysis: an engine algorithm in which it will evaluate the user's emails (sent and receive) to then output a number correlating with the author's' attitude (negative, neutral, positive).

## 3. Getting Started

### 3.1 Software Download

To download DataMea, the user will need to go to [DataMea.github.io](https://DataMea.github.io). From there the user will have the option to download the specific installer needed for their operating system (Windows and Mac OS). Please note that the package can take several minutes to download depending on the user's internet speed.

Afterward, the user will be able to find the the installer, most likely found in the Downloads folder.

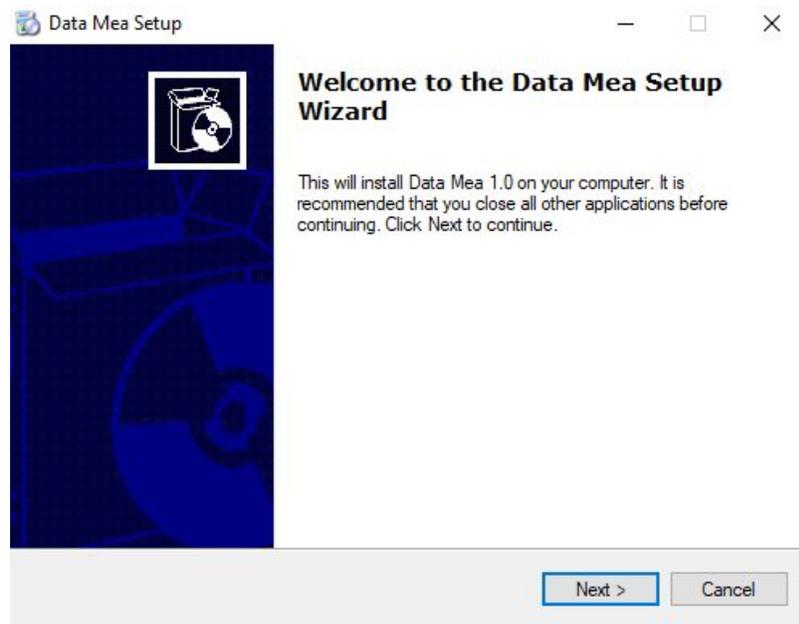
### 3.2 Software Installation & Running DataMea

#### 3.2.1 Windows

Locate **Install Data Mea.exe** in your downloads folder. Then double click on the installer to start the install wizard. If Windows prompts you with a security warning from Windows Defender select "More info" and then "Run Anyway".



Then Windows will prompt you with the user account control popup insuring that you wish to continue the install, select “Yes”. Then the DataMea install wizard will appear.



Select “Next”.

Choose where you would like to install the program, by default the location is C:\Program Files (x86)\Data Mea\. When set, click "Next".

You can choose to create a desktop icon or not by clicking the checkbox, once decided select “Next”.

Once you are ready to run the program select the icon on your desktop or start menu.

Once DataMea is opened, enter your gmail account information and select “Login”.

The analysis process will now begin.

### 3.2.2 Mac

Drag **Data Mea.dmg** into the Applications Folder



Locate the Applications Folder, select the finder on the dock and select the Applications folder from the list.

(You may be presented with a security warning about the program being from an unknown developer, to fix this follow the steps below)

Once in the Application folder locate the DataMea application.

Control-Click the DataMea icon, and select the open from the shortcut menu.

Select Open.

From this point on you are able to open the DataMea program from your dock.

Once DataMea is opened, enter your gmail account information and select "Login".

The analysis process will now begin.

## 4. Screen Reference

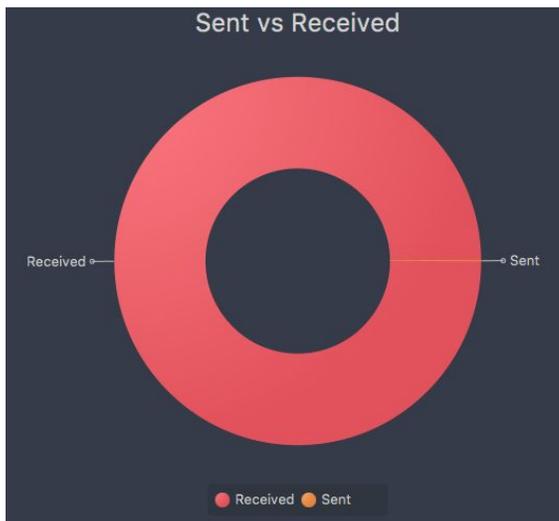
### 4.1 Top Senders Graph

This graph displays who you most frequently communicate with via your email account.



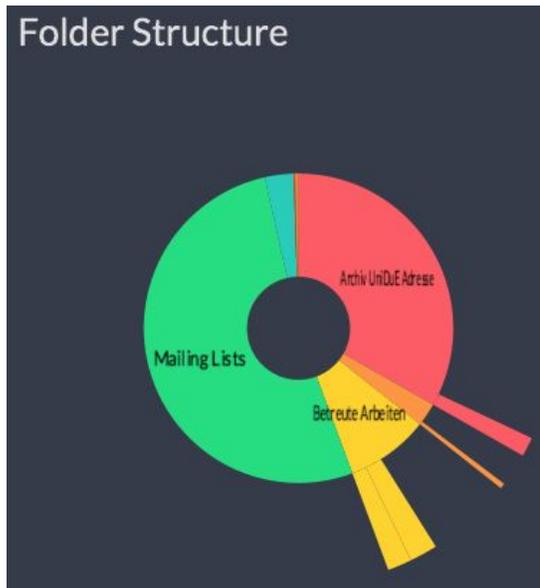
### 4.2 Sent vs Received Graph

This graph displays how many emails you have sent from your account and how many emails your account has received.



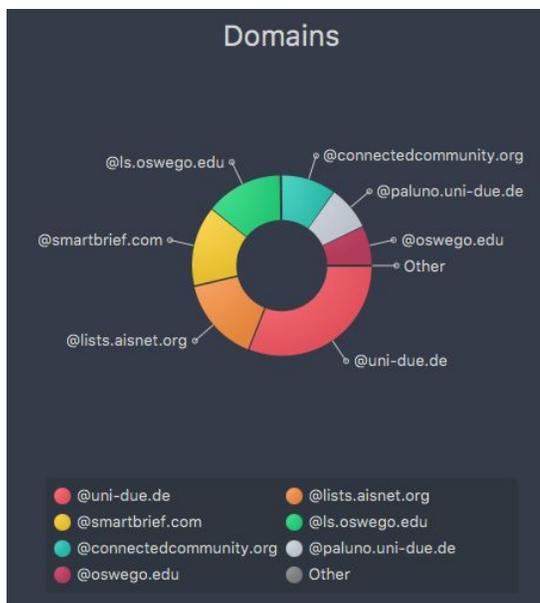
### 4.3 Folder Structure Graph

This chart shows a breakdown of how the folders within your email account are structured.



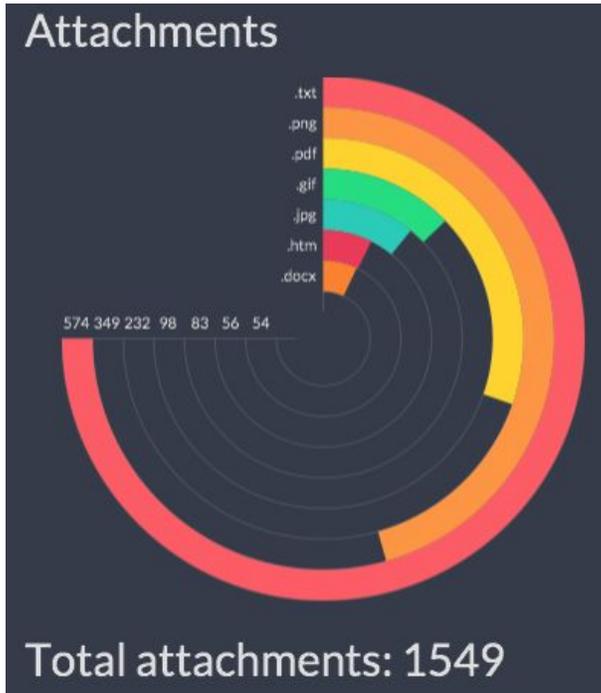
### 4.4 Domains Graph

The Domains chart displays the top level domains that you interact with.



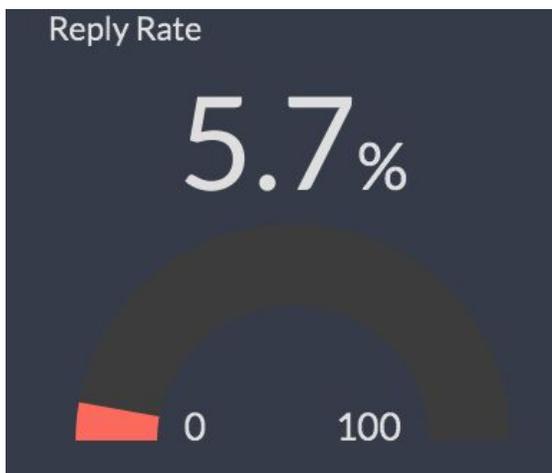
## 4.5 Attachments Graph

The attachments chart displays the type and number of attachments that your email account contains.



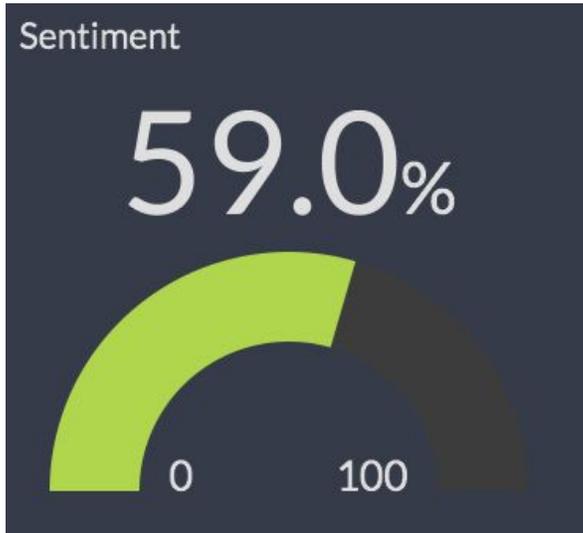
## 4.6 Reply Rate Graph

This chart shows the percentage of emails that you have replied to within your email account.



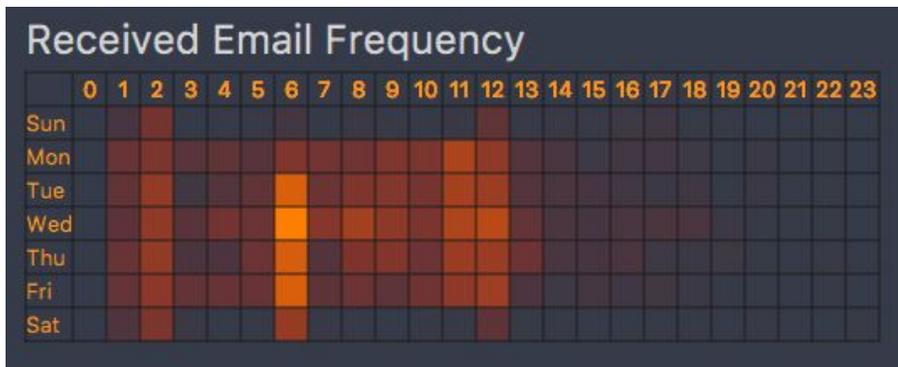
## 4.7 Sentiment Graph

The sentiment chart will display the overall attitude of your email account (positive, neutral, or negative). Note that the sentiment score takes longer to load, so the graph will continue to update.



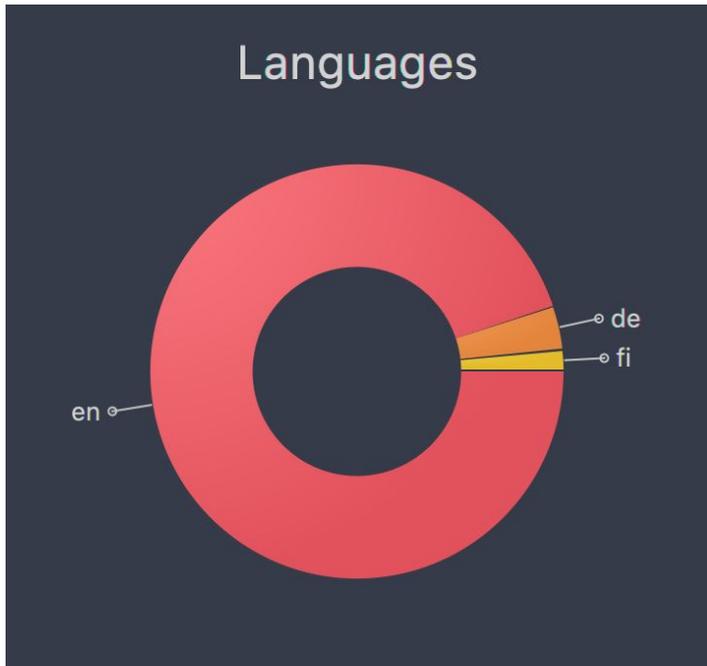
## 4.8 Email Frequency Graph

This is a heat map of when you receive emails. This graph displays a table that shows the days of the week and the times of each day when you receive the most emails.



## 4.9 Languages Graph

This graph is the languages chart. This chart displays the languages from which you receive emails.



## 5. Troubleshooting & Known Issues

### **Two factor authentication:**

If you have two factor authentication you will need to either disable the feature or sign into your email account using an App Password. An App password is a unique password that allows programs to access your gmail account.

In order to use an App Password you must visit:

<https://support.google.com/accounts/answer/185833?hl=en>

## 6. FAQ

Q: I have two factor authentication and cannot log into the DataMea program?

A: If you have two factor authentication you will need to either disable the feature or sign into your email account using an App Password. In order to use an App Password you must visit:

<https://support.google.com/accounts/answer/185833?hl=en>

Q: How long do I have to wait for the program to analyze my email account?

A: Time varies by the size of the inbox. DataMea does come with a progress bar as well as the option to receive an email upon completion of the analysis. Just remember, DO NOT close the app while analyzing. That will delete all the progress and you will have to start again.

Q: How do I know which graphs are filterable and which are not?

A: There are 5 filters that may be applied, these are: by sender, domain type, attachment type, language, and folder. To select these filters click the corresponding chart.

Q: How come when I click on the filter button I don't have an option to click filters I want to apply?

A: The button you are referring to is where the filters are shown when they are clicked on in the app itself. Watch the tutorial on the homepage of the site for a comprehensive description of how to use filters.

Q: How do I apply my selected filters?

A: In order to apply the selected filters you must click the "Apply Filters" button. You can remove the filters by clicking on the "x" icon to the right of each filter label.

Q: How do I select a specific folder?

A: You can look at the different folders of your inbox. To do this click the menu button on the top left of the screen. The menu will appear on the left side of the program, listing all of the folders that make up your email account. By selecting any of these folders you can change the data that is displayed on the dashboard to reflect the composition of the selected folder.

Q: What is sentiment?

A: Sentiment is a rating of the attitude of the emails within your account. The app analyzes each email that is in English and will determine if it has a positive, neutral, or negative tone. You can learn what tone people send you emails in.

Q: This is analyzing my email, do I have to be concerned with my privacy?

A: You do not. DataMea does not keep any personal information about anyone who uses the product. Everything is encrypted when you enter it for the analysis and cannot be decrypted by anyone. Refer to our privacy section on the home page to read more detail about the privacy policy.

Q: I do not want my data to be on DataMea anymore, how do I get rid of it?

A: If you go to the settings menu, you have the option to erase all of the data pertaining to your email account. Be careful with this, if you do not want to complete this action and do so, you will have to reanalyze the entire account again.