

# FireAnt (Windows, MacOS, Linux)

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# **VERSION HISTORY**

#### 2.2.1

#### Bug fixes:

1. On MacOS and Linux, previewing a network graph or exporting a network graph .gv file crashed the program due to some missing libraries. This is now fixed.

# 2.2.0

New features

- 1. When exporting raw data, time-series data, geo-positional data, and network graph data the interface was more complicated than needed. This has now been simplified.
- 2. When exporting network graphs, only unique edges were saved with duplicates being ignored. This is the normal way to process edge data, but it prevents the duplicates being counted and used as a weighting measure. Now, a new option to save duplicate edges has been introduced via a multigraph approach. When previewing such graphs, the duplicate edges will be automatically processed and shown as a single weighted edge. If the data is saved and imported into a data visualization tool such as Gephi, the user will see a warning about the duplicate edges and will be given a choice to ignore the duplicates or use them as a weighting measure.

Bug fixes:

- 1. When exporting network graphs, the results would be taken from the general filtered table appearing in the main window rather than a special internal table for which only the individual filter was applied. In most cases the results would be the same, but several conditions could cause a disparity in the results. This is not fixed.
- 2. When exporting network graphs, if the input table data consisted of cells containing a list of items, the graph would display the list as a single node item instead of splitting the list into separate nodes depending on the settings. Now, all list data is processed correctly.
- 3. When exporting network graphs, if the interface was closed and reopened, the settings would not be remembered. This has been fixed.

# 2.1.0

New features

- 1. On Windows, the application now comes as an installer or portable app. On MacOS, the application now comes as a dmg package. On Linux, the application now comes as a compressed .tar.gz file.
- 2. The program can now read and export Excel files in both the .xls and .xlsx formats.
- 3. Documentation has now been updated to reflect recent changes to the software.
- 4. The Network Graph export tool can now plot multiple relationships based on any parameter in the database and also reflect the filters applied. This leads to the ability to plot interesting and complex graphs directly within FireAnt.
- 5. Bug fixes:
- 6. Revised the build process to compile the app for Mac OS. Now the application is released as a pkg file that can be installed into a normal location (e.g., the Applications folder). The app is also digitally signed and notarized by Apple so fewer security errors will appear.
- 7. Fixed a bug that caused the program to crash if "Cancel" was selected after choosing a folder to store Twitter tweets.

- 8. Several bugs that caused the program to crash when parameters were not properly set have been fixed.
- 9. The Network Graph export tool would not always export the full set of results if the rows\_ids from the database overlapped across different filter applications. This is now fixed.

#### 2.0.5

Bug fixes:

- 1. Revised the build process to compile the app for Mac OS. Now the application is released as a pkg file that can be installed into a normal location (e.g., the Applications folder). The app is also digitally signed and notarized by Apple so fewer security errors will appear.
- 2. Fixed a bug that caused the program to crash if "Cancel" was selected after choosing a folder to store Twitter tweets.

#### 2.0.4

Bug fixes:

- 1. Fixed a bug where creating a new filter and then not selecting any data field would cause the program to crash.
- 2. Fixed a bug where choosing the export graph option after making various changes in the settings, would cause the program to crash.

#### 2.0.3

Bug fixes:

1. Fixed an issue where clicking on the "Show" button in the filtered output caused the program to crash, when there was no data loaded.

#### 2.0.2

Bug fixes:

1. Fixed an issue where attempting to remove hashtags, handles, and URLS in filtered data caused the program to crash.

#### 2.0.1

Bug fixes:

- 1. Fixed an issue that caused loading of an existing database to crash the program.
- 2. Fixed an issue that caused loading of a badly formatted tsv (txt) file to crash the program.
- 3. Introduced a transparency setting for timeline series plotting to prevent earlier plotted results being hidden by later plotted results.

#### 2.0

New features

- 1. *FireAnt* has been rewritten in Python 3 and QT5 to give a more stable and visually appealing experience.
- 2. The Twitter collection tool now works using a batch mode to prevent data loss.
- 3. The Twitter collection tool now works using a timeout feature that will automatically stop and then restart the twitter collection if not tweets are returned after a particular time.
- 4. The Twitter collection tool has been revised to greatly reduce the CPU and power loads.
- 5. The date-time filter has been updated to show the current date-time when launched making it easier to set the correct date-time for analysis.

Bug fixes:

1. Default string-based searches on columns containing numeric values would crash the system. This has now been fixed.

#### 1.1.4

Bug fixes:

1. Copying data in the table columns only resulted in the data in a single cell being copied. And, if the data was non-ASCII, this was not copied, either. The problem is now fixed.

#### 1.1.3

Bug fixes:

- 1. When using the "User Tweet History" function, unchecking the "Max Tweets" option caused no Tweets to be collected. Also, after all Tweets were collected, the program would wait until the Stop button was pressed. This is now fixed.
- 2. Due to changes in the Twitter API, tweets that were longer than 140 characters were returned with truncated text. This has now been fixed. Note that the new 'extended' text column is called 'full\_text'.

# 1.1.2

Bug fixes:

1. In previous versions of the "User Tweet History" function in Twitter collector, the value of the "Max Tweets" option from the "Sample/Filtered Search" setting was being incorrectly used to pause the collection process when a maximum value was set. This is now fixed.

# 1.1.1

Bug fixes:

- 1. Only one radio button could be selected. This is now fixed.
- 2. Version 1.1.0 introduced a new bug that caused the Twitter collector to not collect tweets when no user handle was specified. This is now fixed.
- 3. Version 1.1.0 introduced a new bug that caused the max tweets on/off checkbox in the Twitter collector to not have an effect. This is now fixed.

#### 1.1.0

New features

- 1. The Twitter collection tool now accepts both user IDs and user screen names in the filter search.
- 2. The Twitter collection tool now has a "User tweet history" option to allow collecting of the most recent 3000+ tweets of a target user.
- 3. The Twitter collection tool interface has now been redesigned to be more compact enabling it to fit on low resolution screens.

Bug fixes:

- 1. The network graph export function has been adjusted so that sub-filter results are correctly reflected in the output graph. In previous versions, only the main filter results were reflected in the graphs.
- 2. The export function now conflates all target nodes to a single filter name. This leads to clearer and easier to interpret results.
- 3. On Mac OSX, the Key File (keyfile.json) generated by the Twitter collection tool was saved in a sub folder of the main application meaning that the main program itself could not always find it. The location has now been moved to match that on Windows systems.

#### 1.0.2

Bug fixes:

1. All export menu options have been updated to output correctly formatted data that can be loaded back into *FireAnt* for further analysis. The interfaces for the output options have also been simplified to allow a better user experience. In particular, the Graph output is now a single DOT format .gv file that can be loaded into most popular graph visualization tools, such as Gephi.

Bug fixes:

- 1. The Twitter steam did not stop when a specified end time was reached.
- 2. A very fast Twitter stream slowed the main interface as it was updating the "most recent tweets" viewing. To improve the response and to not have memory problems when millions of tweets are streamed, the viewer now only shows the first few tweets. This is currently set at a maximum of 25. This screenshot of the Twitter collector viewer has been updated in this help page.

1.0

This is the first release of the program

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