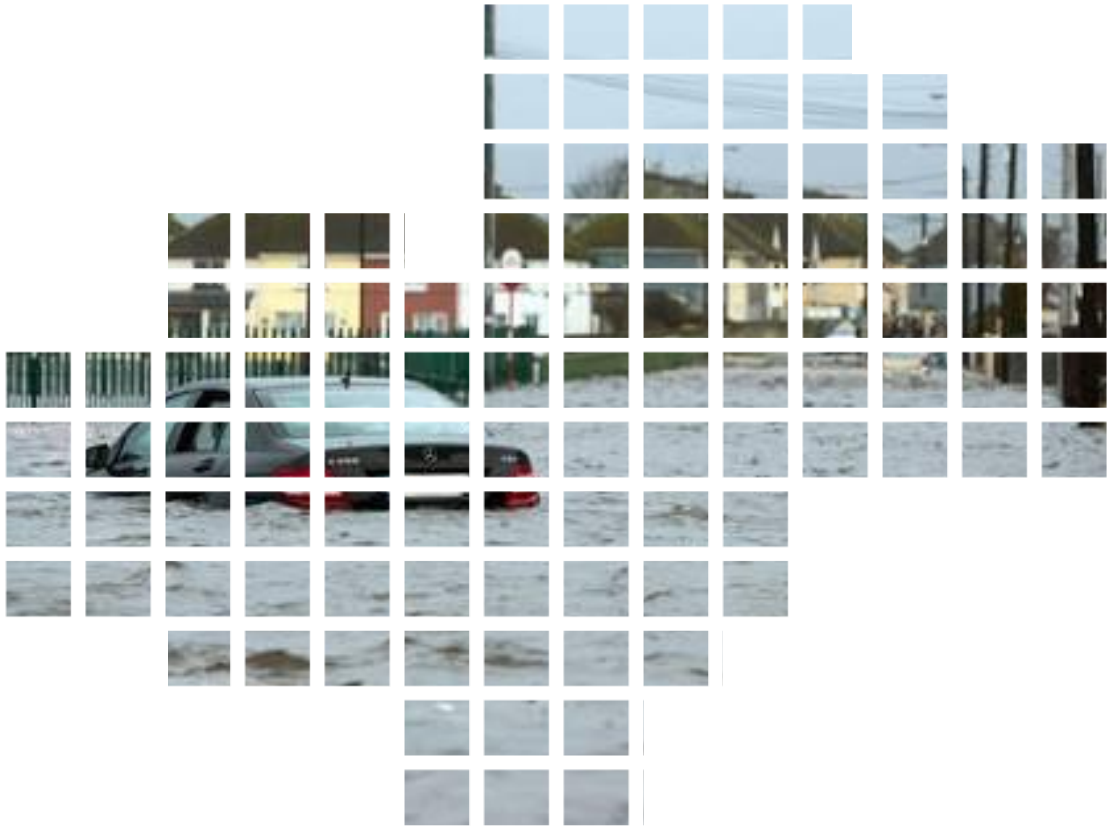
Operations Manual

FloodTags Dashboard and API



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FLOOD TAGS®

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1. Using the Dashboard

In this section you will find a quick guide to using the FloodTags dashboard. It contains text and videos on how to operate the software.

1.1. What it does

In short, the FloodTags Dashboard and API provide:

- Real-time flood and weather impact observations as shared on the social media
- Via maps, graphs, notifications and various content browsing options
- Sourcing from media platforms, including X, YouTube and >150,000 news websites, blogs and forums
- Accessible via a Dashboard and an API (also connecting to Delft-FEW)
- For weather impact events, incl. flood, landslide, mudflow, rain, wind/ hurricanes, snow and hail.

Operational users utilize FloodTags to

- Trigger disaster management standard procedures
- Trigger satellite map acquisition and satellite tasking
- Monitor on-the-ground situations for real-time impact awareness
- Validate forecasts and projected impact extent maps in real-time
- Help past event verification and analyses

Features of the FloodTags' software

- Monitoring floods by using X (formerly Twitter), YouTube, News Media, Blogs and Forums (total >150.000 sources)
- Data from official as well as non-official media channels
- Event detection on the basis of domain specific algorithms
- Classifiers and information extraction using in-house, domain-specific AI
- Flood event localization on the basis of text analysis (geoparsing)
- Capturing est. 99% of the large floods and the majority of smaller floods worldwide
- User interface tailored to flood management users
- YouTube and News Articles are delivered only seconds after they are posted. Data from X (formerly Twitter) is delivered within 20 minutes after posting at a maximum.
- Other perils feasible such as rains, winds, hail, snow, droughts and wildfires

This manual explains how the software works. If you require more information on how to get the best of FloodTags in your organization (recommended standard procedures, for your specific use-cases), please contact info@floodtags.com

1.2. Logging in and Opening the dashboard

When you received your credentials, please go to http://dashboard.floodtags.com and select “forgot your password”. Please change your password here. After doing this, you can login with your new password via http://dashboard.floodtags.com.

After logging in, you will see a map and four interaction areas: On the left you can change your selection, on the right you can see tags and events, below you find a graph and on top there’s a small menu. In the next sections we explain each of their functions.

1.3. Selecting and Viewing Data

In the left menu, you can select the data that you would like to see. There are four main areas of selection:

- Data sources: You can choose which source data would you like to see
- Since and until: You can choose for which period would you like to see the data
- Keywords: You can search for individual terms, within the source data
- Standard filters: You can filter the data with preset, standard filters created by FloodTags
- Custom filters: You can create and apply new custom filters
- User labels: Label that can be created by the user and added to a tag

In the right menu, you can see the data itself. It is divided into:

- Events: Showing events that have been detected
- Tags: Showing the tags within the selection
- Word clouds: Showing which locations, word and hashtags are used in the selection.

In the middle section, you can see the tags placed on the map:

- The tags are placed on the map using the locations that are mentioned in the text of the posts.
- One very useful function to browse data, is the “Search this area” button.

In this video (see also Figure 1*), we provide some examples of how you can select and view data efficiently.*

1.4. Using filters to efficiently discover relevant information

The challenge is how to combine and use the keyword search and the filters that are available in the dashboard, to find relevant data.

There are two ways to learn that a new event is going on. One is by setting up event notifications. A second option is to monitor locations mentions or by applying different sets of filters.

When browsing, a good strategy normally is, to first apply some strict filters to get an idea of the ongoing event. There will not be many tags that are unrelated. Then you zoom in to the area of interest, and release some filters. If there is indeed an event ongoing, there will be a lot of tags, with relatively few unrelated ones. You will see more unrelated tags, when applying less filters and when there are no events going on.

In this video (see also Figure 2), we provide some examples of how you can find relevant data efficiently.

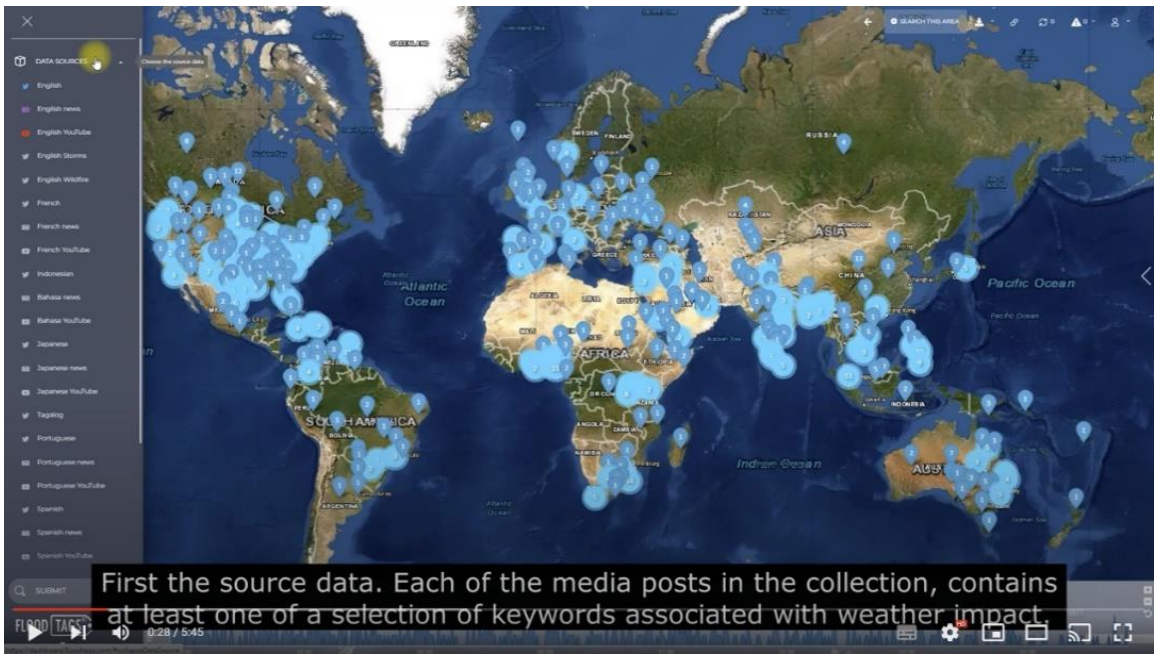

Figure 1 Instructional video of how to select and view data (click and "watch on YouTube" for screen-wide view)

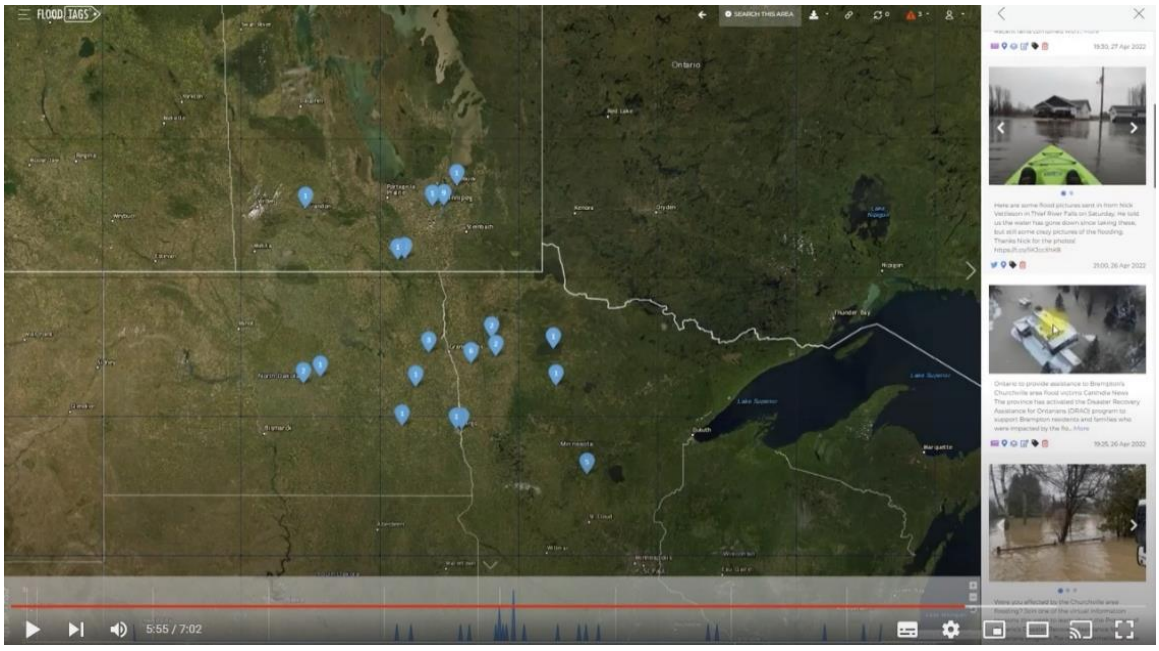

Figure 2 Instructional video of how relevant data can be found (click and "watch on YouTube" for screen-wide view)

1.5. Settings and Options

FloodTags has a few settings and options. In the Settings you can choose which source data to include in the dashboard and what you see at start-up. The top bar has a number of different functions. They are:

- Undo button: Bringing you back to your last query.
- Search this area: Reloads the source data for your current window only
- Download data: Allows you to download content up to a maximum of 50.000 posts per day. The format we support are CSV and GeoJSON.
- Copy link: Copies the link to the current selection to the clipboard. You can use it to send colleagues a selection that you are viewing.
- Reload: Loads any new tags, without having to hit the submit button again.
- Event alert: Shows whether there are any events ongoing currently.

In this video (see also Figure 3), we explain how to use the settings and the options you see in the top bar.

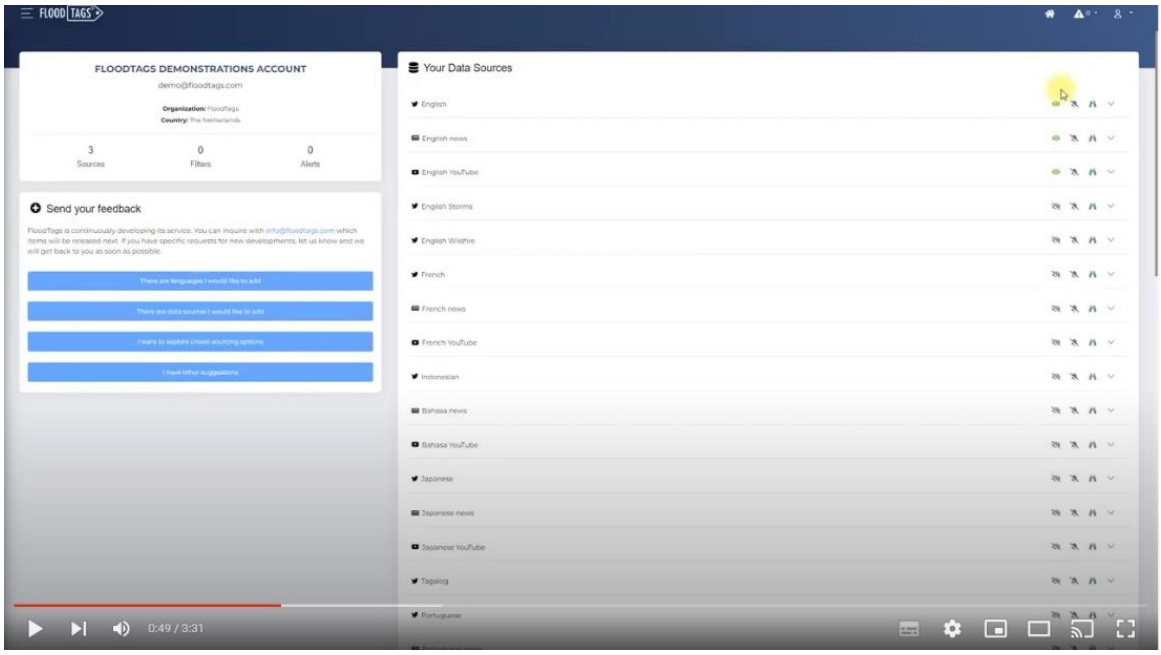

Figure 3 Instructional video of changing the user settings (click and "watch on YouTube" for screen-wide view

2. Using the API

2.1. API instruction and documentation

The documentation of the API (Application Programming Interface) is located at https://api.floodtags.com/v2. As this documentation is kept up to date, it is better to view the documentation on the website than to copy it in this document. Our dashboard connects directly to this API. The most important endpoints are:

- */tags: Endpoints for querying, exporting and editing 'Tags'. 'Tags' are what we call individual online media reports, such as Tweets, News Articles and YouTube Video's*
- */events: Endpoints for querying, exporting and editing 'Events' that are detected based on online media data. For flood related data sources for example, these are flood-events, which are periods in time in which flooding occurred.*
- */user: Endpoints related to retrieving information and authorizations for the currently logged-in user and editing user settings.*

To understand how the API works, you can look at the documentation and you can go to the API in the browser, which shows a front-end, and allows you to fill in the parameters manually. Furthermore, it shows documentation on which parameters you can use in requests. However, perhaps the best way to explore how the API works and what query parameters are available, is to use the dashboard at dashboard.floodtags.com, open 'developer tools' in your browser, show the 'network' tab, and filter requests by 'api.floodtags.com'. This way you can see how the API is used to present the data that's in the dashboard and get a full overview of how the parameters vary for each query.

2.2. Rate-Limits

Note that the API is designed for implementation in front-ends and not for bulk exports, so rate-limits apply. On average, you should not send more than 1 request every 2 seconds. To receive bulk data, please contact FloodTags at info@floodtags.com.

2.3. Use of the API in Delft-FEWS

Delft-FEWS can be connected to the FloodTags API to show the counts of flood related tags per area. The user can monitor and compare the number of relevant posts in an area in Delft-FEWS. When a flood is suspected, the users can open the FloodTags dashboard to view the data in detail. It is possible to also incorporate more detail into Delft-FEWS through the API.

3. Limitations

3.1. General limitations to the software

Using the software and data, please note that:

- Although we improve the algorithms on a daily basis, the data that we provide is never wholly free from errors. There can and probably will be falses in the enrichments. For instance, a tweet that we marked as “relevant” is actually not about floods, or our geoparsing algorithm placed a YouTube video at the wrong location. FloodTags cannot be held liable for the incorrect interpretation of media content by FloodTags, nor for any decision or action that was taken as a result of it.
- The media data that we send you is provided “as is”. FloodTags cannot be held liable in any way for untruthful, unlawful, defamatory, obscene, threatening, offensive, harmful or otherwise objectionable content held in the media data that we deliver.
- The data that we collect is not an exhaustive inventory and we cannot guarantee that we collect all the relevant media data that there is. There can be media data out there that we might miss.

3.2. Limitations resulting from third party data usage

Please take note that terms-of-use are applicable for each data source. The full terms are published on our website under Terms of Service. The most relevant ones for you as a user, are the following:

3.2.1. User restrictions

As ordered by the third-party suppliers, you may not, and will not permit or authorize third parties to use, knowingly display, distribute, or otherwise make content or information derived from the Services available to any entity for the purpose of:

- conducting or providing surveillance or gathering intelligence, including but not limited to investigating or tracking individual social media users or their content;
- tracking, alerting, or other monitoring of sensitive events (including but not limited to protests, rallies, or community organizing meetings);
- conducting or providing surveillance, analyses or research that isolates a group of individuals or any single individual for any unlawful or discriminatory purpose or in a manner that would be inconsistent with the individual social media users' reasonable expectations of privacy; or
- targeting, segmenting, or profiling individuals based on sensitive personal information, including health (e.g., pregnancy), negative financial status or condition, political affiliation or beliefs, racial or ethnic origin, religious or philosophical affiliation or beliefs, sex life or sexual orientation, trade union membership, data relating to any alleged or actual commission of a crime, or any other sensitive categories of personal information prohibited by law.

3.2.2. User restrictions when using external sites

The Services may contain links to, or otherwise may allow Subscriber to connect to and use, certain Third-Party products, service or software under separate terms and conditions (collectively, "Third-party Service"). If you decide to access and use any Third-party Service, you acknowledge that its use of such Third-party Service is governed solely by the terms and conditions, acceptable use policy, privacy policy or any other similar policy or terms of such Third-party Service (including, but not limited to:

- The X Terms of Service located at X Terms of Service
- The YouTube Terms of Service located at YouTube Terms of Service
- EventRegistry Terms of Service, located at Event Registry Terms of Service

3.2.3. Downloading content and using the FloodTags API

If you download content or acquire content from the API, there are additional terms to take into account:

- For Twitter, you must adhere to additional X regulations, being the Privacy Policy, Developer Agreement and Developer Policy. Among others it requires that, if you store hydrated tweets (full tweets with text and user information) on your own servers, you must have a procedure in place to delete those tweets when they are no longer available on X. Therefore, FloodTags only sends out tweet IDs and enrichments, instead of the tweet objects. *FYI: A tweet ID is a link to a tweet that you use to recollect the tweet straight from X. A*

tweet object has all the properties, including the text.

- For YouTube: Users of YouTube are not allowed to download videos from the platform (without permission of the individual authors). For this reason, we only share a link to the video via the API. As receiver of the YouTube links, please be aware that you adhere to the YouTube regulations when using YouTube, as described in their Terms of Service.
- For news articles: Please note that most of the articles on news websites are copyrighted, which means that the information cannot be redistributed outside the boundaries of fair use, without prior permission of the copyright holder. In case you would like to redistribute news media content that you obtained via FloodTags, please be aware of any applying copyright regulations.

The terms of service for YouTube, X and Google plus our own privacy statement, also placed on our website under https://www.floodtags.com/termsofservice.