RavenPack Platform
Getting Started Guide

October 9, 2020

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OVERVIEW

Welcome to the Start Guide for the RavenPack Platform.

The RavenPack platform is a unique application that is designed to help financial professionals discover valuable insights derived from news, social media and other alternative

data sources. Data can easily be visualized for discretionary users, or downloaded as machine readable data to be incorporated into various downstream applications.

The following guide provides some simple steps to help become familiarized with the platform.

Your credentials will be sent to you directly by our customer service team. Once you have your credentials, you may log into the platform using the following URL:

> https://www.ravenpack.com/signin/

Once you're signed in, you're ready to get started using ravenpack.com!

HOMEPAGE

After logging in, you will be greeted by our homepage. Here, you may use the search bar to navigate through public or private content. You may also use the advanced search to make more refined queries.

Are you interested in retrieving the latest news for a company? Simply search for the name and select the entity.

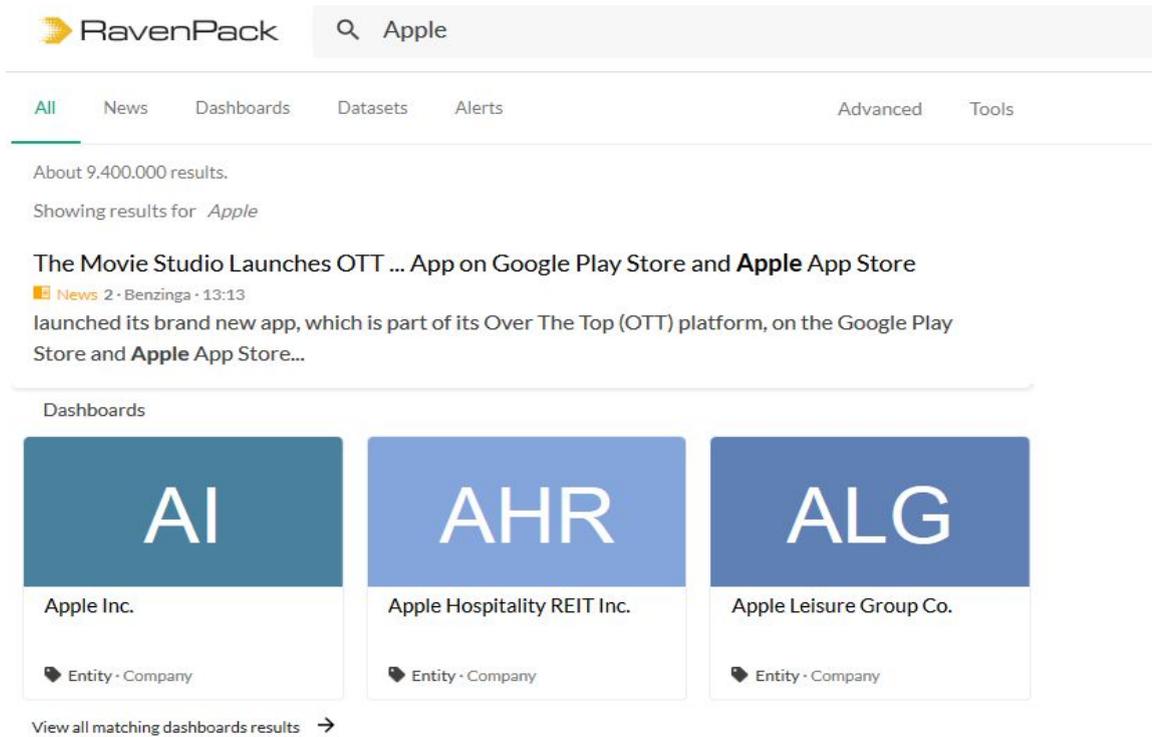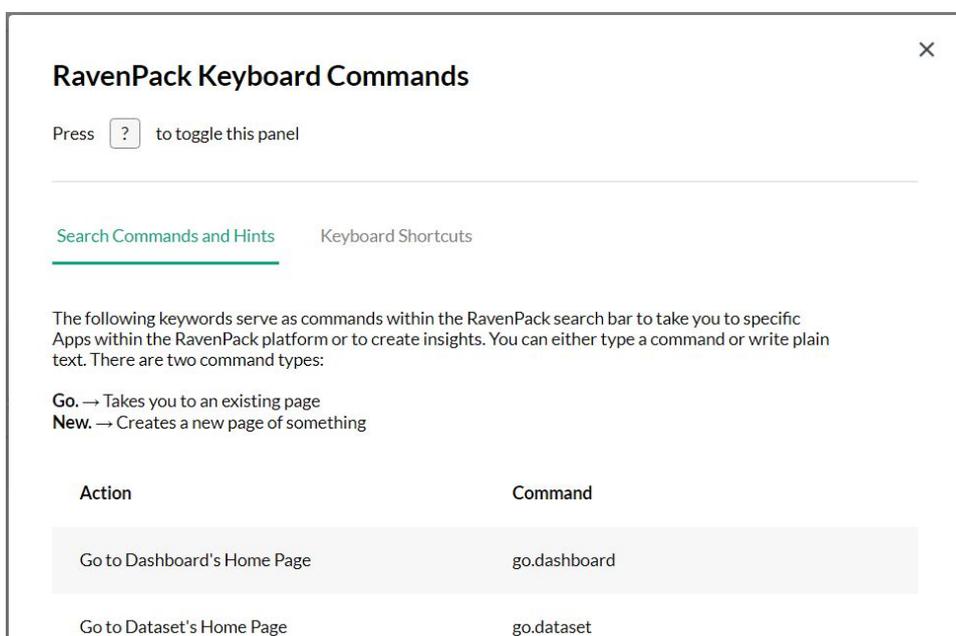You will be immediately redirected to a page containing the most recent and relevant search results. This will include news, dashboards, relevant datasets, and more.

To filter your results to only News or Dashboards results you may change the tab in the search results menu. The News tab will only contain news results and the Dashboards tab only contains Dashboards, etc. You may also sort results by date or relevance by clicking on the "Tools" button.
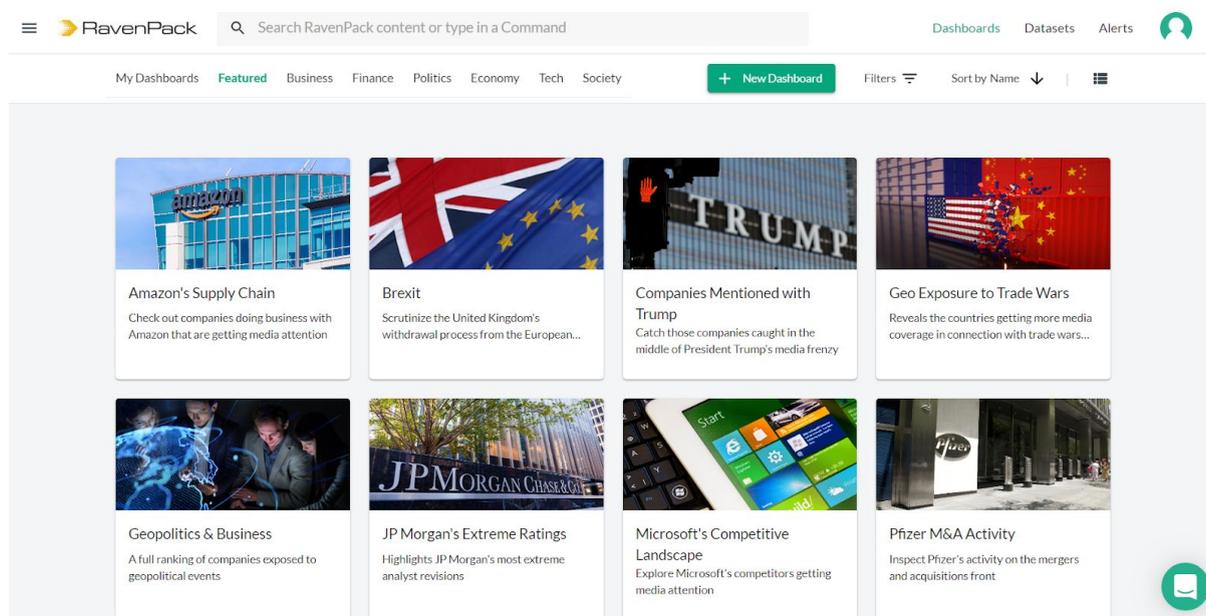
Additionally, we have implemented a series of commands that can be used in the search bar at any time. These commands will take you directly to your favorite tools. You can type "new.dataset" to open the dataset builder, or just press "?" at any moment to see a list of the available shortcuts.

PUBLIC / CURATED DATASETS

To help you get started with our data, we have curated a catalog of datasets from our Ravenpack Analytics data archive. These insights can be viewed interactively or downloaded as flat files that can be used in excel or your own custom application.

If you click **Featured** you will be able to see a few hand-picked datasets.
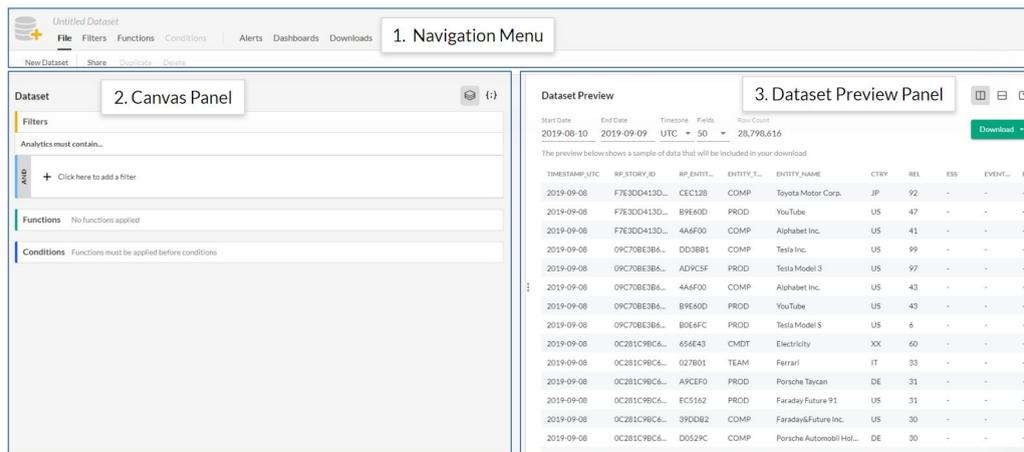

We offer thematic datasets in Business, Finance, Politics, Economy, Tech and Society. The public datasets cover a broad range of topical events across a variety of market-moving themes.

CREATE YOUR OWN DATASET

You can easily create your own custom datasets using RavenPack's dynamic, and intuitive self-service platform. Use our screening interface to limit your universe to the most relevant companies & entities, while applying additional filters based on our granular data fields including Events, Novelty, Relevance, and Sentiment.
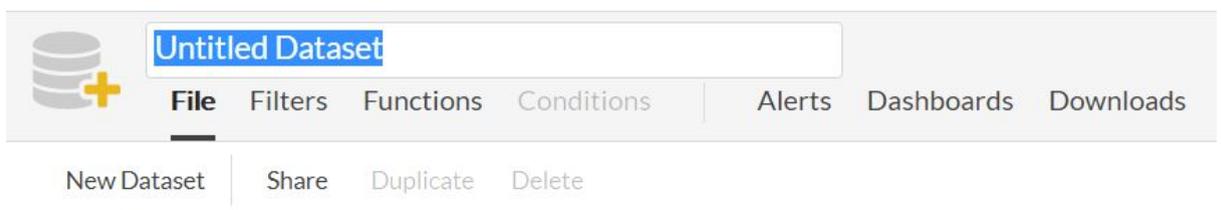
There are three sections in the dataset builder:

1. The **Navigation Menu** beneath the dataset name can be used to access the main menu items such as File, Filters, Functions and Conditions.
2. The **Canvas Panel**, which occupies the space below the menu, on the left-hand side. You can customize your dataset by adding cards for Filters, Functions, and Conditions to the canvas.
3. The **Data Preview Panel** can be found on the right-hand side. This panel displays the corresponding records for your dataset according to the criteria applied.
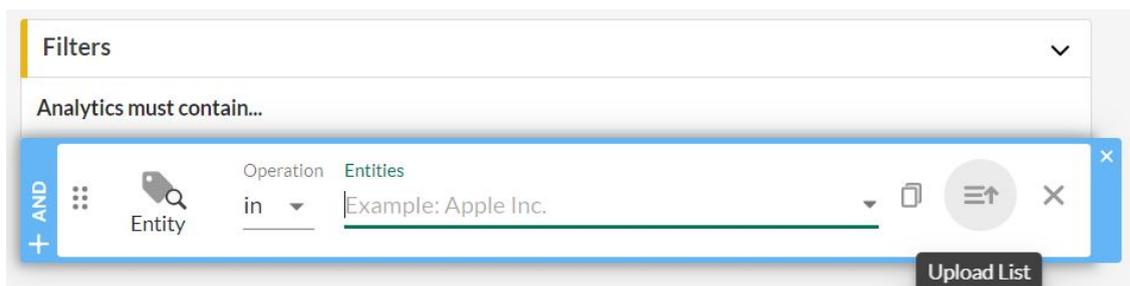
To begin, click on the search bar (or type **/**), type **new.dataset**, and then hit enter. You will immediately be directed to a new dataset.

1. Give your dataset a name, and then begin applying **Filters** and/or **Functions** by clicking on options in the navigation bar.

2. Manually add entities of interest using the simple type-ahead, or click on the upload icon to upload a csv/txt file to automatically map the entities.
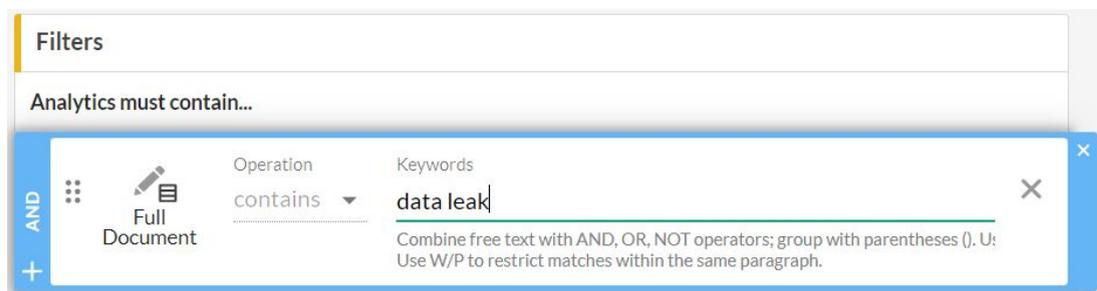

3. Apply additional filters related to Events (business, earnings, M&A, etc.), Relevance, Novelty, and/or Sentiment to further refine your granular results which can be seen in the data preview panel on the right.

4. You can also refine results using the keyword search filter, which allows you to refine your dataset for headlines or documents that contain words and phrases of interest. It works in the following way:

   ● Adding multiple keywords will return results with **all of these words** (a space is implicitly interpreted as AND)

     eg: data leak → Panera Bread ignored report of leaked customer data for months

   ● Using quotes will return an **exact word or phrase.**

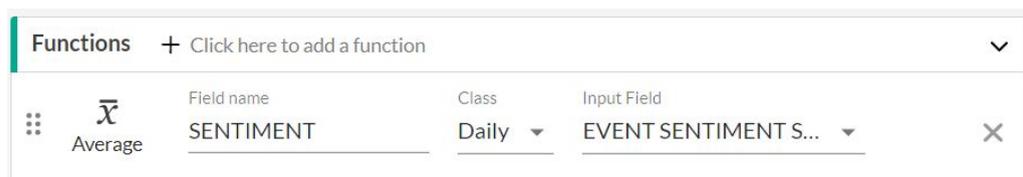eg: "data leak" → Facebook says data leak hits 87 million users

For more information on this filter please see the Document Search Syntax guide in the API Documentation.

5. Apply custom **Functions** to build daily indicators that group the granular data.
   Note: These are daily indicators, therefore the data returned will be a set of values per day for each entity in the dataset. In addition to values per day for each entity, a ROLLUP record is produced that aggregates data across all entities per day.

   a. First choose a **Function** for the indicator from the available options under the Functions toolbar: **average, count, cardinality, standard deviation, strength, sum, buzz, minimum, maximum, rank, dense rank, ntile,** and **row number.** For more information on functions you can read the section on **Indicator Fields** here.

   b. Next choose a **Name** for the indicator. **Note:** The indicator name may not have spaces or begin with a number.

   c. Select the **Input Field** on which you wish to apply the function. The Input Field can be a field from the RavenPack Analytics granular data or from one of the previously defined indicator fields.

   d. Finally the **Class** is the number of days over which you want to apply a lookback function. **Note:** Not all functions allow a class to be specified. To use daily scores only, select Daily, to choose a window over which daily values will be grouped, e.g. for a moving average, choose Windowed.

   e. You can add multiple functions by selecting more from the menu.

6. You can also apply **Conditions** to further refine your results to find records with particular characteristics, e.g. 30% increases over the day etc. Bear in mind the **Conditions** tab will only be accessible when functions have been applied, as they operate on the aggregated values provided by functions.

a. You can choose between **Crosses, Comparison, Moving,** and **Entity**.

b. Select the field on which you wish to apply the condition, and a reference value. For **Entity,** choose the entities and/or rollup which should appear in the results.

c. You may add multiple conditions by selecting more from the menu. An AND operator is applied for multiple conditions, i.e. Condition 1 **AND** Condition 2.

7. All the changes that you make will be automatically saved to the dataset and a sample of the corresponding records for your dataset can be viewed the data preview panel on the right.

Once you are happy with your custom dataset, you can download a data file, create an **Alert** or visualise the data on a **Dashboard.** By clicking on **File** in the navigation bar, you can also **Share, Download, Duplicate**, **Delete** your dataset.

DOWNLOAD YOUR DATASET

Downloading your dataset is easy, and allows you to review the records returned for your dataset for your desired date range. The dataset can be downloaded by clicking either

Download in the toolbar (under File), or on the [Download ▼] button on the right-hand side in the data preview panel. Selecting a different date and timezone will also update the preview. When updating the timezone, the TIMESTAMP_UTC column in the data will be replaced by the TIMESTAMP_TZ and will reflect the timezone you have selected. To add or swap back to the TIMESTAMP_UTC column, you can select or deselect fields with the Fields selector.

Once you are happy with your selections you can also select the format of the output file *[Formats include .csv and .xlsx]*. Please note that: the start date is *inclusive* and the end date is *exclusive;* and for datasets with indicators the Row Count and File Size are both *estimated* values.

When you select your preferred format, the system receives the request to generate a flat file. Once this has finished you will get an email notifying you that the file is ready and it can be downloaded by clicking on the email.
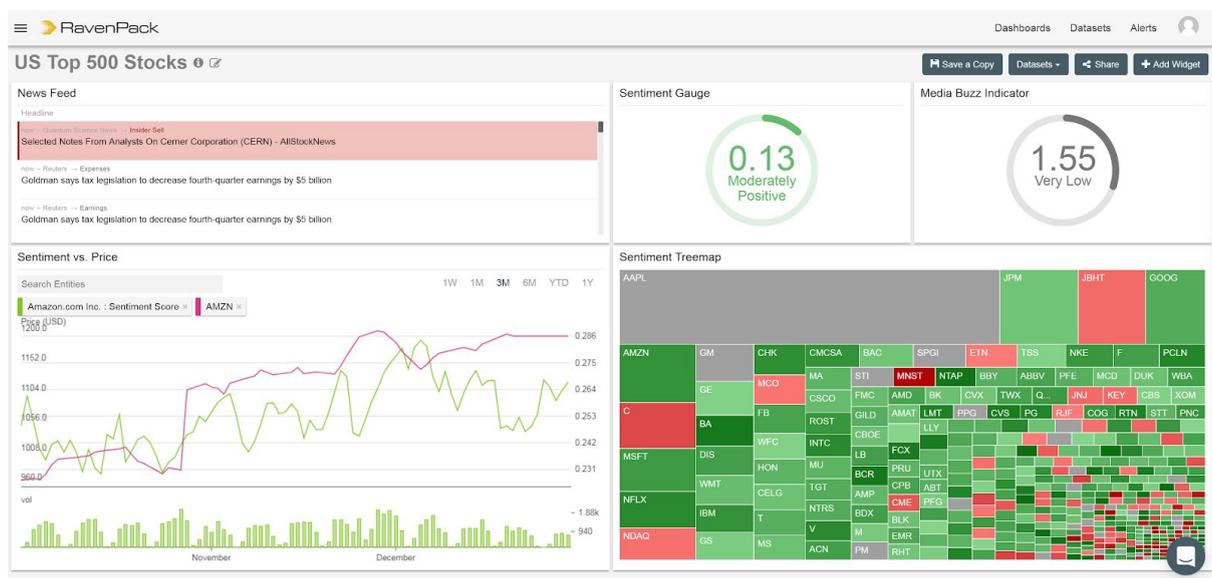
Alternatively you can check the status of your download by clicking on **Downloads History** (under File in the navigation menu) where you will see a list of downloads for this dataset and

their corresponding status. You may download the file by clicking on the **File Ready** link.

You can then open your file and begin using the data that can be easily exported into any database or application.

HOW TO VISUALIZE DATASETS

The platform allows you to visualize both curated and customized datasets. Easy to use widgets allow you to visualize different aspects of the data through Treemaps, Sentiment and Buzz Indicators, and Newsfeeds. Any of these widgets can be put together in a dashboard. These dashboards provide powerful insights through an intuitive user interface that can easily be shared with colleagues.

Public / Curated Dashboards

Within Dashboards there are many curated datasets classified in groups such as Business, Finance, Politics, etc. For example, if you select the *US Top 500 Stocks* below Finance, you will see a view of the Dashboard as below. This Dashboard was pre-built by someone at Ravenpack so you don't have to worry about configuring it.

The **Sentiment Gauge** provides an aggregate measure of the sentiment levels across the entities in this dataset.

The **Media Buzz Indicator** allows you to immediately identify the level of media attention for your dataset.

The **Newsfeed** enables you to monitor news and events for companies within the *US Top 500 Stocks* in real time. You can drill down further to uncover more detail about both the story and the company itself.

The **Treemap** provides a way to visualize the companies generating the largest news volume and derived sentiment over a defined period. The size of each tile represents the overall news volume, while the saturation of the box indicates how strongly positive or negative the sentiment on that company is. When you hover over one of the boxes you can see the sentiment and the volume of articles around that particular company.

If you click on a company, Amazon for example, you can see that the positive news is related to Acquisition & Mergers.

If you drill down further you can see exactly which story mentions the associated event - in this case, related to Amazon's acquisition of Whole Foods Market, hence the positive sentiment. Viewing the underlying news story offers transparency into where in the story the entity and events were detected, with the ability to click through to the full article.

The **Line chart** displays a time series chart for viewing indicators like sentiment and a bar chart for comparing with indicators like volume. It is possible to add price overlays for public companies and to compare individual entities with the aggregation of your measures for all entities in the dataset as a benchmark.

For example, we could see the trend for Apple Inc. over time as below.

For a granular dataset, by default a 30-day moving average of sentiment (Event Sentiment Score) is chosen for the line chart and for the bar chart we show a daily count of distinct stories.

In the line chart settings you can choose to show or hide the bar chart as well as scale the time series. The scaling option is very useful when you have multiple time series with different ranges of values as it normalizes the lines to the number of standard deviations away from the mean.

The **Table** allows you to rank your portfolio by factors like sentiment and buzz, and monitor or screen stocks. For granular datasets, three indicators for Sentiment, Media Buzz, and News Volume are applied by default. It is also possible to customize the table and rank your portfolio using the functions (indicators) defined in your custom dataset.

Dashboards can easily be shared, by clicking on **Share**. This is particularly useful for Custom dashboards as it allows you to share insights and useful information with the rest of the organization.
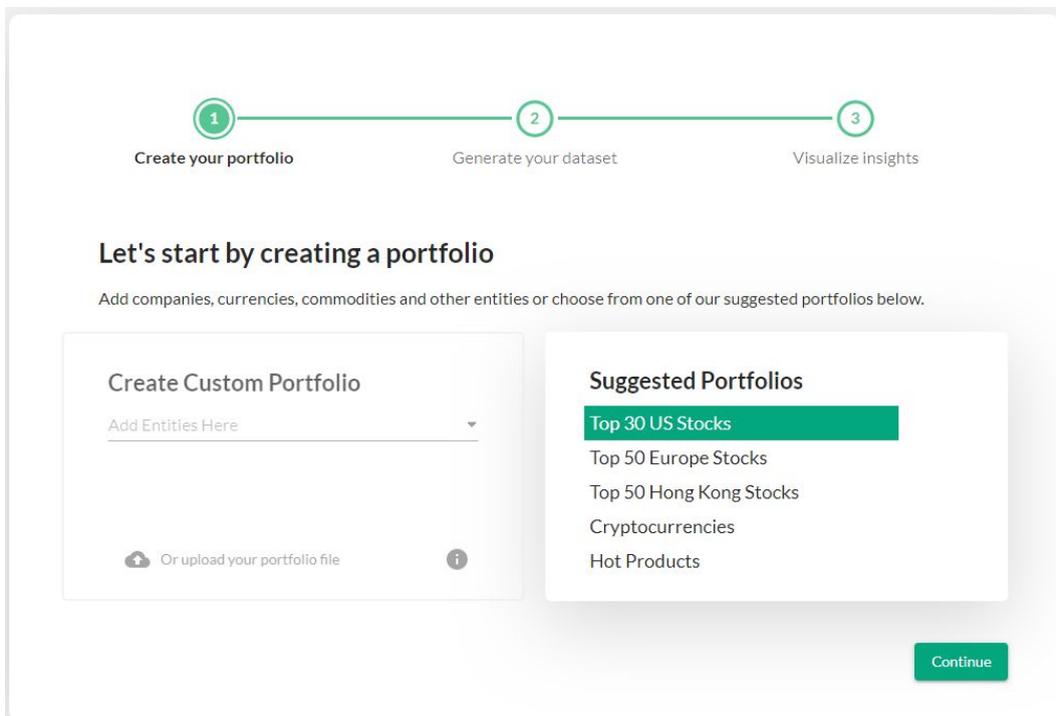

Create Your Own Dashboard

To create your own custom Dashboard, click on the search bar (or type /), type **new.dashboard**, and then hit enter. You will immediately be directed to a new dashboard.
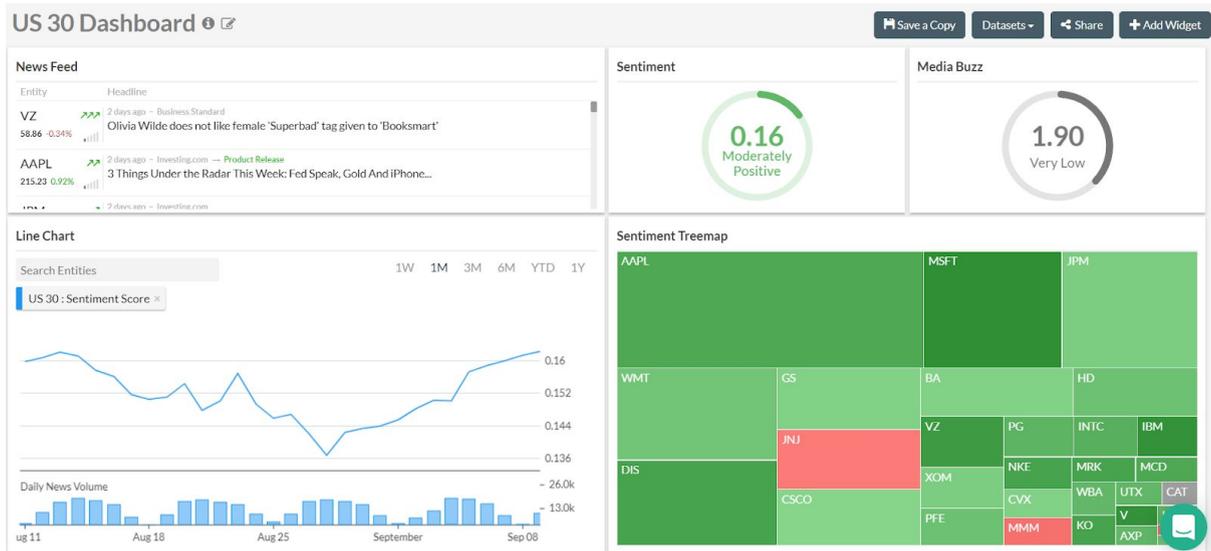
You may choose from the basic, advanced, or custom formats for your dashboard. After selecting the dashboard template you will choose the dataset that will power your dashboard. For this you may use a custom portfolio or select from datasets which already exist.

Once you have chosen the desired dataset click **Create Dashboard**. At this point you will be redirected to the newly created dashboard. In the image below you can see an example of an advanced template dashboard using the Gauge, Line Chart, News Feed, and the Treemap

widgets.

In the top-right corner of each widget there is a widget menu which allows you to change the settings of each widget such as the Time horizon or the Drill Down options. The options for each widget are slightly different and will change if the dataset is granular or has functions (indicators). In the settings you can also select a different dataset to power the widgets.

The options for each widget are slightly different and will change if the dataset is granular or has functions (indicators).

HOW TO CREATE ALERTS

Alerts are a great way to stay on top of market changes while you are away from your desk. The Ravenpack Platform allows users to create alerts and be notified when something changes via Email or Slack.

To create an Alert, click on the search bar (or type /), type **new.alert**, and then hit enter. You will immediately be directed to a new alert.

1. You will now see the alert builder screen where you can configure your alert:

2. Choose a dataset for the alert. If you have already created some datasets, you may choose one. You may also choose from any datasets shared with you or from the full list of public datasets. The alert will be sent when all the criteria (i.e. Filters and/or Conditions) in your dataset are met.
3. In **Deliver to** choose how you would like to receive the alert. Currently Slack, Instant Emails, Daily and Weekly Email Digests are supported. You may send alerts to an email address, a single Slack user @SlackUsername or to a slack channel #SlackChannel.
4. Digests are a compilation of your alerts. If you choose Send Daily Digest, a drop-down will appear below, allowing the digest to be sent at a selected time and time zone. For Weekly Digests you can also specify the exact day when you would like to receive the notification.

    Daily Digest

Weekly Digest

5. You can update the generic **Message** for your alert, which is a short piece of text that appears in the text you will receive.
6. The **Preview** gives you an indication of how many alerts would have been generated per day with the criteria you have set. By clicking any of the examples you will be redirected to the relevant story.

7. Finally click on **Create Alert** to enable the alert.
8. Once created, you will be taken to the alerts page where you can manage your alerts and view the notification history.

Managing Alerts

You can access the full list of your alerts by clicking on the search bar (or typing /), typing **go.alert**, and then hitting enter.

Here you can manage your alerts and edit them. You have the option to 🟢 **enable /** ⚪

disable an alert, 🕘 **view history** of an alert, 🔲 **duplicate** an alert or 🗑 **delete** an alert.

On the top left, next to "My Alerts", there is a tab titled **Alert History** which allows you to view a log of the alerts that were sent. Here you have the option to filter by a specific alert from the drop down menu.

REFERENCE DATA

RavenPack provides complete mapping files to facilitate the mapping process for users tracking a large universe. These files can be found in our Help Center via this link: https://app.ravenpack.com/help/

Entity Reference Files

RavenPack supplies a proprietary reference data service for all entities it tracks and monitors in the media. Entities include companies (stocks), organizations, geographical locations,

currencies, commodities, people, products, positions, sports teams and nationalities. The reference files are provided to allow you to map from your universe of entities into RavenPack's universe of entities.

You can find all of our Entity Reference Files via the following link: https://app.ravenpack.com/entity_reference

Entities tracked by RavenPack are keyed using the RP_ENTITY_ID and for each entity, the reference file lists identifying information such as names and securities along with the validity dates for each value. The reference service allows proprietary universes of entities (e.g. securities) to be cross-referenced with the hundreds of thousands of entities tracked by RavenPack over time.

Taxonomy Reference File

This file is a comprehensive classification of the 6,000+ events tracked by RavenPack. The taxonomy enables content analysis across four levels of classification. It offers a balance between levels of information aggregation, for those who look at information from the top down, and granularity, for those who look at specific events from the bottom up.

You can download our Event Taxonomy file via the following link: https://app.ravenpack.com/static/assets/RavenPack_Analytics_taxonomy_1.0.csv

Source List

This file contains a full list of the 19,000 news and social media sources which appear in our data.

You are able to download a full list of all of our news sources via the following link: https://app.ravenpack.com/downloads/mapping/source/

It also includes a ranking system for each of our sources. The ranking is based on a range from 1 to 10. Rank 1 is the highest (i.e reliable & trustworthy) and 10 is the lowest (i.e potentially fabricated or unverified).
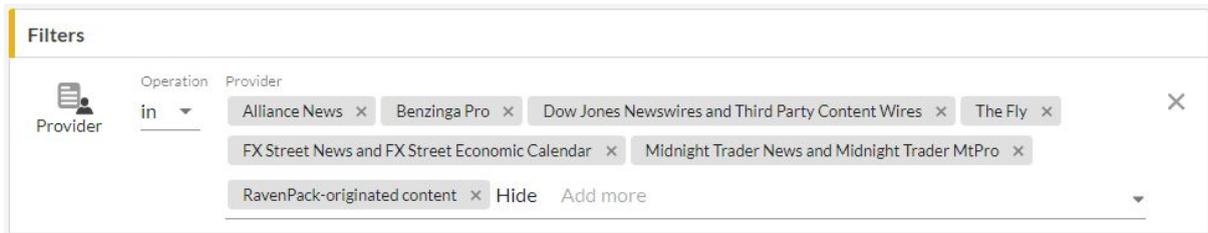
Under the Data_Type section on page 24 of the User Guide, you can find a description for each field in this file.

Premium sources

RavenPack Analytics includes data from Premium Sources. In order to exclusively retrieve stories from Premium Sources, simply add a filter in the Dataset Builder for PROVIDER_ID "in":

- Alliance News (AN)
- Benzinga Pro (BZG)
- Dow Jones Newswires and Third Party Content Wires (DJ)

- The Fly (FLY)
- FX Street News and FX Street Economic Calendar (FXS)
- Midnight Trader News and Midnight Trader MtPro (MT)
- RavenPack-originated content (RP)

This can be achieved by copying and pasting the following list of identifiers into the filter input for 'Provider' in the Visual Dataset Builder:

> "AN", "BZG", "DJ", "FLY", "FXS", "MT", "RP"

RESEARCH COLLECTION

Get inspired by a collection of white papers written by RavenPack's in-house Data Scientist team as well as third-party partners. Our full Research Library can be found under the main menu on our platform or via this link: https://app.ravenpack.com/insights/downloads

In this section, you will also find material related to RavenPack's events, such as videos, presentations and more.

Studies in this section cover information on:

- Seasonality

- Sentiment Bias

- News Volume Bias

- Signal Implementation

- Alpha Generation

- Risk Management

- Algorithmic Trading

- Event Themes

- Global Macro Data

RAVENPACK WEB API

The RavenPack Web API provides an interface for requesting analytics and reference data from RavenPack. The Web API follows the REST standard. The full documentation for our API is available at https://app.ravenpack.com/api-documentation/