

Segments

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Creating segments

Cloudera Data Visualization lets you easily create a new segment definition.

Procedure

1. On the main navigation bar, click DATA.

The Data view appears.

2. Open the Datasets tab.
3. Find the dataset in the list of datasets, either by scrolling or by using search, and click it.

Dataset side navigation appears, open at Dataset Detail view.

In this example, the dataset Flight Delays is used, which is based on data previously imported into Cloudera Data Visualization from a data file. Some additional data files are also used.

4. In the side navigation menu, click Segments.

The screenshot shows the Cloudera Data Visualization interface for the 'Dataset: Flight Delays'. On the left is a side navigation menu with the following items: Dataset Detail, Related Dashboards, Fields, Data Model, Analytical Views (0), Events (0), Segments (0), Filter Associations (0), and Permissions. The 'Segments' item is highlighted. The main content area is titled 'Dataset: Flight Delays' and contains a 'NEW DASHBOARD' button. Below this is a 'Segments' section with a '+ NEW SEGMENT' button. A table with the following columns is visible: Group, Entity, Name, Apply To New Visuals, Filters, and Actions.

The Segments view appears.

5. In the Segments interface, click New Segment.

The Add Segment modal window appears.

6. Make the following entries:

- Under Segment Name, enter Delayed Flights.
- Under Segment Group, enter Delay Status.
- Under Filters, click the text box to open the Filter Expression modal window.

Add Segment ✕

Segment Name

Segment Group

Apply as a filter to new visuals

Filters

You can enter multiple filters and they will automatically have an "AND" logic between them

Entity to extract (only necessary for behavior based segments)

7. In the Filter Expression modal window, enter the following expression to show flights that are delayed.

```
[airtime] IS NOT NULL AND [depdelay] > 0
```

- Click Validate Expression to verify correctness.

Filter Expression ✕

Enter an expression that can serve as a WHERE clause. For example: event_type="login"

```
[airtime] IS NOT NULL AND [depdelay] > 0
```

VALIDATE EXPRESSION

Autocomplete on

All Functions

- abs
- acos
- add_months
- adddate
- AND
- appx_median
- ascii
- asin
- atan

All Fields & Tables

- # actualelapse...
- # airlineid
- # airtime
- T/F arrdel15
- # arrdelay
- # arrdelayminut...
- # arrivaldelaygr...
- # artime
- # artimeblk

CANCEL

APPLY

- Click APPLY to save the filter and return to the Add Segment modal window.
The new filter appears under Filters.

10. Click SAVE.

Add Segment ✕

Segment Name

Segment Group

Apply as a filter to new visuals

Filters

You can enter multiple filters and they will automatically have an "AND" logic between them

Entity to extract (only necessary for behavior based segments)

The new segment definition appears in the Segments interface.



Note: The actions available for this segment: Edit, Clone, and Delete.

The screenshot shows the 'Dataset: Flight Delays' page. On the left is a navigation sidebar with options: Dataset Detail, Related Dashboards, Fields, Data Model, Analytical Views (0), Events (0), Segments (1), Filter Associations (0), and Permissions. The main content area is titled 'Segments' and includes a '+ NEW SEGMENT' button. Below is a table with the following data:

Group	Entity	Name	Apply To New Visuals	Filters	Actions
Delay Status		Delayed Flights		{[airtime] IS NOT NULL AND [depdelay] > 0}	Edit Clone Delete

To view how segments work in a visual, see [Using Segments in Visuals](#).

Related Information

[Using segments in visuals](#)

Cloning segments

Cloudera Data Visualization lets you clone an existing segment definition.

Procedure

1. On the main navigation bar, click DATA.
2. Select Flight Delays dataset.
Dataset side navigation appears, open at Dataset Detail view.
3. In the side navigation menu, click Segments.
4. In the Segments list, find the segment to clone, and click Clone.

In this example, Delayed Flights will be cloned to create a new segment On-Time Departure.

This screenshot is identical to the one above, but with a mouse cursor pointing at the 'Clone' button in the 'Actions' column of the 'Delayed Flights' row.

A pre-populated Add Segment modal window appears named Copy of Delayed Flights.

5. Edit the Add Segment modal window by changing its entries.
 - Change Segment Name, to On-Time Departure.
 - Leave Segment Group as is.
 - Under Filters, click the text box to open the Filter Expression modal window.

Add Segment ✕

Segment Name

Segment Group

Apply as a filter to new visuals

Filters

You can enter multiple filters and they will automatically have an "AND" logic between them

⊖

⊖

Entity to extract (only necessary for behavior based segments)

6. Replace the filter expression. In our example, we are adding the following expression:

```
[airtime] IS NOT NULL AND [depdelay] < = 0
```

7. Click Validate Expression to verify correctness.

Filter Expression ×

Enter an expression that can serve as a WHERE clause. For example: event_type="login"

```
[airtime] IS NOT NULL AND [depdelay] < = 0
```

VALIDATE EXPRESSION Autocomplete on

All Functions ⌵

- abs
- acos
- add_months
- adddate
- AND
- appx_median
- ascii
- asin
- atan

All Fields & Tables ⌵

- # actualelapse...
- # airlineid
- # airtime
- TIF arrdel15
- # arrdelay
- # arrdelayminut...
- # arrivaldelaygr...
- # arrtime
- # arrtimeblk

CANCEL APPLY

8. Click Apply to save the filter and return to the Add Segment modal window.
9. Under Filters, notice the new filter expression.

10. Click Save.

Add Segment ✕

Segment Name

Segment Group

Apply as a filter to new visuals

Filters
You can enter multiple filters and they will automatically have an "AND" logic between them

⊖

⊖

Entity to extract (only necessary for behavior based segments)

11. The new segment definition appears in the Segments interface.

Note the similarity in the definition of the two filters, Delayed Flights and On-Time Departure.

Dataset: Flight Delays NEW DASHBOARD

Segments + NEW SEGMENT

Group	Entity	Name	Apply To New Visuals	Filters	Actions
Delay Status		Delayed Flights		([airtime] IS NOT NULL AND [depdelay] > 0)	Edit Clone Delete
Delay Status		On-Time Departure		([airtime] IS NOT NULL AND [depdelay] <= 0)	Edit Clone Delete

Editing segments

Cloudera Data Visualization allows you to edit an existing segment definition.

Procedure

1. On the main navigation bar, click DATA.
2. Select Flight Delays dataset.
Dataset side navigation appears, open at Dataset Detail view.
3. In the side navigation menu, click Segments.
4. In the Segments list, find the segment to edit, and click Edit.

In our example, let's edit the segment Delayed Flights to change the segment name from Delayed Flights to Delayed Departure.

Dataset: Flight Delays NEW DASHBOARD

Segments + NEW SEGMENT

Group	Entity	Name	Apply To New Visuals	Filters	Actions
Delay Status		Delayed Flights		([airtime] IS NOT NULL AND [depdelay] > 0)	Edit Clone Delete
Delay Status		On-Time Departure		([airtime] IS NOT NULL AND [depdelay] <= 0)	Edit Clone Delete

A pre-populated Edit Segment modal window appears.

5. Change the entries in Edit Segment modal window.
 - Change Segment Name from Delayed Flights to Delayed Departure.
 - Leave all other fields 'as is'.

Add Segment ✕

Segment Name

Segment Group

Apply as a filter to new visuals

Filters

You can enter multiple filters and they will automatically have an "AND" logic between them

⊖

⊖

Entity to extract (only necessary for behavior based segments)

⊖

6. Click SAVE.

The renamed/edited segment appears in the Segments interface.

Dataset: Flight Delays NEW DASHBOARD

Segments + NEW SEGMENT

Group	Entity	Name	Apply To New Visuals	Filters	Actions
Delay Status		Delayed Departure		((airtime) IS NOT NULL AND [depdelay] > 0)	Edit Clone Delete
Delay Status		On-Time Departure		((airtime) IS NOT NULL AND [depdelay] <= 0)	Edit Clone Delete

Creating entity segments

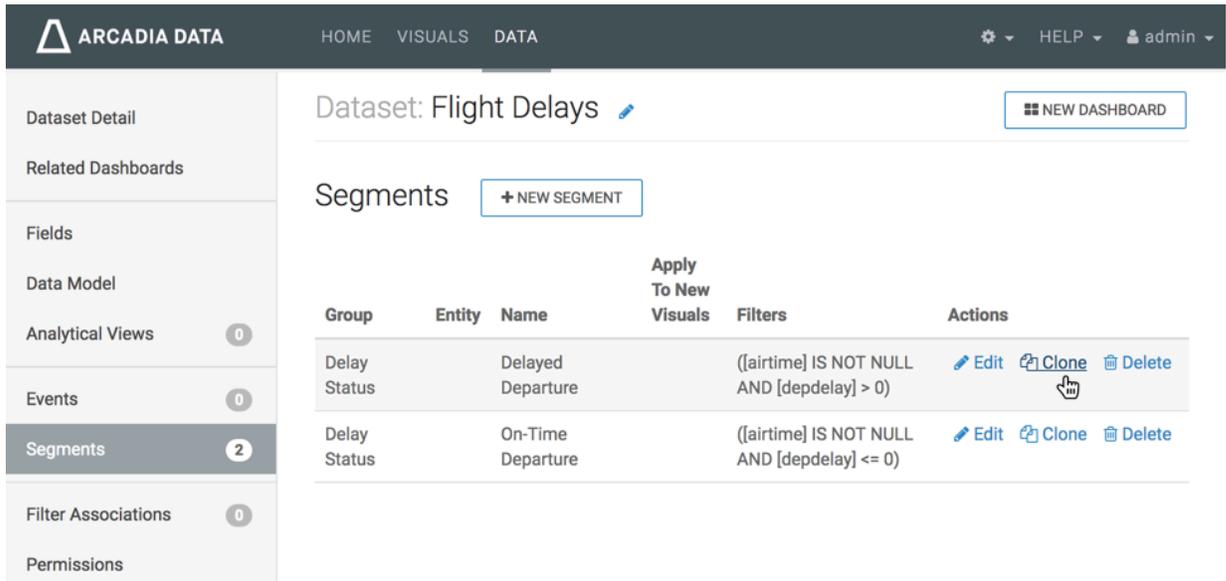
Entity segments are a more advanced use of segments, where the extraction of an entity enables cohort analysis.

Procedure

1. On the main navigation bar, click DATA.
2. Select Flight Delays dataset.
Dataset side navigation appears, open at Dataset Detail view.
3. In the side navigation menu, click Segments.

- In the Segments list, find the segment to clone, and click Clone.

In this example, to make our task simpler, the Delayed Departure segment that was created in Cloning Segments will be cloned.



The screenshot shows the Arcadia Data interface for the 'Flight Delays' dataset. The left sidebar contains navigation options: Dataset Detail, Related Dashboards, Fields, Data Model, Analytical Views (0), Events (0), Segments (2), Filter Associations (0), and Permissions. The main content area displays the 'Segments' list with a '+ NEW SEGMENT' button. The table below shows two segments:

Group	Entity	Name	Apply To New Visuals	Filters	Actions
Delay Status		Delayed Departure		{[airtime] IS NOT NULL AND [depdelay] > 0}	Edit Clone Delete
Delay Status		On-Time Departure		{[airtime] IS NOT NULL AND [depdelay] <= 0}	Edit Clone Delete

A pre-populated Add Segment modal window appears.

5. Edit the Add Segment modal window by changing its entries.
 - Change Segment Name to Delayed Airlines.
 - Leave other fields 'as is'.
 - Under Entity to extract, click the text box to open the Entity Expression modal window.

Add Segment ✕

Segment Name

Segment Group

Apply as a filter to new visuals

Filters

You can enter multiple filters and they will automatically have an "AND" logic between them

 ⊖

⊖

Entity to extract (only necessary for behavior based segments)



6. In the Entity Expression modal window, enter the following expression.

```
[airlineid]
```

7. Click Validate Expression to verify correctness.

Entity Expression ✕

[airlineid]

VALIDATE EXPRESSION

Autocomplete on

All Functions

- abs
- acos
- add_months
- adddate
- AND
- appx_median
- ascii
- asin
- atan

All Fields & Tables

- A abbreviation
- # actualelapse...
- # airlineid
- A airport_codes...
- A airport_codes...
- A airport_codes...
- A airport_codes...
- 1.2 airport_lat_lo...
- A airport_lat_lo...

CANCELAPPLY

8. Click APPLY to save the expression and return to the Add Segment modal window.
9. In the Add Segment modal window, notice the new expression in the Entity to extract field.

10. Click SAVE.

Add Segment ✕

Segment Name
Delayed Airlines

Segment Group
Delay Status

Apply as a filter to new visuals

Filters
You can enter multiple filters and they will automatically have an "AND" logic between them

[airtime] IS NOT NULL AND [depdelay] > 0 ⊖

Click to update in SQL expression editor ⊖

ADD FILTER

Entity to extract (only necessary for behavior based segments)

[airlineid]

ADD ENTITY

CANCEL SAVE

The new segment definition appears in the Segments interface. The segment Delayed Airlines has an entry in the Entity column, airlineid.

Dataset: Flight Delays NEW DASHBOARD

Segments + NEW SEGMENT

Group	Entity	Name	Apply To New Visuals	Filters	Actions
Delay Status		Delayed Departure		([airtime] IS NOT NULL AND [depdelay] > 0)	Edit Clone Delete
Delay Status		On-Time Departure		([airtime] IS NOT NULL AND [depdelay] <= 0)	Edit Clone Delete
Delay Status	[airlineid]	Delayed Airlines		([airtime] IS NOT NULL AND [depdelay] > 0)	Edit Clone Delete

To view how segments work in a visual, see [Using Segments in Visuals](#) .

Related Information

[Cloning segments](#)

[Using segments in visuals](#)

Deleting segments

Cloudera Data Visualization lets you easily delete dataset segment definition.

Procedure

1. On the main navigation bar, click DATA.
2. Select Flight Delays dataset.
Dataset side navigation appears, open at Dataset Detail view.
3. In the side navigation menu, click Segments.
4. In the Segments list, find the segment to delete, and click Delete.

In this example, we are deleting Short Flights.

Dataset: Flight Delays NEW DASHBOARD

Segments + NEW SEGMENT

Group	Entity	Name	Apply To New Visuals	Filters	Actions
Delay Status		Delayed Flights		([airtime] IS NOT NULL AND [depdelay] > 0)	Edit Clone Delete
Delay Status		On-Time Departure		([airtime] IS NOT NULL AND [depdelay] <= 0)	Edit Clone Delete
Flight Time		Short Flights		([airtime] < 60)	Edit Clone Delete

5. Click DELETE in the confirmation modal window.

Results

The segment Short Flights no longer appears in the Segments interface.

Dataset: Flight Delays NEW DASHBOARD

Segments + NEW SEGMENT

Group	Entity	Name	Apply To New Visuals	Filters	Actions
Delay Status		Delayed Flights		{(airtime) IS NOT NULL AND [depdelay] > 0}	Edit Clone Delete
Delay Status		On-Time Departure		{(airtime) IS NOT NULL AND [depdelay] <= 0}	Edit Clone Delete

Creating segments from filter definitions

Besides creating segments in the dataset detail view, Cloudera Data Visualization also lets you create segments from a filter definition of a visual.

About this task

See the following topics to create a new segment from a filter in a visual, then edit the filter to add another segment, and finally update an existing segment.

- [Creating the first segment](#)
- [Adding the second segment](#)
- [Viewing the defined segments](#)
- [Adding values to an existing segment](#)

Follow these steps to create a new data segment, Mountain from a filter definition.

Procedure

Creating the first segment

1. Start a new visual based on dataset Flight Delays, based on data previously imported into Cloudera Data Visualization from a data file.

For more information, see [Creating a visual](#).

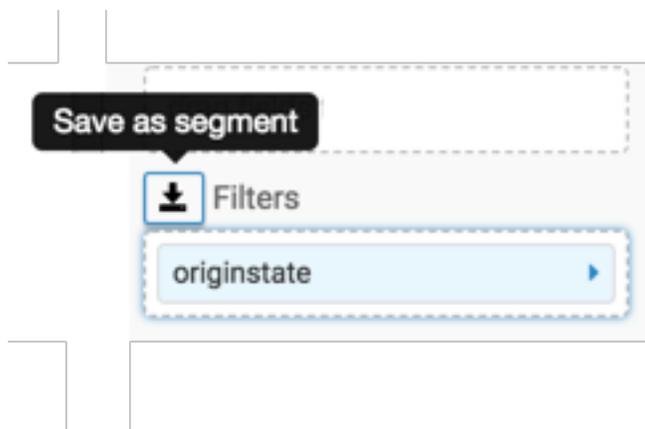
2. Add originstate to the Filters shelf.

The screenshot shows the Cloudera Dashboard Designer interface. On the left, a table titled "Flight Delays" displays data for the year 2014, quarter 1, months 1 through 31. The table has columns for year, quarter, month, dayofmonth, and dayofweek. On the right, the "DATA" panel shows the "Flight Delays" dataset with a search bar and two shelves: "Dimensions" (containing origin, origincityname, originstate, originstatename, and destination) and "Measures" (containing Record Count, year, quarter, month, dayofmonth, and dayofweek). The "Filters" shelf at the bottom of the DATA panel contains "originstate", which is highlighted by an orange arrow. A "REFRESH VISUAL" button is located below the Filters shelf.

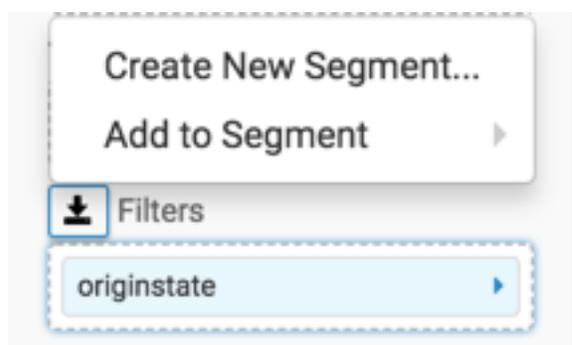
3. In the Filter for originstate window modal, select CO and WY, and click APPLY.

The screenshot shows a modal window titled "Filter for originstate" with a close button (X) in the top right corner. Below the title bar, there are three tabs: "Values" (selected), "Pattern", and "Set values". Under the "Values" tab, there is a list of state abbreviations with checkboxes: AZ, CA, CO (checked), CT, WI, WV, and WY (checked). At the bottom of the modal, there are two buttons: "CANCEL" and "APPLY".

4. Click the Save Down icon to the left of the Filters shelf.



5. From the menu, select Create New Segment.



6. In the Add Segment window modal, specify the following:
 - Under Segment Name, enter Mountain.
 - Under Segment Group, enter Geographic Region.
 - Under Filters, notice the new filter expression, [originstate] in ('CO', 'WY').
 - Leave Entity to Extract field empty.

7. Click SAVE.

Add Segment ×

Segment Name

Segment Group

Apply as a filter to new visuals

Filters

You can enter multiple filters and they will automatically have an "AND" logic between them

Entity to extract (only necessary for behavior based segments)

The new segment definition appears in Segments section on the right navigation menu.

Filter for arc_segment

Values

Delay Status

is Delayed Airline

is Delayed Departure

is On-Time Departure

Geographic Region

is Mountain

Adding the second segment

Let's edit the filter defined in the first segment and create a second segment.

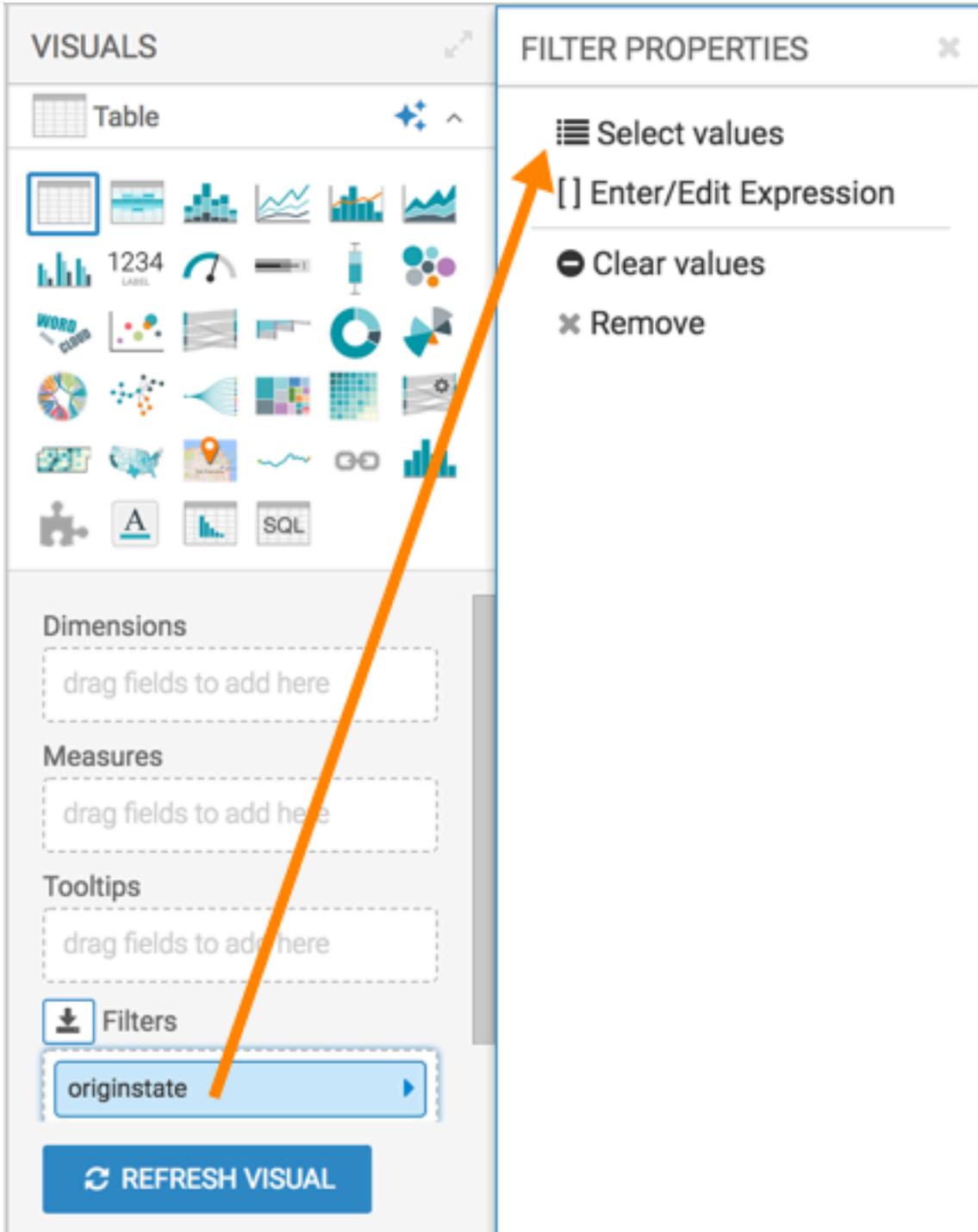
8. On the Filters shelf, at the right of the originstate filter, click the Down icon to open the Filter Properties menu.

9. From the Filter Properties menu, select Clear values.

The screenshot displays the Cloudera Data Visualization interface. On the left is the 'VISUALS' panel, which includes a 'Table' view, a grid of visualization icons, and sections for 'Dimensions', 'Measures', and 'Tooltips'. Below these is a 'Filters' section with a dropdown menu showing 'originstate in ('AR', 'NE')'. A blue 'REFRESH VISUAL' button is at the bottom. On the right is the 'FILTER PROPERTIES' panel, which is open and shows a menu with the following options: 'Select values', 'Enter/Edit Expression', 'Clear values', and 'Remove'. An orange arrow points from the 'originstate in ('AR', 'NE')' filter in the 'Filters' section to the 'Clear values' option in the 'FILTER PROPERTIES' menu.

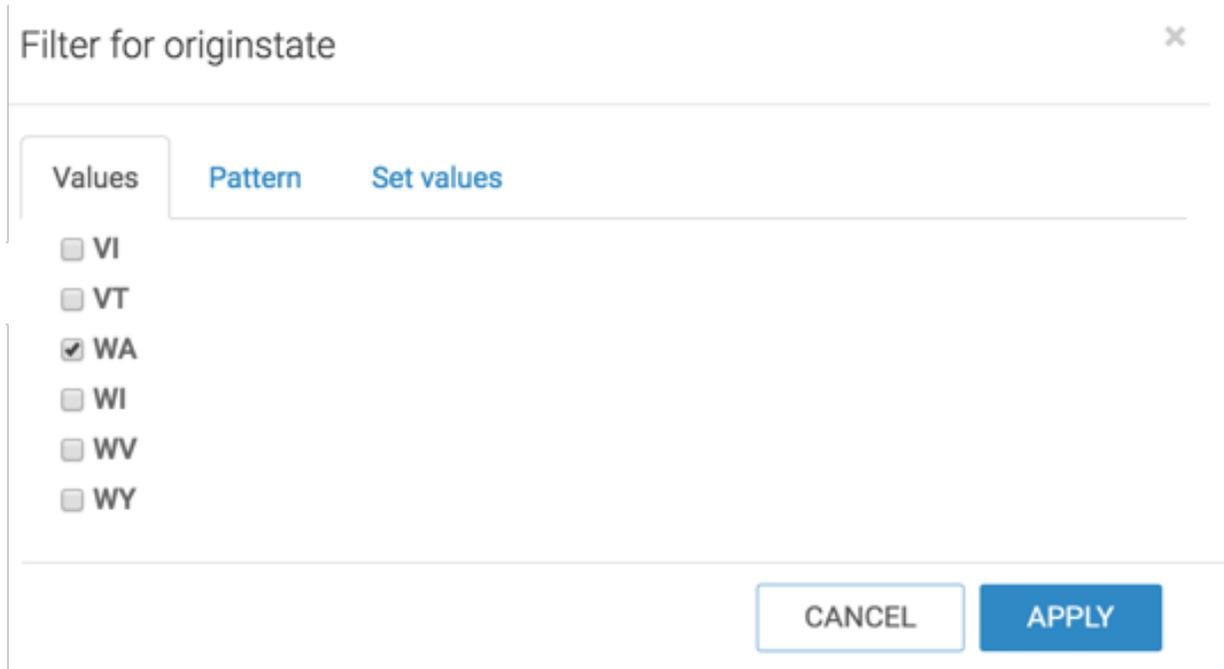
10. Click the Down icon to the right of the originstate filter to open the Filter Properties menu.

11. From the Filter Properties menu, select Select values.



12. In the Filter for originstate window modal, select WA.

13. Click APPLY.



Filter for originstate

Values Pattern Set values

VI

VT

WA

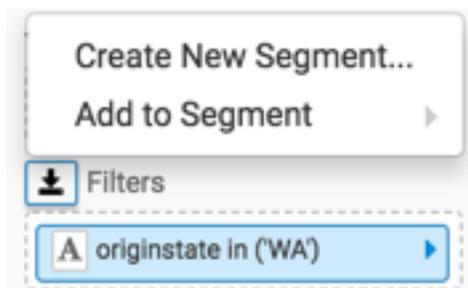
WI

WV

WY

CANCEL APPLY

14. To define the next segment, select Create New Segment from the Save as Segment menu.



15. In the Add Segment modal window, specify the following:

- Under Segment Name, enter North West.
- Under Segment Group, enter Geographic Region that you used earlier.
- Under Filters, notice the new filter expression, [originstate] in ('WA').
- Leave Entity to Extract field empty.

16. Click Save.

Add Segment ✕

Segment Name

Segment Group

Apply as a filter to new visuals

Filters

You can enter multiple filters and they will automatically have an "AND" logic between them

 ⊖

⊖

Entity to extract (only necessary for behavior based segments)

Viewing the defined segments

17. In the side navigation bar of the visual interface, click Segments.

Notice that the two segments (and the segment group) you just defined appear in the Segments menu.

Filter for arc_segment ✕

Values

Delay Status

is Delayed Airline

is Delayed Departure

is On-Time Departure

Geographic Region

is Mountain

is North West

Adding values to an existing segment

Let's add a new state, OR, to our existing segment North West.

18. Click inside the Filter shelf to open the Field Properties menu.

19. Click Clear values.

20. Click Select values.

21. Select OR in the Filter for originstate window modal.

22. Click APPLY.

Filter for originstate ✕

Values **Pattern** **Set values**

OK

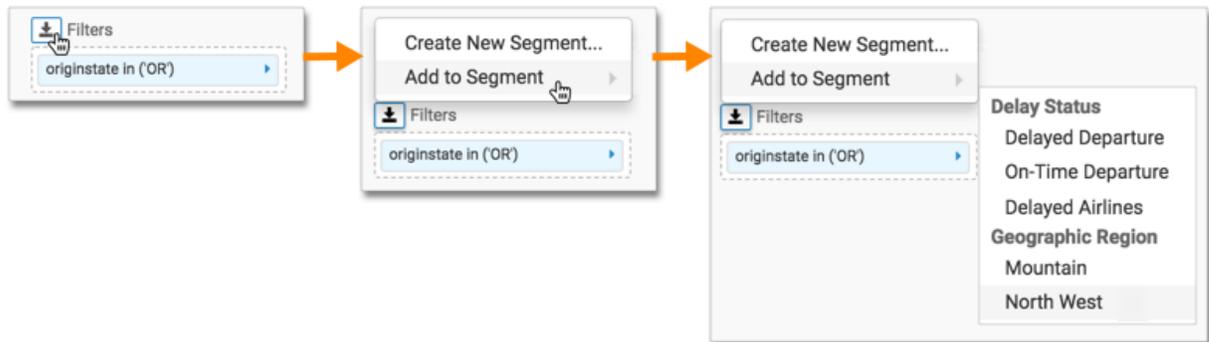
OR

PA

PR

23. To add the new selection to an existing segment, do the following:

- Click Filters.
- In the menu, select Add to Segment from the Save as Segment menu.
- In the secondary menu, under Geographic Regions, select North West.



Notice that when the Edit Segment modal window appears, it shows the existing configuration for the segment North West.

However, its Filters specification now includes Oregon: [originstate] in ('WA', 'OR').

24. Click Save to finish adding the specification to the segment.

Edit Segment ×

Segment Name

Segment Group

Apply as a filter to new visuals

Filters

You can enter multiple filters and they will automatically have an "AND" logic between them

 ⊖

⊖

Entity to extract (only necessary for behavior based segments)

What to do next

To view how segments work in a visual, see *Using segments in visuals*.

Related Information

[Using segments in visuals](#)

[Creating a visual](#)

Using segments in visuals

This article demonstrates how segments work in a visual.

About this task

After creating segments in the Dataset Segments user interface, or creating segments from filter definitions of a visual, you can view this segmented data in a visual.

Procedure

1. Click Data in the side navigation bar of the visual interface.

The screenshot displays the Cloudera Data Visualization interface. On the left, the 'VISUALS' panel shows a grid of visualization types (Table, Bar, Line, etc.) and a 'Filters' section containing 'Segments (1)'. An orange arrow points from this filter to the 'DATA' panel on the right. The 'DATA' panel shows the 'Flight Delays' dataset with 'Sample Mode: OFF'. It features a search bar and two lists: 'Dimensions' (61 items) and 'Measures' (66 items). The 'Dimensions' list includes 'Segment', 'flightdate', 'uniquecarrier', 'carrier', 'tailnum', and 'origin'. The 'Measures' list includes 'Record Count', 'year', 'quarter', 'month', and 'dayofmonth'.

The segments (and the segment group) that you defined earlier appear in the Segments menu.

Filter for arc_segment ✕

Values

Delay Status

- is Delayed Airline
- is Delayed Departure
- is On-Time Departure

Geographic Region

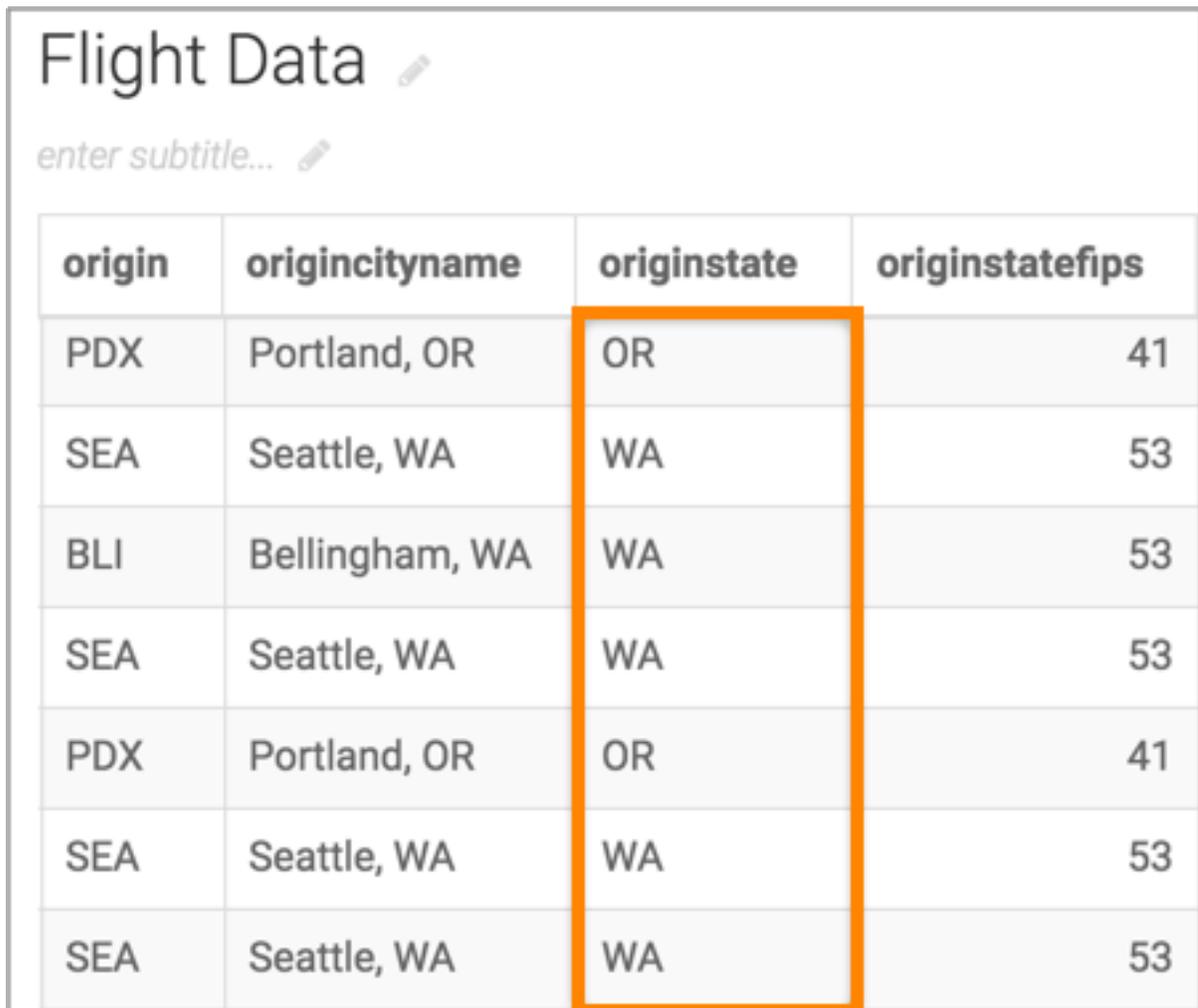
- is Mountain
- is North West

CANCEL APPLY

2. Select one of the segments, and click REFRESH VISUAL.

In this example, North West has been selected.

The visual only shows the rows that match the segment criteria. In this example, the states WA and OR.



Flight Data 

enter subtitle... 

origin	origincityname	originstate	originstatefips
PDX	Portland, OR	OR	41
SEA	Seattle, WA	WA	53
BLI	Bellingham, WA	WA	53
SEA	Seattle, WA	WA	53
PDX	Portland, OR	OR	41
SEA	Seattle, WA	WA	53
SEA	Seattle, WA	WA	53

Related Information

[Creating segments](#)

[Creating segments from filter definitions](#)