

Configuring Cascading Filters

Date published: 2020-10-30

Date modified: 2024-12-18



Legal Notice

© Cloudera Inc. 2025. All rights reserved.

The documentation is and contains Cloudera proprietary information protected by copyright and other intellectual property rights. No license under copyright or any other intellectual property right is granted herein.

Unless otherwise noted, scripts and sample code are licensed under the Apache License, Version 2.0.

Copyright information for Cloudera software may be found within the documentation accompanying each component in a particular release.

Cloudera software includes software from various open source or other third party projects, and may be released under the Apache Software License 2.0 (“ASLv2”), the Affero General Public License version 3 (AGPLv3), or other license terms. Other software included may be released under the terms of alternative open source licenses. Please review the license and notice files accompanying the software for additional licensing information.

Please visit the Cloudera software product page for more information on Cloudera software. For more information on Cloudera support services, please visit either the Support or Sales page. Feel free to contact us directly to discuss your specific needs.

Cloudera reserves the right to change any products at any time, and without notice. Cloudera assumes no responsibility nor liability arising from the use of products, except as expressly agreed to in writing by Cloudera.

Cloudera, Cloudera Altus, HUE, Impala, Cloudera Impala, and other Cloudera marks are registered or unregistered trademarks in the United States and other countries. All other trademarks are the property of their respective owners.

Disclaimer: EXCEPT AS EXPRESSLY PROVIDED IN A WRITTEN AGREEMENT WITH CLOUDERA, CLOUDERA DOES NOT MAKE NOR GIVE ANY REPRESENTATION, WARRANTY, NOR COVENANT OF ANY KIND, WHETHER EXPRESS OR IMPLIED, IN CONNECTION WITH CLOUDERA TECHNOLOGY OR RELATED SUPPORT PROVIDED IN CONNECTION THEREWITH. CLOUDERA DOES NOT WARRANT THAT CLOUDERA PRODUCTS NOR SOFTWARE WILL OPERATE UNINTERRUPTED NOR THAT IT WILL BE FREE FROM DEFECTS NOR ERRORS, THAT IT WILL PROTECT YOUR DATA FROM LOSS, CORRUPTION NOR UNAVAILABILITY, NOR THAT IT WILL MEET ALL OF CUSTOMER’S BUSINESS REQUIREMENTS. WITHOUT LIMITING THE FOREGOING, AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, CLOUDERA EXPRESSLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY, QUALITY, NON-INFRINGEMENT, TITLE, AND FITNESS FOR A PARTICULAR PURPOSE AND ANY REPRESENTATION, WARRANTY, OR COVENANT BASED ON COURSE OF DEALING OR USAGE IN TRADE.

Contents

Creating the dashboard.....	4
Adding filters to the dashboard.....	6
Configuring filters and enabling cascading filter interaction.....	10
Exploring the dashboard filter interaction.....	12

Creating the dashboard

About this task

The following steps use a calendar heat map visual, such as the one described in [Calendar heat maps](#), which is built on the dataset SFPD Incidents.

Procedure

1. Start a new dashboard by clicking New Dashboard.
2. In the Dashboard Designer, open SFPD Incidents - Calendar Heat Map, built according to the instructions in [Calendar heat maps](#). Ensure that you are using the SFPD Incidents dataset.
The visual appears in the dashboard.
3. To edit the visual, click the Pencil icon in the top right corner of the visual.

4. Under Dimensions, select pddistrict and add it to the Filters shelf. Repeat the action with category and date.

VISUALS

 **Calendar Heatmap**  

X

Y

*** Date**

 date 

*** Measures**

 Record Count 

Tooltips

 **Filters**

pddistrict 

category 

date 

 **REFRESH VISUAL**

5. Name and save the dashboard.

Related Information

[Calendar heat maps](#)

Adding filters to the dashboard

About this task

Add the three filters to the dashboard.

Procedure

1. In the Dashboard Designer, click the Filters tab on the left.

2. Under Dimensions, click the date field.

This adds a filter to the dashboard. Alternatively, you can also drag the field you want to use as a filter and drop it into the filter bar.

FILTERS

CREATE CUSTOM FILTER

SFPD Incidents

Click on a field below to use as a filter

Search

Dimensions 10

- date
- Month
- Day of Week
- Year
- Time
- pddistrict

Measures 4

- sfpd_incidents
- incidntnum
- longitude

Shared Visuals

Filters

Settings

Style

Custom Style

This filter is based directly on the field date, and has a type timestamp.

SFPD Incidents Cascading Filters

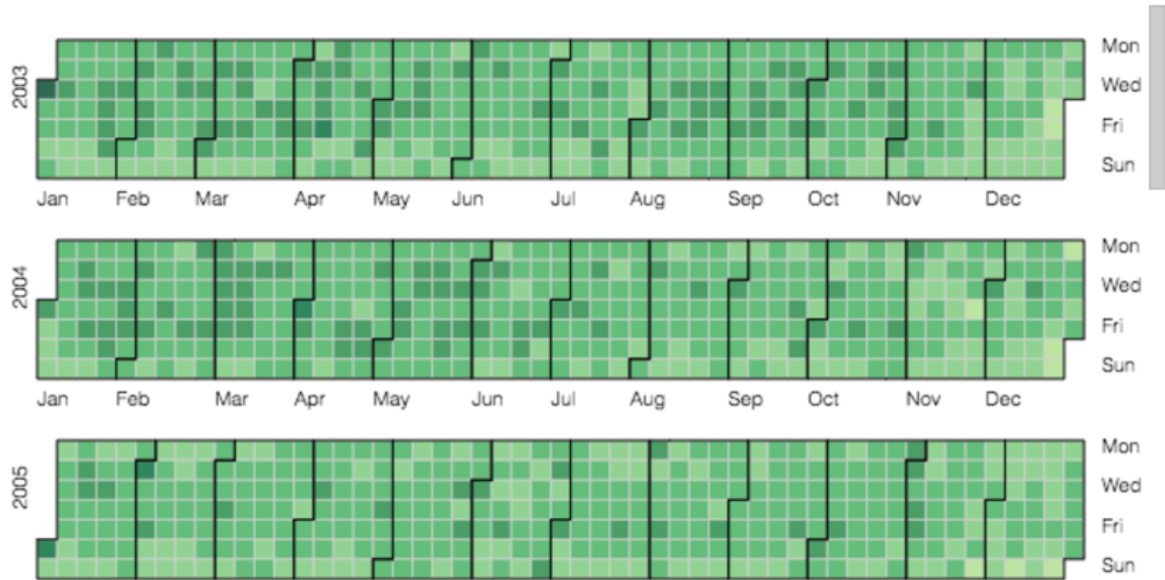
enter subtitle...

date

2003-01-01 - 2014-12-31

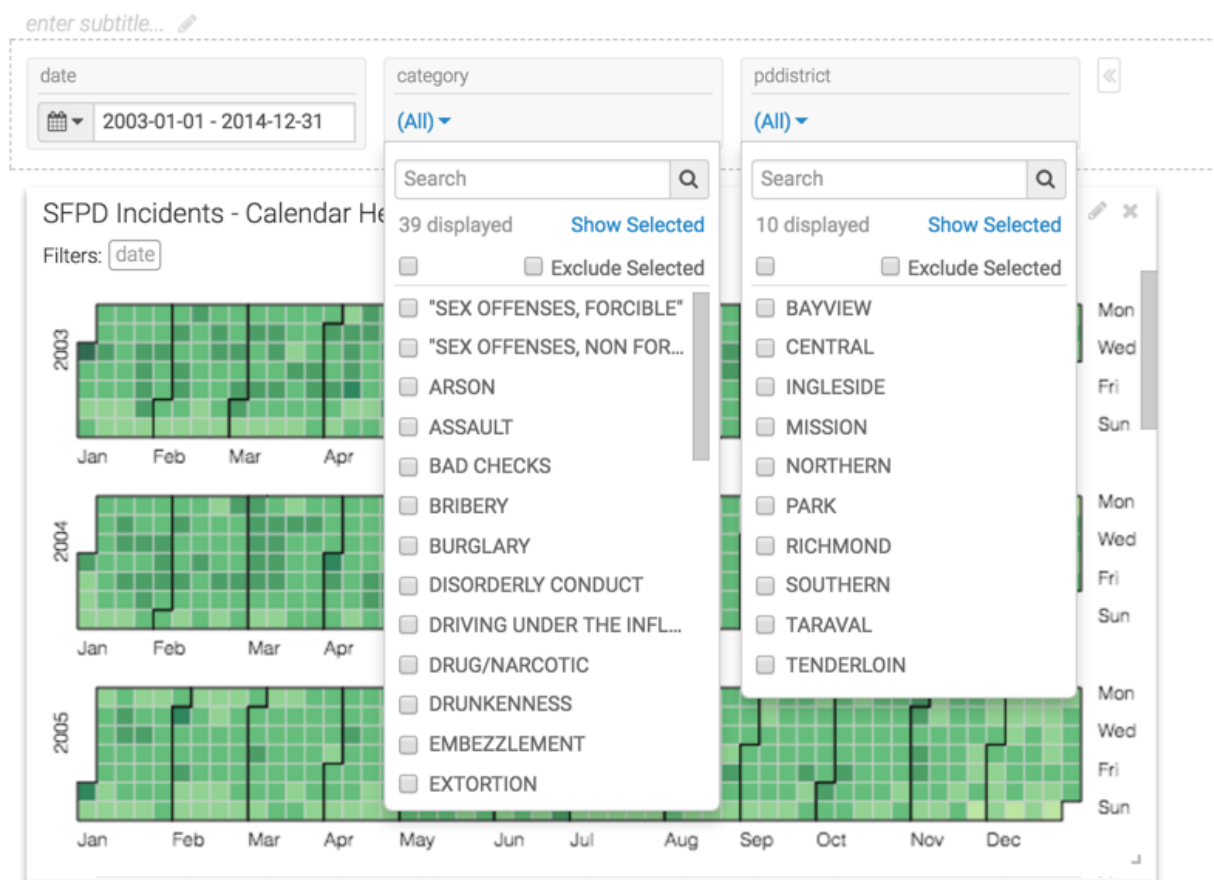
<<

SFPD Incidents - Calendar Heat Map



3. Add the other two filters. Under Dimensions, click the category field to add a filter based on that field. Similarly, click the pddistrict field to create the next filter.

SFPD Incidents Cascading Filters



4. Save the dashboard.

Configuring filters and enabling cascading filter interaction

Procedure

1. On the category application filter, click the Gear icon.
The Settings modal window appears.

- Click the Display Settings tab and select the Allow only one item to be selected at a time option.

Settings ×

Values Data **Display Settings** Scope Custom Style

☐ Display a textbox parameter ⓘ

Width of this filter (in px)

☐ Allow the user to add values to the filter ⓘ

☒ Allow only one item to be selected at a time

☐ Select values from a dropdown menu ⓘ

☐ Include an option for 'All'

☐ Emit distinct parameters for each selected item

☐ Hide filter if no input data ⓘ

☒ Remember previous selections when searching ⓘ

☐ Apply all changes to a multi-select list at the same time ⓘ

CANCEL APPLY

- Switch to the Values tab and enter the value pddistrict,date for Filter Fields.

Note that this matches the fields that are the basis of the other filters.

Settings ×

Values **Data** Display Settings Scope Custom Style

From Base Field

Title

Output Parameter

Filter Fields

CANCEL APPLY

- Click APPLY.
- On the pddistrict application filter, click the Gear icon.
The Settings modal window appears.

- Click the Values tab and enter the value category,date for Filter Fields.

This matches the fields that are the basis of the other filters.

Settings

Values Data Display Settings Scope Custom Style

From Base Field

pddistrict

Title

pddistrict

Output Parameter

pddistrict

Filter Fields

category,date

CANCEL APPLY

- Click APPLY.
- Save the dashboard.

Exploring the dashboard filter interaction

About this task

You can use the cascading filters to determine how the selections interact. Remember that there are 39 possible categories of police incidents, distributed across 10 policing districts.

Procedure

- Open the dashboard in View mode.
- Use the first application filter, datetime, to limit the date range to the 2010 calendar year. Start on 2010-01-01, end with 2010-12-31.
- Click APPLY.
- In the second filter, category, select the value BAD CHECKS.

In the third filter, pddistrict, you can see that the value for PARK is missing. There are only 9 policing districts available in the filter.

This is the result of filtering based on category BAD CHECK and date range 2010-01-01 through 2010-12-31. The resulting subset of data in the dataset does not include rows where pddistrict equals PARK.

If you select another date range, such as years 2008 through 2014, all 10 districts show up on the pddistrict filter.