
# Product Upgrades

## M6 Release

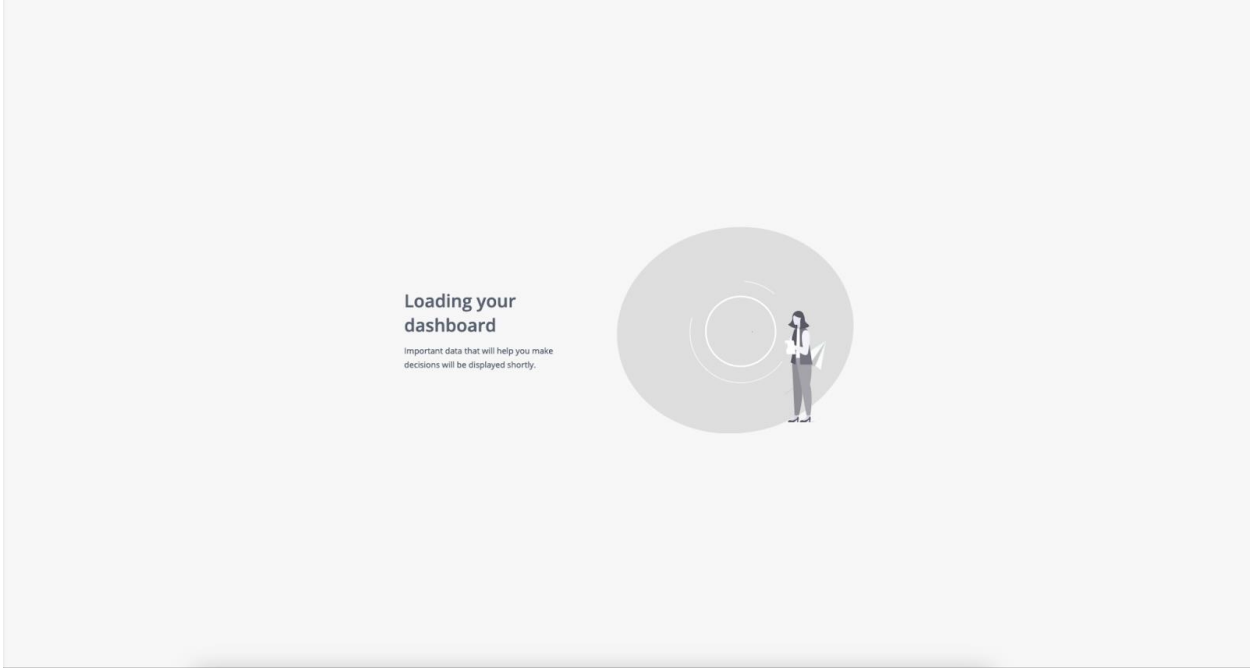
## Insights

# Introduction

We upgraded our version of Insights to L2023.6, some major changes have been made. This document lists some of the key features that are included in Insights.

# Dashboards

Improved dashboard loading performance with a new animation added.




# Export Pivot Table to Excel

You can download Pivot Tables to Excel files directly from your Insights dashboard. The downloaded Excel files retain most of the formatting and design applied to the dashboard's Pivot table, as described below.

## Use Cases

Here are some examples of use cases for the Export to Excel functionality:

- Follow-up Excel analysis: Mesh with other files/ deep diving into a specific data snapshot/ ad-hoc data enrichment
- Archive file: To serve some internal policy/ regulation
- Share a fully functional report for users that do not have Insights permissions

### Excel vs CSV export:

Insights enables export to both Excel and CSV formats. This is what should be considered when deciding which format to use when exporting the Pivot table:

## Formatting the Pivot Table

The new Export to Excel service includes some significant upgrades in terms of export formatting. The service must be manually enabled through configuration.

Implementation of the formatting is done by making multiple specific decisions as detailed below:

### Column styles

All column styles are applied before row rendering to ensure every added row is formatted the same (including rows added manually, over the exported file).

### Collecting conditional formatting rules

Conditional formatting rules are applied by order of calculated priorities; a cell rule has higher priority than a column rule.

## Subtotal formatting

All subtotal cells (cells that have '<cell value> Total' format) are transformed into string values during Excel generation. This is the same behavior of native excel subtotal calculation functionality.

## Limitations

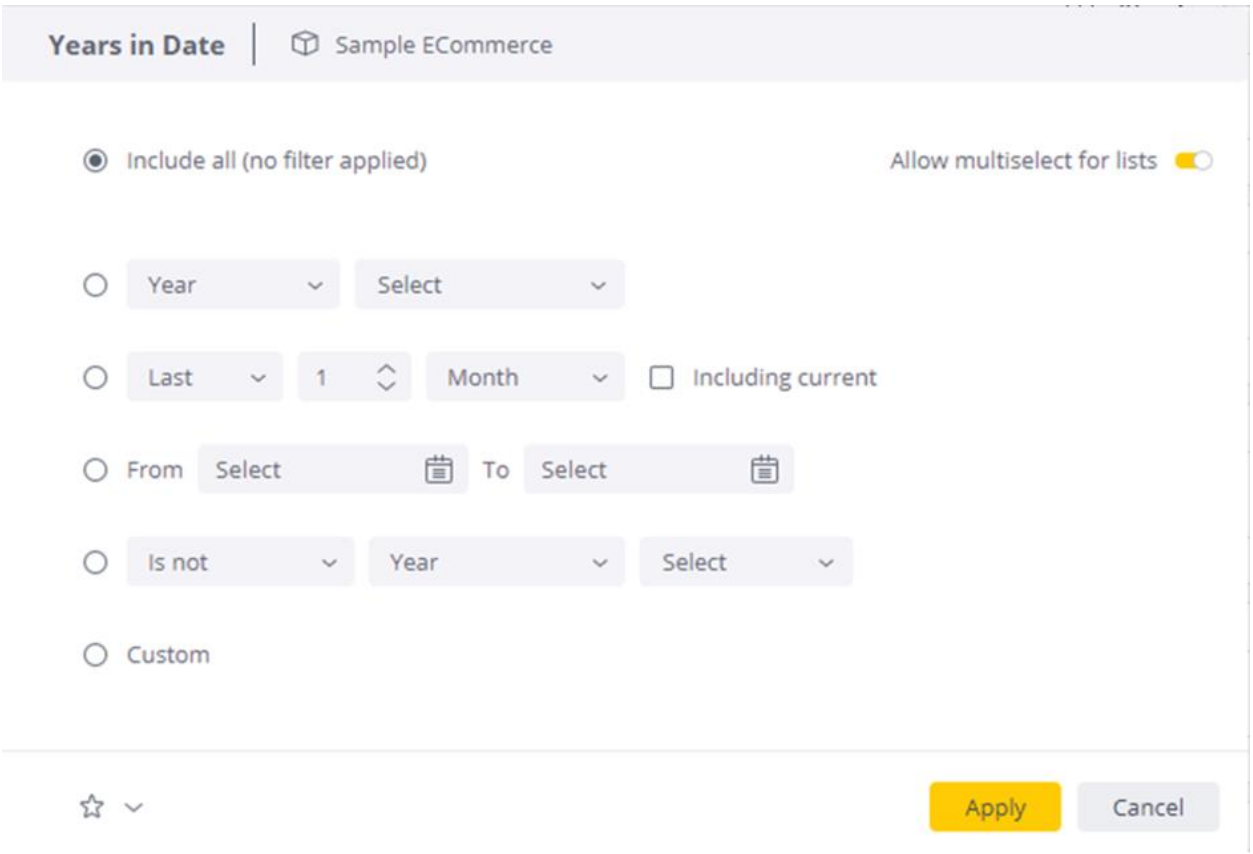
- If number formatting is not specified in the Pivot table, it uses Excel default number formatting.
    - This is identical to the dashboard auto formatting, except:
        - For numbers that are too large (>= 1e+11), or too small (<= 1e-10), Excel uses scientific format.
        - Decimal point is enforced by Excel. And so, 1 in dashboard will present as 1 and in Excel as 1.0
- Thousands separator and decimals point style are defined by the system locale definitions. For example, the number 1,000,000 can be printed both as 1 000 000 and 1,000,000 depending on system locale.
- Currently, both Export to Excel services (previous and new) are supported. The new service described in this article does not support formatting for non-default fiscal year and first day of week definitions. Therefore, the previous Excel Export service is set as the default engine. If you are not using fiscal year or changing the first day of the week, it is recommended to use this new service for improved formatting, data consistency, and performance.
- The data bars and color range formatting are not supported in Export to Excel.

# Performance

- The new Export to Excel supports up to ~4 million cells for EC and 50k rows for Live.
- For a pivot table with 10k rows and 70 columns, average export time is of approx 2.5 minutes.
- Exporting while applying sorting by 2 columns can drive export time up by an avg of 20%.

# New Insights Filters

- Insights introduces new filters that provide additional filtering capabilities, as well as a more streamlined and flexible filtering experience.
- The new filters feature is OFF by default. To try the new interface, an Admin must first enable it via the base configuration (under "FiltersModal"). Any active filter sets that you currently have in your dashboards **remain** active in the new filters interface. Note:: Before enabling, take note that any add-ons that rely on the current filters interface may stop working.

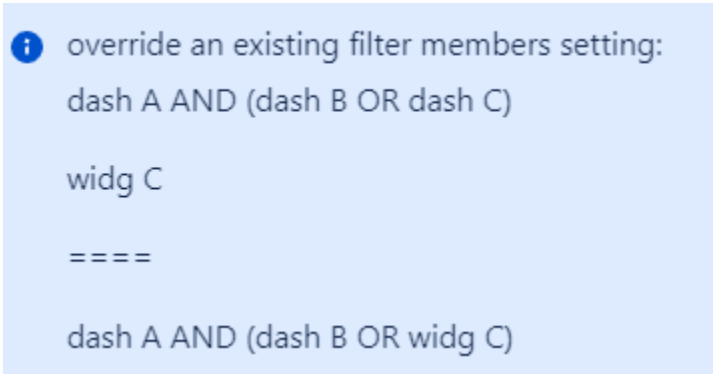



# Filter Relationship

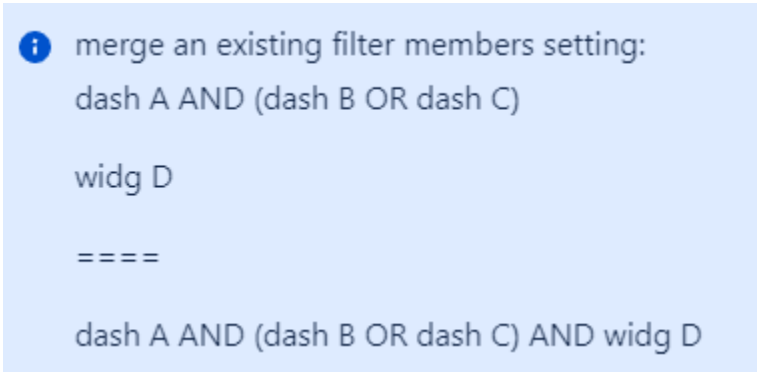
- Dashboard designers can create and manage complex analytical cases independently, without the need to create custom columns in the model, by building relationships between the dashboard filters.
- Use the Filter Relationship editor to change the filter relationship statement
- Filter blocks in the Filter Relationship statement provide a textual representation of the currently applied dashboard filter in the

# Guidelines

- The filter relationship editor is only used to define the relationships between dashboard filters.
- Widget filter and dashboard filter interactions:
    - If a widget filter is defined for a field for which there is also a dashboard filter, the widget filter settings override the dashboard filter settings.

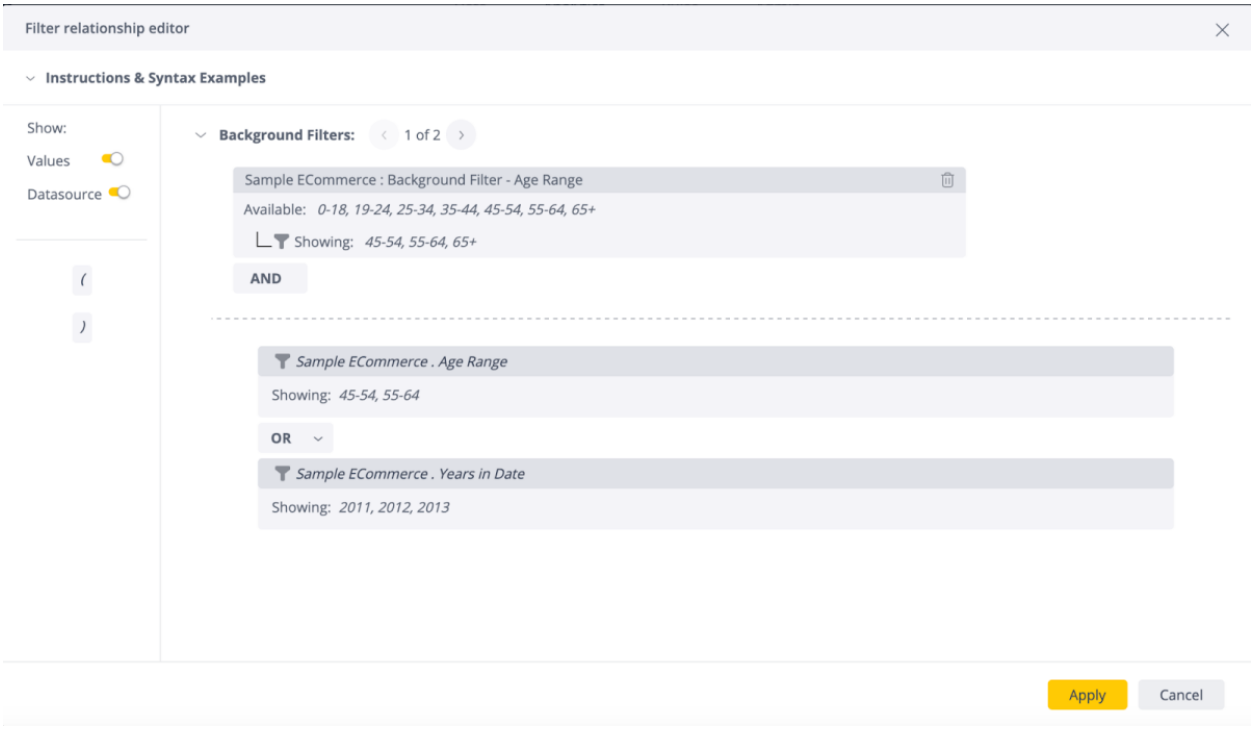



    - If a widget filter is defined for a field for which there is no dashboard filter, the relationship between the widget filter and the filter relationship statement is defined by default as an AND relationship.

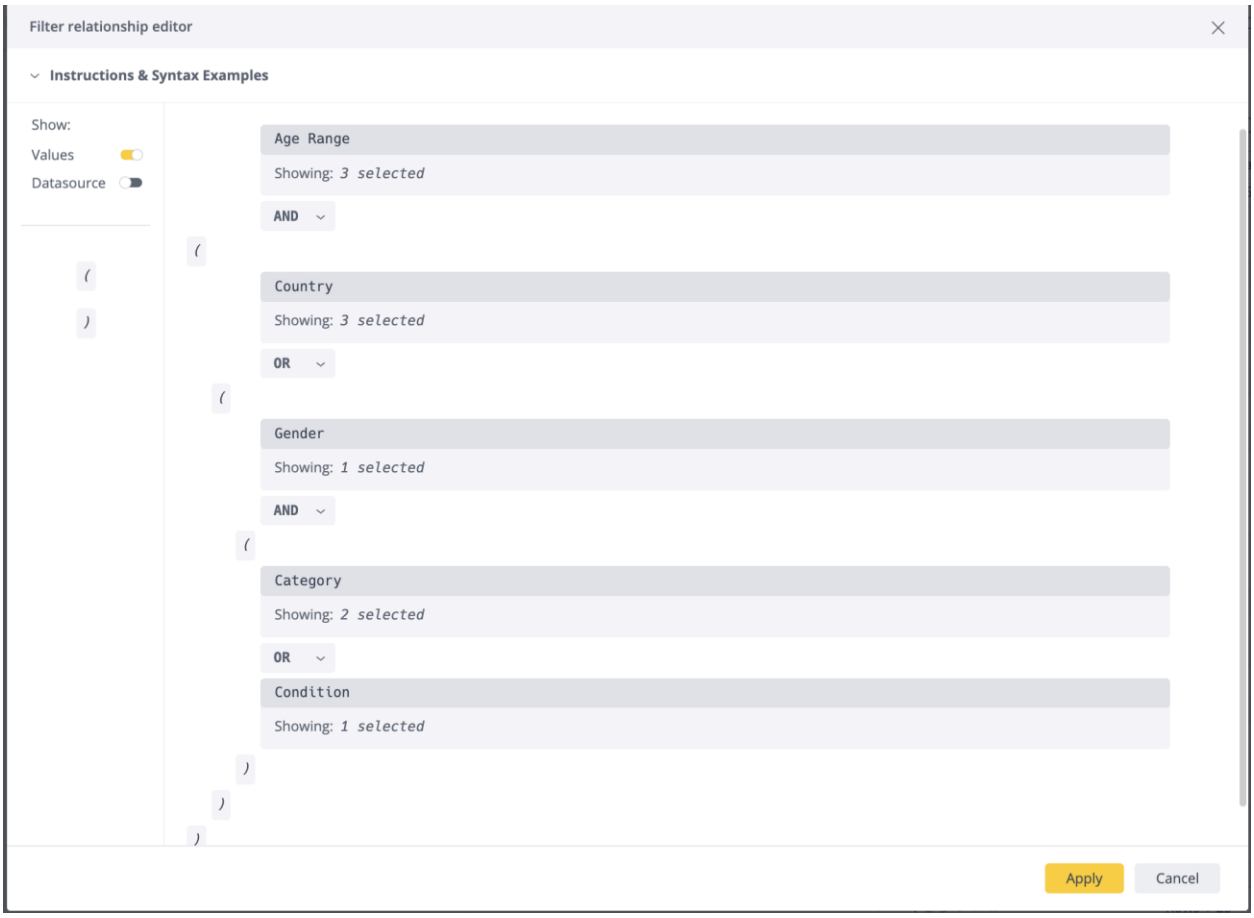


- The filter relationship statement respects background filters on the dashboard level, so that members/values filtered by a background filter are never presented in the dashboard, including when the filter is part of an 'OR' condition.

The background filters are presented in the filter relationship editor as having the default ‘AND’ relationship with the rest of the filters, which cannot be changed.




- The maximum number of levels for nested statement blocks using parenthesis is three. This is the default value. There can be multiple nested blocks within a statement, each reaching the maximum depth of three.




- The filter relationship statement is part of the assets included in the import/export of the dashboard. You cannot import a dashboard with an incorrect statement.

# Filter Blocks in the Filter Relationship Statement

Filter blocks are a textual representation of the dashboard filter in the editor view composed of the currently applied filter relationship statement. The name

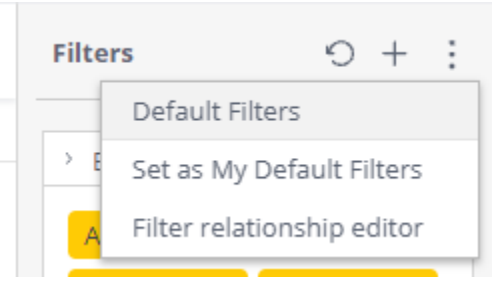
assigned to the block can include the data source name assigned by the designer when it was first created.

- Use the Datasource toggle in the left pane of the filter relationship editor to show the data source name.

**Note:**

The filter block behavior detailed in this section is also true for dependent filter blocks.

- Open the Filter Relationship editor from the filter panel to view the statement.




When you first open the statement, the order of the blocks reflects their order in the filter panel. Changing the order of the blocks in the Filter Relationship editor does not affect the order of the filters in the filter panel.

# Actions You Can Take from the Filter Relationship Editor

- Adding a New Dashboard Filter from the Filter Panel
- Editing the Filter Relationship
- Using Multiple Data Sources
- Removing Dashboard Filters Directly from the Filter Relationship Editor
- Viewing Related Errors
- Disabling Filter Blocks
- Viewing the Filter Relationship Statement
- Setting and Restoring Default Filters
- Viewing Filter Values

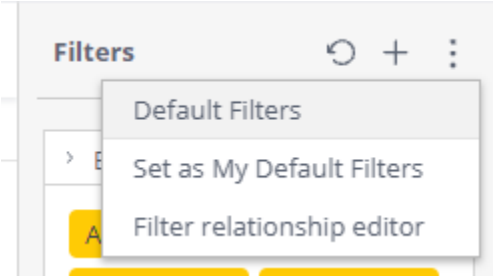
## Adding a New Dashboard Filter from the Filter Panel

When you add a new dashboard filter in the filter panel, it is automatically added to the filter relationship statement with an "and" operator between the new filter and the existing set of filters. This is the default behavior. The filter can be edited later.

**Example:**

1. In your dashboard, in the filter panel, add a filter.

2. Click and select **Filter Relationship Editor** to view the new filter block in the Filter Relationship Statement.




# Editing the Filter Relationship

Edit the filter relationship at any point, through the filter relationship editor, using intuitive drag an drop and selection boxes. You can edit the relationship between existing dashboard filters to change the query result:

- Change the order of blocks in statement
- Change the operators used between blocks
- Add parenthesis to change the logical order of the statement implementation.

**Note:** There is a limit of 3 levels of depth per statement blocks hierarchy. There can be multiple hierarchies with depth <=3 per statement. This is unlimited, however performance is expected to be affected by more complex statements.

**Example:**

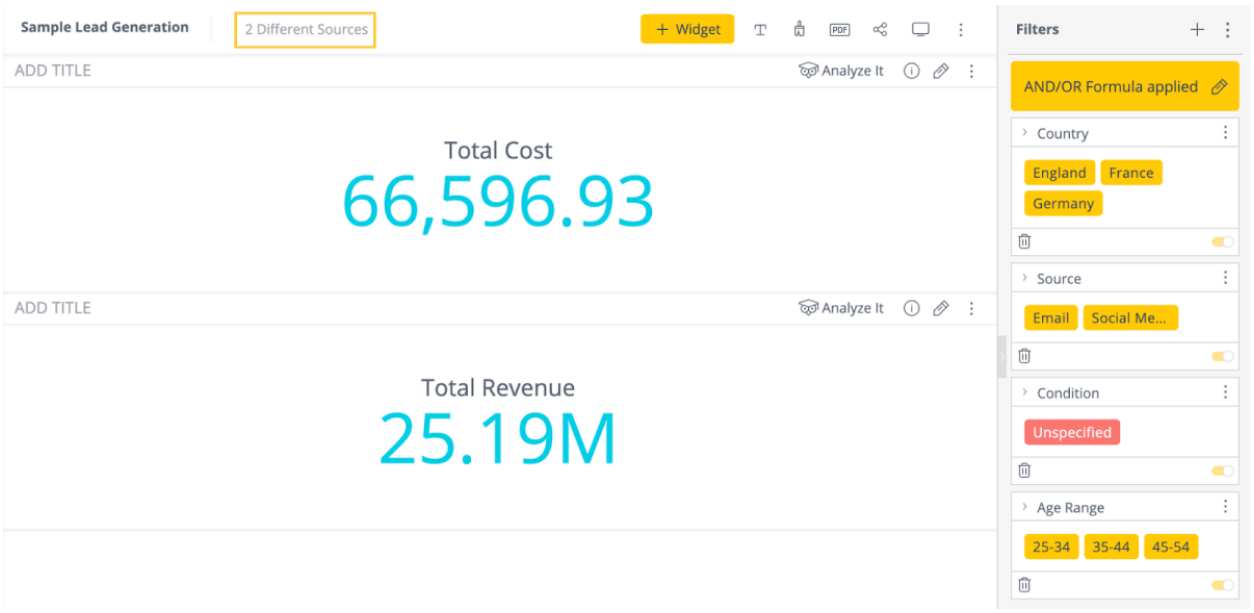
3. Open the Filter Relationship editor.

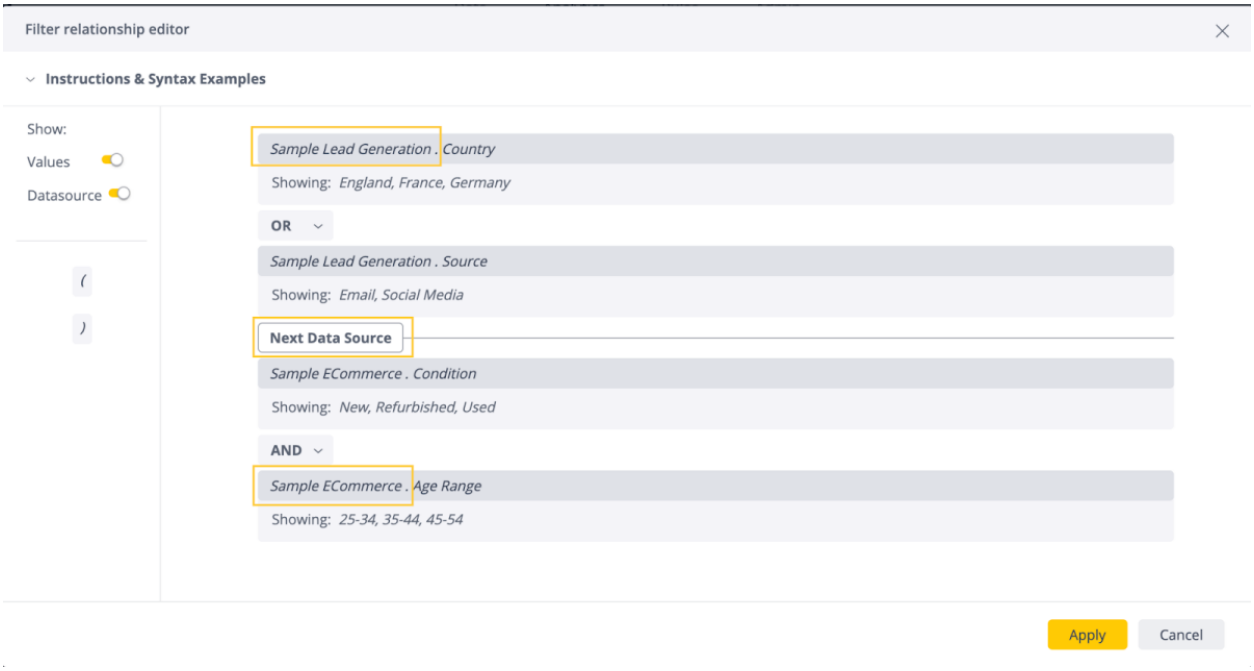
4. Make changes to the Filter Relationship Statement as follows:
    a. Change the operators between existing dashboard filters. Available values are: AND, OR
    b. Add parentheses. There is a limit to the allowed number of statement blocks that are nested using parentheses.
    c. Rearrange filter blocks into different positions with drag and drop. When repositioning a filter block, a new default AND operator is created, and the old redundant operator is removed.

# Using Multiple Data Sources

If multiple data sources are used, the filter statement includes all filters from all data sources. The relationships can be defined between the filters within each data source.

**Example:**


Sample Lead Generation
2 Different Sources
+ Widget
ADD TITLE
Analyze It
Total Cost
66,596.93
ADD TITLE
Analyze It
Total Revenue
25.19M
Filters
AND/OR Formula applied
Country
England
France
Germany
Source
Email
Social Me...
Condition
Unspecified
Age Range
25-34
35-44
45-54


Filter relationship editor
Instructions & Syntax Examples
Show:
Values
Datasource
(
)
Sample Lead Generation . Country
Showing: England, France, Germany
OR
Sample Lead Generation . Source
Showing: Email, Social Media
Next Data Source
Sample ECommerce . Condition
Showing: New, Refurbished, Used
AND
Sample ECommerce . Age Range
Showing: 25-34, 35-44, 45-54
Apply
Cancel

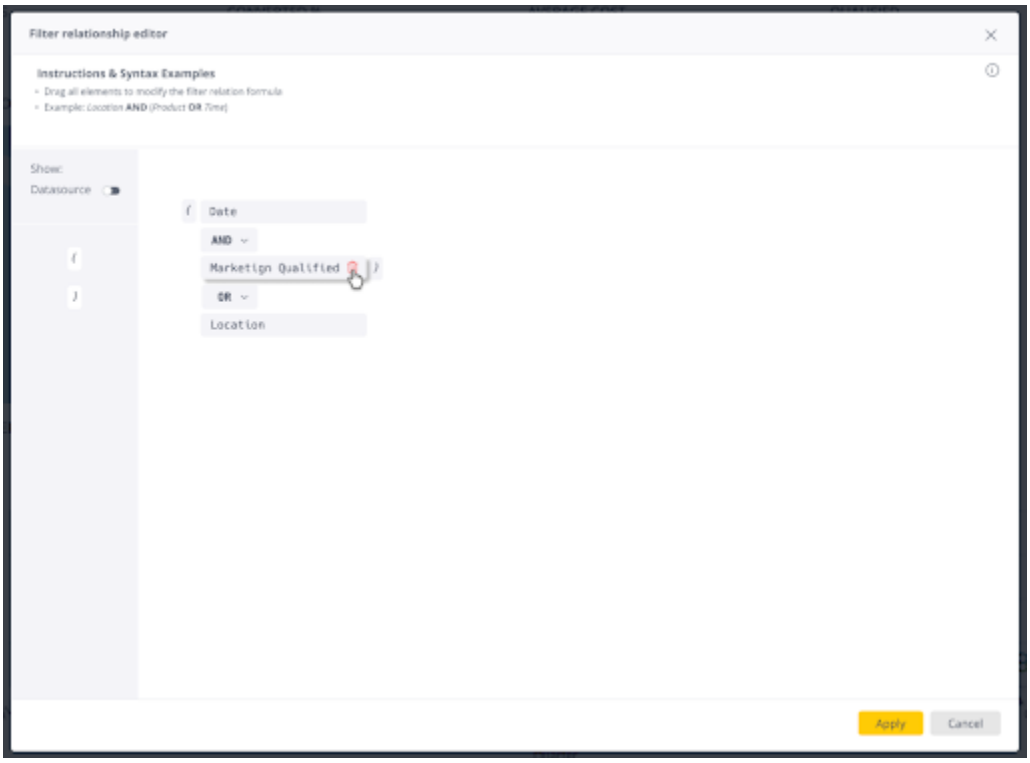
# Removing Dashboard Filters Directly from the Filter Relationship Editor

Any dashboard filter removed from the filter panel is also removed from the Filter Relationship Statement, and vice-versa.

**Example:**

To remove a filter block from inside the filter relationship statement

5. Open the filter Relationship Editor.
6. Hover over the filter and click  . A confirmation message displays indicating that the filter will be removed from the statement and from the filter panel.



7. In the Filter Relationship Editor, click **Apply** to apply and save the changes.

# Viewing Related Errors

View related errors and follow up to mitigate.

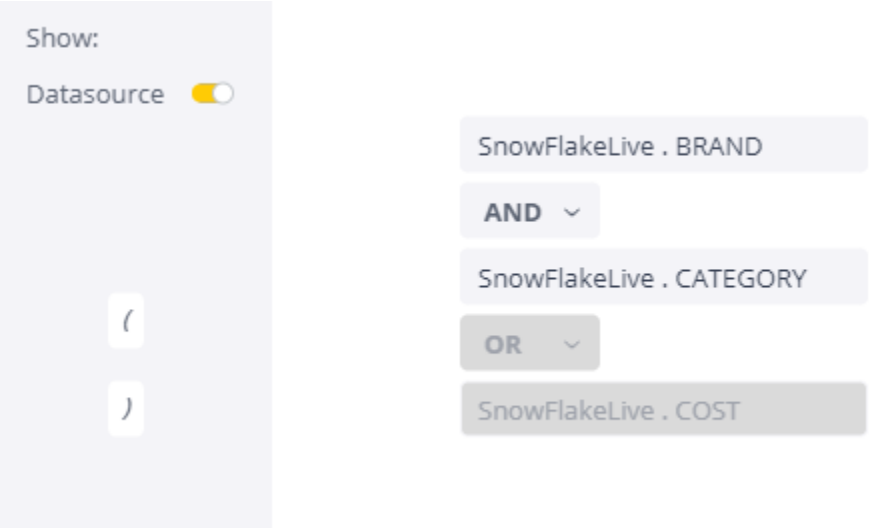
**Example:**


# Disabling Filter Blocks

When you disable a dashboard filter in the filter panel, it is disabled in the filter relationship statement as well, together with its adjacent operator (defined by logical rules). The filter can be reactivated at any time through the filter panel. While disabled, the filter block can be moved around to be relocated in the

statement, however it will not affect it. When reactivated, the filter will maintain the statement position set while it was disabled.

**Example:**



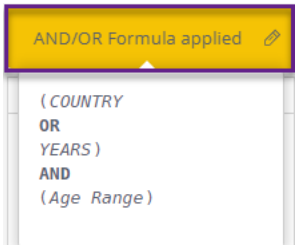

# Viewing the Filter Relationship Statement

You can see the currently applied filter relationship statement inside the dashboard filter panel through the indicator and tooltip.

**Example:**

- Hover over the **AND/OR Formula applied** indicator to view the filter statement tooltip.

- Click **AND/OR Formula applied** to open the Filter Relationship Editor.



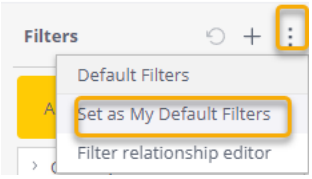

- If you disable the filter, the statement does not appear when you hover over **AND/OR Formula applied**, and the filter is disabled in the Filter Relationship Editor.


# Setting and Restoring Default Filters

The filter relationship statement you create can be set as your default filter.

**Example:**

- Create your statement and set it as your default filter.




- If you make a change to the statement, click **Restore my default filters** to restore the default filter statement.

# Viewing Filter Values

View filter values in the Filter Relationship Editor.

**Example:**

Toggle on **Values** to see the filter values


## Applying Changes

You can only apply changes when there are no active errors for the statement.

The statement is parsed continuously so if there is an error, a message displays showing what needs fixing.


# Limitations

- The feature is supported only when the Analytical Engine is defined as the main translation strategy and the provider (per dataset) is supported by the New Analytical Engine.
- **Select All** filters
    - Currently filters with a "select all" definition are ignored in the query.

      **Note:**

        - Given that: Filter 1 is defined as "select all"
        - Behavior is: Filter 1 or Filter 2 = Filter 2
- **Top Ranked** filters are not currently supported (error is provided).

- When a widget is set to display filters in Highlight mode, the OR statement is ignored in the highlight results (the values resulting from the OR condition are not highlighted).

## New Customizations for the Look and Feel of Widgets and Dashboards

Several new UI customization options have been added under **Admin > Look and Feel**.

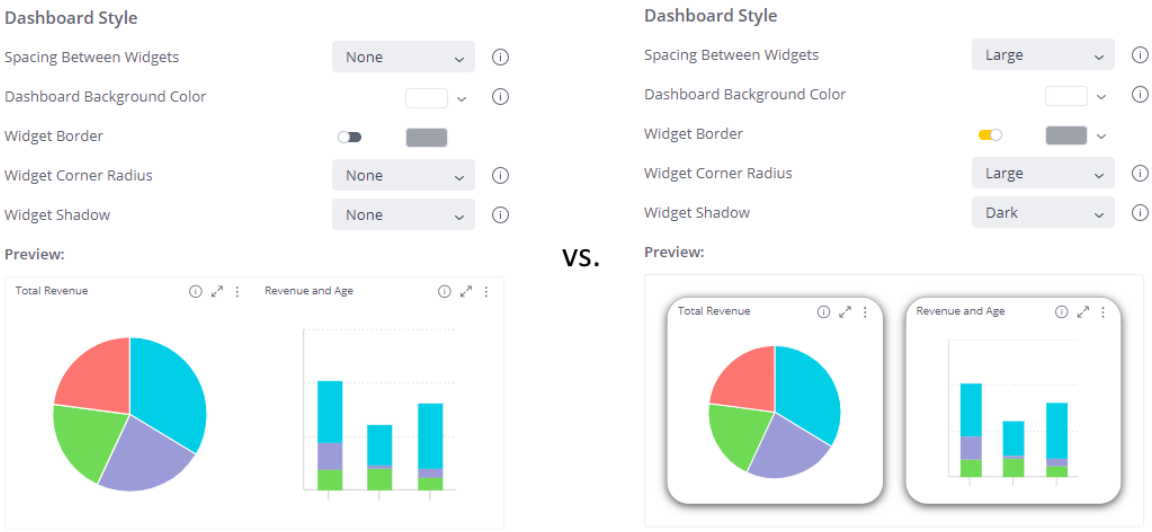
**New customization options for dashboards**

- Set the space (margin) desired between widgets. Without spacing added between widgets, these features will not introduce any change: Dashboard Background and Widget Shadow
- Set the dashboard background color.

**New preview window**

A new preview window has been added so that you can preview user changes and selections for existing features and new ones.

Compare the two images below to see the effects of these settings.

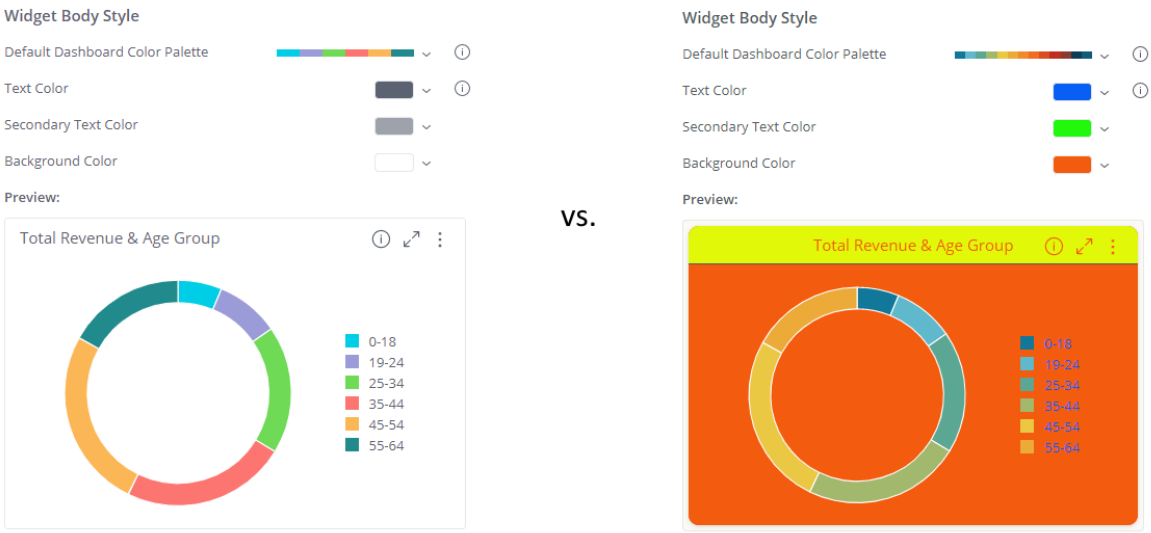



**New customization options for widgets**

The following new customization options have been added for widgets:

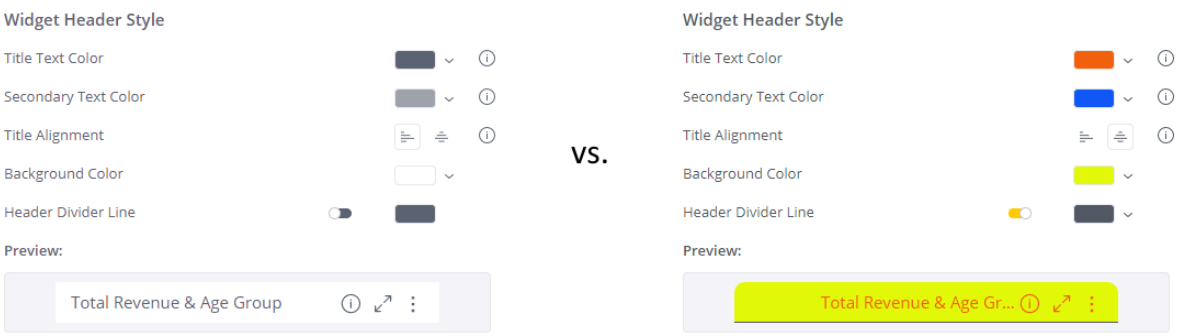
- Set the widget background color.
- Add a border line around the widget and set its color.
- Set the widget corner radius to determine if the corners should be rounded, and if so, how much.
- Set the widget shadow and how dark it should be. Shadow distance is generated automatically according to the space between the widgets which was defined on the dashboard settings level.

  Compare the two images below to see the effects of these settings; the differences reflect both the body styles changed here, as well as the header styles changed below.




- Widget Header: Title alignment - The widget header title can now be center-aligned (in addition to the default left-alignment). Note that center alignment increases the likelihood of the text being cut off.
- Widget Header: Divider line - You can add a line to divide between the widget header and body, and you can set its color.
- A new Preview window has been added so that you can preview user changes and selections for existing features and new ones.

  Compare the two images below to see the effects of these settings.



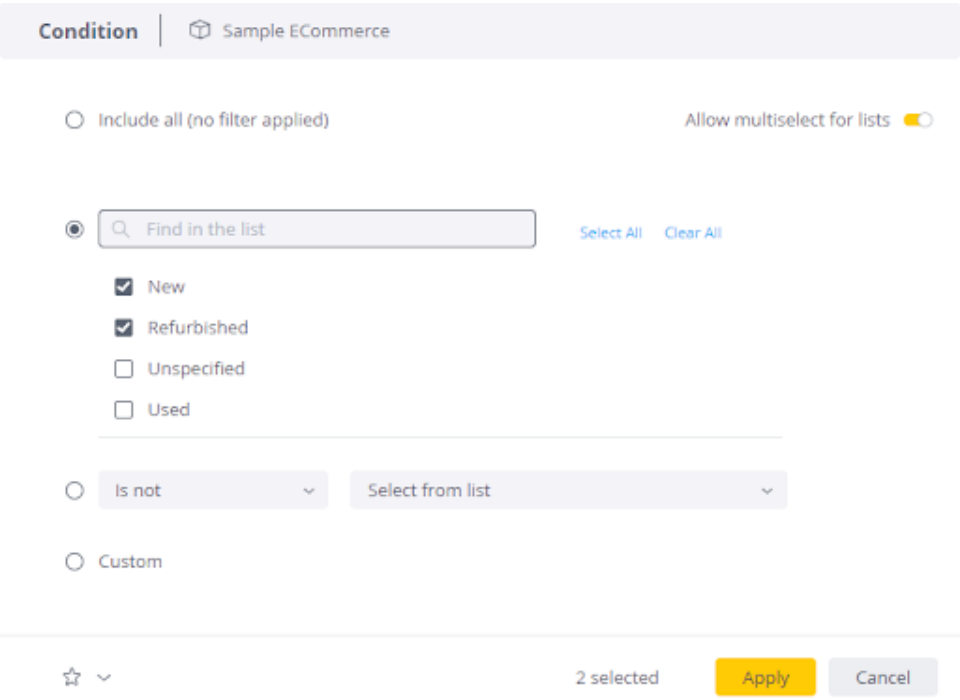
# Setting Text Filters

Text filters let you filter according to text matching. Text filters are case insensitive for all data sources by default.

There are various options for setting a text filter for your dashboards. Click on each of the options below to learn how to set text filters.

### Set a filter to include specific value/s

Use this filter to select a specific known value or multiple values to view, for example, "Condition = New + Refurbished".

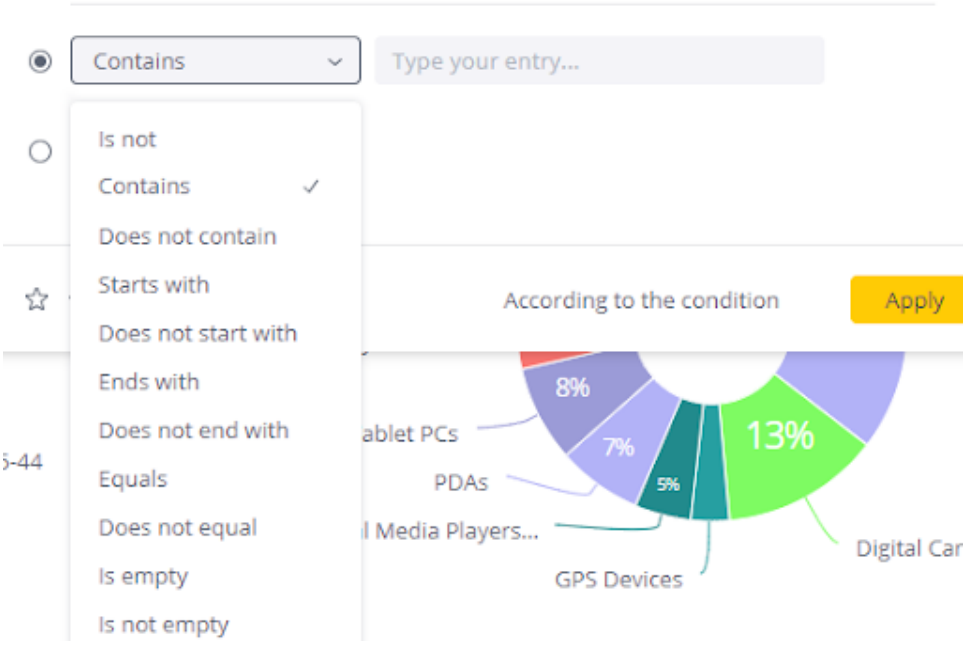



- You can set the list to be a single-select list (the default is multi-select). Your viewers see the list as you have set it. Searching for a value:

- If **Allow multiselect for lists** is enabled, you can select all options in the second list or clear all selections. Otherwise, select a single option.
- When the list is filtered by search, **Select all** applies to the filtered list - only items that appear will be selected.
- Search is not case-sensitive.
- You cannot exclude any values from this list. Use the **Is not** option for this.

### Filter by a text condition

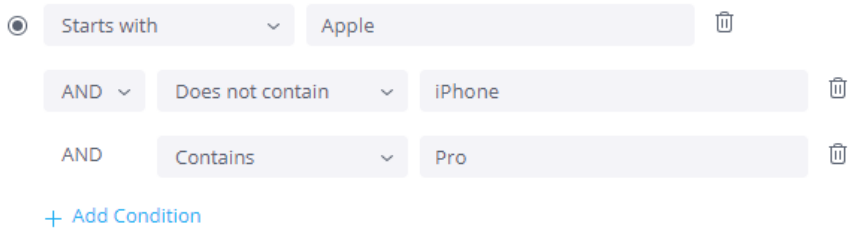
Use this filter to find values by certain textual characteristics. For example: All products starting with "iphone", All products containing "chair".



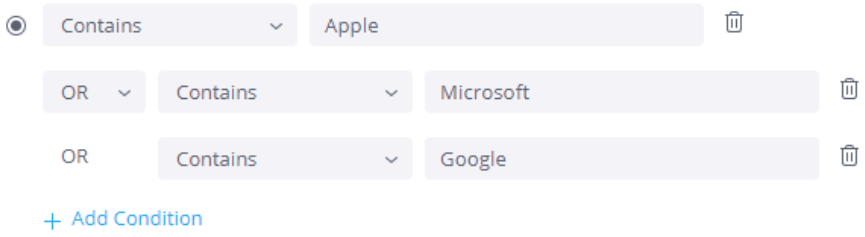

**Defining Multiple "AND" or "OR" Conditions for a Text Filter**

Most of the condition types in this list ("Contains" through "Is not empty") can be combined using AND or OR logic. Note that only **one** type of logic, AND or OR, can be used in a specific filter.

This type of filter allows queries to combine multiple conditions that apply together. For example, it can be used to create a filter for all products that start with (using "Starts with") "Apple" AND do not contain (using "Does not contain") "iPhone", and so on, adding as many conditions as required.




Queries using OR logic are built the same way, again adding as many conditions as required.




**Set a filter that is dependent on a measure value (Top/Bottom ranking)**

Use this to filter a textual field, depending on the value of a certain measure, to answer questions such as "Show the Top/Bottom 10 countries in terms of Total sales".

8. On the third radio button in the filter window, select the condition (Top or Bottom).
9. Select the number of items you want to retrieve from the textual field (e.g. 10 countries).
10. In the Ranked by field, select the measure that will be used for ranking (e.g. Total sales).

**Note:**

When there are several items with the same value, the top/bottom items (such as "top 5", when item numbers 4, 5, and 6 are identical) are chosen according to the sorting of the dimensions. By default, it is ascending from the left-most dimension to the right-most (in a pivot table).

# Setting Numeric Filters

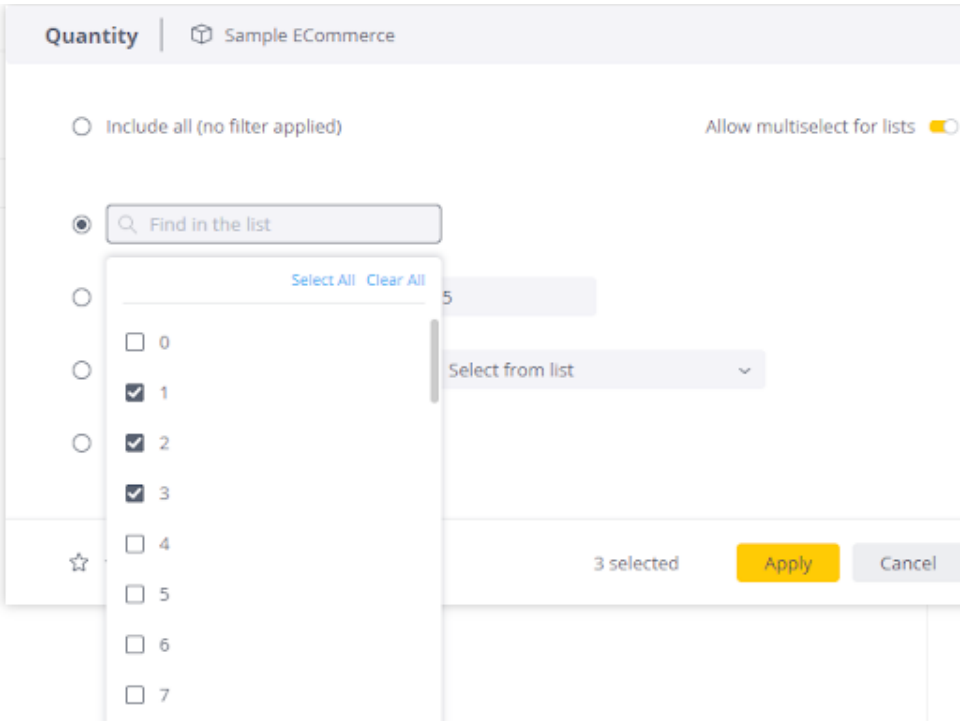
Numeric filters let you limit your dashboards to specific value ranges. For example:

- Keep only sales above 100$.
- Keep only product IDs between 1000020 and 1000030.

There are various options for setting a numeric filter for your dashboards. Click on each of the options below to learn how to set numeric filters.

### Set a filter to include specific value/s

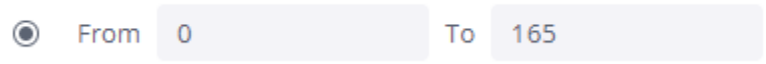
Use this filter to select a specific known value or multiple values from a numeric field: for example: "Quantity = 1 and 2 and 3".




- You can set the list to be a single-select list (the default is multi-select). Your viewers will see the list as you had set it.
- Searching for a value - you can search the list of numeric values to narrow it down. When the list is filtered by search, **Select all** applies only to the items that appear in the filtered list (items that match the search criteria).
- You cannot exclude any values from this list. Use the **Is not** option for this. See Set a filter to exclude specific value/s.

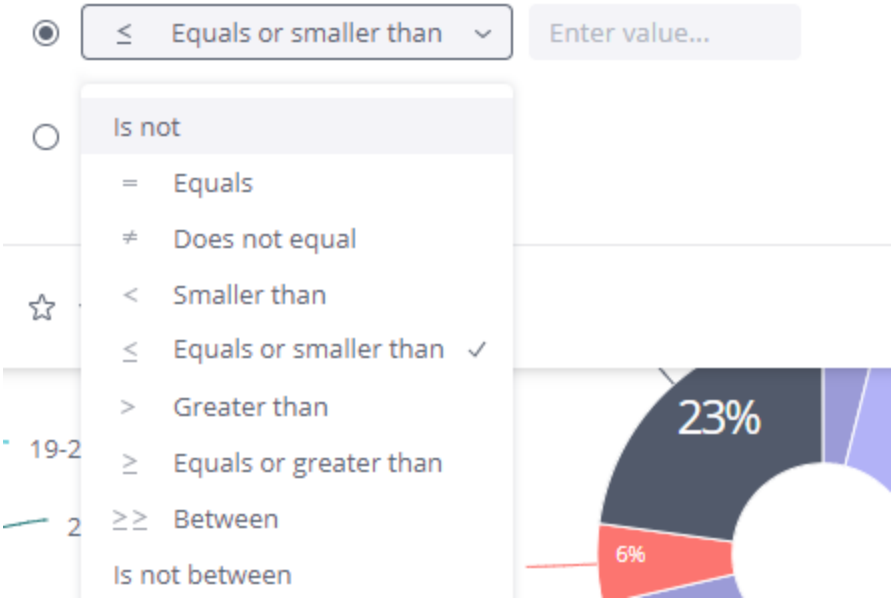
### Filter by a number range

You can filter numeric values by a range ('between'), for example, "All products whose price is between 1.99 and 20".




### Filter by a numeric condition

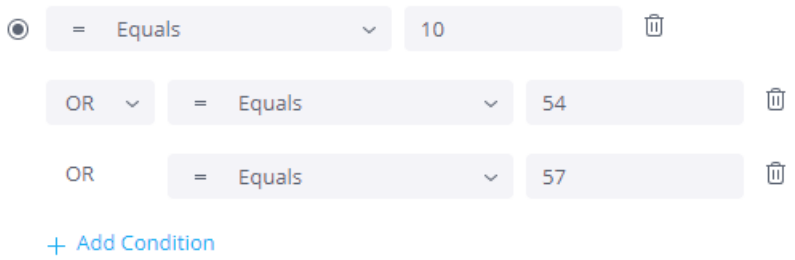
You can filter numeric values by specific characteristics. For example: "All customers whose age is over 15", "All products whose price is between 1.99 and 20".




**Defining Multiple "AND" or "OR" Conditions for a Numeric Filter**

Most of the condition types in this list ("= Equals" through "≥≥ Between") can be combined using AND or OR logic. Note that only **one** type of logic, AND or OR, can be used in a specific filter.

This type of filter allows queries to combine multiple conditions that apply together. For example, it can be used with OR logic to create a filter for offices according to their specific office numbers, adding as many conditions as required to include all of the desired offices.




**Set a filter that is dependent on a measure value (Top/Bottom ranking)**

Use this to filter a numeric field, depending on the value of a certain measure, to answer questions such as "what were the Top/Bottom 10 versions in terms of Total number of bugs".

11. On the fourth radio button in the filter window, select the condition (Top or Bottom)
12. Select the number of items you want to retrieve from the numeric field (e.g., 10 ID numbers)

13. In the Ranked by field, select the measure that will be used for ranking (e.g., Total number of bugs.).

**Note:**

When there are several items with the same value, the top/bottom items (such as "top 5", when item numbers 4, 5, and 6 are identical) are chosen according to the sorting of the dimensions. By default, it is ascending from the left-most dimension to the right-most (in a pivot table).

### Set a filter to exclude specific value/s

Use this filter to exclude a single or multiple value/s, for example, "Show me all IDs that are not 3144 and 3145".

- In the Filter window, on the fourth radio button, select **Is Not** and then select the values/s you wish to exclude from the dropdown list.

## Setting Widget Style

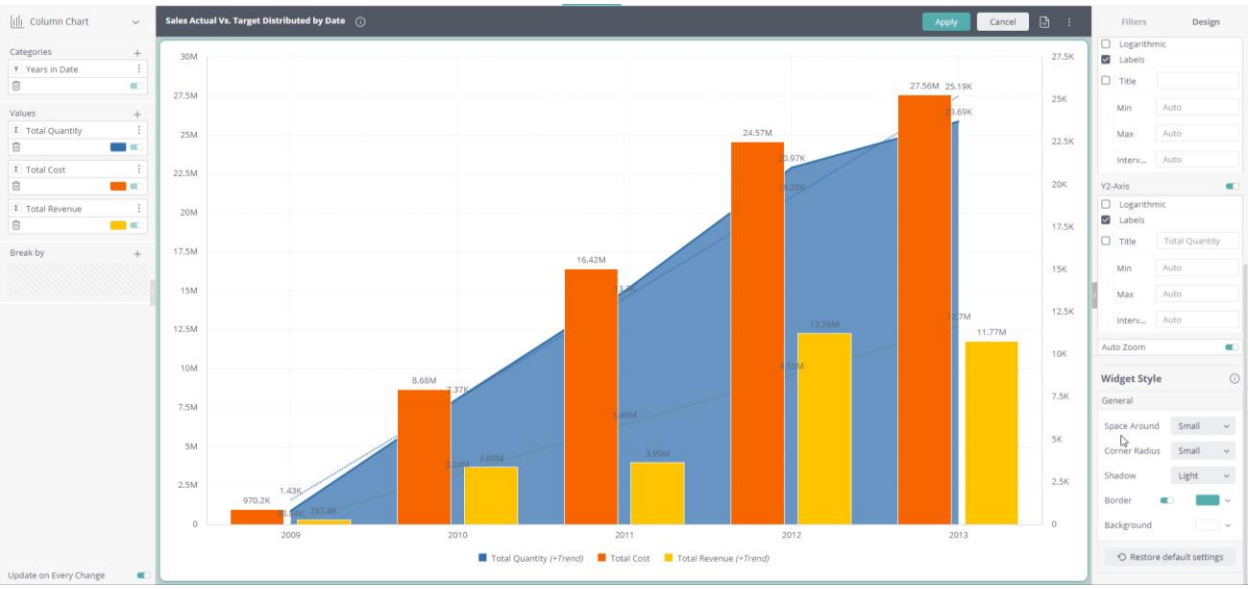
The following items are available for widget style customization:

- Space Around
- Corner Radius

- Shadow
- Border
- Background

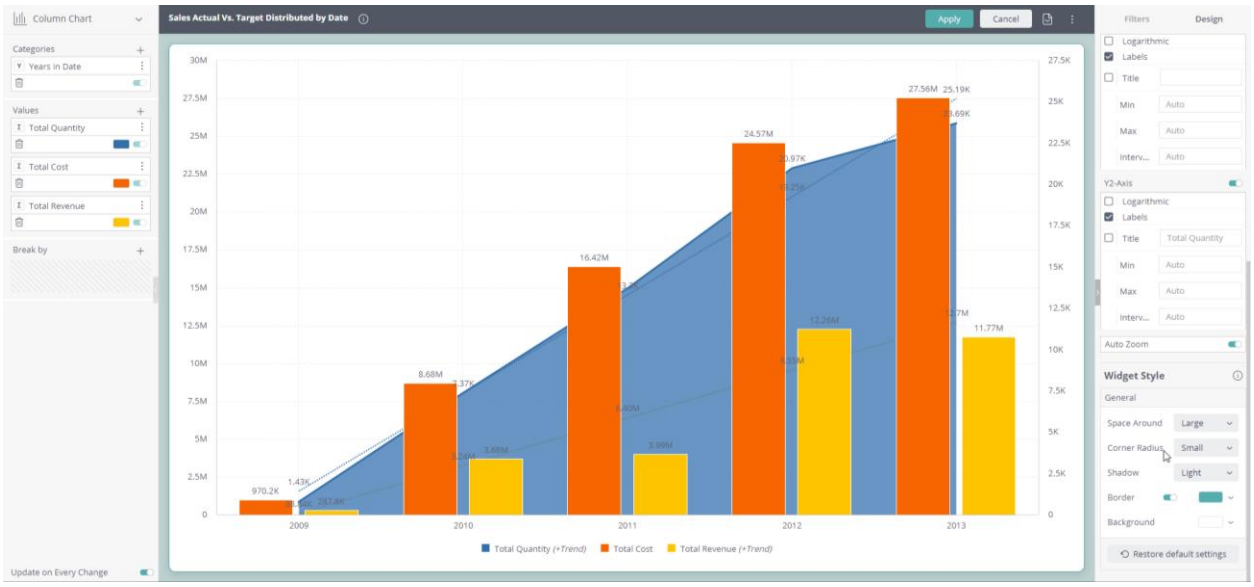
# Space Around

In the Space Around parameter, you can set how much empty space will surround the widget. The options are: --- (None), Small, Medium, and Large.



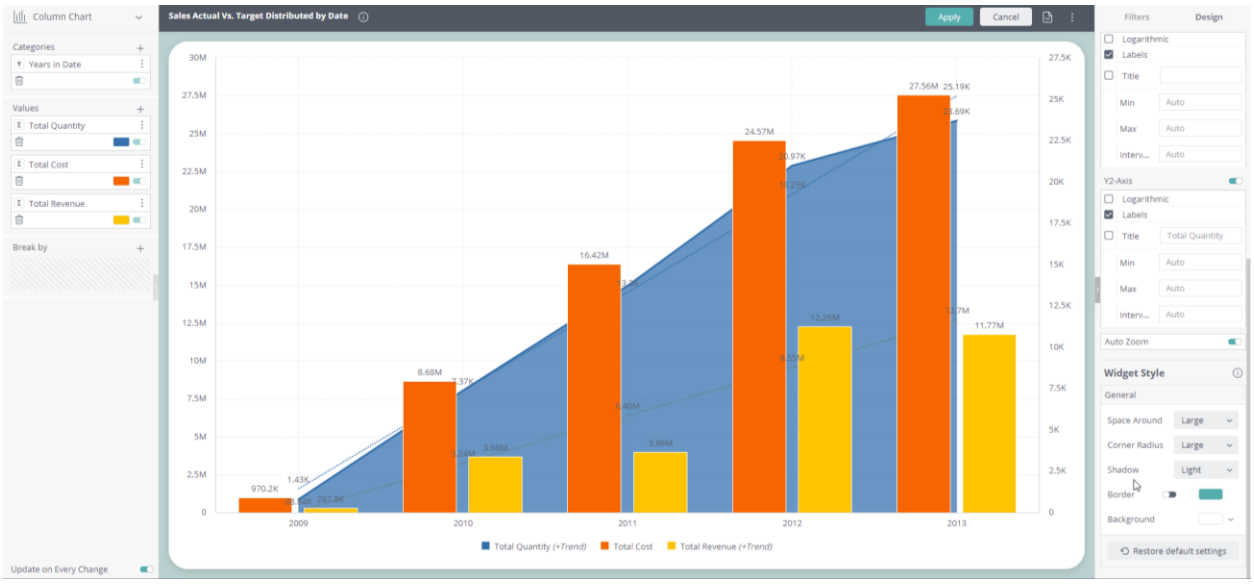

# Corner Radius

In the Corner Radius parameter, you can set how rounded the corners of the widget are. The options are: --- (None), Small, Medium, and Large.



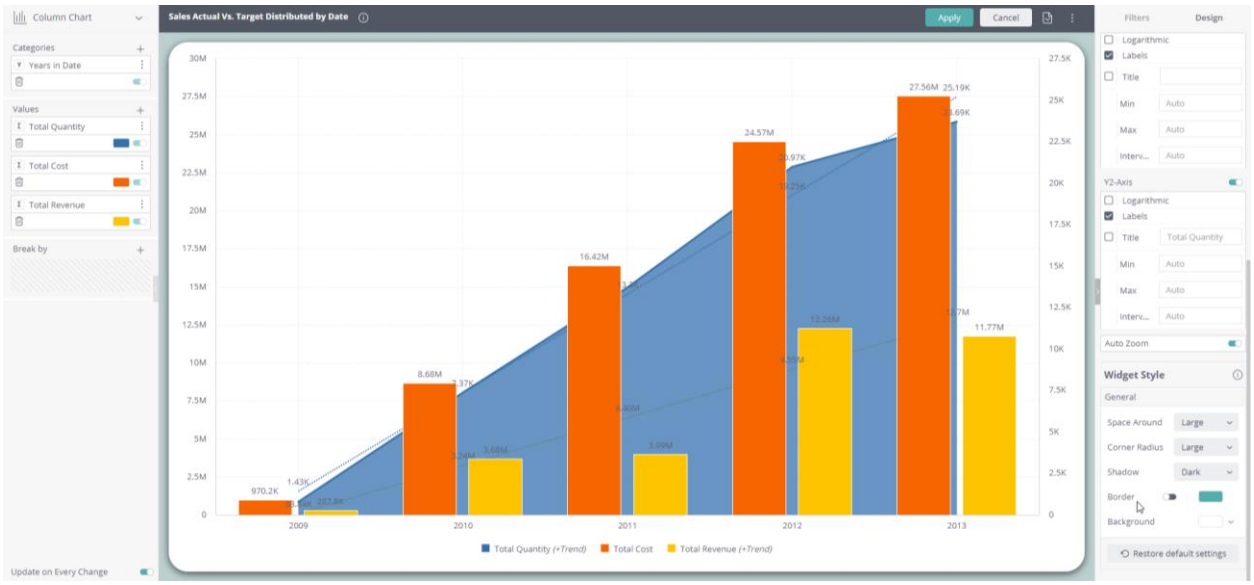

# Shadow

In the Shadow parameter, you can set how dark the shadow around the widget is. The options are: --- (None), Light, Medium, and Dark.



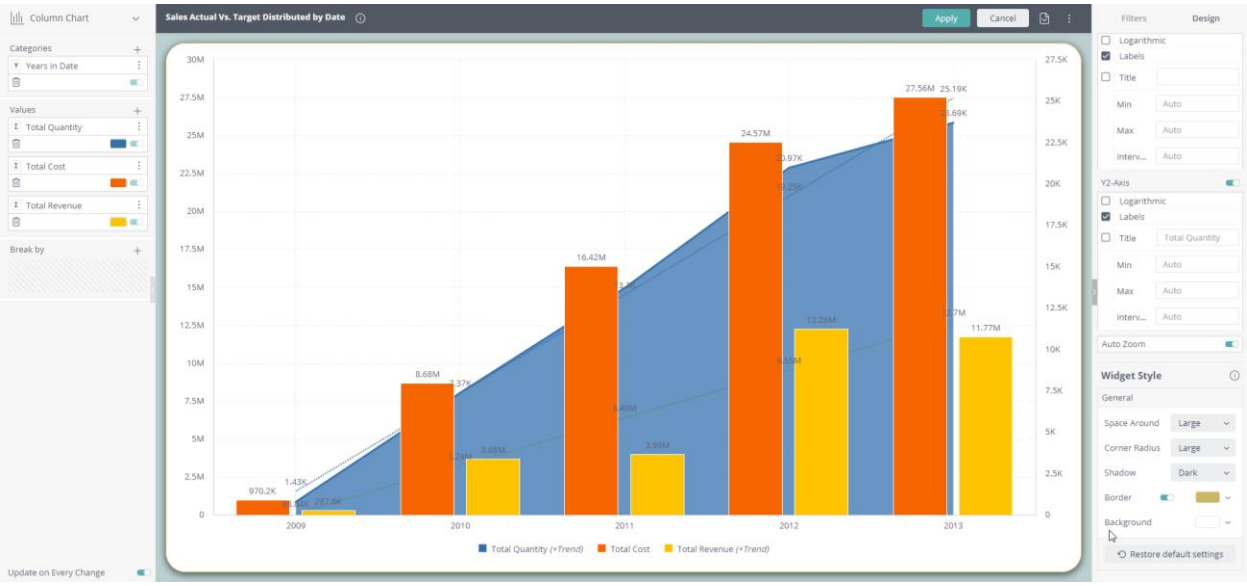

# Border

In the Border parameter, you can set whether or not the widget will have a border, and if so, what color it should be.

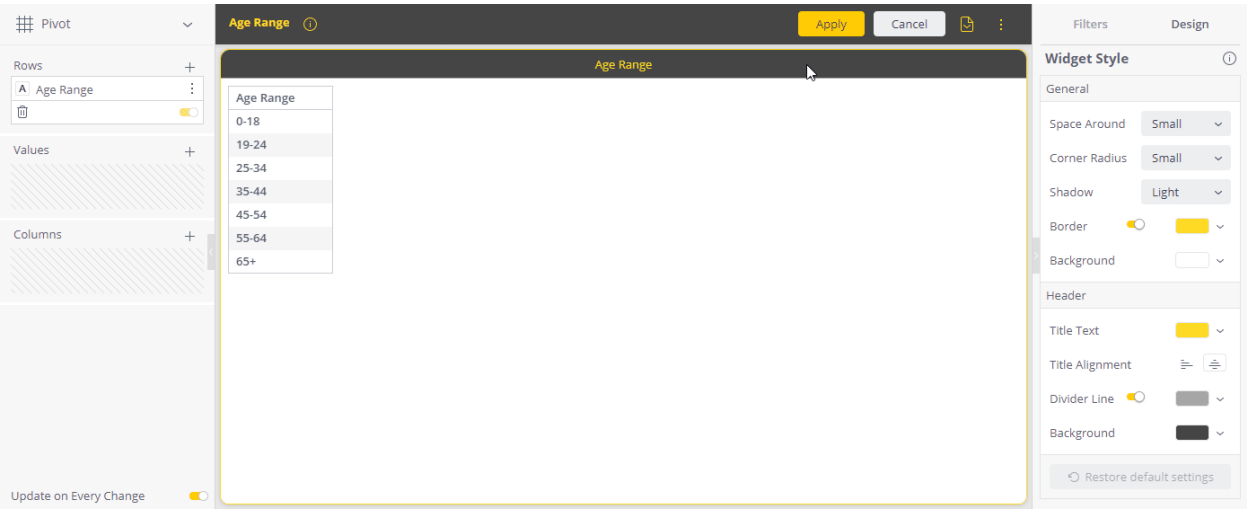


# Background

In the Background parameter, you can set the color of the background of the widget.

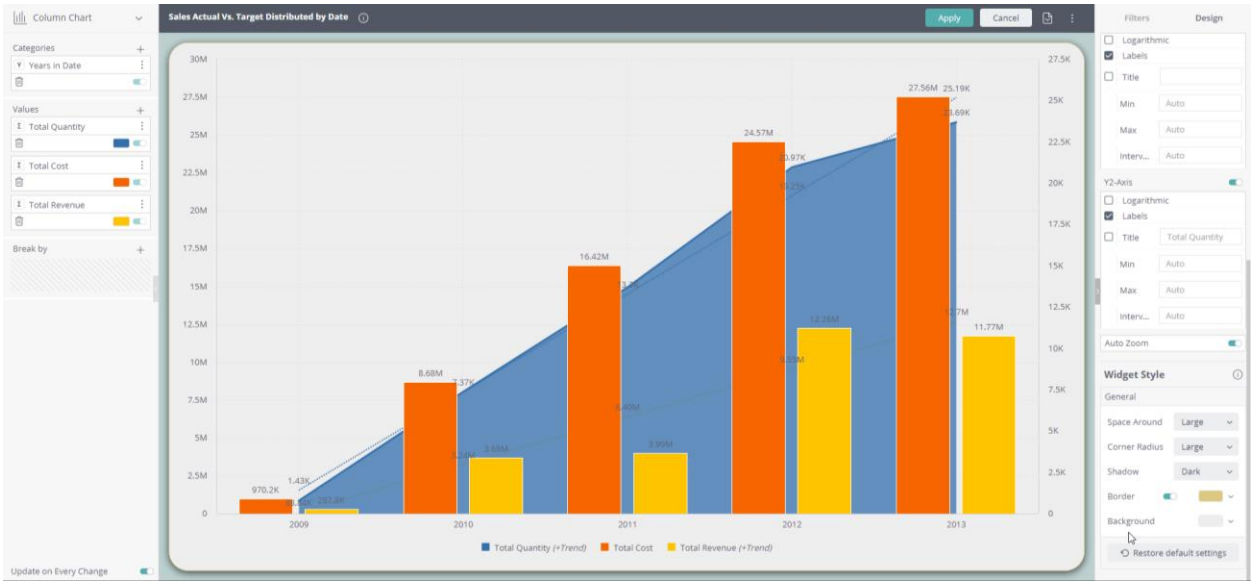



In the Background parameter, you can set the color of the background of the widget header.



# Restore Default Settings

If at any point after changing one or more of the Widget Style parameters you want to restore the default Widget Style settings, click **Restore default settings**. This restores the system default Widget Style settings to your widget, and reconnects the widget to the system default settings for future changes as well.




The following items are available for widget style header customization:

- Title Text
- Title Alignment
- Divider Line

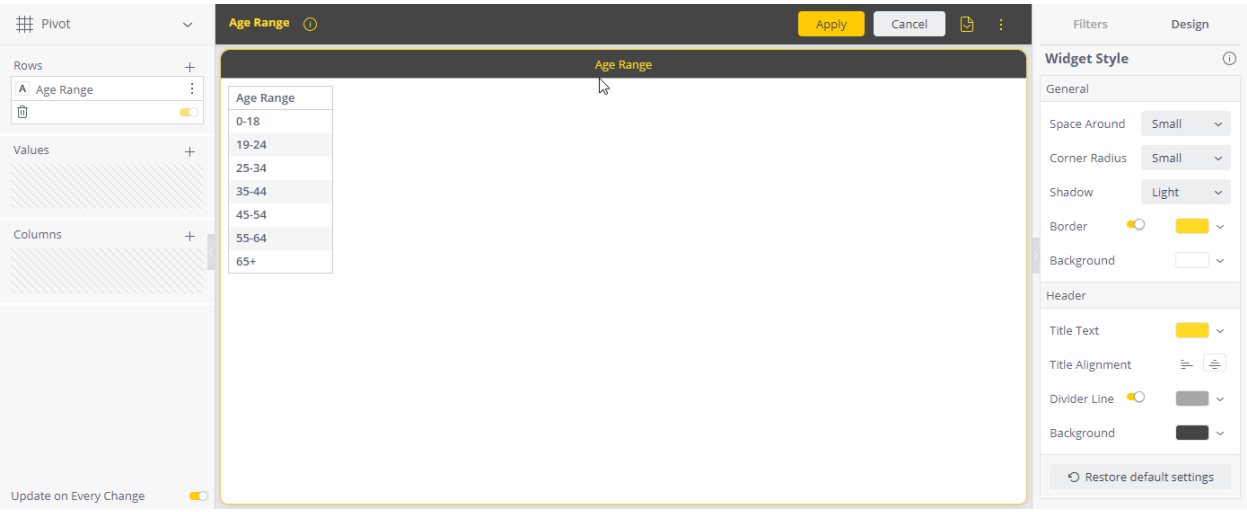
- Background

**Note:**

To maintain backward compatibility, the header is not displayed for embedded widgets.

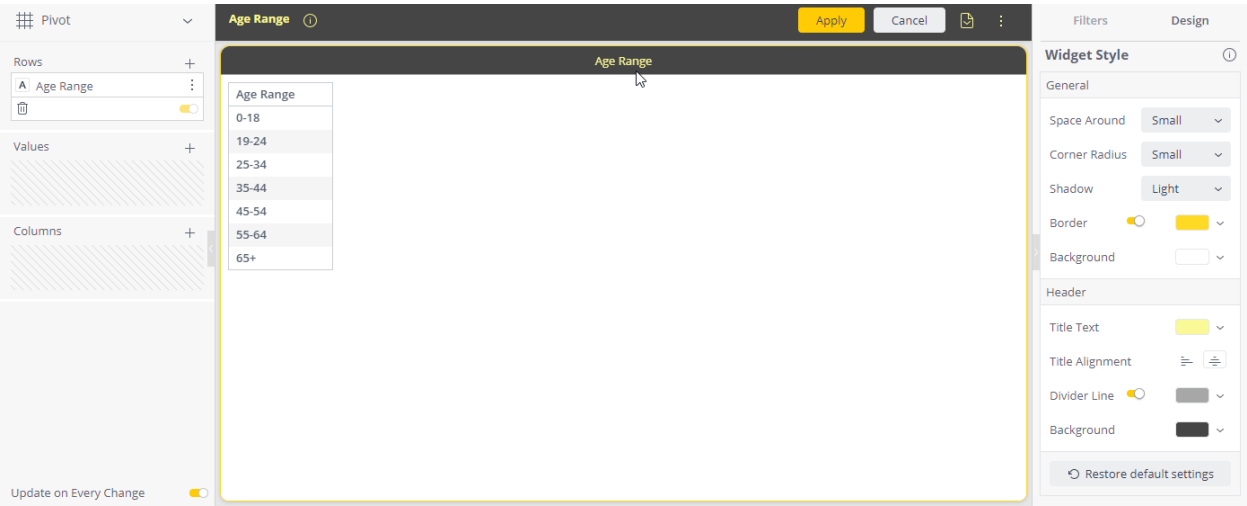
# Title Text

In the Title Text parameter, you can set the color of the widget's title.



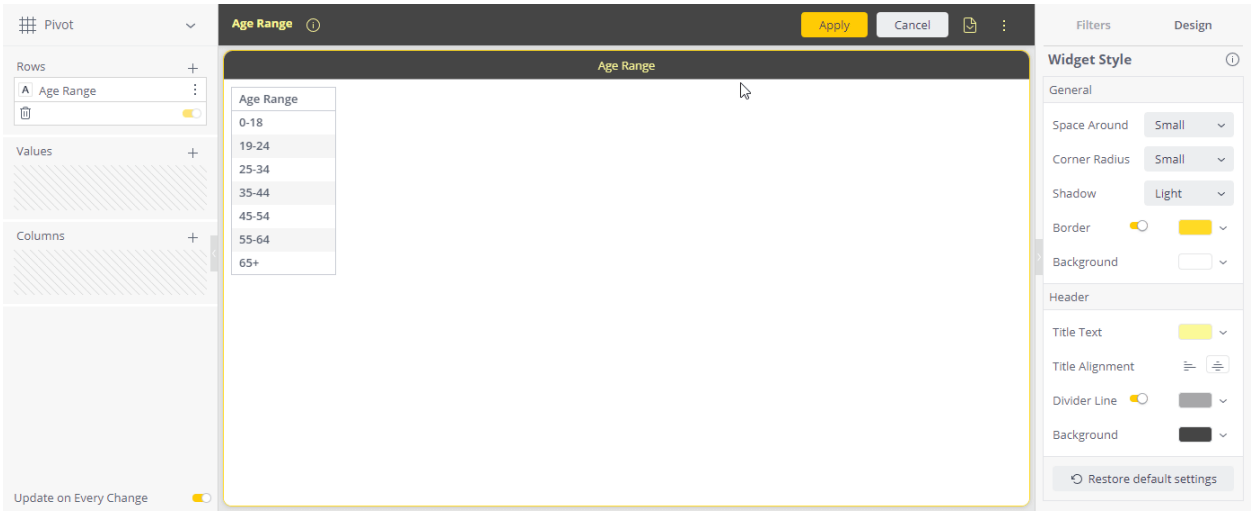
# Title Alignment

In the Title Alignment parameter, you can set whether the widget's title will be left or center aligned.




# Divider Line

In the Divider Line parameter, you can set whether or not there will be a line that divides between the widget header and the widget's contents, and if so, what color it will be.


Pivot
Rows
Age Range
Values
Columns
Update on Every Change
Age Range
Apply
Cancel
Age Range
Age Range
0-18
19-24
25-34
35-44
45-54
55-64
65+
Filters
Design
Widget Style
General
Space Around
Small
Corner Radius
Small
Shadow
Light
Border
Background
Header
Title Text
Title Alignment
Divider Line
Background
Restore default settings