

..

Configuring Cascading Filters

Date published: 2020-10-30

Date modified: 2022-09-21

CLOUDBERA

<https://docs.cloudera.com/>

Legal Notice

© Cloudera Inc. 2024. 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
Configure Filters and Enable Cascading Filter Interaction.....	10
Explore the Dashboard Filter Interaction.....	12

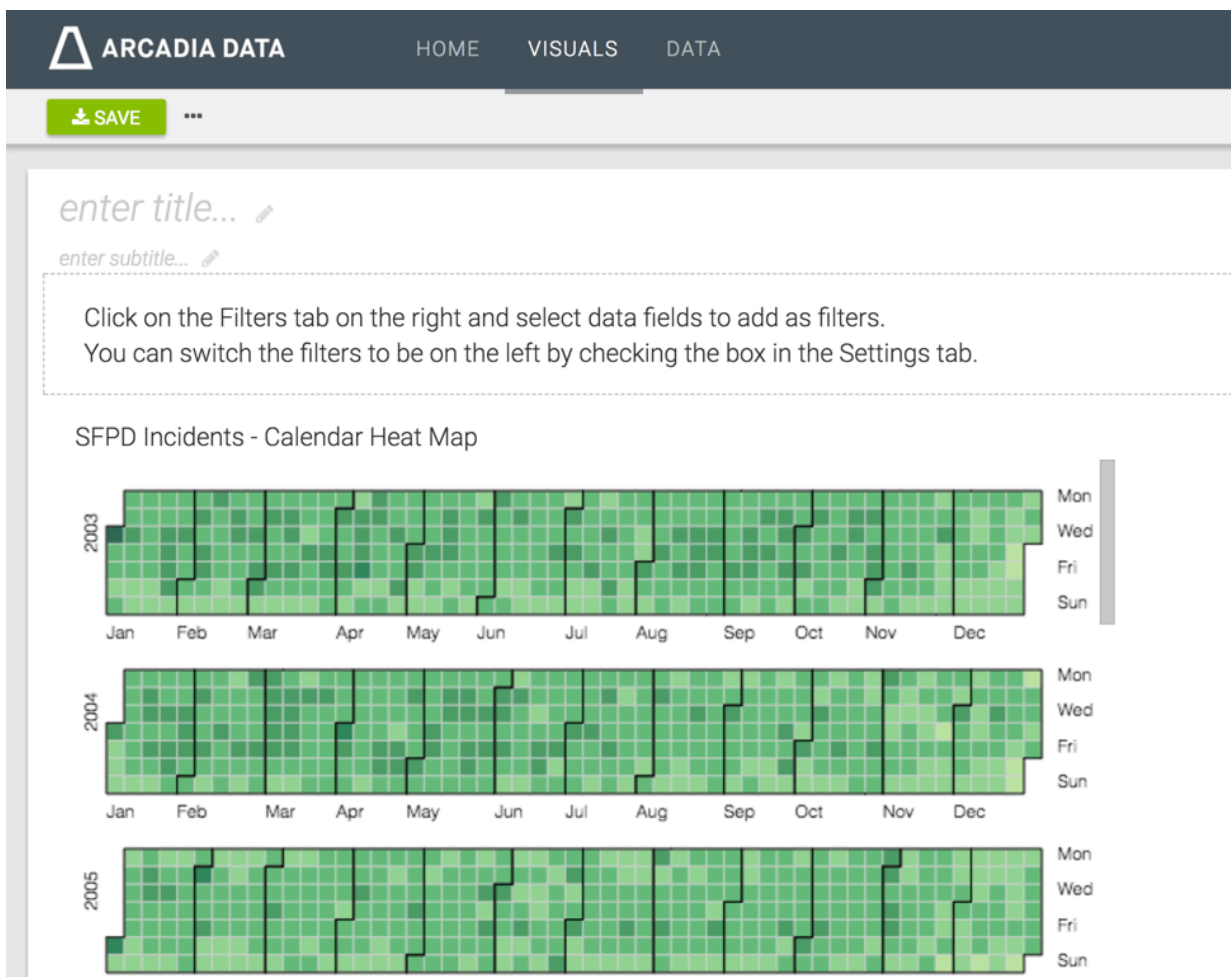
Creating the Dashboard

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 for dashboards, open SFPD Incidents - Calendar Heat Map, built according to the instructions in Calendar heat maps. Ensure that you are using the SFPD Incidents dataset.
3. Note that the visual appears in the dashboard.



4. To edit the visual, click the Pencil icon on the top right corner of the visual.

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

VISUALS

Calendar Heatmap

X

Y

* **Date**

date

* **Measures**

Record Count

Tooltips

Filters

pddistrict

category

date

REFRESH VISUAL

6. Name and save the dashboard. We used the name SFPD Incidents Cascading Filters.

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 the Dimensions category, click the date field.


FILTERS  

CREATE CUSTOM FILTER









 **SFPD Incidents**



Click on a field below to use as a filter





Dimensions 10


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


Measures 4


-  **sfpd_incidents**
-  incidntnum
- 1.2** longitude

 **Shared Visuals**

 **Filters**

 **Settings**

 **Style**

 **Custom Style**

- Note that this adds a filter to the dashboard. This filter is based directly on the field date, and has a type time stamp.

SFPD Incidents Cascading Filters

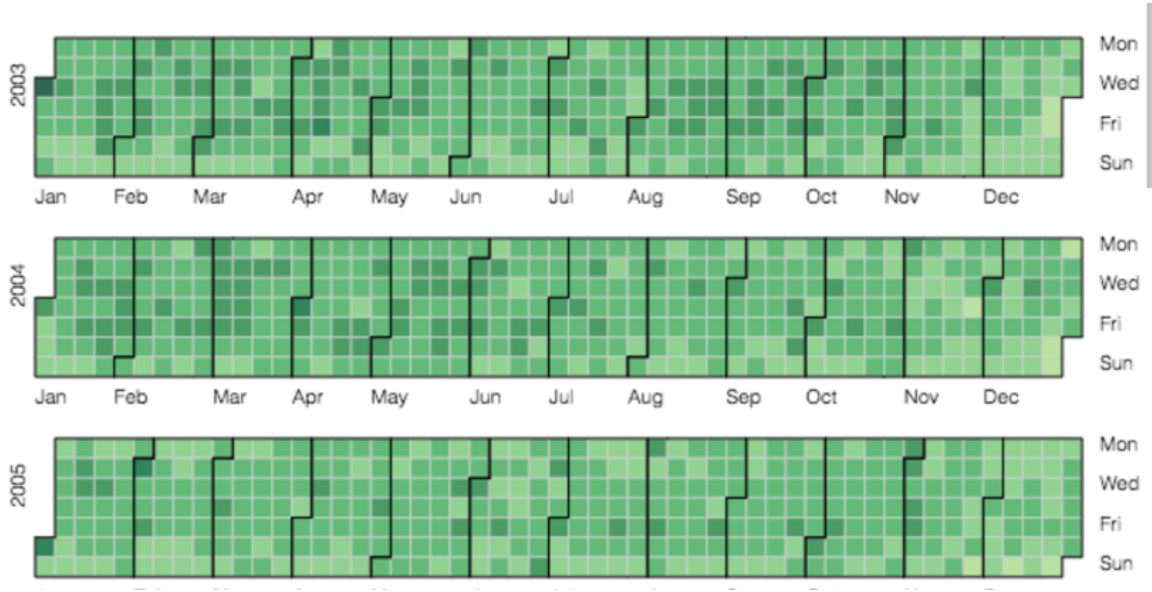
enter subtitle... 

date





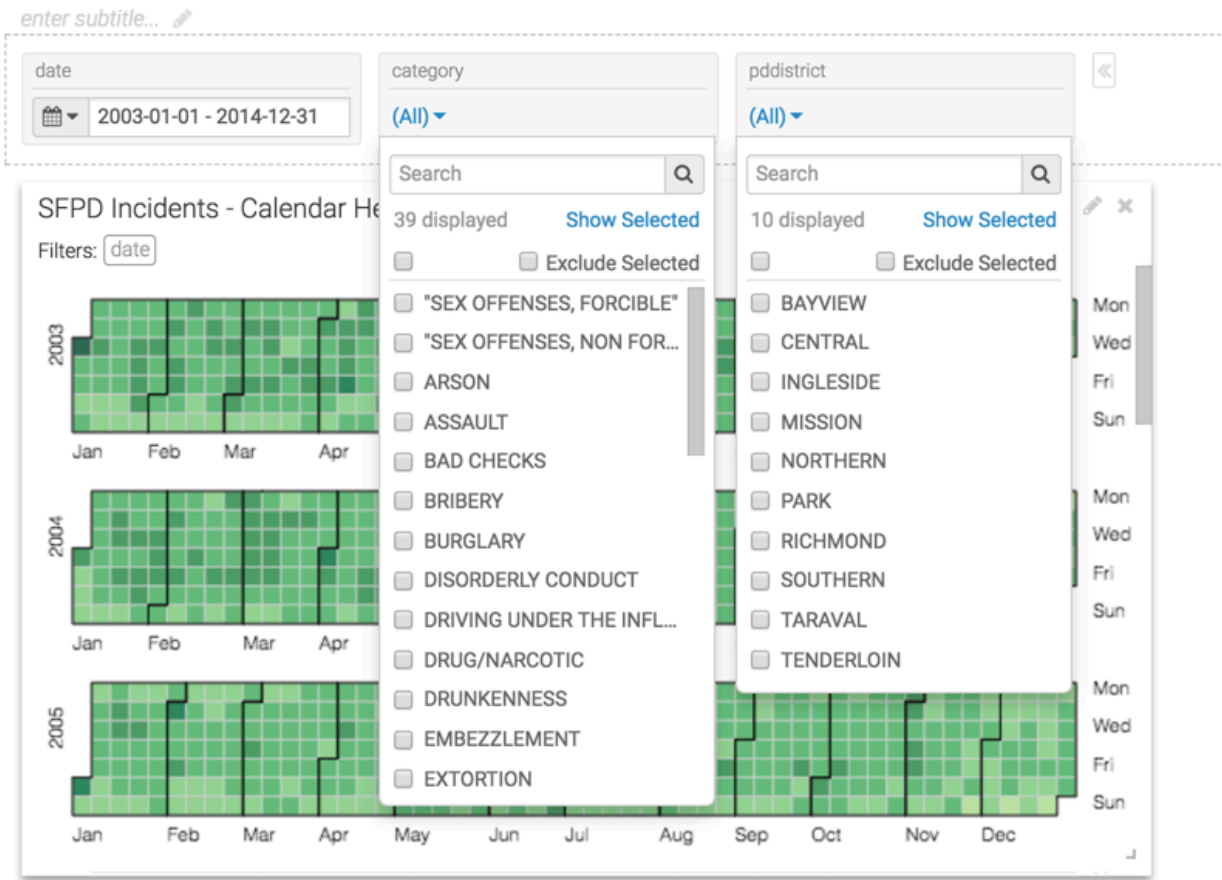
SFPD Incidents - Calendar Heat Map



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

- Note that there are 39 possible options for the category filter, and 10 options for pddistrict filter.

SFPD Incidents Cascading Filters



- Save the dashboard.

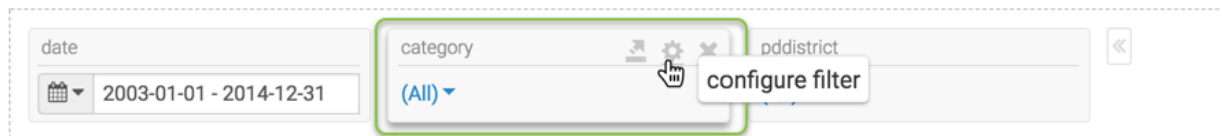
Configure Filters and Enable Cascading Filter Interaction

About this task

Configure the cascading filters.

Procedure

- On the category application filter, click the Gear icon.



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

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
Maximum default number of values displayed

Maximum number of search results displayed

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

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

- Under the Values tab, for Filter Fields, enter the value pddistrict,date.
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

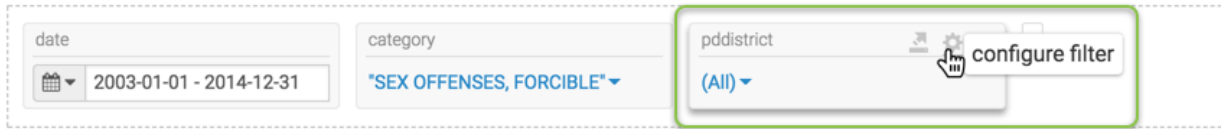
Title

Output Parameter

Filter Fields

- Click Apply.

- On the pddistrict application filter, click the Gear icon.



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

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.

Explore the Dashboard Filter Interaction

About this task

Finally, 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.

4. In the second filter, category, select the value BAD CHECKS.

In the third filter, pddistrict, notice 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.