

..

Receiving Parameters in Dashboards

Date published: 2020-10-30

Date modified: 2022-09-21

CLOUDBERA

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 visuals with optional dimensions.....	4
Creating filters to control optional dimensions.....	6
Creating visuals with optional measures.....	13
Creating filters to control optional measures.....	15
Creating visuals with variable dimensions.....	22
Creating filters to control variable dimensions.....	24
Creating visuals with variable measures.....	30
Creating filters to control variable measures.....	33

Creating visuals with optional dimensions

Procedure

1. Open a new dashboard.
2. Click New Visual.
3. Under the =Data menu, select the World Life Expectancy dataset.
4. Under the Visuals menu, choose the Table visual type.
5. Populate the shelves of the visual:
 - From Dimension, select and move un_region and un_subregion fields onto the Dimension shelf.
 - From Measures, select and move population field onto the Measures shelf.
 - From Dimensions, select and move year field onto the Filters shelf.
 - On the Filters shelf, select year field, choose Pick values from a list, select 2000, and click Save.

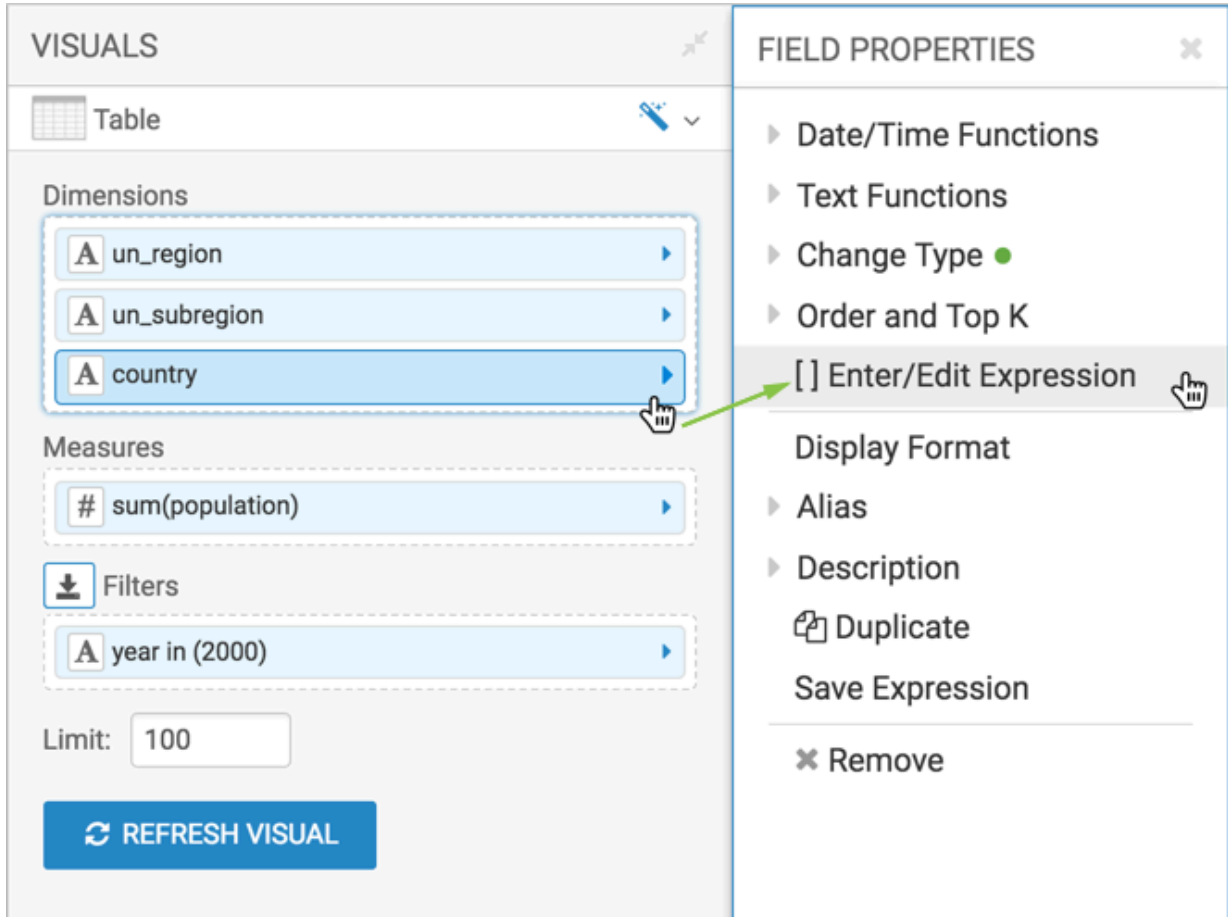
The screenshot displays a Power BI interface. On the left, a table visual is shown with the following data:

un_region	un_subregion	sum(population)
Africa	Eastern Africa	223,801,227
Africa	Middle Africa	89,349,833
Africa	Northern Africa	169,171,230
Africa	Southern Africa	51,441,854
Africa	Western Africa	219,135,570
Americas	Caribbean	29,386,764
Americas	Central America	135,554,671
Americas	Northern America	313,282,714
Americas	South America	314,774,534

On the right, the 'VISUALS' panel is visible, showing the configuration for the 'Table' visual. The 'Dimensions' shelf contains 'un_region' and 'un_subregion'. The 'Measures' shelf contains '# sum(population)'. The 'Filters' shelf contains 'year in (2000)'. The 'Limit' is set to 100. A 'REFRESH VISUAL' button is located at the bottom of the panel.

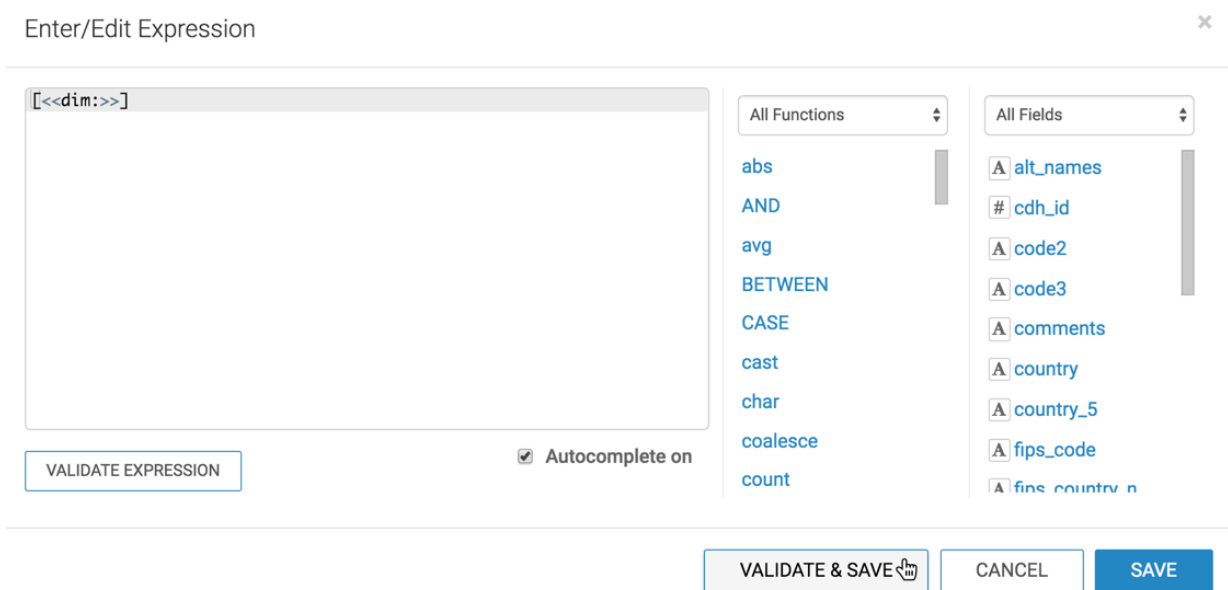
6. From Dimensions, select and move the country field onto the Dimension shelf.
7. On the Dimensions shelf, click country field.

8. In the Field Properties menu, select [] Enter/Edit Expression.



9. In the Enter/Edit Expression modal window, change the text to the following expression:

- [<<dim:>>].
- Click Validate & Save.



10. Click Refresh Visual.

11. Change the name of the visual to Regional Populations.
12. Click Save.

Creating filters to control optional dimensions

About this task

Before starting on this work flow, complete the steps in [Creating visuals with optional dimensions](#) on page 4.

Procedure

1. In the dashboard, click the Filters tab.

2. Click Create Custom Filter.

The screenshot displays the Arcadia Data application interface. At the top, there is a navigation bar with 'ARCADIA DATA', 'HOME', 'VISUALS', and 'DATA' menus, along with a settings icon, 'HELP', and a user profile 'admin'. Below the navigation bar are 'VIEW' and 'SAVE' buttons. The main content area is titled 'Optional Dimensions' and contains a subtitle input field and a text box with instructions: 'Click on the Filters tab on the right and select data fields to add as a filter. You can switch the filters to be on the left by checking the box in the top right corner of the filter area.' Below this is a table titled 'Regional Populations' with the following data:

un_region	un_subregion	sum(population)
Africa	Eastern Africa	223,801,227
Africa	Middle Africa	89,349,833
Africa	Northern Africa	169,171,230
Africa	Southern Africa	51,441,854
Africa	Western Africa	219,135,570

On the right side, the 'FILTERS' panel is open. It features a 'CREATE CUSTOM FILTER' button highlighted with a green box and a mouse cursor. Below this, there are two selected filter fields: 'samples' and 'World Life Expectancy'. A search bar is present with the text 'Click on a field below to use as a filter'. Underneath the search bar is a 'Dimensions' section with a count of 12, listing several fields: 'world_life_expectancy', 'country', 'year', 'country_5', 'alt_names', and 'code2'. The right sidebar contains icons for 'Shared Visuals', 'Filters', 'Settings', 'Style', and 'Custom Style'.

This creates a New Filter in the filter area of the application, and opens the Settings window modal for that filter.

Settings



Values

Data

Display Settings

Scope

Custom Style

Title

New Filter

Output Parameter

Specified values

Value	Label	
<i>Click to add a new row</i>		

CANCEL

APPLY

3. In the Settings modal window, under the Values tab, enter the following:

- Under Title, enter Display Country Details.
- Under Output Parameter, enter dim.

Note that this is the parameter from [Creating visuals with optional dimensions](#) on page 4.

- Under Specified values, enter Value: country, and Label: Country.

Settings
✕

Values

Data
Display Settings
Scope
Custom Style

Title

Display Country Details

Output Parameter

dim

Specified values

Value	Label	
country	Country	✕
<i>Click to add a new row</i>		

CANCEL

APPLY

4. Switch to Display Settings tab, and select Allow only one item to be selected at a time and then select Include an option for 'All'.

5. Click Apply.

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

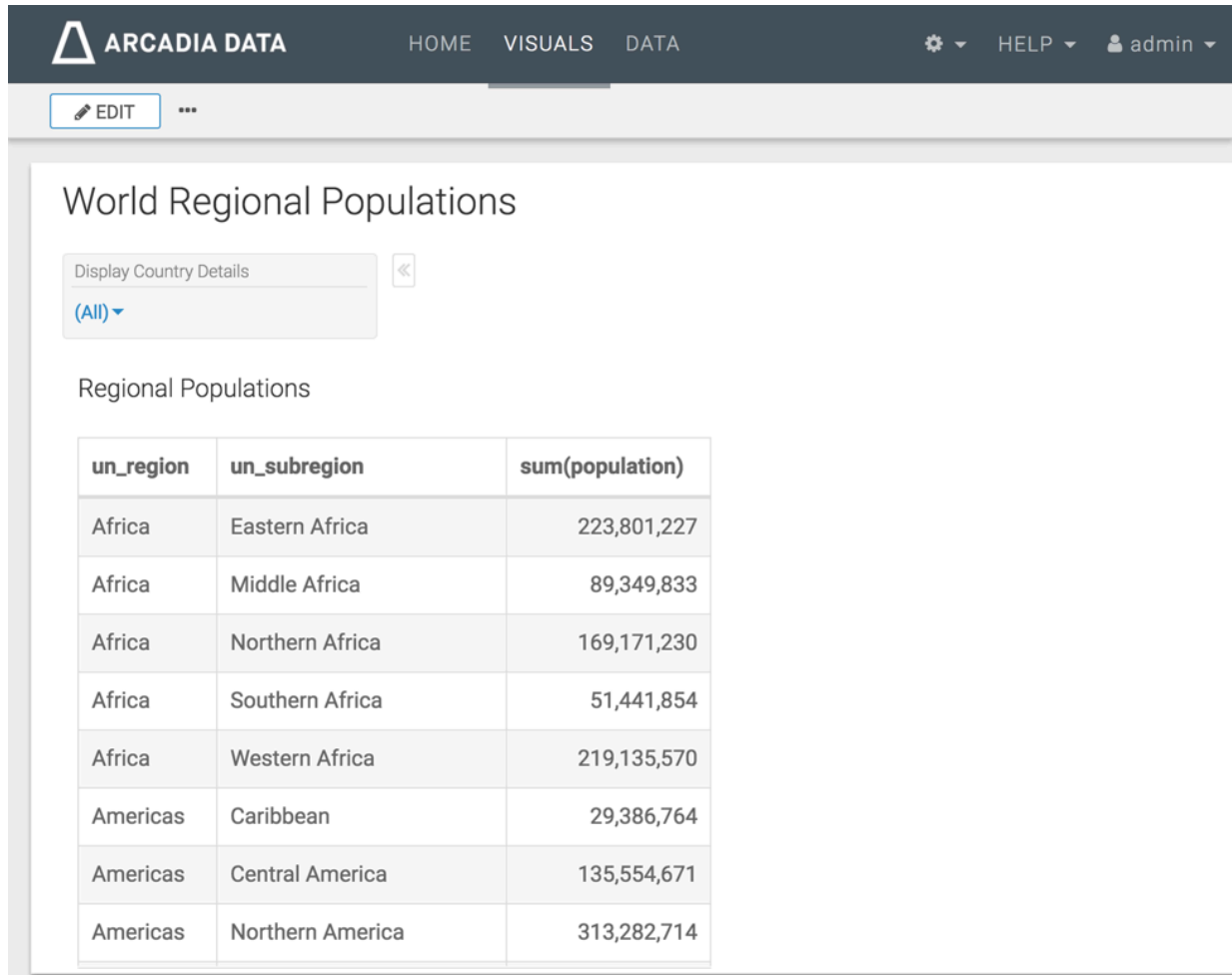
Hide filter if no input data ⓘ

Remember previous selections

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

6. Name and save the dashboard.

7. Switch to dashboard View mode, and select World Regional Populations.



ARCADIA DATA HOME VISUALS DATA ⚙️ HELP admin

✎ EDIT ⋮

World Regional Populations

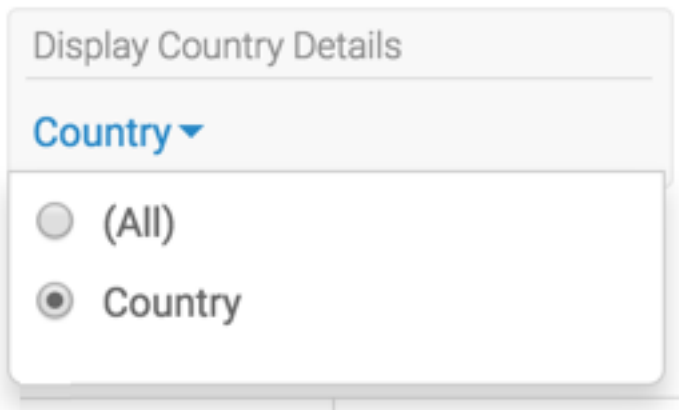
Display Country Details ⏪

(All) ▾

Regional Populations

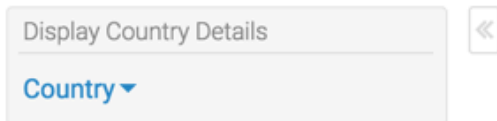
un_region	un_subregion	sum(population)
Africa	Eastern Africa	223,801,227
Africa	Middle Africa	89,349,833
Africa	Northern Africa	169,171,230
Africa	Southern Africa	51,441,854
Africa	Western Africa	219,135,570
Americas	Caribbean	29,386,764
Americas	Central America	135,554,671
Americas	Northern America	313,282,714

8. In the Display Country Details filter, select Country.



Note that the table now has a new column, country.

World Regional Populations



Regional Populations

un_region	un_subregion	country	sum(population)
Africa	Eastern Africa	Burundi	6,374,347
Africa	Eastern Africa	Comoros	562,469
Africa	Eastern Africa	Djibouti	731,930
Africa	Eastern Africa	Eritrea	3,667,576
Africa	Eastern Africa	Ethiopia	65,577,896
Africa	Eastern Africa	Kenya	31,253,700
Africa	Eastern Africa	Madagascar	15,364,272
Africa	Eastern Africa	Malawi	11,228,756

Creating visuals with optional measures

About this task

You may choose to duplicate the dashboard that you created earlier according to the instructions in [Creating visuals with optional dimensions](#) on page 4. In this case, open the visual, and skip to [Step 6](#) in the following workflow.

Procedure

1. Open a new dashboard.
2. In the dashboard, click New Visual.
3. Under the Data menu, select the World Life Expectancy dataset.
4. Under the Visuals menu, choose the Table visual type.
5. Populate the shelves of the visual:
 - From Dimension, select and move un_region and un_subregion fields onto the Dimension shelf.
 - From Measures, select and move population field onto the Measures shelf.
 - From Dimensions, select and move year field onto the Filters shelf.
 - On the Filters shelf, select year field, choose Pick values from a list, select 2000, and click Save.

The screenshot shows a Power BI interface with a table visual and its configuration in the VISUALS pane. The table visual displays population data for various regions and subregions in the year 2000. The VISUALS pane shows the configuration for the Table visual, including Dimensions (un_region, un_subregion), Measures (sum(population)), and Filters (year in (2000)).

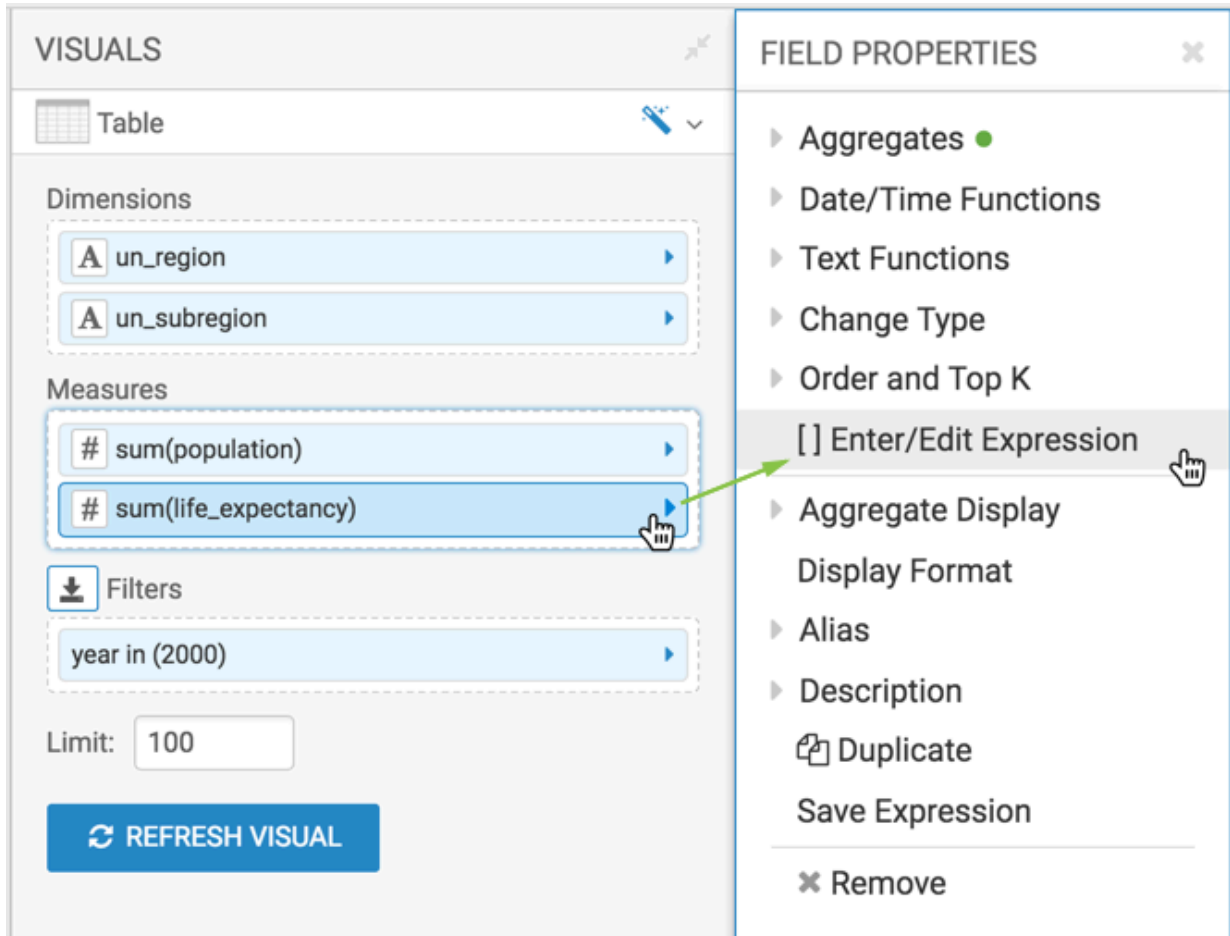
un_region	un_subregion	sum(population)
Africa	Eastern Africa	223,801,227
Africa	Middle Africa	89,349,833
Africa	Northern Africa	169,171,230
Africa	Southern Africa	51,441,854
Africa	Western Africa	219,135,570
Americas	Caribbean	29,386,764
Americas	Central America	135,554,671
Americas	Northern America	313,282,714
Americas	South America	314,774,534

The VISUALS pane shows the following configuration:

- Table** visual type selected.
- Dimensions:** un_region, un_subregion
- Measures:** # sum(population)
- Filters:** year in (2000)
- Limit:** 100
- REFRESH VISUAL** button

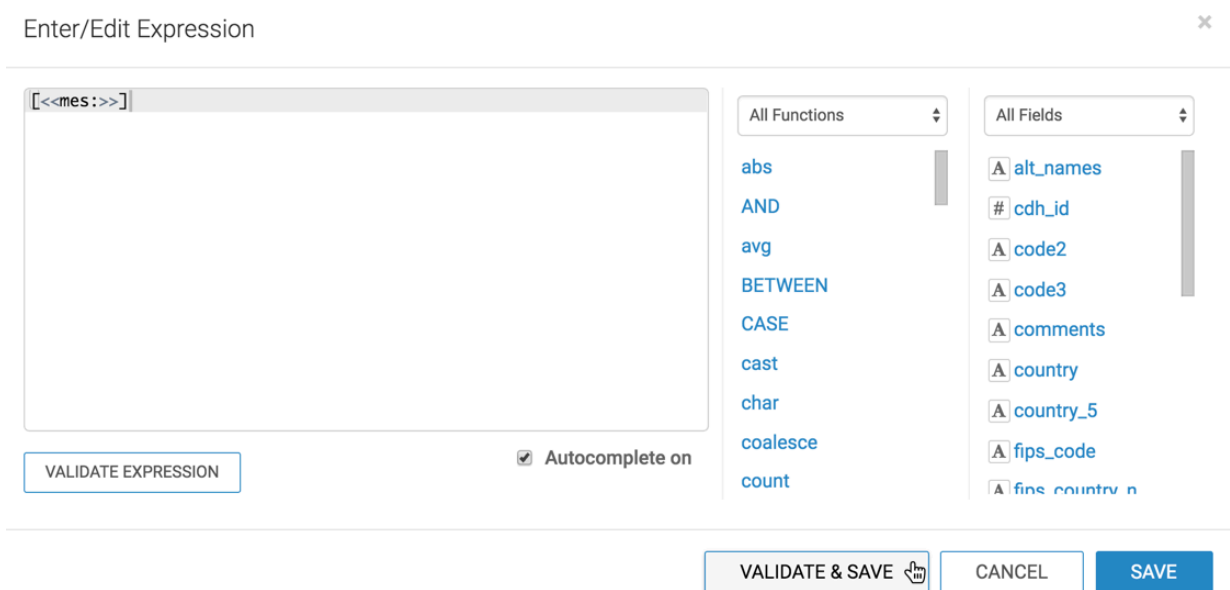
6. From Measures, select and move the life_expectancy field onto the Measures shelf.
7. On the Measures shelf, click the life_expectancy field.

8. In the Field Properties menu, select [] Enter/Edit Expression.



9. In the Enter/Edit Expression modal window, change the text to the following expression: [<<mes:>>].

10. Click Validate & Save.



11. Click Refresh Visual.

12. Change the name of the visual to Regional Populations.

13. Click Save.

Creating filters to control optional measures

About this task

Before starting on this work flow, complete the steps in [Creating visuals with optional measures](#) on page 13.

Procedure

1. In the dashboard, click the Filters tab.

2. Click Create Custom Filter to create a second dashboard filter.

The screenshot shows the Arcadia Data interface. At the top, there's a navigation bar with 'HOME', 'VISUALS', and 'DATA'. Below it are 'VIEW' and 'SAVE' buttons. The main content area displays a visualization titled 'World Regional Populations' with a subtitle 'enter subtitle...'. Below the title is a 'Display Country Details' dropdown set to '(All)'. The visualization is a table with the following data:

un_region	un_subregion	sum(population)
Africa	Eastern Africa	223,801,227
Africa	Middle Africa	89,349,833
Africa	Northern Africa	169,171,230
Africa	Southern Africa	51,441,854

On the right side, there is a 'FILTERS' sidebar. It contains a 'CREATE CUSTOM FILTER' button (highlighted with a green box), a 'samples' dropdown, and a 'World Life Expectancy' dropdown. Below these is a search bar and a 'Dimensions' section with 12 items, including 'world_life_expectancy', 'country', 'year', 'country_5', and 'alt_names'. A vertical sidebar on the far right includes 'Shared Visuals', 'Filters', 'Settings', 'Style', and 'Custom Style' options.

This creates a New Filter in the filter area of the application, and opens the Settings window modal for that filter.

The 'Settings' modal window is shown with a close button (X) in the top right corner. It has five tabs: 'Values' (selected), 'Data', 'Display Settings', 'Scope', and 'Custom Style'. Under the 'Values' tab, there are three sections:

- Title:** A text input field containing 'New Filter'.
- Output Parameter:** An empty text input field.
- Specified values:** A table with two columns: 'Value' and 'Label'. The table is currently empty, with a row below the header containing the text 'Click to add a new row'.

At the bottom of the modal, there are two buttons: 'CANCEL' and 'APPLY'.

3. In the Settings modal window, under the Values tab, enter the following:

- Under Title, enter Display Measures.
- Under Output Parameter, enter mes.

Note that this is the parameter from [Creating visuals with optional measures](#) on page 13.

- Under Specified values, enter the following two rows:
 - Value: life_expectancy, Label: Life Expectancy
 - Value: gdp_per_capita, Label: GDP per Capita

×

Values

Data
Display Settings
Scope
Custom Style

Title

Display Measures

Output Parameter

mes

Specified values

Value	Label	
life_expectancy	Life Expectancy	🗑️
gdp_per_capita	GDP per Capita	🗑️
<i>Click to add a new row</i>		

CANCEL

APPLY

4. In the Settings modal window, switch to Display Settings.
5. Select Allow only one item to be selected at a time
6. Select Include an option for 'All'.

7. Click Apply.

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

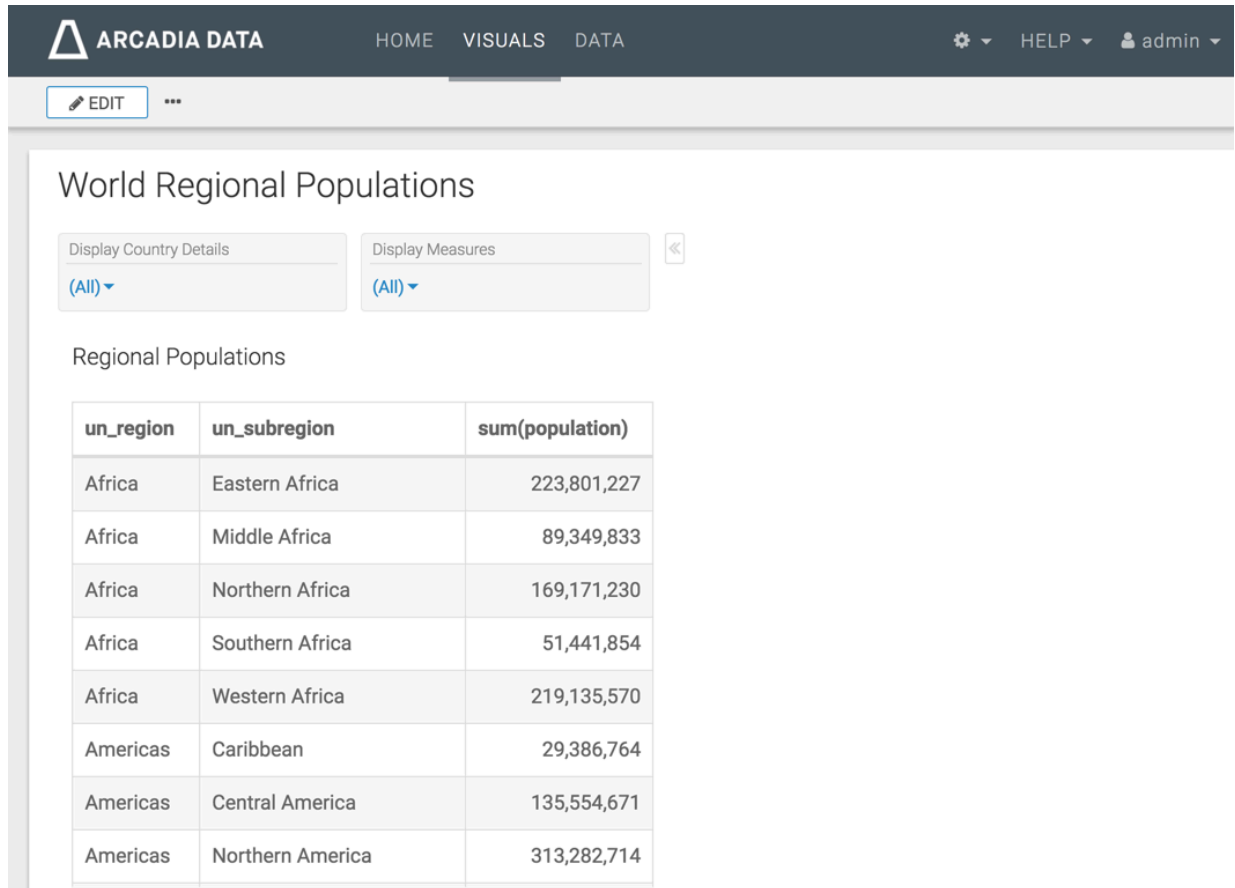
Hide filter if no input data ⓘ

Remember previous selections

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

8. Name and save the dashboard.

- Switch to application View mode, and select World Regional Populations.



ARCADIA DATA HOME VISUALS DATA ⚙️ HELP admin

EDIT ...

World Regional Populations

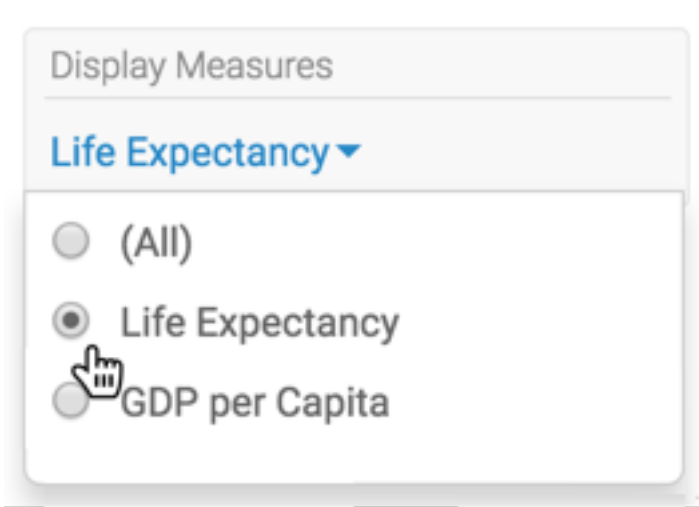
Display Country Details (All) ⌵ Display Measures (All) ⌵ ⏪

Regional Populations

un_region	un_subregion	sum(population)
Africa	Eastern Africa	223,801,227
Africa	Middle Africa	89,349,833
Africa	Northern Africa	169,171,230
Africa	Southern Africa	51,441,854
Africa	Western Africa	219,135,570
Americas	Caribbean	29,386,764
Americas	Central America	135,554,671
Americas	Northern America	313,282,714

- [Optional] In the Display Country Details filter, select Country.

11. In the Display Measures filter, select Life Expectancy.



Note that the table now has a new column, life_expectancy.

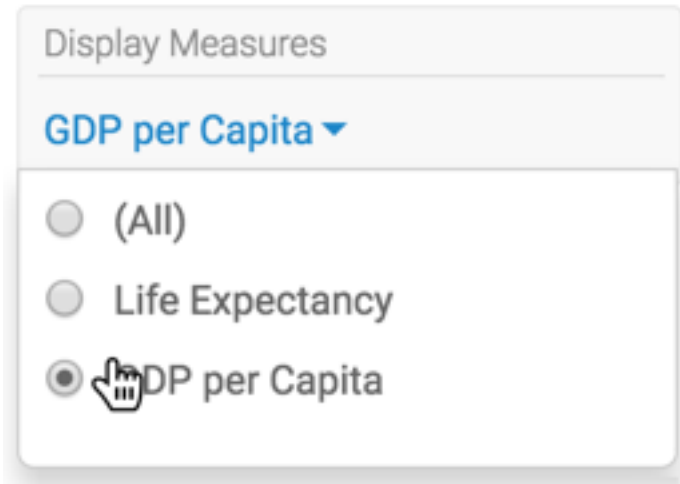
World Regional Populations

Display Country Details Country ▾ Display Measures Life Expectancy ▾ ⏪

Regional Populations

un_region	un_subregion	country	sum(population)	life_expectancy
Africa	Eastern Africa	Burundi	6,374,347	48.2999992371
Africa	Eastern Africa	Comoros	562,469	57.9000015259
Africa	Eastern Africa	Djibouti	731,930	57
Africa	Eastern Africa	Eritrea	3,667,576	56.0999984741
Africa	Eastern Africa	Ethiopia	65,577,896	52.2000007629
Africa	Eastern Africa	Kenya	31,253,700	52.9000015259
Africa	Eastern Africa	Madagascar	15,364,272	58.5
Africa	Eastern Africa	Malawi	11,228,756	46

12. To change the measure that appears in the visual, in the Display Measures filter, select GDP per Capita.



Note that the additional column is now titled `gdp_per_capita`, not `life_expectancy`.

To check the parameters of the dashboard, hover the pointer over the Filter icon at the top right corner. They are:

- `dim: country`
- `dim.alias: Country`
- `mes: gdp_per_capita`

You can scroll down to see

- `mes.alias: GDP per Capita parameter`

un_region	un_subregion	country	sum(population)	gdp_per
Africa	Eastern Africa	Burundi	6,374,347	443.799987793
Africa	Eastern Africa	Comoros	562,469	1,090.80004883
Africa	Eastern Africa	Djibouti	731,930	1,894
Africa	Eastern Africa	Eritrea	3,667,576	741.599975586
Africa	Eastern Africa	Ethiopia	65,577,896	512.400024414
Africa	Eastern Africa	Kenya	31,253,700	1,318.5
Africa	Eastern Africa	Madagascar	15,364,272	1,027.09997559
Africa	Eastern Africa	Malawi	11,228,756	713.799987793

13. [Optional] You can easily navigate between the permutations of filter outputs you create by using filter navigation controls at the top right corner.

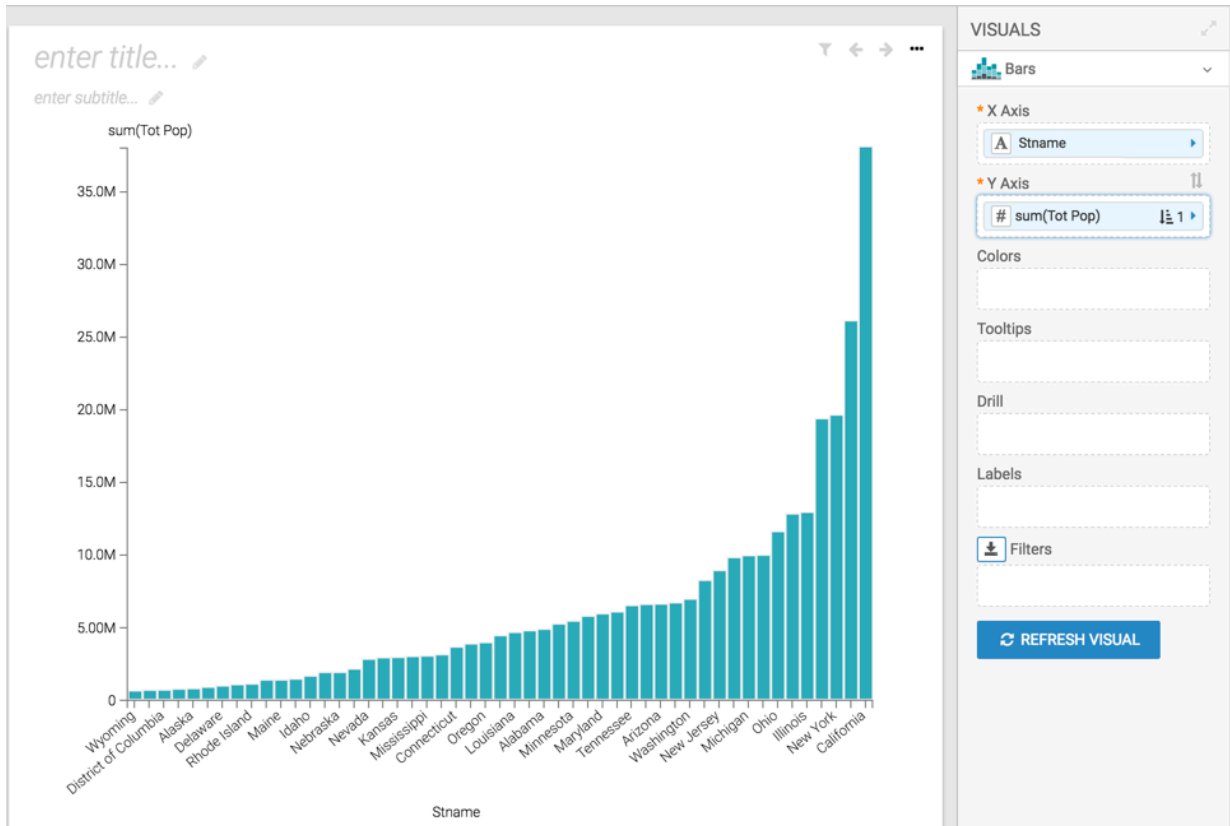
Creating visuals with variable dimensions

Procedure

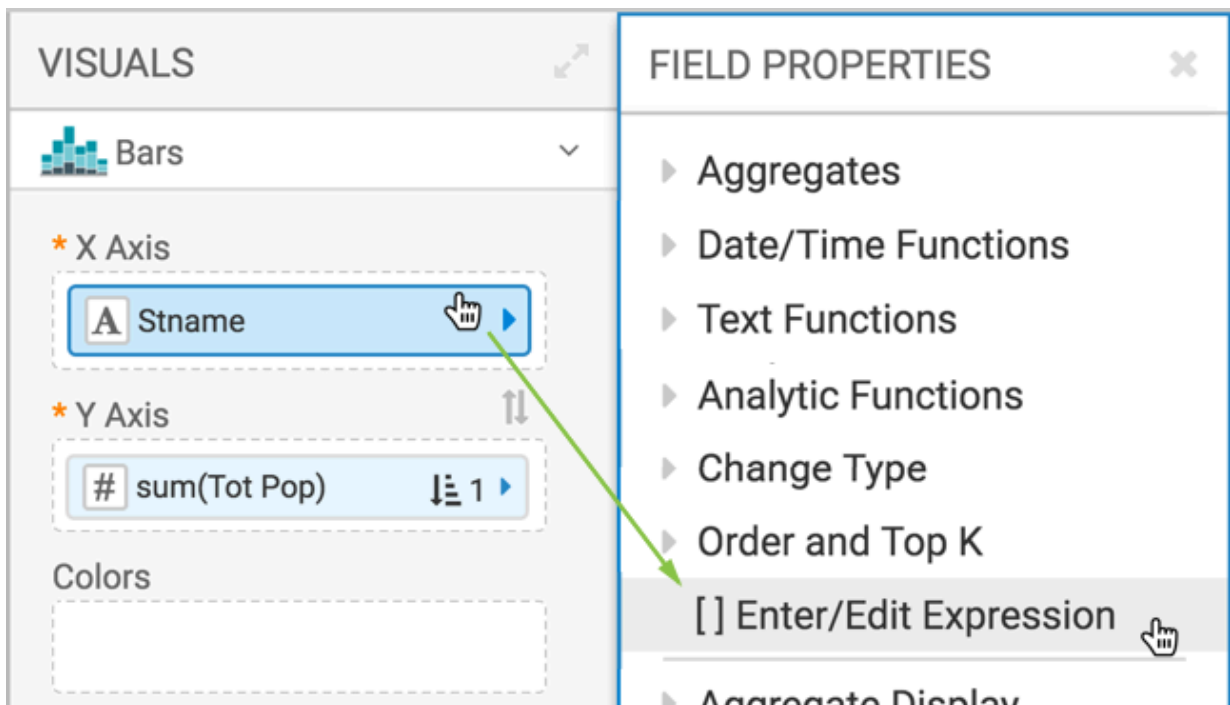
1. Open a new dashboard.
2. In the dashboard, click New Visual.
3. Under the Data menu, select the US County Population dataset.
4. Under the Visuals menu choose the Bar Chart visual type.
5. Populate the shelves of the visual:
 - From Dimension, select and move Sname field onto the X Axis shelf.
 - From Measures, select and move Tot Pop field onto the Y Axis shelf.
 - On the Y Axis shelf, change the aggregation of the Tot Pop field from sum(Tot Pop) to avg(Tot Pop): select Tot Pop field, chose the Aggregates menu, and change the aggregate from Sum to Average.
 - On the Y Axis shelf, click Tot Pop, and under the Field Properties menu select Order, and choose Ascending.

The screenshot displays the Tableau interface. On the left, the 'VISUALS' panel shows a Bar Chart visual. The X Axis shelf contains the 'Sname' field, and the Y Axis shelf contains the 'sum(Tot Pop)' field. A green arrow points from the 'sum(Tot Pop)' field on the Y Axis shelf to the 'FIELD PROPERTIES' panel on the right. The 'FIELD PROPERTIES' panel is open for the 'sum(Tot Pop)' field, showing the 'Order and Top K' section. The 'Order and Top K' section is expanded, and the 'Ascending' option is selected, indicated by a checkmark and a hand cursor. Below the 'Order and Top K' section, there are input fields for 'Top K' and 'Bottom K', both set to 'eg. 100'. At the bottom of the panel, there is a button labeled '[] Enter/Edit Expression'.

- Click Refresh Visual to see the basic set up of the bar chart.



- On the X Axis shelf, click Sname field.
- In the Field Properties menu, select [] Enter/Edit Expression.



- In the Enter/Edit Expression modal window, change the text to the following expression: <<dim:[Sname]>>.

10. Click Validate & Save.

Enter/Edit Expression ✕

<<dim:[Sname]>>

All Functions
All Fields

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

- # aa_female
- # aa_male
- # aac_female
- # aac_male
- TF agegrp
- # ba_female
- # ba_male
- # bac_female
- # bac_male

VALIDATE EXPRESSION

Autocomplete on

VALIDATE & SAVE

CANCEL

SAVE

11. Change the name of the visual to Population by <<dim>>.

To have an informative title for the visual, you may add the parameter placeholders to it. The filter configured in [Creating filters to control variable dimensions](#) on page 24 supplies the required value.

12. Click Save.

Creating filters to control variable dimensions

About this task

Before starting on this work flow, complete the steps in [Creating visuals with variable dimensions](#) on page 22.

Procedure

1. In the dashboard, click the Filters tab.

2. Click Create Custom Filter.

The screenshot shows a data visualization application interface. On the left, there is a bar chart titled "Population by <<dim>>". The y-axis is labeled "sum(Tot Pop)" and ranges from 0 to 35.0M. The x-axis is labeled "Sname" and lists various states and the District of Columbia. The bars represent population values for each state, with California having the highest population. Above the chart, there are input fields for "enter title..." and "enter subtitle...". Below these fields, there is instructional text: "Click on the Filters tab on the right and select data fields to add as filters. You can switch the filters to be on the left by checking the box in the Settings tab." On the right side of the interface, there is a "FILTERS" sidebar. At the top of this sidebar, a button labeled "CREATE CUSTOM FILTER" is highlighted with a green box and a mouse cursor. Below this button, there are two dropdown menus: "ArcEngine Larry" and "Flights". Below the dropdowns, there is a search box labeled "Search" and a section titled "Dimensions" with a count of 6. Under "Dimensions", there are three items: "flights_csv", "fl_date", and "unique_carrier". Below the "Dimensions" section, there is a section titled "Measures" with a count of 26. Under "Measures", there are several items, including "flights_csv", "# airline_id", "# fl_num", "# origin_airport_id", "# origin_airport_seq_id", "# origin_city_market_id", "# dest_airport_id", and "# dest_airport_seq_id". On the far right of the interface, there is a vertical navigation menu with icons for "Shared Visuals", "Filters", "Settings", "Style", and "Custom Style".

This creates a New Filter in the filter area of the application, and opens the Settings window modal for that filter.

Settings



Values

Data

Display Settings

Scope

Custom Style

Title

New Filter

Output Parameter

Specified values

Value	Label	
<i>Click to add a new row</i>		

CANCEL

APPLY

3. In the Settings modal window, switch to Values tab, and enter the following:

- Under Title, enter Dimension Level.
- Under Output Parameter, enter dim.

Note that this is the parameter from [Creating visuals with variable dimensions](#) on page 22.

- Under Specified values, enter the following two rows:
 - Value: sname, Label: State
 - Value: ctynome, Label: County

Settings ×

Values **Data** Display Settings Scope Custom Style

Title

Output Parameter

Specified values

Value	Label	
Sname	State	
Ctynome	County	
<i>Click to add a new row</i>		

- Switch to Display Settings tab, and select the options Permit only one item to be selected.

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

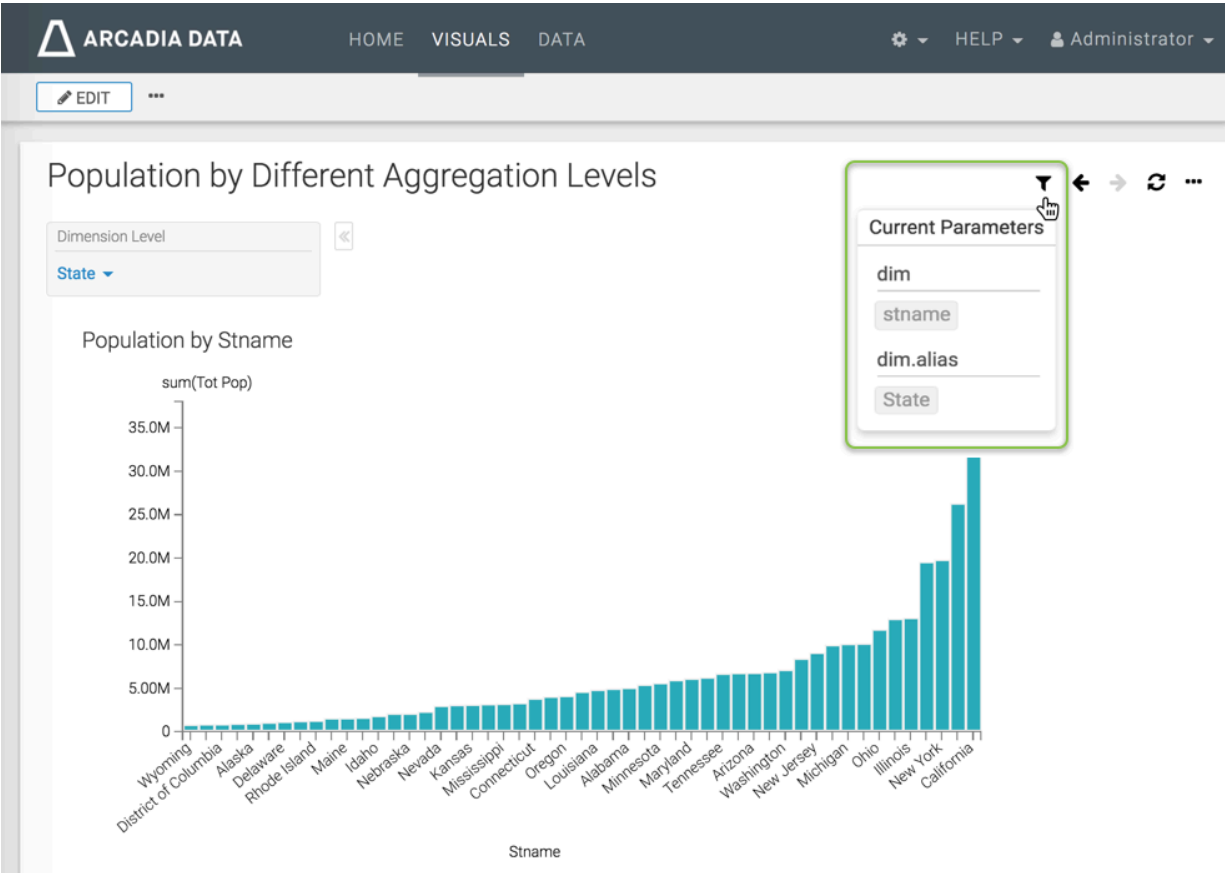
Apply all changes to a multi-select list at the same time ⓘ

- Click Apply.
- Name and save the dashboard. We used the name Population by Different Aggregation Levels.

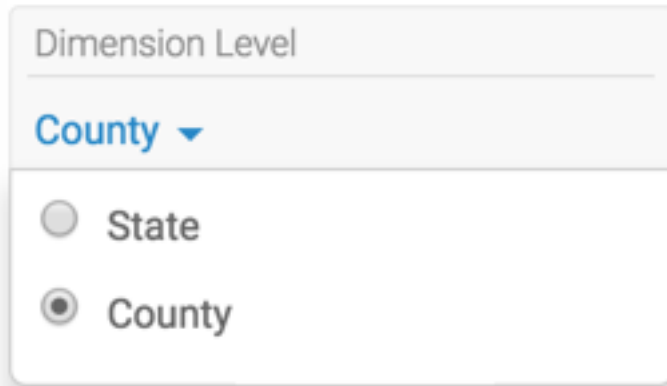
7. Switch to application View mode.

Note that the default choice, Sname, displays both on the horizontal axis, and in the title of the visual.

To check the parameters of the dashboard, hover the pointer over the Filter icon at the top right corner. They are dim: Sname and dim.alias: State.



8. In the Dimension Level filter, select County.

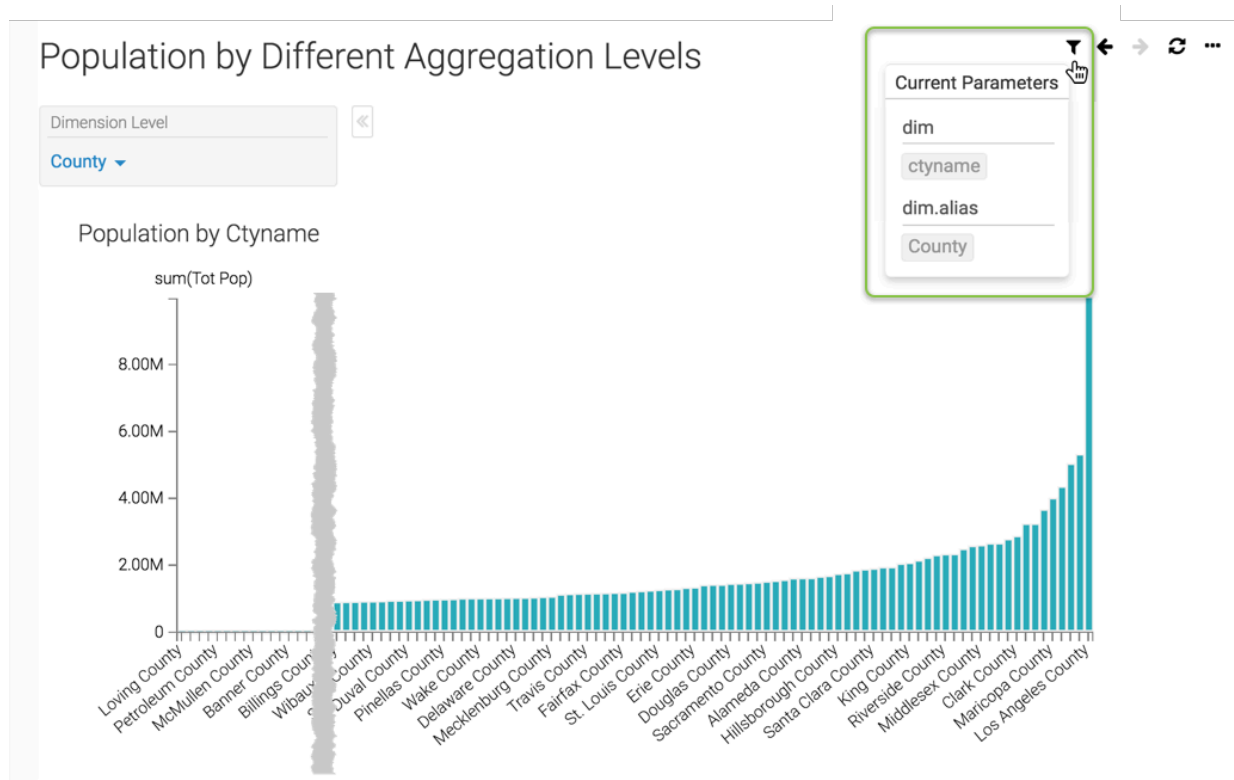


Note that now the title of the graph and the axis changed to use Ctyname.

You may also notice that your graph does not appear to have any bars. In this particular dataset, there are large differences among populations of various counties; a great majority has populations under one million, and a select few represent urban areas with extremely dense population.

In the application, scroll to the extreme right of the visual to see the graph.

If you want to check the status of parameters on this dashboard, hover the pointer over the Filter icon at the top right corner, and notice that they changed to dim: Ctyname and dim.alias: County.



Creating visuals with variable measures

About this task

You may choose to duplicate the dashboard that you created earlier according to the instructions in [Creating visuals with variable dimensions](#) on page 22. In this case, open the visual, and skip to [Step 7](#) in this workflow.

Procedure

1. In the dashboard, click New Visual.
2. Under the Data menu, select the US County Population dataset.
3. Under the Visuals menu choose the Bar Chart visual type.
4. Populate the shelves of the visual:
 - From Dimension, select and move Sname field onto the X Axis shelf.
 - From Measures, select and move Tot Pop field onto the Y Axis shelf.
 - On the Y Axis shelf, change the aggregation of the Tot Pop field from sum(Tot Pop) to avg(Tot Pop): select Tot Pop field, chose the Aggregates menu, and change the aggregate from Sum to Average.
 - On the Y Axis shelf, click Tot Pop, and under the Field Properties menu select Order, and choose Ascending.

The screenshot displays the Power BI interface with two panes: VISUALS and FIELD PROPERTIES.

VISUALS Pane:

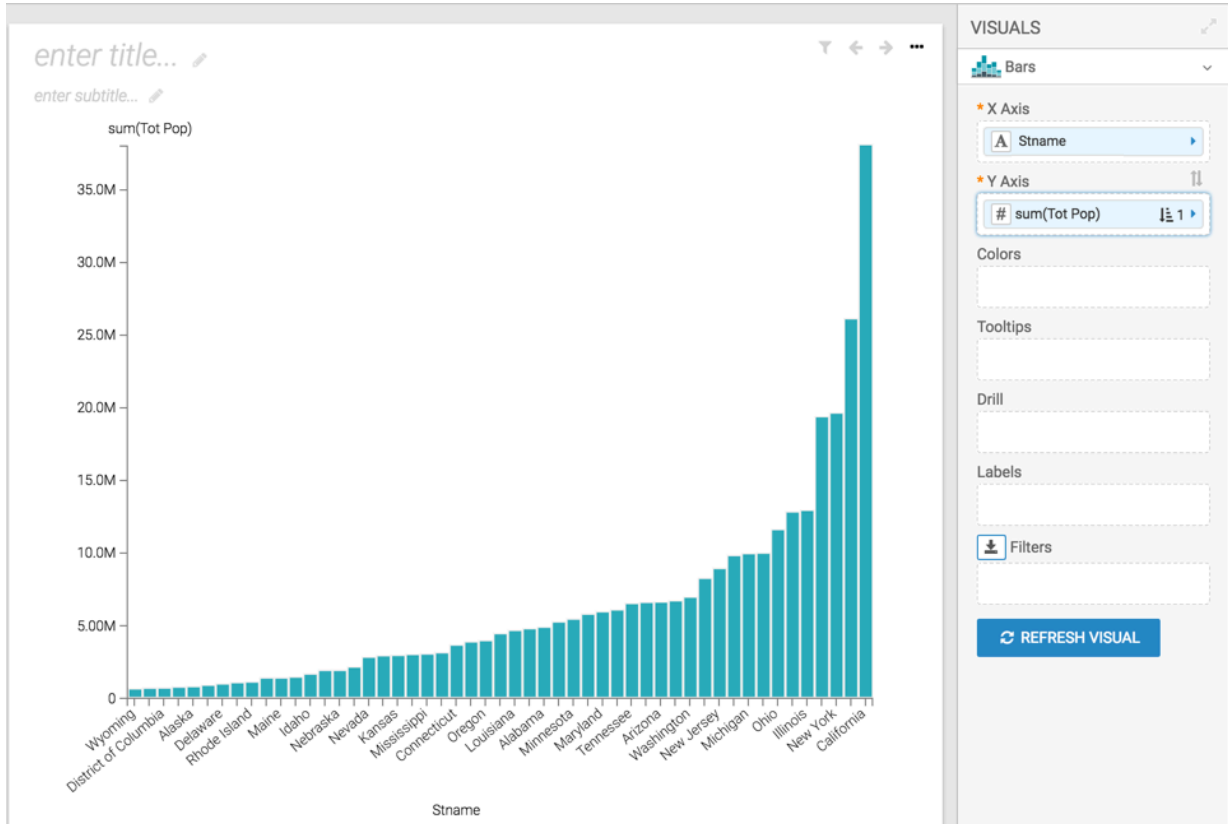
- Visual type: Bars
- X Axis: Sname
- Y Axis: sum(Tot Pop)
- Colors: (Empty)
- Tooltips: (Empty)
- Drill: (Empty)

FIELD PROPERTIES Pane:

- Aggregates: (Selected)
- Date/Time Functions
- Text Functions
- Analytic Functions
- Change Type
- Order and Top K: (Selected)
 - Descending
 - Ascending (Selected)
- Top K: eg. 100
- Bottom K: eg. 100
- [] Enter/Edit Expression

A green arrow points from the 'sum(Tot Pop)' field on the Y Axis shelf to the 'Ascending' option in the 'Order and Top K' section of the Field Properties pane.

- Click Refresh Visual to see the basic set up of the bar chart.



- On the Y Axis shelf, click the sum(Tot Pop) field.
- In the Field Properties menu, select [] Enter/Edit Expression.

The figure shows the 'VISUALS' pane on the left and the 'FIELD PROPERTIES' pane on the right. The 'VISUALS' pane shows a bar chart with 'Sname' on the X-axis and 'sum(Tot Pop)' on the Y-axis. The 'FIELD PROPERTIES' pane has a list of options: Aggregates, Date/Time Functions, Text Functions, Analytic Functions, Change Type, Order and Top K, and 'Enter/Edit Expression'. A green arrow points from the 'sum(Tot Pop)' field in the Y-axis shelf to the 'Enter/Edit Expression' option in the 'FIELD PROPERTIES' pane.

- In the Enter/Edit Expression modal window,

- Change the text to the following expression: <<agg:sum([Tot Pop])>>.

Enter/Edit Expression ✕

<<agg:sum([Tot Pop])>>|

VALIDATE EXPRESSION

Autocomplete on

All Functions

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

All Fields

- # Aa Female
- # Aa Male
- # Aac Female
- # Aac Male
- T/F Agegrp
- # Ba Female
- # Ba Male
- # Bac Female
- # Bac Male

VALIDATE & SAVE

CANCEL

SAVE

- Click Validate & Save.
- Change the name of the visual to Population by <<dim>> and <<agg>>. To have an informative title for the visual, you may add the parameter placeholders to it. The filters configured in [Creating filters to control variable dimensions](#) on page 24 and [Creating filters to control variable measures](#) on page 33 supply the required values for <<dim>> and <<agg>>.
- Click Save.

Creating filters to control variable measures

About this task

Before starting on this work flow, complete the steps in [Creating visuals with variable measures](#) on page 30.

Procedure

- In the dashboard, click the Filters tab.

2. Click Create Custom Filter.

The screenshot shows the Arcadia Data web application interface. At the top, there is a navigation bar with 'HOME', 'VISUALS', and 'DATA' tabs, along with a settings icon, 'HELP', and a user profile 'Administrator'. Below the navigation bar are 'VIEW' and 'SAVE' buttons. The main content area displays a visualization titled 'Population by Different Aggregation Levels' with a subtitle 'enter subtitle...'. A 'Dimension Level' dropdown is set to 'State'. The visualization is a bar chart titled 'Population by Sname and <<agg>>' showing population data for various states, with the y-axis labeled 'sum(Tot Pop)' ranging from 0 to 35.0M. The x-axis lists states from Wyoming to Michigan. On the right side, there is a 'FILTERS' sidebar. The 'CREATE CUSTOM FILTER' button is highlighted with a green box. Below it, there are dropdowns for 'Documentation' and 'US County Population'. A search bar is present with the text 'Click on a field below to use as a filter'. The 'Dimensions' section shows 'us_county_pop' with 'Sname' and 'Ctname' selected. The 'Measures' section shows 'us_county_pop' with 'Sumlev', 'State', 'County', 'Year', and 'Tot Pop' listed.

- This creates a New Filter in the filter area of the application, and opens the Settings window modal for that filter.

Settings ✕

Values **Data** Display Settings Scope Custom Style

Title

Output Parameter

Specified values

Value	Label	
<i>Click to add a new row</i>		

CANCEL **APPLY**

4. In the Settings modal window, switch to Values tab, and enter the following:

- Under Title, enter Population Type.
- Under Output Parameter, enter agg.

Note that this is the parameter from [Creating visuals with variable measures](#) on page 30.

• Under Specified values, enter the following two rows:

- Value: sum(tot_pop), Label: Total Population
- Value: sum(tot_male), Label: Total Male Population
- Value: sum(tot_female), Label: Total Female Population

Note that these are the original field names in the source table.

Settings
✕

Values

[Data](#)
[Display Settings](#)
[Scope](#)
[Custom Style](#)

Title

Population Type

Output Parameter

agg

Specified values

Value	Label	
sum(tot_pop)	Total Population	✕
sum(tot_male)	Total Male Population	✕
sum(tot_female)	Total Female Population	✕
<i>Click to add a new row</i>		

CANCEL

APPLY

5. Switch to Display Settings tab, and select the options Allow only one item to be selected at a time.

6. Click Apply.

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 ⓘ

7. Save the dashboard.**8. Switch to dashboard View mode.****9. In the Population Type filter, select Total Female Population.**

Population Type

Total Female Population ▼

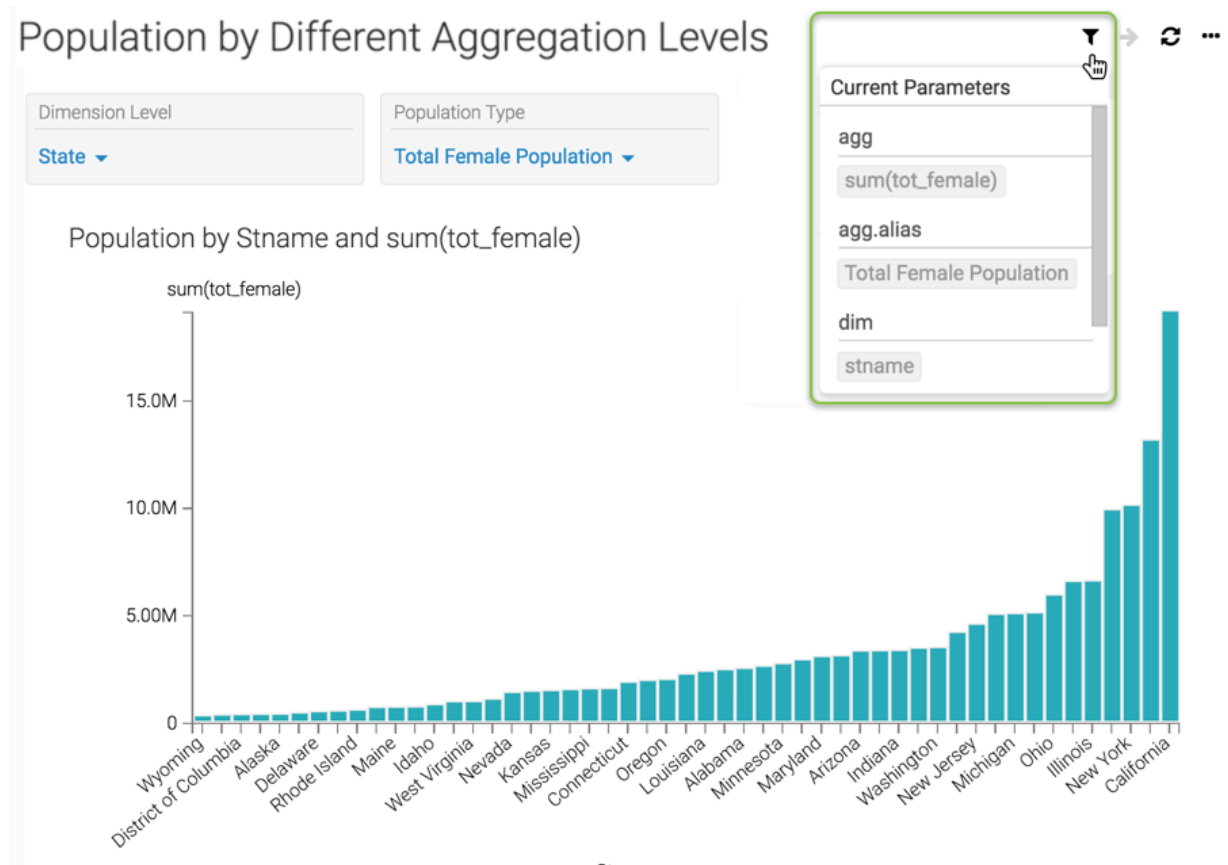
Total Population

Total Male Population

Total Female Population

10. Note that the title of the graph and the vertical axis changed to include `sum(tot_female)`.

To check the parameters of the dashboard, hover the pointer over the Filter icon at the top right corner. They are `agg: sum(tot_female)`, `agg.alias: Total Female Population` and `dim: Sname`. You can scroll down to see the `dim.alias: State` parameter.



Notice that you can operate the two filters, Dimension Level and Population Type, independently.

You can also navigate between the permutations of filter outputs you create by using filter navigation controls at the top right corner.