What's New in 5.0

Guide to new features in SMS 5.0
Updated September 28th, 2021

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Your success is important to us!

SMS 5.0 introduces a full-featured report writer that creates attractive, customized reports for scorecards, initiatives, and datasets. It also has a brand-new chart designer with powerful display options like predictive analytics and reference lines & bands. There are 8 new infographic widgets for your dashboards, including process charts, waffle charts, funnels, pyramids, and filled containers.

SMS is powered by commercial off-the-shelf software from Spider Strategies called Spider Impact. Their online knowledge base will be updated with all of the latest version 5 information on October 20th, 2021 at https://support.spiderstrategies.com/hc/en-us/categories/360002648452-Using-Spider-Impact

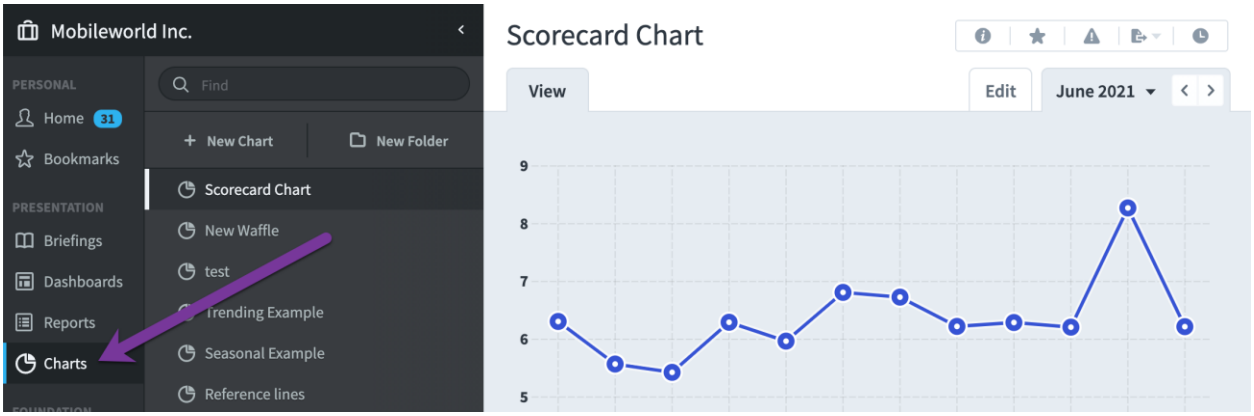
For more information on SMS and Army-specific support resources, please visit https://www.milsuite.mil/book/community/spaces/orion/sms

If you have any questions, we're available to help at 703-607-5014 or usarmy.pentagon.hqda-osa-obt.mbx.sms@mail.mil

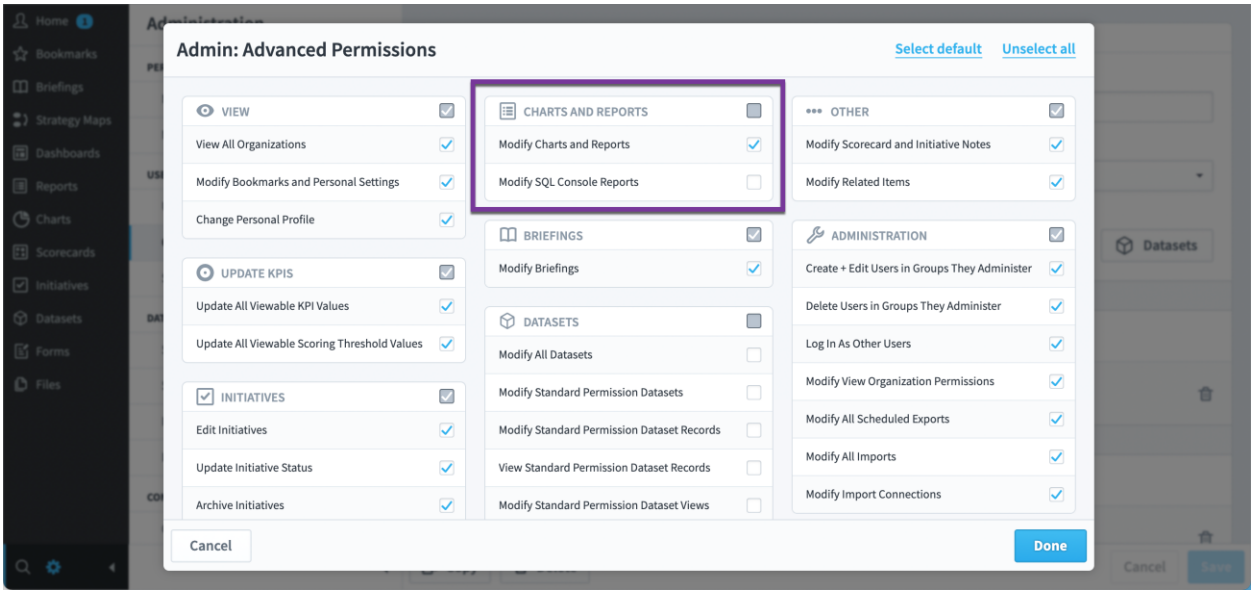
Charts

The Charts section

Charts are significantly more powerful in SMS 5. Because of this, charts now have their own application section that is separate from Reports.

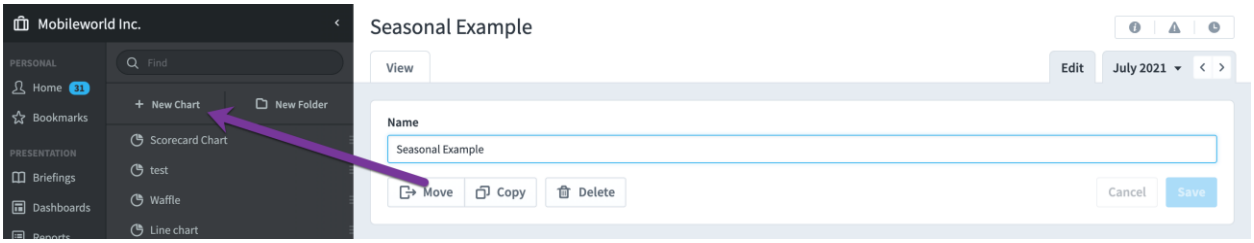


Charts and Reports continue to share the same modification permissions.

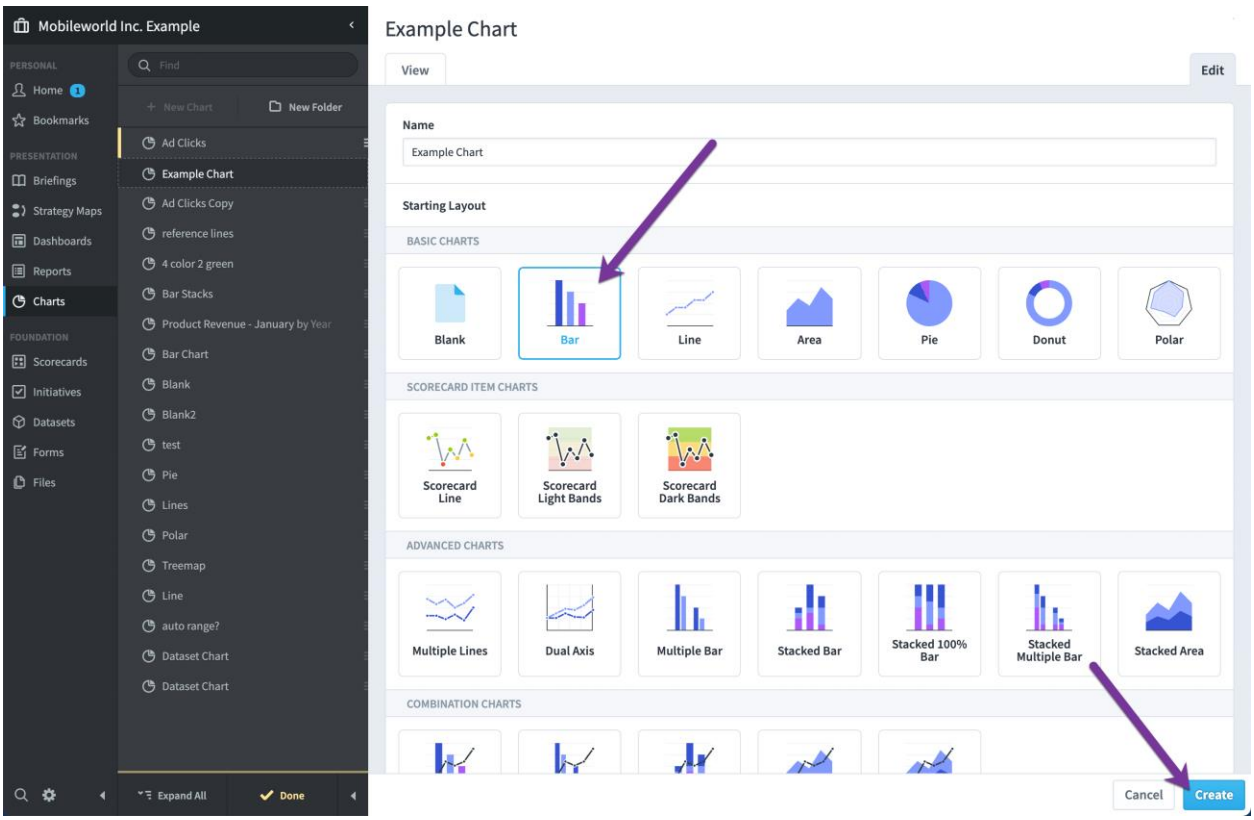


Creating a chart

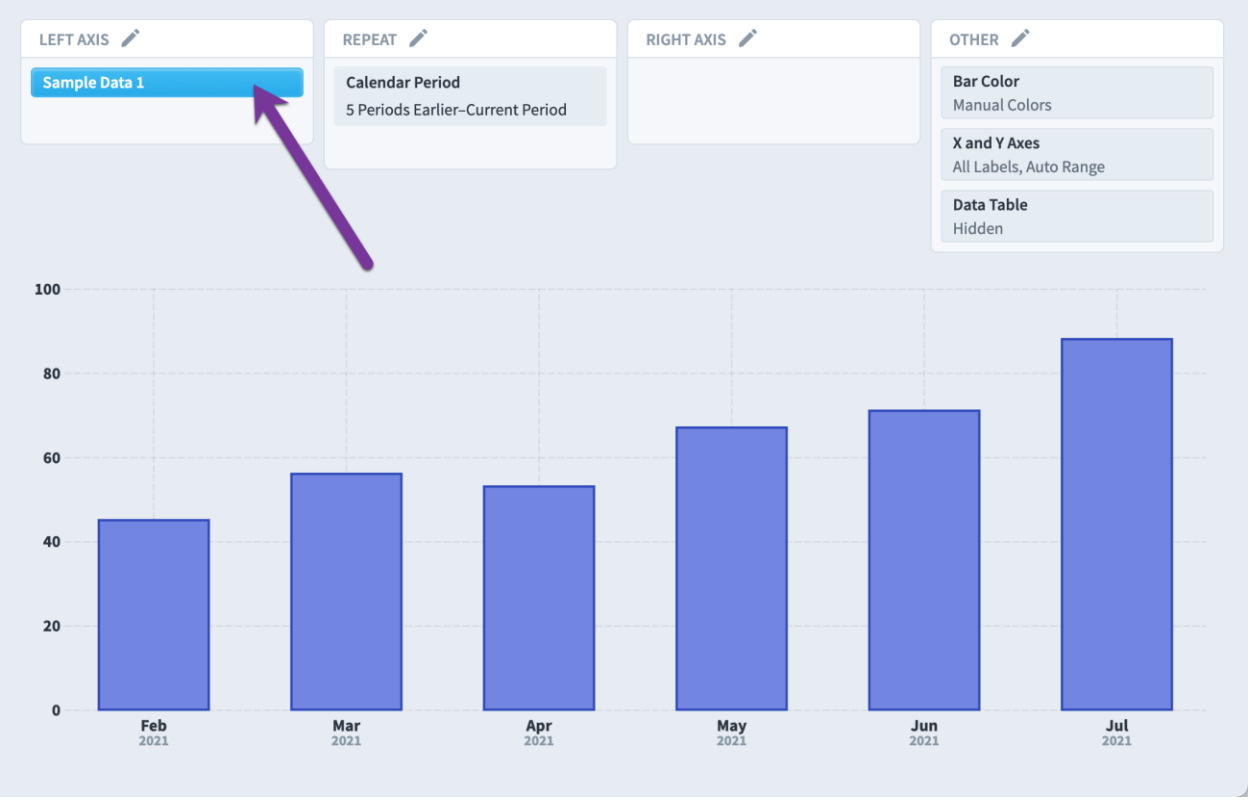
To create a chart, click the “New Chart” button.



From here you can name your new chart and decide what it should look like. The default chart type is Blank, but you can choose from a wide variety of example charts to get you started.

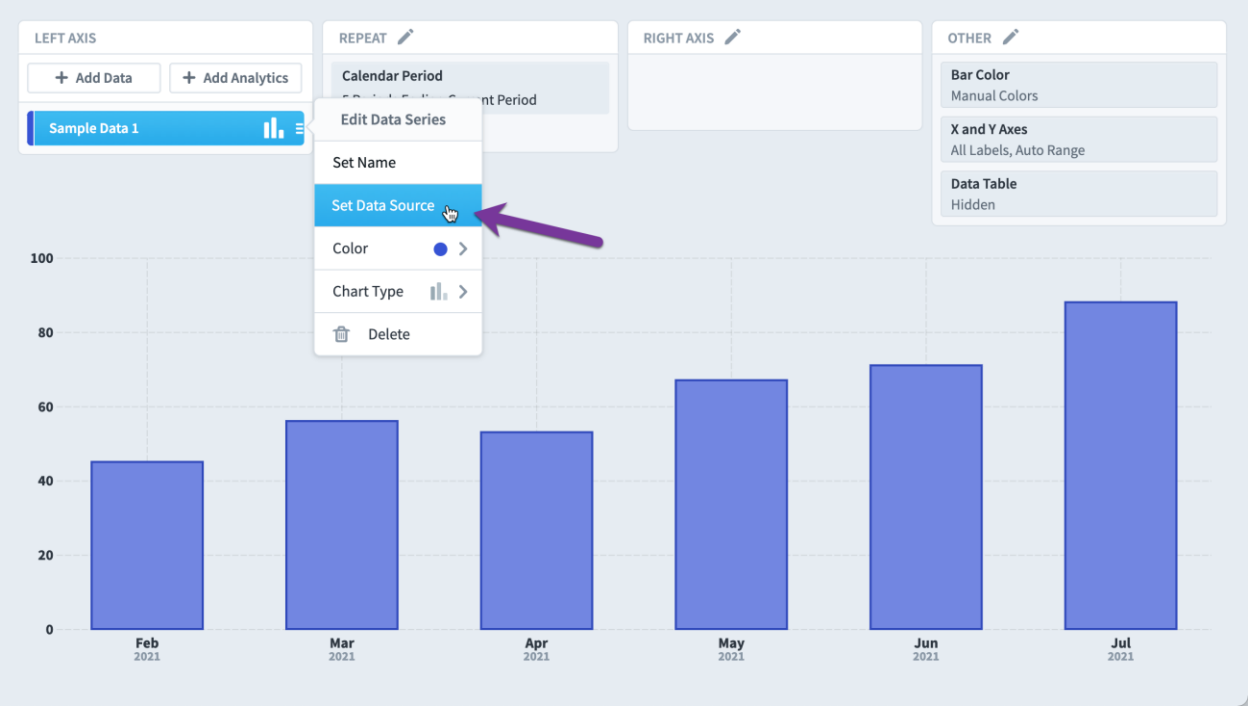


If you choose a pre-built chart example, you'll see a fully finished version of your chart with sample data. This allows you to build visualizations based on how they look rather than focusing on getting the data exactly right from the beginning. All sample data series are marked blue.

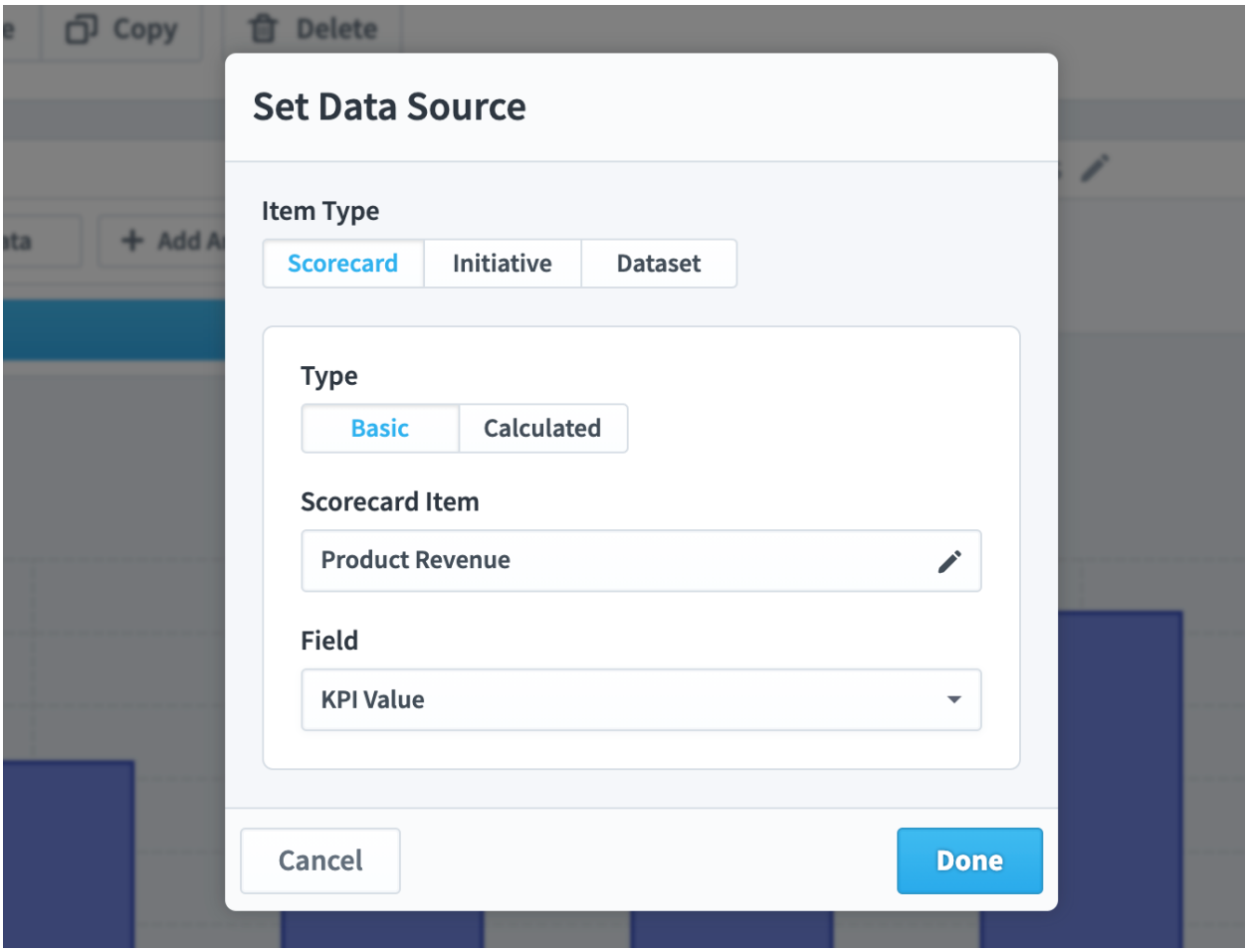


Editing chart data

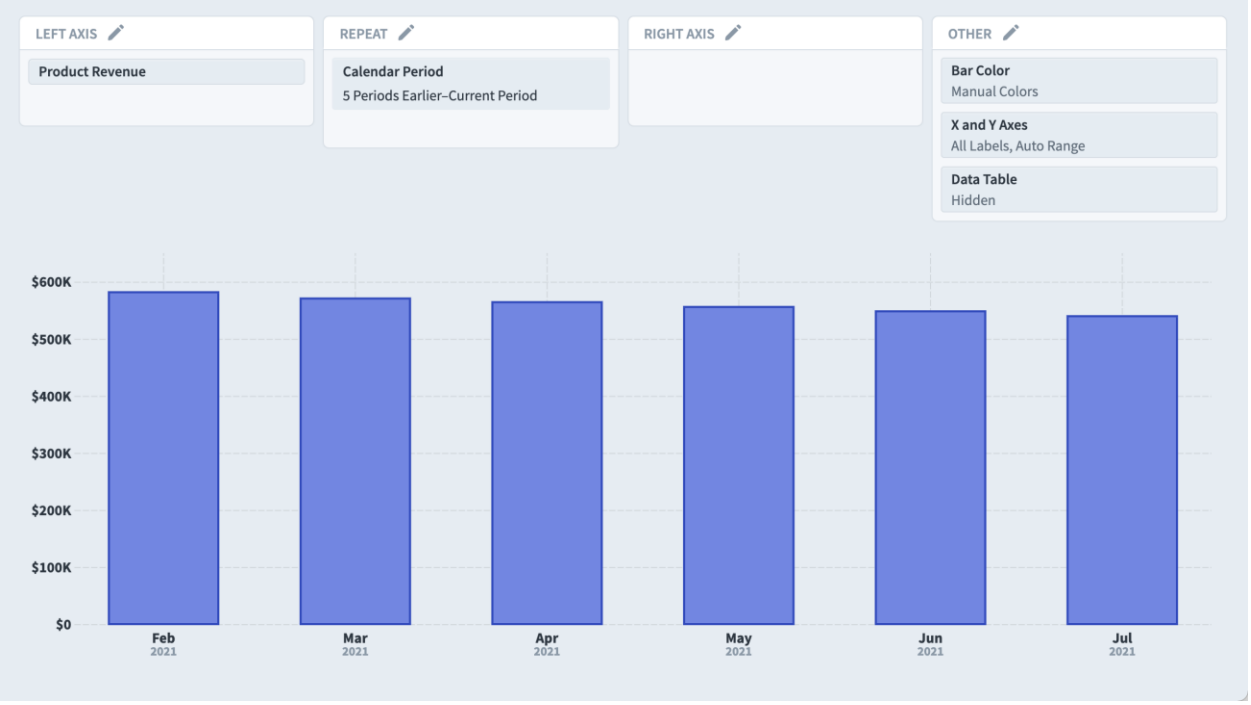
Whenever you're ready to see your own data on the chart, just edit the data source on a sample data series. In this example there's a sample bar series on the left axis, so we'll click on it and choose "Set Data Source".



This allows you to choose to show any type of data from scorecard items, initiative items, or dataset fields. We'll choose to show the KPI Value for Product Revenue.

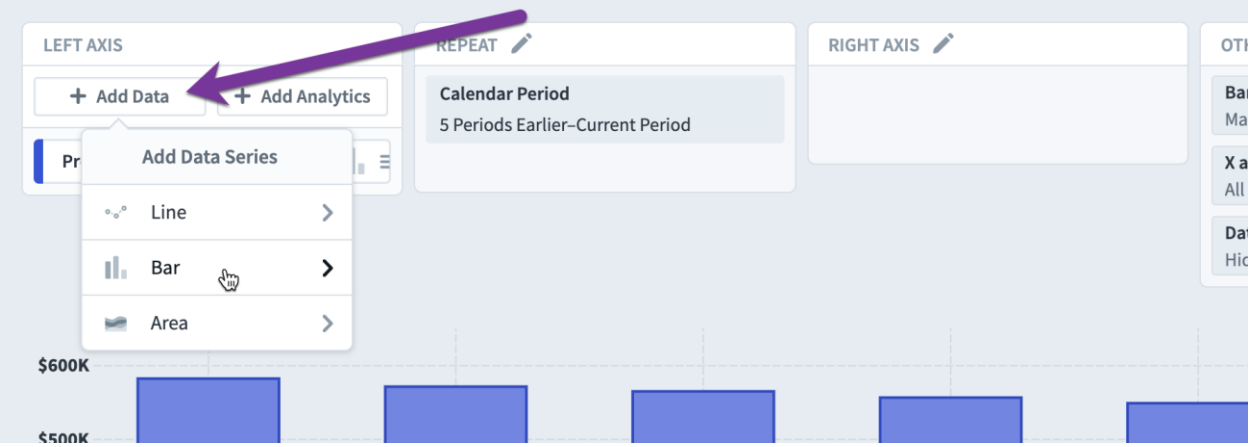


Now our chart is showing real data. All that's changed is the height of the bars.

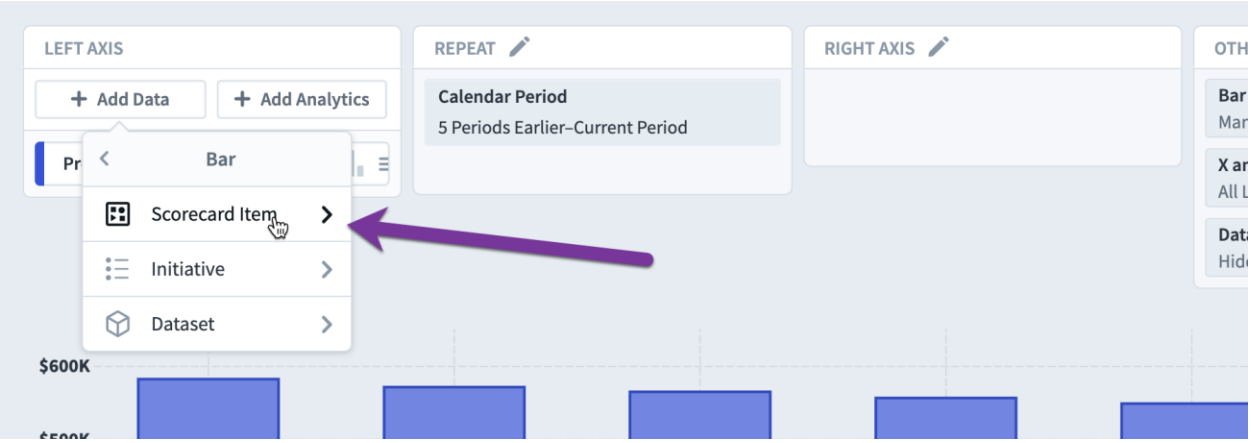


Adding chart data

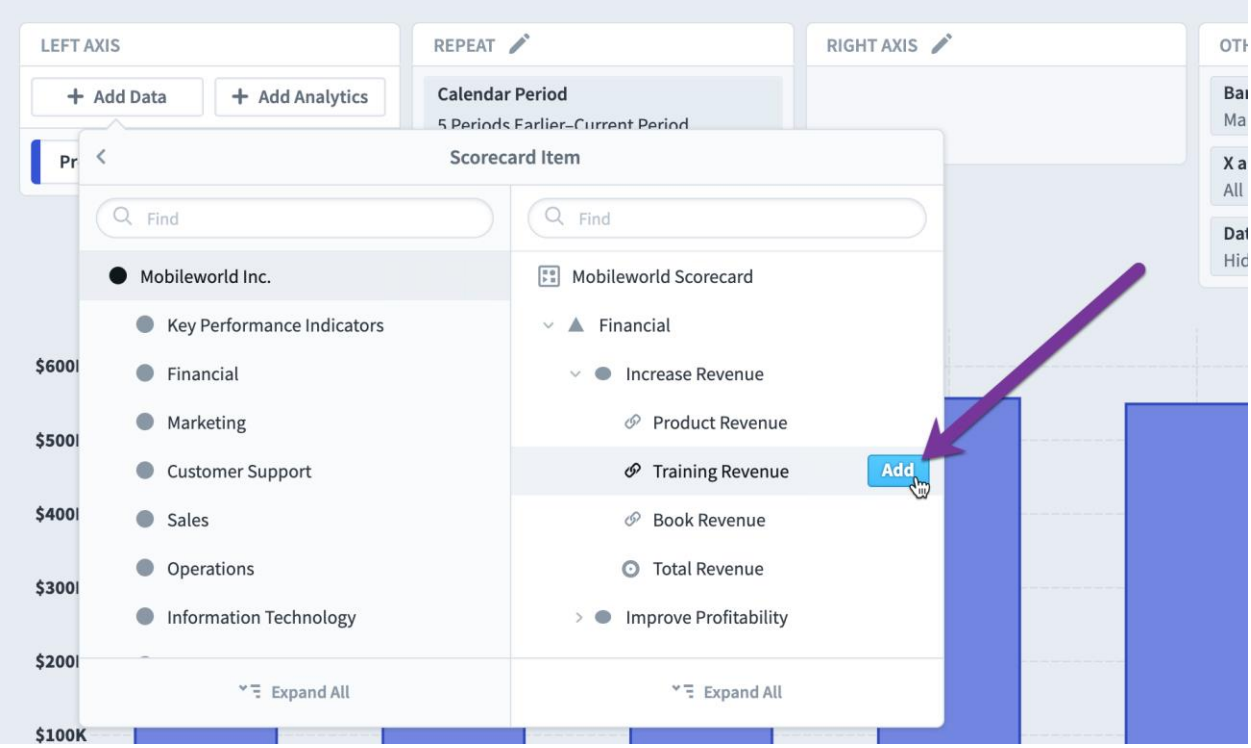
You can also add data series to your chart one at a time by clicking the "Add Data" button. Some chart types will ask what kind of data series you want. In this example the options are a new Line, Bar, or Area data series. We'll choose Bar.



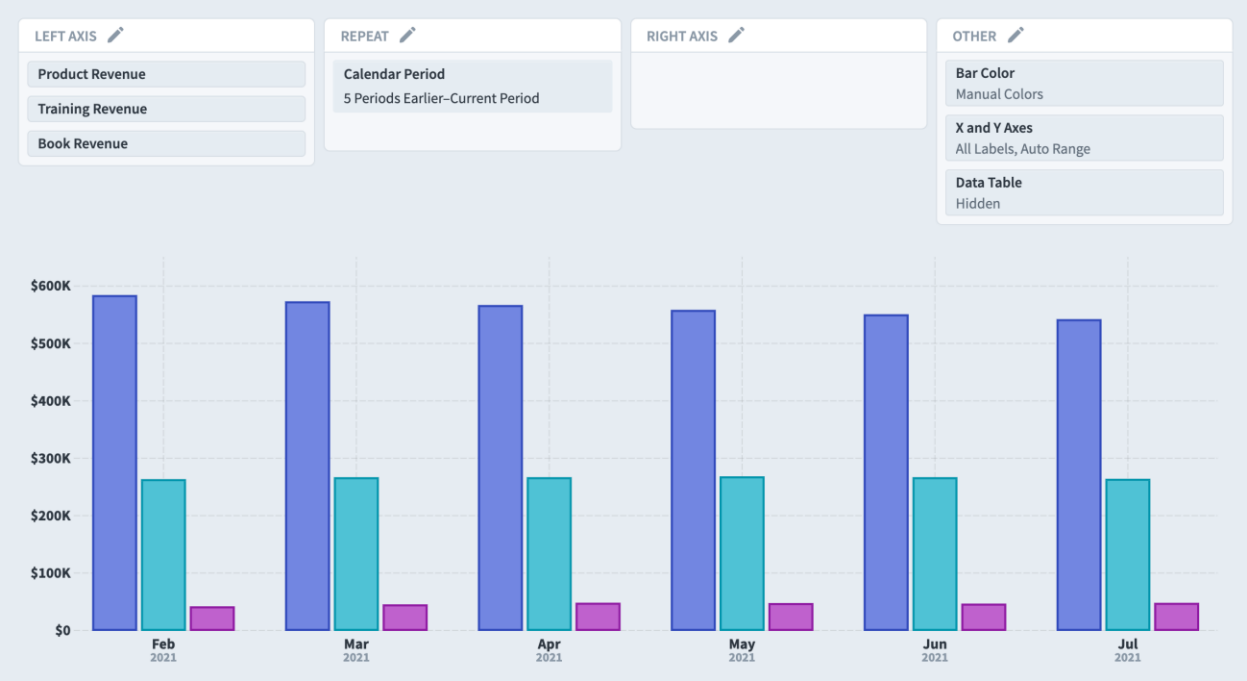
Next, choose where in SMS to get your data. You can choose a scorecard item like a KPI, an initiative, or low-level data from a dataset. We'll choose Scorecard Item.



From here you can add bars directly to the chart. Every time you click the add button, it adds a bar for that scorecard item.

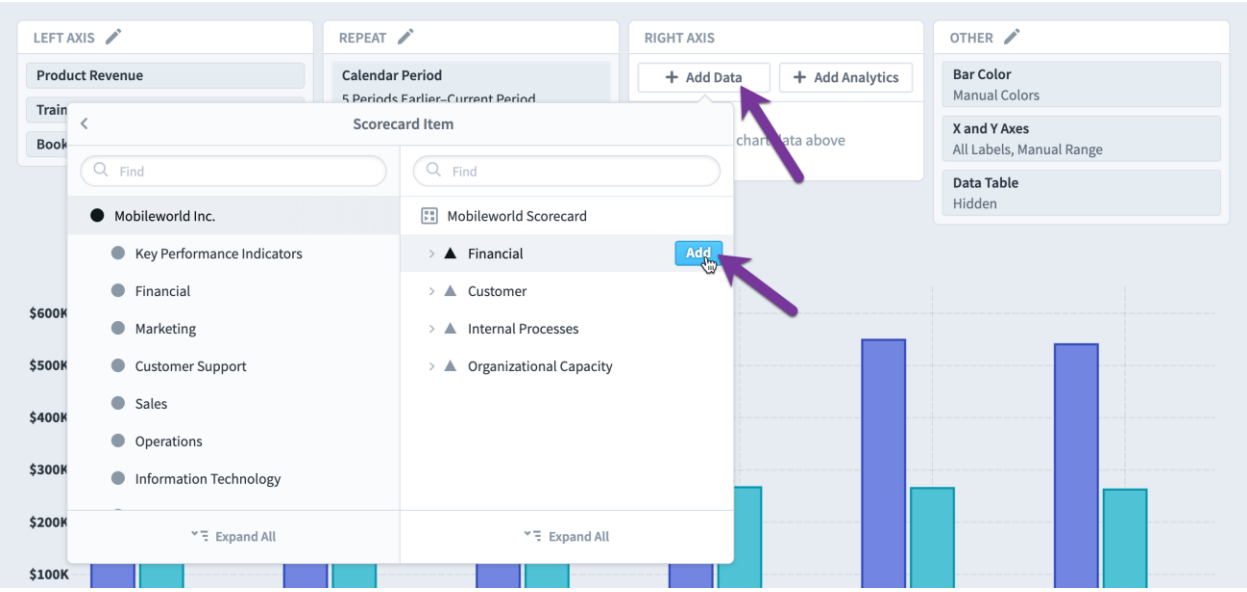


After two clicks of the Add button, we have a chart that looks like this.

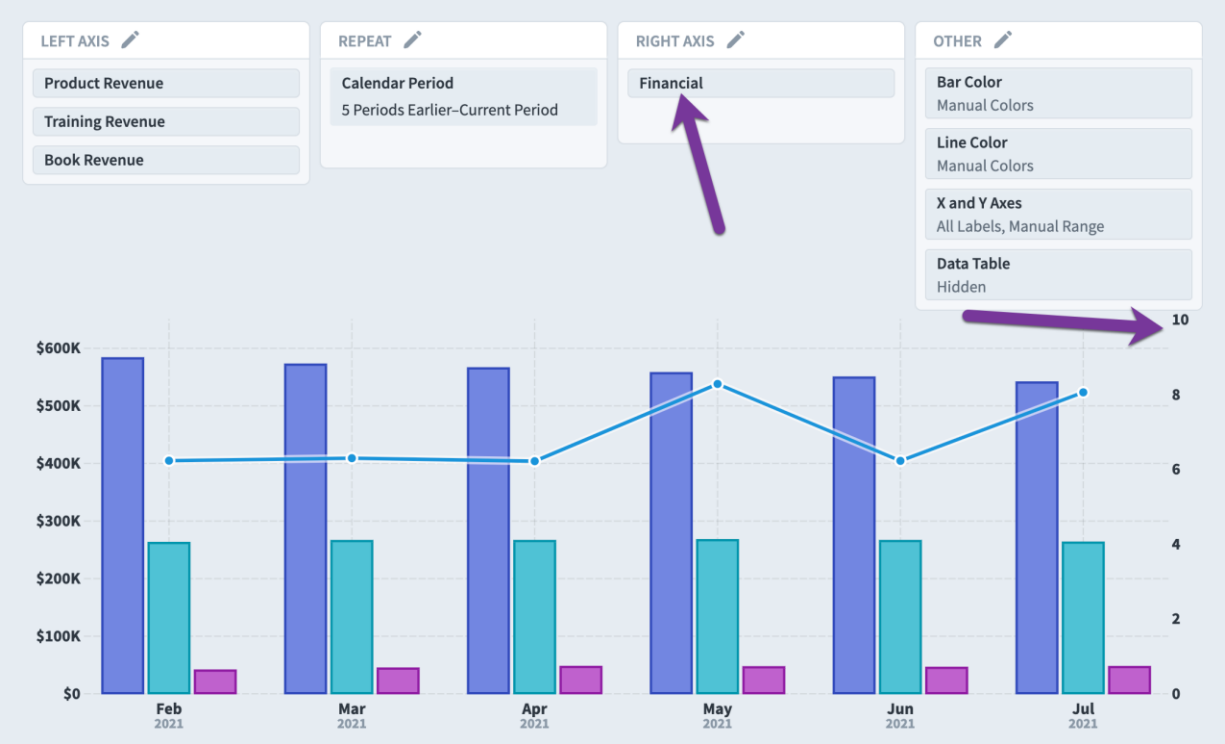


Right axis

Adding data to the right axis is exactly the same process. Here we'll add a line for a scorecard item's score.

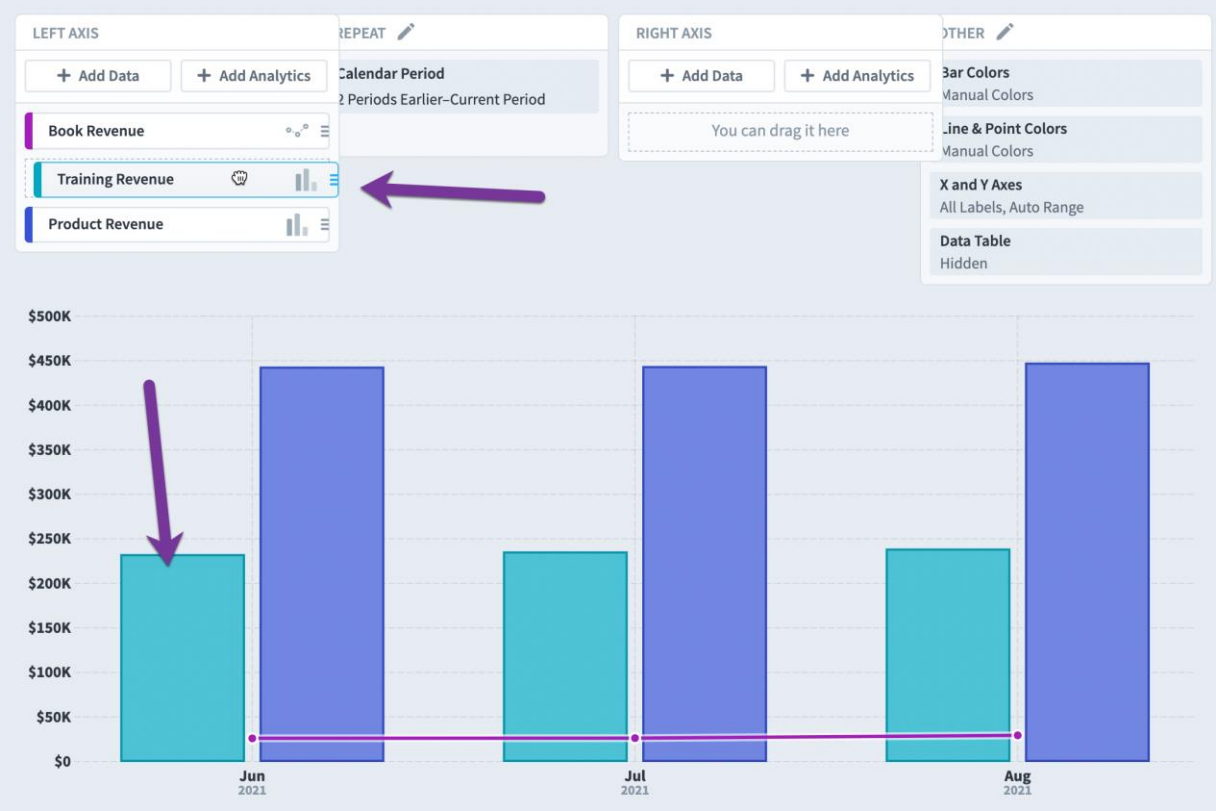


This 0-10 score line is now showing on the right axis while the three bars' $100k+ Revenue are graphed on the left axis.

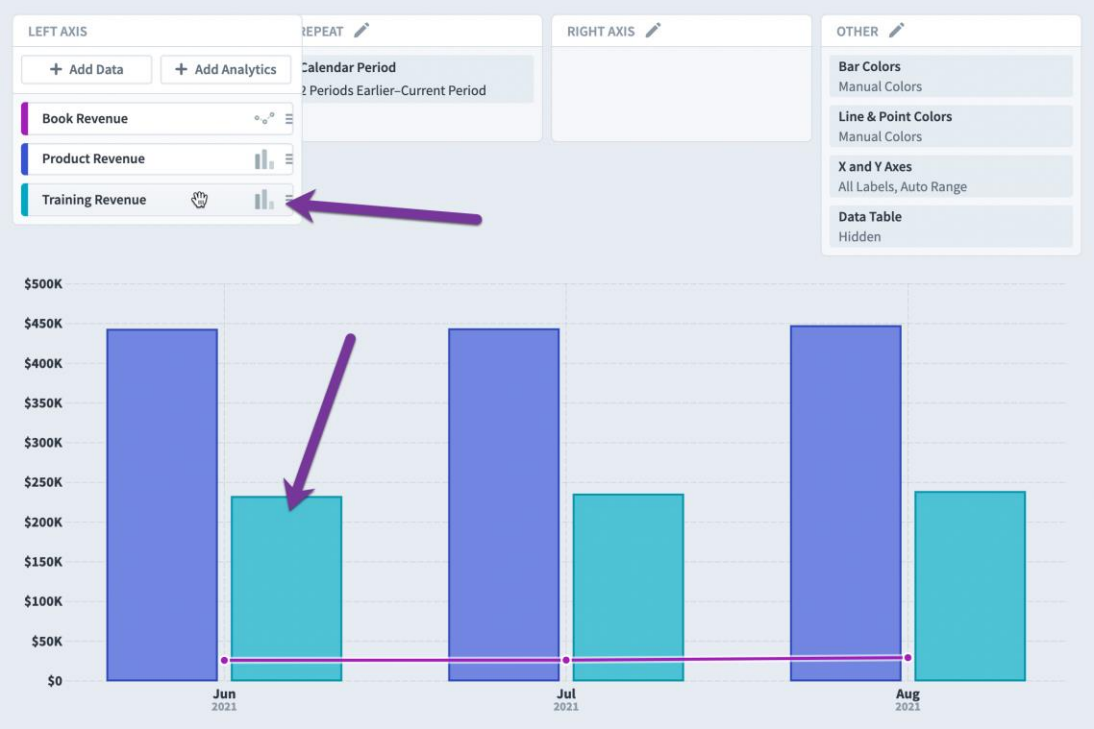


Reordering with drag and drop

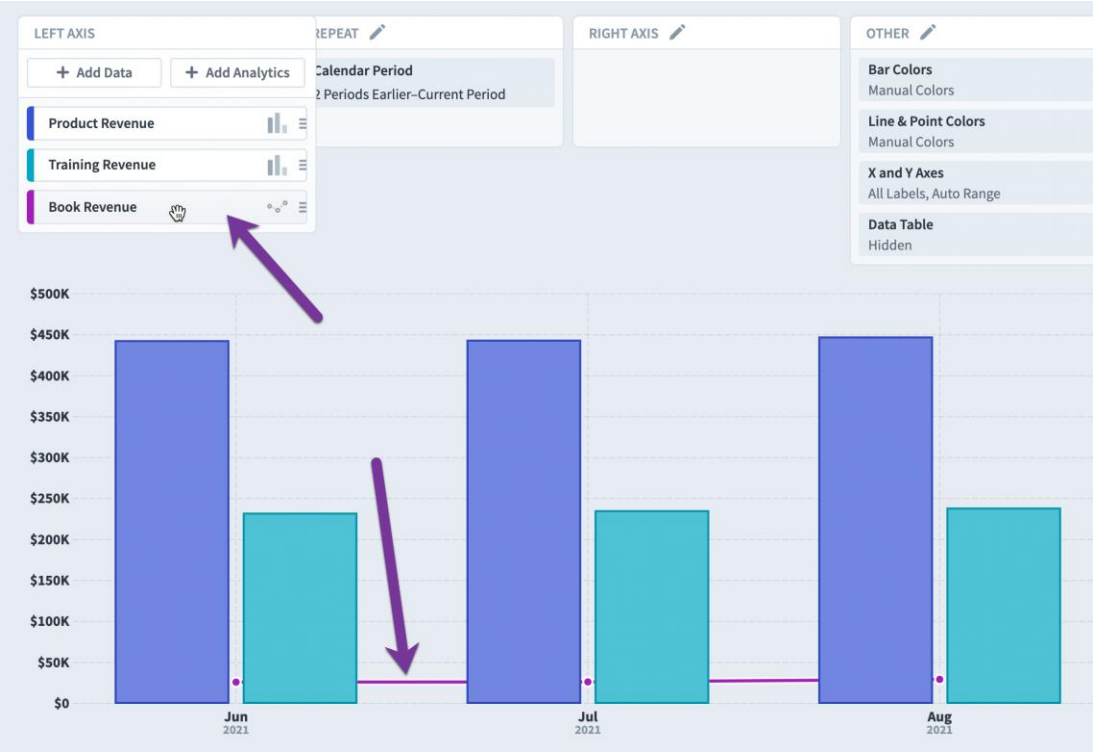
You can reorder anything on your chart by dragging and dropping. In this example, the Training Revenue bar comes before the Product Revenue bar.



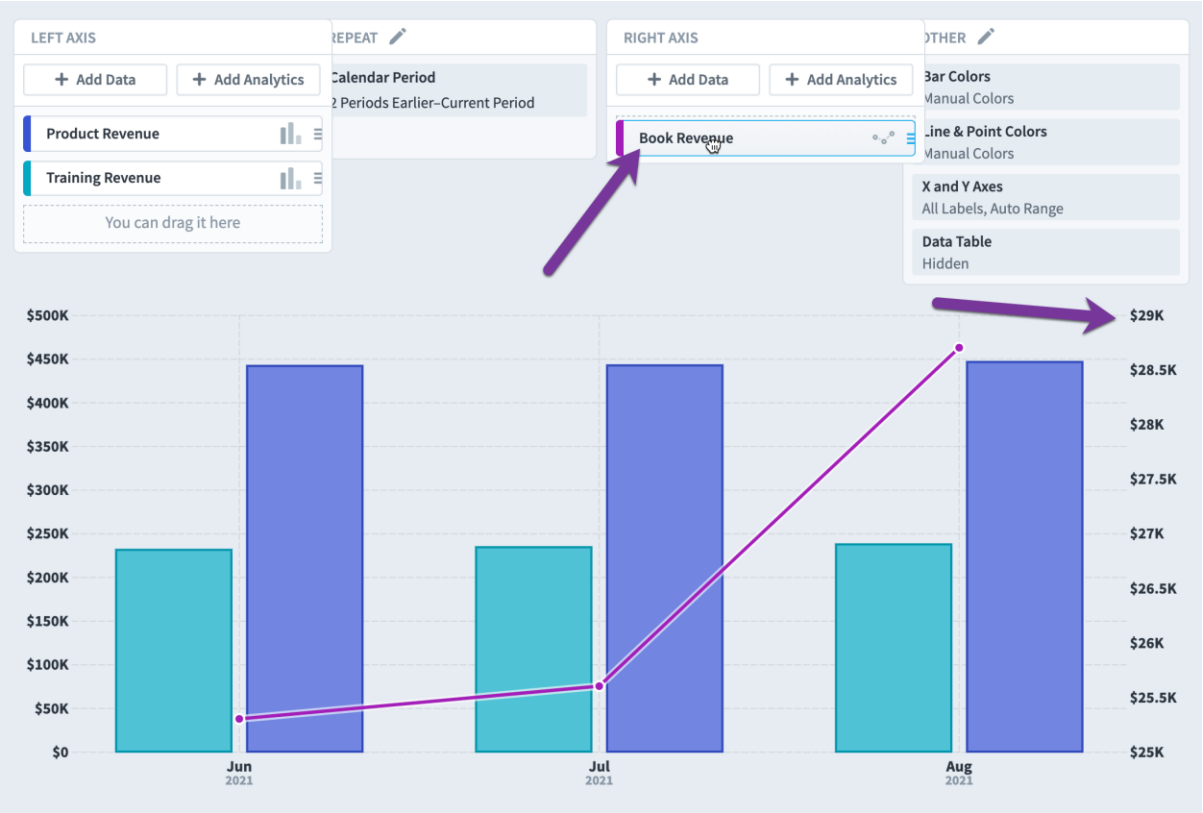
After moving Training Revenue to the bottom of the list, its bar is now on the right.



The order also affects the order above and below other items. Here we've moved the Book Revenue line to the bottom so that it's underneath the bars.

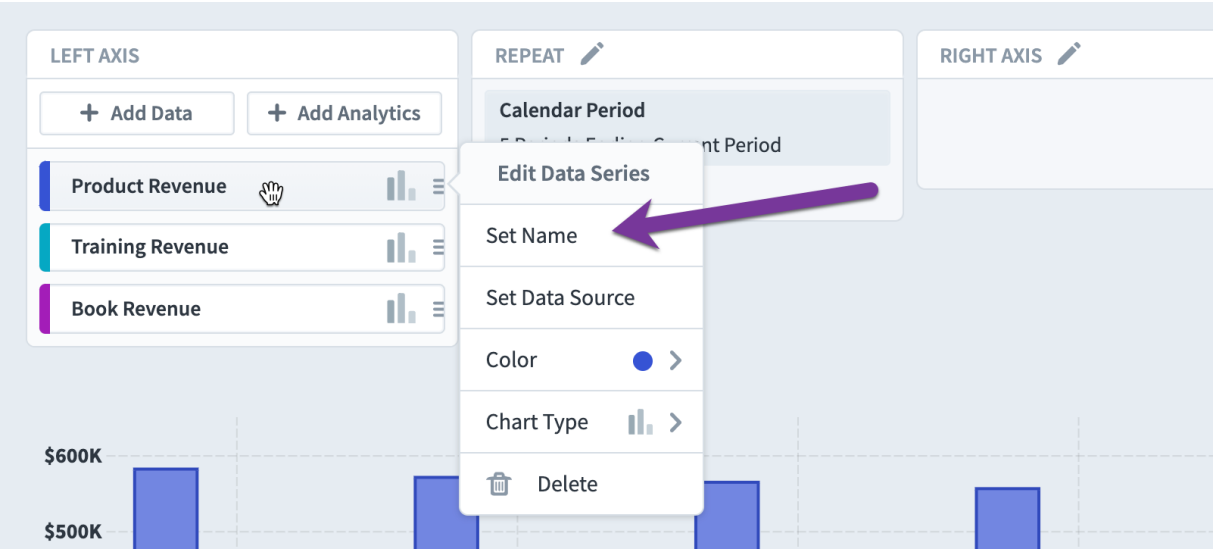


You can even drag items to the other axis. Here we've moved Book Revenue to the right axis so that it has its own scale.

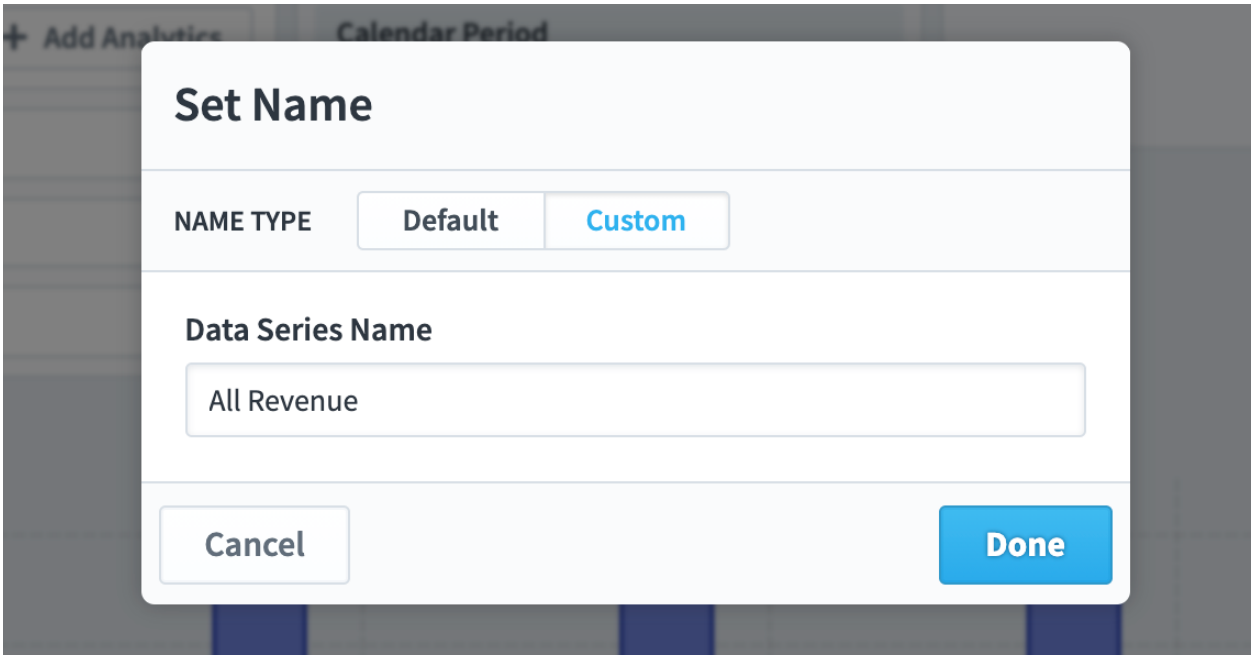


Setting data series names

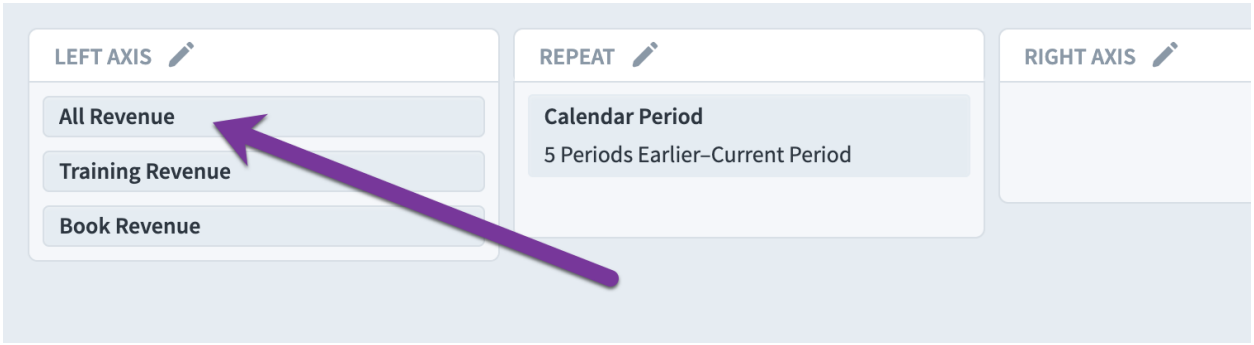
Data series names are used in various places like chart labels, tooltips, and legends. SMS chooses a default name for each data series, but you can override this by choosing Set Name in the edit tooltip.



Here we've decided to change the Product Revenue scorecard item's name on the chart to All Revenue.

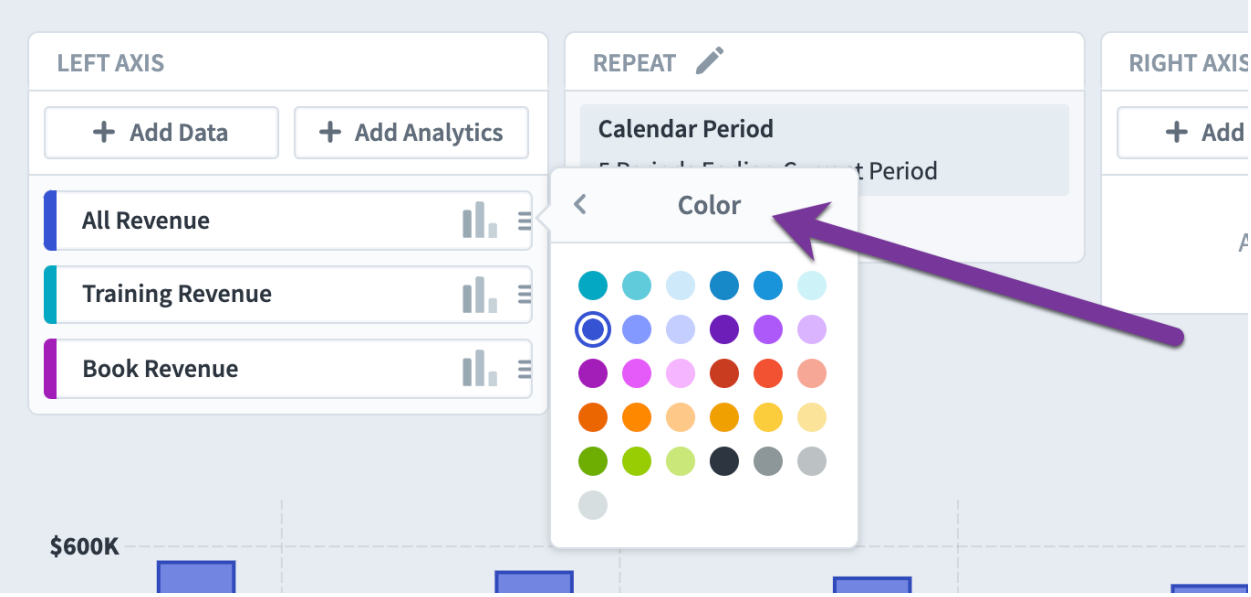


This new name is now used everywhere for that data series.

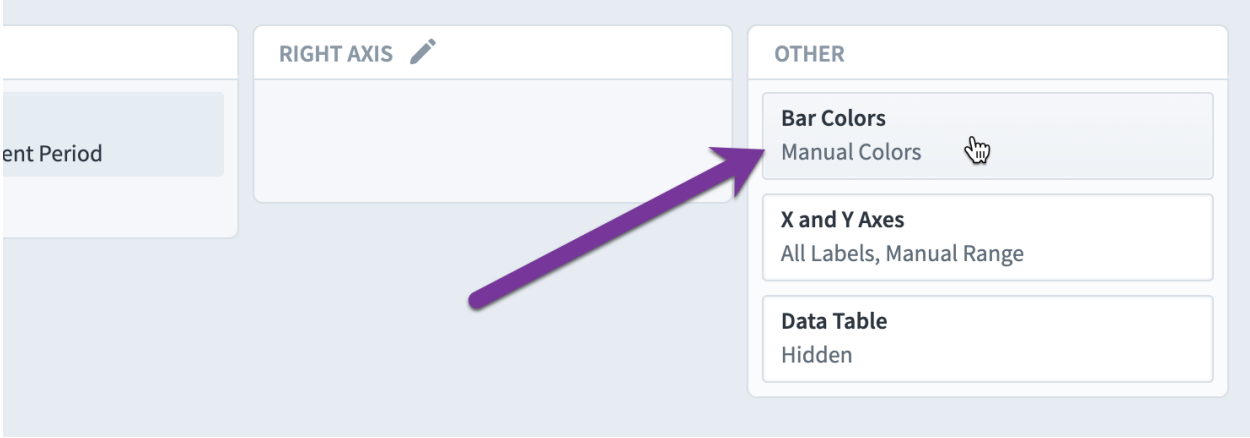


Setting colors

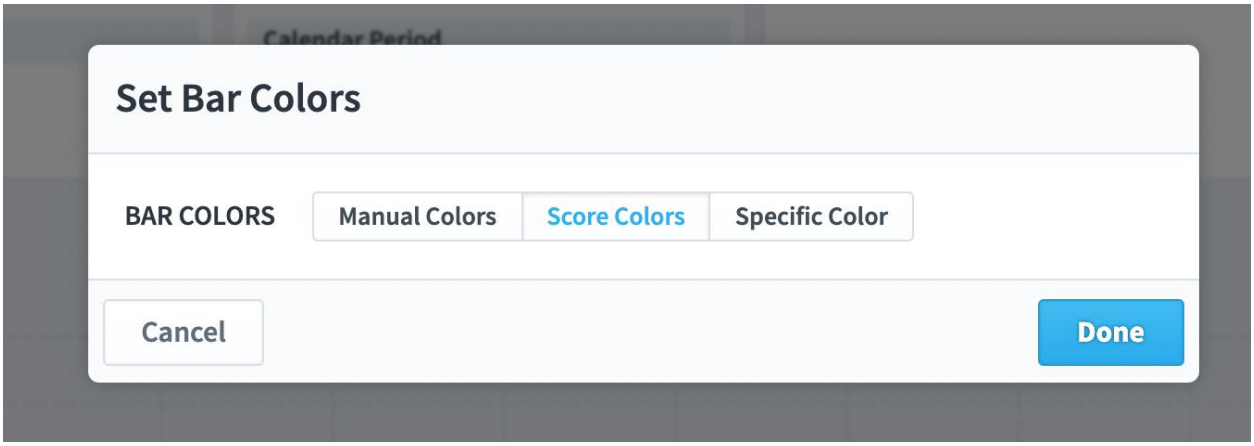
By default, chart data series use automatically assigned colors. You can also choose to manually change any automatically assigned color.



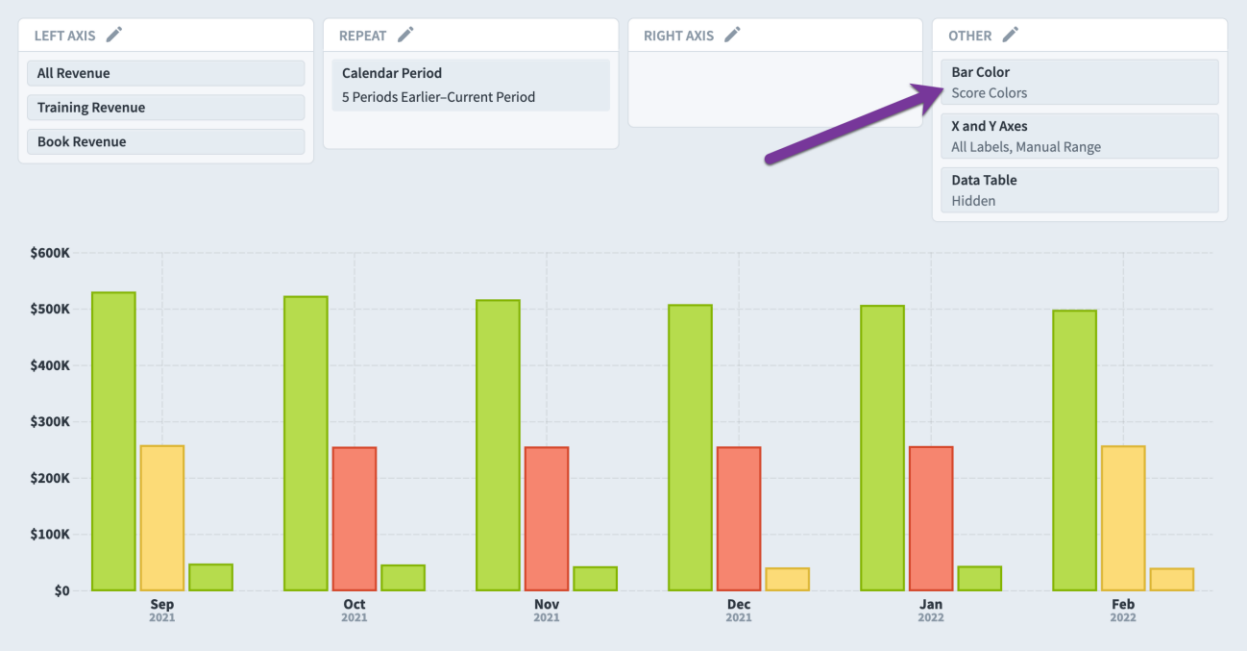
You can choose a different way to color the data series, however. In this example we're going to click on Bar Colors in the Other panel.



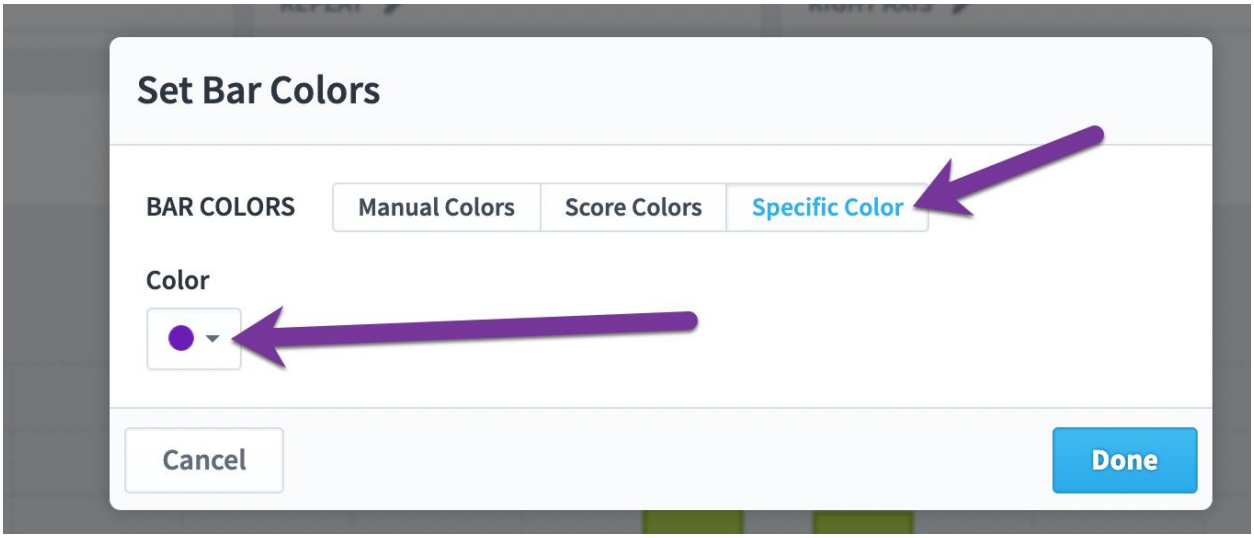
And we'll change from Manual to Score.

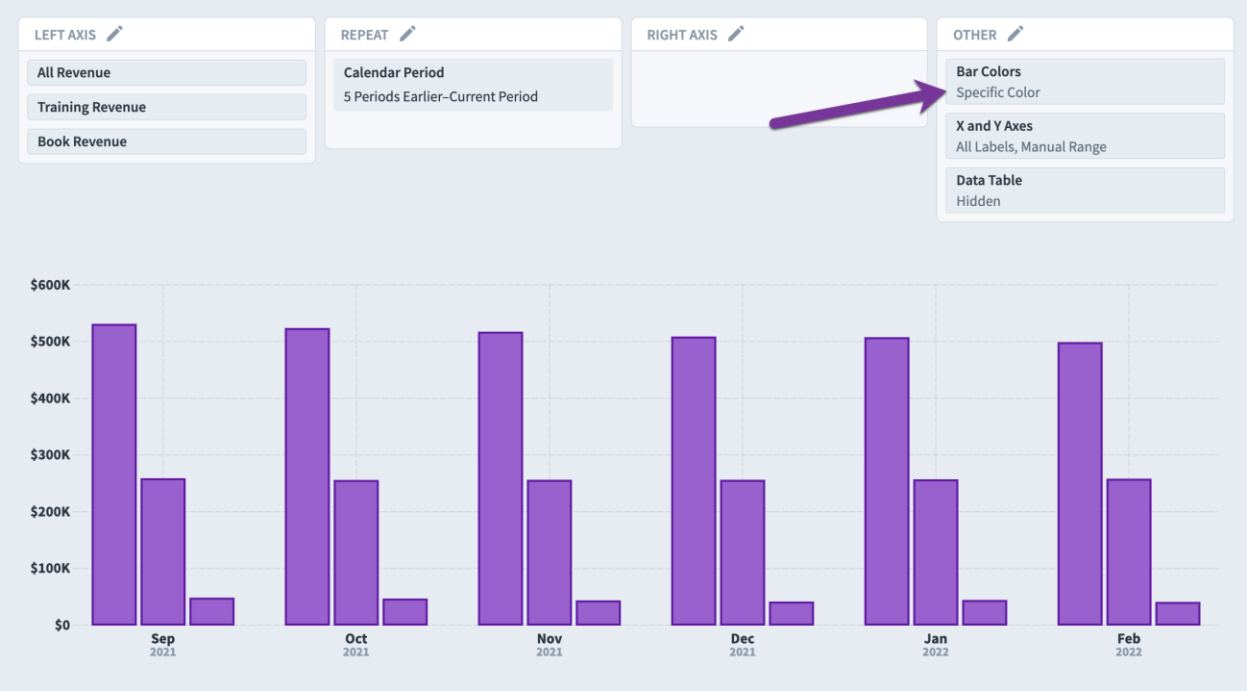


This changes the bars to be colored based on each scorecard item's score for that period.



You can also force all the bars for all data series to a single color by choosing Specific Color. This is the same as manually setting all data series to the same color individually.





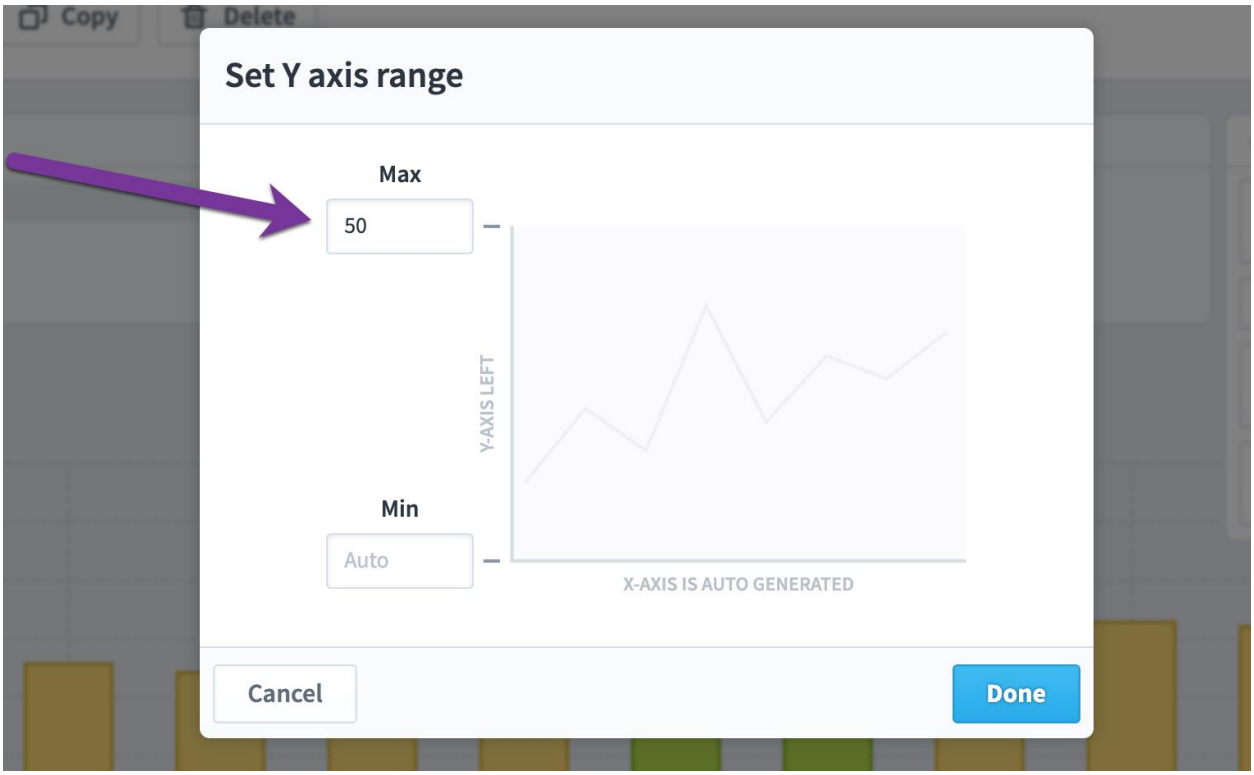
X and Y axes

You can configure a chart's axes through the X and Y Axes box in the Other panel.

The X and Y axis labels default to on, but you can turn one or both off here.

You can also set the Y axis range.

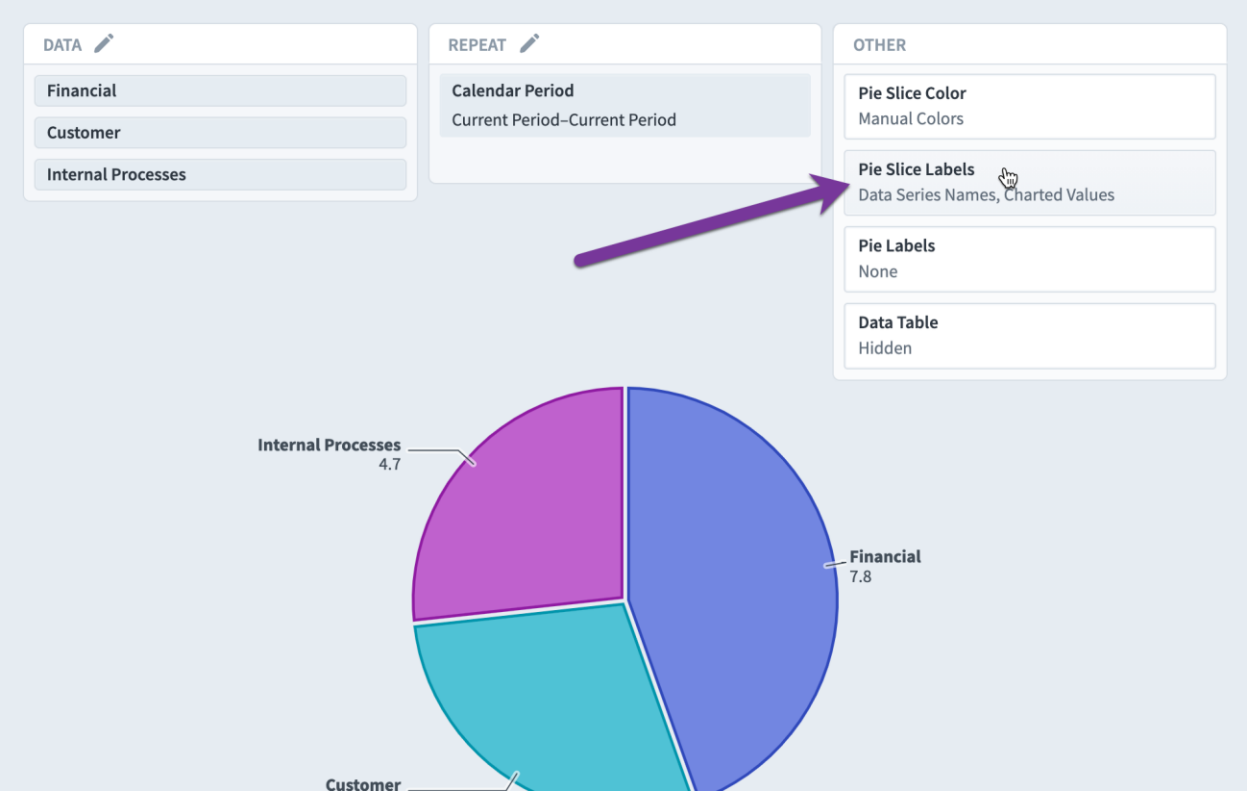
This opens a dialog where you can choose the chart's maximum and minimum Y axis values. By default, they're automatically set, but here we're overriding the maximum value to 50.



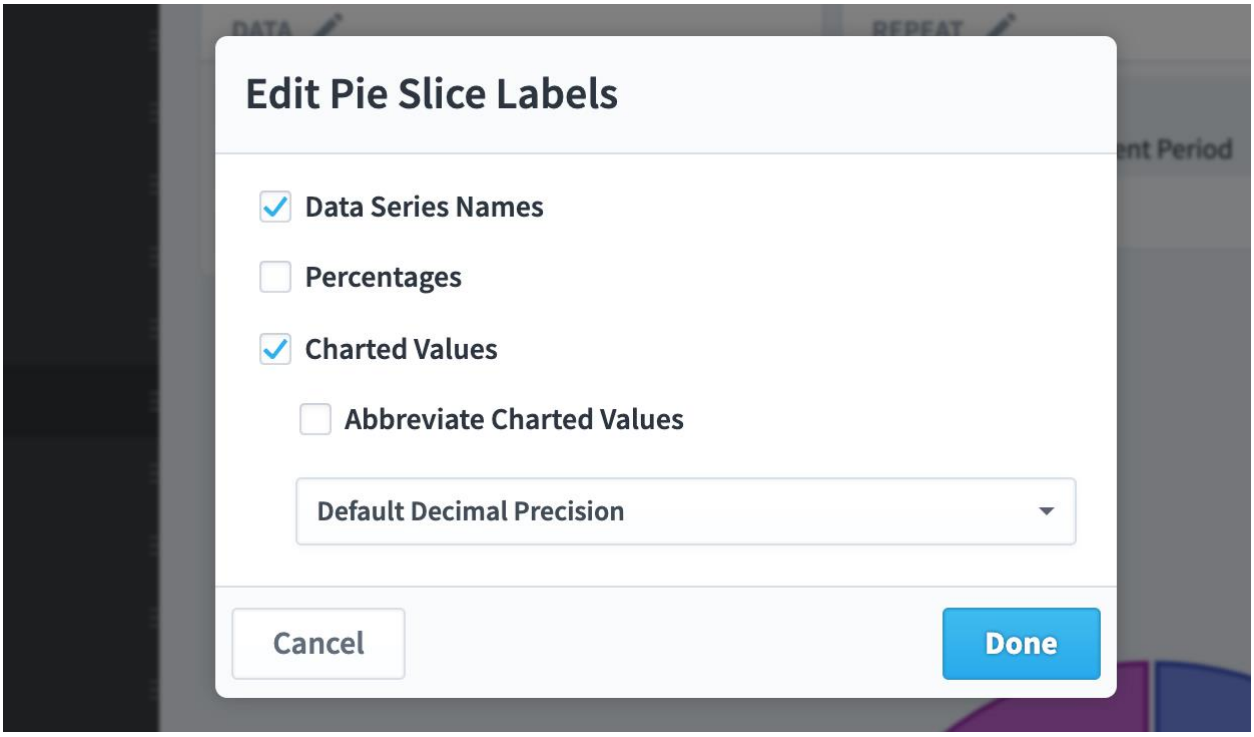
As you can see, the chart now shows a maximum value of 50, regardless of what data is being graphed.

Chart labels

Most chart types have labels that you can configure. In this pie chart example, you can see a Pie Slice Labels option in the Other menu.

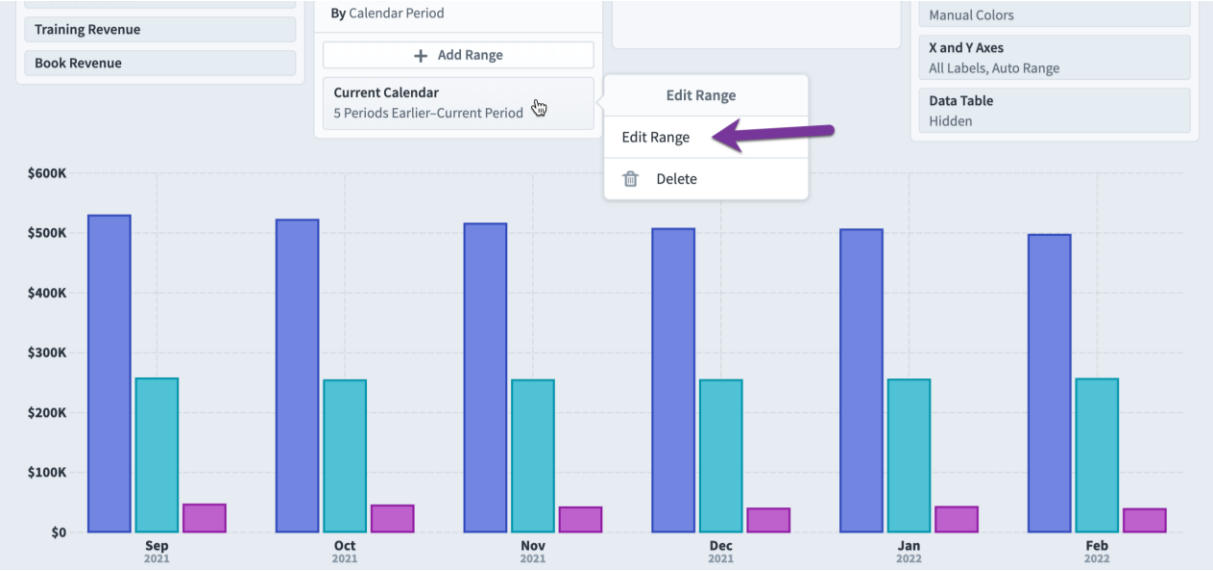


When we click it, we can see the various label options, including the ability to show percentages and abbreviated chart values.

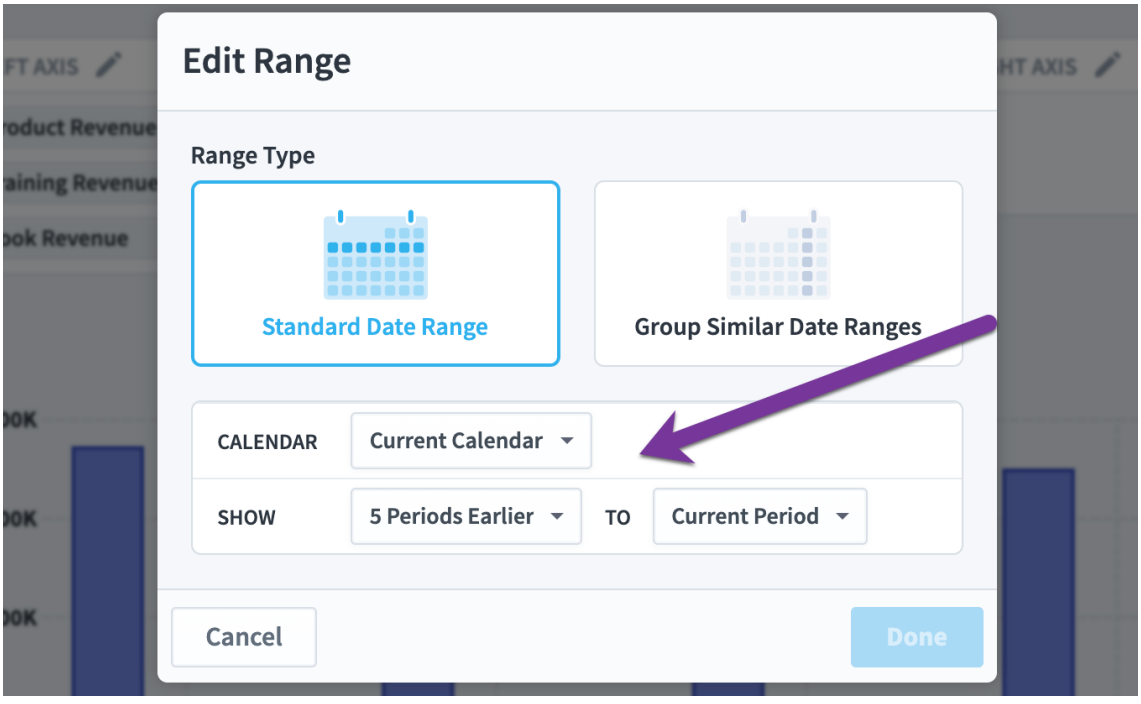


Repeating left & right axes

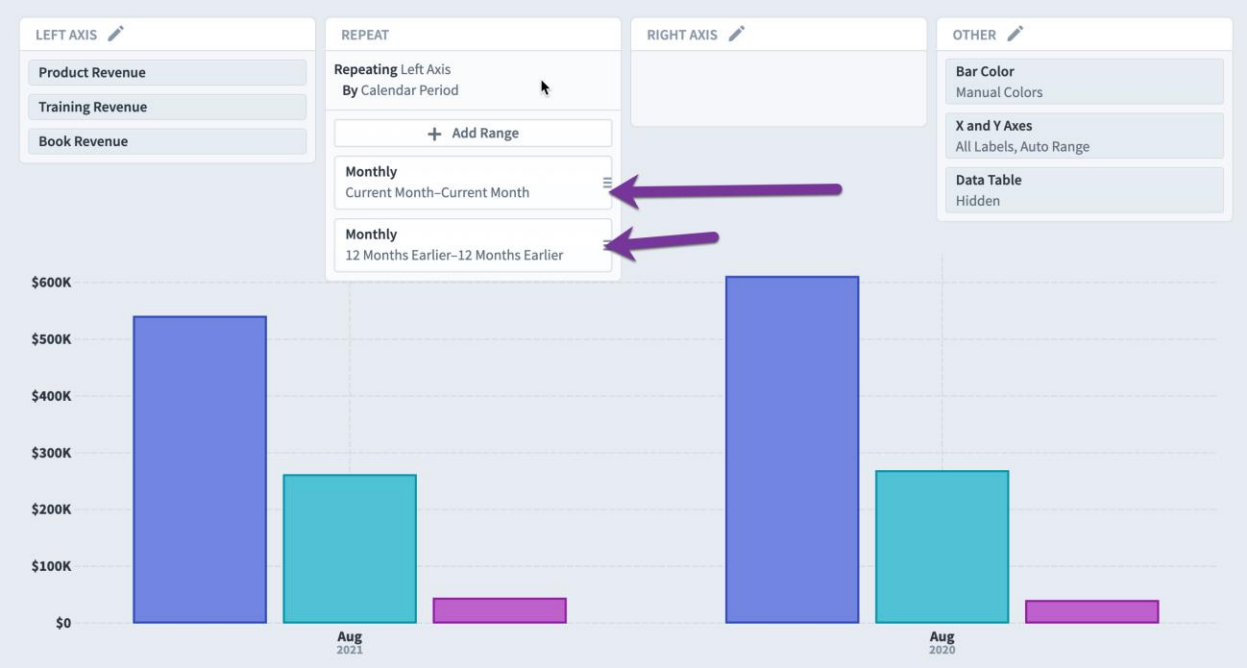
When you're graphing scorecard items, you'll always be able to set your calendar period range in the Repeat panel. Here we're showing 6 periods of data for three KPIs. We can edit the calendar period range by clicking on it and choosing "Edit Range".



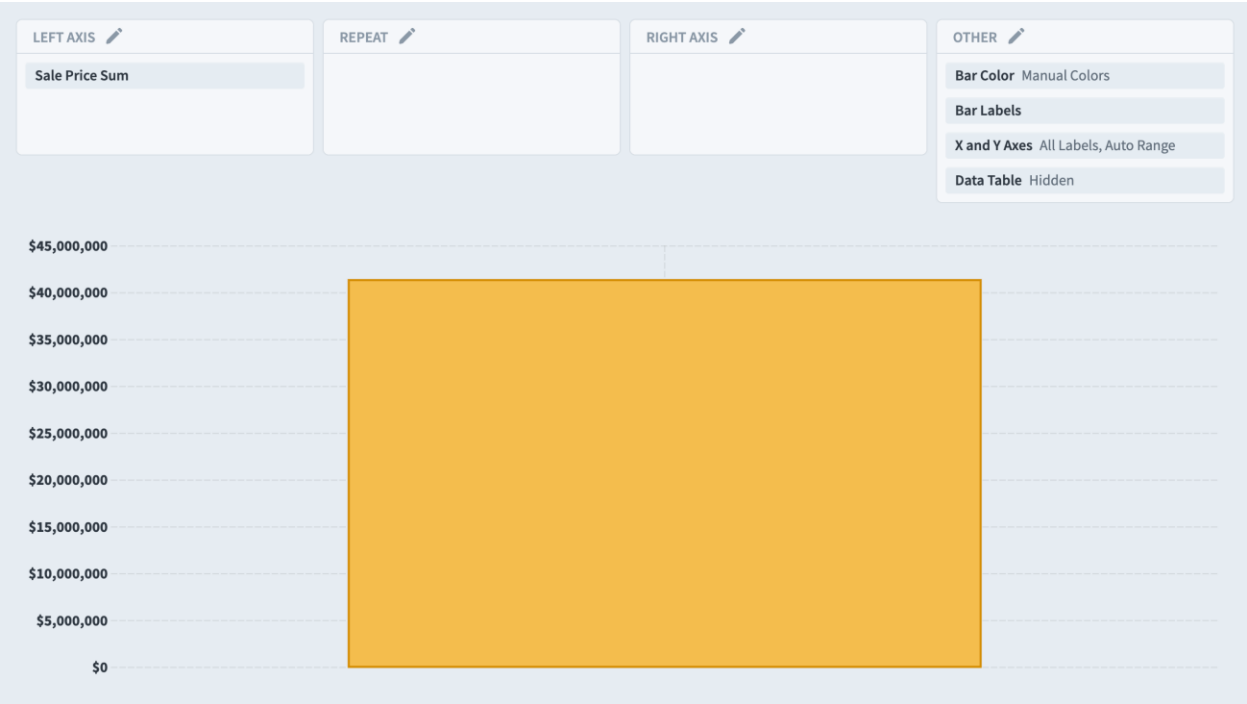
This is the standard date range selector where you can choose either a range based on the current calendar, or choose a specific calendar and choose a relative or date range.



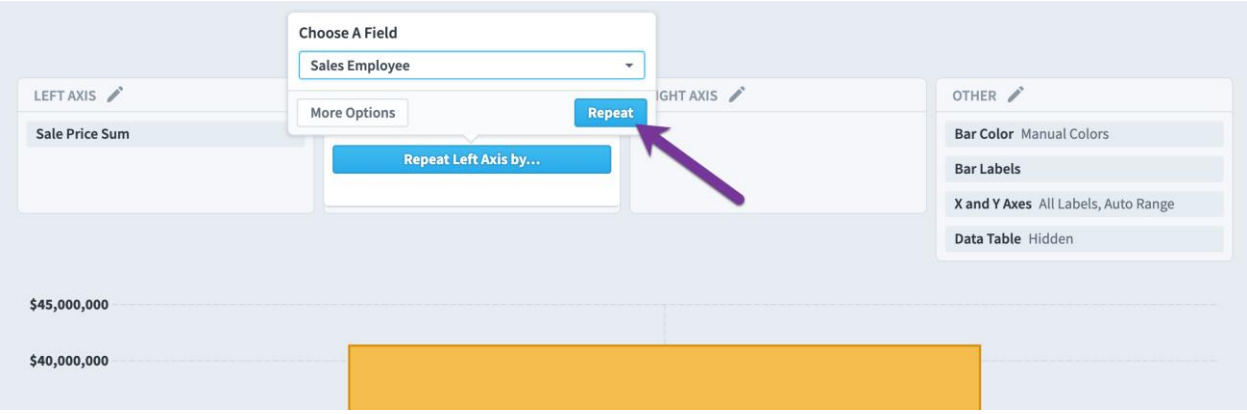
You can even show data for multiple ranges. Here we're showing the data for the current month as well as the data for the month one year earlier.



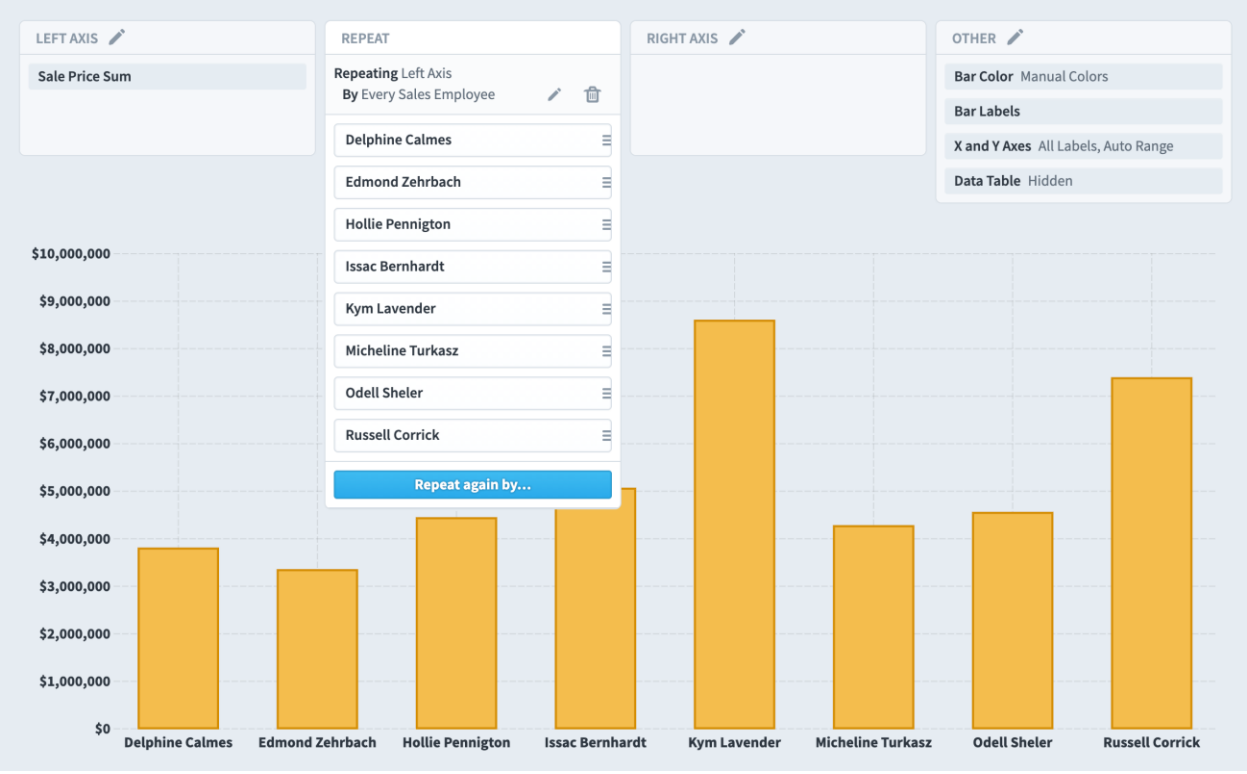
While scorecard items have a built-in repeating by calendar period, datasets and initiatives do not. In this dataset example, we have a single bar showing the total sales dollars for all time.



Repeating values aren't required for datasets, but they are very useful. Here we're going to the Repeat panel and choosing to repeat by the Sales Employee field.

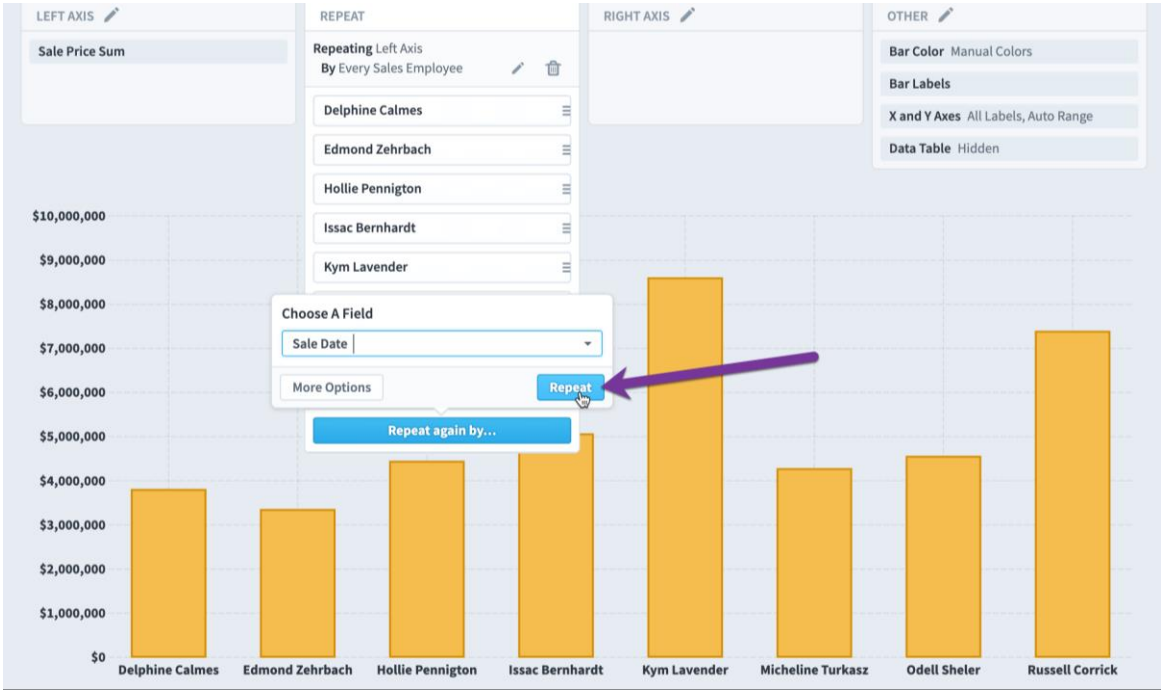


We now have a separate bar showing the all-time sales totals for every employee. Whenever the dataset is updated to include new employees, they'll automatically show up in this chart.



Repeating again

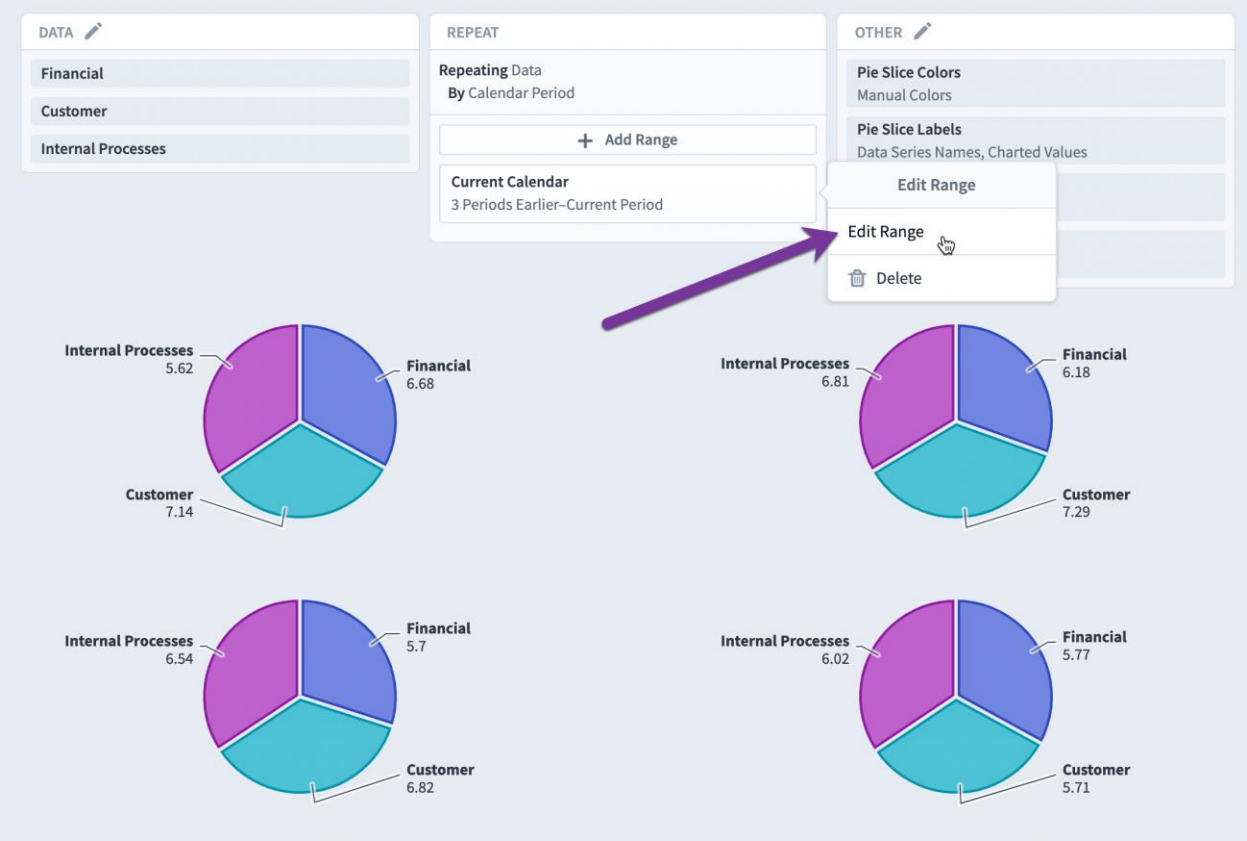
You can choose to repeat your data series a second time. To do this, click on the "Repeat again by..." button and choose a field. Here we're going to choose Sale Date.



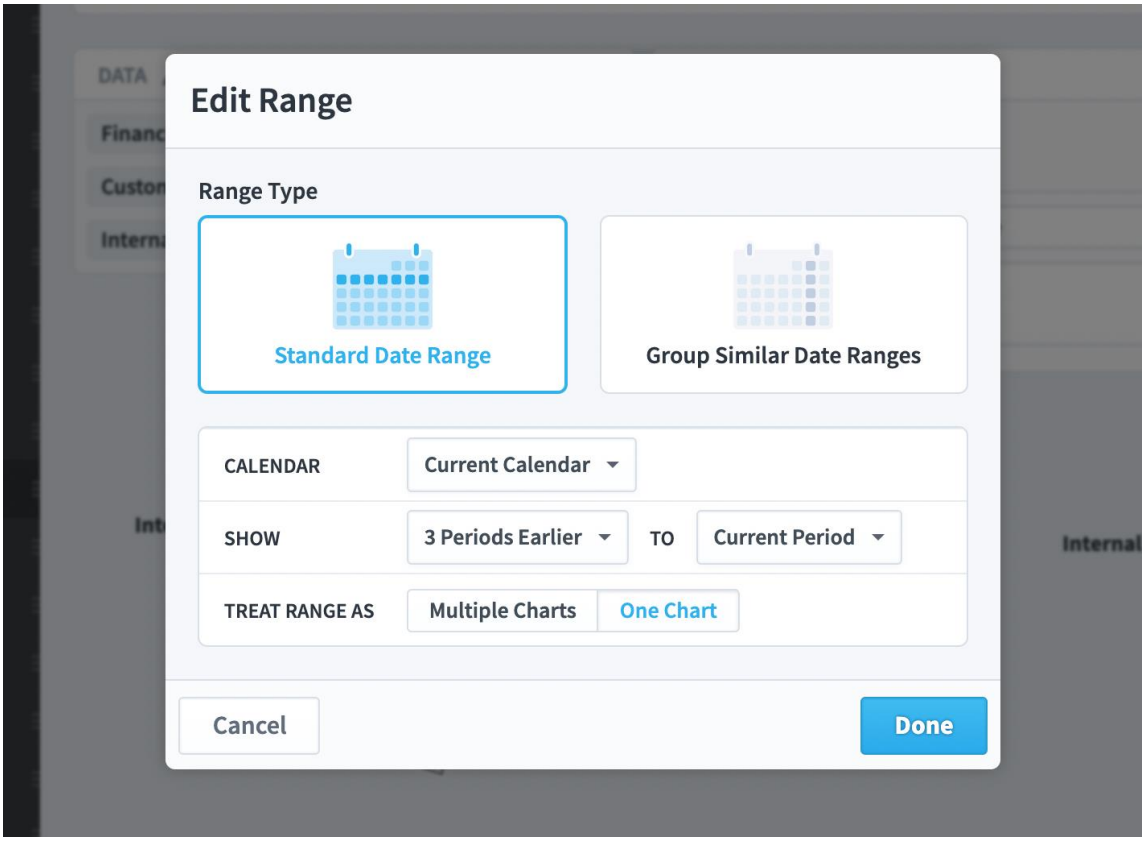
The chart is now showing the sales totals for the last two months for all employees.

Repeating non-axis charts

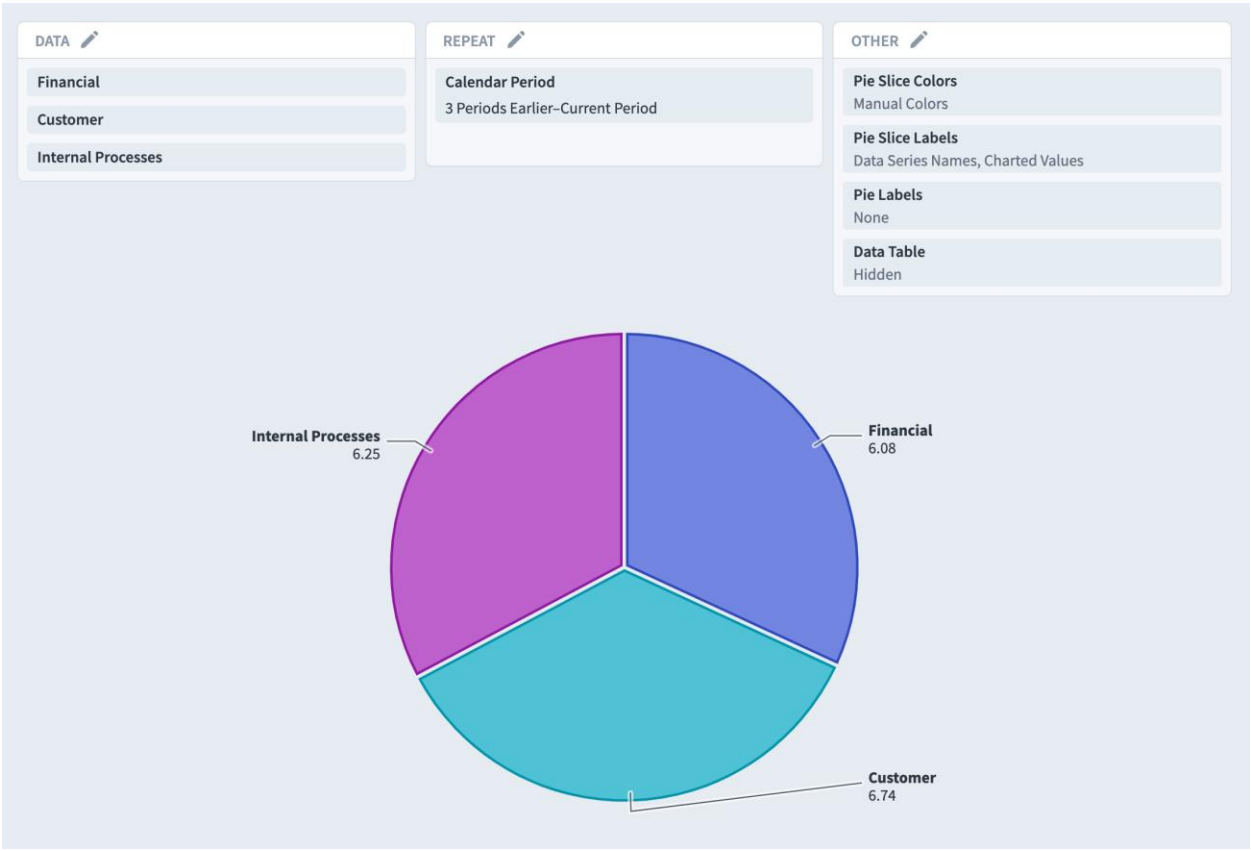
Repeating works the same for non-axis charts. In this example we're repeating three KPIs for four calendar periods. By default, each calendar period is its own pie chart, but you can change this by clicking on the calendar period range and choosing "Edit Range".



For non-axis charts there's a "Treat Range As" toggle, allowing you to show one chart for the entire range.

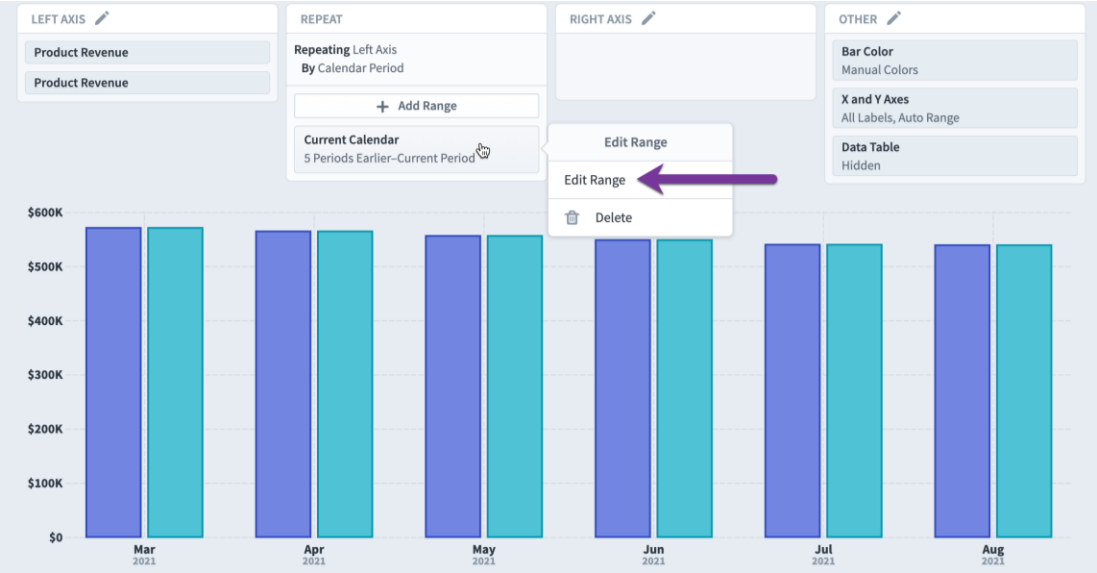


The result is this single pie chart that shows four periods of data.

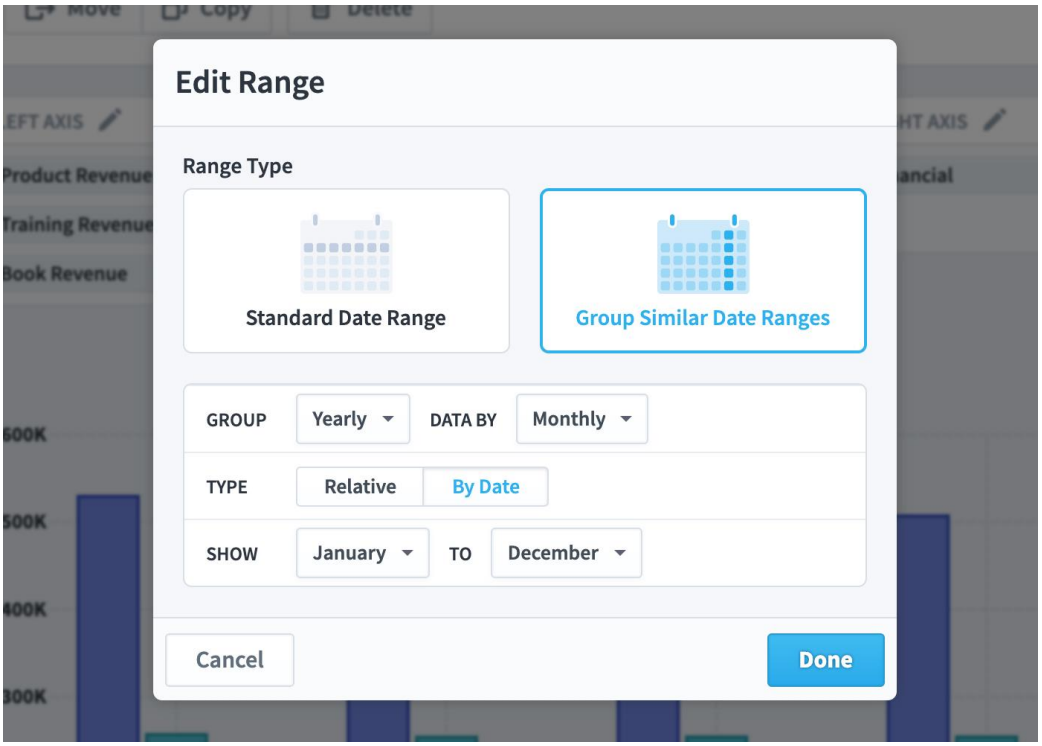


Grouping similar date ranges

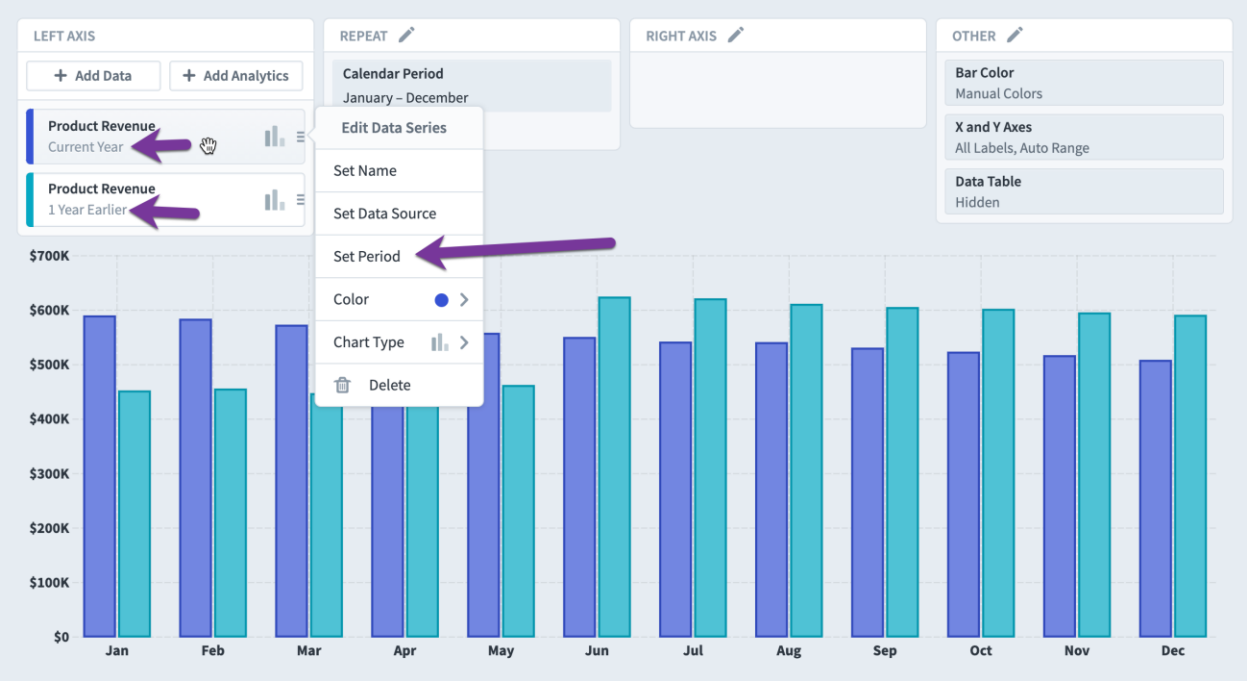
In addition to graphing standard date ranges like all the months in 2021, you can also graph data like months of the year or days of the week. In this example we have two identical data series for Product Revenue, and we'll choose "Edit Range".



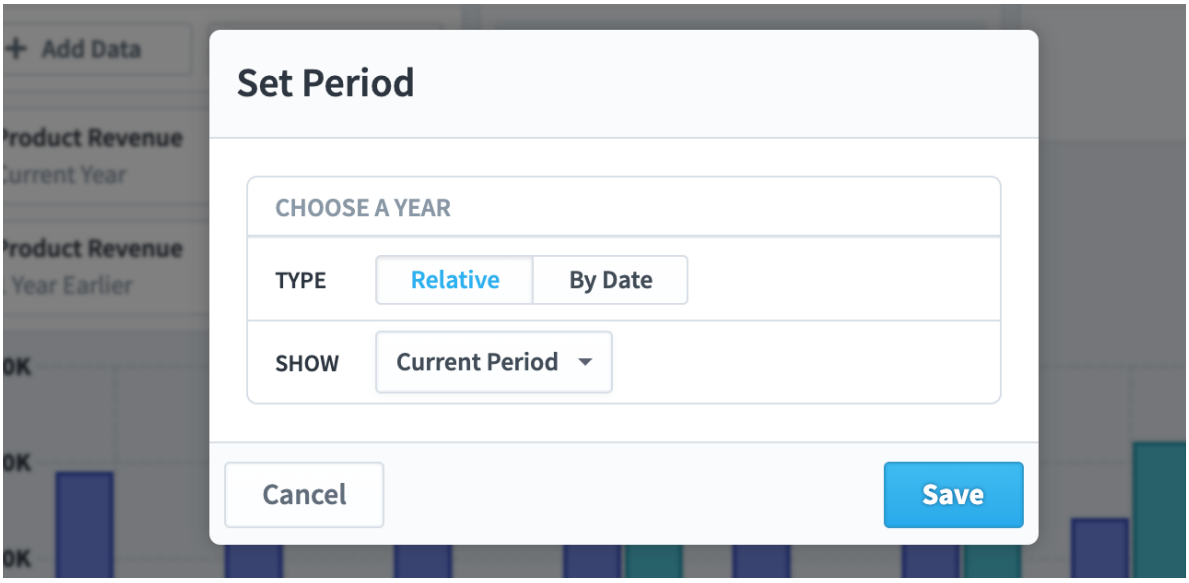
We'll change to "Group Similar Date Ranges" and then choose to group yearly data by monthly.



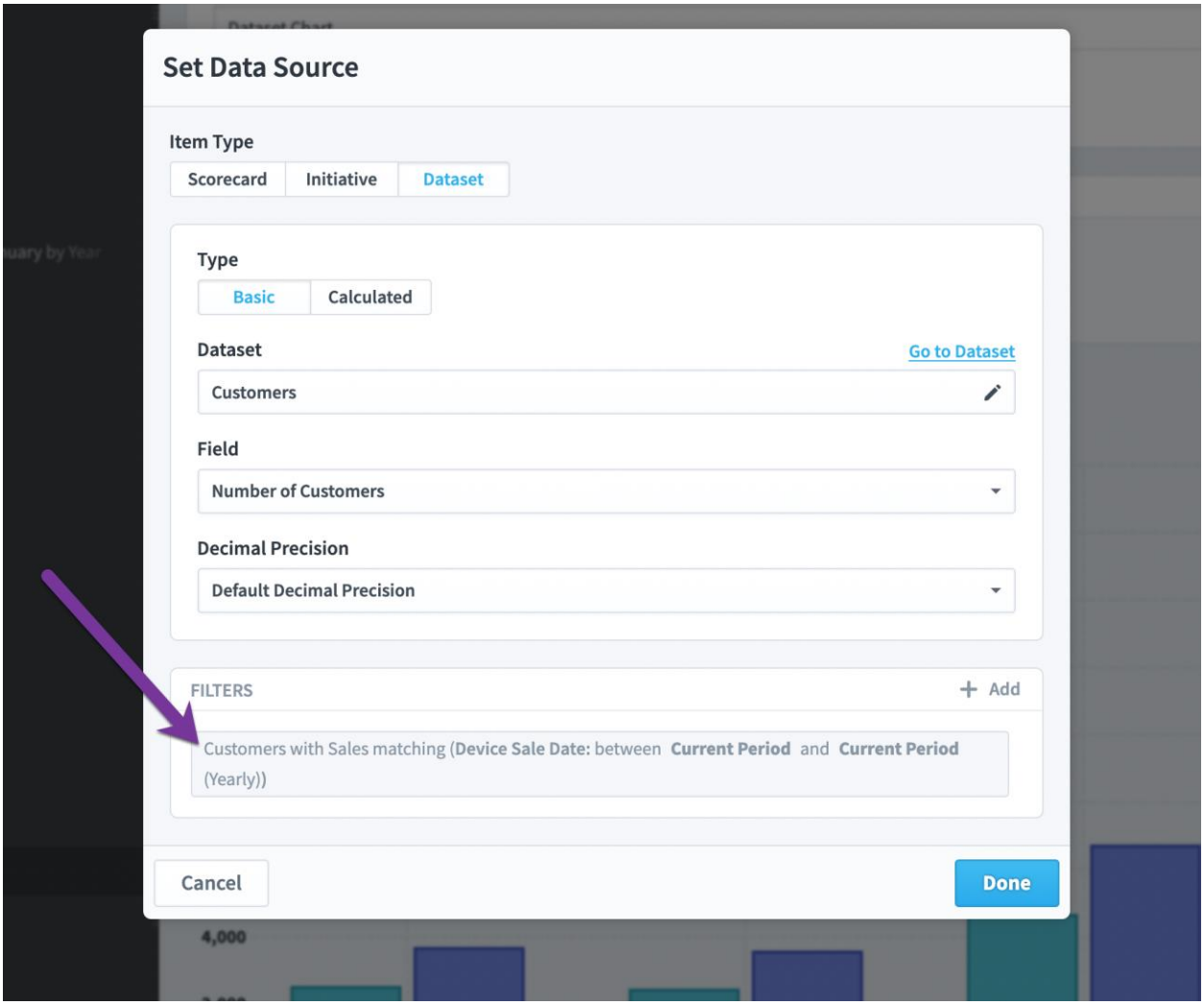
When we're done, we see a completely different kind of graph. As you can see, it now lists the months across the X axis but no years. Our chart now shows product revenue for the current year compared against product revenue for the previous year.



Every scorecard data series has a "Set Period" menu item. This only shows up when you've chosen to "Group Similar Date Ranges" and it allows you to choose which period to use for each data series. That's how we choose Product Revenue for this year vs. last year.

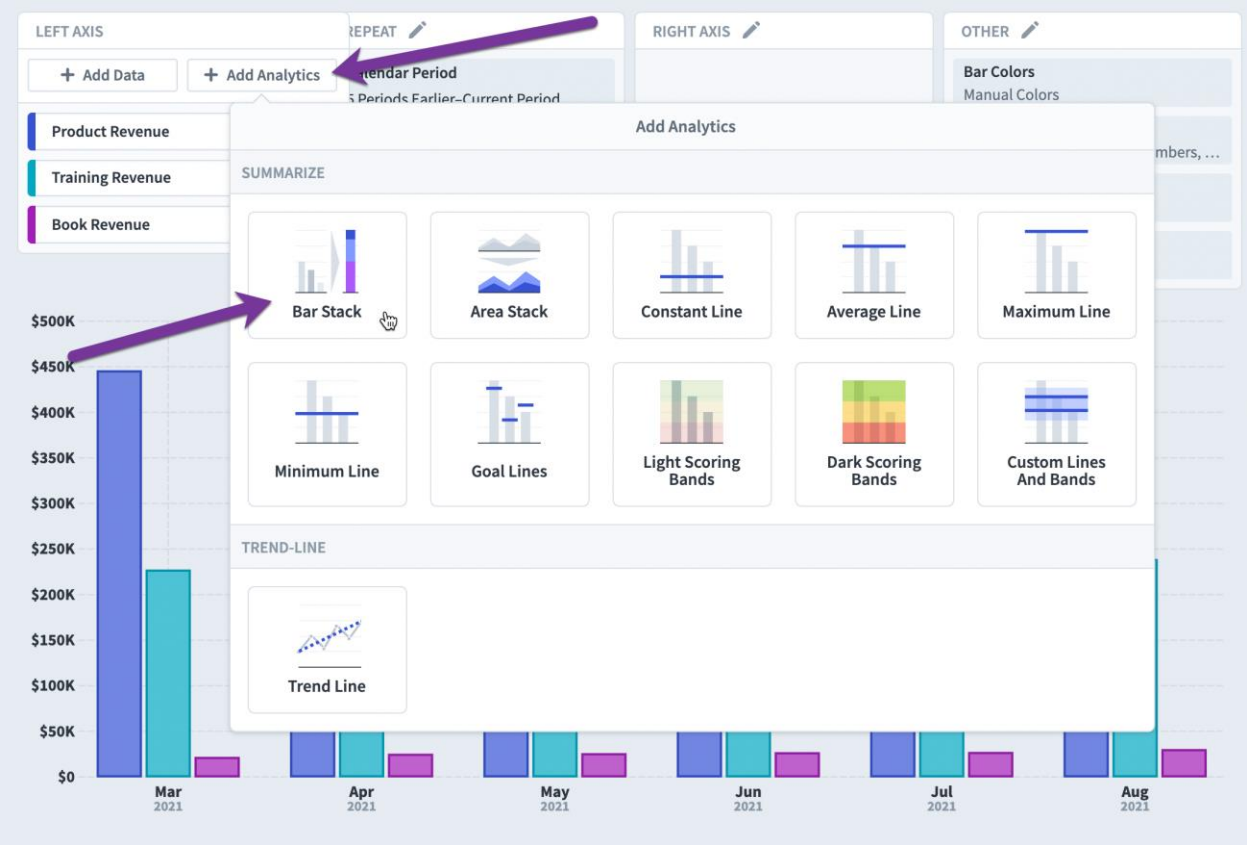


There's no "Set Period" menu item for datasets. Instead, you can just choose which date range you want as a filter in the "Set Data Source" menu.

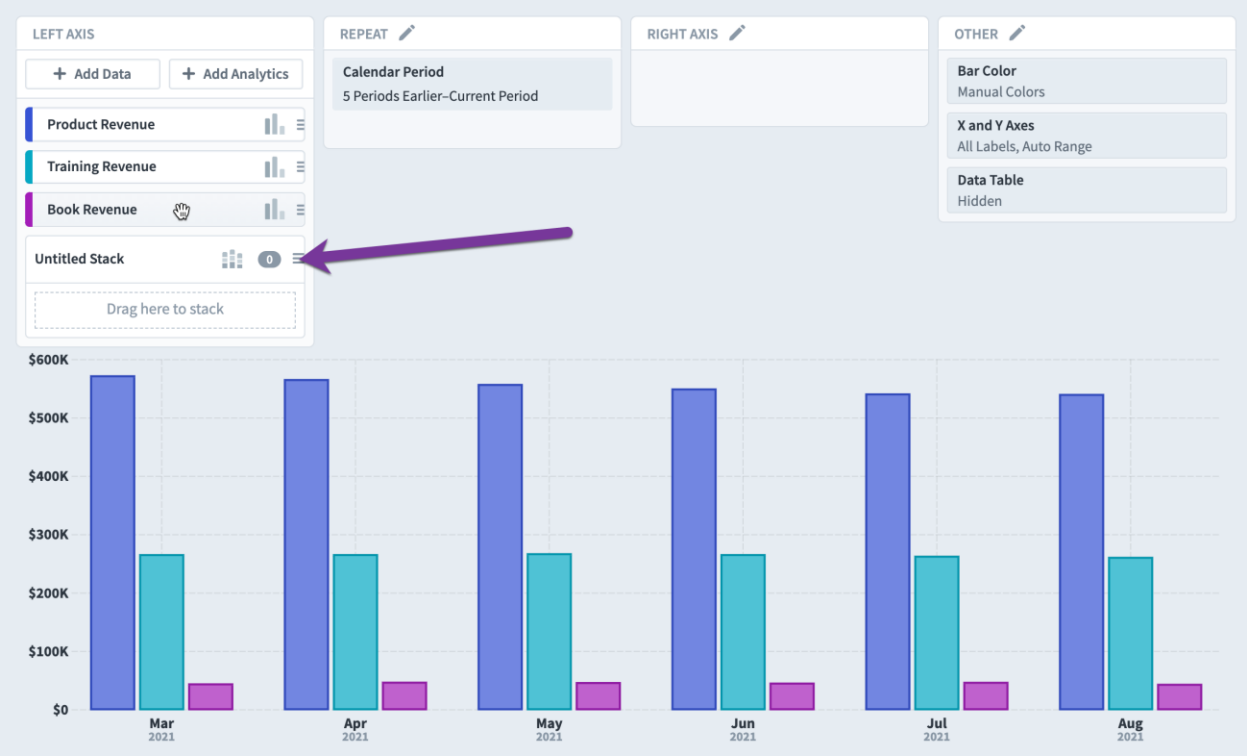


Bar and area stacks

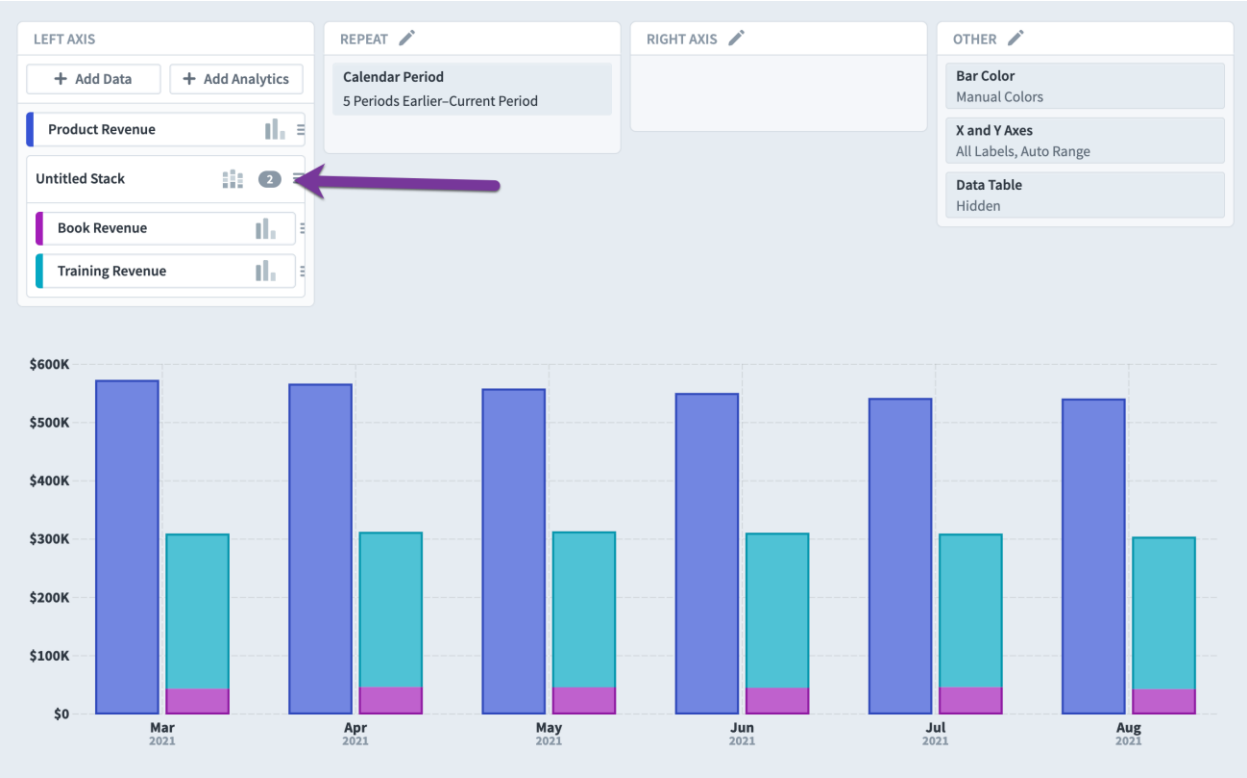
You can create bar or area stacks by choosing them from the "Add Analytics" menu on either the left or right axis.



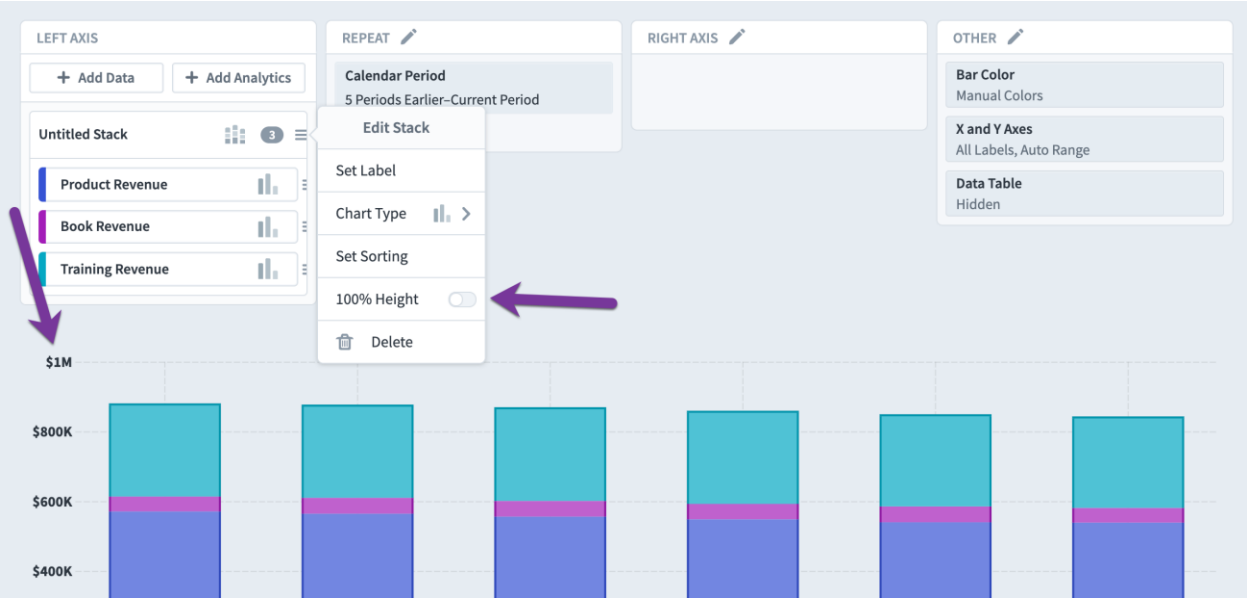
This adds an empty stack to the axis.



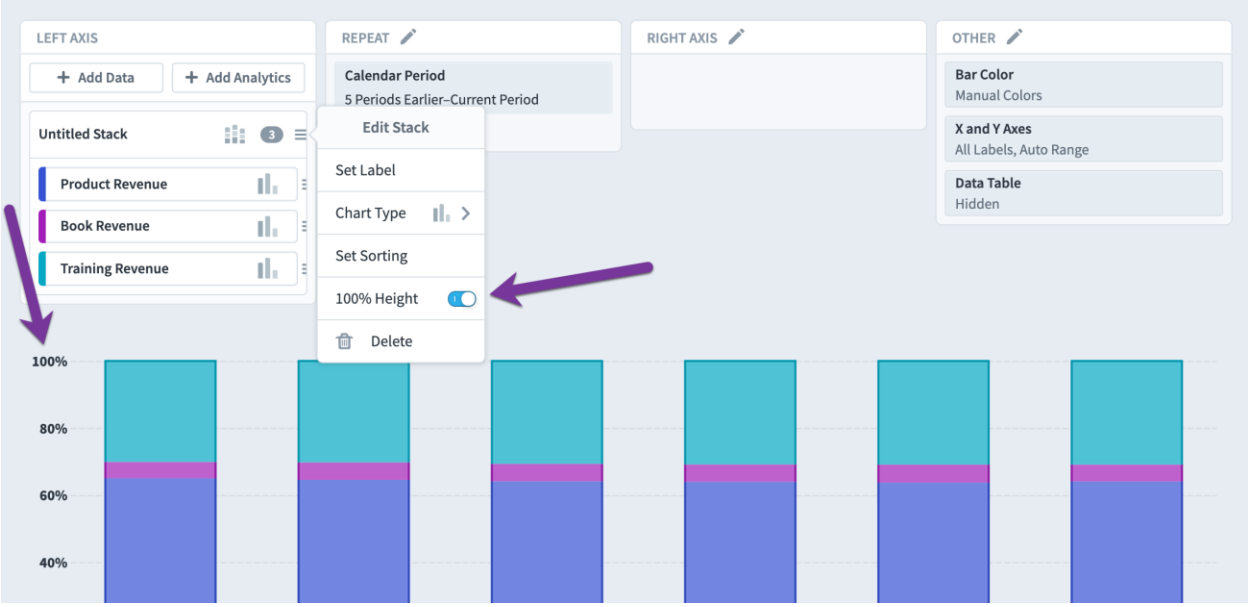
All you need to do is drag and drop data series into the stack. Here we've added book and training revenue to the stack while product revenue is its own bar. This allows you to have multiple stacks and non-stacked bars at the same time.



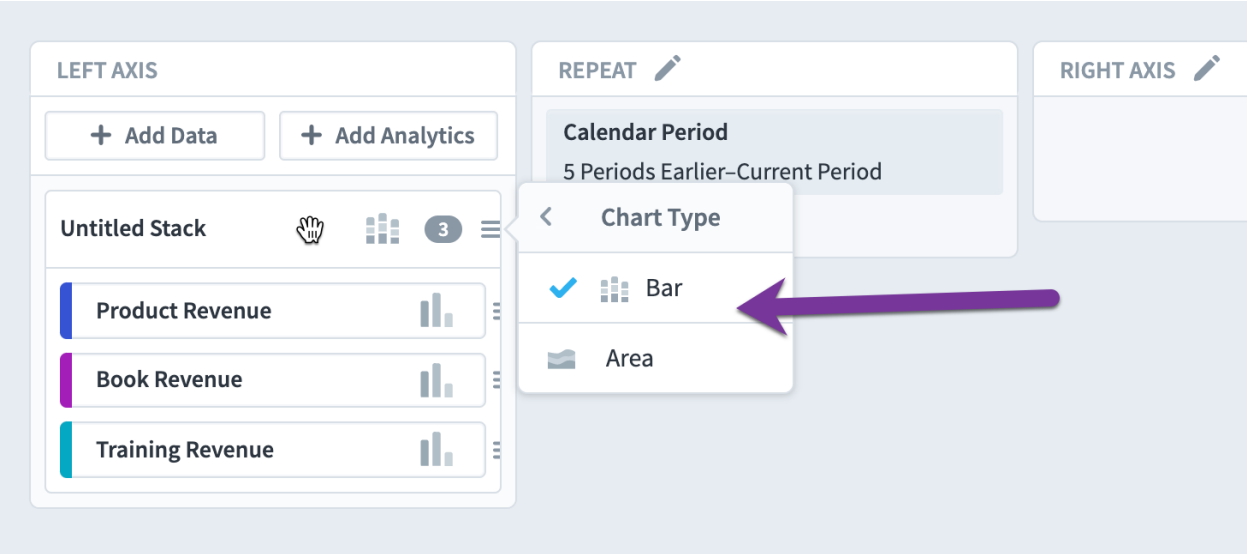
You can configure the stack by clicking on it. By default, 100% height is off, and you can see how the Y axis goes up to $1M.



When we turn on the 100% Height toggle, the Y axis changes to percentages and all repeating stacks become full height.

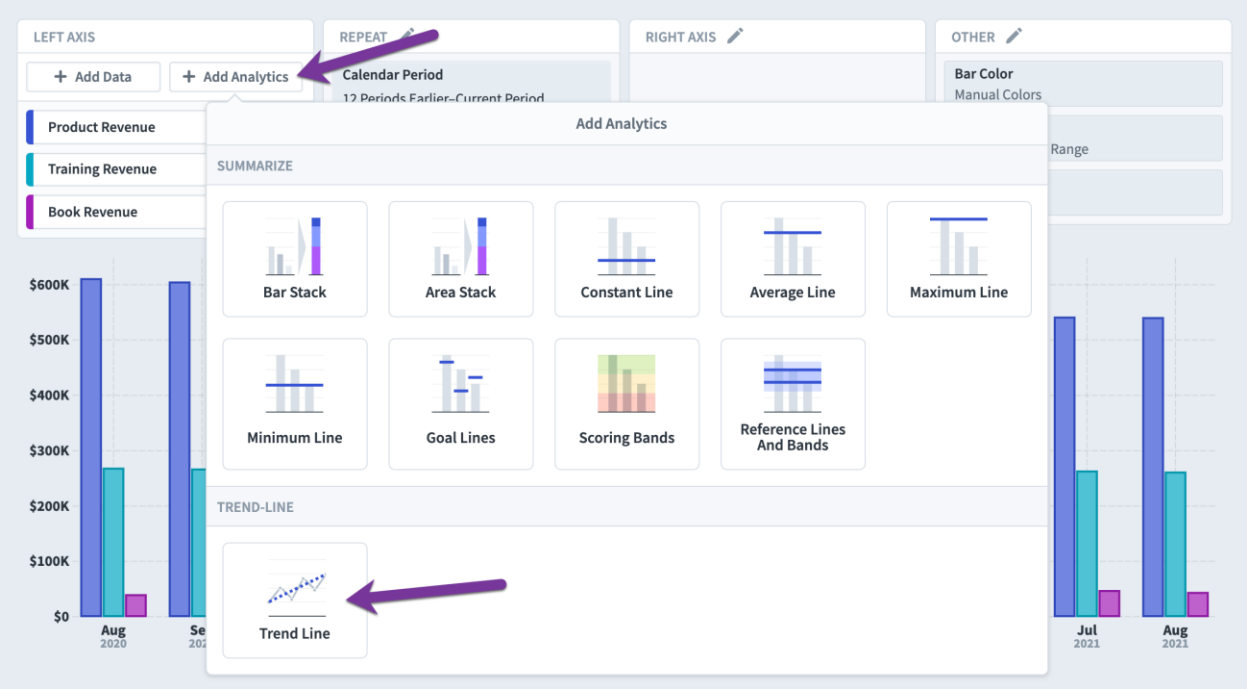


You can also change between Bar and Area stacks.

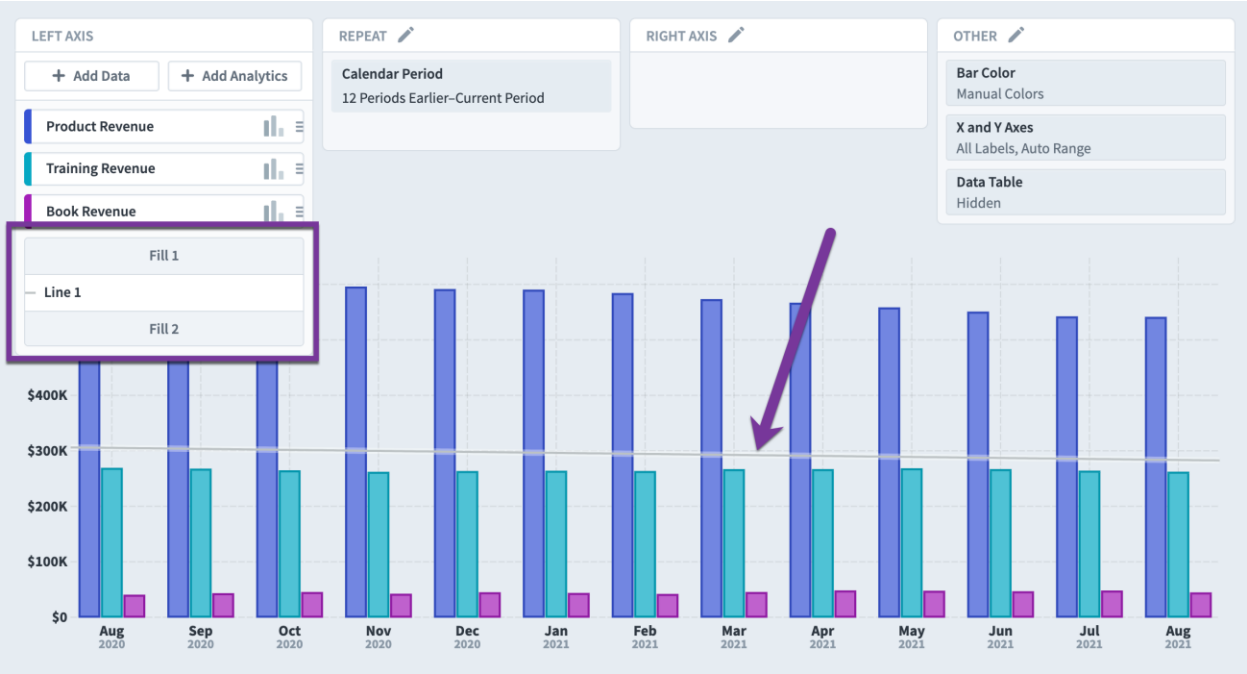


Trend lines

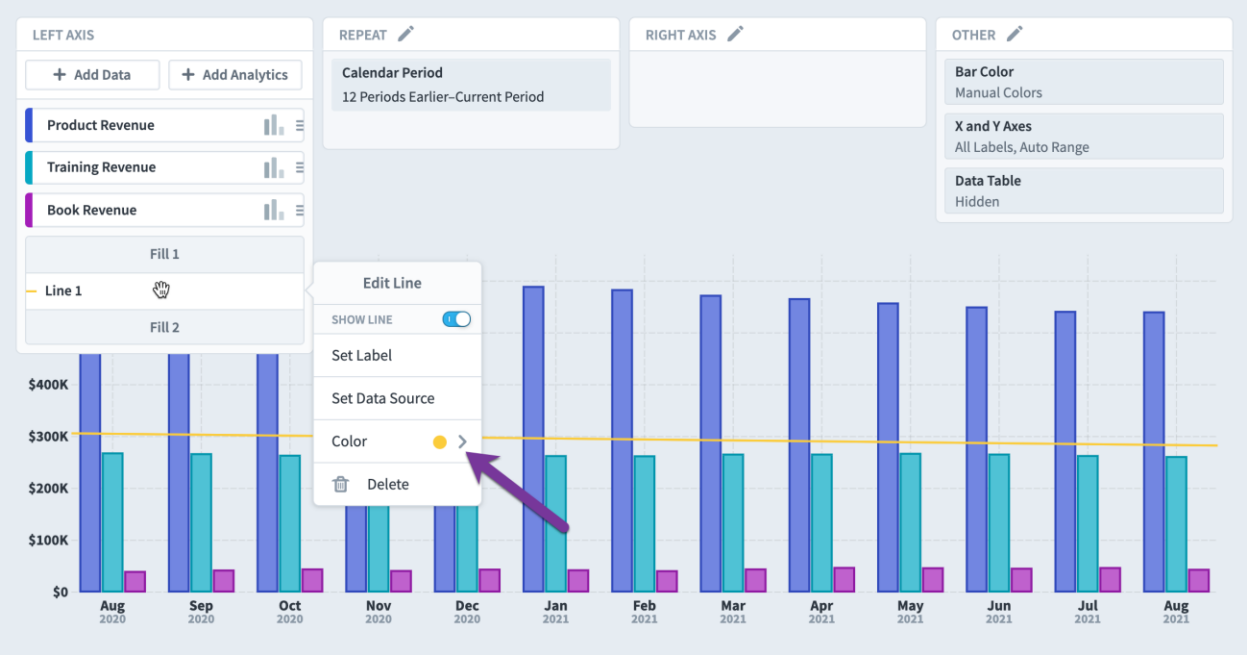
You can add a trend line from each axis' Add Analytics menu.



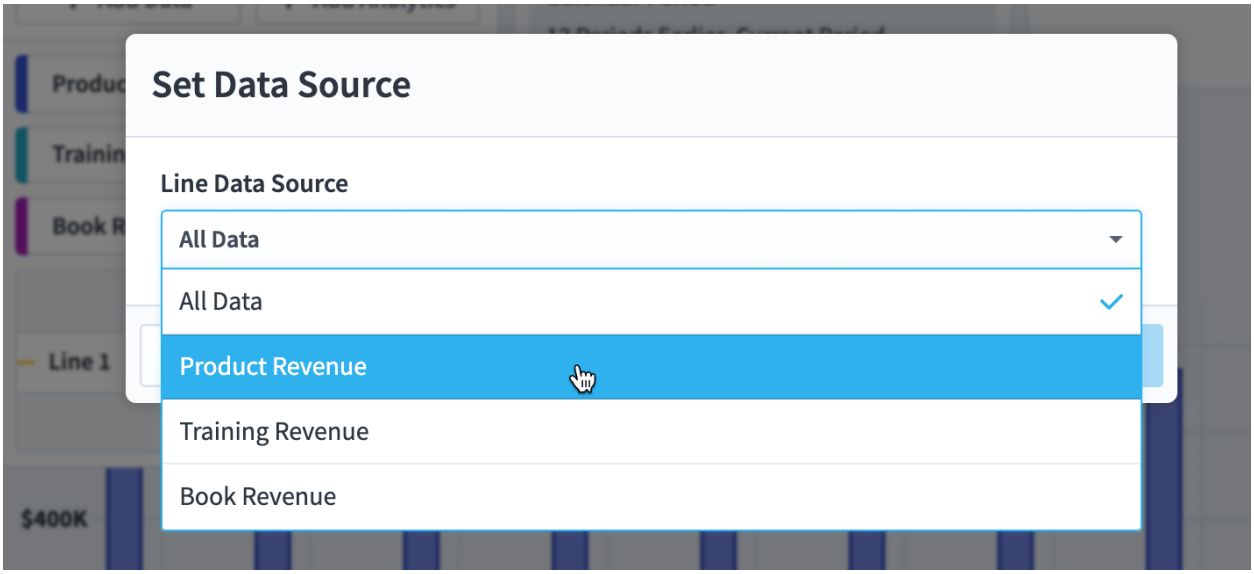
We now see a trend line object in the left axis panel. There's also a trend line showing each month's average of the three series.



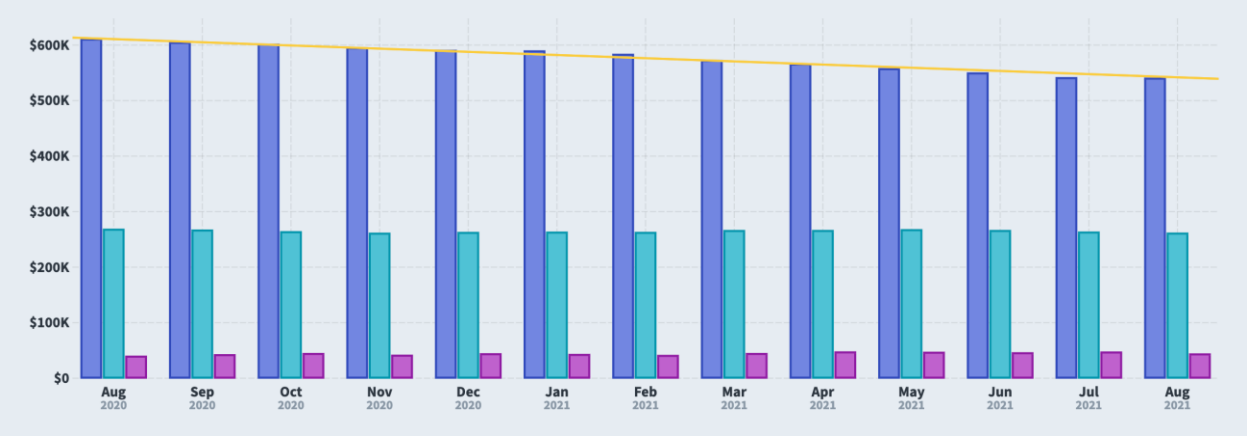
You can change the line's color.



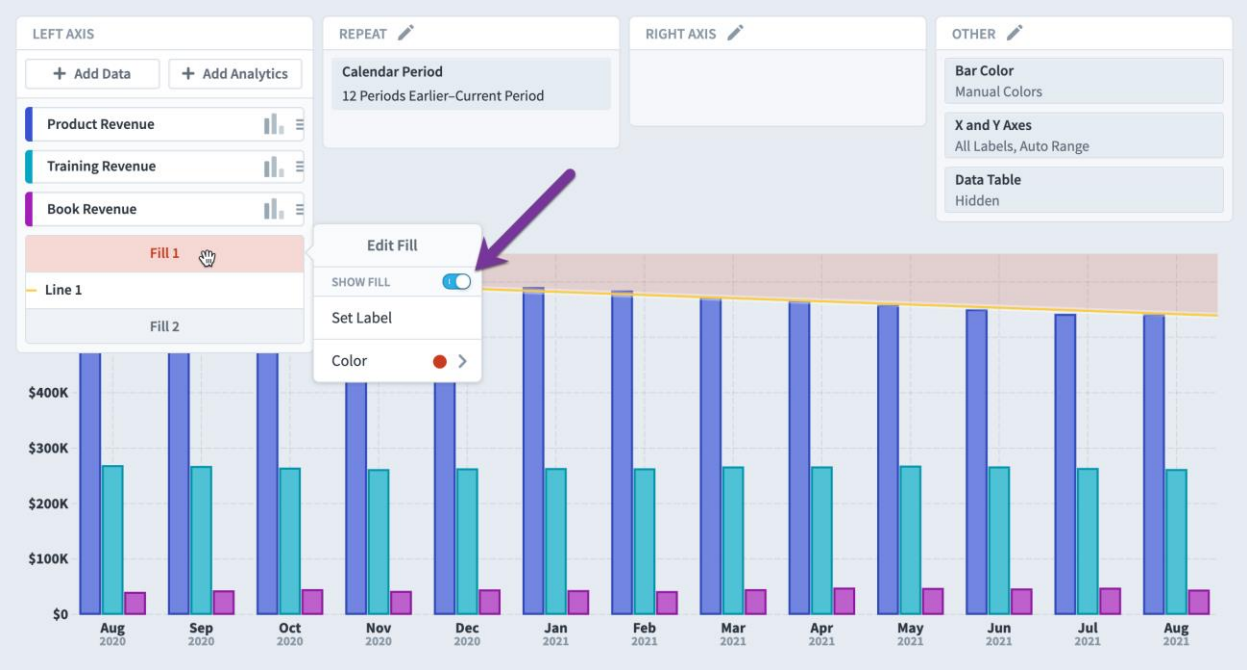
You can also set its data source. Here we're changing it to Product Revenue rather than All Data.



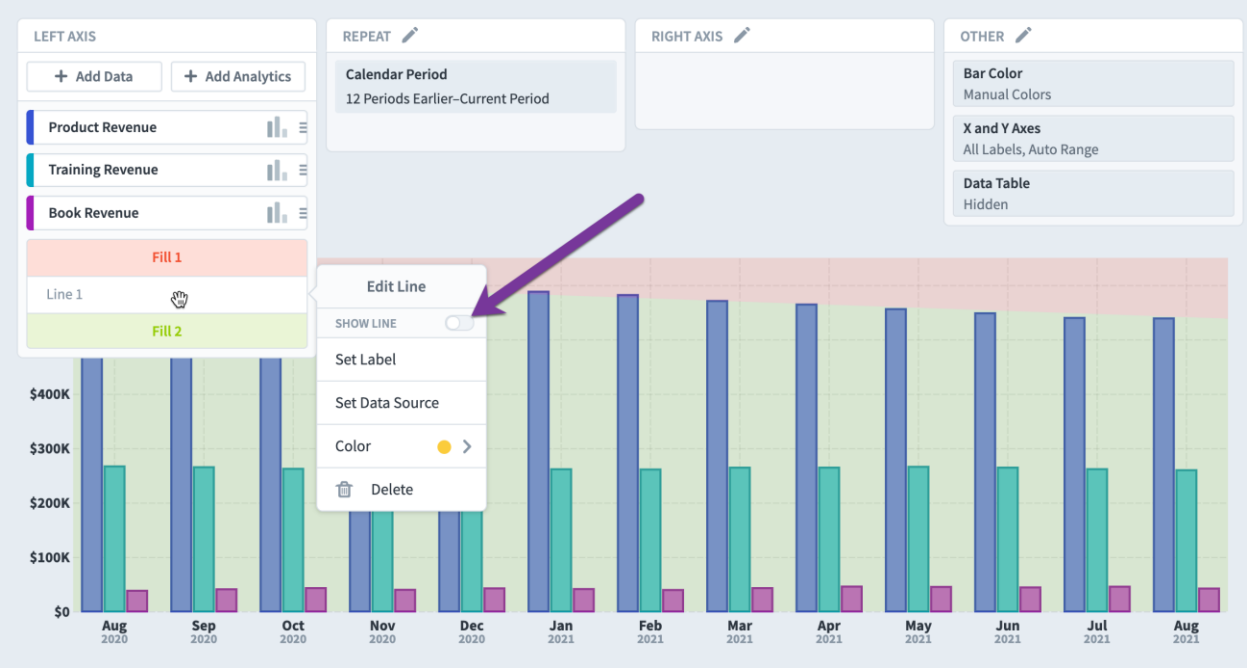
The chart now looks like this.



Trend lines have an optional fill above and below. Here we're filling red above the yellow trend line.

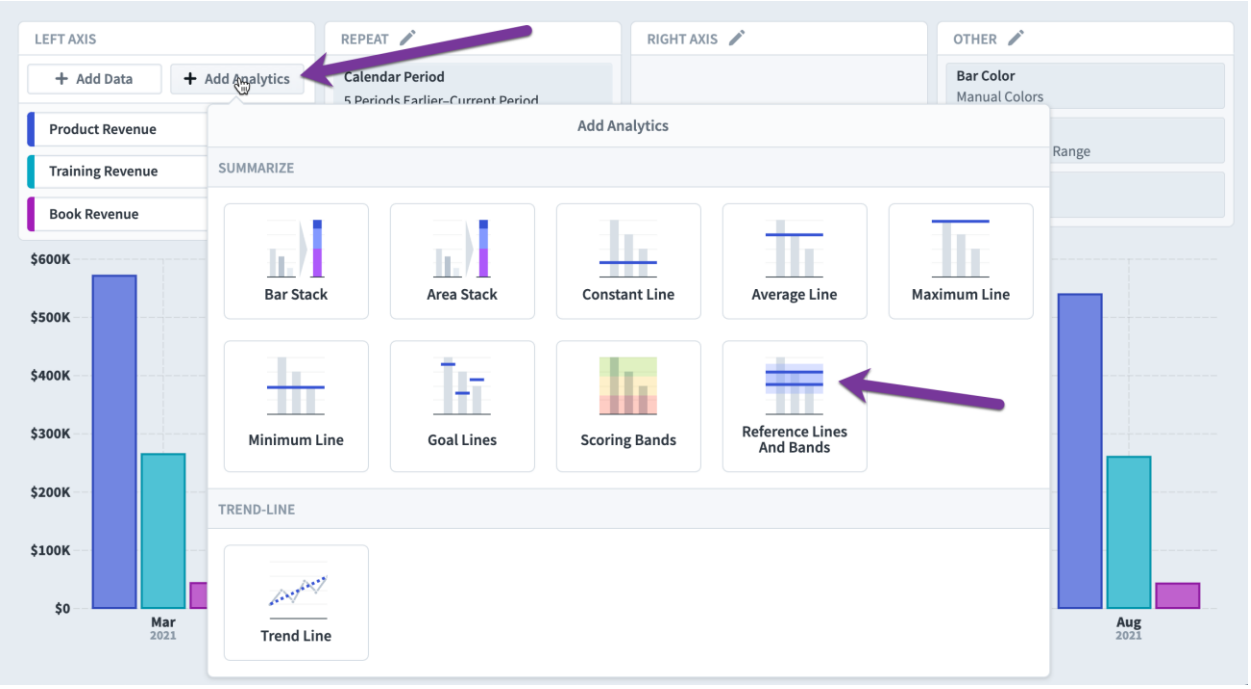


Here we've turned off the display of the line and are showing a red fill above the trend and a green fill below.

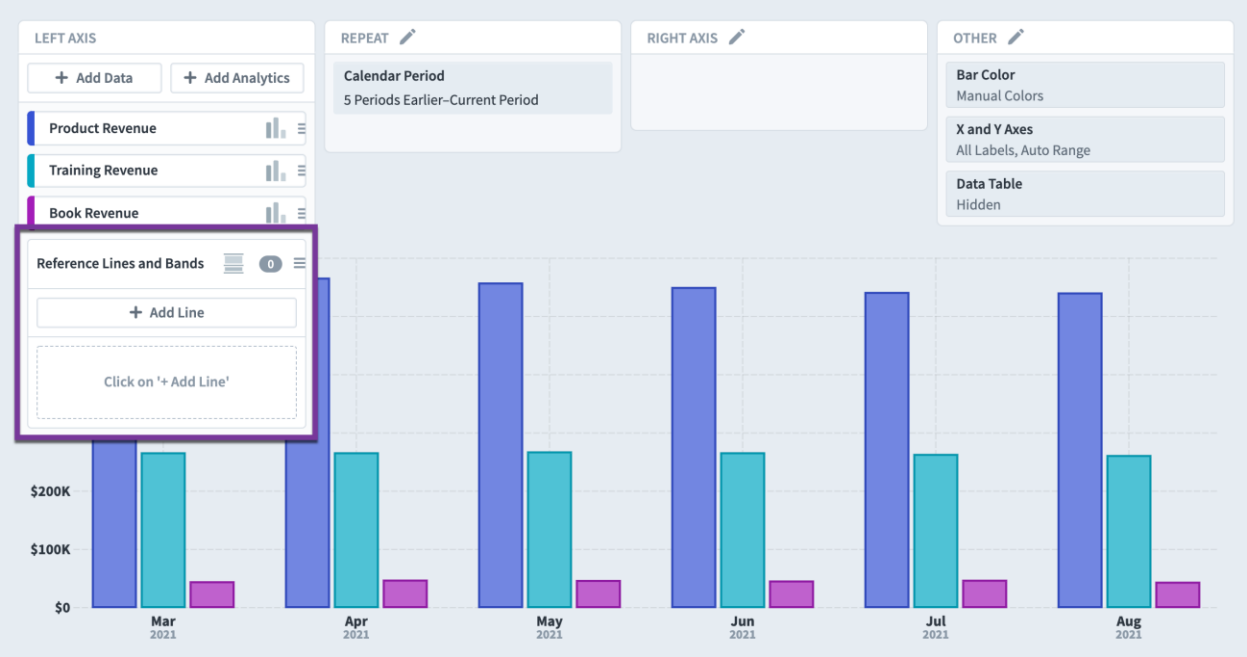


Reference lines and bands

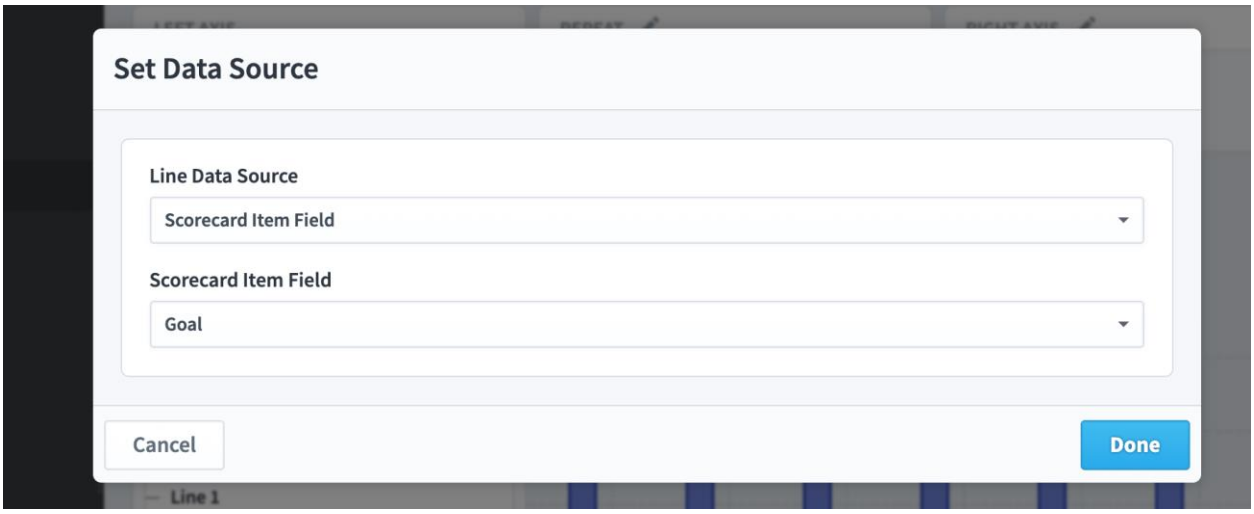
You can add reference lines and bands from the Add Analytics menu for an axis. There are several pre-configured lines and bands to choose from, but in this example we'll choose a blank Reference Lines and Bands item.



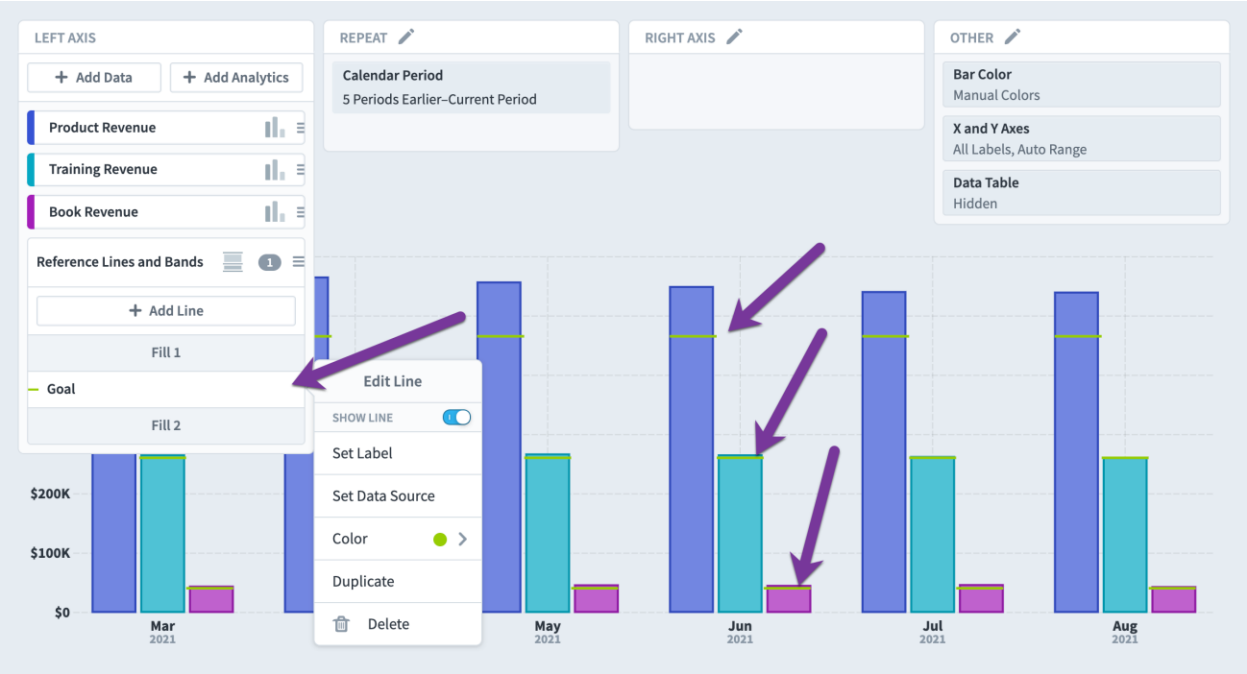
This adds a Reference Lines and Bands item to the axis.



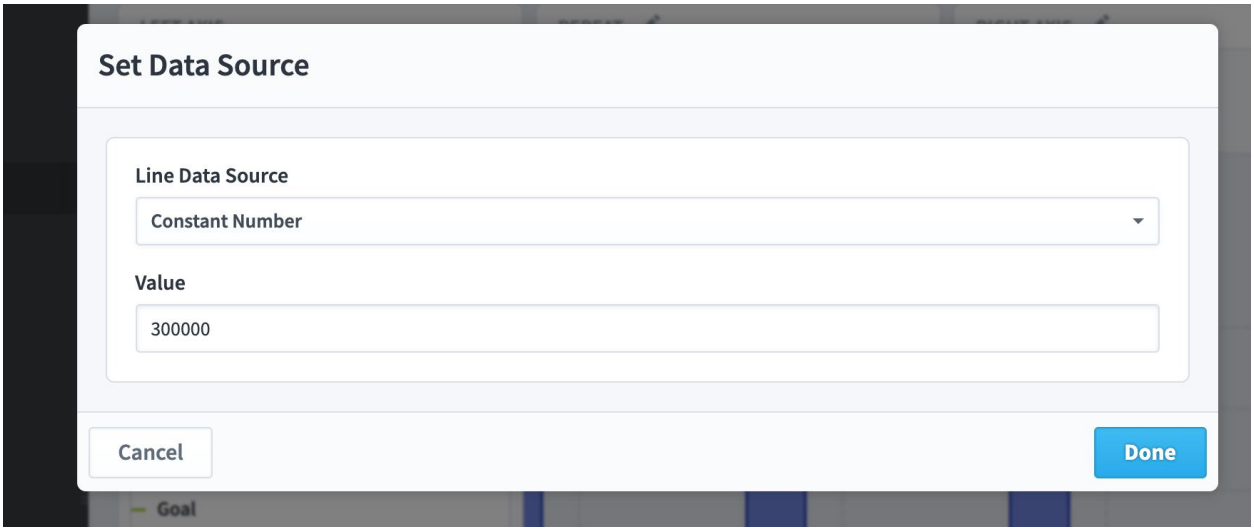
We'll click "Add Line" and then set the data source. First, we'll choose to show each scorecard item's goal.



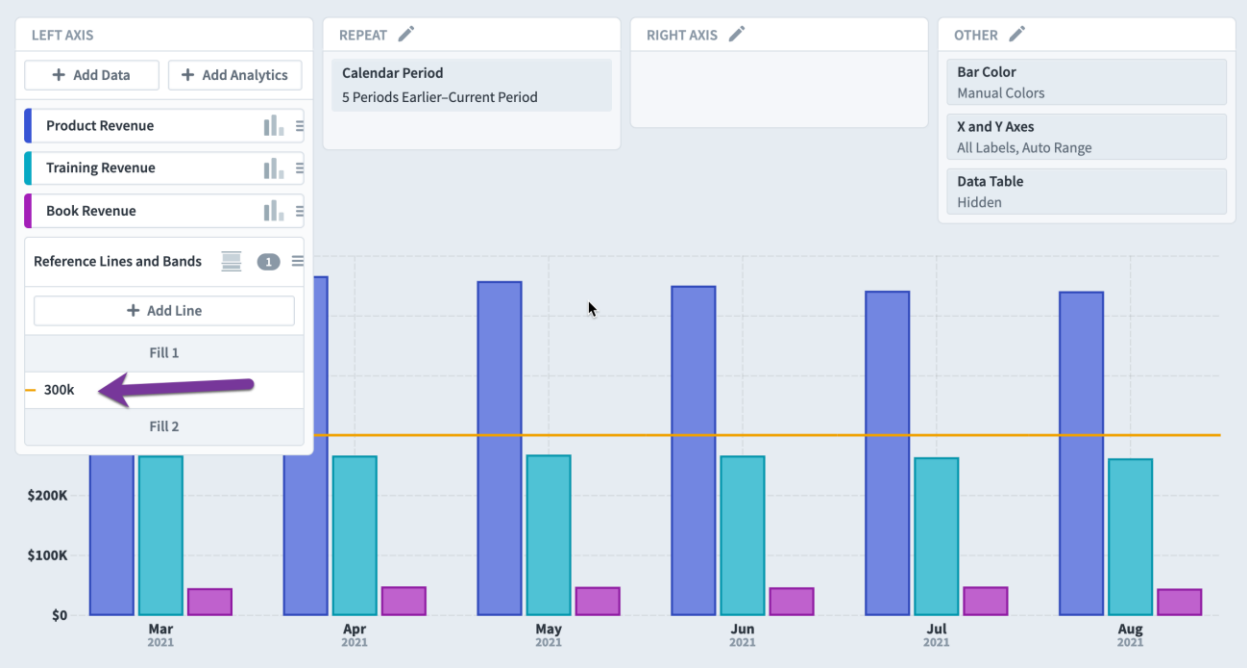
The chart now looks like this. There's a goal line on every bar that we've made green, and we've chosen "Goal" for the line's label.



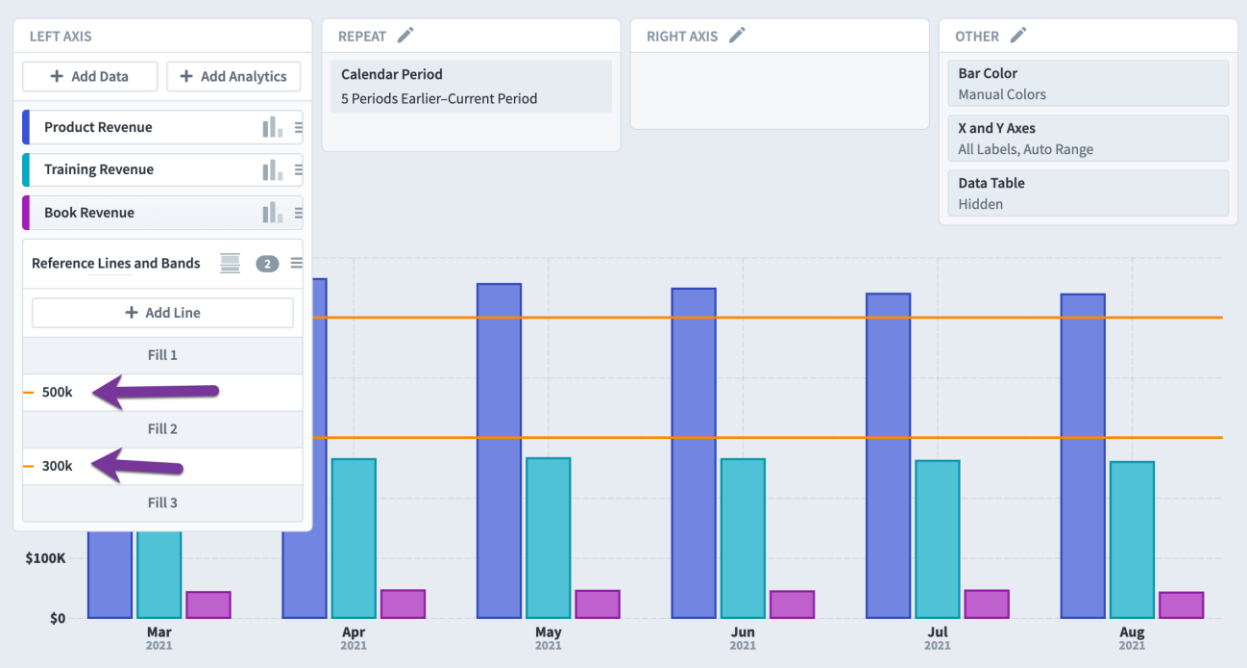
Let's see what a different data source looks like for the line. Here we'll choose a constant number of 300,000.



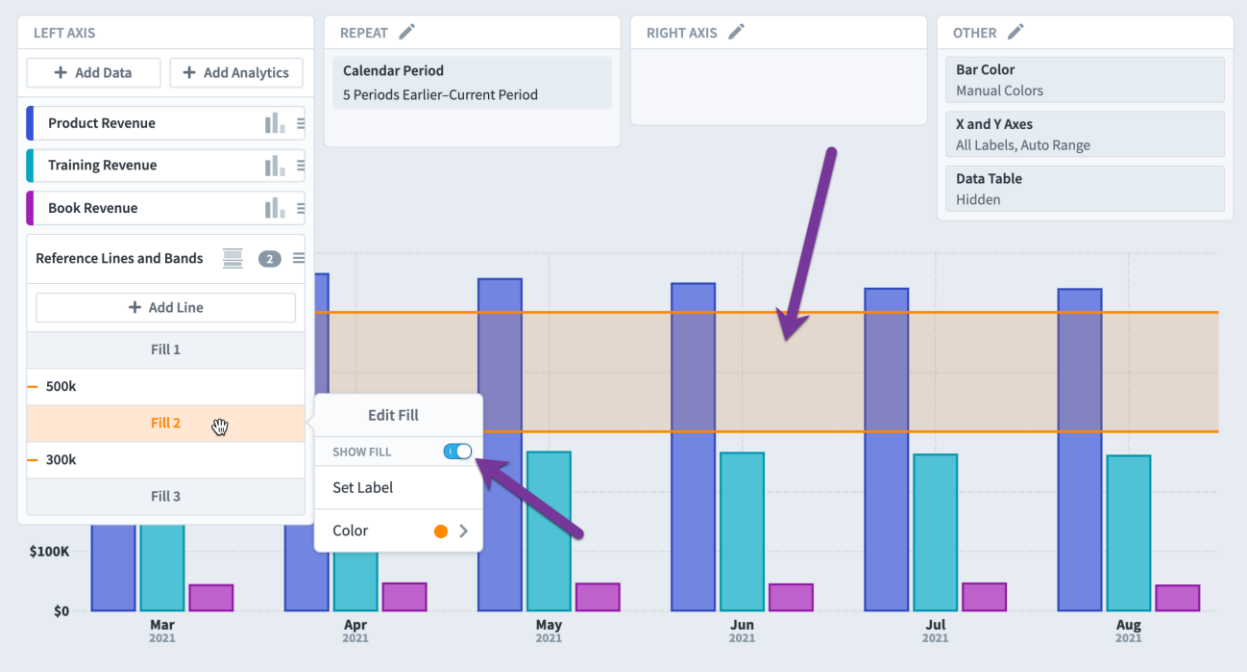
After changing the line color and label, it now looks like this.



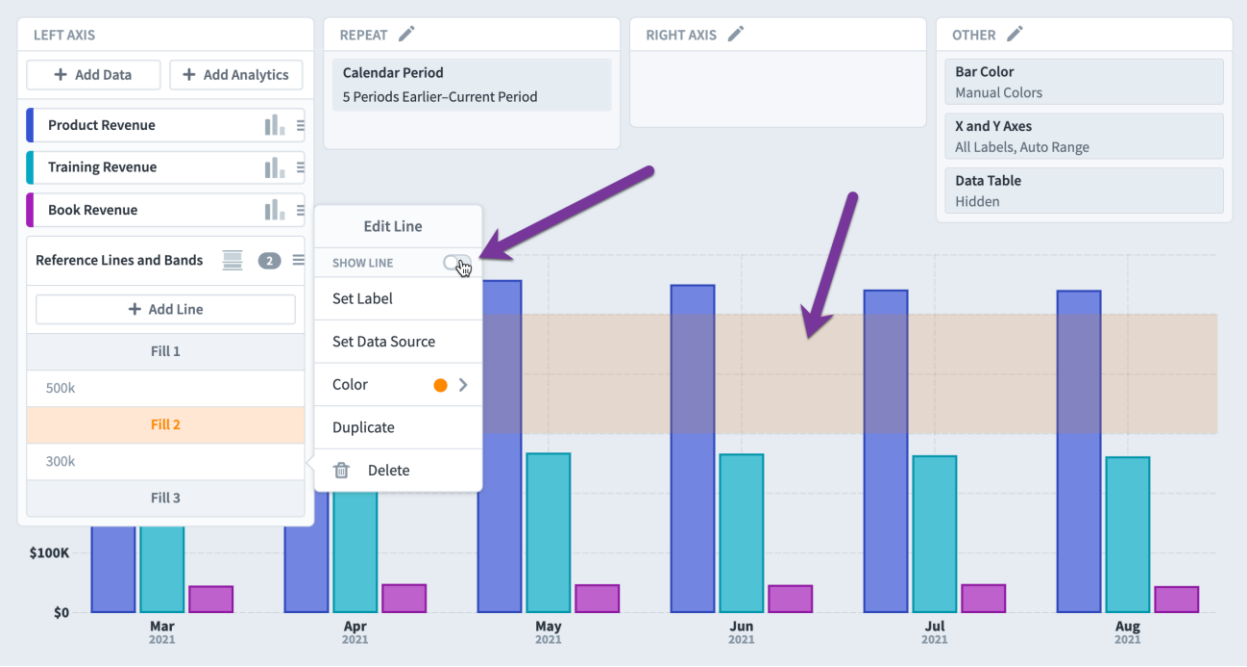
You can add as many lines as you want, each with its own data source. Here we've added a second orange line, this one at 500,000.



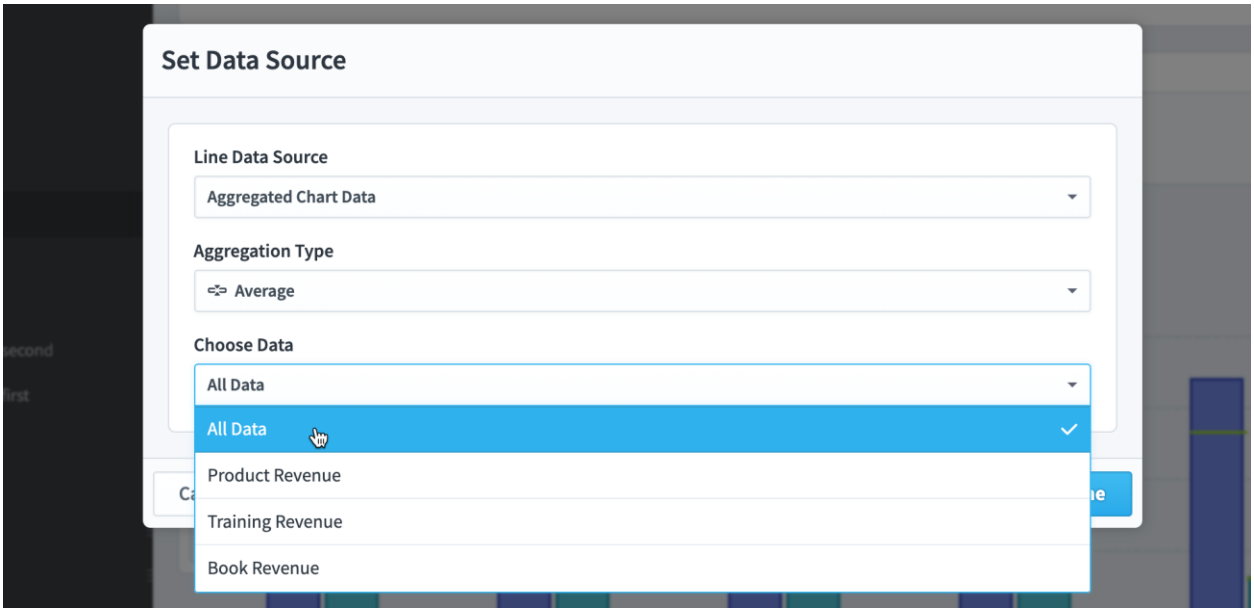
There are optional fills above, below, and between lines. Here we're setting the middle fill to orange. A fill between two lines is also called a band.



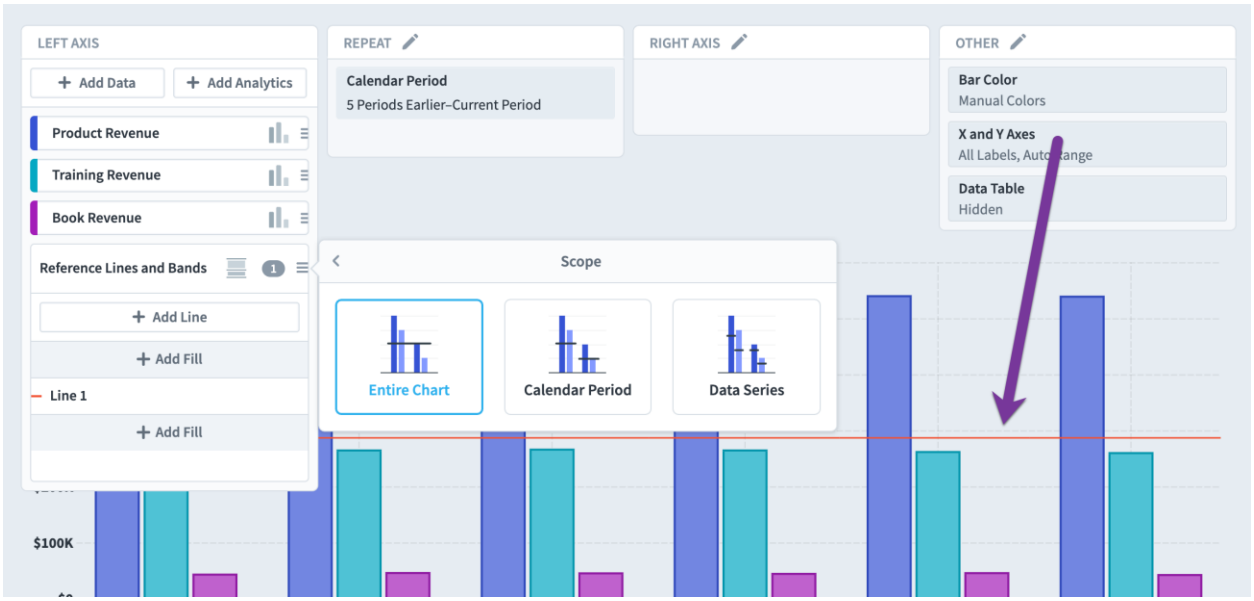
You can even turn off the display of the lines to just show the fill.



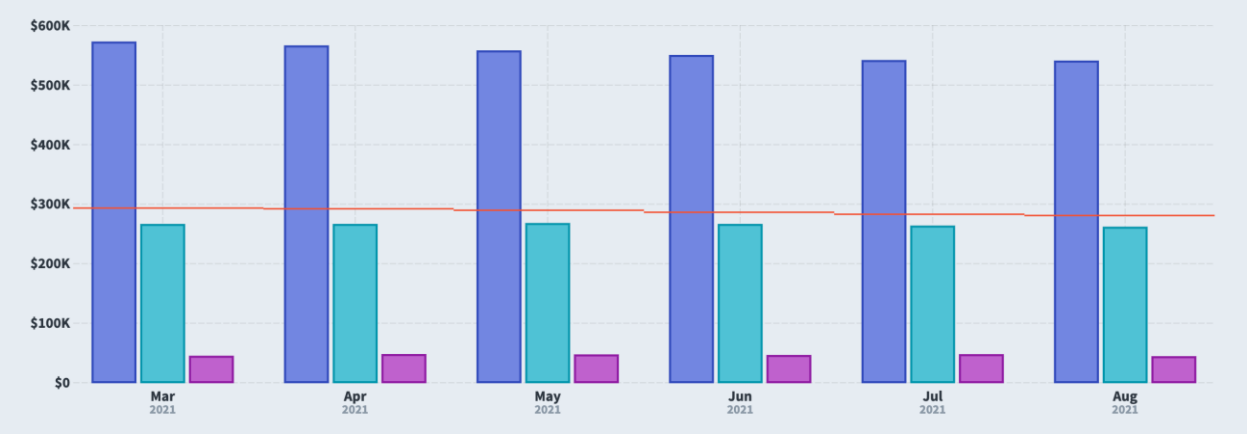
Finally, we'll change the line to show the average of all data series.



By default, the scope is the Entire Chart, so you'll see a single line across the entire chart.

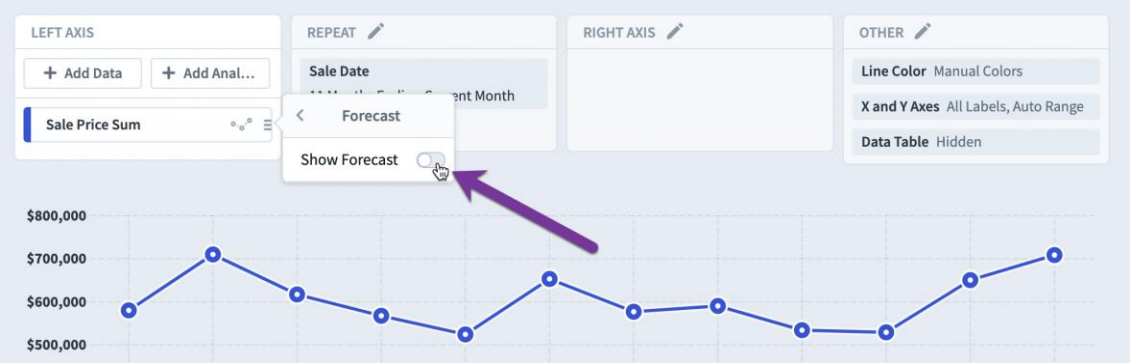


When we change the Scope to "Calendar Period", however, you'll see the chart is now only averaging the series inside of each calendar period, with a separate red line for each. Notice how the red line jumps slightly from period to period.

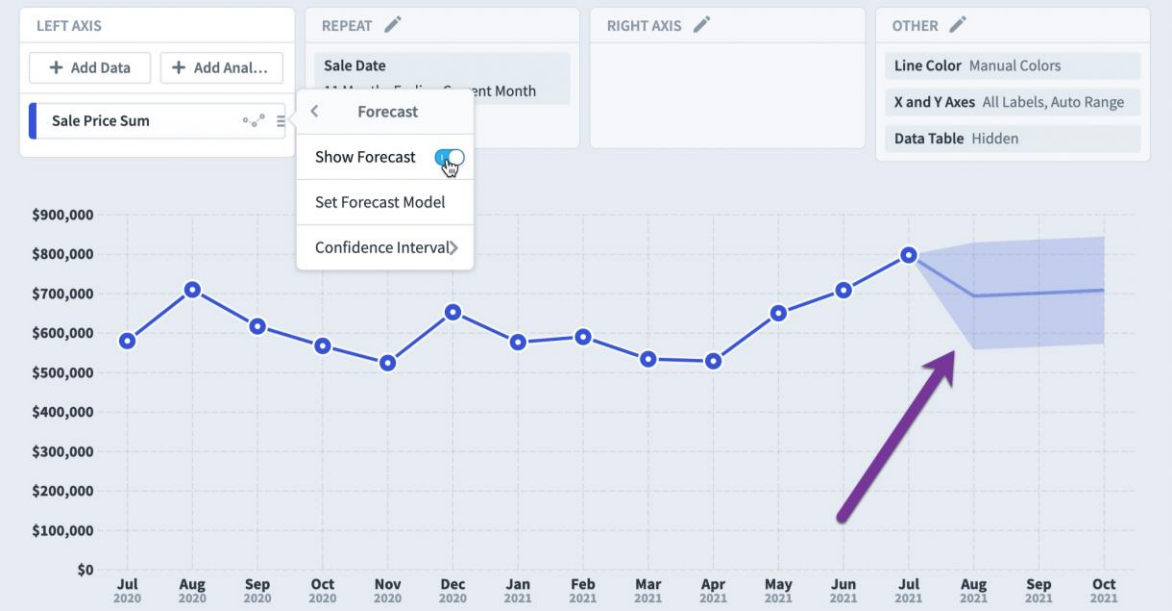


Forecasting

Line data series have a “Show Forecast” toggle.

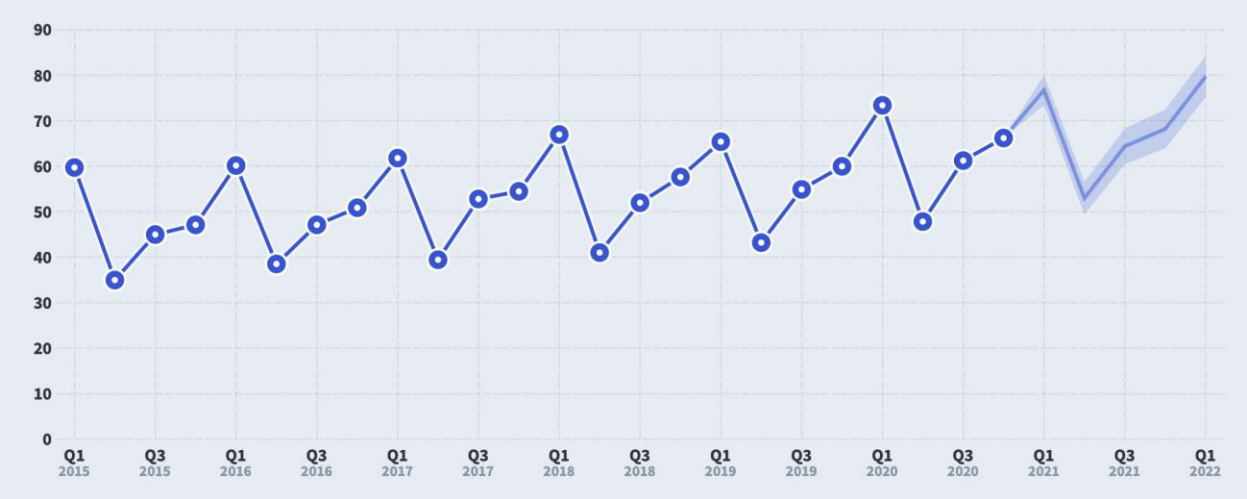


When forecasting is turned on, SMS will show predictions based on historical values. The area around the predicted line is the confidence interval.

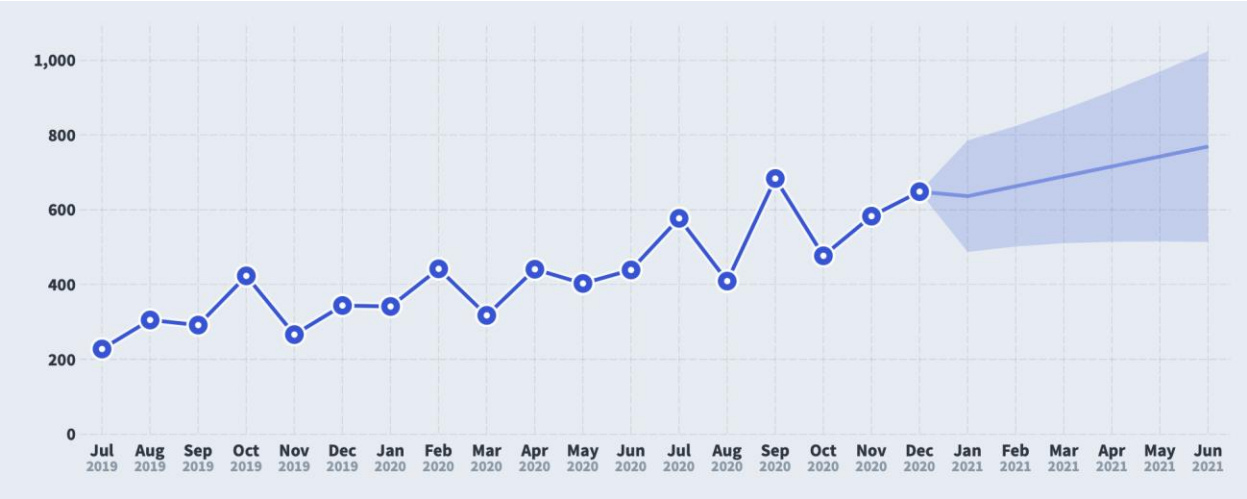


By default, the confidence interval is 95%, meaning that based on the data provided, the line has a 95% chance of being in that shaded region in the future. You can change this to 90%, 99%, or turn it off all-together.

Here's an example of SMS detecting a seasonal trend.

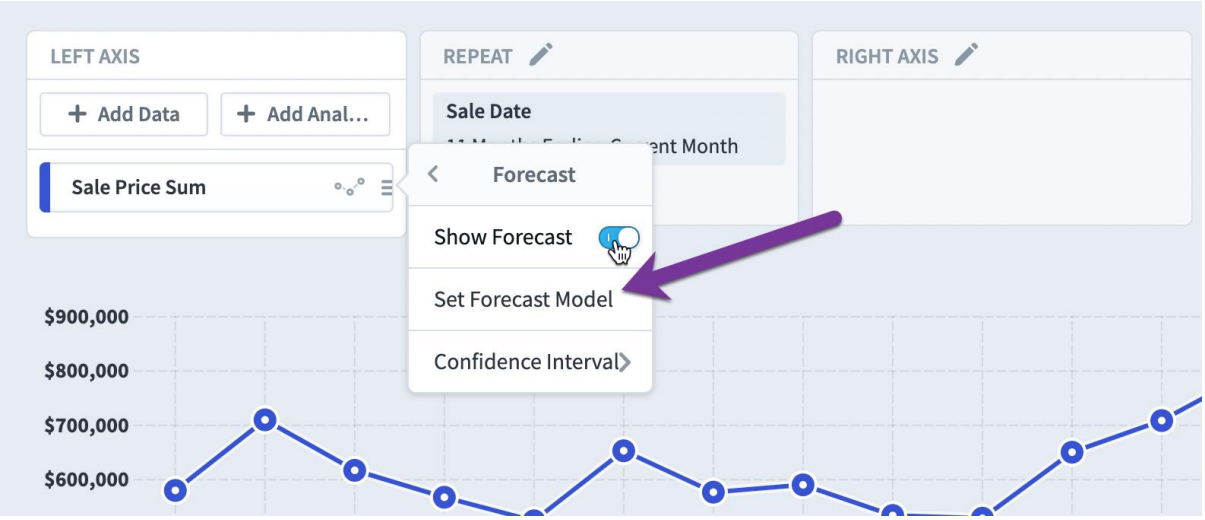


Here's a non-seasonal positive trend example.

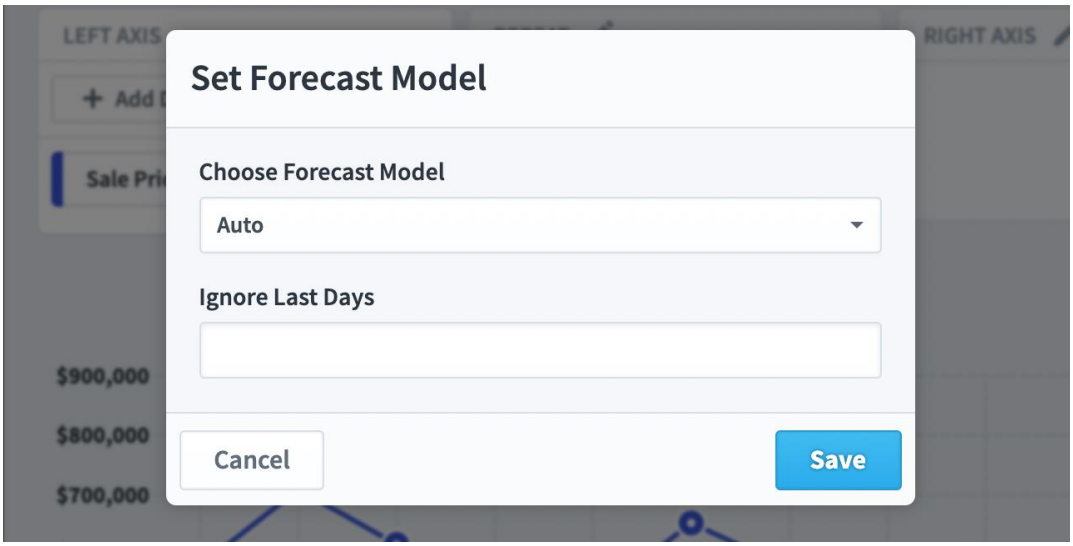


Here's an example of no trend.

You can tweak the forecast settings by choosing "Set Forecast Model".

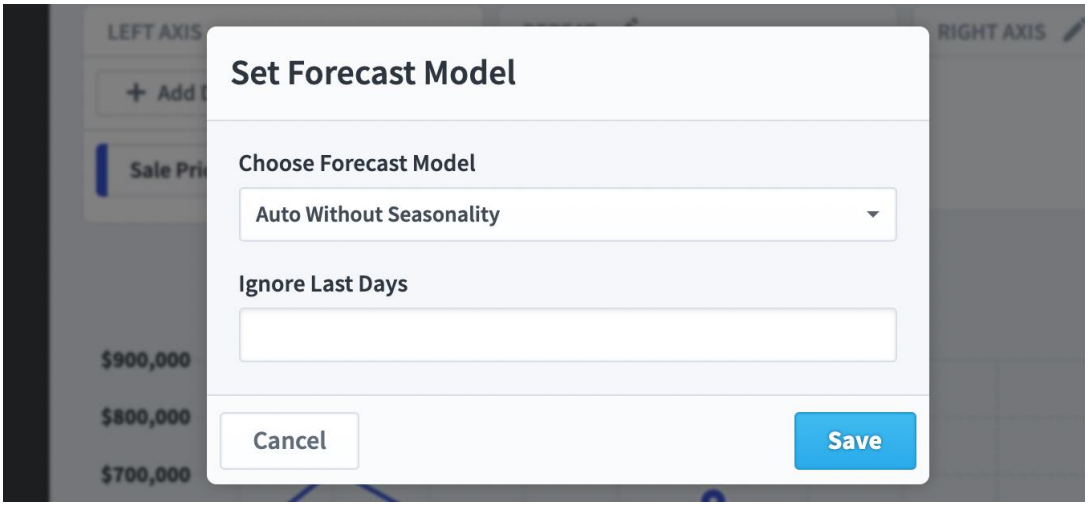


The default forecast model is Auto, and it's often all you'll need. You can also choose to ignore recent days, which is helpful for data sources where recent data is still in flux.



When the model is set to Auto, SMS tries out several algorithms and chooses the best fit. If it doesn't detect a trend, it uses Simple Exponential Smoothing. If it detects a trend but no seasonality, it uses Holt's linear trend (also known as Double Exponential Smoothing). If it detects seasonality, it uses the Holt-Winters model (also known as Triple Exponential Smoothing). Both trend and seasonality are additive, as opposed to multiplicative.

If you prefer to choose the algorithms yourself, you can definitely do that. Auto Without Seasonality just means it prevents SMS from detecting seasonality.



When you choose a Custom model, you can choose Ignore or Additive for trend and season. If you choose Additive for season, you can also choose if your seasonality is quarterly, yearly, etc.

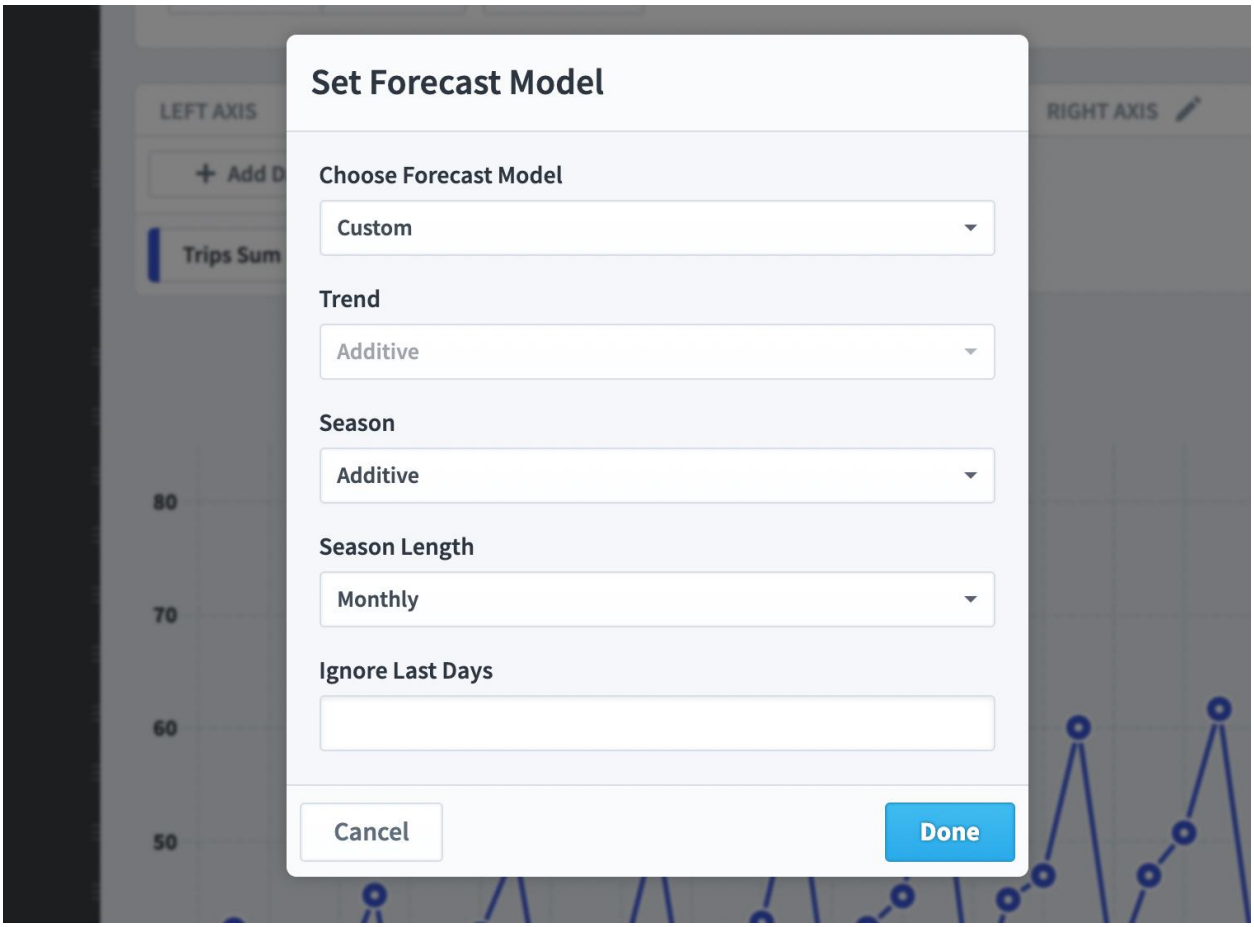
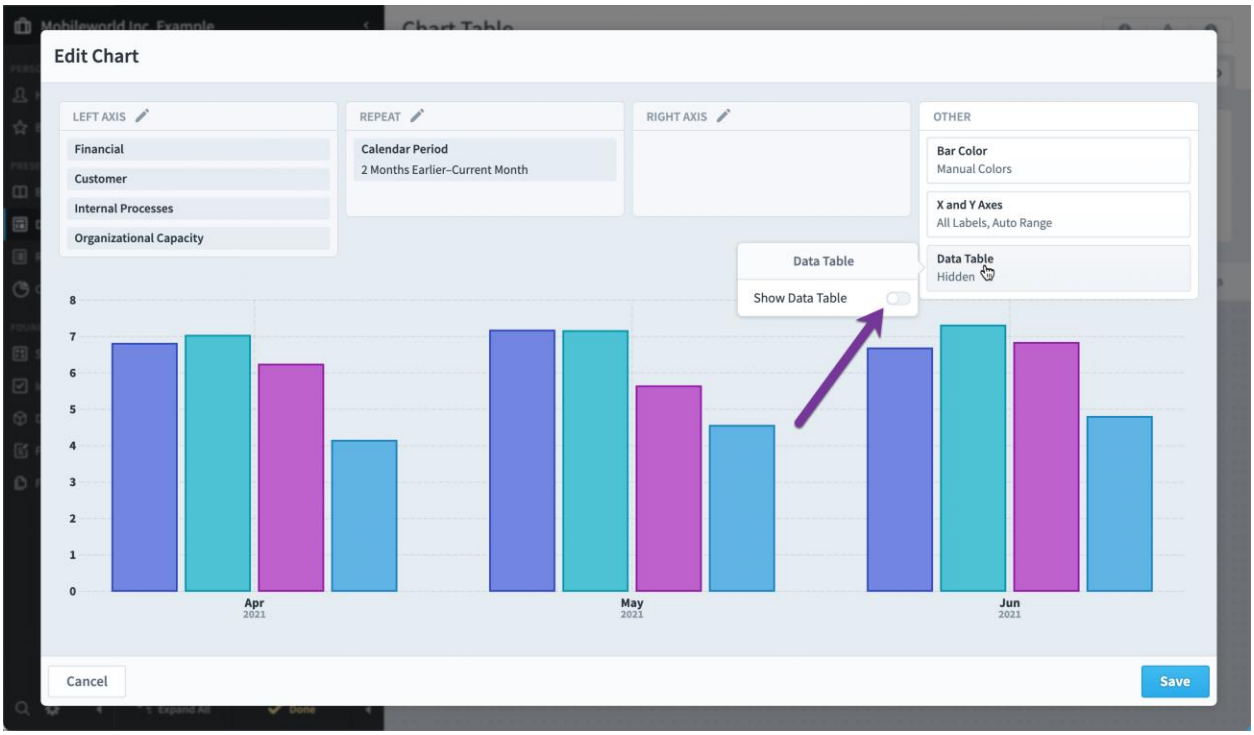


Chart data table

To add a data table to a chart, turn on the "Show Data Table" switch in the chart's Other panel.



On dashboards, the data table is separately configurable with options to adjust the font and margin sizes.

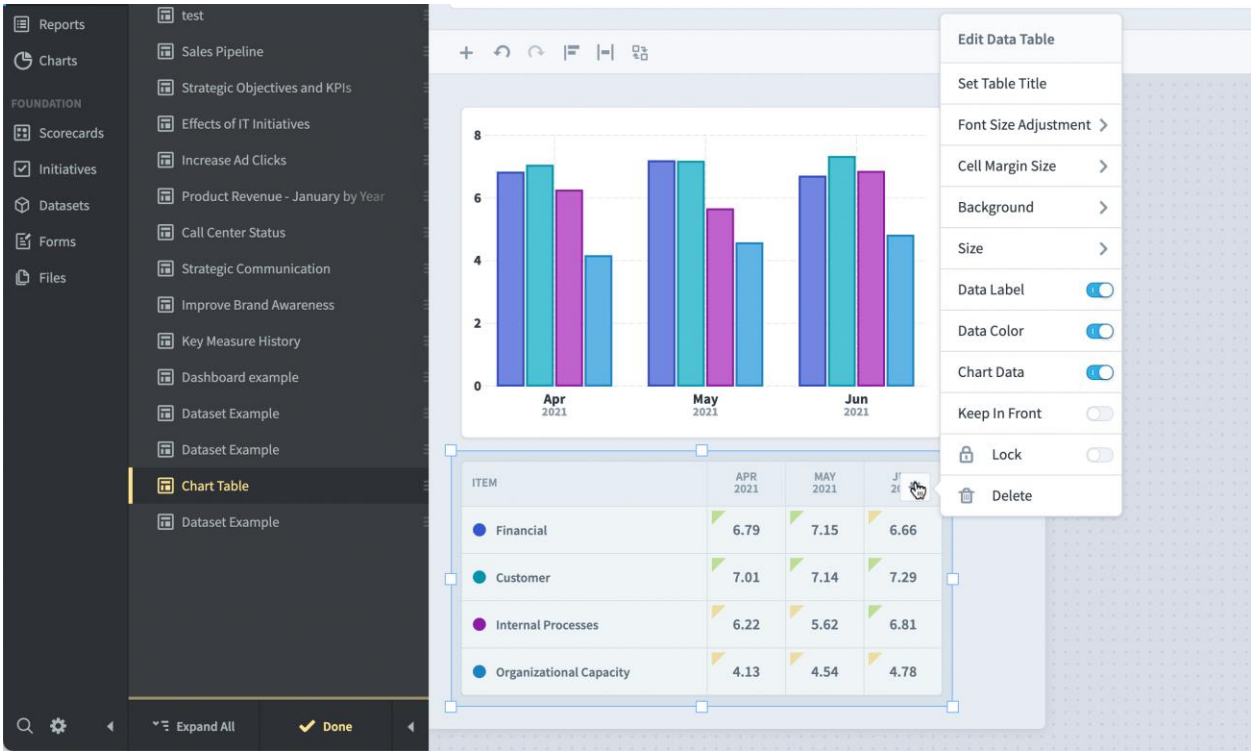
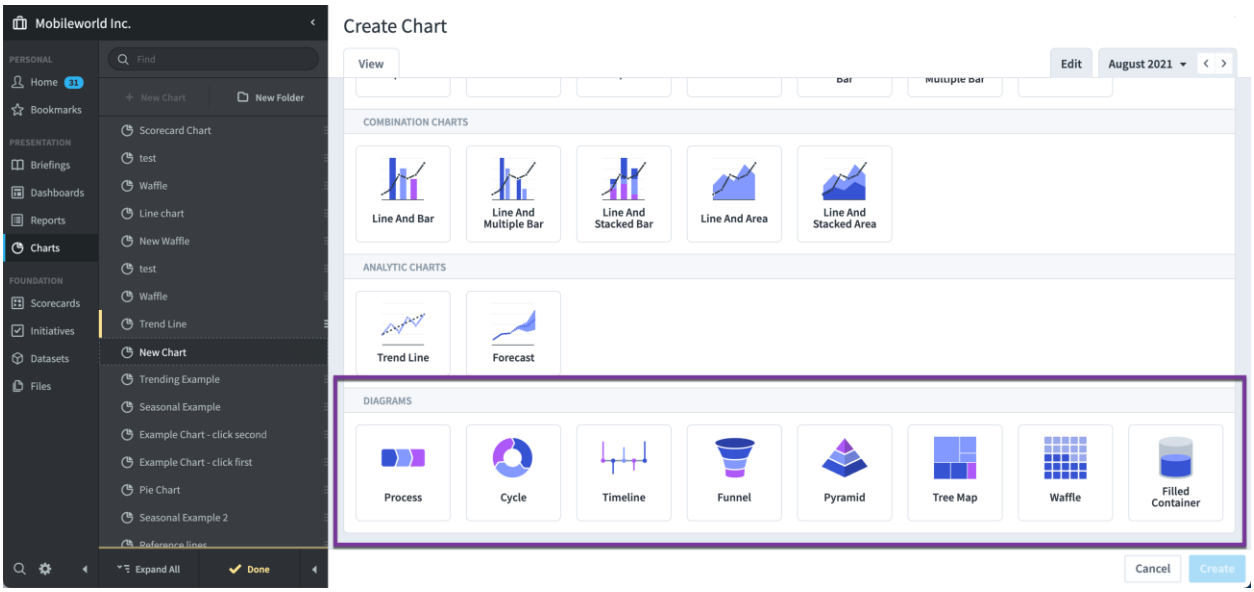


Diagram charts

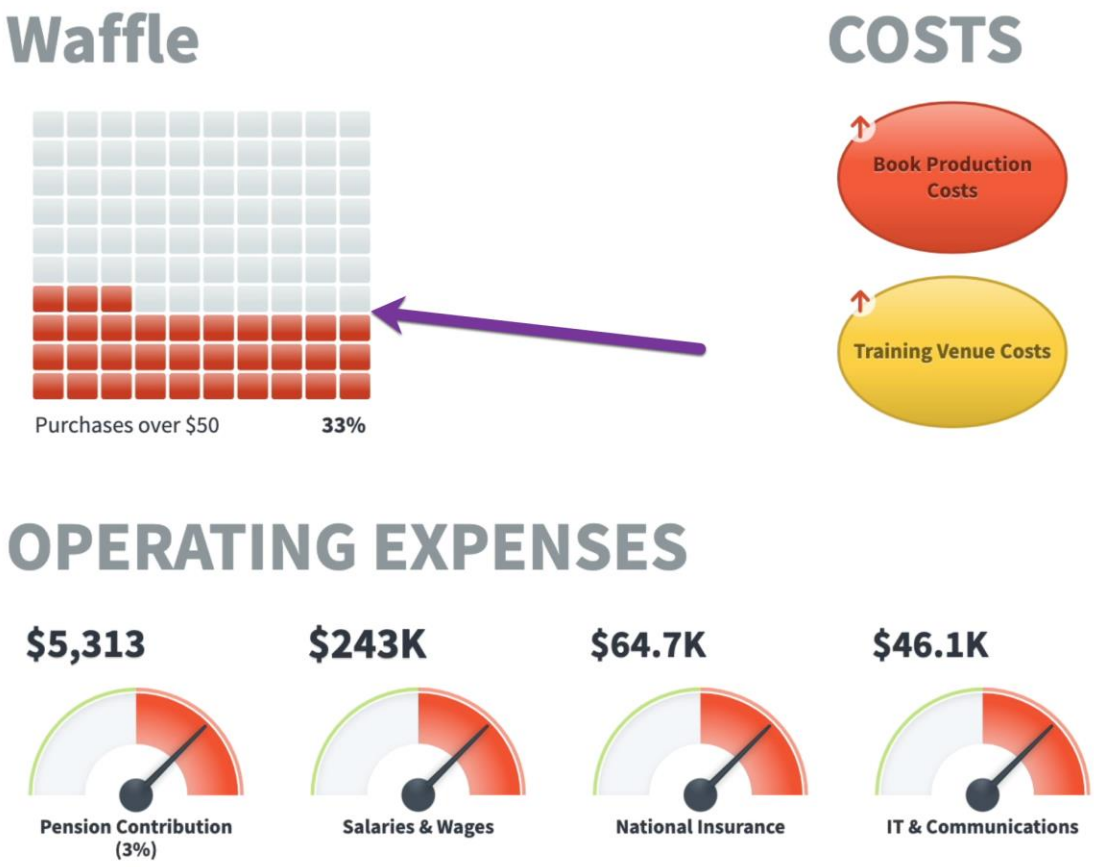
There are 8 new diagram charts that you can choose from when creating a new chart. These infographic-stye charts are great for visualizing processes, relationships, or percentages.



All diagram charts have similar configuration options. We'll cover the waffle chart in detail first, and then summarize the other charts.

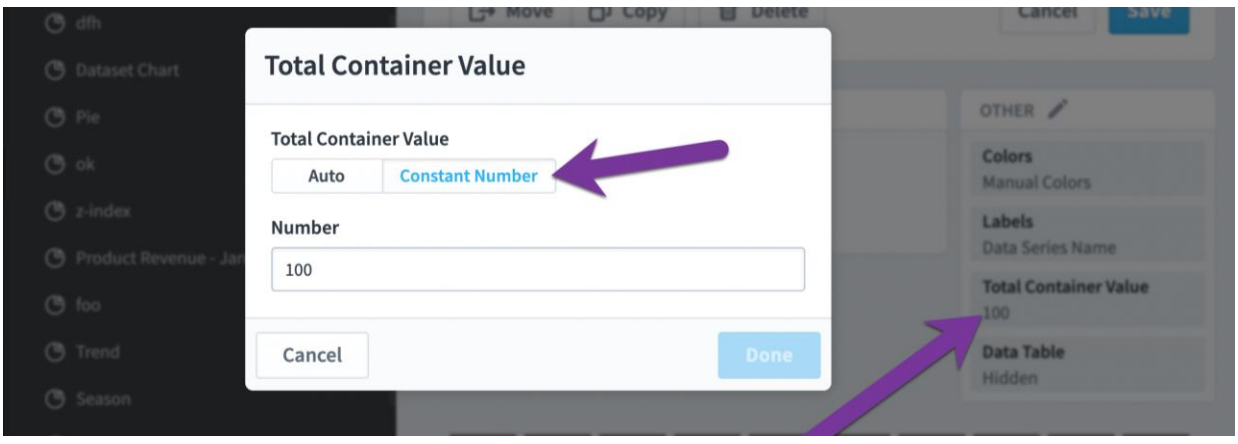
Waffle charts

Waffle charts are particularly good at showing percentages. Like all diagram charts, they can be used in the Charts section on their own, but they're most useful on dashboards.

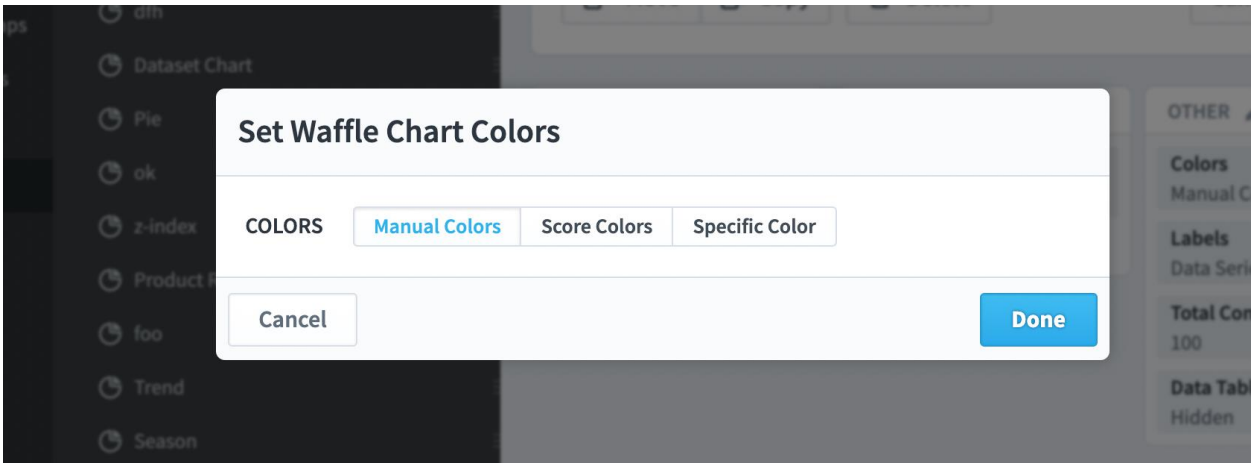


As with all charts, waffle charts can show data from scorecard items, initiatives, and datasets.

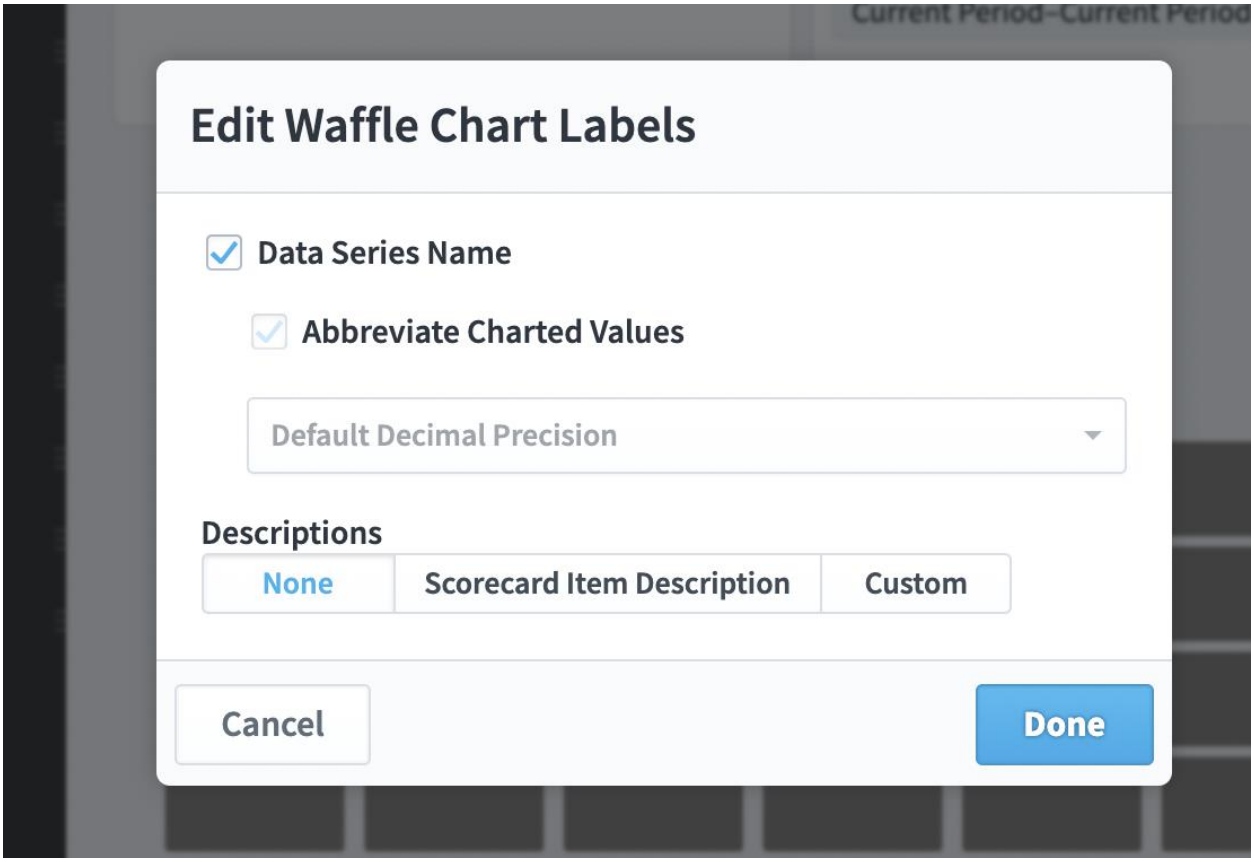
The size of the container will automatically adjust based on your data. For example, if your data series is a percentage or has a value between 0 and 1, waffle charts will assume your data is a percentage and will set the container size to 100%. You can also choose a specific container size by clicking on "Total Container Value" in the Other panel.



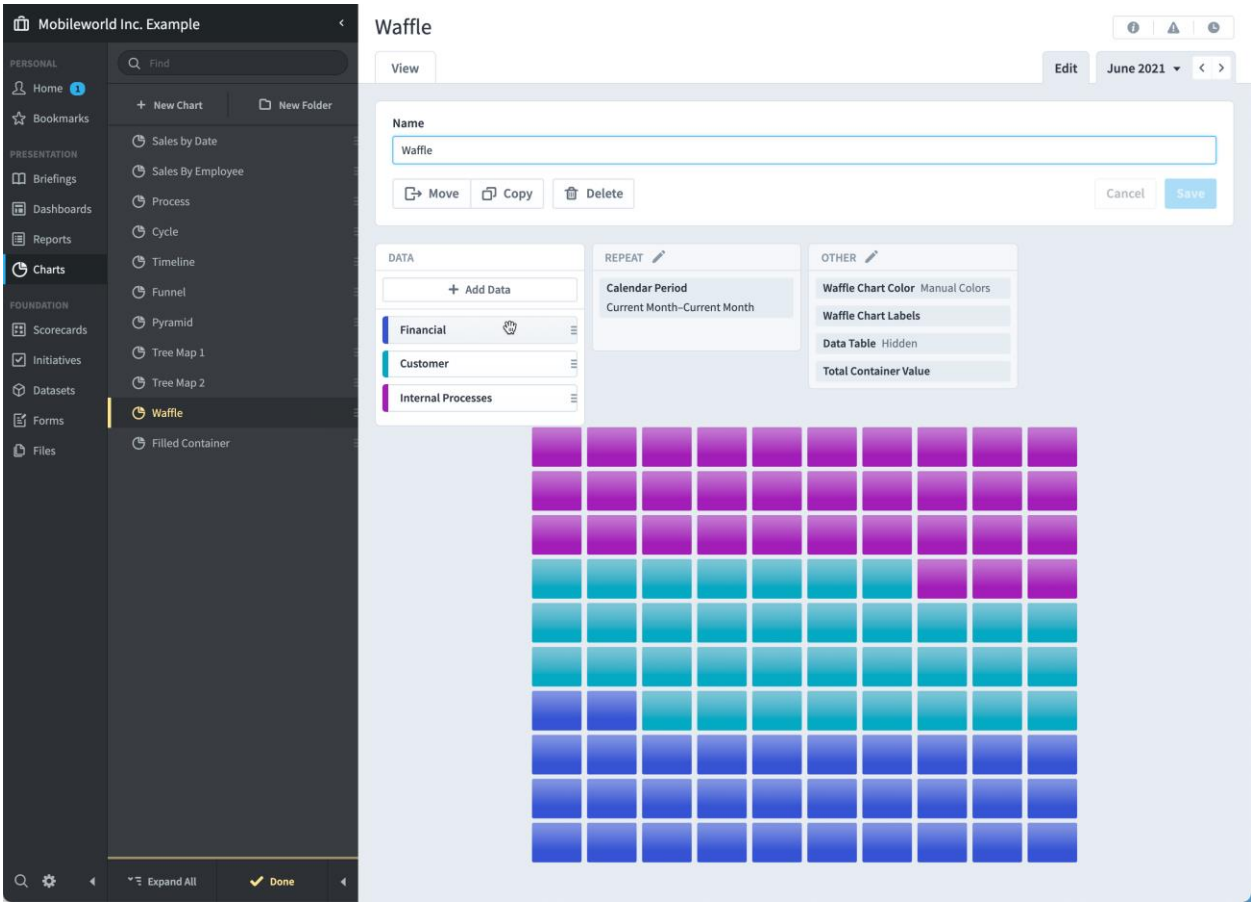
Just like every other chart, you can choose to color the filled squares manually or by performance.



You can also configure what labels to show and how to show them.



You can even add multiple data series to a waffle chart. In this example we're showing three different data series.



Filled container chart

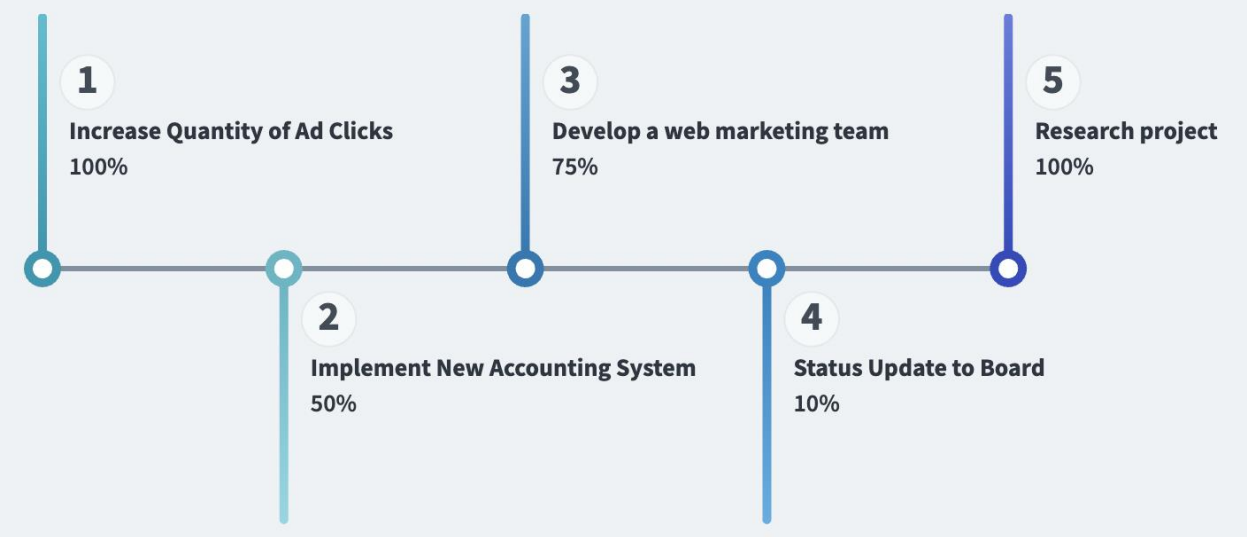
Filled container charts visualize your data as liquid in a container. They are configured exactly the same as waffle charts.

Process chart

Process charts show a series of discrete stages with a clear progression from one step to the next. Each stage is represented by a chart data series.

Timeline chart

Timeline charts are similar to process charts, but they're better at visualizing specific events. Like all charts, however, the timeline chart can still show data from scorecard items, initiatives, and datasets.



Cycle chart

Cycle charts are great at showing repeating processes.

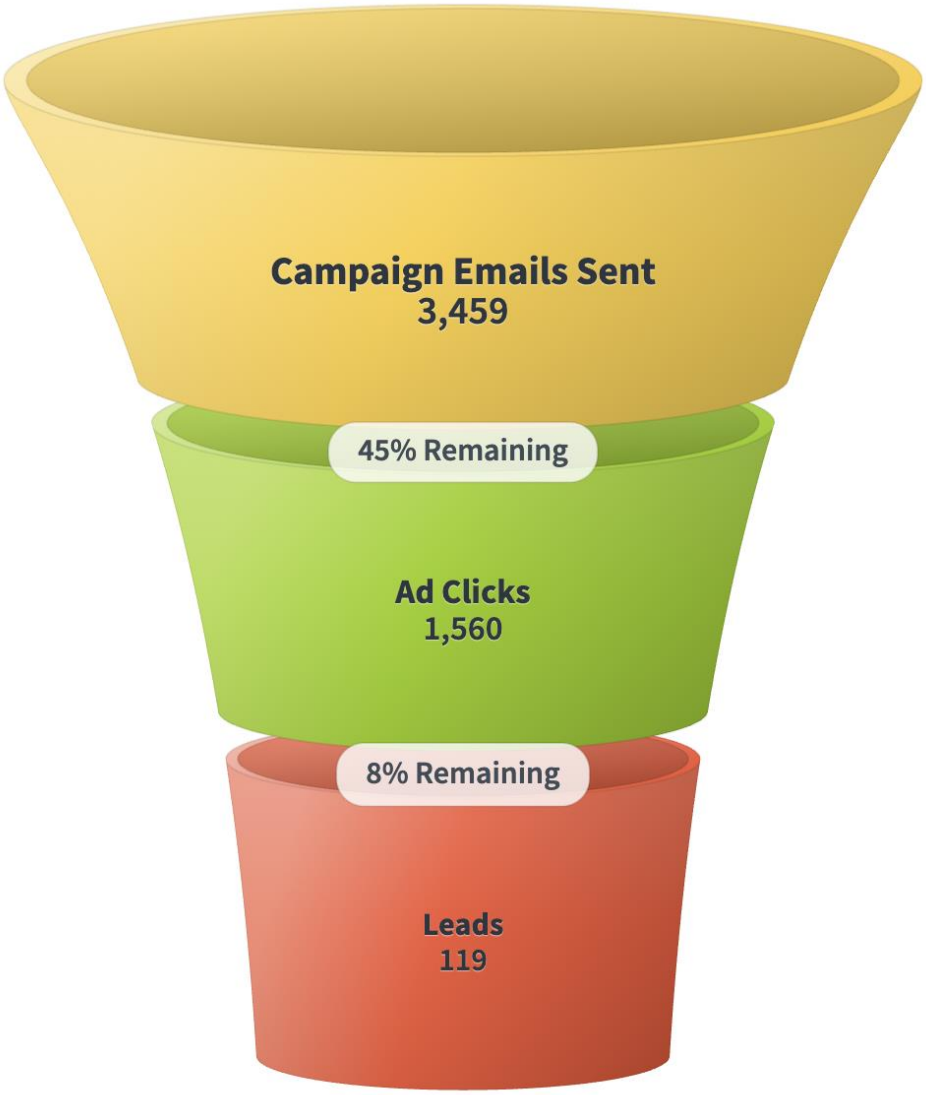
Pyramid chart

Pyramid charts visualize data that builds on a previous level. Like all charts, they can be colored based on performance...

... or they can be colored based on manually chosen colors.

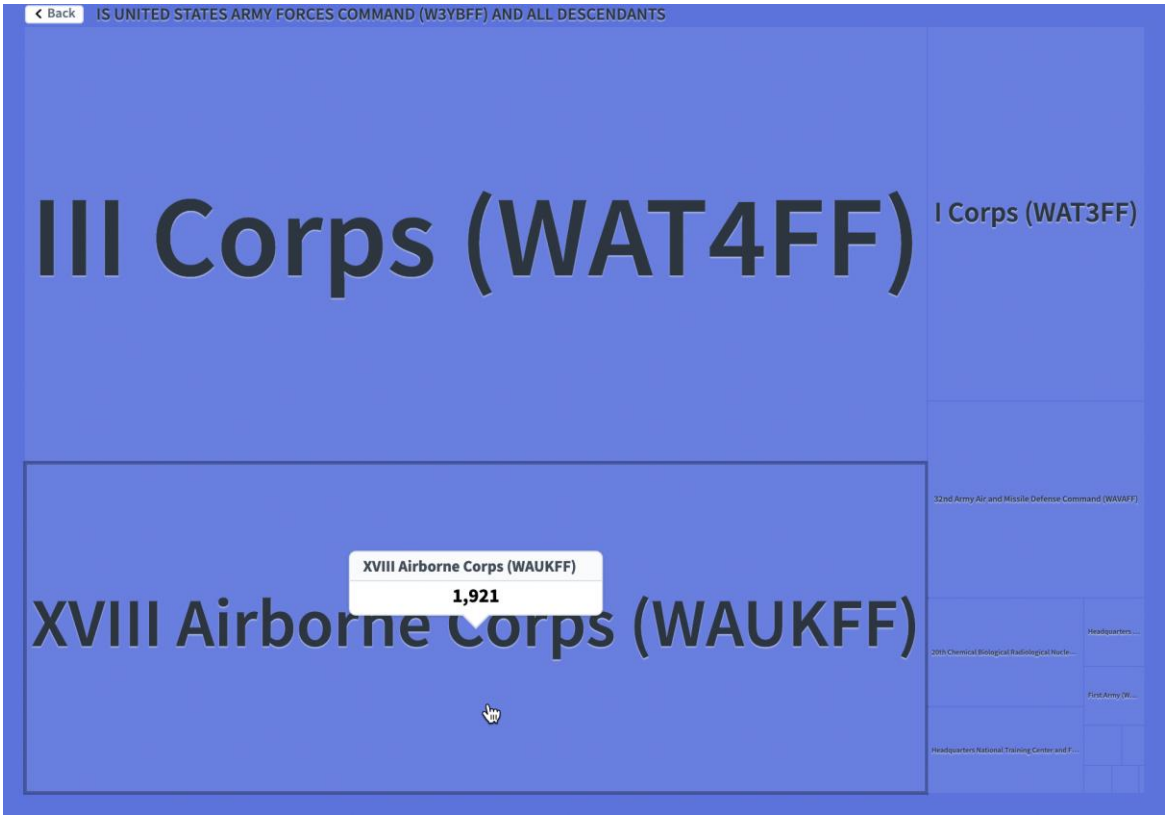
Funnel chart

Funnel charts visualize a process where numbers decrease. The chart can automatically show the percentage remaining between stages.

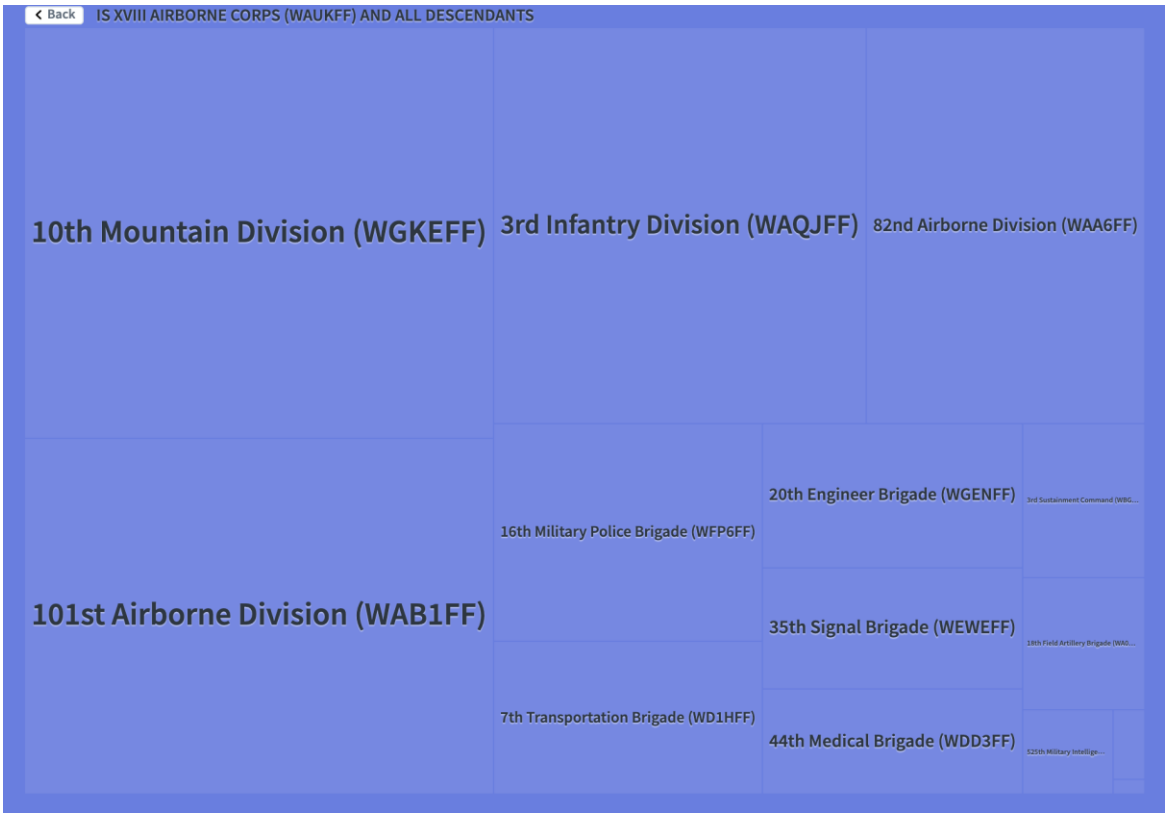


Treemap chart

Treemap charts are slightly different than the other diagram charts because they only show data from dataset rollup trees. They work by showing the relative size of data at various levels of the tree. In this example we're showing data for a military organization, and we're about to click on a box to drill down.



SMS plays a drilldown animation, and you can then see that item's children in the rollup tree.

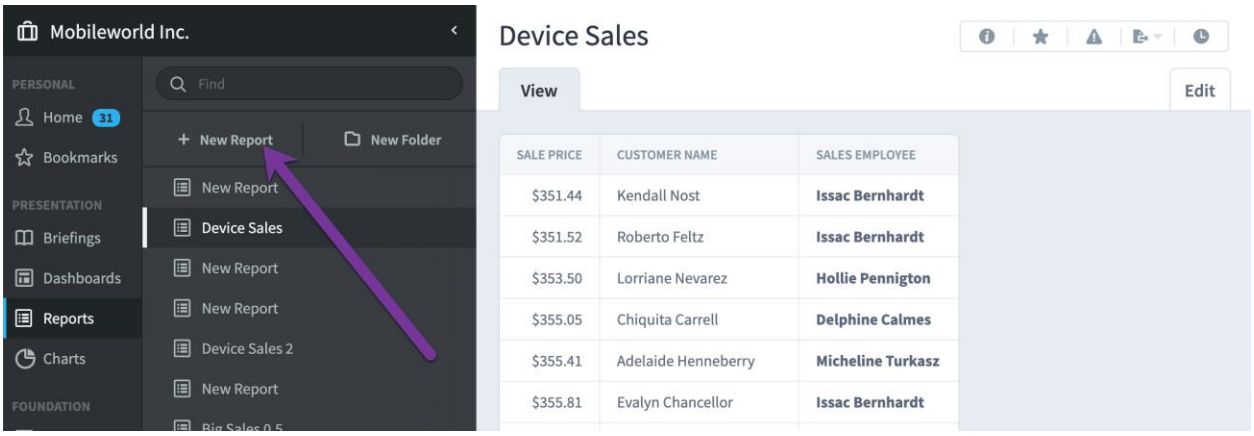


Reports

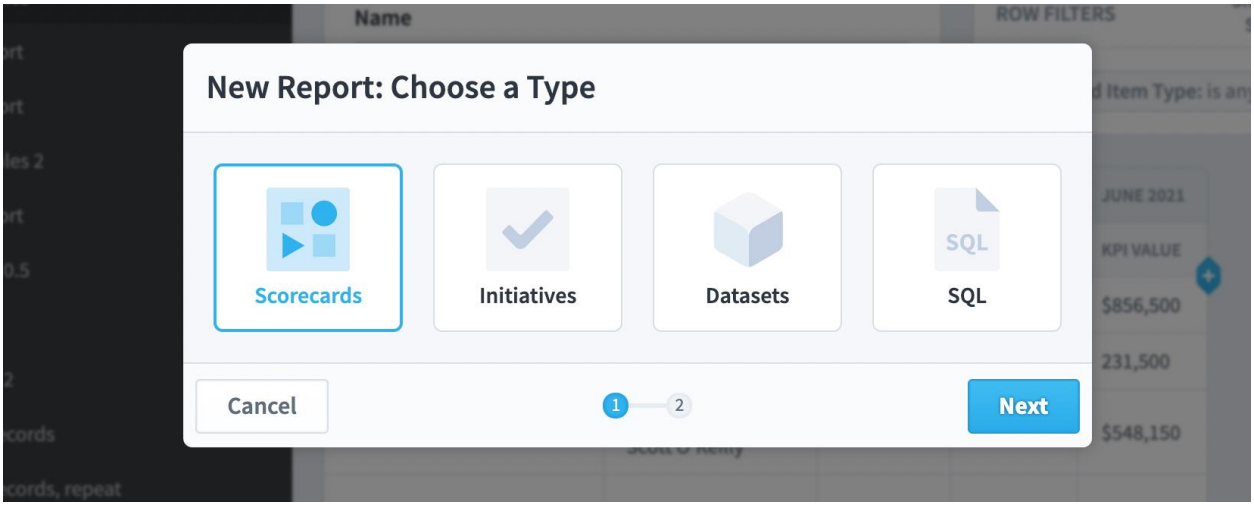
Reports in SMS 5 are completely new and represent a major step forward in functionality. They show data for Scorecard items, Initiative items, and Datasets. They have formatting, grouping, sorting, filtering, and aggregating. In short, SMS now has a full-featured report designer for all of the data it tracks.

Creating a report

To create a new report, click the "New Report" button in the Reports section.

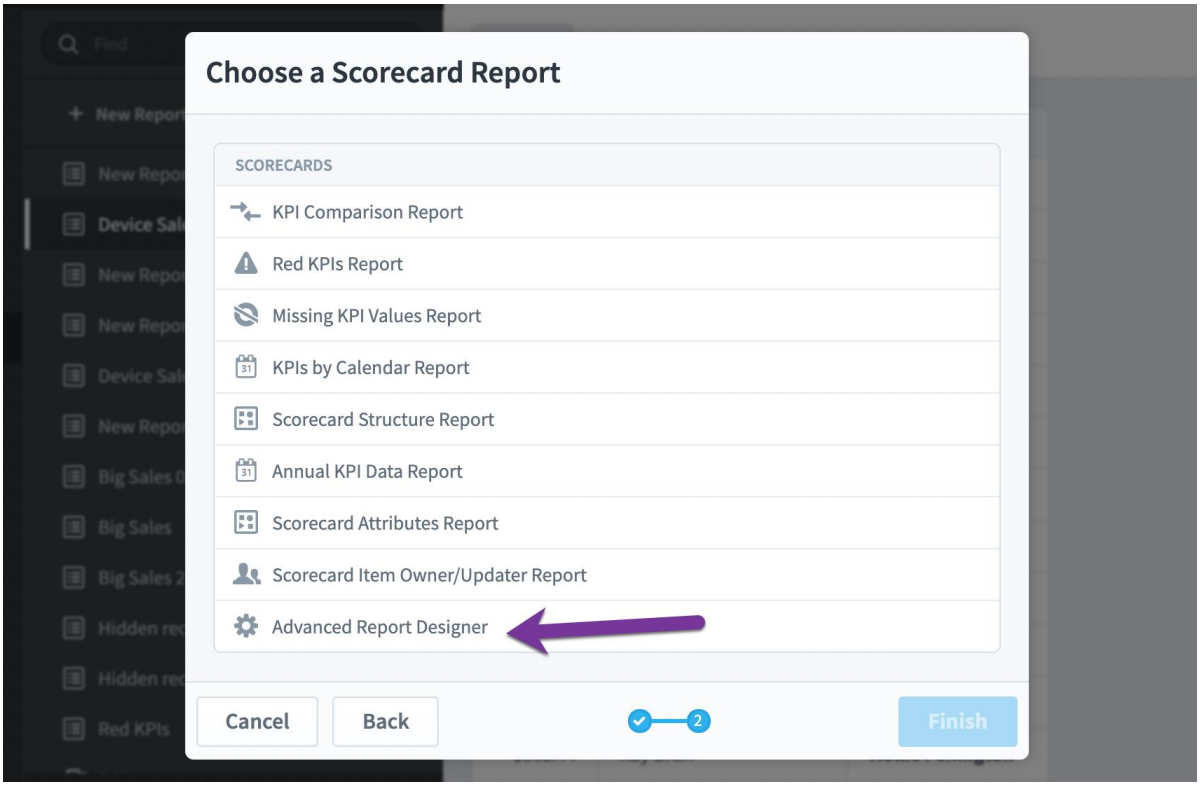


Each report is for a single type of data. First, we'll choose Scorecards.

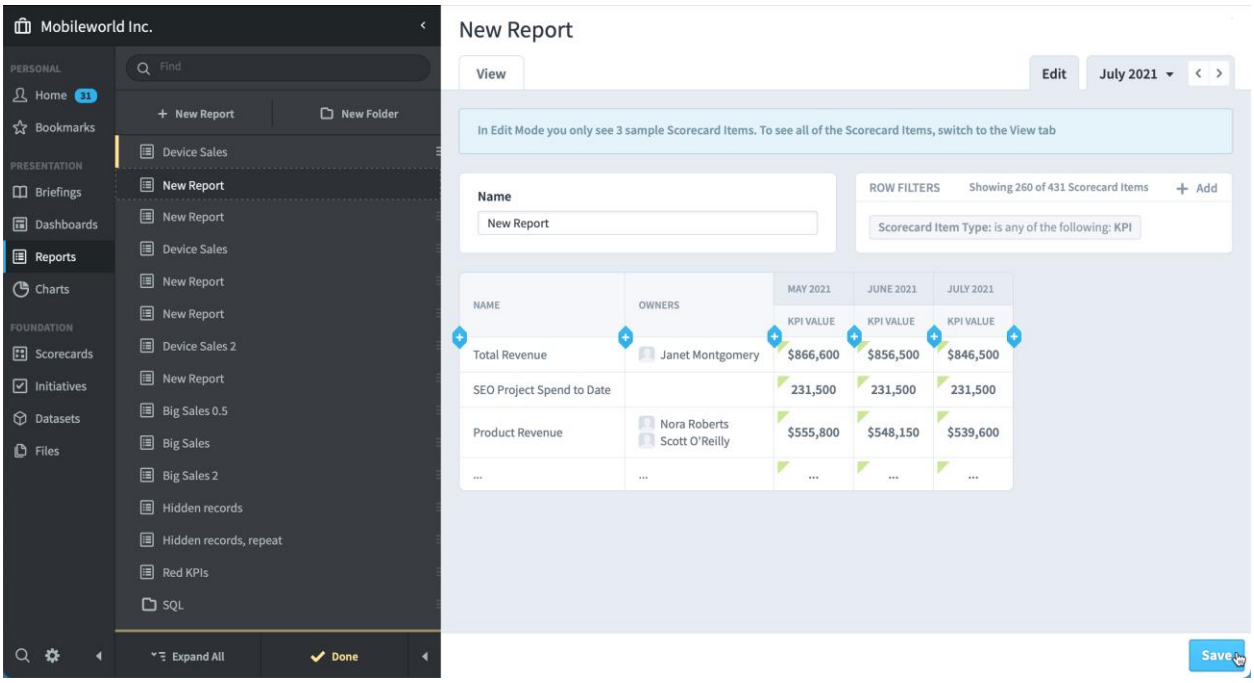


You can choose between several pre-built reports like the Red KPIs report and Missing KPI Values report. These reports get you started with "canned" reports

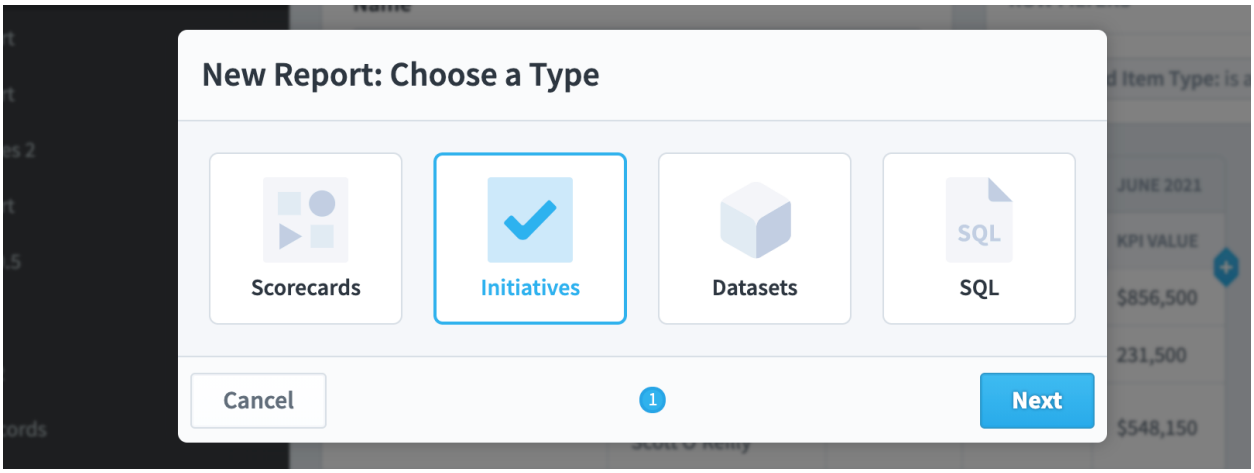
that you can configure. Instead, we'll build a report from scratch by choosing the Advanced Report Designer option on the bottom.



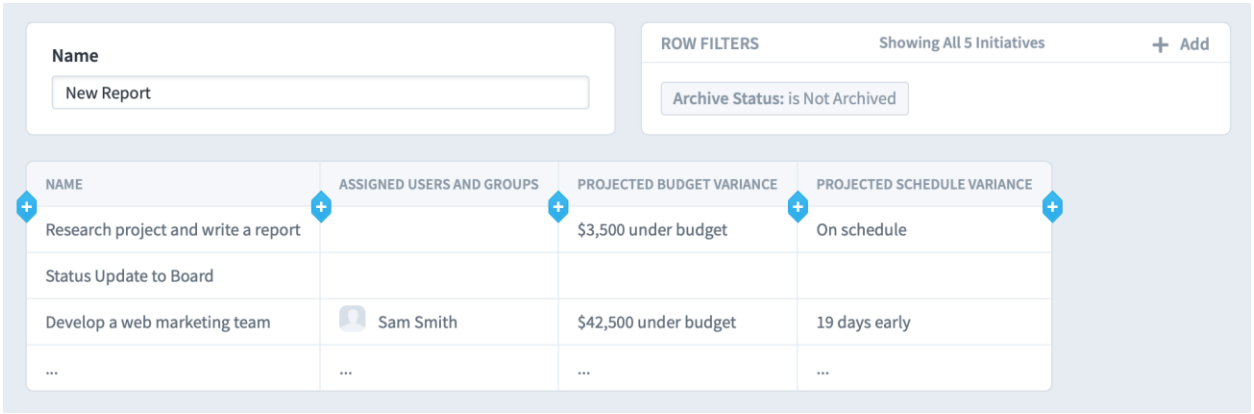
The Advanced Report Designer for scorecard items starts by showing the scorecard item name, owners, and three periods of data for all KPIs.



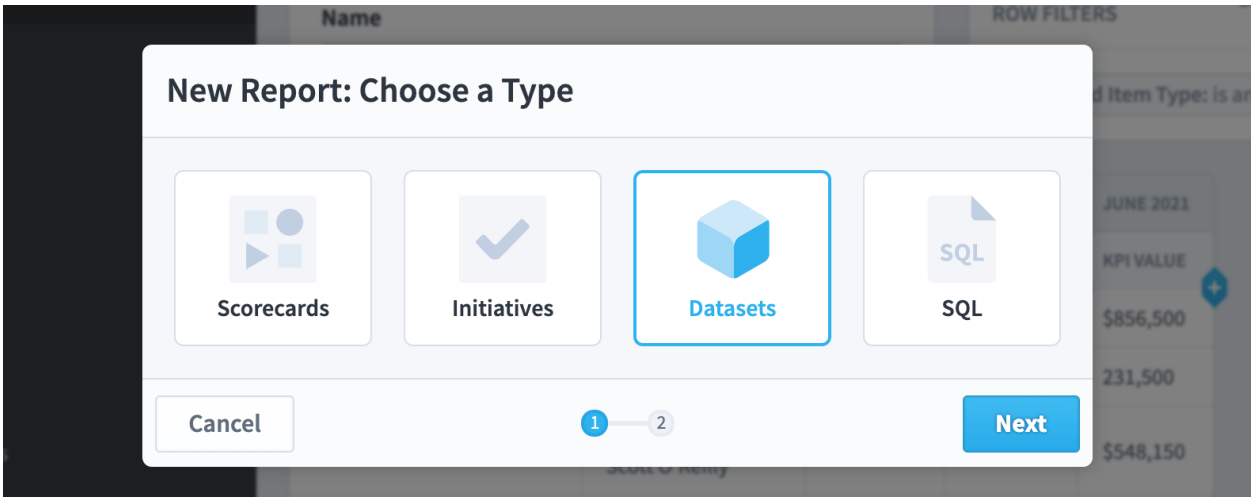
Let's start a new report, and this time we'll choose Initiatives.



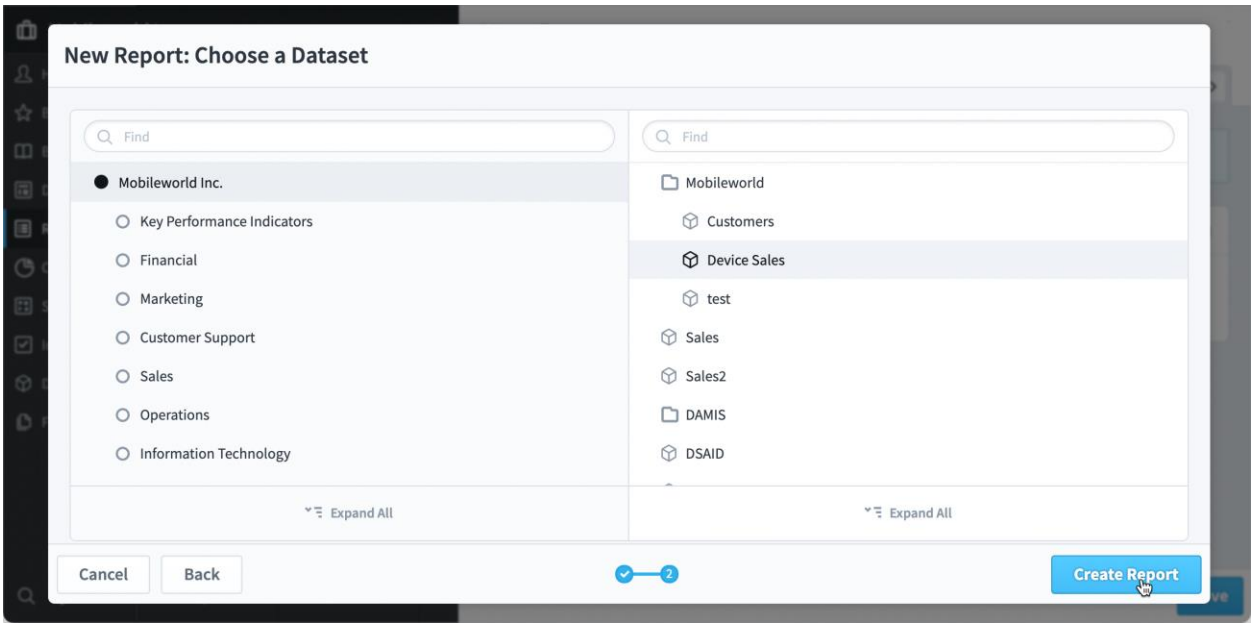
A new Initiatives report starts with showing the budget and schedule information for all non-archived initiative items.



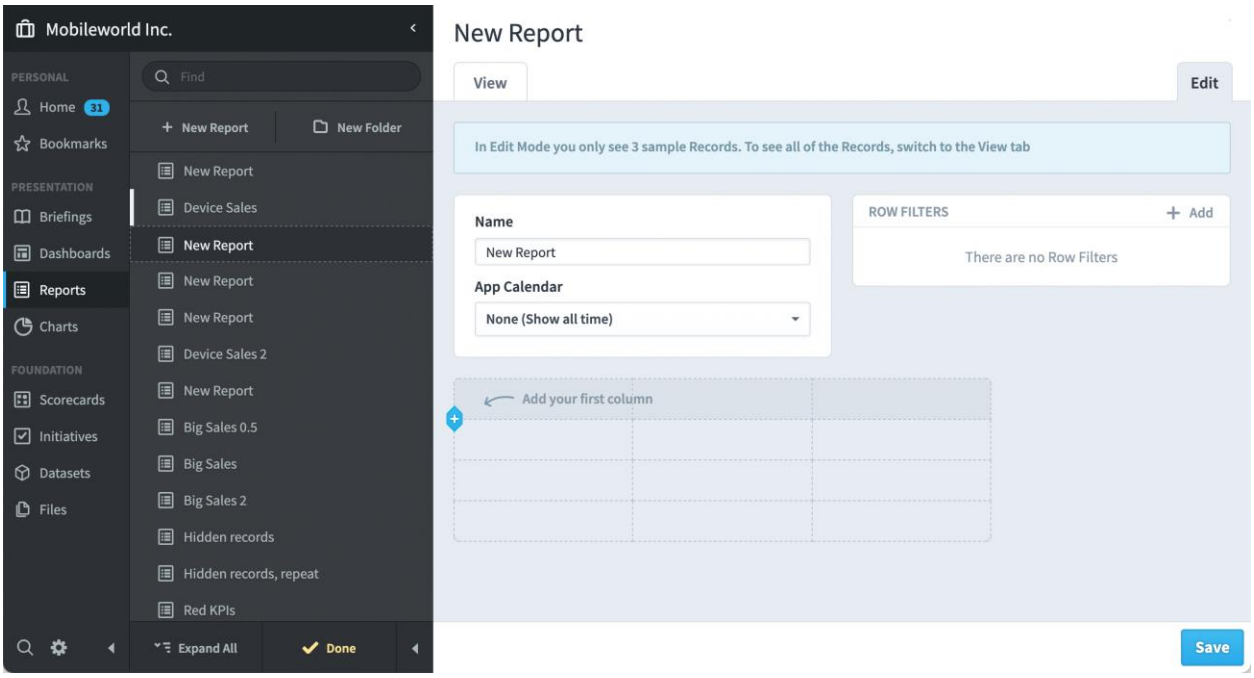
The third type of report is Datasets.



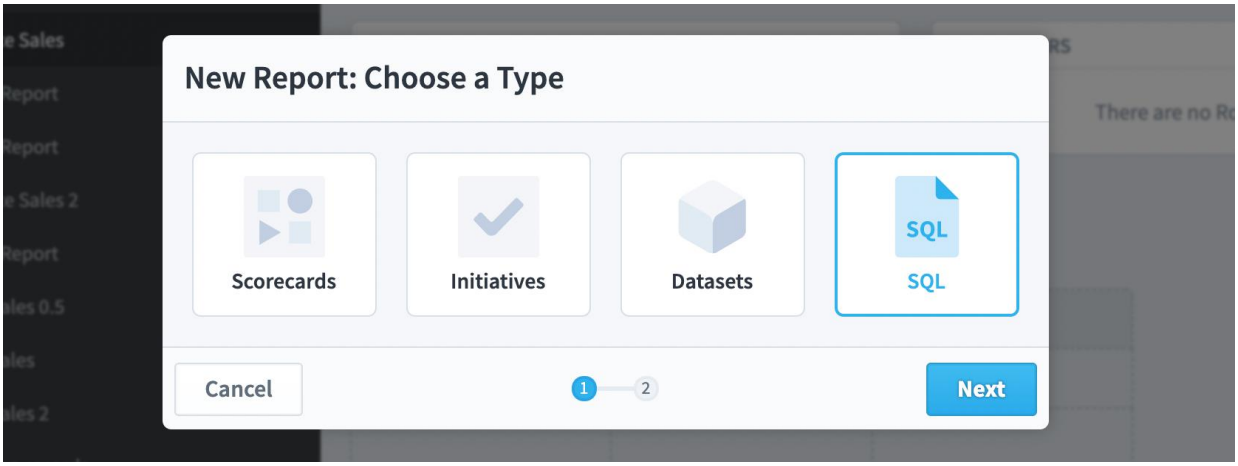
A dataset report shows data from a single dataset, which we'll choose next.



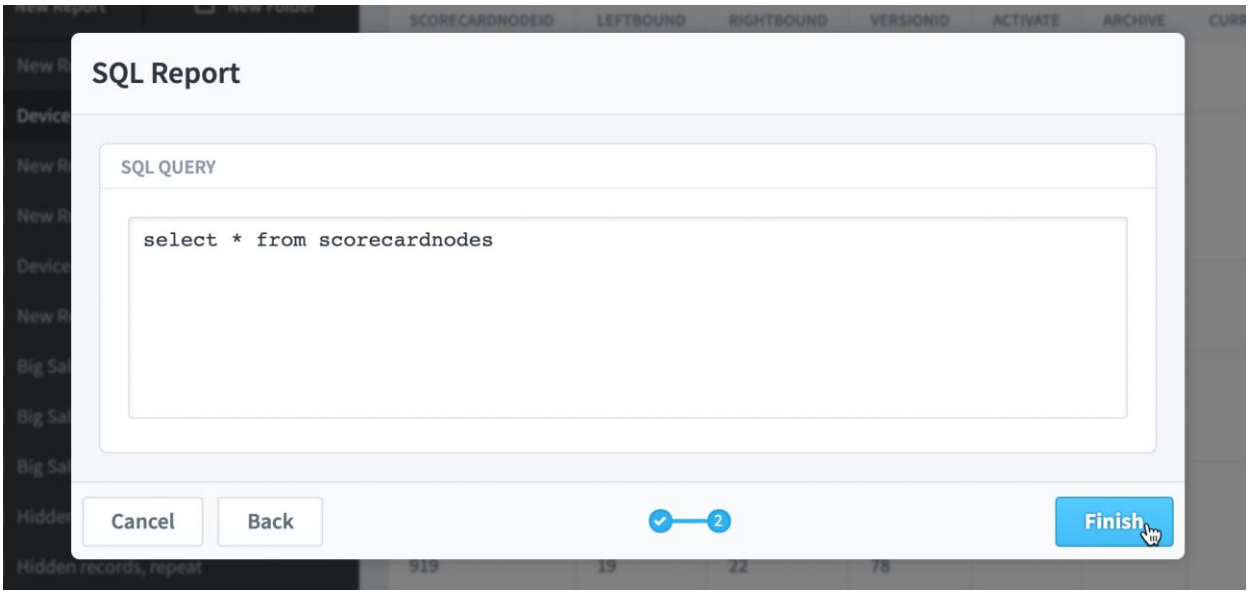
Dataset reports are a little different from Scorecard and Initiative reports because every dataset field is unique to each dataset. Because of this, dataset reports start blank.



Finally, users with the right permissions can choose SQL reports.



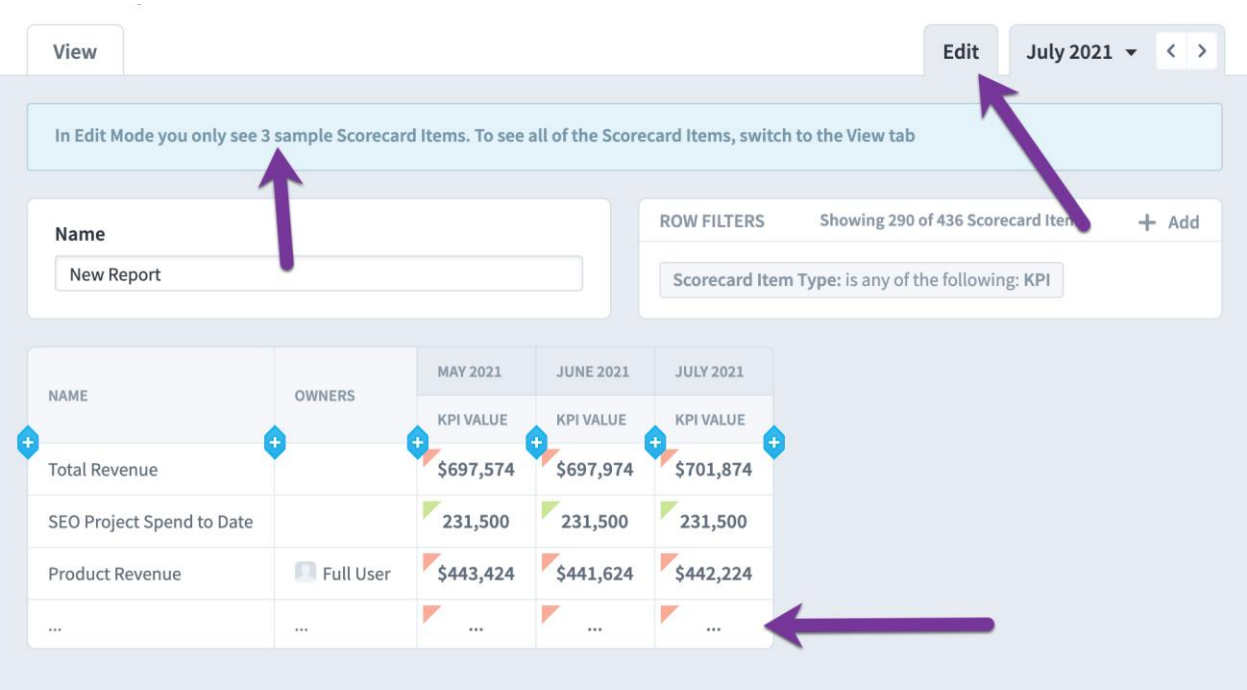
This allows them to write SQL queries against the SMS database.



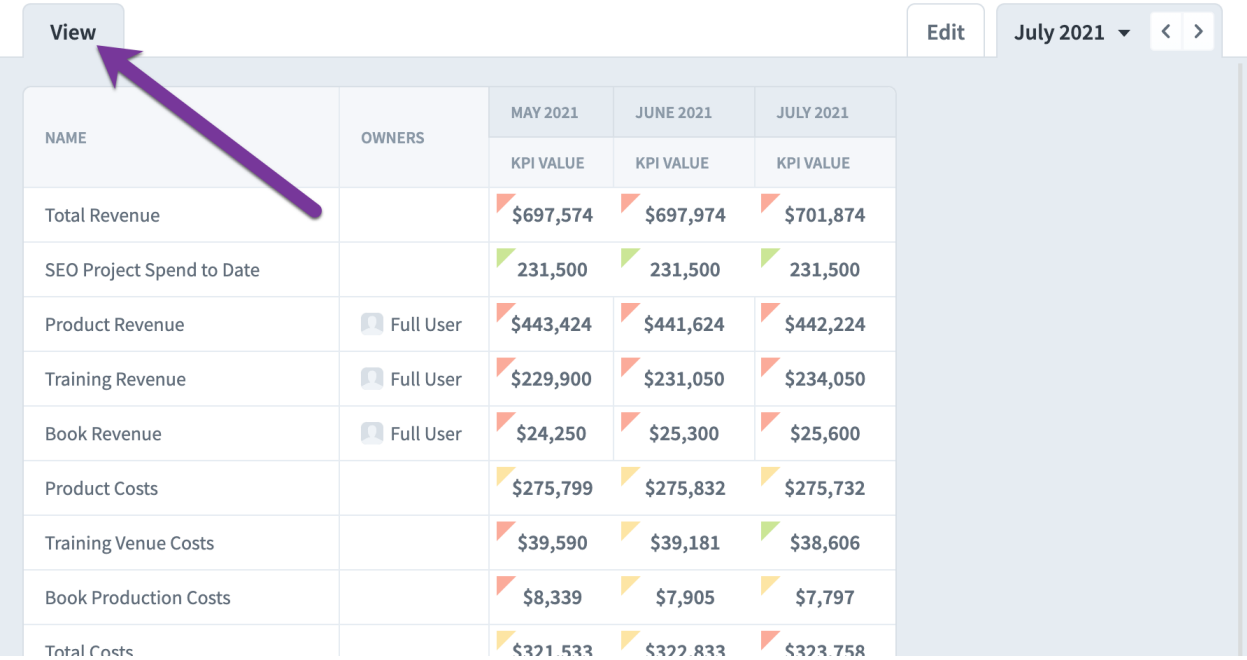
SQL reports appear the same as other reports, except they can't have advanced formatting.

The View and Edit tabs

Regardless of whether you're writing reports for Scorecards, Initiatives, or Datasets, the general flow is the same. The Reports Edit tab always shows the first three records so you can get a preview of what your report will look like.

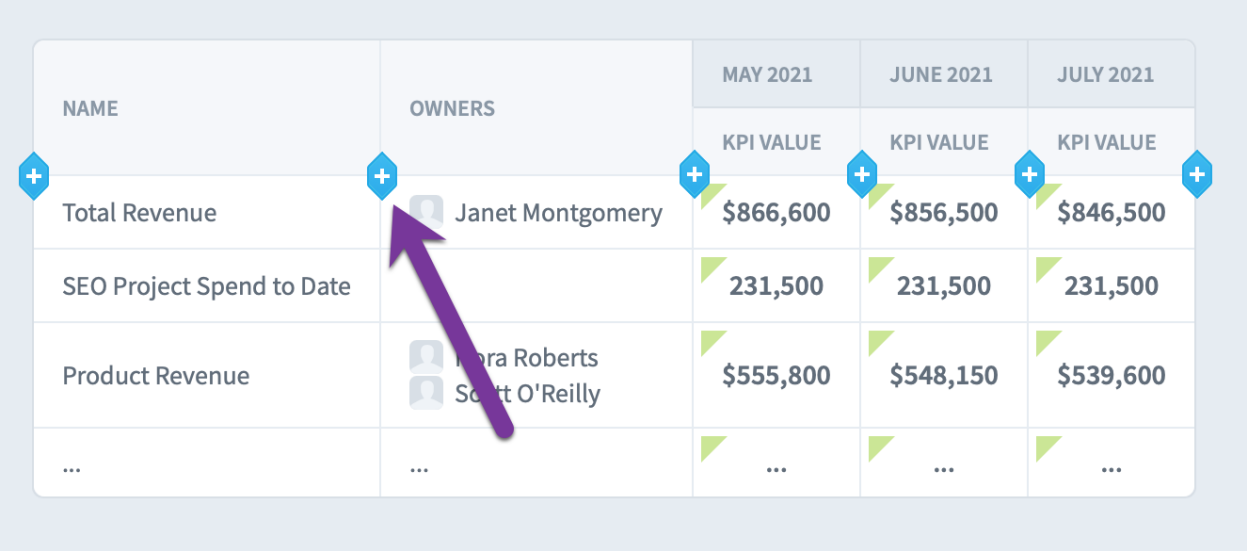


When you switch to the View tab, you'll see your entire report.

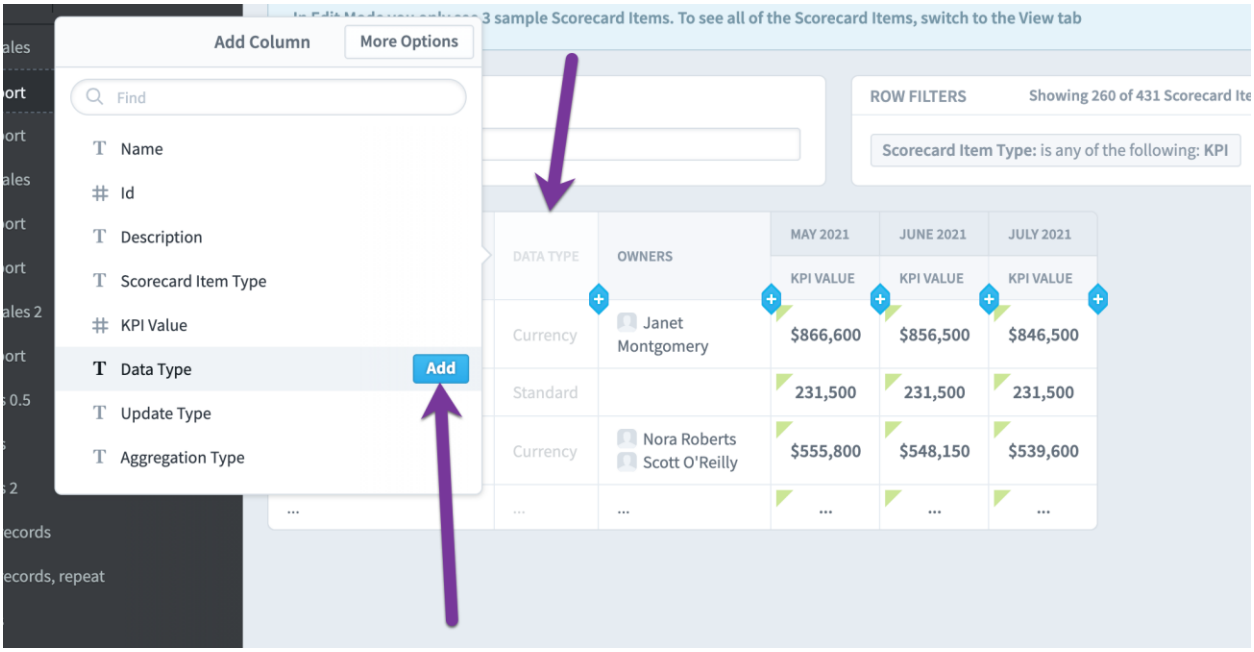


Adding and reordering columns

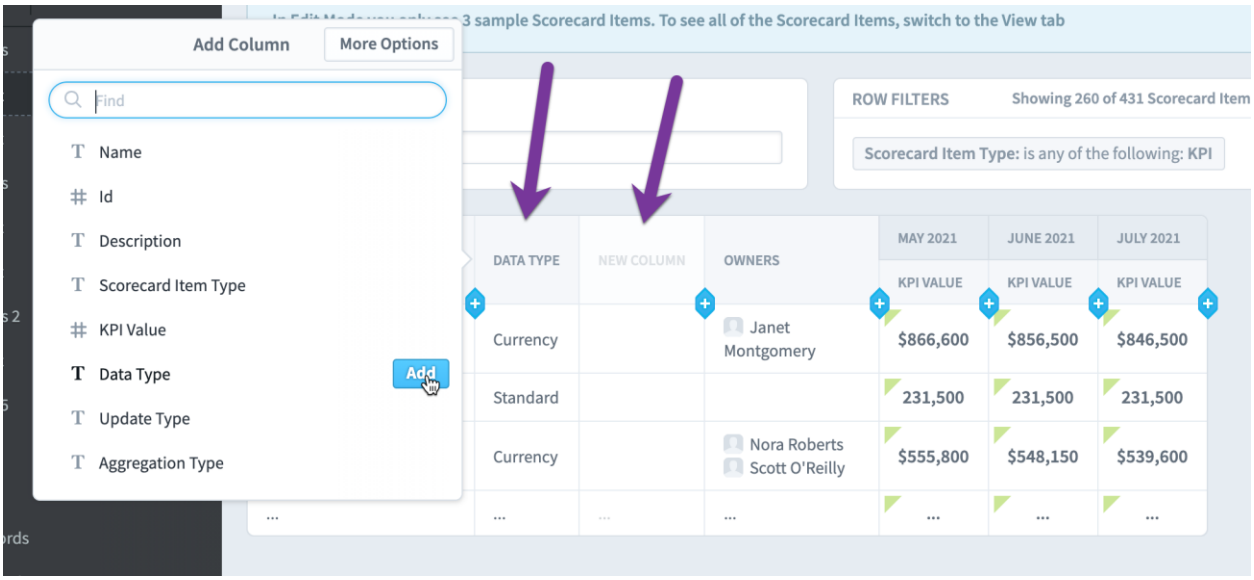
To add a new column, click the "Add" button where you want the new column to go.



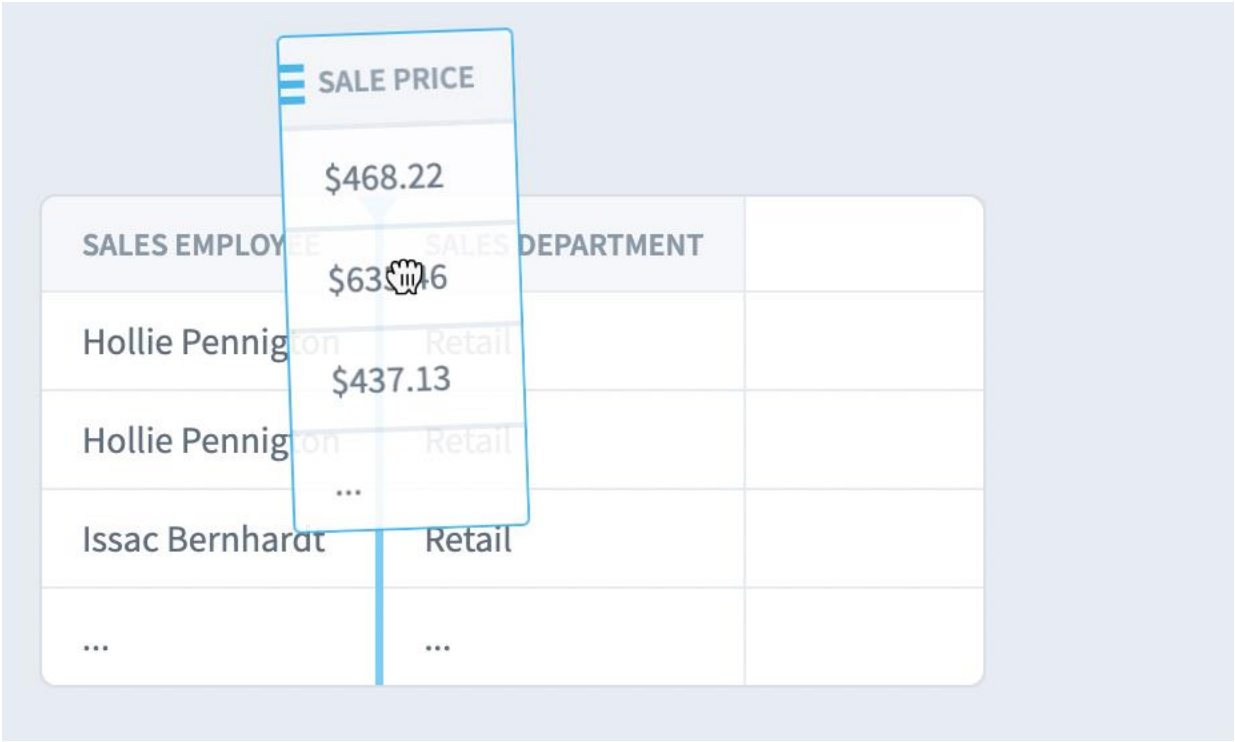
This brings up a list of all available fields from which to create columns. Here you can see the placeholder where the new column will go, right before we click to add the "Data Type" field as a column.



Immediately after the new column is added, the "Add Column" tooltip stays open, and you can see a new placeholder column to the right of the new column. This allows you to add multiple columns quickly with a few clicks.

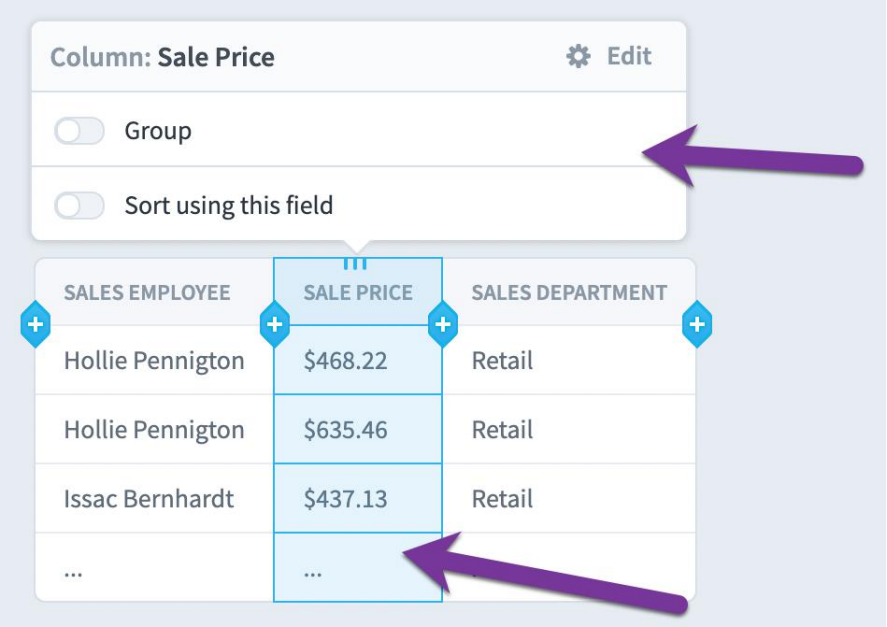


To change the order of columns, you can just drag and drop them to where you want them to be.

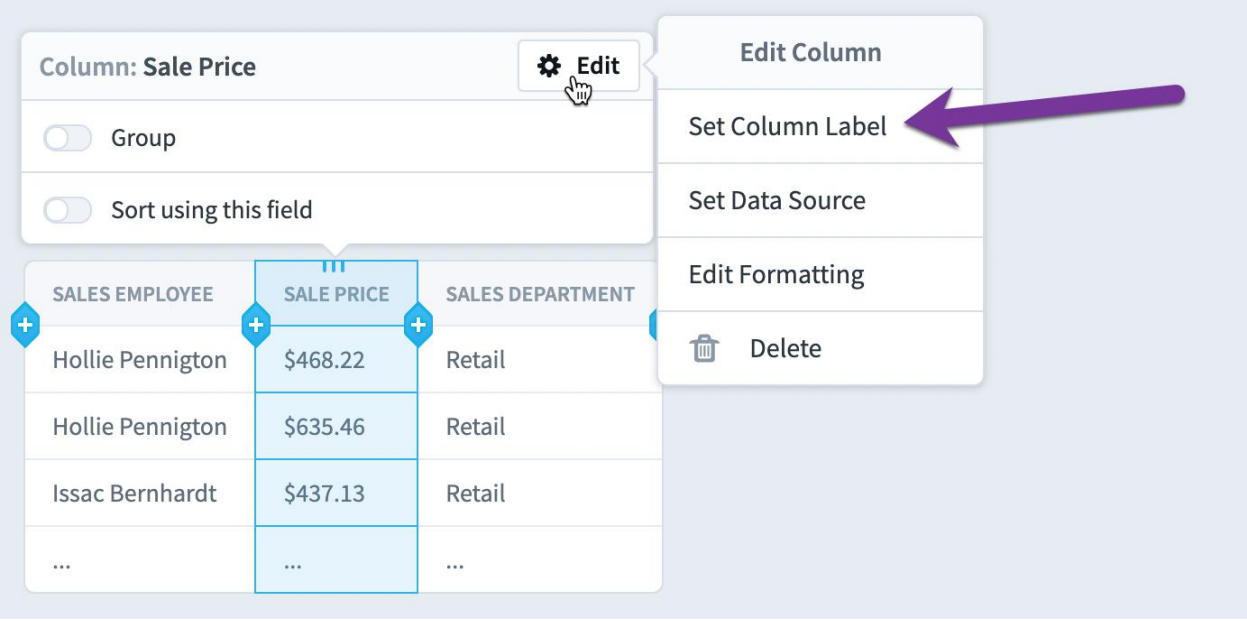


Setting column labels

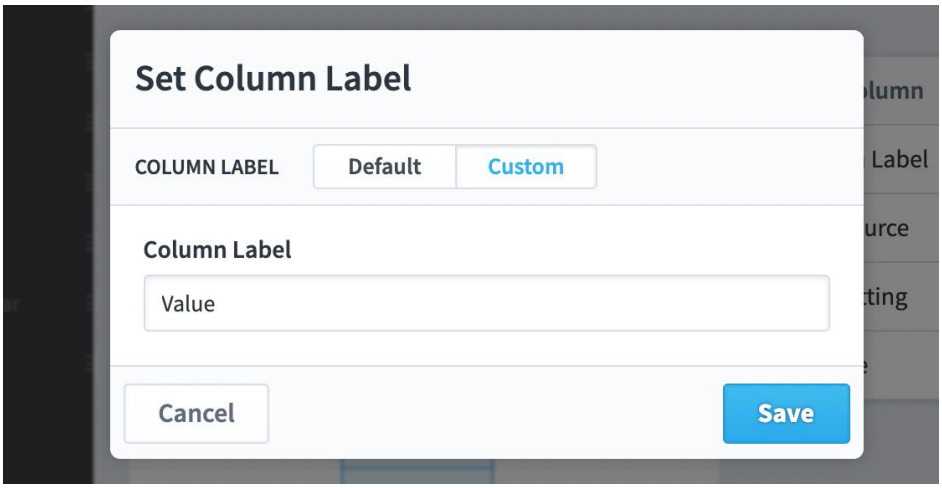
To edit a column, just click on it. You'll see the column that you're going to edit highlighted, and it shows a tooltip with your editing options.



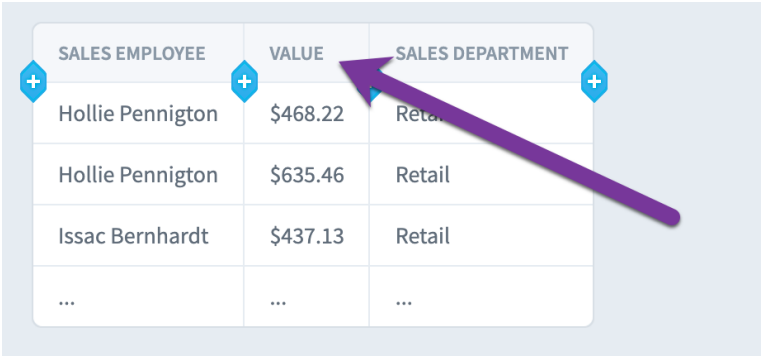
In this example we'll click the Edit button, and we'll choose "Set Column Label."



This opens a dialog where you can choose to override the Default column label and type a value of your own. In this example we're going to change the "Sale Price" label to "Value."

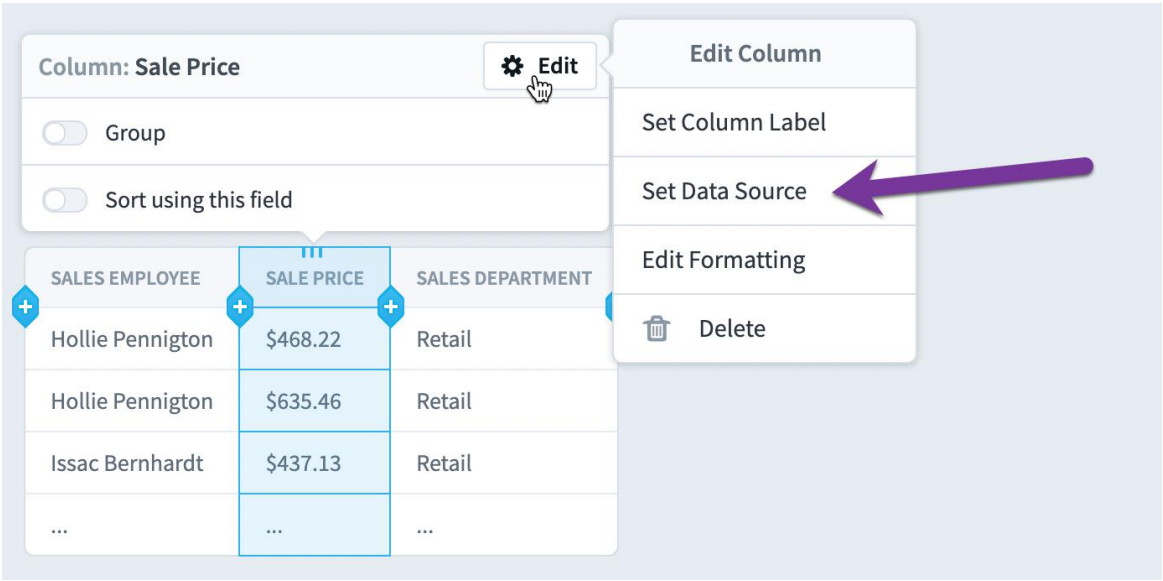


Here's what the report looks like with the new column label.

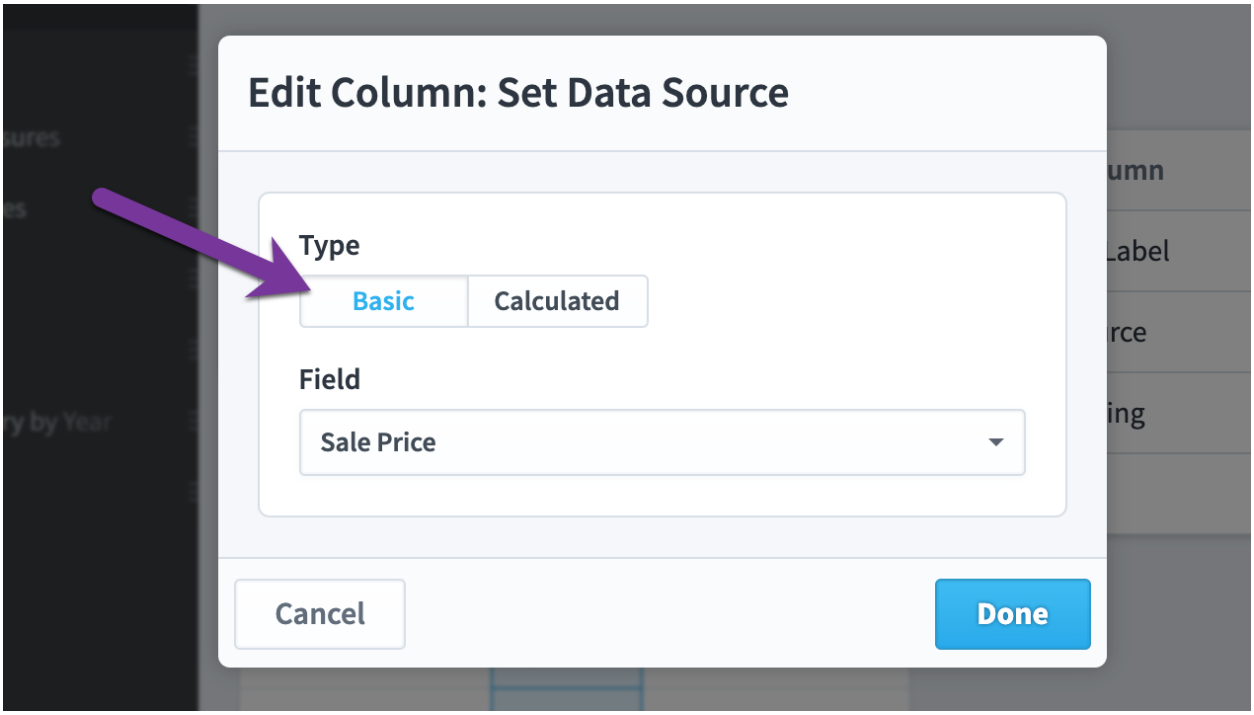


Editing column data

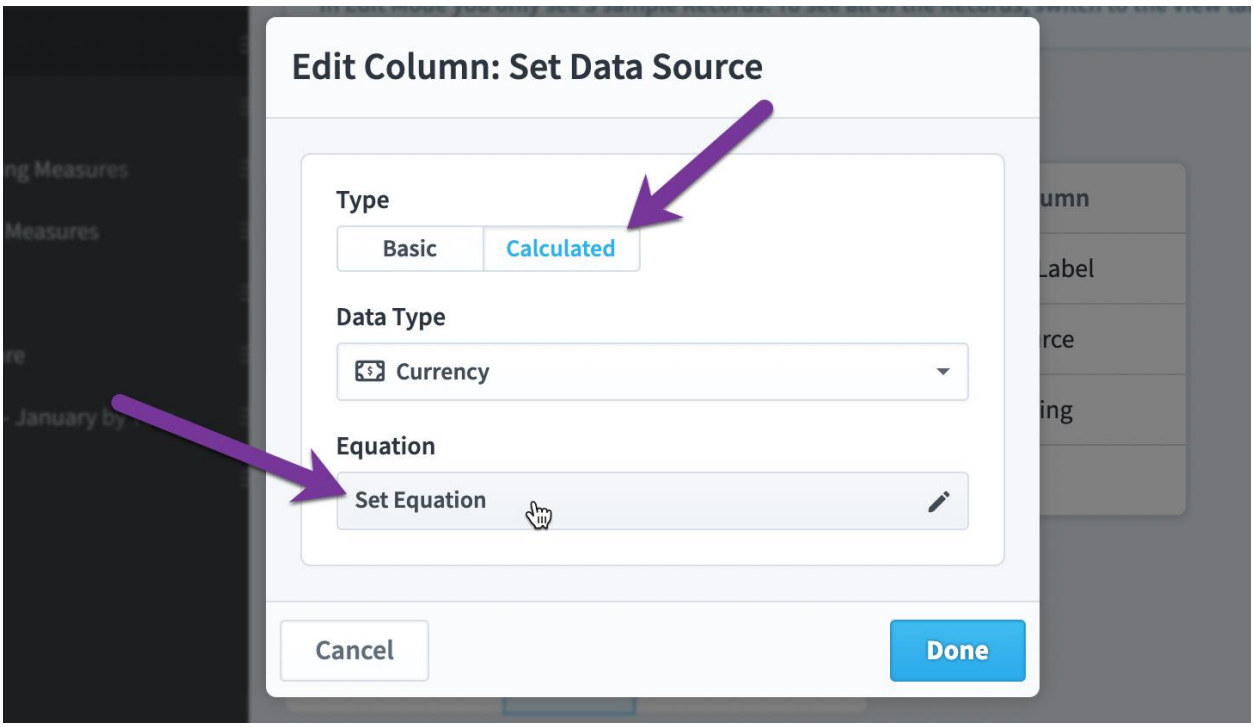
Every report column gets its data from somewhere, and to edit what data is showing, choose "Set Data Source" from the Edit Column menu.



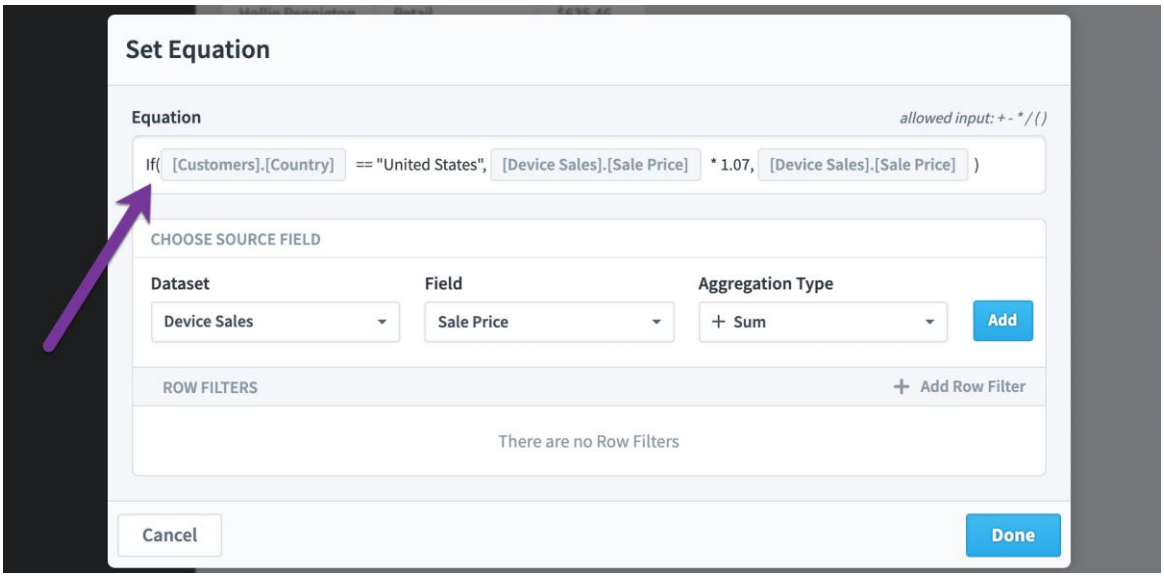
The default column type is Basic. This means the column is showing the value for a single field.



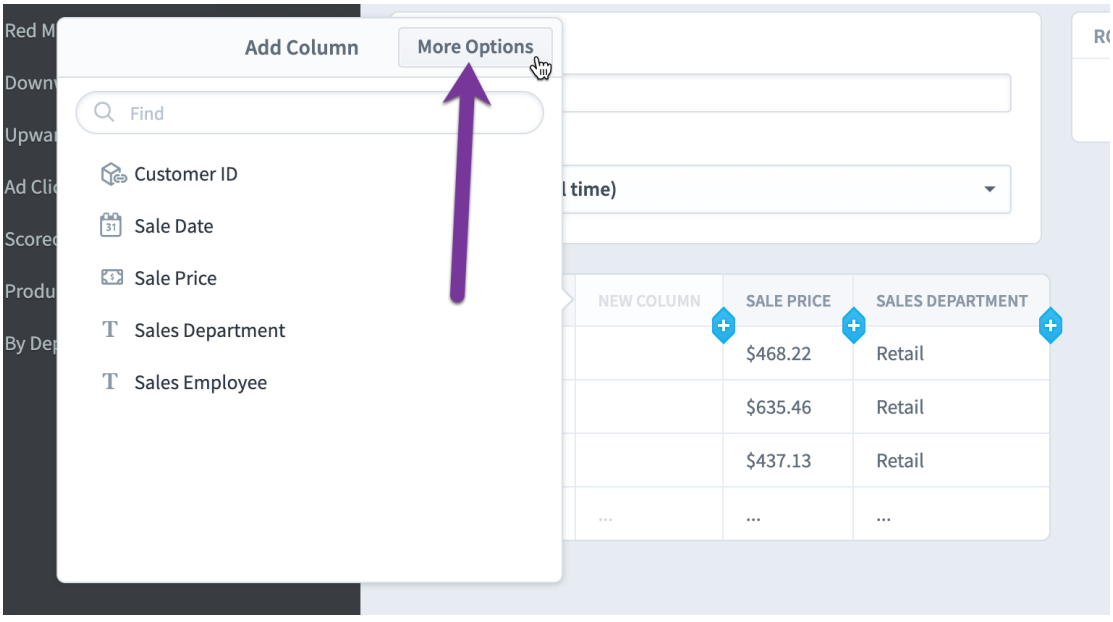
You can also choose to show a Calculated value in a column. Here we'll change the Type to Calculated and we'll click the "Set Equation" button.



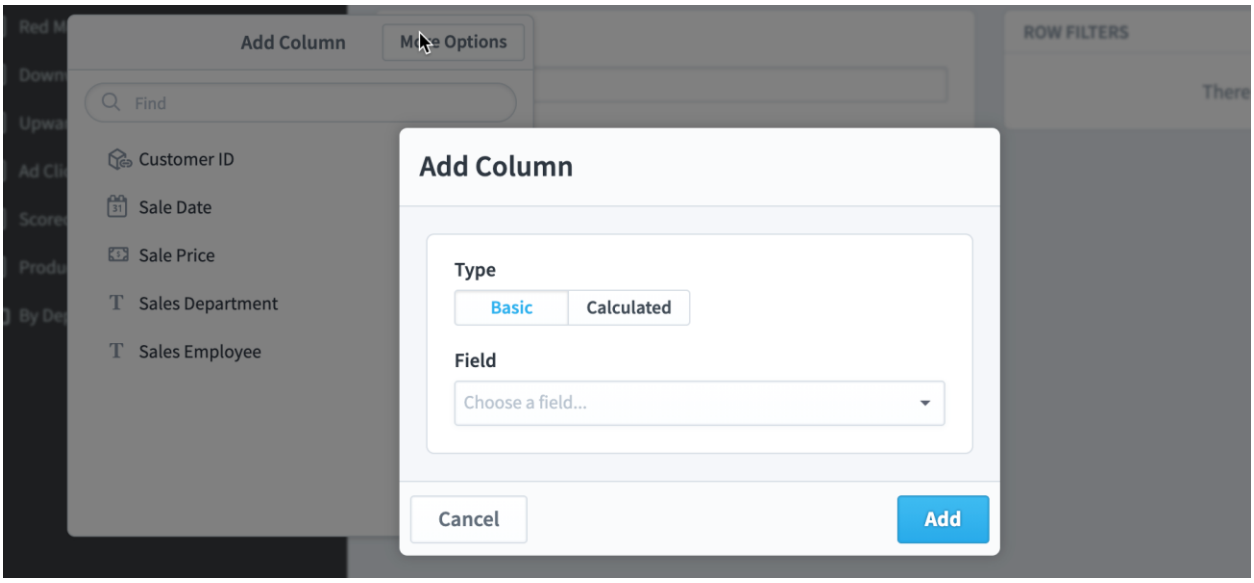
In this example we're building an equation that shows the value of the "Sales Price" field, but with an additional 7% sales tax added if the value of the Country field is "United States." For more information, see the Equations knowledge base article: https://support.spiderstrategies.com/hc/en-us/articles/4407643362452



Finally, it's important to note that you can reach this "Set Data Source" menu when adding a new column. Most of the time you'll want to choose a field from the list when adding a column. But, if you know your new column is going to be more complicated than that, you can just click the "More Options button that's in the "Add Column" tooltip.

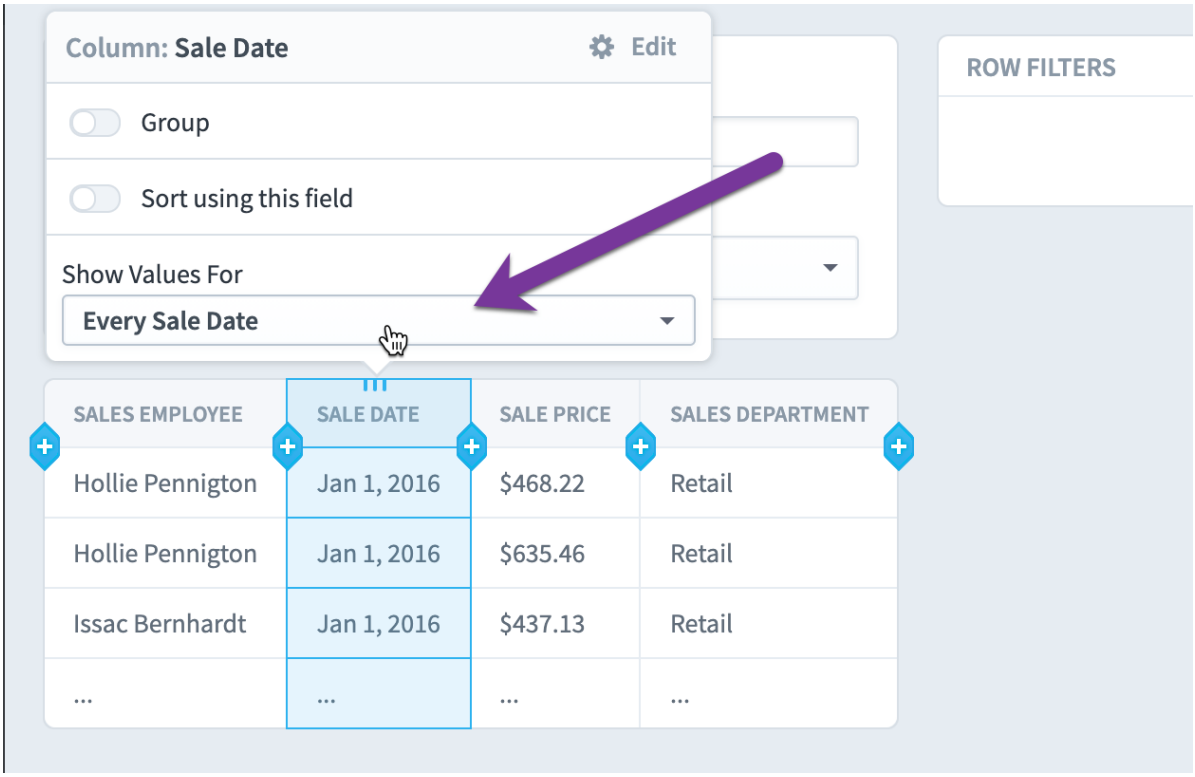


This shows the same "Set Data Source" menu, but this time it's for a column that hasn't been created yet.

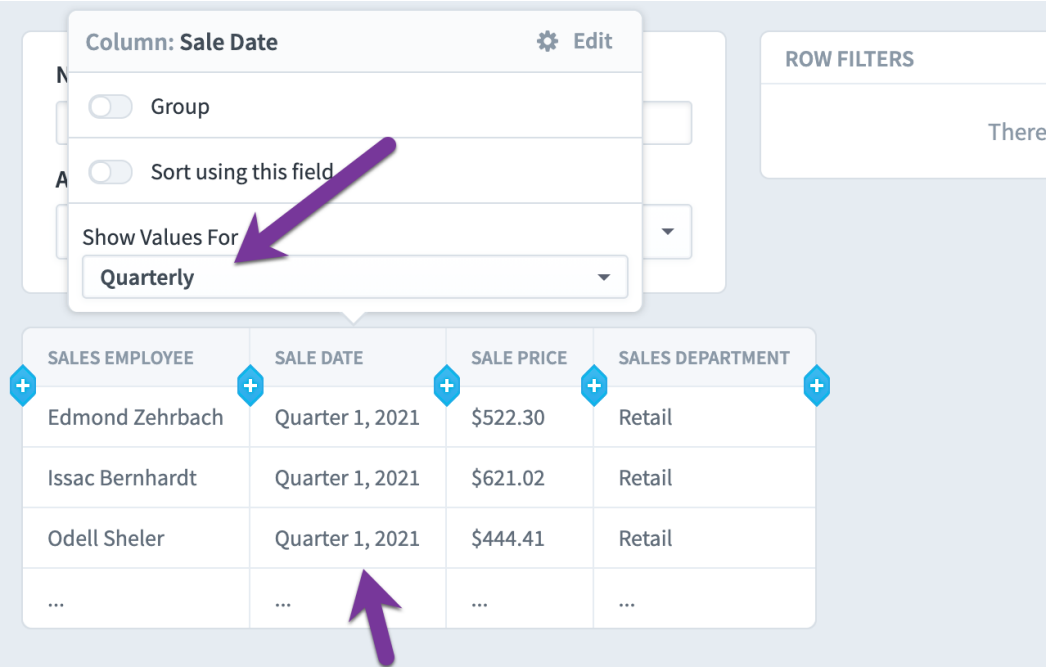


Show values for

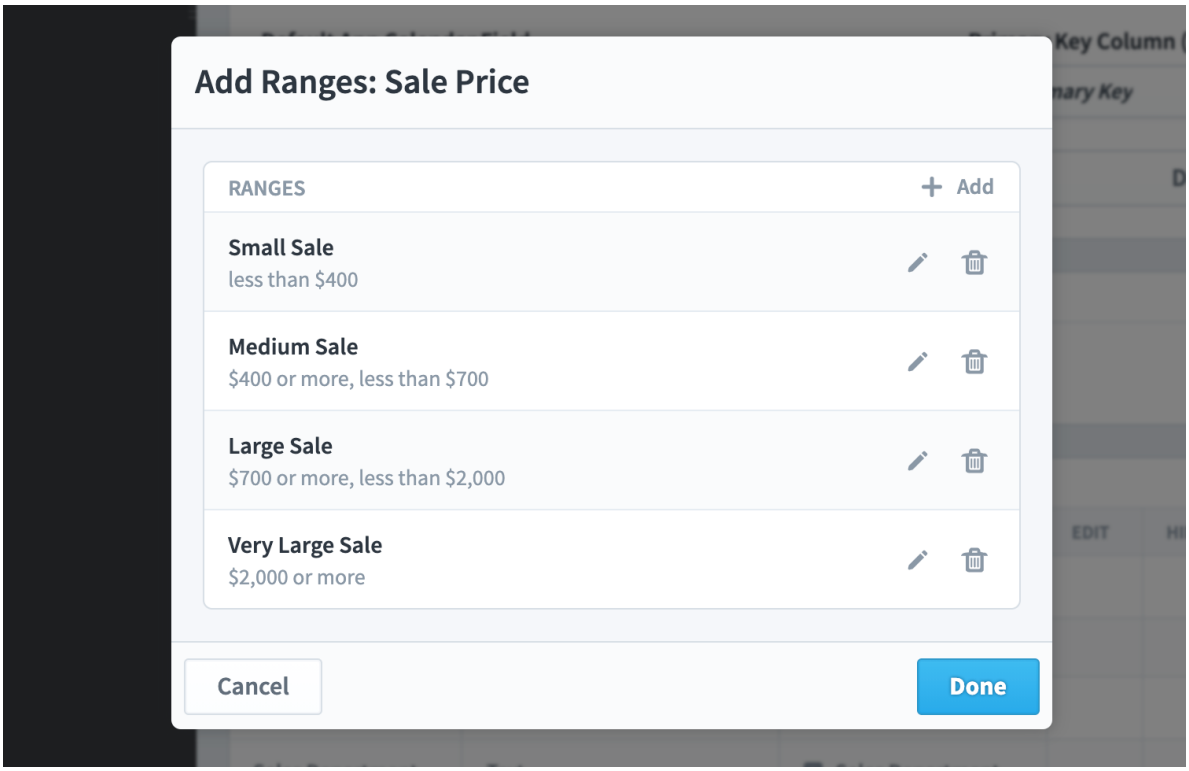
Sometimes when you click on a column, you'll have a "Show Values For" dropdown. In this example we've clicked on a date column that's showing data from the Sale Date field, and we're currently showing "Every Sale Date".



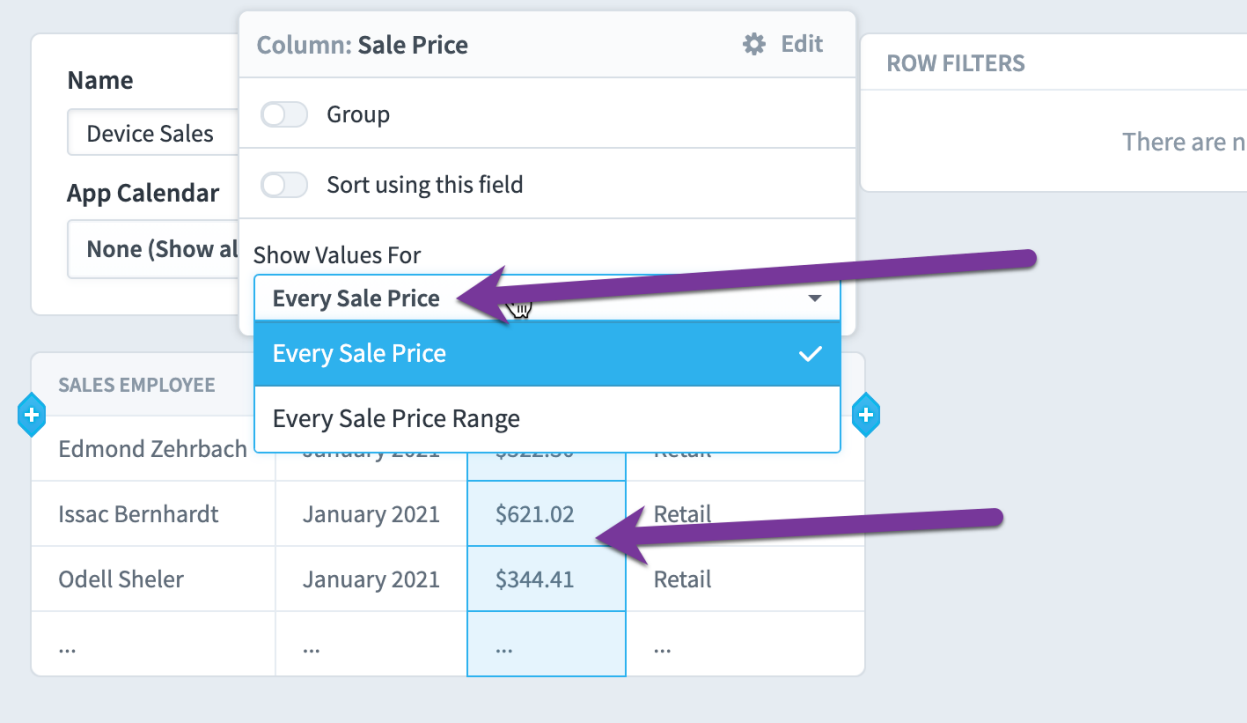
Here we've chosen to show values for the Quarterly calendar. The column now shows which quarter the sale happened in instead of the specific date.



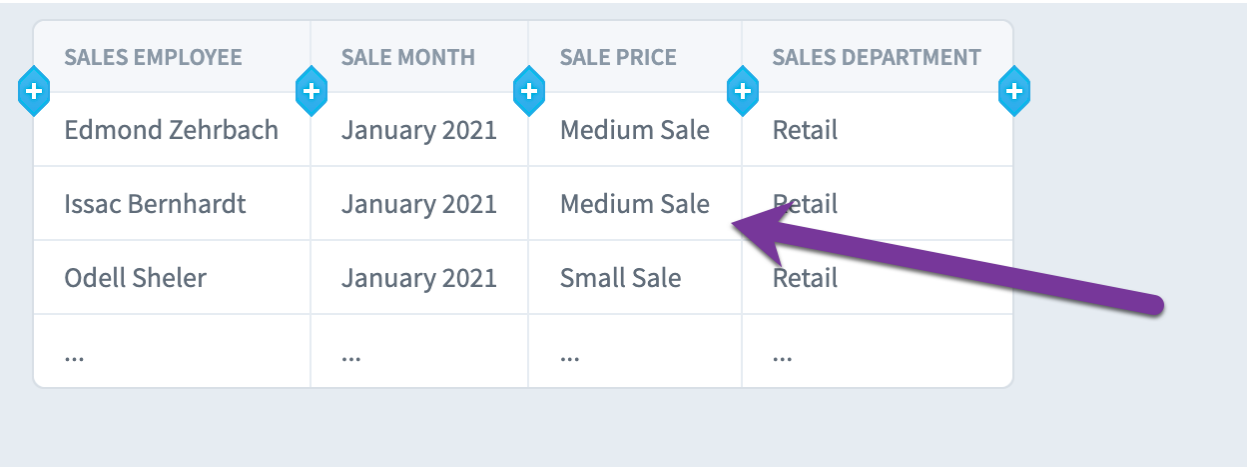
You'll see other options in the "Show Values For" dropdown depending on what data your column is showing. For example, our dataset has four ranges set up for the Sale Price field.



When we click on the column showing the Sale Price field, we can see that it defaults to "Every Sale Price".

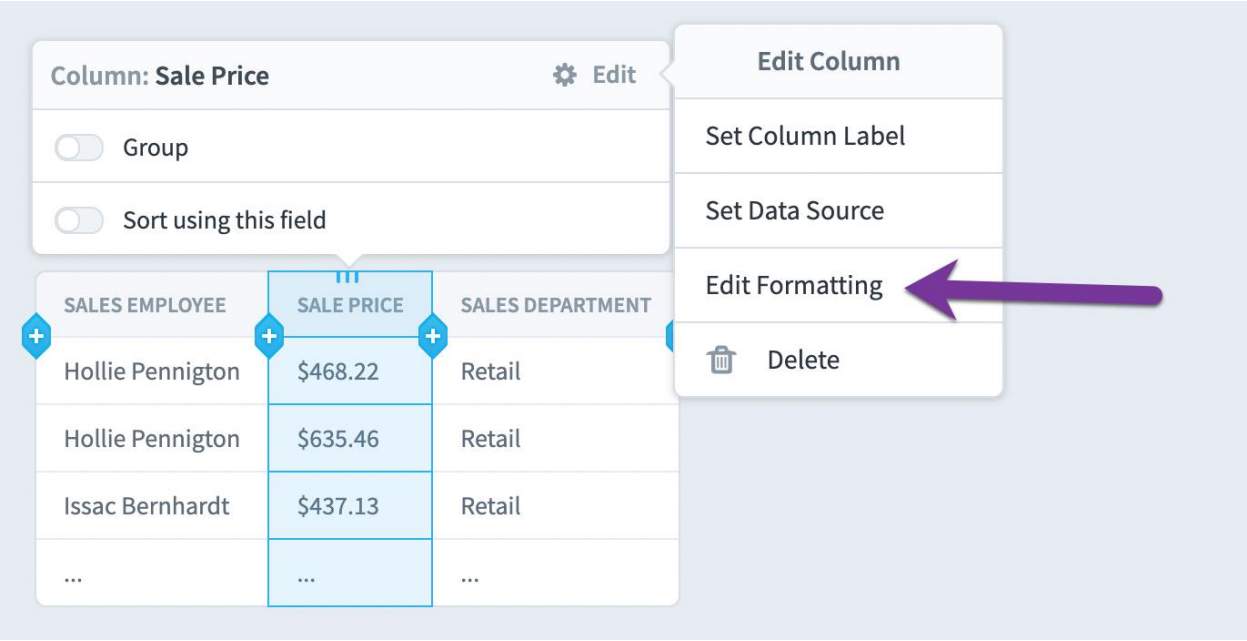


If we change "Show Values For" to "Every Sale Price Range", we'll see values that look like this.

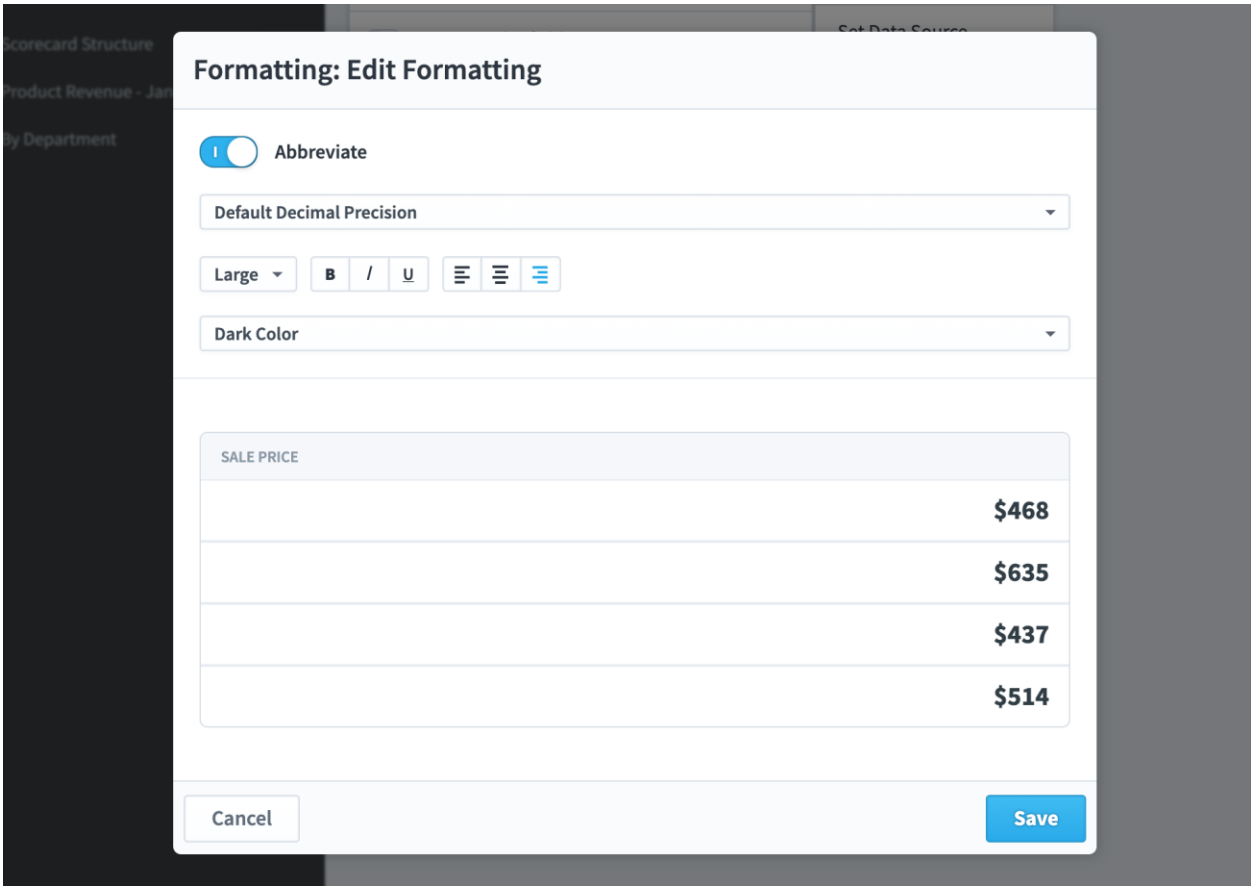


Column formatting

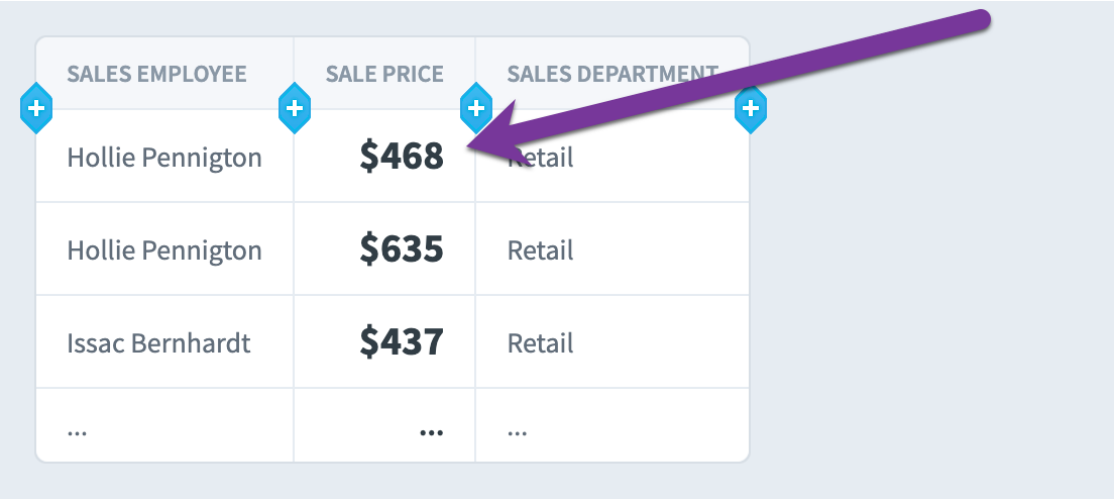
To edit a column's formatting, choose "Edit Formatting" from the Edit tooltip.



The Edit Formatting dialog gives you a preview of what your formatted data will look like. Here we've changed the font size to large, changed the color to dark, abbreviated the data, and aligned everything right.

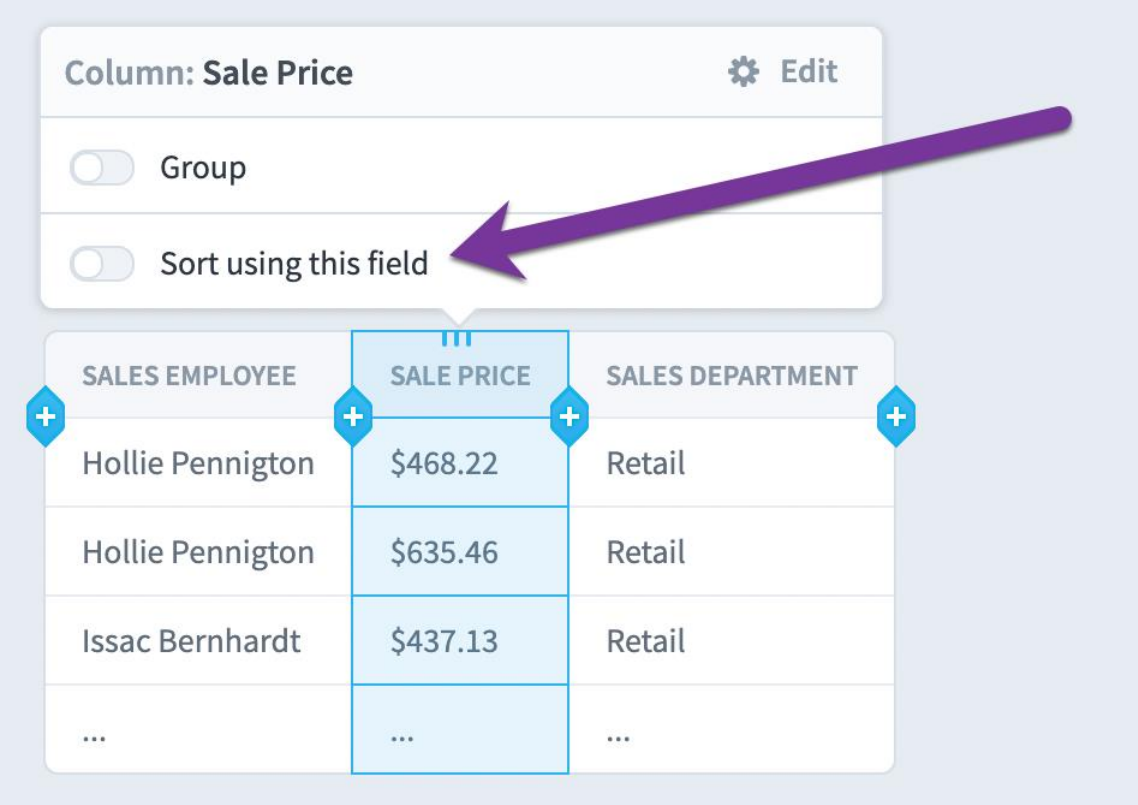


We end up with a report that looks like this.

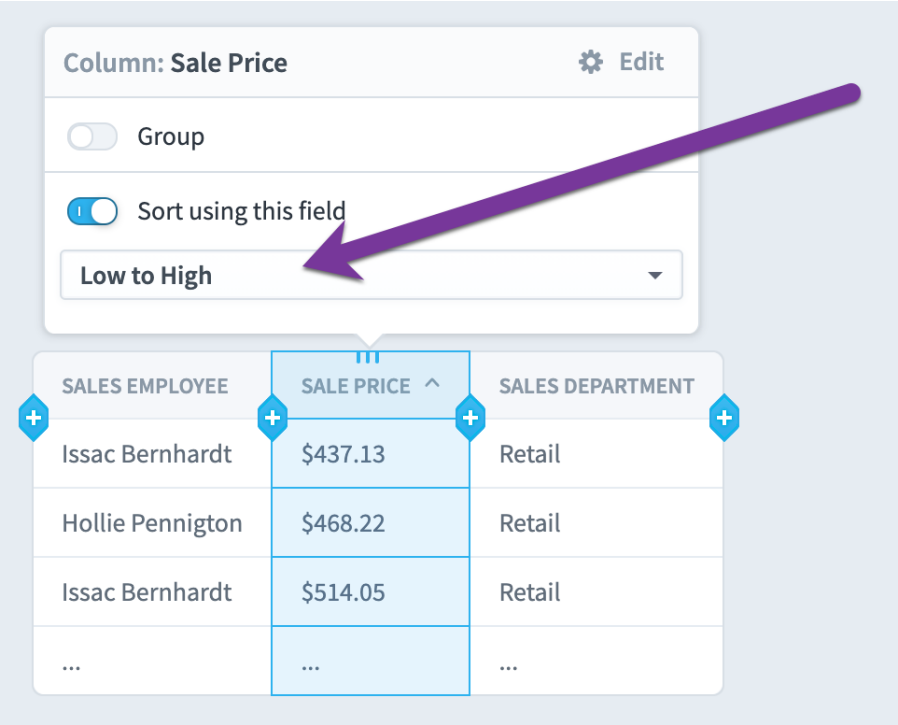


Column sorting

You can choose to sort on any field in your report. The default sorting for scorecard and initiative reports is first by organization, and then by tree order. You can change this default sorting by clicking on a column and turning on "Sort using this field."

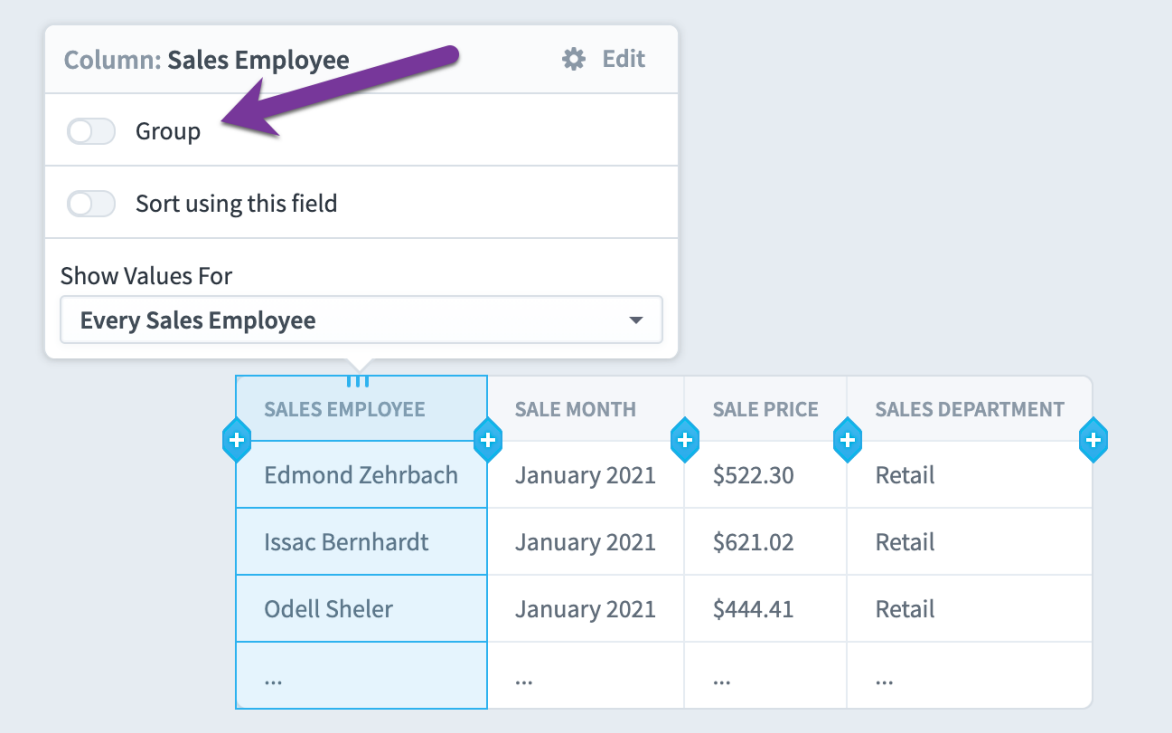


You can then choose to sort that column ascending or descending.

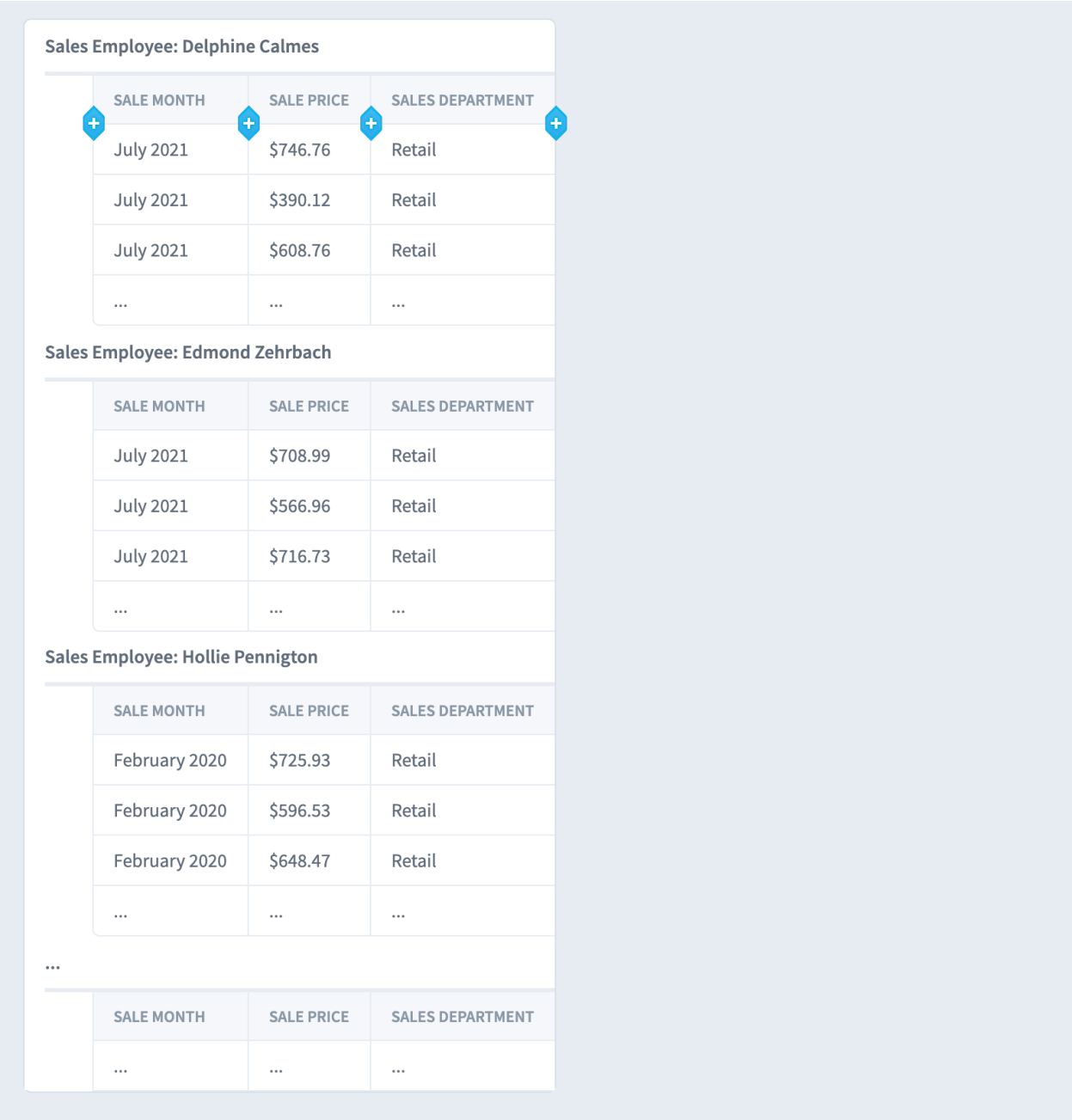


Grouping

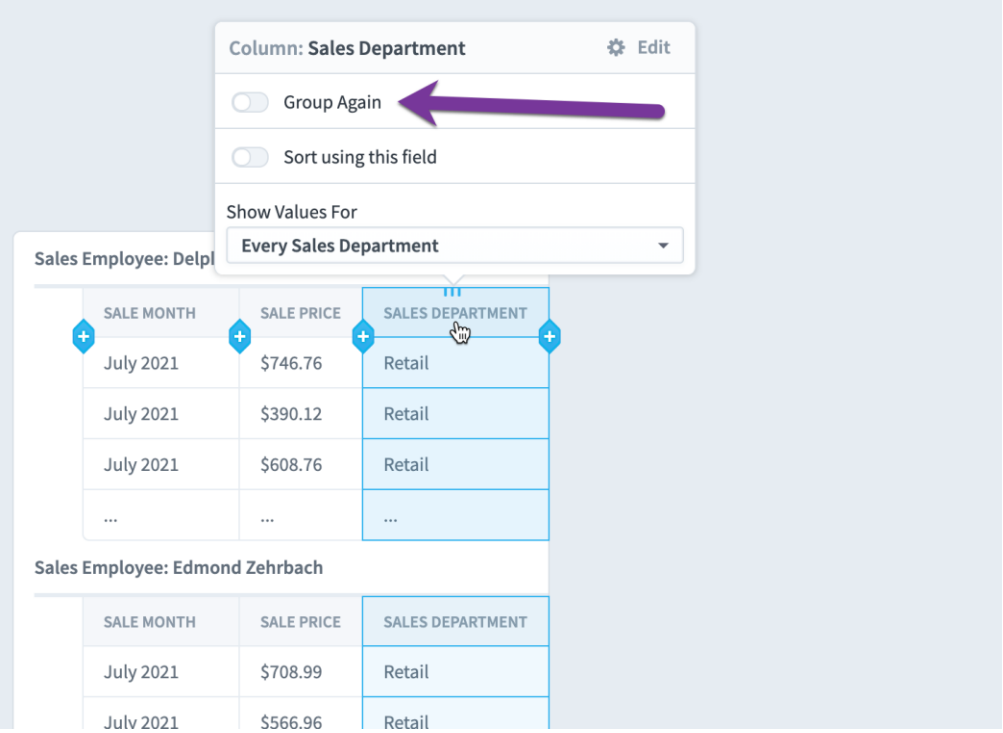
You can group by a column by clicking on the column and turning on the Group switch.



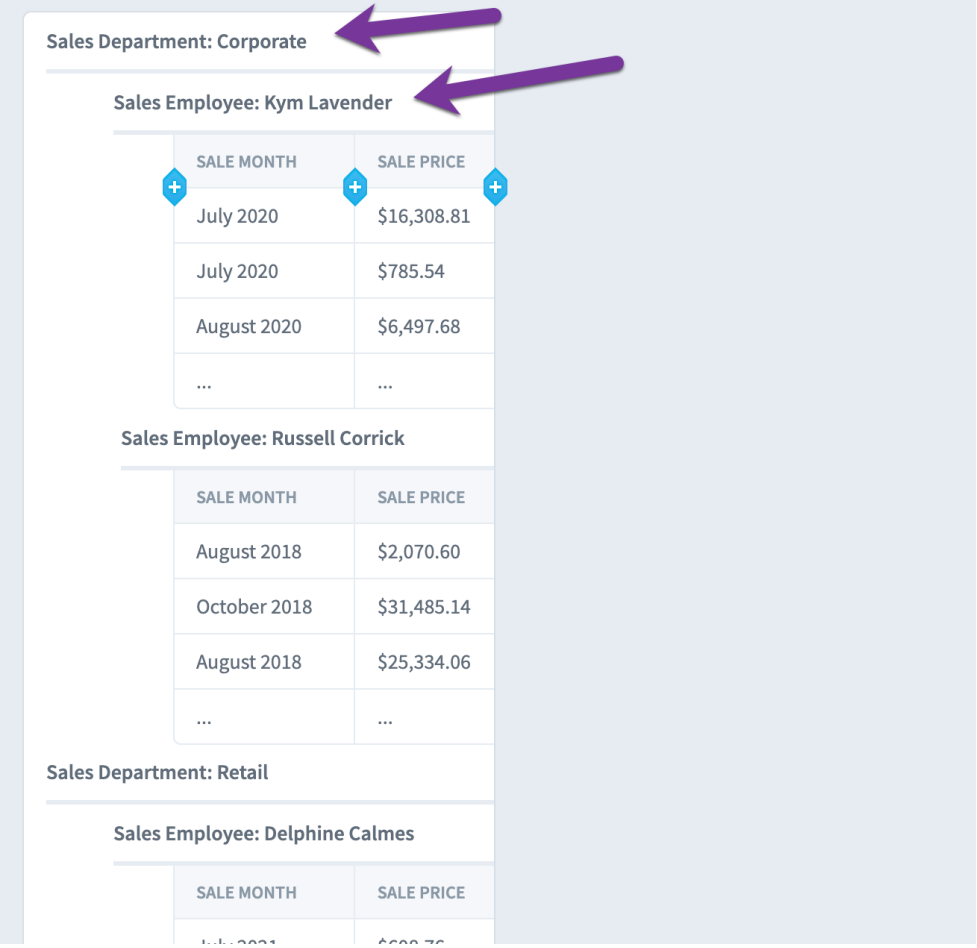
This shows all unique values for that column as large group headers, and then lists all of the records with that value underneath. In this example we've grouped by the Sales Employee column, so each group is a different sales employee. The Edit tab only shows the first three groups, but switching to the View tab will show the full report.



You can create another level of grouping by selecting another column and turning on "Group Again".

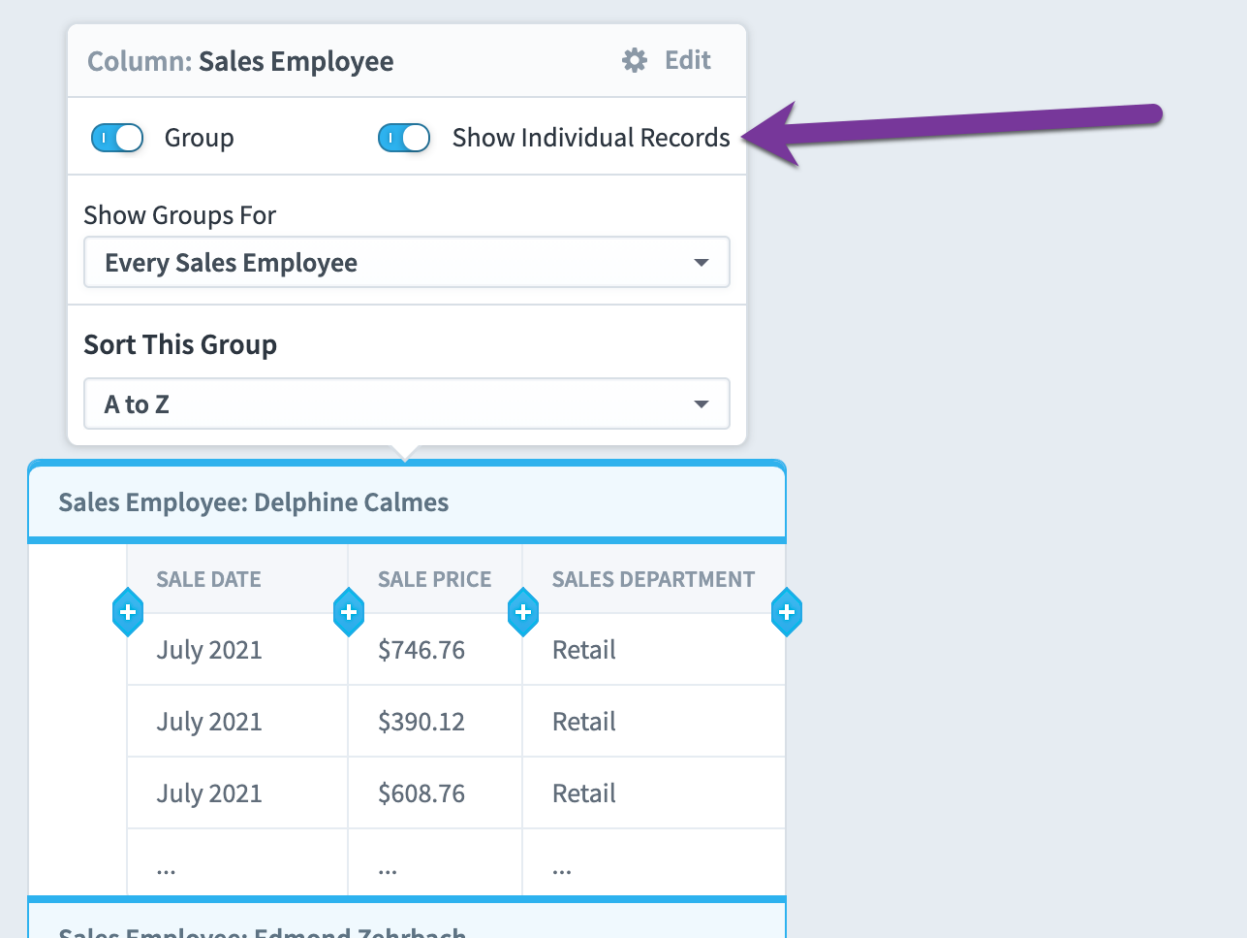


In this example the Sales Employees are also grouped by Sales Department.

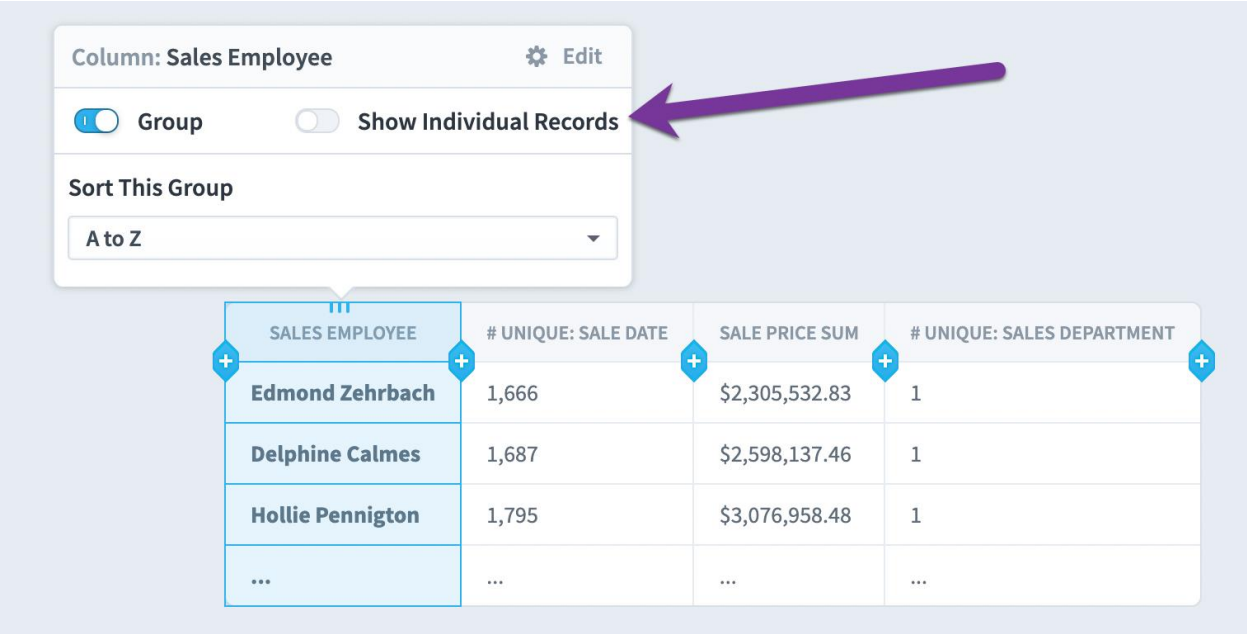


Hiding individual records

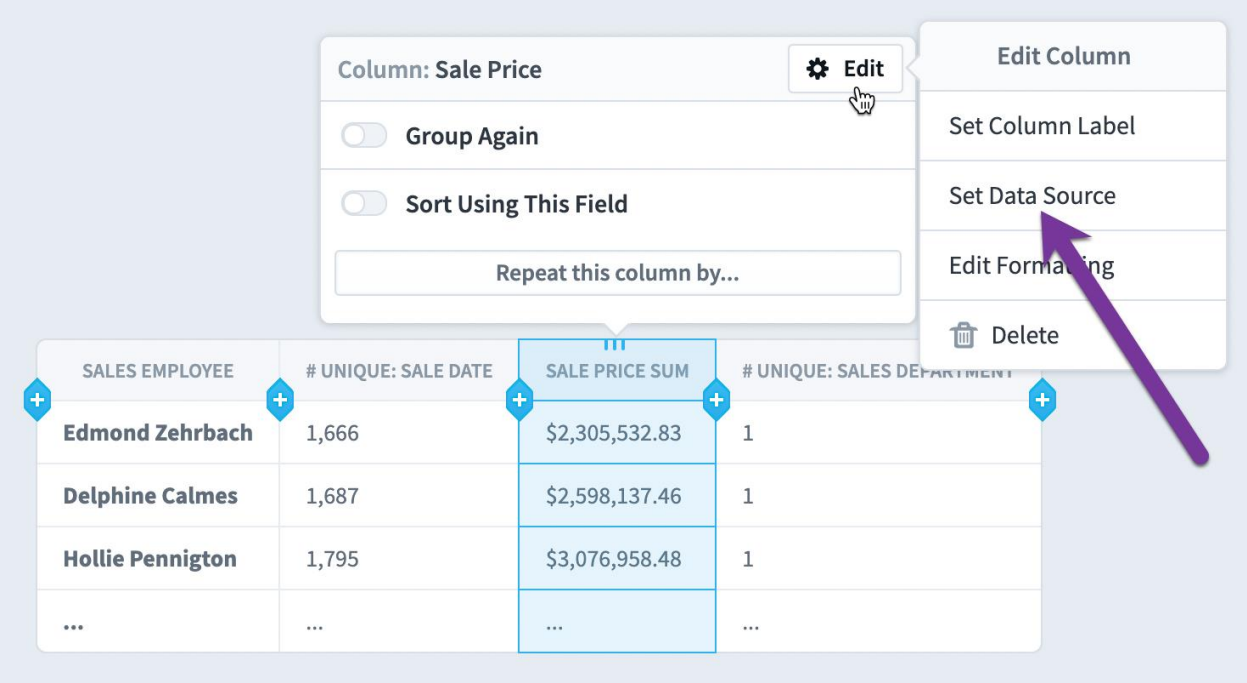
Adding a group to your report opens the door to many new data presentation possibilities. The most powerful is the ability to turn off "Show Individual Records". In this example, we're grouping records by the Sales Employee column, and we're showing columns for the Sale Date, Sale Price, and Sales Department.



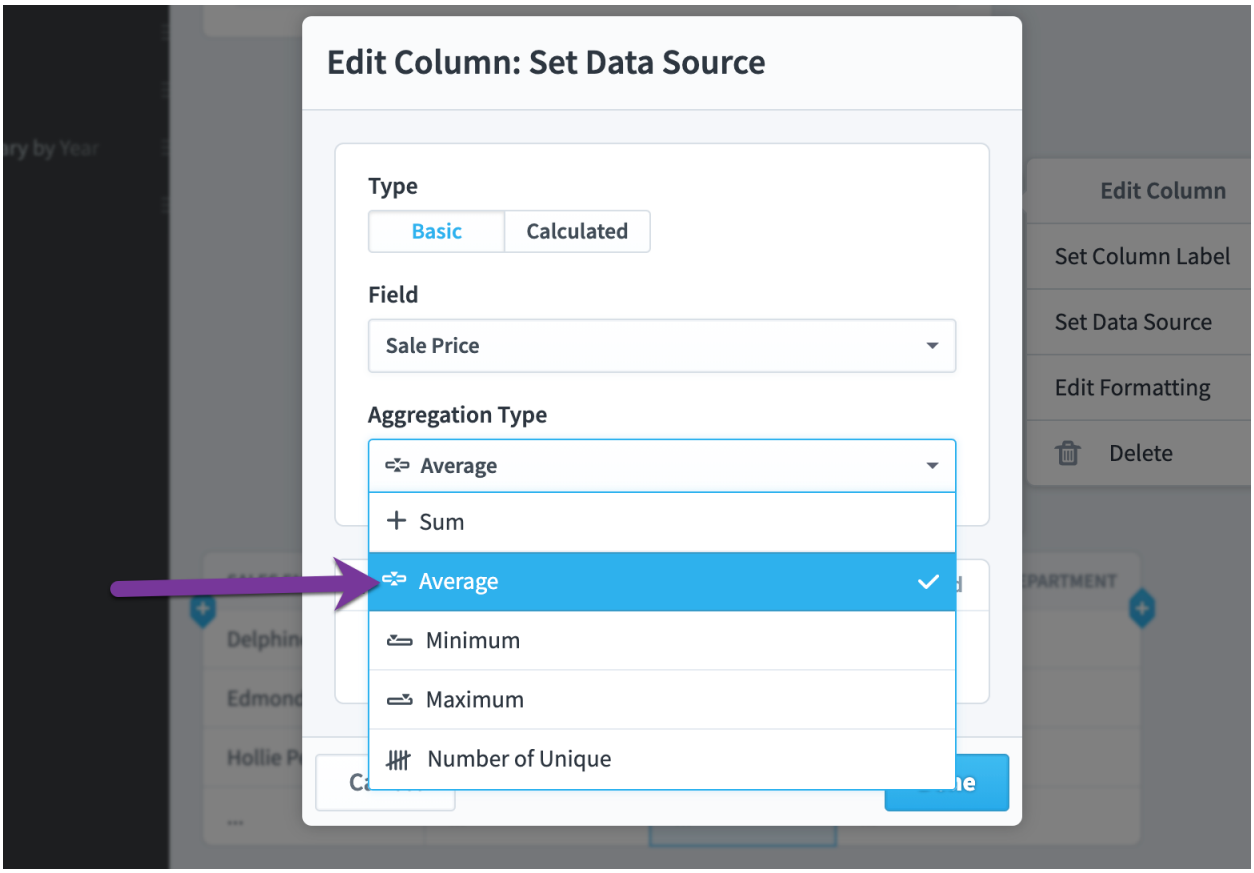
When you turn off "Show Individual Records", the report now only shows the groups. As you can see, the columns remain the same, but now they're showing aggregated data for each group. Number columns like Sale Price are summed by default. The default aggregation type of Date and Text columns is counting the number of unique values.



Let's say we want to show the Average sale price for a group instead of the Sum of all sale prices. To do this, just choose Set Data Source like we did before.



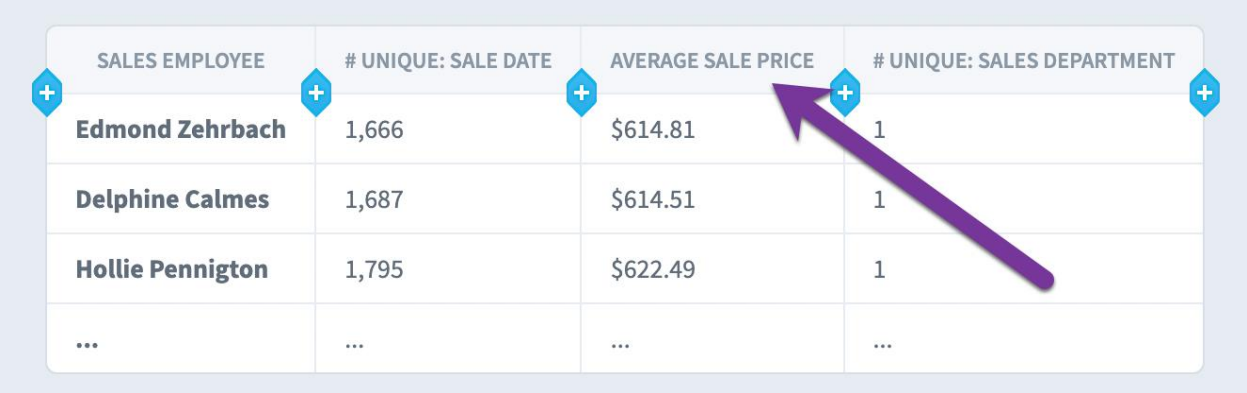
Now that we're showing aggregated data, however, we have an Aggregation Type choice in this dialog. We'll choose Average.



Once we click Done, we have a report showing the average sale price for each employee.

SALES EMPLOYEE	# UNIQUE: SALE DATE	AVERAGE SALE PRICE	# UNIQUE: SALES DEPARTMENT
Edmond Zehrbach	1,666	$614.81	1
Delphine Calmes	1,687	$614.51	1
Hollie Pennigton	1,795	$622.49	1
...	...	...	...

Finally, we'll change the Sale Date aggregation type to "Latest Date". Our finished report looks like this on the Edit Tab.



SALES EMPLOYEE	# UNIQUE: SALE DATE	AVERAGE SALE PRICE	# UNIQUE: SALES DEPARTMENT
Edmond Zehrbach	1,666	$614.81	1
Delphine Calmes	1,687	$614.51	1
Hollie Pennigton	1,795	$622.49	1
...	...	...	...

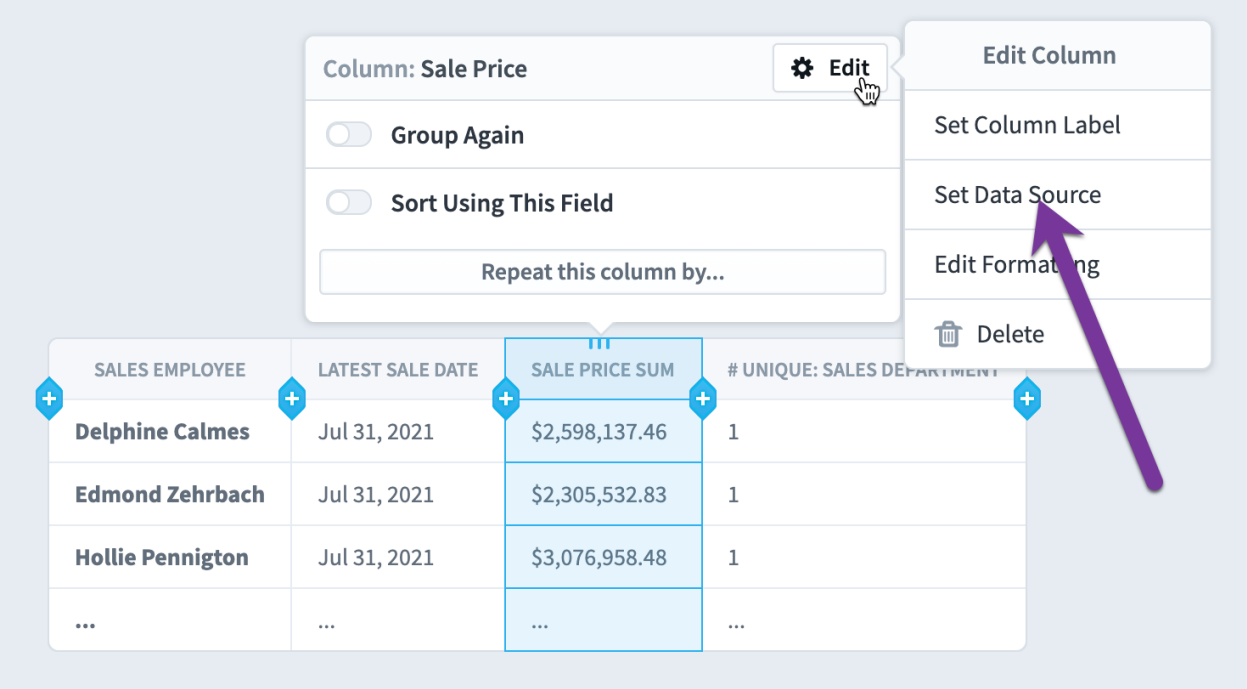
And like this on the View tab.

View

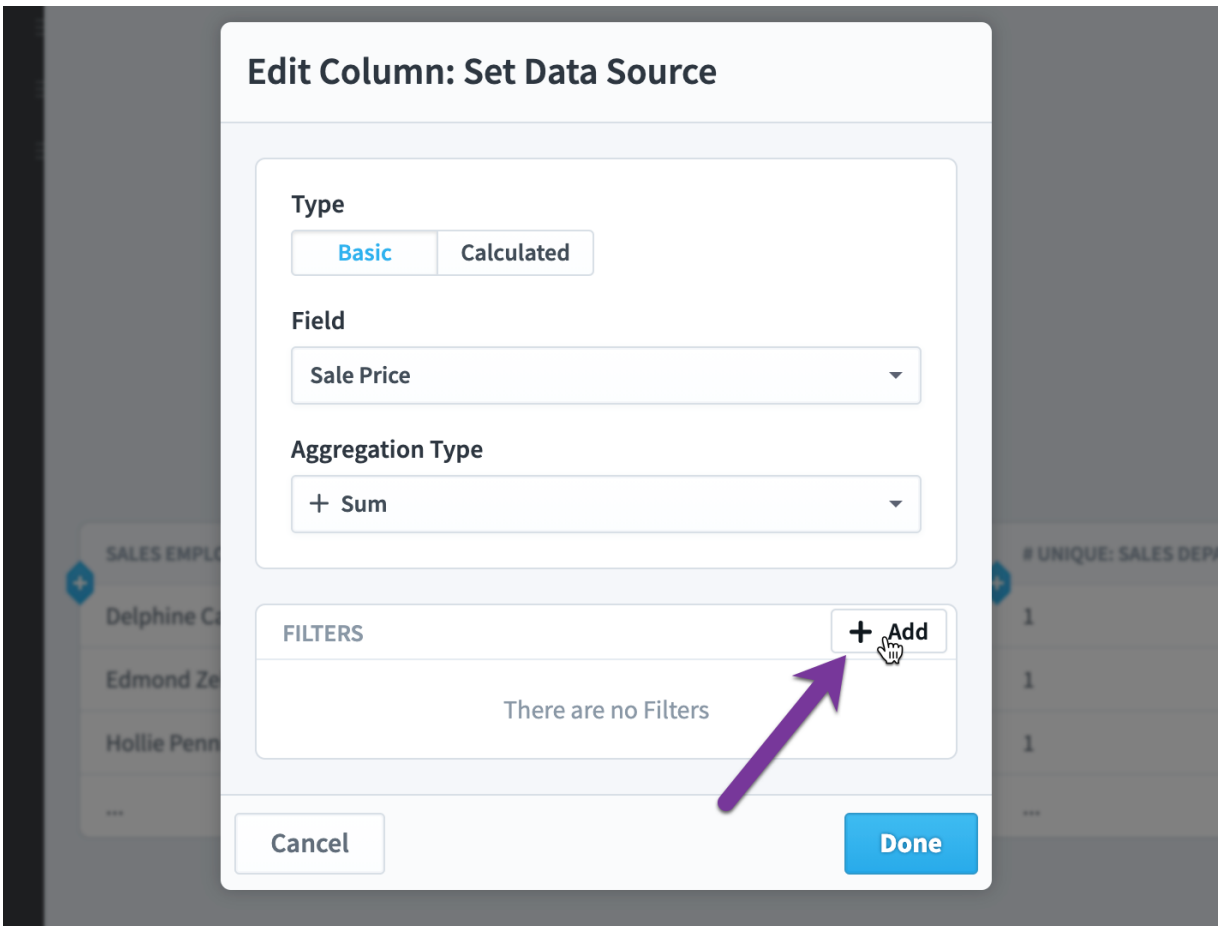
SALES EMPLOYEE	LATEST SALE DATE	AVERAGE SALE PRICE	# UNIQUE: SALES DEPARTMENT
Delphine Calmes	Jul 31, 2021	$614.51	1
Edmond Zehrbach	Jul 31, 2021	$614.81	1
Hollie Pennigton	Jul 31, 2021	$622.49	1
Issac Bernhardt	Jul 31, 2021	$616.34	1
Kym Lavender	Jul 28, 2021	$17,721.23	1
Micheline Turkasz	Jul 31, 2021	$617.45	1
Odell Sheler	Jul 31, 2021	$617.82	1
Russell Corrick	Jul 29, 2021	$17,977.49	1

Column filters when hiding individual records

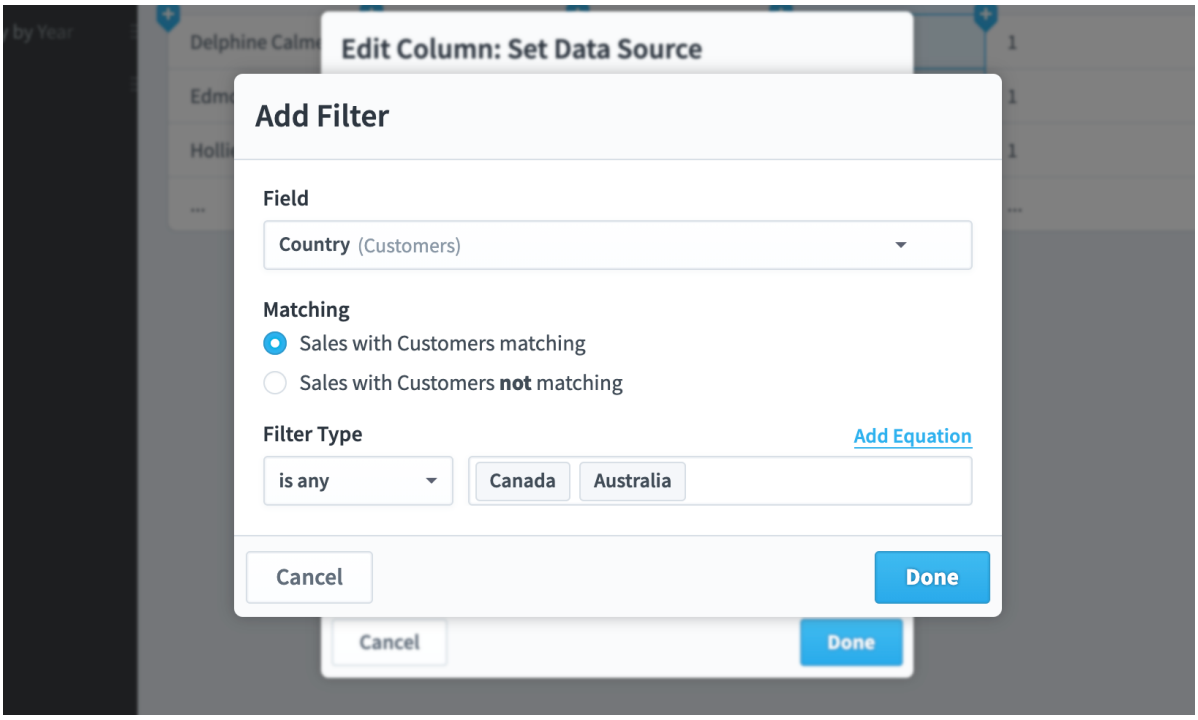
Once you're hiding individual records and your report is showing aggregated data, you can start adding filters to your columns. In this example we're going to choose "Set Data Source" for a Sale Price column.



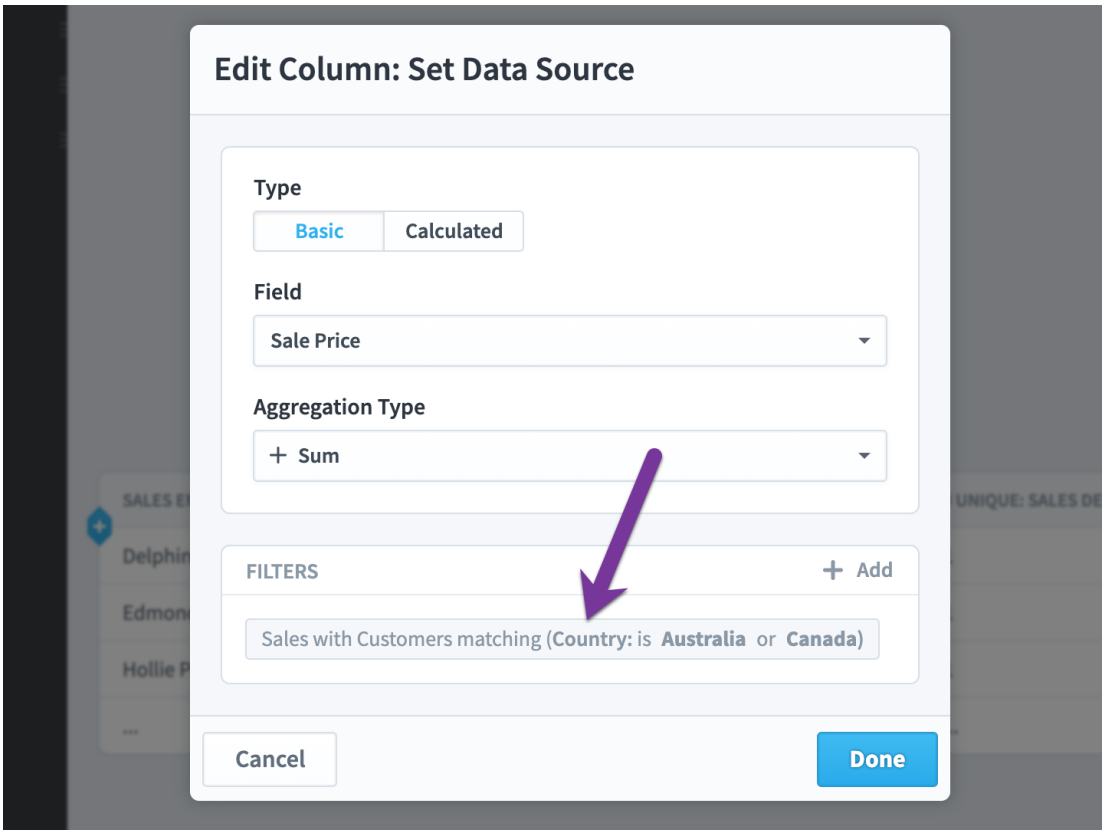
We'll leave the aggregation type as sum and click the "Add" button in the filters panel.



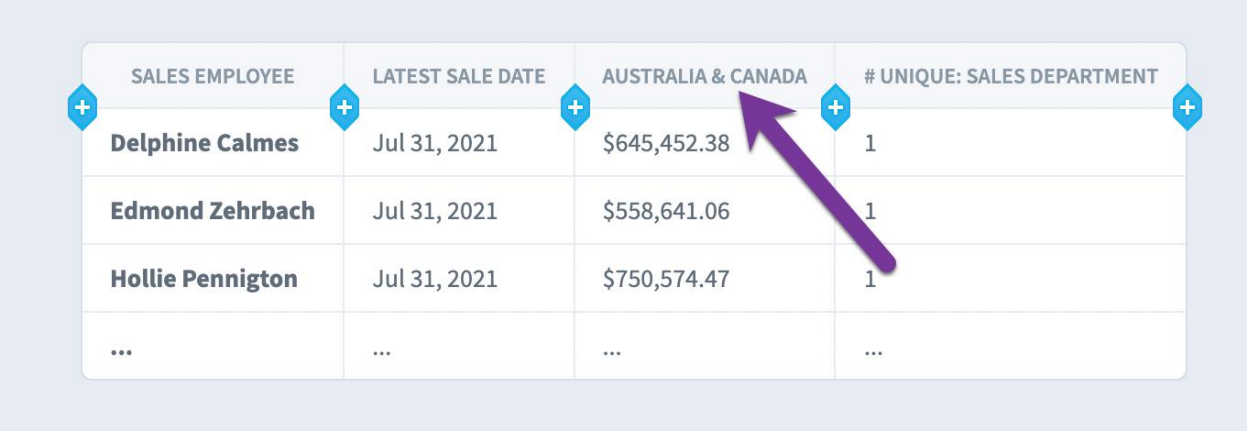
Next, we'll create a filter to only include data from records where the sales country is Canada or Australia.



This is what our new column filter looks like.



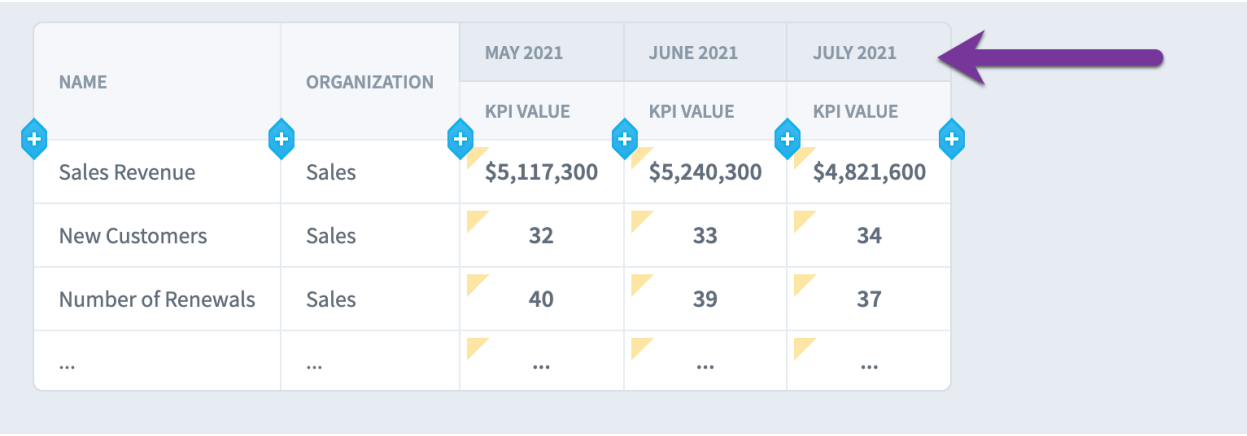
When we click Done, we now have a column showing the sum of all sales in Australia and Canada for each employee.



SALES EMPLOYEE	LATEST SALE DATE	AUSTRALIA & CANADA	# UNIQUE: SALES DEPARTMENT
Delphine Calmes	Jul 31, 2021	$645,452.38	1
Edmond Zehrbach	Jul 31, 2021	$558,641.06	1
Hollie Pennington	Jul 31, 2021	$750,574.47	1
...	...	...	...

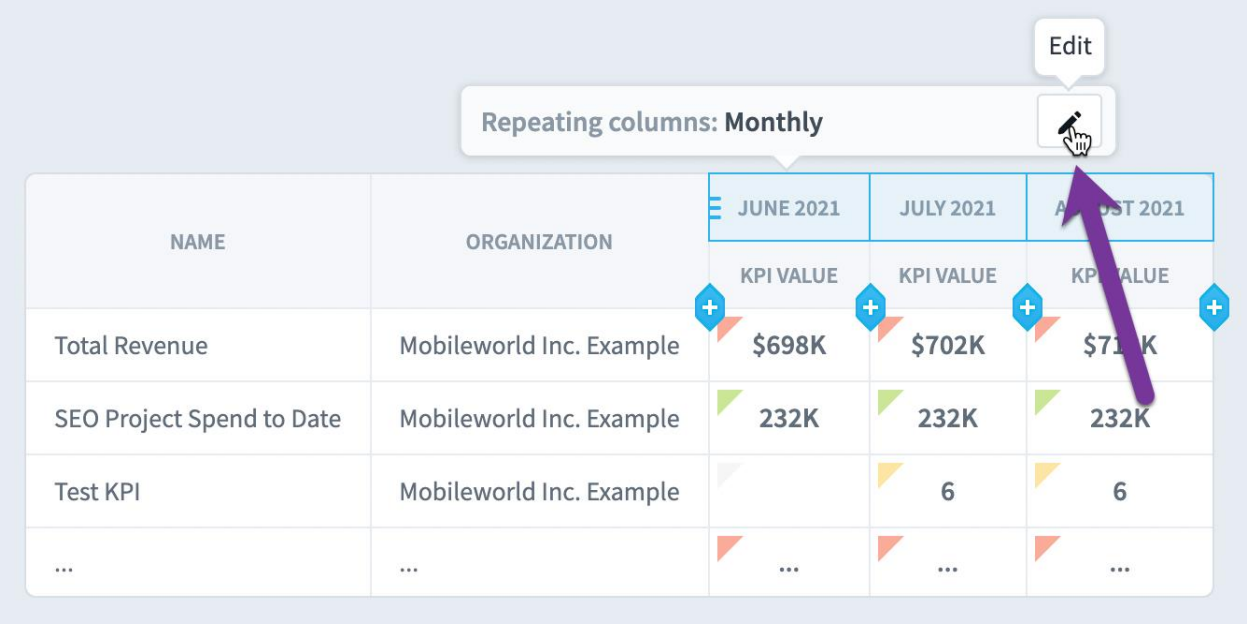
Repeating columns for scorecards

You can create repeating columns for Scorecards, Initiatives, and Datasets reports, but they're a little bit different for every report type. For Scorecards, values that change over time are always inside of a repeating column. Whenever you add a column like KPI Value or Goal, you'll automatically see that field repeating by calendar period. As you can see in this example, it doesn't make sense to show a KPI value without knowing what period that KPI value is for.

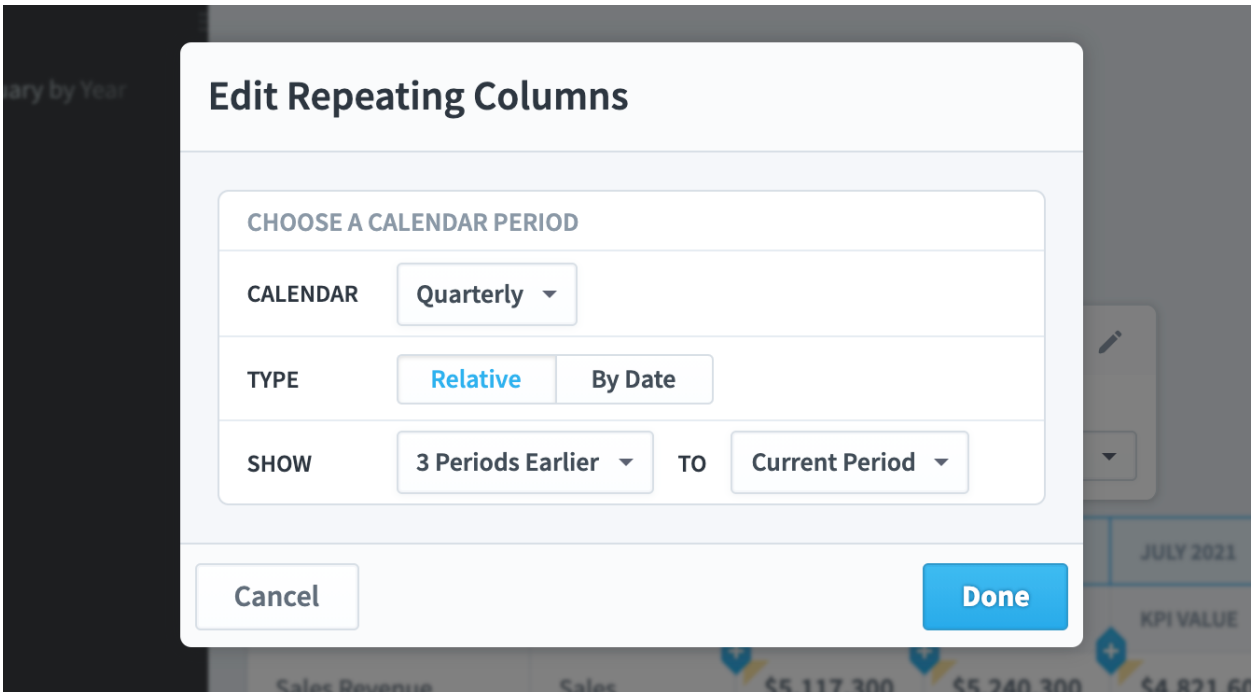


NAME	ORGANIZATION	MAY 2021	JUNE 2021	JULY 2021
		KPI VALUE	KPI VALUE	KPI VALUE
Sales Revenue	Sales	$5,117,300	$5,240,300	$4,821,600
New Customers	Sales	32	33	34
Number of Renewals	Sales	40	39	37
...	...	...	...	...

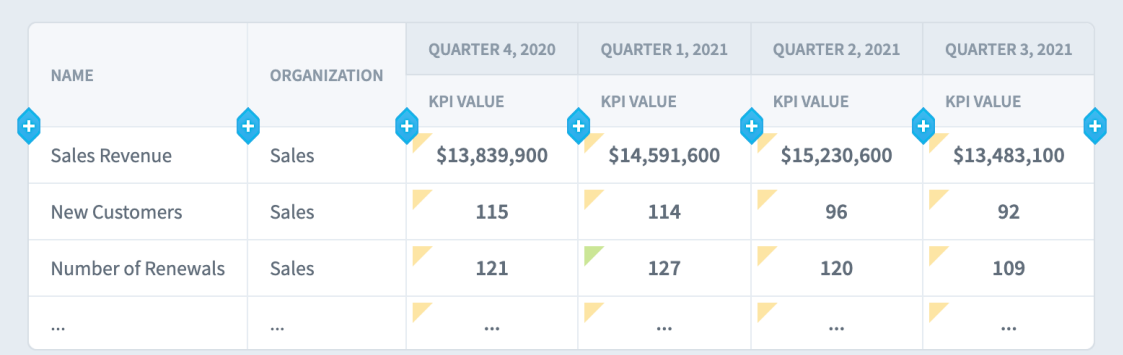
To edit repeating columns, just click on them. Just like when you select a column, selecting a repeating column header shows a tooltip. We'll click the Edit button.



This opens the Edit Repeating Columns dialog. We'll change the calendar to Quarterly, and we'll choose a range of 4 periods.



When we click Done, we now see the KPI value being repeated for four quarters.

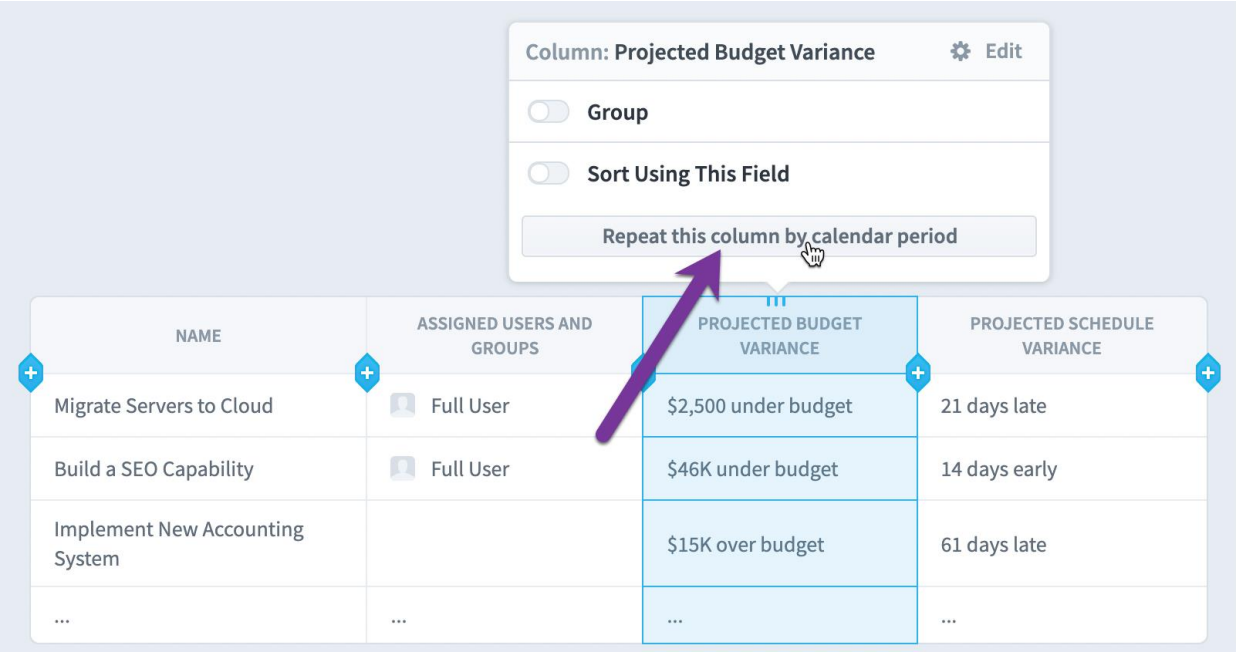


NAME	ORGANIZATION	QUARTER 4, 2020	QUARTER 1, 2021	QUARTER 2, 2021	QUARTER 3, 2021
		KPI VALUE	KPI VALUE	KPI VALUE	KPI VALUE
Sales Revenue	Sales	$13,839,900	$14,591,600	$15,230,600	$13,483,100
New Customers	Sales	115	114	96	92
Number of Renewals	Sales	121	127	120	109
...	...	...	...	...	...

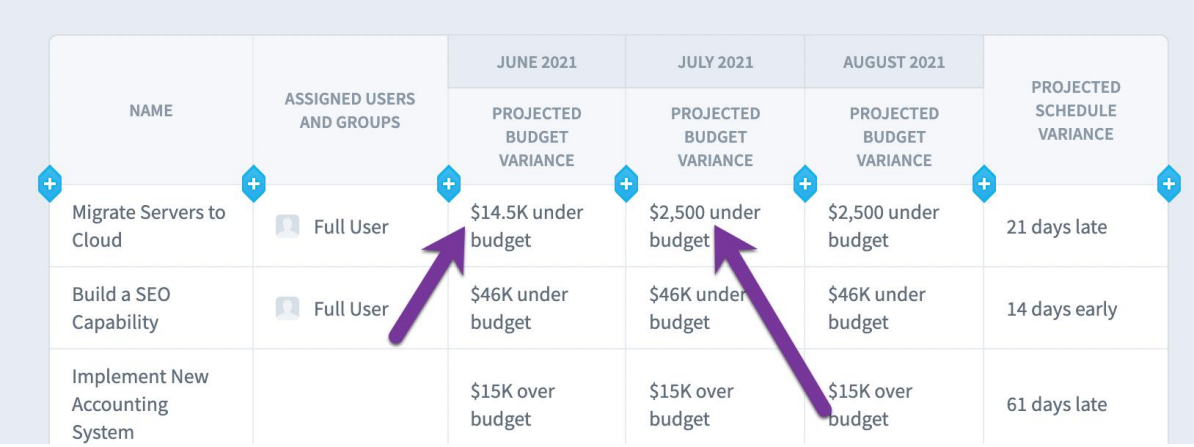
Repeating columns for initiatives

As we mentioned above, repeating columns work a little differently for every report type. Repeating columns for Initiatives are similar to repeating columns for Scorecards because there are values like Money Spent that change over time. Initiatives are different, however, because their repeating columns aren't required and aren't added by default. Whenever you have a column for a field that changes over time and it's not repeating, the report will just show the latest value.

In this example we have a column showing the projected budget variance for every initiative item. The projected budget variance field does change over time, but because this column isn't inside of a repeating column header, the report just shows the most up-to-date values for the projected budget variance. We do, however, see a "Repeat this column by calendar period" button.



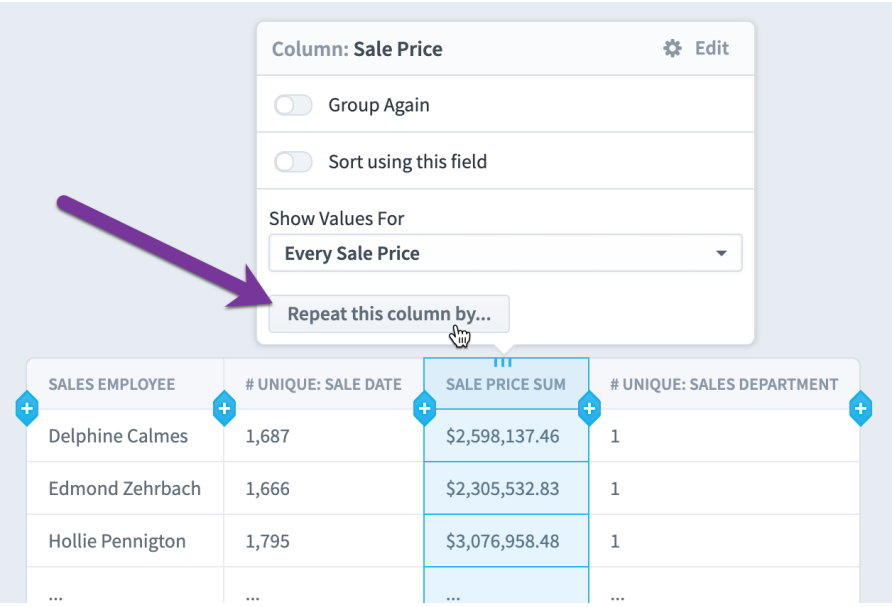
When we click the button, we now have repeating columns showing how the projected budget variance has changed over time.



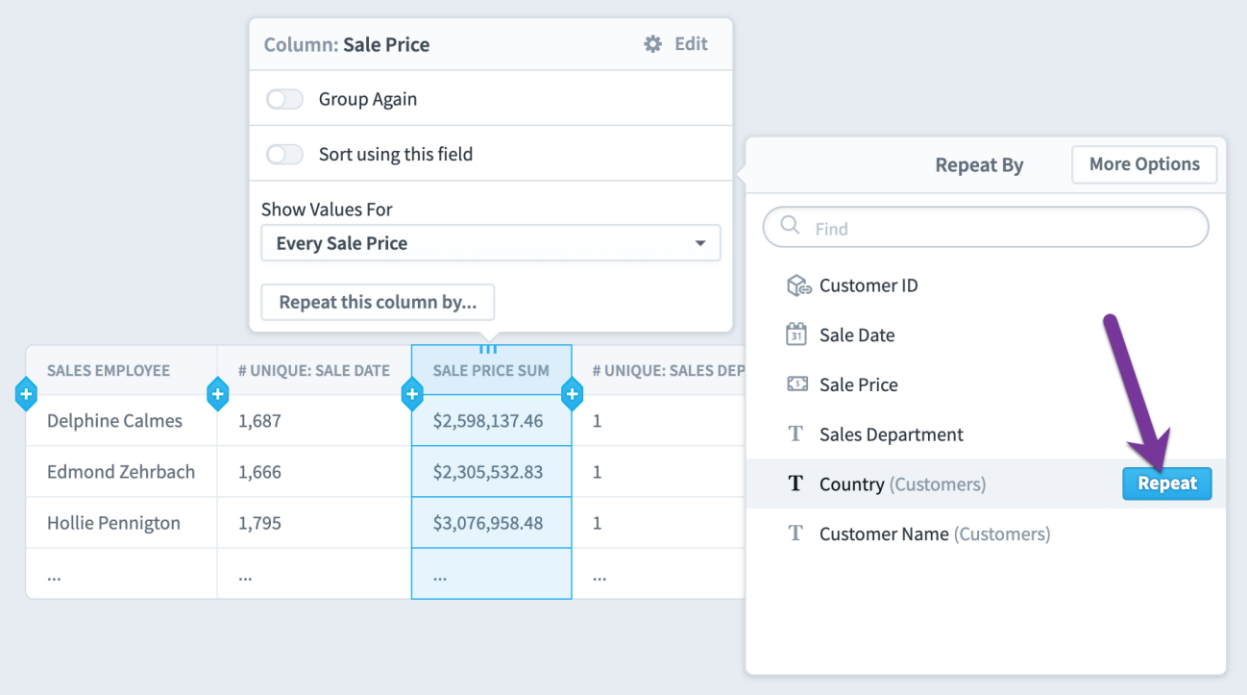
Repeating columns for datasets

You can only add repeating columns to dataset reports when individual records are turned off. That's because we need to first aggregate dataset records for each group before we can disaggregate the data into repeating columns. Scorecard and Initiative reports don't have this restriction because their repeating columns can show values that change over time.

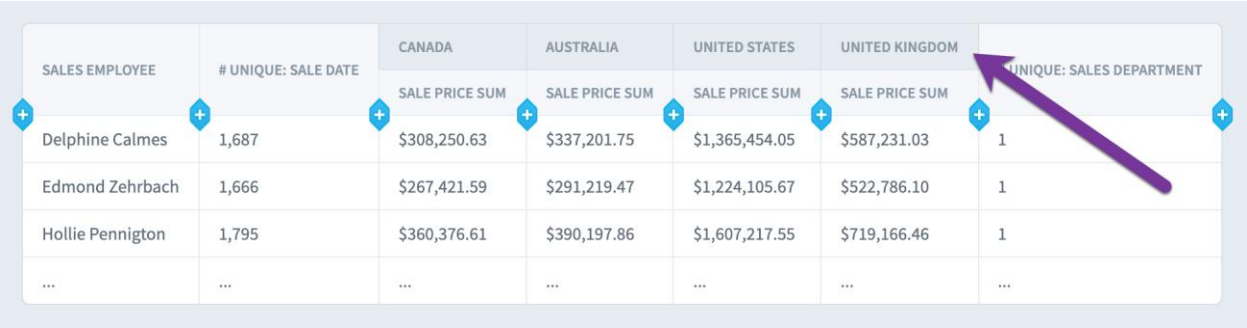
In this example we're grouping by Sales Employee and are hiding individual records. We now see a "Repeat this column by..." button when you click on any column other than the one you're grouping by.



We'll click the "Repeat this column by..." button and then choose to repeat by Country.

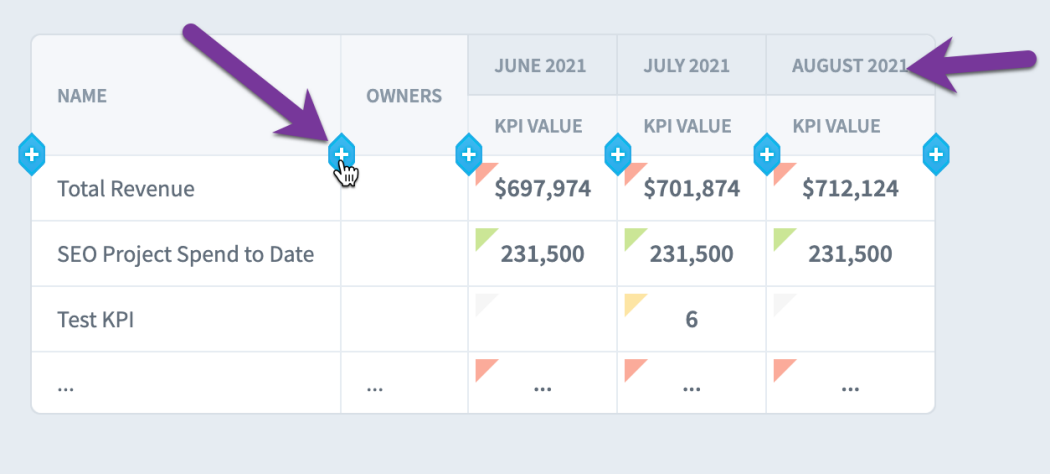


We now have a separate Sale Price column for every country.

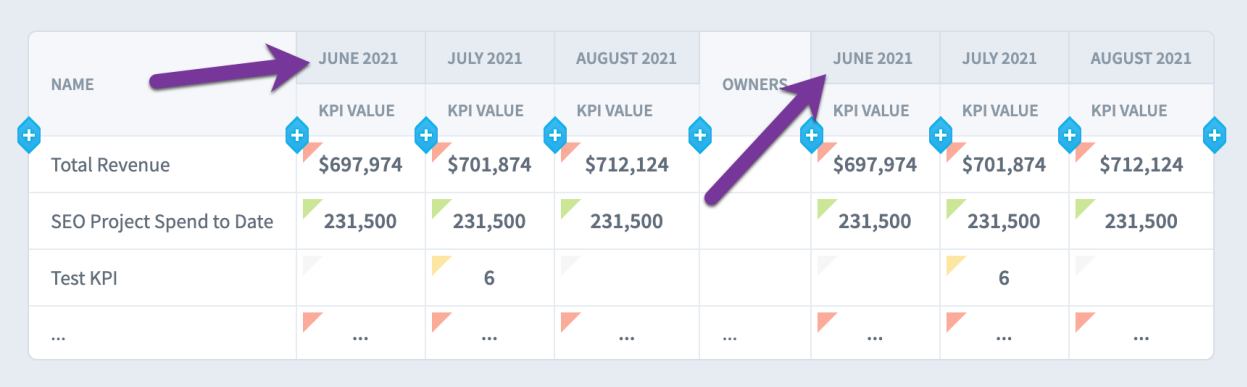


Multiple blocks of repeating columns

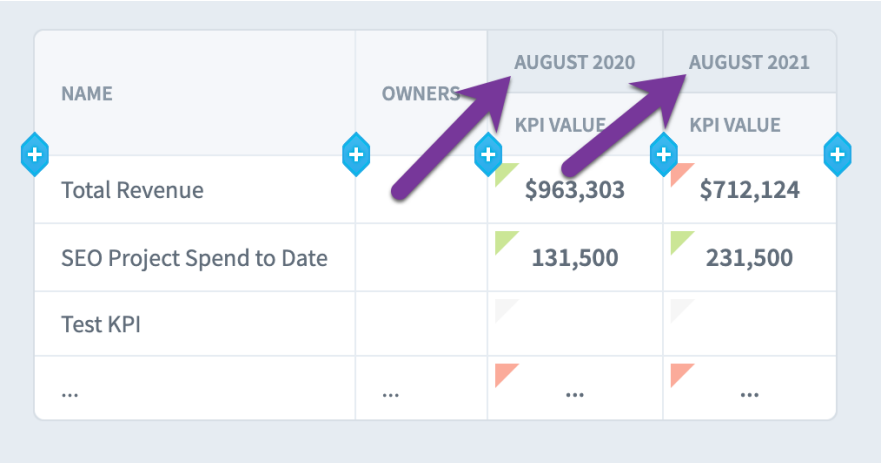
You're not limited to one range of repeating columns. In this example we're going to add a new column outside of the first block of repeating columns.



We'll choose to add another KPI Value column, and now we have two identical blocks of repeating columns.



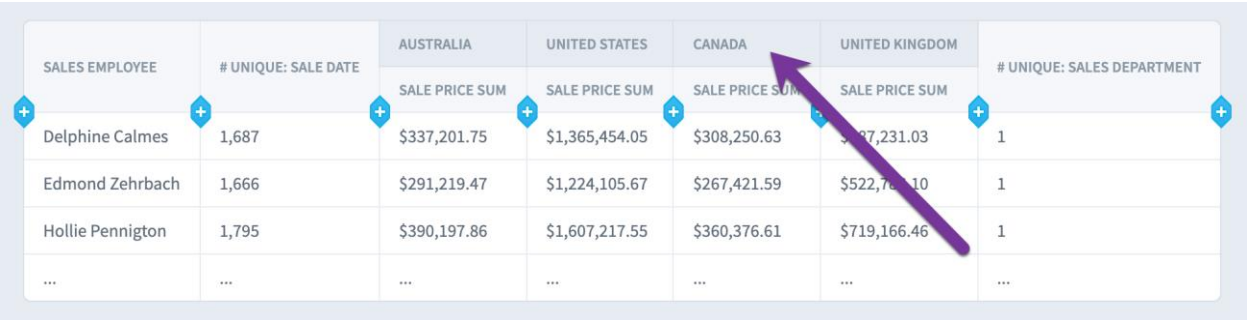
Finally, we'll edit each repeating column block to contain a single period, and we'll drag and drop the blocks next to each other. Now we have a report showing the KPI value for the current month and the KPI value from the month one year ago.



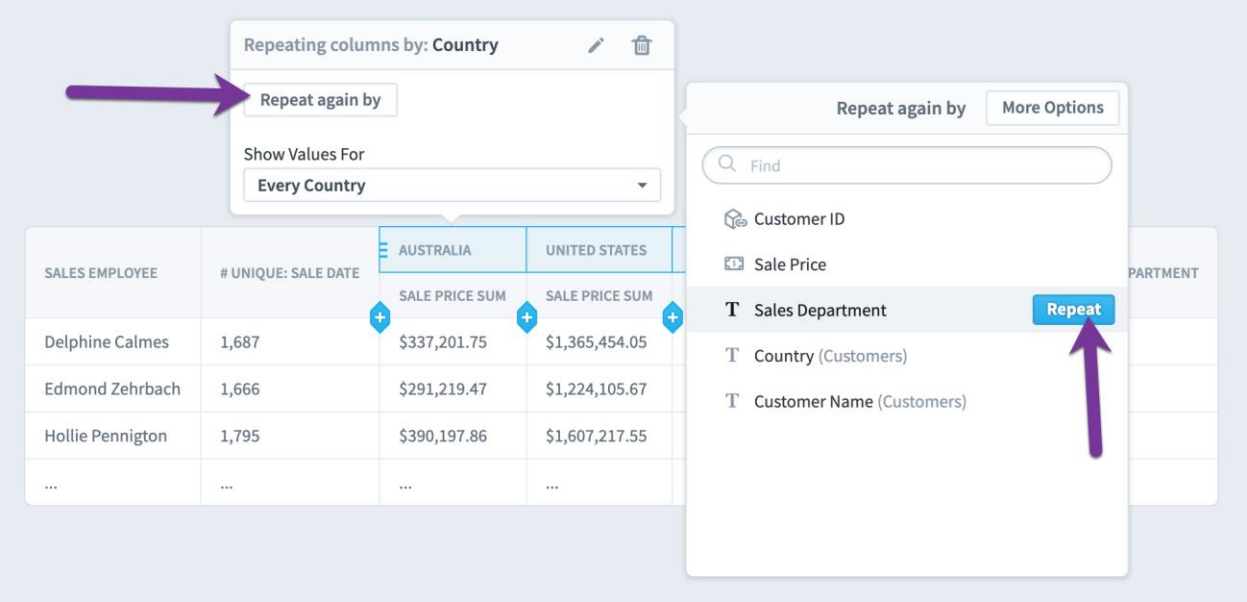
Repeating columns again

Scorecard, Initiative, and Dataset reports can all repeat columns a second time when individual records are turned off. For Scorecard and Initiative reports, repeating again is almost always used when multiple organizations have the same initiative or scorecard items and you want to compare them across organizations. For datasets, repeating again is common with all field types.

To repeat again, click on the repeating column header to select it.



Then click "Repeat again by" and choose a field. Here we'll repeat by Sales Department.



The result is a report with two levels of repeating columns, first by Sales Department and then by Country.

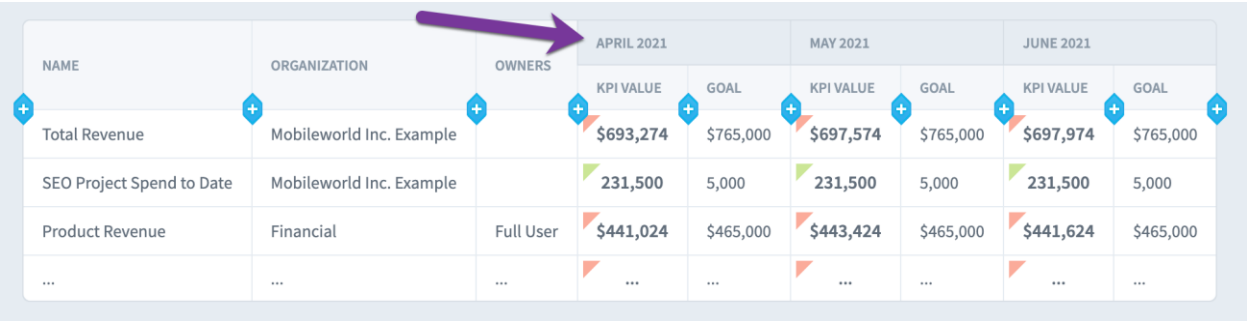
SALES EMPLOYEE	# UNIQUE: SALE DATE	RETAIL				CORPORATE				# UNIQUE: SALES DEPARTMENT
		UNITED KINGDOM	AUSTRALIA	CANADA	UNITED STATES	UNITED KINGDOM	AUSTRALIA	CANADA	UNITED STATES	
		SALE PRICE SUM	SALE PRICE SUM	SALE PRICE SUM	SALE PRICE SUM	SALE PRICE SUM	SALE PRICE SUM	SALE PRICE SUM	SALE PRICE SUM	
Delphine Calmes	1,687	$587,231.03	$337,201.75	$308,250.63	$1,365,454.05	$0	$0	$0	$0	1
Edmond Zehrbach	1,666	$522,786.10	$291,219.47	$267,421.59	$1,224,105.67	$0	$0	$0	$0	1
Hollie Pennigton	1,795	$719,166.46	$390,197.86	$360,376.61	$1,607,217.55	$0	$0	$0	$0	1
...	...	...	...	...	...	...	...	...	...	...

On the Edit tab there are all 0s for Corporate sales, but when you go to the View tab you can see that in this example employees either sell retail or corporate, never both.

SALES EMPLOYEE	# UNIQUE: SALE DATE	RETAIL				CORPORATE				# UNIQUE: SALES DEPARTMENT
		UNITED KINGDOM	AUSTRALIA	CANADA	UNITED STATES	UNITED KINGDOM	AUSTRALIA	CANADA	UNITED STATES	
		SALE PRICE SUM	SALE PRICE SUM	SALE PRICE SUM	SALE PRICE SUM	SALE PRICE SUM	SALE PRICE SUM	SALE PRICE SUM	SALE PRICE SUM	
Delphine Calmes	1,687	$587,231.03	$337,201.75	$308,250.63	$1,365,454.05	$0	$0	$0	$0	1
Edmond Zehrbach	1,666	$522,786.10	$291,219.47	$267,421.59	$1,224,105.67	$0	$0	$0	$0	1
Hollie Pennigton	1,795	$719,166.46	$390,197.86	$360,376.61	$1,607,217.55	$0	$0	$0	$0	1
Issac Bernhardt	1,859	$819,492.07	$419,403.16	$425,678.93	$1,859,041.49	$0	$0	$0	$0	1
Kym Lavender	314	$0	$0	$0	$0	$1,306,166.74	$603,707.45	$916,574.81	$3,340,537.35	1
Micheline Turkasz	1,755	$665,379.83	$365,327.40	$373,668.11	$1,505,650.29	$0	$0	$0	$0	1
Odell Sheler	1,777	$716,828.74	$398,856.70	$397,922.11	$1,639,753.17	$0	$0	$0	$0	1
Russell Corrick	269	$0	$0	$0	$0	$1,081,364.71	$585,248.26	$579,356.99	$2,823,682.38	1

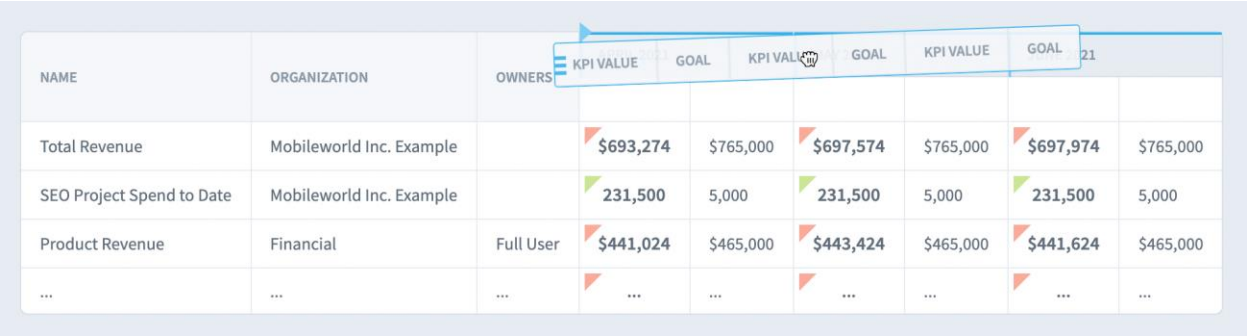
Changing header order

In this example we're showing KPI Value and Goal columns, repeating for 3 periods. The columns are on the bottom and the calendar periods are on top.



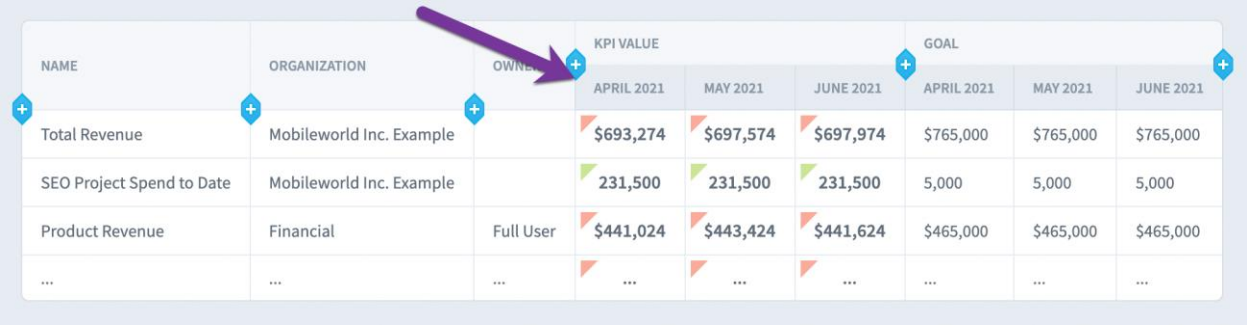
NAME	ORGANIZATION	OWNERS	APRIL 2021		MAY 2021		JUNE 2021	
			KPI VALUE	GOAL	KPI VALUE	GOAL	KPI VALUE	GOAL
Total Revenue	Mobileworld Inc. Example		$693,274	$765,000	$697,574	$765,000	$697,974	$765,000
SEO Project Spend to Date	Mobileworld Inc. Example		231,500	5,000	231,500	5,000	231,500	5,000
Product Revenue	Financial	Full User	$441,024	$465,000	$443,424	$465,000	$441,624	$465,000
...	...	...	...	...	...	...	...	...

To put the columns on top, just drag and drop them vertically.



NAME	ORGANIZATION	OWNERS	KPI VALUE	GOAL	KPI VALUE	GOAL	KPI VALUE	GOAL
Total Revenue	Mobileworld Inc. Example		$693,274	$765,000	$697,574	$765,000	$697,974	$765,000
SEO Project Spend to Date	Mobileworld Inc. Example		231,500	5,000	231,500	5,000	231,500	5,000
Product Revenue	Financial	Full User	$441,024	$465,000	$443,424	$465,000	$441,624	$465,000
...	...	...	...	...	...	...	...	...

Now the report first groups by column, showing the three periods for KPI Value and then the three periods for Goal.

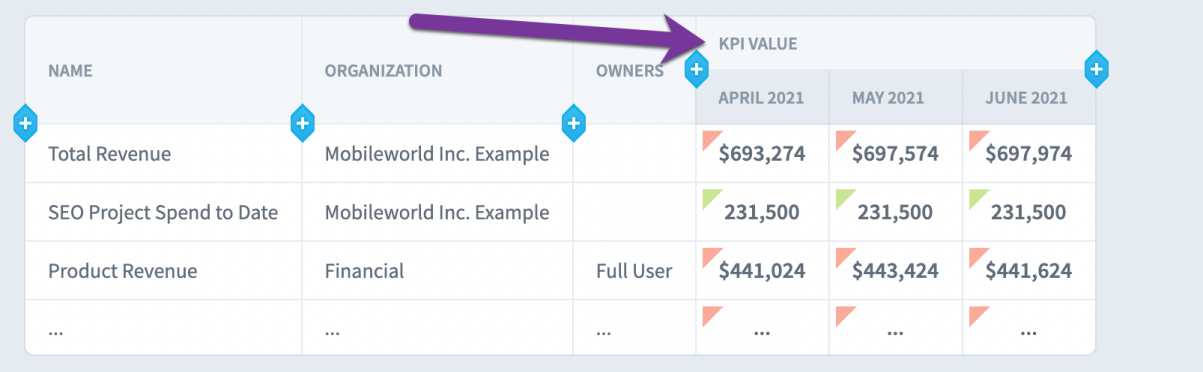


NAME	ORGANIZATION	OWNERS	KPI VALUE			GOAL		
			APRIL 2021	MAY 2021	JUNE 2021	APRIL 2021	MAY 2021	JUNE 2021
Total Revenue	Mobileworld Inc. Example		$693,274	$697,574	$697,974	$765,000	$765,000	$765,000
SEO Project Spend to Date	Mobileworld Inc. Example		231,500	231,500	231,500	5,000	5,000	5,000
Product Revenue	Financial	Full User	$441,024	$443,424	$441,624	$465,000	$465,000	$465,000
...	...	...	...	...	...	...	...	...

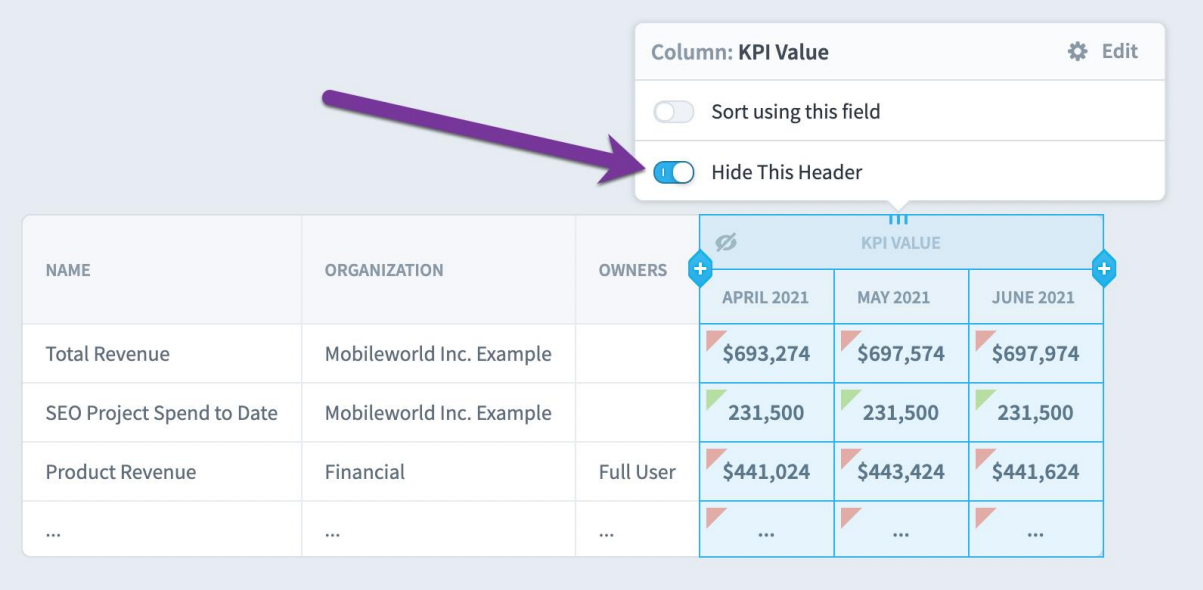
Hiding repeating column headers

Some reports have only one column, for example KPI Value. Other reports have only one repeating value, for example a single calendar period. In these situations, you can choose to hide either the column or the repeating value header.

For example, here we're showing the KPI Value for three months. The KPI Value isn't adding a lot to the report in this situation, so we've dragged the column header to the top.



We then select the column and turn on "Hide This Header". On the Edit table the header now has an icon showing that it's hidden.

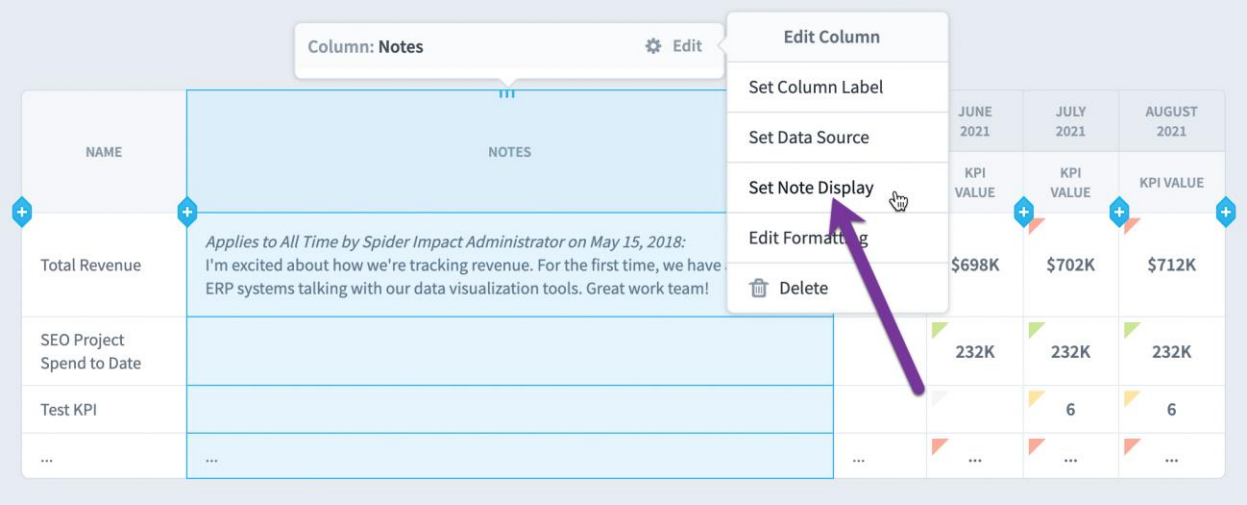


On the View tab the column header is no longer visible.

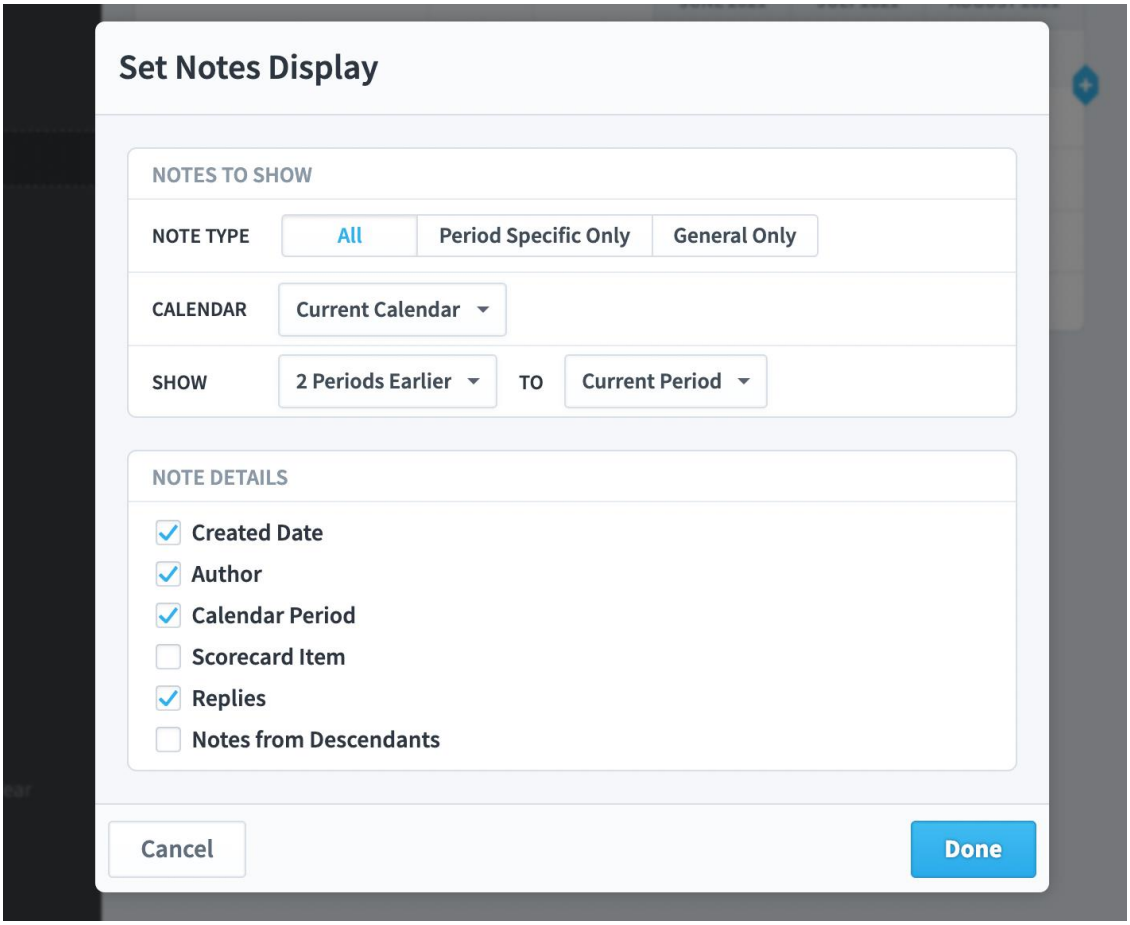
When you're repeating again, you can even hide two levels of headers. In this example we're showing data for a single field and for a single calendar period. We've chosen to hide all of the headers except the KPI name.

Notes columns

When you add a notes column to your report, there's a "Set Note Display" option in the menu.

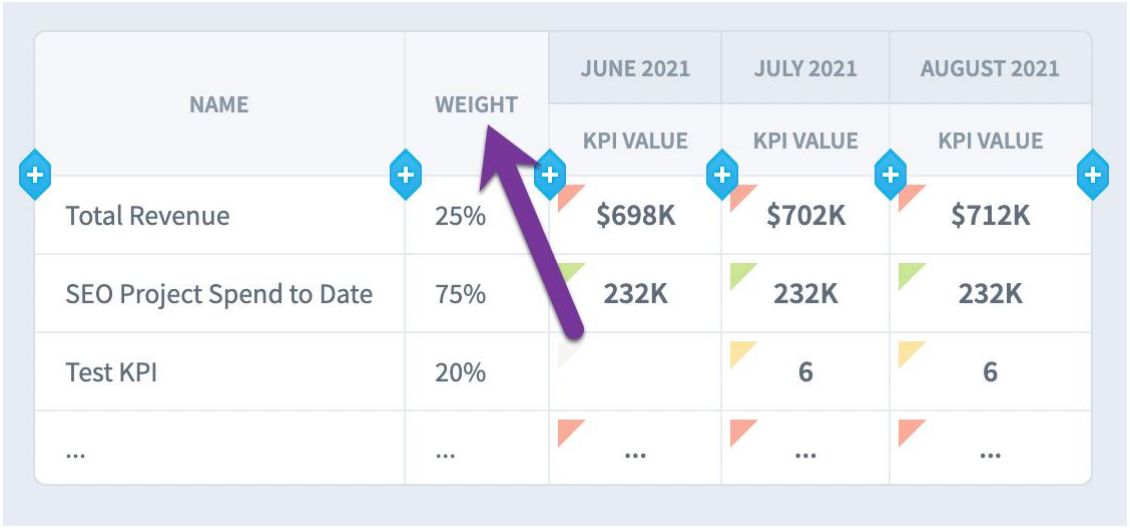


This allows you to choose not only the type of notes to show for your report, but also the inform from each note you want to see.



Weight columns

A scorecard item's weight can change over time, but it often doesn't. If you add a Weight column to your report, it will show the most recent weight for that item.

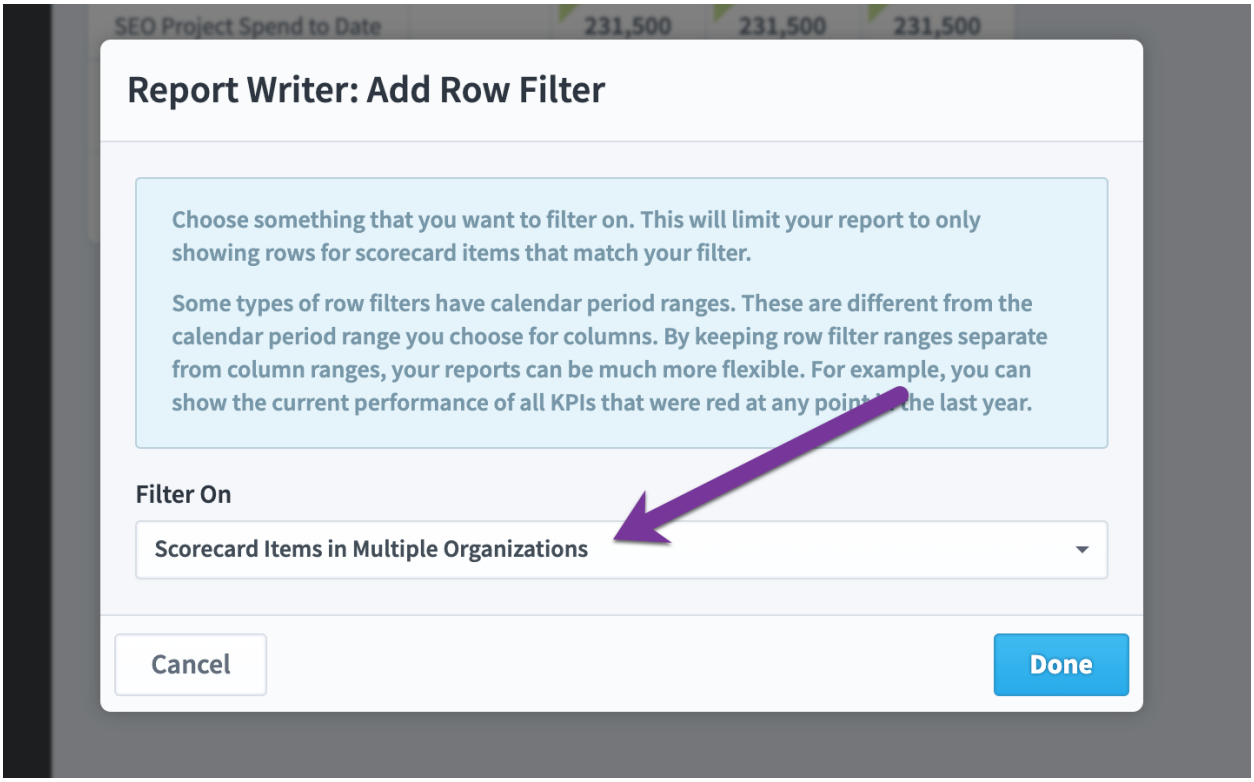


If you add a Weight column inside of repeating calendar periods, it will show what the weight was at the end of the period. In the example, the "SEO Project Spend" KPI weight changes in August.

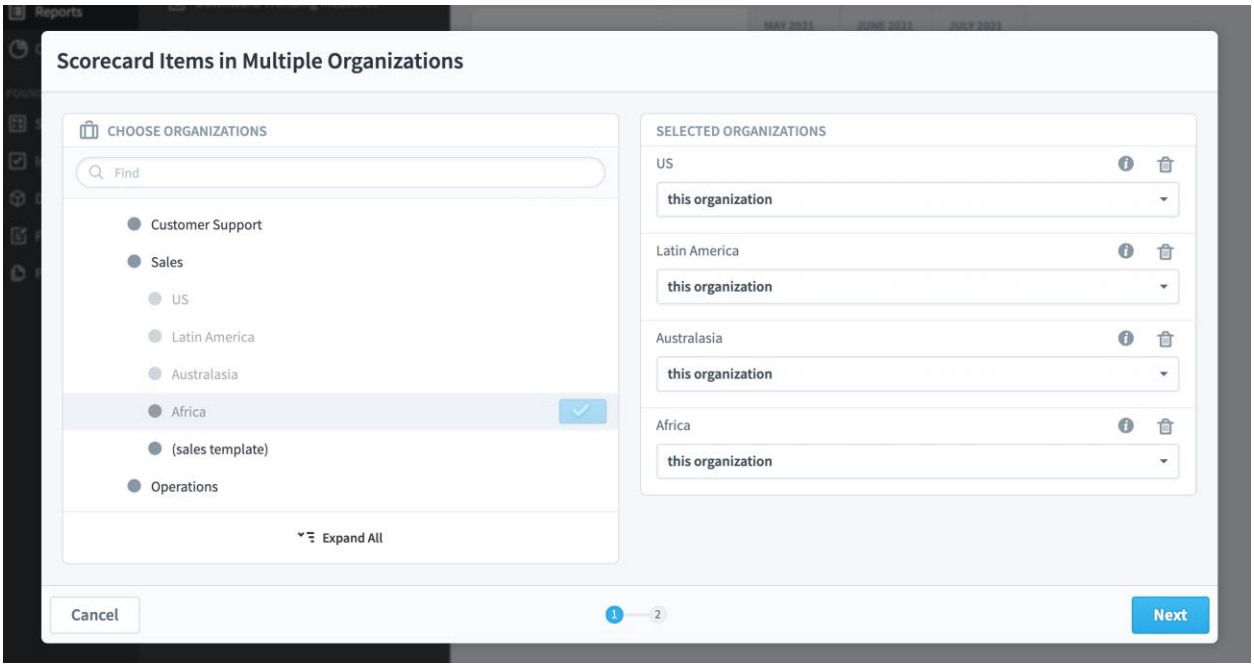
NAME	JUNE 2021		JULY 2021		AUGUST 2021	
	KPI VALUE	WEIGHT	KPI VALUE	WEIGHT	KPI VALUE	WEIGHT
Total Revenue	$698K	25%	$702K	25%	$712K	25%
SEO Project Spend to Date	232K	50%	232K	50%	232K	75%
Test KPI			6	20%	6	20%
...	...	...	...	...	...	...

"Scorecard items in multiple organizations" filter

There's a new report filter called "Scorecard Items in Multiple Organizations".



This allows you to select scorecard items that are similar across multiple organizations. First you choose which organizations you want to include. In this example we're choosing four organizations that share the same template.



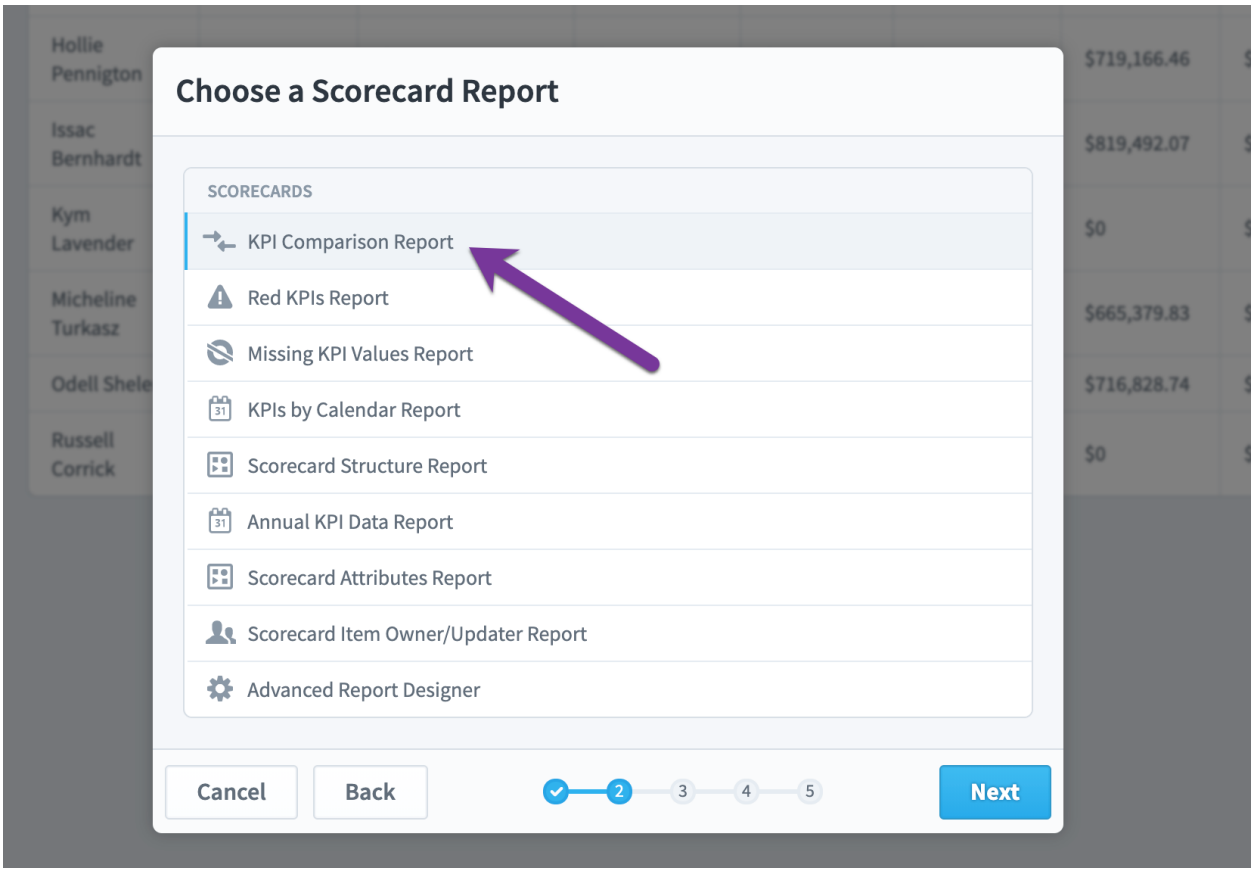
Then you choose which scorecard items you want. When you're done you end up with the same scorecard items for multiple organizations.

View | Edit | July 2021

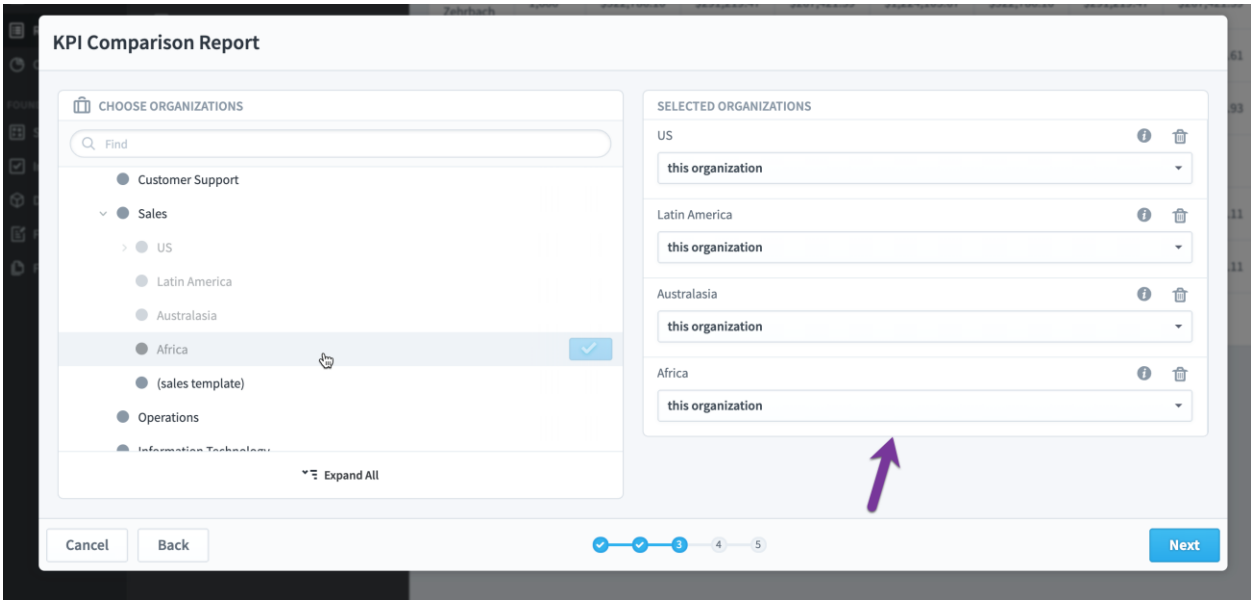
NAME	ORGANIZATION	MAY 2021 KPI VALUE	JUNE 2021 KPI VALUE	JULY 2021 KPI VALUE
Sales Revenue	Sales	$5,117,300	$5,240,300	$4,821,600
New Customers	Sales	32	33	34
Number of Renewals	Sales	40	39	37
Close ratio	Sales	32.06%	31.01%	30.63%
Sales Revenue (US)	US	$3,471,500	$3,495,500	$3,262,400
New Customers (US)	US	24	26	25
Number of Renewals (US)	US	23	23	23

KPI comparison report built on report designer

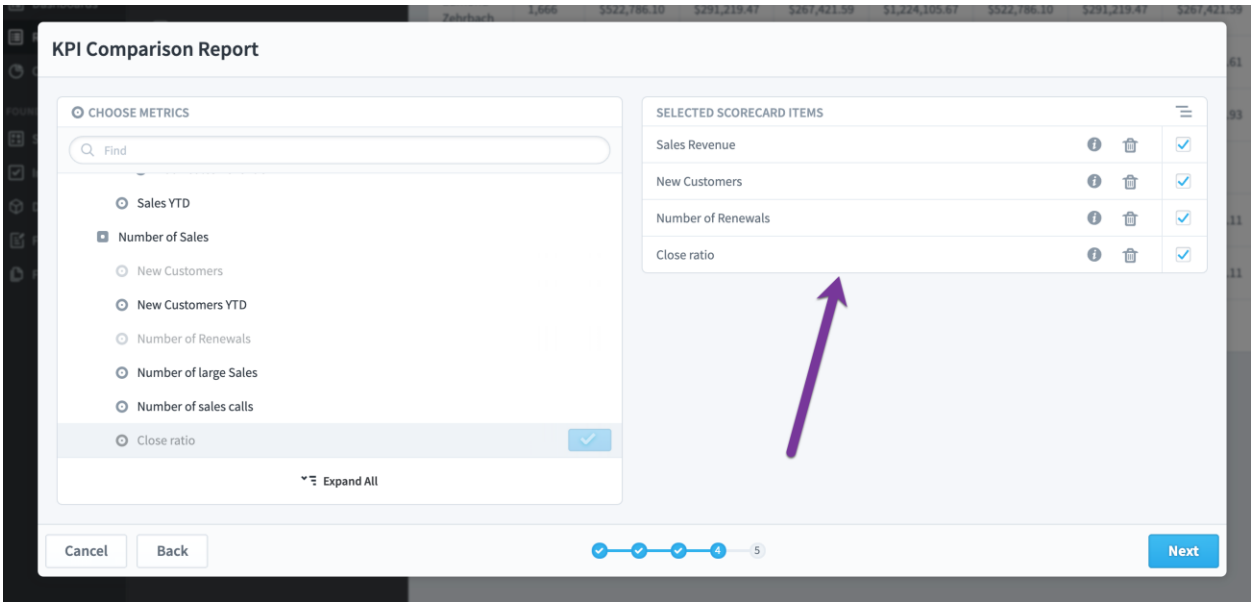
Creating a KPI comparison report in SMS 5 is exactly the same as it was before.



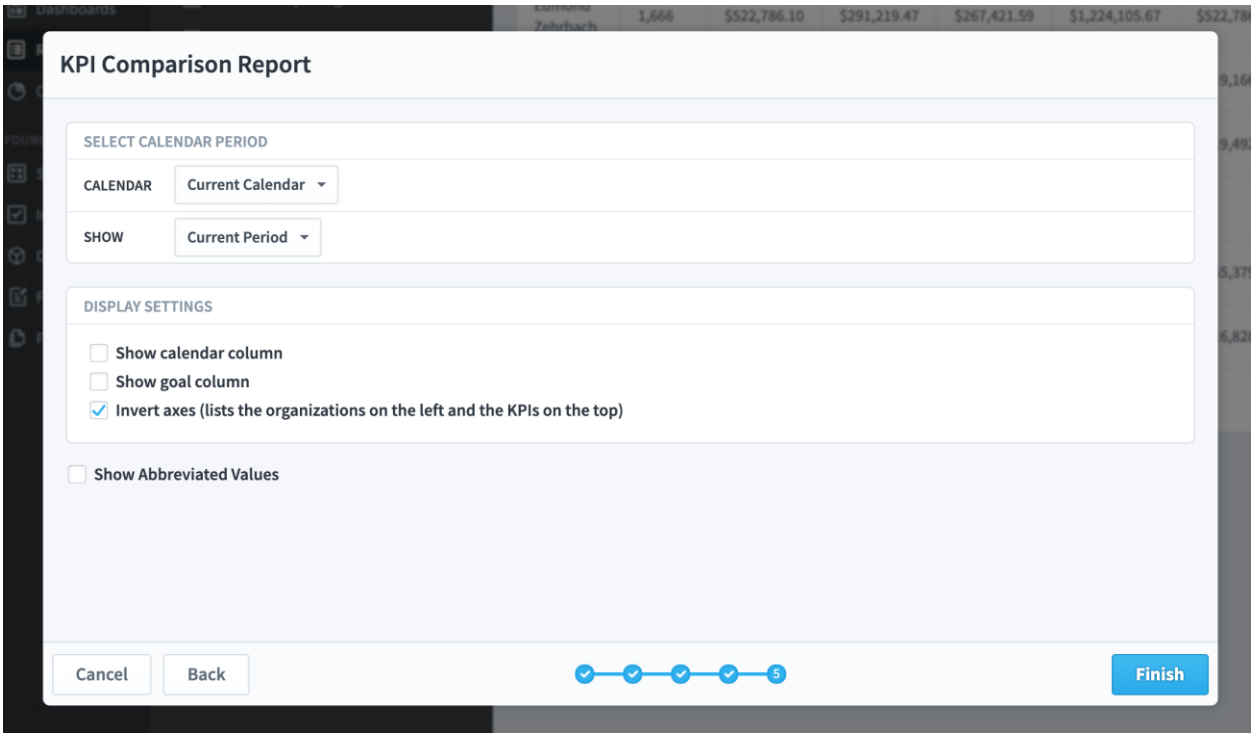
First you choose which organizations you want.



Then you choose the KPIs.



And finally you choose your report options.



The result is a report showing the KPI values across the organizations.

ORGANIZATION	KPI VALUE						
	AUGUST 2021						
	SALES REVENUE	PRODUCT SALES REVENUE	TRAINING SALES REVENUE	BOOK SALES REVENUE	NEW CUSTOMERS	NUMBER OF RENEWALS	CLOSE RATIO
Africa	$318K	$128K	$167K	$23.2K	$3	$7	$0.39
Australasia	$505K	$244K	$243K	$18.1K	$4	$2	$0.23
Latin America	$579K	$390K	$147K	$42.3K	$1	$6	$0.34
...	...	...	...	...	...	...	...

What's new in SMS 5, however, is that the KPI comparison report is built on the new report designer. That means you have full formatting capabilities as well as the ability to show additional information. For example, here we're showing both the KPI's value and its Goal.

ORGANIZATION	AUGUST 2021													
	SALES REVENUE		PRODUCT SALES REVENUE		TRAINING SALES REVENUE		BOOK SALES REVENUE		NEW CUSTOMERS		NUMBER OF RENEWALS		CLOSE RATIO	
	KPI VALUE	GOAL SUM	KPI VALUE	GOAL SUM	KPI VALUE	GOAL SUM	KPI VALUE	GOAL SUM	KPI VALUE	GOAL SUM	KPI VALUE	GOAL SUM	KPI VALUE	GOAL SUM
Africa	$318K	$890K	$128K	$600K	$167K	$250K	$23.2K	$40K	$3	$6	$7	$6	$0.39	$0.40
Australasia	$505K	$890K	$244K	$600K	$243K	$250K	$18.1K	$40K	$4	$6	$2	$6	$0.23	$0.40
Latin America	$579K	$890K	$390K	$600K	$147K	$250K	$42.3K	$40K	$1	$6	$6	$6	$0.34	$0.40
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

And here we're showing the KPI values for two periods.

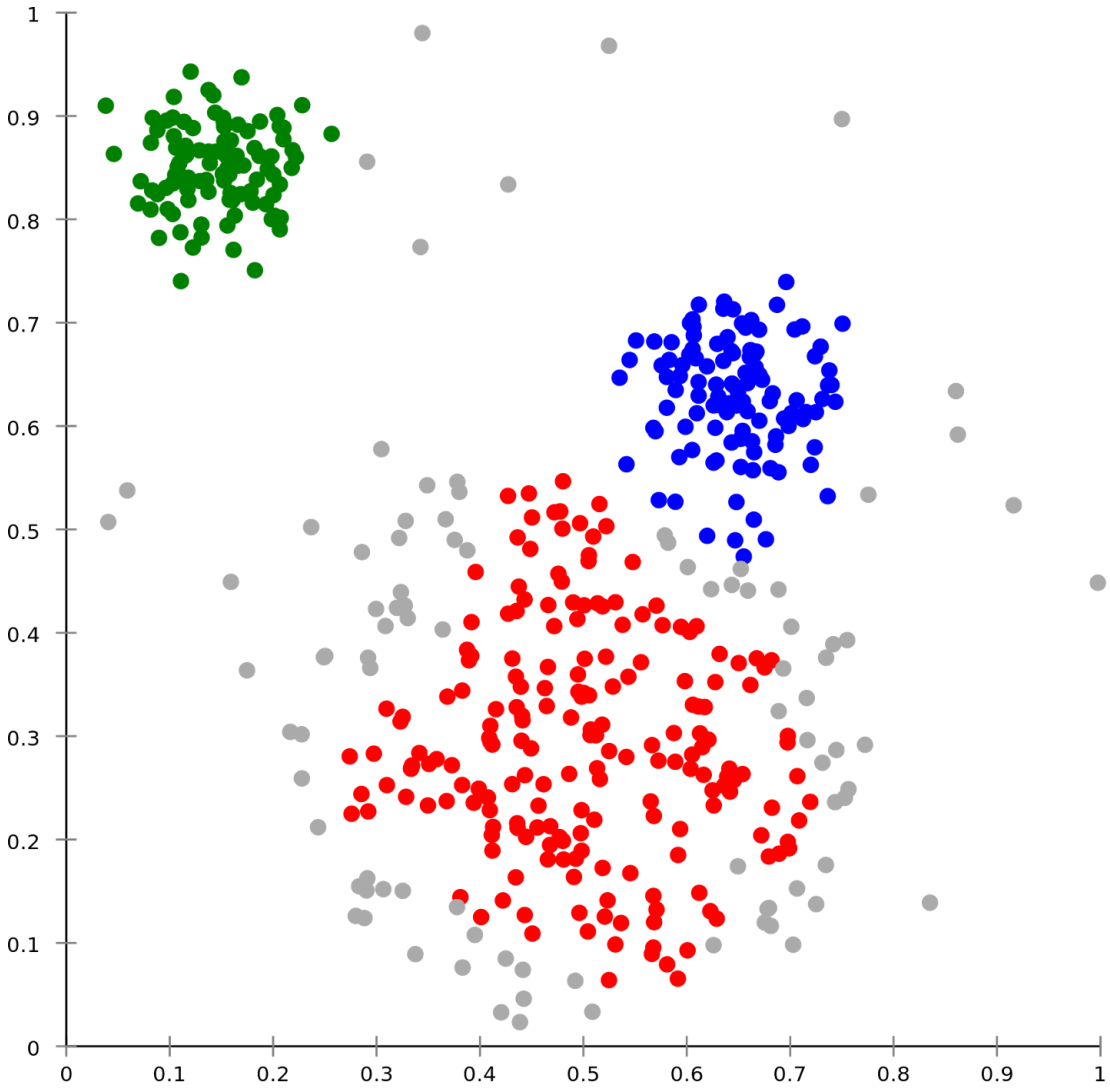
ORGANIZATION	KPI VALUE													
	SALES REVENUE		PRODUCT SALES REVENUE		TRAINING SALES REVENUE		BOOK SALES REVENUE		NEW CUSTOMERS		NUMBER OF RENEWALS		CLOSE RATIO	
	JULY 2021	AUGUST 2021	JULY 2021	AUGUST 2021	JULY 2021	AUGUST 2021	JULY 2021	AUGUST 2021	JULY 2021	AUGUST 2021	JULY 2021	AUGUST 2021	JULY 2021	AUGUST 2021
Africa	$477K	$318K	$477K	$318K	$477K	$318K	$477K	$318K	$477K	$318K	$477K	$318K	$477K	$318K
Australasia	$418K	$505K	$418K	$505K	$418K	$505K	$418K	$505K	$418K	$505K	$418K	$505K	$418K	$505K
Latin America	$665K	$579K	$665K	$579K	$665K	$579K	$665K	$579K	$665K	$579K	$665K	$579K	$665K	$579K
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Datasets

Clustering analytics for datasets

With Datasets, SMS can explore large amounts of unstructured data. With data clustering, you can unlock powerful insights by analyzing the relationships between your datasets' multiple fields. Clustering creates profiles in your data, helping you to understand the types of records most likely to show up in your dataset.

Clustering is best explained by example. Let's imagine that we have a dataset of customers, and we want to discover the types of people who buy our products. Each point on the scatter plots below represents a customer. Let's imagine that the X axis is age, and the Y axis is income.

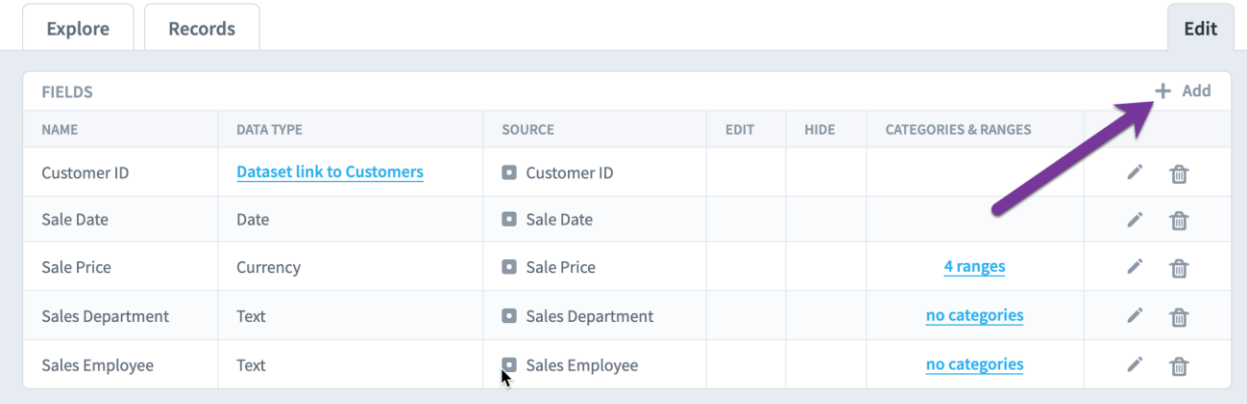


We can see that the clustering algorithm has found three clusters in the data. The three demographics of people who buy this product are young high-income people, middle-aged low-income people, and older middle-income people.

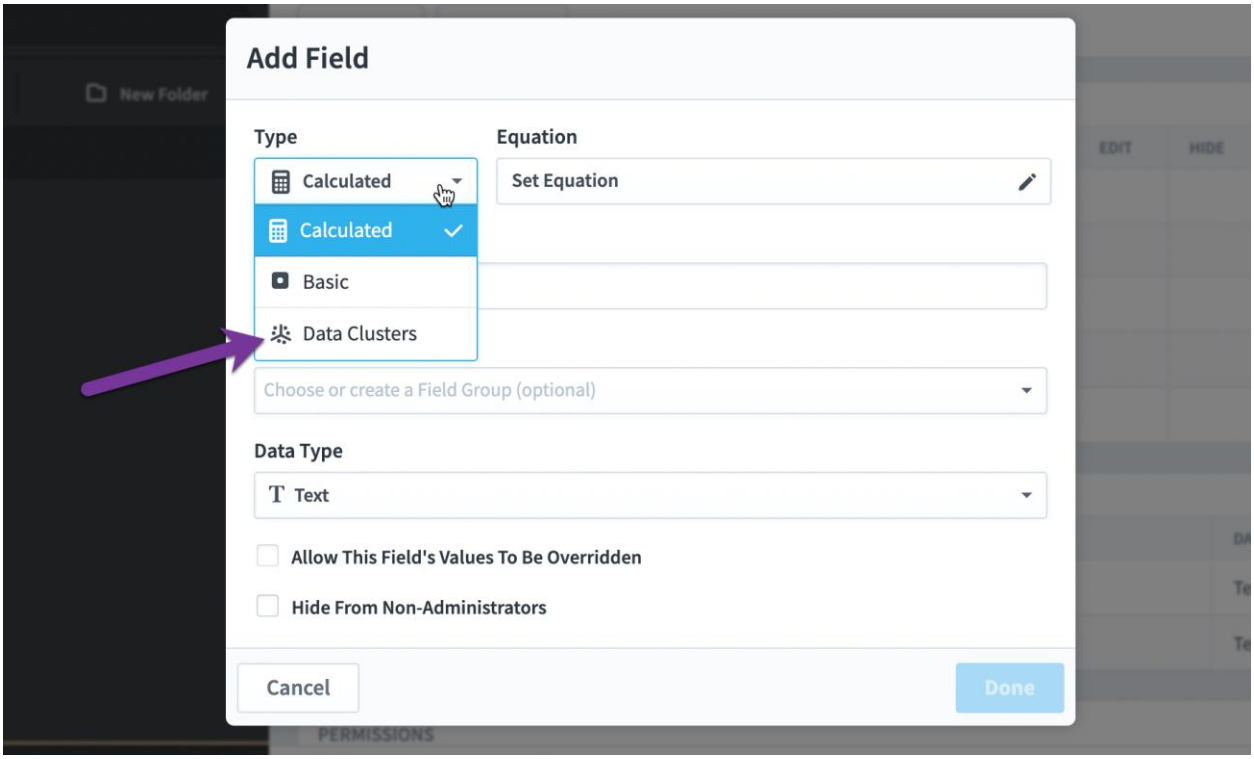
Looking at two dataset fields is interesting, but now let's imagine extending these scatter plots into a 3rd dimension by adding a Z axis. In addition to tracking age and income, let's say that we're also tracking years of formal education. By seeing points in 3-dimensional space, we could find even more interesting clusters of people. We could discover that our product is often purchased by older, higher-income people with little formal education, or middle-aged, low-income people with graduate degrees.

The human mind has trouble imagining data in more than 3 dimensions, but clustering algorithms do not. The more dimensions of data that you're able to provide to SMS, the more powerful it becomes. Your datasets have dozens of fields, and there are meaningful insights to be discovered.

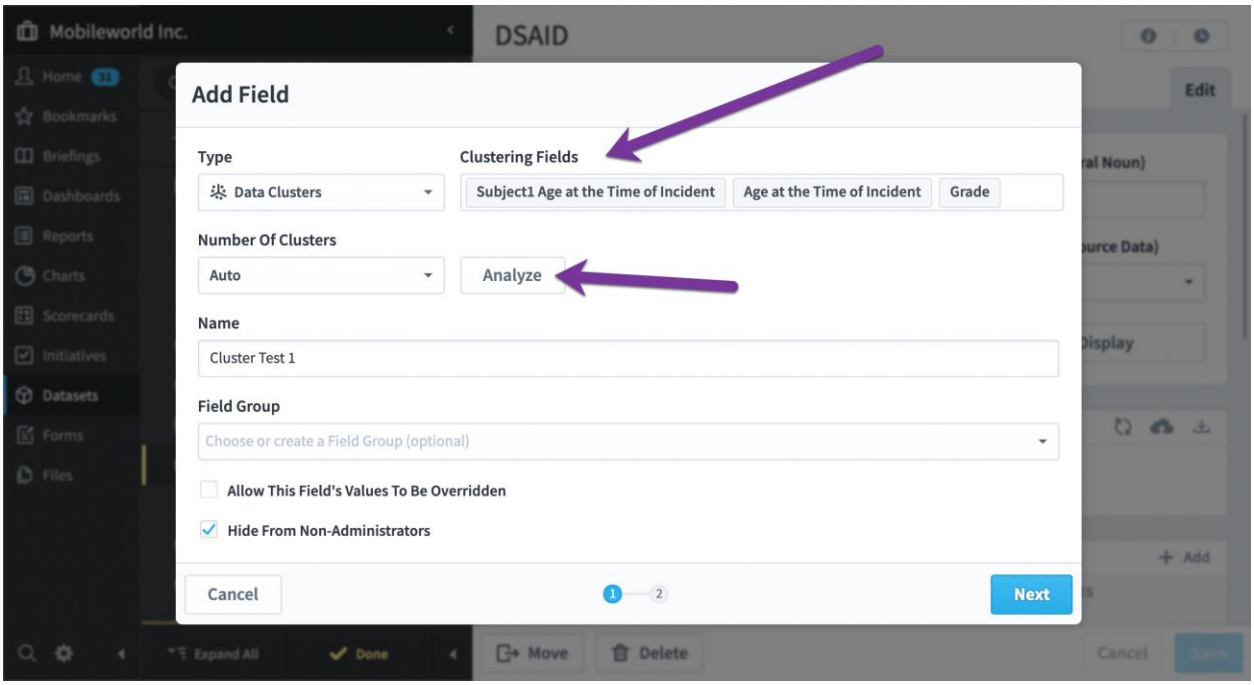
To create a clustering field in your dataset, click the "Add" button in the Fields table on the Edit tab.



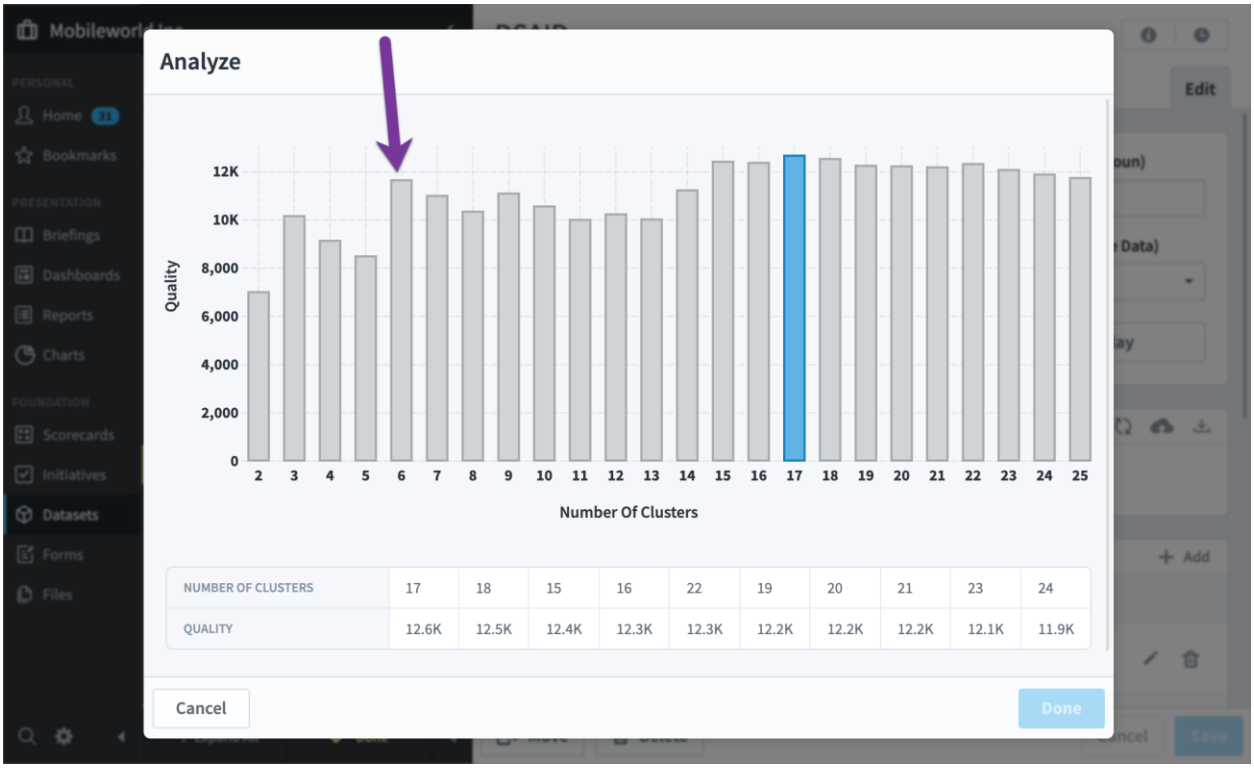
Then choose Data Clusters from the field type.



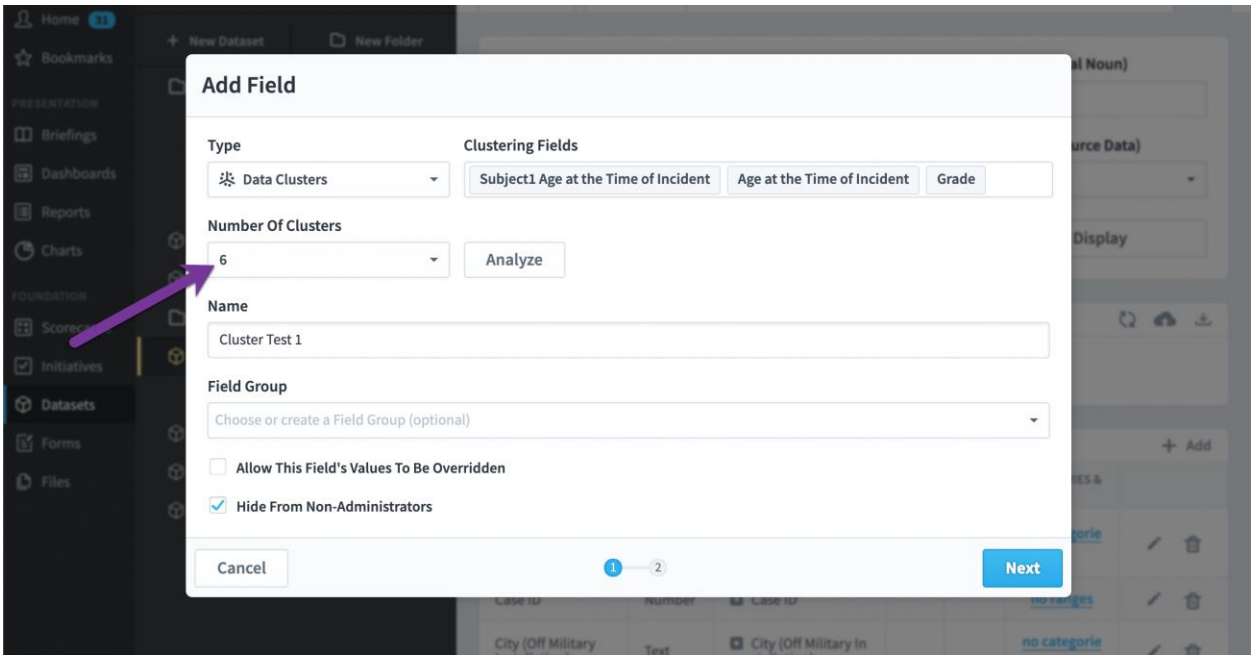
Next, choose which fields you want to cluster on and click the Analyze button.



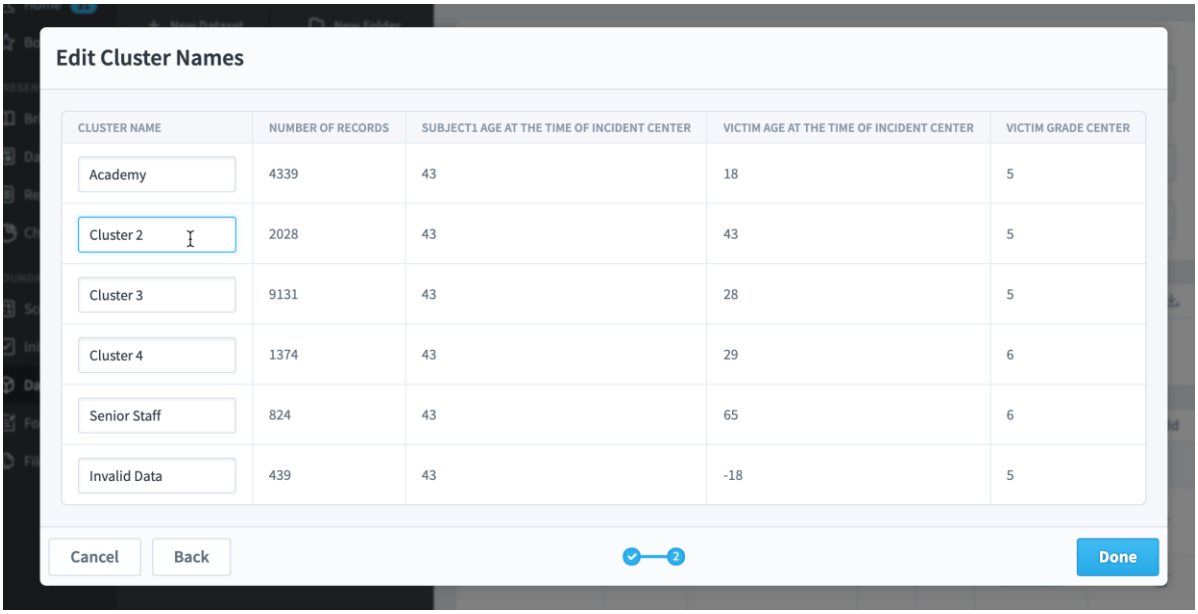
This opens a second-level dialog showing the quality of various numbers of clusters. You can see here that 17 clusters is the best fit for our data, but that 6 clusters is almost as good.



In this situation we want to go with 6 clusters to keep things simple, so we'll tell SMS that we want 6 clusters instead of "Auto".



Finally, we'll give each cluster a name based on its characteristics for each of the fields we've chosen.



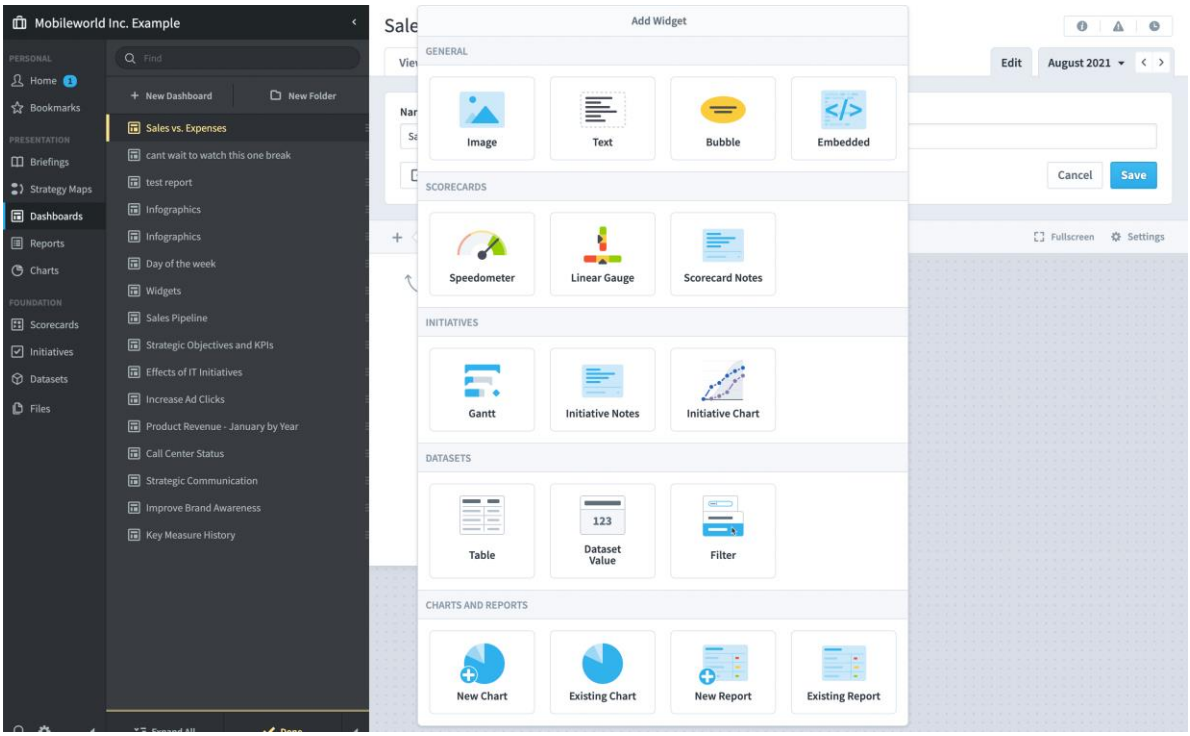
We can now use our new data clusters field just like we would any other dataset field. The cluster that a record falls into is the cluster field's value. In this example we've added the field to the Datasets Explore tab, but you can also use it in Reports, Charts, and Dashboards.

SMS uses the k-means++ algorithm for clustering, and each cluster's quality is evaluated using the Calinski Harabasz index. https://en.wikipedia.org/wiki/K-means%2B%2B#Improved_initialization_algorithm

Dashboards

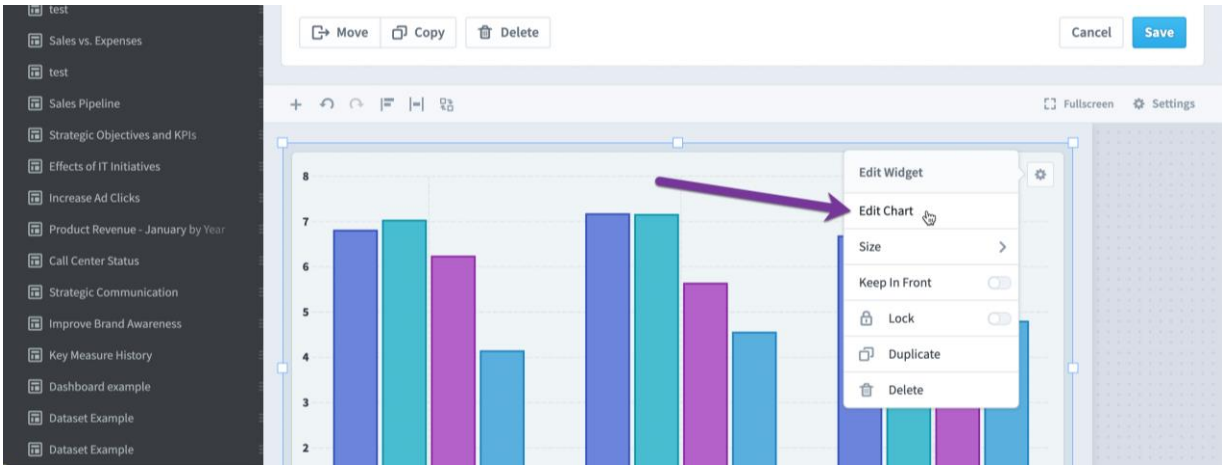
Reorganized dashboards "add widget" menu

The "Add Widget" menu for dashboards has been reorganized to make adding widgets more intuitive. There are now sections for both Datasets and Charts & Reports.

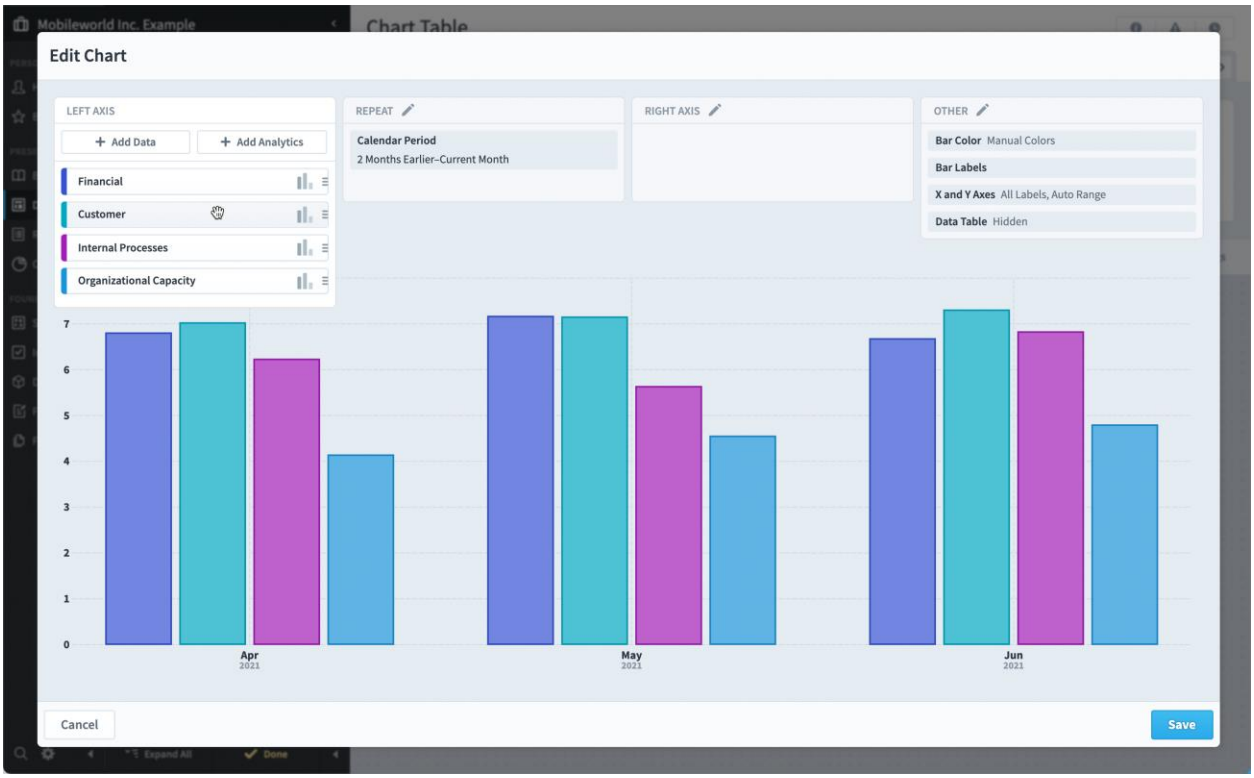


Editing reports and charts on dashboards

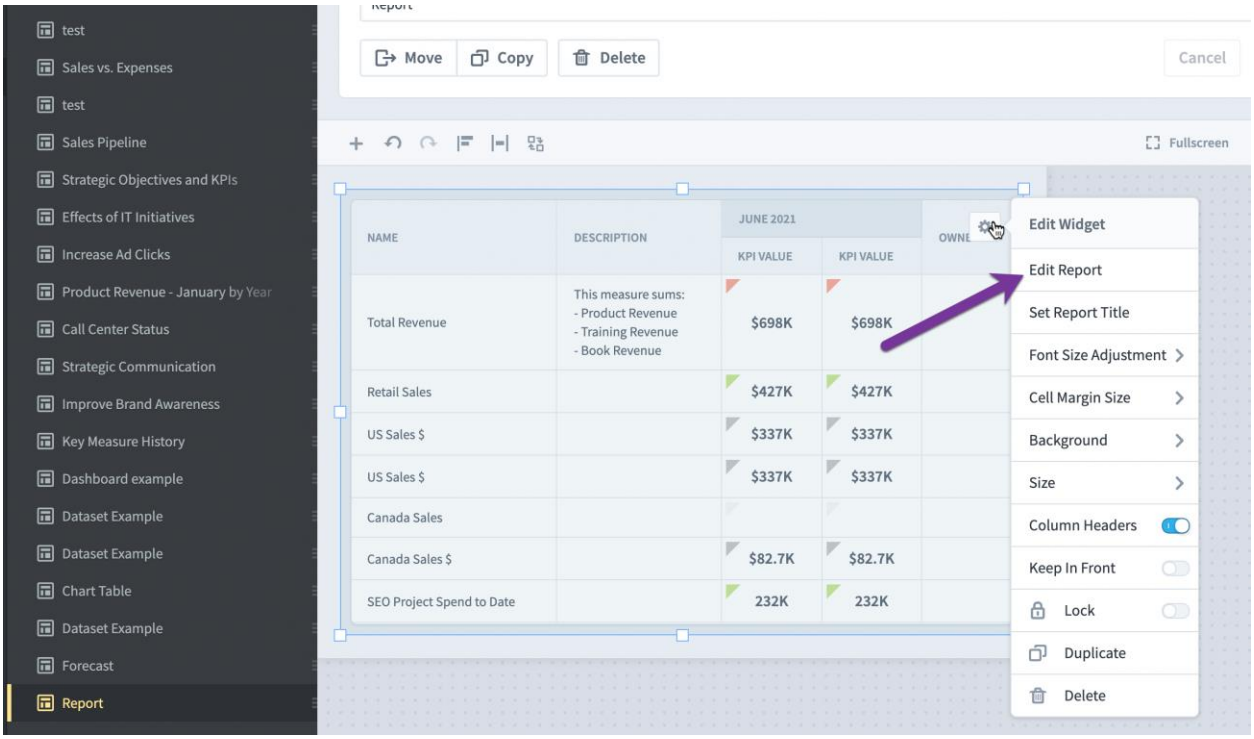
Editing charts and reports on dashboards is now done in a full-screen dialog. Here we're choosing "Edit Chart" on a dashboard widget.



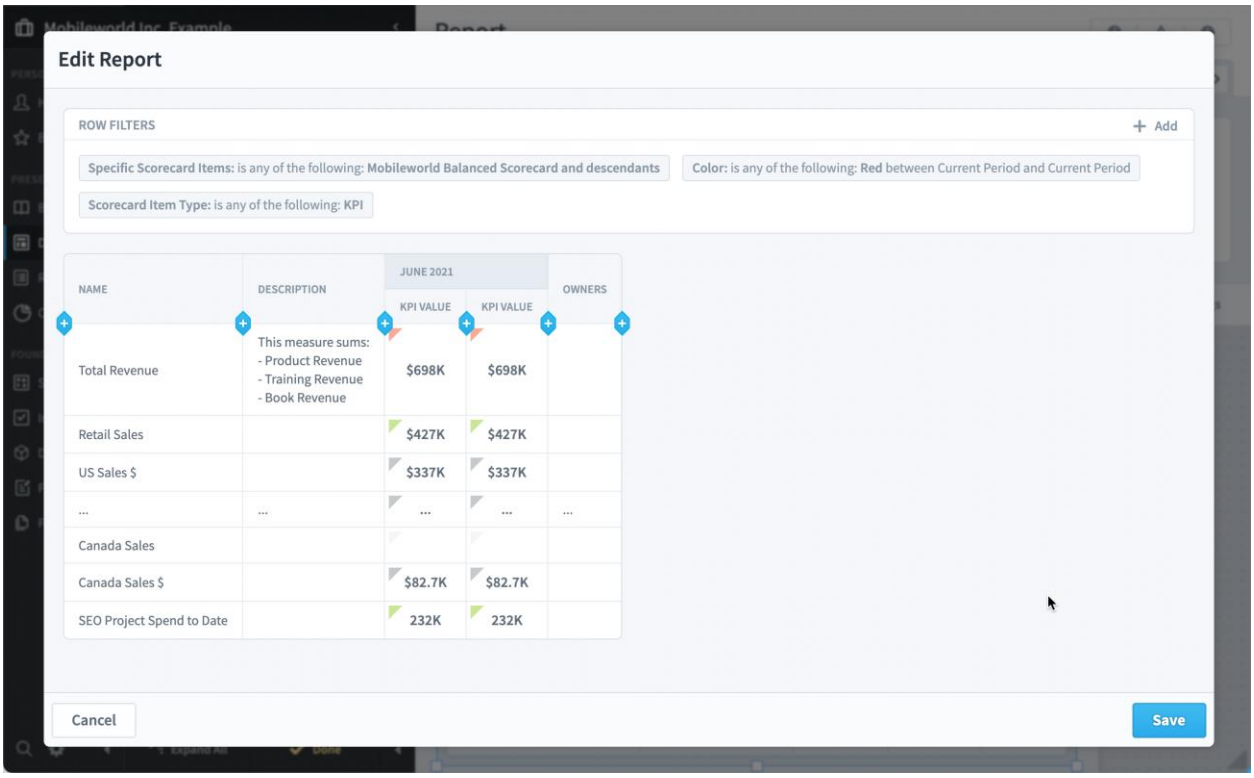
The dialog that opens has all of the chart building functionality from the Charts section. You can see the changes you make to your chart instantly.



Similarly, you can now edit Reports directly on dashboards.



Again, this is exactly the same way as you'd edit reports in the Reports section.

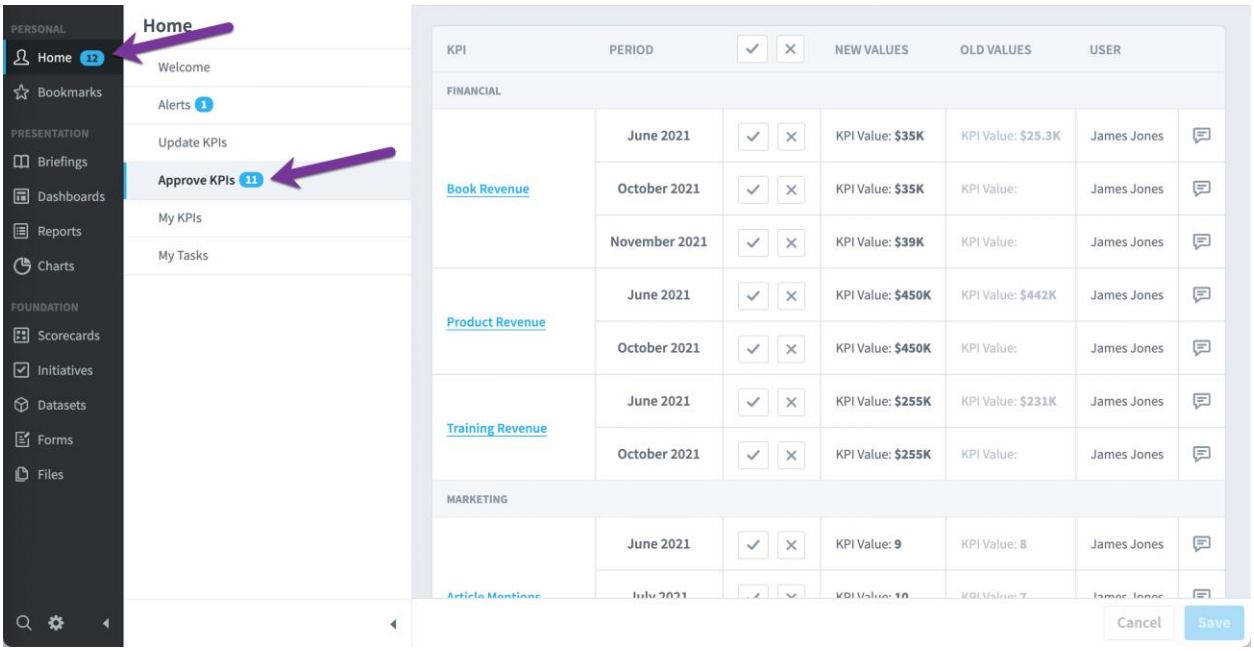


Scorecards

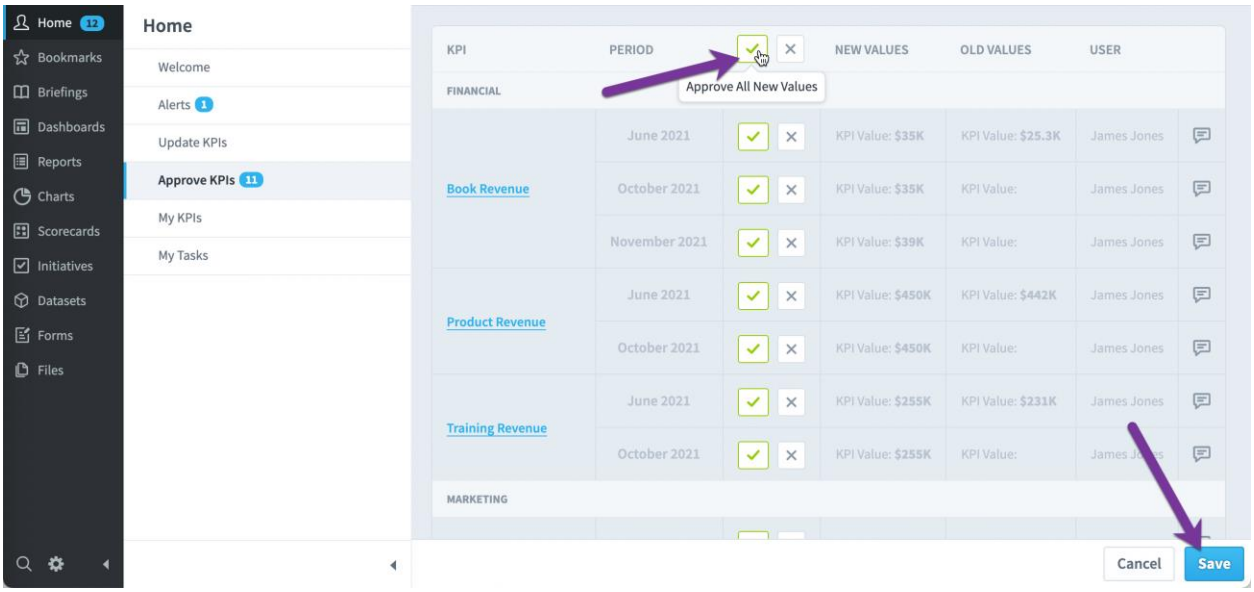
KPI update approval

There's a new application configuration setting called "Require Owner Approval For KPI Value Updates" that defaults to off.

When enabled, all updates to KPIs that have owners will go into an approval queue. KPI owners will receive an alert that they have values to approve, and they can visit the Approve KPIs screen in the Home section to do this.



You can approve or reject all pending updates in your queue by clicking on one of the "all" buttons on the top of the list and then clicking Save.

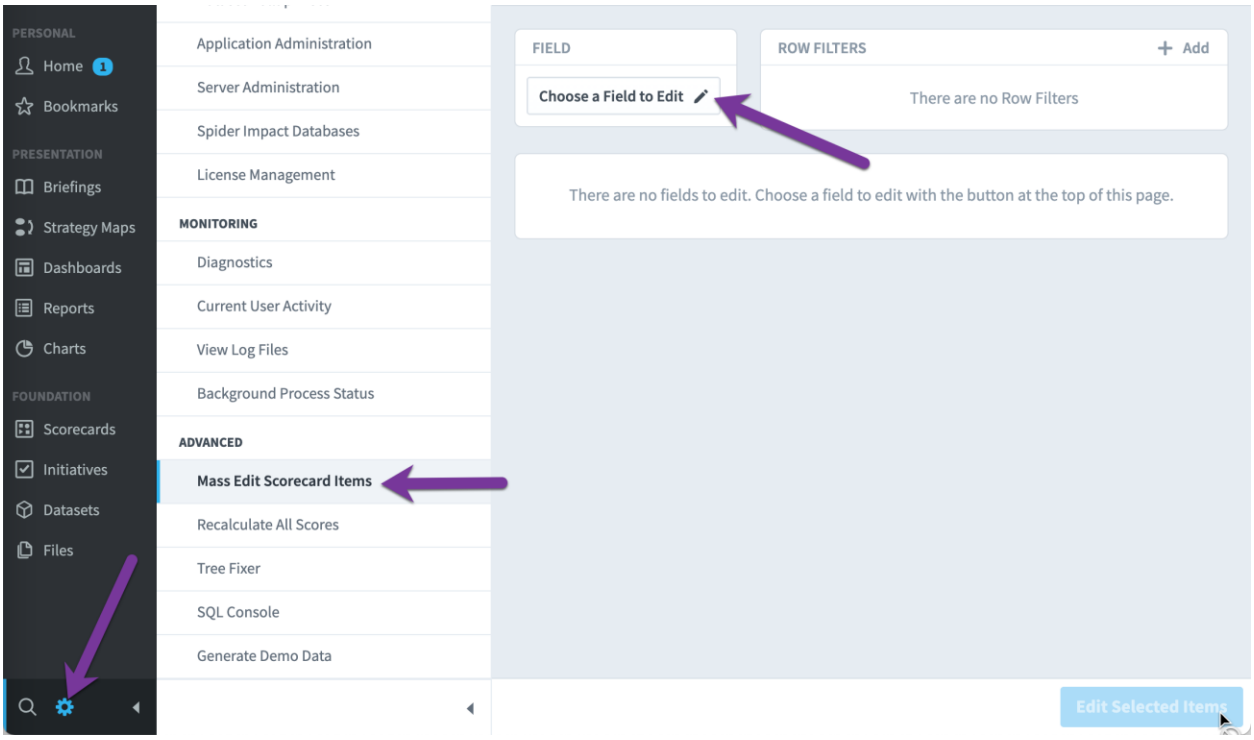


You can also select individual updates to be approved or rejected.

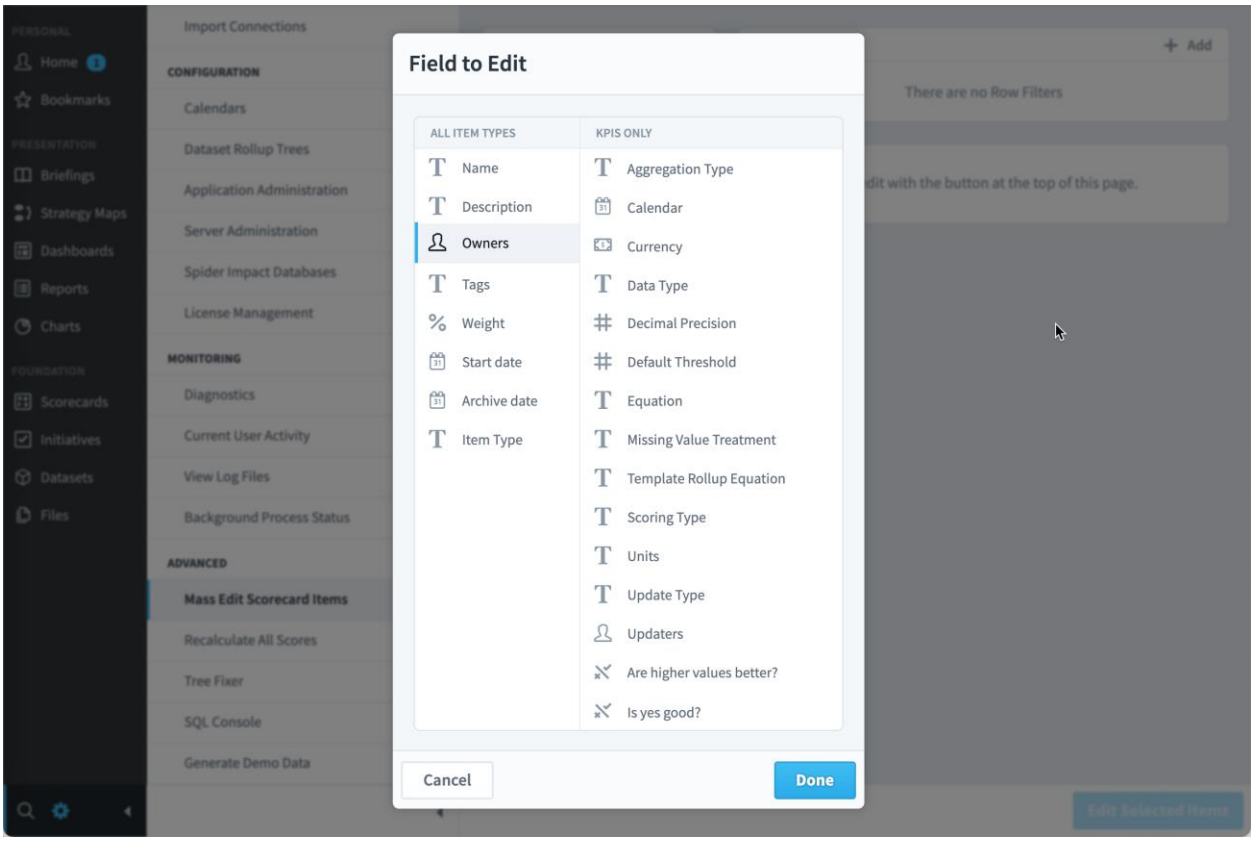
If a KPI has no owners, or if its only owner is the person who updated the KPI with a new value, the update will not go into the approval queue and will instead appear immediately.

Editing multiple scorecard items at once

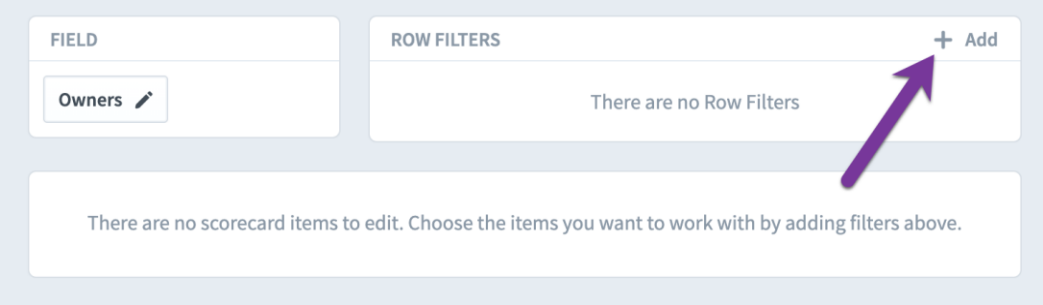
Mass-edit functionality has been moved to the Administration section. And has been redesigned to be optimized only for editing. To start, click the "Choose a Field to Edit" button.



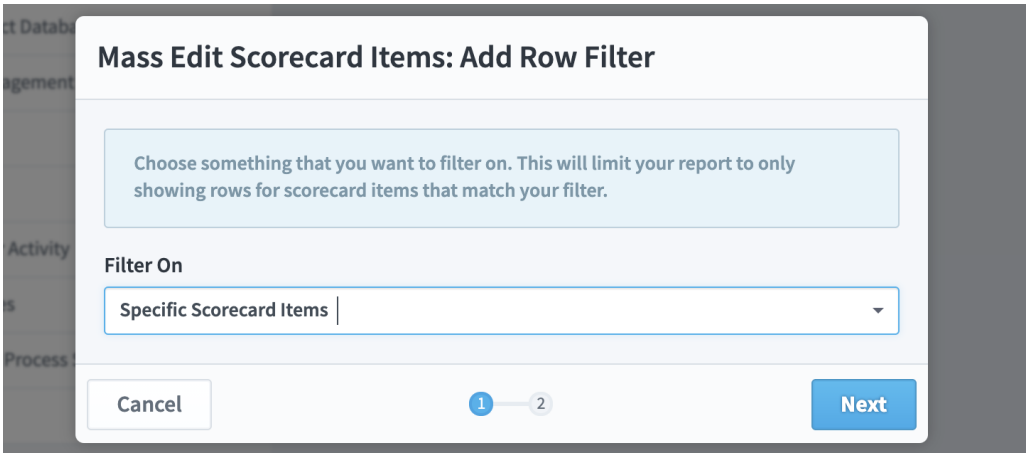
In this example we'll choose Owners.



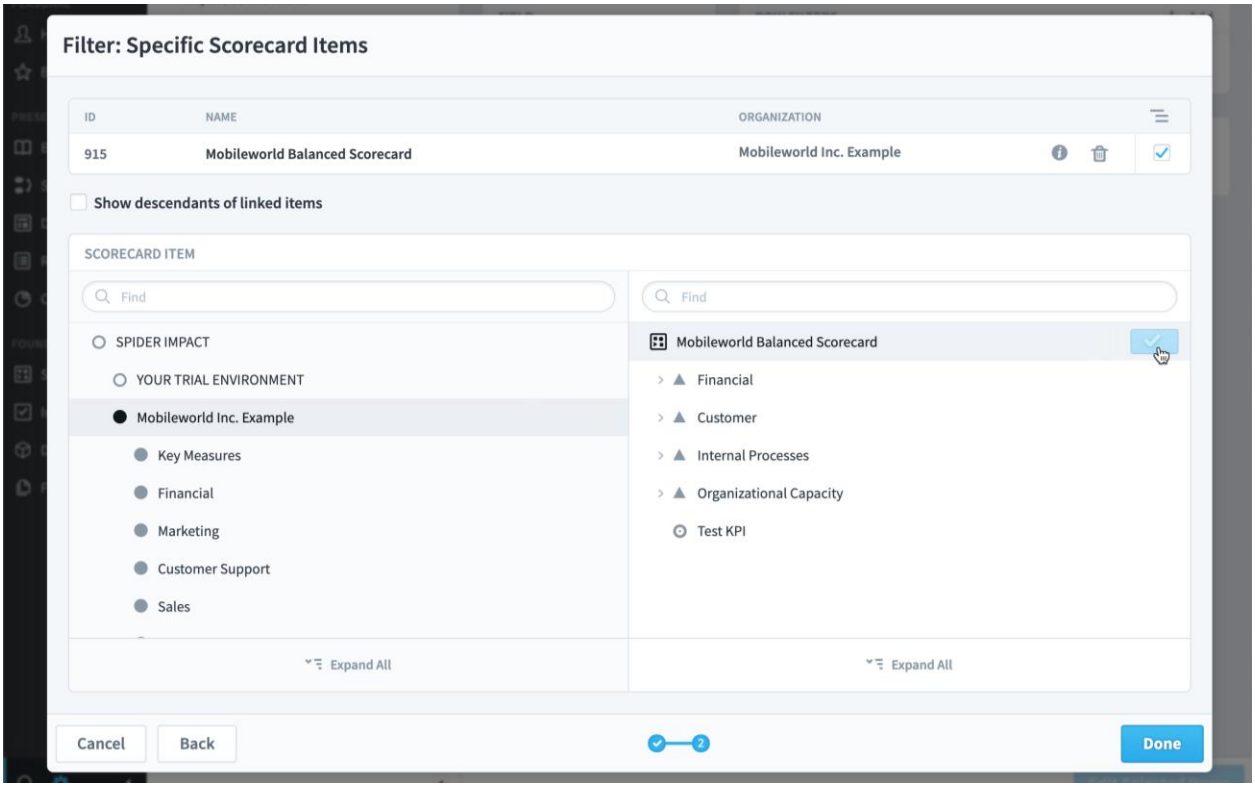
Next, we'll add a filter to choose which scorecard items show up to edit.



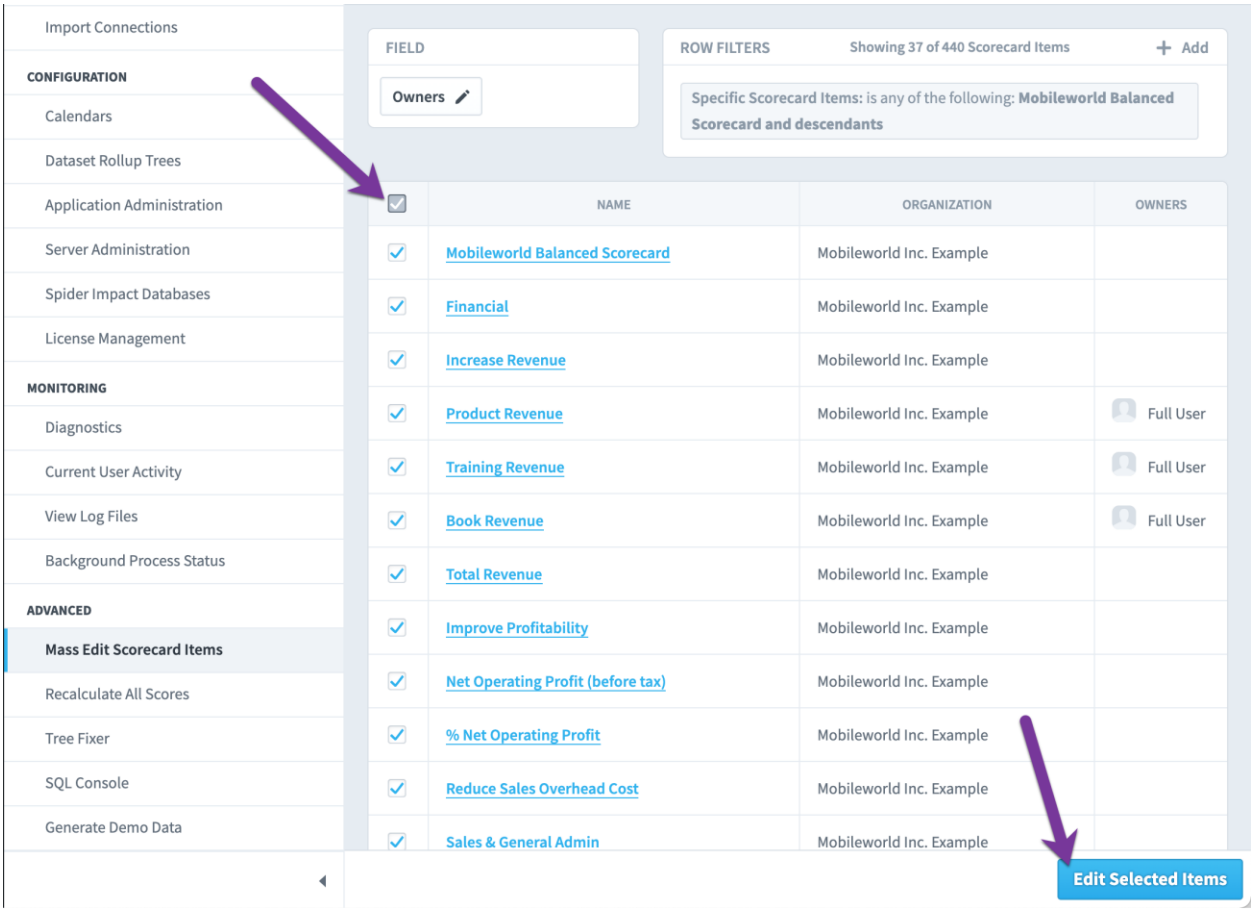
The default filter is "Specific Scorecard Items," and we'll use that here.



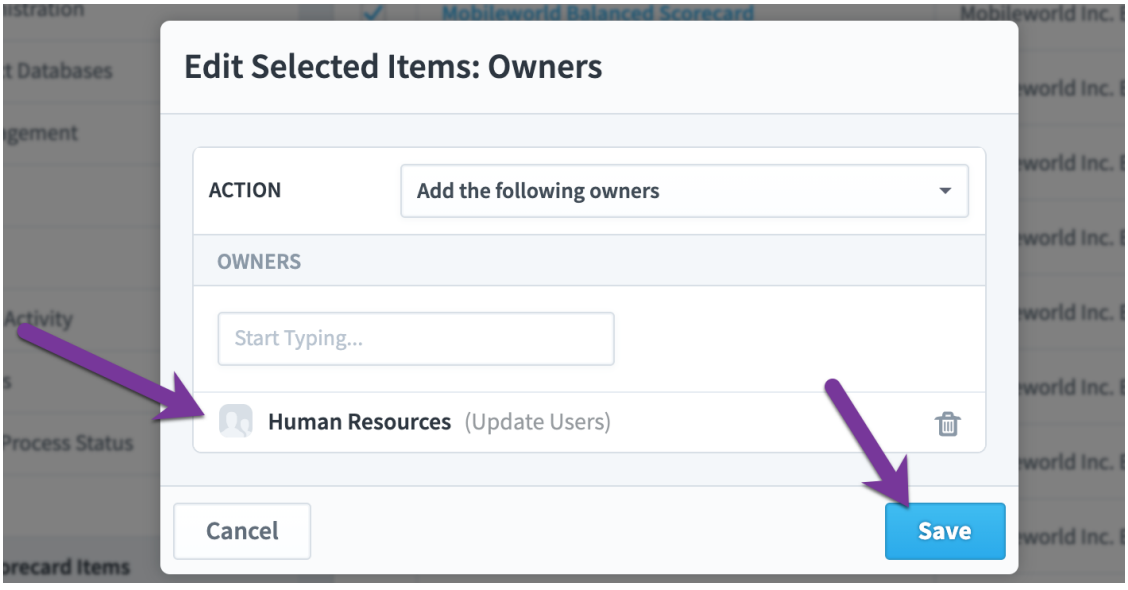
We'll add the entire "Mobileworld Balanced Scorecard" and click Done.



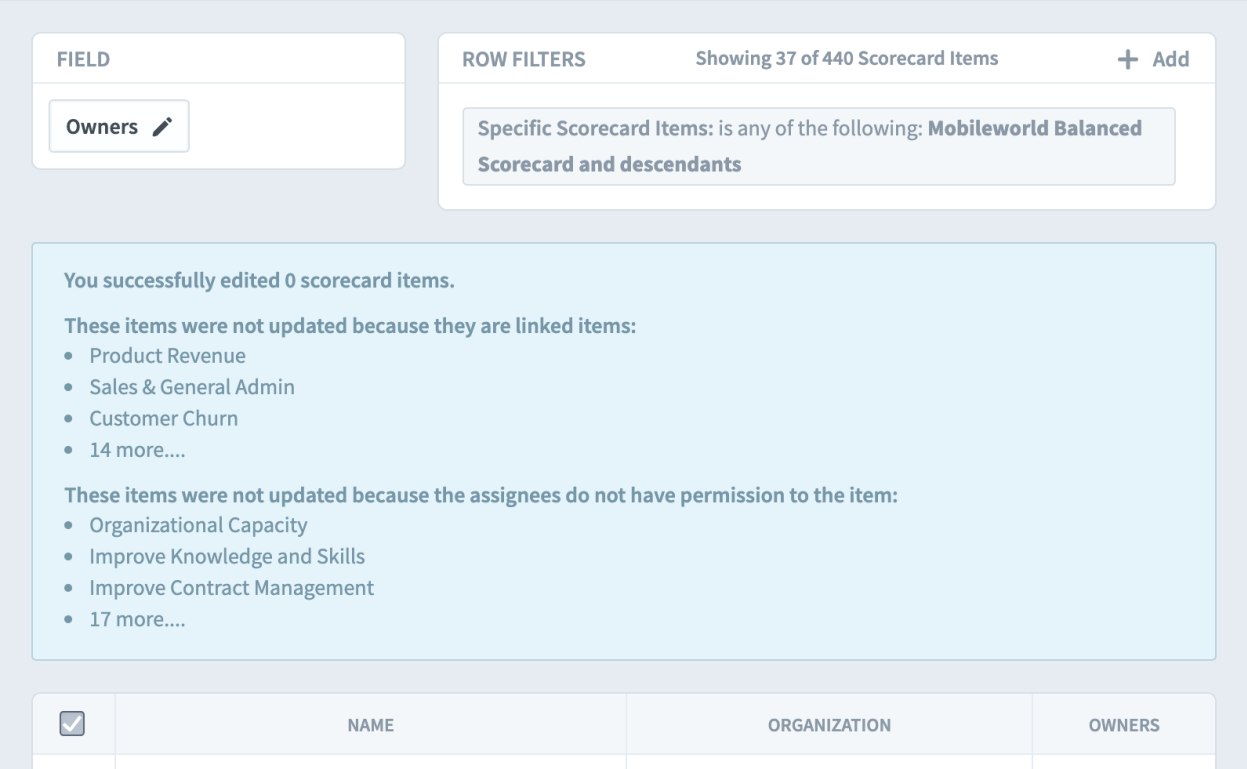
Now we can see all of the scorecard items for the Mobileworld Balanced Scorecard. You can edit a few at a time, but we're going to select all and click "Edit Selected Items".



We'll add the Human Resources group as owners.

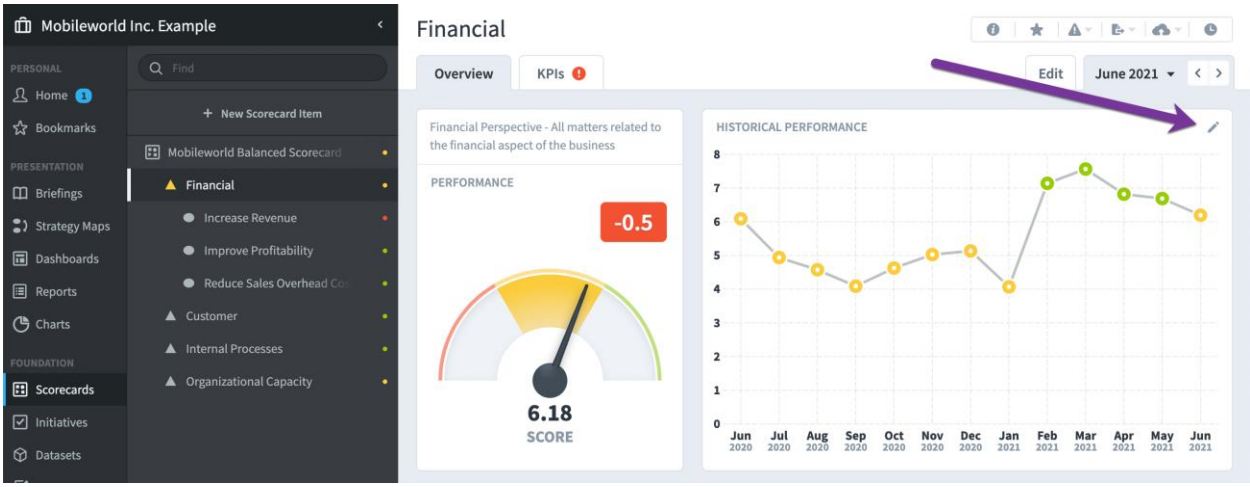


After clicking Save, we see a message summarizing all of the changes that were made. If some of the changes didn't work, it explains why as well.

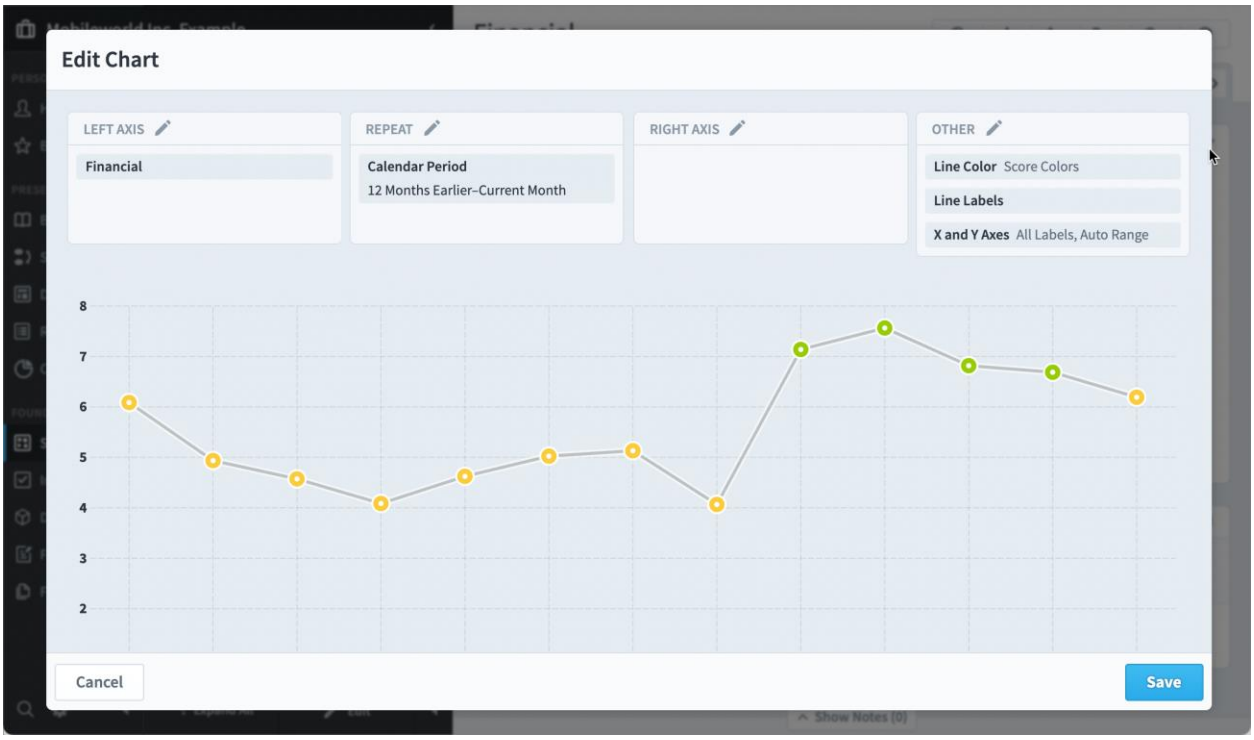


Editing charts on Scorecards Overview

You can edit charts on the Scorecards Overview by clicking on the chart's edit button.



This opens a chart editing dialog with all of the functionality of the new Charts section. You can add things like background thresholds, reference bands, and other data series.



Import and Export

Regular expression transformations

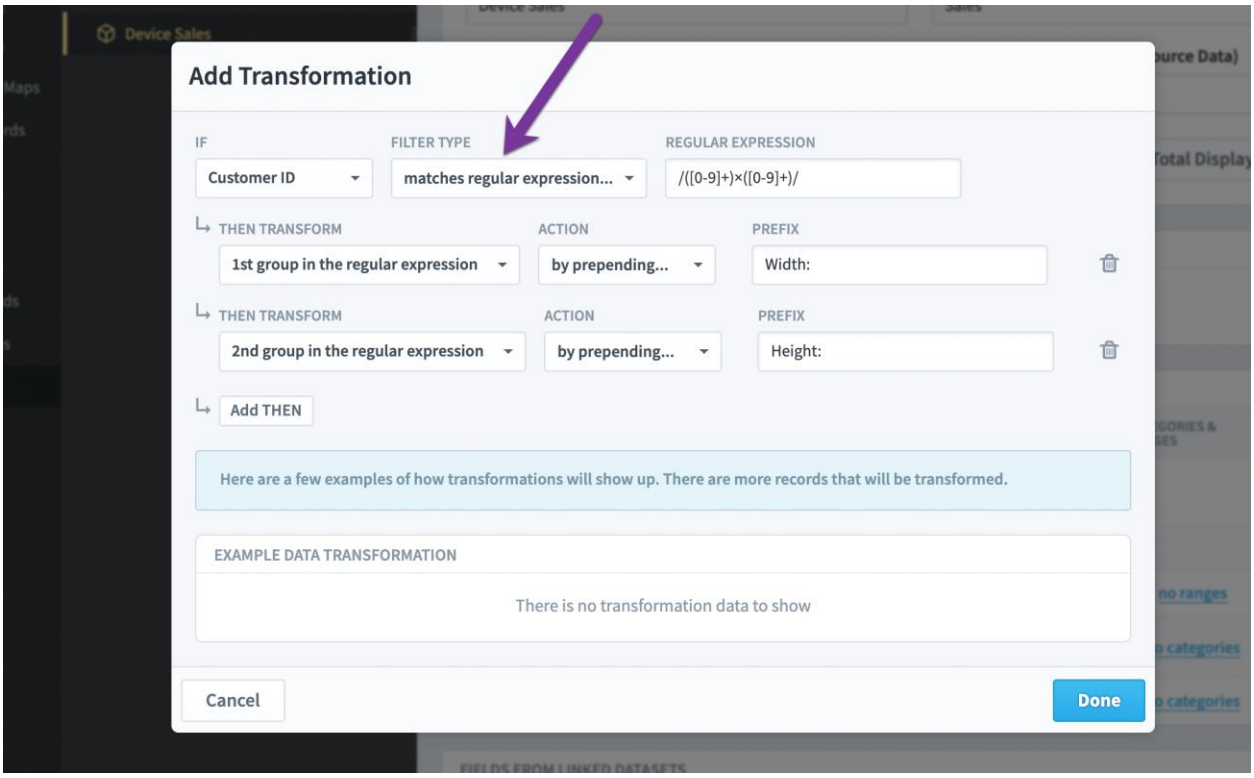
Regular expressions are incredibly powerful for text matching, but they can also be used to transform your data. For example, let's say you have a field that has text values like this:

- 1440×900 pixels
- 1600×900 pixels
- 800×600 inches

And you want to convert it to values like this:

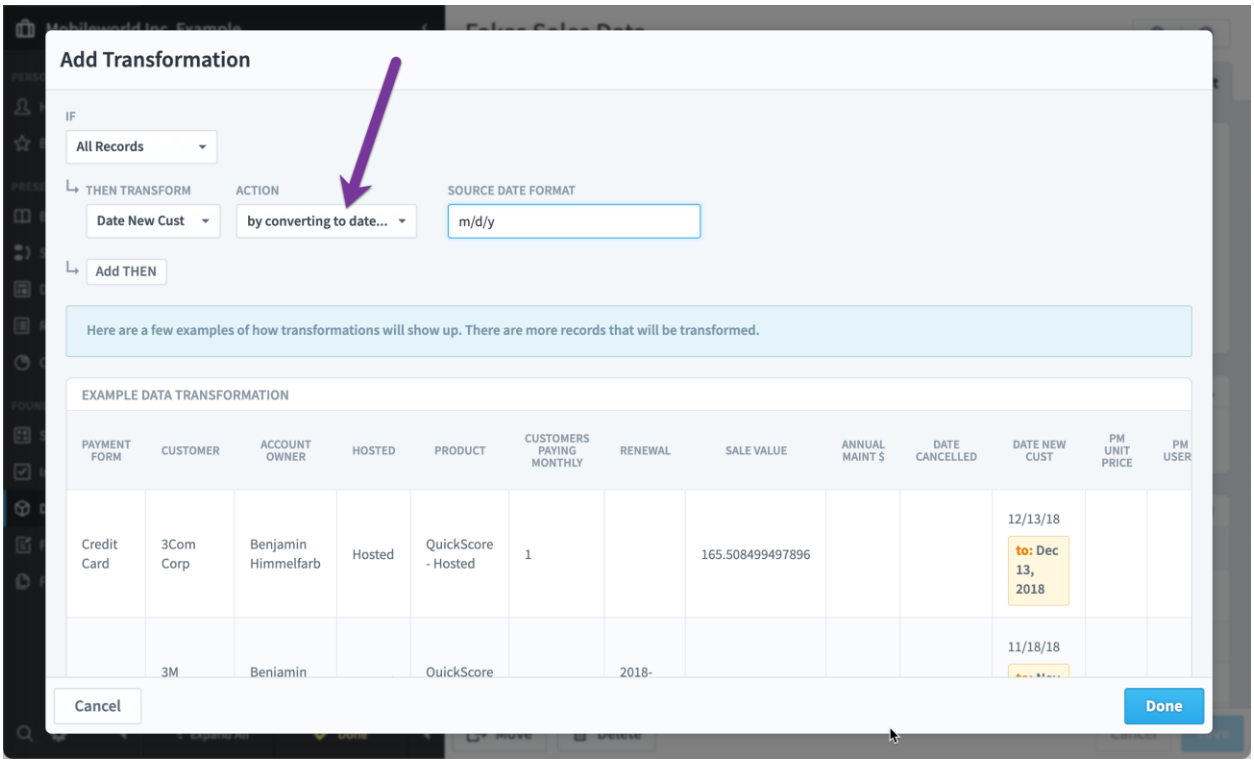
- Width: 1440×Height: 900 pixels
- Width: 1600×Height: 900 pixels
- Width: 800×Height: 600 inches

You can do this by choosing the "matches regular expression" filter type and writing a regular expression with groups. You can then manipulate the groups as separate transformations.



"By converting to date" transformation

There is a new transformation called "by converting to a date" that you can apply to any type of data that you're importing. You tell the software where to find the day, month, and year, and it turns text into dates.



Days, months, and years are represented by the following characters:

- d
- m
- y

To separate the days, months, and years, any number of the following characters can be used

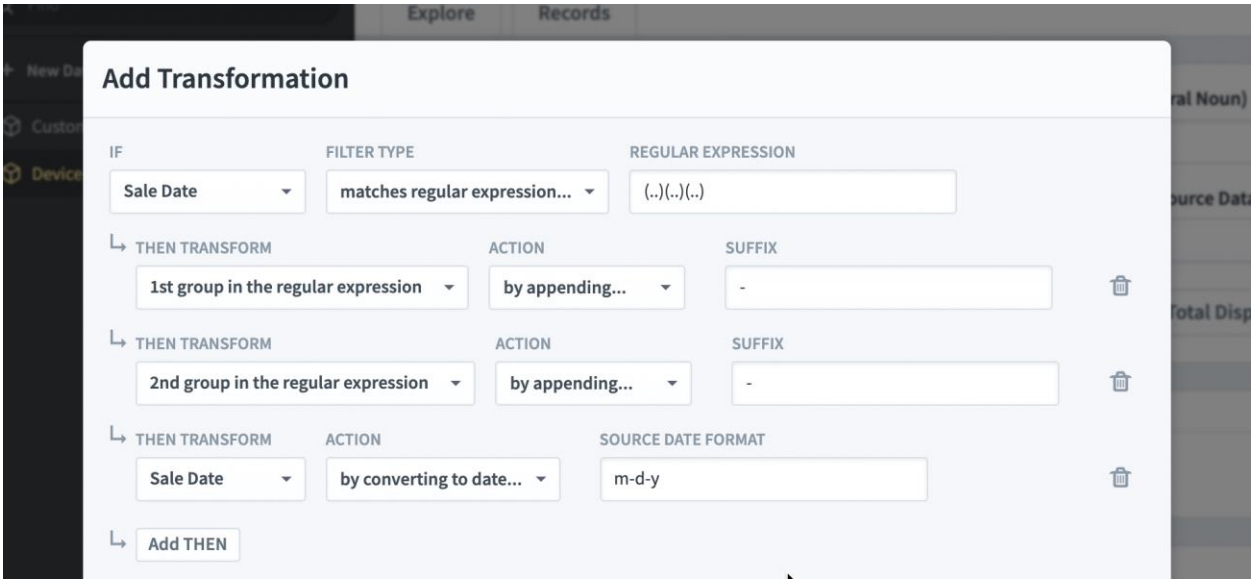
- space ( )
- hyphen (-)
- comma (,)
- forward slash (/)

For example, if your dates look like `5/15/2020`, you'd use `m/d/y` for the source date format. If your dates look like `3-Mar-19`, you'd use `d-m-y` for the source date format. As long as you tell SMS where to find the data, it's smart enough to determine that Jan, January, and 1 are the same thing.

There are times, of course, where you'll come across date formats that SMS can't parse on its own. For example, February 20th, 2018 could be stored as `022018`. In these situations, you can apply regular expression transformations to the data before converting it to a date.

Here we:

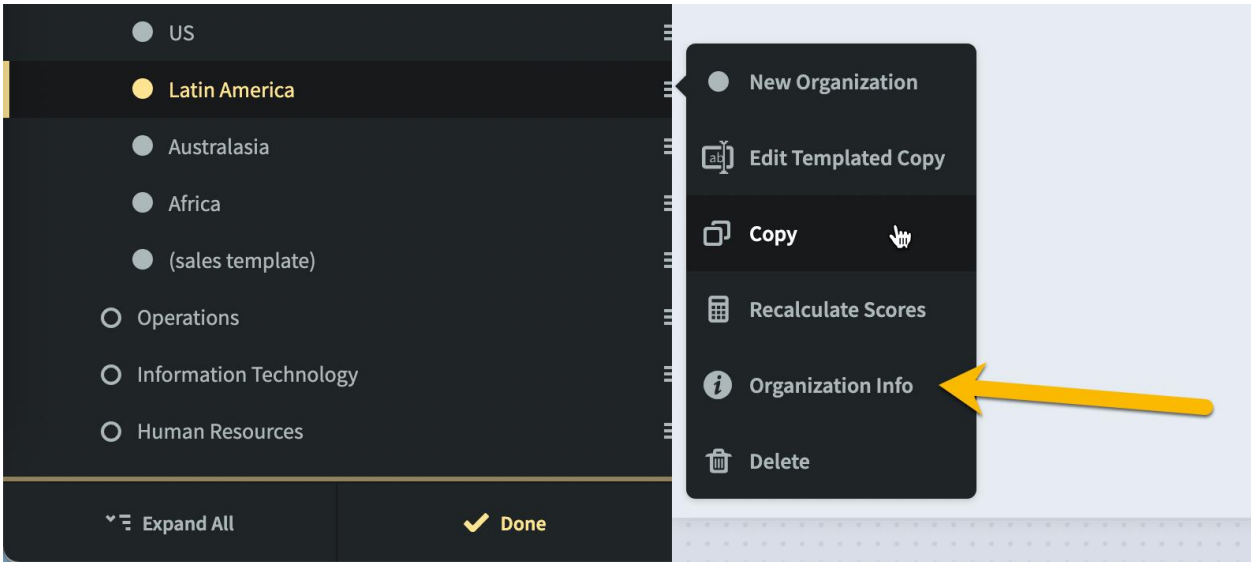
1. Start with text like `022018`
2. Convert it to text like `02-20-18`
3. Parse it into a date with `m-d-y`



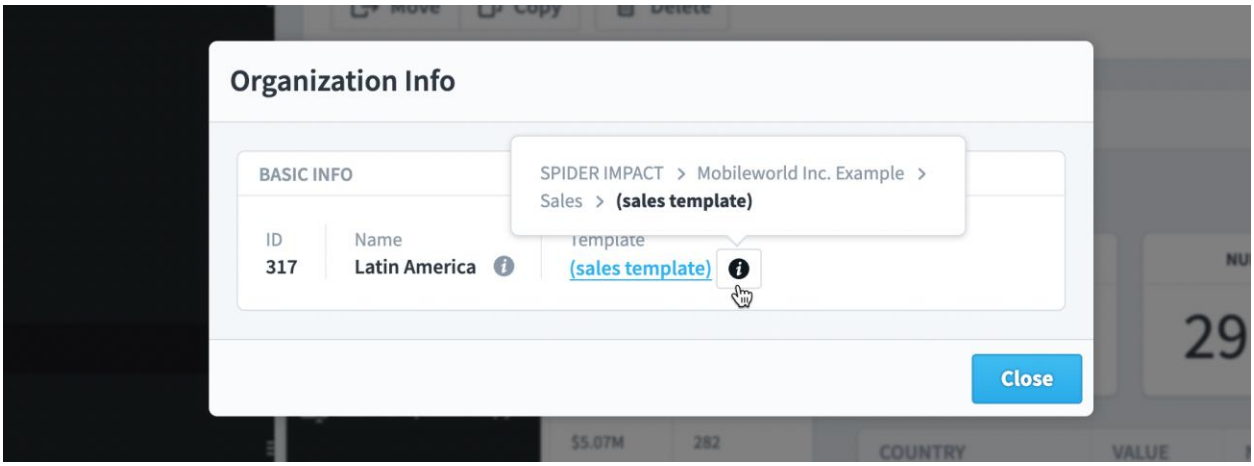
Organizations and Templates

New Organization Info dialog

There is a new menu option when editing organizations called Organization Info.



Clicking this opens a dialog showing information about the organization, including its name, ID, source template, templated copies, etc.

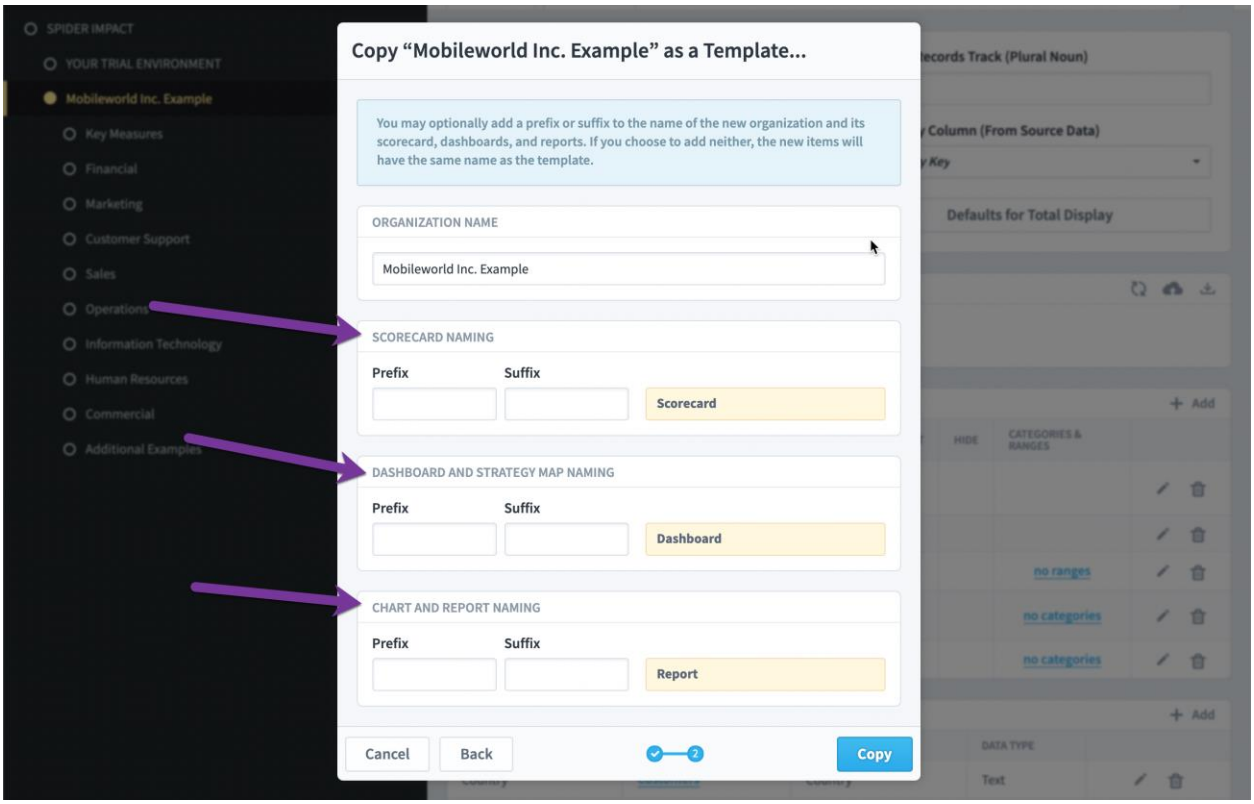


All new templates are for organizations

With the addition of the Charts section and full-featured support for Organization templating, all new templates must now be created at the Organization level. Existing item-level templates for Reports, Dashboards, and

Strategy Maps will continue to work, but you will not be able to create new item-level templates.

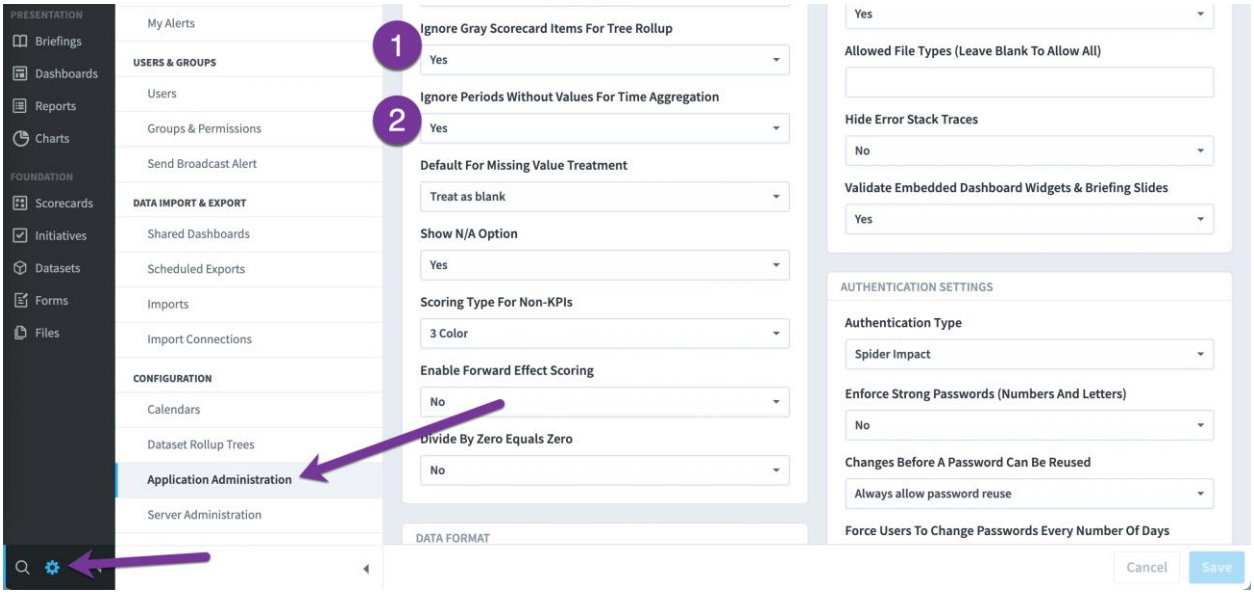
Organization-level templates can do everything item-level templates could do, and more. Organization-level templates also support more item types, including Scorecards, Dashboards, Strategy Maps, Charts, and Reports.



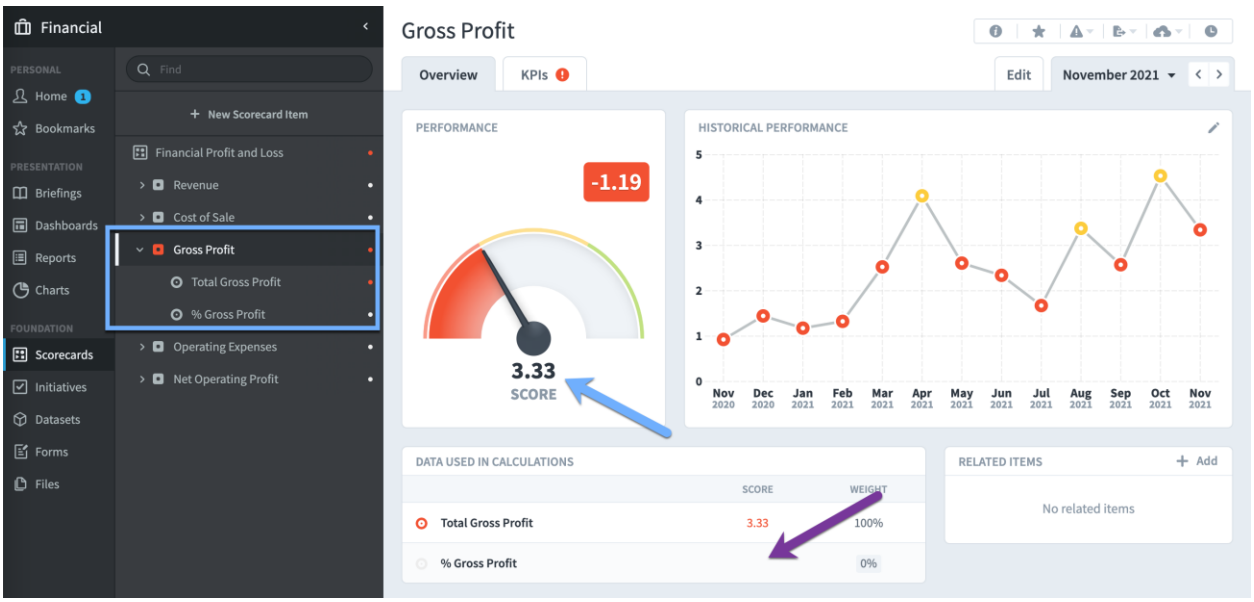
Administration

Configuration settings for missing values

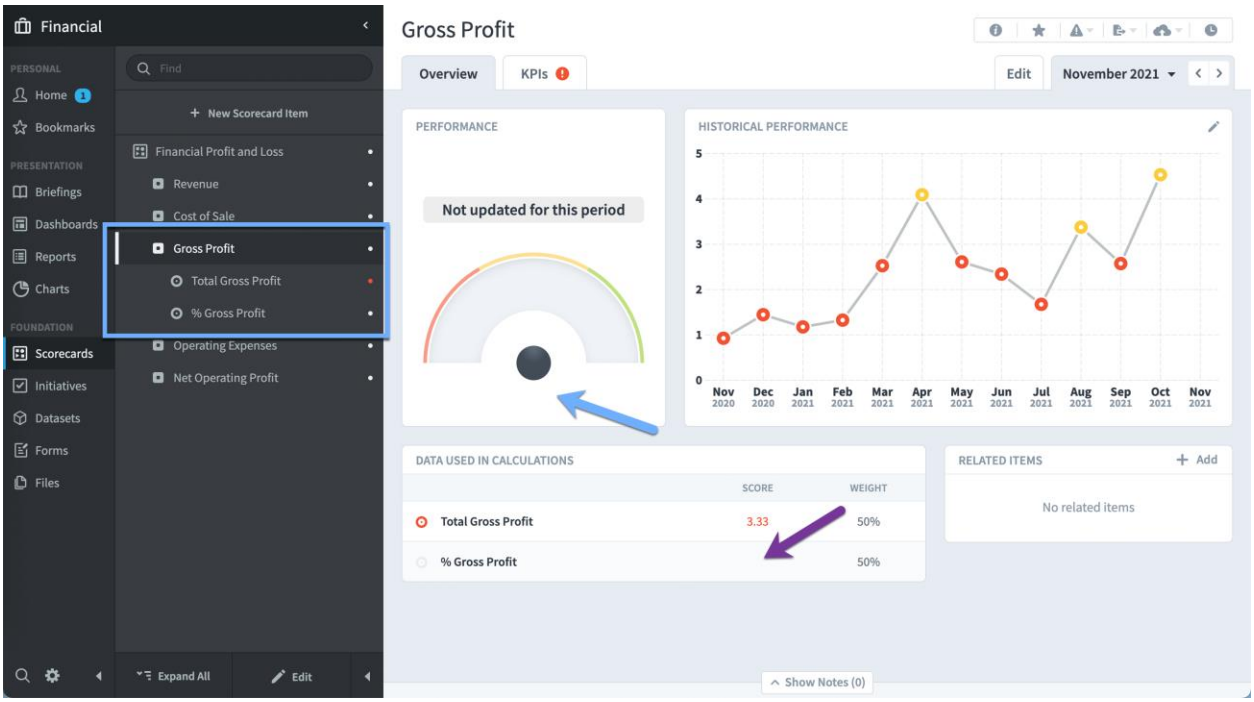
There are now two configuration options in the Administration section for choosing how you want to treat missing values.



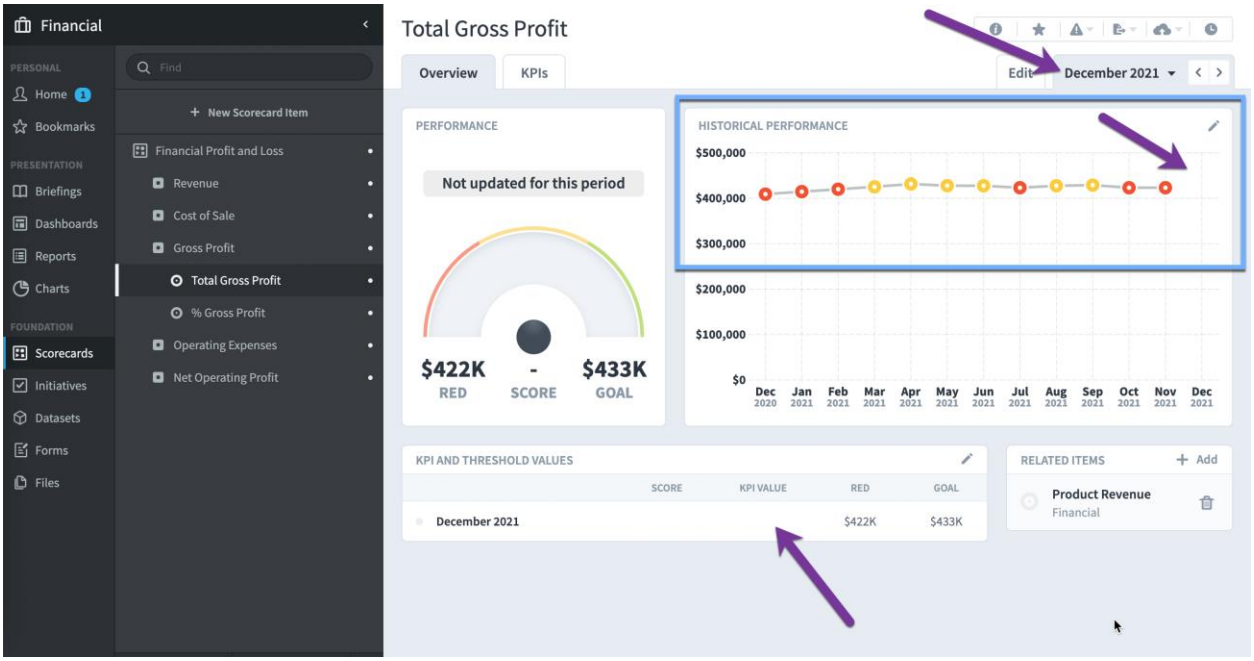
1. "Ignore Gray Scorecard Items For Tree Rollup" is for missing values when rolling scores up a scorecard tree. By default, missing values are ignored, which means that a parent will have a score if at least one of its children has a score.



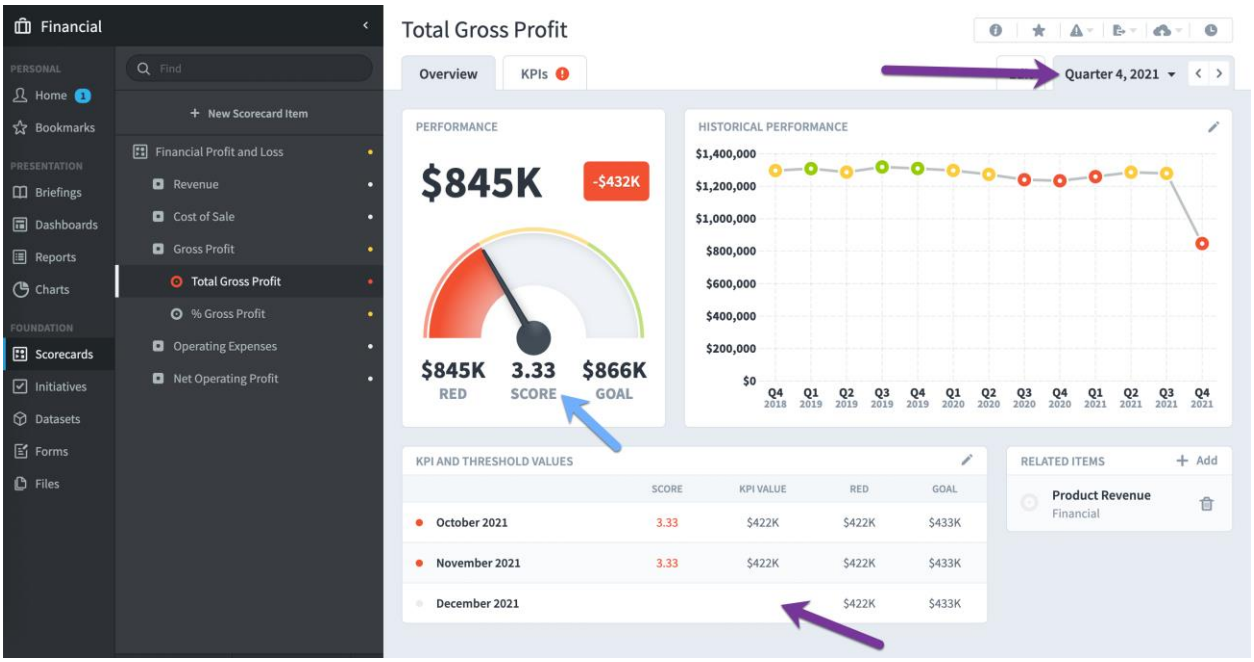
When "Ignore Gray Scorecard Items For Tree Rollup" is off, a single missing KPI value will cause everything in the tree above it to have no score.



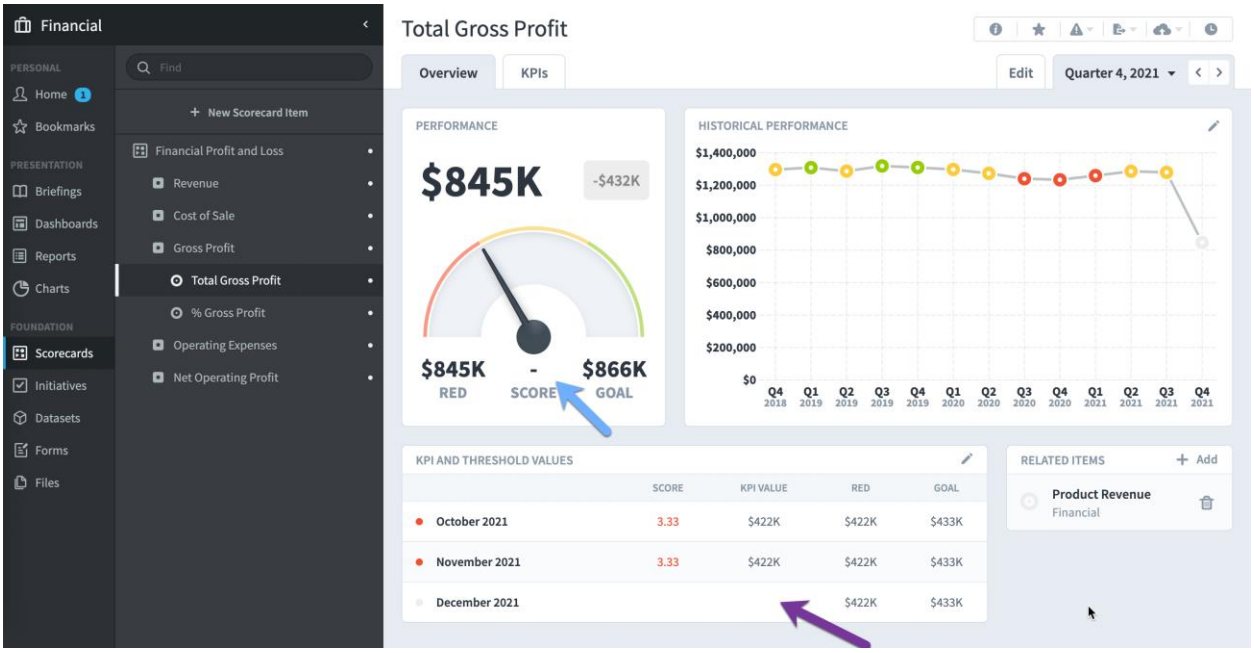
2. "Ignore Periods Without Values For Time Aggregation" is for missing values over time. By default missing values are ignored, so a larger period is scored even when not all of the smaller periods are complete. In this example the Total Gross Profit KPI does not yet have a value for December 2021.



When you change the calendar to Quarter 4, 2021, the Total Gross Profit KPI has a score for that quarter, even though one of the months in the quarter doesn't have a value.

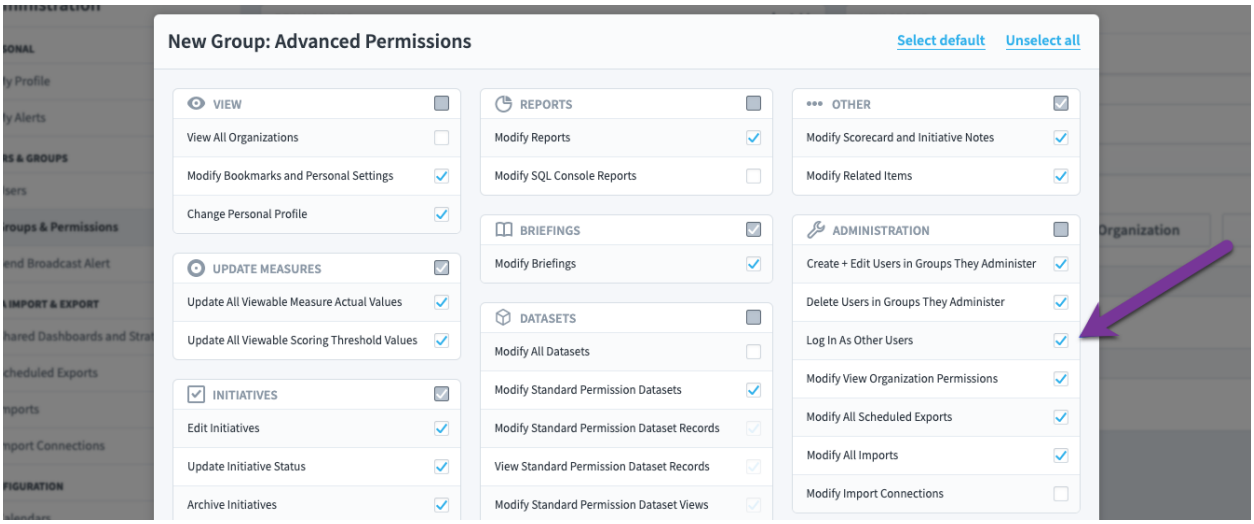


When "Ignore Periods Without Values For Time Aggregation" is off, Quarter 4, 2021 now has a blank score because not all of the months in the quarter have values.



New "log in as other users" permission

There's a new permission for Administrator groups called "log in as other users". This makes it more obvious who can log in as other users, and it allows large organizations to set up a more decentralized approach to user management.



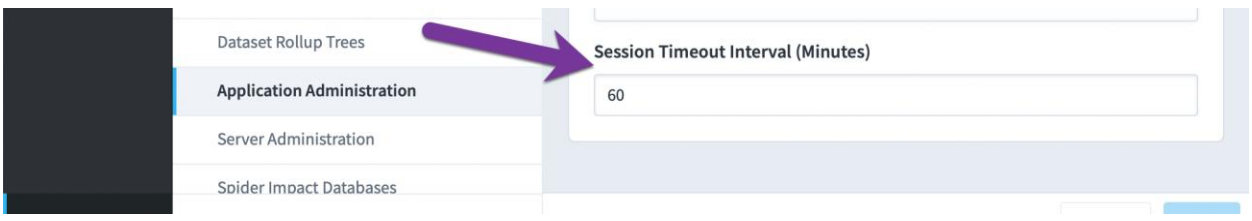
Users will be able to log in as other users if both criteria are met:

1. They are members of a group that has the "Log in as other users" permission.
2. They have the same or more permissions as the person they're logging in as, including viewable organizations, advanced group permission checkboxes, and dataset permissions.

In other words, logging in as another user will not allow you to see or do anything that you can't already see or do.

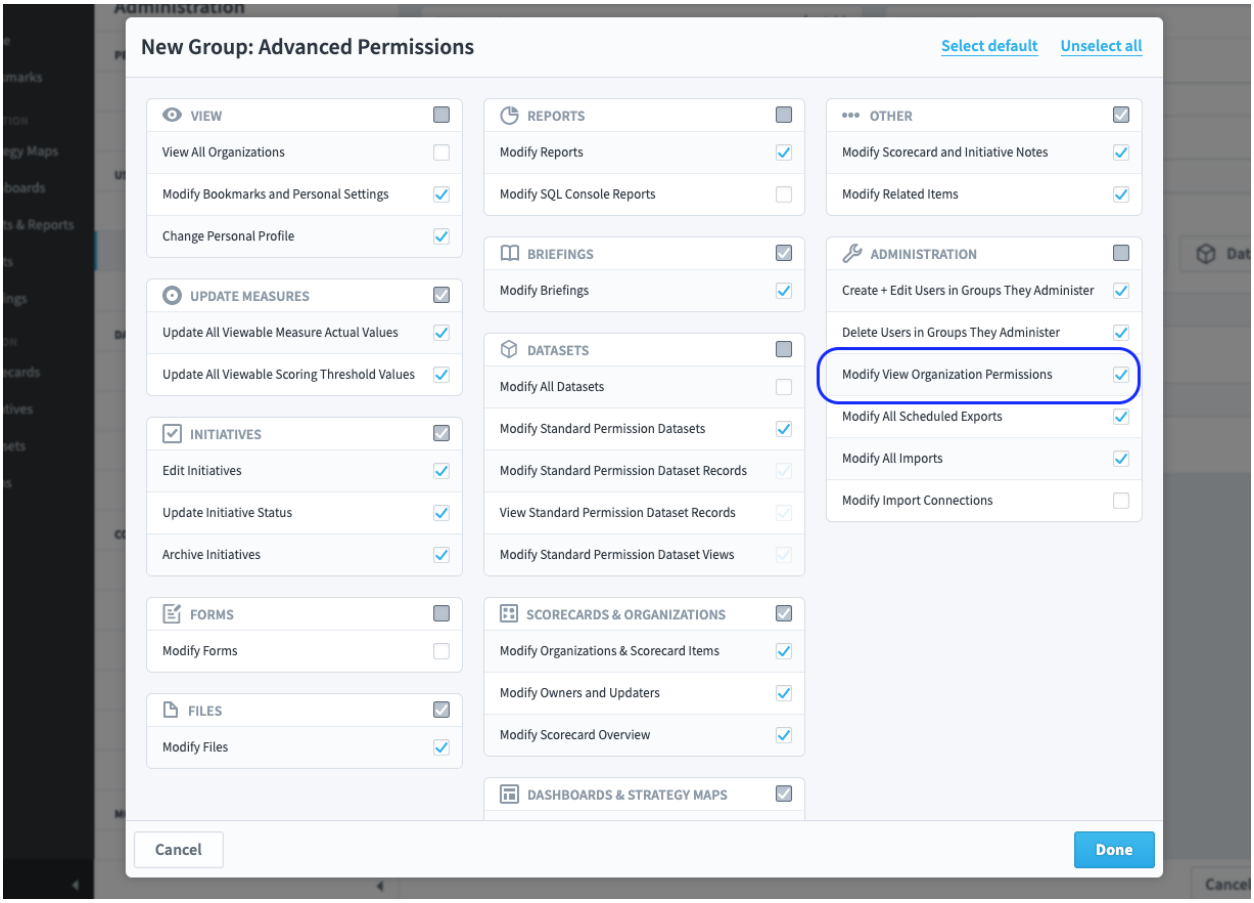
Setting logout time

System administrators can now set the number of minutes of inactivity to automatically log users out of SMS.



New permission default for Local Administrators

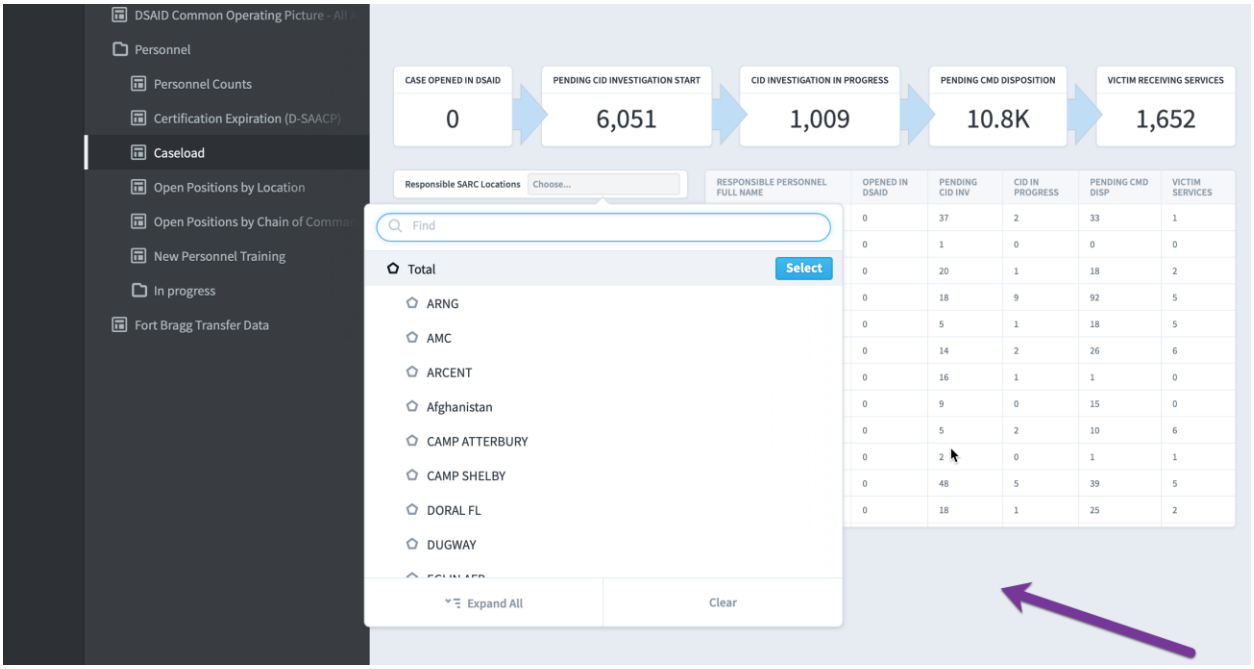
The "Modify View Organization Permissions" permission now defaults to "On" for new local administrator groups.



Usability

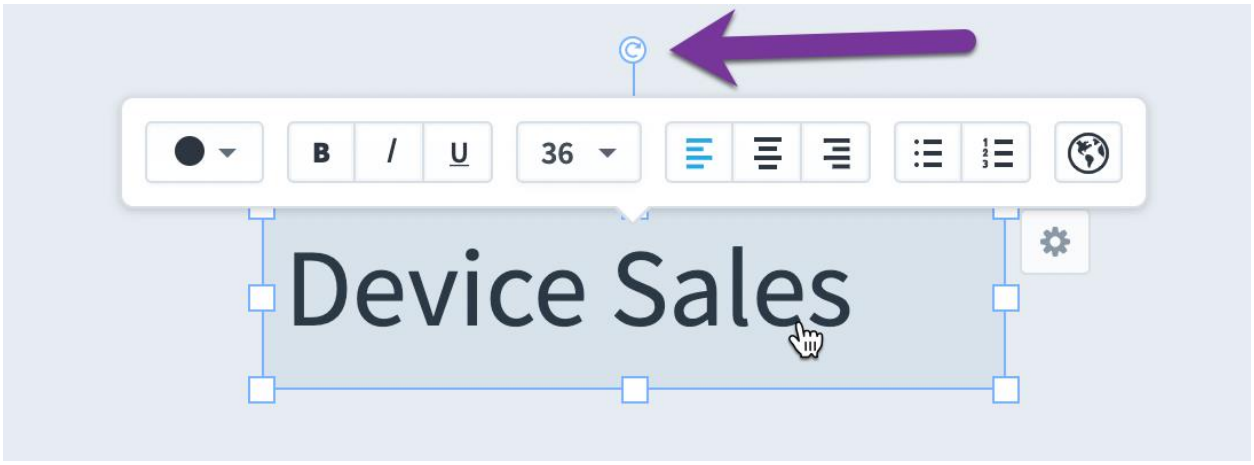
Closing open filter widget doesn't zoom

Users close open filter widgets by clicking on empty dashboard space. This action no longer zooms in on the dashboard.



Dashboard widget rotation handle icon

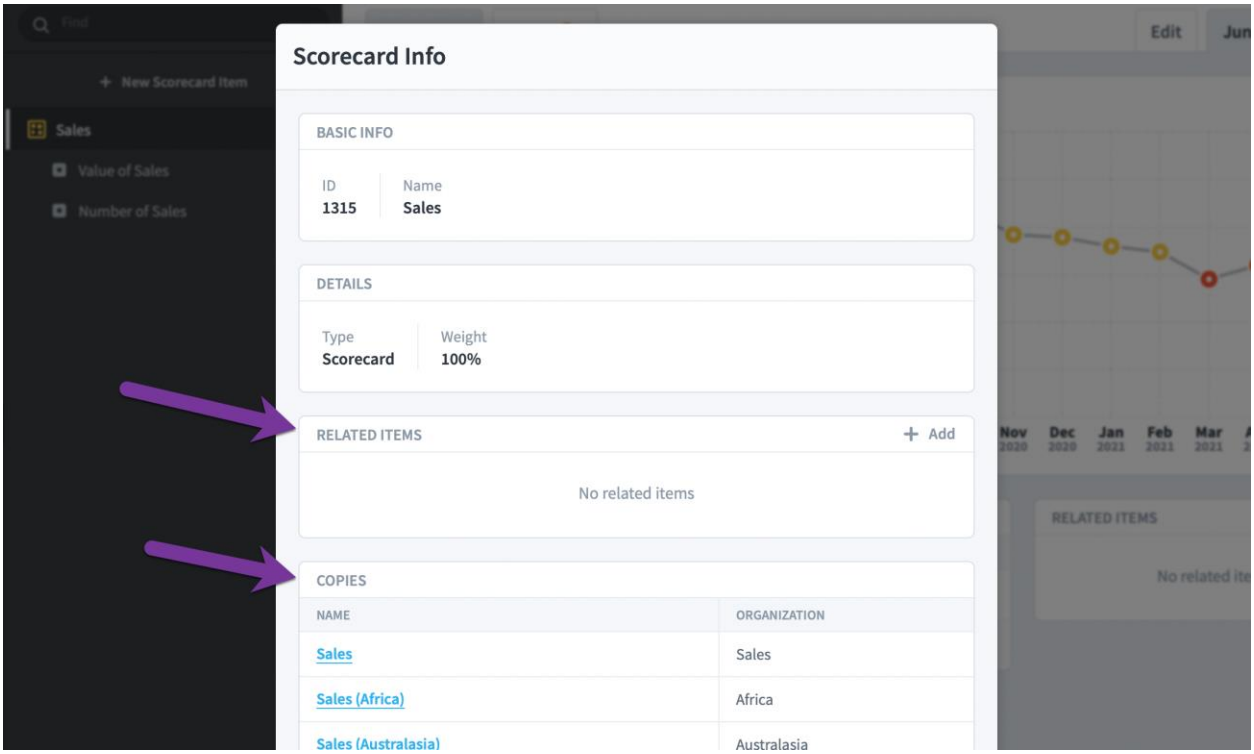
There is now an icon inside of the rotation handle for text and image dashboard widgets.



This makes it clearer what the rotation handle does.

Rearranged info dialogs

The list of templated copies can be quite long, so related items are now shown above them in info dialogs.

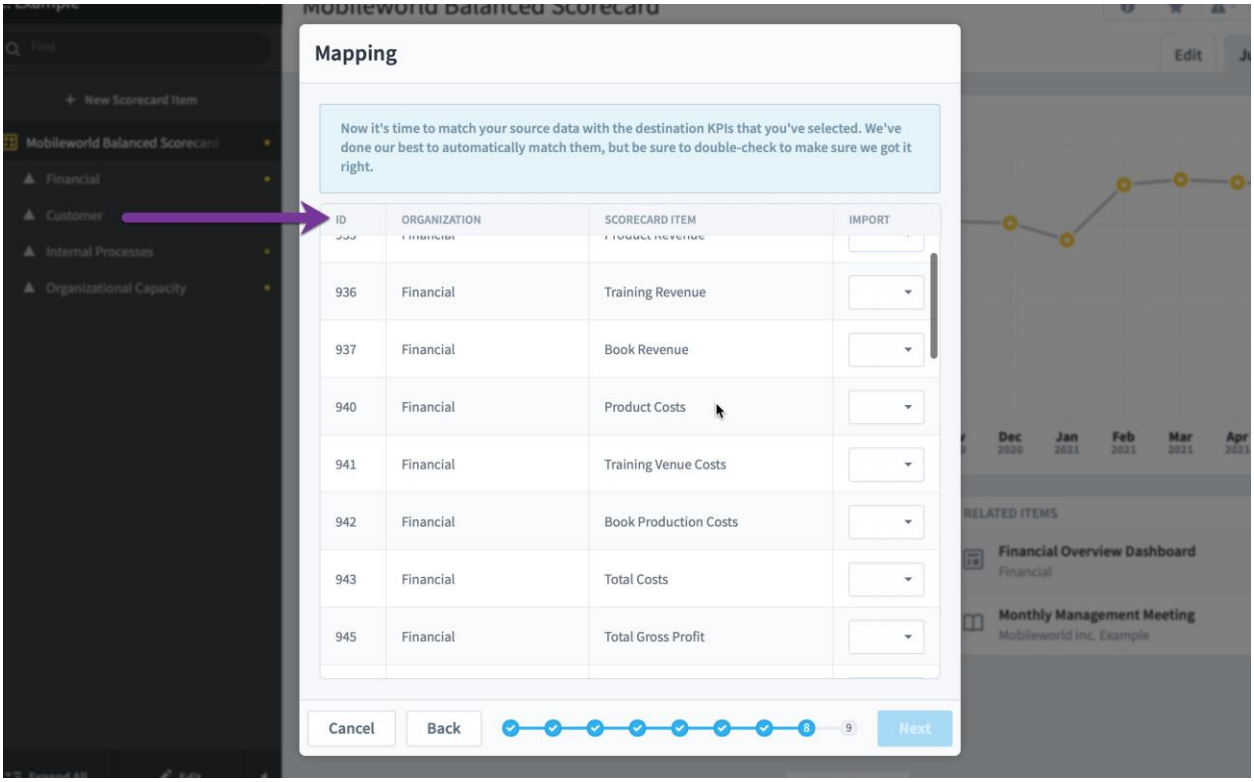


Better email alert subject lines

The subject lines on all emails have been rewritten to provide more information. Rather than just saying you've received an alert, they now tell you what kind of alert you've received.

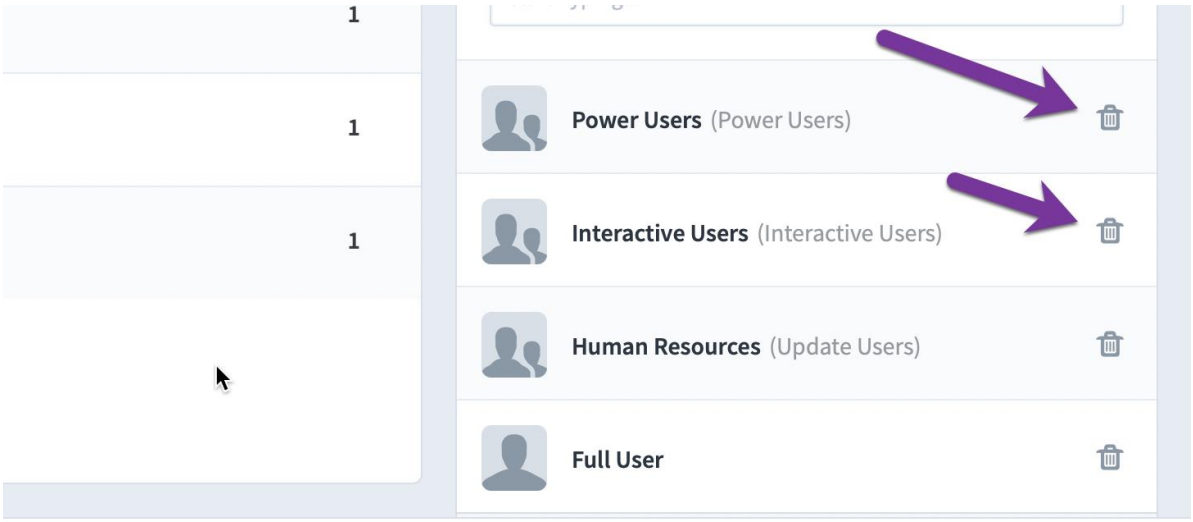
Mapping column headers locked while scrolling

The column headers are logged into place when scrolling on data import mapping.



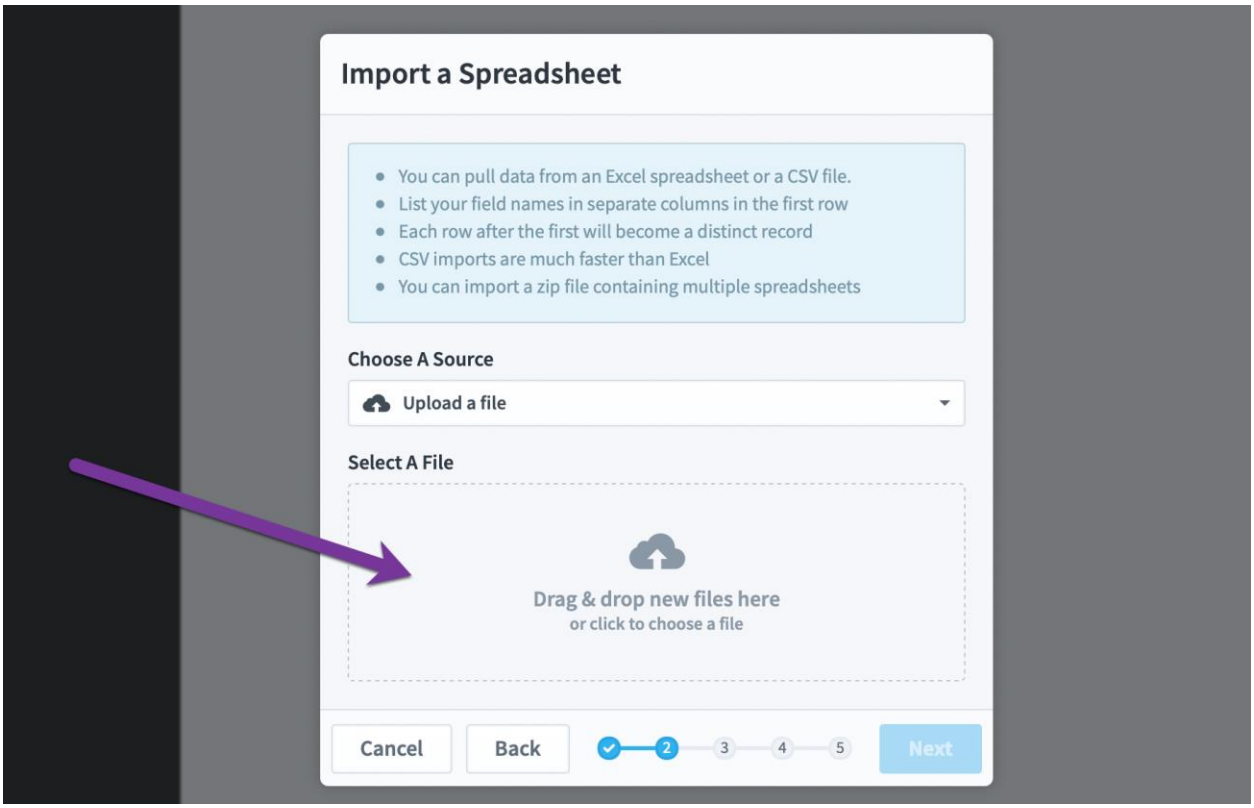
Show buttons without hover

All buttons and controls now show regardless of whether you're hovering your mouse over them. This increases usability by making all actions easier to discover.



New upload controls

There are new upload controls used throughout SMS that make it easier to choose a file. You can either drag a file into the window, or you can click on the box to open a file chooser.



Other

In addition to many bug fixes, there were several other notable enhancements in this release, including:

- Replace thumbs up/down icons
- Prevent missing X axis labels
- RMF Requirement: Show Successful Logout
- Update "powered by" text on login page
- Don't strip querystring off mailto links
- Slightly reduce the space above chart X axis labels
- Unify “actual value” language

- Add message explaining when only 100 users or groups are shown
- Change order of dashboard/chart colors
- Import notes column when dates are in header row
- Alert users of failed exports
- All FTP & Google Sheet imports now share the same UI
- Change message when only percent weightings need to be calculated
- Support for 2-digit years in date transformations
- Don't include the time and number of results in SQL reports
- Only folders have hover/active states in FTP list
- Don’t automatically select a rollup tree in administration
- Alert users earlier that equations on new Link fields requires two steps
- Add data type icons next to all dataset fields
- Replace "breakdown" language
- Form widget input validation
- Form field widget suggested values
- Add Time-Only Toggle Option To Date-Time Filters
- Make form widget interaction clearer in edit mode
- Give users more information about invalid dataset data
- Support more than one record list on a form page
- Hour-Of-Day Rows Option For Dataset Tables
- Change flow for uploading dataset spreadsheet
- Add Time Display Options For Dataset Time and Datetime Fields
- Show dashboard filter drawer in edit mode
- Tooltips for Rebuild Dataset and Fetch New Data
- Split data type menu into two separate selects in Edit Dataset Field dialog
- Show dataset used to build report or form
- Show related forms in dataset info dialog