Spider Strategies

Using Spider Impact™

Spider Impact 5.8 User Guide
Updated October 29th, 2025

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Your success is important to us!

Spider Impact is industry-leading performance management software that powers data visualization, balanced scorecards, team alignment, business intelligence, and KPI and initiative management. This comprehensive guide explains how to use the software, including some of the more advanced functionality.

Although we're providing this information here as a single user guide, it's much better when referenced online. You can see every cross-referenced article in its most up-to-date form at support.spiderstrategies.com .

To help you discover everything Spider Impact has to offer, we also have free training videos on our website, and we've put together several "what is" guides to explain some of the more popular performance management methodologies. We even host free monthly webinars to walk you through new features and best practices.

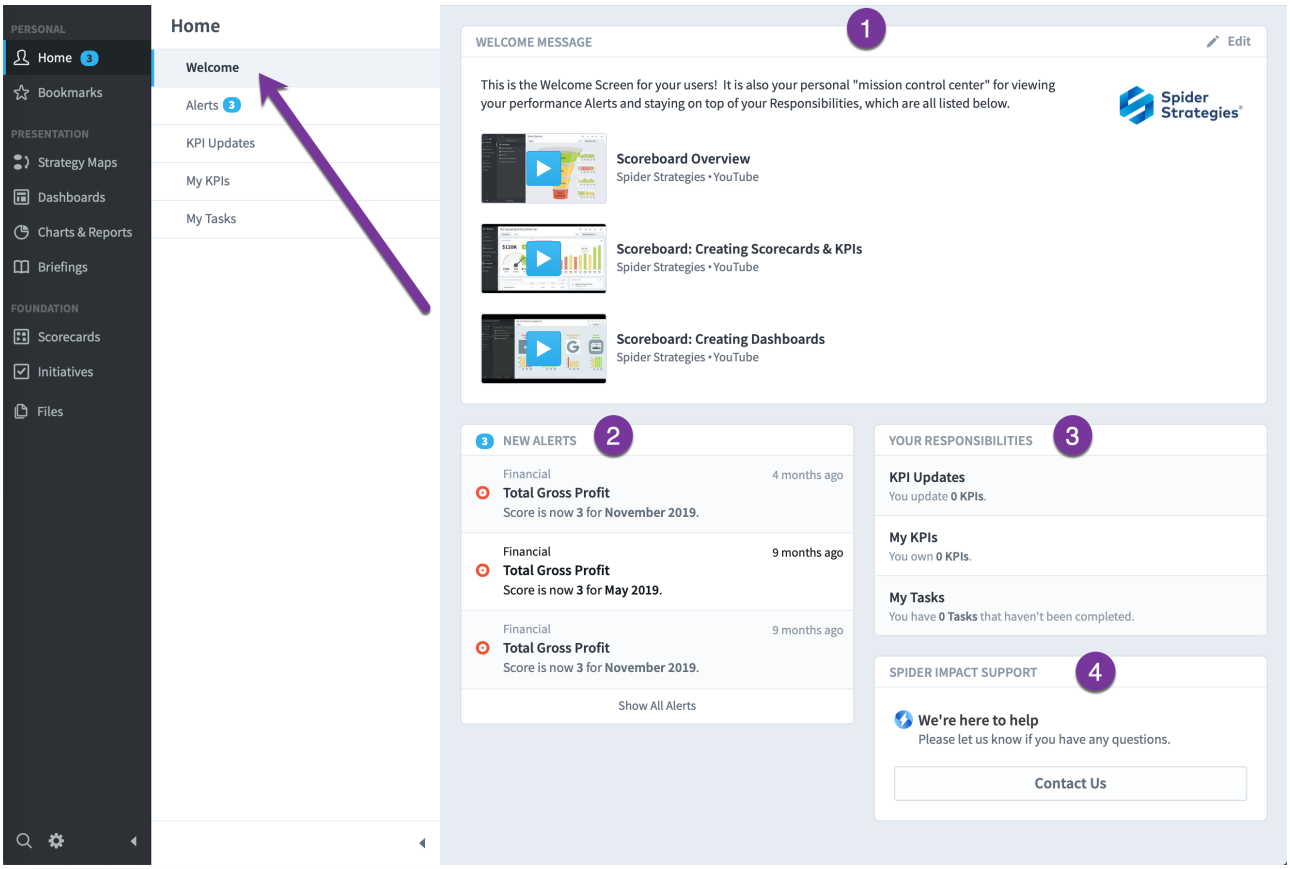
If you want to maximize your return on investment, we offer paid formal training courses and dedicated consulting engagements. Most of our customers prefer the flexibility of contracting for remote (web-based) assistance, but we also have on-site services available if they're a better match for your requirements.

Personal

Home Section

Welcome

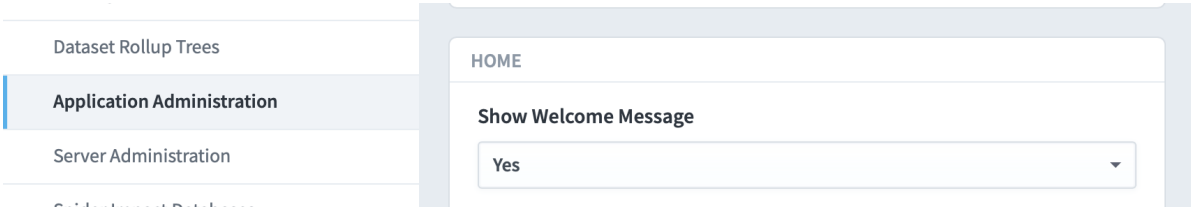
When you first log into Spider Impact you see the Welcome screen in the Home section.



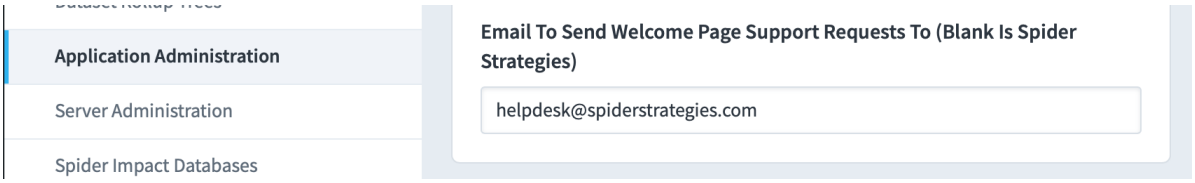
This gives you a quick overview of your most important information.

1. The welcome message can be edited by an administrator and can contain a logo and videos. You can disable the welcome message entirely in

Application Administration.

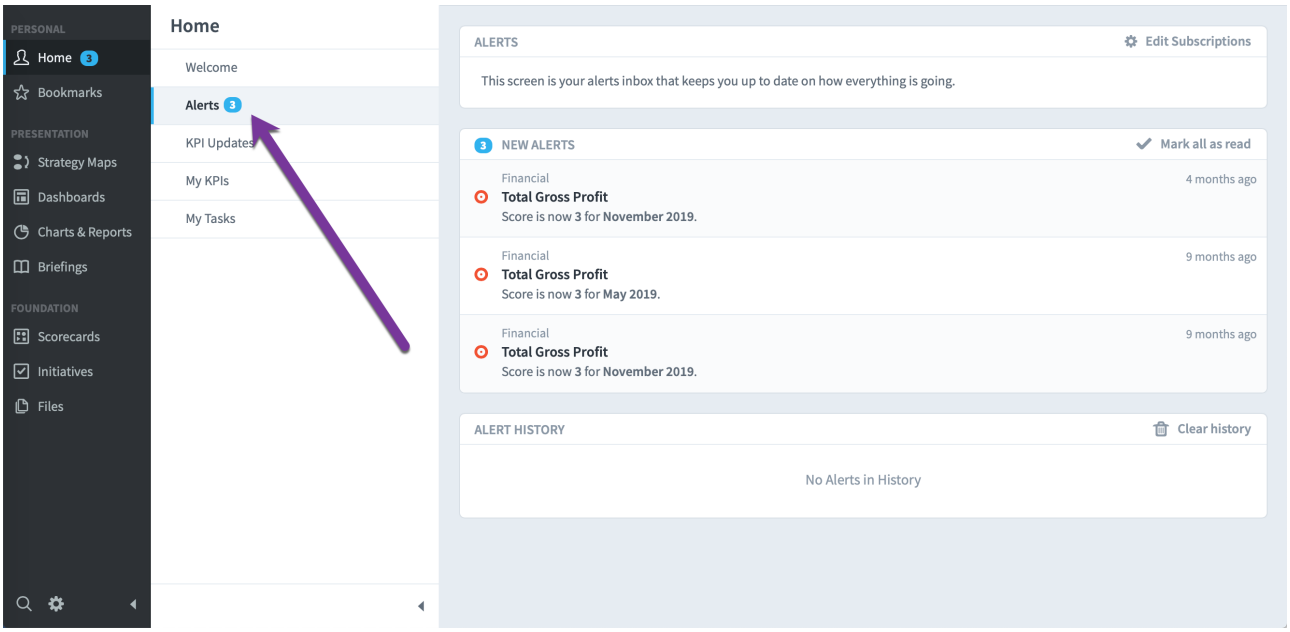


2. You'll see your most recent alerts here. There's also a link that takes you to the alerts page that we discuss next.
3. You can see the number of KPIs you own and update, as well as any tasks that are assigned to you. Clicking on one of these rows will take you to that page described below.
4. This help link defaults to sending requests to Spider Strategies, but administrators can change it in Application Administration to send help requests to any email.



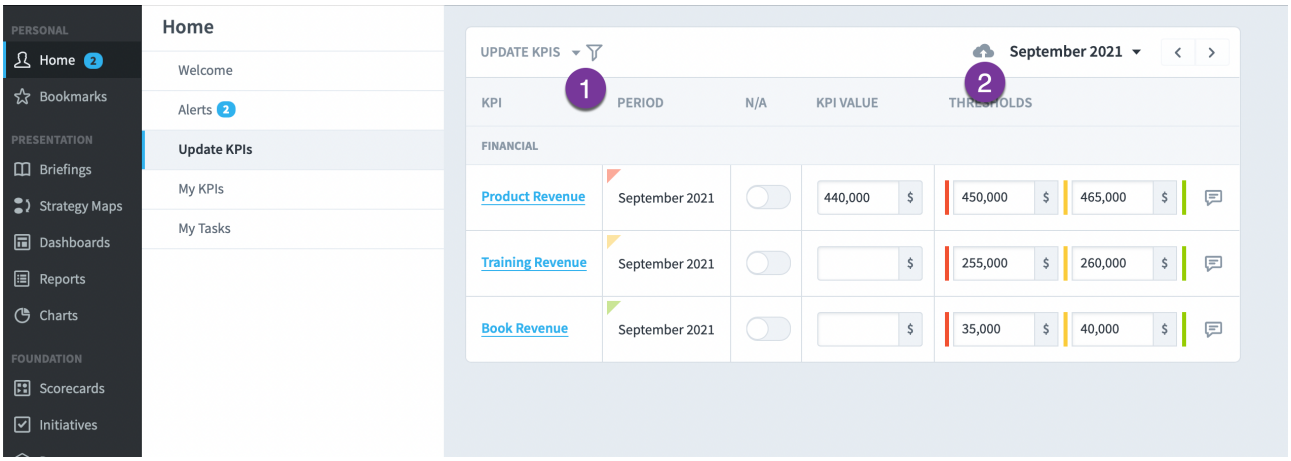
Alerts

The Alerts section shows you all of the alerts you've received. Alerts are covered in more detail in the Overview of Alerts article.



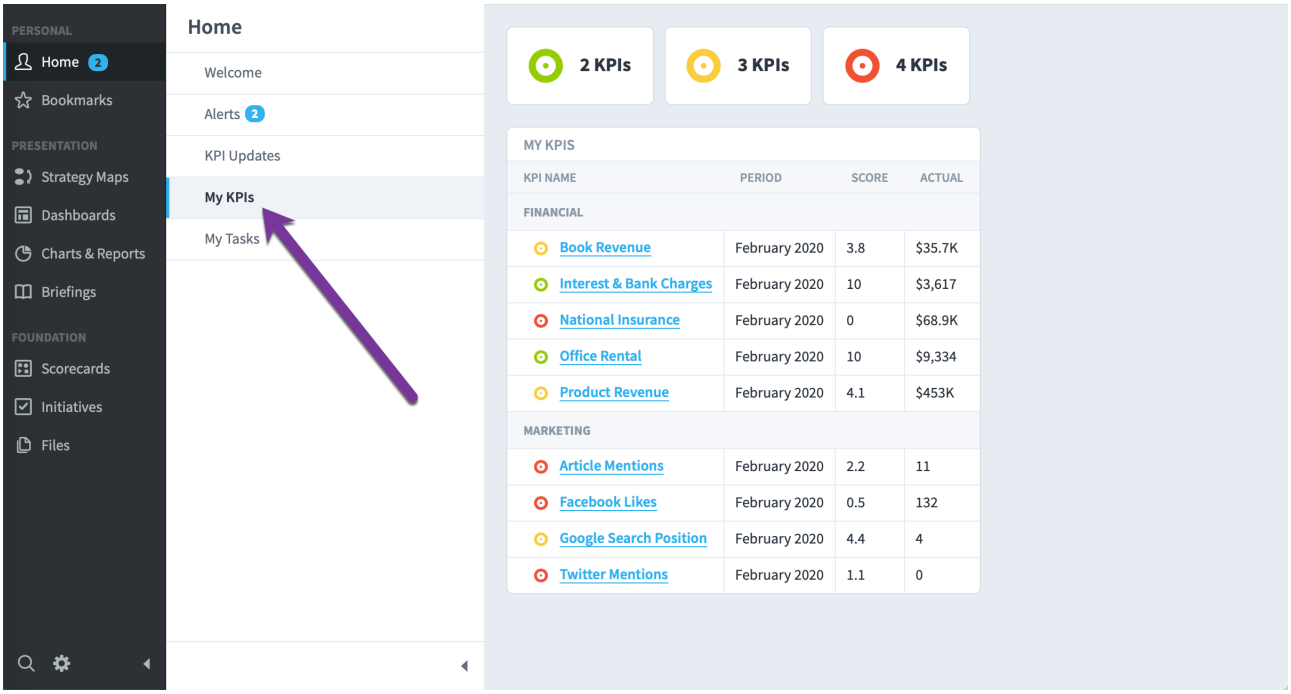
Update KPIs

On the KPI Updates page you can update all of the KPIs that you have been assigned to as an Updater. For more information see the Manually Updating KPI Values article.



My KPIs

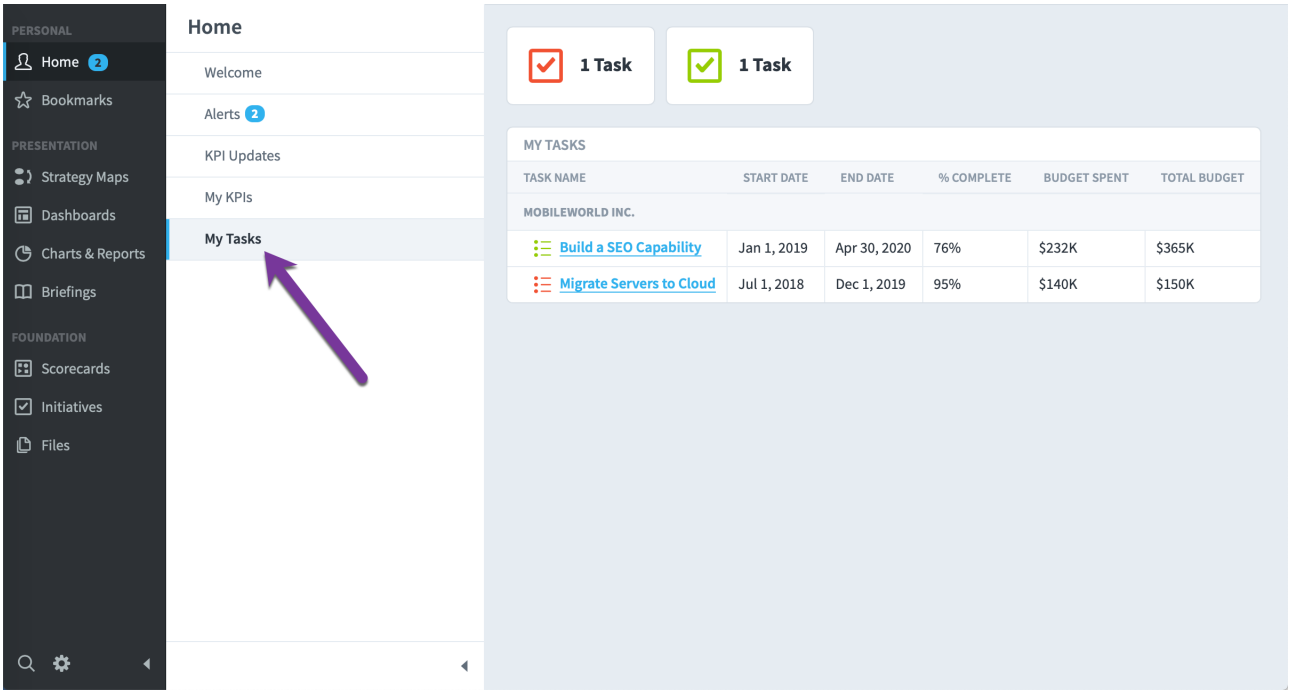
This shows you all of the KPIs that you have been assigned to as an Owner.



On the top of the page is a summary of how many KPIs you have of each color. You can click on each summary box to only show KPIs of that color.

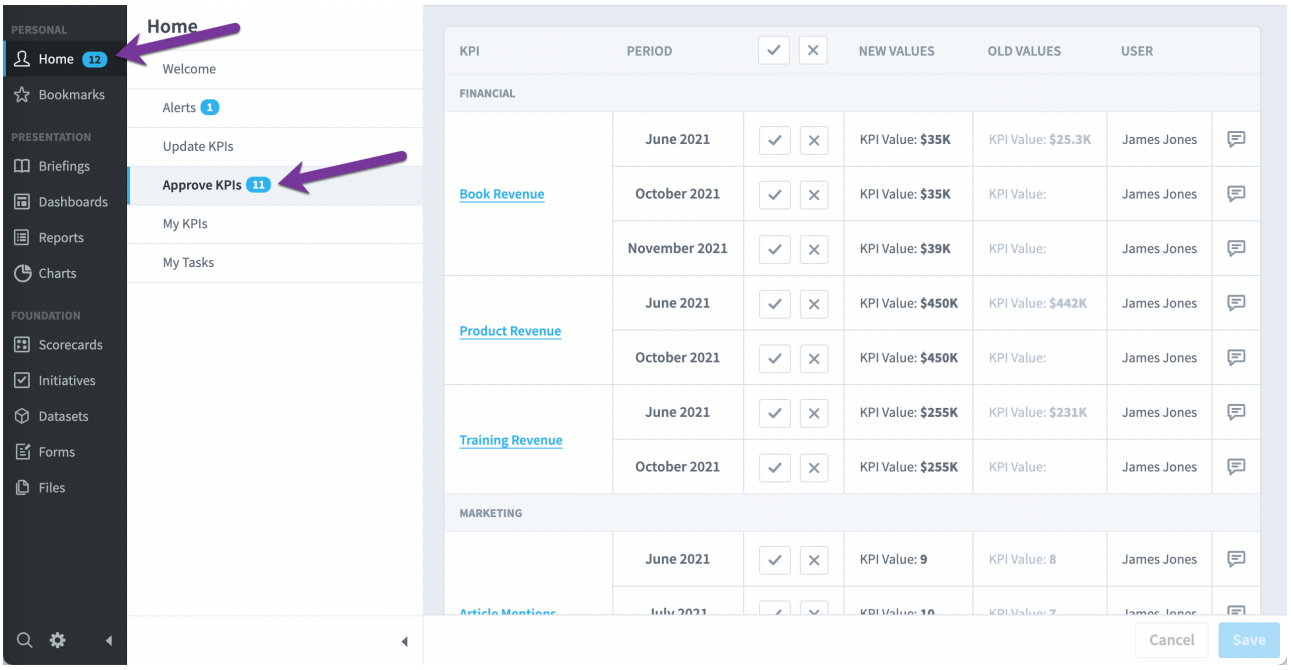
My Tasks

My Tasks is similar to My KPIs, except it shows you all of the tasks from the Initiatives section that you're an owner of.



Approve KPIs

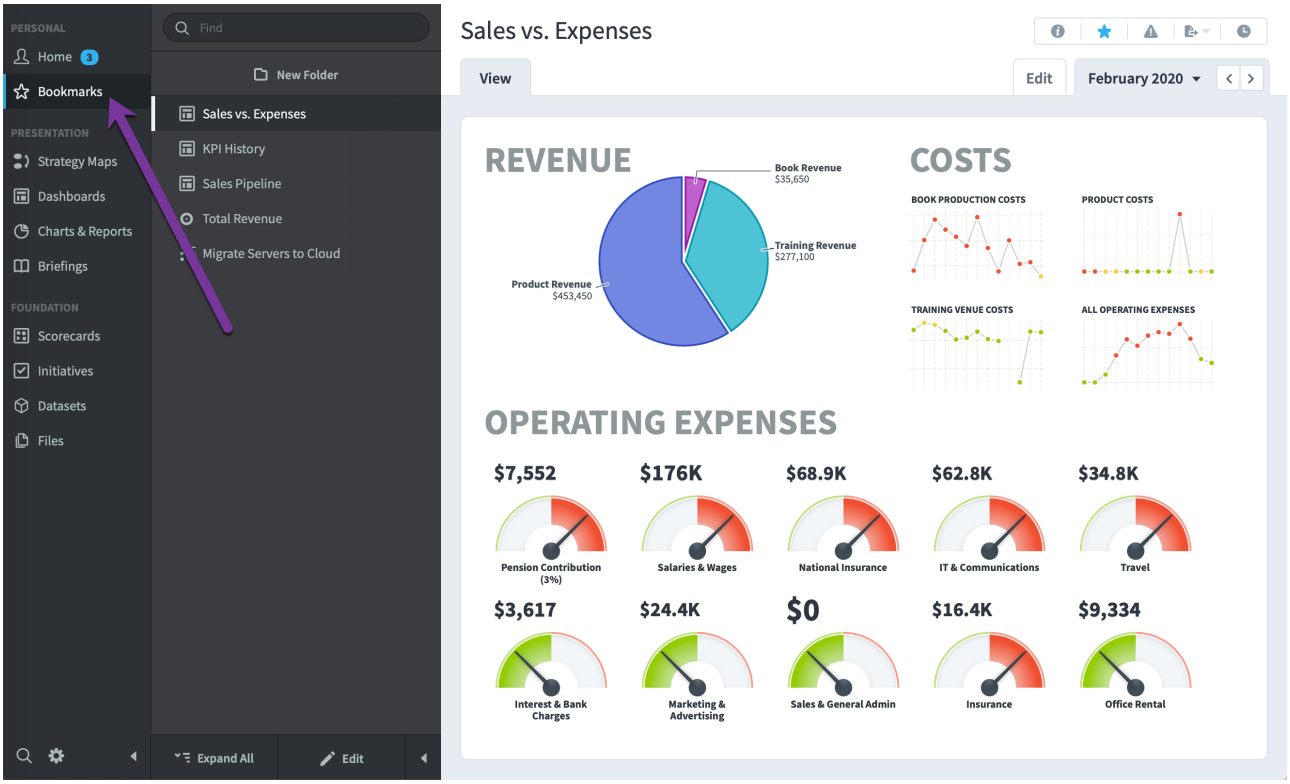
By default, KPI value updates take effect immediately. When the "Require Owner Approval For KPI Value Updates" application configuration setting is on, however, KPI values need to be approved in the Home section. This is covered in the Approving KPI Value Updates article.



Bookmarks

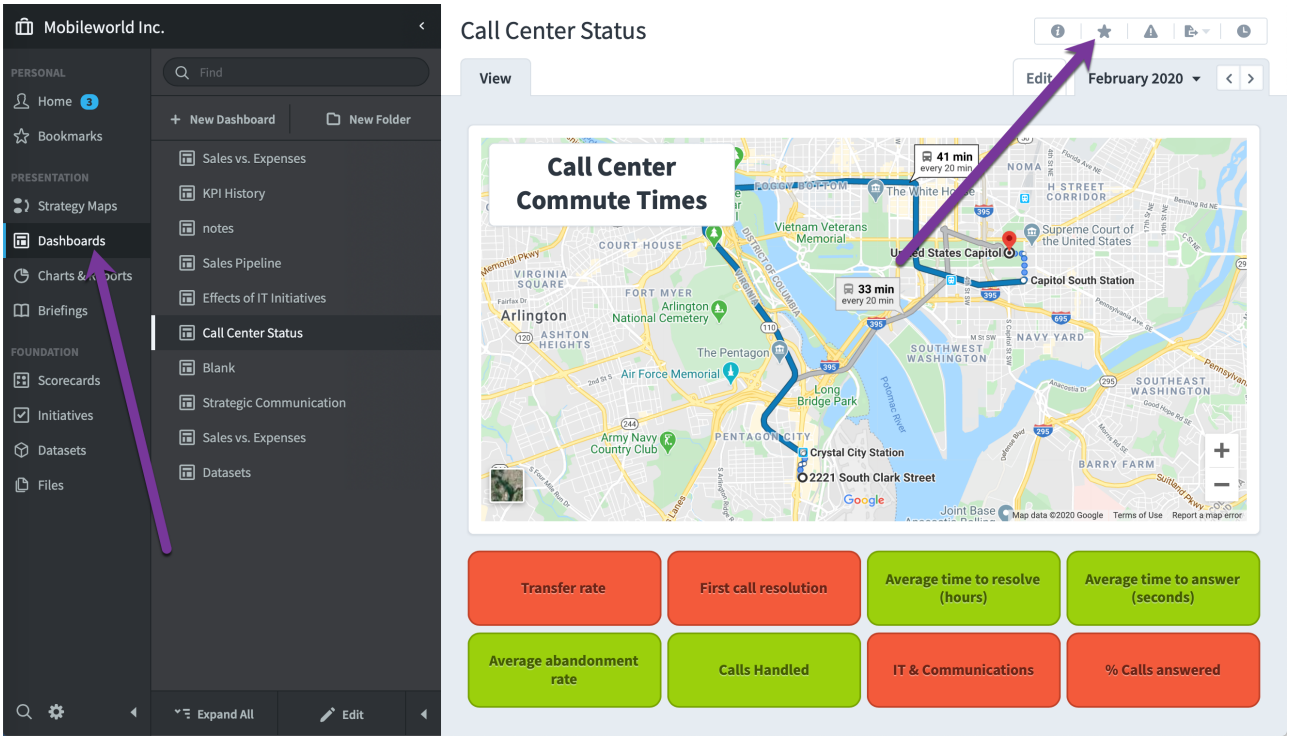
Overview

The Bookmarks section is where you organize links to your favorite screens for easy access. Every user's bookmarks are different, and many people are able to keep an eye on their organization's performance by just clicking through their bookmarks every week.

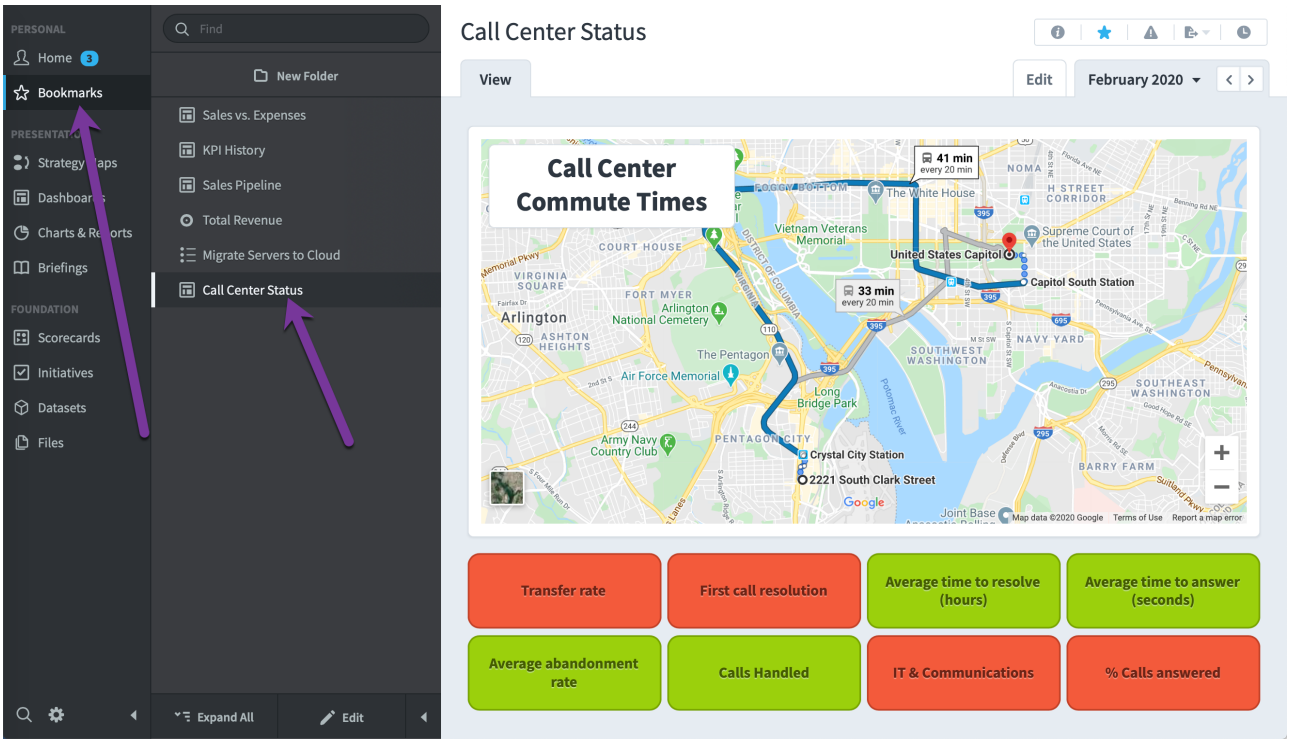


Adding a Bookmark

To create a bookmark, click on the star icon. In this example, we're looking at a dashboard in the Dashboards section.

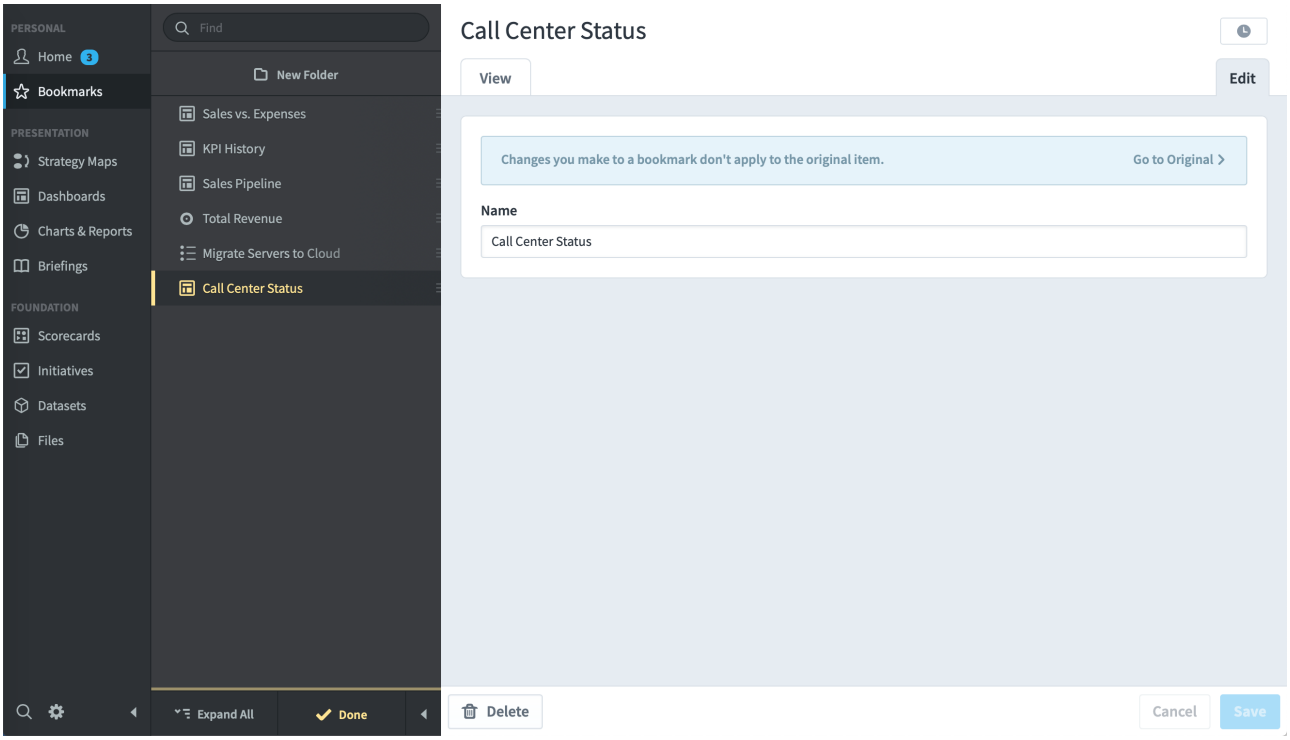


We now see that dashboard in the Bookmarks section.



Editing Bookmarks

You can rename, reorder, or remove a bookmark by clicking on the Edit tab in the bookmarks section.



Importing Data

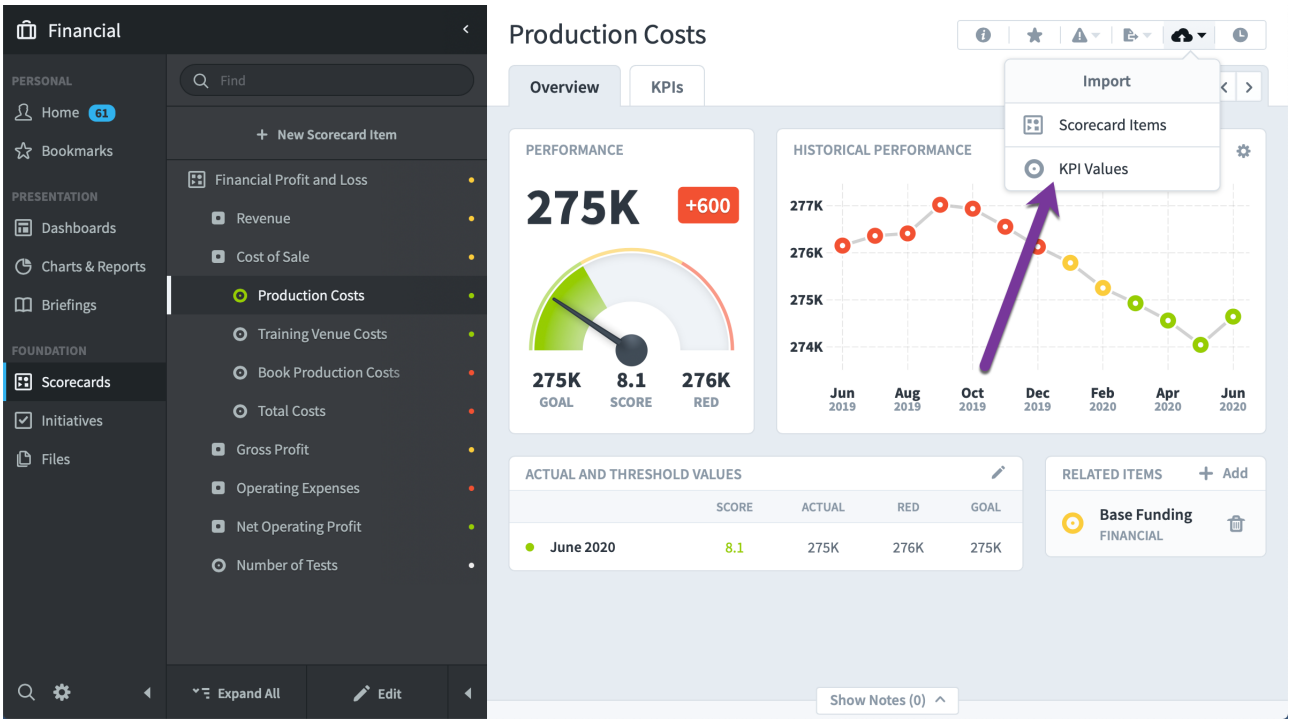
Simple Value Imports (KPIs and Initiatives)

Overview

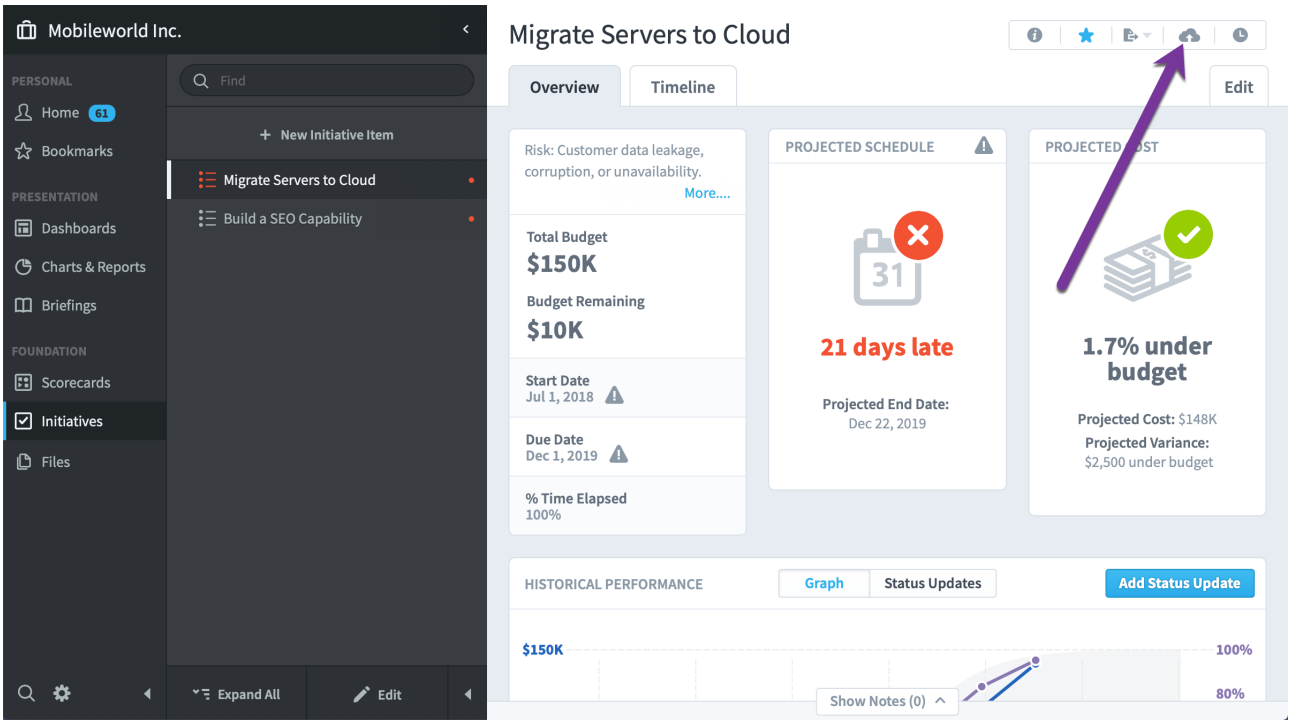
This article covers how to create a new KPI or Initiative value import, as well as how to import data that is already in a specific format. Please see the Standard Value Imports (KPIs and Initiatives) article for how to import data with more flexible options.

Starting a new Import

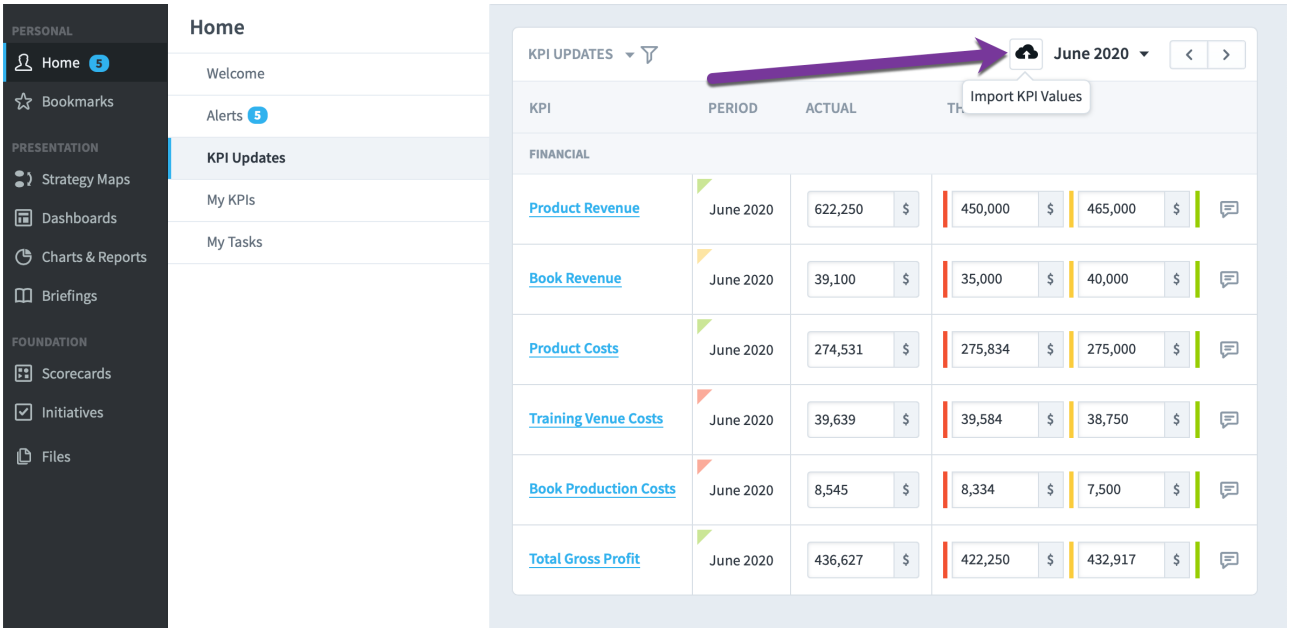
You can import KPI and Initiative values directly inside of Spider Impact. Anywhere you manually update data, there is the ability to import data as well. For example, on every tab in the Scorecards section there's an import menu with a KPI values option



The Initiatives section has a similar button for importing initiative status.

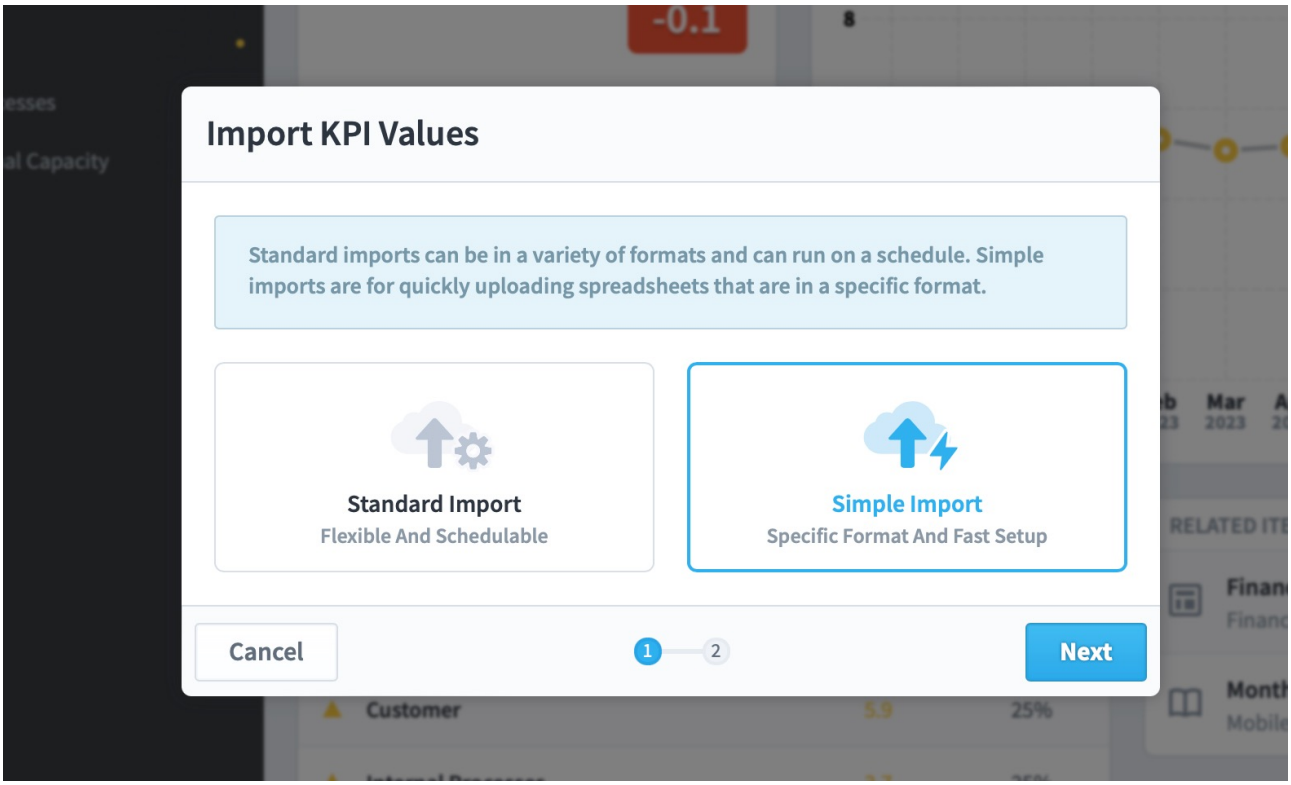


There's even an import button when updating KPI values in the Home section.



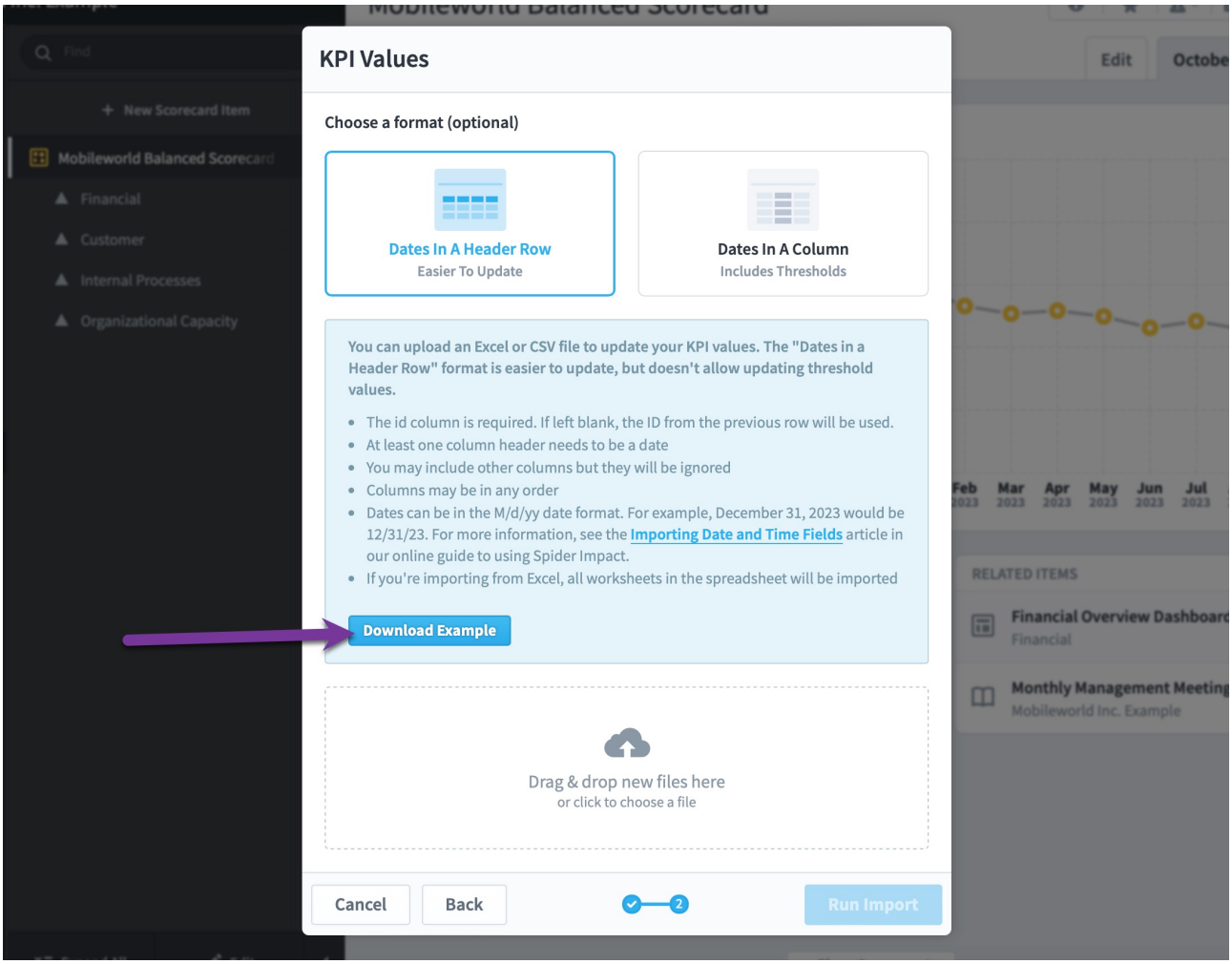
Simple Imports

When importing KPI and Initiative values, the fastest option is Simple Import.



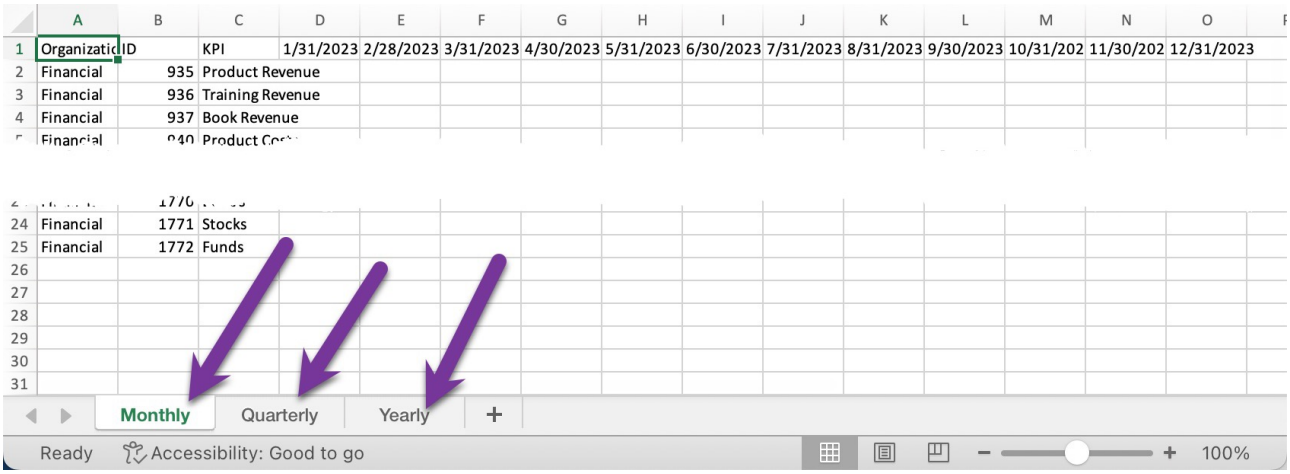
Simple import is by far the easiest option and is great when you have data that's already in a supported format. With just a couple clicks you can import data and be on your way.

Your spreadsheet can have dates in either the header row or in a column, and there are example files that you can download to show you exactly what the app is looking for.



Finally, Spider Impact can easily export your existing KPI data in exactly this format so you can import it to another organization, or modify your data to be re-imported. This is covered in the Exporting KPI Value Import File article.

If your spreadsheet has multiple worksheets, Spider Impact will import data from all of them. This allows you to have Dates in the Header Row, while also importing data from KPIs with different calendars. In this example, there's a separate worksheet for Monthly, Quarterly, and Yearly KPIs.


A B C D E F G H I J K L M N O
1 Organizatic ID KPI 1/31/2023 2/28/2023 3/31/2023 4/30/2023 5/31/2023 6/30/2023 7/31/2023 8/31/2023 9/30/2023 10/31/202 11/30/202 12/31/2023
2 Financial 935 Product Revenue
3 Financial 936 Training Revenue
4 Financial 937 Book Revenue
24 Financial 1771 Stocks
25 Financial 1772 Funds
Monthly
Quarterly
Yearly
Ready
Accessibility: Good to go
100%

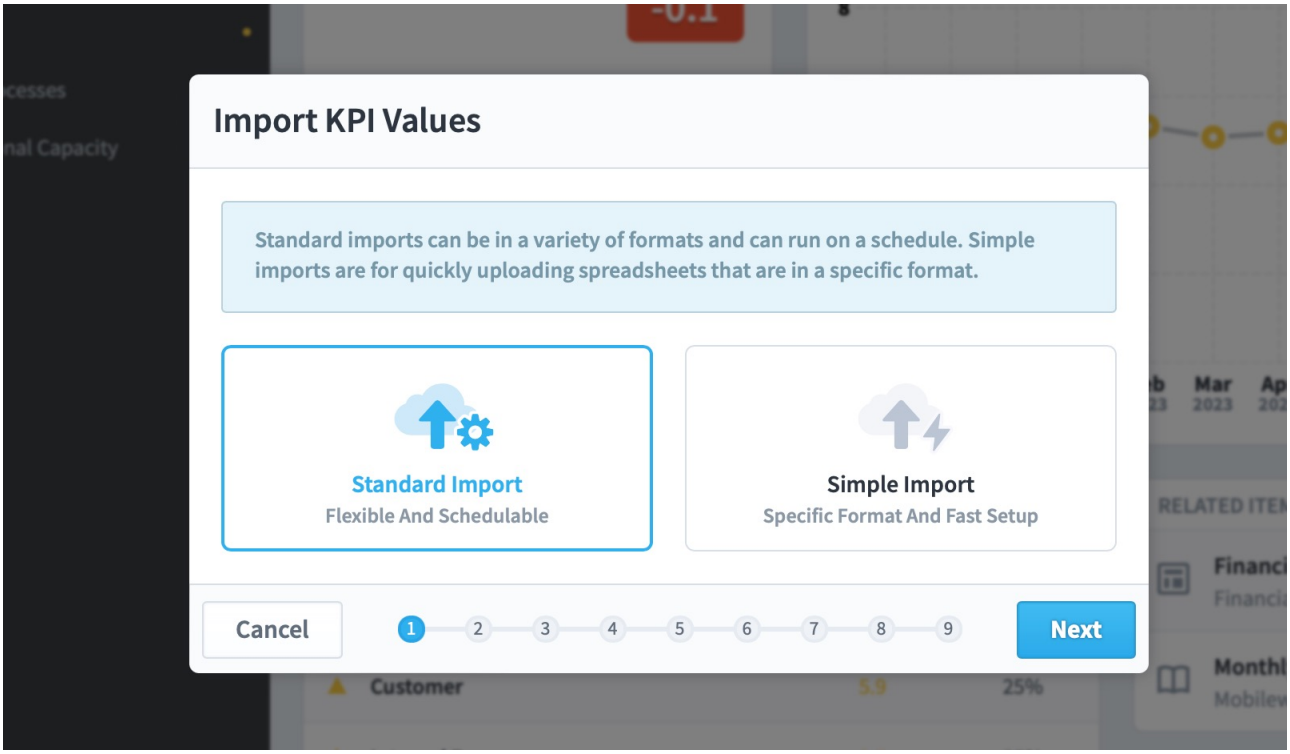
Standard Value Imports (KPIs and Initiatives)

Overview

This article covers all of the advanced functionality for importing KPI and Initiative values. For information about how to start an import, or how to easily import values that are already in a specific format, please see the Simple Value Imports (KPIs and Initiatives) article.

Data Source

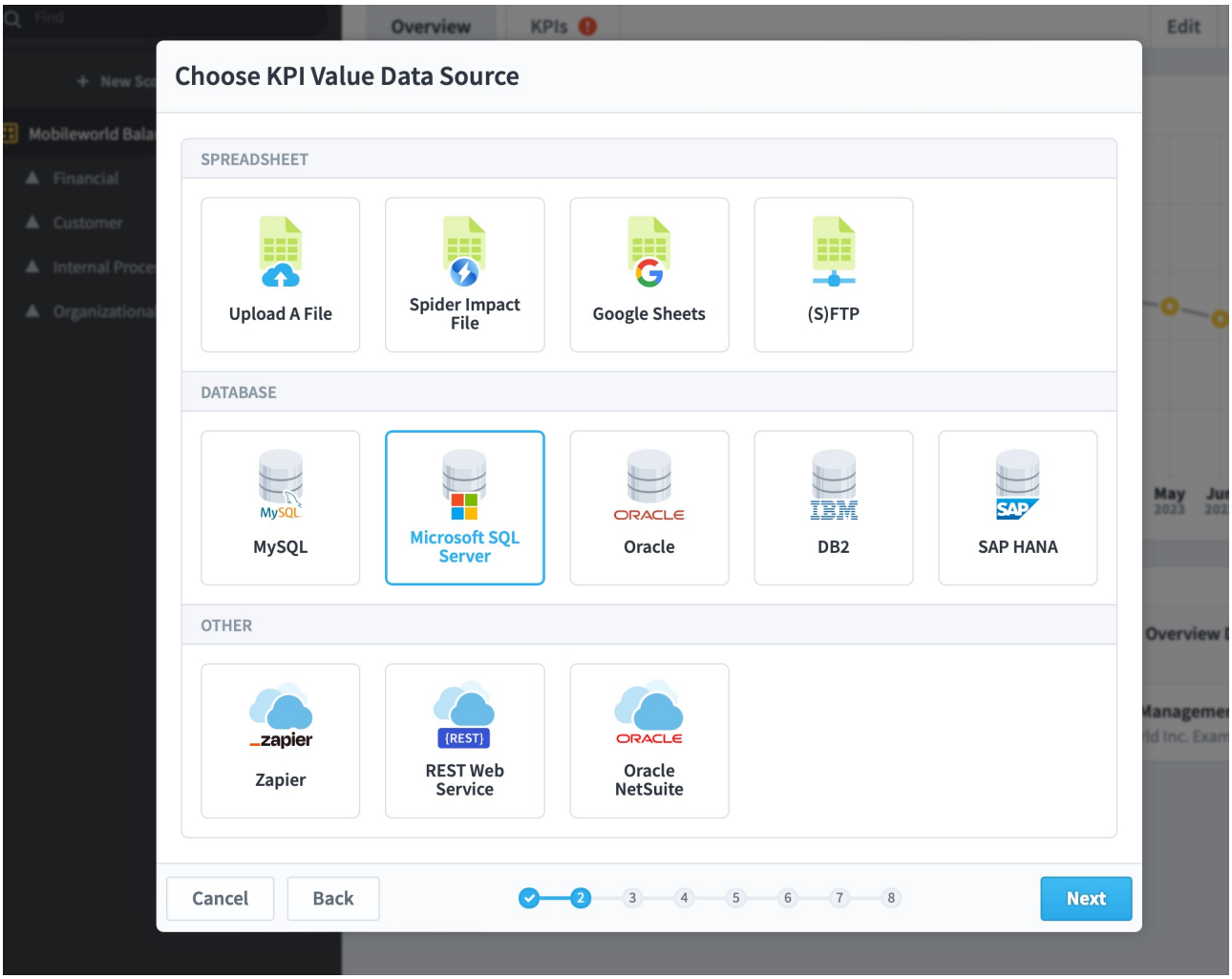
The first step when importing KPI or Initiative values is to choose what type of import you want. When you want more powerful data import options, choose the default of Standard Import. This turns your value import into a 9-step wizard with full export, transform, and load (ETL) capabilities.



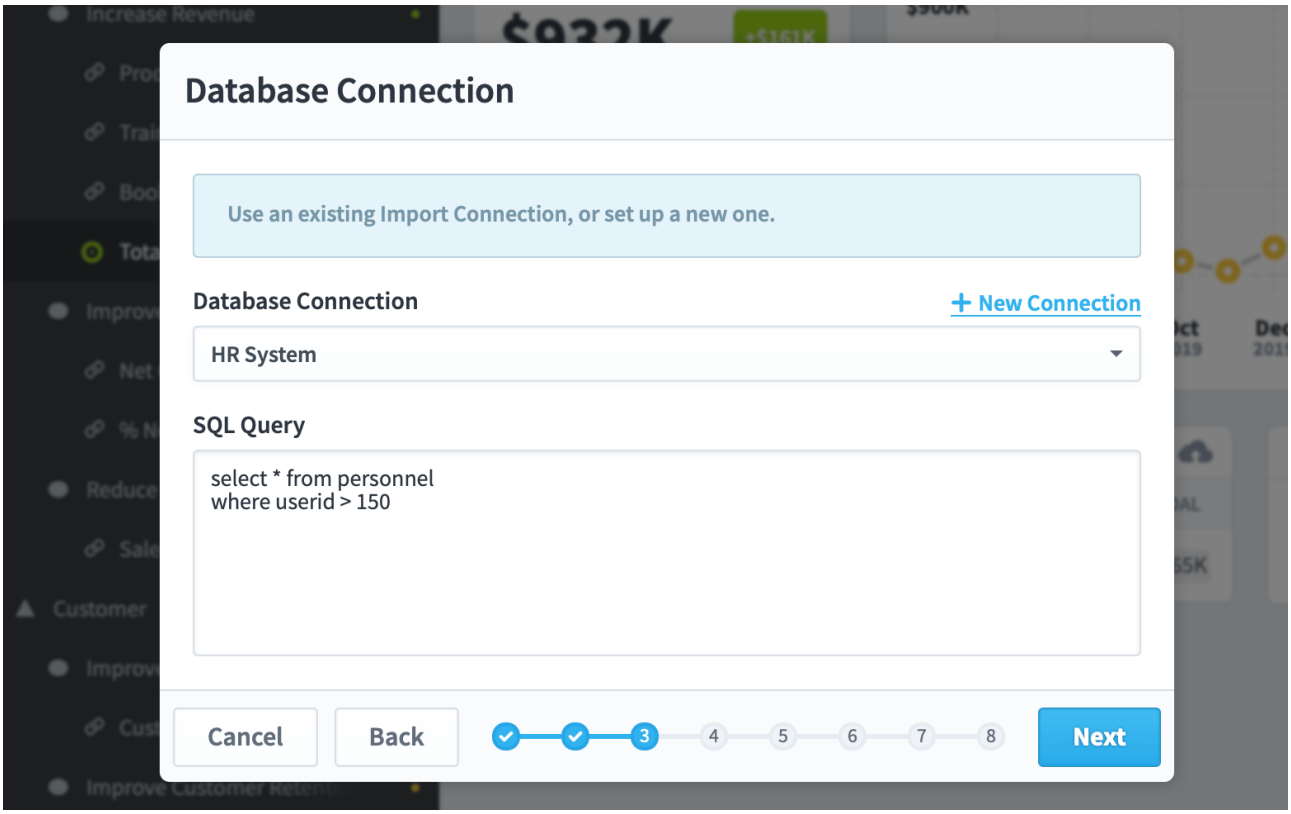
The first thing you'll need to do is choose a data source. For example, you can choose one of these Databases:

- Microsoft SQL Server

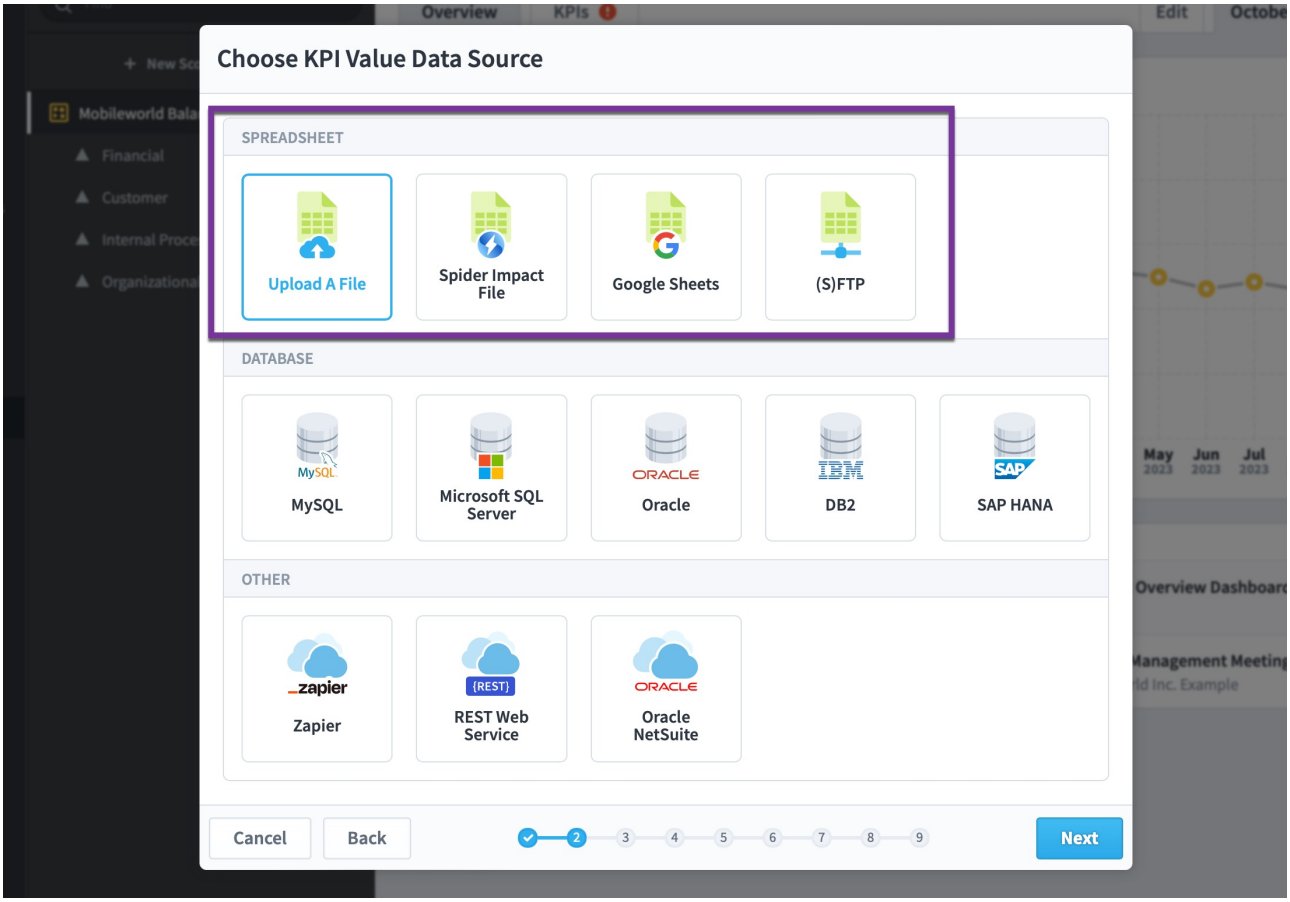
- Oracle
- MySQL
- SAP HANA
- IBM DB2



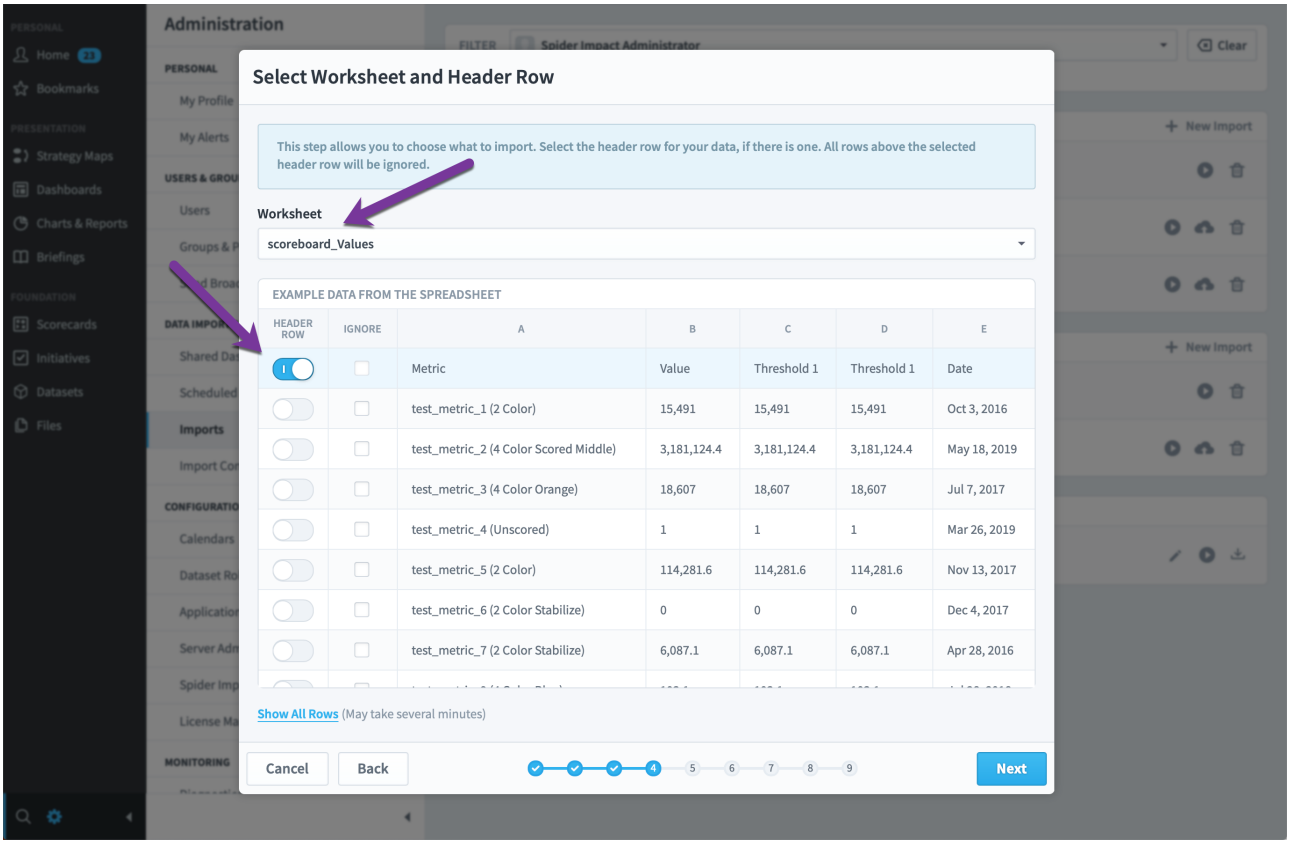
And then write a SQL query. You can manage all import connections in the administration section.



Or you can choose Spreadsheet from a variety of locations...

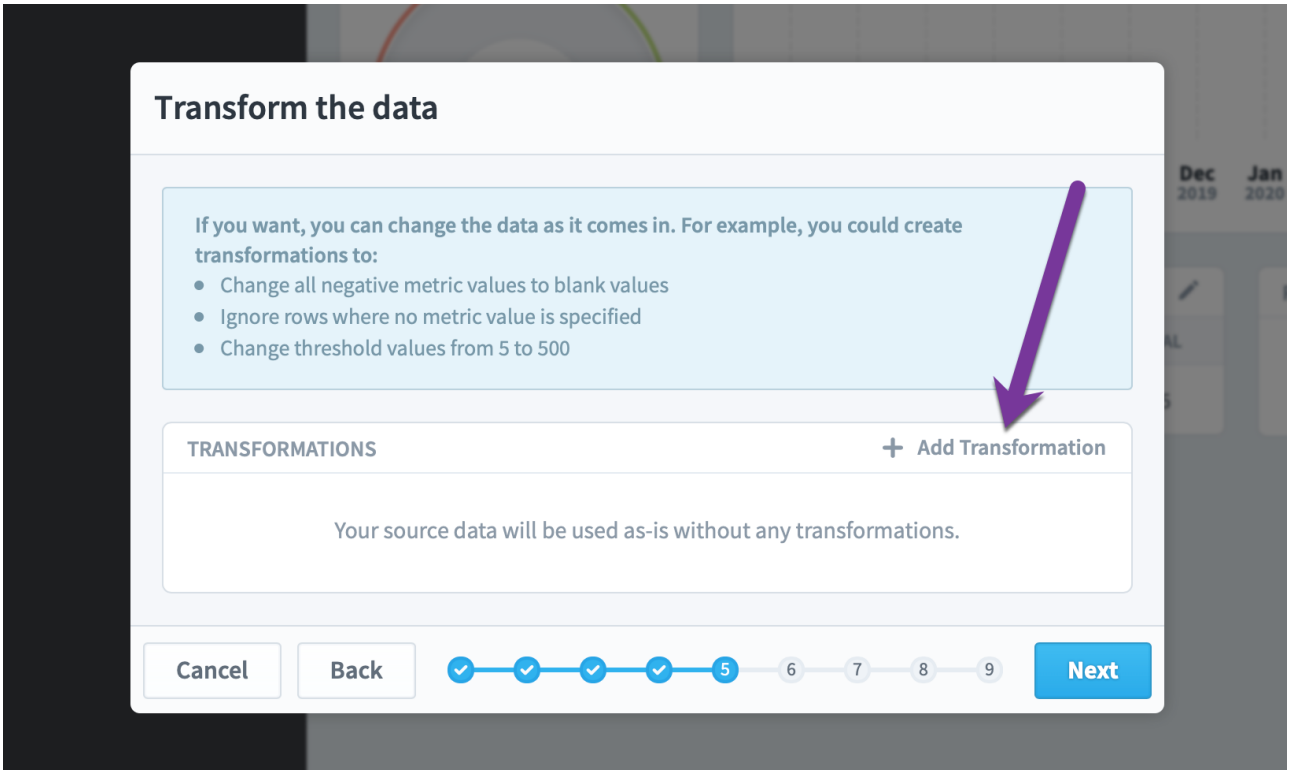


... and then do any final adjustments. In this example we're importing from an Excel spreadsheet, so we can choose a worksheet on top. Many spreadsheets have header data that you don't want to import in the first few rows, for example column labels or a spreadsheet title. If one of these rows contains your column labels, be sure to flip the switch on that row. You can also use the Ignore checkboxes to hide irrelevant data.



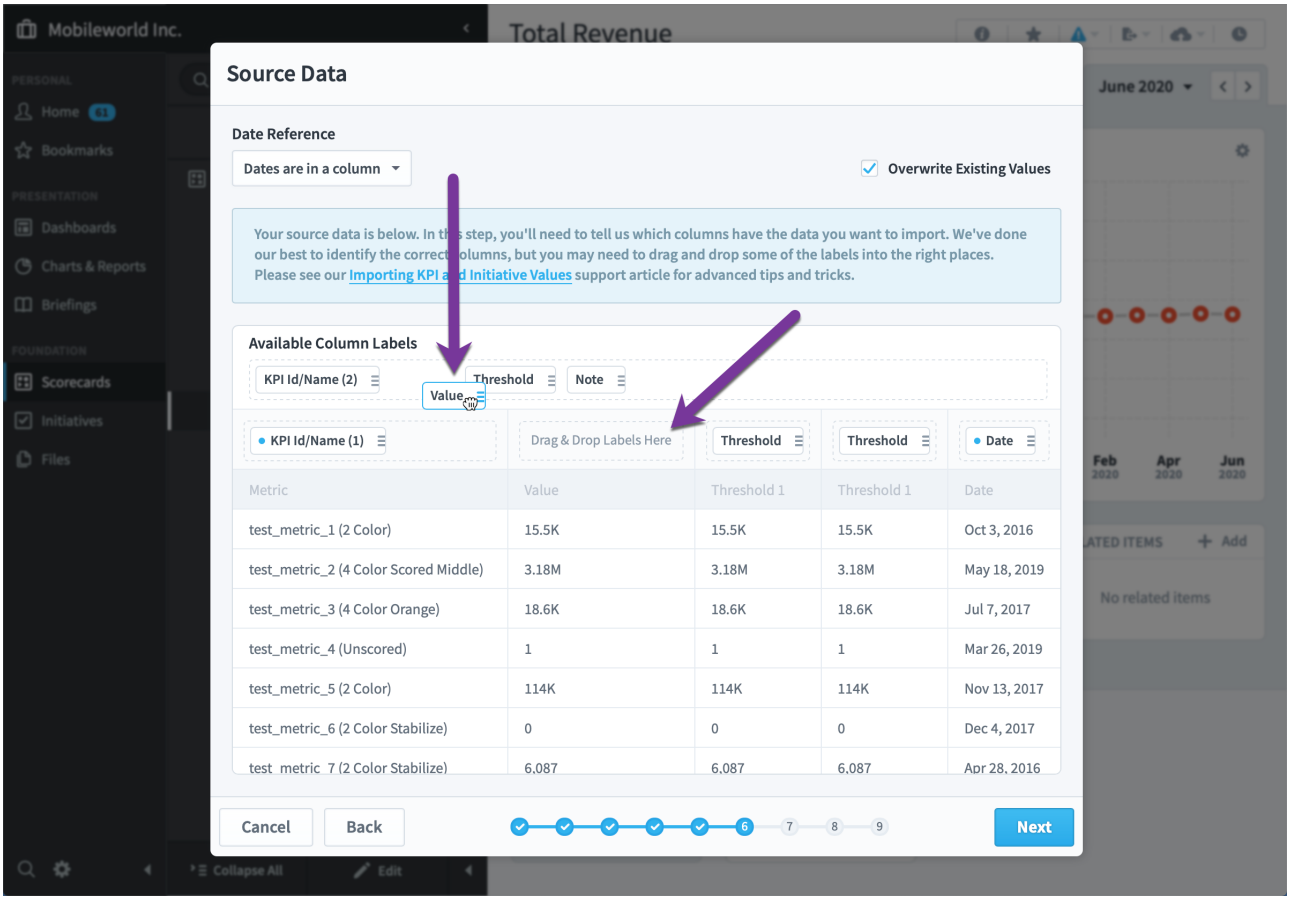
Transforming Data

Next is the optional transformation stage. If you want to import your data as-is, just click next. If you want to change your data before it's imported, however, click Add Transformation. This is covered more in-depth in the Transforming Values While Importing article.

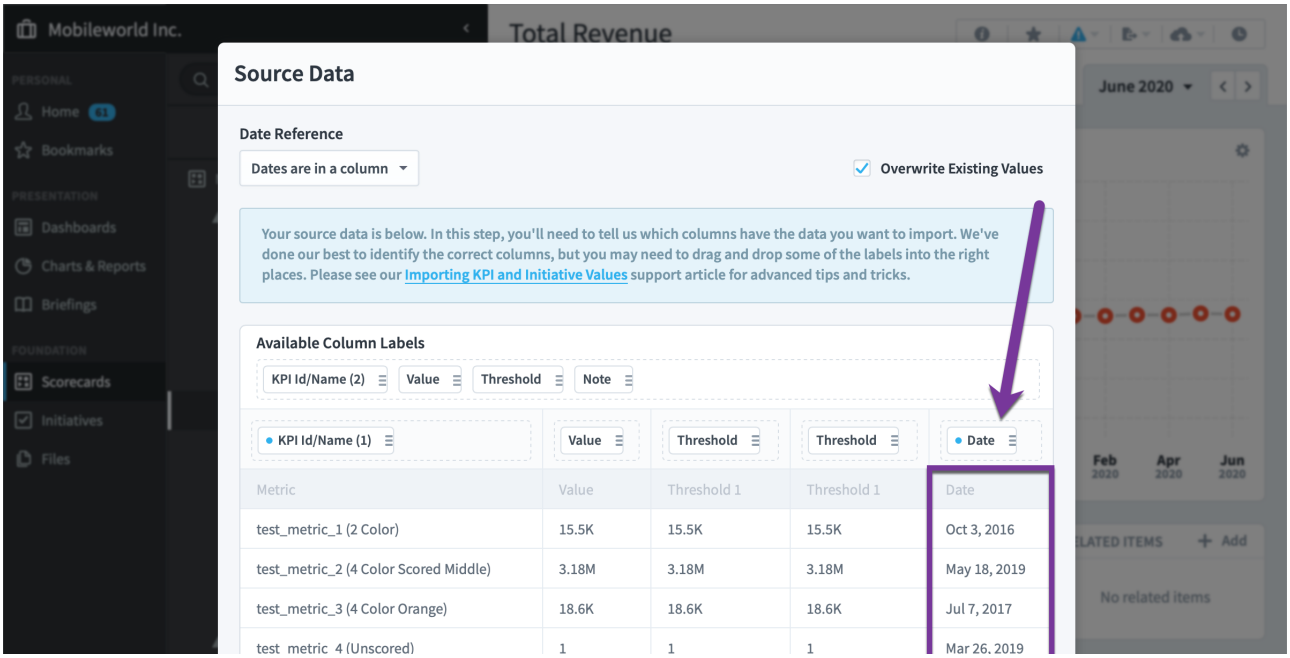


Identifying Fields in Import Data

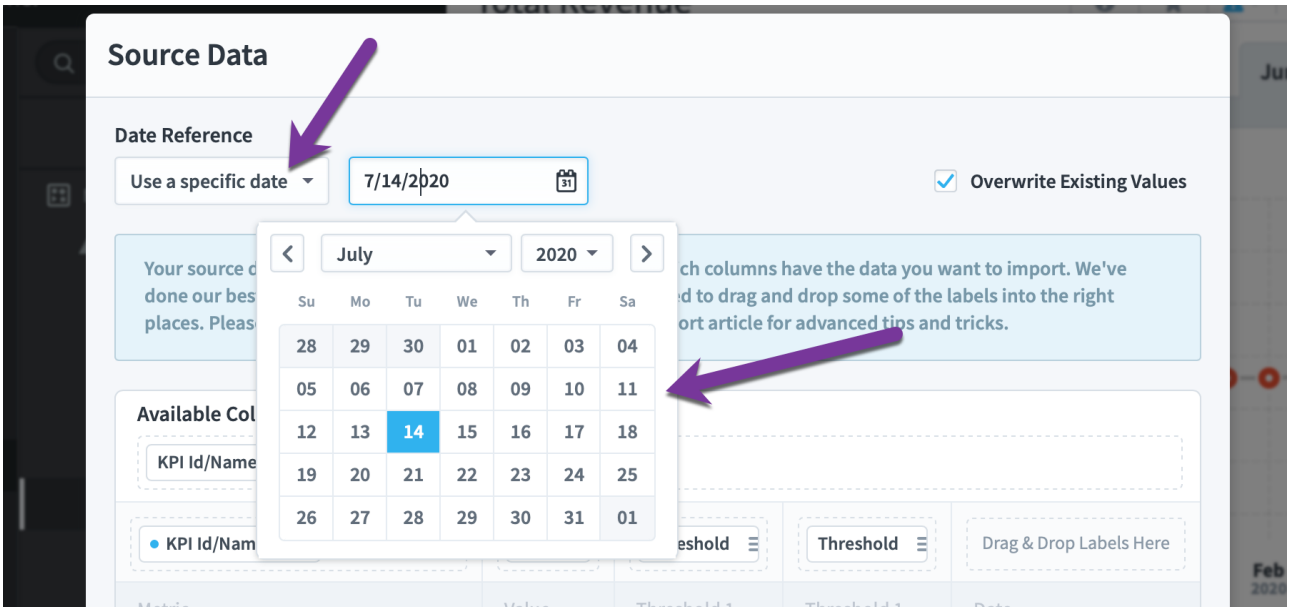
At this point, it doesn't matter where your data is coming from, it all looks the same. Now you'll need to tell the software where to find the data you want to import. To do this, just drag and drop the column labels onto the top of each column. If your columns are named something that Spider Impact recognizes, we'll do this for you automatically.



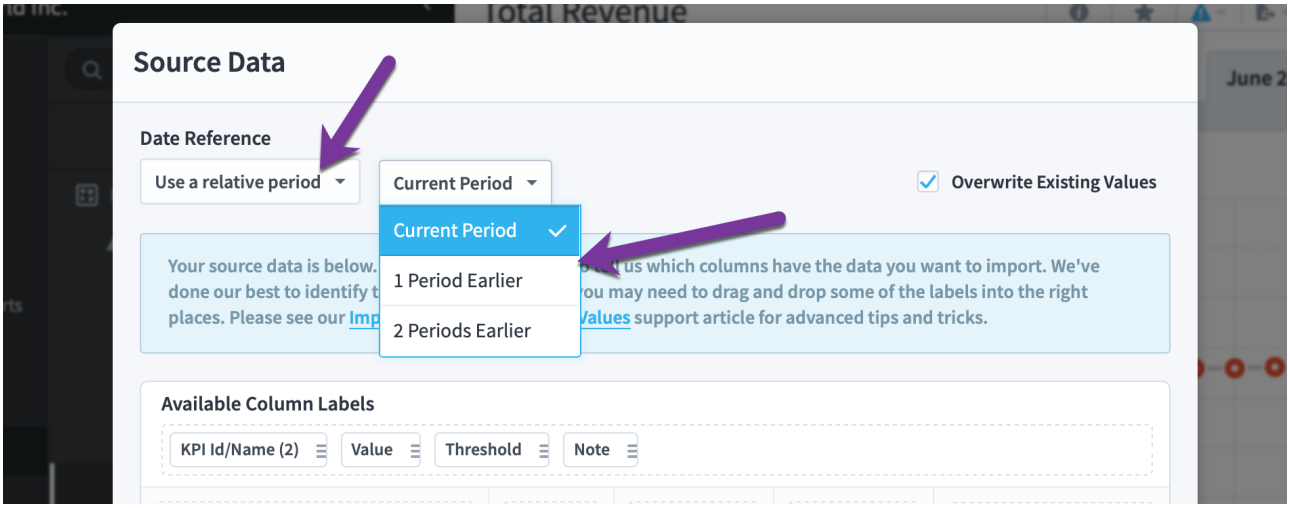
One of the things you'll need to tell the software is where to find the dates for the values. In this example we've chosen "dates are in a column" and we've matched the Date label with the date column.



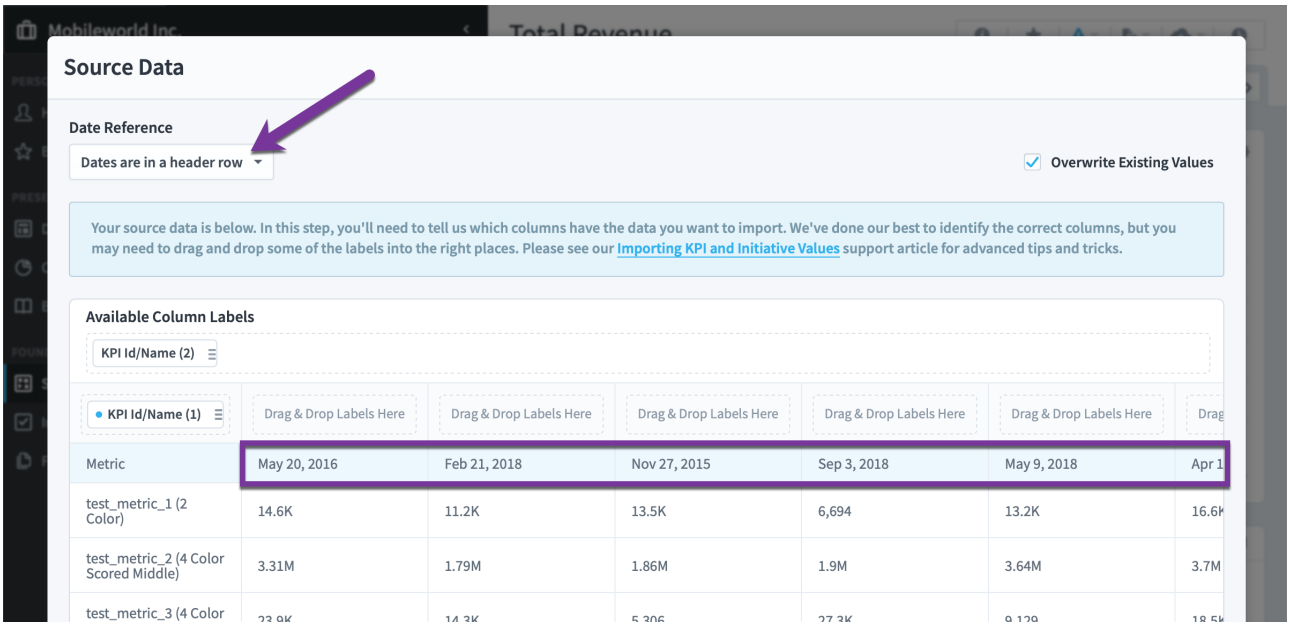
You can also choose a specific date for all of the values you're importing.



You can even choose a relative period. In this example we're importing KPI values into the current period.

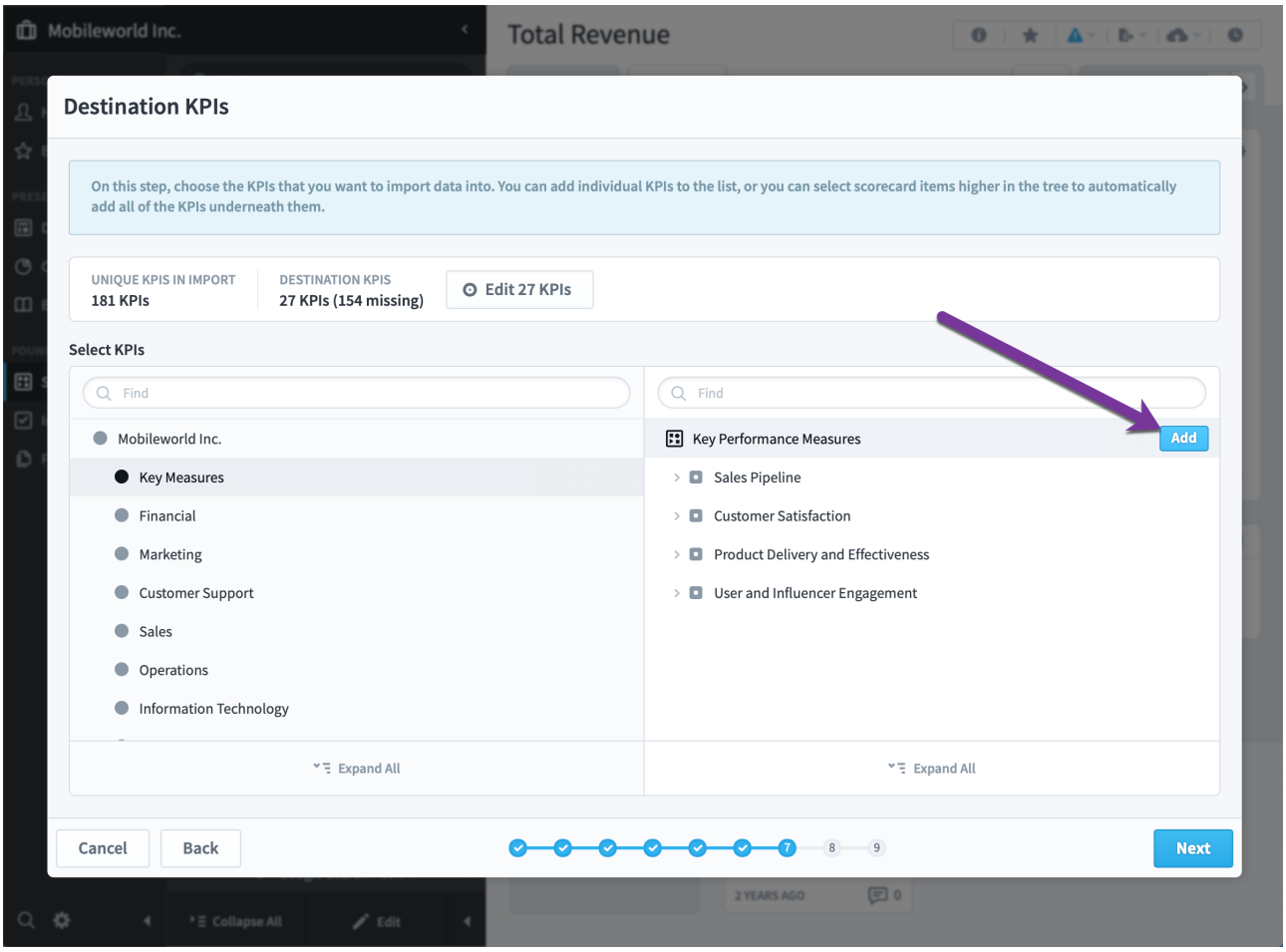


Finally, for KPI values you can choose "dates are in a header row." This allows you to import multiple values for each KPI row.

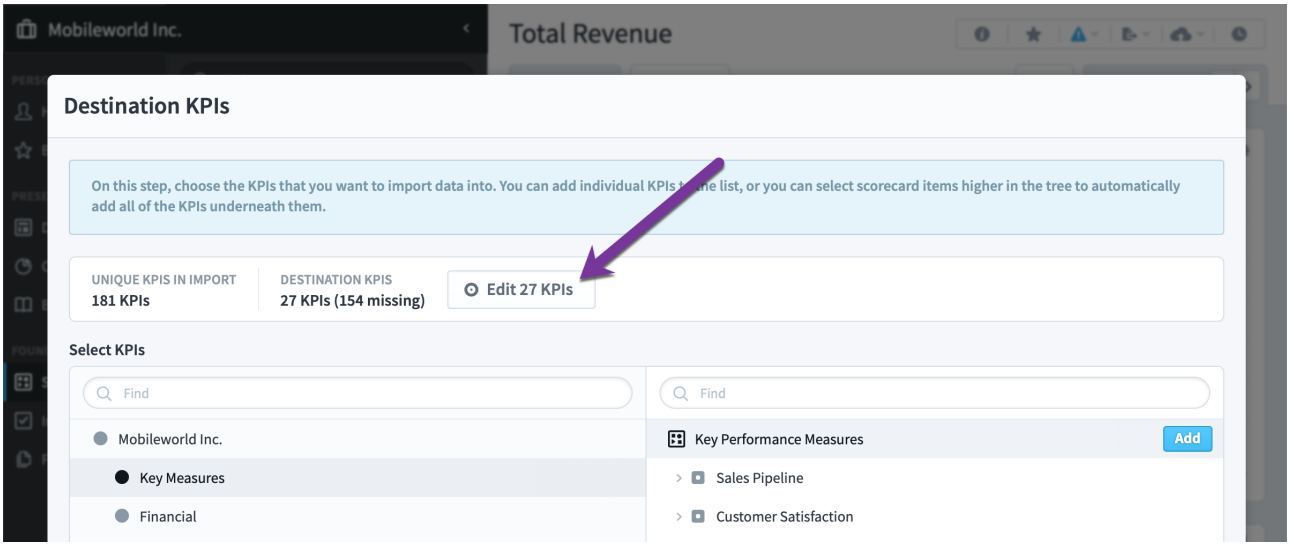


Identifying Destination KPIs

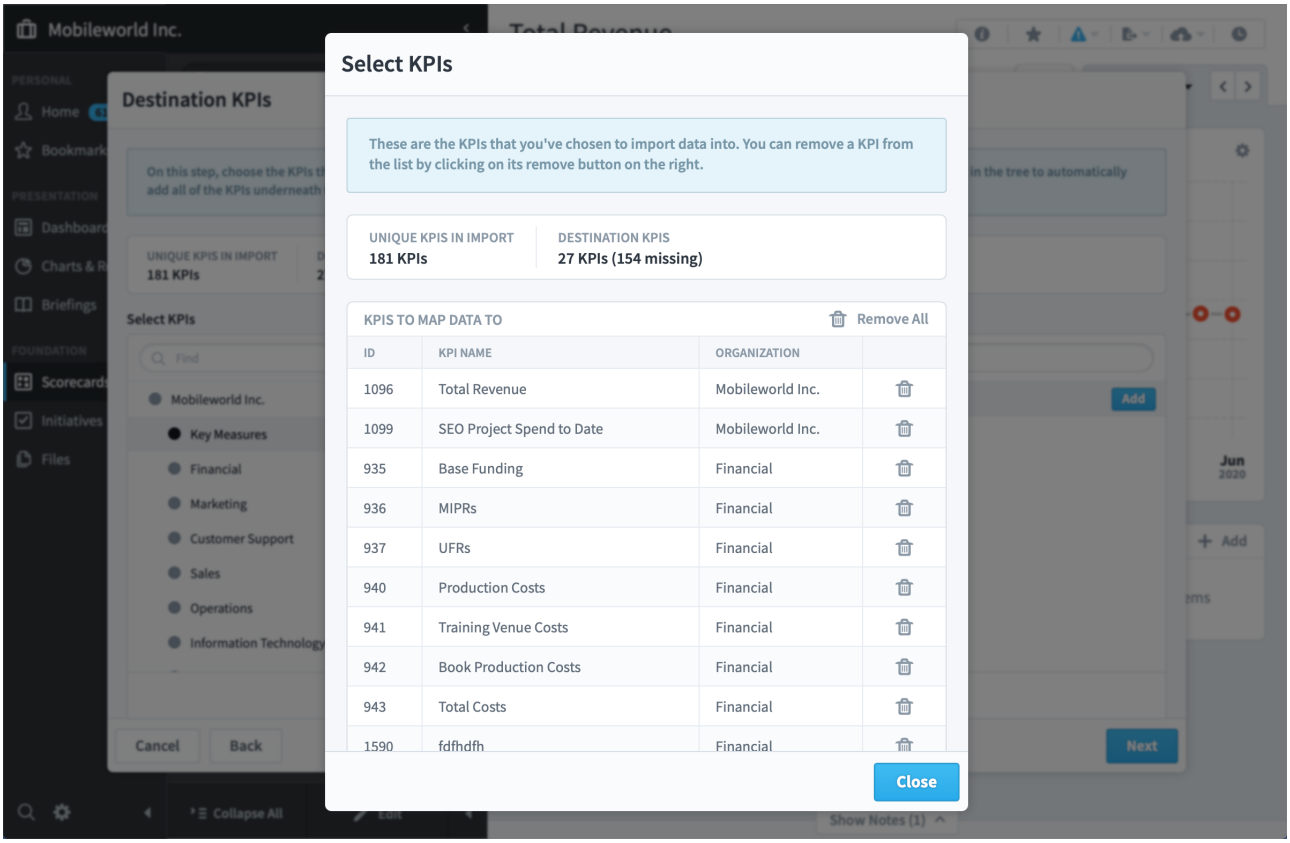
After you've chosen what data you want to import, the next step is choosing where you want that data to go. Just choose the items you want to import data into, or choose an item higher in the tree to select every KPI or Initiative below it.



To see the items that you've already selected, just click the Edit KPIs button.

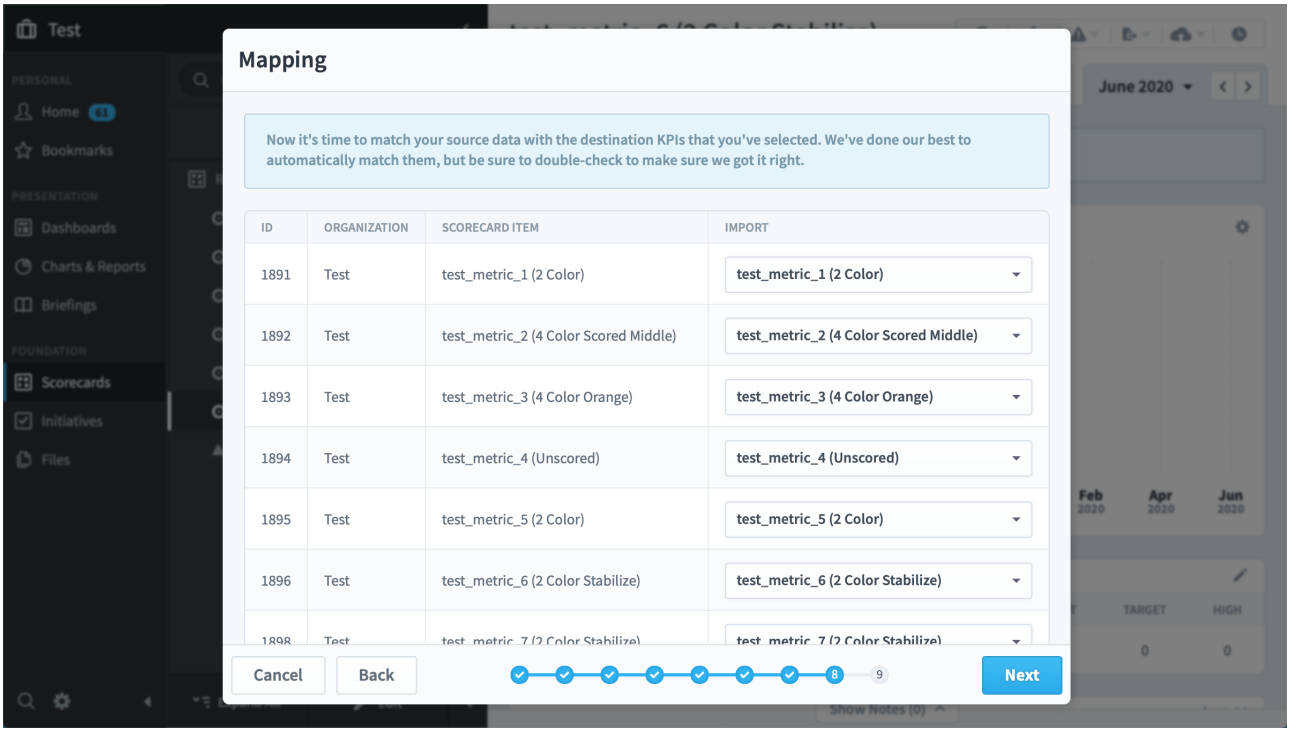


This will open a second-level dialog where you can view and remove the KPIs that you've selected to import data into.



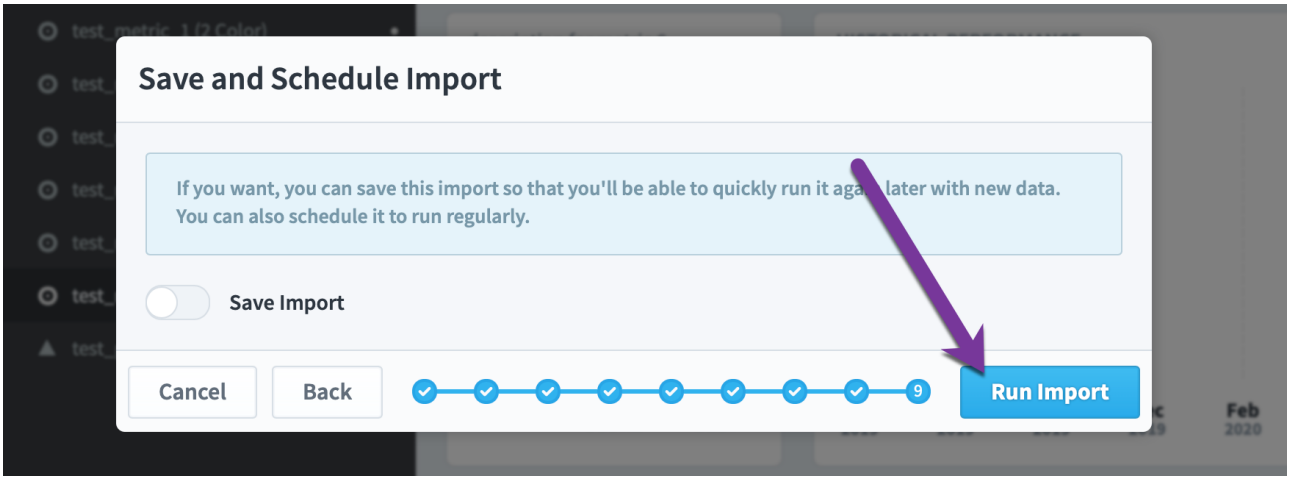
Mapping Import Data to Destination KPIs

Now it's time to match the import data with the destination items. We'll do our best to automatically choose a matching based on name.

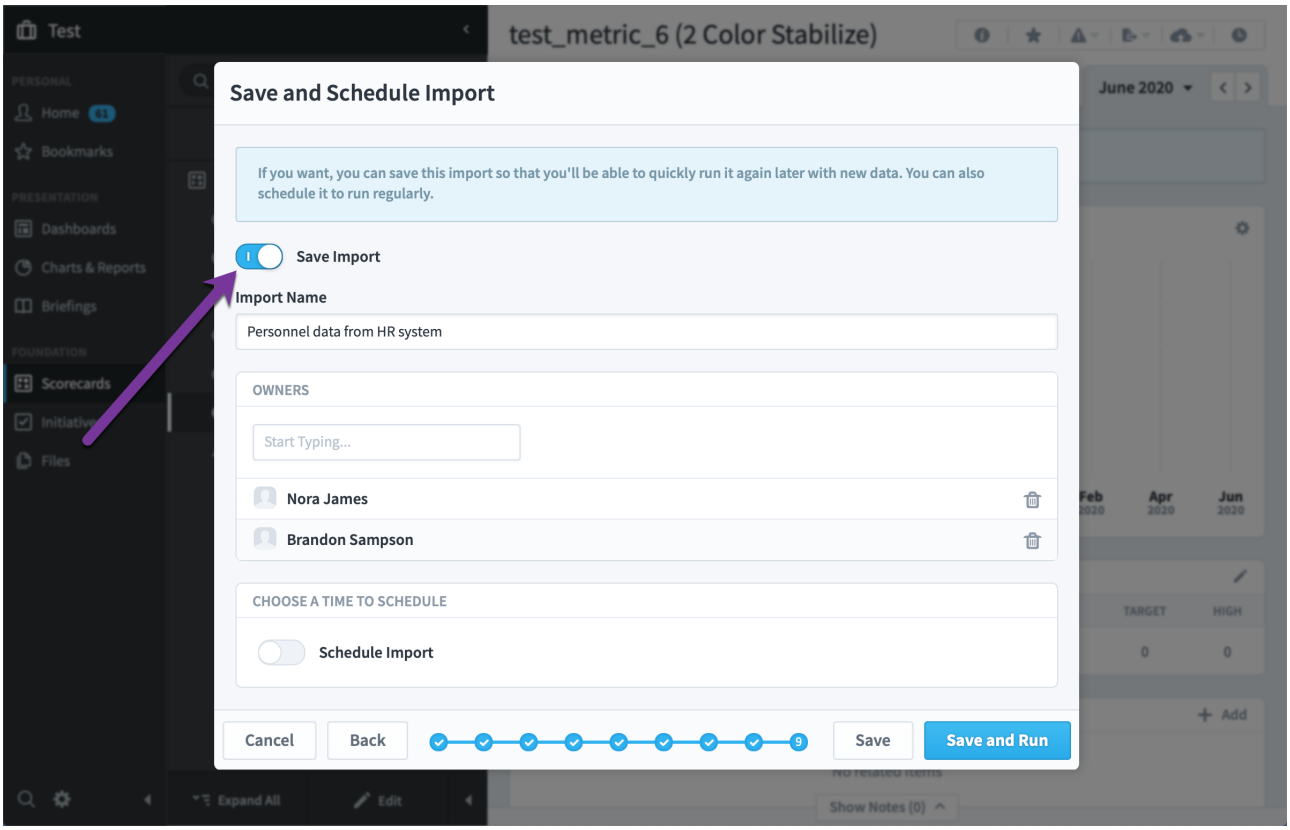


Saving and Scheduling

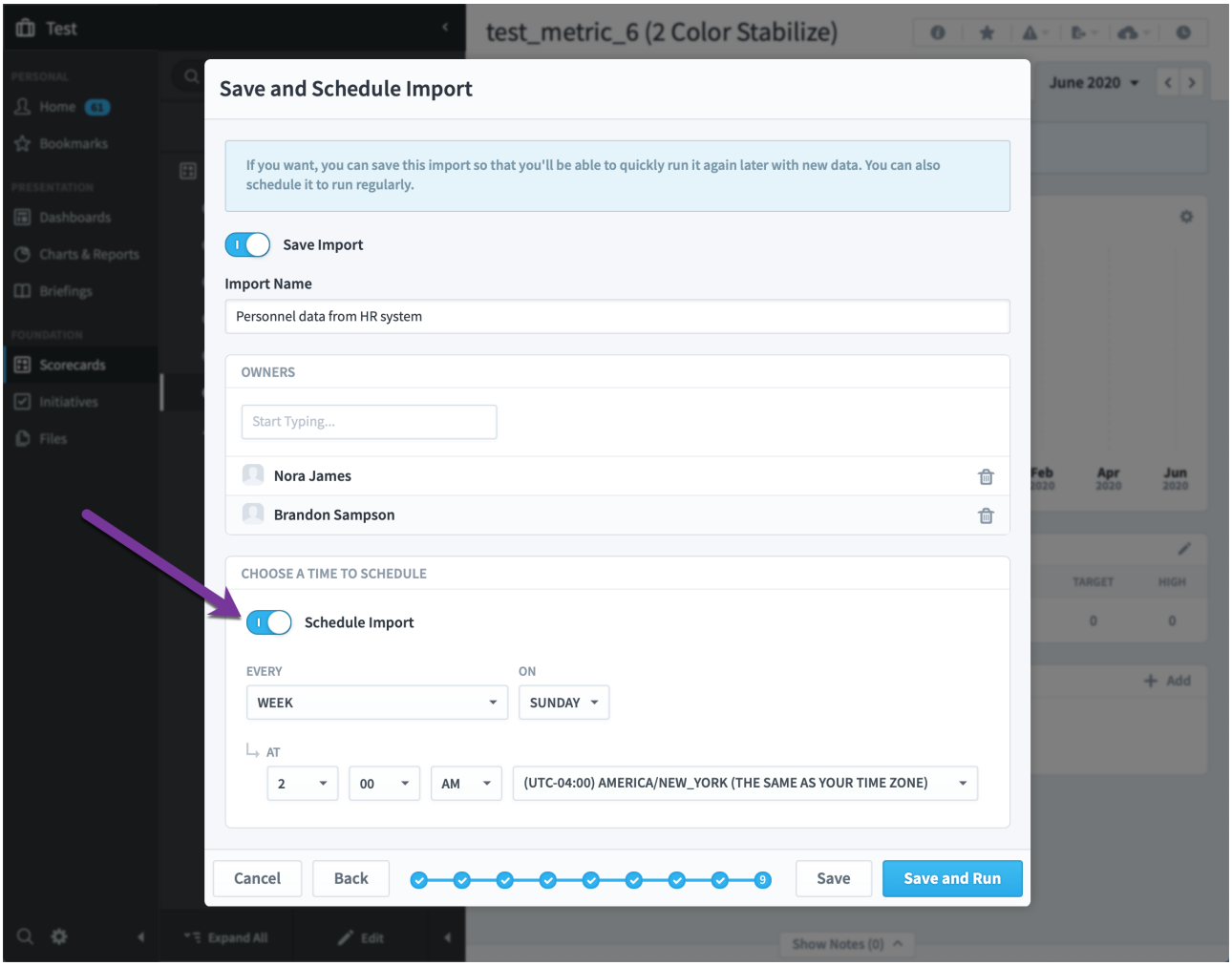
Your value import is now ready to run.



If you want, you can also save your import so you can quickly run it again later with new data. By assigning other users and groups as owners, you can share this import with other people.



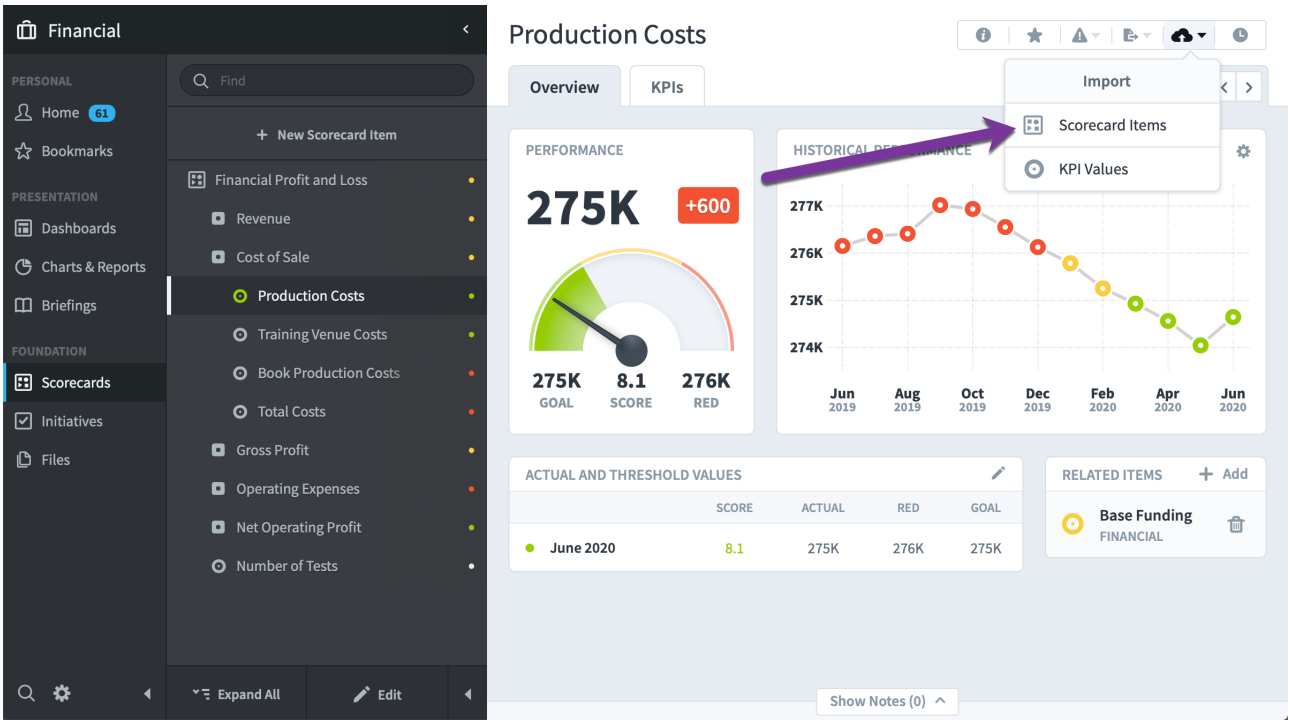
You can even schedule the import to run on a recurring basis. In this example we're going to import a new version of the data every Sunday night.



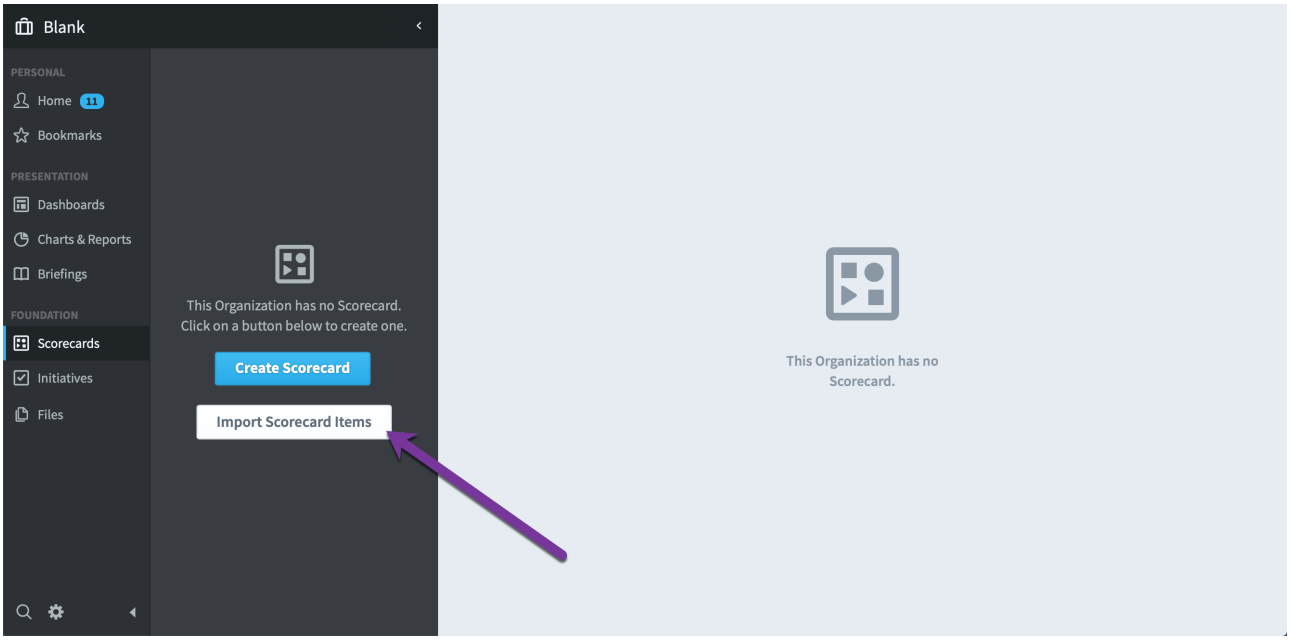
You can manage imports and import connections in the Administration section.

Importing Scorecard Items

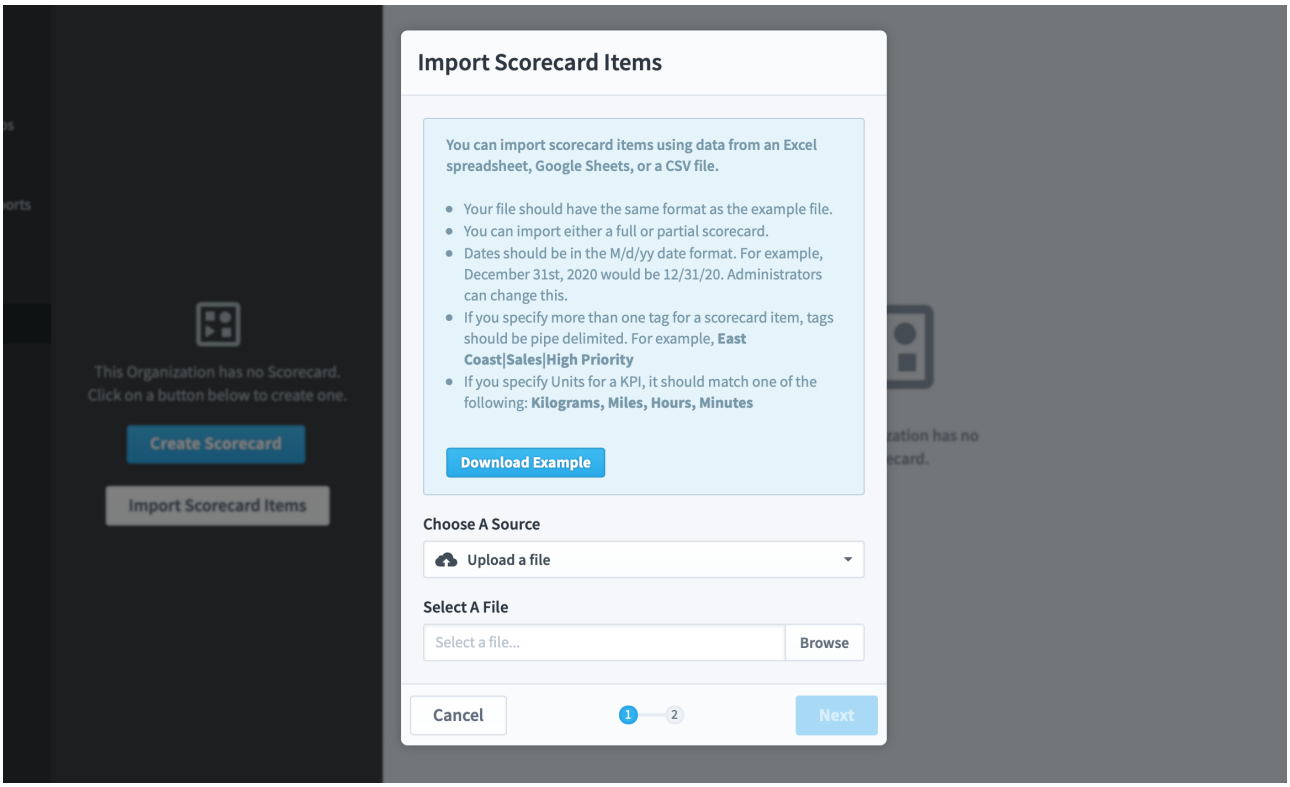
Users who have permission to modify scorecard structure can now import scorecard items from a spreadsheet directly inside of Spider Impact. To start, just click on the "Import Scorecard Items button on any tab in the Scorecards section.



Or, if your organization doesn't have a scorecard yet, you can click on the "Import Scorecard Items" button in the navigation pane.

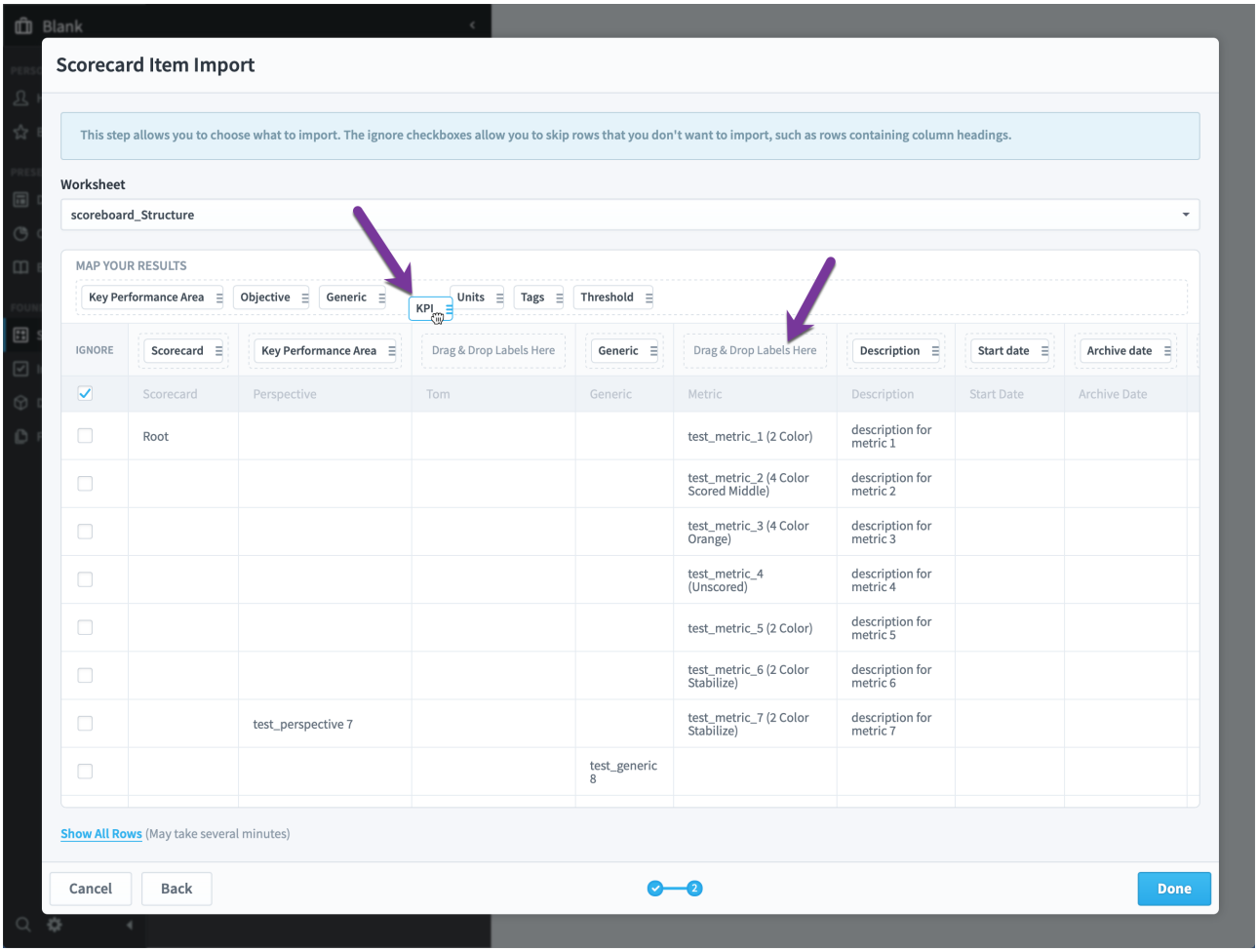


This opens a dialog where you can upload your spreadsheet. You can also download an example file showing what your spreadsheet can look like.

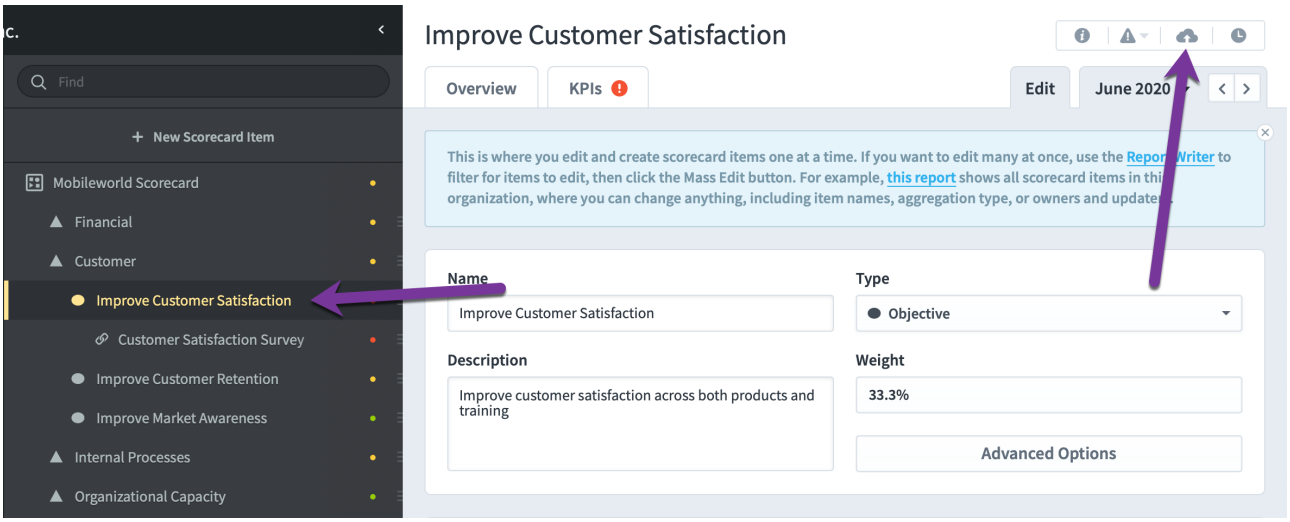


Finally, Spider Impact can easily export existing scorecard items in exactly this format so you can import it to another organization, or modify your data to be re-imported. This is covered in the Exporting Scorecard Import File article.

If your columns have the same names as their corresponding scorecard item fields, the software will automated add the correct labels. Otherwise, you'll need to drag and drop the column labels to correctly match the columns.



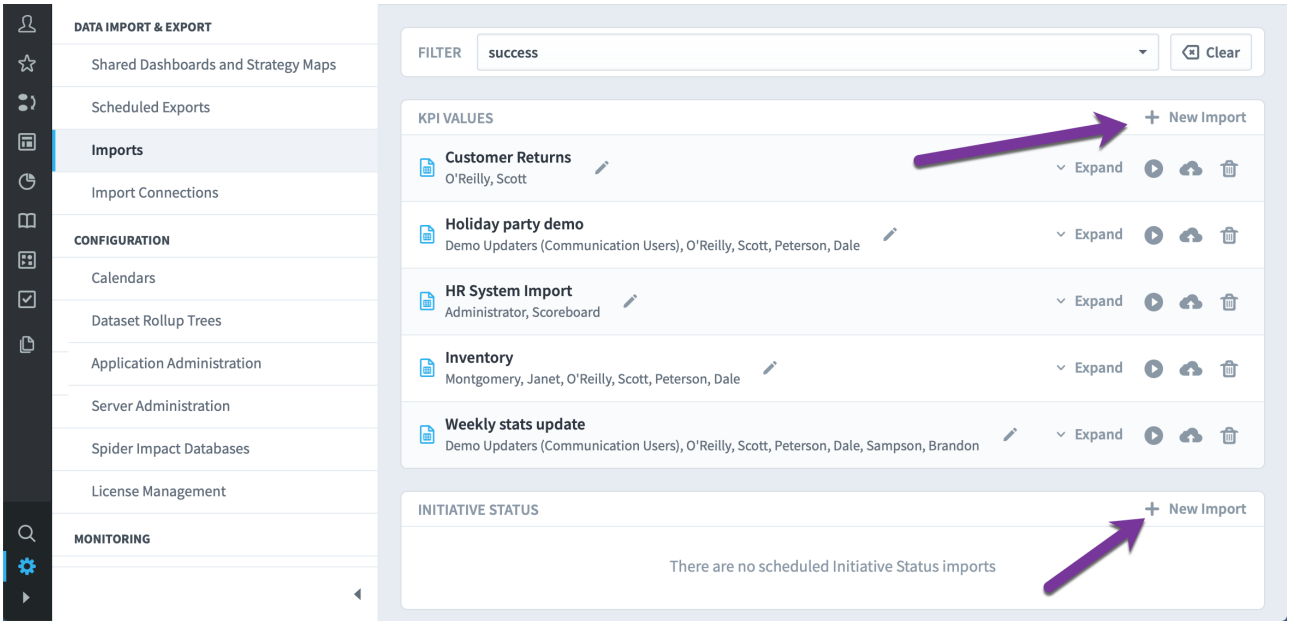
You can import an entire scorecard, or you can import just a few scorecard items at a time. In this example the "improve customer satisfaction" objective is selected when we click the "import scorecard items" button, so everything we import will be created underneath that.


Find
+ New Scorecard Item
Mobileworld Scorecard
Financial
Customer
Improve Customer Satisfaction
Customer Satisfaction Survey
Improve Customer Retention
Improve Market Awareness
Internal Processes
Organizational Capacity
Improve Customer Satisfaction
Overview
KPIs
Edit
June 2020
This is where you edit and create scorecard items one at a time. If you want to edit many at once, use the Report Writer to filter for items to edit, then click the Mass Edit button. For example, this report shows all scorecard items in this organization, where you can change anything, including item names, aggregation type, or owners and update
Name
Improve Customer Satisfaction
Type
Objective
Description
Improve customer satisfaction across both products and training
Weight
33.3%
Advanced Options

Managing Imports and Connections

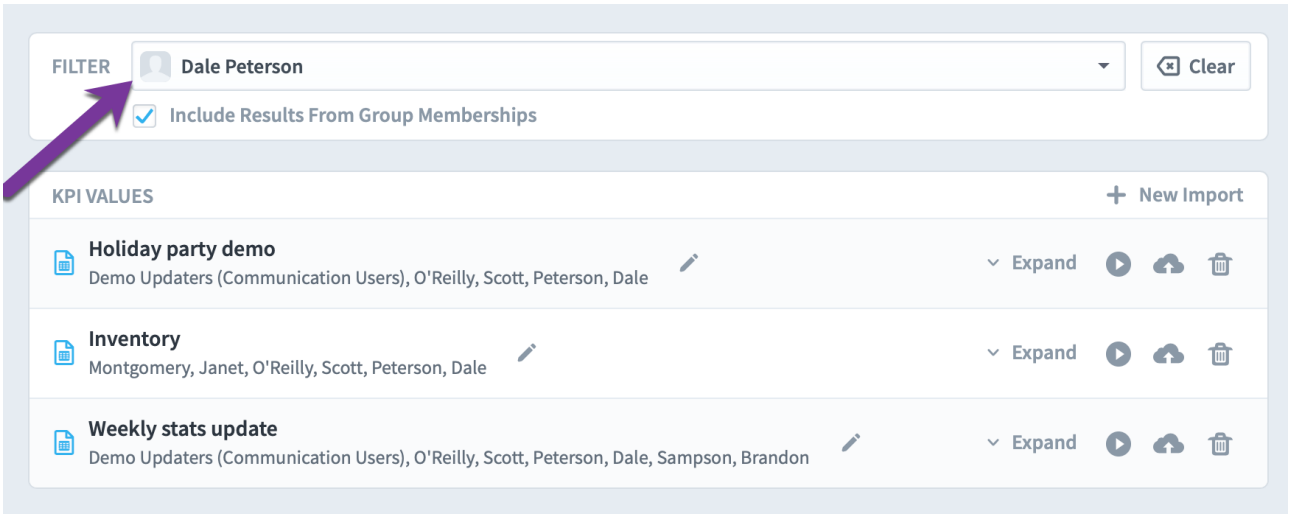
Imports

The Admin > Imports screen is where users go to manage their saved imports. Everything is organized by import type, and you can create a new import by clicking on the New Import button for that type.

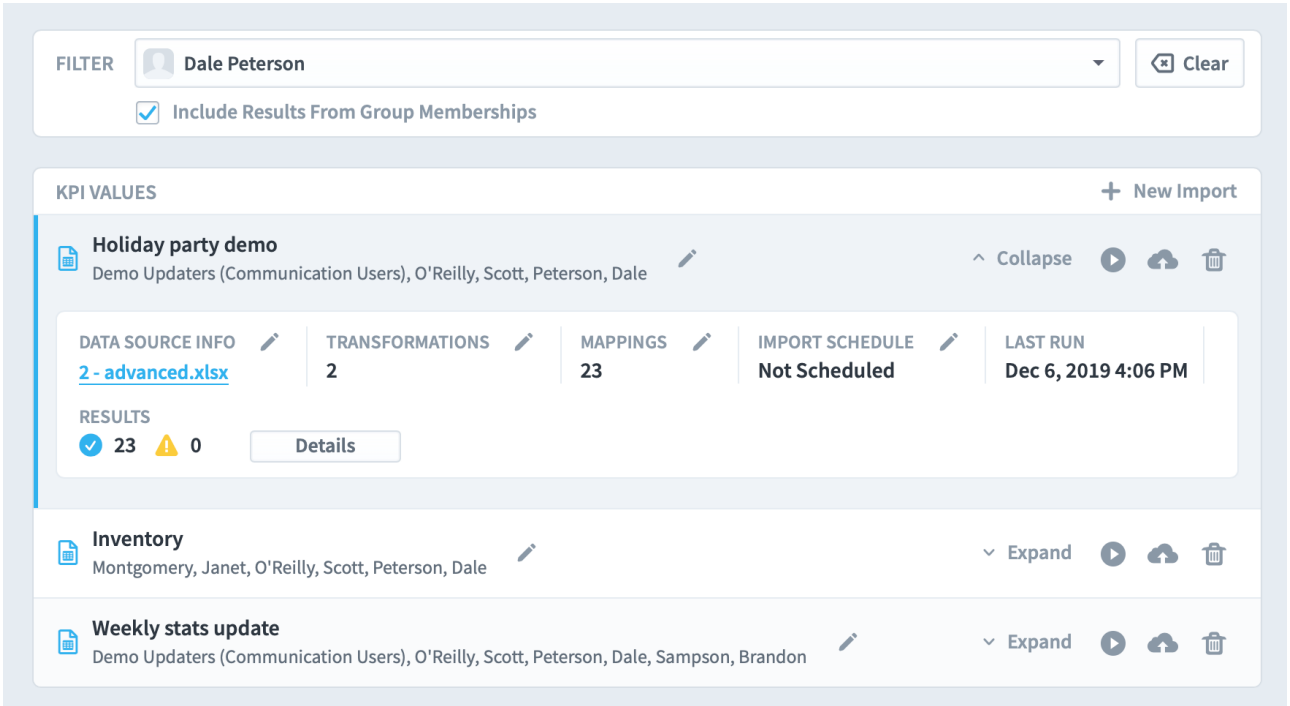


Users who are in a group with the "Manage all Imports" or "Application Administration" permission are able to see and edit all imports. Otherwise, they can see and edit imports that they (or a group that they're in) own.

You can apply a filter at the top of the page to change which imports are showing. You can filter based on things like owners, names, and whether the last import was successful. If there are more than 10 saved imports, this screen will automatically add a filter for only your imports to save time when you first view the screen.

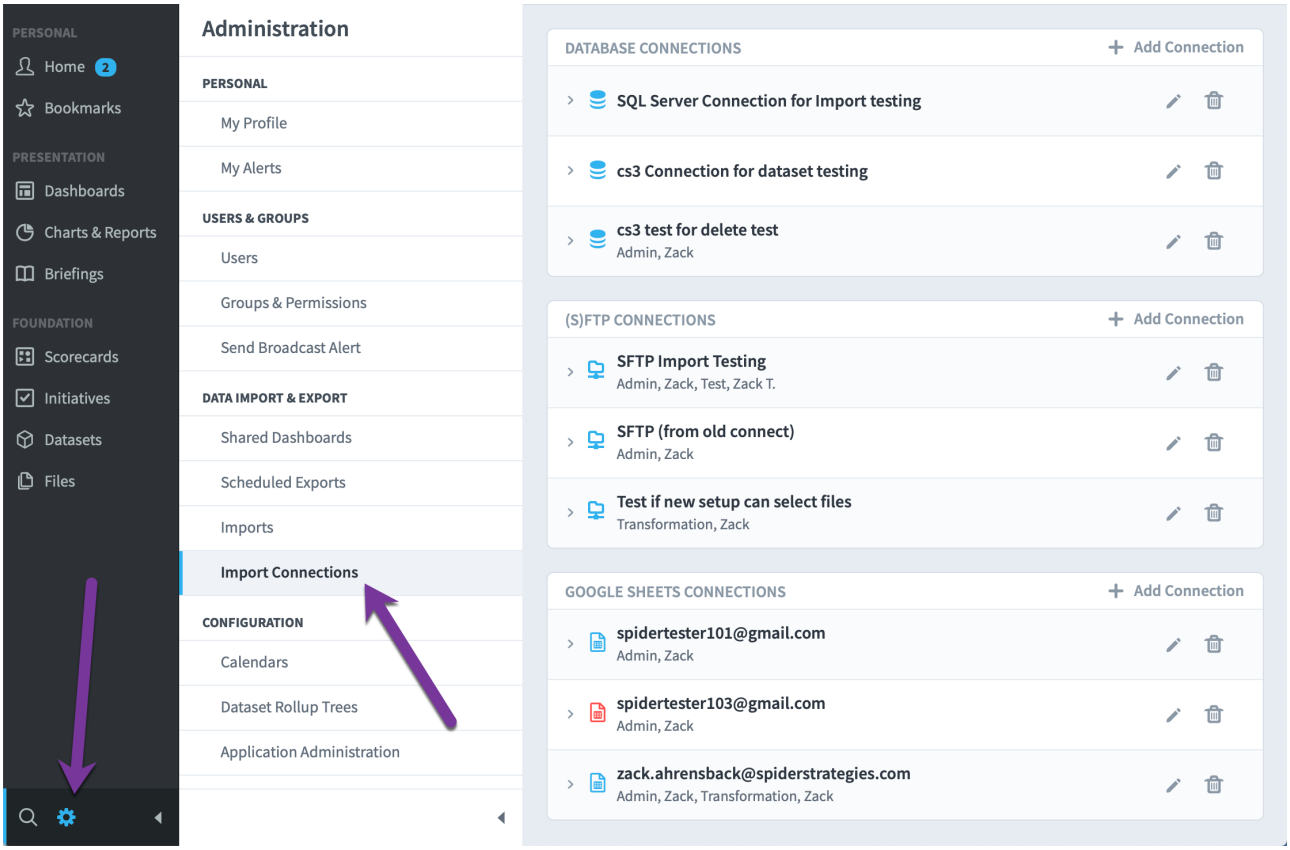


Clicking on one of the imports will expand the row to show the import details. You can see the results of the last import, edit the import details, or change its schedule.



Import Connections

The Admin > Import Connections screen is where you go to manage all of the data sources that Imports use. Users with the "Application Administration" permission can see all imports. Otherwise, you can only see the imports to which you have been assigned an owner.



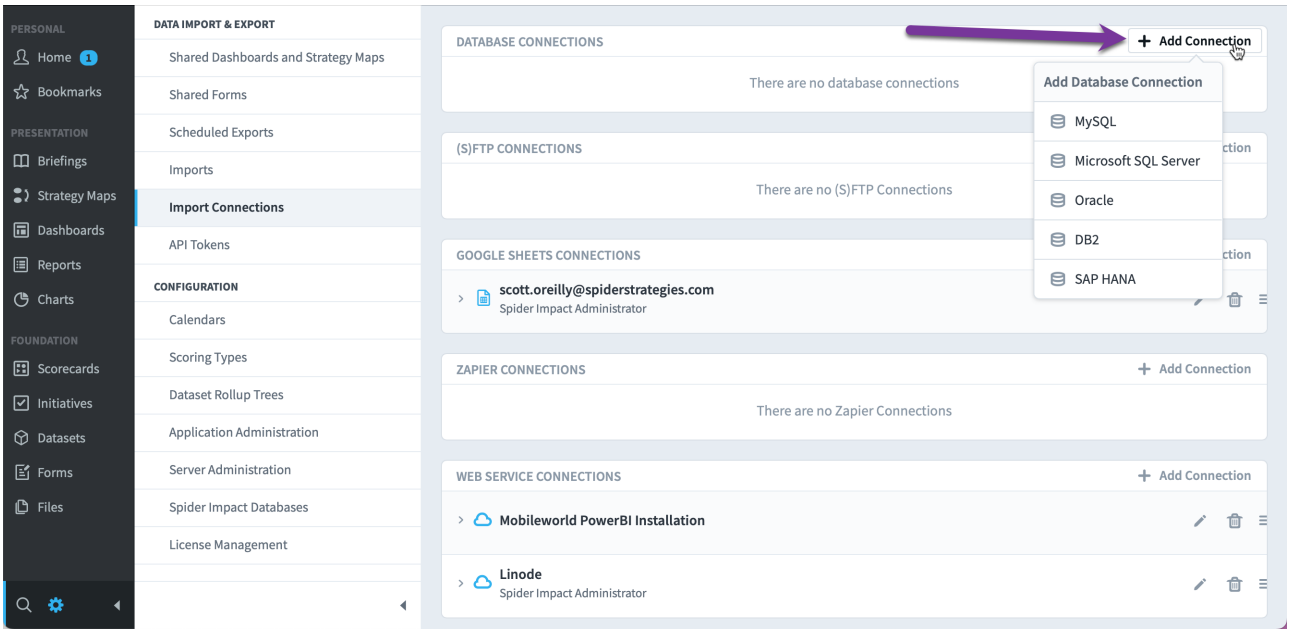
Imports and Import Connections are managed separately so that the people who manage data imports don't need to have all of the server connection information. System administrators can manage import connections and normal users can use those connections to import data.

For example, a high-level system administrator could set up a connection to a folder of spreadsheets on an FTP server, a connection to the HR database, and a web service connection to PowerBI. That system administrator could then quickly create placeholder imports that use those connections (without spending the time

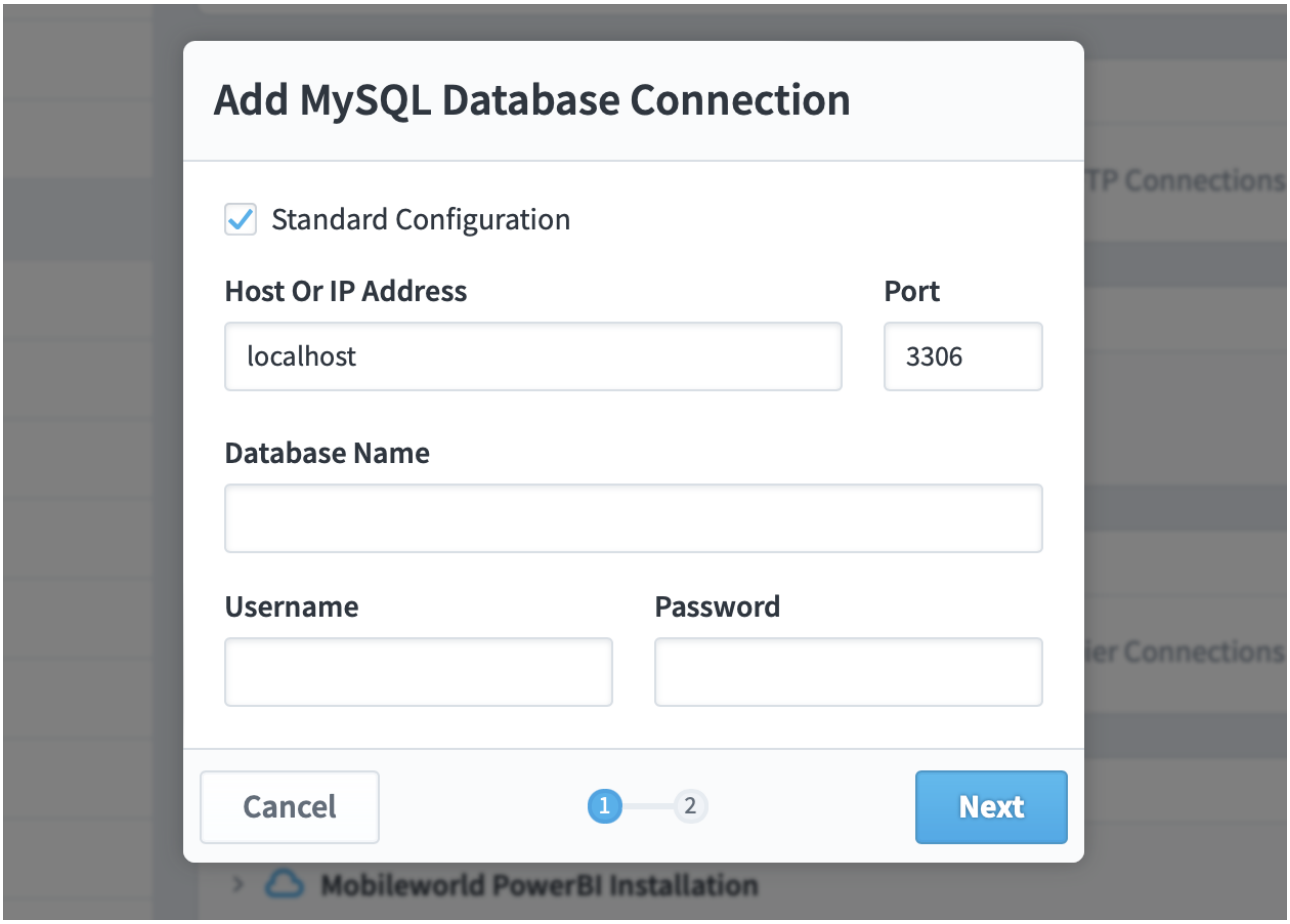
to built out the data mapping) and make various users and groups owners of those unfinished imports. Those people would be able to take over the management of the data mapping, import schedule, and other import properties, all without having to know how to connect to the underlying data sources.

Adding Import Connections

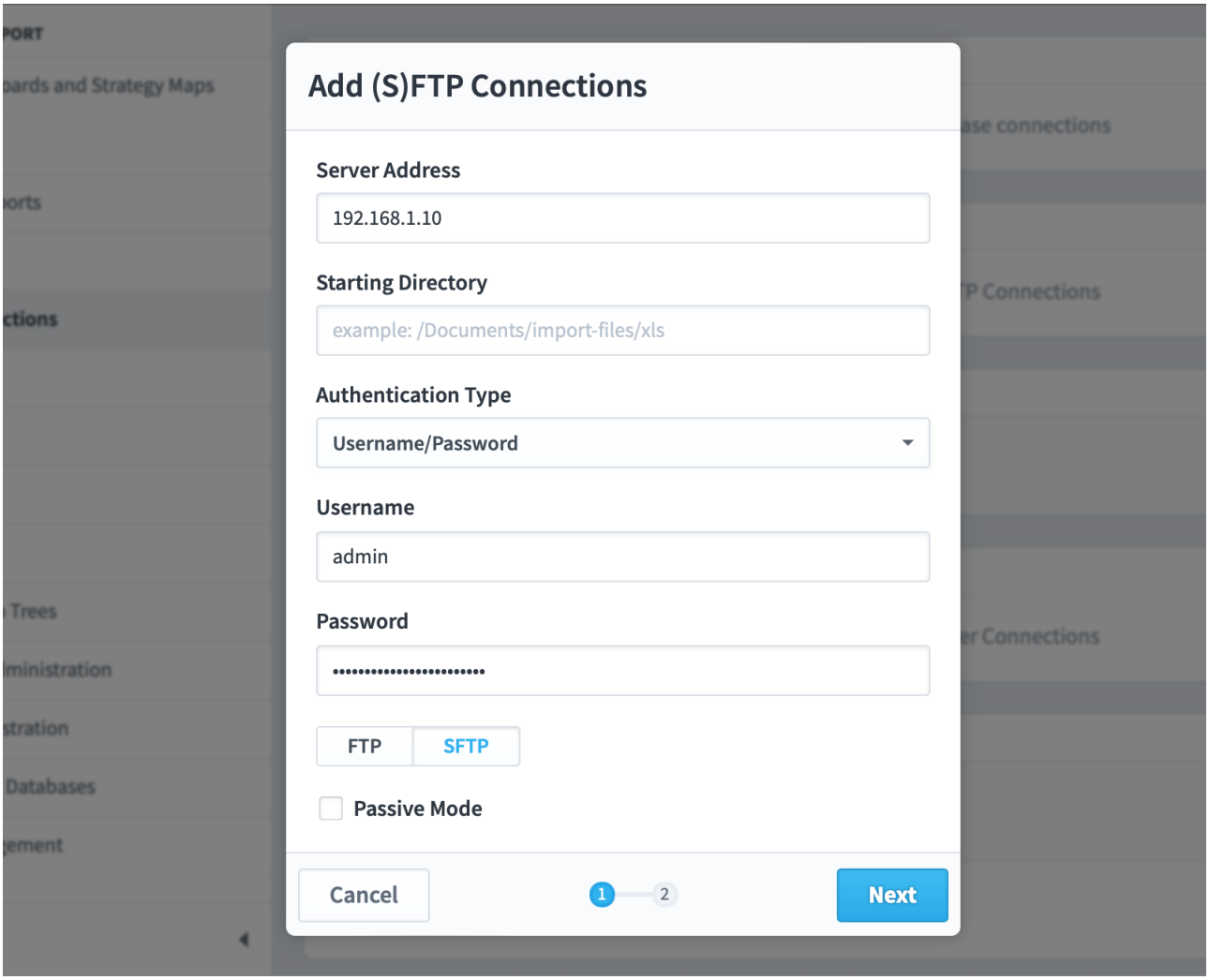
To add an import connection, just click on the Add Connection button in the corner of its panel.



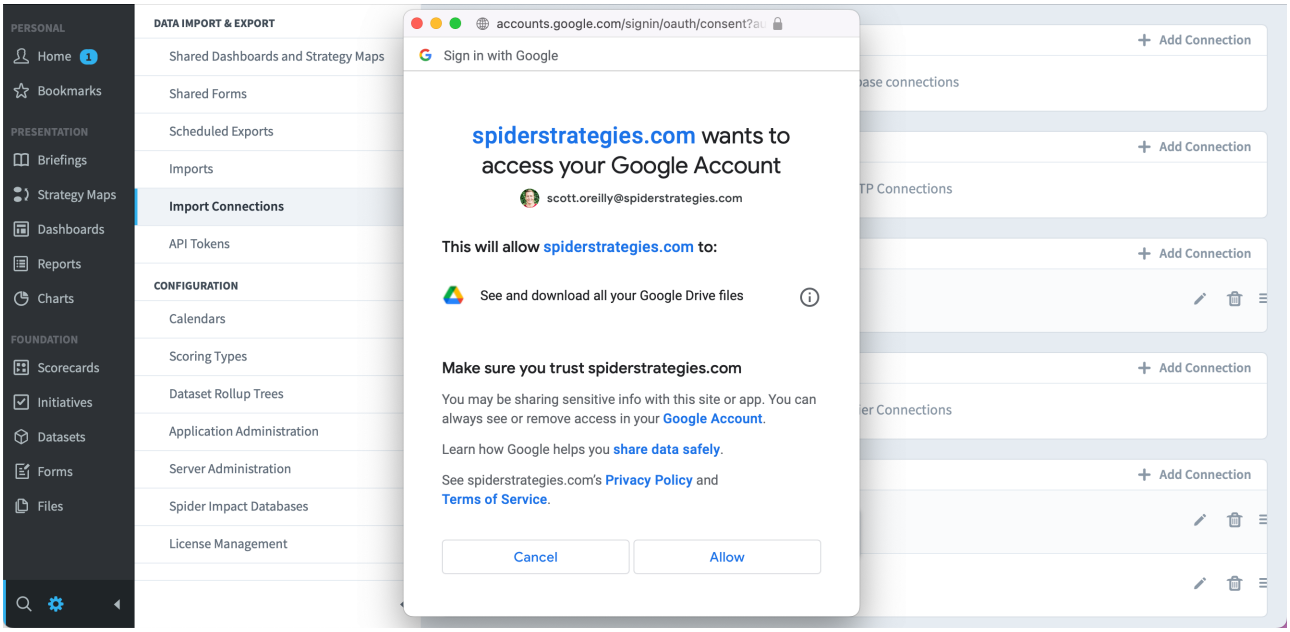
Database connections ask for information like the database name and password.



(S)FTP connections allow you to choose the authentication type and an optional starting directory.



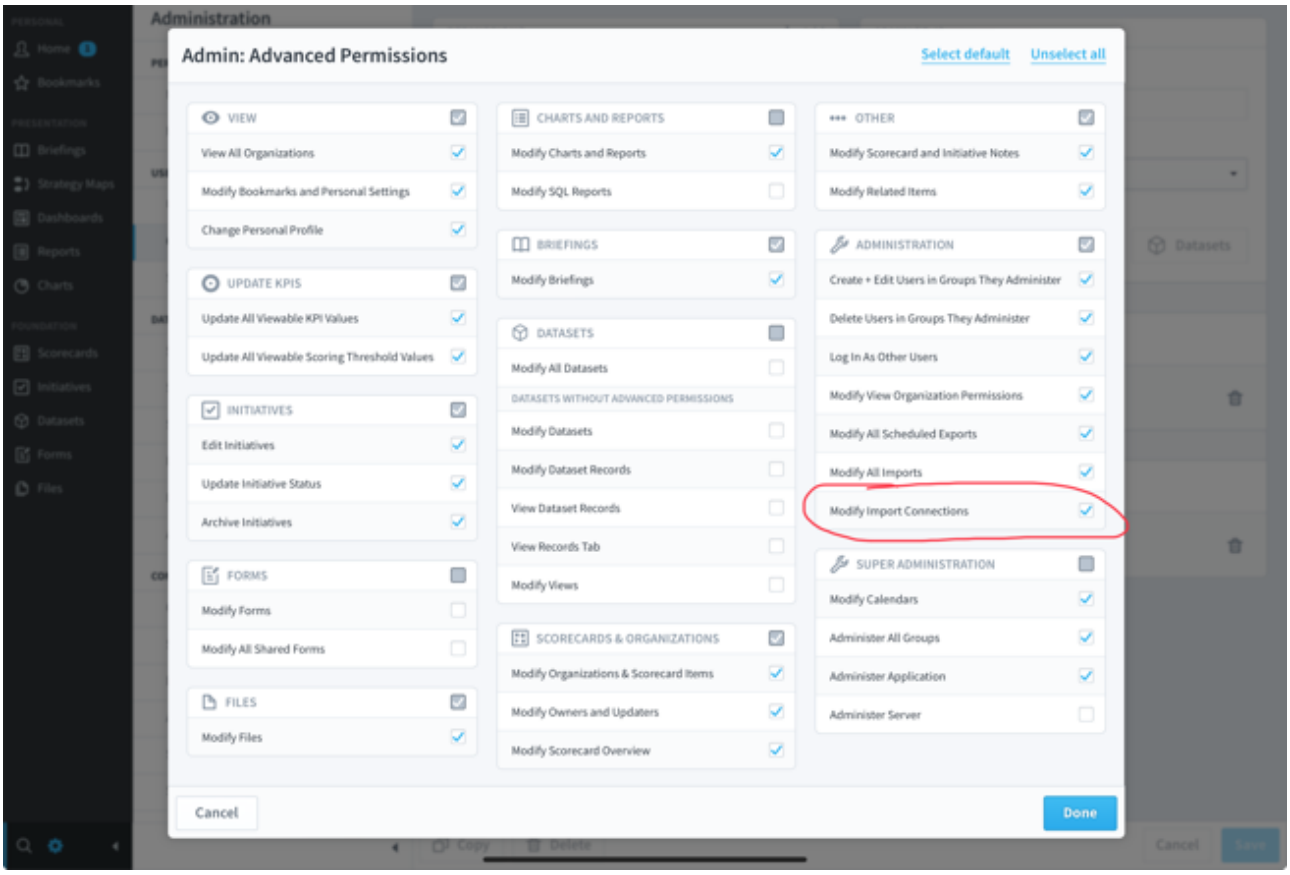
Adding a Google Sheets connection opens a dialog where you give Spider Impact permission to access your Google data.



The process of creating a web service import connection or a Zapier import connection is a little more complicated, so they each have their own articles.

Security Note for Self-Hosted Customers

It's important to note that all users who have the Modify Import Connections permission have the ability to communicate from the Spider Impact server to other servers. This is by design so Spider Impact can pull in data via web services.



It is the responsibility of customers who manage their own instances of Spider Impact, however, to ensure that the Spider Impact server is properly restricted from accessing sensitive internal information. This can be accomplished via router configuration, hardware firewalls, or on the operating system via Linux IP Tables or Windows Firewall. This is already managed by Spider Strategies for hosted customers.

For example, if you have Spider Impact installed at an internal datacenter and the Spider Impact server isn't restricted from communicating with other servers at that datacenter, users with the Modify Import Connections permissions can communicate with those other servers. Again, this design is intentional for pulling in data via web services, but it's important to note.

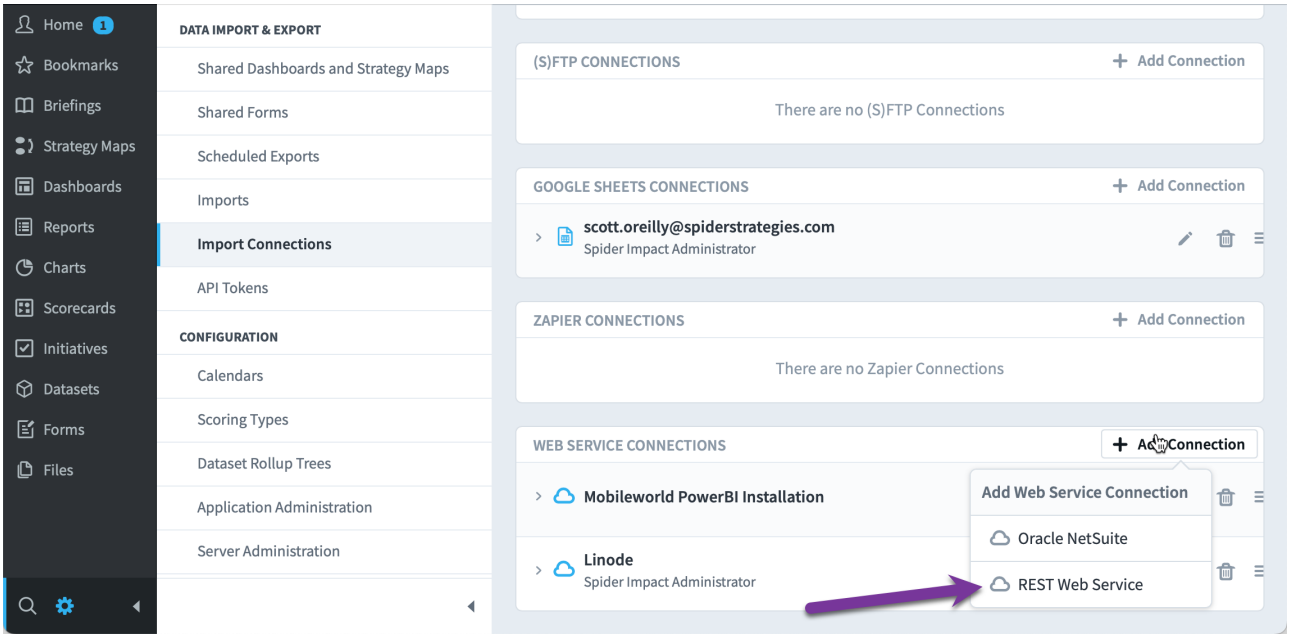
Spider Impact was designed to have import connections separate from actual data imports for this very reason. System administrators with open network

access can set up connections to data sources, and then normal users can use those data source connections to securely build data imports.

Importing Data from Web Services

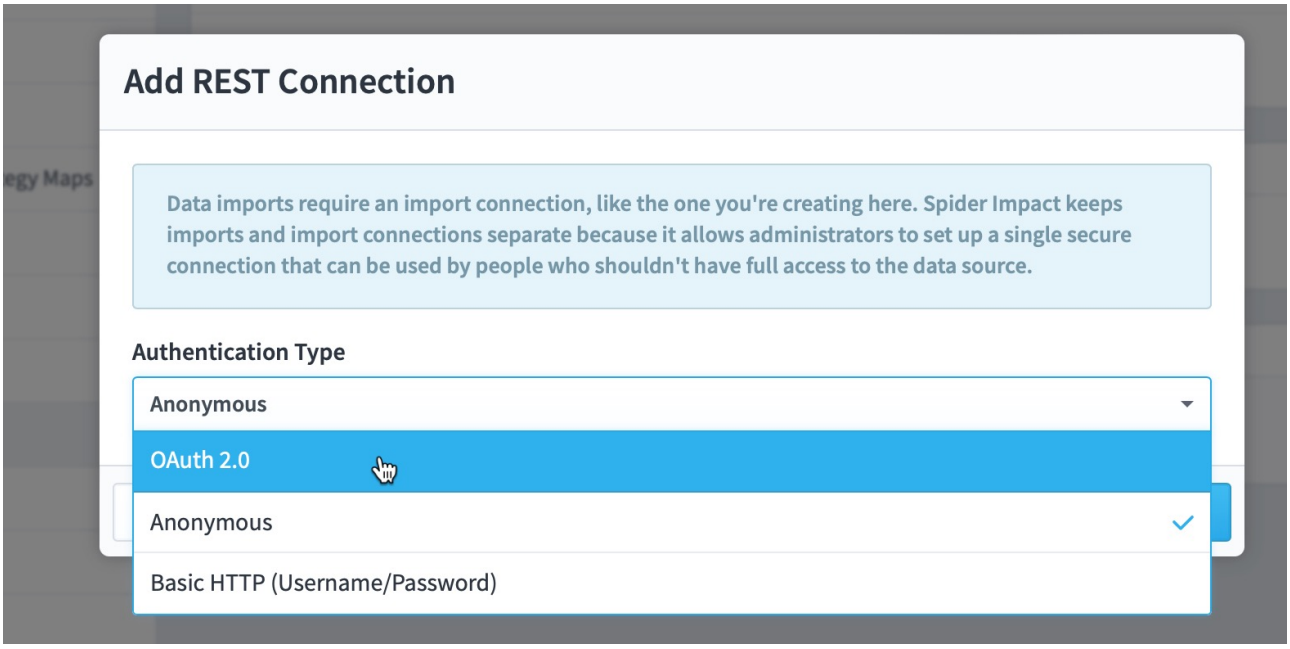
Creating Import Connections

Web service import connections are managed with the other import connections on the Admin > Import Connections screen. In this example we'll add a new REST Web Service.



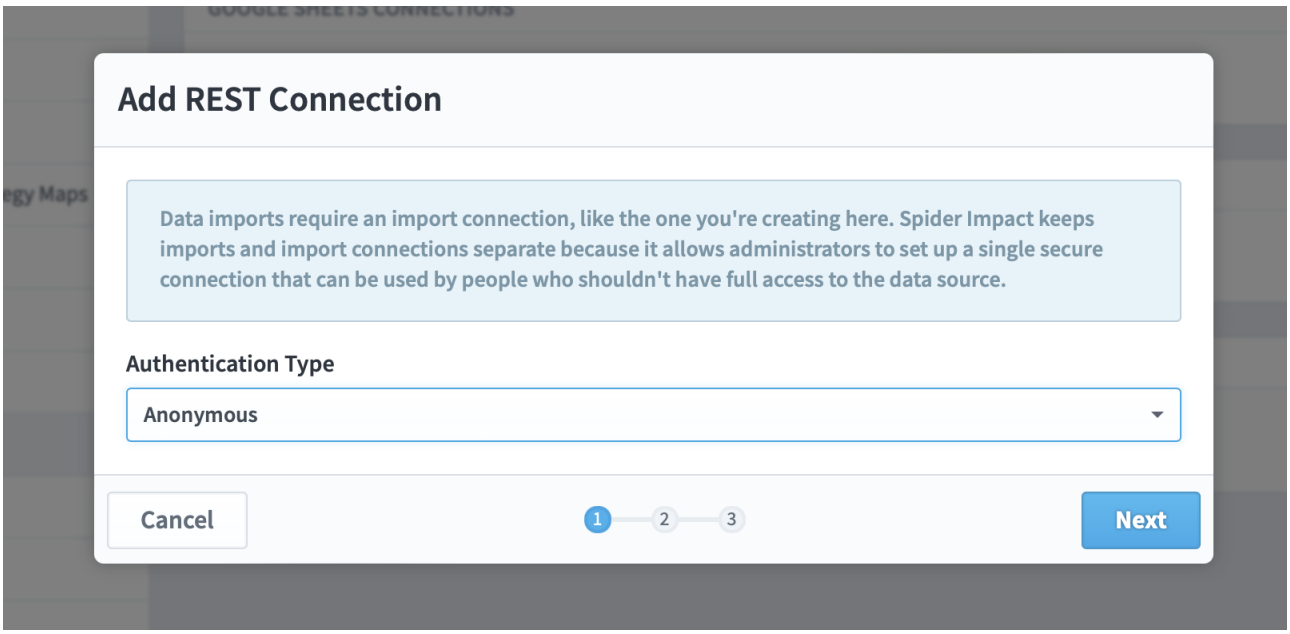
There are three authentication types

- OAuth 2.0
- Anonymous
- Basic HTTP (Username/Password)

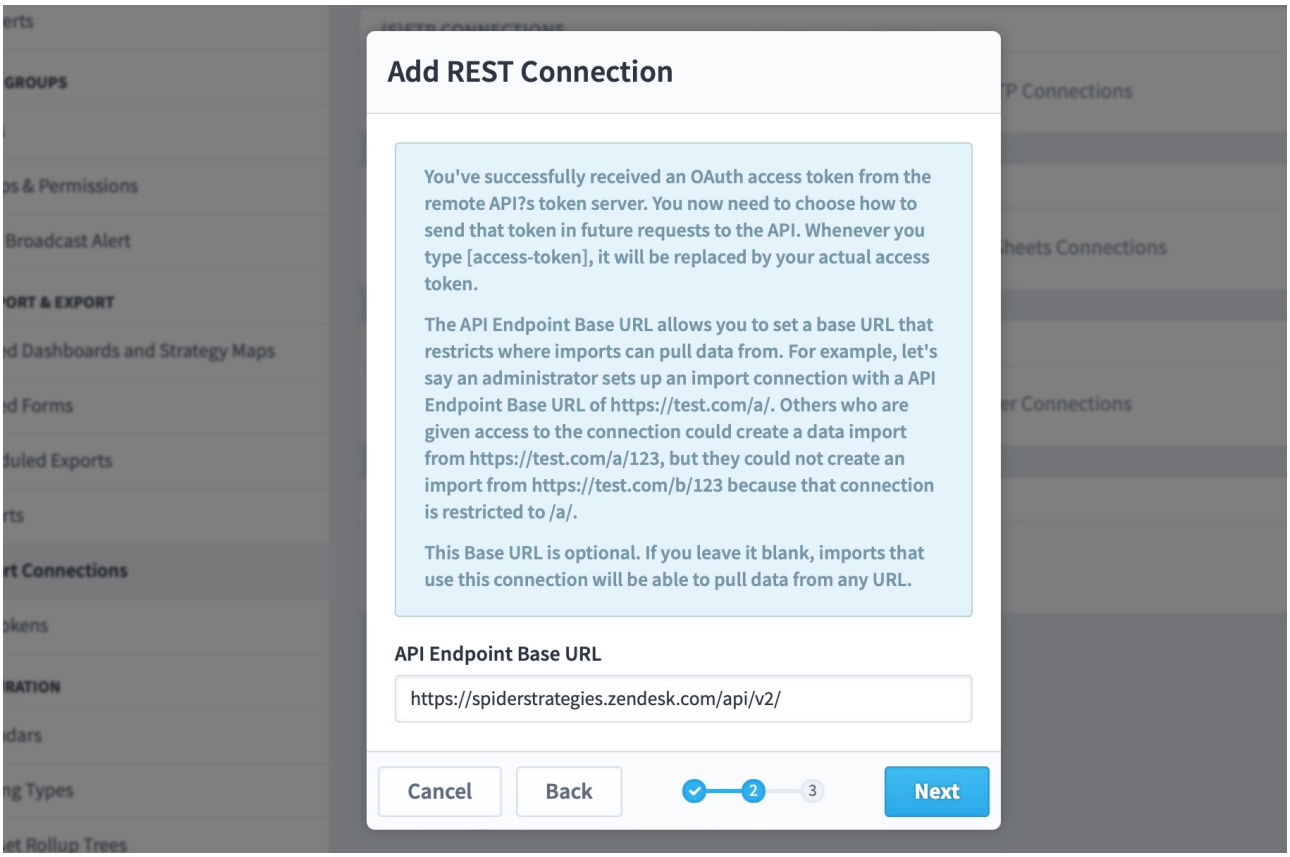


Anonymous Authentication

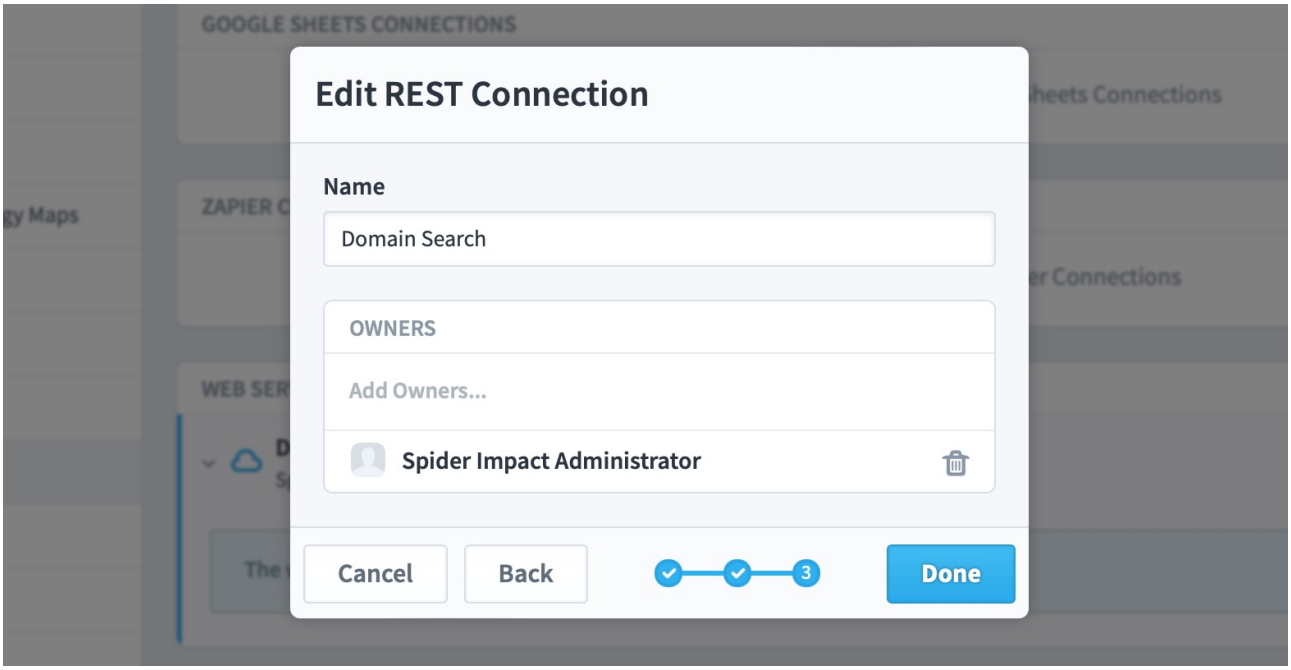
Anonymous authentication is the simplest and allows you to pull data from web services that don't require authentication. You can find data sources for testing at https://github.com/public-apis/public-apis.



In step 2 you can set the API Endpoint Base URL. This is an optional field that allows you to restrict what URLs you can visit with this connection. For example, if you used
https://spiderstrategies.zendesk.com/api/v2/
for the base URL, imports using this connection could pull data from
https://spiderstrategies.zendesk.com/api/v2/metrics
but they couldn't pull data from
https://spiderstrategies.zendesk.com/something
. If you leave the Base URL blank, imports will be able to use any URL.

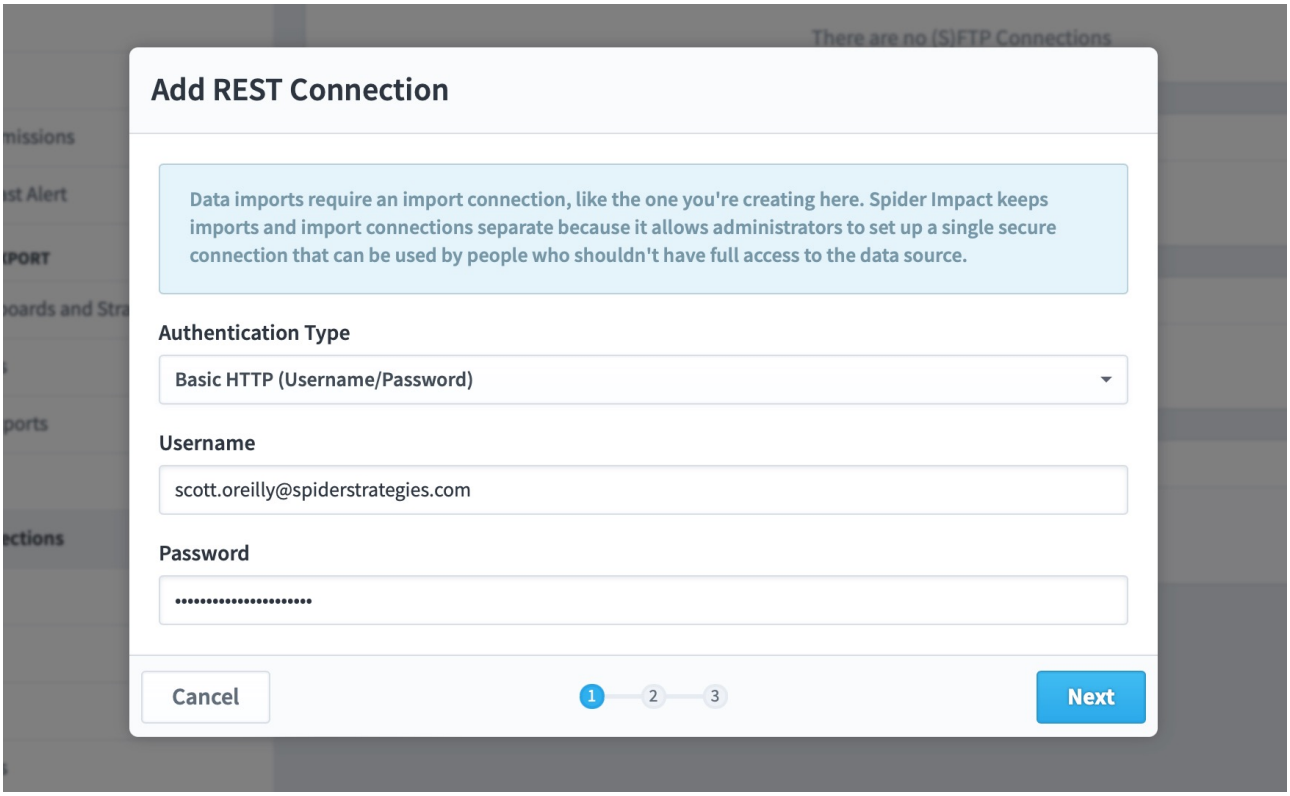


The final step is assigning owners who can use this import connection.



Basic HTTP (Username/Password) Authentication

Basic HTTP authentication sends a username and password to the API server.



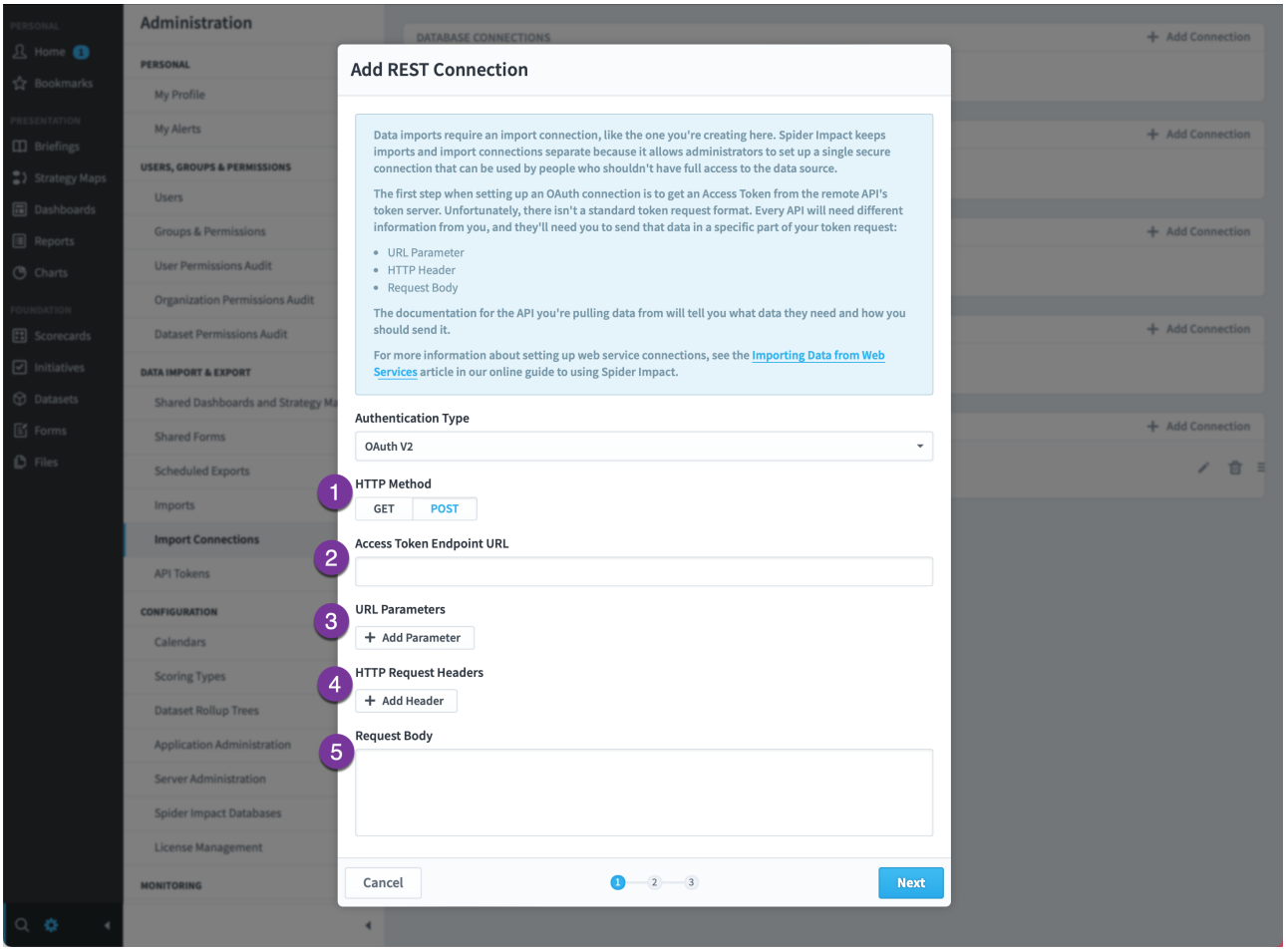
Steps 2 and 3 for Basic authentication are exactly the same as Anonymous authentication. You choose an API Endpoint Base URL, and then assign ownership to the connection.

OAuth 2.0 Authentication

Initial communication

OAuth 2.0 is the most complicated authentication type because there are two parts. First you get an Access Token from the remote API's token server. Then you use that Access Token in all further communication with the API get the data you want.

The first step in the new import connection wizard is all about sending information to the remote API's token server in order to get back either an Access Token or a Refresh Token.



1. The HTTP Method is either GET or POST. If you're unsure, stay with the default of GET.
2. The Access Token Endpoint URL is the URL of the server you're communicating with to get the Access Token.
3. Specify any URL parameters here rather than in the query string. For example, rather than using an endpoint URL of https://test.com?var1=apple&var2=orange , you'd use an endpoint URL of https://test.com and set var1 and var2 as URL parameters. This automatically encodes the information you're sending and allows other URL parameters to be added later.
4. It's common to set HTTP Request Headers like Authentication and Accept.
5. The Request Body is only available when the HTTP Method is POST.

As you can see, REST web service connections have a lot of configuration options. That's because every API needs different information to be provided in different ways. Be sure to read the documentation for the API that you're connecting with to see exactly how to communicate with it.

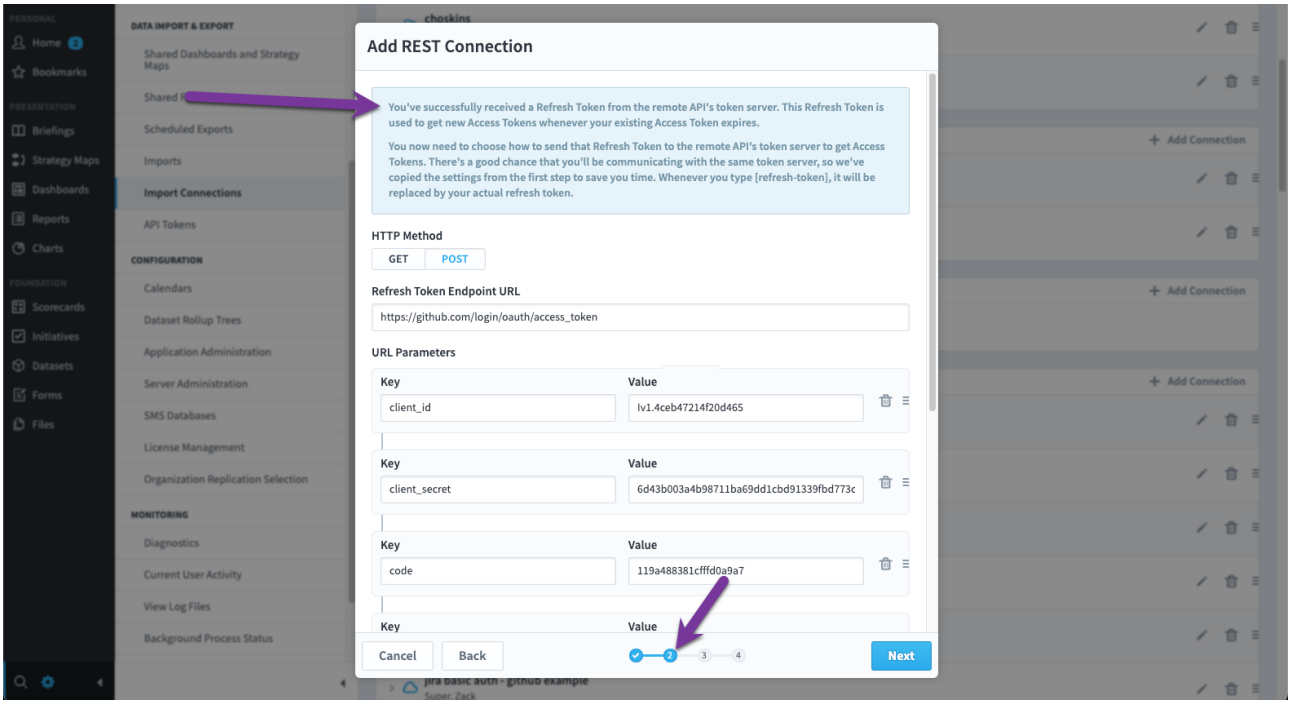
There's also a good chance that you'll need to do some setup in the web service you're connecting to. For example you may need to set up a "client" or "app" and then provide a Client ID and/or Client Secret via one of the 5 settings above. Again, see the other API's documentation for details.

When you click Next on step 1, Spider Impact will attempt to get a token from the remote API token server, and will move you to the correct step of the wizard based on the type of the token you get back.

Receiving a refresh token

If the remote API's token server responds with an Access Token, you'll skip this step and continue on to the Access Token step below. If the server responds with a Refresh Token, however, one extra step gets added to the wizard, bringing the total number of steps to 4.

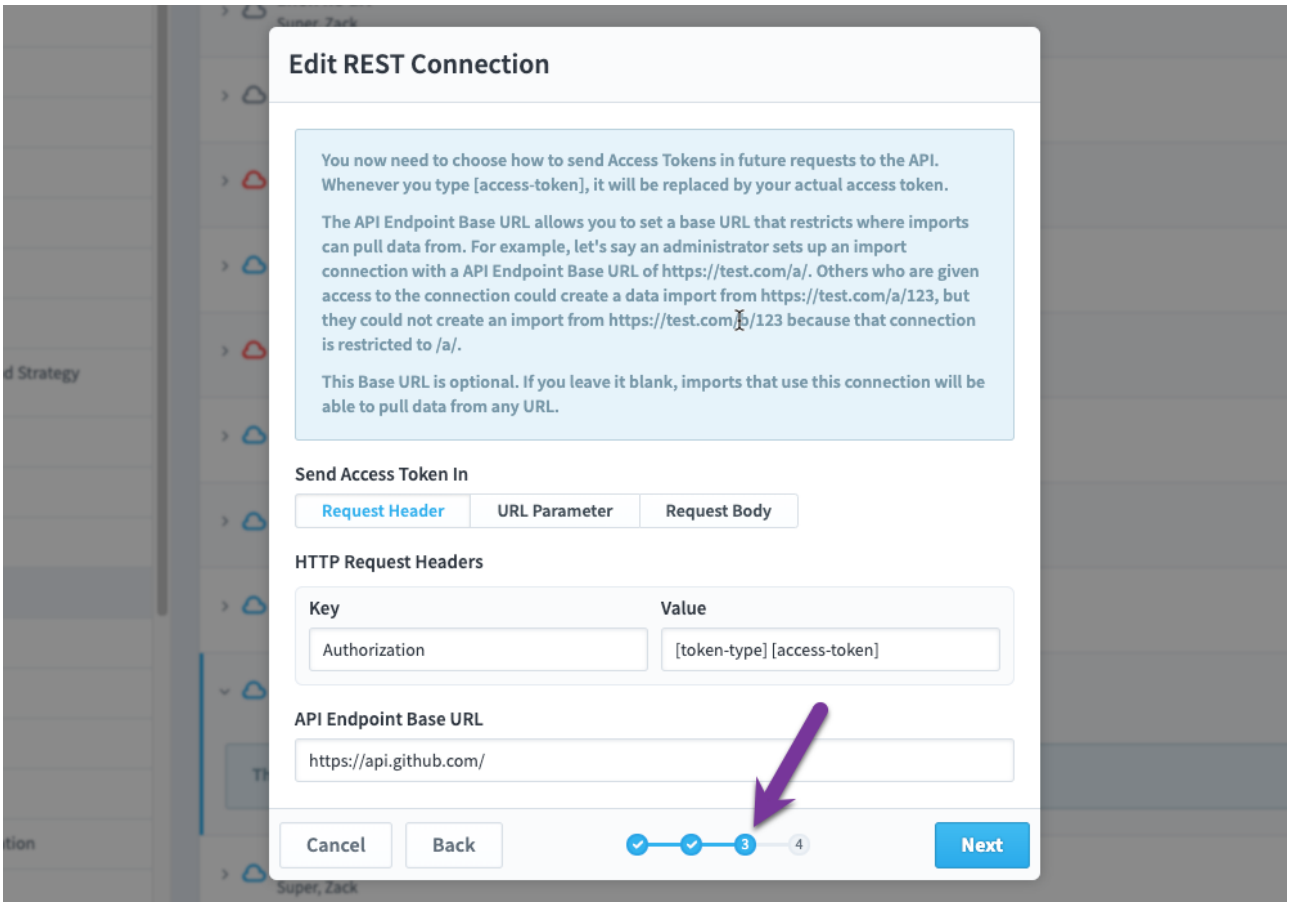
Here we can see that we've received a Refresh Token, and that we need to tell Spider Impact how to send that Refresh Token back to the token server in the future. This will often be in the same way as the original request, so those settings are automatically copied over from step 1.



If everything is successful when you click Next, the remote API token server will respond with an Access Token and we'll continue to the next step.

Receiving an access token

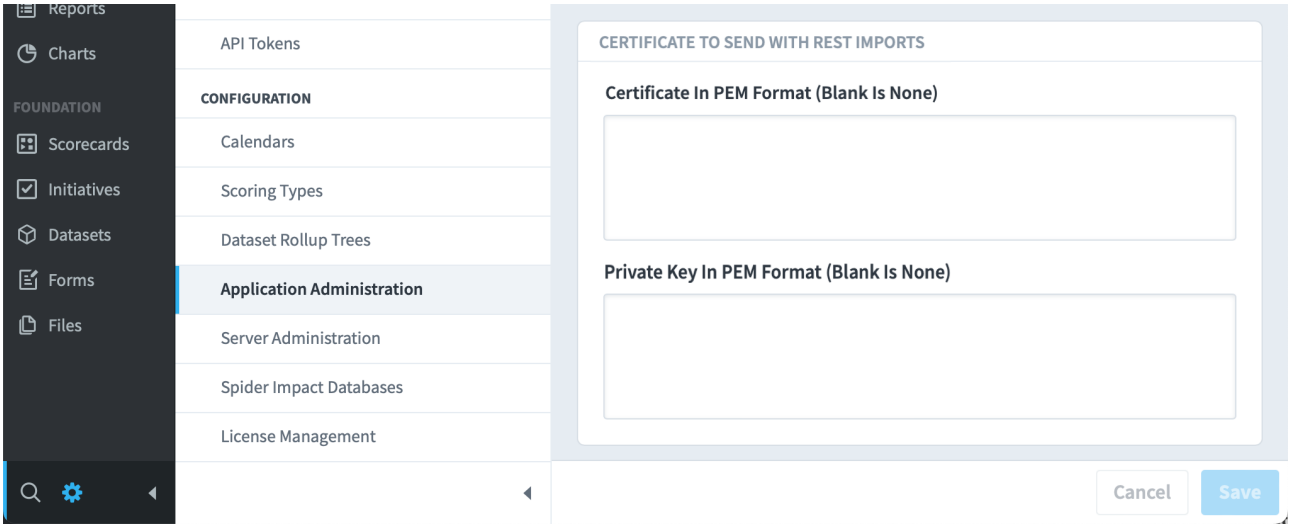
Here we see we're on step 3 of 4, but this is the same as step 2 of 3 when refresh tokens aren't involved. At this point we have an Access Token, and we need to tell Spider Impact how to send that Access Token to the API in the future. This step is all about choosing what data you want to send along with every future request to the API.



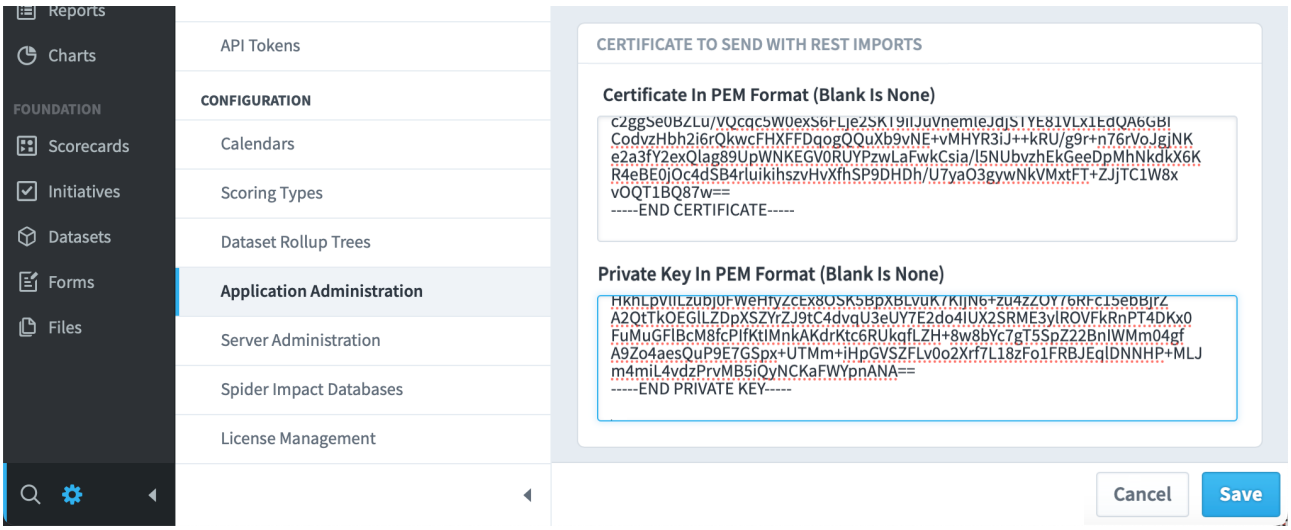
The final step is assigning owners who can use this import connection, which is the same for every type of import connection.

Sending a certificate to authenticate

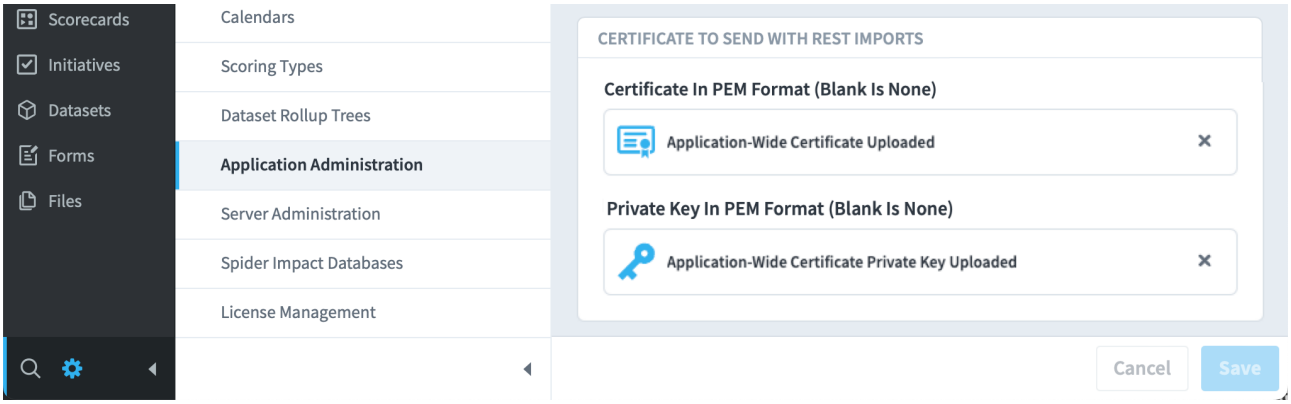
Some REST APIs require you to send a certificate to prove who you are. To set up a certificate to send with API requests, there is a "Certificate to Send With REST Imports" panel in Application administration.



Just paste in your certificate and private key (both in PEM format) and click Save.

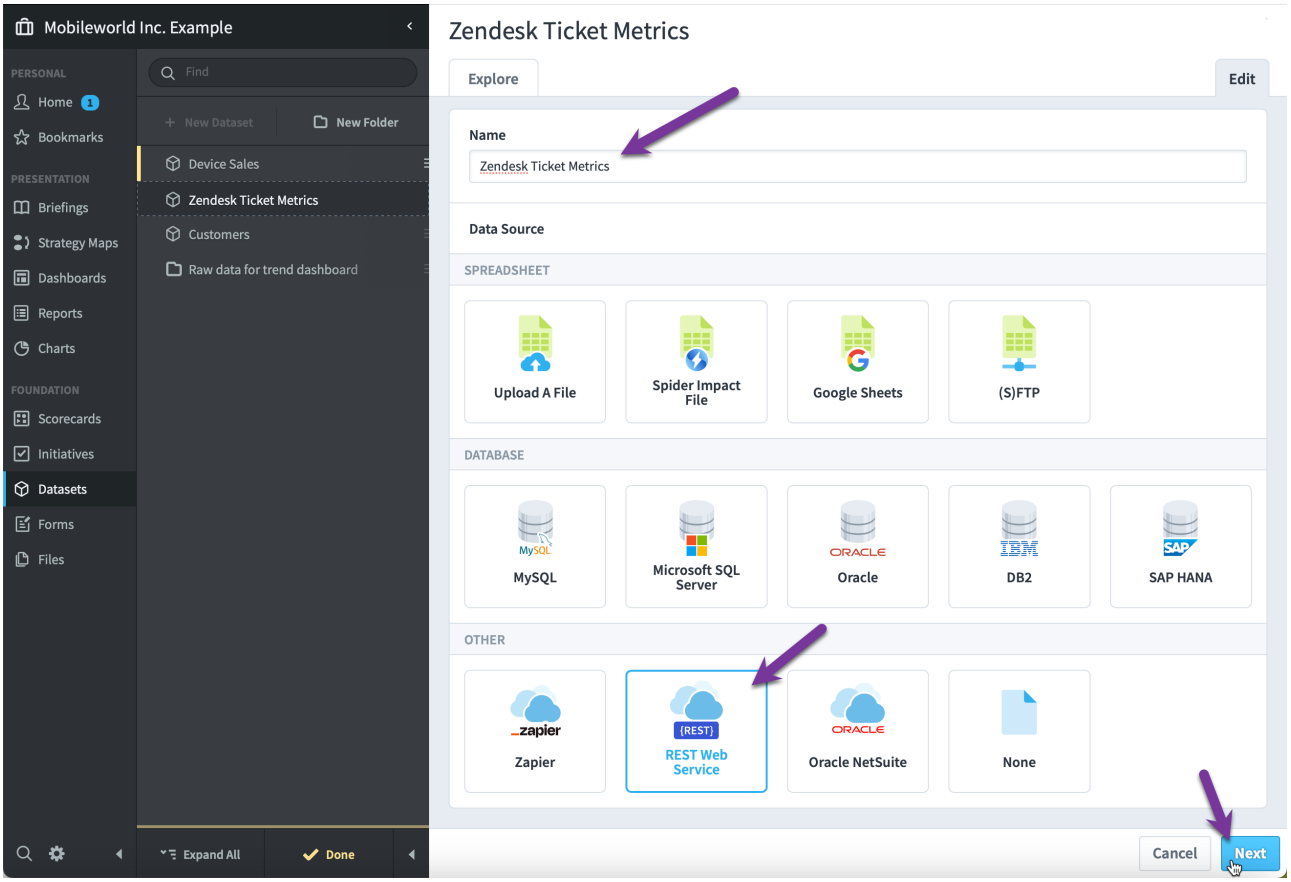


Spider Impact will automatically send this certificate and private key to all REST APIs that request it.

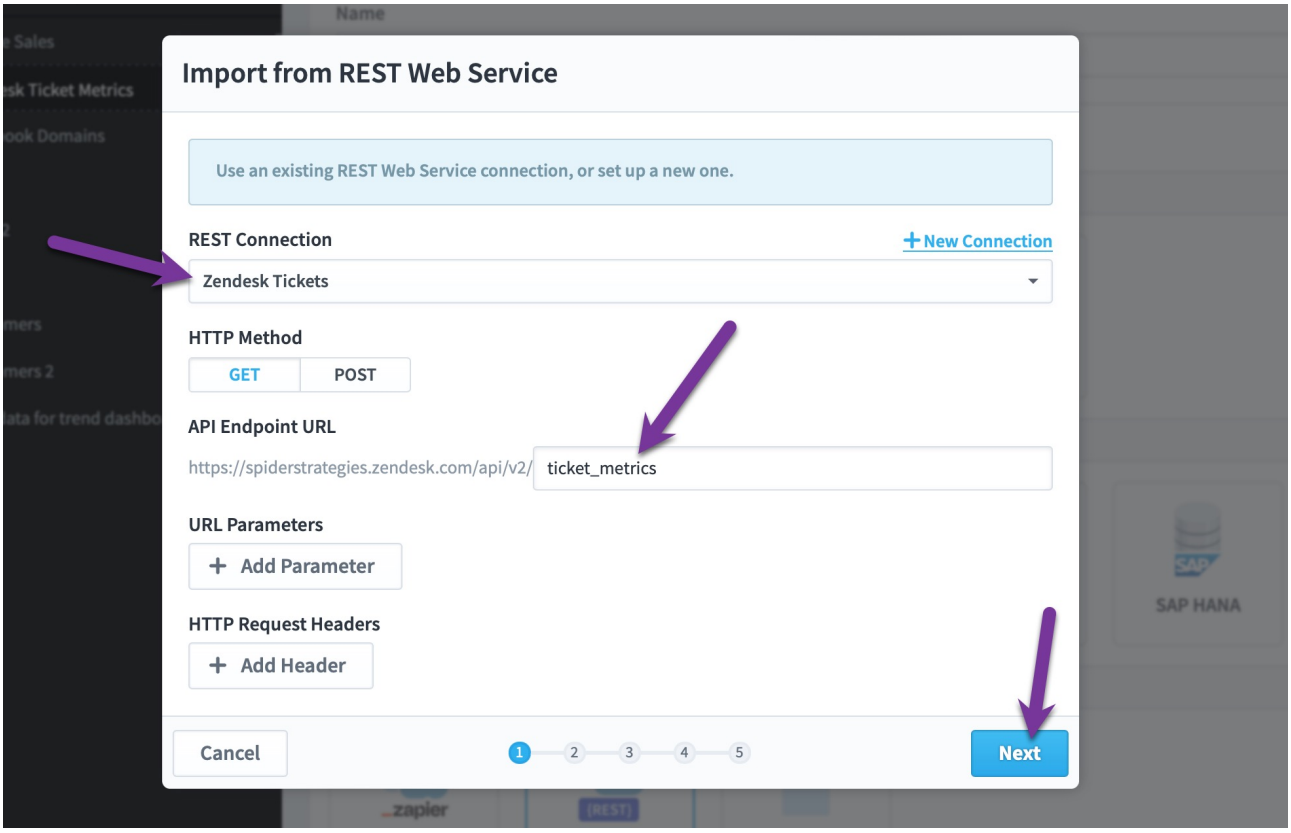


Creating Imports

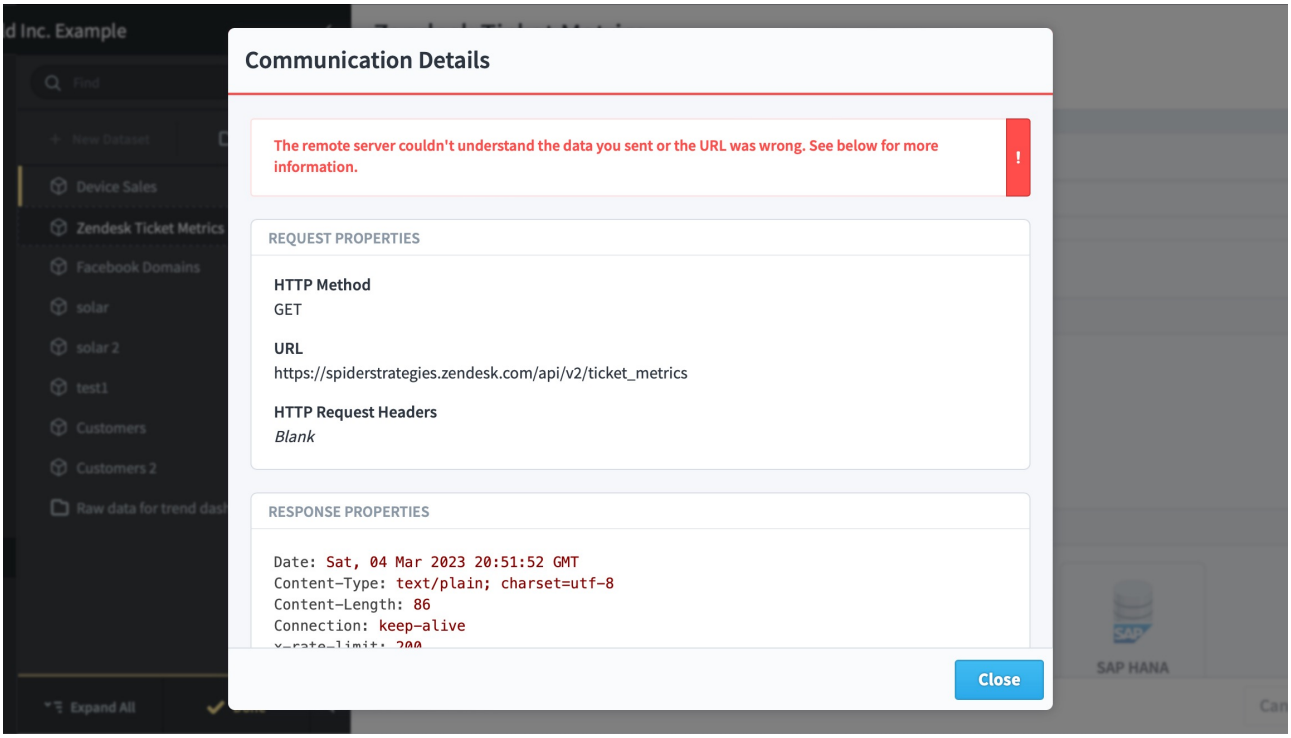
To import data from a Web Service, choose one of the web service data sources when creating the import. In this example we're creating a dataset and are choosing REST Web Service.



Because we've already specified all of the authentication information when we set up the import connection, all we have to do is add ticket_metrics to the end of the API URL. We'll try to advance to the next step by clicking Next.

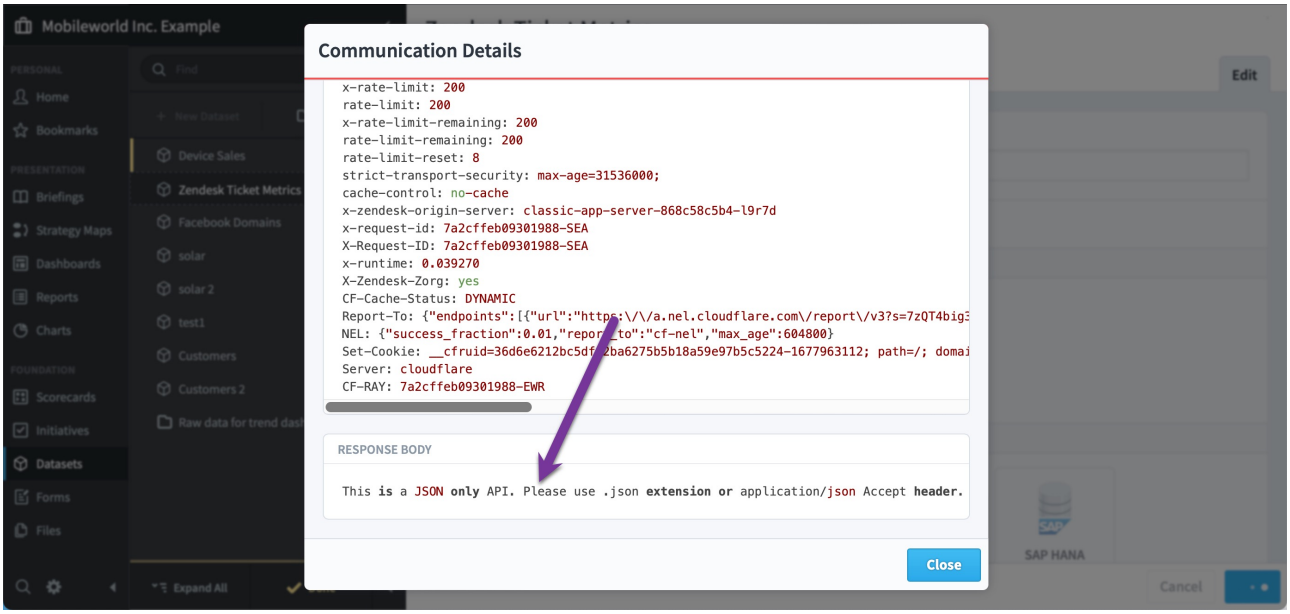


In this example there's an error getting data from the server. When that happens, Spider Impact will show a second-level dialog that contains the error message and debugging info.

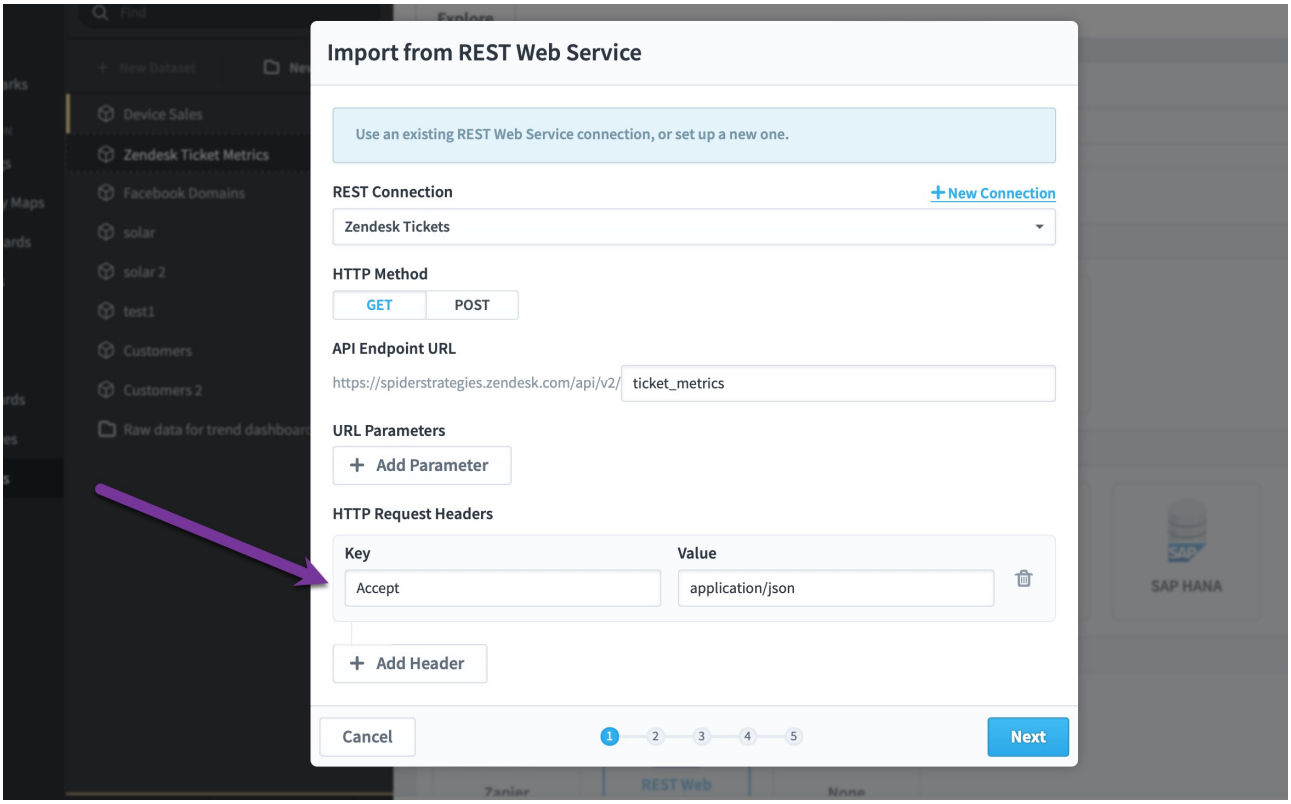


Setting up a web service import is often a back-and-forth process, regardless of which two systems you're connecting. You'll ask the server for information and it's either not quite right, or there's an error that needs debugging.

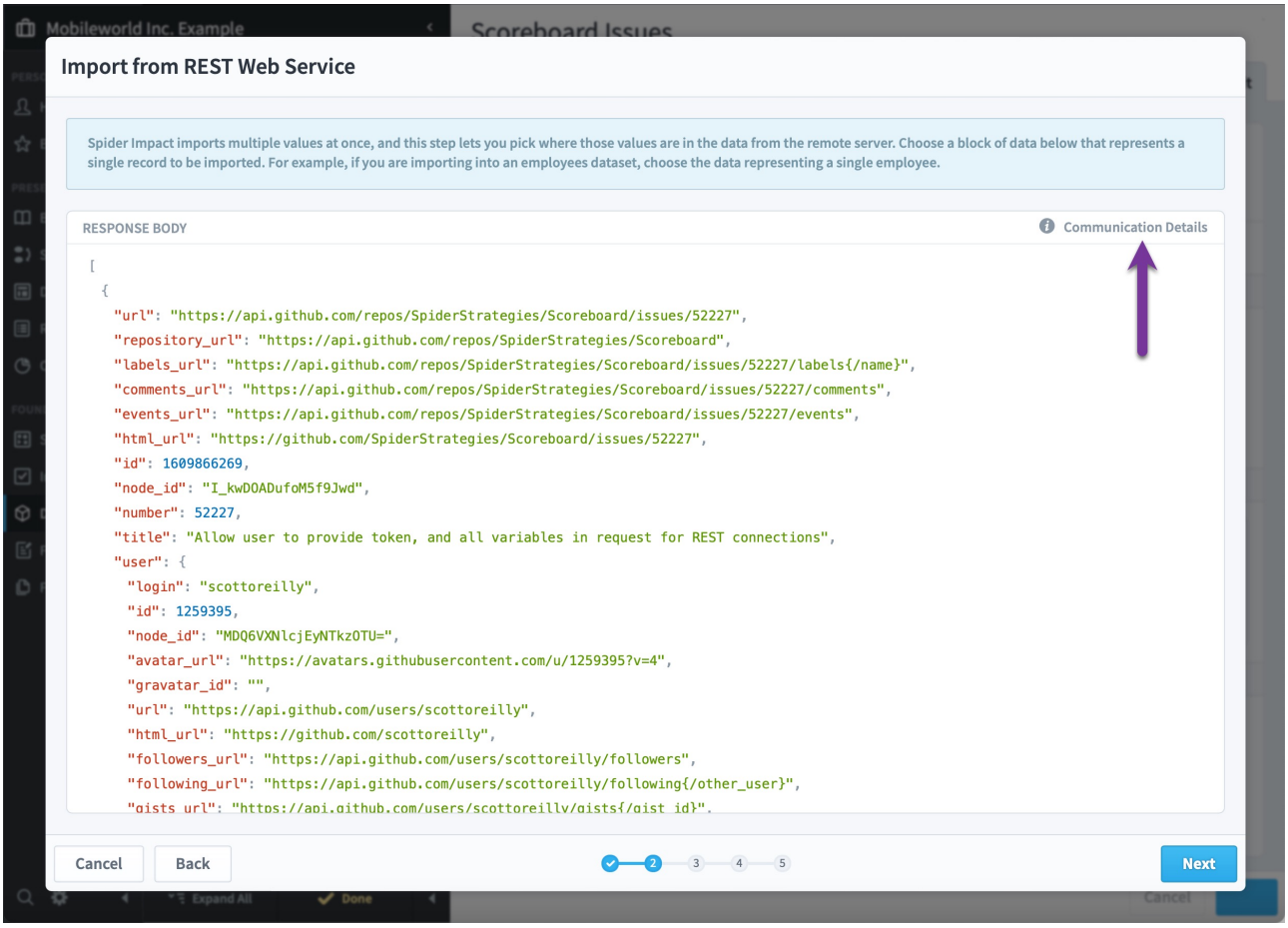
Spider Impact does its best to make this debugging as simple as possible. In this example it's saying we need to ask the server for JSON data.



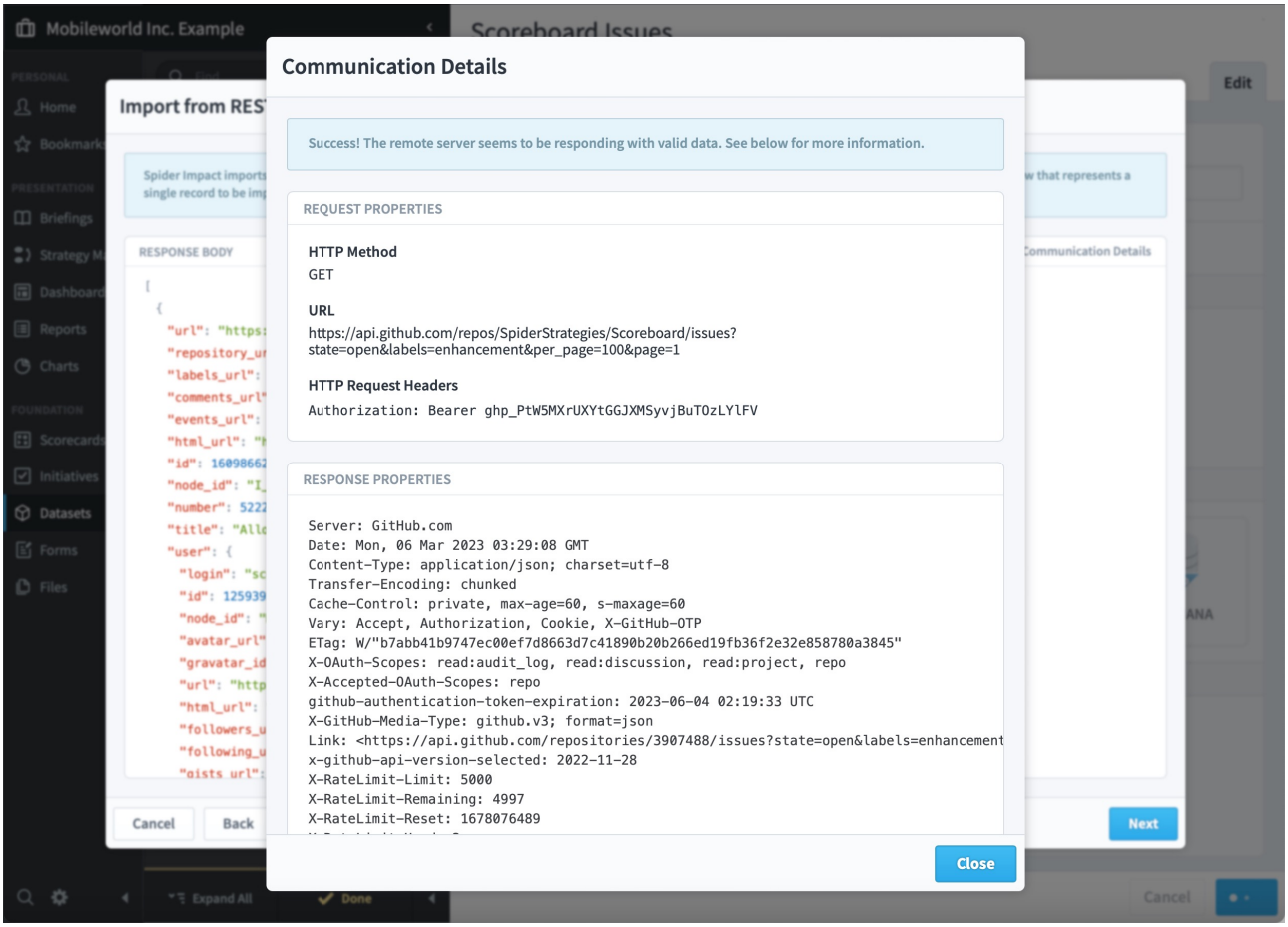
So, we'll set an Accept request header with a value of application/json and we'll try again.



Now when we click Next, we successfully advance to step 2 where we see all of the data returned from the API. Just because you see data, however, doesn't always mean it's the right data. If you still want to debug, just click the Communication Details button.

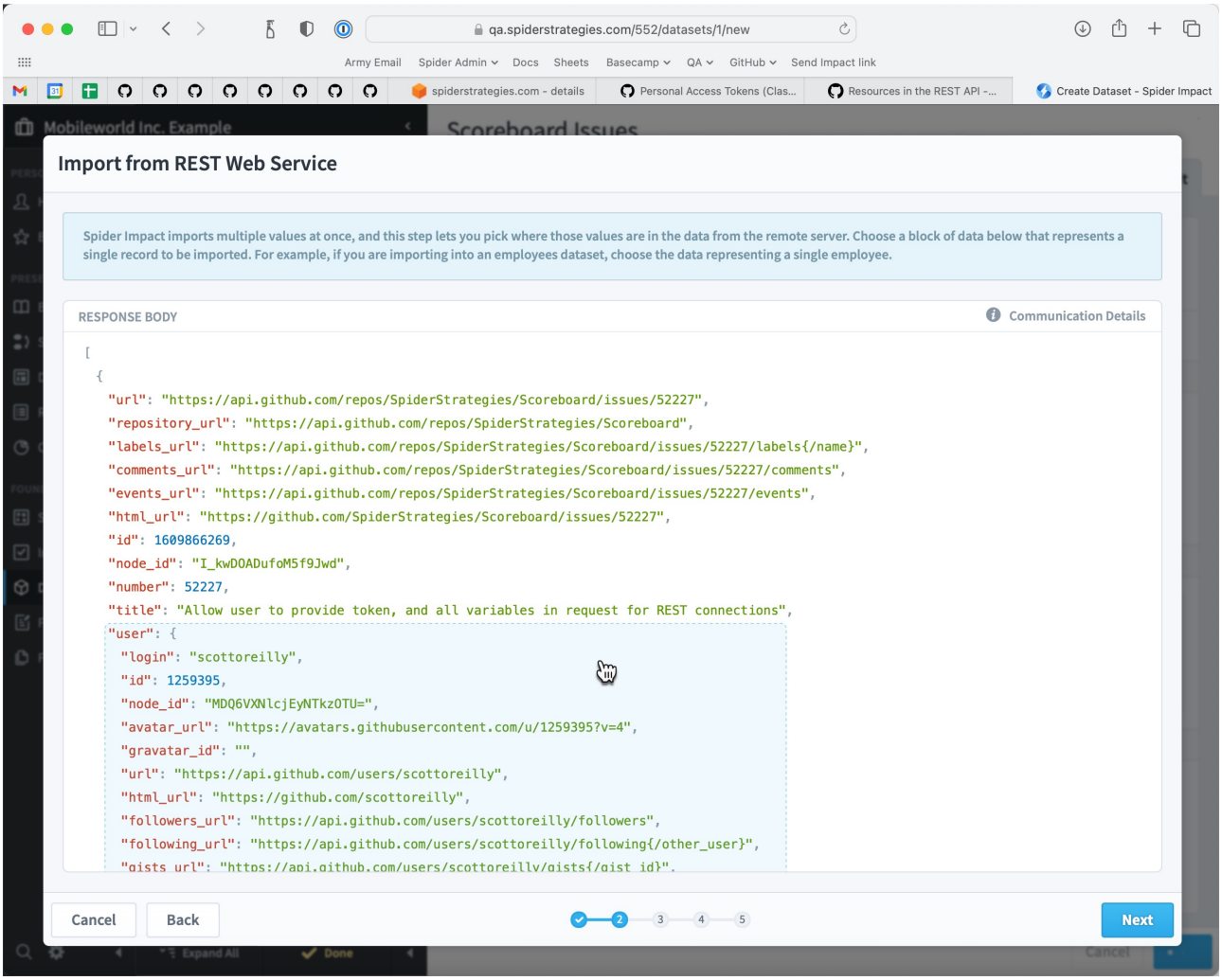


That same second-level dialog opens showing you all of the results from the server.

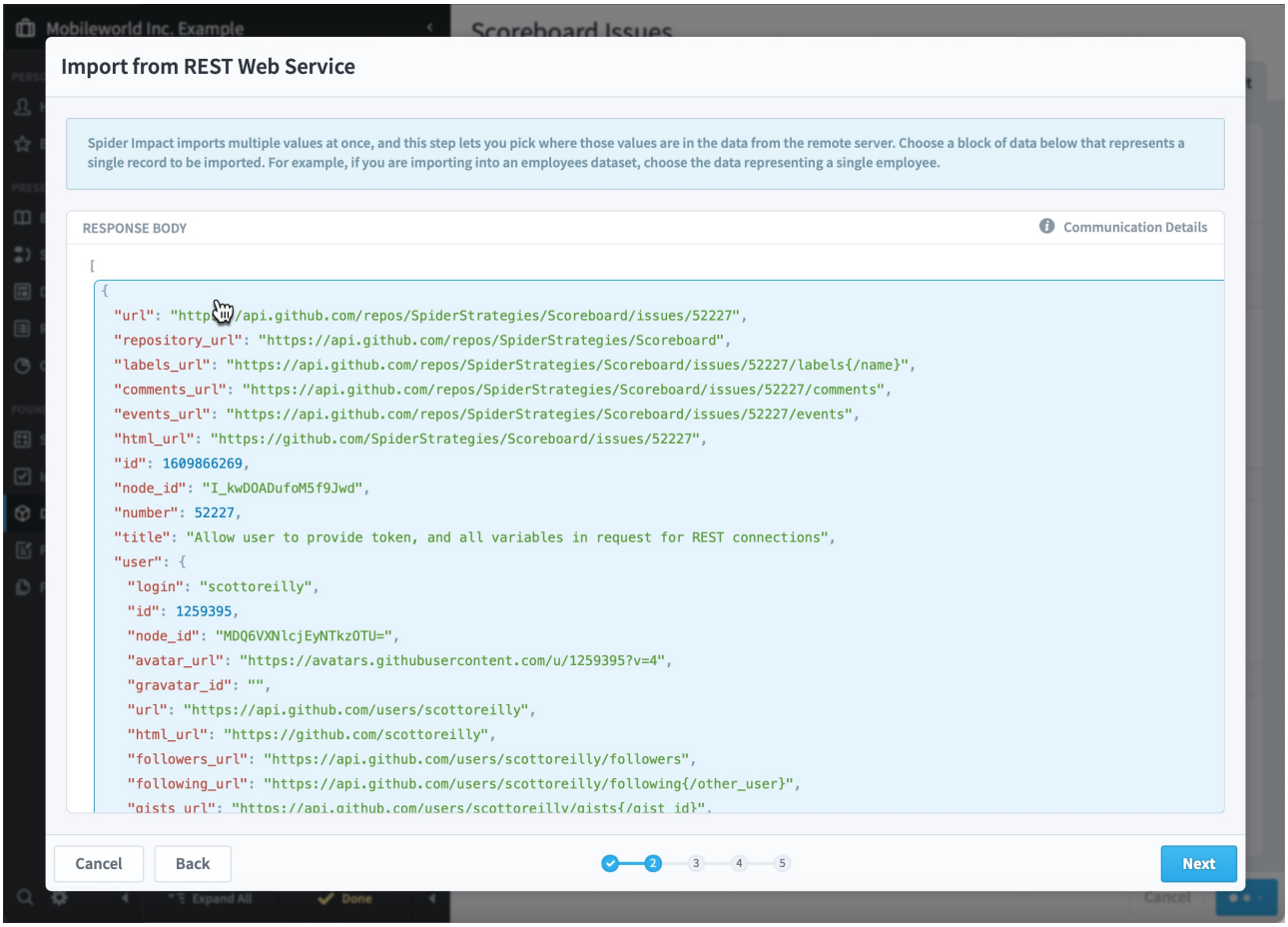


After closing that dialog, we're back on step 2 of the new import. We could click the dialog's Back button to change what we request, but this is exactly what we want, so it's time to choose our data.

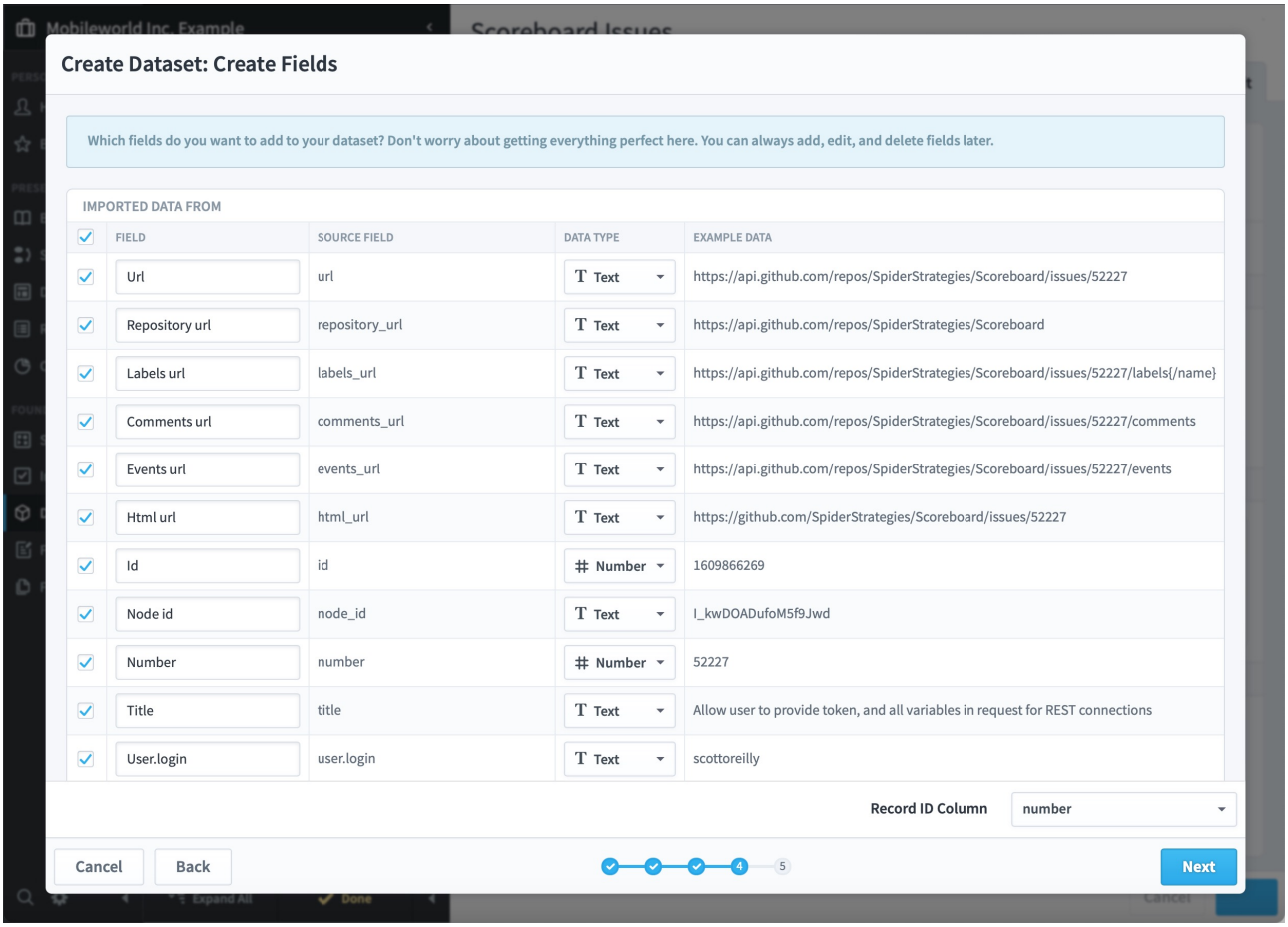
Step 2 is all about choosing the repeating blocks of the data you want. For example, if we wanted just the users, we could select this block, and it would automatically select all other user blocks just like it.



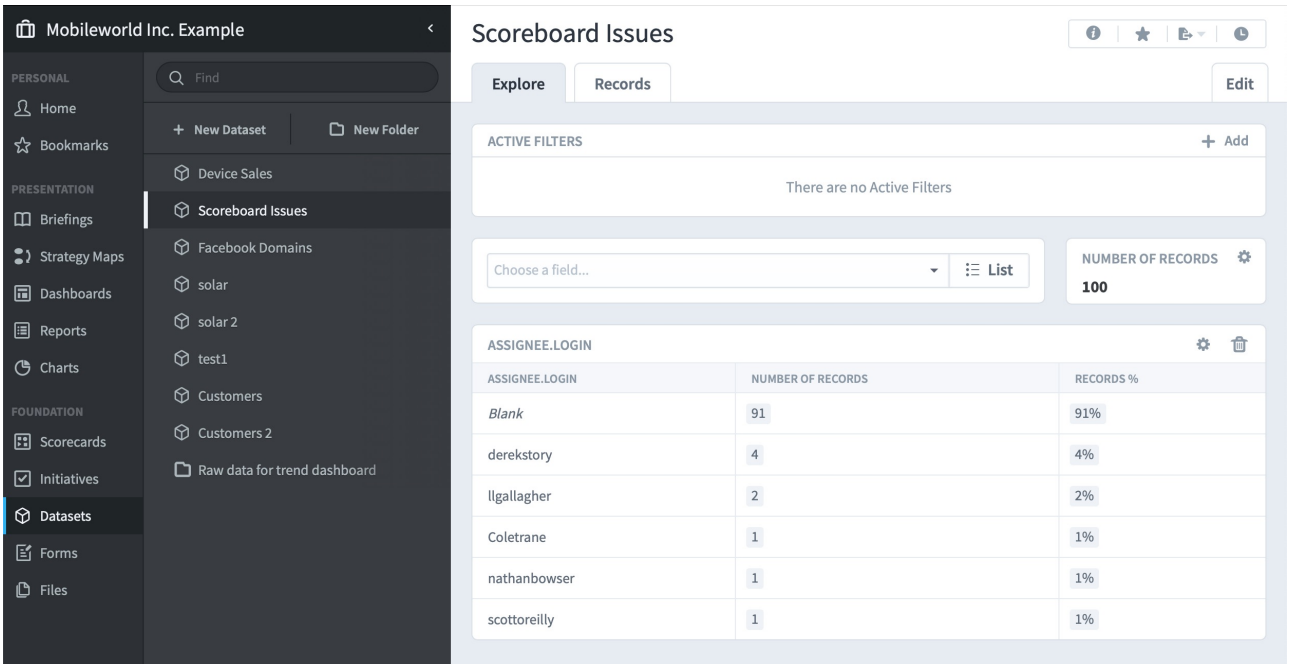
Instead, we're going to select the high-level objects in the array that represent individual issues.



When we click Next, everything from here on is the same as importing data from any source. We go to the transformation step, and then on to choosing which fields you want to create.



We'll schedule the import to run every night, and now we have a dataset with our top 100 issues that automatically updates every night.



Debugging with Curl

All modern operating systems (Windows 10+, macOS, Linux, etc.) ship with a command line utility called curl that is very helpful for debugging web service connections. Curl sends information to web servers and shows you the results. If you're having trouble setting up a web service import in Spider Impact, it can be helpful to get Impact out of the loop and just use curl to see exactly what you're sending and receiving.

For example, the Zendesk Sell API says that you can get information about your Zendesk Sell user from the API endpoint https://api.getbase.com/v2/users/self. And, the API instructions say you need to set an Accept HTTP header with a value of application/json. So, we'll hit that endpoint via curl by typing this into Terminal (or whatever command line utility our operating system has):

```
curl https://api.getbase.com/v2/users/self \
-H "Accept: application/json"
```

The server's response is:

```
{"errors":[{"error":{"code":"unauthorized", "details":"Required access token i
```

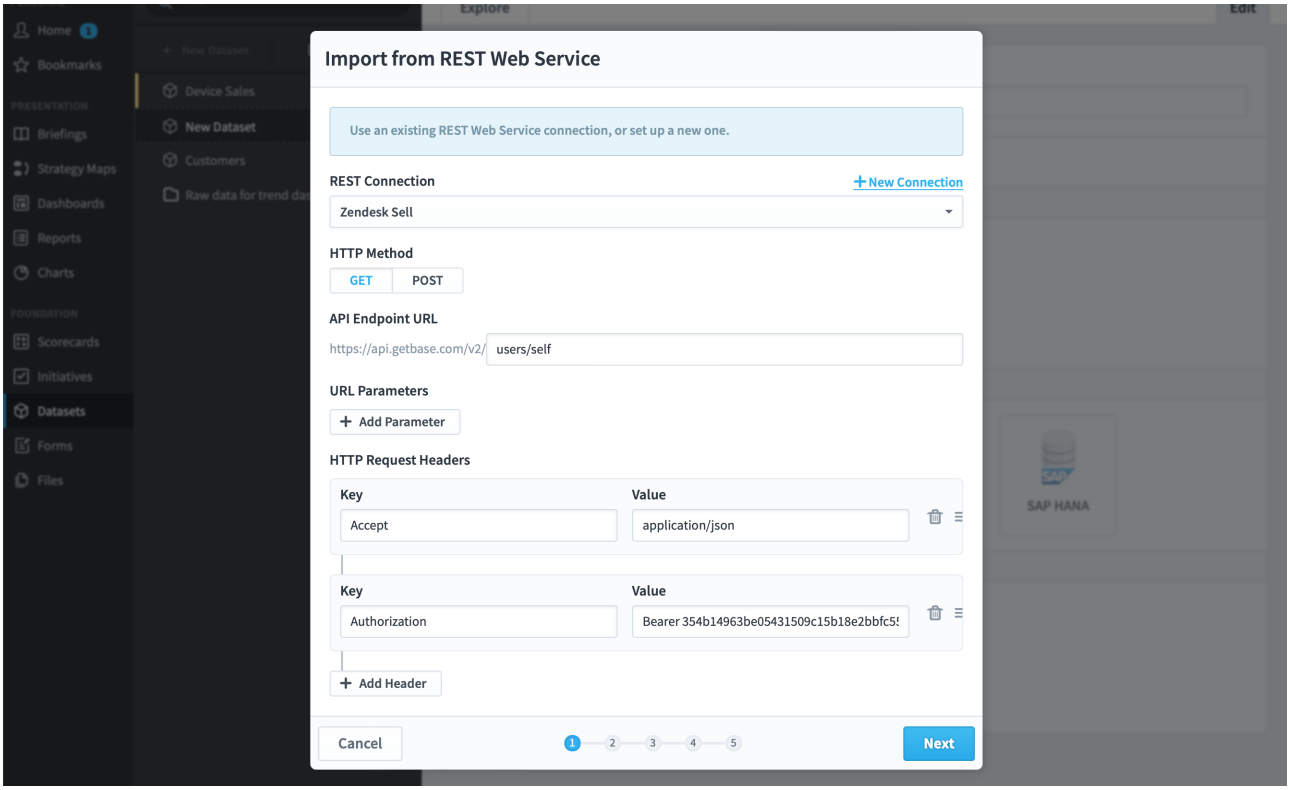
It says "Required access token is missing". When we double-check the API documentation, sure enough, it does say we need to provide a token that we get from Zendesk Sell. So we'll try again with this:

```
curl https://api.getbase.com/v2/users/self \
-H "Accept: application/json" \
-H "Authorization: Bearer 354b14963be05431509c15b18e2bbfc558edf7fbd2cb42f72bb7
```

This time the server returns:

```
{"data":{"id":15606,"name":"Dev Team","email":"test@spiderstrategies.com","pho
```

Success! Now we can confidently create an import based on connection data that we know works.


Import from REST Web Service
Use an existing REST Web Service connection, or set up a new one.
REST Connection
+ New Connection
Zendesk Sell
HTTP Method
GET
POST
API Endpoint URL
https://api.getbase.com/v2/
users/self
URL Parameters
+ Add Parameter
HTTP Request Headers
Key
Value
Accept
application/json
Key
Value
Authorization
Bearer 354b14963be05431509c15b18e2bbfc5
+ Add Header
Cancel
1
2
3
4
5
Next

Importing Data with Zapier

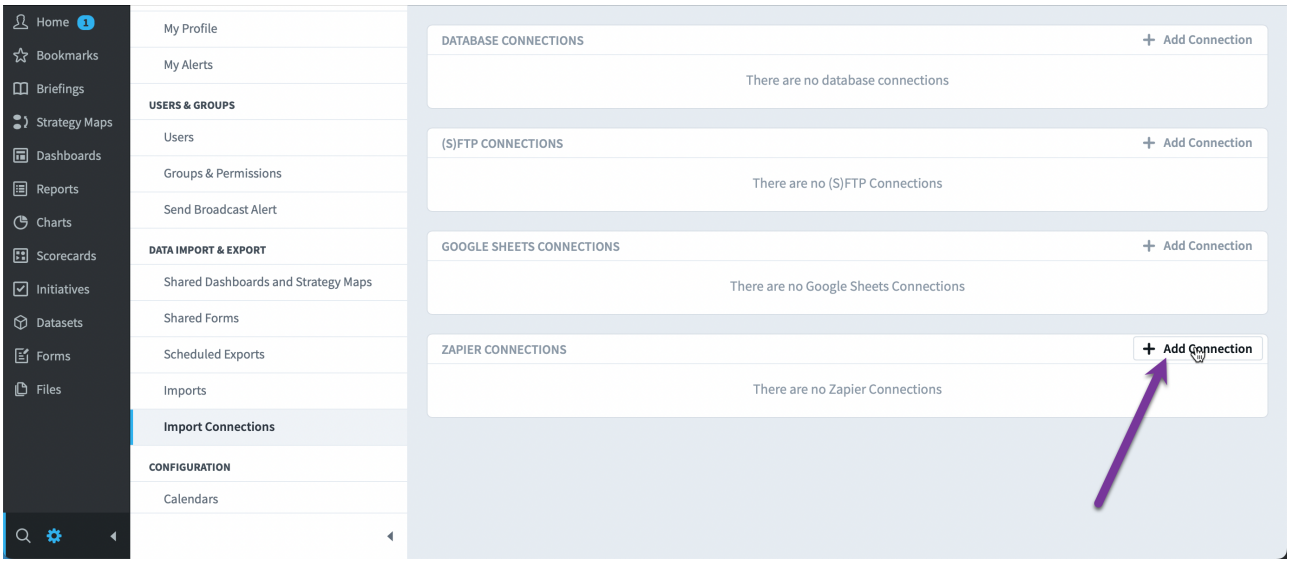
Zapier is a website that allows you to choose from over 5,000 data sources, and then push your data to Spider Impact. It's a paid service that allows technical people to import data from other websites without coding.

Zapier only works with cloud software that has chosen to share their data with Zapier. Each company creates and maintains their own Zapier integration, and Zapier acts as a traffic cop, pulling data from one piece of software and pushing it into another.

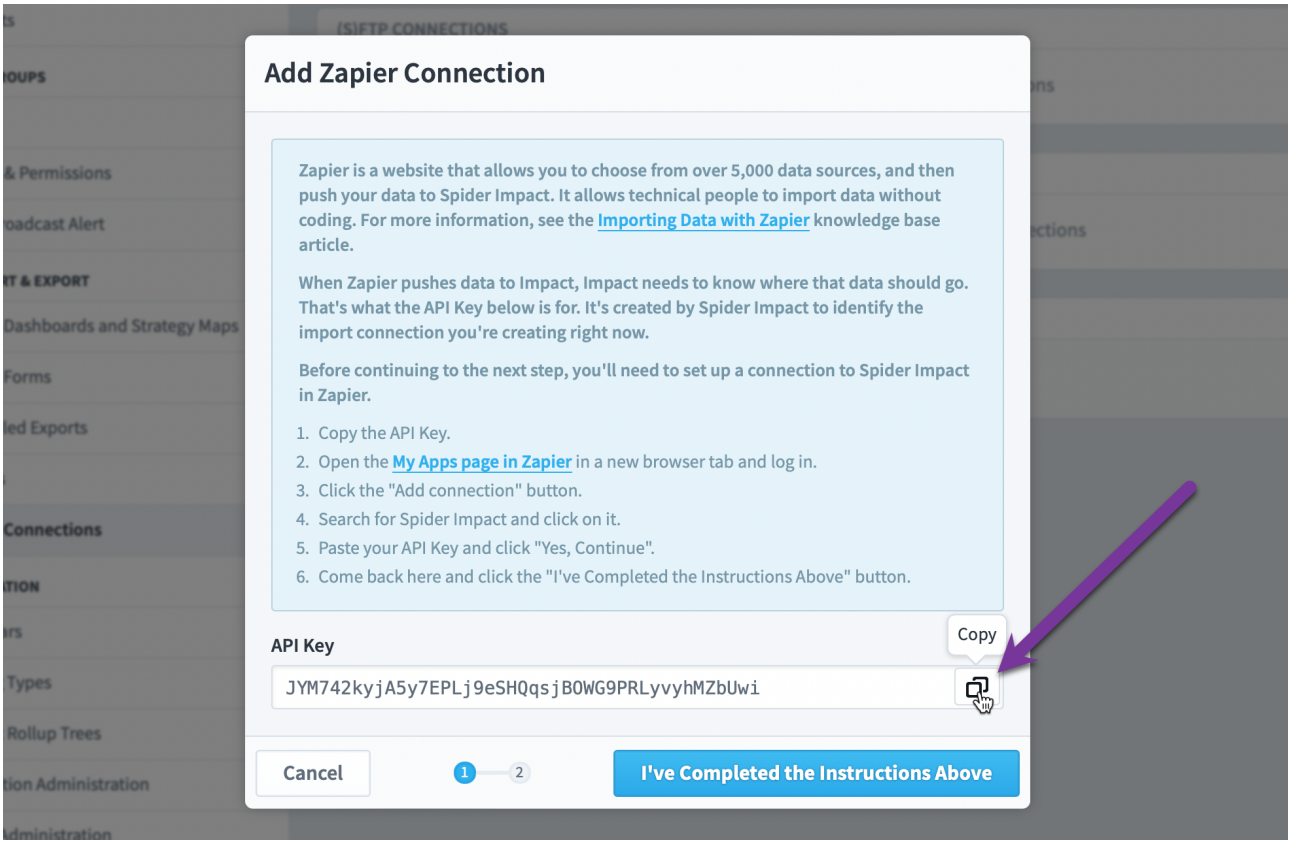
Finally, it's important to note that not every Zapier data source is a great fit for Spider Impact. That's because the types of data that you can get depends on what the owners of that data source have chosen to share with Zapier. For example, some data sources expose their full historical data, while others only send information about events as they happen.

Setting up the connection between Zapier and Spider Impact

The first step is to set up a Zapier import connection inside of Spider Impact. Here we're clicking "Add Connection" on the Administration > Import Connections page.

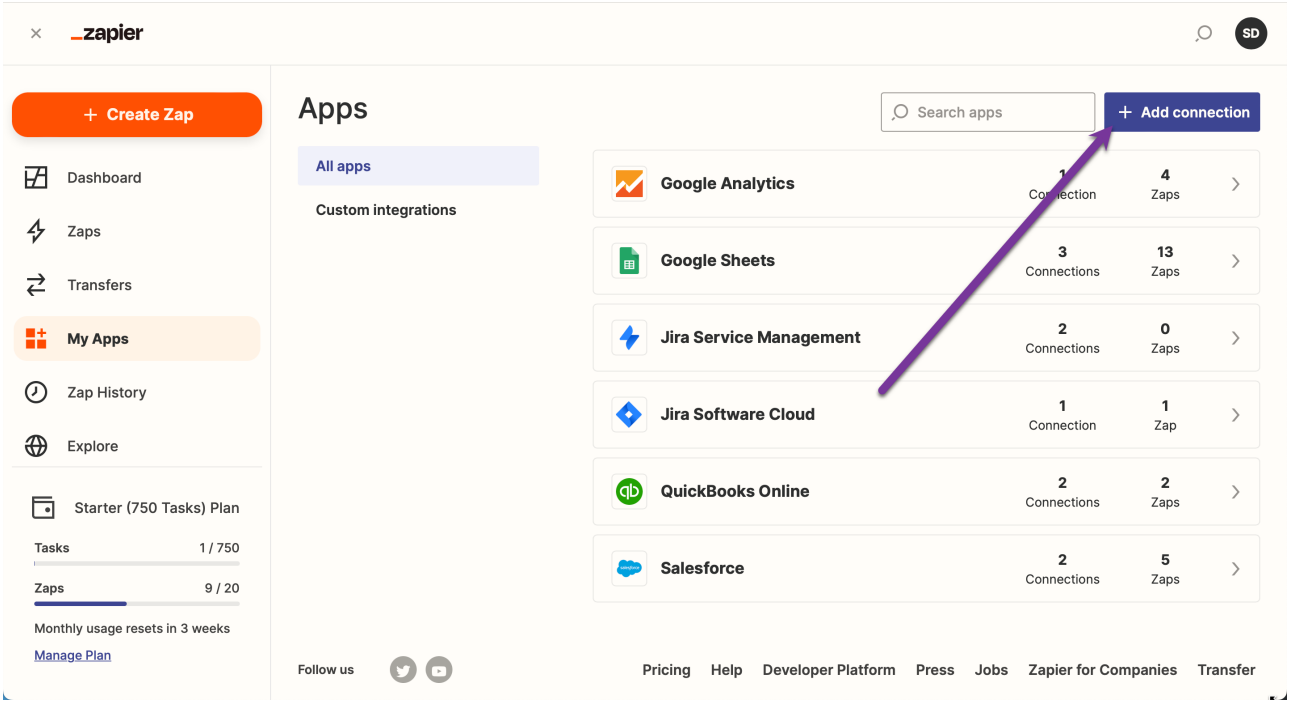


This opens the "Add Zapier Connection" dialog. When Zapier pushes data to Impact, Impact needs to know where that data should go. That's what the API Key here is for. It's created by Spider Impact to identify the import connection you're creating right now.

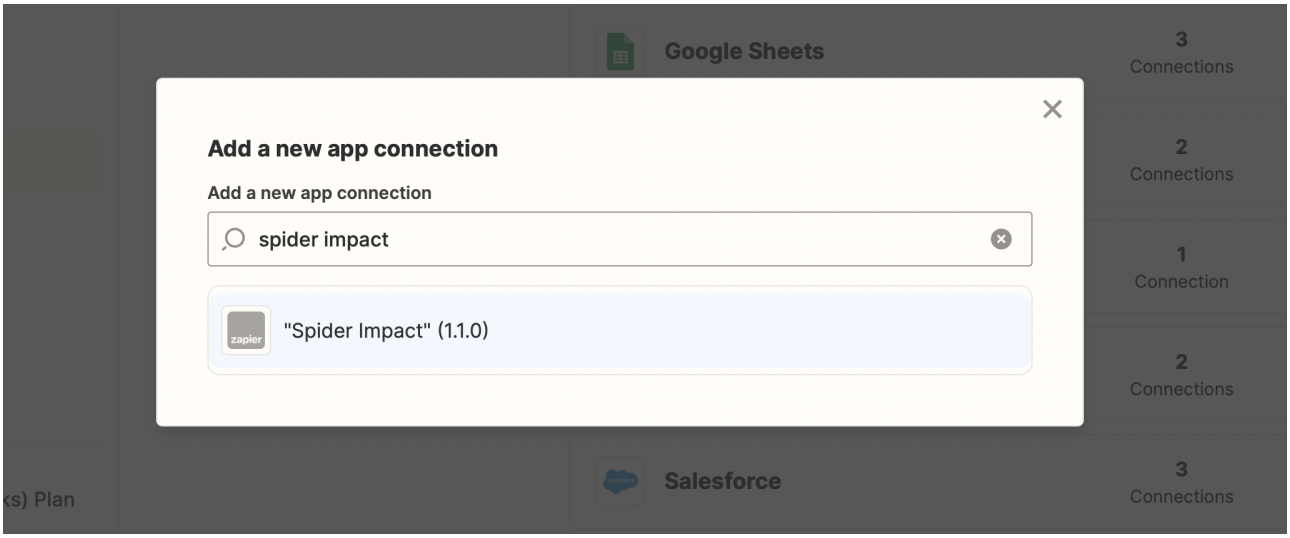


Zapier is going to need this API Key, so click the "Copy" button to copy it.

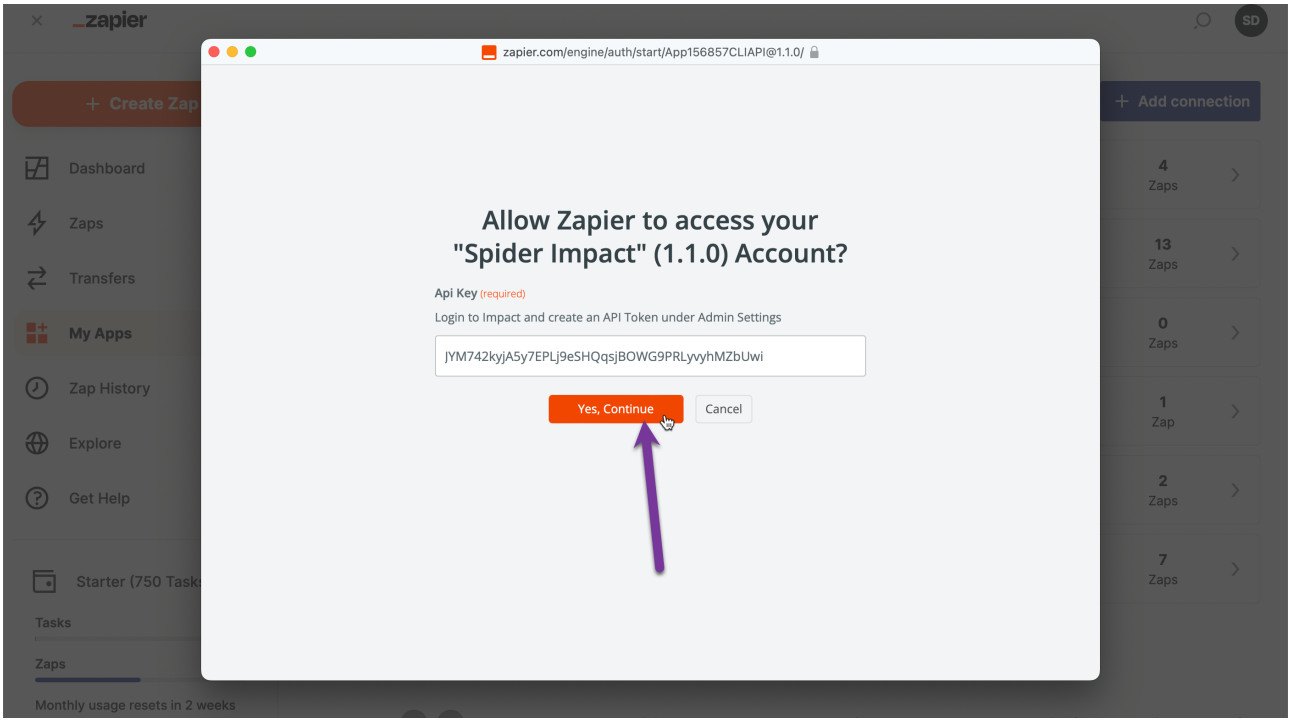
Before continuing to the next step in Spider Impact, you'll need to set up a connection to Impact in Zapier. Open the My Apps page in Zapier in a new browser tab and log in. Then click the "Add connection" button.



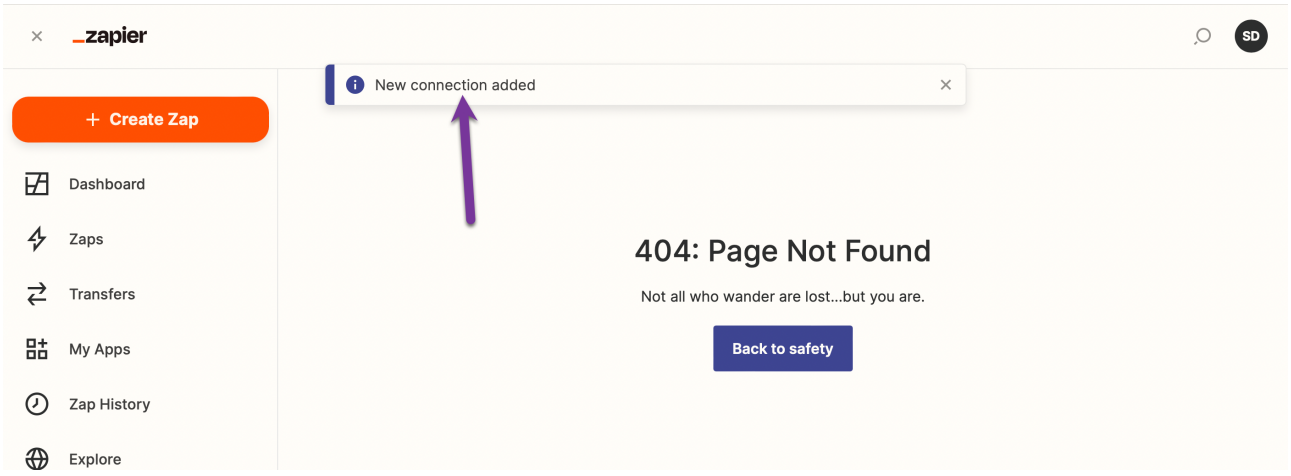
Search for Spider Impact and click on it.



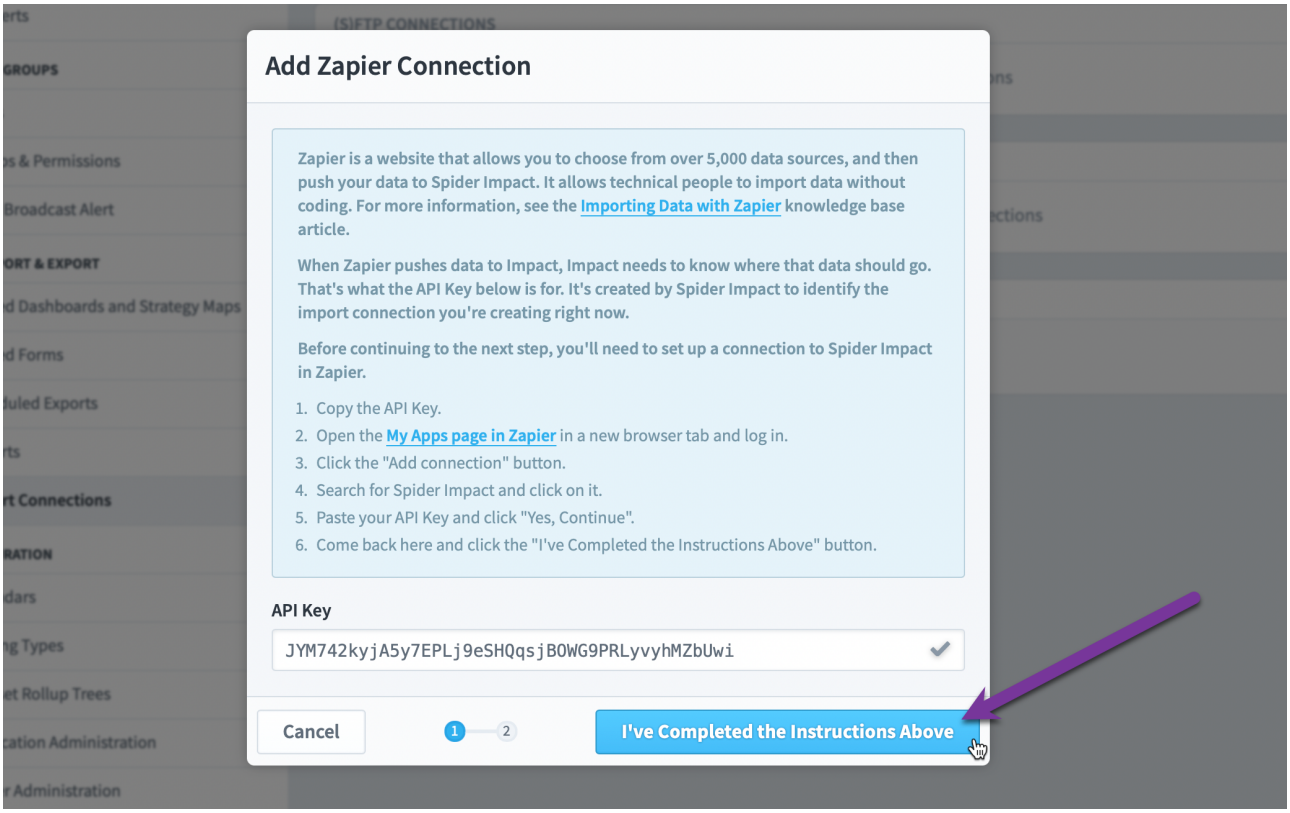
A new window will open. Paste the API Key that you copied from Spider Impact, and click "Yes, Continue".



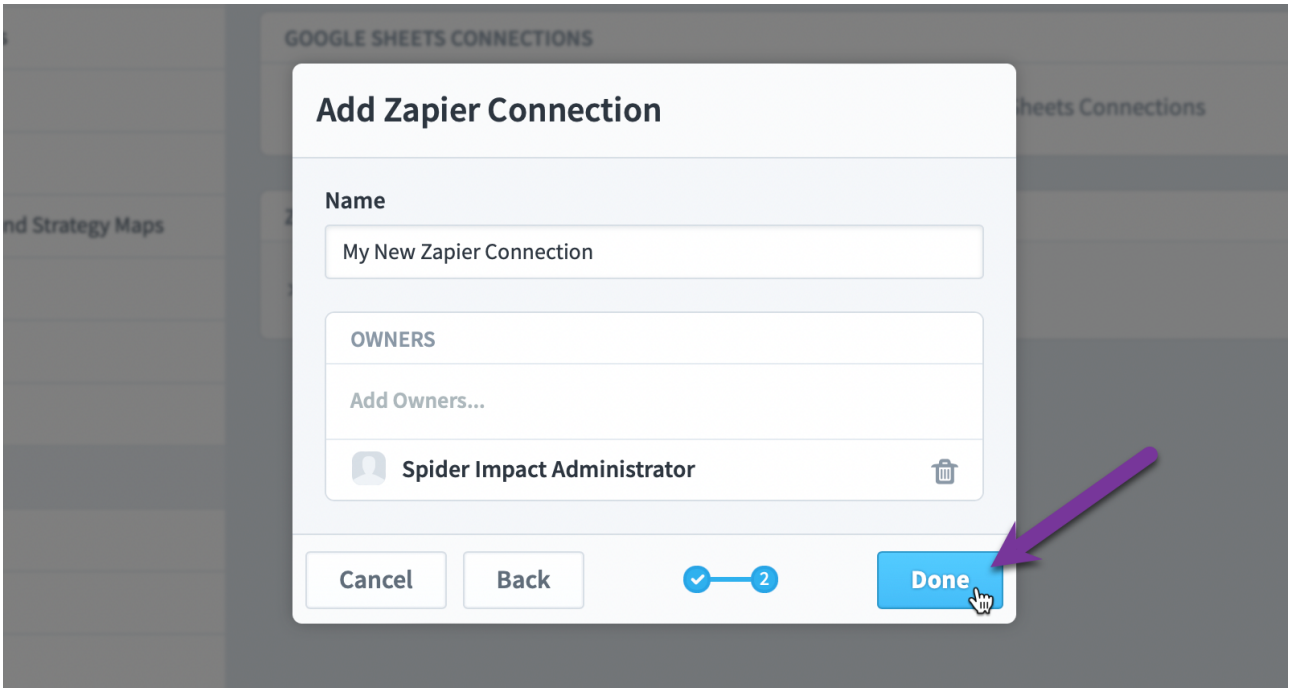
Zapier will show a "New connection added" success message, but unfortunately it's on the top of a "404: Page Not Found" message. Don't worry, everything is working correctly. We hope Zapier fixes this bug soon.



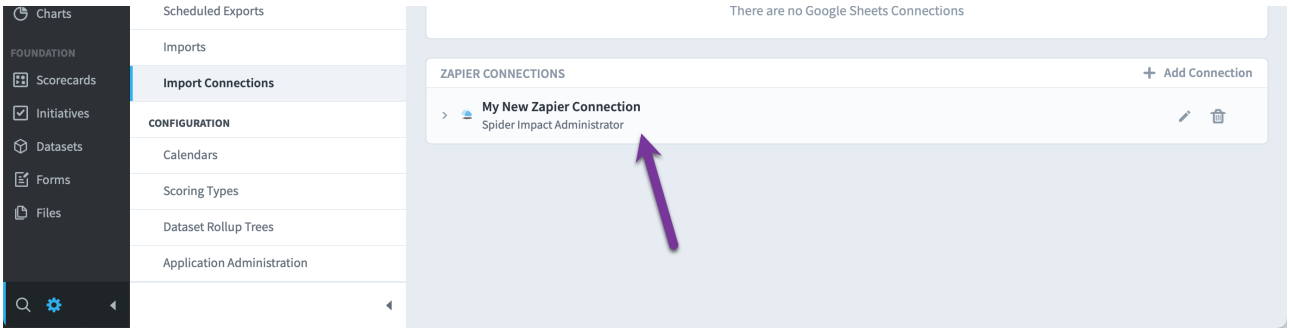
You've just created the Zapier half of the connection. Now it's time to go back to Impact and finish the other half. Click the "I've Completed the Instructions Above" button.



Finally, give your Zapier connection a name, assign it owners if you want, and click Done.



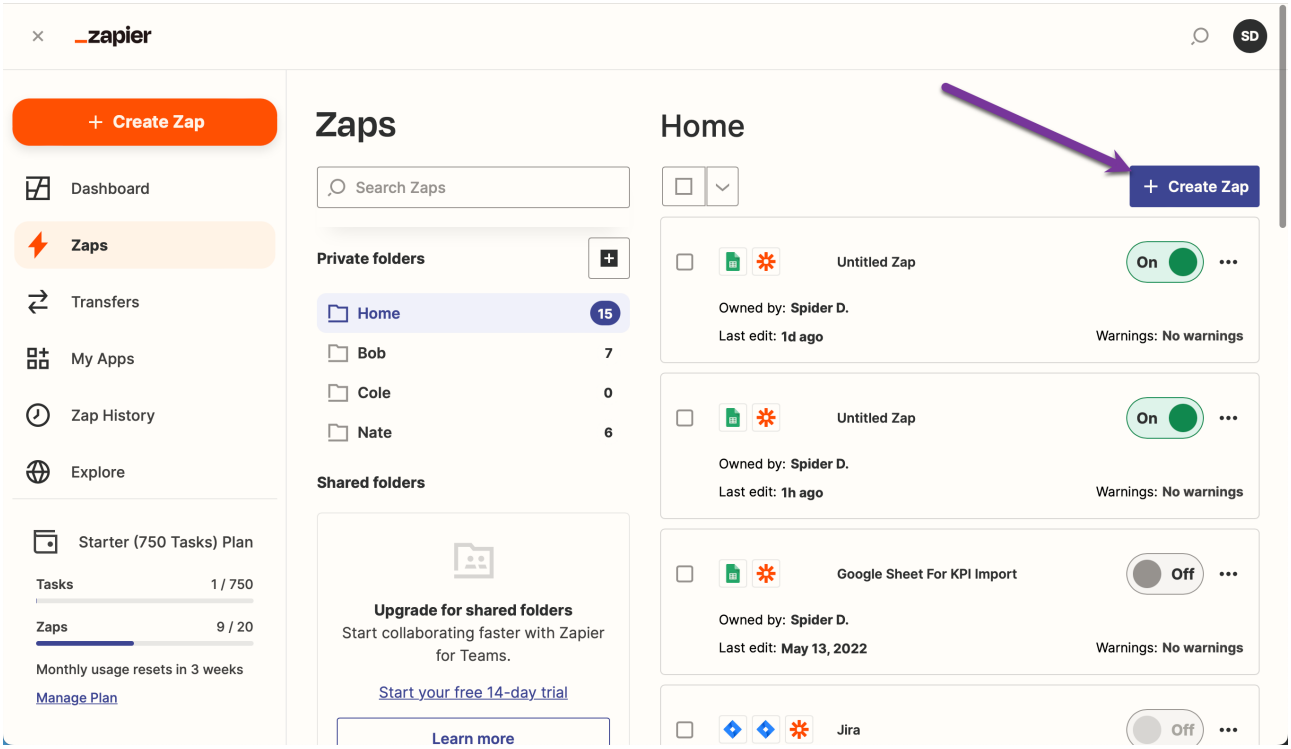
Your new Zapier connection is now shown on the Import Connections screen.



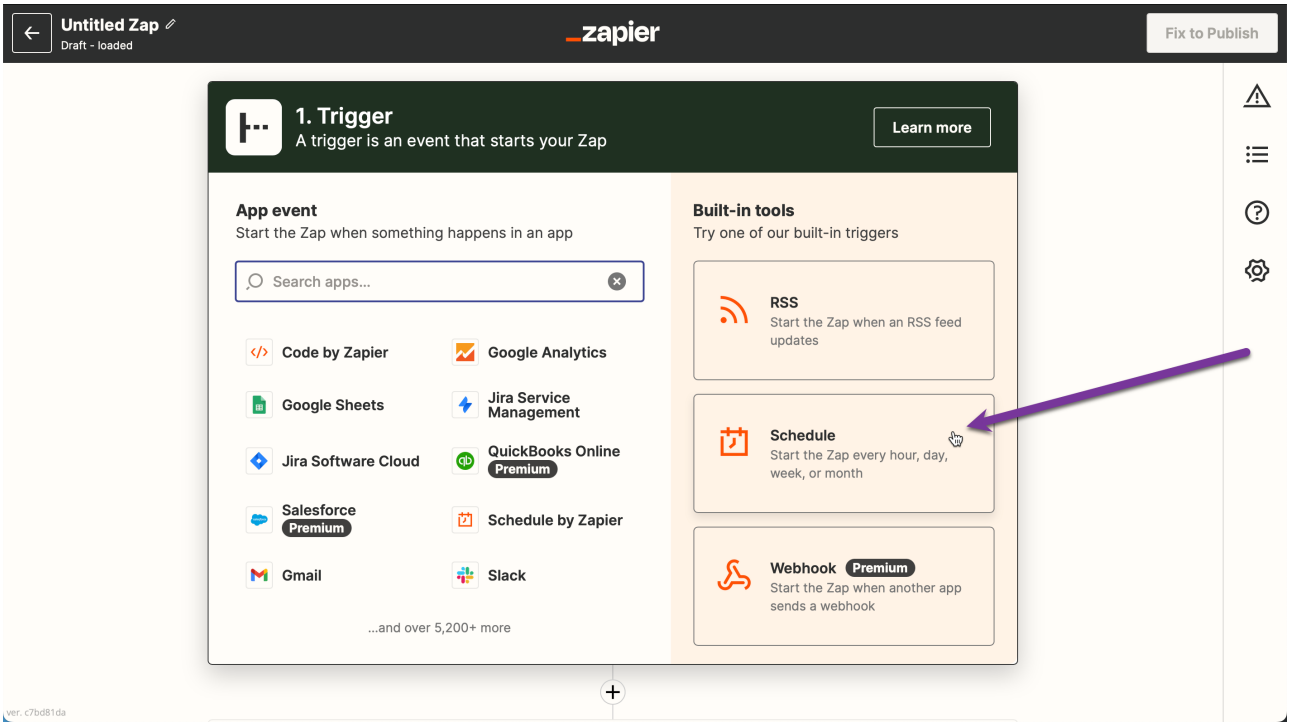
Creating a Zap

Now that both ends of the data connection have been set up, Spider Impact will start catching any data that Zapier sends it. It's not a problem that Impact doesn't know what to do with the data yet. It's just going to happily collect data from Zapier until you create an import to use it.

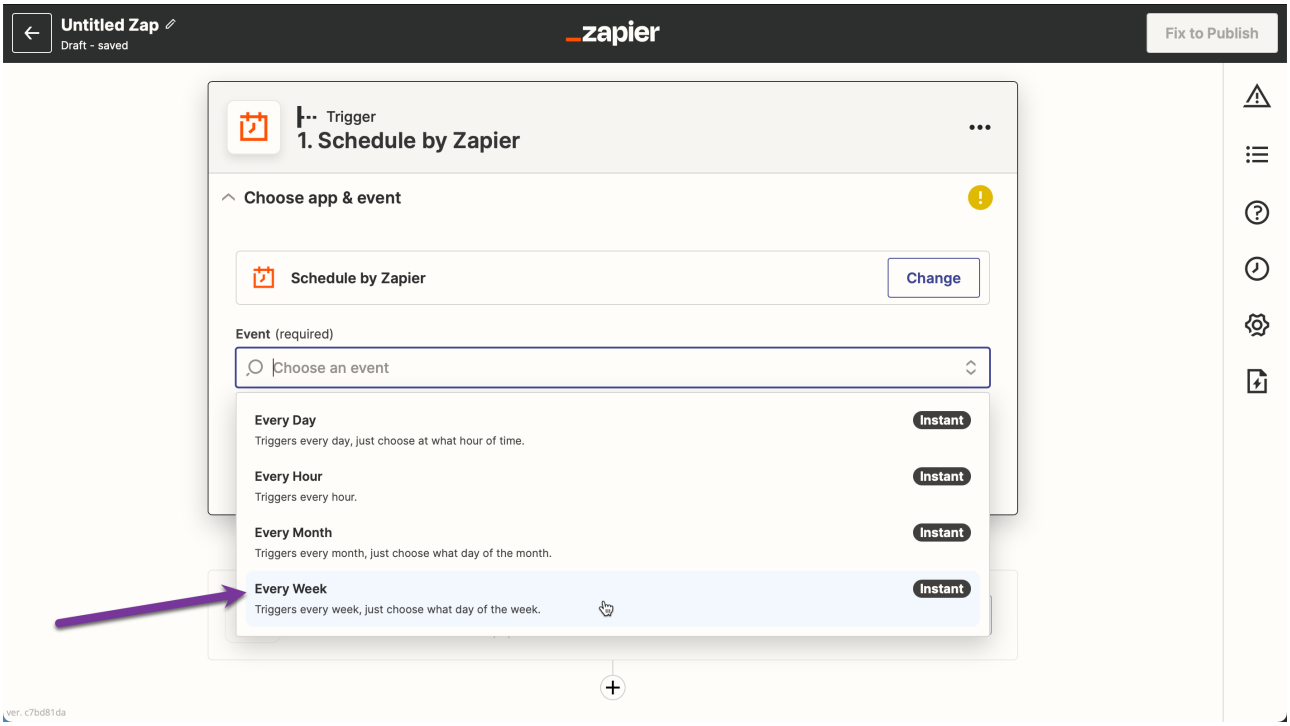
So, the next step is to create a Zap in Zapier that sends data to Impact. To do this we'll open the Zaps page in Zapier and click the "Create Zap" button.



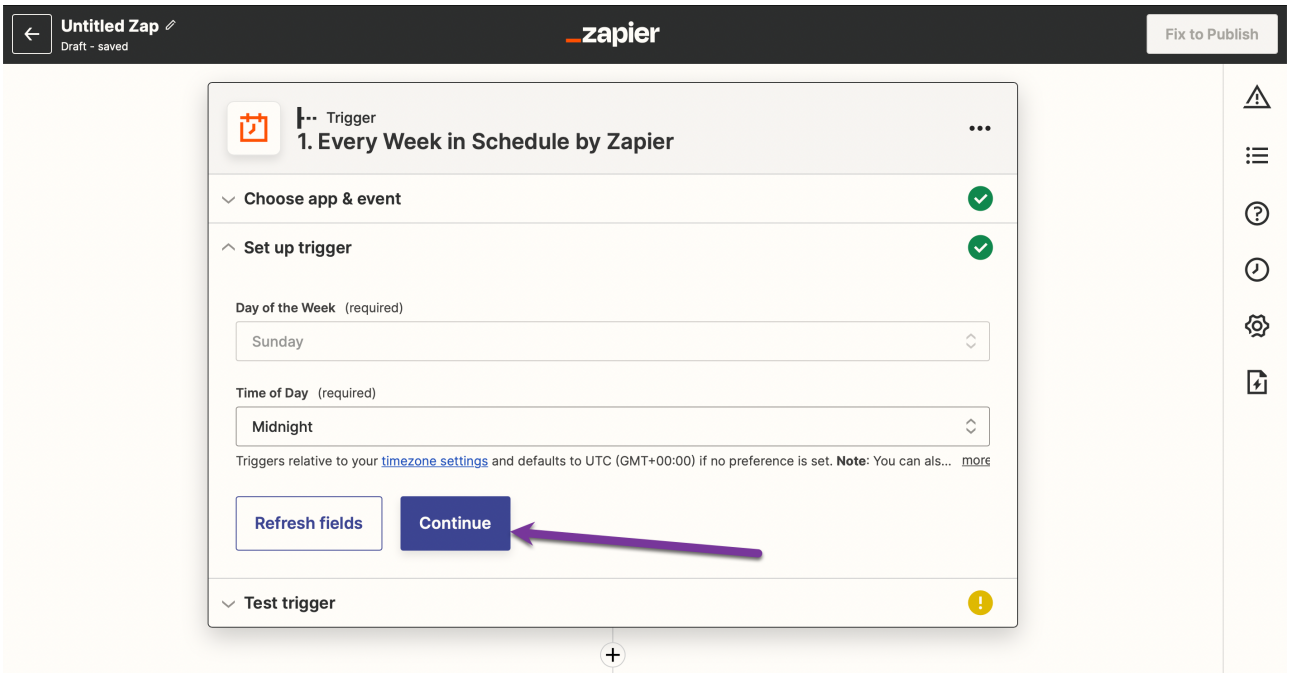
The first part of setting up a new Zap is choosing its trigger. This is the event that is going to start the process of sending data to Spider Impact. It could be when something happens in an app, like a new issue being created in a support ticket system. Or it could be a built-in tool like when a webhook fires. In this example we're going to choose for the trigger to happen on a schedule.



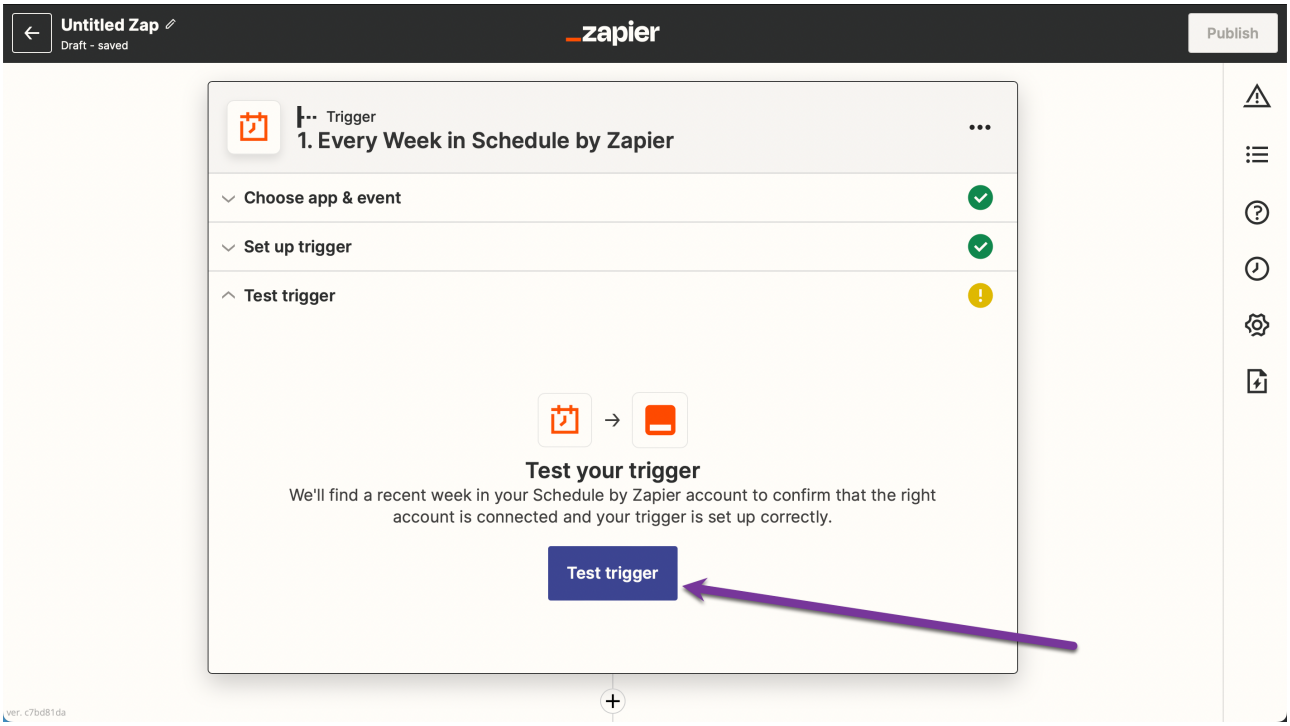
We'll choose to run our Zap every week...



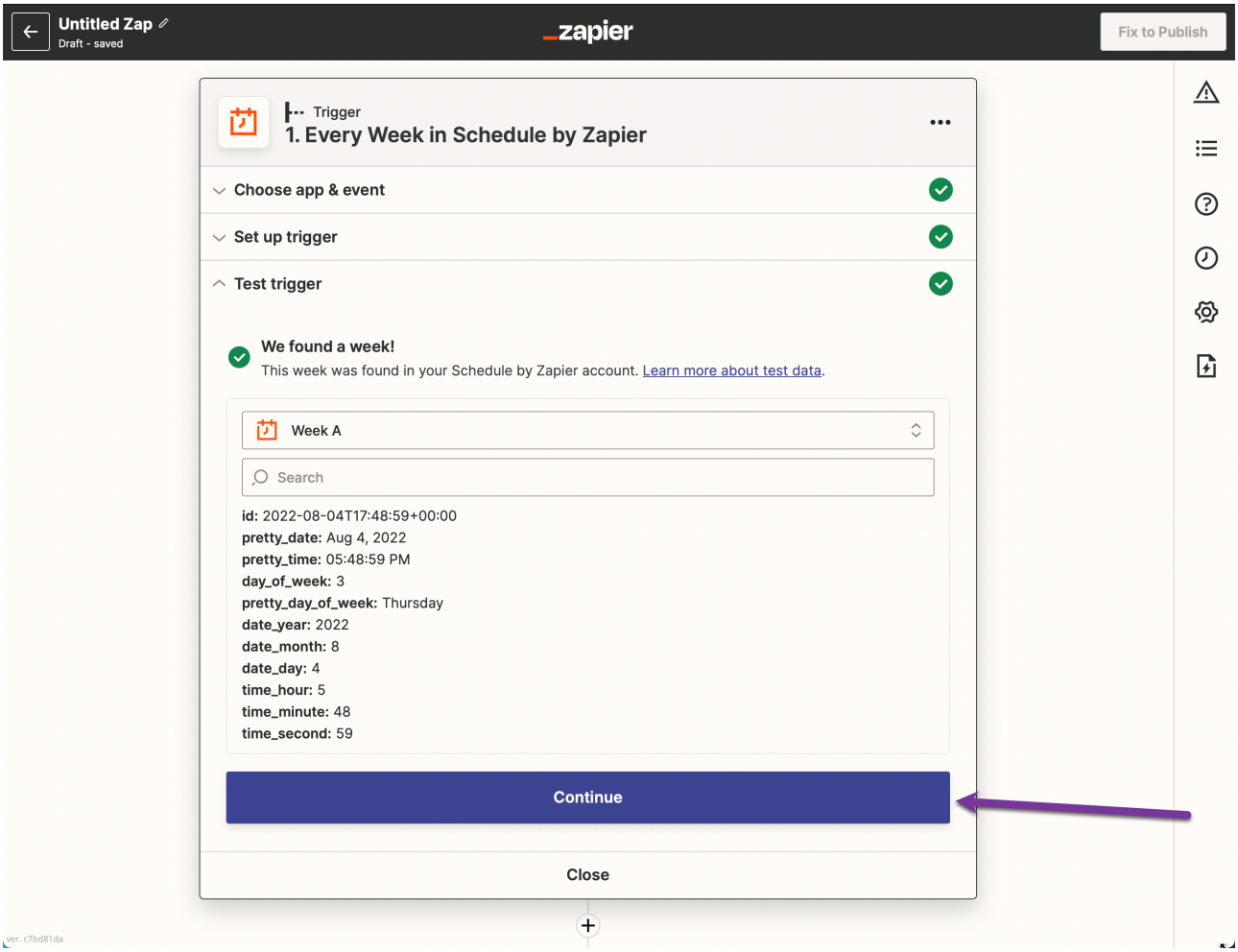
... on Sunday at midnight.



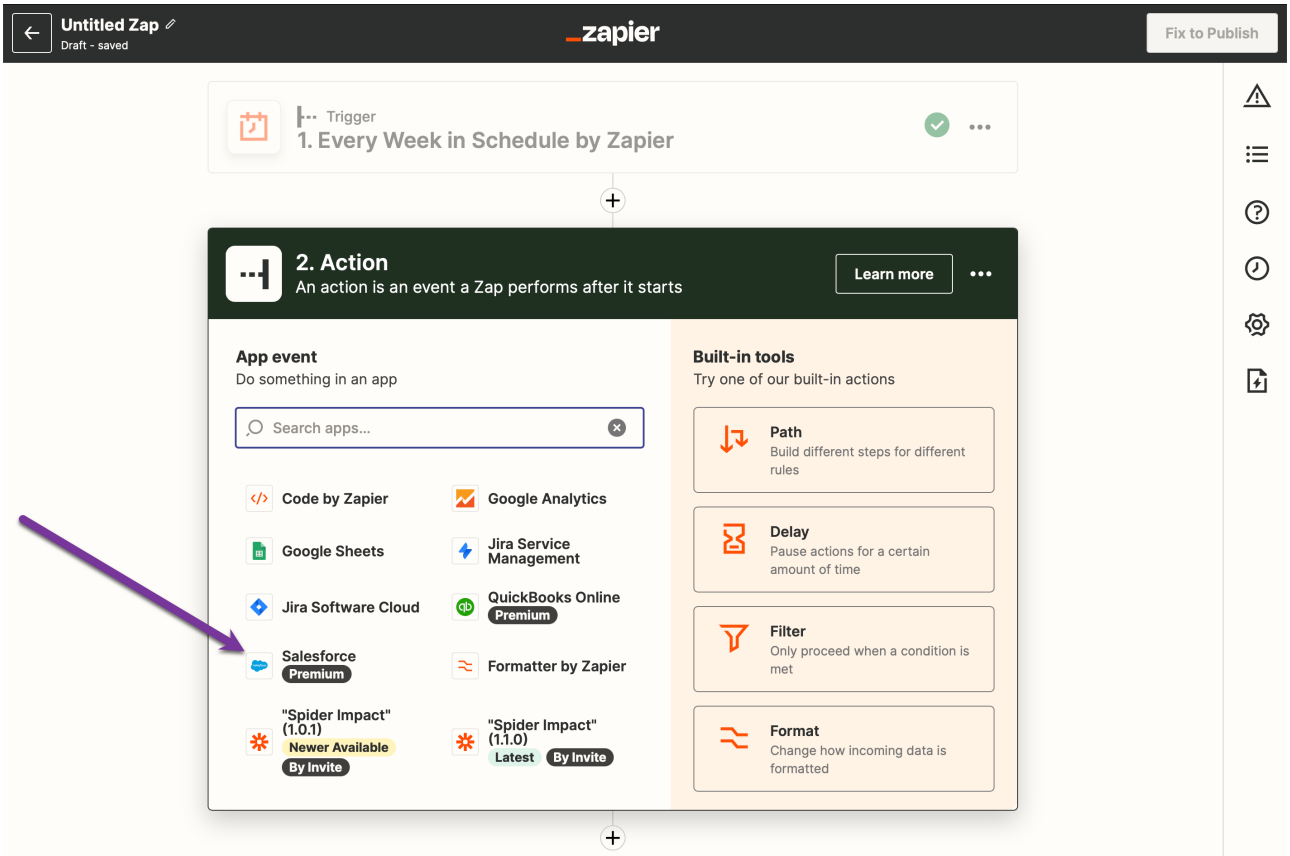
We'll now test the trigger...


Untitled Zap
Draft - saved
zapier
Publish
Trigger
1. Every Week in Schedule by Zapier
Choose app & event
Set up trigger
Test trigger
Test your trigger
We'll find a recent week in your Schedule by Zapier account to confirm that the right account is connected and your trigger is set up correctly.
Test trigger

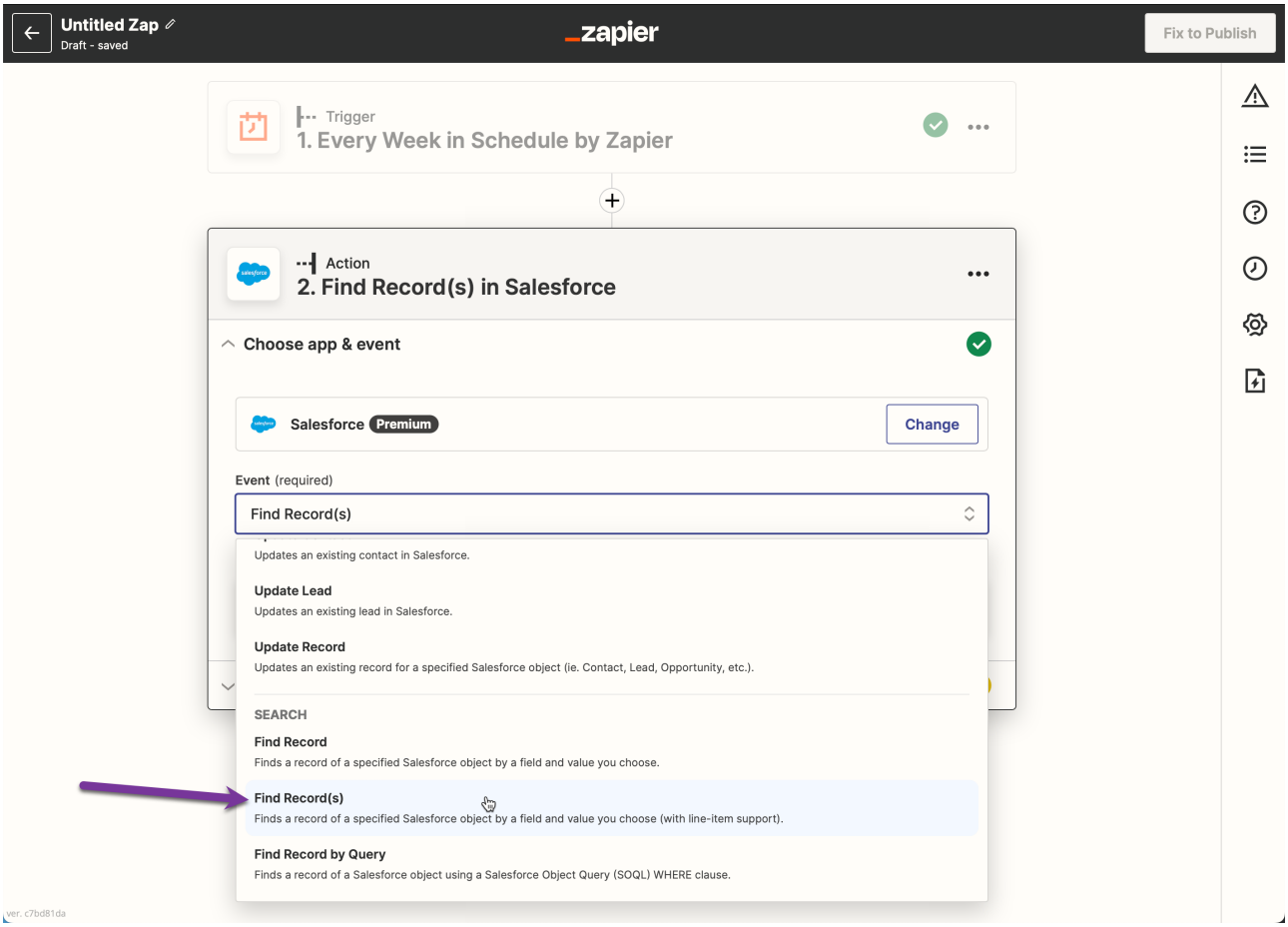
... and it works.



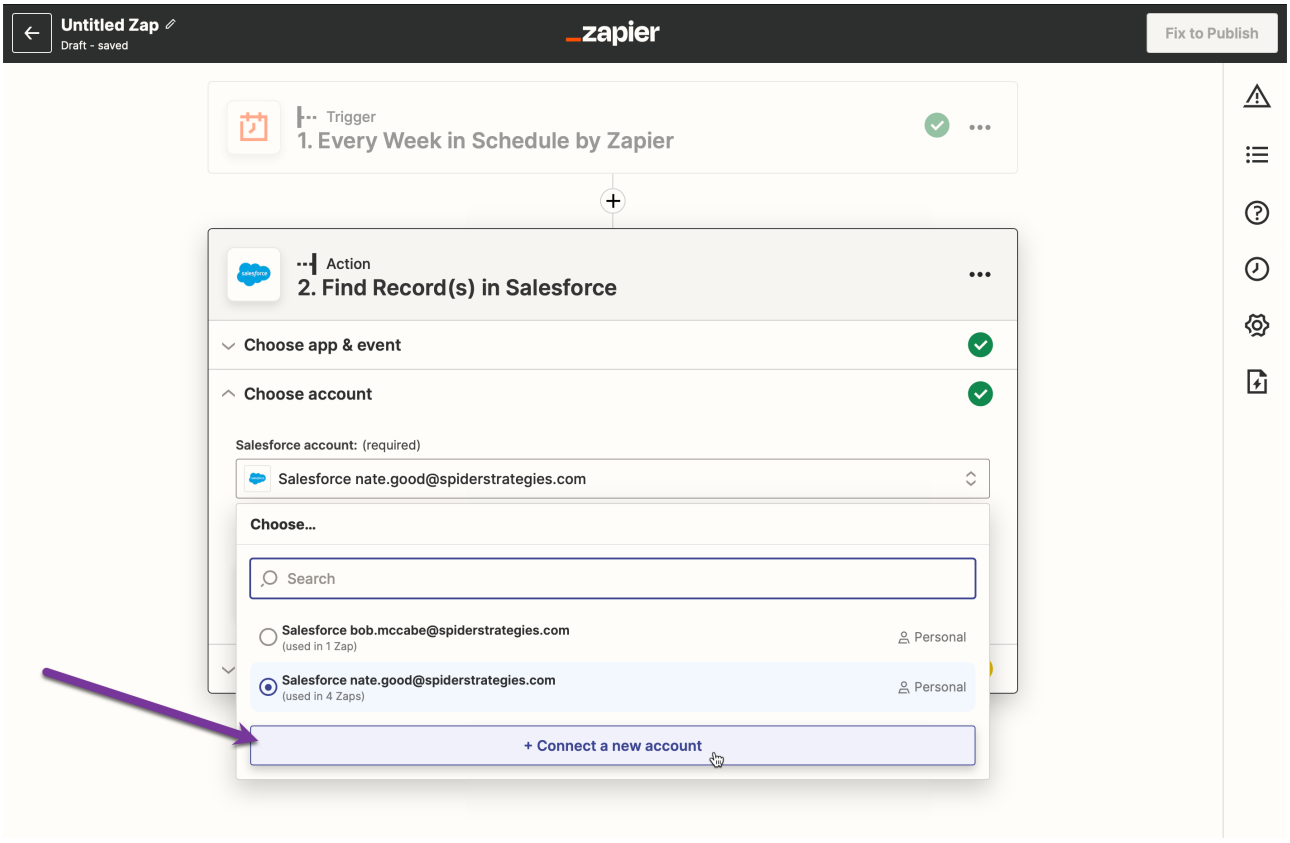
When we click Continue, we move on to the next step in the Zap setup process, choosing the Action. There are literally thousands of things you can do for an action, but you'll often want to choose to get data from an app. In this example we'll choose Salesforce.

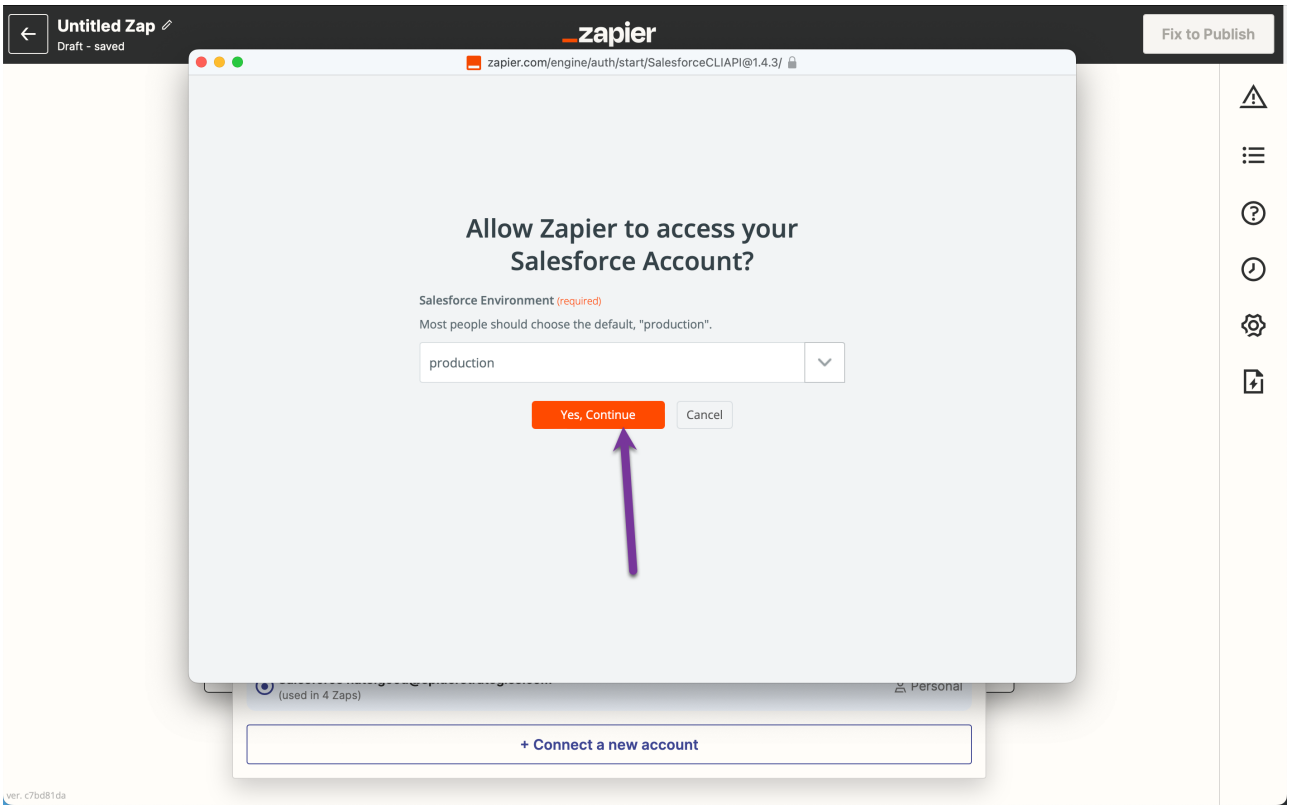


There is a list of Events that Salesforce allows us to choose from, and these options are different for every app. We'll choose "Find Record(s)" because we want to get records out of Salesforce.



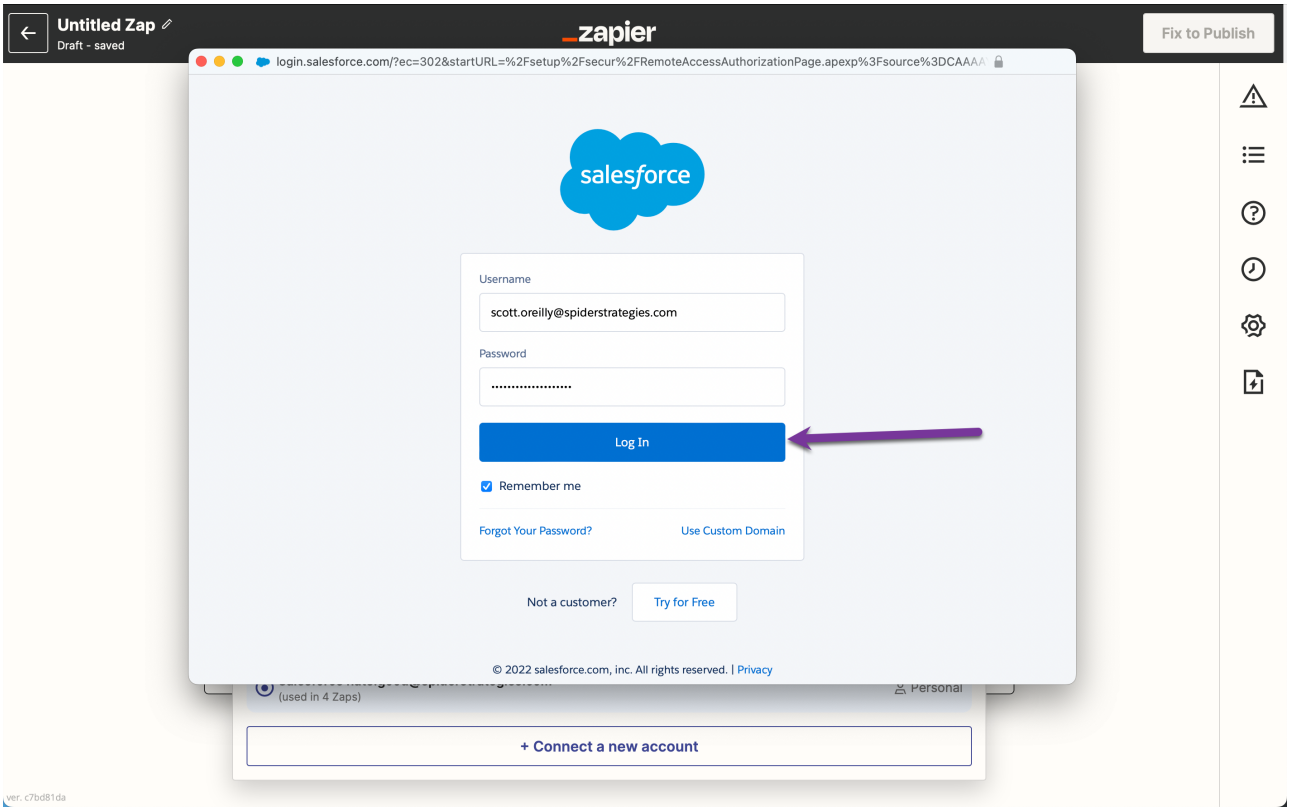
Next, we need to authenticate with Salesforce. We'll choose "Connect a new account".


Untitled Zap
Draft - saved
zapier
Fix to Publish
Trigger
1. Every Week in Schedule by Zapier
Action
2. Find Record(s) in Salesforce
Choose app & event
Choose account
Salesforce account: (required)
Salesforce nate.good@spiderstrategies.com
Choose...
Search
Salesforce bob.mccabe@spiderstrategies.com
(used in 1 Zap)
Personal
Salesforce nate.good@spiderstrategies.com
(used in 4 Zaps)
Personal
+ Connect a new account

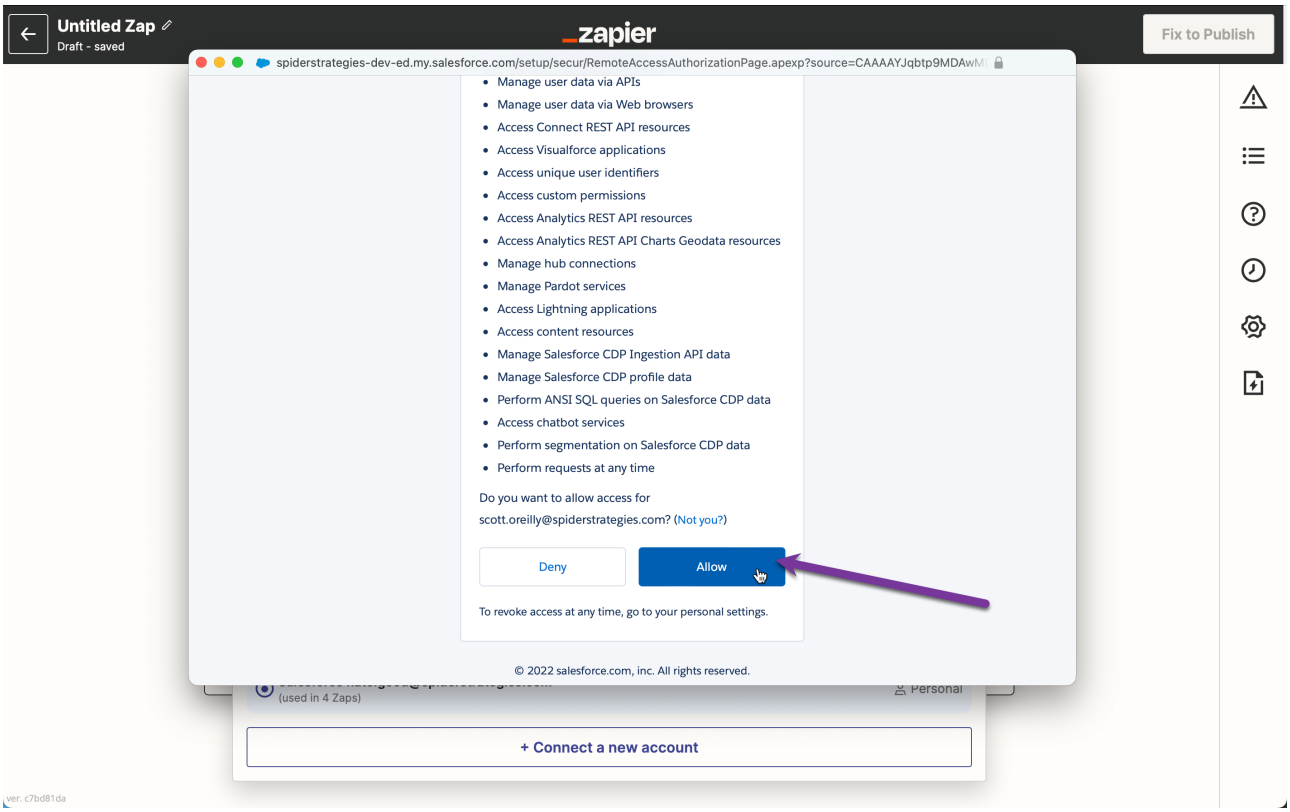

Untitled Zap
Draft - saved
zapier
Fix to Publish
zapier.com/engine/auth/start/SalesforceCLIAPI@1.4.3/
Allow Zapier to access your Salesforce Account?
Salesforce Environment (required)
Most people should choose the default, "production".
production
Yes, Continue
Cancel
(used in 4 Zaps)
Personal
+ Connect a new account

This opens a new window to connect to Salesforce. We'll choose our "production" Salesforce environment, and click "Yes, Continue".

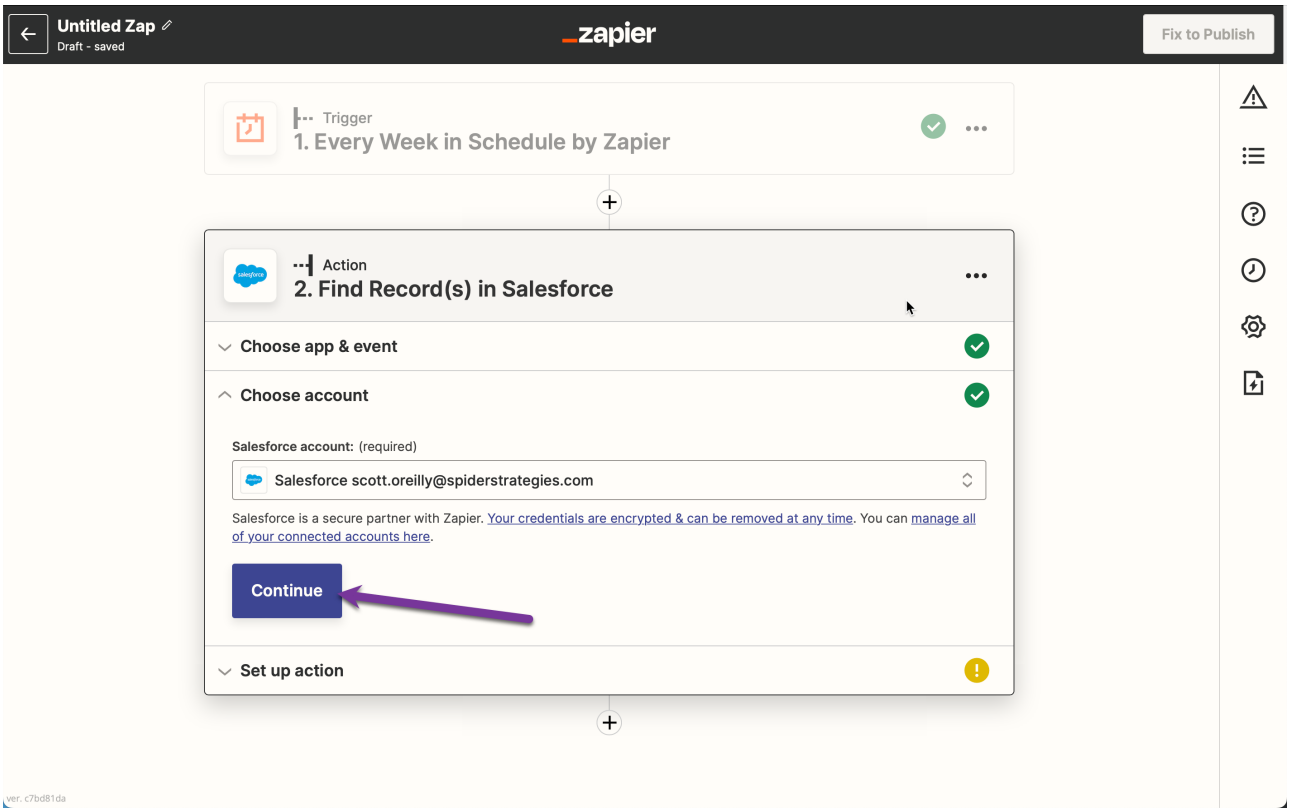
We'll log in with our Salesforce credentials...



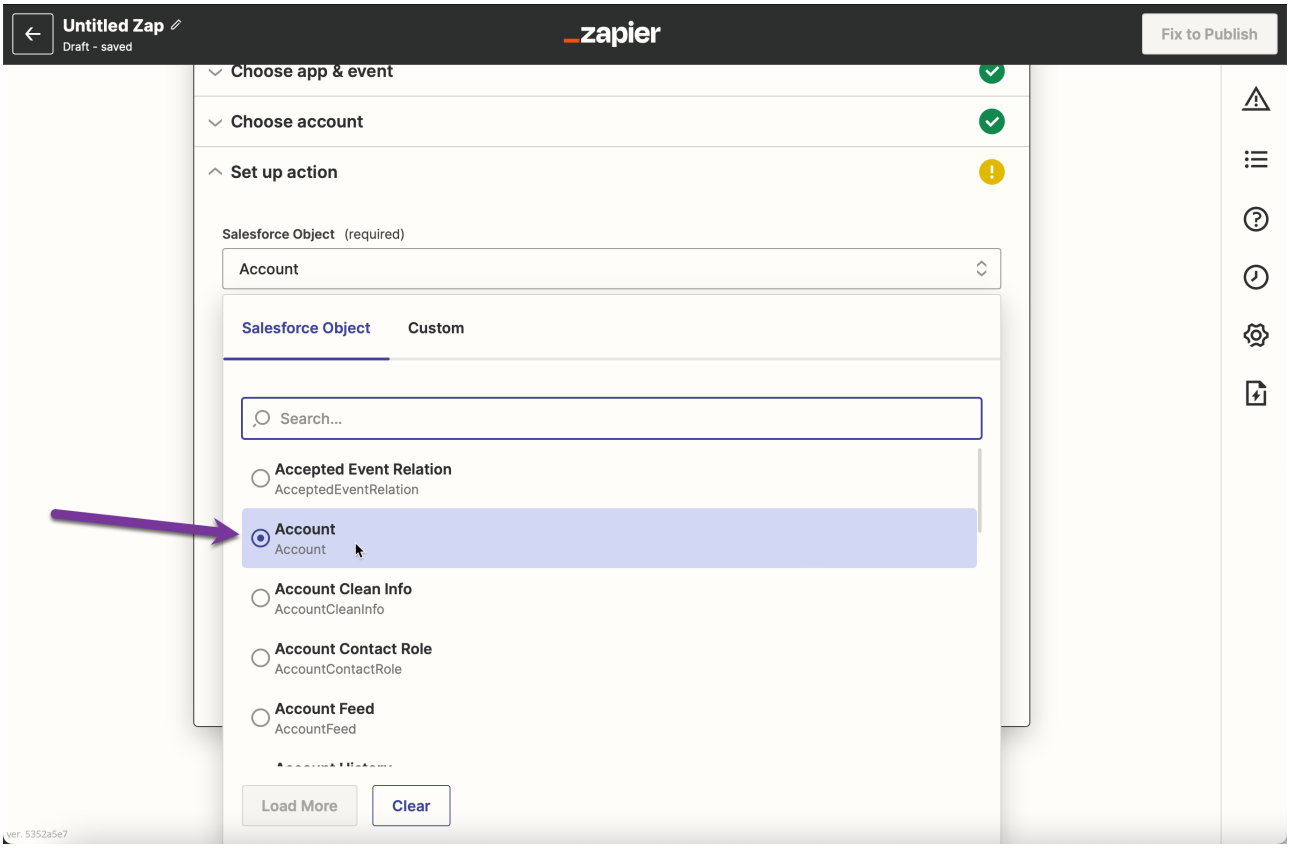
... and we'll give Zapier permission to access our data.



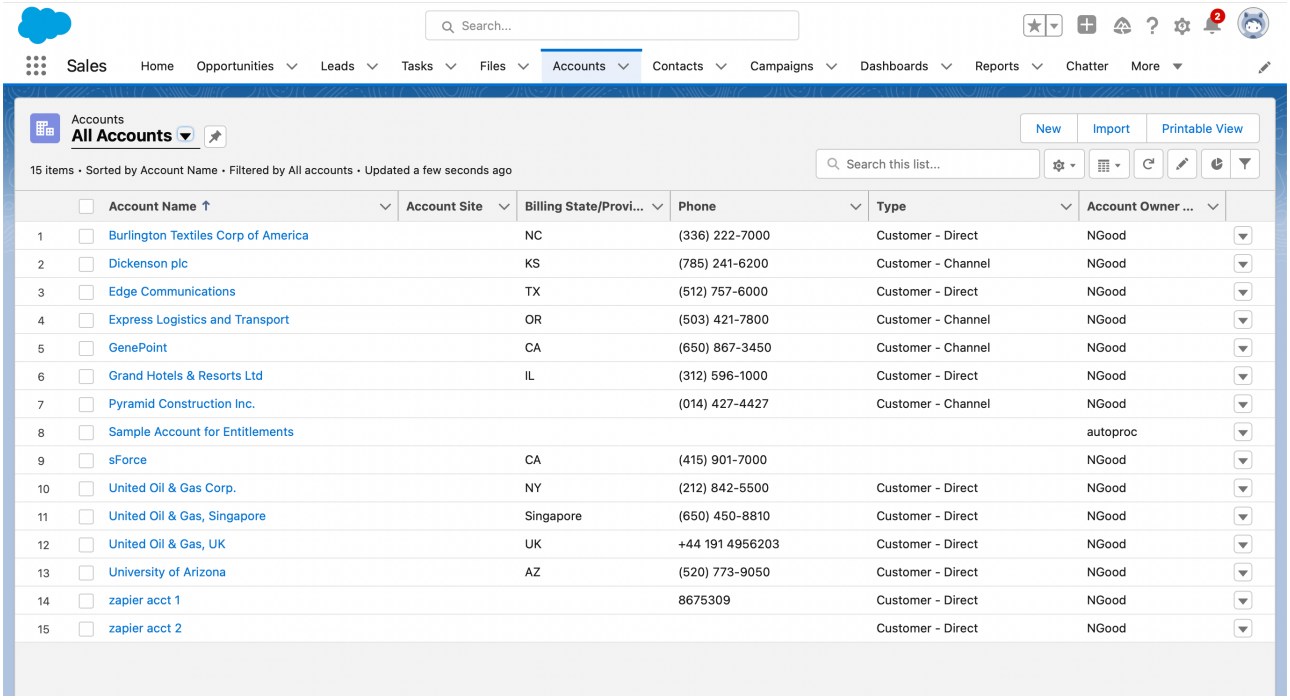
The Salesforce connection window closes, and we'll click Continue.



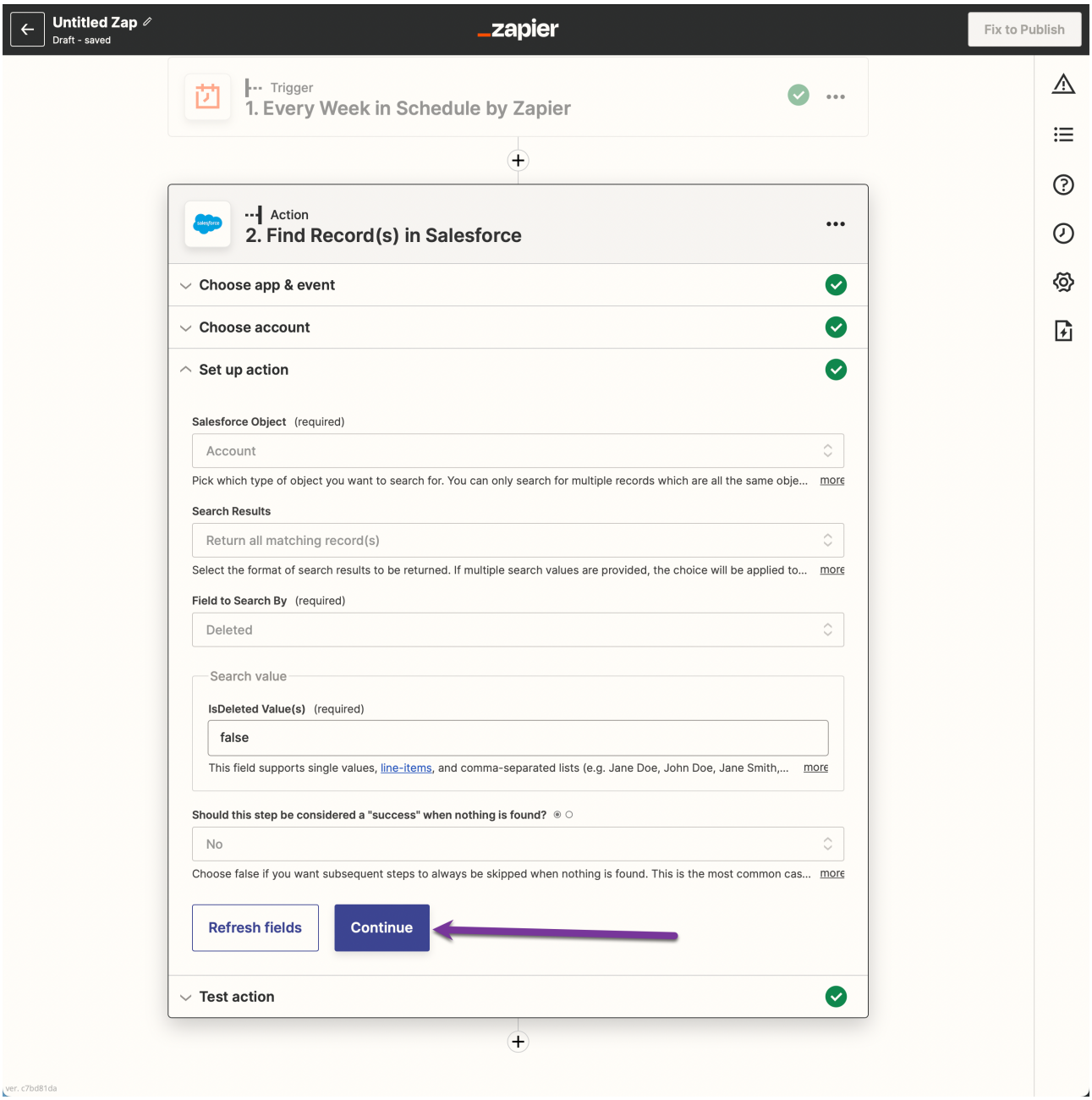
Now we need to set up the Find Record(s) action. Again, this step will be different for every app. We'll need to choose which kind of Salesforce objects that we're looking for. We'll choose to get "Account" objects, which are like customer records in Salesforce.



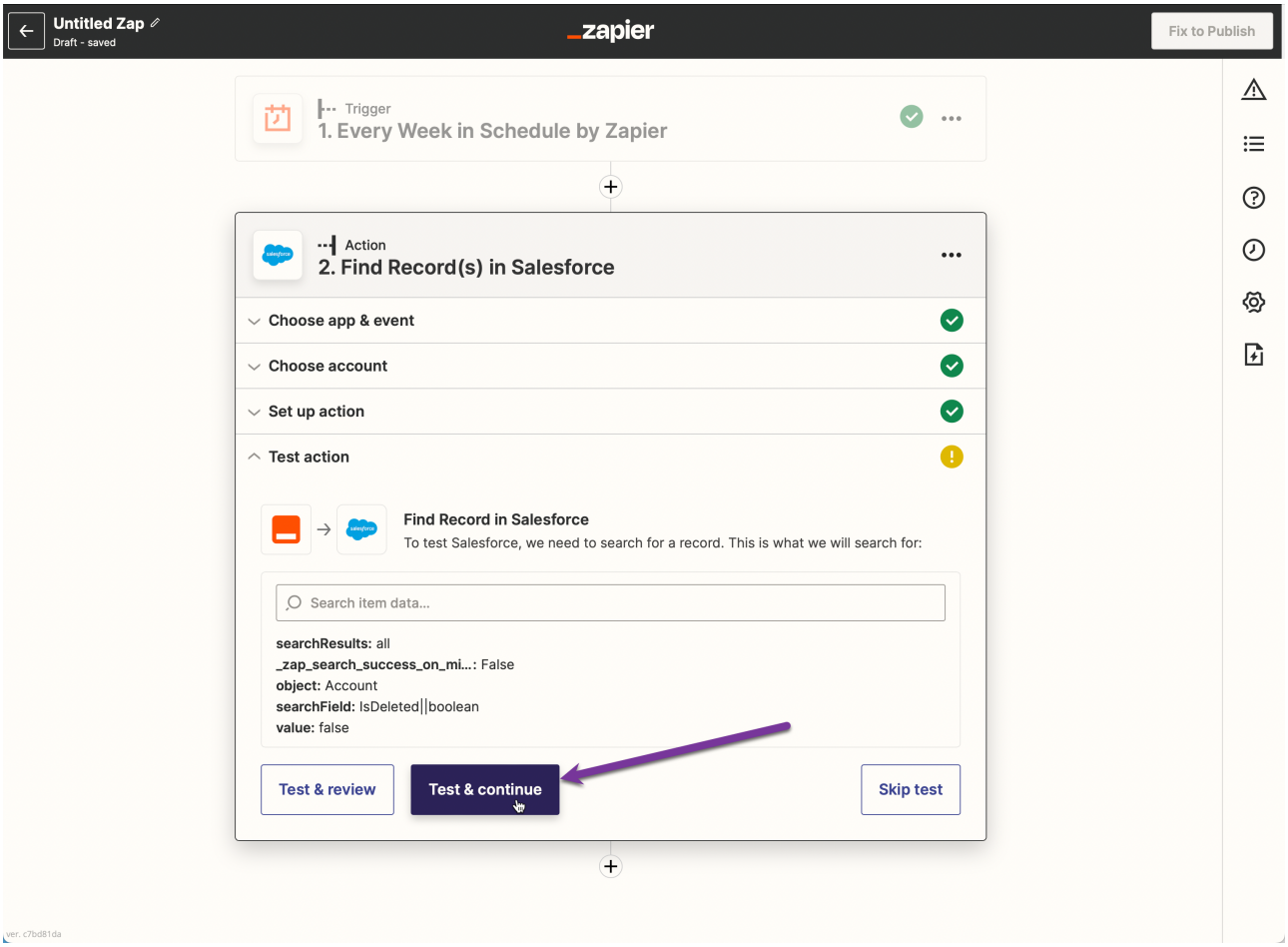
For reference, this is what our list of accounts looks like in Salesforce. This is just an example database, so there are only 15 accounts.



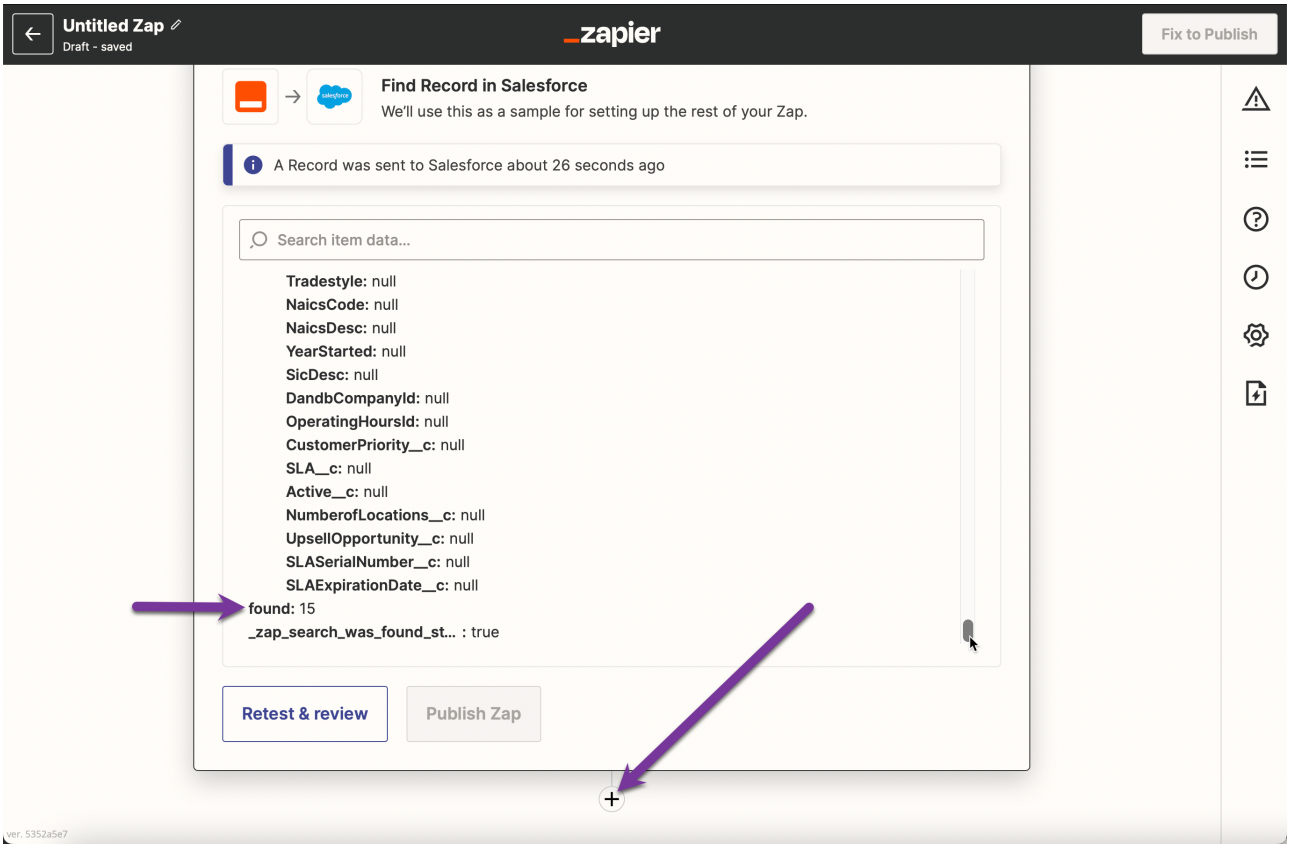
Back in Zapier we'll continue setting up the action. For the search, we'll get all accounts where "Deleted" is false, meaning all active accounts.



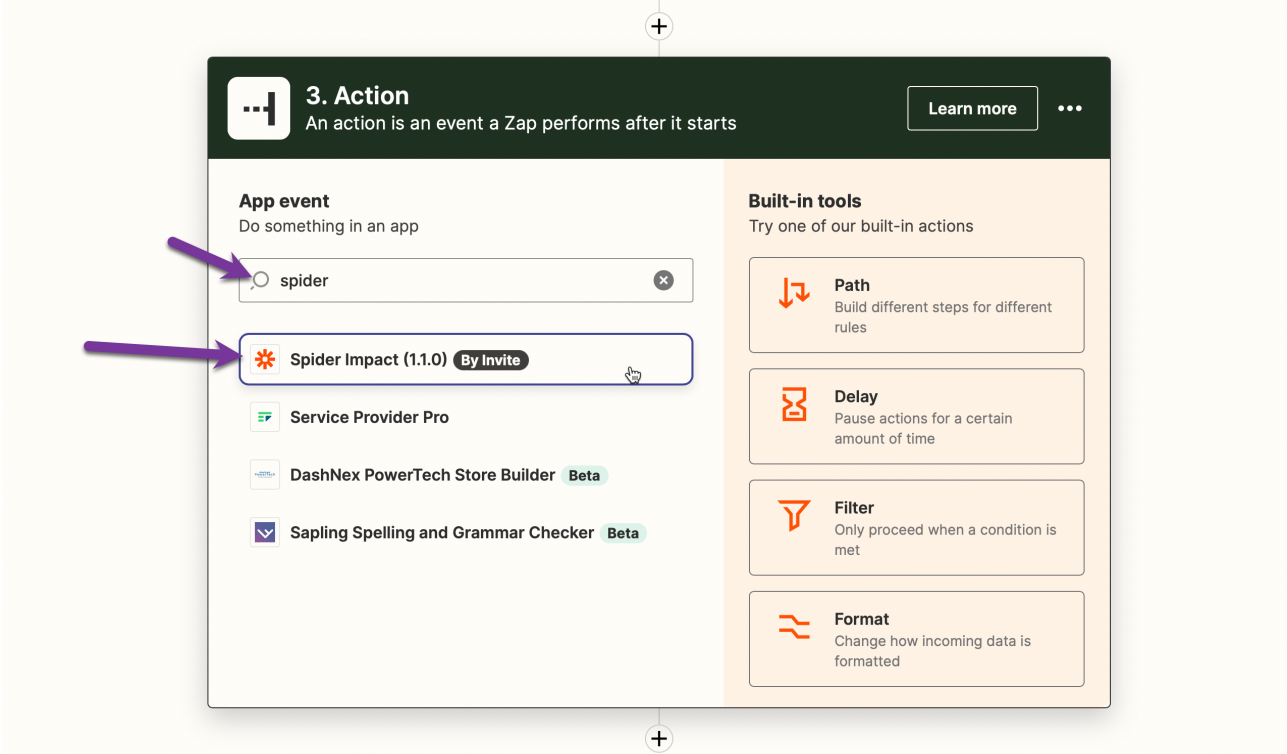
We'll click "Test & continue". We don't want to skip the test because then we'd have to wait until the Zap fires naturally on Sunday night to pull the data into Spider Impact.



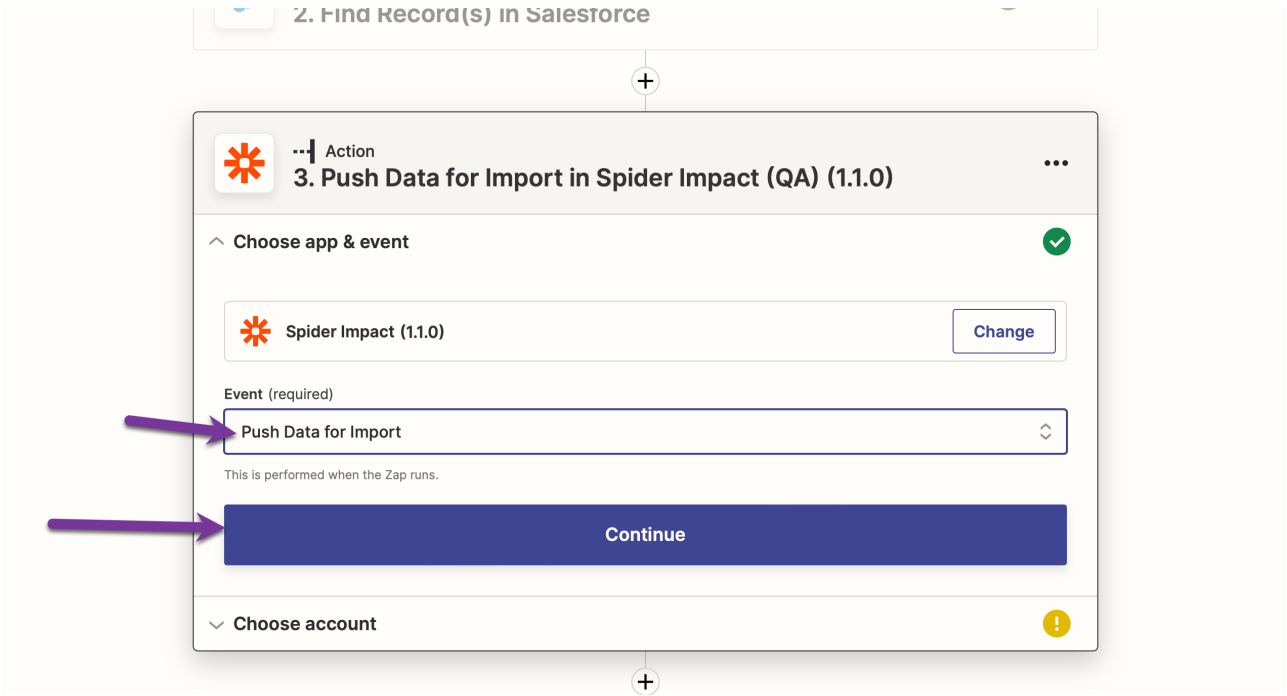
In the records panel we can see 15 results, which matches the number of accounts we have in our test Salesforce database. Now we need somewhere to send this data, so we'll click the "+" button to add a second action in our Zap's chain. This isn't super intuitive, and we hope Zapier improves this process.



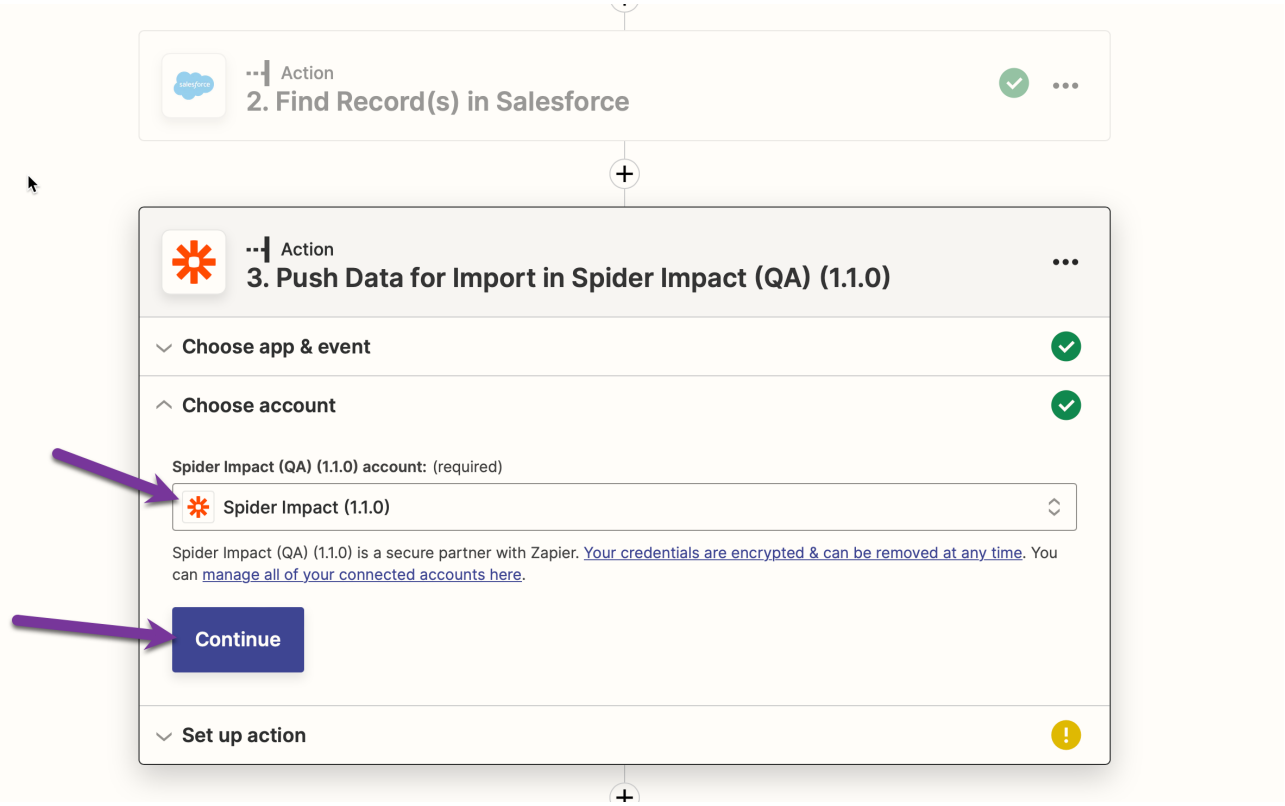
This time we'll choose Spider Impact under App event. You may need to search for it.



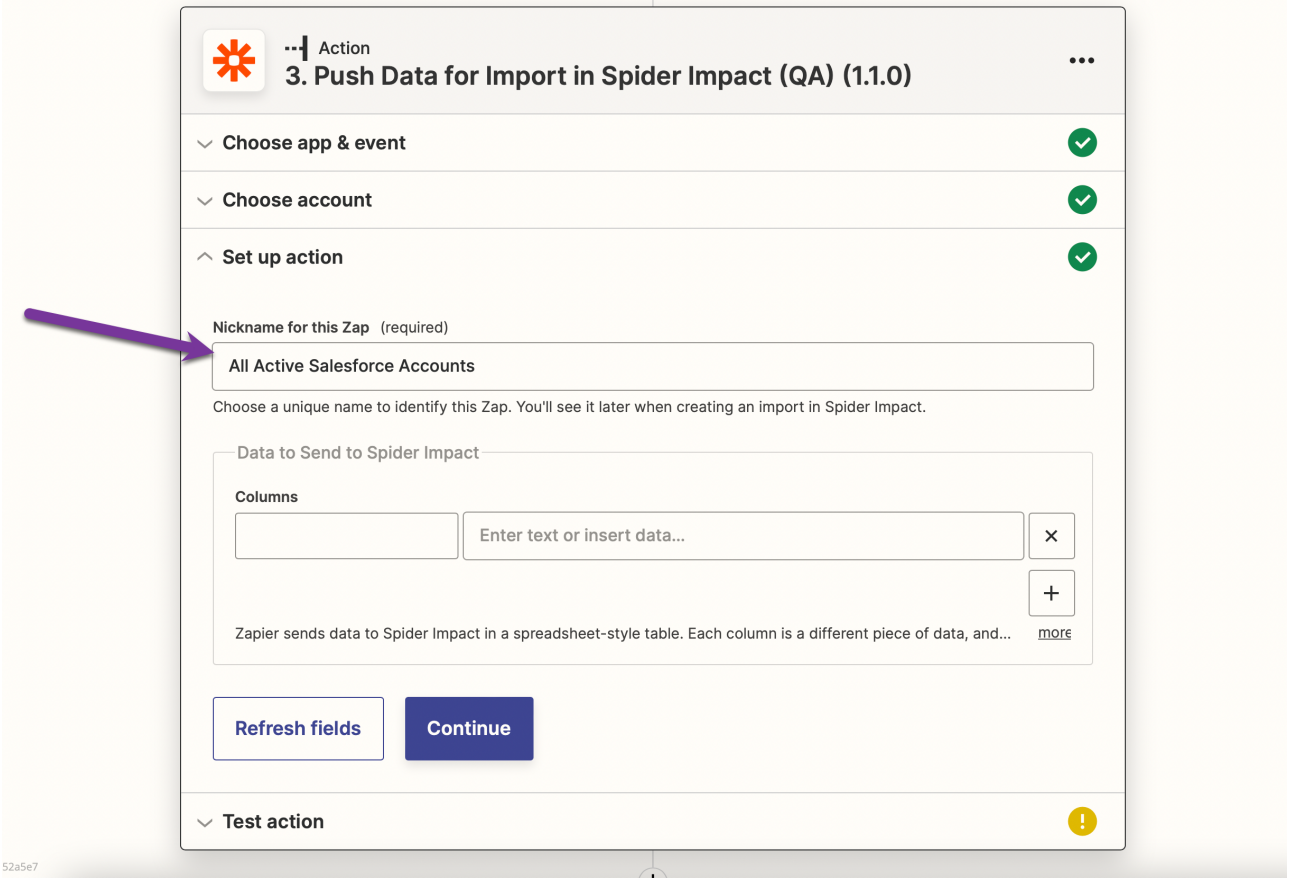
We'll choose "Push Data for Import" for the event, and we'll click Continue.



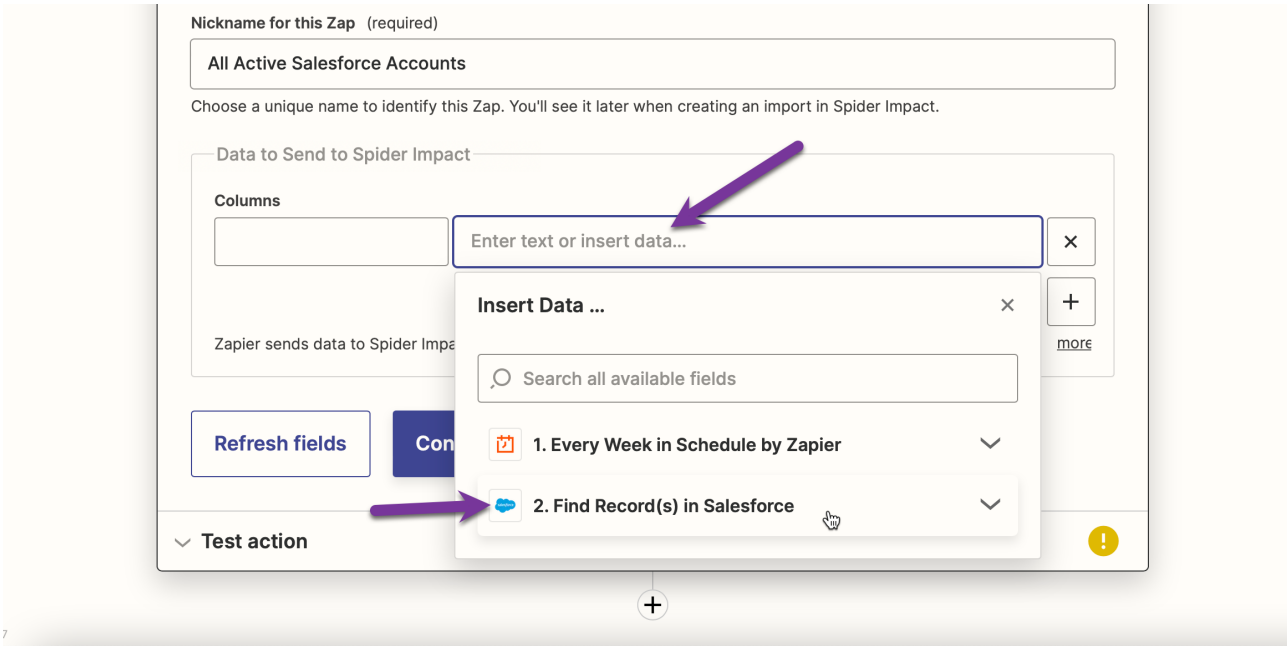
Then we'll choose the connection we set up earlier and click Continue.



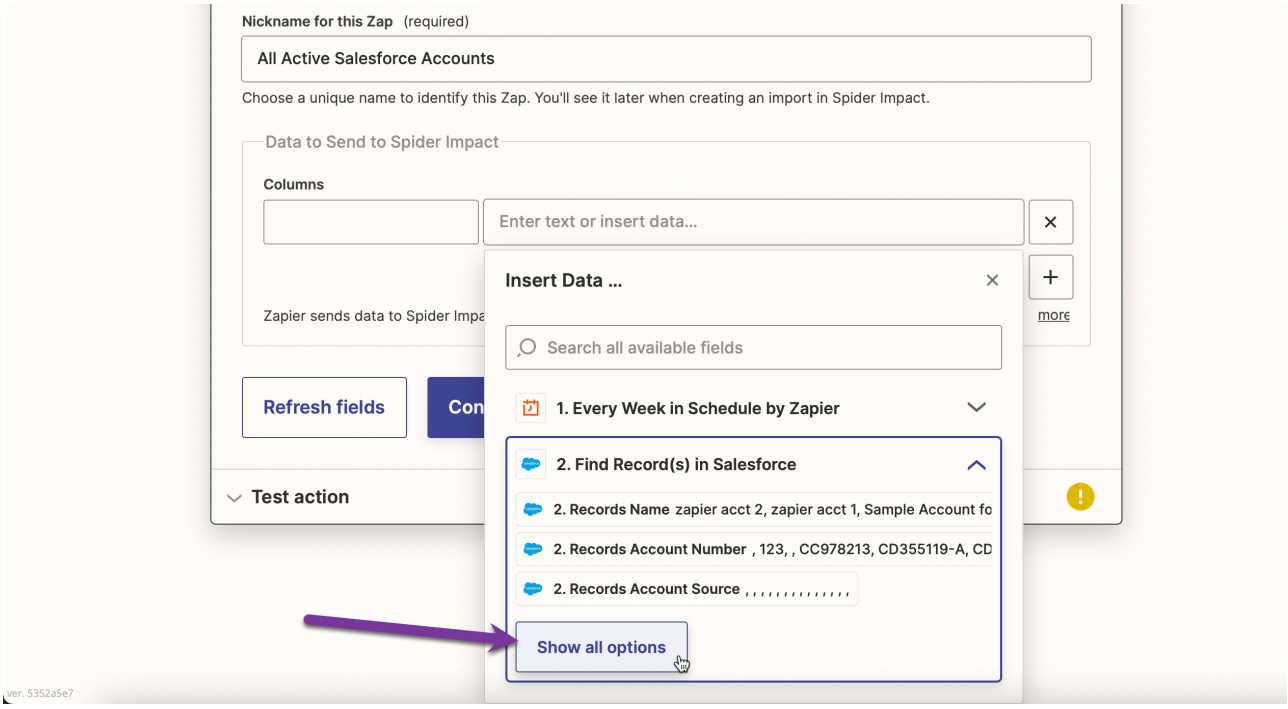
Now we need to choose a unique Nickname for this Zap that we're creating. Later, when we're creating a Zapier data import in Spider Impact, we'll need to choose which Zap we want to get data from. This Nickname is how we'll identify our Zap.



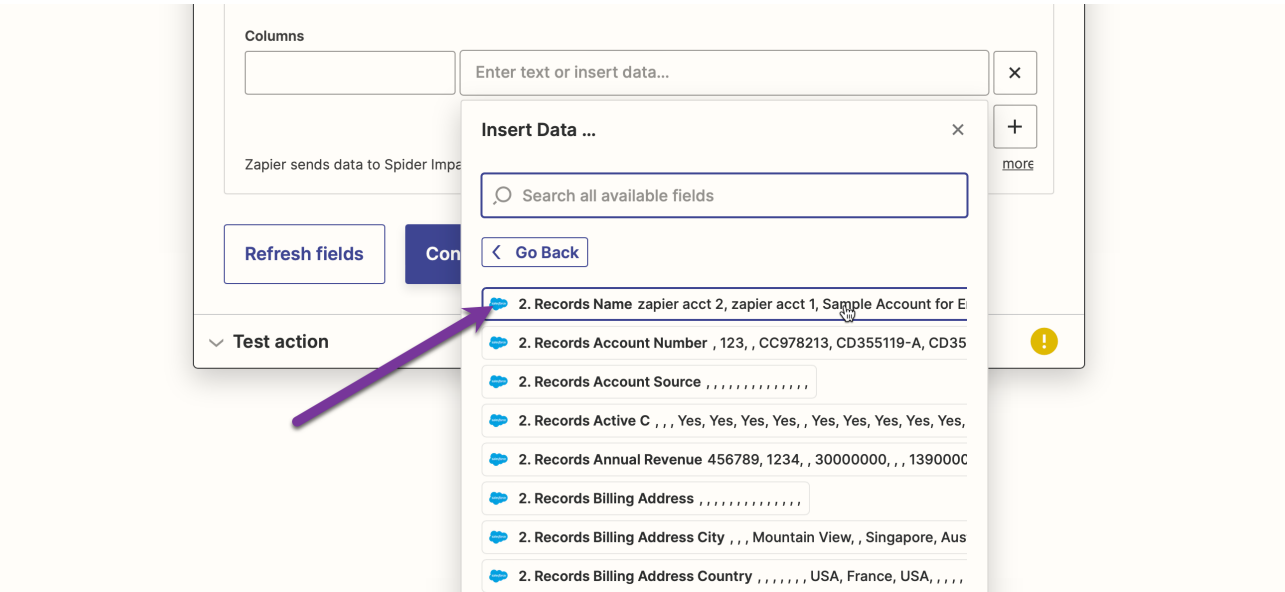
The next step is choosing which columns we want from Salesforce. These are the fields that are going to be made available to Spider Impact. We have two options at first, data from our schedule (like the date the import runs), or data from Salesforce. We'll choose Salesforce.



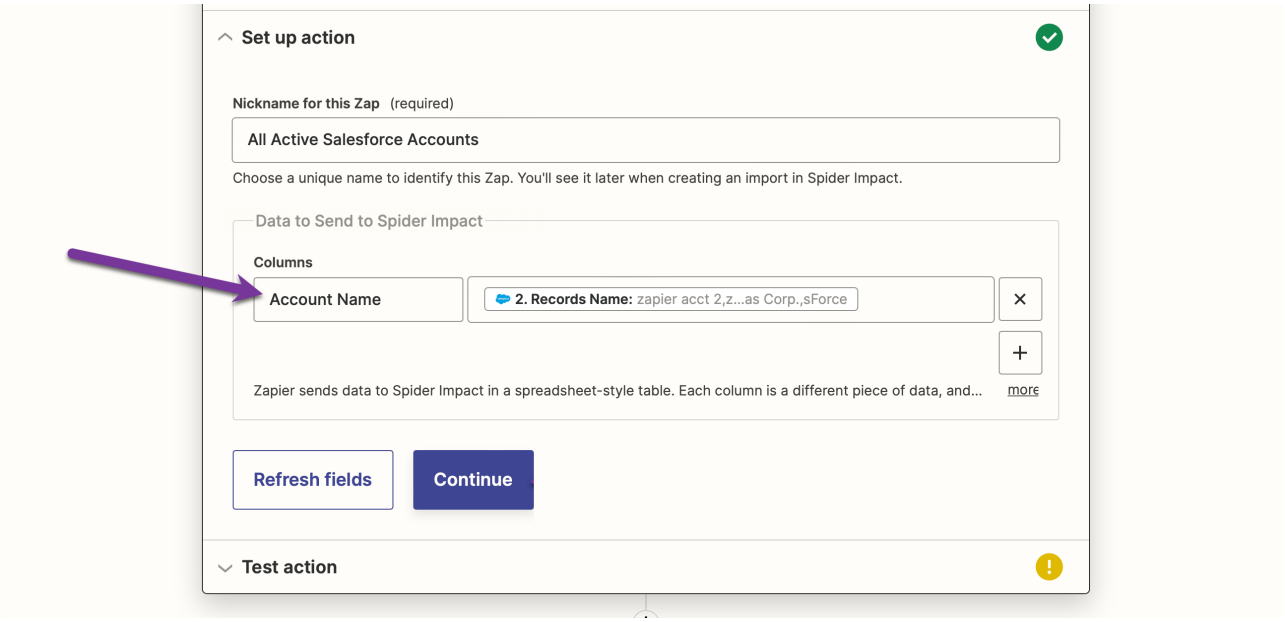
Zapier suggests some data we may want, but we'll click "Show all options".



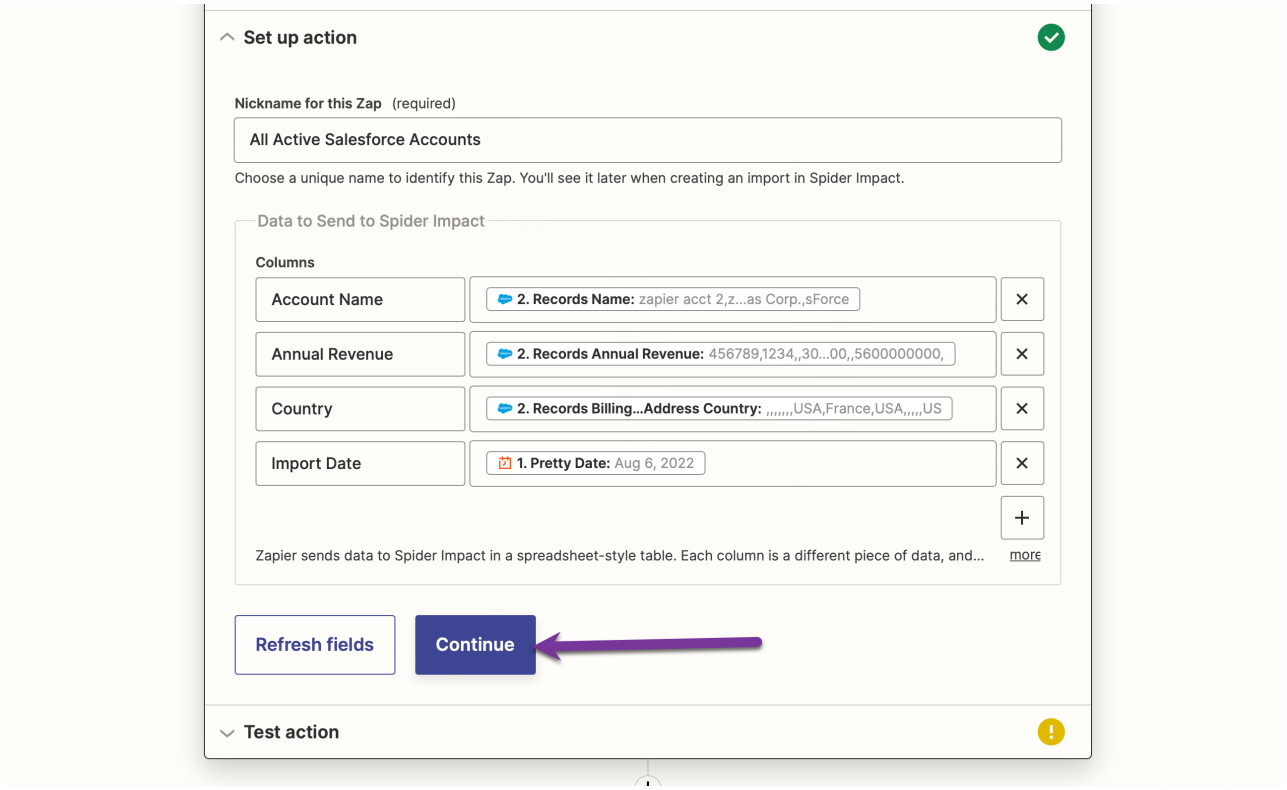
This lists all the columns available to us. First, we'll choose the account's name.



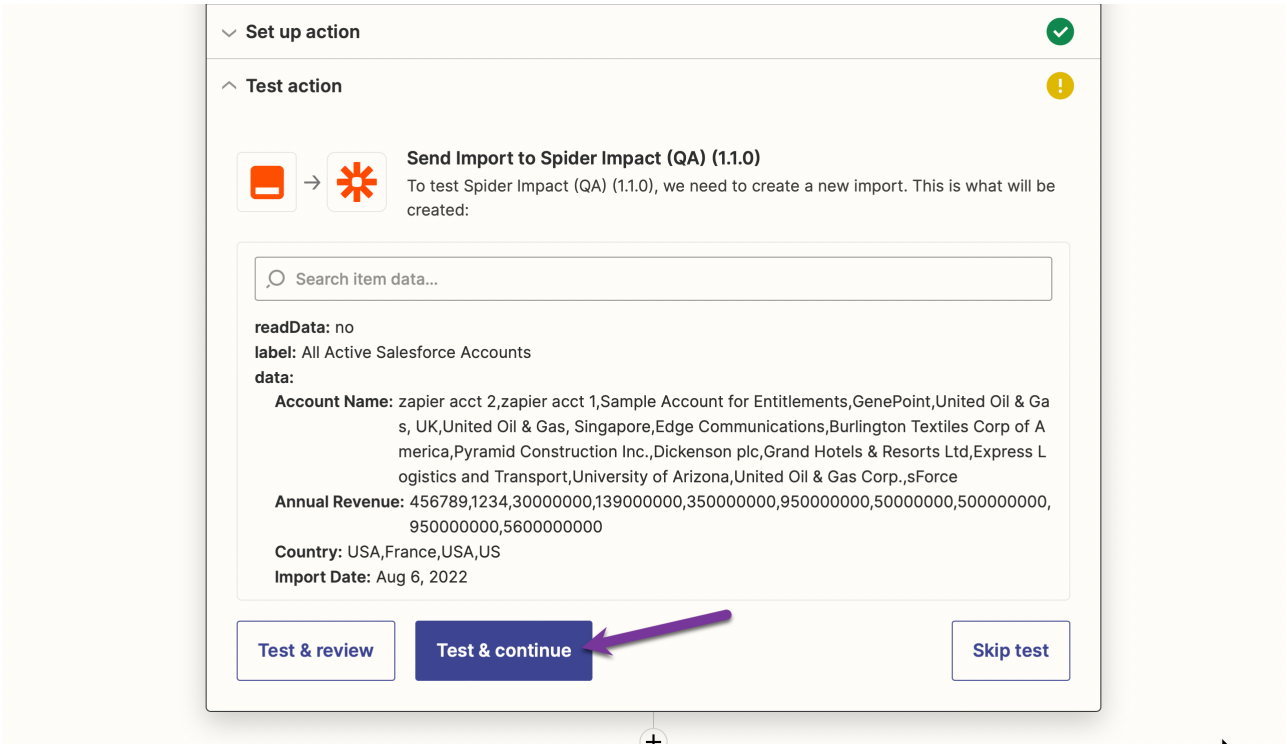
And on the left we'll type "Account Name" to identify the column for Spider Impact.



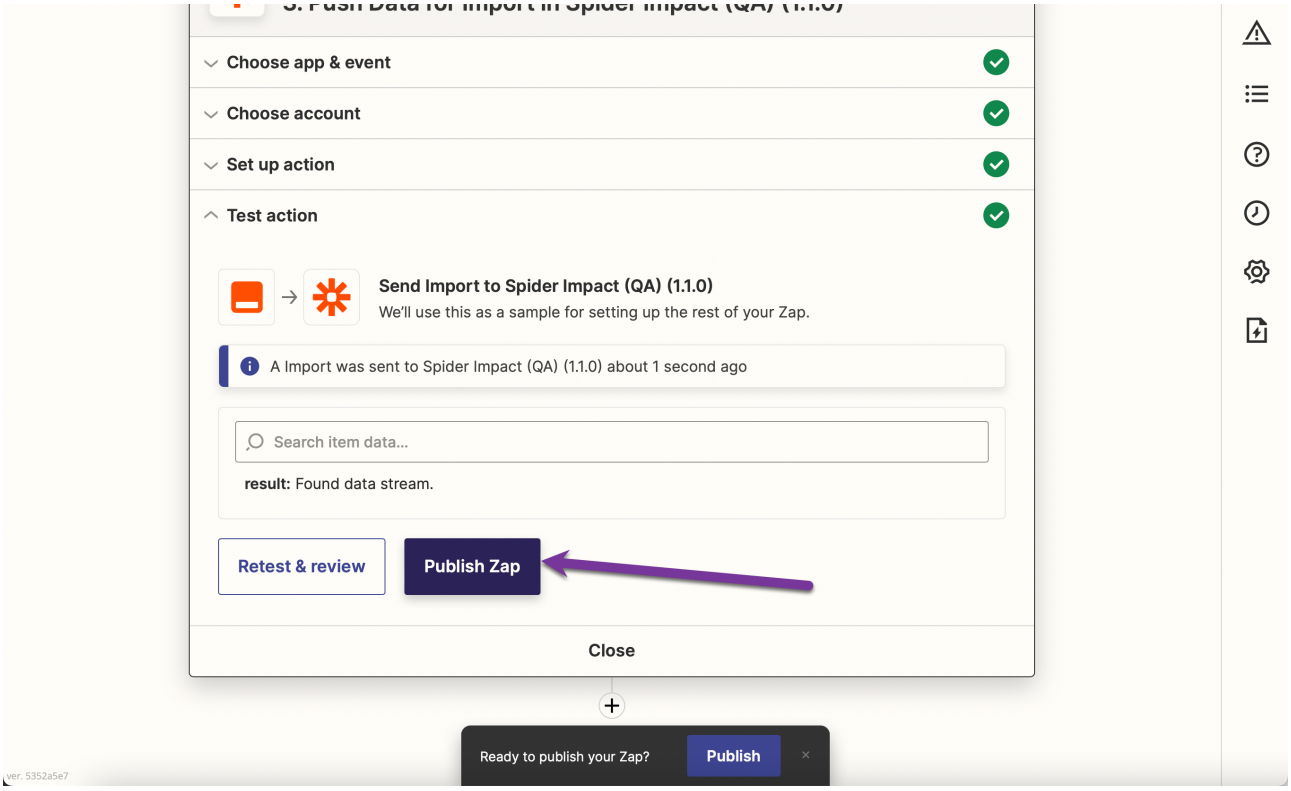
We'll do the same thing for the "Annual Revenue" and "Country" columns from Salesforce. We'll also add an "Import Date" column from the schedule. Then we'll click Continue.



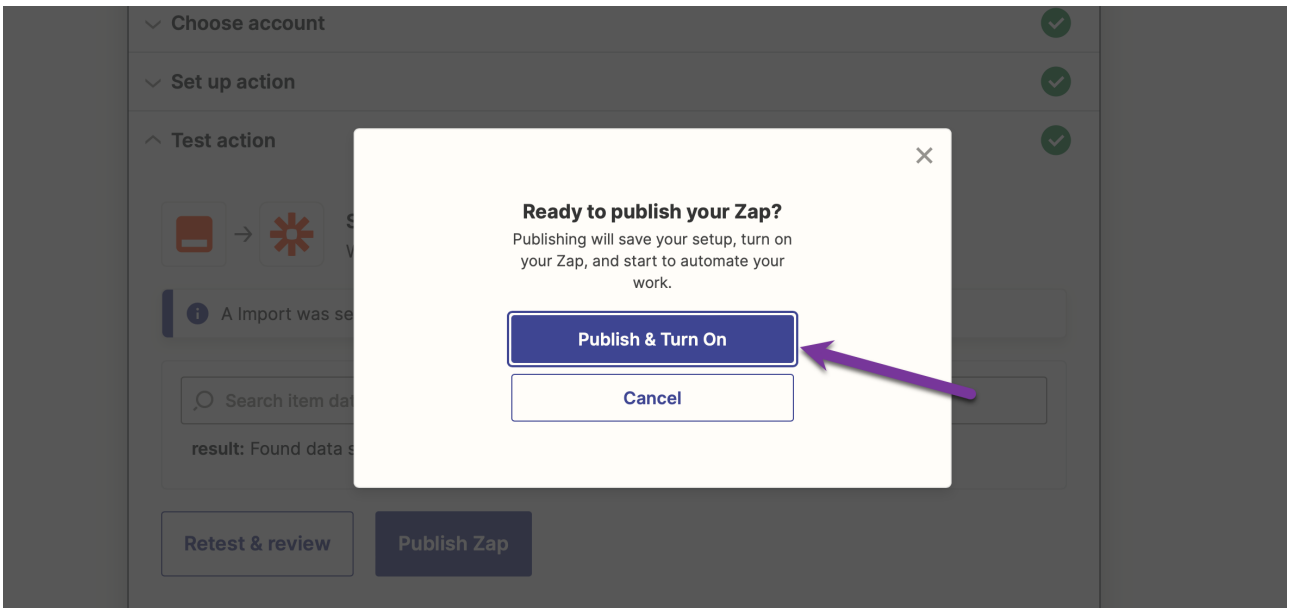
Zapier shows us a preview of the data, and we'll click "Test & continue".



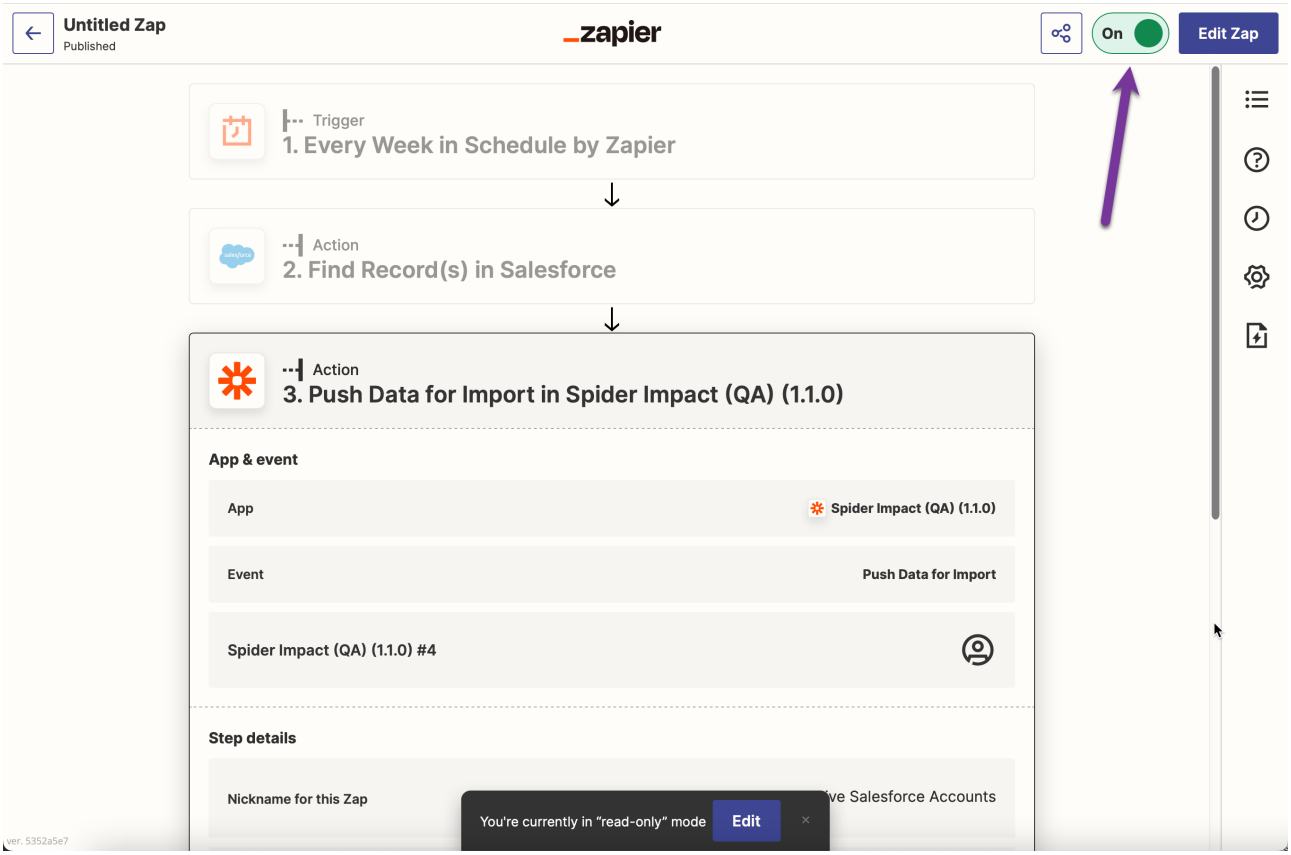
The results say that our import worked, so we'll click Publish Zap.



One more confirmation and we're good to go.

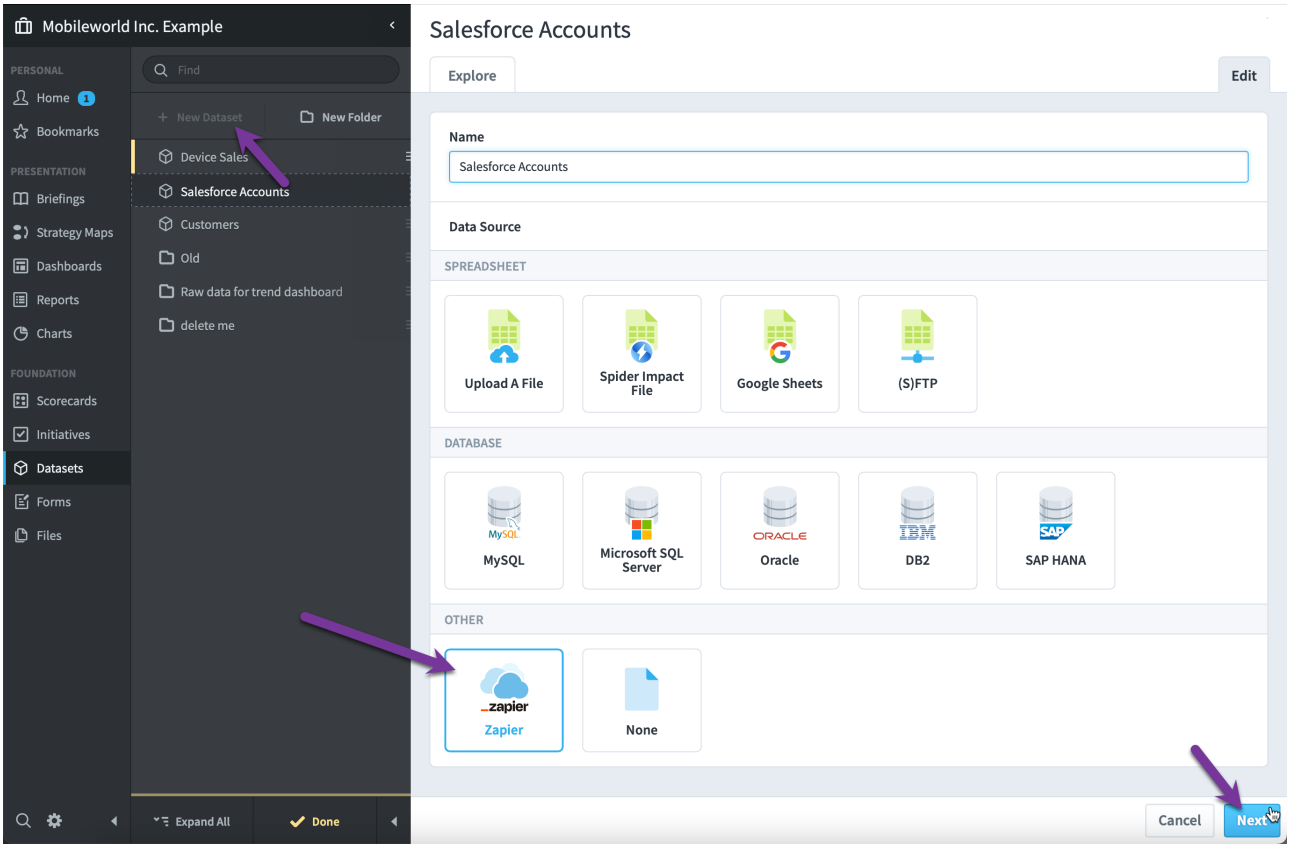


Finally our Zap is published. We can see a summary of our Zap, and in the upper right corner we can see that it's turned on.

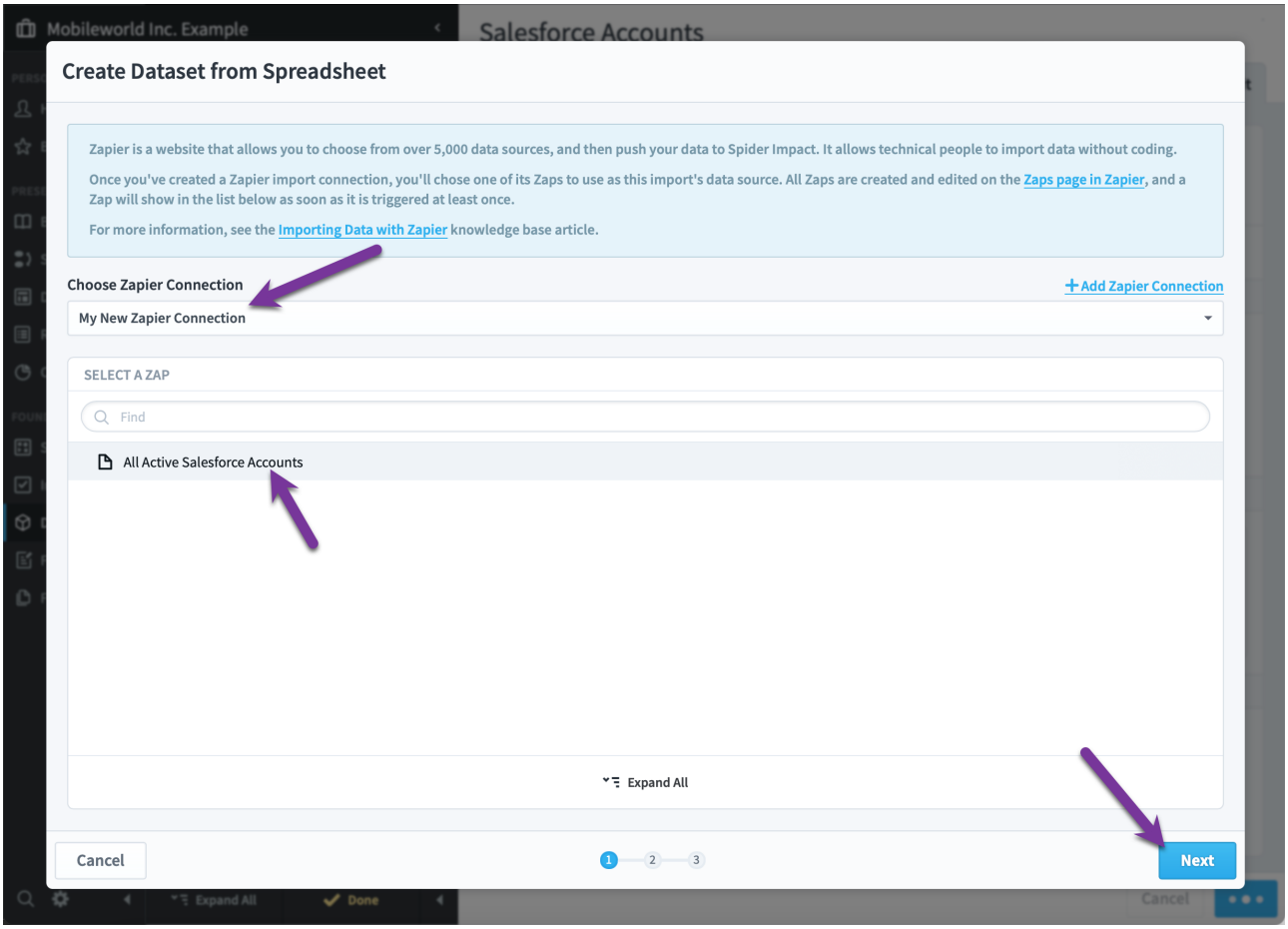


Importing data in Impact

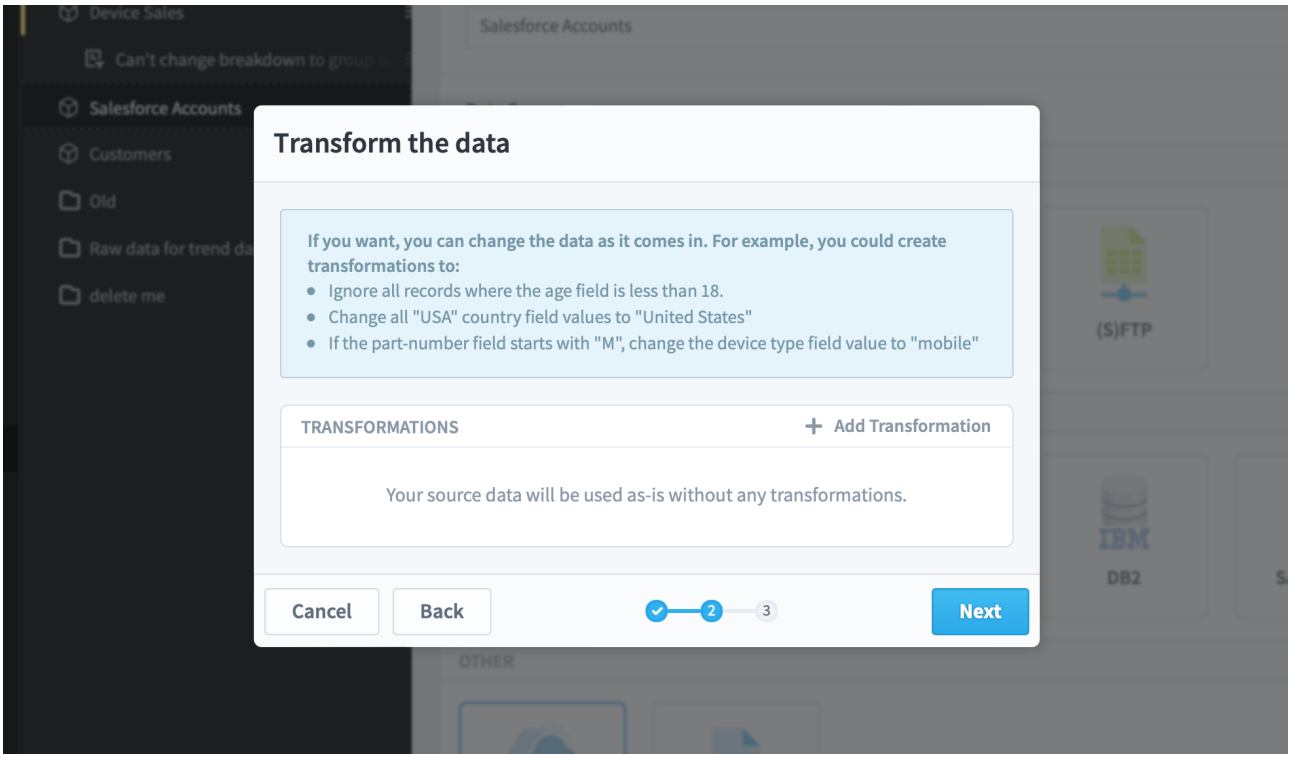
To import Zapier data in Spider Impact, start a data import like you would with any other data source. In this example we're creating a new dataset.



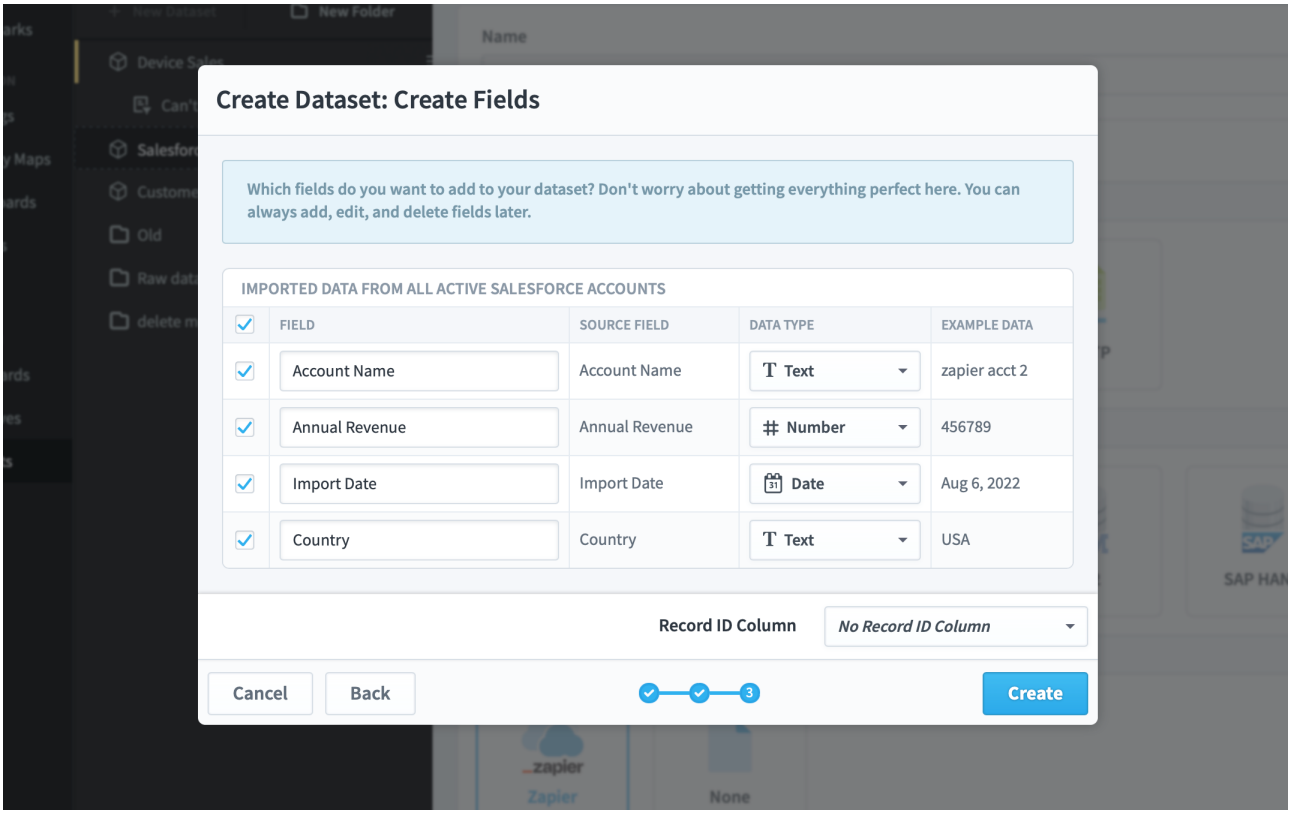
Choose the Zapier import connection that we set up earlier, and then choose one of its Zaps. If you don't see the nickname of a Zap that you've set up in Zapier, it's most likely because that Zap hasn't been triggered yet.



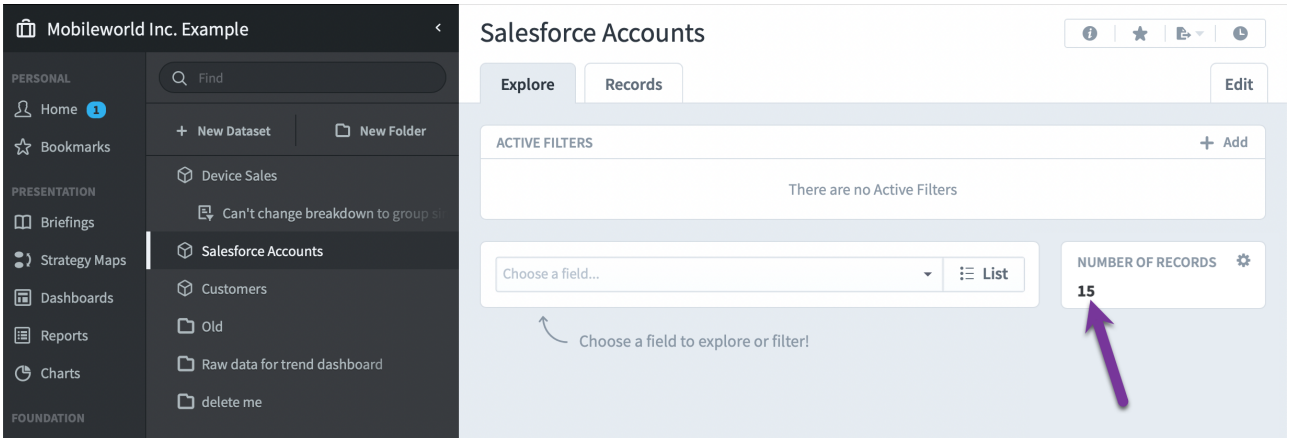
Next is the optional data transformation step.



And finally is the step where you choose which fields you want to create in the dataset. As you can see, these are the fields we set up earlier in our Salesforce Zap.

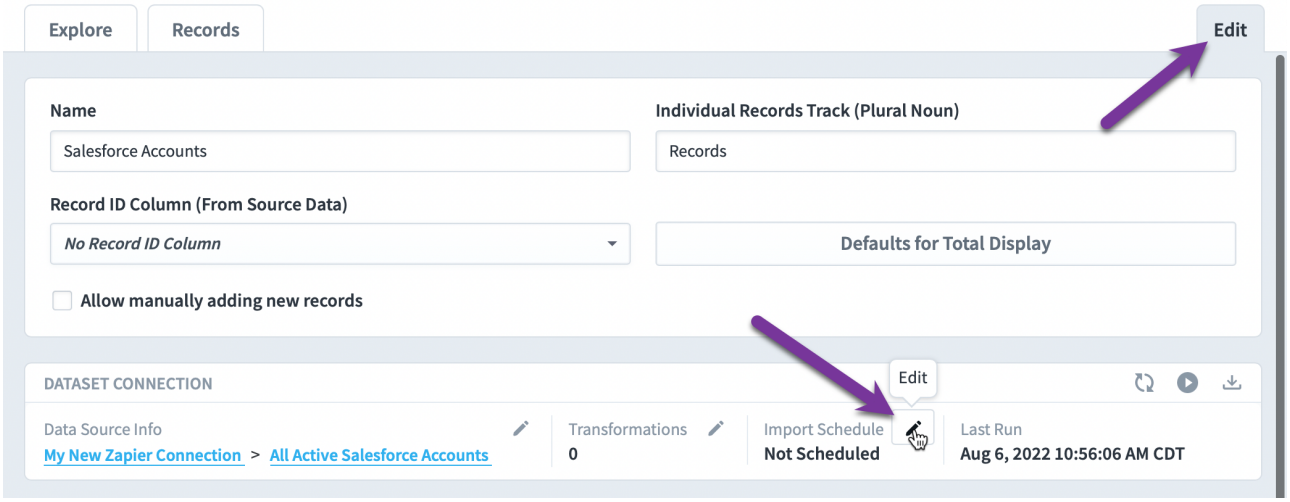


When we click Create we now have a dataset with our 15 Salesforce account records.

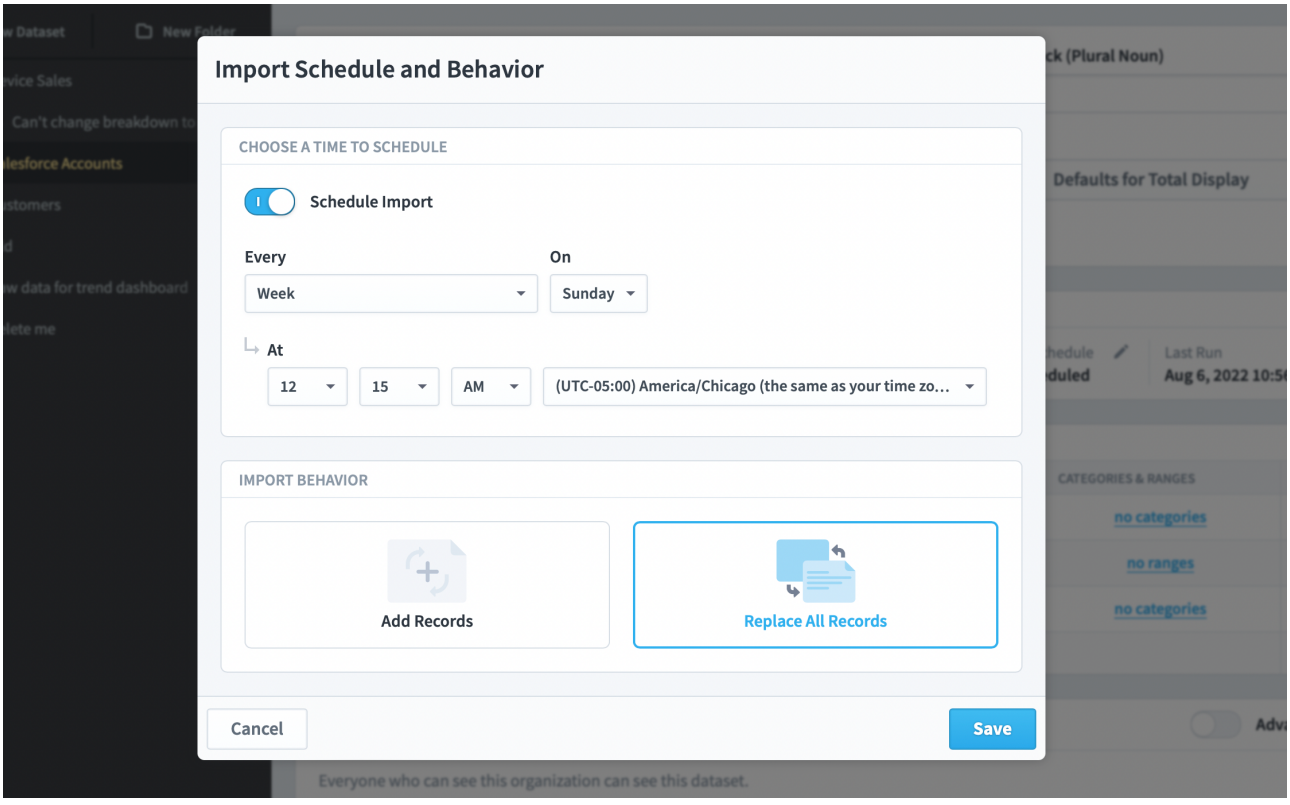


Now that our dataset is built, there's one more thing to do. Right now, Zapier is sending data to the Spider Strategies Zapier server on a regular basis, but Spider Impact isn't regularly reaching out to the Spider Strategies Zapier server to get it.

So, we'll go to the Datasets Edit tab and click the "Edit" button for the import schedule.



We'll turn on "Schedule Import" and have it run 15 minutes after Zapier sends the data every Sunday night.



Zapier import size limit

Every time a Zapier import runs, it is currently limited to 6 megabytes of transferred data. That's over 50,000 typical records, so it's very unlikely that you'll hit this limit when importing KPI or initiative values, or when adding records to a dataset. It is possible that you'll hit this limit when replacing all records for a large dataset, so Zapier may not be a good fit for those situations.

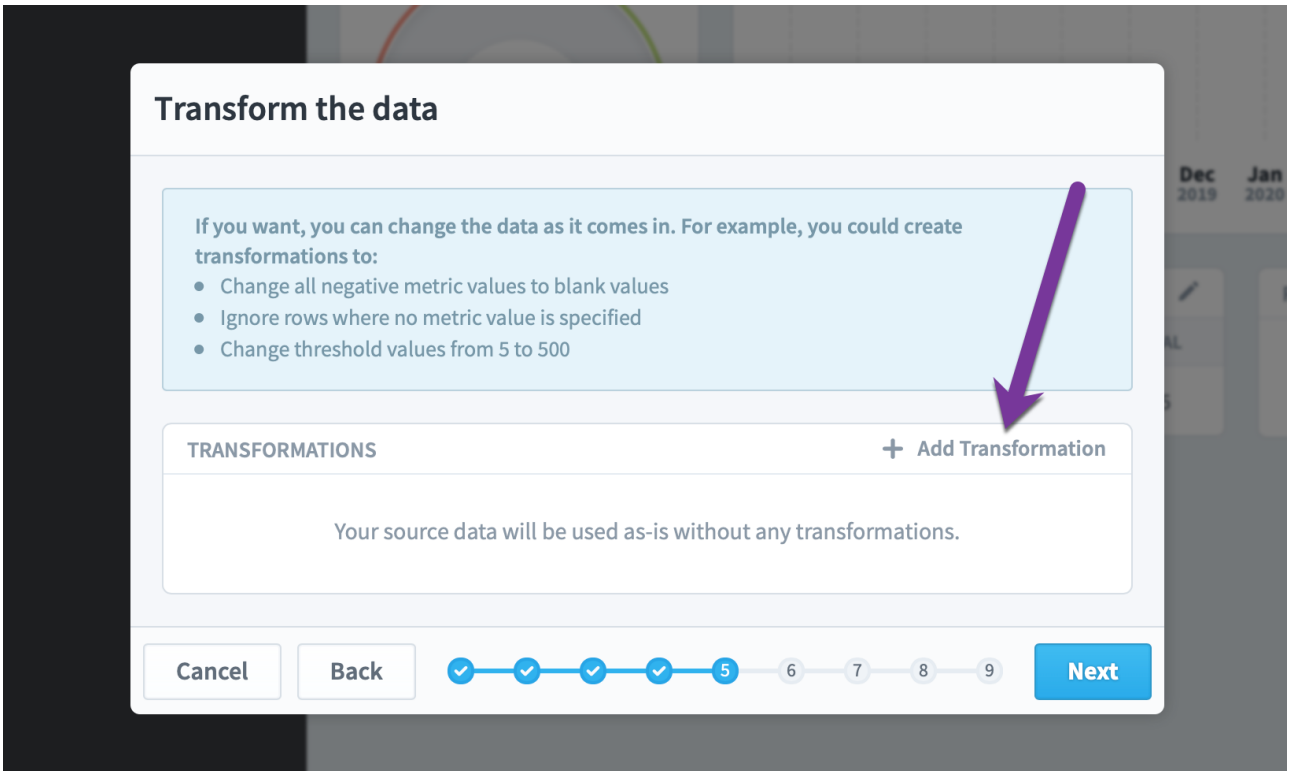
Advanced: Transforming Values While Importing

Overview

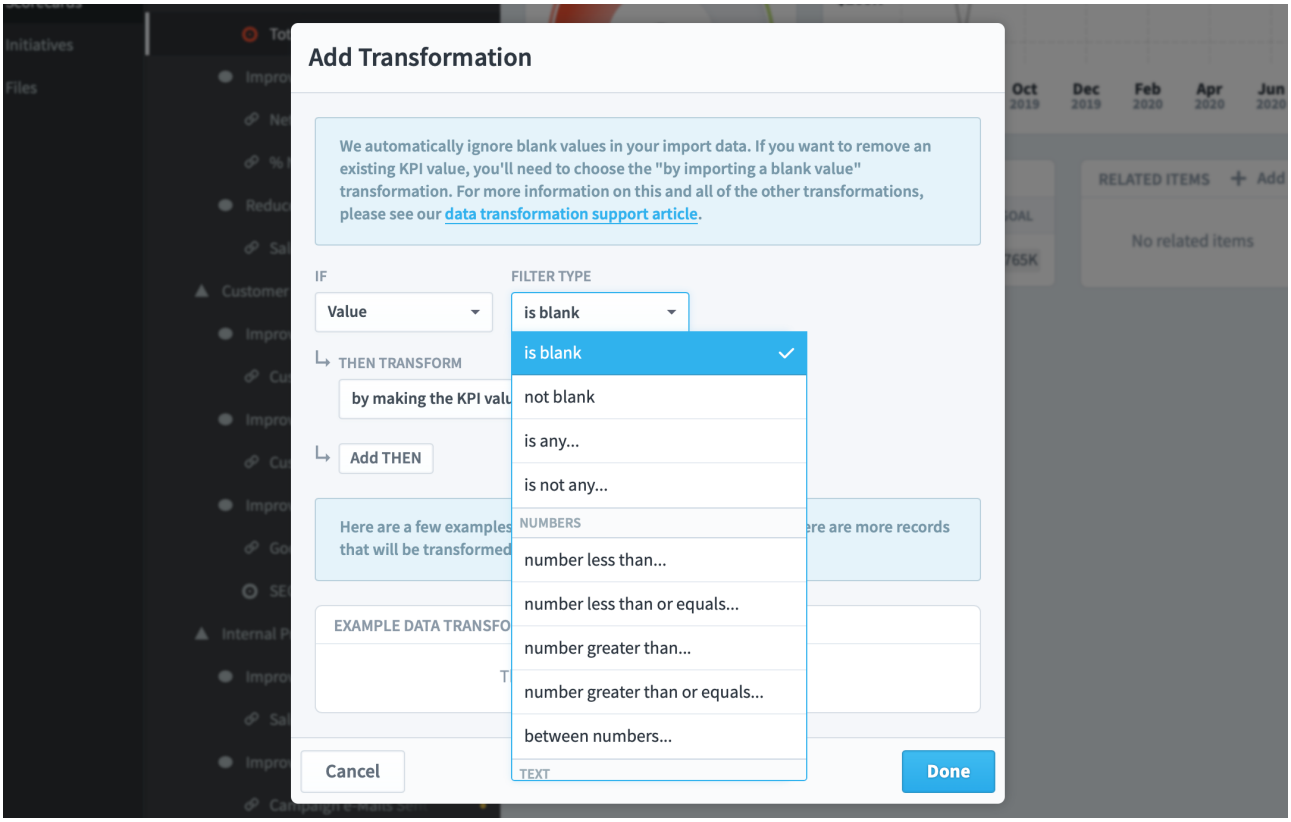
Many types of imports have an optional step to transform your data. This is useful for things like cleaning your data or for skipping over data you don't want to import. In the example below, we're importing KPI values, but transformations work the same regardless of what kind of data you're importing.

Adding Transformations

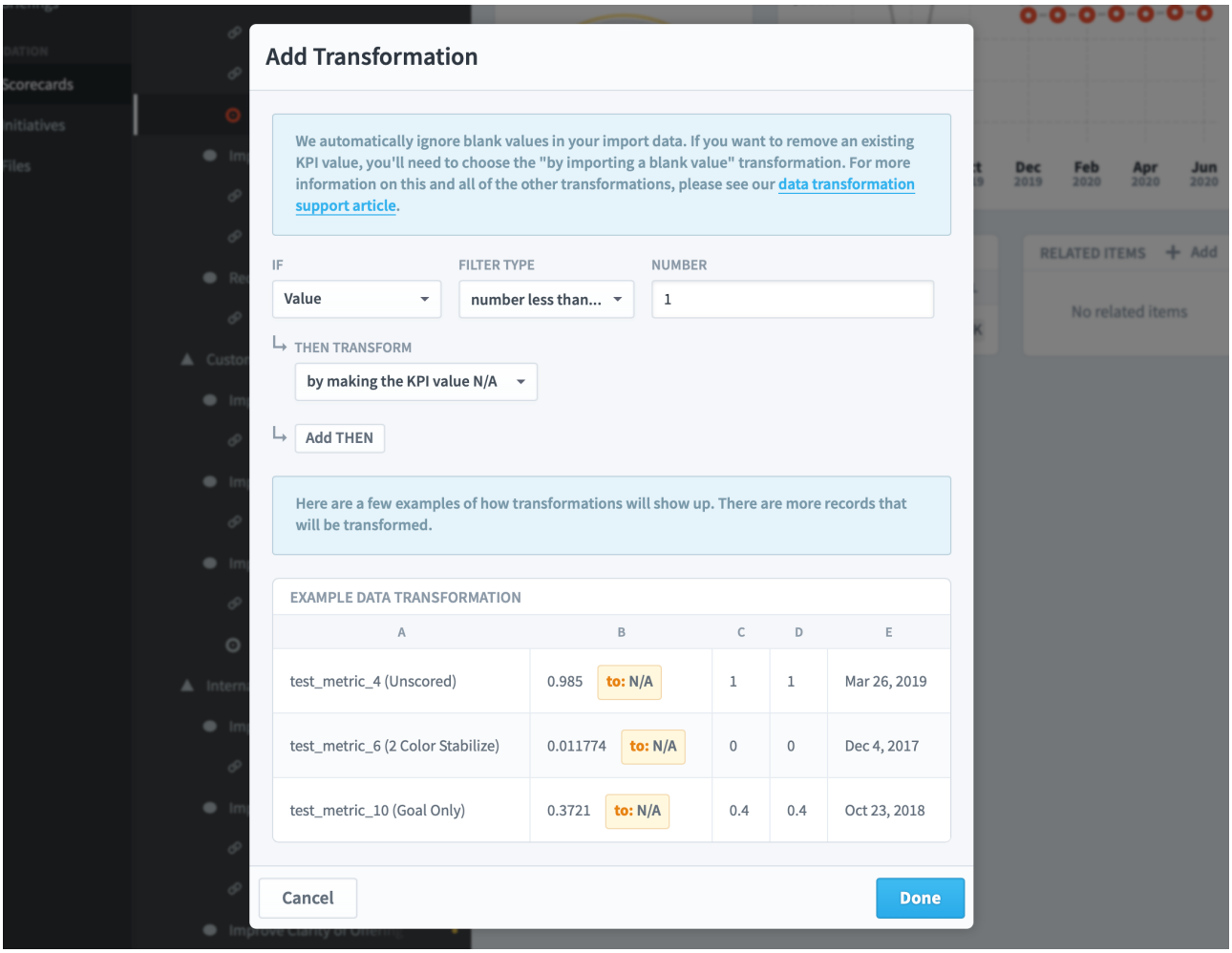
The transformation step of all imports is optional, so if you want to import your data as-is, just click next. If you want to change your data before it's imported, however, click Add Transformation.



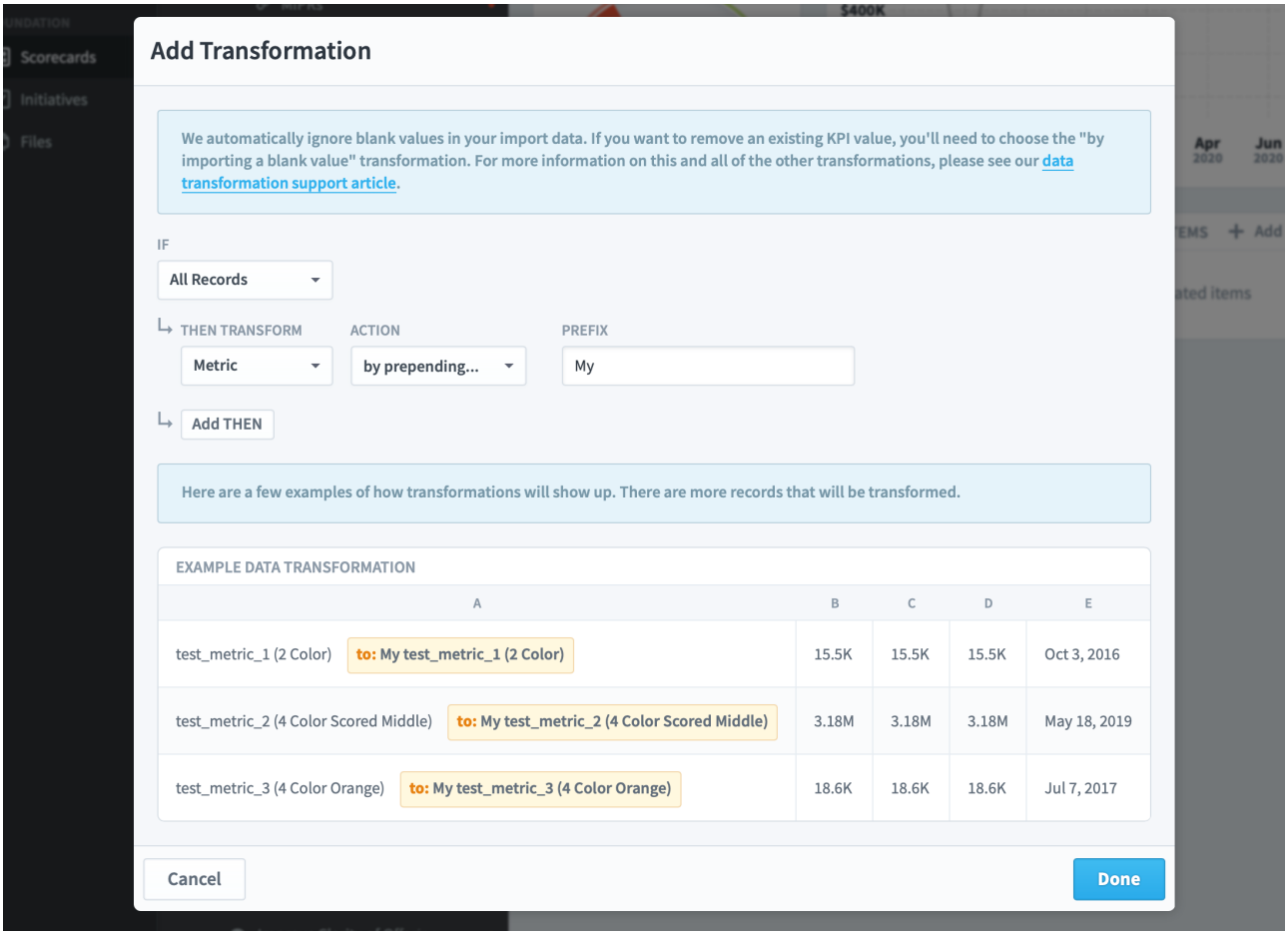
This opens the add transformation menu where you can apply any combination of dozens of types of transformations to your data.



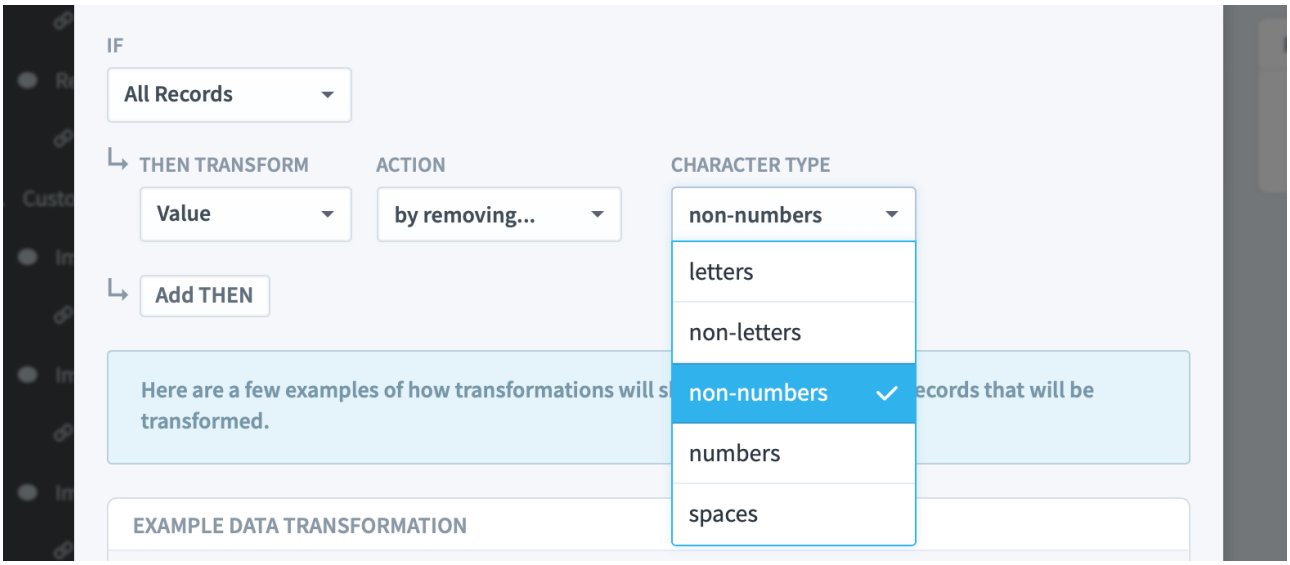
For example, you can create a filter to set the KPI value to N/A if the value column is less than 1.



Here we're adding "My" to the beginning of every KPI name.

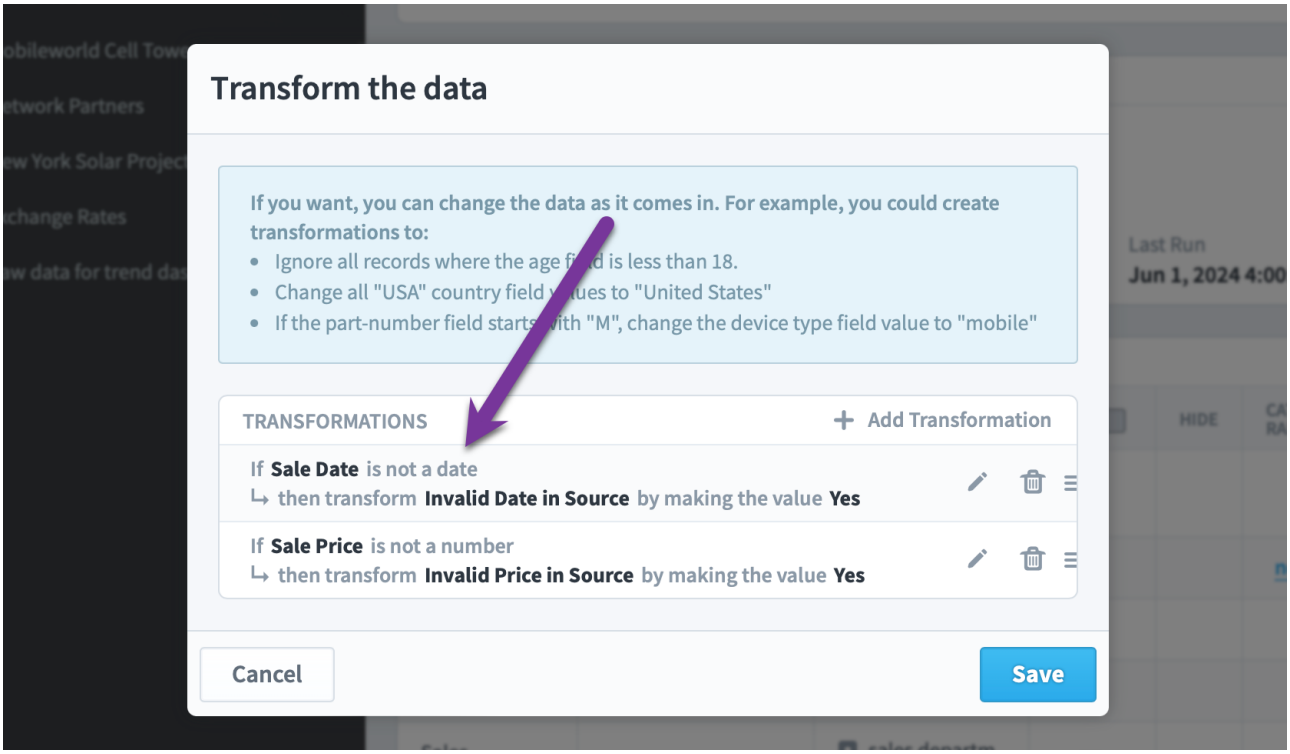


You can even use transformations to do data cleanup, like removing all non-numbers from the Value column.



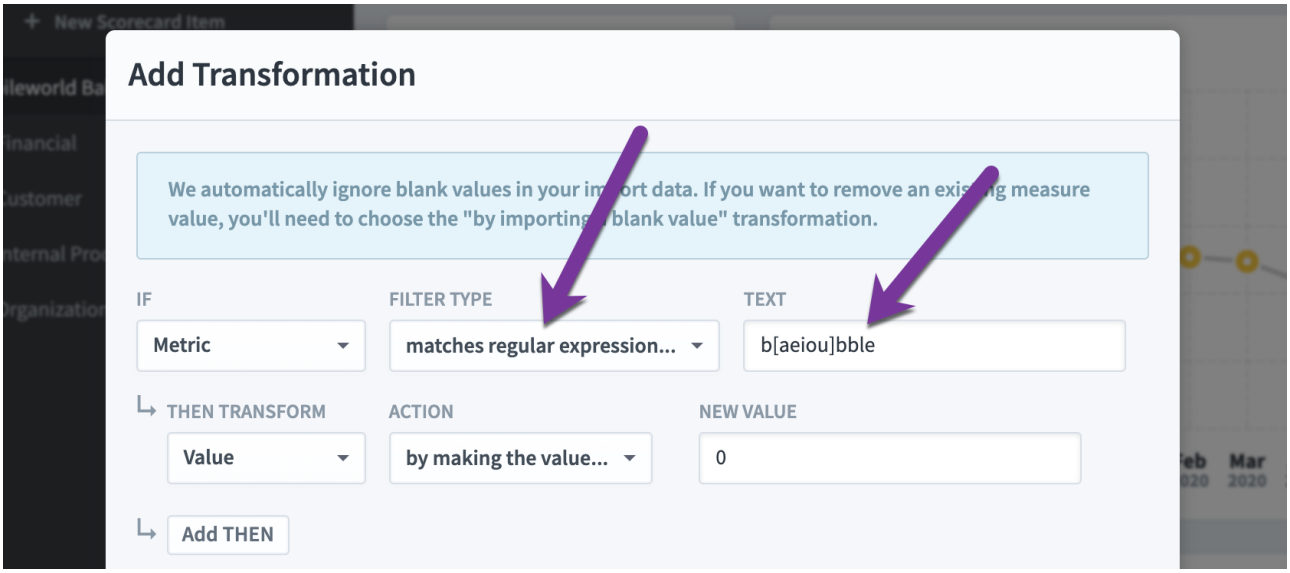
Or, in addition to cleaning the data, you can use one of the following filters to make it possible to report bad data so it can be fixed in the systems of record.

- Is a number
- Is not a number
- Is a date
- Is not a date



For example, there are situations where data being imported has values like "Thanksgiving" instead of a valid date because that system of record has weak data validation. In these situations, the transformation can check for an invalid date and mark an "Invalid Date in Source" field as true. Then you could send a bad data report to the system of record every month that includes only the records with "Invalid Date in Source" set to true.

Regular Expression Filter



The "matches regular expression" filter is incredibly powerful, but it's also very technical. Regular expressions are used in software development and some advanced software applications to match text. In this example, the regular expression *b[aeiou]bble* will match the following words:

- babble
- bebble
- bibble
- bobble
- bubble

There are resources across the web to help you learn how to make a regular expression to match the text you want. We've found that ChatGPT is amazing at building the perfect regular expression. There are also online tools like RegExr that are really handy.

Regular Expression Transformation

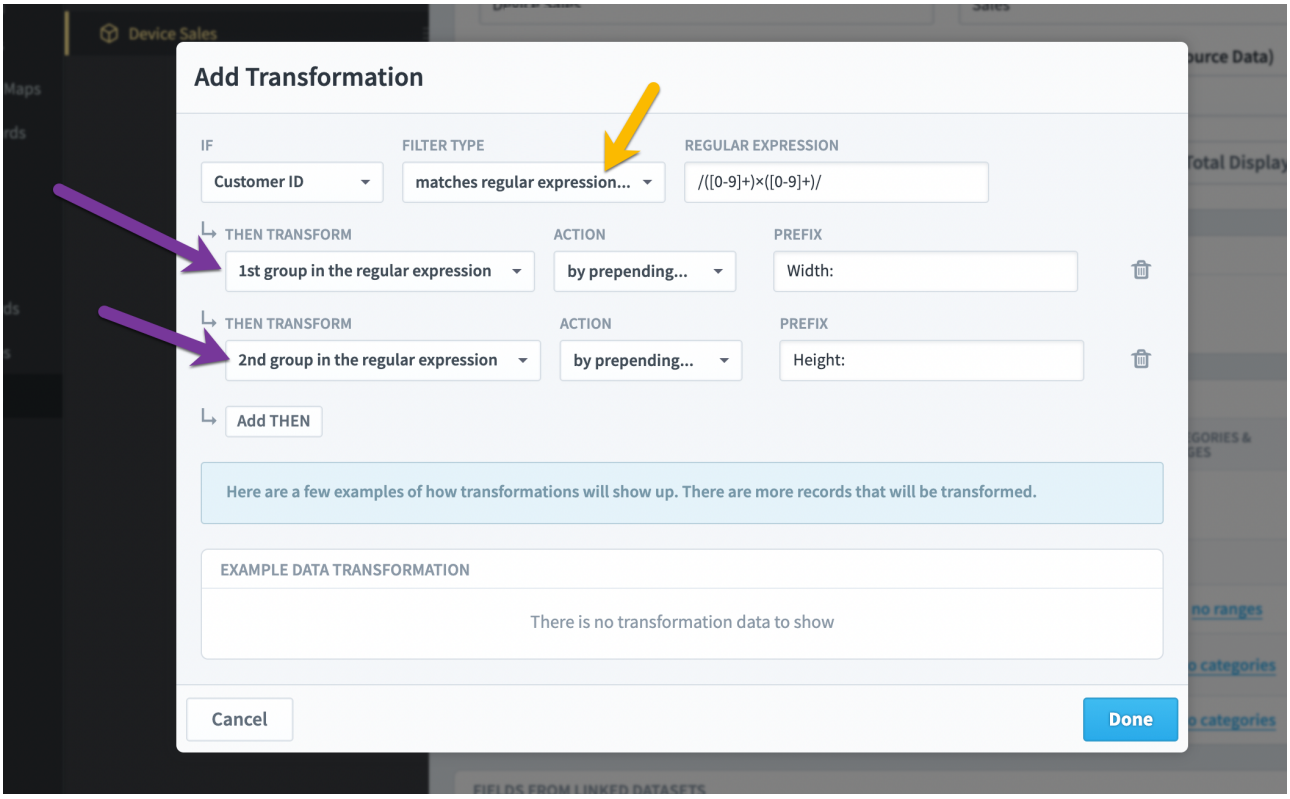
Regular expressions are incredibly powerful for text matching, but they can also be used to transform your data. For example, let's say you have a field that has text values like this:

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

And you want to convert it to values like this:

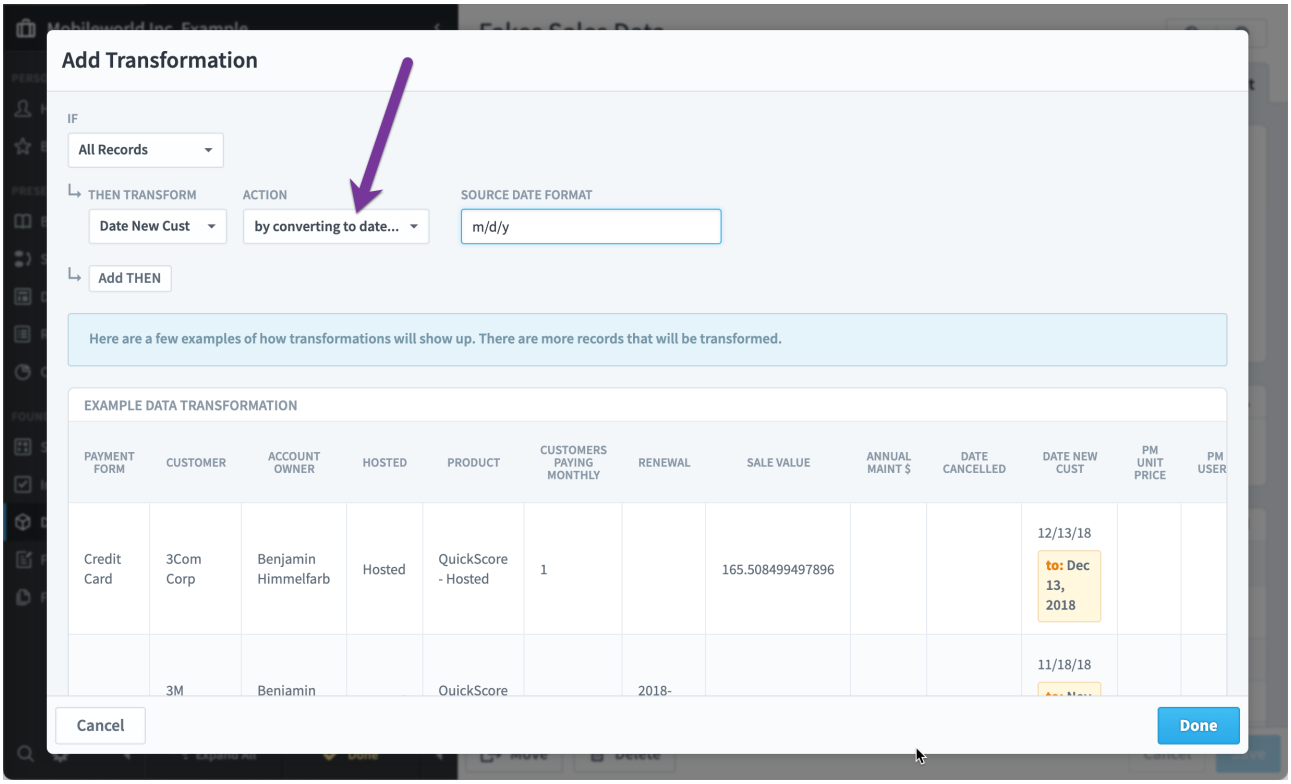
- Width: 1440×Height: 900 pixels
- Width: 1600×Height: 900 pixels
- Width: 800×Height: 600 inches

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

Spider Impact does a great job of turning text into dates on its own, but sometimes you'll need to give it a push in the right direction when your source data isn't in a common format. The "by converting to a date" filter turns text into dates by telling the software where to find the day, month, and year.



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 (/)

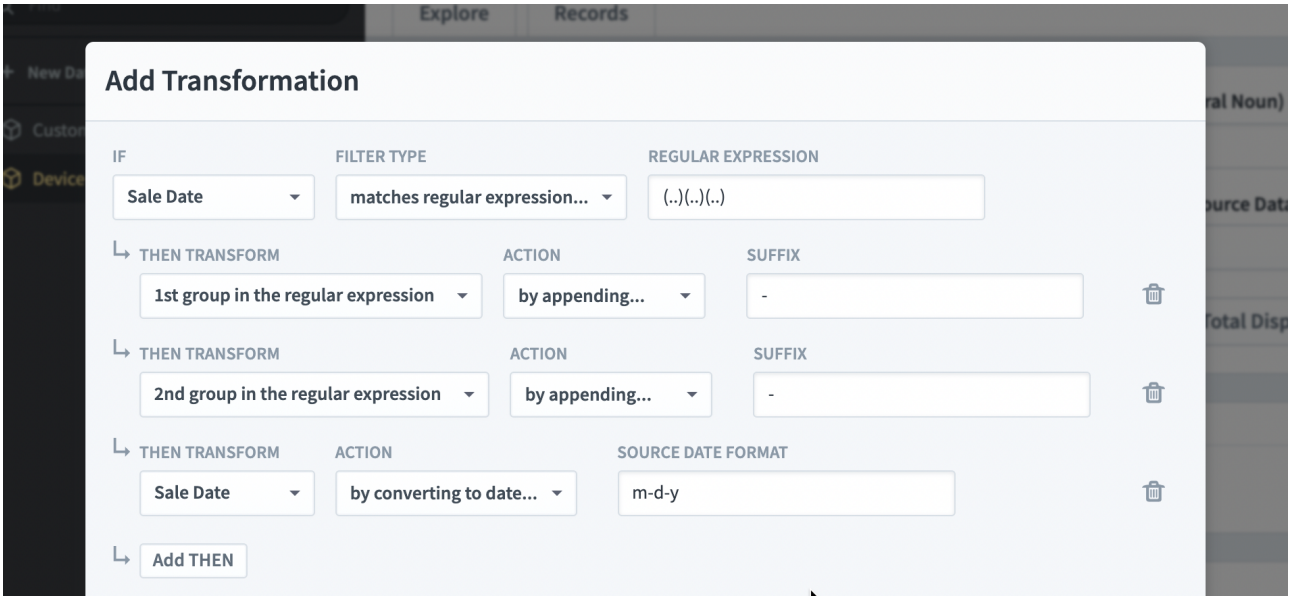
For example, if your dates look like *5/15/2020*, you'd use *m/d/y* for the source date format. If your dates look like *3-Mar-19*, you'd use *d-m-y* for the source date

format. As long as you tell Spider Impact 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 Spider Impact can't parse on its own. For example, February 20th, 2018 could be stored as *022018*, but there's no way for the software to automatically determine which numbers match to which parts of the date. 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*



Advanced: Importing Date and Time Fields

Overview

Date fields are used in almost every type of import. For example, KPI value imports require a date field, initiative imports have start dates, and datasets can have date or time fields. If your date fields are coming from a single field in a database or Excel spreadsheet, it's easy for Spider Impact to know how to import the date.

When your dates are coming from a text format like CSV or JSON, however, or when they're the result of combining multiple fields, things can get a little more tricky. That's because different countries and languages store dates differently, and Spider Impact doesn't have any clues from the source file to determine how to read the dates. In these situations, the software goes through a specific order of possible date formats, many of which are unique to each locale.

Don't worry, you probably won't have to even think about this. If you try to import dates that look good to you, there's a good chance Spider Impact will be able to import them. For the sake of transparency, however, here are the full details of how Spider Impact imports dates.

Details

Attempt 1: Bulgaria

If the user's browser locale is set to Bulgaria, Spider Impact will first attempt to parse text like 01.25.2021 as January 14th, 2022. If the user isn't from Bulgaria or the text isn't in that specific format, the software will continue to attempt 2.

Attempt 2: Browser locale-based formats

For most users, the first thing that Spider Impact tries when trying to turn text into a date is Java's built-in date parsing. It looks at the user's browser to

determine their locale, and then asks Java to treat the text as a date for that locale.

There are four formats for each locale: Full, Long, Medium, and Short. For example, here is the date January 14th, 2022 for each of the formats for the United States locale.

	Date	Time	Datetime
Full	Friday, January 14, 2022 AD	3:46:00pm EST	Friday, January 15, 2022 at 1:12:45 PM Eastern Standard Time
Long	January 14, 2022	3:46:00 PM EST	January 14, 2022 at 1:46:00 PM EST
Medium	Jan 14, 2022	3:46:00 PM	Jan 14, 2022, 15:46:00 PM
Short	01/14/22	3:46 PM	1/14/22, 3:46 PM

Java supports over 4,000 locales, so we've put together a spreadsheet with examples for every locale.
http://resources.spiderstrategies.com.s3.amazonaws.com/docs/date_time_by_locale.csv

Attempt 3: Specific formats

If none of the locale-based formats match the text, Spider Impact will then attempt to parse the text using this specific list of formats. We're continuing to use January 14th, 2022 as an example. Missing year is assumed to be current year.

Dates

1/14/22
01/14/22
1/14/2022
01/14/2022
1/14

01/14
1-14-22
01-14-22
1-14-2022
01-14-2022
2022-1-14
2022-01-14
1-14
01-14
jan 14, 2022
Jan 14, 2022
JAN 14, 2022
jan 14 2022
Jan 14 2022
JAN 14 2022
MMM-d-yyyy
jan-14-2022
Jan-14-2022
JAN-14-2022
January 14, 2022
january 14, 2022
January 14 2022
january 14 2022
jan 14
Jan 14
JAN 14
January 14
january 14
14 January 2022
14 january 2022
14-jan-2022
14-Jan-2022
14-JAN-2022

Times

3:46 pm
3:46 PM
3:46:00 pm
3:46:00 PM
03:46 pm
03:46 PM
03:46:00 pm
03:46:00 PM
15:46
15:46:00
15:46:00.0
15:46:00.00
15:46:00.000
15:46:00.0000
15:46:00.00000
15:46:00.000000

Datetimes

To create a Datetime field, Spider Impact combines any of the date formats with any of the time formats. The date and time is separated by either a [space] or T.

1-14-2022T15:46:00
1-14-2022 15:46:00

Attempt 4: No day of the month formats

If the date doesn't match any of the formats specified above, Spider Impact tries the following formats, assuming that it is the first day of the month. We're using January 2022 as an example.

1-2021
01-2021
1/2021
01/2021
2021-1
2021-01
2021/1
2021/01
Jan 2021

Attempt 5: ISO 8601 date format

If none of the date formats match, Spider Impact will attempt to parse the dates as ISO 8601. This is a well-defined format, but here are some examples for January 14th, 2022.

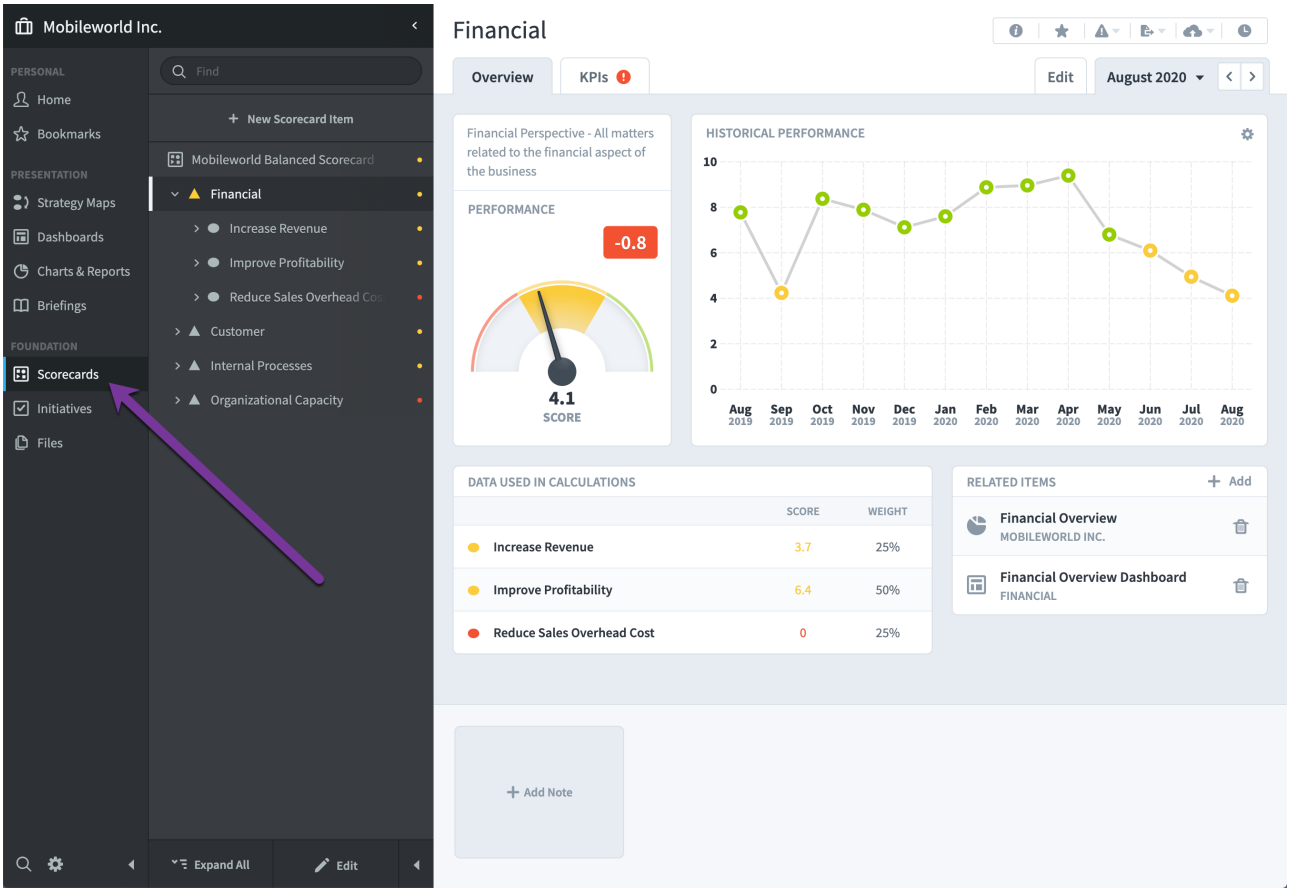
2022-01-14
2022-01-14T15:46:00+00:00
2022-01-14T15:46:00Z
20220114T154600Z

Scorecards

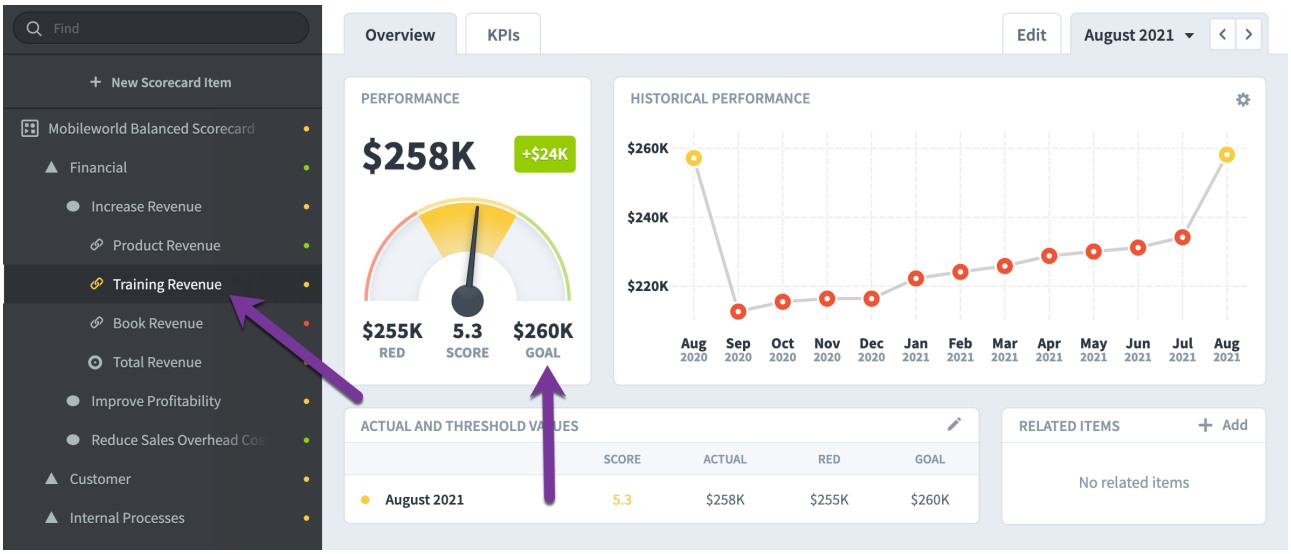
Overview of Scorecards

The Scorecard Tree

The Scorecards section is the heart of Spider Impact. It's where you keep all of your performance metrics, as well as where you manage your overall strategy as an organization.



The idea behind Scorecards is simple. At the bottom of your scorecard tree are KPIs. *(If you're using the balanced scorecard language, they're called measures, but it's just a different name for the same thing.)* Each KPI has a goal, and every month the KPI's actual value is compared against the goal to give it a score and a color.

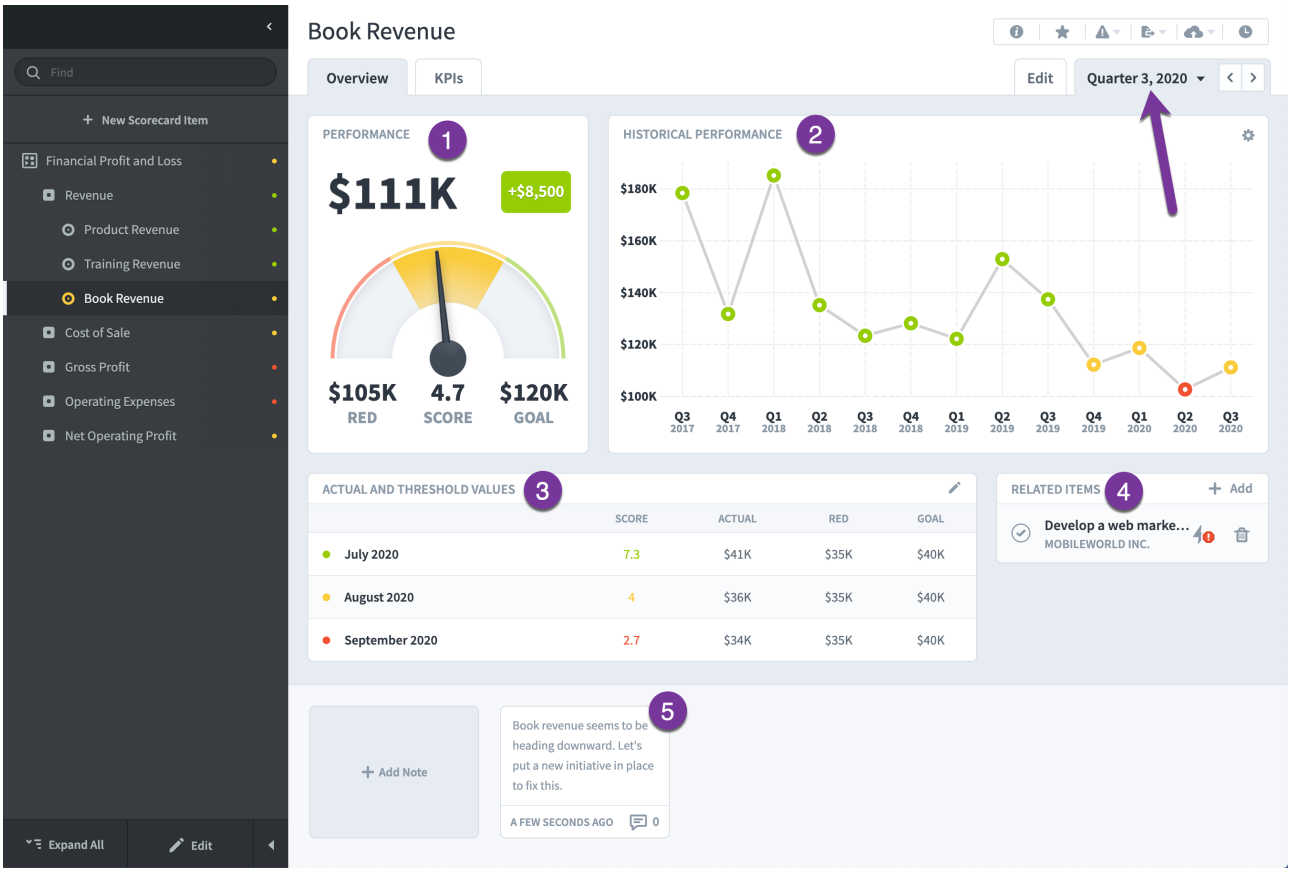


All of those KPI scores are then rolled up the tree to give scores to your higher-level strategic scorecard items. In this example, the score from this *Training Revenue* KPI is combined with other similar KPI scores to give the *Increase Revenue* objective a score. That objective score is then rolled up with other objectives into the overall *Financial* perspective's score.

For more information about how Spider Impact calculates scores, see the How Scores are Calculated article.

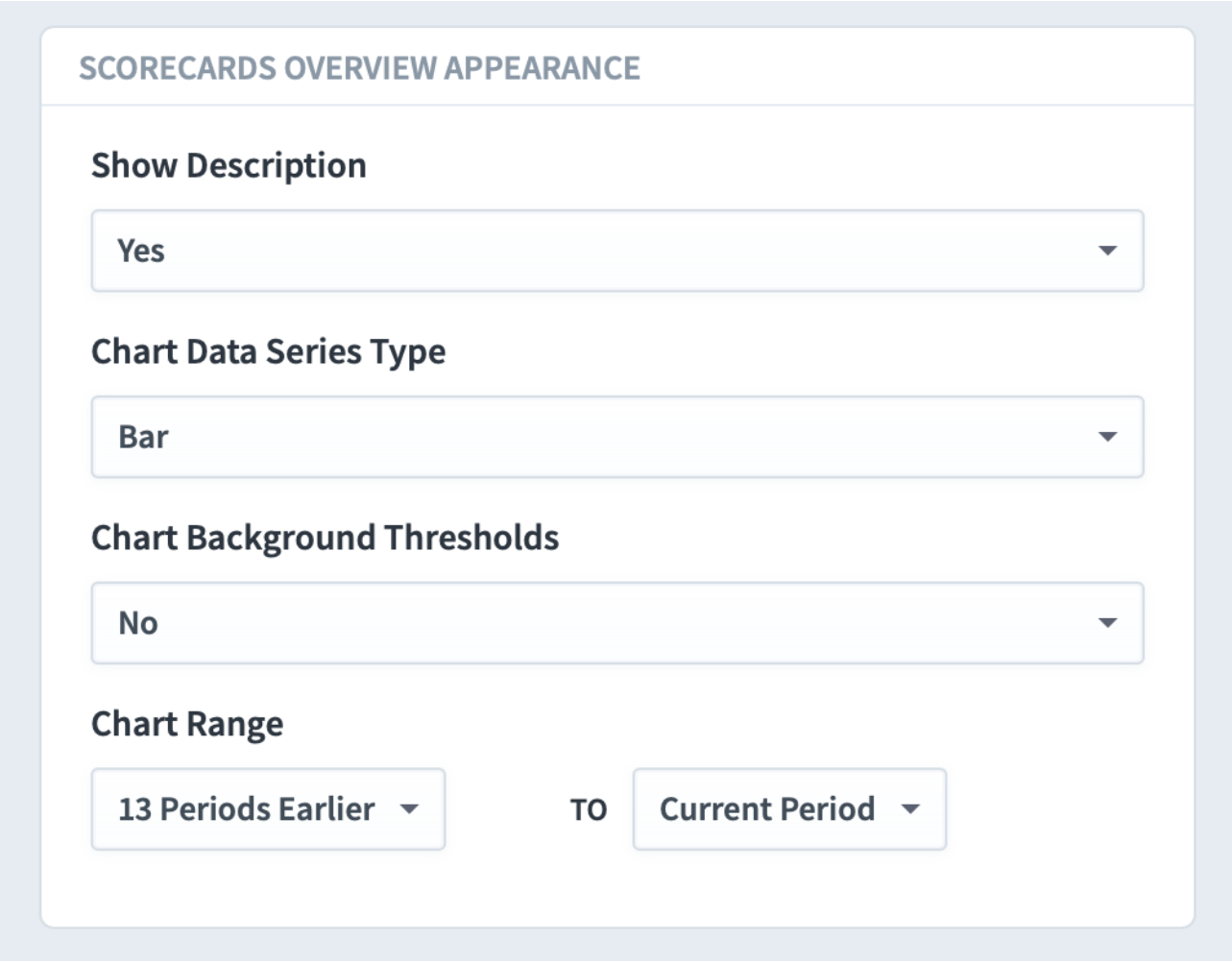
Overview Tab

The Scorecards overview tab shows all of the information about a scorecard item and how it's performing. As you click around the scorecard tree on the left, the information for the selected item is shown on the right.

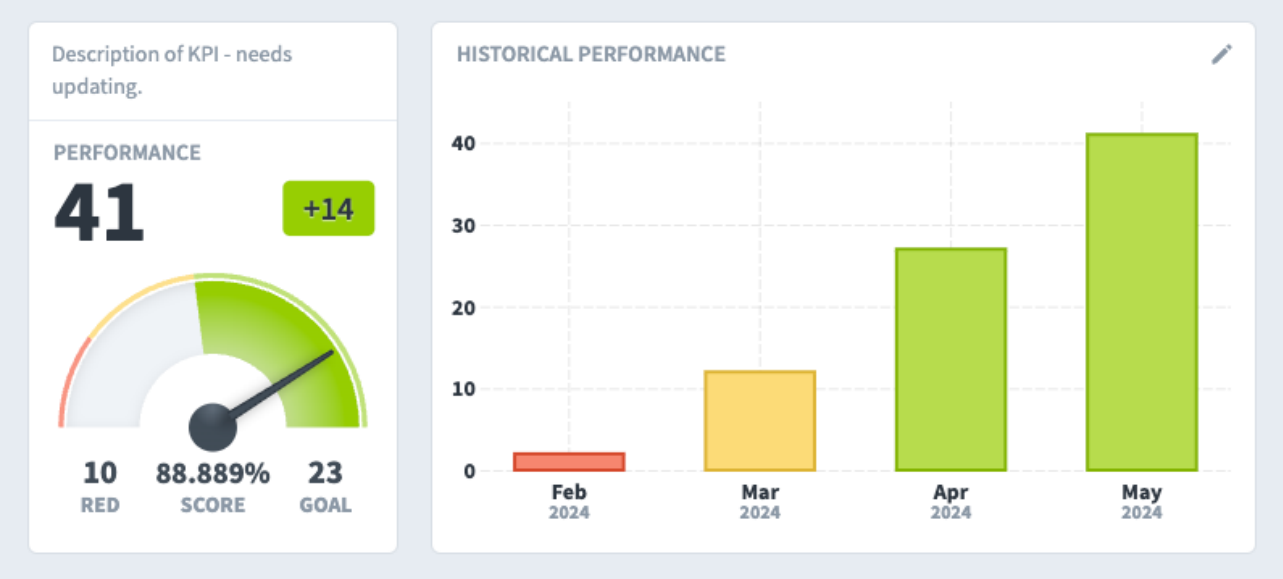


1. The speedometer shows the performance for the current calendar period (purple arrow). In this example we're looking at a KPI and we can see its actual value, goal, and how much it has changed since the previous period.
2. The historical performance chart shows how this KPI has changed over time. You can hover/tap on the chart to see the specific values.
3. The actual and threshold values table includes everything that goes into the score calculation. In this example we're looking at a monthly KPI in quarterly mode (purple arrow), so we see three months' worth of data in the table.
4. You can designate just about anything in Spider Impact as a related item. For example, you may want to link to a supporting document in the Files section. If you choose an Initiative as a related item, Spider Impact will tell you if the initiative appears to be affecting this scorecard item's performance.
5. You can create notes for scorecard items that can apply either to specific periods, or to the scorecard item in general.

There settings in Application Administration that allow you to configure the default appearance of the Scorecards Overview tab.

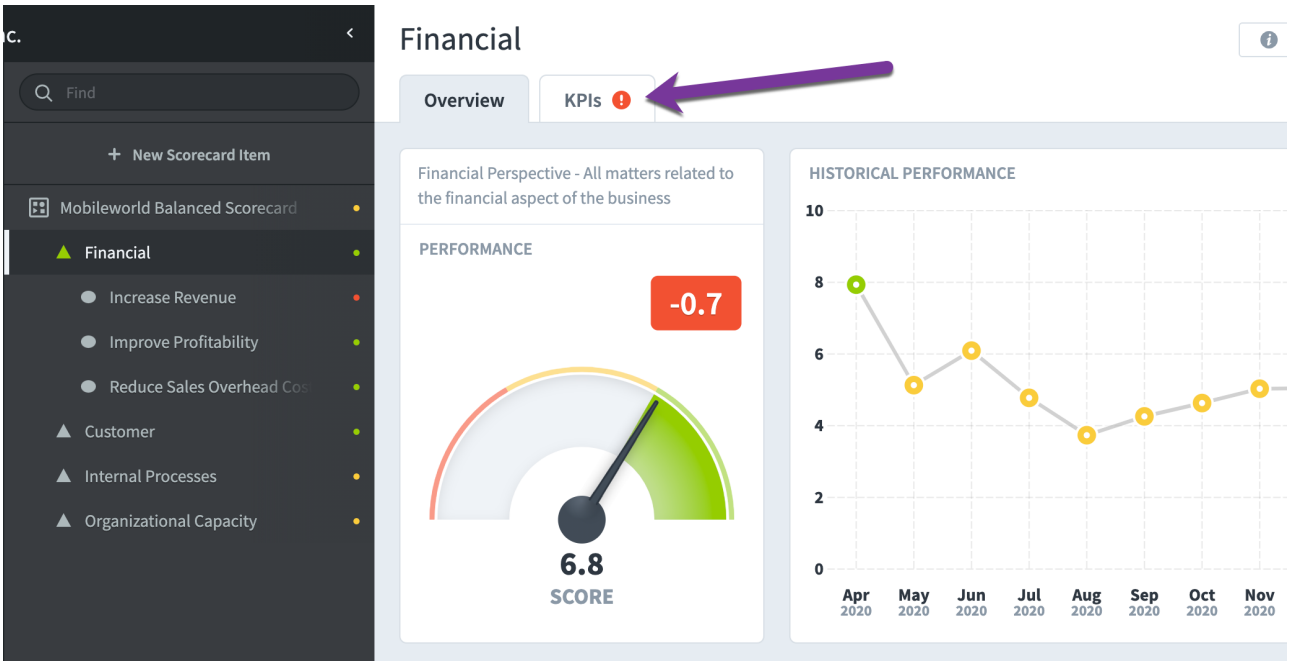


In this example we've set the description to show, and we're charting 4 periods on a bar chart with no background thresholds.

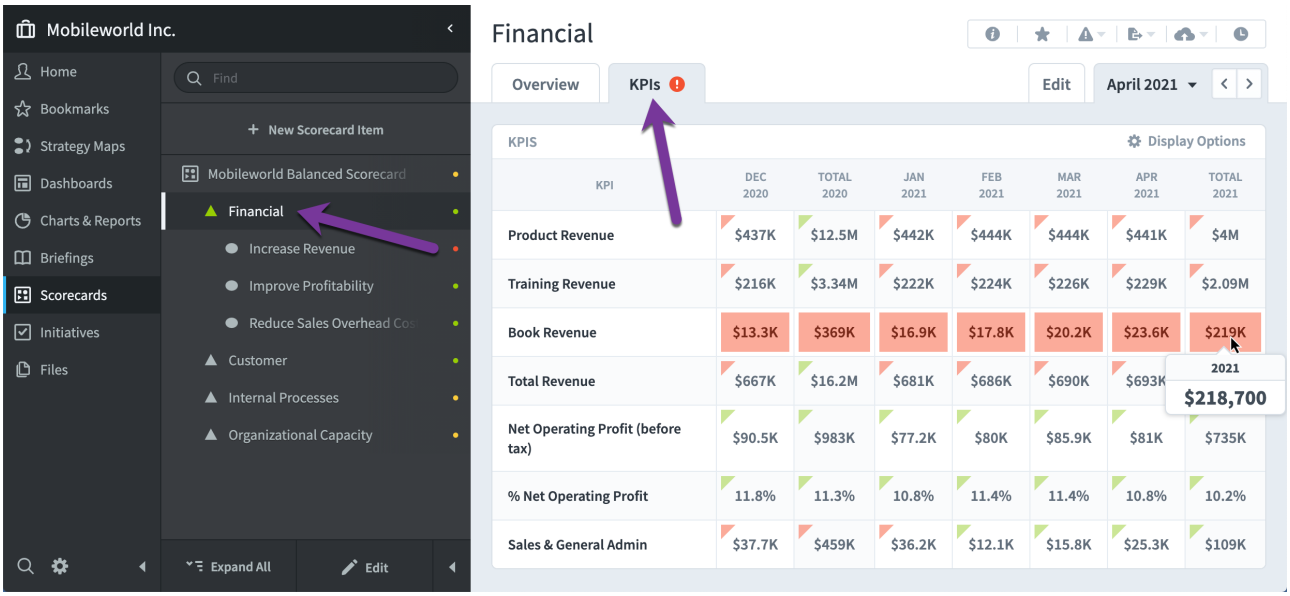


KPIs (or Measures) Tab

When you're viewing a high-level strategic scorecard item, you'll sometimes see a red icon on the KPIs tab. *(This tab is called Measures when you're using balanced scorecard language.)* This means that there's a red KPI somewhere under this scorecard item.



If you click on the KPIs tab, you'll see the performance of every KPI that is underneath the currently selected item. This is a great way to see all of the low-level data that's behind a high-level strategic item.



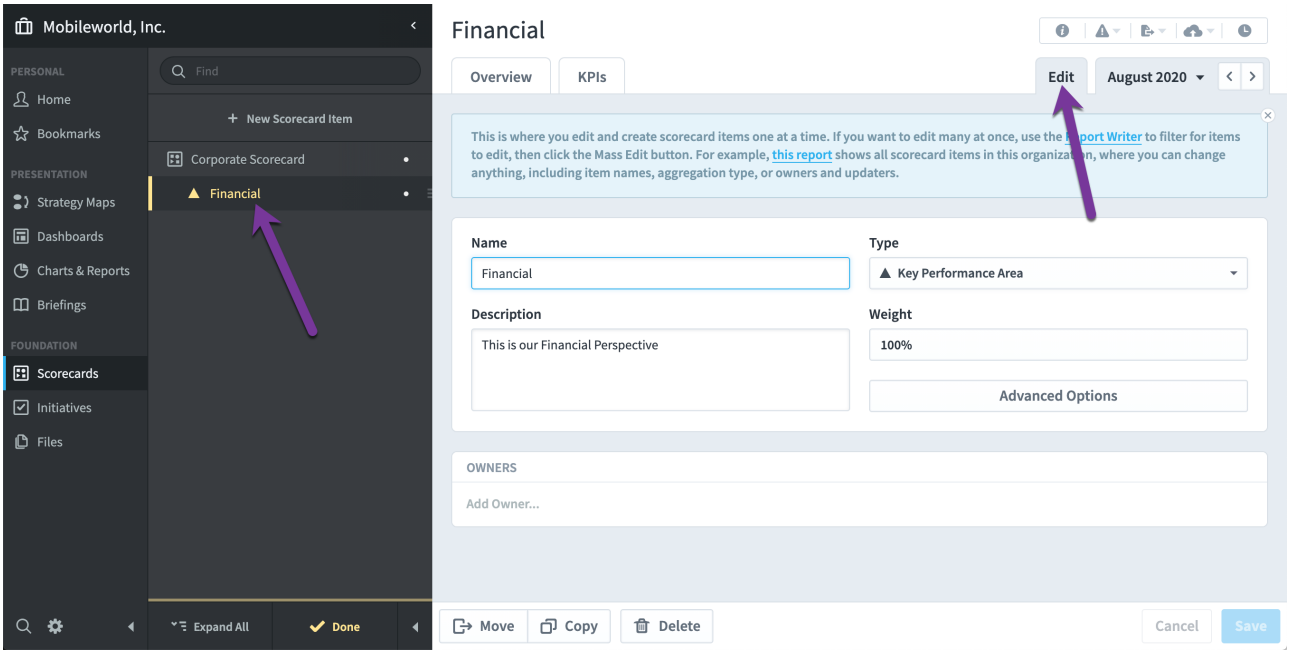
By default, any KPI below a score of 3.3 will trigger the red icon, but you can configure or disable this threshold in the Scorecards panel of Application Administration.



Scorecard Building Basics

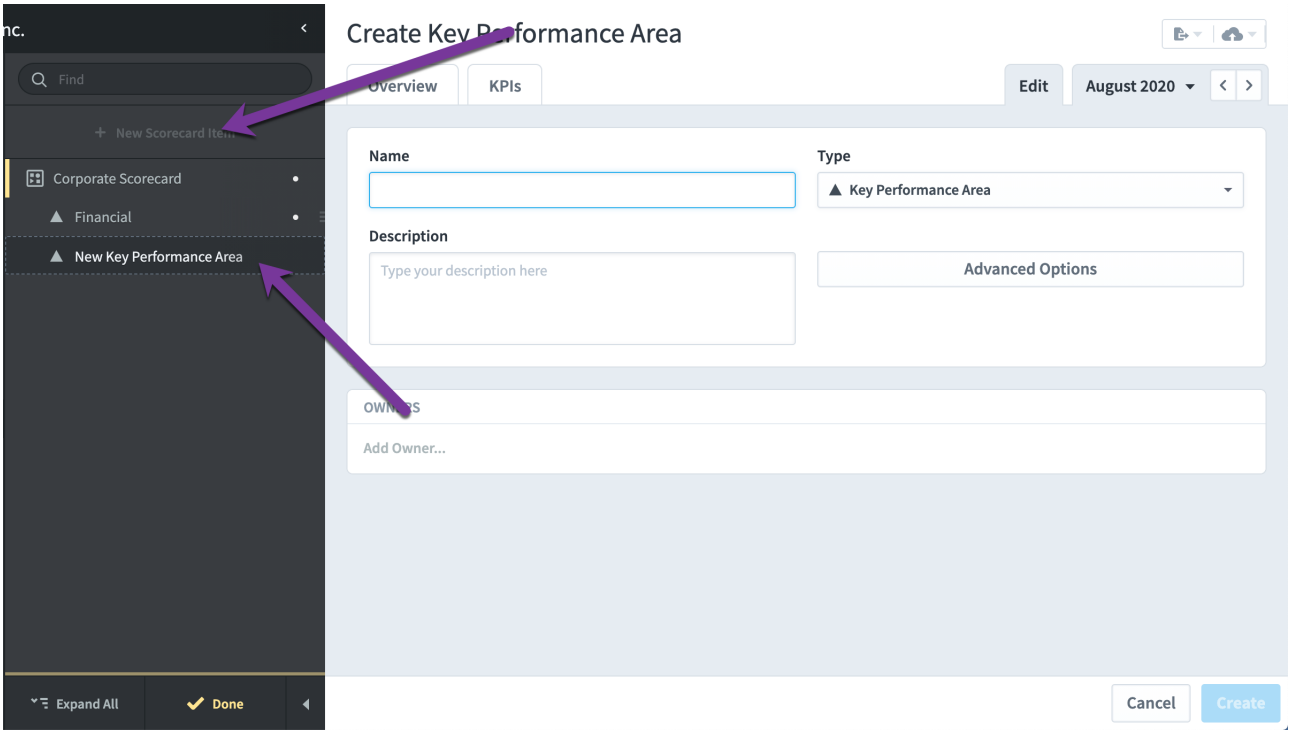
Editing Scorecard Items

To edit an existing scorecard item, just select it in the tree on the left and then go to its Edit tab.

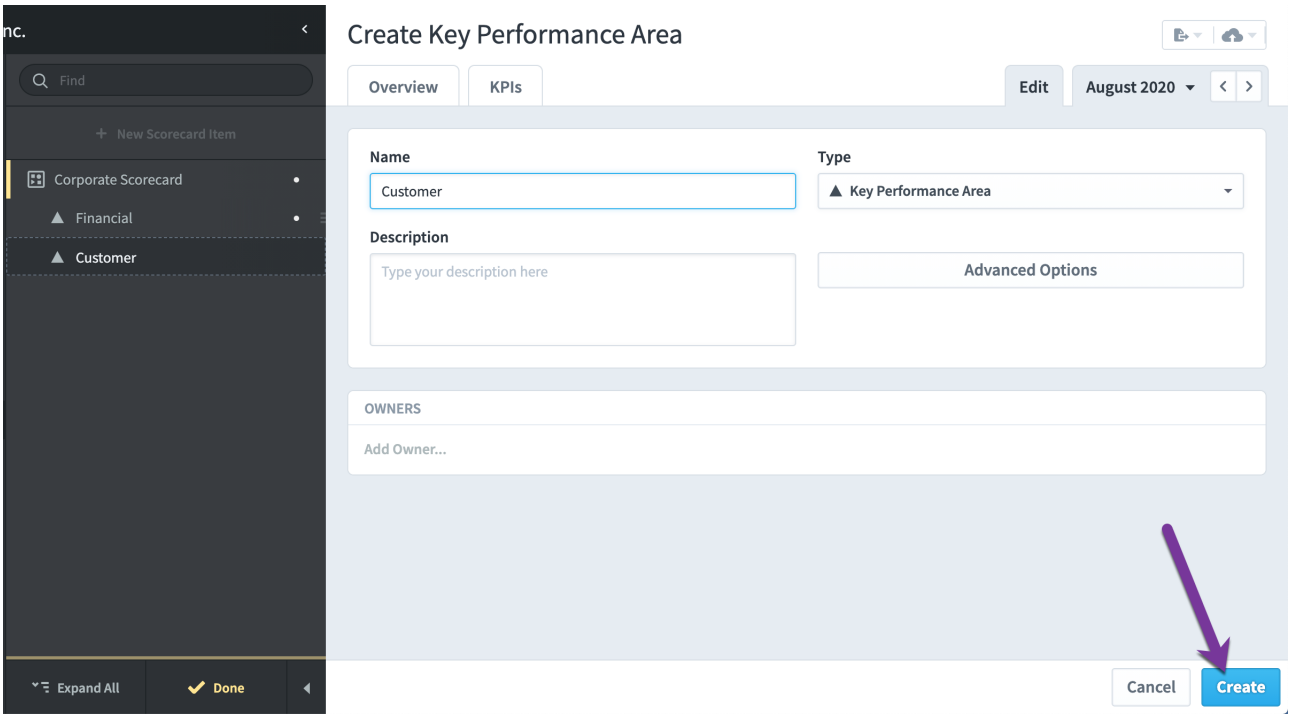


Creating New Scorecard Items

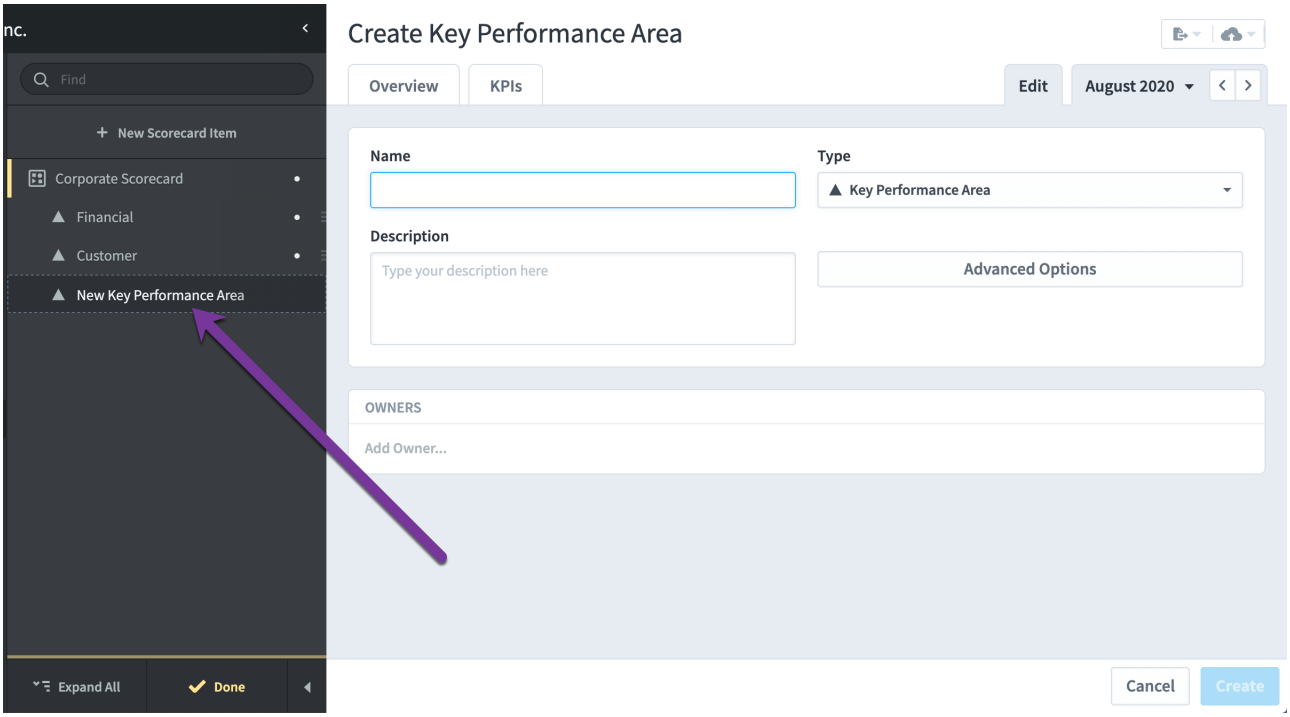
To create a new scorecard item, select its parent in the tree and click the New Scorecard Item button. This will put a placeholder for the new item in the tree and you can start filling out the form.



Once your scorecard item is ready to go, click the Create button (or type the return/enter key on your keyboard).



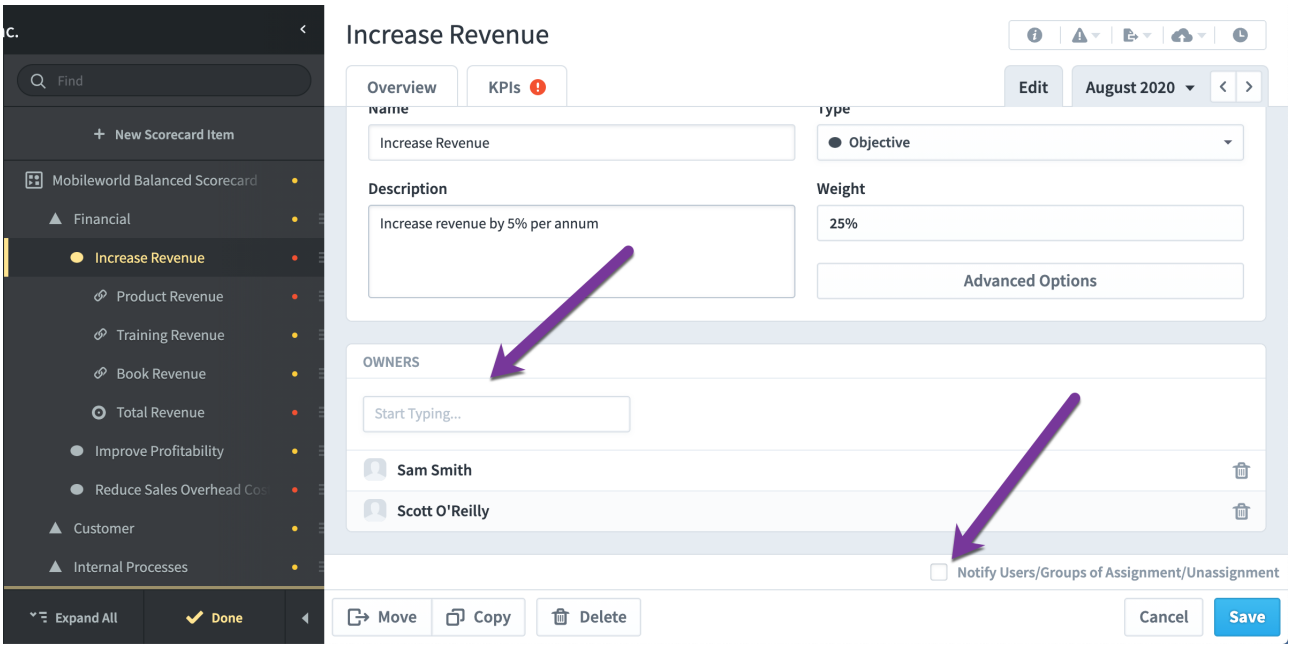
Not only does this save your scorecard item, but it also automatically moves on to creating the next scorecard item in the list.



With a little practice you can quickly create all of your scorecard item siblings this way at once. Just type the scorecard item's name, hit enter on your keyboard, and then start typing the next item's name. You can also hit tab to jump to another field like Description.

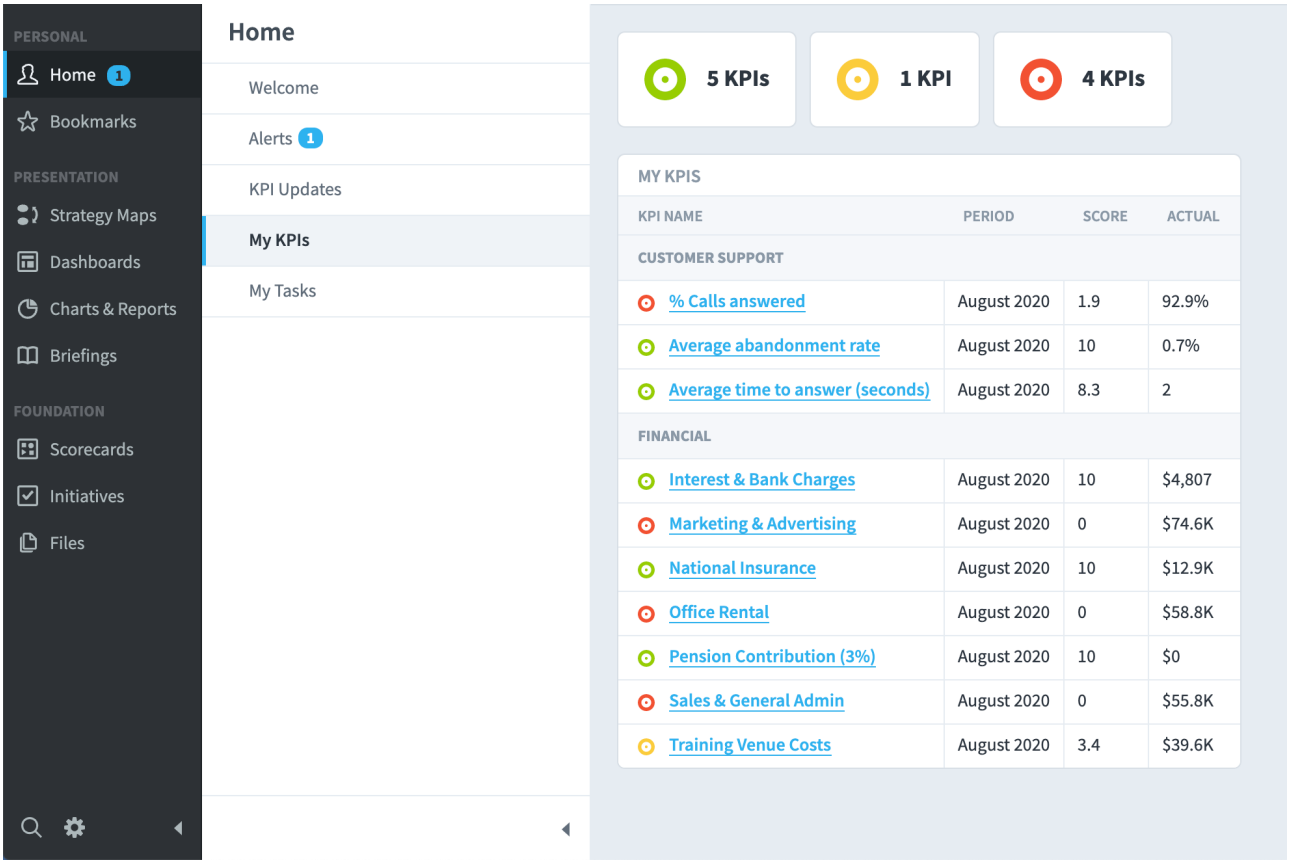
Assigning Owners

You can assign users or groups a an Owners of any scorecard item and optionally send them an alert when they've been assigned.



Accountability is incredibly important to managing your organization's strategy. By clearly stating who is responsible for a KPI, there will be a point of contact if performance starts to take a turn for the worse.

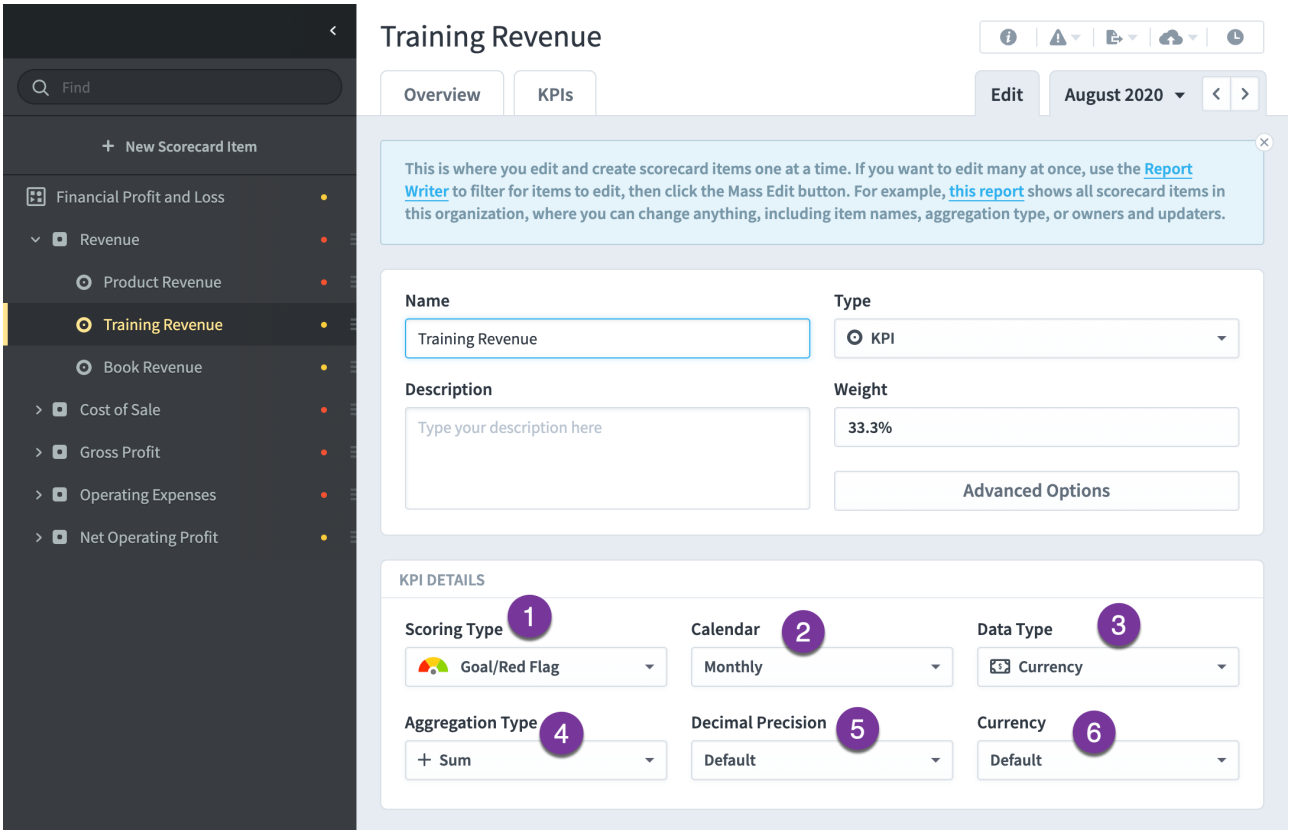
It's also helpful for the owners because they'll know exactly what they're responsible for. They're able to see a list of all KPIs they own in the Home section.



KPI (or metric) Details

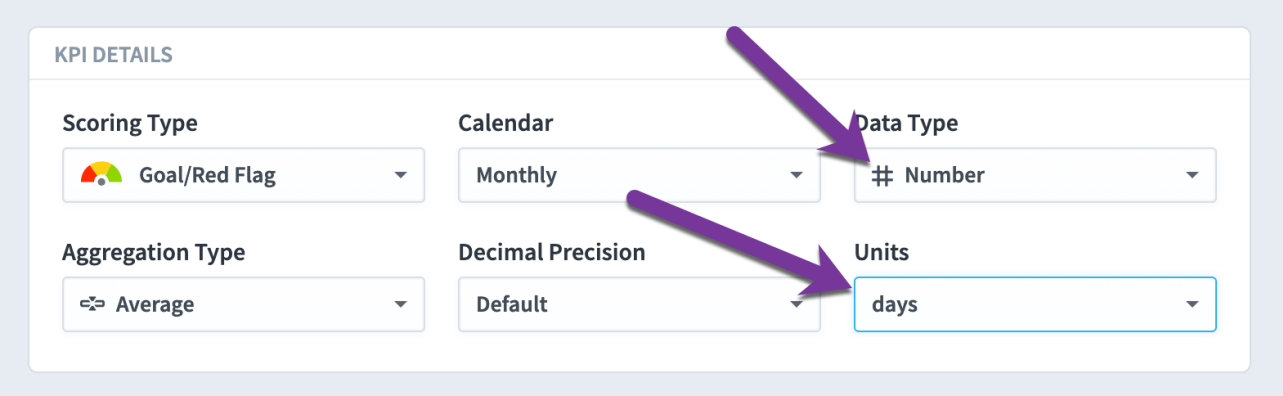
KPIs *(or metrics if you're using balanced scorecard language)* are a little more complicated than other types of scorecard items. The good news is that all of the default KPI settings work wonderfully. Most of the time you can just give your KPI a name, an owner, and a couple threshold values. If you really want to customize your KPIs, though, Spider Impact has the tools to do it.

First, let's review all of the KPI details.



1. **Scoring Type** is how your KPI gets its score. The default *Goal/Red Flag* option is the most popular by far. You choose a number where your KPI turns green, and a number where your KPI value turns red. Please see our Using KPI Scoring Types article for more information.
2. **Calendar** is how often you update your KPI.
3. **Data Type** is the kind of number you want to use. You can choose *Number*, *Percentage*, or *Currency*.
4. **Aggregation Type** is how to combine KPI data for multiple periods. For example, a monthly KPI's quarterly totals. Most KPIs are *Sum* or *Average*, but there are also options for *Geometric Mean* and *Last Value (already aggregated)*.
5. **Decimal Precision** is how many numbers you want to the right of the decimal point. You can also set the default decimal precision for Spider Impact in the Application Administration section.
6. **Currency** allows you to choose a specific country's currency and is only an option when configured in the Application Administration section.

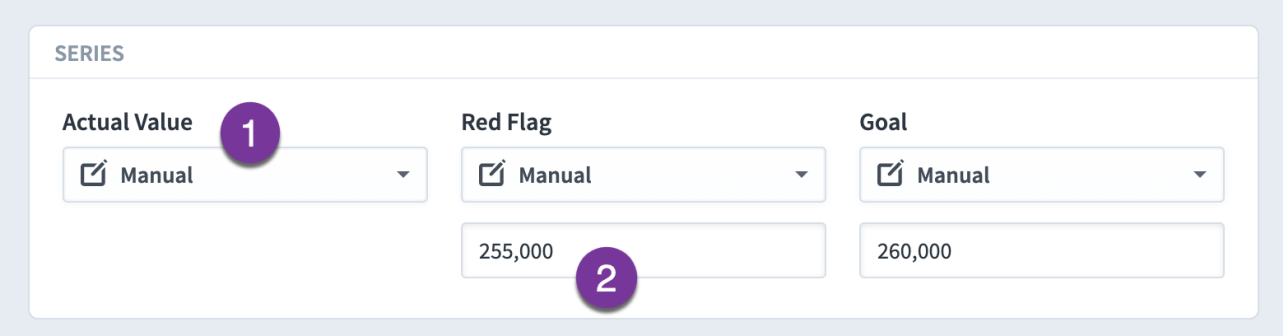
When you choose *Number* for the data type, you also have the ability to specify a unit of measurement if you've configured *Units* in the Application Administration section.



KPI Series

Every KPI has actual values that are updated regularly. Depending on the KPI's scoring type, it may also have one or more scoring thresholds that can change month to month.

In this example we're using *Goal/Red Flag* scoring and we have three series to configure:

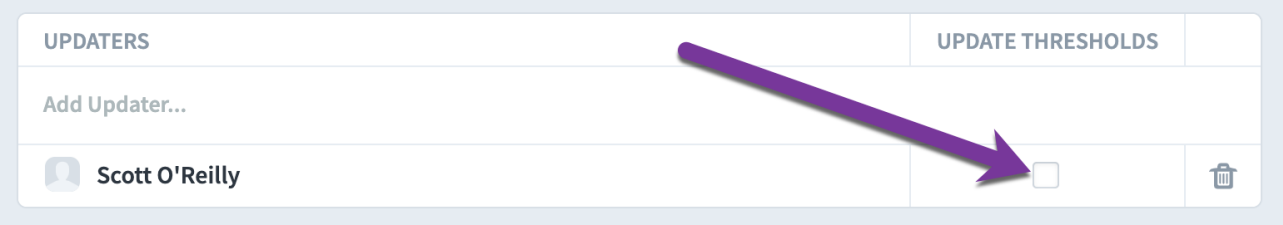


1. Every series has an update type. It defaults to manual, but you can also choose Calculated or Template Rollup. Please see the Calculated KPIs article for more information.

2. Every manual threshold has a default threshold value. In this example our KPI will turn red if the value us lower than 255,000 and green if it's higher than 260,000. When higher values are worse, the Goal threshold is going to have a lower number than the Red Flag threshold.

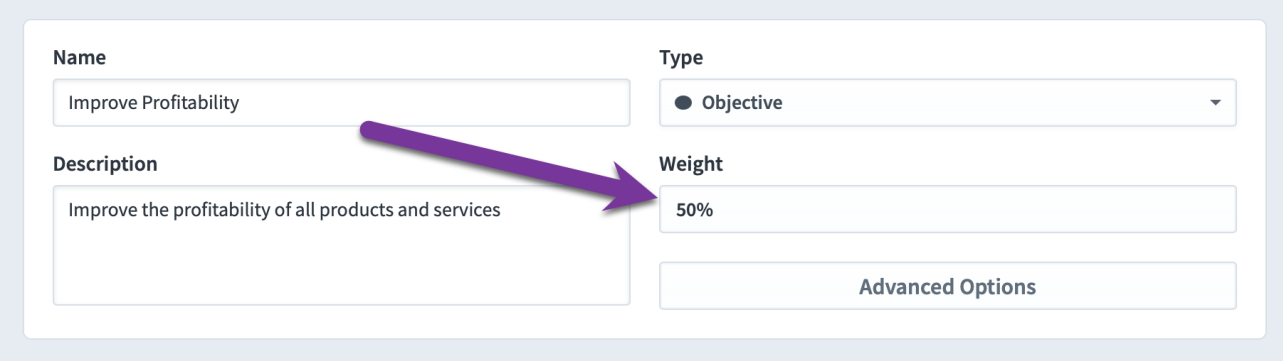
KPI Updaters

The last thing you can configure for KPIs is *Updaters*. Here you can designate one or more users or groups as updaters for the KPI. By clicking the *Update Thresholds* checkbox you can also give them the ability to change things like the KPI's goals for each period.



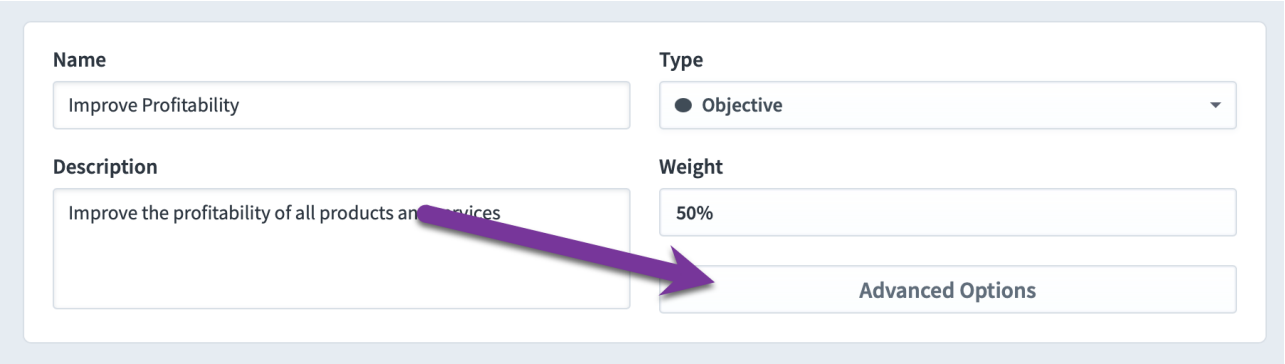
Weight

By default all scorecard items are weighted equally for scoring. You can adjust these weights to reflect different priorities, which is covered in the Score Weighting article.

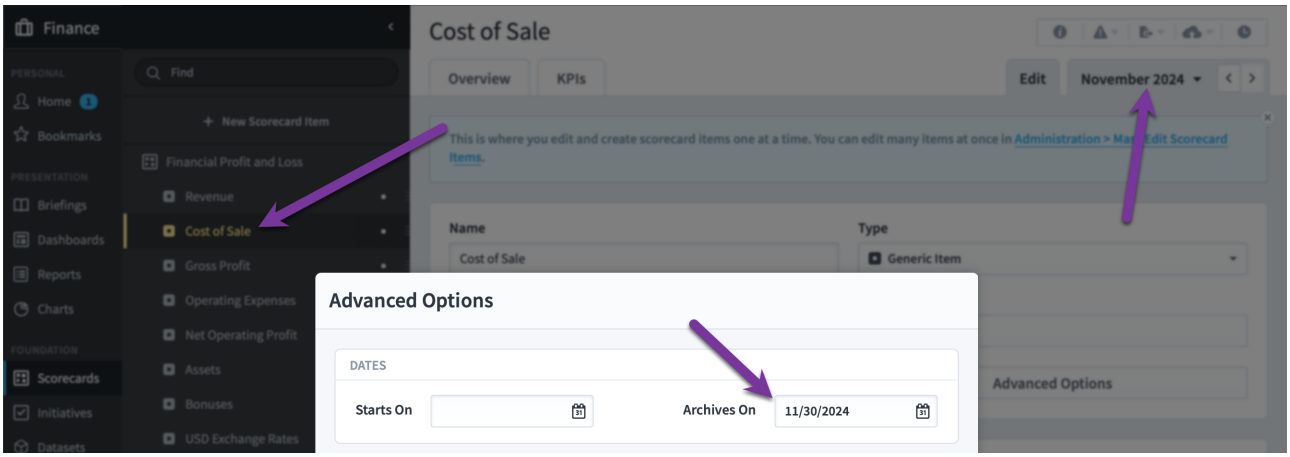


Start and Archive Dates

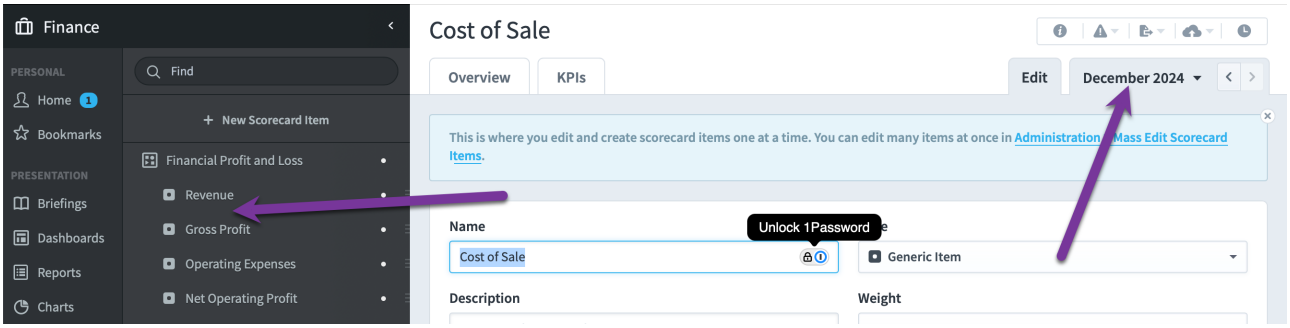
To set Start or Archive dates, click on a scorecard item's Advanced Options button.



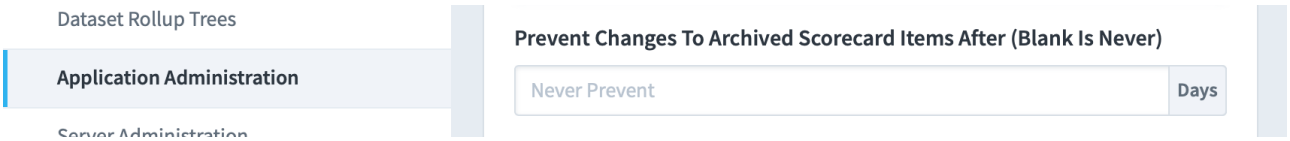
By default, scorecard items appear for all time. In this example, however, we've set the Cost of Sale scorecard item to archive at the end of November 2024. As you can see, it still appears in the tree in November.



But, when we switch to December, it no longer appears. These start and archive dates allow your scorecards to change over time while still maintaining an accurate performance history.

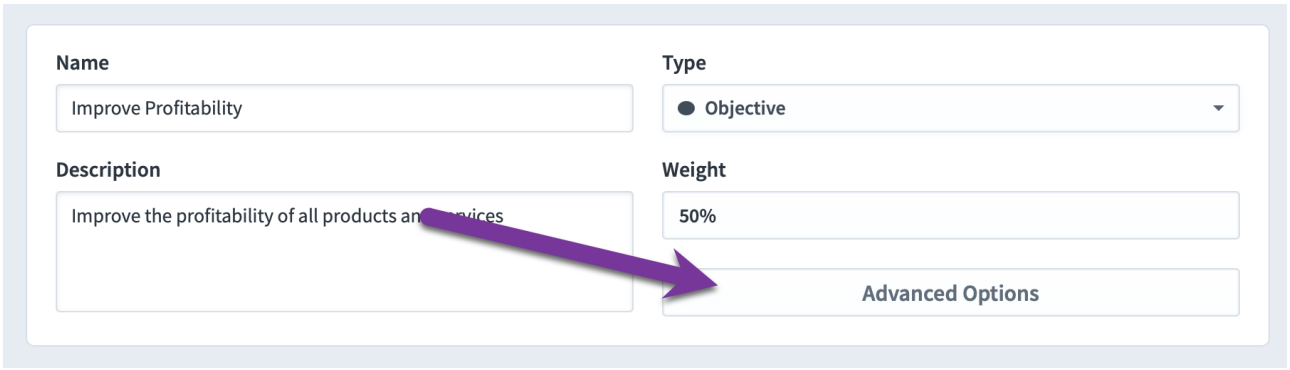


If you want to lock in archived scorecard items so they can't be changed after they're archived, there is a setting in the Scorecards pane of Application Administration.

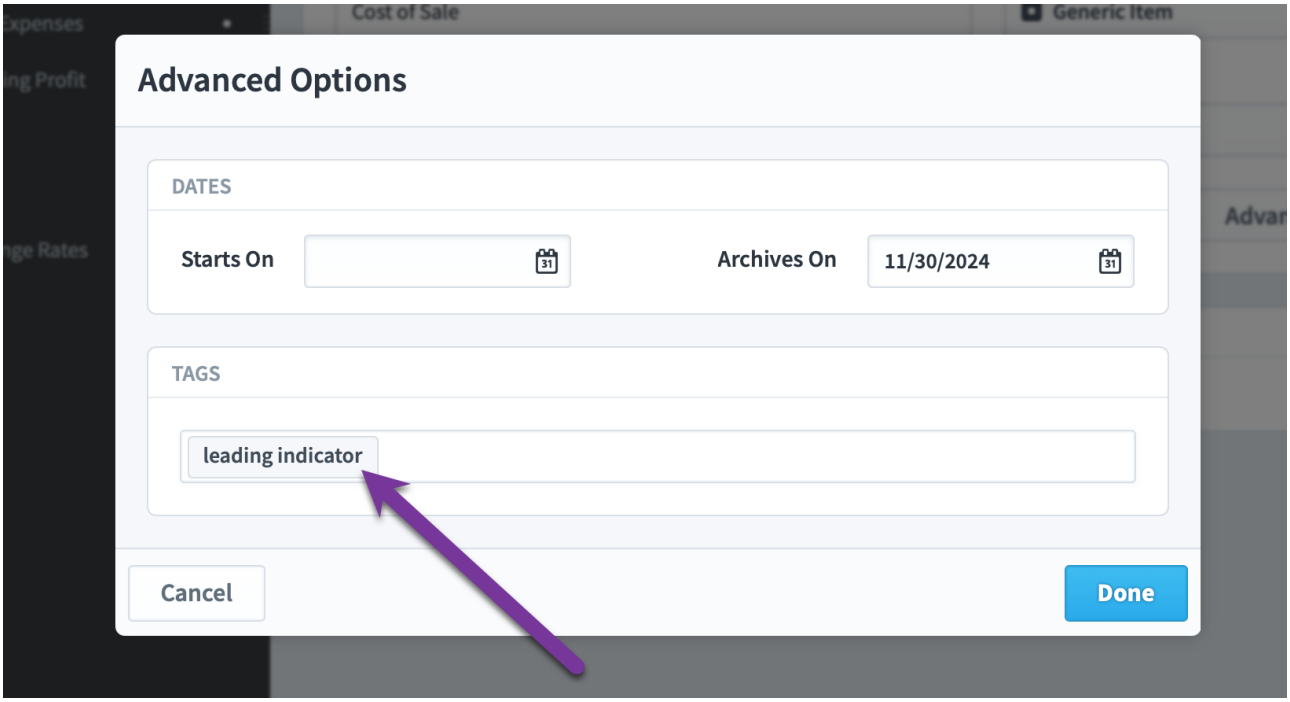


Tags

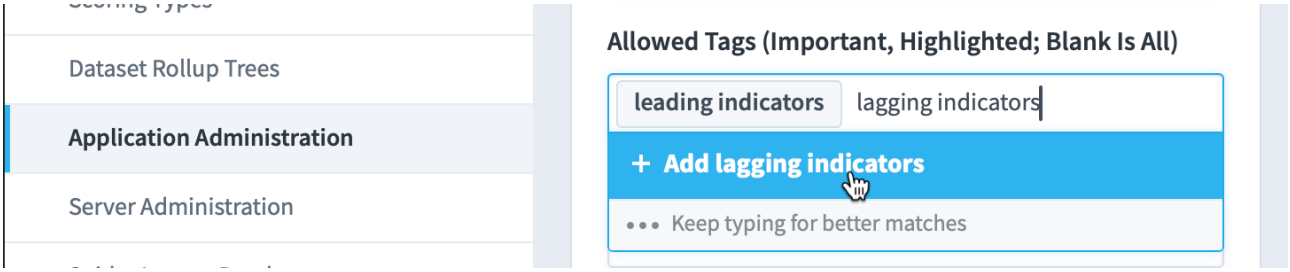
To set tags, click on a scorecard item's Advanced Options button.



Here you can tag scorecard items with attributes that you can report on. In this example we're designating some KPIs as leading indicators so that we can write a report showing all red leading indicators.

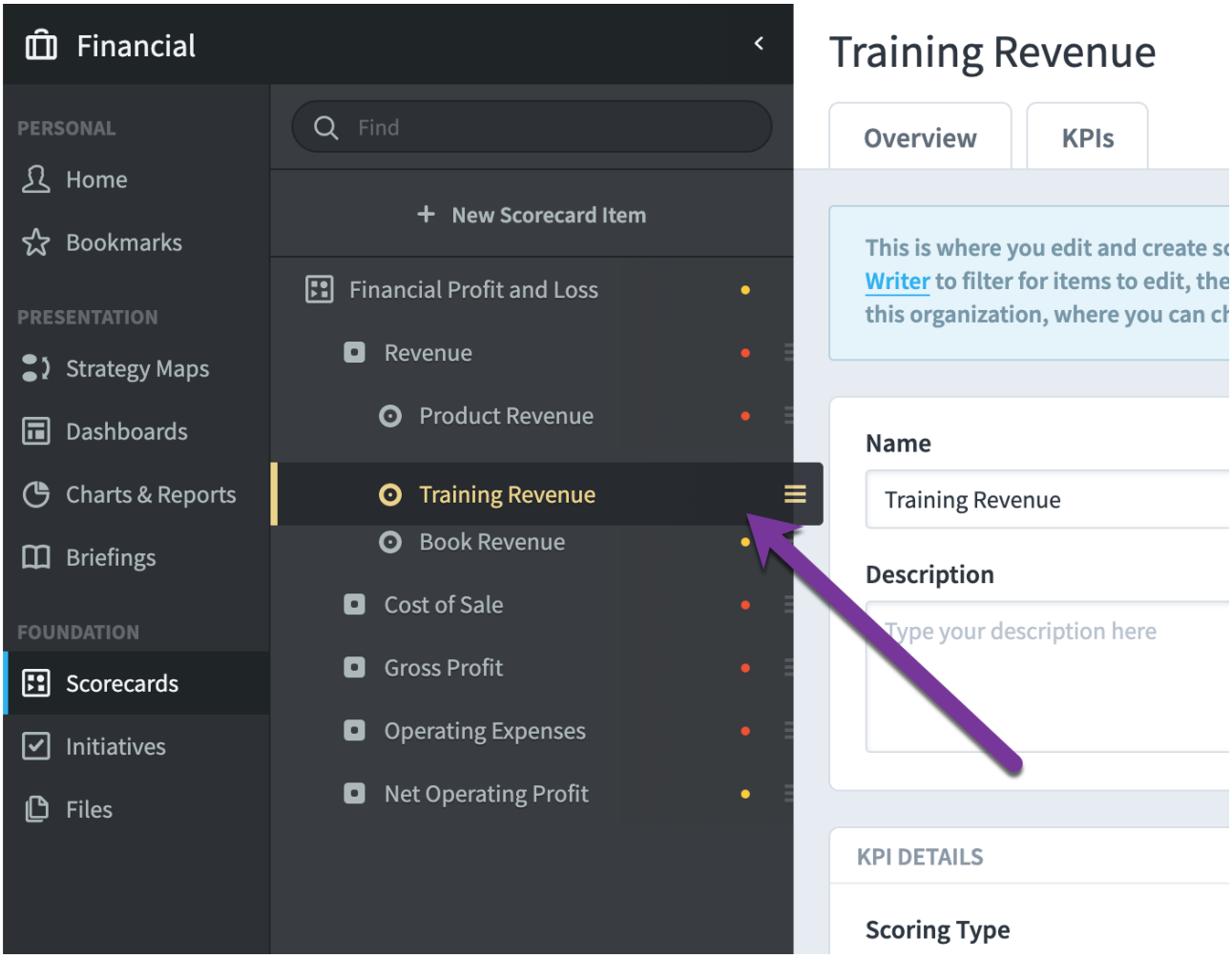


If you want to restrict the tags that people are able to use, you can define them in the Data Format panel in Application Administration.



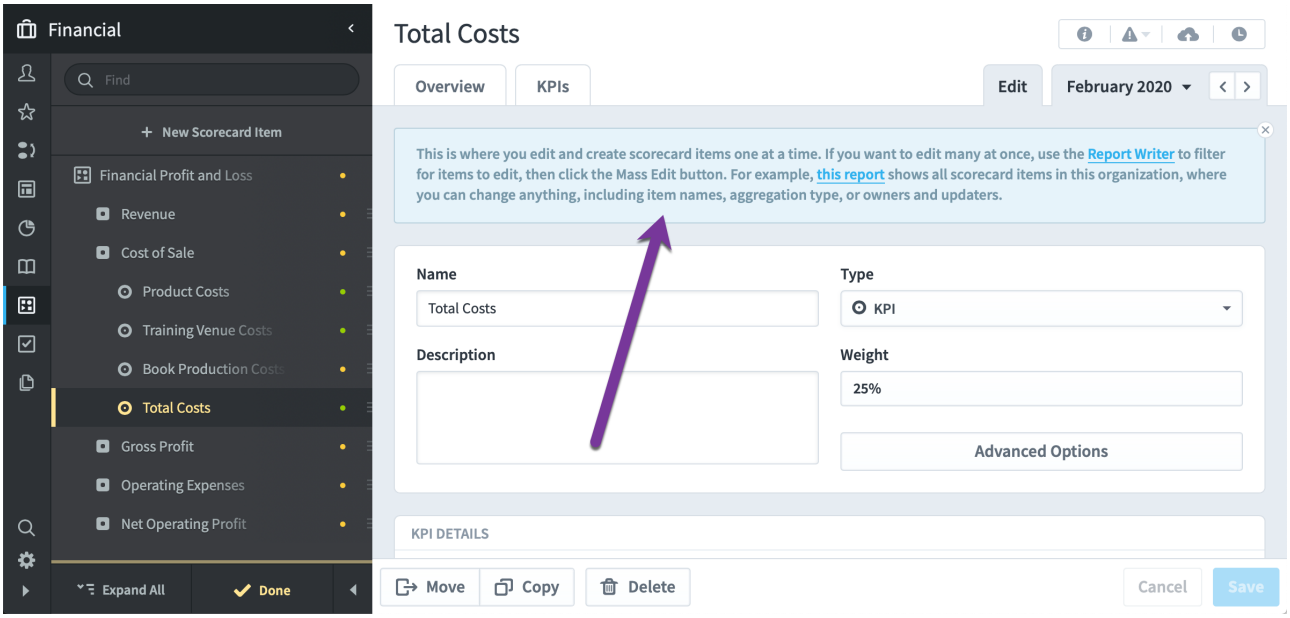
Rearranging the Tree

When you're on the Edit tab, you can rearrange your scorecard items by dragging and dropping them in the tree.



Editing Multiple Scorecard Items at Once

On the top of the Edit tab is a blue notification box explaining how to edit more than one scorecard item at the same time. Please see the Editing Multiple Scorecard Items at Once article for more information.

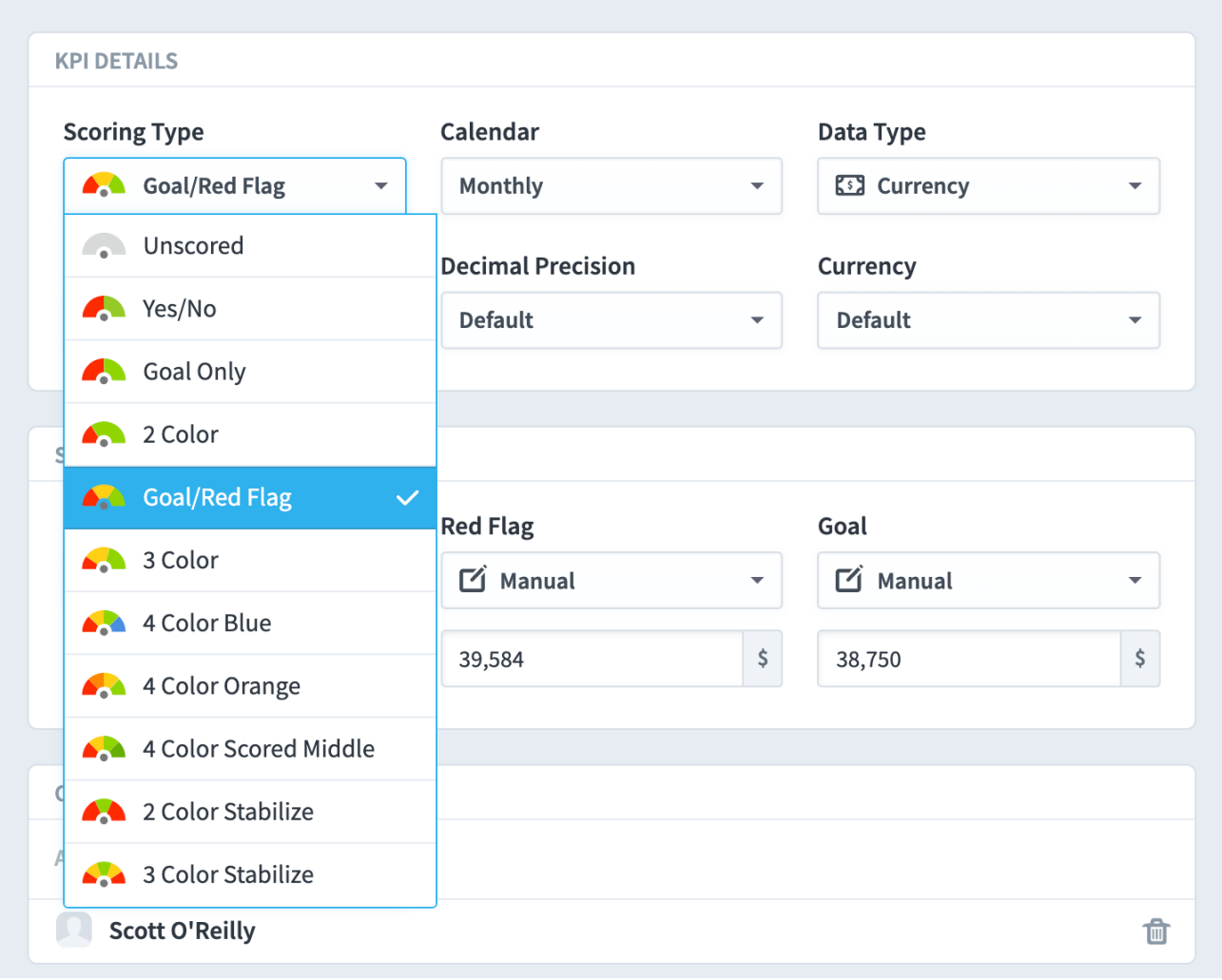

Financial
Find
New Scorecard Item
Financial Profit and Loss
Revenue
Cost of Sale
Product Costs
Training Venue Costs
Book Production Costs
Total Costs
Gross Profit
Operating Expenses
Net Operating Profit
Expand All
Done
Total Costs
Overview
KPIs
Edit
February 2020
This is where you edit and create scorecard items one at a time. If you want to edit many at once, use the Report Writer to filter for items to edit, then click the Mass Edit button. For example, this report shows all scorecard items in this organization, where you can change anything, including item names, aggregation type, or owners and updaters.
Name
Total Costs
Type
KPI
Description
Weight
25%
Advanced Options
KPI DETAILS
Move
Copy
Delete
Cancel
Save

Using KPI Scoring Types

This article covers how each of the different KPI scoring types works. For information about choosing which scoring types will appear as options for your KPIs, see the Editing Scoring Types article. For information on changing how scores are displayed, see the App Administration: Scoring article.

Overview

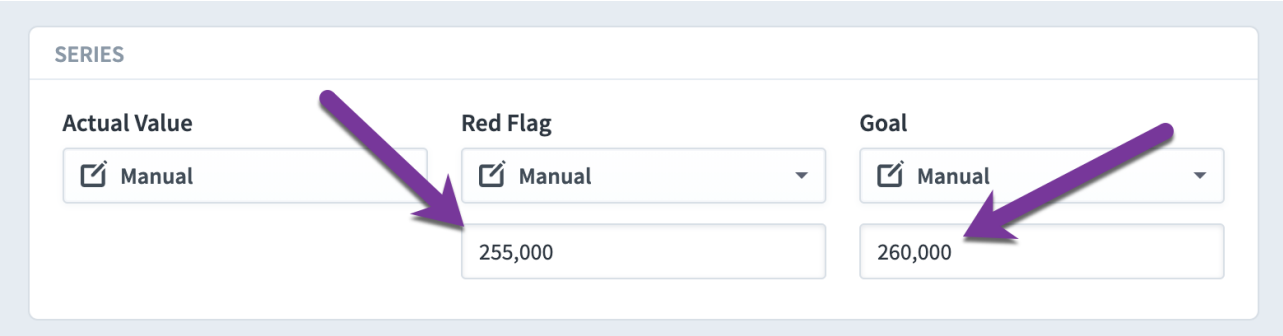
There are many different Scoring Types that you can choose for a KPI.



Every scoring type changes the things that you can configure for the KPI, and all of the scoring types are configured in the Scoring Types page in Administration.

Goal/Red Flag

The default KPI scoring type is *Goal/Red Flag*, and it's the most popular option by far. You choose a number where your KPI turns green, and a number where your KPI value turns red.



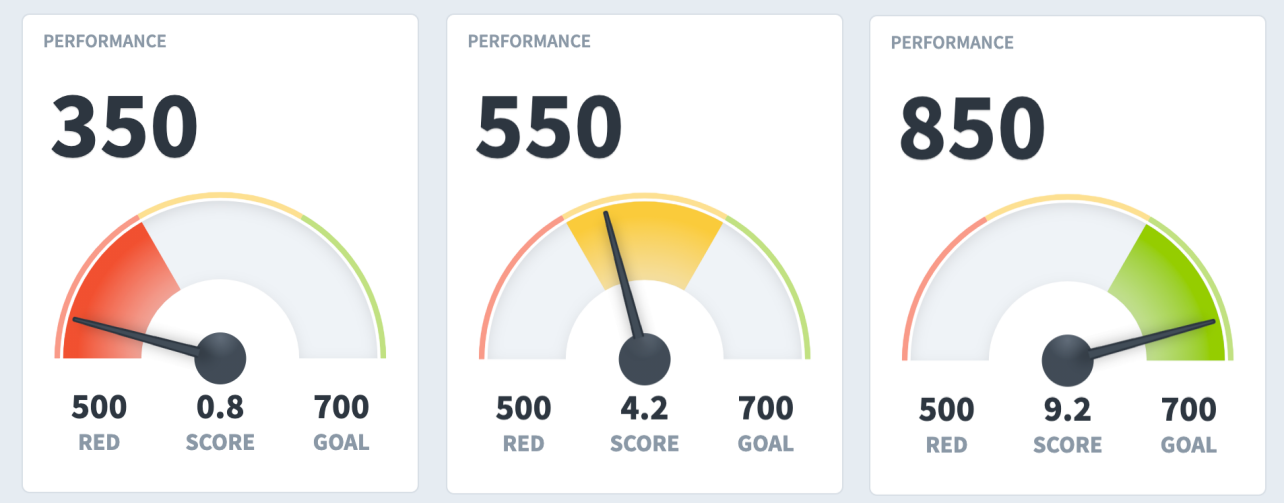
In this example our KPI will turn red if the value us lower than 255,000 and green if it's higher than 260,000. When higher values are worse, the *Goal* threshold is going to have a lower number than the *Red Flag* threshold.

The three colored segments of a Goal/Red Flag speedometer will always be the same size. The Goal is where the score is 6.6 and the Red Flag is where the score is 3.3. Your score will hit 10 at:

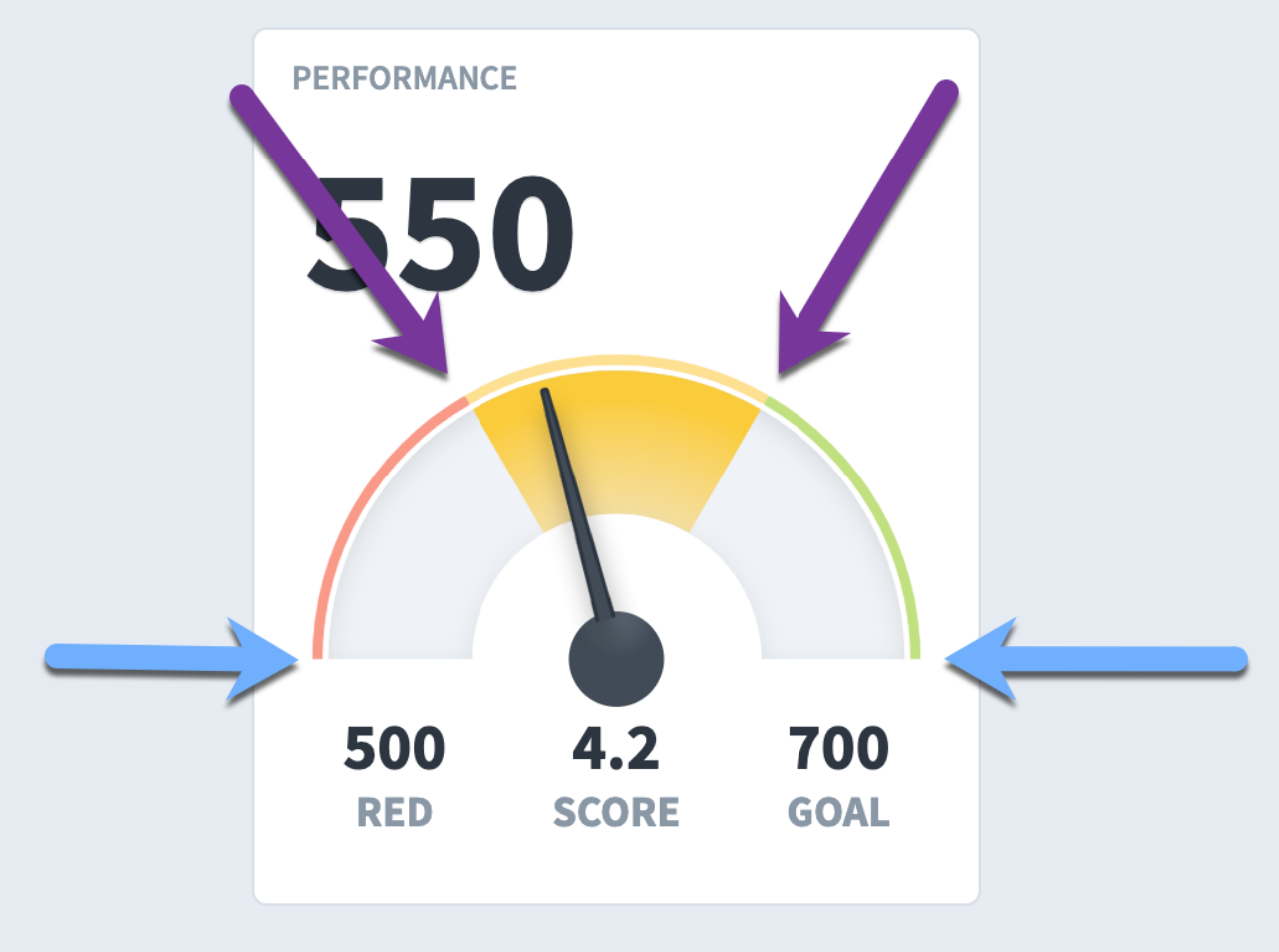
```
(goal - red flag) + goal.
```

This is better explained with an example. Let's say our goal is 700 and our red flag is 500. There's 200 between the goal and red flag. In Goal/Red Flag scoring, that means:

- Score is 0 when the actual value is 200 less than the Red Flag (300)
- Score is 10 when the actual value is 200 more than the Goal (900)



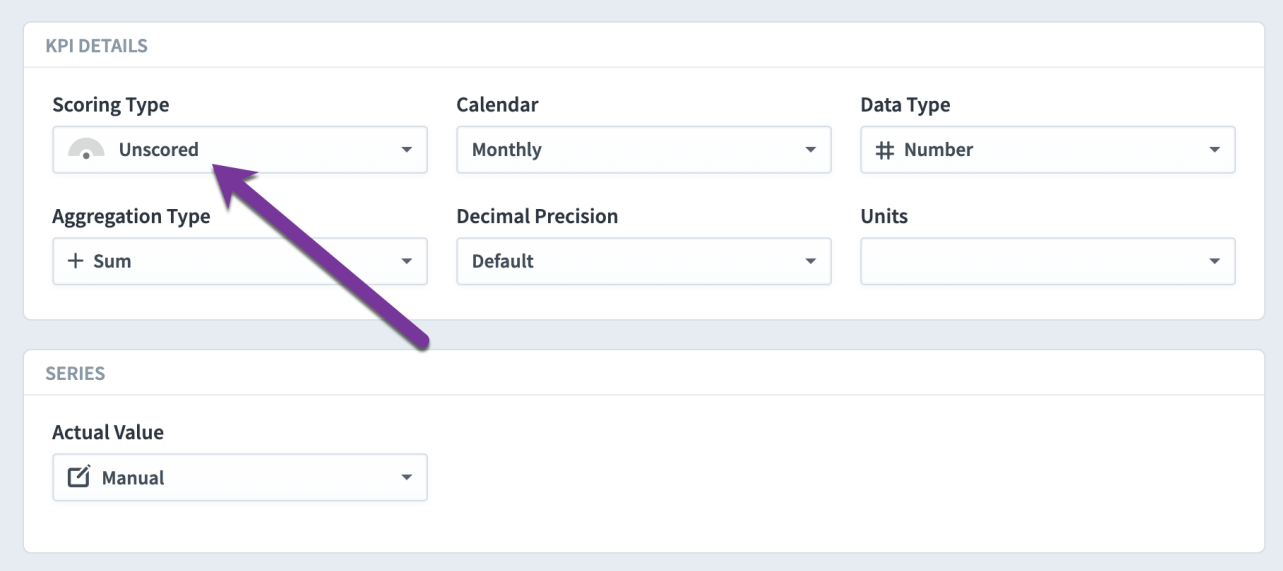
You actually need 4 thresholds to draw a speedometer with 3 colors. Goal/Red Flag scoring automatically calculates the highest and lowest thresholds for you, though. This way you only have to tell Spider Impact at what value your KPI turns green and at what value it turns red.



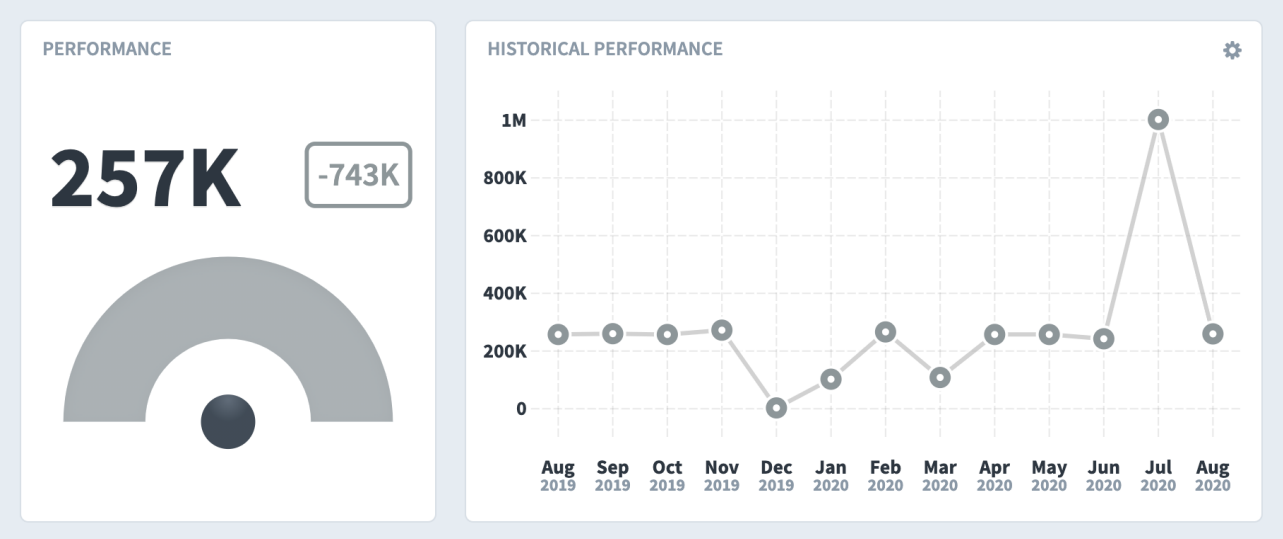
Unscored KPIs

Unscored KPIs are great for tracking things that don't make sense to score.

Unscored KPIs have no thresholds, just an actual value.

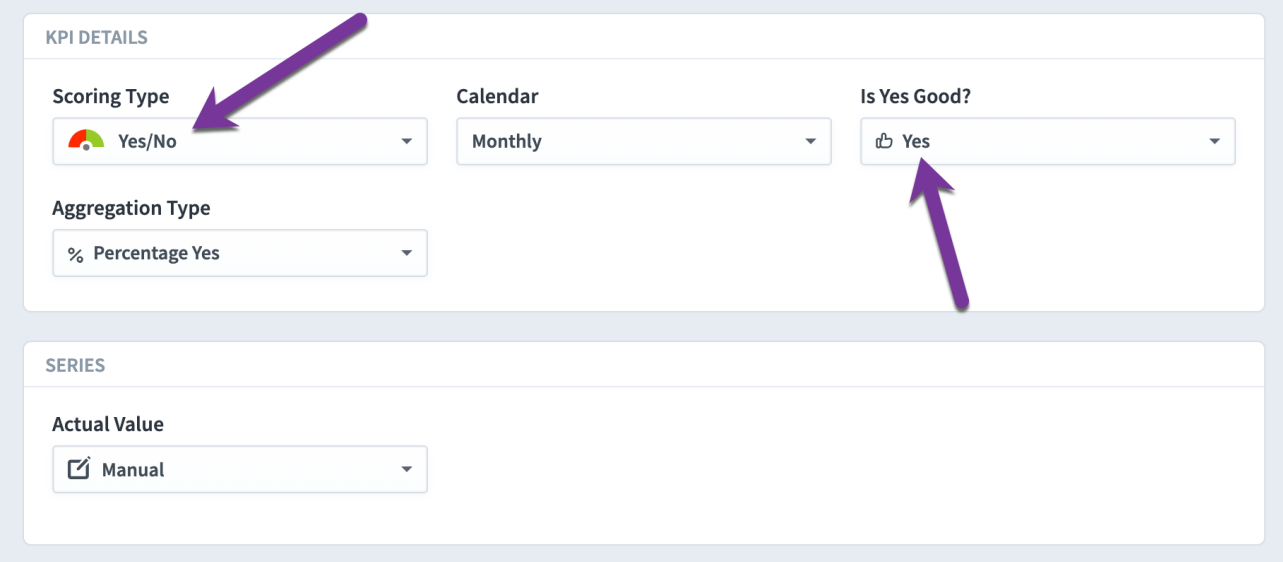


This is what an unscored KPI looks like when visualized.

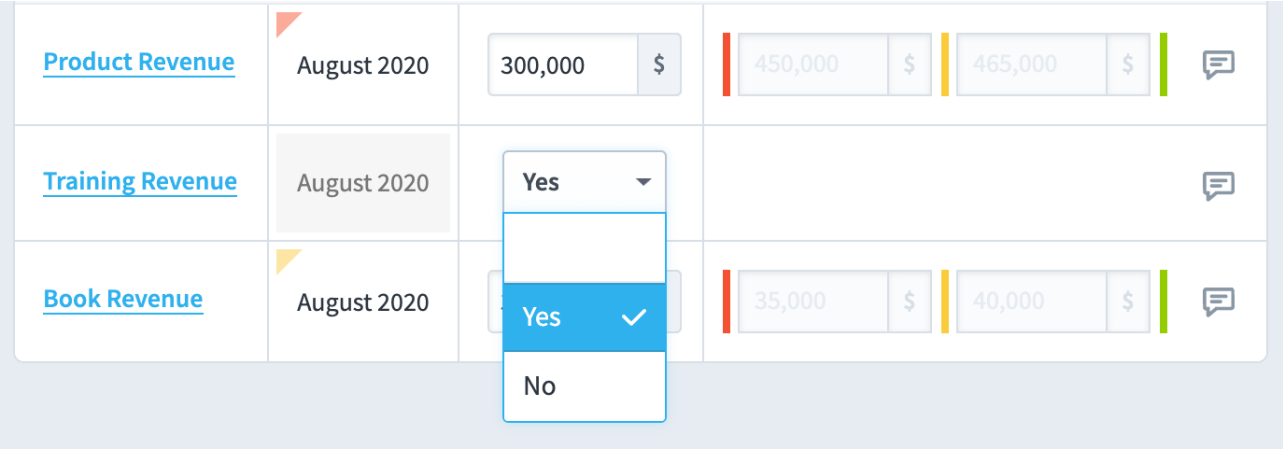


Yes/No Scoring

Yes/No KPIs track a yes or no value every period rather than a number. They don't have thresholds, but you do tell Spider Impact whether Yes is good or not.

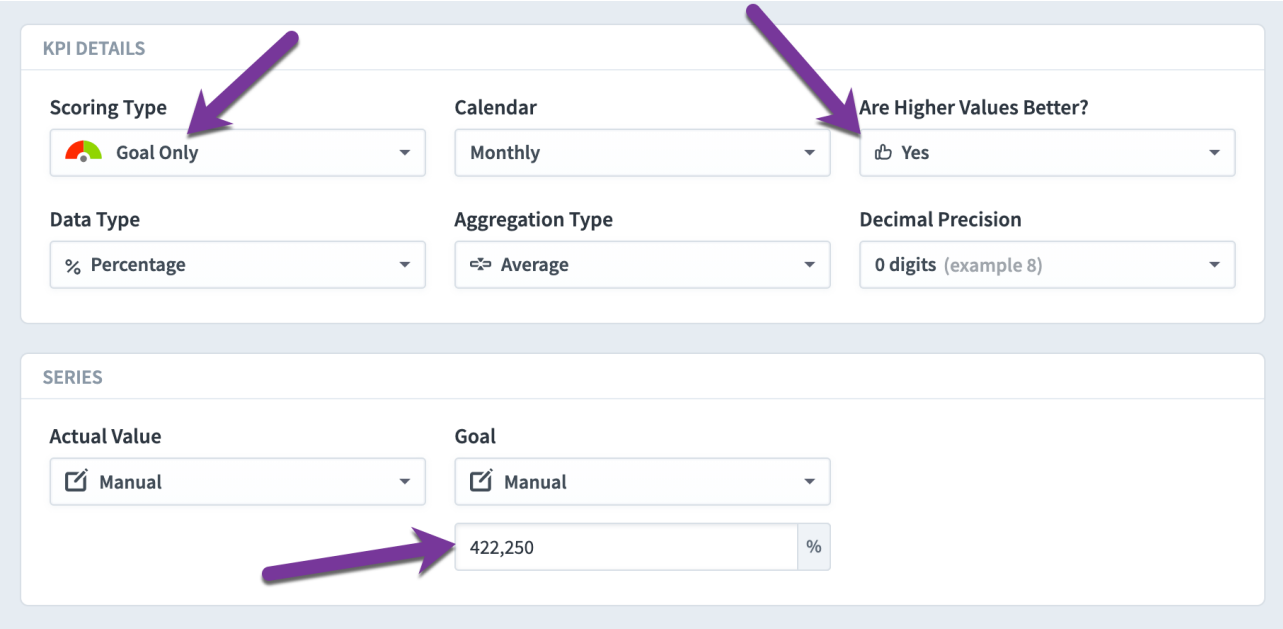


This is what a Yes/No KPI looks like on a manual update form.

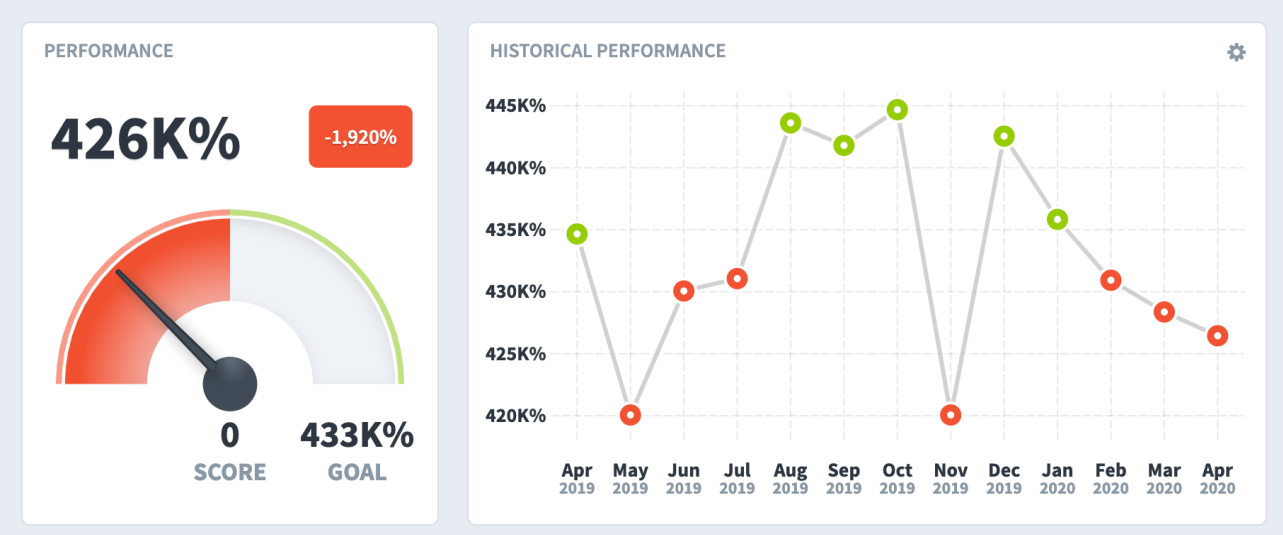


Goal Only Scoring

Goal Only KPIs have a single threshold. If you hit your goal you're green. If you don't you're red. There's also a setting to tell Spider Impact whether higher values are better.

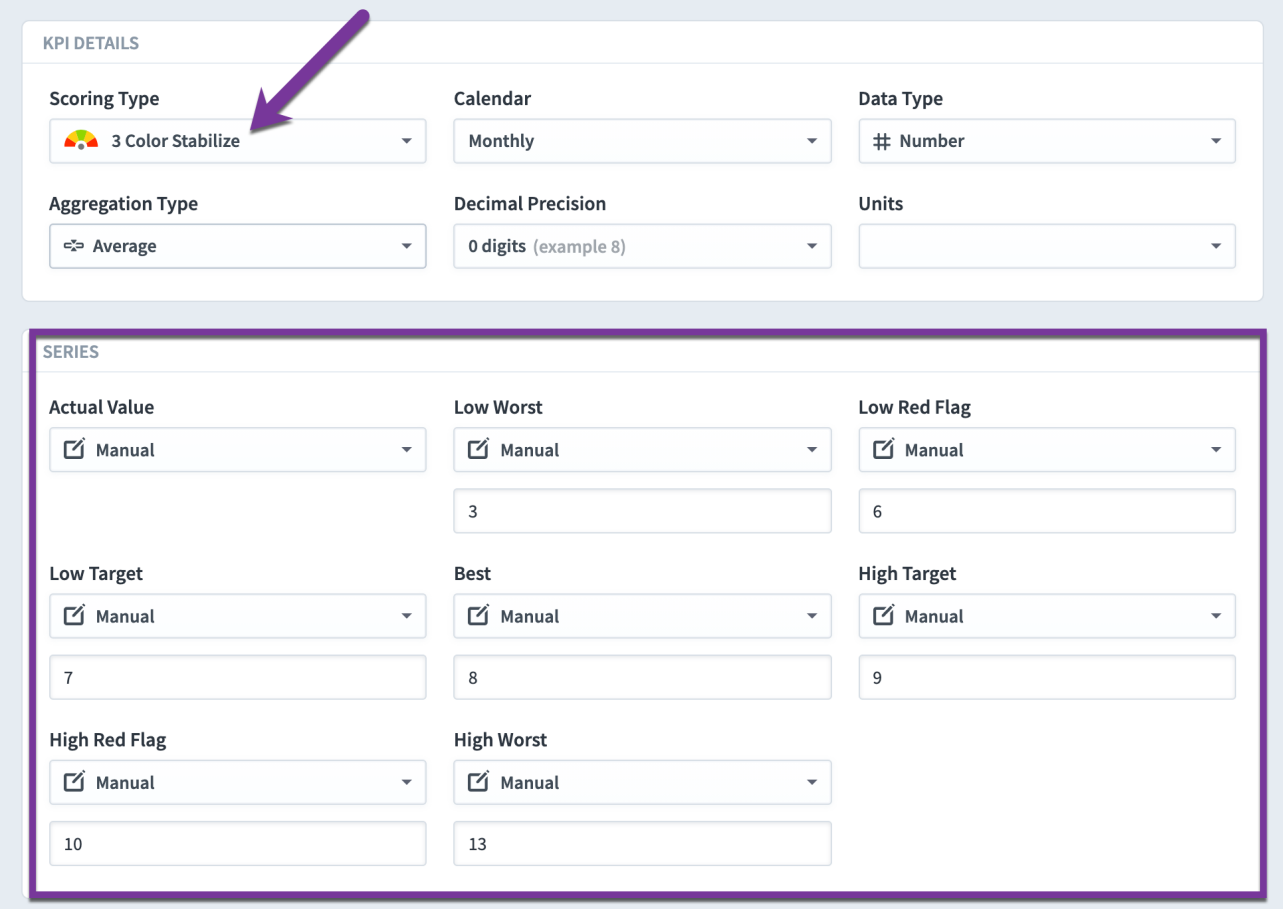


This is what Goal Only KPIs look like. Notice how the speedometer needle is always directly in the middle of its color segment.

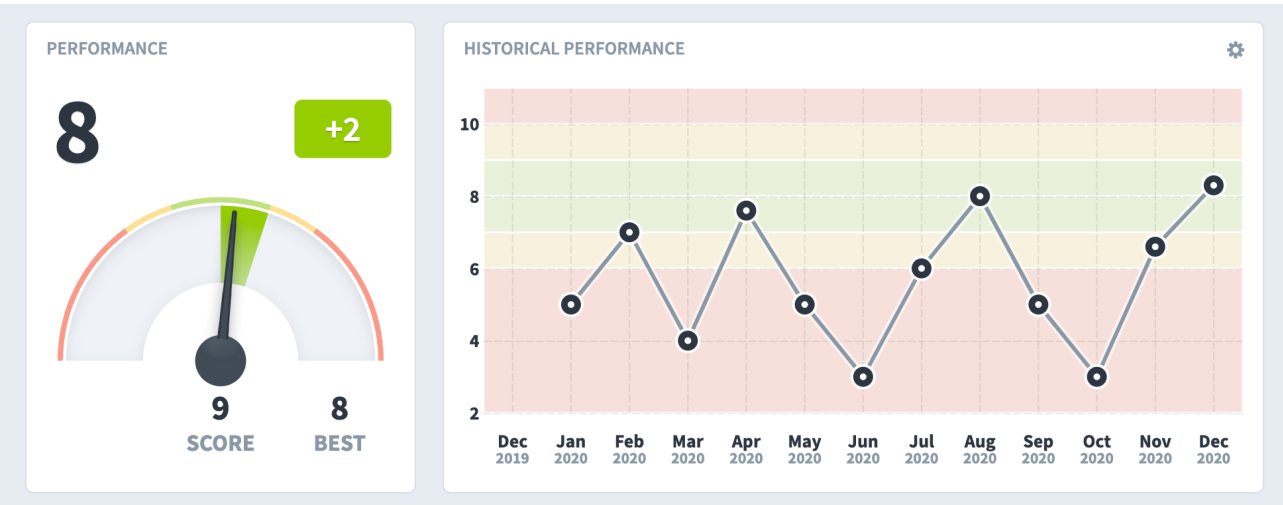


Stabilize Scoring

Stabilize Scoring is great for when you don't want your KPI values to be too high or too low. They also have a very large number of thresholds.

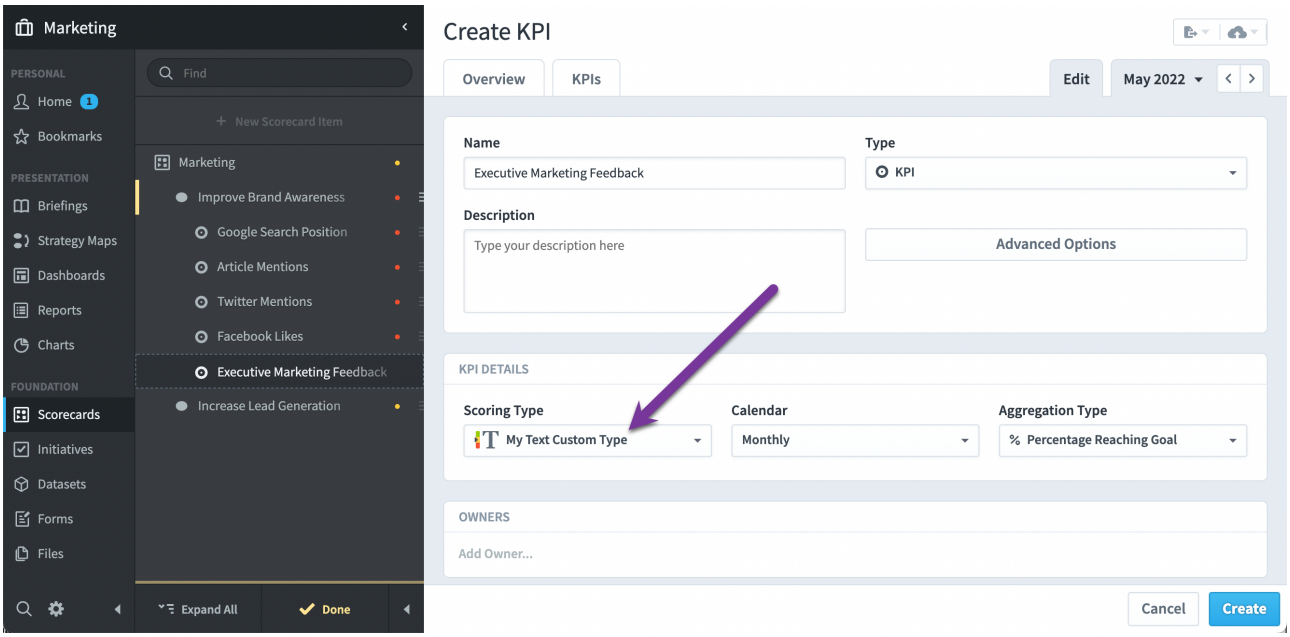


This is what a Stabilize KPI looks like. Notice how not every color segment is not the same size because we typed in threshold values that aren't evenly spaced.

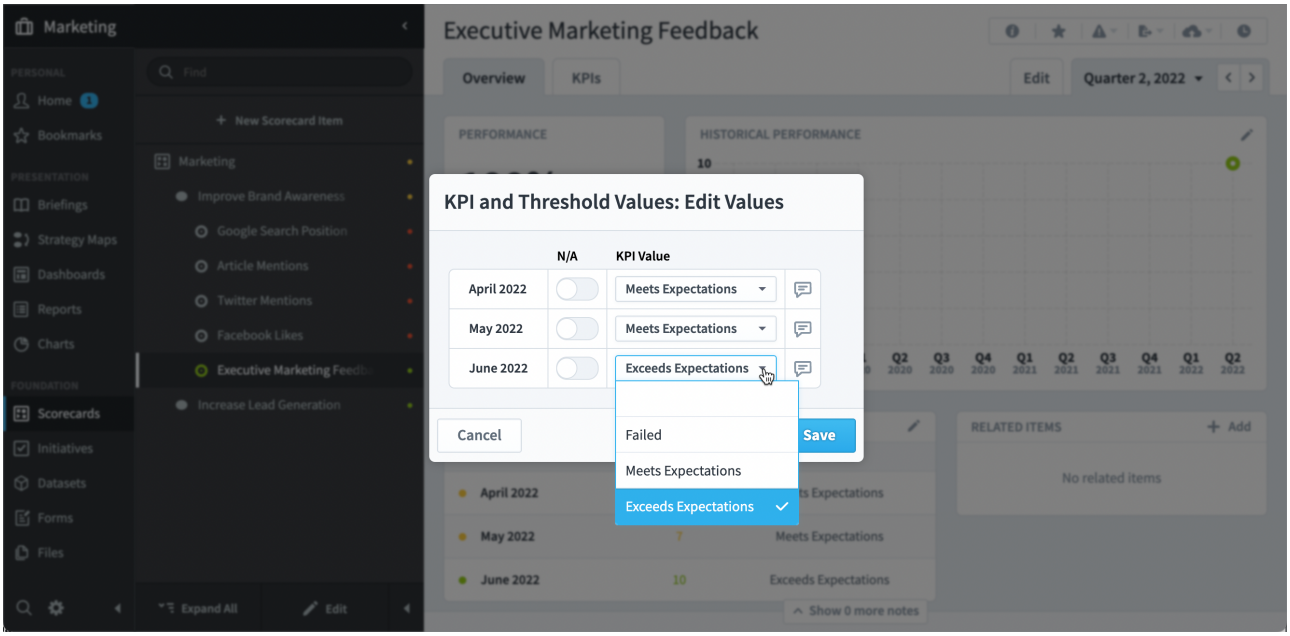


Text Scoring Types

Text KPIs have pre-defined text values instead of numbers. Scored text KPIs are the same as unscored text KPIs except they have a score and color associated with every value.



In this example, you can choose between values of "Failed", "Meets Expectations", and "Exceeds Expectations" when updating the KPI.



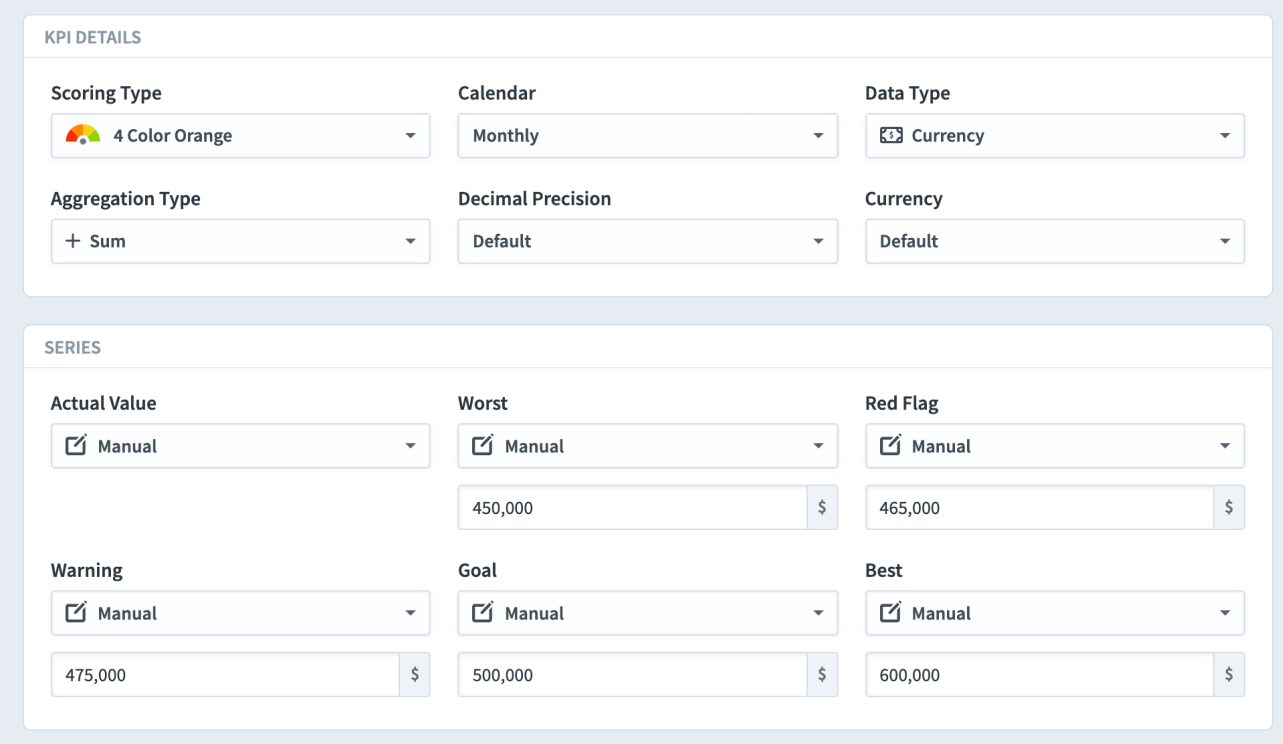
And because scored text KPIs have colors and scores, they can be graphed just like any other scorecard item.



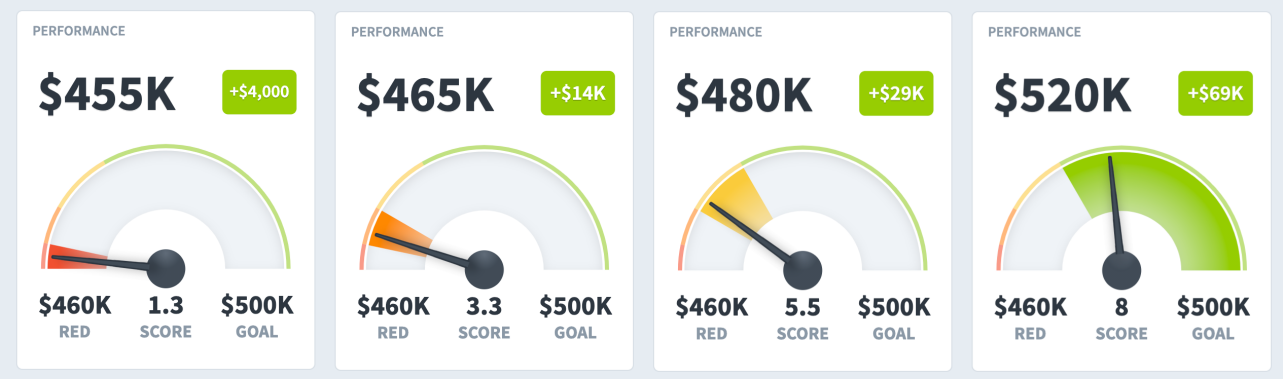
Every Other Scoring Type

Every other scoring type is similar. They're all just different variations of color selection, and some even include colors like blue or dark green. All you have to do is enter the color thresholds and Spider Impact will score your KPI.

For example, here's a 4 Color Orange KPI.



And this is what that KPI looks like. Again, we don't have evenly spaced thresholds so the segments are different sizes.



Choosing and Editing KPI Scoring Types

All scoring types are managed in the Administration section. You can choose which default scoring types appear as options when building KPIs, and you can create your own custom scoring types:

- Custom Number
- Custom Stabilize Number
- Scored Text
- Unscored Text

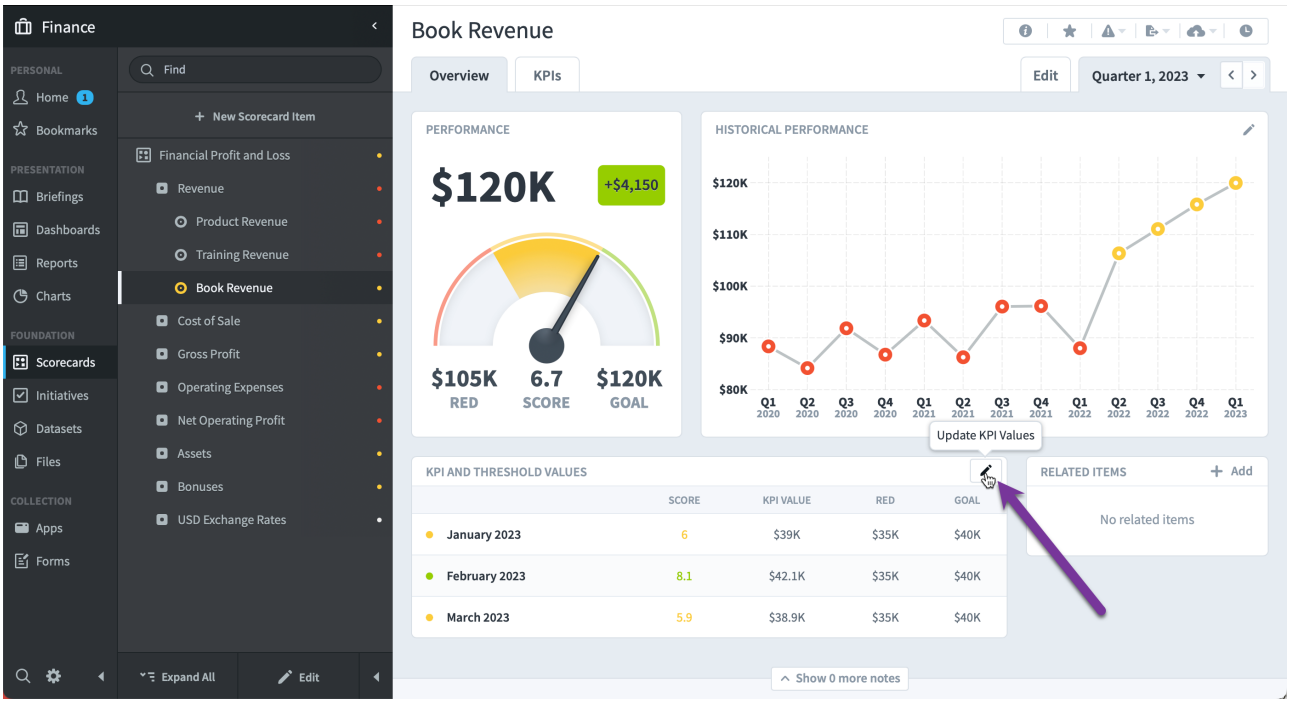
For more information, see the Editing Scoring Types article.

Manually Updating KPI Values

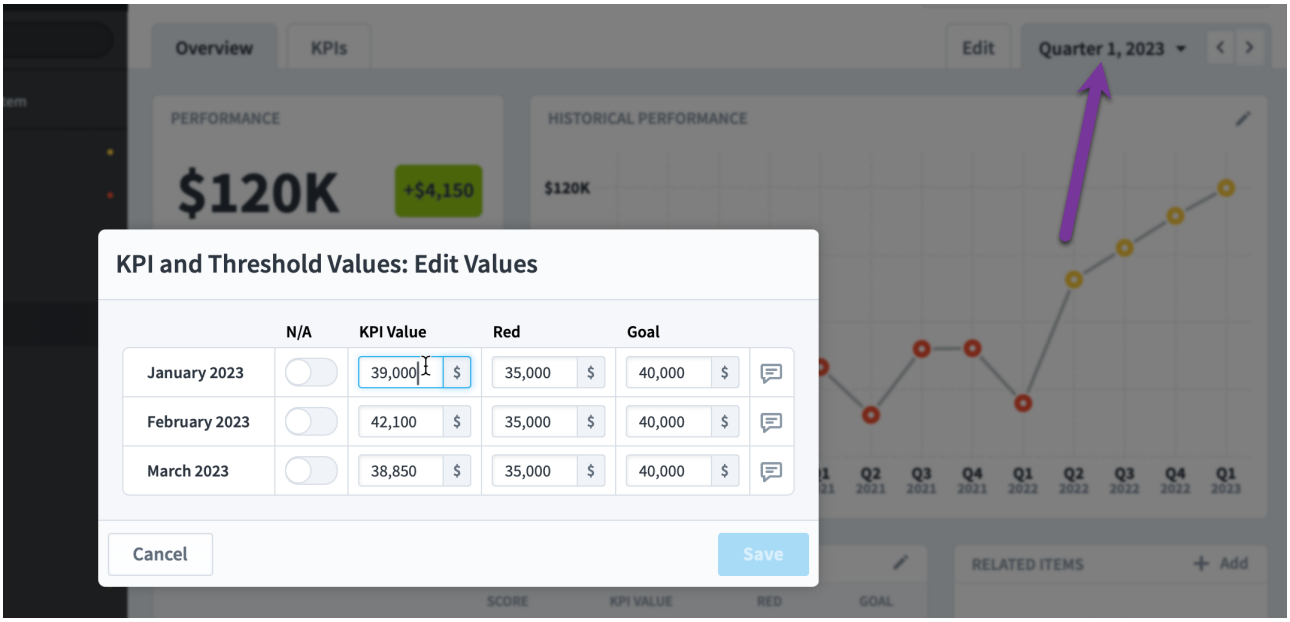
There are many ways to update KPI values, including Simple Value Imports, Standard Value Imports, and even Automatic Imports From Datasets. The simplest way to update KPI values by far, however, is just typing them into the software.

Scorecards Overview

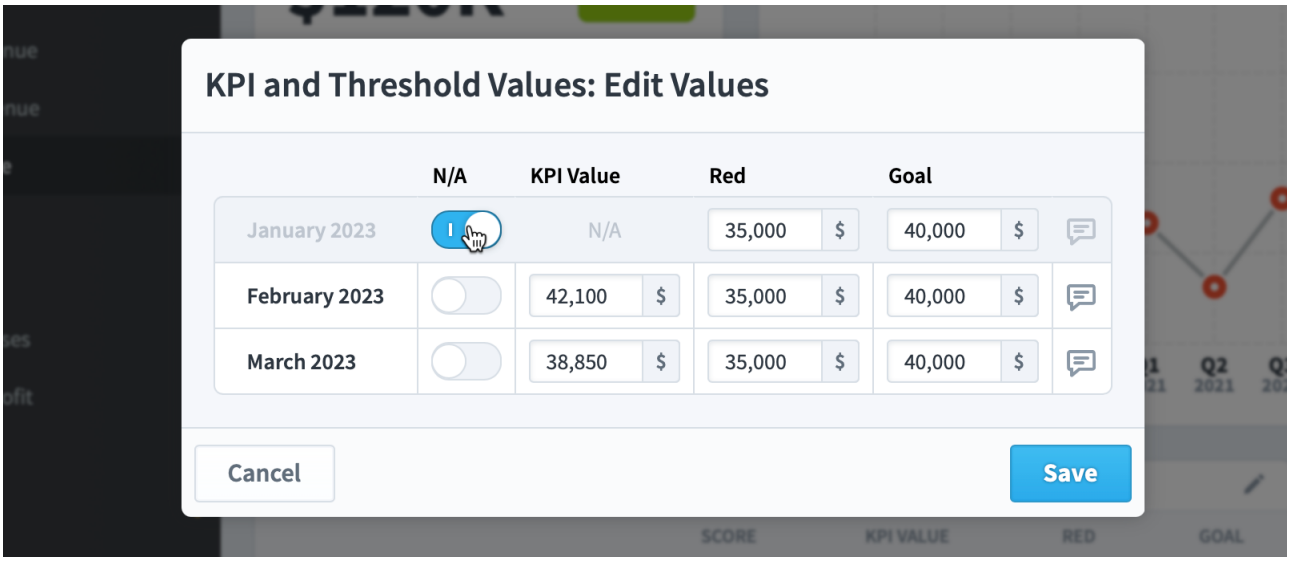
On the Scorecards Overview tab you can click the "Update KPI Values" button in the corner of the "KPI and Threshold Values" panel.



This allows you to update all of the KPI values in the period you have selected in the calendar period selector.



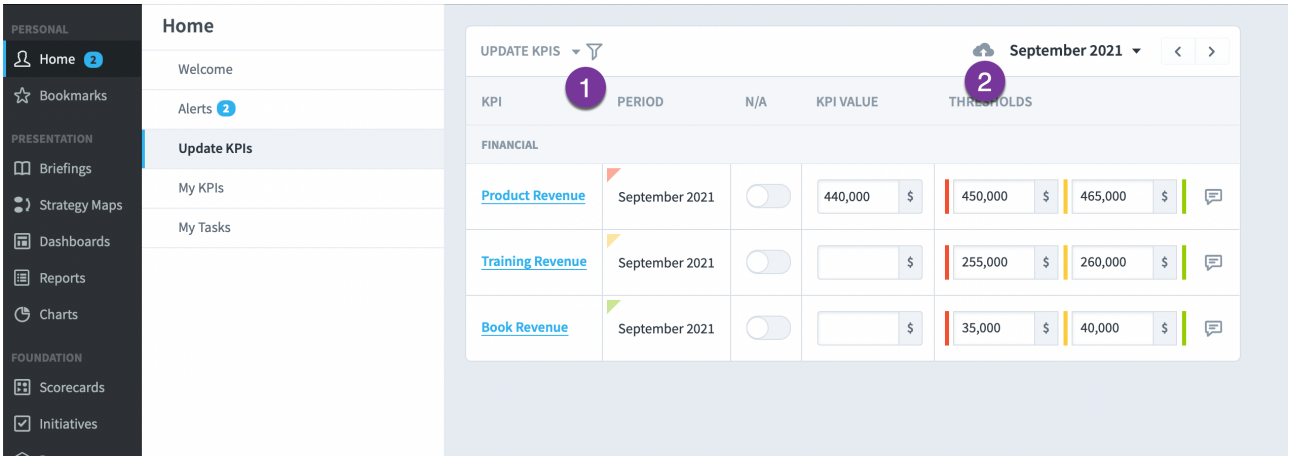
Marking a period as N/A usually ignores that KPI in calculations and score rollups.



You can disable the ability to update KPIs with N/A values, which is covered in the App Administration: Scorecard Scoring article.

Home > Update KPIs

On the KPI Updates page you can quickly update all of the KPIs that you have been assigned to as an Updater.



There are a few extra controls on this page to make it easier to update large numbers of KPIs.

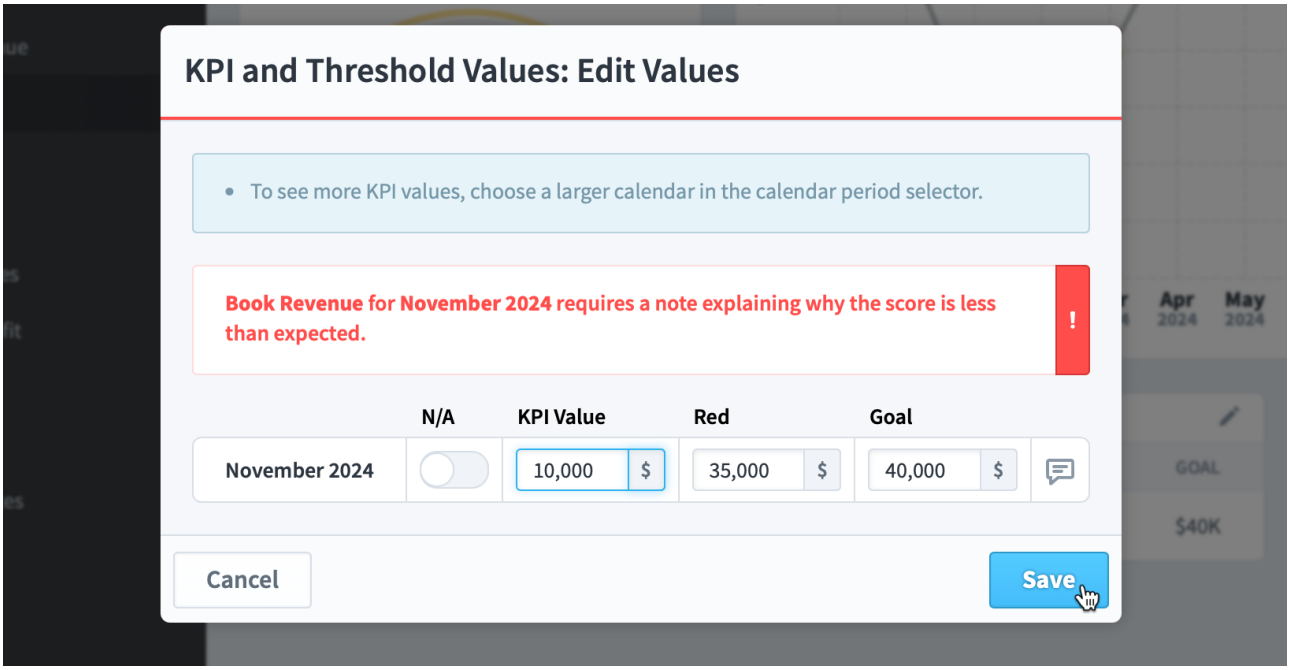
1. The filter control allows you to filter by organization as well as KPI calendar period.
2. You can upload a spreadsheet with KPI values rather than typing in the values by hand.

Requiring Notes for Red Updates

By default, Spider Impact never requires a note when updating KPI values. There's a setting in the Scorecards pane of Application Administration, however, where you can set a scoring threshold for requiring notes.



If you attempt to enter a value that will cause the KPI to have a score below this threshold, the software will require a note to be entered for that calendar period. This ensures that all poor KPI performance has an explanation.


KPI and Threshold Values: Edit Values
To see more KPI values, choose a larger calendar in the calendar period selector.
Book Revenue for November 2024 requires a note explaining why the score is less than expected.
!
N/A
KPI Value
Red
Goal
November 2024
10,000
$
35,000
$
40,000
$
Cancel
Save
Apr 2024
May 2024
GOAL
$40K

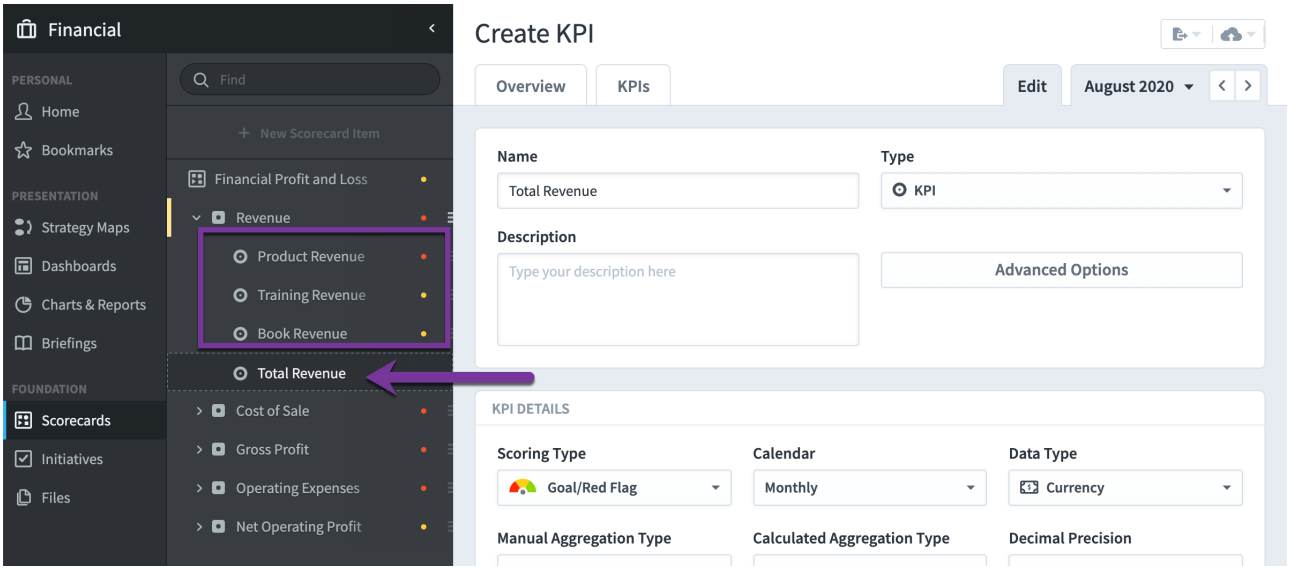
Calculated KPIs

Overview

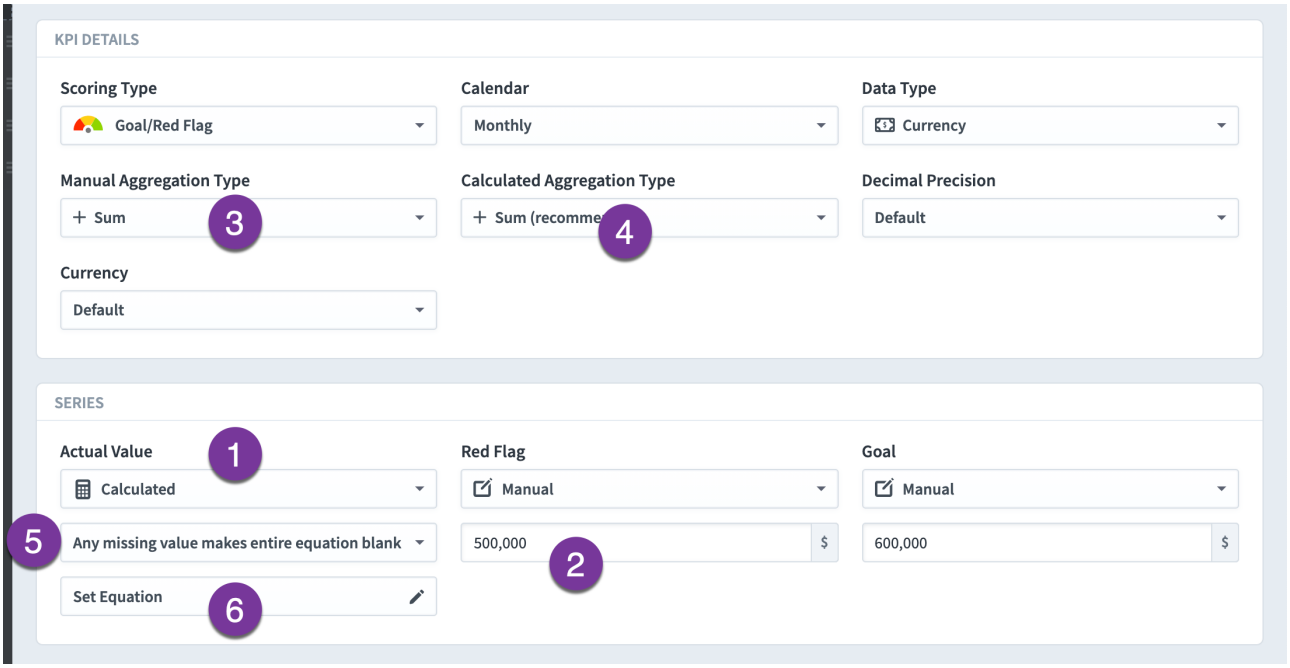
You can set up KPIs to automatically calculate their actual values and thresholds from other values in Spider Impact. For more information about what Spider Impact actually does when it's calculating a KPI field, please see the Exploring How a KPI is Calculated article. For a comprehensive list of all equation syntax and functions, see the Equations article.

Calculated KPI Details

Let's start things off with a simple example. We're going to create a calculated KPI called *Total Revenue* that is the sum of *Product Revenue*, *Training Revenue*, and *Book Revenue*.



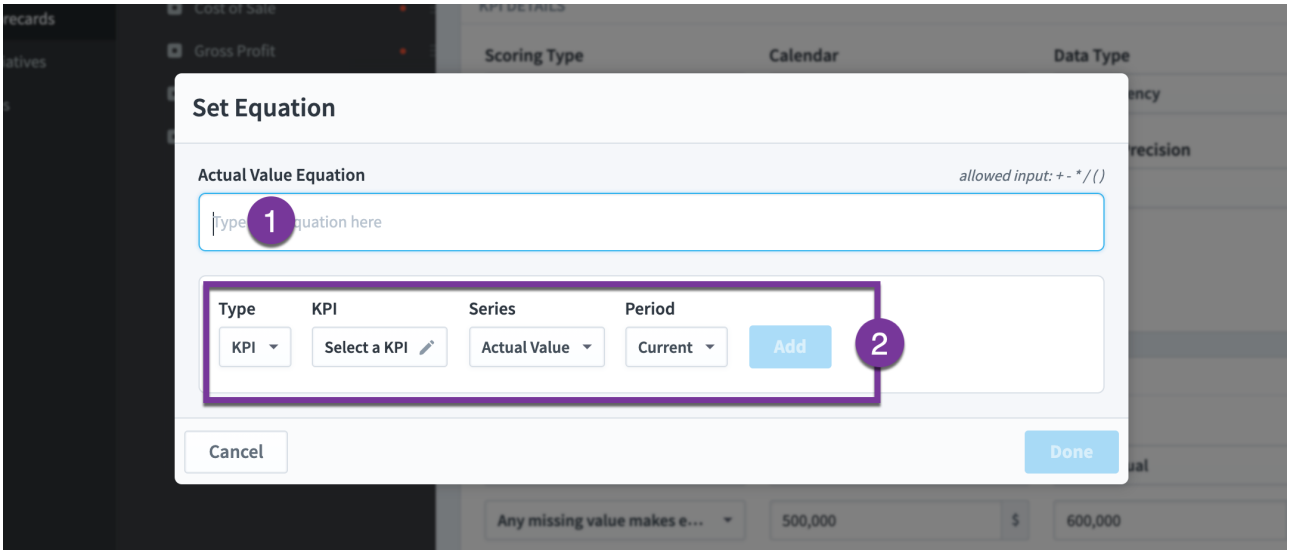
There's a lot going on in the Edit tab, so we'll look at each configuration option one at a time.



1. We've changed the KPI's actual value from *Manual* to *Calculated*.
2. The *Goal* and *Red Flag* thresholds are still manually updated. As you can see, we've typed in default values for both.
3. We can choose a Manual Aggregation Type like *Sum* or *Average*. This only applies to the threshold values because they are manually updated.
4. We can choose a Calculated Aggregation Type. The options here are *Sum (recommended)* and *Use Equation*. This only applies to the Actual Value because it is calculated.
5. By default, if a KPI equation is referencing a value that is blank, the entire equation will immediately evaluate to blank. You can instead choose to treat missing values in the equation as 0, N/A, or Blank.
6. This is the button to set the KPI's equation. We'll cover that next.

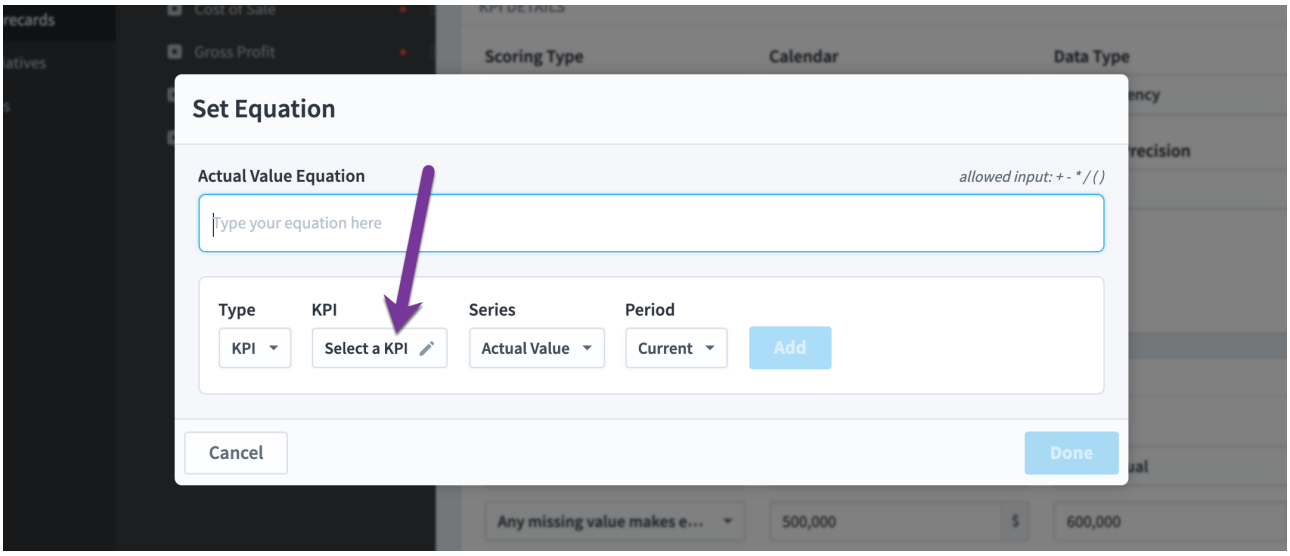
KPI Equations

When you click the Set Equation button, it shows a dialog for building the equation for that series.

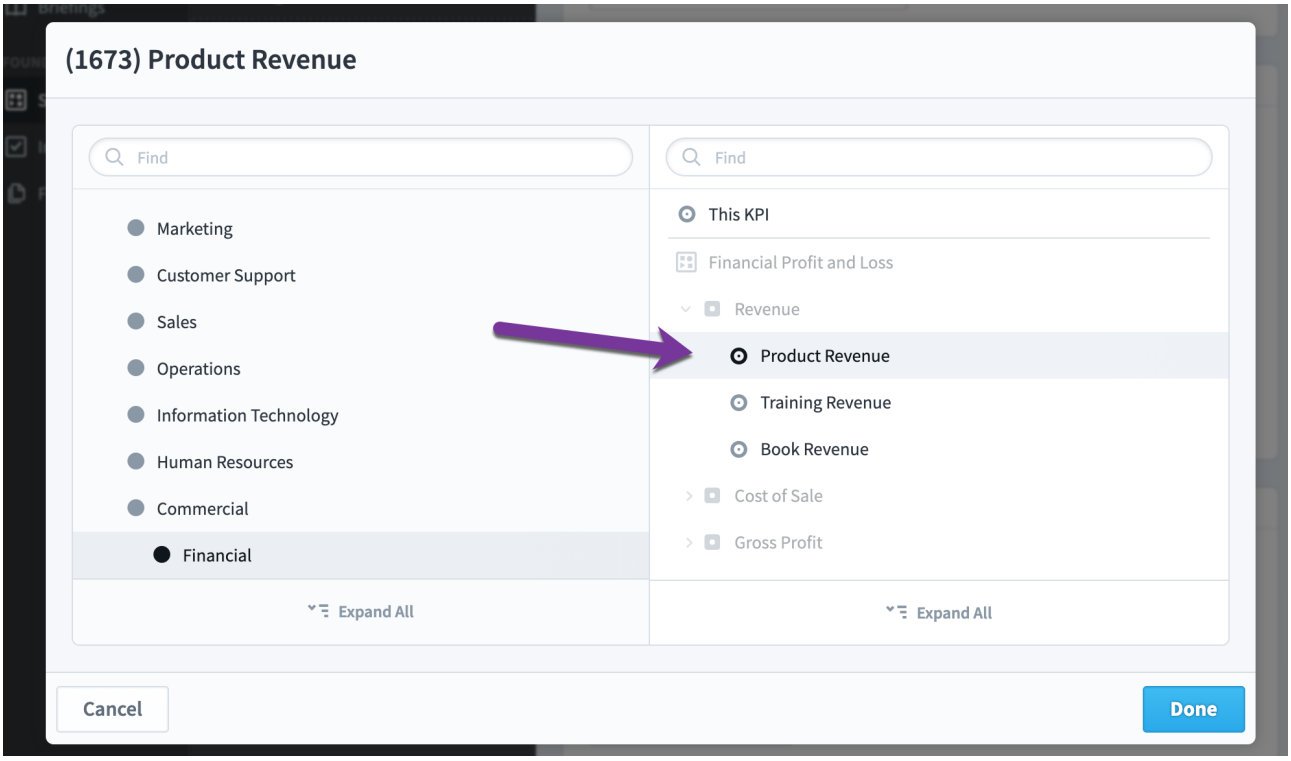


1. This is where the equation that we're building goes. You can type text directly here.
2. This builds functions that we send into the equation.

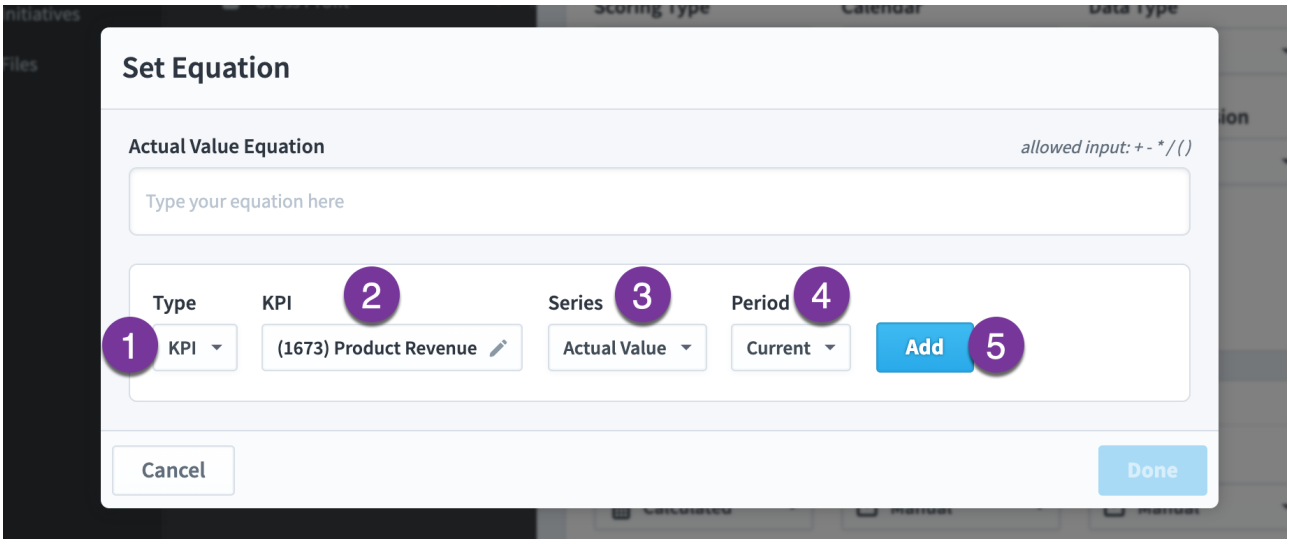
Next we're going to choose the KPI that we want to reference by clicking the *Select a KPI* button.



This stacks a second-level dialog where we choose the *Product Revenue* KPI.



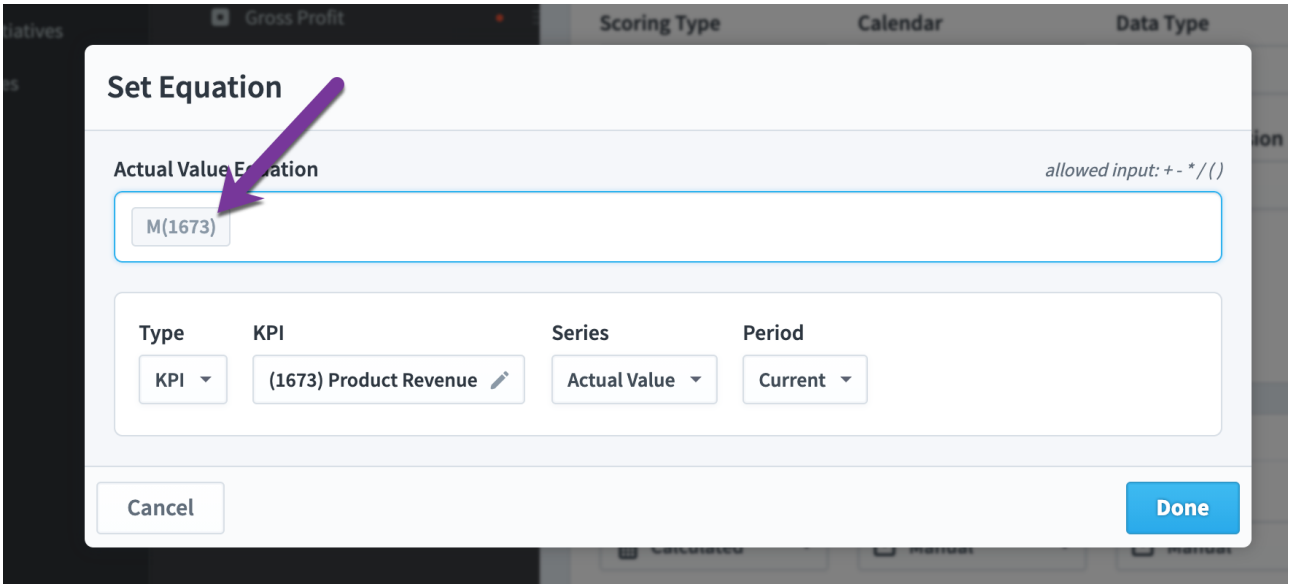
When we click *Done* and the second-level dialog closes, our equation builder now looks like this.



1. The item type is KPI. We'll explain below how to reference other things like Initiatives and Scores.

2. This is the *Product Revenue* KPI that we selected. If you want to change the item we're going to reference in the equation, just click this button again.
3. We're going to include *Product Revenue*'s actual value in the equation, but we could reference one of its thresholds like Goal instead.
4. We're going to include *Product Revenue*'s value for the current period, but we could choose earlier or later periods.
5. When we're ready to add the data to the equation, click this *Add* button.

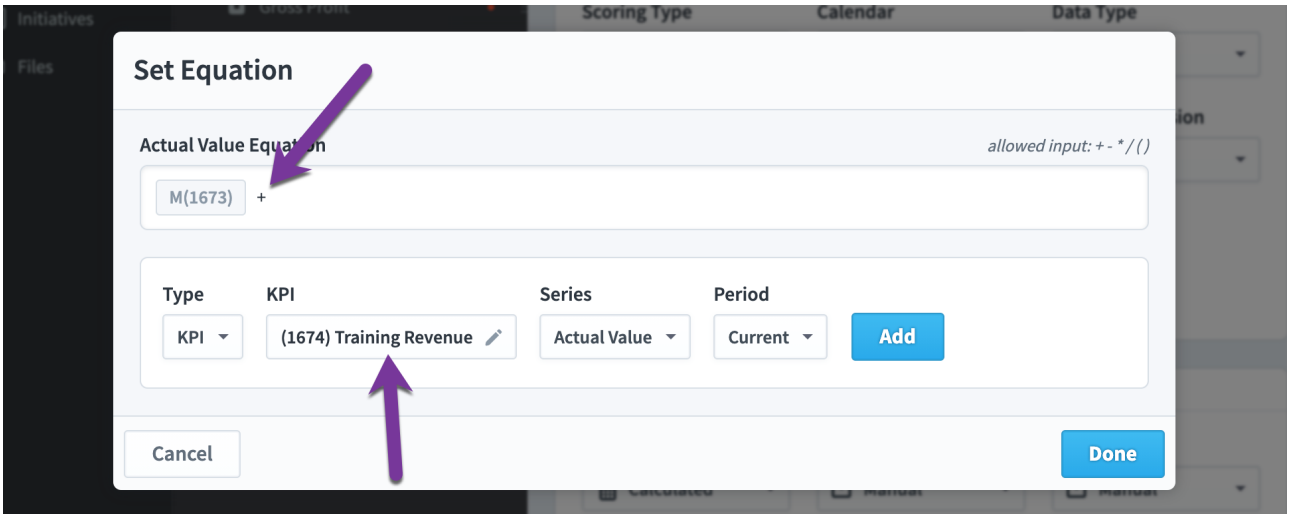
Once you add a reference to a KPI, it looks like this:



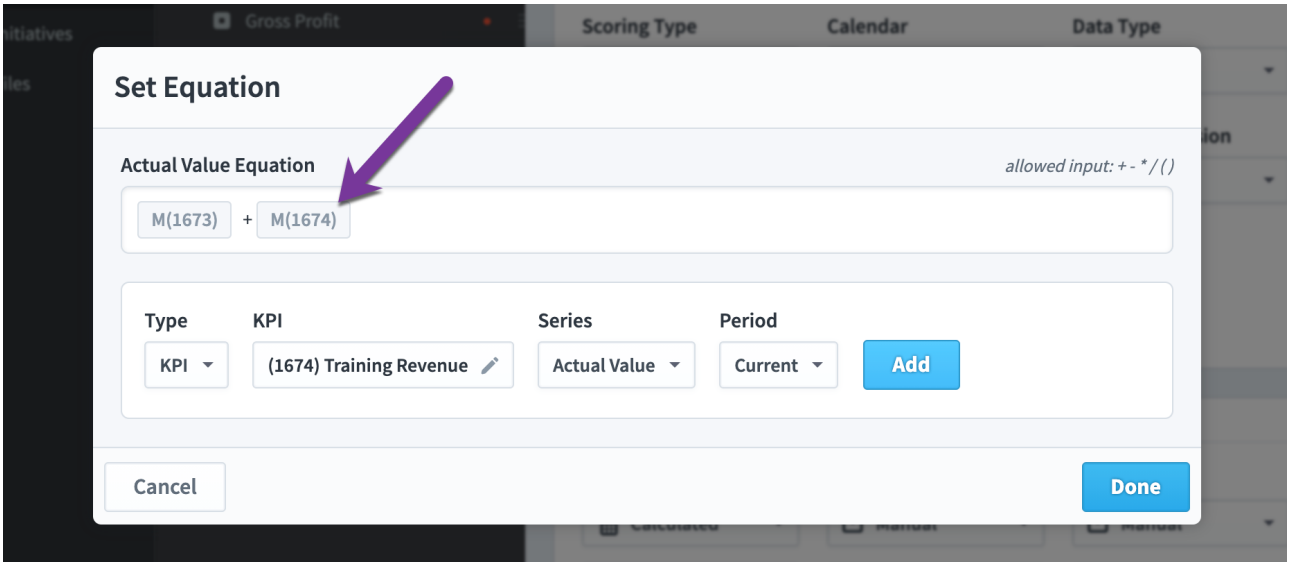
As you can see, the syntax for referencing another KPI value is:

```
M(kpi_id)
```

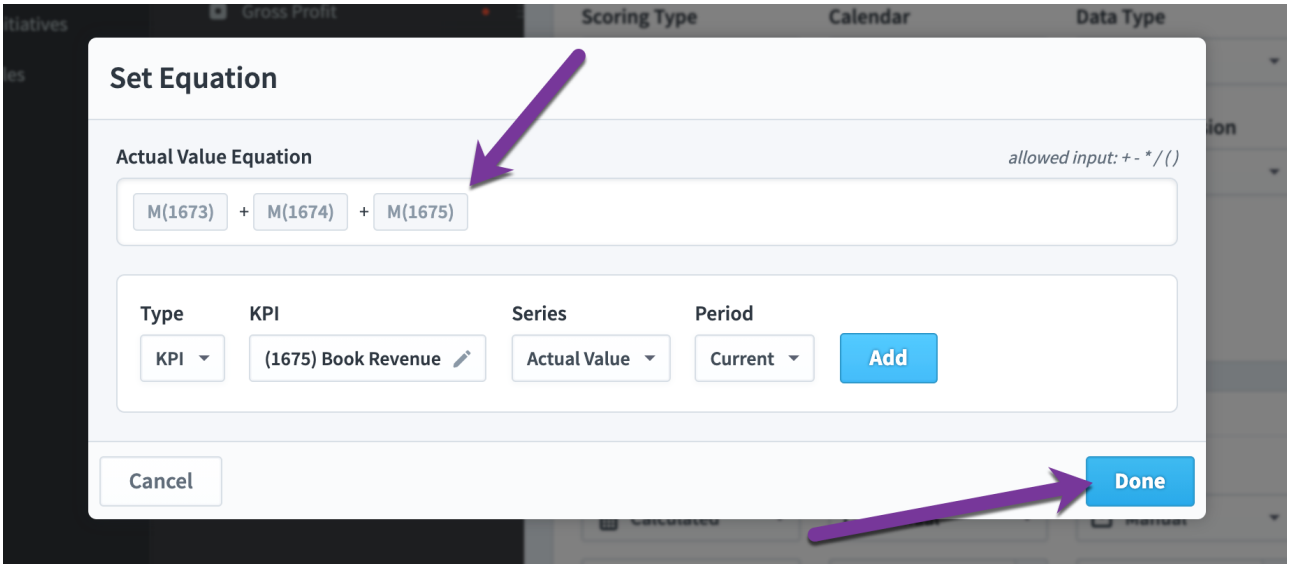
Now we'll type in a [space], a [+], and a [space], select the *Training Revenue* KPI in the second-level dialog...



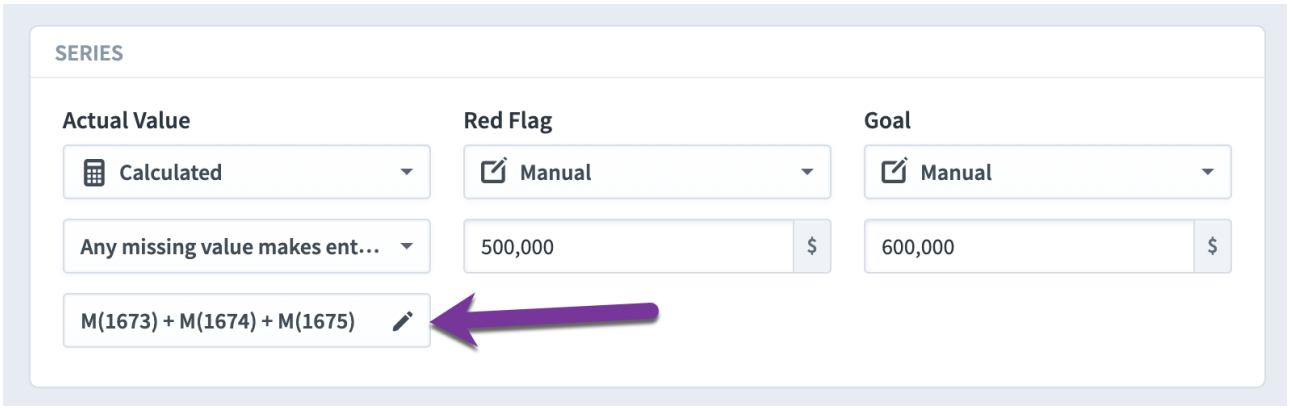
... and click *Add*.



One more time and our equation is finished. Let's click *Done*.



Back on the Edit tab, our equation now shows up for the Actual Value series.



When we save the KPI and visit the Scorecards Overview tab, we can now see our calculated KPI in action.

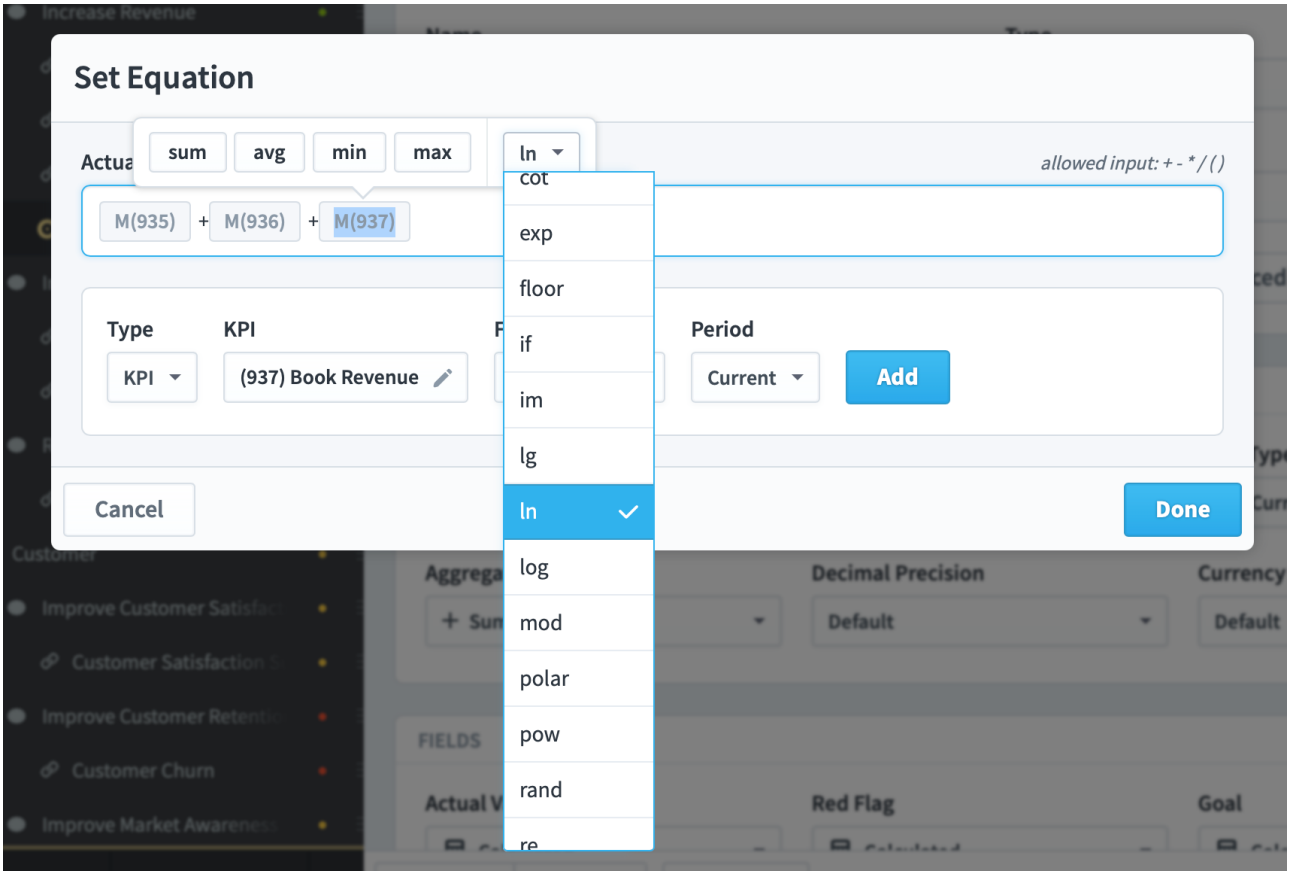


Common Equation Syntax

The Equations article has a comprehensive list of all functions and operators that you can use in your equations, but here are examples of some of the most commonly used syntax.

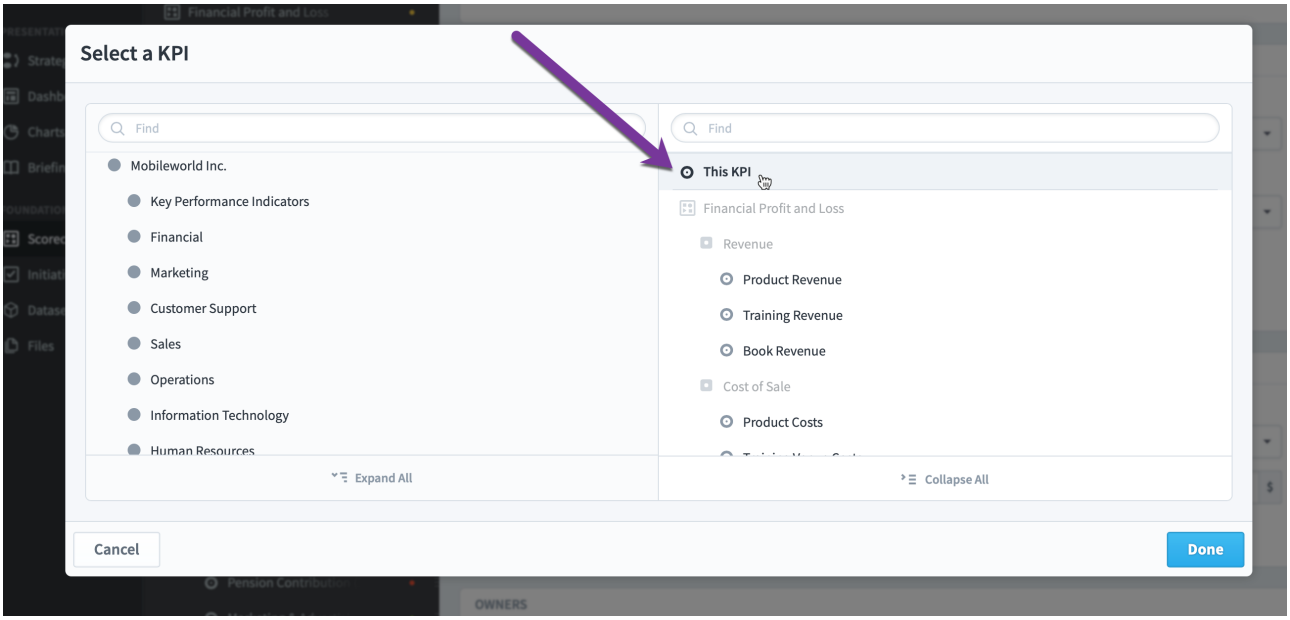
Most Common Formulas	Format
Sum	sum(x, y, ...)
Average	avg(x1, x2, x3, ...)
If	if(condition, truevalue, falsevalue)
Round	round(x), round(x, decimal_places)
To Date (YTD, QTD, etc.)	TD(calendar, kpi_id, series, aggregation)
Referencing a KPI (metric) value	M(kpi_id)
Referencing an Initiative Value	I(field, initiative_id)

If you select a block of text in your equation, a tooltip dialog will appear allowing you to wrap the selected text in a function.



Self-Referential Equations

You can also choose *This KPI* when building equations. This allows you to make self-referential equations, for example goals that are automatically 10% higher than the previous year's actual value.



To reference a KPI's own value, the syntax is simple:

```
M()
```

If you want to reference a KPI's own threshold (Red Flag), it looks like this:

```
T(Red Flag)
```

A KPI's own value for three periods earlier looks like this:

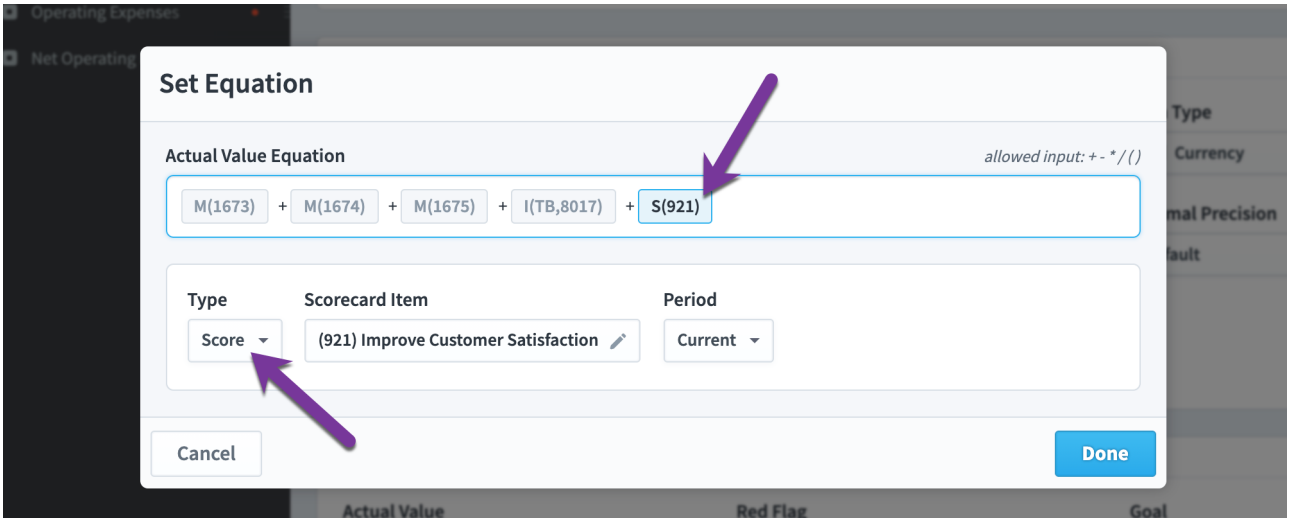
```
M(-3p)
```

Similarly, a KPI's own threshold (Goal) from three periods earlier looks like this:

```
T(Goal, -3p)
```

Referencing Scores

You can include the score from any scorecard item in your equation. Just select *Score* from the *Type* dropdown on the left.



This is the syntax for referencing the score for the current period for a scorecard item with an ID of 123 is:

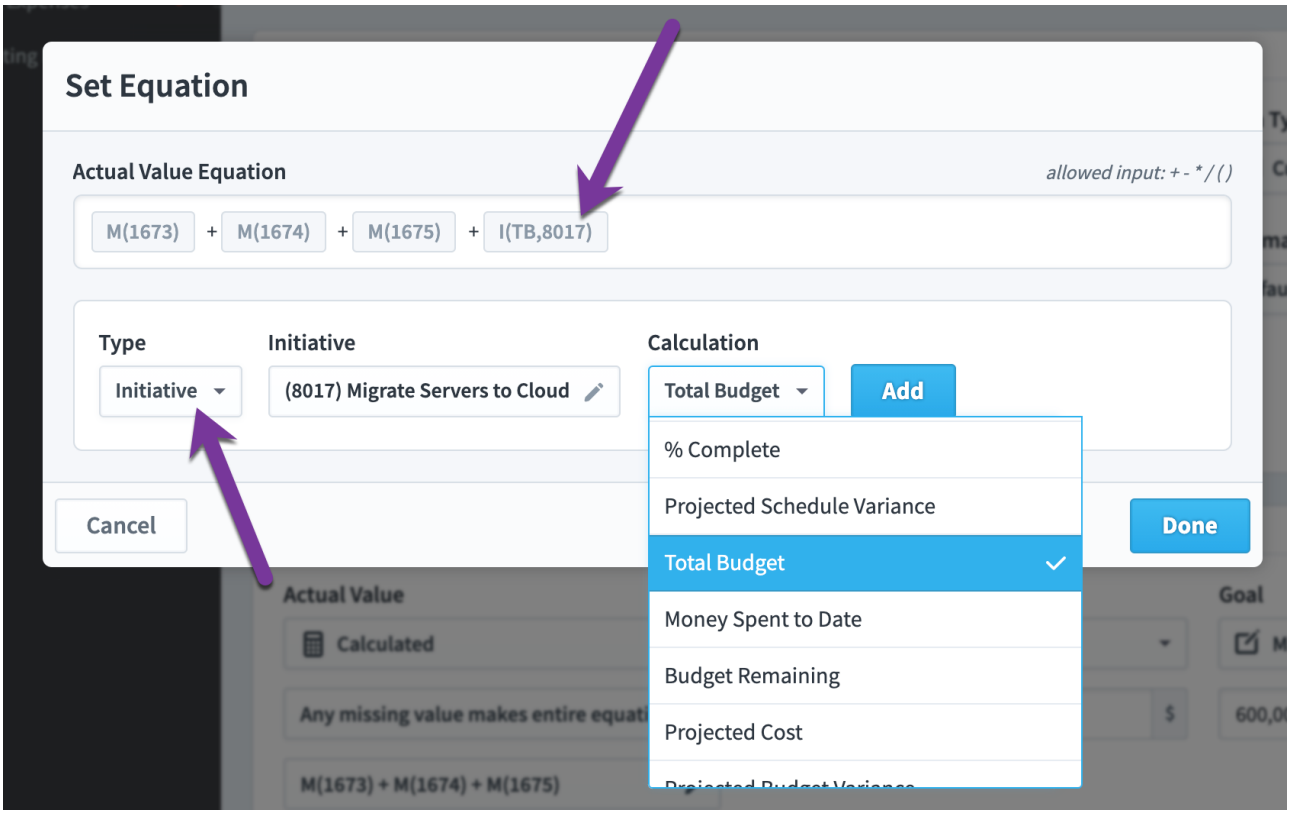
```
S(123)
```

The syntax for referencing a scorecard item's score in another period is similar. In this example, we're referencing the score from the previous period for item 123.

```
S(123, -1p)
```

Referencing Initiative Values

You can include vales from Initiative items by selecting *Initiative* in the Type dropdown on the left. Here we're using the *Total Budget* from the *Migrate Servers to the Cloud* initiative in our equation.



They syntax when referencing an initiative value is:

```
I(field, initiative_id)
```

For example, to reference the budget remaining for initiative 123, the equation would be:

```
I(BR, 123)
```

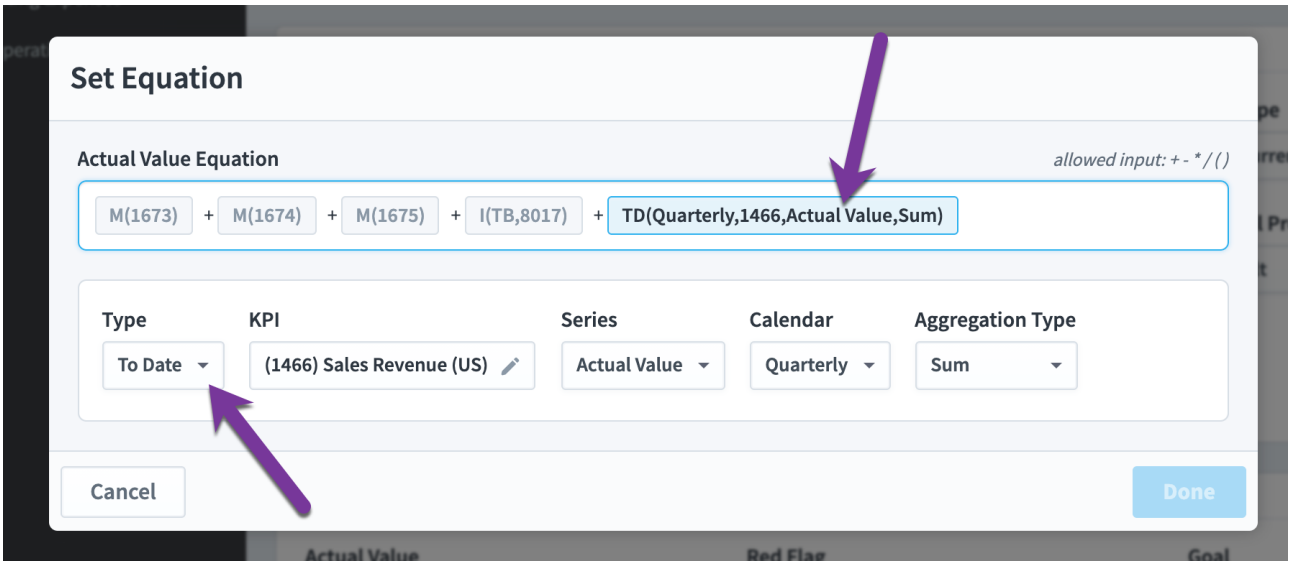
You can reference values for these initiative fields:

- **BR** – Budget Remaining
- **DE** – Days Elapsed
- **MSTD** – Money Spent to Date
- **PBV** – Projected Budget Variance

- **PBVP** – Projected Budget Variance Percentage
- **PC** – % Complete
- **PCOST** – Projected Cost
- **PSV** – Projected Schedule Variance
- **PTE** – % Time Elapsed
- **TB** – Total Budget

To-Date Function

By choosing *To Date* in the *Type* dropdown, you can build equations that aggregate values over time. The most popular use of the to-date function is calculating Year To Date values. In this example we're including the *Sales Revenue* quarterly sum.



The syntax for the to-date function is

```
TD(calendar, kpi_id, field, aggregation)
```

For example, if we wanted to do an average year-to-date for actual value of the KPI with an ID of 123, the equation would be:

```
TD(Yearly, 123, Actual Value, Average)
```

If/Else

The syntax for an IF statement is:

```
if(condition, truevalue, falsevalue)
```

Here's an example equation. "If the value for KPI #123 is 5, this equation returns 10. Otherwise return 0."

```
if(M(123) == 5, 10, 0)
```

Note that you'll need to use the double equal operator == when checking for an equal value, as explained below.

You can also string together multiple IF statements to create an IF/ELSE chain like this. "If the value for KPI #123 is 5, return 10. Else if the value for KPI #123 is 4, return 100. Else return 0."

```
if(M(123) == 5, 10, if( M(123) == 4, 100, 0))
```

Yes/No KPI Values

Most KPIs have number for values, but Yes/No KPIs are different. These can be referenced as booleans (true/false) or as numbers (1/0).

In this example, we're building an equation for a number KPI, and we're using the value from a Yes/No KPI in that equation. "If the value for KPI #123 is yes, return 5. Else return 20"

```
if(M(123), 5, 20)
```

It goes the other way too. In this example, we're building an equation for a Yes/No KPI, and we're using the value from a number KPI in that equation. "If the value for KPI #456 is greater than 7 return true. Else return false"

```
if(M(456) > 7, true, false)
```

This is the same as:

```
if(M(456) > 7, 1, 0)
```

Note that in the example above we're using 1 and 0, but any non-zero number will evaluate to Yes in a Yes/No KPI's equation.

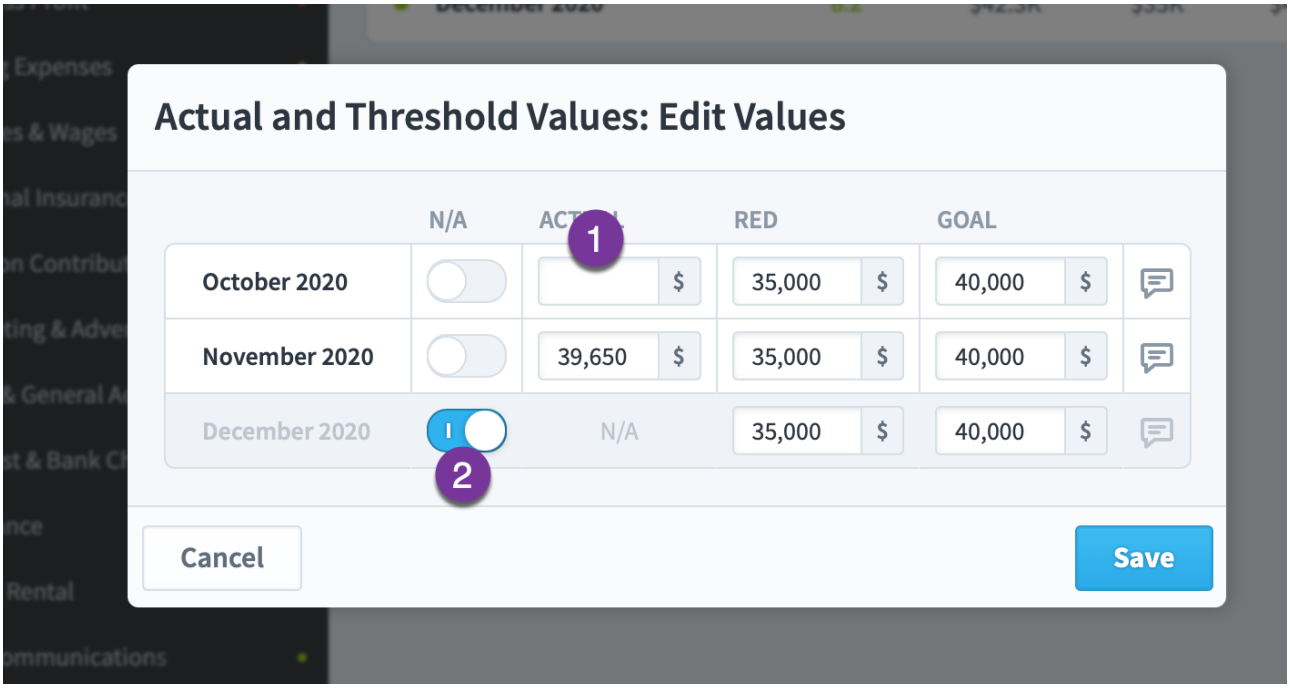
Because Yes/No KPI values are treated as 1 and 0, you can even use them in functions just like any other KPI value. In this example we're building an equation for a calculated Yes/No KPI. This equation looks at three other Yes/No KPIs. If most of them are yes, it returns yes. If most are no, it returns no.

```
if(avg(M(123), M(456), M(789)) > 0.5, true, false)
```

Blank (null) and Not Applicable (N/A)

In addition to their normal values, KPIs can also have values that are:

1. Blank (also called null).
2. Not Applicable (also called N/A). This is only available when the "Show N/A Option" is enabled in Application Administration.



You can reference N/A and empty values using the `isblank` and `isna` functions like this:

```
if(isblank(M(123)), 5, 20)
```

and this:

```
if(isna(M(123)), 5, 20)
```

To set a value to empty, the equation would look like this:

```
if(M(123) > 8, blank, 20)
```

Returning a N/A value would look like this:

```
if(M(123) > 8, na, 20)
```

Full equation syntax

For a comprehensive list of all equation syntax and functions, see the Equations article.

Exploring How KPI Values Are Calculated

Introduction

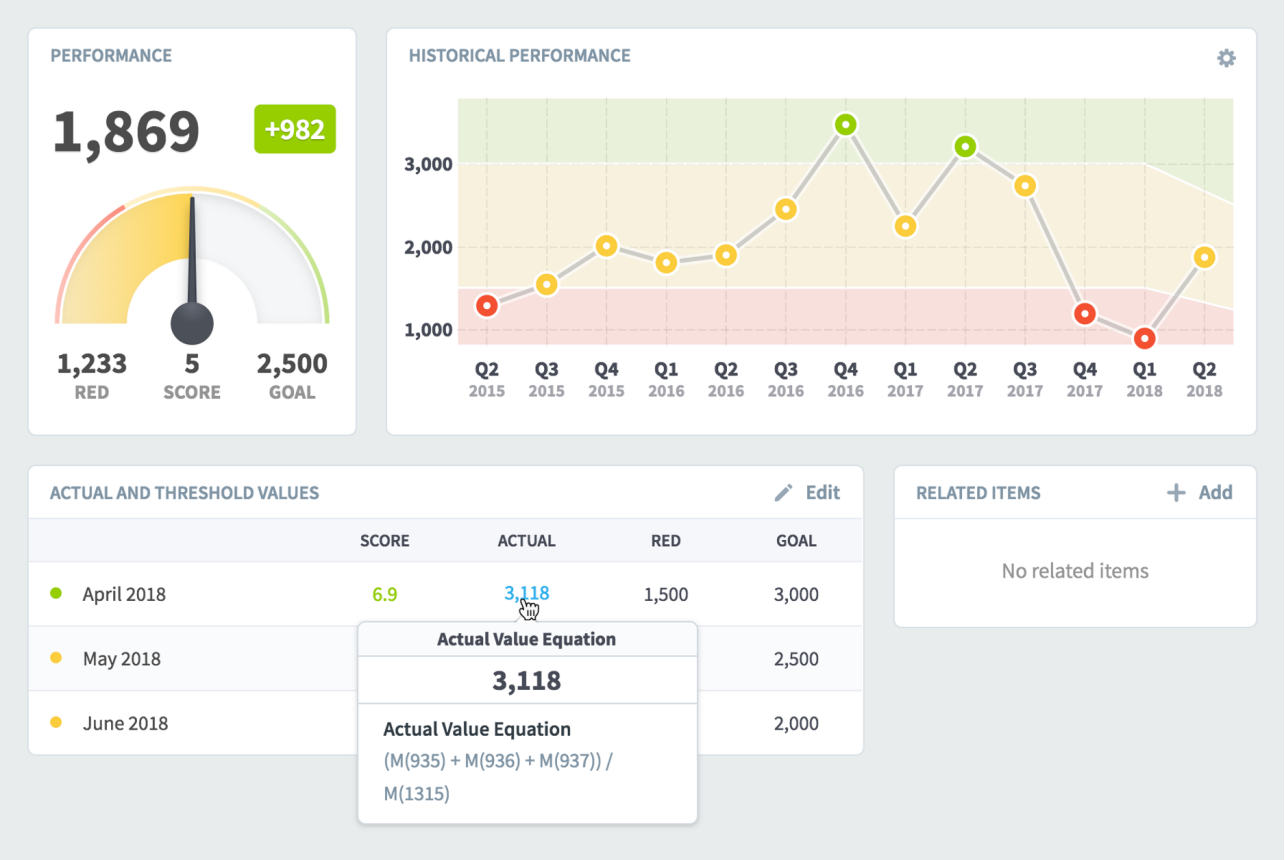
Spider Impact is great at calculating KPI values and aggregating them over time and across organizations. It's important for everyone in your organization to have complete faith in how a number was calculated, however, and Spider Impact shows its work.

For example, it can sometimes be difficult to understand the nuanced differences between aggregation types like "sum" and "use equation." Although this explanation gets a little technical, don't worry, Spider Impact is easier to use than ever. The big take-away here is that that you can hover your mouse over a number on the Scorecards Overview tab to see how it was calculated.

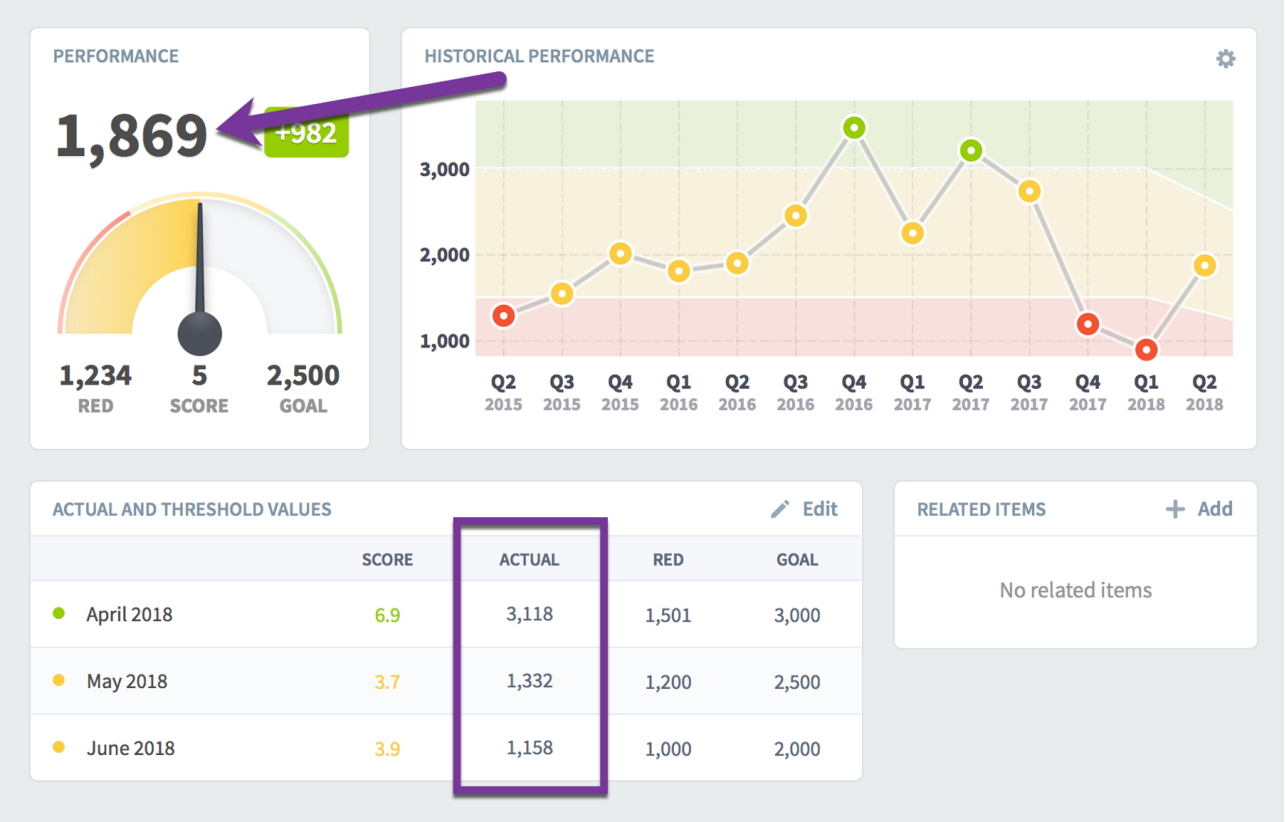
Exploring KPI Calculations

On the Scorecards Overview tab there is an "Actual and Threshold Values" table that shows you all of the KPI values and thresholds that go into the currently selected KPI, regardless of whether those values are calculated or not. You can interact with these numbers to see where they come from.

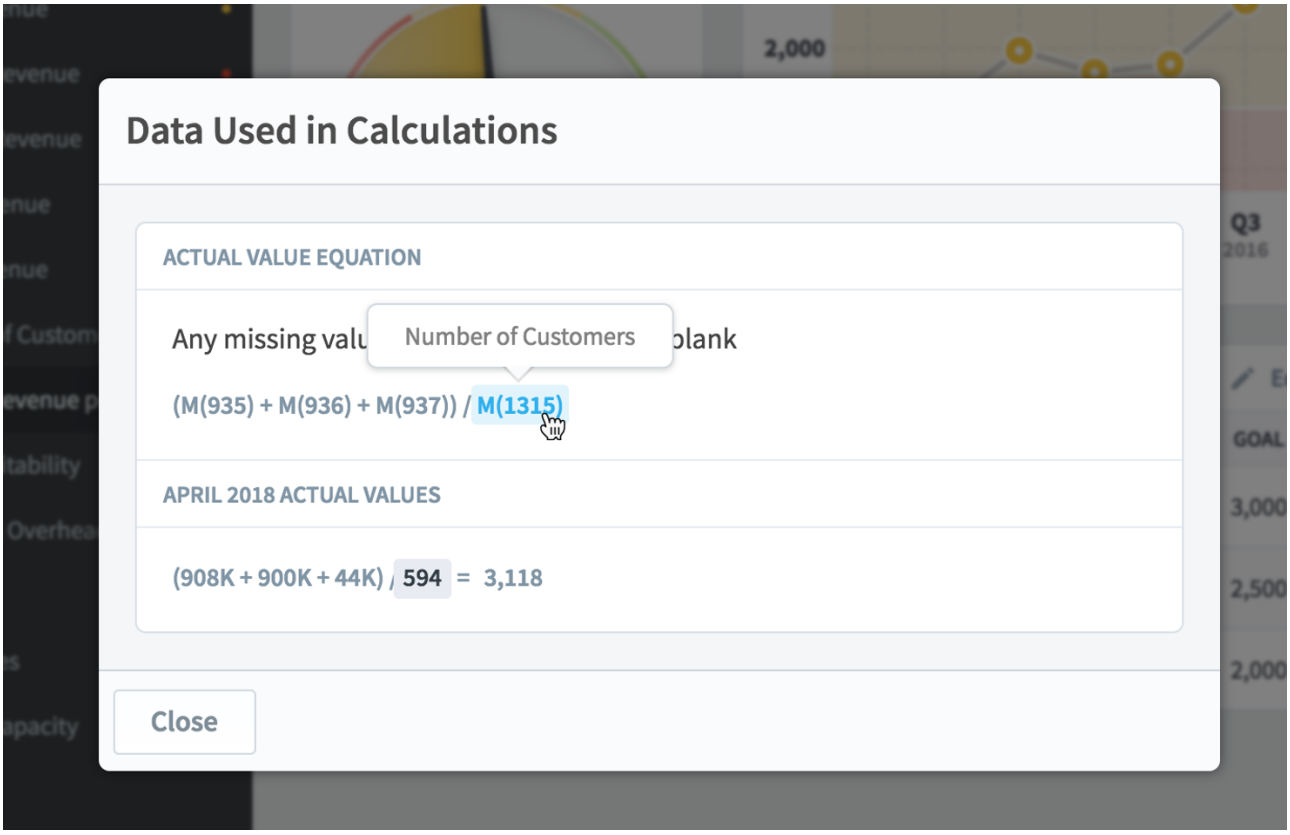
In this example, we're looking at a monthly KPI in quarterly mode. The KPI's aggregation type is average, so its quarterly total of 1,869 was determined by averaging its three monthly values listed in the "actual and threshold values" table.



If you hover your mouse over the April 2018 monthly values, you can now see that it's based on an equation using the values of four other KPIs.

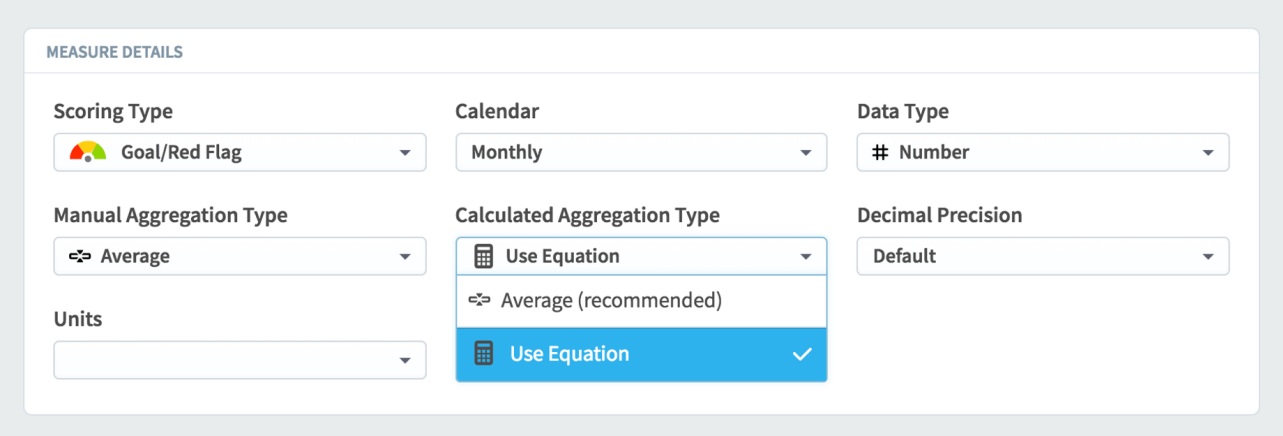


If you want to explore further, just click the monthly number that you're hovering over. This shows a dialog containing both the original equation and a version of the equation with April 2018 actual values substituted for the KPI references. When you hover over individual parts of the equation, there's a tooltip telling you the name of that KPI, and its corresponding actual value is highlighted below.

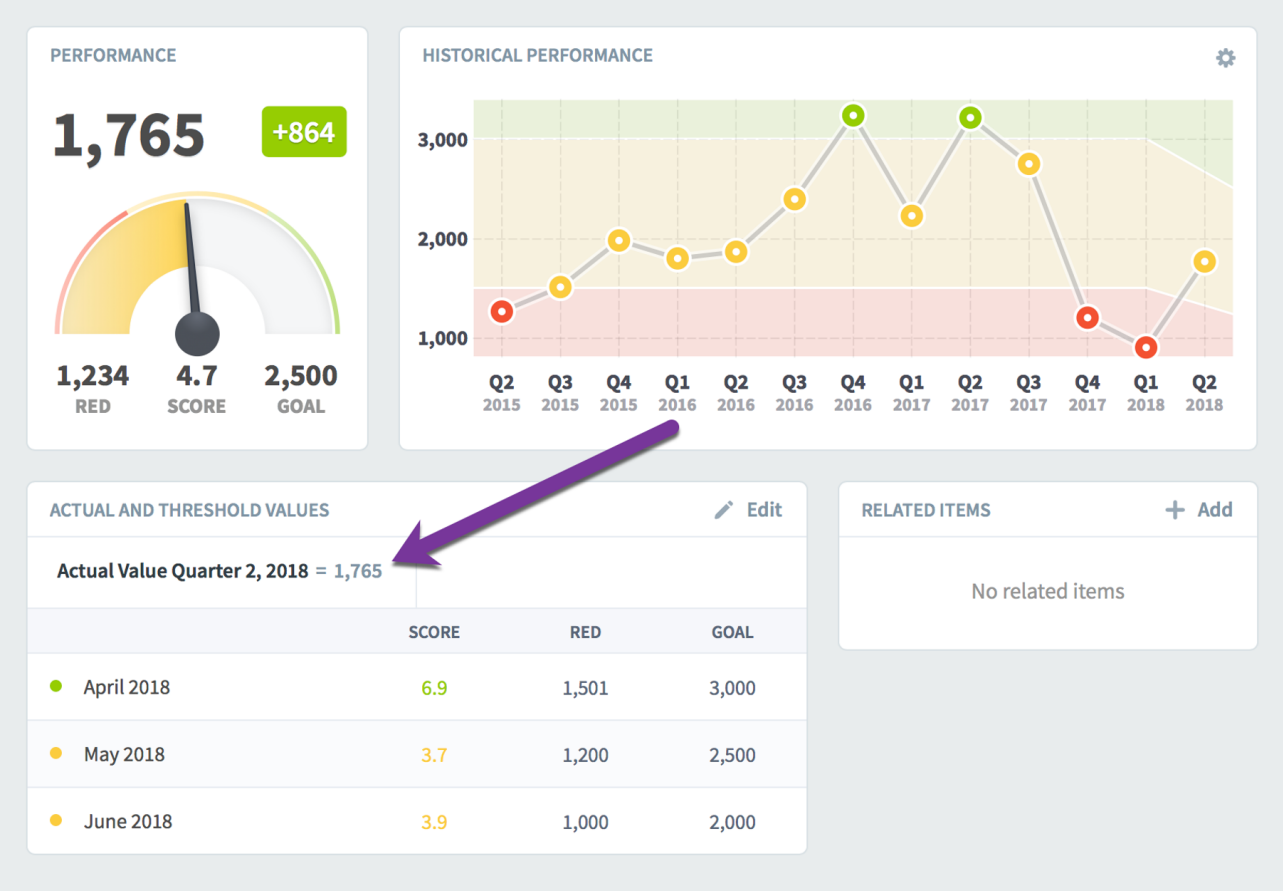


Finally, you can click on any of these KPI references to go to that KPI's Scorecard Overview tab. By doingthis, you can trace down complicated nested equations to find out exactly where a calculated number comes from.

Instead, we'll edit our original KPI to show how the software visualizes different aggregation types. We'll change the calculated aggregation type from "average" to "use equation."



Now when we go back to the Overview tab, things look different in the "actual and threshold values" box. The goal and red flag thresholds are manually updated for this monthly KPI, so they're still in monthly rows. But, a single quarterly actual value is now listed on top rather than separate actual values for every month.

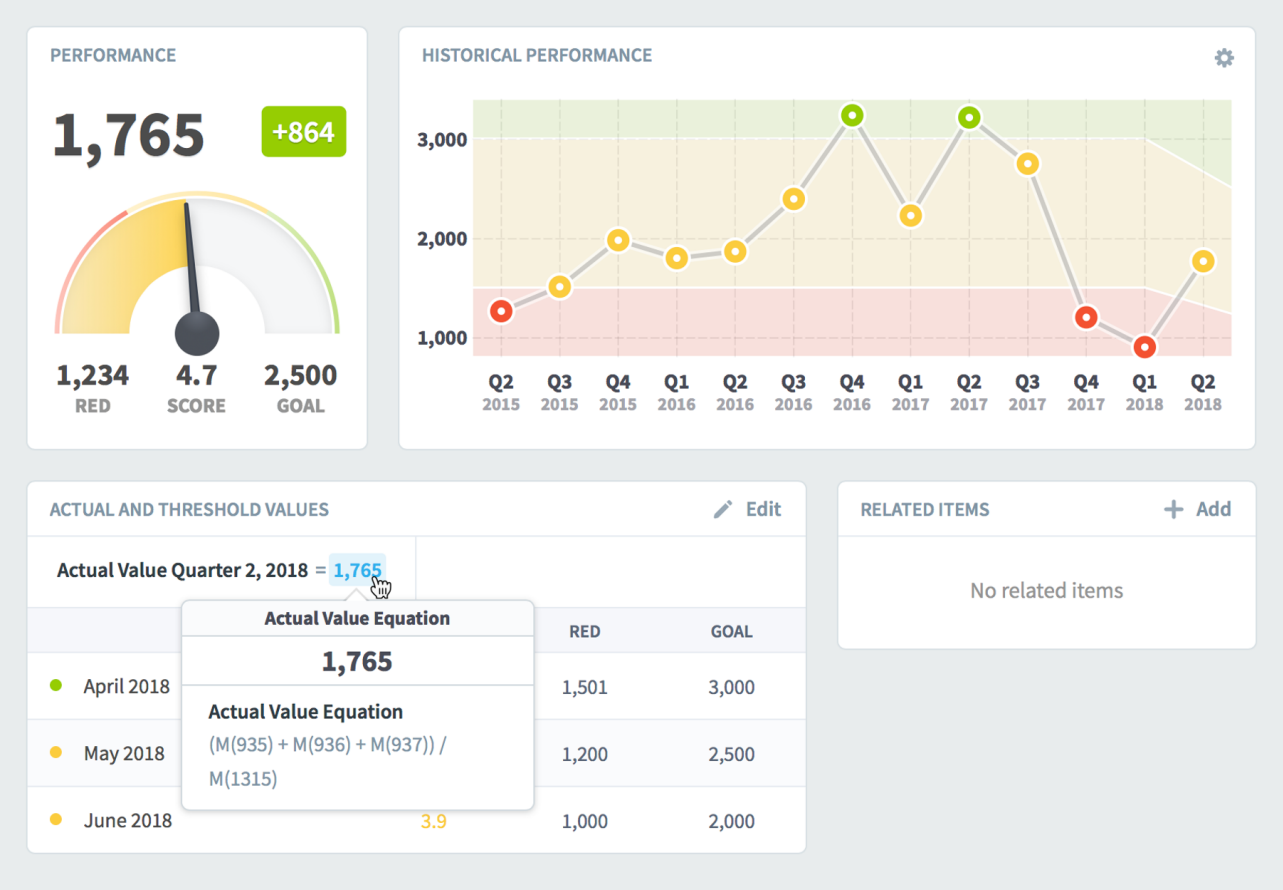


That's because when we changed the calculated aggregation type, the software calculates the KPI's quarterly value differently.

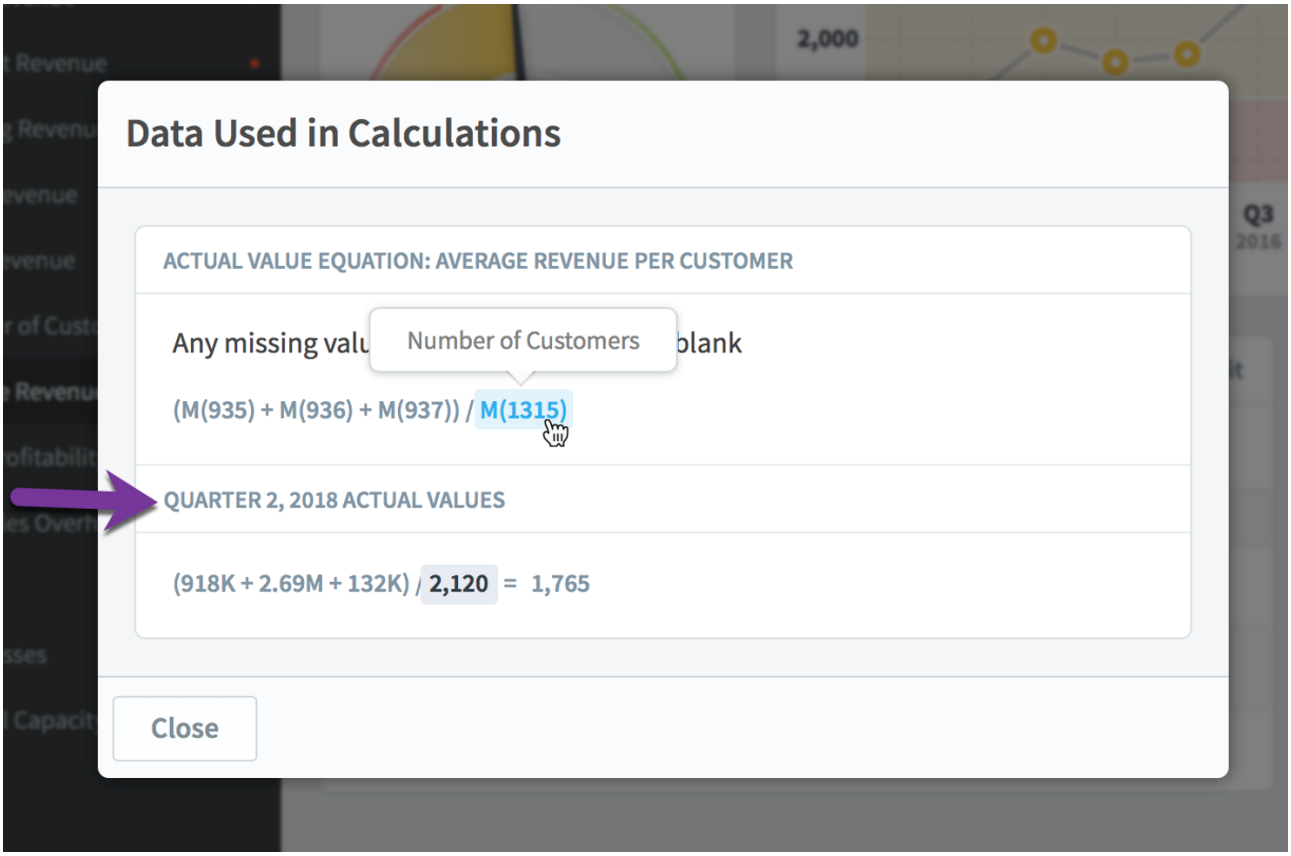
As we saw earlier, this KPI's actual value is calculated, and its calculated aggregation type is now "use equation" rather than "average." The "average" aggregation type calculated each of this KPI's monthly values and then averaged them. The "use equation" aggregation type does things in the opposite order. Itfirst calculates the quarterly values for every KPI referenced in the equation, and then plugs those values into the equation.

Long story short, this KPI's monthly values aren't directly used to determine its quarterly value anymore, so the software doesn't show those monthly values in the table.

Just like before, when we hover over the calculated value, we can see its equation in the tooltip.



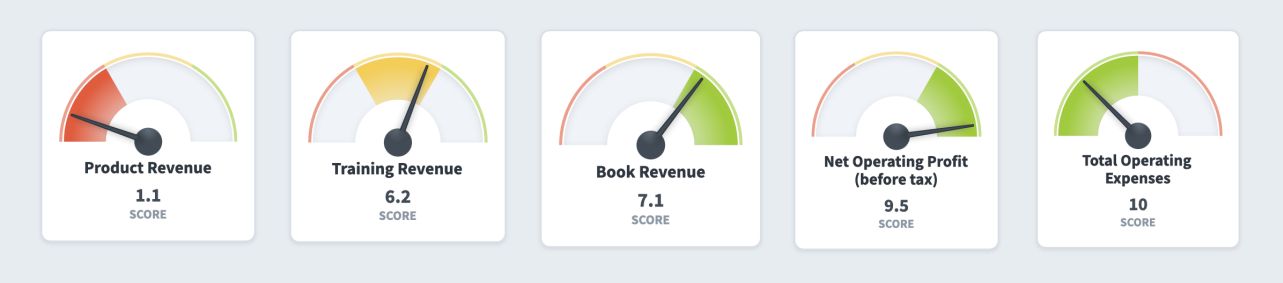
And, like before, clicking on the calculated number shows a dialog. This time, however, the equation is using quarterly values rather than monthly. You can see that each of the KPIs in the equation have first been aggregated on their own, because their Quarter 2 values are used in the equation.


Data Used in Calculations
ACTUAL VALUE EQUATION: AVERAGE REVENUE PER CUSTOMER
Any missing valu
Number of Customers
blank
(M(935) + M(936) + M(937)) / M(1315)
QUARTER 2, 2018 ACTUAL VALUES
(918K + 2.69M + 132K) / 2,120 = 1,765
Close
2,000
Q3
2016

Exploring How Scores are Calculated

Overview

Spider Impact uses normalized scoring to make different types of KPIs, objectives, and perspectives directly comparable. By converting all measurements into scores between 0 and 10, you can easily see where you're excelling and where you need to focus your attention. For example, if workplace injuries has a score of 8 while customer service has a score of 2, you know exactly where to prioritize your improvement efforts - regardless of how these KPIs were originally measured.

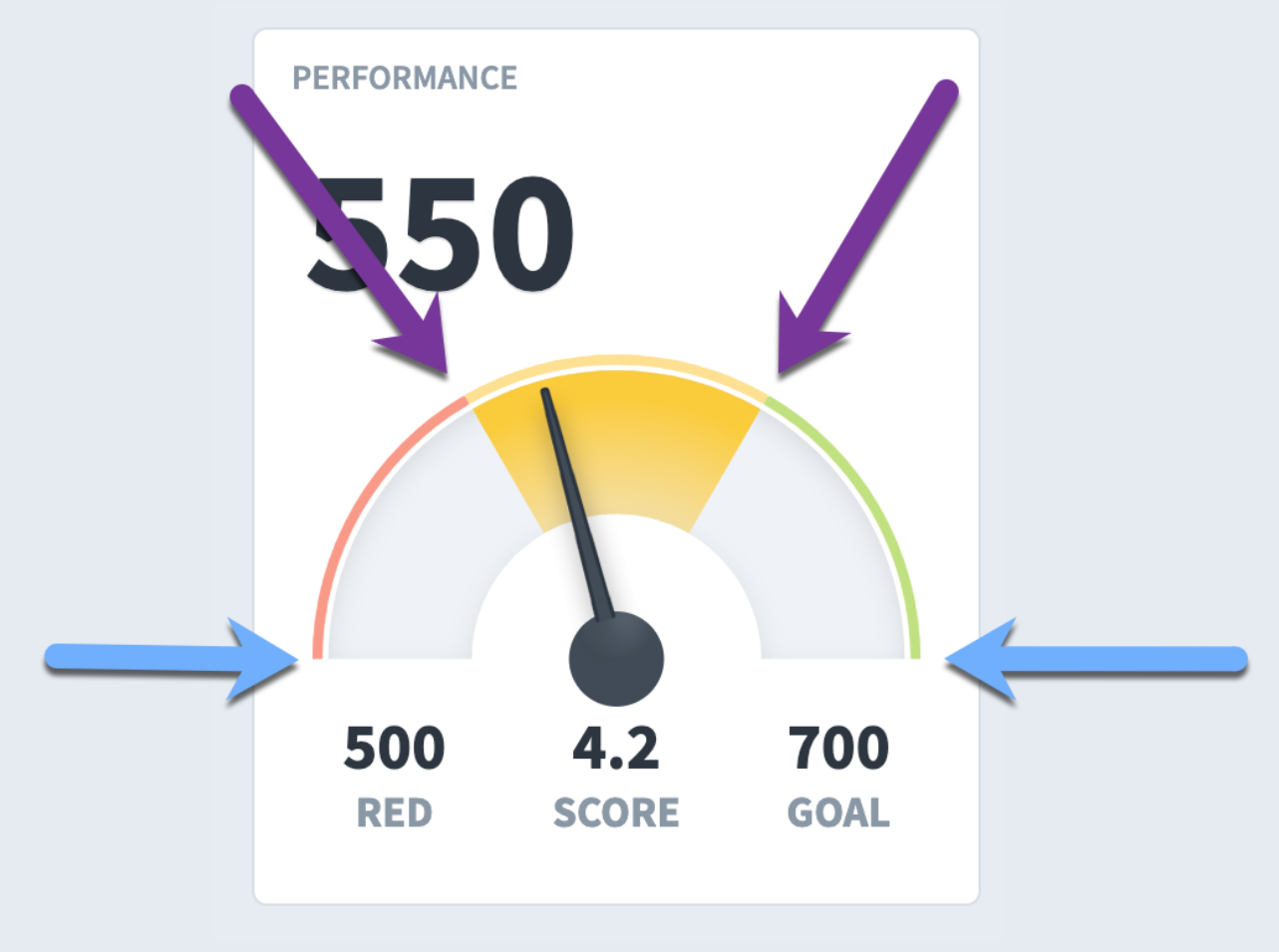


Scoring KPIs

Everything starts with your KPIs at the bottom of your scorecard tree. Each KPI's actual value is converted into a standardized score based on thresholds you define. The most common approach is Goal/Red Flag scoring, where you specify:

- A Goal threshold where performance becomes good enough to turn green
- A Red Flag threshold where performance becomes poor enough to turn red

Spider Impact then automatically converts your actual values into scores between 0 and 10 by comparing them against these thresholds.



Whether you're measuring dollars, percentages, counts, or even yes/no values, every KPI gets a consistent, comparable score. For detailed information about available scoring types and their configuration, see the Using KPI Scoring Types article.

Rolling up Scores

Once your KPIs have scores, Spider Impact calculates scores for the rest of your scorecard by working its way up the tree level by level:

1. First, items directly above your KPIs get their scores. Each receives a weighted average of its children's scores - by default all KPIs are weighted equally, but you can adjust these weights to reflect different priorities.
2. Then, the next level up receives its scores the same way, taking weighted averages of the scores below.

3. This process continues automatically until every item in your scorecard has a score, all the way up to the top level.

This systematic rollup ensures that scores at every level accurately reflect the performance of all components below them.

Weighting

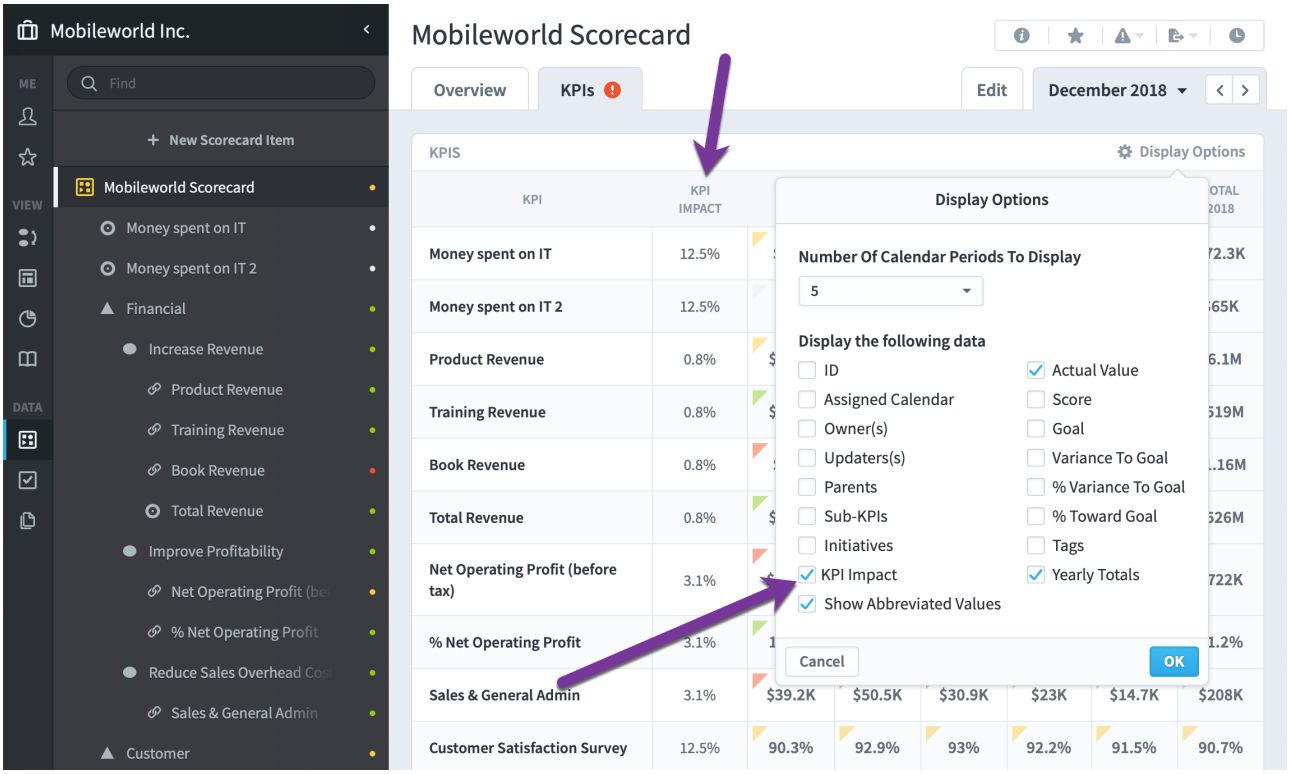
By default, all scorecard items are weighted equally, but you can adjust this for every scorecard item. This is covered in the Score Weighting article.

Customizing Scoring

Many organizations have different approaches to scoring their performance metrics. That's why we provide flexible scoring configuration options - you can display scores as percentages or numbers, customize your scoring range (like 0-5 or 0-10), and specify how to handle missing data in calculations. See the App Administration: Scorecard Scoring article to learn how to set up scoring that matches your organization's needs.

Showing each KPI's Impact

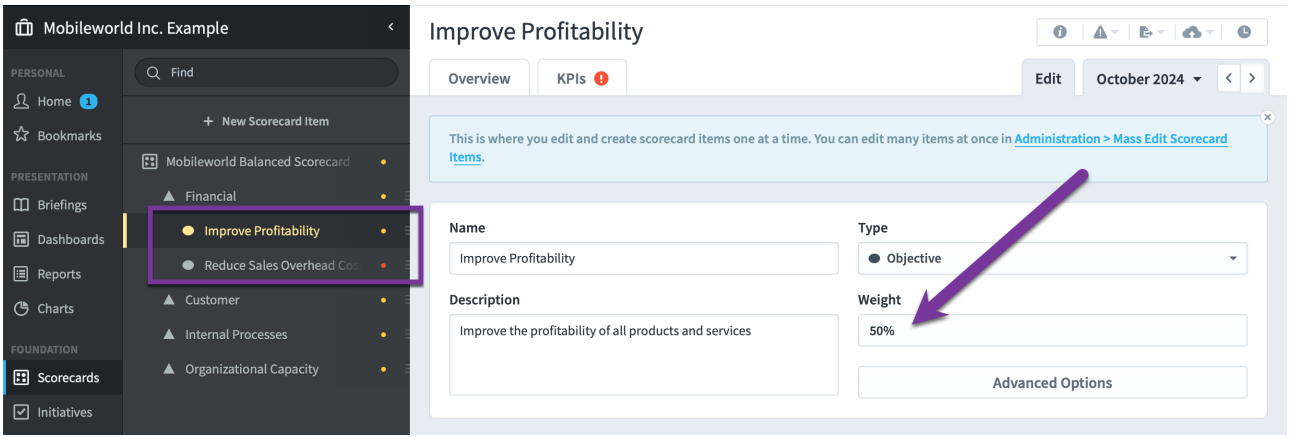
On the KPI tab there's an option to display the impact a KPI has on the currently selected scorecard item. As you can see, all of the KPI Impacts add up to 100%.


Mobileworld Inc.
Mobileworld Scorecard
Overview
KPIs
Edit
December 2018
KPIS
Display Options
KPI
KPI IMPACT
Money spent on IT 12.5%
Money spent on IT 2 12.5%
Product Revenue 0.8%
Training Revenue 0.8%
Book Revenue 0.8%
Total Revenue 0.8%
Net Operating Profit (before tax) 3.1%
% Net Operating Profit 3.1%
Sales & General Admin 3.1% $39.2K $50.5K $30.9K $23K $14.7K $208K
Customer Satisfaction Survey 12.5% 90.3% 92.9% 93% 92.2% 91.5% 90.7%
Display Options
Number Of Calendar Periods To Display
5
Display the following data
ID
Assigned Calendar
Owner(s)
Updaters(s)
Parents
Sub-KPIs
Initiatives
KPI Impact
Show Abbreviated Values
Actual Value
Score
Goal
Variance To Goal
% Variance To Goal
% Toward Goal
Tags
Yearly Totals
Cancel
OK
New Scorecard Item
Mobileworld Scorecard
Money spent on IT
Money spent on IT 2
Financial
Increase Revenue
Product Revenue
Training Revenue
Book Revenue
Total Revenue
Improve Profitability
Net Operating Profit (bef
% Net Operating Profit
Reduce Sales Overhead Cos
Sales & General Admin
Customer

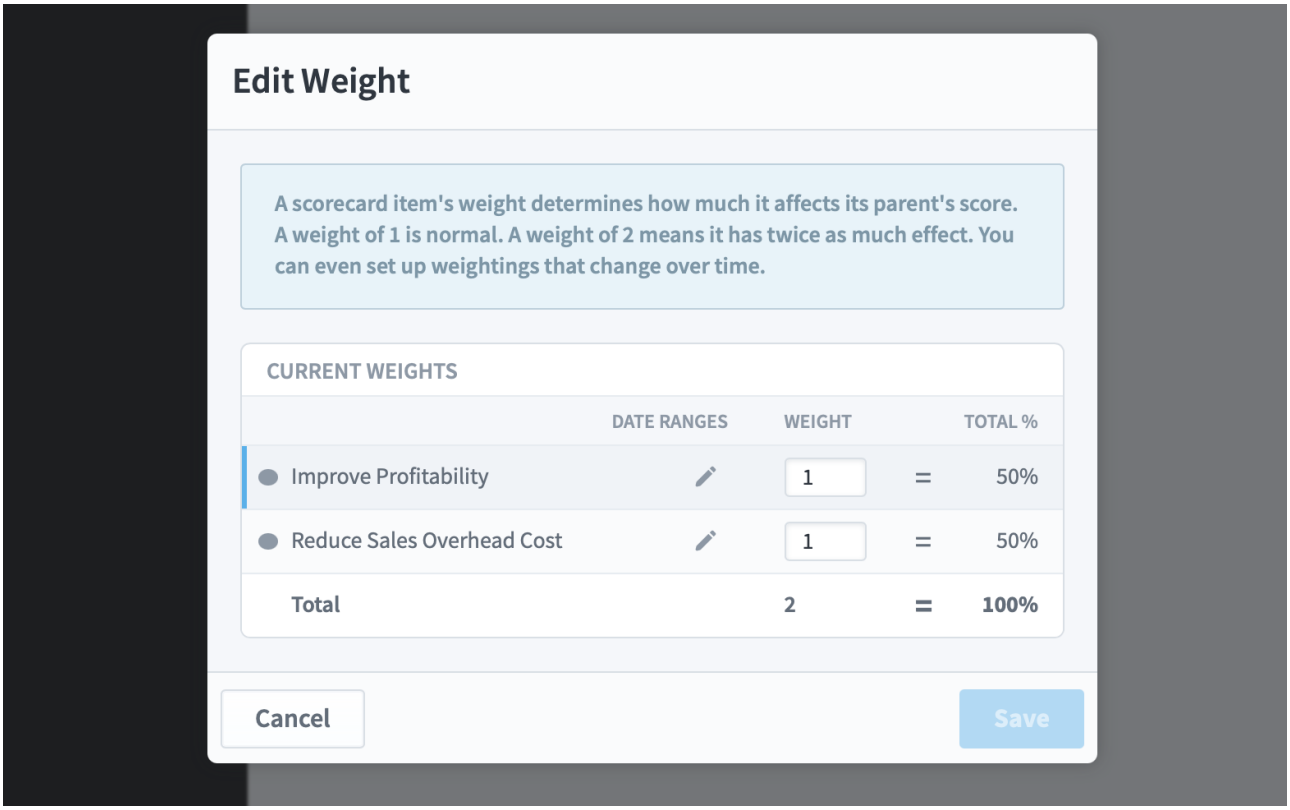
Score Weighting

Overview

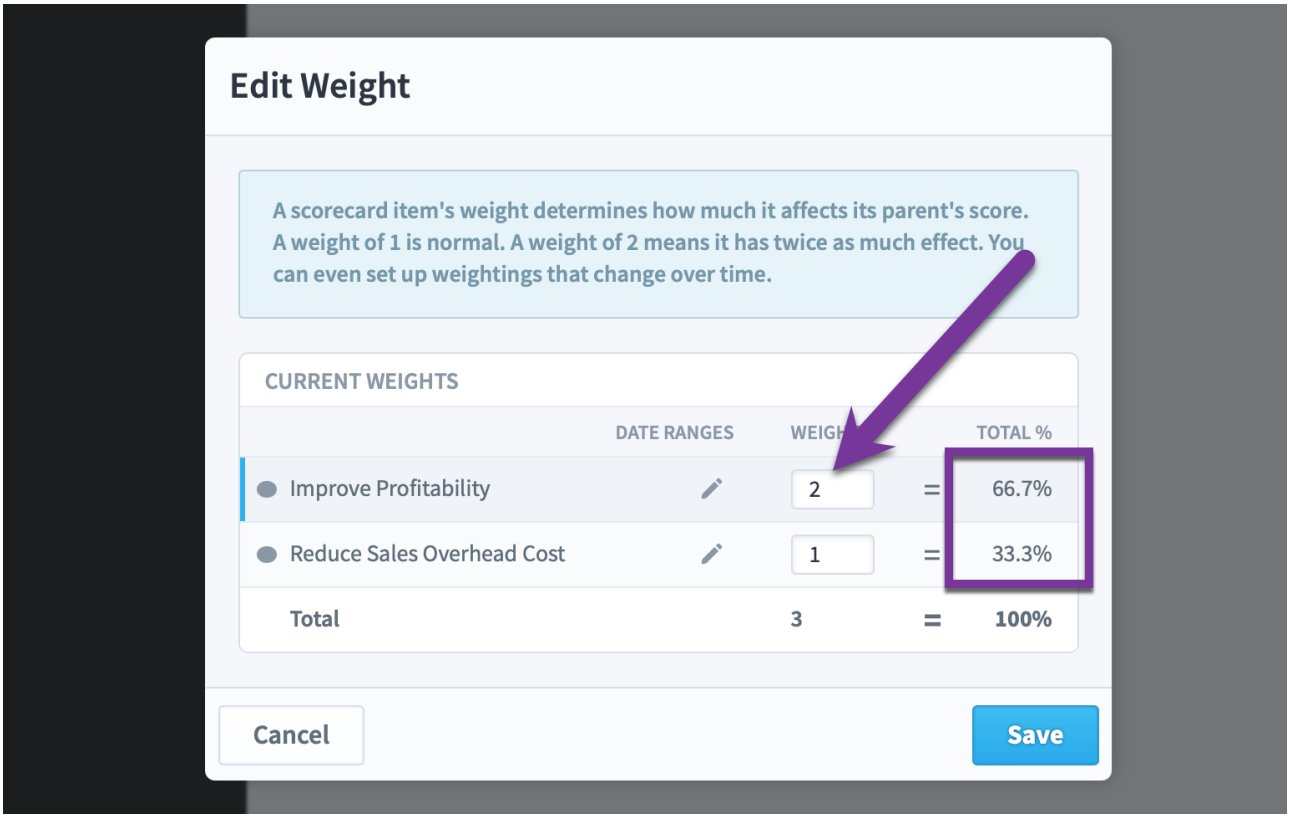
By default, all scorecard items are weighted equally, but you can edit this for every scorecard item. In this example, "Improve Profitability" and "Reduce Sales Overhead Costs" each make up 50% of their parent's score.



When you click this 50%, an Edit Weight dialog opens. As you can see, although weights are displayed as percentages in Spider Impact, they're edited as relative numbers. Each of these objectives have a weight of 1.



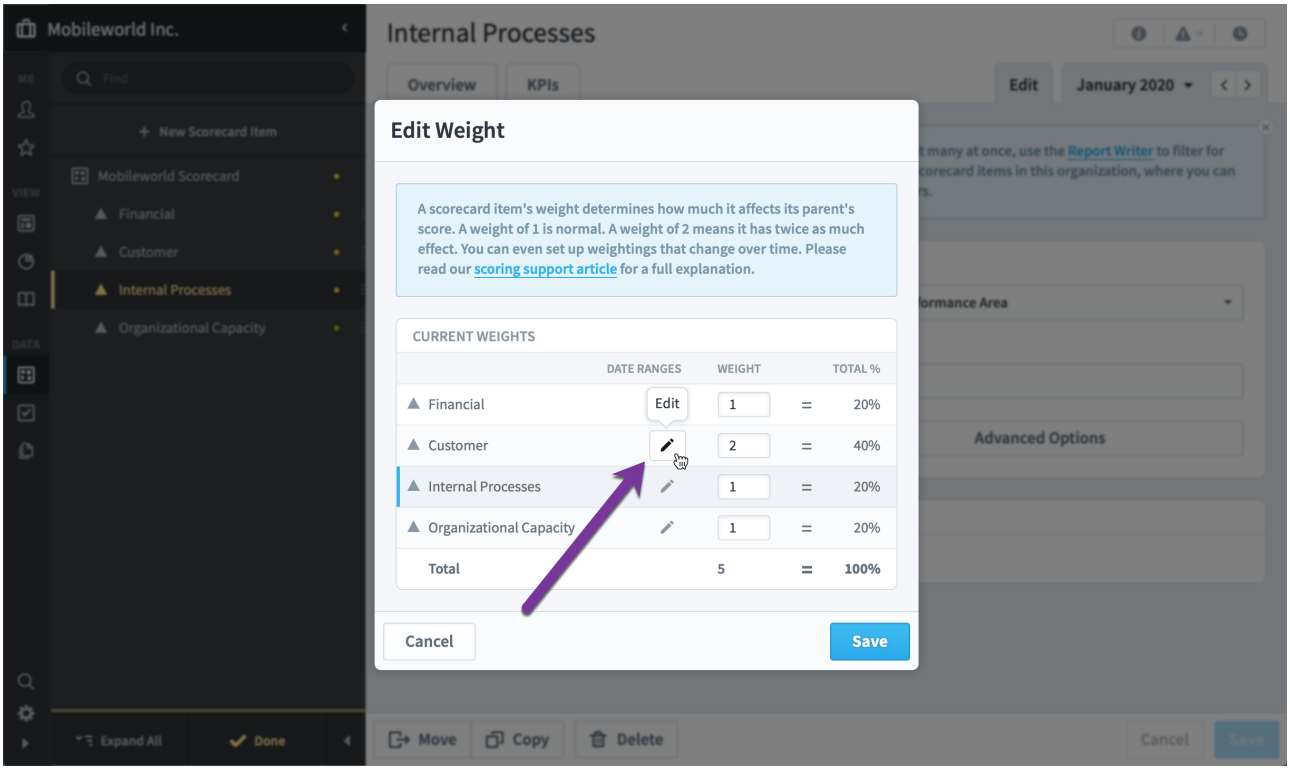
If we wanted "Improve Profitability" to be weighted twice as much, we give it a weight of 2. The percentages automatically adjust.



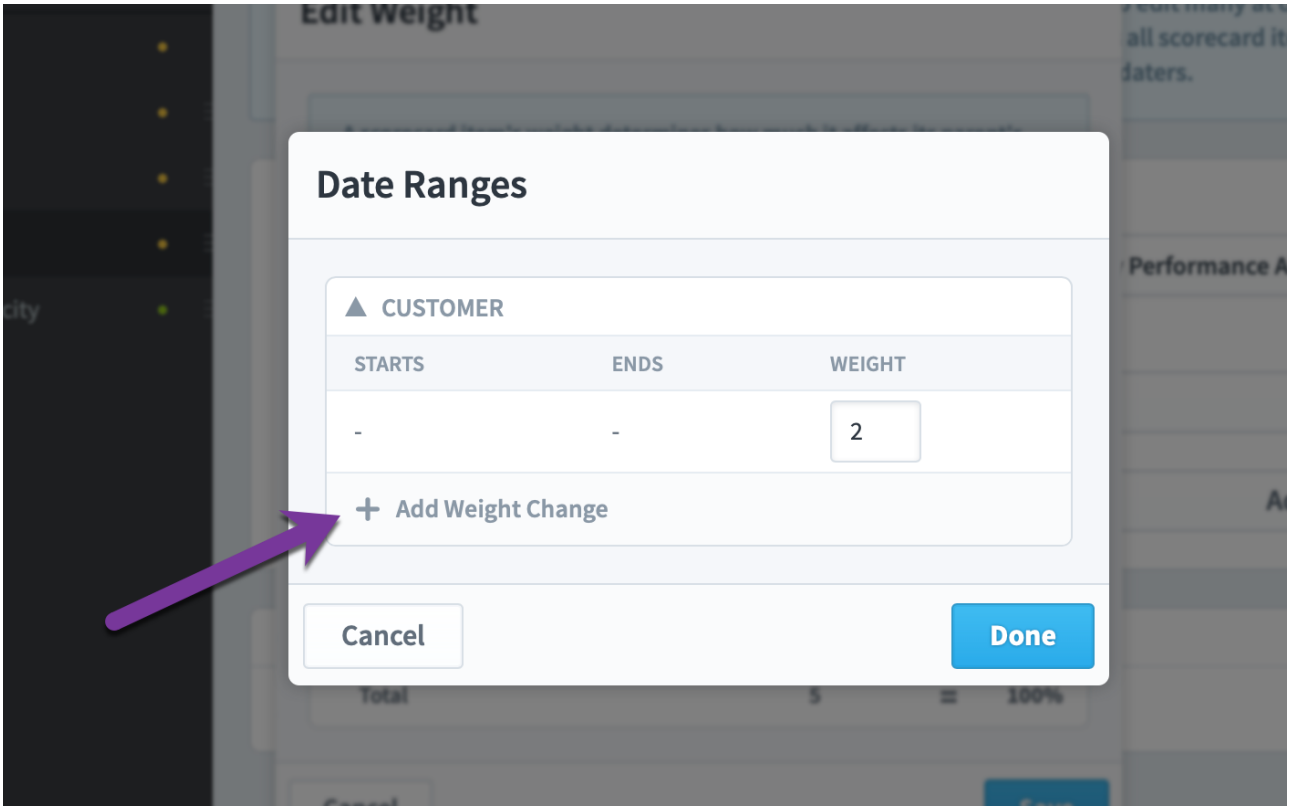
By using relative weighting, Spider Impact makes it easy to quickly adjust weights without requiring everything to add up to 100%. More importantly, however, when scorecard items are added or removed, their siblings' percentage weights automatically adjust.

Changing weights over time

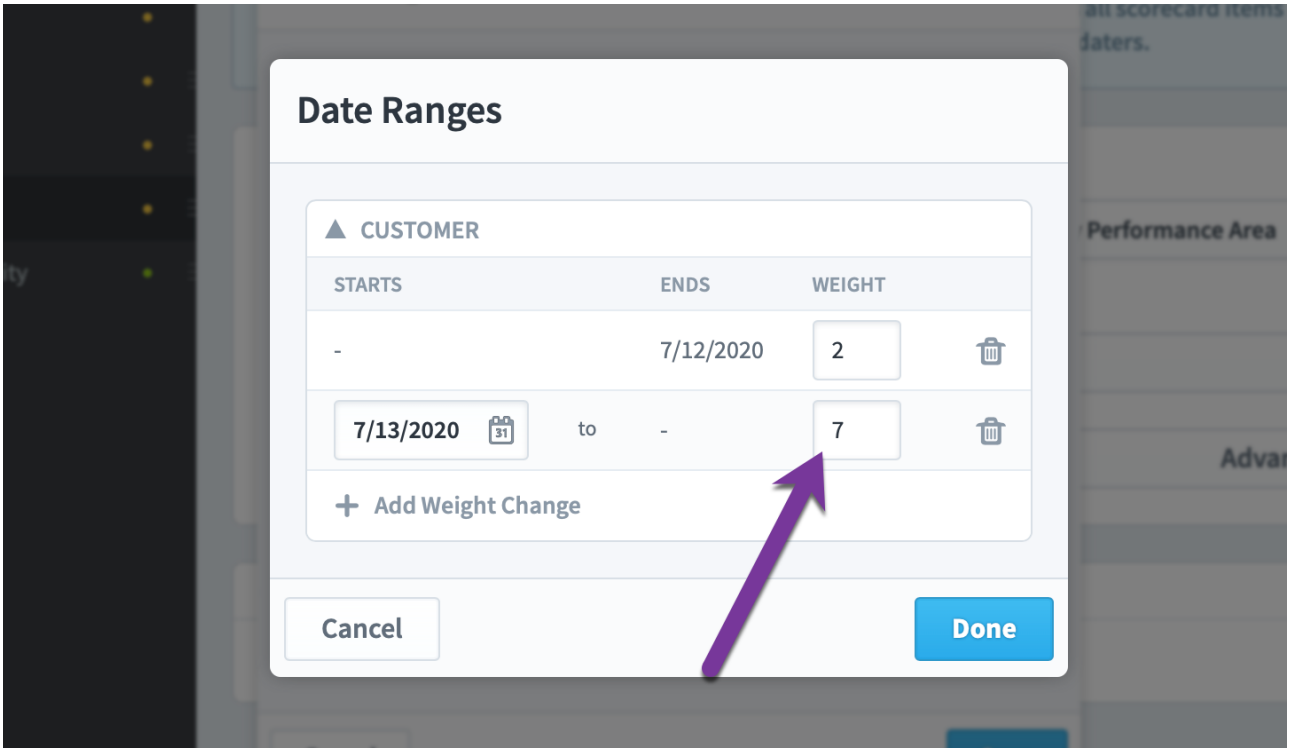
You can also set up scorecard item weights that change over time. To do this, click the Edit button for one of the item's date ranges.



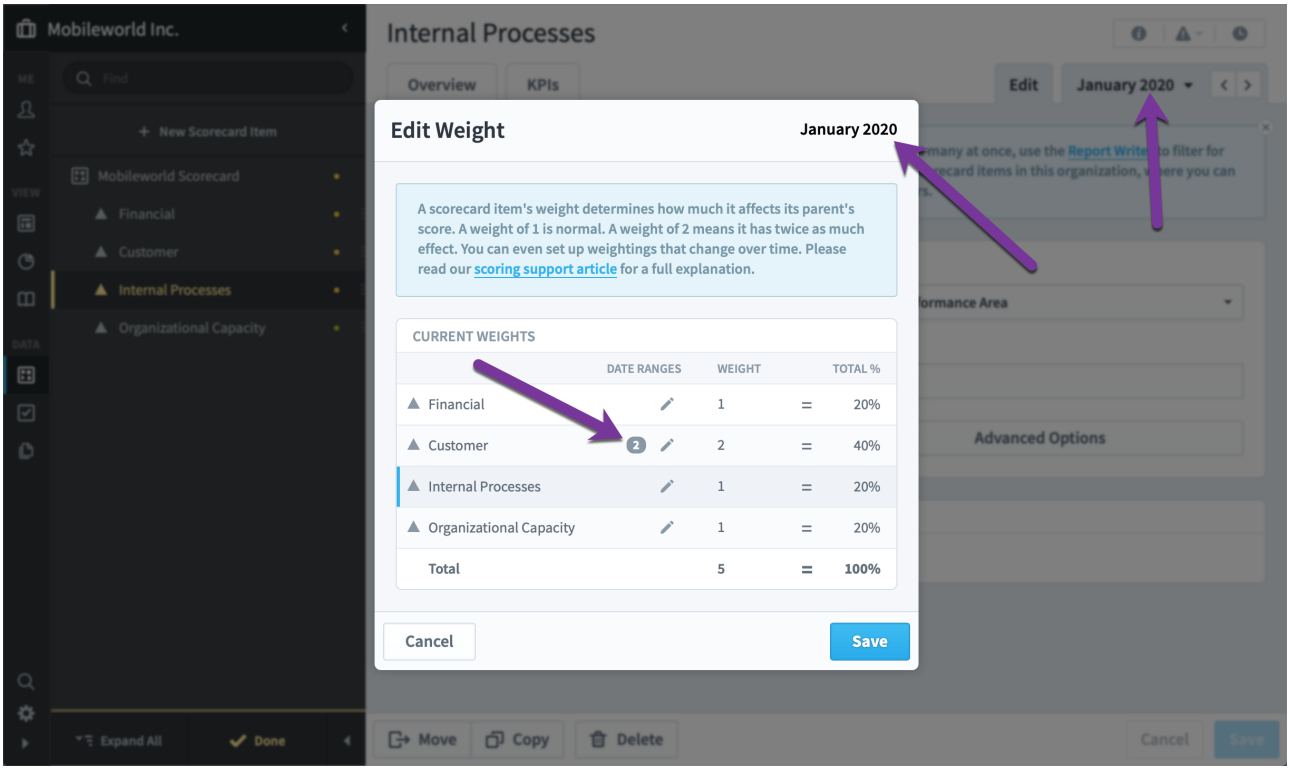
This opens a second-level dialog where you can see how that item's weighting changes over time. At first this item doesn't have any weight changes, and it has a single range of 2 for all time.



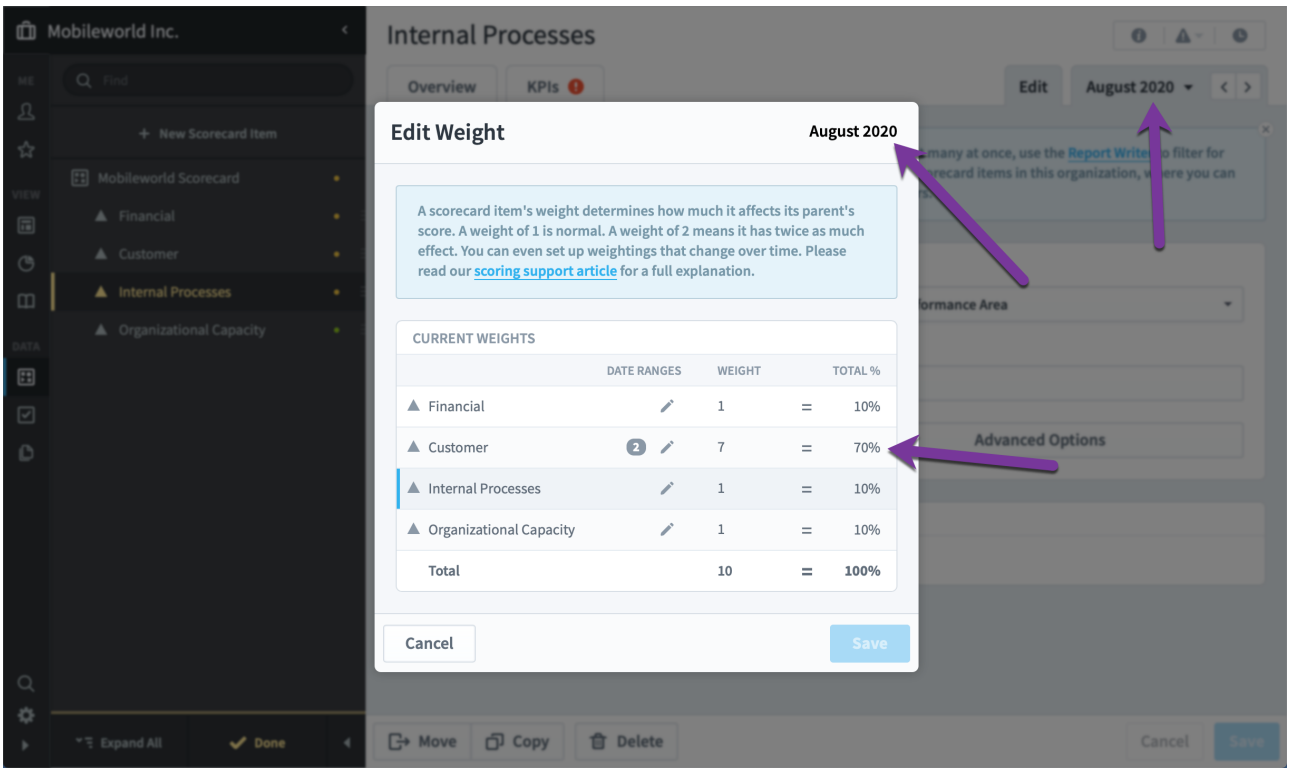
If you click Add Weight Change, it adds a new date range. Now we've set up with scorecard item to have a weight of 2 until July 12th, and a weight of 7 after that.



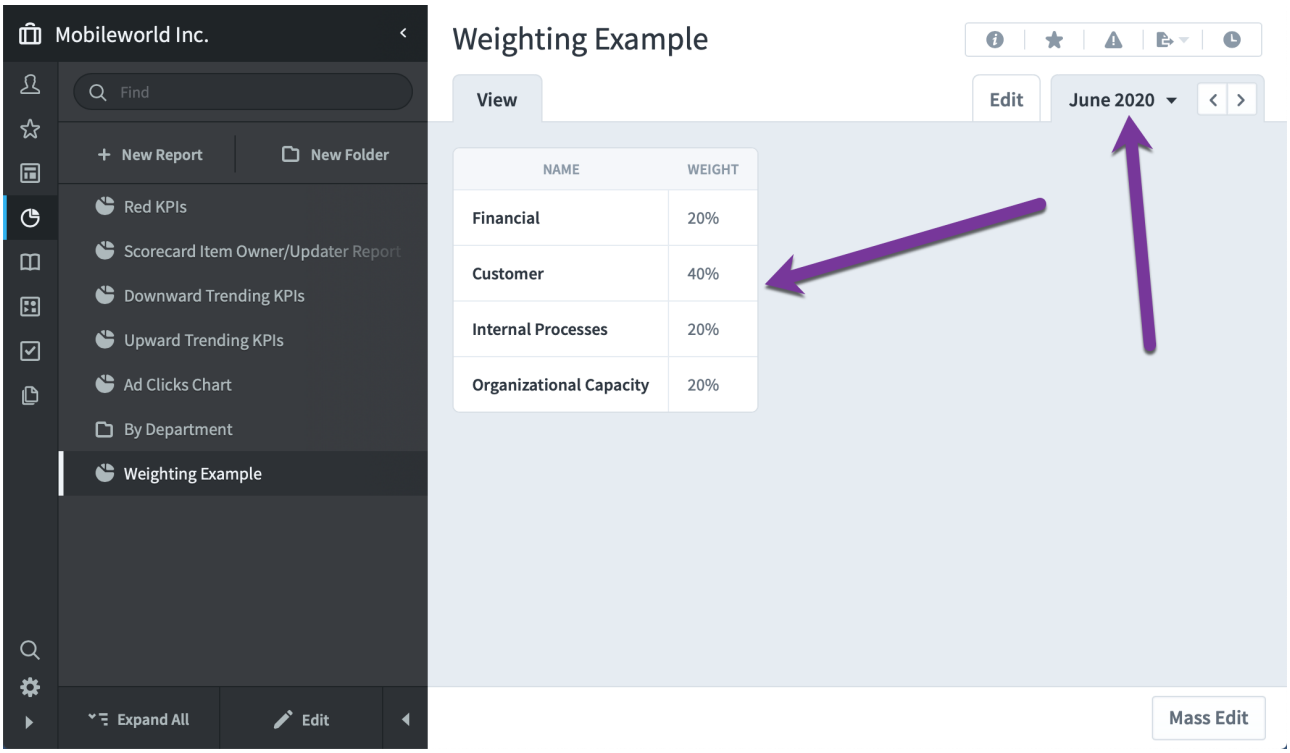
When we close that second-level dialog, we now we a 2 icon next to the Customer scorecard item indicating that it has two date ranges. We also see that the Edit Weight dialog has a calendar period in the upper right corner, indicating that the weights we see are for January 2020.



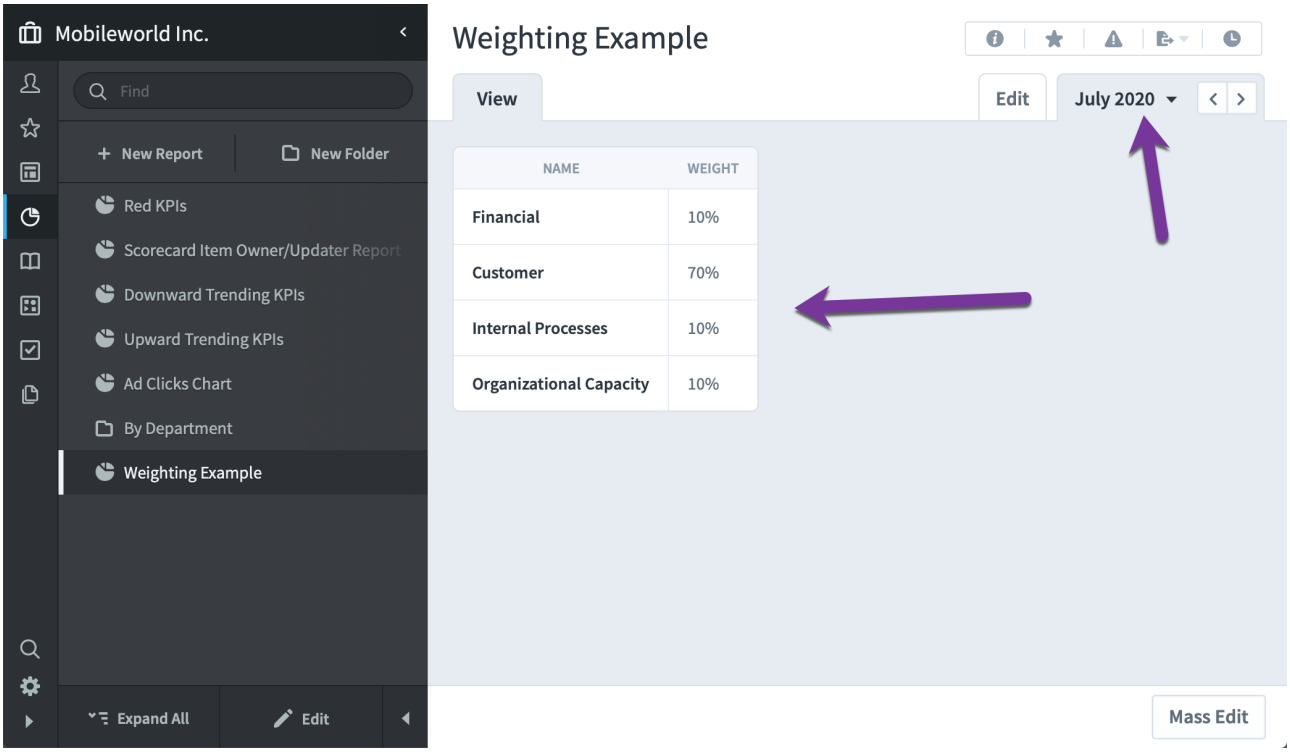
If we close the weighting dialog, change the calendar period to August 2020, and reopen the dialog, we now see different weightings for the scorecard items.



This affects weighting everywhere in the software. For example, here's a report that shows weighting in June 2020...



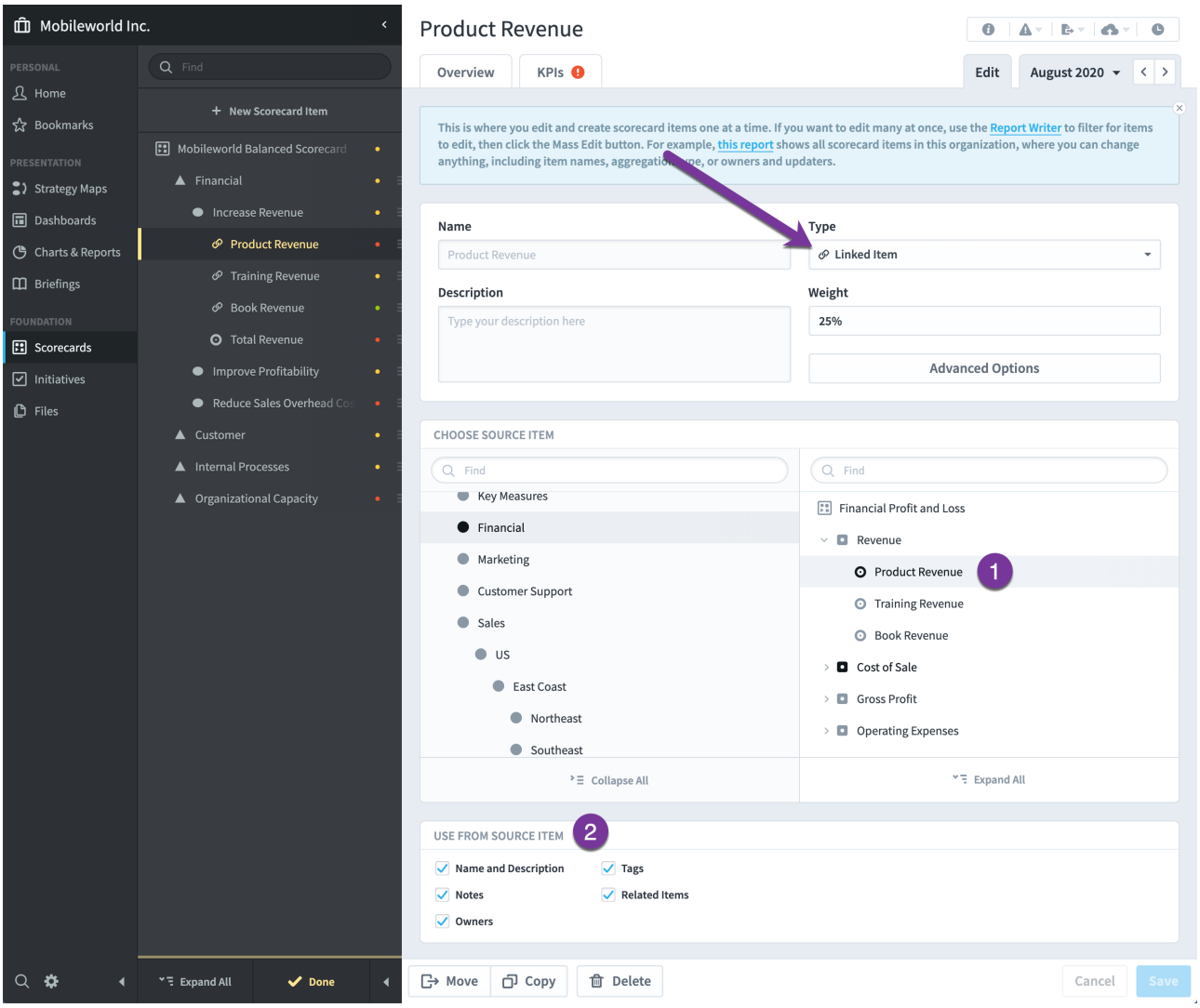
... with different results than the same report for July 2020.


Mobileworld Inc.
Find
New Report
New Folder
Red KPIs
Scorecard Item Owner/Updater Report
Downward Trending KPIs
Upward Trending KPIs
Ad Clicks Chart
By Department
Weighting Example
Expand All
Edit
Weighting Example
View
Edit
July 2020
NAME
WEIGHT
Financial
10%
Customer
70%
Internal Processes
10%
Organizational Capacity
10%
Mass Edit

Linked Scorecard Items

One of the scorecard item types that you can choose is Linked Item. This allows you to add a copy of an existing scorecard item to your scorecard. For example, you may want to reuse a KPI that's already being tracked in another organization, or maybe you want to create a theme scorecard that includes objectives from other organizations.

Whenever that source item is updated with new KPI values or scores, that information will instantly be reflected in your linked item.



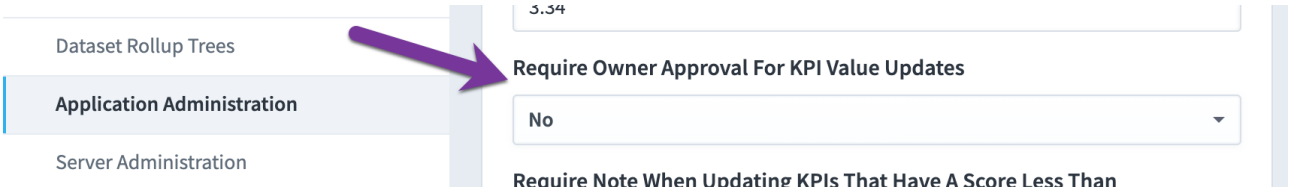
There are two things that make linked items unique from other scorecard items.

1. You need to choose where the source item is. In this example we're choosing the "Product Revenue" KPI from the "Financial" organization.
2. You need to choose what to pull from the source item. It's always going to reuse things like scores, actual values, and thresholds because that's the point of a linked item. But, you can choose to override things like the item's Name, or you can decide to not share Notes with the source item.

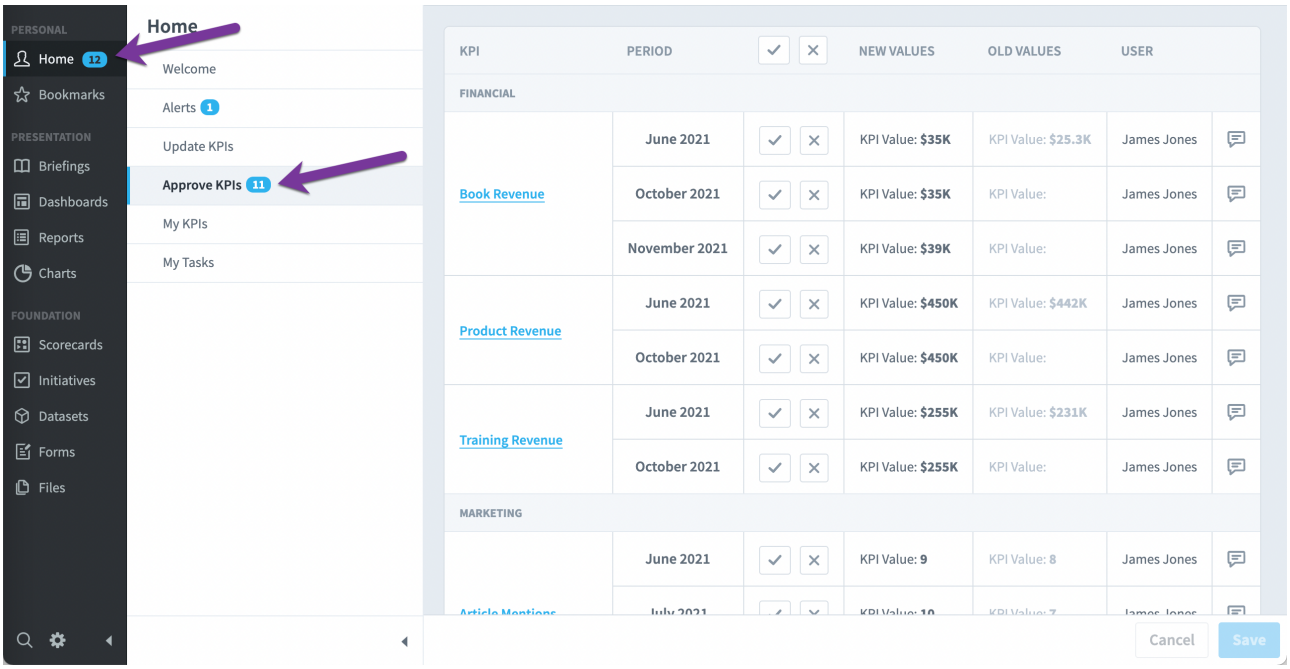
Approving KPI Value Updates

Overview

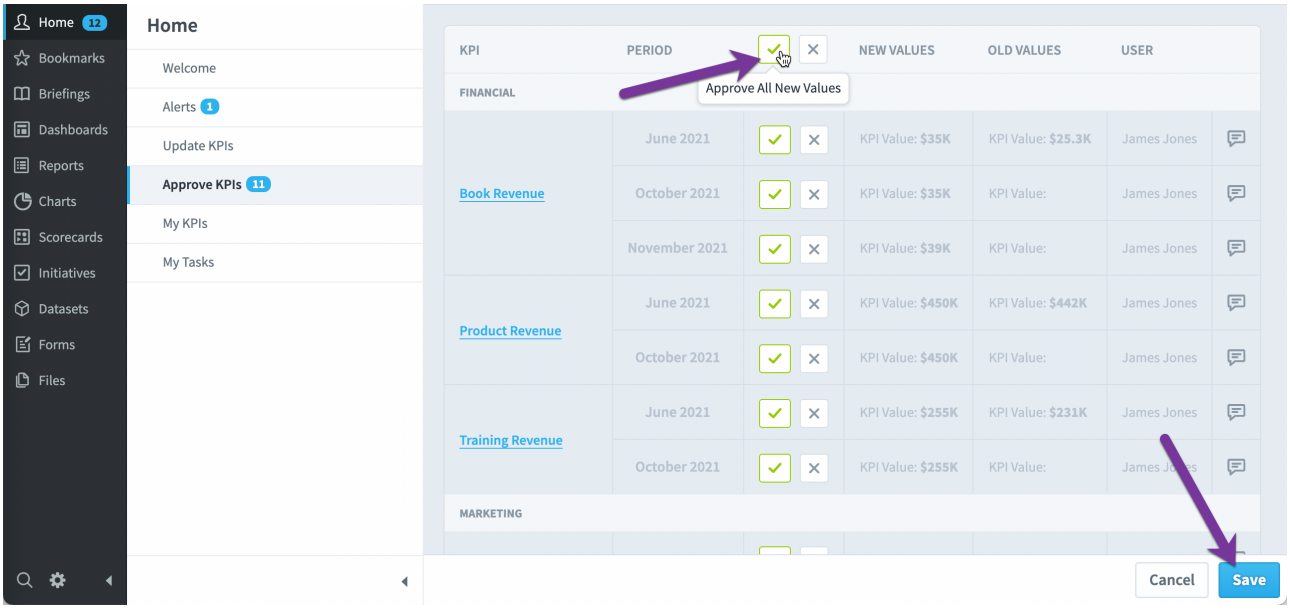
By default, the "Require Owner Approval For KPI Value Updates" application configuration setting defaults to off. This means all KPI updates take effect immediately.



When this setting is enabled, however 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.

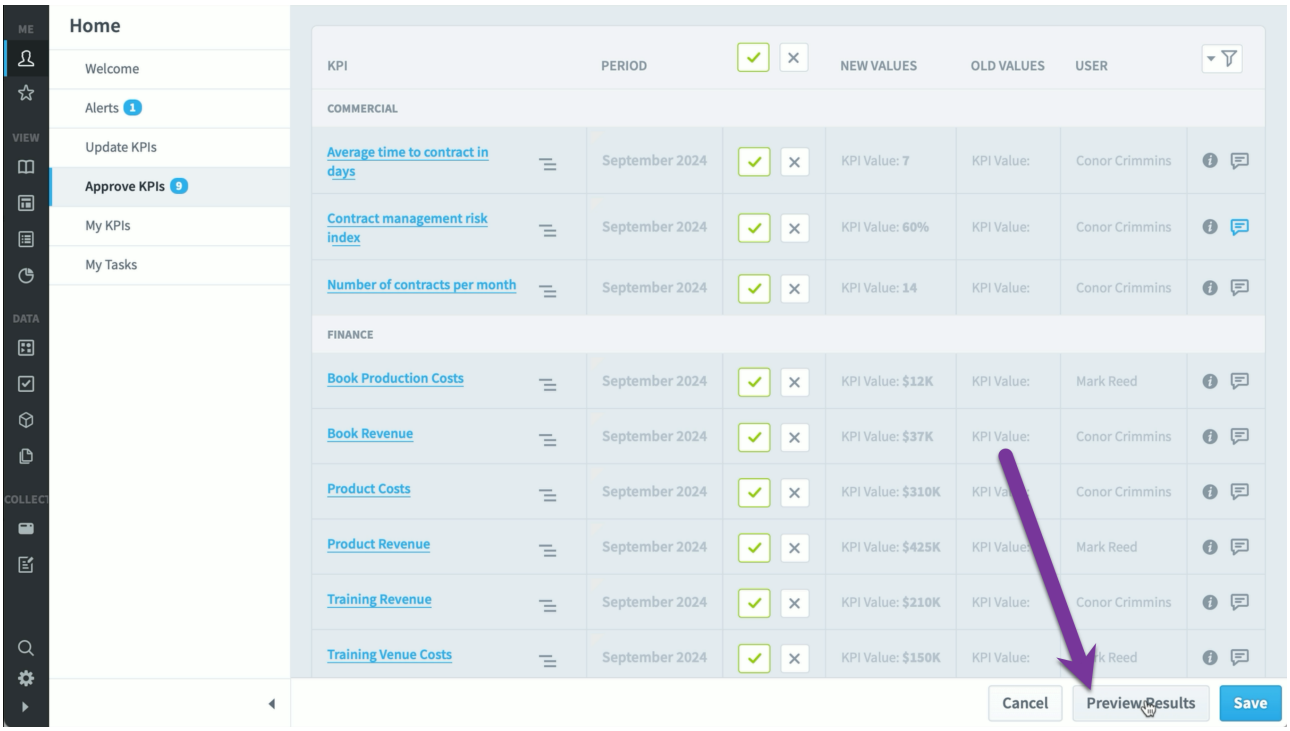


If a KPI has no owners, or if its only owner is the person who updated the KPI with a new value, the update will not go into the approval queue and will instead appear immediately.

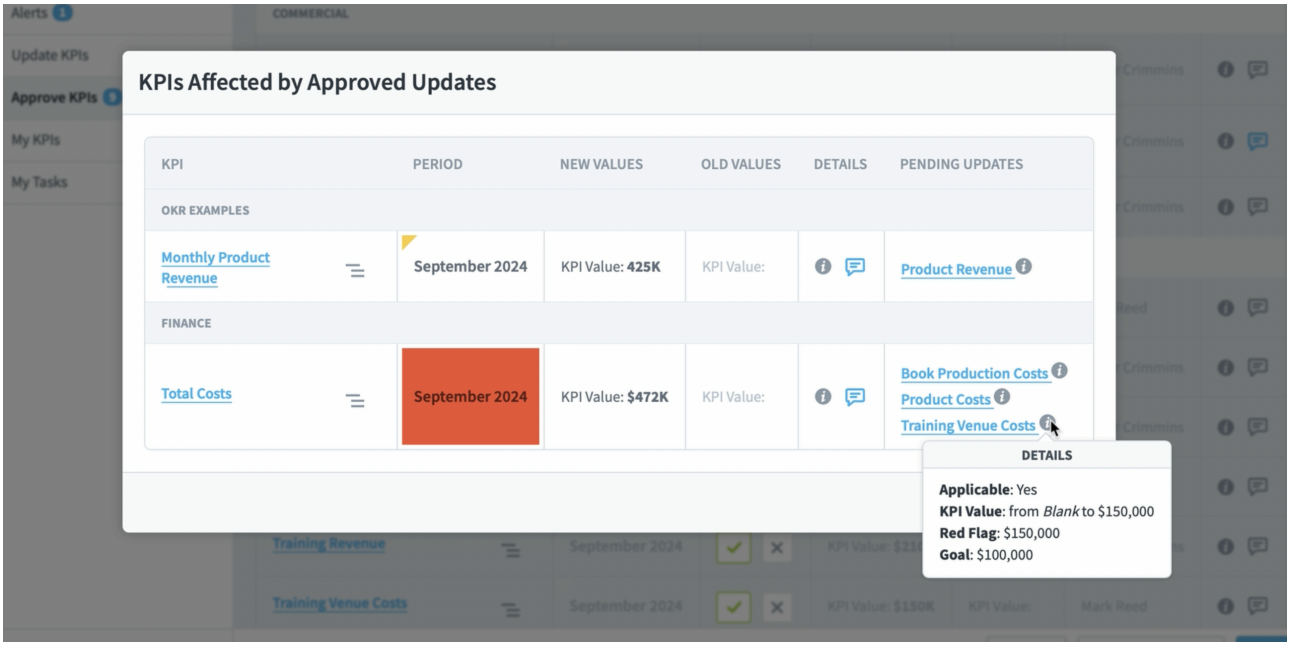
Previewing the results of pending updates

The "Require Owner Approval For KPI Value Updates" setting in Application Administration defaults off, but when enabled requires a KPI's owner to approve

value updates before they appear to everyone in the software. When approving these KPI values, there is now a "Preview Results" button.



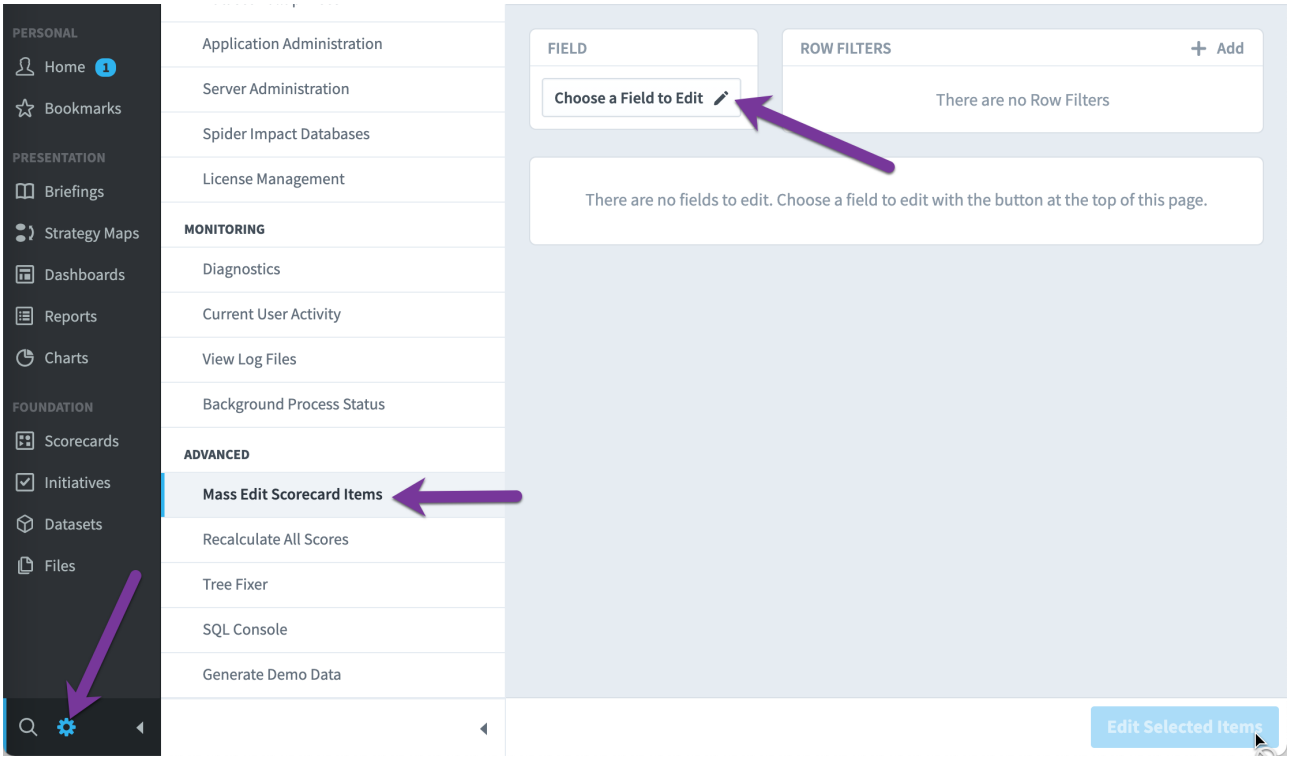
Clicking this button shows a dialog telling you what will happen if your pending approvals and rejections are saved. Each row represents a calculated KPI value affected by the pending updates. The far right column shows you which of the pending updates is affecting that calculated value. As you can see, hovering over the info icon shows the details of the pending updates.



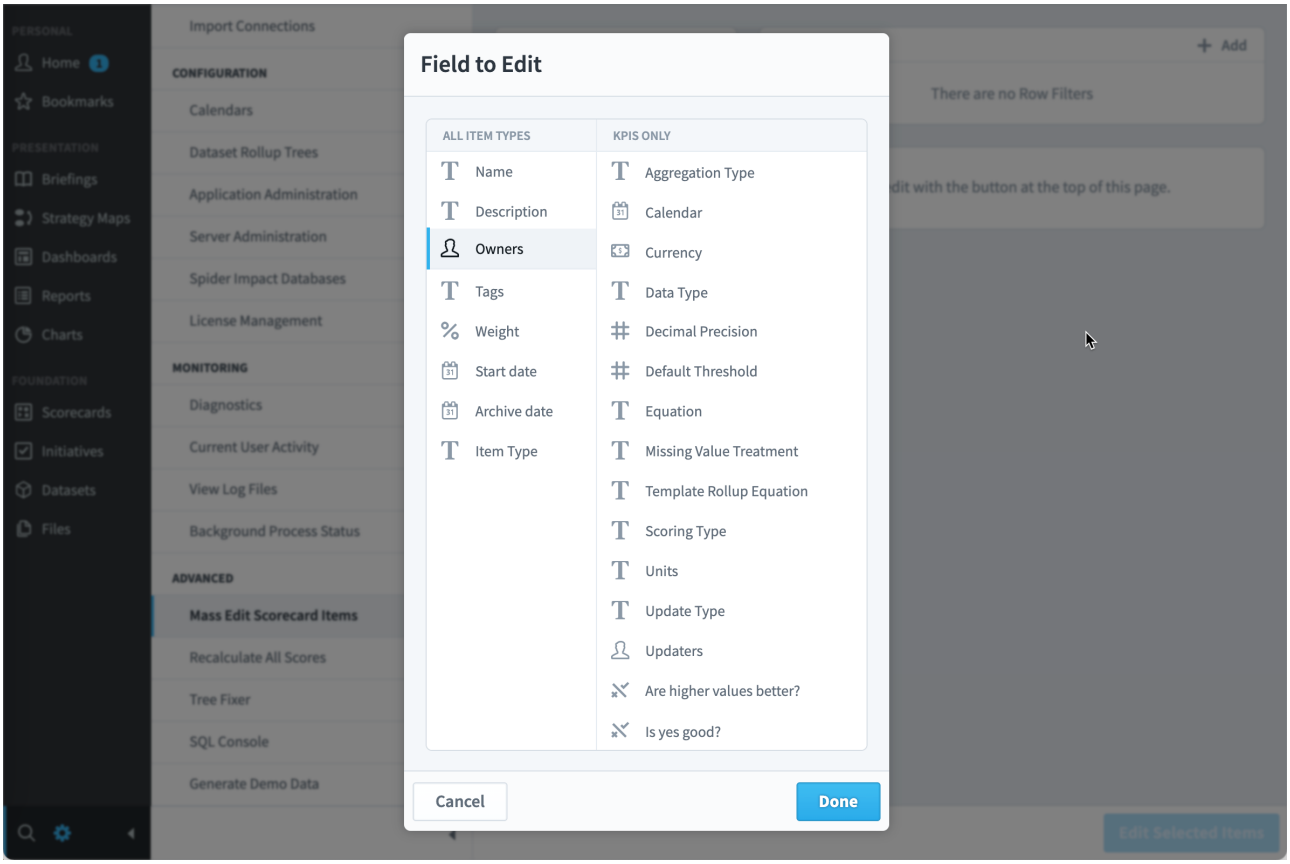
This ability to preview results allows a KPI owner to have full visibility into what will happen if KPI value updates are approved.

Editing Multiple Scorecard Items at Once

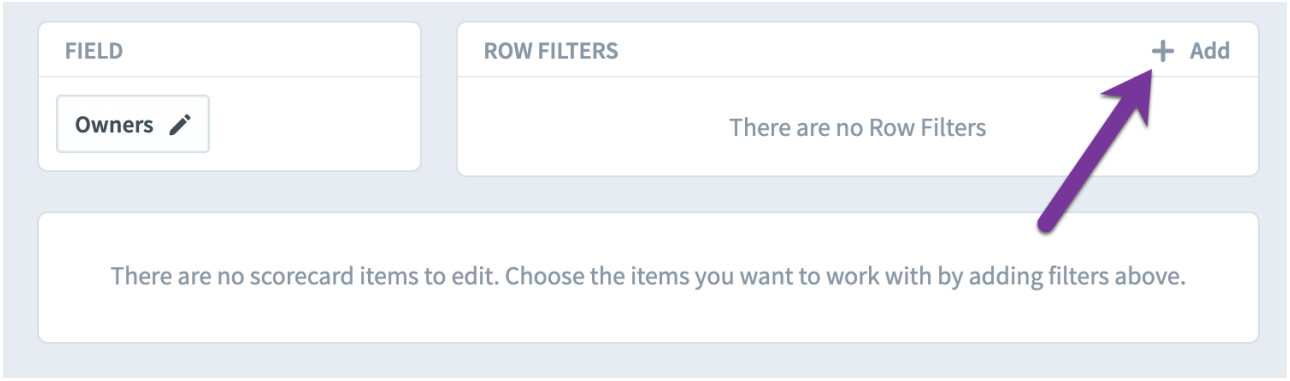
The mass-edit feature allows you to edit multiple scorecards at once, and it can save you a lot of time. To start, go to the Administration section, choose "Mass Edit Scorecard Items", and then click the “Choose a Field to Edit” button.



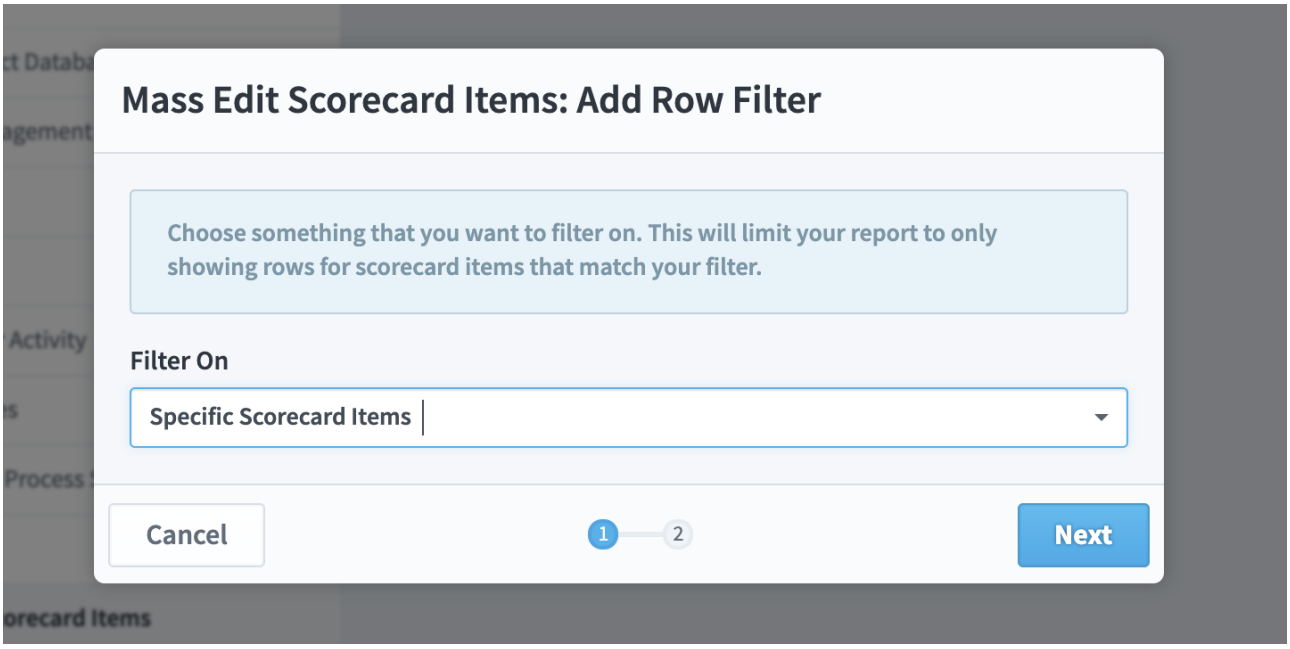
In this example we’ll choose Owners.



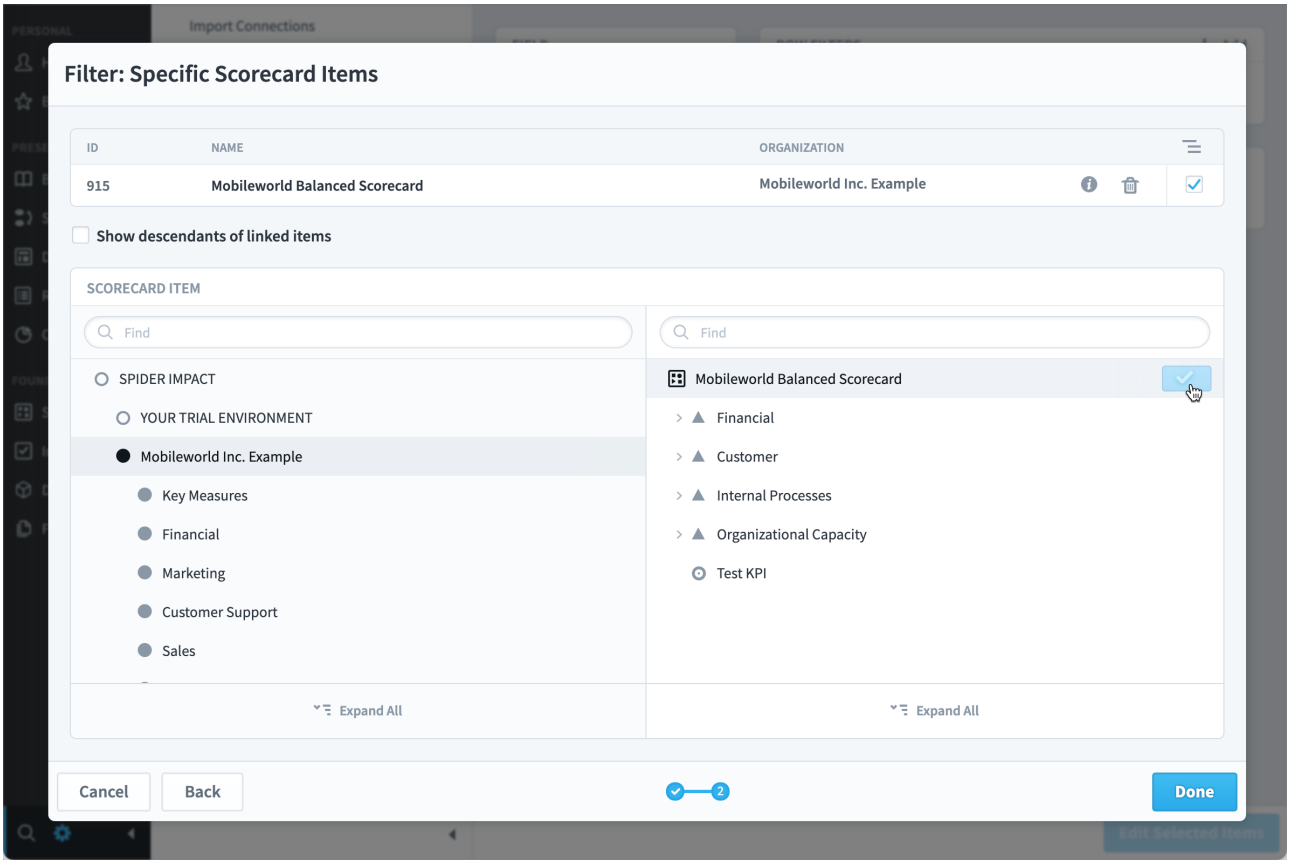
Next, we'll add a filter to choose which scorecard items show up to edit.



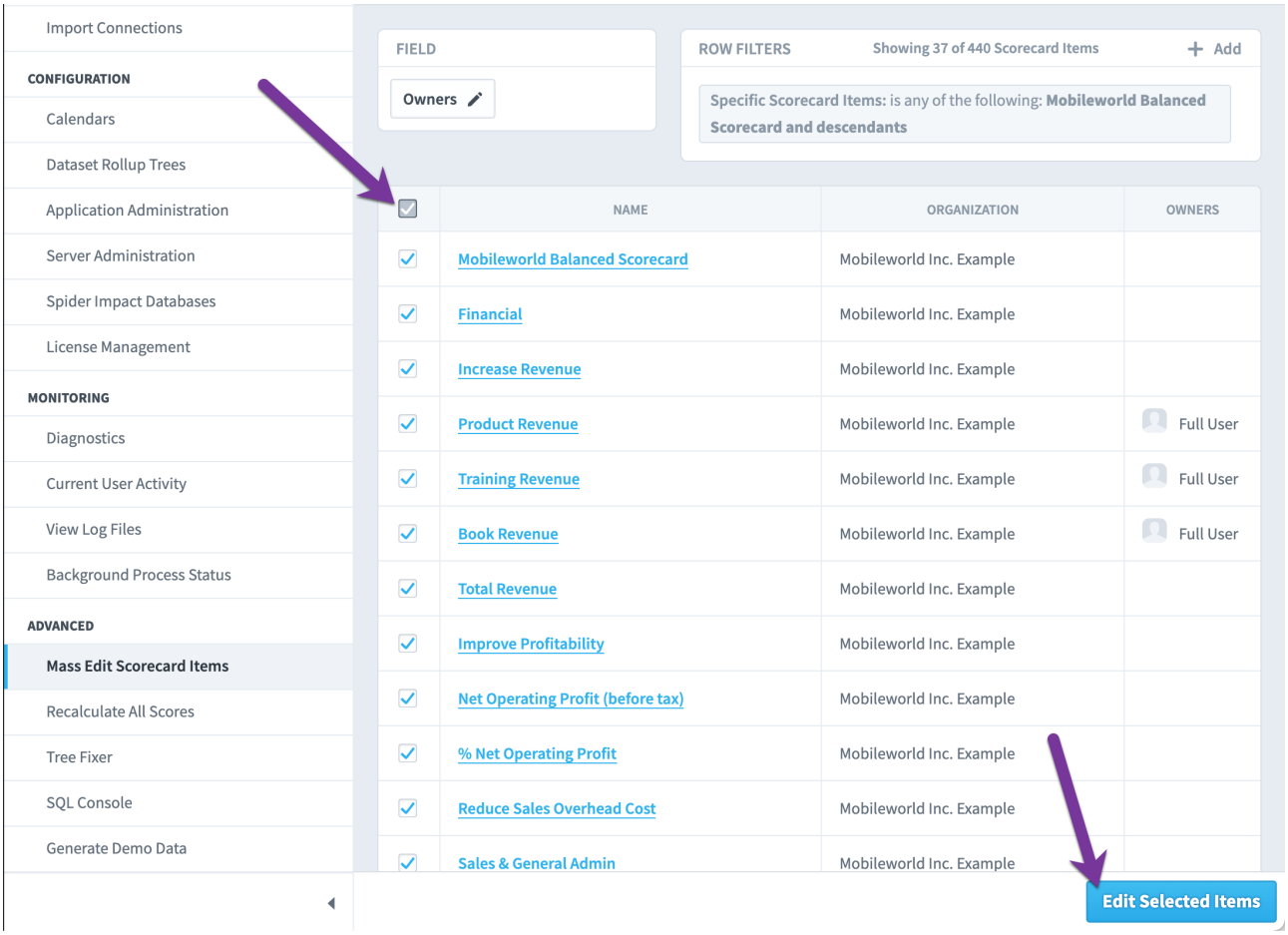
The default filter is "Specific Scorecard Items," and we'll use that here.



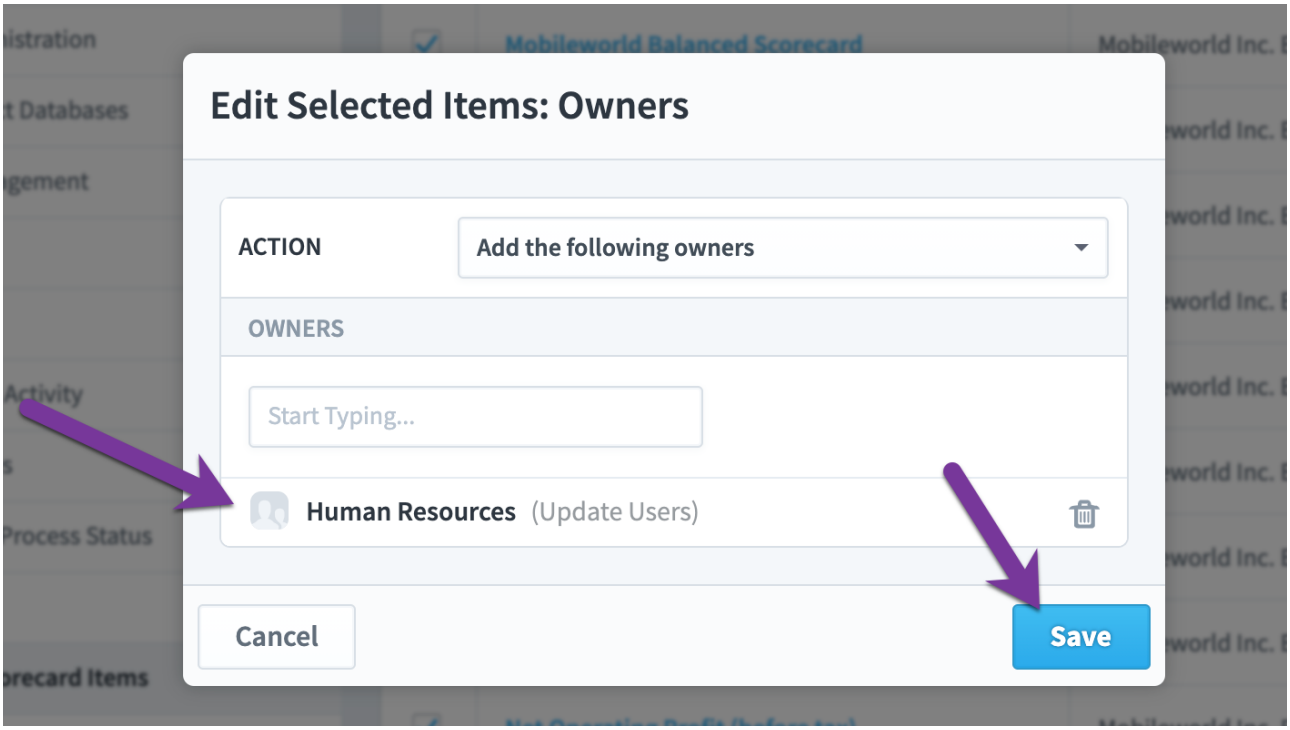
We'll add the entire "Mobileworld Balanced Scorecard" and click Done.



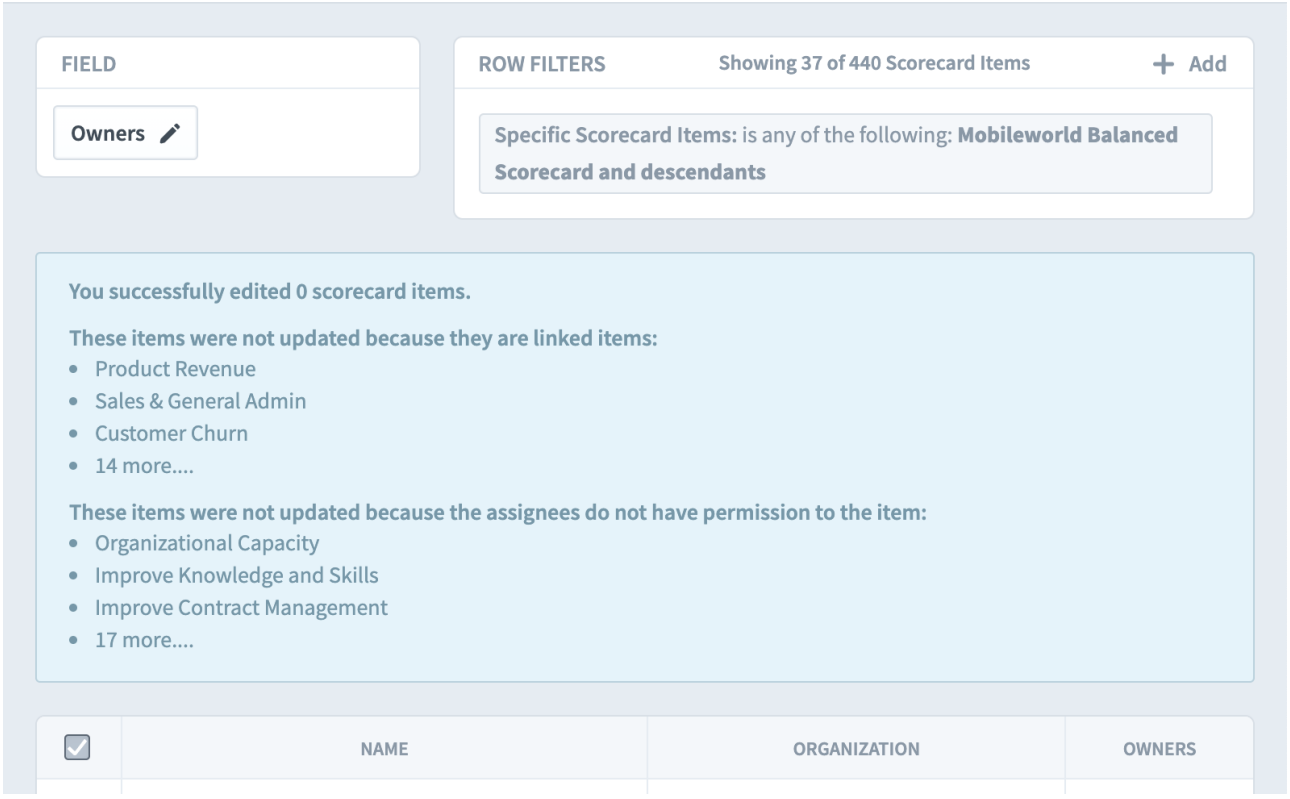
Now we can see all of the scorecard items for the Mobileworld Balanced Scorecard. You can edit a few at a time, but we're going to select all and click "Edit Selected Items".



We'll add the Human Resources group as owners.



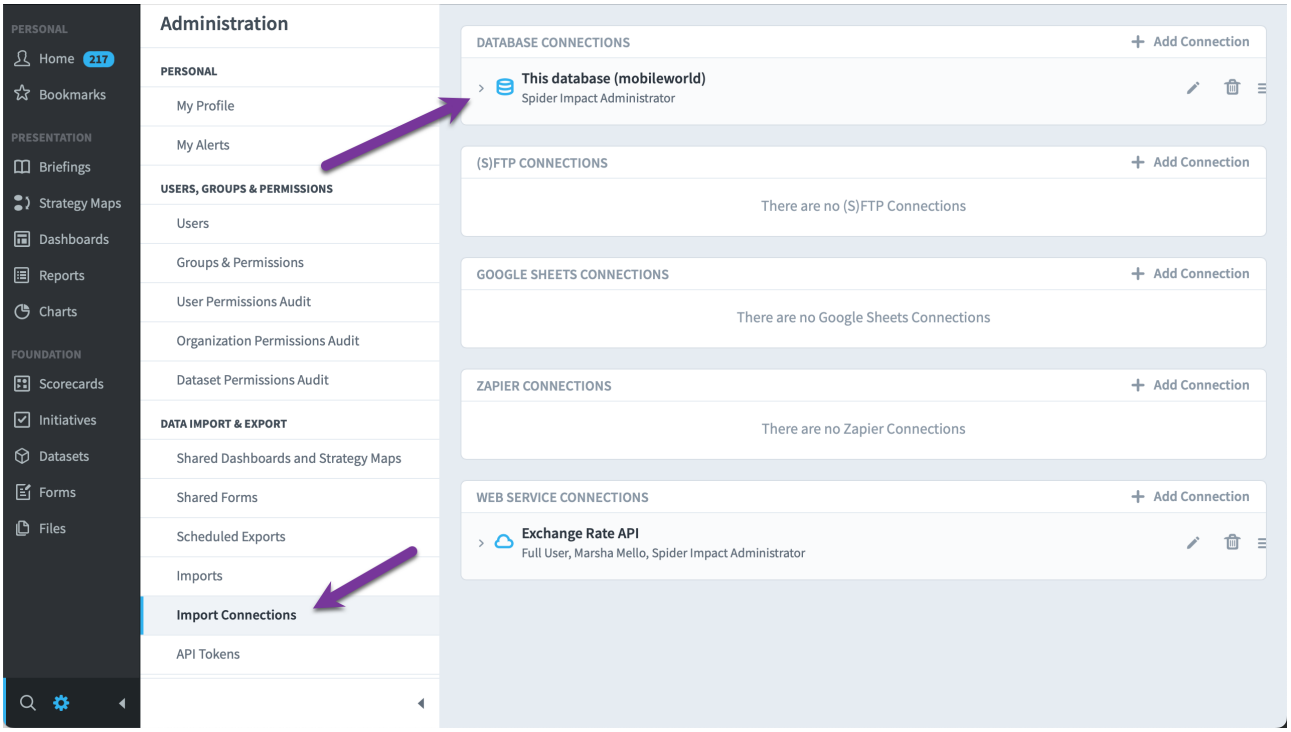
After clicking Save, we see a message summarizing all of the changes that were made. If some of the changes didn't work, it explains why as well.



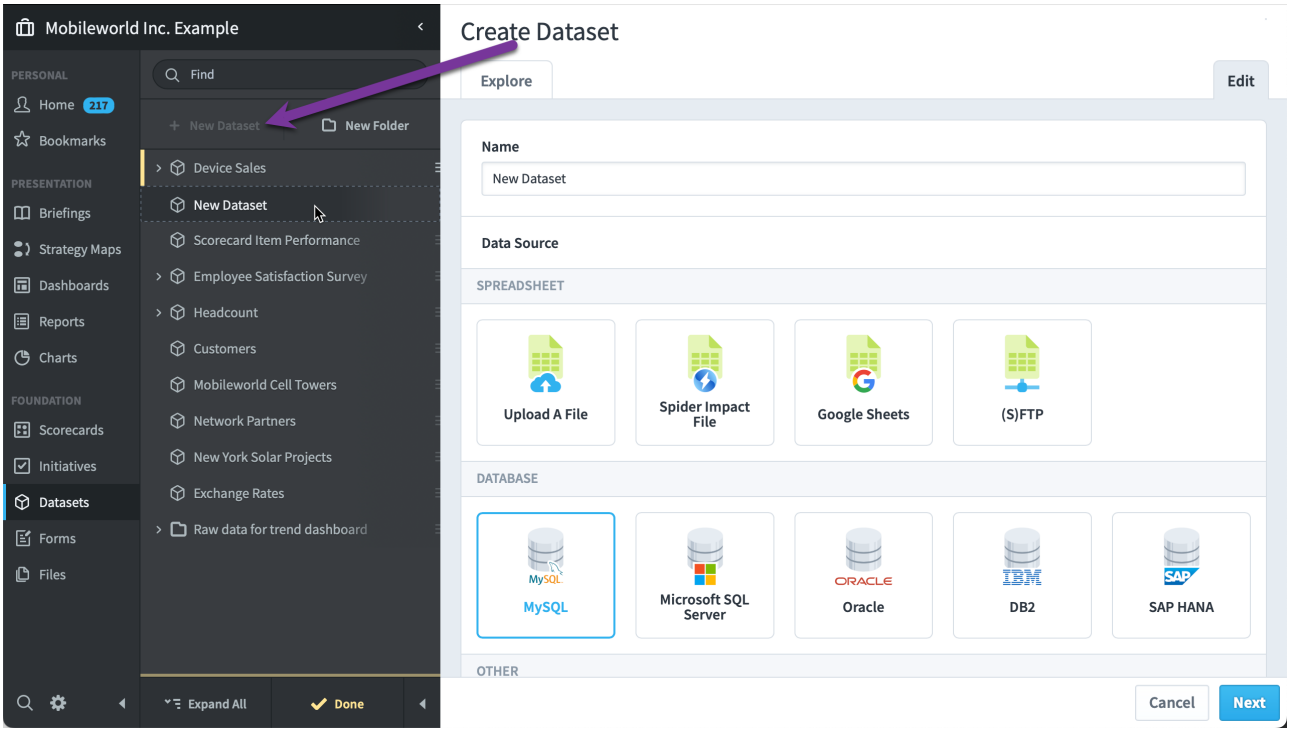
Counting Scorecard Item Colors

Counting the colors of your scorecard items can provide valuable insights into your organization's performance. While Spider Impact doesn't have a built-in feature for this, you can achieve it using a clever workaround with datasets. This article and accompanying video will show you how to set up self-referential datasets to count and analyze scorecard item colors, opening up new possibilities for tracking and reporting on your KPIs.

First you need to set up an import connection to your Spider Impact database. If you're a hosted customer, please contact support and we'll get it set up for you.



Next you create a dataset based on that import connection.

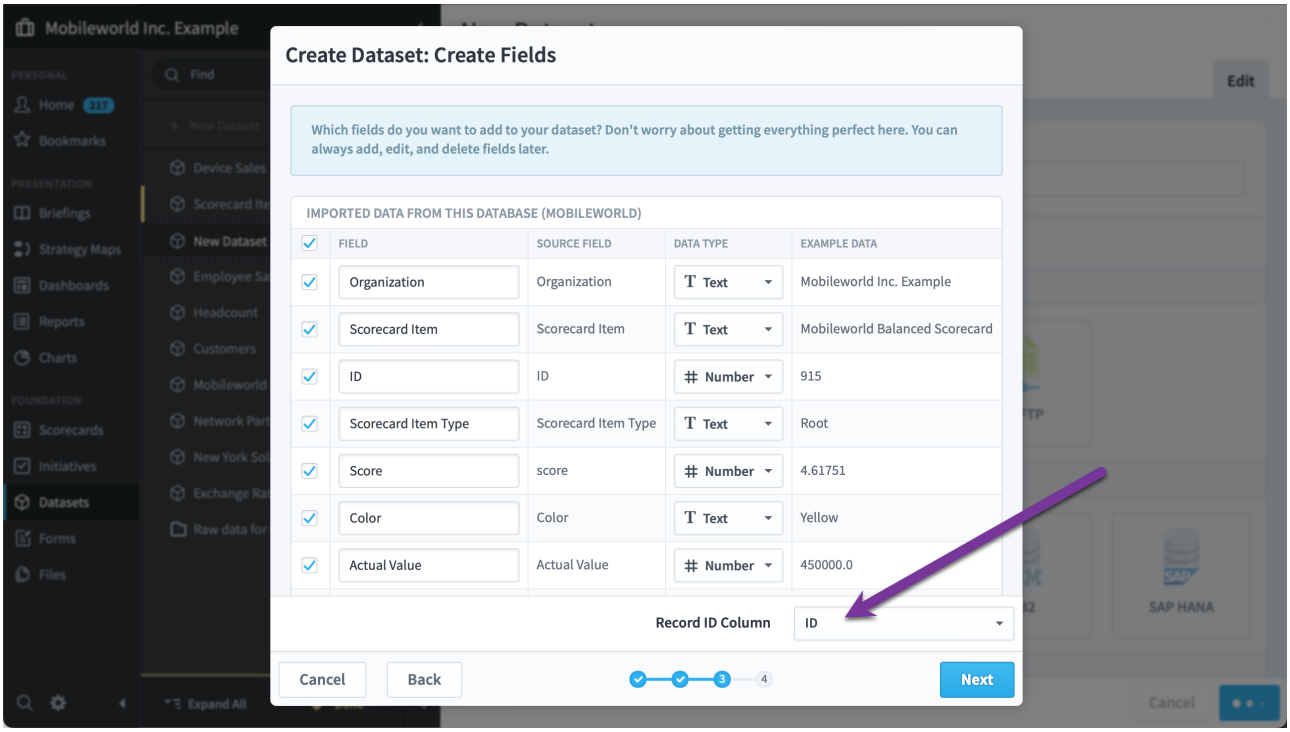


This is the SQL to use in the import connection:

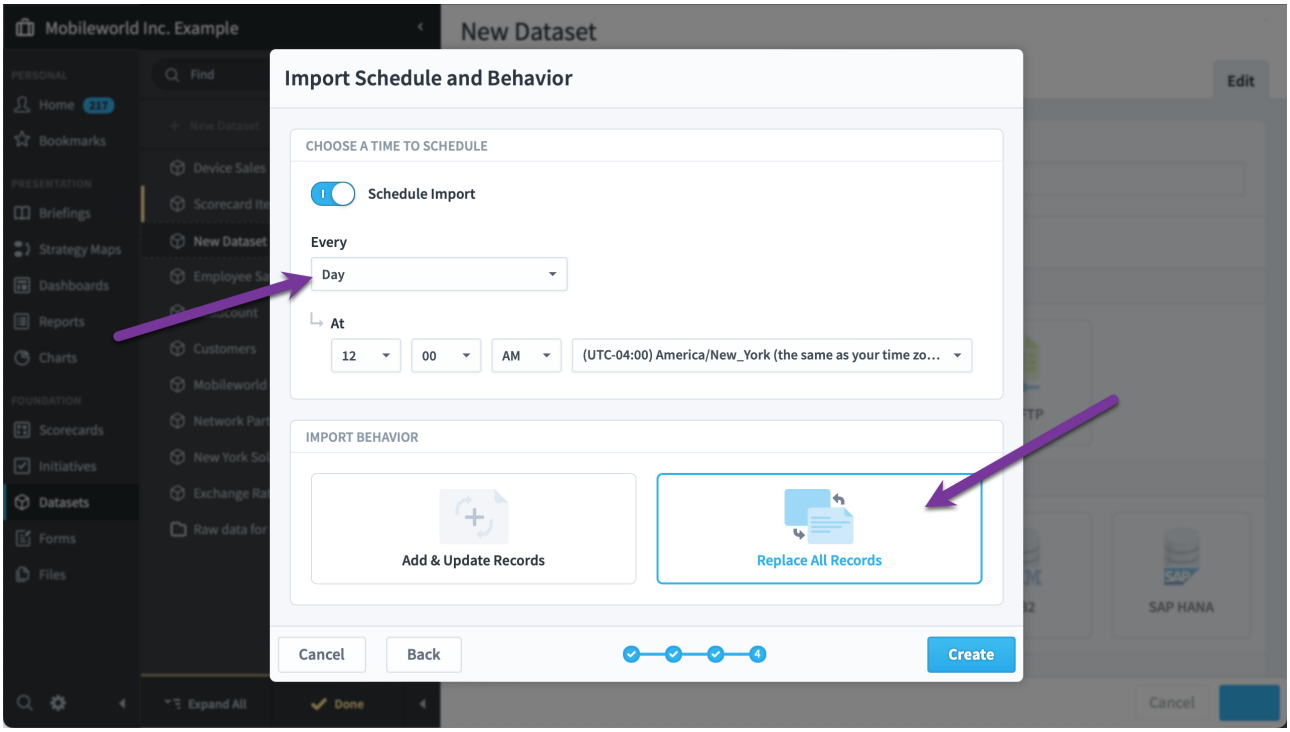
```
SELECT
org.organizationnodename AS 'Organization',
sn.scorecardnodename AS 'Scorecard Item',
sn.scorecardnodeid AS 'ID',
CASE sn.nodetype
WHEN 0 THEN 'Root'
WHEN 1 THEN 'Generic'
WHEN 2 THEN 'Perspective'
WHEN 3 THEN 'Objective'
WHEN 4 THEN 'Metric'
WHEN 5 THEN 'Linked'
WHEN 6 THEN 'Docking'
ELSE 'Unknown'
END AS 'Scorecard Item Type',
score.score,
CASE HEX(score.color)
WHEN '00A9C3' THEN 'Turquoise Dark'
WHEN '60CBDB' THEN 'Turquoise'
WHEN 'CDE9FA' THEN 'Blue Light'
WHEN '0074BB' THEN 'Blue Dark'
WHEN '1A94DA' THEN 'Blue'
WHEN 'CCF3F9' THEN 'Turquoise Light'
WHEN '3654D4' THEN 'Periwinkle Dark'
WHEN '839AFF' THEN 'Periwinkle'
WHEN 'C4CFFF' THEN 'Periwinkle Light'
WHEN '6D1DB8' THEN 'Purple Dark'
WHEN 'AD5AFA' THEN 'Purple'
WHEN 'DBB5FF' THEN 'Purple Light'
```

```
WHEN 'A31DB8' THEN 'Fuchsia Dark'
WHEN 'E55BFA' THEN 'Fuchsia'
WHEN 'F5B5FF' THEN 'Fuchsia Light'
WHEN 'C93C20' THEN 'Red Dark'
WHEN 'F25131' THEN 'Red'
WHEN 'F7A695' THEN 'Red Light'
WHEN 'EB6600' THEN 'Orange Dark'
WHEN 'FF8800' THEN 'Orange'
WHEN 'FFC889' THEN 'Orange Light'
WHEN 'EBB000' THEN 'Yellow Dark'
WHEN 'FBCC3B' THEN 'Yellow'
WHEN 'FBE499' THEN 'Yellow Light'
WHEN '619900' THEN 'Green Dark'
WHEN '96CD00' THEN 'Green'
WHEN 'CAE779' THEN 'Green Light'
WHEN '2D3640' THEN 'Gray Darker'
WHEN '8E9699' THEN 'Gray Dark'
WHEN 'BCC2C4' THEN 'Gray'
WHEN 'D7DEE0' THEN 'Gray Light'
WHEN 'EDEDED' THEN 'Gray'
WHEN '98A3B3' THEN 'Slate'
WHEN 'ABBFD8' THEN 'Infantry Blue'
WHEN 'FFFFFF' THEN 'White'
ELSE 'Unknown'
END AS 'Color',
score.actualvalue AS 'Actual Value',
nativecal.calendarname AS 'Native Calendar'
FROM
calendars currentcal
JOIN calendarperiods currentperiod ON currentperiod.calendarid = currentcal.ca
JOIN scorecardnodescores score ON score.calendarperiodid = currentperiod.calen
JOIN scorecardnodes sn ON sn.scorecardnodeid = score.scorecardnodeid
JOIN scorecardnodes rootsn ON rootsn.scorecardnodeid = sn.scorecardrootnodeid
JOIN organizationnodes org ON org.organizationnodeid = rootsn.organizationnode
LEFT JOIN calendars nativecal ON nativecal.calendarid = sn.calendarid
WHERE
currentcal.standardcalendartype = 3
AND YEAR(enddate) = YEAR(CURRENT_DATE - INTERVAL 1 MONTH)
AND MONTH(enddate) = MONTH(CURRENT_DATE - INTERVAL 1 MONTH)
```

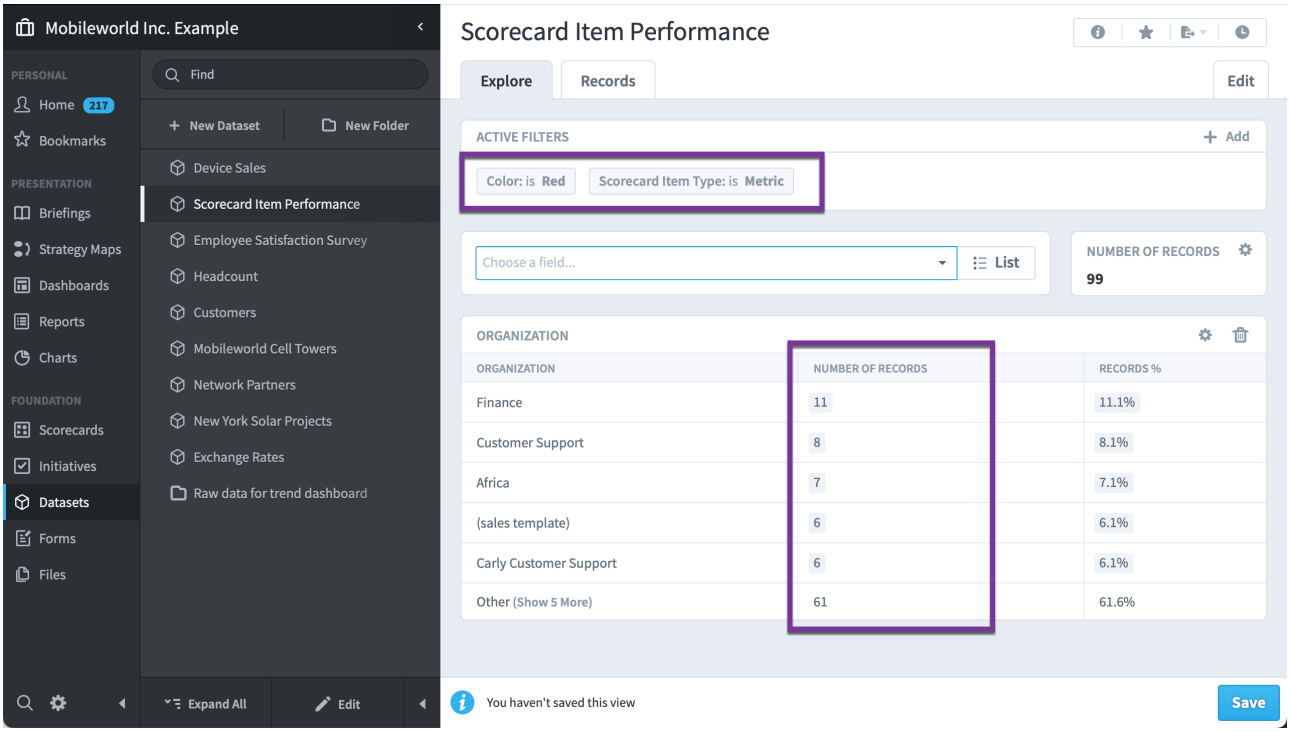
As you can see here, this will create one dataset record for the current monthly performance of all scorecard items with columns like the organization, the scorecard item, the score, etc. We'll use ID for the record ID column.



We'll set it up to import new data every night at midnight, and we'll choose to replace all records.



When we're done we have a dataset that we can explore to get quick answers about our scorecard item performance. For example, here I've added a filter to show only the 99 red KPIs, and we're breaking them down by organization.



From here you can do all kinds of things, like create a dataset KPI to track the percent of red KPIs every month so you can track your color counts over time. Or, you can write a report counting the objectives of each color for every organization. You can even create dashboards showing how many items of each color you have.

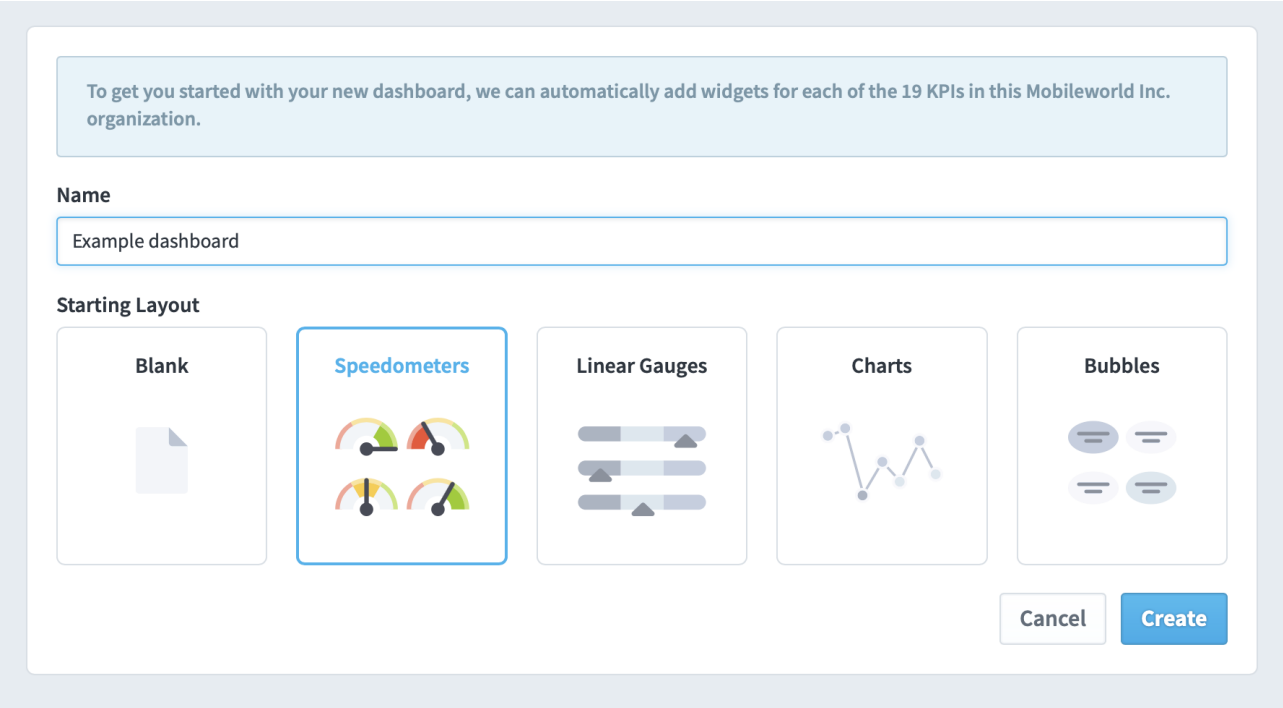
We've created a video to walk you through the process and to show you a few possibilities.

Dashboards

Building Dashboards

Creating a Dashboard

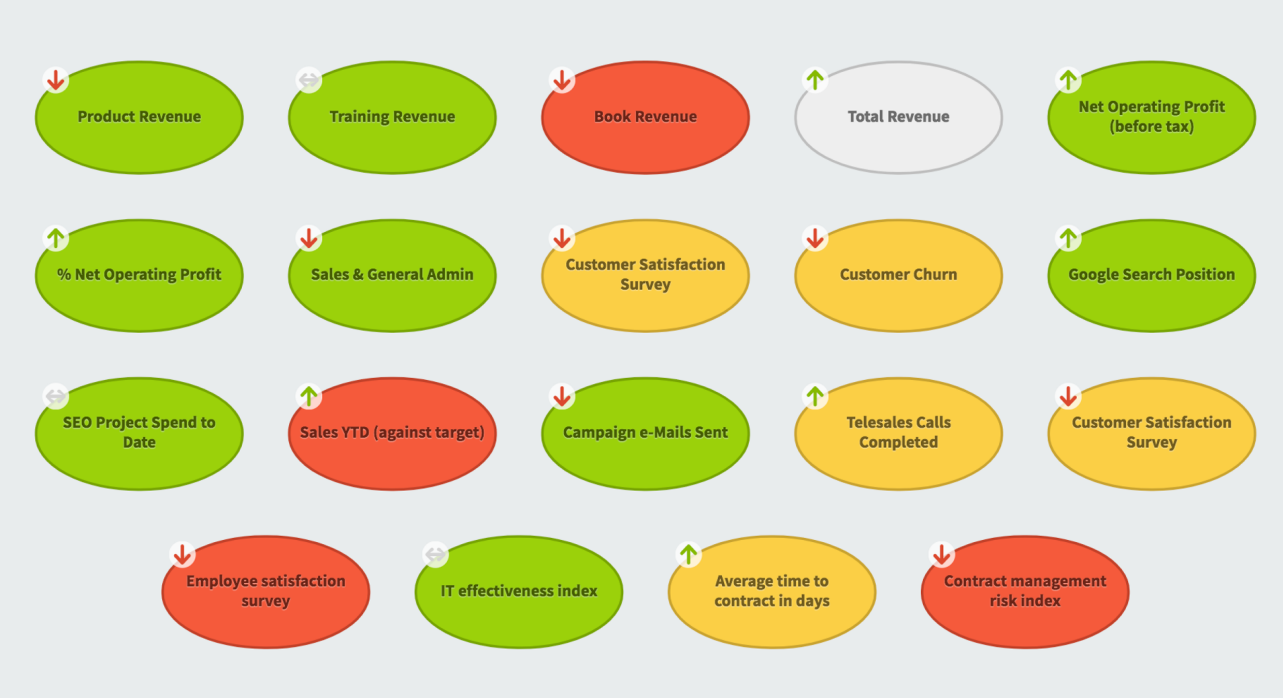
New dashboards default to Blank, but you also have the option to automatically add widgets for each KPI in the organization. This can be a great starting point for building KPI dashboards.



In this example, we've selected speedometers, and when you click "create," the new dashboard starts with a speedometer for every KPI in the organization.

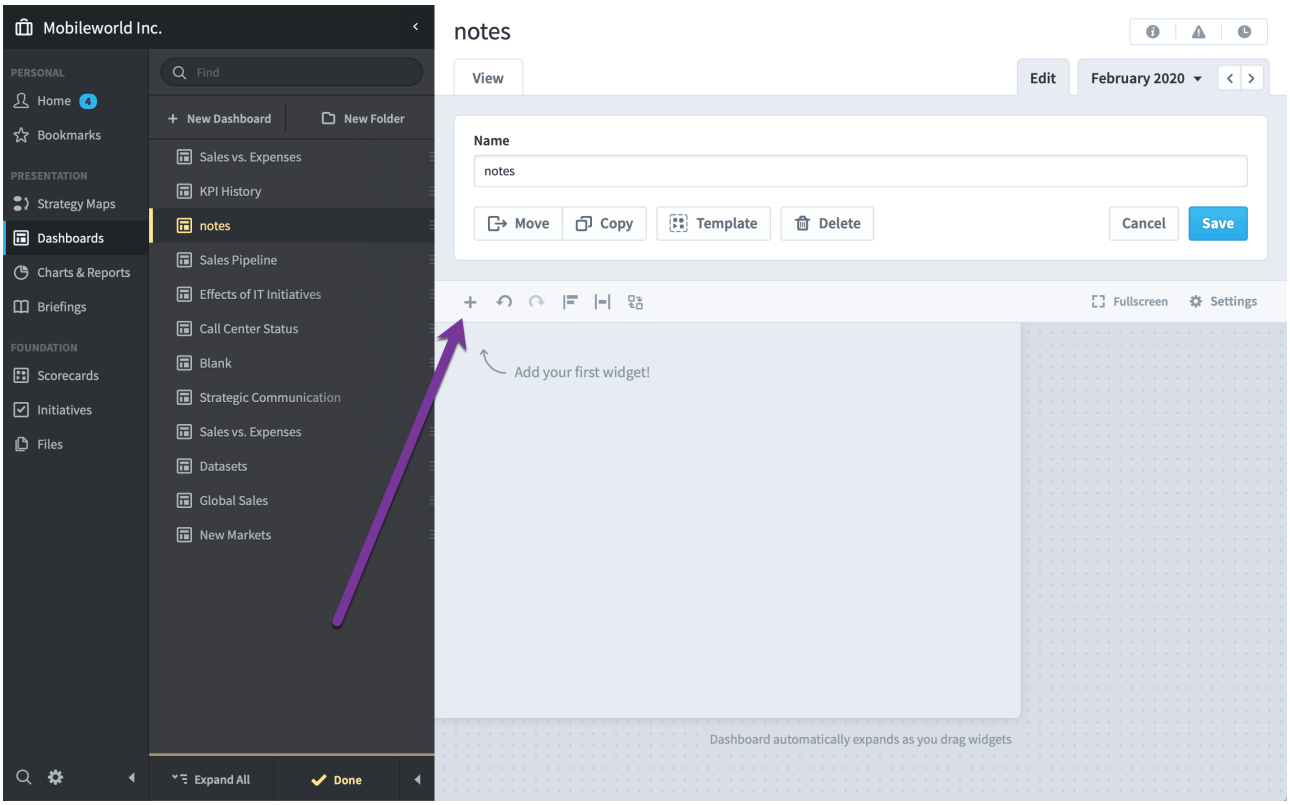


This is what the dashboard would have looked like if we had chosen bubbles.

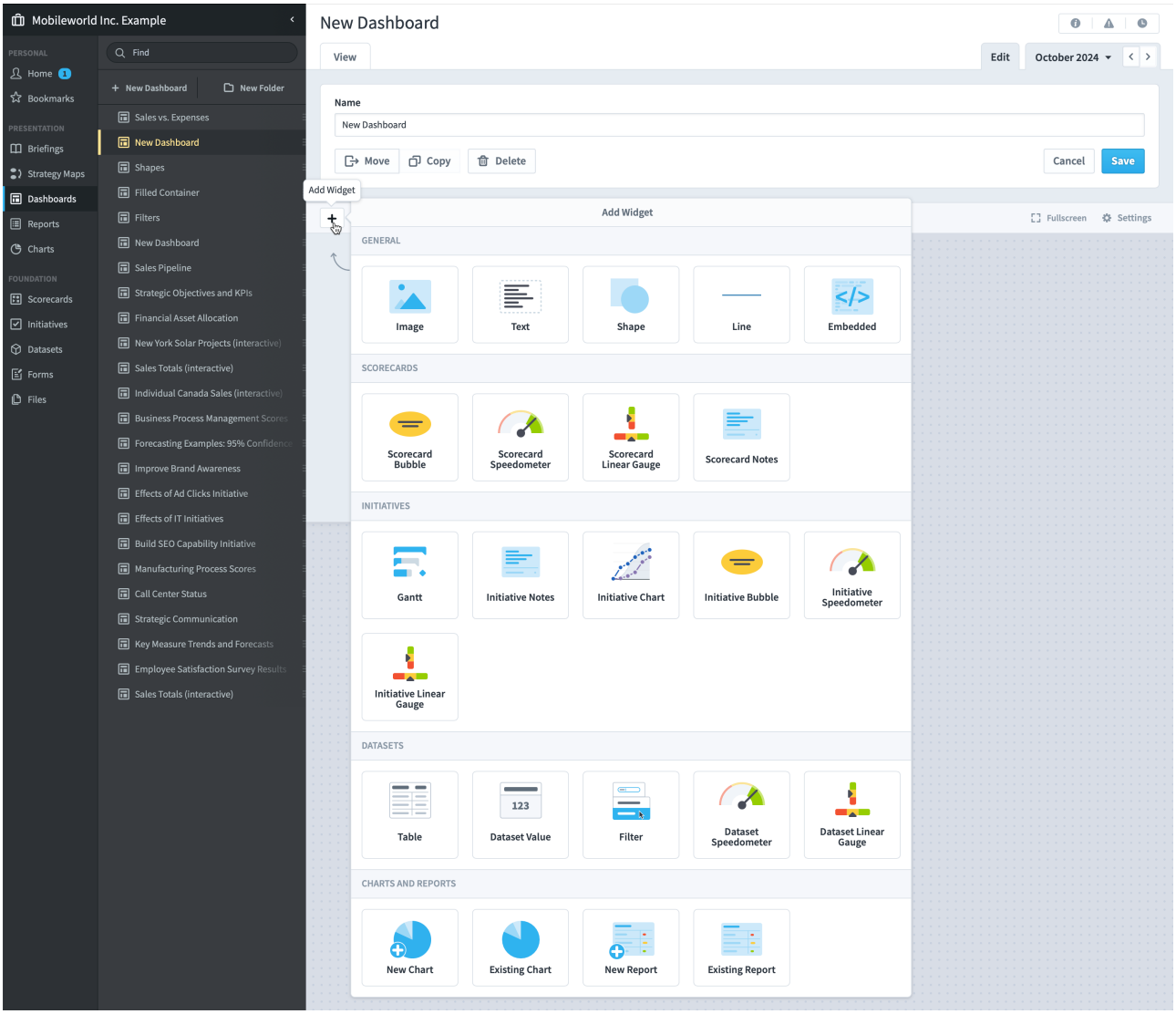


Adding Widgets

To add a widget, click the *Add Widget* button in the button row.



This shows the *Add Widget* menu, where you can choose what you want to add to your dashboard.



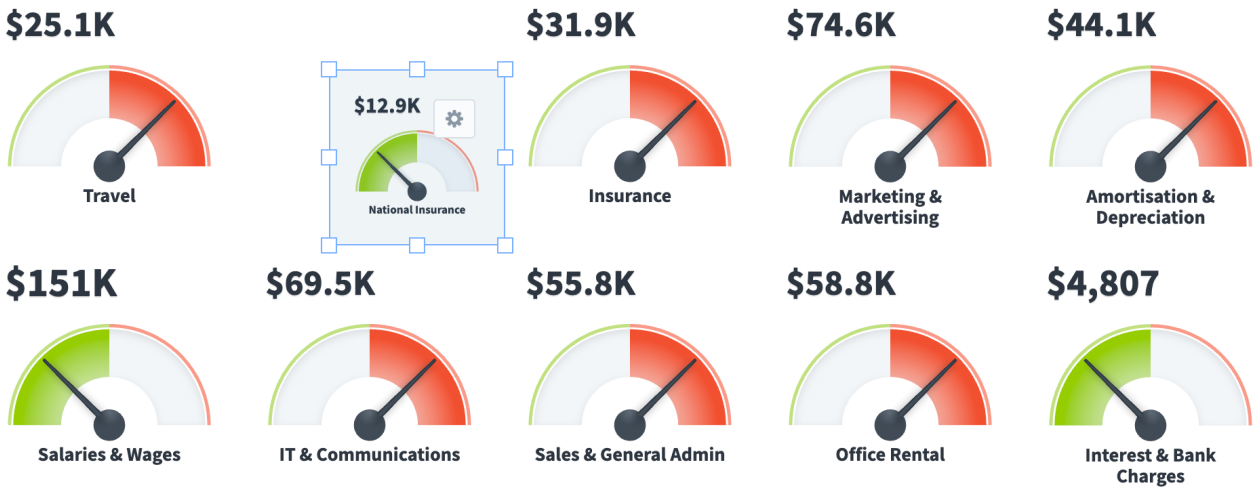
Each type of widget has unique configuration options, many of which are discussed in separate articles.

- Image
- Text
- Shape, Bubble, and Value
- Line
- Embedded
- Speedometer and Linear Gauge
- Notes
- Gantt

- Initiative Chart
- Dataset
- Chart and Report

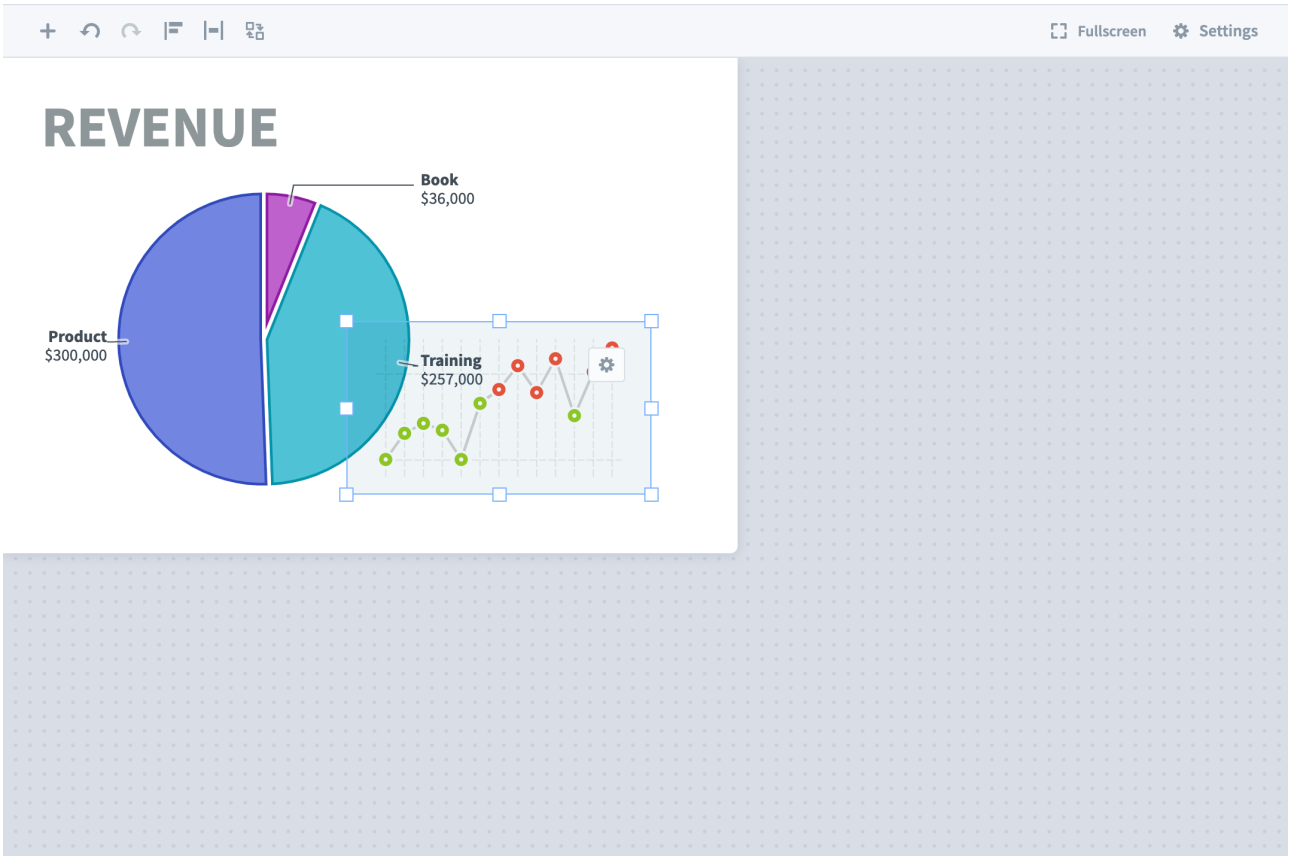
Arranging Widgets

Editing a dashboard is a lot like editing a PowerPoint slide. You can drag and resize dashboard widgets to create any layout you want. See the Widget Spacing, Alignment, and Sizing article for more information.

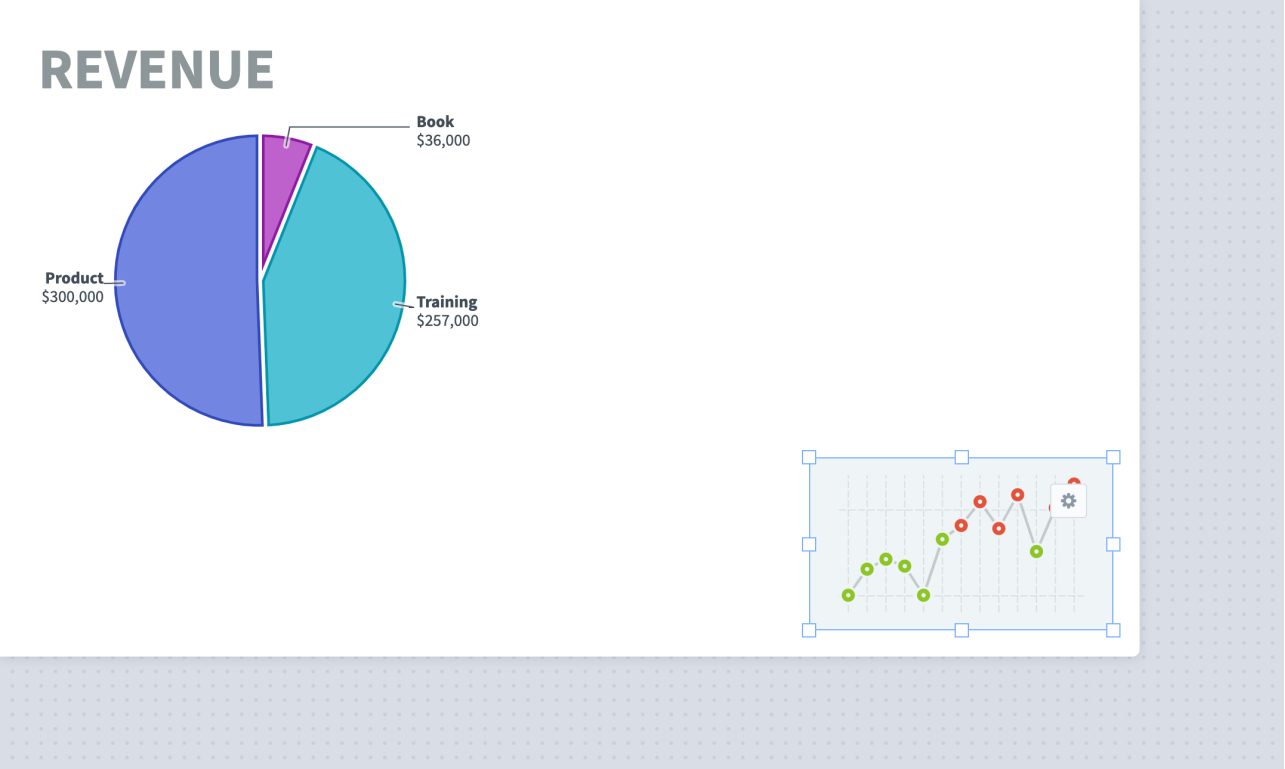


Automatically Resizing Canvas

Your dashboard canvas will automatically expand as wide as you want it to be. For example, we can start dragging this chart here:



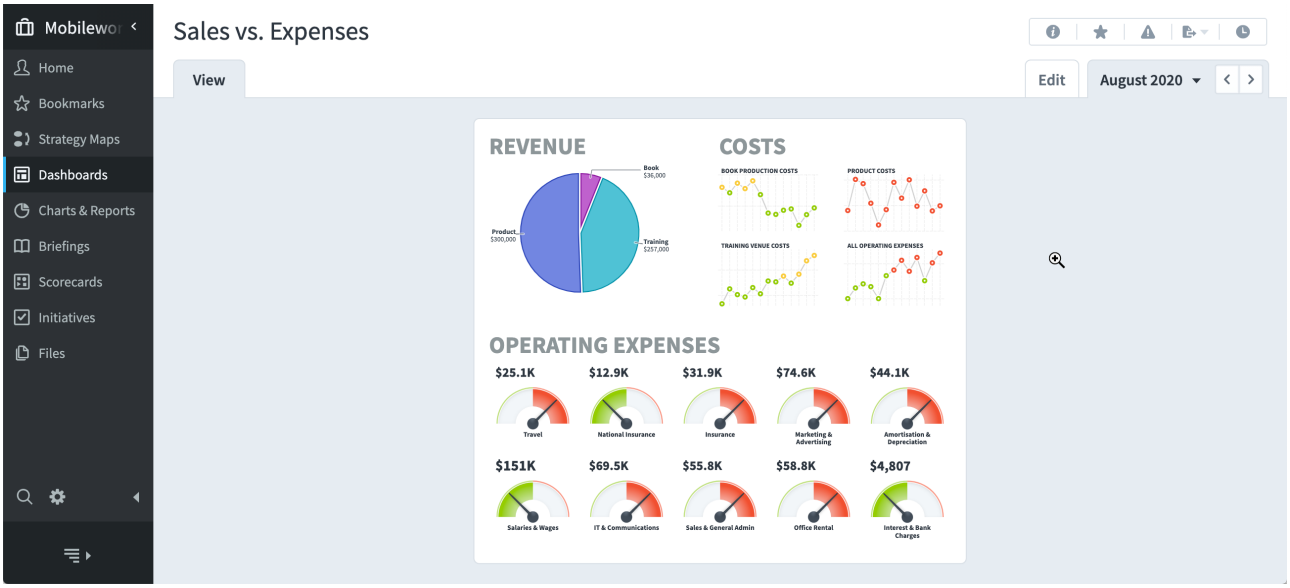
And then watch the canvas grow as we drag it away from the pie chart.



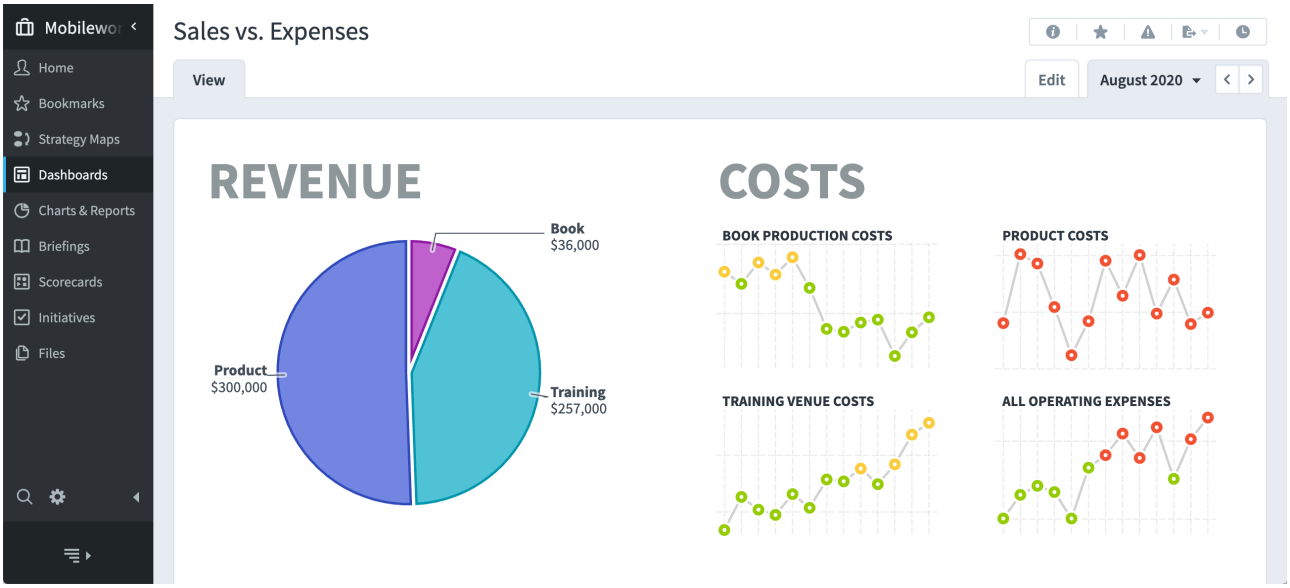
When you're viewing your dashboard, the size of your canvas doesn't matter. Spider Impact automatically zooms the dashboard so that it fits on screen. This is a lot like how PowerPoint presentations never have scroll bars during the presentation, but they do when editing.



Here we've made the browser very short and the dashboard resizes to fit.



Of course you can always click on the space around the dashboard to zoom in. Clicking again will zoom you back out.



Aspect Ratio

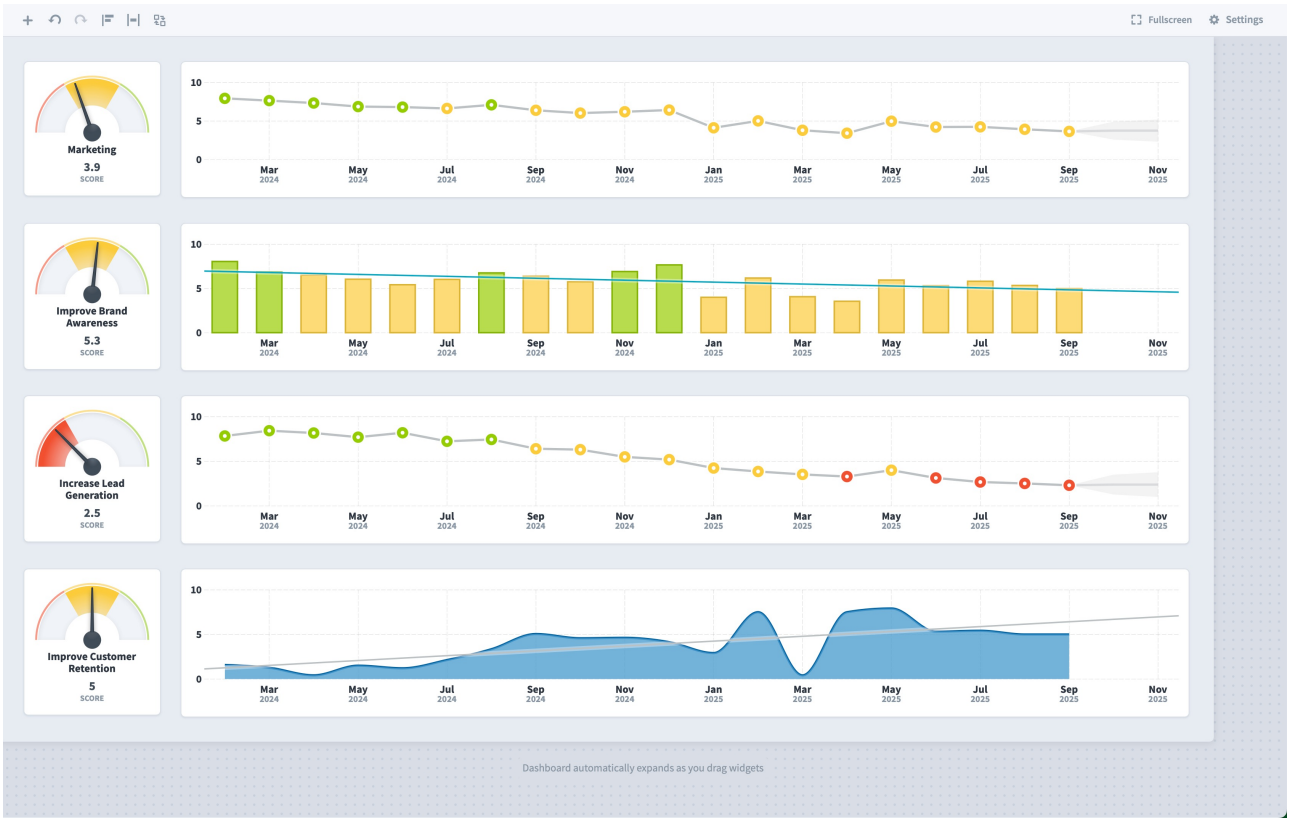
By default, dashboards automatically adjust in both height and width based on where you place widgets.



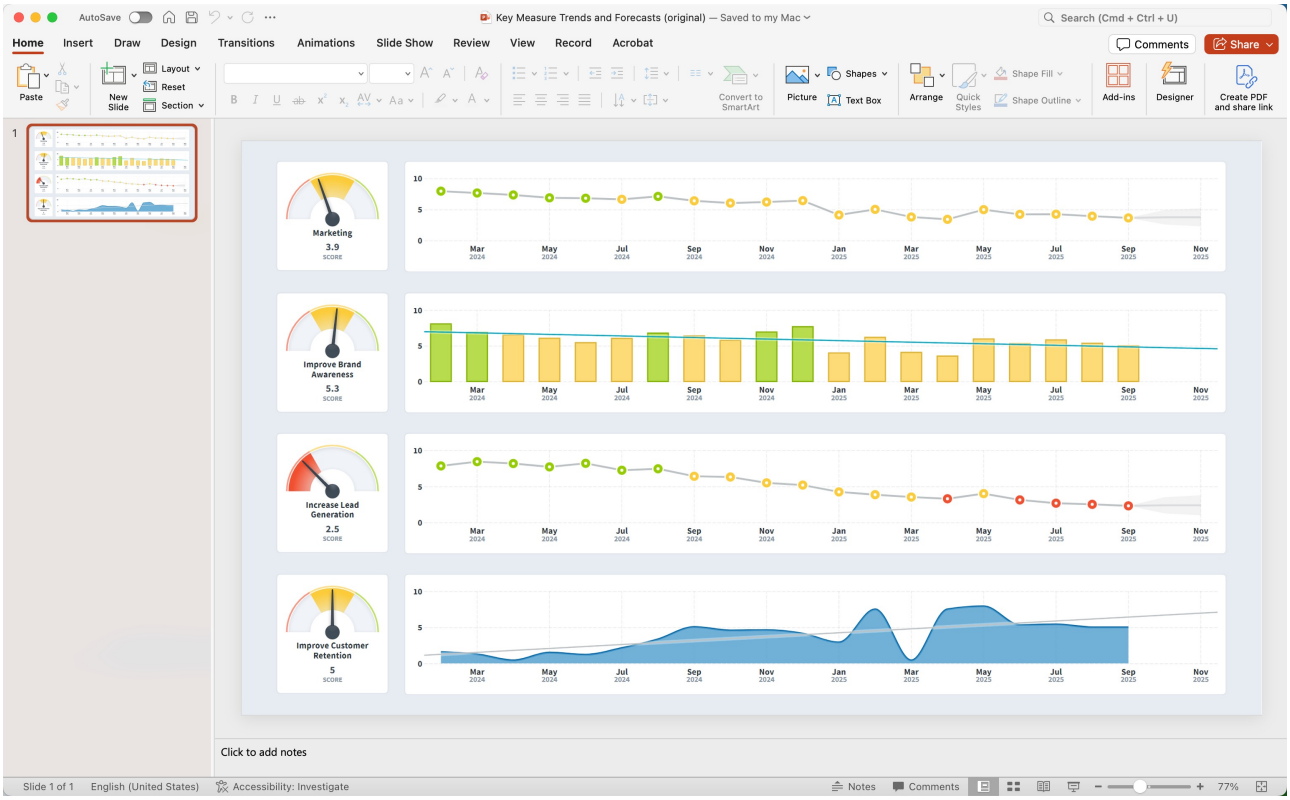
If you choose an aspect ratio of "Widescreen (16:9)" or "Standard (4:3)", however, the dashboard canvas continues to adjust in size based on your widget placement, but its overall height to width proportions are locked in place. As you drag widgets to expand the dashboard, both dimensions adjust proportionally to preserve your chosen aspect ratio. Here we've chosen Widescreen and now see empty space on the right of the dashboard.



This eliminates the trial-and-error process of creating dashboards for specific presentation formats. We're able to quickly rearrange our widgets to best take advantage of this specific aspect ratio.

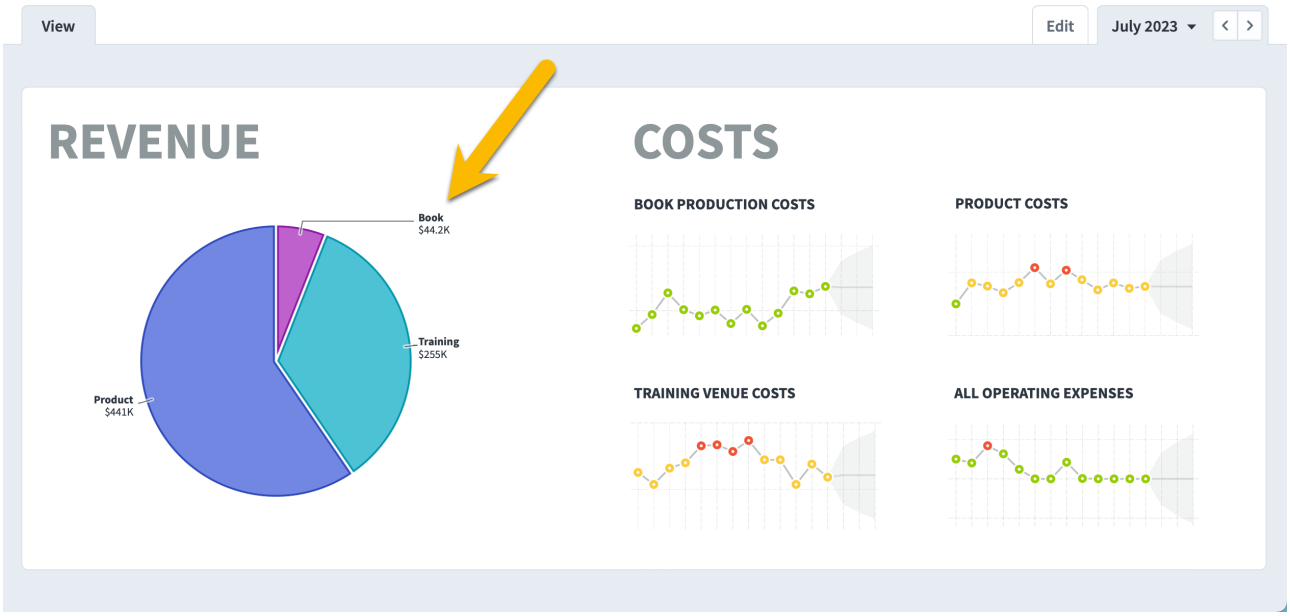


And when we export to PowerPoint, our dashboard fits perfectly on a widescreen PowerPoint slide without any empty space around the edges.

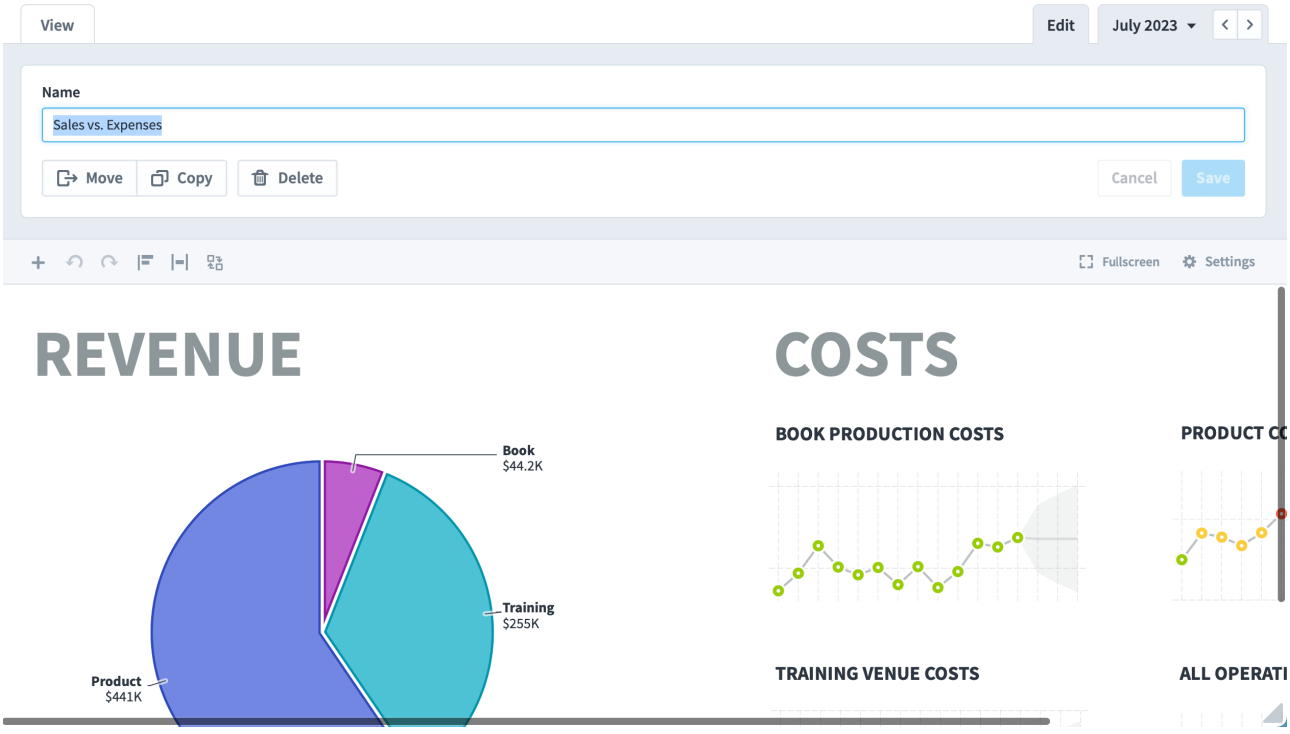


Font Size Appearance

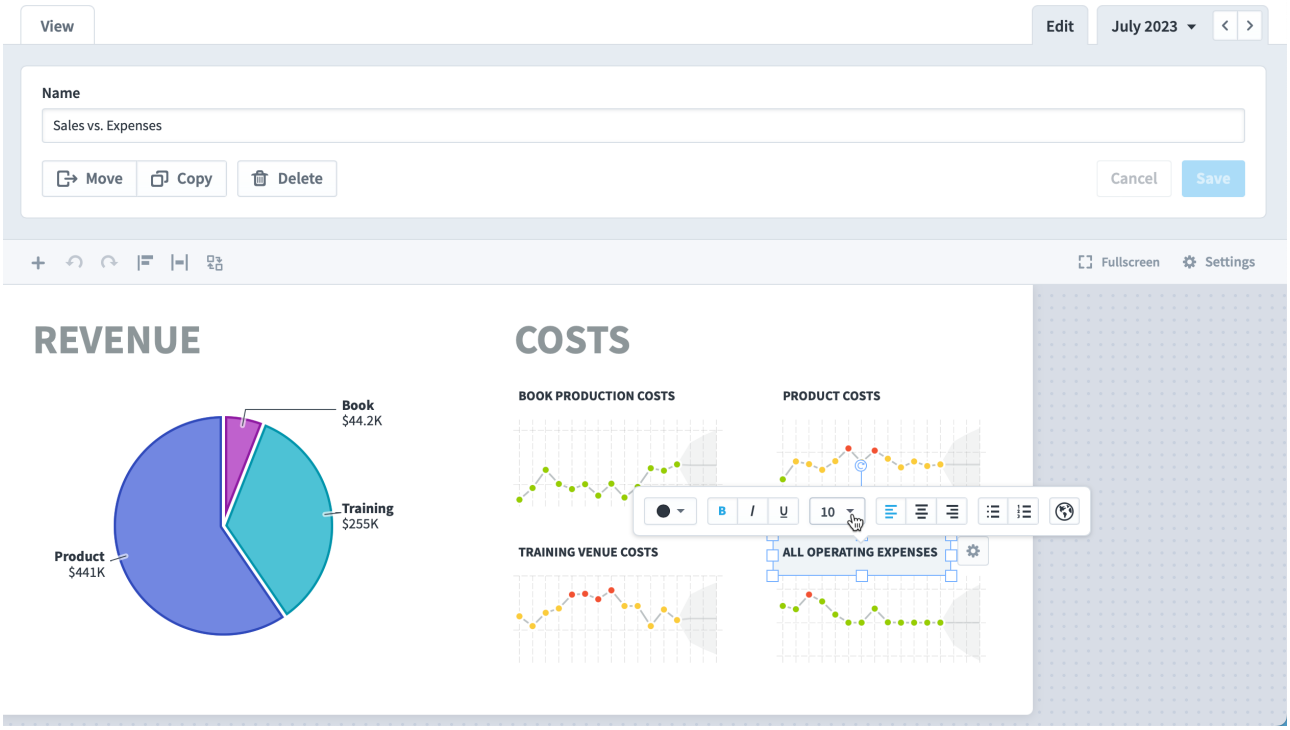
An interesting side-effect of automatic dashboard sizing is that you can universally make all text on dashboards appear larger or smaller by changing the overall size of the dashboard while keeping its general layout the same. For example, here's a dashboard where the pie chart labels look too small.



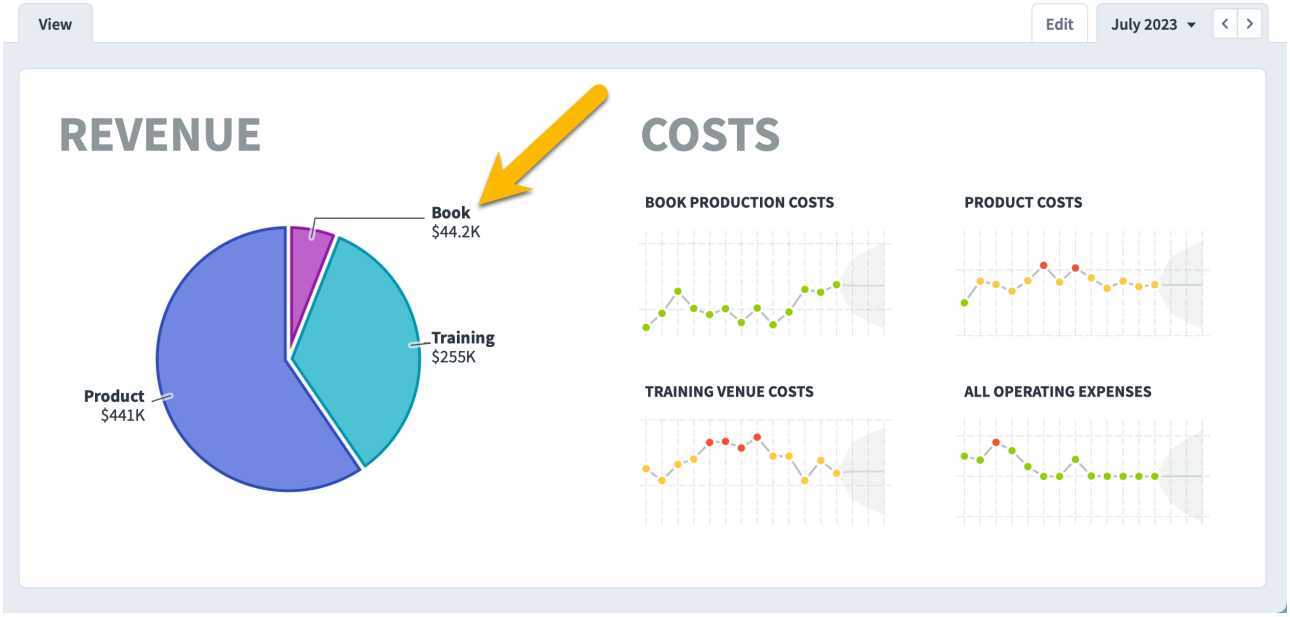
Here's what the dashboard looks like when we edit it.



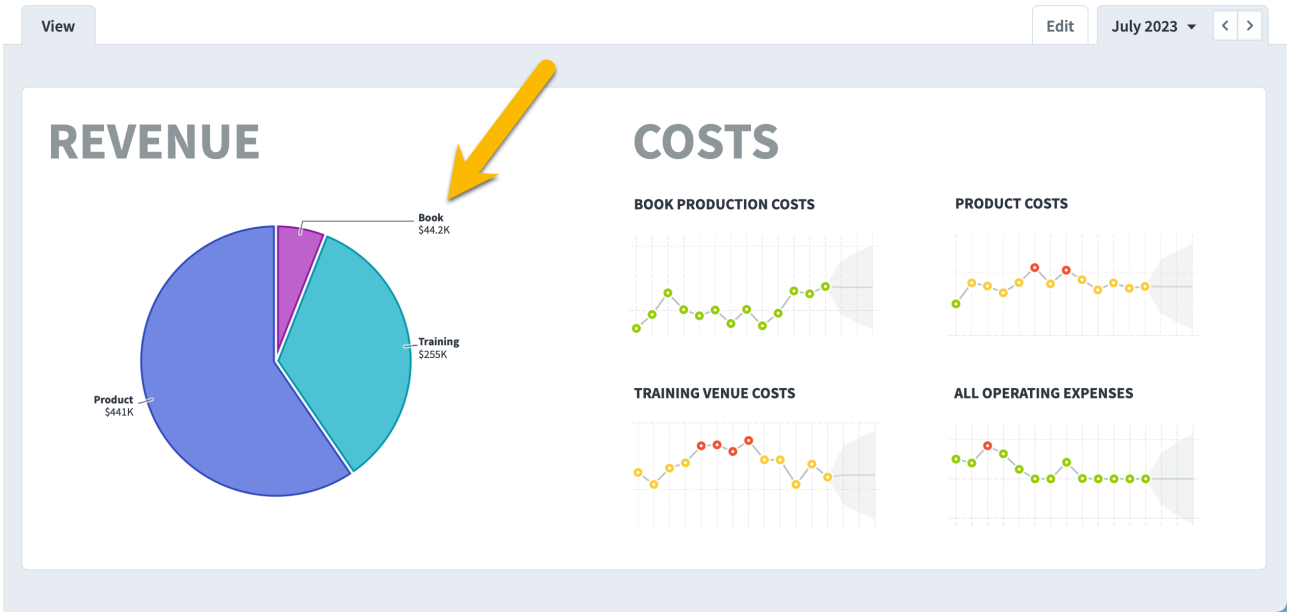
To fix the problem, we're going to resize each widget to be smaller, reduce the font size of text widgets, and move widgets closer to each other. We'll keep the general dashboard layout the same and just make everything smaller and closer.



Now when we view the dashboard, the pie chart labels are much easier to read. That's because the labels stayed the same size while everything else became much smaller.

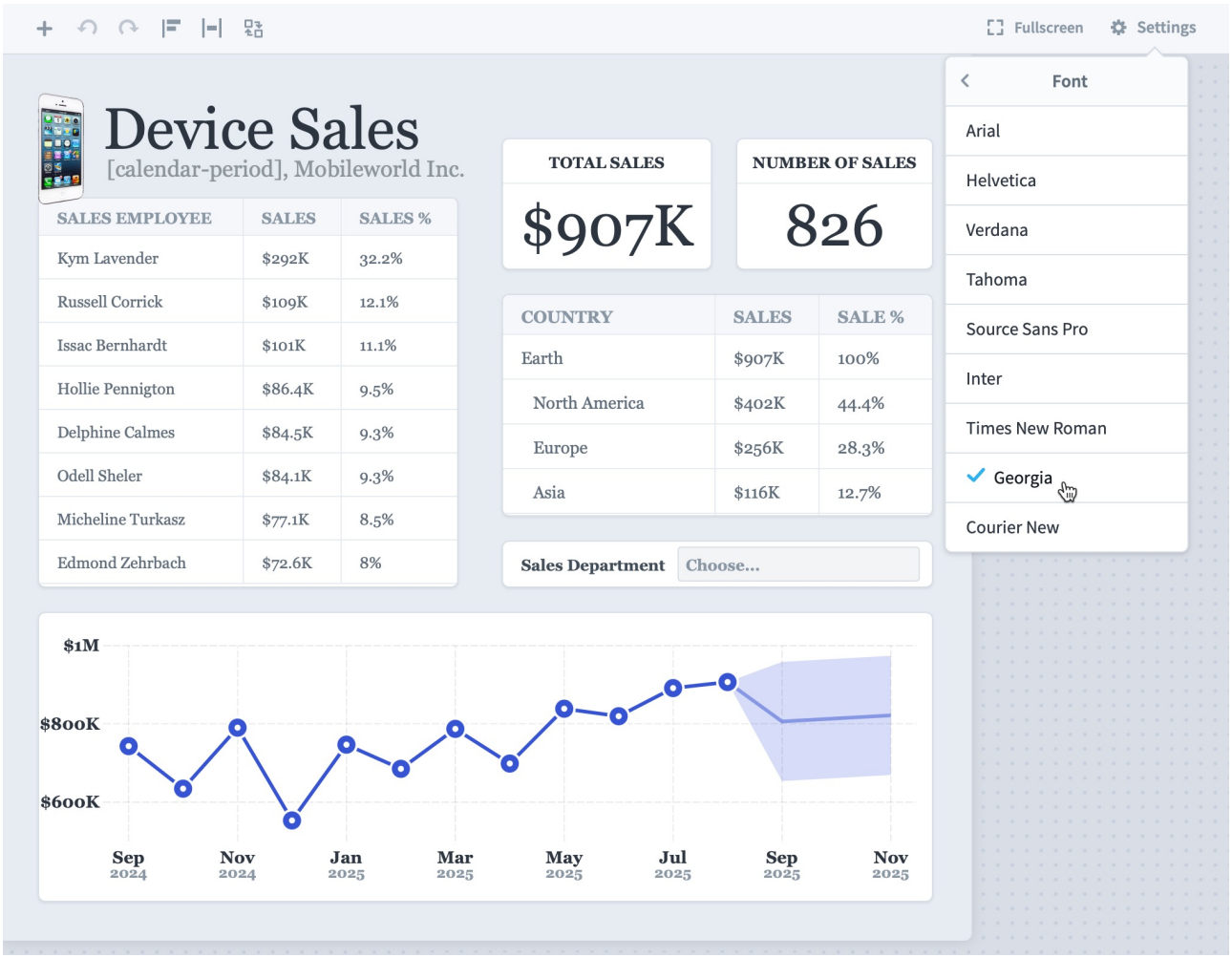


For reference, this is what we started with.



Font face

To change the font, open the dashboard Setting and select the "Dashboard Font" submenu. The selected font applies to all dashboard content including widget text, chart labels, and data values.

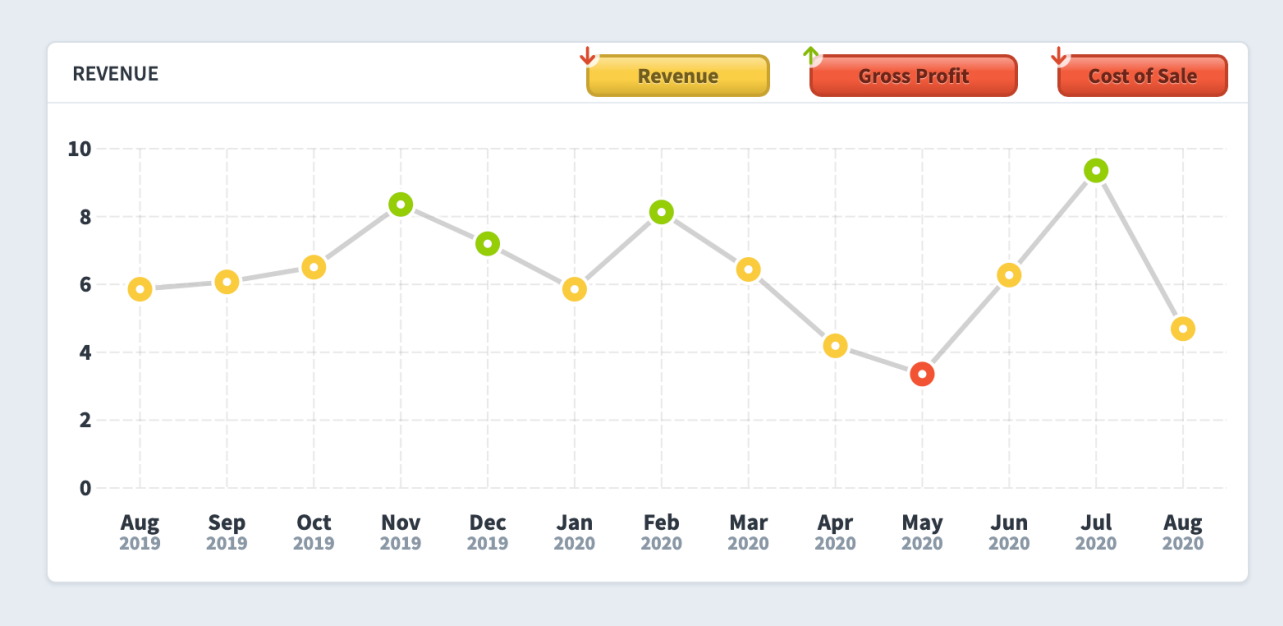


Available fonts include:

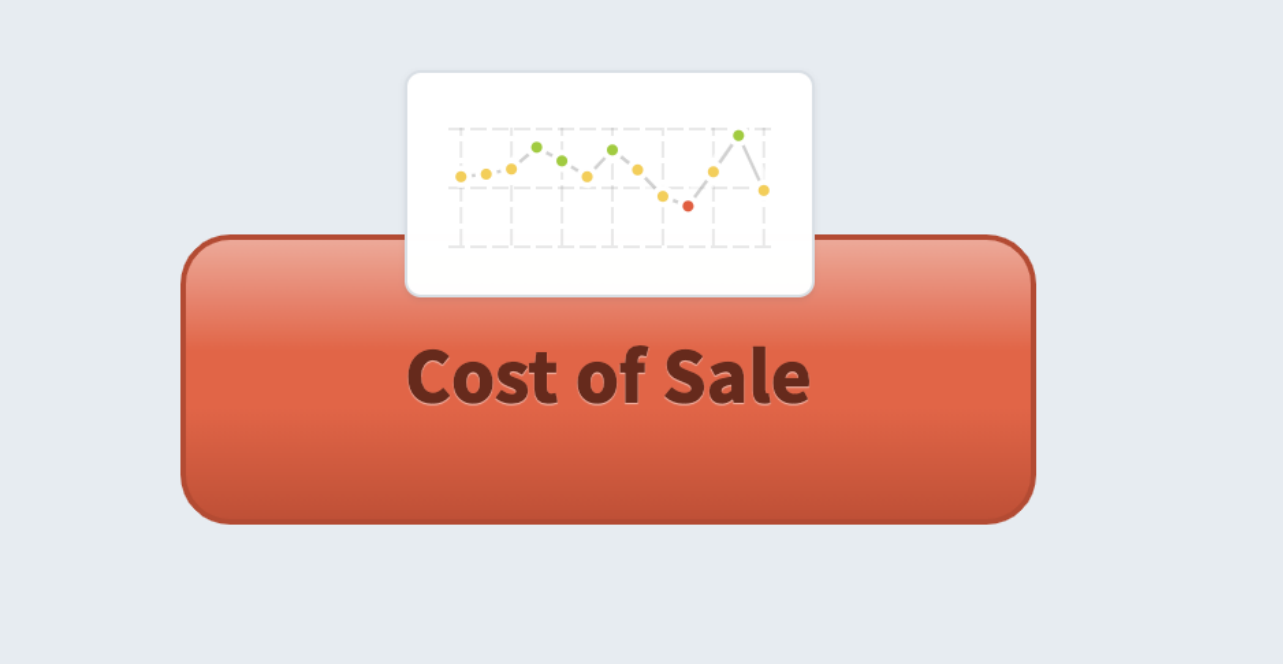
- **Sans-serif:** Arial, Helvetica, Verdana, Tahoma, Source Sans Pro, Inter
- **Serif:** Times New Roman, Georgia
- **Monospace:** Courier New

Automatic Ordering

Spider Impact automatically puts smaller dashboard widgets on top of larger dashboard widgets, completely avoiding the "move forward" and "move back" hassles seen in other software. For example, if you put small performance bubbles on top of a chart, they'll be above the chart so you can see them.



If we resize these exact same widgets and put the chart over one of the bubbles, however, the chart is now on top.

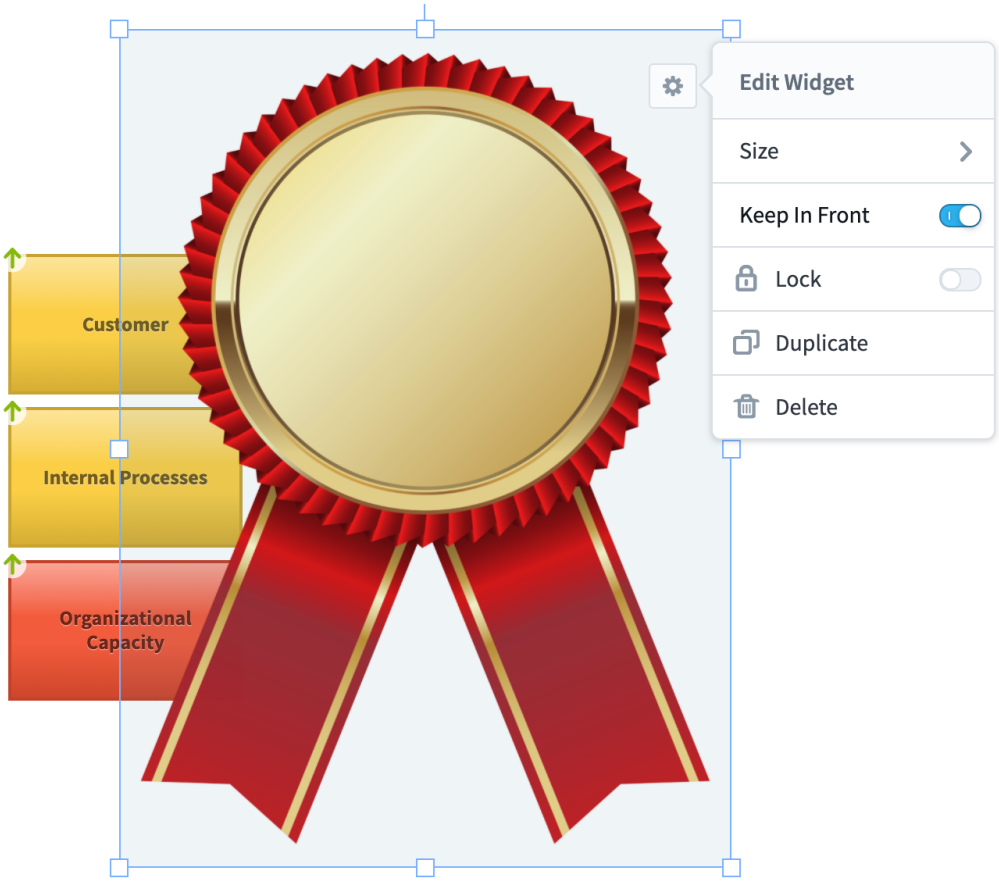


Keeping smaller widgets on top of larger widgets works great the vast majority of the time. If you're doing very complex layouts, however, there are times when you want to force a widget to the top.

In this example, we have an award image that we want to cover several smaller bubble widgets. Spider Impact is bringing the smaller bubble widgets to the front, though.

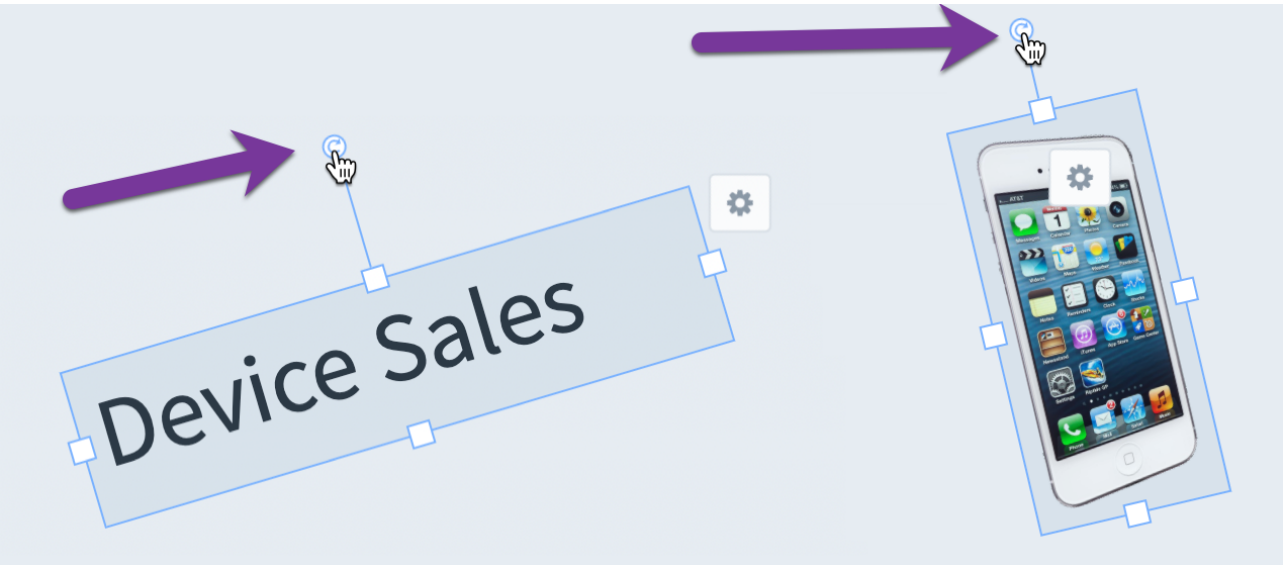


To force the award image to the top, we're going to turn on the "Keep in Front" toggle in the widget's configuration menu.



Rotating Widgets

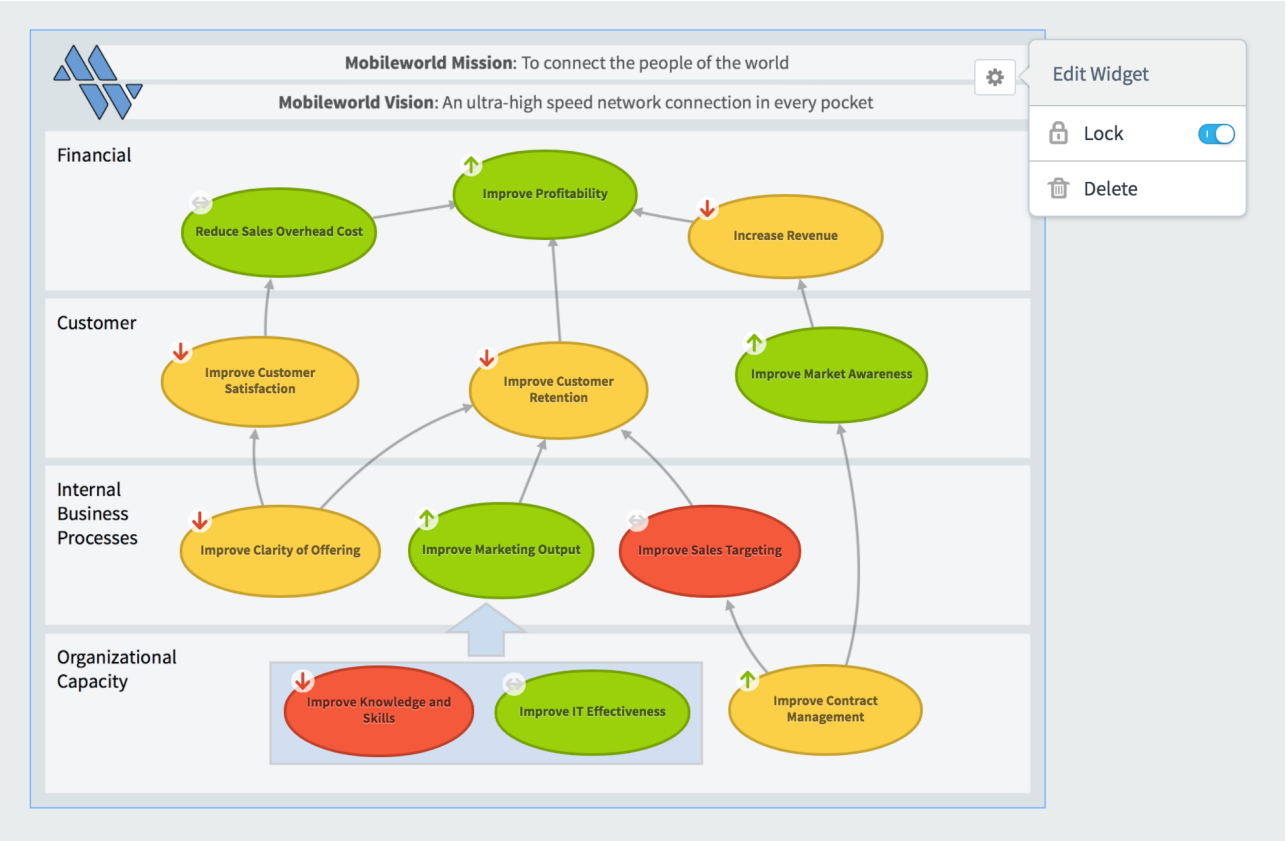
Text, Image, Shape, Bubble, and Value widgets can be rotated using their rotation handles.



Locking Widgets

Because dashboards automatically put larger widgets underneath smaller widgets, you can upload a large background image and your smaller widgets will appear on top of it.

If you aren't careful, however, you can accidentally move your background image as you're editing other widgets. To solve this problem, just select the background image and turn on "Lock".



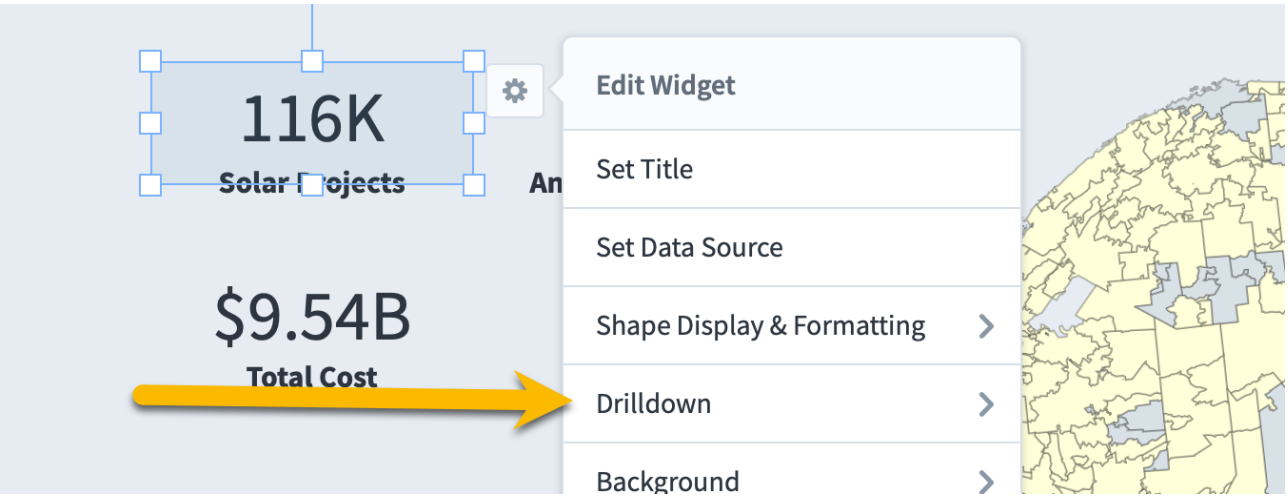
Not only does locking a widget prevent it from moving, but it also prevents it from being selected along with other widgets. So, when the background image is locked, you can drag to select all of the widgets on top of it without selecting the background image itself.

Please see the Dashboard and Strategy Map Backgrounds article for more information about all of the ways you can make dashboards even better with background images.

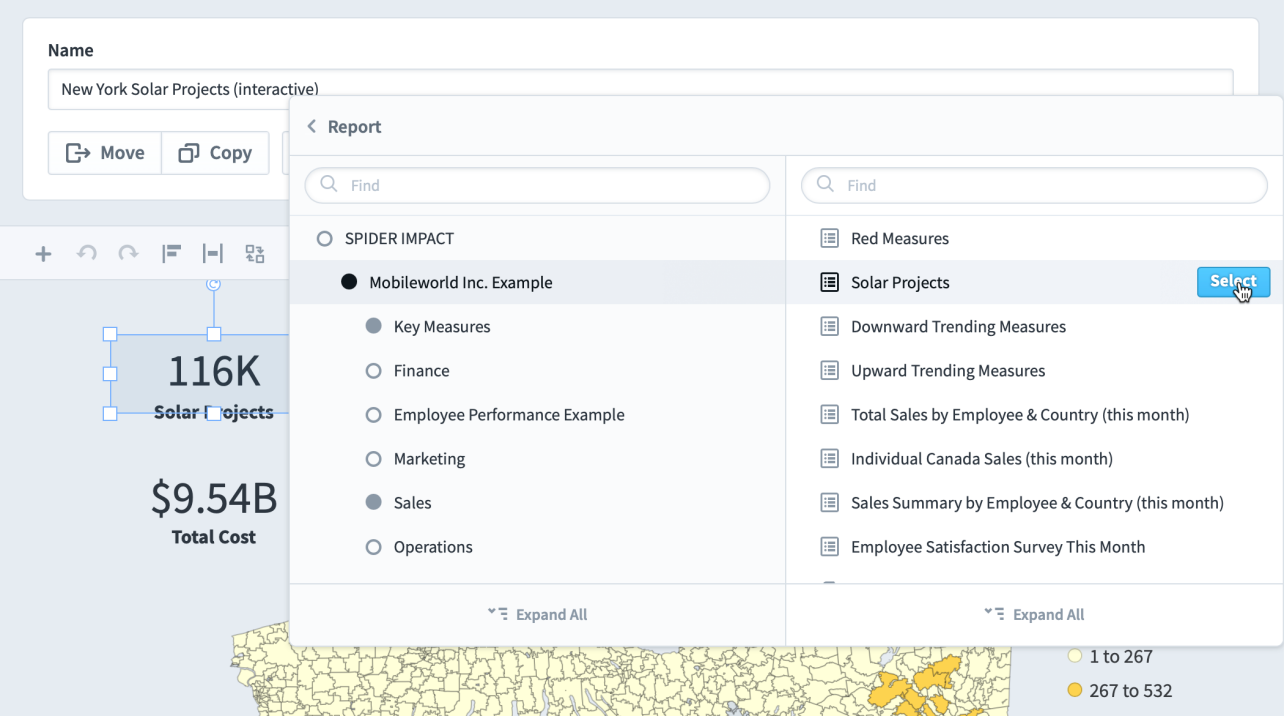
Clicking on widgets to drill to other screens

By default, many dashboard widgets have default drilldown targets. For example, clicking on a speedometer that's showing KPI data will take you to that KPIs Overview tab, and clicking on a single value widget that's showing a Dataset value will take you to that dataset's Explore tab with that widget's filters applied.

You can override this default click behavior for most dashboard widgets by choosing the Drilldown option in their Edit Widget menu.



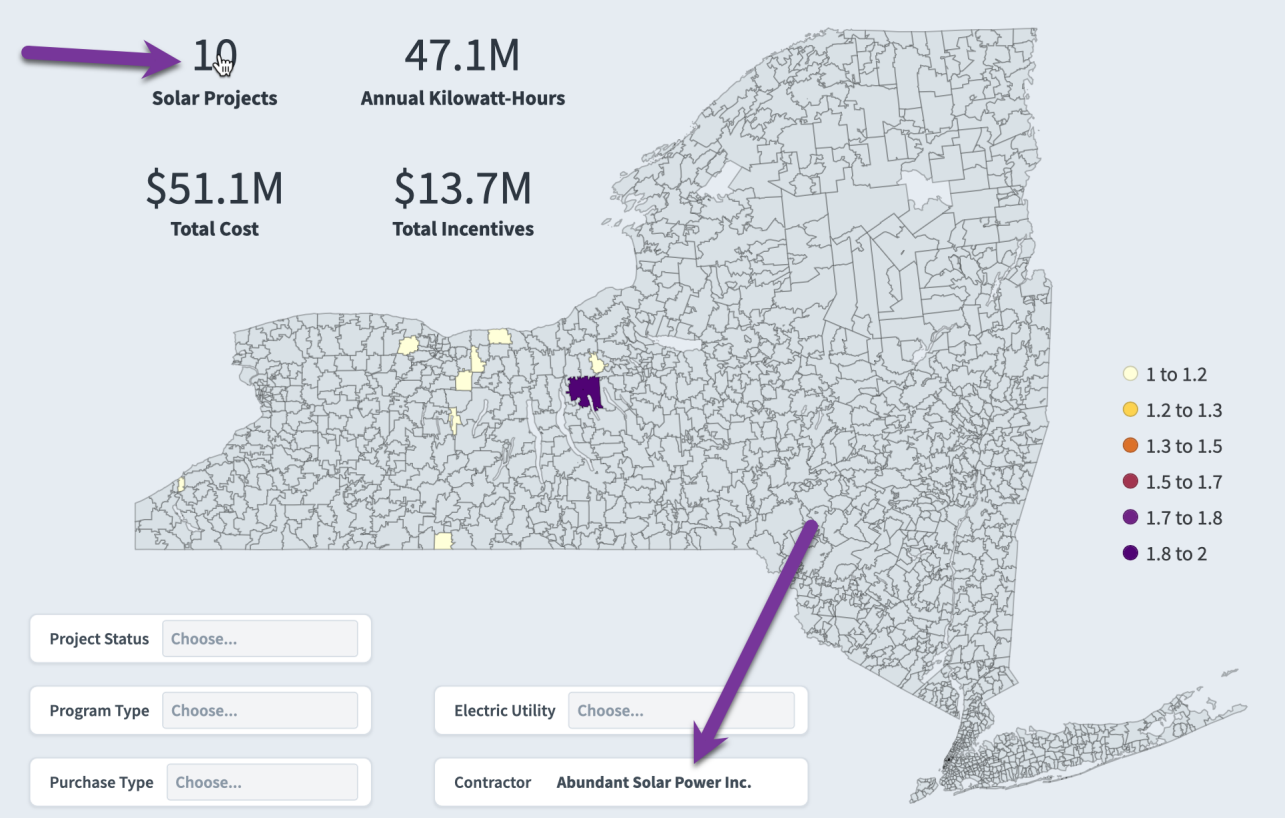
This allows you to choose virtually any item in the software to drill to. Here we're drilling to a Solar Projects report when clicking on a single value widget.



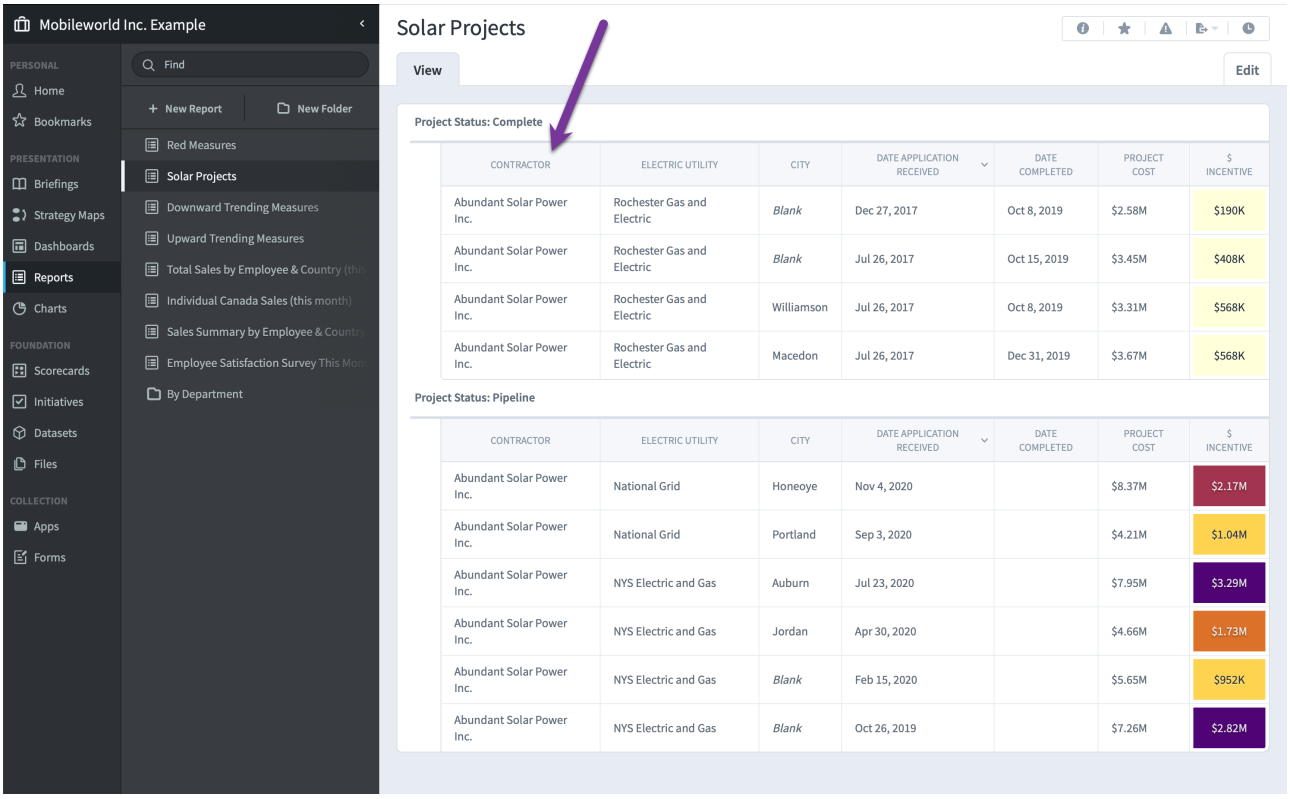
Automatically applying dataset filters on drilldown

Single value widgets and dataset table widgets have even more powerful drilldown behavior. If you choose to drill to a report or dashboard that's showing data from the same dataset as the widget being clicked, the filters behind that number that you click on will be automatically applied to the destination report or dashboard.

For example, here we've set a custom drilldown on "Solar Projects" number that will take us to the "Solar Projects" report. Now when viewing the dashboard with a filter set to show only "Abundant Solar Power Inc" as the contractor, we see there are 10 solar projects for that contractor.



When we click on that "10" number to drill down, the report automatically applies the same contractor filter, showing only those 10 solar projects—no manual filtering required. This allows us to create a single detail report that automatically updates based on what you click to get to that report.



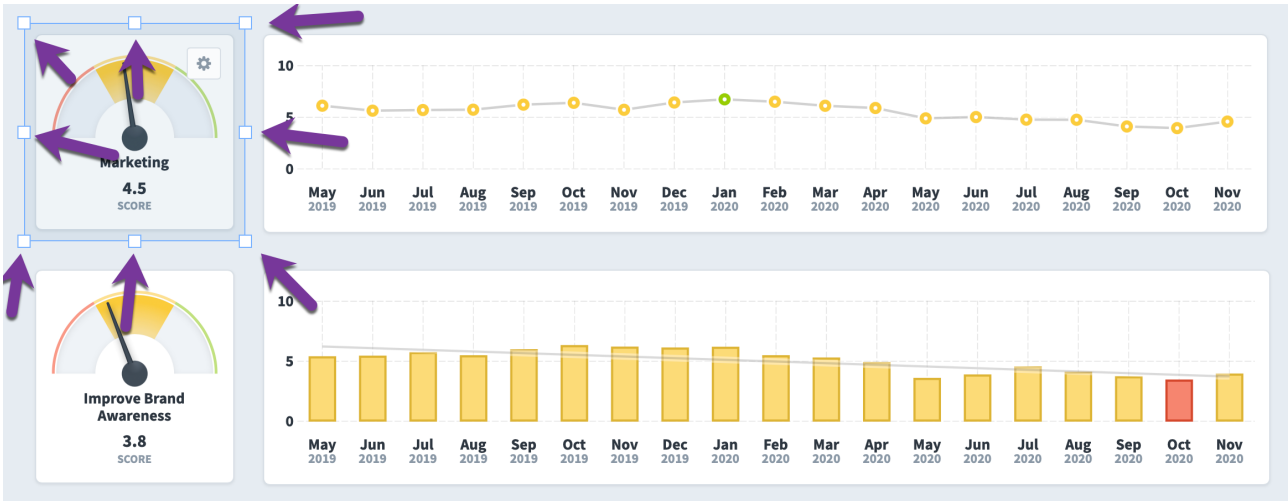
This automatic filter transfer works identically when drilling down to dashboards. Whether your custom drilldown targets a report or a dashboard, the filters that created the value you clicked will be automatically applied to your destination.

Dataset filters are transferred only when the target report or dashboard uses the same underlying dataset as the widget you clicked. Filters within calculated value equations are not transferred.

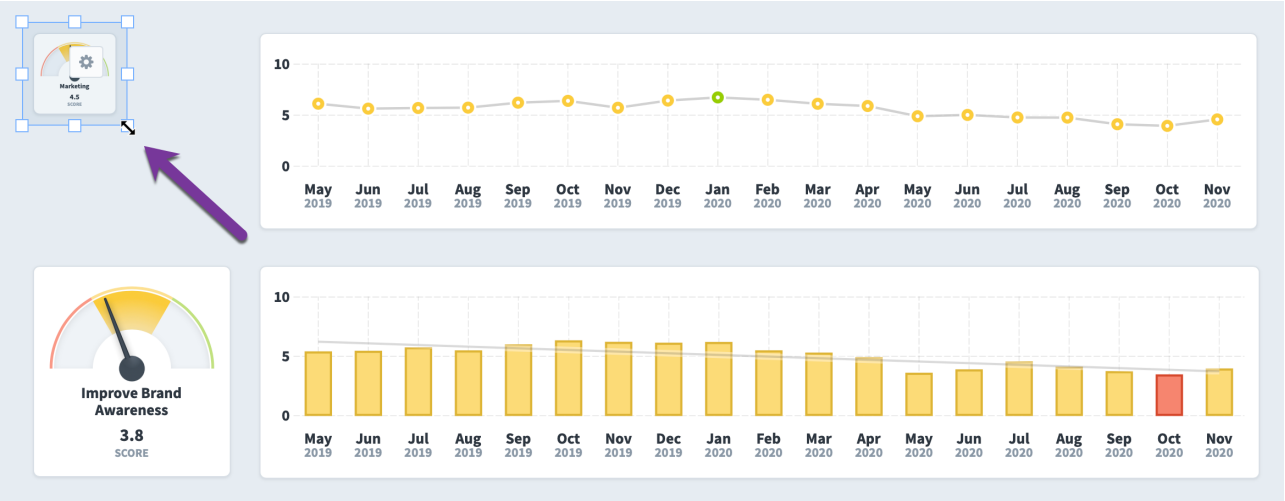
Widget Spacing, Alignment, and Sizing

Resizing

When you select a widget, you'll see resize handles on the sides and corners.



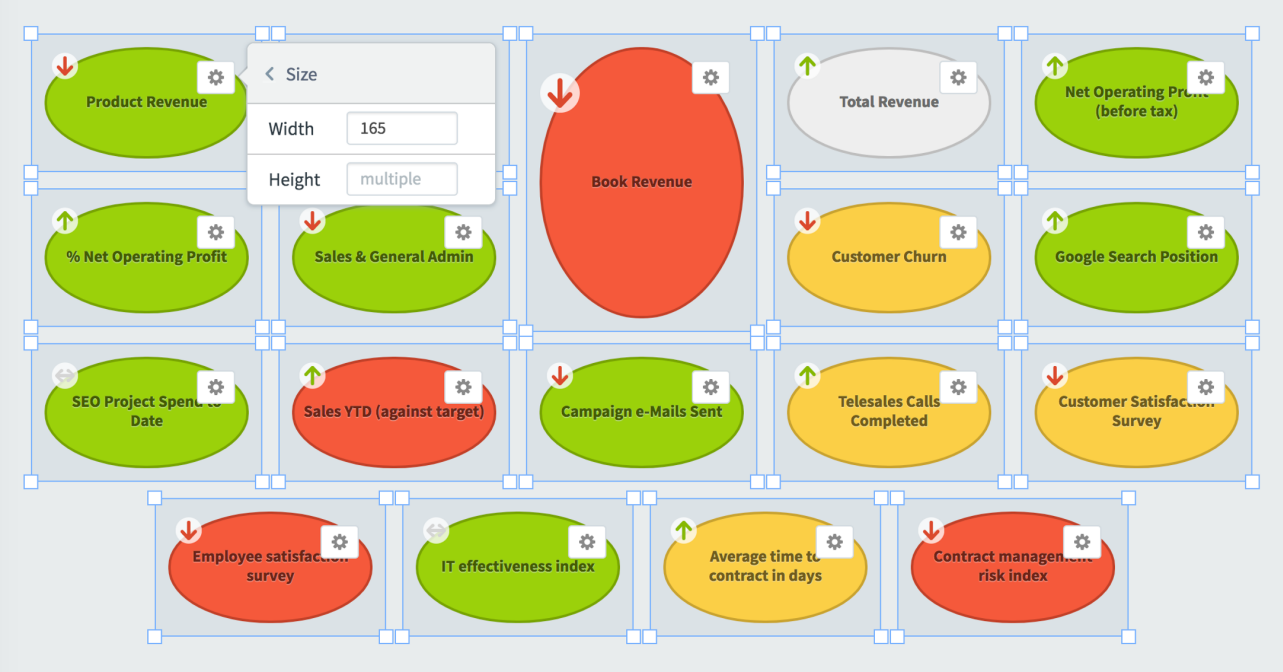
Just drag them to resize the widget.



You can also select multiple widgets (with drag or shift-click) and resize them all at once. Here we're resizing the two wide charts on the right.



To resize widgets to specific dimensions, choose "size" in the widget's configuration menu, and then type in a height or width. If multiple widgets are selected, your changes apply to them all. In this example, all of the widgets have the same width of 165, so it pre-fills that number in the size menu.

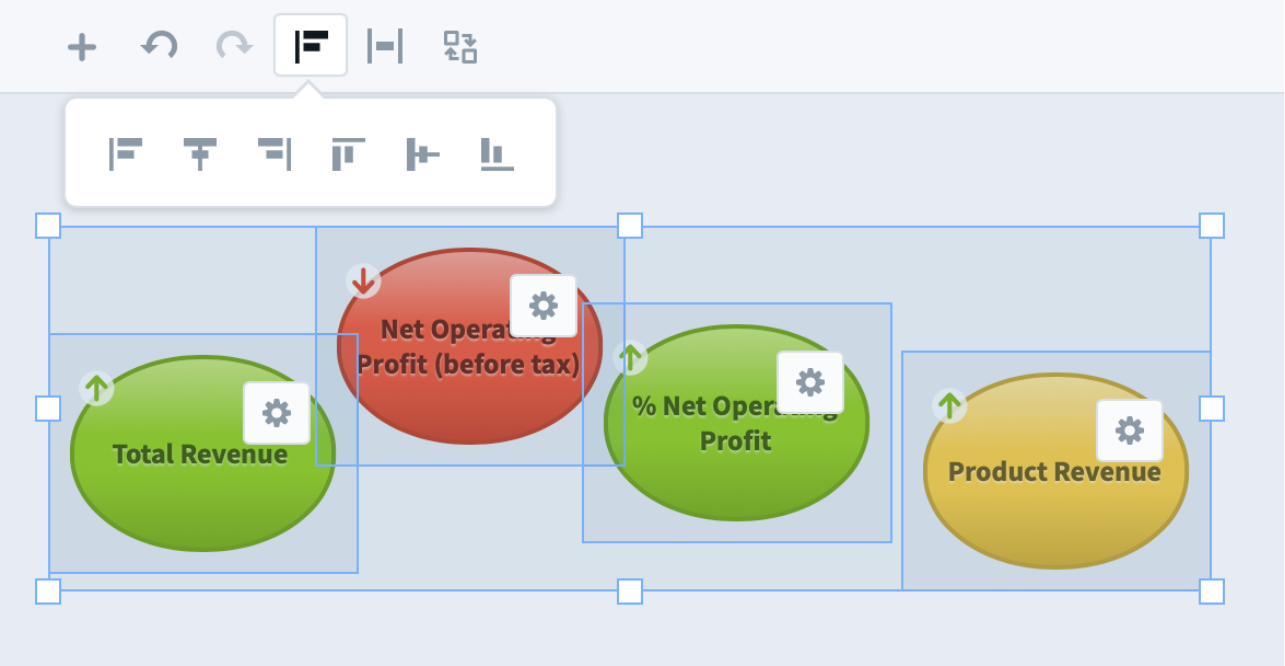


When we change the width to 90, all of the widgets instantly resize.

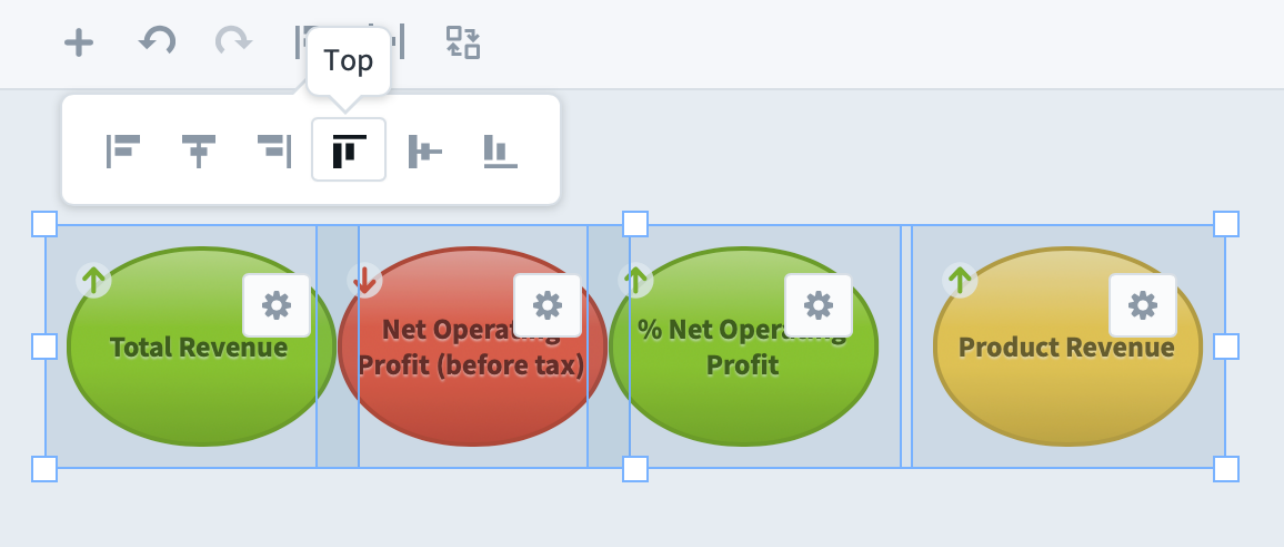


Align

You can select multiple widgets and then align them with top, bottom, right, left, middle vertical, or middle horizontal alignment. In this example we've selected four dashboard widgets.

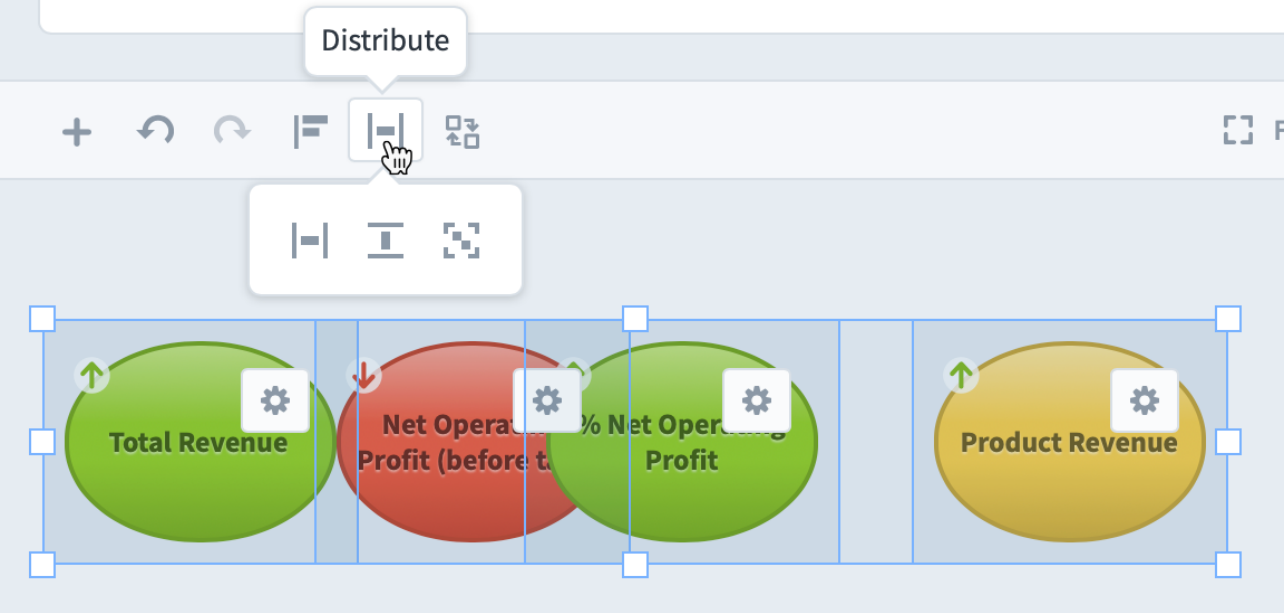


When we click the align top button, it moves all of the selected widgets to the highest point of all four widgets.

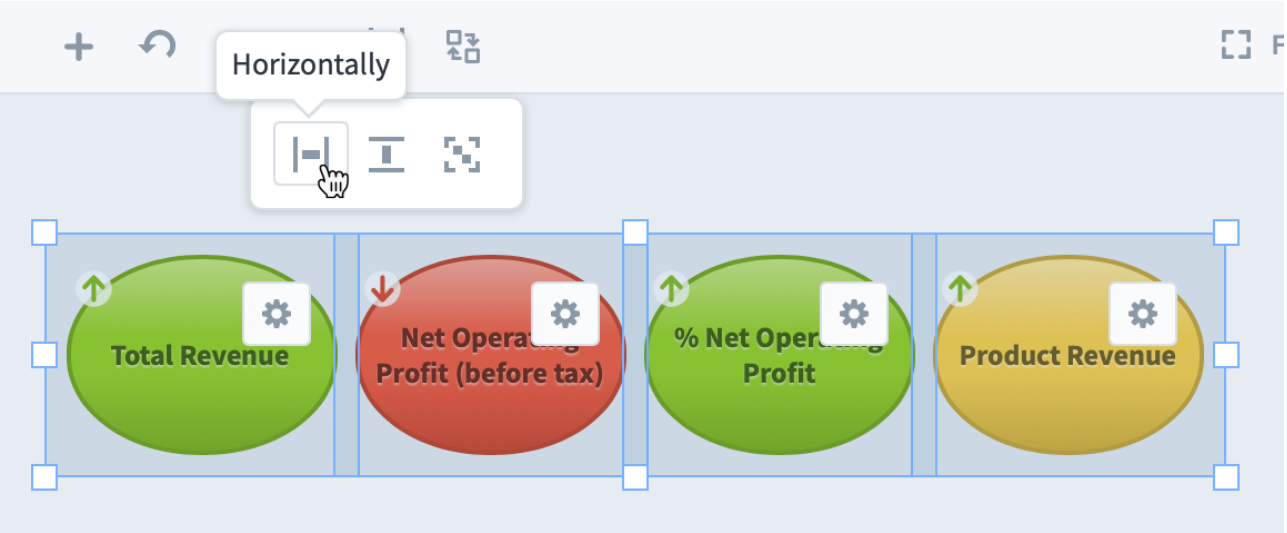


Distribute

The Distribute button allows you to select multiple widgets and then evenly space them horizontally or vertically. This example shows four widgets that are not evenly spaced.

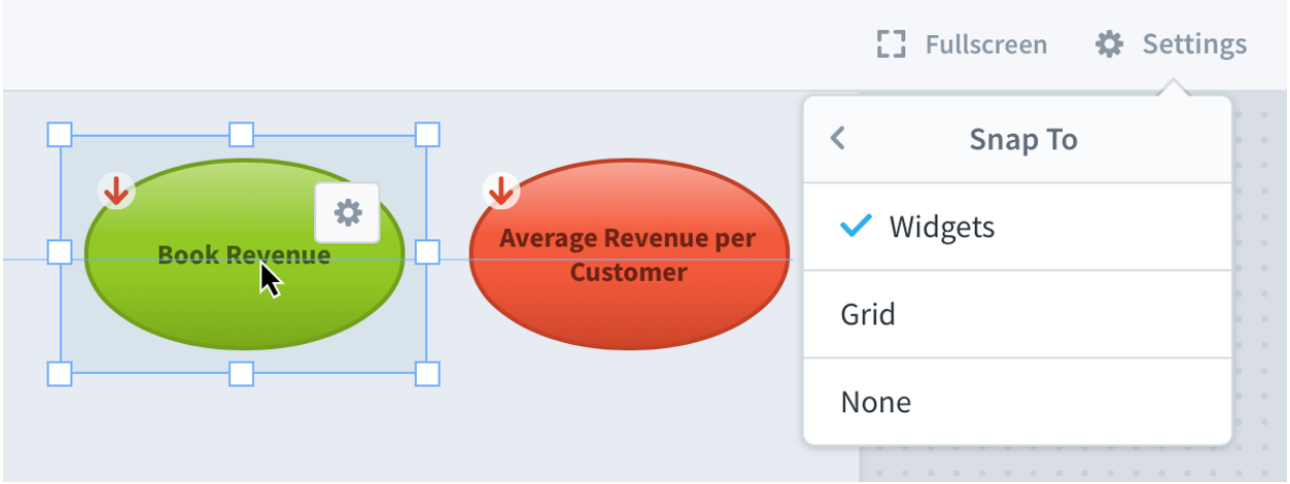


After clicking the button, the widgets are now evenly spaced.

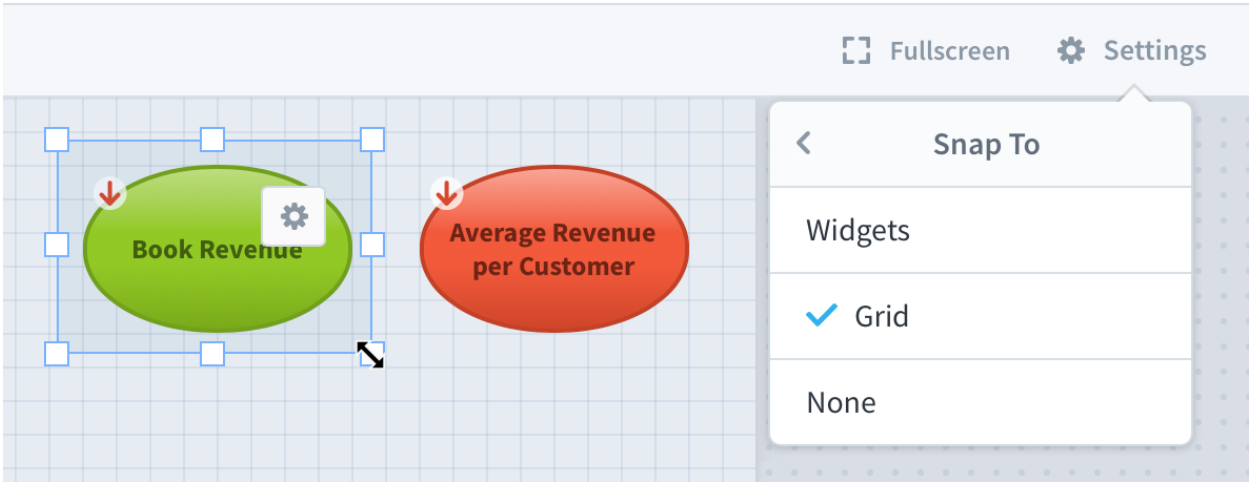


Alignment Snapping Options

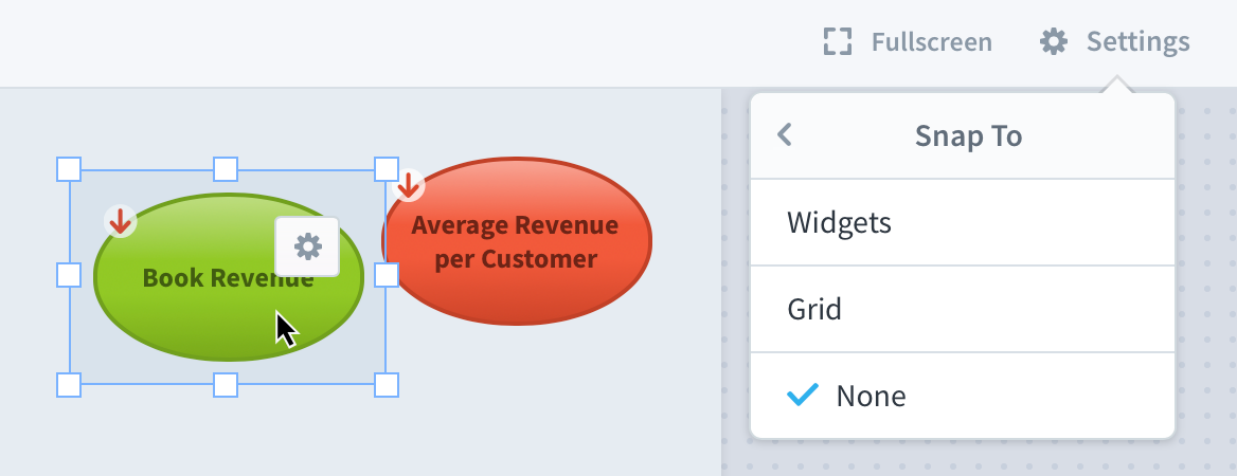
There are three different snap-to options when editing dashboards. The default option is Snap-to Widgets, which uses the size and position of other widgets on the dashboard as a guide when you're moving or resizing widgets.



Another option is Snap-to Grid, which aligns your widget position and size to a grid that only shows up when you're editing.



Finally, you can choose Snap-to None, which disables snapping all together. This is useful when fine-tuning layouts or when there are widgets that are irregularly placed.


Fullscreen
Settings
Book Revenue
Average Revenue per Customer
Snap To
Widgets
Grid
None

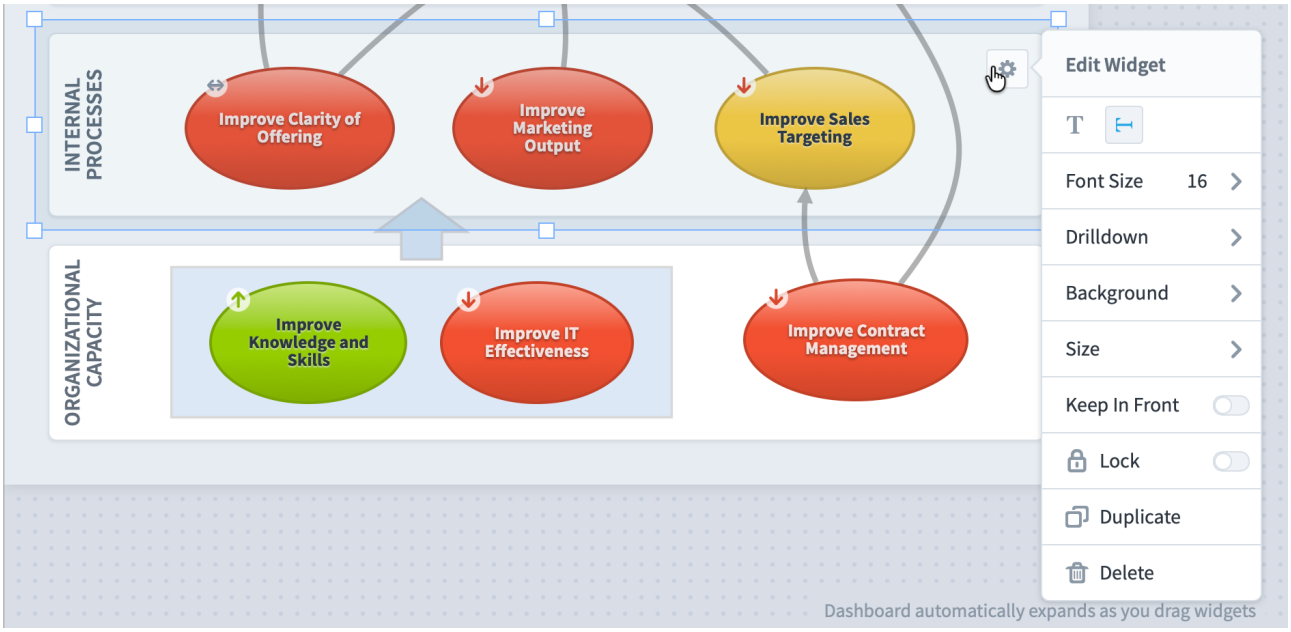
Dashboard and Strategy Map Backgrounds

Using shape widgets for layout

You can often create an attractive dashboard layout with just the built-in shape widgets. Here's an example where we've added translucent grouping shapes and labels on top of an airplane image.

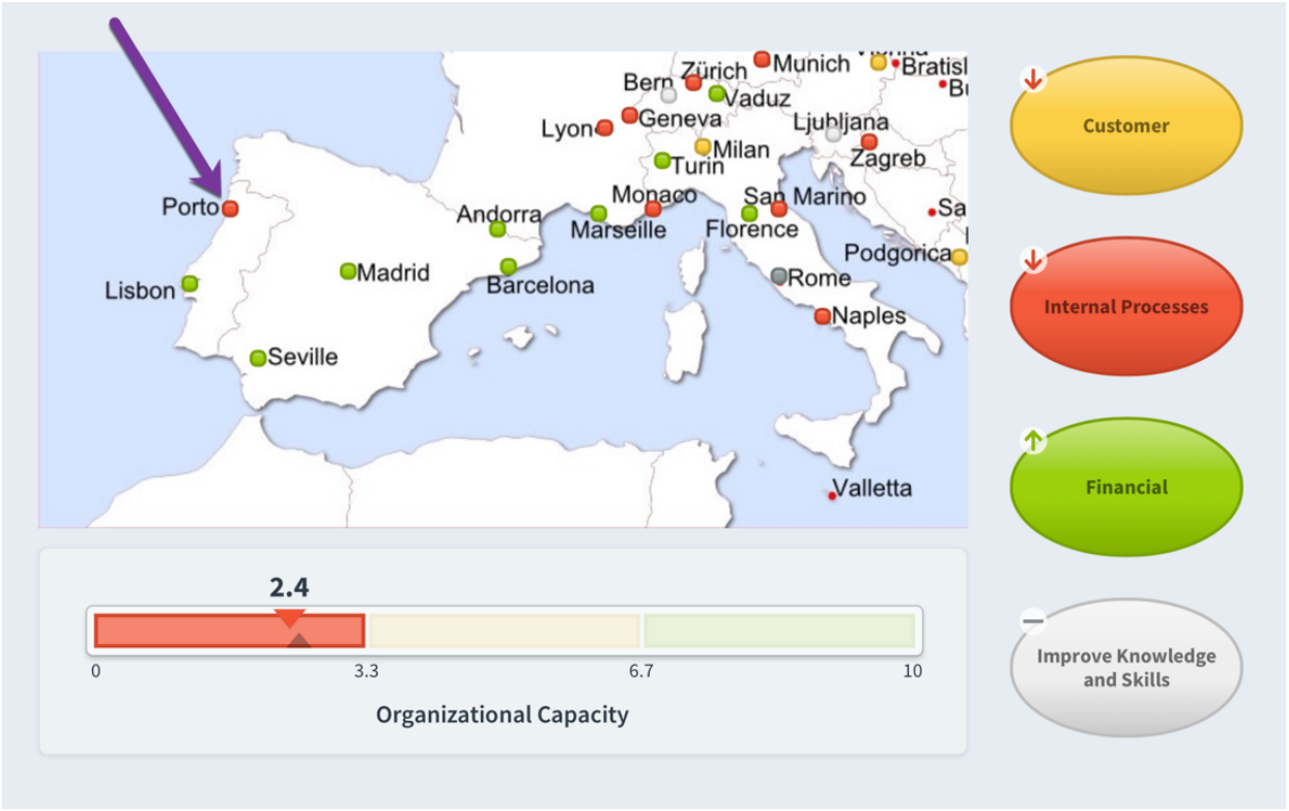


Similarly, strategy maps have Perspective widgets that act as a background for the objective shape widgets.

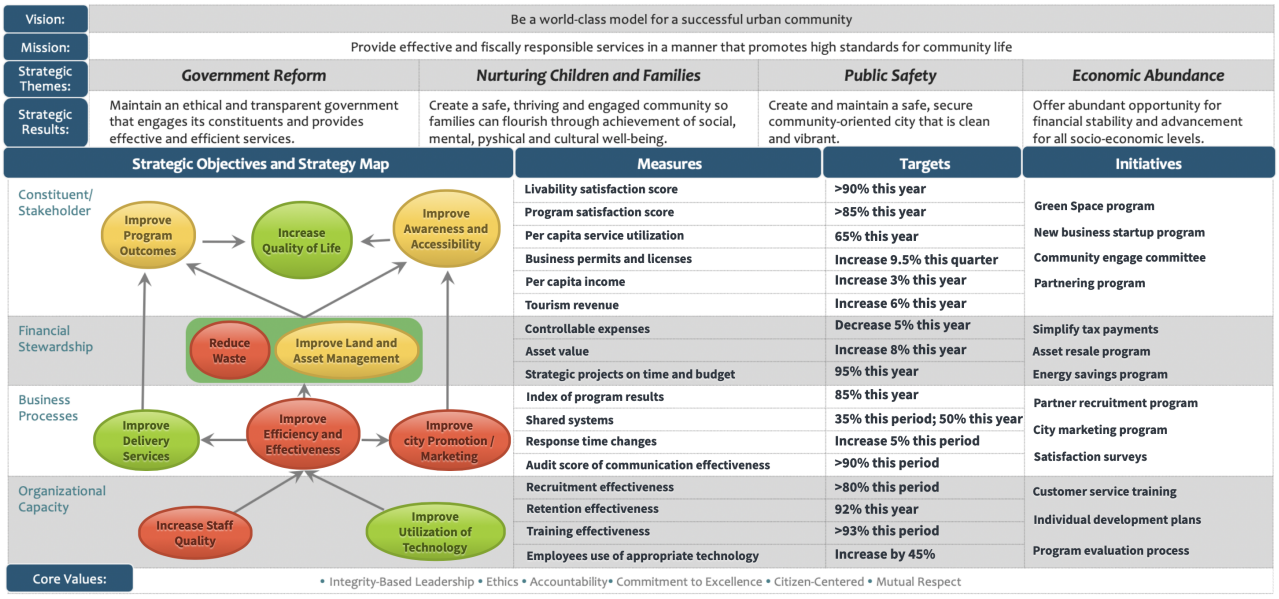


Background images

Images are a great choice for backgrounds too. In this example we have an image of Europe with colored bubbles on top showing live performance of various cities.



Or, you can choose to make an image fill your entire dashboard background. This allows you to create a precise layout that perfectly matches the presentations your leadership team is used to seeing. This is just a screenshot of a PowerPoint slide with dashboard widgets on top.

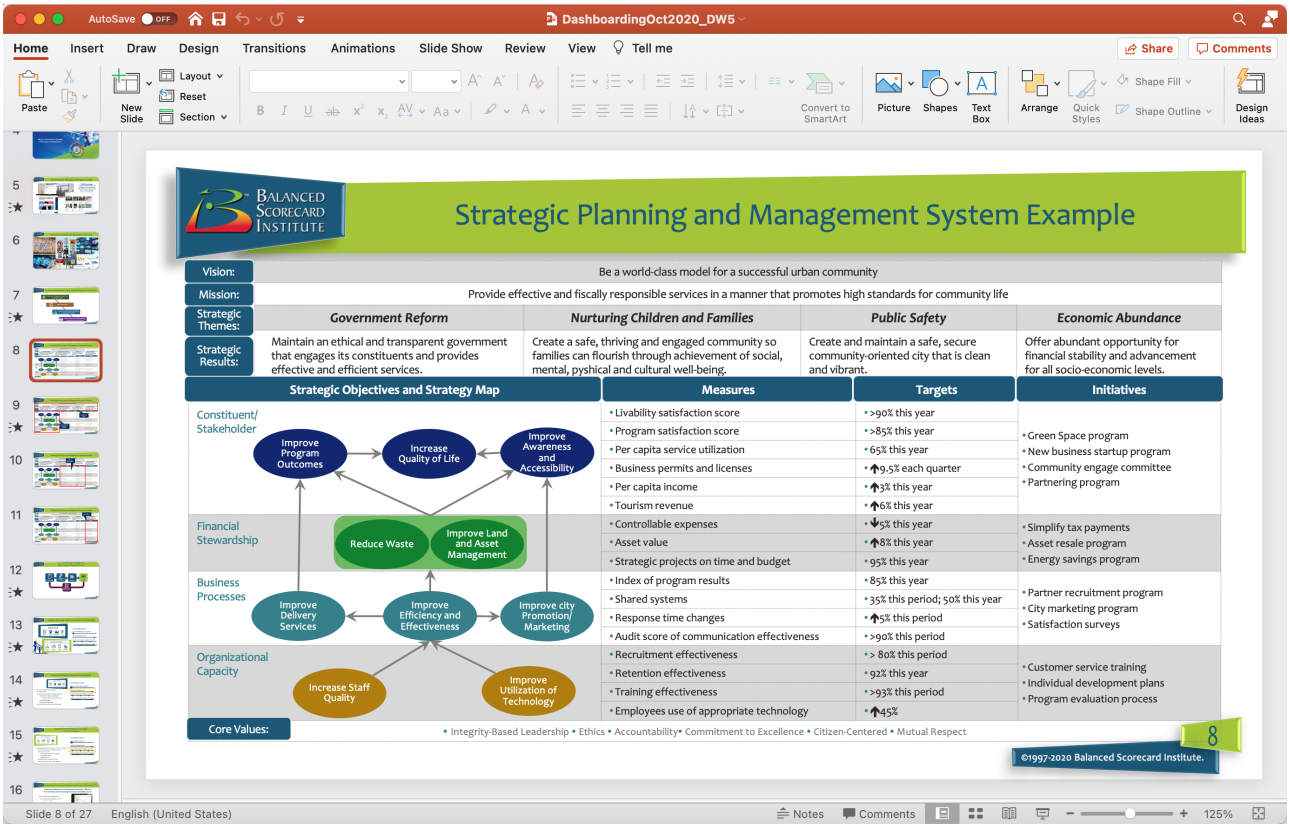


You can even create great-looking infographics that display live data in photorealistic settings.

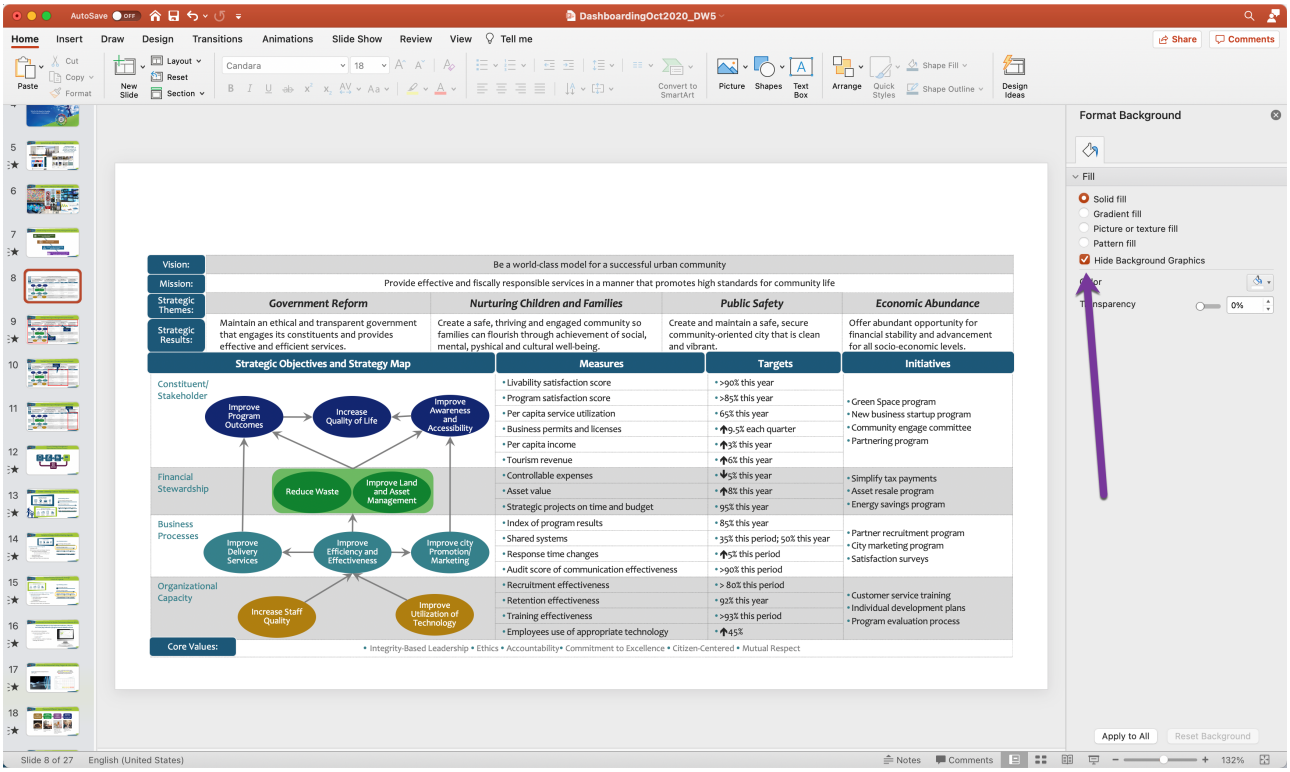


Creating a background image

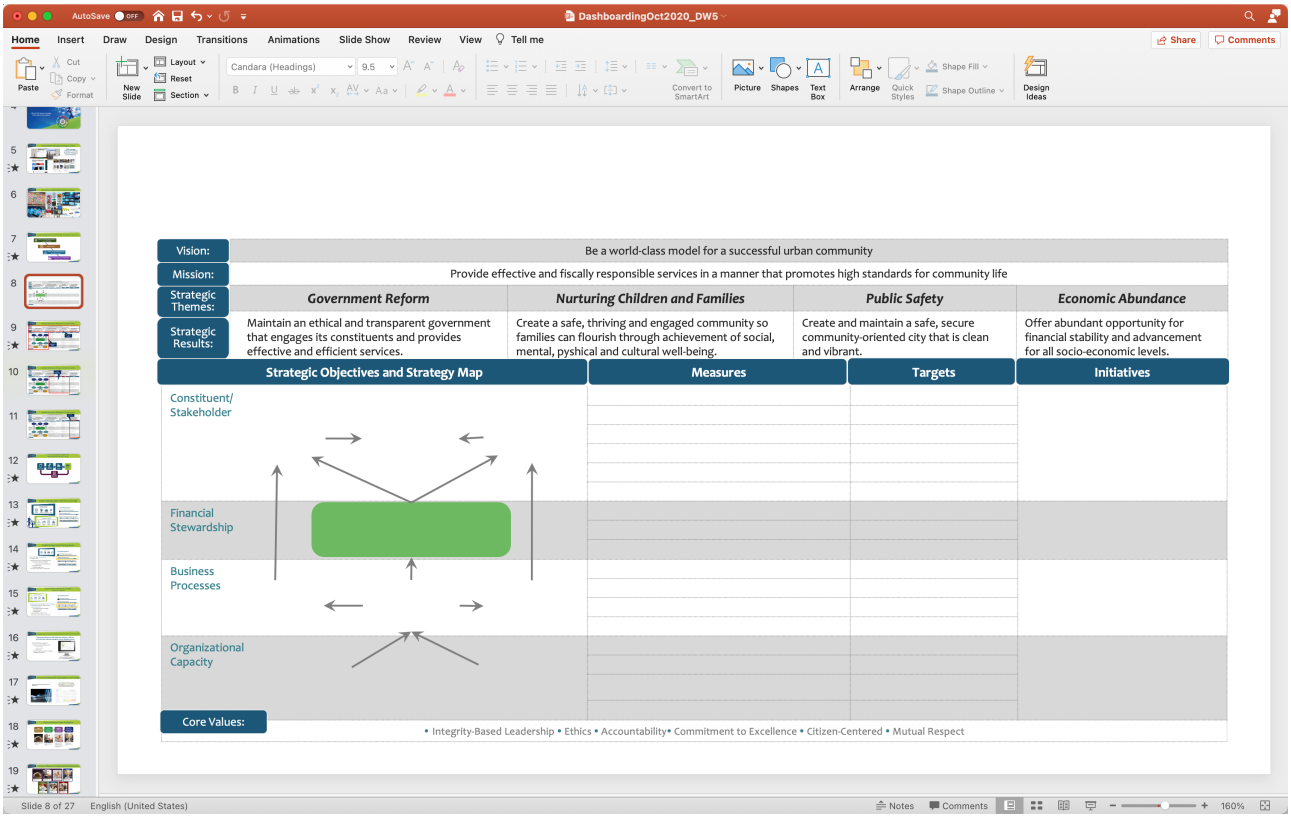
Let's start with example of a strategic planning and management system. How would you get something like this into Spider Impact?



First, let's remove all of the information on the slide that we don't want to show up in Spider Impact. In PowerPoint that means hiding background graphics. This removes the slide header and footers.

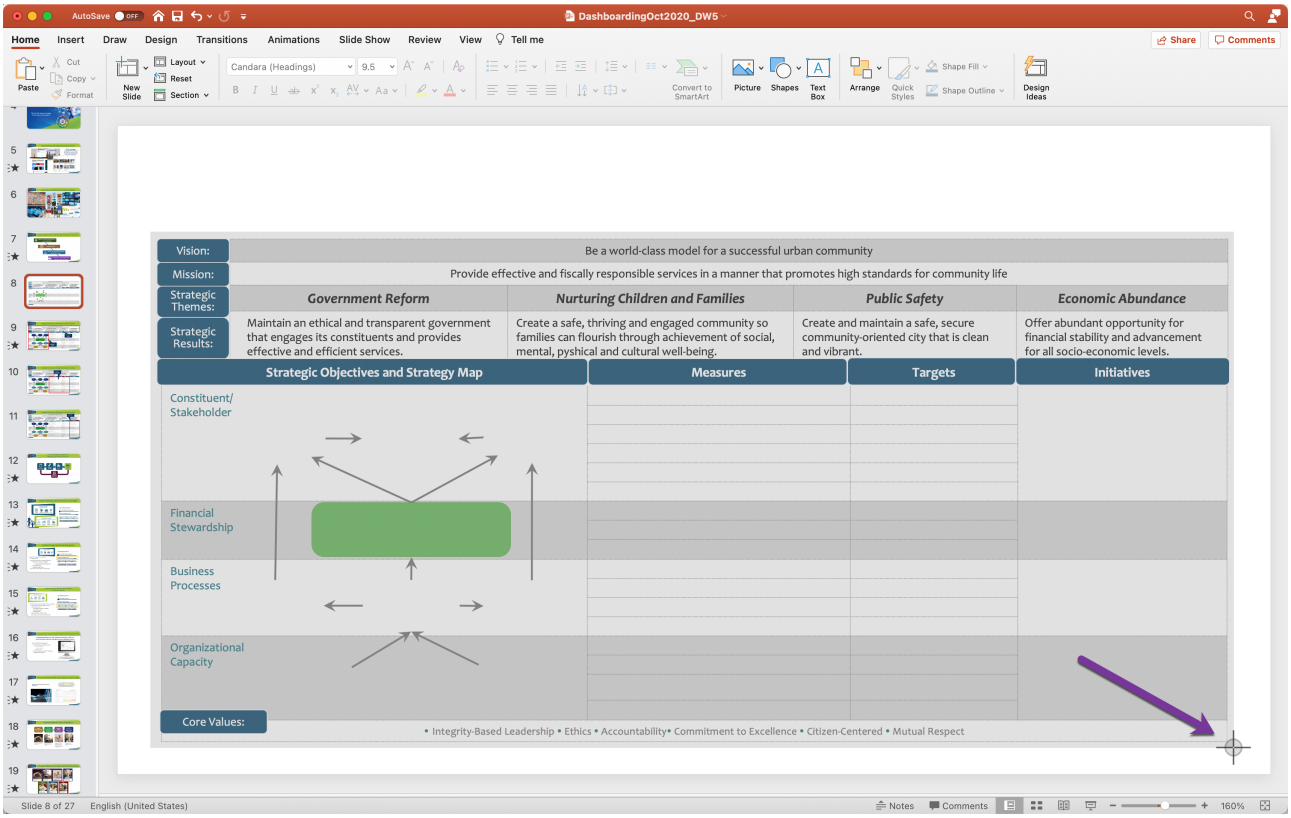


Now we're going to remove all information on this slide that we want to automatically update based on live data in Spider Impact. We end up with this:



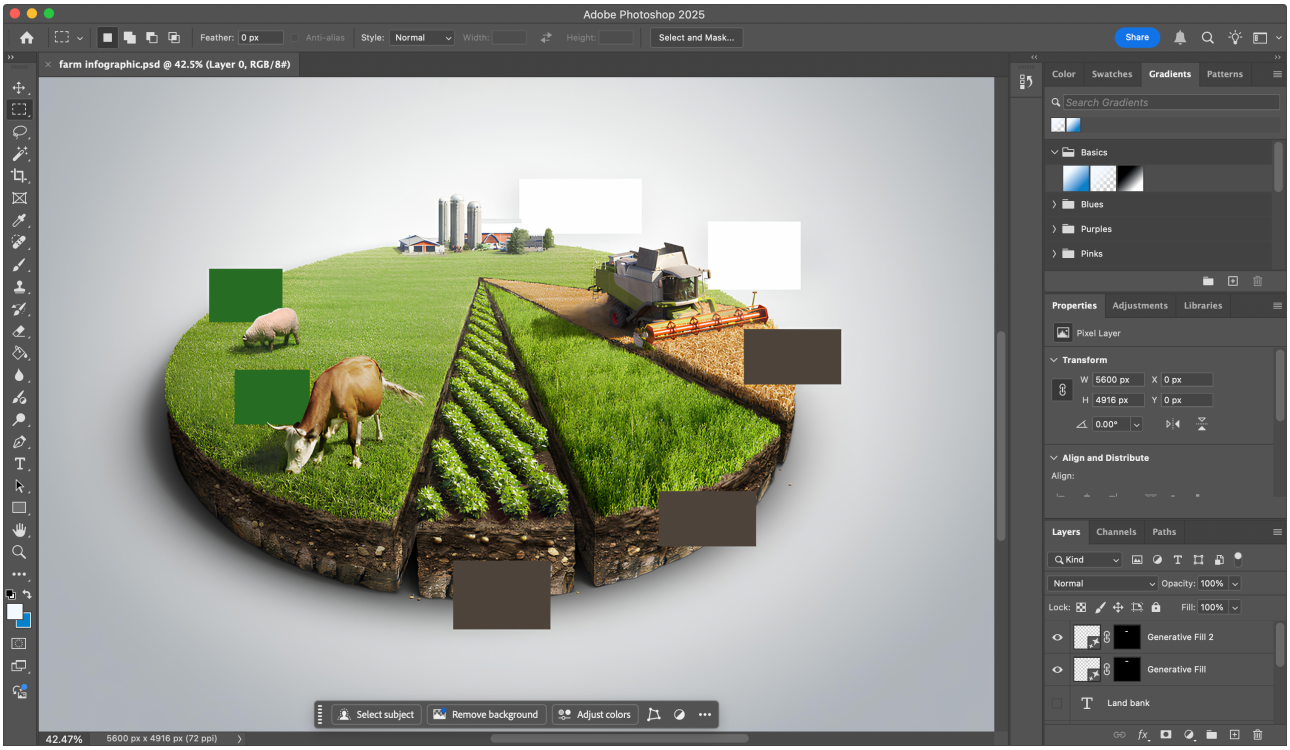
Finally we need to turn that slide into an image, and there are a variety of ways you can do this. PowerPoint has the ability to export slides as images, but if you do that, you'll need to edit the image to crop off the extra white space on the edges. Instead, we're going to take a screenshot of just the relevant part of the slide.

In Windows you can do this by *Windows Key + Shift + S*, selecting the region you want, and then pasting it into Paint. On Mac you can do this with *CMD + Shift + 4* and it will save the image to your desktop.



Make sure the image is large enough so that it doesn't look pixelated on your dashboard. You'll usually be in good shape if your image is at least 1,600 pixels wide. In this example the screenshot is actually 3,200 pixels wide because I want it to look good on high resolution screens.

For our infographic the idea is exactly the same. We've created an image in PhotoShop with blanks where we can place our live data.



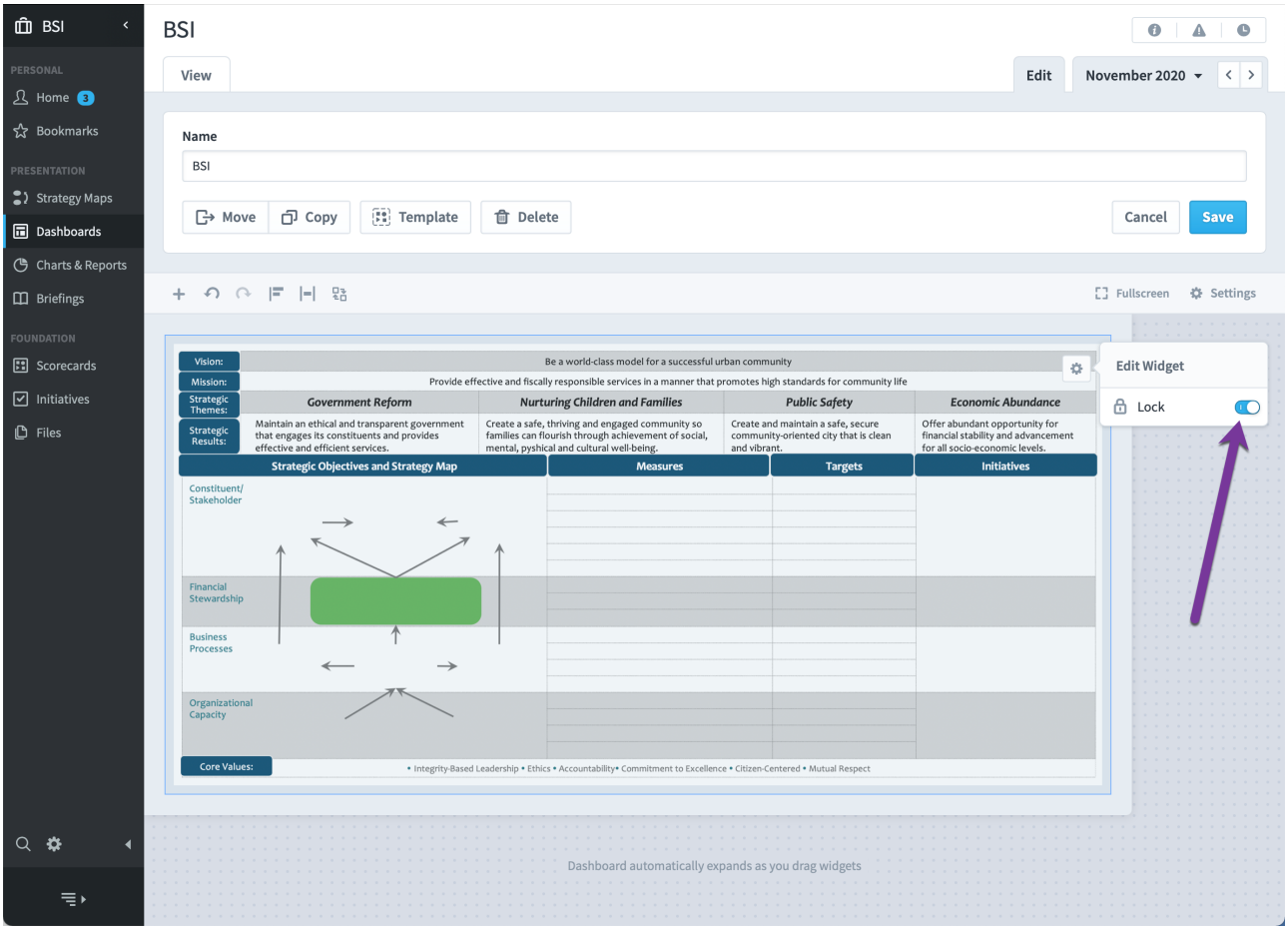
Compressing the Image

Large dashboard images load slowly, so we want to make sure the file size isn't too big. Most dashboard background images will work best in the PNG format because they're made of solid colors. If yours has a lot of gradients or photos, however, JPEG may be a better choice.

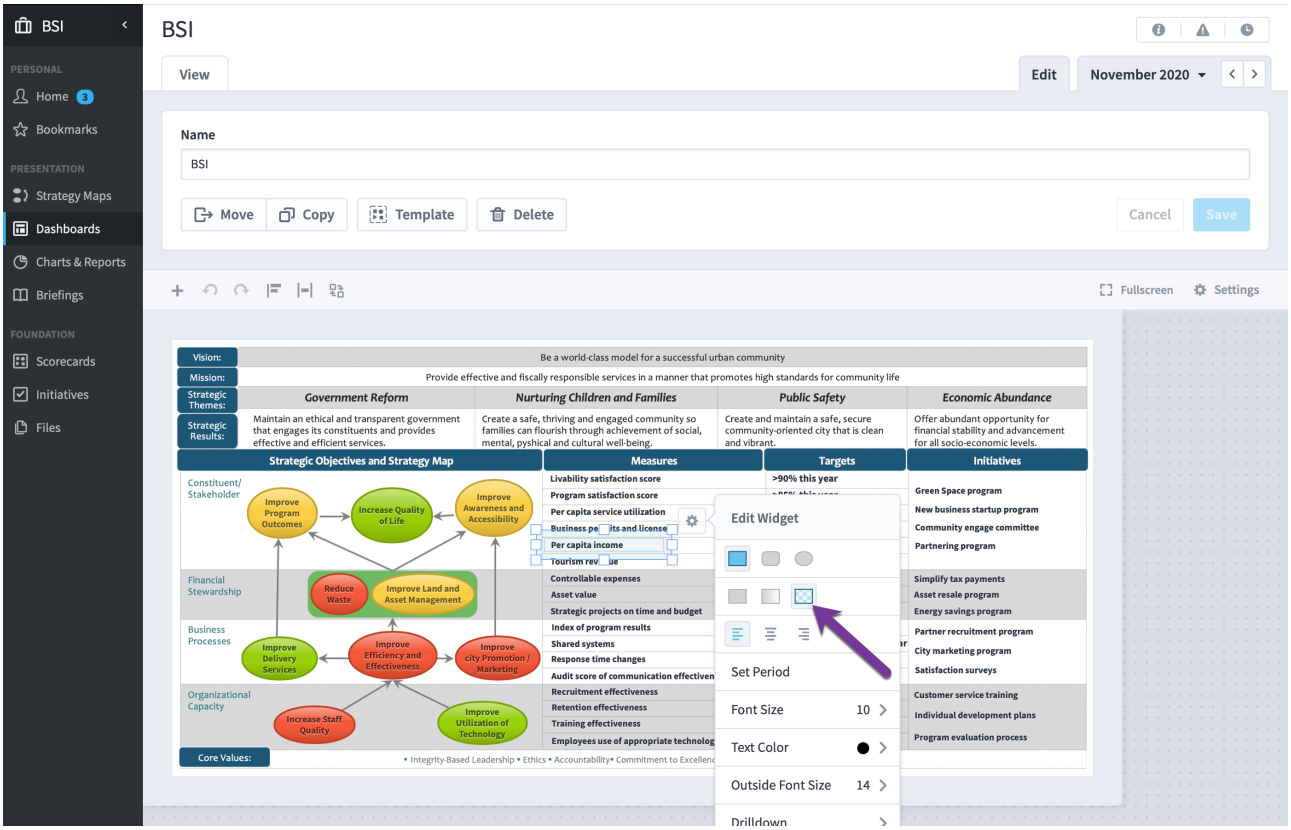
Raw PNG images can be very large, though, so we're going to reduce the file size before we use our screenshot in Spider Impact. There are a variety of tools to do this, including free online utilities you can find by doing a google search on "image compression online".

Creating Your Dashboard

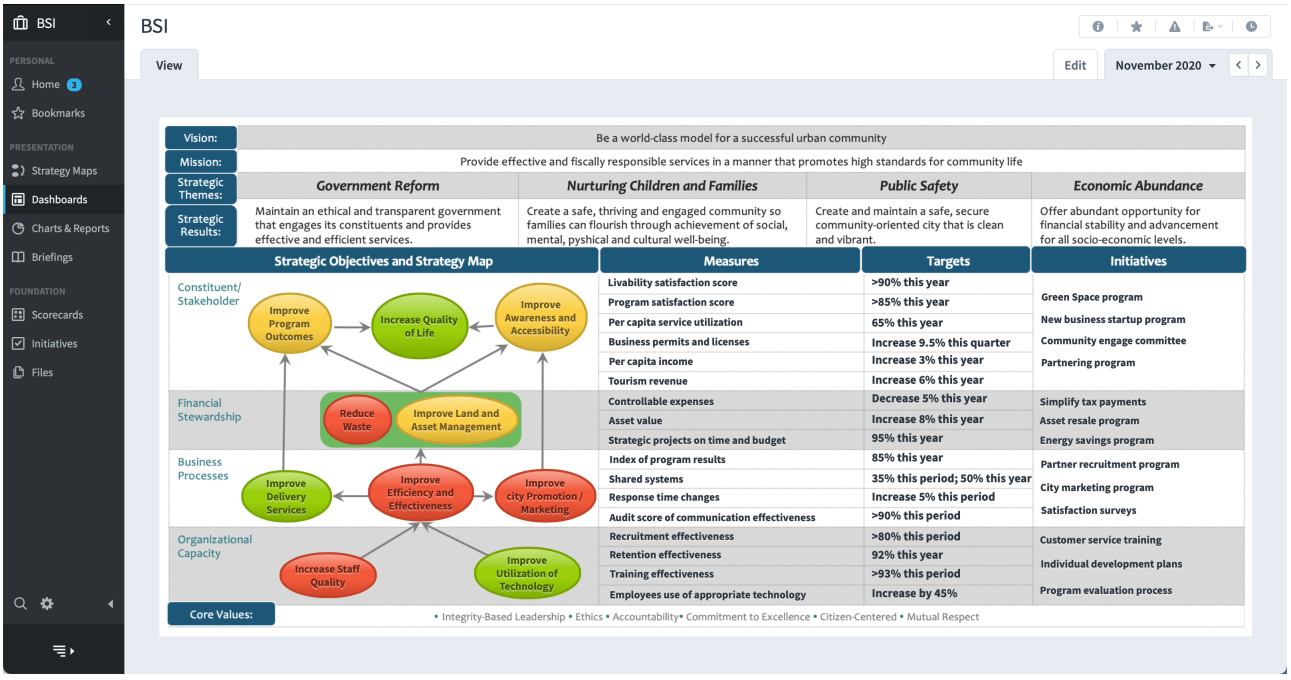
Now it's time to add your dashboard. Be sure to resize it large enough so that there's plenty of room to add content, and the lock it in place.



And finally we'll add widgets. Here we've added bubbles for the objectives, measures, targets, and initiatives. For the Measures, Targets, and Initiatives we've turned off the bubble background so only the text shows up. That way you can click on the text to drill down for more information.

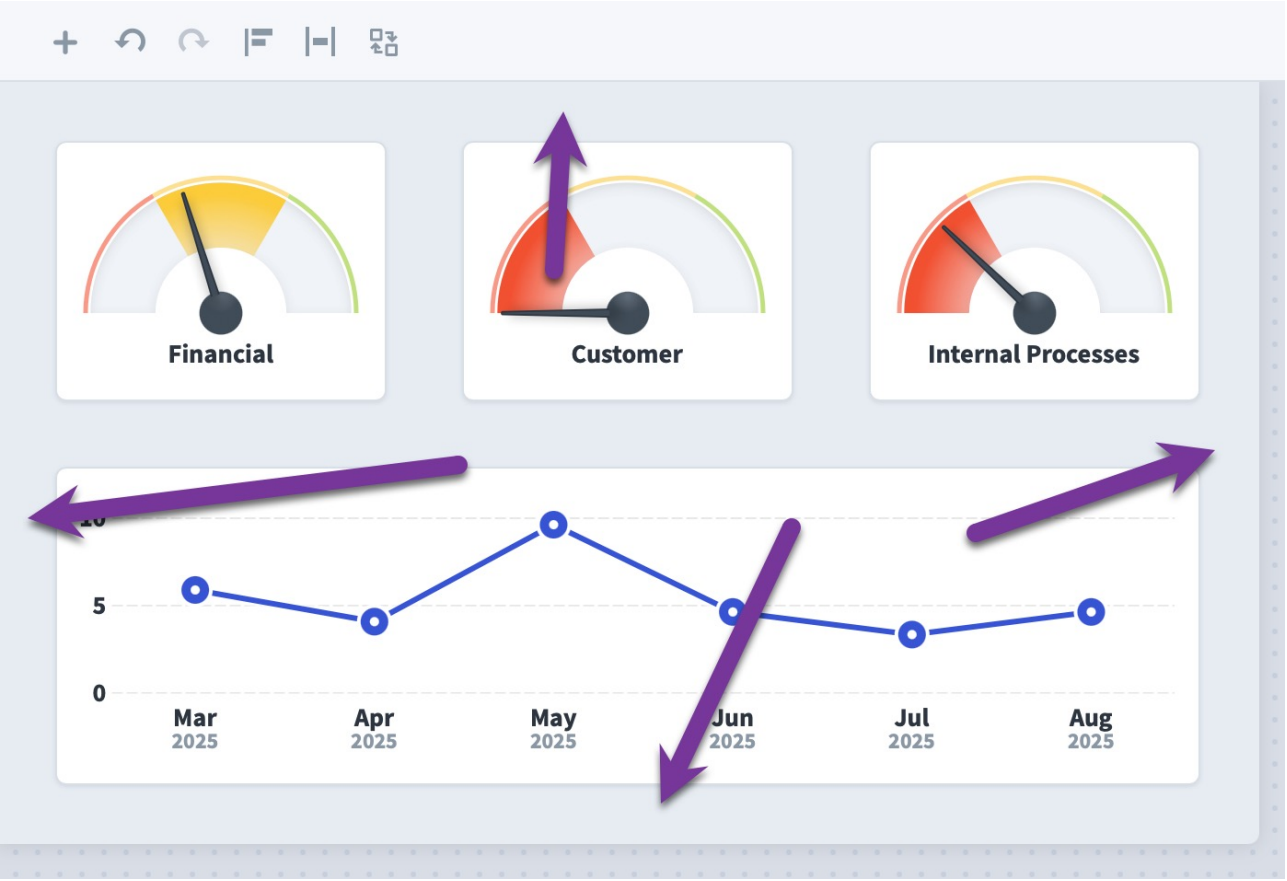


When we're done we have a fully interactive dashboard showing live data, all in a format that our organization is familiar with.

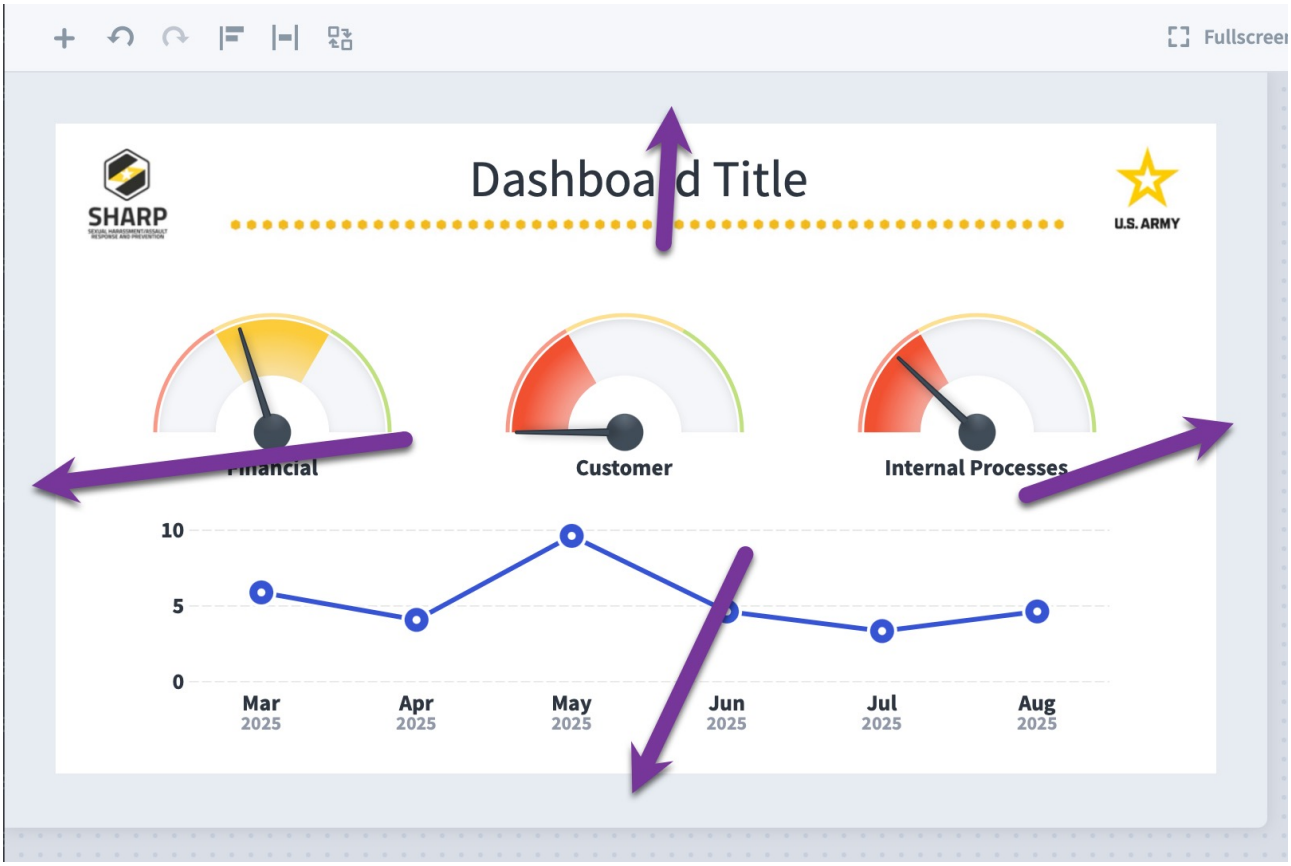


Removing edge padding for full-screen images

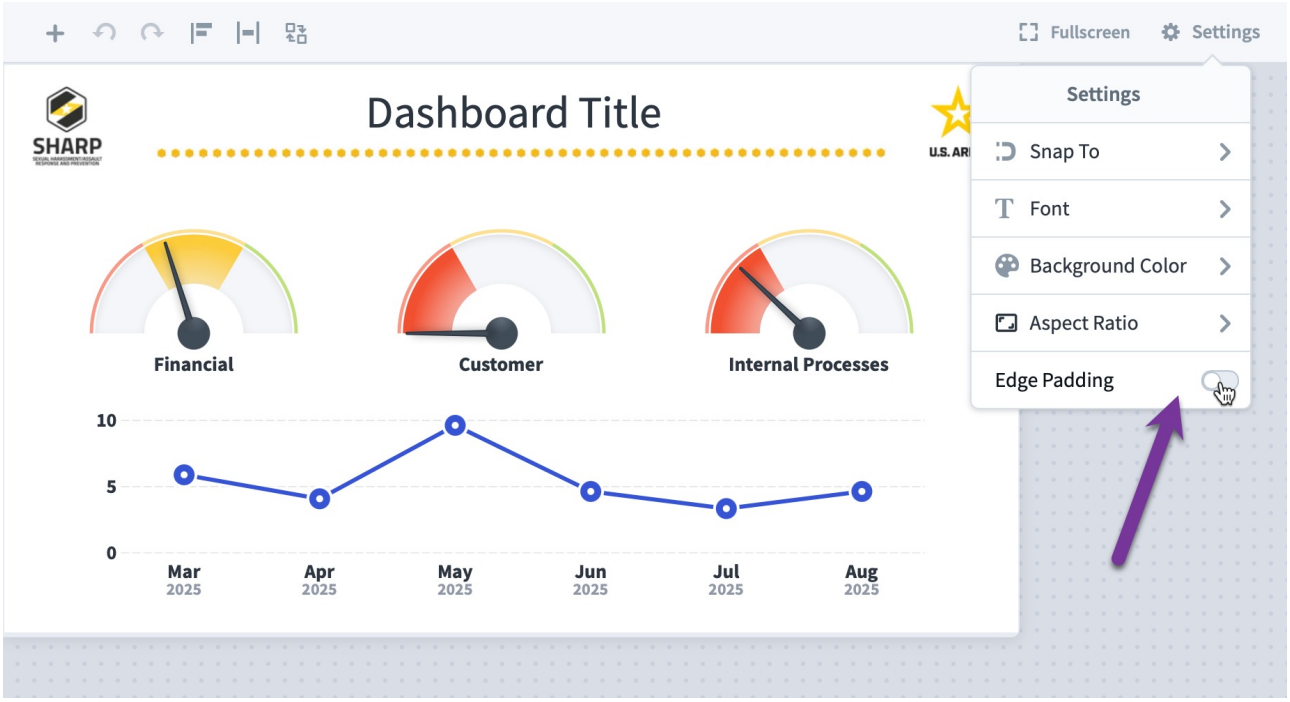
By default, dashboards have padding on all sides of the dashboard. This padding provides comfortable spacing around dashboard content, which works well for standard data displays with widget arranged in a grid.



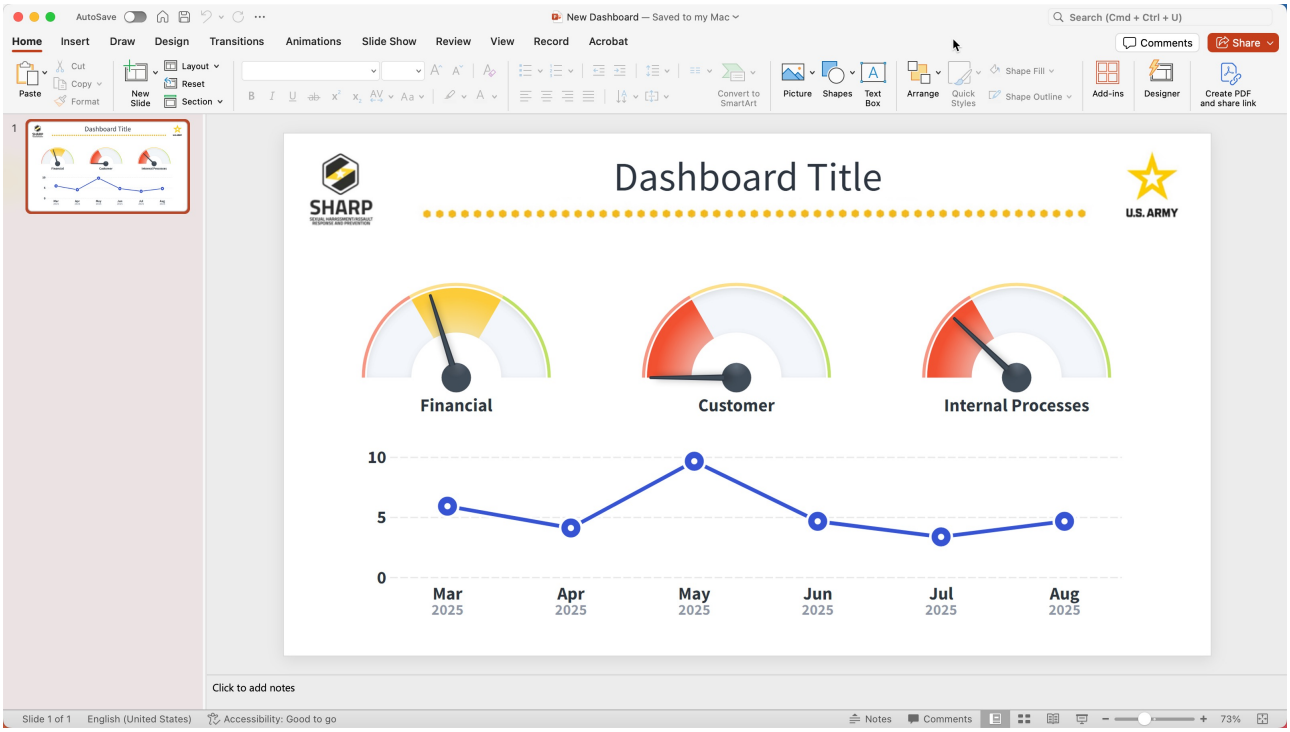
However, when a dashboard has a single background image filling the entire canvas, this automatic padding around the dashboard creates unwanted space between the background image and the dashboard edges.



You can fix this by turning off Edge Padding to allow widgets and backgrounds to extend all the way to the dashboard edges. With Edge Padding disabled, you can create immersive, edge-to-edge dashboard designs perfect for presentations and displays with full-bleed backgrounds.



Removing dashboard edge padding is particularly noticeable when exporting dashboards with background images to PowerPoint.



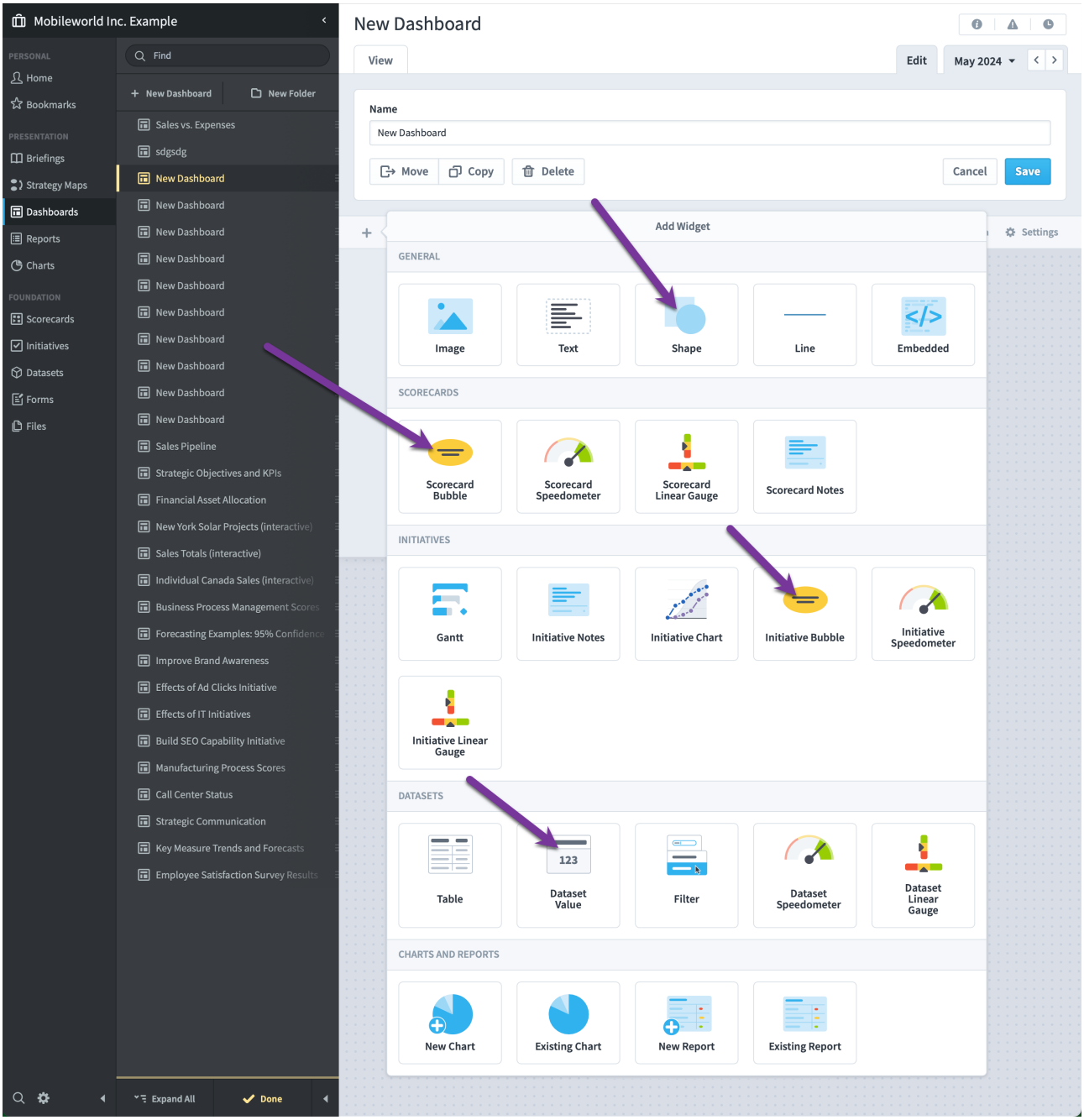
Shape, Bubble, and Value Widgets

One Widget, Many Appearances

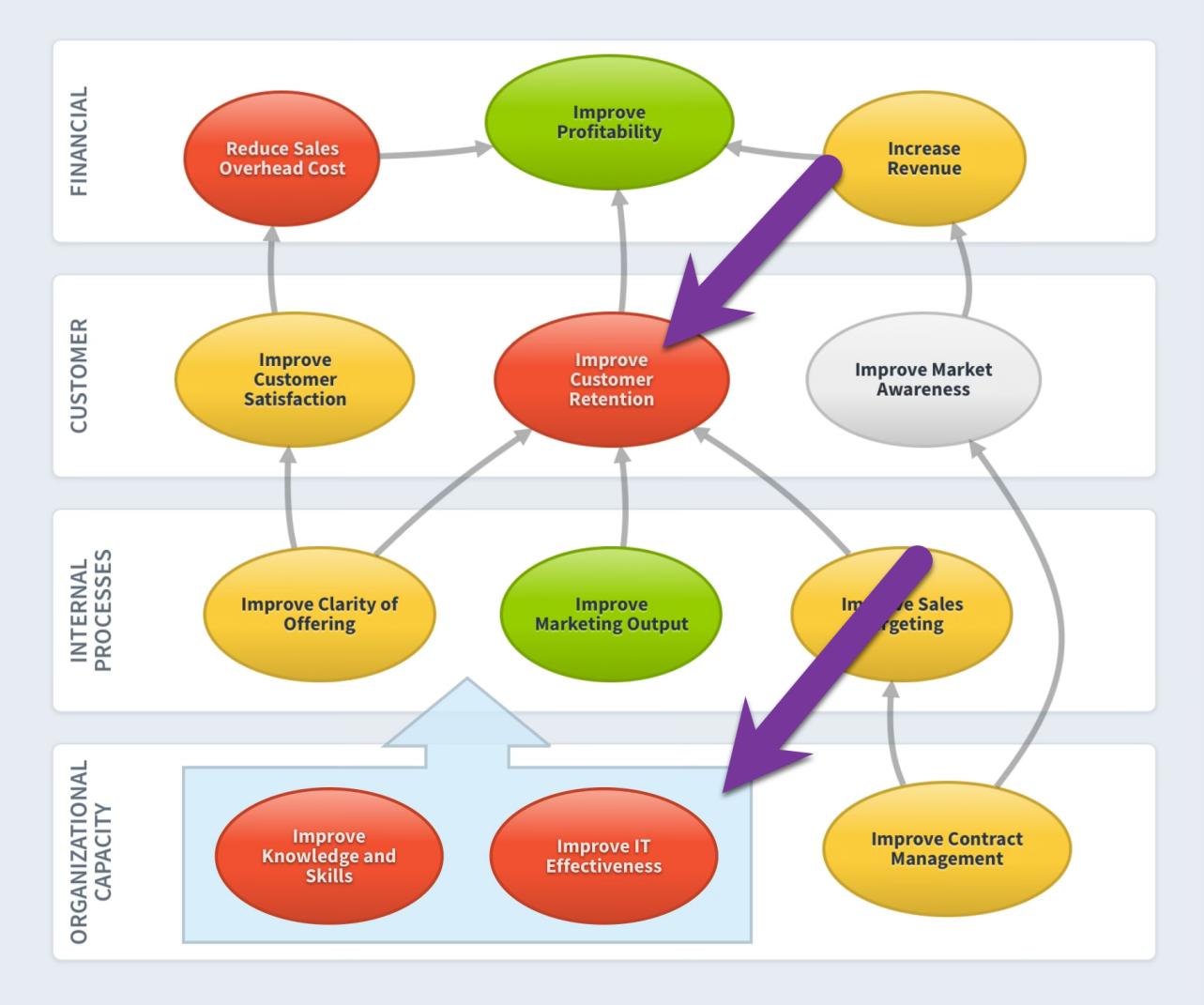
Single-value widgets can show data from any source (including no source) with display options that are incredibly flexible. This single widget appears as four different options in the Add Widget menu:

- Shape
- Scorecard Bubble
- Initiative Bubble
- Dataset Value

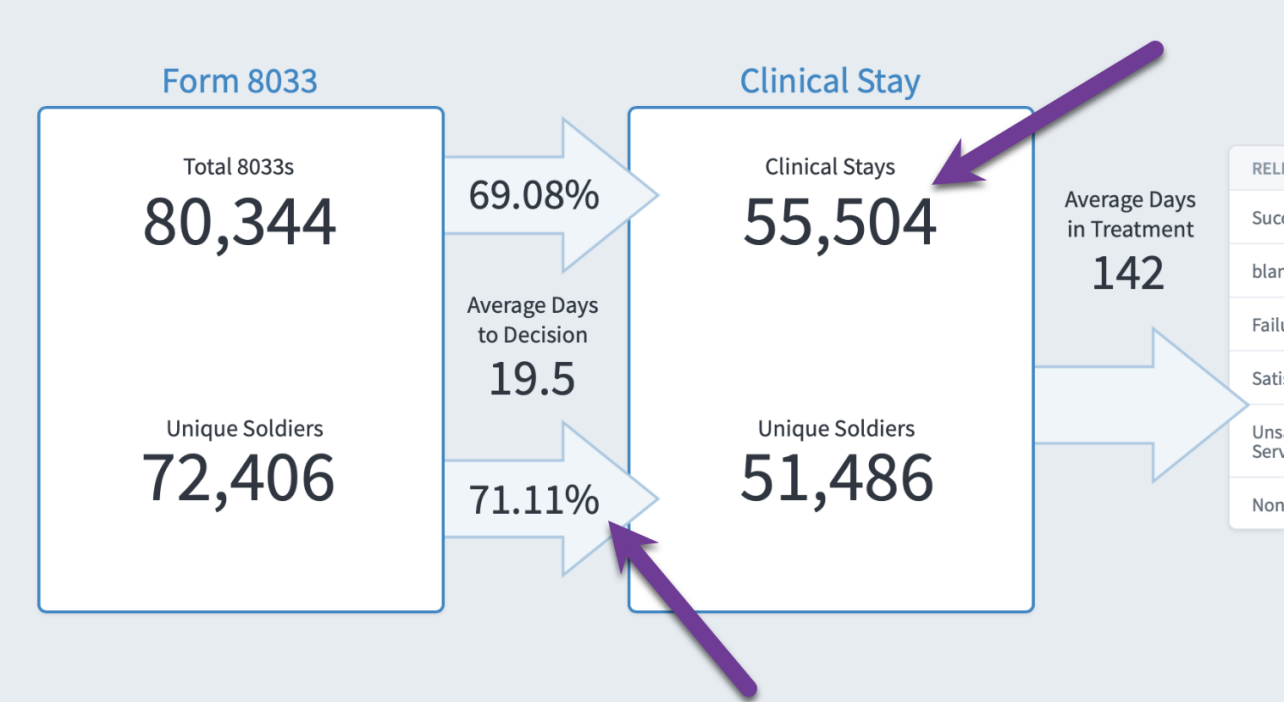
This allows single-value widgets to be quickly added to dashboards with formatting options optimized for each data source.



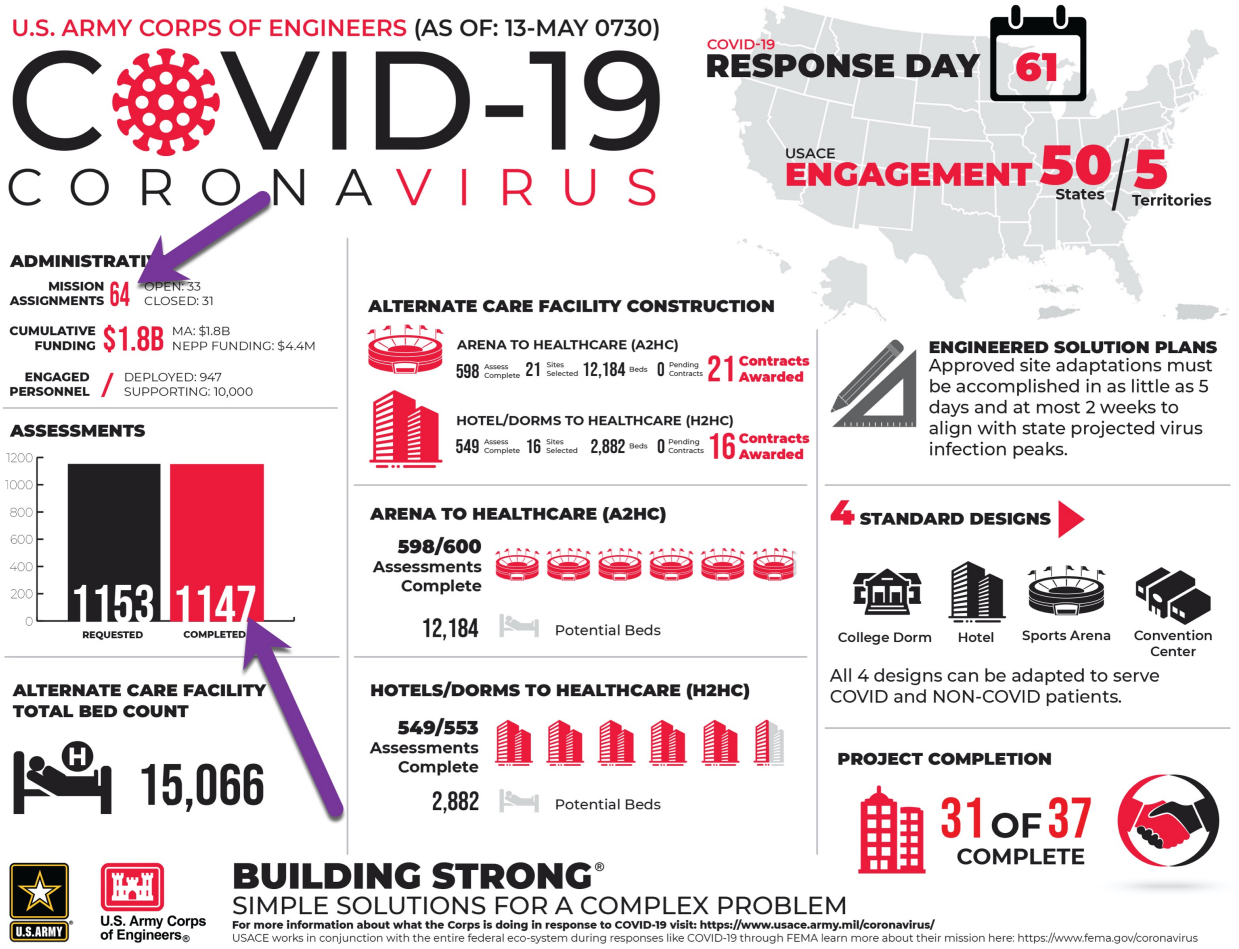
These single value widgets can be used for a wide variety of purposes, from PowerPoint style layout shapes like the blue arrow box, to dynamically colored performance bubbles.



You can use them to show actual performance values too, both inside shapes and on their own.

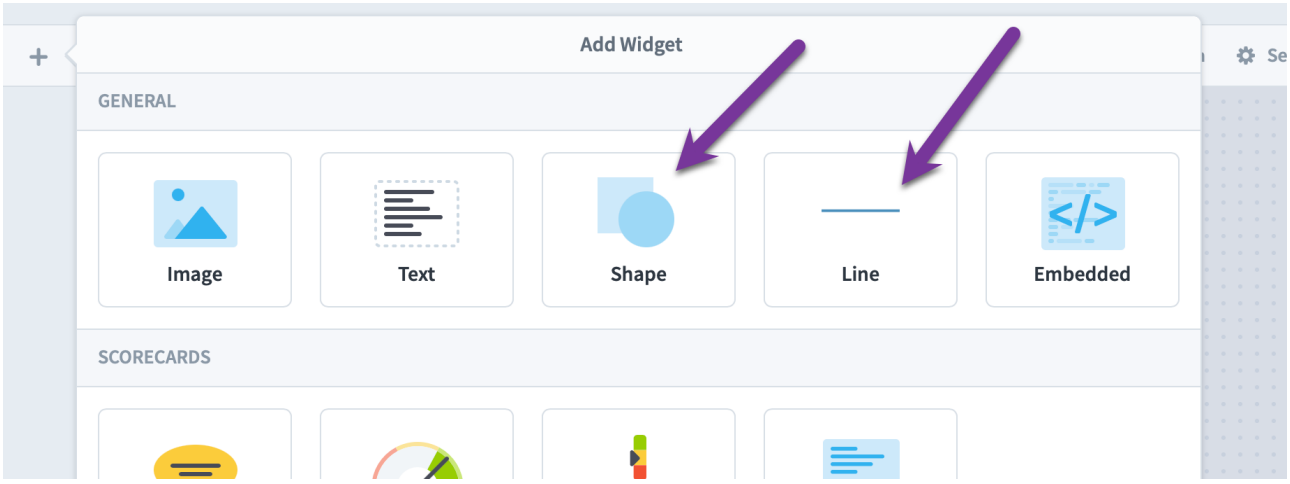


You can even use single value widgets to create infographic-style dashboards, like this example where the dynamic number is always red in one place and always white in another.

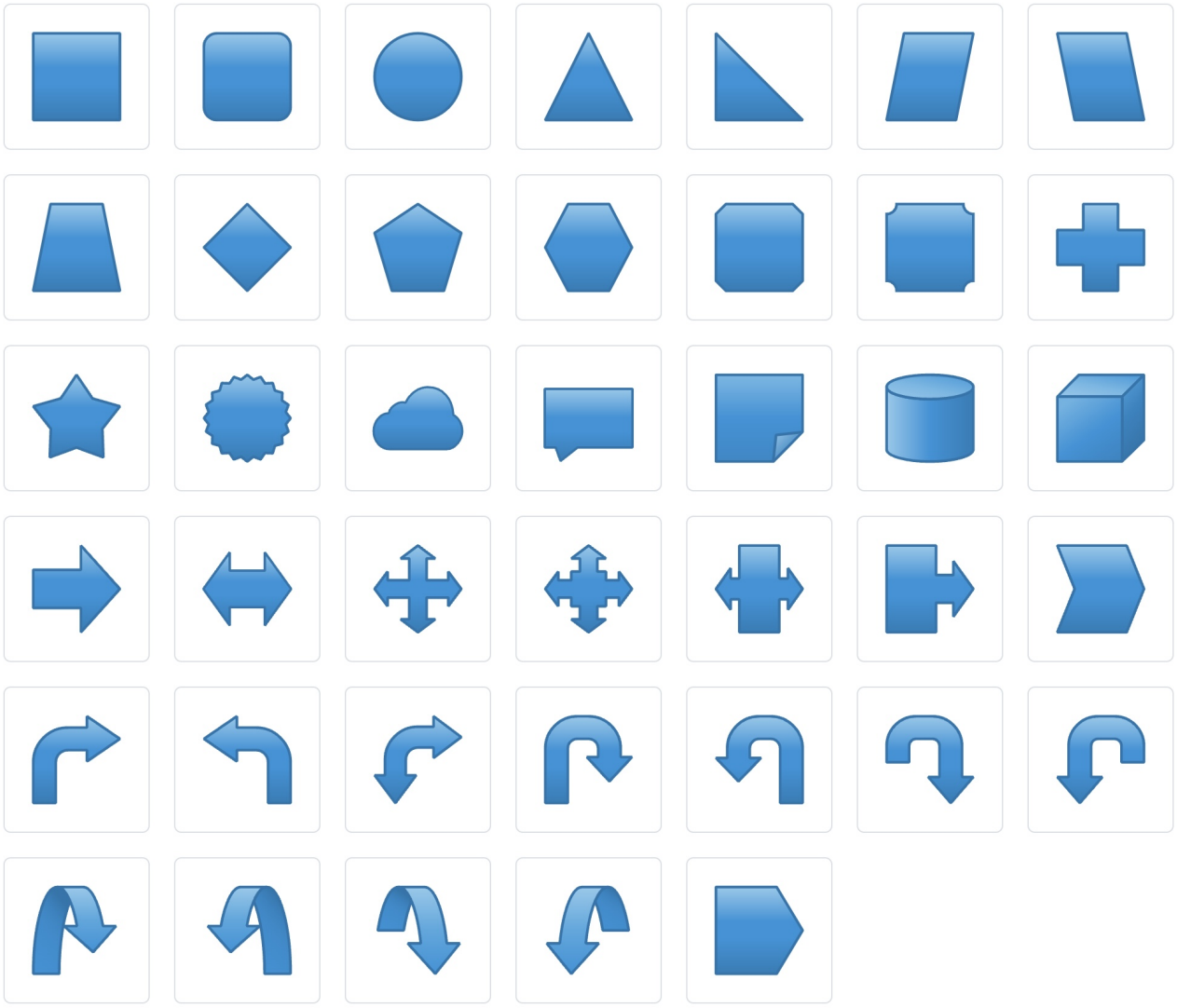


Shapes

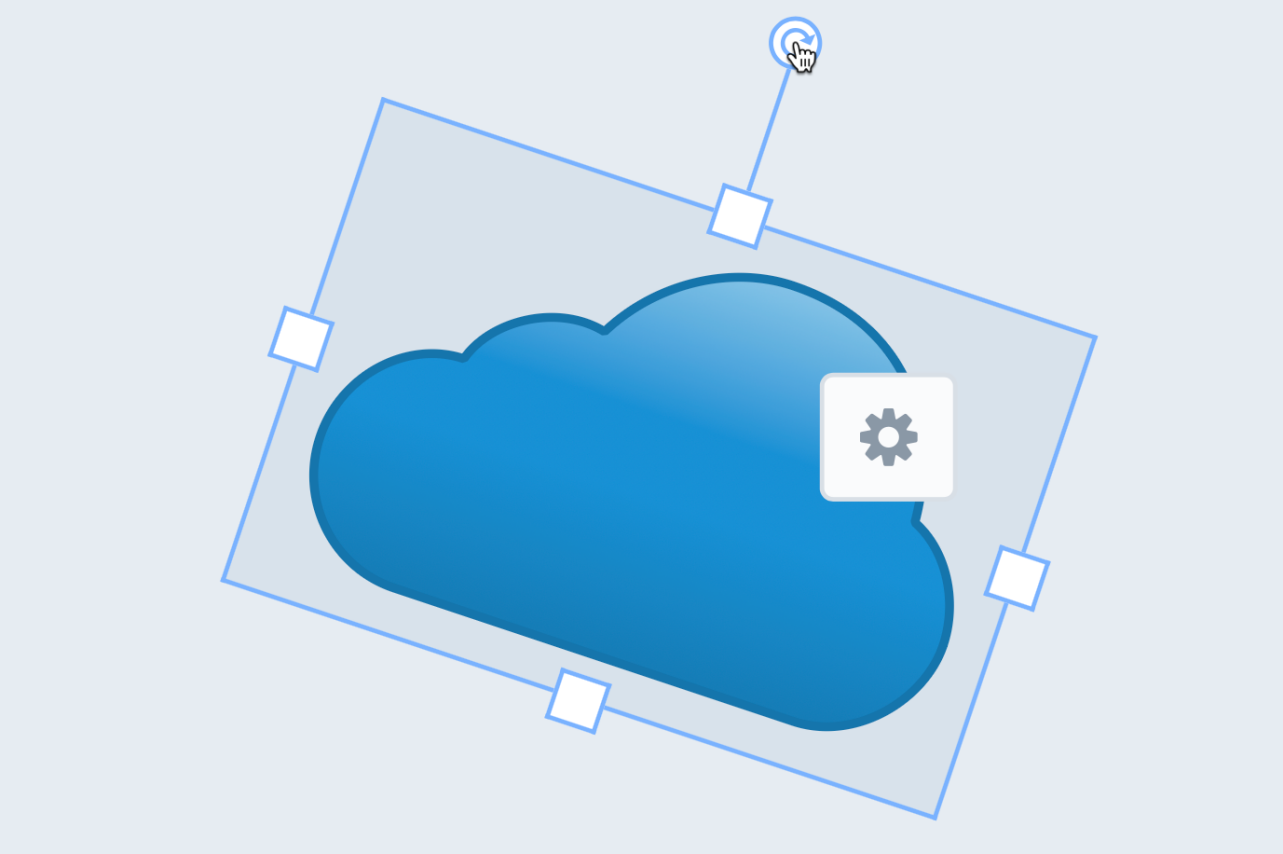
Just like with PowerPoint, you can add shapes and lines to dashboards.



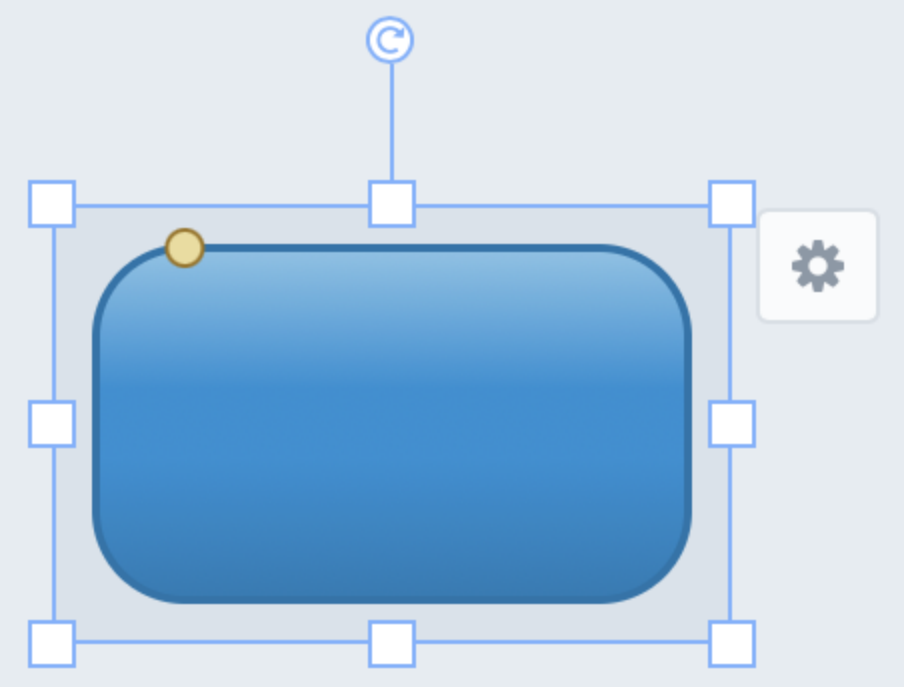
Choosing "Shape" allows you to add one of 40 shapes to your dashboard.



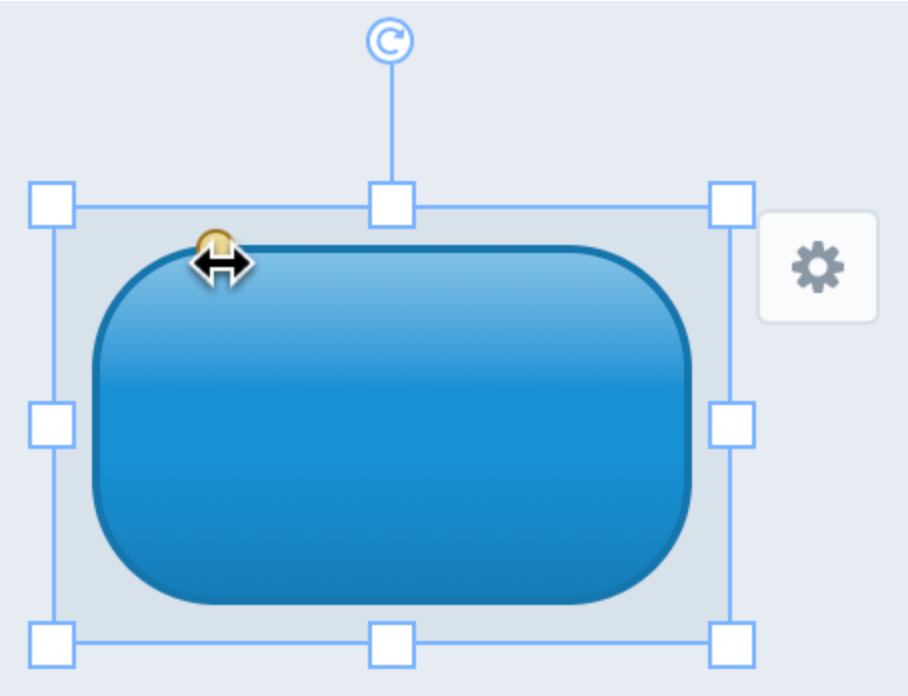
These shape widgets can be resized, moved, and rotated.



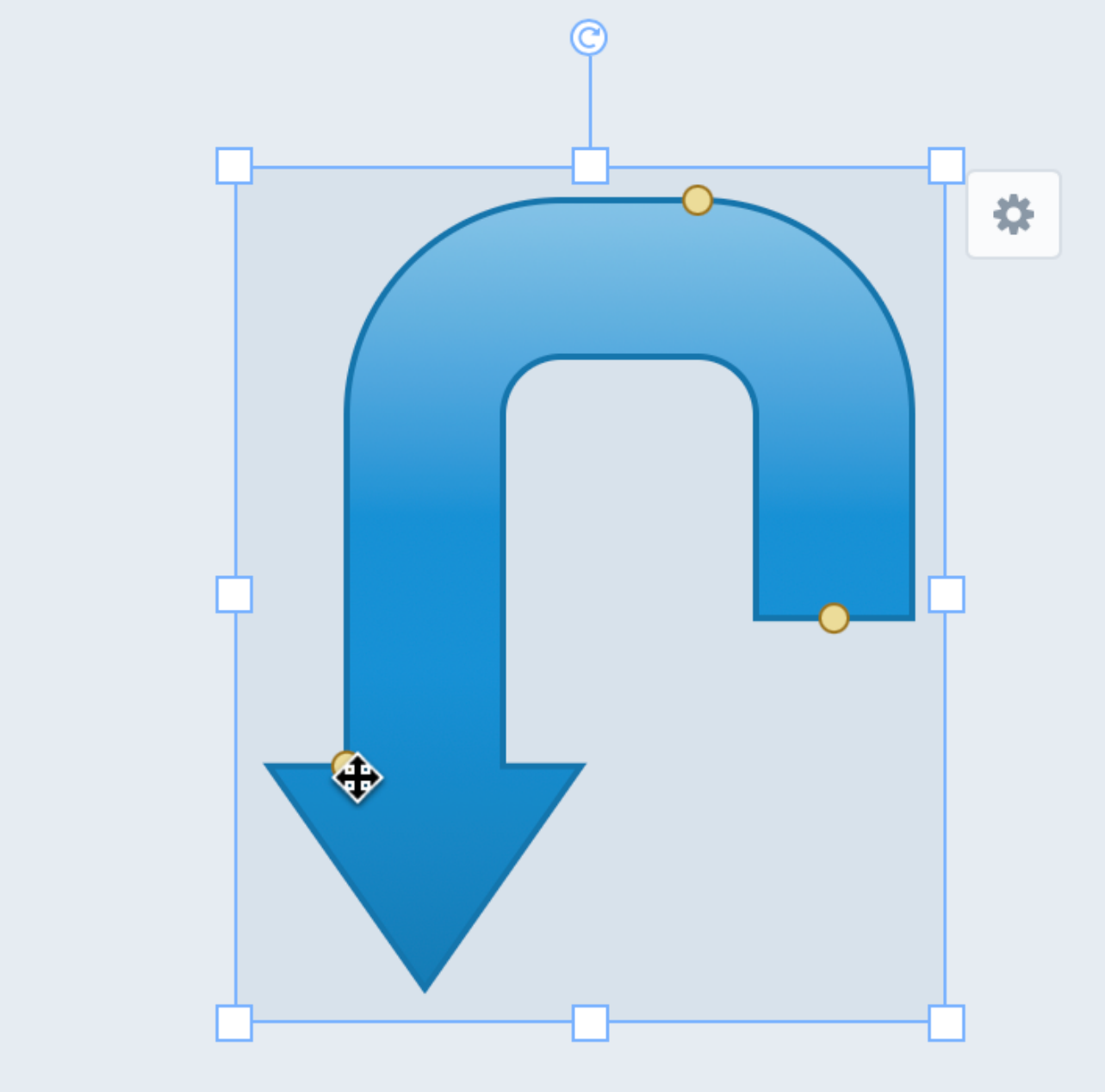
Many shape widgets have additional yellow handles to further adjust their appearance. For example, the rounded rectangle shape has a yellow handle near its corner.



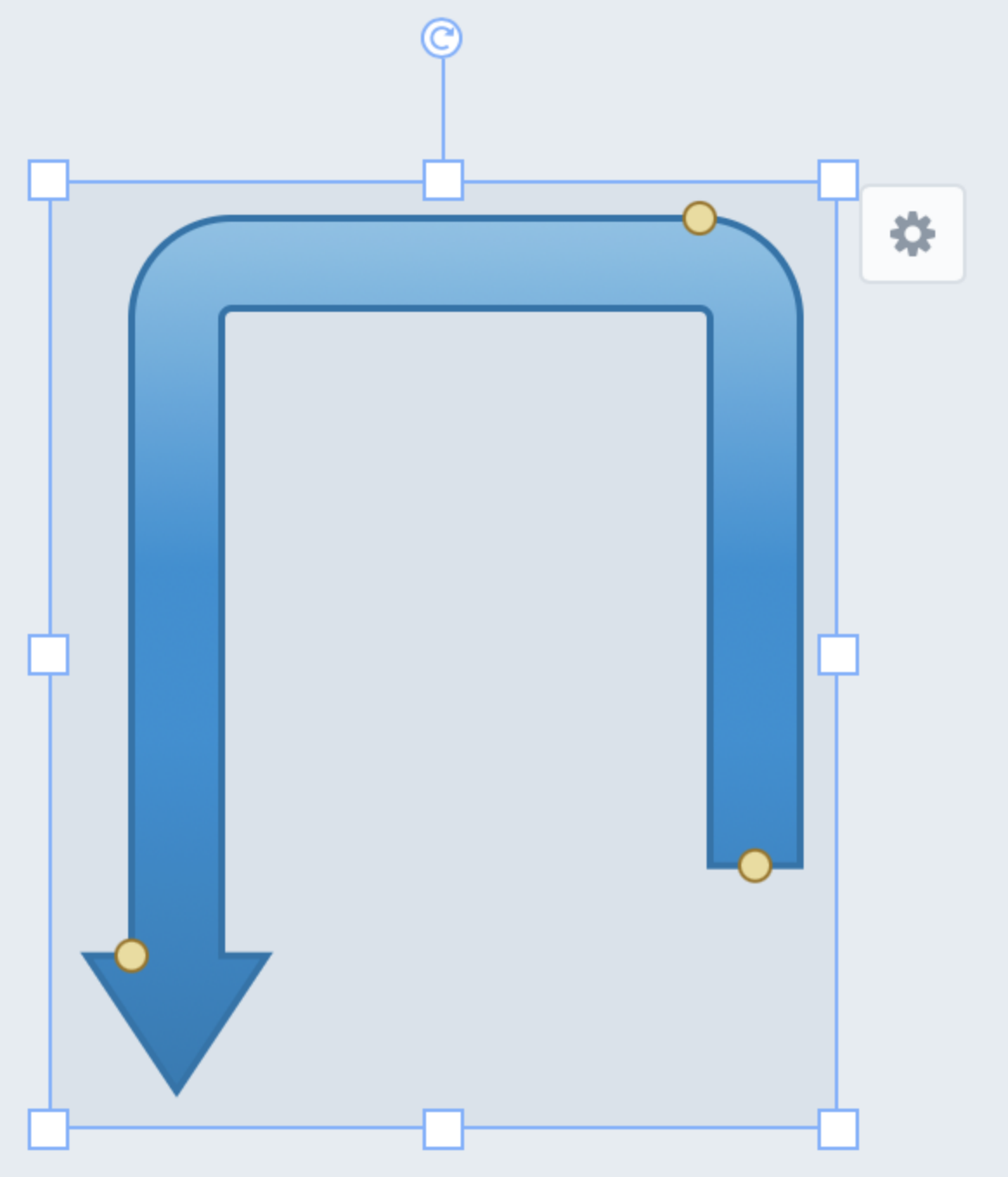
Dragging it horizontally changes its corner radius.



More complex shapes like this u-turn arrow have as many as three yellow handles.



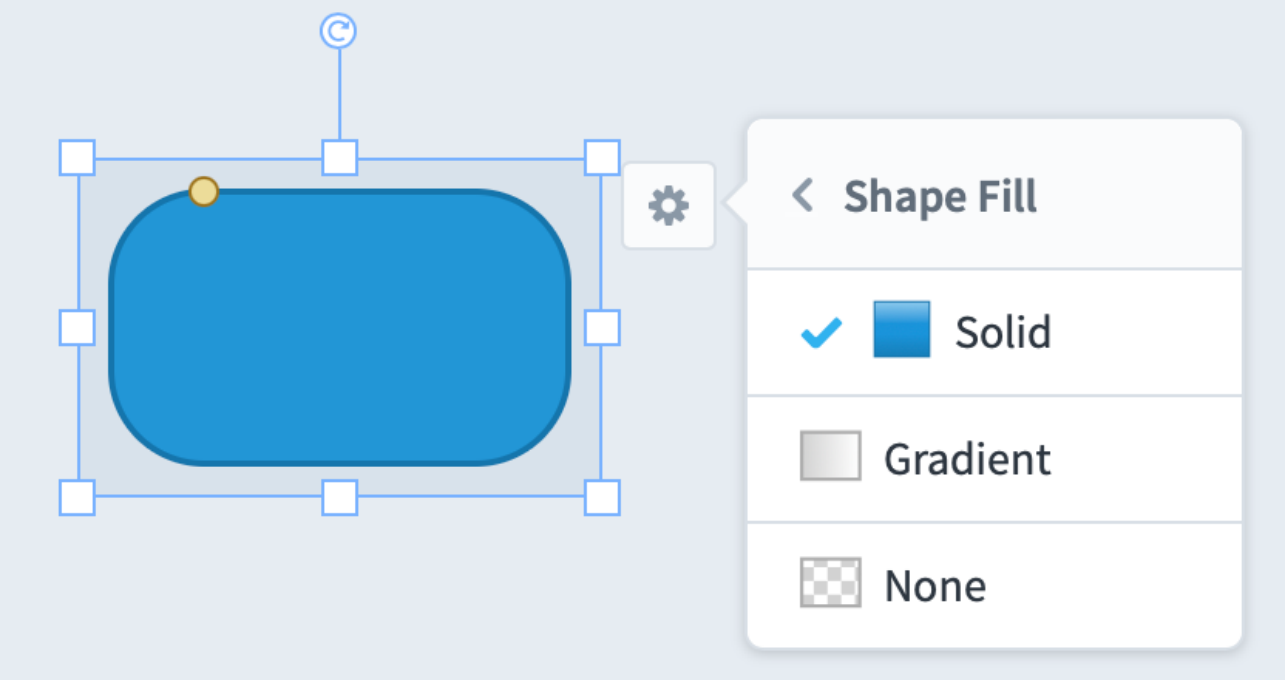
Here we've modified the arrow to be narrow with sharp turns.



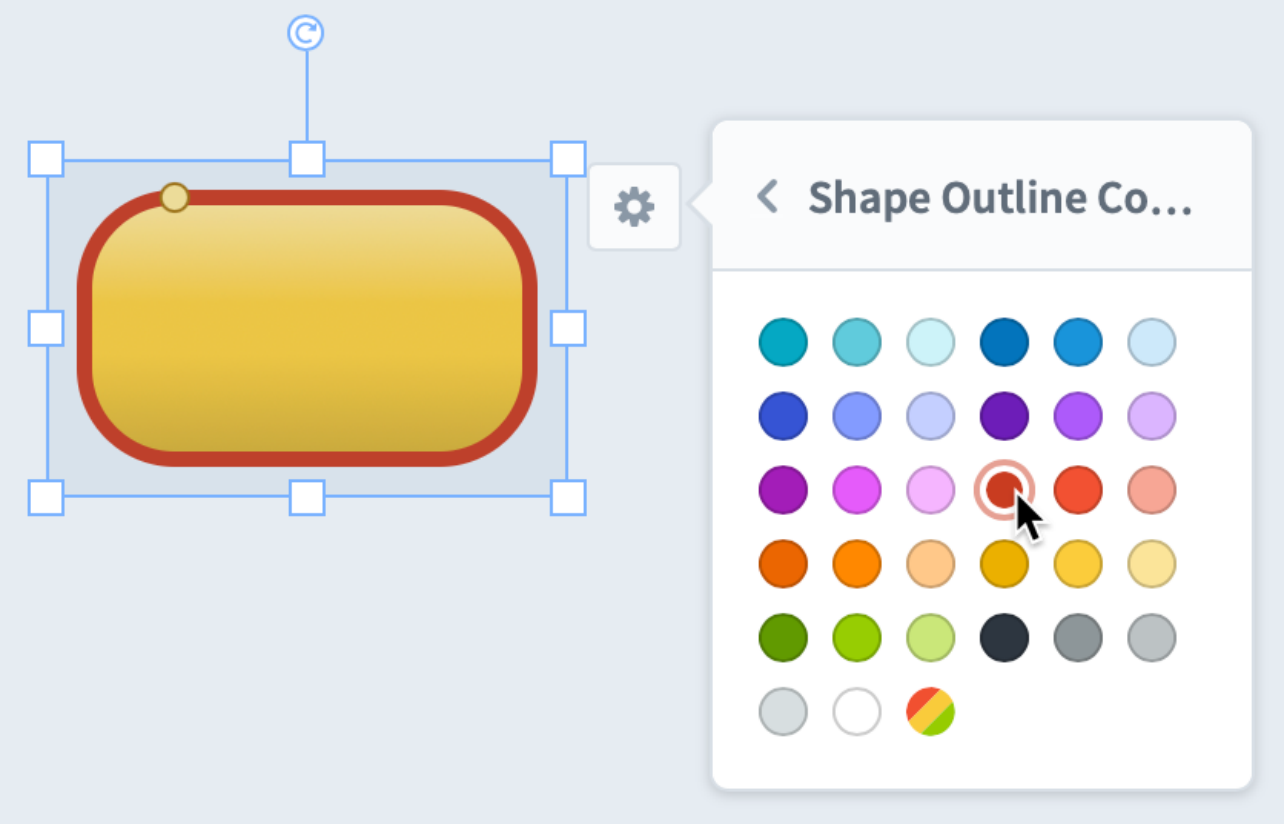
These new Shape widgets open the door to an entirely new category of data visualization that can closely match PowerPoint slides.

Setting fill, outline, and opacity

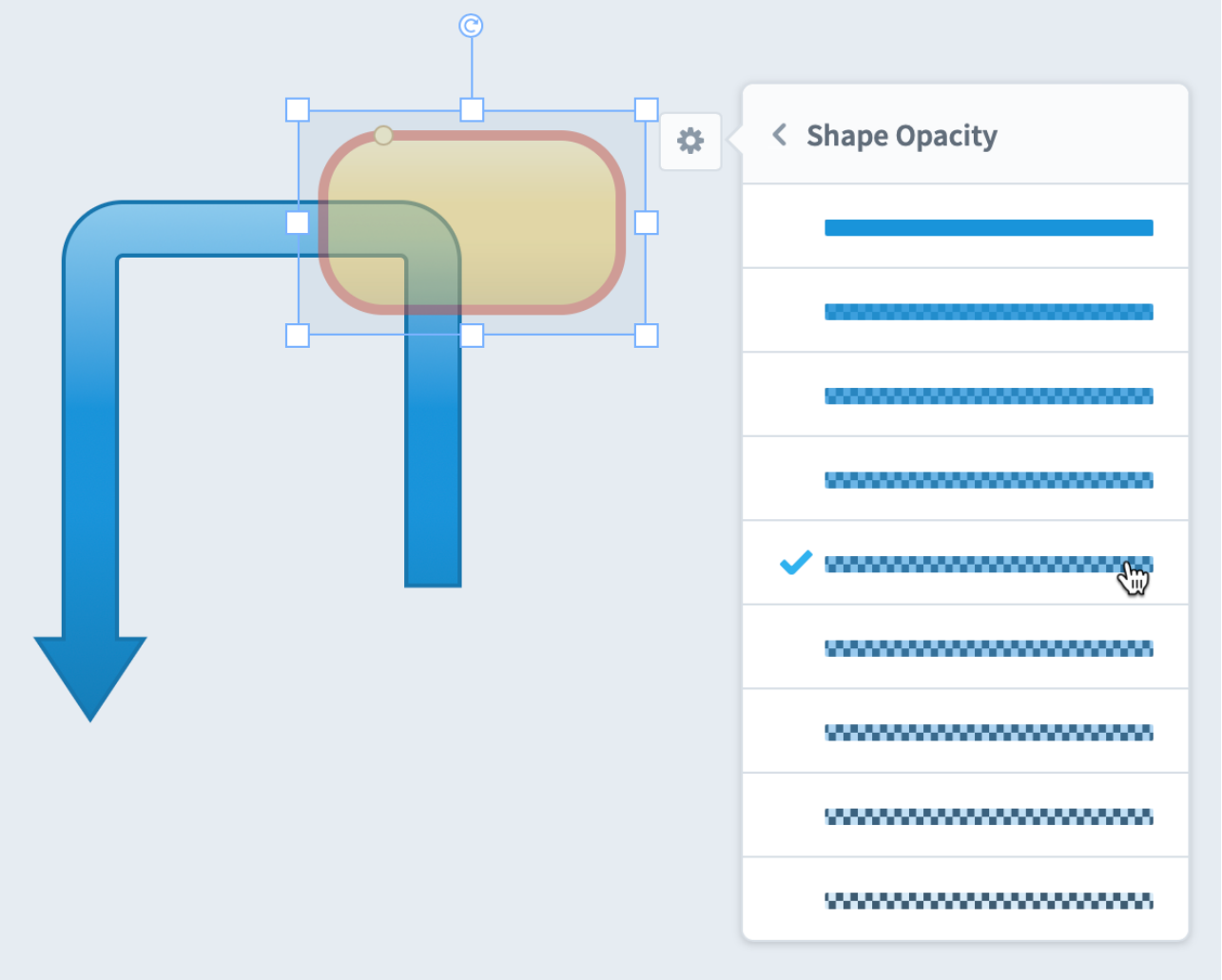
You have complete control over the appearance of the appearance of shape widgets. Here we've changed to a solid fill instead of gradient.



You can manually choose the fill color, outline color, and outline thickness.



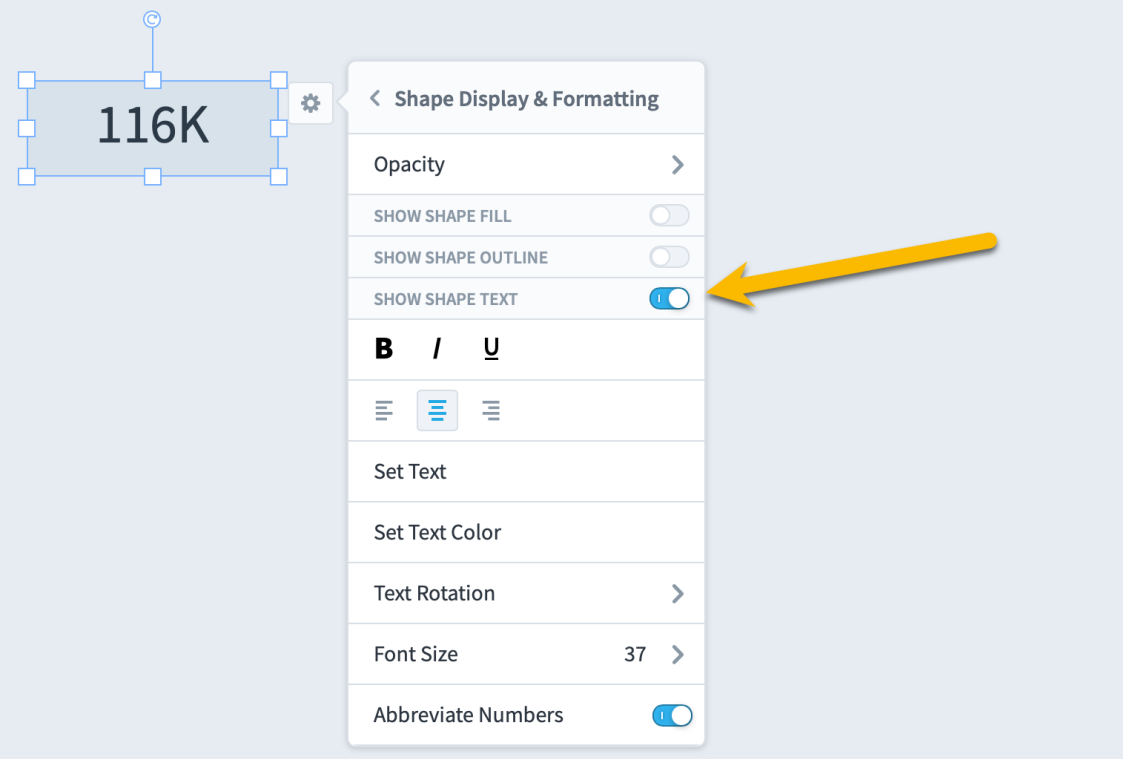
You can even set the shape opacity, creating see-through objects or containers.



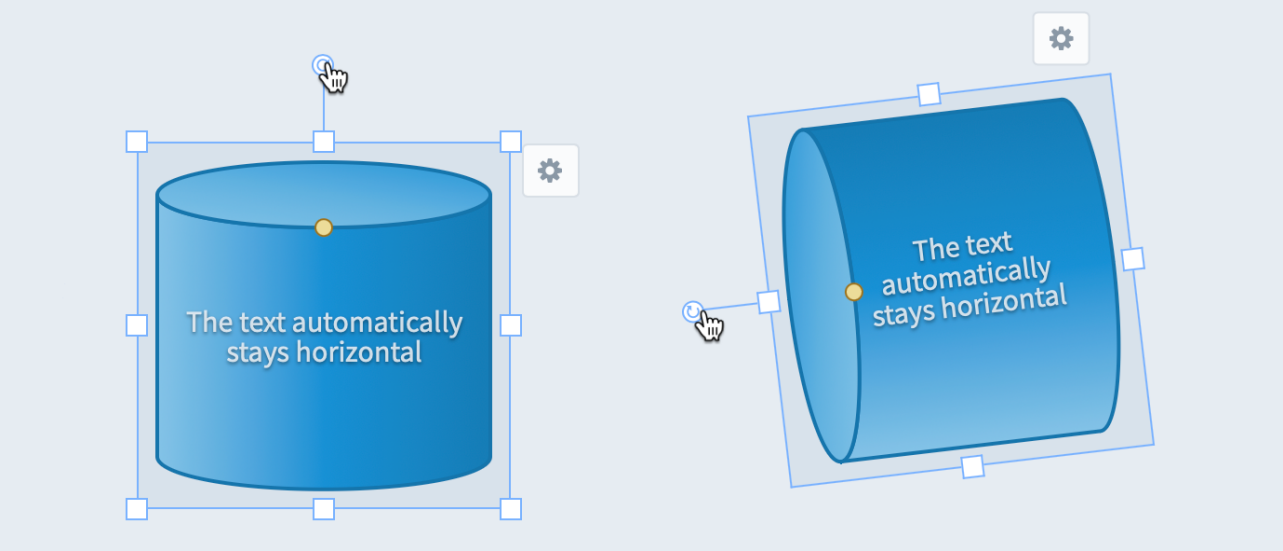
Setting and configuring text

You can choose to add text to shape widgets. You also have a variety of text formatting options including:

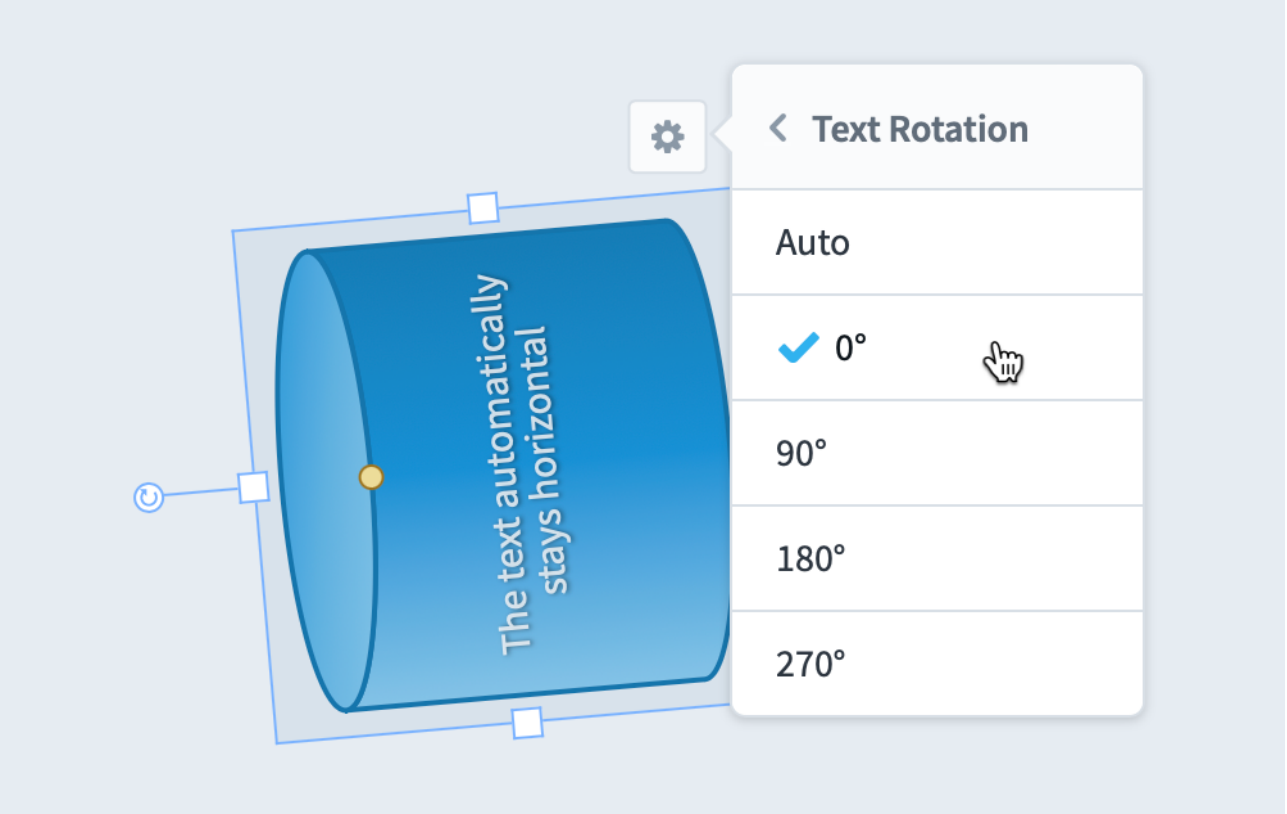
- Bold
- Italic
- Underline
- Align left, center, or right
- Font size



Text rotates along with the shapes, automatically snapping to 90 degree increments to maximize readability.

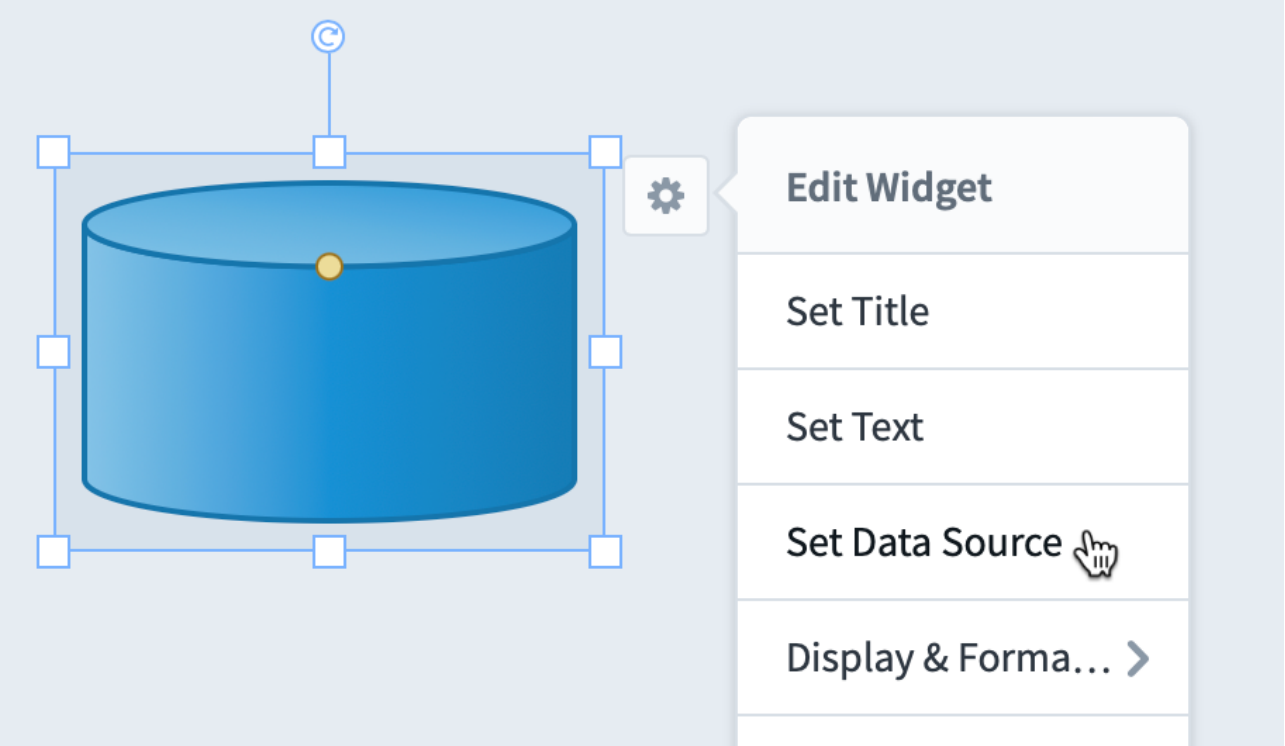


You can override this Auto text rotation, however, choosing static text rotation at 90 degree increments.

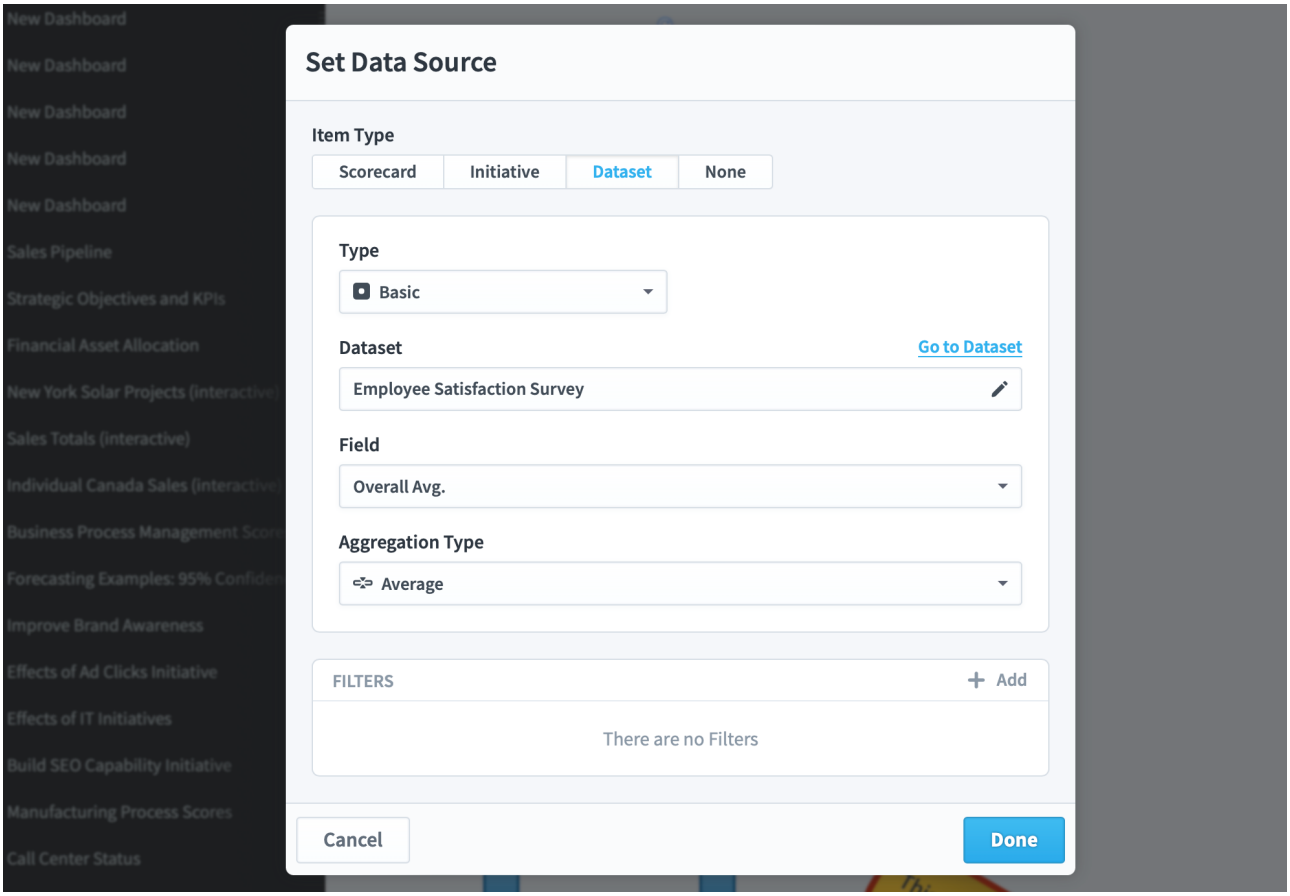


Setting data source

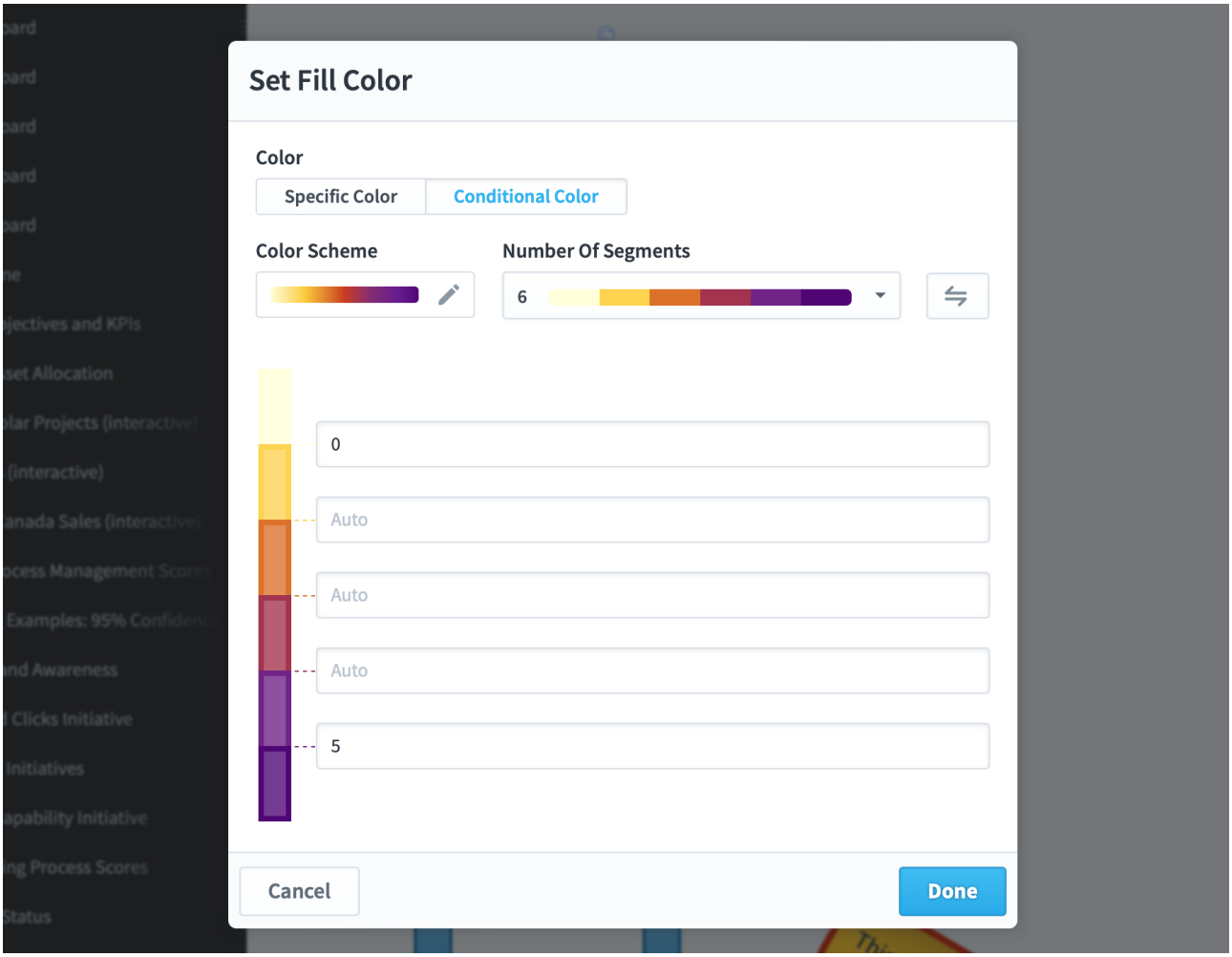
Shape widgets come alive when you wire them up to data.



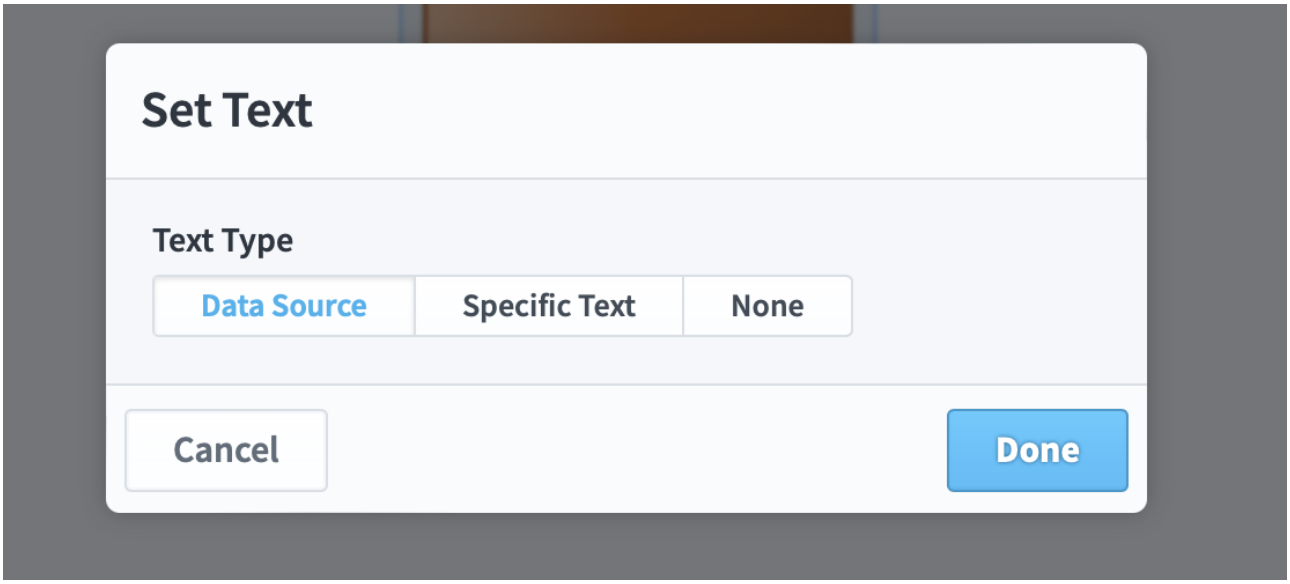
In the Set Data Source menu you can change the shape's data source from "None" to a scorecard, initiative, or dataset value. Here we've decided to use a dataset value: the average employee satisfaction survey result.



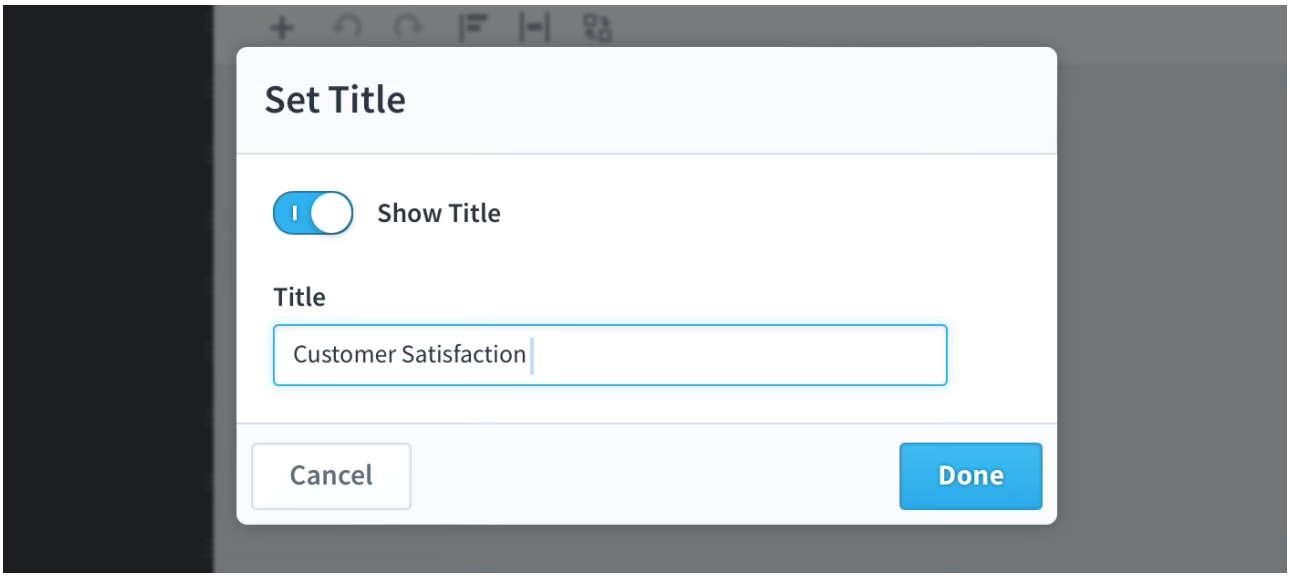
And, instead of showing a specific color, we'll change this shape's color to be conditional based on the dataset value. We've chosen a heat map color scheme with evenly-sized segments for customer satisfaction scores between 0 and 5.



We'll also change the text on the shape from "Specific Text" to "Data Source", which will show the customer satisfaction score from the dataset.



Finally, we'll set the shape widget's title to "Customer Satisfaction".



When we're done we have a dynamically colored shape that shows a dataset value.



When shape widgets are connected to data, the display options don't stop there. Here we've turned off both the shape's fill and outline, using the conditional color for the text.



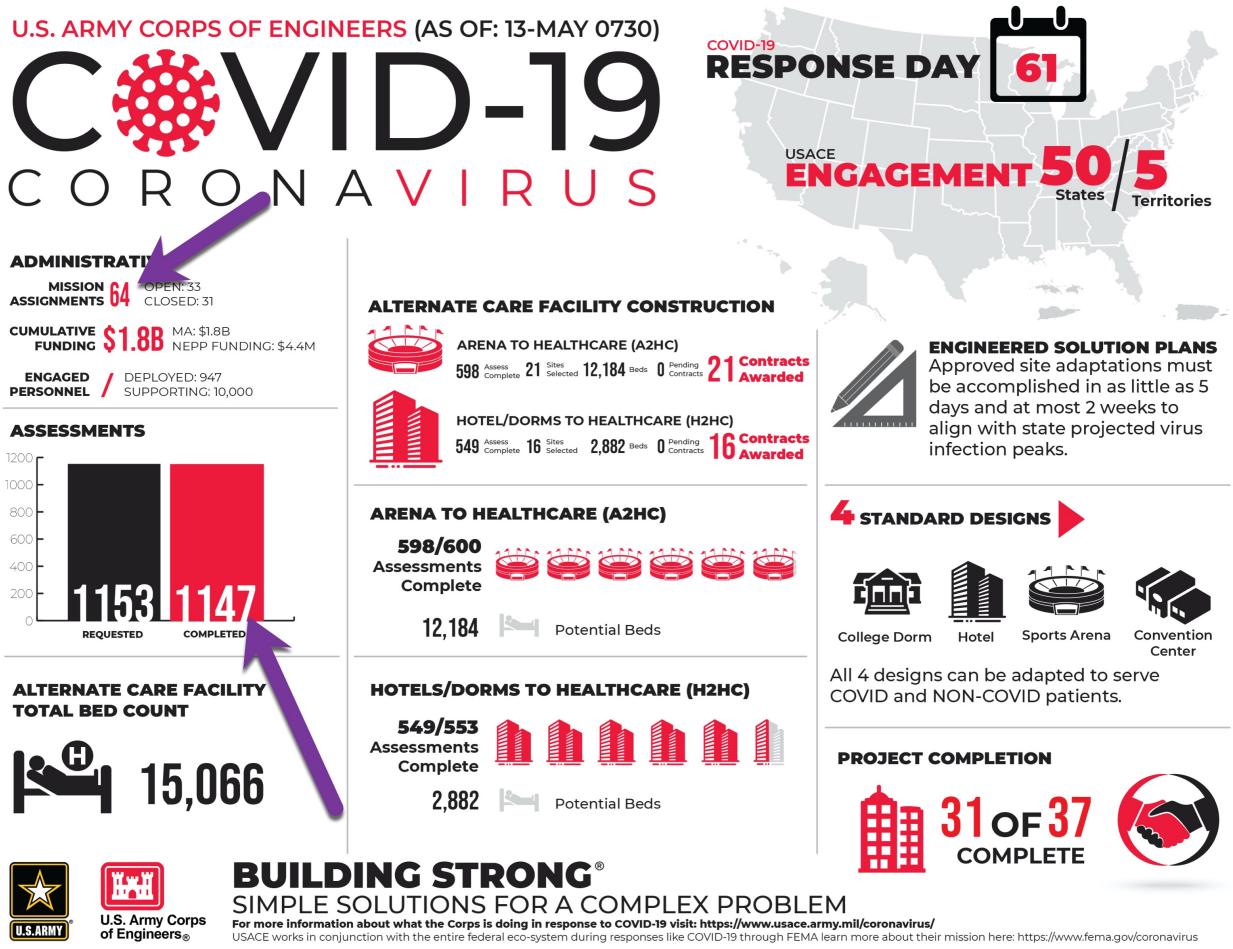
Turning on the widget background displays our value exactly like the existing dataset single value widget, except the text is dynamically colored based on the value.



Finally, we'll turn the background and title off, and choose a specific color for the text.



Statically colored values like this allow us to create infographics like shown above.



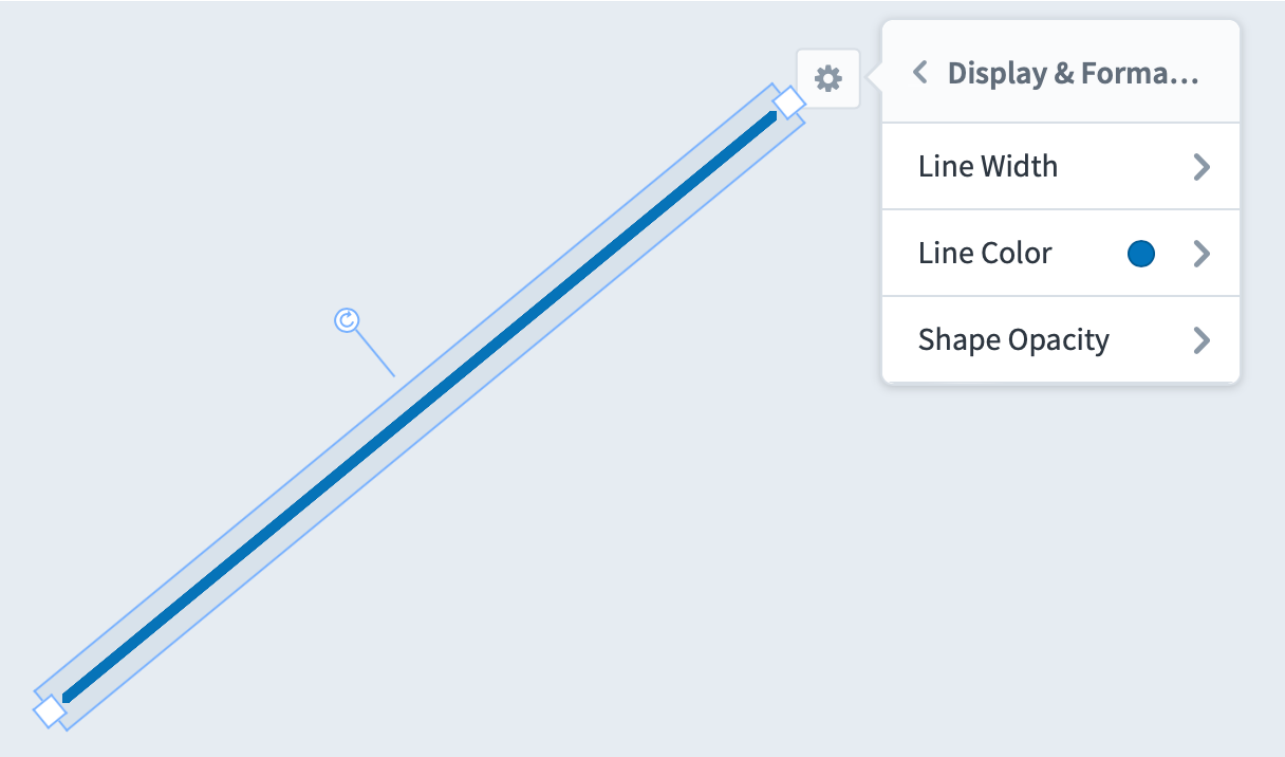
Trend Arrows

When a shape widget uses a scorecard item as its data source, there is the option to turn on a trend arrow to show how performance has changed since the previous period. This trend arrow is always placed in the upper left corner.


Total Revenue

Line Widgets

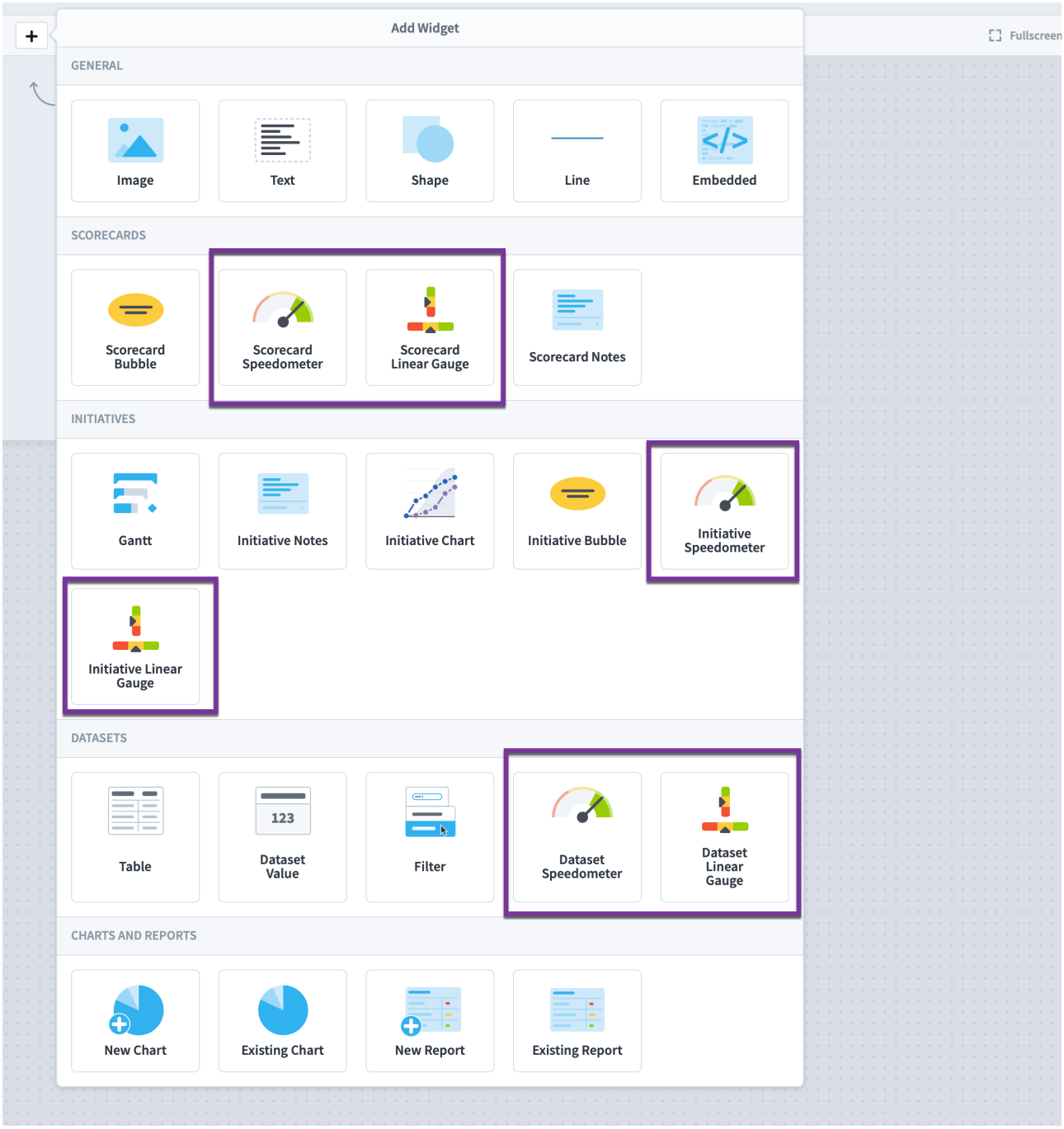
Line widgets are similar to lines in PowerPoint, supporting formatting options like dividing a dashboard into sections. They can be rotated and have formatting options like line thickness, color, and opacity.



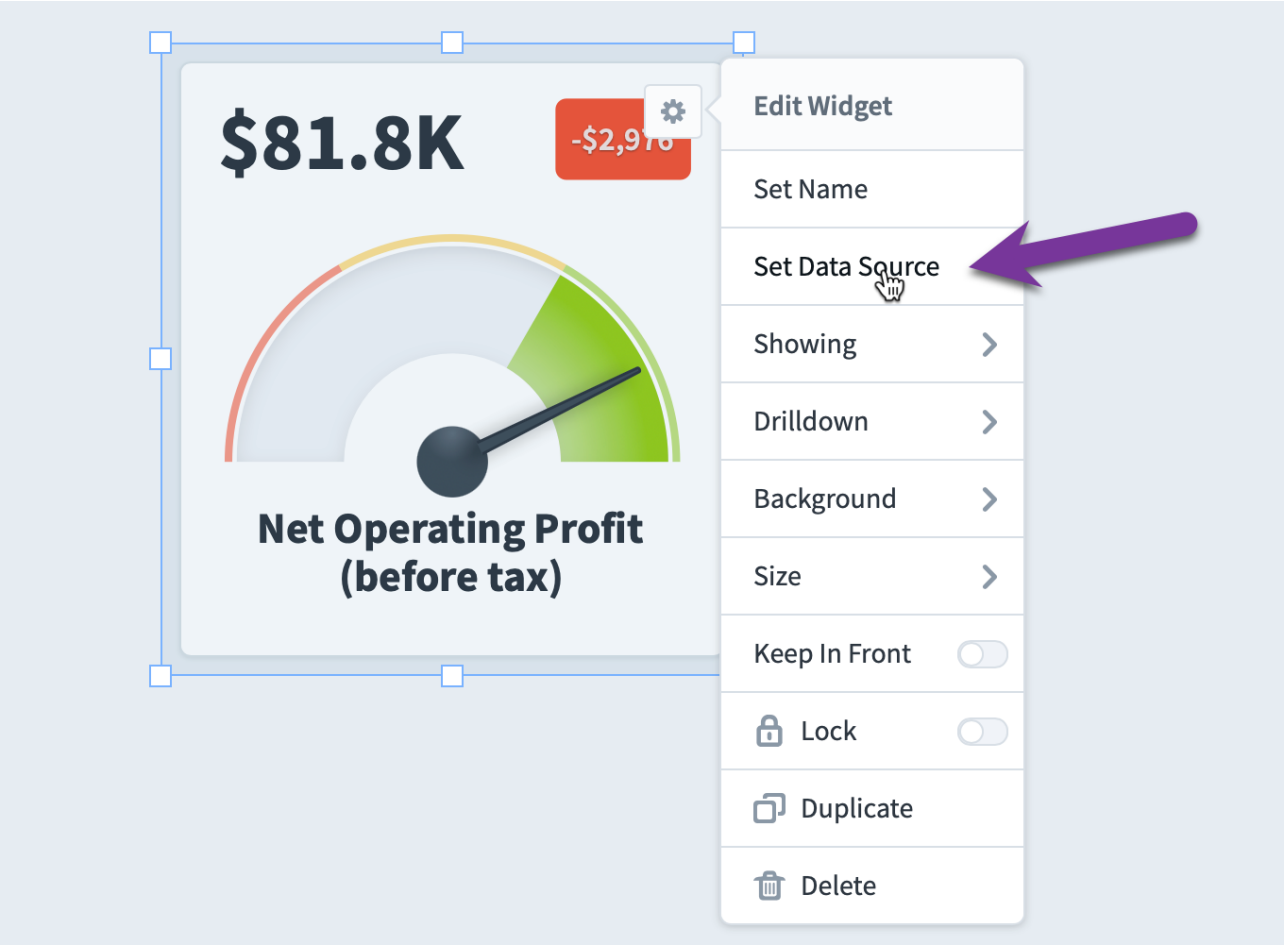
Speedometer and Linear Gauge Widgets

Overview

The Add Widget menu has speedometer and linear gauge options for Scorecards, Initiatives, and Datasets, allowing you to quickly add gauges that are wired up to your data.

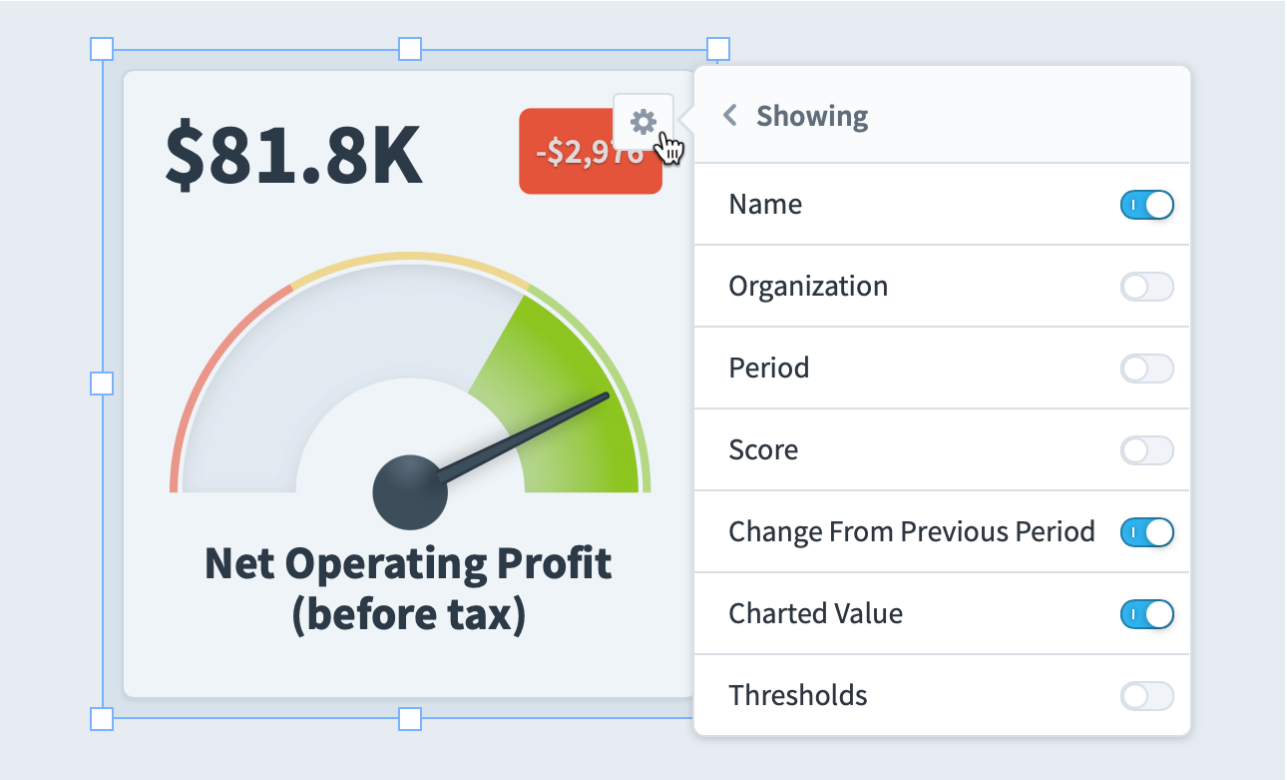


But, like all dashboard widgets, you can choose whatever datasource you want once a widget has been added.

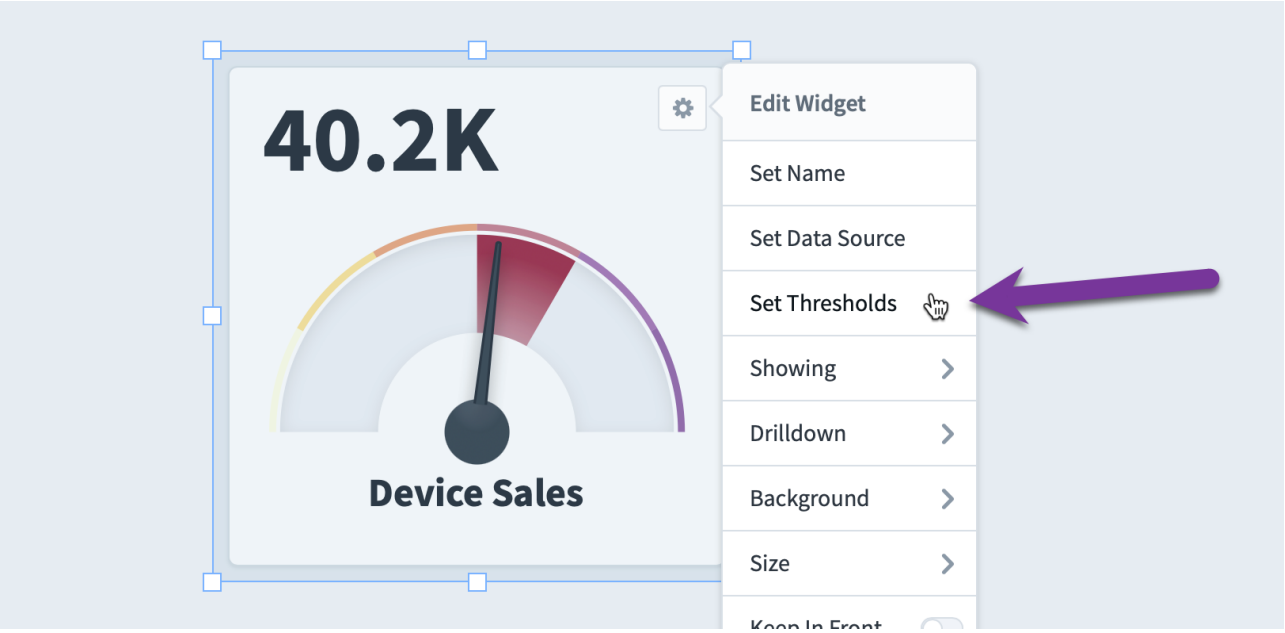


Configuring display options

Speedometers and Linear Gauges have a variety of information they can display, depending on the data source. In this example we're showing a KPI so we have options like Thresholds and Charted Value.



When you're showing scorecard data on a Speedometer or Linear Gauge, the color ranges represent the scoring thresholds. For Datasets and Initiatives, however, it's not as obvious what coloring ranges you'll want. Because of this, you can define conditional coloring ranges in the "Set Thresholds" menu.



Horizontal and vertical linear gauges

Linear gauges automatically adjust as you resize them. They even switch between horizontal and vertical layouts based on whether you make them tall or wide.

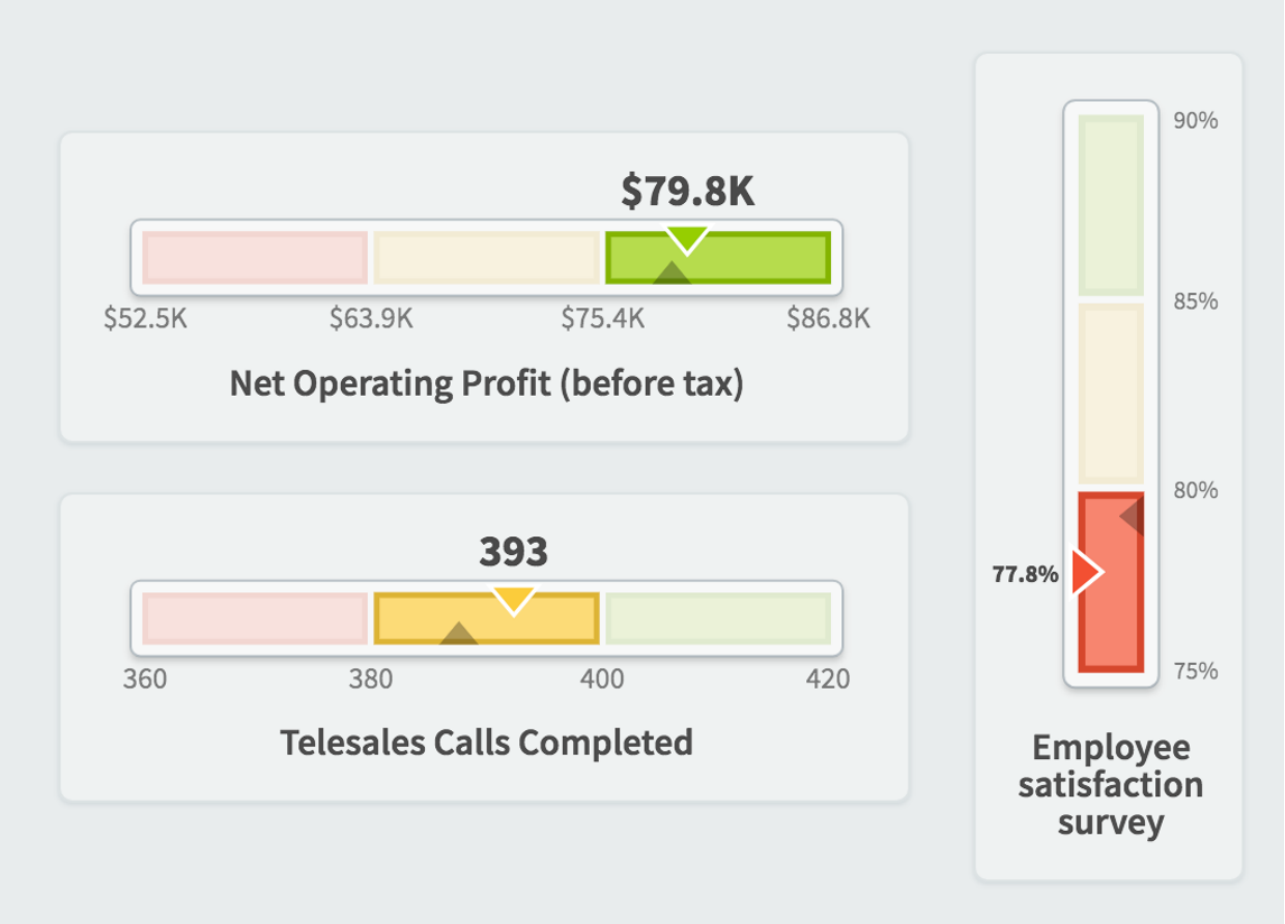
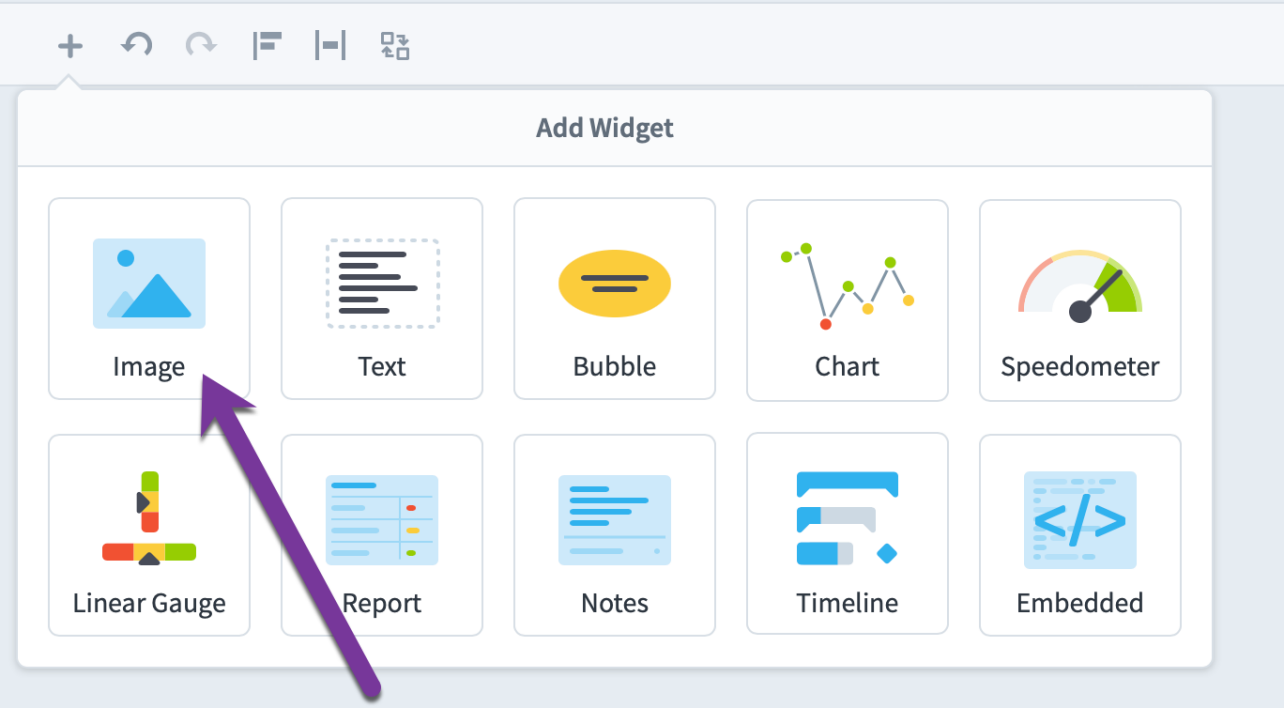


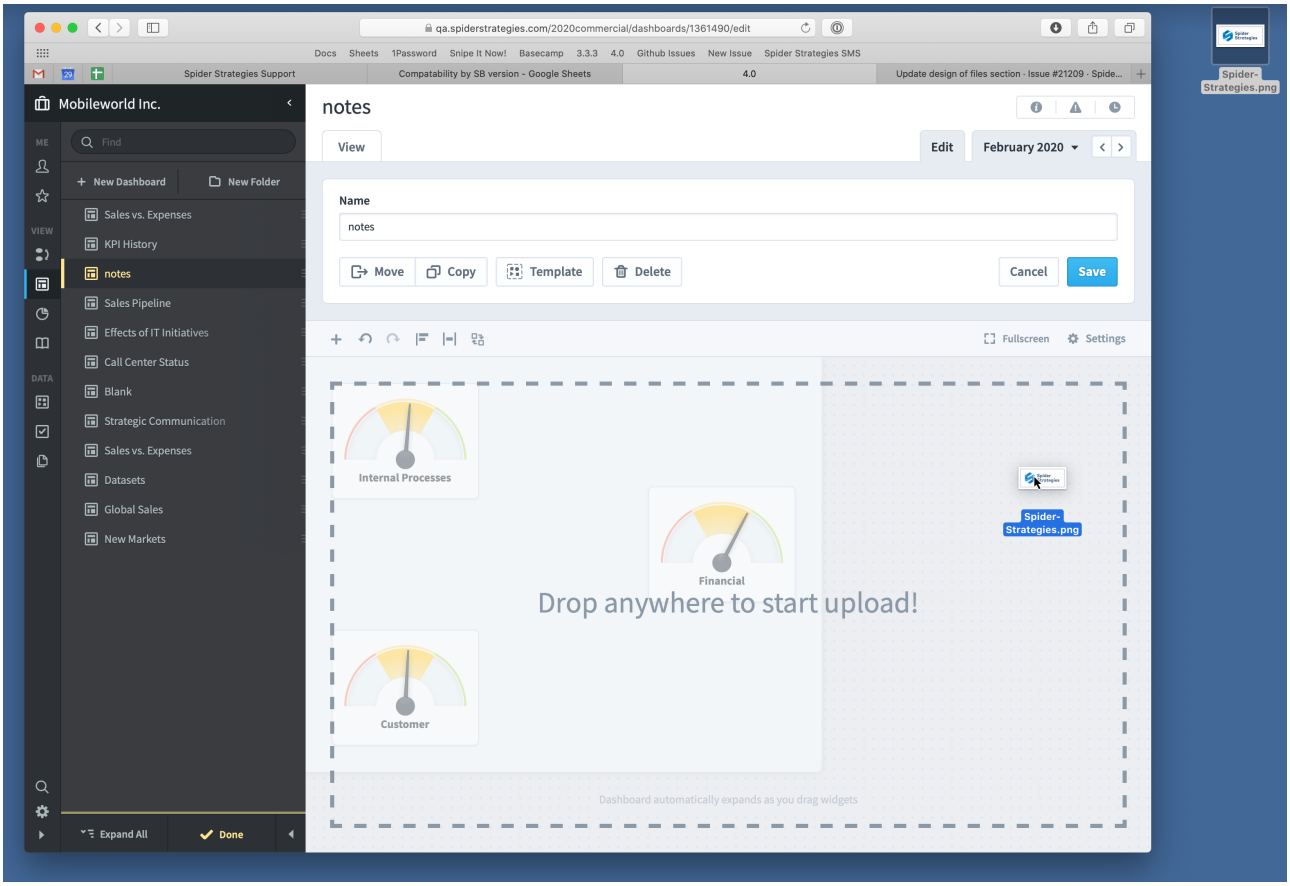
Image Widgets

Adding an Image widget

Like all dashboard widgets, you can add an image widget from the Add Widget menu.

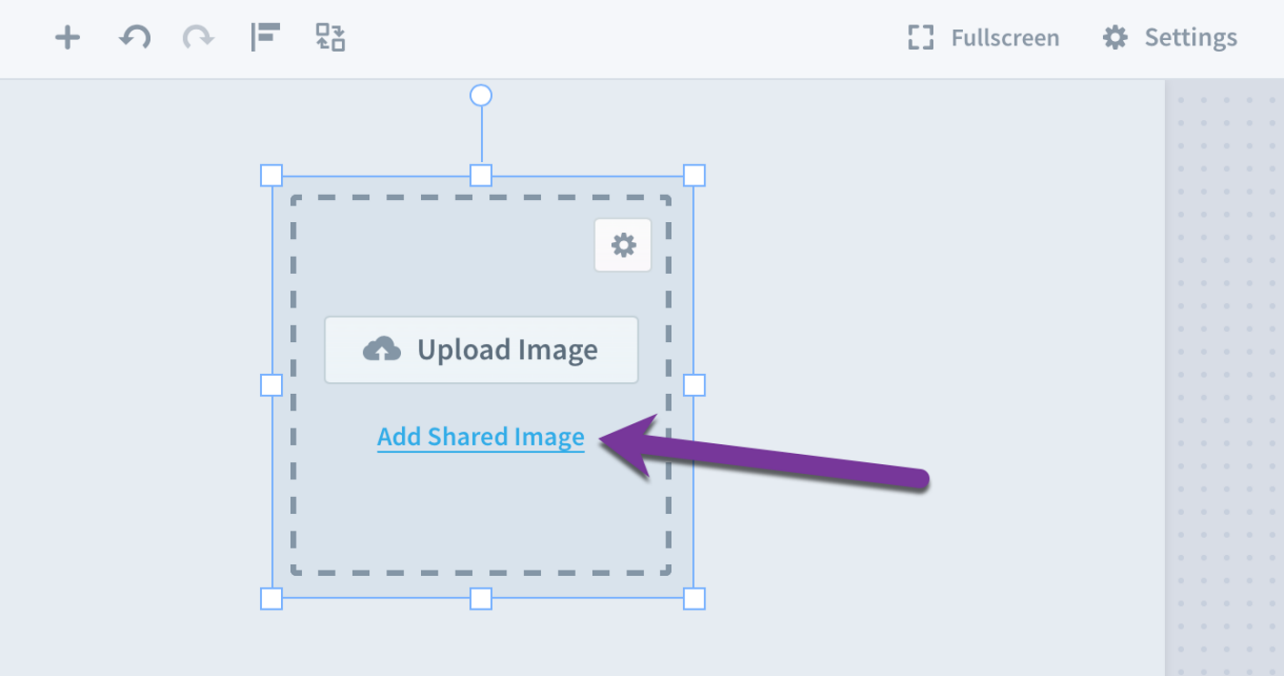


Or, to save time, you can just drag and drop an image file from your desktop.

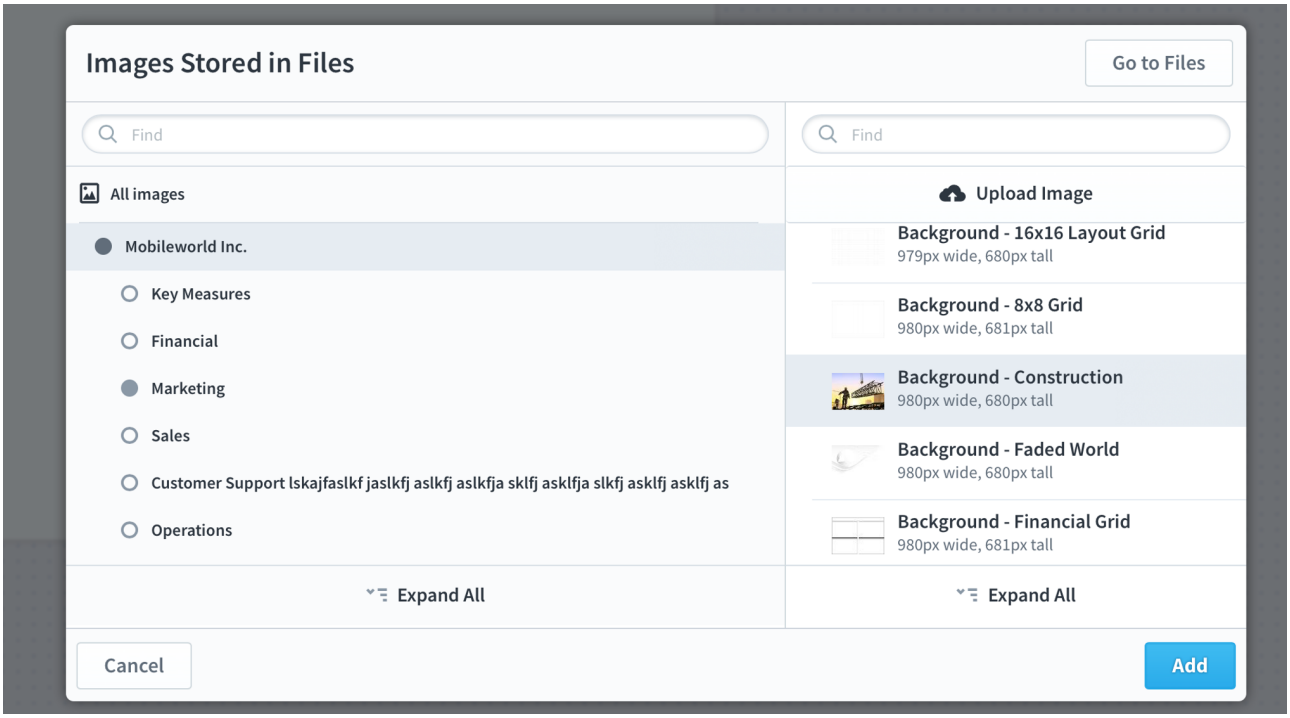


Shared Images

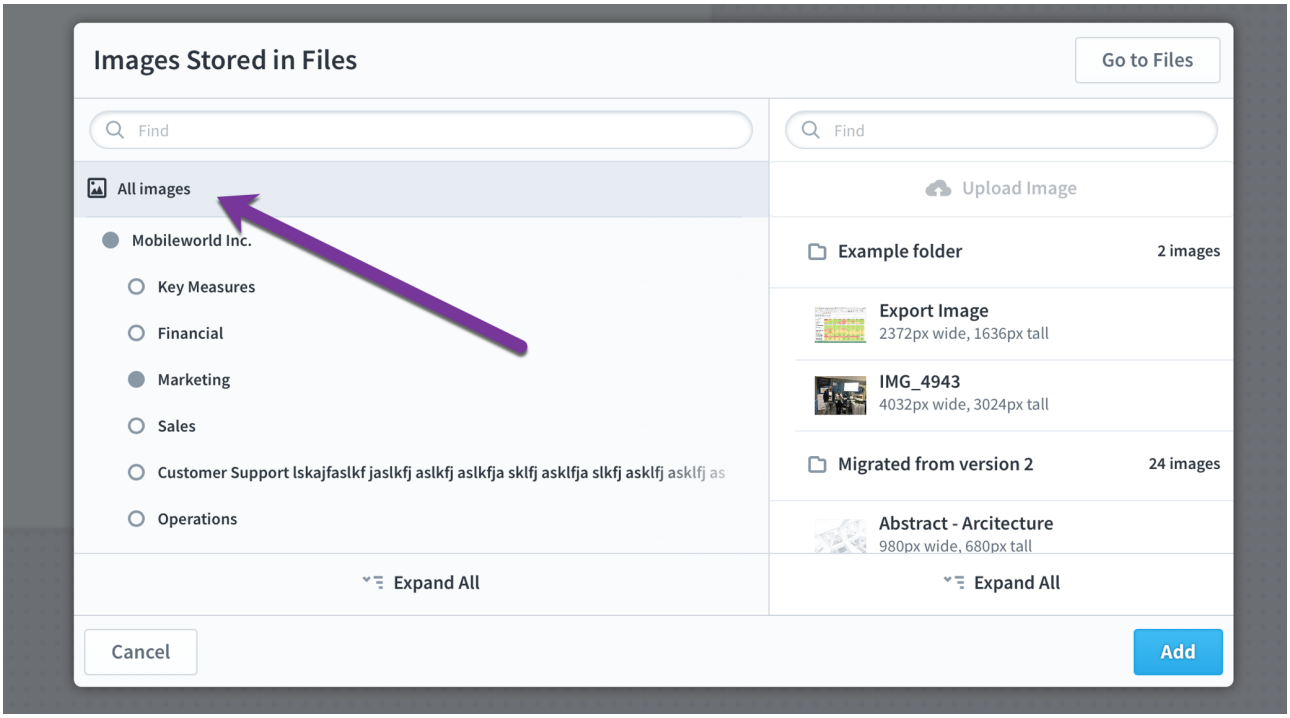
You can manage shared images in the Files section, and then add those images to dashboards. To do this, just click the "Add Shared Image" link on an image widget.



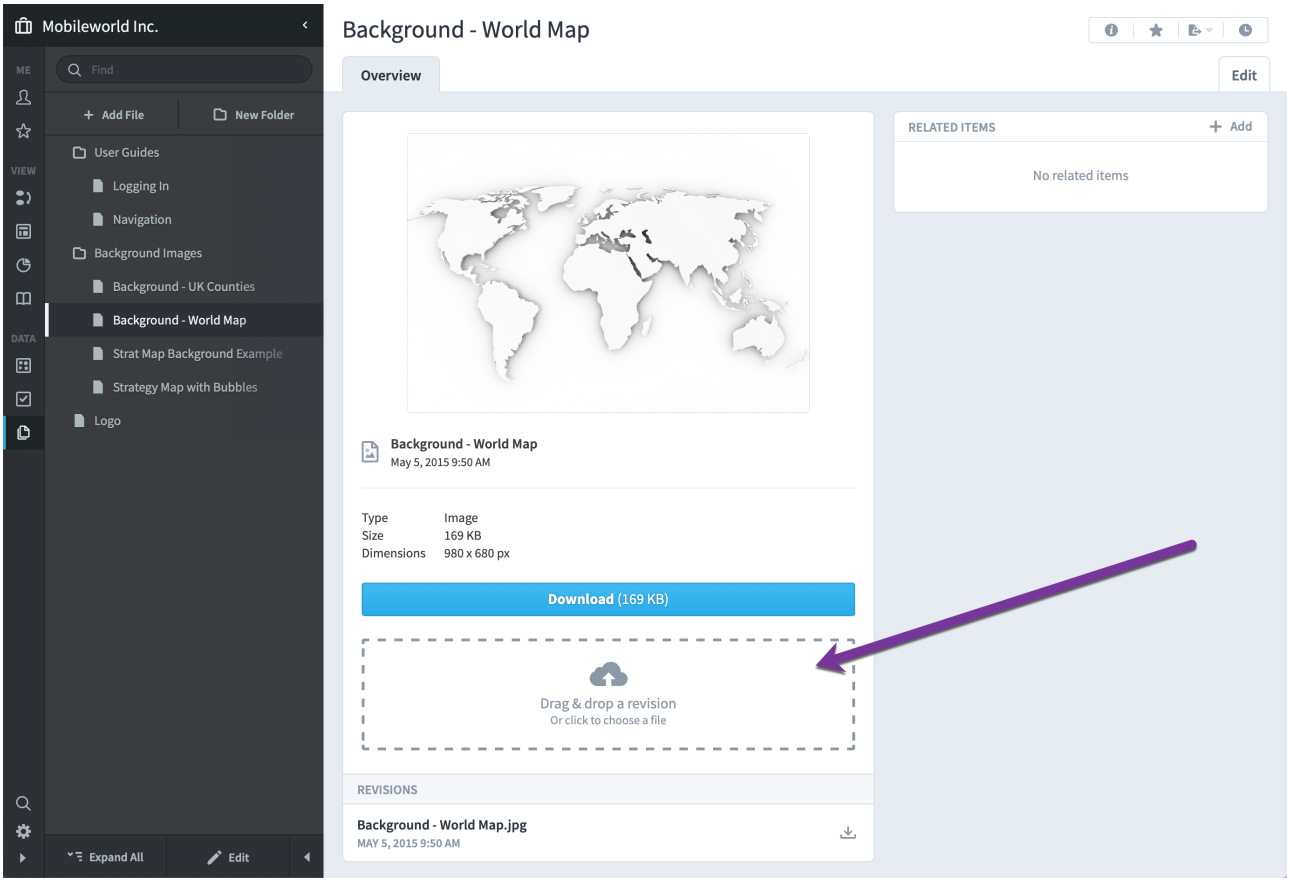
This opens a dialog where you can browse for images stored in the Files section. By default, everything is sorted by organization.



If you don't know which organization your image is in, however, you can select "All Images" at the top of the organization tree. This combines all images from all organizations on the right.



If you ever want to update the shared image later, just upload a new revision in the Files section. All of the dashboards using this shared image will automatically update.



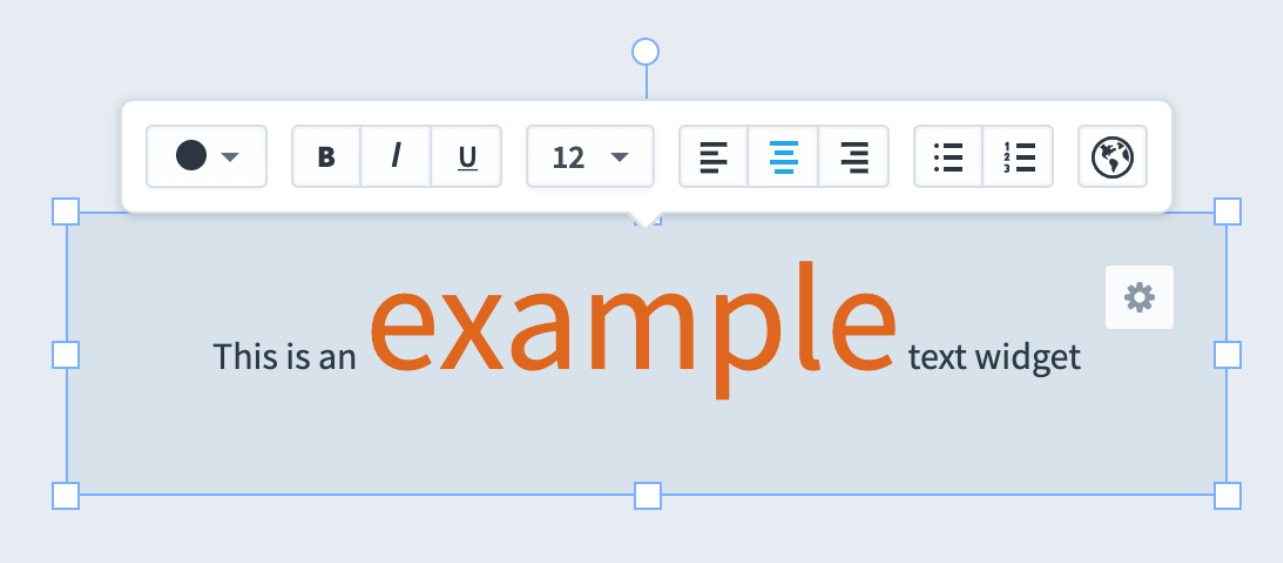
Using Images for Backgrounds

Please see the Dashboard and Strategy Map Backgrounds article for more information about all of the ways you can make dashboards even better with background images.

Text Widgets

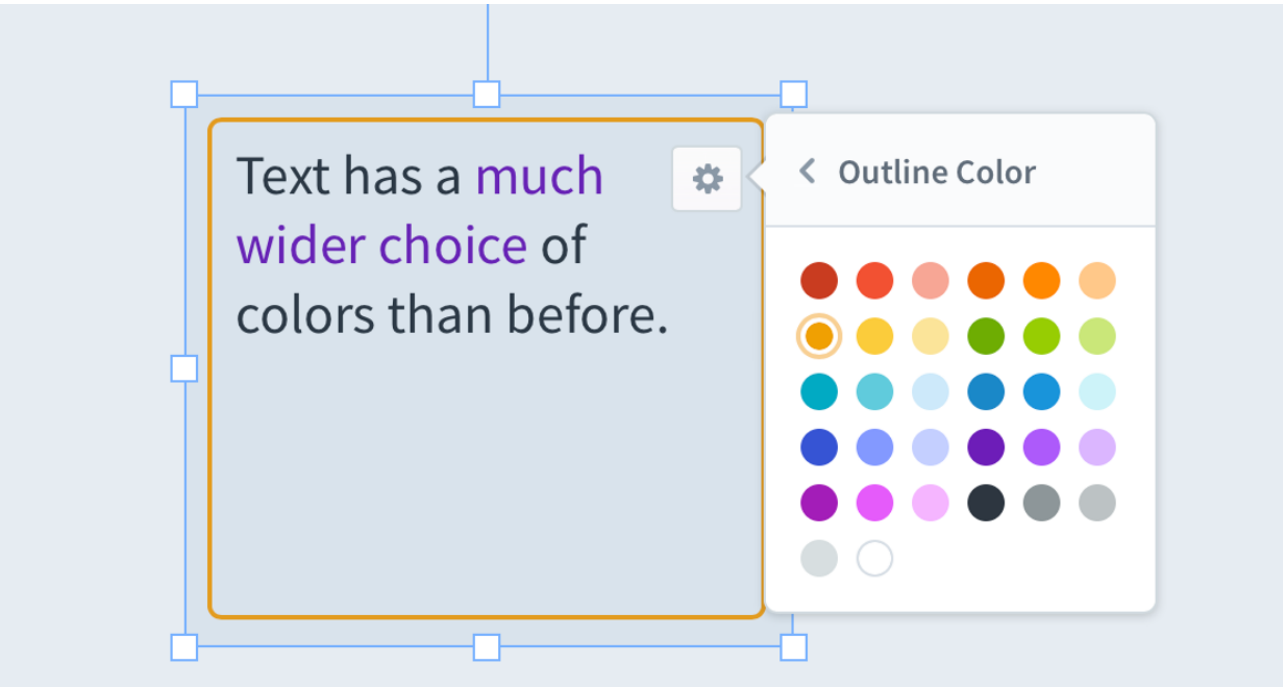
Overview

Text widgets are great for adding labels or titles to your dashboards. You can include text formatting, links, and even rotate them.



Outlines

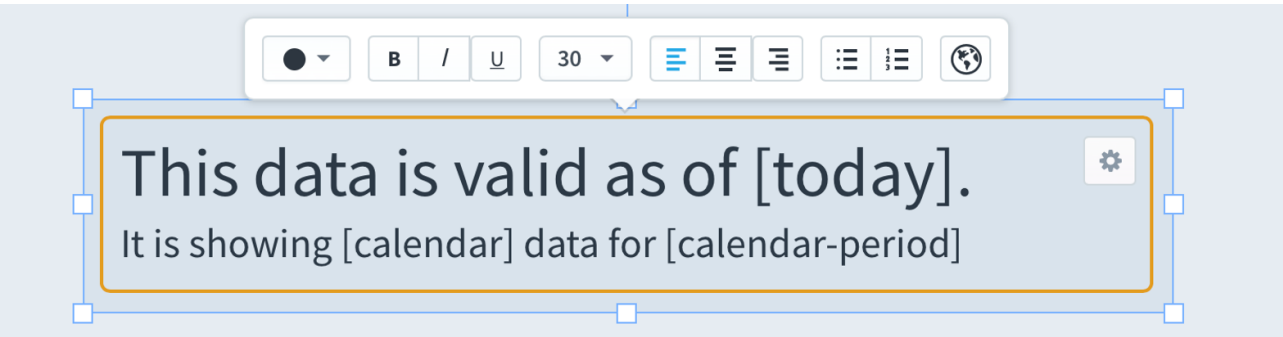
You can choose an outline color for your text widget as well as the outline thickness.



Text Variables

You can use the following variables in text widgets:

- [today]
- [calendar]
- [calendar-period]
- [dashboard]
- [organization]



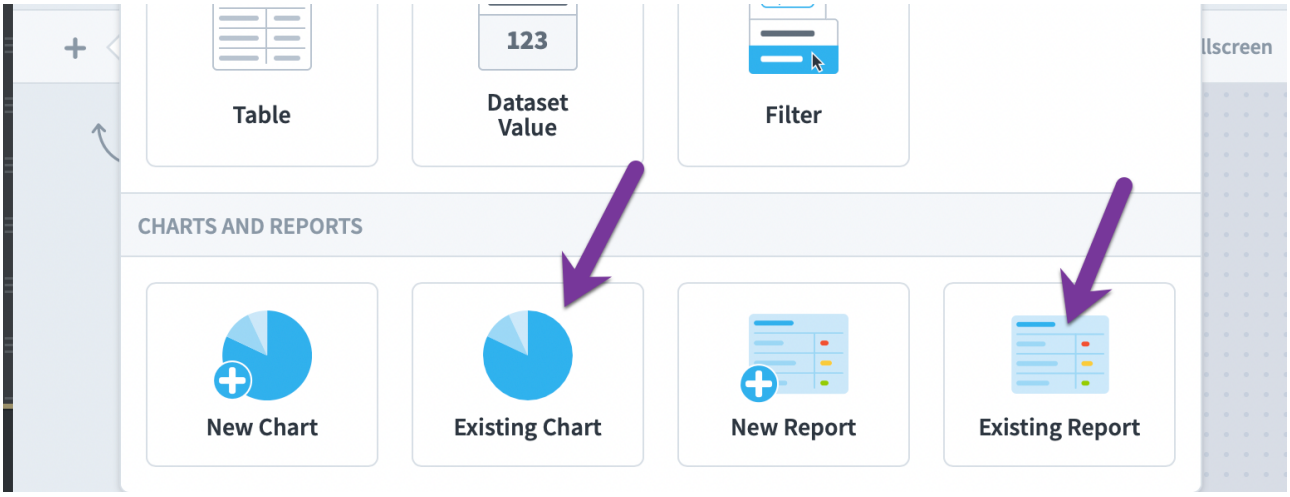
When you view the dashboard, these variables will be automatically replaced.


This data is valid as of Apr 8, 2019.
It is showing Monthly data for March 2019

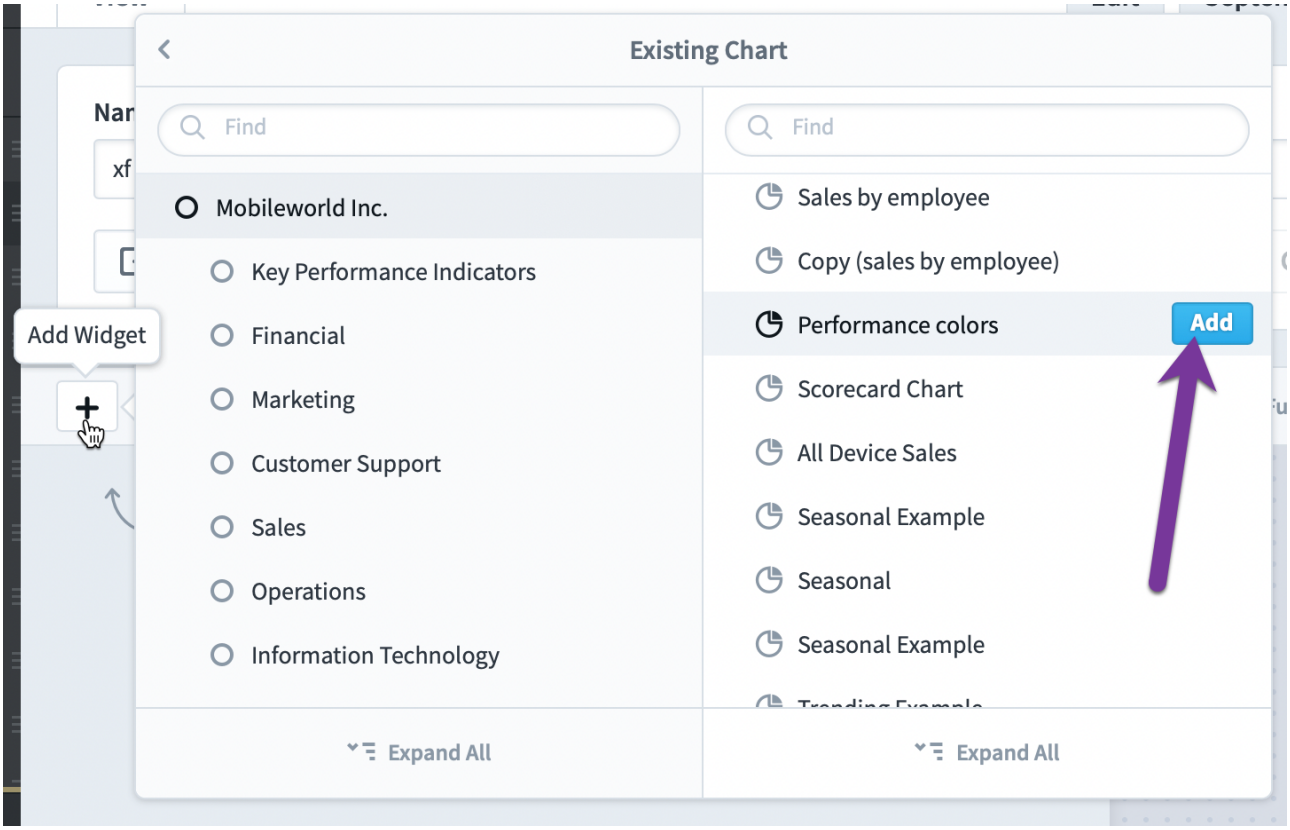
Chart and Report Widgets

Adding an Existing Chart or Report

To add an existing chart or report to your dashboard, choose one of these items at the bottom of the Add Widget menu.

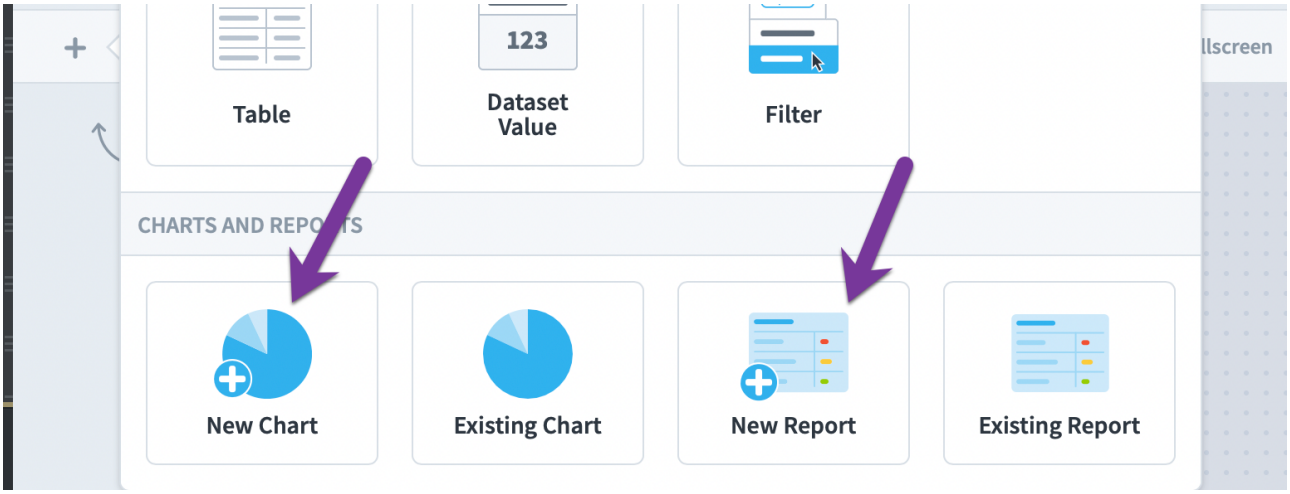


Then, just choose a chart or report that you've already created in the Charts or Reports sections. Impact will copy this chart or report to your dashboard. Any changes you make to your new dashboard widget will not affect the original item that you copied.

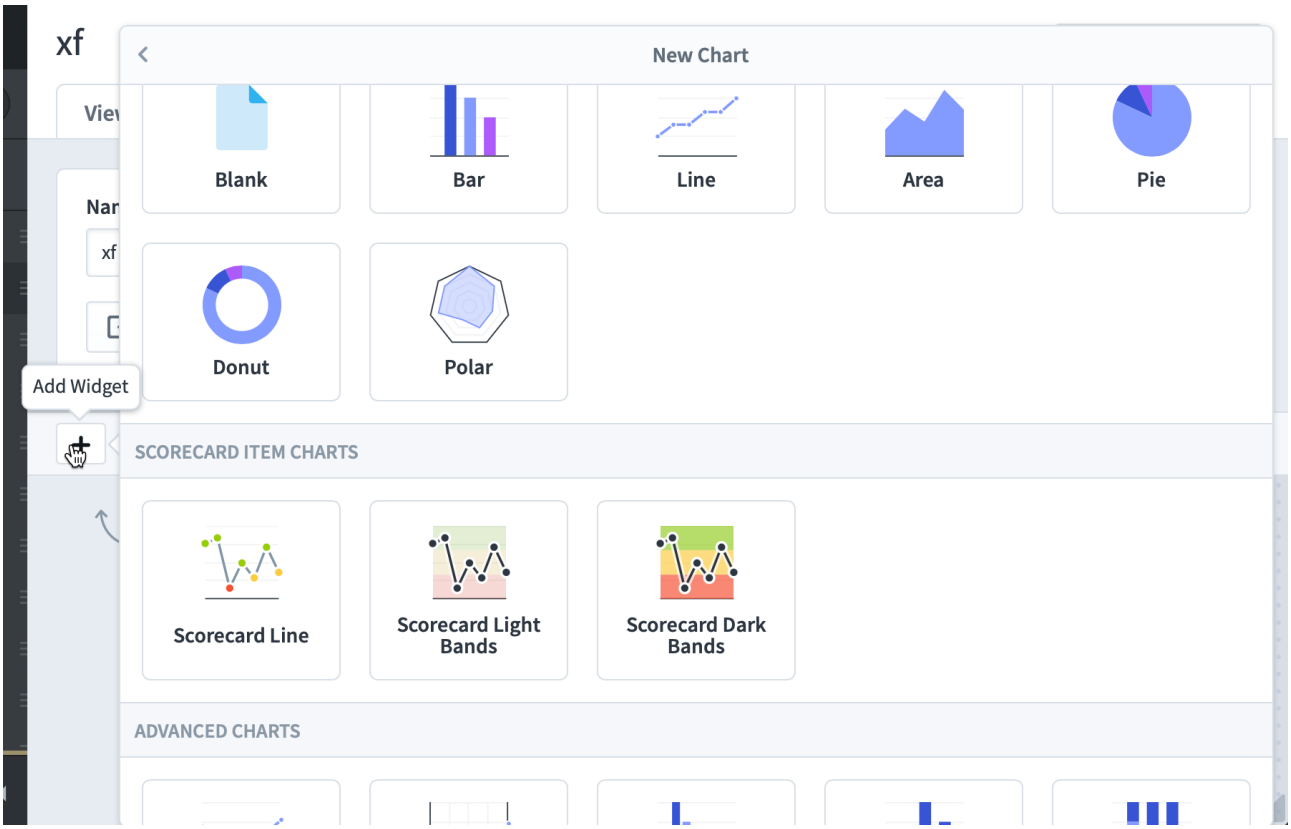


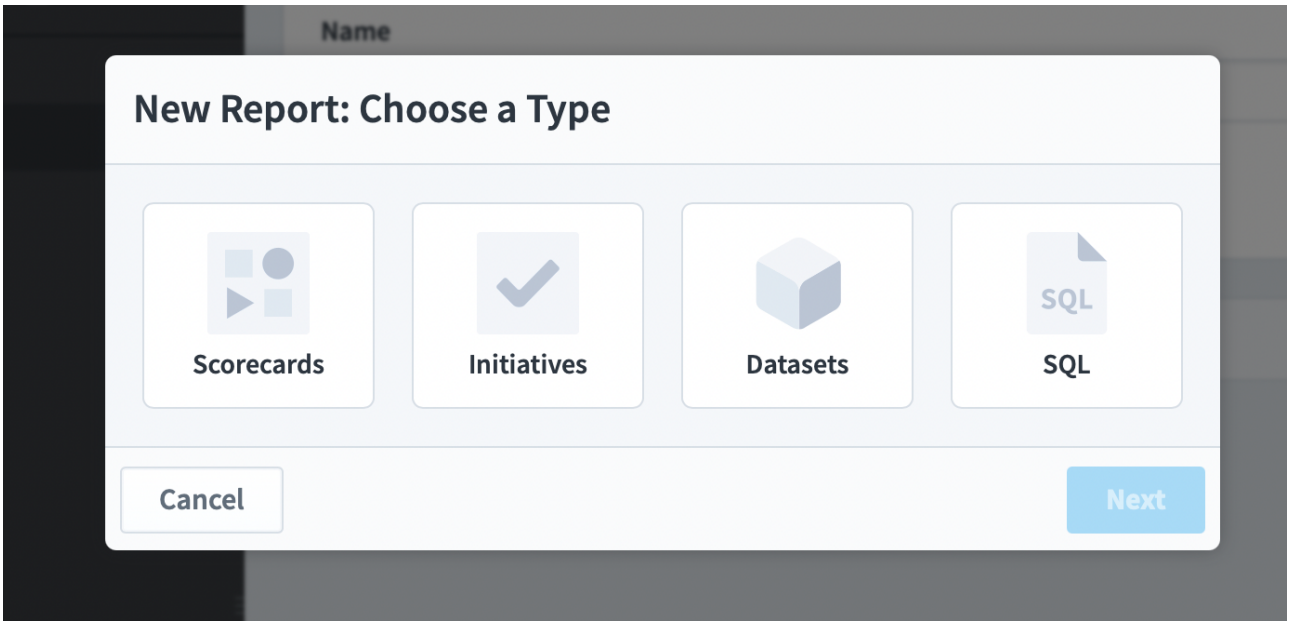
Creating a New Chart or Report

If you want to start from scratch, just choose New Chart or New Report from the menu.



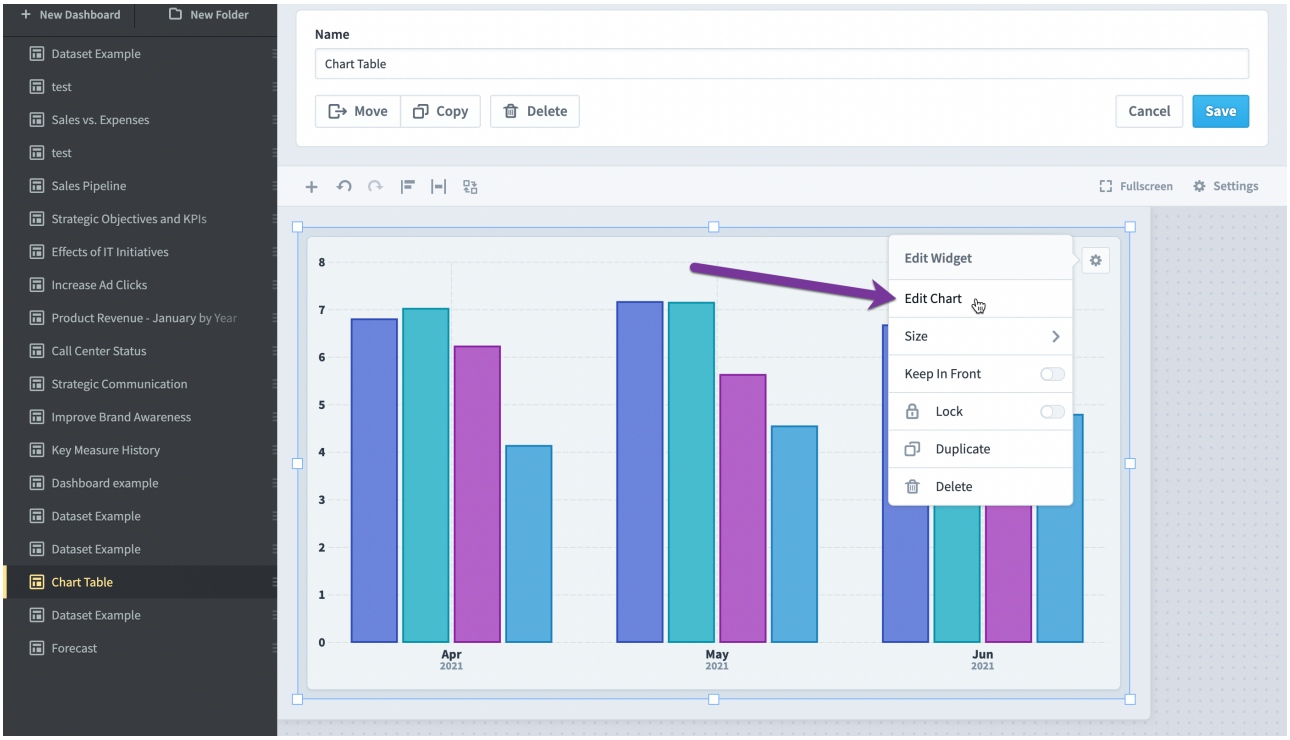
You can then choose which chart of report type you want. These are the identical options you'll see in the Charts and Reports sections.



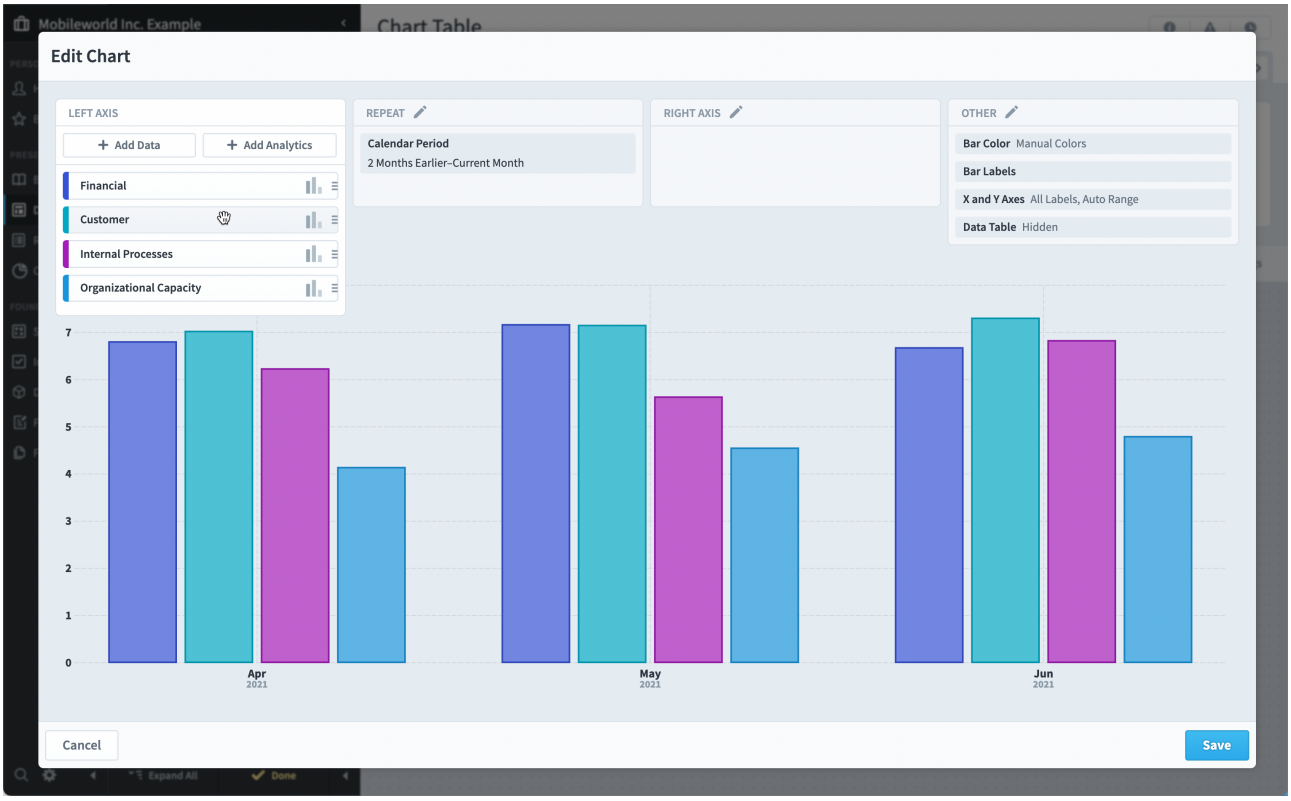


Editing a Chart or Report Widget

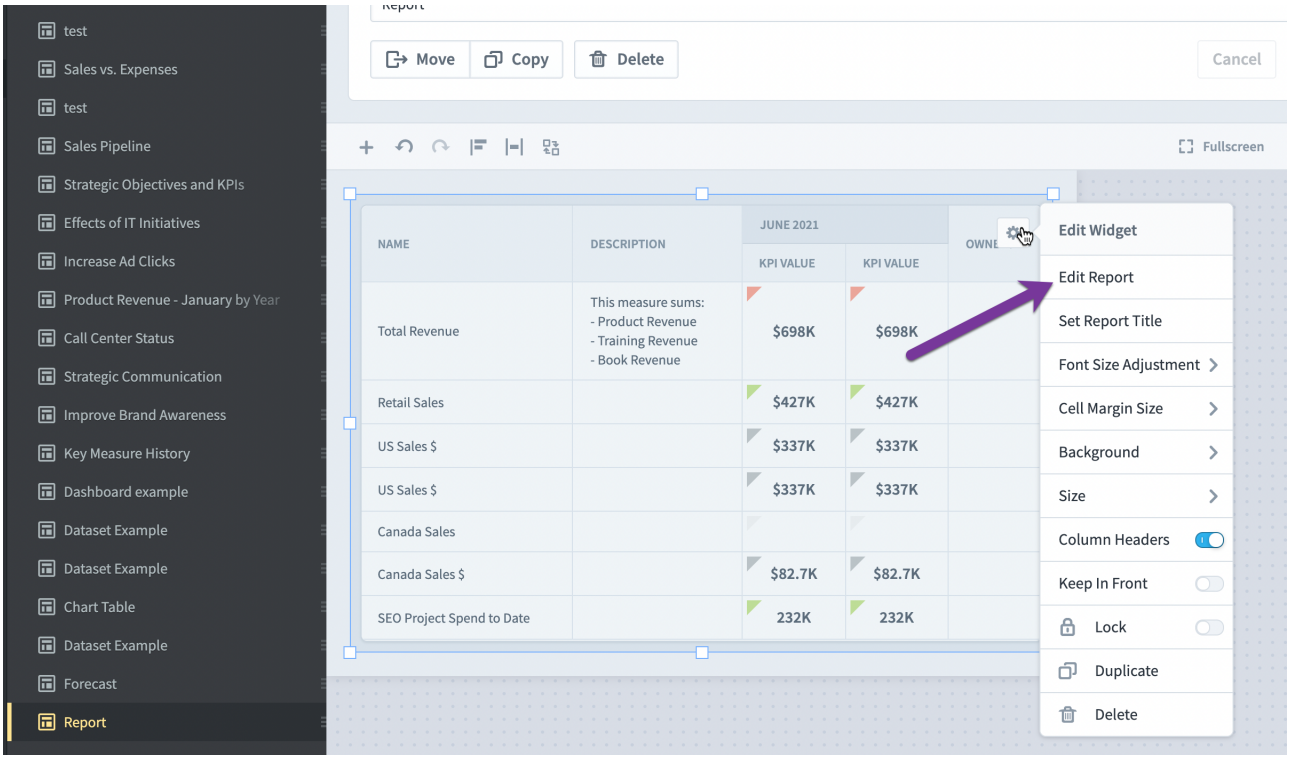
Charts and reports on dashboards are edited in a full-screen dialog. Here we're choosing "Edit Chart" on a dashboard widget.



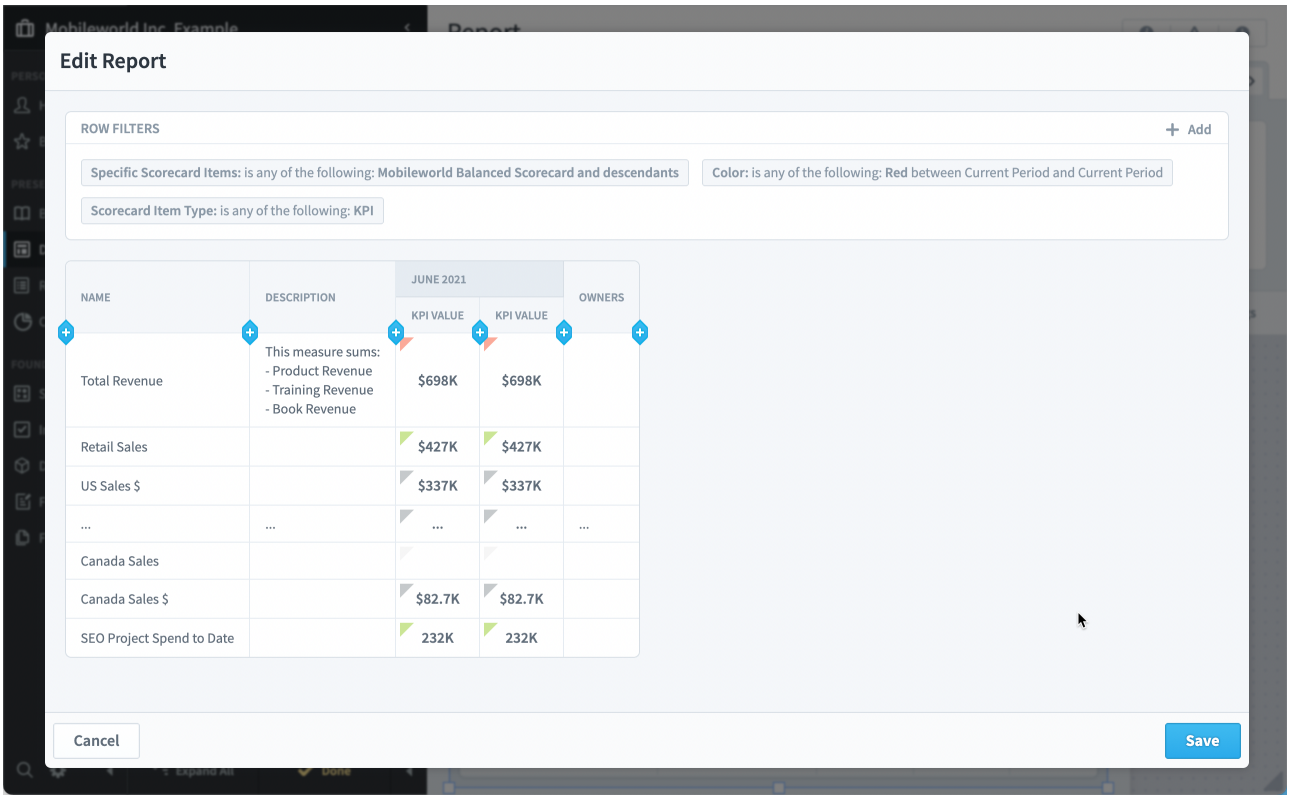
The dialog that opens has all of the chart building functionality from the Charts section. You can see the changes you make to your chart instantly.



Similarly, you can choose "Edit Report" on a report widget.

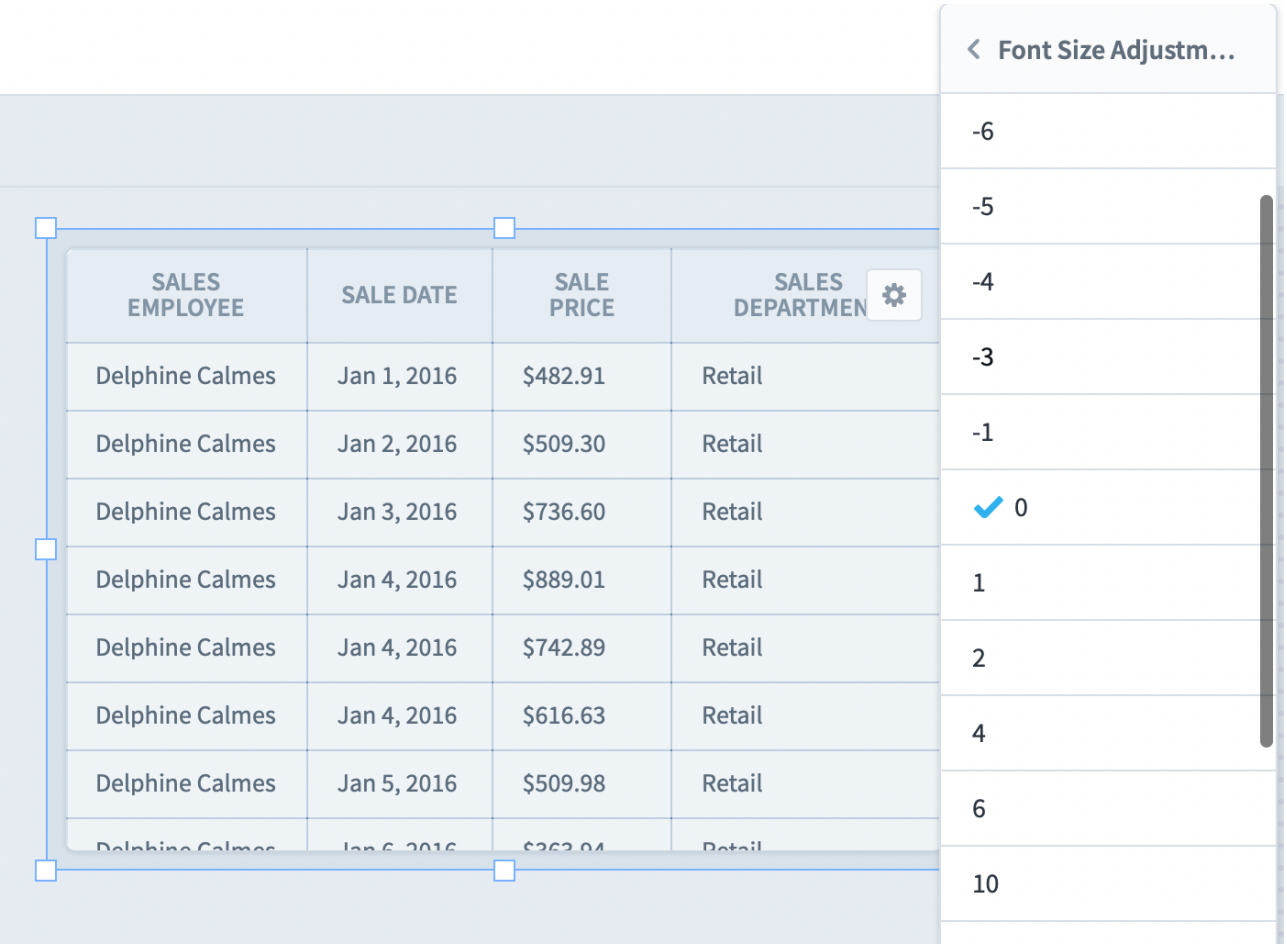


Again, you build reports here exactly the same way as you do in the Reports section.

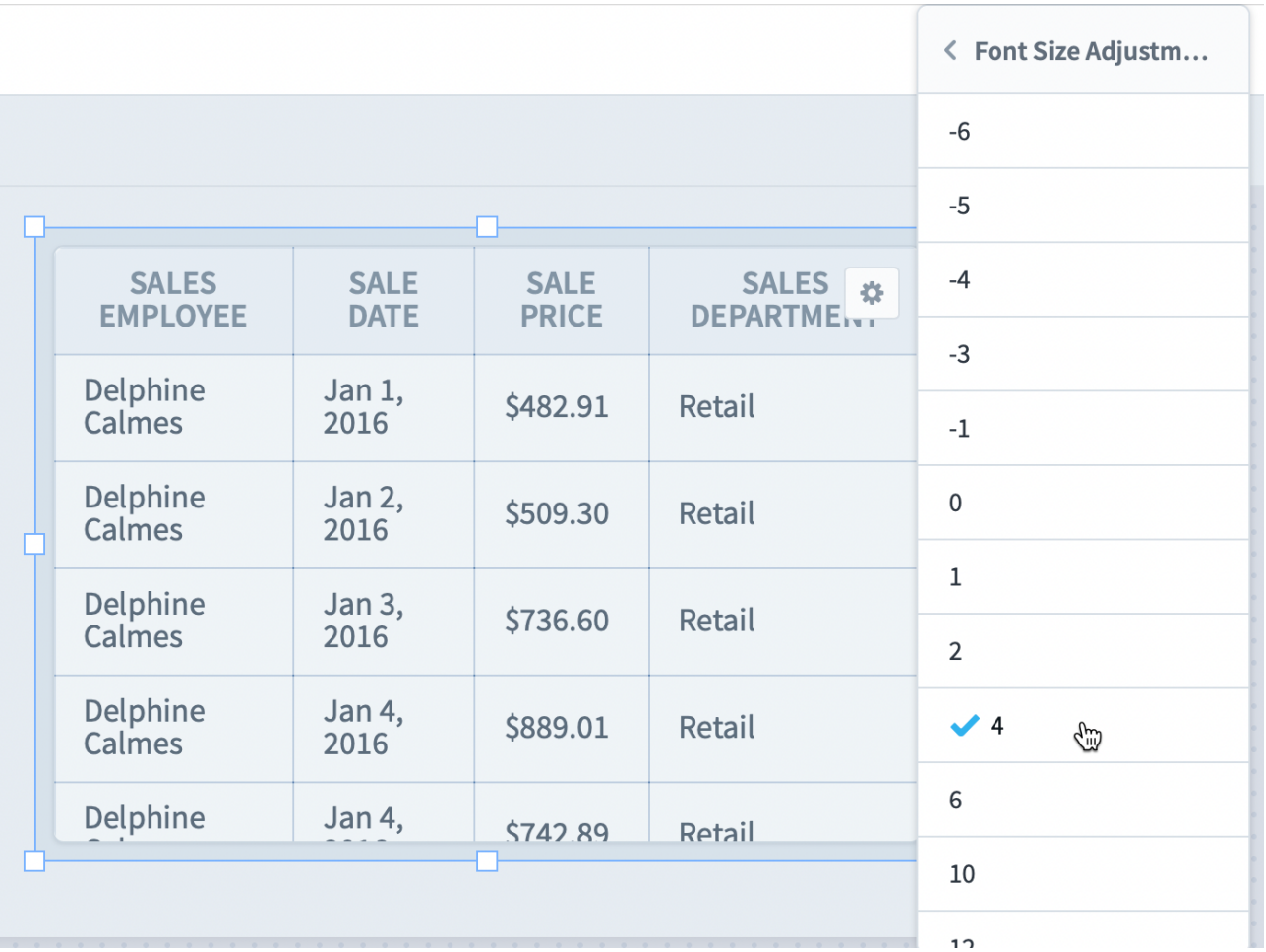


Report Font Size

You can adjust the overall font size for report widgets. By default, they show with no font size adjustment.

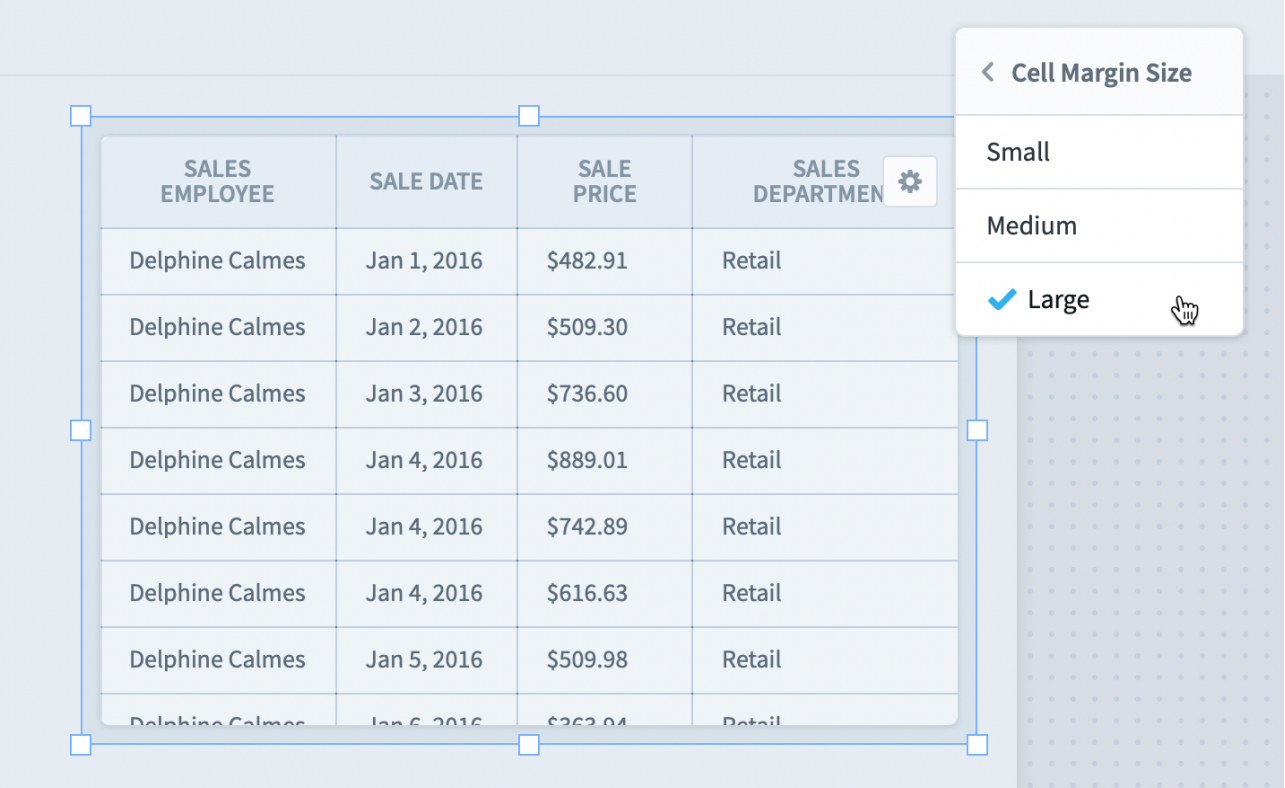


Here we've increased the font size so that the data inside of the table is much larger.

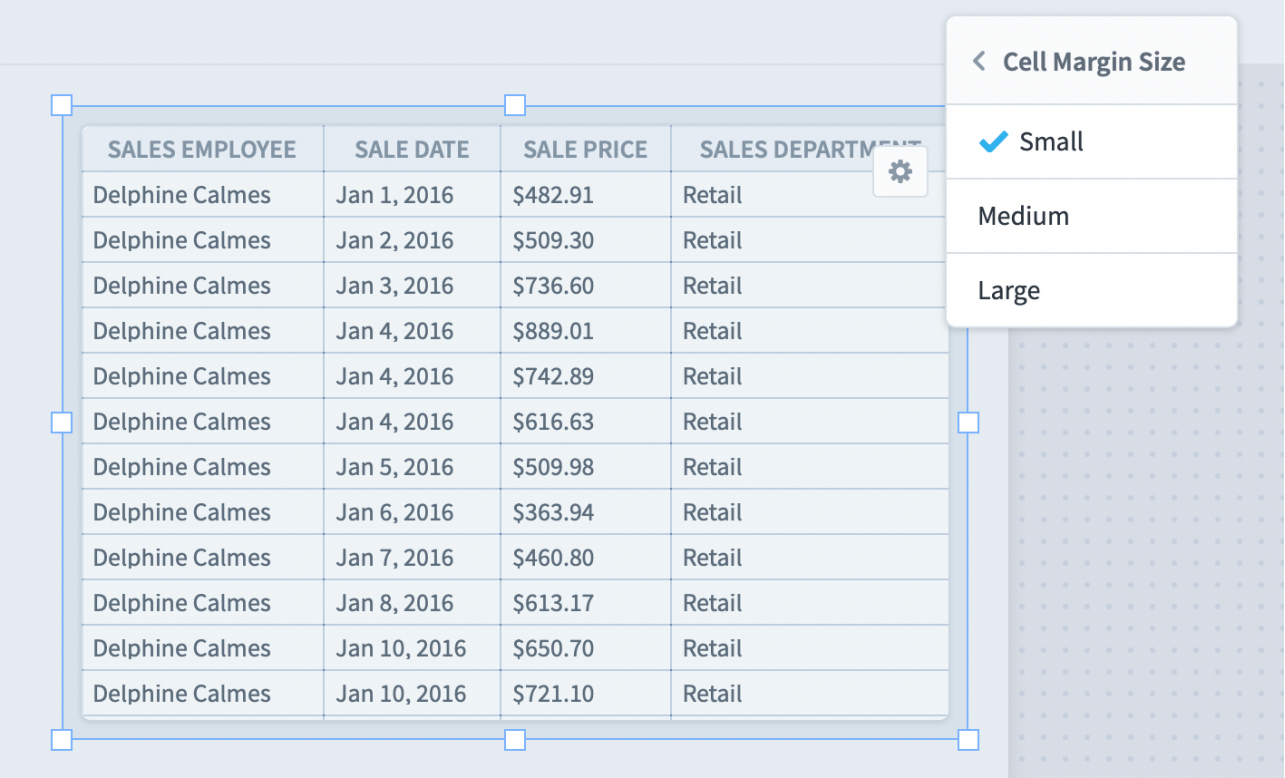


Report Cell Margin Size

Similarly, you can adjust report widgets' cell margins. By default they show with Large margins, which matches the Reports section.



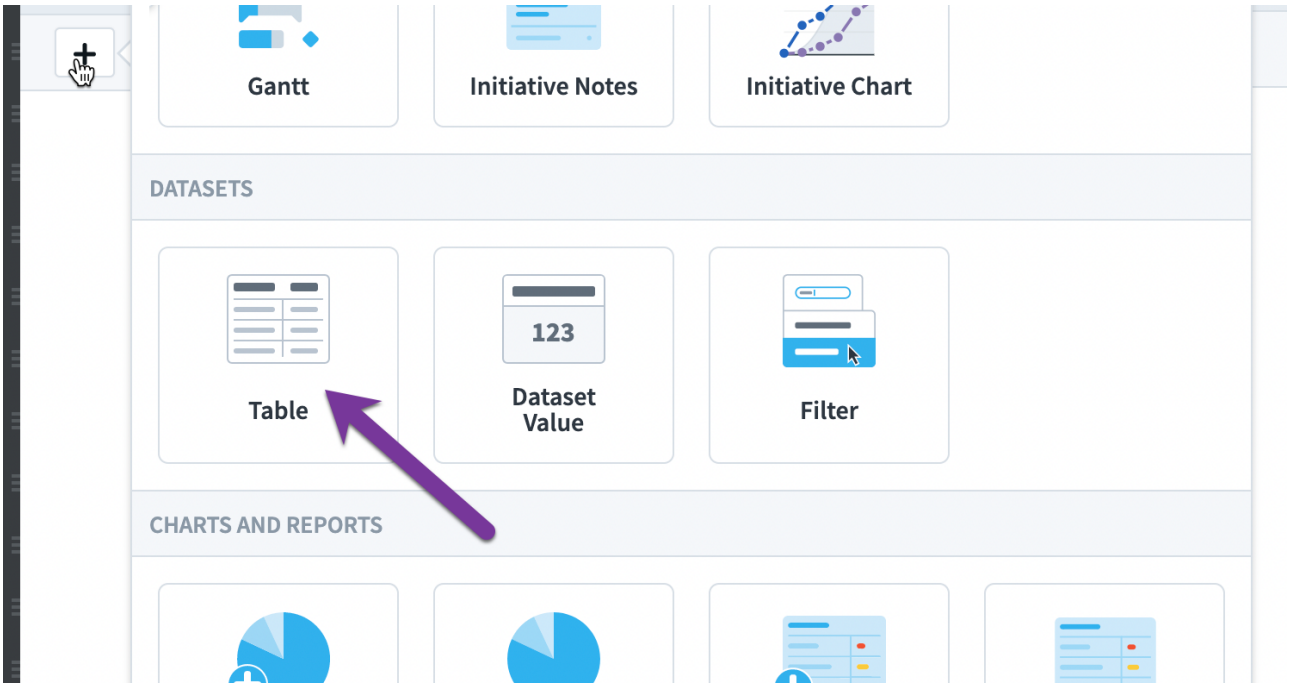
Here we've adjusted the margins to Small to be able to fit more content on our dashboard.


Cell Margin Size
Small
Medium
Large
SALES EMPLOYEE
SALE DATE
SALE PRICE
SALES DEPARTMENT
Delphine Calmes Jan 1, 2016 $482.91 Retail
Delphine Calmes Jan 2, 2016 $509.30 Retail
Delphine Calmes Jan 3, 2016 $736.60 Retail
Delphine Calmes Jan 4, 2016 $889.01 Retail
Delphine Calmes Jan 4, 2016 $742.89 Retail
Delphine Calmes Jan 4, 2016 $616.63 Retail
Delphine Calmes Jan 5, 2016 $509.98 Retail
Delphine Calmes Jan 6, 2016 $363.94 Retail
Delphine Calmes Jan 7, 2016 $460.80 Retail
Delphine Calmes Jan 8, 2016 $613.17 Retail
Delphine Calmes Jan 10, 2016 $650.70 Retail
Delphine Calmes Jan 10, 2016 $721.10 Retail

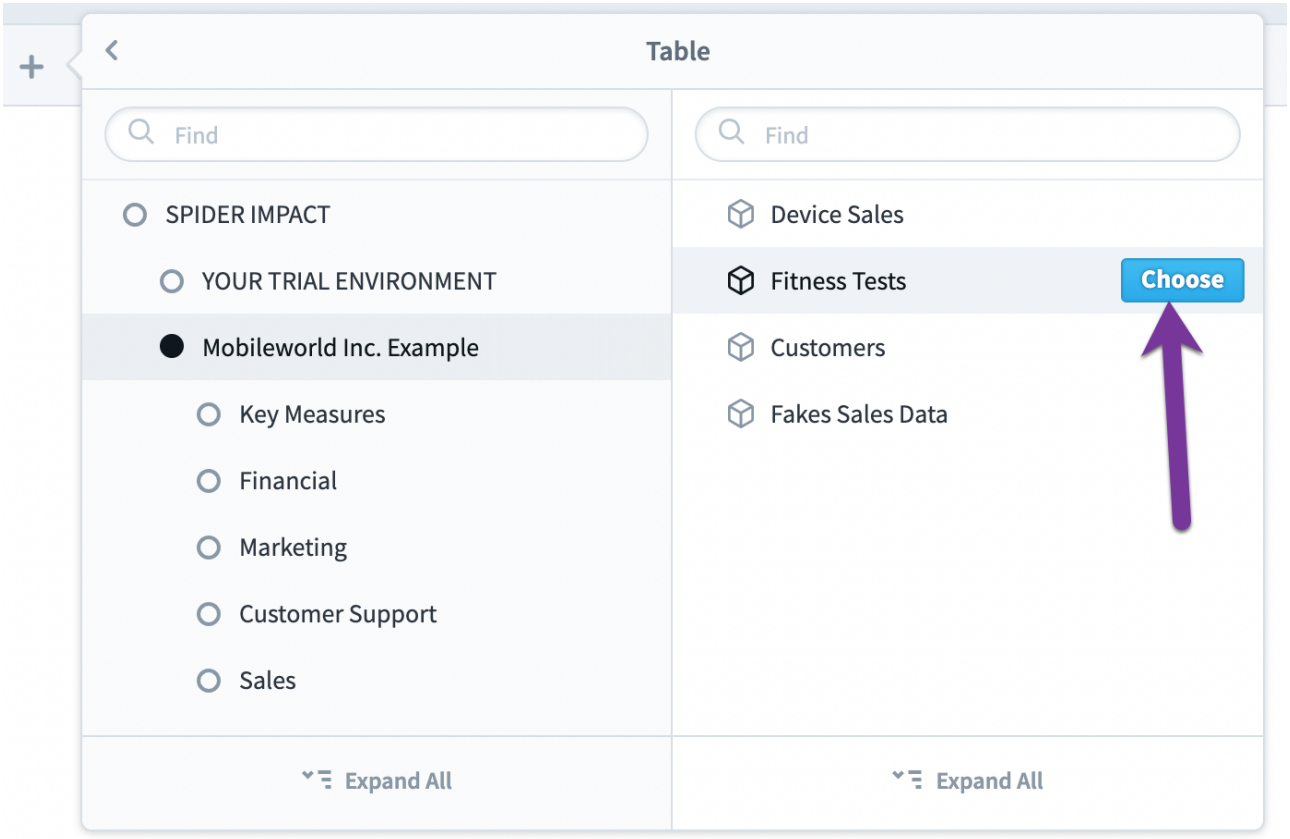
Dataset Table and Filter Widgets

Dataset table widgets

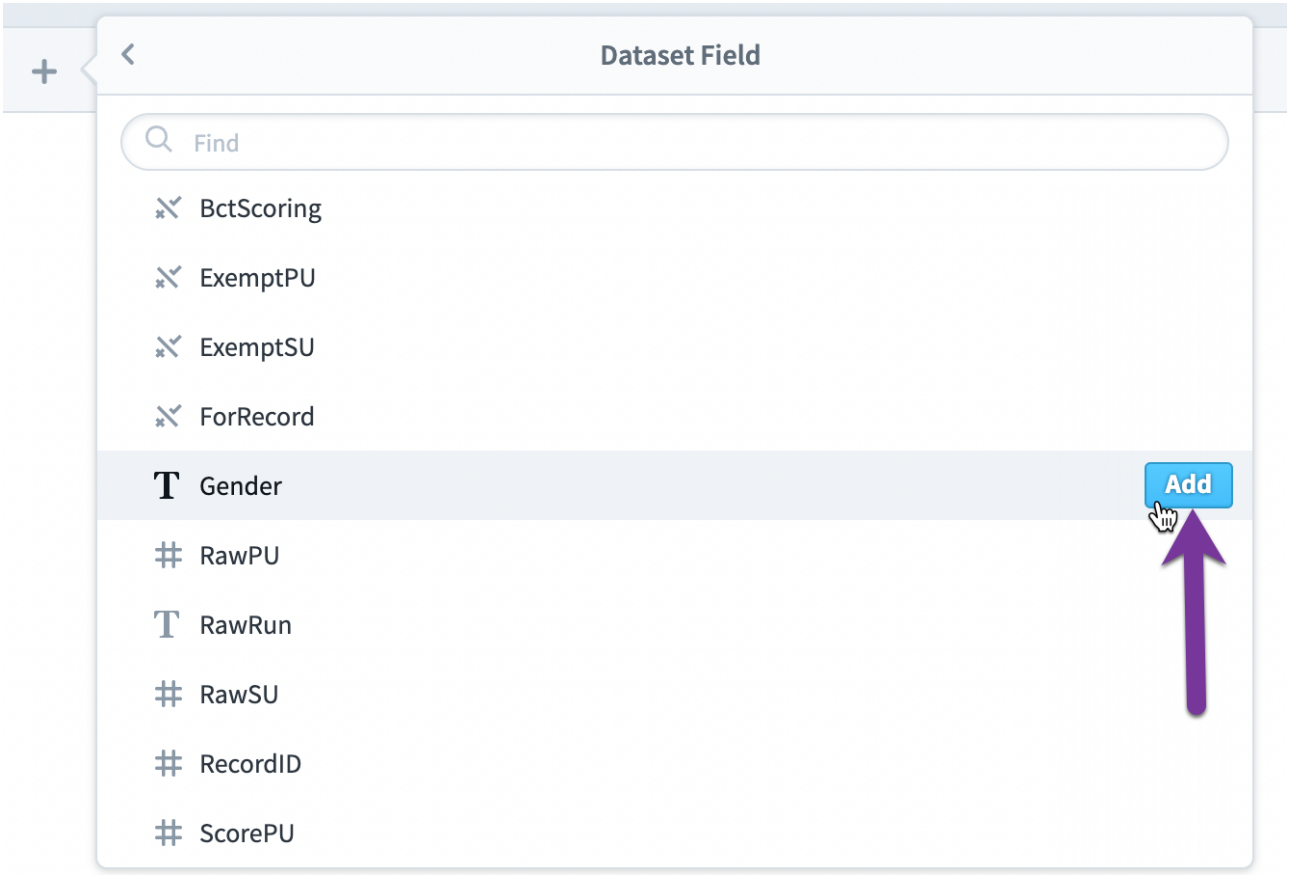
The first type of dashboard widget we'll add is the Datasets Table widget. To do this, we'll click the + button in the upper left corner and choose the Table widget in the Datasets section.



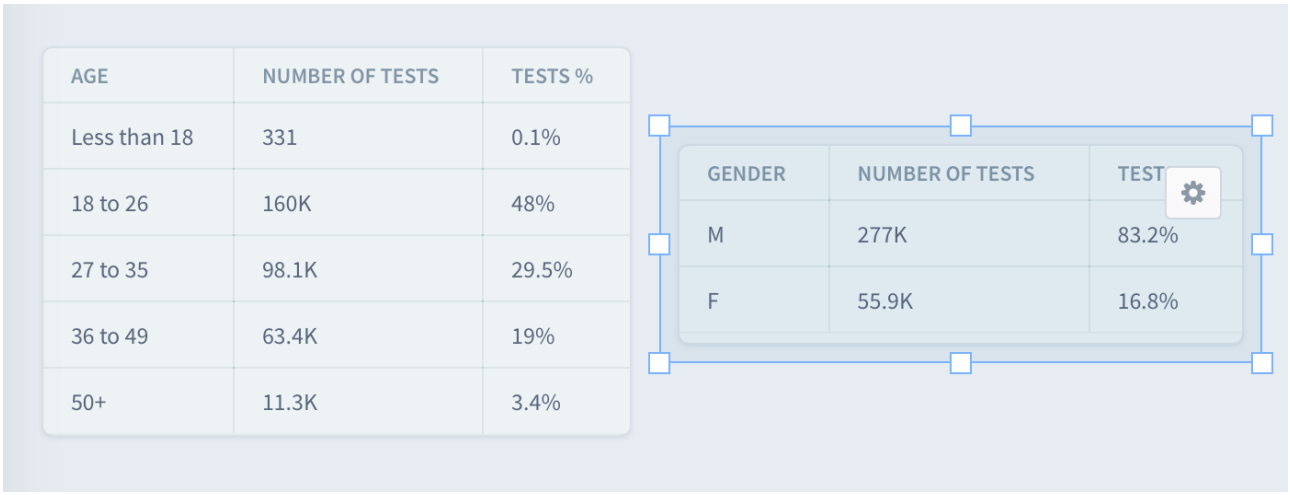
Then we'll choose the Fitness Tests dataset.



Then click the "add" button for the Age and Gender fields.



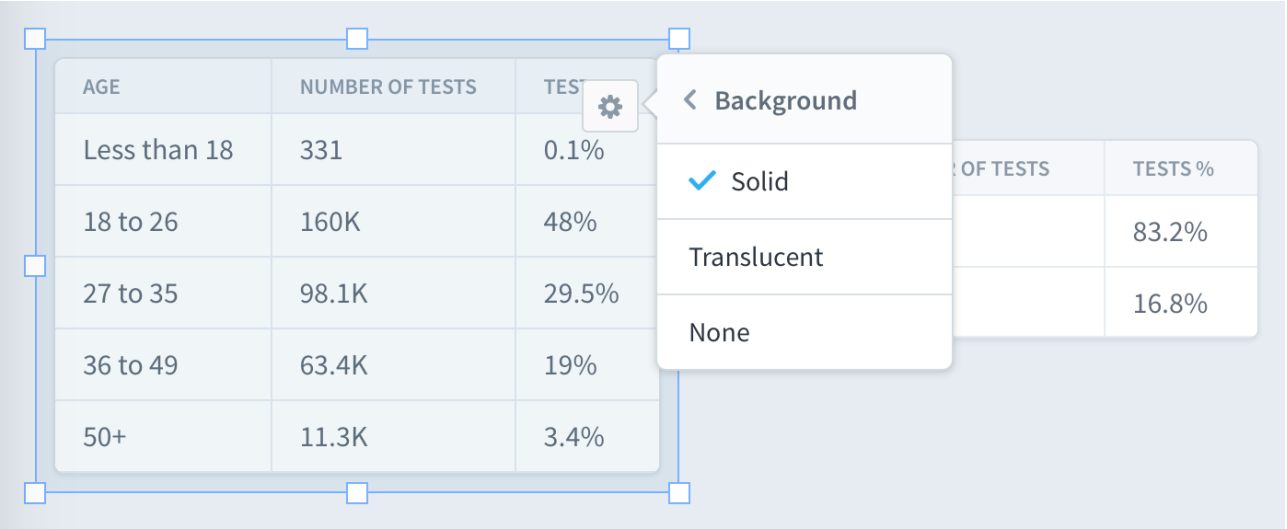
This adds two field tables to our dashboard canvas. They're exactly the same as the tables that we're used to seeing on the Datasets Explore tab, except that we can drag and resize them on our freeform dashboard canvas.



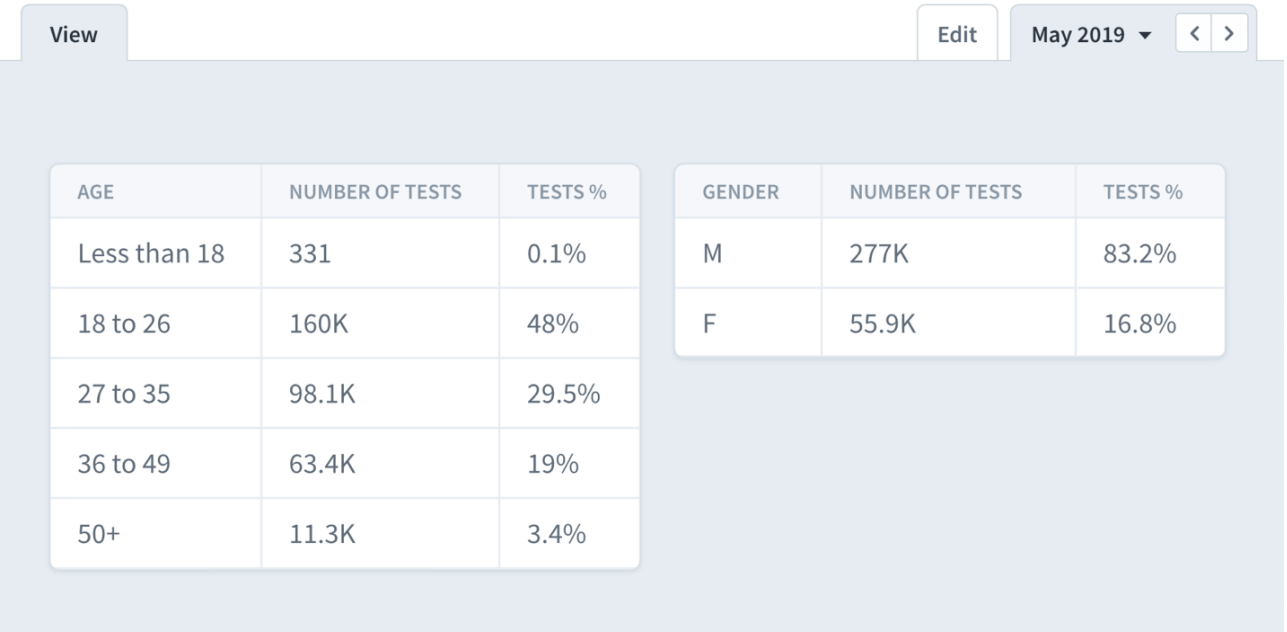
AGE	NUMBER OF TESTS	TESTS %
Less than 18	331	0.1%
18 to 26	160K	48%
27 to 35	98.1K	29.5%
36 to 49	63.4K	19%
50+	11.3K	3.4%

GENDER	NUMBER OF TESTS	TEST
M	277K	83.2%
F	55.9K	16.8%

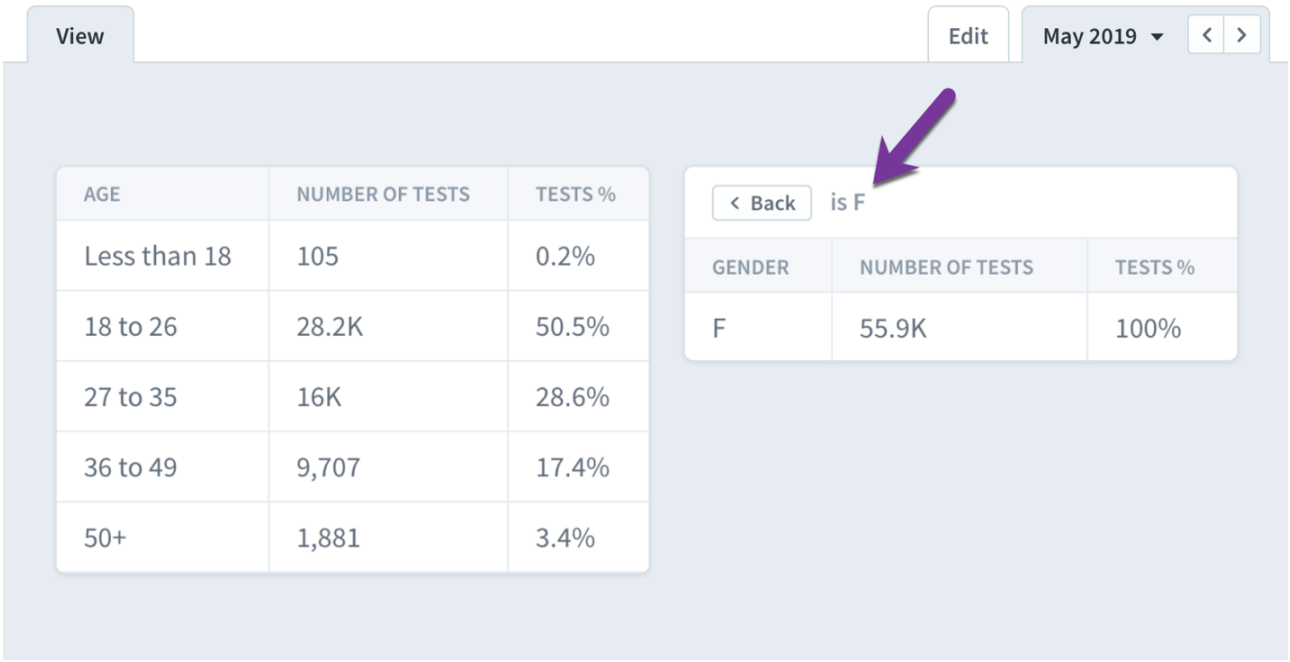
We can change all kinds of widget formatting options like background, font size, and rounding of numbers.



This is what it looks like when we save and click to the Dashboards View tab.

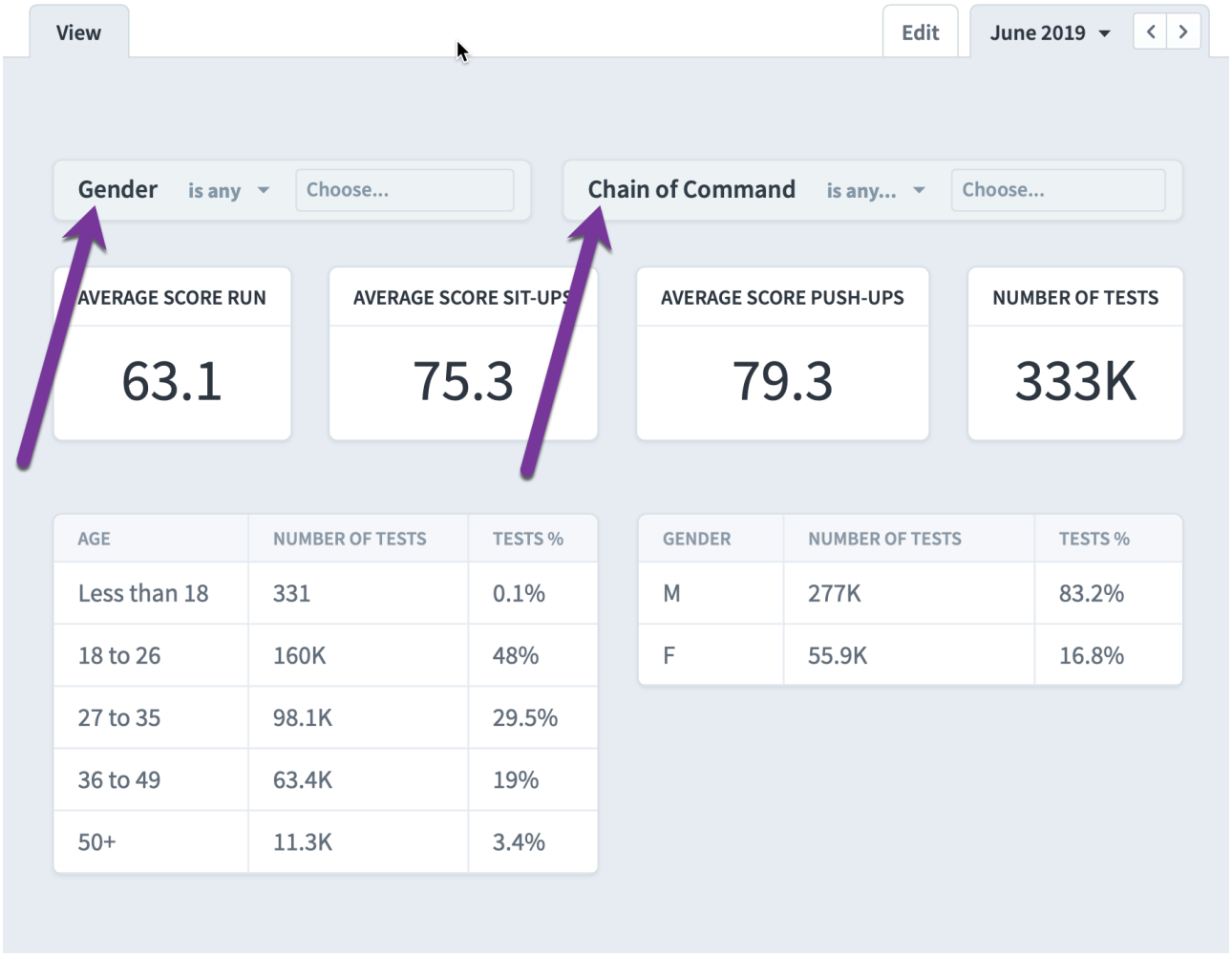


Just like on the Datasets Explore tab, when you click on a row in a Dataset Table widget, it filters all of the results on the dashboard including the other widgets.

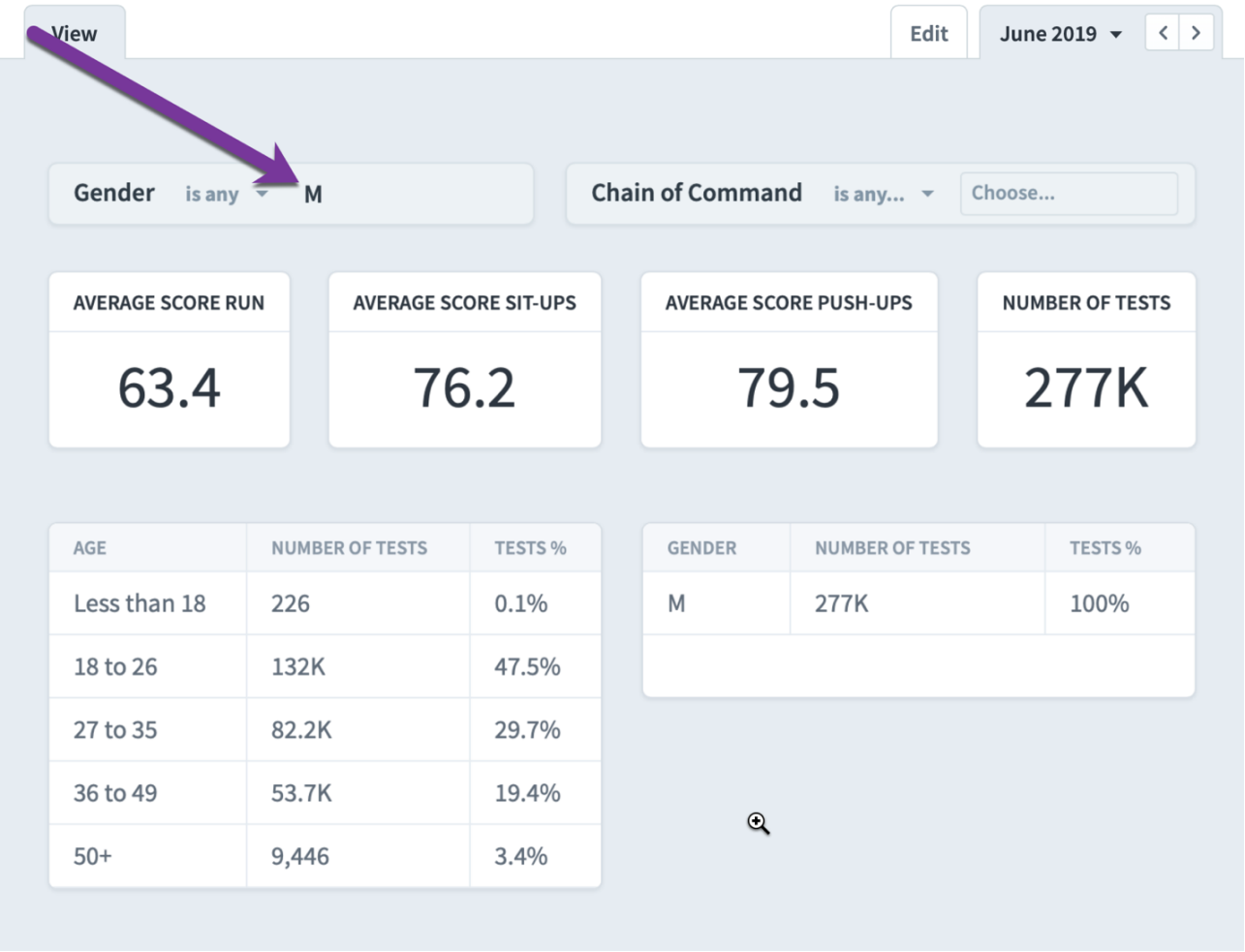


Dataset filter widgets

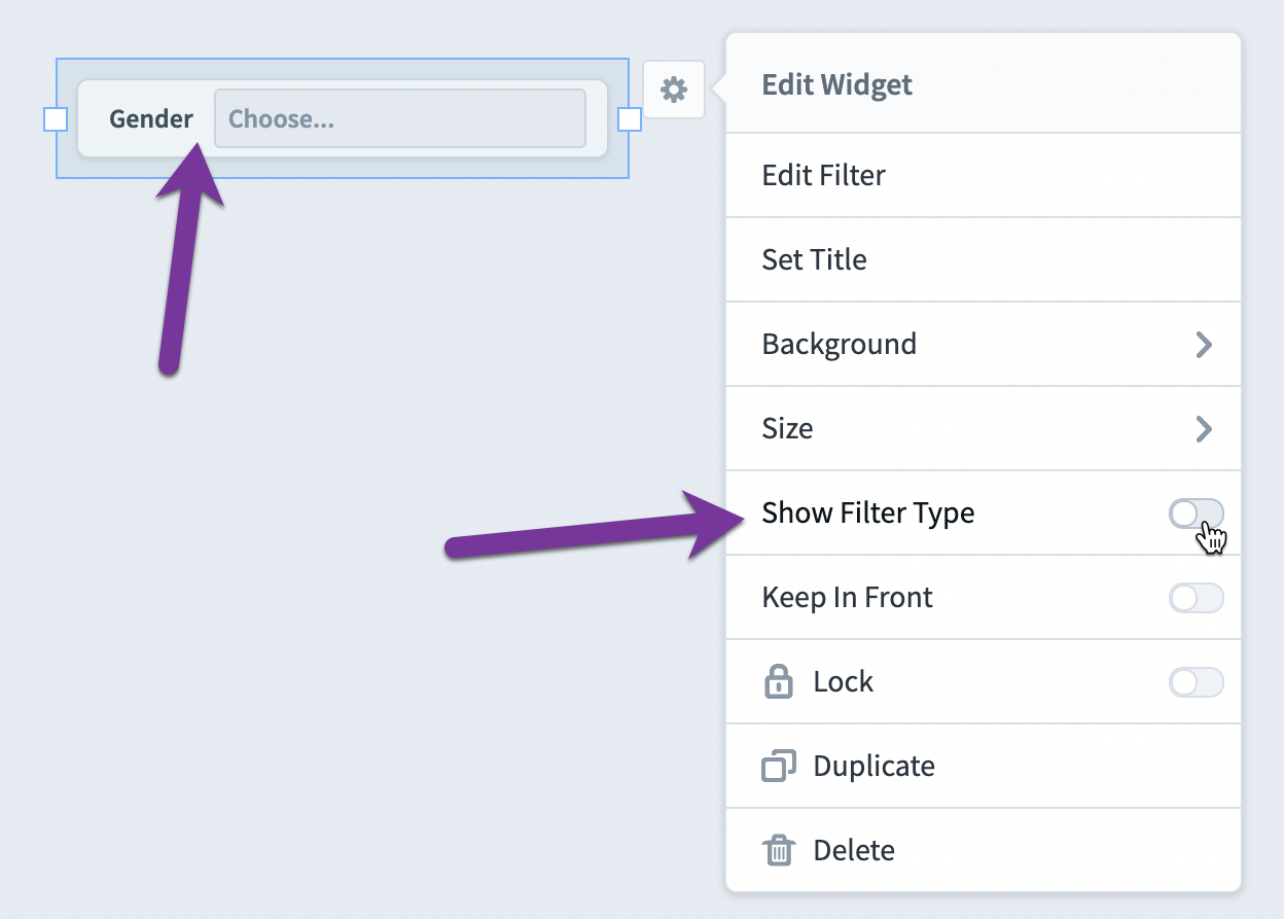
Another type of dataset dashboard widget are Dataset Filter widgets. They allow you to quickly apply filters to your dashboard, without taking up as much space as a Dataset Table widget.



Here we've clicked on the Gender dataset filter widget and we've applied a filter of Male.

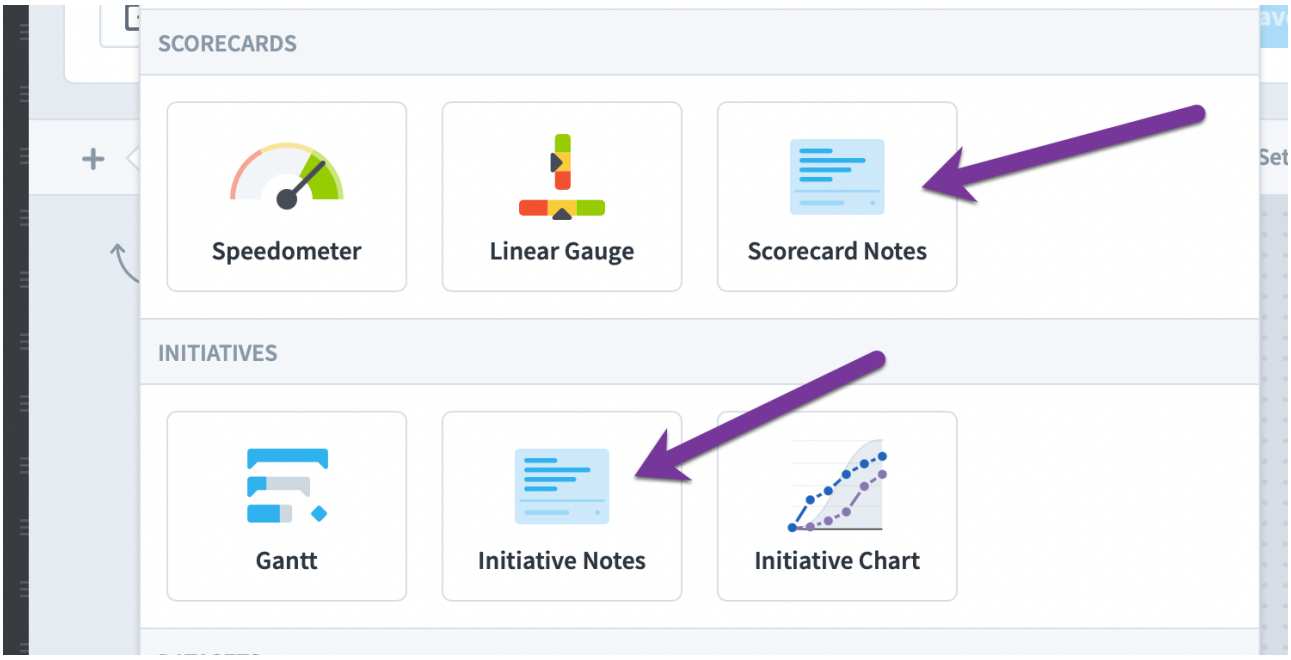


Turning off the filter type allows filter widgets to be even more compact.

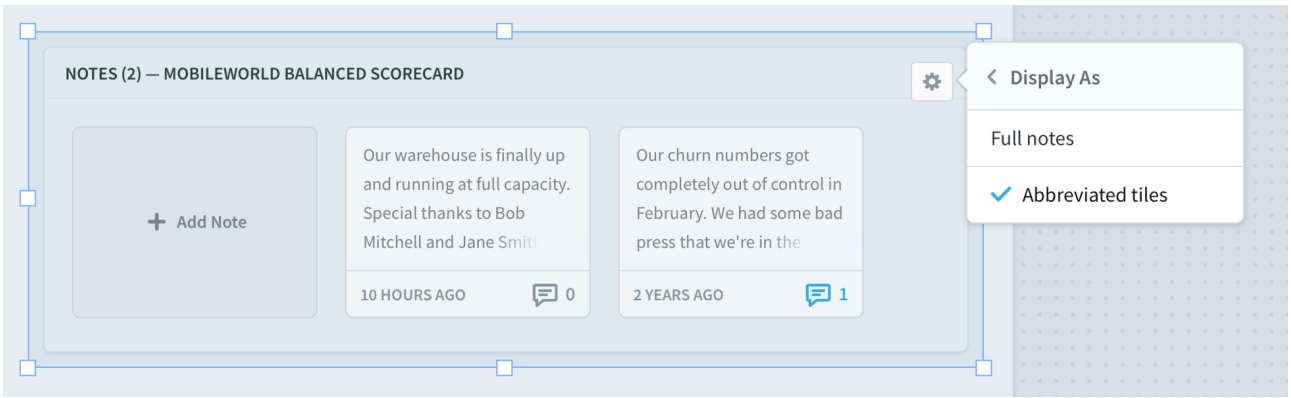

Gender
Choose...
Edit Widget
Edit Filter
Set Title
Background
Size
Show Filter Type
Keep In Front
Lock
Duplicate
Delete

Notes Widgets

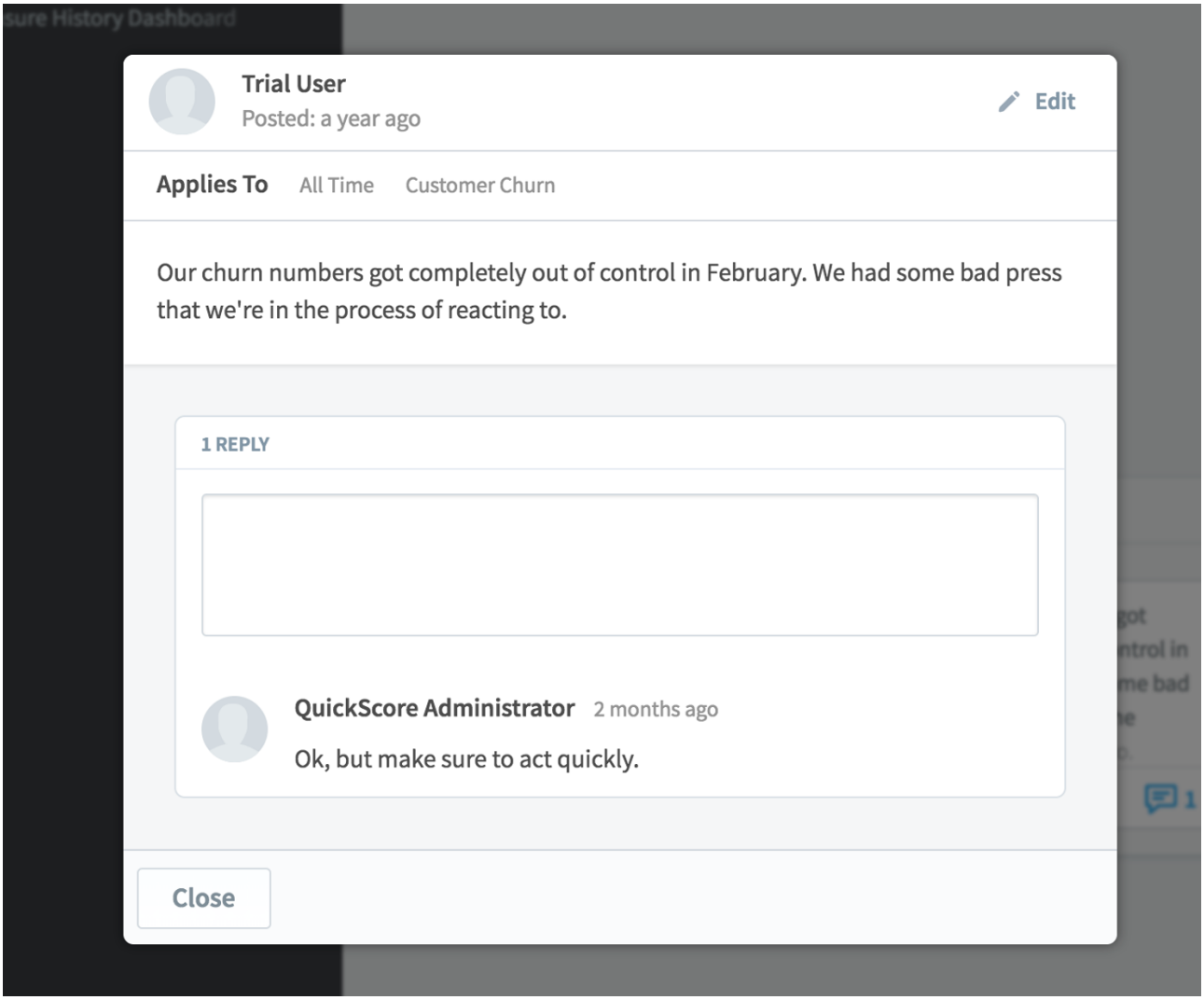
The notes widget allows you to see the notes for a scorecard or initiative item on your dashboard. You can add the widget from the dashboard Add Widget menu.



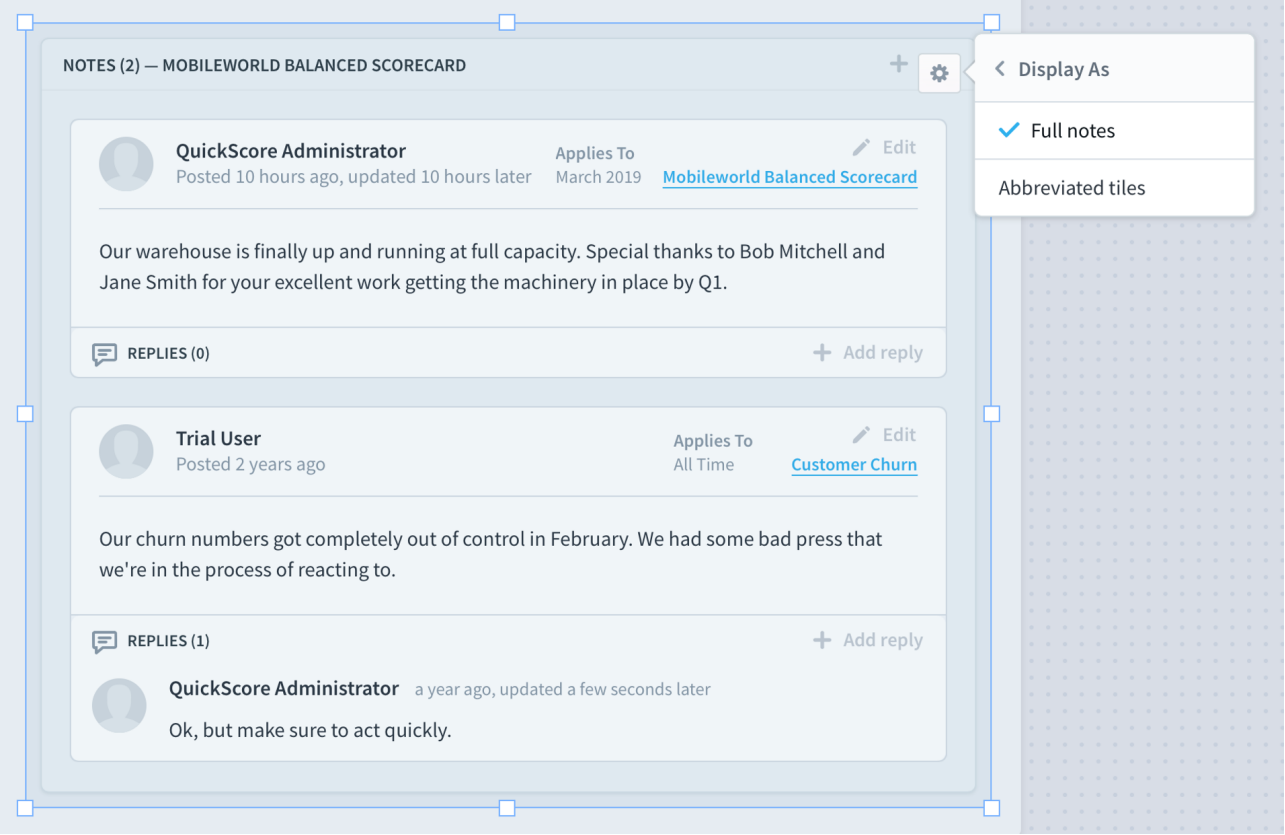
The default "Display As" appearance is “Abbreviated tiles.” The widget shows a preview of each note, as well as an icon showing whether there are any replies.



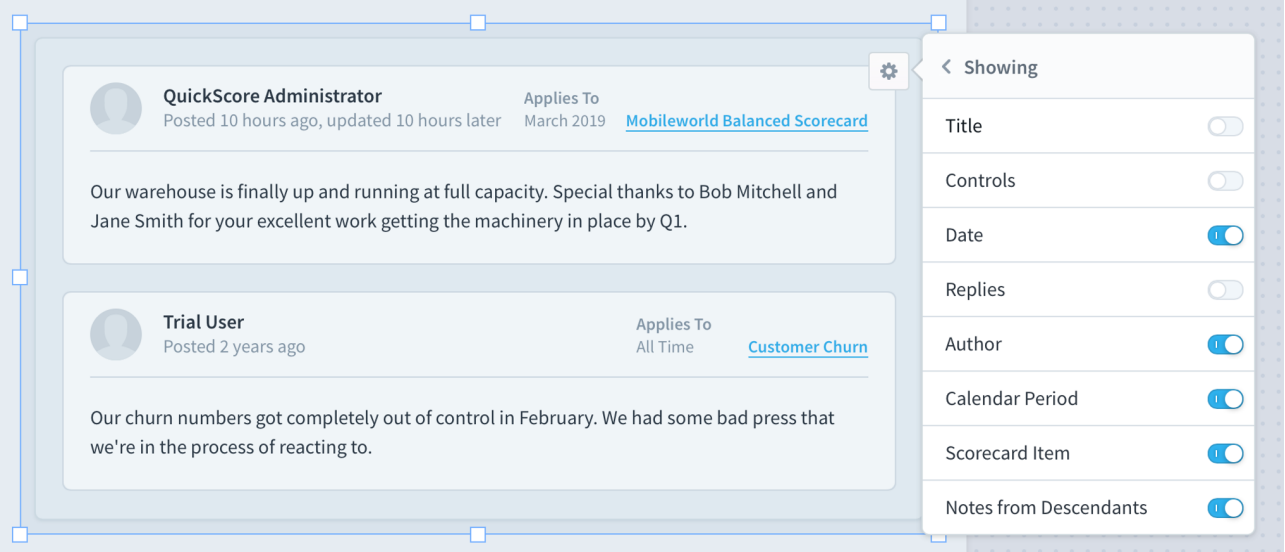
If you click on the tile, it shows the entire note and its replies in a dialog.



If you choose the “Full notes” option, you can now see the entire note and reply text directly on your dashboard.



You can choose which things you want to show for each note too. In this example, we've decided not to show the title, replies, or the editing controls.

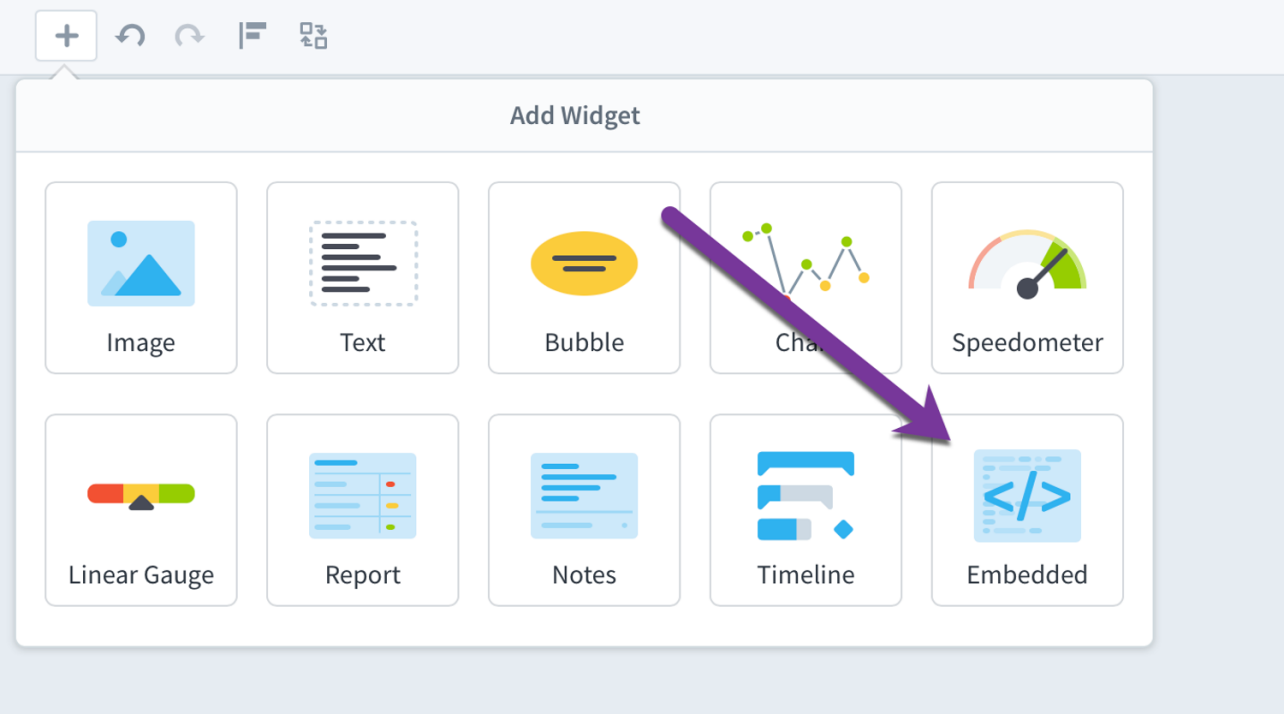


Embedded Content Widgets

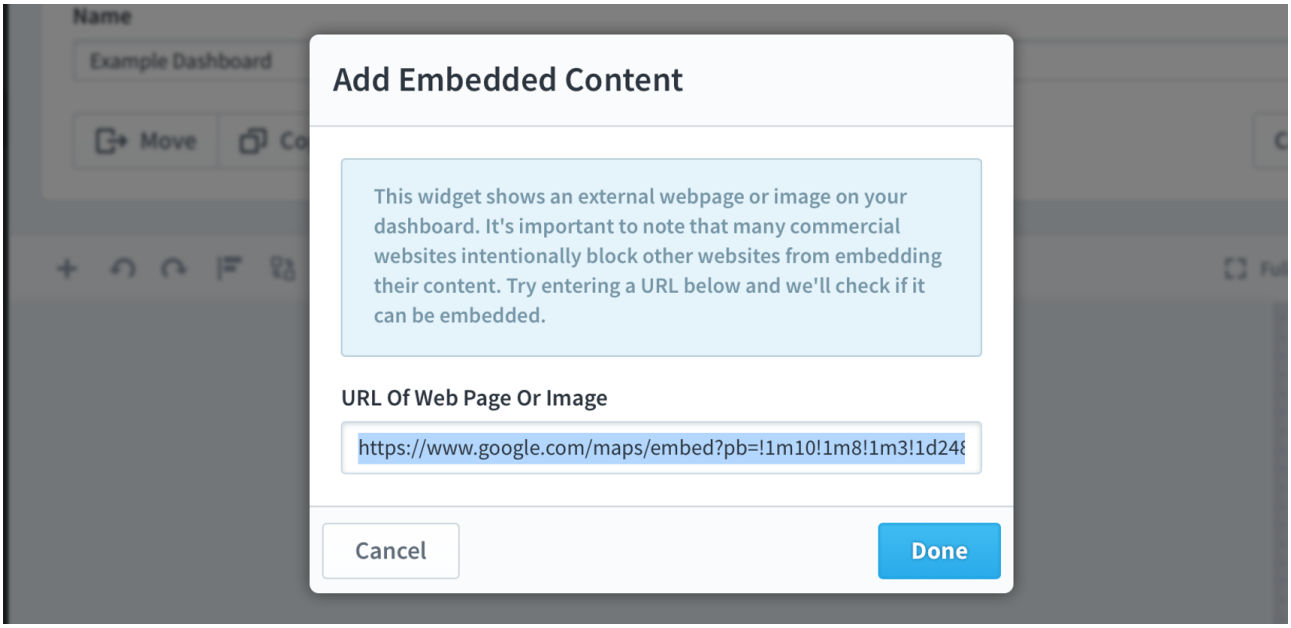
Embedded content widgets show information from other websites in a dashboard widget. They're similar to the Web Slides in briefings, except the embedded content is inside of a small dashboard widget rather than as a full briefing slide.

Adding an Embedded Content Widget

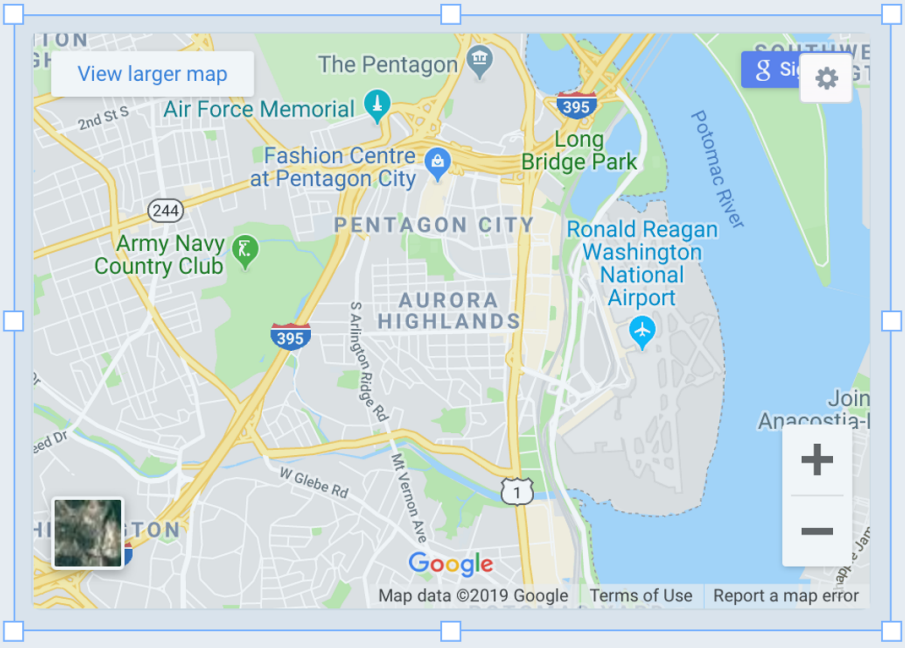
You can add an embedded content widget from the "add widget" menu.



Then, just paste in the URL of the webpage or image that you want to see on your dashboard.

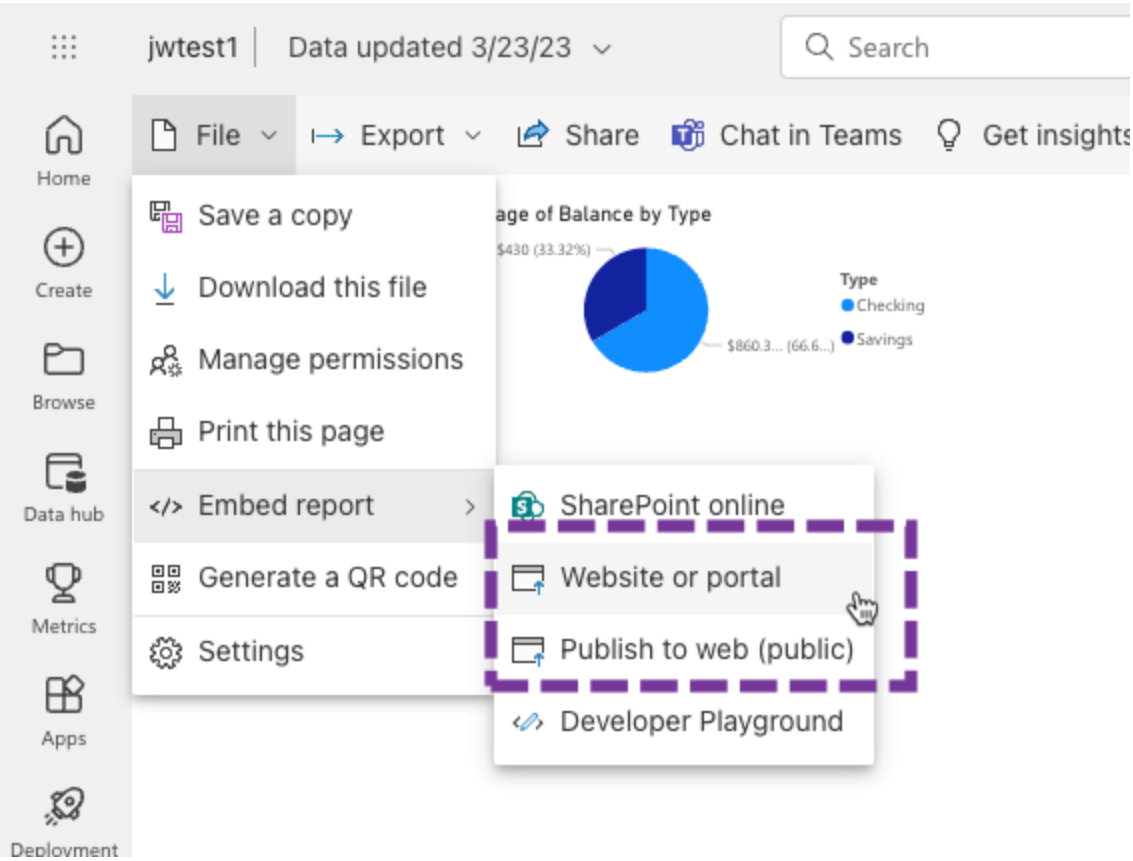


Spider Impact will then show that website or image in a resizable widget.



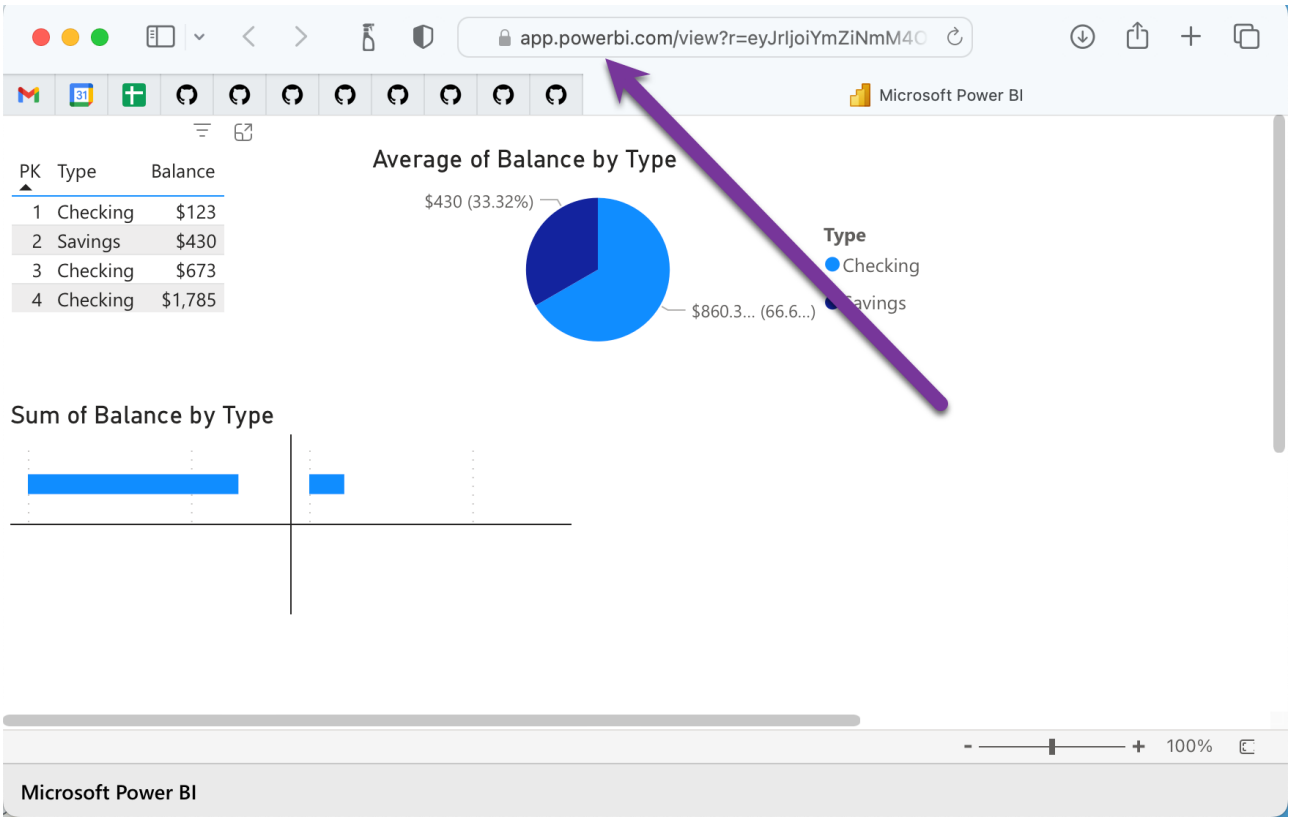
Example: Power BI Reports

Embedded content widgets are best explained with an example. To show a Power BI report in a Spider Impact embedded content widget, we'll first go to Power BI, click File, then Embed report, and then choose either "Website or portal" or "Publish to web (public)". Most of the time you'll want to choose the "Publish to web (public)" option so that anyone who views your Spider Impact dashboard can see the Power BI content. But, if you want to require people to be logged into Power BI before they can see the content, choose "Website or portal".

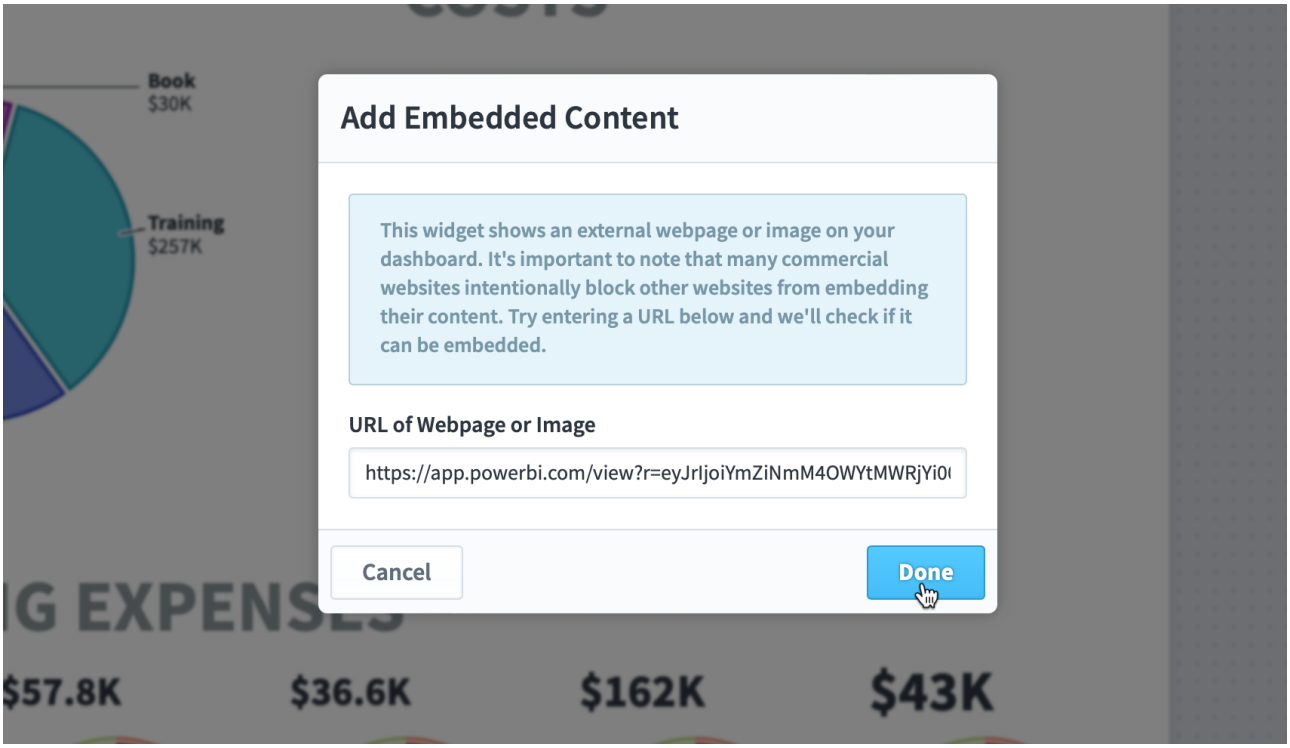


This will give you a URL that is made for embedding Power BI content in other apps like Spider Impact. The process of getting an embedding URL is going to be different for every app, but the general idea is that the URL we're getting from

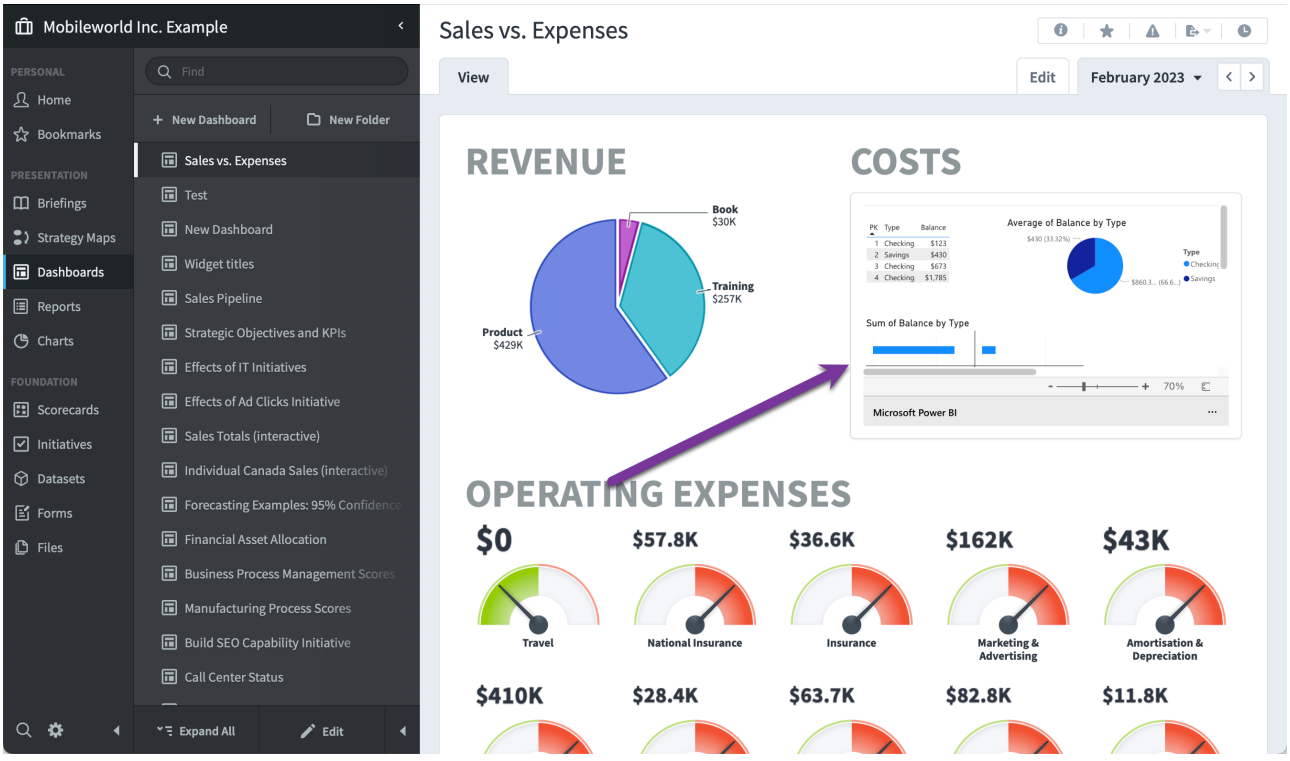
Power BI is specifically intended for embedding. Just to test out the URL, we'll paste it into a web browser to make sure it shows the Power BI report correctly.



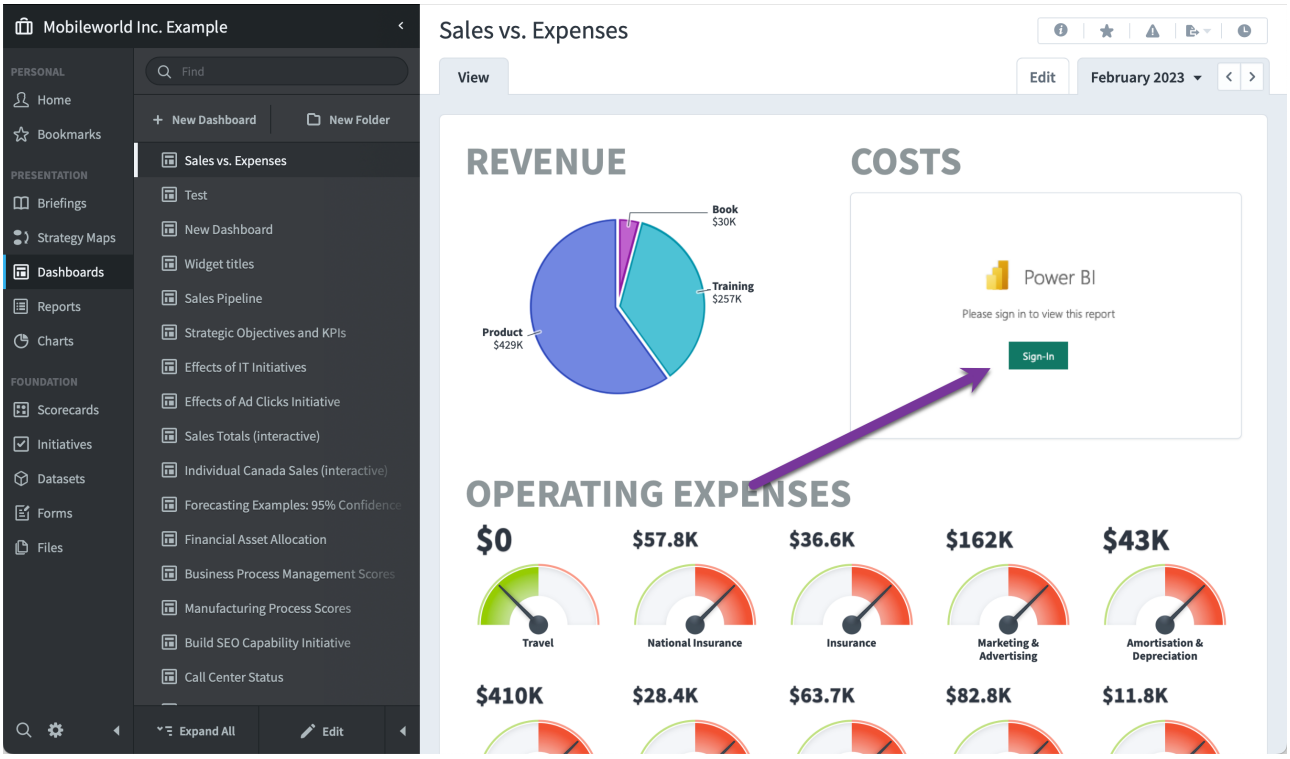
The URL is working, so we'll use it to create a Spider Impact embedded content widget.



And once we're done, our dashboard looks like this:

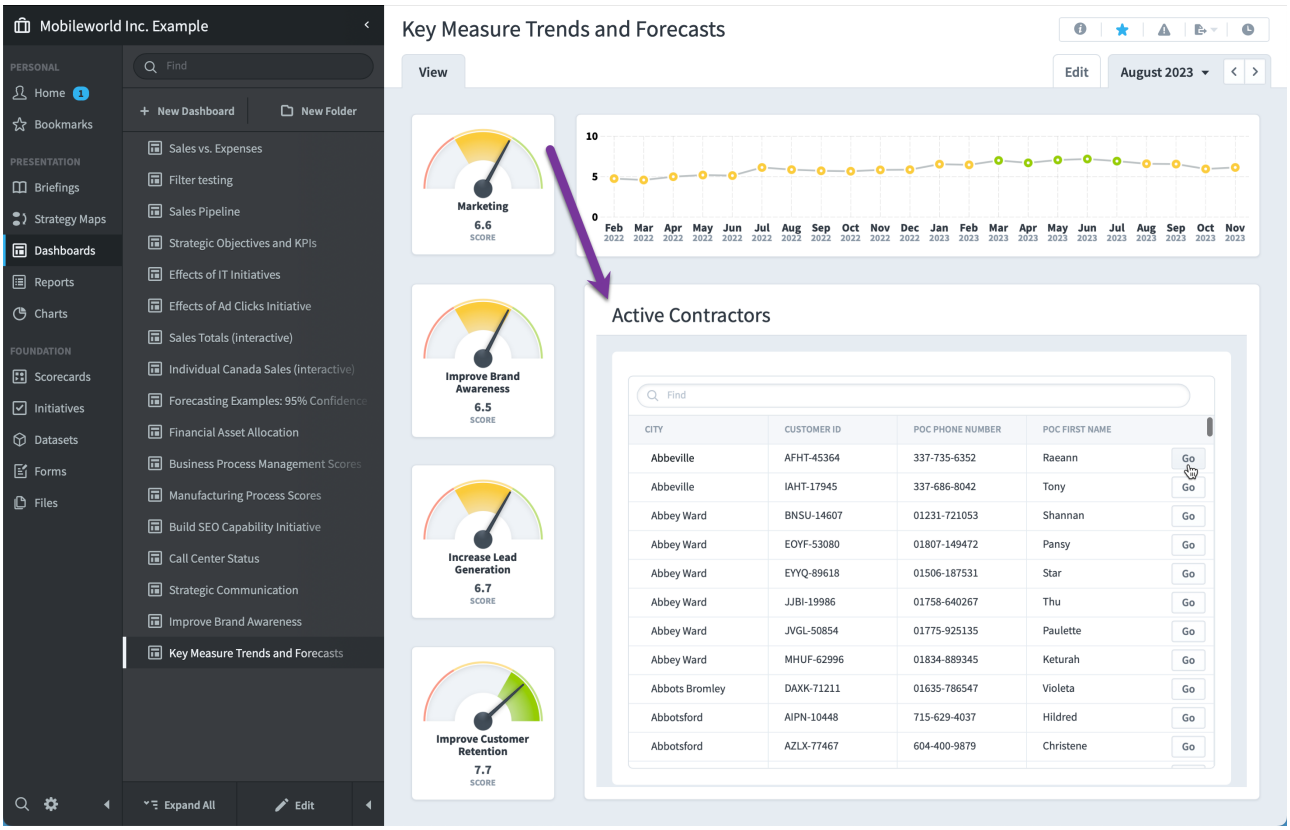


Note, however, that if we had created the Power BI embed URL by choosing "Website or portal", our dashboard will look like this whenever you're not logged into Power BI.



Example: Spider Impact

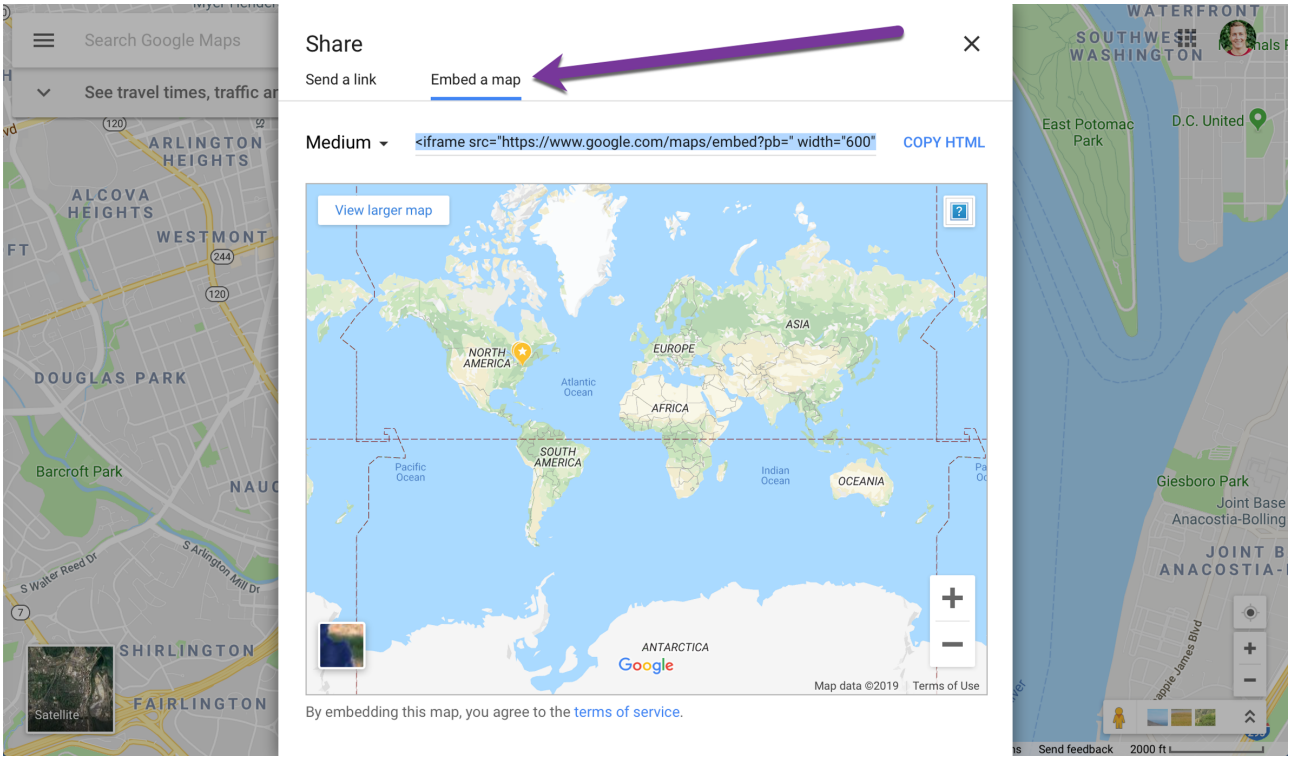
You can even use the embedded content widget to add other shared forms, dashboards, and strategy maps to your dashboards. This allows you to present and collect information on the same dashboard, as well as show summaries of multiple dashboards or strategy maps at once.



Sites That Prevent Embedding

It's important to note that many commercial websites intentionally prevent themselves from being displayed in other websites. Other sites require setting cookies, which don't work with embedded content. Because of this, embedded content widgets work best for content that is designed to be embedded. It's best to think of this as a widget for showing content meant for sharing, not for embedding any website on the internet.

For example, here's the "Embed a map" tab in google maps.



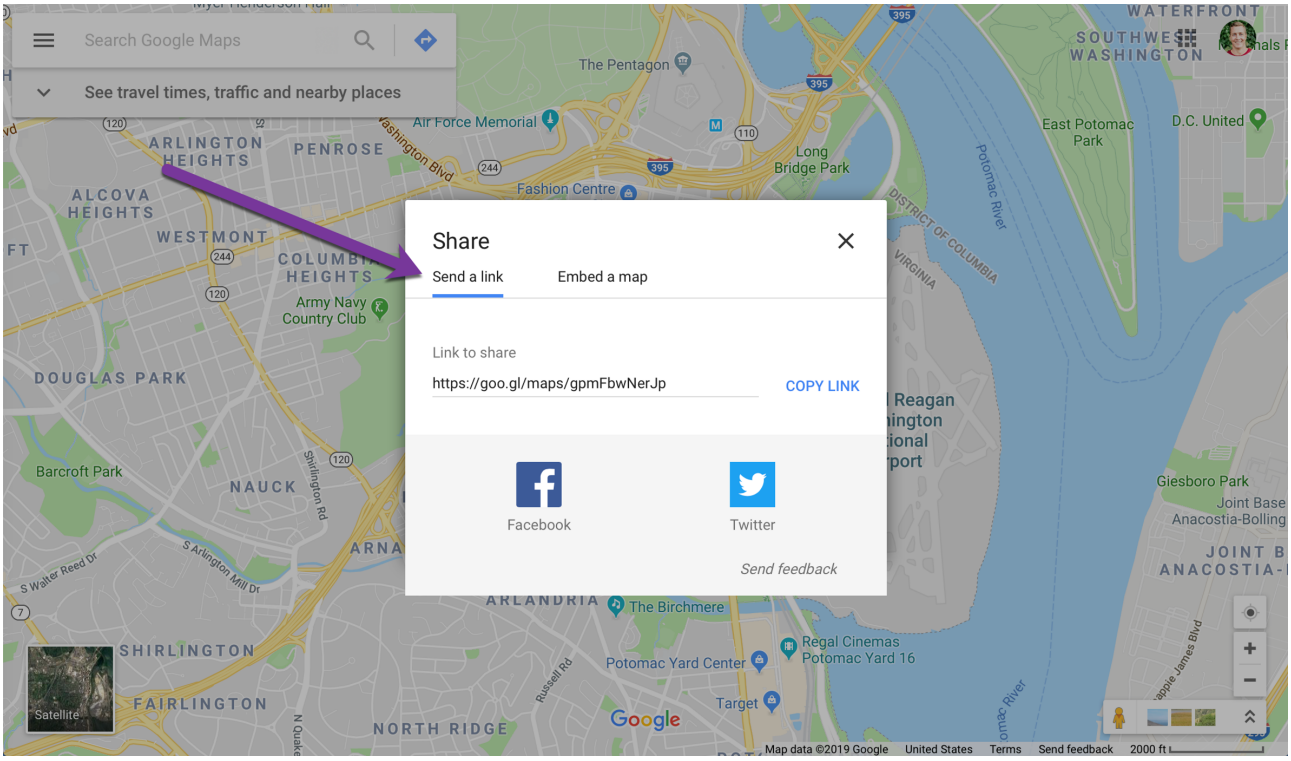
When we copy and paste that code, we get this:

```
<iframe src="https://www.google.com/maps/embed?pb=..."
width="600" height="450" frameborder="0" style="border:0"
allowfullscreen></iframe>
```

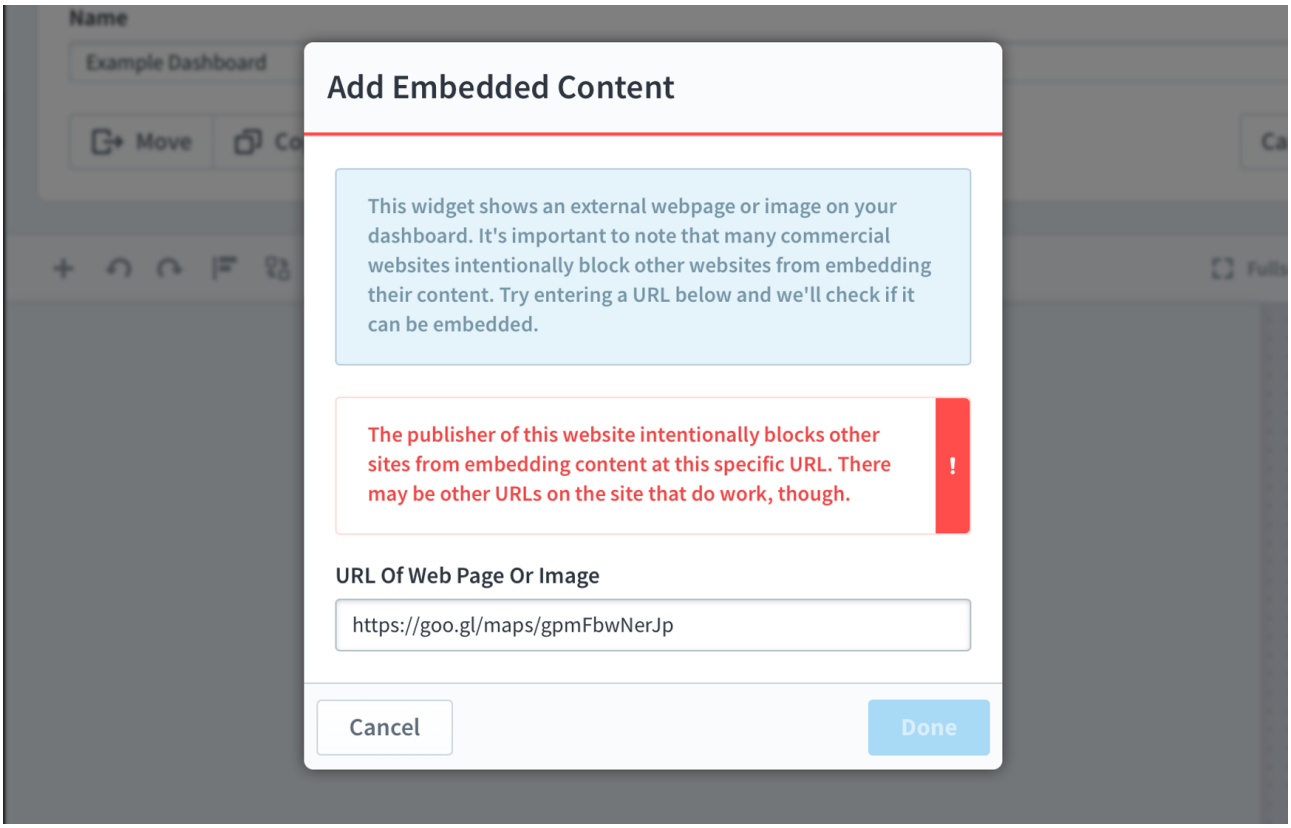
We only want the URL, though, so this part is all we want to paste into the embedded content widget.

```
https://www.google.com/maps/embed?pb=...
```

If, however, we went to the "Send a link" tab in google maps, we'd get a different URL that isn't designed to be embedded.



When we paste that URL into the embedded content widget, Spider Impact will show an error that looks like this.

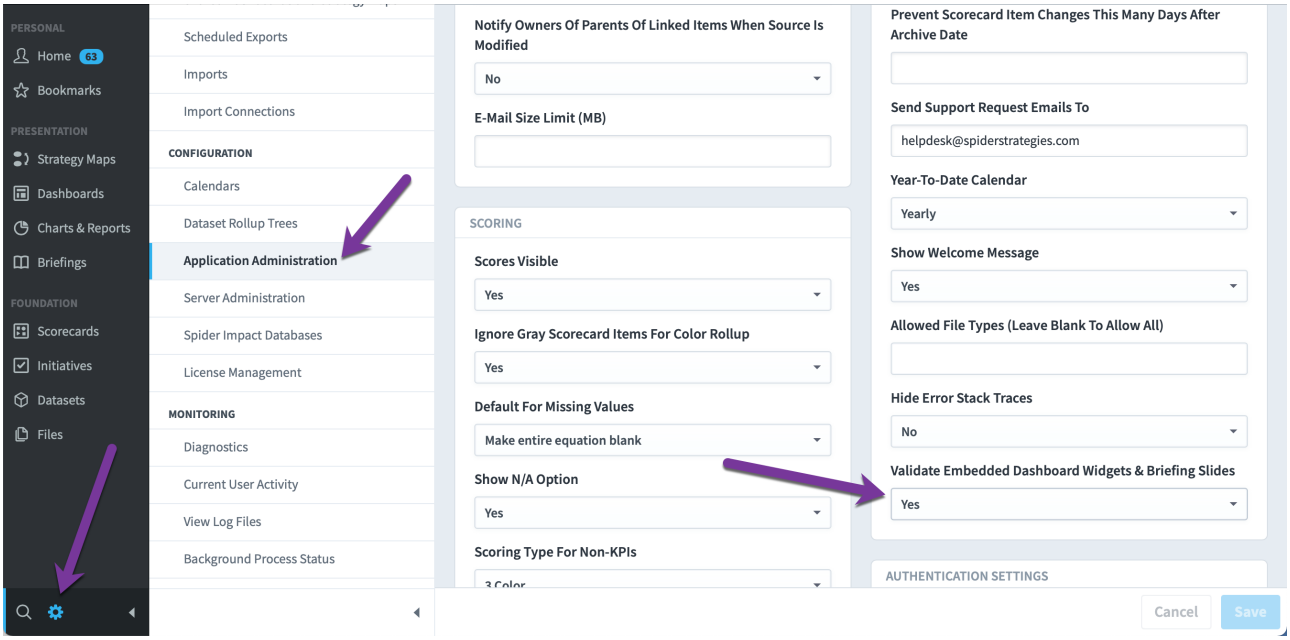


Finally, it's important to note that any URL you use has to be HTTPS, not HTTP. Spider Impact is a secure site, and web browsers prevent insecure content from being displayed in secure sites.

Disabling Embedded Content Validation

As you can see, there's a lot that can prevent a web page from showing up inside of Spider Impact. We do our best, however, to explain what's going wrong when it doesn't work. Whenever you paste a URL into an embedded content widget, we check to make sure that the content can be displayed on your dashboard.

There are some situations, however, where Spider Impact can say that you're not authorized to embed a page when you really are. For example, if you're hosing Spider Impact on your own servers (or if you use a VPN or single sign-on), it's possible that the Spider Impact server is being blocked from seeing a page even though you are not. If that's the case, you can turn off "Validate Embedded Dashboard Widgets & Briefing Slides" in Admin > Application Administration.


PERSONAL
Home
Bookmarks
PRESENTATION
Strategy Maps
Dashboards
Charts & Reports
Briefings
FOUNDATION
Scorecards
Initiatives
Datasets
Files
Scheduled Exports
Imports
Import Connections
CONFIGURATION
Calendars
Dataset Rollup Trees
Application Administration
Server Administration
Spider Impact Databases
License Management
MONITORING
Diagnostics
Current User Activity
View Log Files
Background Process Status
Notify Owners Of Parents Of Linked Items When Source Is Modified
No
E-Mail Size Limit (MB)
SCORING
Scores Visible
Yes
Ignore Gray Scorecard Items For Color Rollup
Yes
Default For Missing Values
Make entire equation blank
Show N/A Option
Yes
Scoring Type For Non-KPIs
Prevent Scorecard Item Changes This Many Days After Archive Date
Send Support Request Emails To
helpdesk@spiderstrategies.com
Year-To-Date Calendar
Yearly
Show Welcome Message
Yes
Allowed File Types (Leave Blank To Allow All)
Hide Error Stack Traces
No
Validate Embedded Dashboard Widgets & Briefing Slides
Yes
AUTHENTICATION SETTINGS
Cancel
Save

Initiatives

Overview of Initiatives

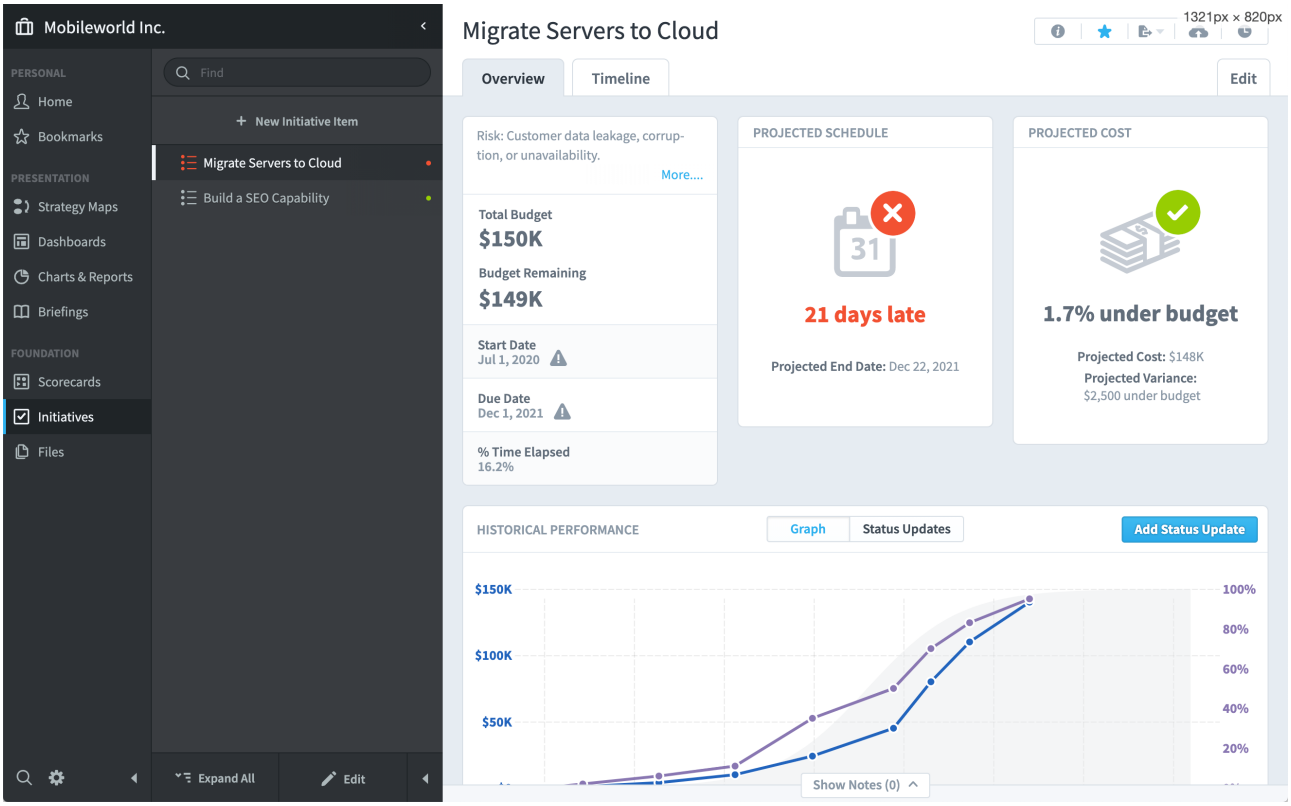
The Basics

In the Scorecards section we track KPIs and strategy. You define what you want to measure, and then you measure the same things month after month, year after year.

Initiatives are different. They have a specific start and end date, and they often are put into place to correct the performance of a scorecard item. For example, in the balanced scorecard methodology, Initiatives are put in place to fix poorly performing Objectives.

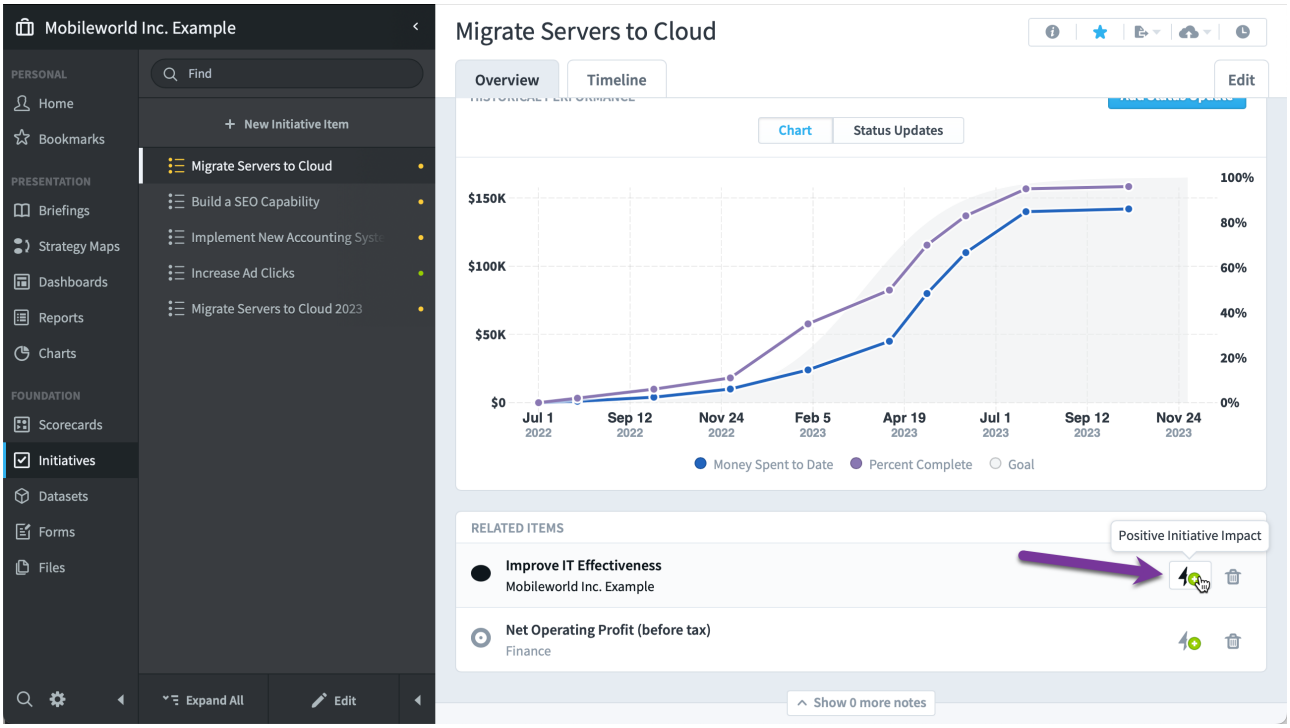
Overview Tab

The Initiatives Overview tab gives you a good feel for the overall performance of your initiative. Spider Impact will predict whether your initiative will be on time and under budget.



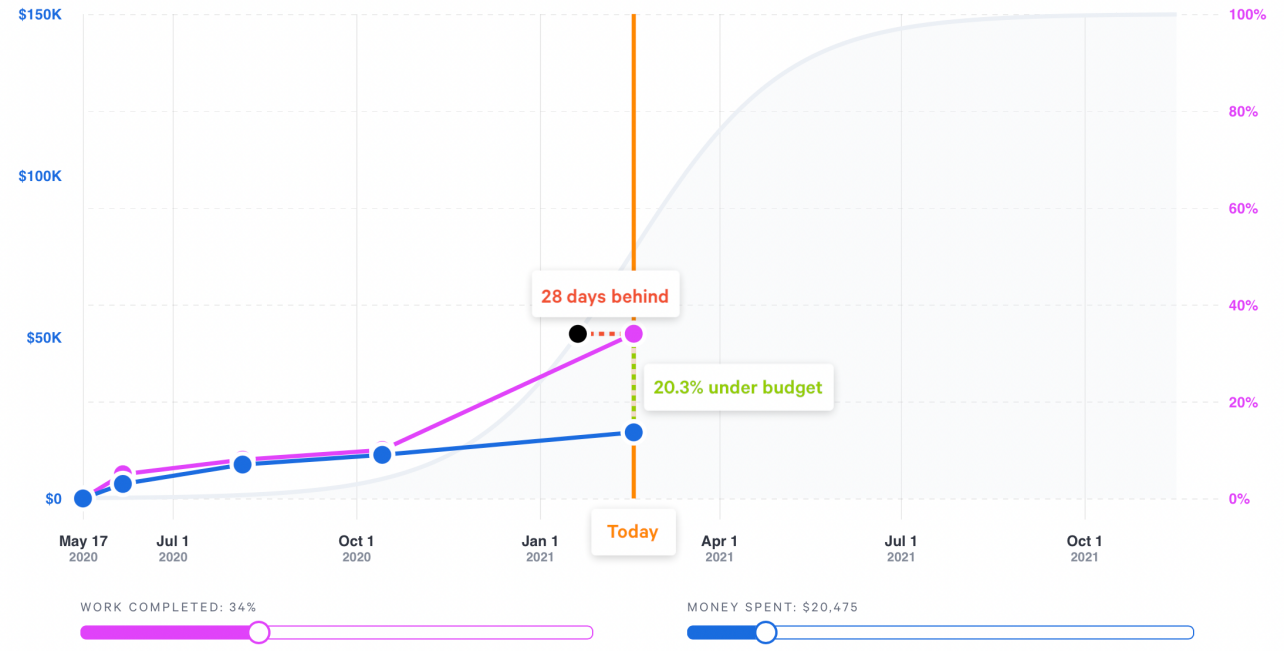
Related Items

You can designate just about anything in Spider Impact as a related item. For example, you may want to link to a supporting document in the Files section. If you choose a scorecard item as a related item, Spider Impact will tell you if the initiative appears to be affecting this scorecard item's performance.



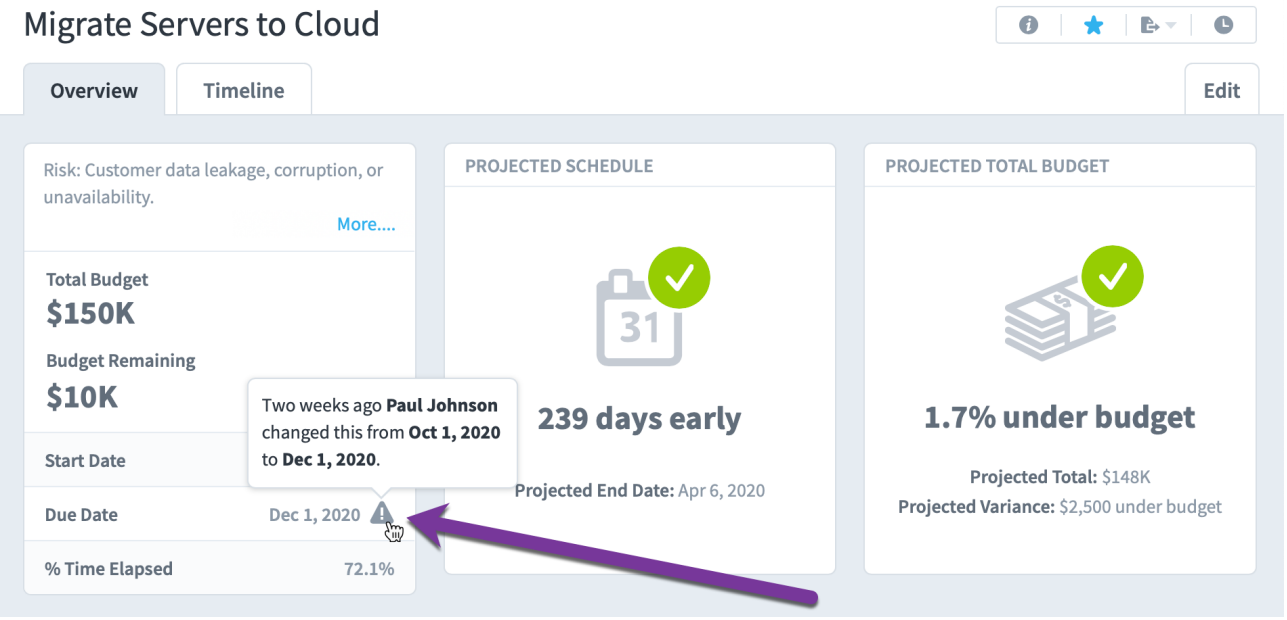
Predicting Budget and Schedule

Spider Impact uses Earned Value Management (EVM) to predict whether your initiatives will be on time and under budget. We've put together an entire article on EVM to explain exactly what's going on behind the scenes.



Changes to Key Numbers

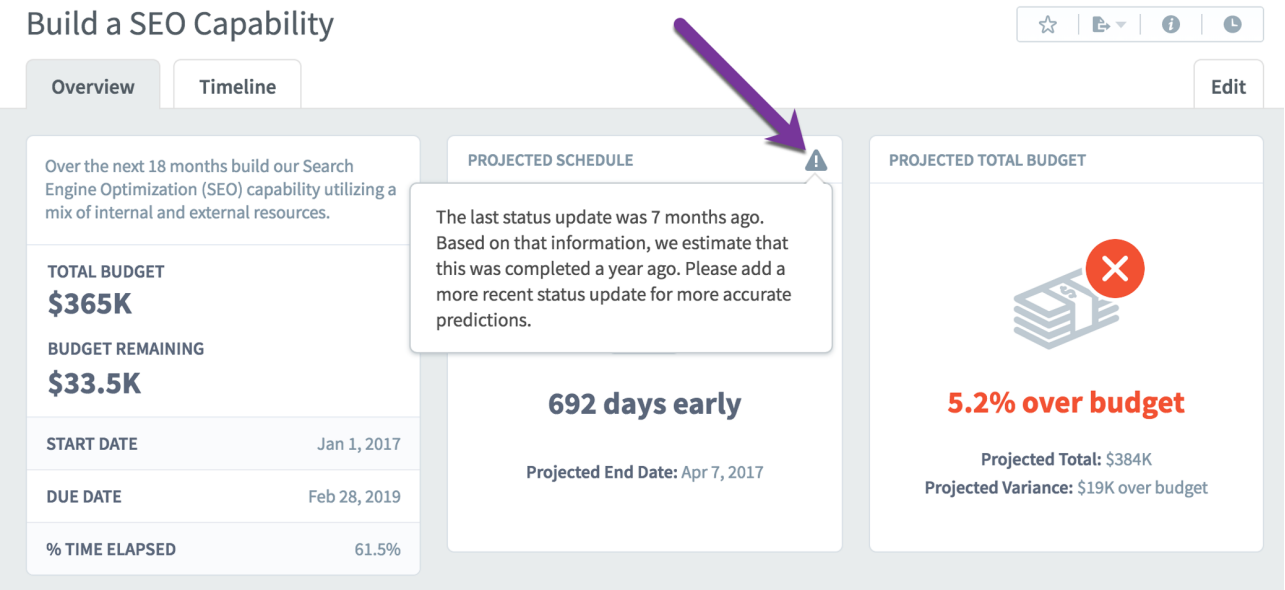
In an effort to promote transparency, whenever an initiatives's start or end date is edited, that information is displayed next to the new value on the overview tab.



Projected End Dates in the Past

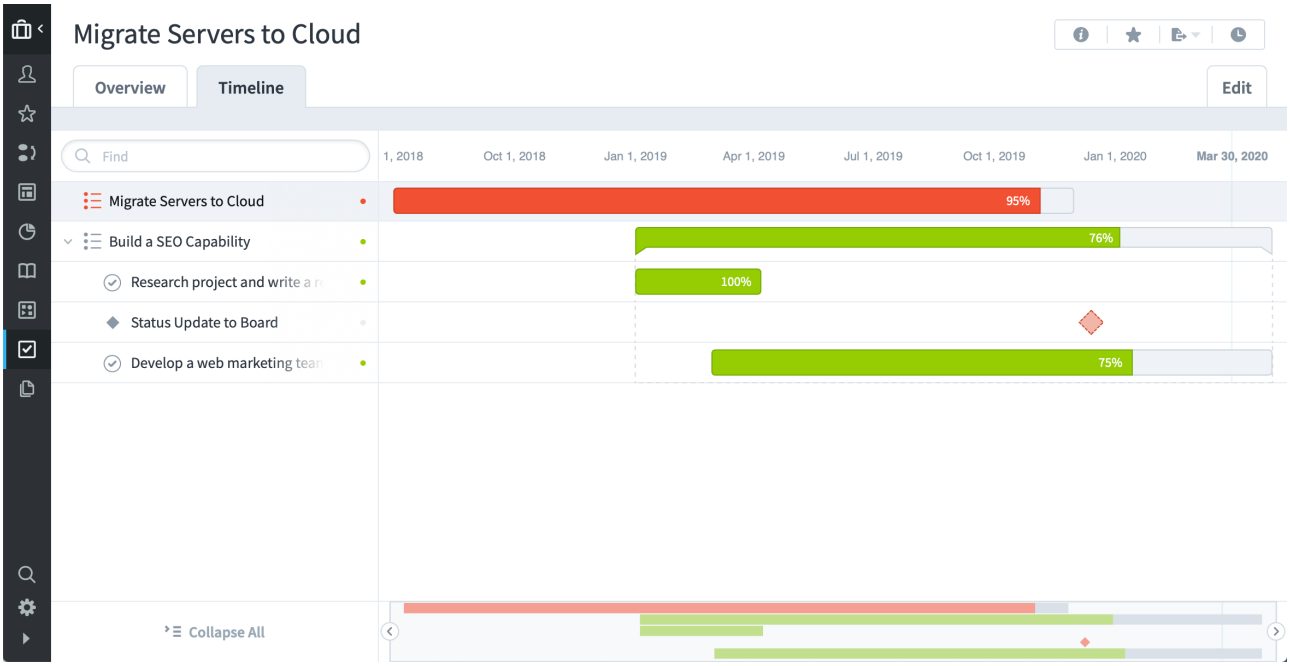
Spider Impact automatically predicts when an initiative will be finished and what its budget will be at completion. These predictions start to fall apart, however, when initiatives don't get regular status updates.

It can get particularly confusing when a projected end date is in the past. This can happen when the last status update is so long ago that the initiative has probably ended by now. To avoid this confusion, there's an indicator next to projected end dates that are in the past, and when you click on it, there's a tooltip explaining what is happening.

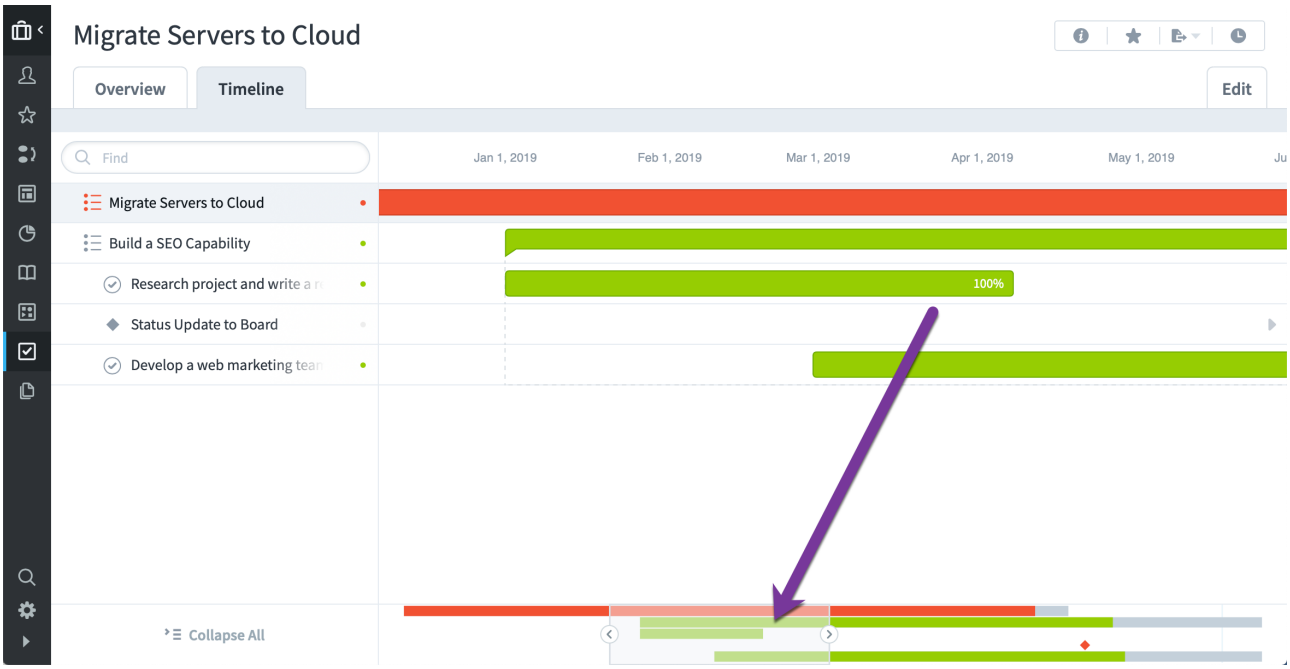


Timeline Tab

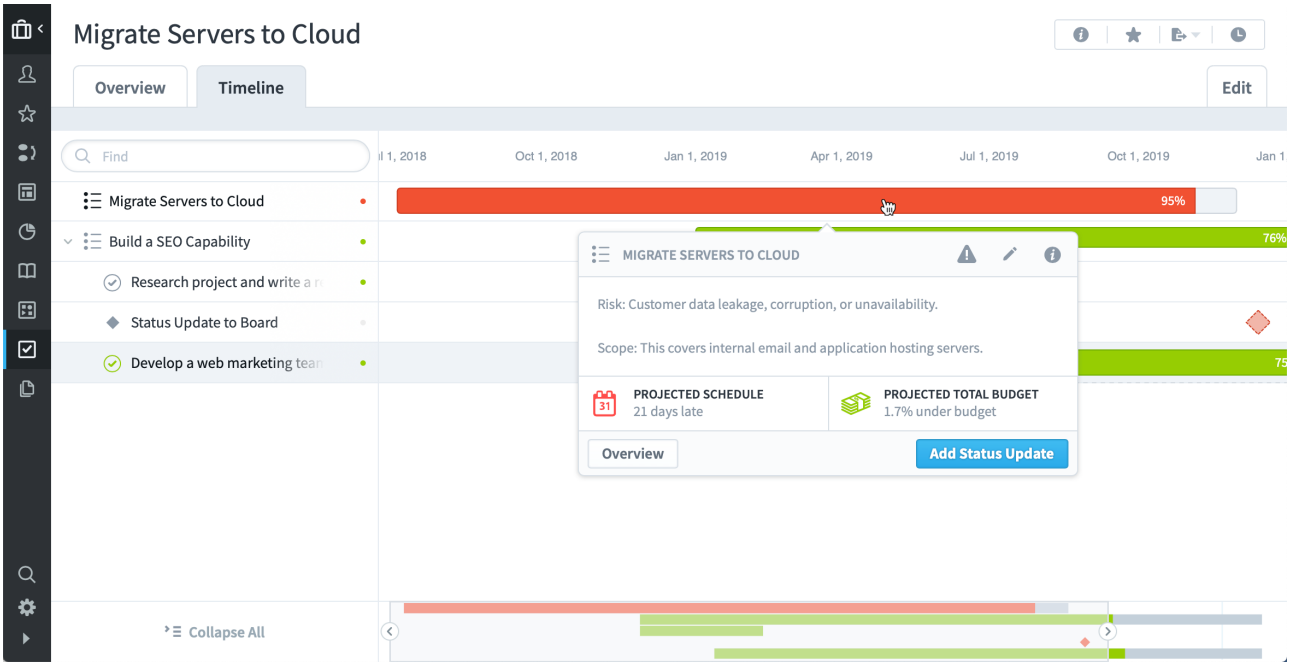
The Timeline tab shows you a fully interactive Gantt chart view of the current organization's initiatives.



Just like everywhere else in Spider Impact, you can expand and collapse the initiative tree on the left. There's also a timeline navigation bar on the bottom that allows you to zoom and pan through time.



If you click on any of the initiative items in the Gantt chart, you can see detailed information about that item, like its description and the projected budget and schedule performance.

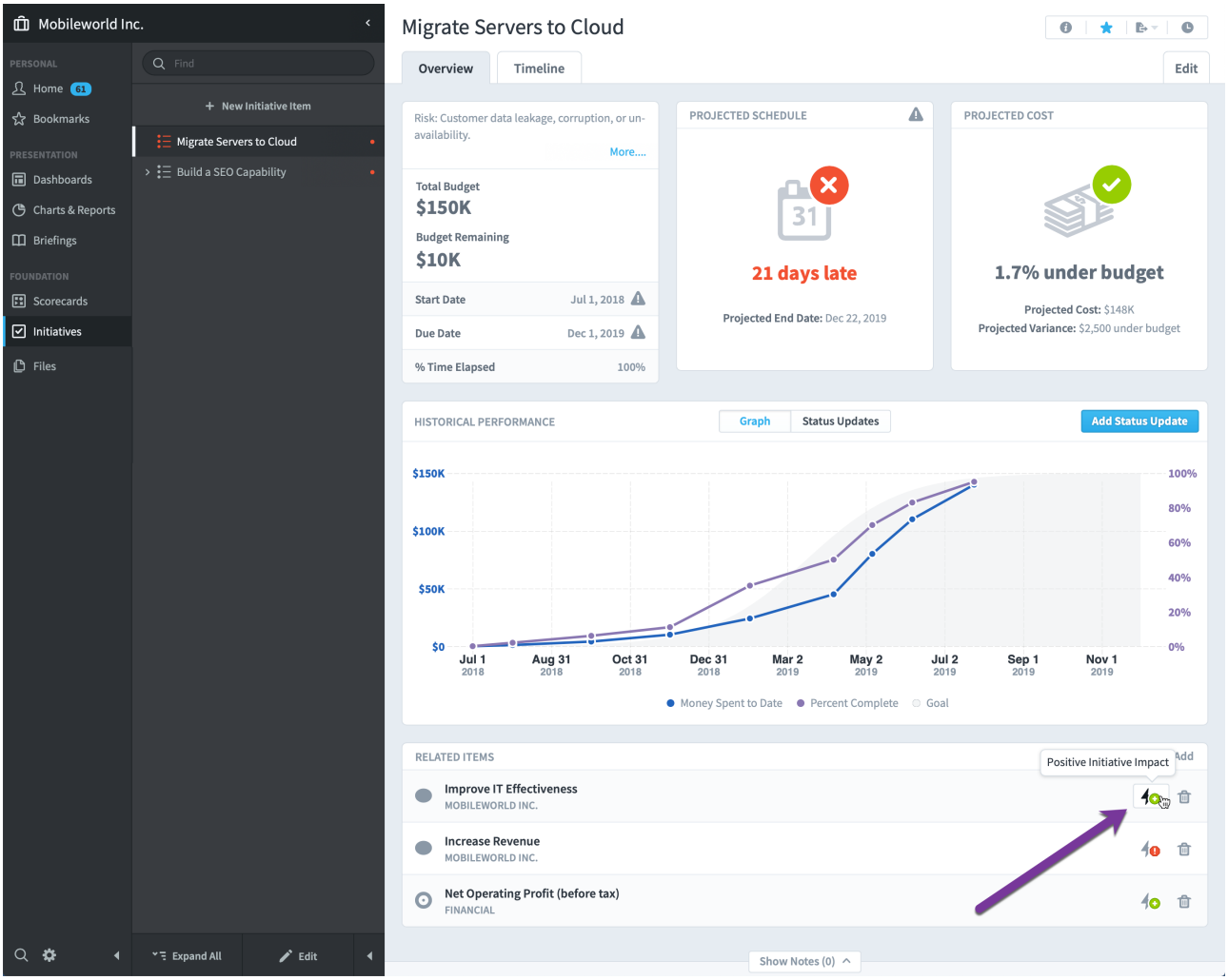


Determining Initiative Impact

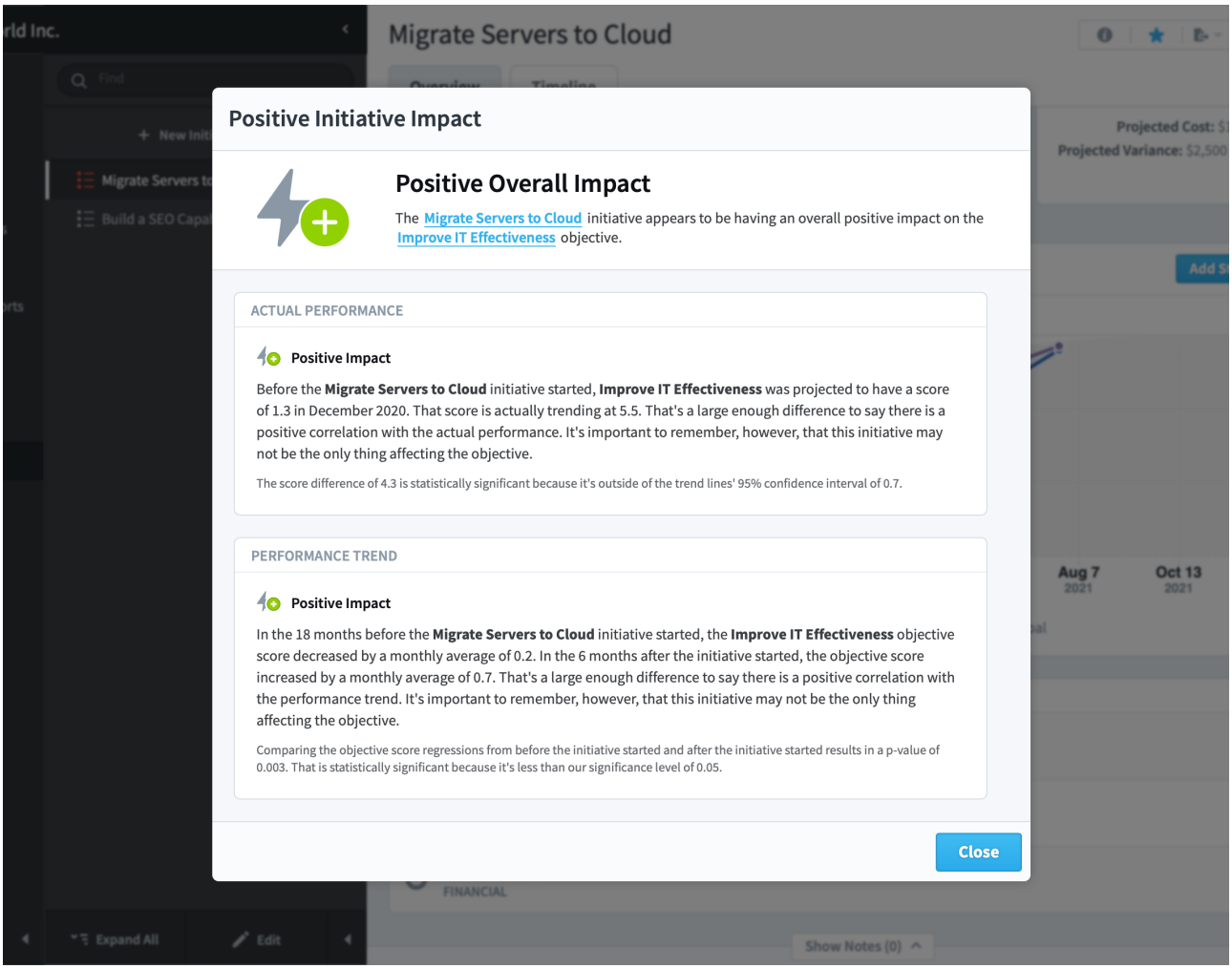
Spider Impact can now show you how initiatives are affecting your scorecard items. When you connect initiatives and scorecard items as related items, Spider Impact analyzes both current performance and performance trends to determine if the initiative is having a positive, negative, mixed, or no impact.

Overview

When viewing the Overview tab of a scorecard or initiative item, you'll see impact icons next to related items of the opposite type. Hover over these icons to see a quick summary, or click them to view detailed analysis.



When you click on an impact icon, Spider Impact shows you a detailed analysis breaking down how the initiative is affecting the scorecard item:



Details

The impact analysis looks at two key factors:

Factor 1: Actual Performance Impact

Spider Impact compares the scorecard item's current performance against projections based on pre-initiative data. If there's a statistically significant difference:

- **Positive Impact:** Performance is better than projected
- **Negative Impact:** Performance is worse than projected
- **No Impact:** Any difference is not statistically significant

The software determines actual performance impact by:

1. Creating a trend line using data points from before the initiative started
2. Extending this trend line to project expected performance
3. Comparing actual performance against the projection
4. Using a 95% confidence interval to determine if the actual performance difference is statistically significant

If actual performance falls outside the confidence intervals, the impact is considered significant, with the direction determining if it's positive or negative.

Factor 2: Performance Trend Impact

Spider Impact analyzes how the rate of change has shifted by comparing two trend lines:

1. The trend line from before the initiative started
2. The trend line since the initiative began

If there's a statistically significant change in the trend line angles:

- **Positive Impact:** The trend has improved
- **Negative Impact:** The trend has worsened
- **No Impact:** Any change is not statistically significant

The software analyzes performance trends by creating two separate trend lines using linear least squares regression: one for data before the initiative started and the other for data after the initiative started. It then compares the slopes of these

trend lines using a p-value threshold of 0.1 to determine if differences are statistically significant.

Combined Impact Results

Spider Impact combines the actual performance and trend impacts to determine an overall impact. The overall impact is determined by these rules:

- Two positives = Positive Impact
- Two negatives = Negative Impact
- Positive + Negative = Mixed Impact
- Two "no impacts" = No Impact
- No Impact + Positive = Positive Impact
- No Impact + Negative = Negative Impact

Data Requirements

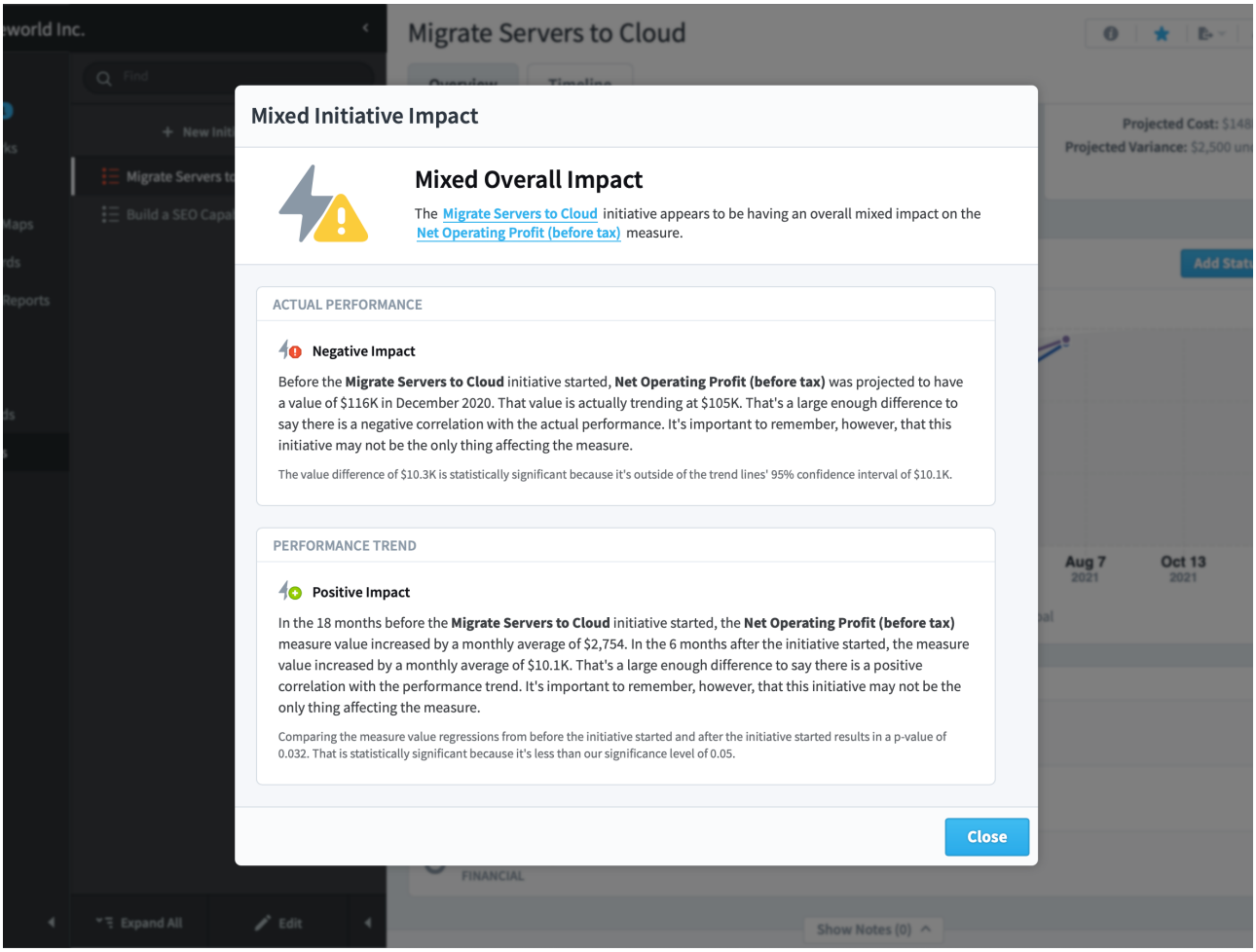
For accurate analysis, Spider Impact requires at least 3 data points before the initiative start date and at least 3 data points after the initiative start date. When the scorecard item is a KPI, the software uses its assigned calendar, and when it's not a KPI, the software uses the smallest standard calendar defined in administration.

Real-World Example

Sometimes initiatives can show seemingly contradictory effects. For example, an IT infrastructure initiative might cause:

- A one-time spike in costs (negative performance impact)
- A long-term reduction in the rate of cost increases (positive trend impact)

This would result in a "Mixed Impact" overall, helping you understand both the short-term costs and long-term benefits of your initiative.



Tips for Using Impact Analysis

- Regular Updates: Keep your scorecard data current for the most accurate analysis
- Timeline Consideration: Allow enough time after initiative start for meaningful trend analysis
- Context Matters: Use impact analysis alongside other metrics for complete understanding
- Statistical Significance: Remember that small changes may show as "No Impact" if not statistically significant

Charts

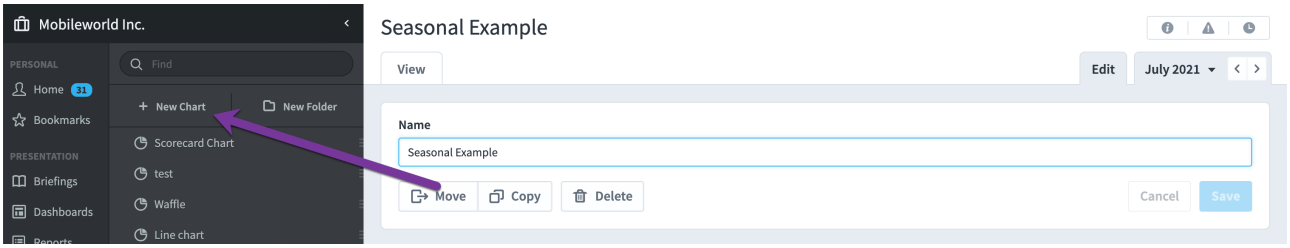
Overview of Charts

The basics

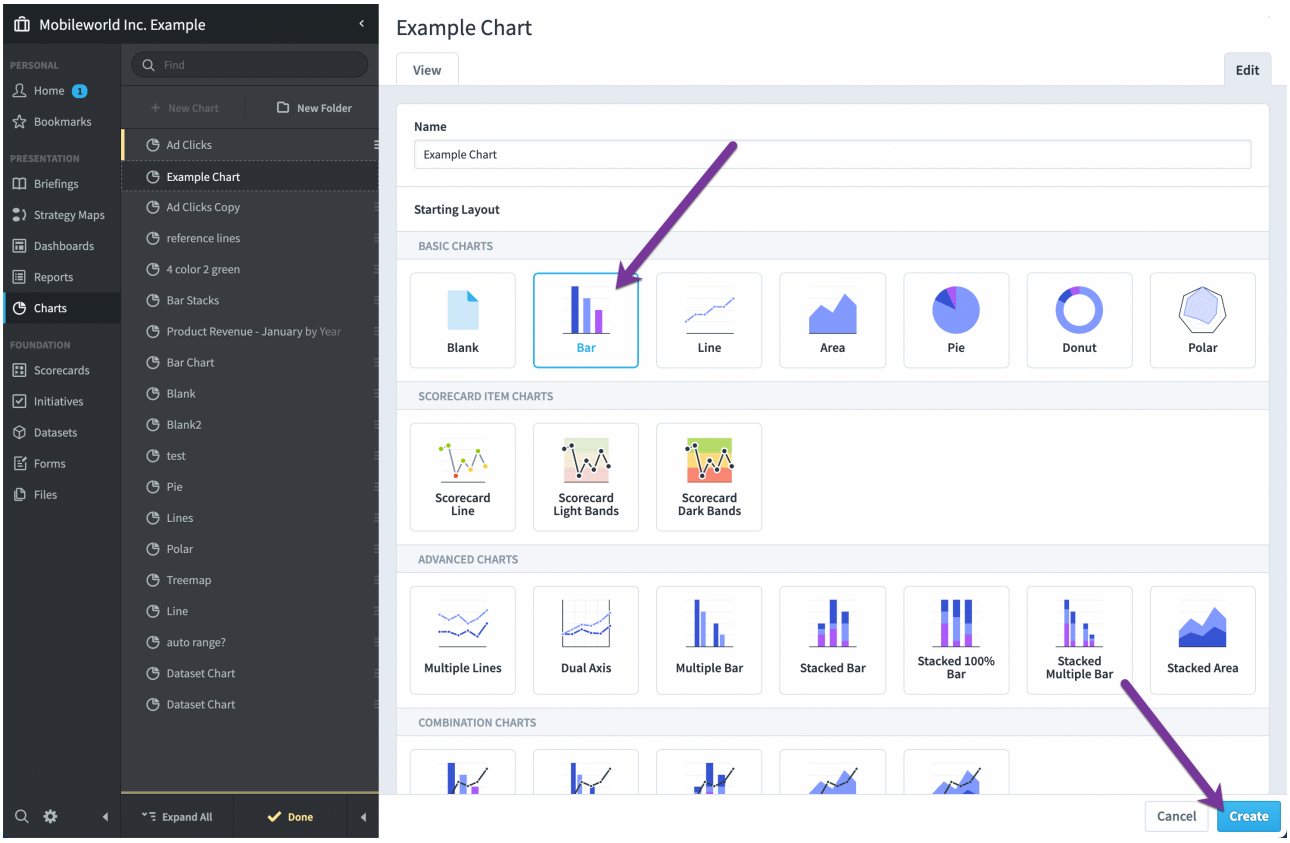
Charts visualize data for any combination of Scorecard items, Initiative items, and Dataset records. Charts are often shown as widgets on Dashboards, but they are also in the Charts section of Spider Impact.

Creating a chart

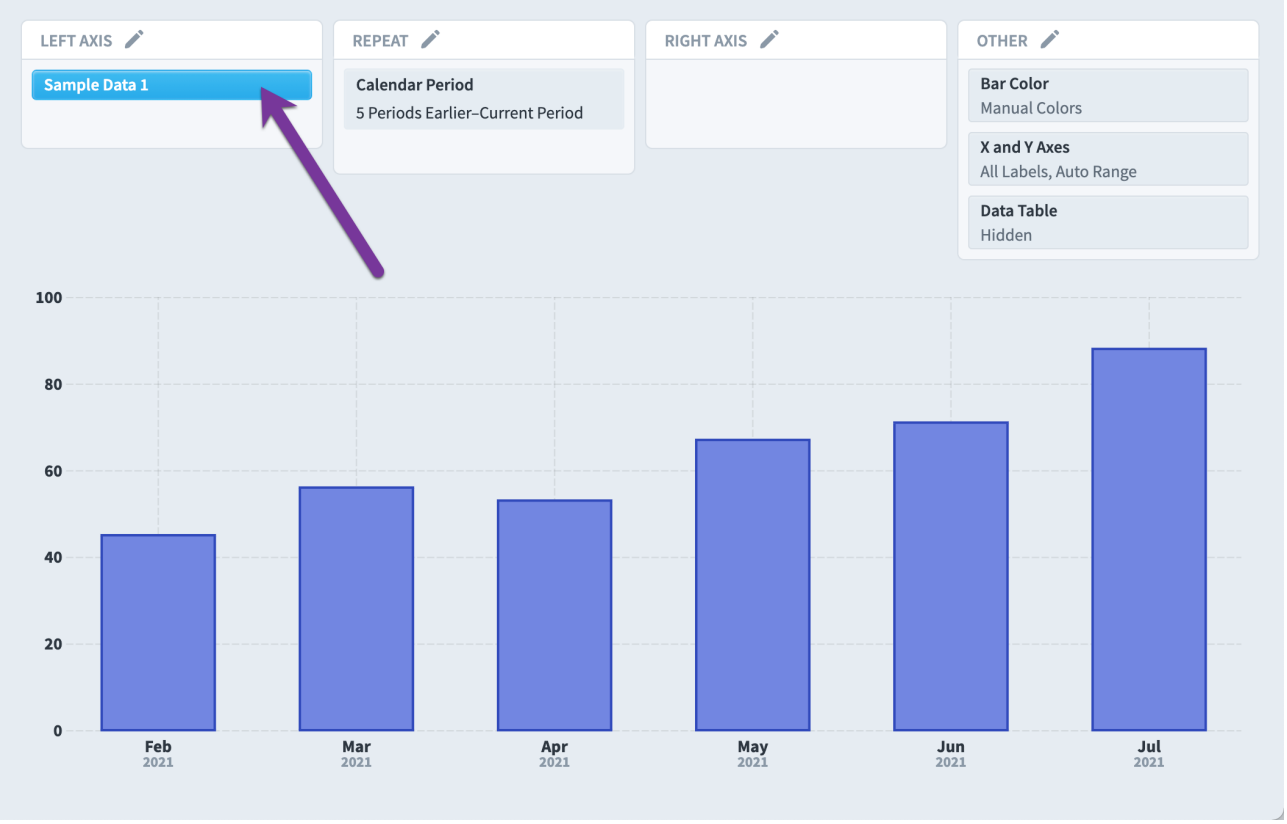
To create a chart, go to the Charts section and click the “New Chart” button.



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.

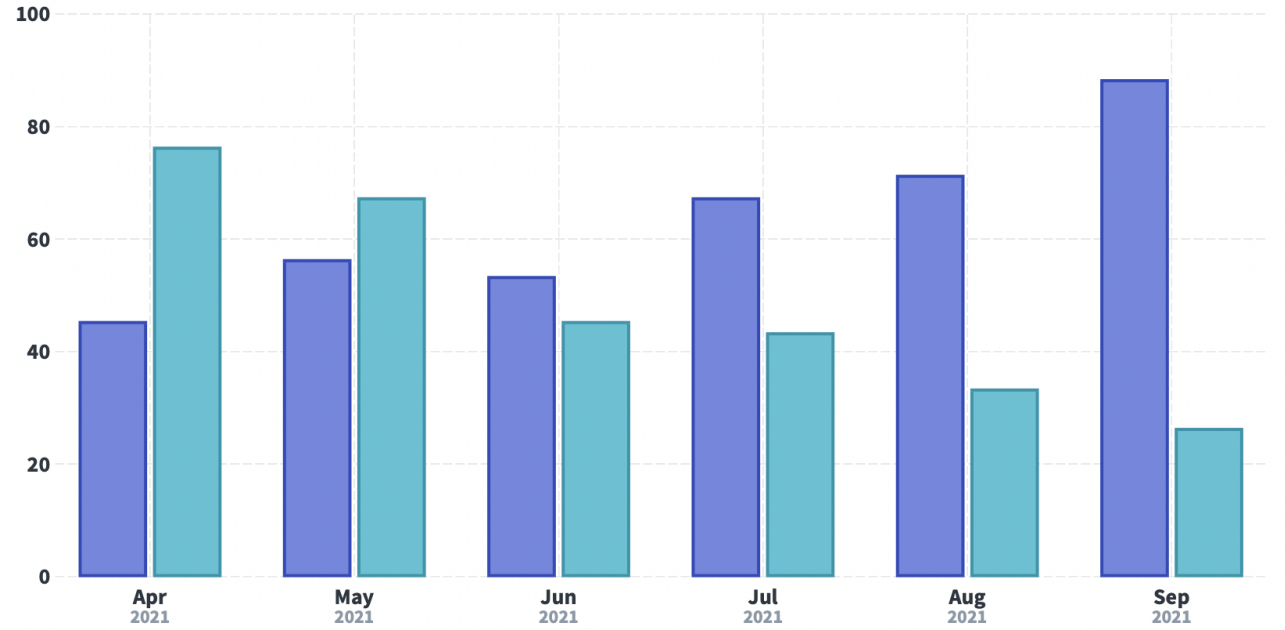


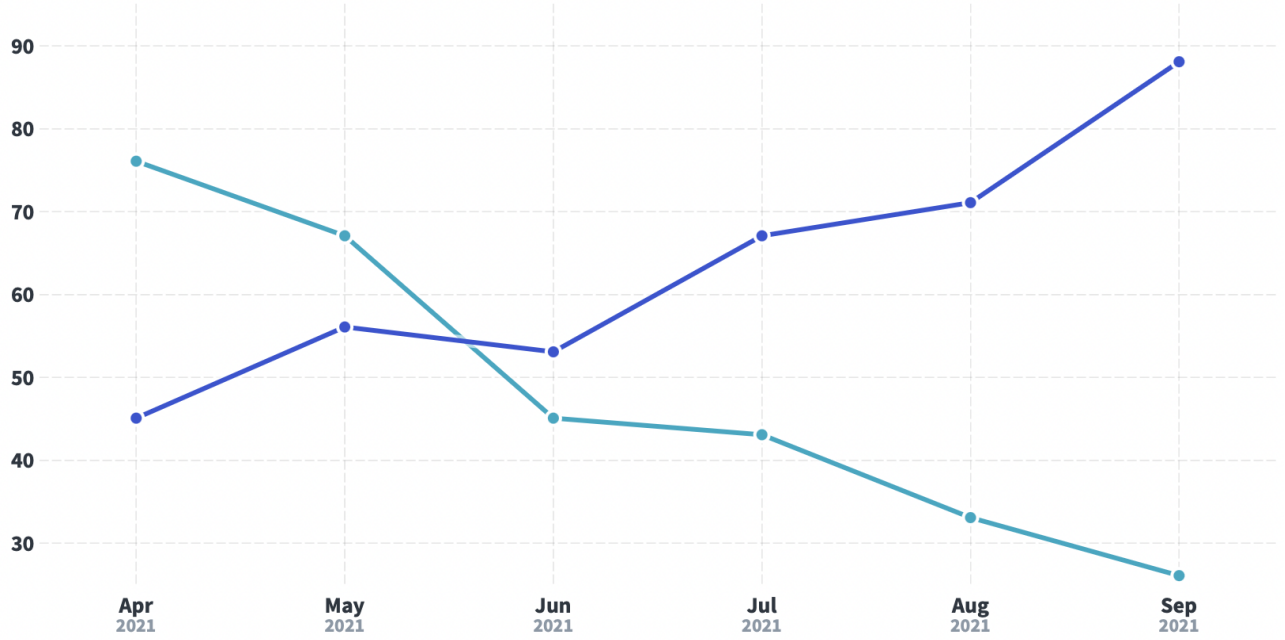
If you choose a pre-built chart example, you'll see a fully finished version of your chart with sample data. This allows you to build visualizations based on how they look rather than focusing on getting the data exactly right from the beginning. All sample data series are marked blue.

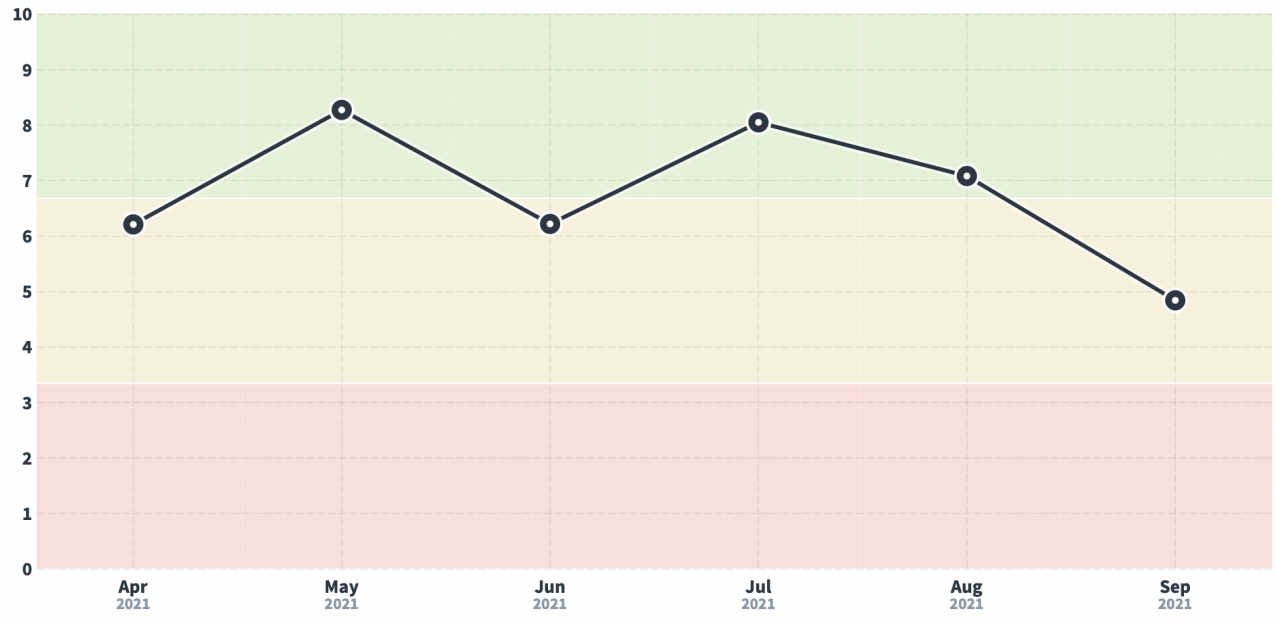


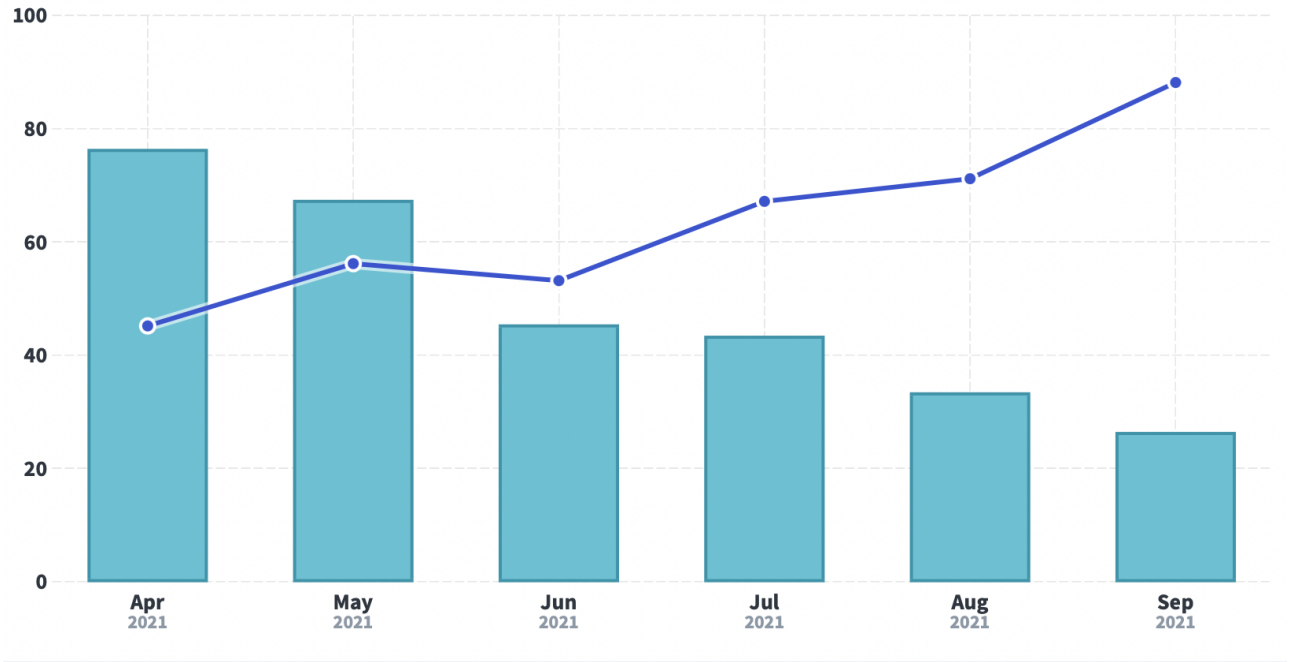
Example charts

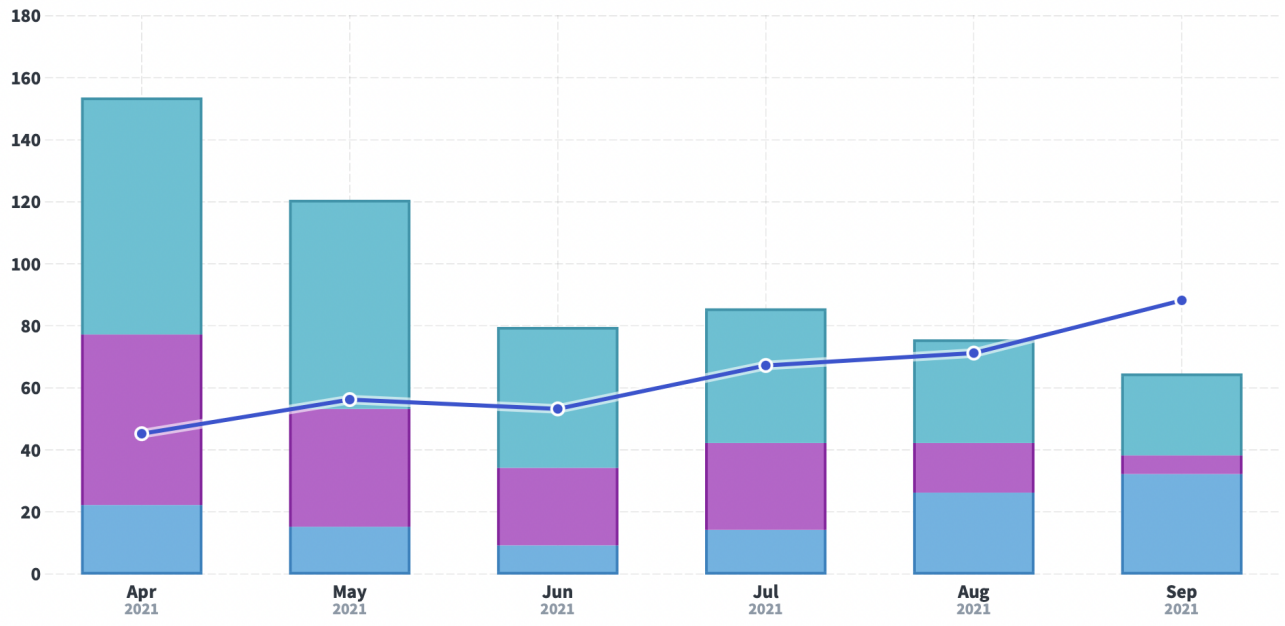
The most popular charts are line, bar, and area charts. These three types of data series can be combined on the same chart.

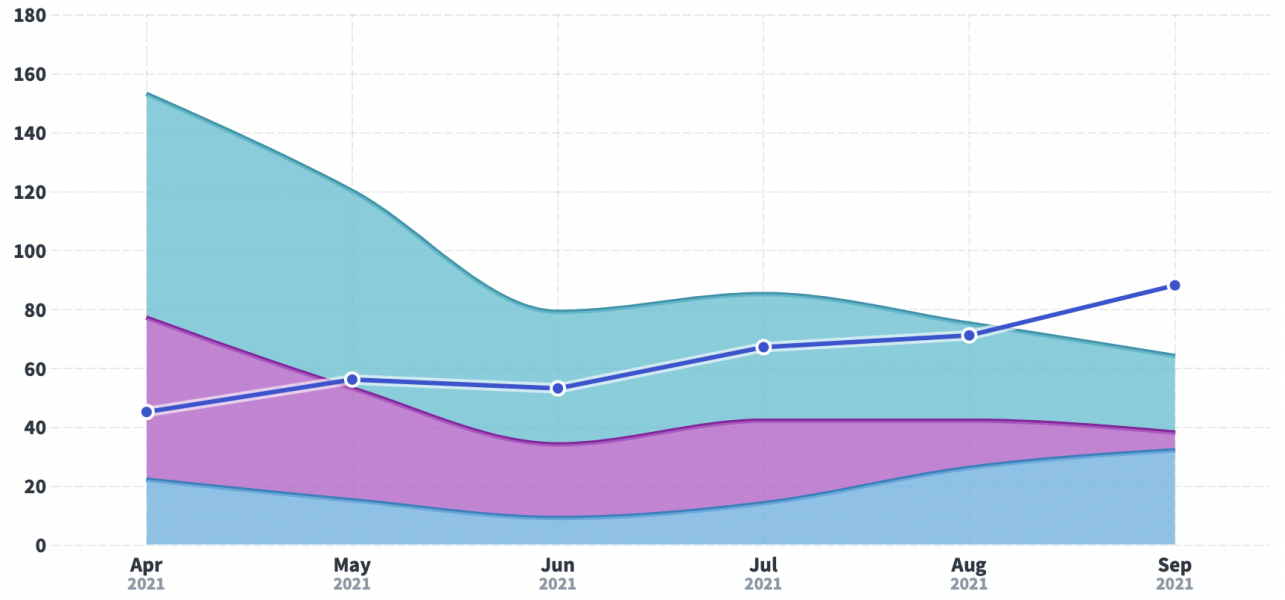

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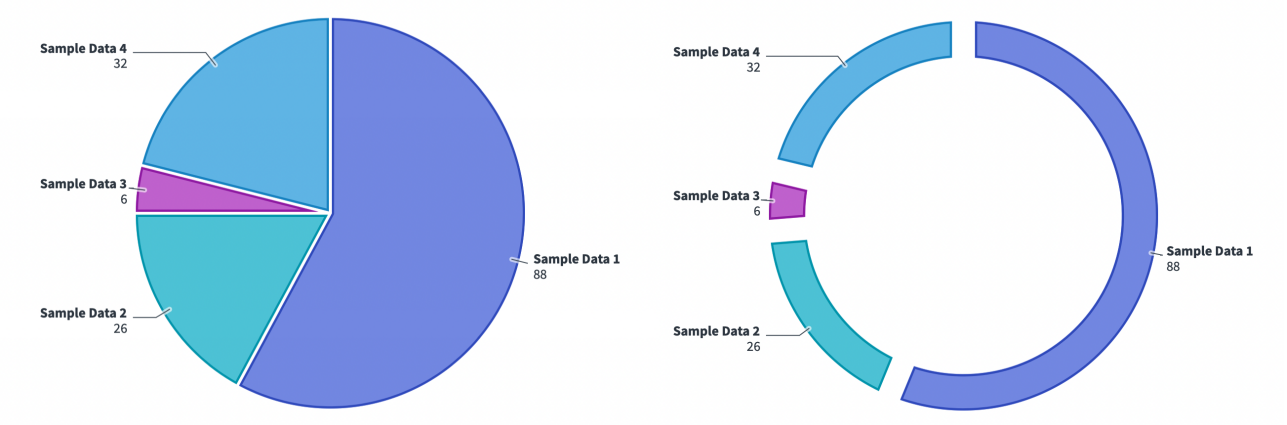

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Pie and donut charts visualize pieces of a whole.



Polar charts help show cycles and scientific data.

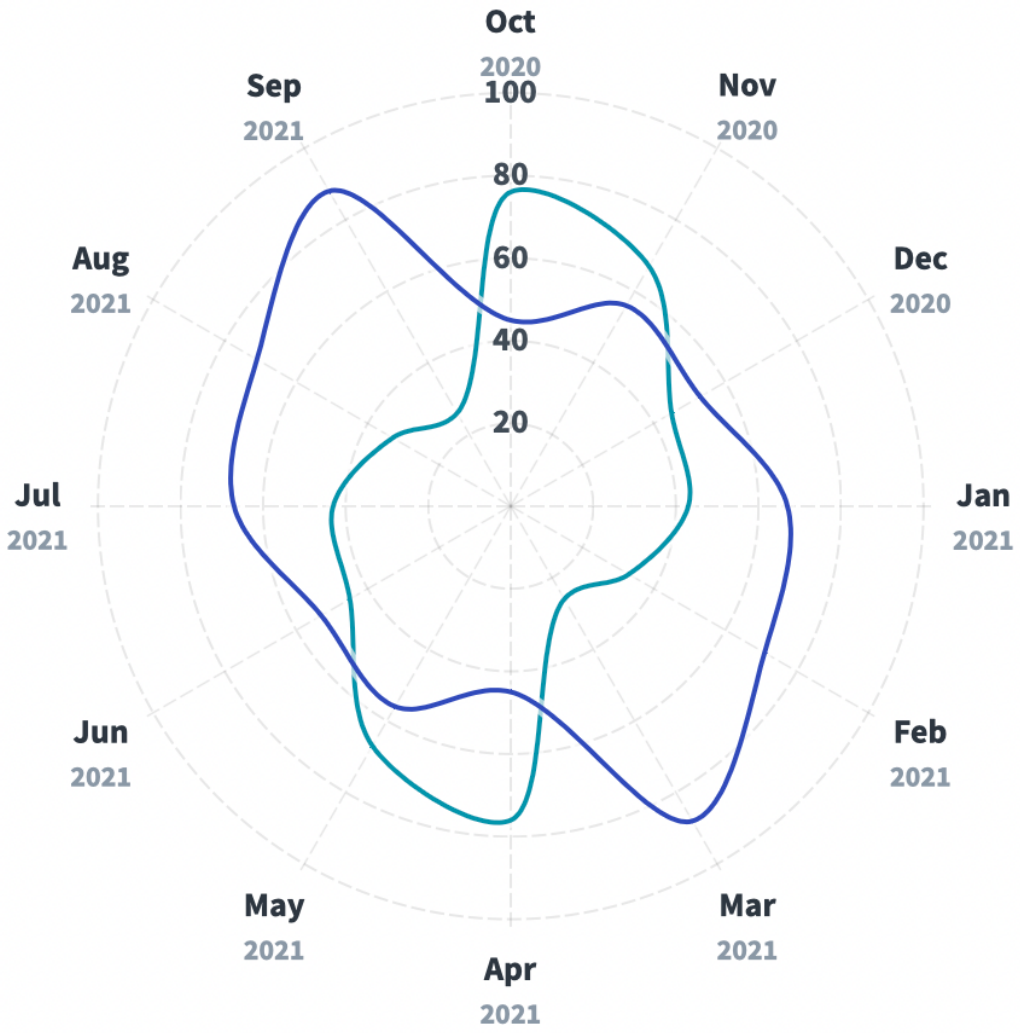
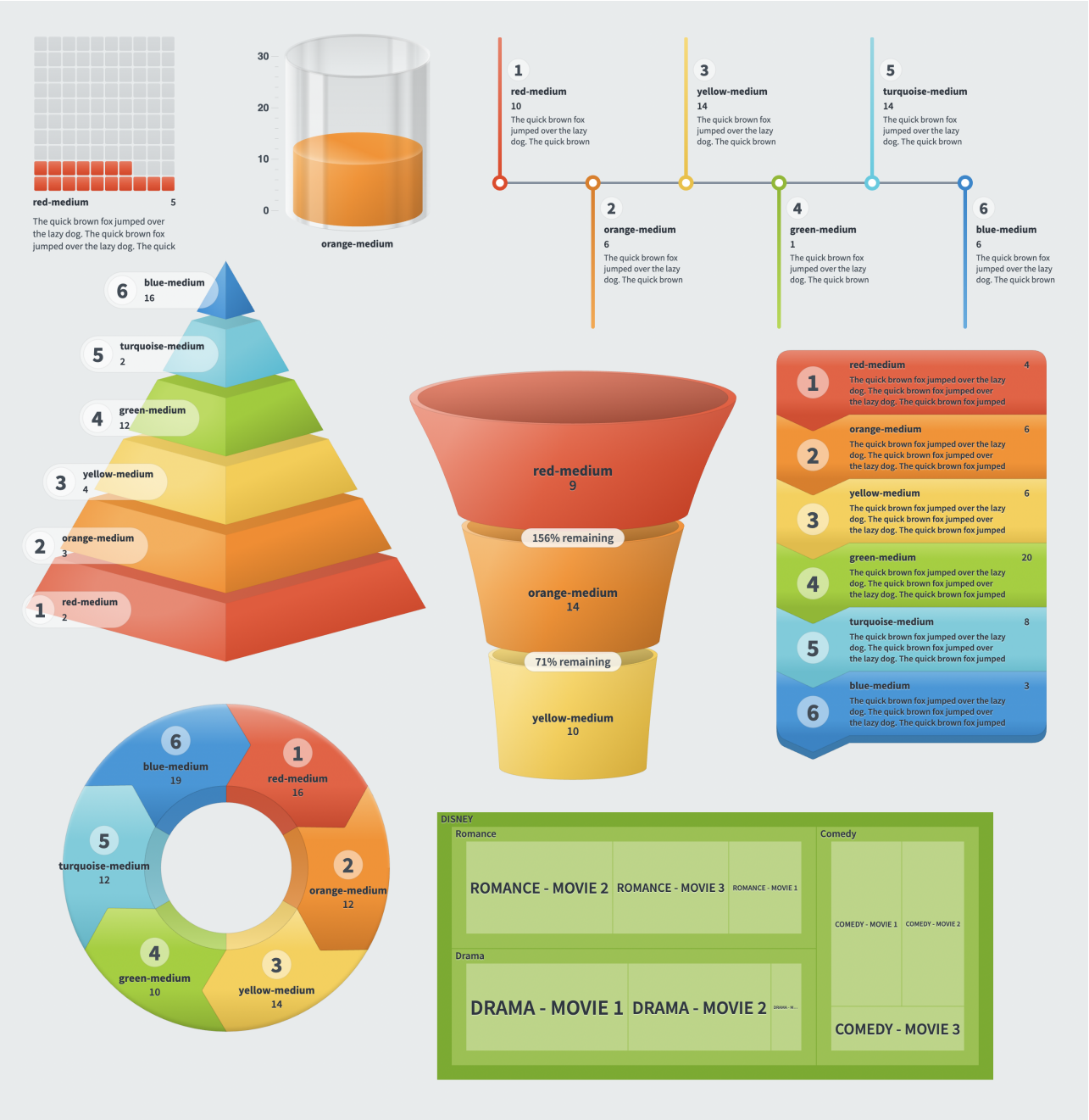


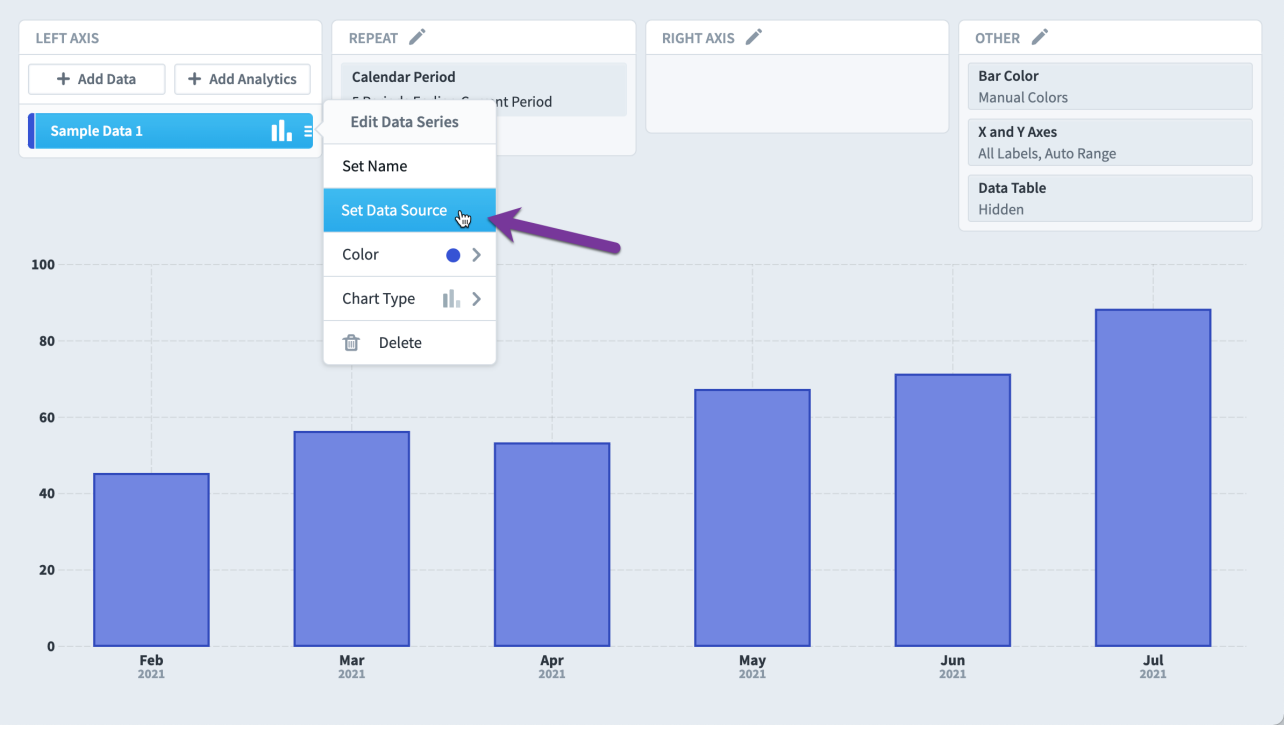
Diagram charts look best on dashboards, and they present infographic-style visualizations.



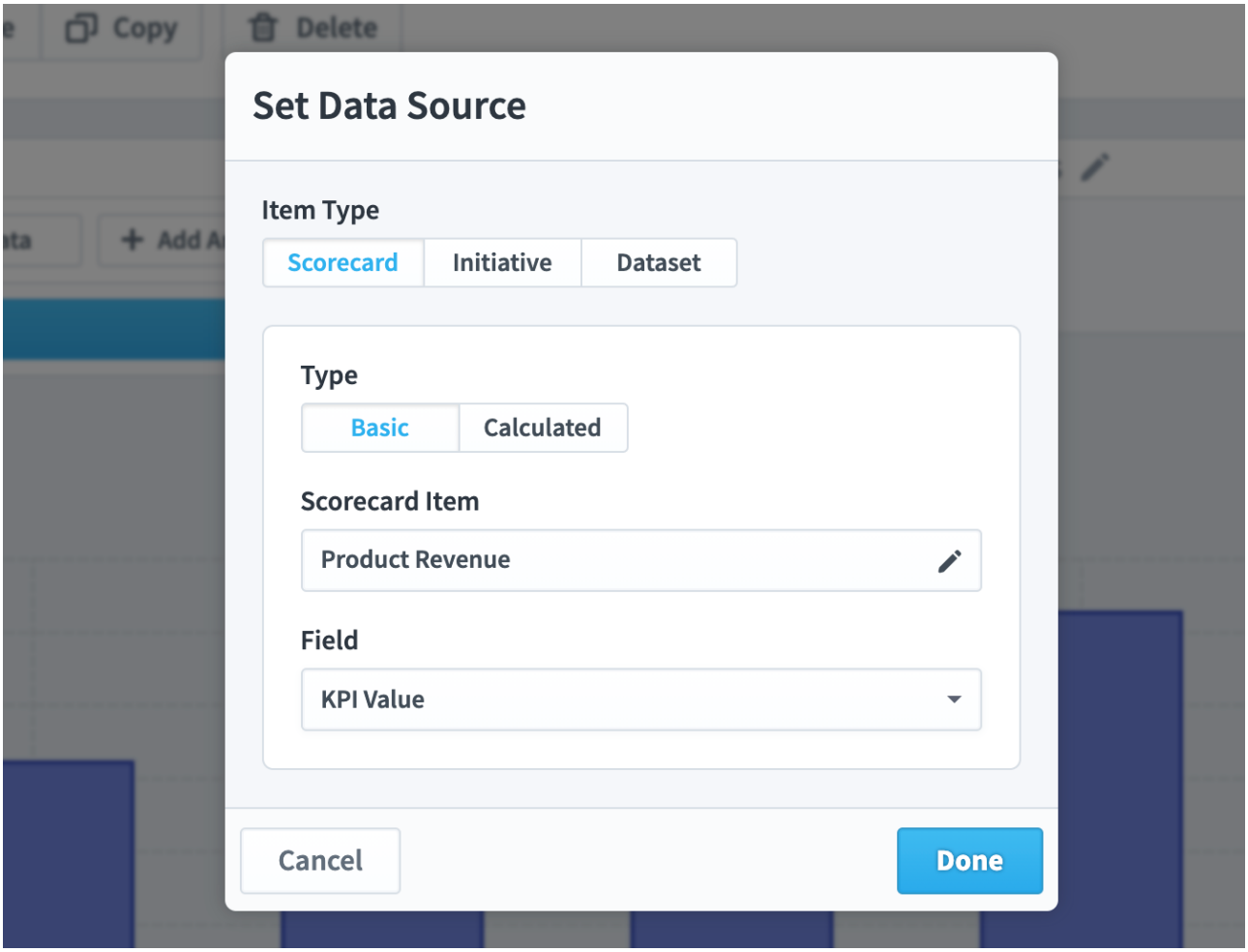
Building Charts

Editing chart data

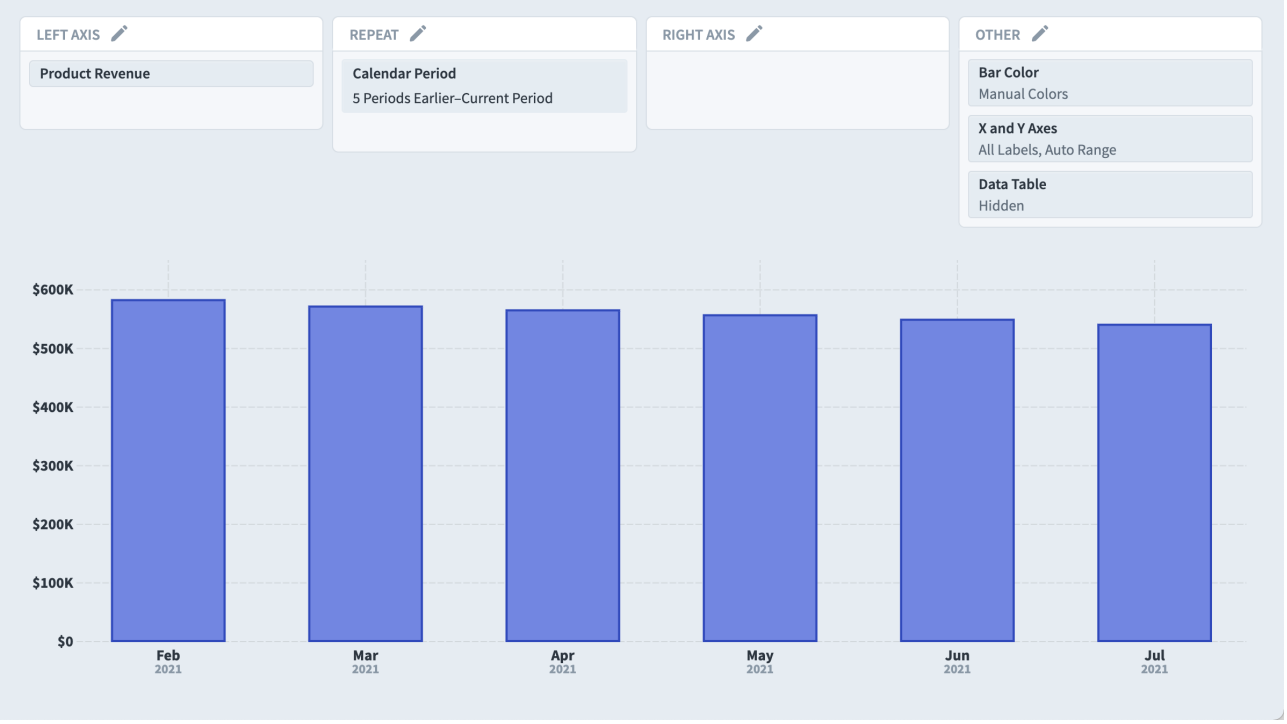
Whenever you're ready to see your own data on the chart, just edit the data source on a sample data series. In this example there's a sample bar data series on the left axis, so we'll click on it and choose "Set Data Source".



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.

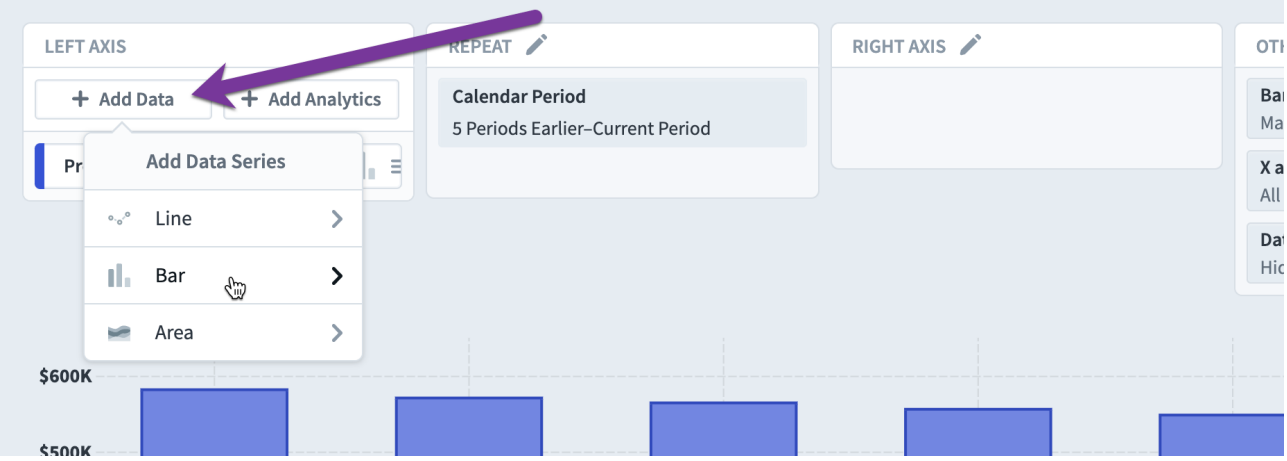


Now our chart is showing real data. All that's changed is the height of the bars.

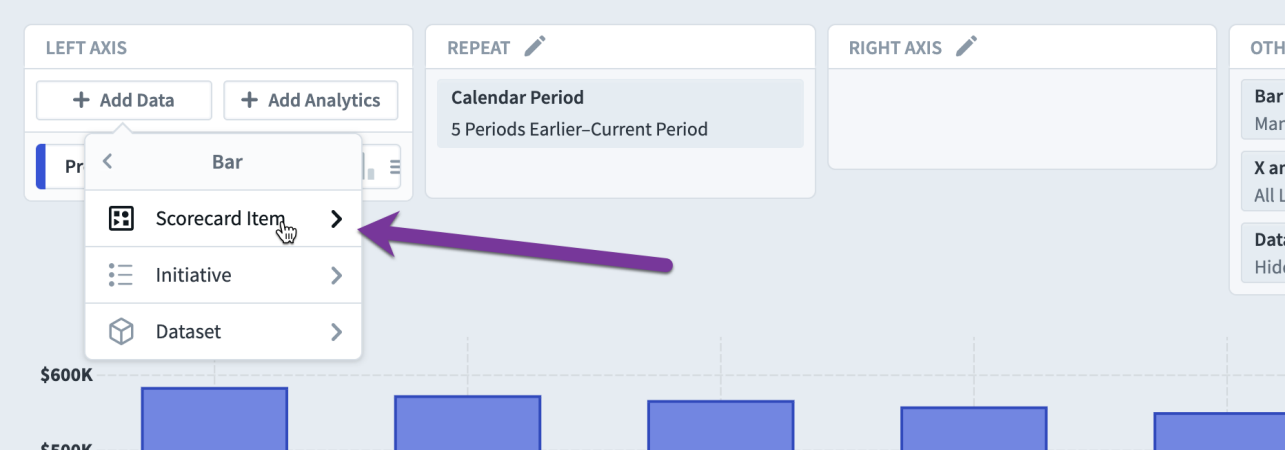


Adding chart data

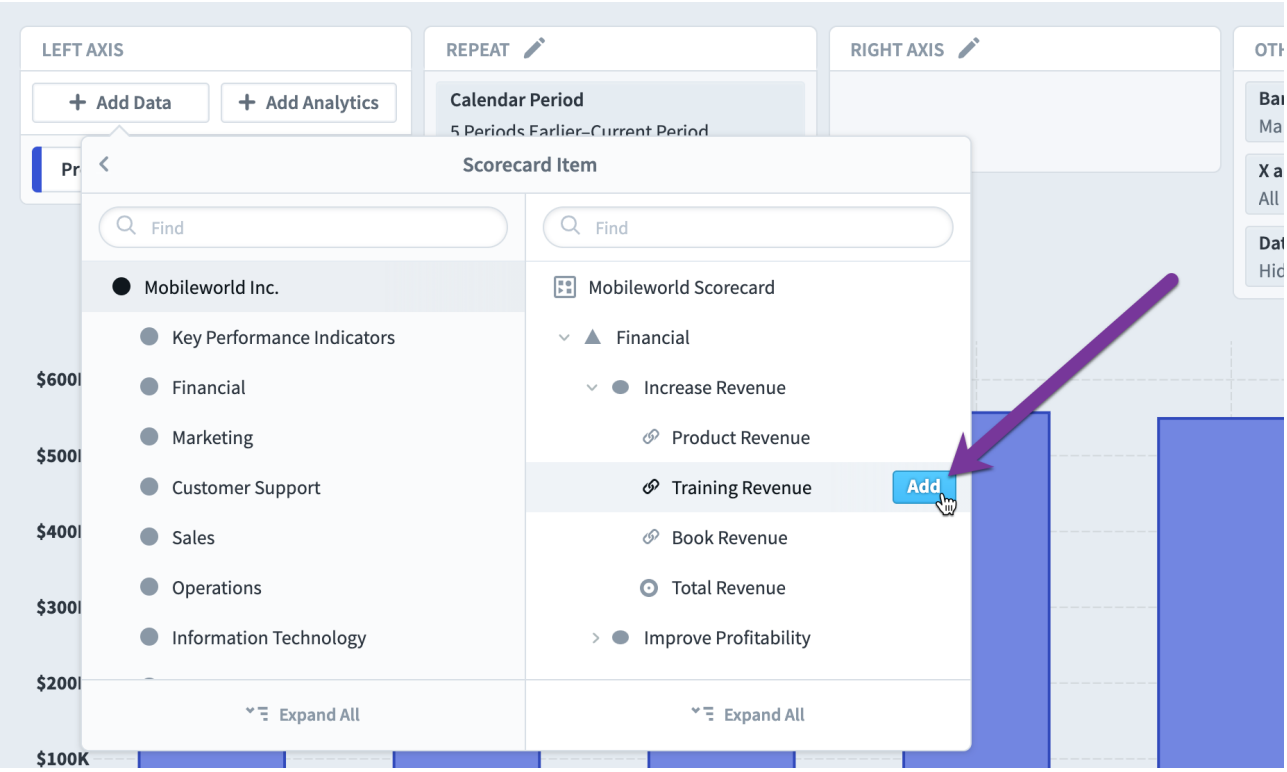
You can also add data series to your chart one at a time by clicking the "Add Data" button. Some chart types will ask what kind of data series you want. In this example the options are a new Line, Bar, or Area data series. We'll choose Bar.



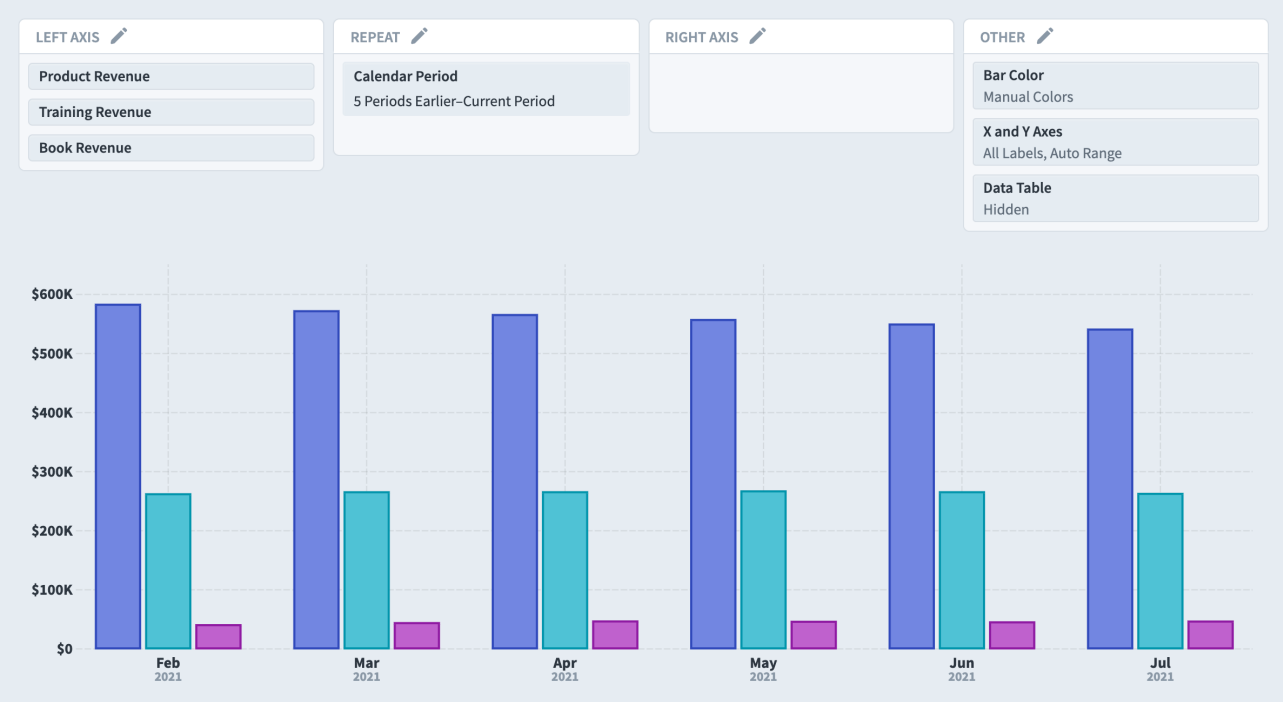
Next, choose where in Impact to get your data. You can choose a scorecard item like a KPI, an initiative, or low-level data from a dataset. We'll choose Scorecard Item.



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.

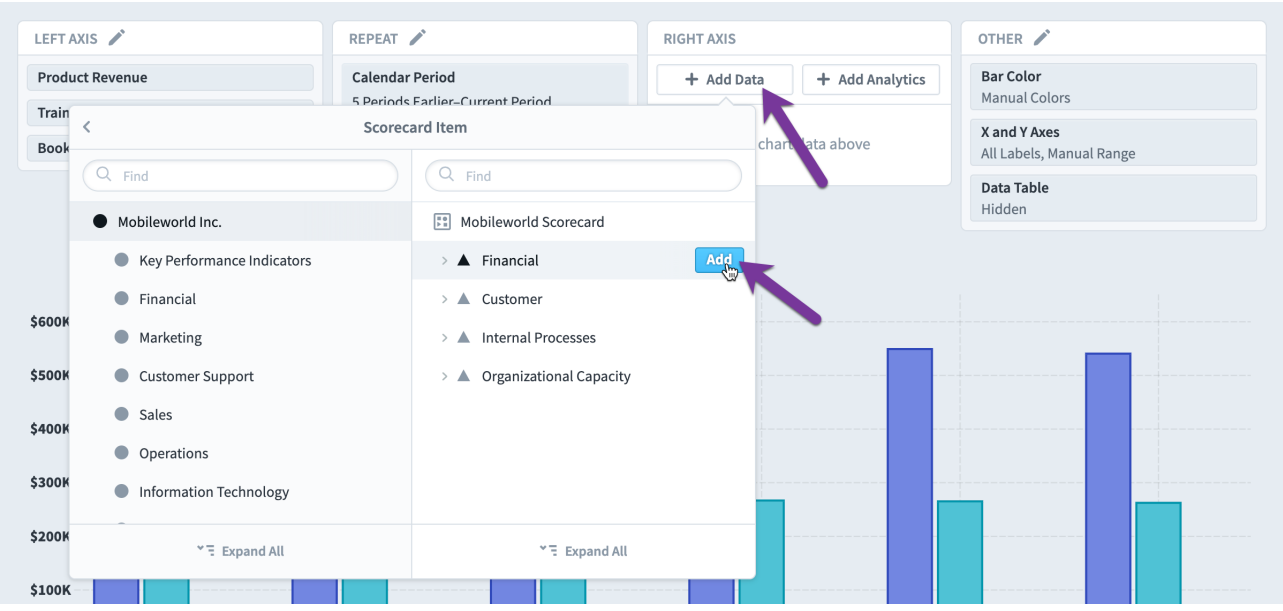


After two clicks of the Add button, we have a chart that looks like this.

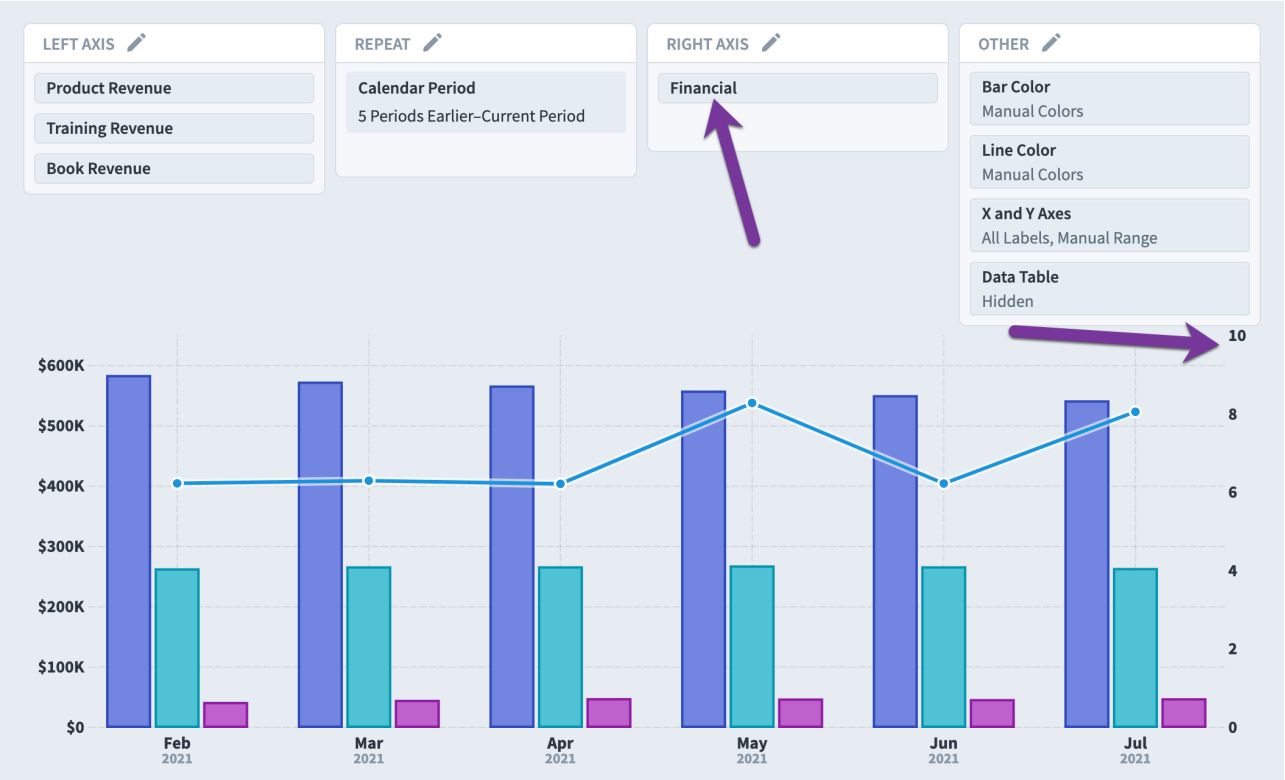


Right axis

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

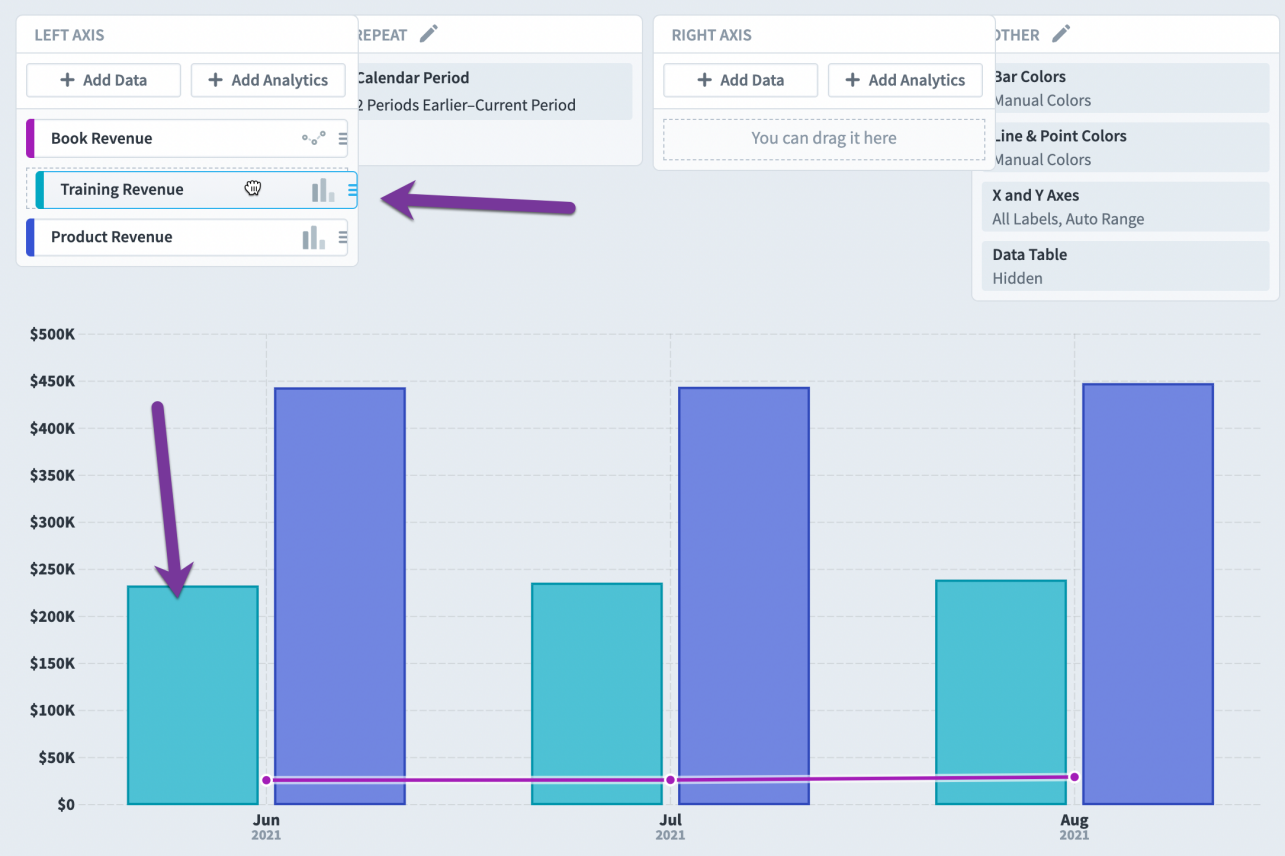


This 0-10 score line is now showing on the right axis while the three bars' $100k+ Revenue are graphed on the left axis.

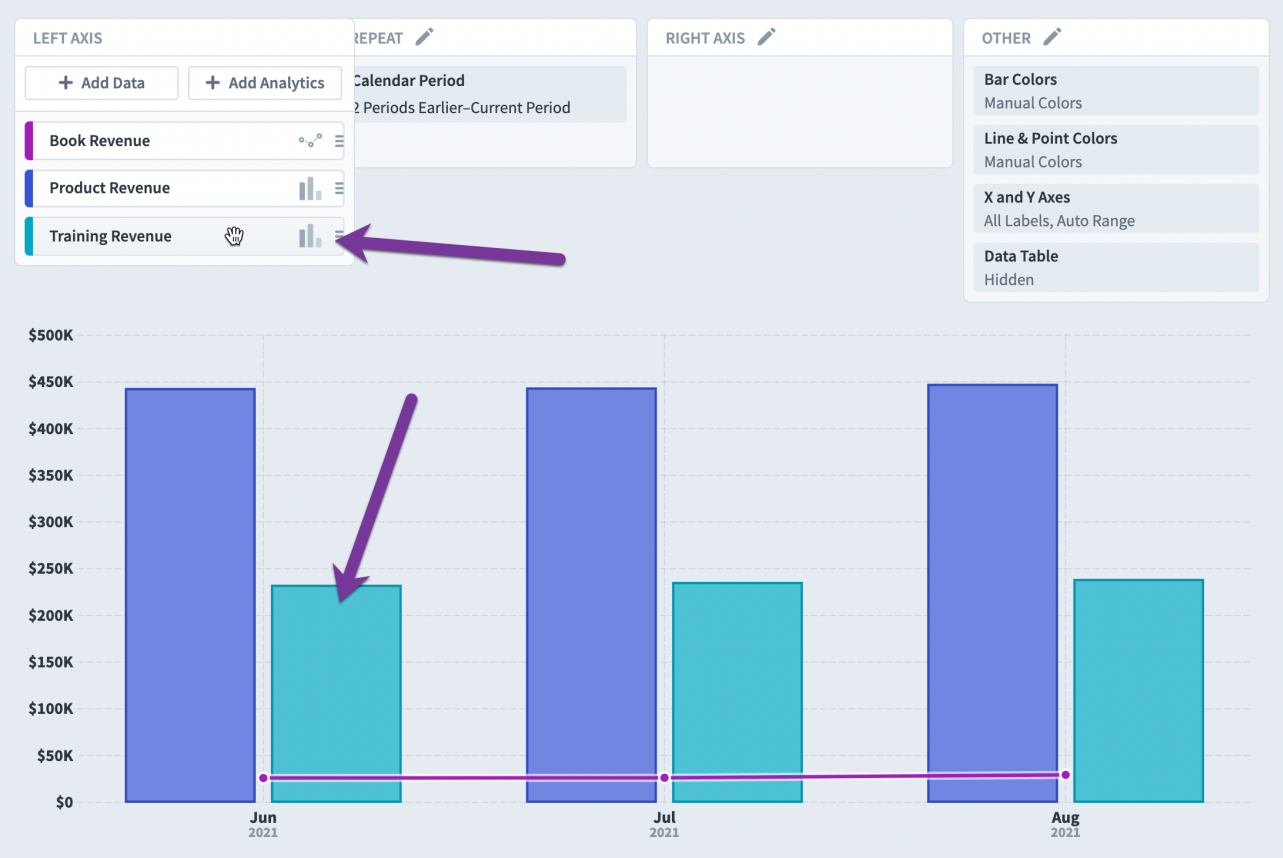


Reordering with drag and drop

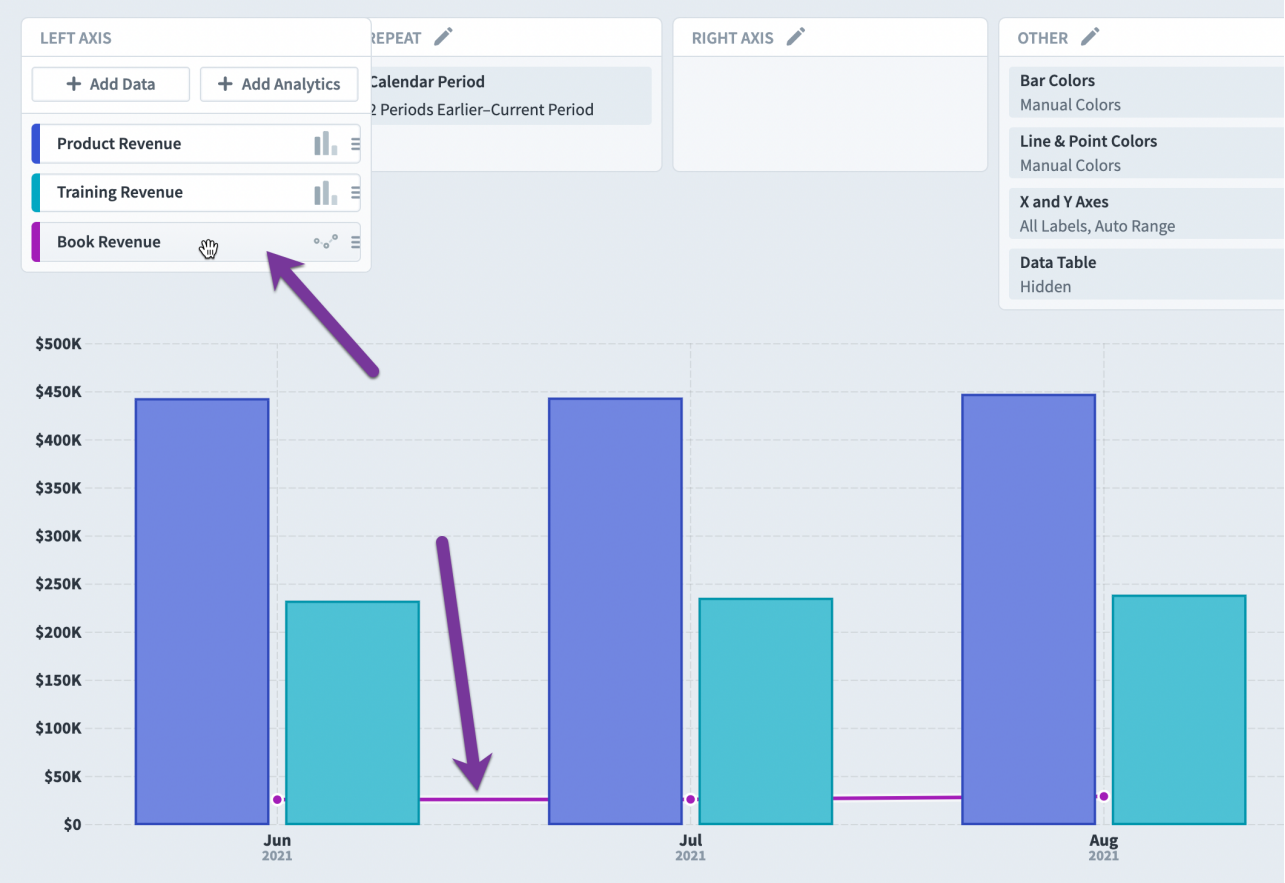
You can reorder anything on your chart by dragging and dropping. In this example, the Training Revenue bar comes before the Product Revenue bar.



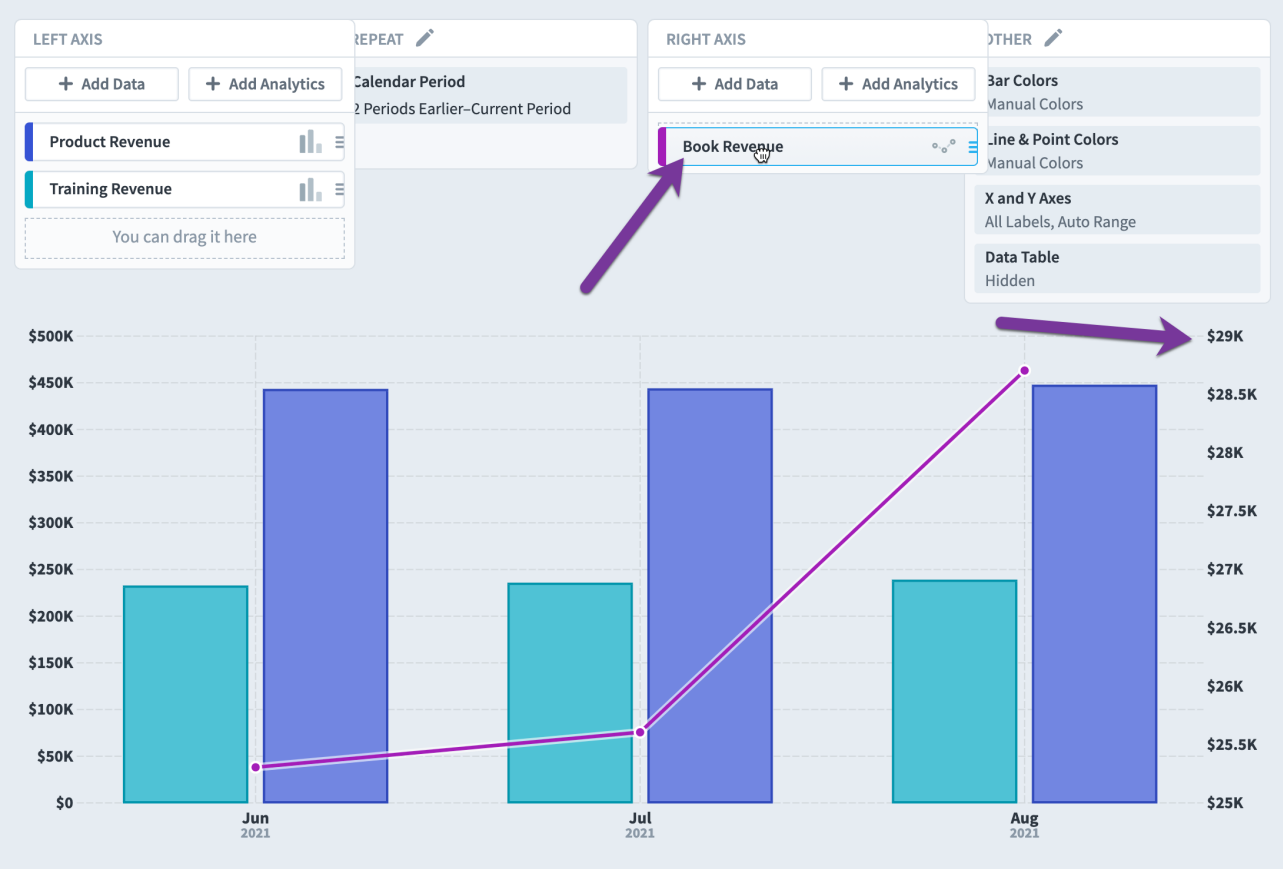
After moving Training Revenue to the bottom of the list, its bar is now on the right.



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.

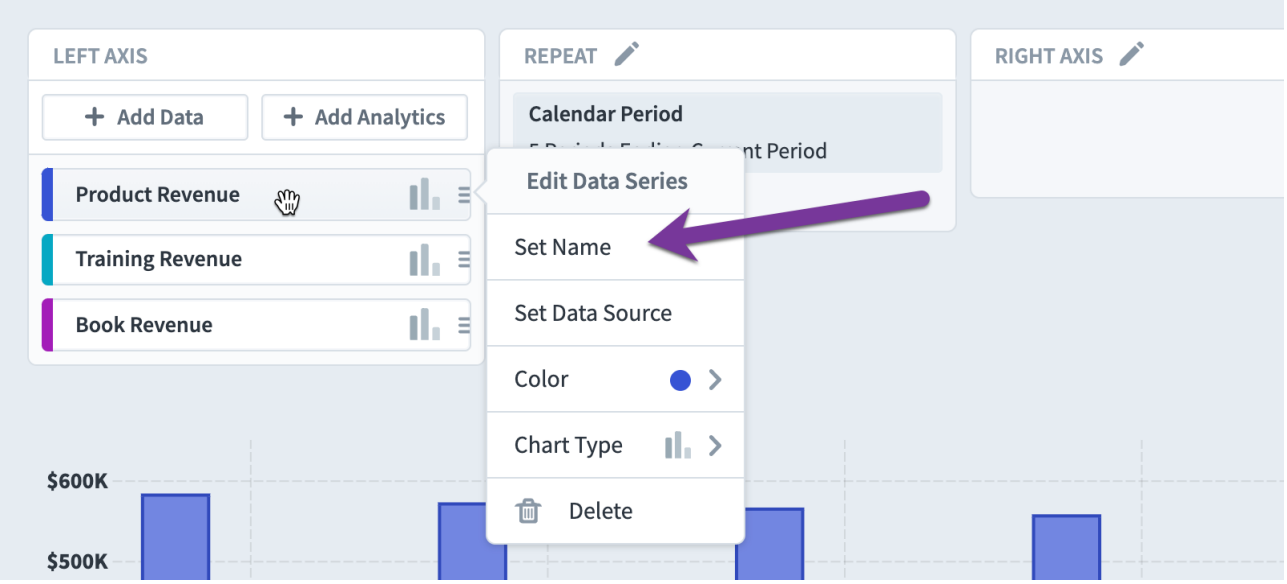


You can even drag items to the other axis. Here we've moved Book Revenue to the right axis so that it has its own scale.

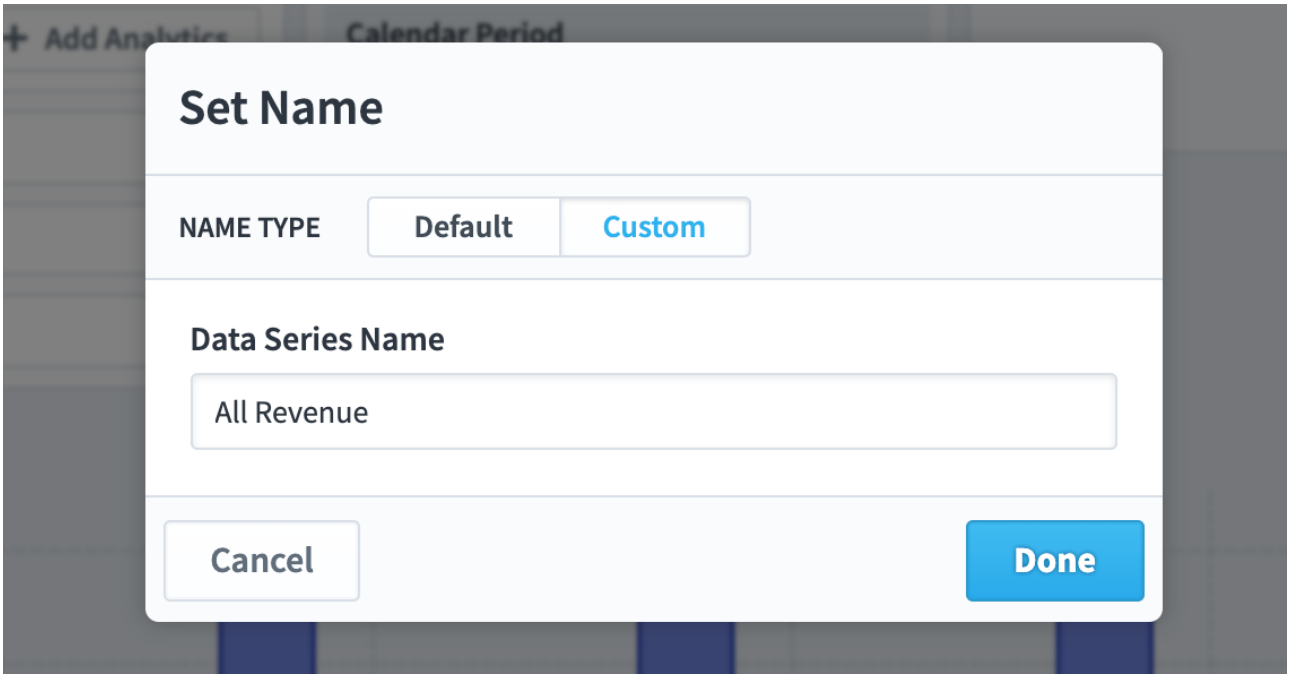


Setting data series names

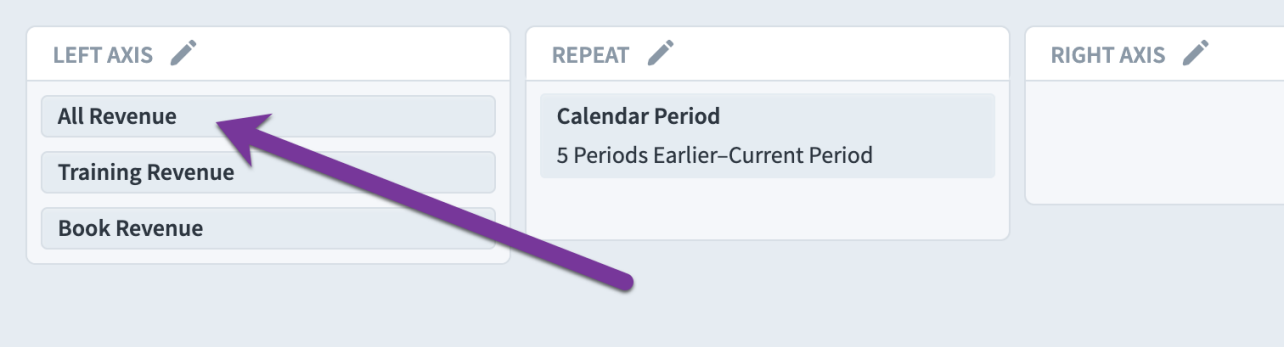
Data series names are used in various places like chart labels, tooltips, and legends. Spider Impact chooses a default name for each data series, but you can override this by choosing Set Name in the edit tooltip.



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

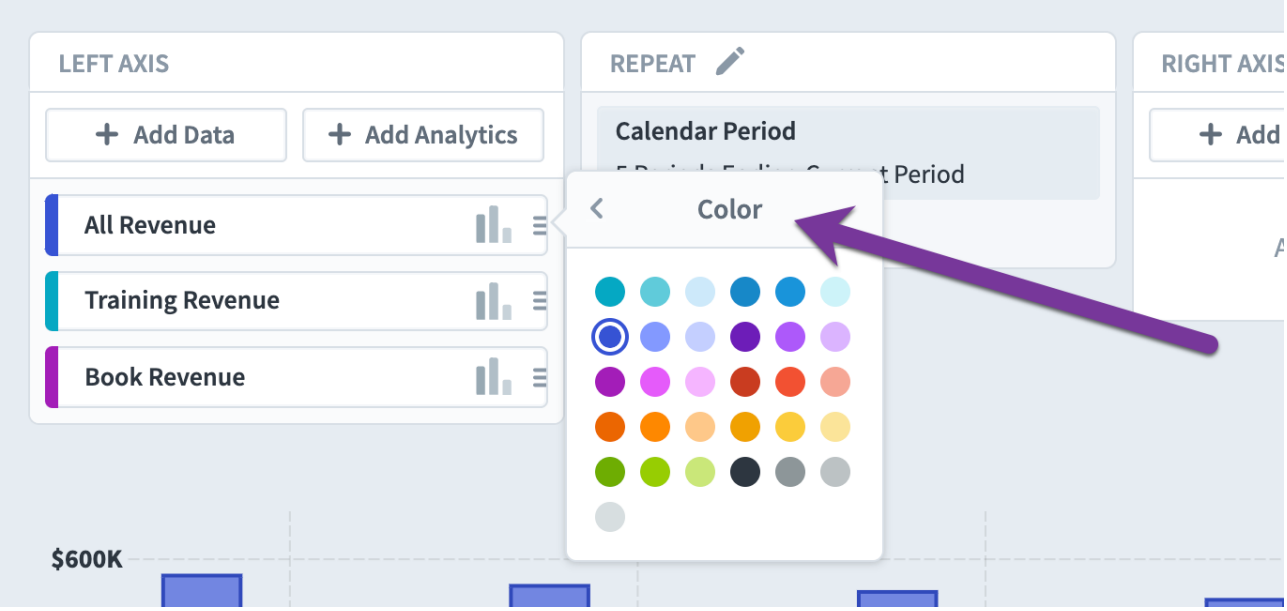


This new name is now used everywhere for that data series.

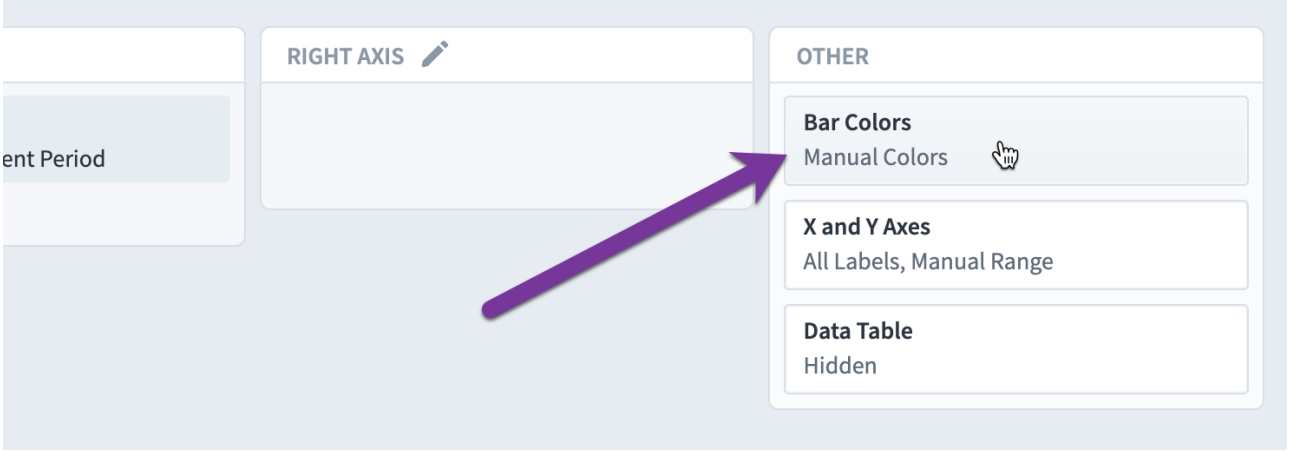


Setting colors

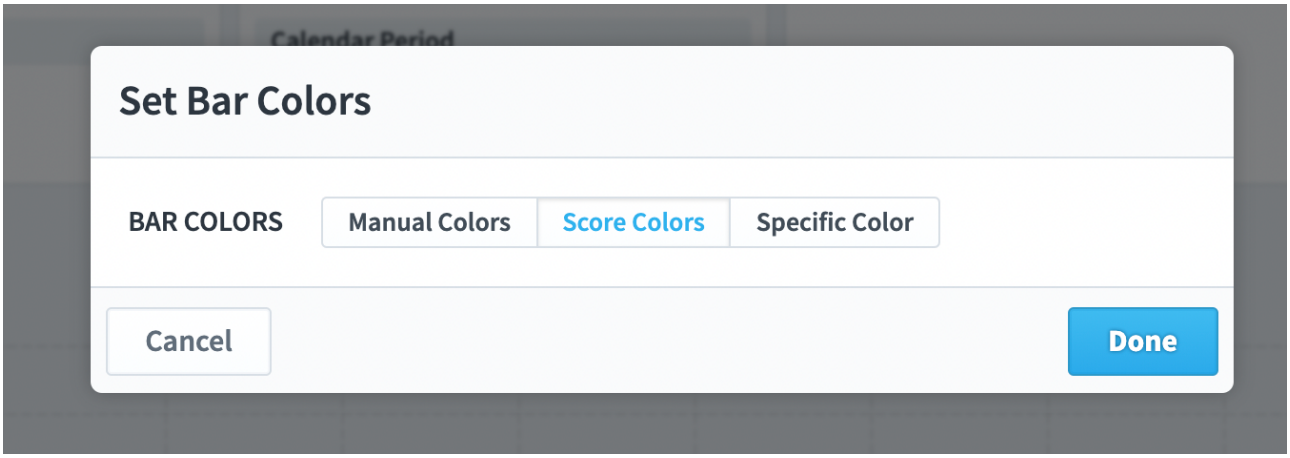
By default, chart data series use automatically assigned colors. You can also choose to manually change any automatically assigned color.



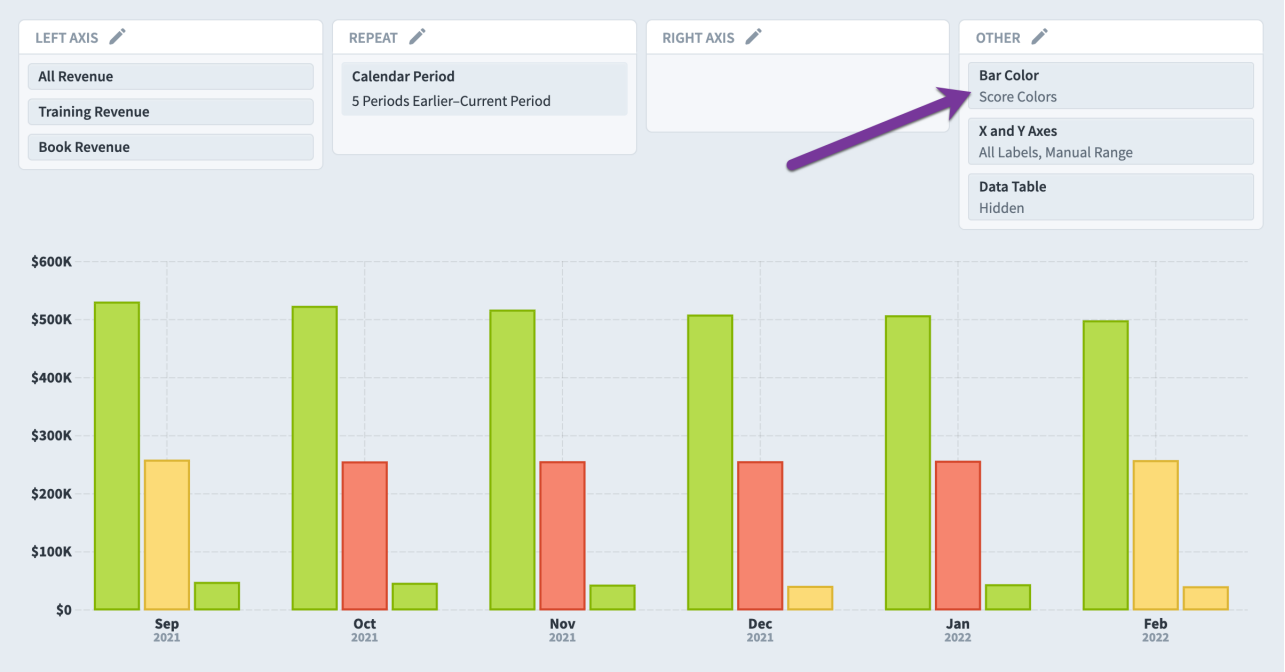
You can choose a different way to color the data series, however. In this example we're going to click on Bar Colors in the Other panel.



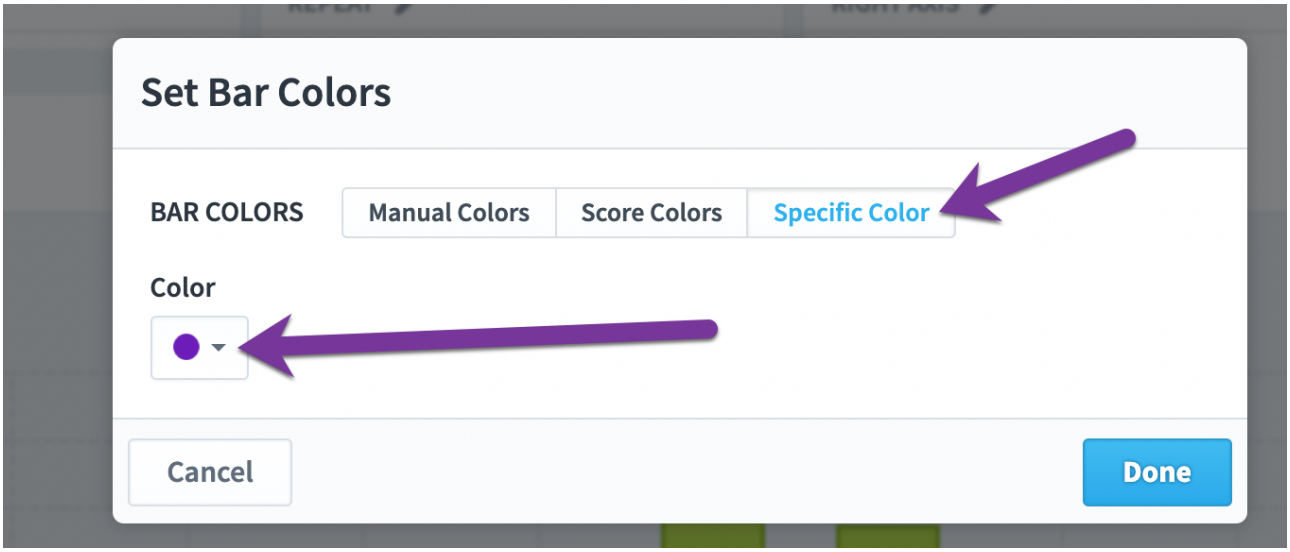
And we'll change from Manual to Score.

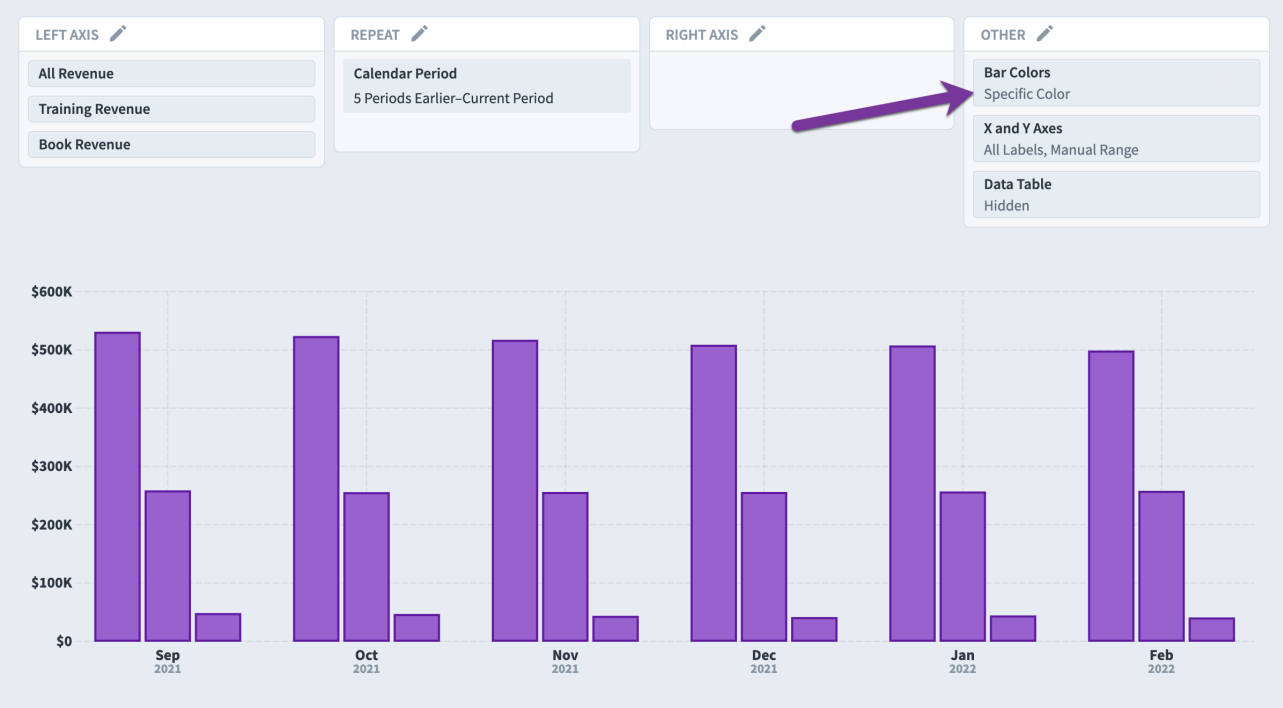


This changes the bars to be colored based on each scorecard item's score for that period.



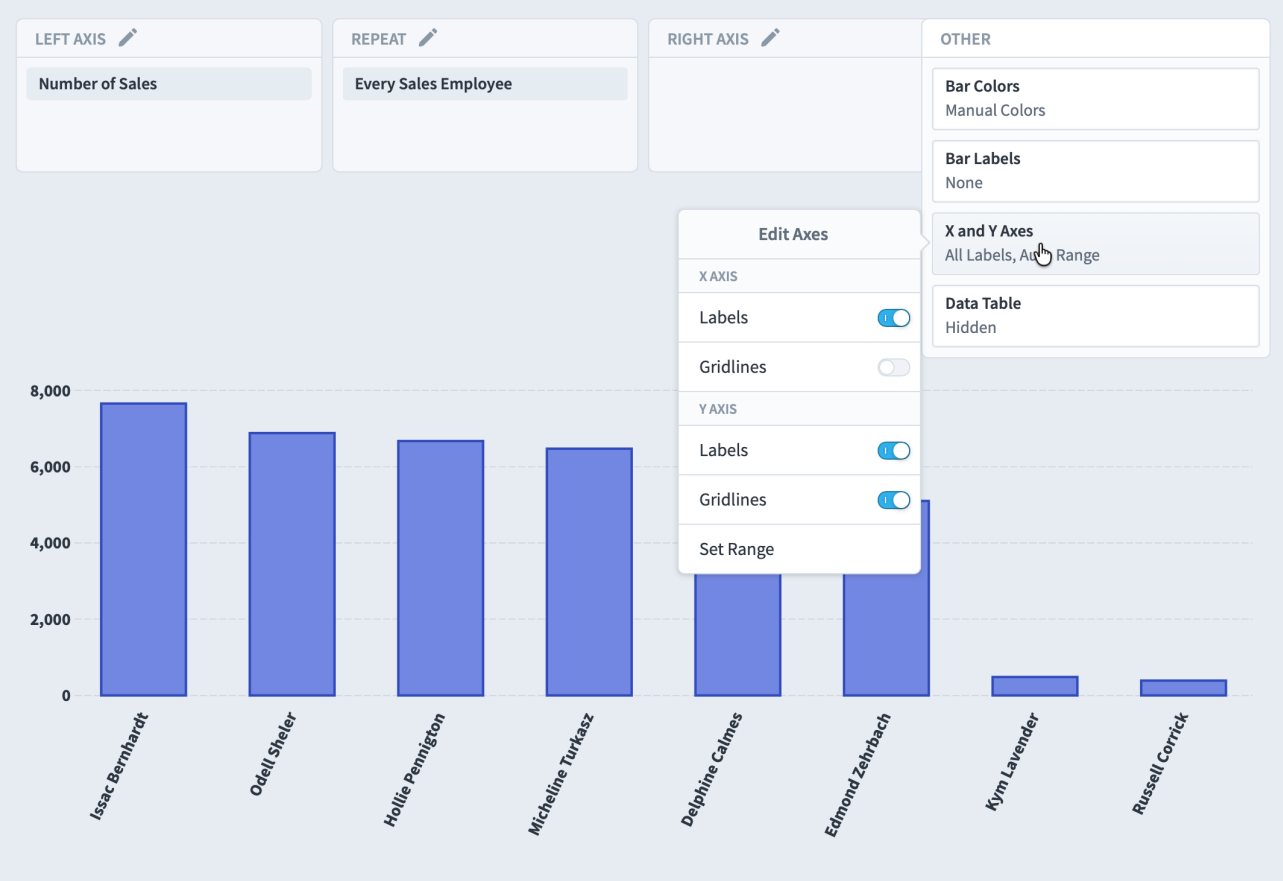
You can also force all the bars for all data series to a single color by choosing Specific Color. This is the same as manually setting all data series to the same color individually.



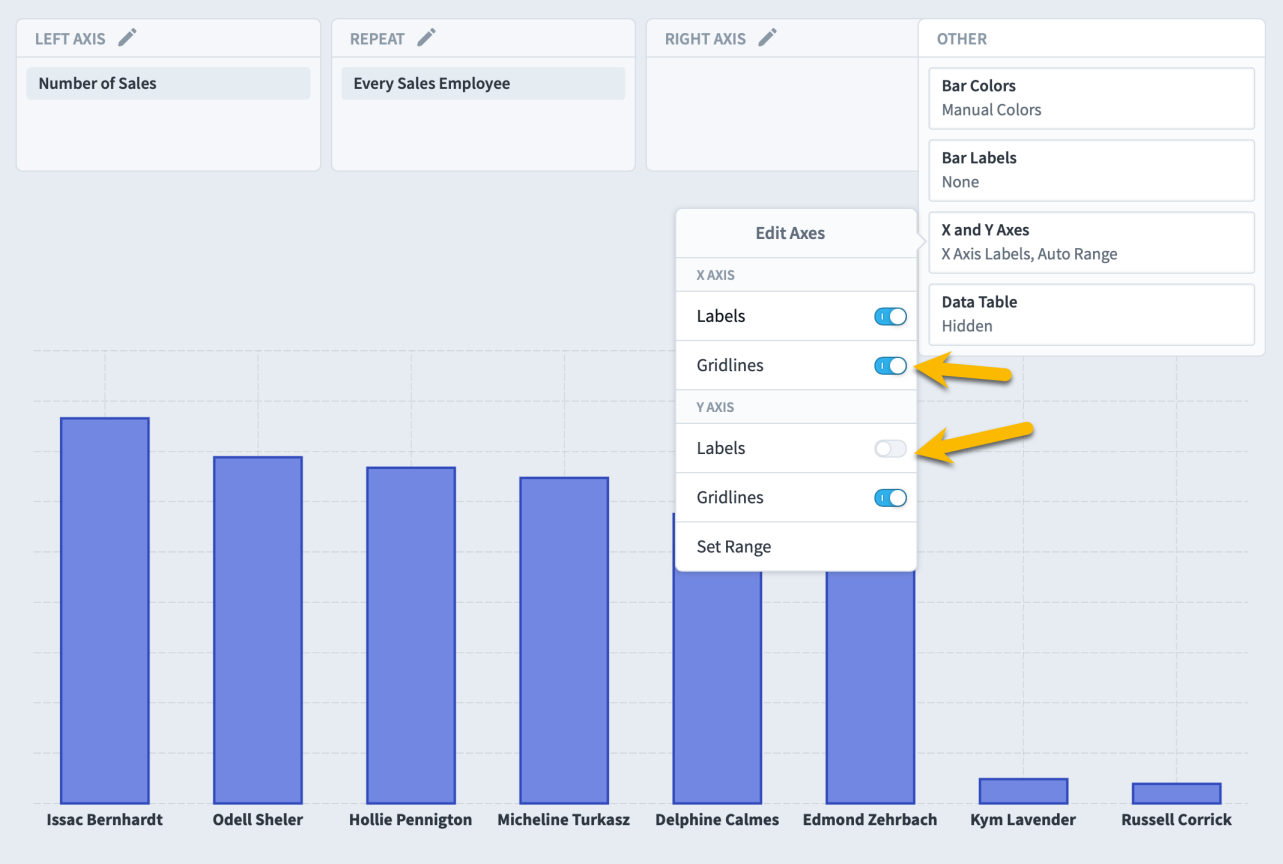


X and Y axes

You can configure a chart's axes through the X and Y Axes box in the Other panel. The labels and the Y axis gridlines default to on.



Here we've turning the X Axis Gridlines on and the Axis labels off.

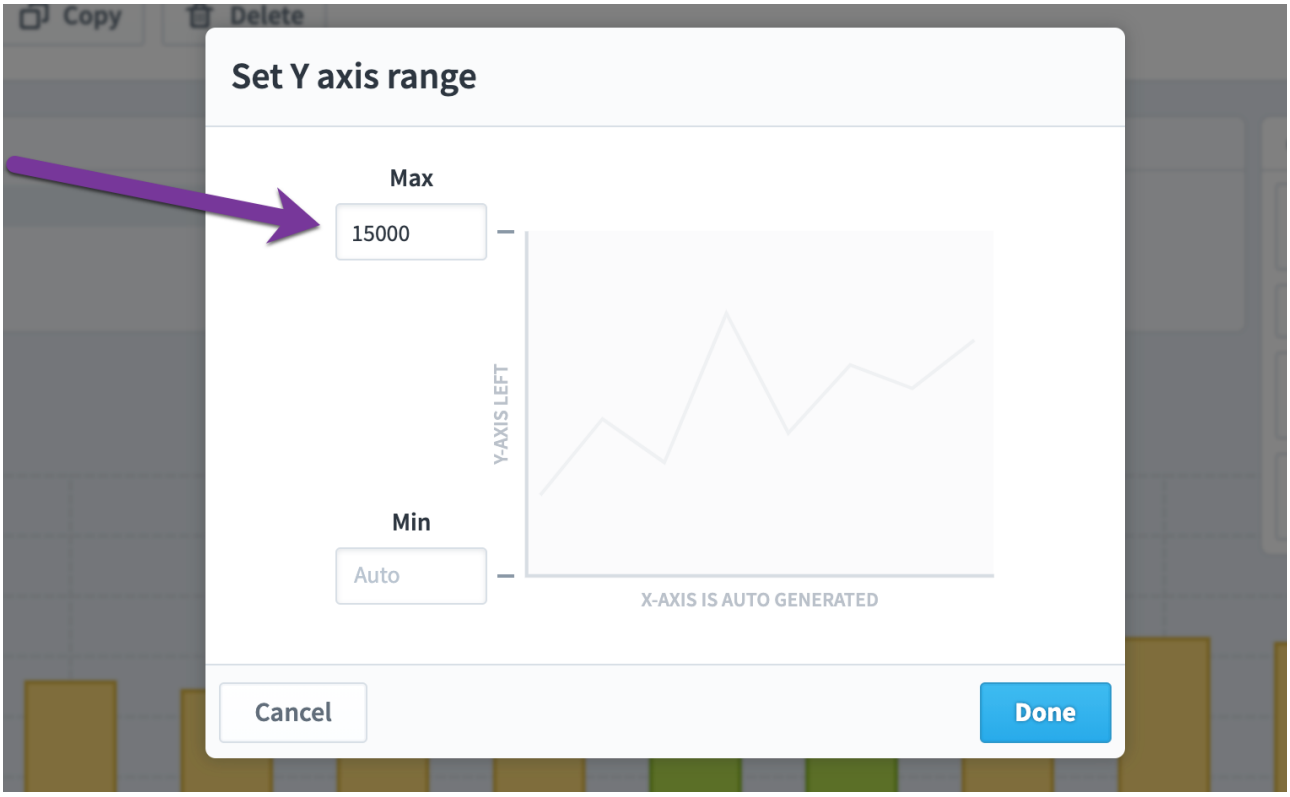


You can also set the Y axis range.



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 15,000.



As you can see, the chart now shows a maximum value of 15,000 regardless of what data is being graphed.

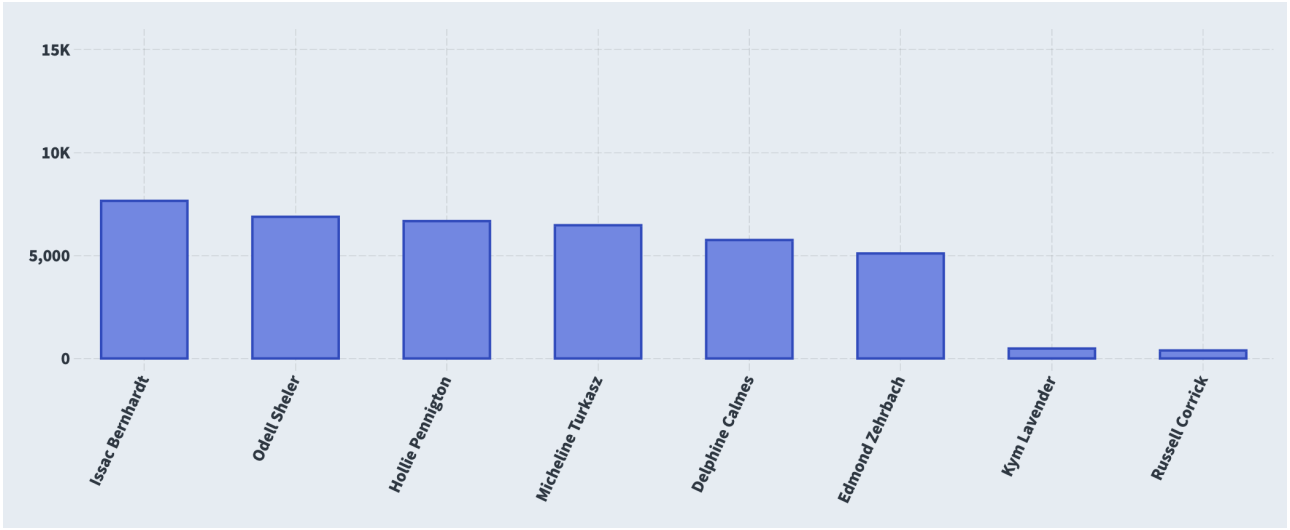
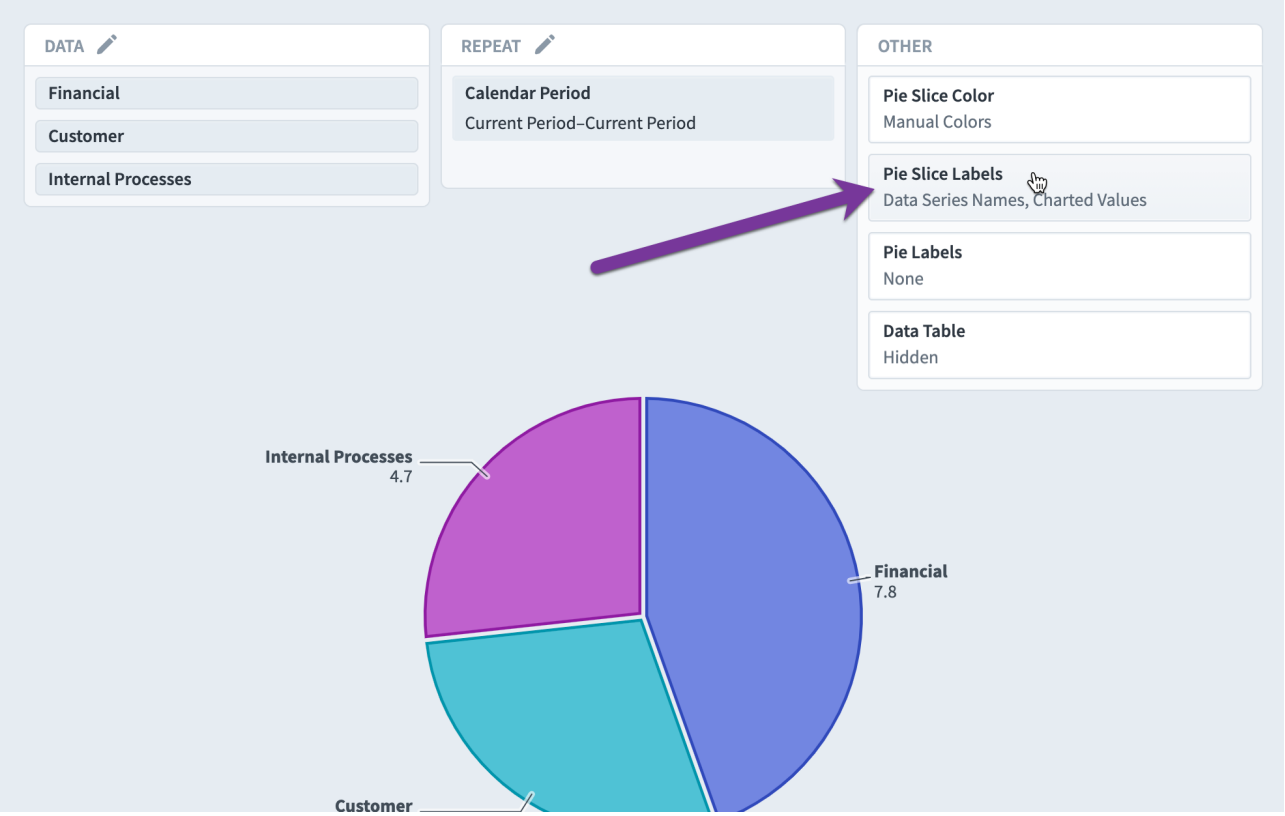
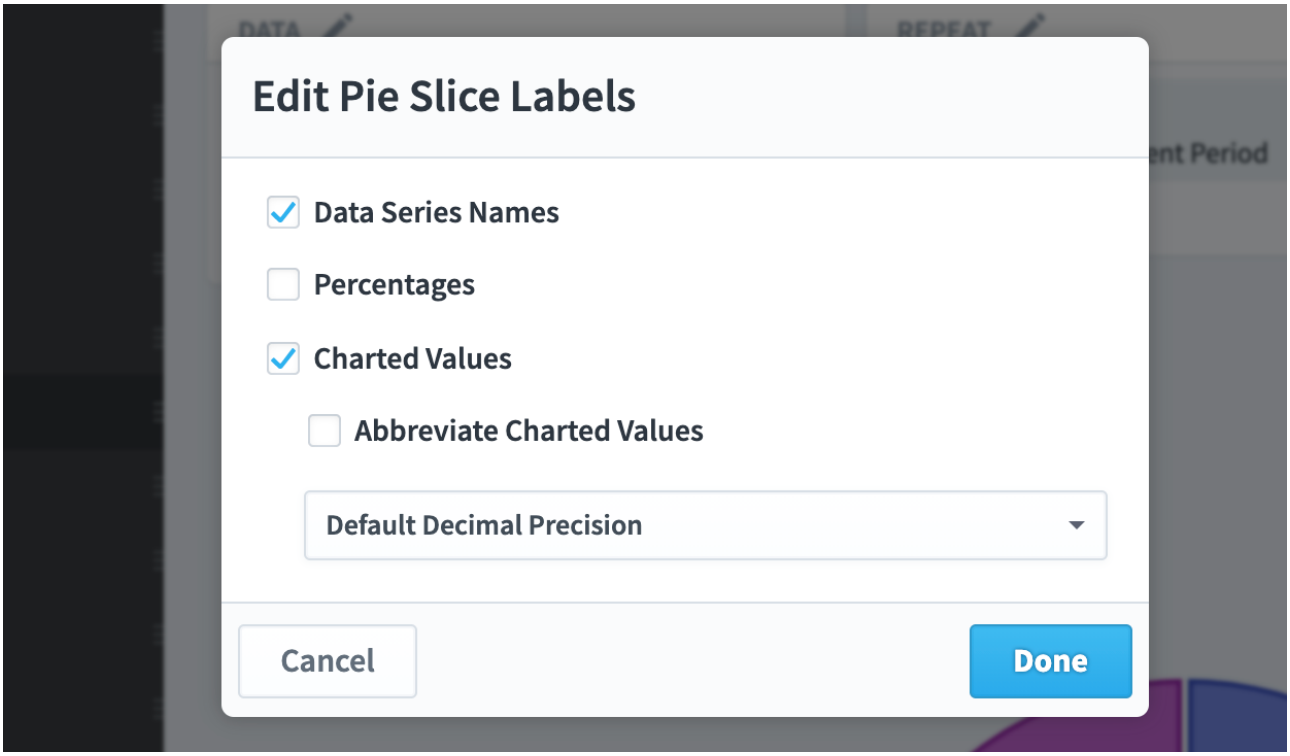


Chart labels

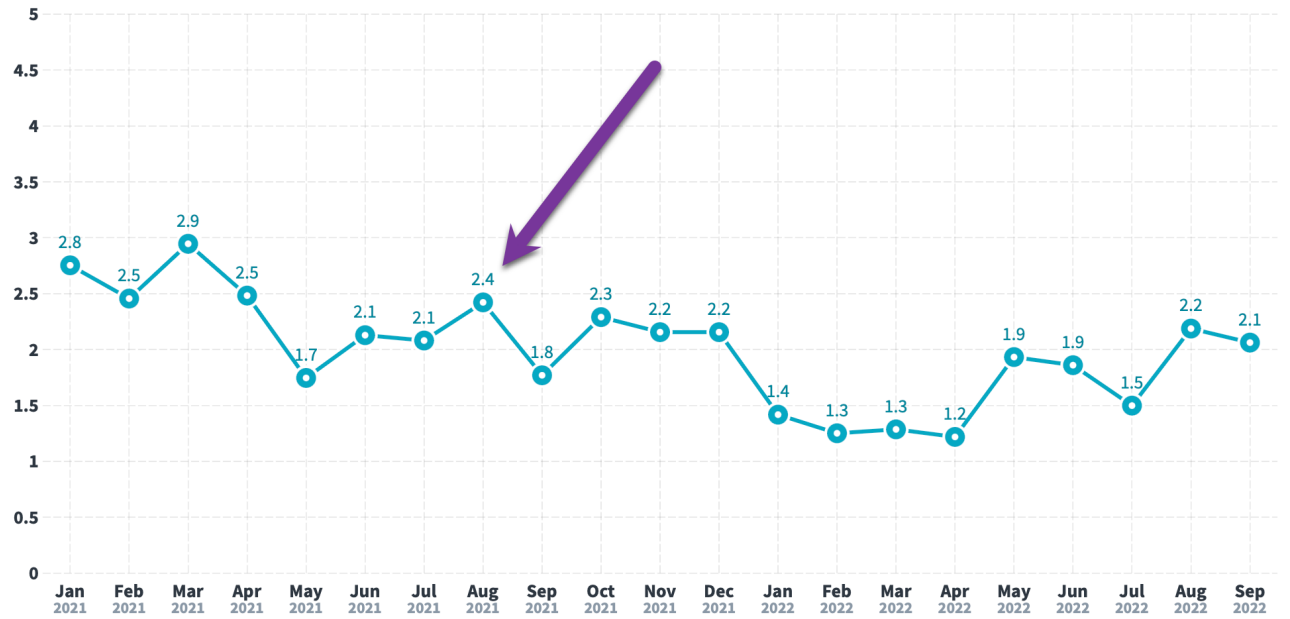
Most chart types have labels that you can configure. In this pie chart example, you can see a Pie Slice Labels option in the Other menu.



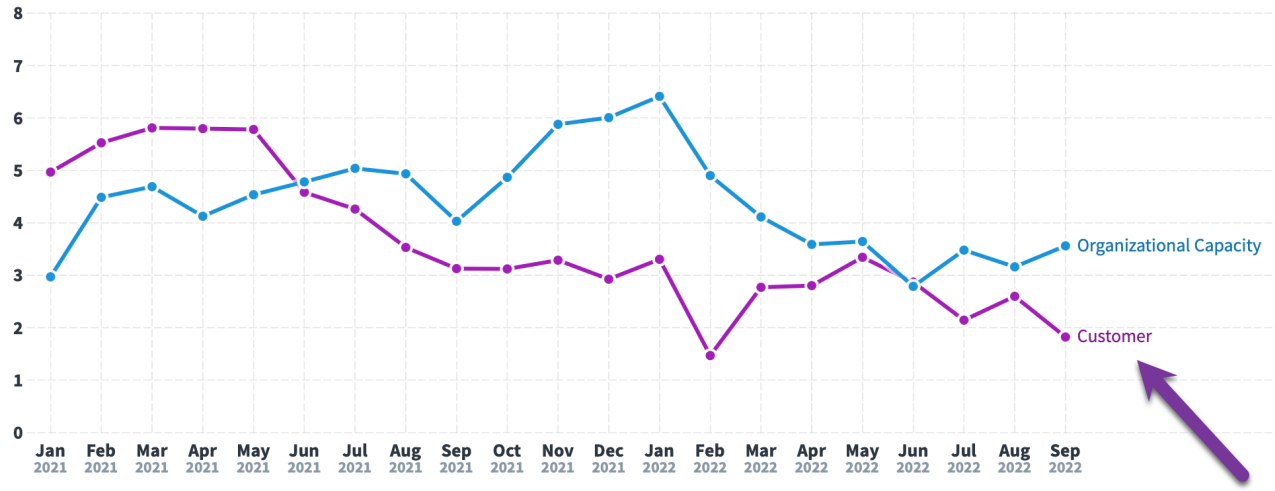
When we click it, we can see the various label options, including the ability to show percentages and abbreviated chart values.



Every chart type has slightly different label options, and those labels appear differently. For example, line charts have all of the same label options except "Percentages". Here's what "Charted Values" looks like for a line chart.

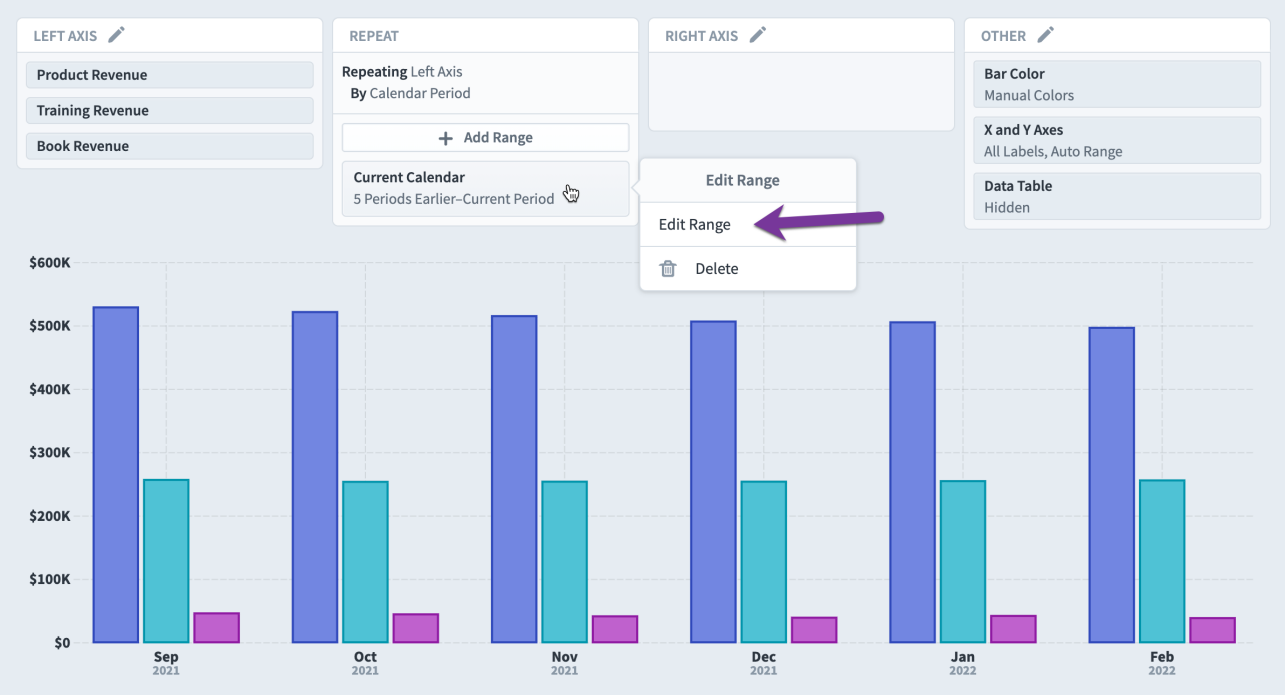


And this is what "Data Series Names" looks like.

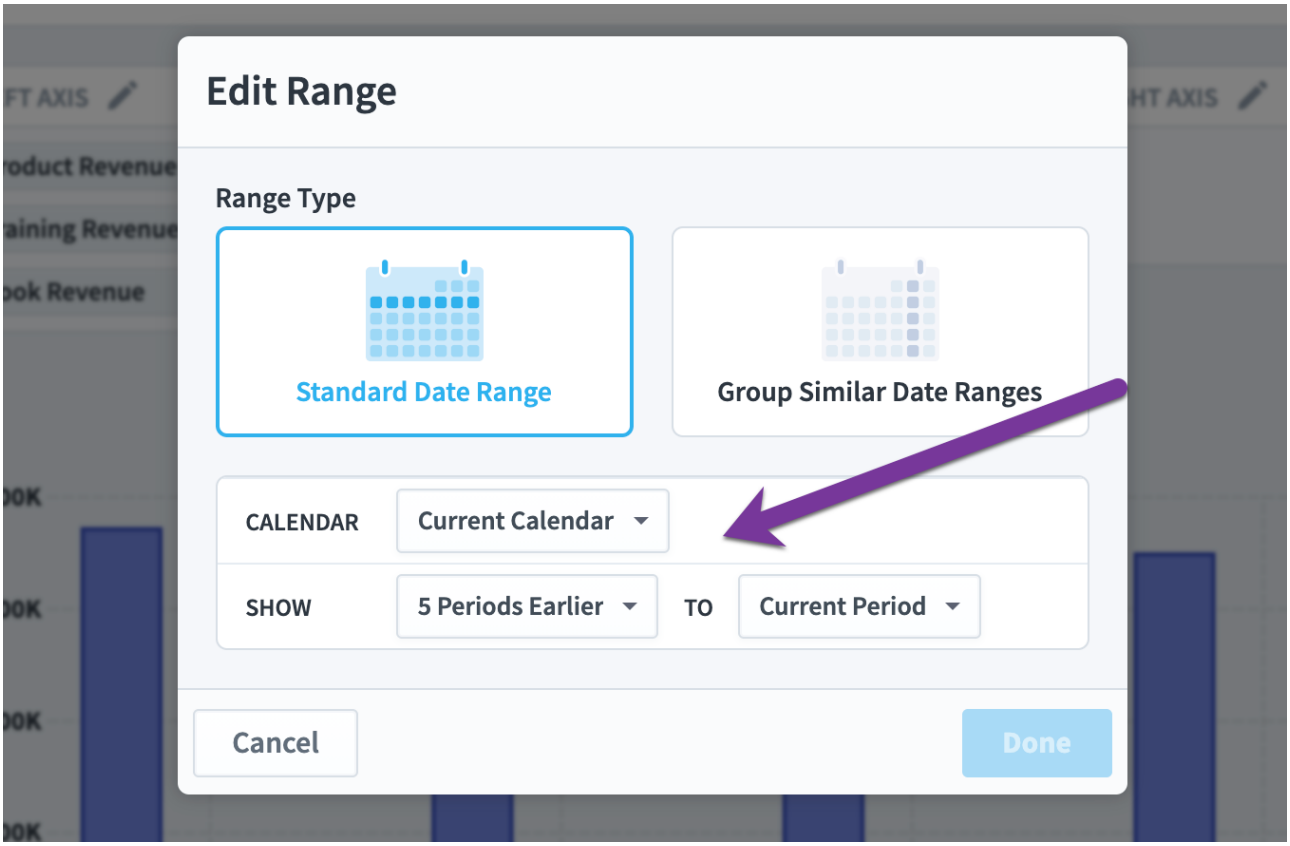


Repeating left & right axes

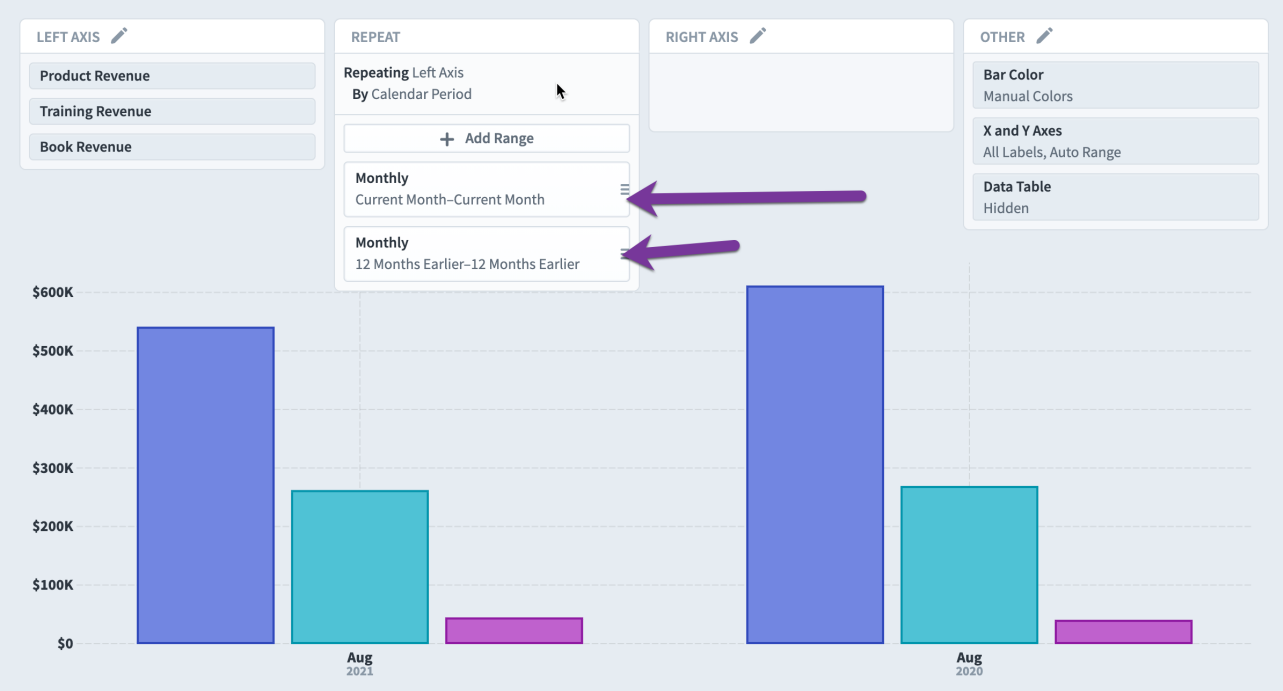
When you're graphing scorecard items, you'll always be able to set your calendar period range in the Repeat panel. Here we're showing 6 periods of data for three KPIs. We can edit the calendar period range by clicking on it and choosing "Edit Range".



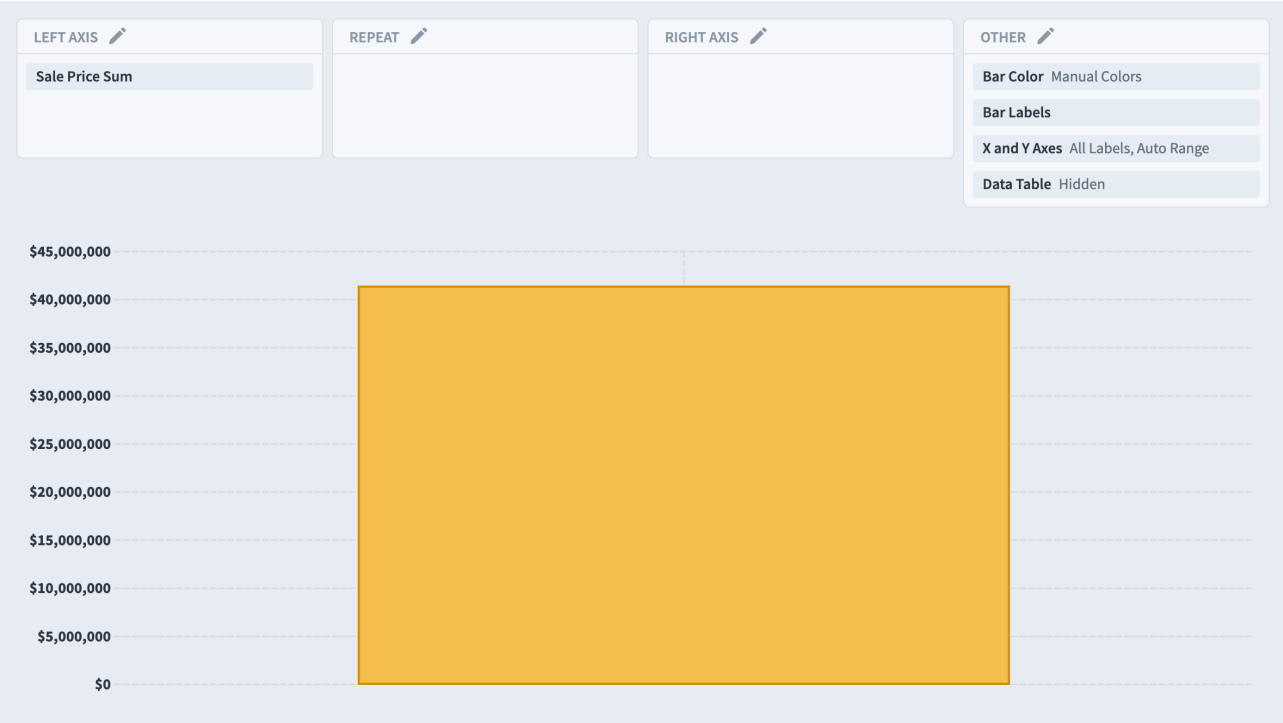
This is the standard date range selector where you can choose either a range based on the current calendar, or choose a specific calendar and choose a relative or date range.



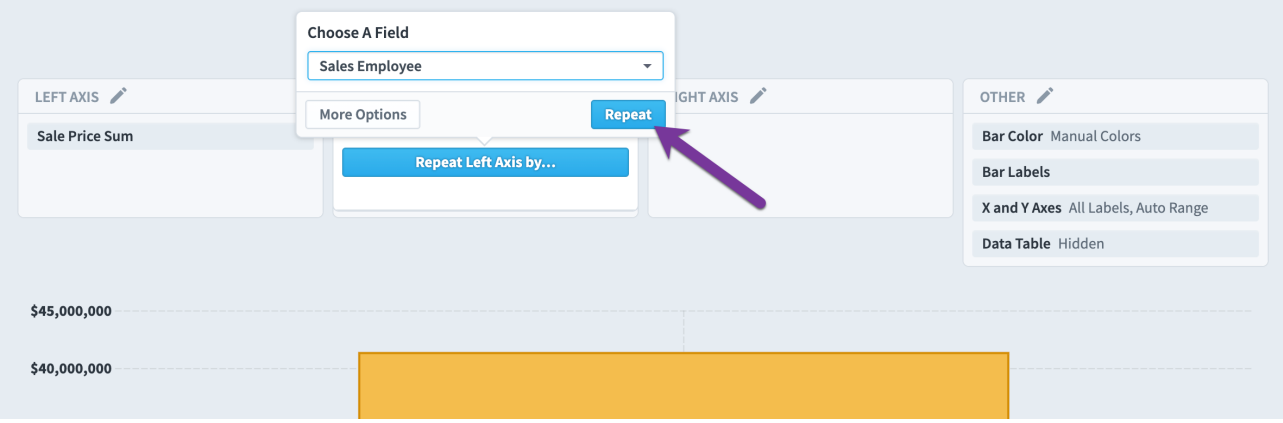
You can even show data for multiple ranges. Here we're showing the data for the current month as well as the data for the month one year earlier.



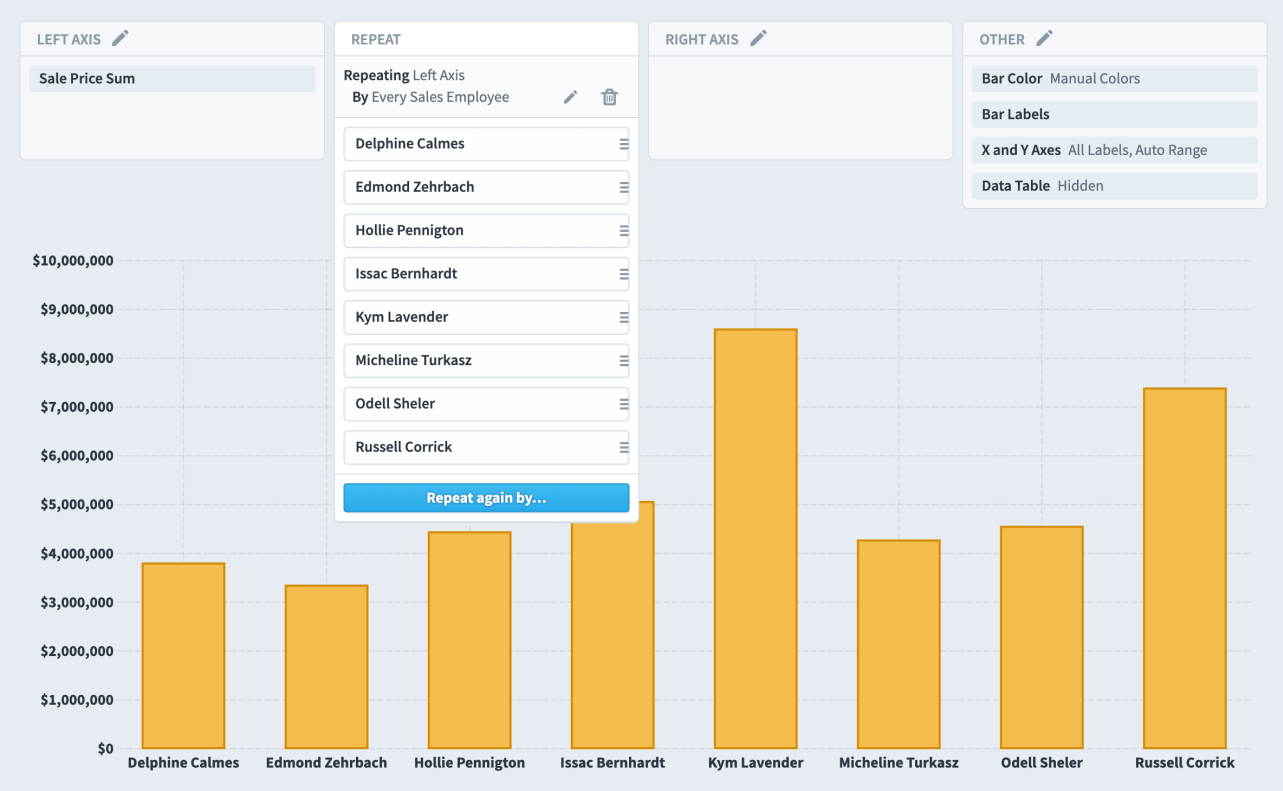
While scorecard items have a built-in repeating by calendar period, datasets and initiatives do not. In this dataset example, we have a single bar showing the total sales dollars for all time.



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.

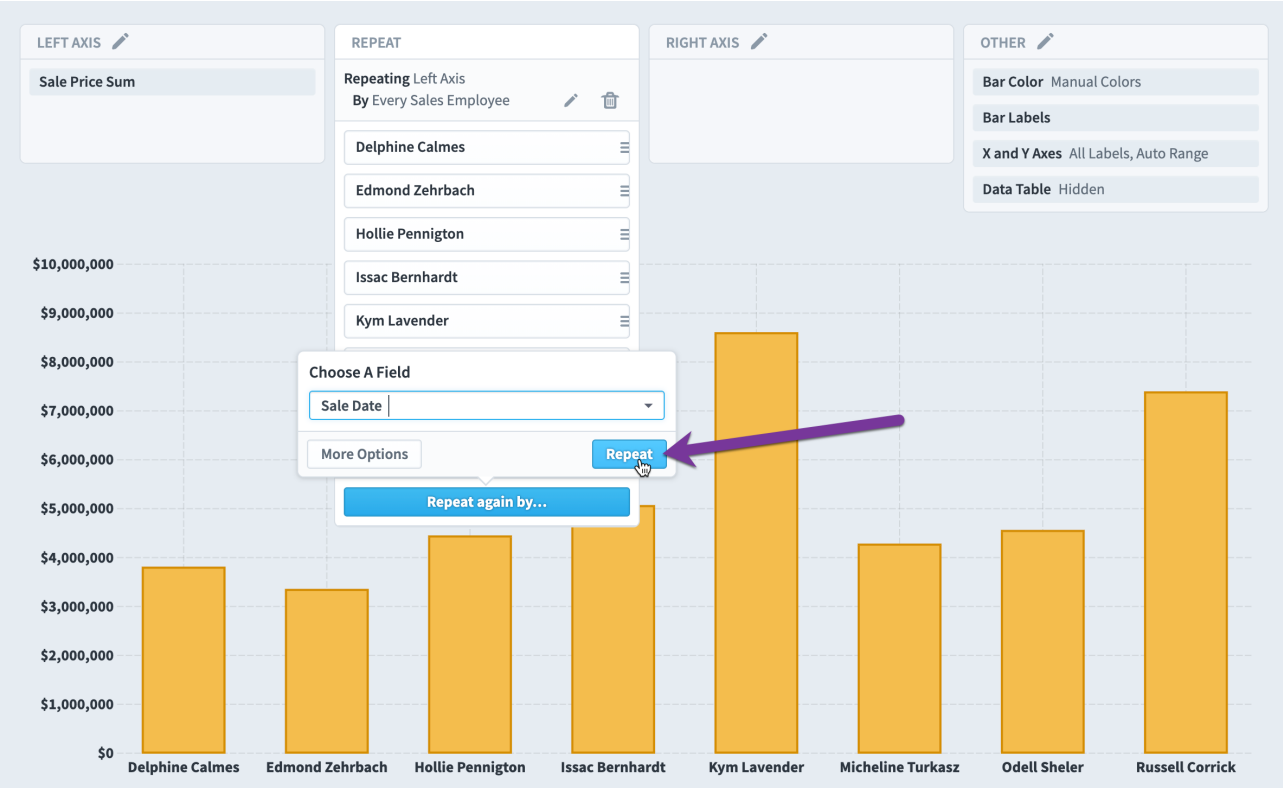


We now have a separate bar showing the all-time sales totals for every employee. Whenever the dataset is updated to include new employees, they'll automatically show up in this chart.

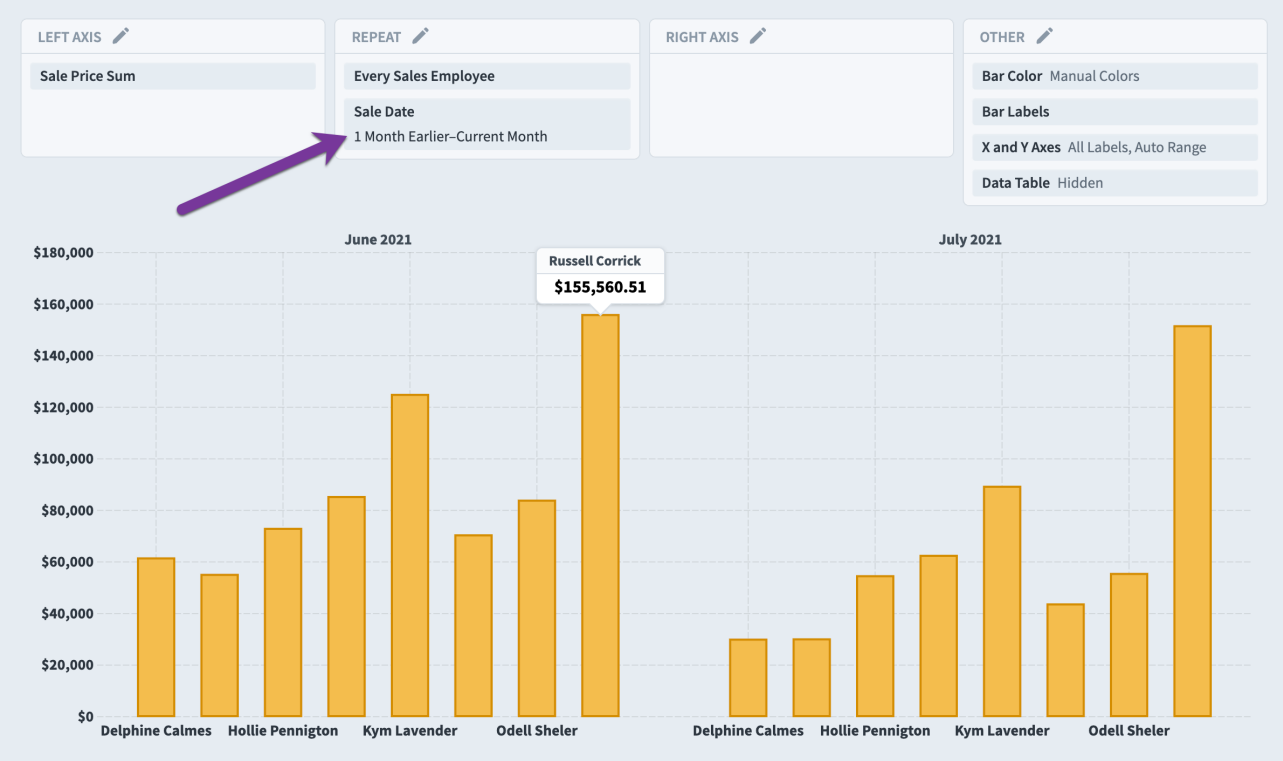


Repeating again

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.

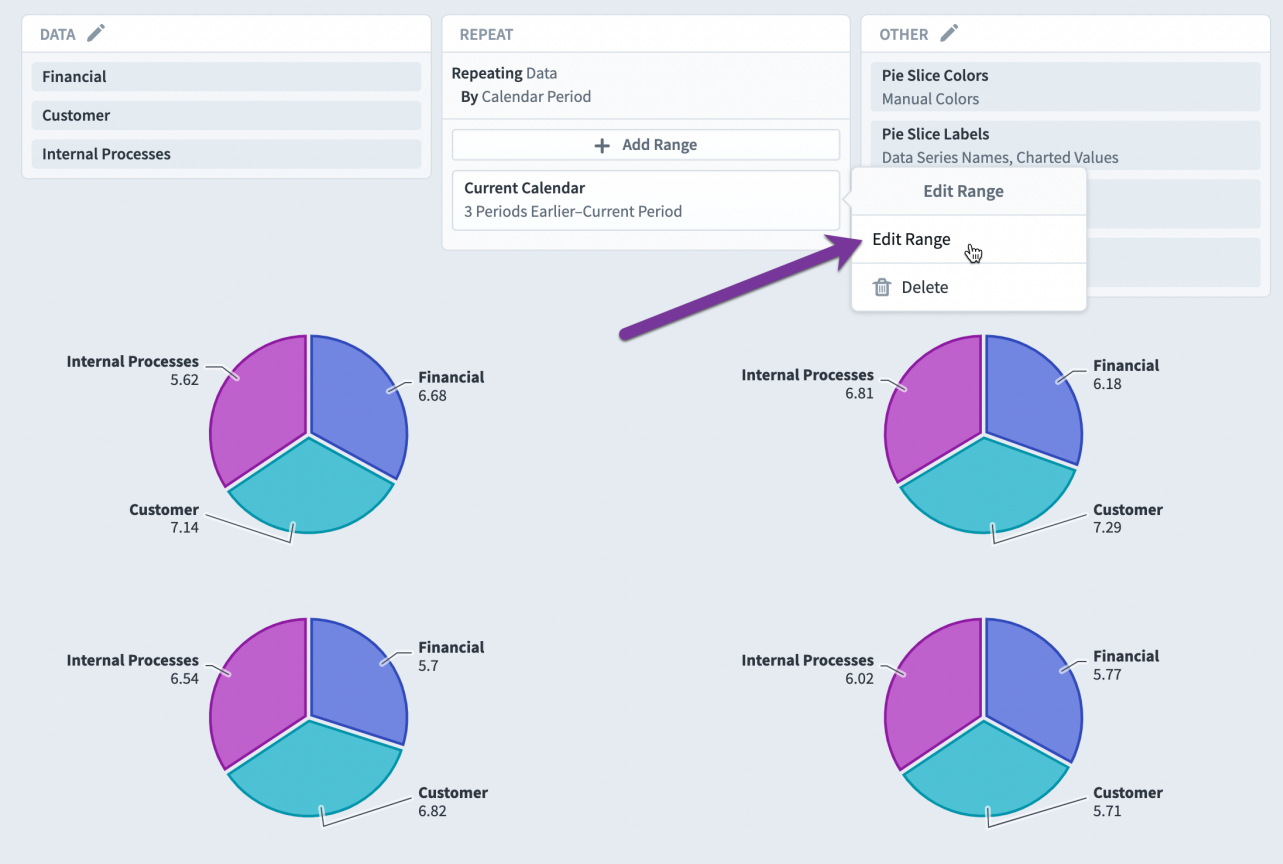


The chart is now showing the sales totals for the last two months for all employees.

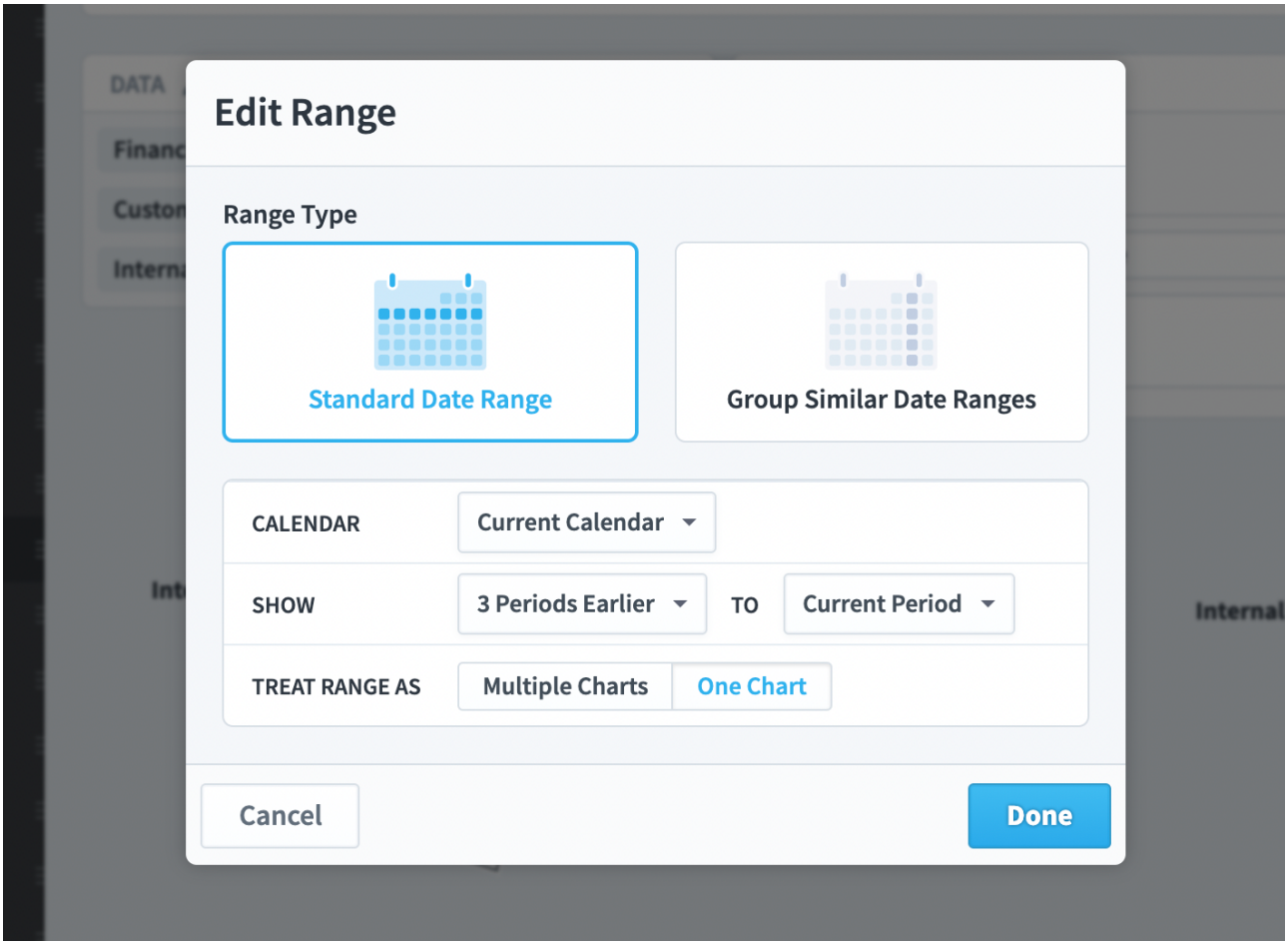


Repeating non-axis charts

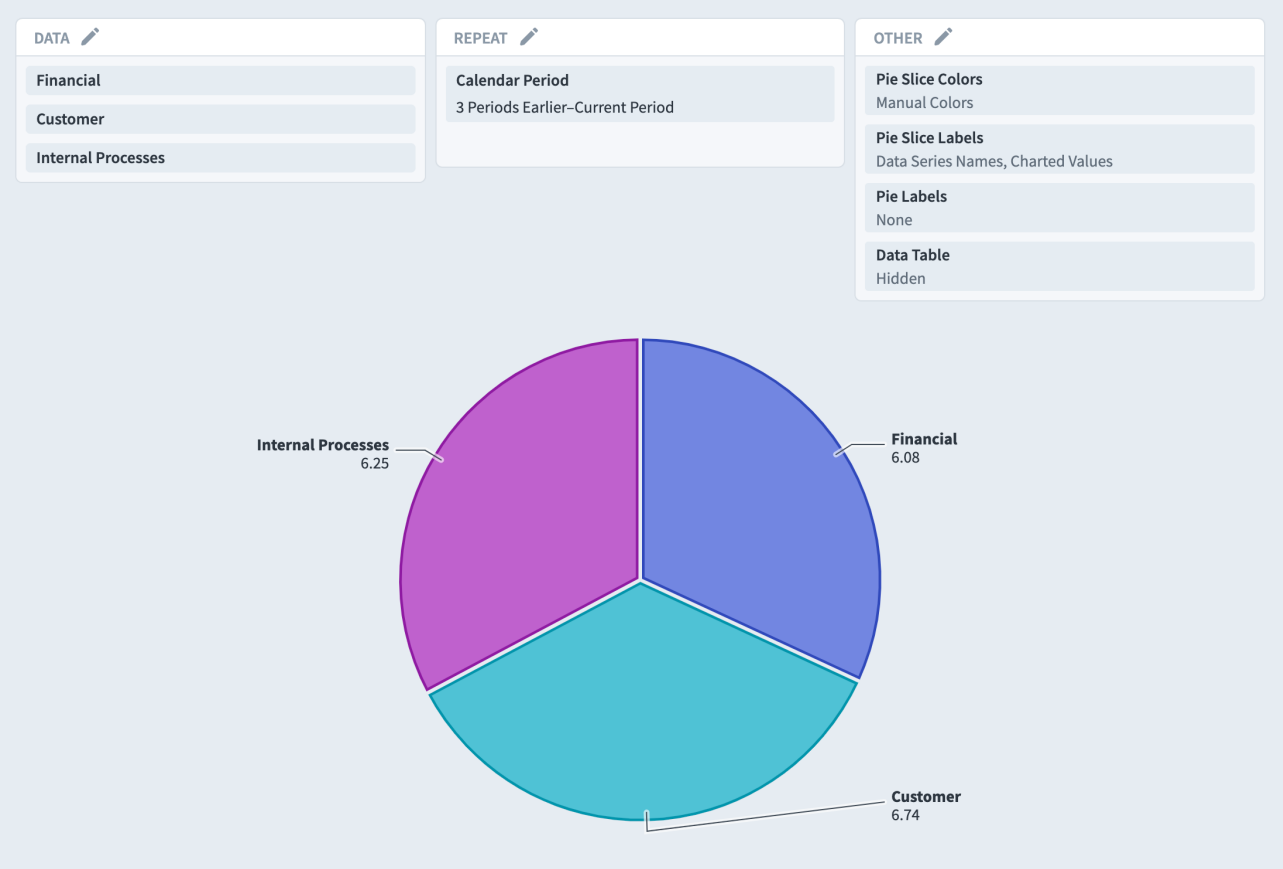
Repeating works the same for non-axis charts. In this example we're repeating three KPIs for four calendar periods. By default, each calendar period is its own pie chart, but you can change this by clicking on the calendar period range and choosing "Edit Range".



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

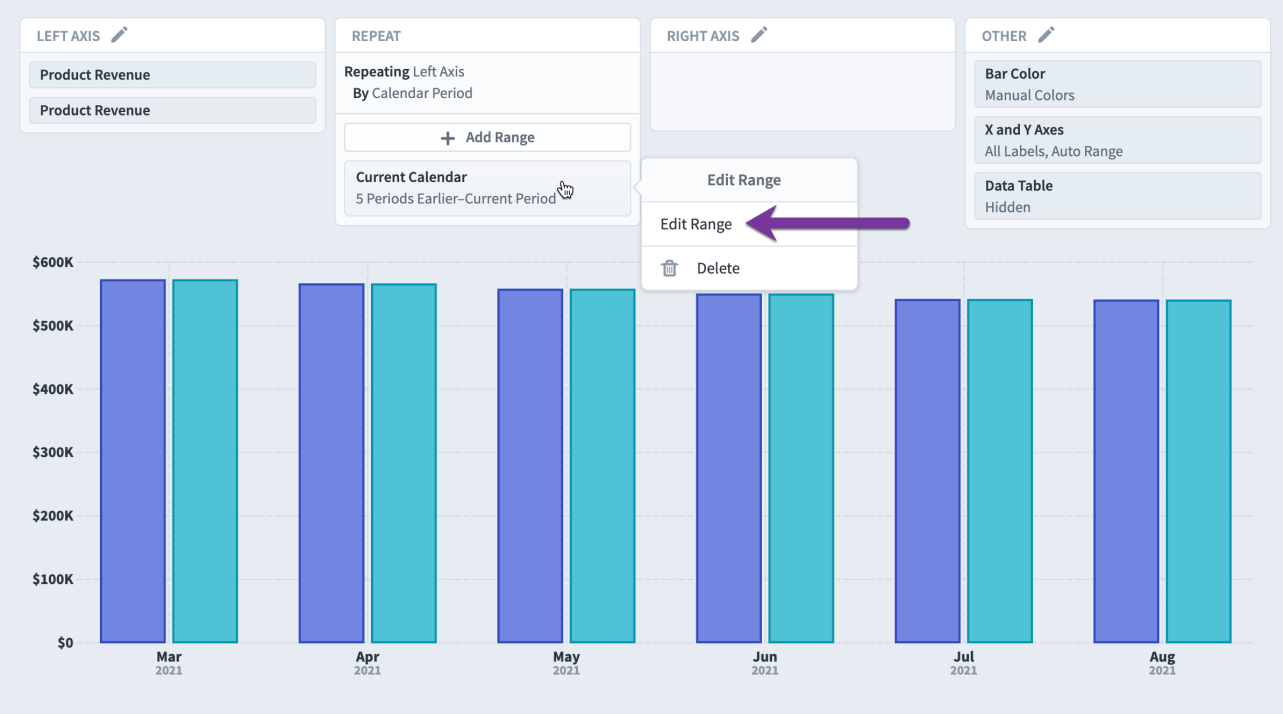


The result is this single pie chart that shows four periods of data.

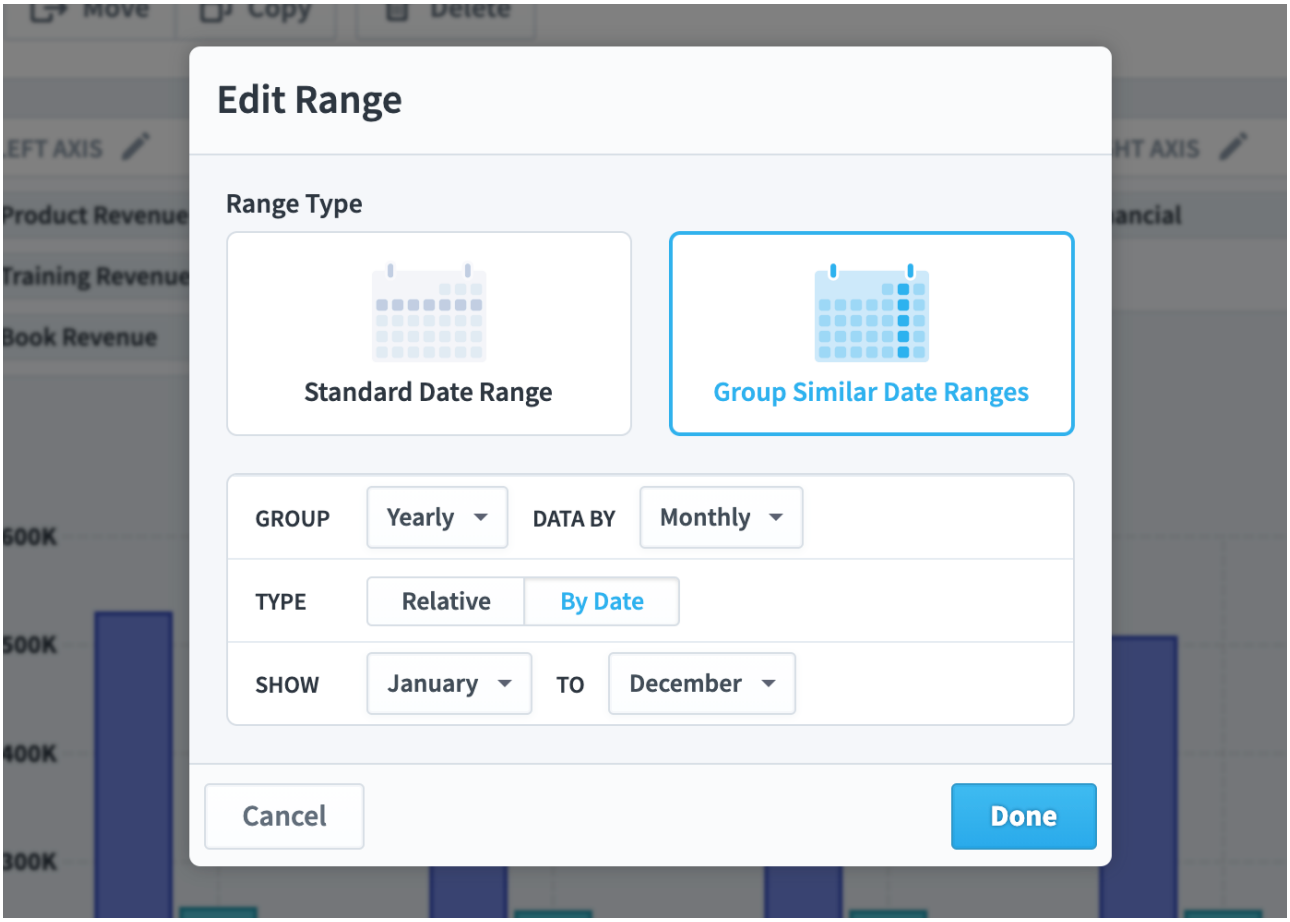


Grouping similar date ranges

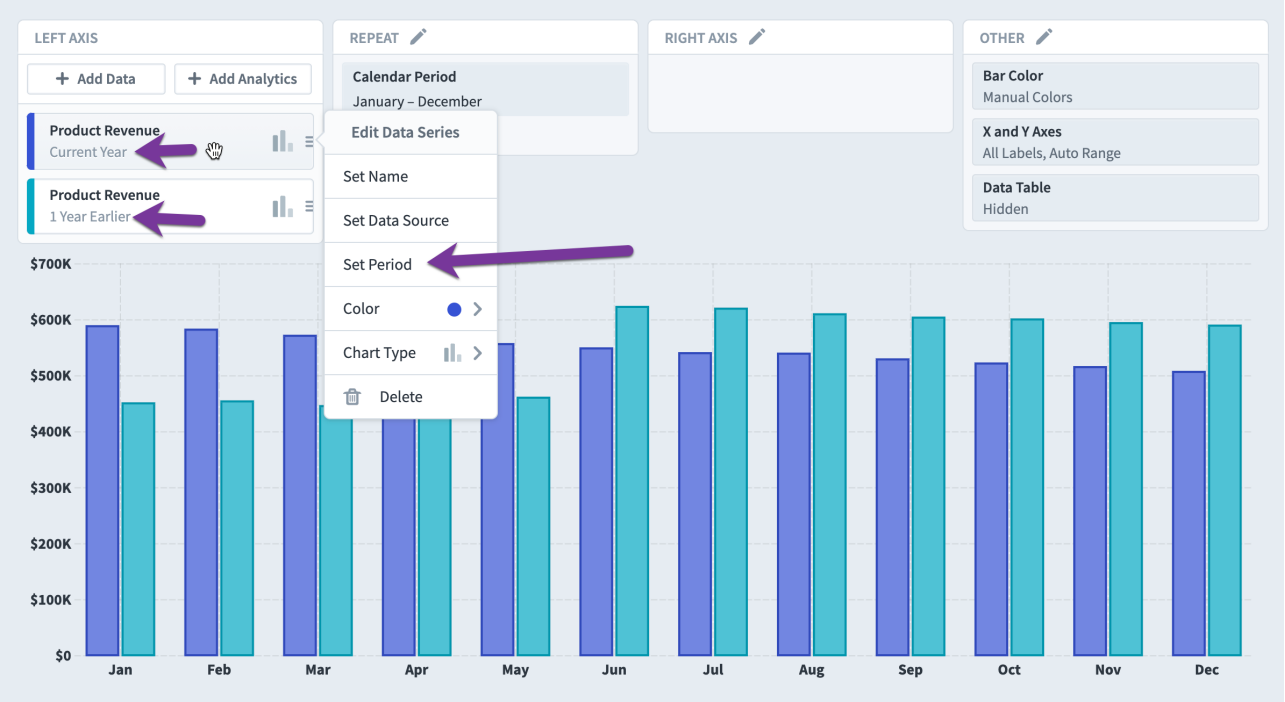
In addition to graphing standard date ranges like all the months in 2021, you can also graph data like months of the year or days of the week. In this example we have two identical data series for Product Revenue, and we'll choose "Edit Range".



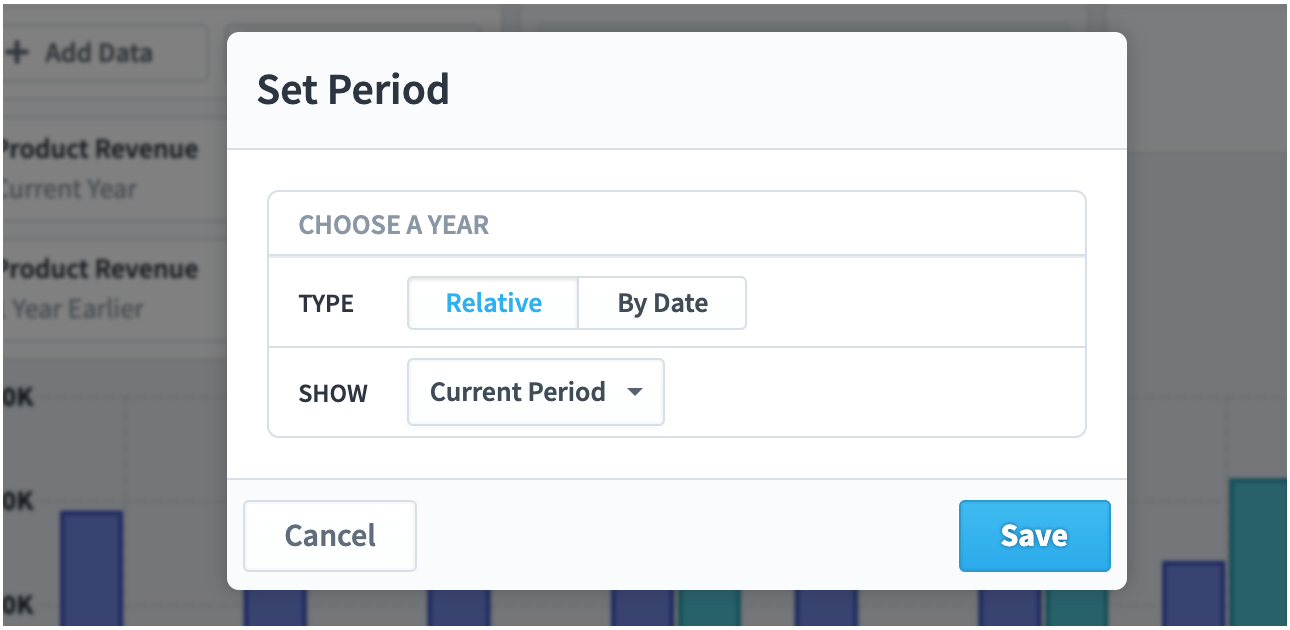
We'll change to "Group Similar Date Ranges" and then choose to group yearly data by monthly.



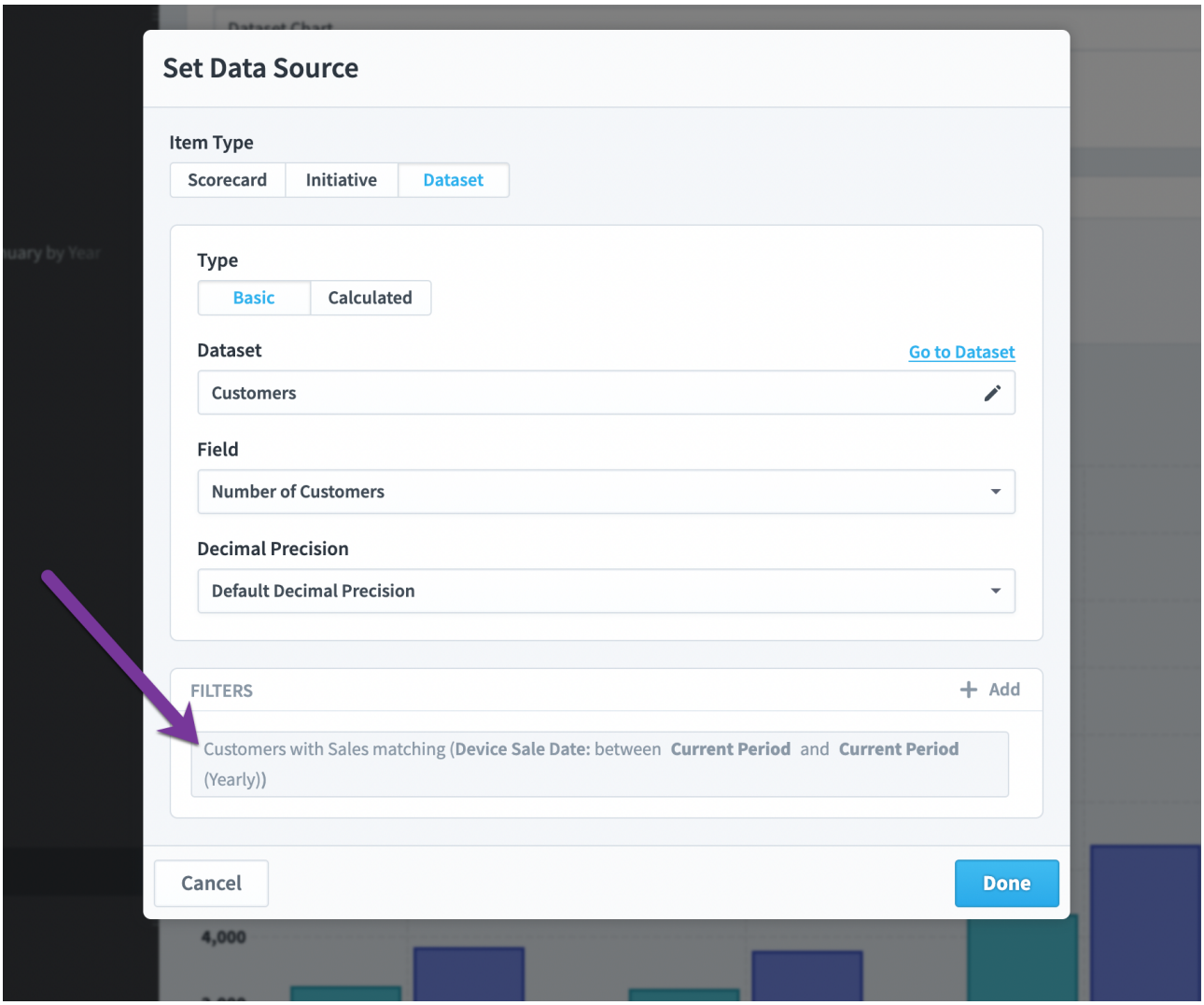
When we're done, we see a completely different kind of graph. As you can see, it now lists the months across the X axis but no years. Our chart now shows product revenue for the current year compared against product revenue for the previous year.



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.

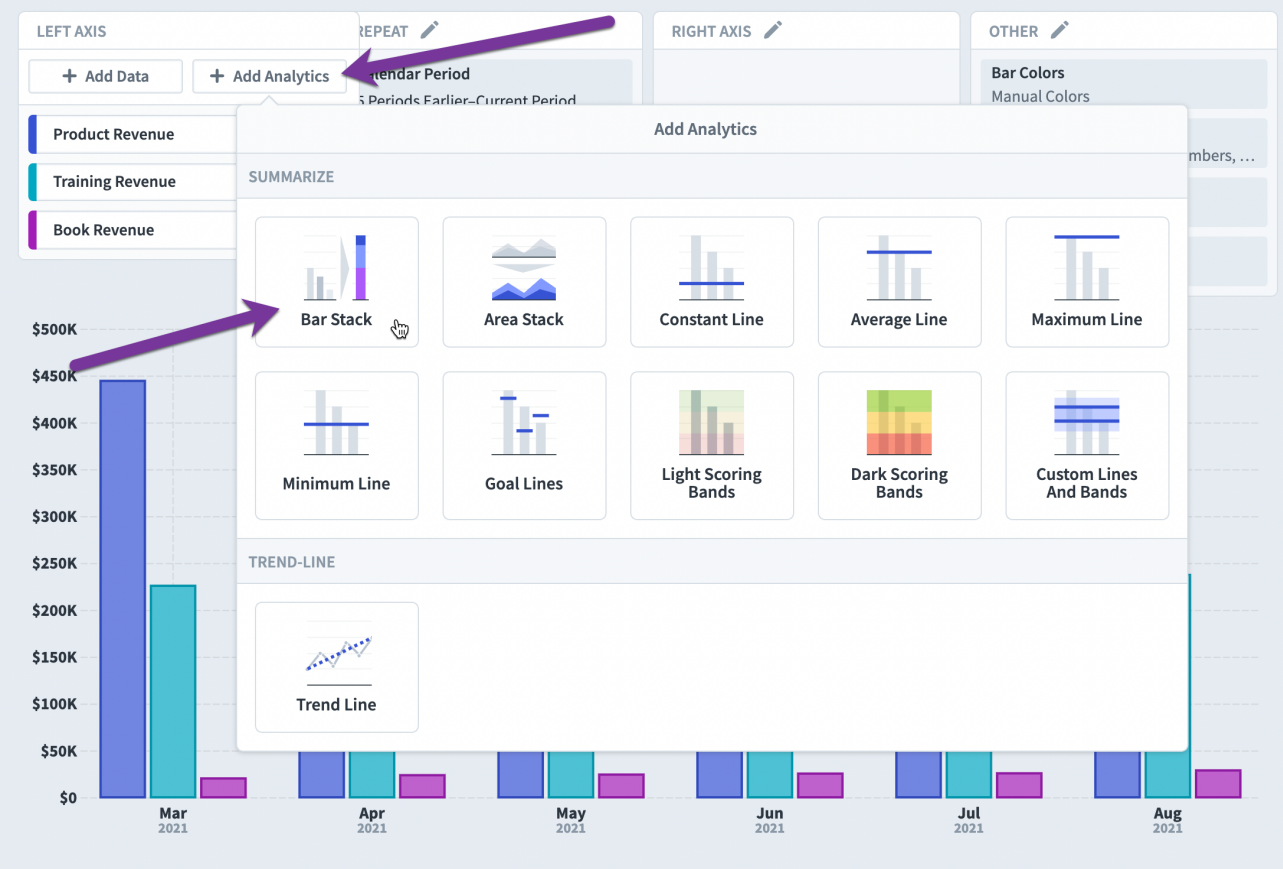


There's no "Set Period" menu item for datasets. Instead, you can just choose which date range you want as a filter in the "Set Data Source" menu.

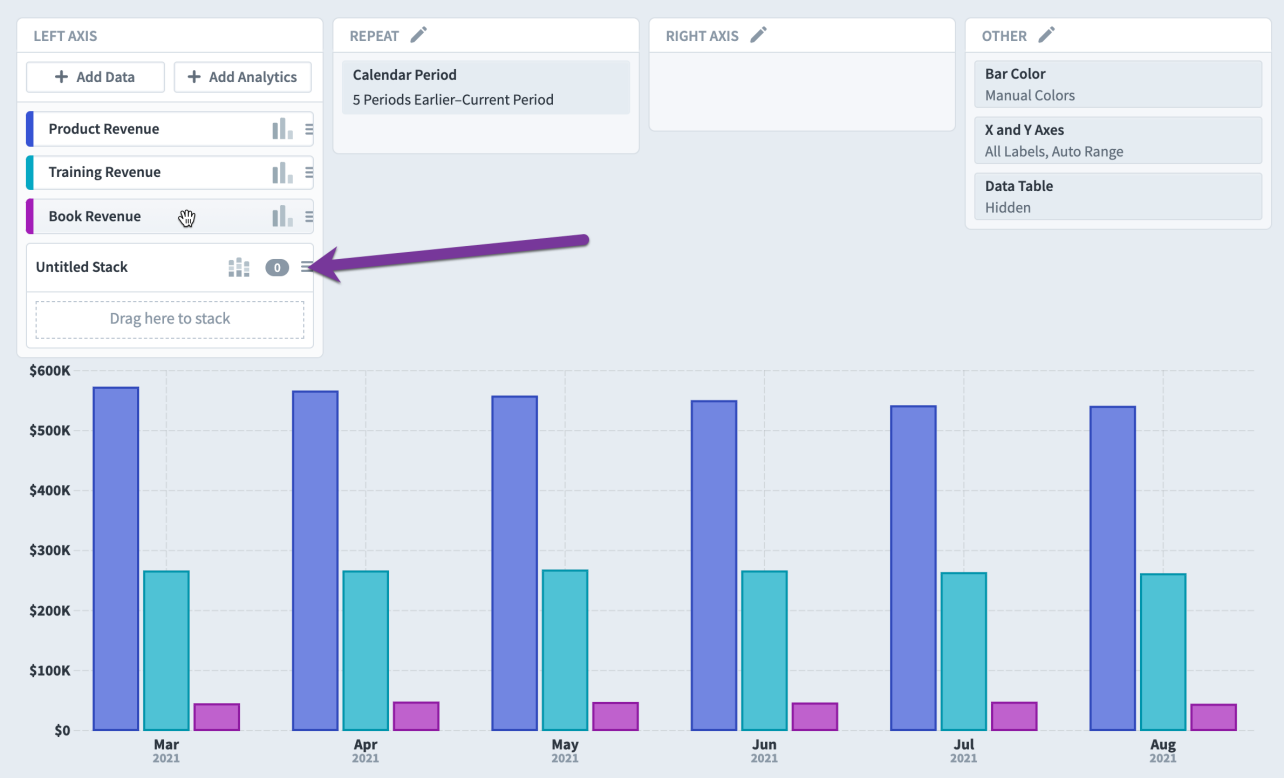


Bar and area stacks

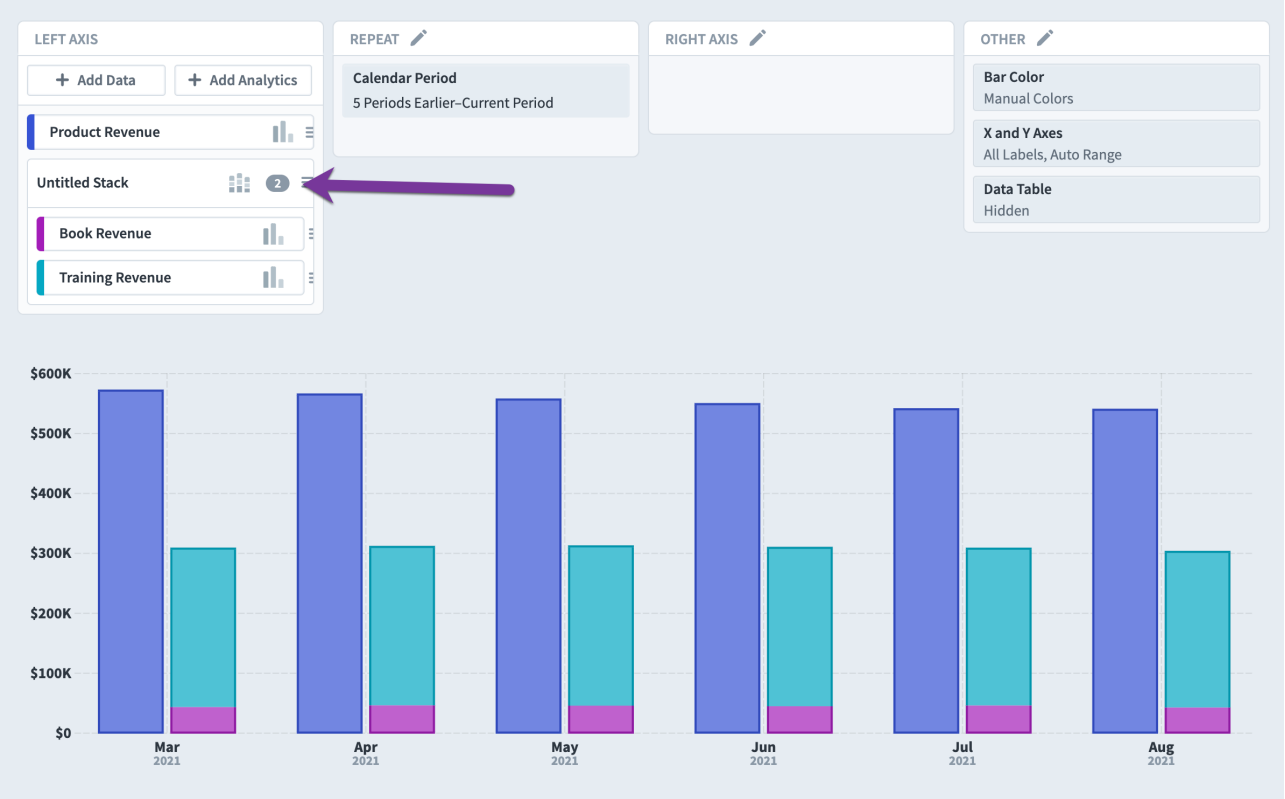
You can create bar or area stacks by choosing them from the "Add Analytics" menu on either the left or right axis.



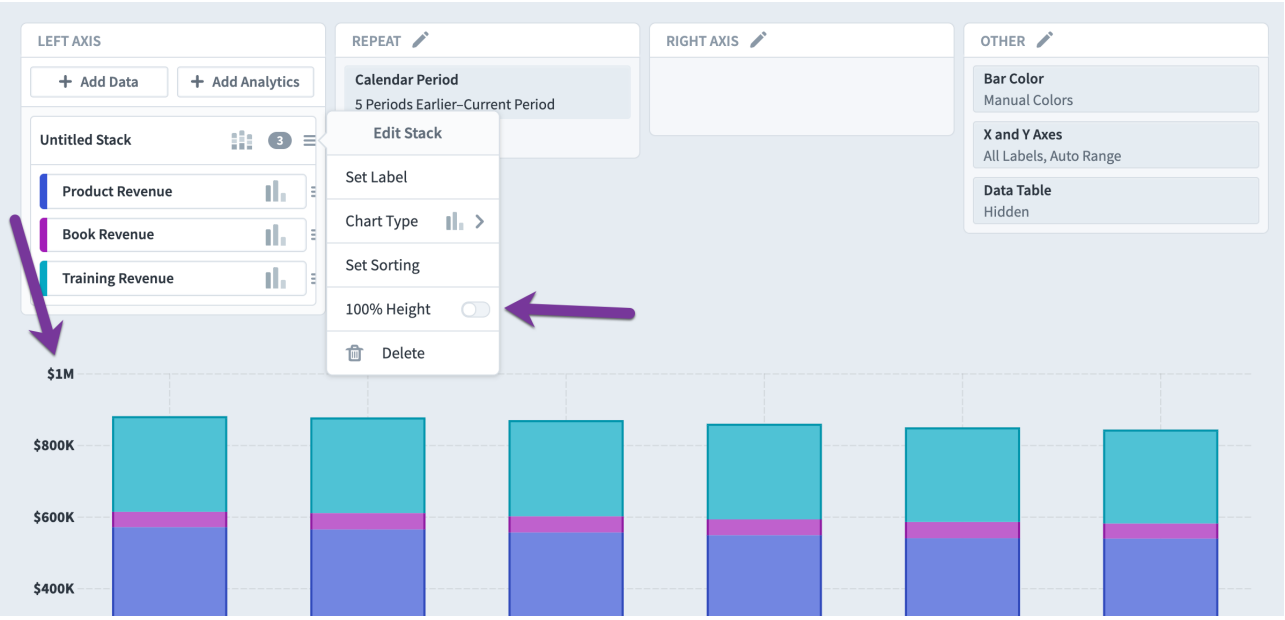
This adds an empty stack to the axis.



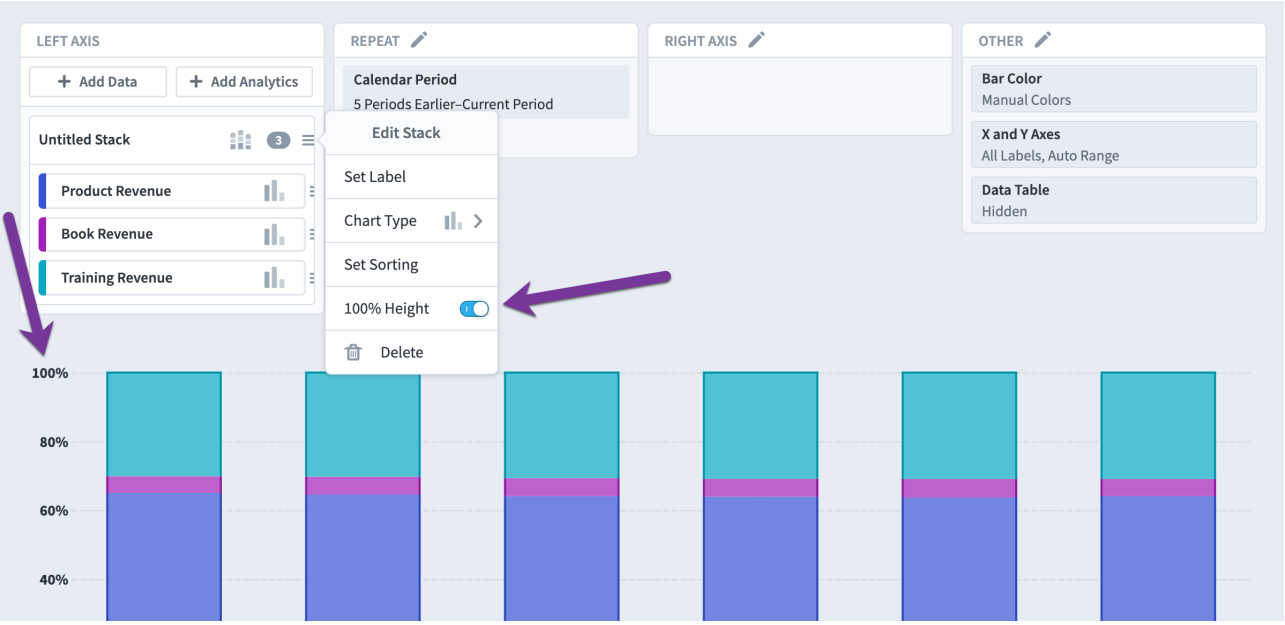
All you need to do is drag and drop data series into the stack. Here we've added book and training revenue to the stack while product revenue is its own bar. This allows you to have multiple stacks and non-stacked bars at the same time.



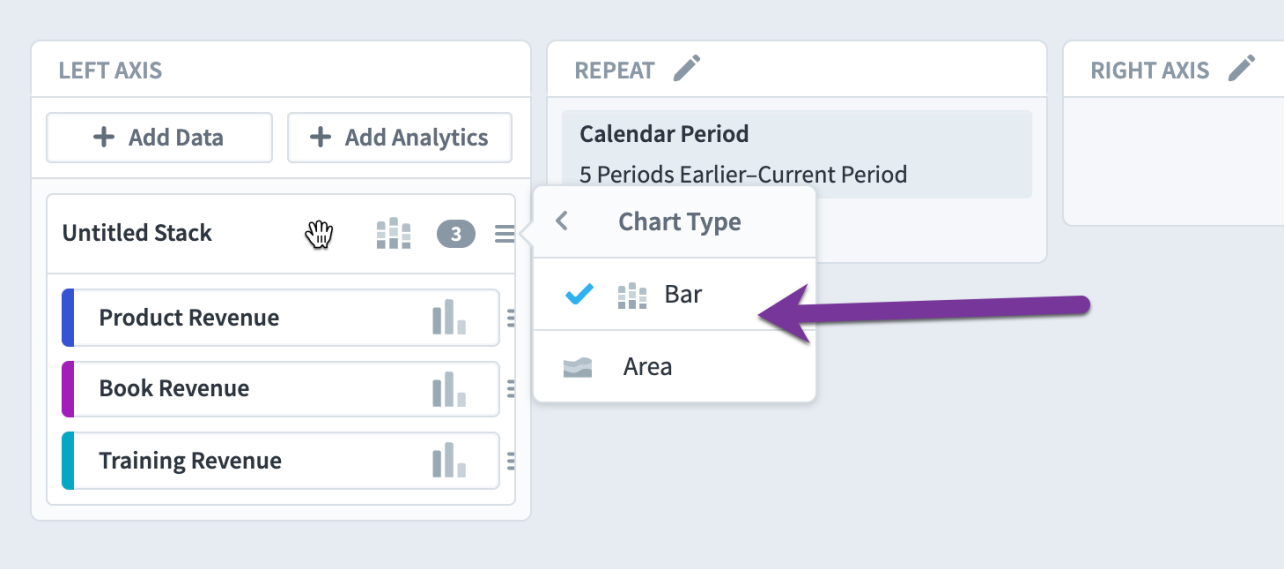
You can configure the stack by clicking on it. By default, 100% height is off, and you can see how the Y axis goes up to $1M.



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

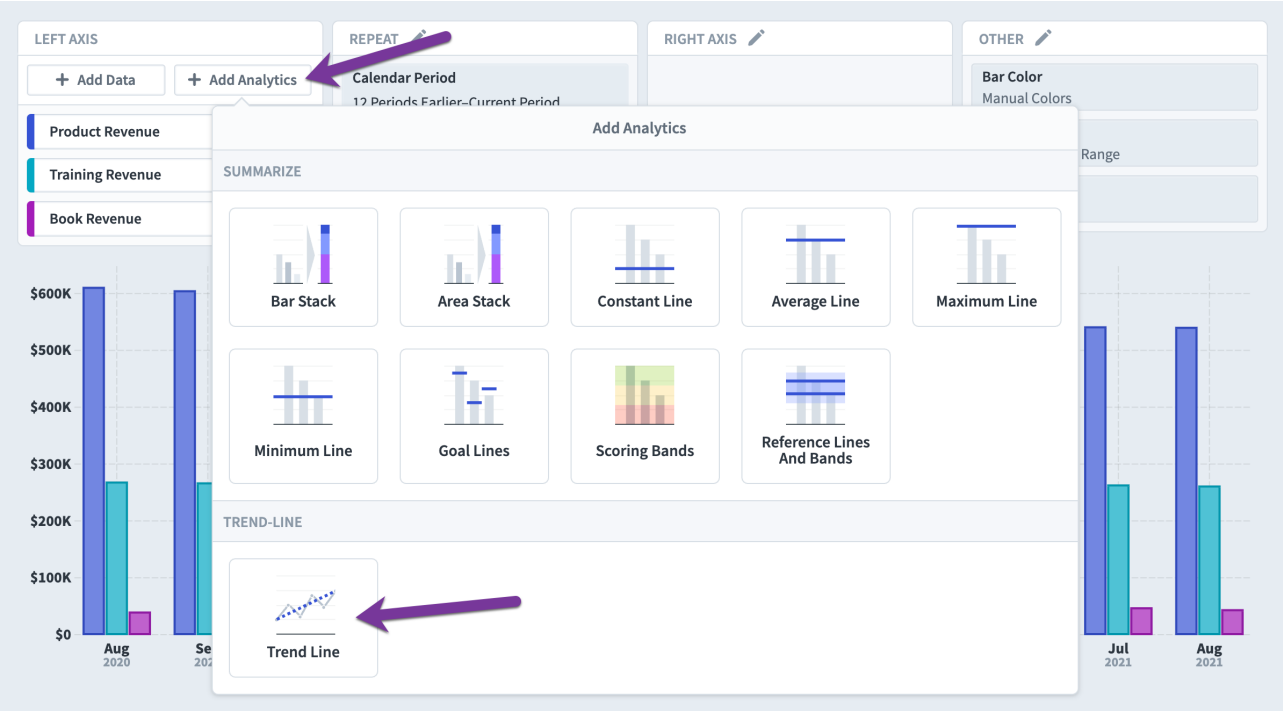


You can also change between Bar and Area stacks.

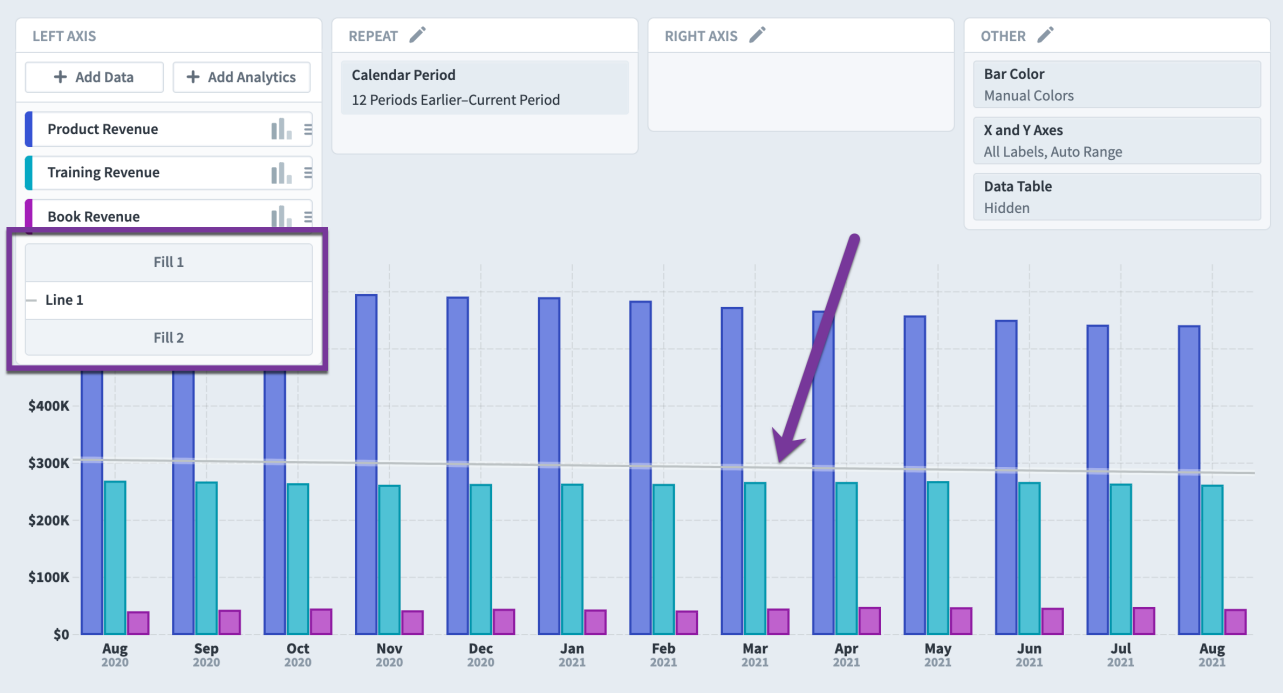


Trend lines

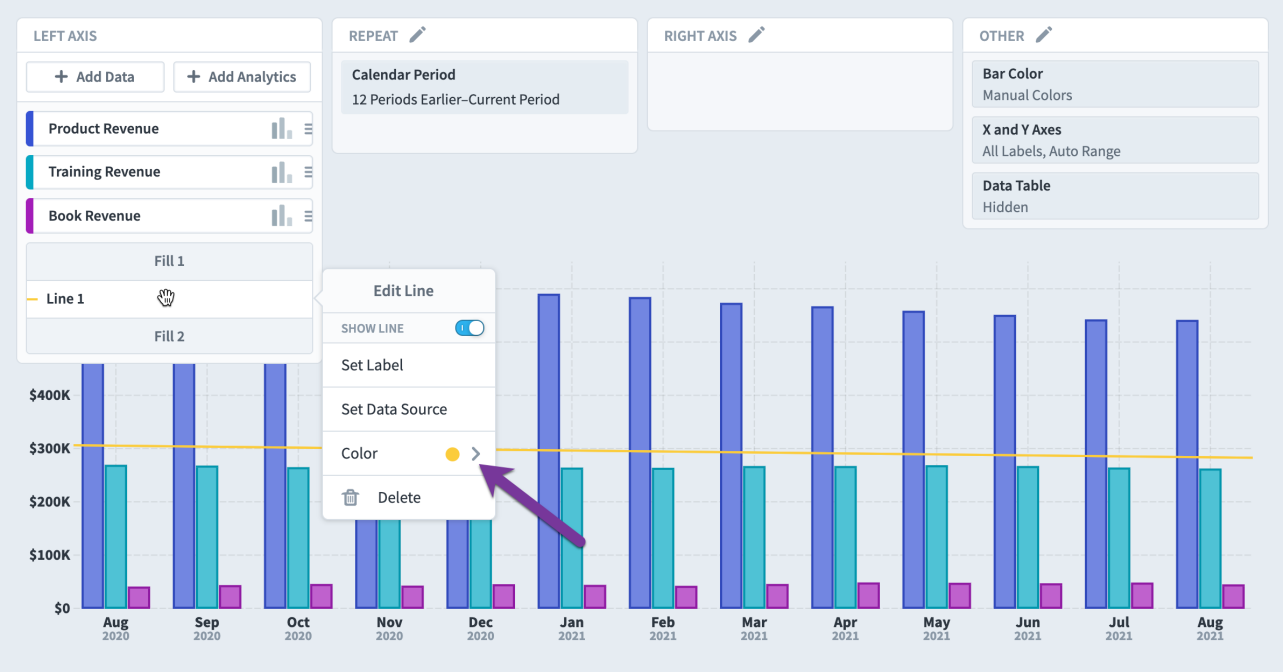
You can add a trend line from each axis' Add Analytics menu.



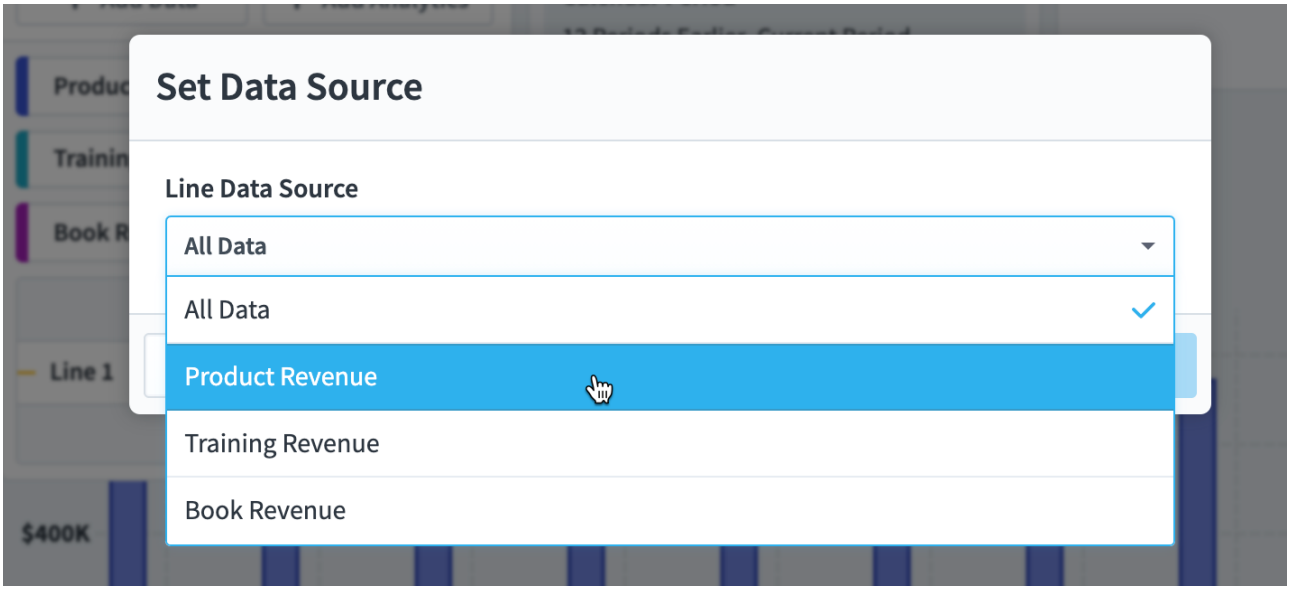
We now see a trend line object in the left axis panel. There's also a trend line showing each month's average of the three series.



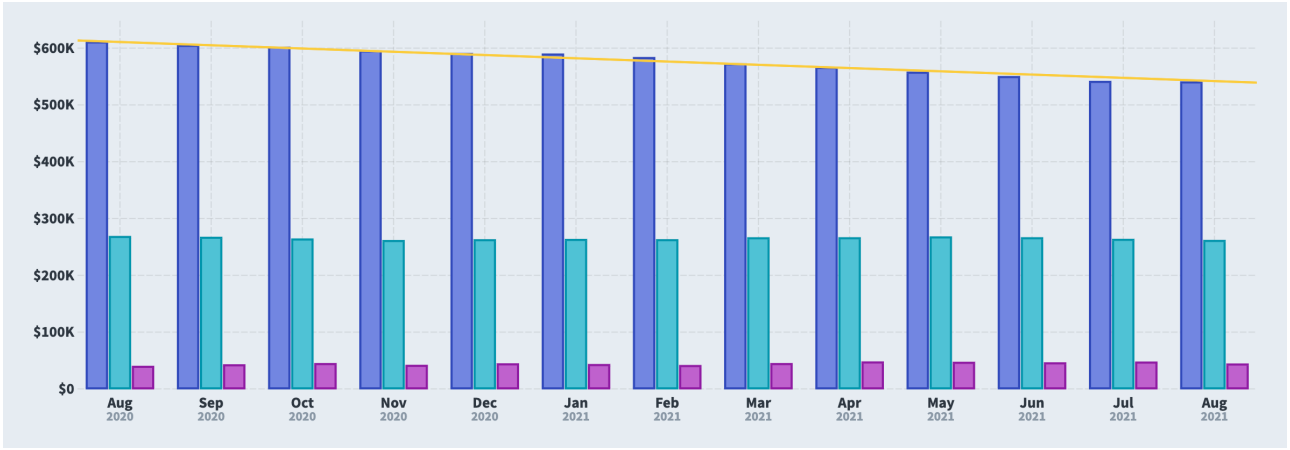
You can change the line's color.



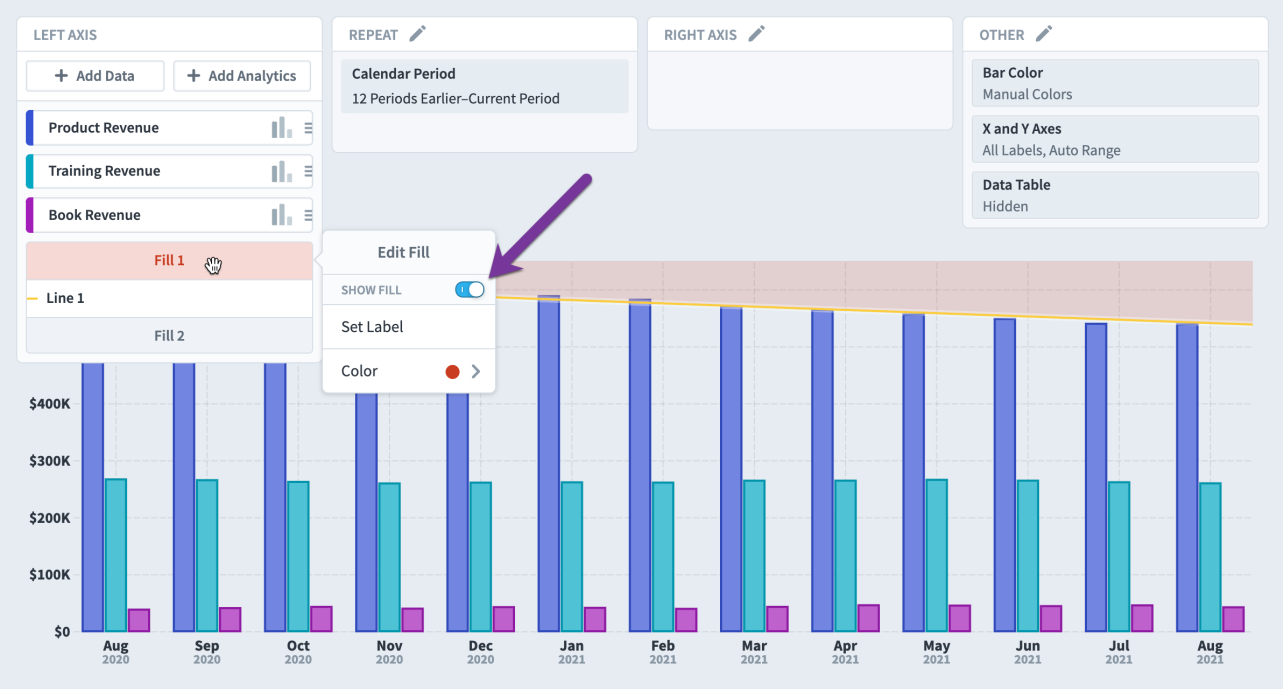
You can also set its data source. Here we're changing it to Product Revenue rather than All Data.



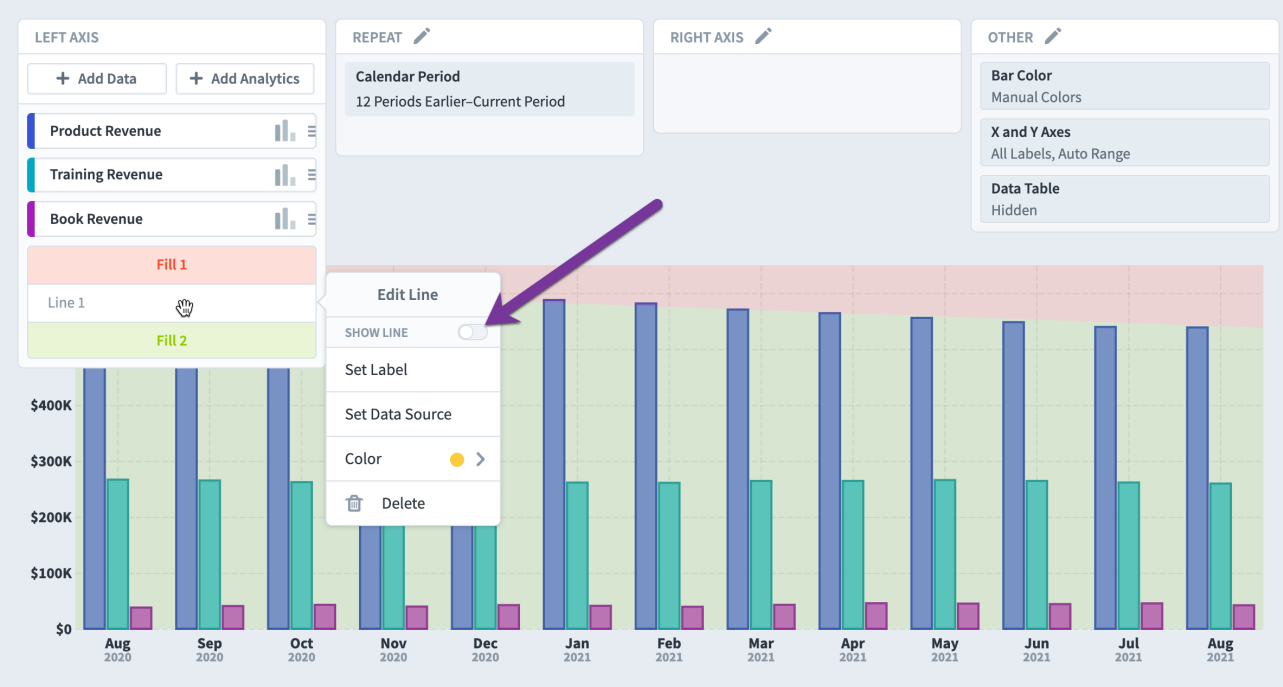
The chart now looks like this.



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

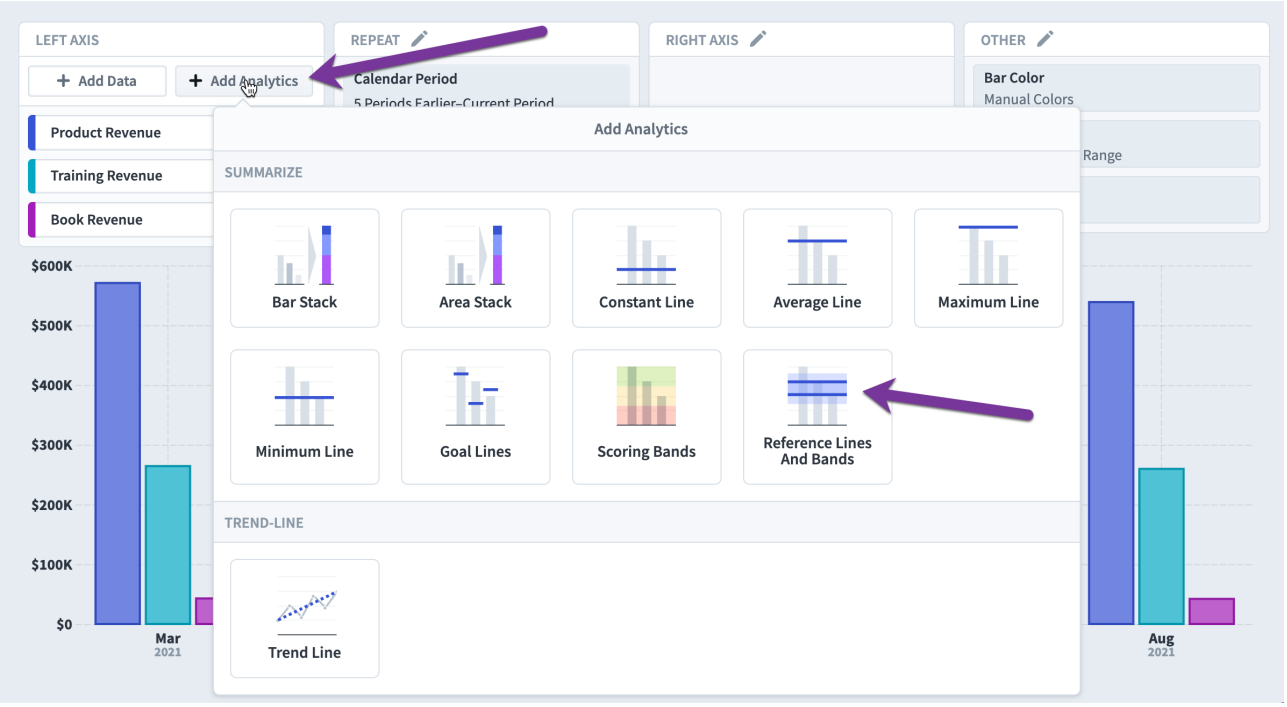


Here we've turned off the display of the line and are showing a red fill above the trend and a green fill below.

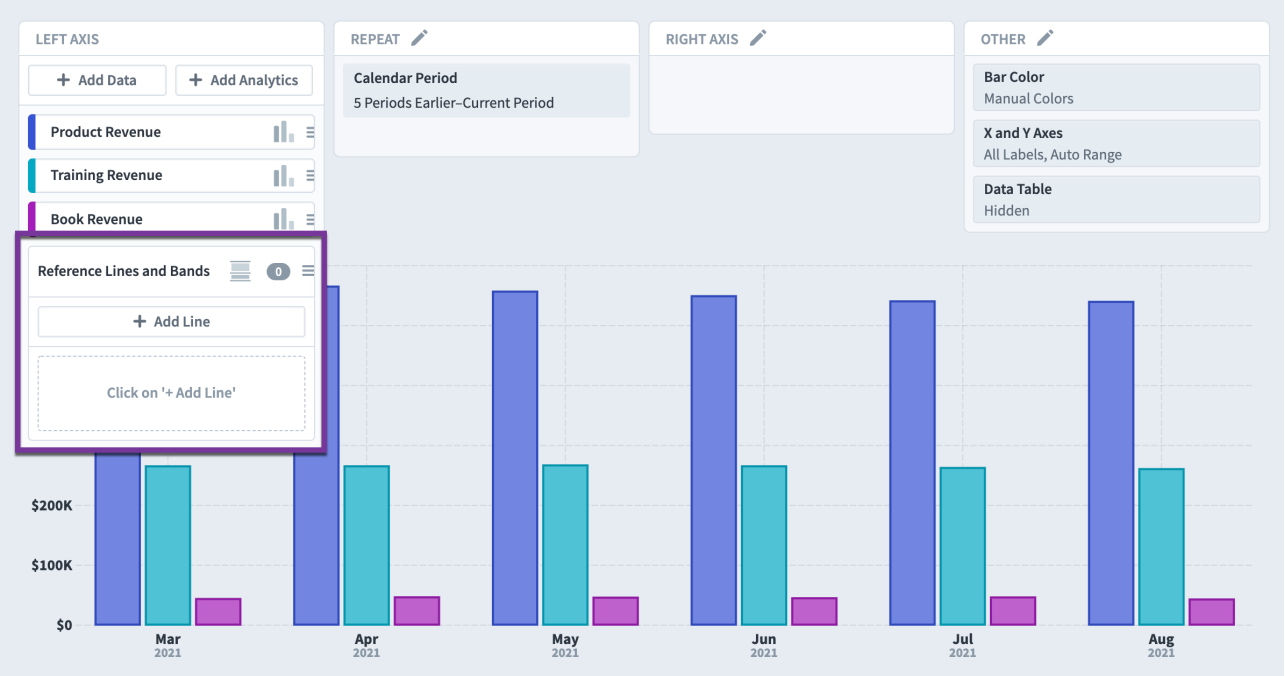


Reference lines and bands

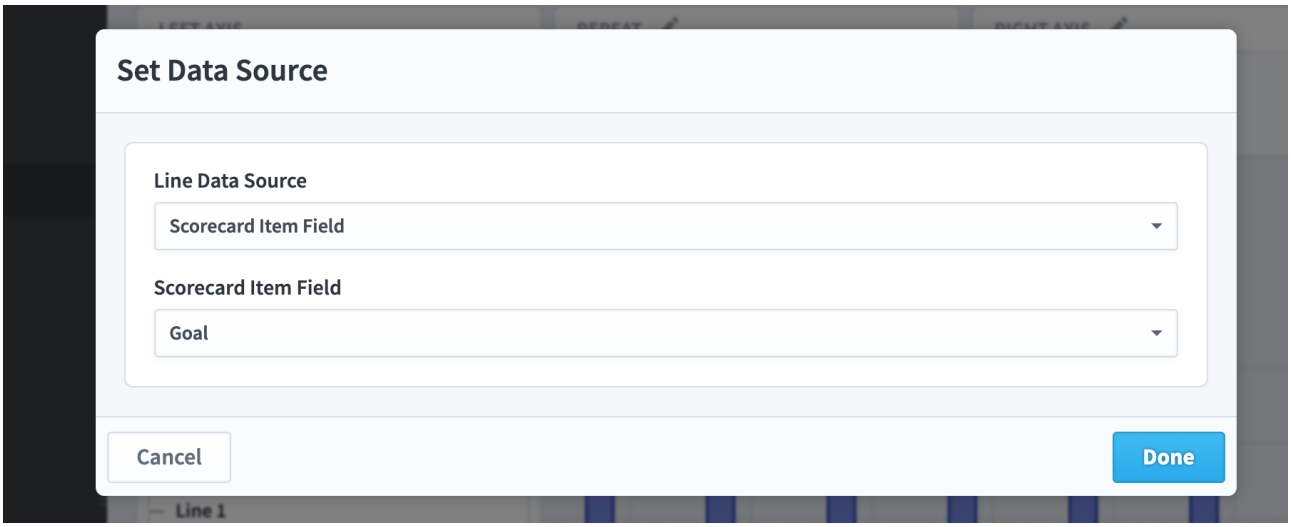
You can add reference lines and bands from the Add Analytics menu for an axis. There are several pre-configured lines and bands to choose from, but in this example we'll choose a blank Reference Lines and Bands item.



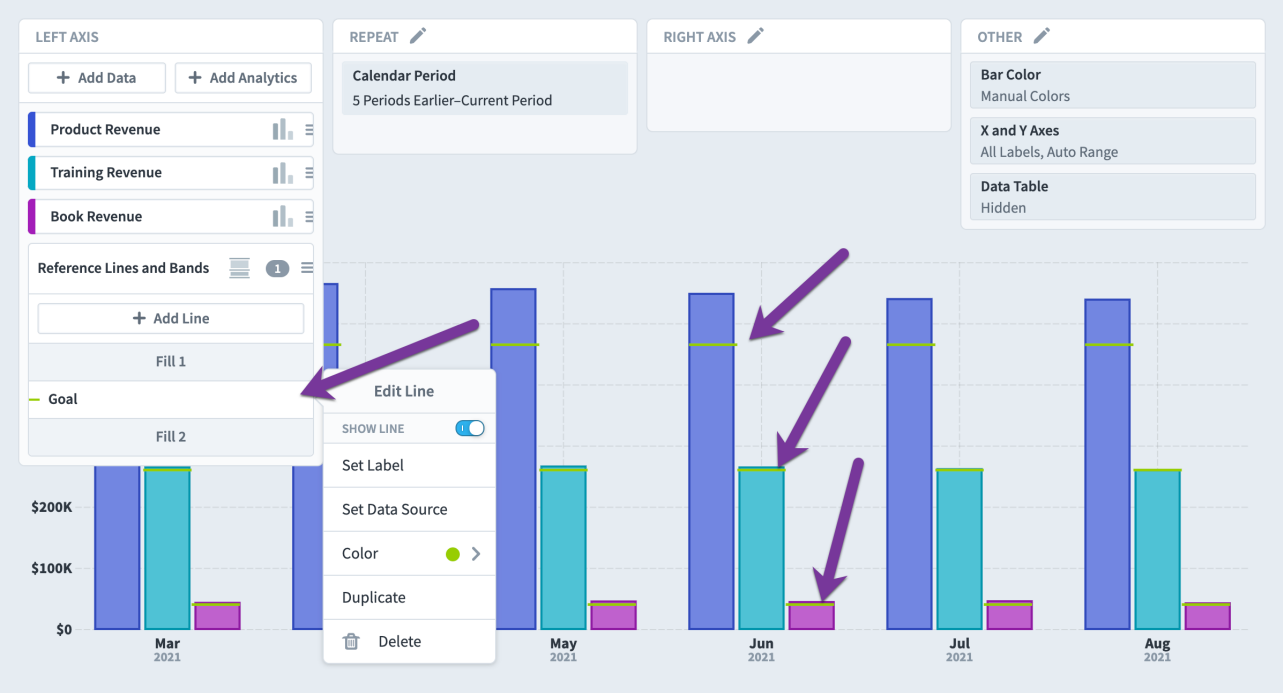
This adds a Reference Lines and Bands item to the axis.



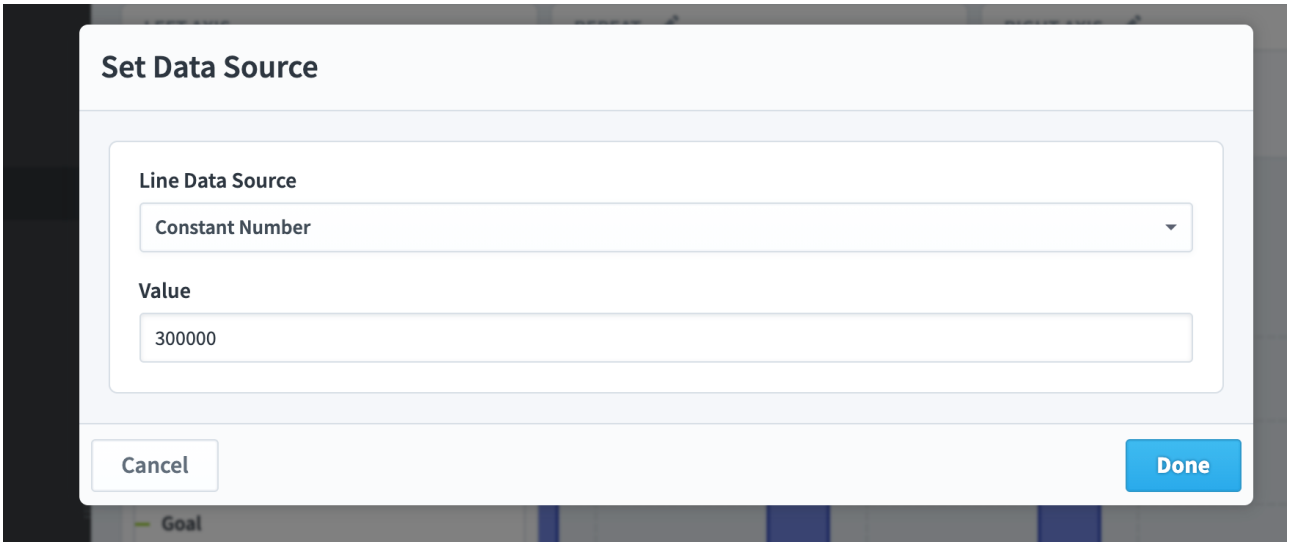
We'll click "Add Line" and then set the data source. First, we'll choose to show each scorecard item's goal.



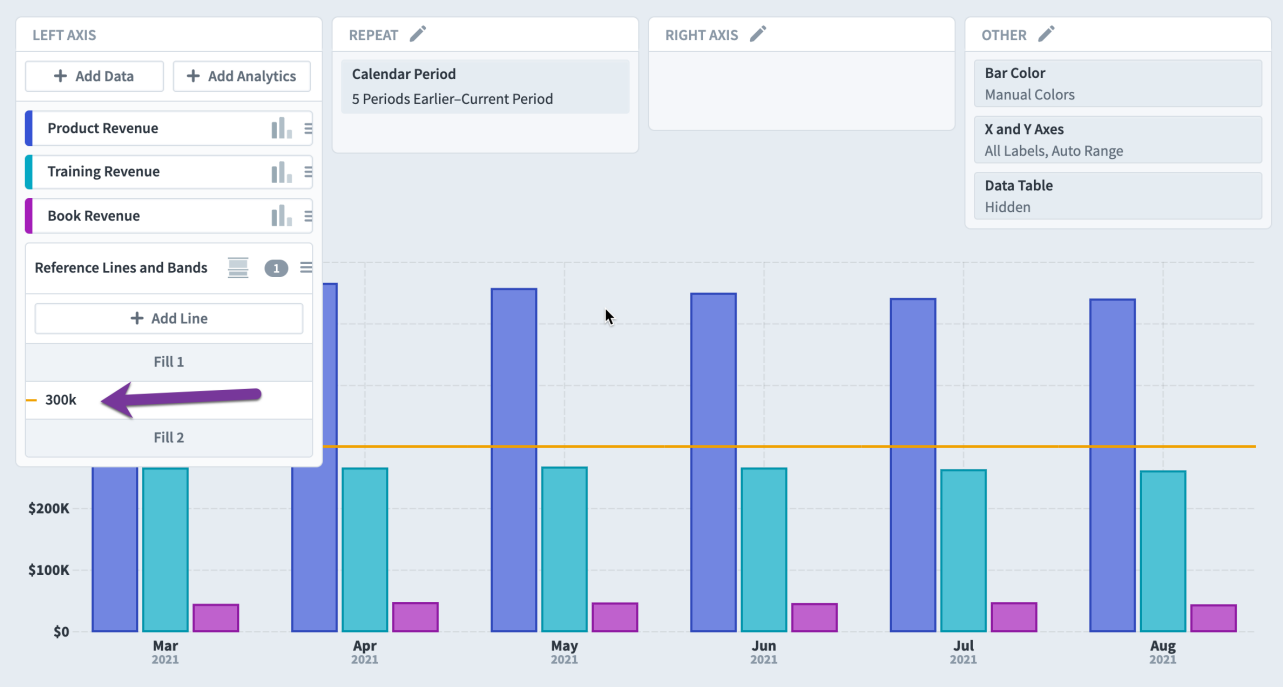
The chart now looks like this. There's a goal line on every bar that we've made green, and we've chosen "Goal" for the line's label.



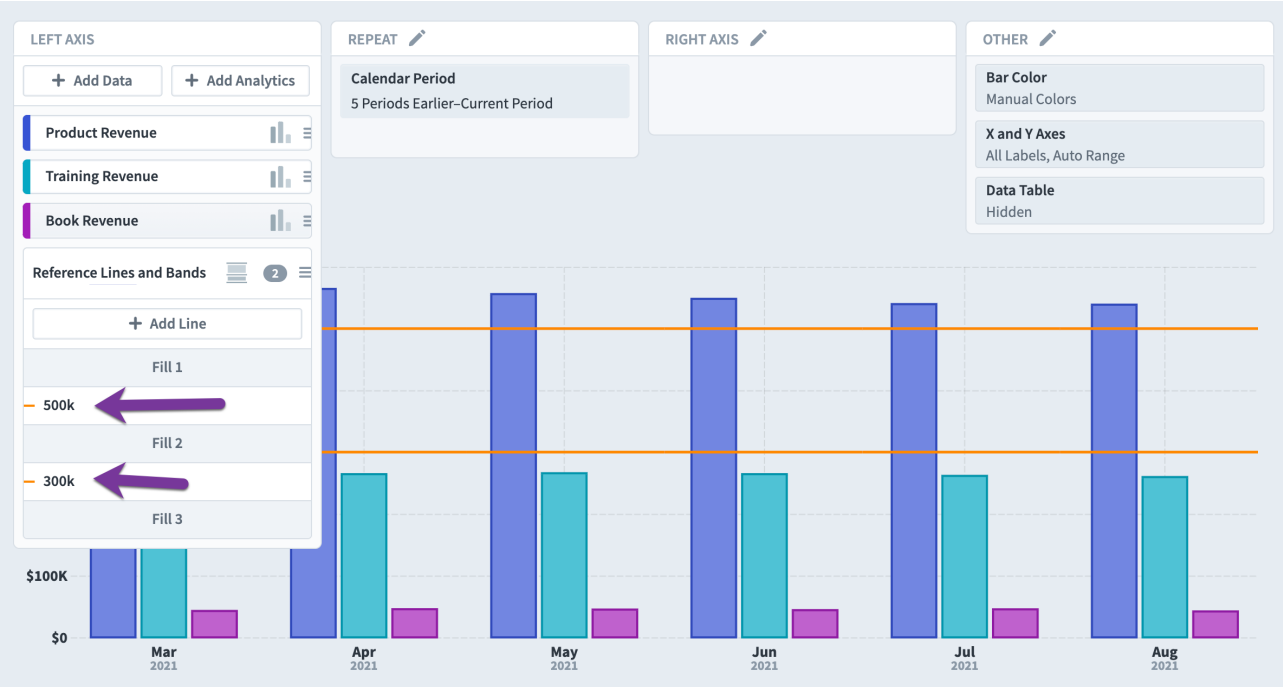
Let's see what a different data source looks like for the line. Here we'll choose a constant number of 300,000.



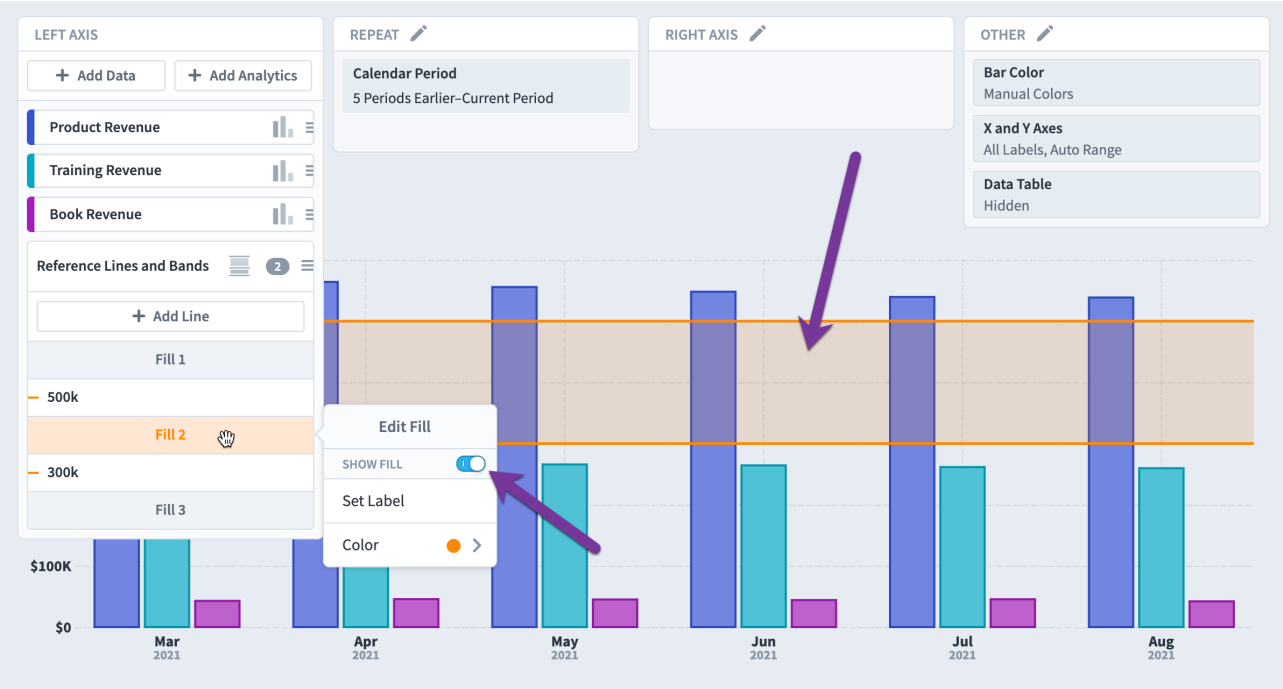
After changing the line color and label, it now looks like this.



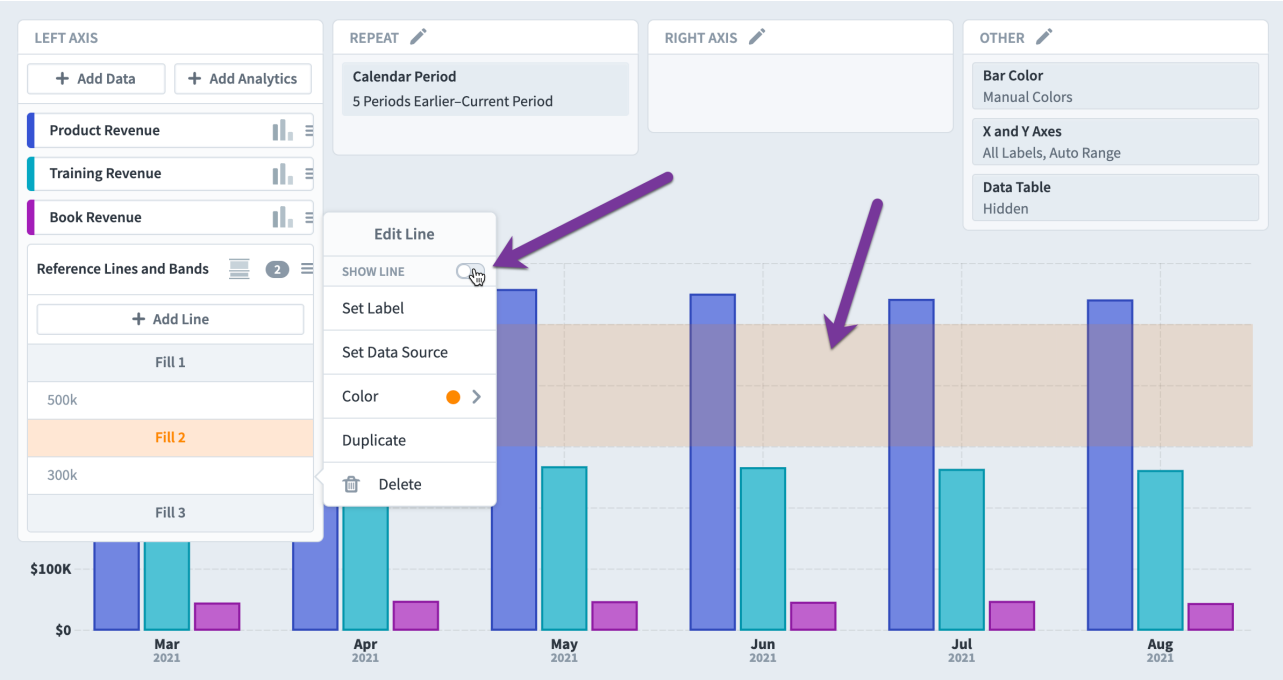
You can add as many lines as you want, each with its own data source. Here we've added a second orange line, this one at 500,000.



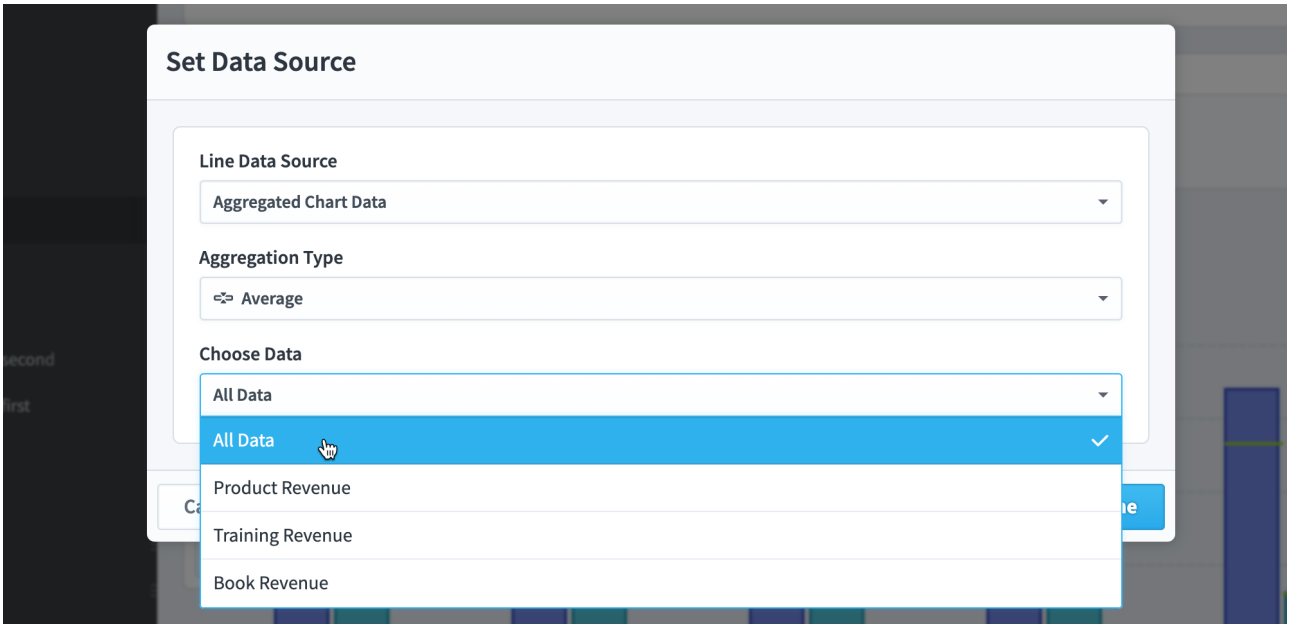
There are optional fills above, below, and between lines. Here we're setting the middle fill to orange. A fill between two lines is also called a band.



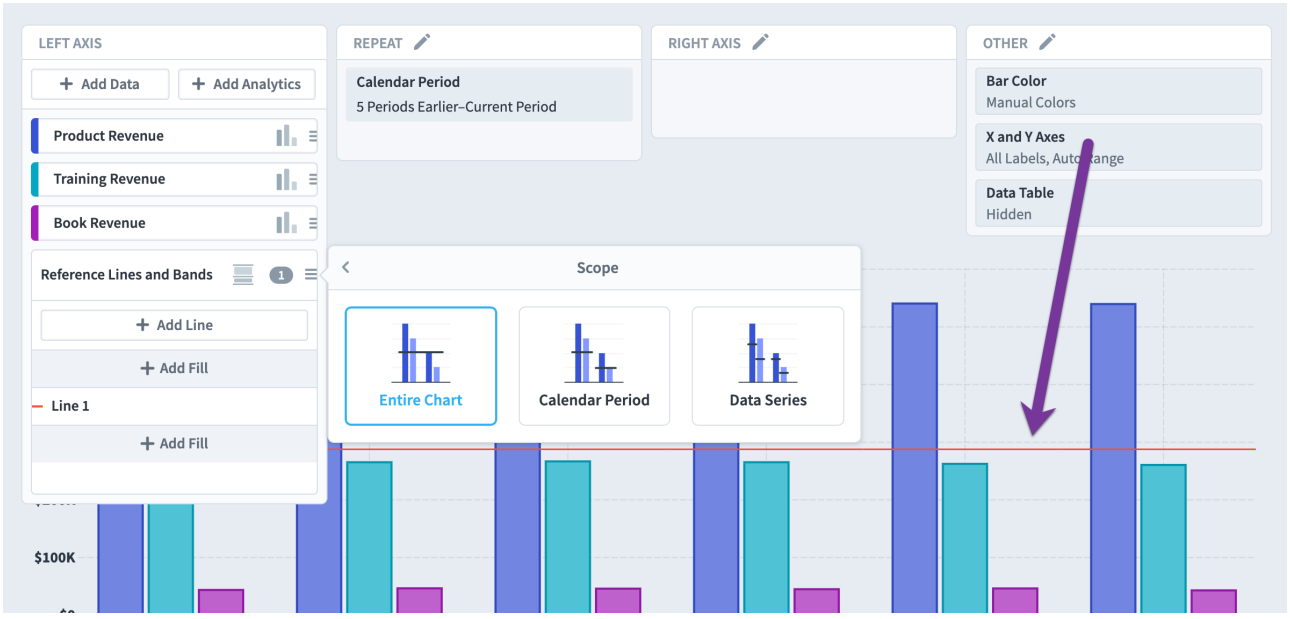
You can even turn off the display of the lines to just show the fill.



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

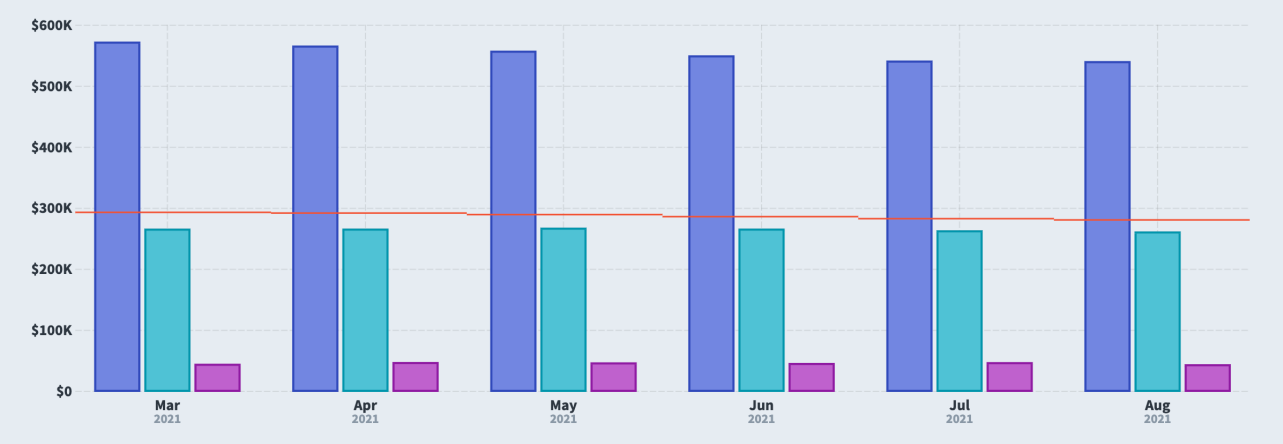


By default, the scope is the Entire Chart, so you'll see a single line across the entire chart.



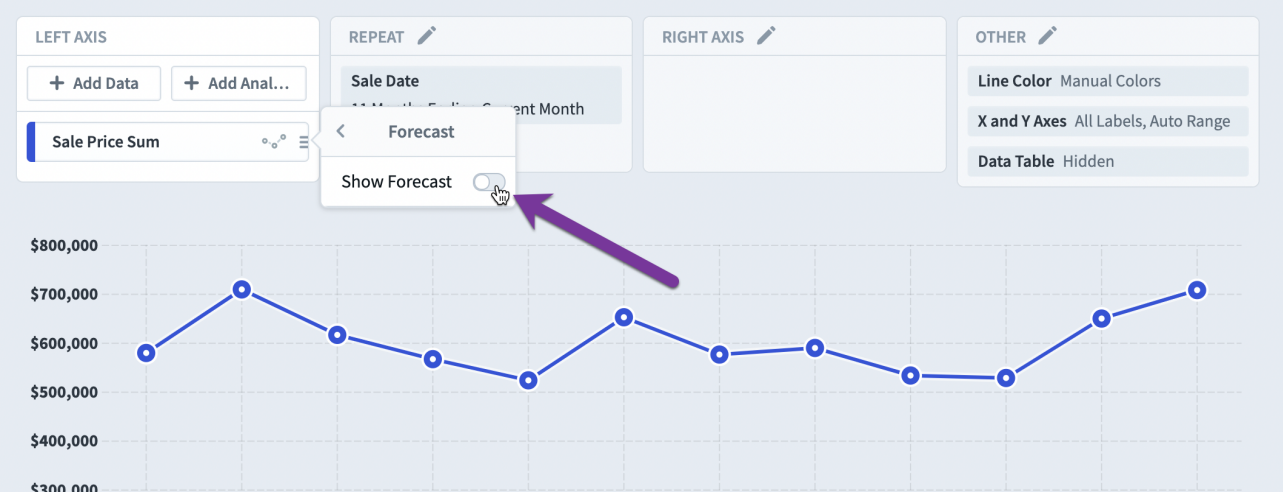
When we change the Scope to "Calendar Period", however, you'll see the chart is now only averaging the series inside of each calendar period, with a separate red

line for each. Notice how the red line jumps slightly from period to period.

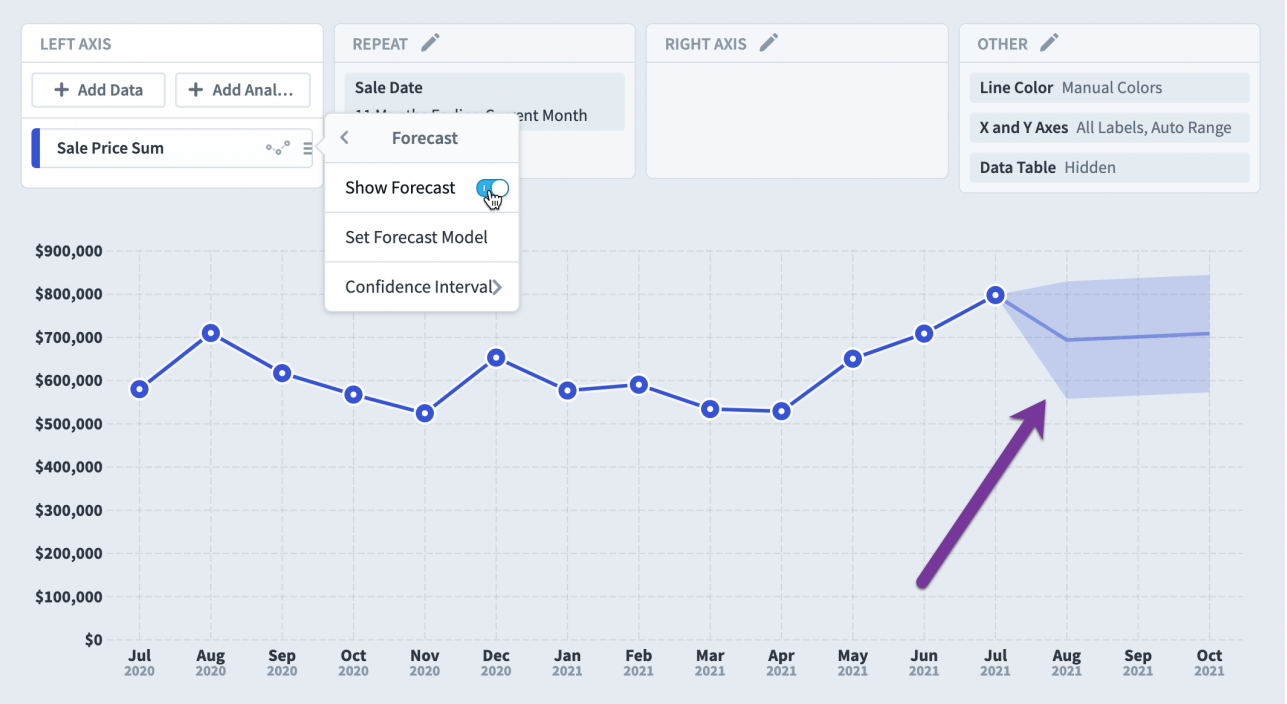


Forecasting

Line data series have a "Show Forecast" toggle.



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



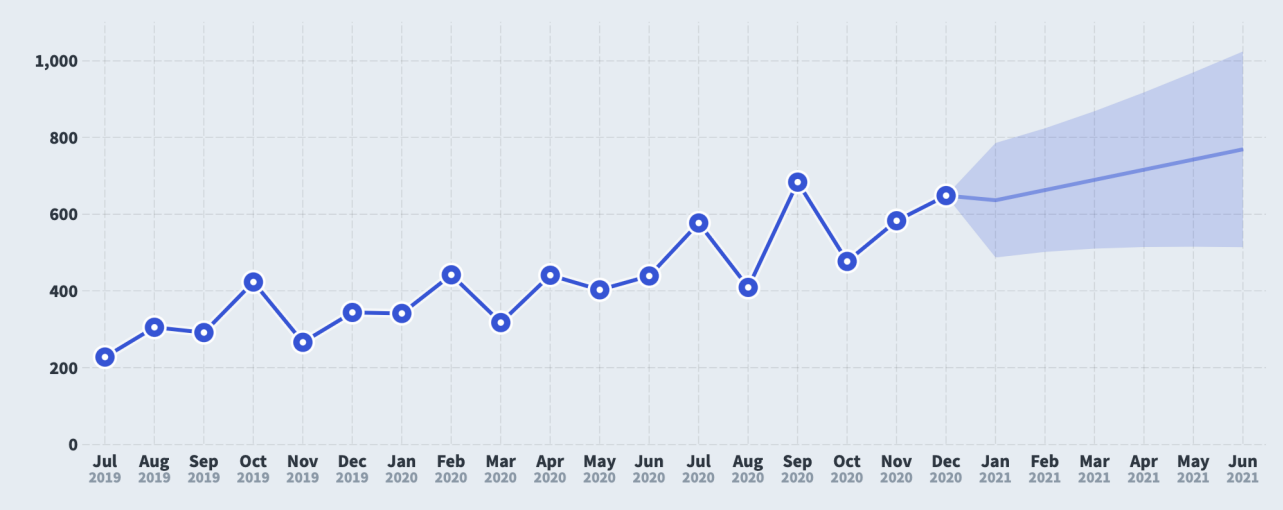
By default, the confidence interval is 95%, meaning that based on the data provided, the line has a 95% chance of being in that shaded region in the future. You can change this to 90%, 99%, or turn it off all-together.



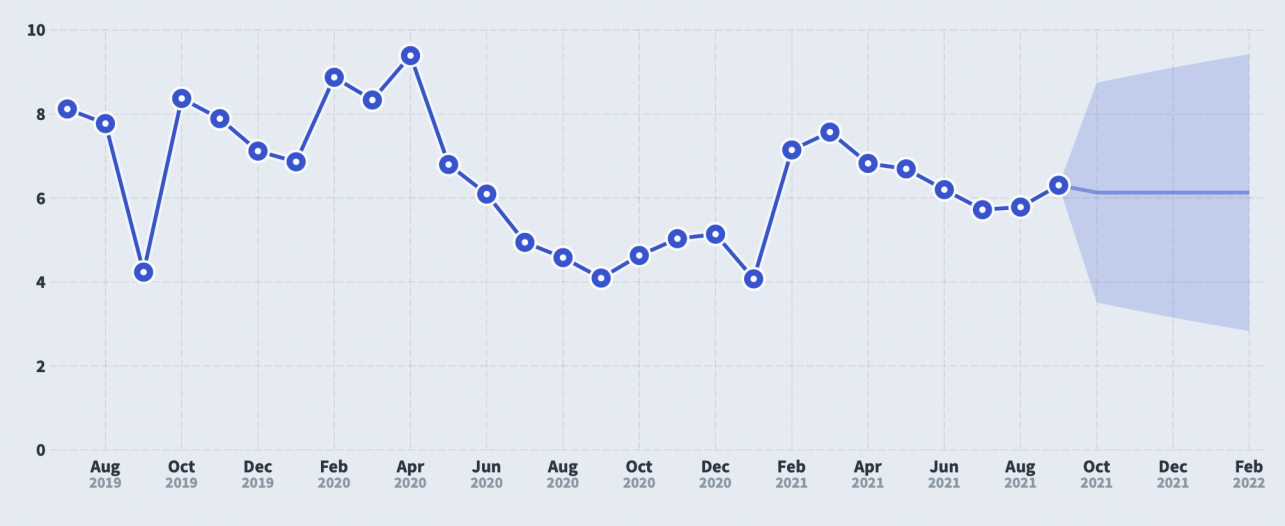
Here's an example of Spider Impact detecting a seasonal trend.



Here's a non-seasonal positive trend example.

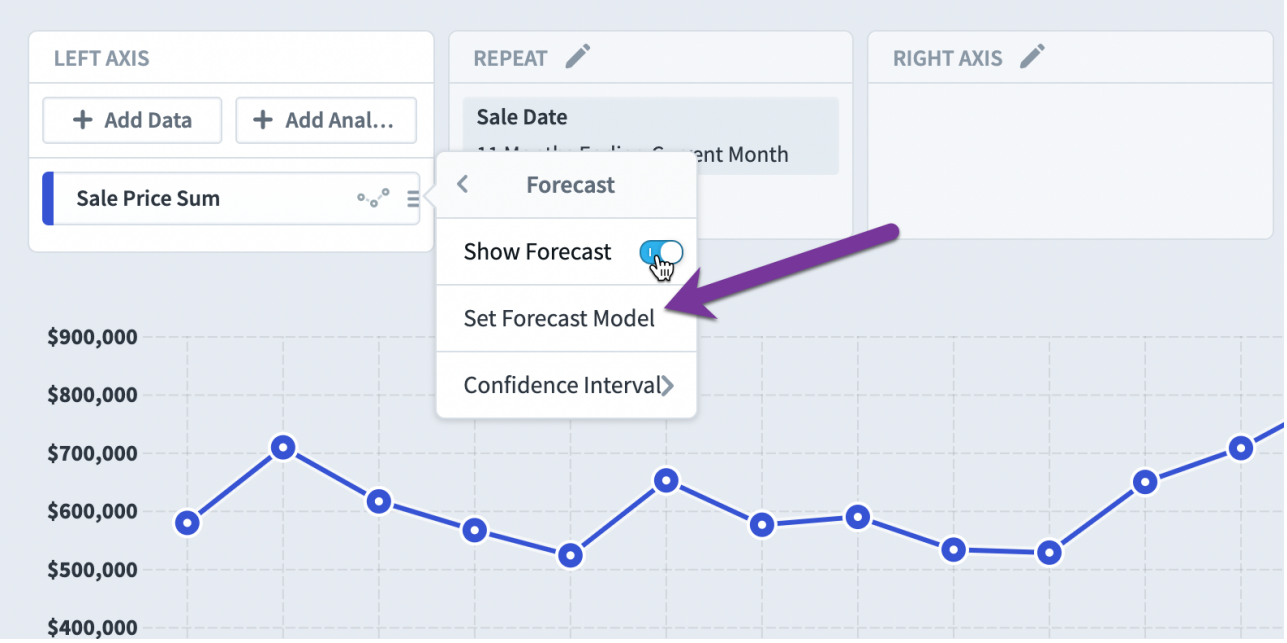


Here's an example of no trend.

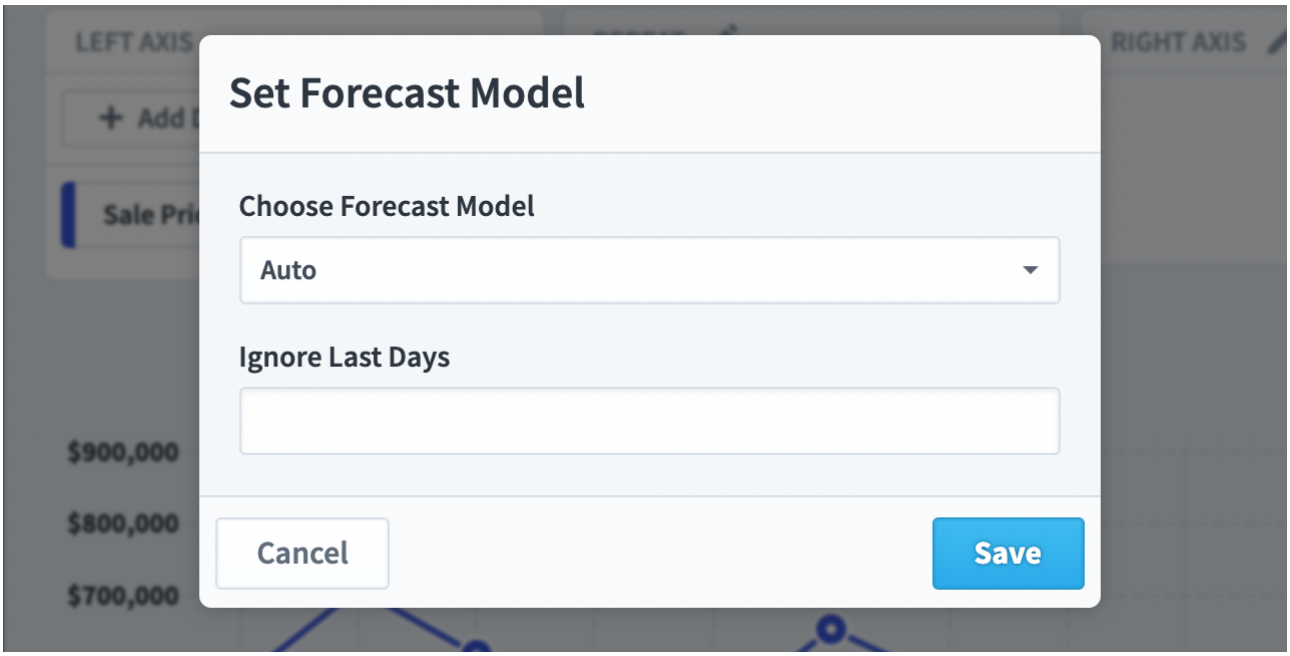


Forecast model

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

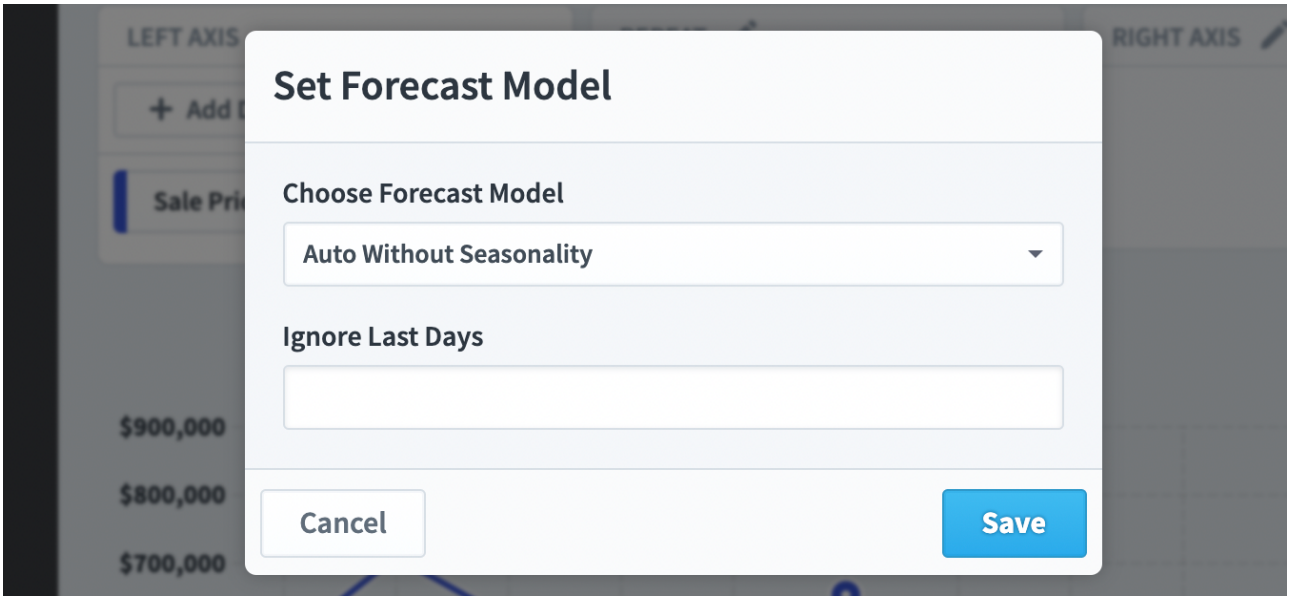


The default forecast model is Auto, and it's often all you'll need. You can also choose to ignore recent days, which is helpful for data sources where recent data is still in flux.

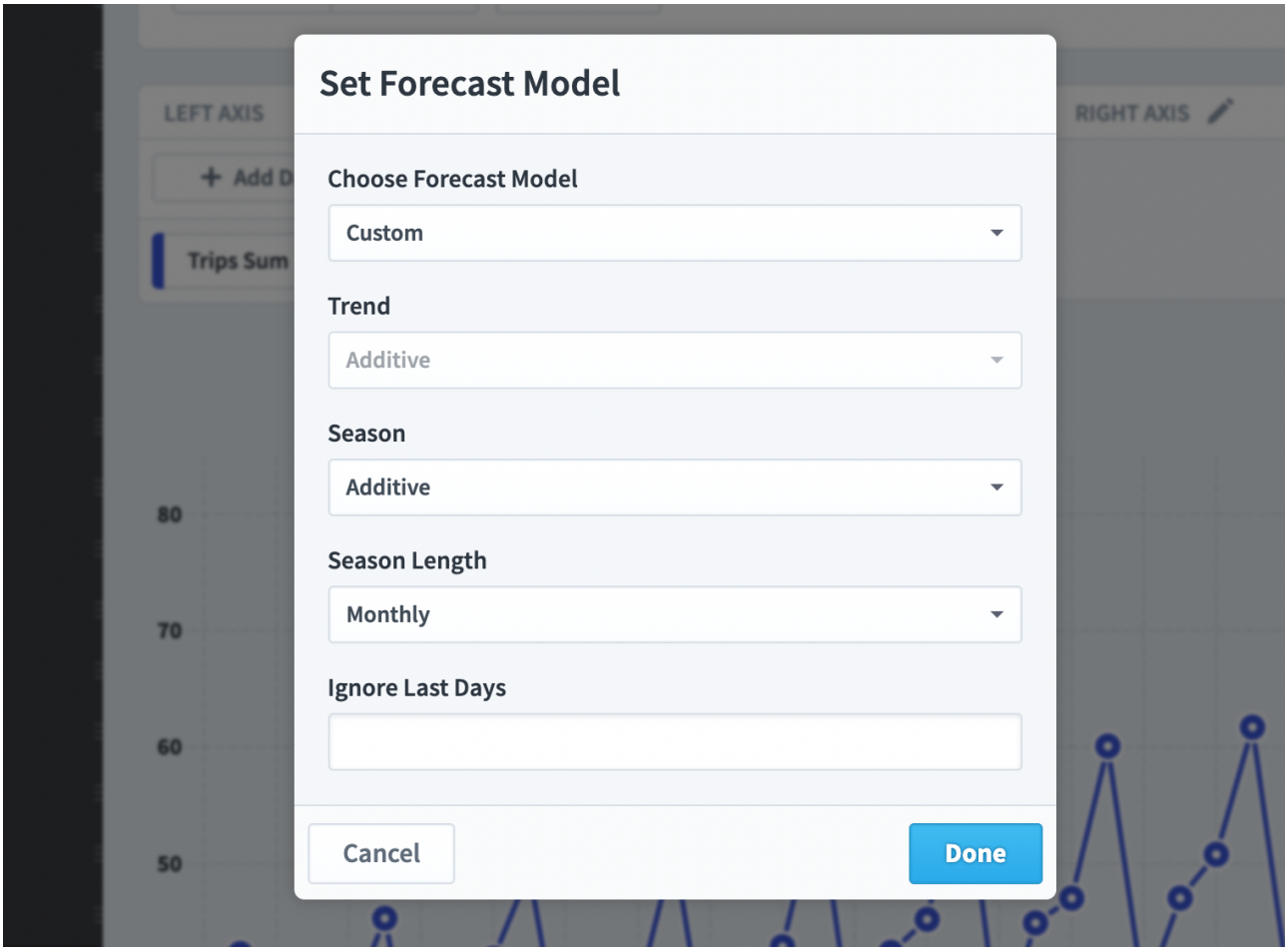


When the model is set to Auto, Spider Impact tries out several algorithms and chooses the best fit. If it doesn't detect a trend, it uses Simple Exponential Smoothing. If it detects a trend but no seasonality, it uses Holt's linear trend (also known as Double Exponential Smoothing). If it detects seasonality, 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 Spider Impact from detecting seasonality.

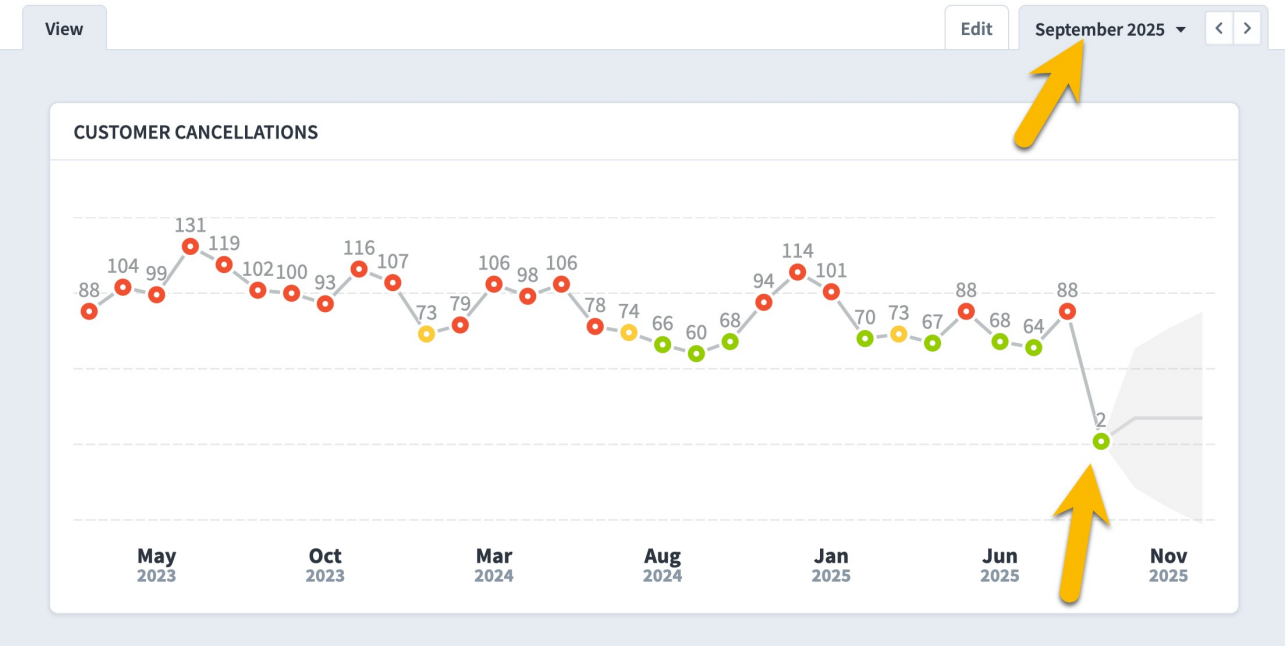


When you choose a Custom model, you can choose Ignore or Additive for trend and season. If you choose Additive for season, you can also choose if your seasonality is quarterly, yearly, etc.

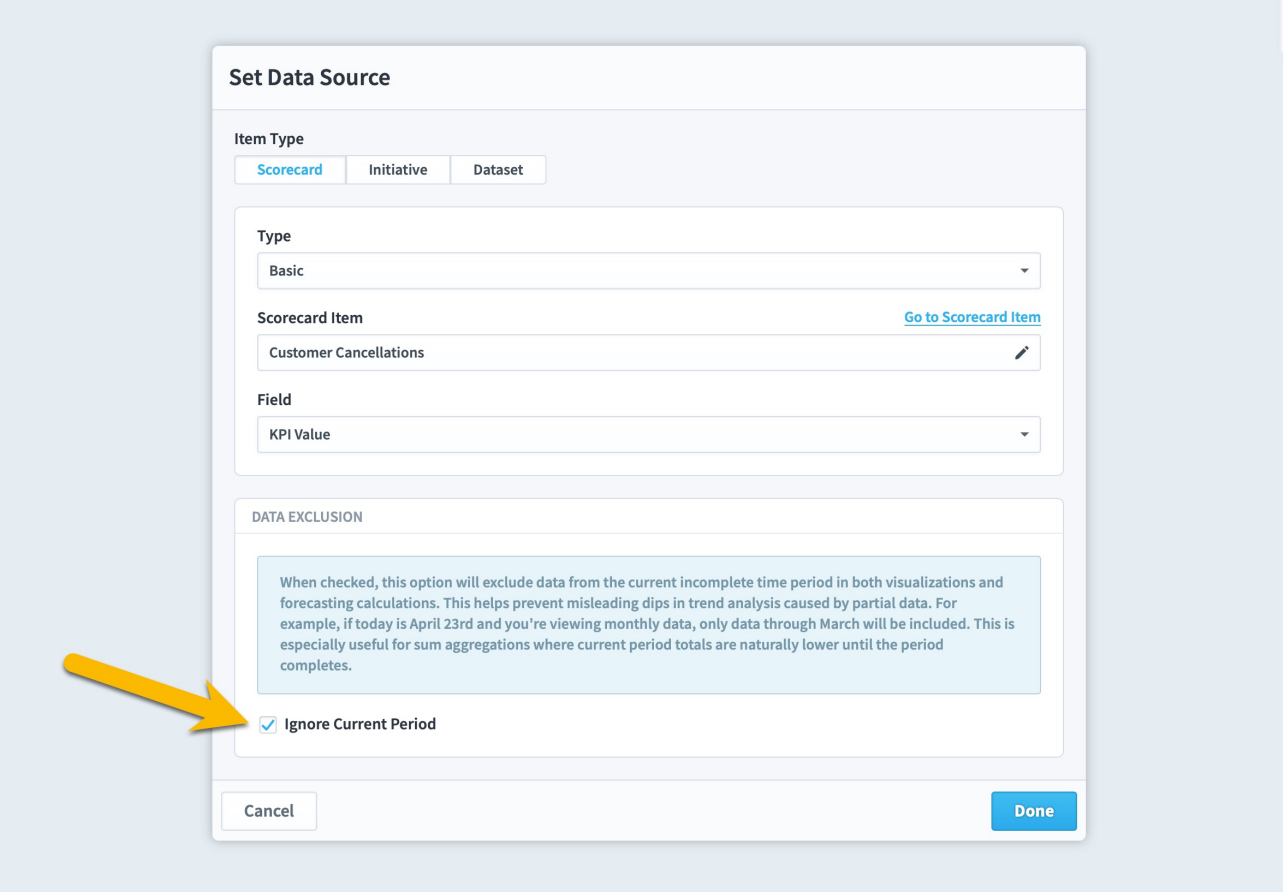


Ignore current period

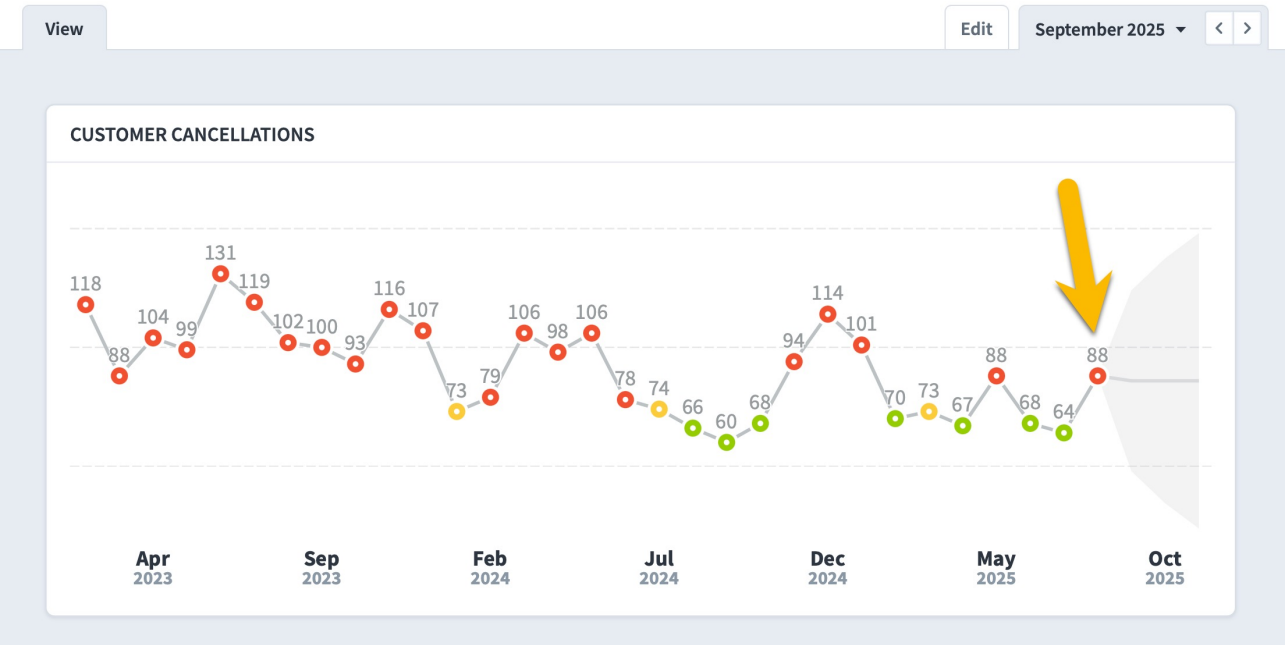
When showing data aggregated by sum, the current period often shows a misleading drop because it's not complete yet. For example, if you're looking at customer cancellations at the beginning of September, that month appears to have unusually low cancellations simply because most of the data is missing. This is particularly problematic when displaying projections.



The "Ignore data from current period" checkbox prevents this problem by excluding incomplete periods from your charts. You'll find this checkbox in the Data Exclusion panel when setting up chart data sources that use calendar periods.



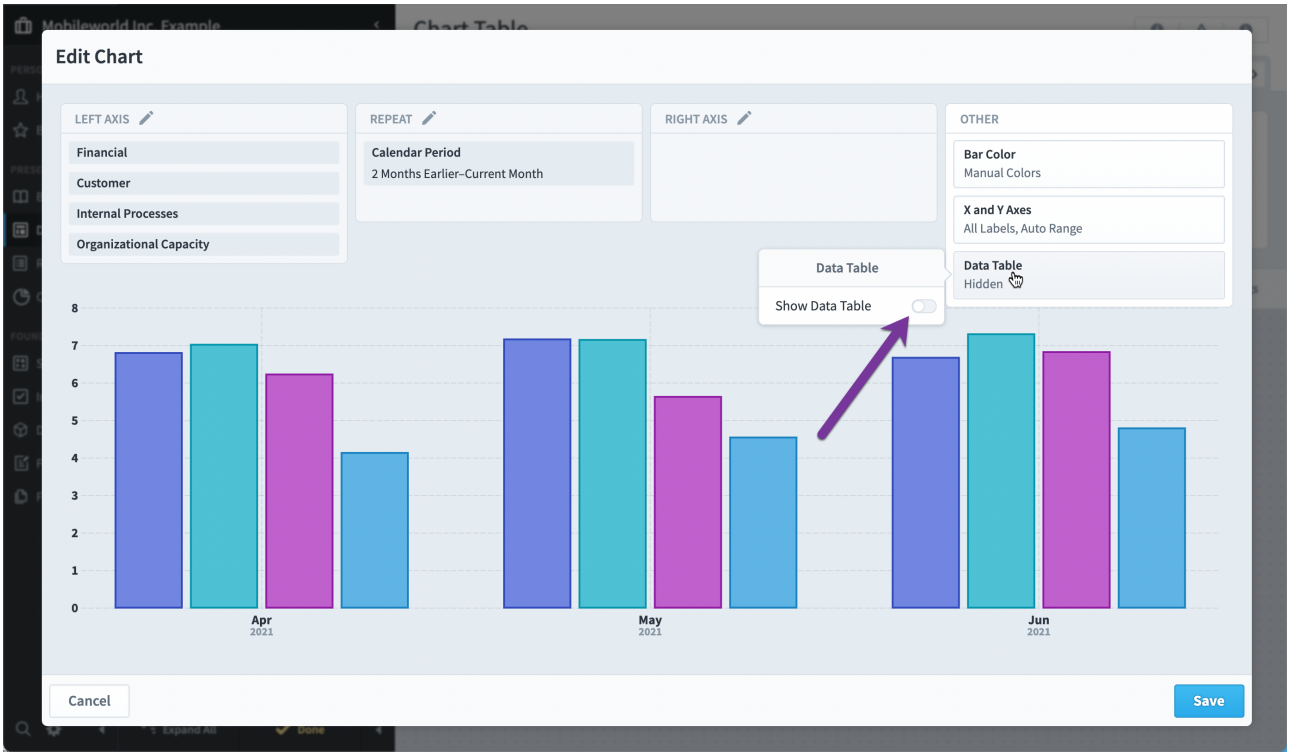
When enabled, the incomplete current period disappears from the chart entirely, preventing artificial drops. The setting also affects forecast calculations and trend lines, which now use only complete periods for their analysis.



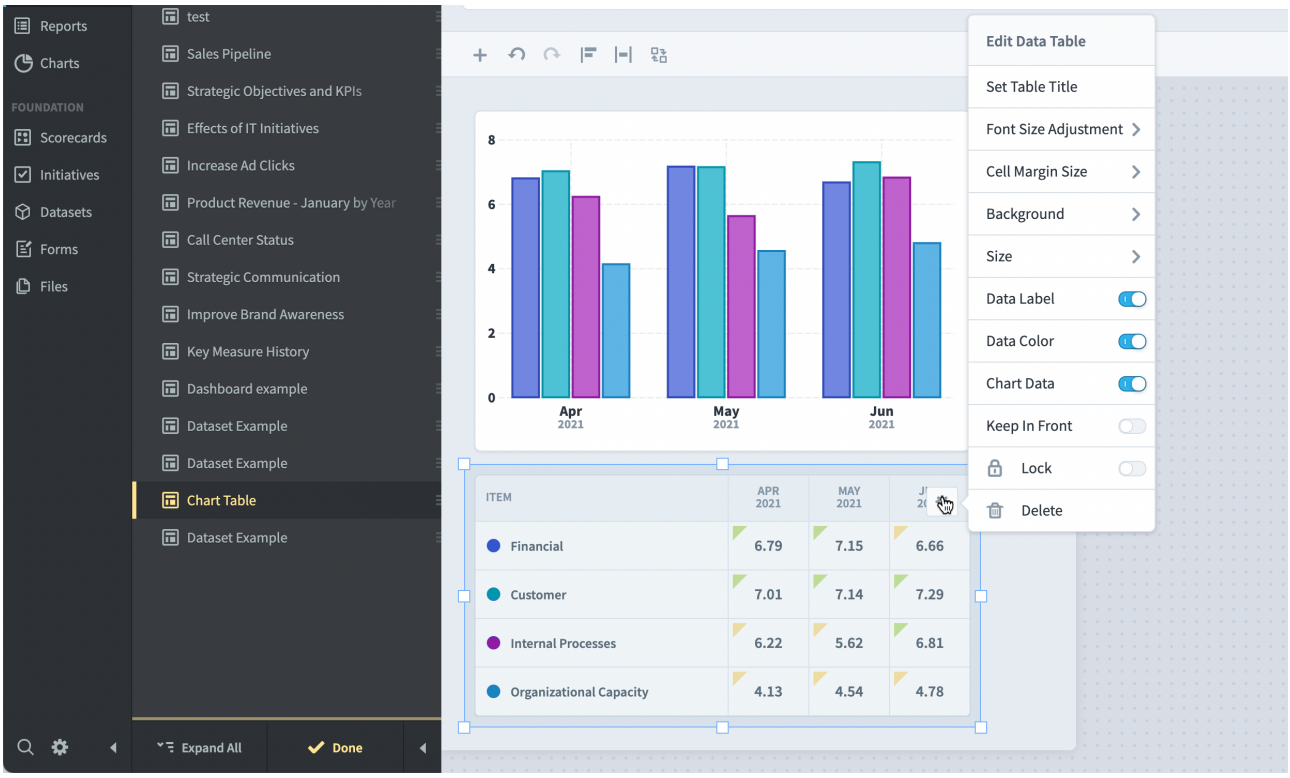
For Sum aggregations, the checkbox defaults to checked since partial totals are misleading. For averages and other calculations that don't accumulate over time, it defaults to unchecked since those values are usually accurate even for partial periods.

Chart data table

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



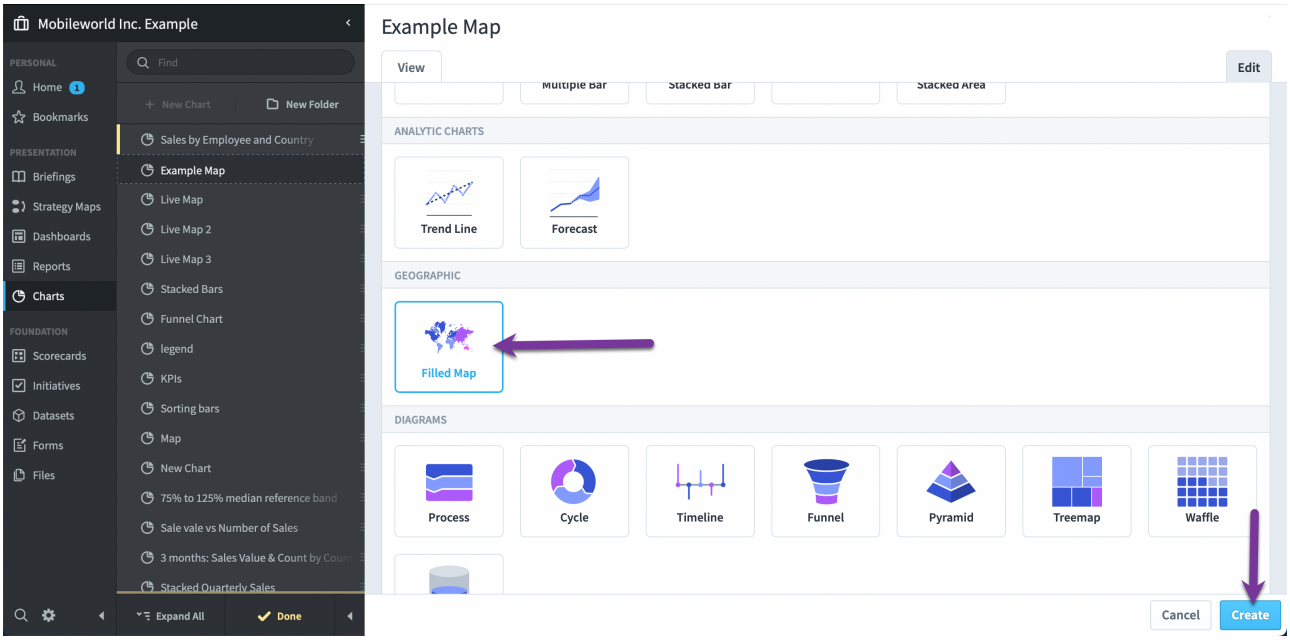
On dashboards, the data table is separately configurable with options to adjust the font and margin sizes.



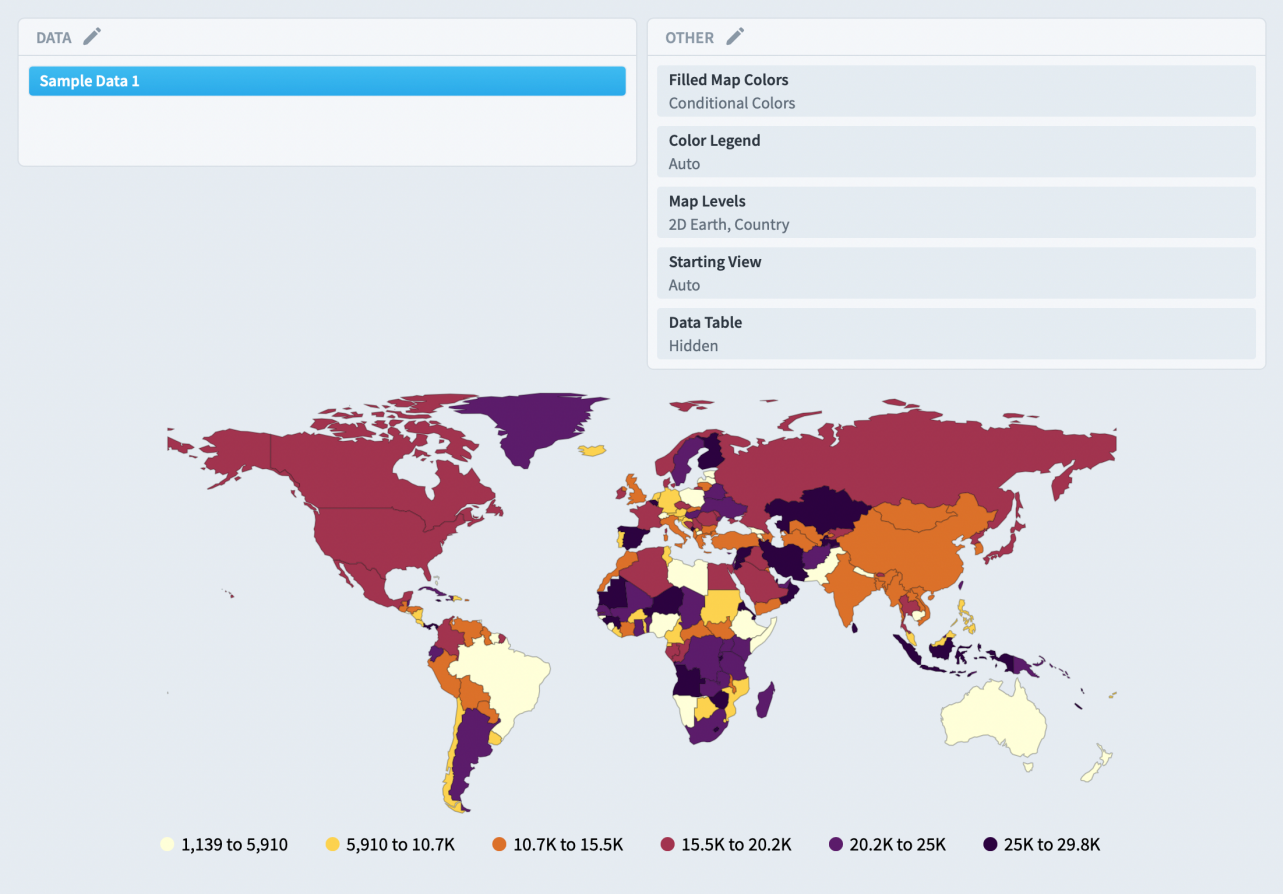
Geographic Maps

Creating a map

You can create interactive geographic maps in the Charts section that visualize your geographic dataset data.

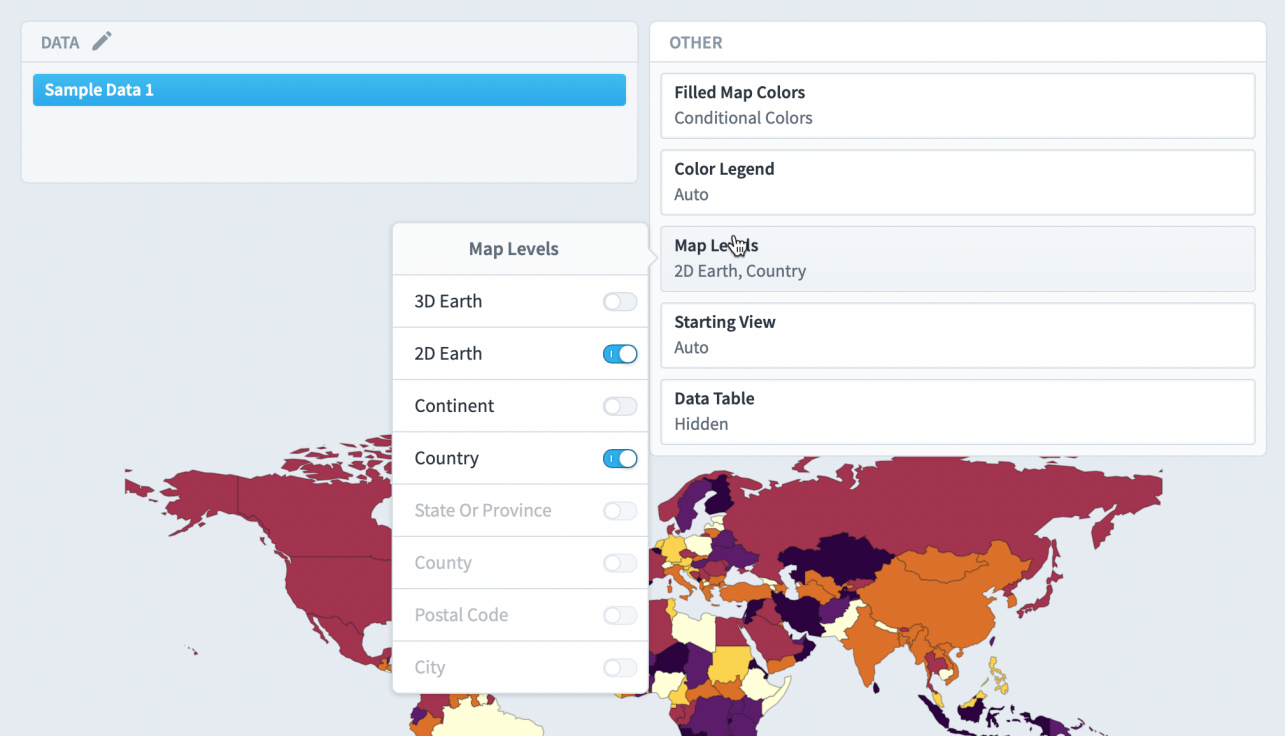


When you choose “Filled Map” for your new chart type, Spider Impact creates a map with sample data. This sample data is the same as every other chart type, and it allows you to explore the functionality without needing to hook it up to data first.

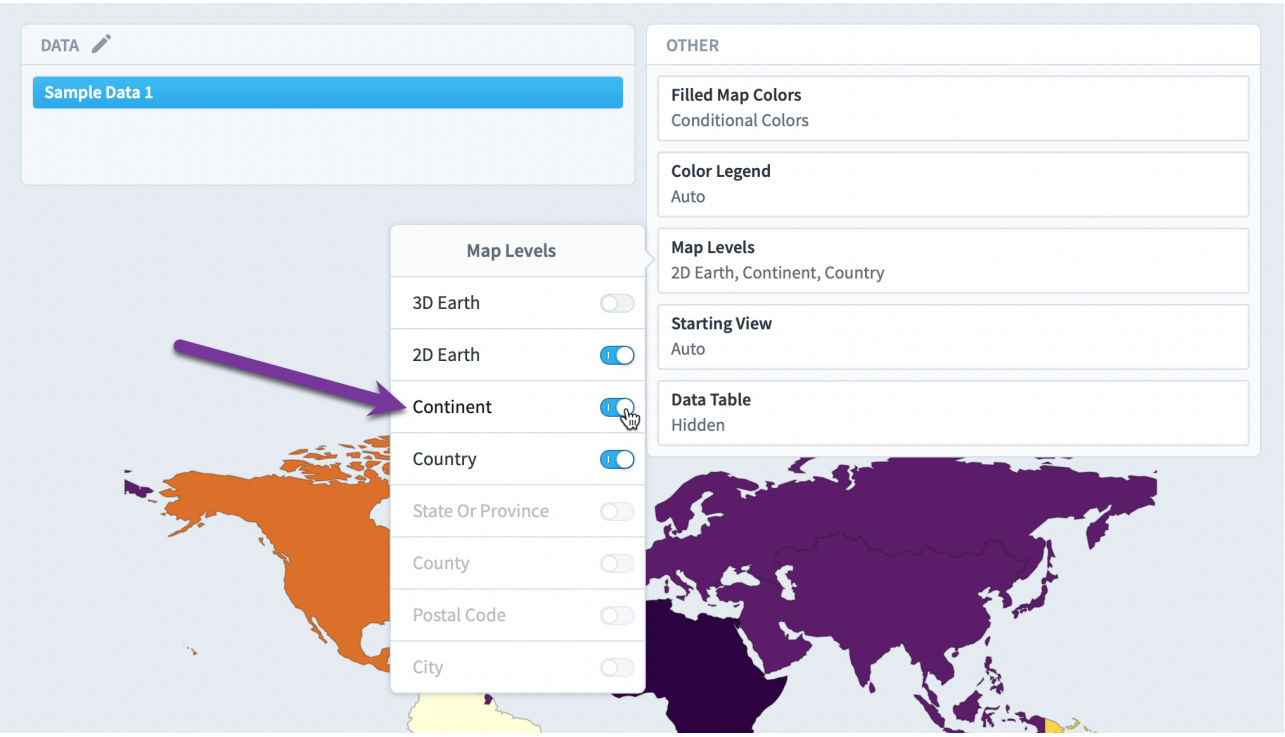


Map levels

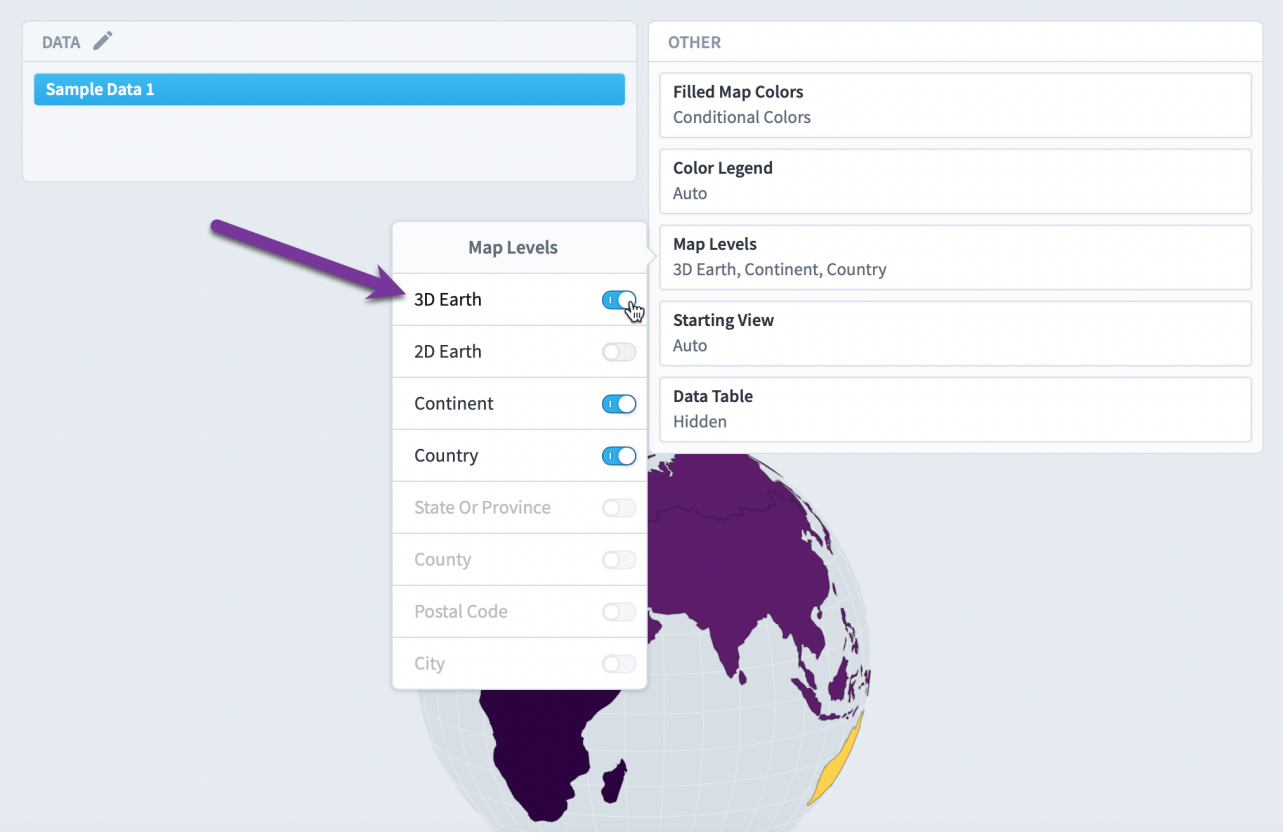
Maps show data from datasets that have geographic fields. The sample data shown by default is made-up numbers for every country. When you click "Map Levels" you can choose which levels of the geographic hierarchy you want to show on your map. Here we're seeing 2D Earth broken into countries because those are the two levels that are turned on.



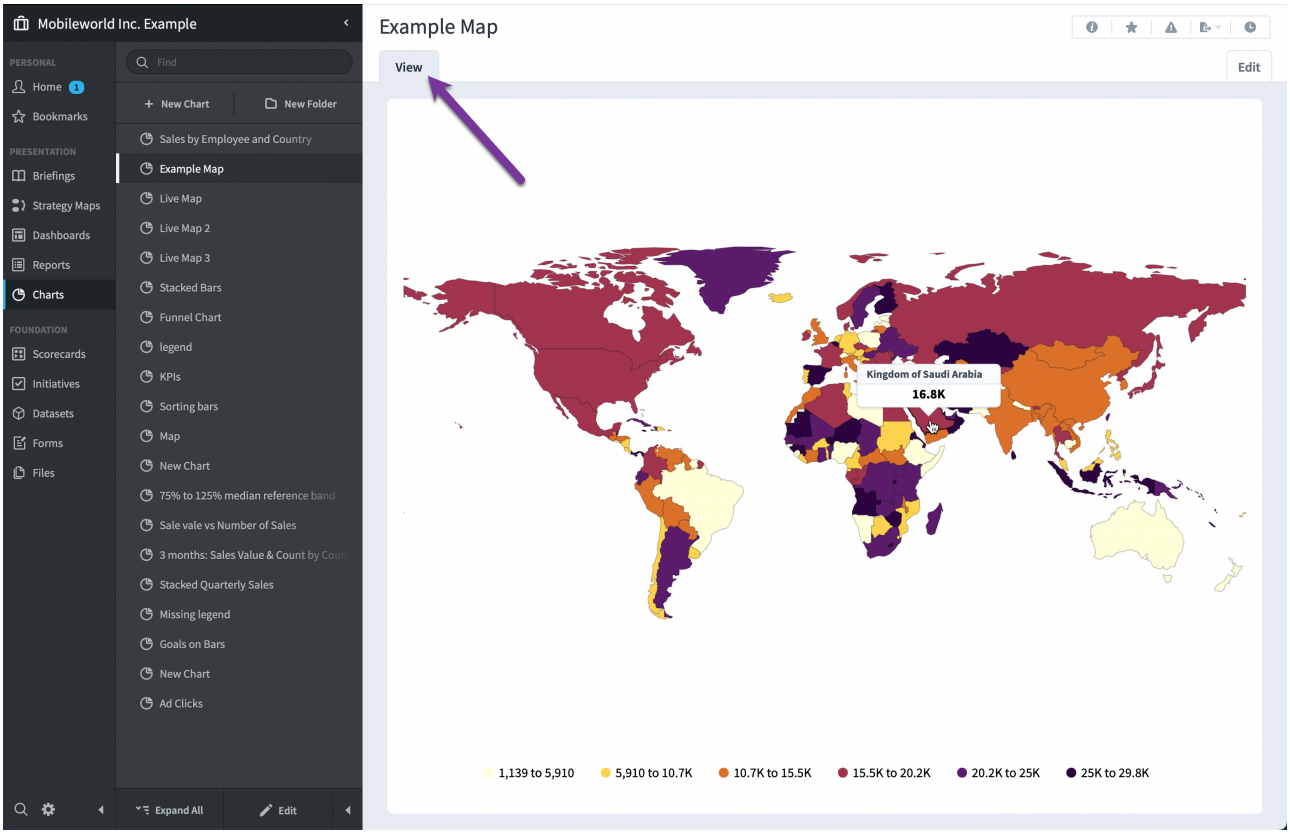
This is what it looks like when you turn on the Continent level. Our starting view is now the 2D Earth view broken into continents because those are the two highest levels that are turned on.



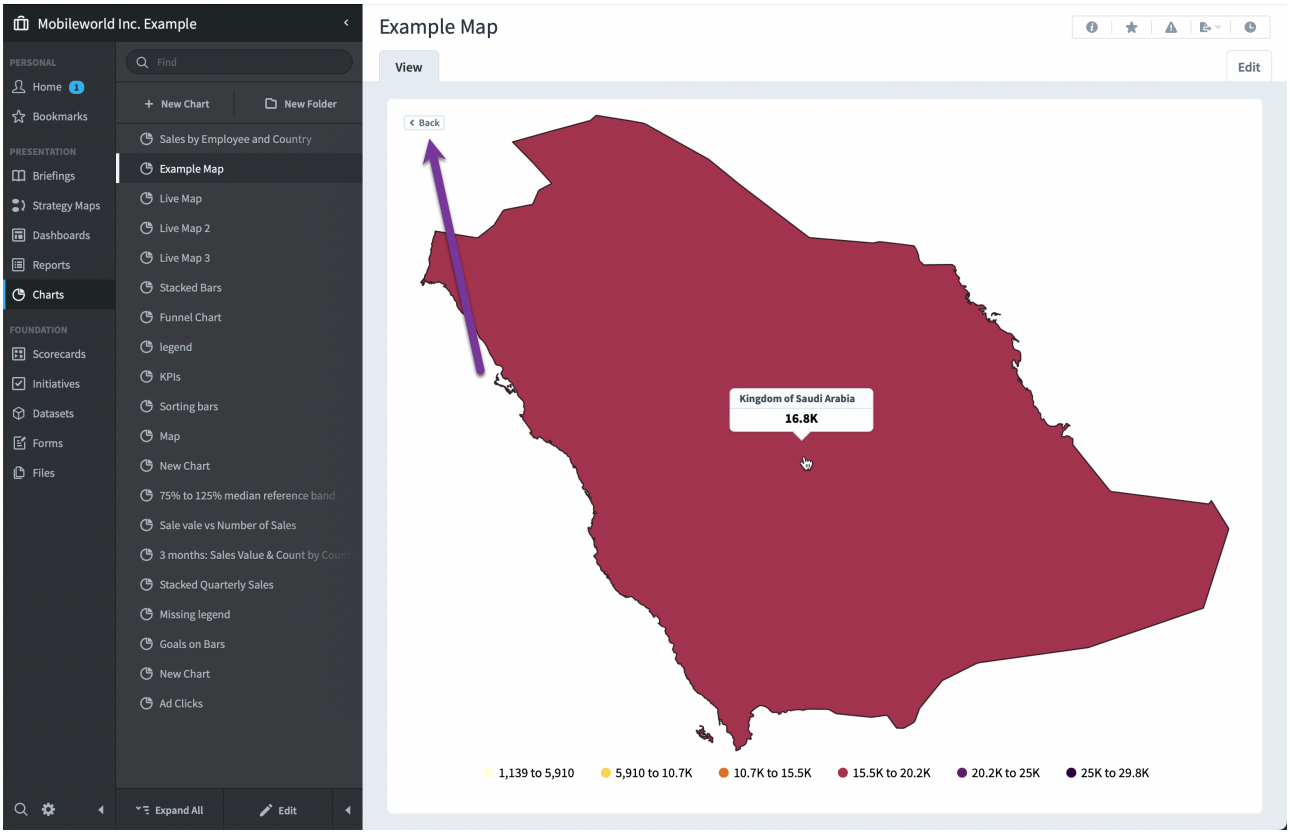
Next, we'll turn on the 3D Earth level. You can't have both 2D and 3D Earth, so the 2D Earth level automatically turns off. We can now see a 3D globe that slowly rotates on its own until you interact with it.



When you go to the Charts View tab, the map automatically resizes to fit available space. You can hover the mouse over a region to see its value in a tooltip.

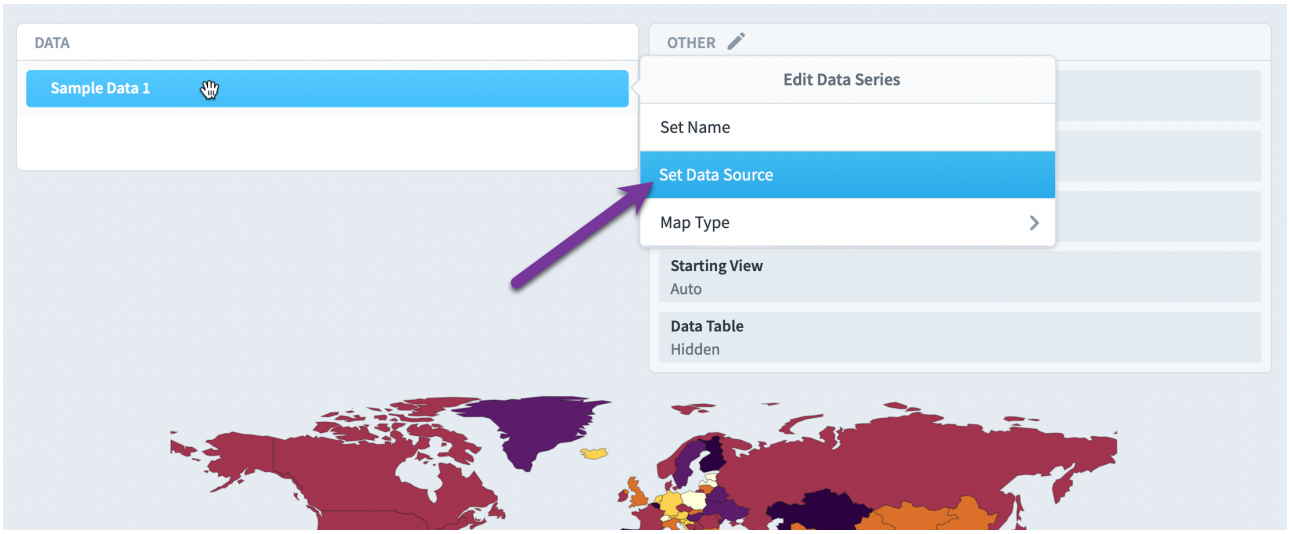


When you click on a region, you'll see a zooming animation and then that region in more detail. This Country level is the lowest map level we have enabled, so we can't drill down any further. You can click the Back button to zoom out to the world map.

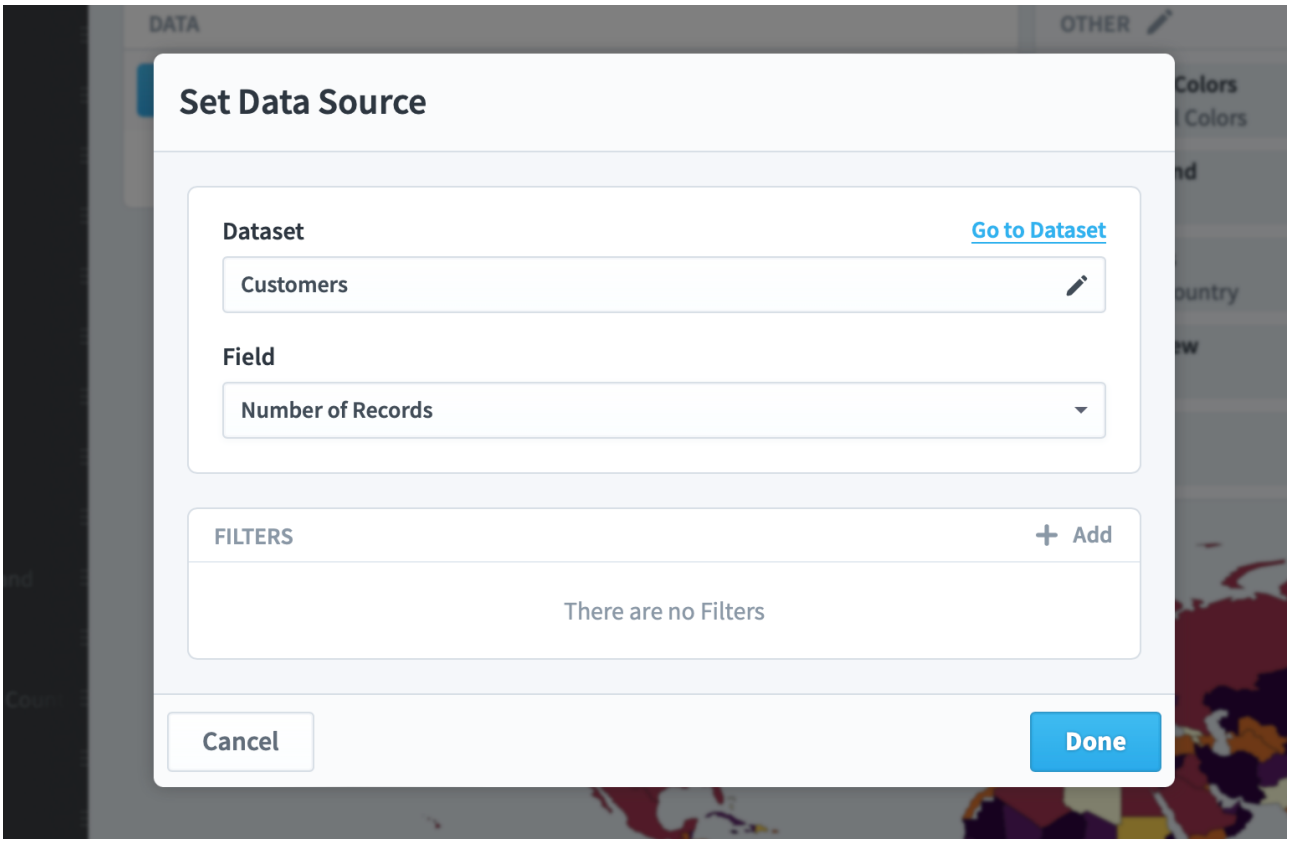


Map data

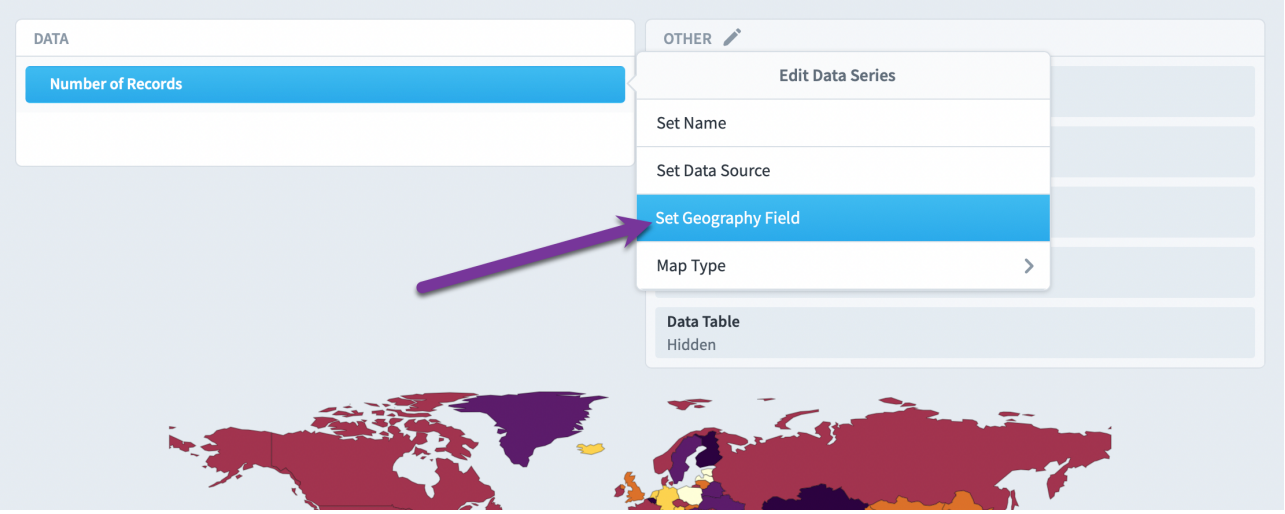
To show your real data on a map you need to first choose Set Data Source in the Data menu.



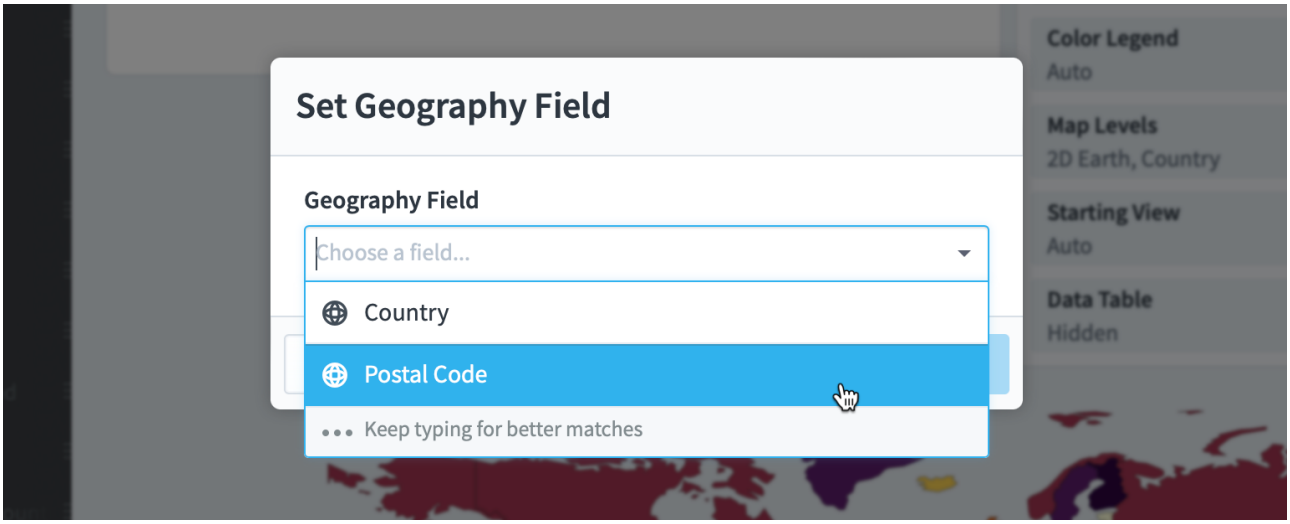
The data we're choosing here is what numbers and colors you want to show up for each map region. In this example we're going to choose the Customers dataset and "Number of Records" for the field. That means our chart numbers and colors are going to be the number of customers in each region.



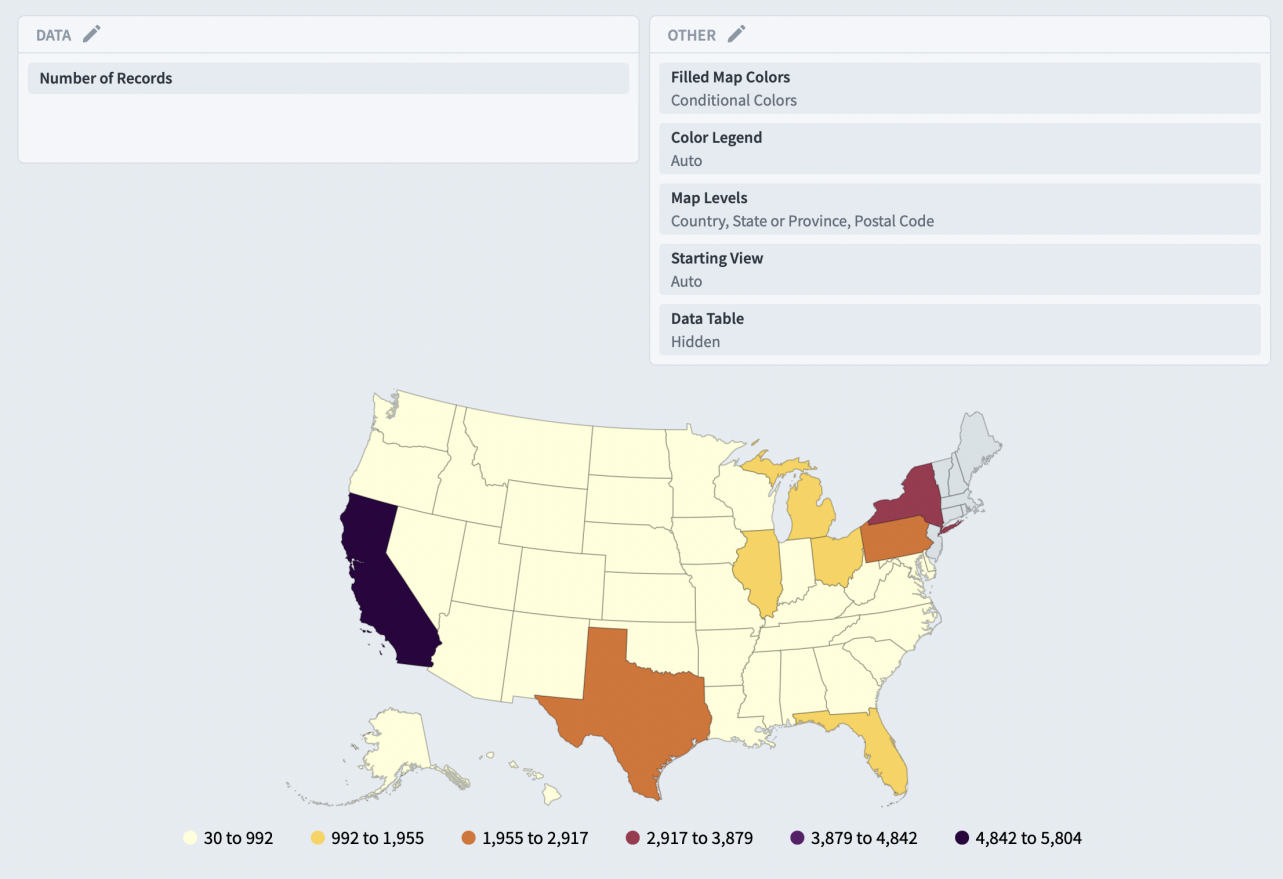
Next we need to choose a geography field in the Customers dataset.



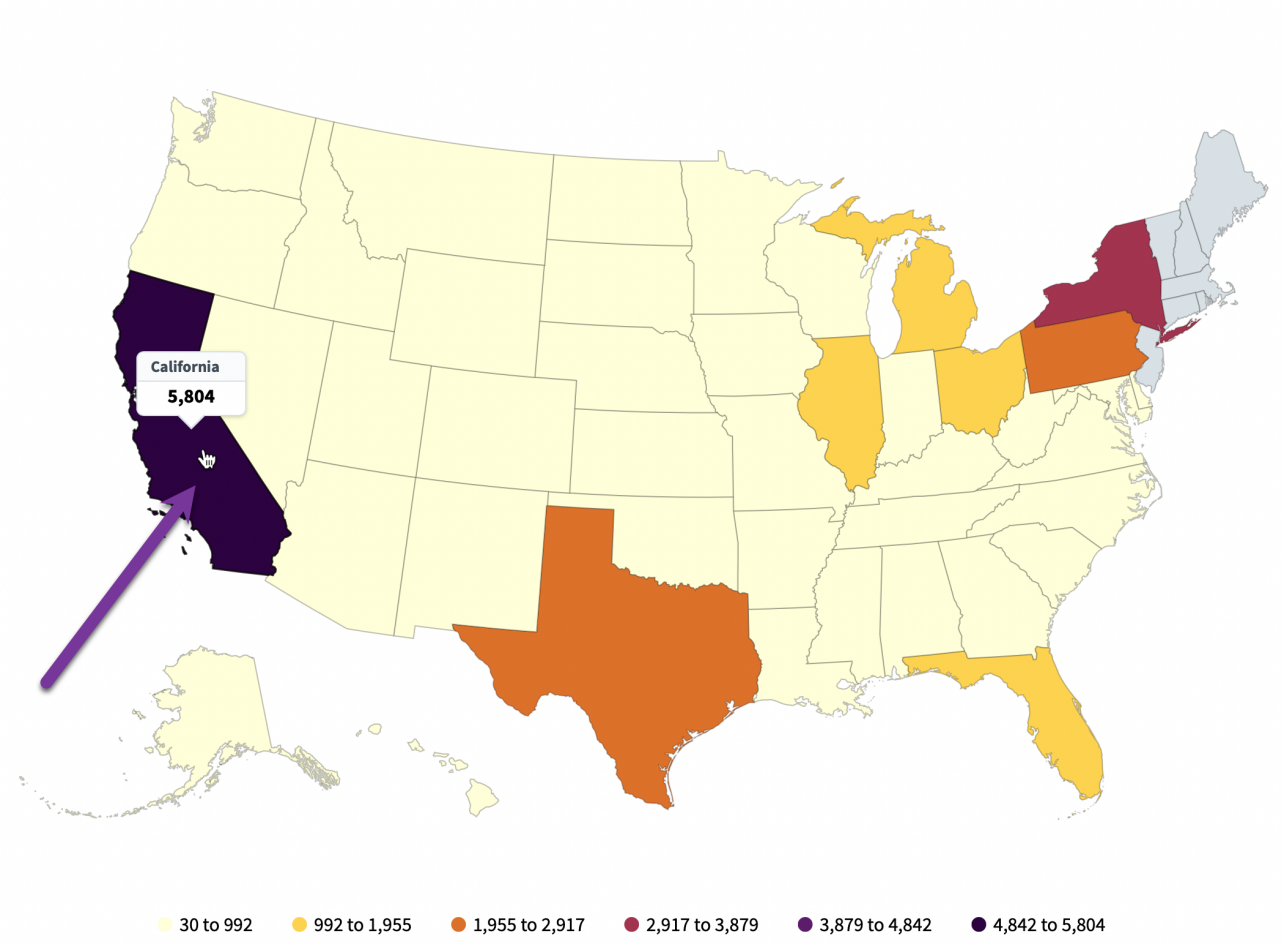
In this example we'll choose the Postal Code field.



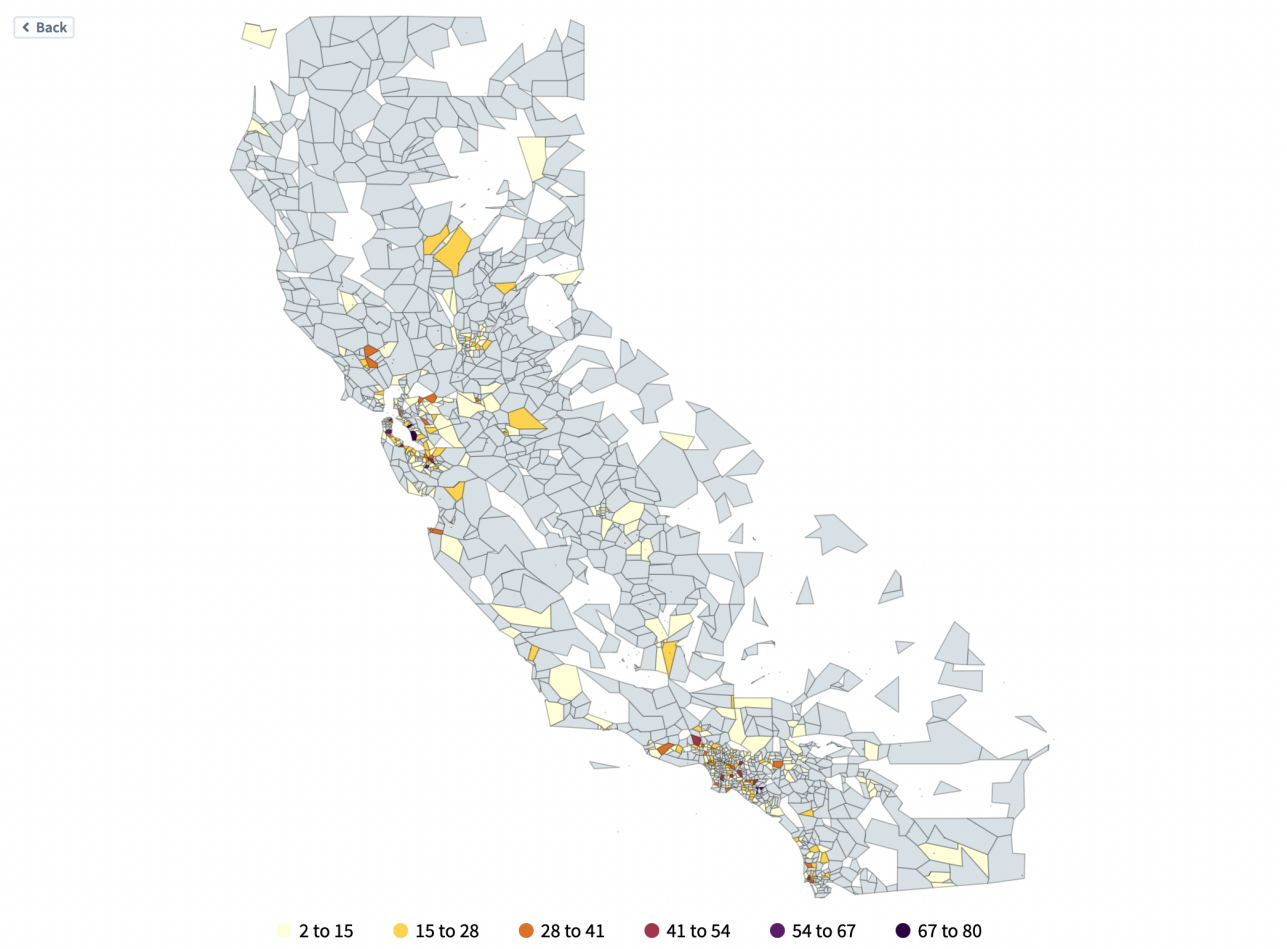
The map is now colored by the number of customers in each region.



When we change to the Charts View tab and hover over California, we can see that we have 5,804 customers there.

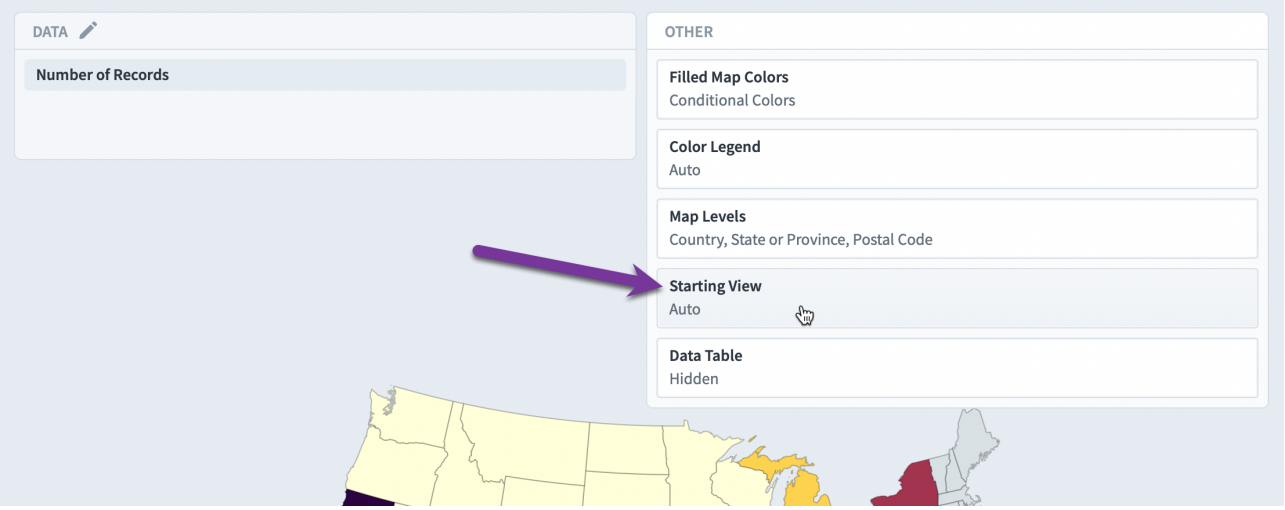


Clicking on California zooms to the state level and now colors the postal codes. This example shows how postal codes don't always completely cover a state, especially in rural areas.

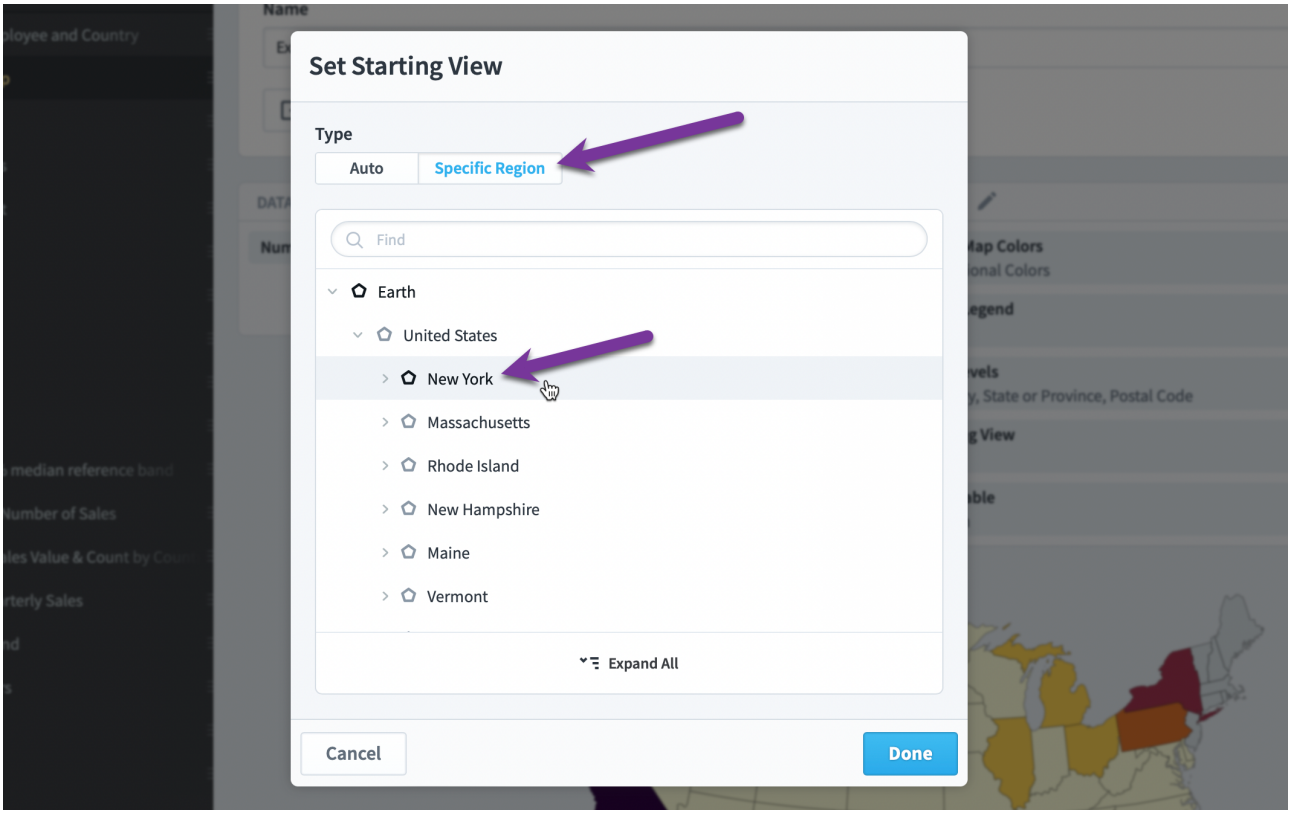


Starting view

The Starting View for maps is Auto by default. That means it starts showing the lowest map region that contains all of the data. In the customers example above, the view automatically started at the United States because all of the records in the Customers dataset were in the US.

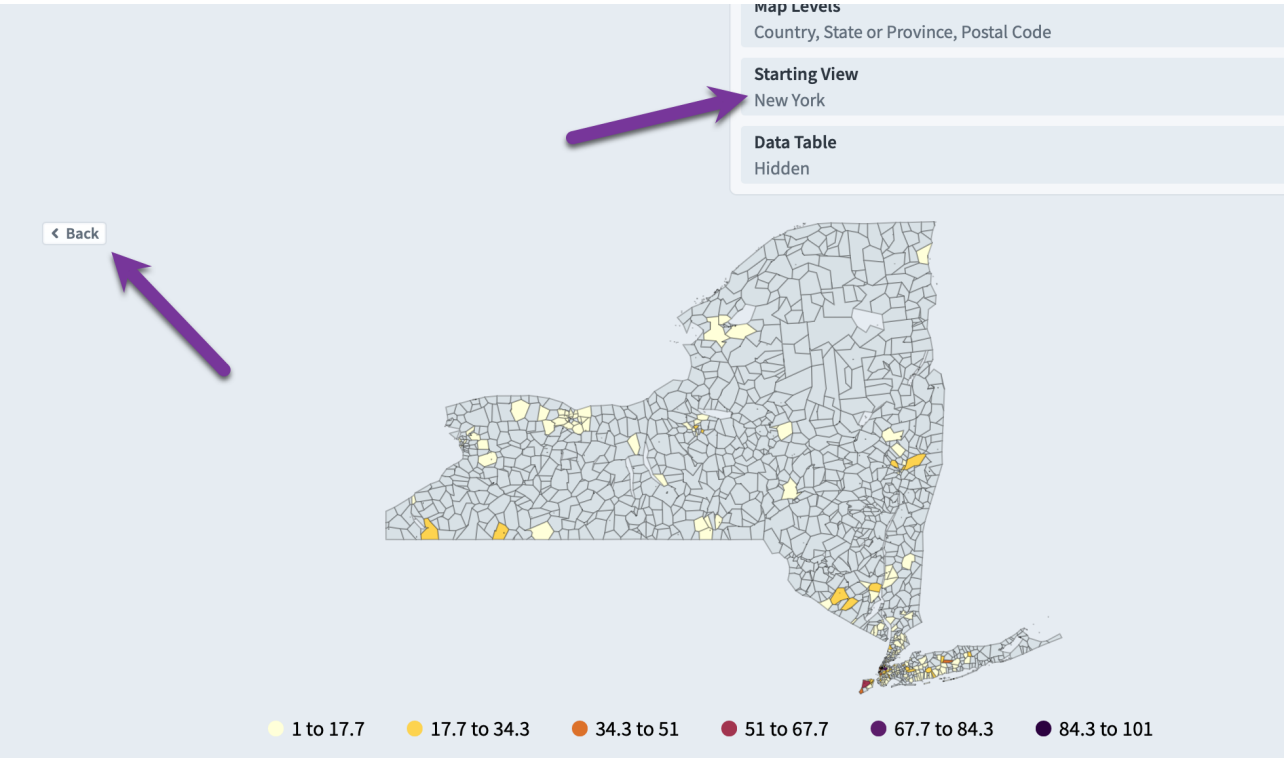


You can choose a specific region to start on, though. Here we're choosing the US state of New York as the starting view.



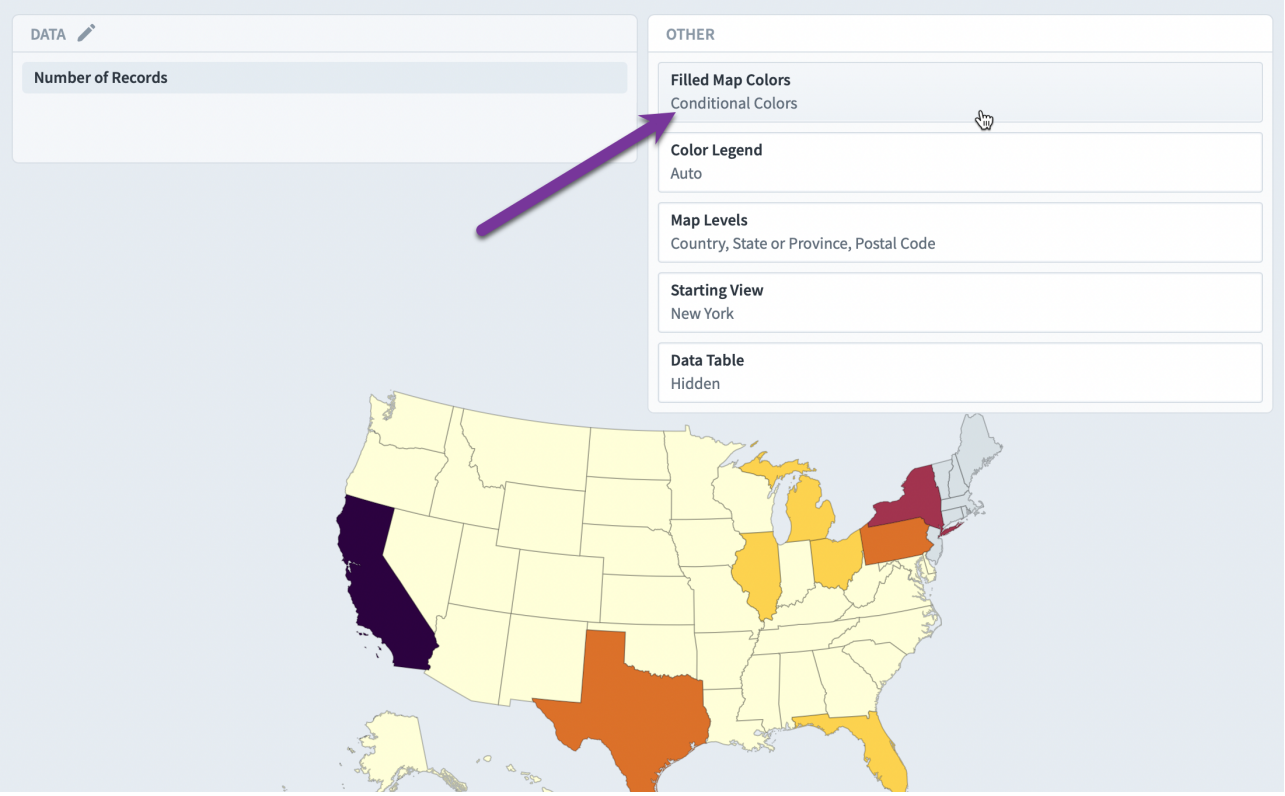
Now when we first view the chart we'll see all of the postal codes in New York. This map also has the Country level turned on, however, so there's a Back button to

take us out to the country level.

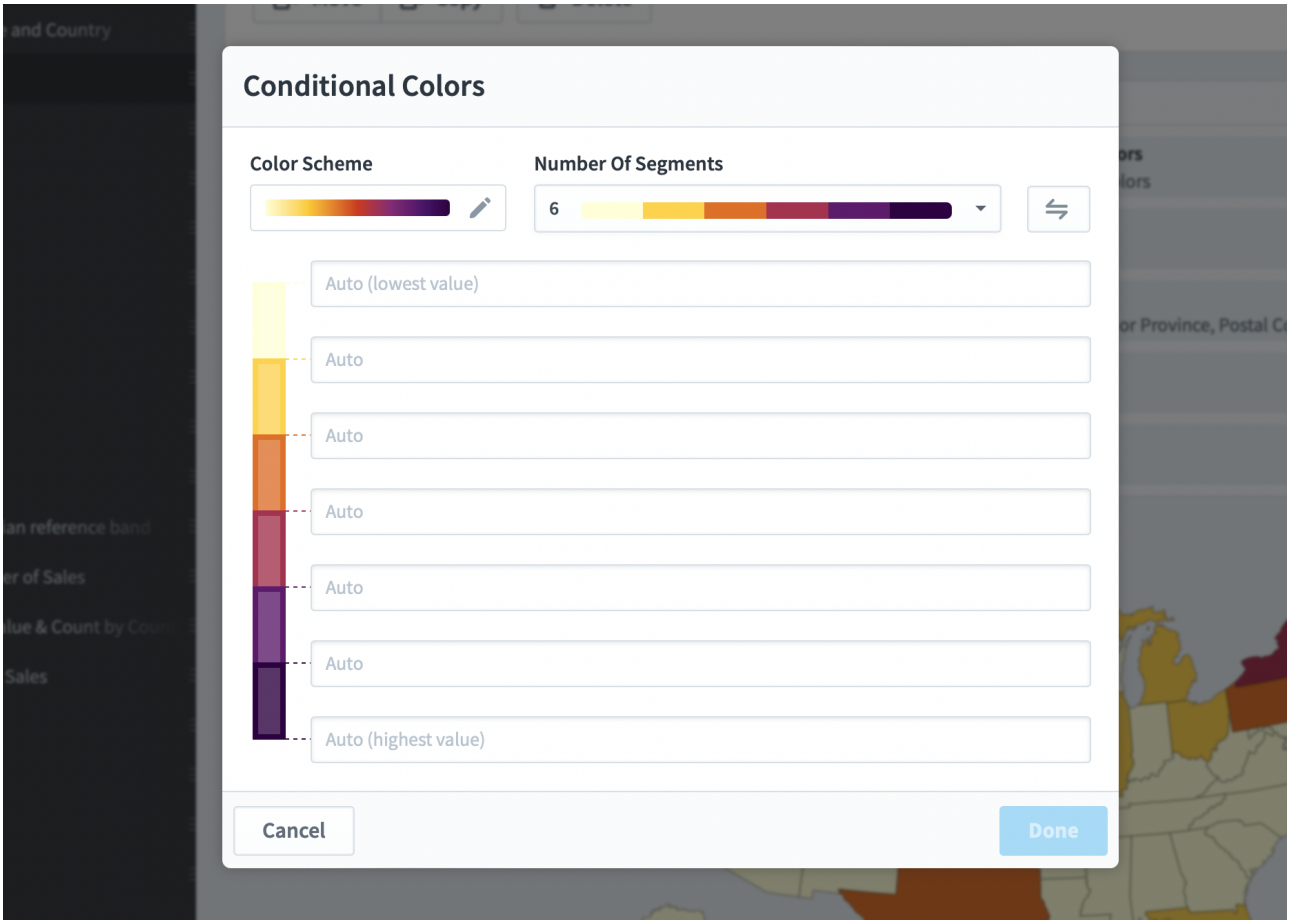


Map colors

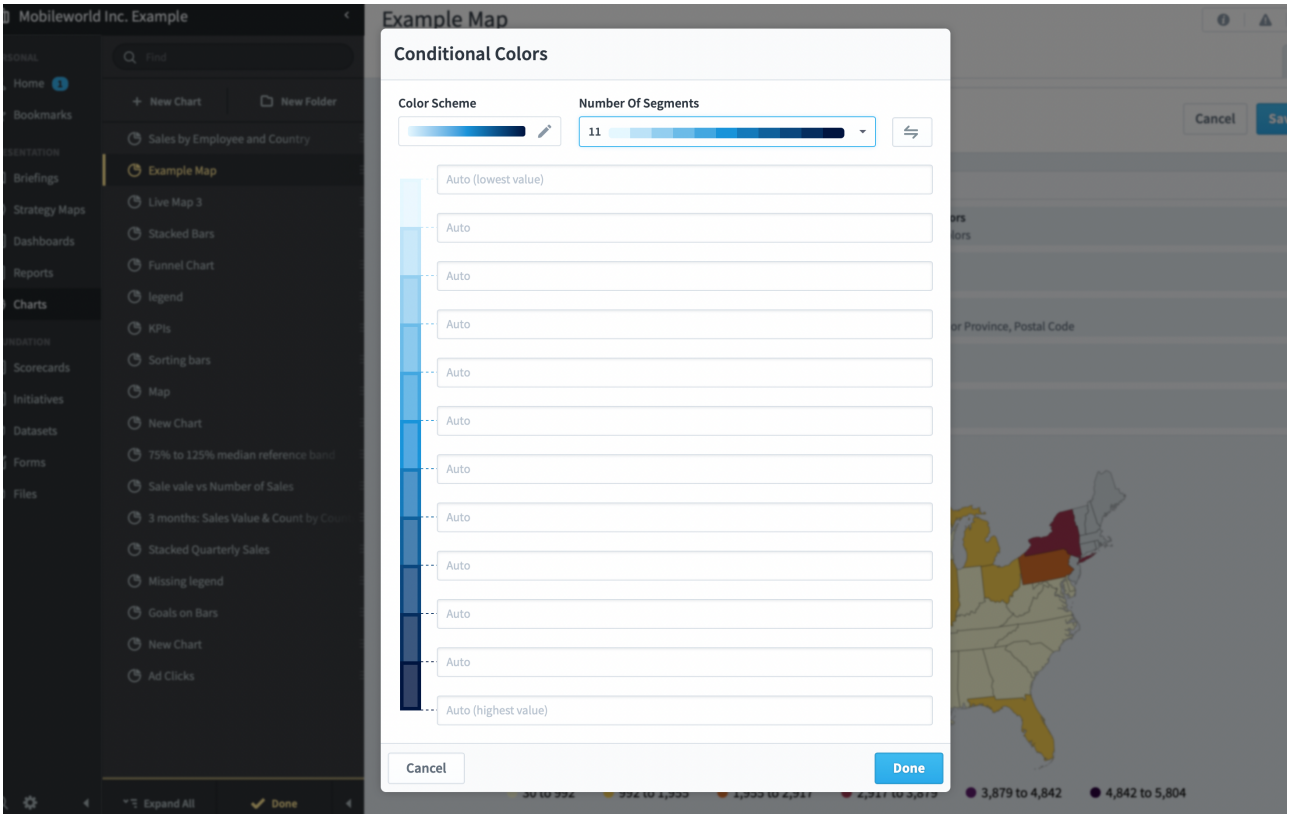
You can change the map's colors by choosing "Filled Map Colors" in the Other menu.



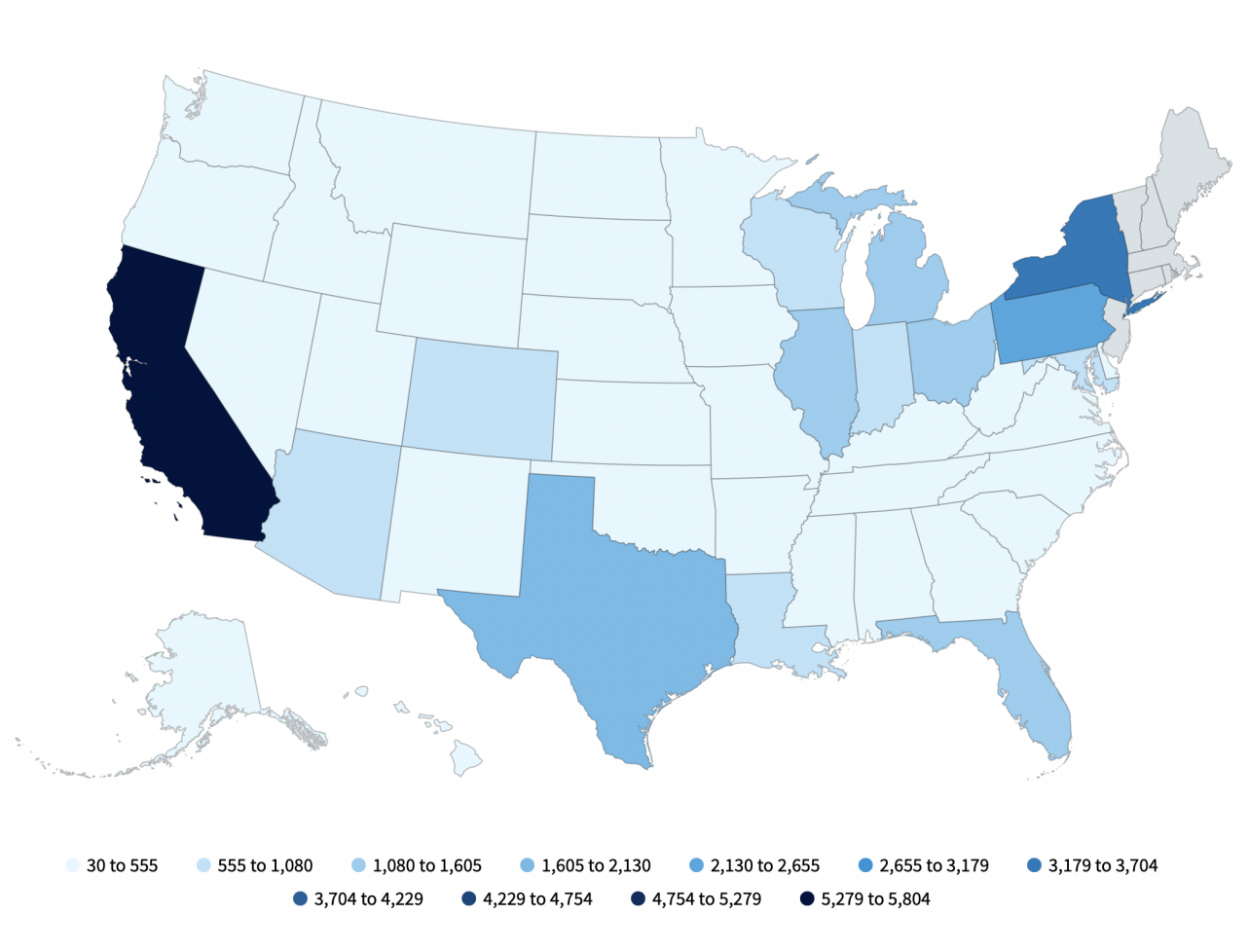
By default maps use a light yellow to dark purple gradient broken into 6 segments.



You can change the color scheme and number of segments, however, as well as manually set the thresholds between color segments.

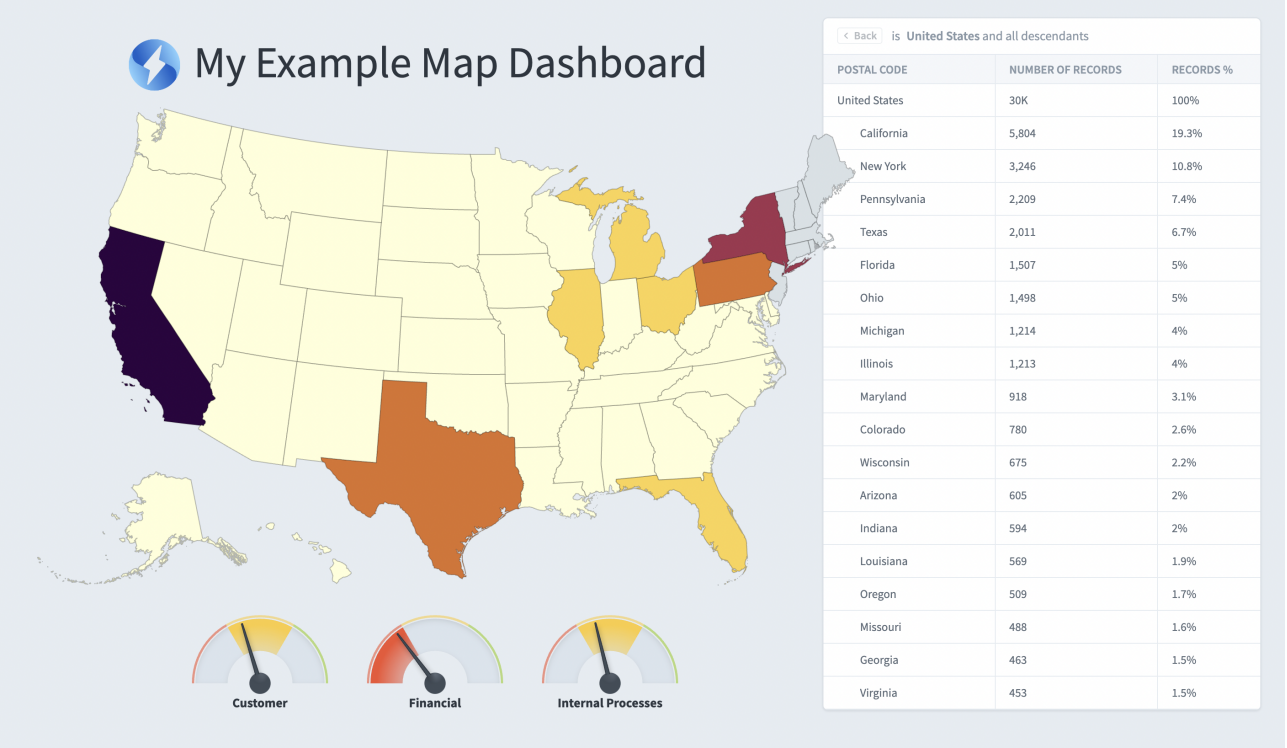


Here we're showing the number of customers in an 11-segment blue color scheme.

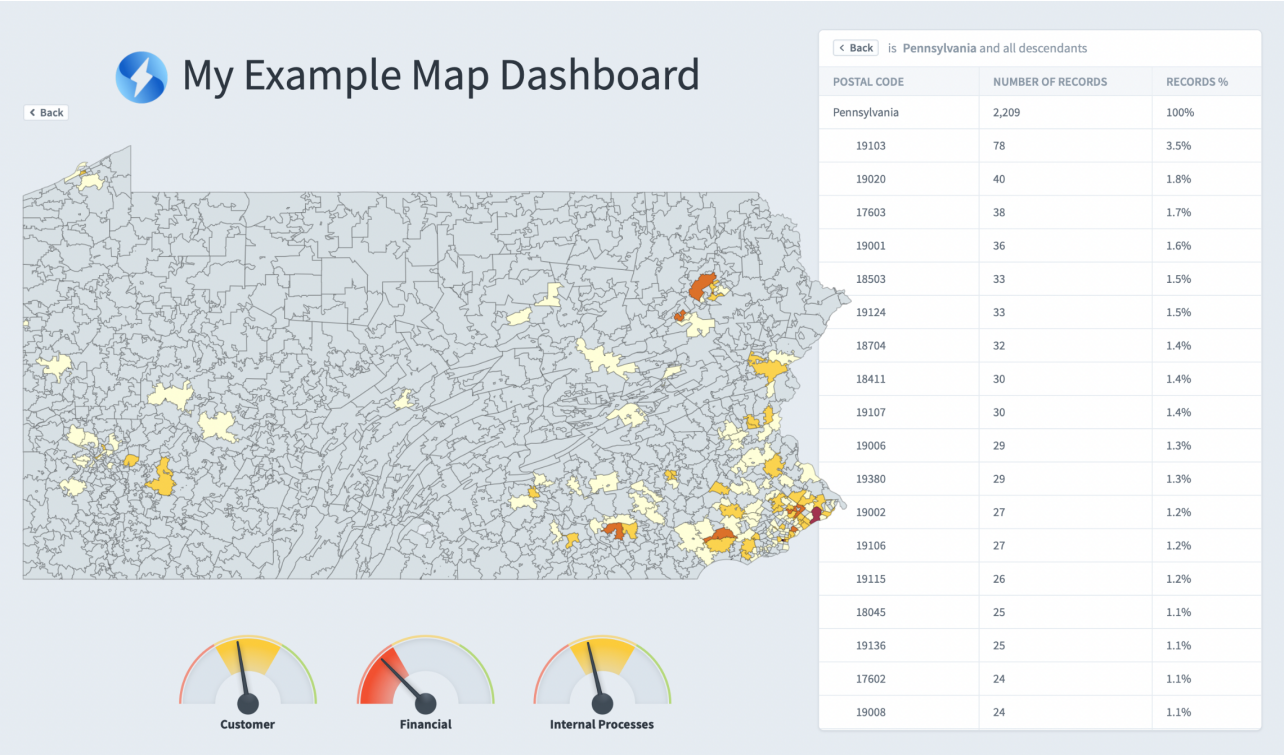


Maps on dashboards

Maps, like all types of charts, work great on dashboards. Here we're showing our customer map with speedometers and a dataset table widget.

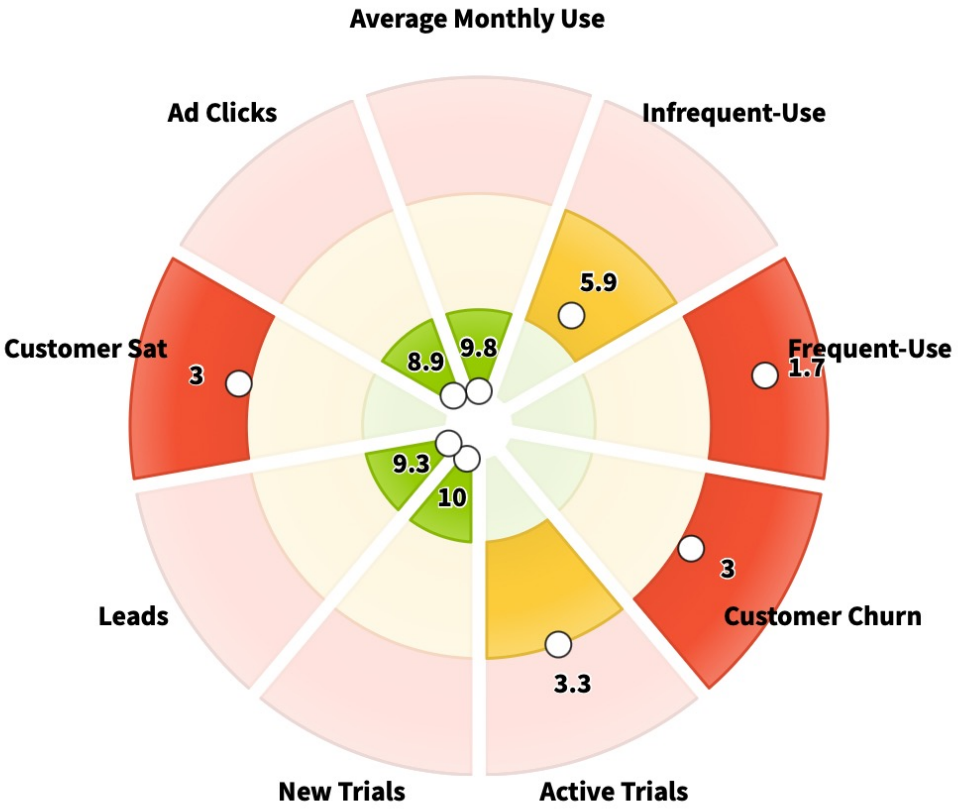


Clicking on either a map region or the dataset table widget will apply a dataset filter for that region to the entire dataset.



Bullseye Charts

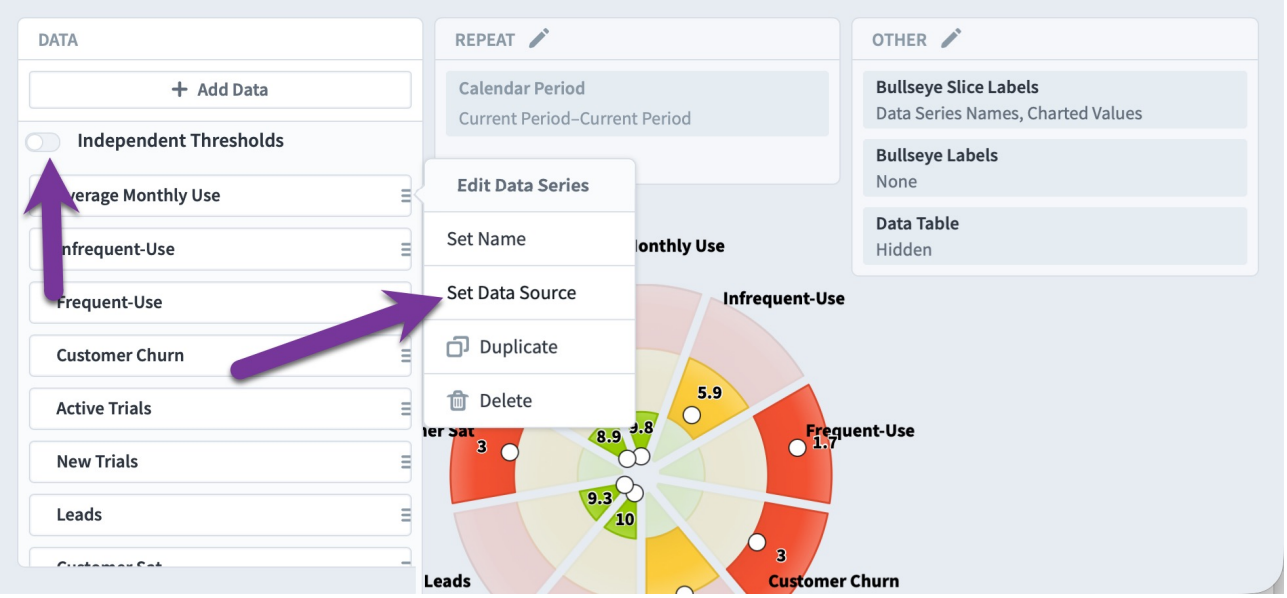
Spider Impact's Bullseye Chart visualizes how different measurements compare to their baselines. Each chart "slice" represents a different measurement, with colored threshold regions showing performance zones, and data points showing actual values relative to those thresholds.



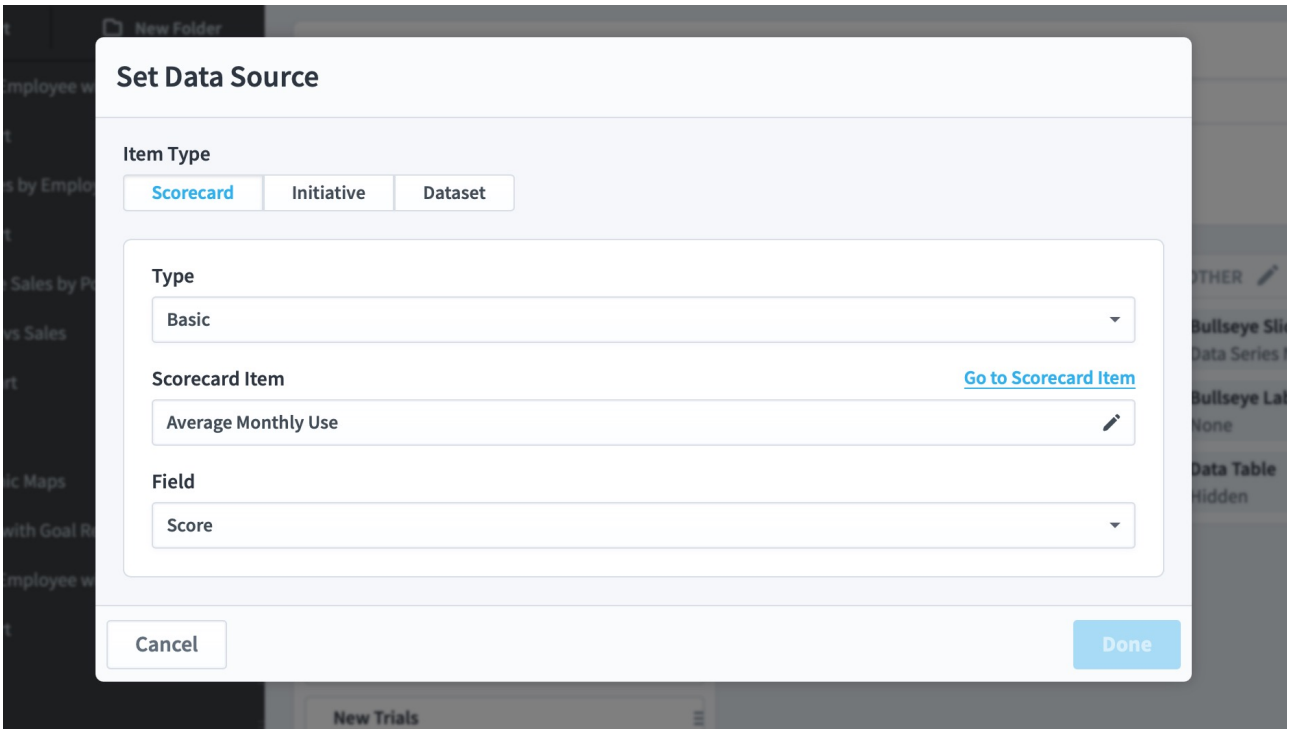
Shared thresholds mode

By default, all positions around the bullseye chart share the same scale and thresholds. This works well when comparing scorecard items because they're already normalized to 0-10 scores, or dataset values that share goals, like sales figures for various employees.

In this mode, you select "Set Data Source" on a series like you do on most other charts.

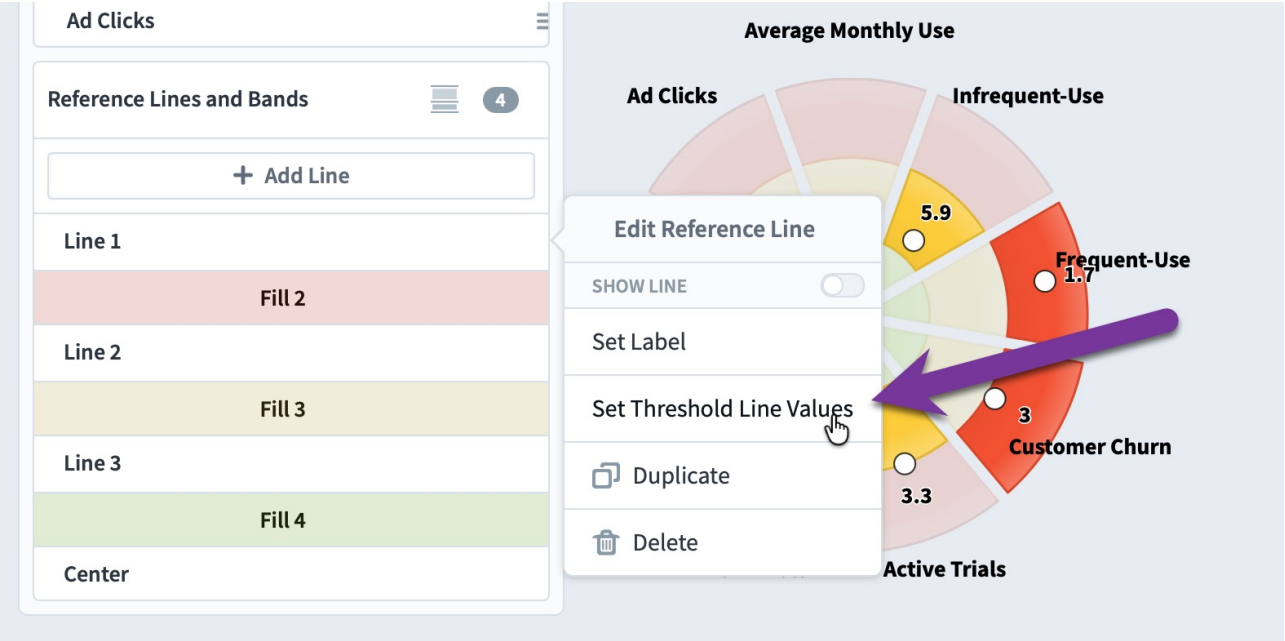


And the Set Data Source menu is the same as other charts as well. You can choose data from Scorecards, Initiatives, or Datasets.

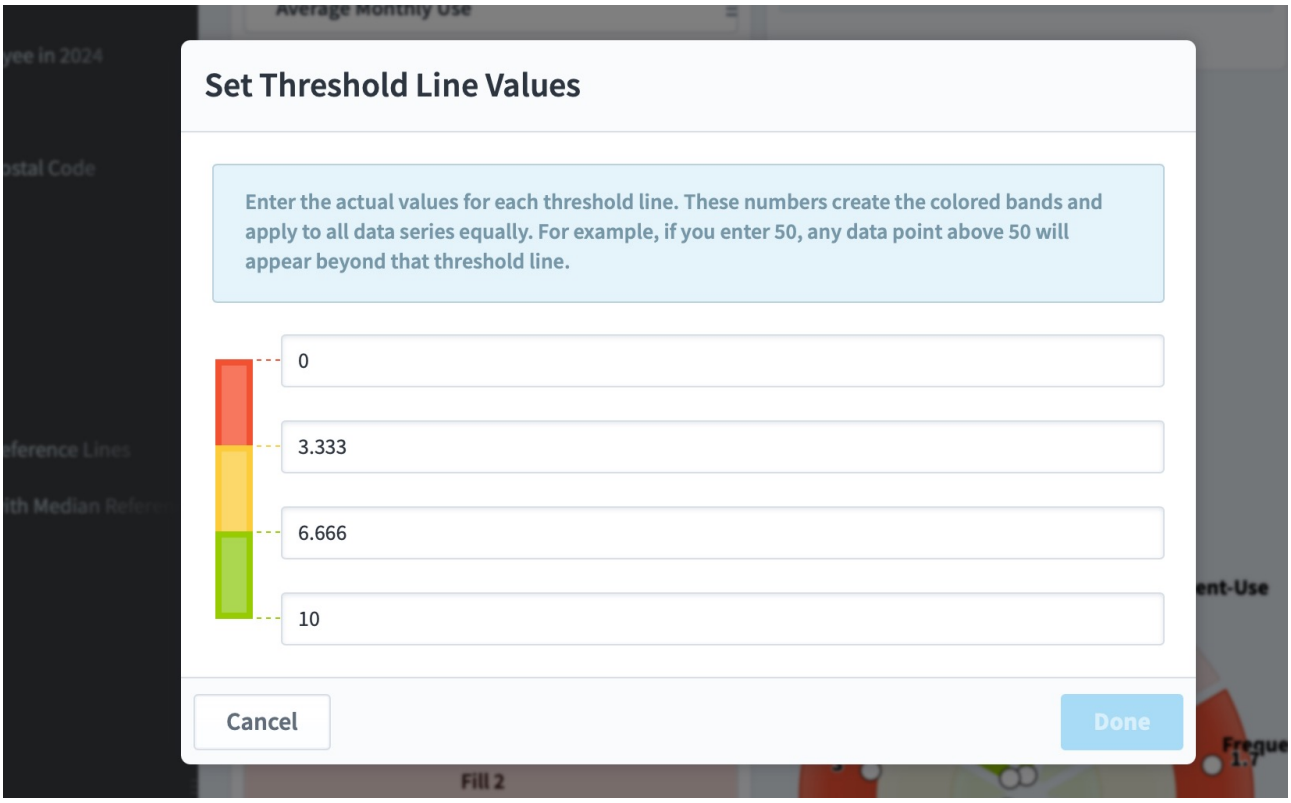


Reference lines and bands

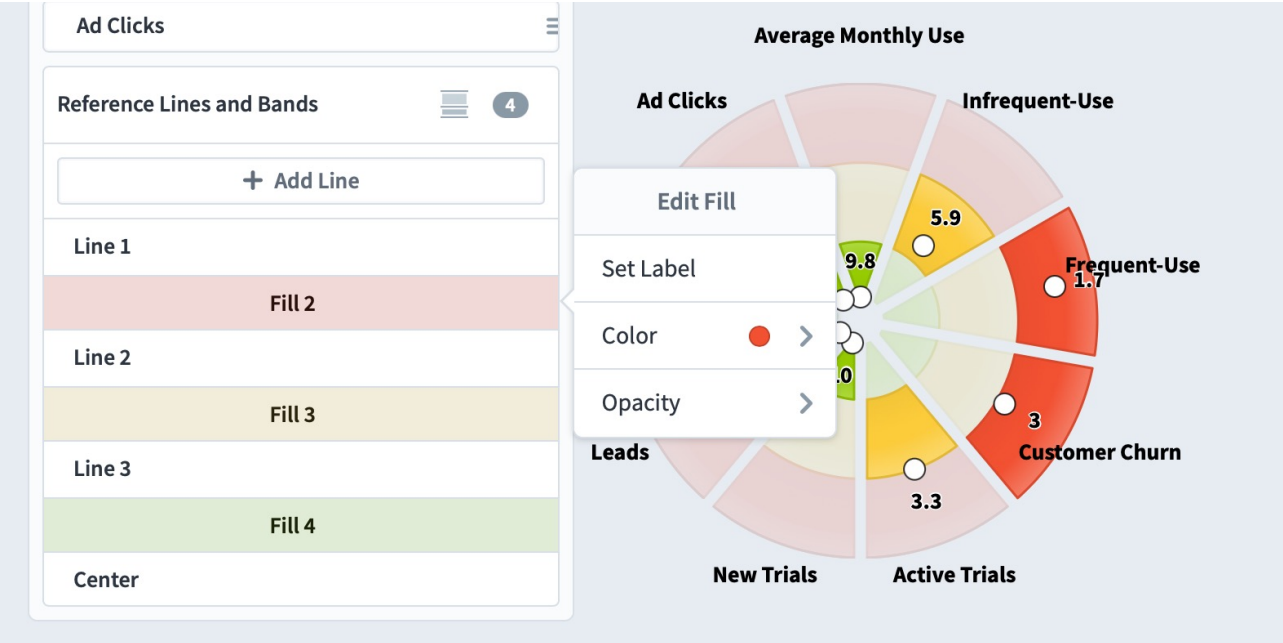
Like other types of charts, bullseye charts have reference lines and bands. When Independent Thresholds is off, you set lines to constant values.



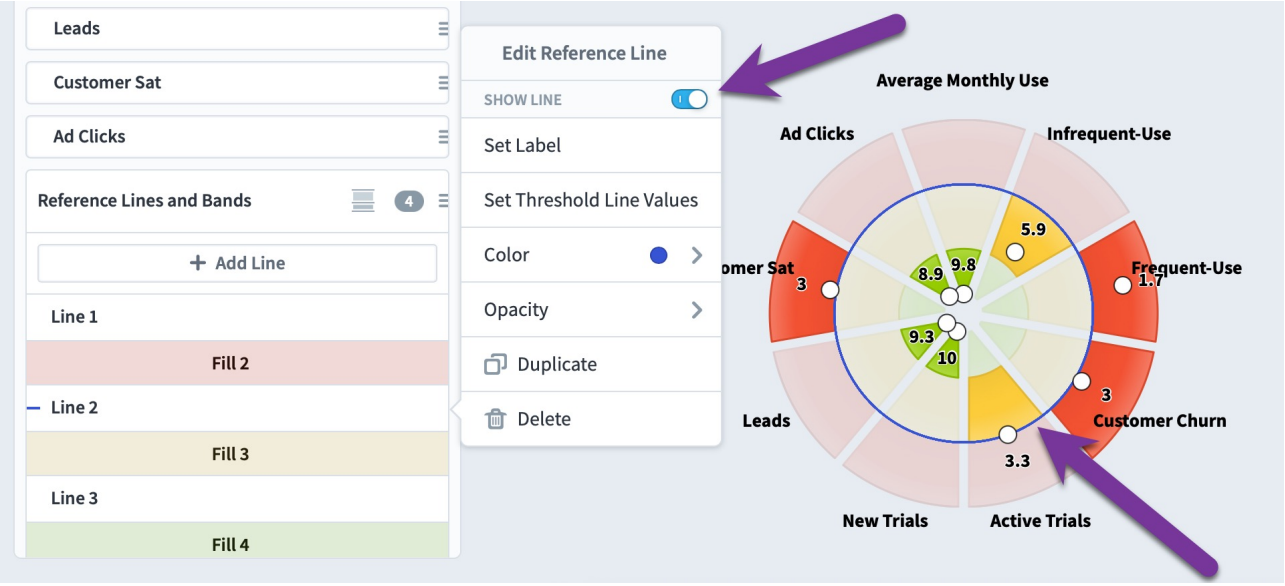
In this example we're comparing scorecard item scores, so we'll choose to break up the 10 point scale into 3 equal pieces.



Just like with line, bar, and area charts, you can modify the reference lines and bands. You can choose each ring's color, and you can set the opacity for inactive segments.



Reference lines are off by default, but you can choose to turn them on and set a color and opacity to draw attention to a special threshold.

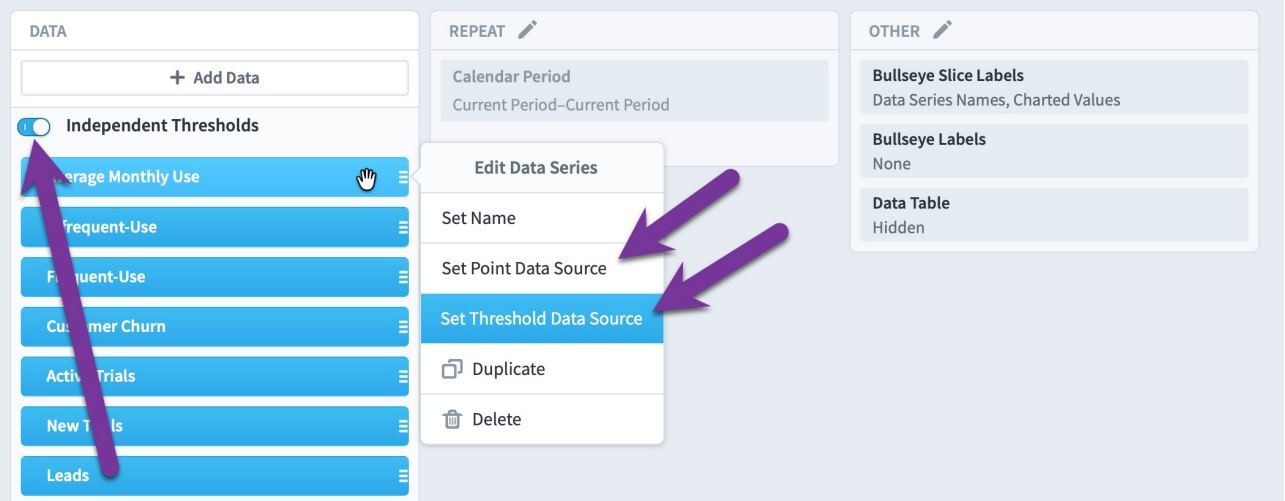


Independent thresholds mode

When comparing measurements with different scales – like workplace injuries (per 1,000 employees) versus sales revenue (in dollars) – enable "Independent Thresholds" mode. This allows each "slice" to have its own scale while maintaining visual comparability.

When you enable Independent Thresholds, the series menu changes to display:

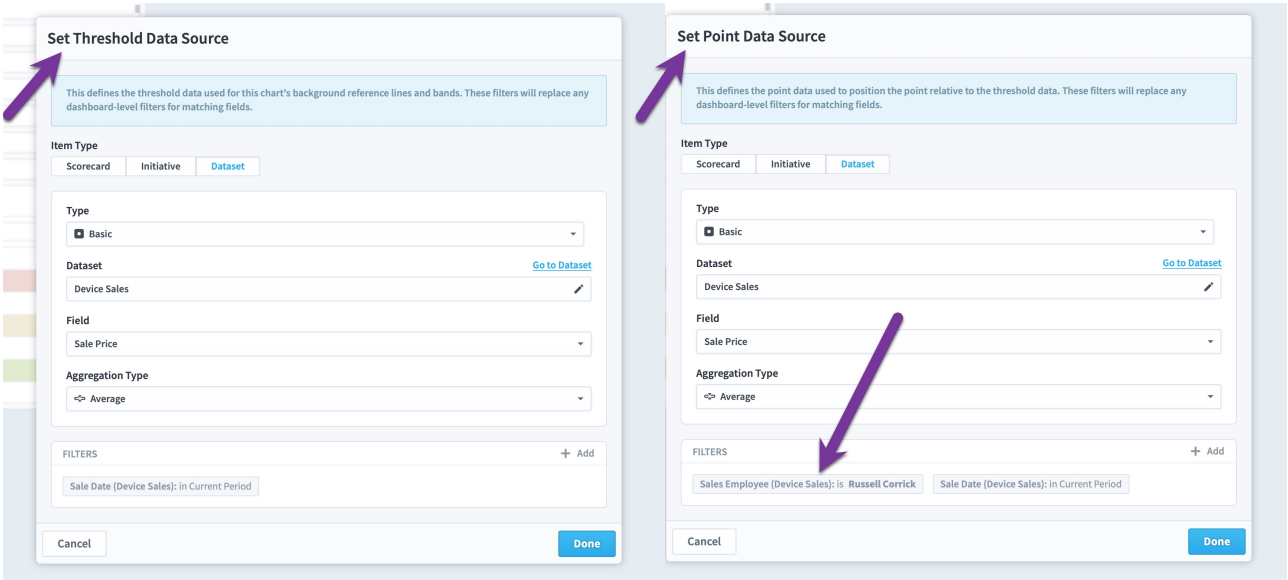
- **Set Point Data Source** - The data to plot (e.g., a specific employee's sales)
- **Set Threshold Data Source** - The baseline for comparison (e.g., company-wide averages)



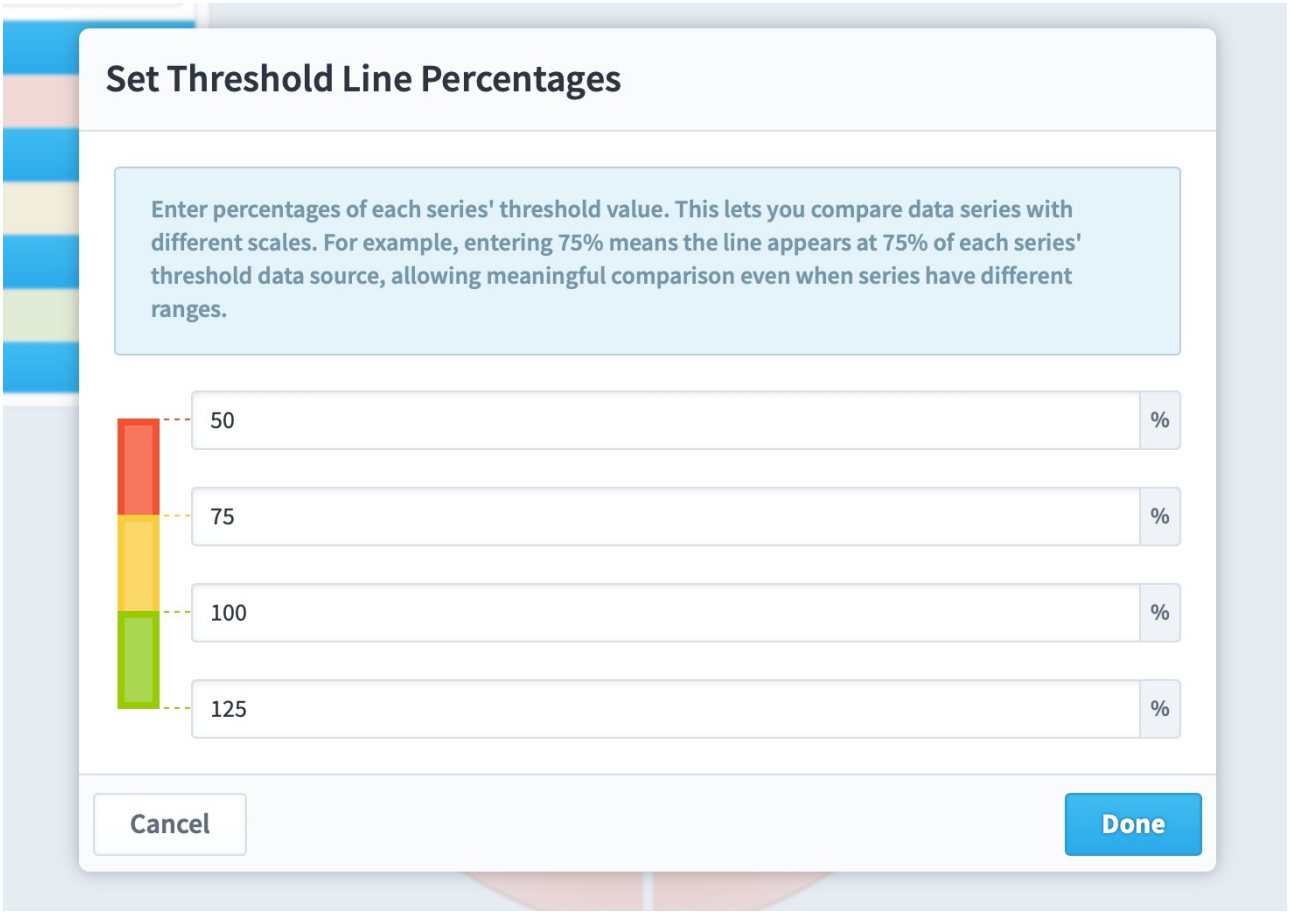
A typical Independent Thresholds bullseye chart uses the same dataset for both point and threshold data, with the point data having additional filters. For example:

- **Threshold Data Source**: Sales data averaged for all salespeople
- **Point Data Source**: Sales data filtered to "Salesperson = Russell Corrick"

This configuration shows how Russell performance compares to the overall average across all metrics.

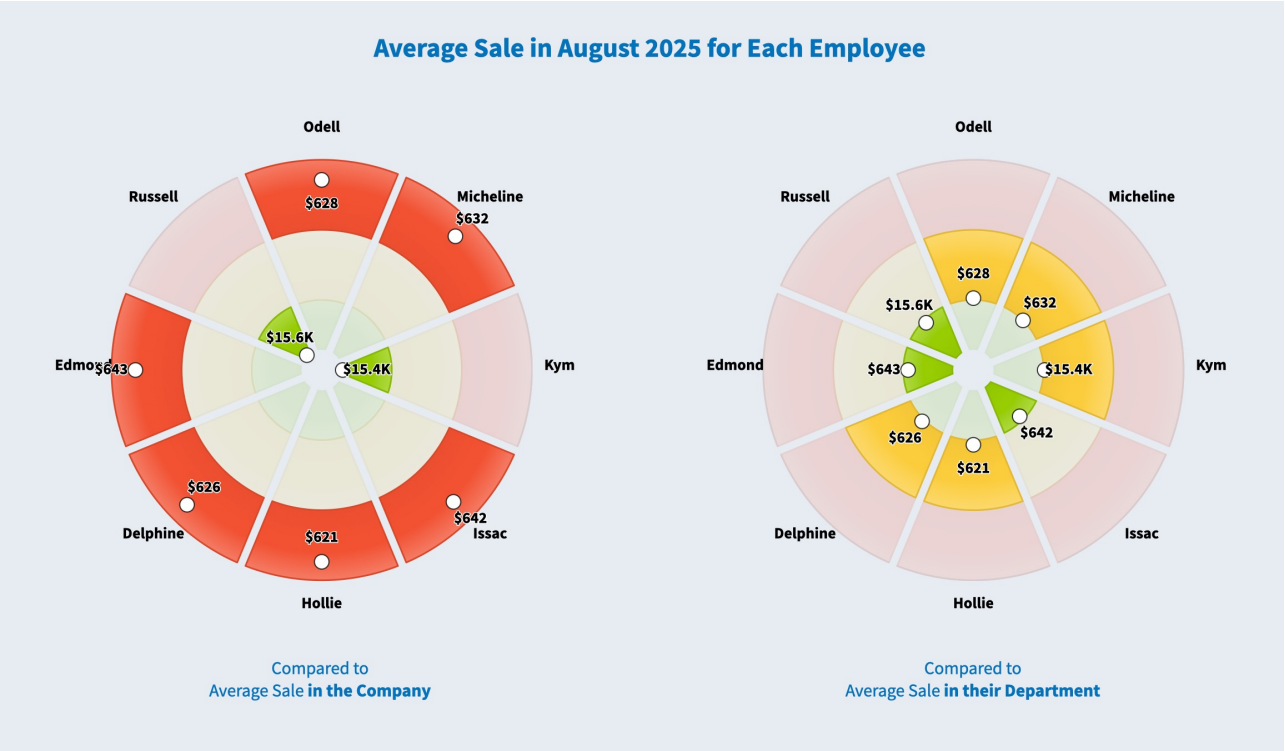


With Independent Thresholds enabled, the threshold lines change to be a percentage of each slice's Threshold Data Source value. For example, setting a line at 200% creates a threshold at twice the Threshold Data Source values. If your baseline for injuries is 5 per 1,000 employees, that line would appear at 10 injuries per 1,000. In this example the green segment starts at 100% of the threshold data source value.



Let's further explore independent threshold mode with this example. The bullseye chart on the left shares the same thresholds across all slices. It compares each employees's average sale size against the average for all employees. Two employees jump out with massively larger sales than the other employees. That, however, is because Kym and Russell do corporate sales, and their deal sizes are always going to be larger than the employees doing retail sales. In this example,

the average sale prices for the different employees have different acceptable scales, making this kind of comparison not very helpful.



The bullseye chart on the right has independent thresholds turned on, and instead compares each employee against only the other employees in their department. We can instantly see that Russell, Edmond, and Issac are having good months, regardless of their department.

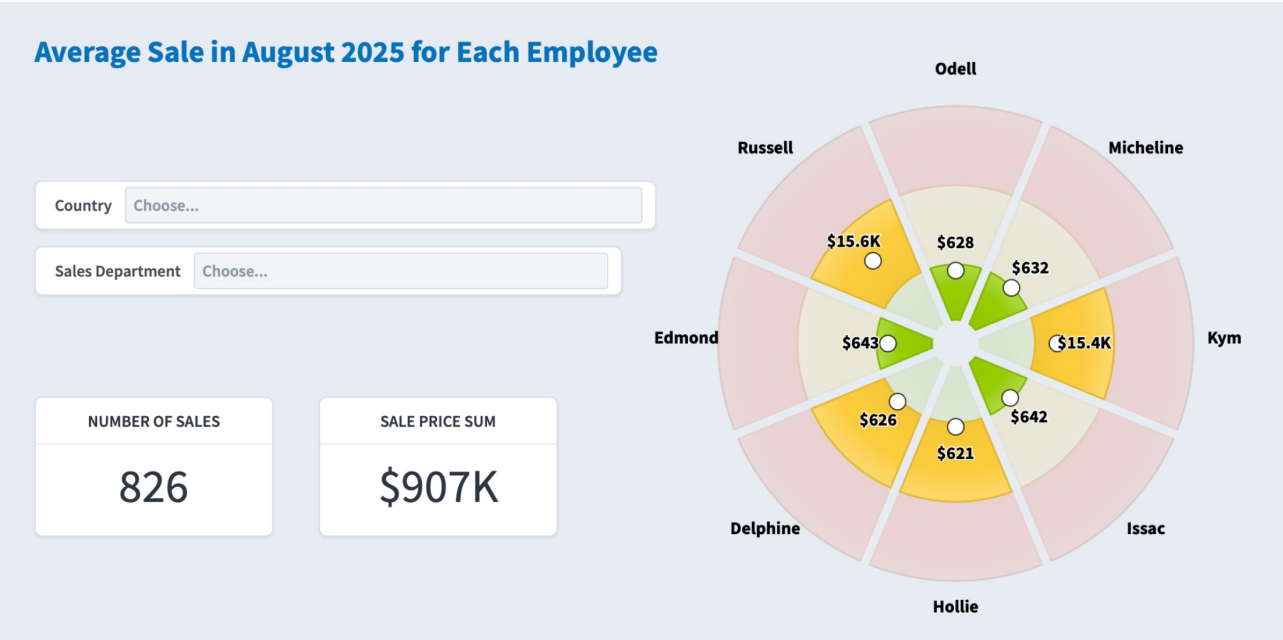
Repeating bullseye charts

Bullseye charts support repeating values to create small multiples, displaying the same set of metrics across multiple entities simultaneously. In this example, we're showing the same sales data for United States, Australia, and United Kingdom.

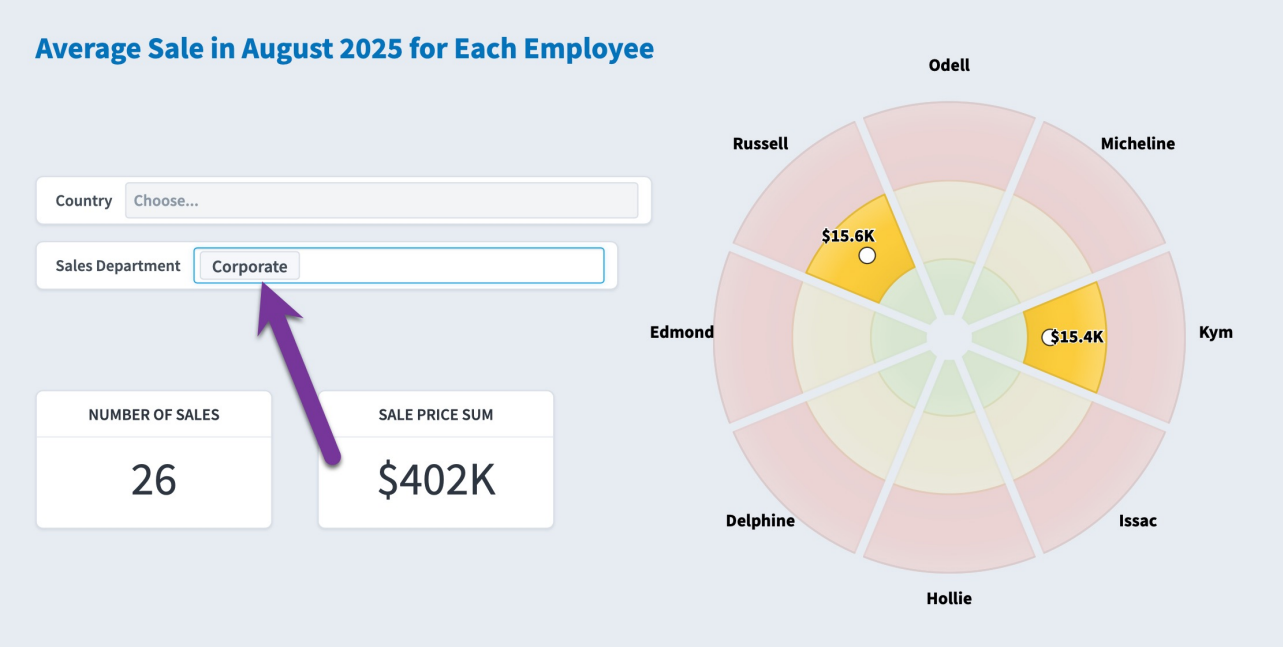


Bullseye charts on dashboards

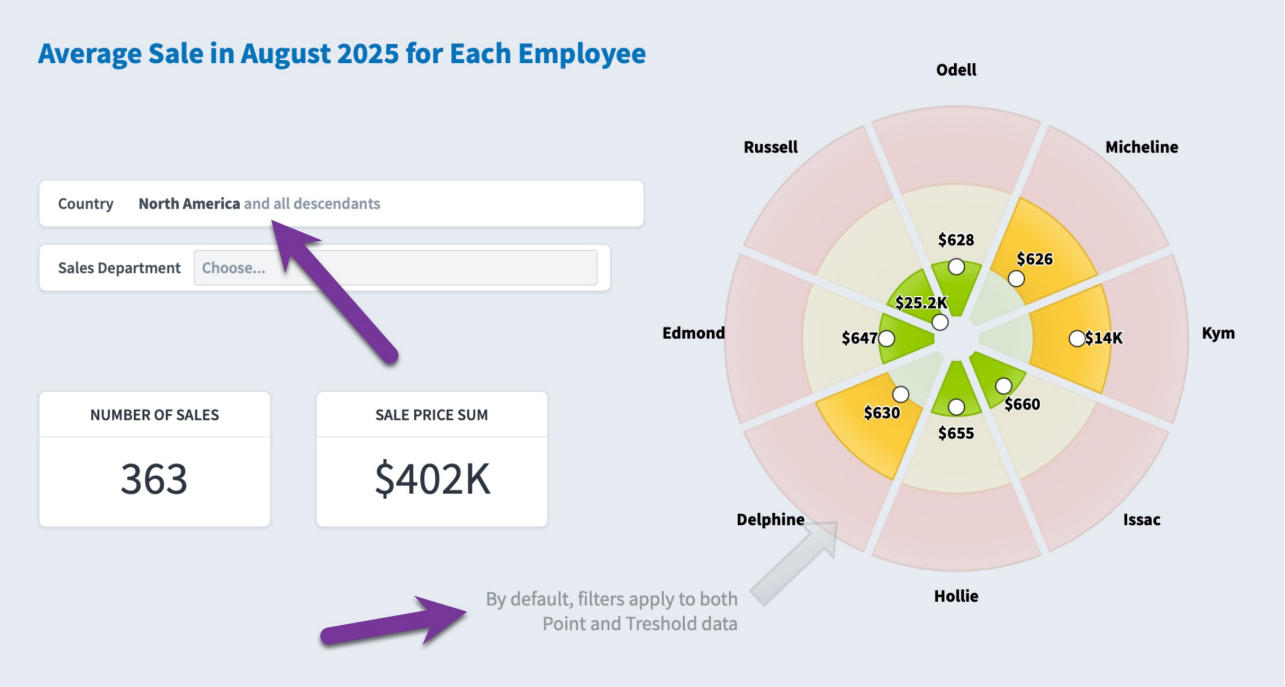
When you add a dataset filter to a dashboard, it applies to both the threshold and point data in your bullseye charts. This allows you to explore dataset data as you would with any other chart. For example, here we're looking at each employee's average sale price this month, and each slice is using a scale of that employee's average sales for the current year. It allows you to see if the employee is having an above or below average month relative to their past performance.



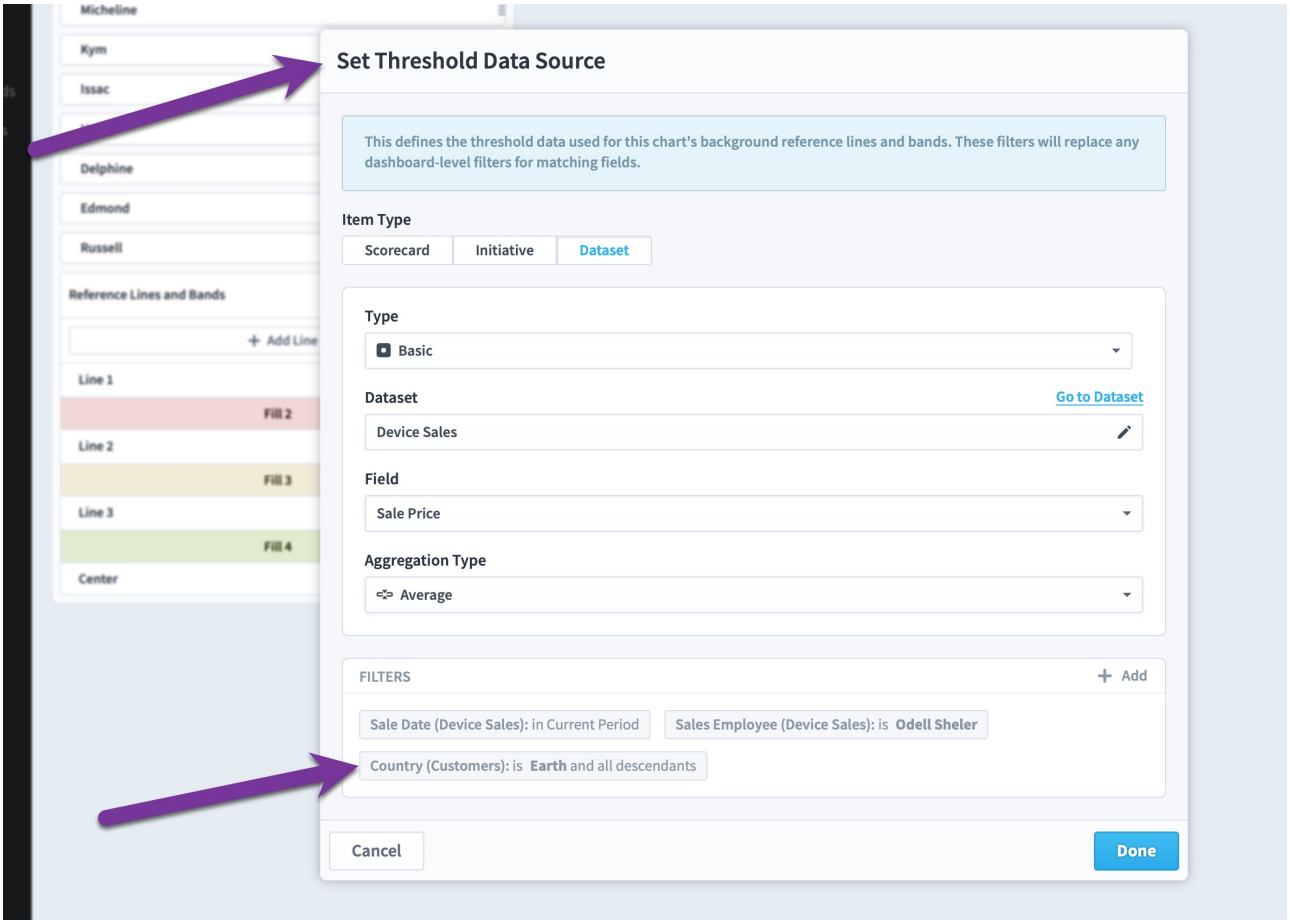
When we apply a filter for Sales Department, we now see the exact same chart filtered to only show only show Corporate sales. Here it's showing only Russell and Kym had Corporate sales this month.



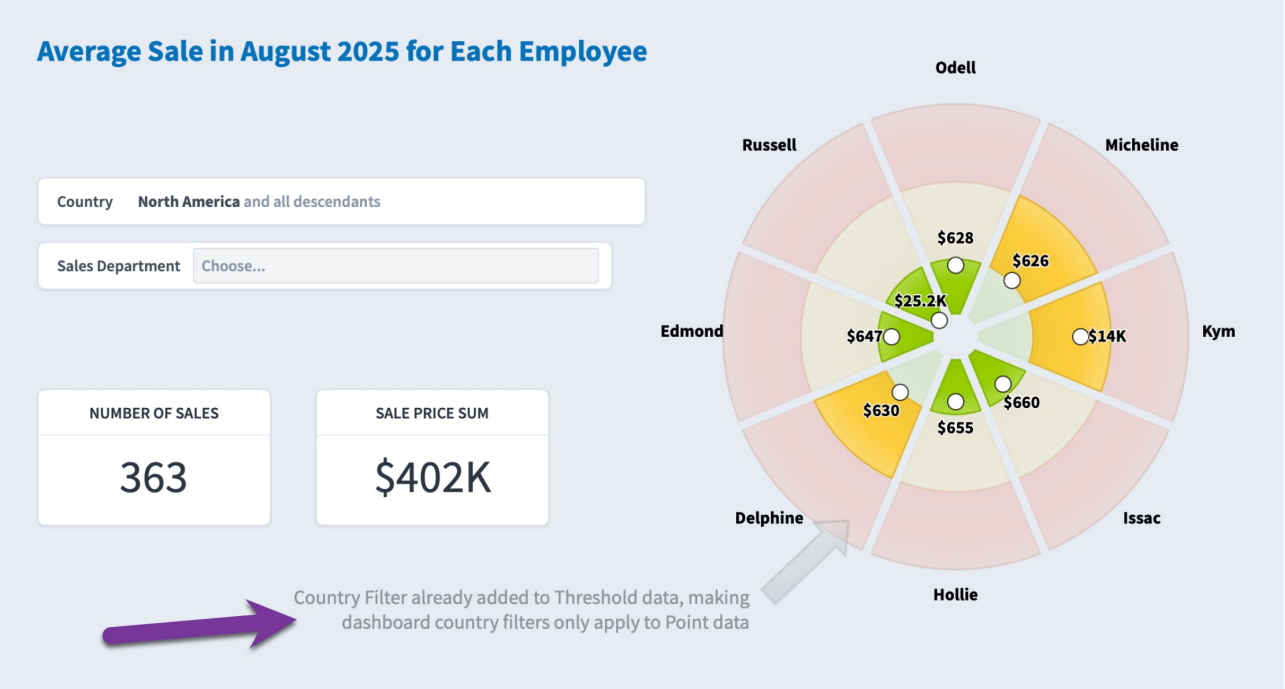
Similarly, we can apply a filter to North America, and we now see the exact same chart filtered to only show North American data. Note that filters apply to both Point and Threshold data by default. That means this chart is comparing each salesperson's average *North American* sale this month against their average *North American* sale this year.



If you only want the Point or Threshold data to ignore a dashboard filter, you can just apply a filter for that field to the data source. That's because any dashboard filters that conflict with point or threshold data will be ignored. Here we're applying a filter to the Threshold Data Source saying that the country is anywhere on earth.



Now when we set the dashboard to filter on country, that filter only applies to the points. This chart is comparing each salesperson's average *North American* sale this month against their average sale this year *regardless of country*. Now adding a filter changes the points without changing the background thresholds.



Having dashboard filters apply to points, thresholds, or both are all completely valid use cases, and the new Bullseye charts allow you to do them all.

Datasets

Overview of Datasets

Overview

Spider Impact tracks three types of performance data.

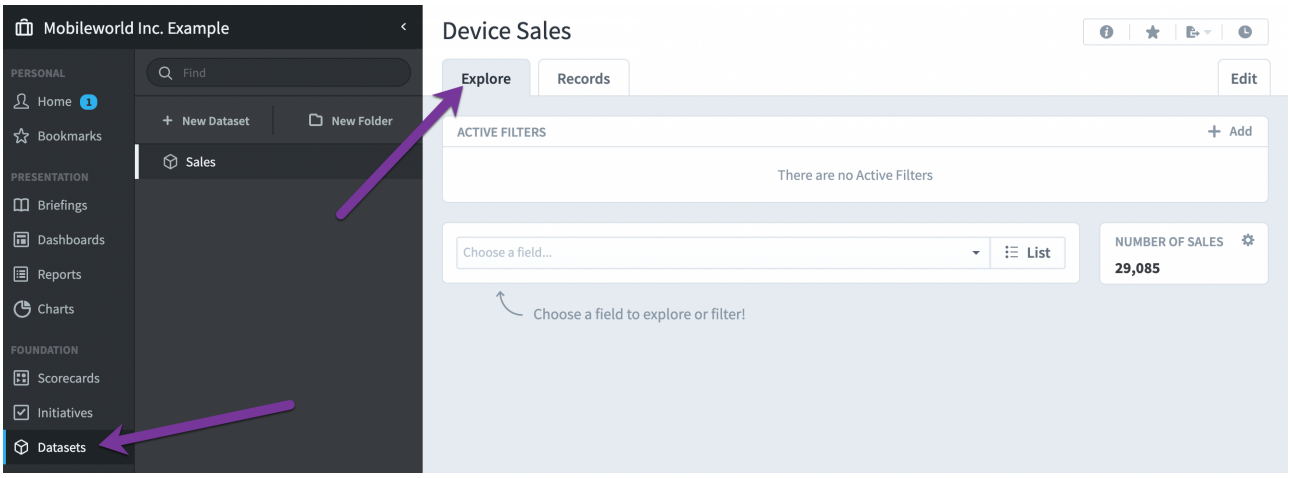
1. Scorecards measure the same things over and over. They're all about setting goals for KPIs, and then using that information to see how you're performing with your big-picture strategy. The KPIs you measure this year will usually be the same KPIs you measure next year.
2. Initiatives are temporary. They have start and end dates and usually last less than 18 months. You put initiatives in place to fix the problems you find in the Scorecards section.
3. **Datasets** track unstructured raw data that isn't scored. They're the business intelligence layer underneath your strategic management. You can analyze and report on dataset data directly, and you can aggregate dataset data to power KPIs in the Scorecards section.



Here we'll focus on Datasets. We'll cover how they're used, and what makes them such a powerful addition to Spider Impact.

The Explore tab

The Datasets section is great for exploring your data and quickly answering questions. It's all about slicing and dicing your data on the fly to get the answers you need immediately.

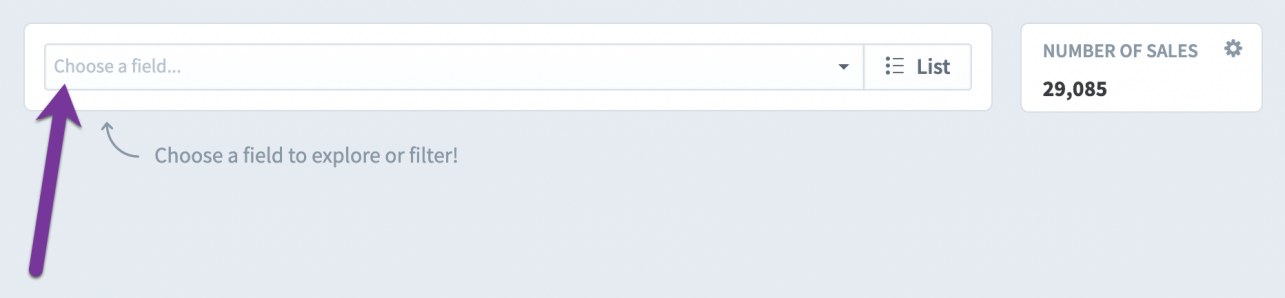


It's important to keep in mind that the Datasets section is not a presentation tool. It's the place where you store and explore all of your data. When it's time to show your dataset data to other people, the Dashboards, Charts, and Reports sections have everything you need.

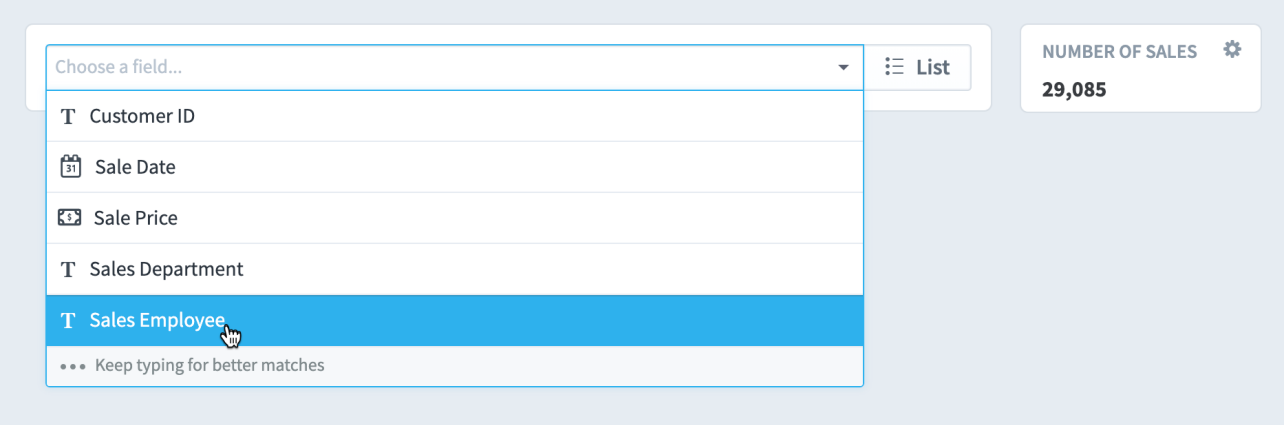
Viewing and filtering fields

We'll start with a Device Sales dataset. It contains information about the 29,085 devices our company has sold. At this point we don't know much about the data, so we'll start to explore.

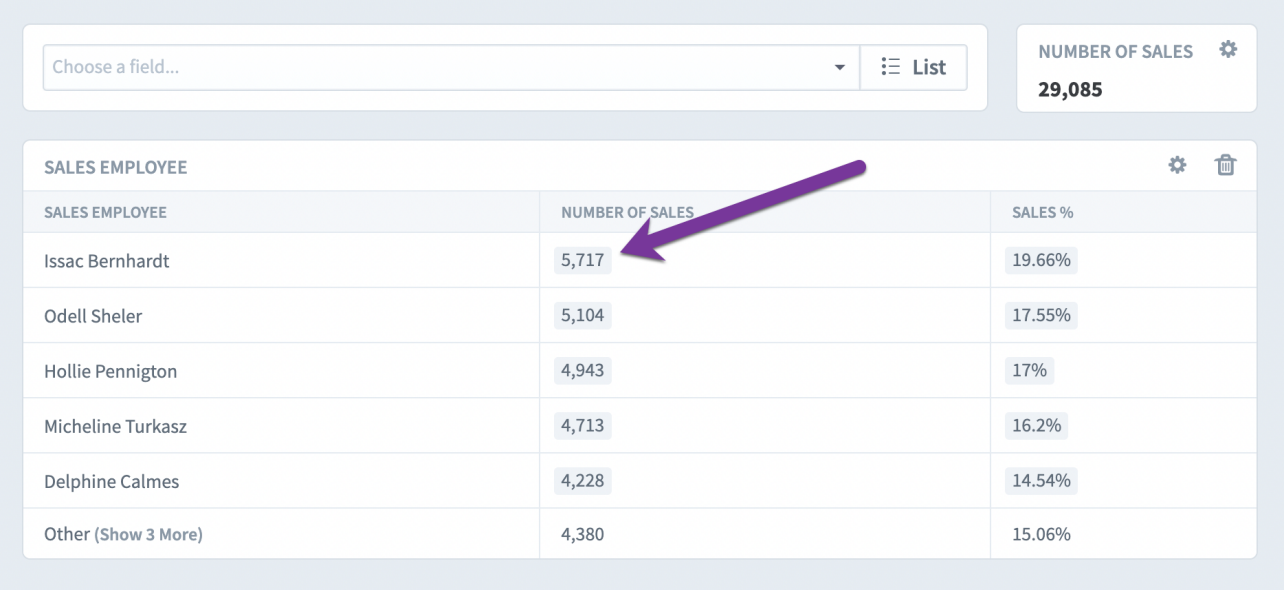
To choose a field to view, click on the field menu.



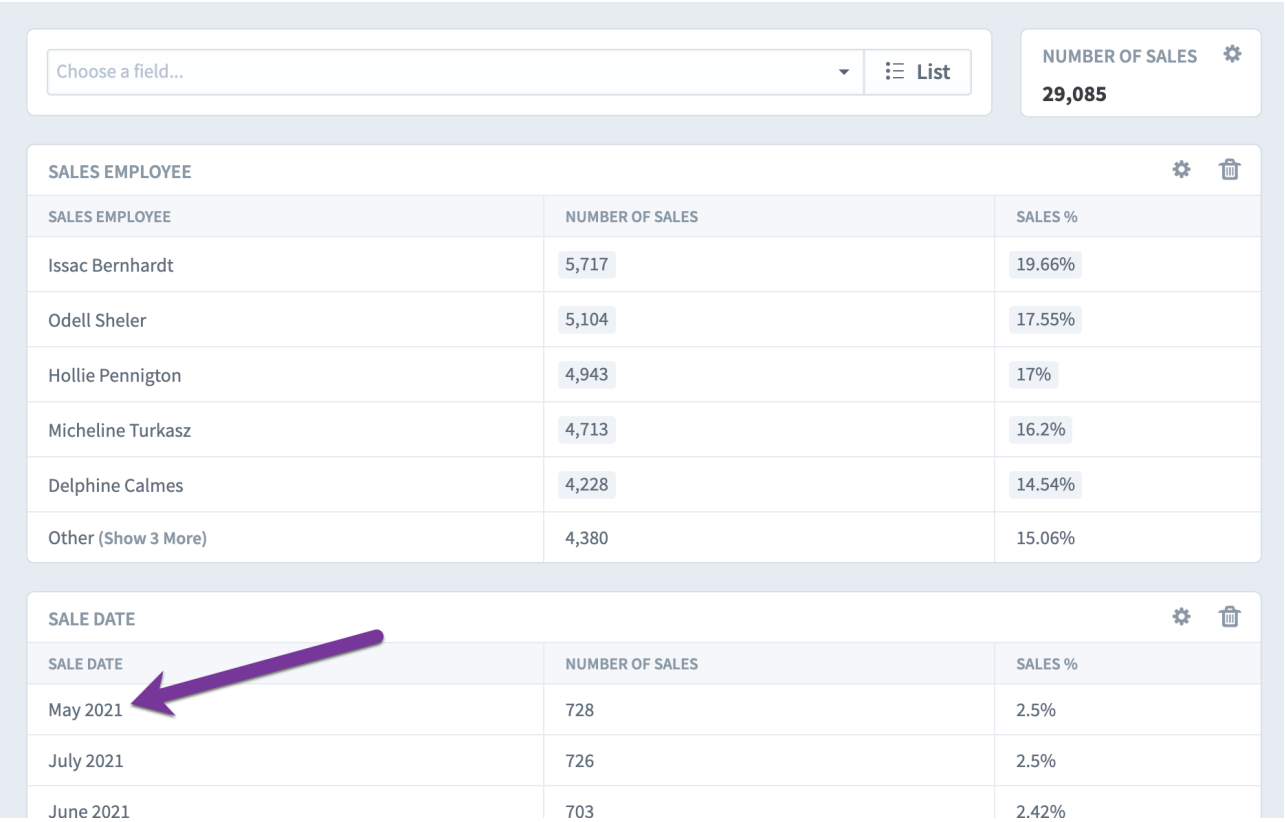
This lists all of the dataset's fields. As you can see, there's information about things like the sale date, the price, and the customer. We'll chose Sales Employee.



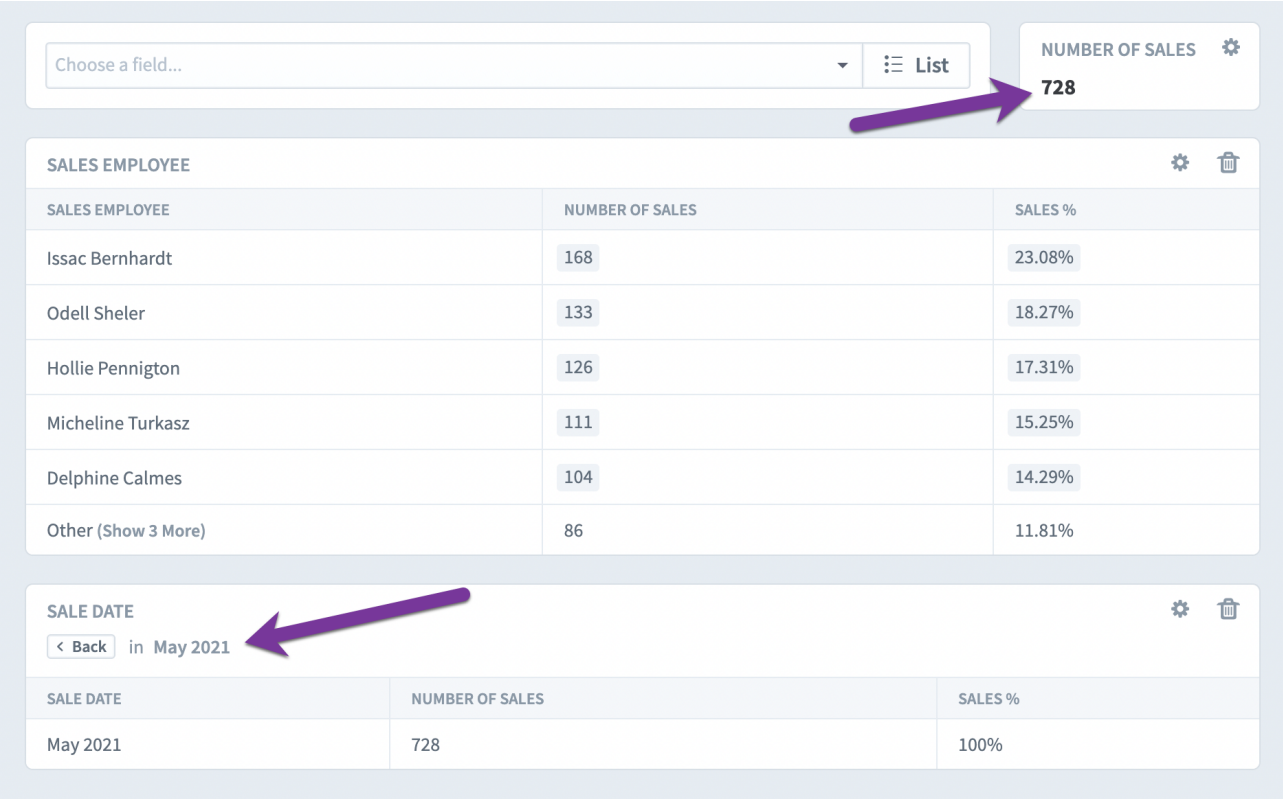
This adds a table breaking down all of the sales in this dataset by sales employee. Issac Bernhardt is in the lead with 5,717 sales.



Next, we're going to choose the Sales Date field in the main field menu. This adds another table that breaks the sales down by date. As you can see, May 2021 was our best sales month.



If we want to see only the sales for May 2021, we can just click on that row in the Sale Date table.



This applies a "*Sale Date = May 2021*" filter to all of the data on the screen. In the upper right corner, we can see that the number of sales has been updated to 728. All of the numbers in the Sales Employee table now reflect only May 2021 sales. To remove the filter, just click the back button in the Sale Date table.

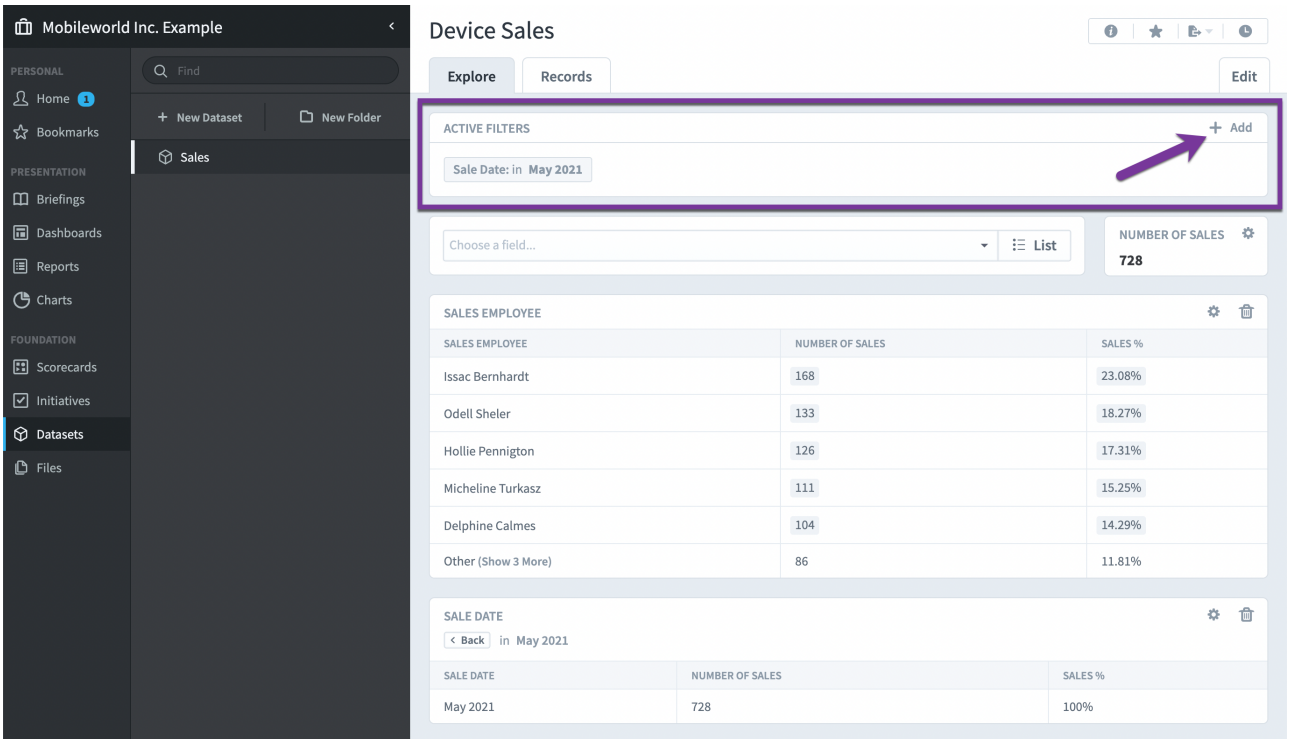
Although you can do advanced data exploration on the Datasets Explore tab, this is what most of your analysis will look like. You choose fields to view, and then you click on a row to filter.

Exploring Dataset Data

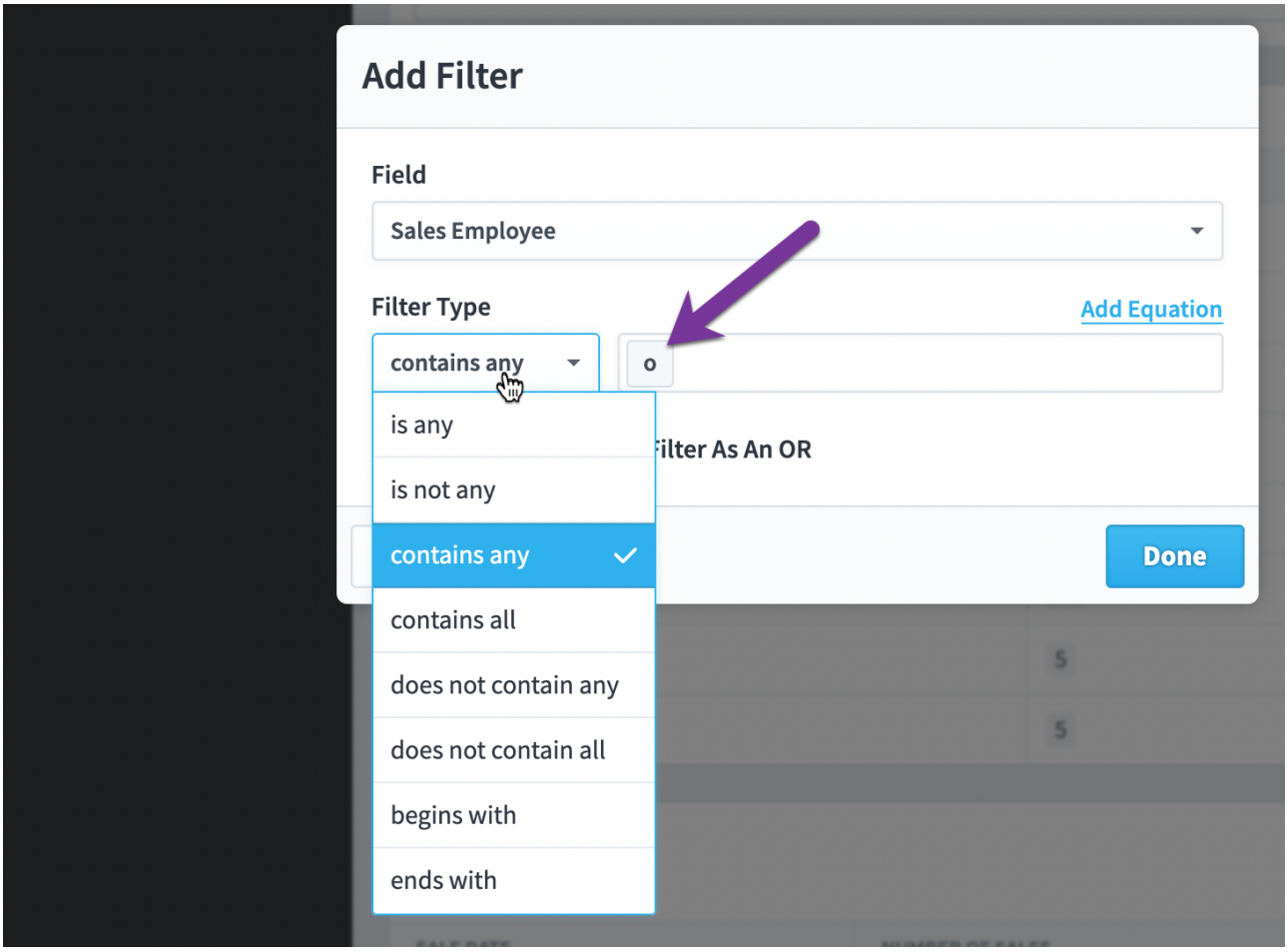
Please see the Overview of Datasets article for information about what datasets are, and how to add and filter fields on the Datasets Explore tab.

Advanced filters

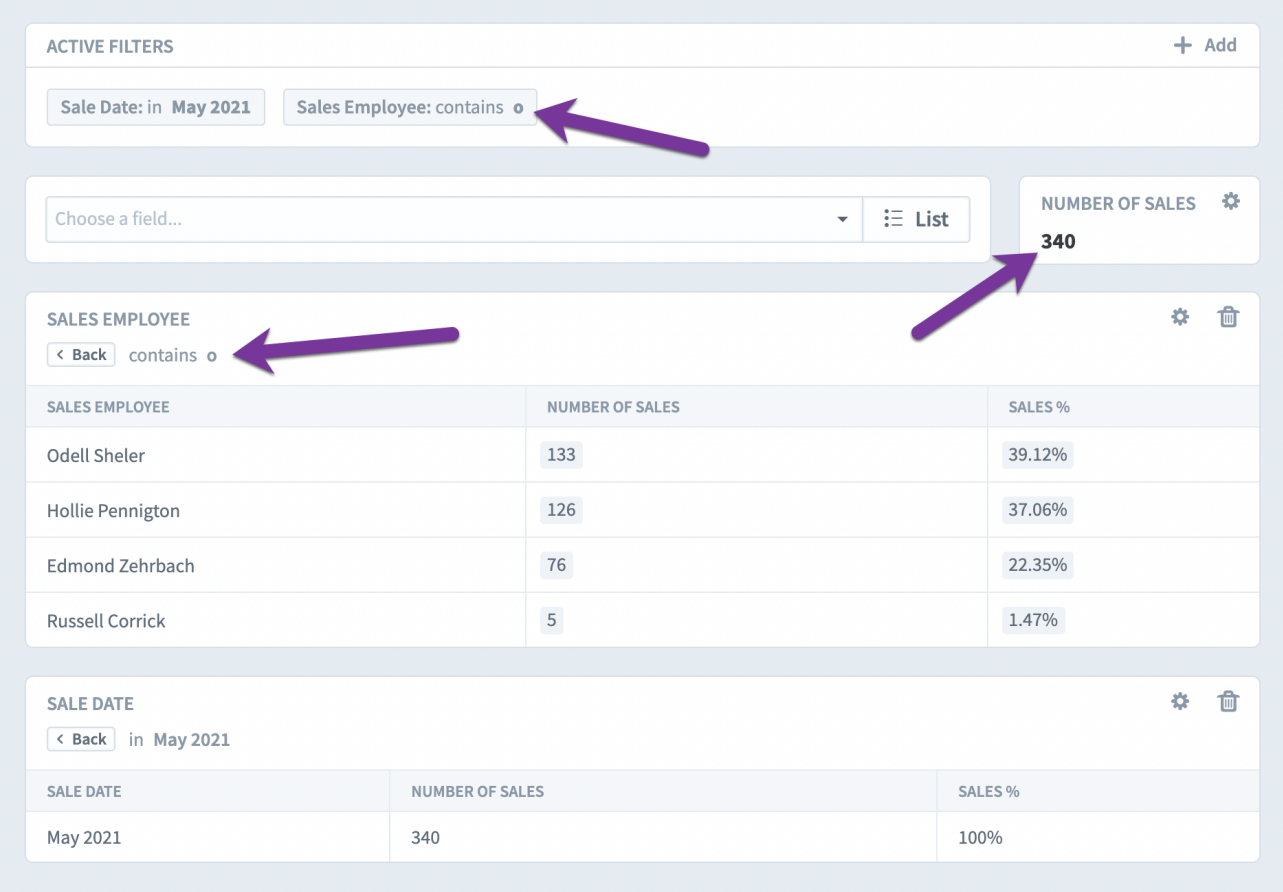
At the top of the Explore tab you can see all filters that are currently applied to the dataset. In this example we can see the "Sale Date = May 2021" filter that we applied by clicking on the "May 2021" row on the bottom. Another way to add a filter is to click on the "Add" button in the corner.



Just for the sale of this example we'll only show sales employees that have an "O" in their names.

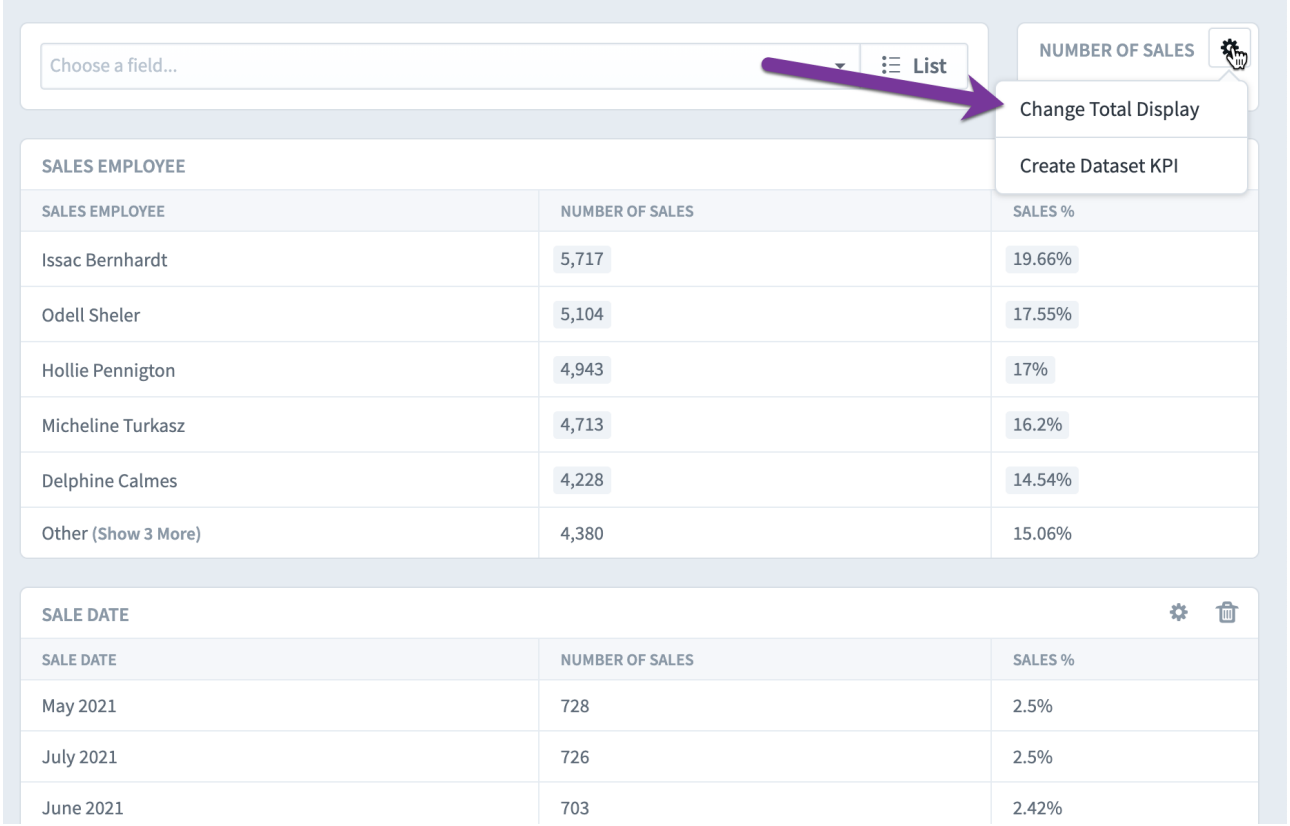


The results of the filter are the same as before, except now we're only showing data for four of the sales reps.

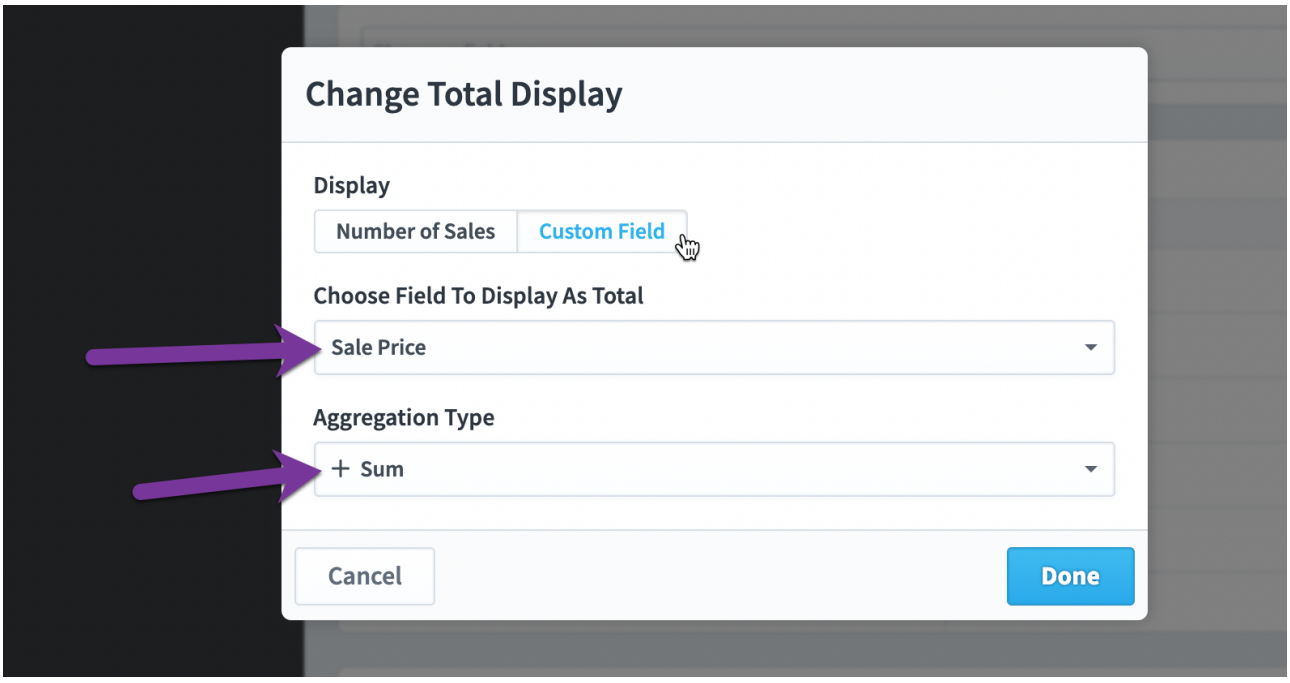


Changing total display

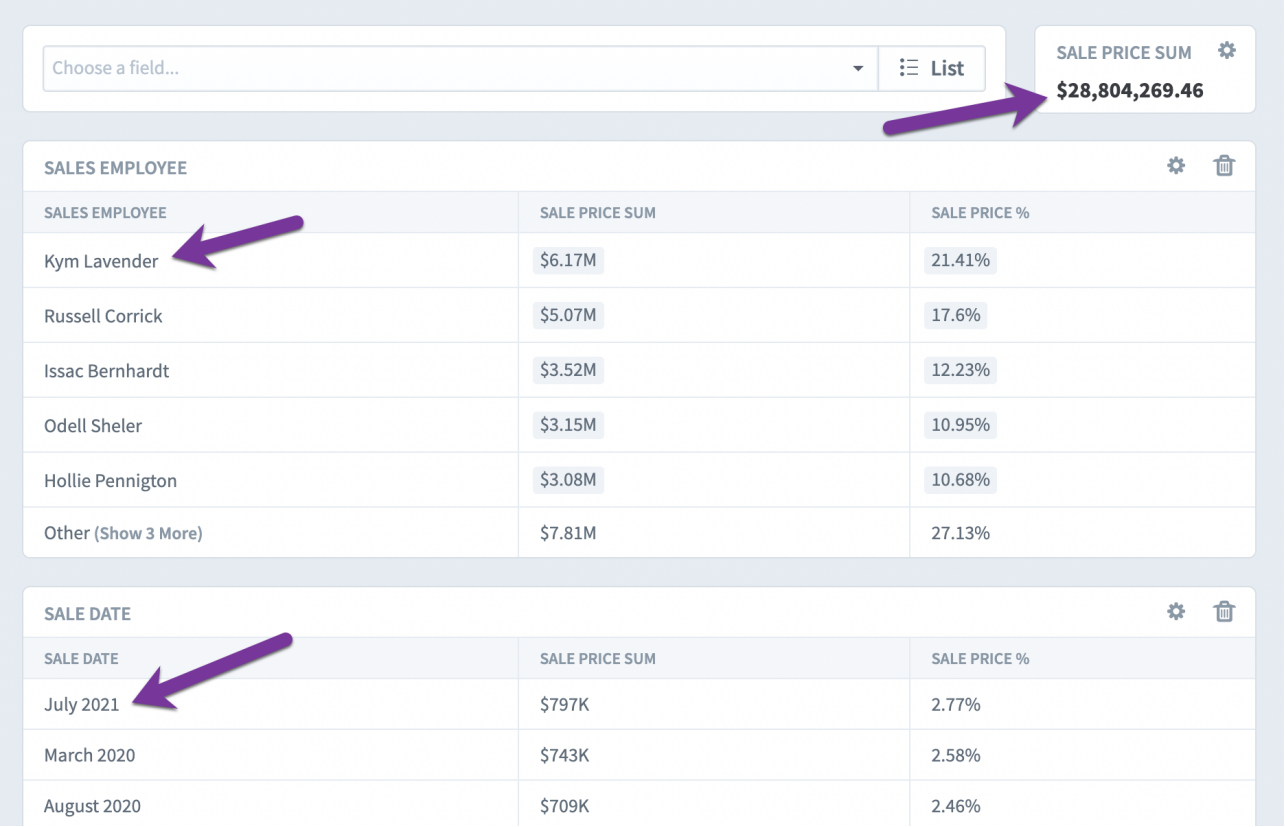
Seeing the total number of sales is interesting, but what we probably care the most about is the total value if the sales. The quickest way is to change the total display in the upper right corner.



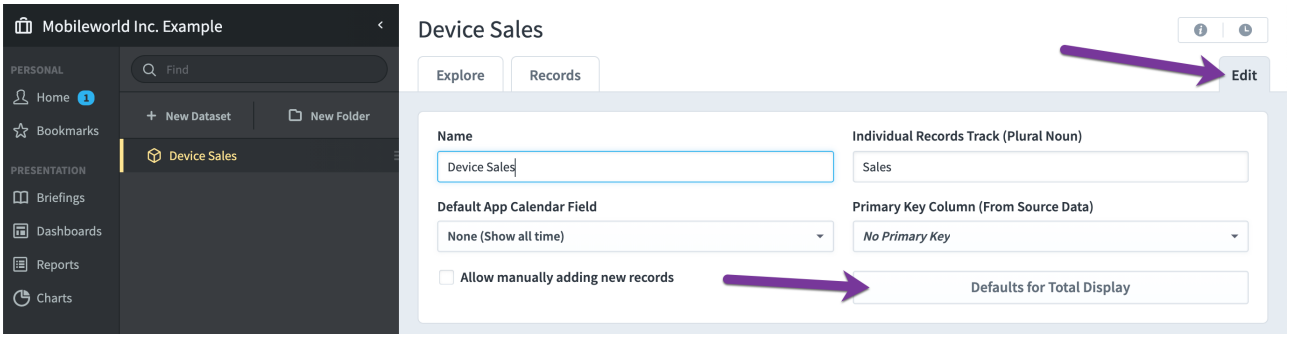
We'll change the display from "Number of Sales" to "Custom Field", choose "Sale Price" as the field we want to see, and "Sum" for the aggregation type.



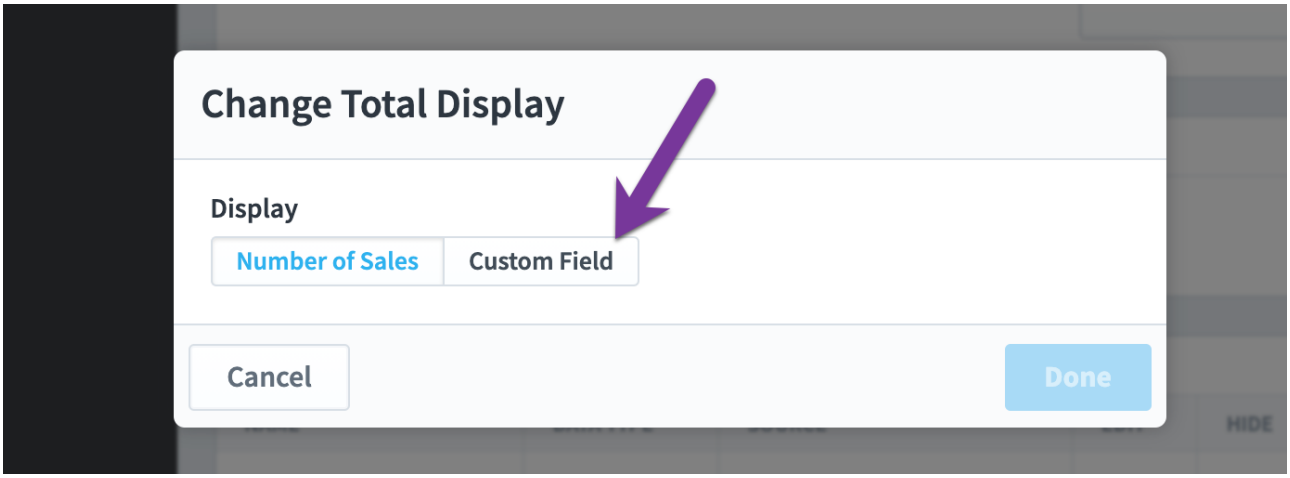
The sales price tells a completely different story. We now see that Kym Lavender is our top salesperson with $6.1M in total sales, and that July 2021 was actually our top sales month by revenue.



In this example, sale price is obviously better than the number of sales, so we're going to go to the Edit tab and change the "Defaults for Total Display".

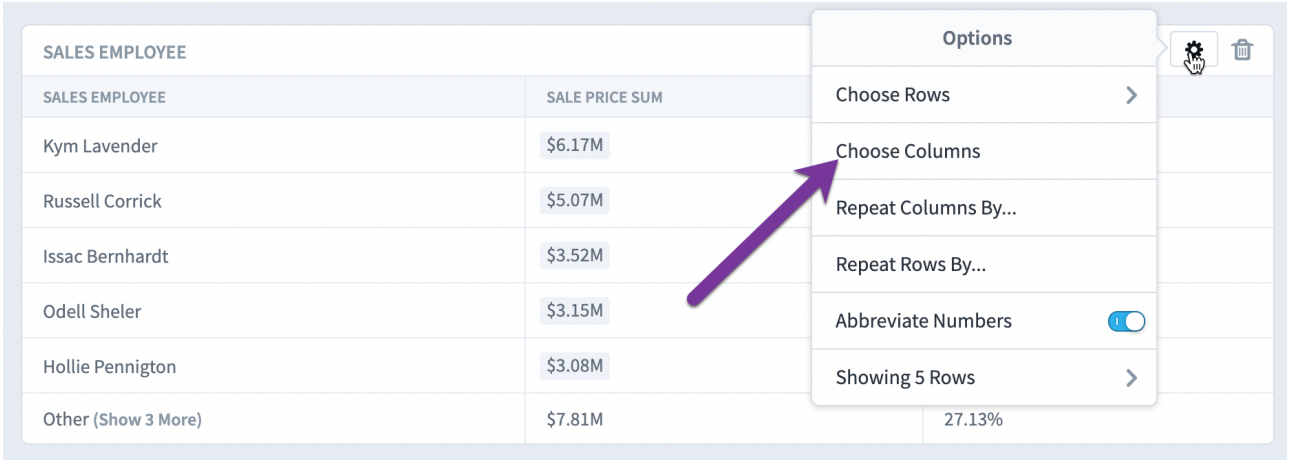


We can make the change from "Number of Sales" to "Custom Field" so that next time someone explores the Device Sales dataset it will default to showing Sales Price.

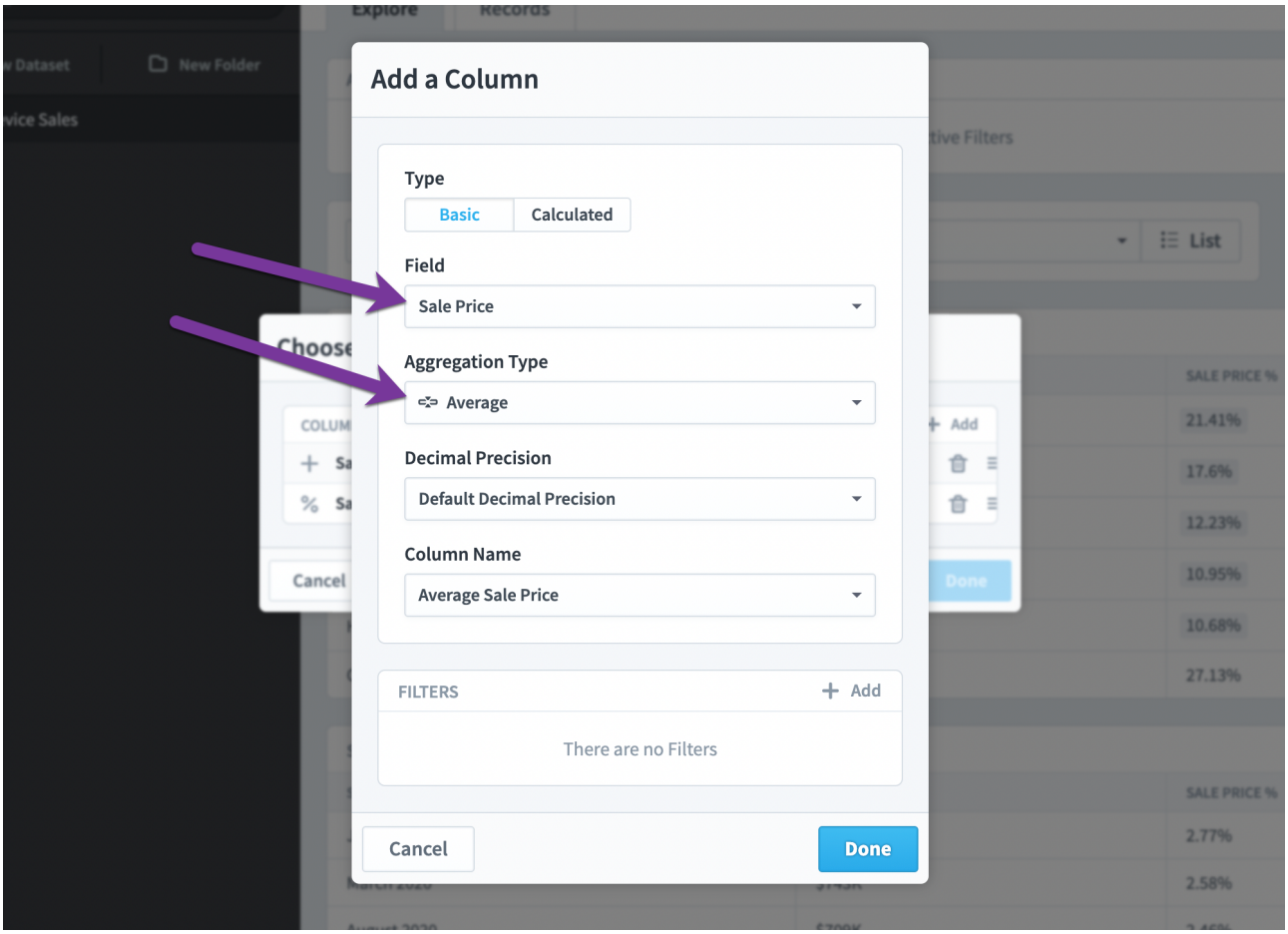


Choosing columns

Another way to change the data being displayed is to manually choose a table's columns.



We're going to add an Average Sale Price column to the Sales Employee table to figure out why our employee rankings changed so much when we switched from number of sales to total sales value.



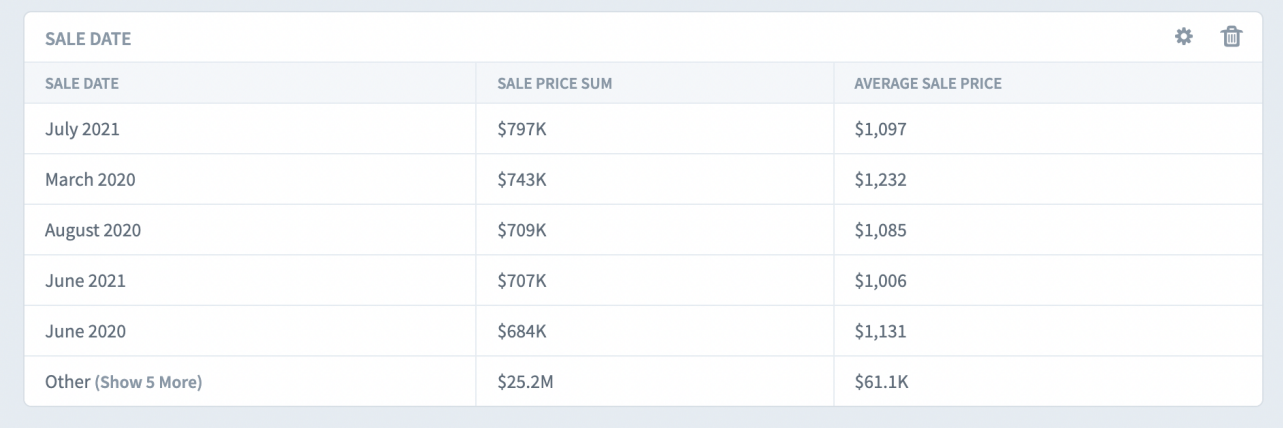
Sure enough, Kym and Russel had average sales around $18,000 while everyone else was averaging less than $700.

SALES EMPLOYEE

SALES EMPLOYEE	SALE PRICE SUM	SALE PRICE %	AVERAGE SALE PRICE
Kym Lavender	$6.17M	21.41%	$17.7K
Russell Corrick	$5.07M	17.6%	$18K
Issac Bernhardt	$3.52M	12.23%	$616
Odell Sheler	$3.15M	10.95%	$618
Hollie Pennigton	$3.08M	10.68%	$622
Other (Show 3 More)	$7.81M	27.13%	$1,847

Repeating rows and columns

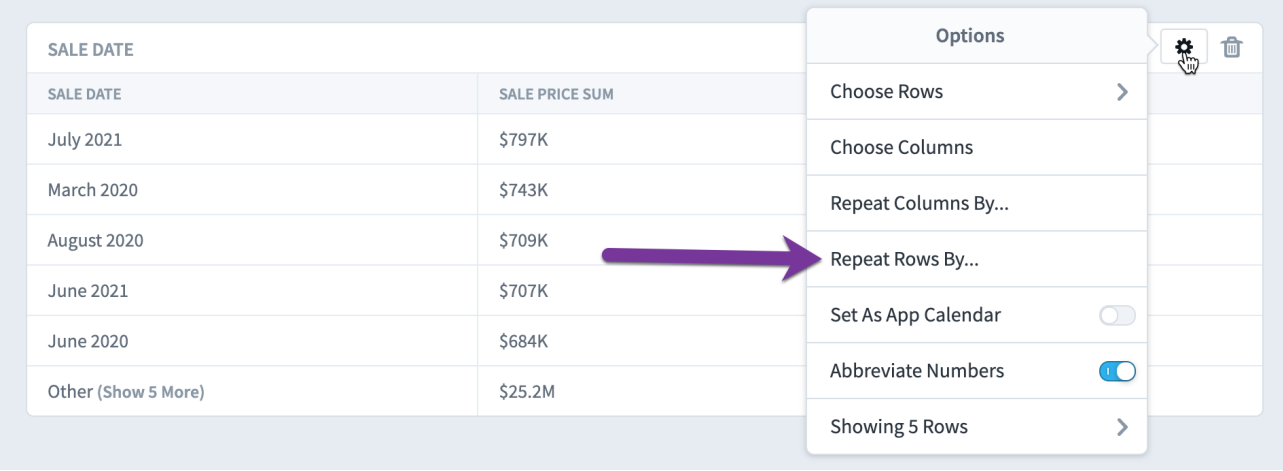
Here's a simple table showing the sum and average sales price by month.



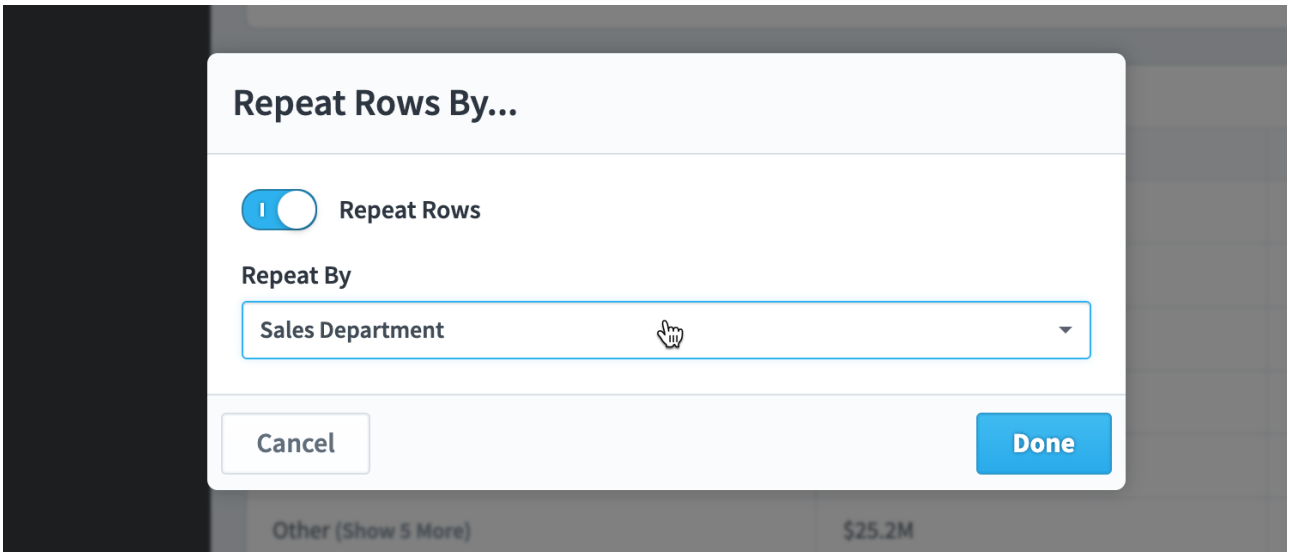
SALE DATE

SALE DATE	SALE PRICE SUM	AVERAGE SALE PRICE
July 2021	$797K	$1,097
March 2020	$743K	$1,232
August 2020	$709K	$1,085
June 2021	$707K	$1,006
June 2020	$684K	$1,131
Other (Show 5 More)	$25.2M	$61.1K

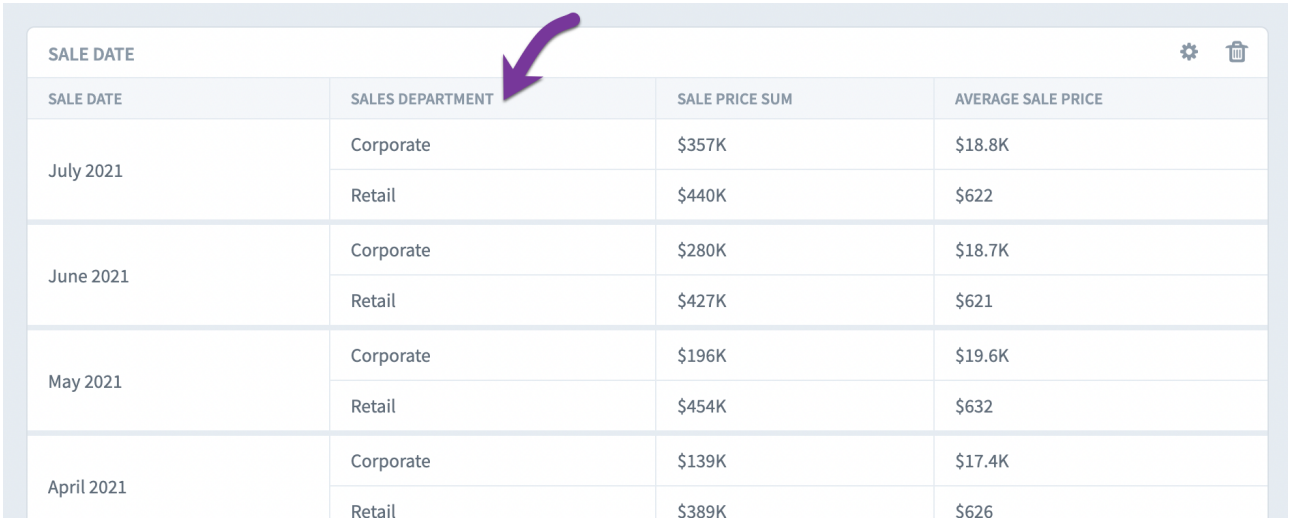
We want to see those numbers by sales department, however, so we'll choose "Repeat Rows By..." from the options menu.



And we'll choose the Sales Department field.



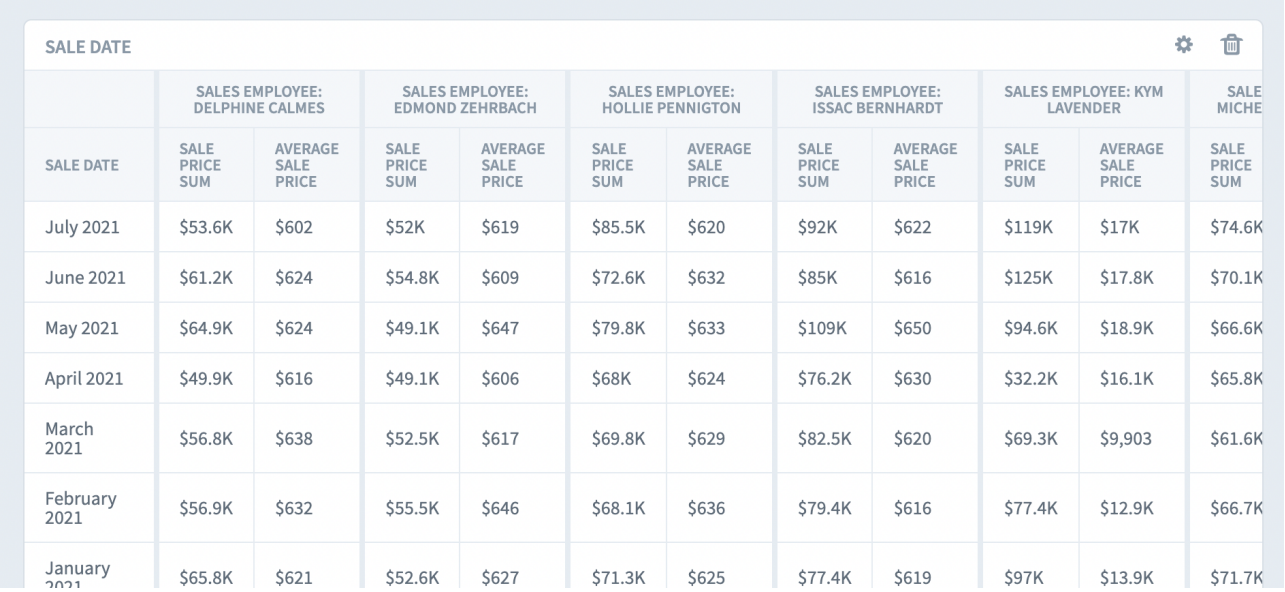
We can now see the sum and average sale price for each of our two sales departments for every month.



SALE DATE

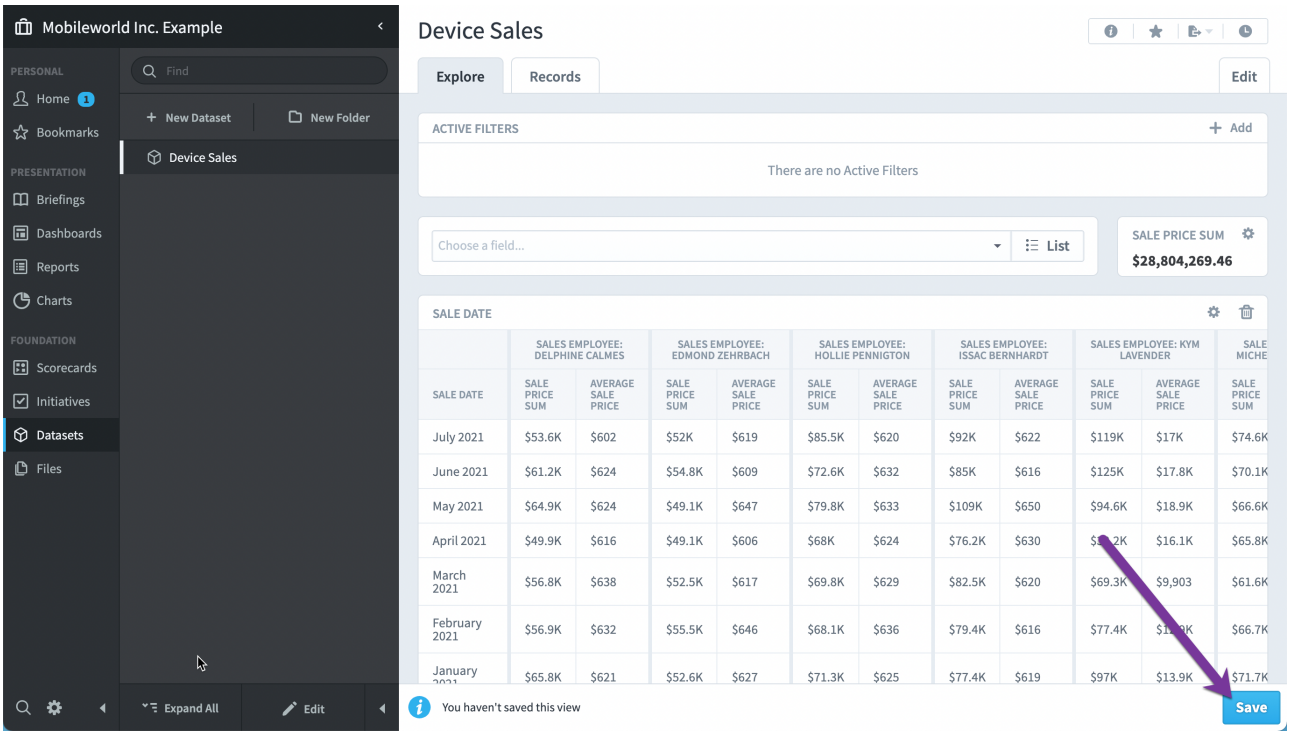
SALE DATE	SALES DEPARTMENT	SALE PRICE SUM	AVERAGE SALE PRICE
July 2021	Corporate	$357K	$18.8K
	Retail	$440K	$622
June 2021	Corporate	$280K	$18.7K
	Retail	$427K	$621
May 2021	Corporate	$196K	$19.6K
	Retail	$454K	$632
April 2021	Corporate	$139K	$17.4K
	Retail	$389K	$626

Similarly, you can also choose "Repeat Columns By..." In this example we're repeating the sum and average sales columns by salesperson.

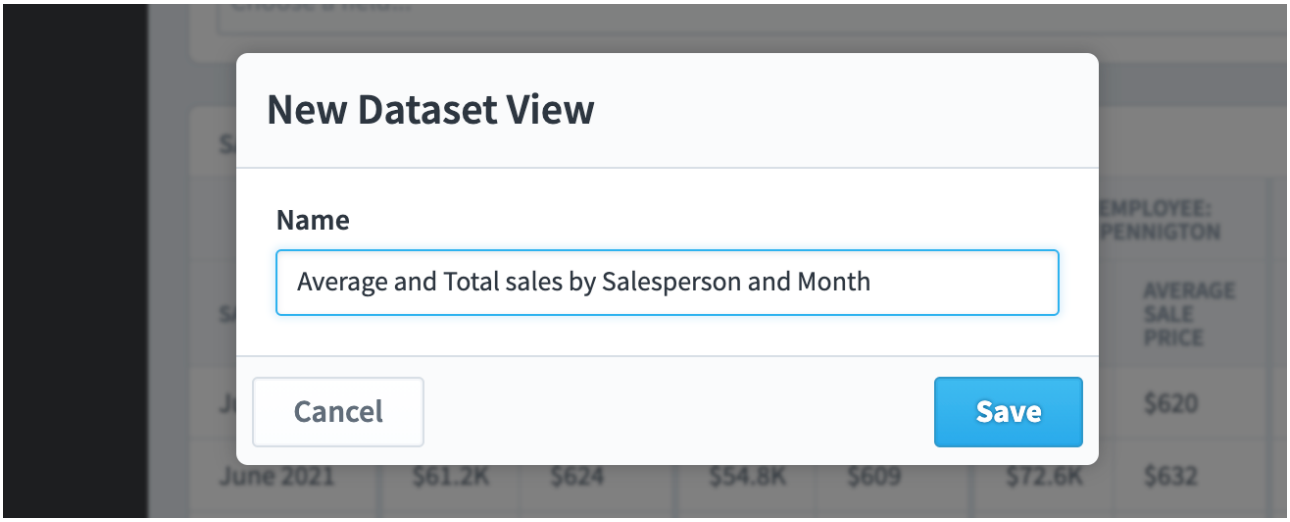


Saving views

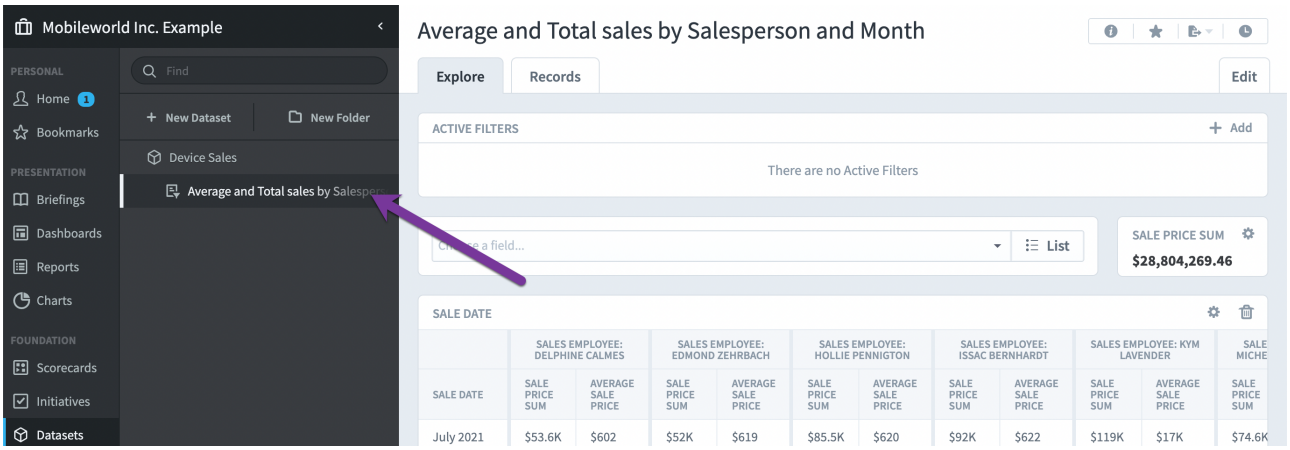
As mentioned earlier, the Datasets section is not meant to be a presentation tool. There are times, however, when you'll want to save the tables and filters that are on the Explore tab so you can view them later. All you need to do is click the Save button on the bottom...



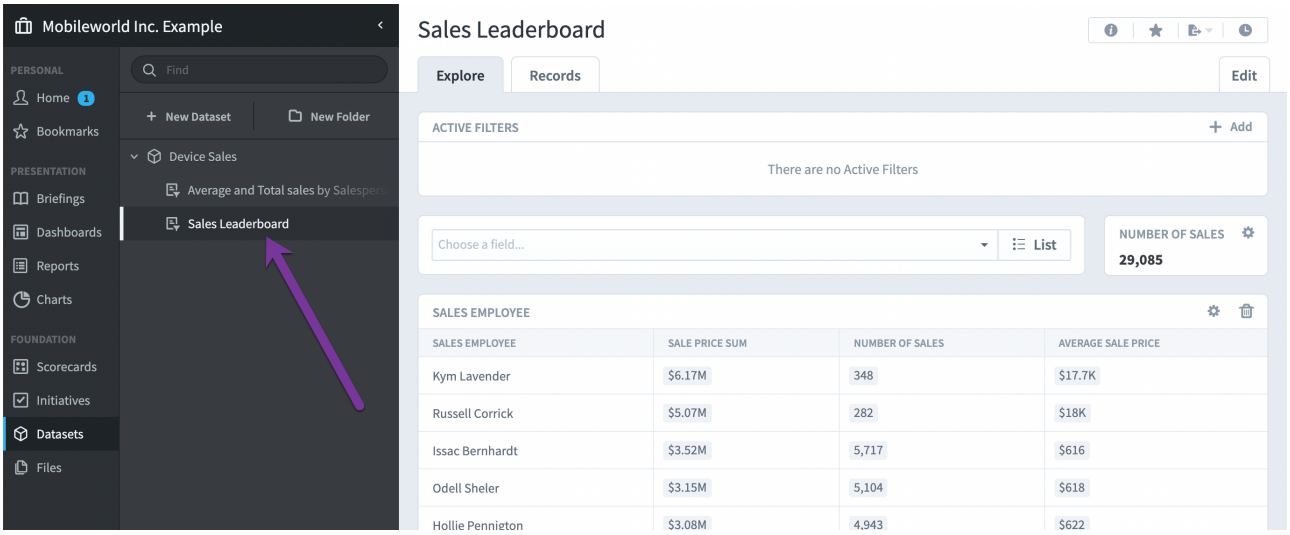
Give the Dataset View a name...



And it will add your saved view underneath the dataset in the navigation pane.



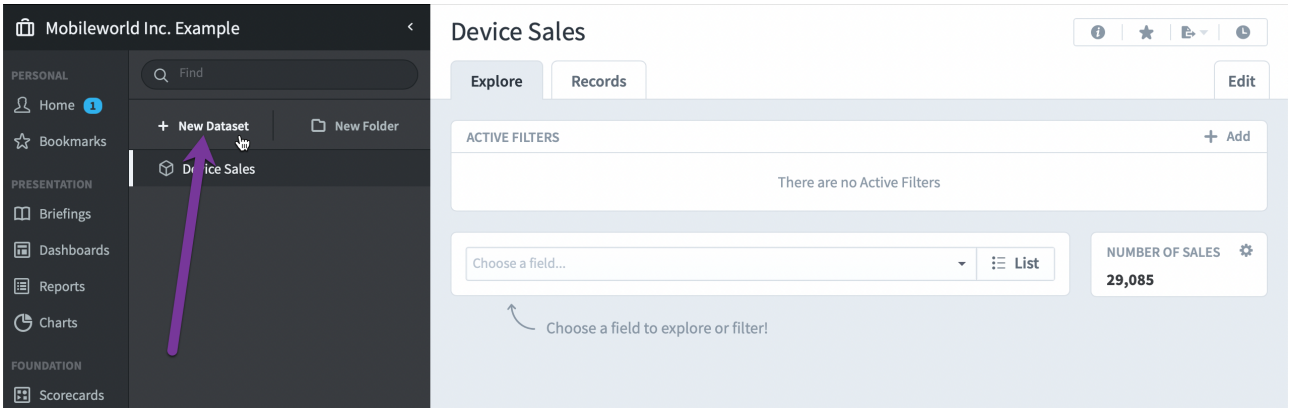
You can use dataset views as starting points for further data exploration, and they're shared by everyone who uses the dataset.


Mobileworld Inc. Example
PERSONAL
Home
Bookmarks
PRESENTATION
Briefings
Dashboards
Reports
Charts
FOUNDATION
Scorecards
Initiatives
Datasets
Files
Find
New Dataset
New Folder
Device Sales
Average and Total sales by Salesper
Sales Leaderboard
Sales Leaderboard
Explore
Records
Edit
ACTIVE FILTERS
Add
There are no Active Filters
Choose a field...
List
NUMBER OF SALES
29,085
SALES EMPLOYEE
SALES EMPLOYEE
SALE PRICE SUM
NUMBER OF SALES
AVERAGE SALE PRICE
Kym Lavender
$6.17M
348
$17.7K
Russell Corrick
$5.07M
282
$18K
Issac Bernhardt
$3.52M
5,717
$616
Odell Sheler
$3.15M
5,104
$618
Hollie Pennieton
$3.08M
4,943
$622

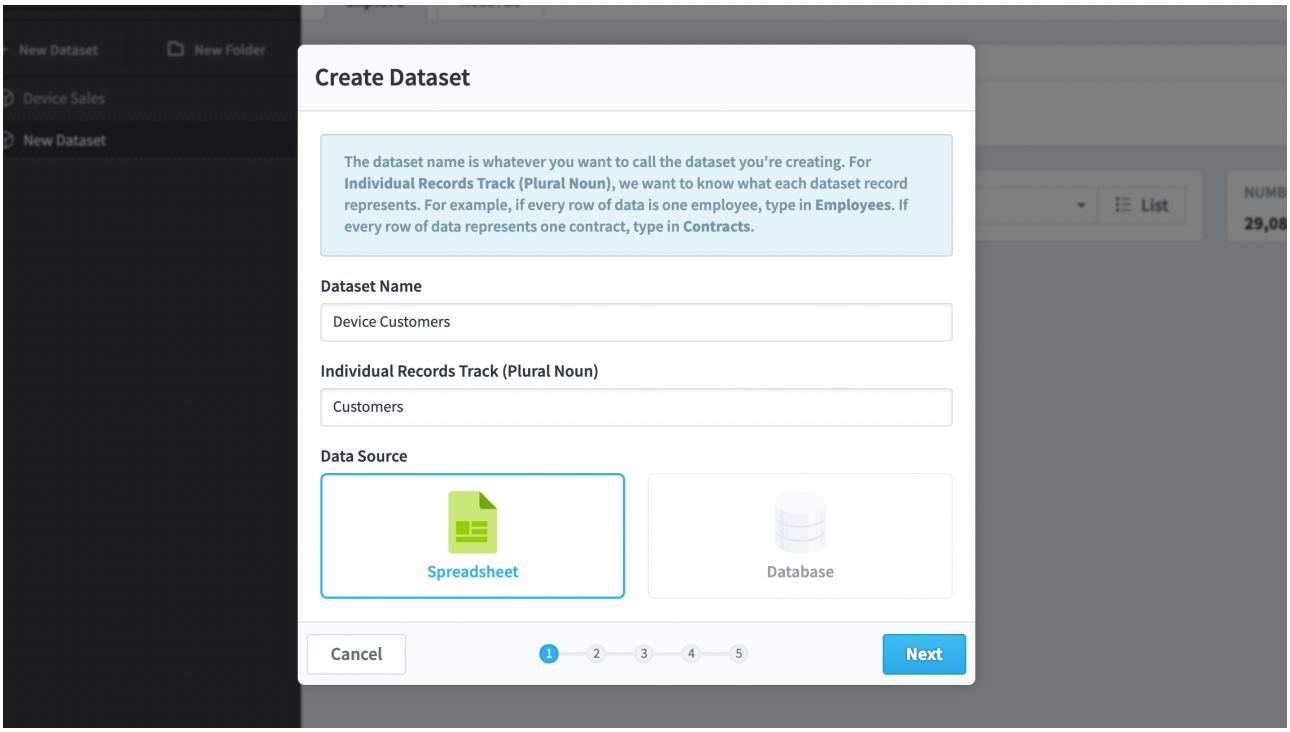
Creating and Editing Datasets

Creating a dataset

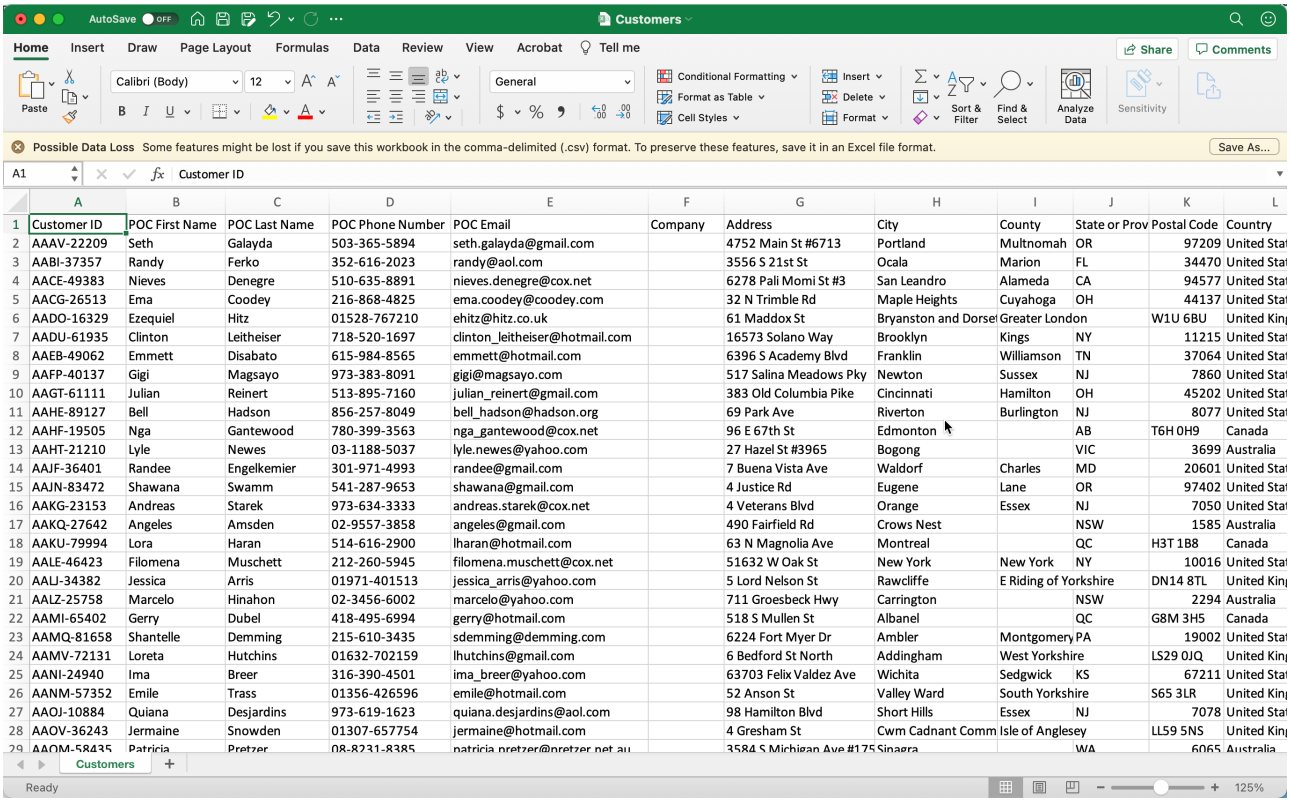
To create a new dataset, click on the "New Dataset" button at the top of the navigation pane.



This brings up the new dataset dialog. The "Dataset Name" is what you want to call your dataset, and it shows up in the navigation pane on the left. The answer to "Individual Records Track" should be the plural form of one row of your data. In this example, we're tracking device customers, so we're entering "Customers". Finally, we can either get data from a database or spreadsheet, and we're choosing spreadsheet.



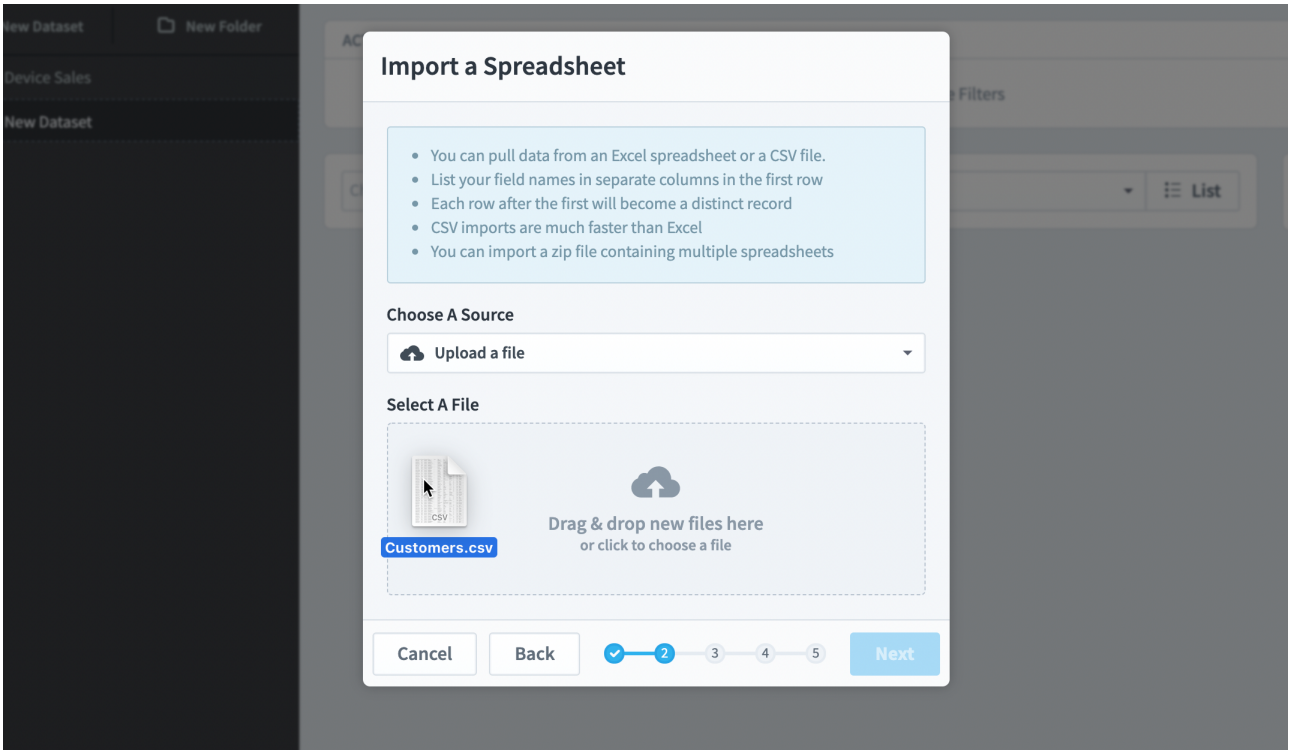
You can build a dataset from either a spreadsheet or a database. In this example we have a spreadsheet containing information about each of our customers that looks like this. Notice how each customer has a Customer ID in the first column.



Customer ID	POC First Name	POC Last Name	POC Phone Number	POC Email	Company	Address	City	County	State or Prov	Postal Code	Country
AAAV-22209	Seth	Galayda	503-365-5894	seth.galayda@gmail.com		4752 Main St #6713	Portland	Multnomah	OR	97209	United Stat
AABI-37357	Randy	Ferko	352-616-2023	randy@aol.com		3556 S 21st St	Ocala	Marion	FL	34470	United Stat
AACE-49383	Nieves	Denegre	510-635-8891	nieves.denegre@cox.net		6278 Pali Momi St #3	San Leandro	Alameda	CA	94577	United Stat
AACG-26513	Ema	Coodey	216-868-4825	ema.coodey@coodey.com		32 N Trimble Rd	Maple Heights	Cuyahoga	OH	44137	United Stat
AADO-16329	Ezequiel	Hitz	01528-767210	ehitz@hitz.co.uk		61 Maddox St	Bryanston and Dorset	Greater London		W1U 6BU	United Kin
AADU-61935	Clinton	Leitheiser	718-520-1697	clinton_leitheiser@hotmail.com		16573 Solano Way	Brooklyn	Kings	NY	11215	United Stat
AAEB-49062	Emmett	Disabato	615-984-8565	emmett@hotmail.com		6396 S Academy Blvd	Franklin	Williamson	TN	37064	United Stat
AAFP-40137	Gigi	Magsayo	973-383-8091	gigi@magsayo.com		517 Salina Meadows Pky	Newton	Sussex	NJ	7860	United Stat
AAGT-61111	Julian	Reinert	513-895-7160	julian_reinert@gmail.com		383 Old Columbia Pike	Cincinnati	Hamilton	OH	45202	United Stat
AAHE-89127	Bell	Hadson	856-257-8049	bell_hadson@hadson.org		69 Park Ave	Riverton	Burlington	NJ	8077	United Stat
AAHF-19505	Nga	Gantewood	780-399-3563	nga_gantewood@cox.net		96 E 67th St	Edmonton		AB	T6H 0H9	Canada
AAHT-21210	Lyle	Newes	03-1188-5037	lyle.newes@yahoo.com		27 Hazel St #3965	Bogong		VIC	3699	Australia
AAJF-36401	Randee	Engelkemier	301-971-4993	randee@gmail.com		7 Buena Vista Ave	Waldorf	Charles	MD	20601	United Stat
AAJN-83472	Shawana	Swamm	541-287-9653	shawana@gmail.com		4 Justice Rd	Eugene	Lane	OR	97402	United Stat
AAKG-23153	Andreas	Starek	973-634-3333	andreas.starek@cox.net		4 Veterans Blvd	Orange	Essex	NJ	7050	United Stat
AAKQ-27642	Angeles	Amsden	02-9557-3858	angeles@gmail.com		490 Fairfield Rd	Crows Nest		NSW	1585	Australia
AAKU-79994	Lora	Haran	514-616-2900	lharan@hotmail.com		63 N Magnolia Ave	Montreal		QC	H3T 1B8	Canada
AALE-46423	Filomena	Muschett	212-260-5945	filomena.muschett@cox.net		51632 W Oak St	New York	New York	NY	10016	United Stat
AALJ-34382	Jessica	Arris	01971-401513	jessica_arris@yahoo.com		5 Lord Nelson St	Rawcliffe	E Riding of Yorkshire		DN14 8TL	United Kin
AALZ-25758	Marcelo	Hinahon	02-3456-6002	marcelo@yahoo.com		711 Groesbeck Hwy	Carrington		NSW	2294	Australia
AAMI-65402	Gerry	Dubel	418-495-6994	gerry@hotmail.com		518 S Mullen St	Albanel		QC	G8M 3H5	Canada
AAMQ-81658	Shantelle	Demming	215-610-3435	sdemming@demming.com		6224 Fort Myer Dr	Ambler	Montgomery	PA	19002	United Stat
AAMV-72131	Loreta	Hutchins	01632-702159	lhutchins@gmail.com		6 Bedford St North	Addingham	West Yorkshire		LS29 0JQ	United Kin
AANI-24940	Ima	Breer	316-390-4501	ima_breer@yahoo.com		63703 Felix Valdez Ave	Wichita	Sedgwick	KS	67211	United Stat
AANM-57352	Emile	Trass	01356-426596	emile@hotmail.com		52 Anson St	Valley Ward	South Yorkshire		S65 3LR	United Kin
AAOJ-10884	Quiana	Desjardins	973-619-1623	quiana.desjardins@aol.com		98 Hamilton Blvd	Short Hills	Essex	NJ	7078	United Stat
AAOV-36243	Jermaine	Snowden	01307-657754	jermaine@hotmail.com		4 Gresham St	Cwm Cadnant Comm	Isle of Anglesey		LL59 5NS	United Kin
AAQM-58435	Patricia	Pretzer	08-8231-8385	patricia.pretzer@pretzer.net.au		3584 S Michigan Ave #175	Sinagra		WA	6065	Australia

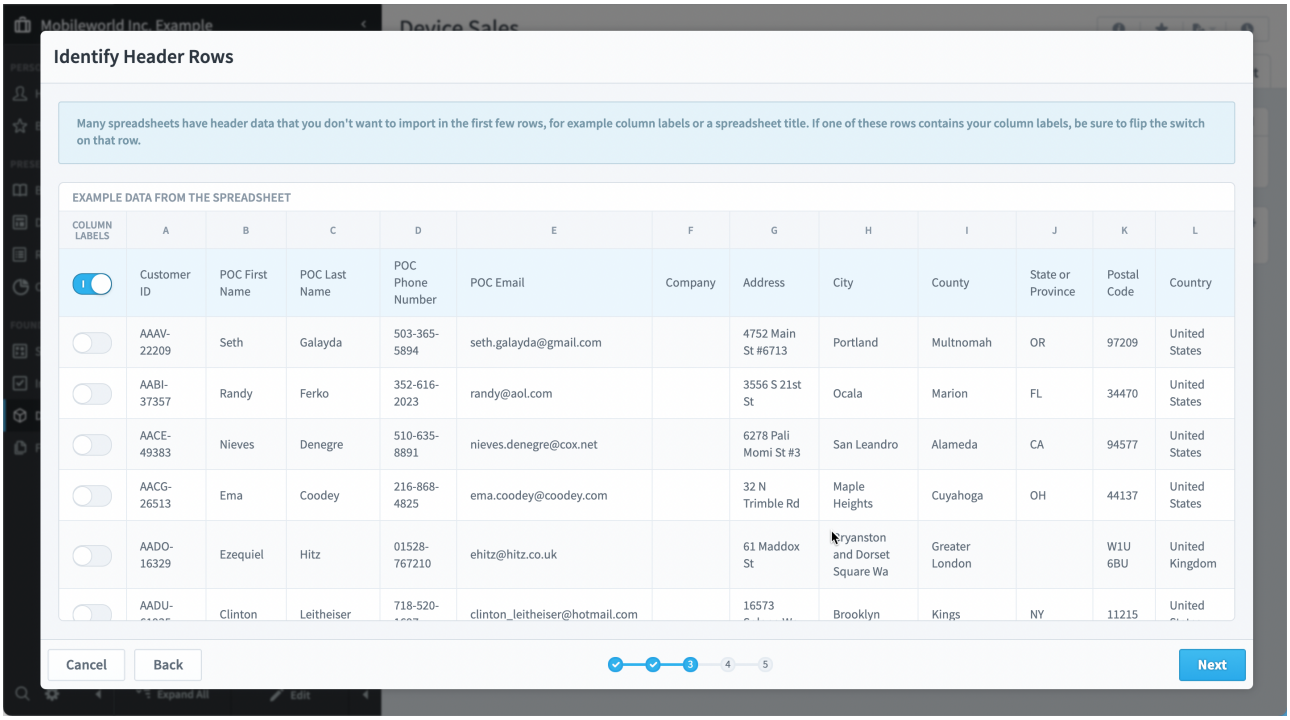
There are multiple options for where to get spreadsheets. To fully automate your data flow, you can schedule an import from Google Sheets or an (S)FTP server. If you want to build multiple datasets from the different worksheets in an Excel file, you'll probably want to store a single file in the Files section and build your datasets from that. See the Updating Datasets article for more information.

For now, we'll just keep it simple and upload a file.

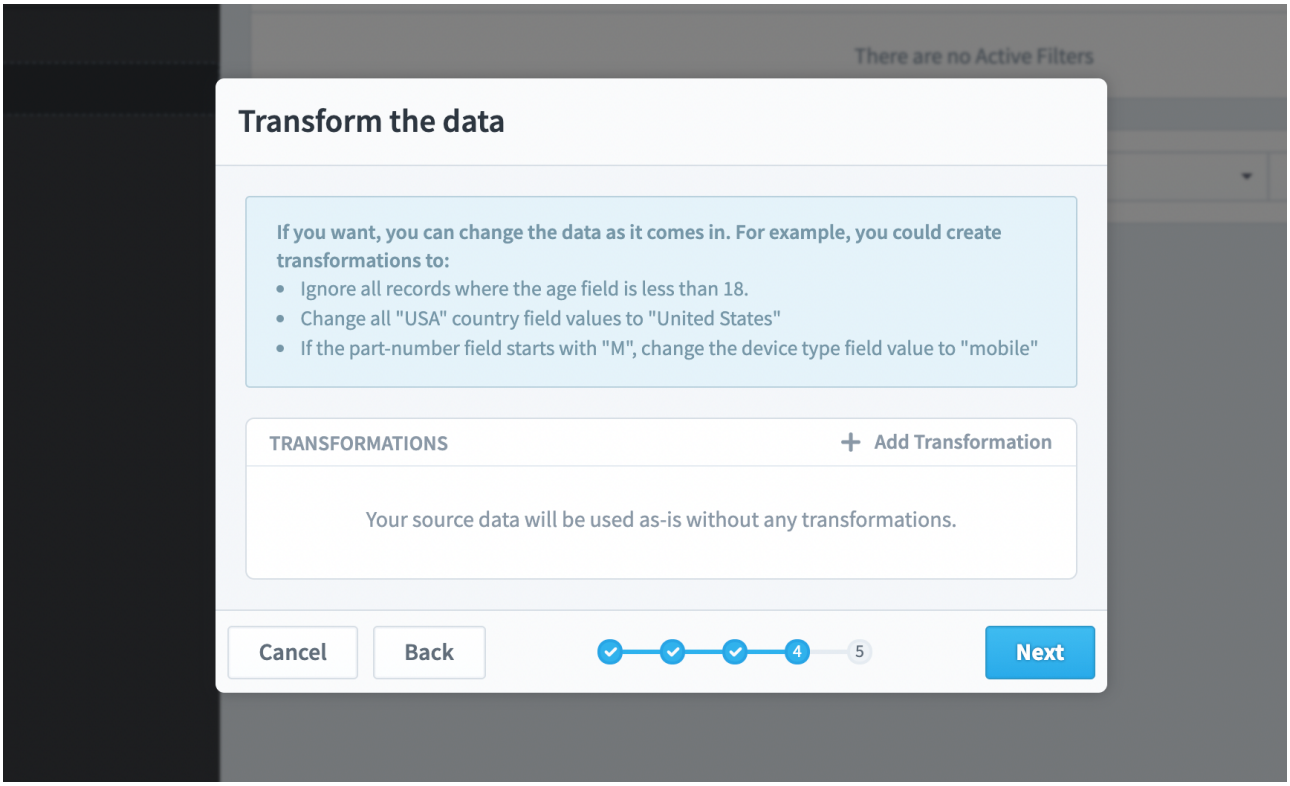


Once the spreadsheet is uploaded, Spider Impact starts to scan and process it. This may take anywhere between a few seconds and many minutes, depending on the size of your data.

When it's done processing, the next step is to choose the header row that contains the column labels. If you're using an Excel file with multiple worksheets, you'll choose which worksheet you want to use on this step too.

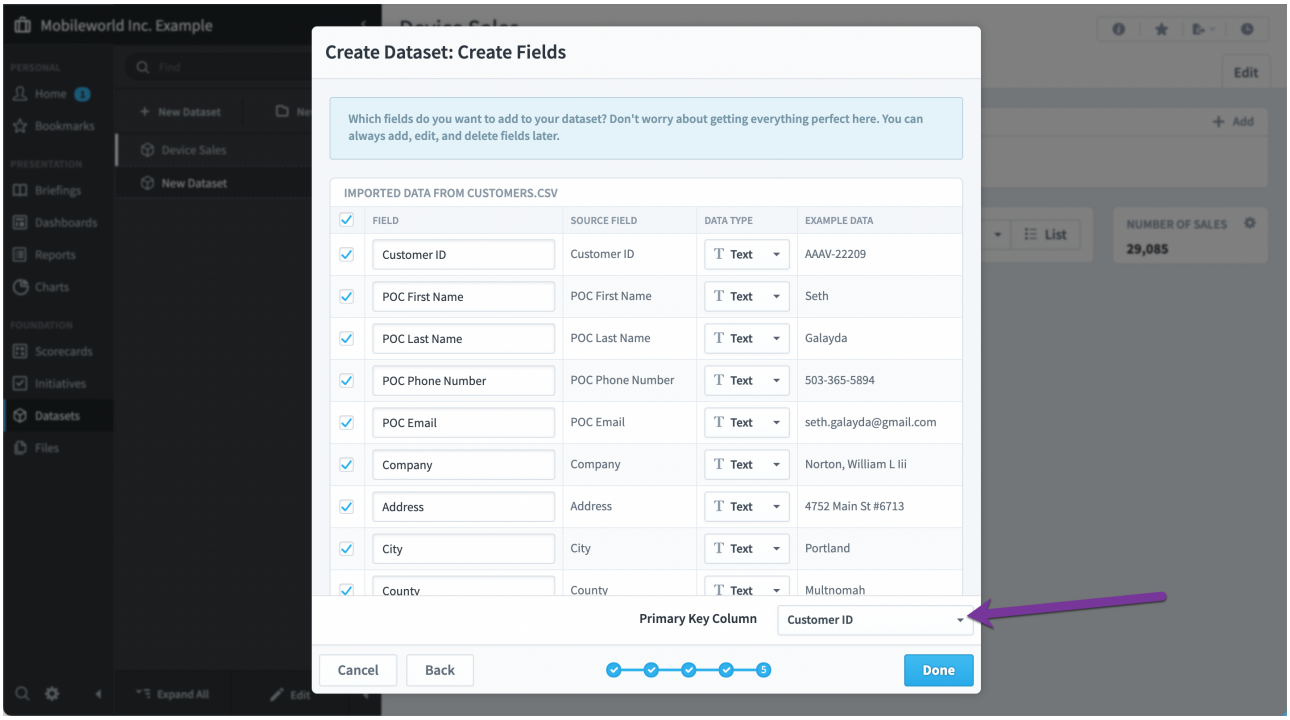


The data transformation step is next, and it allows you to apply powerful transformations to your data as it's imported. You can skip records, combine fields together, or clean dirty data.

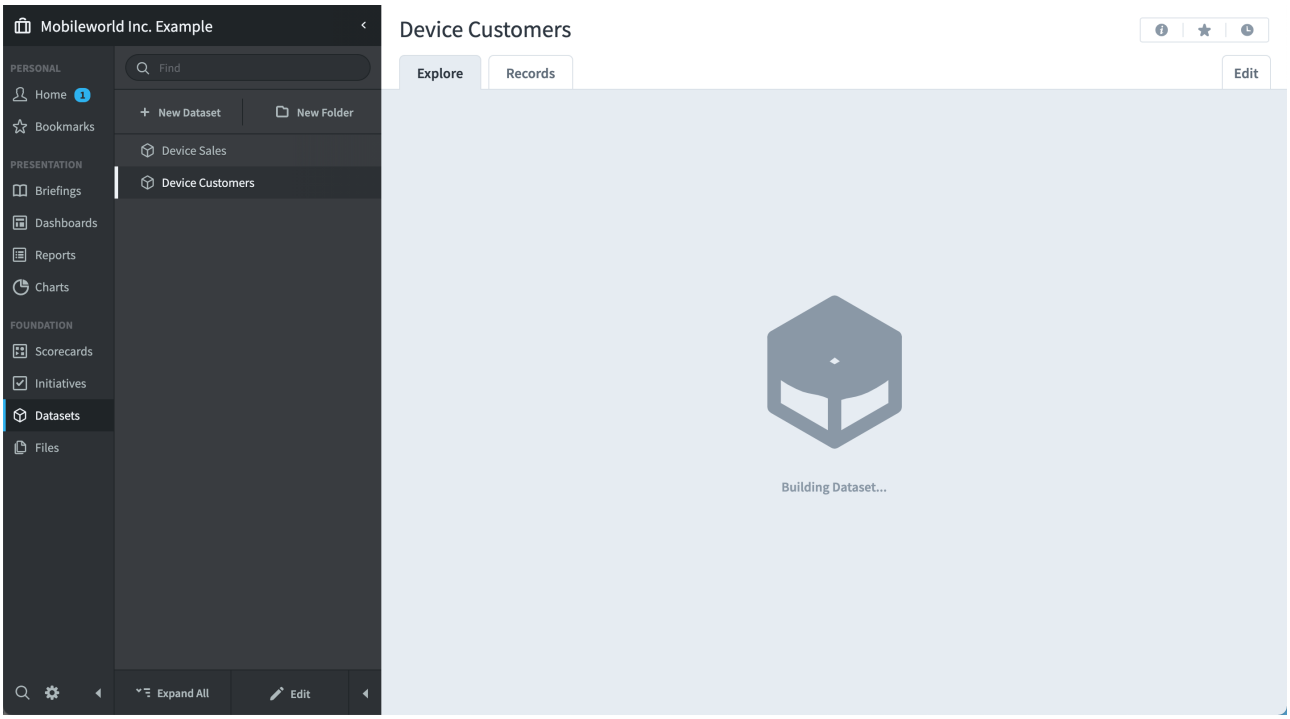


Finally, you choose which fields you want to include in your dataset. This is your first opportunity to choose a better name or data type for each field, but you can always edit fields on the Edit tab later.

In this example we're also setting Customer ID as the primary key, which allows us to update records later as well as link datasets together.

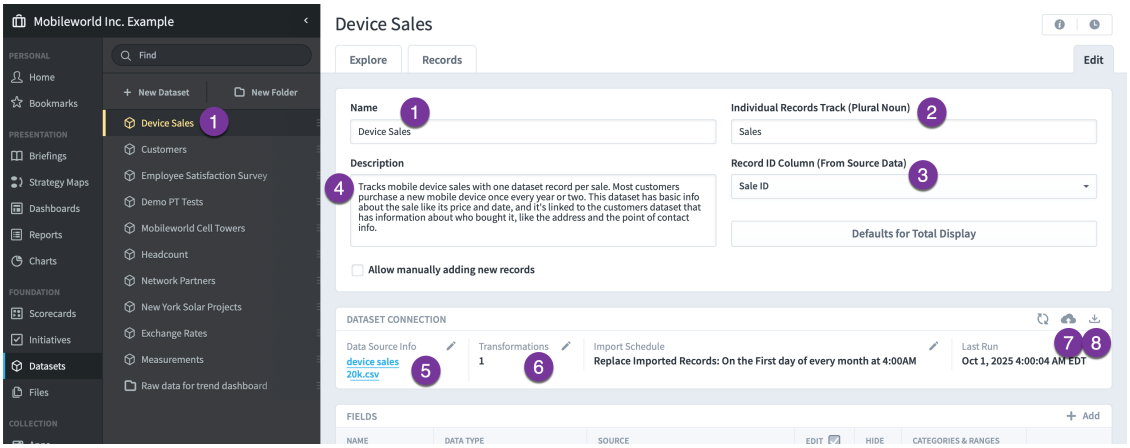


After you click Done it can take several minutes or longer for your dataset to build, depending on the amount of data.



Editing datasets

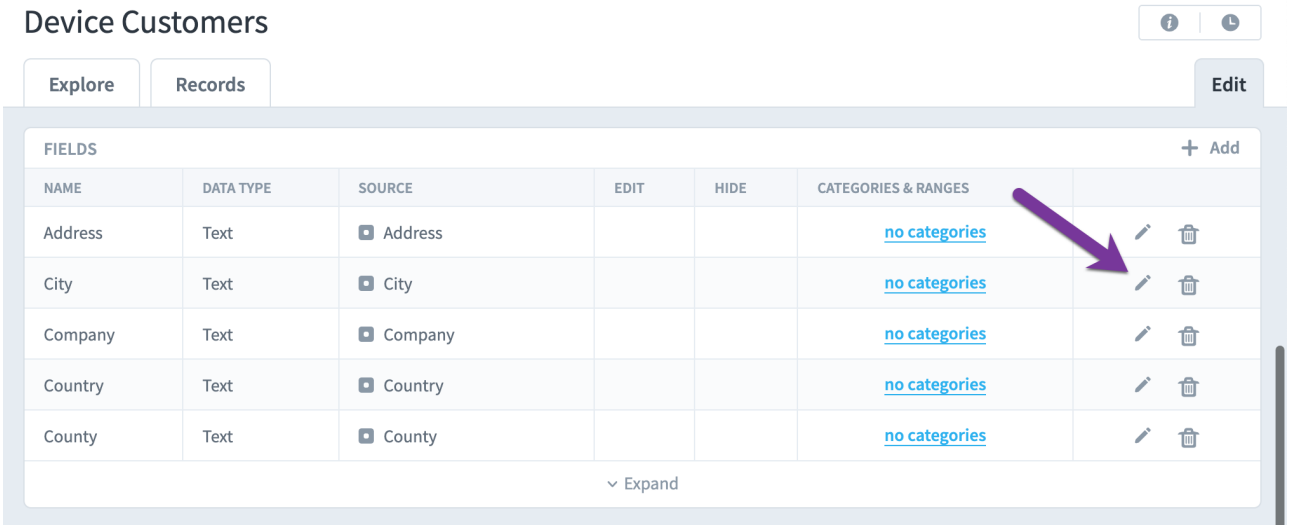
To edit a dataset, just go to its Edit tab. Here you can modify several things that you set up when initially building the dataset.



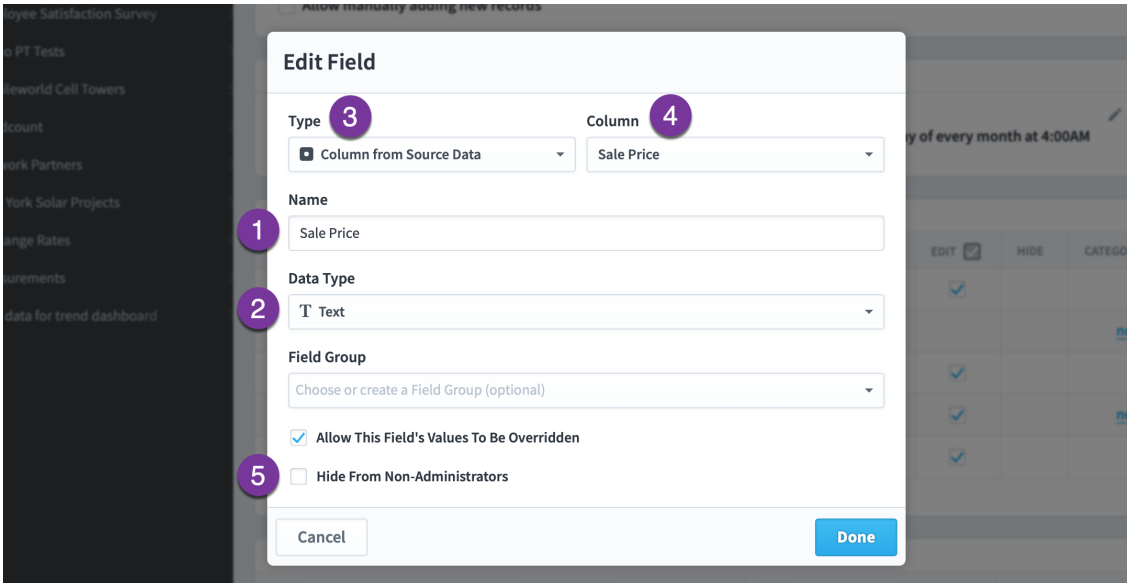
1. The dataset name that shows in the navigation pane.
2. Used throughout the app to identify what is stored in the dataset, for example the total box.
3. The Record ID column (like a database primary key field).
4. The dataset description that's used by Impact Assistant
5. The data source.
6. Optional data transformations.
7. Upload a new spreadsheet. For connections to Databases, Google Sheets, and (S)FTP this will be a "Fetch Data" button to pull in the latest data.
8. Download the most recently imported spreadsheet.

Editing fields

You can edit dataset fields on the Edit tab by clicking on their edit buttons.



This opens the Edit Field dialog.



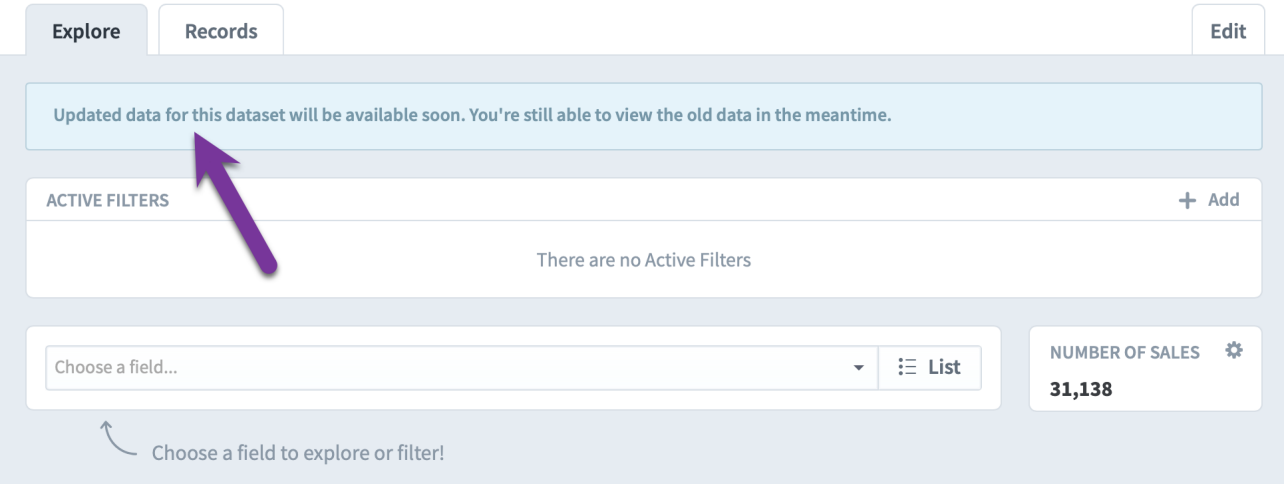
1. The field name
2. The field's data type, for example Text, Date, Number, Etc.
3. Determines where the data is coming from. "**Column from Source Data**" is a simple field from the source data. "**Manual**" with starts as blank and you manually populate it in sections like Forms. "**Calculated**" fields have equations that combine values from multiple data sources. "**Data Clusters**" are covered in their own article.

4. The source data column to use for the field's data.
5. Hide From Non-Administrators allows you to prevent a field from showing in Spider Impact. For example, if you're you're using a private ID number to link multiple datasets together, you could use that field for linking on the Edit tab, but choose to hide that field everywhere else.

Dataset rebuilding

Automatic rebuilding

A dataset will rebuild automatically whenever you make a change that affects its data. This rebuild is the same as the initial build described above, except that the dataset is usable while it's being rebuilt. People will continue to see old data from before the change until the new data is ready.

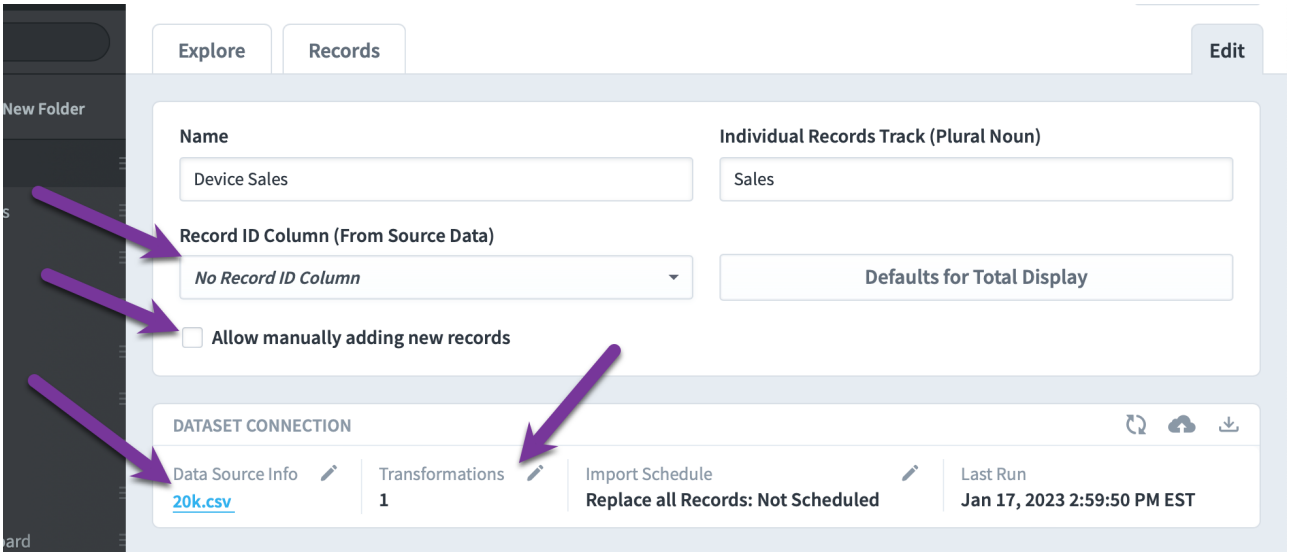


Spider Impact only recalculates datasets when it's necessary, so changes that don't affect the data don't cause a rebuild. For example, renaming a field doesn't affect that's field's values, so it doesn't do any recalculating. It's the same with changing dataset permissions.

For reference, these *are* the types of changes that cause a dataset to rebuild:

Editing dataset settings:

- Changing the Record ID column
- Changing "Allow manually adding records"
- Changing Data Source Info
- Editing transformations



Editing field settings (including in linked datasets):

- Type (Manual, Calculated, Data Clusters, etc.)
- Aggregation Type
- Data Type (Note that changing between number types like number, percent, currency doesn't cause a rebuild)
- Number of clusters (for Data Cluster fields)
- Chosen fields (for Data Cluster fields)
- Default Calendar (for Date fields)
- Equation (for Calculated fields)
- Key Set (for Rollup fields)
- Geographic settings (for Geographic fields)
- Linked Dataset (for Dataset Link fields)
- Changing a field between editable and not editable
- Adding a field

Editing rollup tree items:

The following changes to rollup tree items will cause all of the datasets with Rollup fields using that tree to rebuild.

- Adding
- Deleting
- Moving
- Changing keys

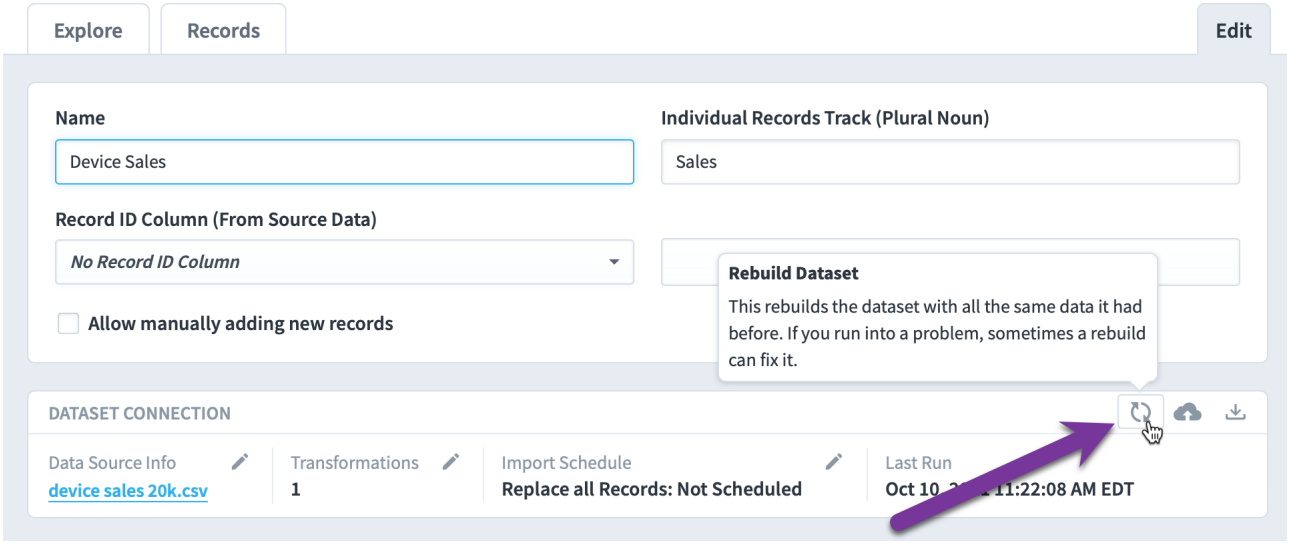
Updating dataset records:

Manually adding or editing records using Forms or the Datasets Records tab does not rebuild the dataset for the record you've added or modified. All other datasets with calculated fields referencing a field in that dataset will be rebuilt, however.

Importing records into a dataset always rebuilds that dataset, regardless of whether the import behavior is to add records or replace all records. All other datasets with equations referencing its fields are also rebuilt.

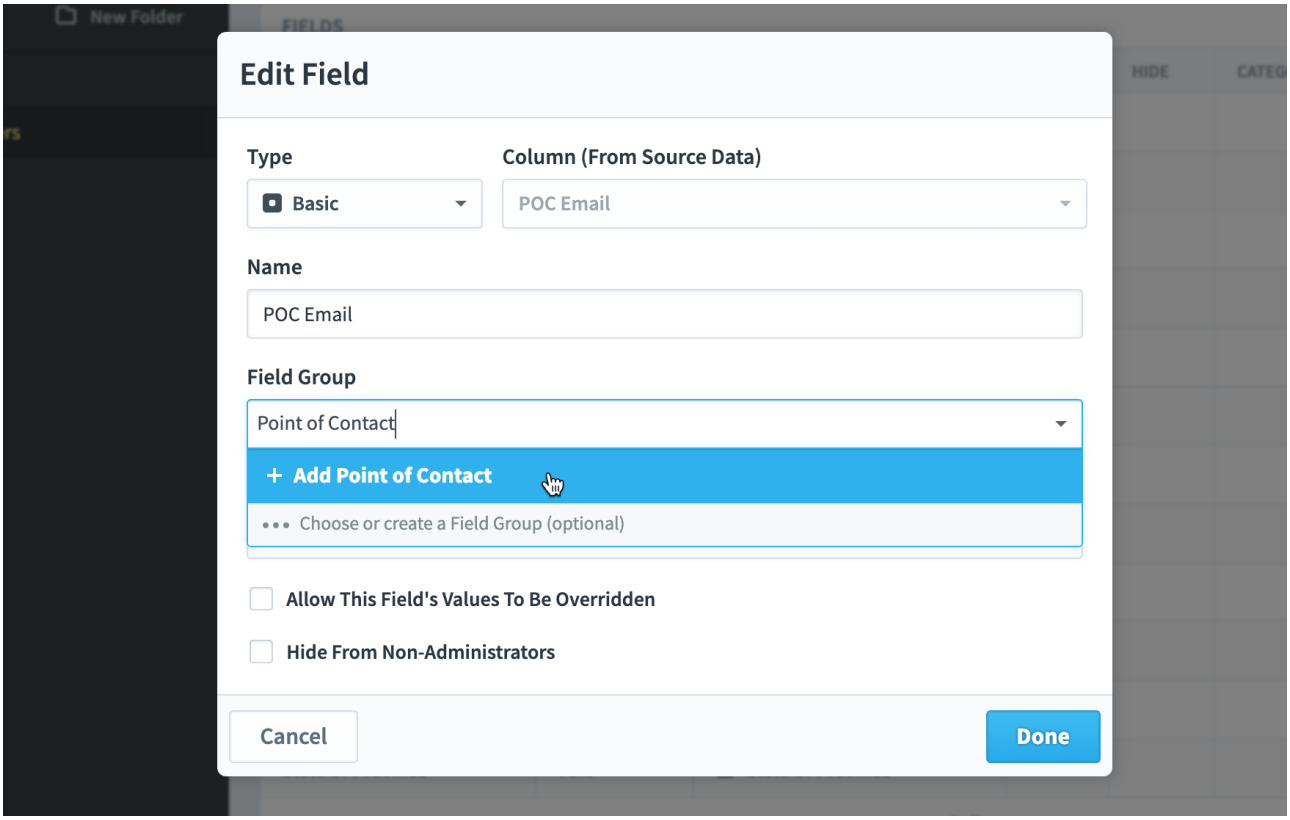
Manual rebuilding

There's a "Rebuild Dataset" button that rebuilds a dataset with the same data it had before. If you run into an unexpected problem, sometimes manually forcing a rebuild can fix it.

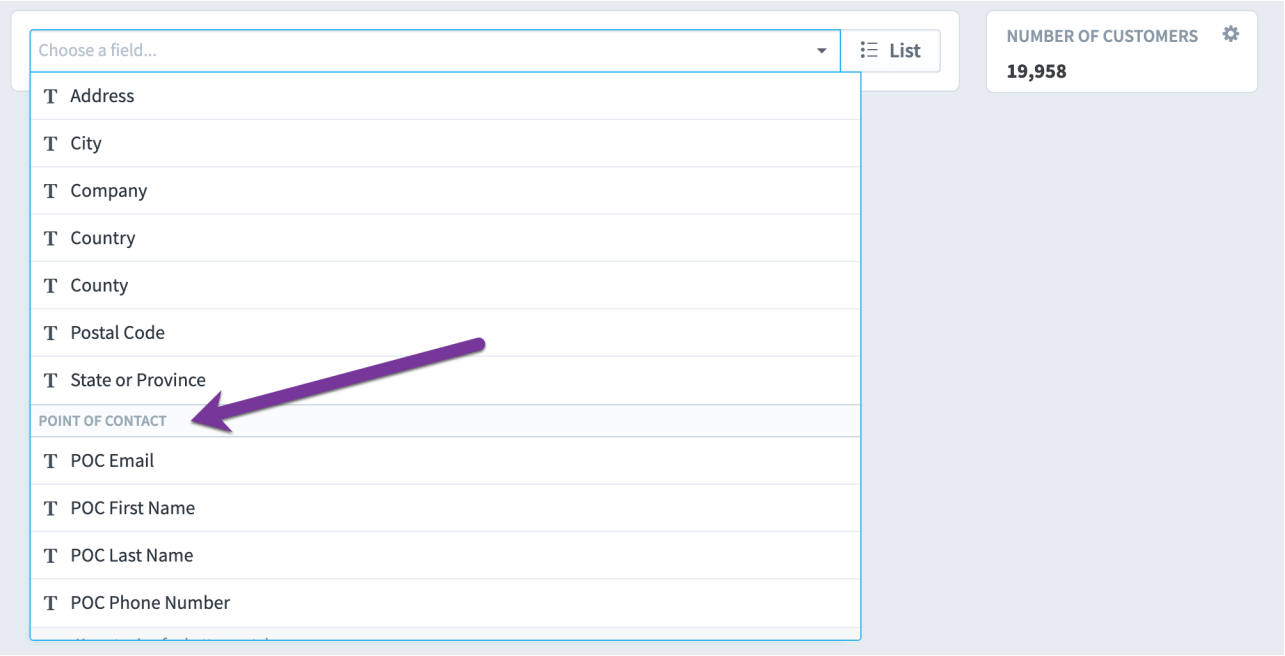


Field groups

Field Groups allow you to organize your fields into groups. Here we're creating a "Point of Contact" field group and adding several fields to it.



Now whenever we see a list of fields for this dataset, the Point of Contact fields will be grouped together.

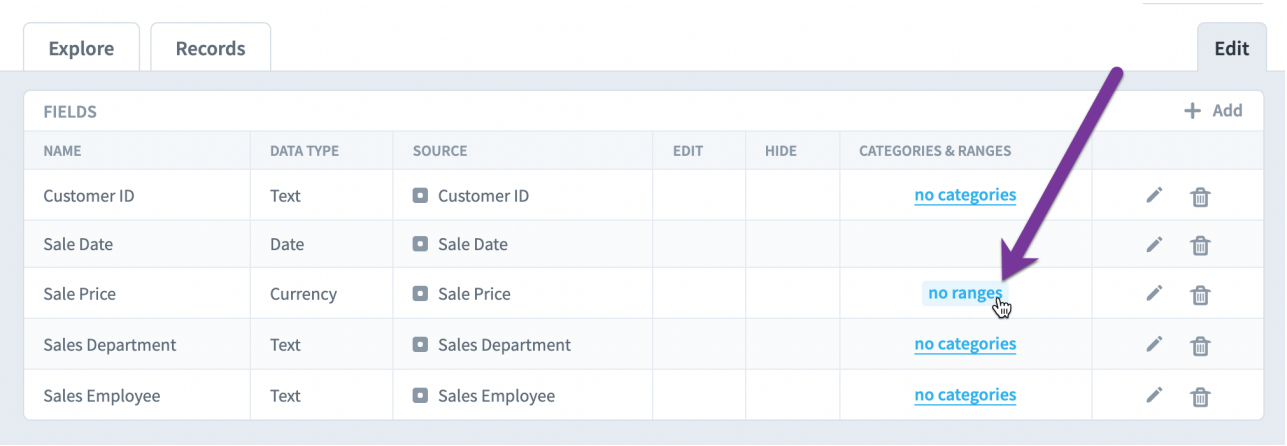


Field categories and ranges

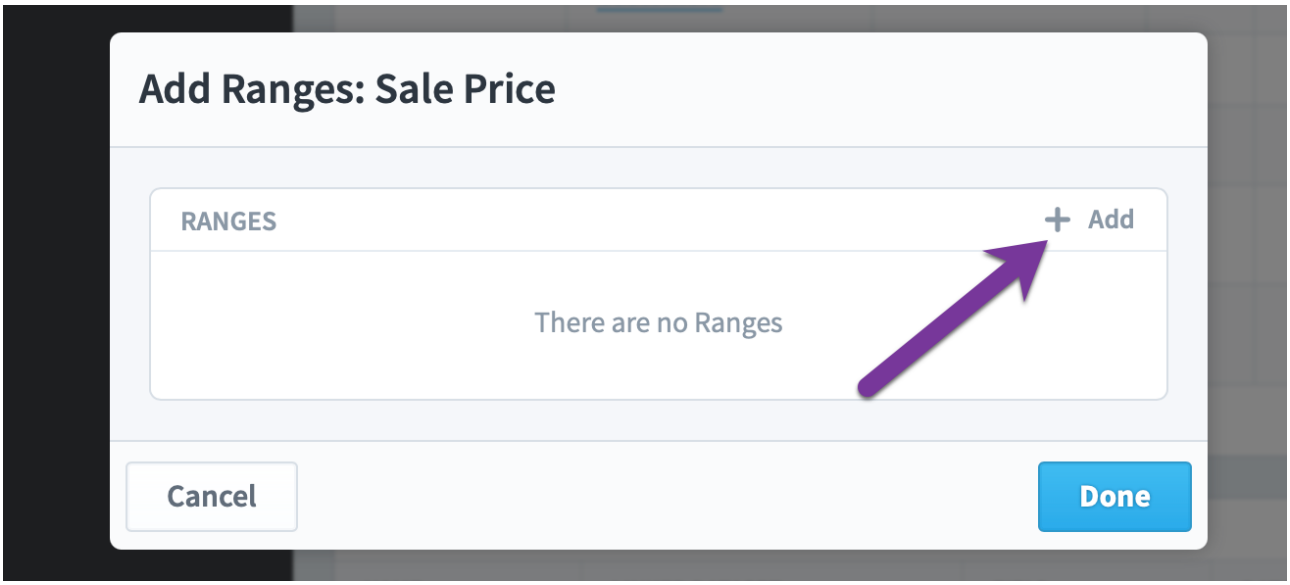
When we add the Sale Price field to the Explore tab, it lists every single unique price in the table. This isn't particularly helpful because the most common sale price of $411 only appeared on 6 sales.



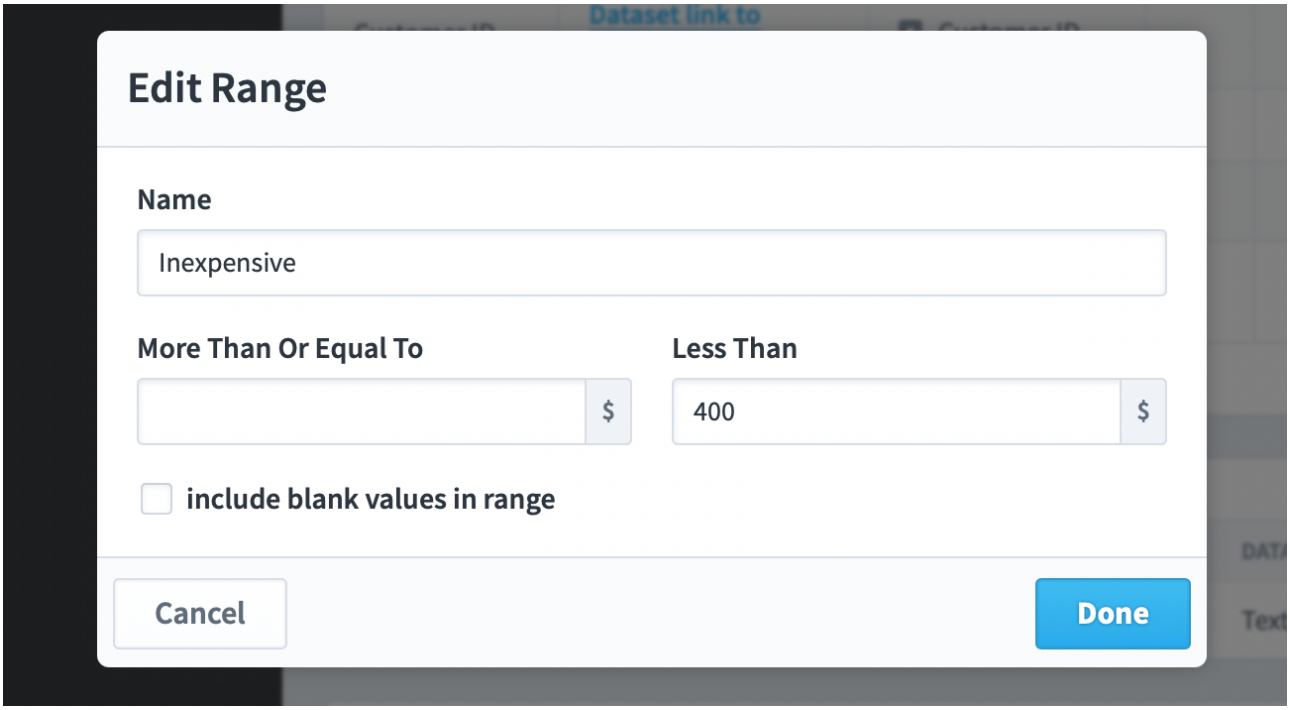
To fix this, let's visit the dataset's Edit tab, scroll down to the Fields table, and click on the Sale Price field's Ranges button.



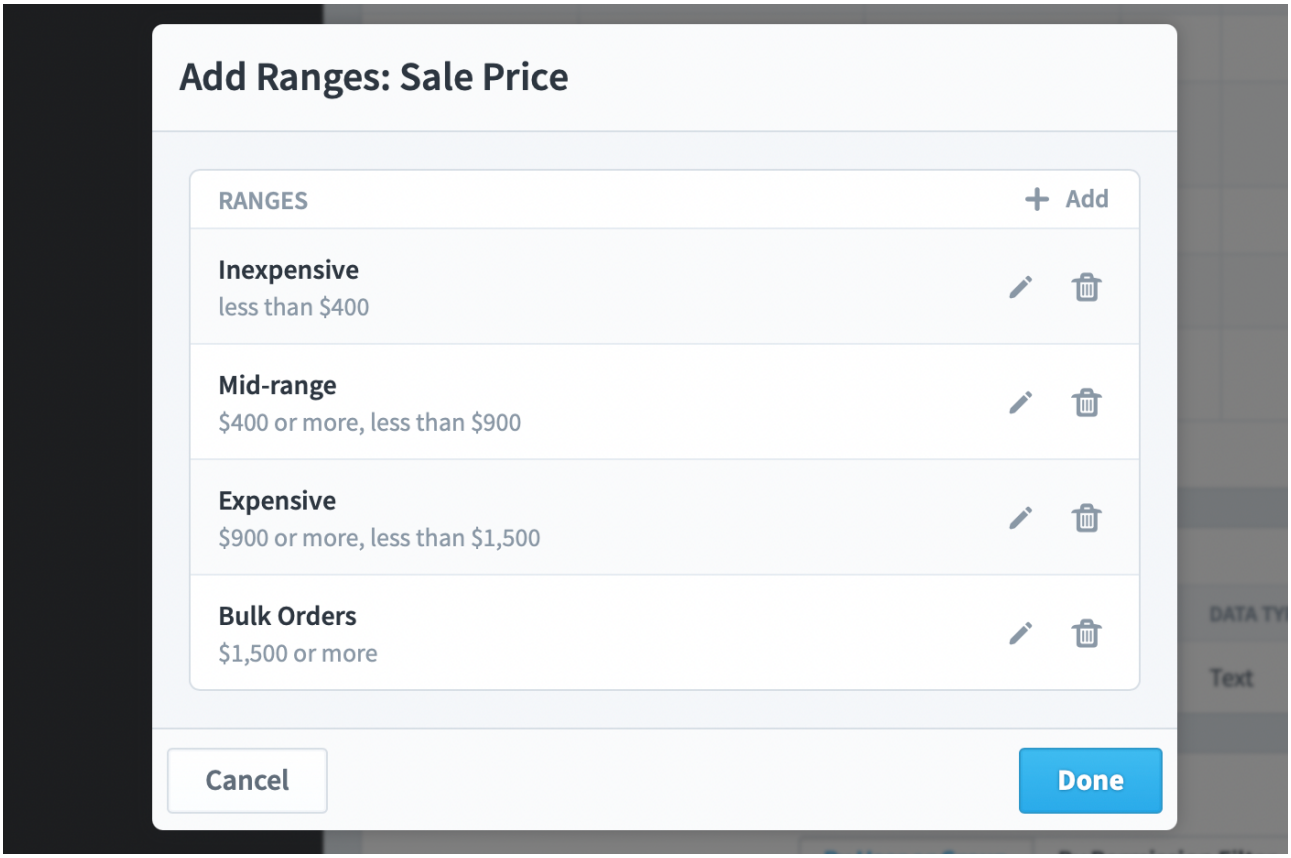
To add a range, click on the add button in the corner.



Then we'll create our first range. In this example, the "inexpensive" range is anything less than $400.



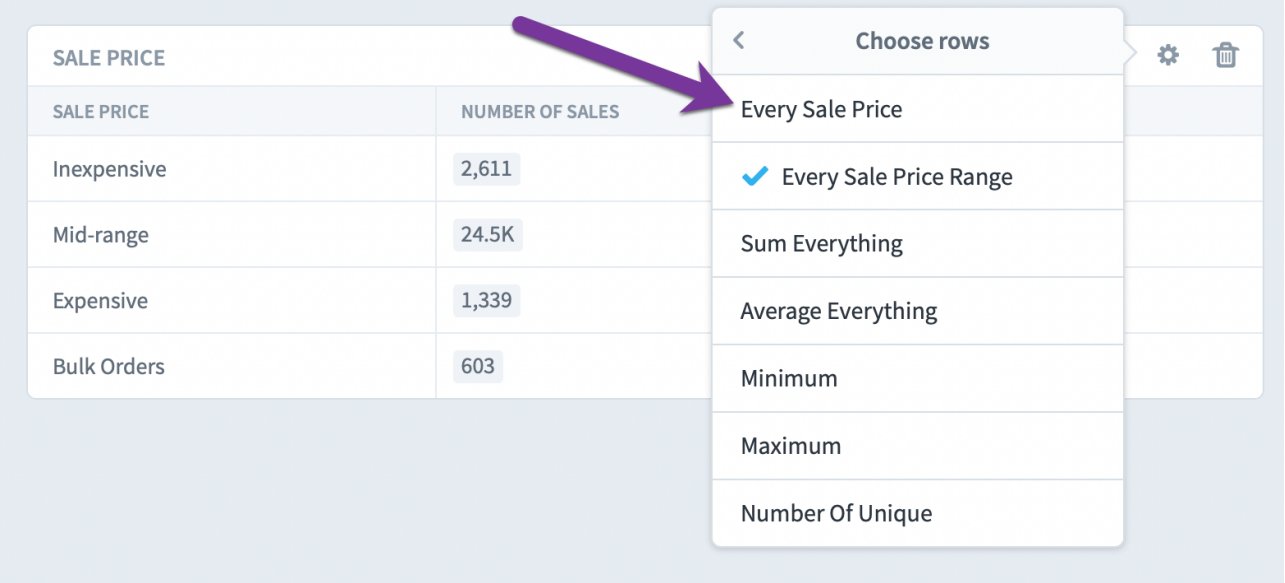
Then we'll add three more ranges.



Now when we explore Sales Price, it defaults to showing the four ranges we created. This is much more usable information.



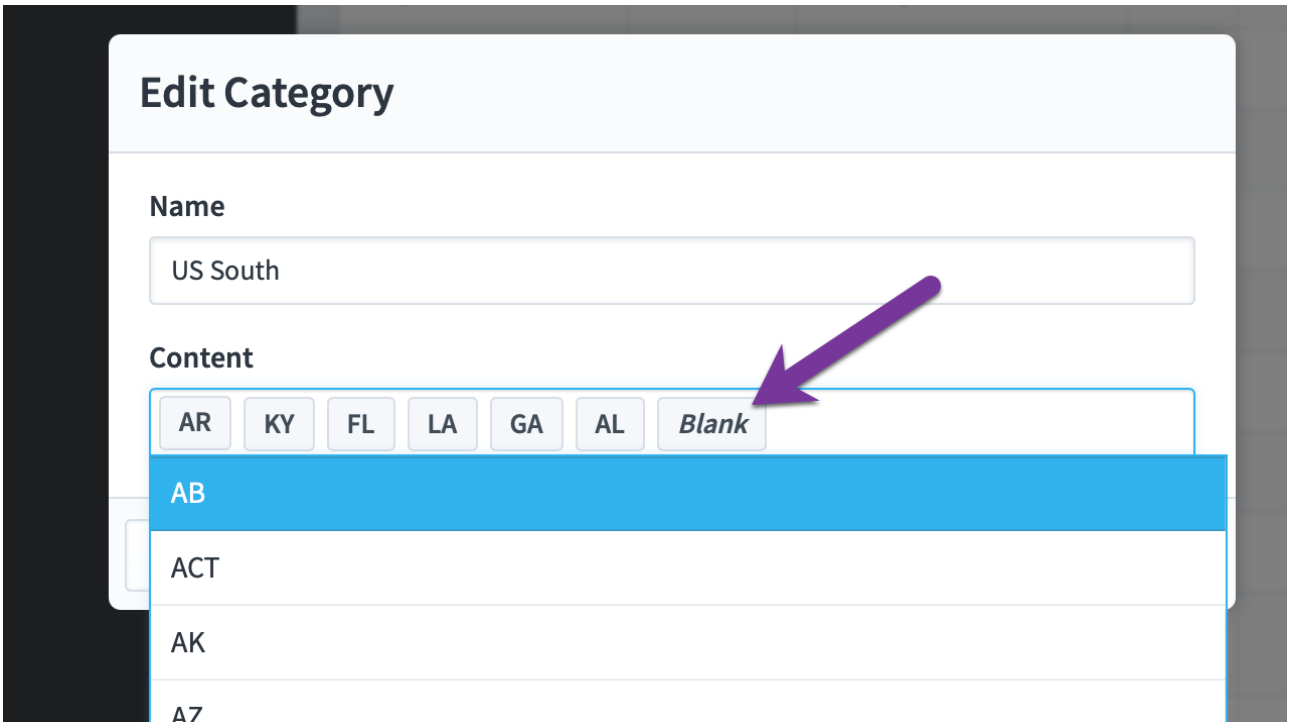
At any point you can switch back to showing every sales price.



Fields with data types like Text have categories instead of ranges.

POC Phone Number	Text	POC Phone Numbe r			no categories	
Postal Code	Text	Postal Code			no categories	
State or Province	Text	State or Province			no categories	

The idea is the same, but you choose specific values for every category. Note how in this category we've also included blank values.



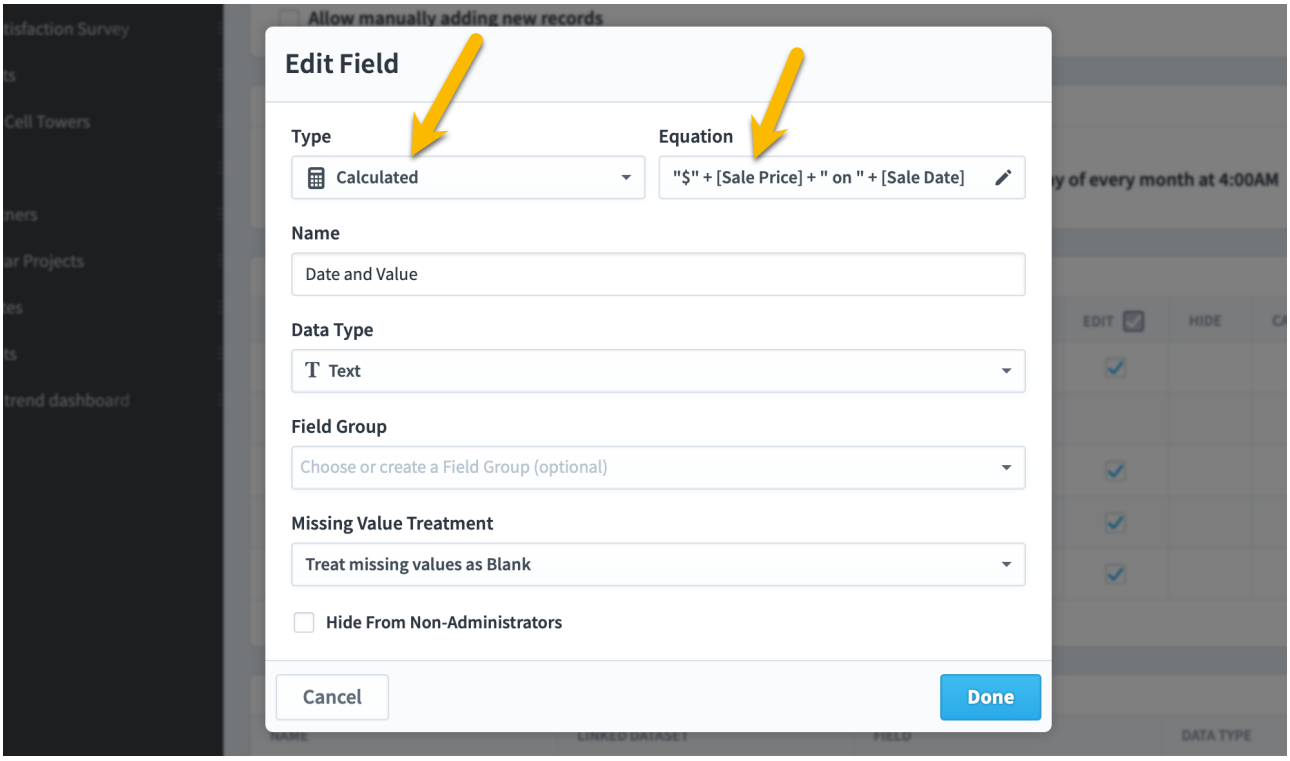
Dataset Equations: Fields and Filters

Calculated dataset fields

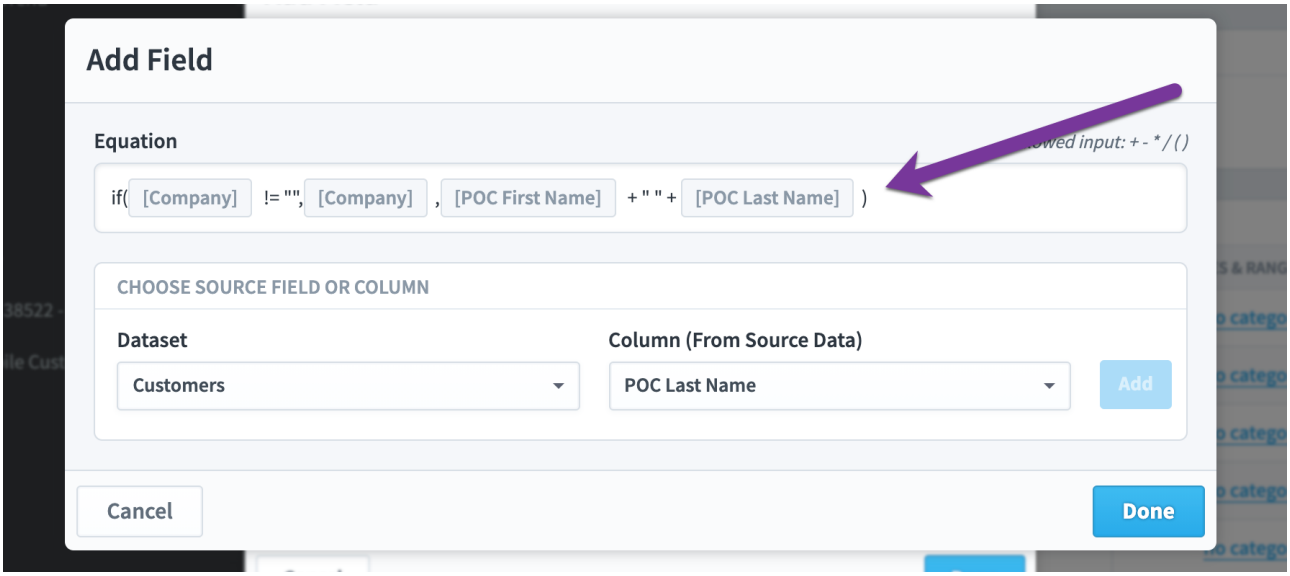
You can build dataset fields that are calculations based on other dataset fields. This includes fields in other datasets. To do this, we'll click the "Add" button in the Fields panel on the Datasets Edit tab.



This opens the Add Field dialog. We'll choose Calculated for the type and we'll click "Set Equation".



Now we can build the field's equation by choosing dataset fields on the bottom, clicking the "add" button to add them to the equation panel above, and by typing text directly in the equation panel.



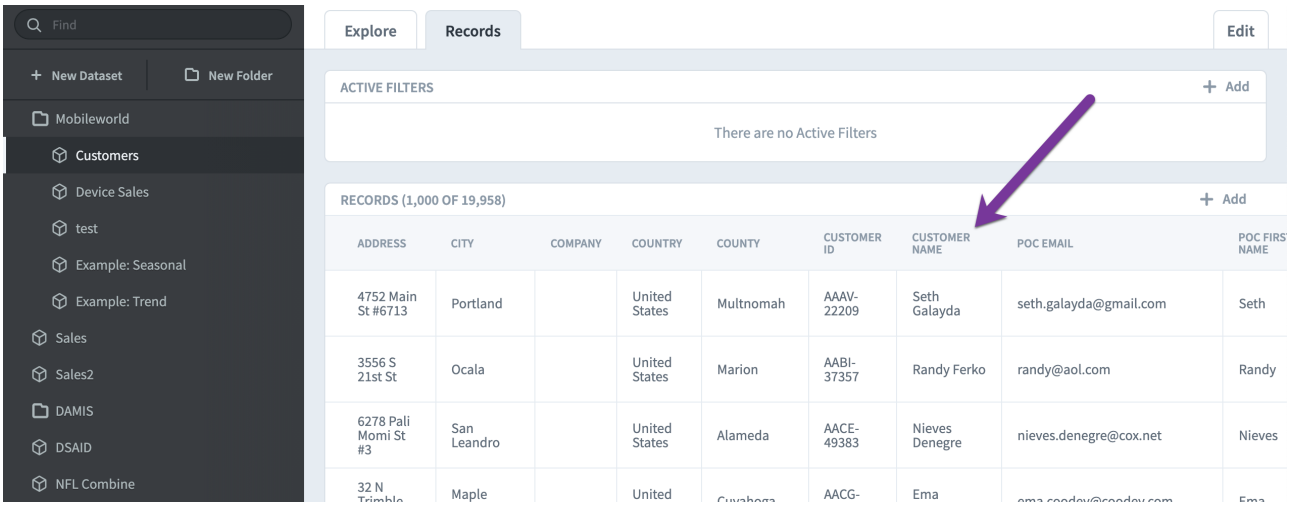
In this example, we've got a Customers dataset and we're building a calculated field to track the what we're going to call the customer. The equation says to use the "Company" field if it's not blank, otherwise use the customer first and last names.

```
if(isblank([Company]), [POC First Name] + " " + [POC Last Name], [Company])
```

Once we build the calculated field, it is listed with all of our other fields in the Fields panel.



Here's our new customer name field on the Records tab.

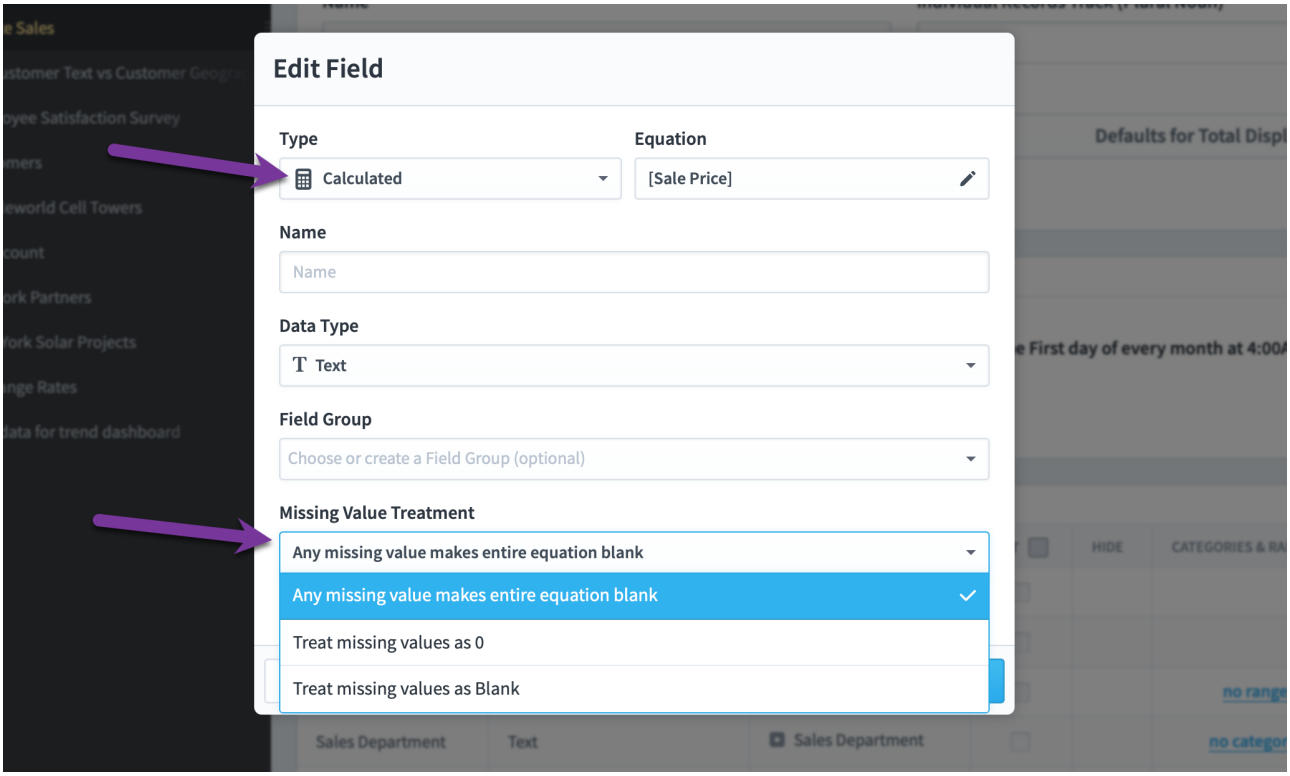


For information about all of the functionality that equations support, please see the Equations article.

Missing value treatment

You can define how missing values should be treated when creating a calculated field, with three available options:

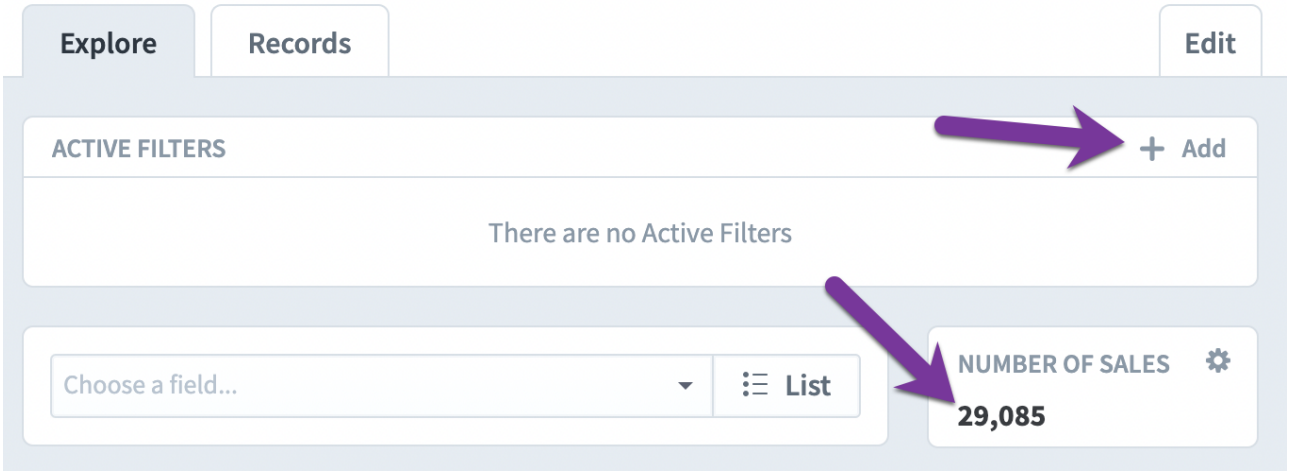
- **Any missing value makes the entire equation blank** – This maintains the historical behavior, where any missing value results in a null output.
- **Treat missing values as 0** – This option replaces missing values with zero in calculations.
- **Treat missing values as Blank** – The default setting for new fields, this option ensures that missing values are ignored when possible, such as in `avg()` equations or when concatenating text using `+`.



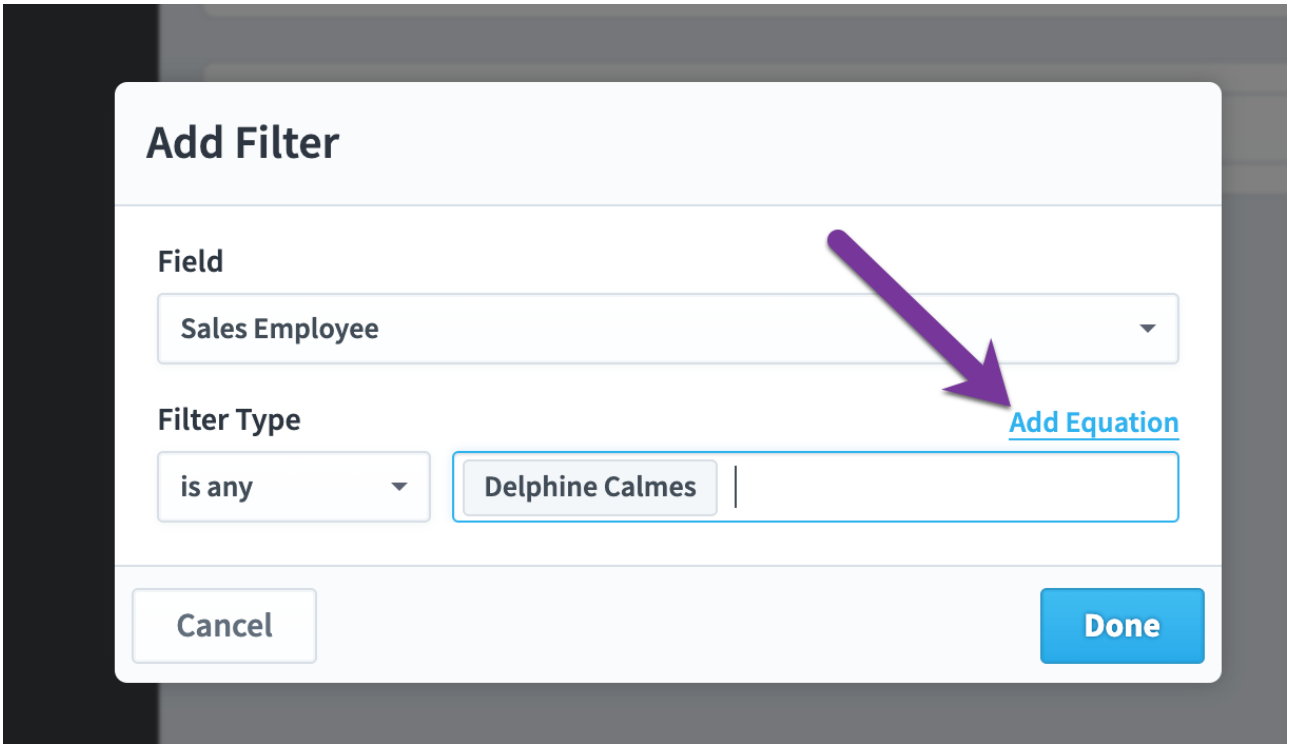
New calculated fields default to "Treat missing values as Blank," handling missing data in a way that's best for most scenarios.

Filter equations

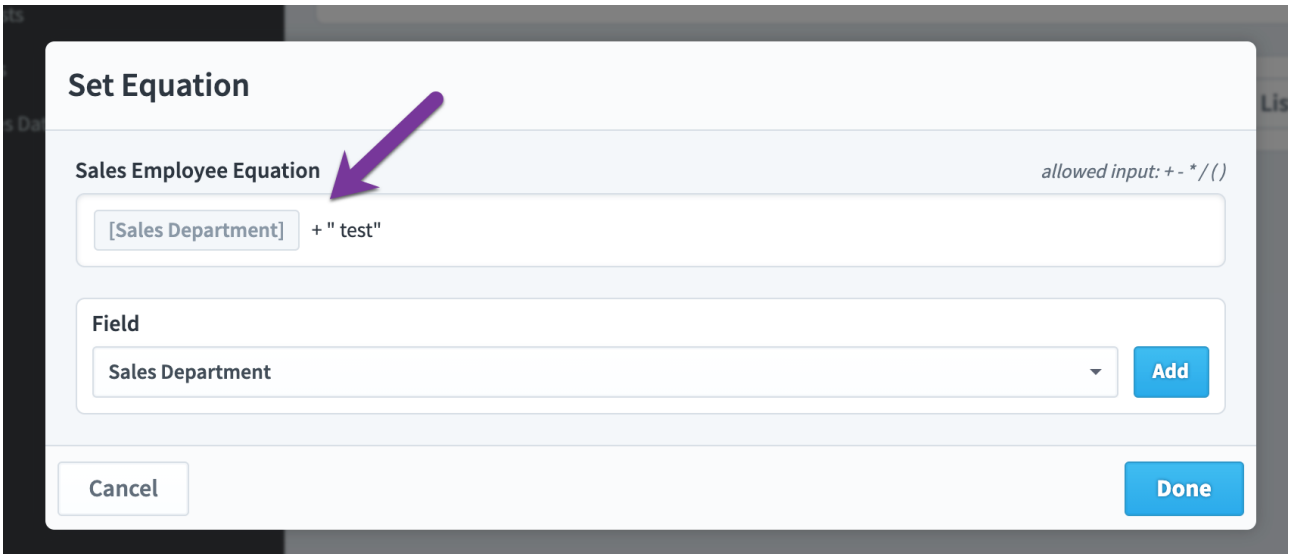
Dataset filters are used throughout Impact. For example, here we're on the Datasets Explore tab seeing all 29,085 total records. We'll add a filter by clicking on the "add" button in the Active Filters panel.



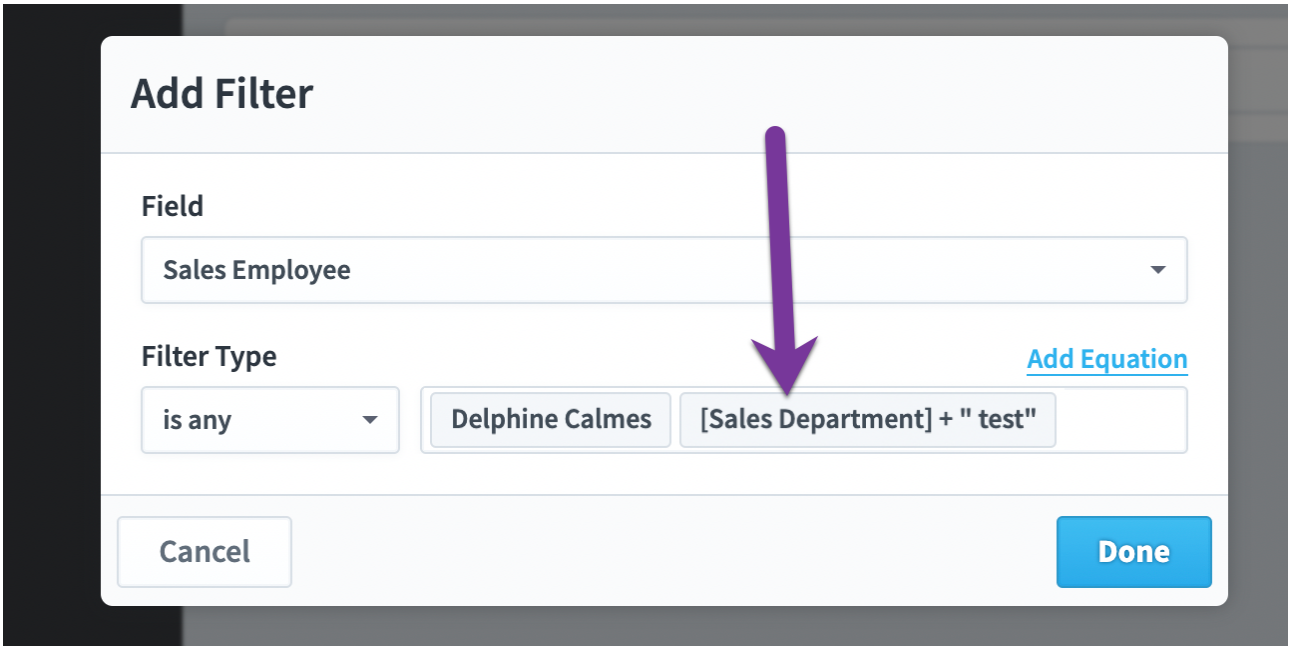
The "is any" filter allows you to choose specific field values. In this example we're showing records where the Sales Employee is "Delphine Calmes". You can also click the "add equation" button.



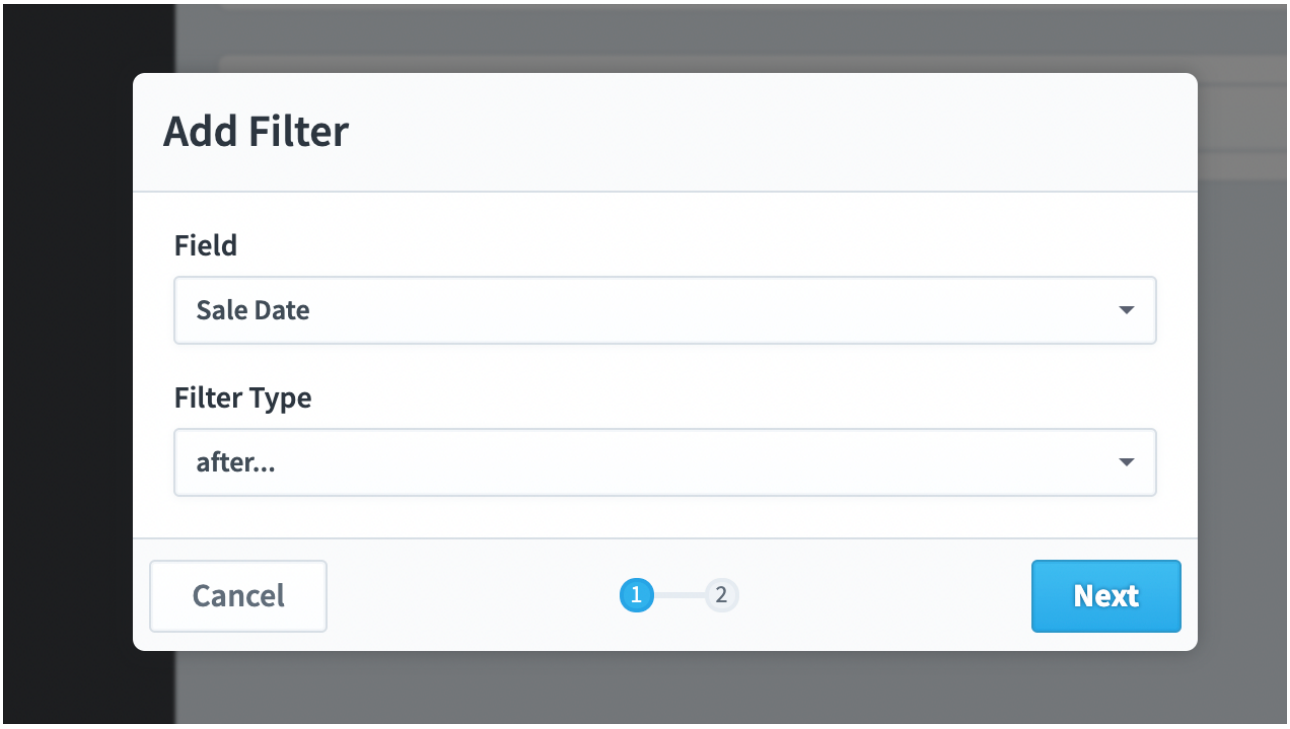
This opens a dialog where you can build an equation to match field values against. In this nonsense example, we're matching records where the sales employee field matches the sales department field with " test" added to the end.



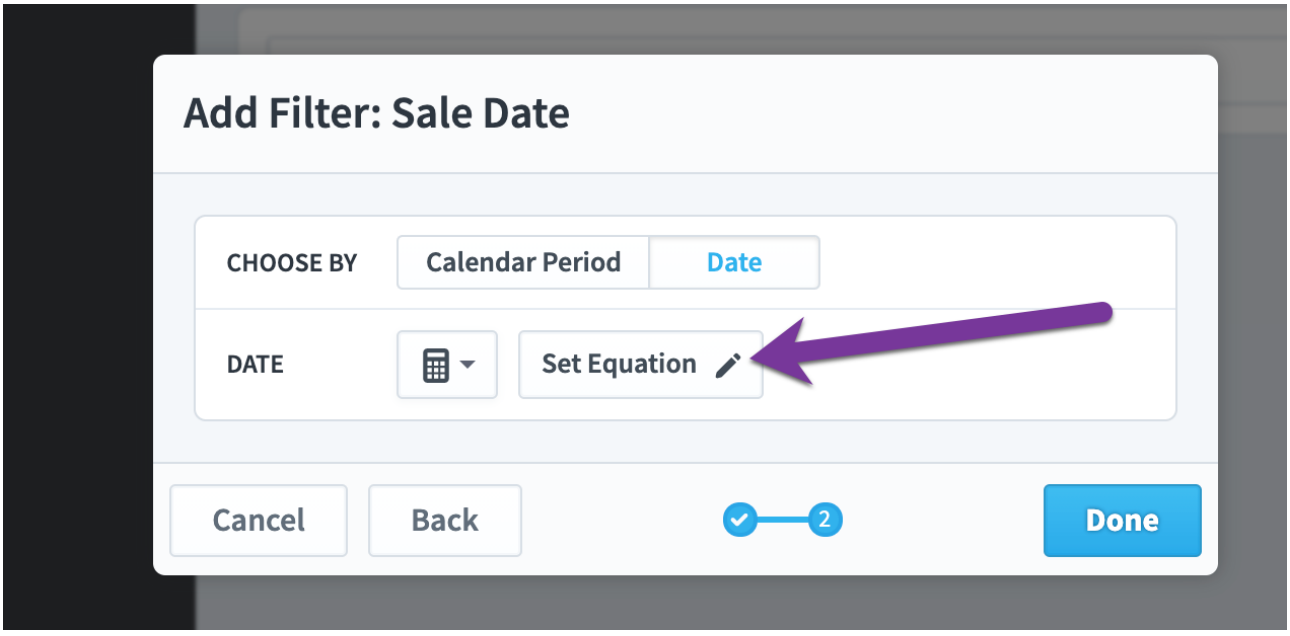
Here's what our filter looks like when we're done.



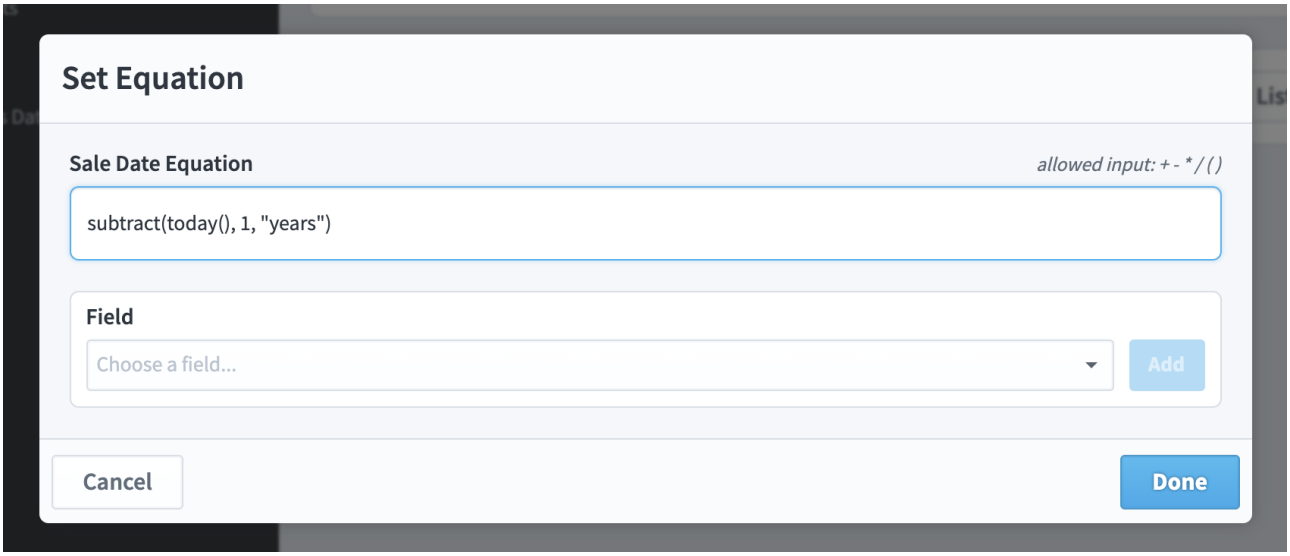
You can write equations against more than just text. In this example we're adding an "after" filter to the Sale Date field.



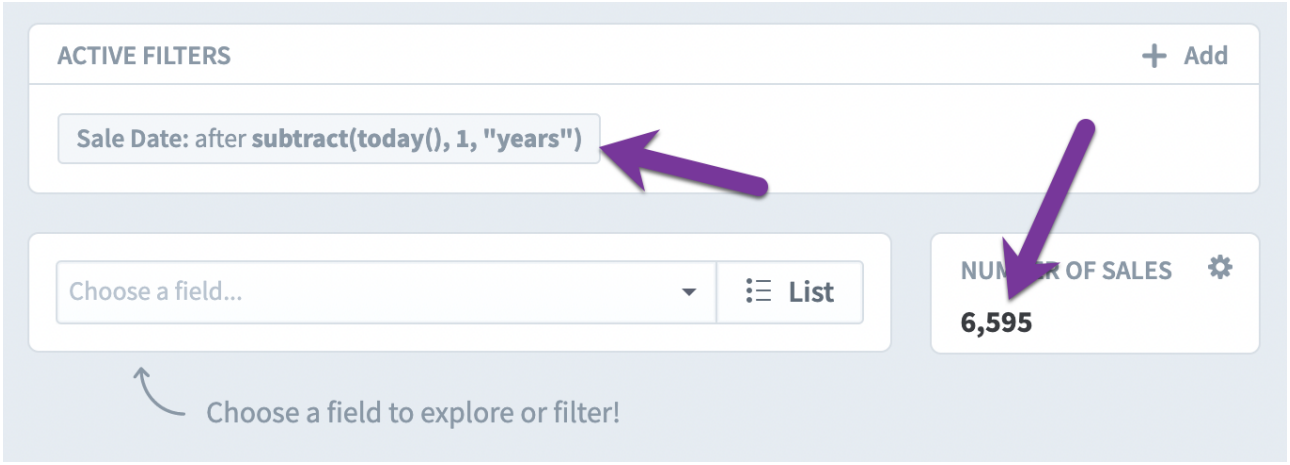
On the next step of the wizard we'll change the date to calculated and click the Set Equation button.



We can build an equation to compare the Sale Date against another date field, but instead we're going match all dates in the past year.



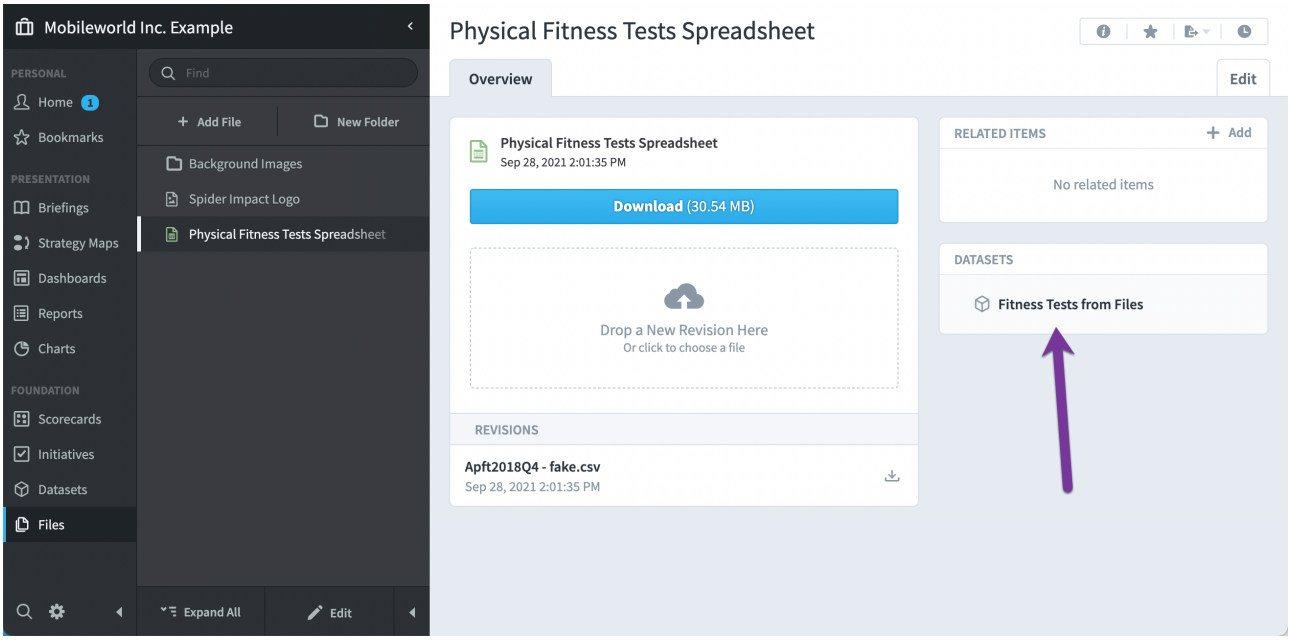
Here's our new filter in action, showing only 6,595 matching records.



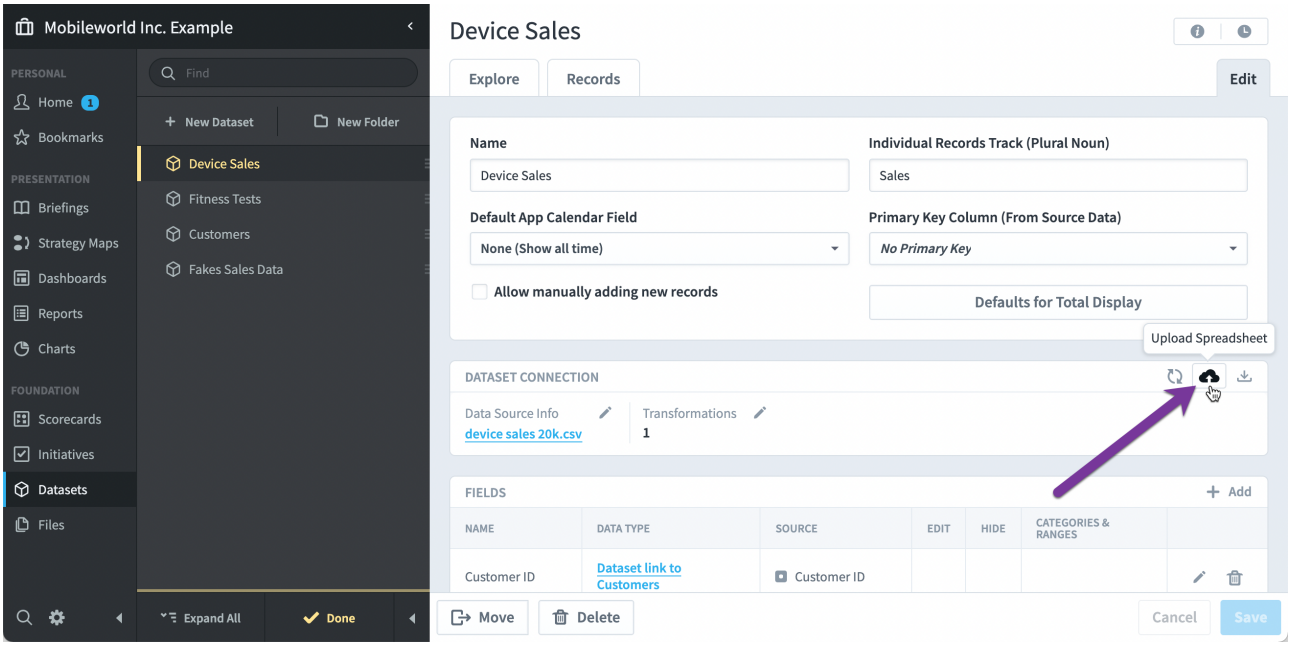
Updating Dataset Records

Manually importing

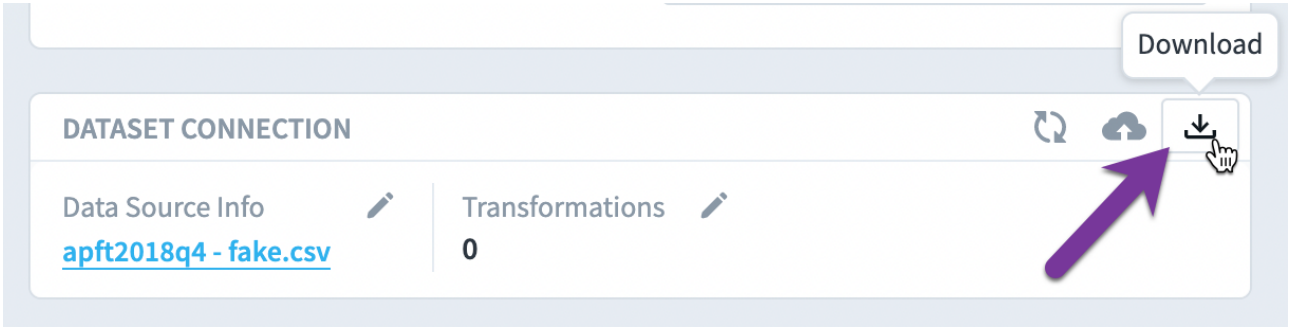
If you've created one or more datasets from a spreadsheet in the Files section, it will list those datasets on the file's Overview tab. Whenever you upload a new revision to that file in the Files section, Impact will automatically update the data in the corresponding datasets.



If a dataset was built by directly uploading a spreadsheet, you can update the dataset by uploading a new version of the spreadsheet on the Dataset Edit tab.



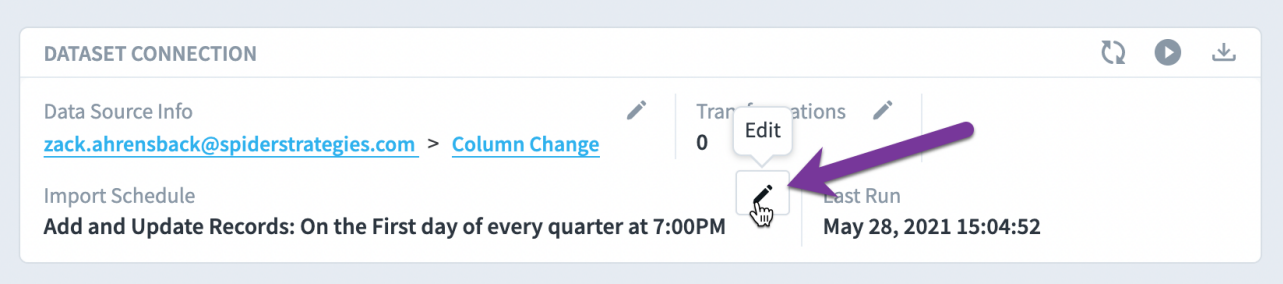
You can download a copy of the dataset's most recently uploaded spreadsheet there too.



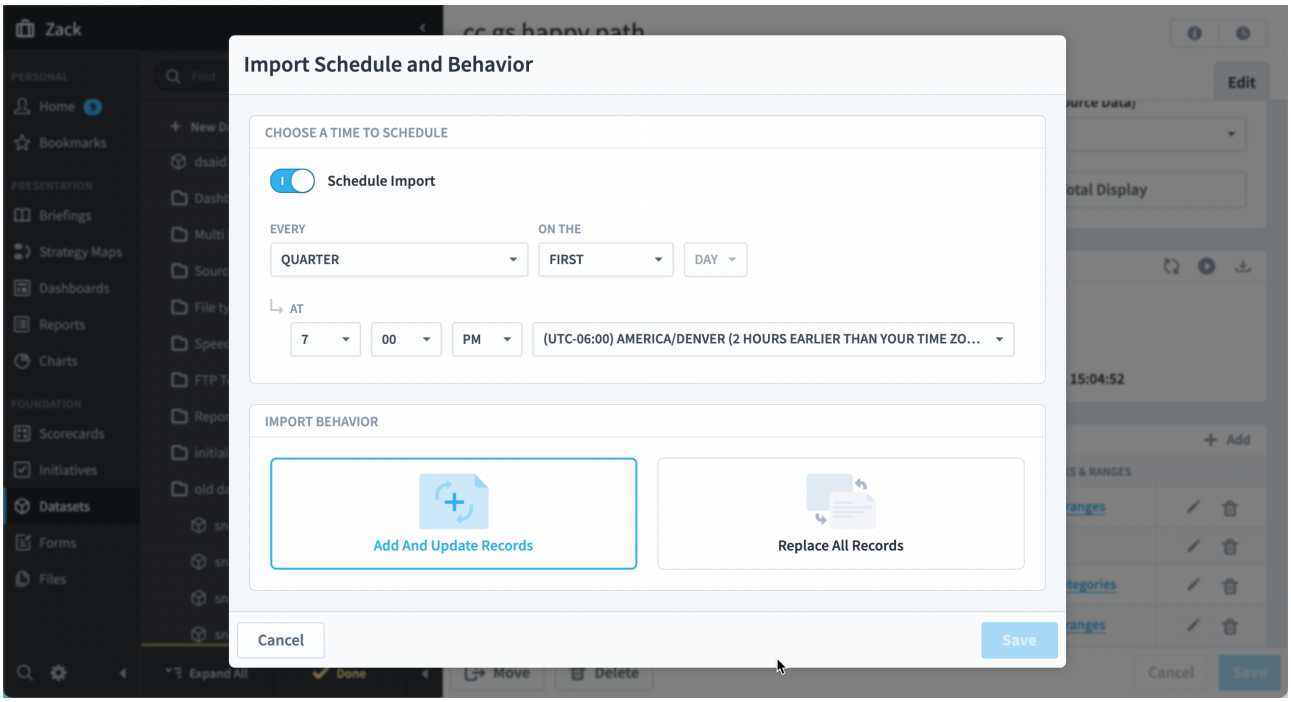
Scheduled imports

You can schedule imports for datasets that are built from databases, Google Sheets, or (S)FTP spreadsheets. See the Managing Imports and Connections article for more information.

To set or modify an import schedule, you can go to either the Administration > Imports screen or the Datasets Edit tab. Here we're clicking the edit button for a scheduled import.

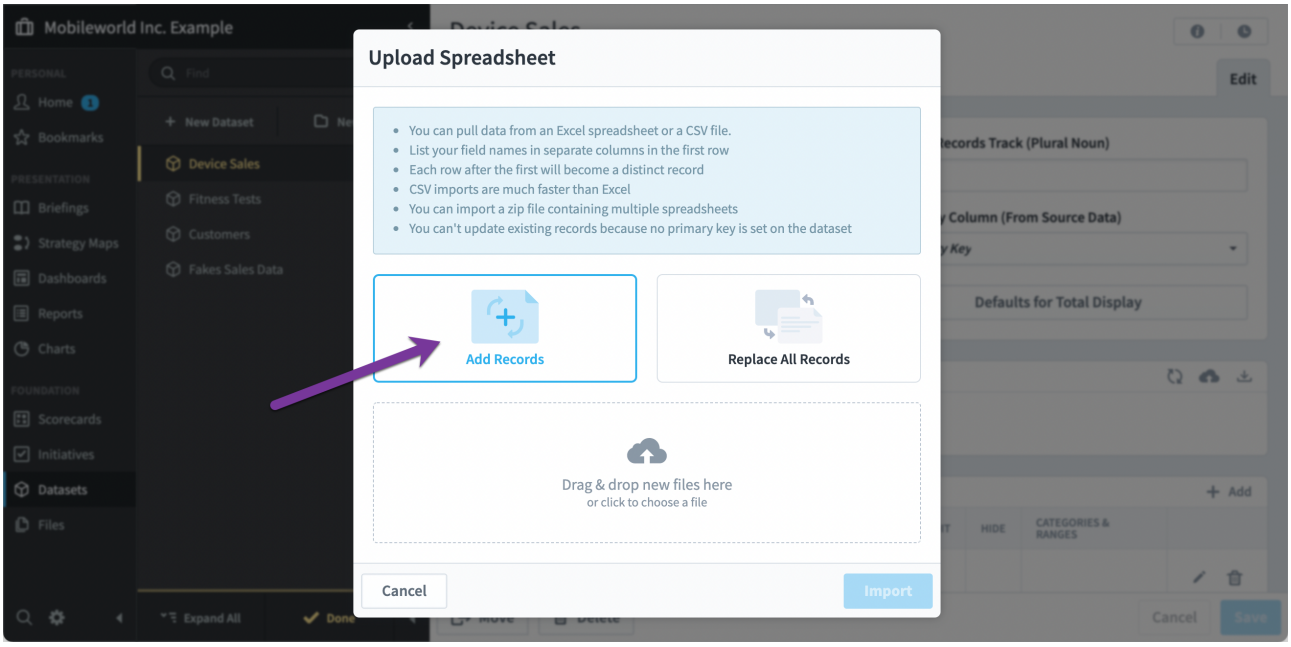


In this example we're importing from Google Sheets on the first day of every quarter at 7:00 PM.

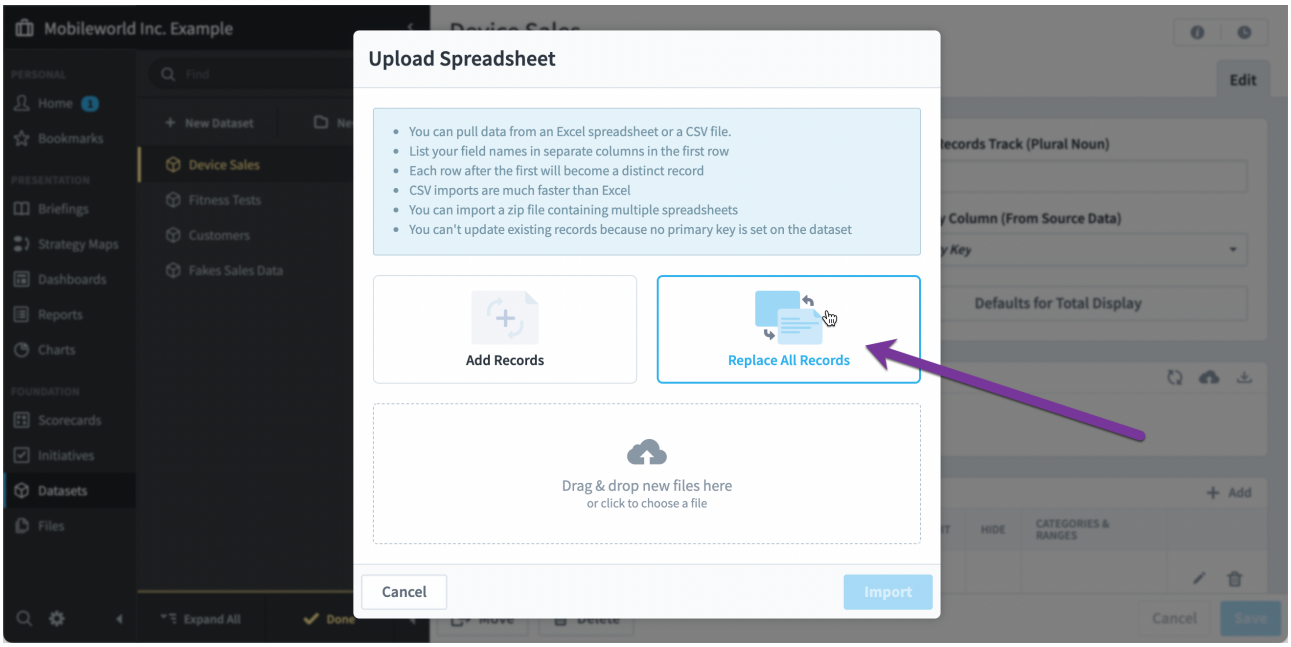


Add records vs. replace all records

The default behavior when importing new dataset data is to keep the existing records and add new ones. If your dataset has a primary key and a new record's key matches an existing record, the old record will be replaced. The "Add Records" option is used when the data you're importing represents transactions rather than all source data.



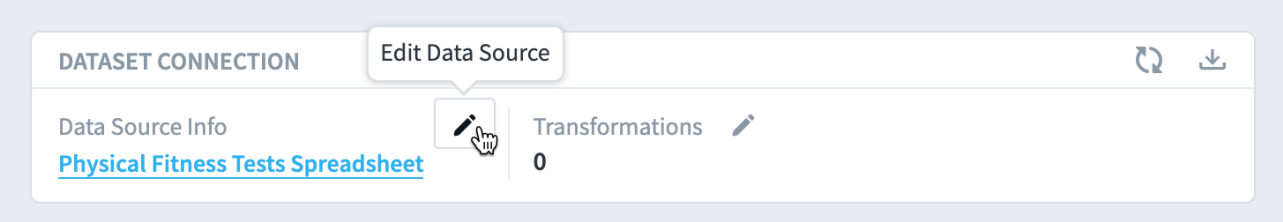
You can also choose to replace all records, which is used when the data you're importing represents all of the data from the system of record. All existing records will be removed, and all new records will be added. This is actually the most common option, but it does mean you lose your old data, so it's not the default.

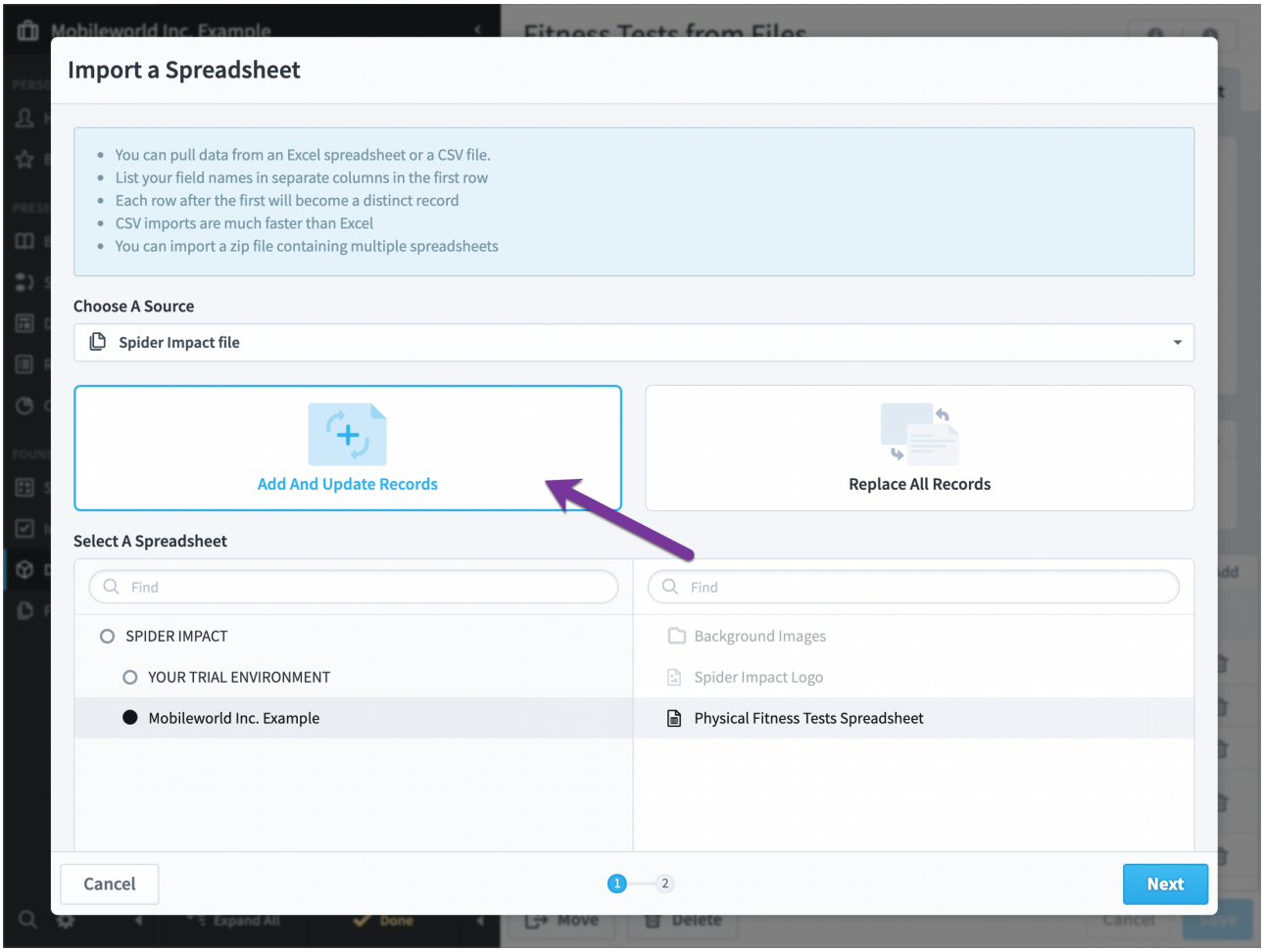


If you accidentally add records instead of replacing them, don't worry. You'll notice the problem because you'll have more records than expected. All you need to do is re-import the data and choose "Replace All Records".

It's also important to note that regardless of whether you're adding or replacing all records, any custom changes you've made to data on the Records tab will not be replaced. New records that you've created, and any overrides you've done, will be mixed in with your newly imported data. See the Manually Adding & Updating Records article for more info.

There are multiple ways to get to the import behavior choice. As shown above, you'll see it whenever editing an import's schedule. You'll also see it whenever you manually upload a file. Finally, you'll see it whenever editing the dataset's data source.

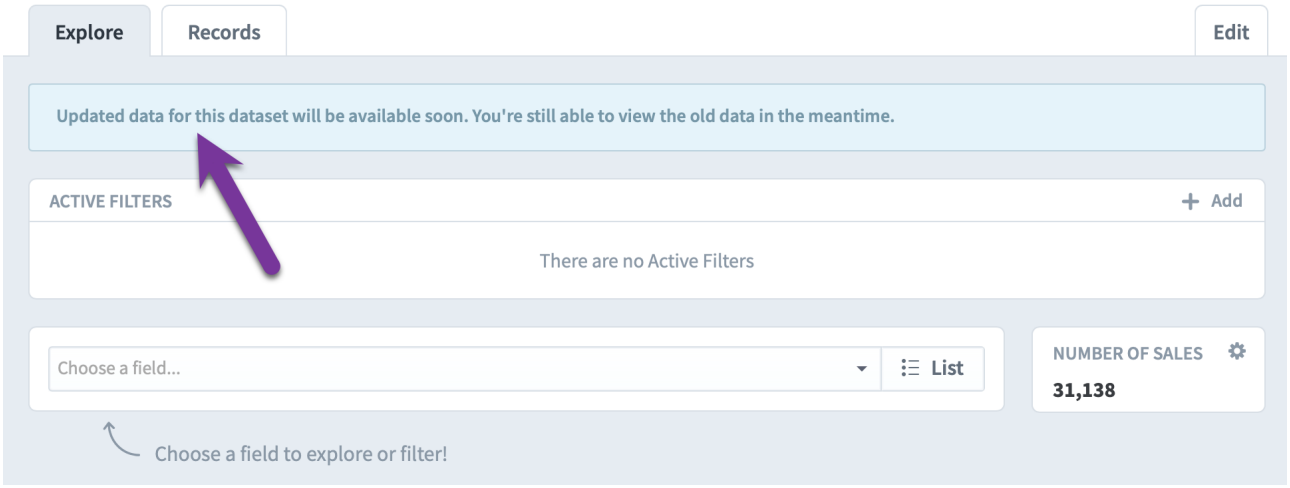




Dataset rebuilding

As described in the Creating and Editing Datasets and Dataset Rollup Trees articles, datasets automatically rebuild whenever you edit one of their fields, or edit a rollup tree that they're using. Datasets also rebuild whenever you update their records or you update the records of any dataset referenced in their calculated fields.

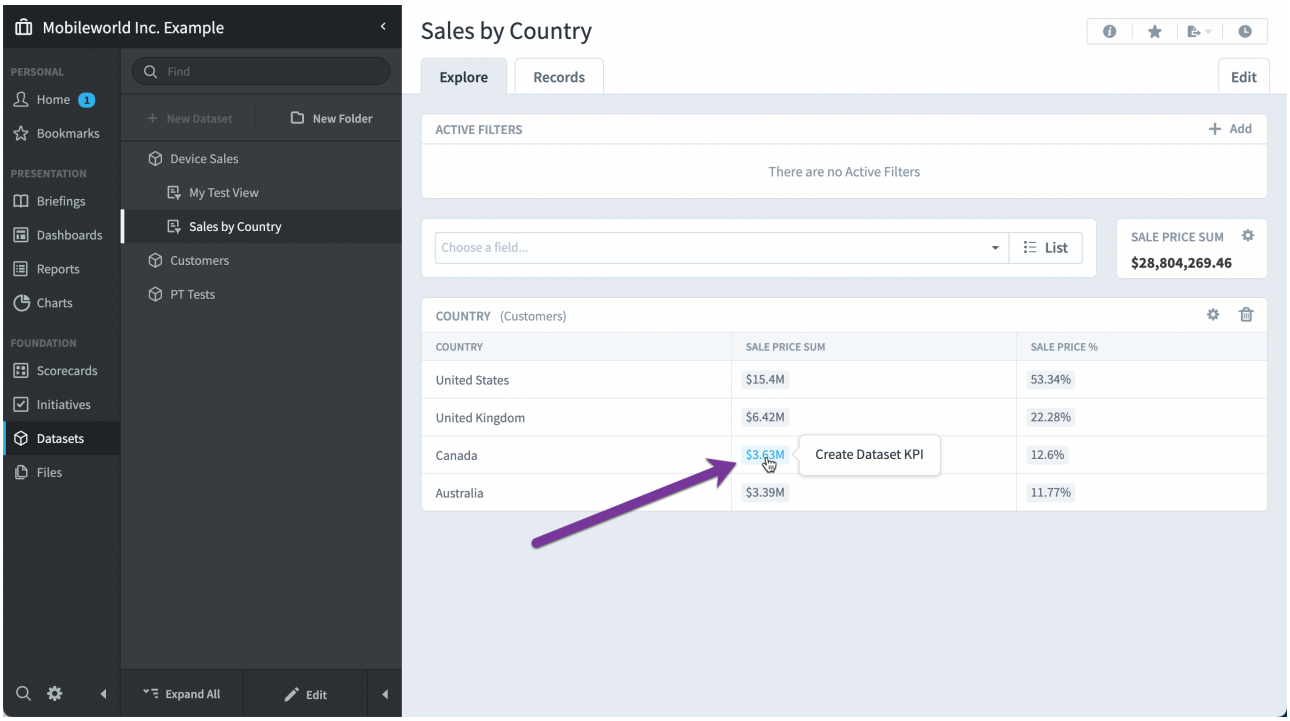
Rebuilding after updating records isn't noticeable because users still see the old data while the dataset is rebuilding. There's just a small notification on the Datasets Explore tab.


Explore
Records
Edit
Updated data for this dataset will be available soon. You're still able to view the old data in the meantime.
ACTIVE FILTERS
Add
There are no Active Filters
Choose a field...
List
NUMBER OF SALES
31,138
Choose a field to explore or filter!

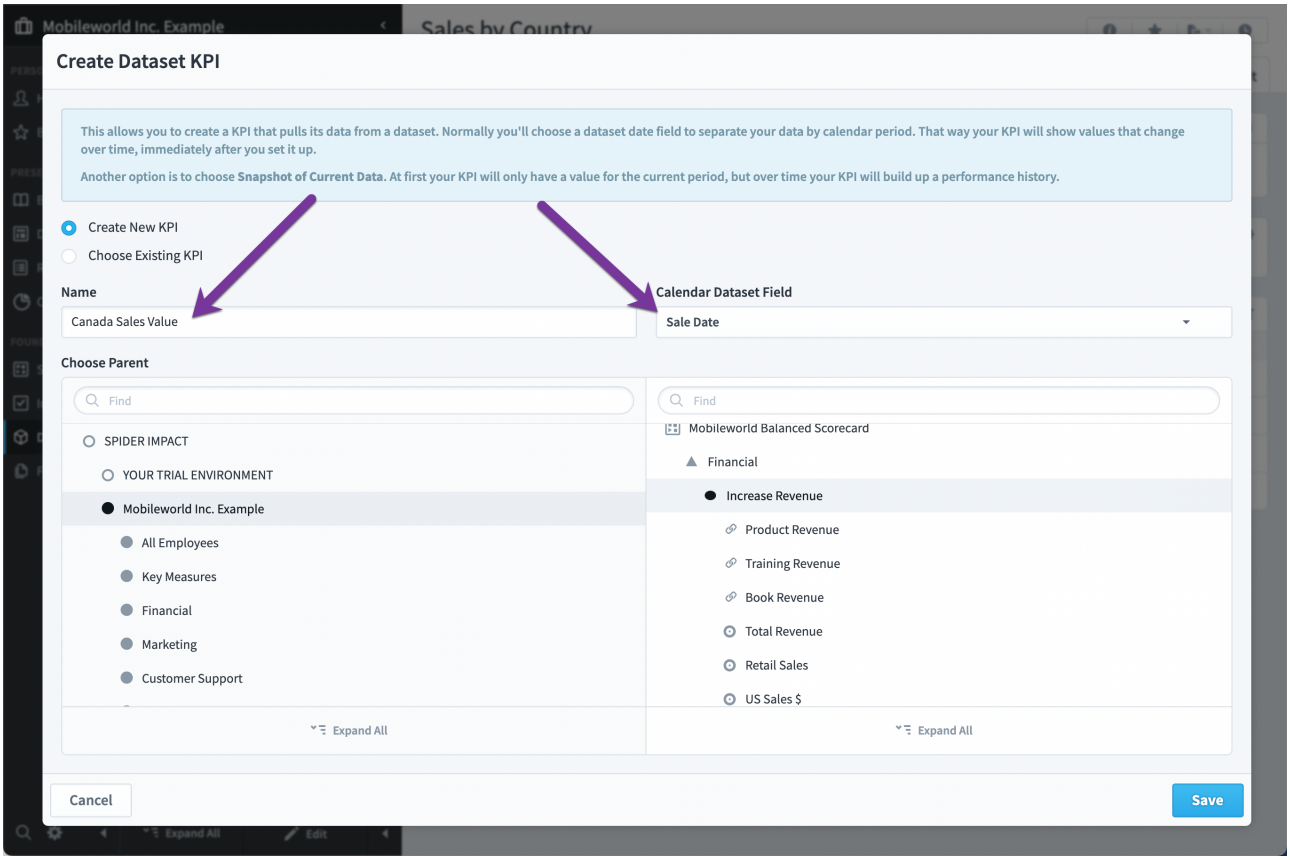
Dataset KPIs

Creating a dataset KPI

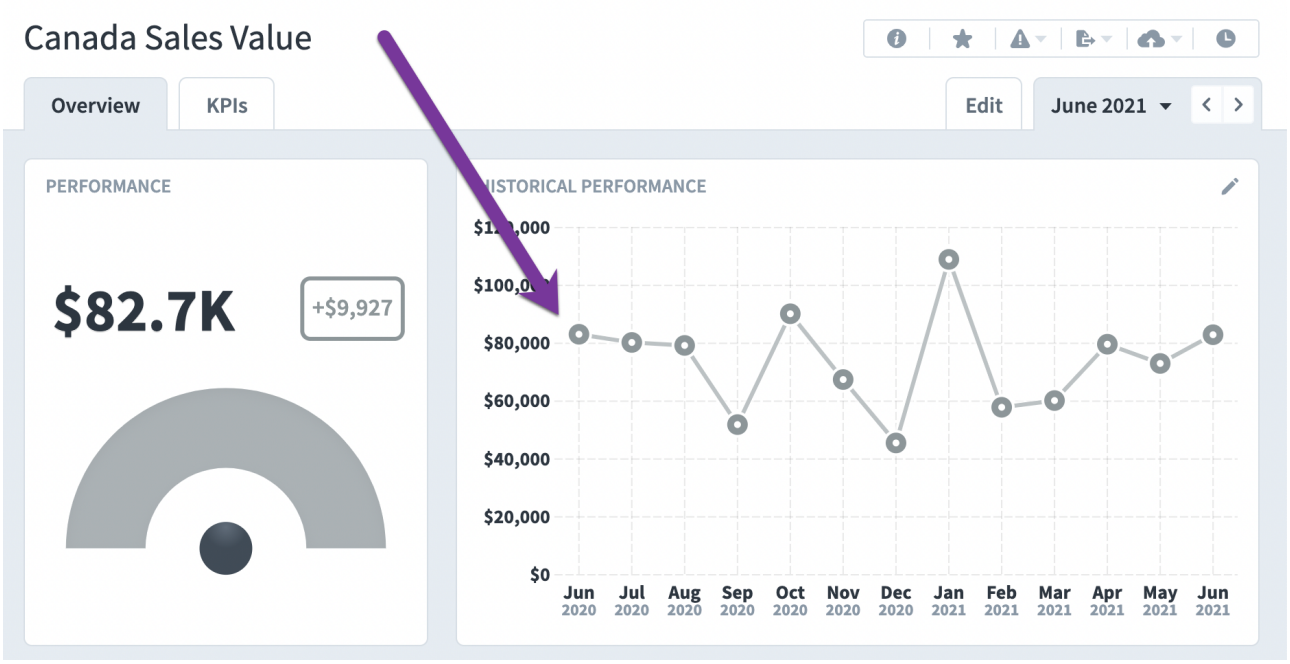
To create a KPI from dataset data, click on any number on the Datasets Explore tab, and then click the "Create Dataset KPI" link. In this example we'll click on the $3.6M of total Canadian sales.



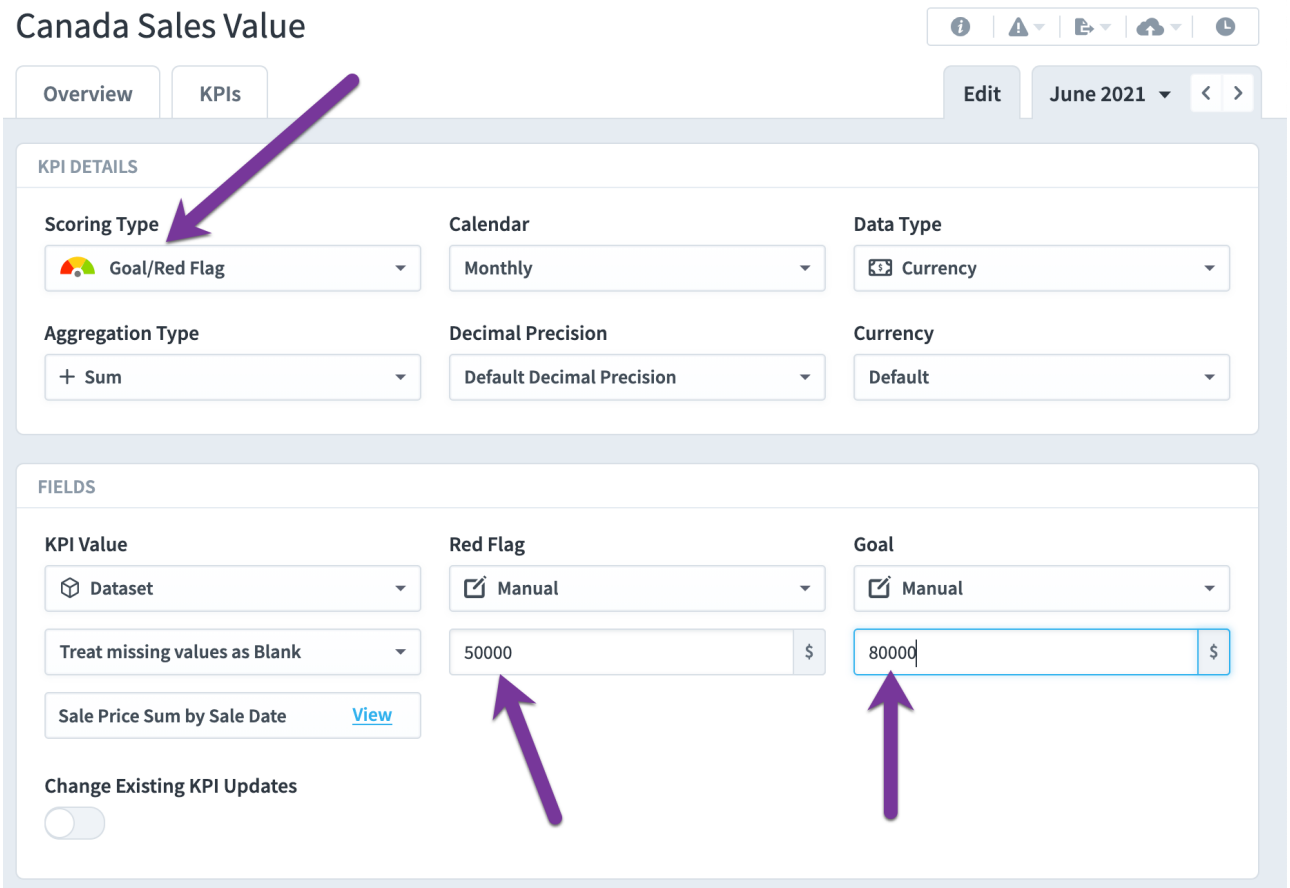
Here you can choose to create a new KPI or add data to an existing KPI. We'll choose to create a new KPI and we'll name it "Canada Sales Value". We'll also choose the Sale Date for the calendar field, and we'll find a good place for the new KPI to go.



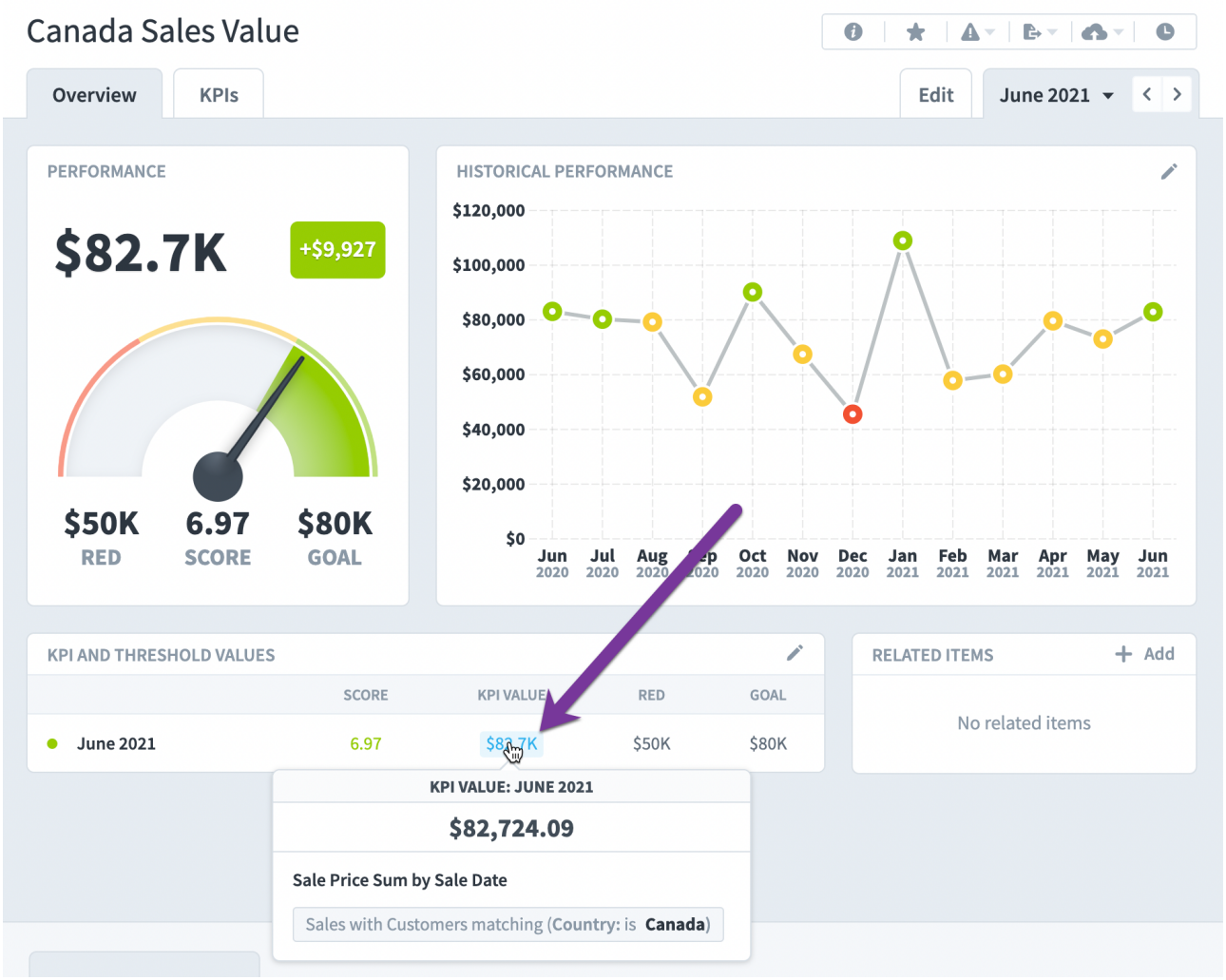
After saving the new KPI, it looks like this. The $3.6M in total Canada sales has been broken into months using the Sale Date field. In a few clicks we've created a KPI with data going back years. Even better, whenever the dataset is updated with new data, the KPI will automatically update.



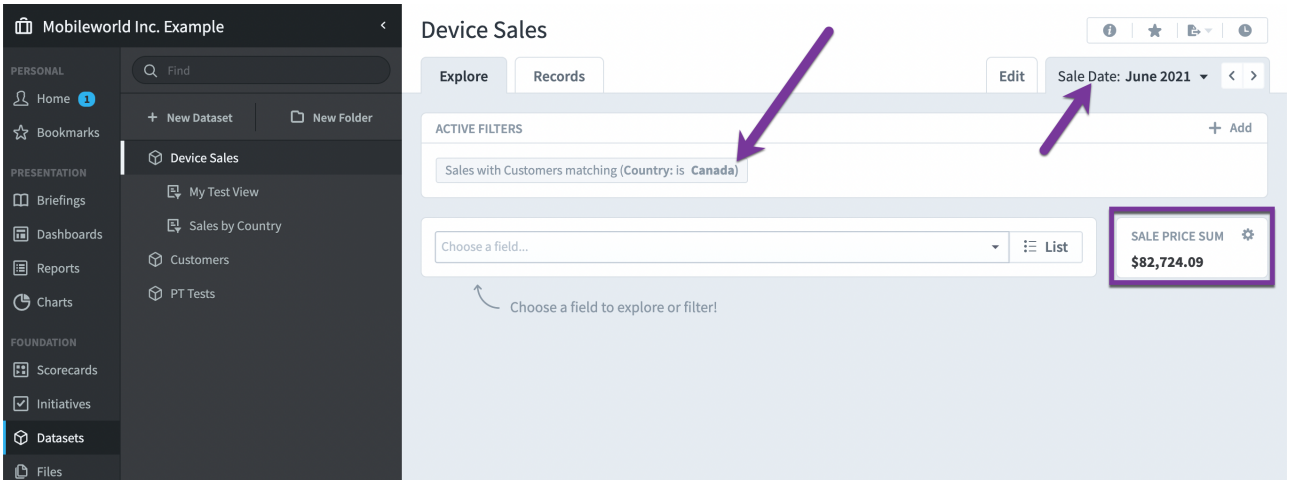
This dataset KPI is just like any other KPI, and we can give it thresholds if we want.



Now our KPI has colors, and we can create performance alerts. When you hover over the KPI value, you can see exactly where the data comes from.

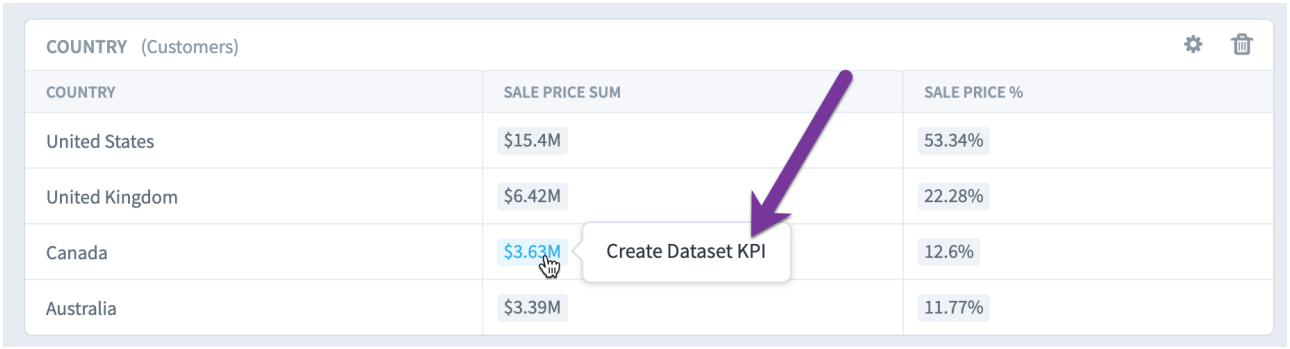


If you click on the KPI value on the Scorecards Overview, you drill down to the Datasets Explore tab for further exploration. Here we have the "Country = Canada" filter automatically applied, with the date set to "June 2021".

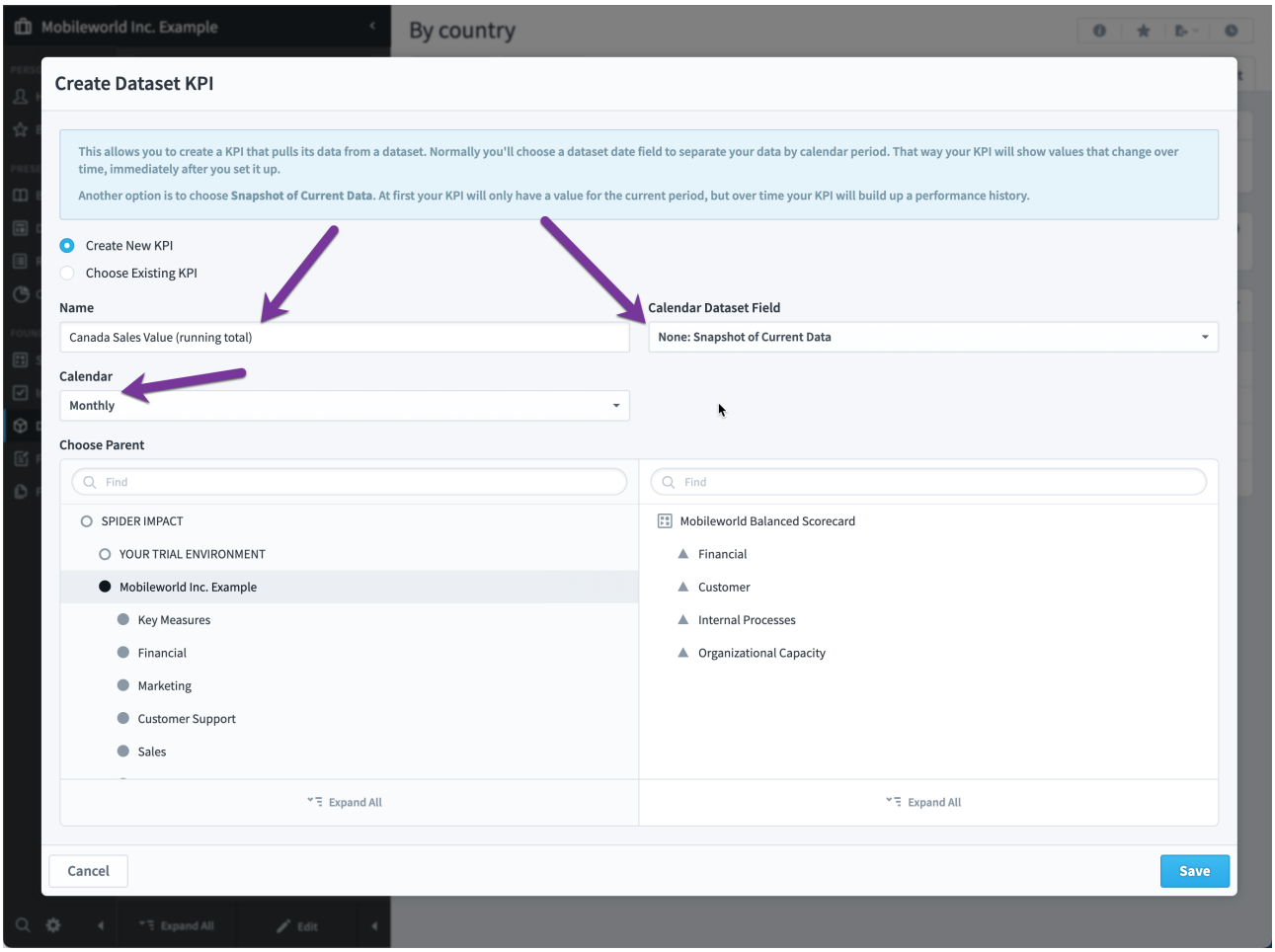


Snapshot dataset KPIs

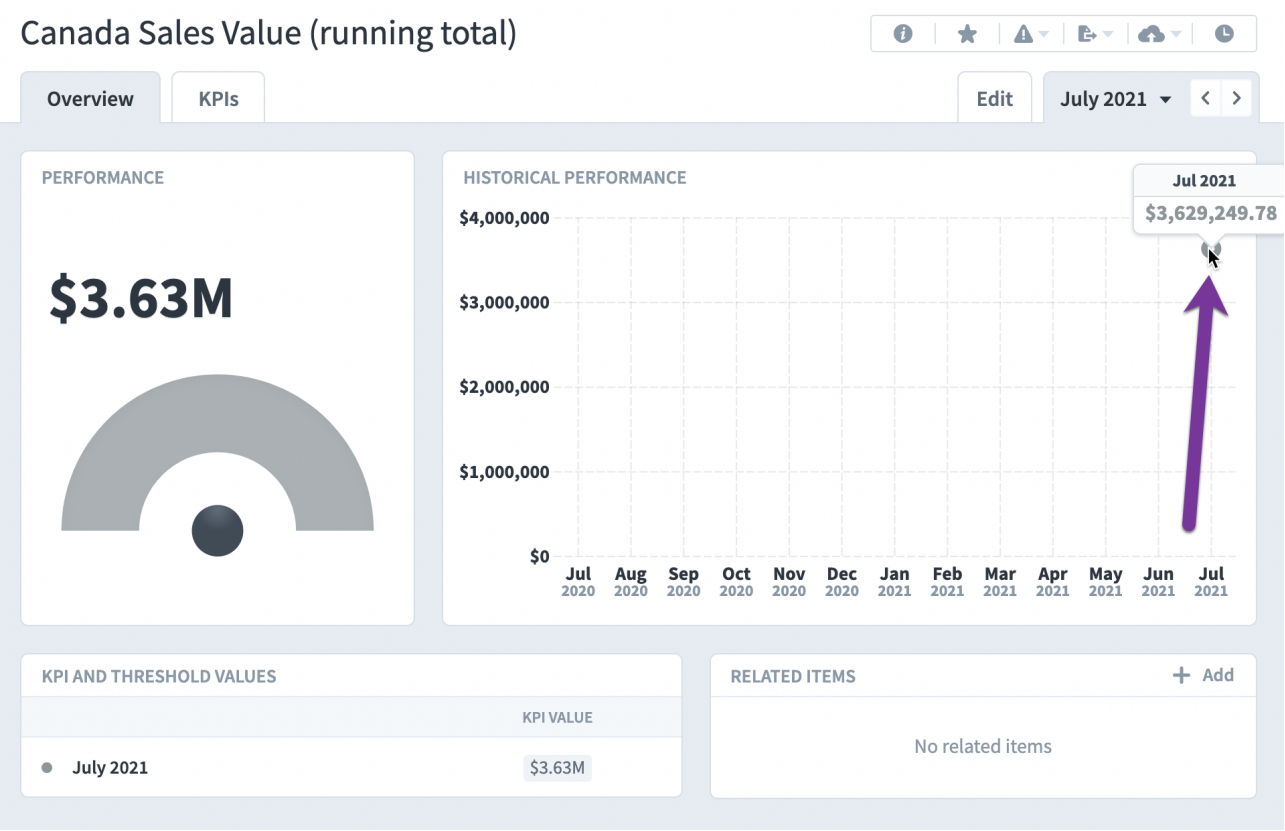
Let's create another dataset KPI.



In the previous example we chose Sale Date for the calendar field, but this time we're not going to choose any date field. Instead, we're going to make a new snapshot KPI.



Rather than spreading the $3.6M over time, it saves the entire value in the current month of July 2021. Then, at the beginning of the next month, Spider Impact will save whatever the total is at that time for August 2021. Over time the KPI will build a performance history.



Snapshot KPIs are often used when the data source doesn't contain historical data. For example, we may have an HR system that only contains information about our current employees. If we had a "Number of Employees" KPI, we'd create a snapshot that updates based on the total employees in our HR system.

Spider Impact manages all snapshot KPIs for you, but if you're curious, here's how the process works.

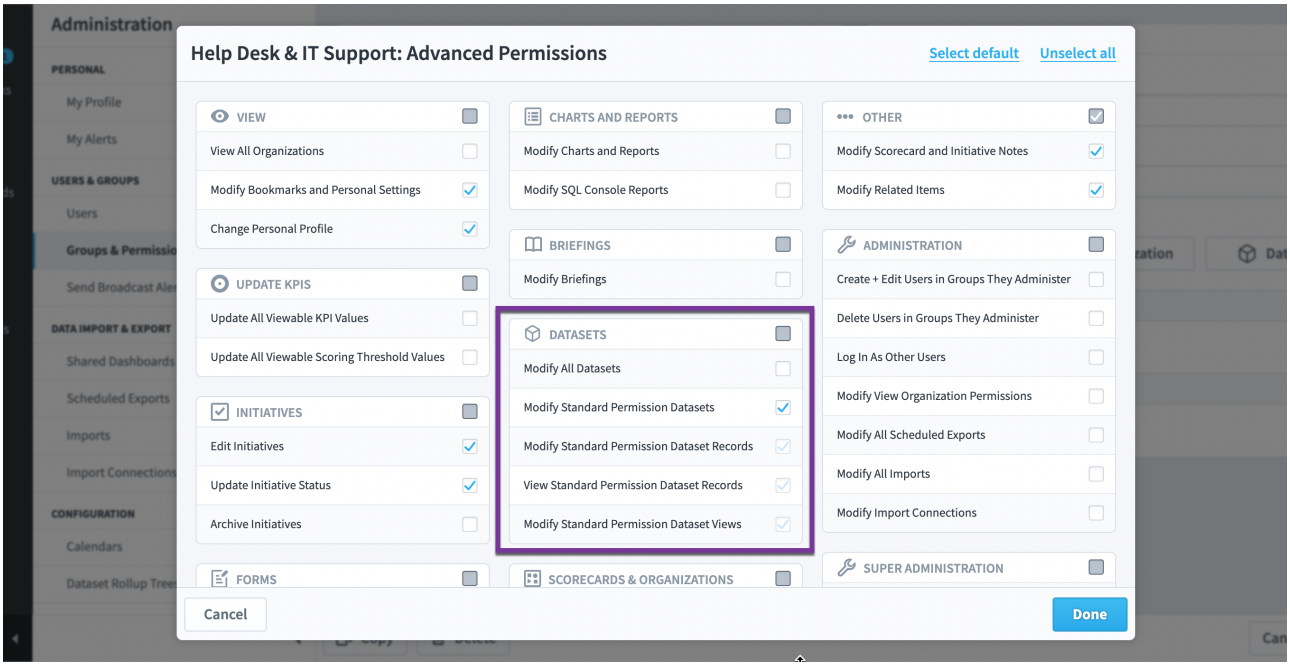
Every day, early in the morning, Impact looks to see if a new calendar period started. If so, it will create a new snapshot value. For example, if it's the first day of the month, all monthly KPIs will get new snapshot values. Whenever the dataset is updated with new data, it will also immediately update the current period for all of its dataset KPIs. Finally, when an administrator manually rebuilds the dataset, the snapshot KPI values for the current period are replaced.

It's important to note that Impact updates the data in the current period, not the previous period. By default, however, Impact shows the previous period when you log in. That means you'll often have to move one period forward to see the latest snapshot values.

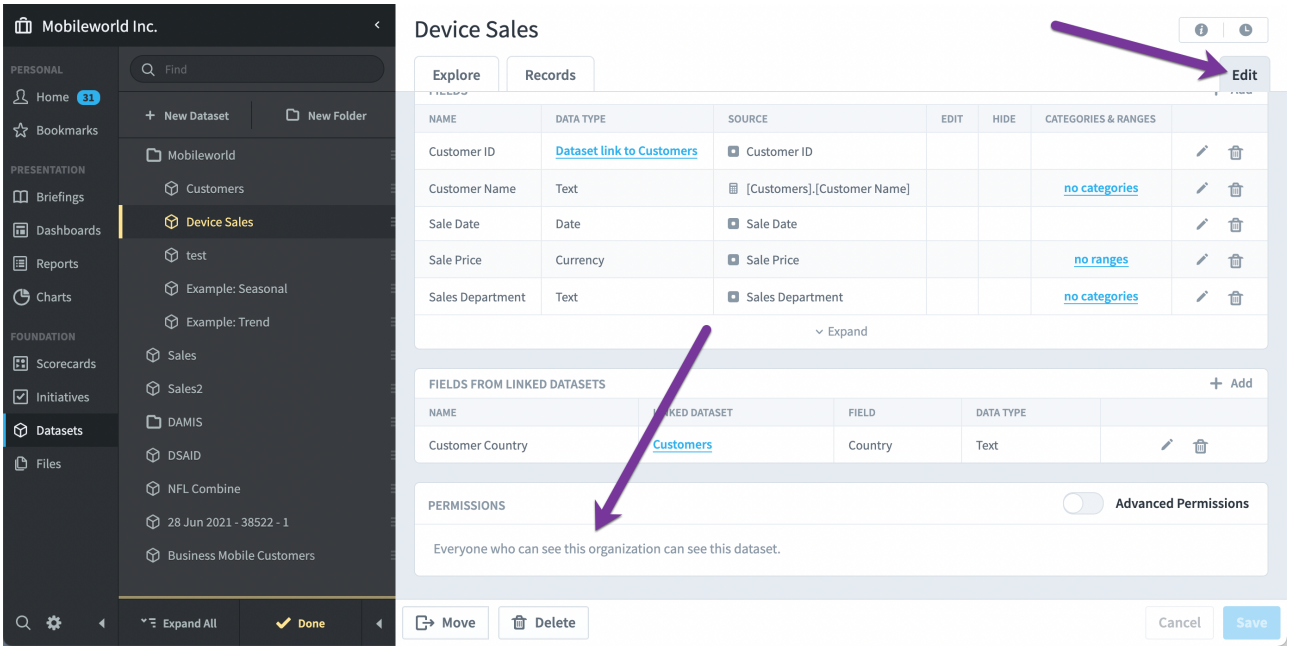
Dataset Permissions

Standard dataset permissions

Standard datasets permissions are the same as permissions in every other section in Spider Impact. Administrators give dataset permissions to a group, and then give that group permission to view organizations. If someone is in a group that can see an organization, they can see its datasets. If someone is in a group with the "Modify Standard Permission Datasets" permission and that group can see the organization, that user will be able to modify all datasets with standard permissions in that organization.



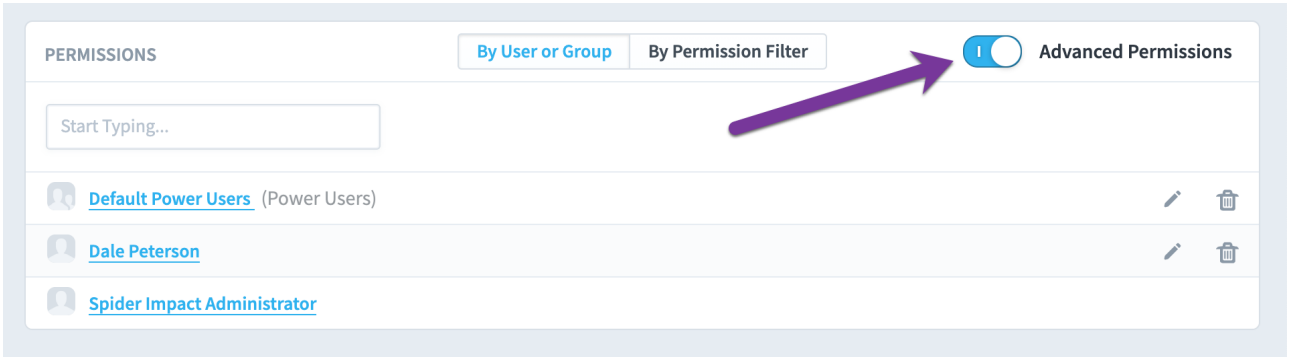
When you create a dataset, it defaults to using standard permissions. As you can see on the Datasets Edit tab, "everyone who can see this organization can see this dataset".



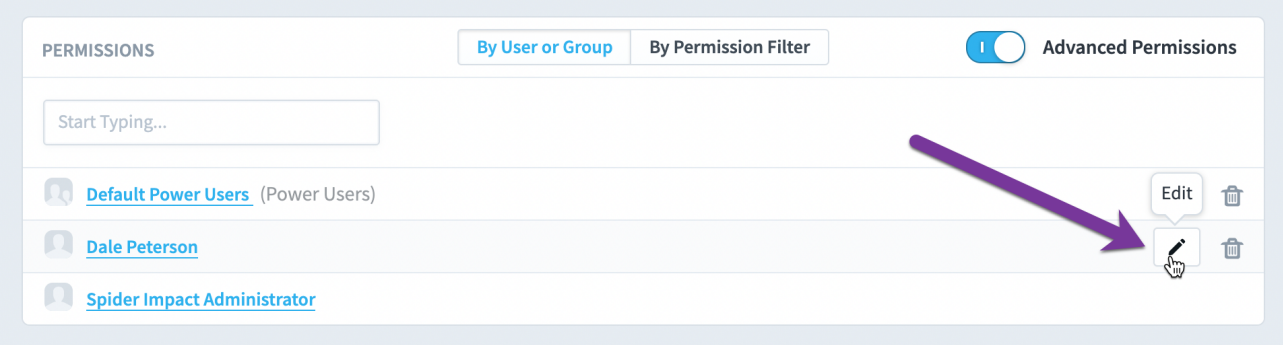
Advanced dataset permissions

There are times, however, when you don't want people to see all of a dataset's records. For example, you may want to allow everyone who can see the organization to only be able to see records where the "Restricted" field value is "False". Or you may want to limit a user to only see a subset of the records based on a "Region" field.

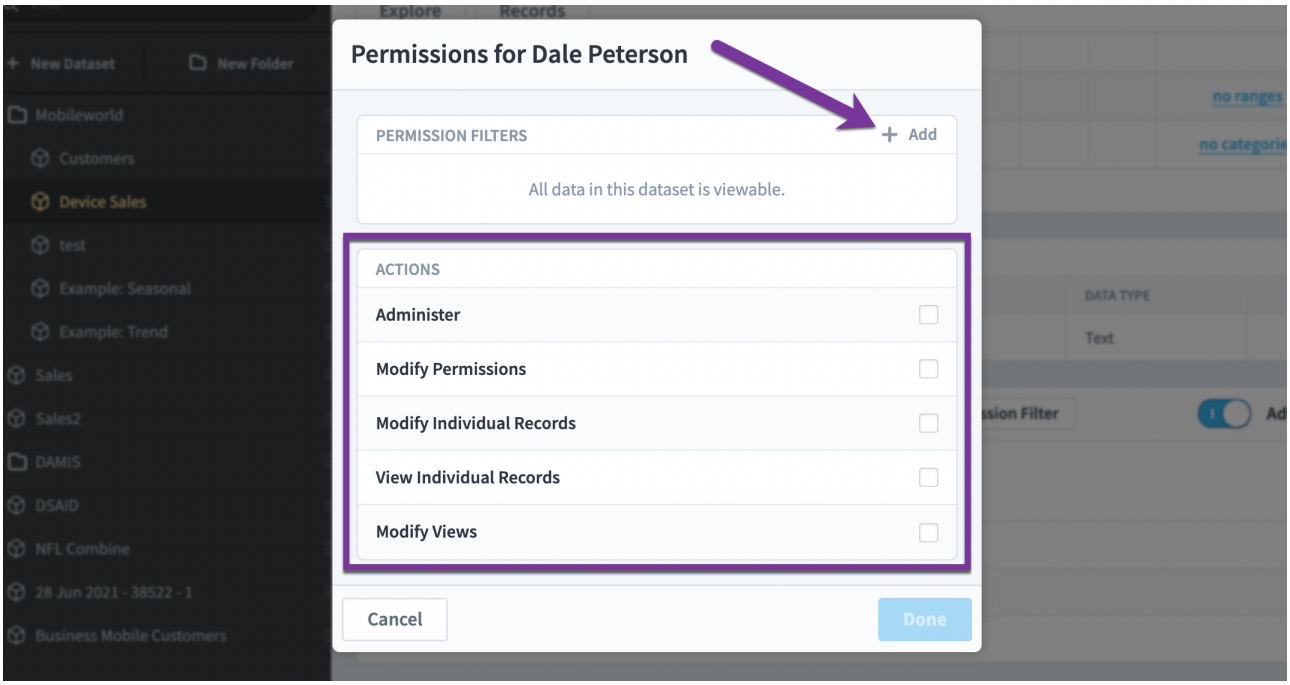
For these datasets you can turn on Advanced permissions. When advanced permissions is on, only the users and groups who have been given explicit permission to the dataset can see it.



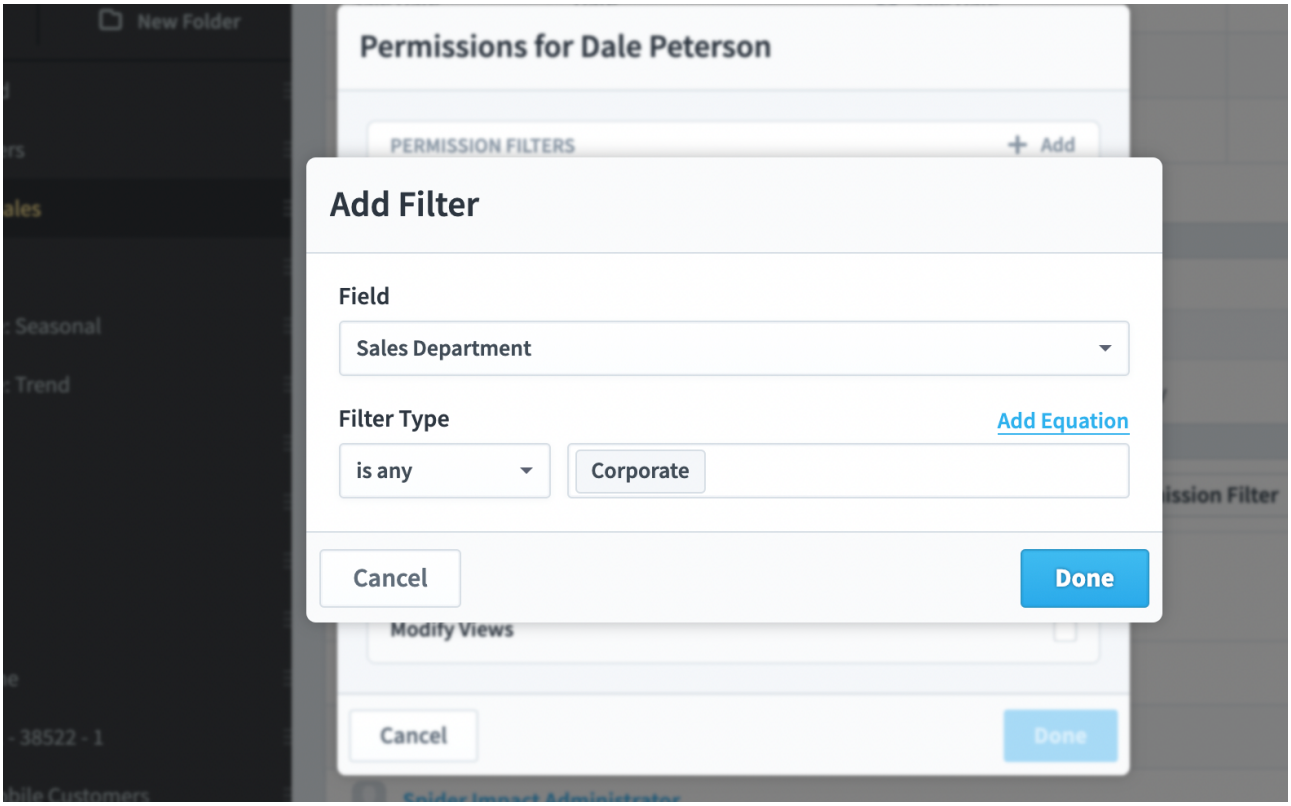
The users and groups that you add in the Permissions panel will be able to see all records by default, and they will only be able to view data. You can click on the Edit button to change this.



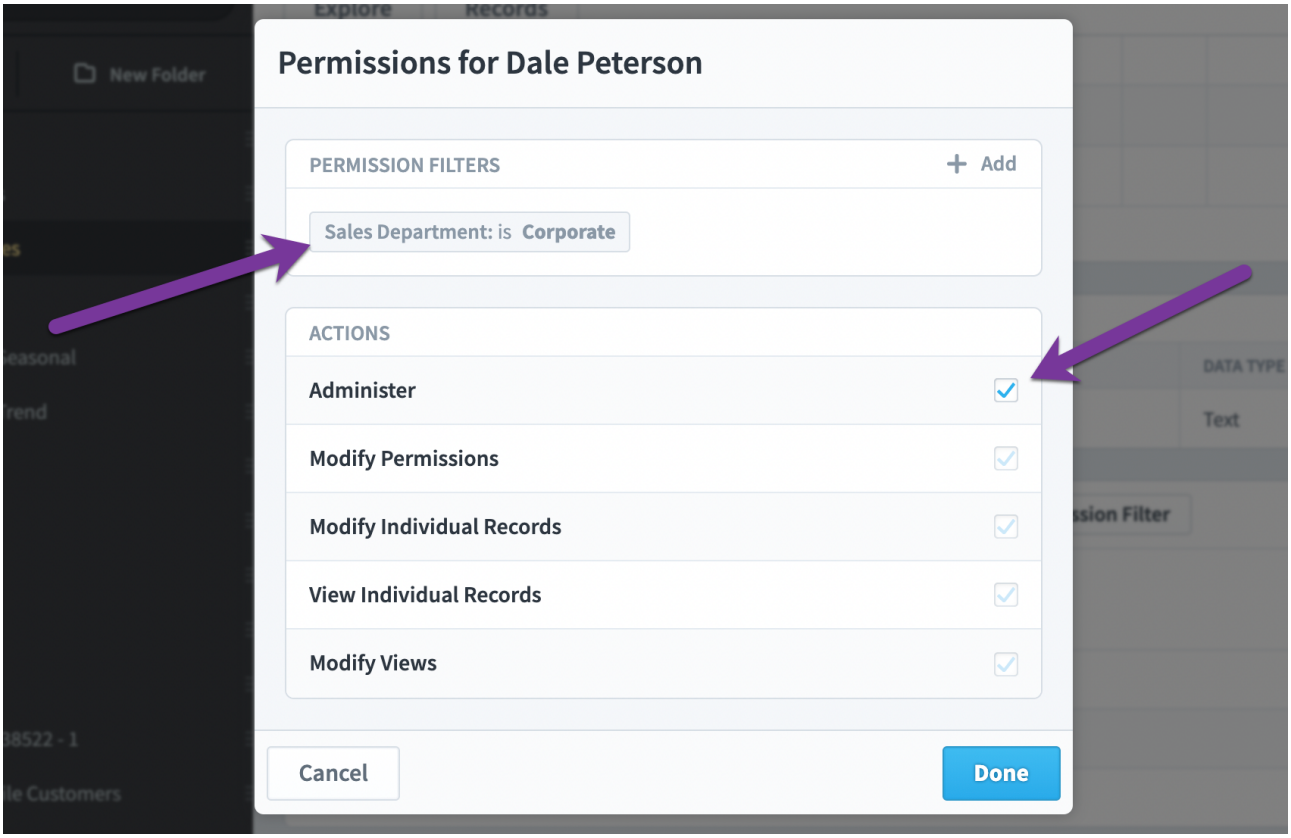
Here we can give the user any of the permissions in the purple box, and they only apply to this dataset. You can also add a permissions filter by clicking the add button in the permission filters panel.



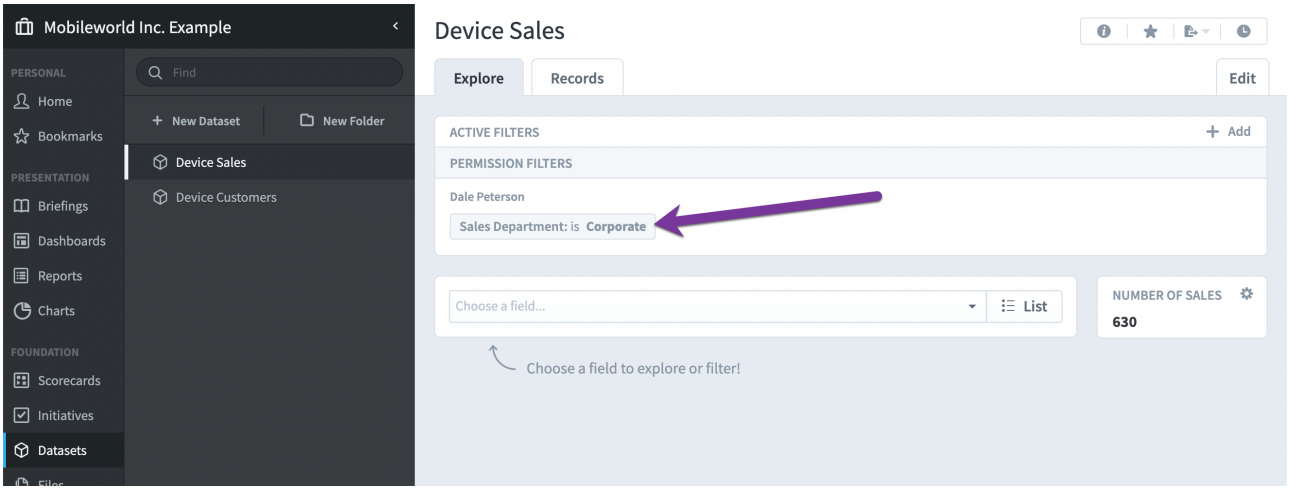
We're going to add a filter for Sales Department = "Corporate".



When we're done, the dialog looks like this. Dale Peterson can administer the dataset, but he can only see records where sales department is corporate.



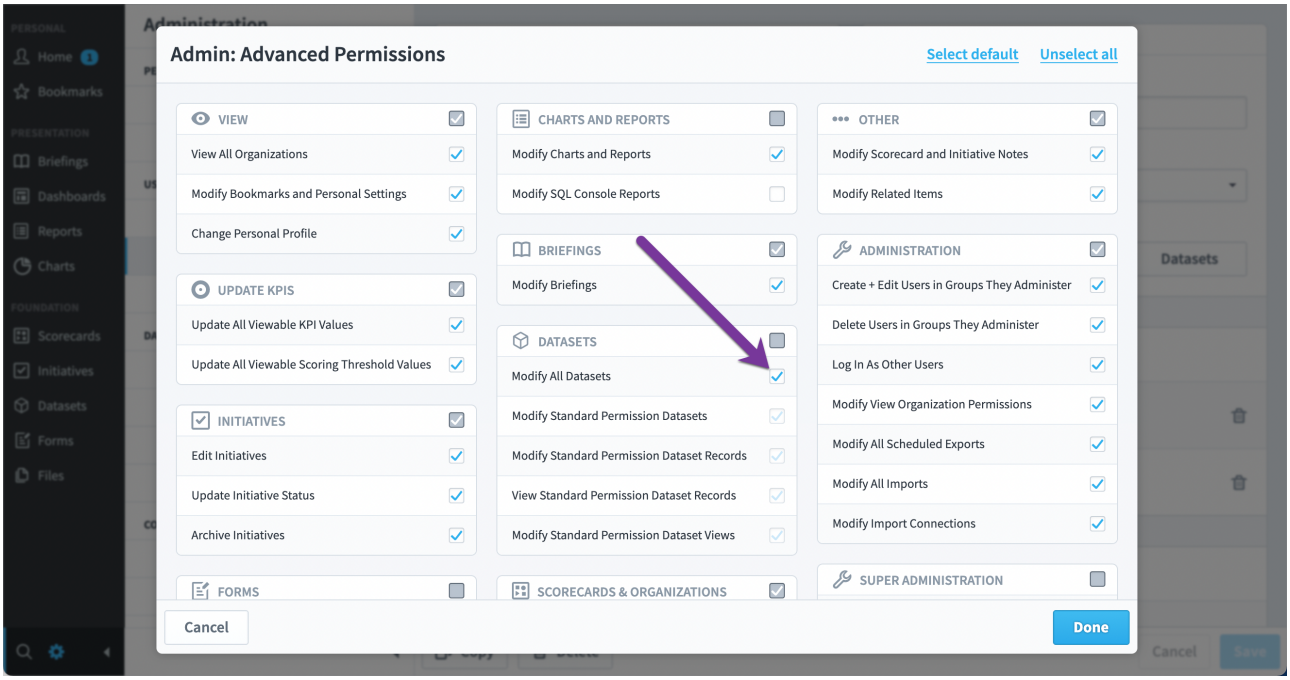
When Dale logs in, he'll see a permission filter permanently applied to every screen that shows dataset data.



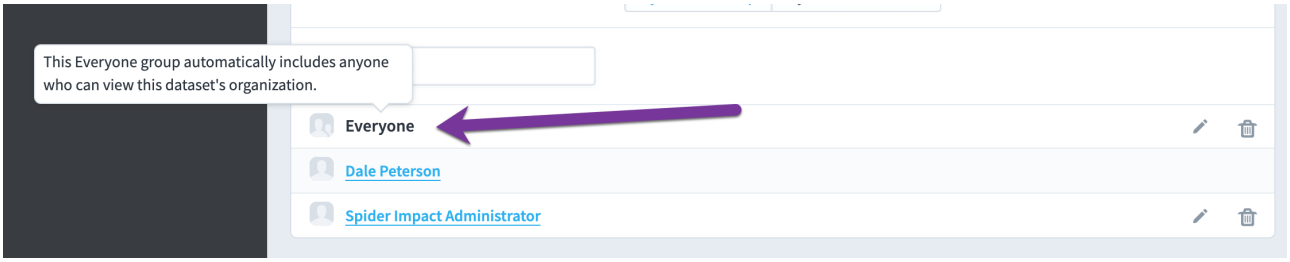
Viewing without explicit advanced permissions

There are two notable exceptions to the rule that only users and groups who are explicitly granted access can see advanced permissions datasets.

First is the "Modify All Datasets" permission. This is unchecked by default and allows members of the group to modify all datasets that the group can see, regardless of whether advanced permissions is on.



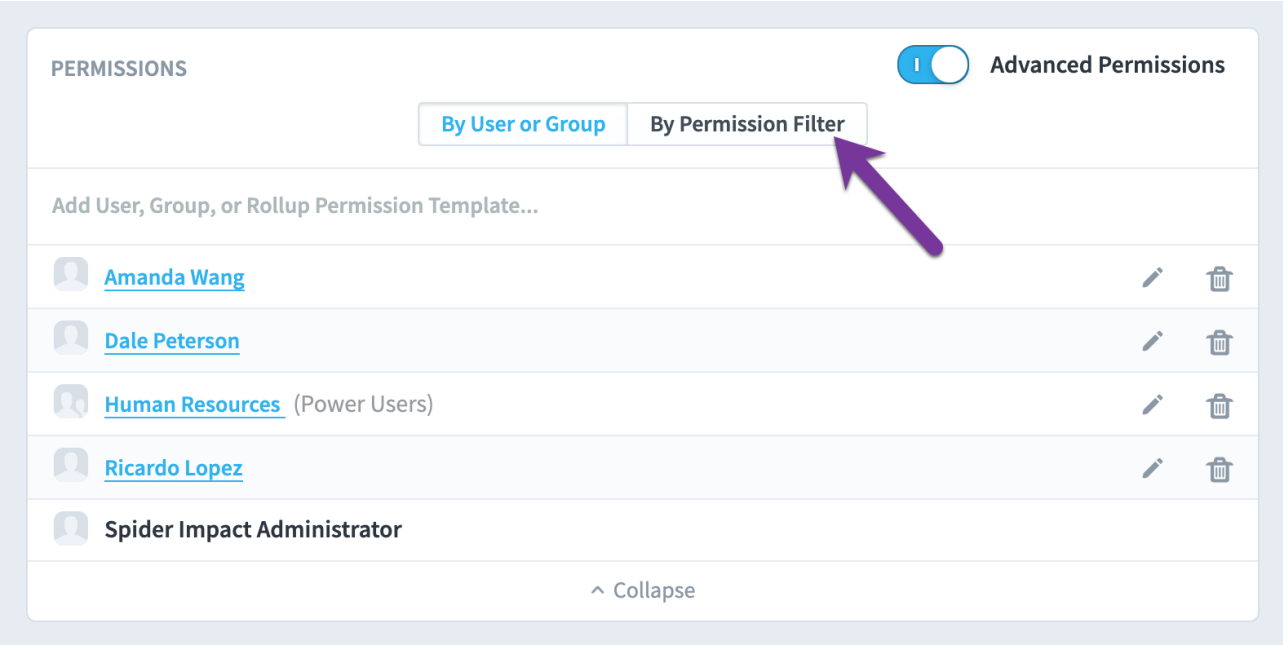
Second, you can add a user named "Everyone" when advanced permissions is on. This allows anyone who can see the dataset to view its data, and by editing the Everyone user's permissions, you can restrict the records they can see or assign actions that every user can do.



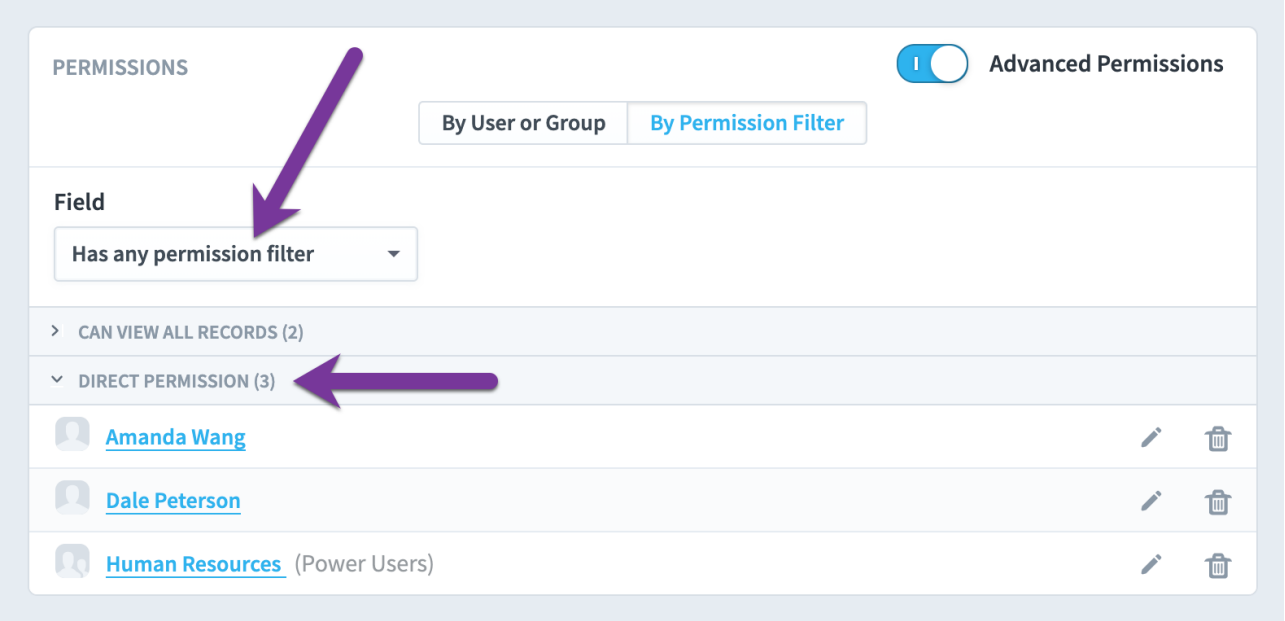
Auditing dataset permissions

The default view for advanced permissions is "By User or Group". This allows you to see a list of everyone who can view the dataset, and you can edit their permission by clicking on the edit button on the right.

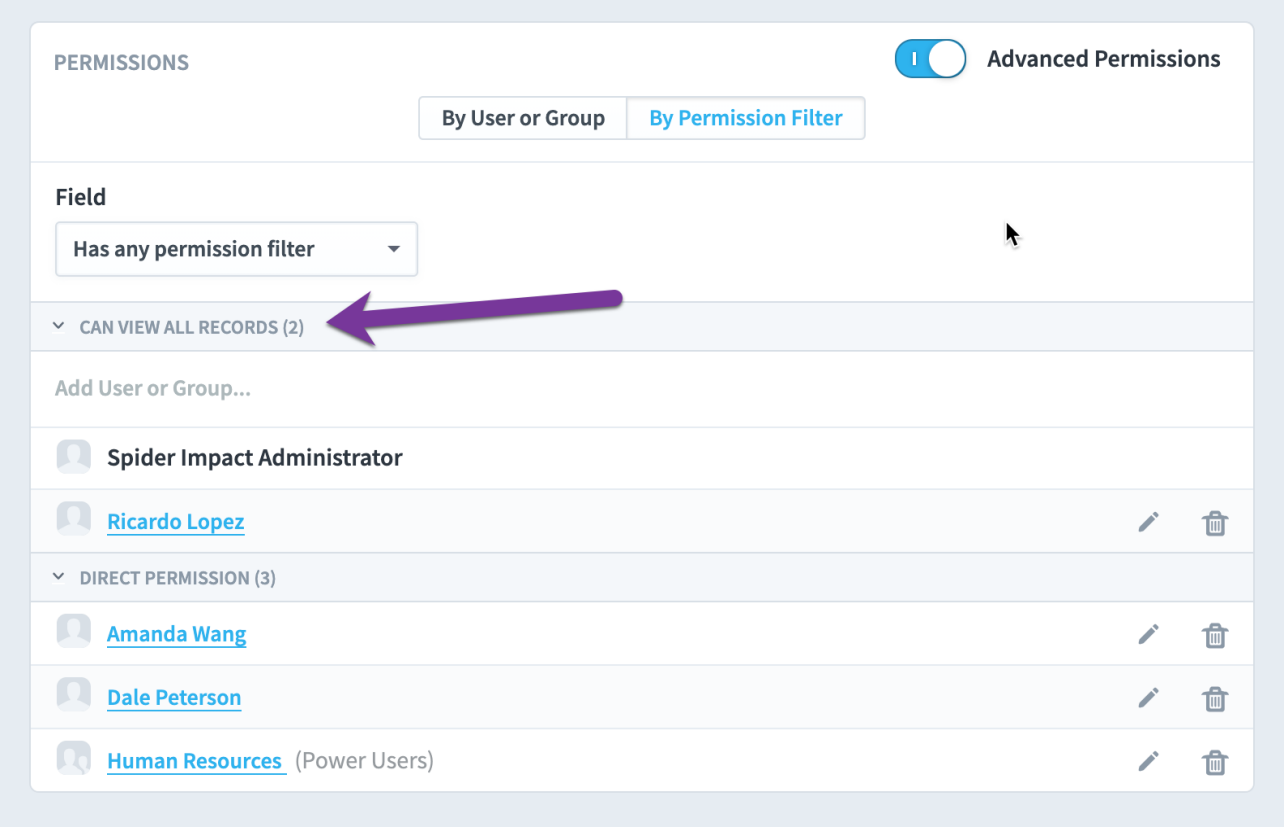
Instead of viewing permissions "by user or group", you can also choose to view permissions "by permission filter". This is helpful when auditing exactly what people can see within the dataset.



The default view is showing users and groups that have any permission filters at all. As you can see, there are two users and one group who have permission filters, which means they can't see all of the dataset records. Just like on the "by user or group" view, you can click on the edit button on the right to see and edit their permission filters.

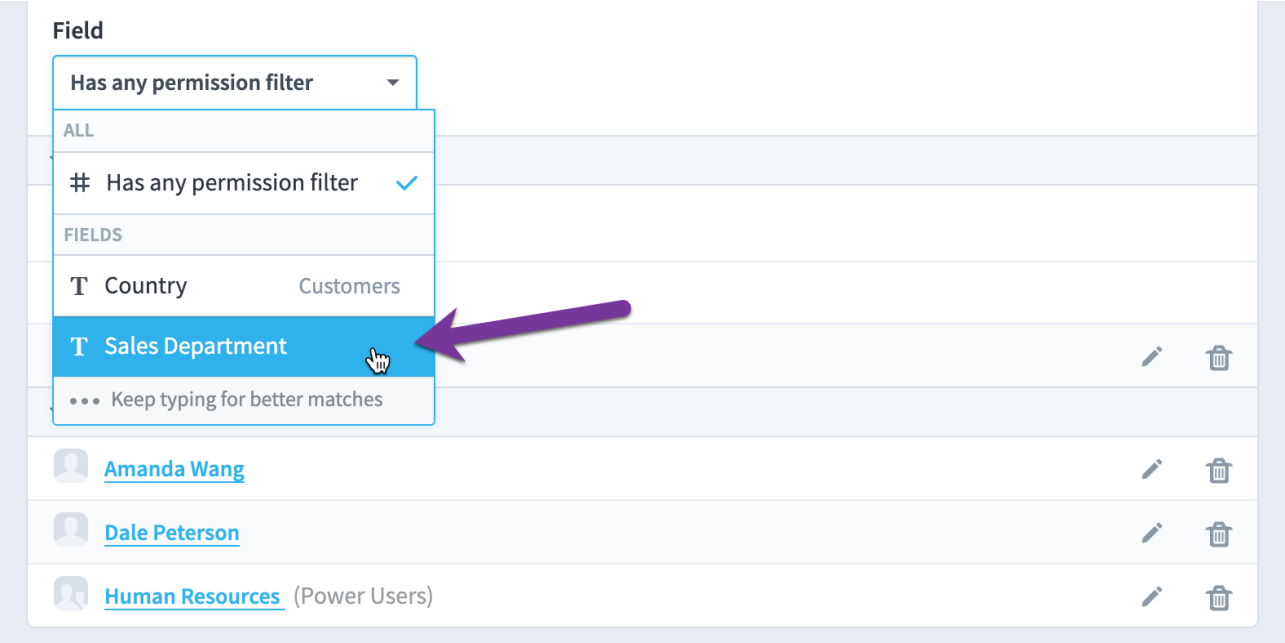


There's also a list of users and groups who can view all records. It's collapsed by default.

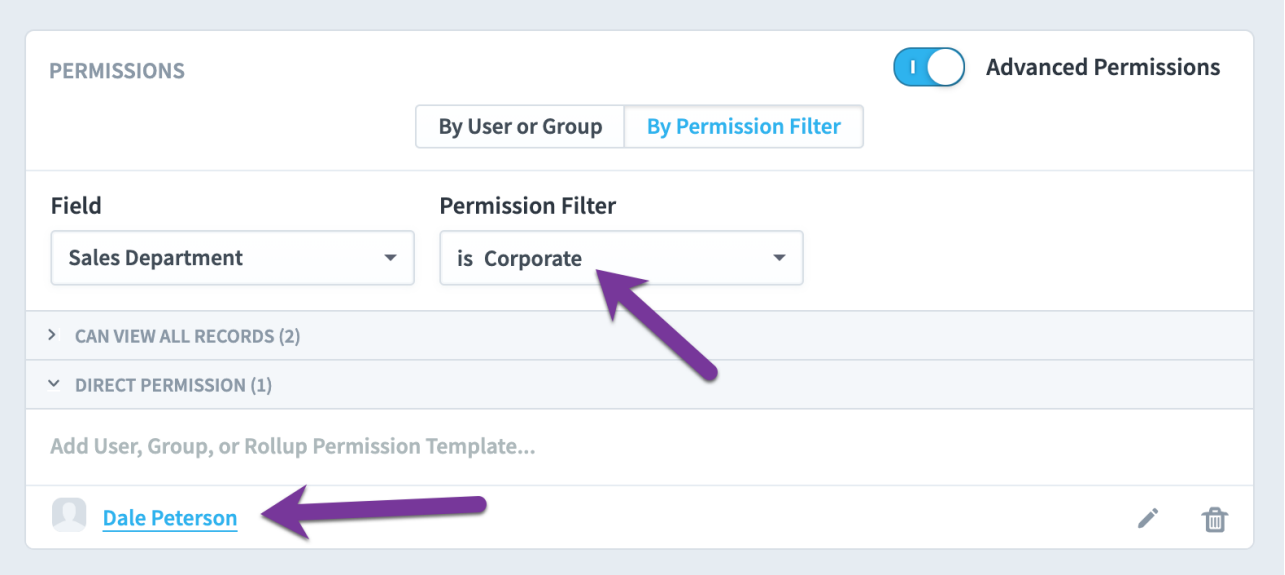


This gives us a good impression of what's going on. There are two users or groups who can view everything, and there are three users or groups who can view only some records. We can take our permissions audit quite a bit further, though.

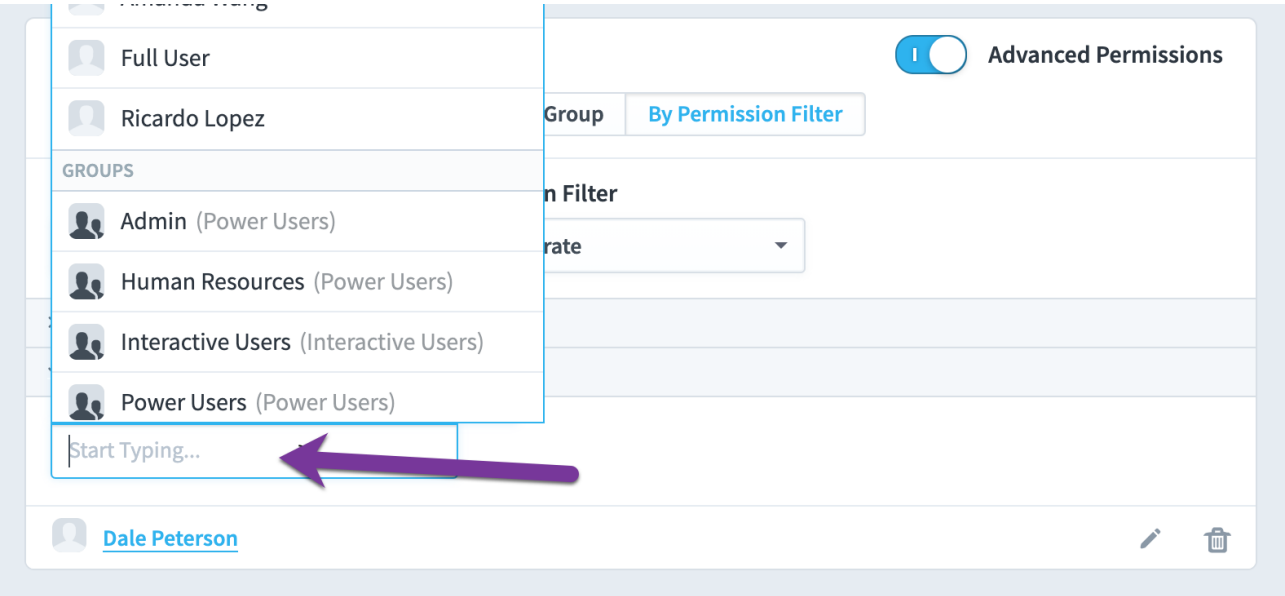
If we click the "Field" select, we can see all of the dataset's fields that have a user or group's permission filter applied to them. In this example, "Country" and "Sales Department" are the two fields with permission filters. We'll choose Sales Department.



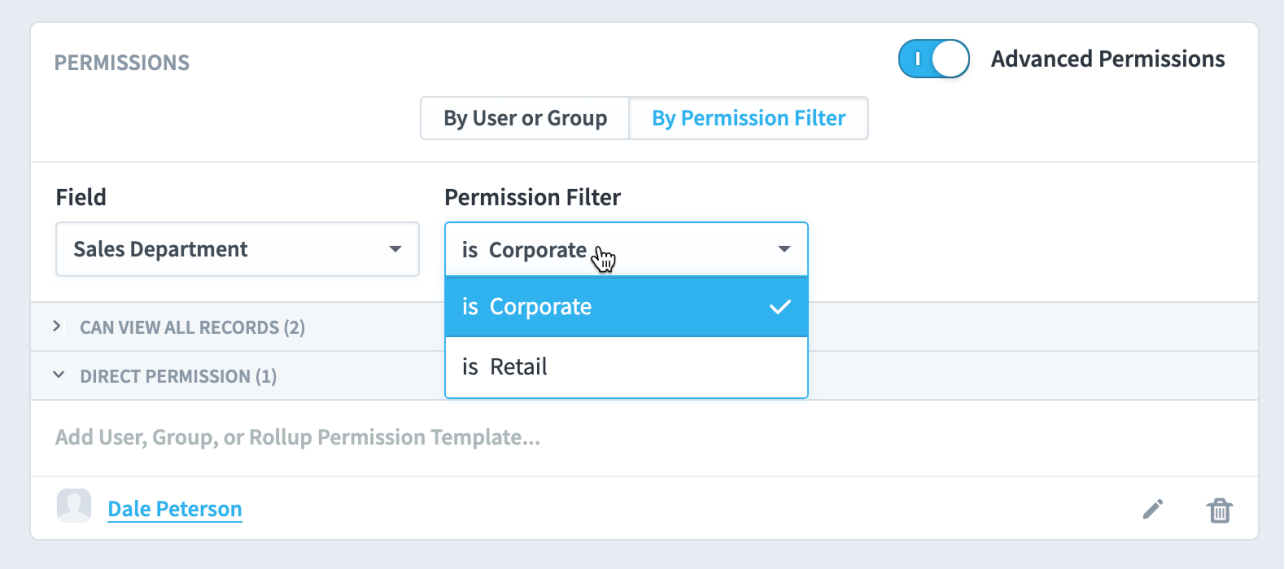
We now see that Dale Peterson has a "Sales Department is Corporate" permissions filter directly applied to him. We also see the collapsed "view all" section with the same two users who can view all records. That means there are three users in the software who can view corporate sales department records.



You can also quickly assign other users and groups permission to see Corporate sales records.



When we click the "Permission Filter" dropdown we see that users or groups also have permission filters for the sales department being retail.

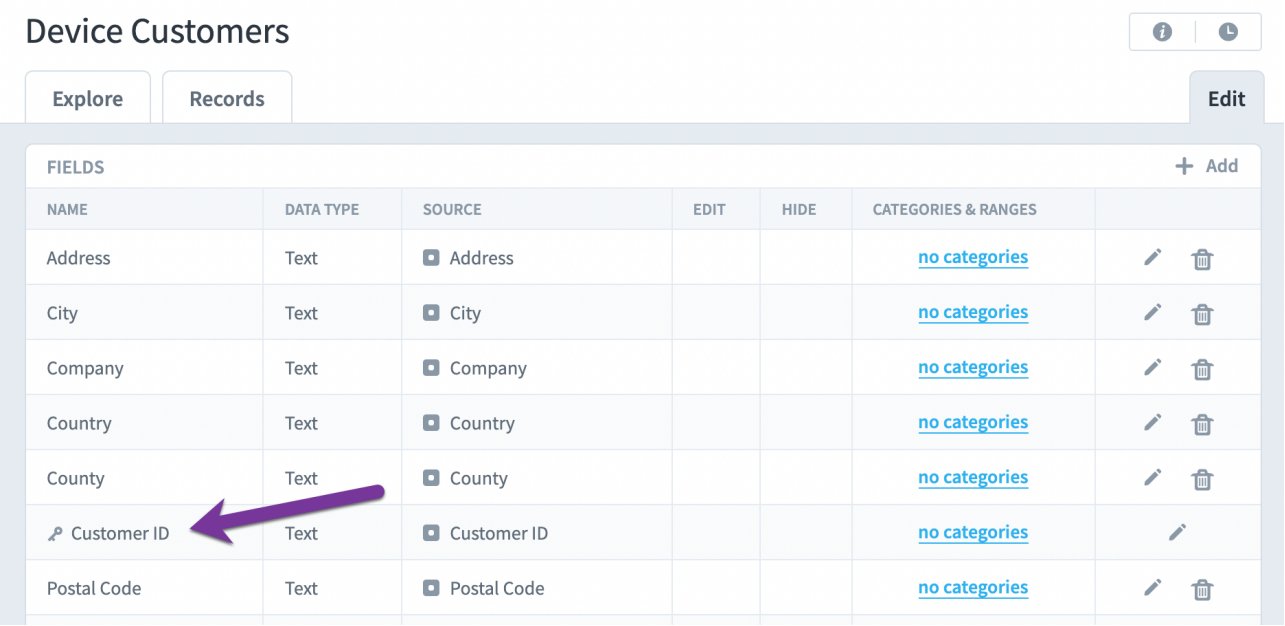


By exploring your dataset permissions this way, you can quickly understand who has access to what, and you can ensure that only the correct users have access to sensitive data.

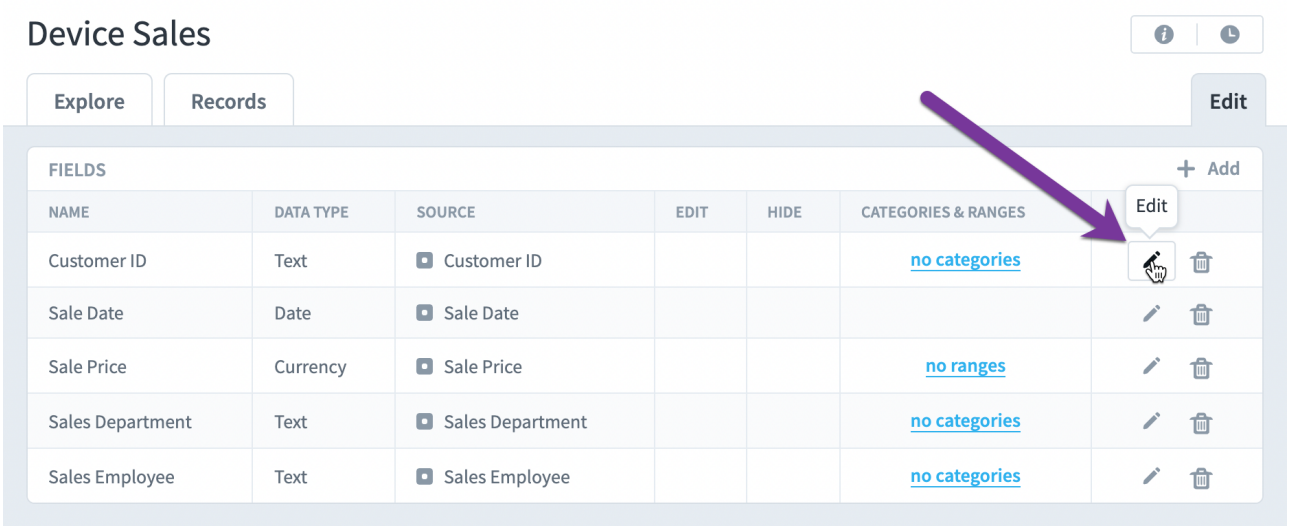
Advanced: Linking Datasets

Creating links

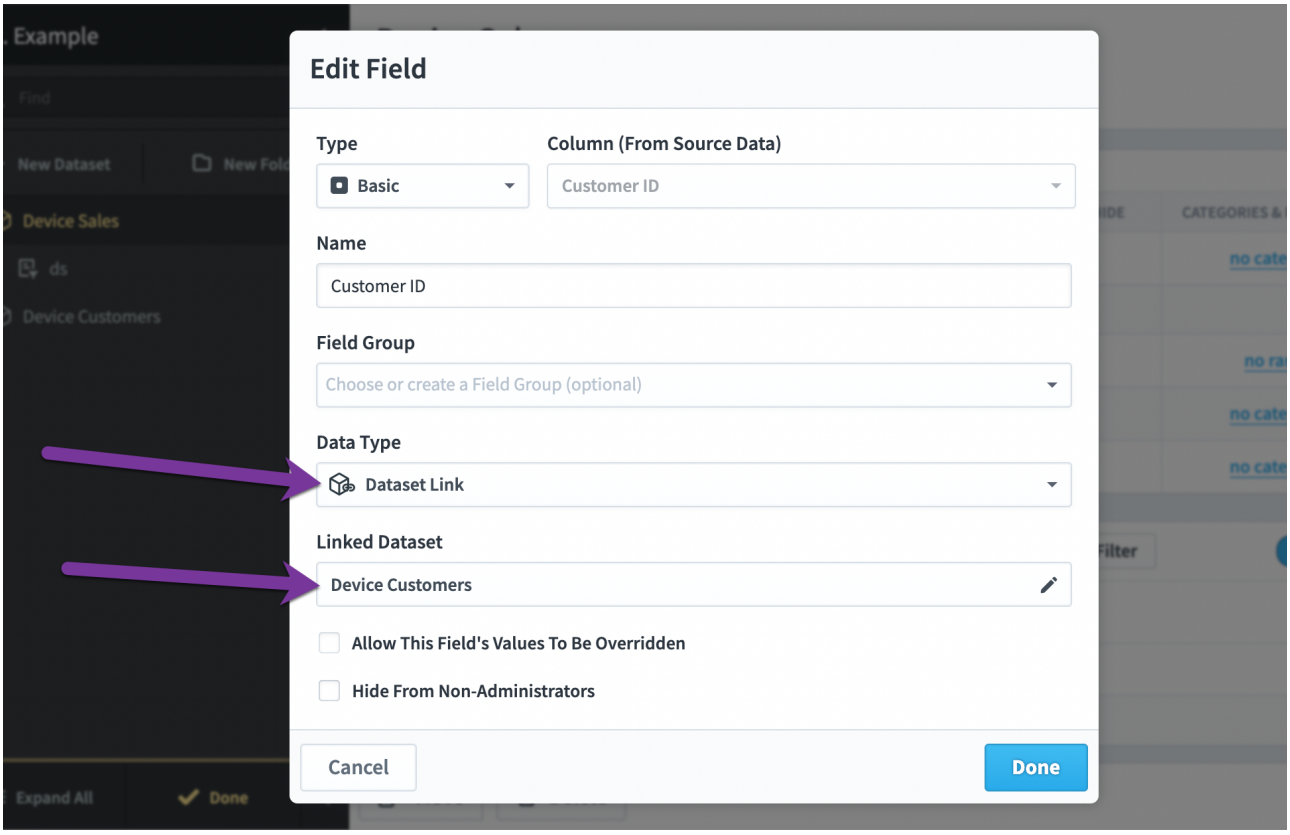
You can unlock powerful insights by linking datasets together. In this example we have two datasets. The first is information about our customers, including their address and points of contact. The primary key is a Customer ID.



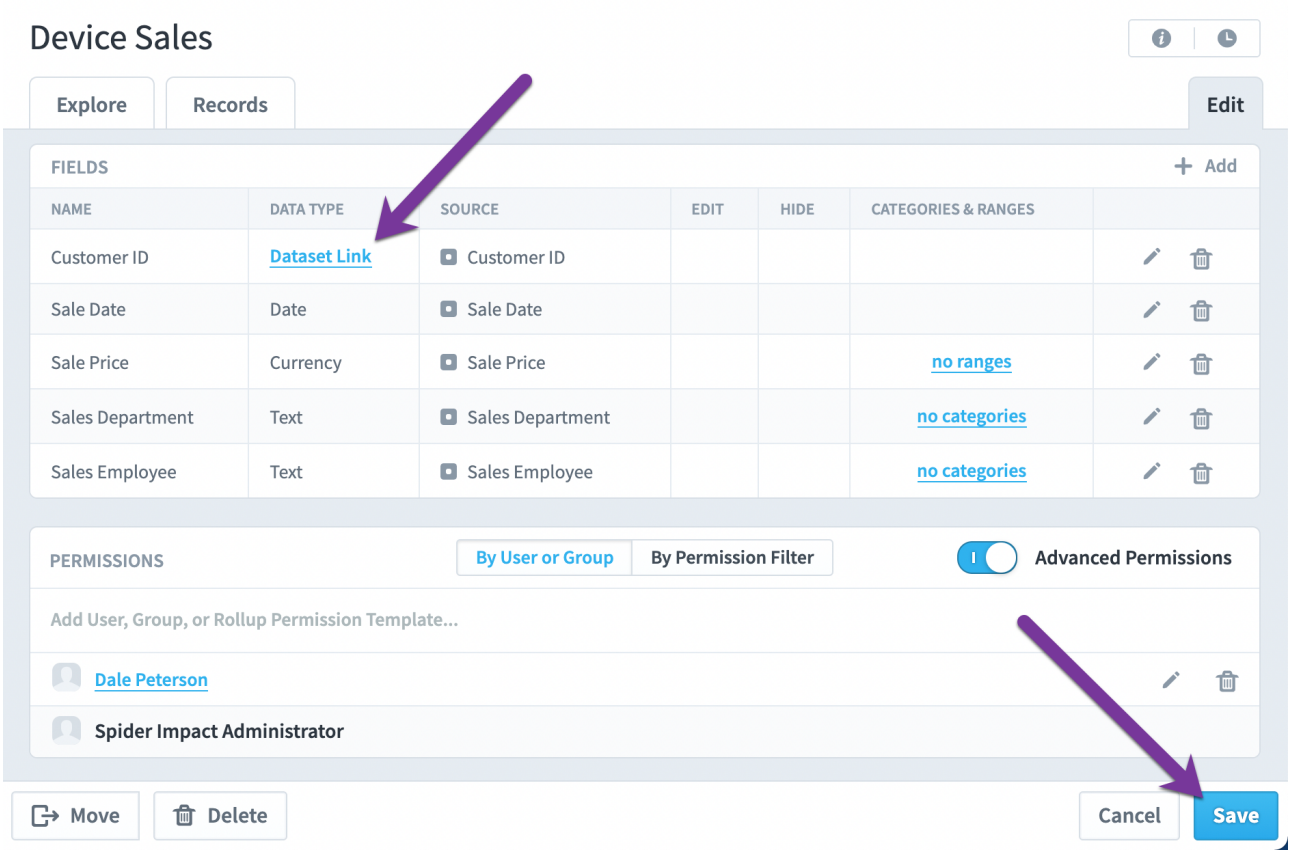
The second dataset is information about all of the sales we've had over time. There's a sale date, sale price, and the Customer ID of the organization who made the purchase. In order to link the Customer ID field to the customers dataset, we'll edit the Customer ID field in the device sales dataset.



We'll change the field type from Text to Dataset Link and choose the Device Customers dataset. This tells Spider Impact that the values for this Customer ID field match the primary key values of the Device Customers dataset.

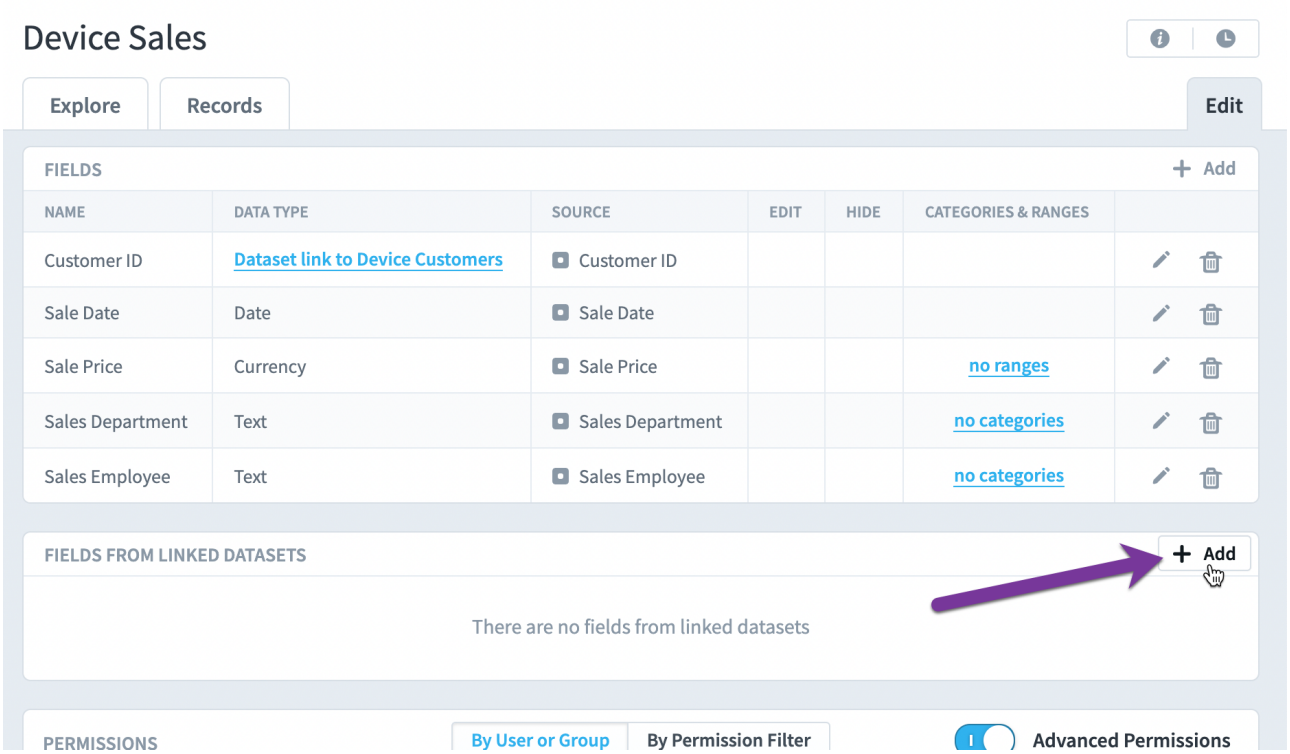


The Customer ID field is now a dataset link, so we'll save the dataset.

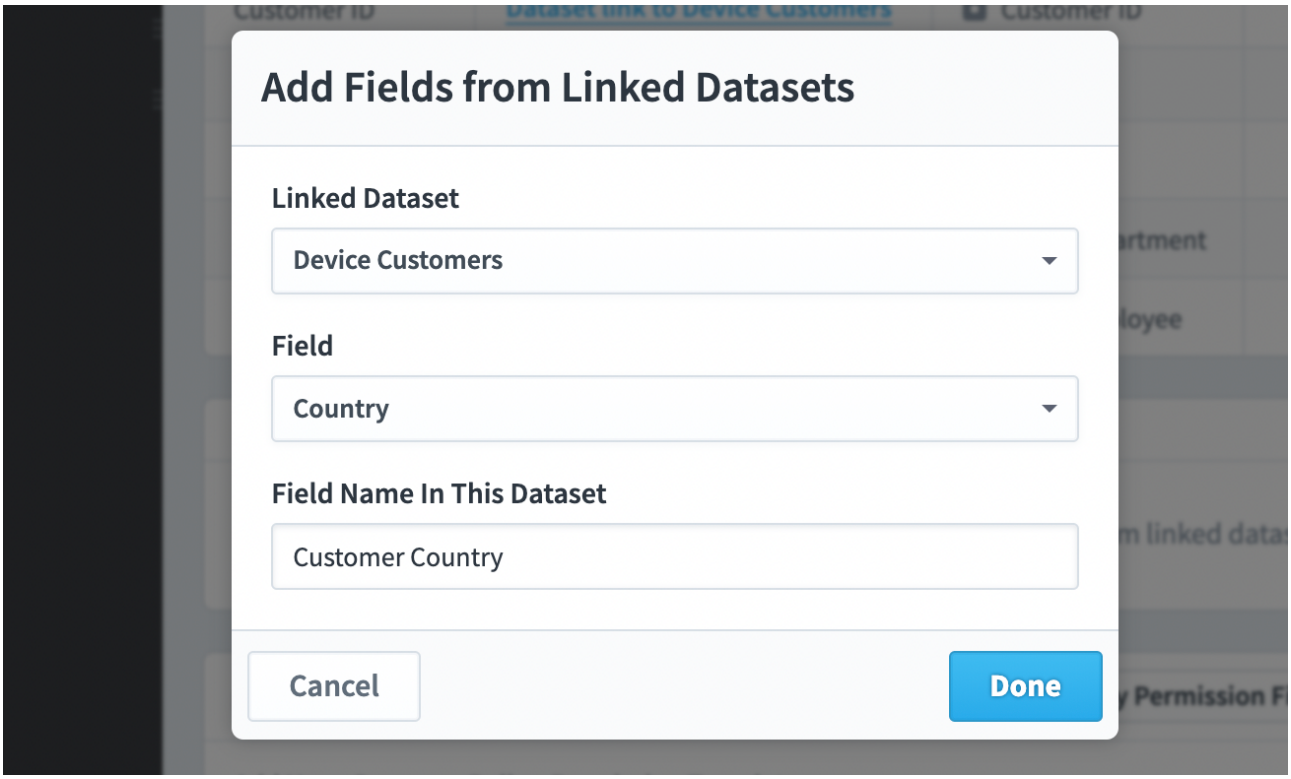


Fields from linked datasets

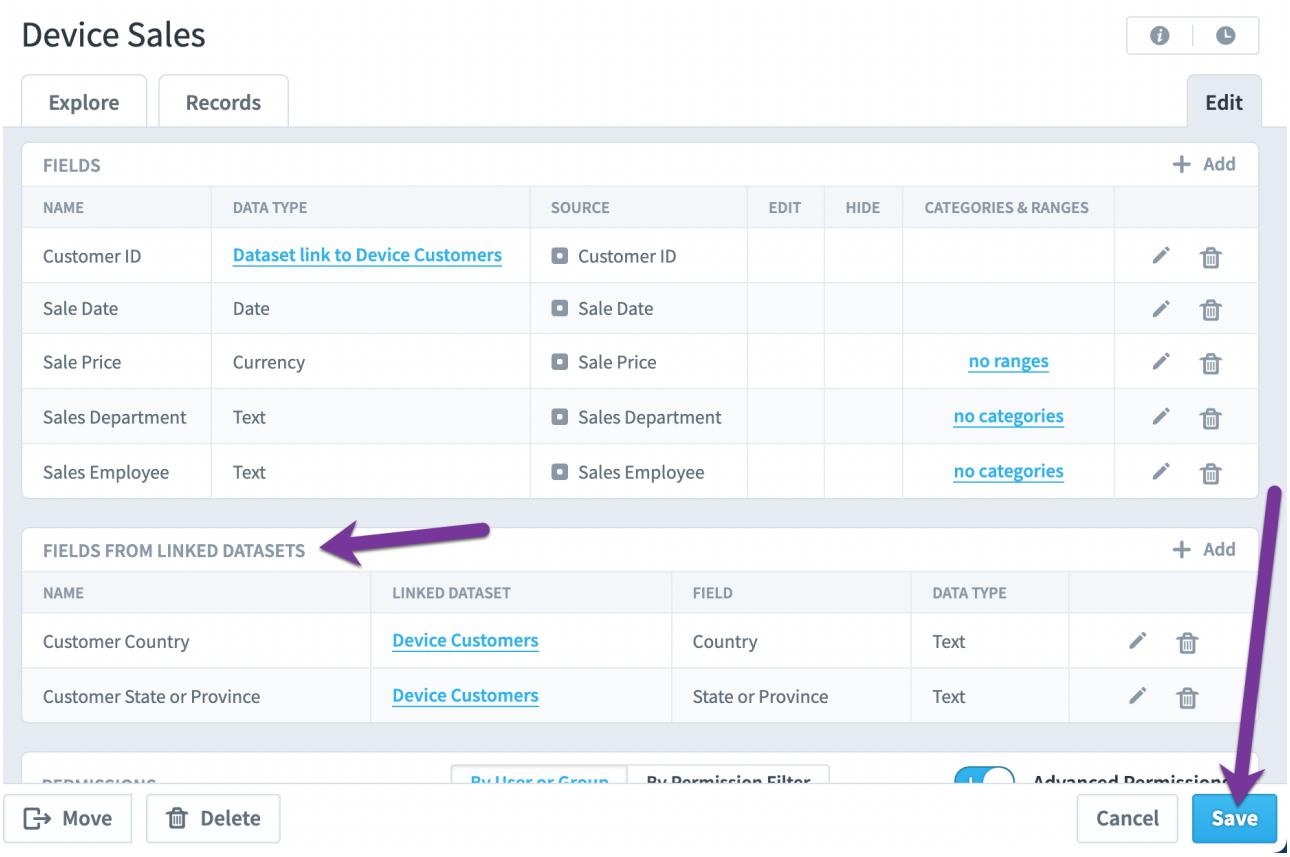
Our two datasets are now linked together and there is now a "Fields From Linked Datasets" panel on both datasets' Edit tabs. You can click the "Add" button to choose which fields you want to appear from the linked dataset.



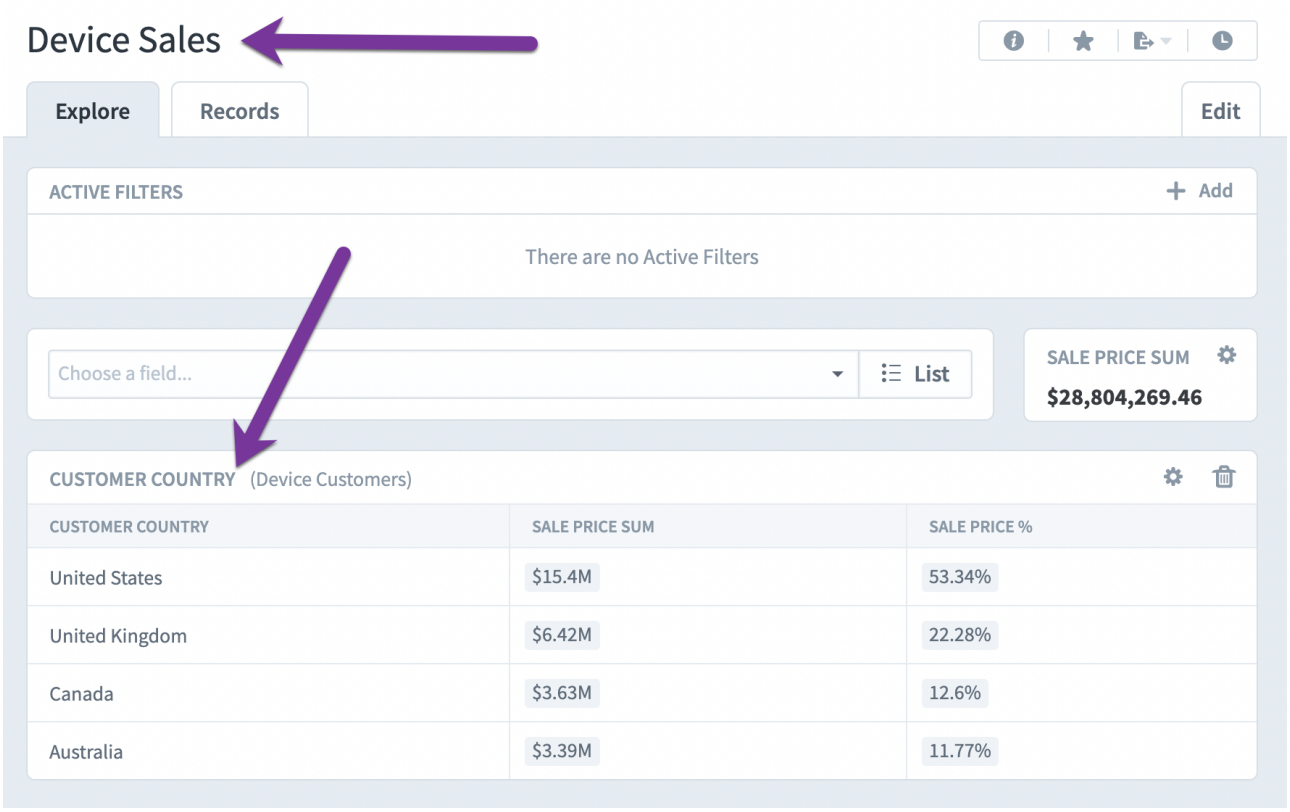
In this example we'll choose to add the Customer Country to the Device Sales dataset.



And we'll save the dataset again.

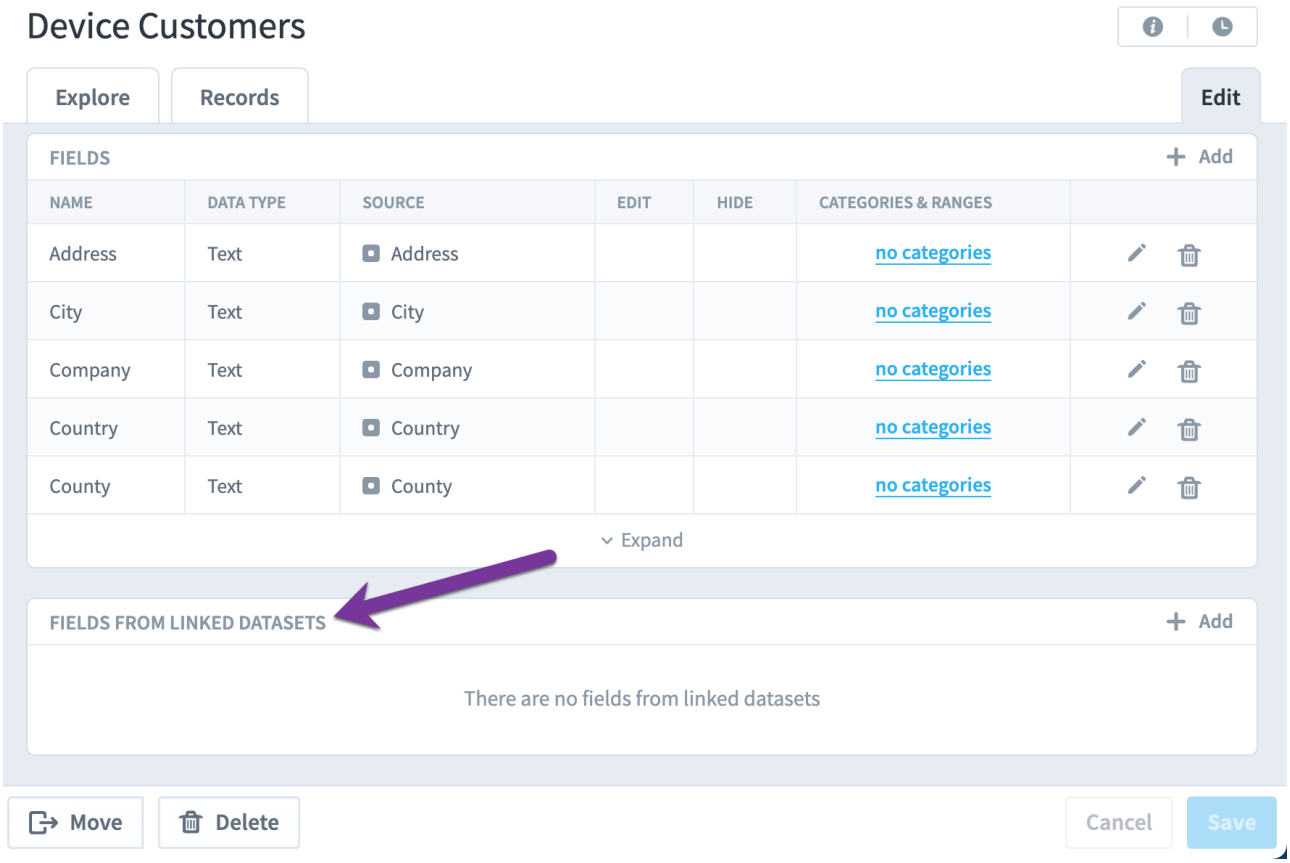


We are now able to break down our sales totals by Country.



Complex linking

Dataset links are bidirectional. Once a link is set up between two datasets, you can set up fields on both sides of the link. In this example the "Fields From Linked Datasets" panel now shows for the Customers dataset too.



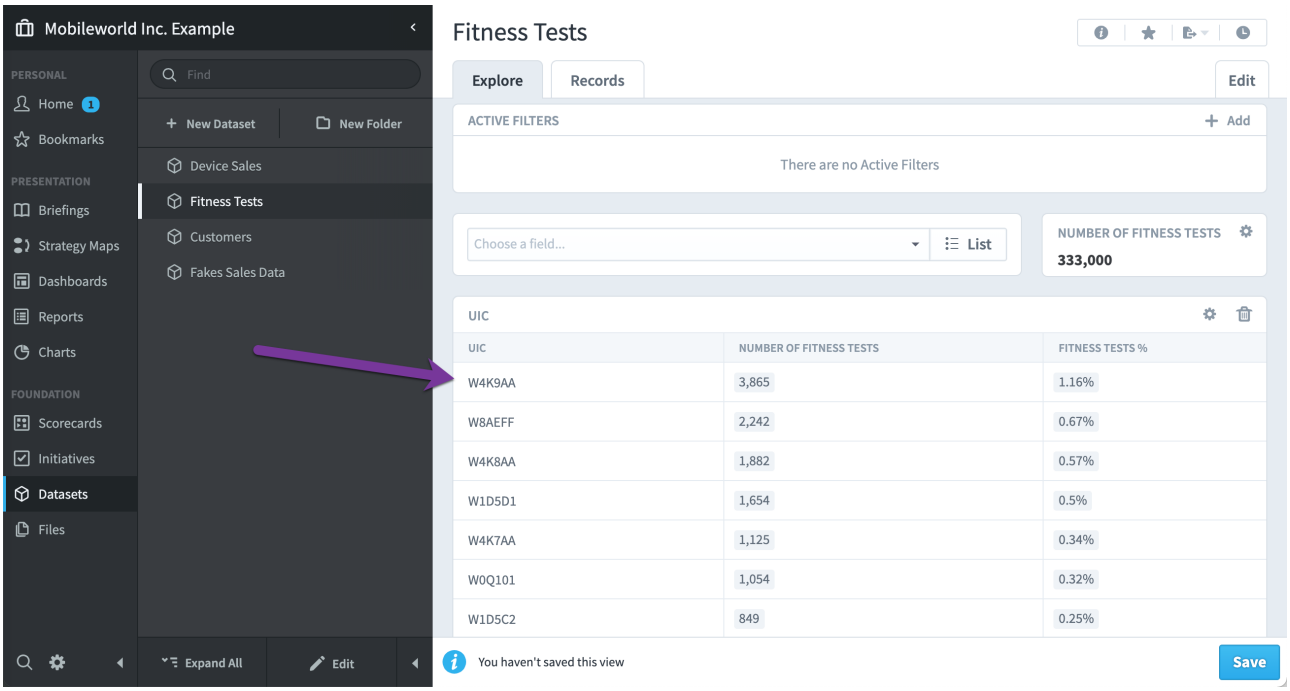
Linking isn't limited to two datasets either. If several datasets are linked together, datasets that aren't directly linked can share fields. You can even build calculated fields using data from multiple linked datasets.

Advanced: Dataset Rollup Trees

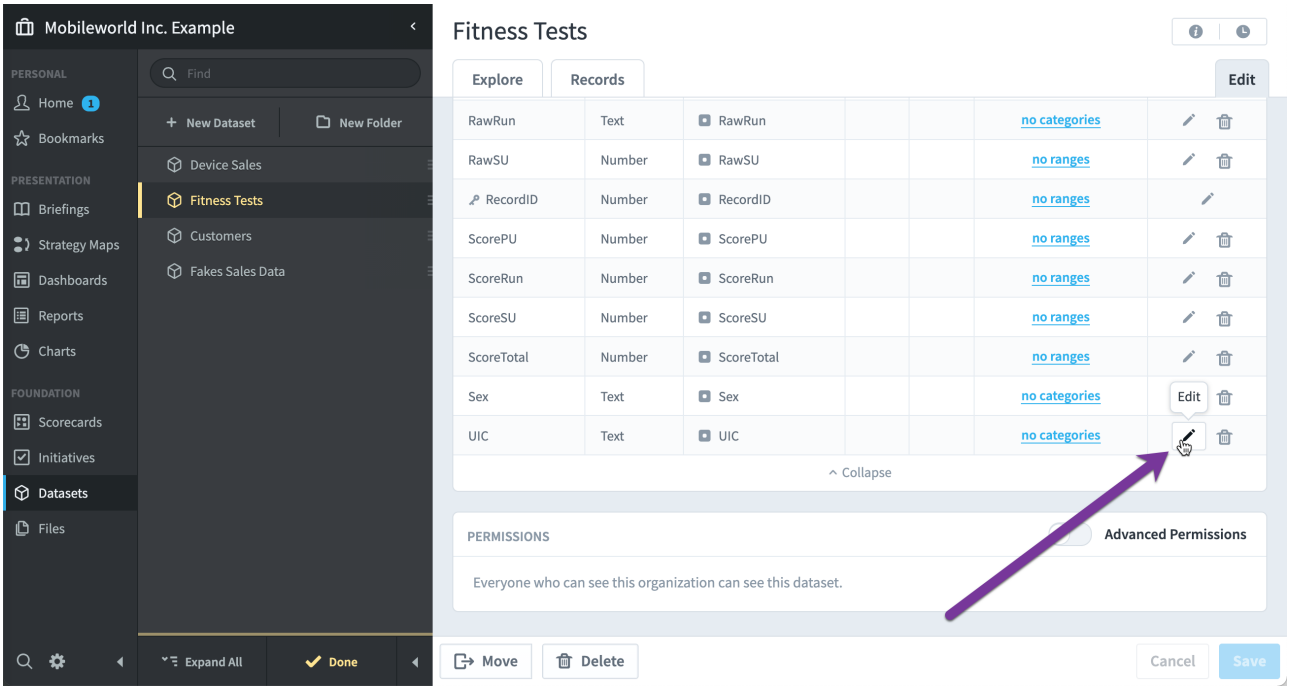
Using dataset rollup trees

Dataset rollup trees allow you to track hierarchical data. They're great for companies and governments that have large organization structures, and are similar to geographic data in that they automatically aggregate your data up a tree.

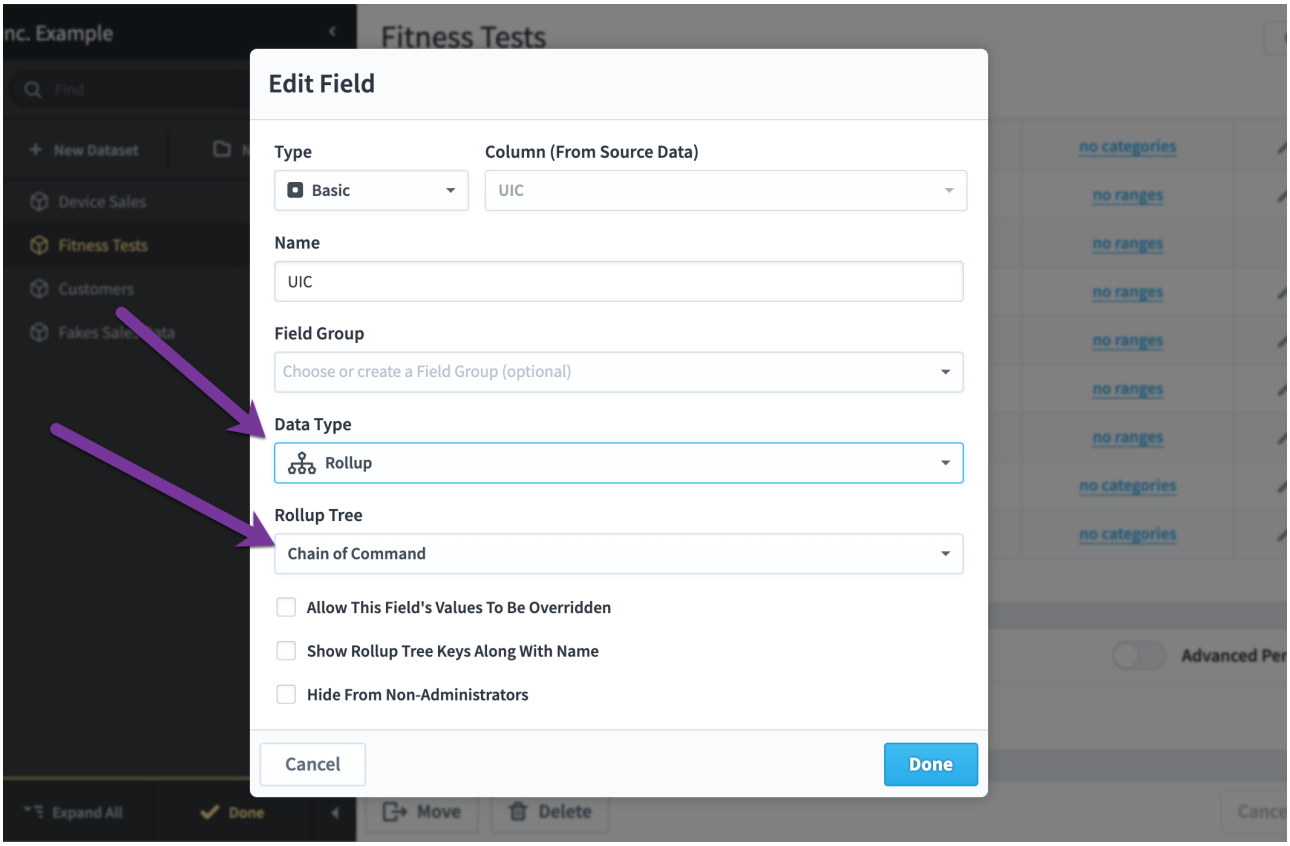
In this example we have a military fitness test dataset with 333,000 records. We've added the Unit Identification Code (UIC) field to the Explore tab, and we can see that the W4K9AA organization has the most fitness test records in this dataset.



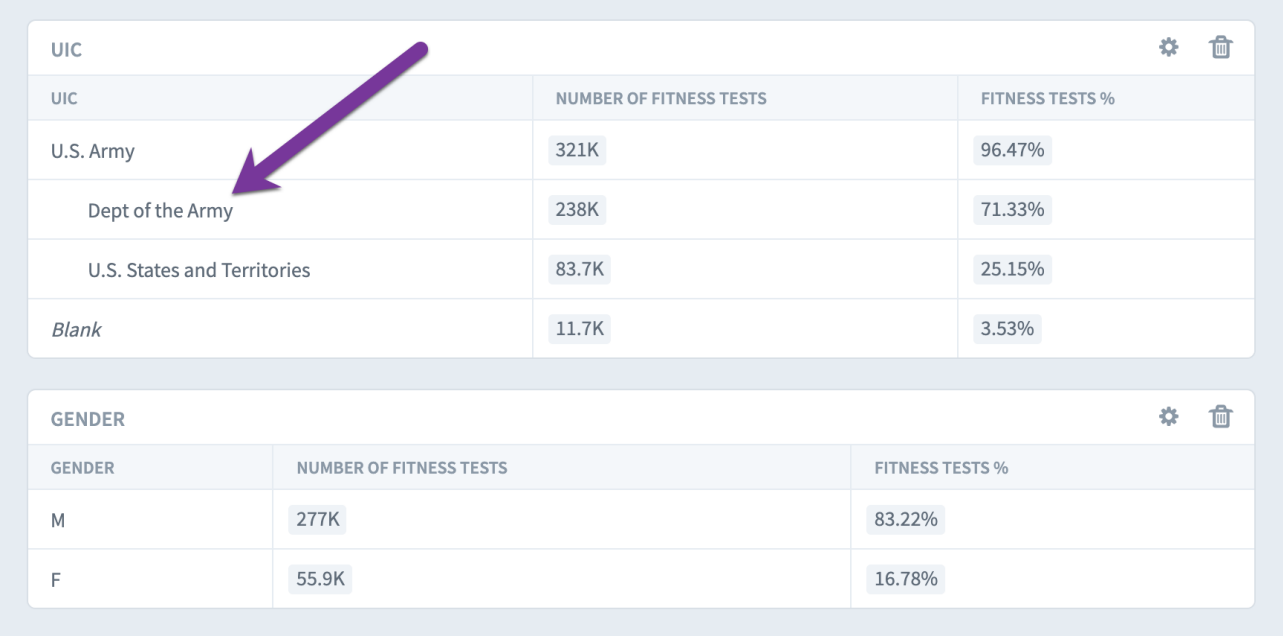
Militaries are very hierarchical organizations, so we're going to edit the UIC field and turn it into a rollup tree.



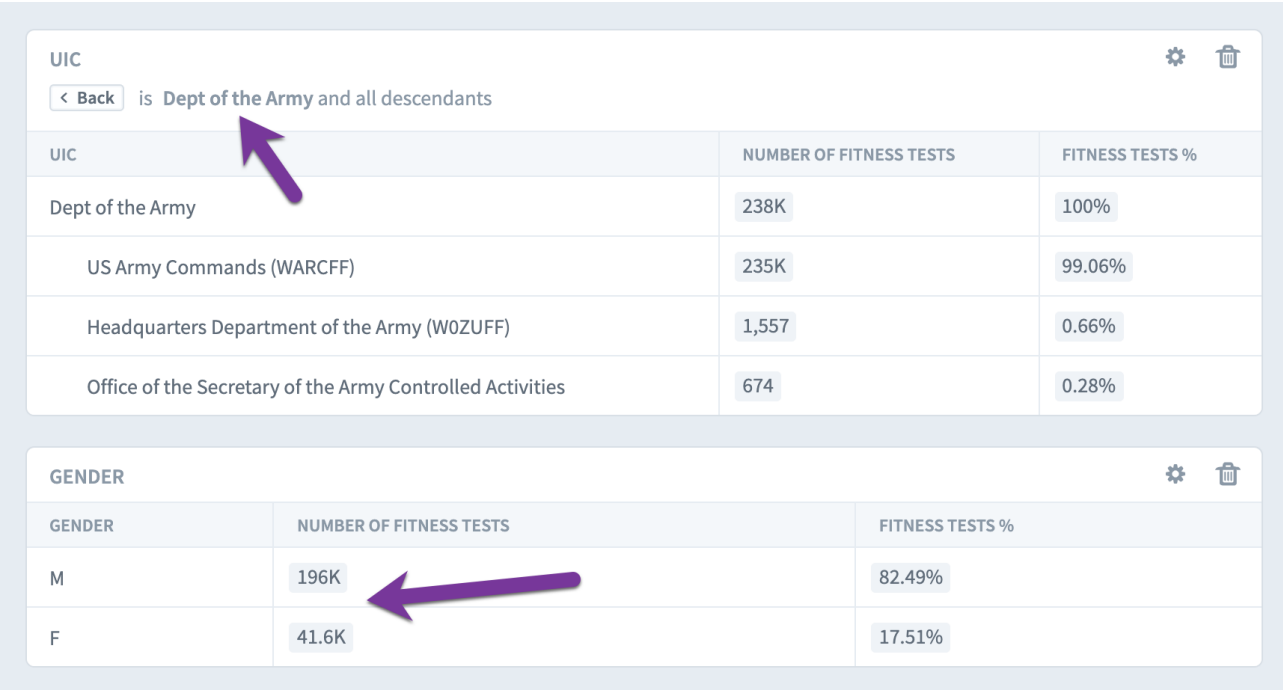
We change the data type from Text to Rollup, and then choose which rollup tree we want. Rollup trees are built and managed in the Administration section, and we'll cover how to do that next. In this example we're choosing Chain of Command.



Now when you add the UIC field to the Explore tab, you see a tree instead of a list of UIC. That's because Impact has matched the UICs to items in the Chain of Command rollup tree and is now able to show you aggregated totals. And, just like every other field type, you can click on an item in the tree to drill down.



At the top of the UIC panel it now shows the tree level that we've drilled down to, as well as a back button that will take us to where we were before. As you navigate up and down the tree, Impact automatically applies filters to restrict records to only that tree level. In this example you can see the Gender panel updating with new numbers as we go down the tree.

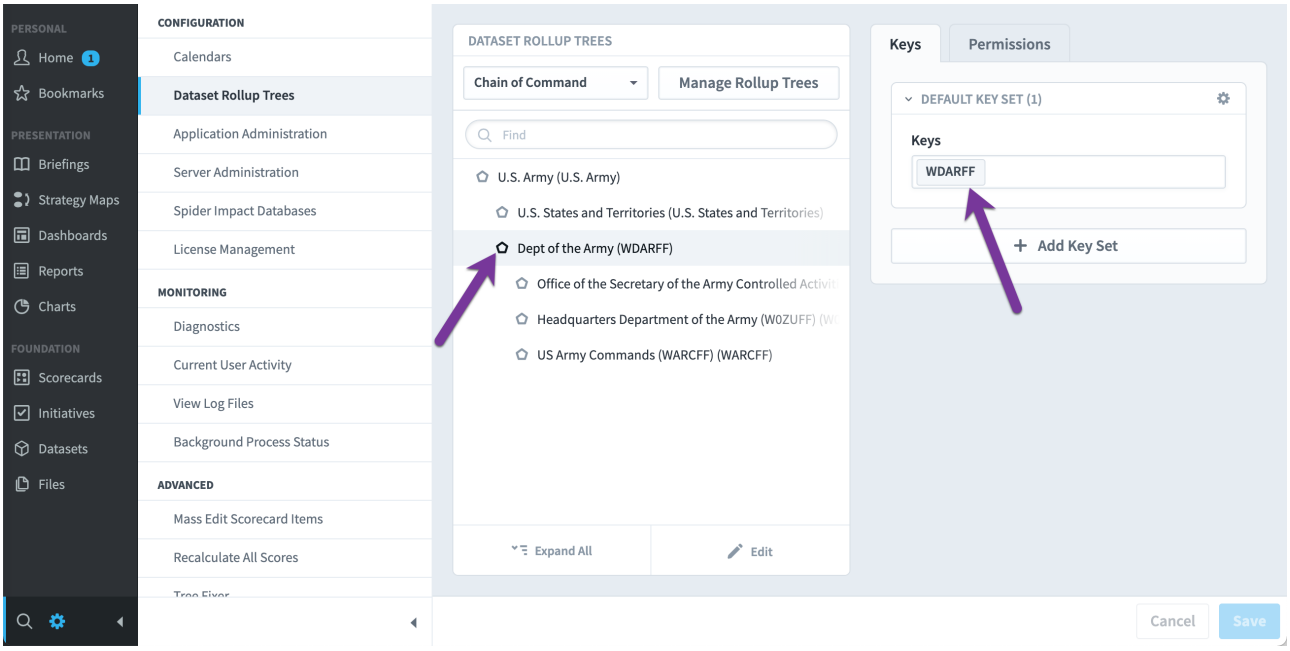


Here we've drilled down to a third tree level. Most rollup trees are fairly small, but Impact has been tested to perform well with trees as large as 50,000 items.



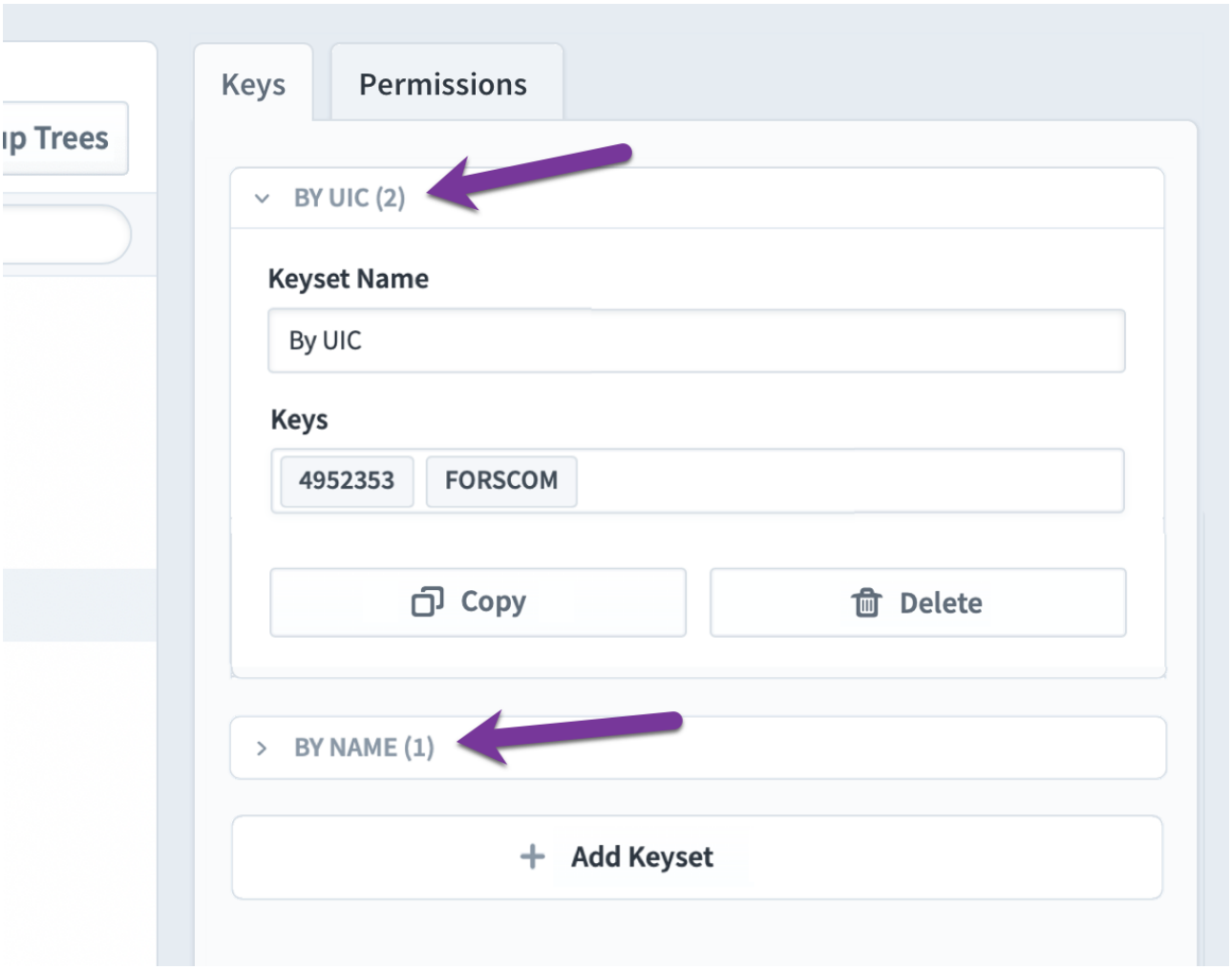
Managing dataset rollup trees

You can build and manage dataset rollup trees in the "Dataset Rollup Tree" page in Administration. On the left is the rollup tree that you choose in the dropdown above, and on the right, you can edit the keys for the selected tree item. In this example, any time a field's value is "WDARFF", it will match with the "Dept of the Army" item in the rollup tree.

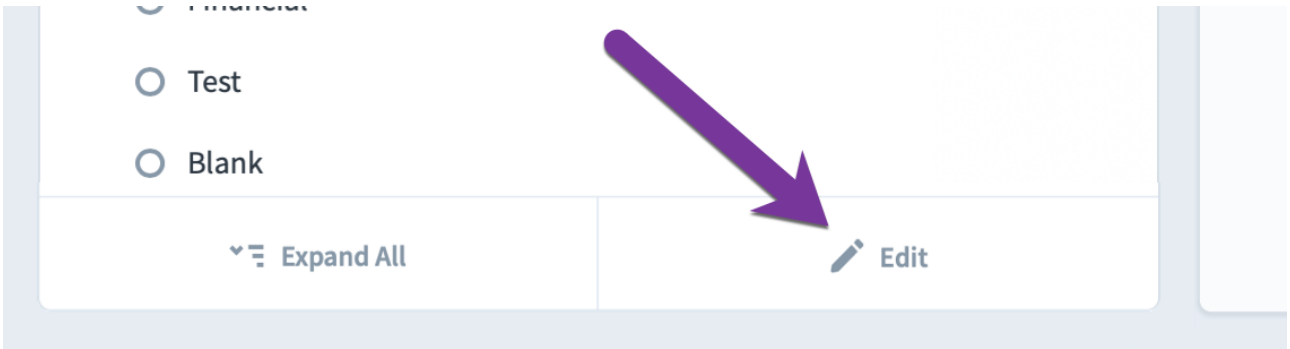


It's most common for every item in the rollup tree to have a single key. Sometimes, however, tree items will have no key at all and will instead be used only for showing aggregated data from its descendants. Other times a rollup tree item will have multiple keys.

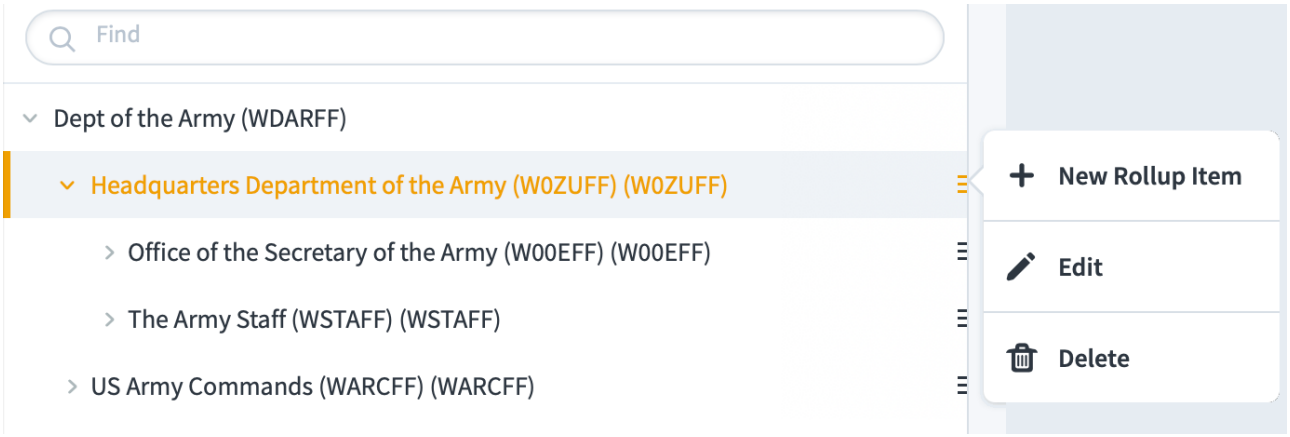
Because rollup trees are used across multiple datasets, each dataset may have a different way to reference the tree items. To support this, Impact allows you to create multiple keysets. For example, one keyset may be "By Payroll ID" and another keyset may be "By Human Resources ID". When a rollup tree has multiple keysets, you'll also need to choose which keyset to use when setting up a rollup tree field in your dataset. Keysets are important because different datasets can use the same key to refer to different items.



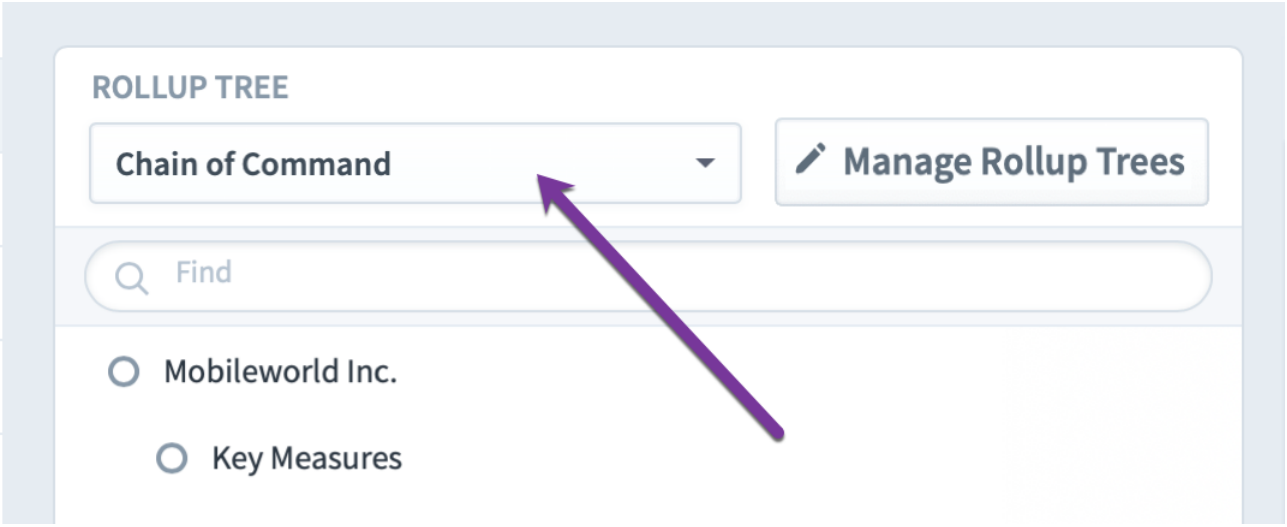
Just like other places in Impact, you can put the rollup tree in edit mode.



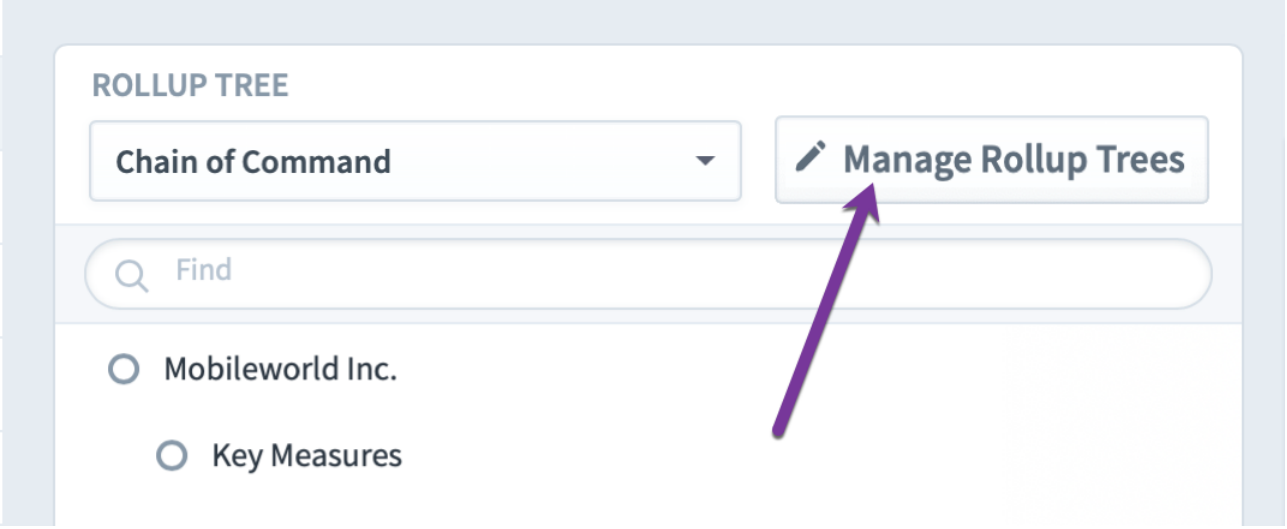
This allows you to drag and drop items to reorder the tree, and the selected item has a tooltip menu on it for modifying tree items.



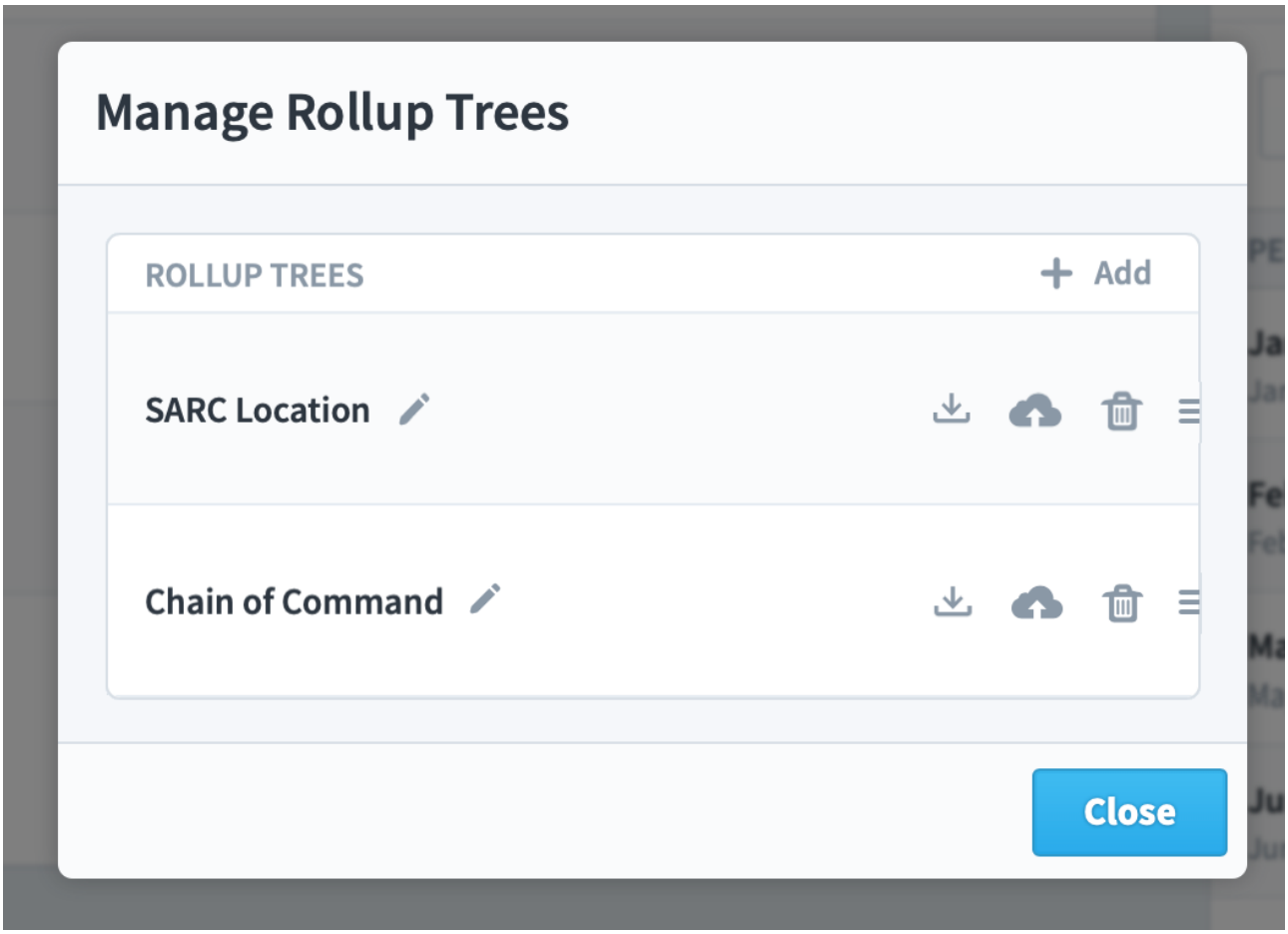
To change the rollup tree that you're editing, select the tree you want in the dropdown in the upper left.



Next to that is the Manage Rollup Trees button.

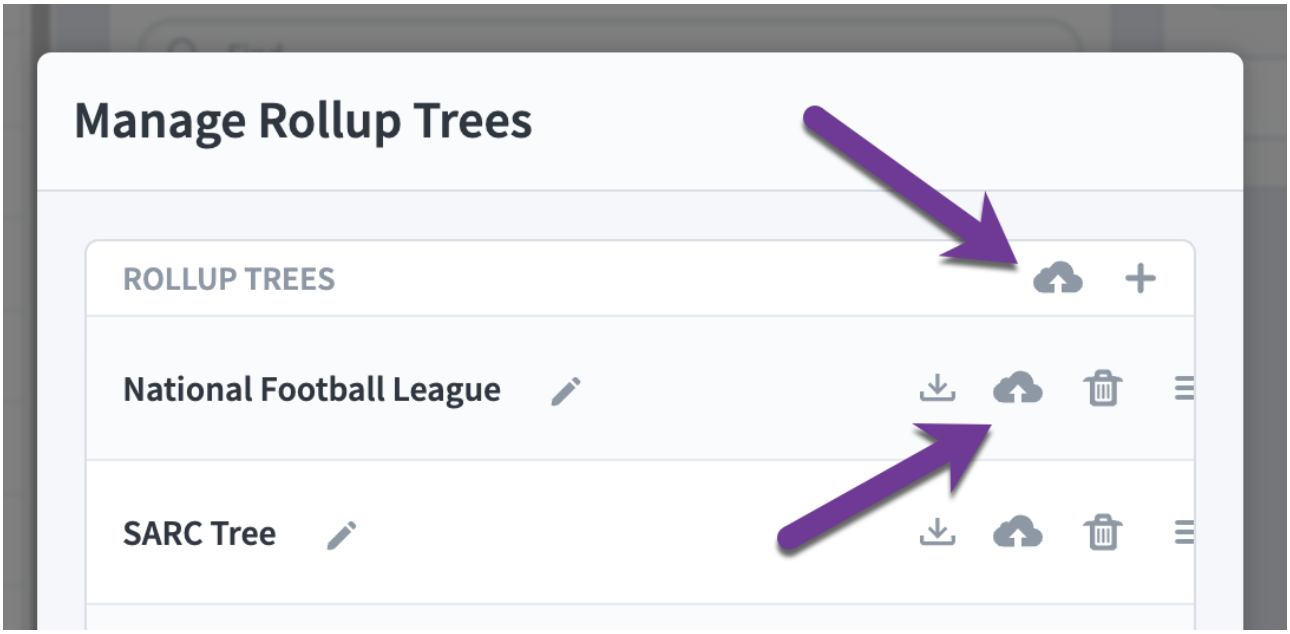


This opens a dialog where you can create, rename, reorder, delete, update, and download rollup trees.



Importing rollup trees

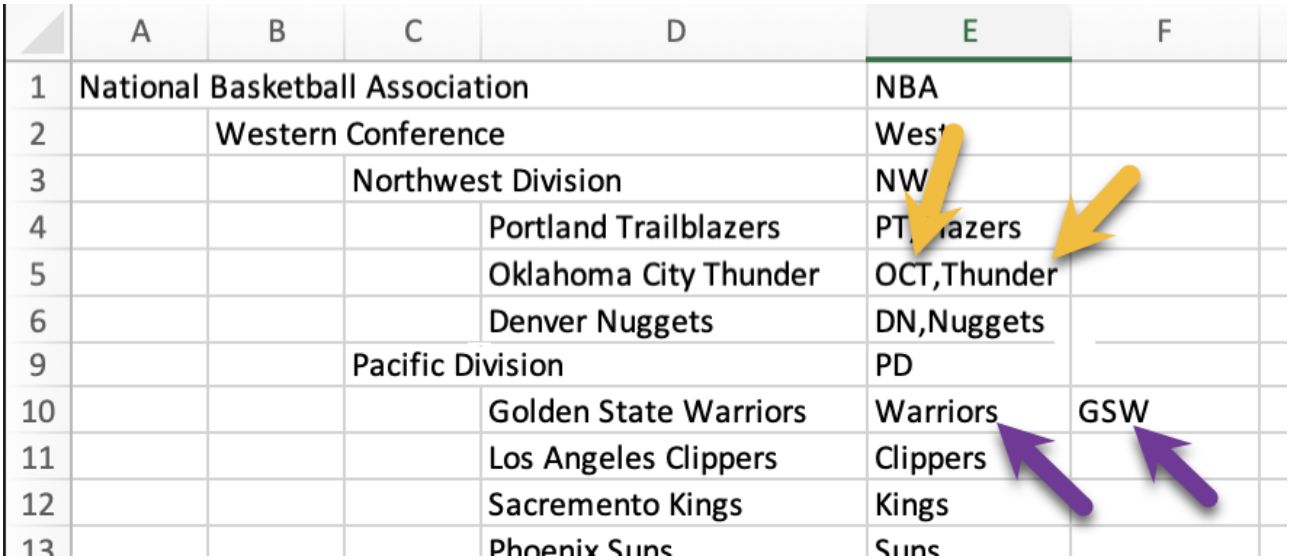
In addition to modifying rollup trees within the software, you also have the option to upload an entire rollup tree as a spreadsheet or JSON file. This works for brand new rollup trees, and also for updating existing trees. Note that if you upload a spreadsheet, it's a good idea to keep that spreadsheet file around for later modification, because downloaded rollup trees from Spider Impact are always in JSON file format, not as spreadsheets.



Spreadsheets should be formatted like the example shown below. You can specify a tree item is a child of another tree item by putting it one column further to the right. The first cell in a row that has data in it will be treated as the label of the tree item. All subsequent cells will be treated as the keys.

	A	B	C	D	E	F
1	National Basketball Association				NBA	
2		Western Conference			West	
3			Northwest Division		NWD	
4				Portland Trailblazers	PT,Blazers	
5				Oklahoma City Thunder	OCT,Thunder	
6				Denver Nuggets	DN,Nuggets	
7				Utah Jazz	UJ,Jazz	
8				Minnesota Timberwolves	Wolves	
9			Pacific Division		PD	
10				Golden State Warriors	Warriors	GSW
11				Los Angeles Clippers	Clippers	
12				Sacremento Kings	Kings	
13				Phoenix Suns	Suns	
14				Los Angeles Lakers	Lakers	
15			Southwest Division		SWD	
16				San Antonio Spurs	Spurs	
17				Dallas Mavericks	Mavs	
18				Memphis Grizzlies	Grizzlies	
19				Houston Rockets	Rockets	
20				New Orleans Pelicans	Pelicans	
21		Eastern Conference			East	
22			Atlantic Division		AD	
23				Brooklyn Nets	Nets	
24				New York Knicks	Knicks	
25				Philadelphia 76ers	76ers	
26				Boston Celtics	Celtics	

You can put keys in separate columns, and you can put keys in the same column separated with commas. In this example, both "Oklahoma City Thunder" and "Golden State Warriors" have two keys.



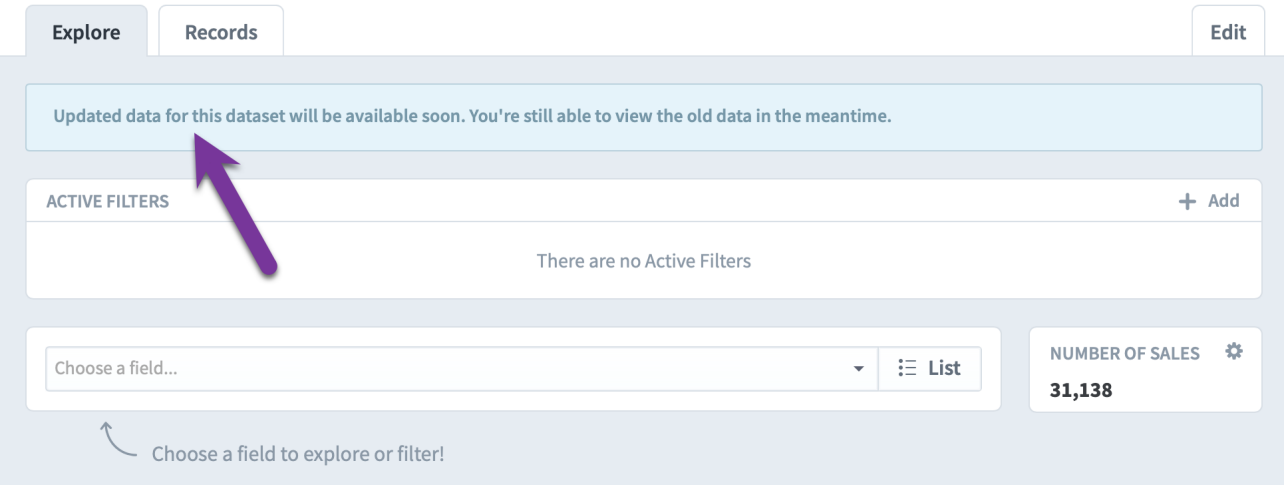
	A	B	C	D	E	F
1	National Basketball Association				NBA	
2		Western Conference			West	
3			Northwest Division		NW	
4				Portland Trailblazers	PT, lazers	
5				Oklahoma City Thunder	OCT,Thunder	
6				Denver Nuggets	DN,Nuggets	
9			Pacific Division		PD	
10				Golden State Warriors	Warriors	GSW
11				Los Angeles Clippers	Clippers	
12				Sacremento Kings	Kings	
13				Phoenix Suns	Suns	

If you're prefer to upload a JSON file, you'll need to use a format like this:

```
{
        "key": "Key1",
        "label": "Label 1",
        "children": [{
                "key": "Key2",
                "label": "Label 2"
        } , {
                "key": "Key3",
                "label": "Label 3"
        }]
}
```

Dataset rebuilding

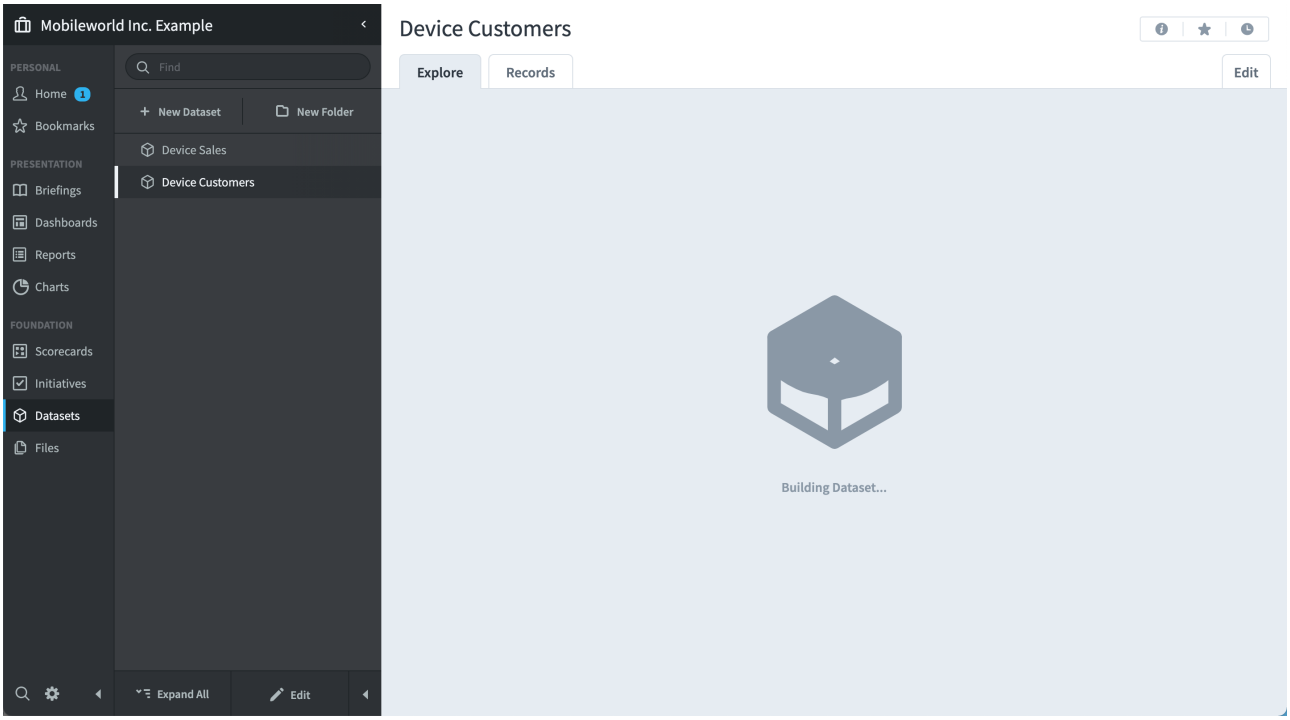
As described in the Creating and Editing Datasets and Updating Dataset Records articles, datasets automatically rebuild whenever you edit a field or update their records. Most of this rebuilding isn't noticeable because users still see the old data while the dataset is rebuilding. There's just a small notification on the Datasets Explore tab.



This is exactly the same thing that happens when you add or delete items in a dataset rollup tree. Any dataset using that rollup tree will be transparently rebuilt behind the scenes while people continue to see the old data until the new data is ready. Similarly, renaming a rollup tree item doesn't cause anything to rebuild.

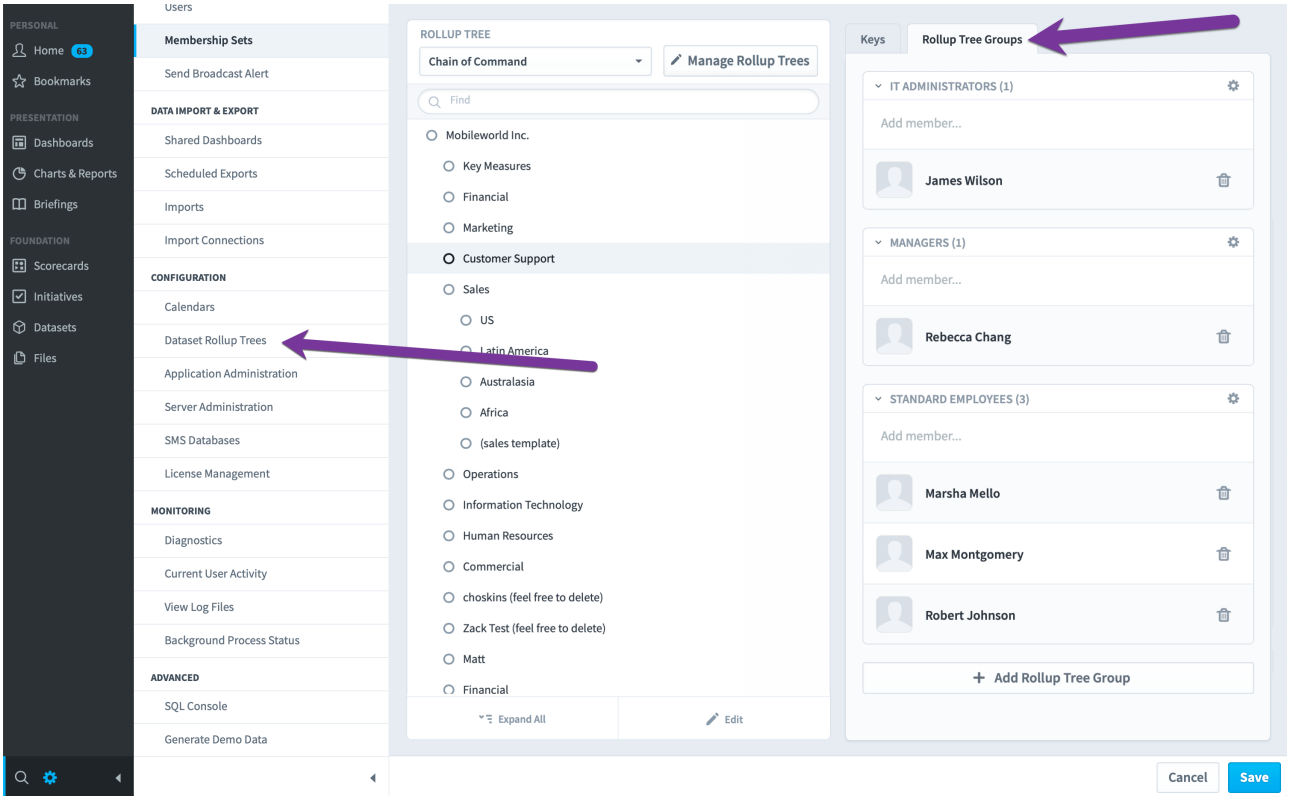
There are more invasive changes you can make to a dataset rollup tree that cause all datasets using it to not only be rebuilt, but also to become unusable until the rebuilding finishes. These changes are:

- Moving a dataset rollup tree item
- Changing a dataset rollup tree item's key(s)
- Reimporting a dataset rollup tree

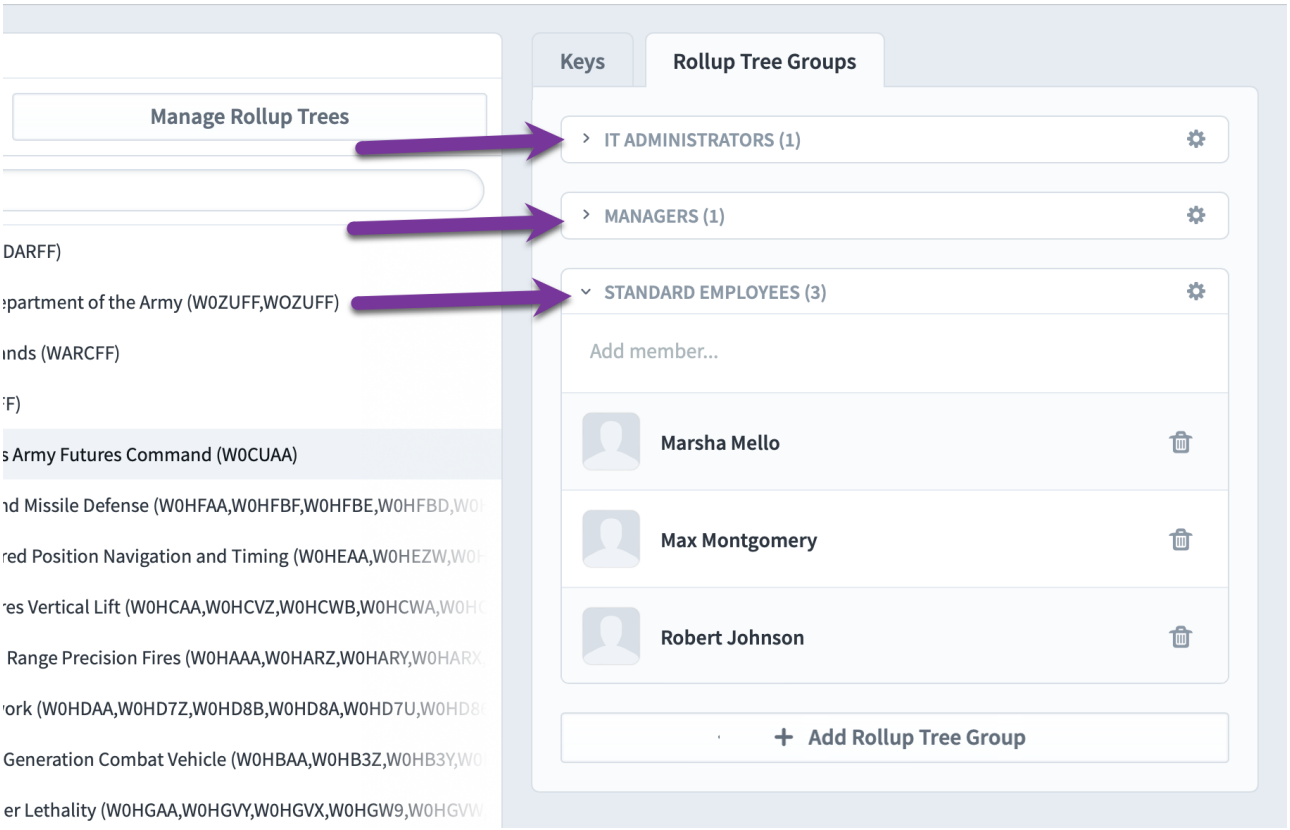


Dataset rollup tree groups

The other tab on the Admin > Dataset Rollup Trees page is Rollup Tree Groups. This special kind of group can dramatically simplify the management of tree-based permissions.

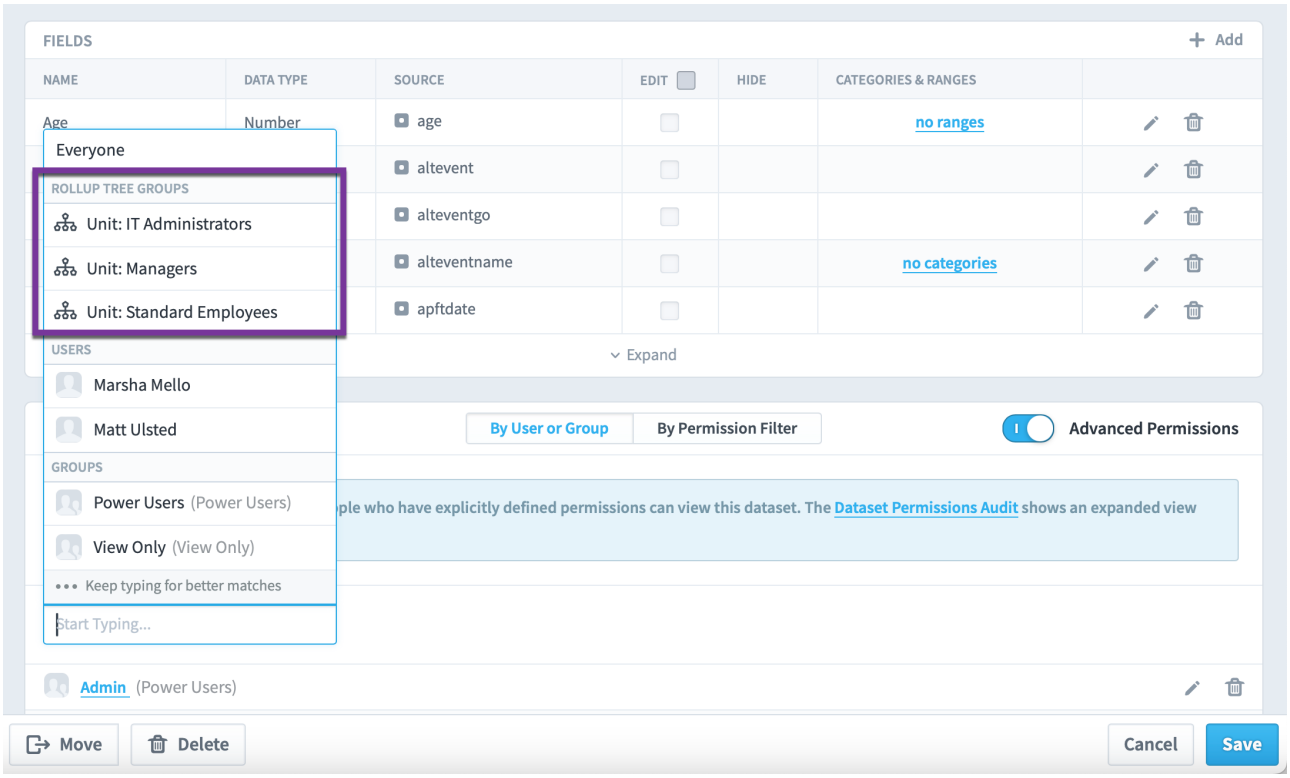


In this example we've created a rollup tree group for each of our three different types of users: IT Administrators, Managers, and Standard Employees. When you click on a rollup tree item on the left, you can assign users and groups to the different rollup tree groups on the right.

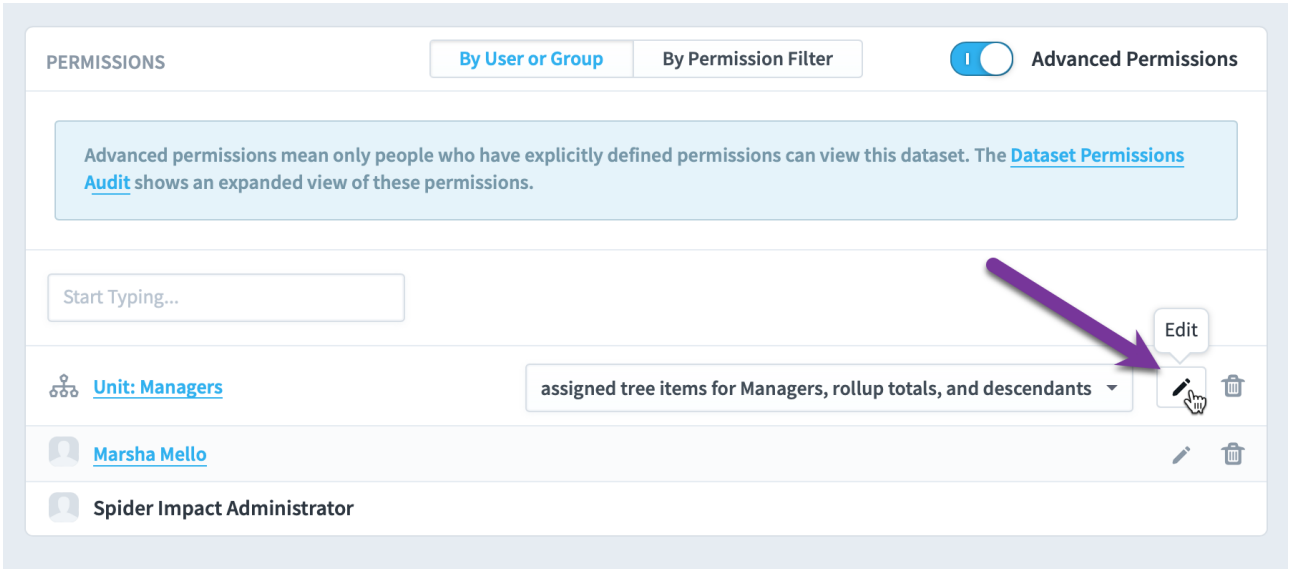


The most important thing to realize here is that every item in the rollup tree has different members for these rollup tree groups. As we click through the rollup tree on the left, we see different people appearing in the rollup tree groups on the right. If someone is a member of a rollup tree group at a higher (or lower) level of the tree, they won't show up in the current level you're viewing. The rollup tree group tab is all about assigning people to specific roles at specific levels of the rollup tree.

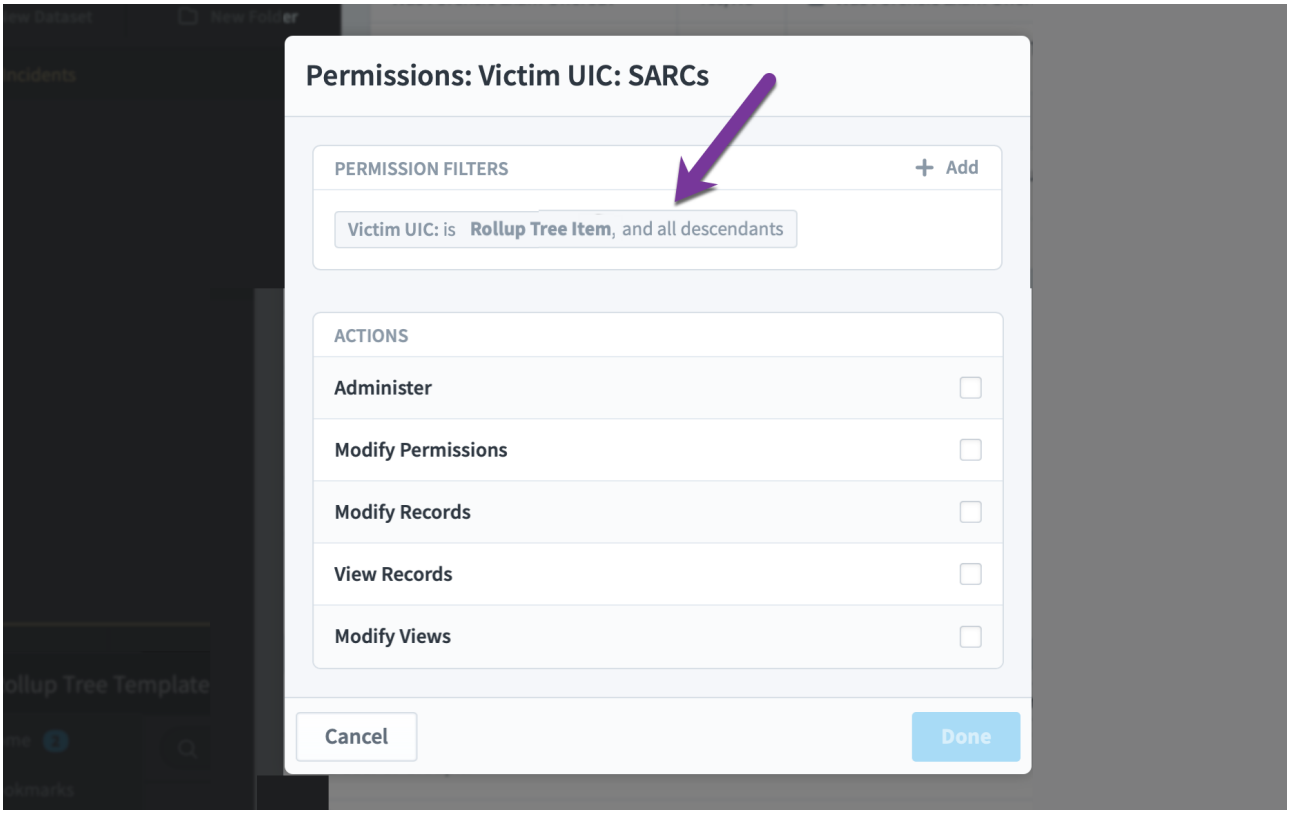
Once that's done, we can use these rollup tree groups to quickly assign permissions to datasets. All you need to do is turn on advanced permissions for a dataset and then add your rollup tree group like you would a user or a group.



By giving "Managers" this permission, every member of that rollup tree group can now see records where the Unit field value is in their rollup tree level or below. You can edit this permission, just like you can with users or groups.



The only difference is that a rollup tree group has a filter that can't be removed. This permanent filter shows that SARCs can see their rollup tree item and descendants for the Victim UIC field.



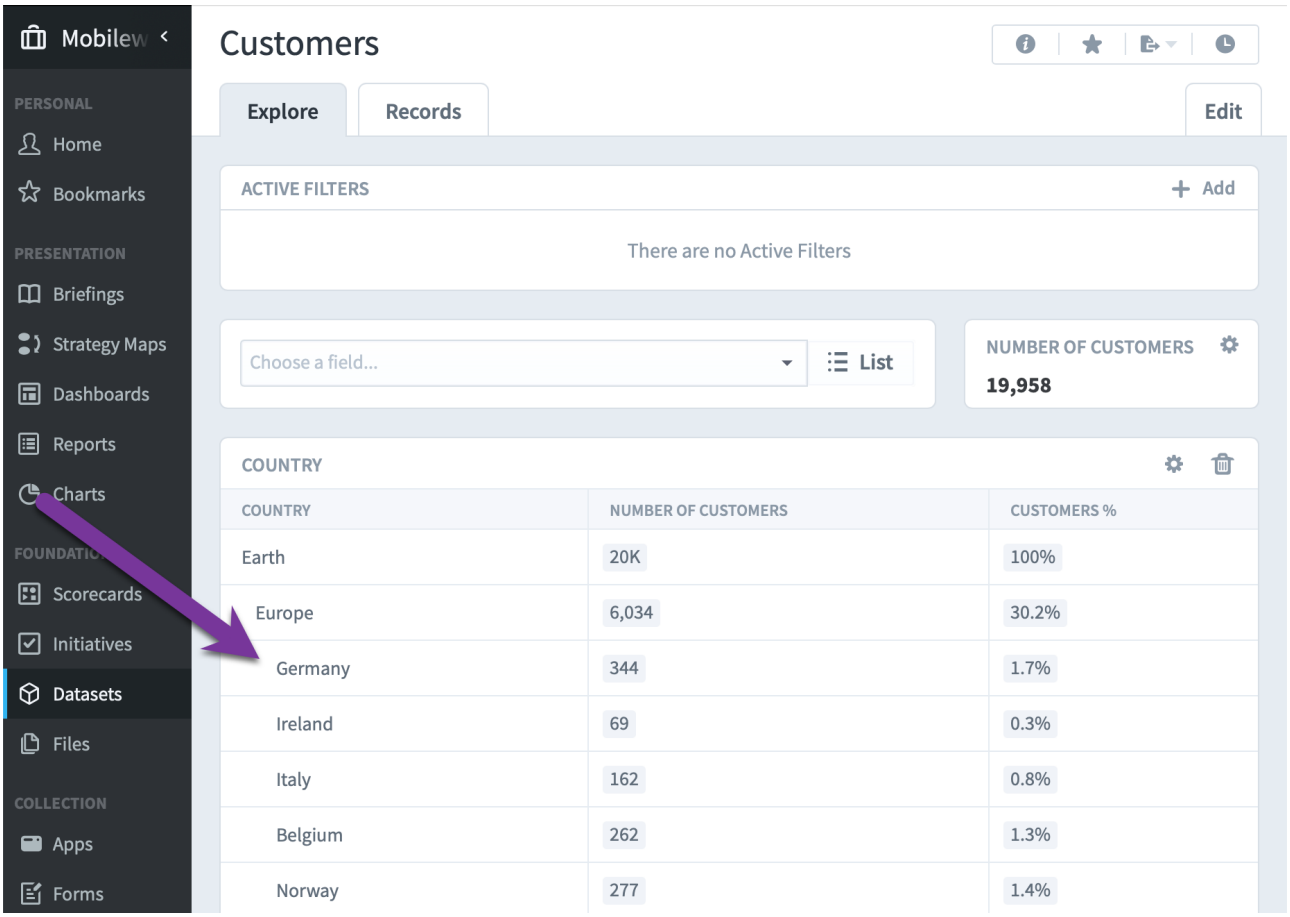
You can always add additional filters, though. For example, we could add a new filter that also limits access to only fields with a "Restricted" value of "False".

Assigning permissions to datasets isn't the only use for rollup tree groups. You can also use them to quickly assign permissions to templated organizations that were created from rollup tree fields. See the "Organization permissions for rollup tree groups" section of the Templated Organizations from Datasets article for more information.

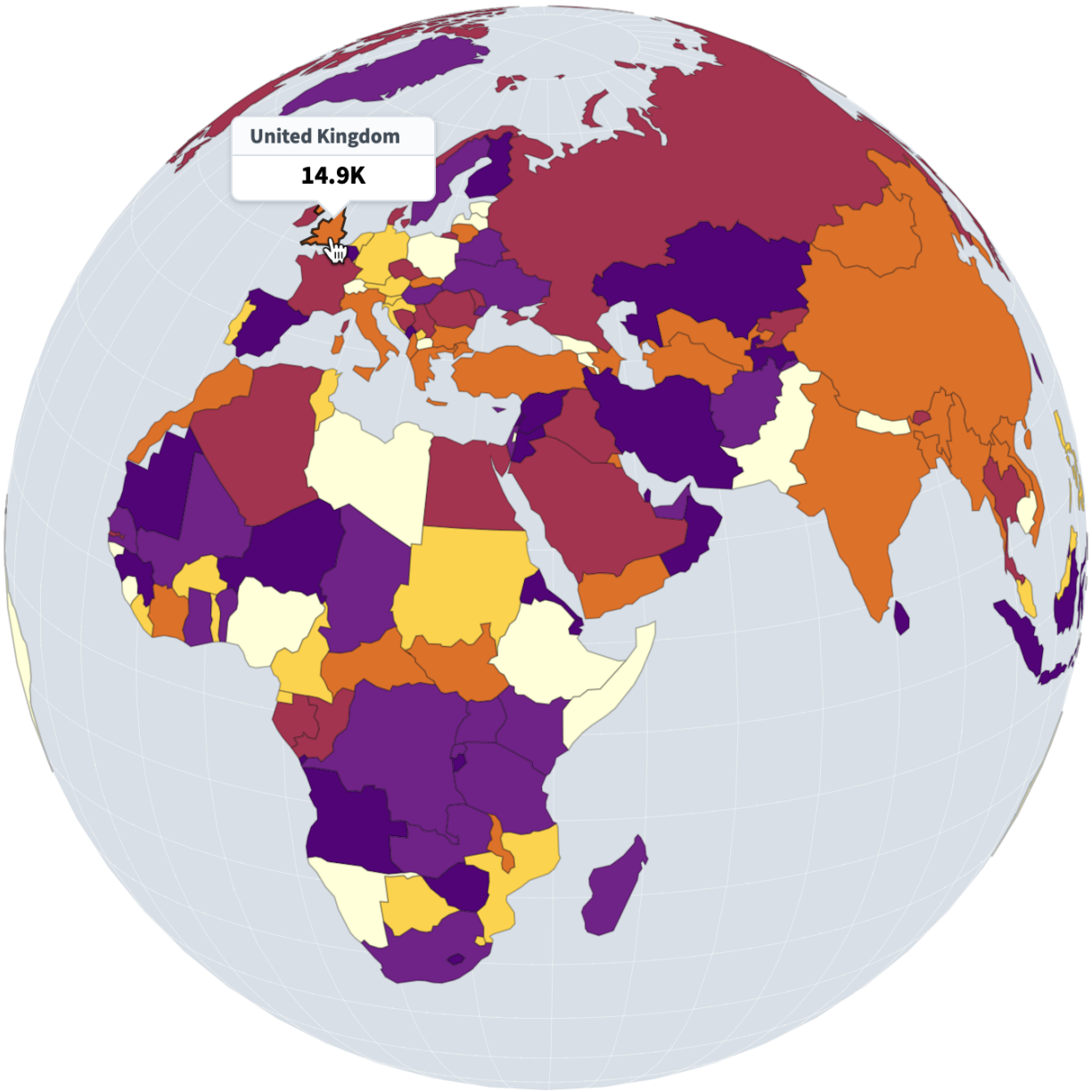
Advanced: Geographic Data

Using geographic data

Geographic data is very similar to dataset rollup trees in that it allows you to explore hierarchical data. In this example we've chosen a Country field, and the software automatically aggregates the data to the continent and earth level.

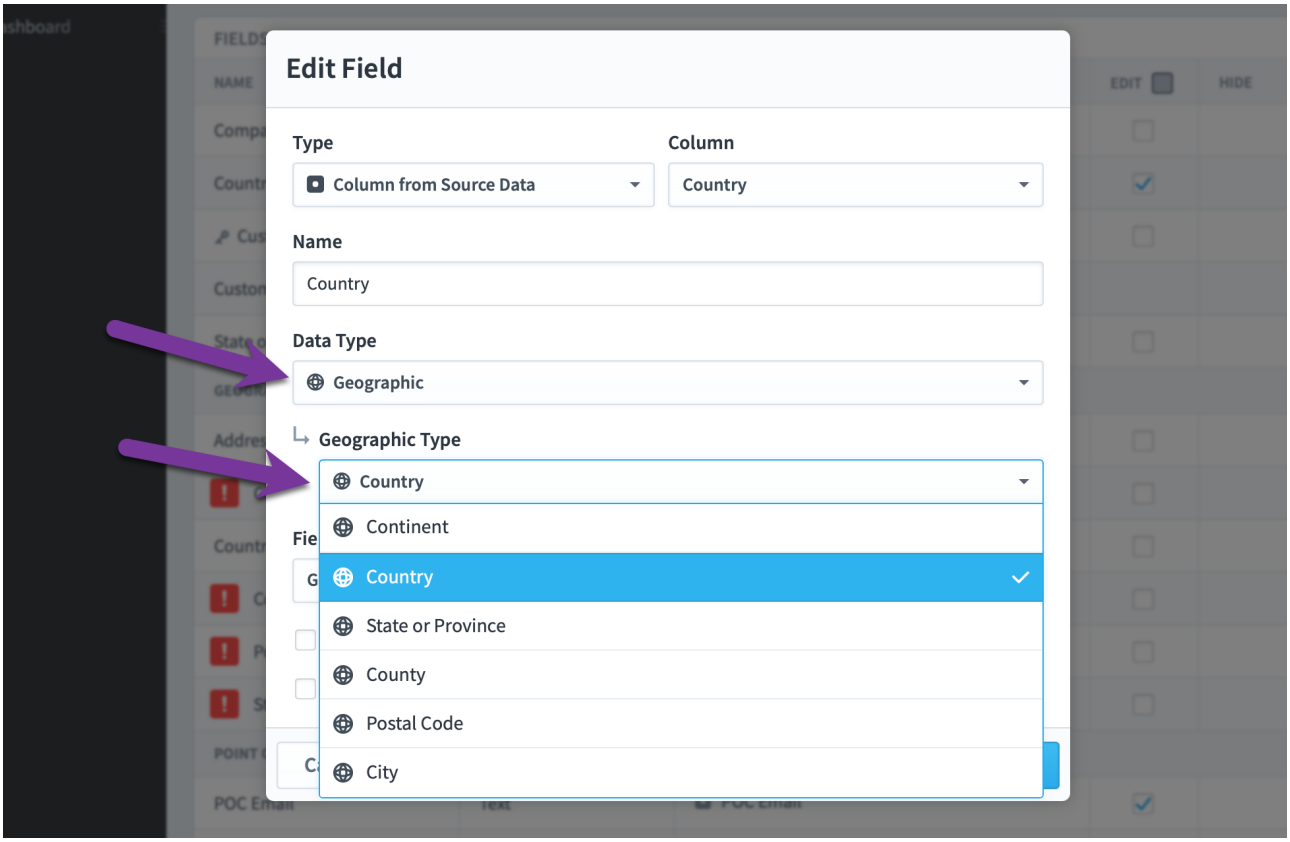


Geographic data can also be visualized on charts like Geographic Maps.

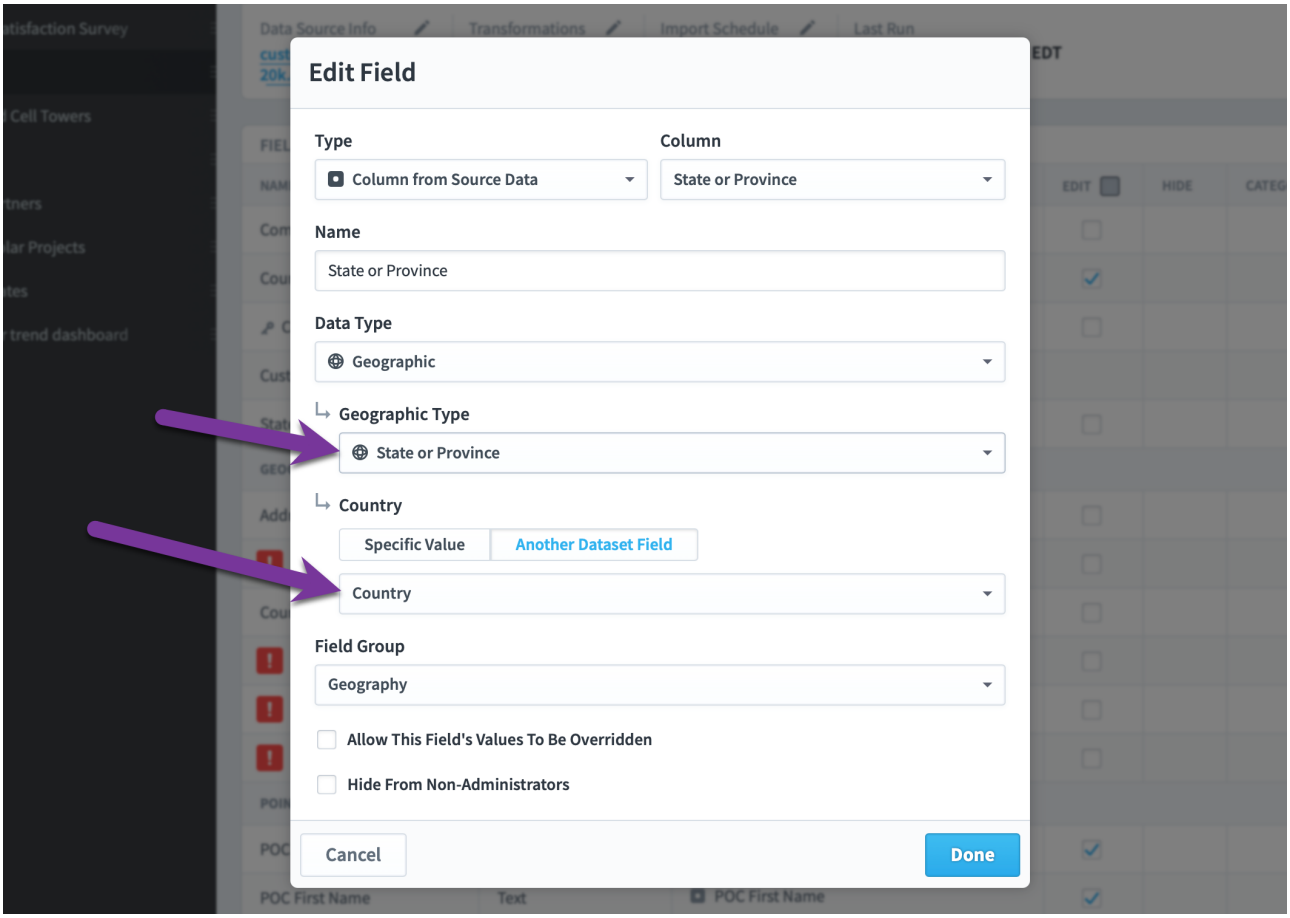


Setting up geographic dataset fields

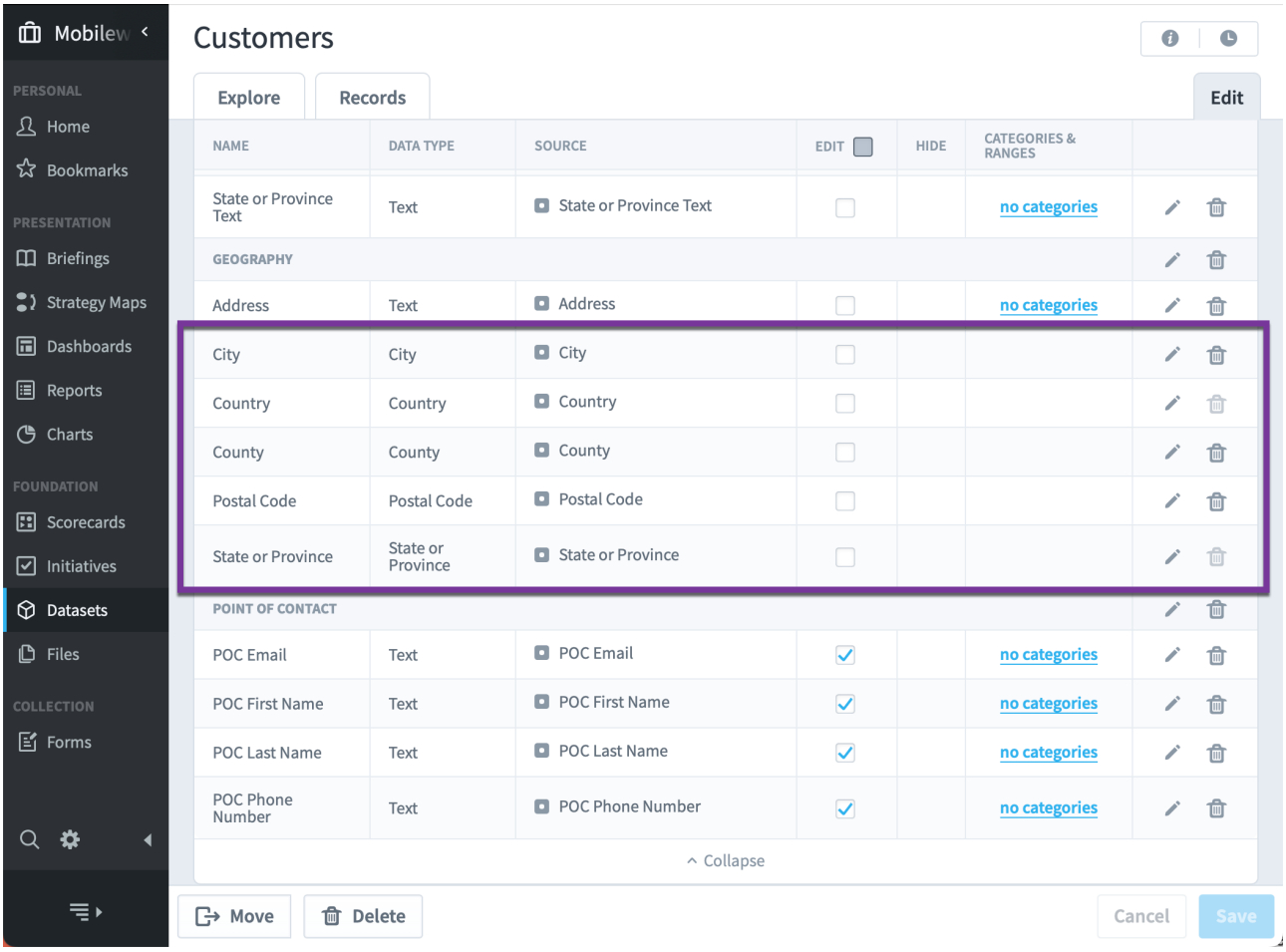
To set up a geographic dataset field, choose a Data Type of Geographic, and then a Geographic Type that matches the data you're tracking in that field. In this example we're setting up a Country field.



For continent and country fields, there's nothing else to choose. For everything else you'll need to provide additional data. For example, here we're setting up a State or Province field, and it requires us to also choose a country. You could choose to have all of the values in the same "Specific Value" of a country you choose, or you can reference another dataset field. We'll choose the Country field we just set up.



Here we've set up 5 geographic fields, allowing us to aggregate data from the County or Postal Code all of the way up to the entire world.



Matching text values

The software looks for specific text values to match against the built-in geographic rollup tree. If your data doesn't exactly match the values in the built-in geographic tree, you can modify your data by Transforming Values While Importing.

Currently the only data below the country level is for the US, which goes all of the way down to the county and postal code level.

Continents

These are the values that match for the continents.

```
Europe
North America
Africa
South America
Asia
Oceania
```

Countries

These are the valid country values. Note that US territories like Puerto Rico, Guam, and the United States Virgin Islands are actually at the same level as countries in the hierarchy, not as children of the United States.

```
Afghanistan
Ahvenanmaan Lääni
Albania
Algeria
Angola
Anguilla
Antigua and Barbuda
Argentina
Armenia
Australia
Austria
Azerbaijan
Bahamas
Bahrain
Bangladesh
Barbados
Belarus
Belgium
Belize
Benin
Bermuda
Bhutan
Bolivia
Bonaire, Saint Eustatius and Saba
Bosnia and Herzegovina
Botswana
Brazil
Brunei Darussalam
Bulgaria
Burkina Faso
Burma
Burundi
Cabo Verde
Cambodia
Cameroon
Canada
Cayman Islands
Central African Republic
```

```
Chad
Chile
China
Colombia
Comoros
Congo
Cook Islands
Costa Rica
Côte d’Ivoire
Croatia
Cuba
Cyprus
Czechia
Denmark
Djibouti
Dominica
Dominican Republic
Ecuador
Egypt
El Salvador
Equatorial Guinea
Eritrea
Estonia
Eswatini
Ethiopia
Faroe Islands
Fiji
Finland
France
French Polynesia
Gabon
Gambia
Georgia
Germany
Ghana
Greece
Greenland
Grenada
Guadeloupe
Guam
Guatemala
Guernsey
Guinea
Guinea-Bissau
Guyana
Guyane
Haiti
Honduras
Hong Kong SAR China
Hungary
Iceland
India
Indonesia
Iran
Iraq
Ireland
Isle of Man
Israel
Italy
Jamaica
```

```
Japan
Jersey
Jordan
Kazakhstan
Kenya
Kiribati
Kosovo
Kuwait
Kyrgyzstan
Laos
Latvia
Lebanon
Lesotho
Liberia
Libya
Liechtenstein
Lithuania
Luxembourg
Macao SAR China
Madagascar
Malawi
Malaysia
Maldives
Mali
Malta
Marshall Islands
Martinique
Mauritania
Mauritius
Mayotte
Mexico
Micronesia
Moldova
Monaco
Mongolia
Montenegro
Montserrat
Morocco
Mozambique
Namibia
Nauru
Nepal
Netherlands
New Caledonia
New Zealand
Nicaragua
Niger
Nigeria
North Korea
North Macedonia
Northern Mariana Islands
Norway
Oman
Pakistan
Palau
Palestine
Panama
Papua New Guinea
Paraguay
Peru
```

```
Philippines
Poland
Portugal
Puerto Rico
Qatar
Reunion
Romania
Russia
Rwanda
Samoa
San Marino
Sao Tome and Principe
Saudi Arabia
Senegal
Serbia
Seychelles
Sierra Leone
Slovakia
Slovenia
Solomon Islands
Somalia
South Africa
South Korea
South Sudan
Spain
Sri Lanka
St. Helena, Ascension, and Tristan da Cunha
St. Kitts and Nevis
St. Lucia
St. Pierre and Miquelon
St. Vincent and the Grenadines
Sudan
Suriname
Sweden
Switzerland
Syria
Taiwan
Tajikistan
Tanzania
Thailand
Timor-Leste
Togo
Tokelau
Tonga
Trinidad and Tobago
Tunisia
Turkey
Turkmenistan
Tuvalu
Uganda
Ukraine
United Arab Emirates
United Kingdom
United States
United States Minor Outlying Islands
United States Virgin Islands
Uruguay
Uzbekistan
Vanuatu
Venezuela
```

```
Vietnam
Wallis and Futuna
Yemen
Zambia
Zimbabwe
```

US states

Acceptable US state values include the full names of All 50 states plus District of Columbia. Note that US territories like Puerto Rico, Guam, and the United States Virgin Islands are actually at the same level as countries in the hierarchy, not as children of the United States.

```
Alabama
District of Columbia
Florida
etc...
```

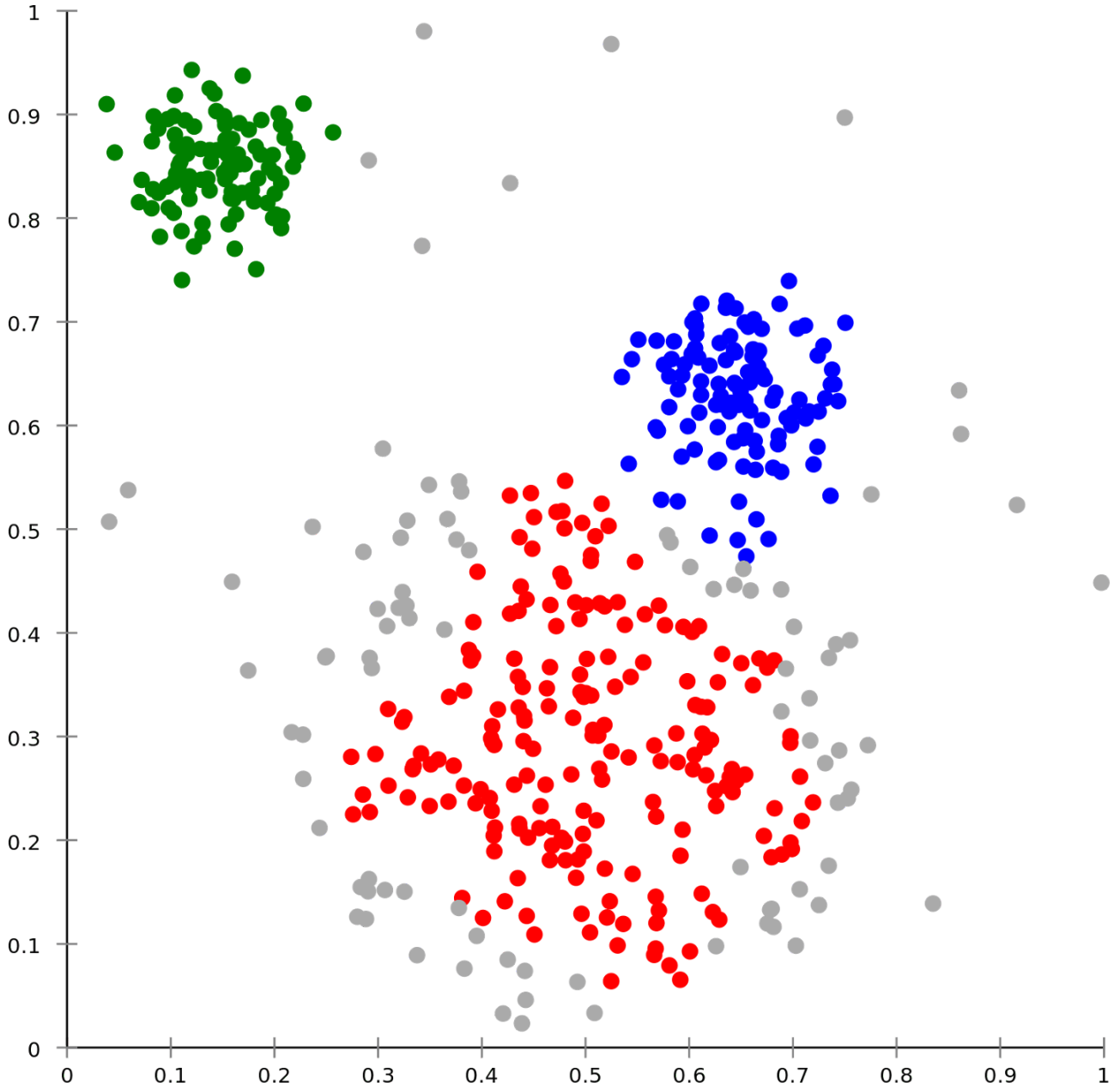
Counties and Cities

All US counties and Cities are supported, but there are too many to list in this support document.

Advanced: Clustering Analytics

With Datasets, Spider Impact 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.

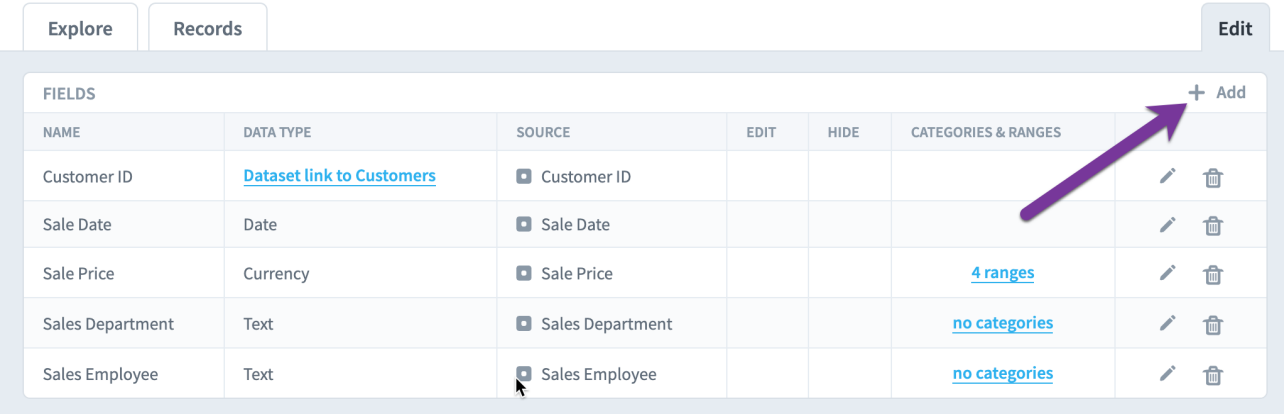
Looking at two dataset fields is interesting, but now let's imagine extending these scatter plots into a 3rd dimension by adding a Z axis. In addition to tracking age and income, let's say that we're also tracking years of formal education. By seeing points in 3-dimensional space, we could find even 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.

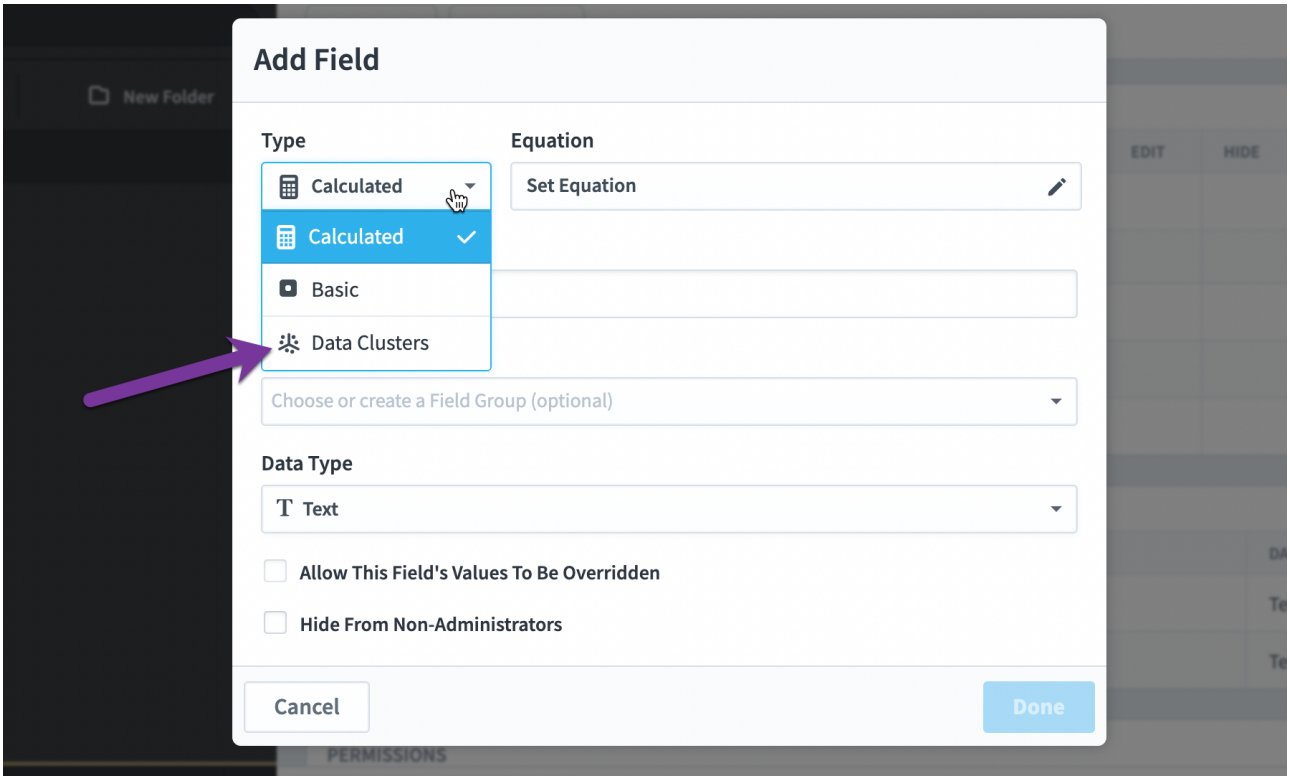
The human mind has trouble imagining data in more than 3 dimensions, but clustering algorithms do not. The more dimensions of data that you're able to provide to Impact, the more powerful it becomes. Your datasets have dozens of fields, and there are meaningful insights to be discovered.

For an animated explanation of clustering, take a look at the clustering section of our What is BI? article.

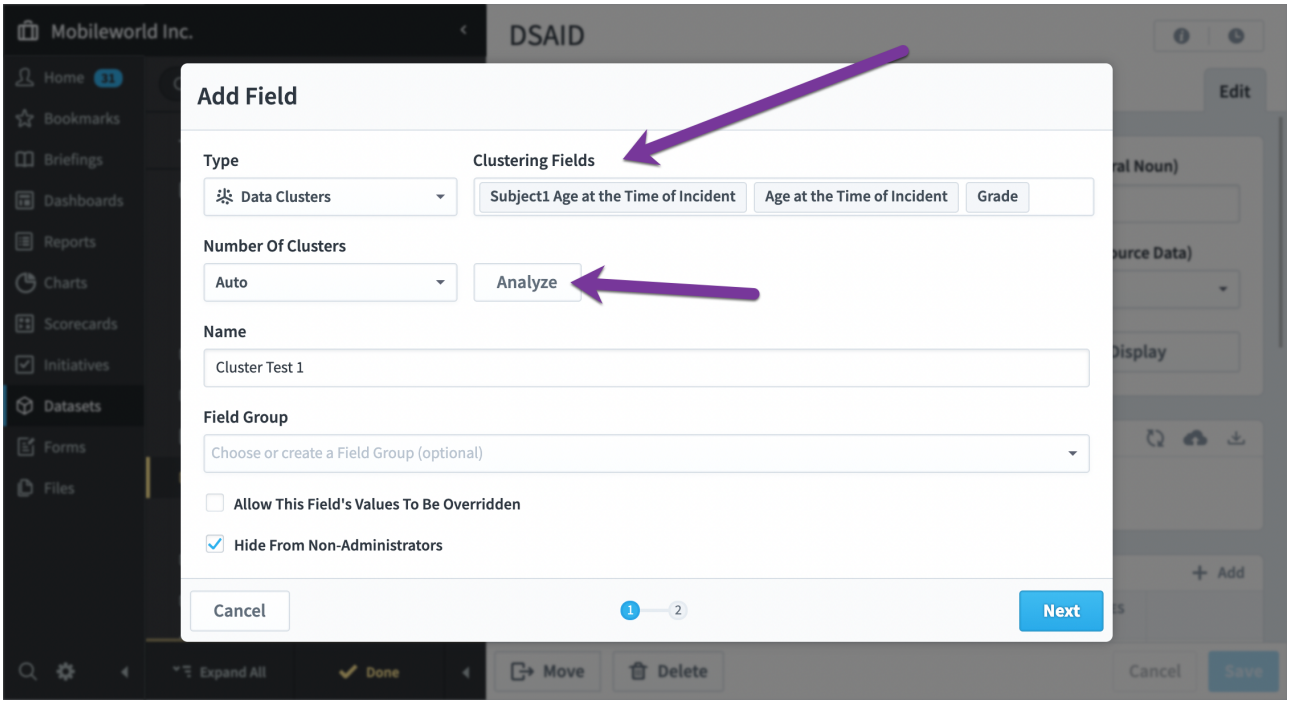
To create a clustering field in your dataset, click the "Add" button in the Fields table on the Edit tab.



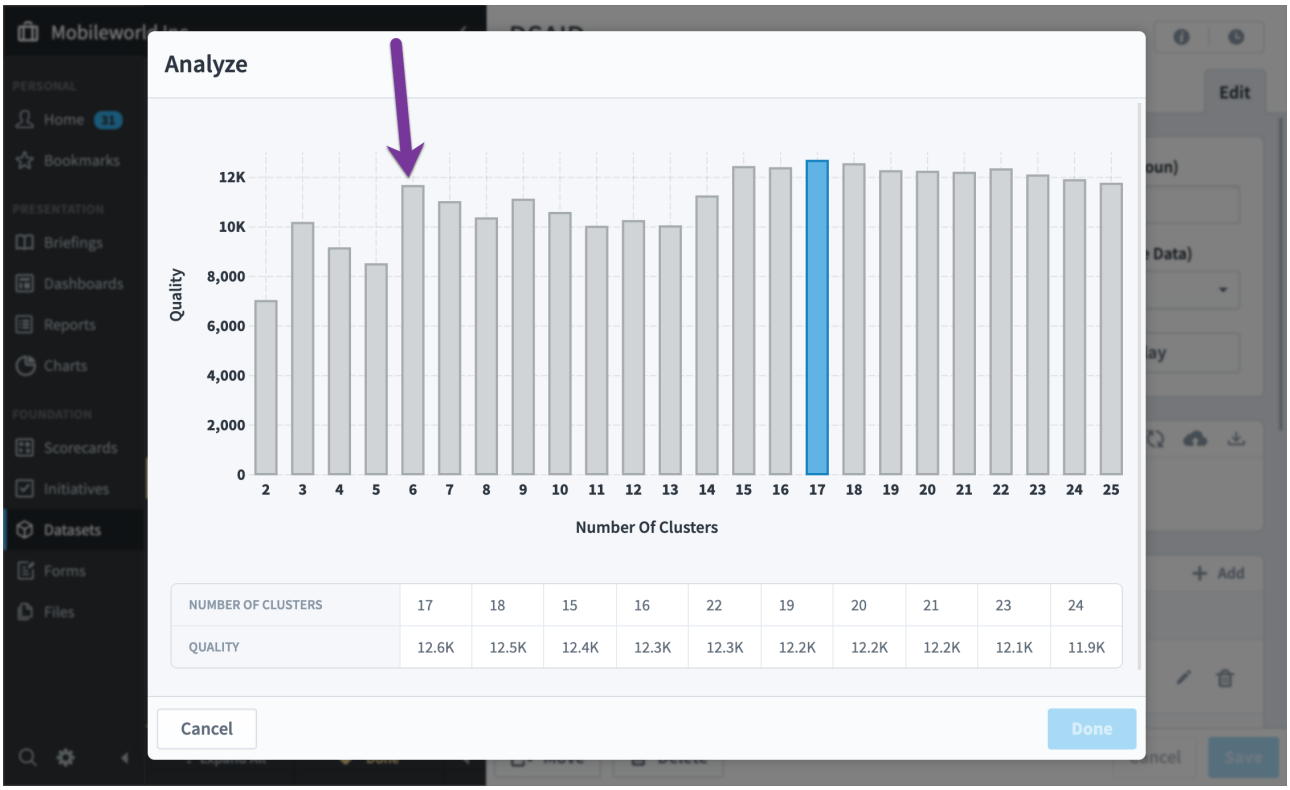
Then choose Data Clusters from the field type.



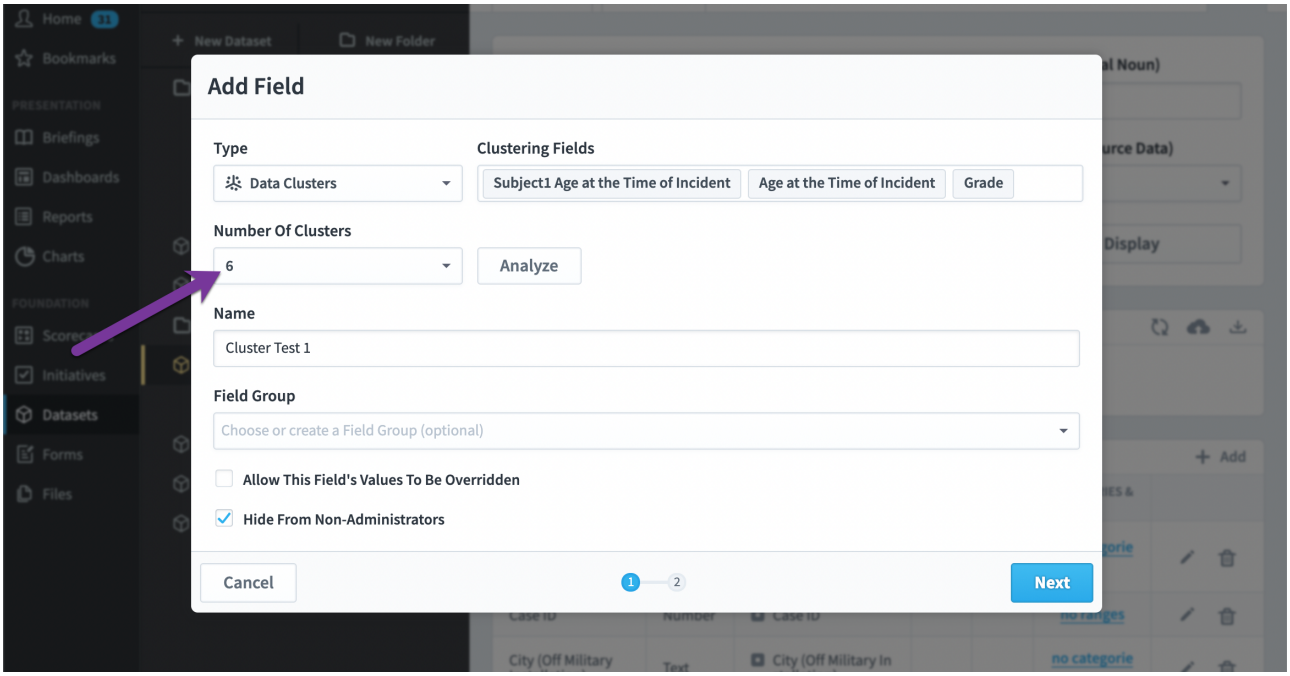
Next, choose which fields you want to cluster on and click the Analyze button.



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 Impact that we want 6 clusters instead of "Auto".

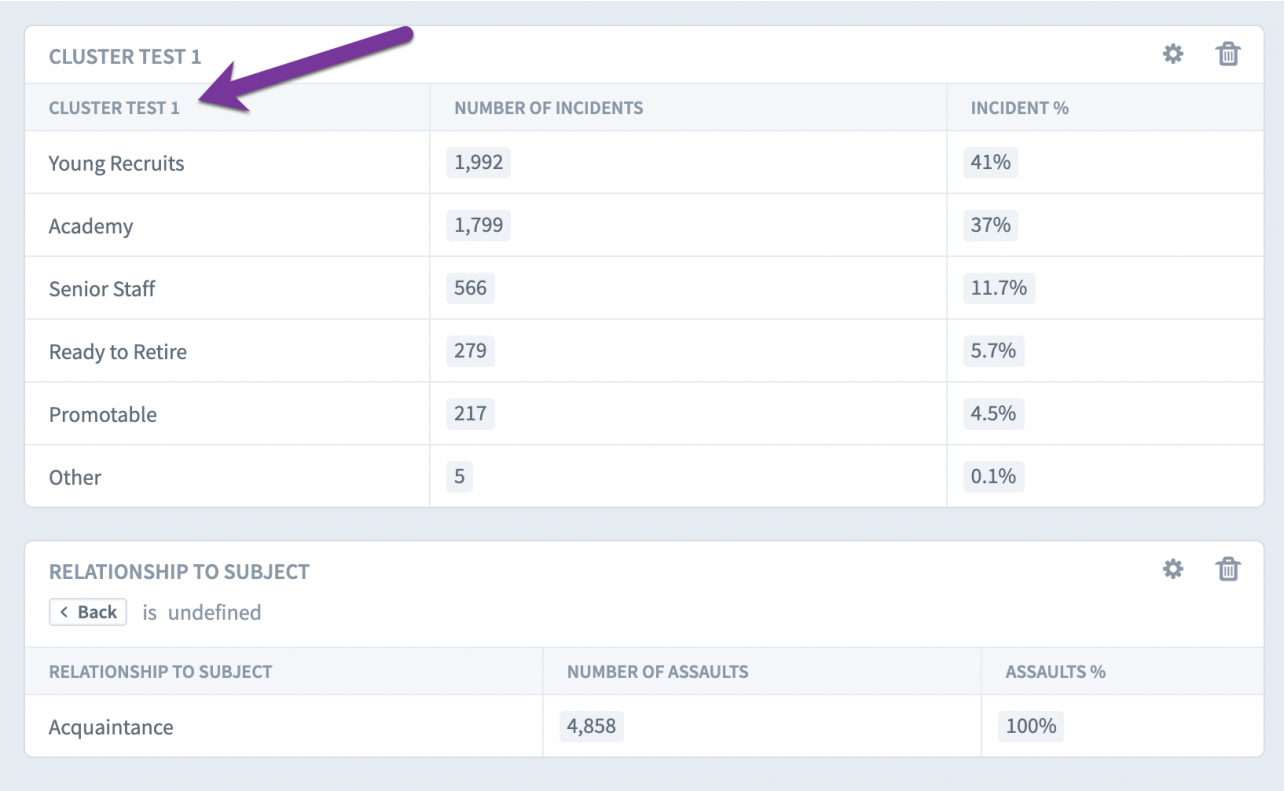


Finally, we'll give each cluster a name based on its characteristics for each of the fields we've chosen.



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.



Spider Impact uses the k-means++ algorithm for clustering, and each cluster's quality is evaluated using the Calinski Harabasz index.

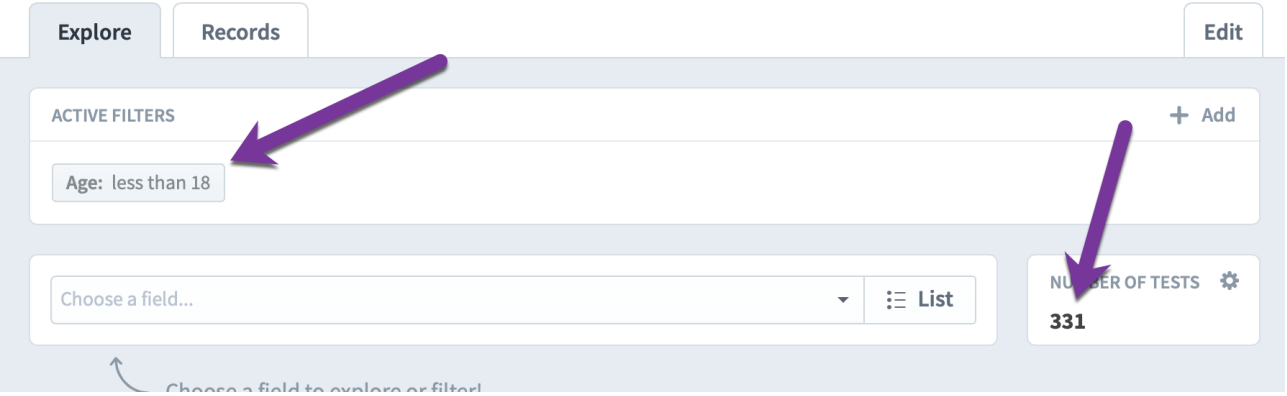
Advanced: Manually Adding & Updating Records

Datasets are mostly about visualizing and exploring aggregated data. For users with the correct permissions, however, it can also be helpful to view the details of individual records. That's what's covered in this section.

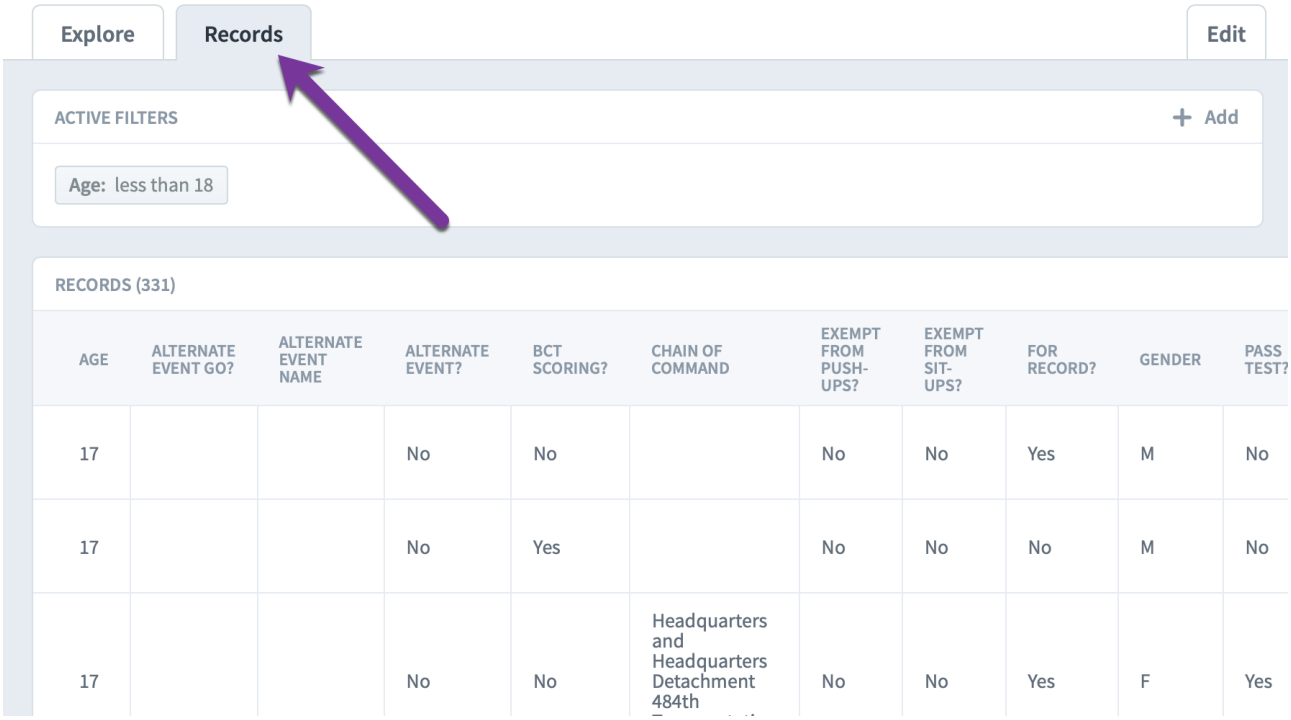
There are also special circumstances when you'll want to override dataset values that you've imported, or create entirely new records that don't exist in your data source. It's almost always better to change the data at the source, so overriding values in Impact should only be used when that's not possible.

The Records tab

On the Datasets Explore tab, we've applied an "Age is less than 18" filter and there are 331 matching results.

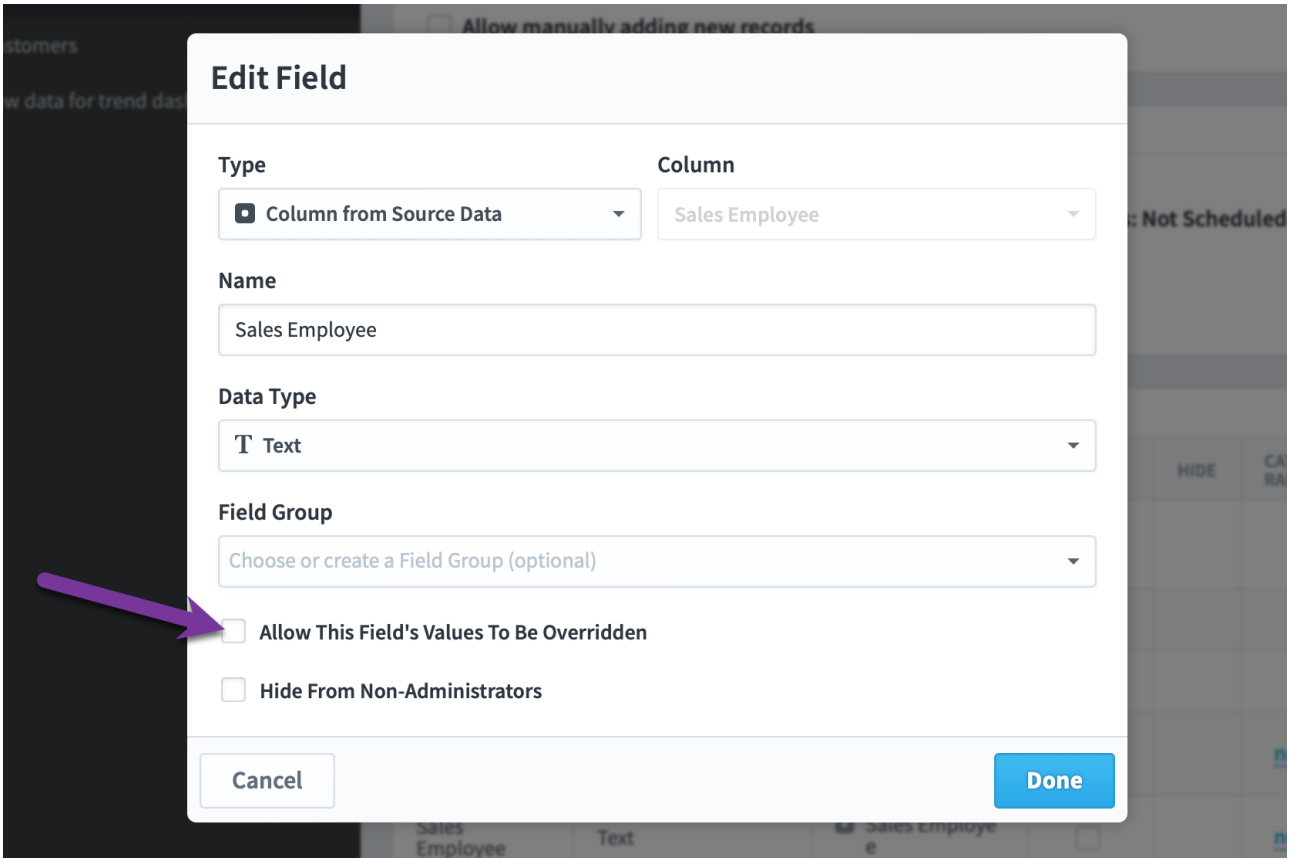


With the correct permissions, I can click to the Records tab to see the raw data.

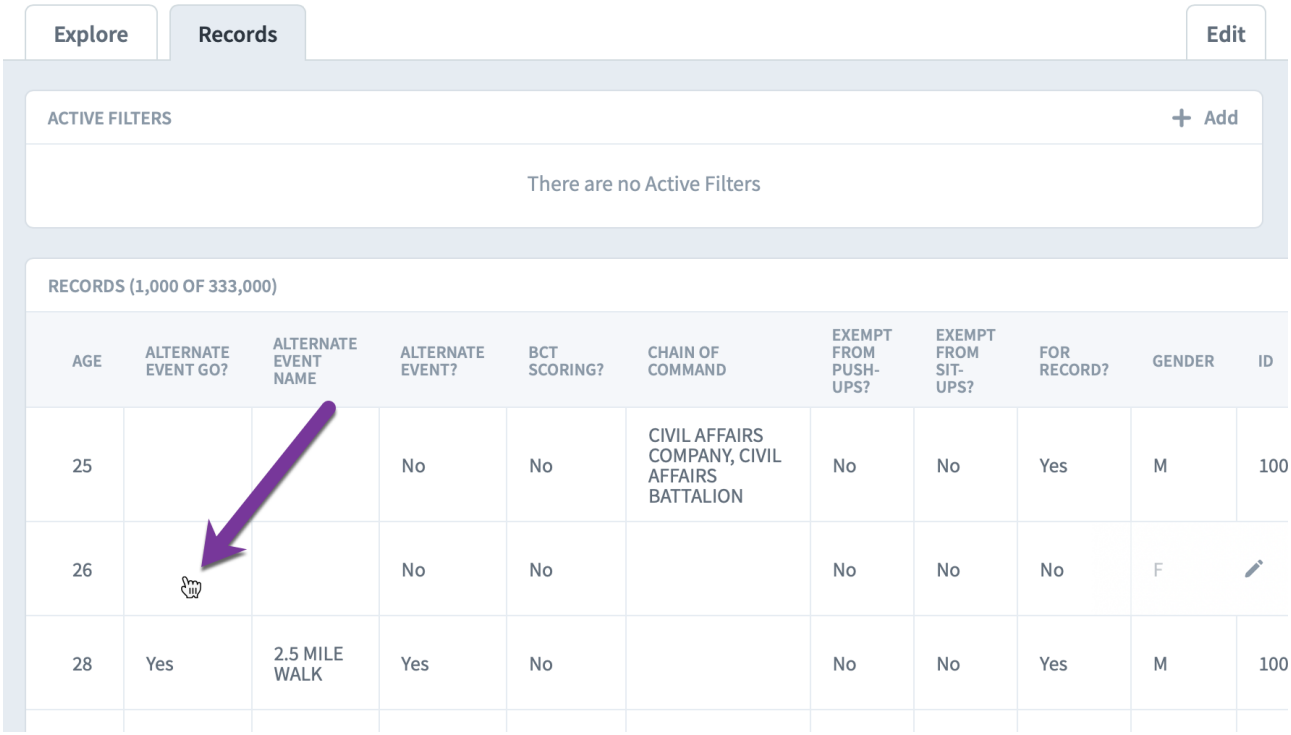


Editing record values

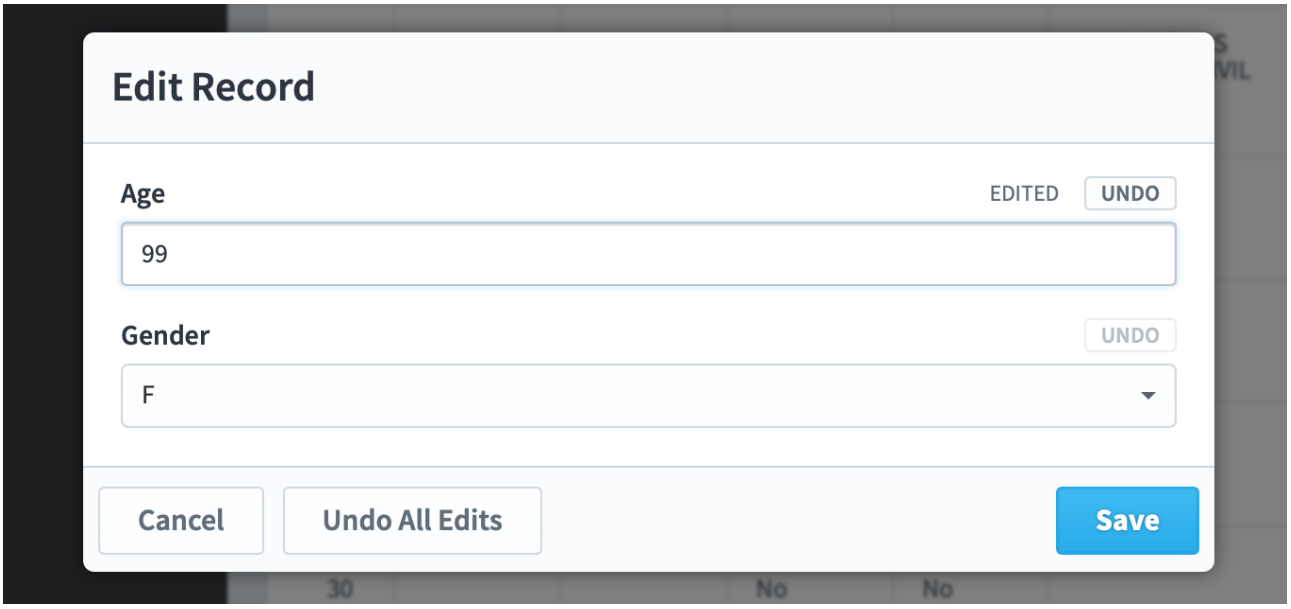
By default, records' values can't be changed in datasets. When editing a field, however, you can allow values to be overridden, either on the Datasets Records tab or with a form.

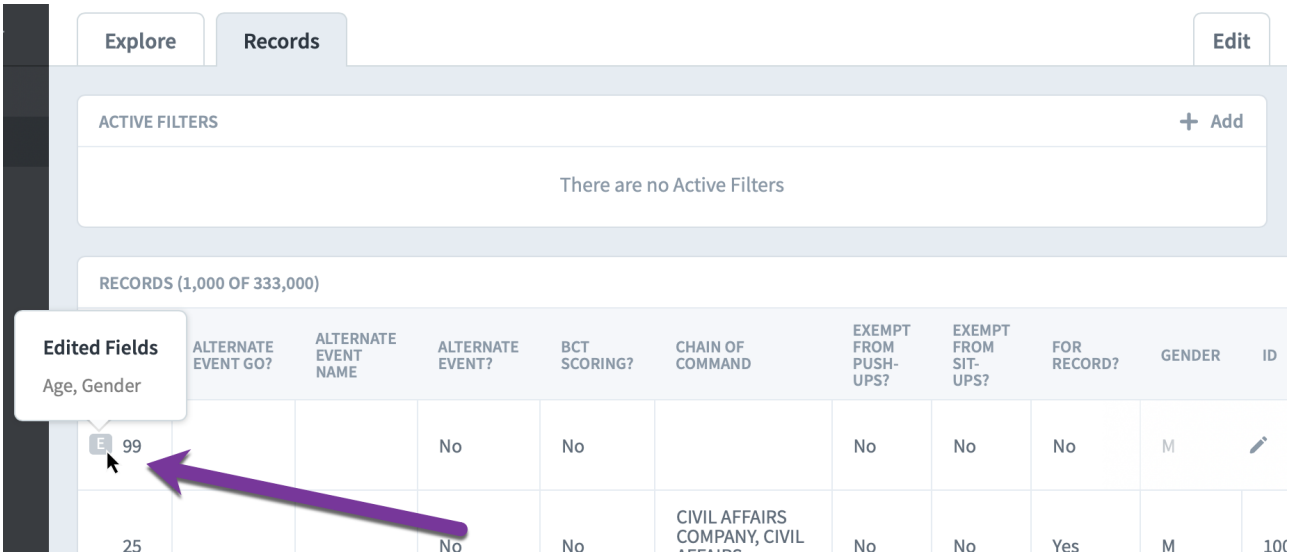


When one or more fields are editable and you have the correct permissions, you can click on a record on the Records tab.

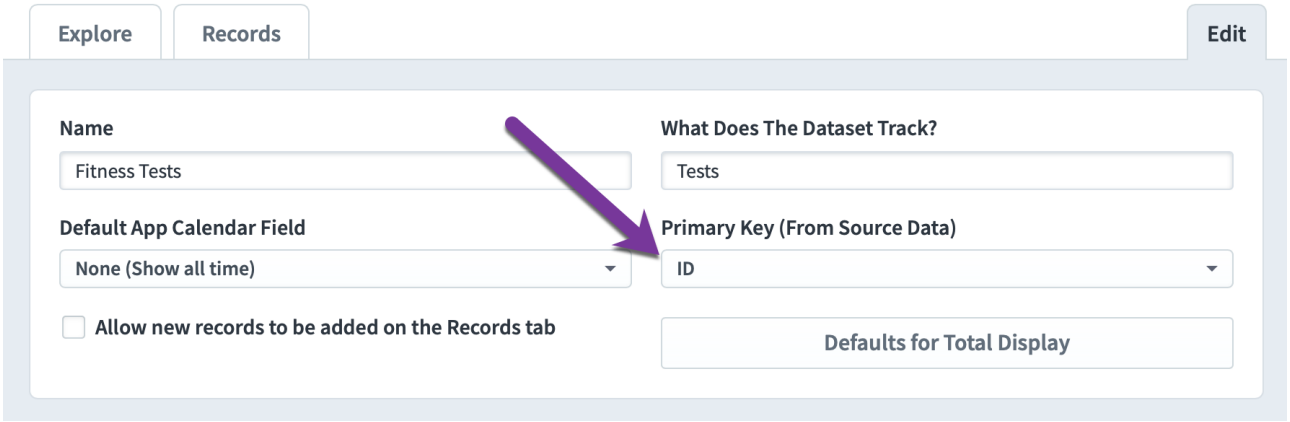


This shows a dialog where you can override record values. Datasets will remember the values you enter, even after new data is imported into your dataset.



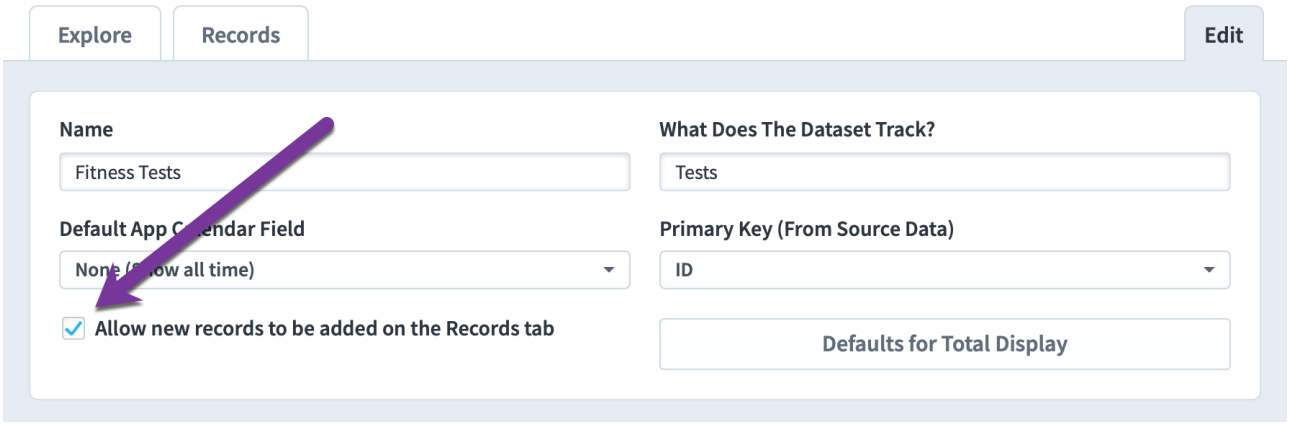


Note that you can only make a field editable when you have a primary key defined for your dataset. That's because the software needs to be able to uniquely identify the record that is being changed so that the same change will be made after you import data again later.

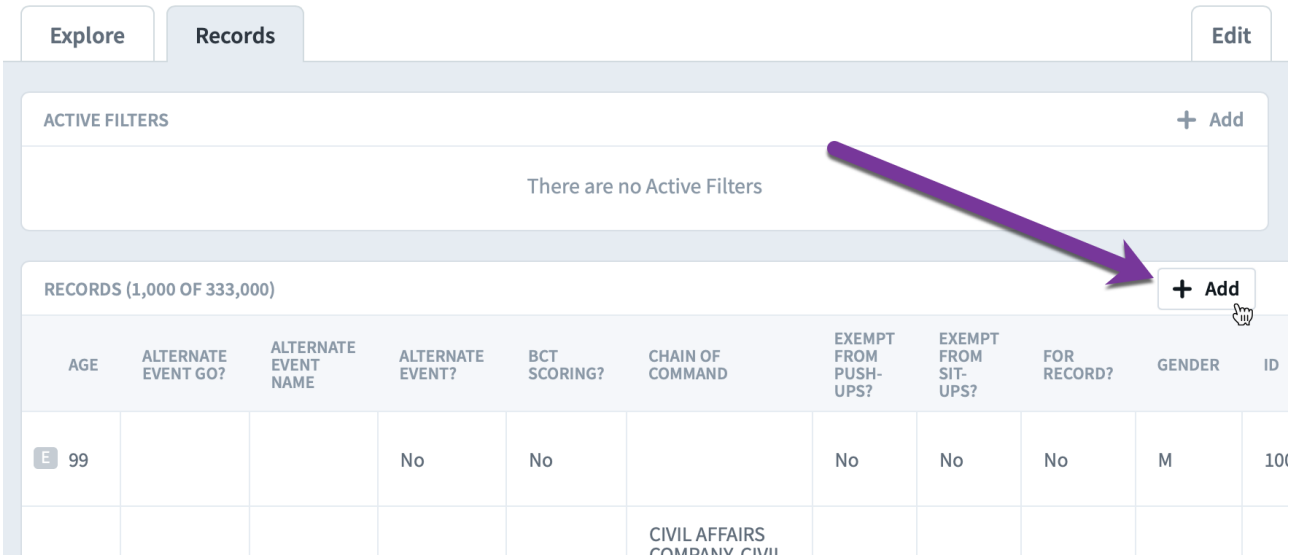


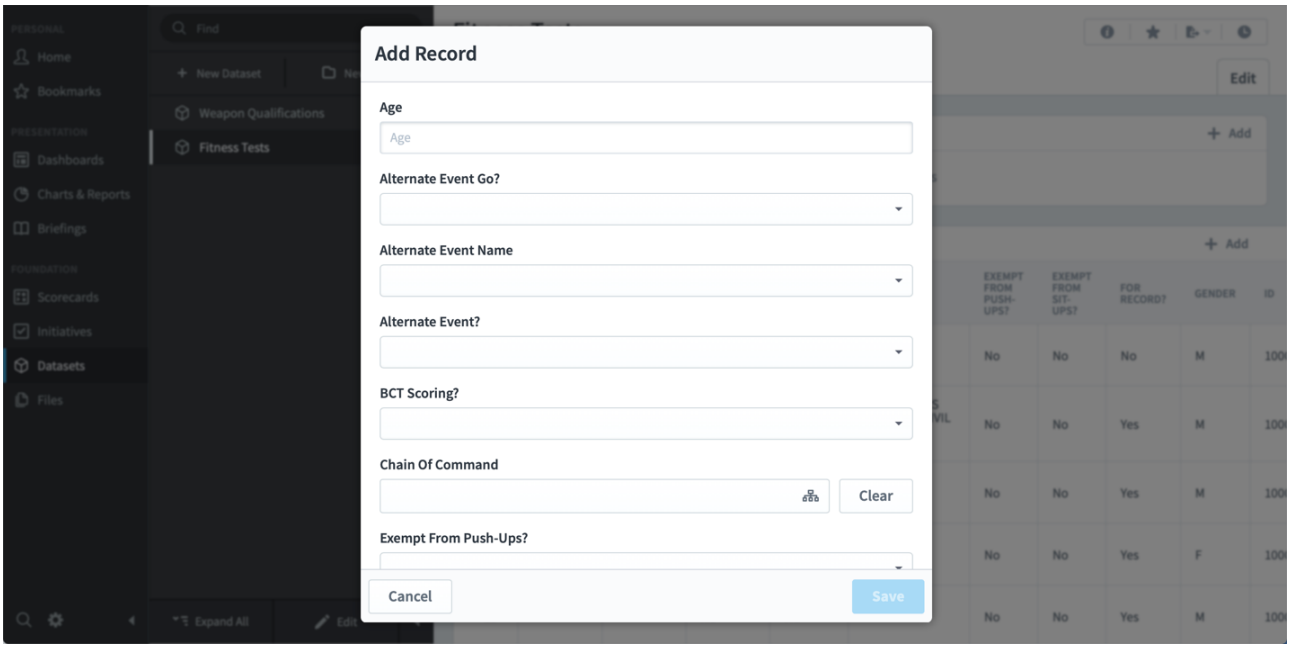
Adding new records

When editing a dataset, you can allow entirely new records to be added.

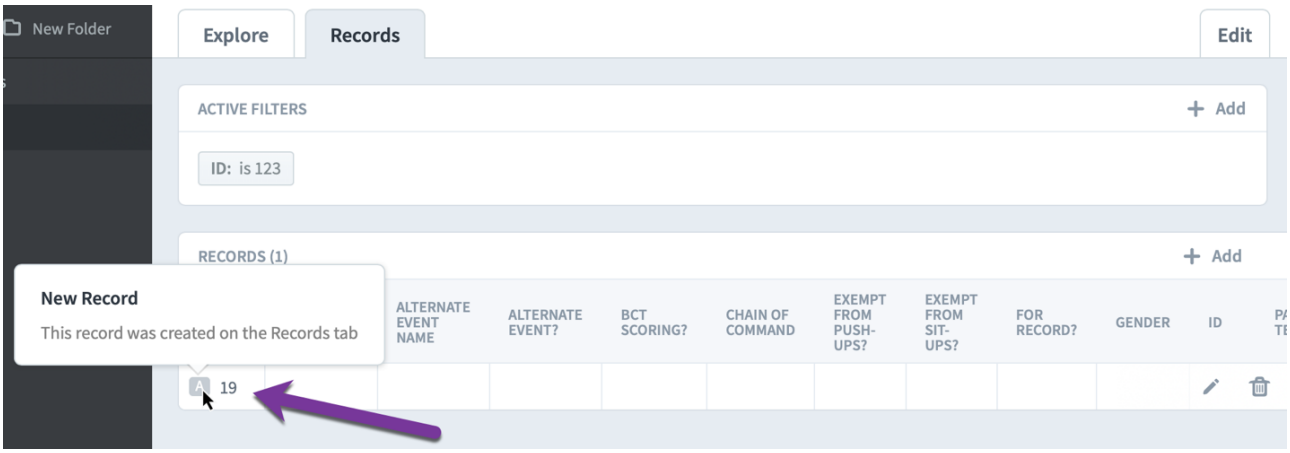


When enabled, there is an Add button on the Records tab.





Just like editing records, added records will be preserved even after future data is imported into the dataset.



Forms

Overview of Forms

Forms is a section in Spider Impact that allows you to build forms that add and update dataset records. It's perfect for supplementing datasets with additional fields that aren't tracked in the system of record, but it's also great for collecting and managing data that isn't stored in any system of record.

Before we get into the details of the Forms section, let's cover why this functionality is important. There are three types of data that Spider Impact tracks.

- Scorecards (KPIs) are updated on regular basis and are tracked forever. Each KPI has a single value for every period.
- Initiatives have a start date and an end date and usually last around 18 months. They are updated irregularly and have two values (budget and percent complete).
- Datasets track large amounts of unstructured data. Instead of tracking a single value (KPIs) or two values (Initiatives), dataset records can have dozens of values. For example, first name, last name, phone number, etc.

All three types of data can be updated through outside sources like spreadsheets or database connections. They can also be manually updated directly in Spider Impact.

KPIs and Initiatives have very specific data formats, and Spider Impact already has great update forms for them. People can log into Spider Impact and use the built-in forms to quickly update all KPI and Initiative values for the items that they own.

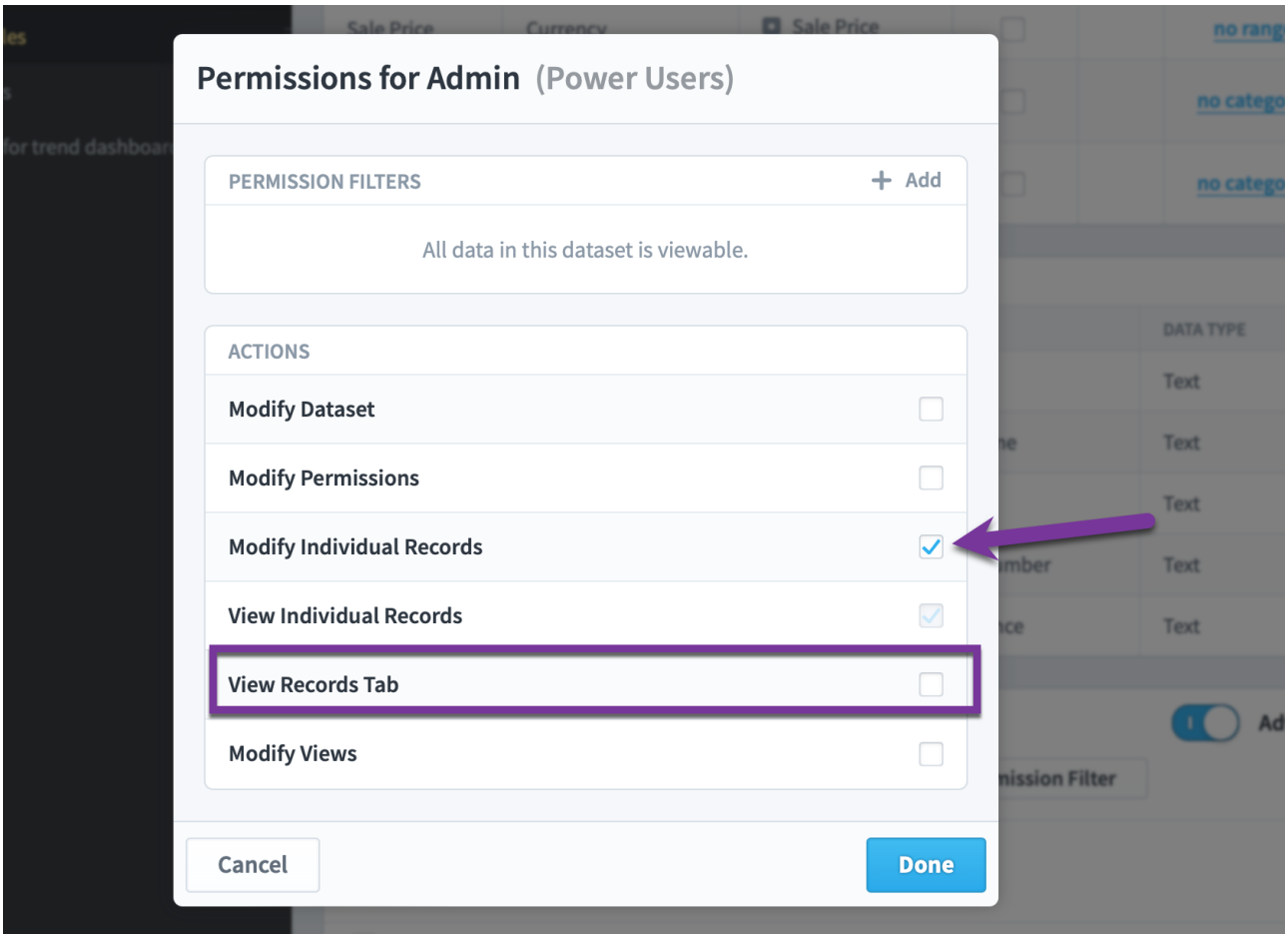
There is, however, no universal form to update dataset values or create new dataset records. That's because datasets have unstructured data and can have

dozens of fields. That's what the new Forms section is all about. It allows people to build the forms that they need to manually put data into Datasets.

Security and permissions

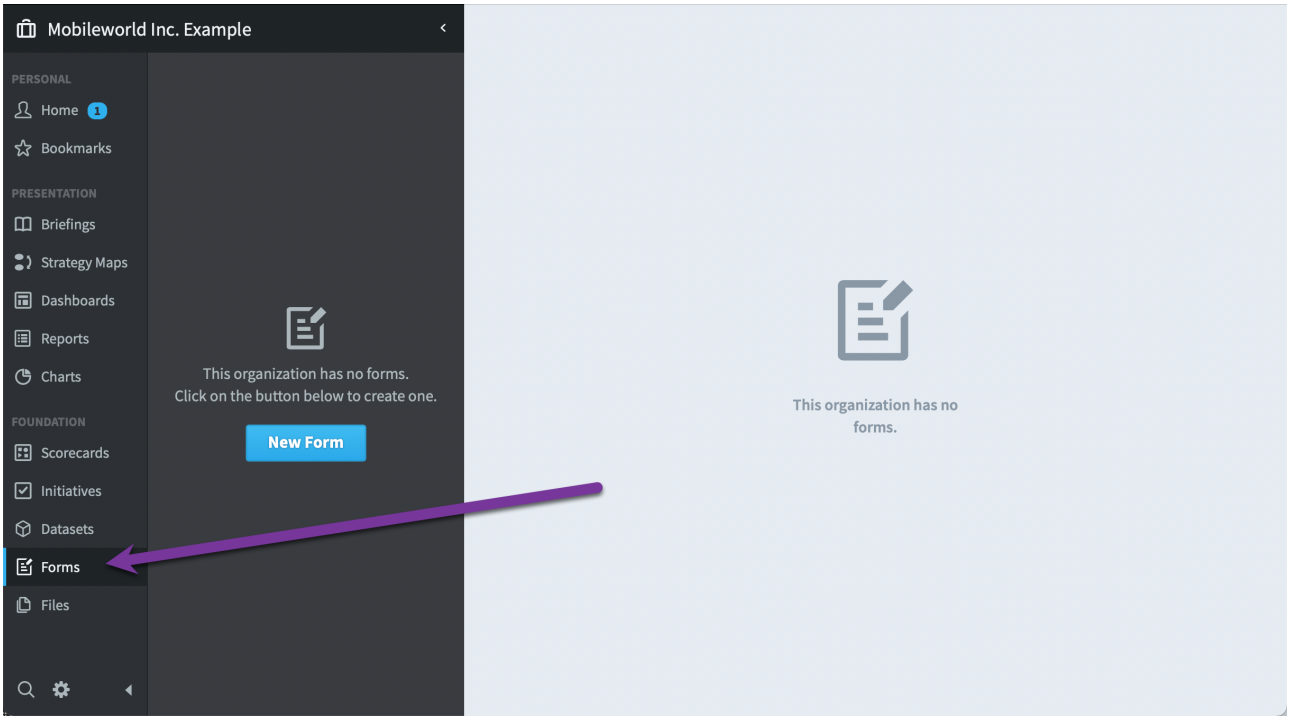
Forms inherit their permissions and security from the Datasets section. You only have permission to view, add, or modify records in a form if you have permission to do the same thing in the Datasets section. If you only have permission to view some of the records, you'll only see some of the records in the Forms section.

If you want someone to be able to edit records in a form but not on the Datasets Records tab, however, you can give them permissions to "Modify Individual Records" but not "View Records Tab".

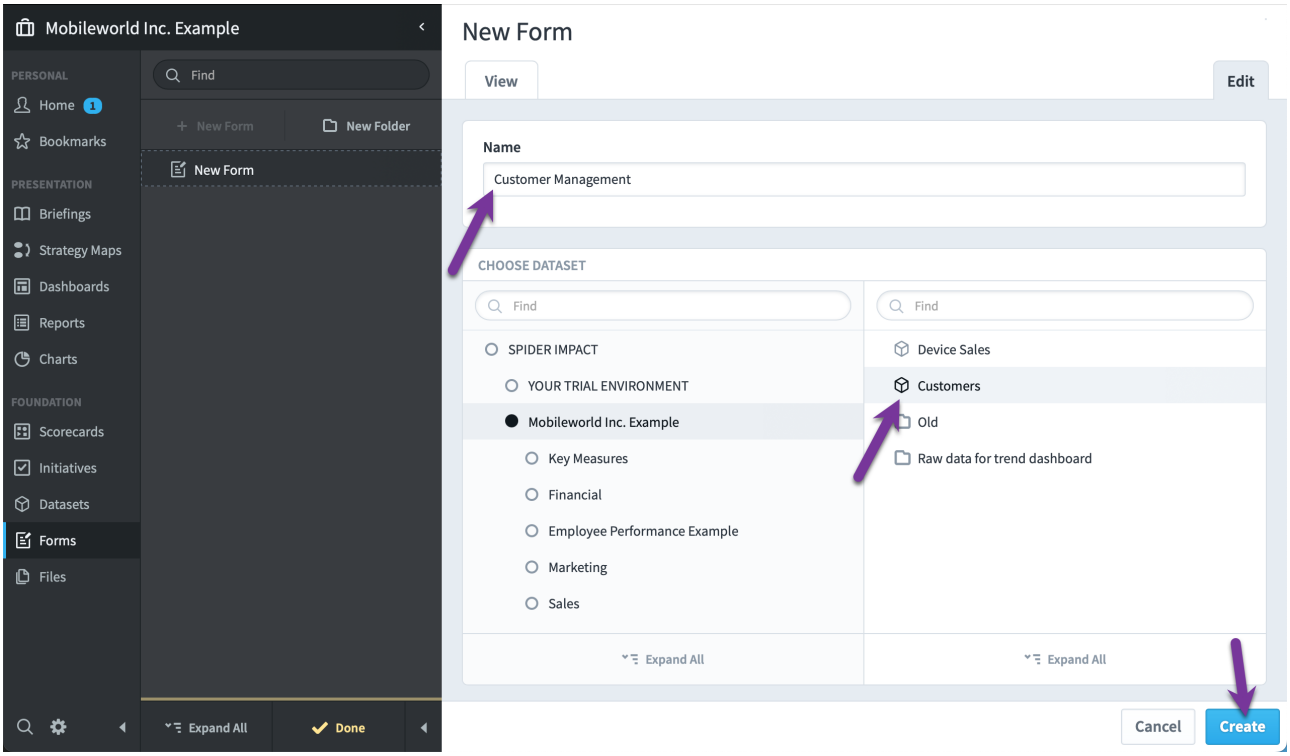


Creating Forms and form pages

The Forms section in Spider Impact is in the menu pane on the left.

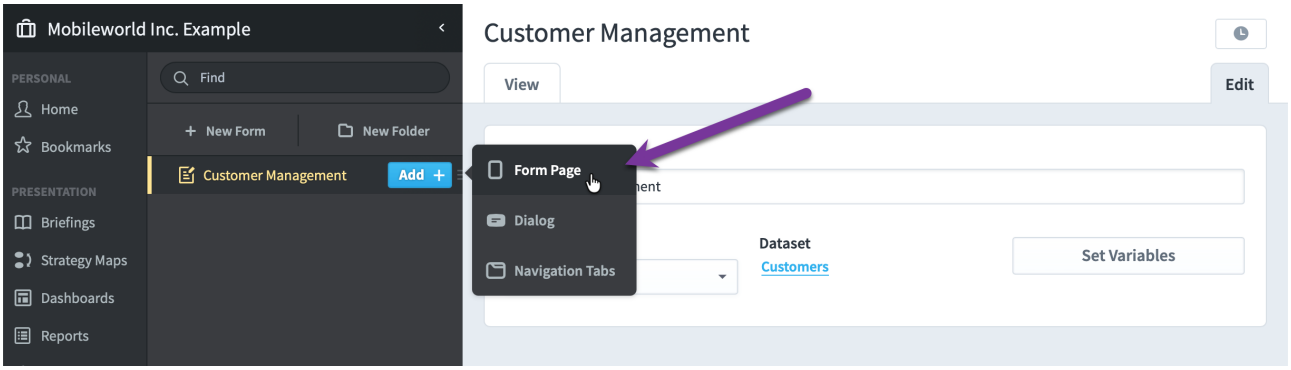


To create a new form, click the "New Form" button and choose a dataset. Each form is associated with a single dataset, and that's what you're choosing right now. In this example we'll choose the Customers dataset, name the form "Customer Management" and then click the Create button.

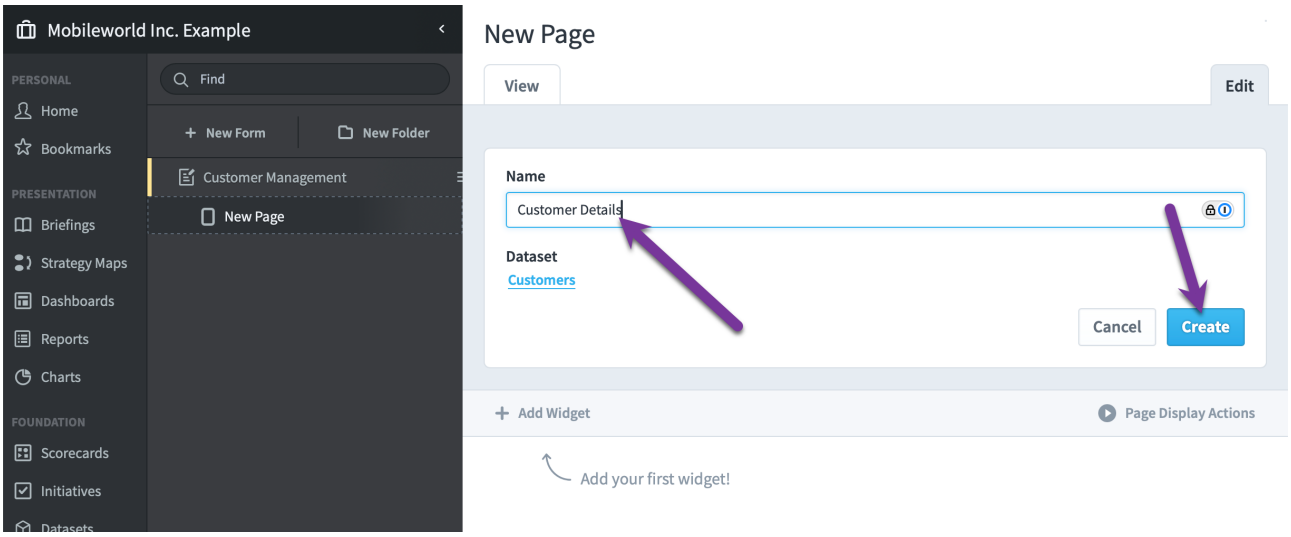


Now that our form is created, we'll want to add the first page to the form. We'll click the "Add" button and choose "Form Page" from the Add menu.

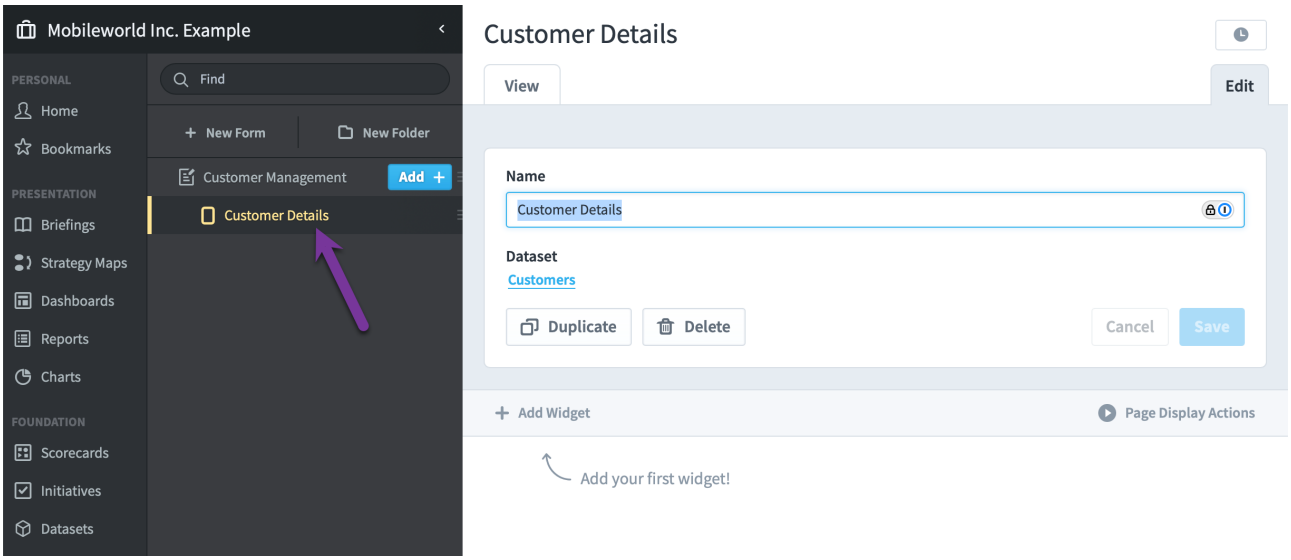
- Form Page
- Dialog
- Navigation Tabs



We'll call this new page "Customer Details".



We now have a form for the Customers dataset with one blank page.

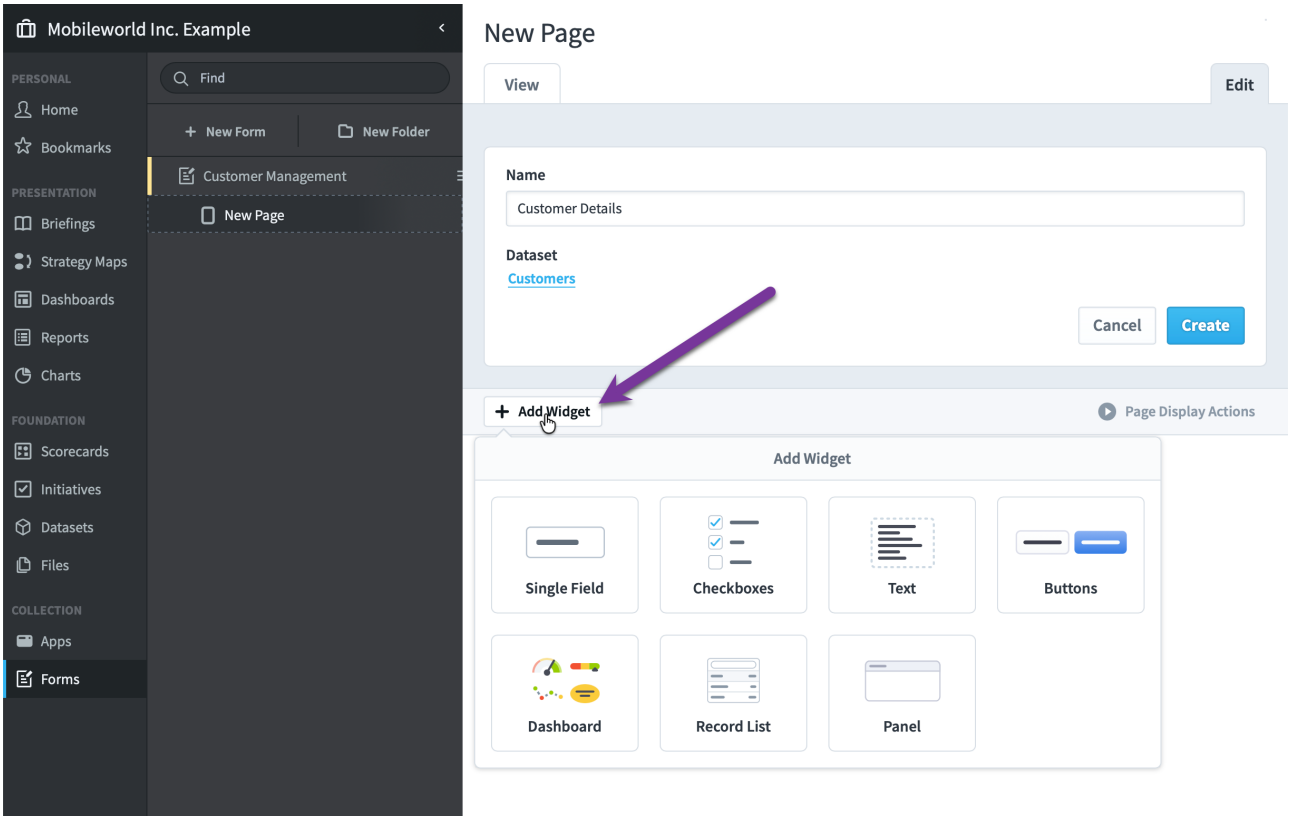


Adding form widgets

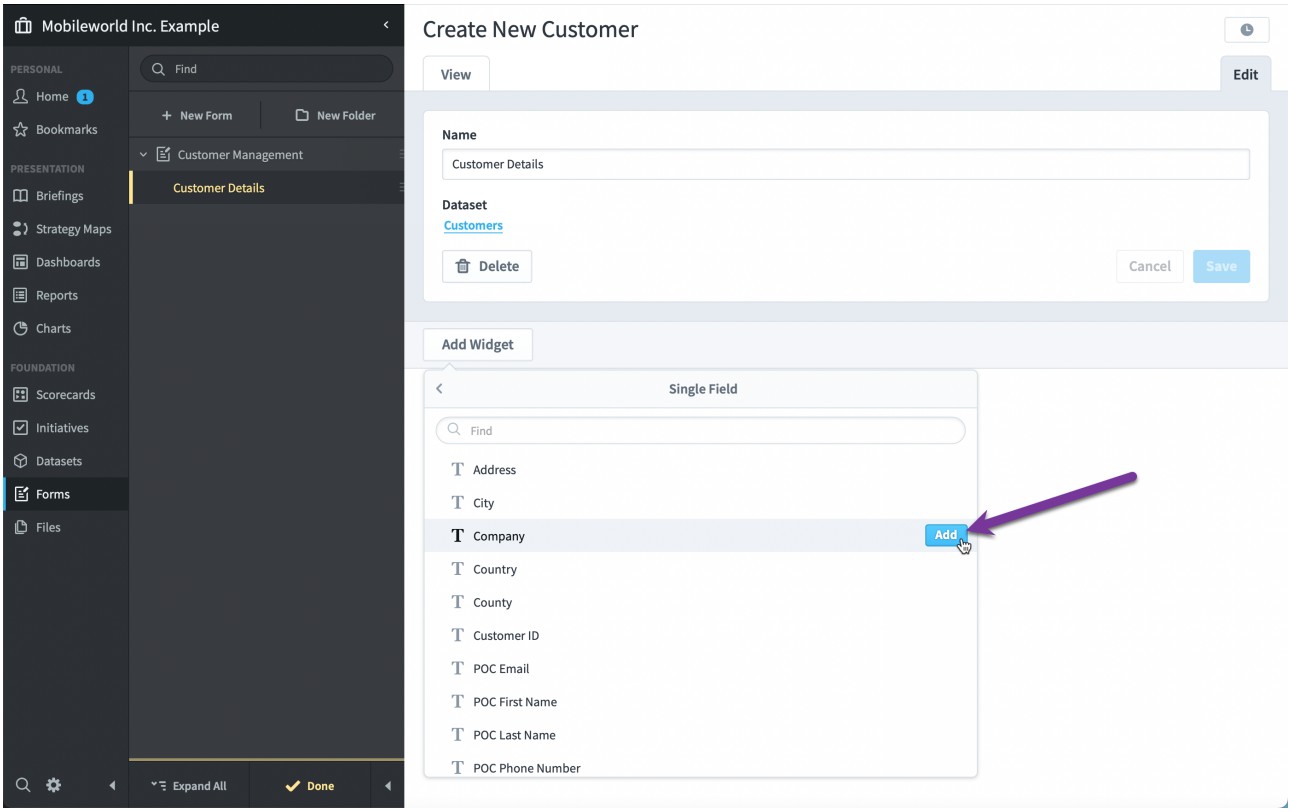
To add form widgets to a form page, click the "Add Widget" button. You can choose to add one of the following widgets, all of which are explained in detail below.

- Single Field
- Checkboxes

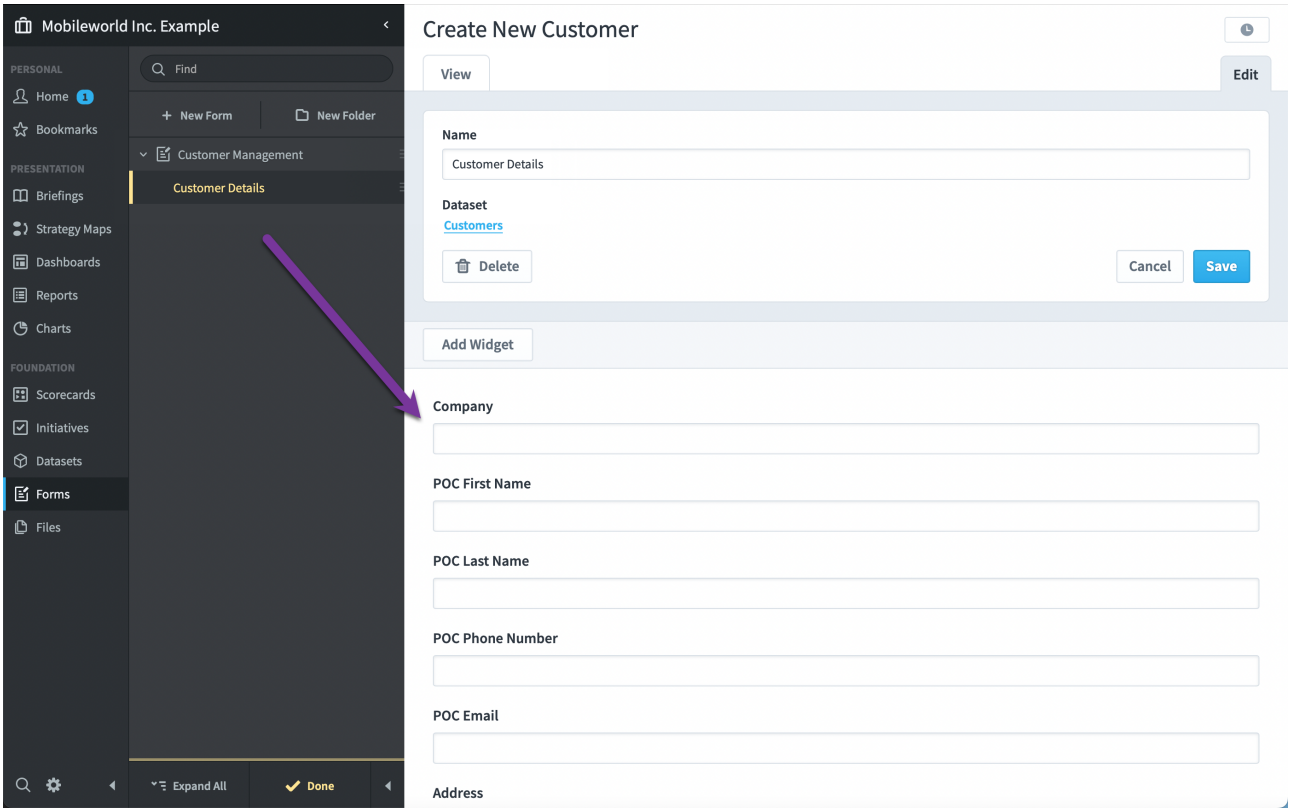
- Text
- Buttons
- Dashboard
- Record List
- Panel



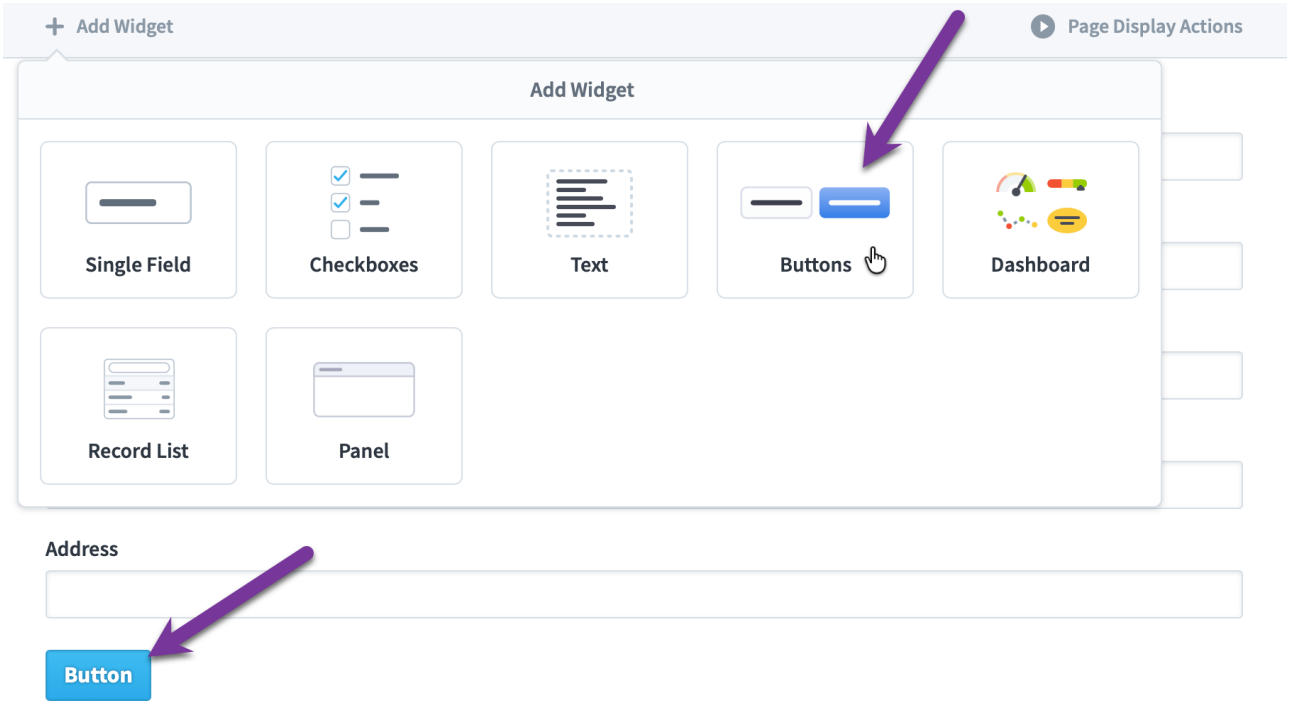
We'll choose Single Field widget, and then we'll start adding widgets for the Customer dataset's fields.



It looks like this when we're done.

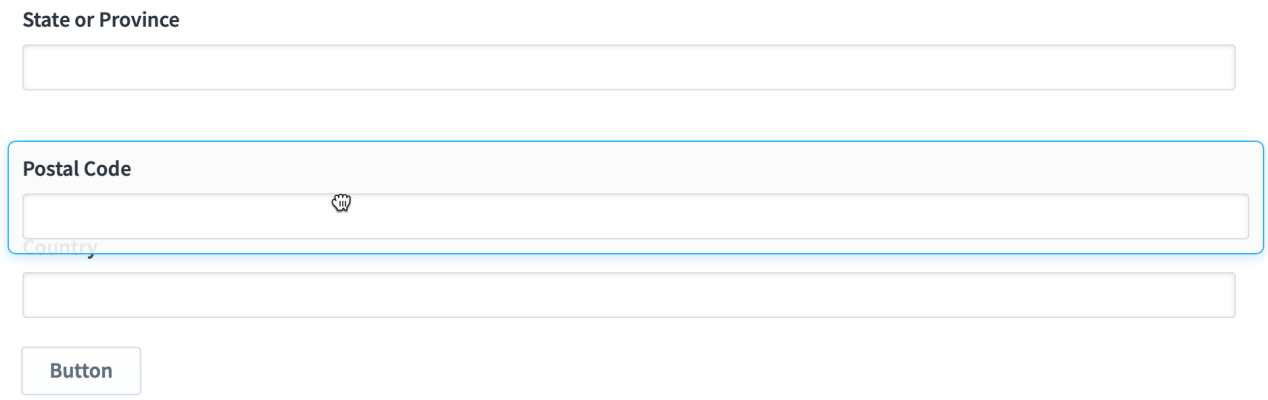


We'll also add a buttons widget.

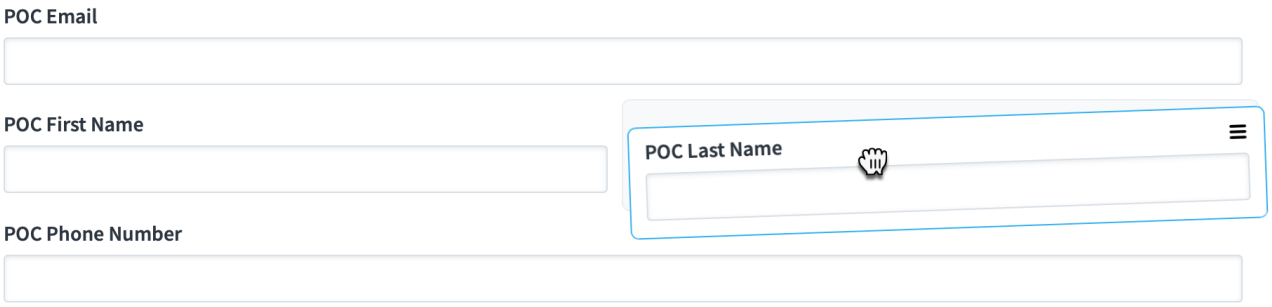


Arranging form widgets

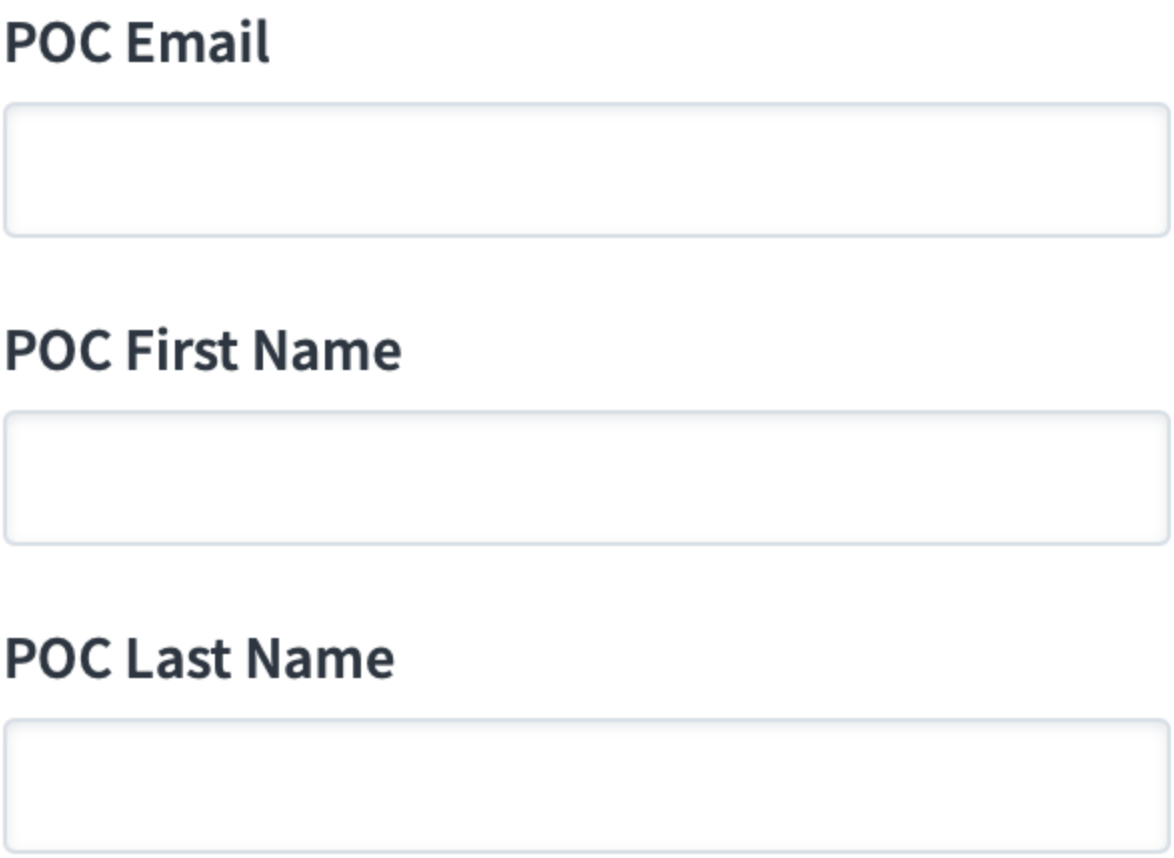
New form widgets are added at the bottom of the page, but you can drag and drop widgets to reorder them.



You can also create multi-column form structures for a more organized and compact design.

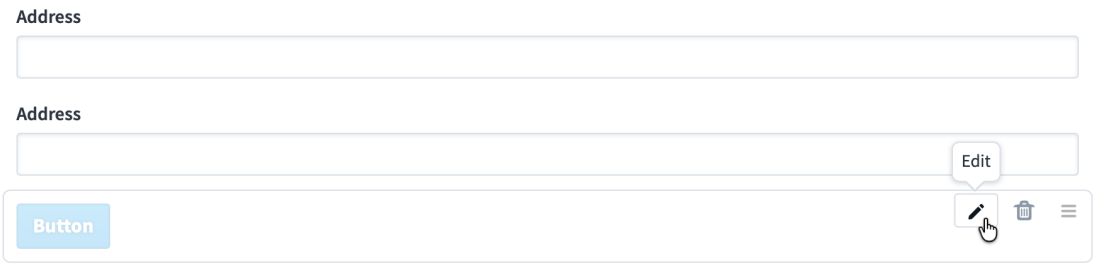


Multi-column layouts automatically collapse into a single-column format on mobile devices to ensure a seamless experience across all screen sizes.

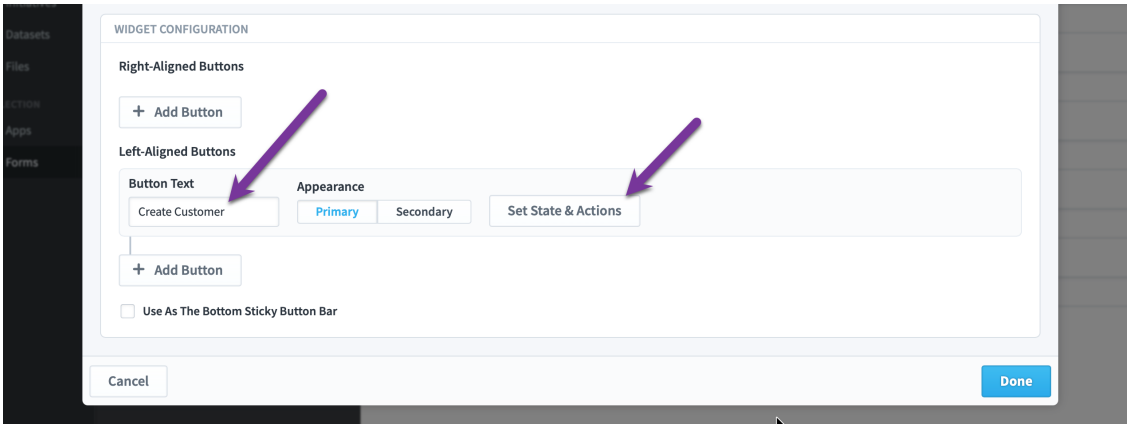


Editing form widgets

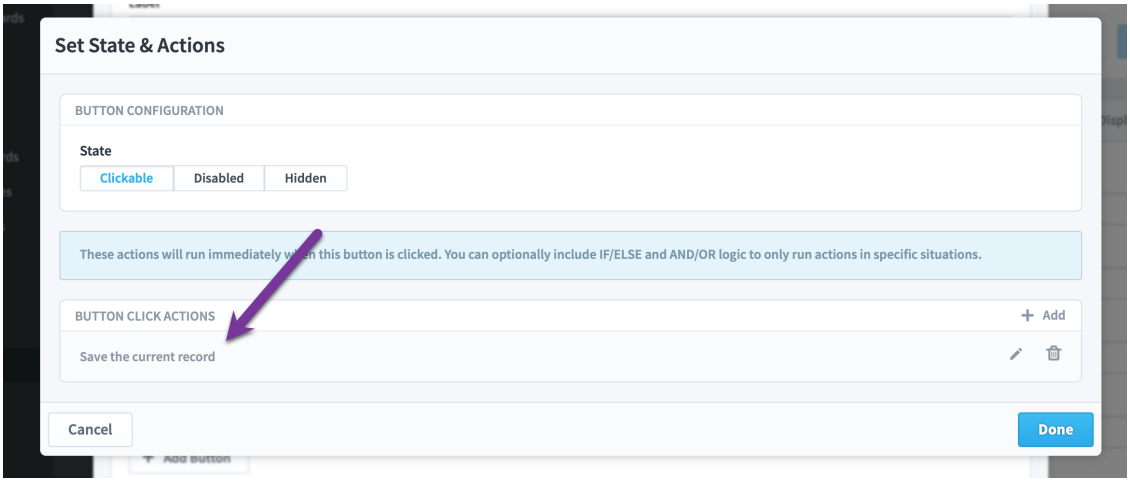
To edit a widget, just click its Edit button.



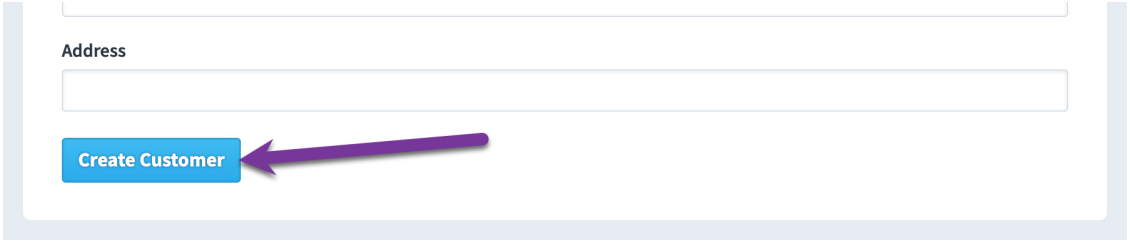
This opens the Edit Widget dialog where we'll change the button text to “Create Customer” and click "Set State & Actions".



This opens a second-level dialog where we'll set the "Save the current record" action to fire on click. See the Form Actions, Variables, and Logic article for more information.

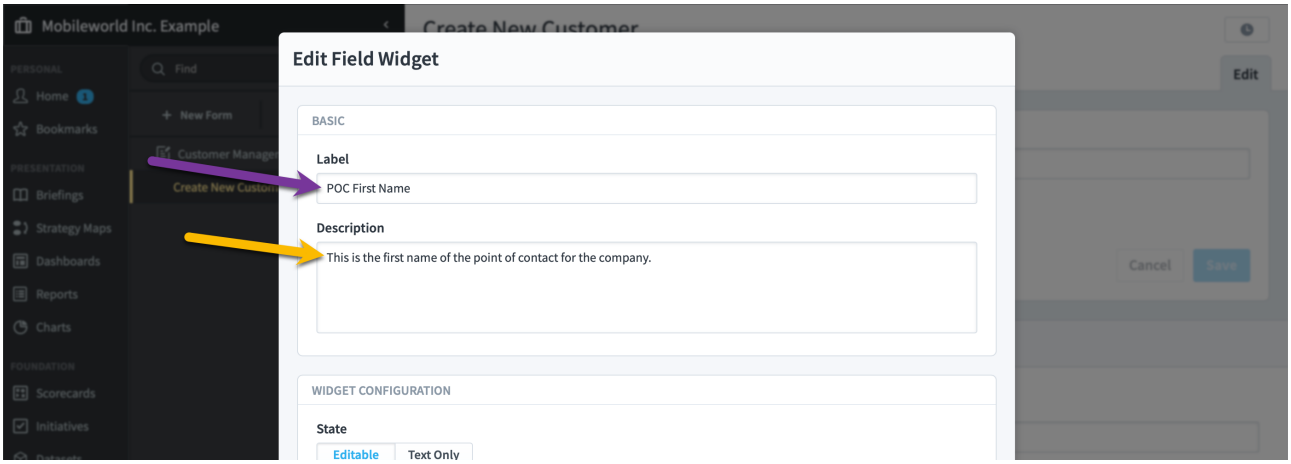


This is what the button looks like when we're done.

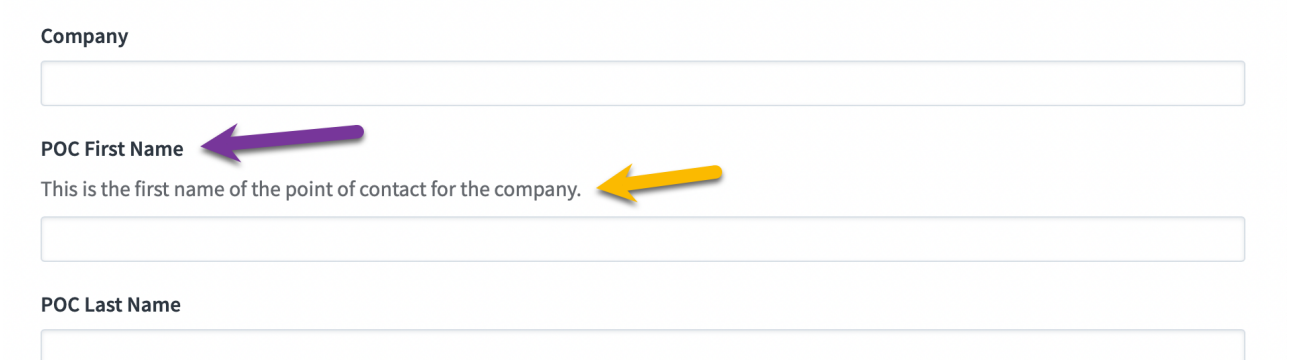


Widget labels and descriptions

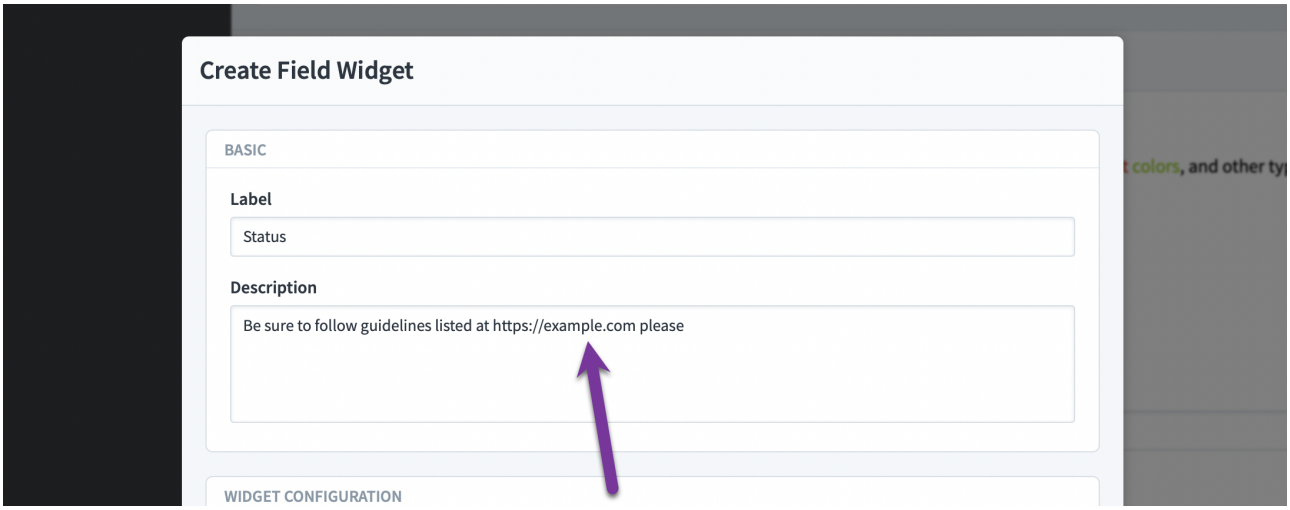
Each type of form widget has different configuration options that are explained in detail below. The two things that are shared by every type of widget, however, are the Label and Description. Both are optional.



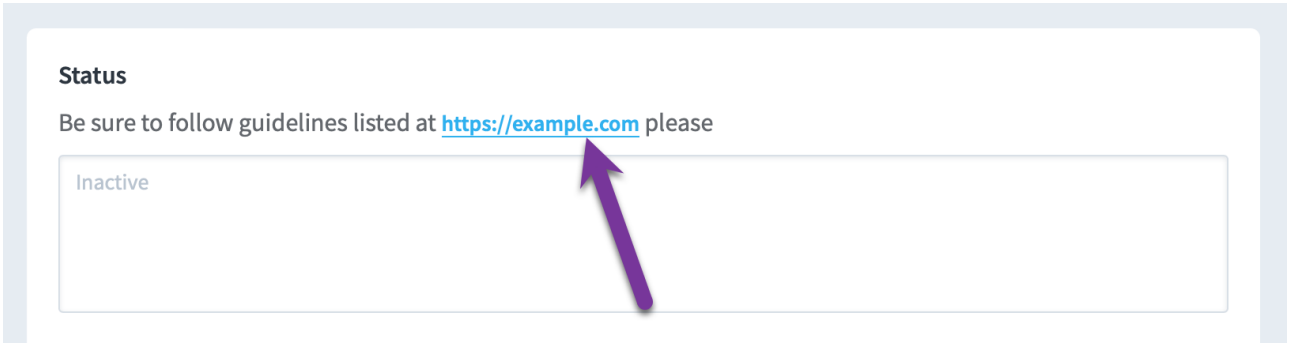
This is what labels and descriptions look like on the form.



Note that all URLs in form widget descriptions are automatically turned into links. In this example, we've added a link to an external web page in the Status field's description.



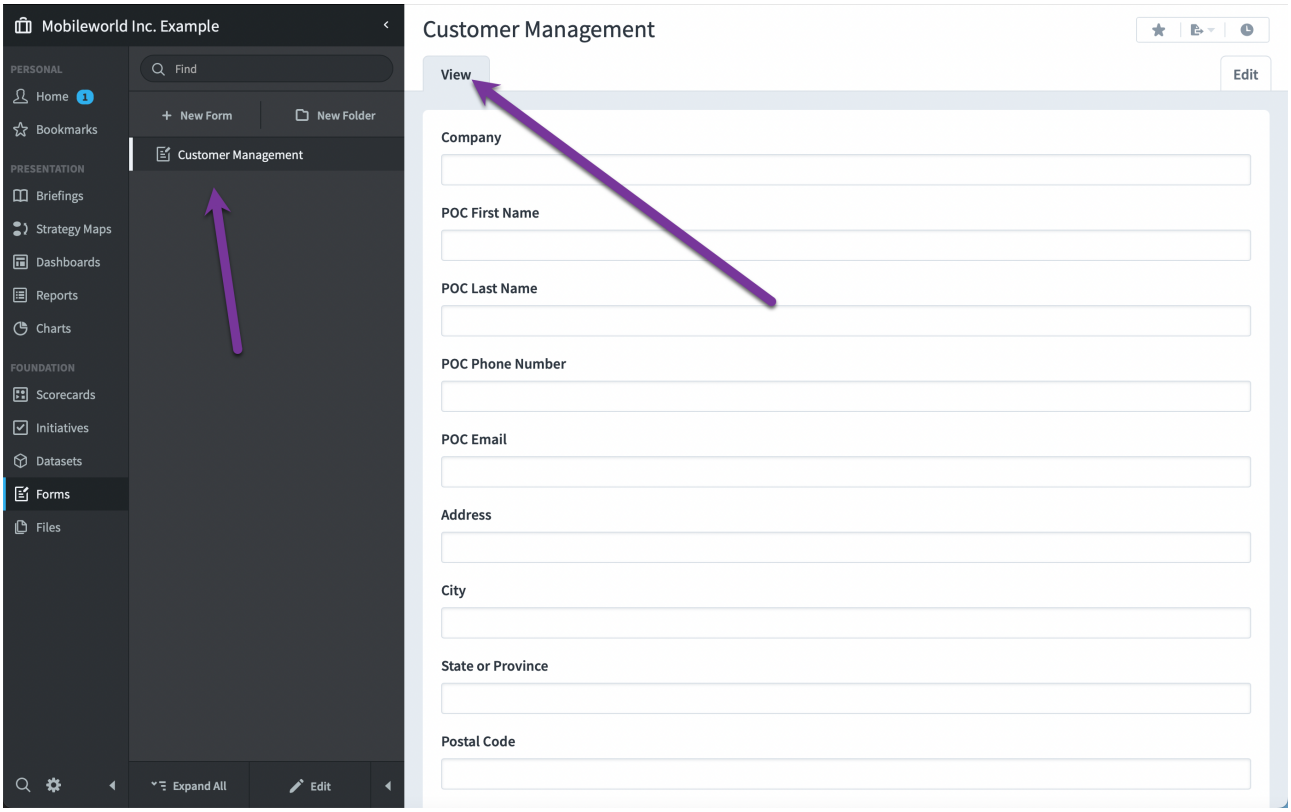
When the form is being used, the link is now styled differently and is clickable.



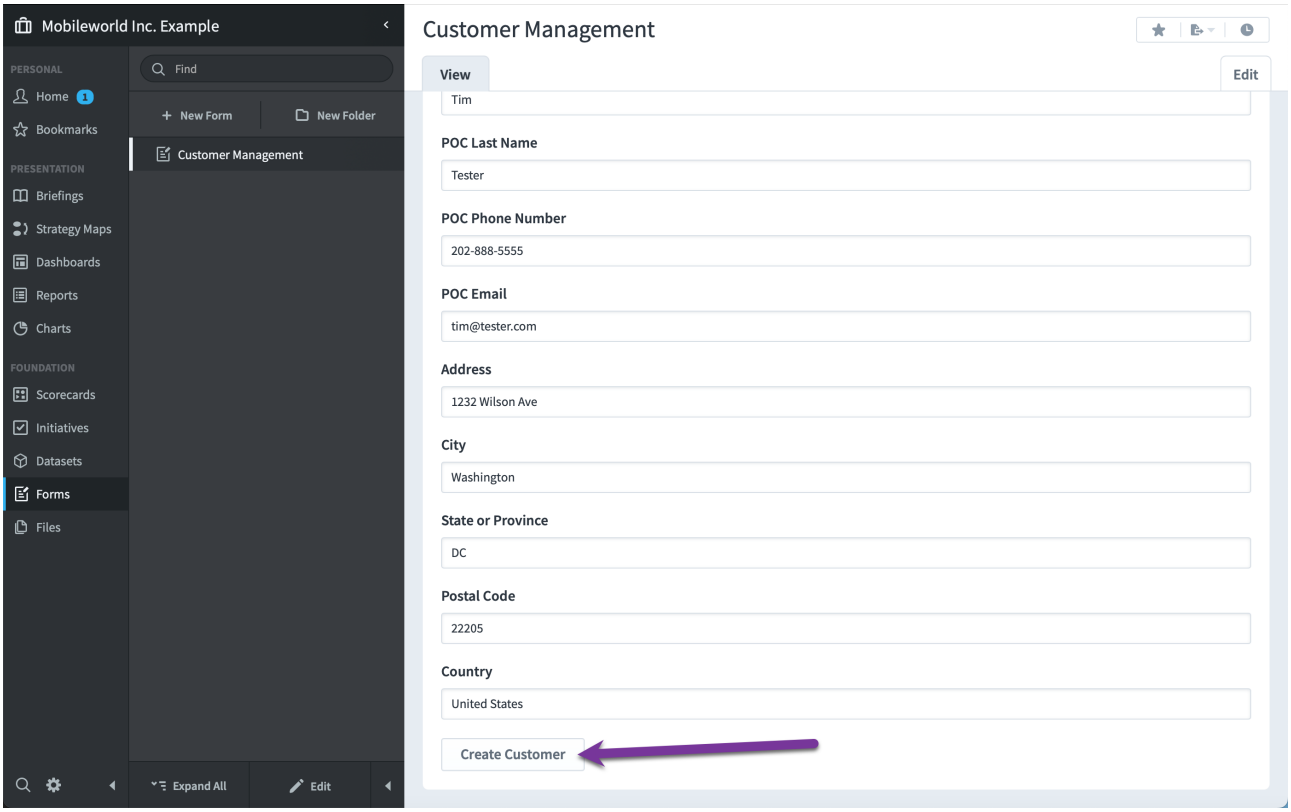
Forms that create records

Example form

The simplest version of a form is a single page that creates a record. To use a form, click the View tab, which is what shows by default when you first visit the forms section. Notice how the individual form pages that you see on the Edit tab no longer show on the View tab.

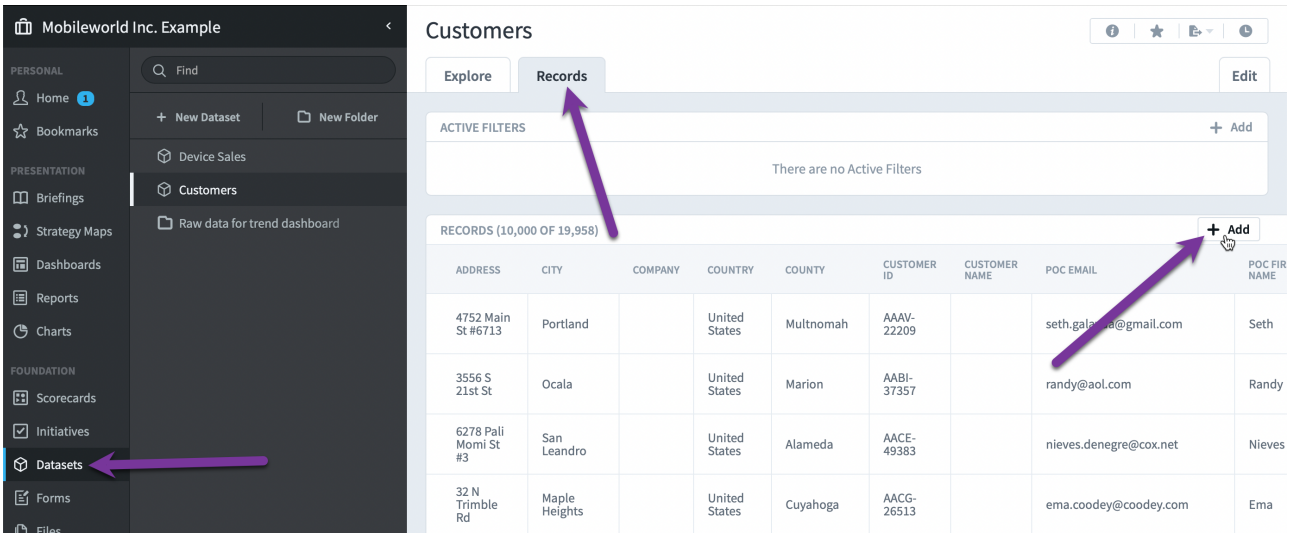


We'll fill out the form with the details for a new customer, and we'll click the "Create Customer" button. This adds a new dataset record for this customer.

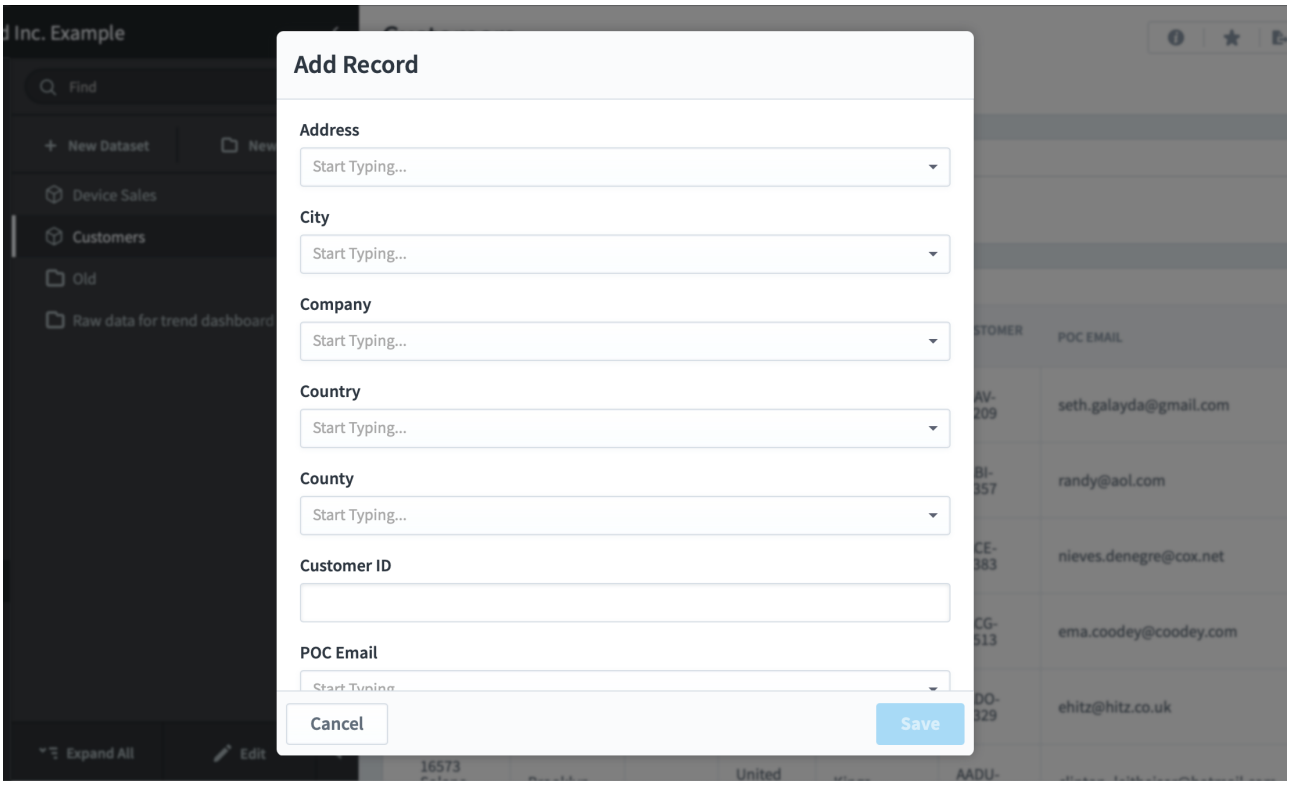


Similarities with Datasets Records tab

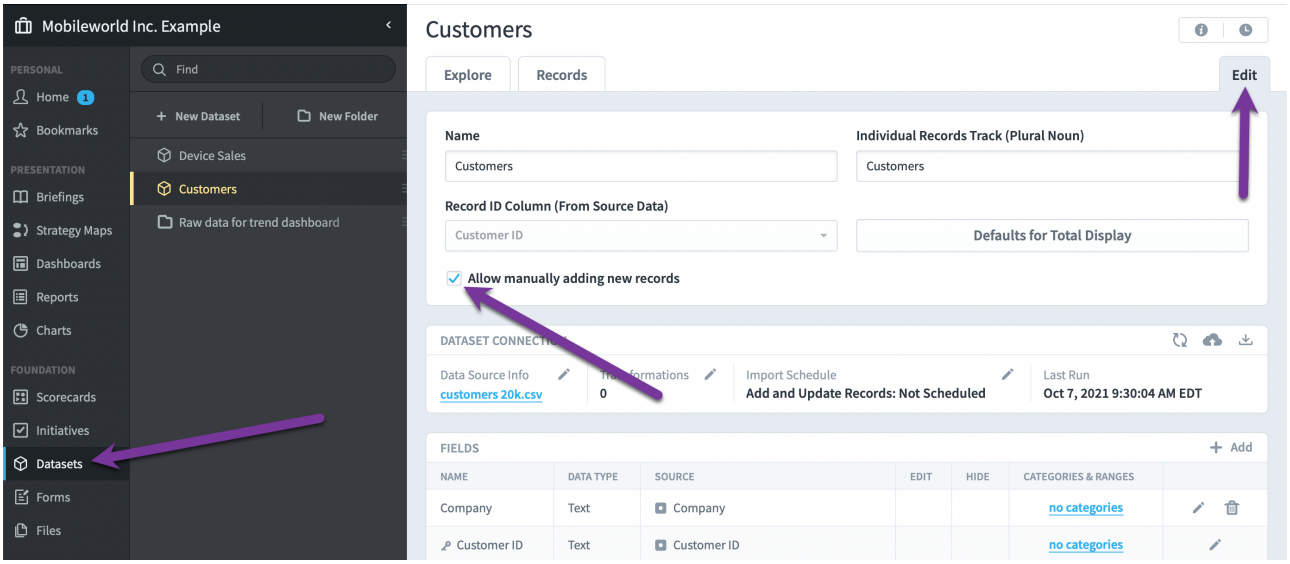
Manually added records will stay in your dataset, even after you import new data with "replace all records". This is the exact same behavior as adding a record on the Datasets Records tab.



The difference with the Datasets Records tab is that you have no control over layout, no way to break data entry into multiple pages, and no way to do logic and advanced data validation. In short, the Dataset Records tab is a simple list of fields, and the Forms section is for building mini-apps to collect data.



All of the user permissions that apply to adding records on the Datasets Records tab also apply to forms. For example, people can only create new records with a form if "Allow manually adding new records" is checked on the dataset's Edit tab. See the Manually Adding & Updating Records article for more information.

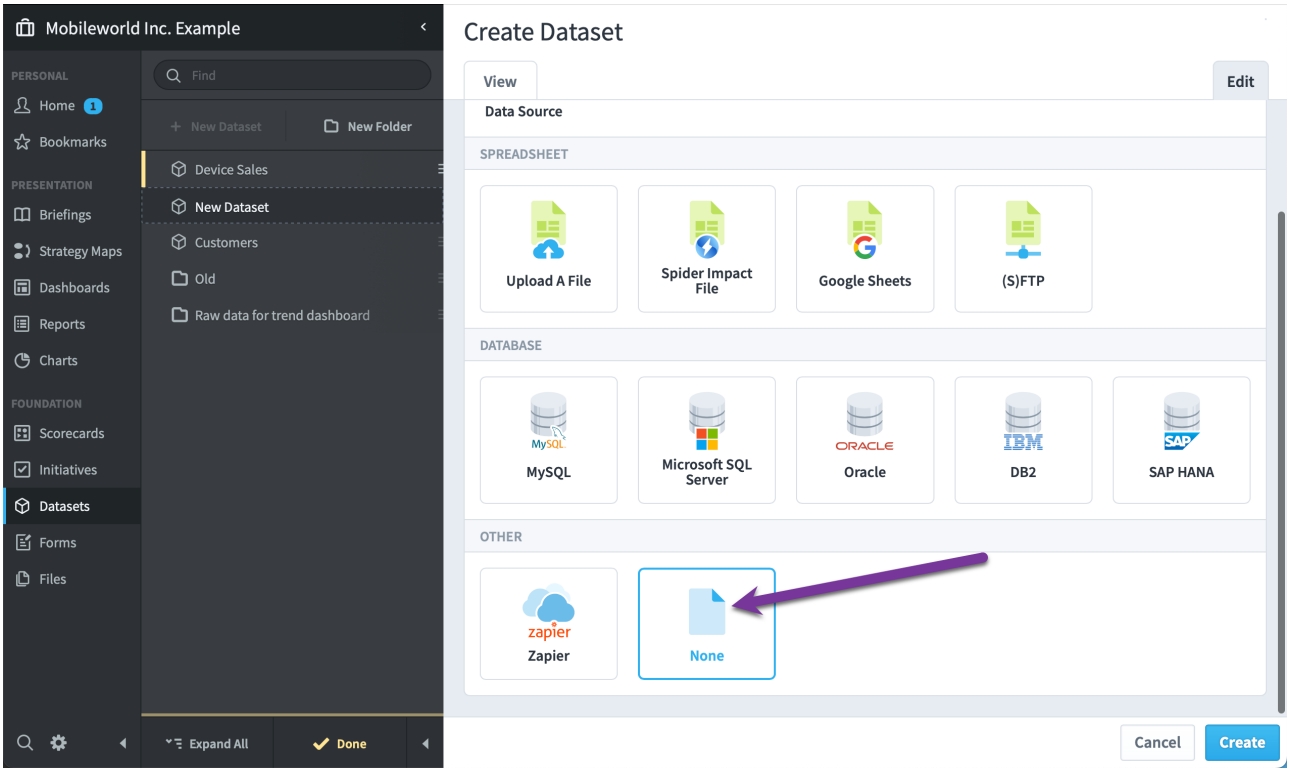


Reasons for adding records

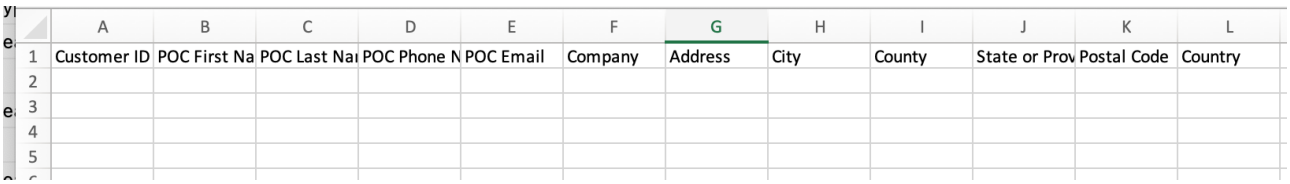
There are two situations when adding records to datasets make sense. The first is when you're not in control of the system of record that your dataset is built from, but you want to supplement it with additional records.

For example, let's say your Employees dataset is built from a data connection to your HR software. The HR software doesn't track unpaid summer interns, but you want to include the intern data with the other employees on your Spider Impact dashboards and reports. In this situation you could create a form to manage the summer interns. It would add additional records to the employees dataset to supplement all of the records that are from the HR system. These new supplementary records would stay around, even after new HR data is imported.

The more common use case for adding records to datasets is when there isn't a system of record and you're starting with a blank dataset. For example, maybe you want to send out a survey to customers, or you want to start tracking your company's computer hardware. In these situations you can create a dataset with no Data Source and manually create fields.



Another option is to choose a Spreadsheet as the Data Source and just not include any records in the spreadsheet.

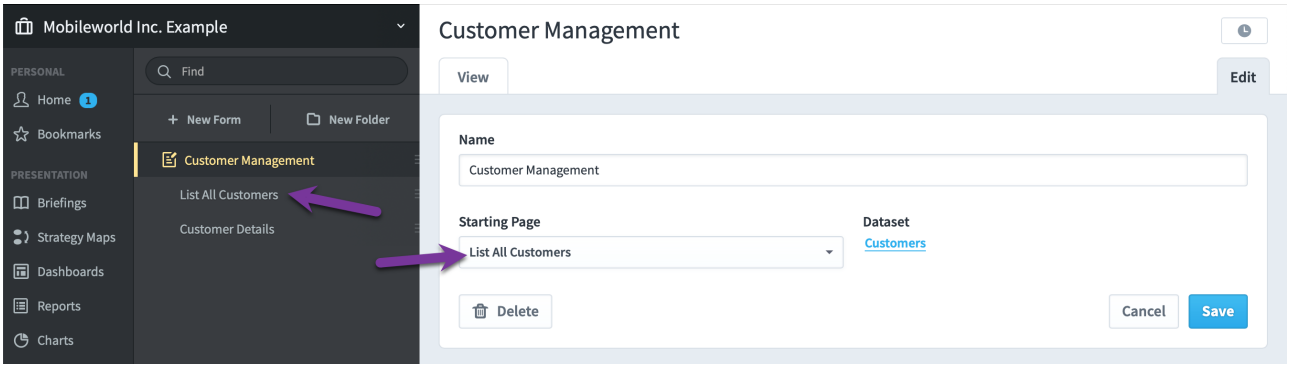


	A	B	C	D	E	F	G	H	I	J	K	L
1	Customer ID	POC First Na	POC Last Nai	POC Phone N	POC Email	Company	Address	City	County	State or Prov	Postal Code	Country
2												
3												
4												
5												

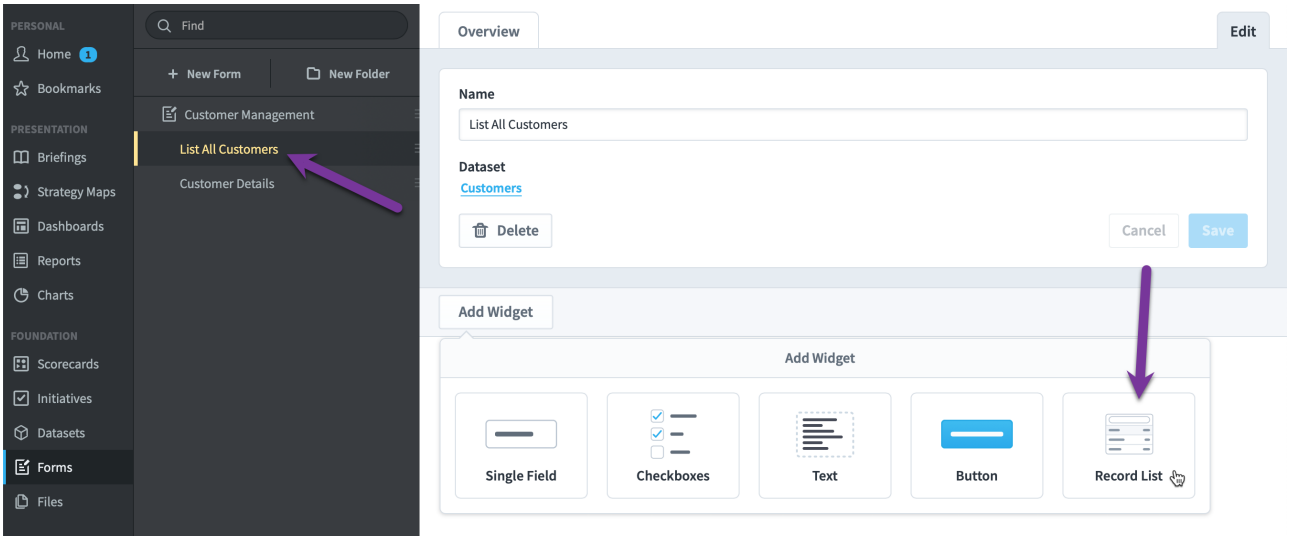
Forms that edit records

Example form

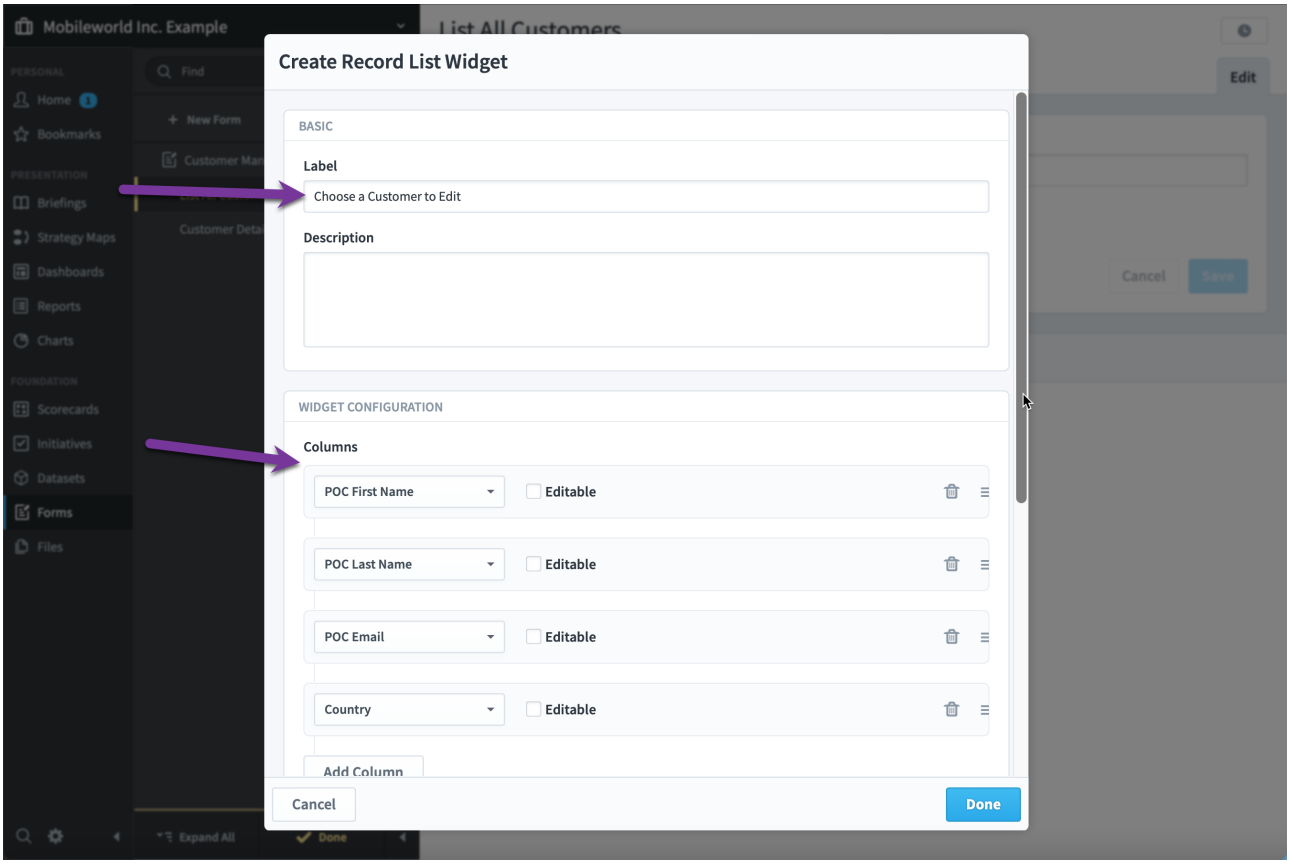
We'll add a second page to our form called "List All Customers" and set it as the form's Starting Page.



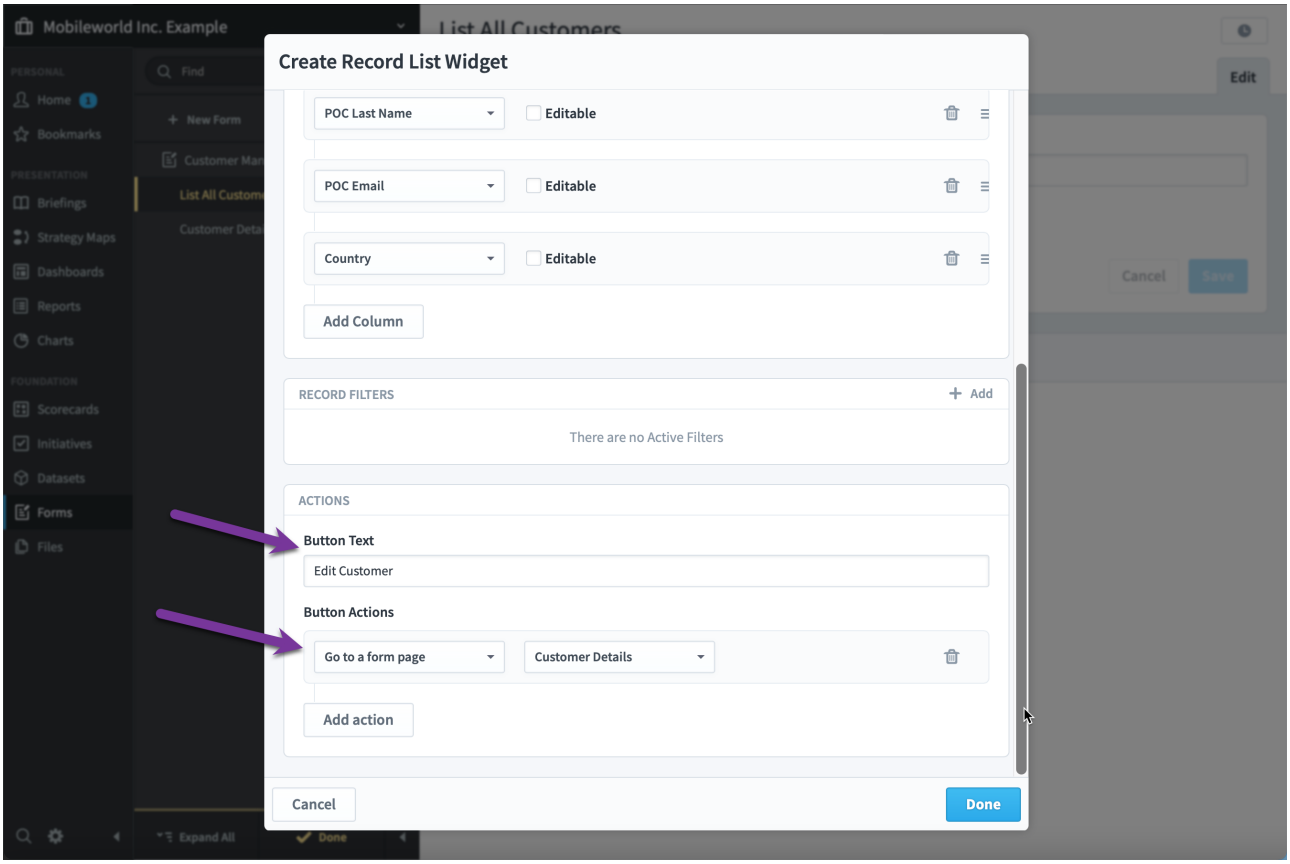
On this new blank page we'll add a Record List widget.



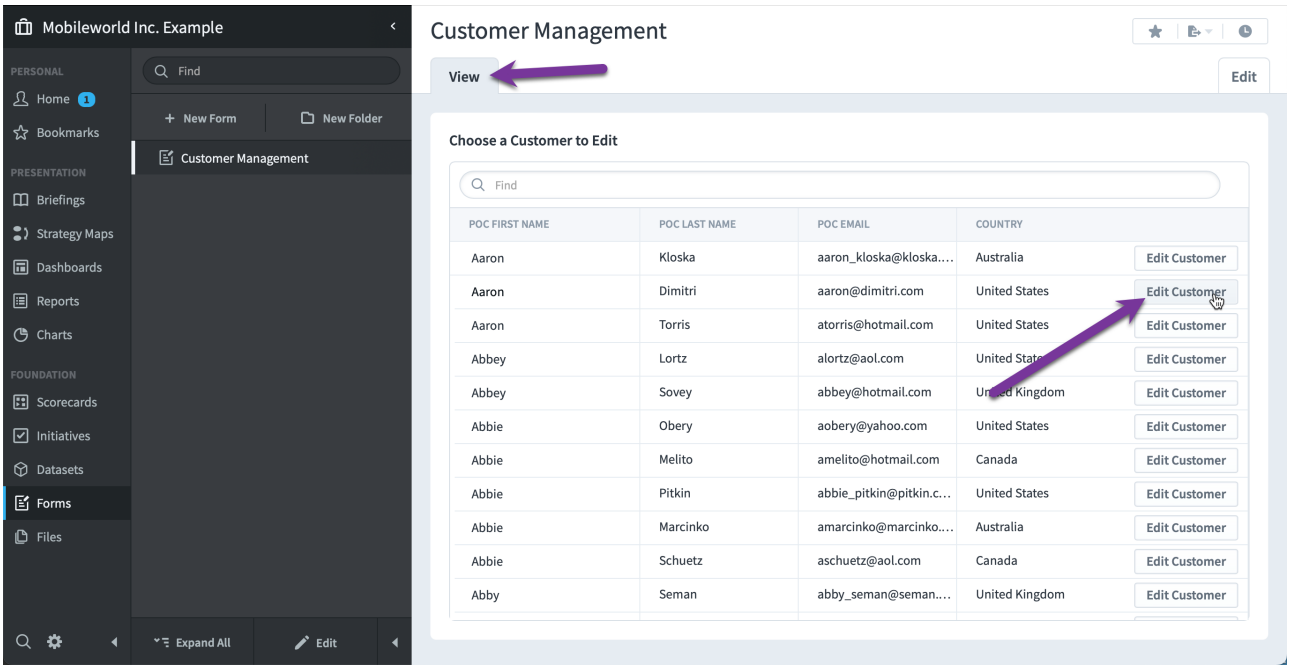
Our Record List widget will have a title of "Choose a Customer to Edit", and we're going to choose to show the customer fields of first name, last name, email, and country to identify each record.



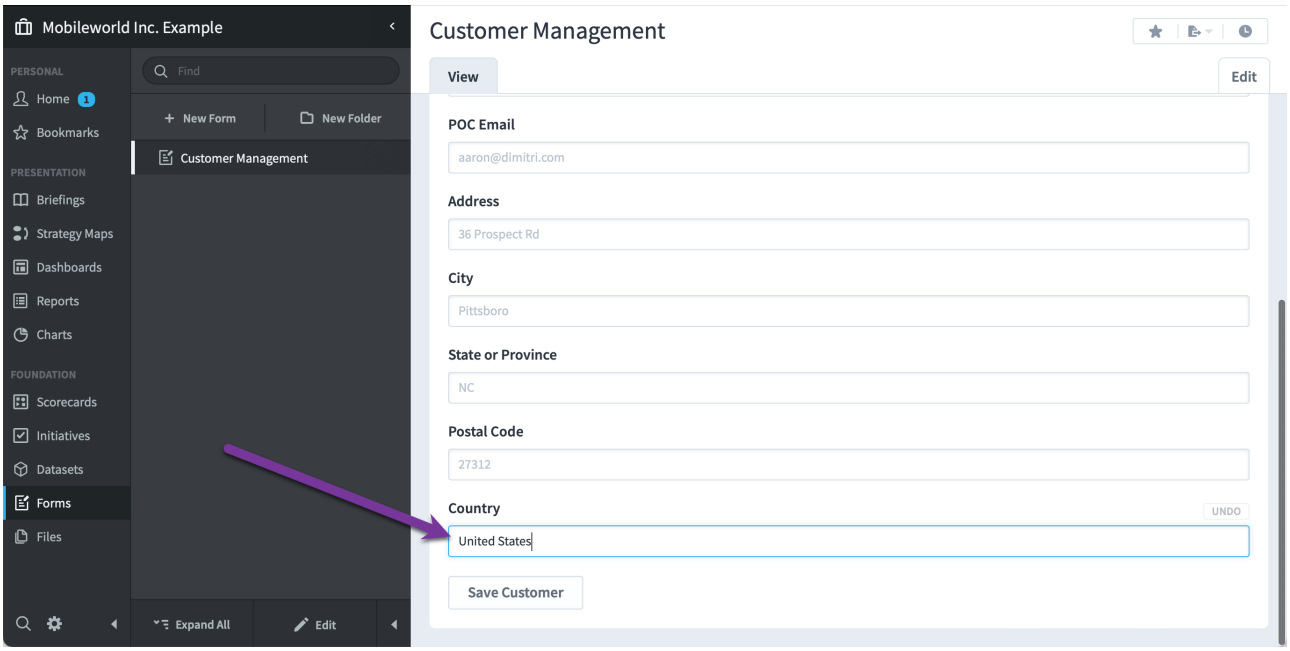
We're also going to have an action button in our Record List widget. Each record will have an "Edit Customer" button that goes to the "Customer Details" page for that record when clicked.



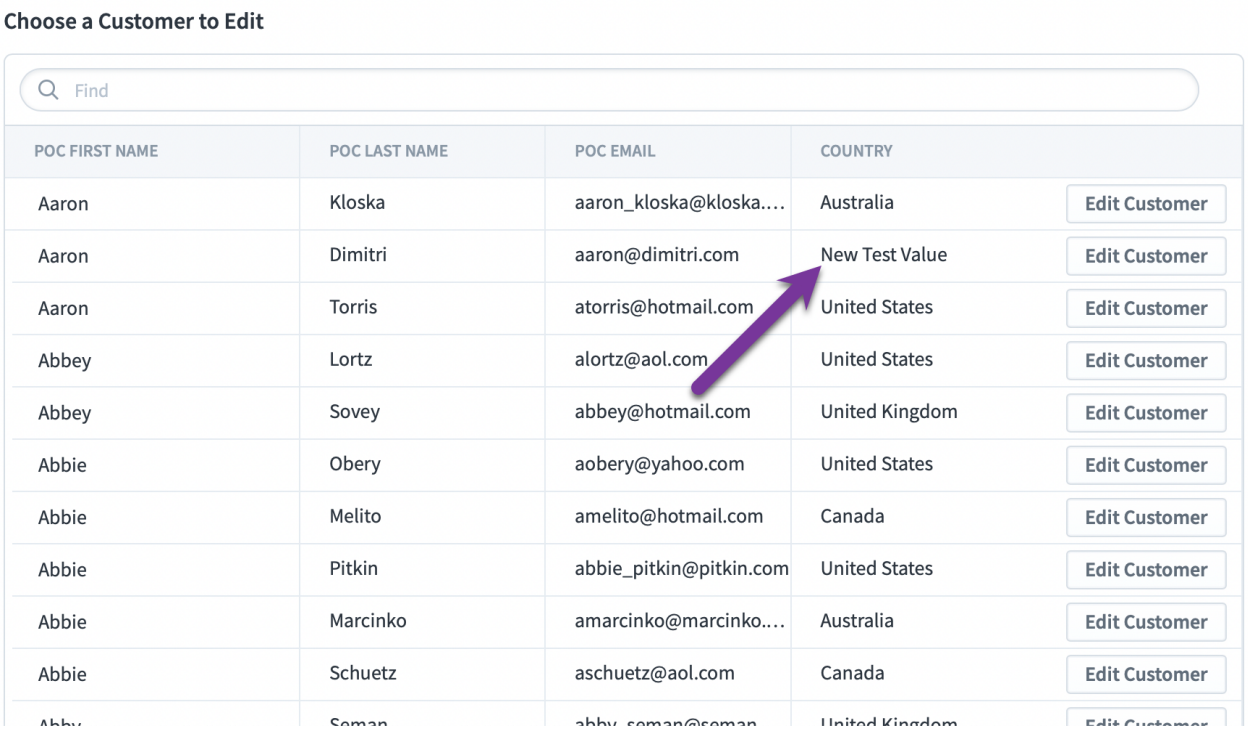
Now when I go to the View tab to use the form, it lists all of the records in the Customer dataset.



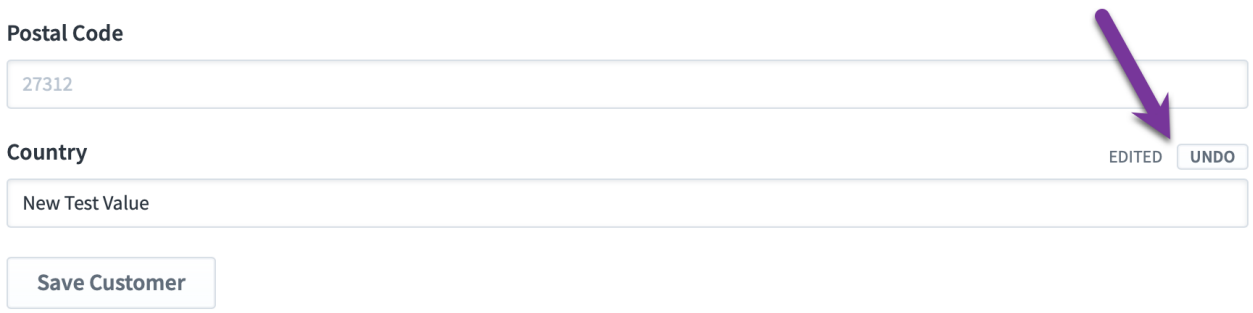
When I click the "Edit Customer" button for one of the records, it goes to the Customer Details page for that record.



The Country field is editable, so we'll change that to "New Test Value" and click Save Customer. The form goes back to the customer list and we can see this new country value.

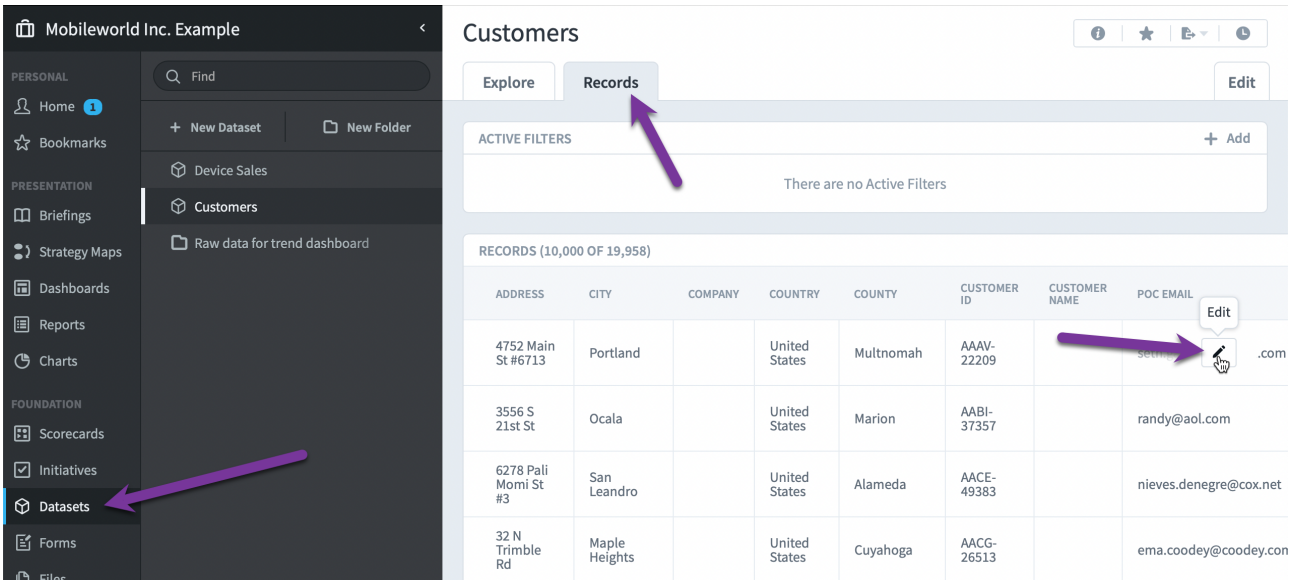


When we click the Edit Customer button for this record, we can now see that its imported value is being overridden. We can type a different value, or we can click "Undo" to go back to the imported value.

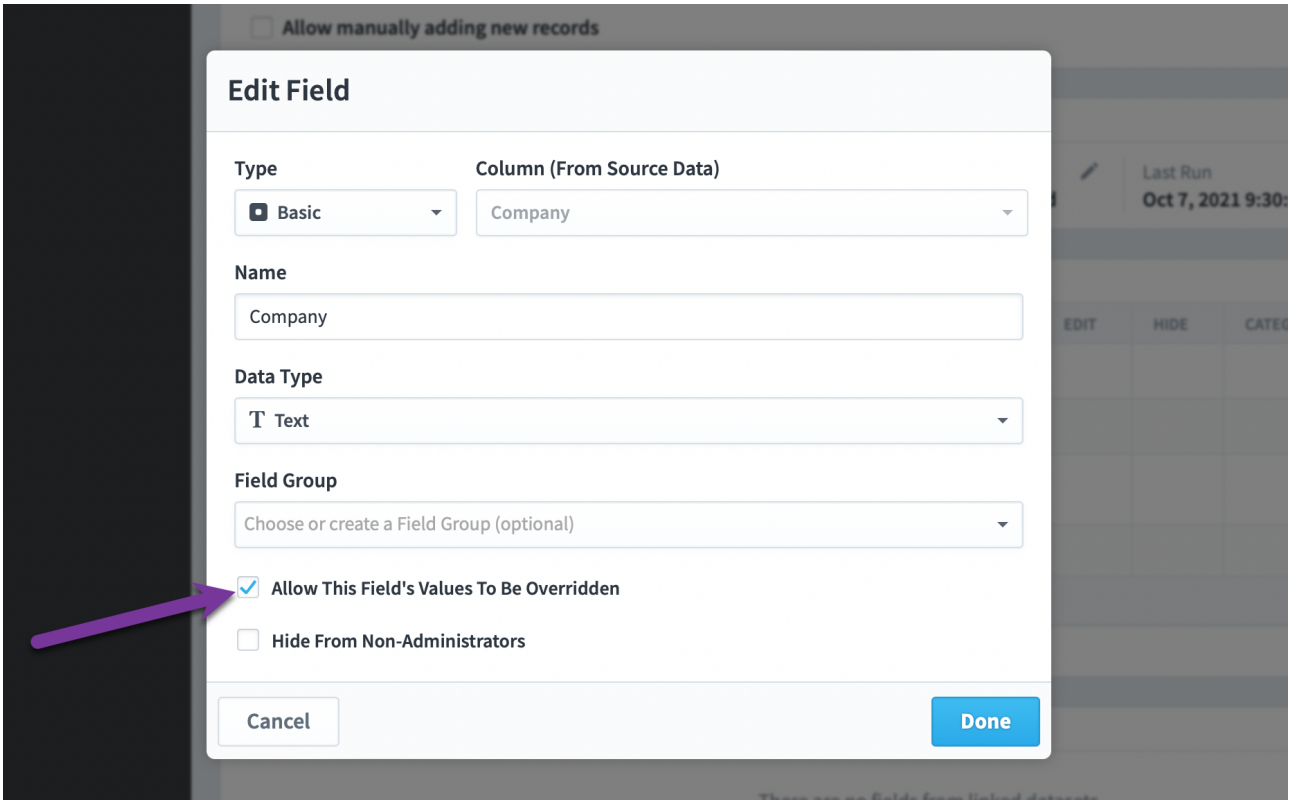


Similarities with Datasets Records tab

If you're editing a record that came from a data import rather than being manually added, this new value that you entered will stay in the dataset, even after you import new data with "replace all records" later. This is the exact same behavior as editing a record on the Datasets Records tab.



All of the user permissions that apply to editing records on the Datasets Records tab also apply to forms. That means you can only override imported values in a form if that dataset field has "Allow This Field's Values To Be Overridden" checked on the dataset's Edit tab. See the Manually Adding & Updating Records article for more information.



Reasons for editing imported records

There are two reasons for editing fields in records that are imported from a system of record. The first is when you're not in control of the system of record that your dataset is built from, but you want to correct its data.

For example, let's say your Employees dataset is built from a data connection to your HR software. If you notice that a few of the employees' departments are either incorrect or missing, the best approach is to fix the data in the system of record, and then the corrected values will show up in Spider Impact. If that isn't possible for some reason, however, you can override the values in Impact and they'll stay overridden even after the next import.

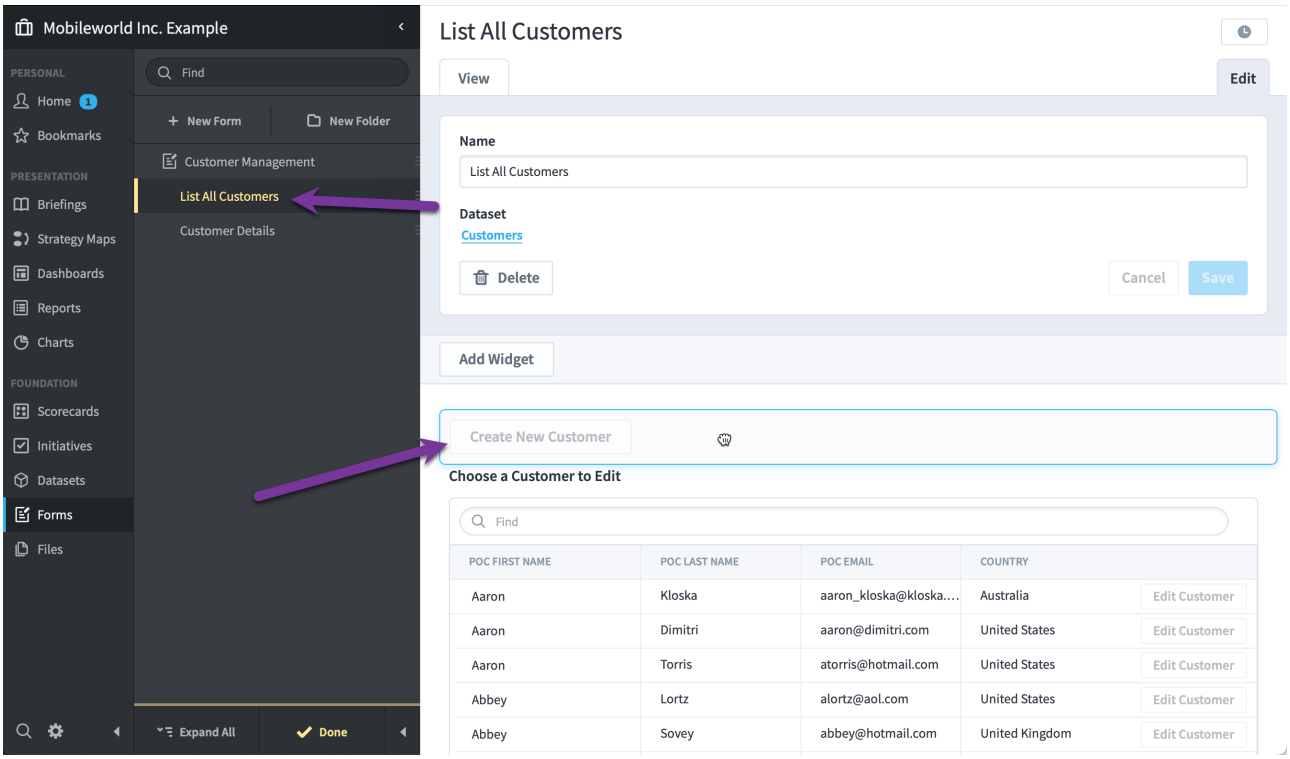
The more common use case for editing an imported record, however, is adding supplementary fields that don't exist in the system of record. For example, let's say you want to track each employee's t-shirt size, and that's not something your HR

software does. You can just add a T-Shirt Size field to the Employees dataset and then enter those values using an Employees dataset form.

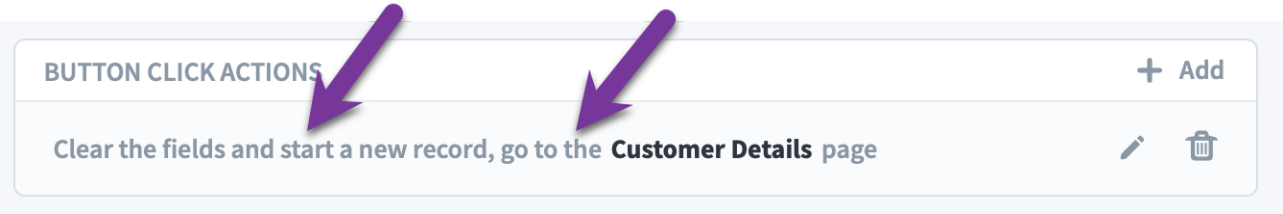
Forms that create and edit records

Example form

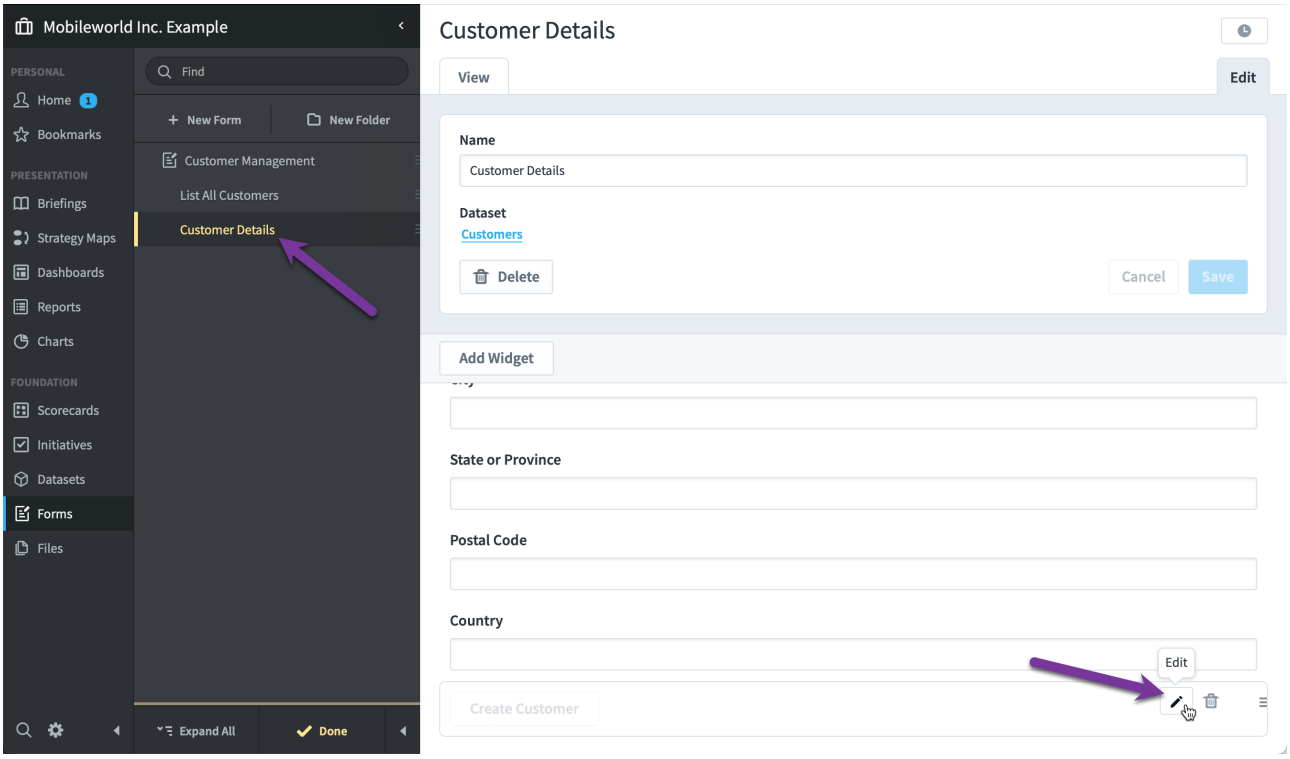
We've given examples above of forms that add records and forms that edit records, but forms can also do both. Here we're adding a "Create New Customer" button to the form's starting page.



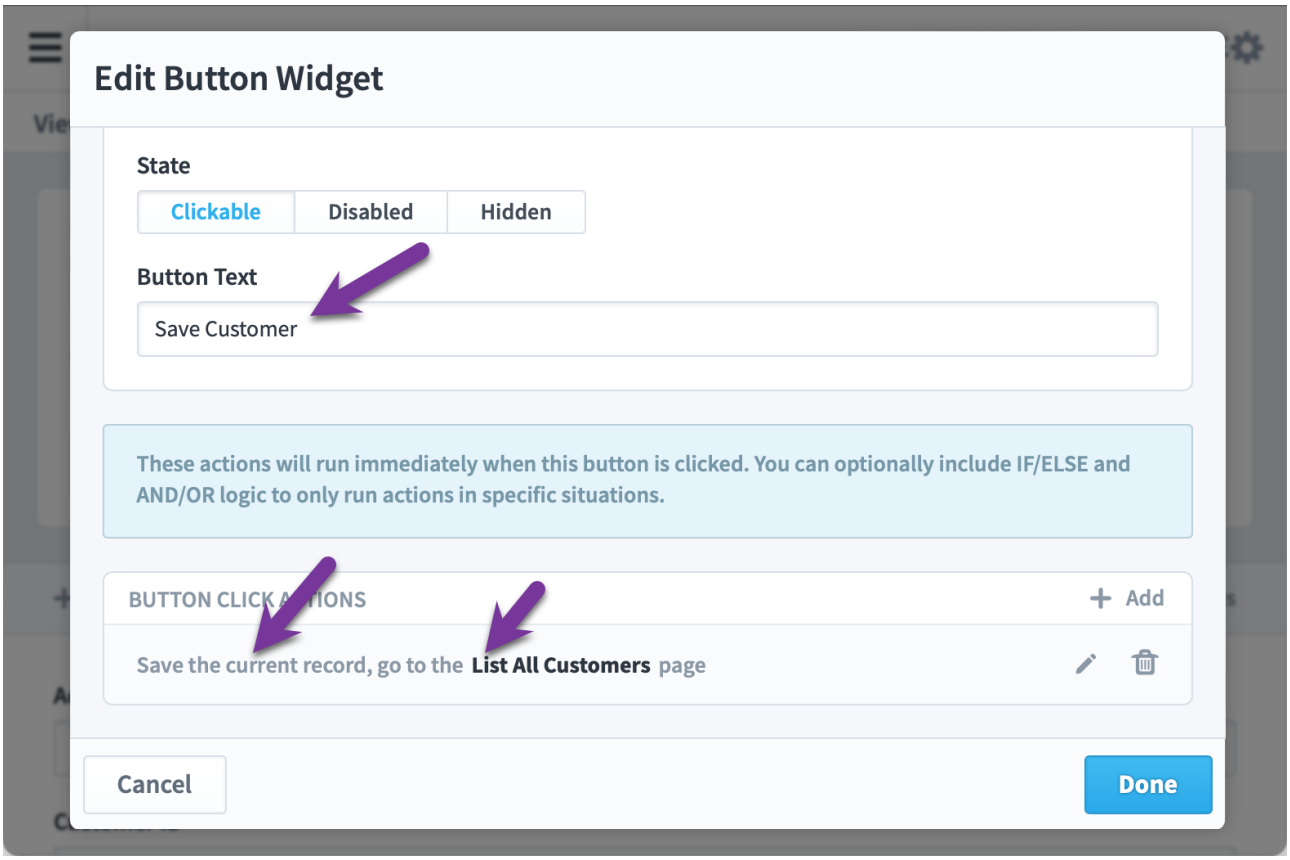
This new button does two things when clicked. First it clears fields and starts a new record. Second, it goes to the customer details page.



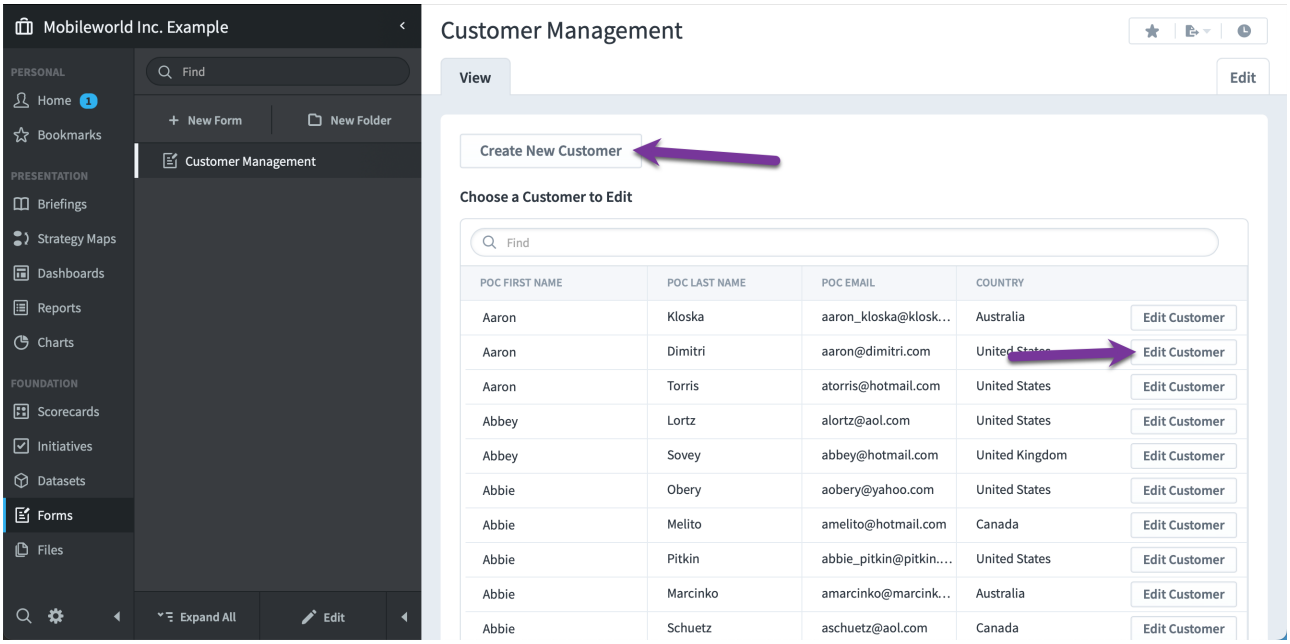
We'll also edit the button that's on the Customer Details page.



It's now going to go back to the "List All Customers" page after saving the record. We'll also change the button's name to simply "Save Customer" because this page is going to be used to both create and edit customer records.



Now when we go to the View tab, we can choose between two different types of actions. We can click on the "Create New Customer" button, which takes us to the "Customer Details" page to create a new record. Or, we can click on a record's "Edit Customer" button. This also takes us to the "Customer Details" page, but we'll be editing the existing record.



Regardless of whether you're adding or editing a record, the form will go back to the "List All Customers" starting page when we click the "Save Customer" button.

Page display actions

You can choose to run actions whenever a page is first displayed. See the Form Actions, Variables, and Logic article for more information.

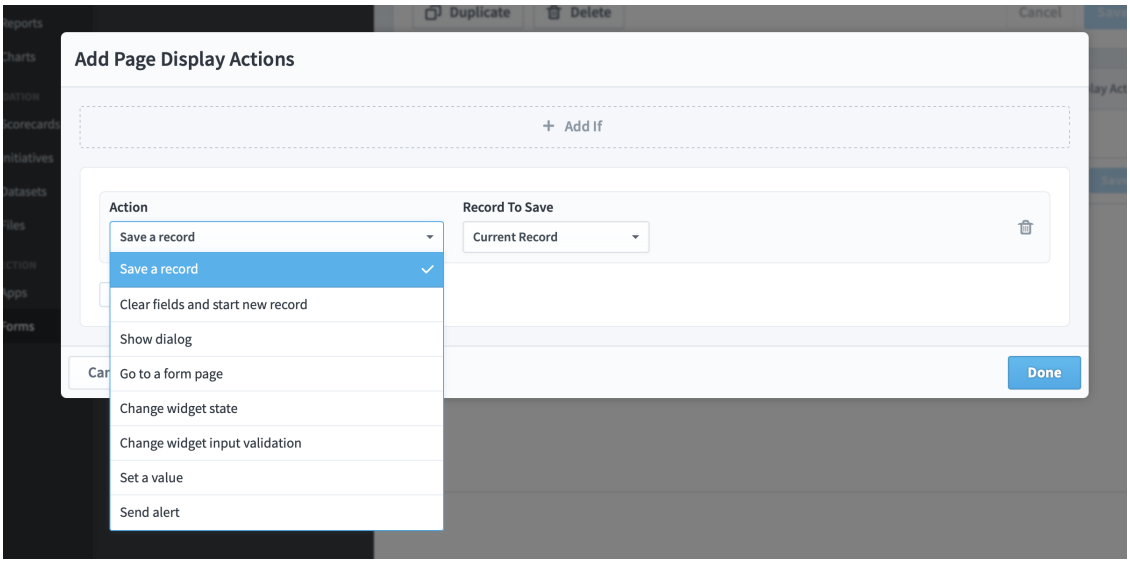
Form Actions, Variables, and Logic

Form actions

Action types

Forms can do the following actions, many of which are described in detail below:

- Save a record
- Clear fields and start a new record
- Show dialog
- Go to a form page
- Change widget state
- Change widget input validation
- Set a value
- Send alert



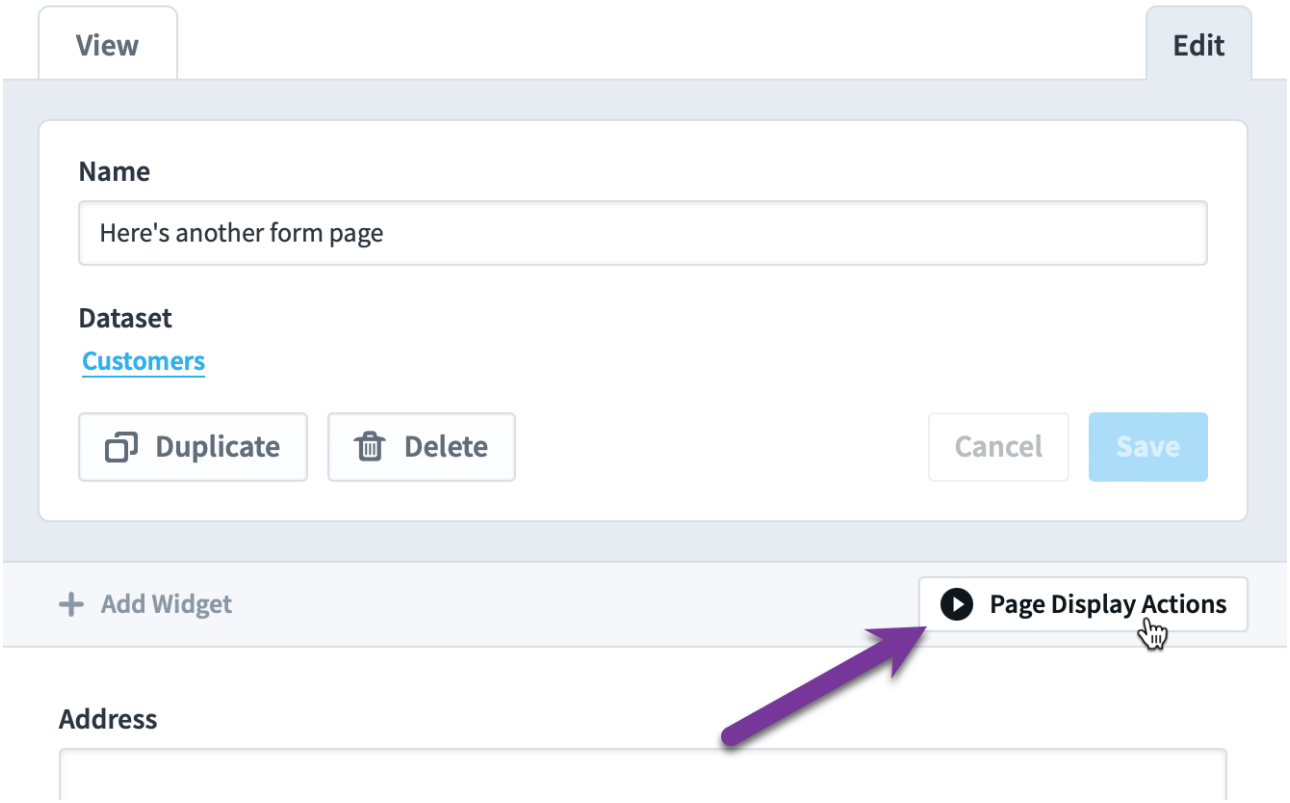
Firing actions

Actions are fired from a variety of user interactions:

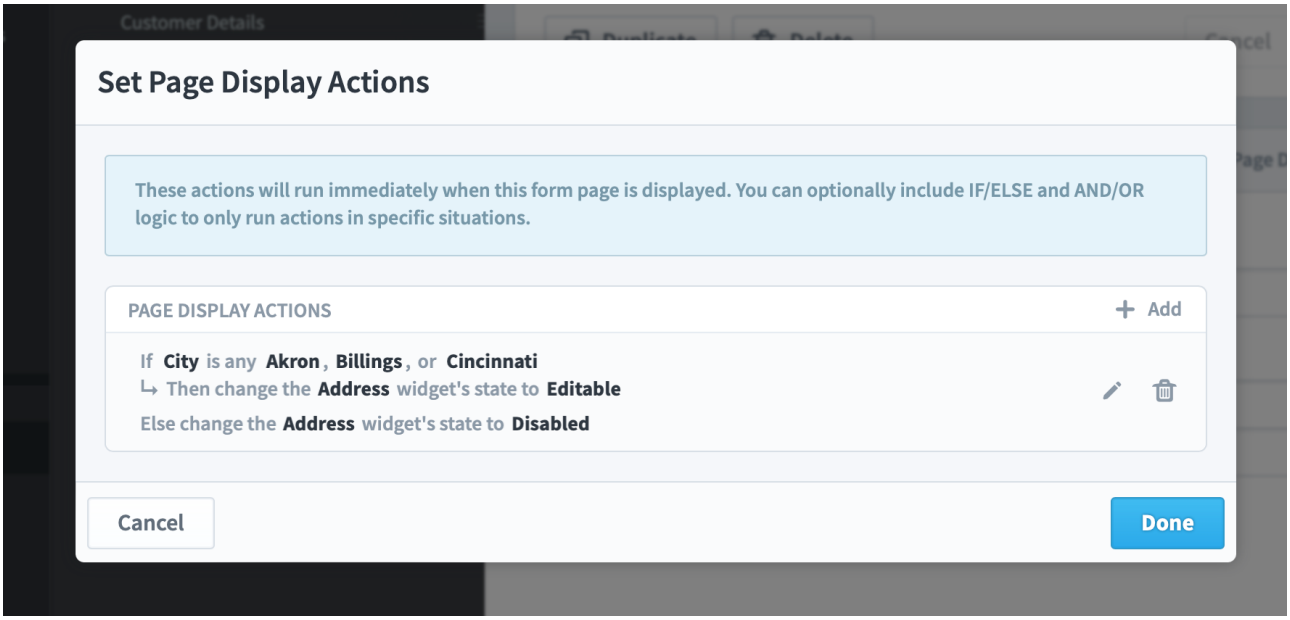
- Button click
- Single field widget value change

- Page or Dialog display
- Record list action button
- Dialog continue action

For example, you can choose to run actions whenever a page is first displayed. To do this, click the page's "Page Display Actions" button.



Page display actions are great for setting a widget's initial state or input validation. In this example we're setting the Address field to either Editable or Disabled based on data that has been entered on a different page.

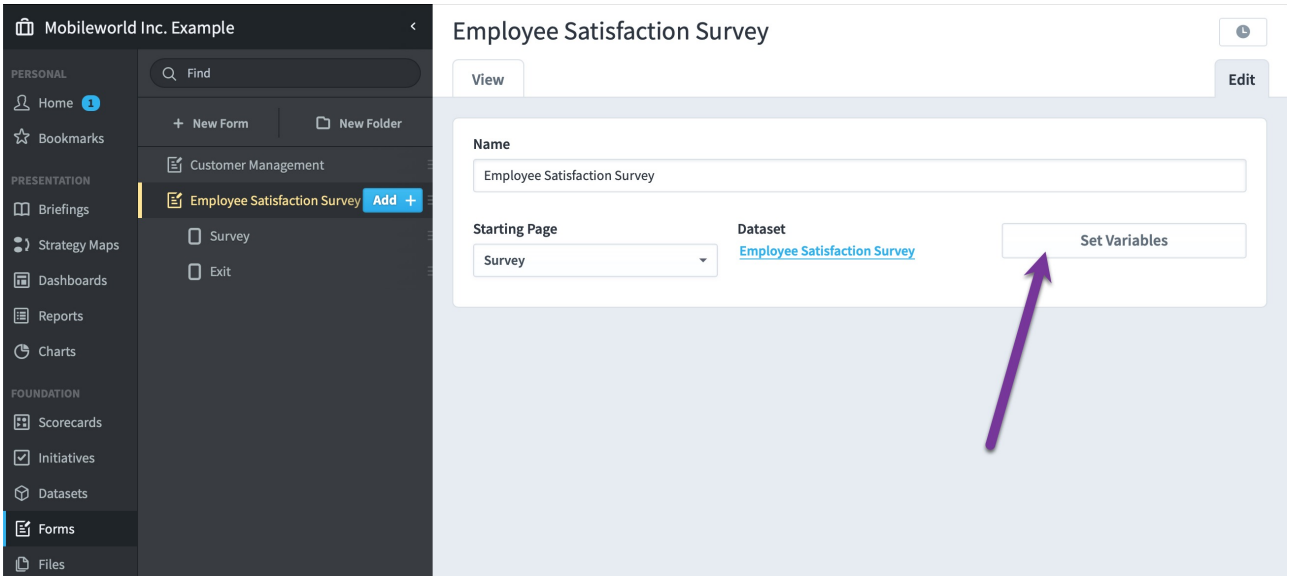


The "current record"

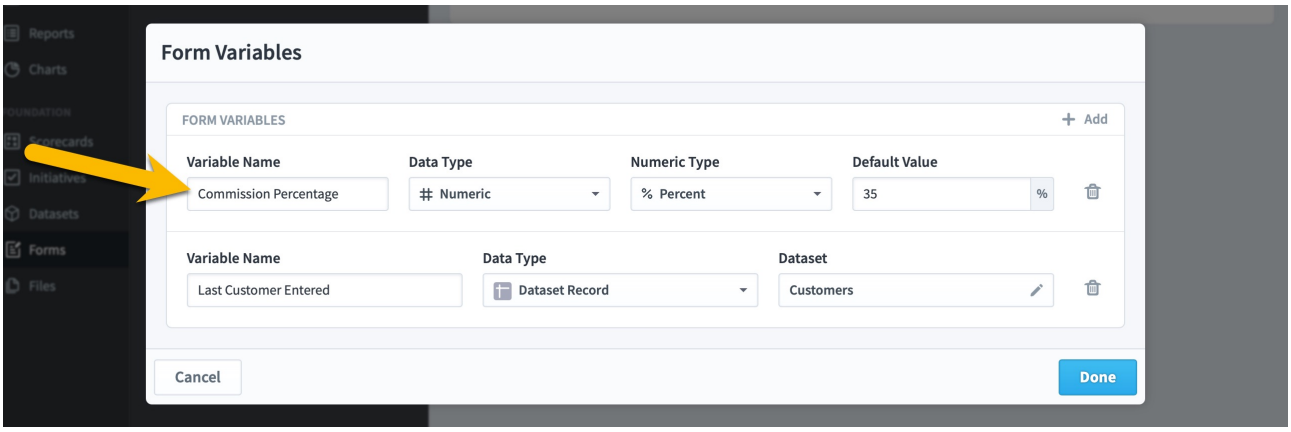
Every form has a concept of a "current record". This is the main dataset record that the form is working with. For simple surveys, each question fills in a field for the "current record." Forms that edit records often start with a record list widget that lists many records from a dataset. When you click on a record to go to another page to edit it, that action sets the "current record" to be the record that you chose. For more information see the Overview of Forms article.

Form variables

Forms can use temporary variables in addition to "current record" fields. These variables maintain their values while the form is being used and enable complex workflows without requiring temporary dataset fields. Variables are created through the "Set Variables" button when editing a form.

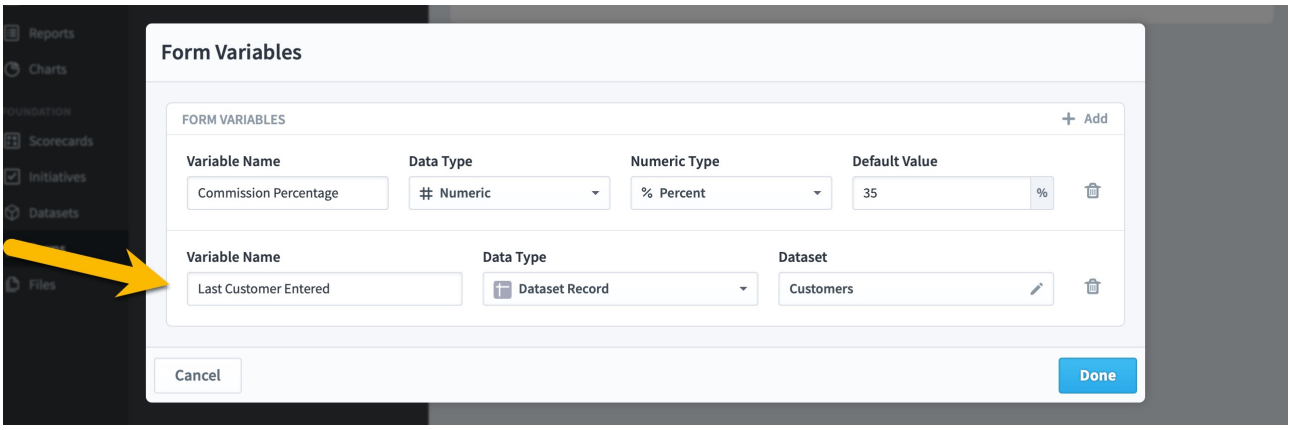


Like dataset fields, each form variable has a name and data type information. Unlike dataset fields, form variables have optional default values. For example, a "Commission Percentage" variable with a default of 35% can be referenced in equations throughout a form without needing to be its own dataset field. When form actions update this variable, all references to it automatically reflect the new value.

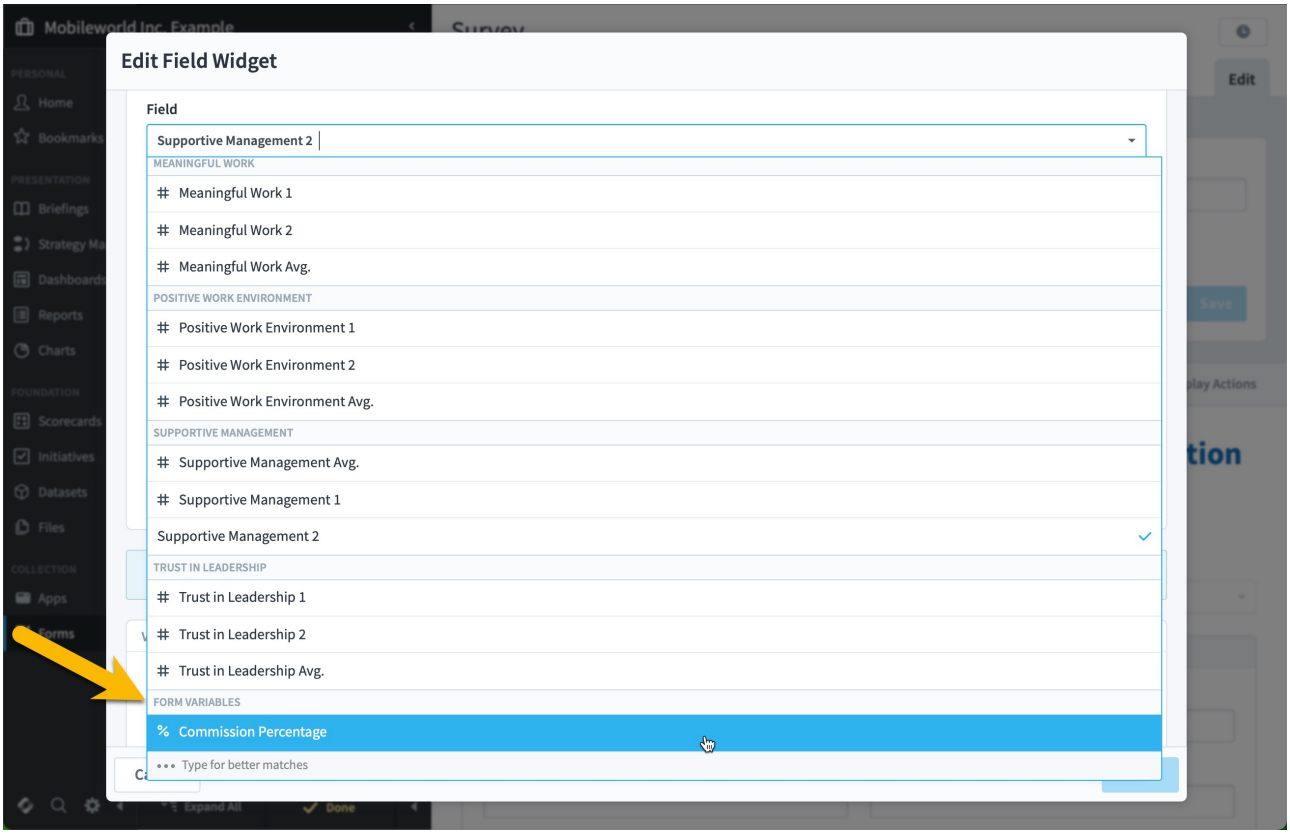


The Dataset Record type is particularly powerful—it stores an entire record from any dataset, not just a single field value. This enables forms to load, modify, and save complete records behind the scenes without displaying them to users.

For example, a "Last Customer Entered" variable can streamline data entry in a New Customer form. When someone creates a new customer, an action saves both the record and stores it in this variable. The next time the form opens, it checks if this variable contains data and pre-fills relevant fields (like country and customer service rep) from the previous entry. Since form variables persist throughout the user's session, this information remains available even when navigating between different records.

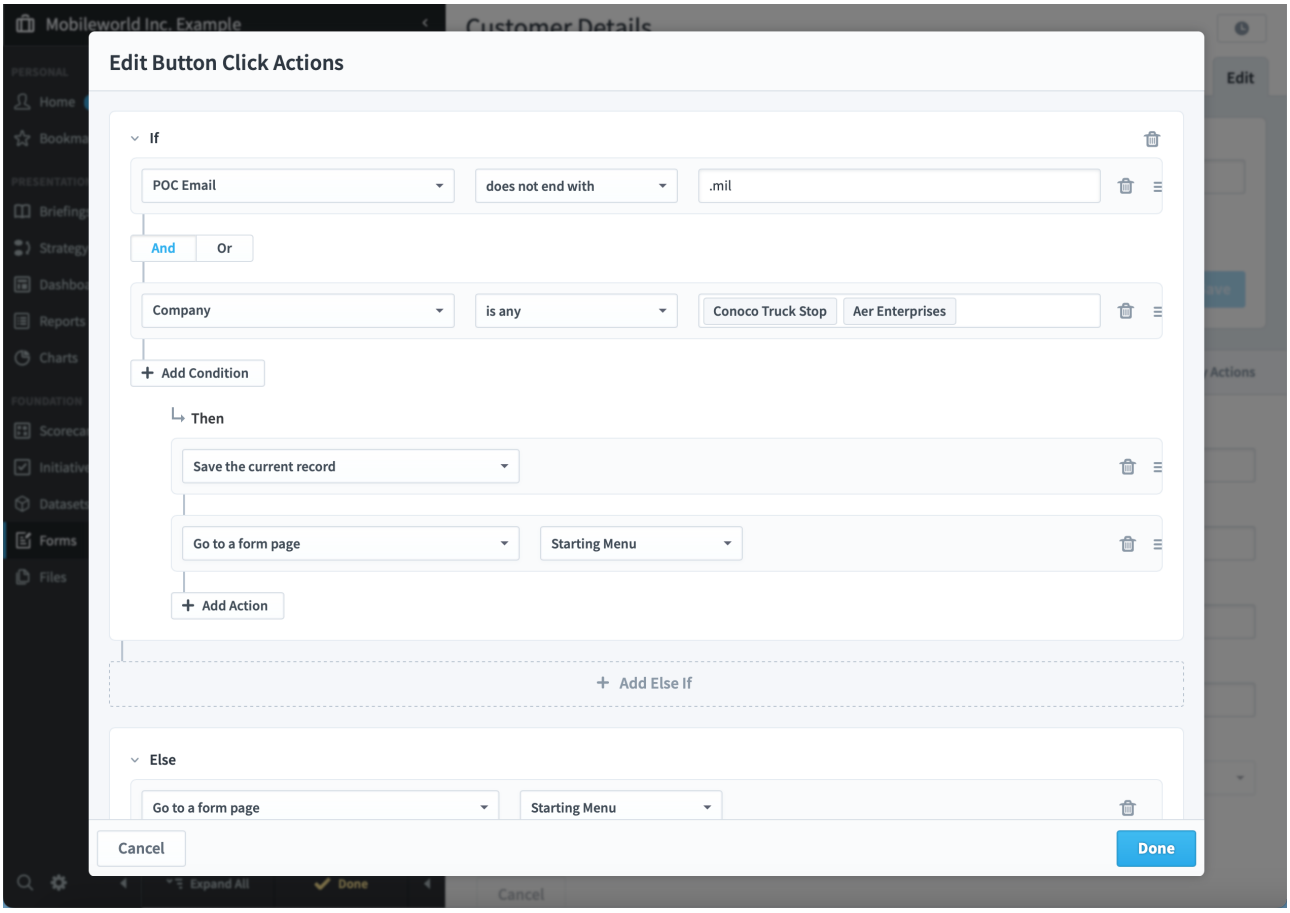


Using form variables is simple because you can reference form variables anywhere you can reference form fields. They appear in a dedicated section at the bottom of field selection dropdowns throughout the form in widgets, conditions, equations, and actions. They provide temporary storage for UI controls, intermediate calculations, and data that doesn't need to be saved to the dataset.



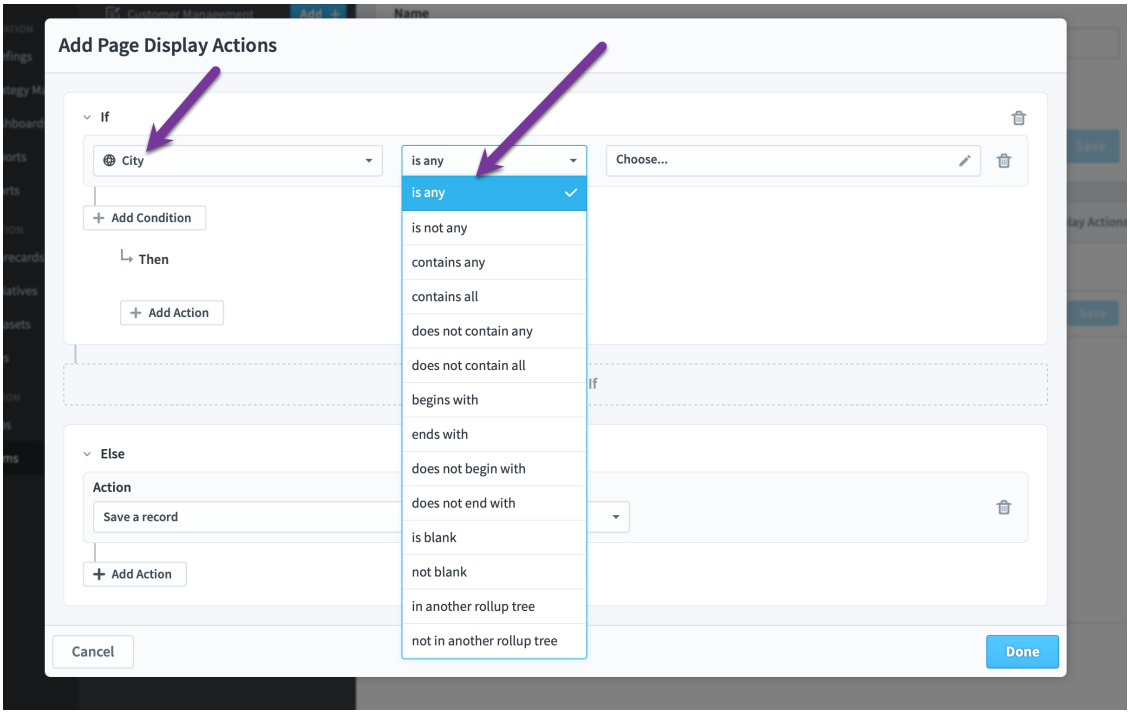
Form logic

Clicking a button or changing a single field widget value doesn't have to fire the same action every time a user interacts with the form. You can develop complex AND/OR and IF/ELSE logic to do different actions based on the form's data or what the user does as they're filling out the form. This allows you to build forms that change and update as users interact with them.

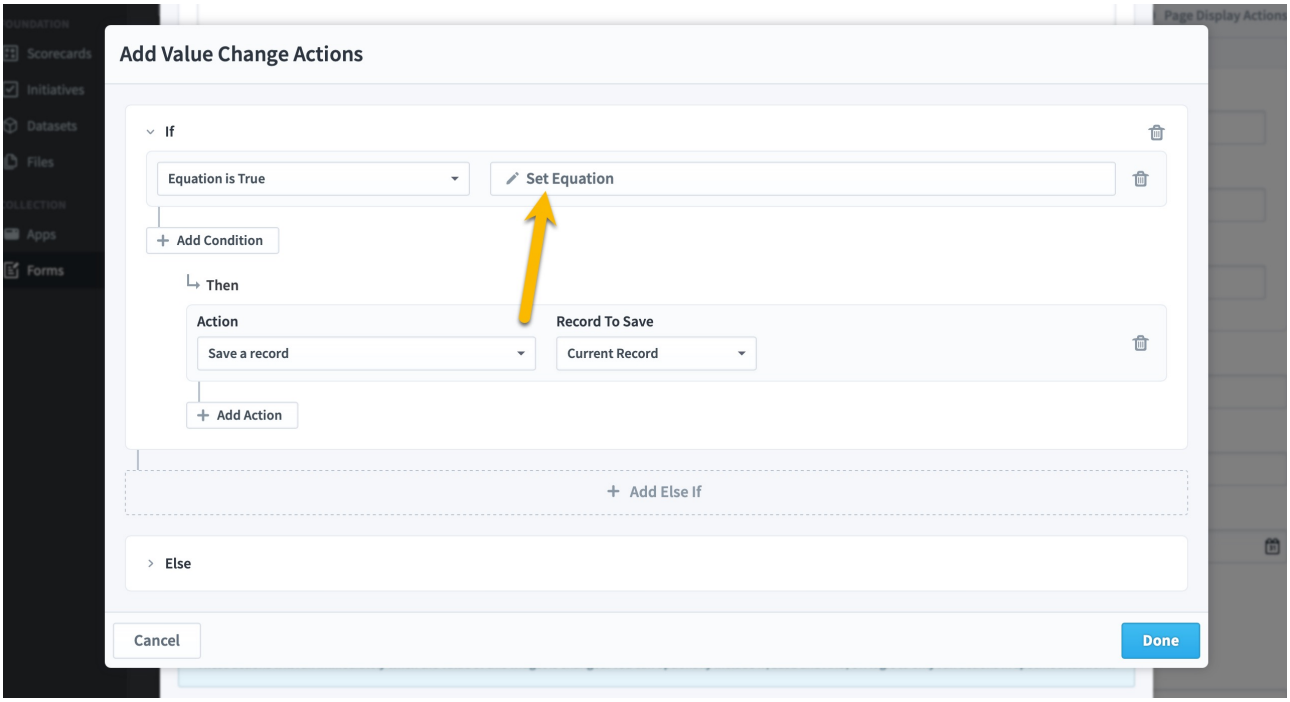


IF statements

The most common IF statement is one that references a single "current value" field or form variable. The types of comparisons you can make depend on the data type of the value you choose, but here are some examples.

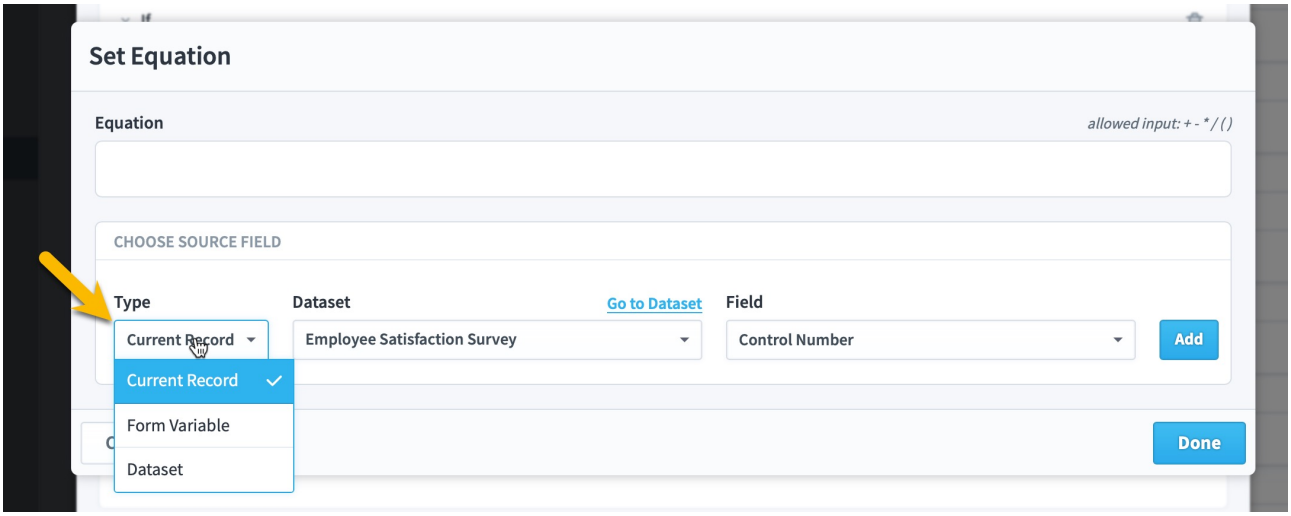


Rather than a single field, you can also choose the "Equation is True" condition, enabling complex logic involving multiple fields.

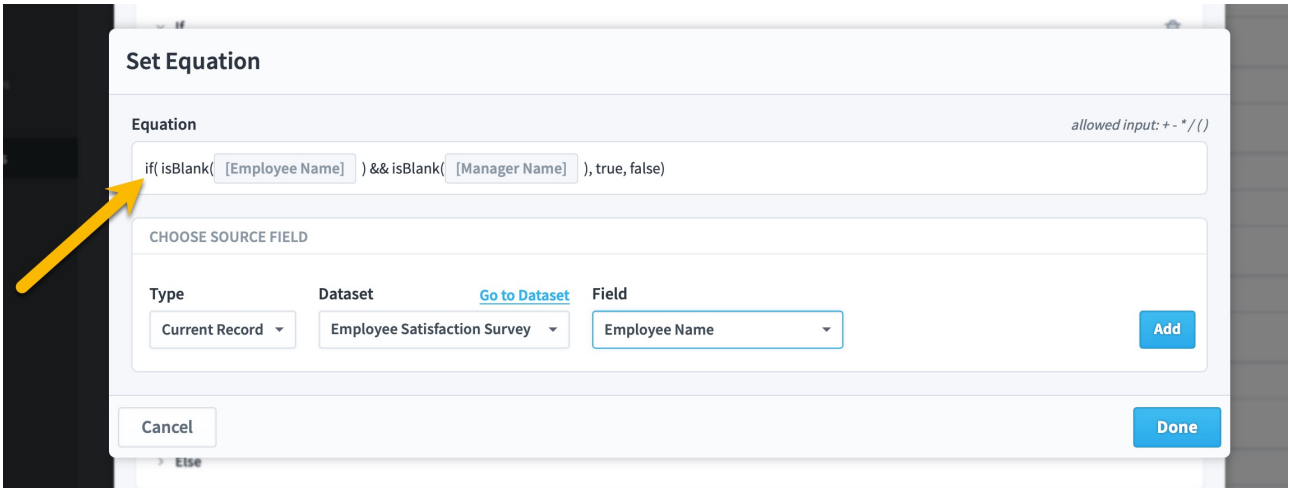


When you click "Set Equation," the equation builder opens in a second-level dialog. You can build equations that include data from these three "type" options:

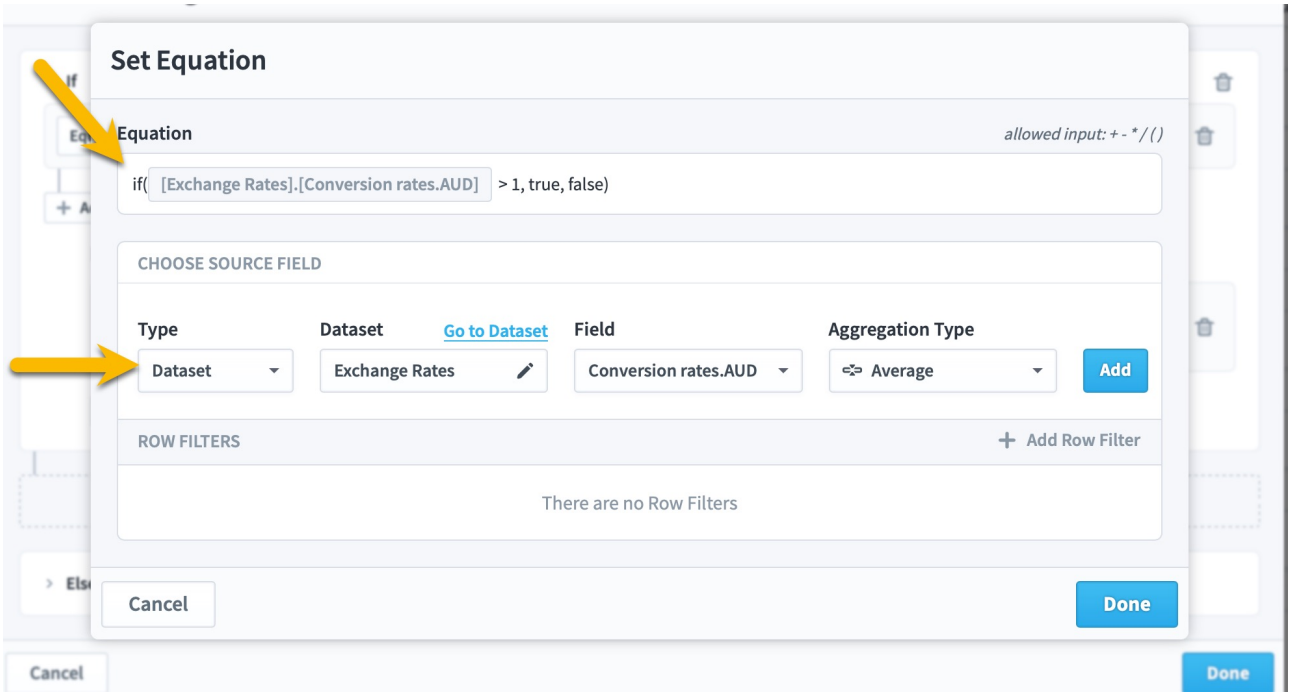
- **Current Record** (default) - allows selecting fields from the form's dataset or any linked dataset
- **Form Variable** - lists available form variables
- **Dataset** - provides aggregated data from any dataset



Equations in IF statements allow you to create multi-field conditions like ensuring a Case Report Date comes after an Incident Date, or verifying that at least one checkbox from a group is selected. In this example we're checking to see if both the employee and manager names are blank.



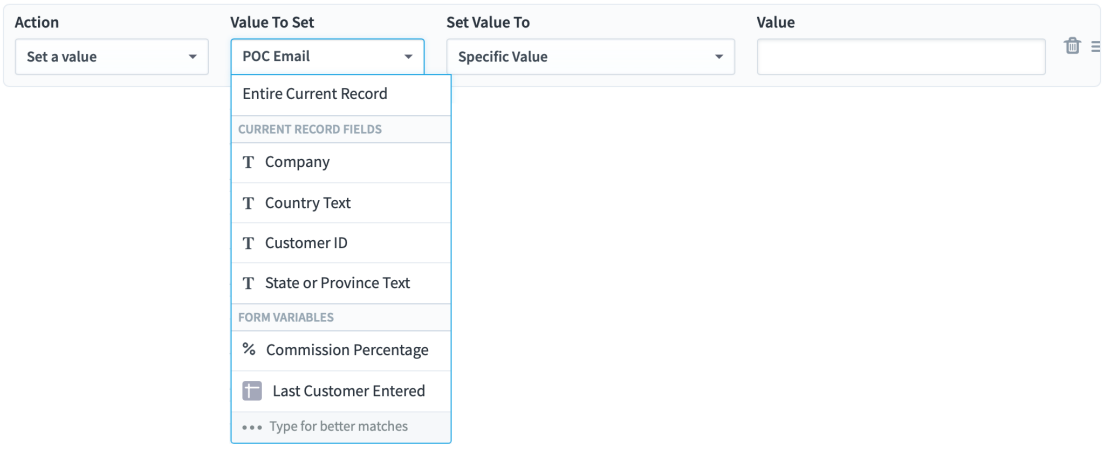
By referencing values from other datasets, forms can adapt their behavior based on external data - for example, displaying different content based on whether your website status is "up" or "down" (stored in another dataset), or limiting form submissions to the first 50 entries by checking a count from the dataset. In this example we're looking up the current Australian to US exchange rate from another dataset and changing form behavior based on whether or not it's higher than 1.



"Set a value" action

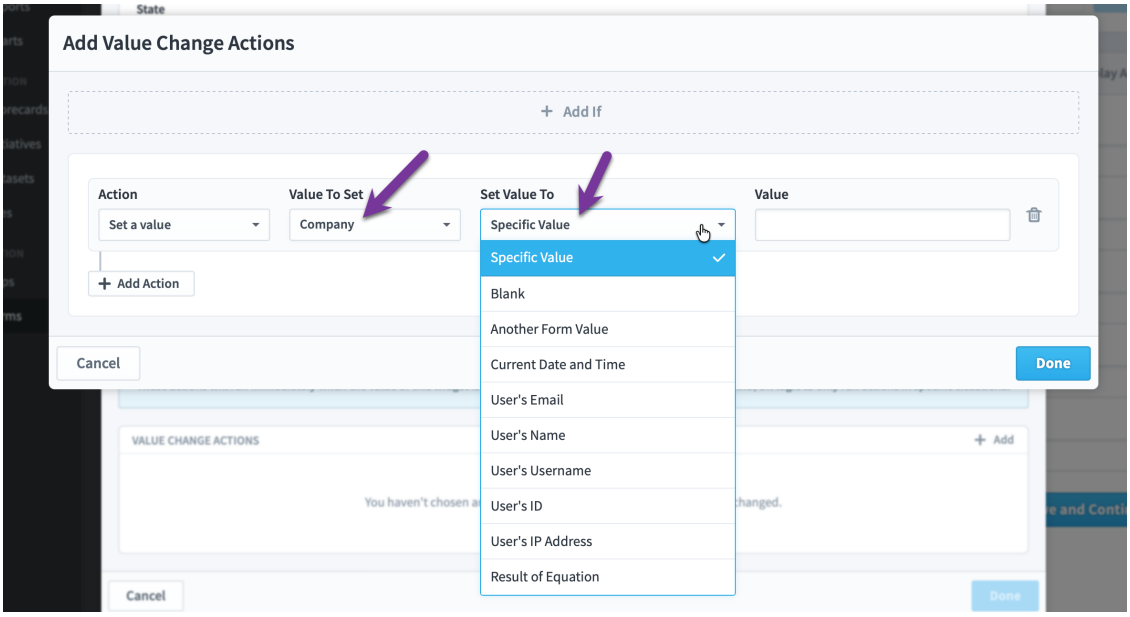
The "Set a value" action supports setting:

- Any current record field
- Any form variable
- The entire current record

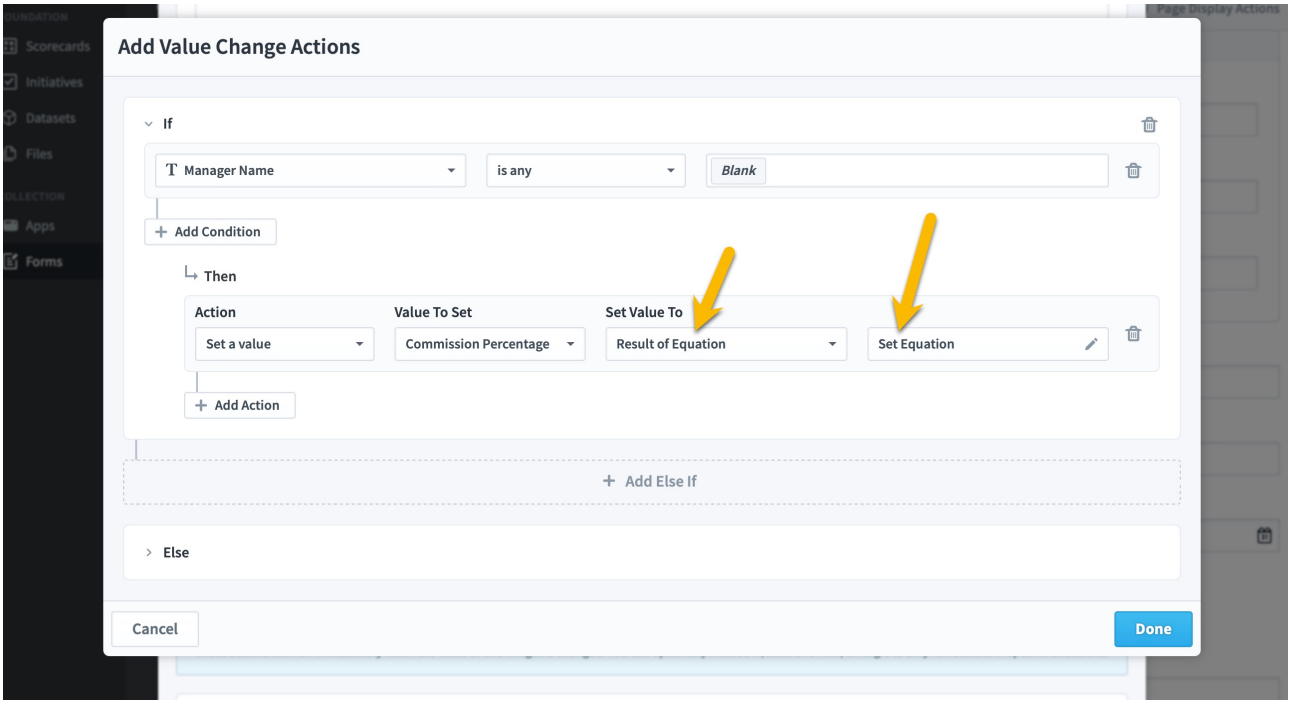


Setting single values

When setting a current record field or standard form variable, there are a variety of things you can set the value to like blank, a specific value you type in, another form value, the current date/time, or various pieces of information about the current user.



You can also choose to set a field to "Result of Equation".

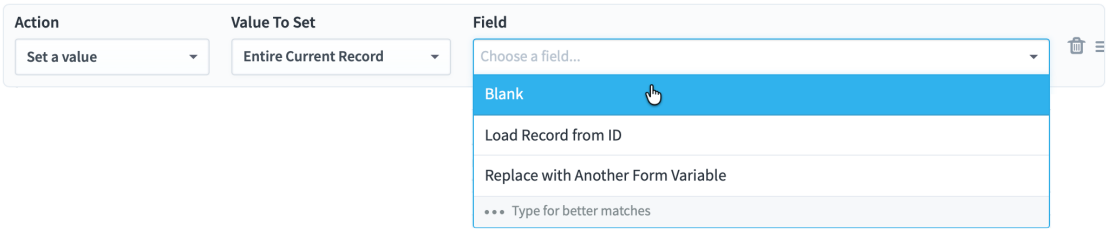


The equation builder for setting a value is exactly the same as "Equation is True" IF statements, allowing you to reference the current record, form variables, or aggregated dataset data. This functionality makes it possible to generate record IDs by combining fields or incrementing existing IDs, calculate dates, auto-populate fields based on user permissions, or aggregate values that can't be handled by standard calculated fields.

Setting entire records

When you choose to set either the "Entire Current Record" or to set Dataset Record a form variable, there are three different options to choose from:

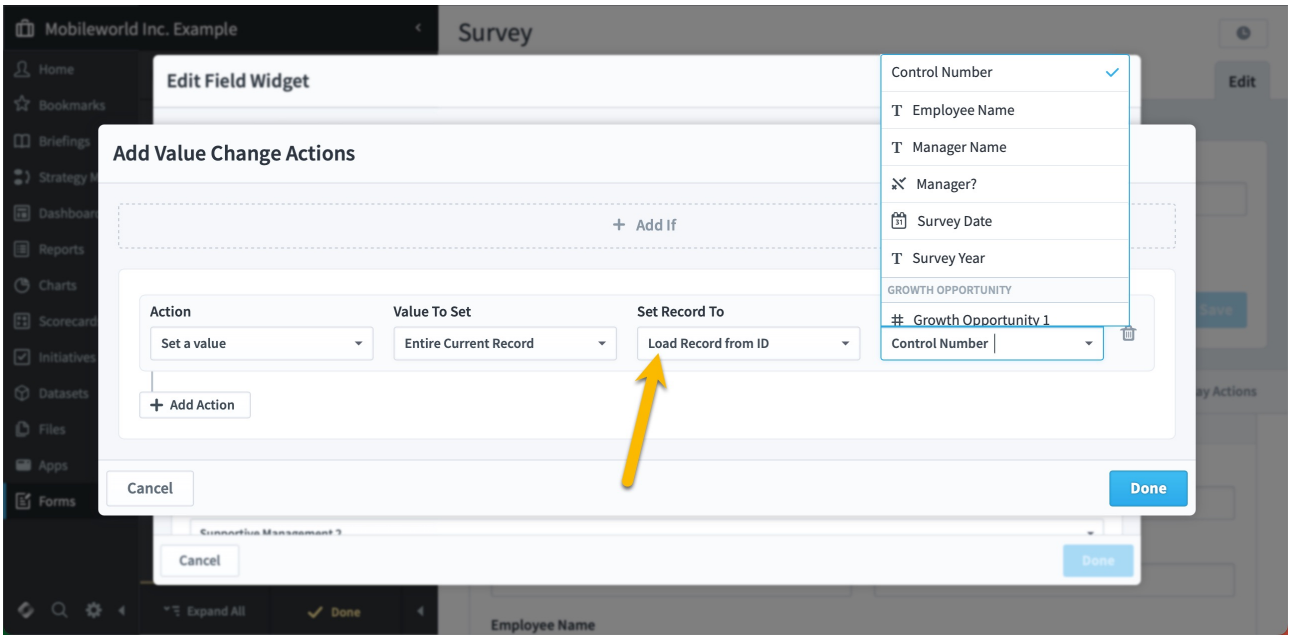
- Blank
- Load Record from ID
- Replace with Another Form Variable



Choosing "Replace with Another Form Variable" allows you to copy all field values between Dataset Record form variables or the "current record". The software ensures type compatibility - Dataset Record variables can only be replaced with records from the same dataset.

Loading records from a dataset

When you choose to "Load Record from ID," you choose which field or variable contains the ID to use for the lookup.



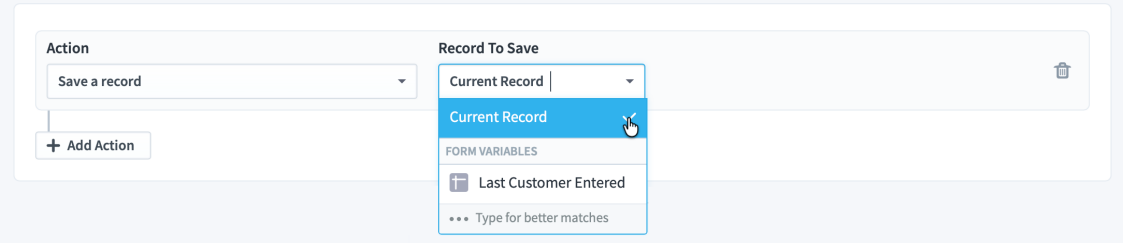
You can use any value as the ID to look up, but it's important to note that it retrieves the matching record **by its Record ID only**. That's because we need a single record here, and the record ID is the only field guaranteed to be unique. The

software will just take whatever value you give it, and will try to find a record with that ID. If no matching record is found, the record or variable is set to blank.

Loading the current record or a dataset record variable from ID enables powerful scenarios like preventing duplicate form submissions, or dynamically loading related records based on form input.

"Save a record" action

The "Save a record" action allows you to save either the current record or any Dataset Record variable. This enables creating and saving records in other datasets behind the scenes - perfect for audit trails or multi-dataset workflows.



Example Form Workflows

Auto-loading user records

Forms can default to showing a user's own record without requiring selection. For example, an employee info form can automatically load and display the current user's employee record when they visit the form.

Preventing duplicate submissions

Combine form variables, Load from ID, and conditional logic to ensure users can only submit one record per time period:

1. On form load, use Load from ID to check for an existing record matching the current user

2. If found, load that record for editing instead of creating a new one
3. Use equation-based conditions to validate that dates fall within allowed ranges

Creating audit trails

Use Dataset Record variables and the Save a record action to maintain audit logs that capture form activity:

1. Create a Dataset Record variable linked to your audit dataset
2. Use "Set a value" actions to populate audit fields as the form progresses - timestamp with "Current Date", user with "Current User", and record ID with the form's record ID
3. Use equations to dynamically build the action description based on form values - for example, "Updated customer [Customer Name] address from [Original City] to [New City]"
4. When saving the main record, use a second "Save a record" action to save the populated audit record to the audit dataset
5. The audit dataset now contains a detailed log of what changed, when, and who made the change

Dataset Record variables enable forms to manipulate complete records from any dataset without showing them to users. Unlike individual field variables, these store entire records with all their data, enabling sophisticated workflows that operate behind the scenes.

Dataset Record variables enable multi-dataset workflows, where a single form submission can create or update records across multiple datasets simultaneously, and record templating, where forms can load existing records as starting points for new ones.

Complex data validation

Leverage equations in IF statements for multi-field validation:

1. Check that related date fields are in the correct sequence
2. Ensure at least one option from a group of checkboxes is selected
3. Validate that numeric fields sum to an acceptable total
4. Display specific error messages in dialogs that remain open until issues are resolved

Dynamic form behavior based on permissions

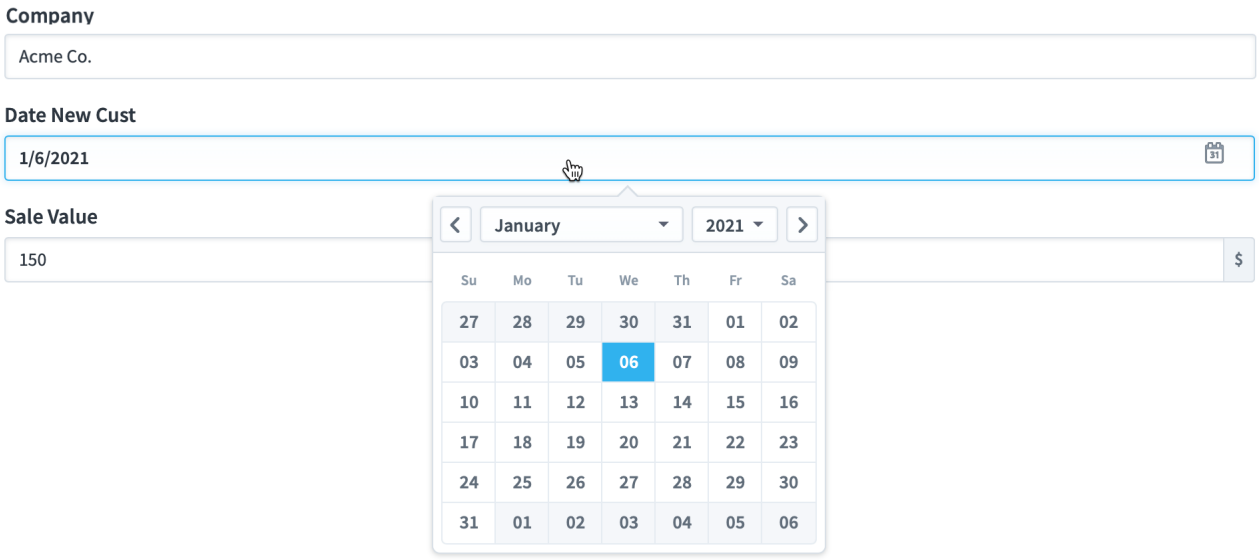
Combine permission filtering with form logic:

1. Rollup fields automatically show only the portions of the hierarchy users can access
2. When users have permission to only one item, it's pre-selected
3. Form behavior adapts based on whether users have view-only or edit permissions
4. Dialogs open in appropriate modes based on user access levels

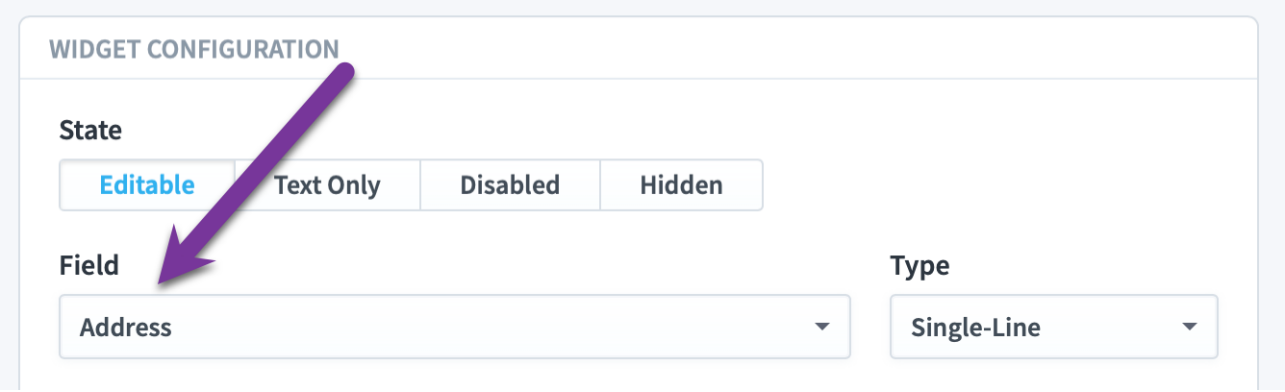
Single Field Widgets

Overview

The most common form widget is the Single Field widget. This allows you to enter the value for a single field, with slightly different controls based on that field's data type.

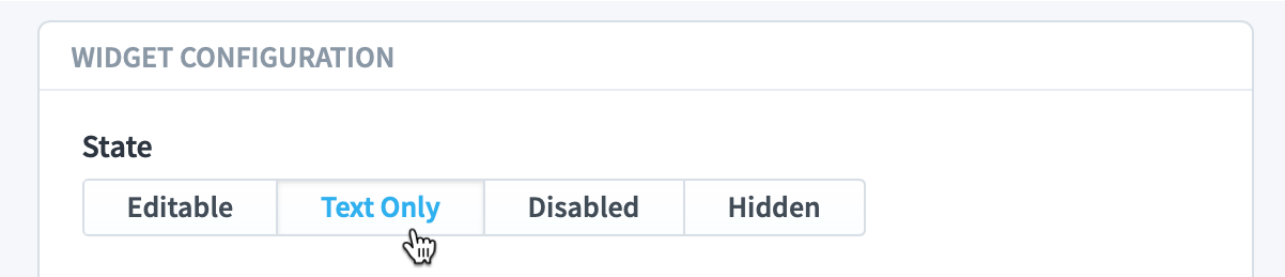


You can change the field used by the widget in the widget's Edit dialog.

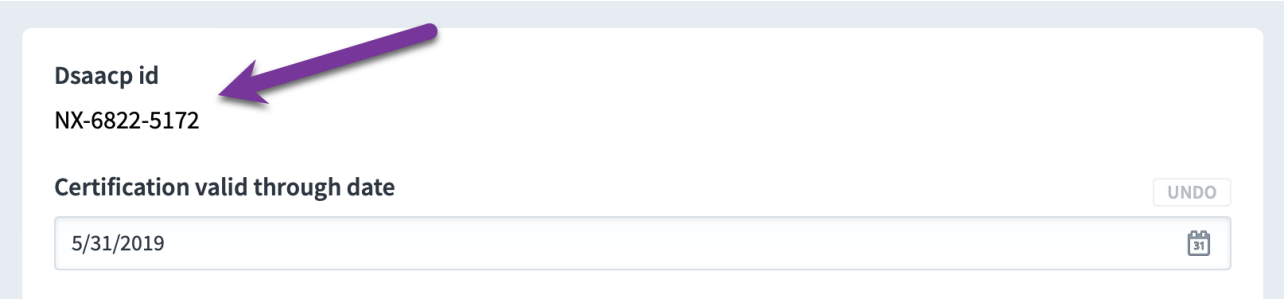


State

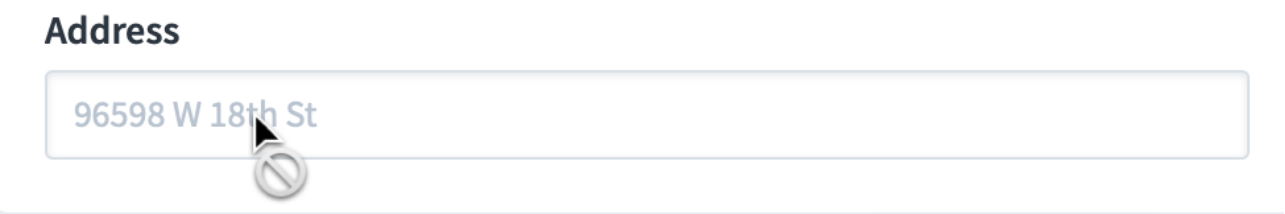
Most of the time you'll want single value widgets to be Editable. If we just want to show the value of the field for reference, however, you can change a single value widget's state to Text Only.



This is what a Text Only single value widget looks like when you're using a form.

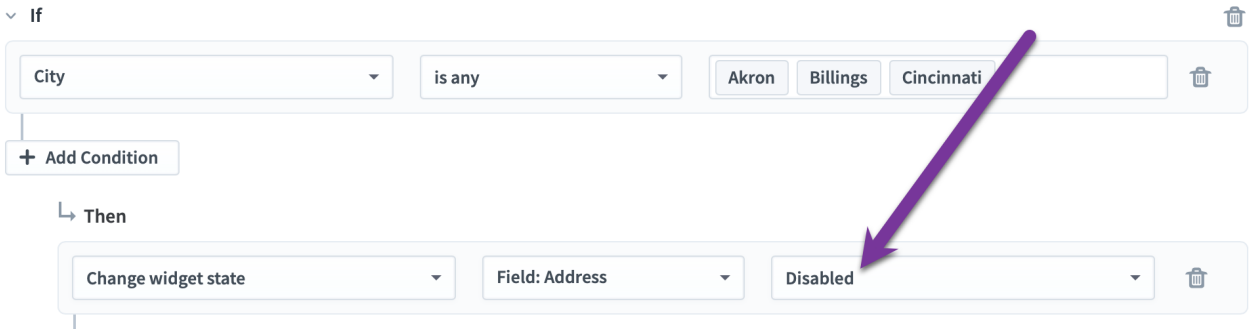


When the widget's state is Hidden it disappears from the form entirely. When it's Disabled it looks the same as Editable except it's grayed out and its value can't be changed.



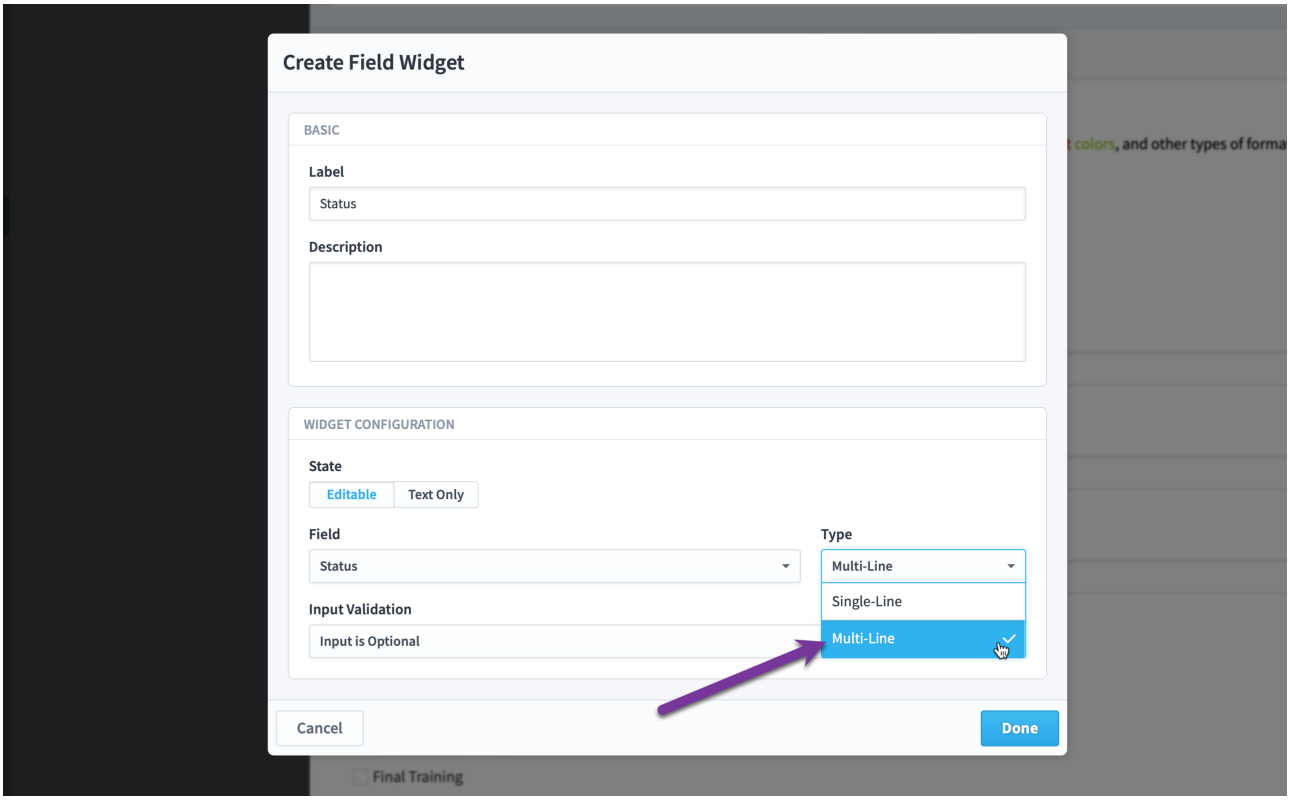
A widget's state, like many other of its properties, be changed with form actions so you can hide and show, or enable and disable widgets as users are filling out a

form.

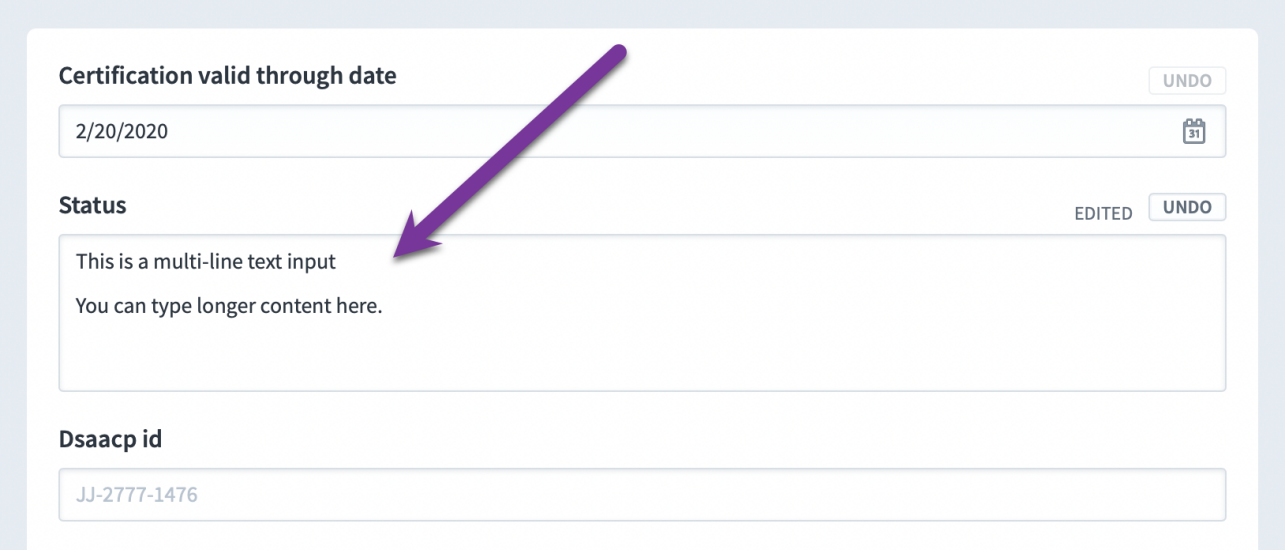


Type: Single-line or Multi-line

Single value widgets will often be Single-Line, but you can also change their Type to Multi-Line.



This allows forms to collect paragraph-stye text.

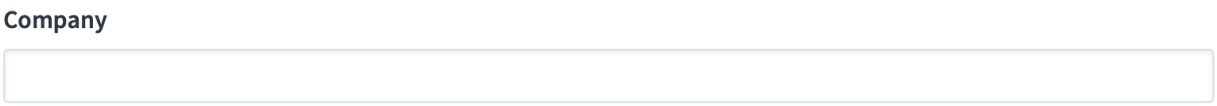


Values to show in Dropdown

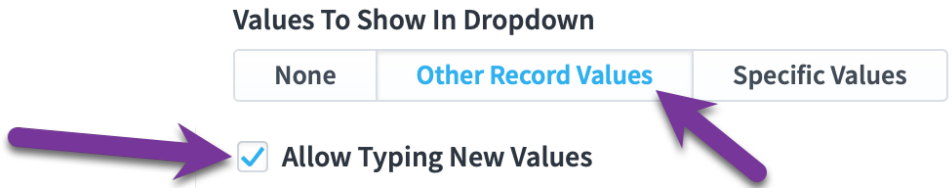
One of the most useful features of forms is the ability to make data entry easier. The default option for "Values to Show in Dropdown" is None.



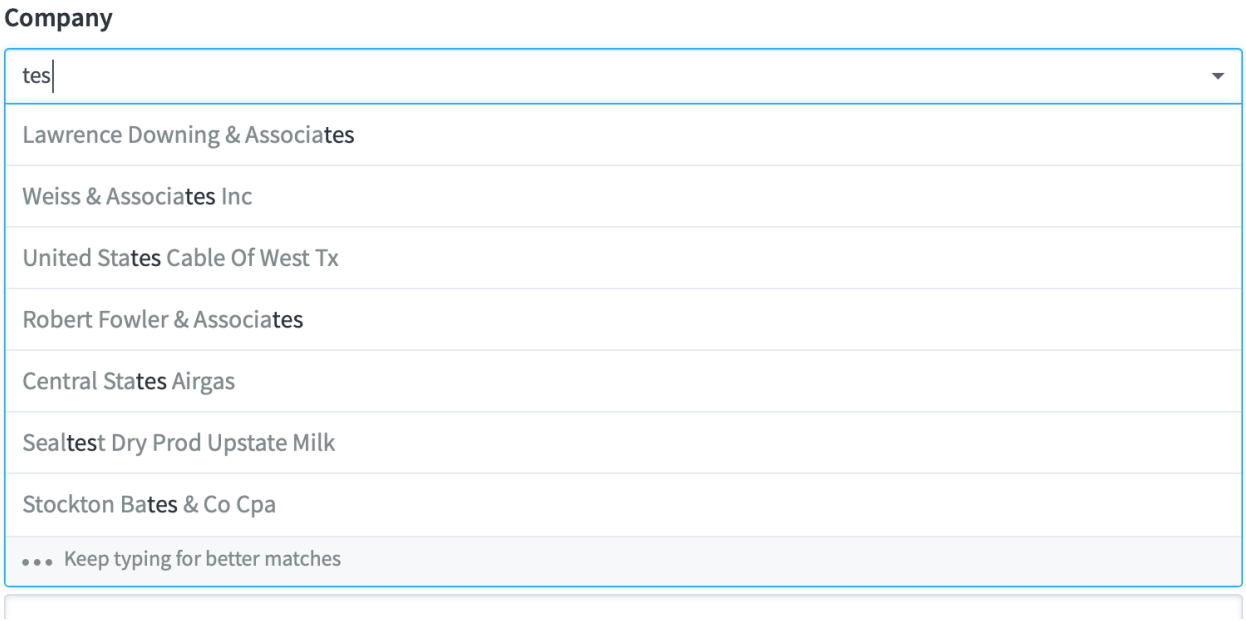
This allows the form's users to type any value they want into a field that looks like this.



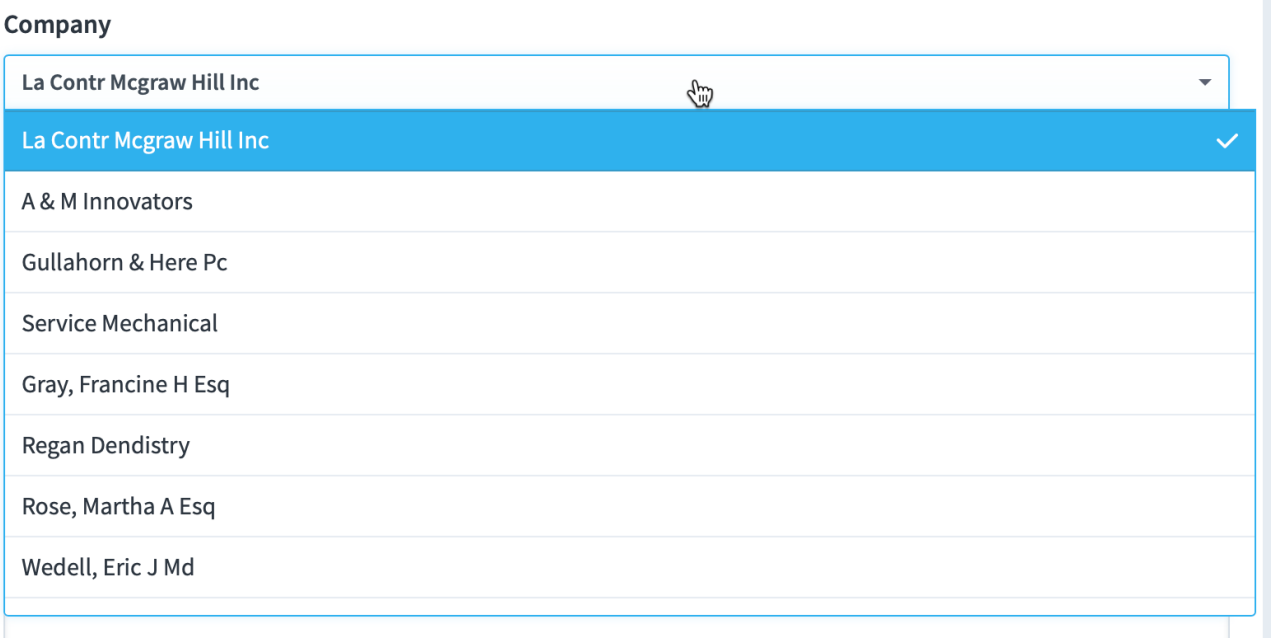
If we choose "Other Record Values", the "Allow Typing New Values" is checked by default.



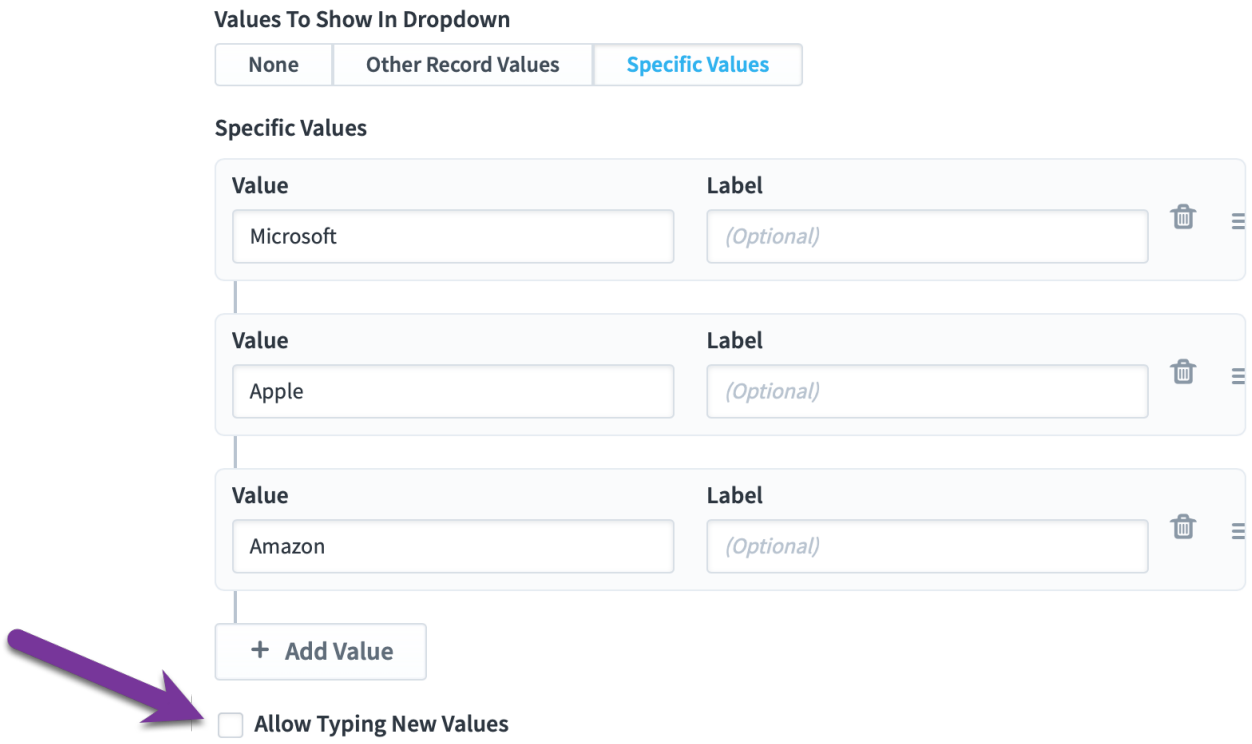
This allows users to type in any value as before, but it also suggests existing values in the dataset that match what they've typed. This can save a lot of time during data entry.



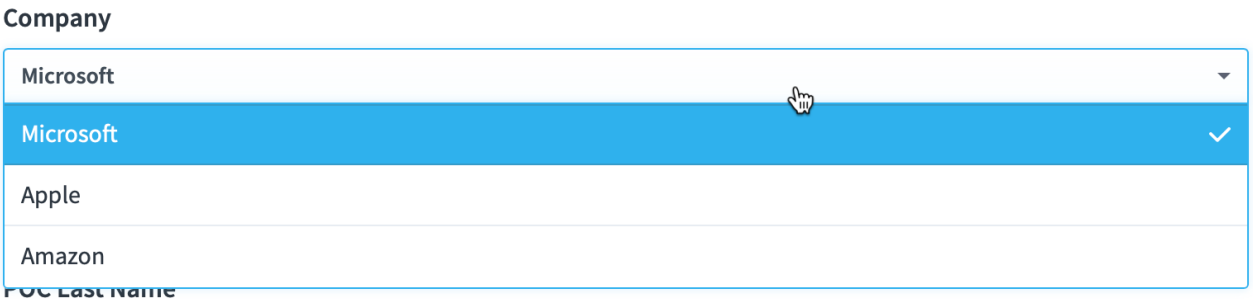
We can also uncheck "Allow Typing New Values" when showing "Other Record Values". Users will then see a simple dropdown list of options they can choose.



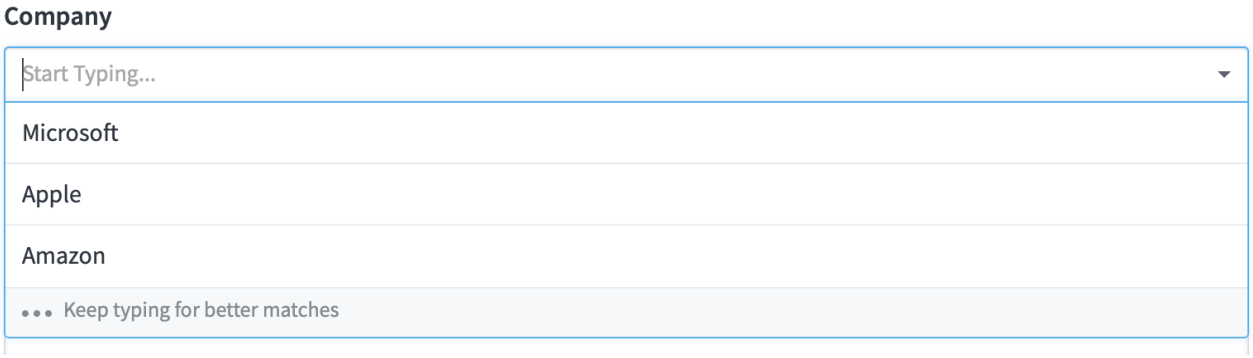
When you choose to show "Specific Values", the person building the form chooses ahead of time what values will appear. Here we've entered three specific companies that users can choose from, and "Allow Typing New Values" is unchecked.



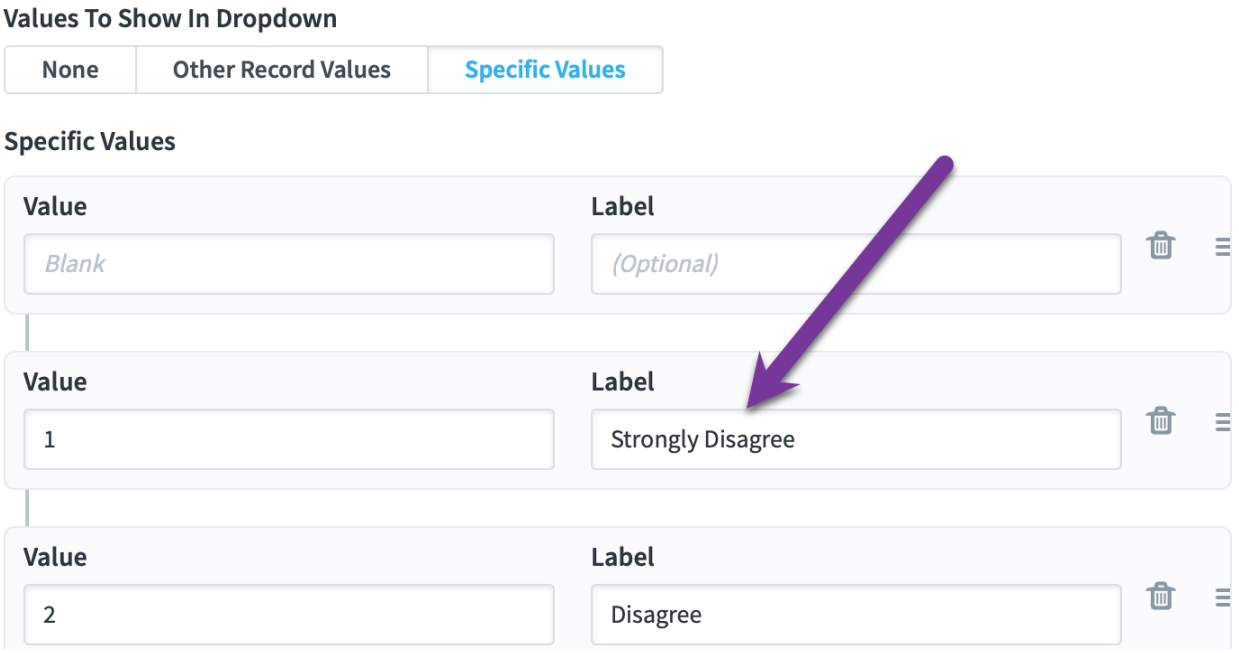
The form will show our three companies in a dropdown list.



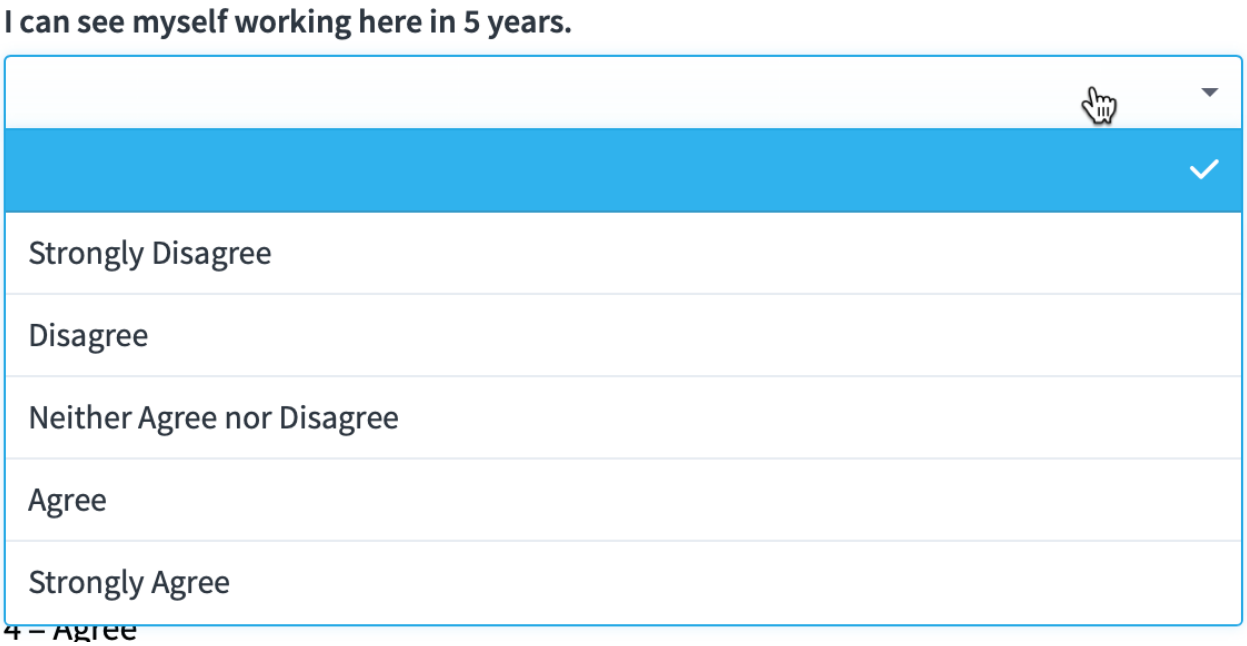
You can also check "Allow Typing New Values" when showing "Specific Values". This will suggest the three companies in a dropdown list, but also allow users to type in something else.



Specific value labels are helpful for showing text labels on the forms that correspond to underlying numerical values.



This allows people to choose one value in a dropdown while another value is saved in the dataset.



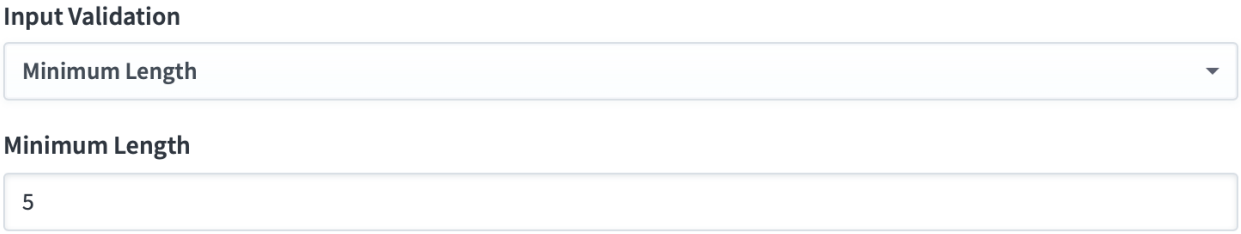
4 – Agree

Input Validation

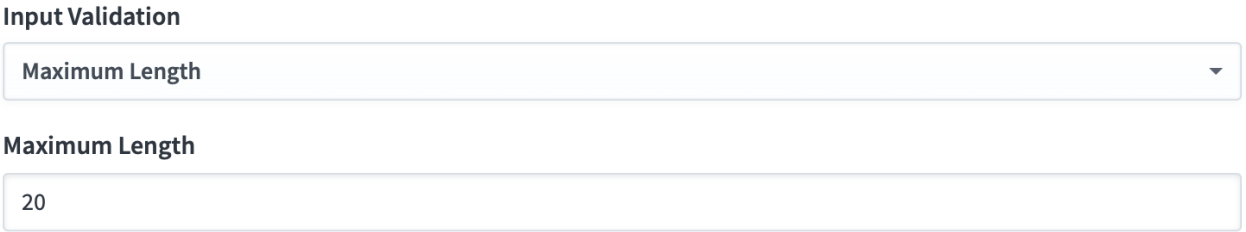
Another important feature of forms single value widgets is input validation. By default, input is optional. You can also set validation to Input is Required. This means users will have to enter some value for the field.



You can set a minimum length of content. Here we're saying users must type at least 5 characters.



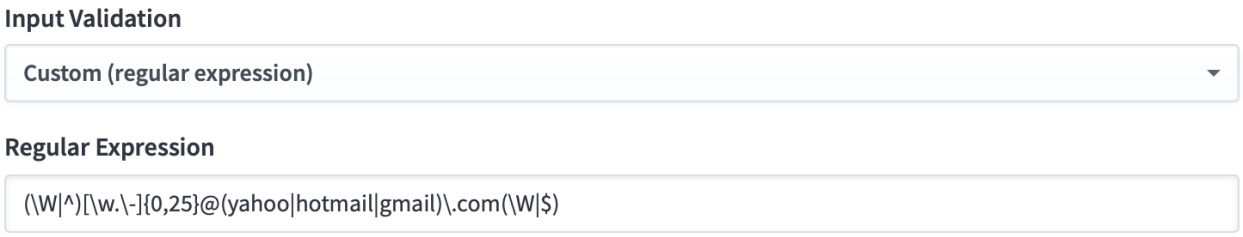
You can set a maximum length. Here we're saying users must type 20 or fewer characters.



You can also set both minimum and maximum lengths.



Finally, you can choose custom form validation and enter a regular expression. In this example we're requiring the input to match any email address from the domains yahoo.com, hotmail.com, and gmail.com.



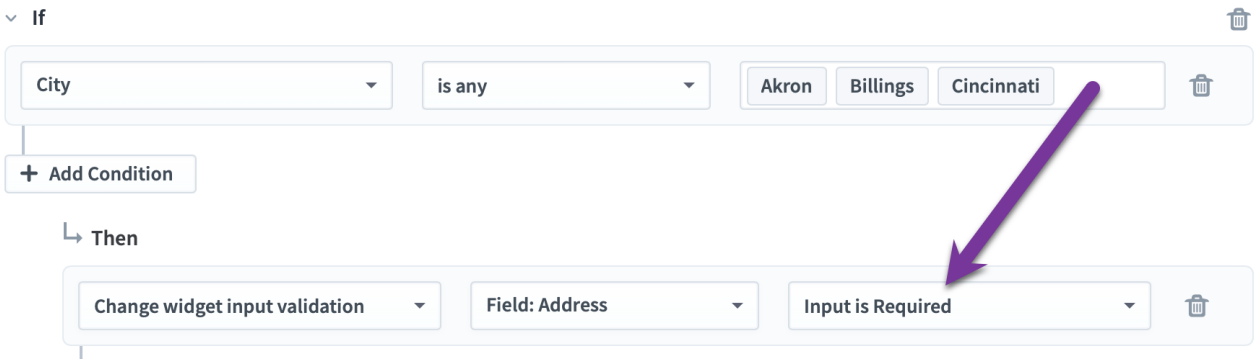
This regular expression is for US social security numbers that accepts either a format of 123-45-6789 or 123456789.

```
^(?:\d{3}-\d{2}-\d{4}|\d{9})$
```

There are resources across the web to help you learn how to make a regular expression to match the text you want. We've found that ChatGPT is amazing at building the perfect regular expression. There are also online tools like RegExr that are really handy.

A widget's input validation, like many other of its properties, be changed with form actions so you can, for example, make a field required or optional as users are

filling out a form.

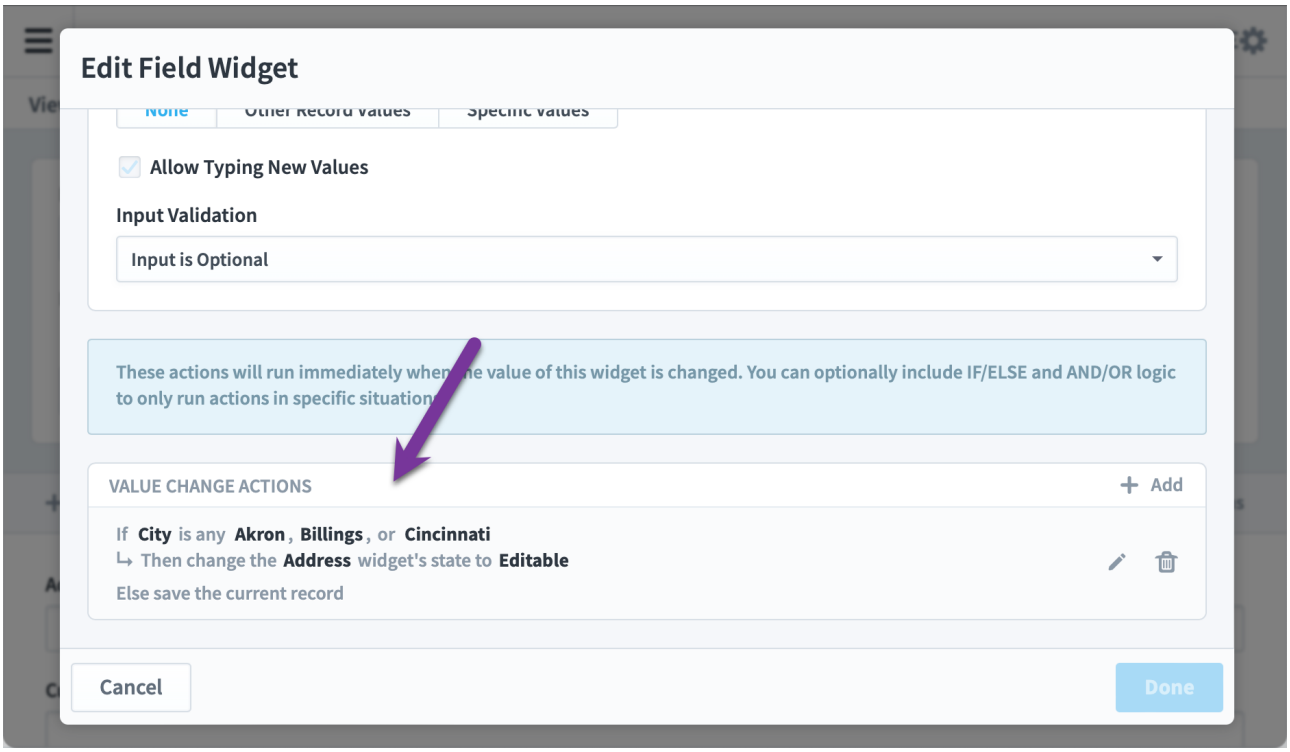


Value change actions

You can choose to run one or more of the following actions whenever a user enters something new in a single field widget:

- Save the current record
- Clear fields and start a new record
- Go to a form page
- Change widget state
- Change widget input validation

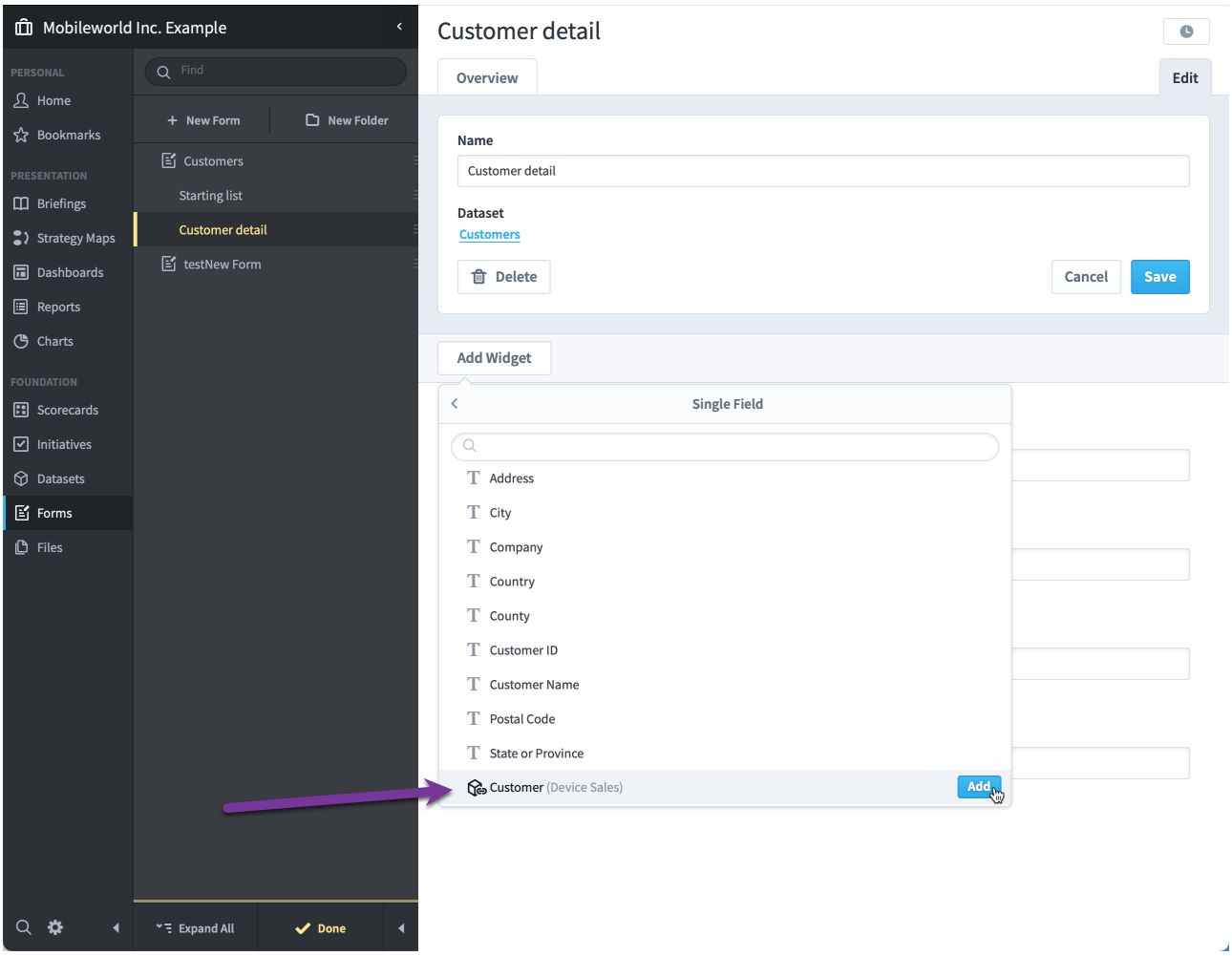
You can even develop complex AND/OR and IF/ELSE logic to do different actions based on the form's data or what the form user does as they're filling out the form.



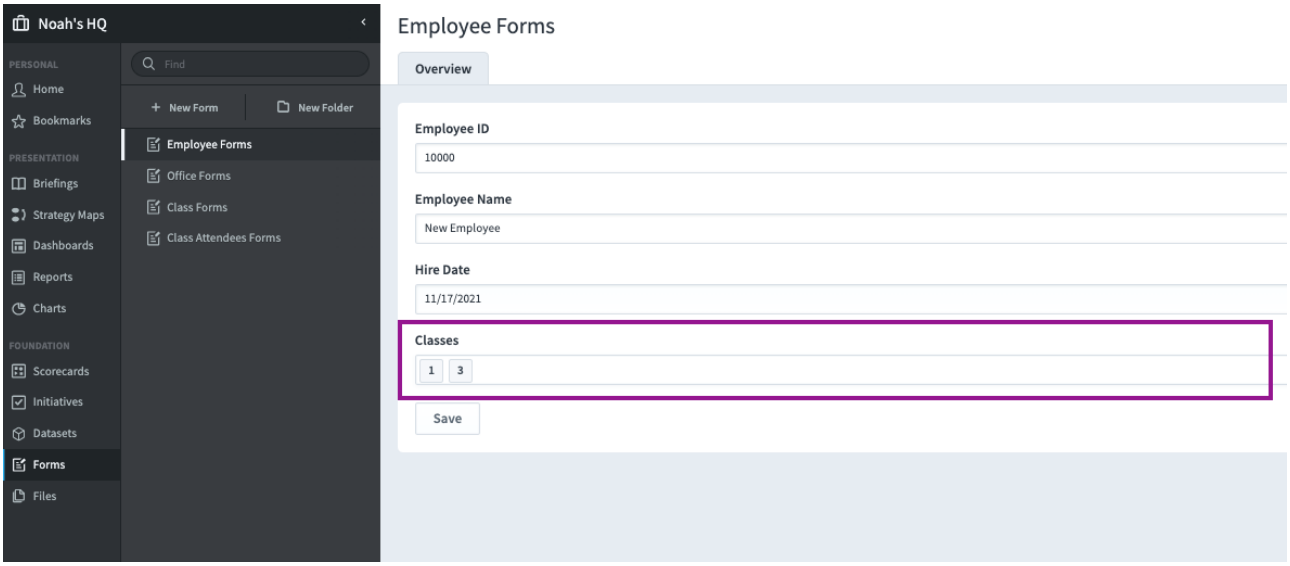
This allows you to build forms that change and update as users interact with them.

Linked fields

Single value widgets can behave a little differently when you choose a field from a linked dataset. In this example we're creating a single value widget for the "Customer" field in the linked Device Sales dataset.



When your form is on the "many" side of a one-to-many linking relationship, you can choose a single value like any other form fields. When your form is on the "one" side of the one-to-many linking relationship, you can choose multiple values from the linked dataset like in the example below.

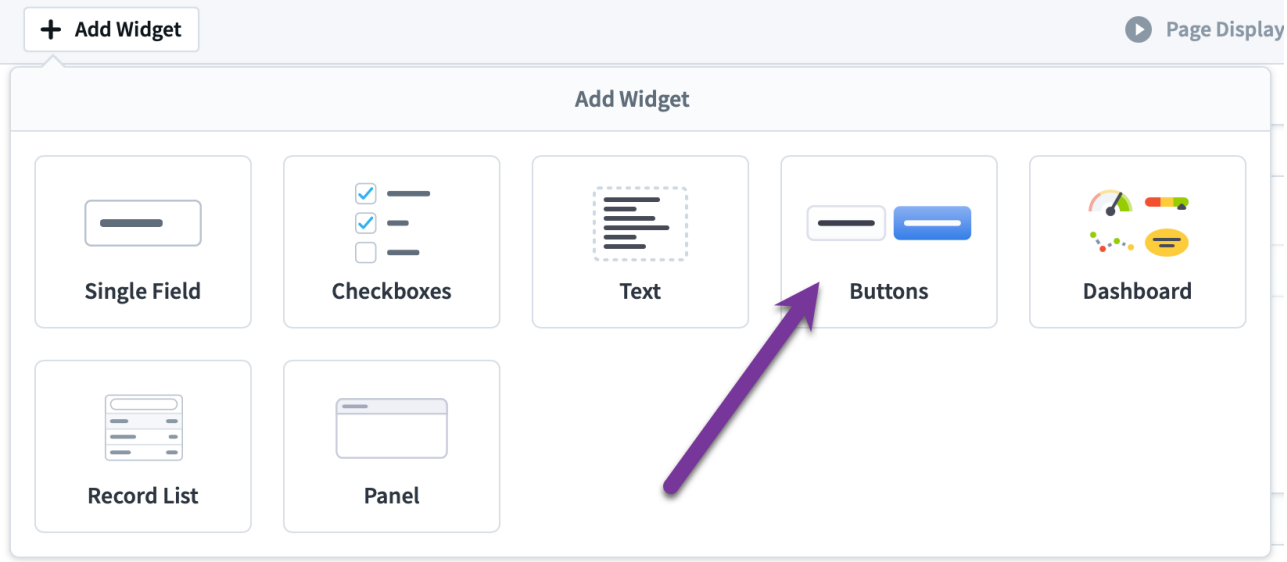


You can even use single value widgets for datasets in many-to-many linking relationships that involve a third dataset for linking the other two.

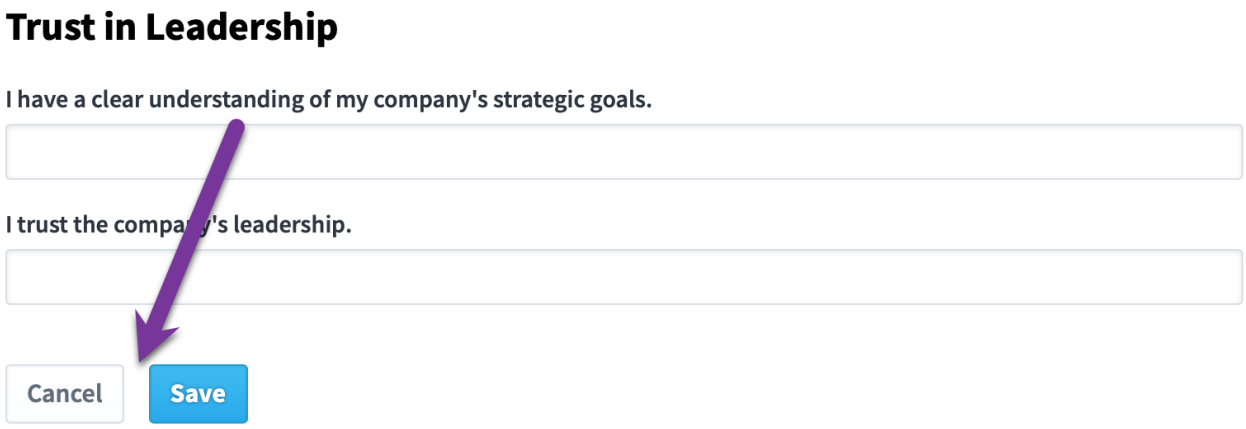
For example, let's say you have an Employees dataset and a Departments dataset. If you want your employees to be able to be in multiple departments, you'd set up an "Employee Departments" dataset with a field linking to the Employees dataset and a field linking to the Department dataset. You could then choose multiple departments in employee forms, and you could choose multiple employees in department forms.

Buttons Widgets

The Buttons widget allows you to place multiple buttons within a single widget.



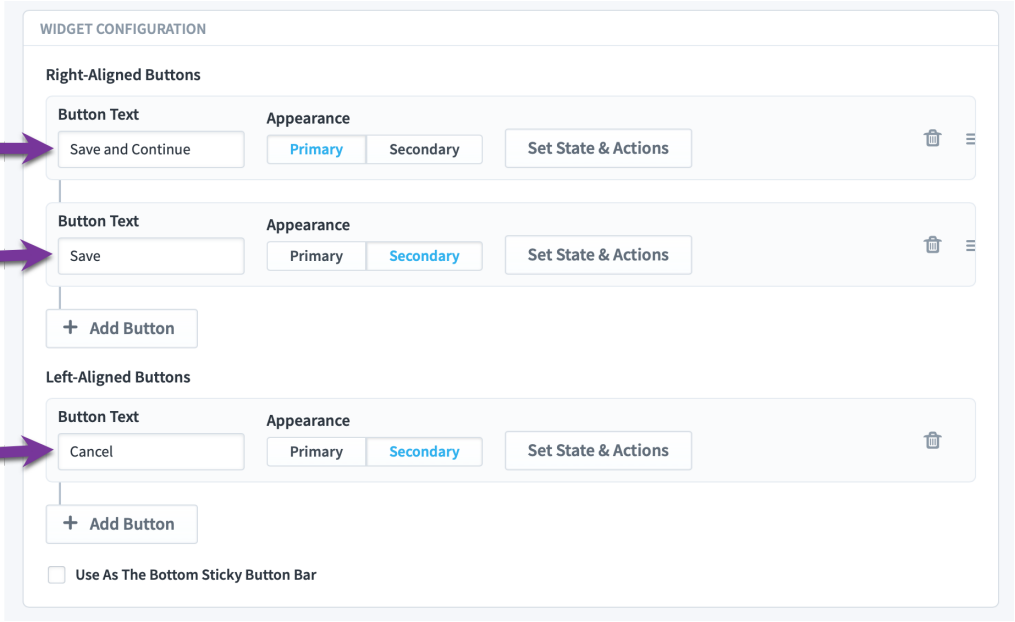
This allows you to organize your buttons into right-aligned and left-aligned groups with independant button styling and actions.



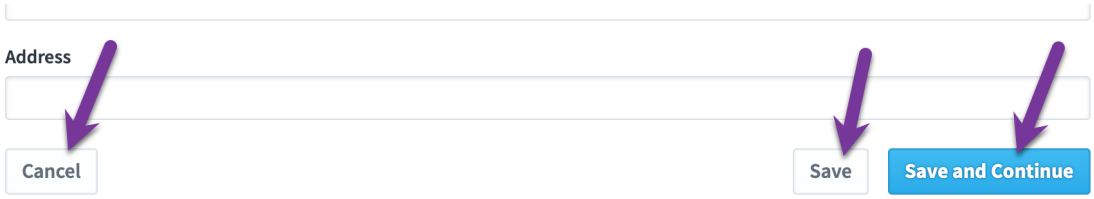
Editing buttons

Editing a Buttons widget allows you to create multiple right-aligned and left-aligned buttons. In this example we have a right-aligned "Save and Continue" button with Primary (blue) appearance and a "Save" button with a Secondary

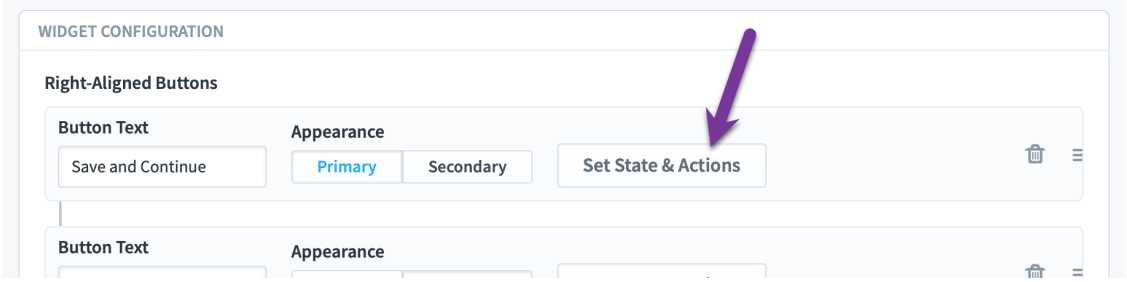
(white) appearance. There's also a left-aligned "Cancel" button with a Secondary appearance.



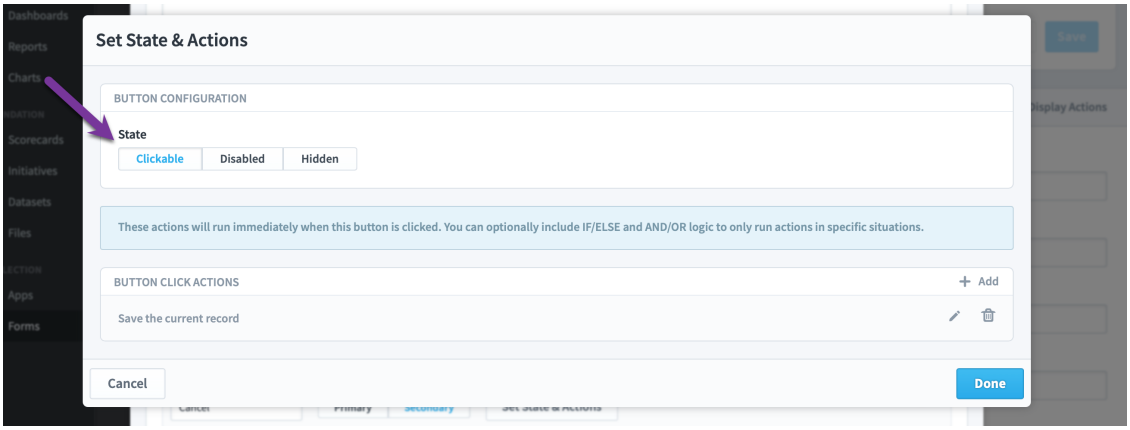
This is what those buttons look like when viewing the form.



Each button has a "Set State & Actions" button.

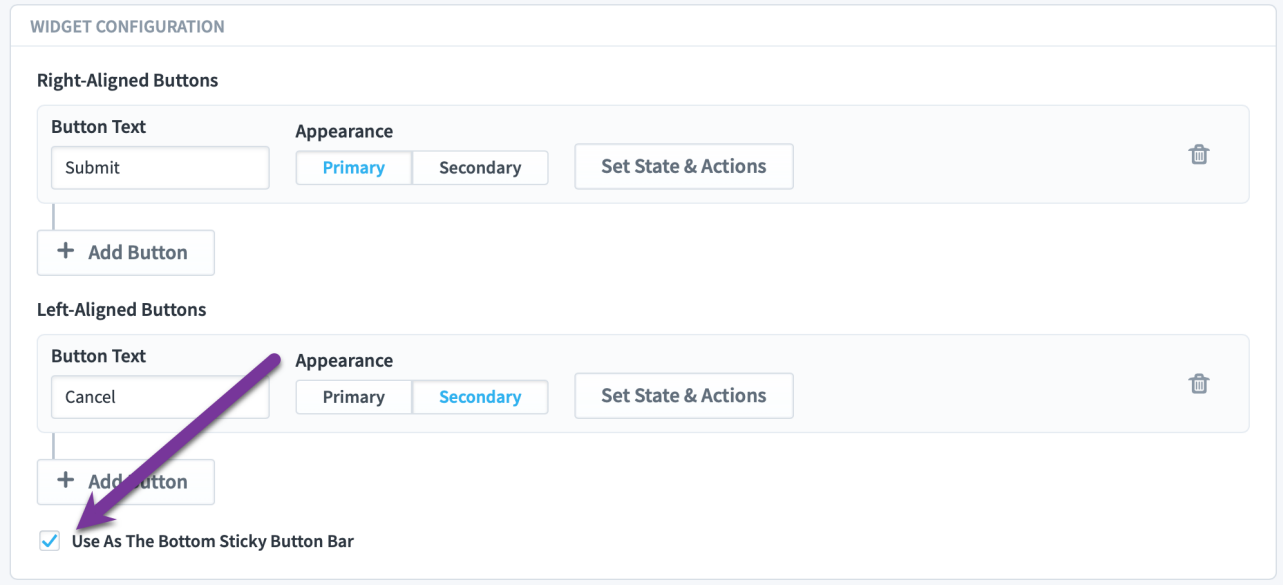


Clicking it opens a dialog where you choose whether the button defaults to Clickable, Disabled, or Hidden. This is also where you set the actions that fire when the button is clicked. See the Form Logic and Actions article for more information.

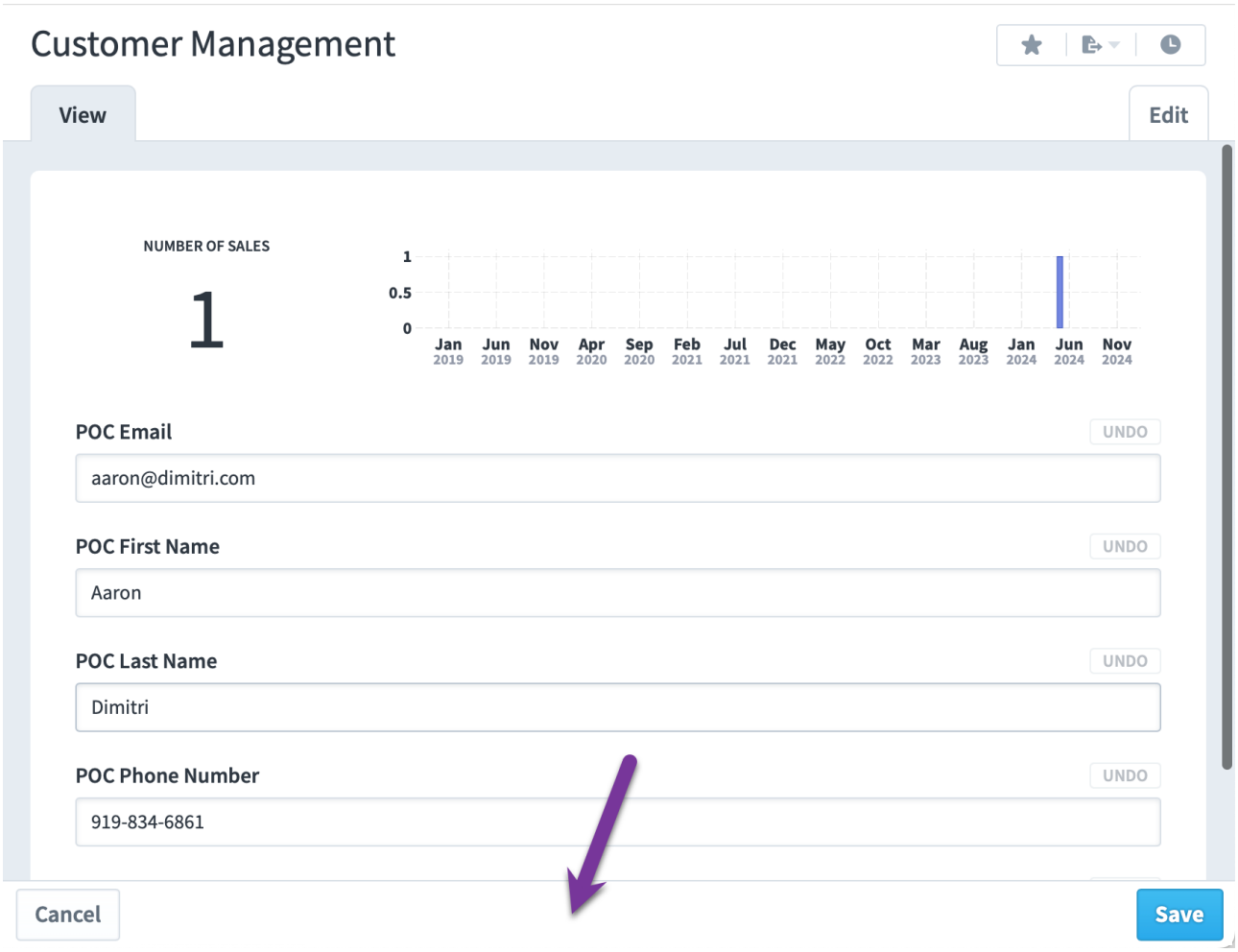


Bottom sticky button bar

The "Use as the Bottom Sticky Button Bar" checkbox helps ensure key actions remain accessible.



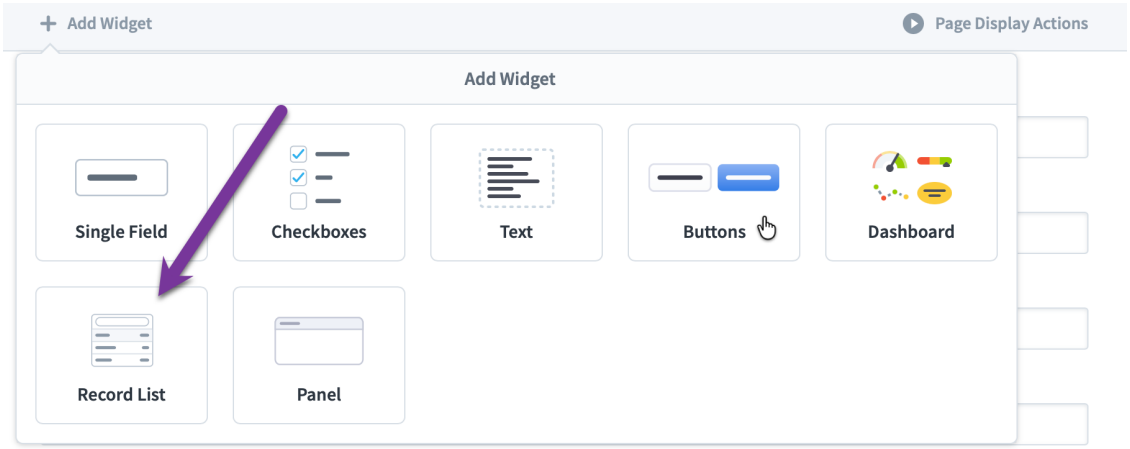
This creates a permanent button bar on the bottom of the form that covers the rest of the form content.


Customer Management
View
Edit
NUMBER OF SALES
1
1
0.5
0
Jan 2019
Jun 2019
Nov 2019
Apr 2020
Sep 2020
Feb 2021
Jul 2021
Dec 2021
May 2022
Oct 2022
Mar 2023
Aug 2023
Jan 2024
Jun 2024
Nov 2024
POC Email
UNDO
aaron@dimitri.com
POC First Name
UNDO
Aaron
POC Last Name
UNDO
Dimitri
POC Phone Number
UNDO
919-834-6861
Cancel
Save

Record List Widgets

Overview

Record List form widgets are added from a form page's Add Widget menu.

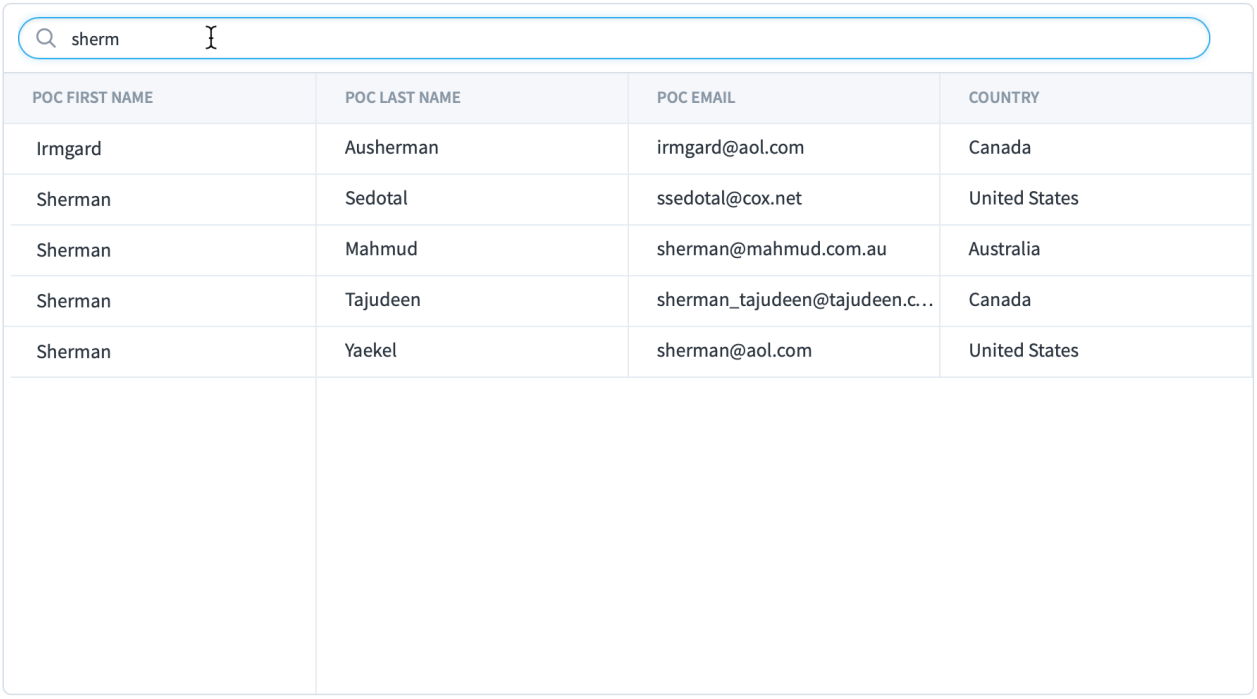


A record list widget is a scrollable table with one row for every record in the dataset.

Find

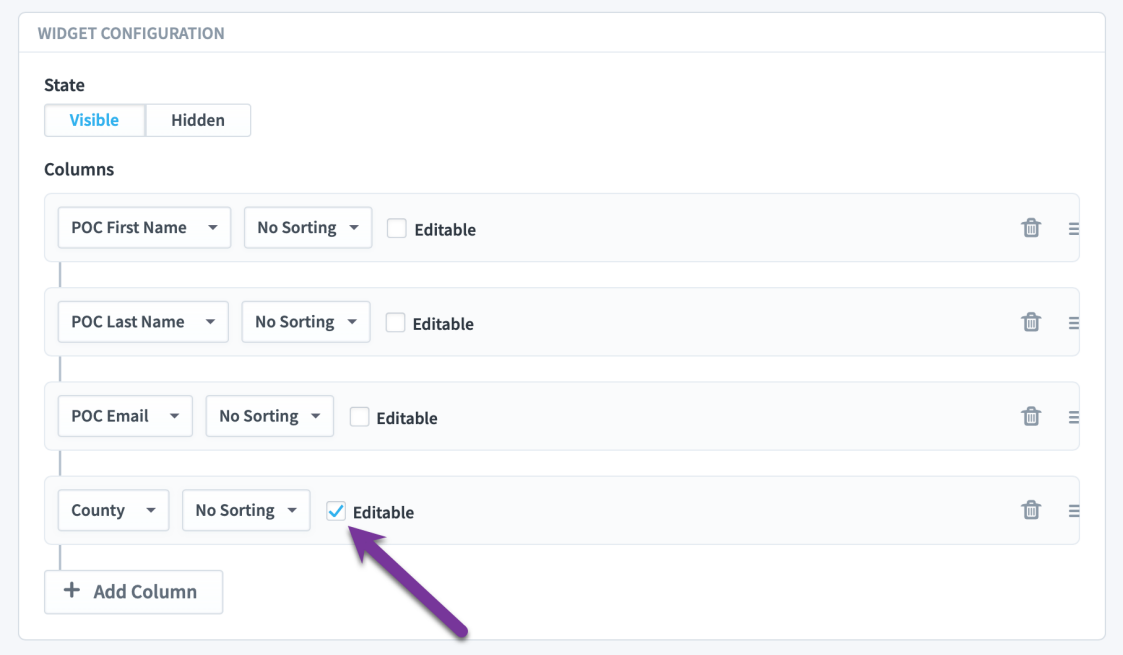
POC FIRST NAME	POC LAST NAME	POC EMAIL	COUNTRY
Aaron	Kloska	aaron_kloska@kloska.net.au	Australia
Aaron	Dimitri	aaron@dimitri.com	United States
Aaron	Torris	atorris@hotmail.com	United States
Abbey	Lortz	alortz@aol.com	United States
Abbey	Sovey	abbey@hotmail.com	United Kingdom
Abbie	Obery	aobery@yahoo.com	United States
Abbie	Melito	amelito@hotmail.com	Canada
Abbie	Pitkin	abbie_pitkin@pitkin.com	United States
Abbie	Marcinko	amarcinko@marcinko.com.au	Australia
Abbie	Schuetz	aschuetz@aol.com	Canada
Abby	Seman	abby_seman@seman.co.uk	United Kingdom

You can search by typing a phrase in the Find field on top. Here we're searching for "sherm" and the record list widget is showing the 5 records that include that phrase in any of the fields that are showing.

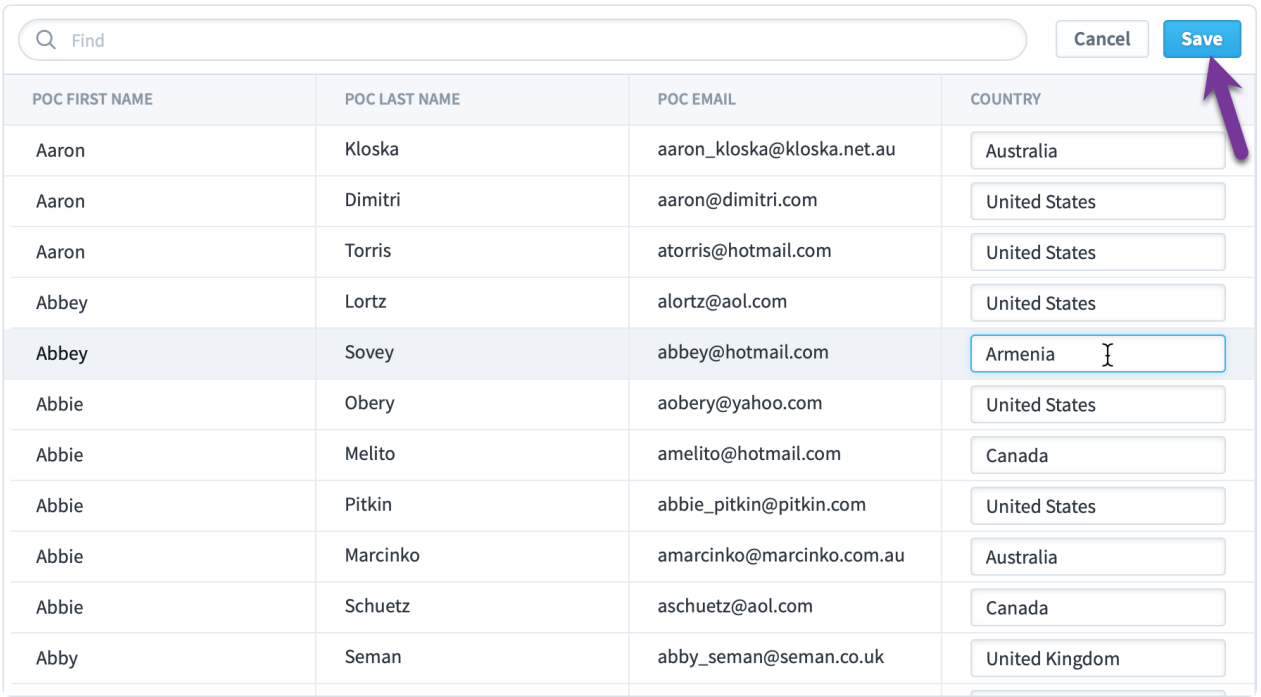


Choosing columns

You can choose which fields to show columns for in the record list widget's Edit dialog. Here we've also marked the Country column as editable.

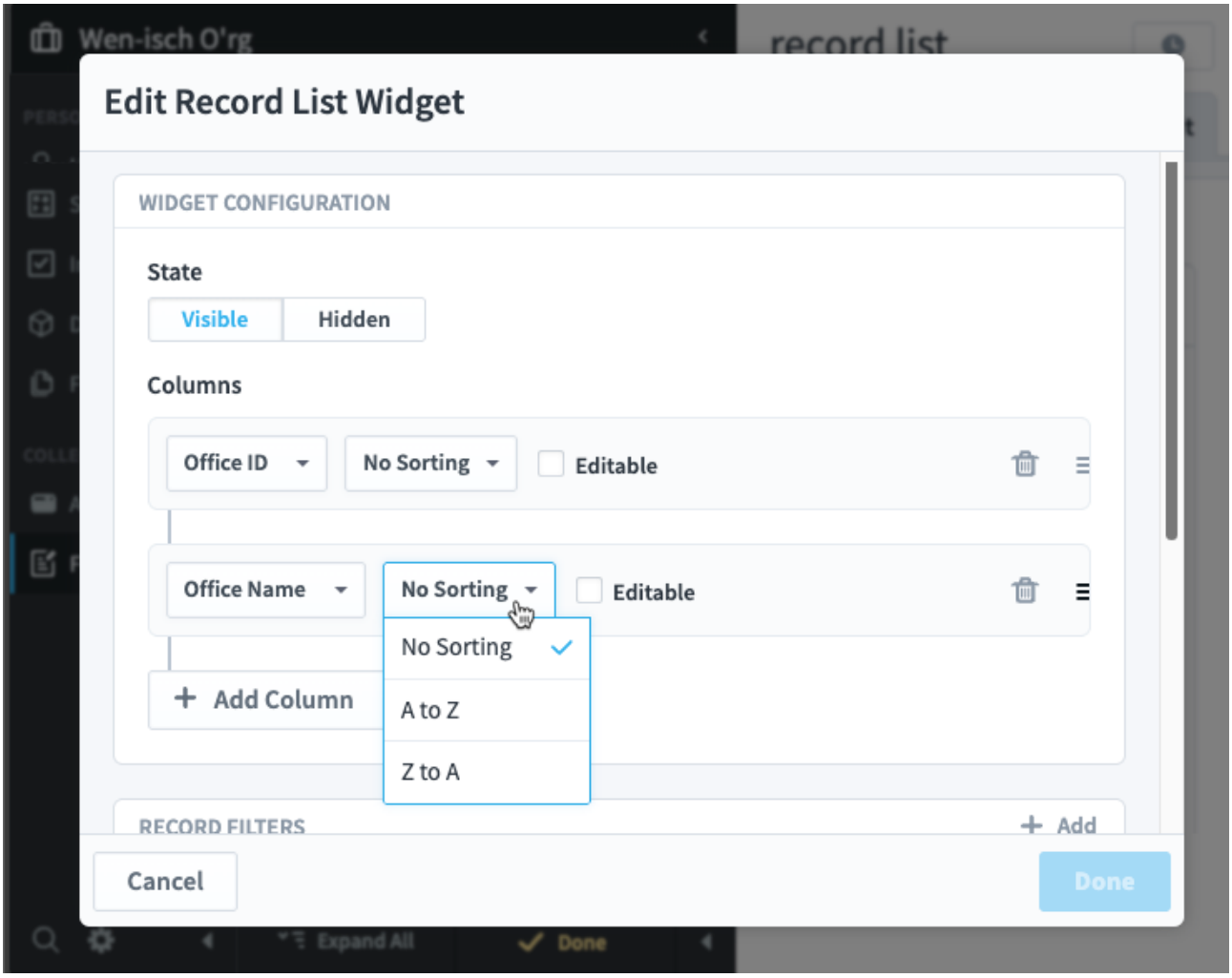


This is what that record list widget looks like when using the form. In this example we've changed Abbey Sovey's country to Armenia, and we can either Save or Cancel the change. By making one or more columns Editable, you can make changes to many records quickly.

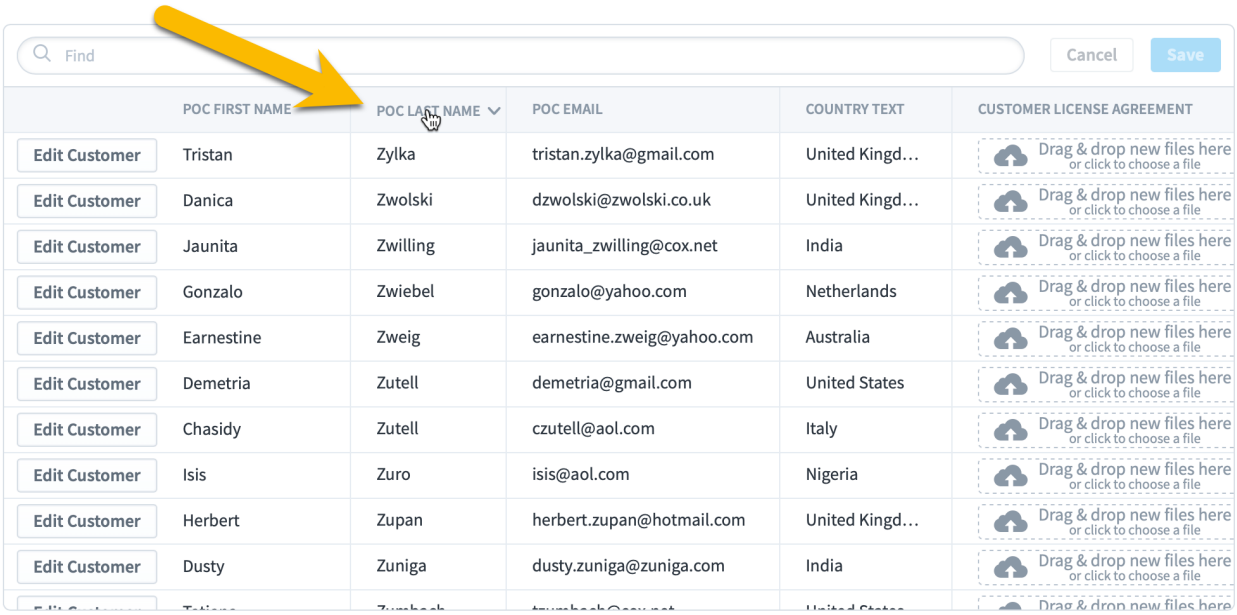


Sorting

When no sorting is set, records are sorted alphabetically by the first column. To set default sorting, choose a sorting option next to one or more columns. When multiple columns have sorting enabled, the widget sorts from left to right—first by the leftmost sorted column, then by the next, and so on.

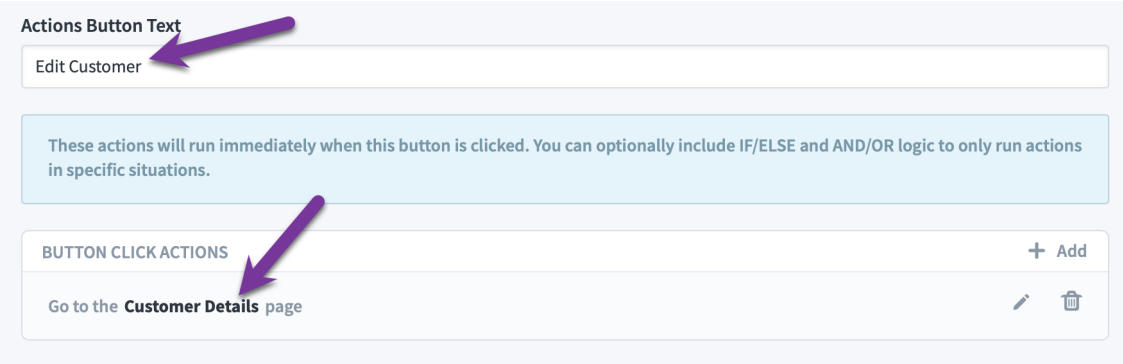


While viewing a record list, users can click any column header to sort that column. Click once for ascending, twice for descending, and a third time to return to the default sort. A small arrow indicates the current sort direction.

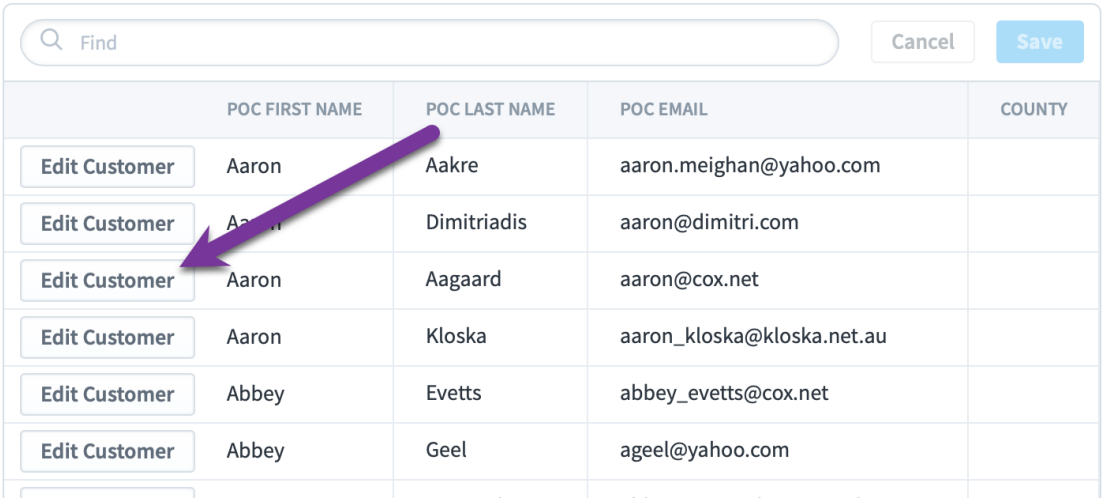


Action buttons

You can also choose to have action buttons on rows by choosing "Actions Button Text" and assigning a Button Click action. In this example we've set the action button text to "Edit Customer", and we've set the action to go to the Customer Details page. See the Form Variables, Logic, and Actions article for more information.

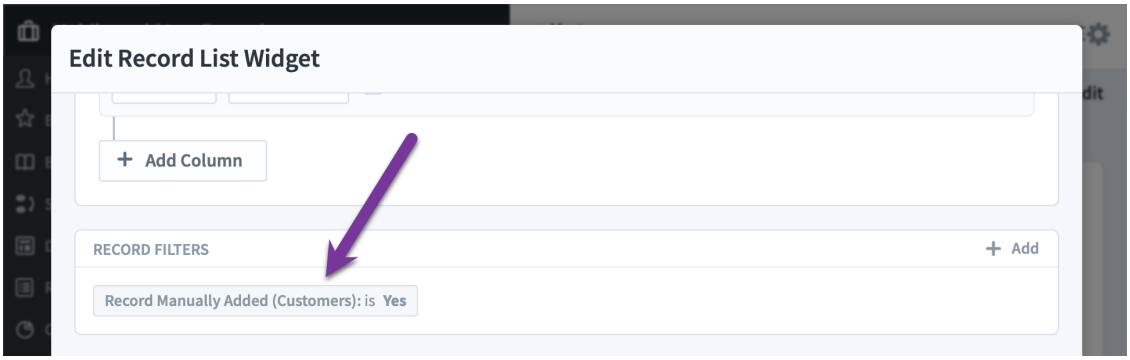


Now when we click an Edit Customer button, the form will go to the Customer Details page for that record. It's very common to use the record list widget like this to choose which record you want to view or edit.

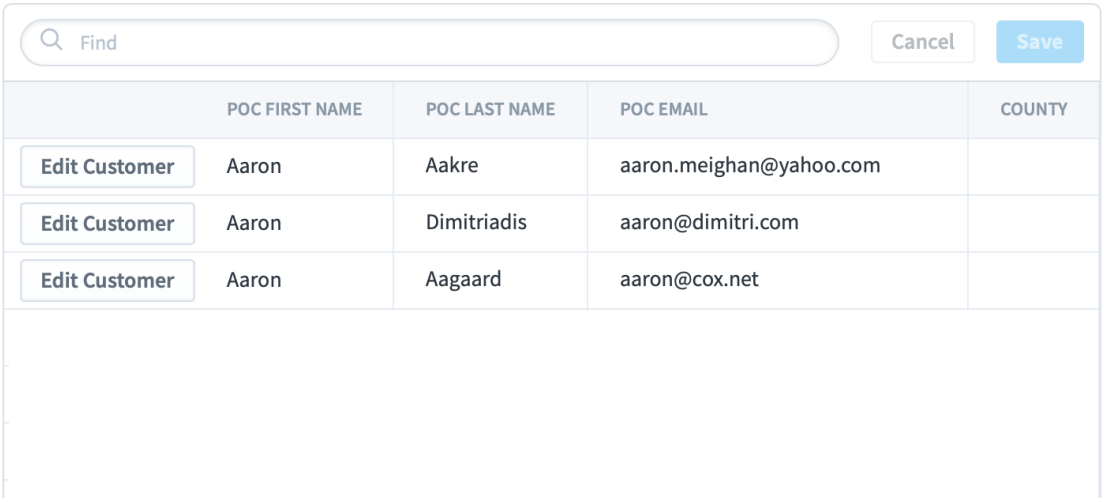


Record filters

You can change which records show in the record list widget by adding a record filter in the widget's Edit dialog. Here we're choosing to only show records that were manually added, but you can apply any of the dataset filters that are used throughout Spider Impact, like "Record is Editable".

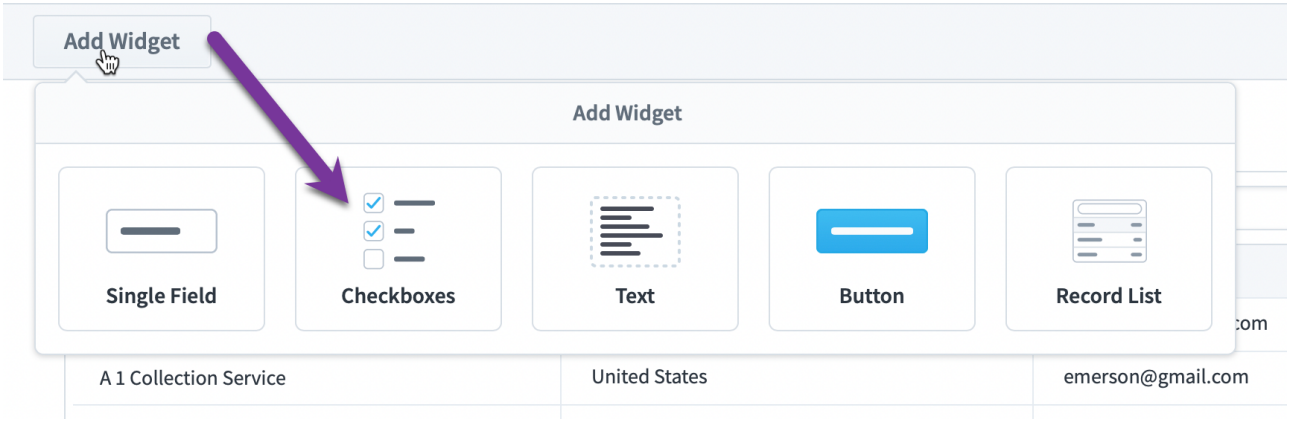


When we use the form we now only see the records that were manually added. This can be very helpful when using a form to add and manage only a dataset's supplementary records.

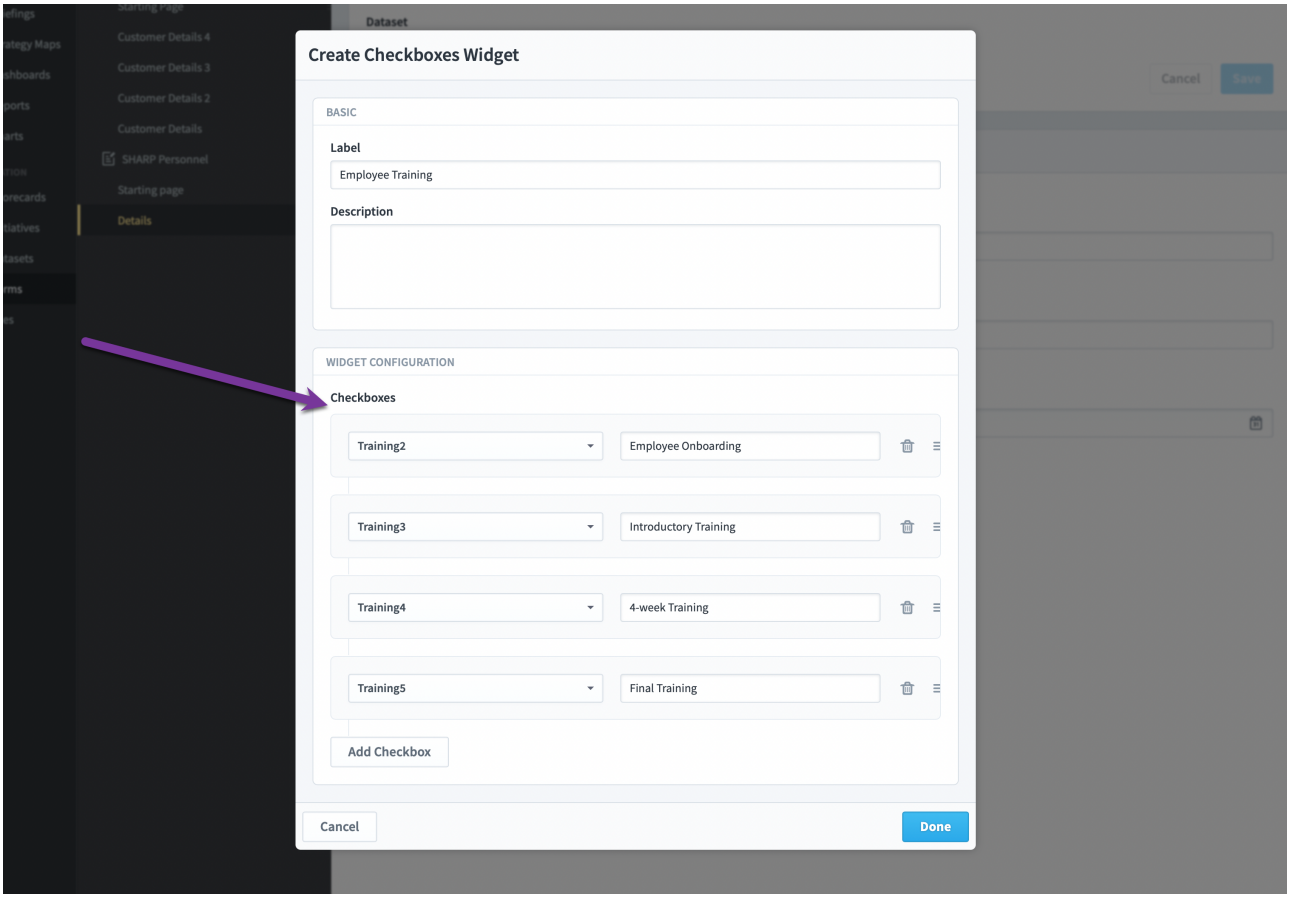

Find
Cancel
Save
POC FIRST NAME
POC LAST NAME
POC EMAIL
COUNTY
Edit Customer
Aaron
Aakre
aaron.meighan@yahoo.com
Edit Customer
Aaron
Dimitriadis
aaron@dimitri.com
Edit Customer
Aaron
Aagaard
aaron@cox.net

Checkboxes Widgets

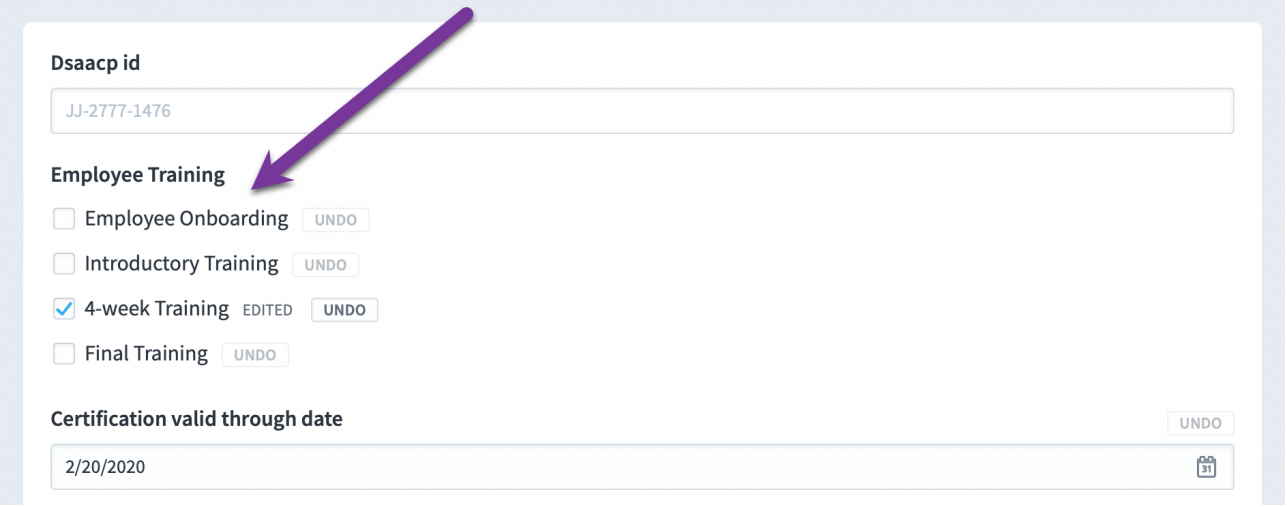
The Checkboxes form widget allows you to update the values for multiple yes/no fields at once.



Here we're choosing four yes/no fields, and giving them labels.

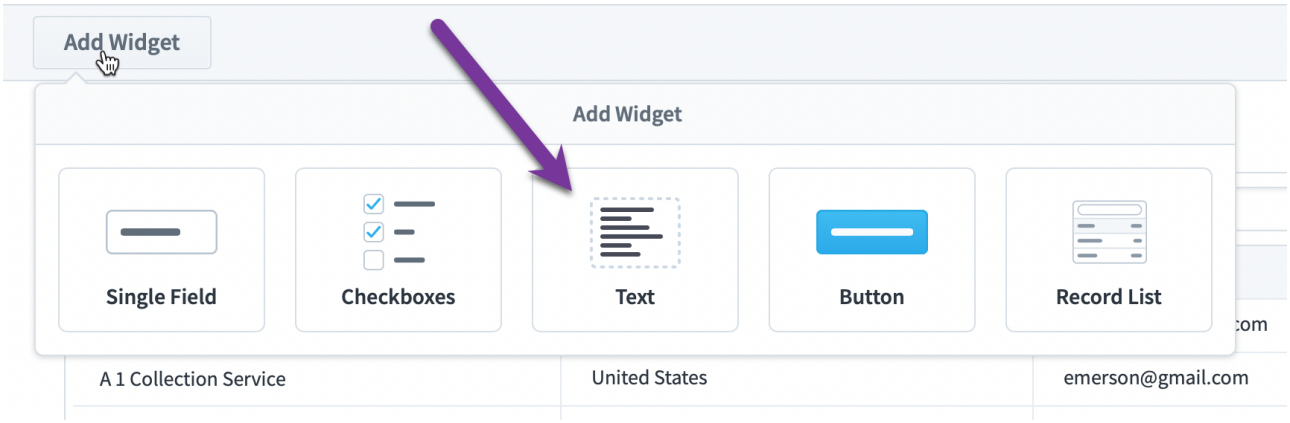


When someone uses the form, they just check the boxes to update the fields.

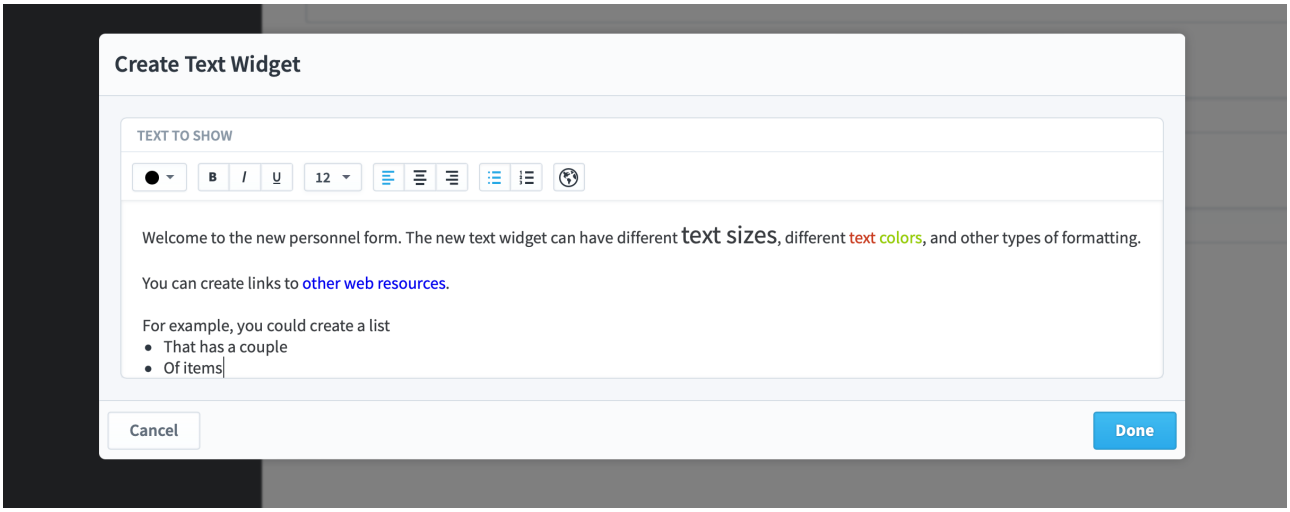


Text Widgets

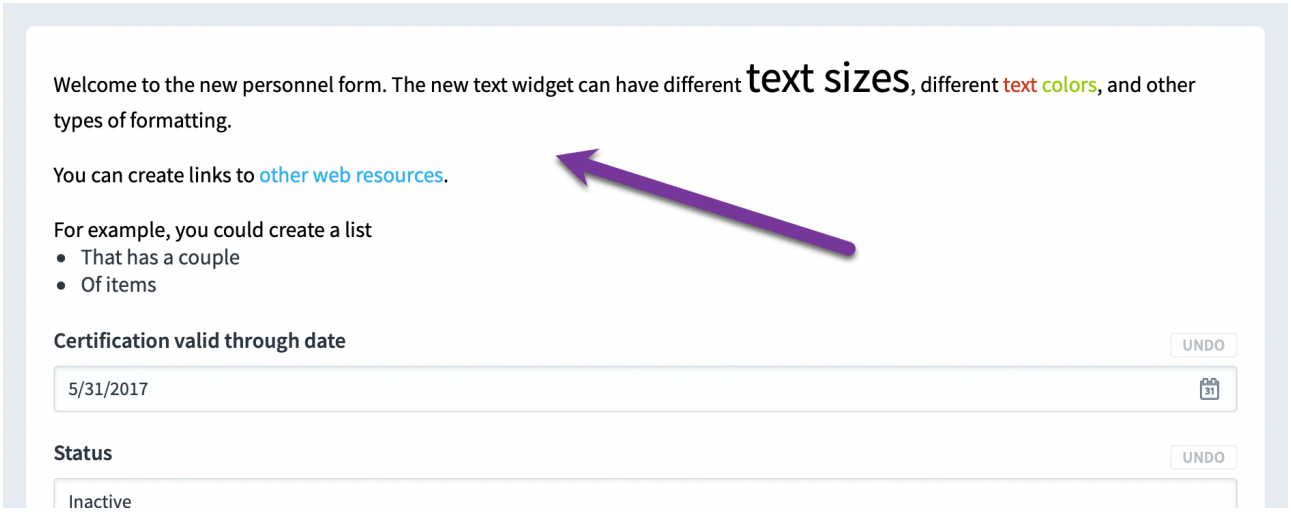
Text form widgets allow you to include formatted text on your forms.



This matches other rich text editing in Spider Impact, and can be used for instructions, or even links to additional documentation.



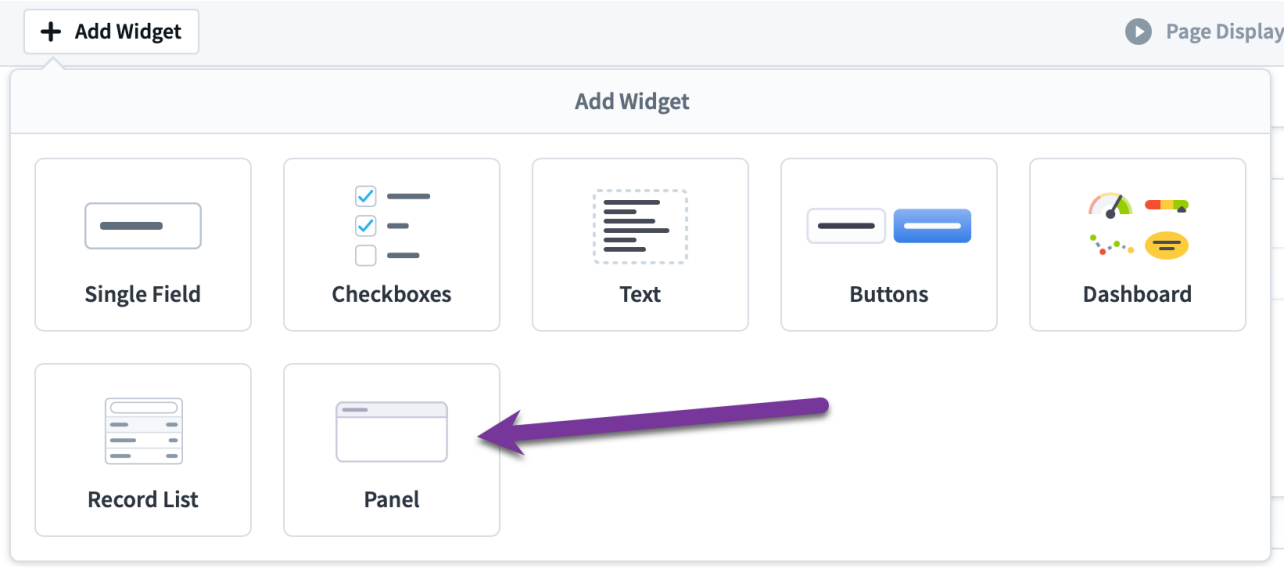
This is the appearance of the example text at the top of the form when it's in use.


Welcome to the new personnel form. The new text widget can have different text sizes, different text colors, and other types of formatting.
You can create links to other web resources.
For example, you could create a list
That has a couple
Of items
Certification valid through date
UNDO
5/31/2017
Status
UNDO
Inactive

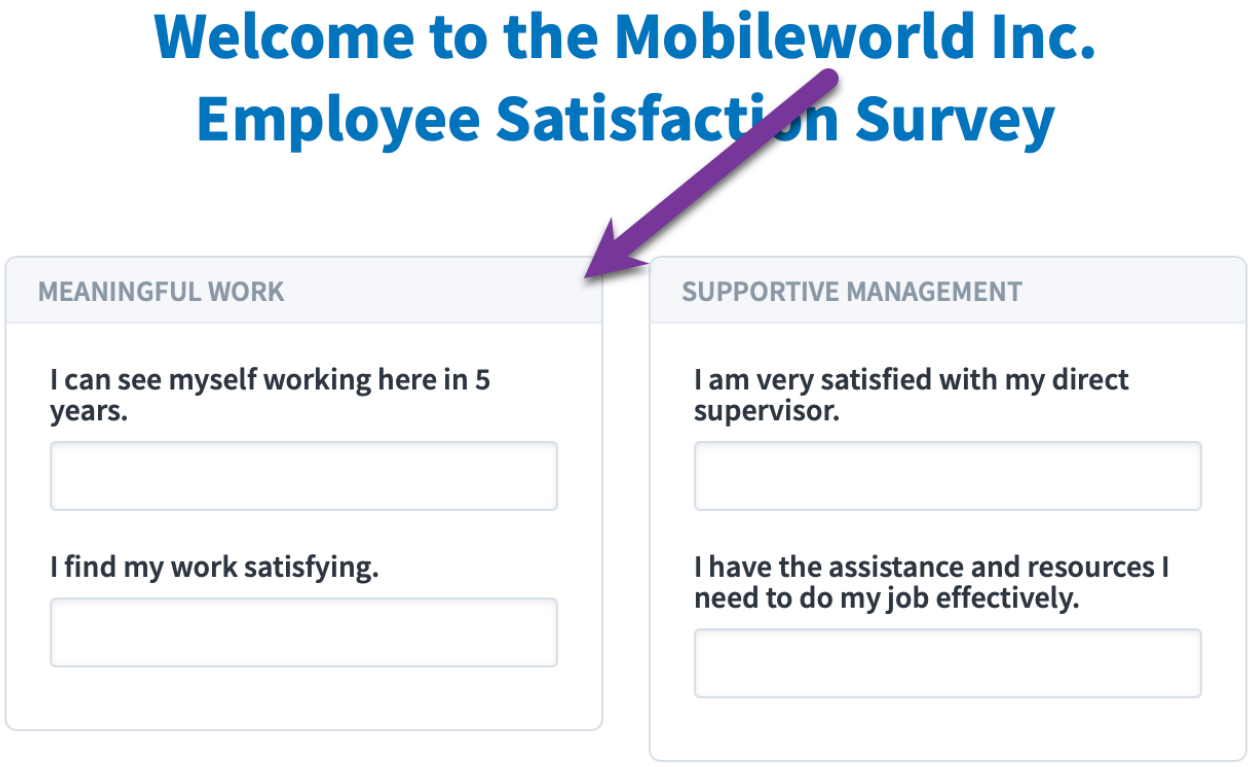
Panel Widgets

Panel Form Widgets improve form organization by allowing you to group related fields into a single container. This simplifies large forms by providing a structured layout with easy drag-and-drop repositioning.

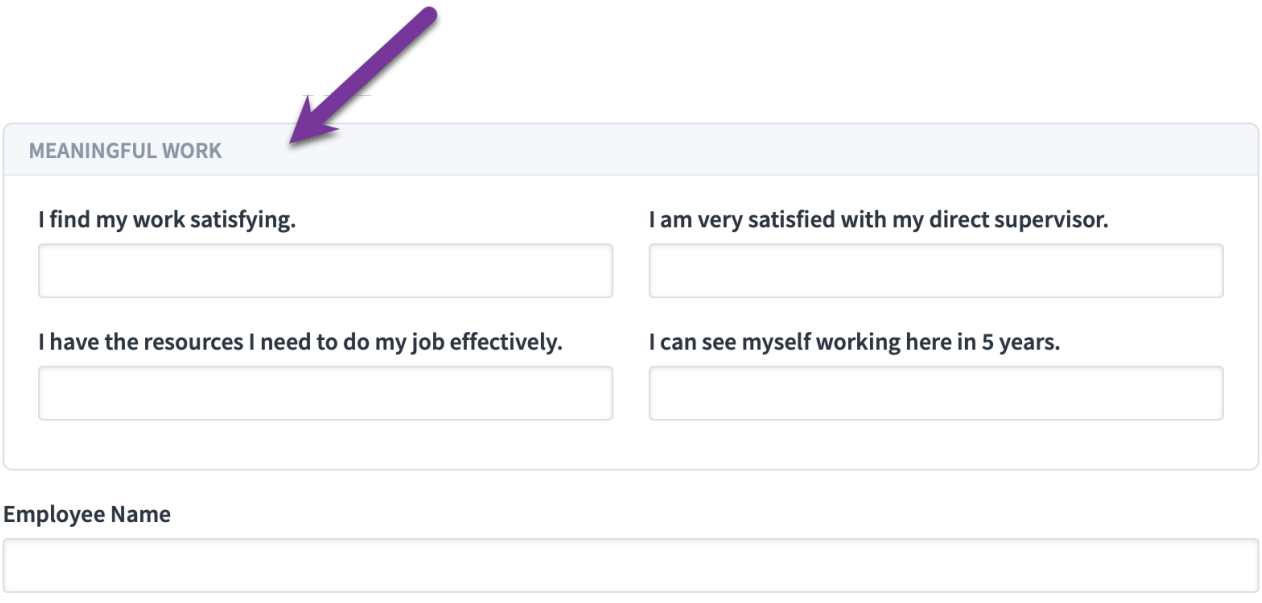
To add a panel widget, select it like any other form widget from the form page's "Add Widget" menu.



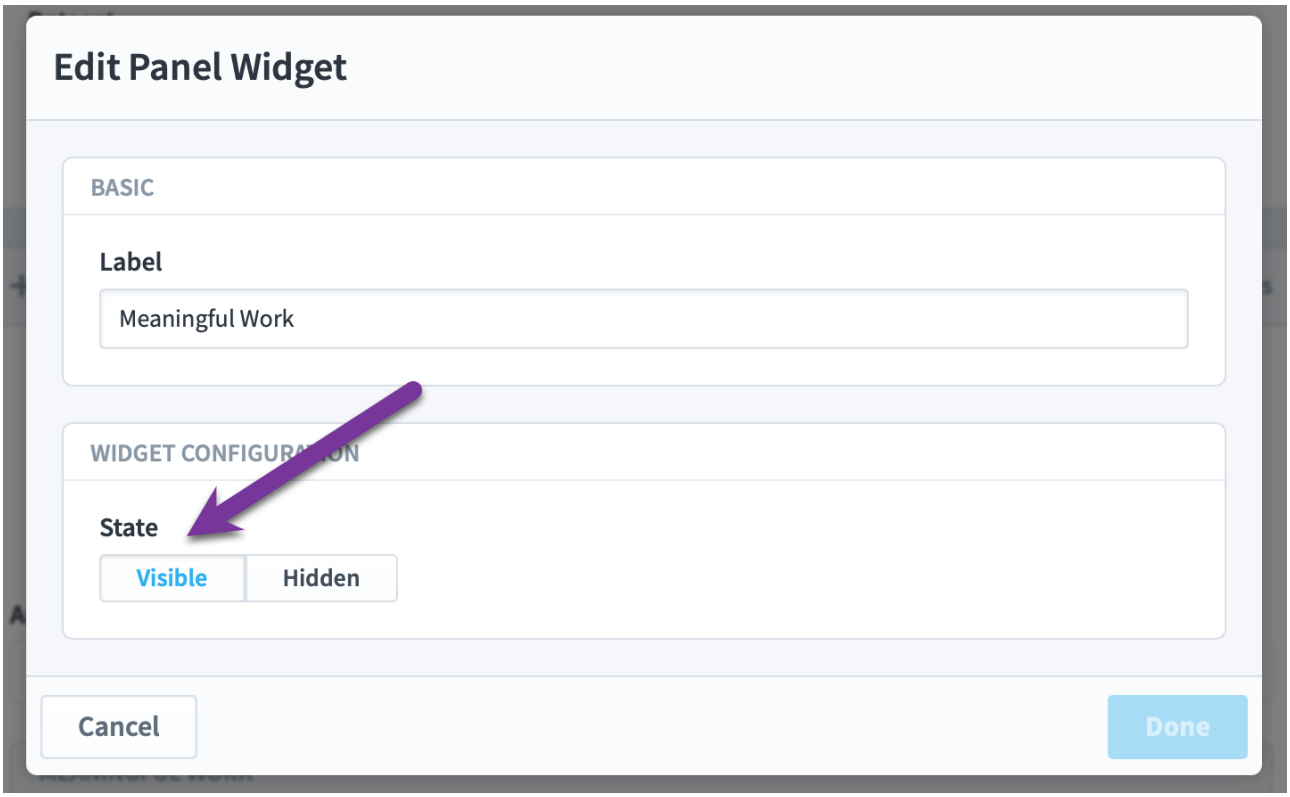
Panels support advanced layouts with nested rows, columns, and stacked elements, offering greater design flexibility. In this example we've added two panels in a side-by-side layout.



The widgets inside of Panels can also be arranged in multi-column layouts.



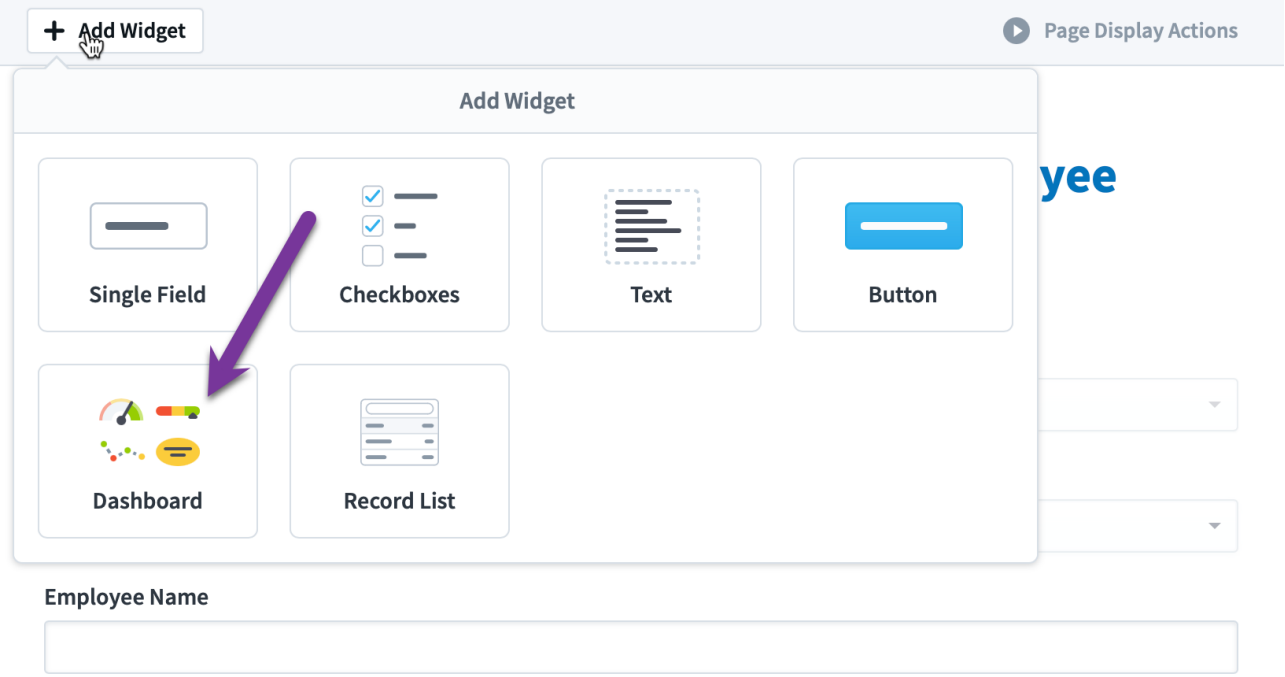
Form actions can toggle Panel widget state between visible and hidden, which allows for easily hiding the panel and all of its contents when needed.



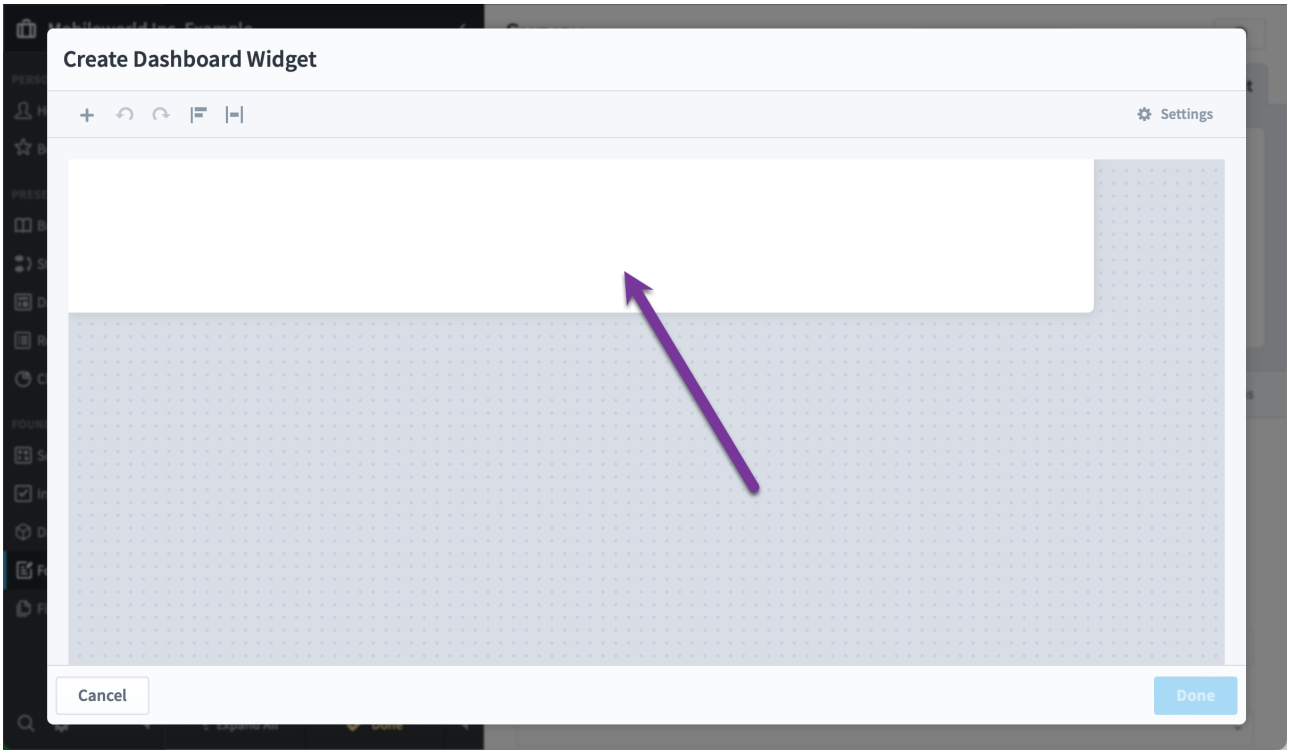
Dashboard Form Widgets

Overview

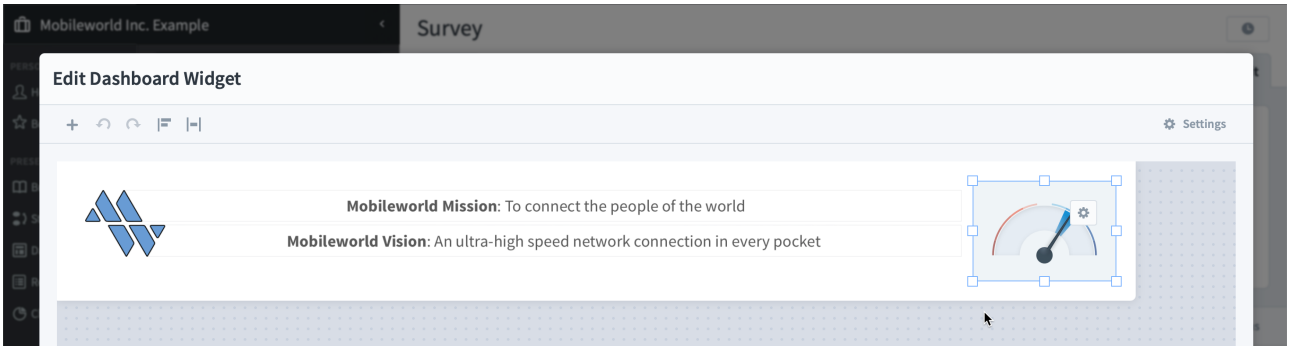
Dashboard widgets are mini-dashboards inside of your forms. They allow you to display logos, titles, or live data directly in your forms.



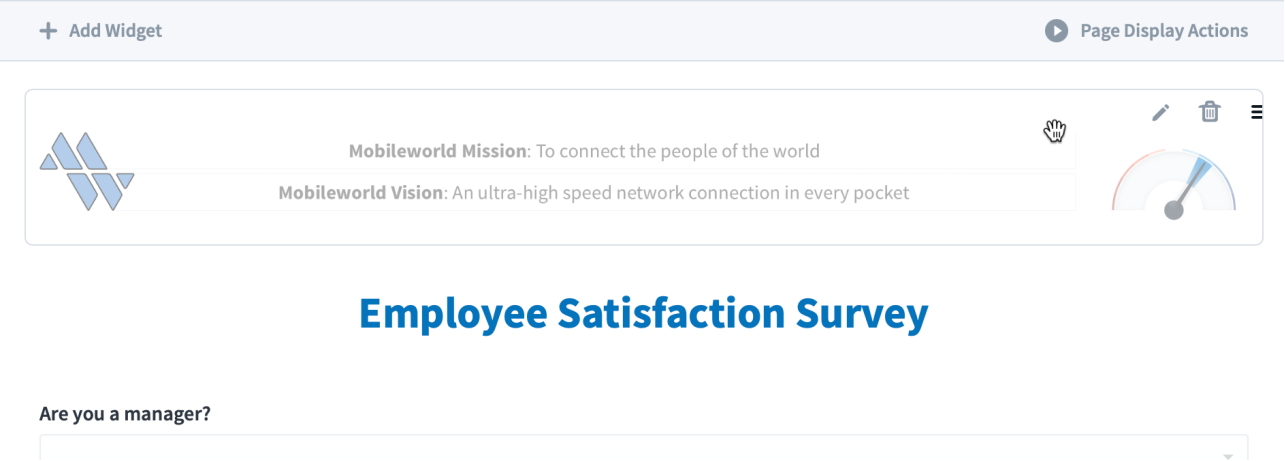
When we add a Dashboard widget to a form, we see a blank dashboard canvas that's wide and short.



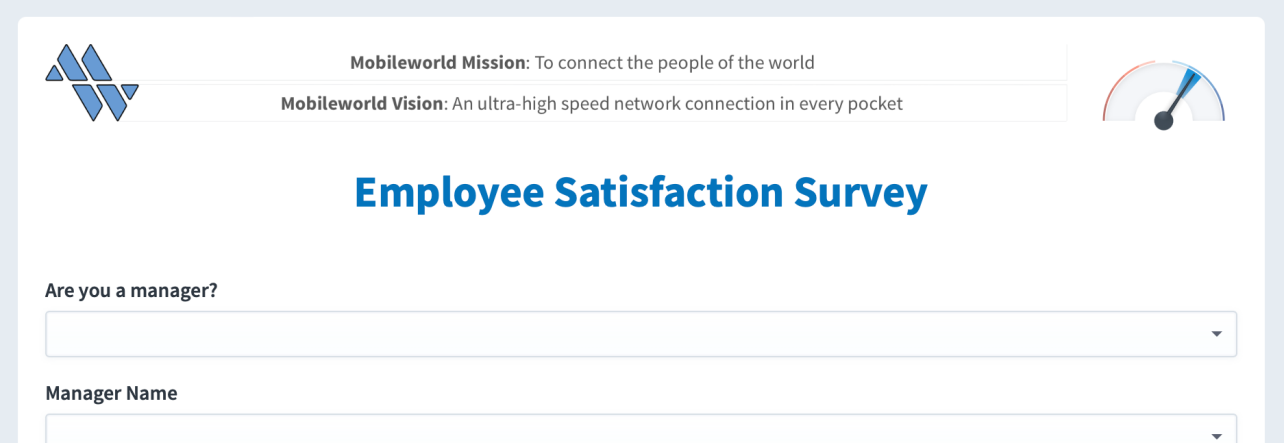
This dashboard will be displayed along with the other widgets on your form, and has the full power and flexibility as any other dashboard in the software. Here we're adding our company logo, some text, and a speedometer showing the average score of all employee satisfaction surveys.



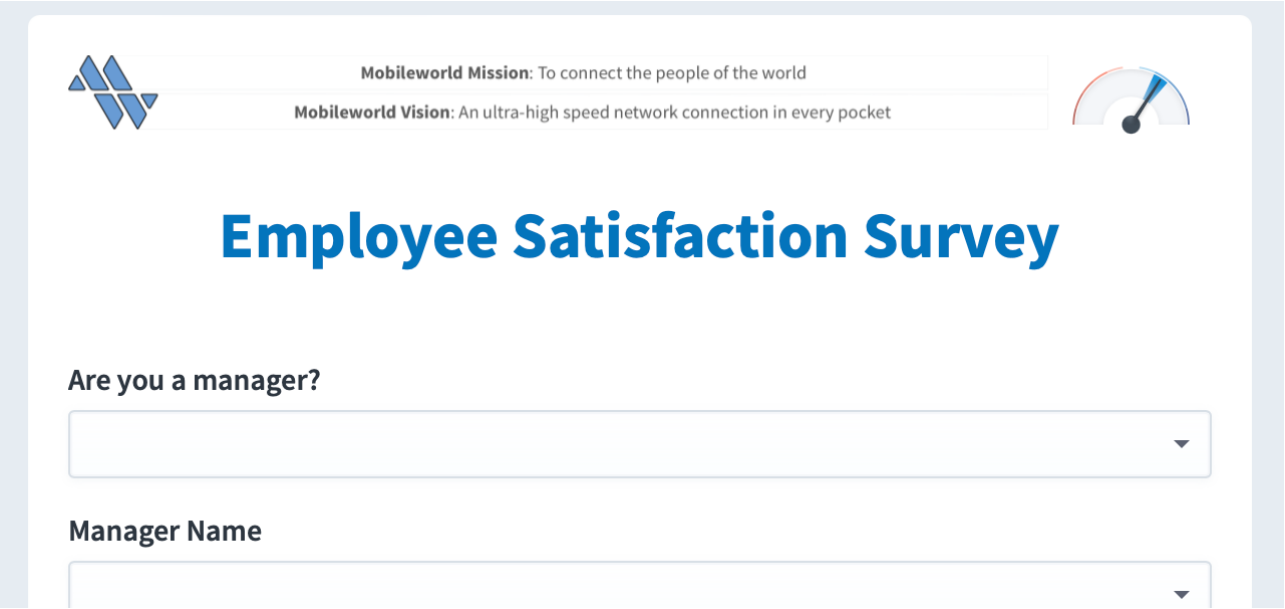
When we click Done we see the new dashboard widget listed at the bottom of the form, so we'll drag it to be on top.



Now when people view the form they see an attractive header showing live data.

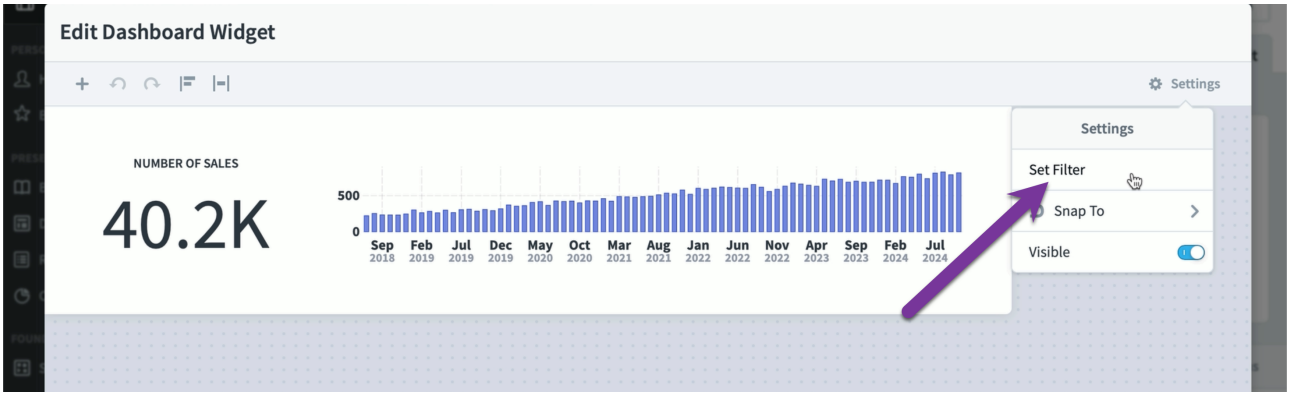


Dashboard form widgets automatically resize so they always take up the full width of the form. In this example the form is being used on a narrow device like a tablet.

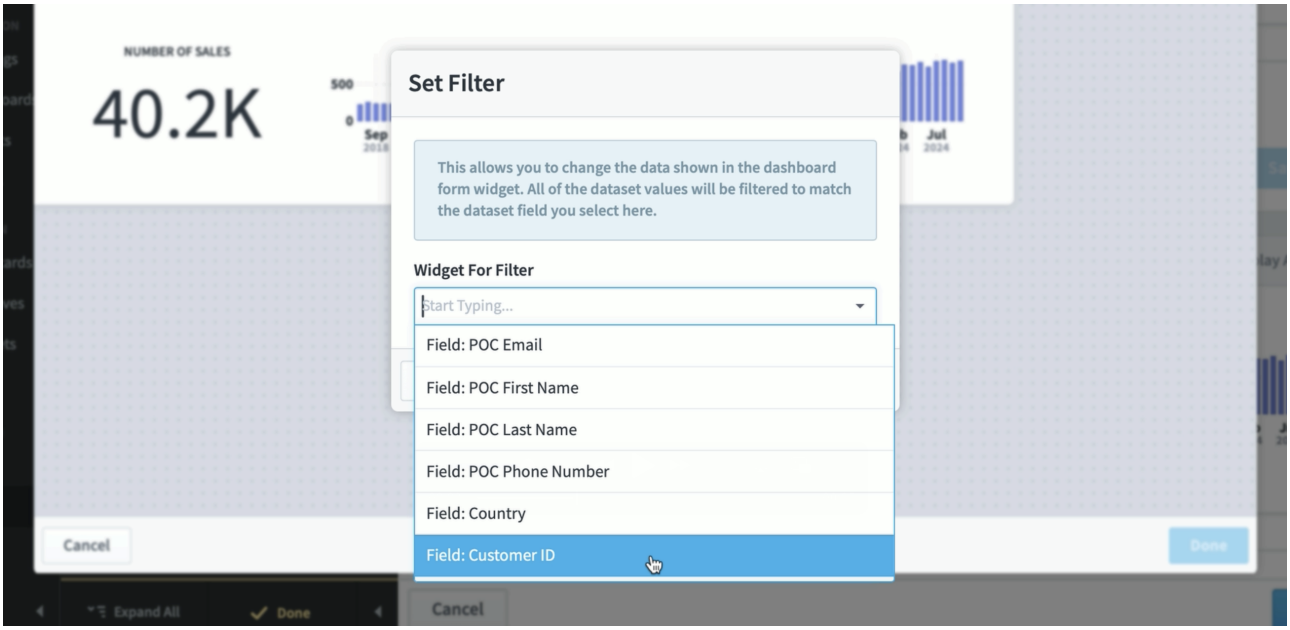


Filtering data

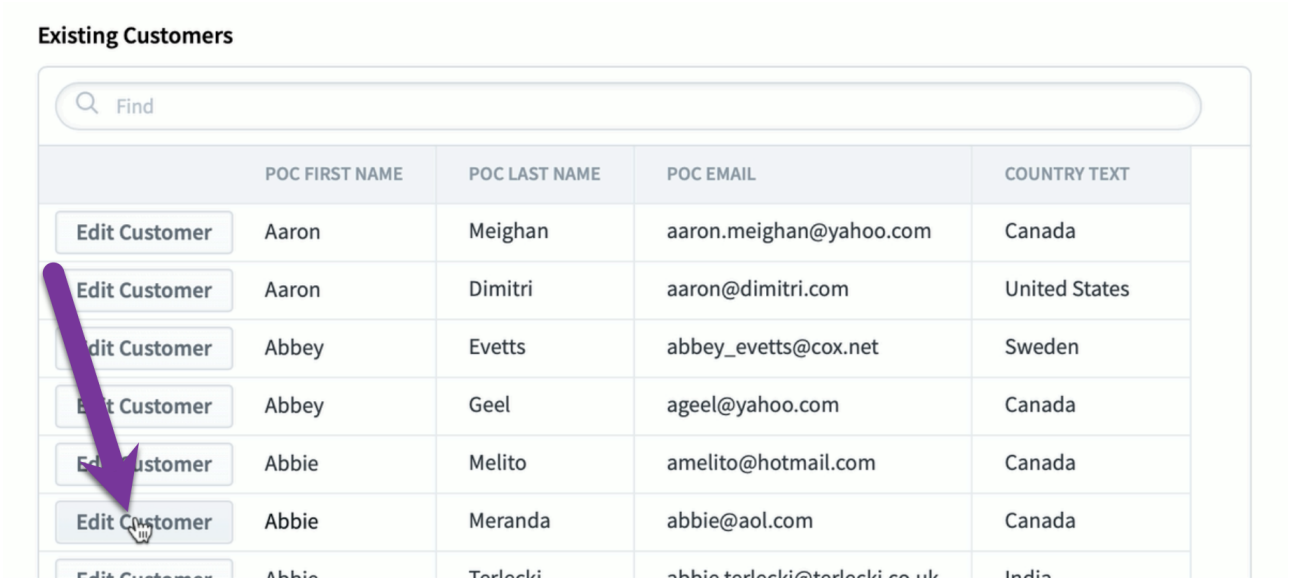
Dashboard form widgets now have a Set Filter option in their Settings tooltips. We'll set a filter for this dashboard widget that's currently showing all sales for all customers.



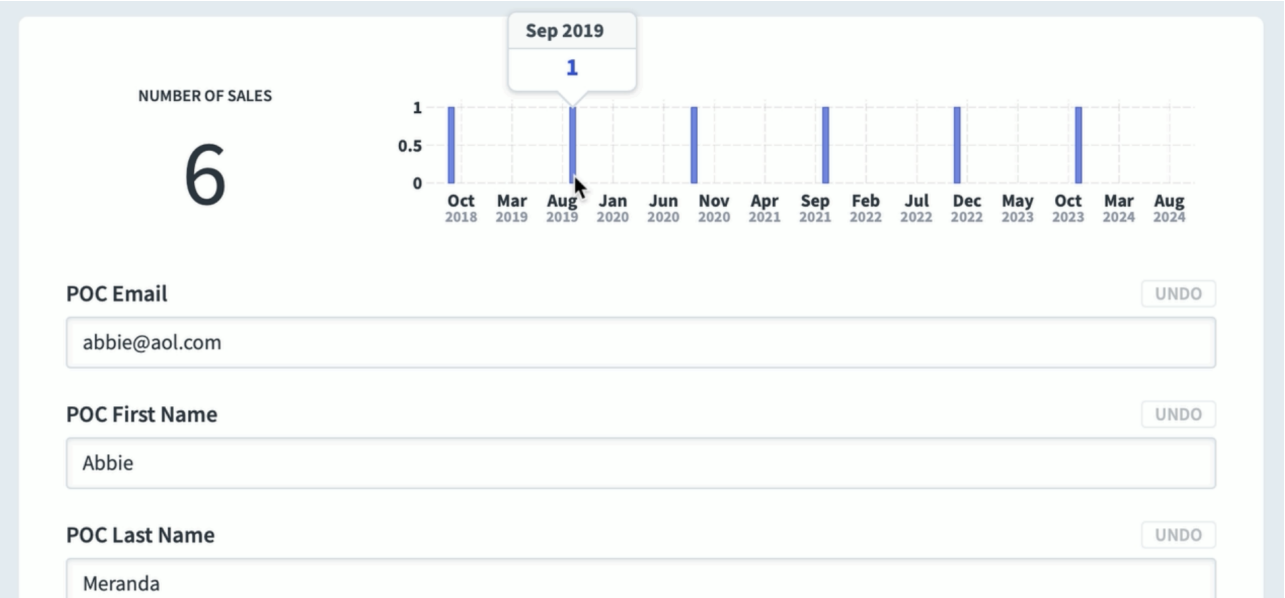
This opens a dialog that allows you to choose a single value widget on the page to use as a filter for that dashboard. If that widget's value is blank, no filter is applied. In this example we're going to filter the dashboard widget to only show sales records matching the value in the Customer ID field.



Now let's see this in action. The first page of the form is a record list widget where we choose a customer.



This takes us to the customer details page. At the top is our dashboard widget that is now filtered to only show the sales for the currently selected customer.



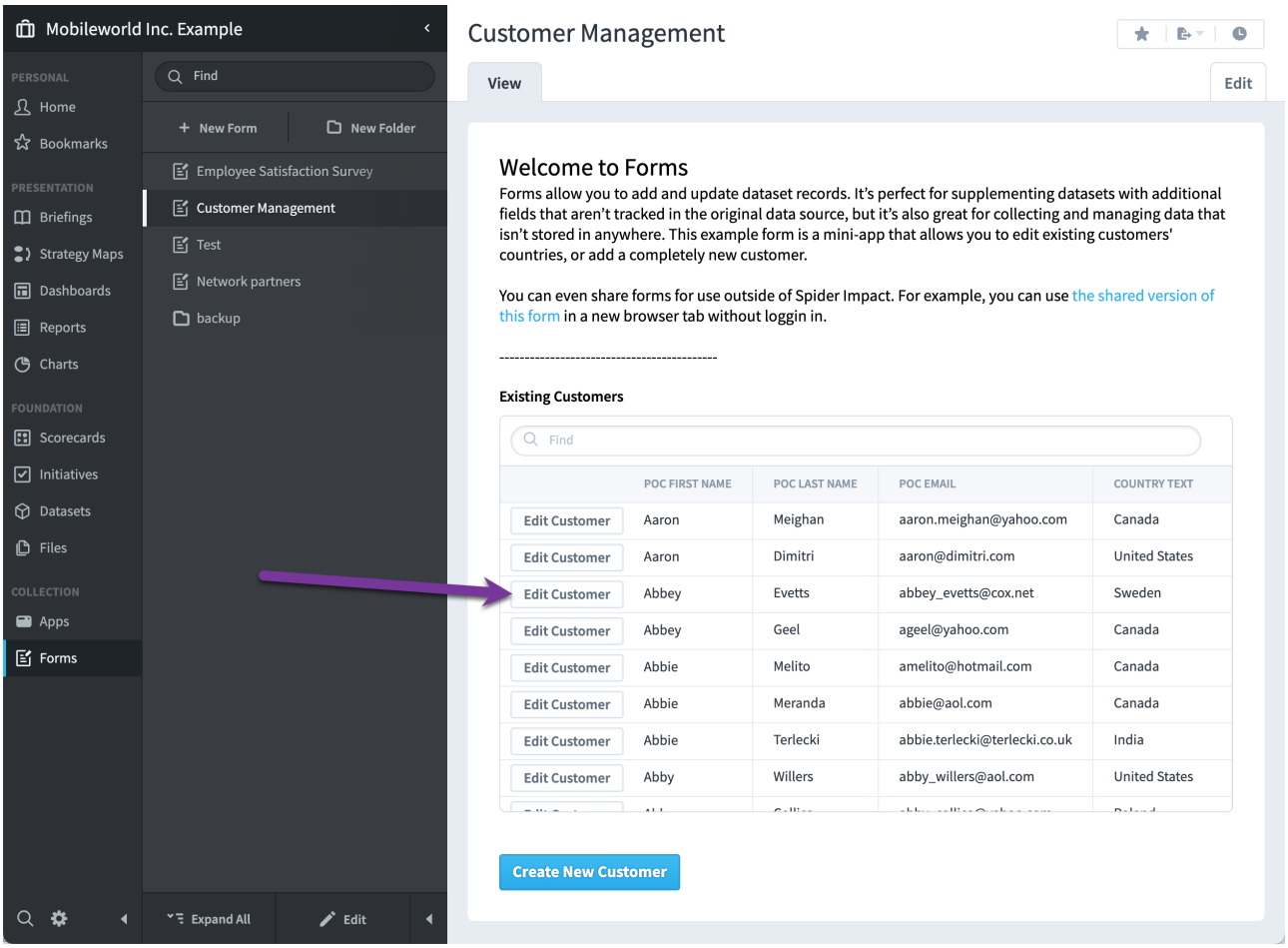
It's also important to note that the single value widget you choose to use for the filter doesn't actually have to be visible on the page. In this example the Customer ID widget we're using for the filter is hidden and is automatically set on page load along with all of the other customer fields.

Dialogs

Dialog overview

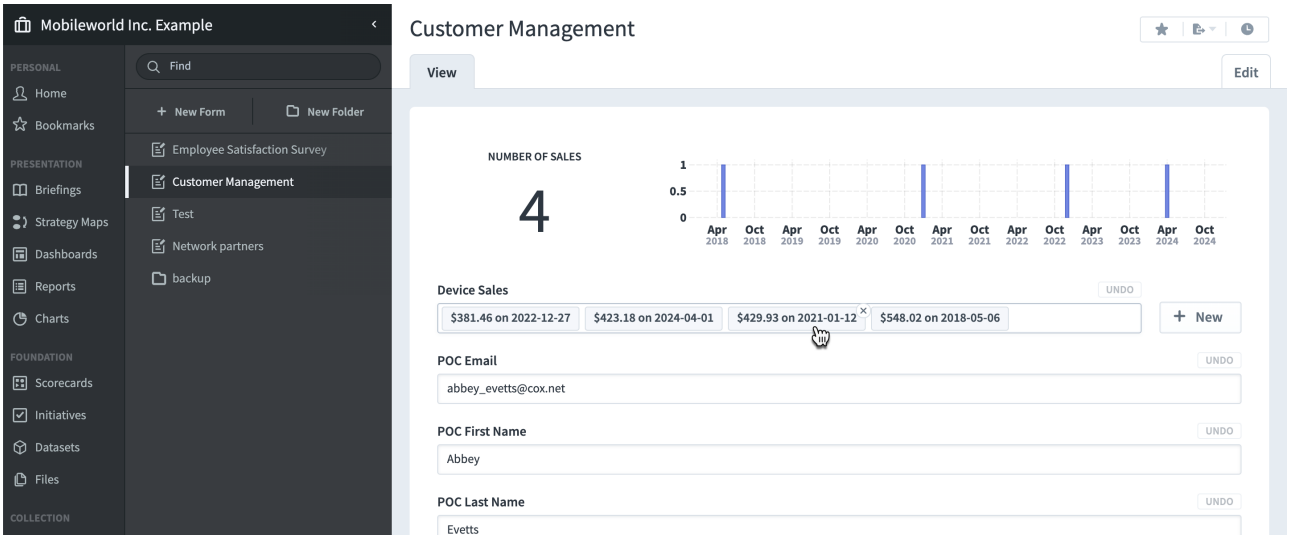
Dialogs allow you to show information in a modal window that temporarily covers the main form. They're like a form within a form, eliminating the need for separate forms or navigation to show messages or data from other datasets.

Dialogs are best explained with an example. Here we see a customer management form for the Customers dataset. This form starts with a searchable list of all customers. We'll click on the "Edit Customer" button for Abbey Evetts.

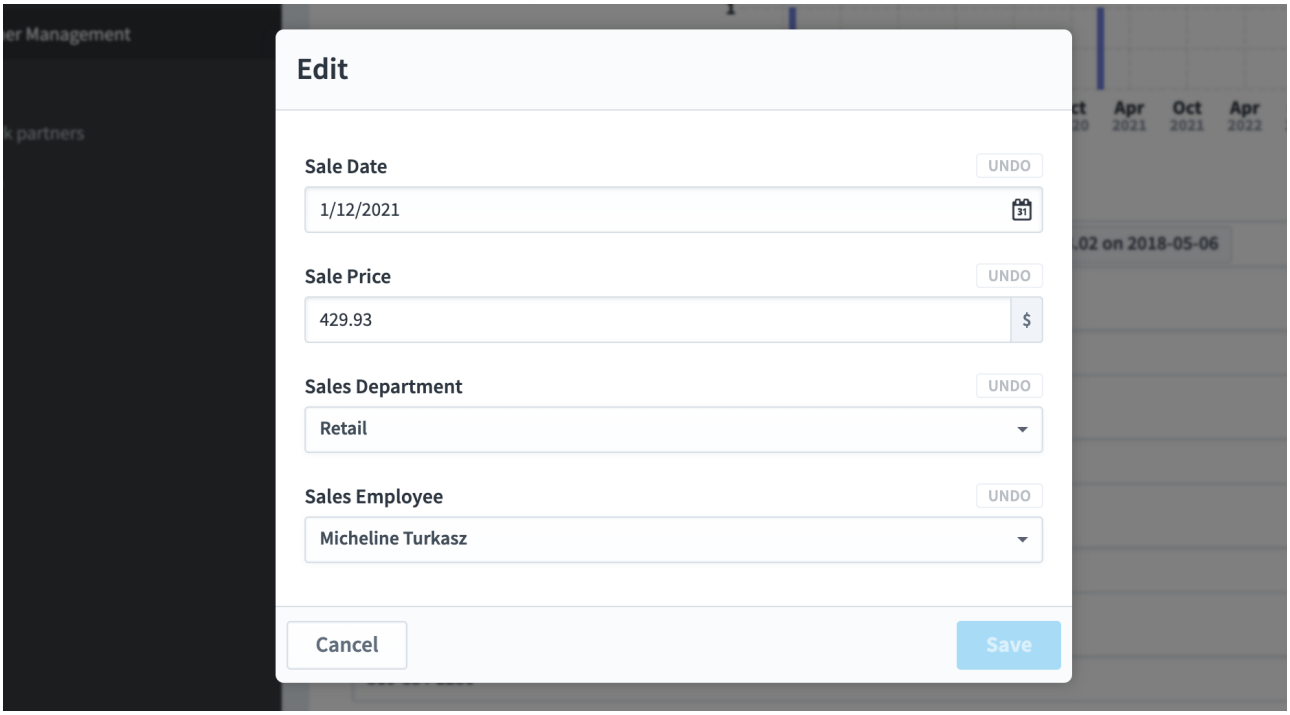


This takes us to the customer details screen. We can see the four sales for this customer, each of which is a record in the linked Device Sales dataset. We can

create a new sale by clicking on the "New" Button, or delete an existing sale by clicking on a sale's X icon. Instead, however, we'll click on one of the existing sales.

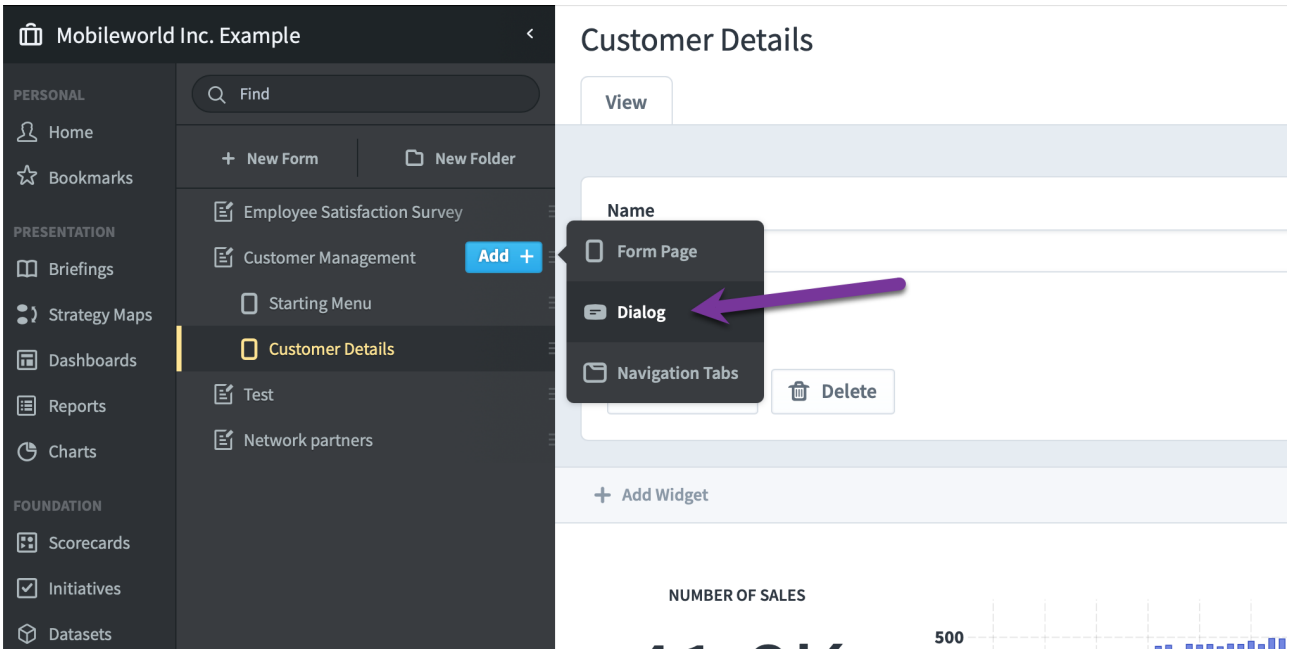


This opens a dialog that allows us to see details about that sale and even edit its details if we have the correct permissions.

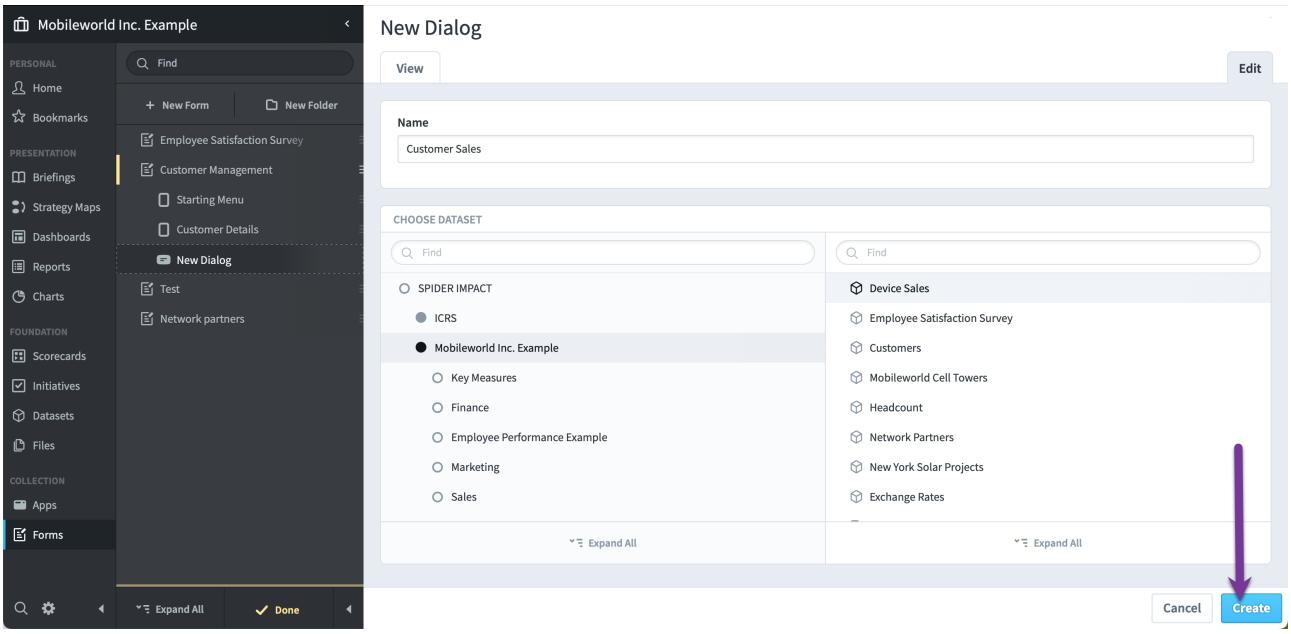


Form dialog items

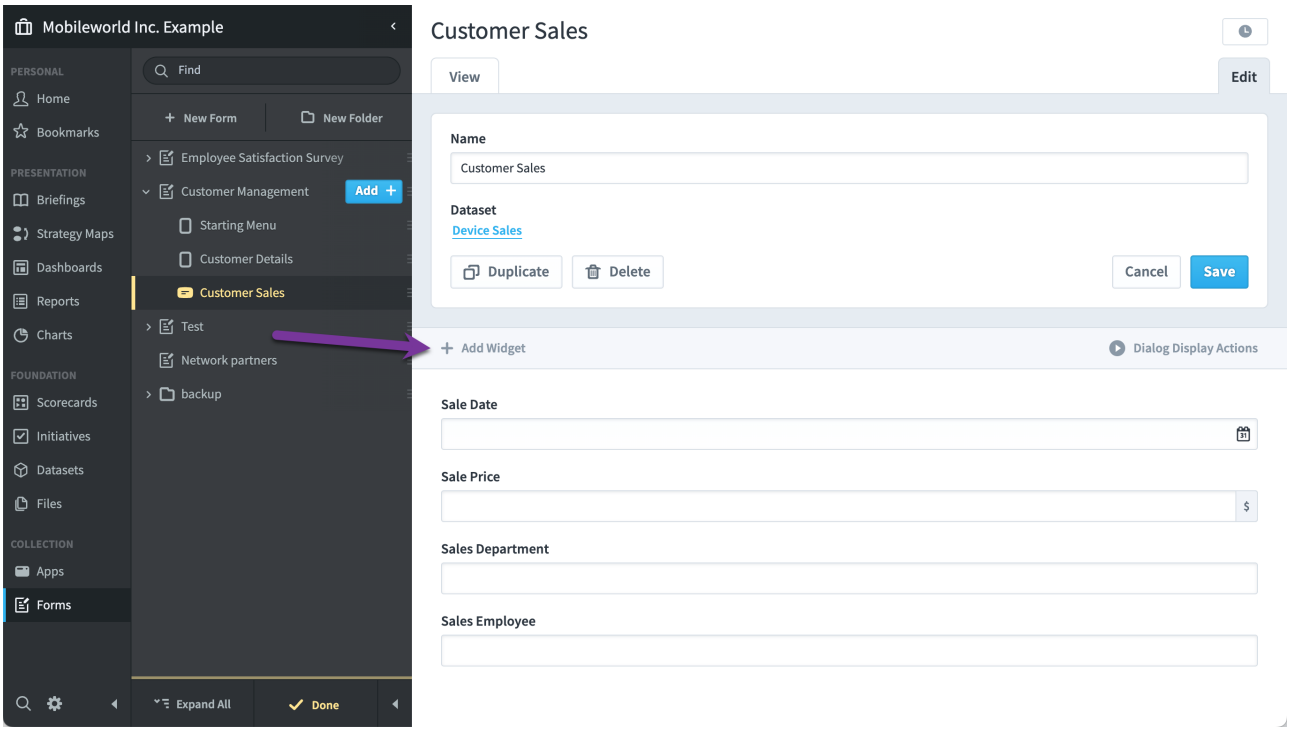
To add a dialog to your form, choose "Dialog" option in your form's "Add" menu.



Just like the Form itself, each Dialog has a dataset. Here we'll choose "Device Sales" and click "Create".



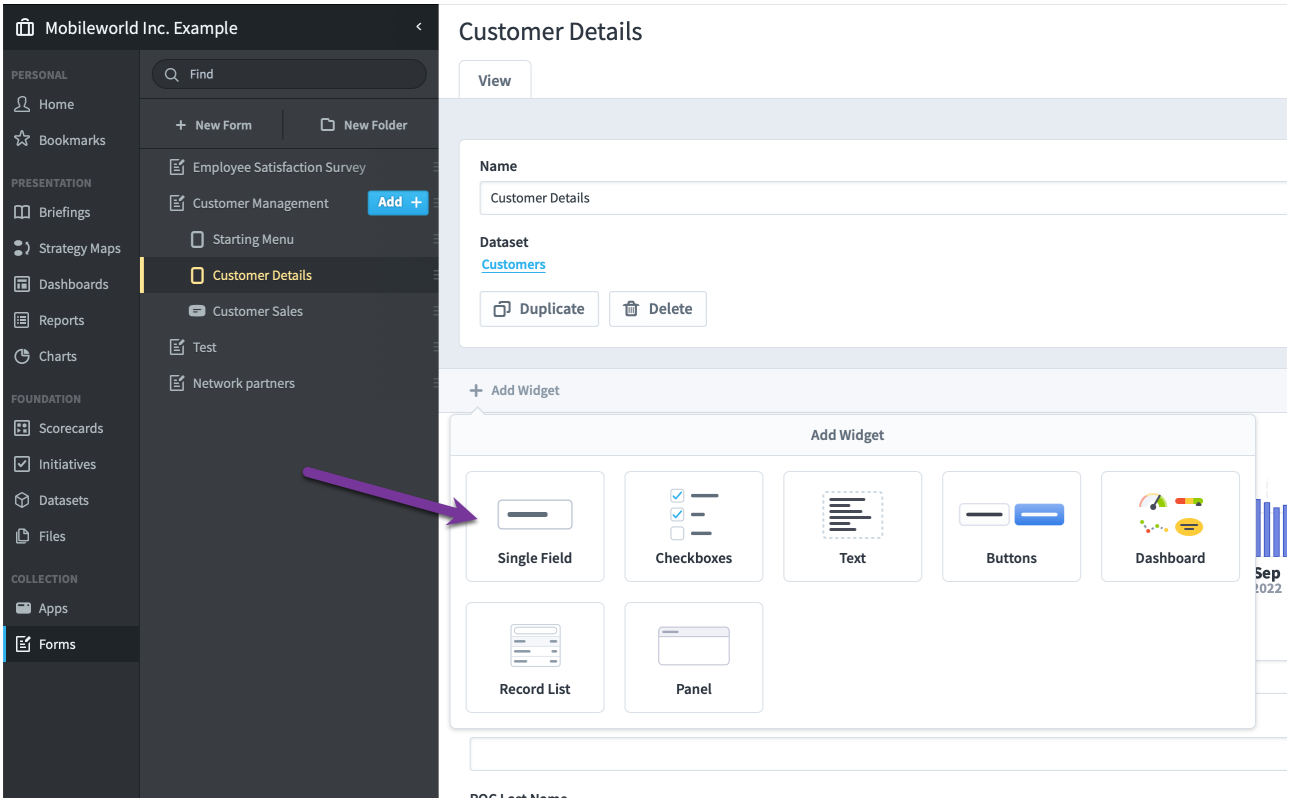
We're now editing our new "Customer Sales" dialog. It's similar to editing a Form Page, and you can add form widgets and set Dialog Display Actions.



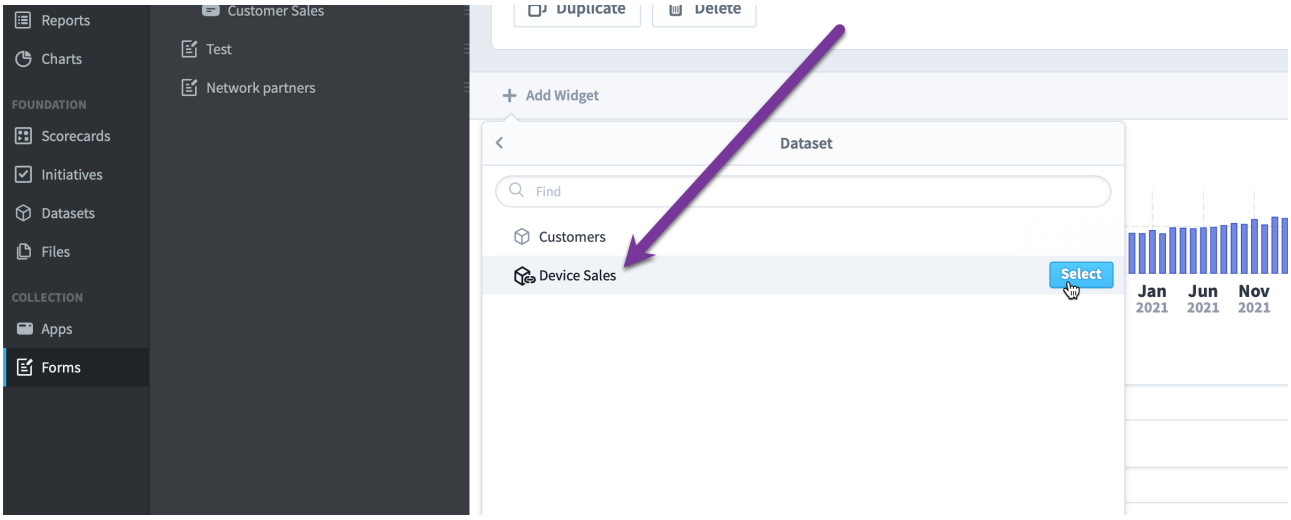
These new Dialogs are used in various ways described below.

Showing linked records in a dialog

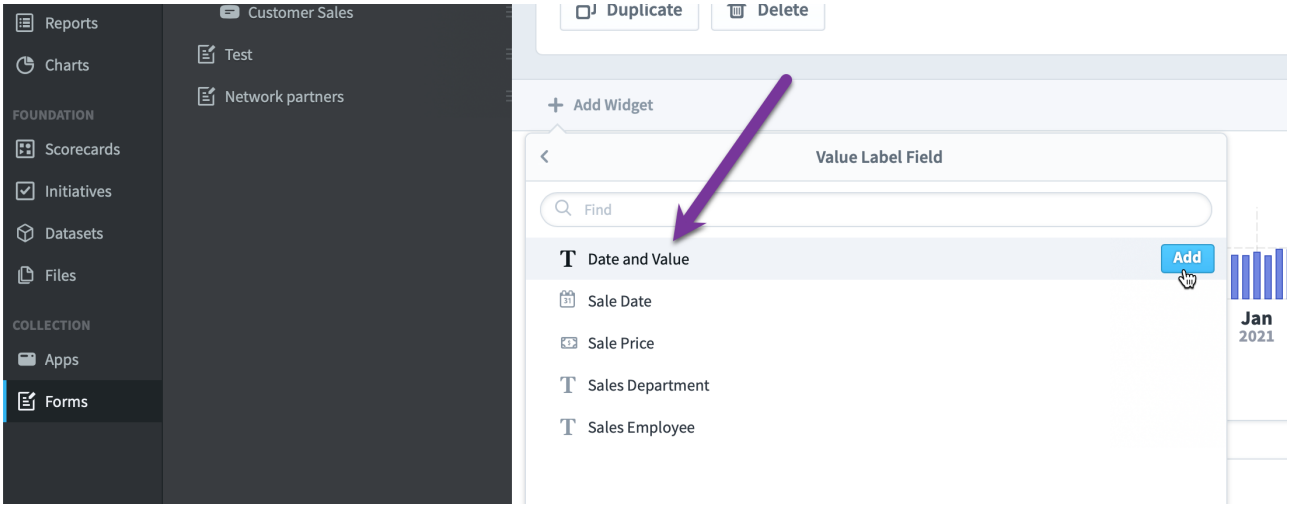
Linked record dialogs are launched from Single Field widgets that show fields for linked records. First we'll choose "Single Field" from the "Add Widget" menu.



Next we'll choose a linked dataset, in this situation "Device Sales".



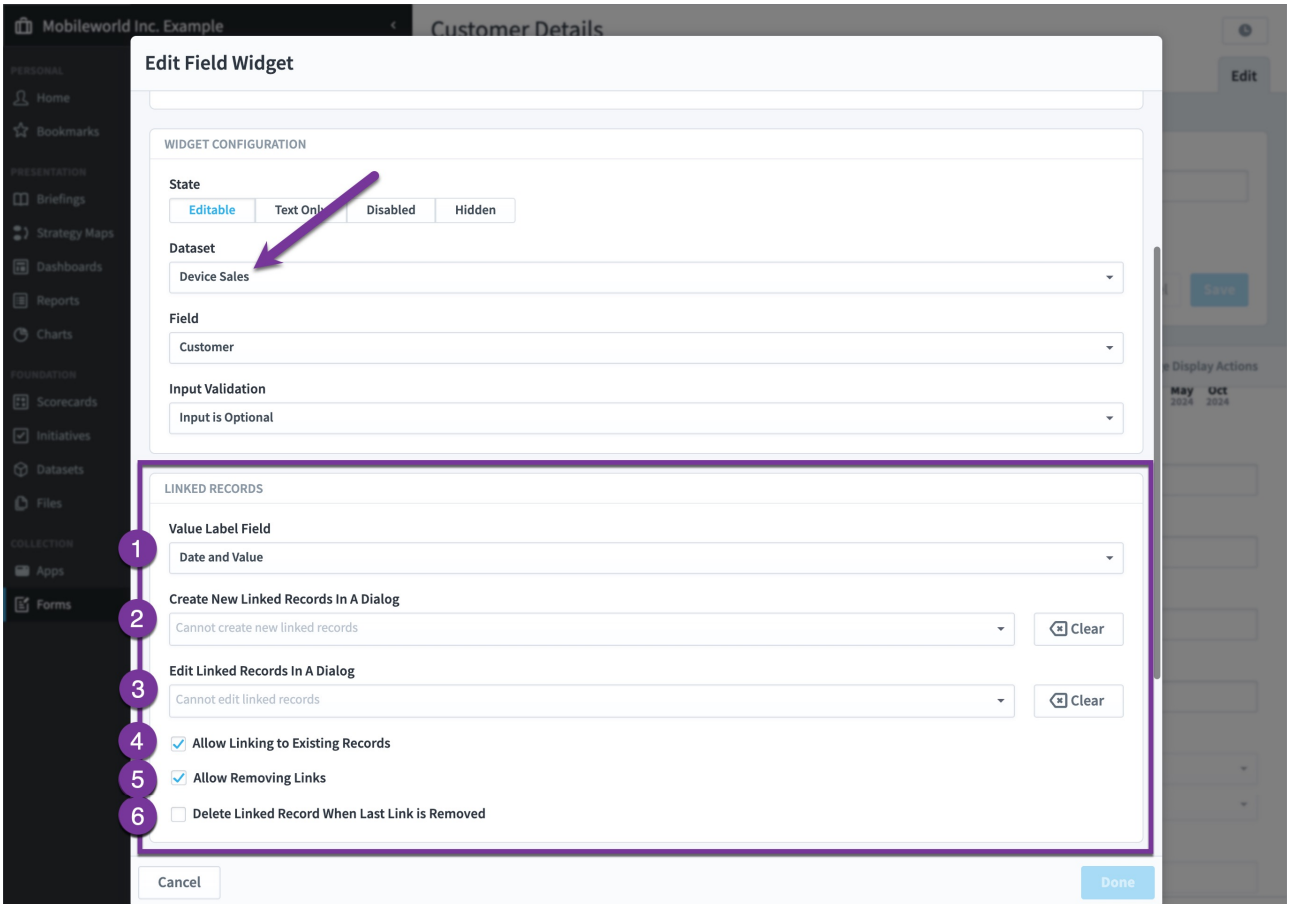
Then we'll choose the "Value Label" field we want to use to identify linked records. In this example we'll choose a calculated field called "Date and Value".



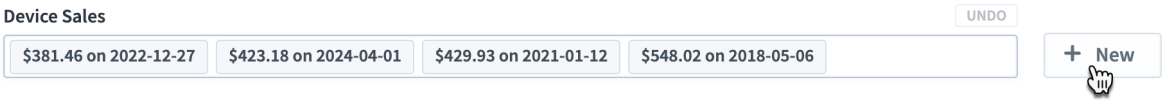
Because we've chosen a dataset that links to this form's dataset, we can see the "Linked Records" panel in the Single Field widget's edit dialog. The form configuration and user interface are slightly different whether the field is on the "Many" or the "One" side of a "One-to-Many" dataset linking relationship.

Dialogs for "One" side of dataset linking

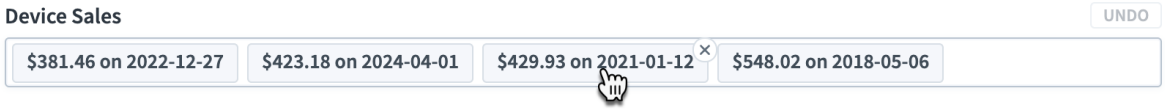
In this example we're seeing the "One" side of a "One-to-Many" dataset linking relationship.



1. **Value Label Field:** This is the field we've already chosen for how we want to identify each linked records.
2. **Create New Linked Records in a Dialog:** A dropdown selection enables users to specify a dialog for creating new linked records. If left unselected, record creation will be disabled for that widget.

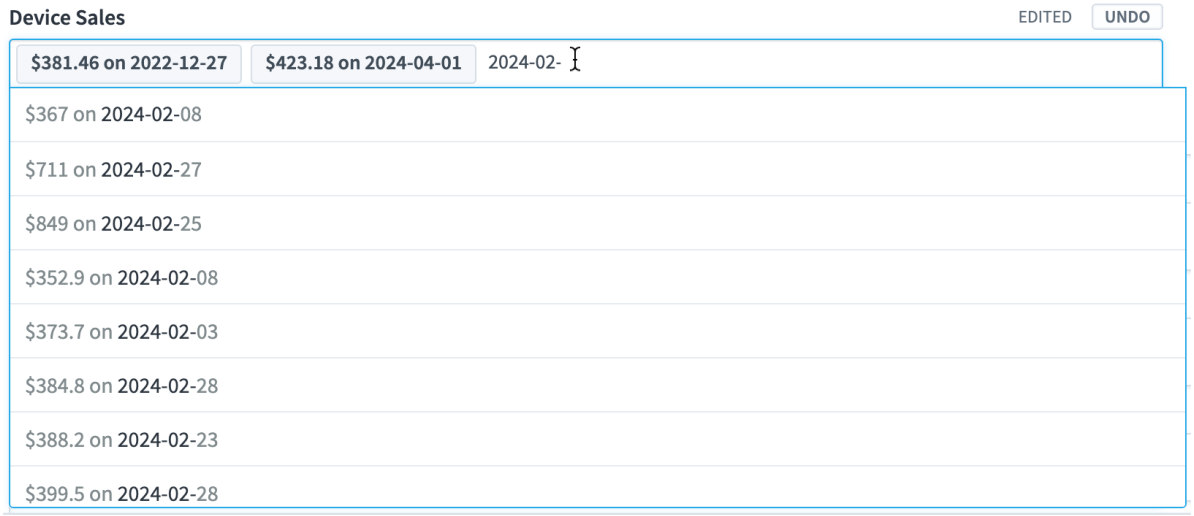


3. **Edit Linked Records in a Dialog:** A separate dropdown allows for configuring dialogs that enable editing existing linked records. If left unselected, record editing will be disabled for that widget.



4. **Allow Linking to Existing Records:** A checkbox setting that, when enabled, permits selecting existing records to link to. When disabled, new records

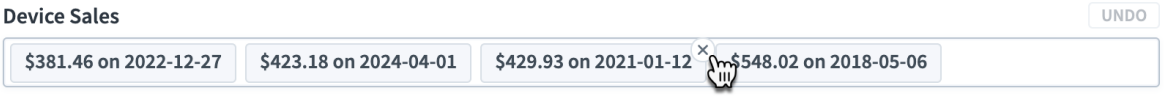
must be created directly in the form.



5. **Allow Removing Links:** This allows you to control whether users can remove linked records, independent of users' underlying permissions. This allows you to prevent accidental removals while still allowing users to edit records in dialogs.



6. **Delete Linked Record When Last Link is Removed:** When checked, linked records will be automatically deleted if they are no longer associated with any primary records.



Dialogs for "Many" side of dataset linking

The "Many" side of the "One to Many" dataset linking relationship is similar, except there isn't a checkbox for "Allow Removing Links" or "Delete Linked Record When Last Link is Removed".



Using the form on the "Many" side of the "One to Many" dataset linking relationship, however, is quite a bit different. When a dialog item is selected in the "Create New Linked Records in a Dialog" dropdown, form users can click "New" to create a linked record in a dialog when no linked record is selected in the form. When a dialog object is selected in the "Create New Linked Records in a Dialog" dropdown, form users can click "New" to create a linked record in a dialog when no linked record is selected in the form.



When a dialog object is selected in the "Edit Linked Records in a Dialog", form users can click View to open a dialog with the existing linked record if one is selected in the dropdown.



When "Allow Linking to Existing Records" is unchecked, the dropdown doesn't open and users can only create new records via the New button - also matching

the behavior available on the "one" side of relationships.

Dialog Data Persistence and Permissions

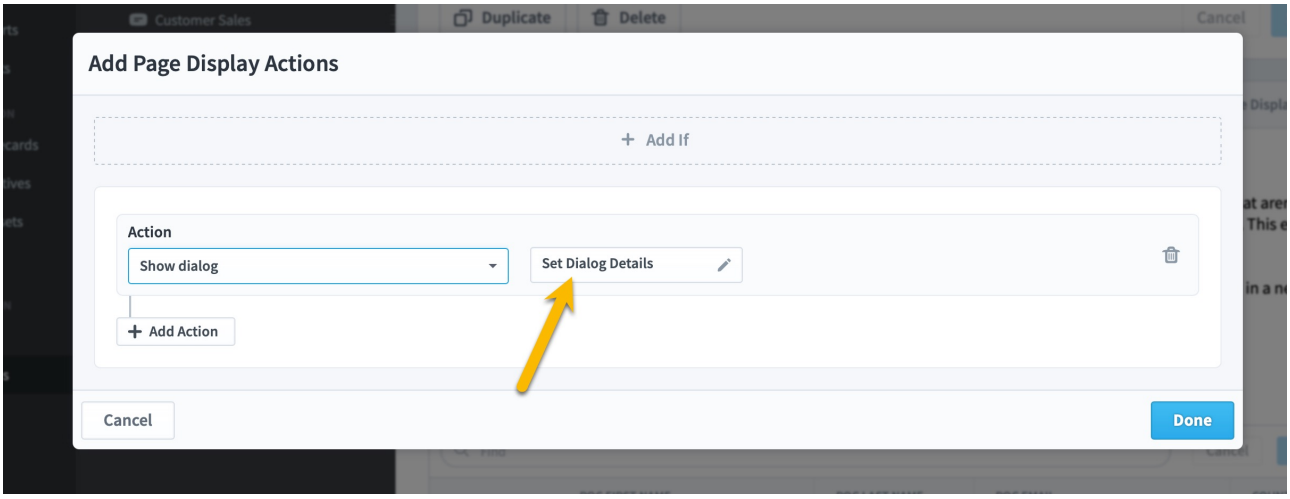
To maintain data integrity, the software handles record saving differently based on configuration. Edits to existing linked records are saved immediately when clicking the dialog's "Save" button.

New linked records follow one of two behaviors depending on the "Delete Linked Record When Last Link is Removed" setting. When this checkbox is not checked, the record is created immediately when clicking the dialog's "Save" button, and calculated field values are retrieved from the server. However, when this checkbox is checked, the record is only created locally and saved to the server when the primary form is saved. During this interim period, calculated value label fields display "[New Record to be Created]" as a placeholder until the actual value can be retrieved from the server.

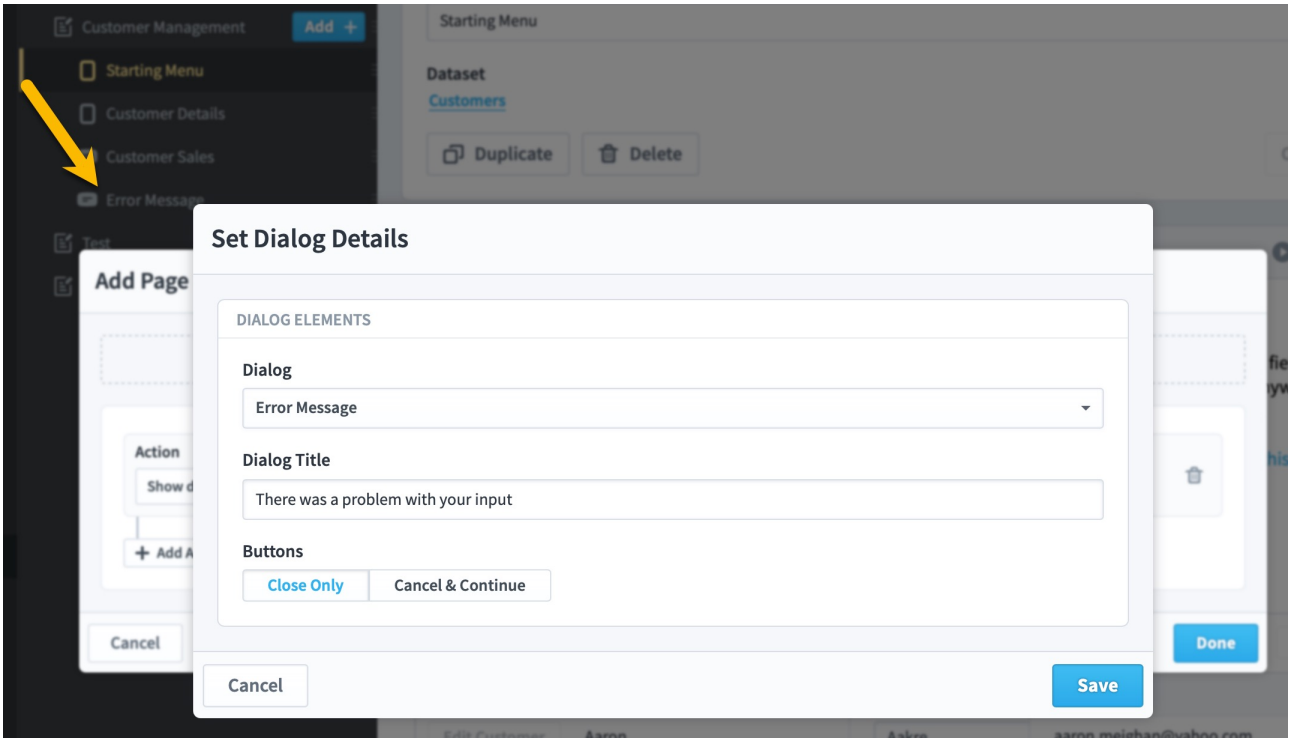
Permissions remain enforced throughout the process, ensuring users only see and modify records they have access to.

Showing dialogs from actions

You can also display dialogs via actions, allowing you to show confirmations, warnings, or information to your form users. For more information about actions, see the Form Variables, Logic, and Actions article.

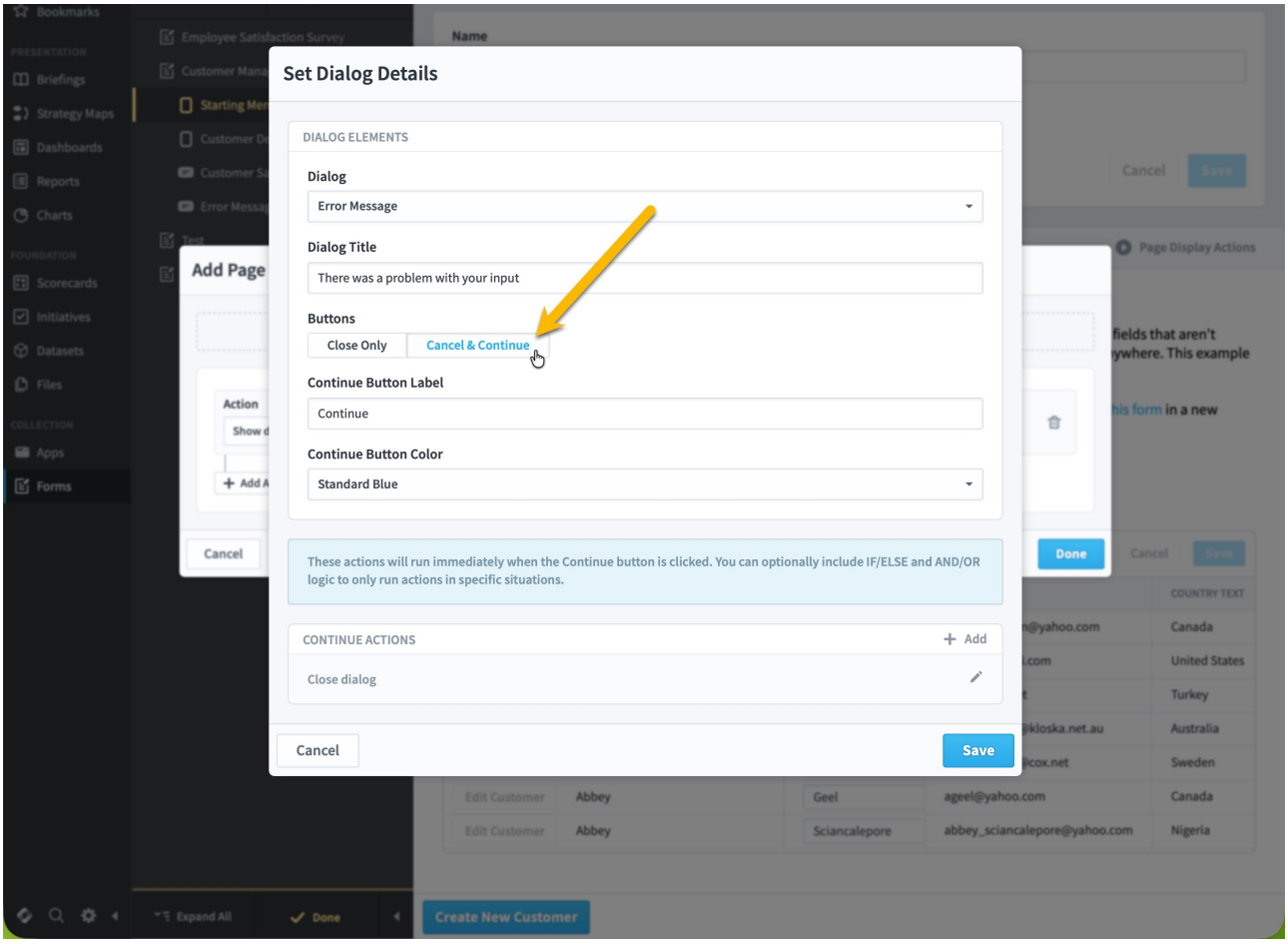


When configuring a Show Dialog action, you select which dialog to display from a dropdown of all available form dialogs, and you set the dialog's title. By default dialogs launched from actions only have a single Close button.

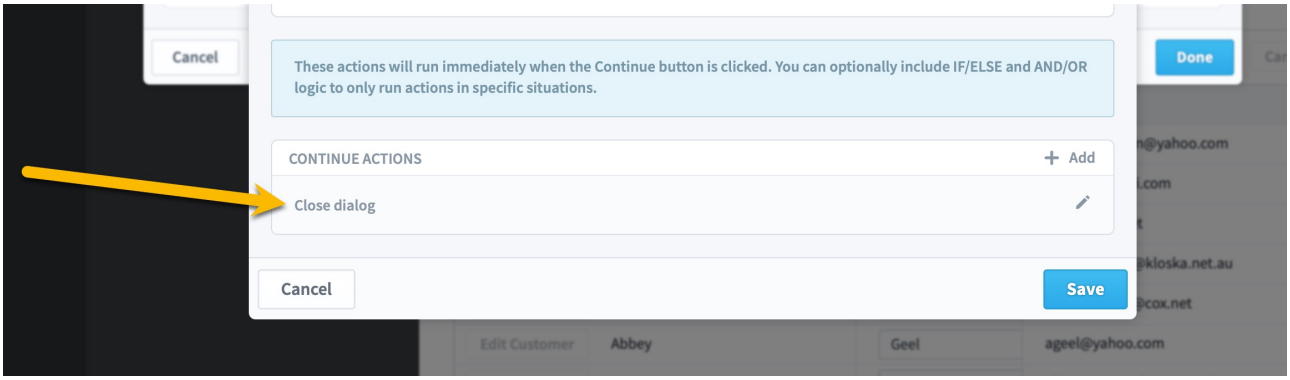


If you choose to have your dialog use "Cancel & Continue" buttons, however, you're able to also fire actions when the dialog's Continue button is clicked. The Continue button can be customized with a different label and color choice between Blue

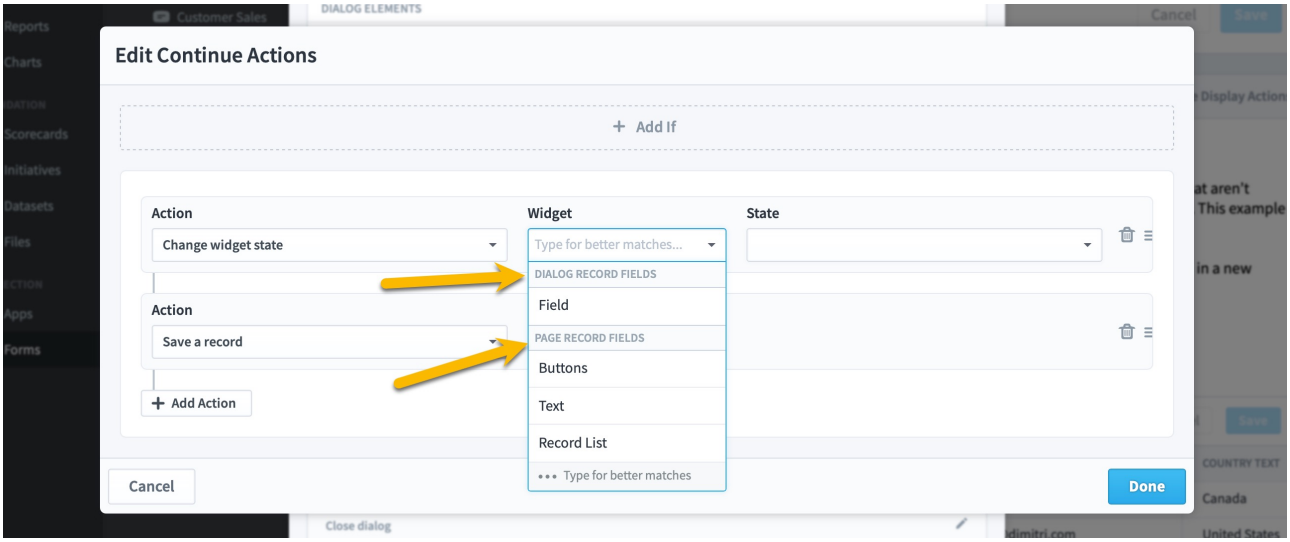
Standard or Red Warning to match the dialog's purpose. The Continue button supports full conditional logic and can trigger multiple actions including field updates, record saves, and validation checks.



Dialog Continue buttons also have explicit control over when dialogs close. A dedicated "Close Dialog" action is added by default to new dialogs and can be placed within conditional logic, allowing dialogs to stay open if validation fails or close only after successful operations.



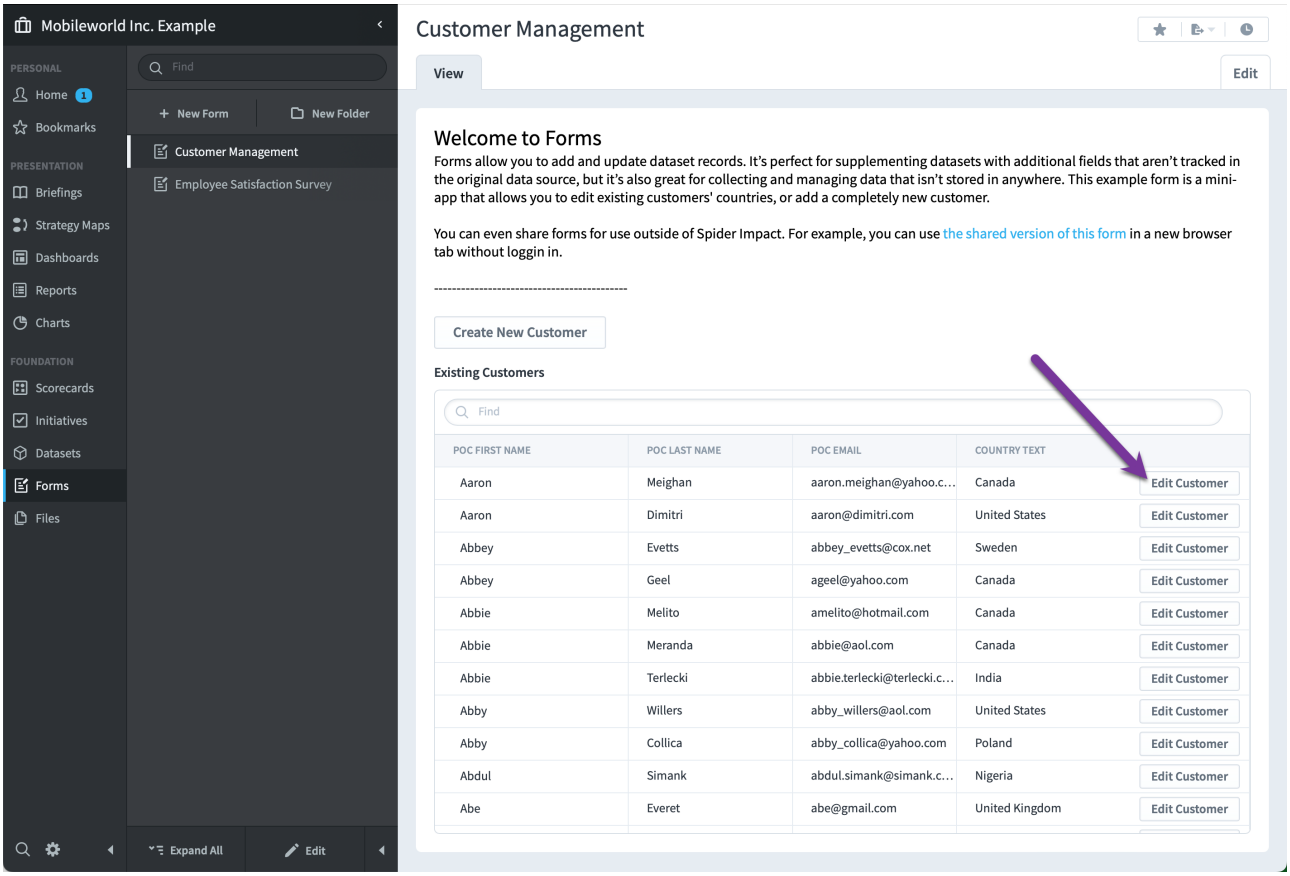
Dialog actions can reference both dialog fields and underlying form page fields, which appear in the same dropdown organized into "Dialog Record Fields" and "Page Record Fields" sections.



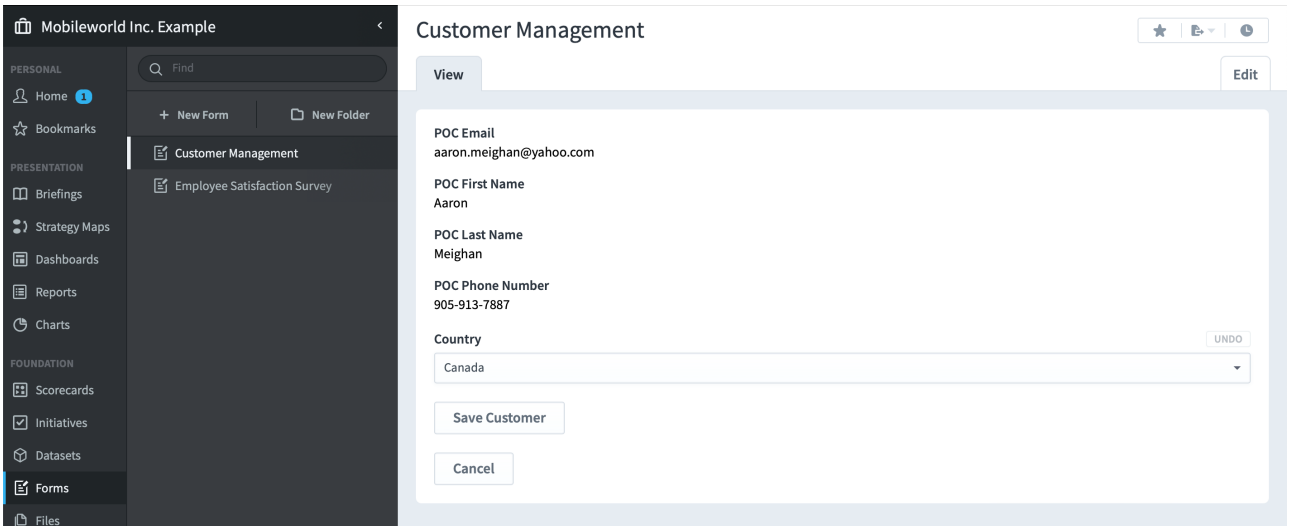
Note that nested dialogs are not supported - "Show Dialog" is not available within dialog Continue Actions.

Navigation Tabs

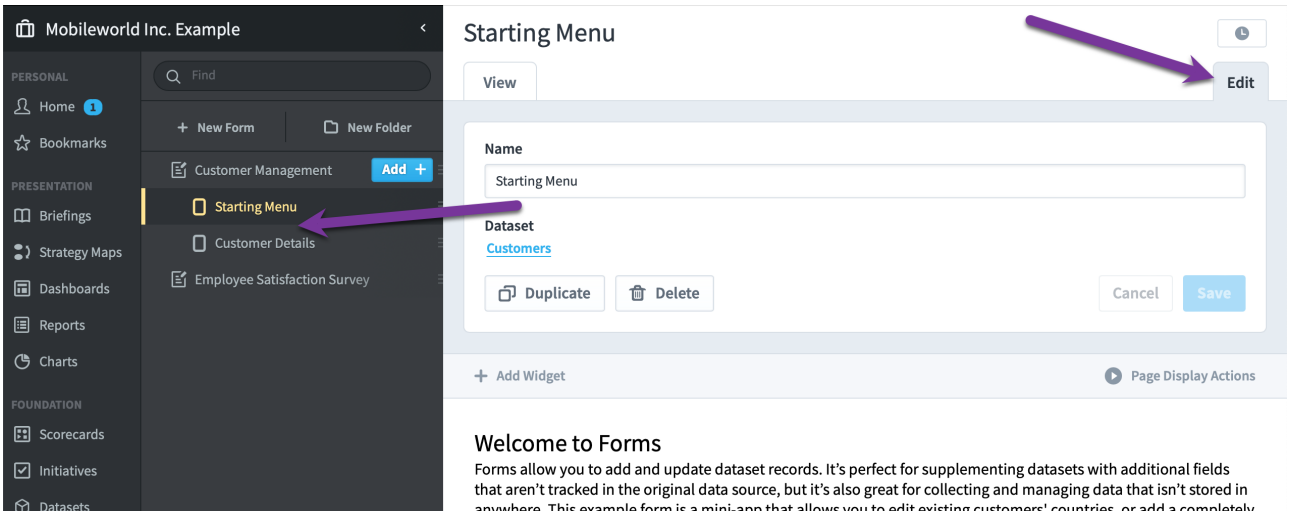
Users navigate between pages in multi-page forms by interacting with components like buttons or dropdown selects. For example, in this form the first page lists all customers, each with an "Edit Customer" button.



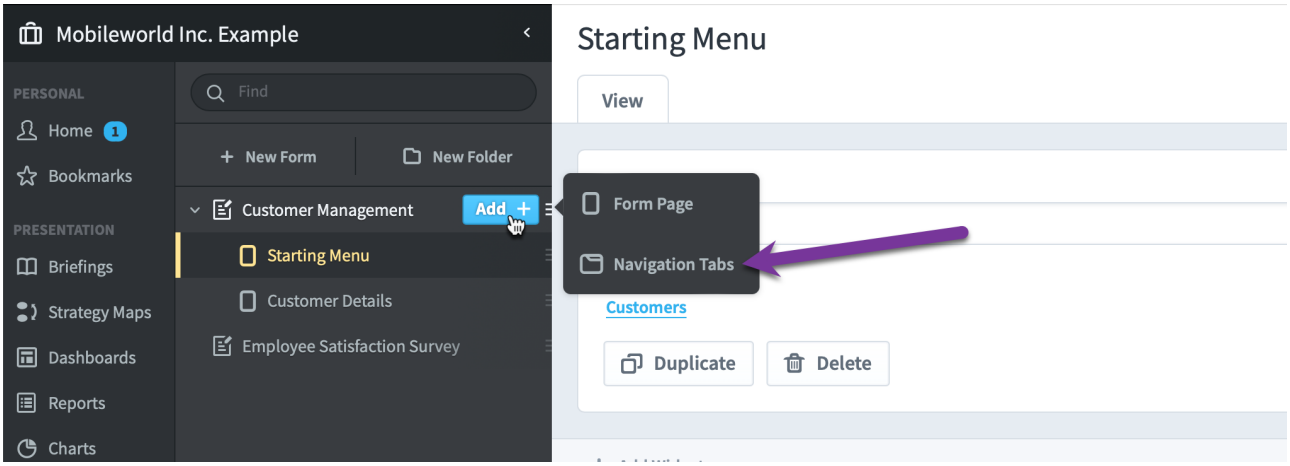
When you click the "Edit Customer" button, you are then taken to a second form page where you can see the customer's email, first name, last name, and phone number. You can also edit the customer's country.



When we click to the form's Edit tab, the two form pages now show under the form.

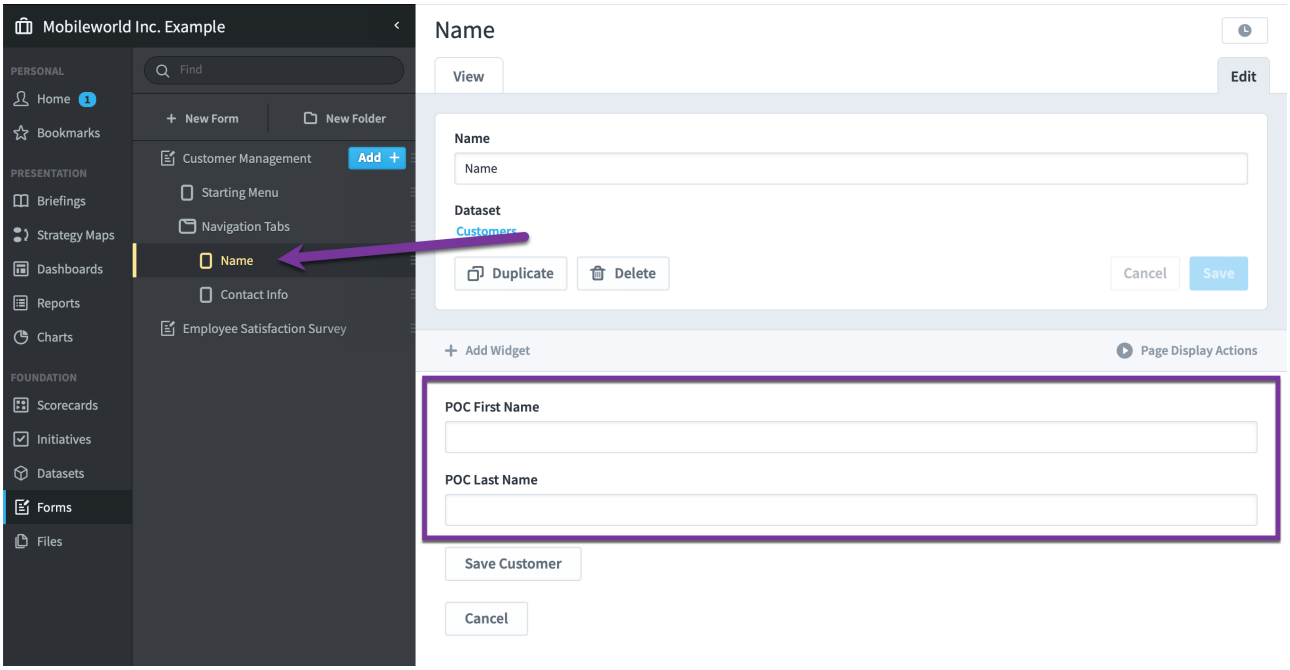


In the latest version of Spider Impact, there is now the ability to add navigation tabs to forms. These tabs support nonlinear navigation, allowing users to jump directly to specific form pages.

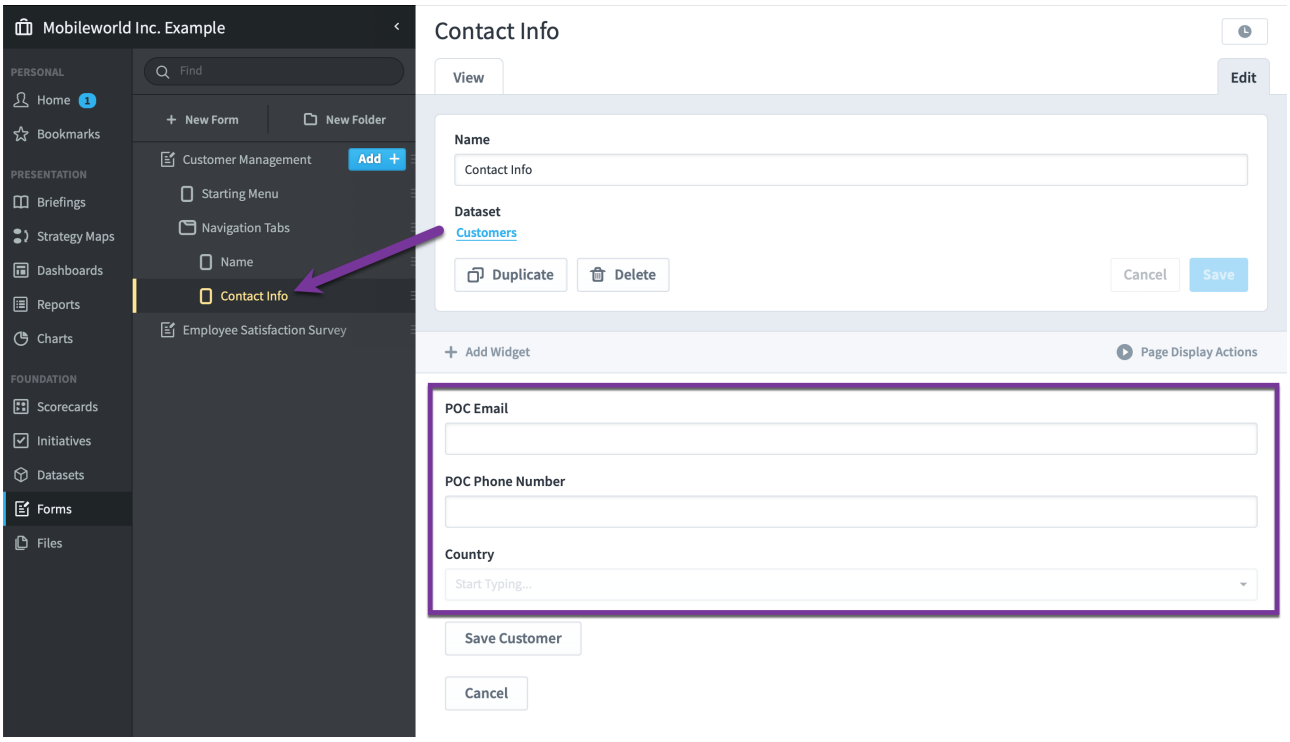


Adding tabs is simple. Just click the form's Add button and choose Navigation Tabs. This adds a navigation tabs item under the form. Then, any form pages you drag underneath the Navigation Tabs item will become tabs.

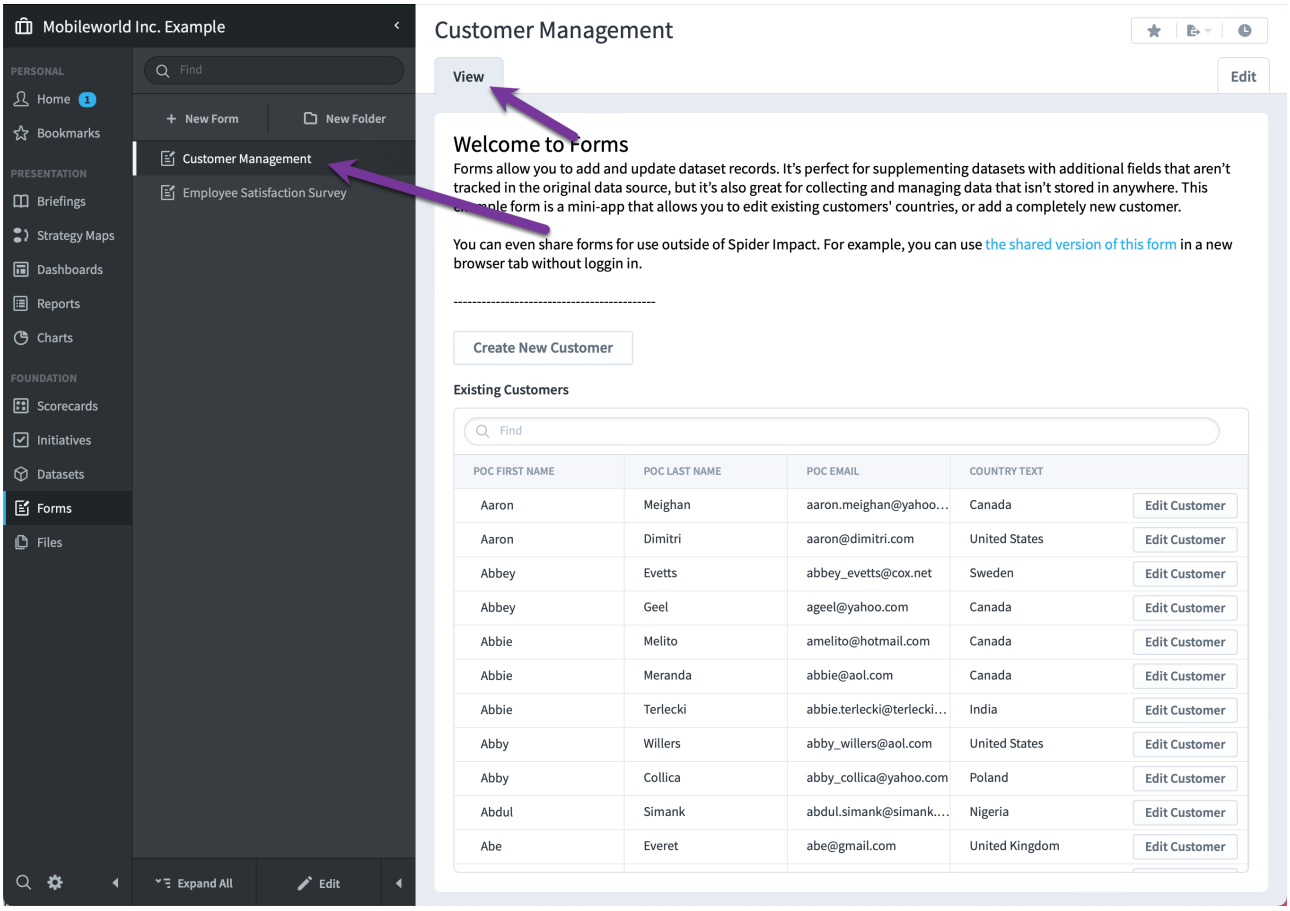
In this example we've added a Navigation Tabs item, split the Customer Details page into two separate pages, and then moved those two pages under Navigation Tabs. As you can see, our new Name page only shows two fields: First Name and Last Name.



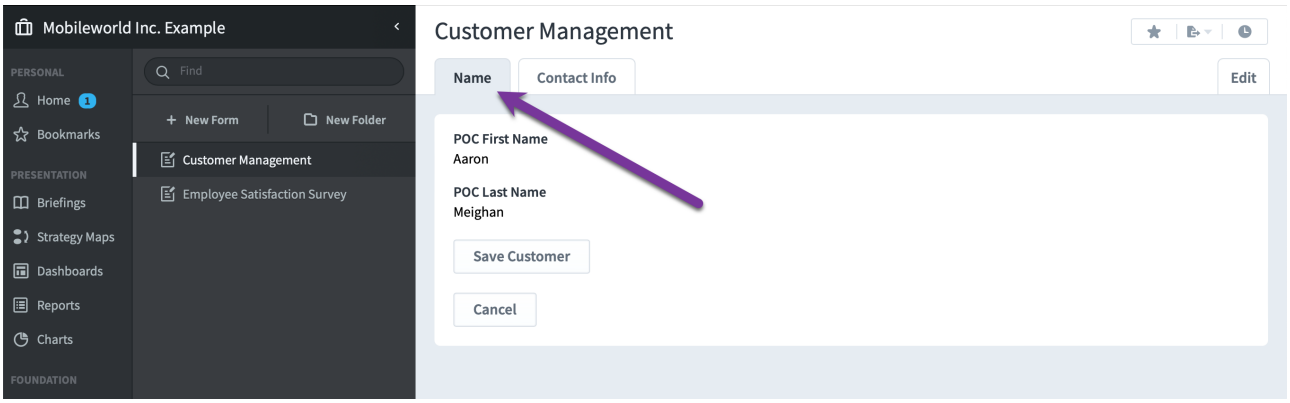
The Contact Info page has the other three fields: Email, Phone Number, and Country.



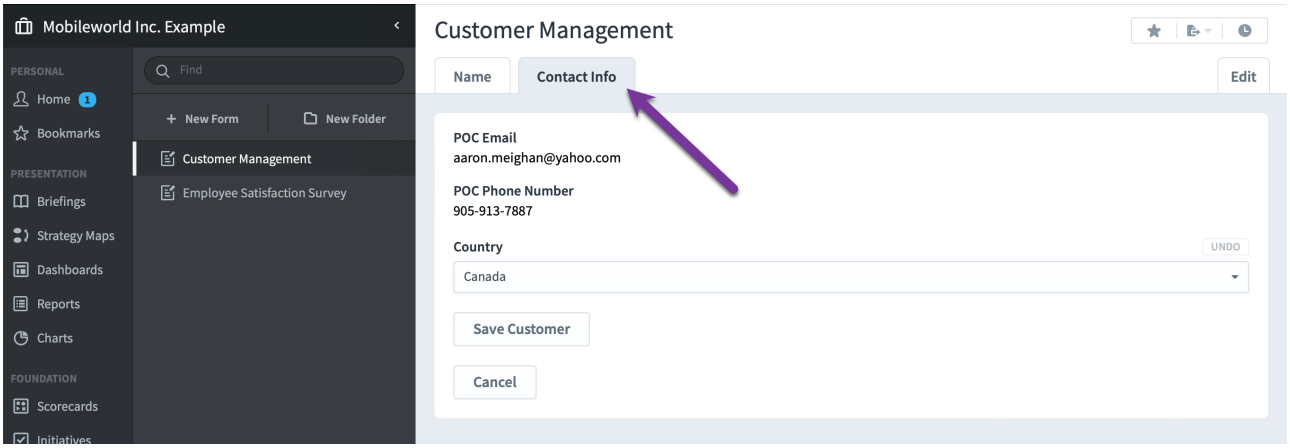
Now let's see this form in action. As before, when we click to the View tab, all of the form pages collapse under Customer Management.



When we click a row's Edit Customer button, however, the View tab changes to be two tabs: Name and Contact Info.



Name is selected, but we can also click to the Contact Info tab to see that form page.



In this example we started on a form page that wasn't inside of a navigation tabs item, but that doesn't have to be the case. Many forms will use tabs as their primary navigation with every form page as a separate tab.

Reports

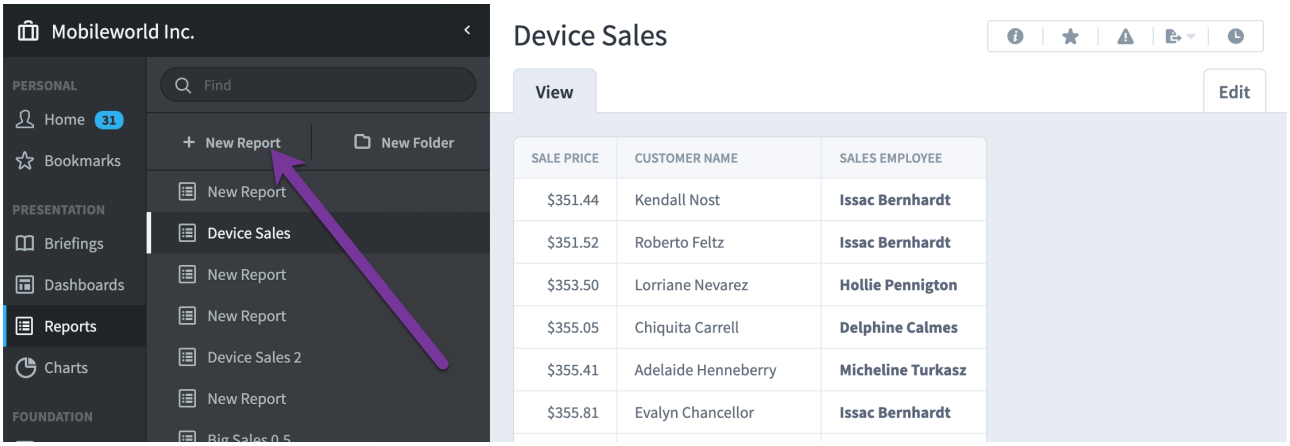
Overview of Reports

The Basics

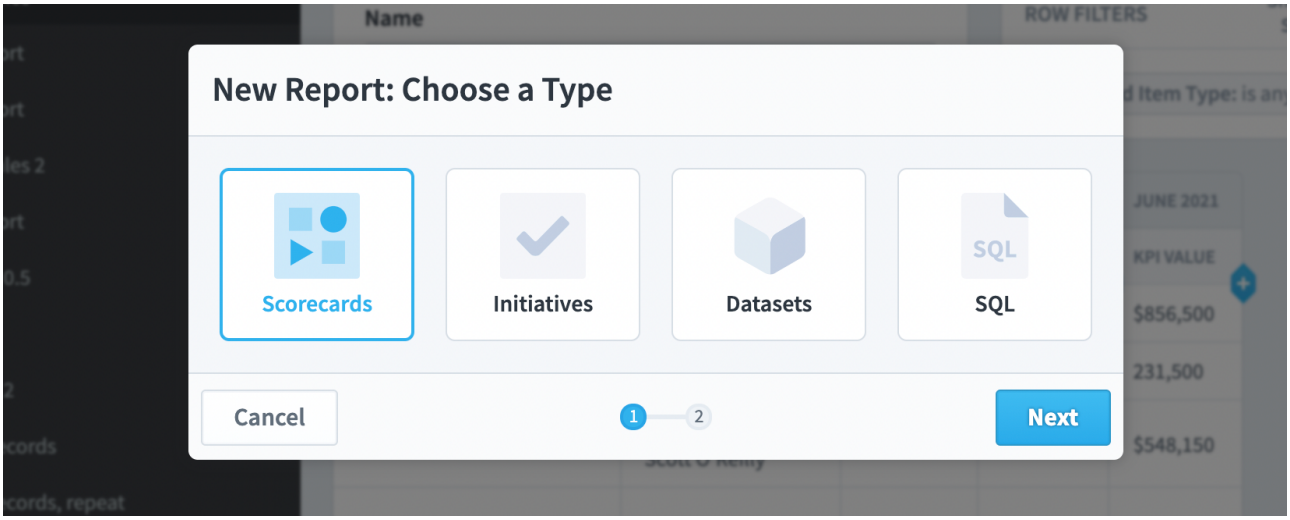
Reports show information about many Scorecard items, Initiative items, or Dataset records at once. They have formatting, grouping, sorting, filtering, and aggregating. In short, Spider Impact now has a full-featured report designer for all of the data it tracks. For example, you can choose to view all of the downward trending KPIs, all of the initiatives owned by a particular person, or aggregated data about every Canadian employee.

Creating a report

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

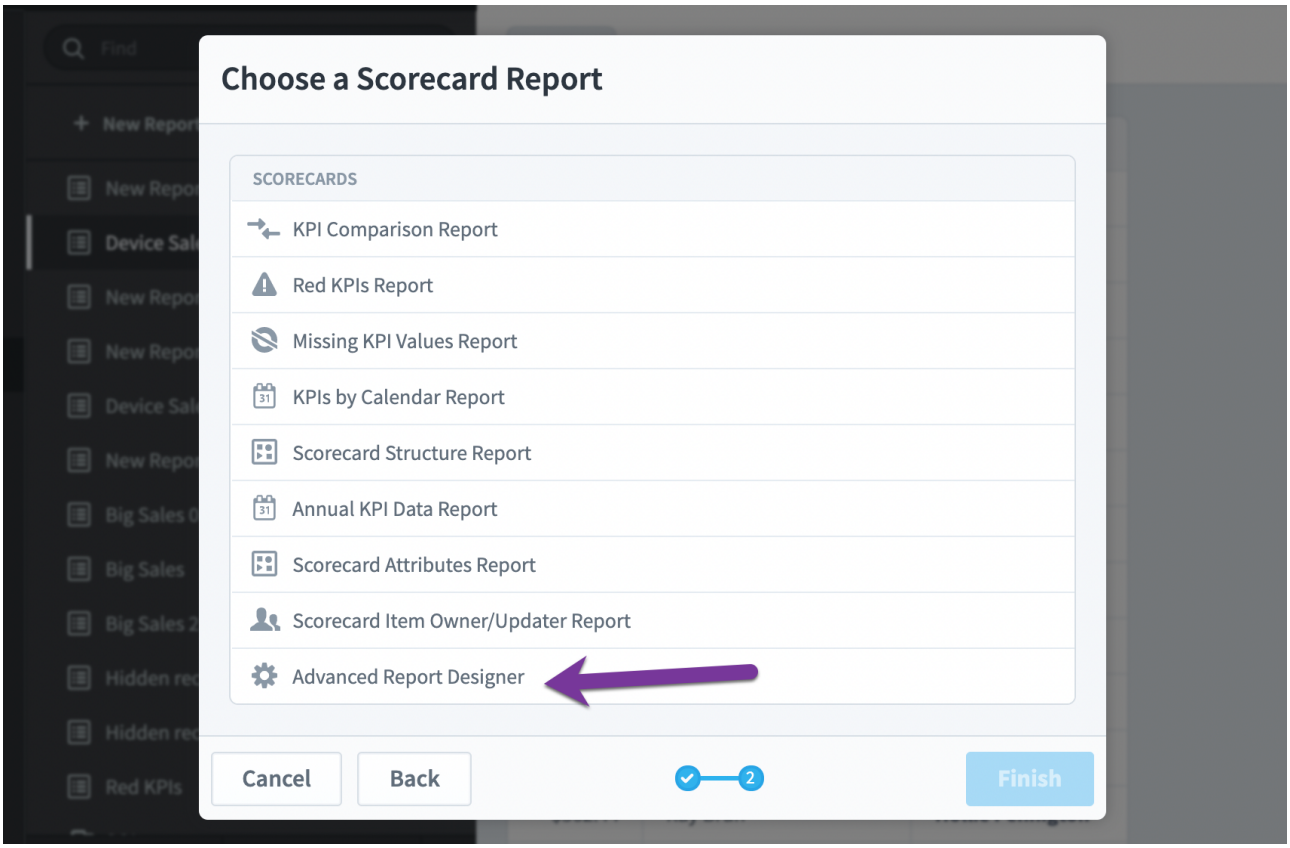


Each report is for a single type of data. First, we’ll choose Scorecards.

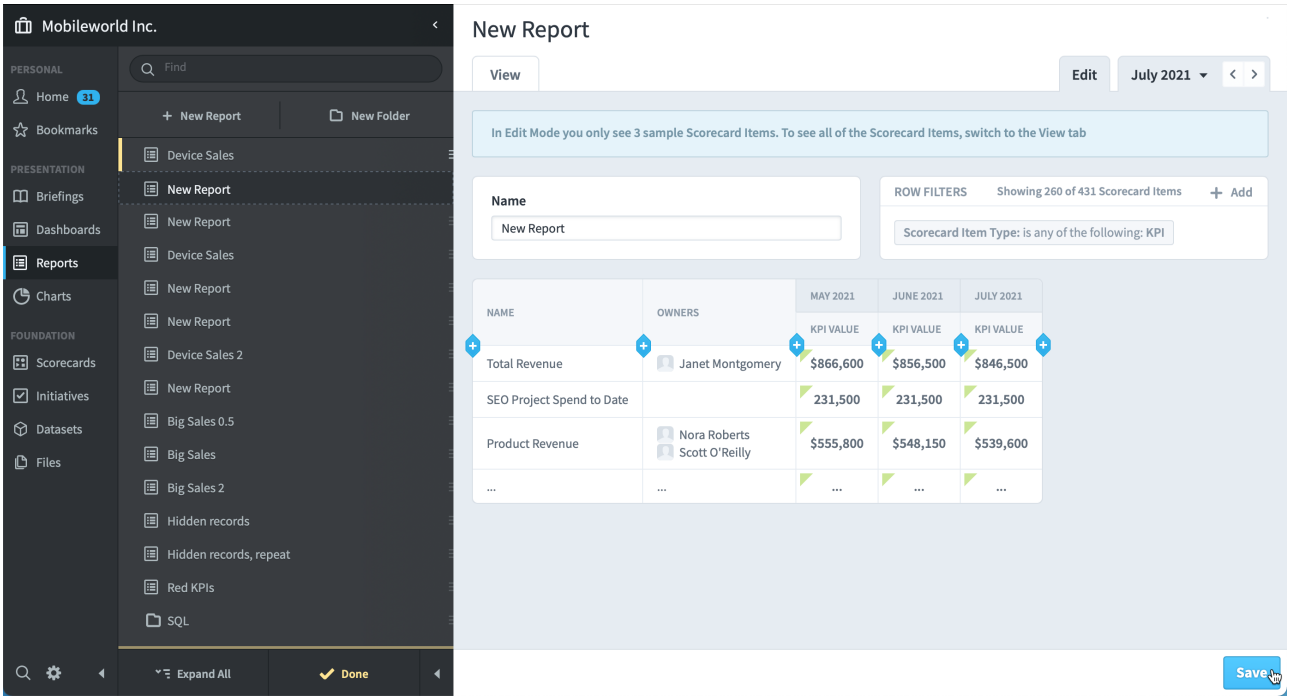


You can choose between several pre-built reports like the Red KPIs report and Missing KPI Values report. These reports get you started with "canned" reports that you can configure. See the Prebuilt Scorecard Reports article for more information.

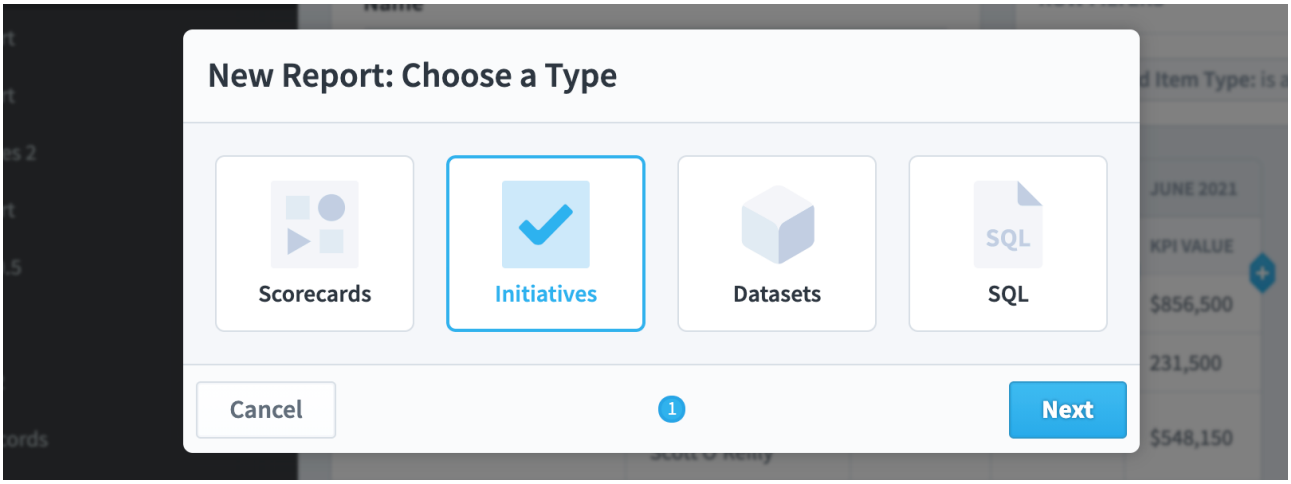
Instead, we'll build a report from scratch by choosing the Advanced Report Designer option on the bottom.



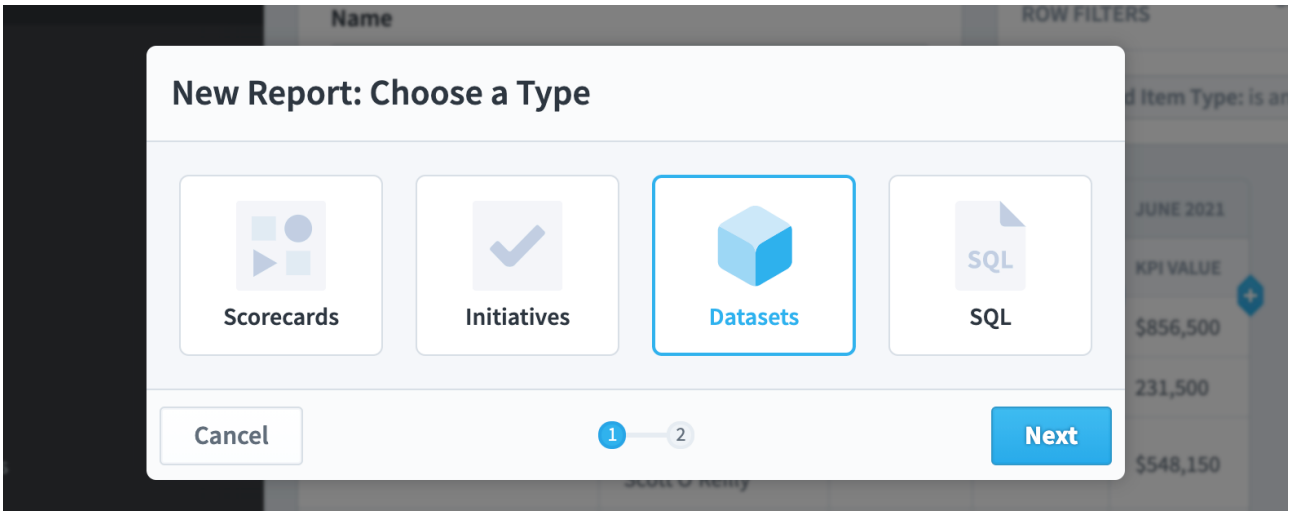
The Advanced Report Designer for scorecard items starts by showing the scorecard item name, owners, and three periods of data for all KPIs.



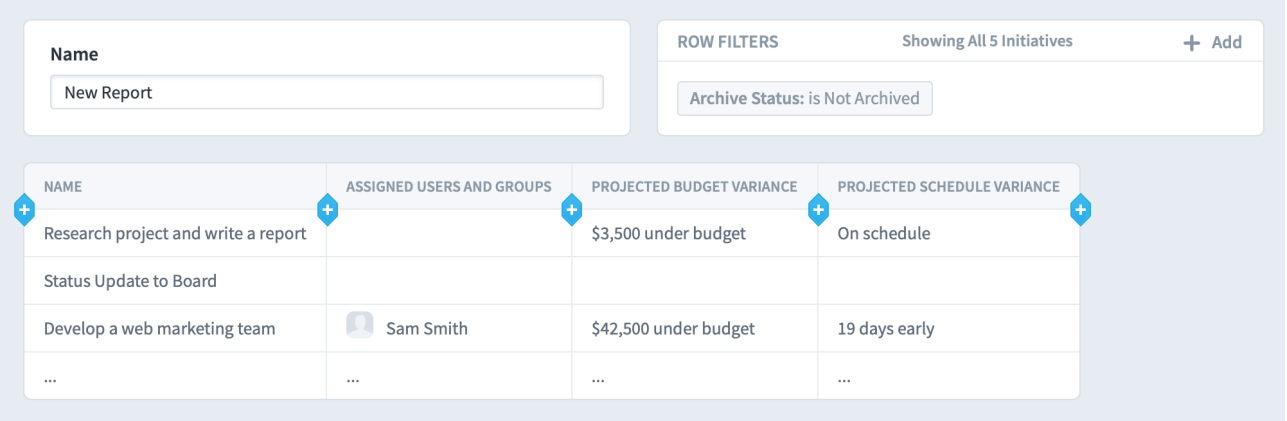
Let's start a new report, and this time we'll choose Initiatives.



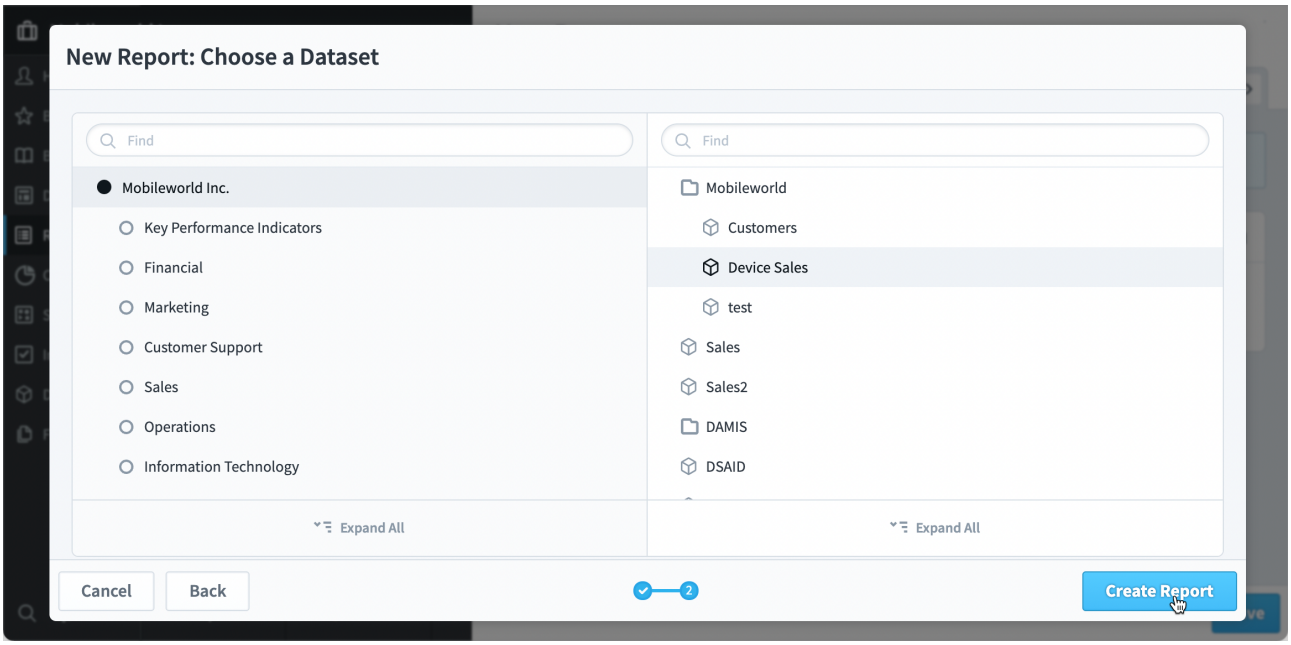
A new Initiatives report starts with showing the budget and schedule information for all non-archived initiative items.



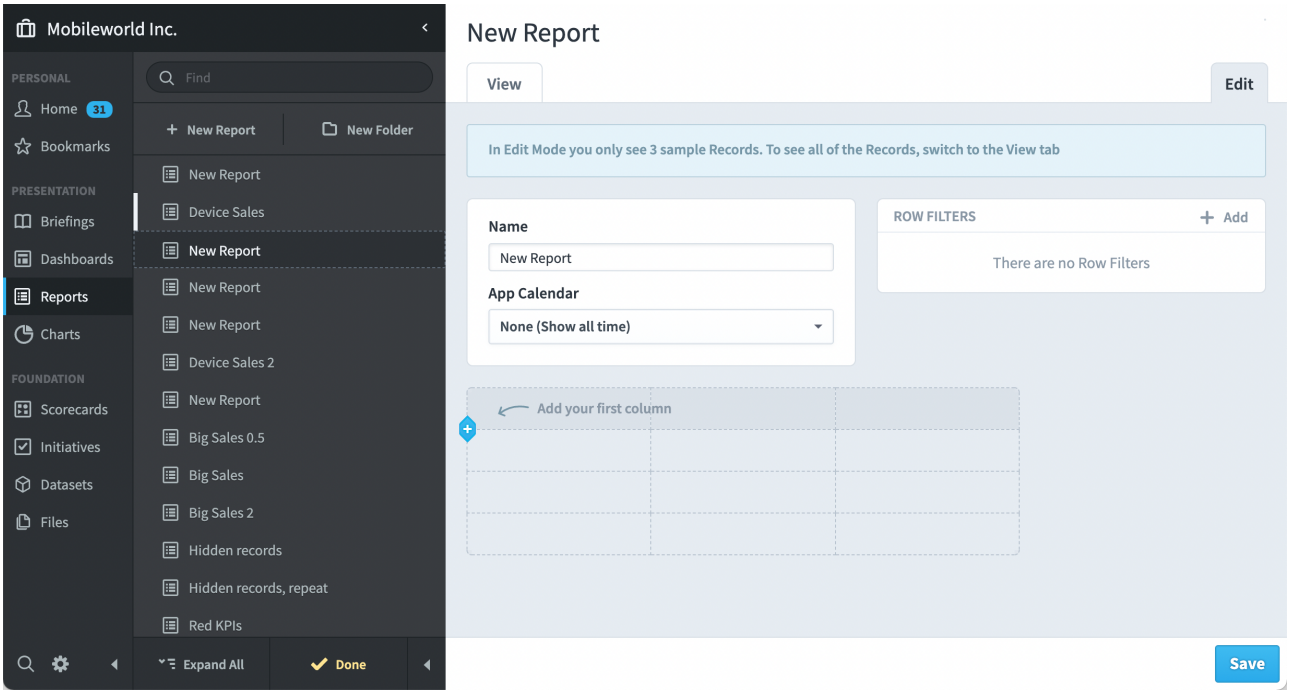
The third type of report is Datasets.



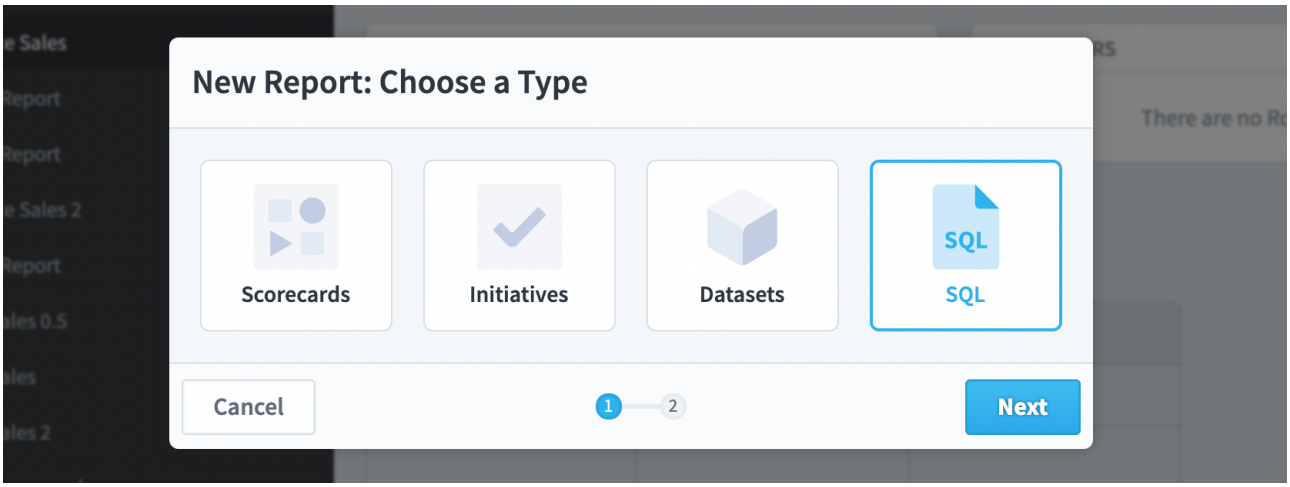
A dataset report shows data from a single dataset, which we'll choose next.



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.



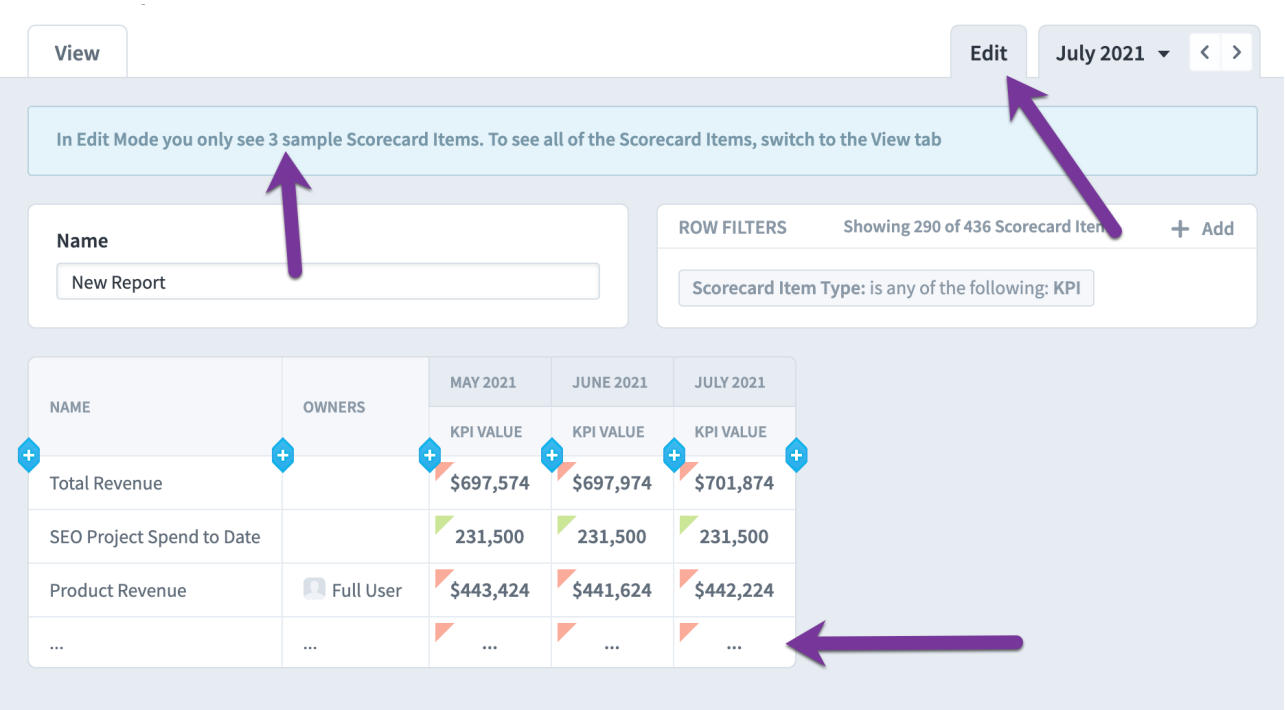
Finally, users with the right permissions can choose SQL reports.



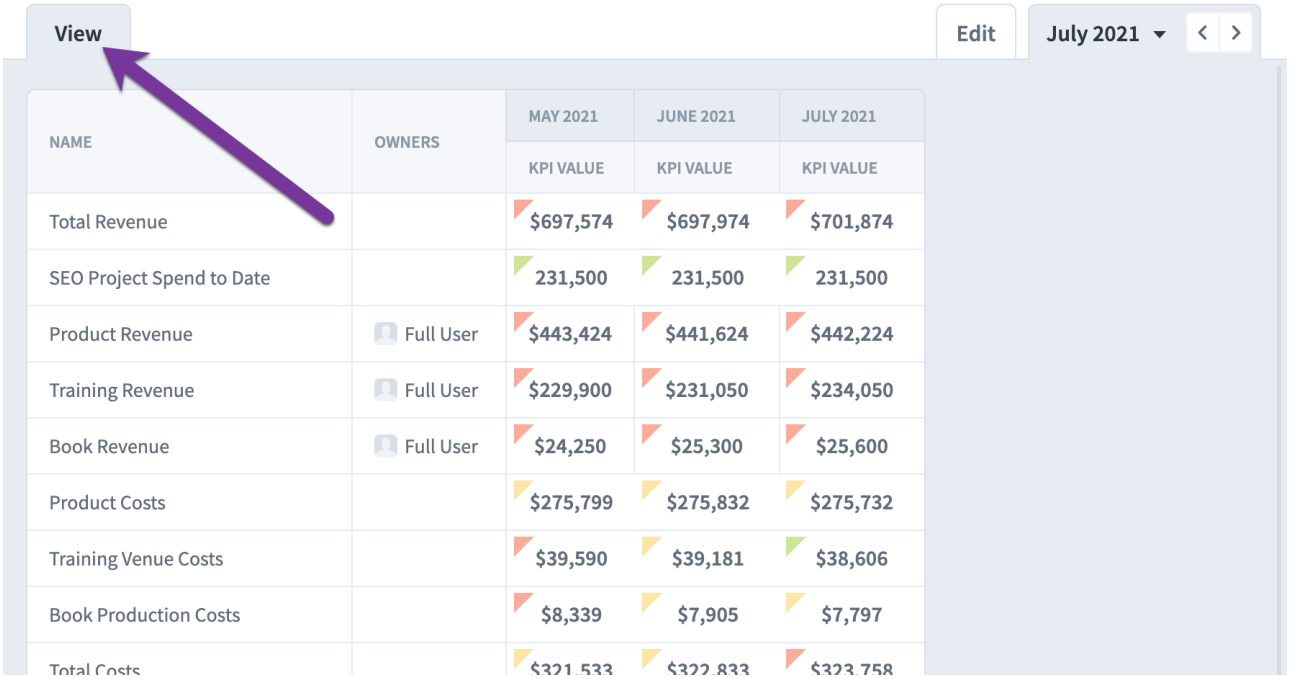
This allows them to write SQL queries against a database that you have set up in Admin > Import Connections. For more information, see the SQL Reports article.

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.

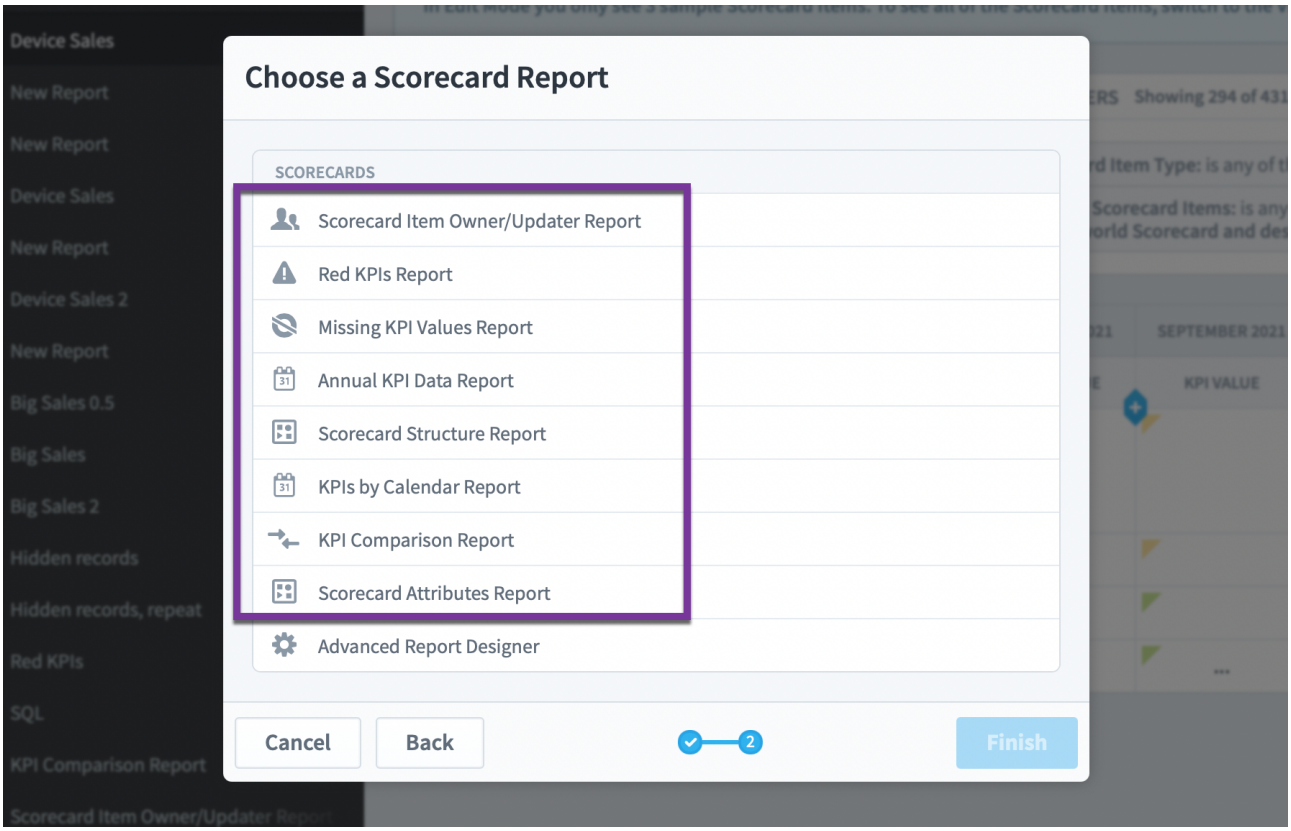


Column Sorting

When you're viewing a report, you can temporarily change the sorting by clicking on the column headers. See the Building Reports article for information about setting the default sorting.

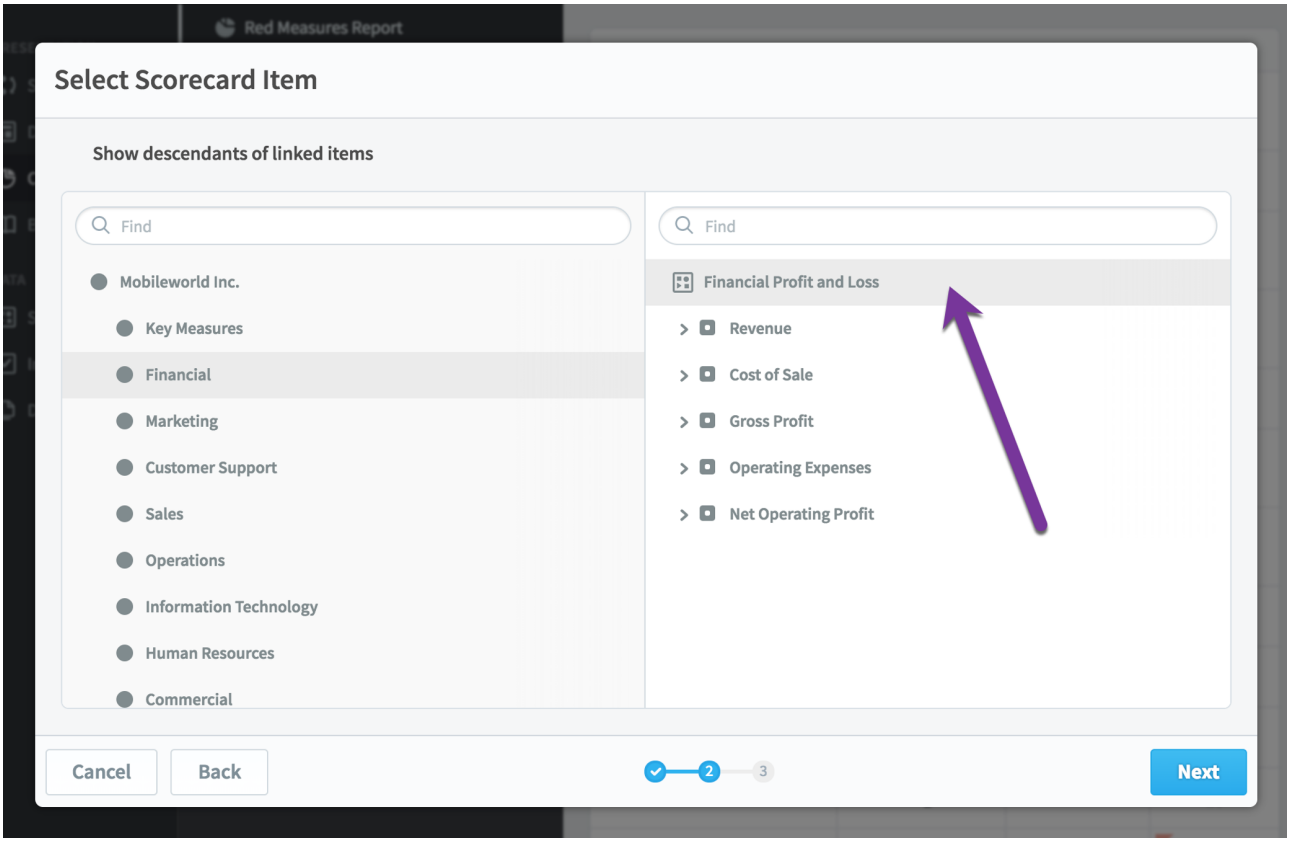
Prebuilt Scorecard Reports

When you choose to create a Scorecard report, the first 8 report options are prebuilt reports to quickly show you relevant data. Most of these "canned" reports are built on top of the Advanced Report Designer and provide you with a great starting point for further customization.

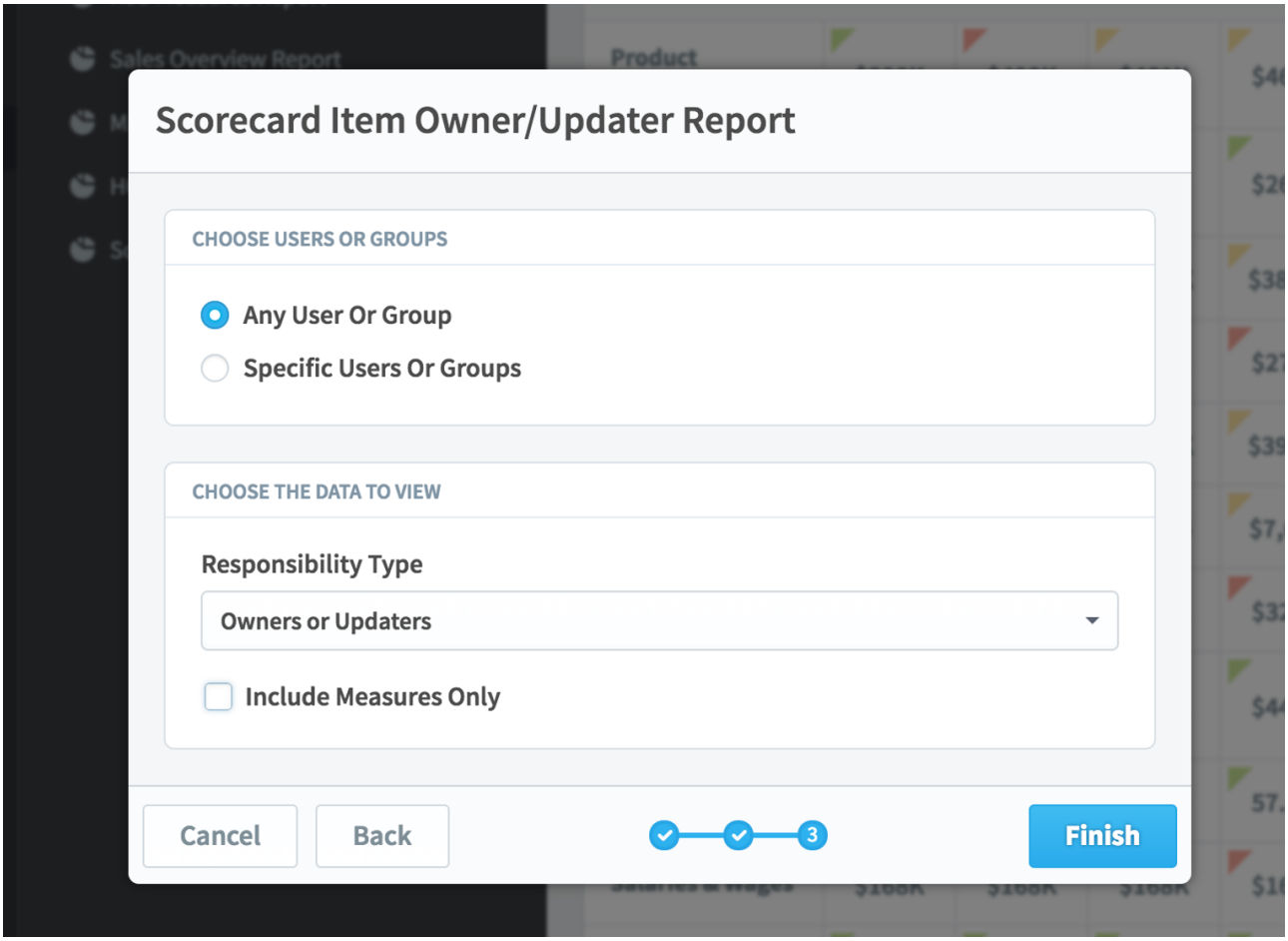


Scorecard Item Owner/Updater Report

The owner/updater report shows all of the owners and/or updaters for the scorecard items you choose. The first step is to choose a scorecard item, and here we're choosing an entire scorecard.



Next you choose what you want the report to show.

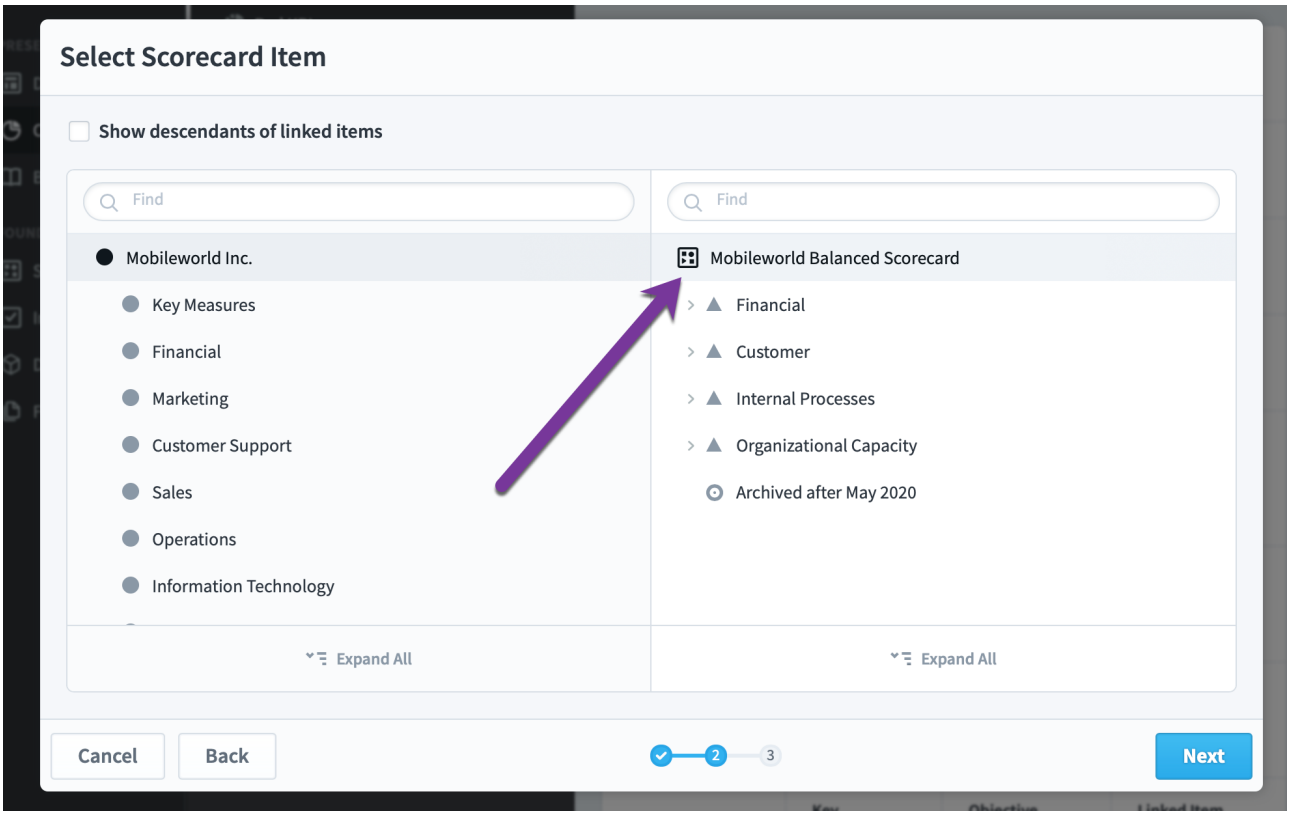


When you're done you see a report like this.

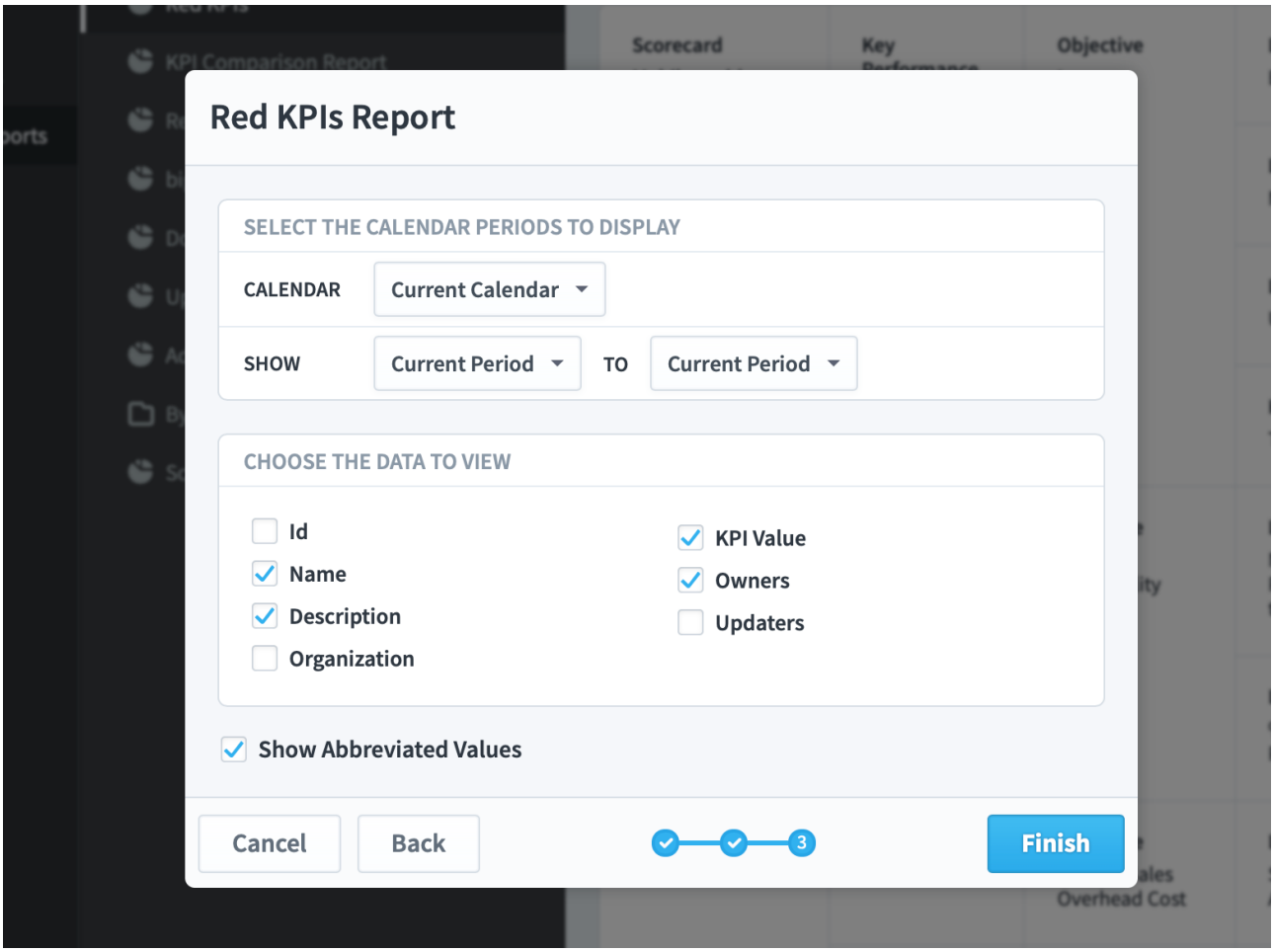
NAME	ORGANIZATION	OWNERS	UPDATERS
Financial Profit and Loss	Financial	Nora Roberts	
Revenue	Financial	Nora Roberts	
Product Revenue	Financial	Nora Roberts	Nora Roberts Viewer Only (Communication Users)
Training Revenue	Financial		Viewer Only (Communication Users)
Book Revenue	Financial		Viewer Only (Communication Users)
Product Costs	Financial	Joe Abercrombie	
Total Gross Profit	Financial	Trial User	

Red KPIs Report

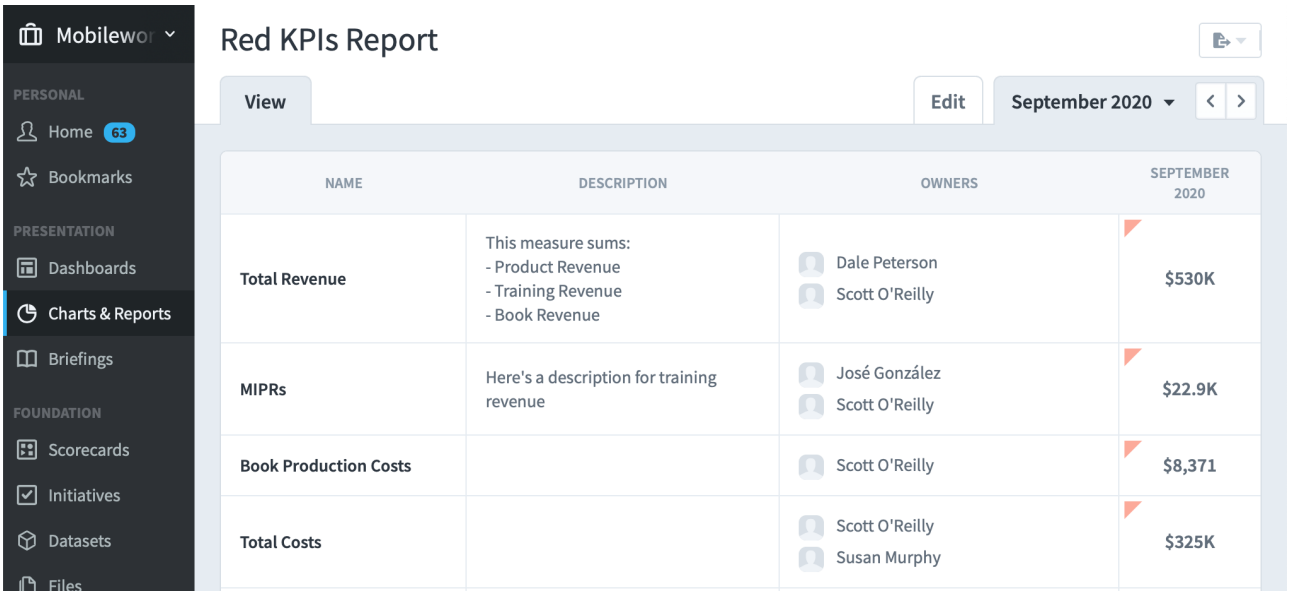
The Red KPIs report is probably the most popular report in Spider Impact and shows you all of your underperforming KPIs. The first step is to choose a scorecard item. Here we're going to show all red KPIs for the entire Mobileworld scorecard.



You then choose your display options. Most of the time the defaults will work just fine.

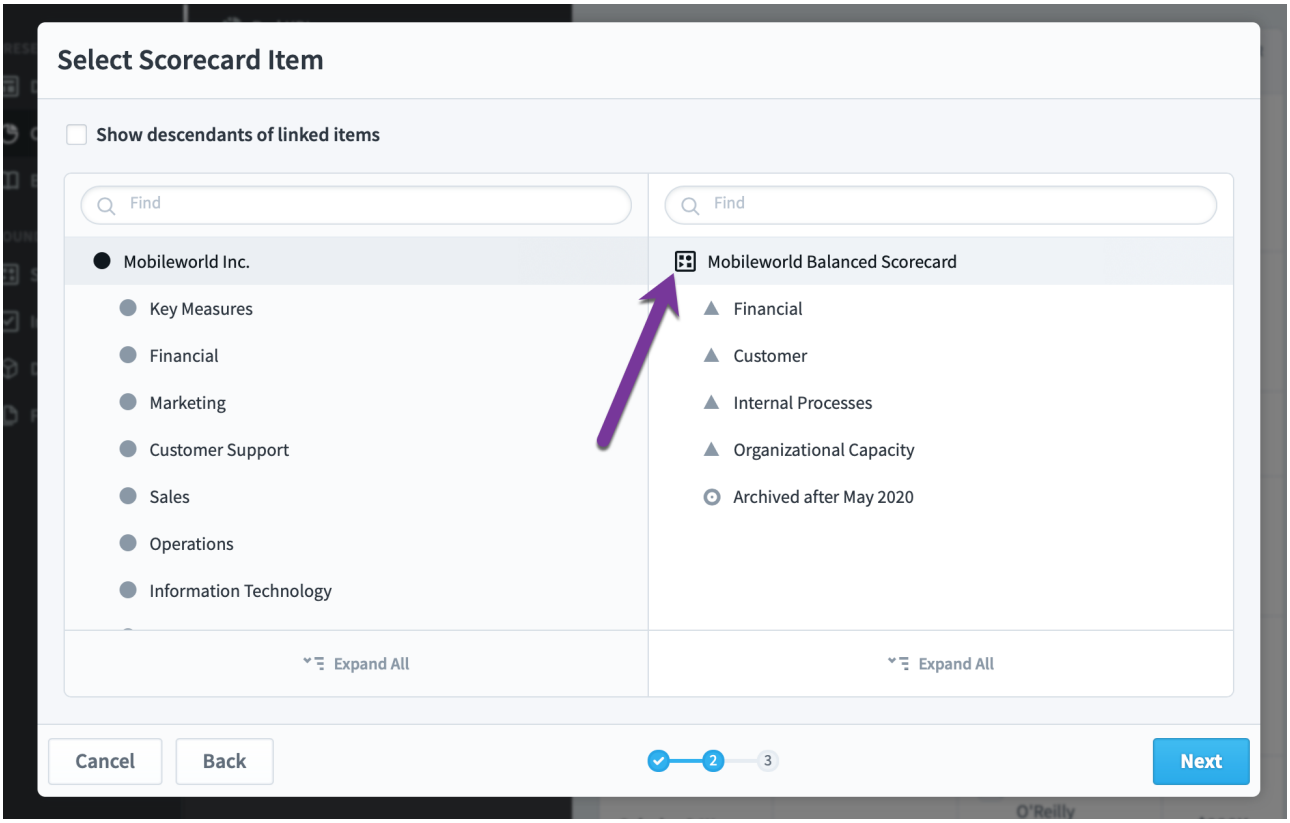


When you click Finish you'll see a report that looks like this:

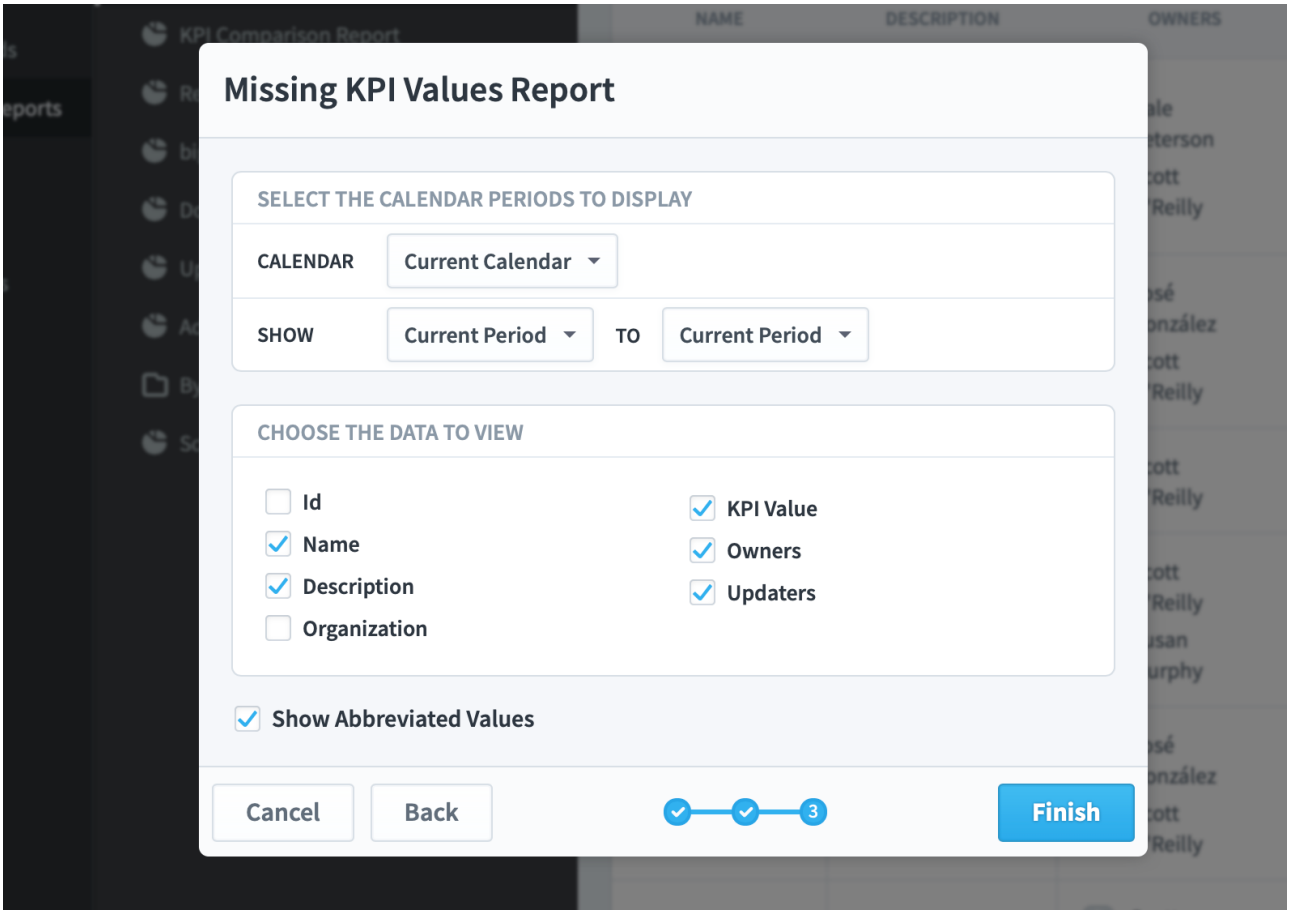


Missing KPI Values Report

The Missing KPI Values Report shows you all KPIs that haven't been updated for a particular time period. To start, you need to choose a scorecard item. Here we're going to run the report for the entire Mobileworld Scorecard.



Next you choose your display options. The defaults work great most of the time.

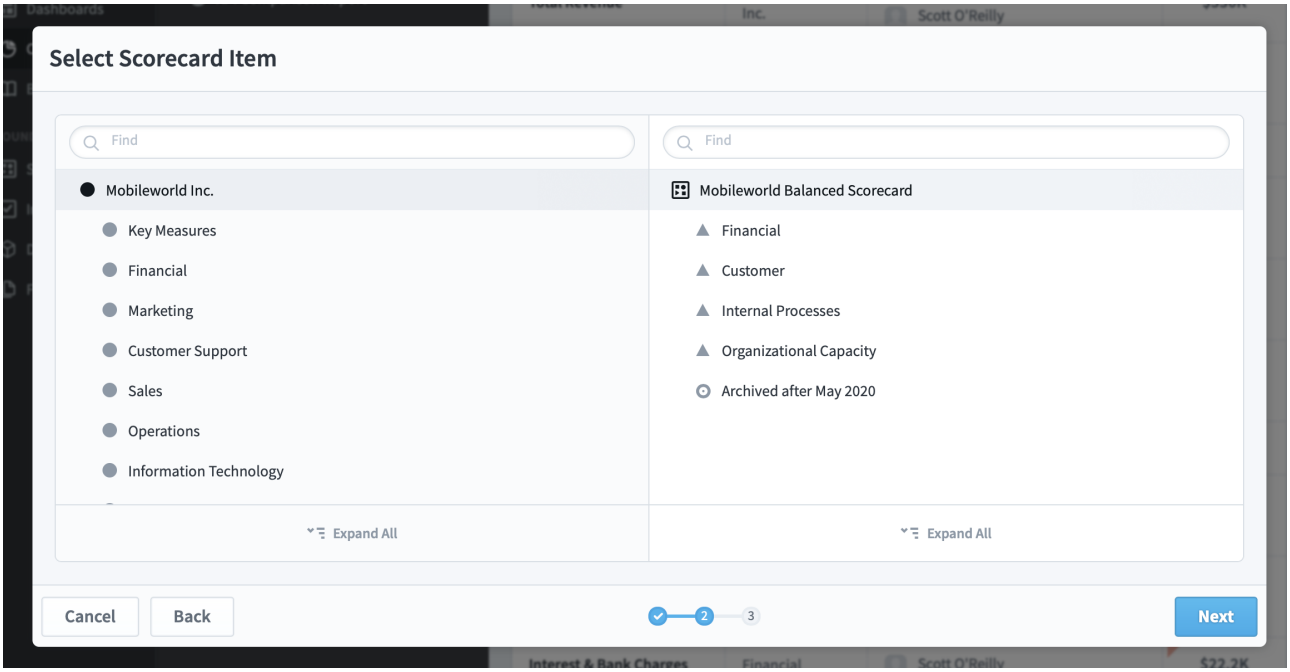


When you're done you'll see a report like this:

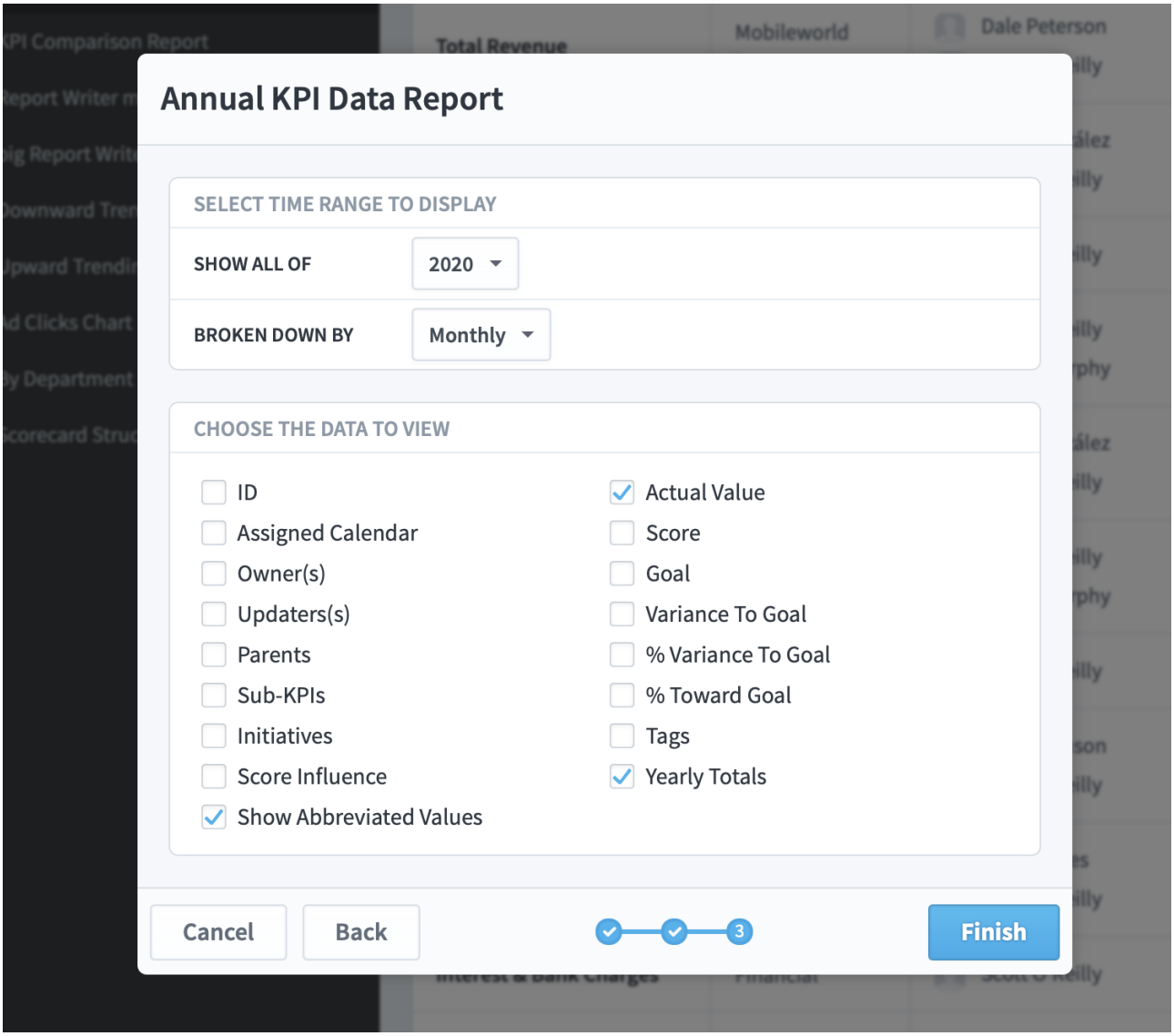


Annual KPI Data Report

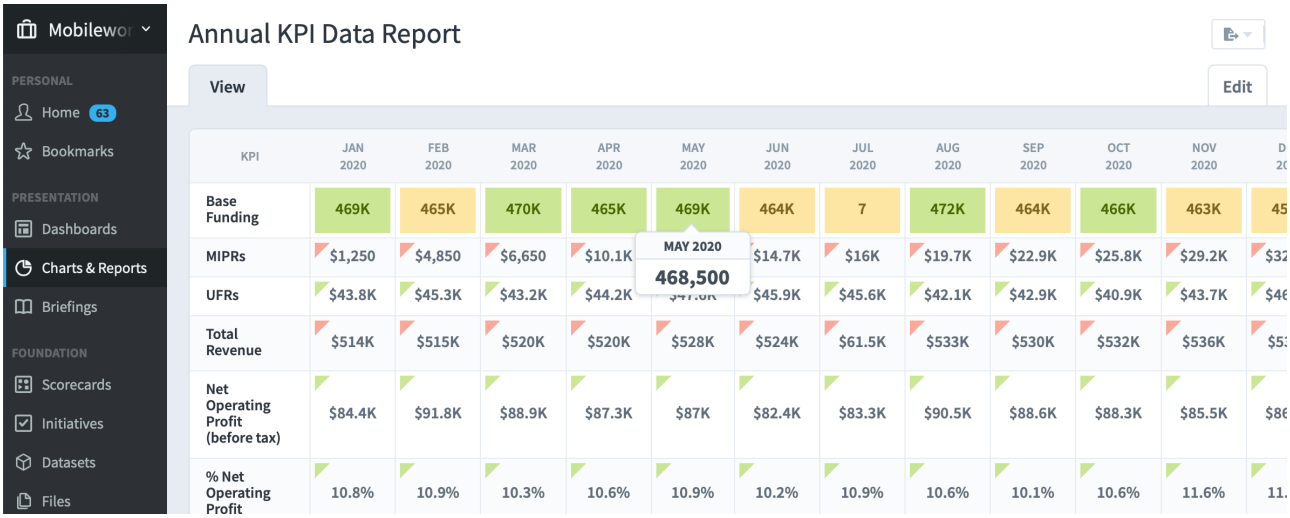
This is similar to the data shown on the Scorecards KPIs tab. The first step in building the report is choosing which scorecard item you want to show the KPIs for.



The next step is choosing what data should be shown on the report. The defaults only show the actual values and yearly totals.

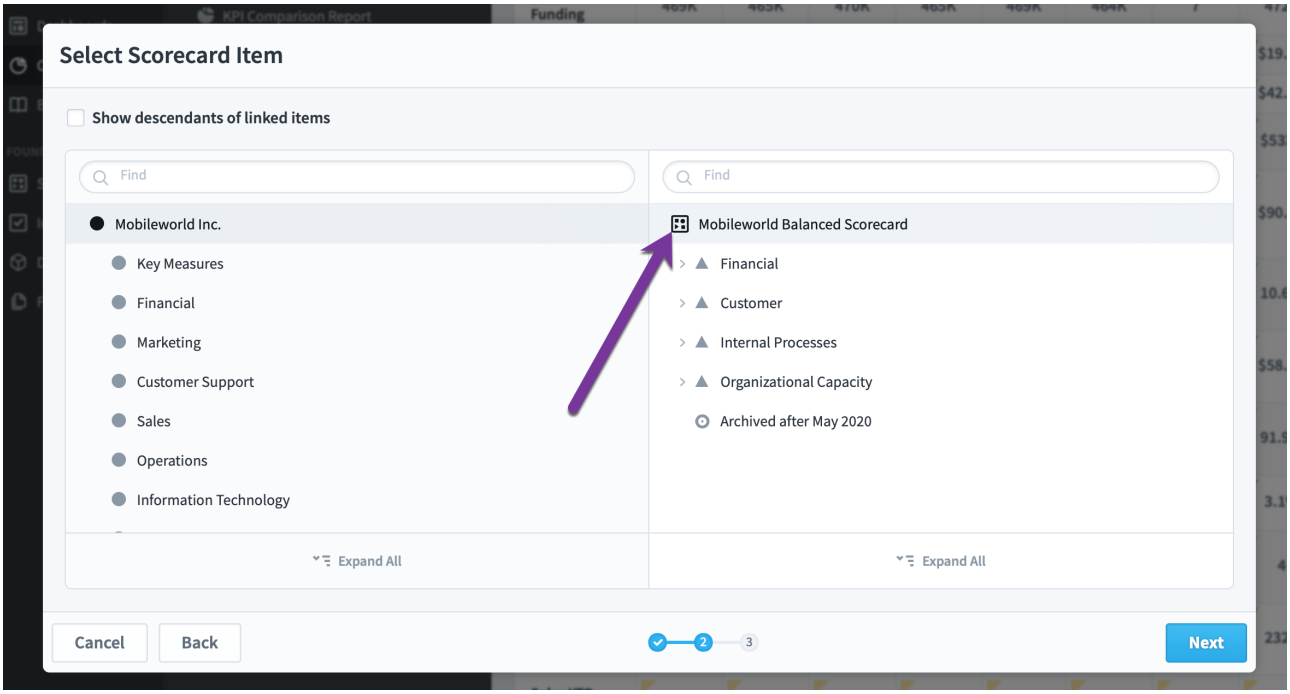


When you're done you'll see a report that looks like this:

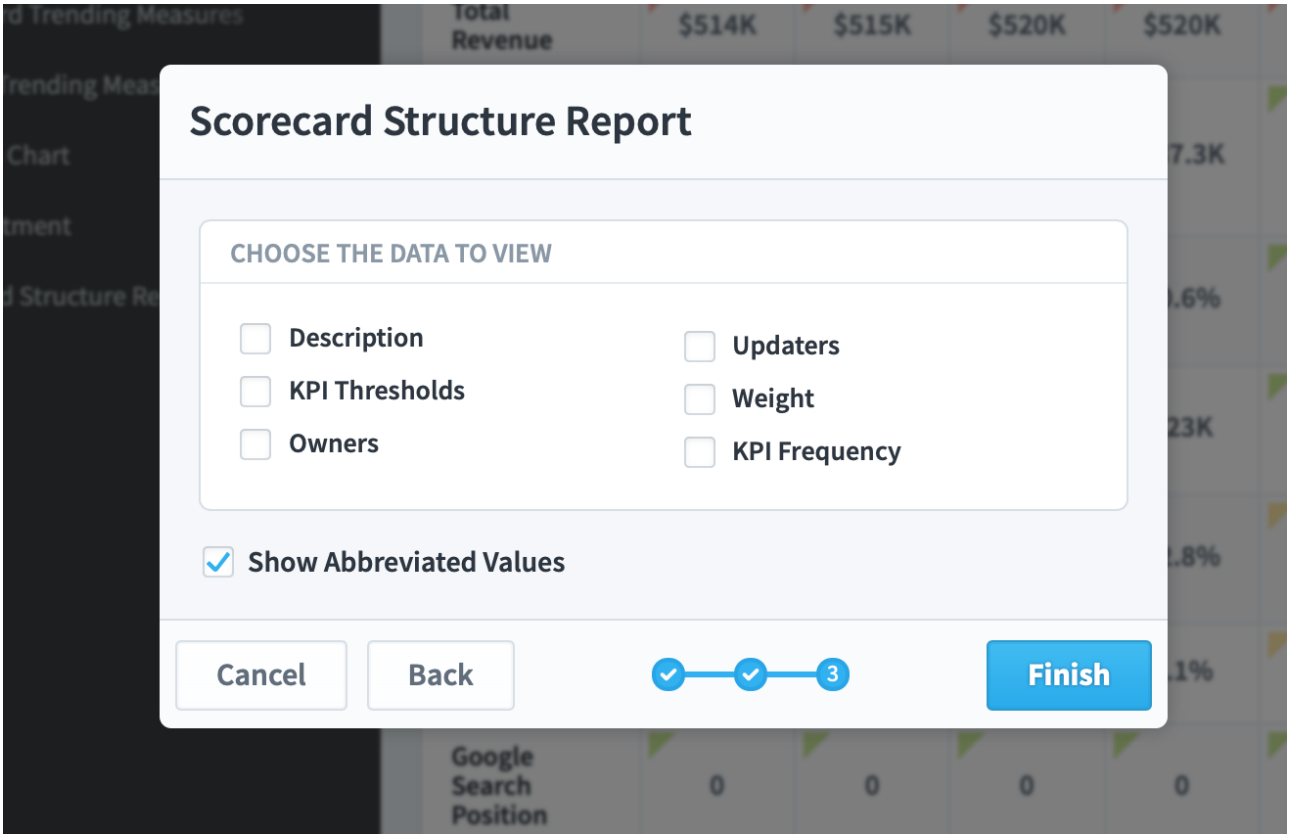


Scorecard Structure Report

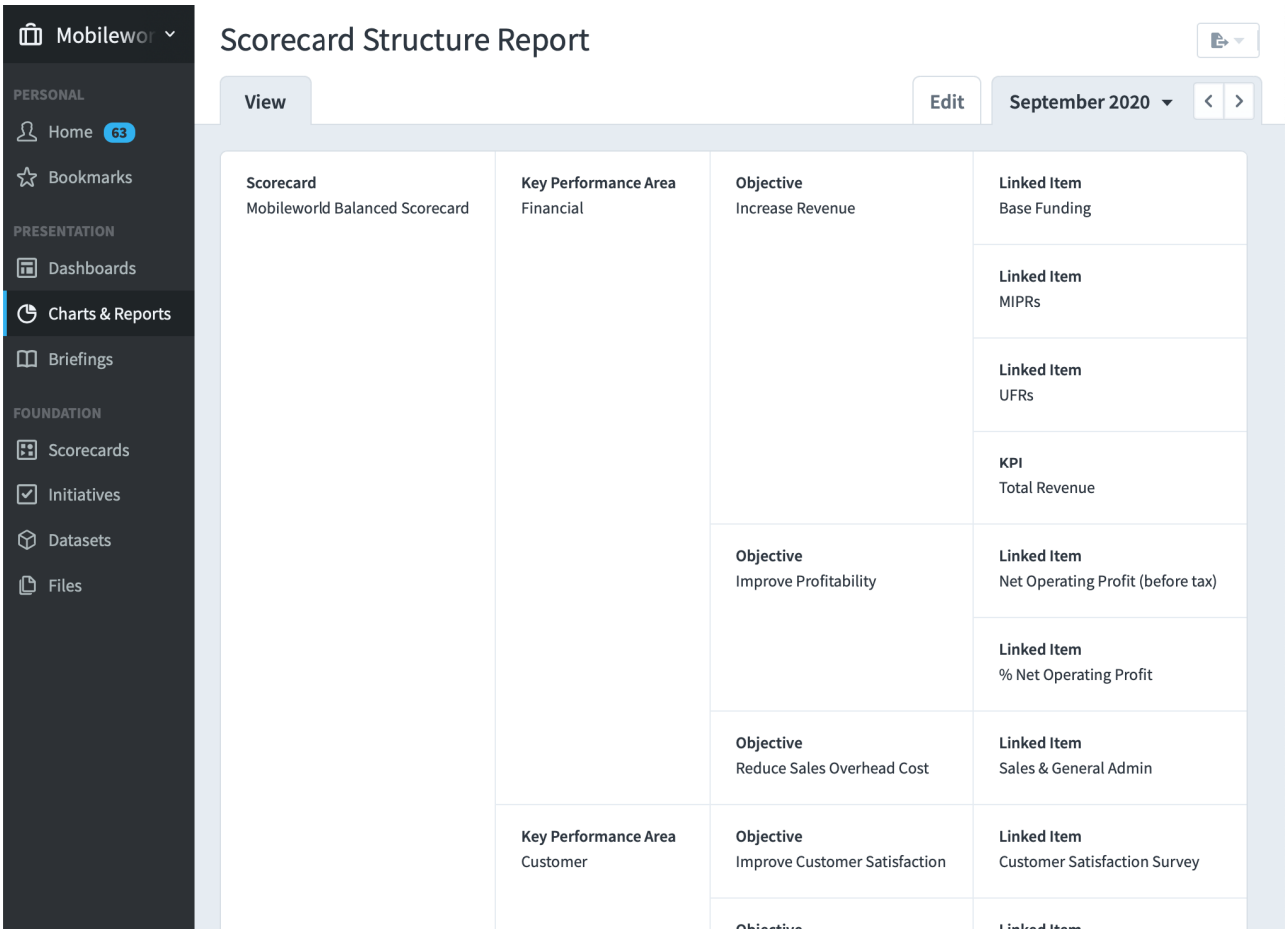
The Scorecard Structure Report doesn't show any kind of performance data. It's all about the structure of your scorecard. To build the report, first choose a scorecard item. In this example we're going to choose an entire scorecard.



Then you choose what information you want to show. By default it doesn't include any of these extras.

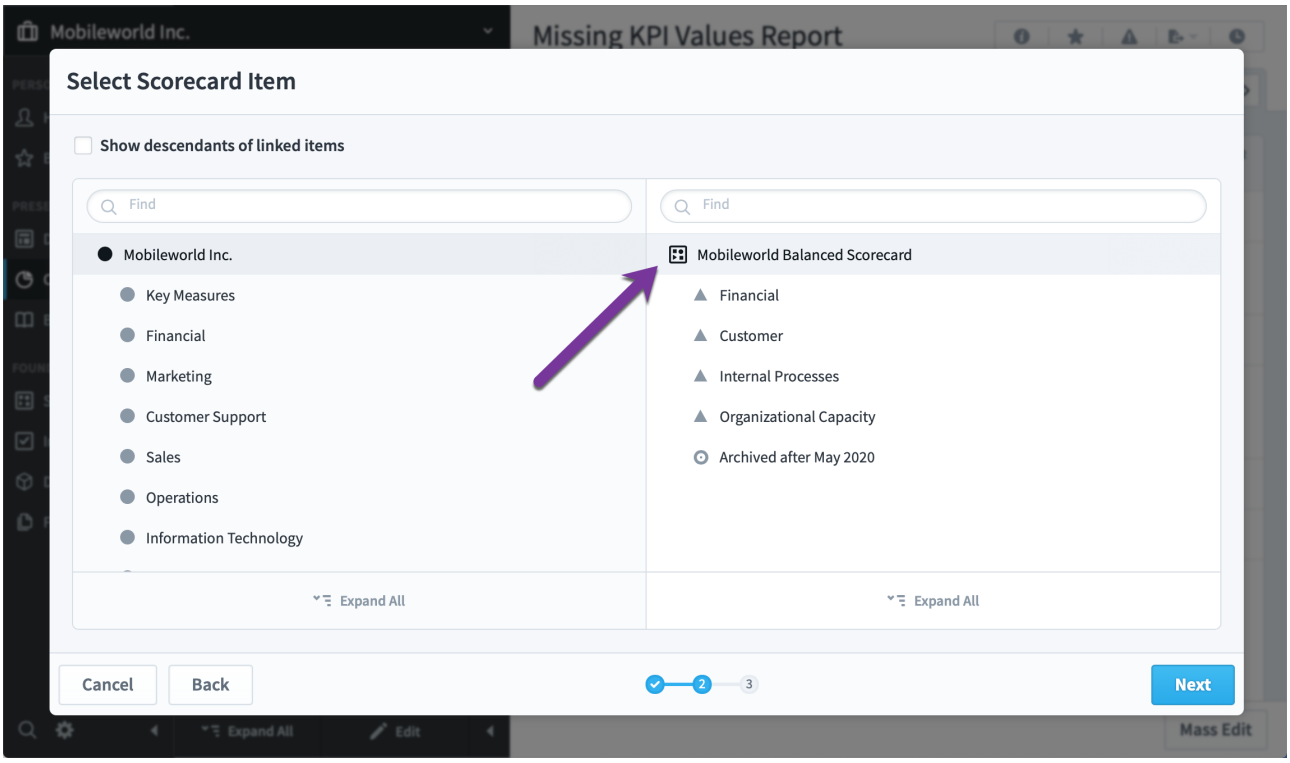


When you click Finish you'll see a report that looks like this.

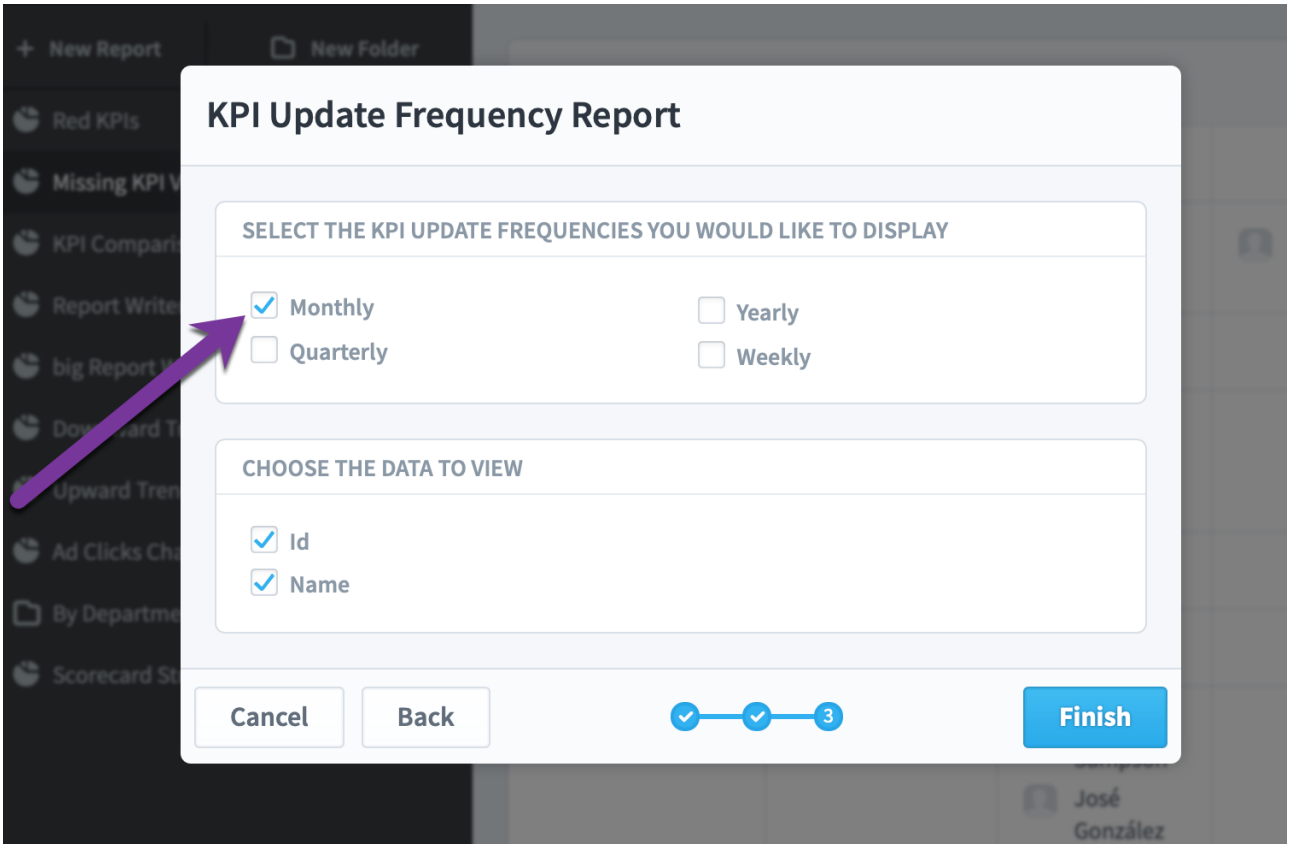


KPIs by Calendar Report

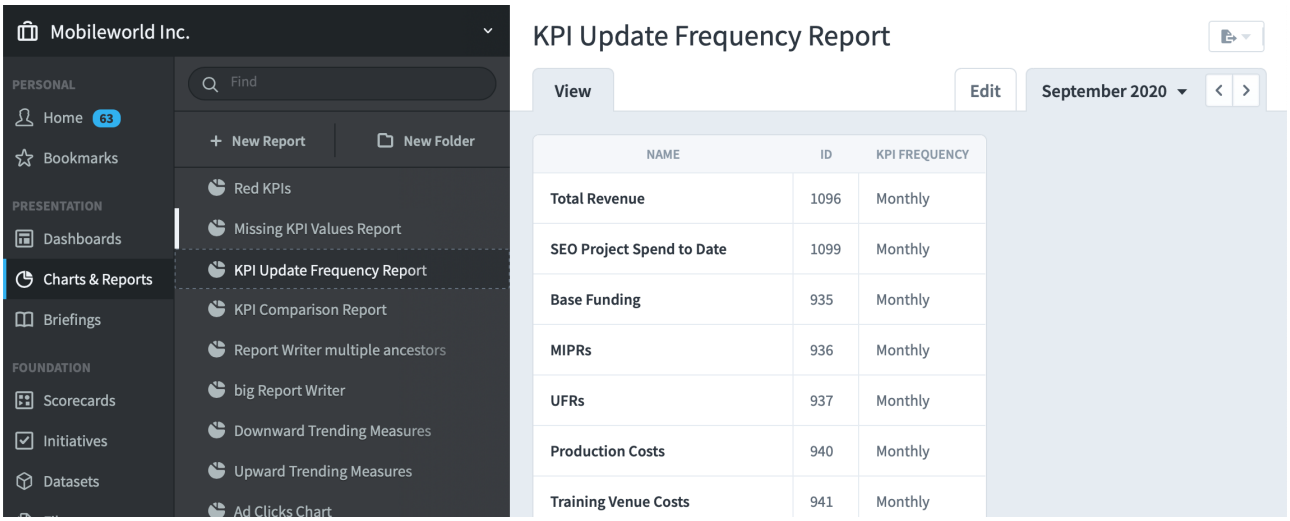
The KPIs by calendar report shows you all of your KPIs that match a particular update frequency. First we'll choose the entire Mobileworld Scorecard.



Then we'll choose which calendars we want. In this example we'll choose Monthly.

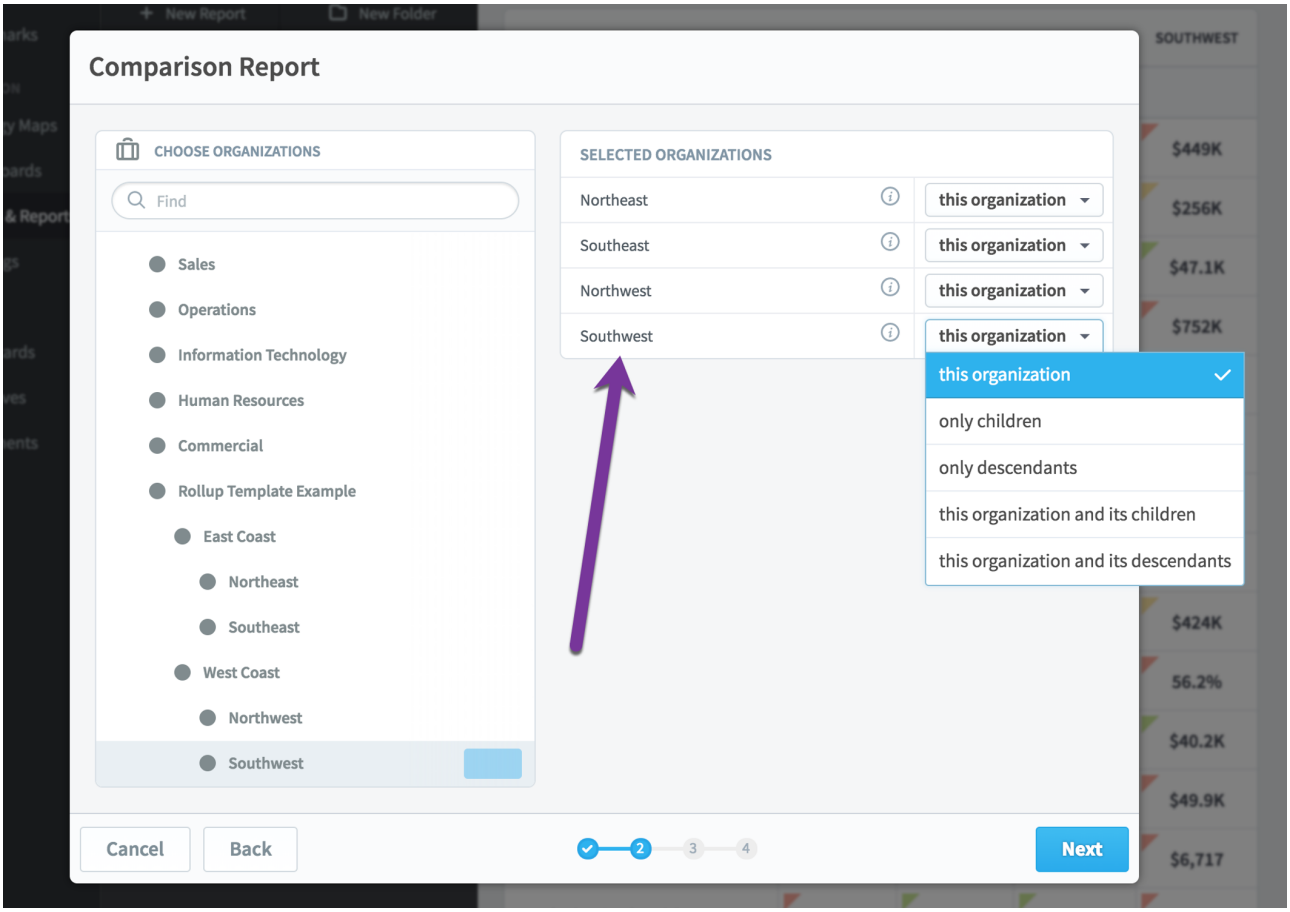


When we click Finish it shows a list of all monthly KPIs in that scorecard.

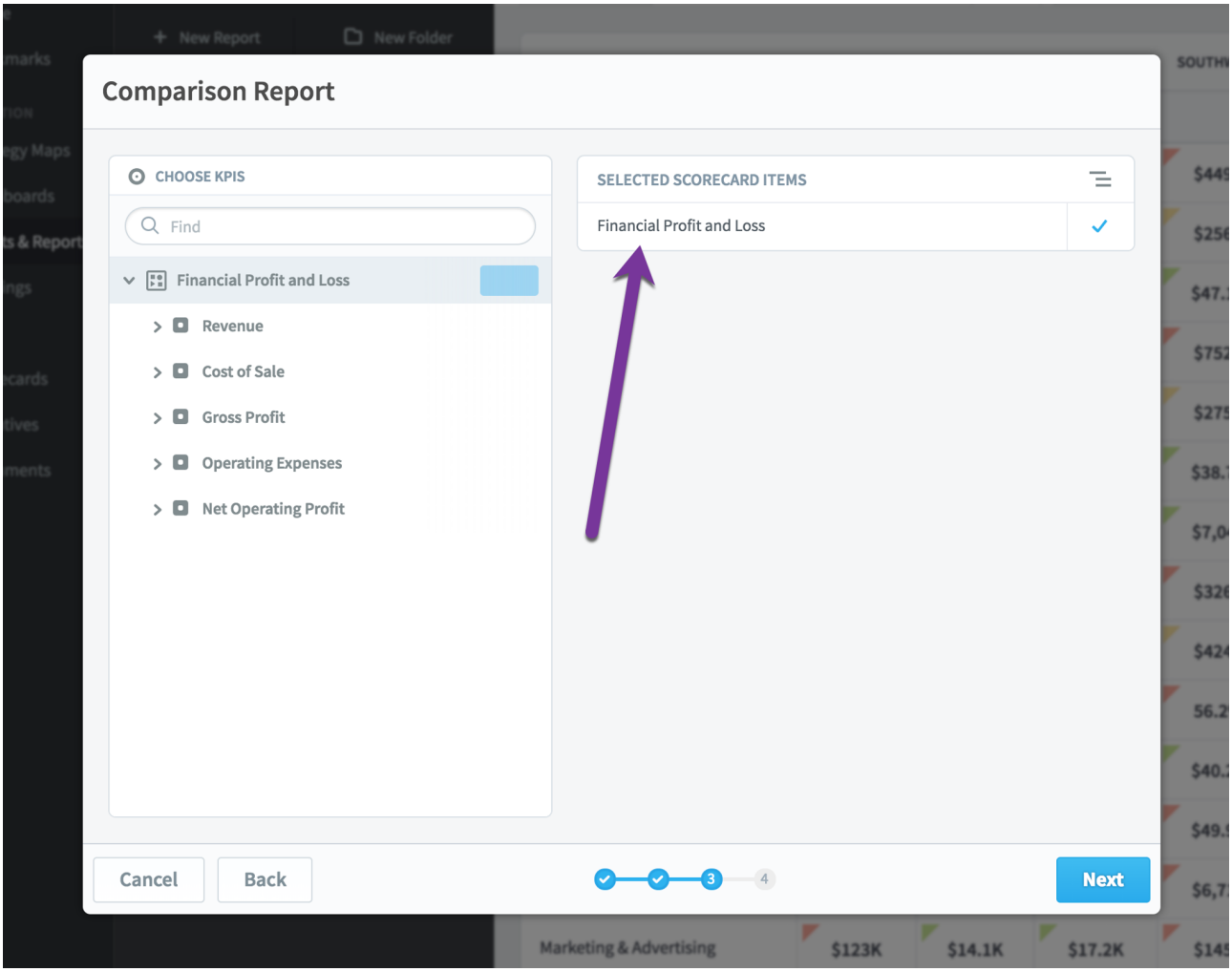


KPI Comparison Report

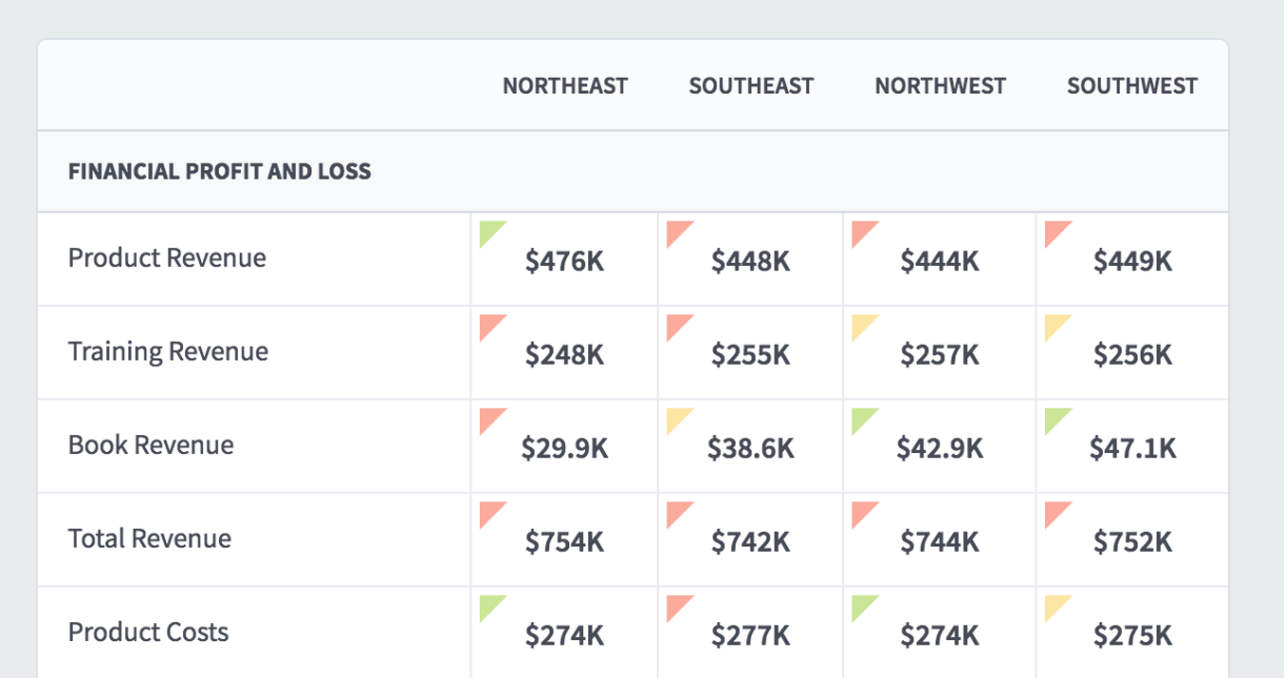
The KPI comparison report is used to compare organizations that have similar KPIs. The first step in the wizard is to choose which organizations you want to see in your report. You can either select each organization one at a time, or you can automatically include an organization's descendants.



Once you've selected your organizations, the next step is to choose your KPIs. Here I've selected the scorecard root, which will automatically include all of the KPIs.



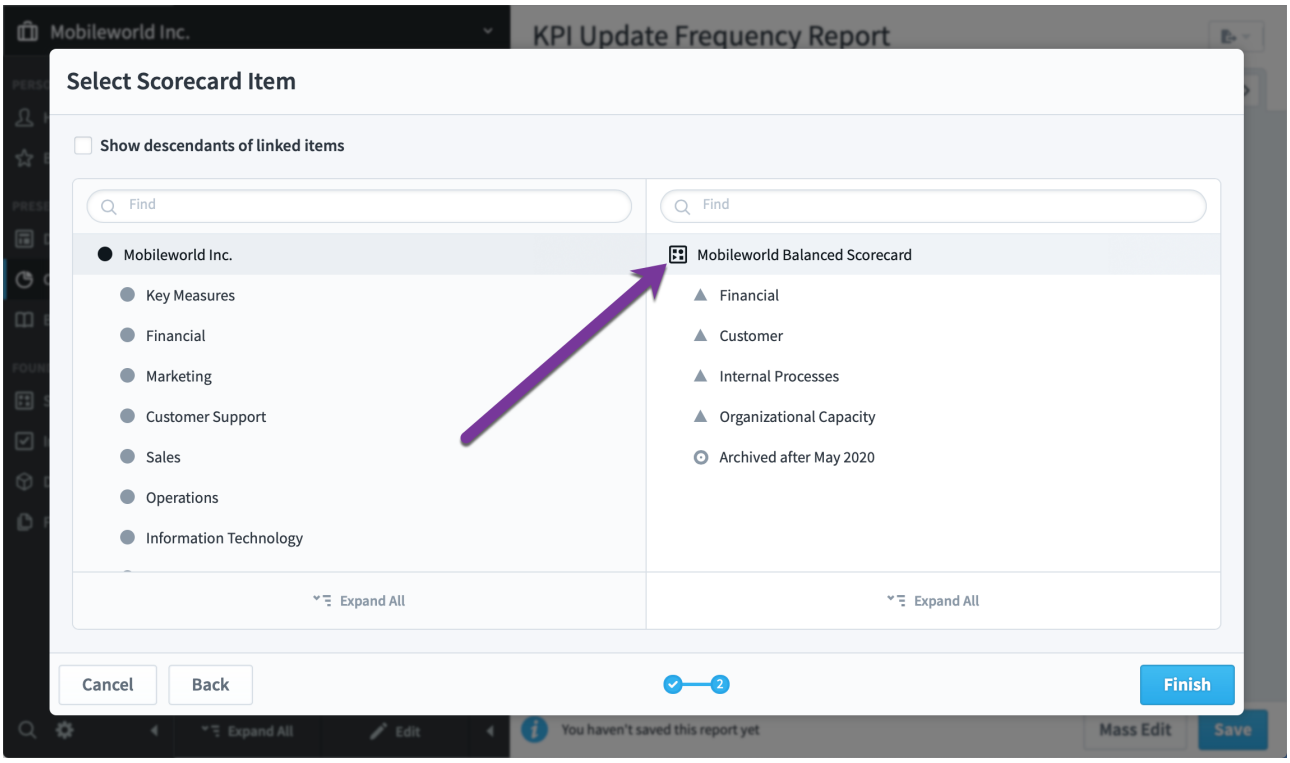
When we're done we see a report with all of the KPIs for each of the four selected organizations.



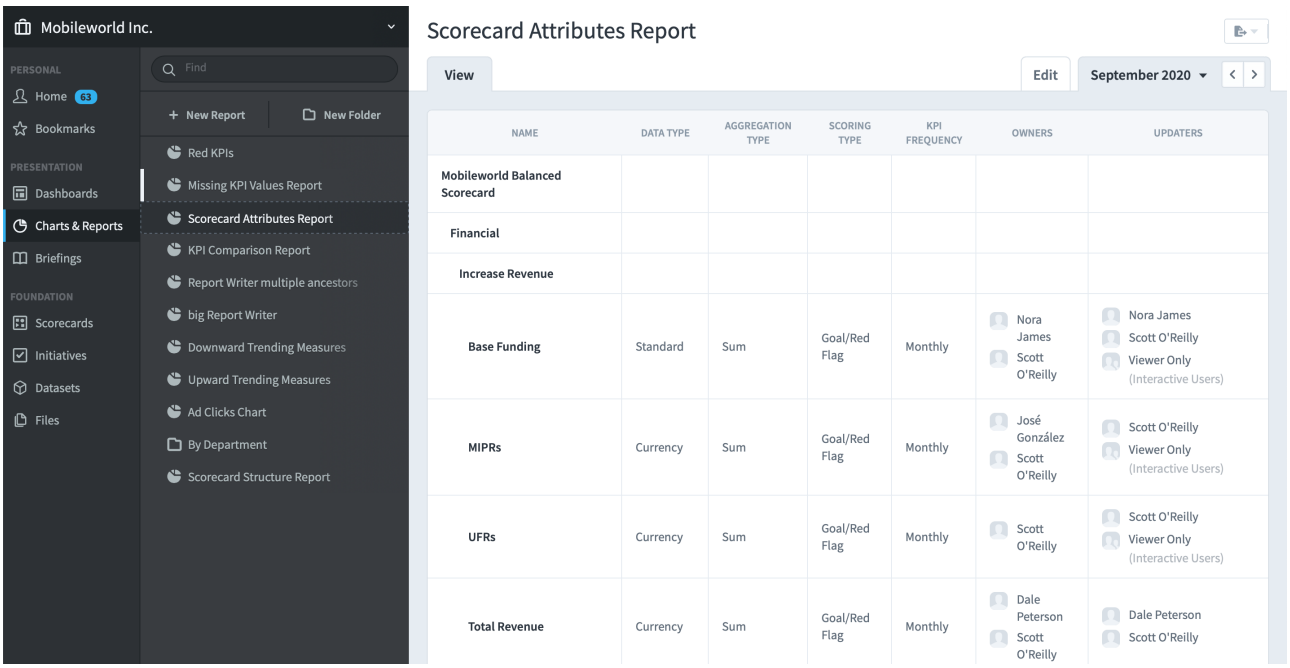
	NORTHEAST	SOUTHEAST	NORTHWEST	SOUTHWEST
FINANCIAL PROFIT AND LOSS				
Product Revenue	$476K	$448K	$444K	$449K
Training Revenue	$248K	$255K	$257K	$256K
Book Revenue	$29.9K	$38.6K	$42.9K	$47.1K
Total Revenue	$754K	$742K	$744K	$752K
Product Costs	$274K	$277K	$274K	$275K

Scorecard Attributes Report

The Scorecard Attributes Report doesn't show any performance information. Instead, it shows you information like the owners, updaters, and KPI frequency of multiple scorecard items at once. To run the report, all you have to do is choose a scorecard item. Here we've selected the entire Mobileworld scorecard.



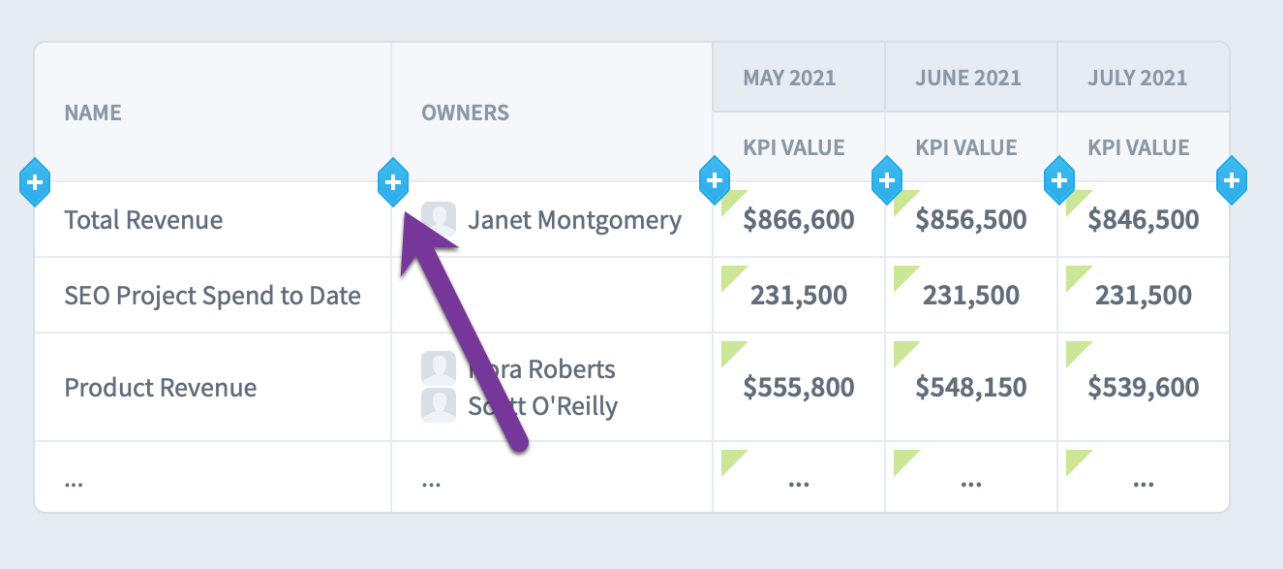
When we click Finish, we see a report that looks like this:



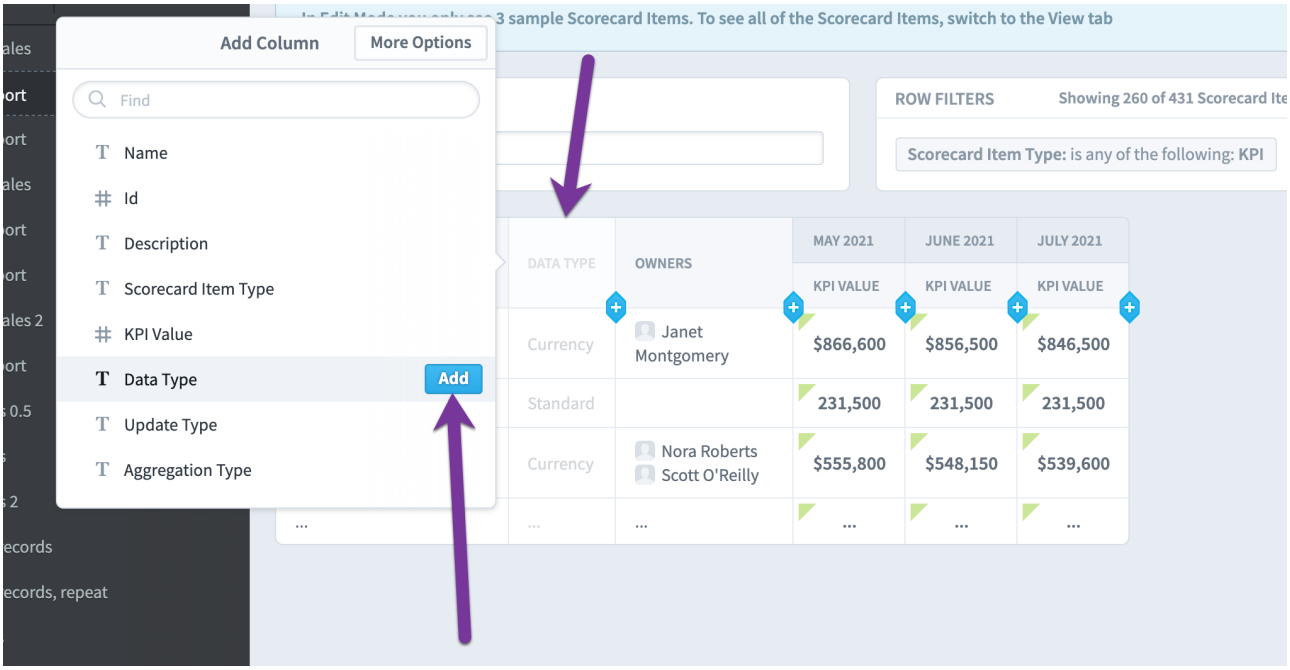
Building Reports

Adding and reordering columns

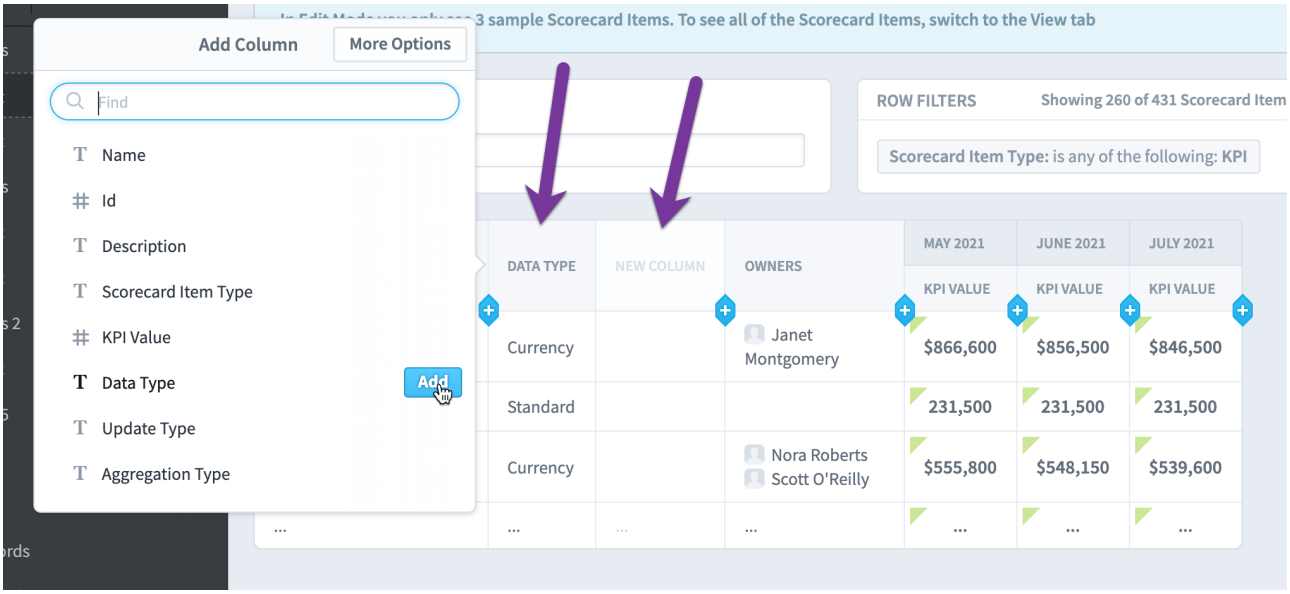
To add a new column, click the "Add" button where you want the new column to go.



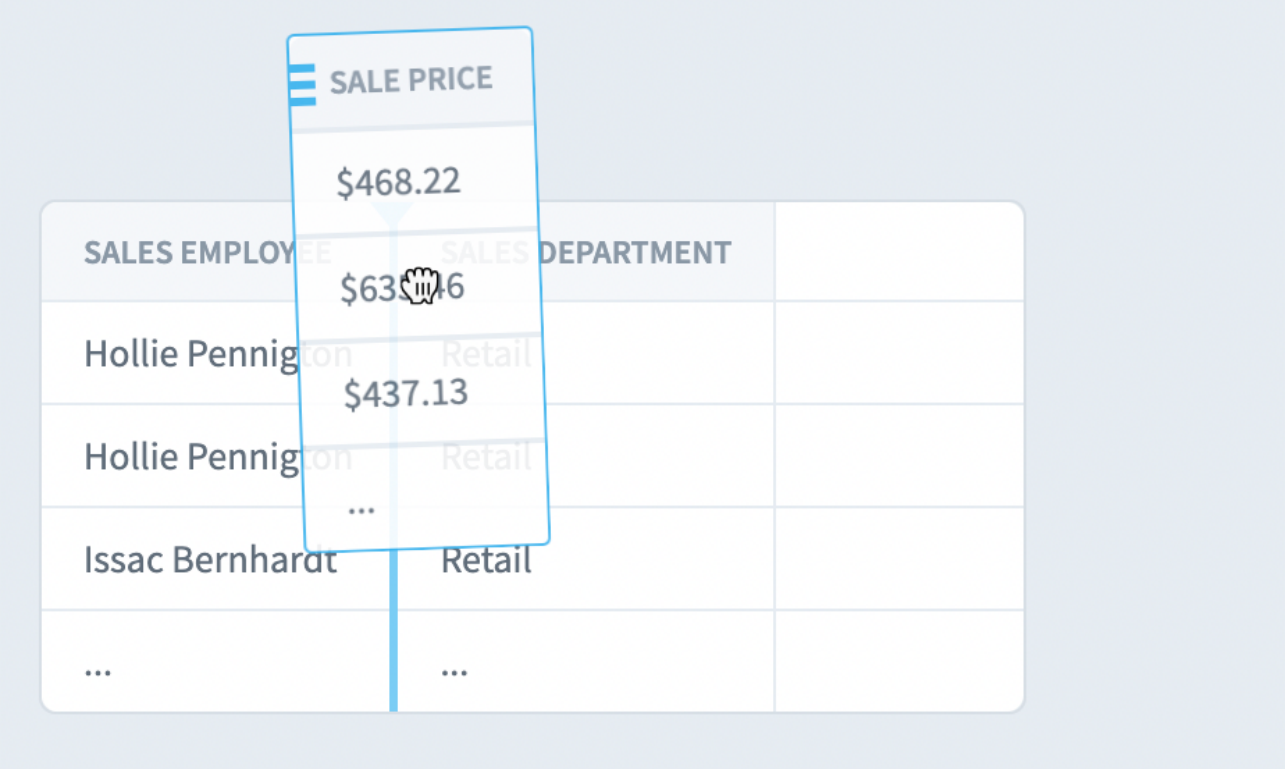
This brings up a list of all available fields from which to create columns. Here you can see the placeholder where the new column will go, right before we click to add the "Data Type" field as a column.



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.

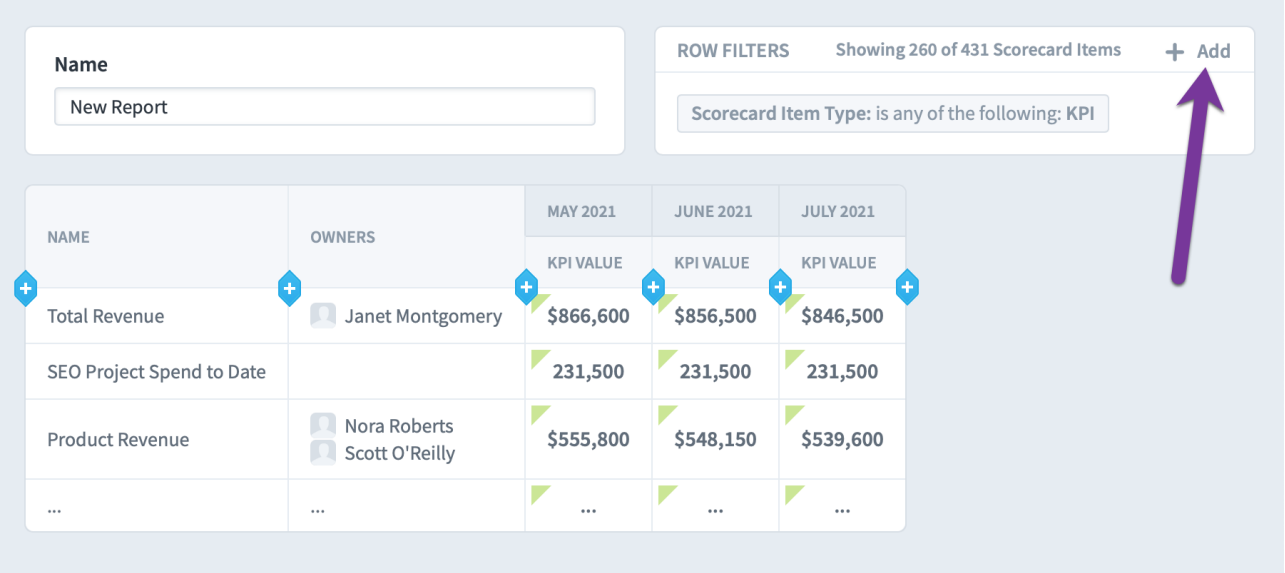


To change the order of columns, you can just drag and drop them to where you want them to be.

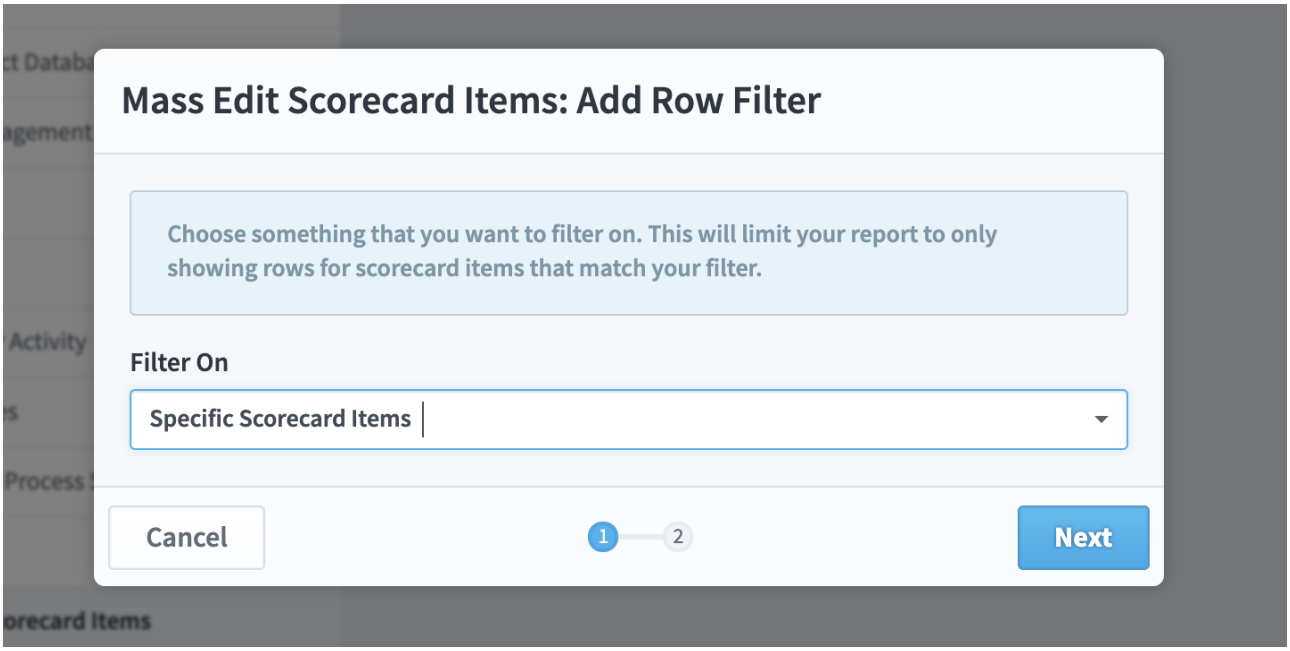


Row filters

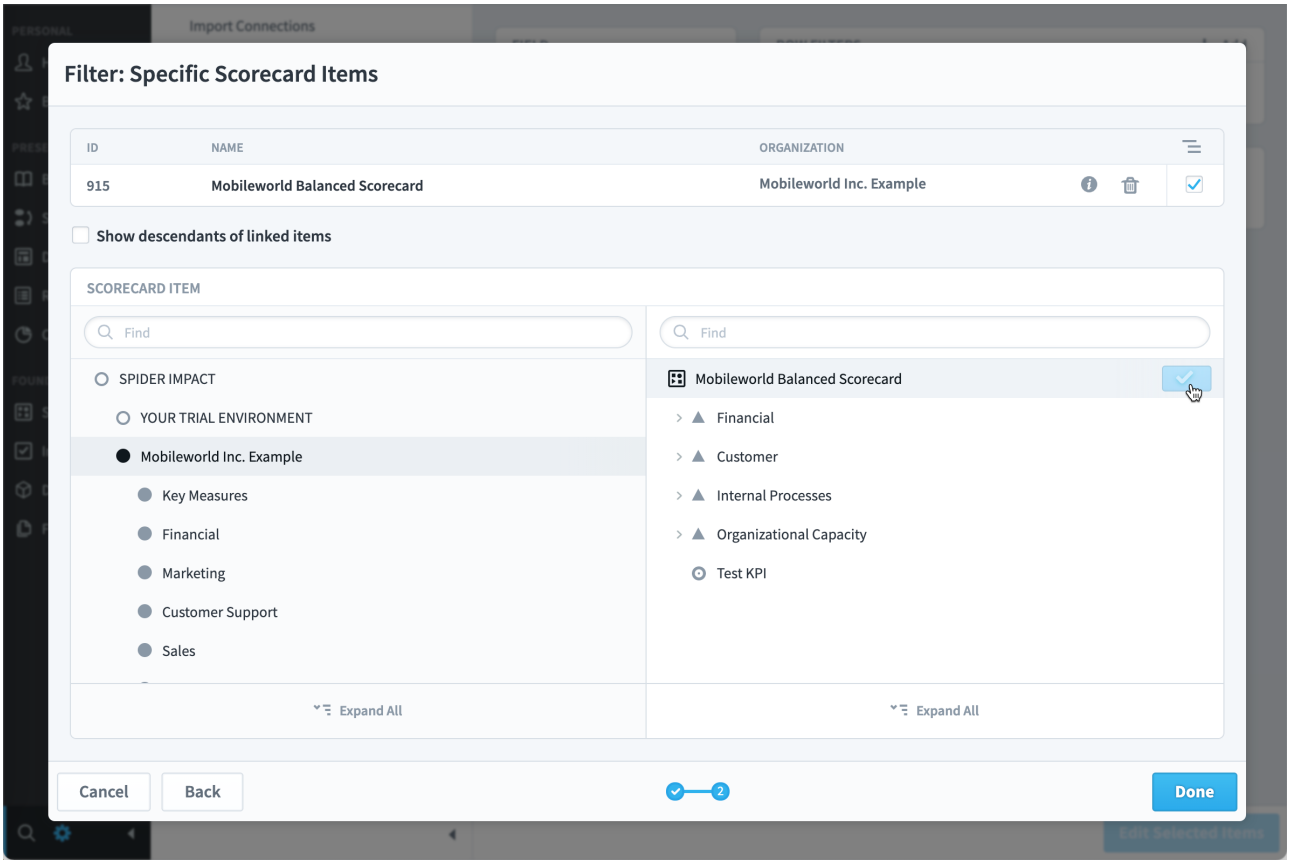
Most reports will contain at least one row filter. The idea here is that you're choosing which scorecard items/initiative items/dataset records you want to show. In this example we've created a new scorecard item report, and there's already a filter to only show KPIs. Let's add a new filter by clicking the "add" button.



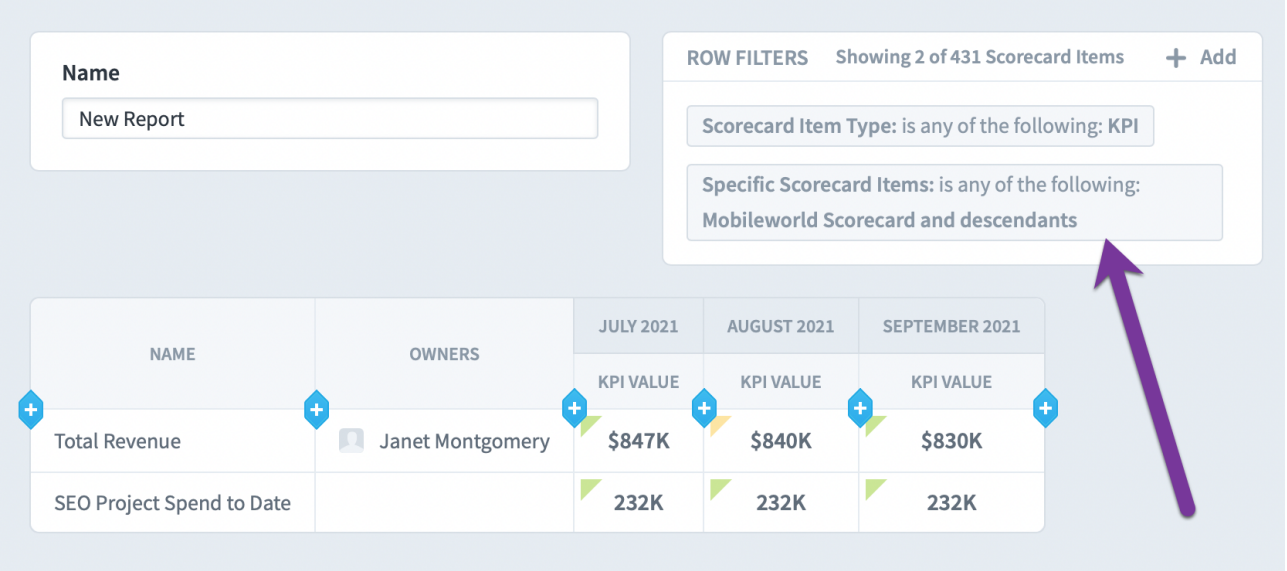
The default row filter is "Specific Scorecard Items" and we'll use that here.



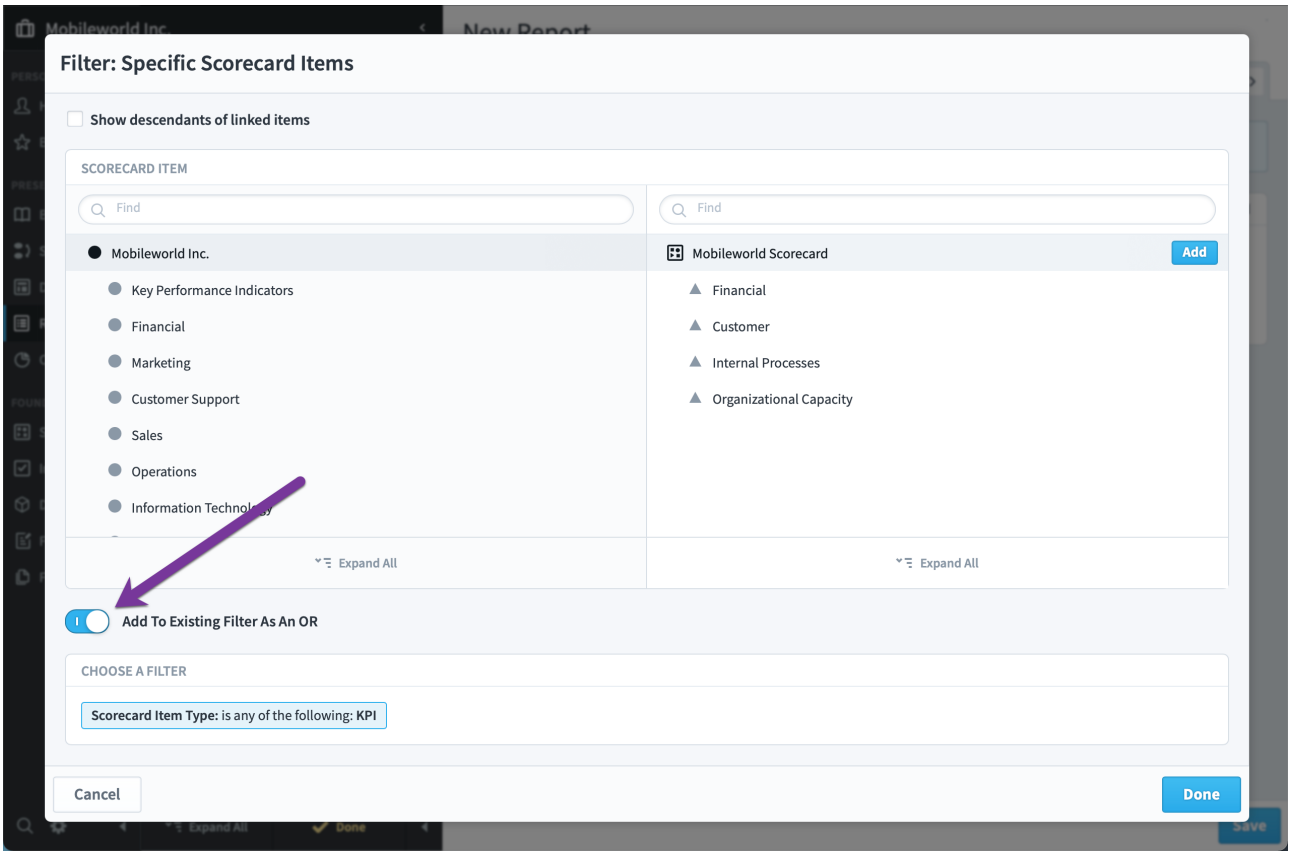
This allows you to manually choose which scorecard items you want to see. We'll add the entire "Mobileworld Balanced Scorecard" and click Done.



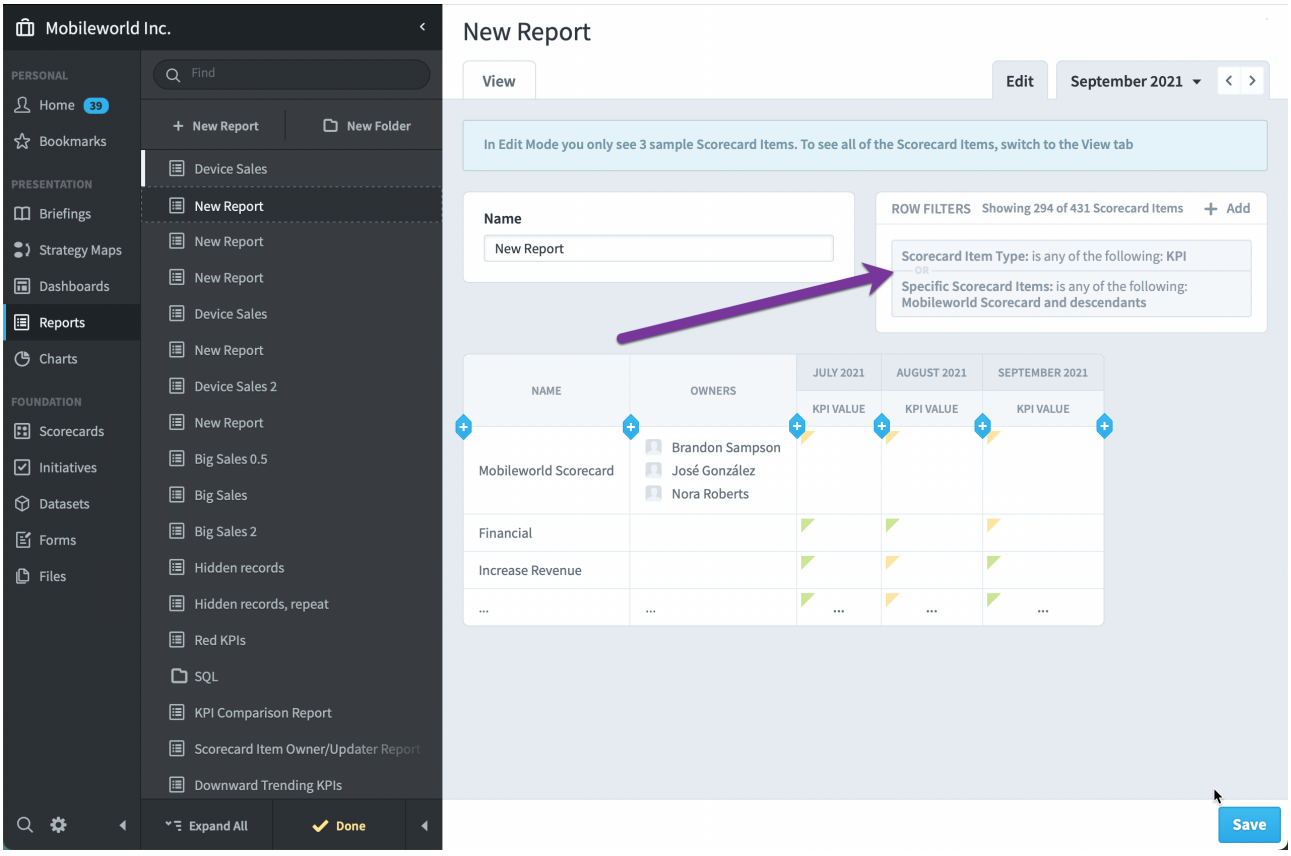
Now we only see the two of the KPIs in the Mobileworld Balanced Scorecard.



To edit a filter, just click on it. This opens the same dialog we saw before, and this time we'll choose to make this an OR filter.

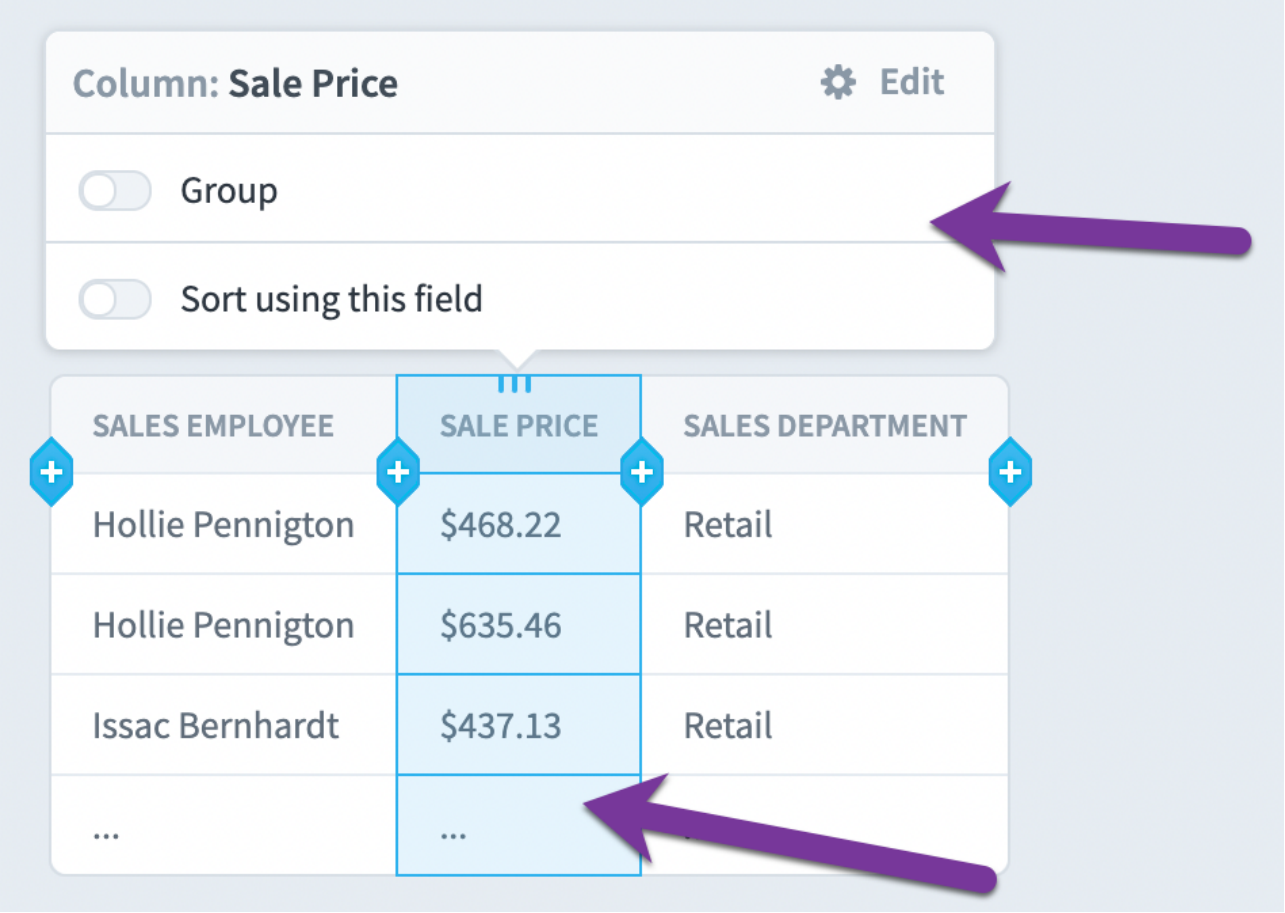


Now we see all scorecard items that are either KPIs or in the Mobileworld balanced scorecard.

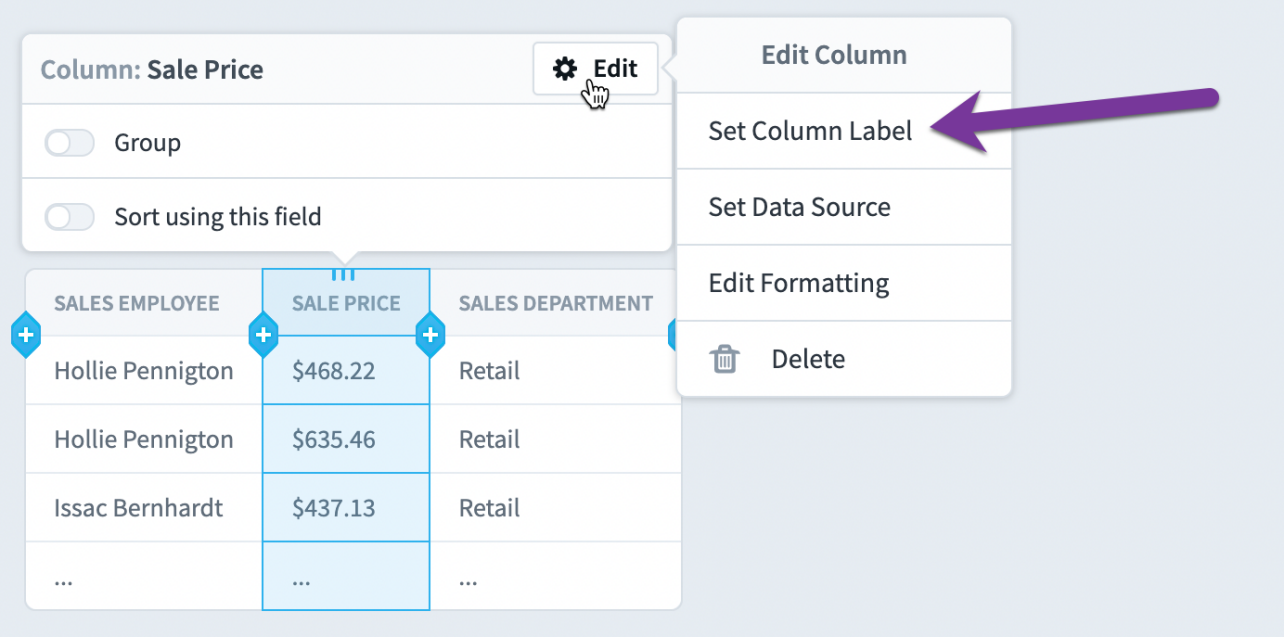


Setting column labels

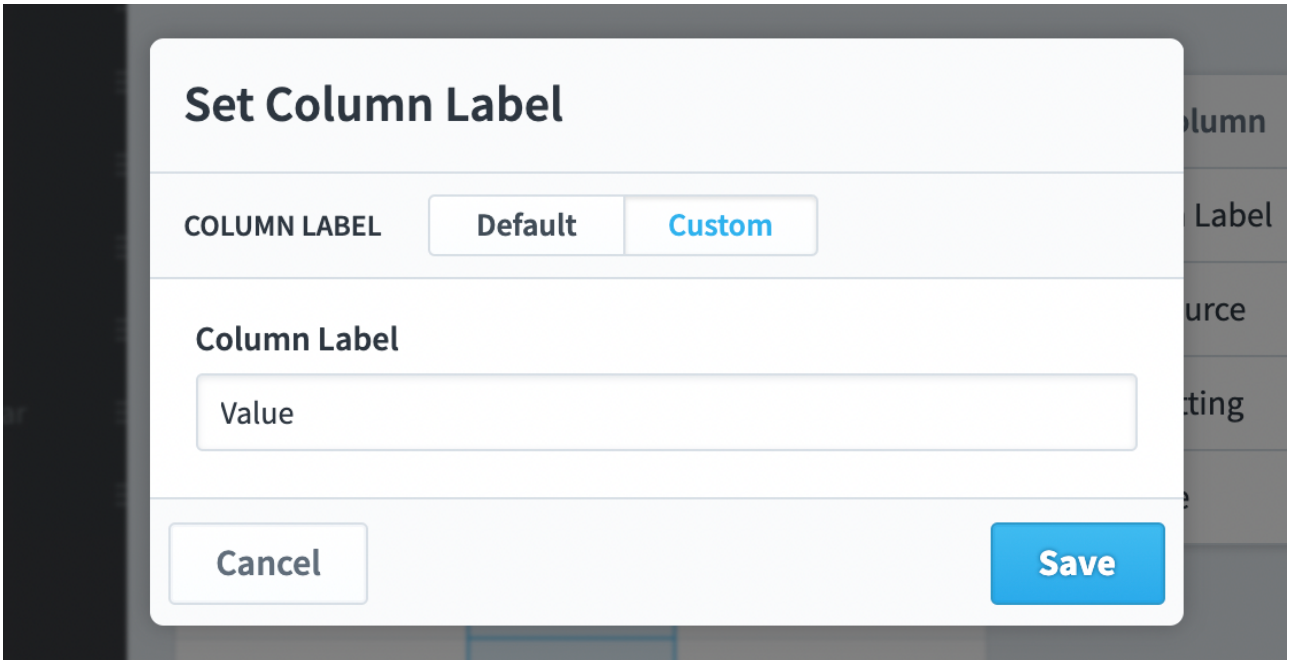
To edit a column, just click on it. You'll see the column that you're going to edit highlighted, and it shows a tooltip with your editing options.



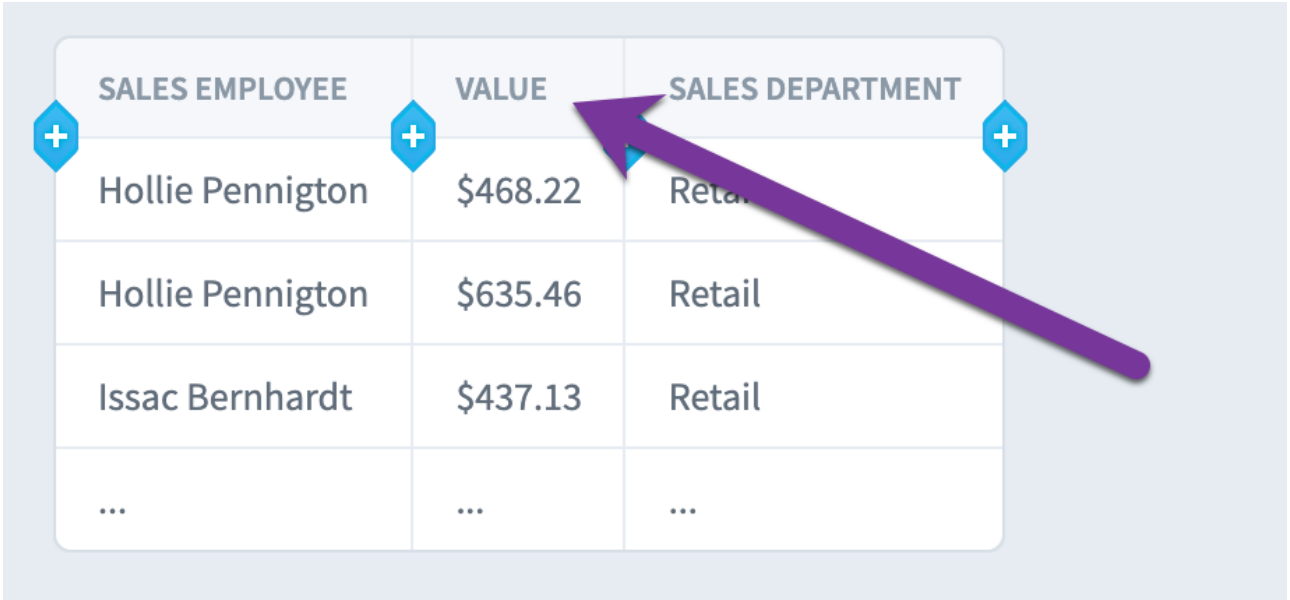
In this example we'll click the Edit button, and we'll choose "Set Column Label."



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."

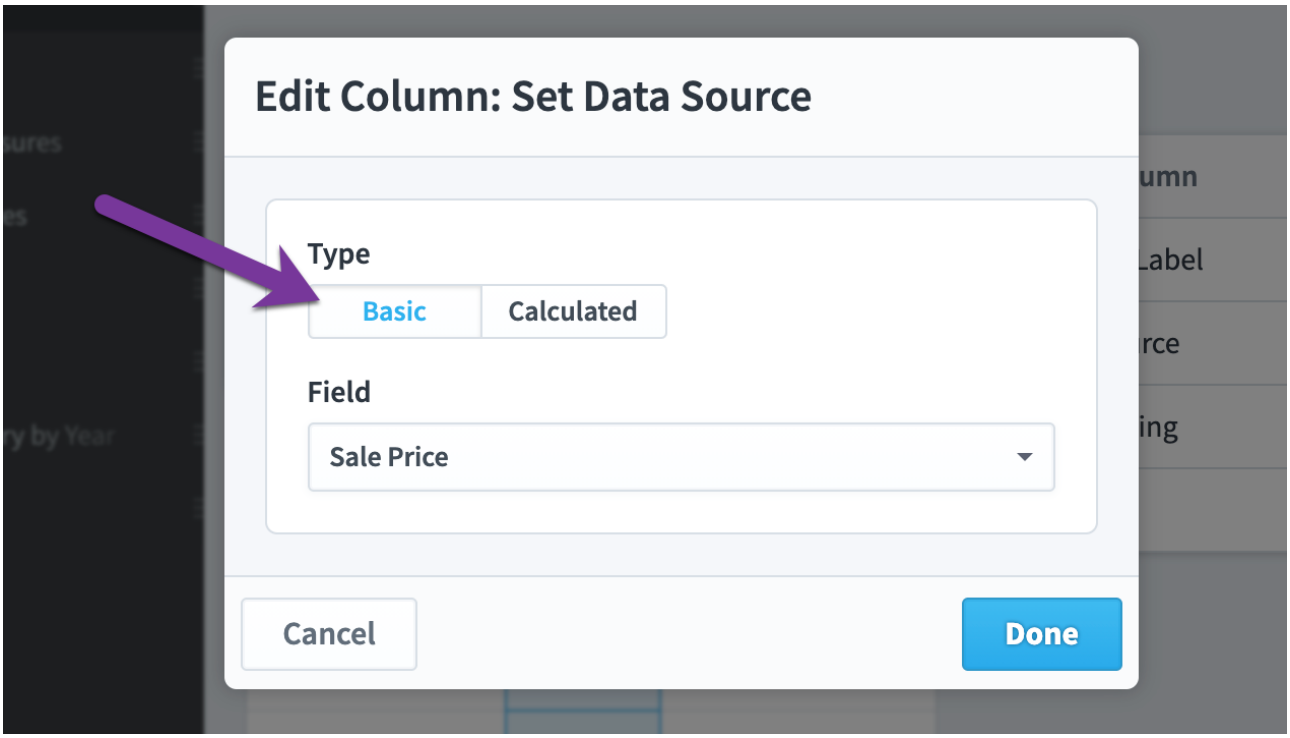


Here's what the report looks like with the new column label.

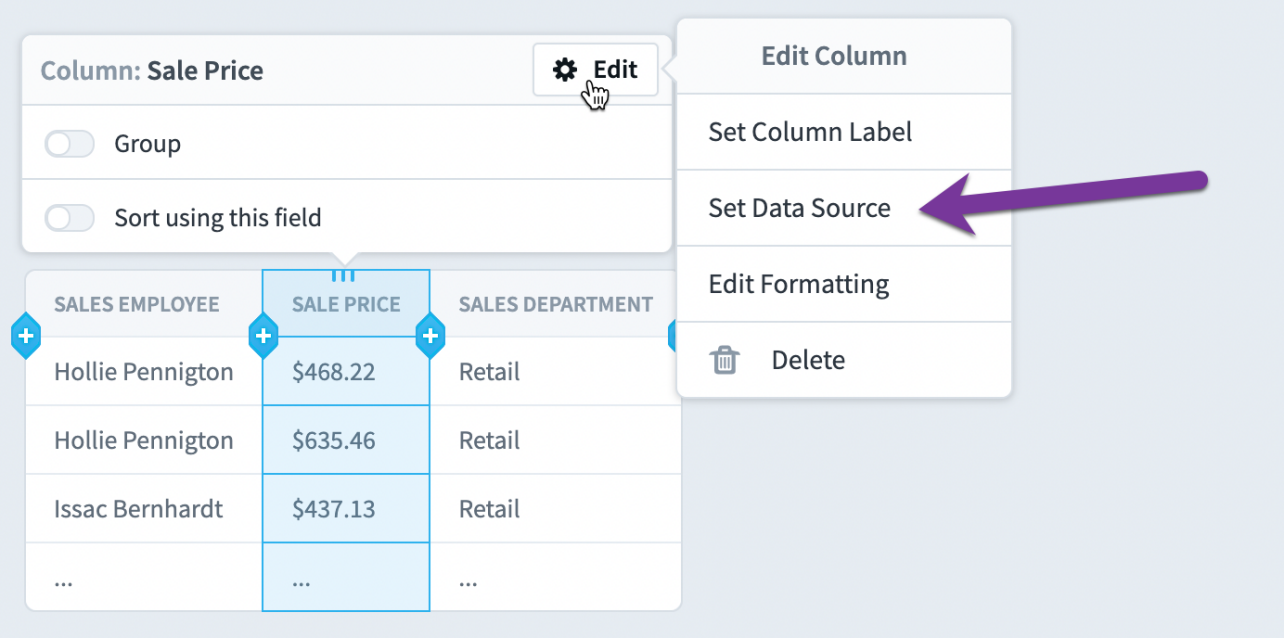


Editing column data

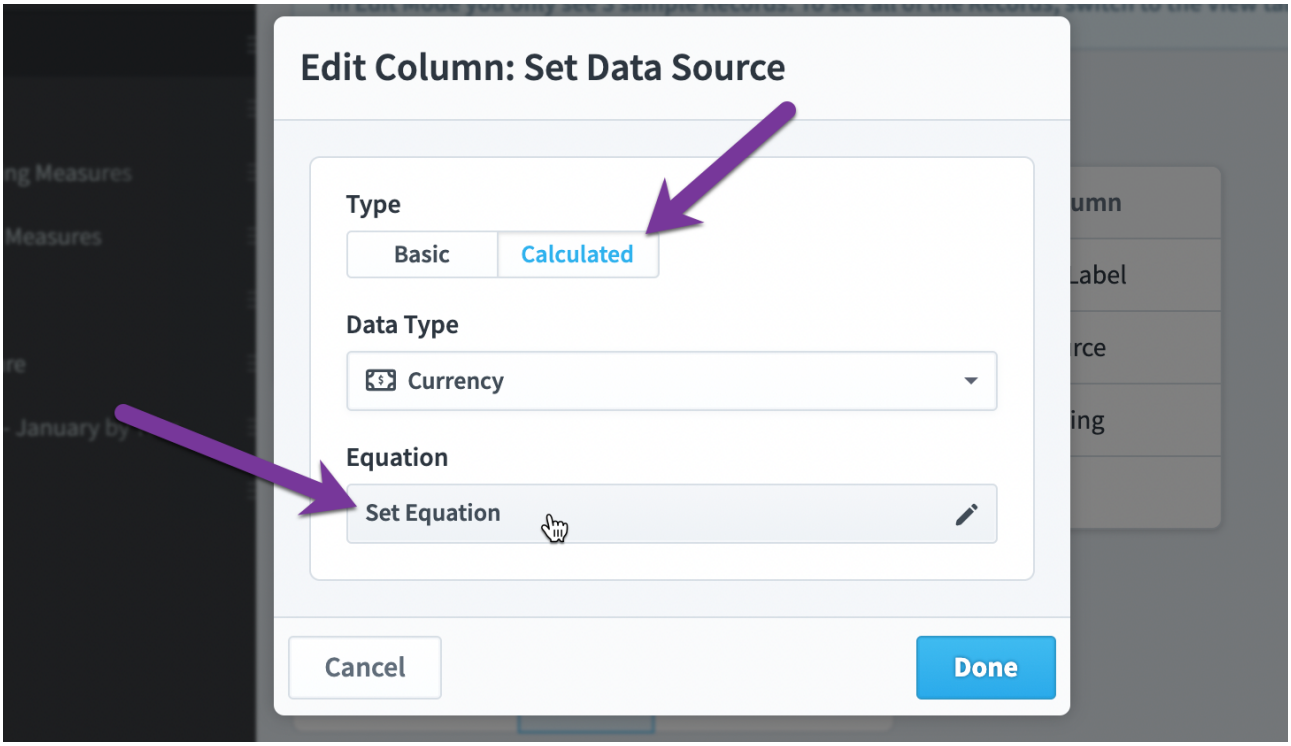
Every report column gets its data from somewhere, and to edit what data is showing, choose "Set Data Source" from the Edit Column menu.



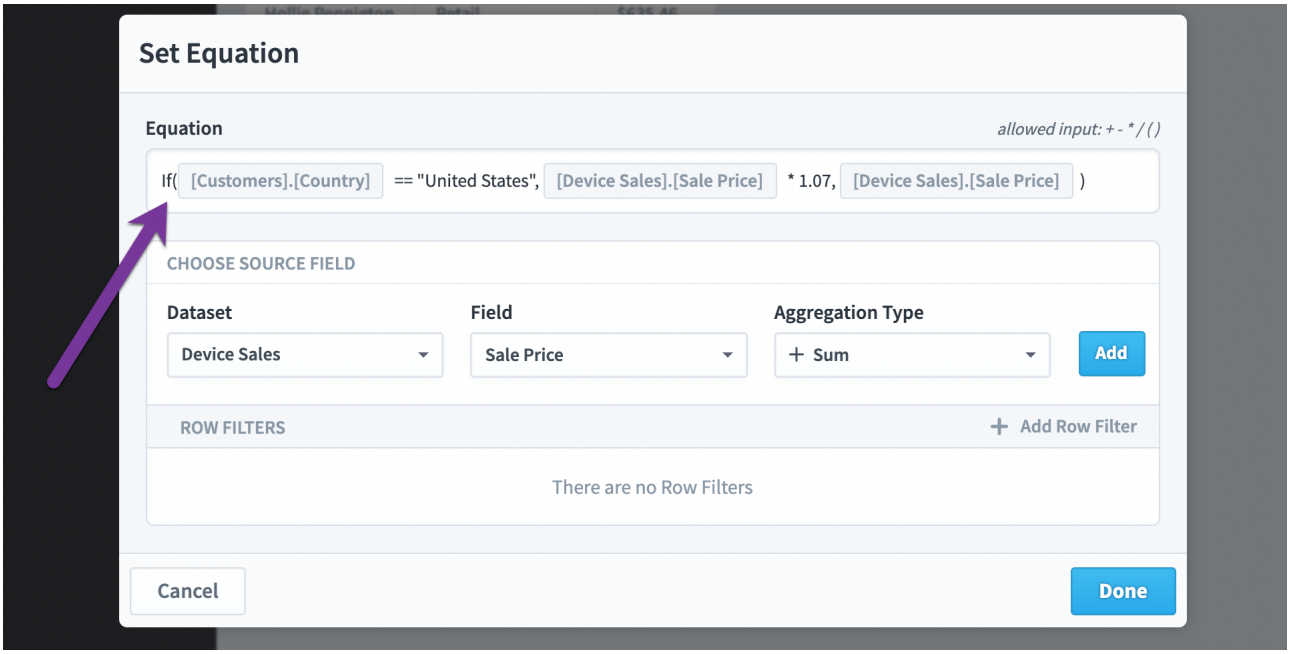
The default column type is Basic. This means the column is showing the value for a single field.



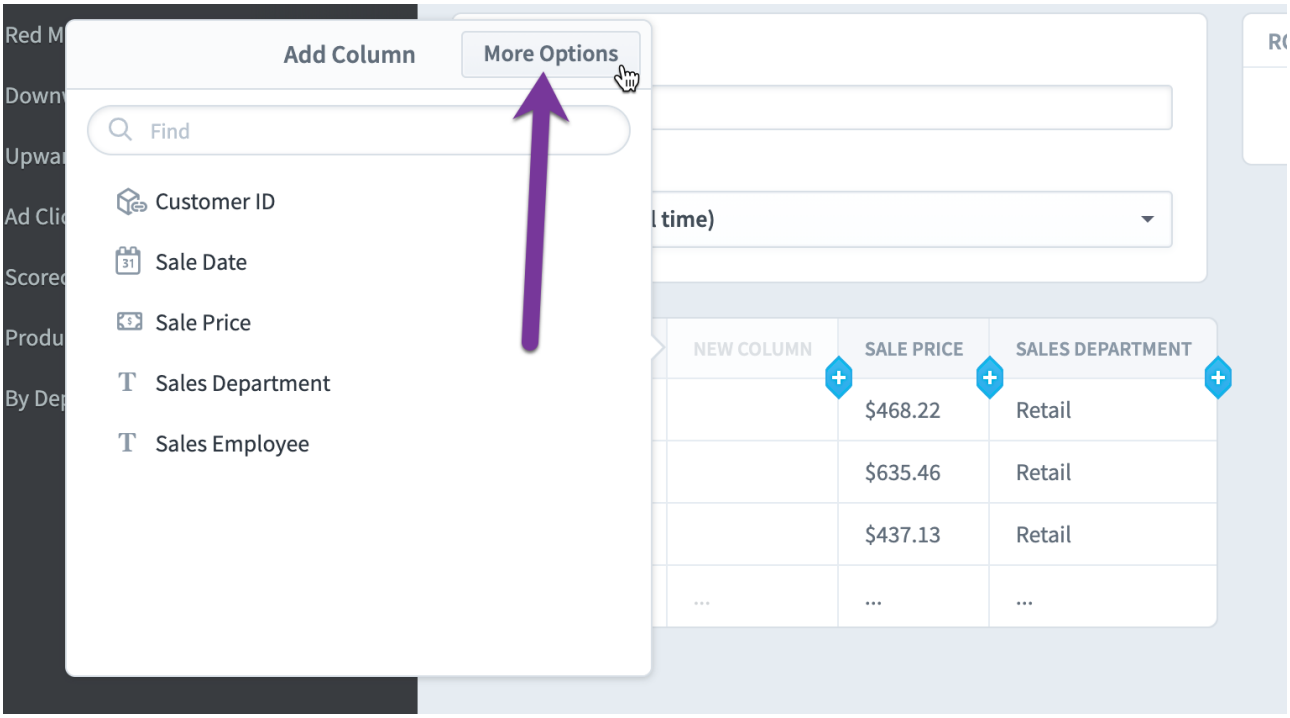
For dataset reports you can also choose to show a Calculated value in a column. (This is not available for Scorecard or Initiative reports.) Here we'll change the Type to Calculated and we'll click the "Set Equation" button.



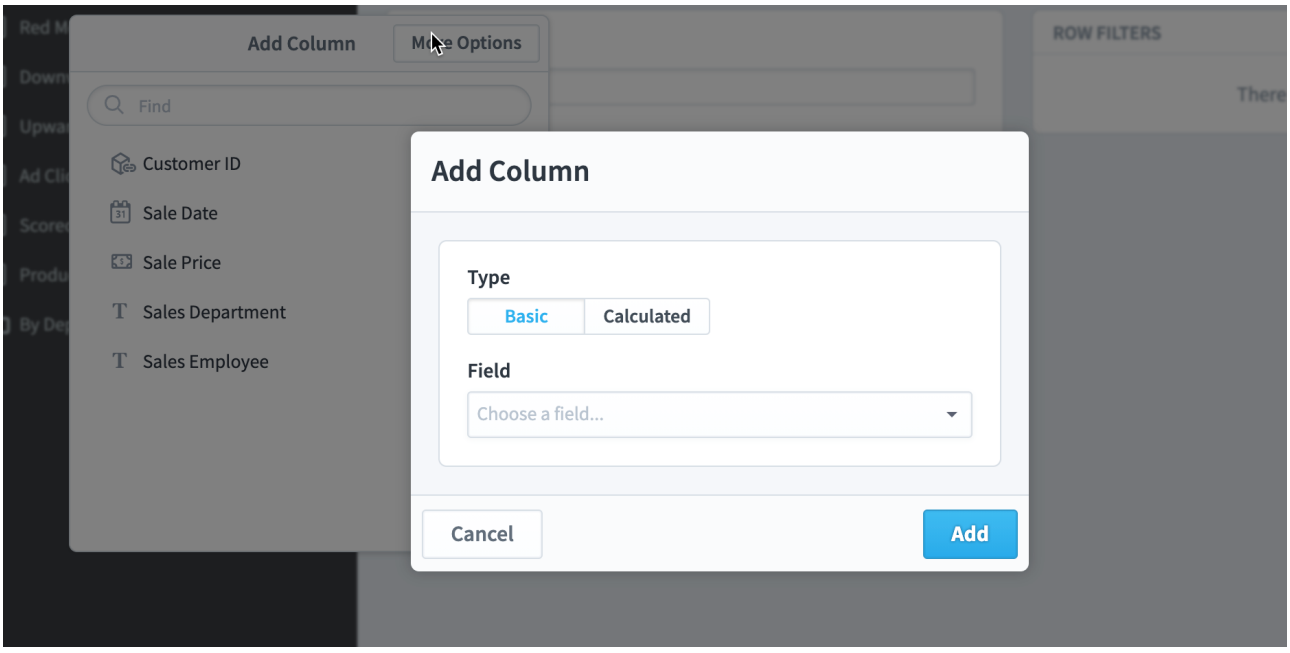
In this example we're building an equation that shows the value of the "Sales Price" field, but with an additional 7% sales tax added if the value of the Country field is "United States." For more information, see the Equations article.



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.

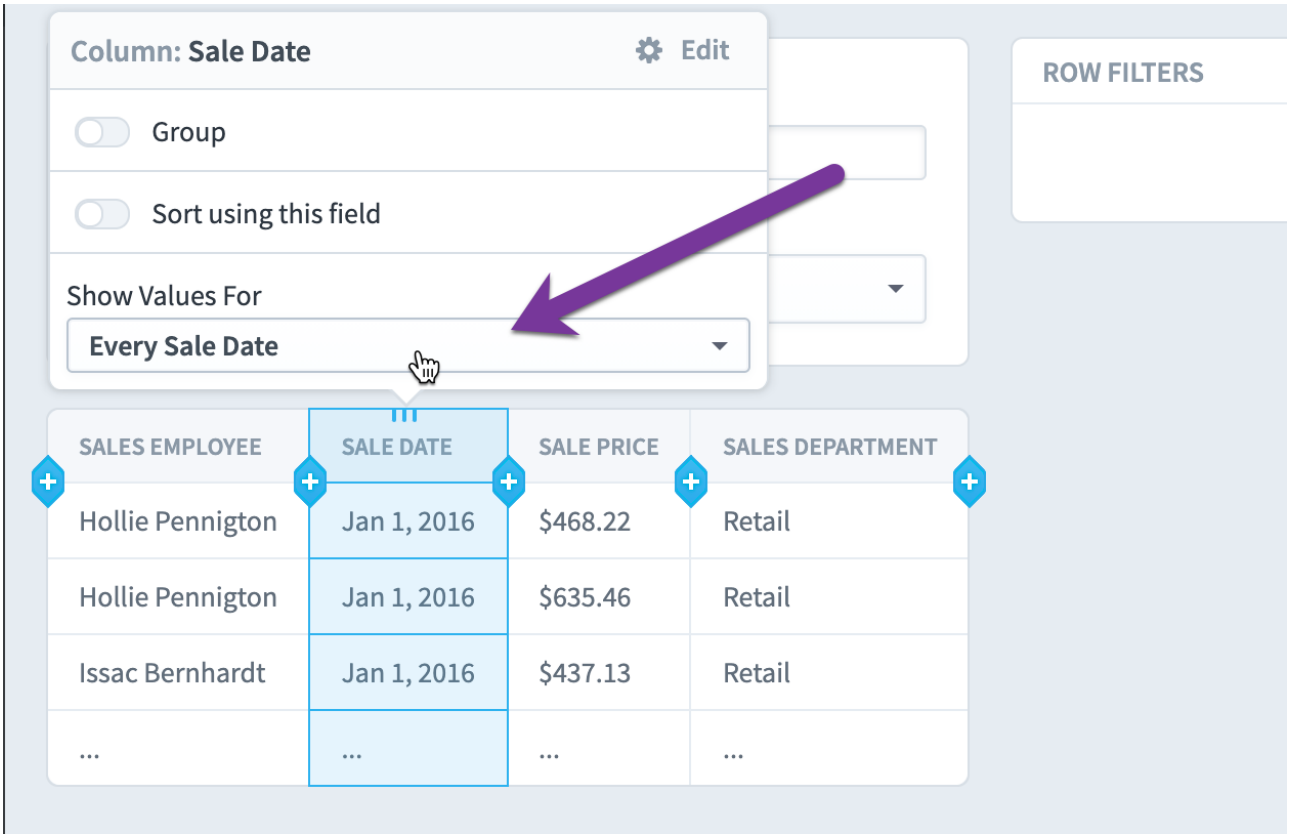


This shows the same "Set Data Source" menu, but this time it's for a column that hasn't been created yet.

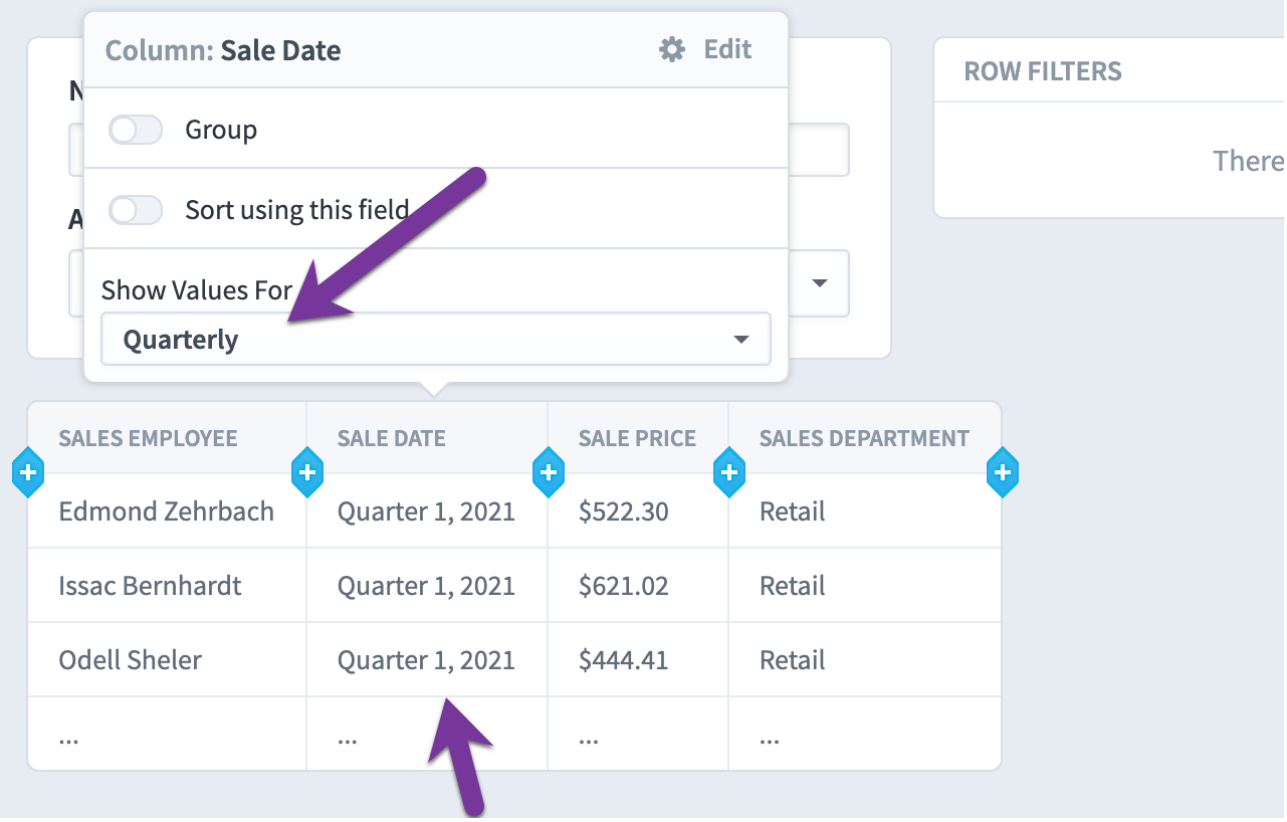


Show values for

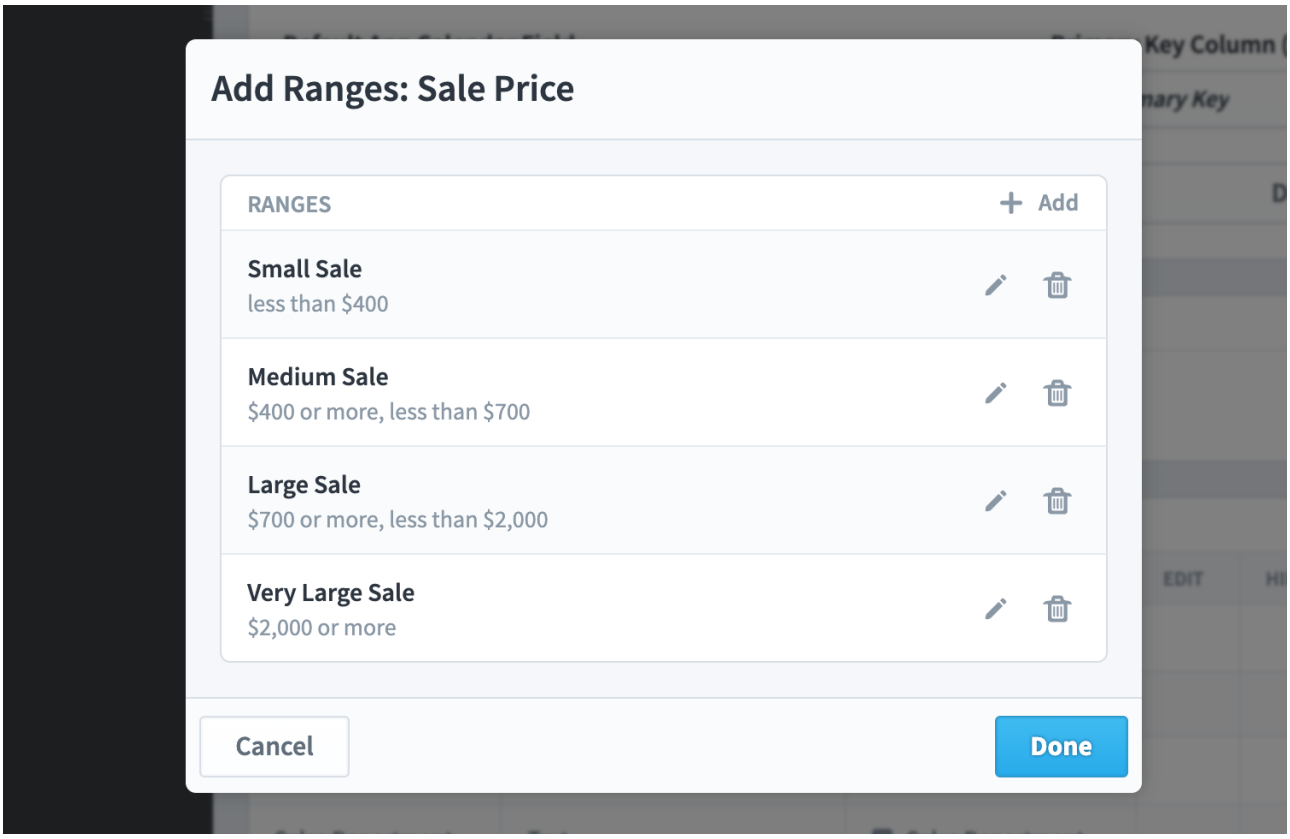
Sometimes when you click on a column, you'll have a "Show Values For" dropdown. In this example we've clicked on a date column that's showing data from the Sale Date field, and we're currently showing "Every Sale Date".



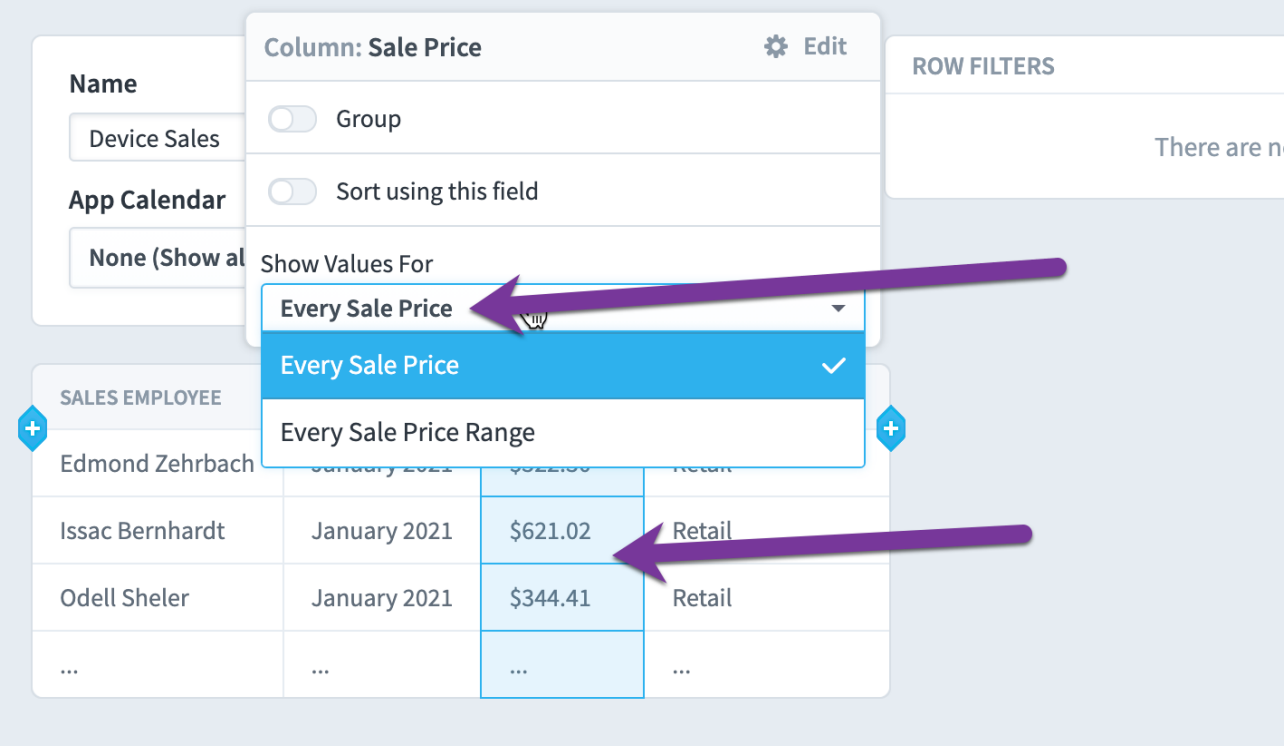
Here we've chosen to show values for the Quarterly calendar. The column now shows which quarter the sale happened in instead of the specific date.



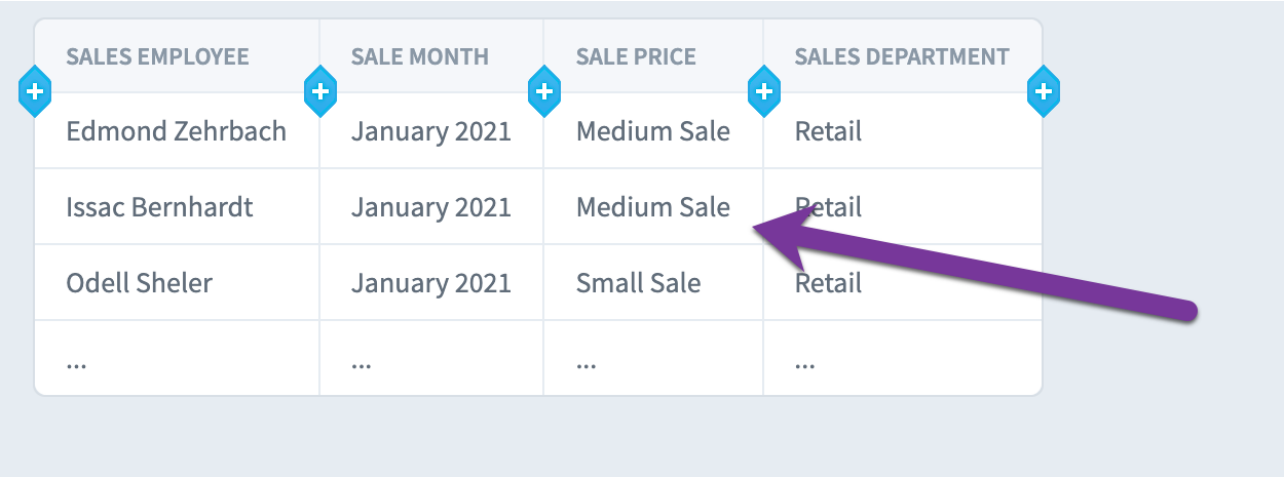
You'll see other options in the "Show Values For" dropdown depending on what data your column is showing. For example, our dataset has four ranges set up for the Sale Price field.



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

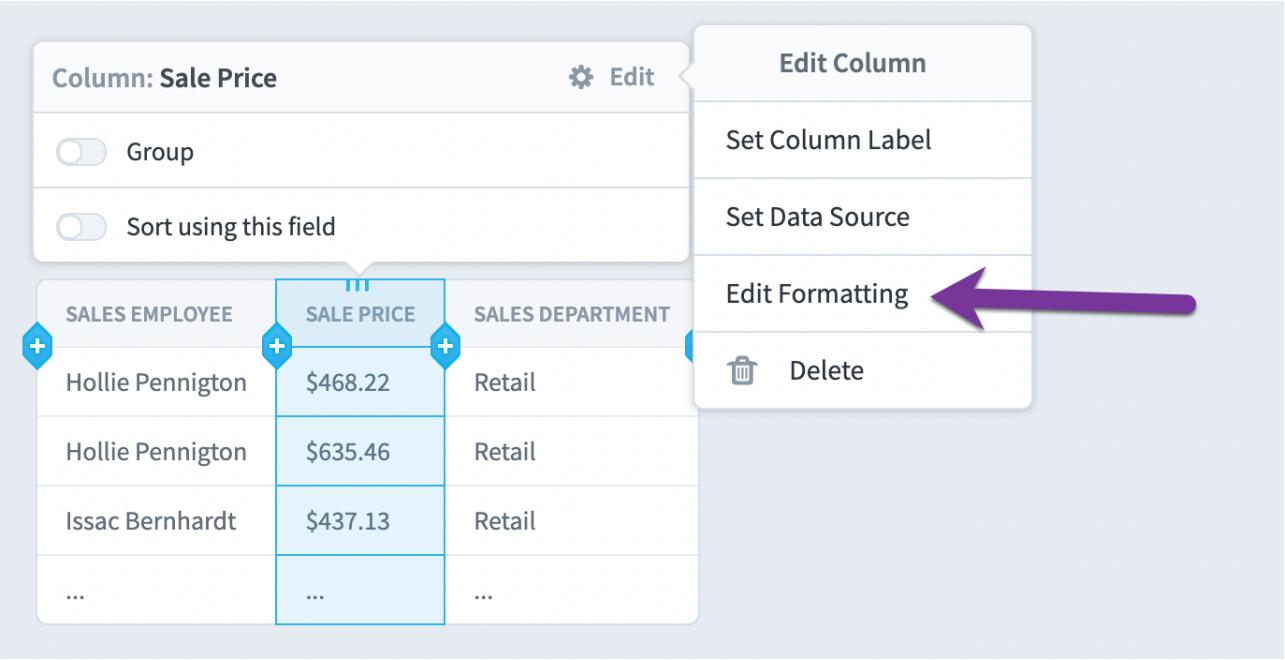


If we change "Show Values For" to "Every Sale Price Range", we'll see values that look like this.

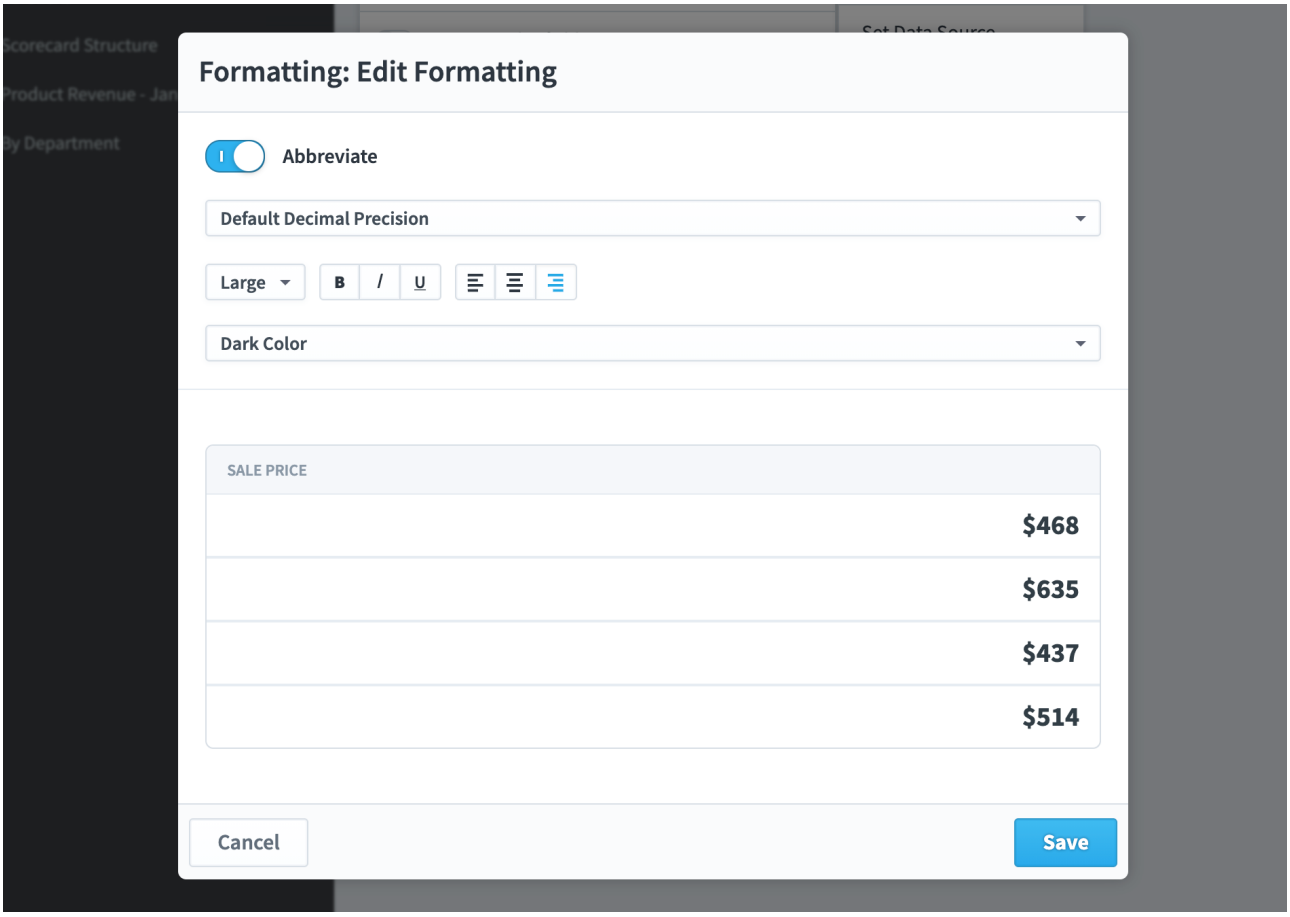


Column formatting

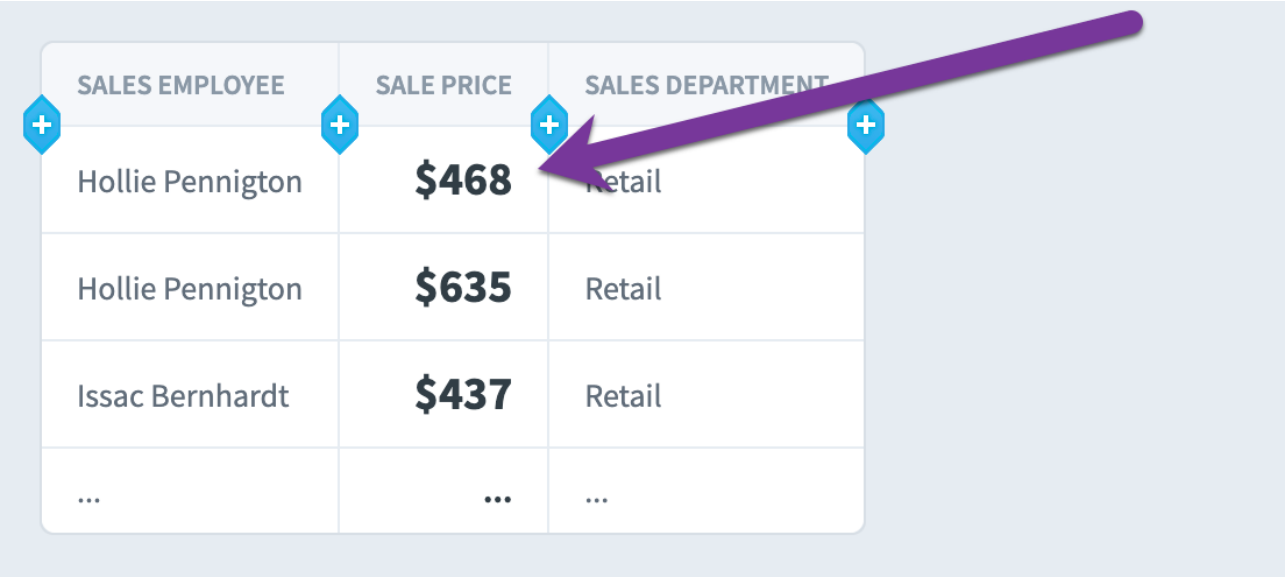
To edit a column's formatting, choose "Edit Formatting" from the Edit tooltip.



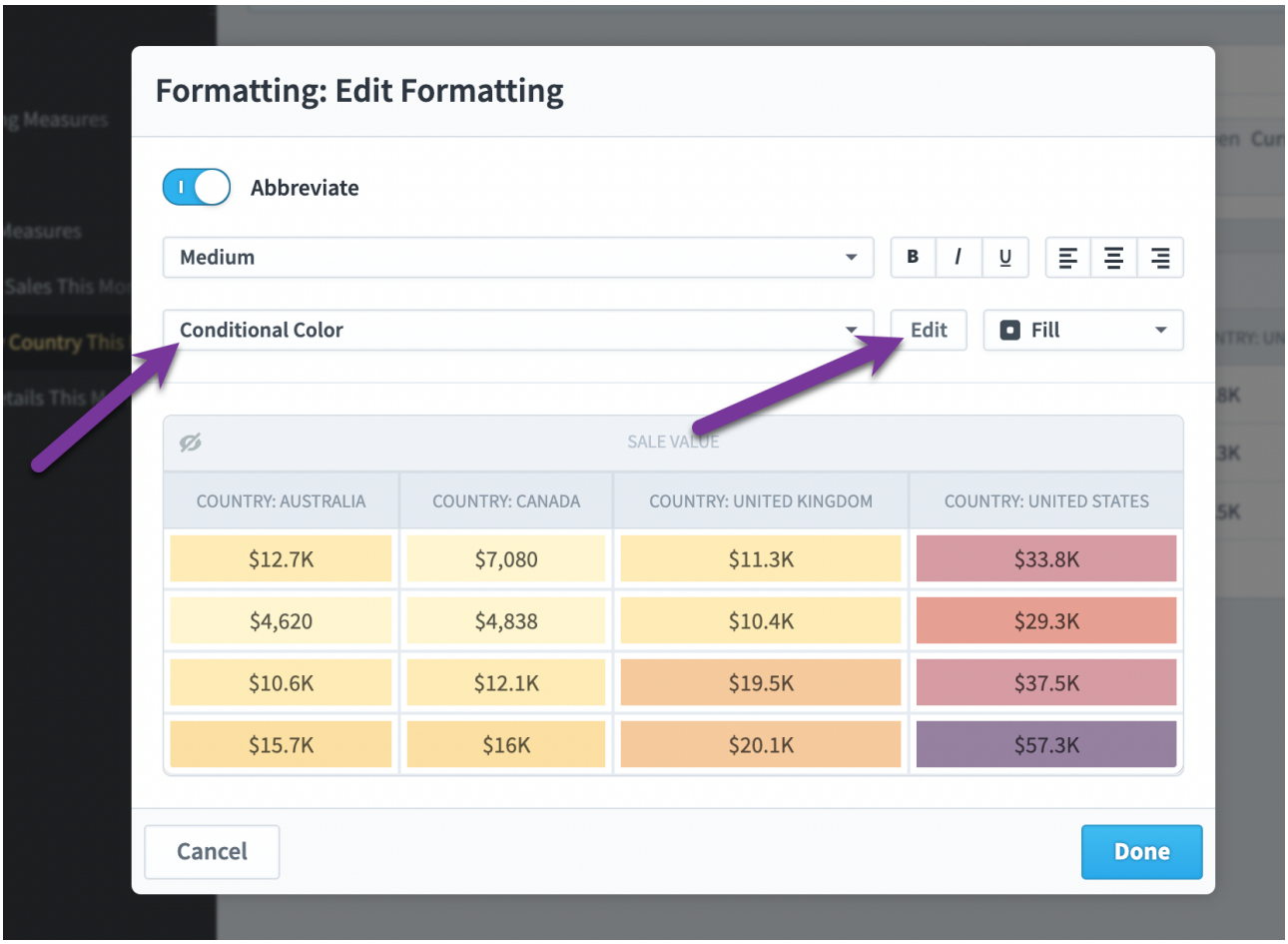
The Edit Formatting dialog gives you a preview of what your formatted data will look like. Here we've changed the font size to large, changed the color to dark, abbreviated the data, and aligned everything right.



We end up with a report that looks like this.

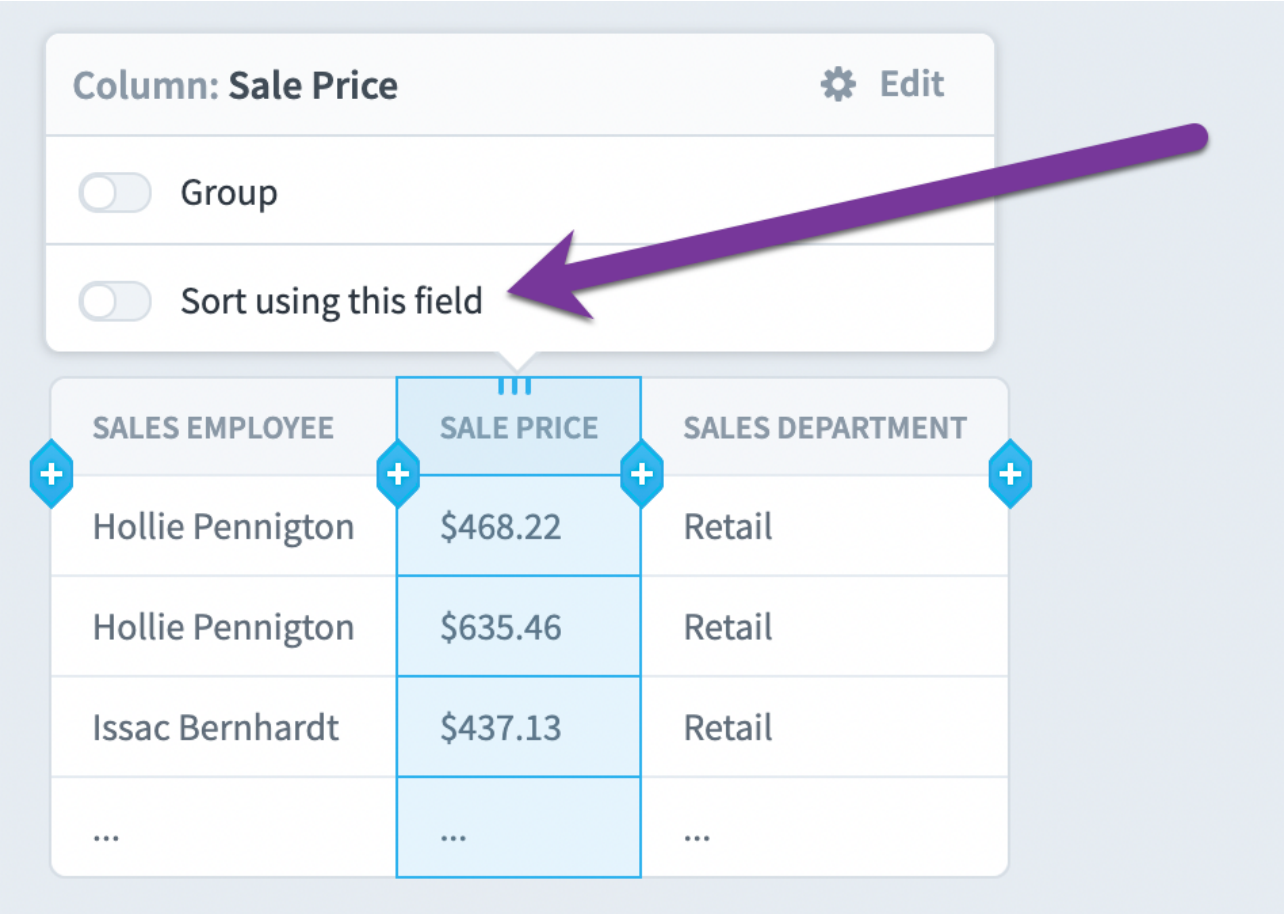


When you choose Conditional Coloring, each cell will have a different color based on its value.

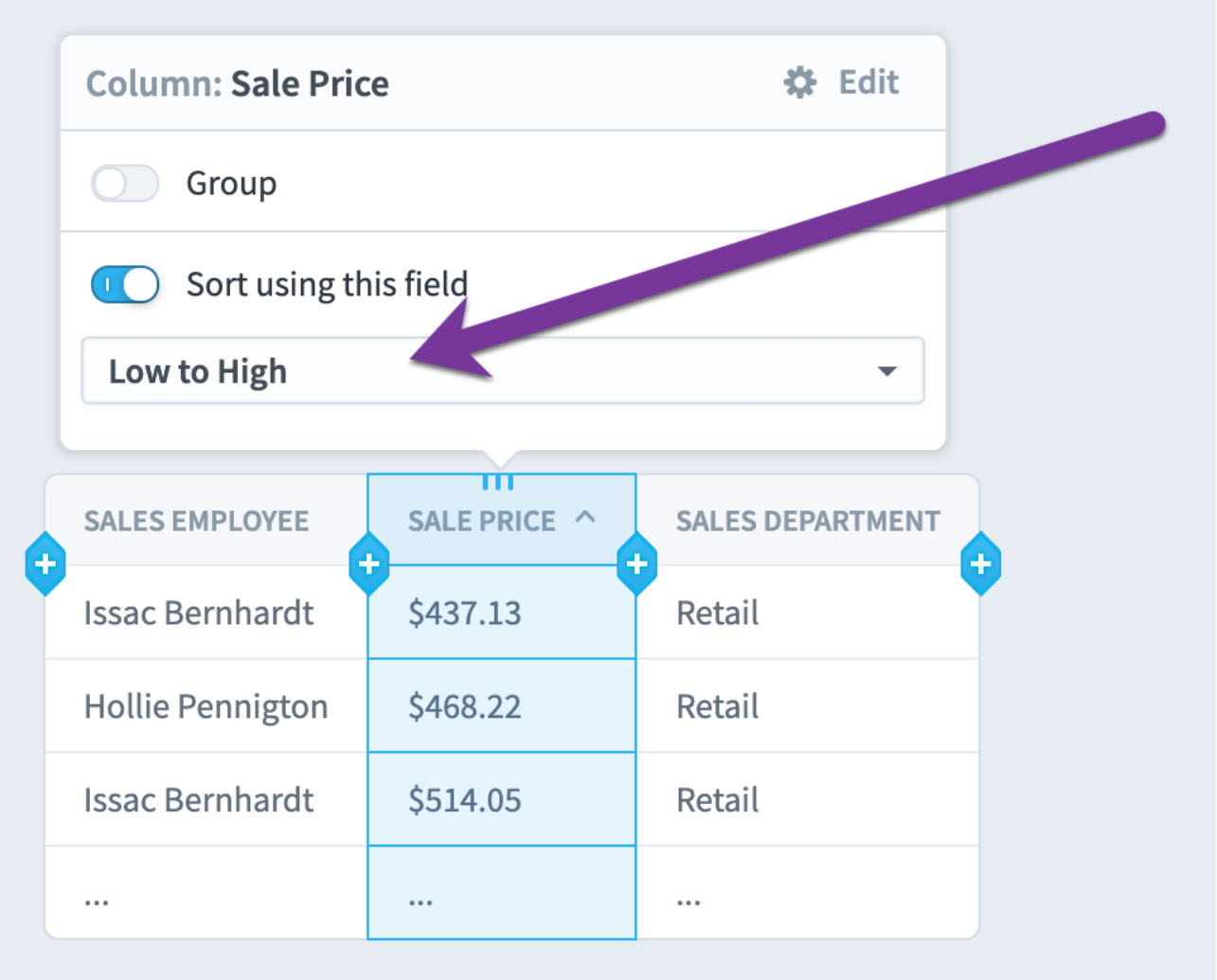


Column sorting

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."

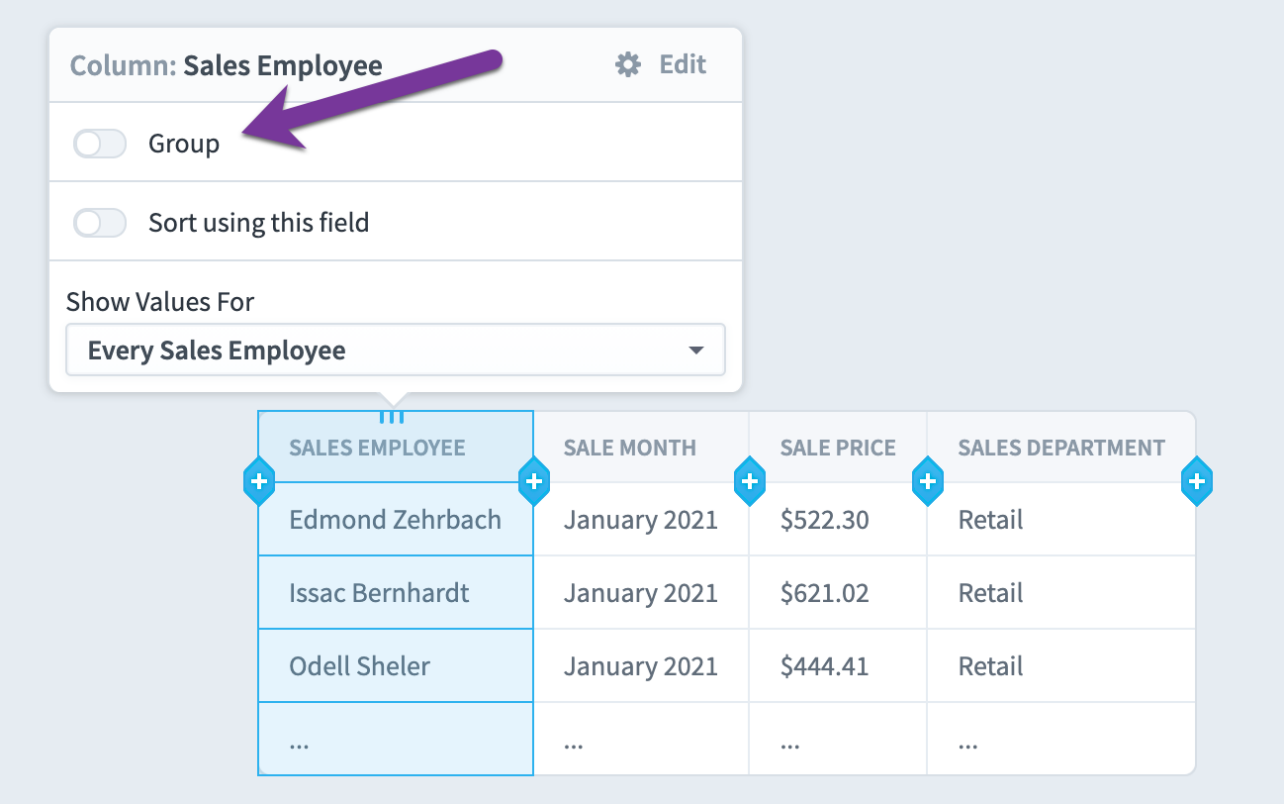


You can then choose to sort that column ascending or descending.

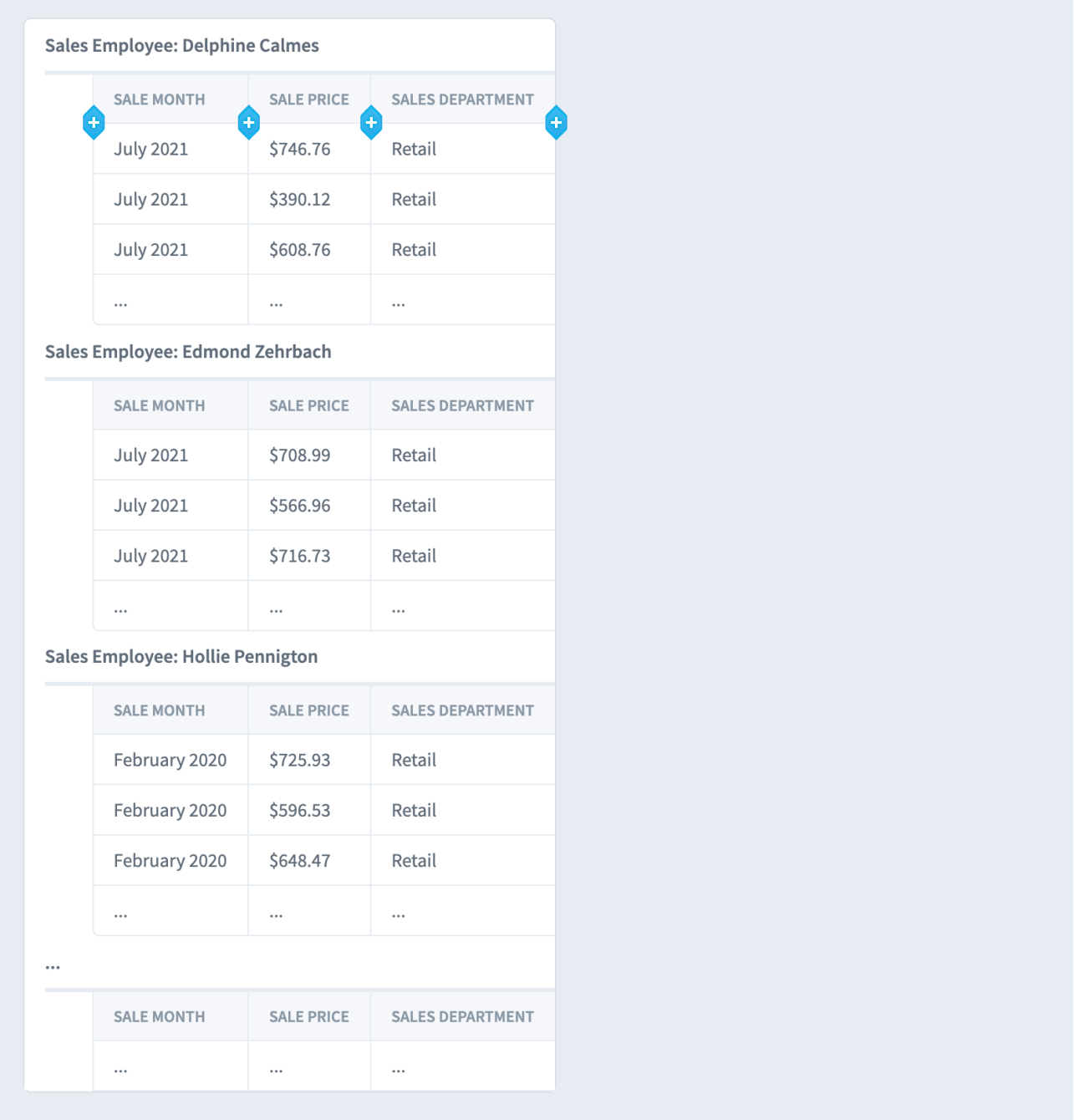


Grouping

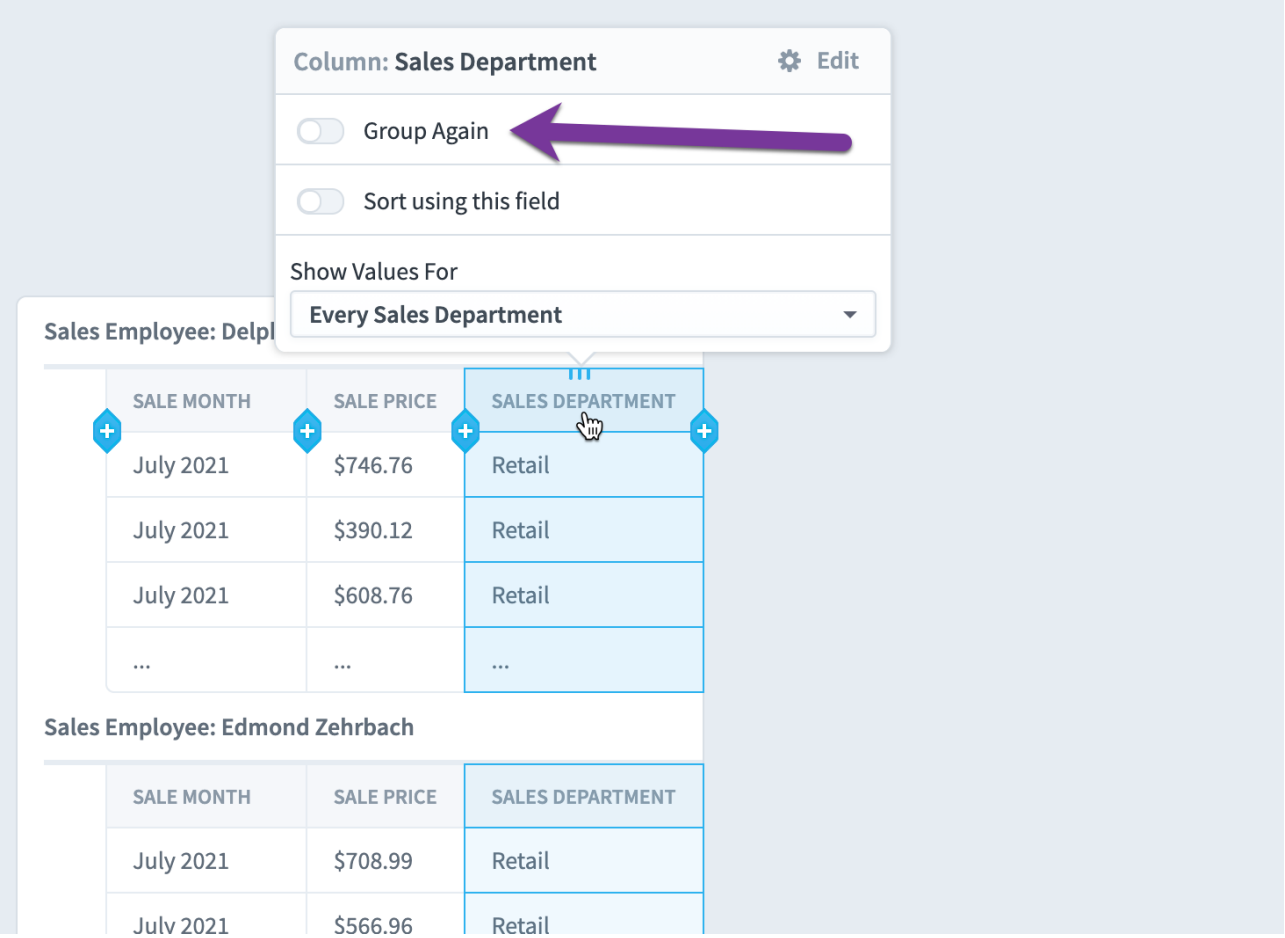
You can group by a column by clicking on the column and turning on the Group switch.



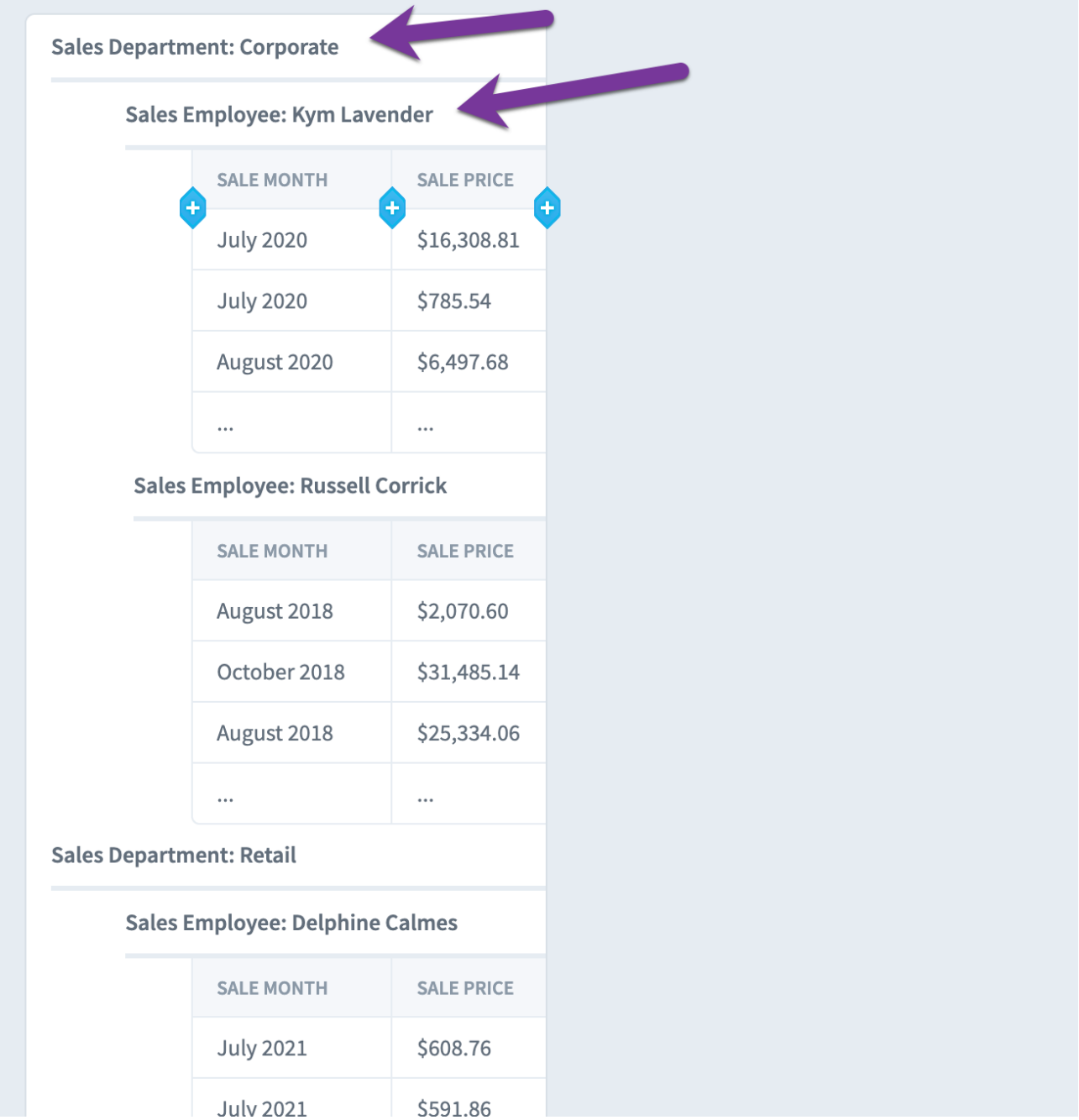
This shows all unique values for that column as large group headers, and then lists all of the records with that value underneath. In this example we've grouped by the Sales Employee column, so each group is a different sales employee. The Edit tab only shows the first three groups, but switching to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



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

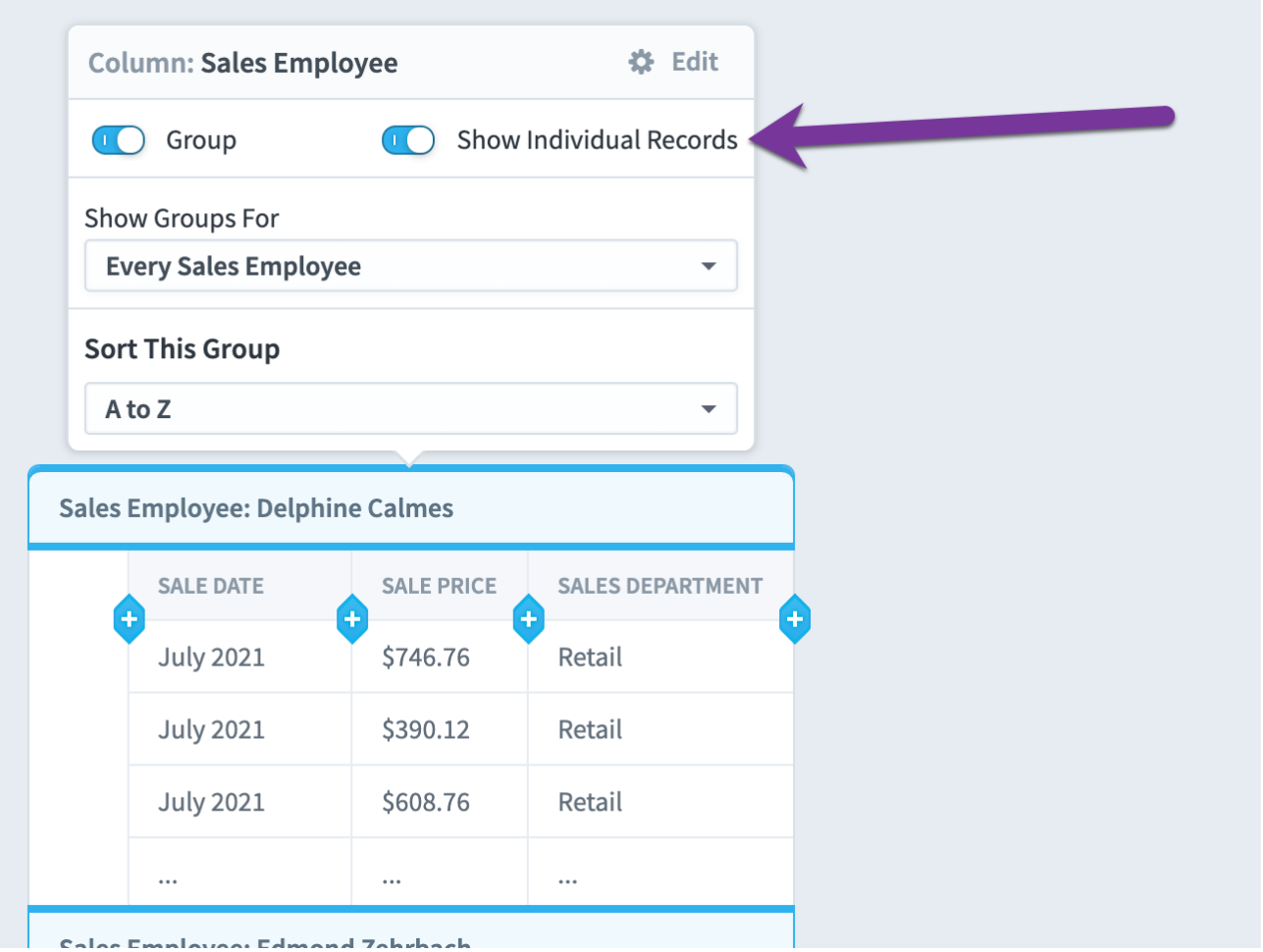


In this example the Sales Employees are also grouped by Sales Department.

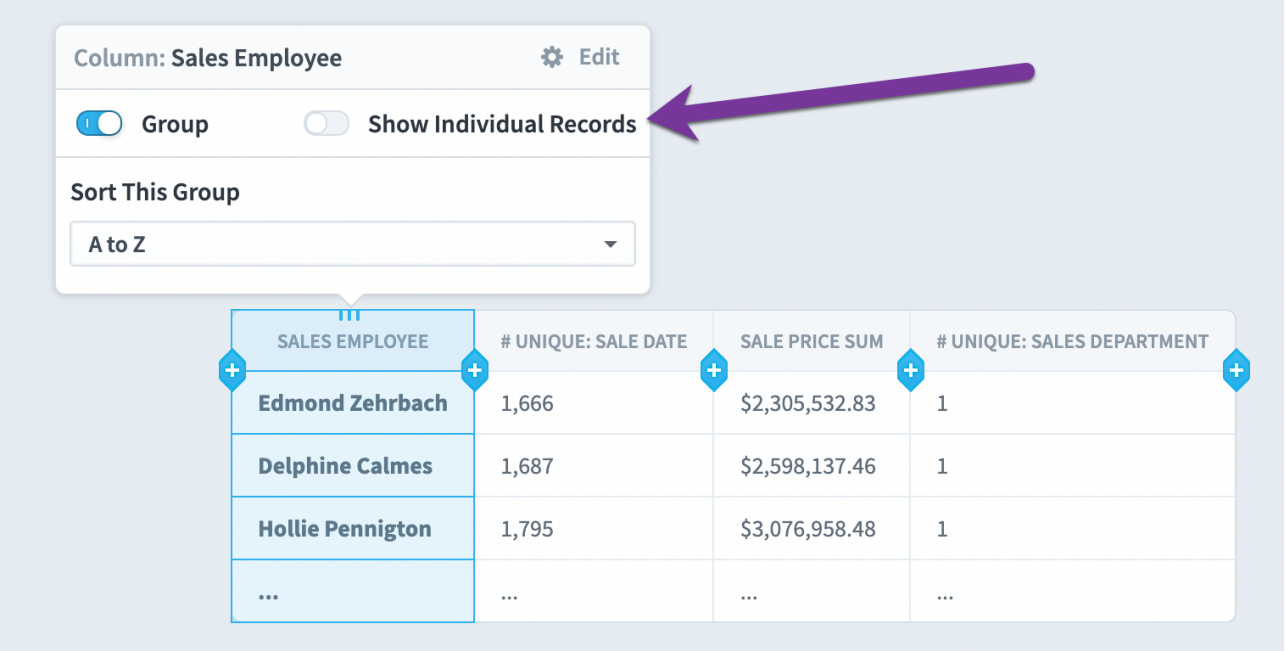


Hiding individual records

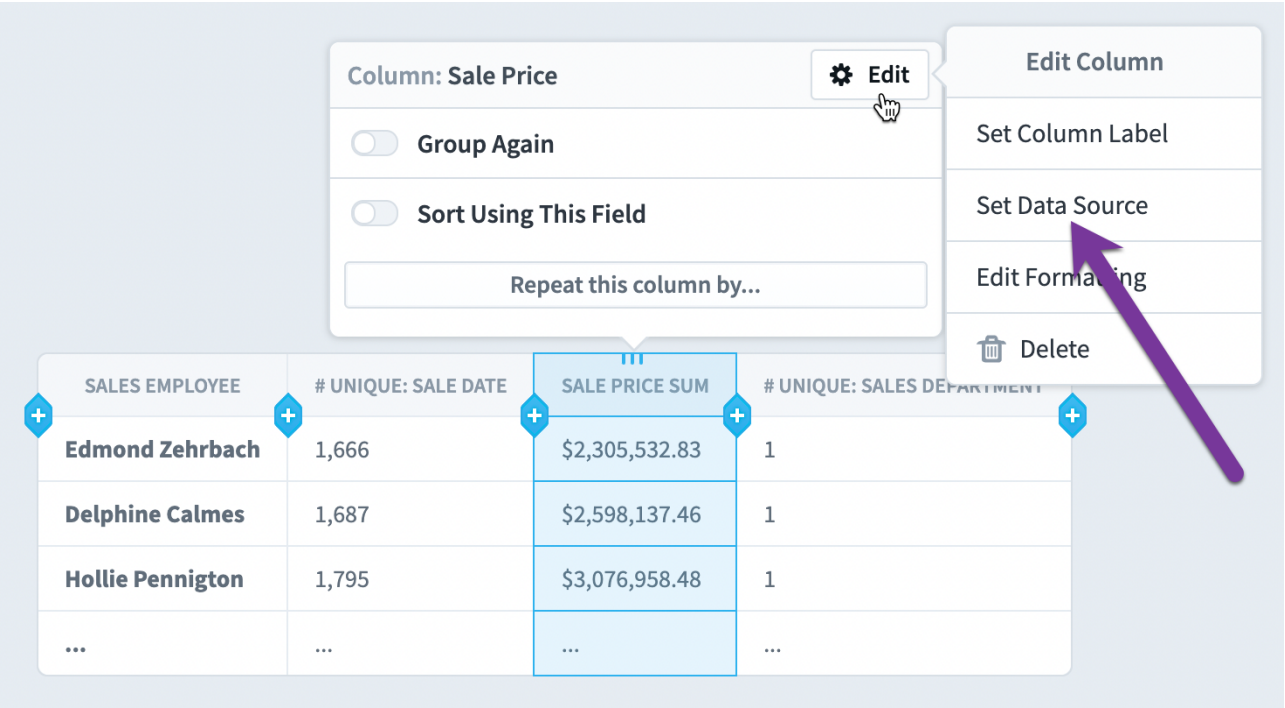
Adding a group to your report opens the door to many new data presentation possibilities. The most powerful is the ability to turn off "Show Individual Records". In this example, we're grouping records by the Sales Employee column, and we're showing columns for the Sale Date, Sale Price, and Sales Department.



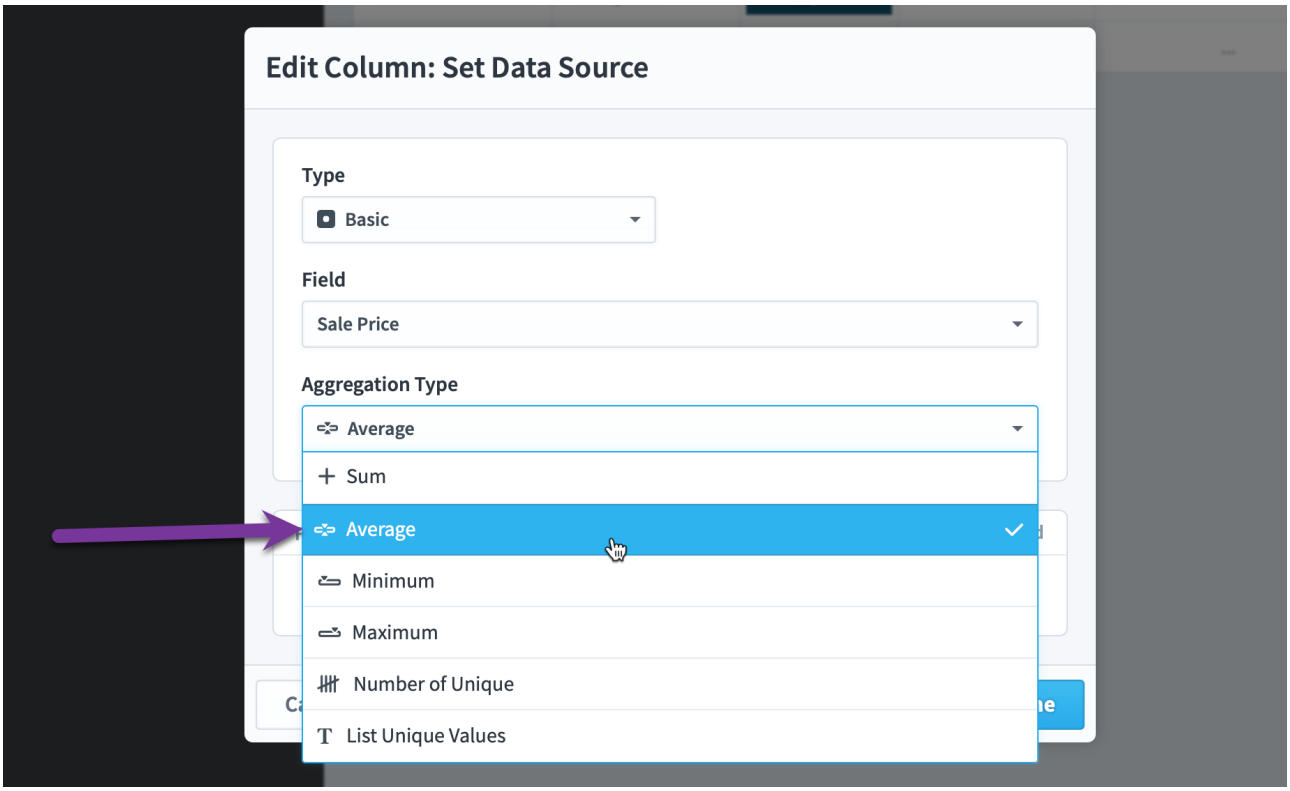
When you turn off "Show Individual Records", the report now only shows the groups. As you can see, the columns remain the same, but now they're showing aggregated data for each group. Number columns like Sale Price are summed by default. The default aggregation type of Date and Text columns is counting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



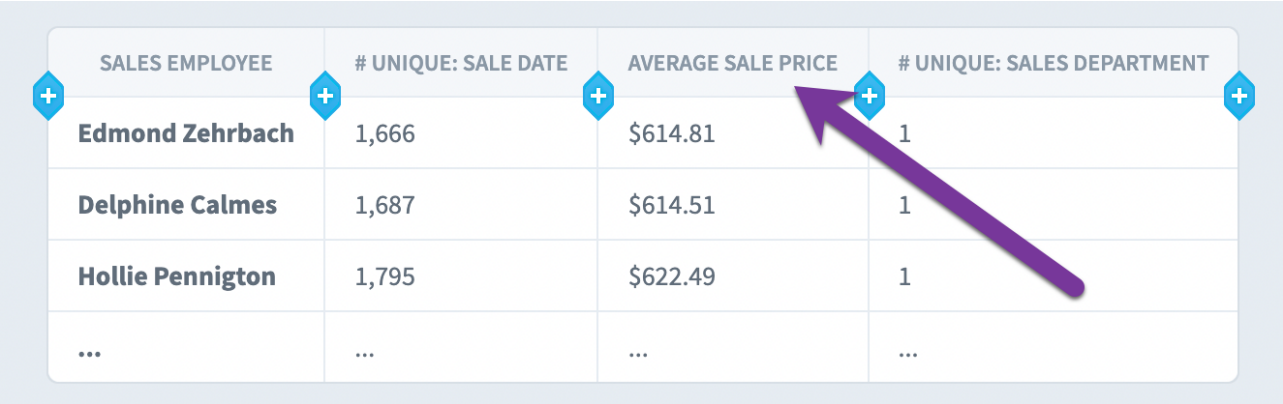
Now that we're showing aggregated data, however, we have an Aggregation Type choice in this dialog. We'll choose Average.



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
...	...	...	...

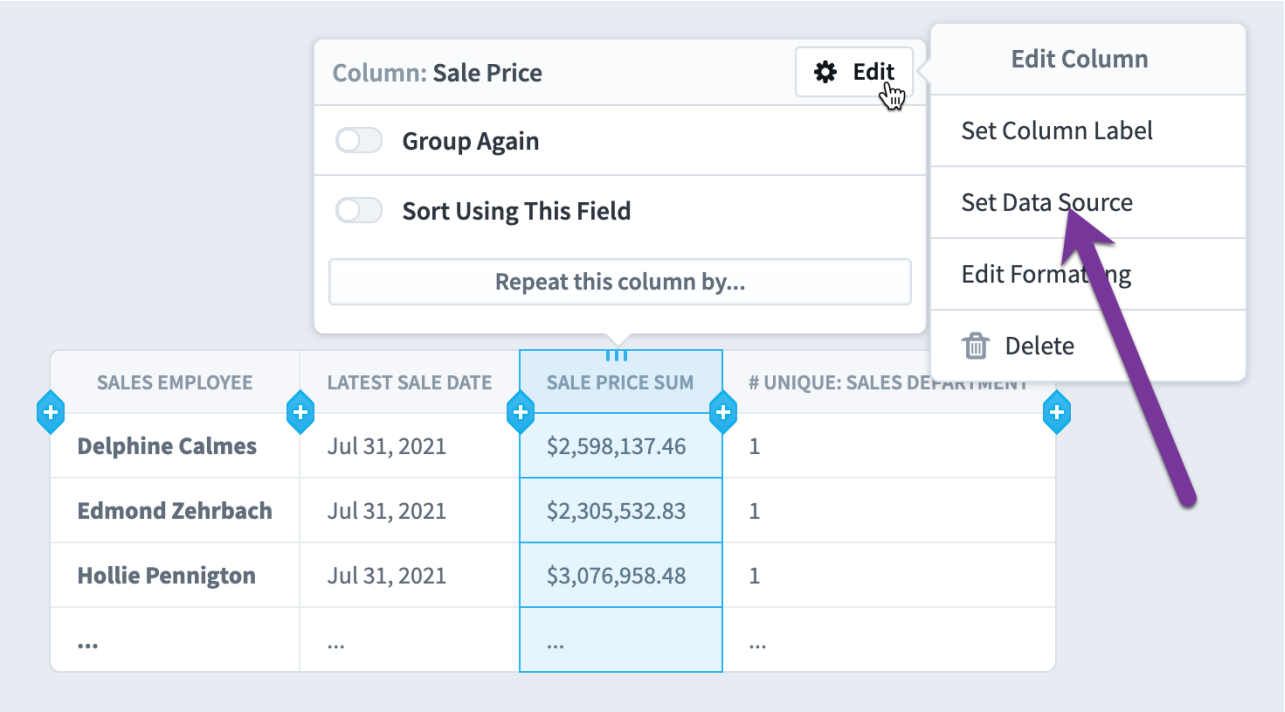
And like this on the View tab.

View

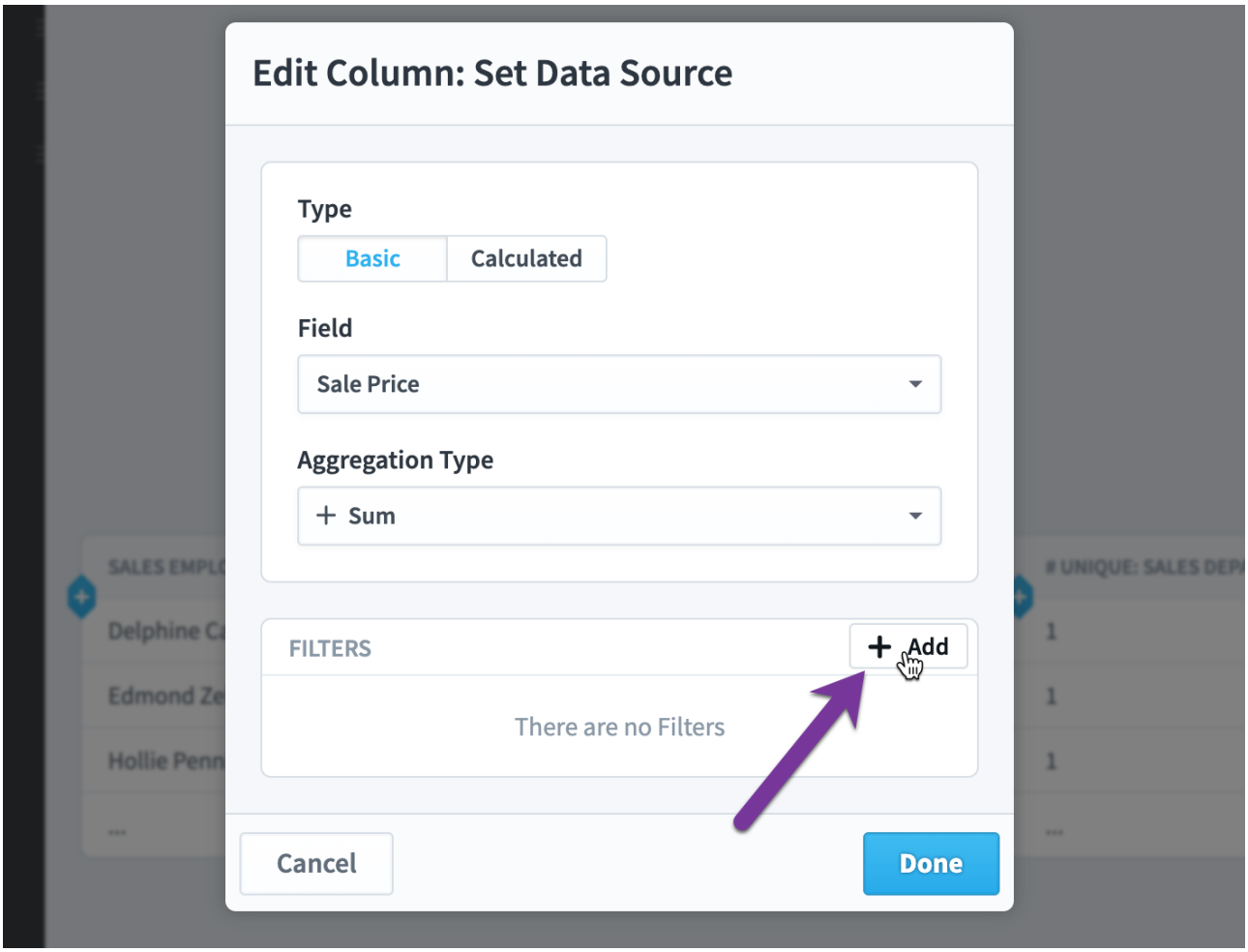
SALES EMPLOYEE	LATEST SALE DATE	AVERAGE SALE PRICE	# UNIQUE: SALES DEPARTMENT
Delphine Calmes	Jul 31, 2021	$614.51	1
Edmond Zehrbach	Jul 31, 2021	$614.81	1
Hollie Pennigton	Jul 31, 2021	$622.49	1
Issac Bernhardt	Jul 31, 2021	$616.34	1
Kym Lavender	Jul 28, 2021	$17,721.23	1
Micheline Turkasz	Jul 31, 2021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

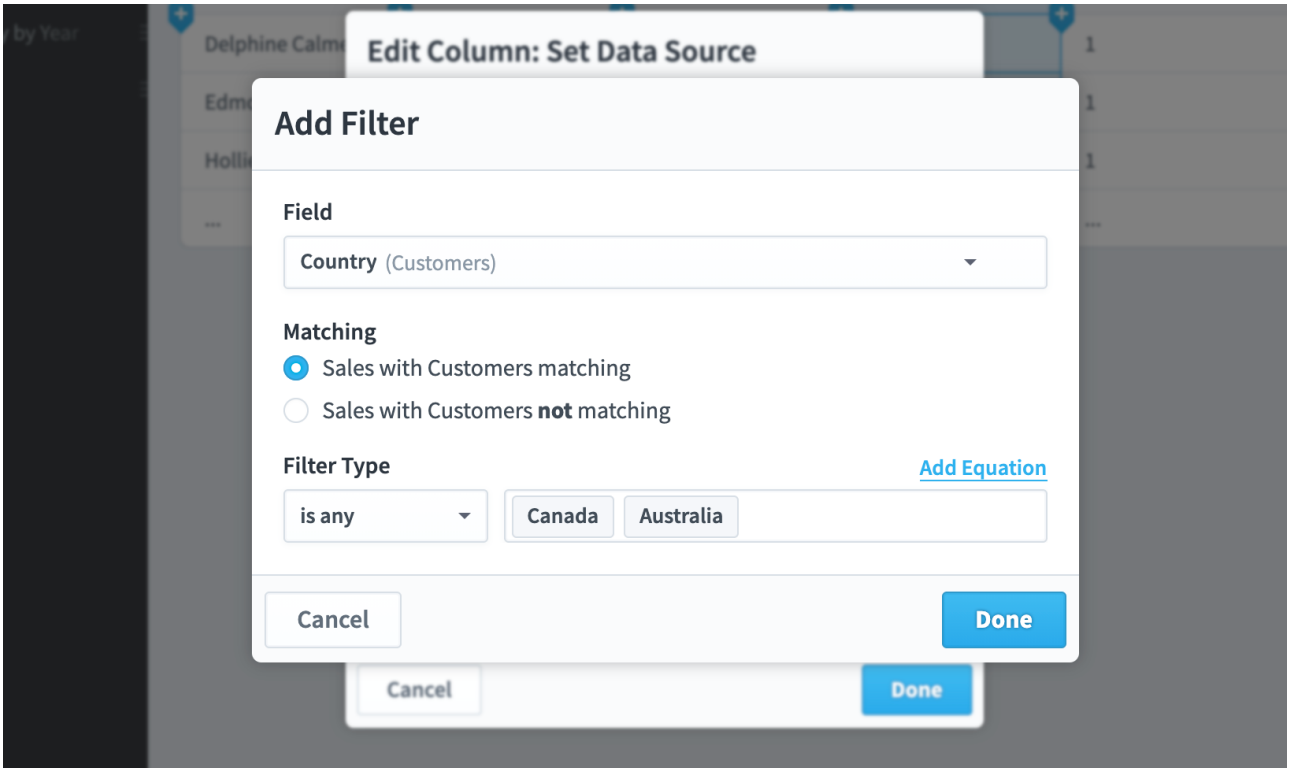
Once you're hiding individual records and your report is showing aggregated data, you can start adding filters to your columns. In this example we're going to choose "Set Data Source" for a Sale Price column.



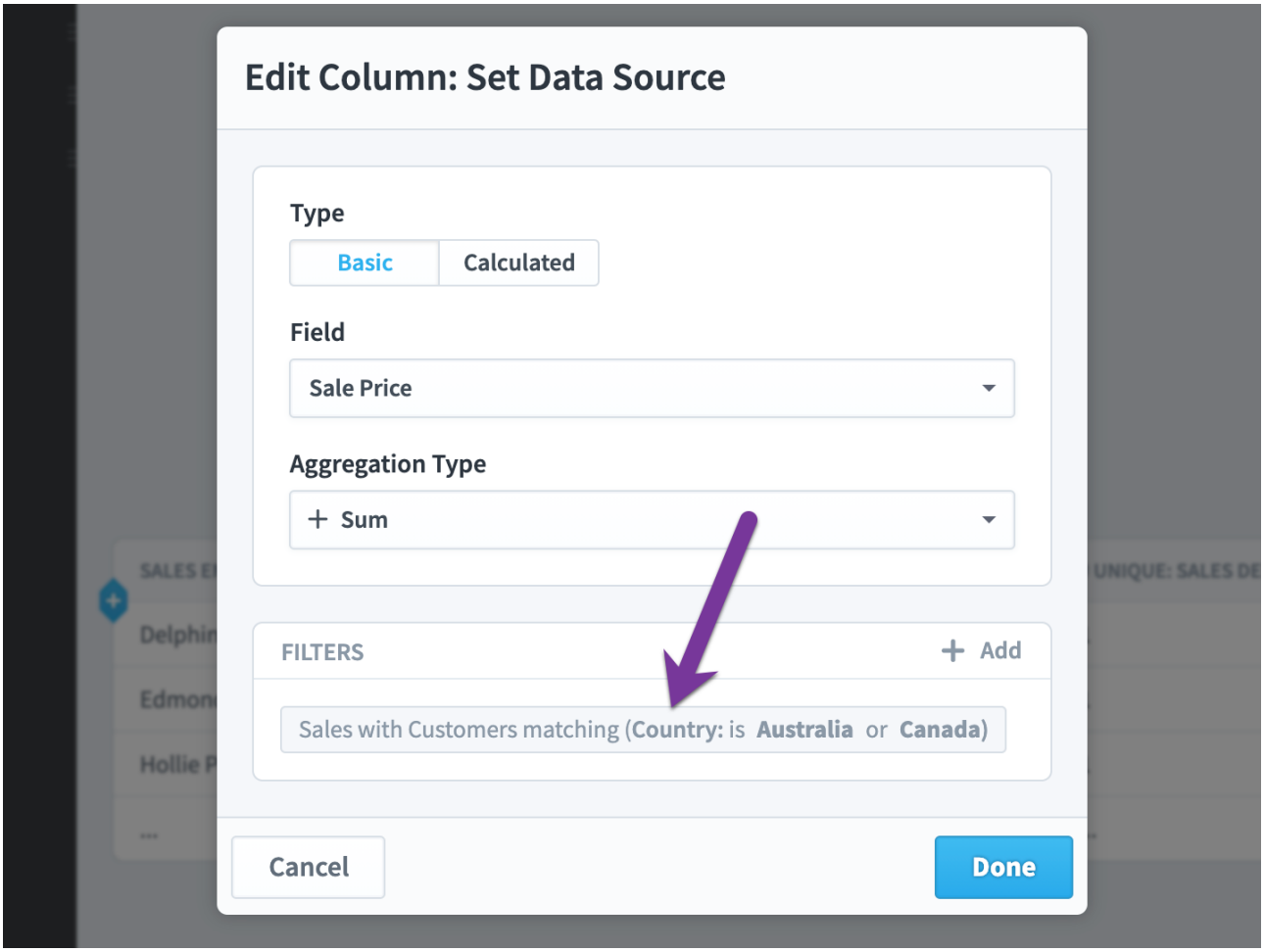
We'll leave the aggregation type as sum and click the "Add" button in the filters panel.



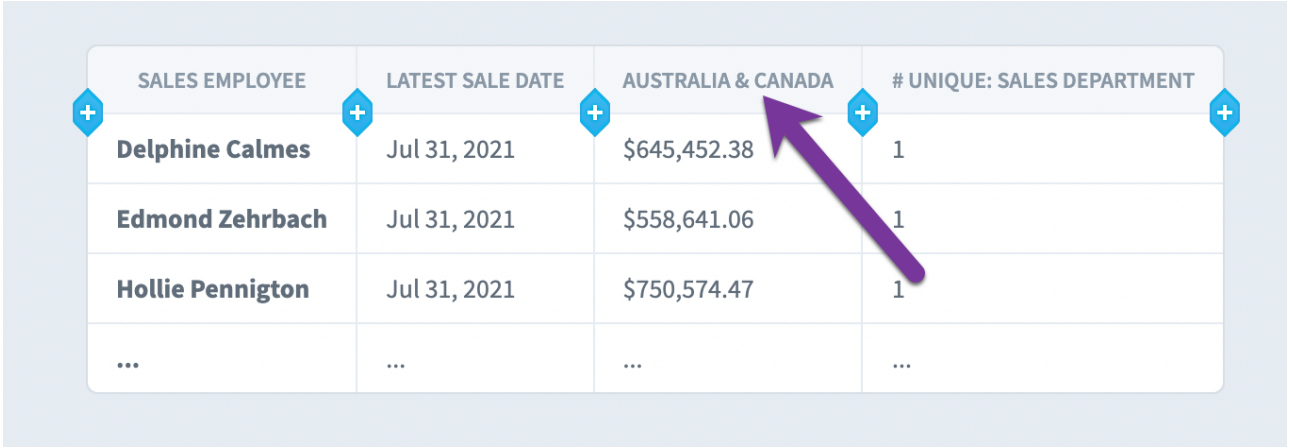
Next, we'll create a filter to only include data from records where the sales country is Canada or Australia.



This is what our new column filter looks like.



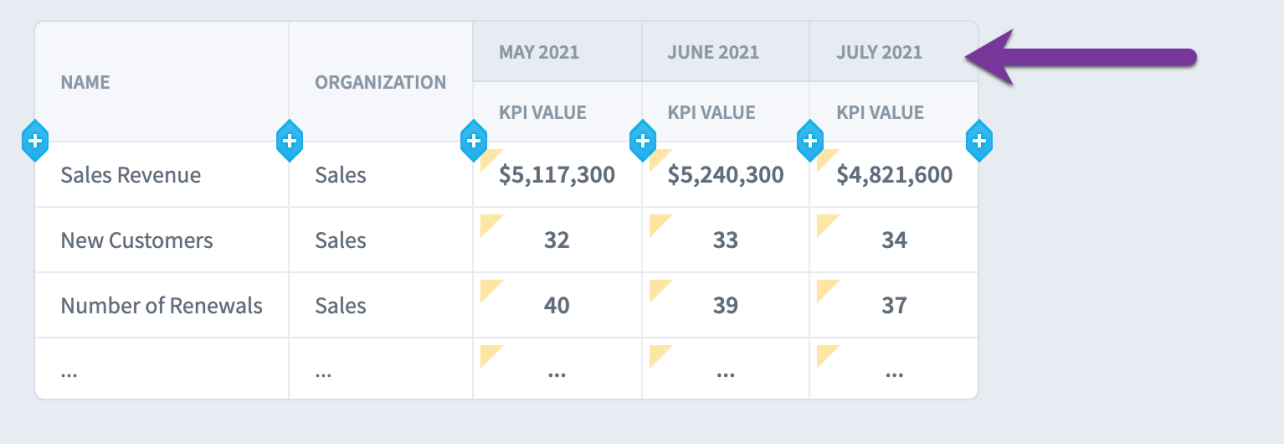
When we click Done, we now have a column showing the sum of all sales in Australia and Canada for each employee.



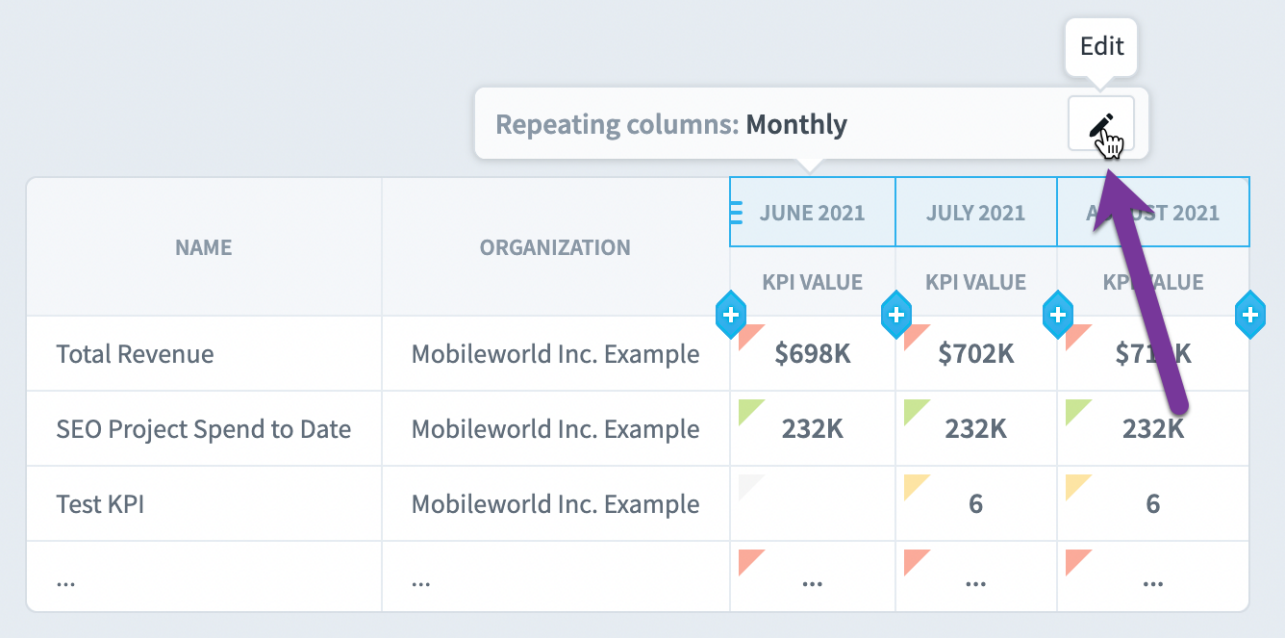
SALES EMPLOYEE	LATEST SALE DATE	AUSTRALIA & CANADA	# UNIQUE: SALES DEPARTMENT
Delphine Calmes	Jul 31, 2021	$645,452.38	1
Edmond Zehrbach	Jul 31, 2021	$558,641.06	1
Hollie Pennigton	Jul 31, 2021	$750,574.47	1
...	...	...	...

Repeating columns for scorecards

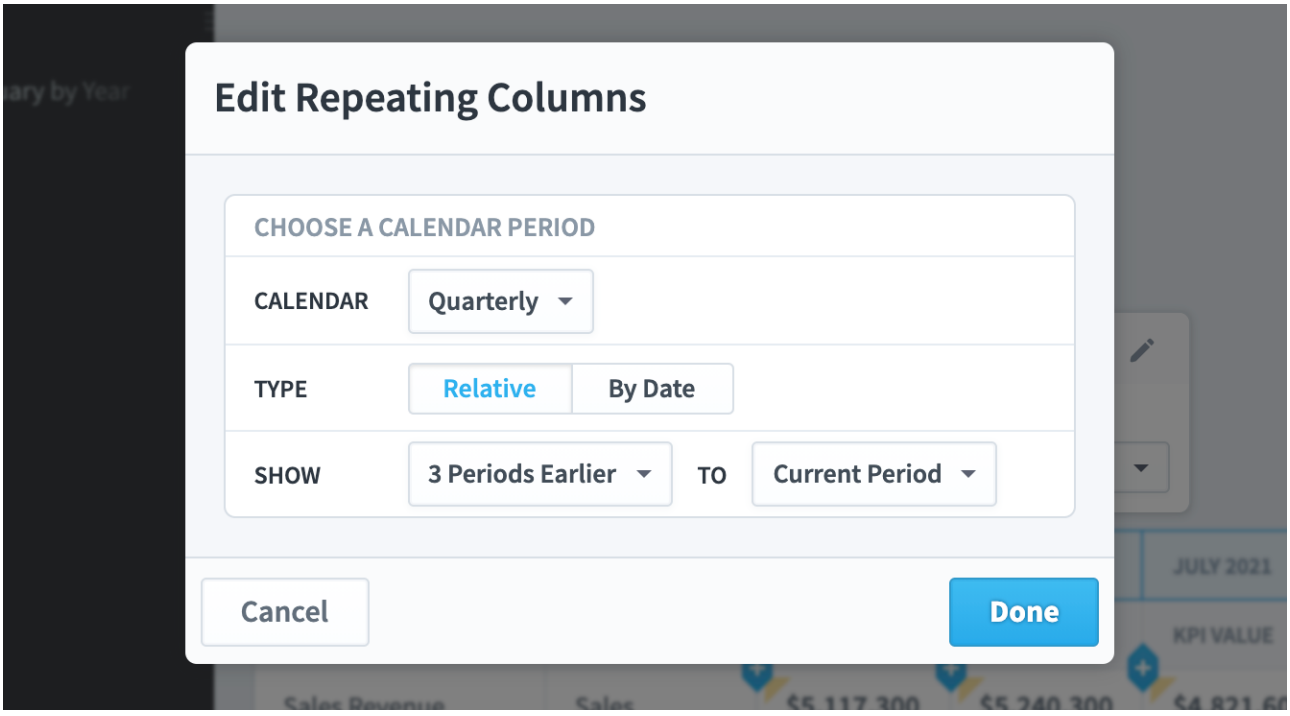
You can create repeating columns for Scorecards, Initiatives, and Datasets reports, but they're a little bit different for every report type. For Scorecards, values that change over time are always inside of a repeating column. Whenever you add a column like KPI Value or Goal, you'll automatically see 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.



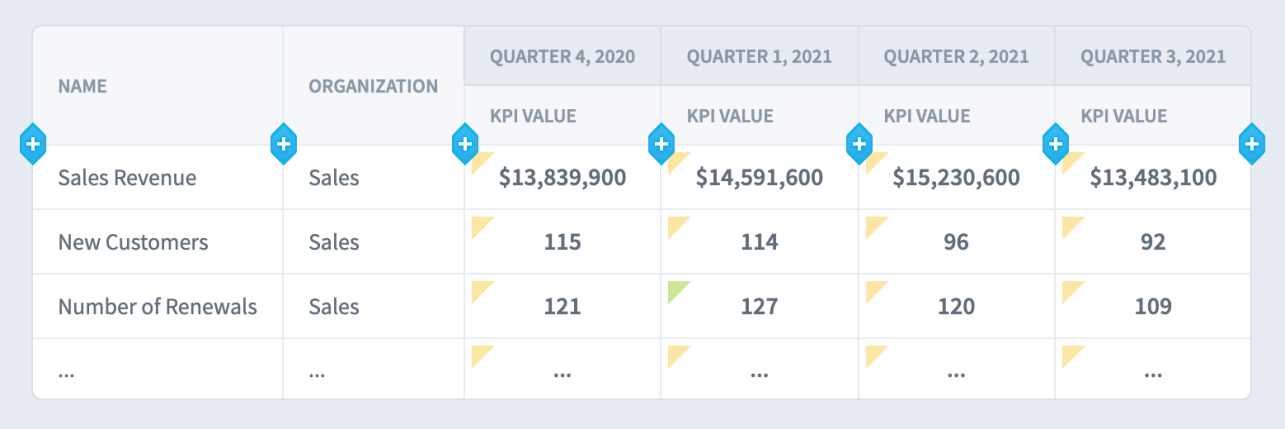
To edit repeating columns, just click on them. Just like when you select a column, selecting a repeating column header shows a tooltip. We'll click the Edit button.



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.

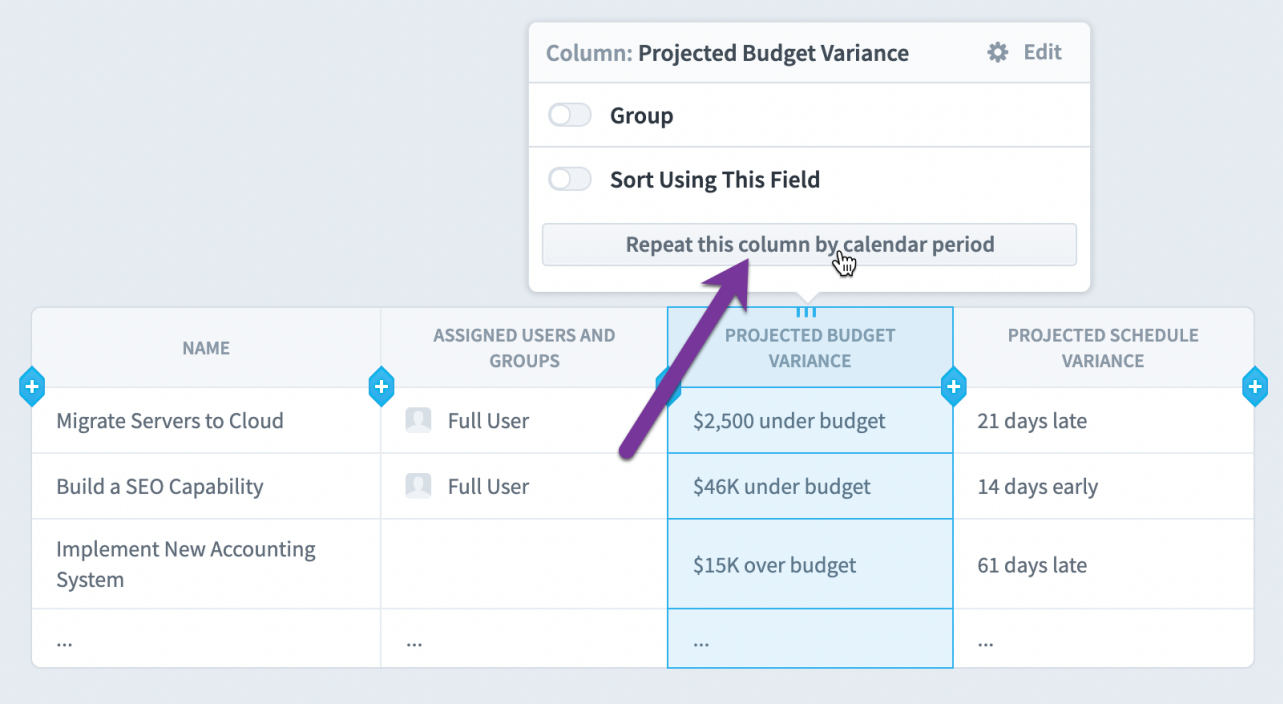


NAME	ORGANIZATION	QUARTER 4, 2020	QUARTER 1, 2021	QUARTER 2, 2021	QUARTER 3, 2021
		KPI VALUE	KPI VALUE	KPI VALUE	KPI VALUE
Sales Revenue	Sales	$13,839,900	$14,591,600	$15,230,600	$13,483,100
New Customers	Sales	115	114	96	92
Number of Renewals	Sales	121	127	120	109
...	...	...	...	...	...

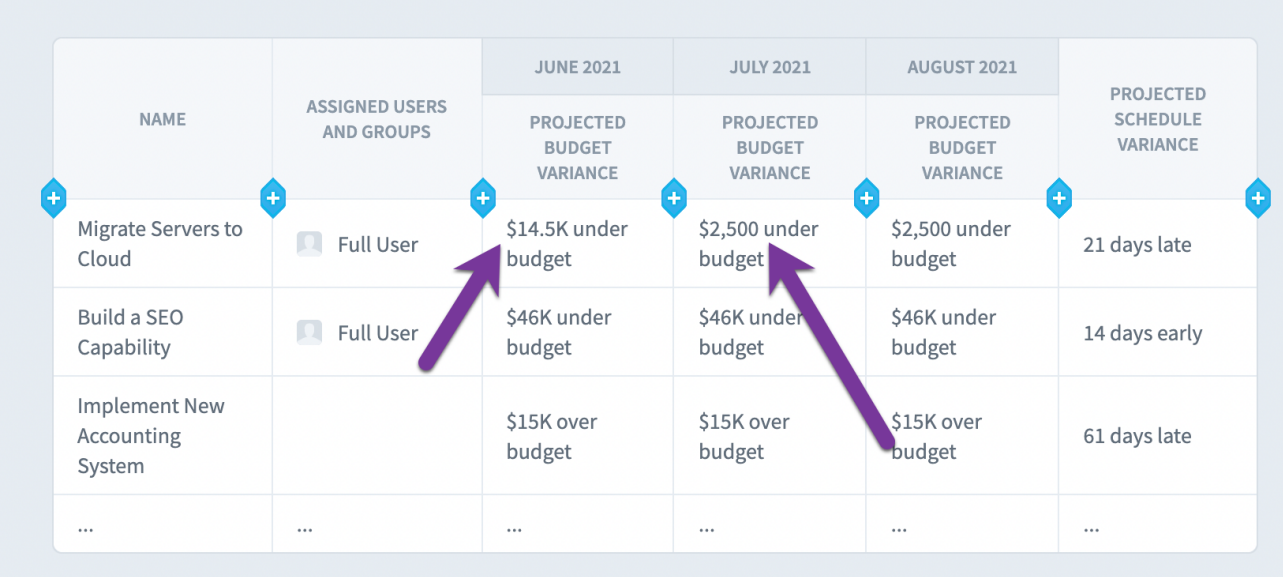
Repeating columns for initiatives

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.



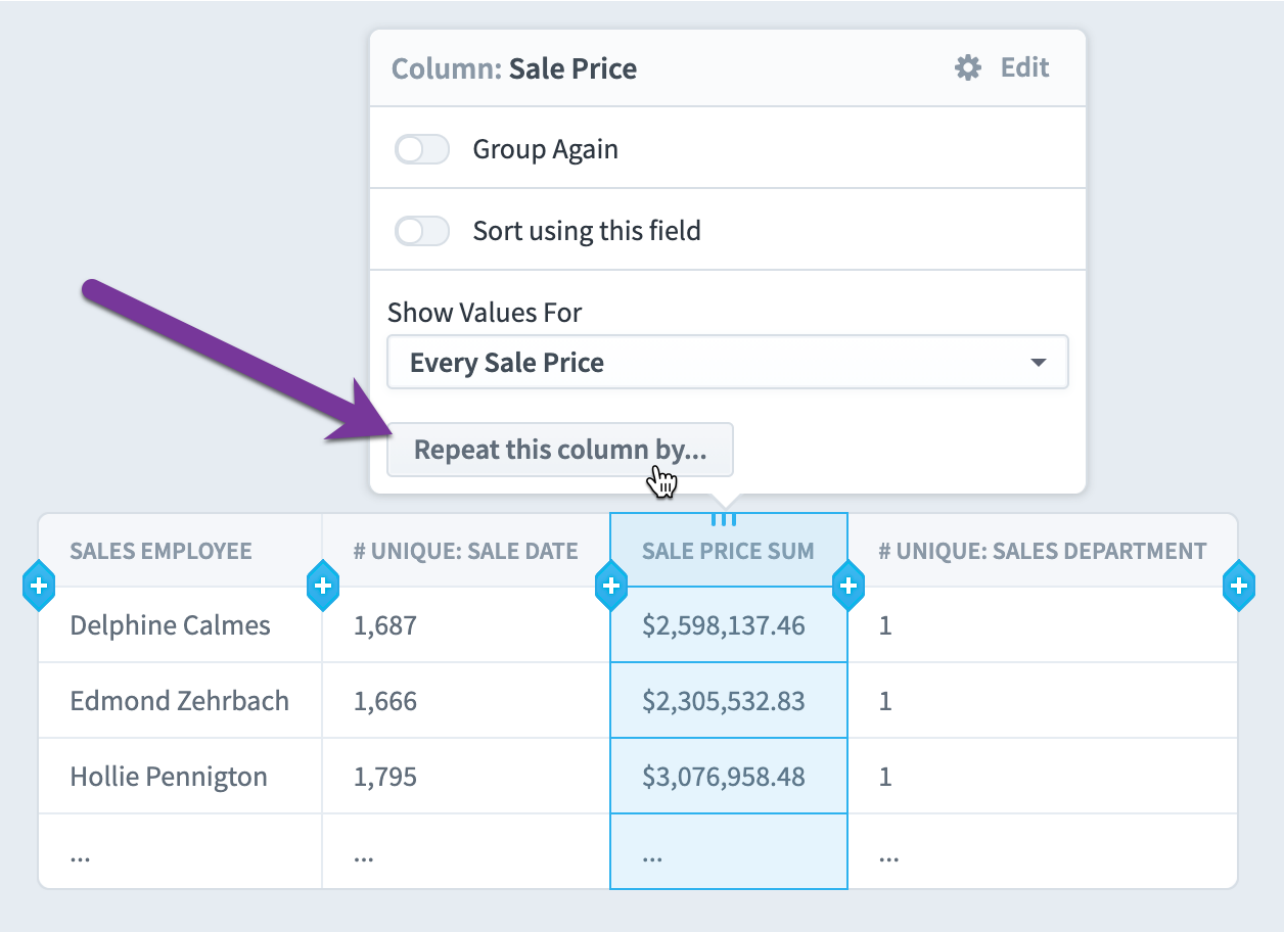
When we click the button, we now have repeating columns showing how the projected budget variance has changed over time.



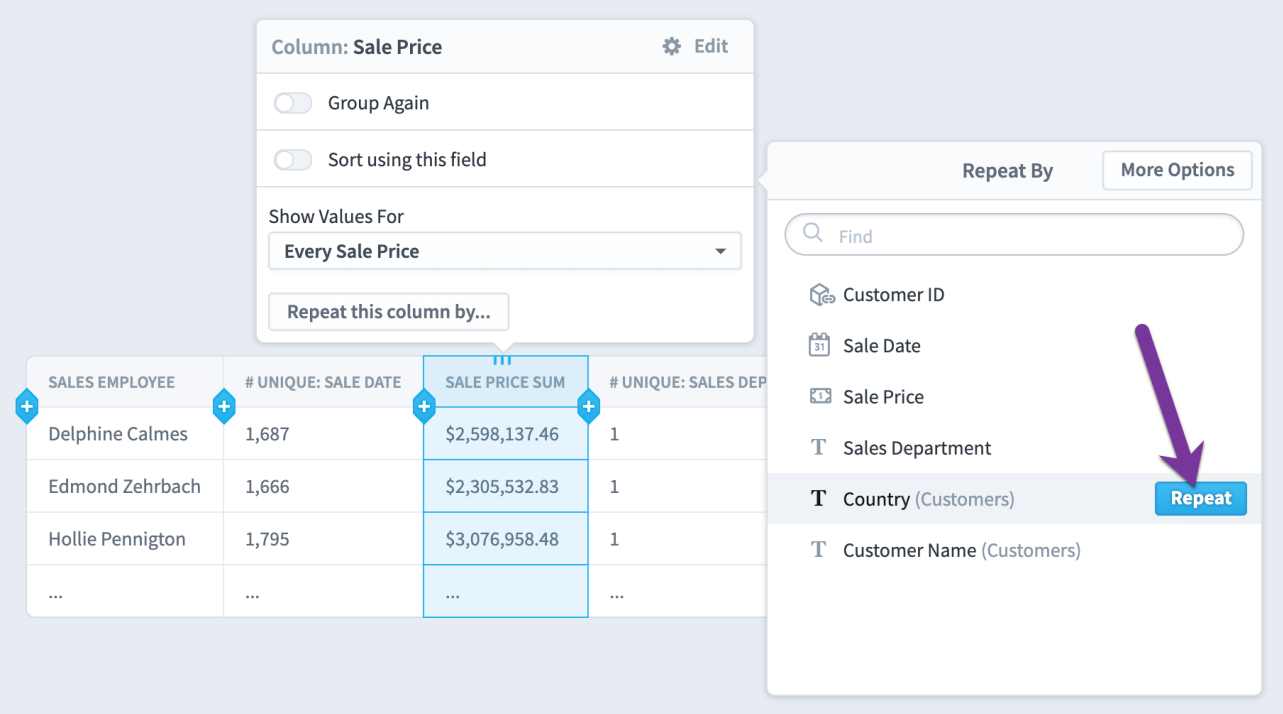
Repeating columns for datasets

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.

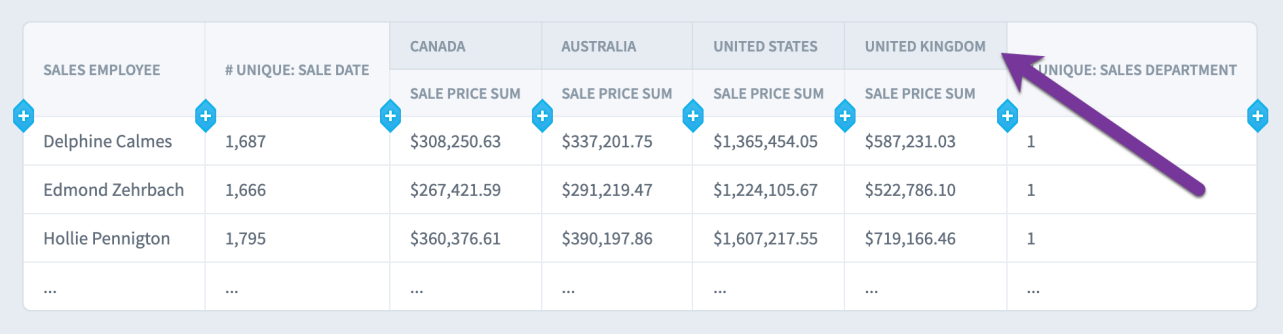
In this example we're grouping by Sales Employee and are hiding individual records. We now see a "Repeat this column by..." button when you click on any column other than the one you're grouping by.



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

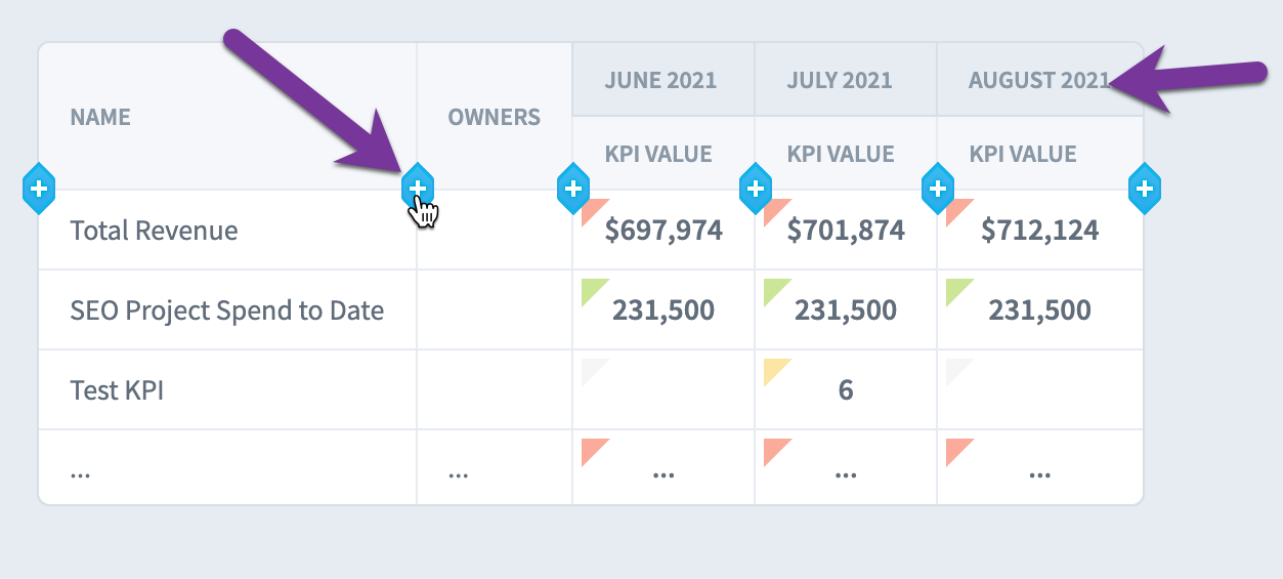


We now have a separate Sale Price column for every country.

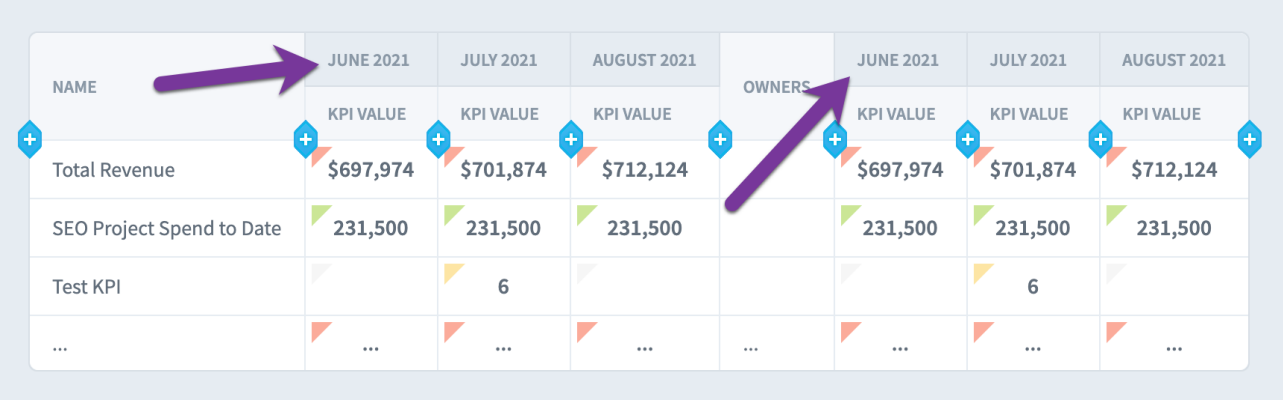


Multiple blocks of repeating columns

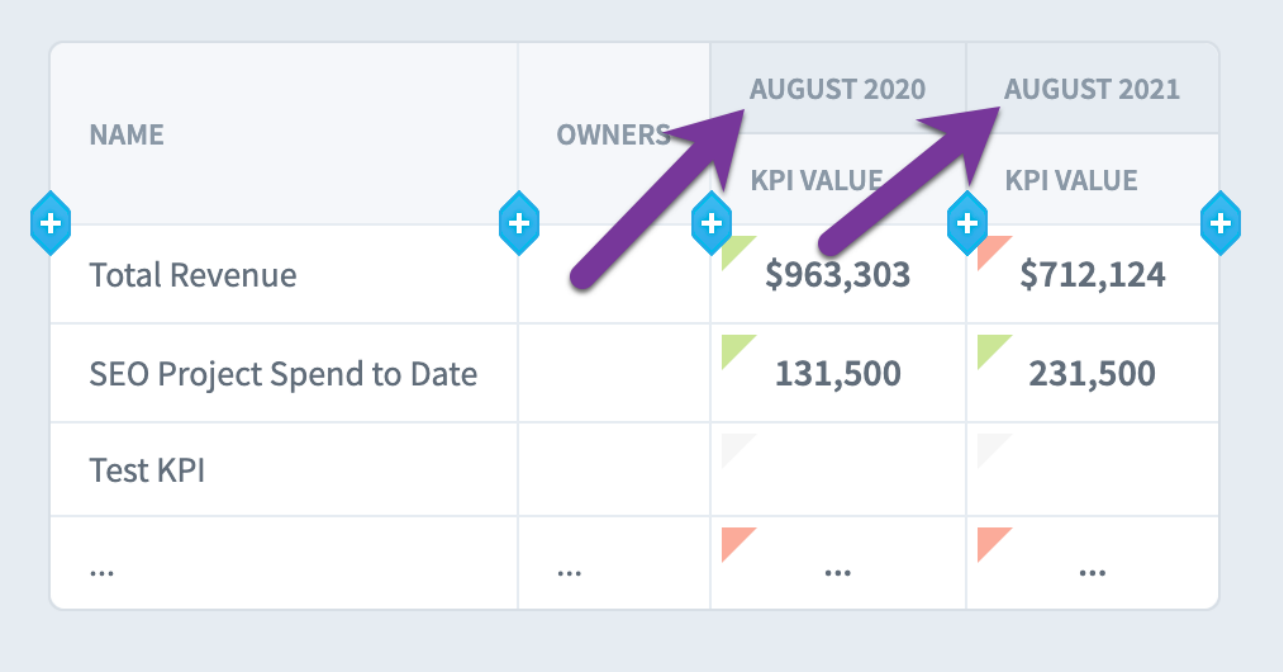
You're not limited to one range of repeating columns. In this example we're going to add a new column outside of the first block of repeating columns.



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

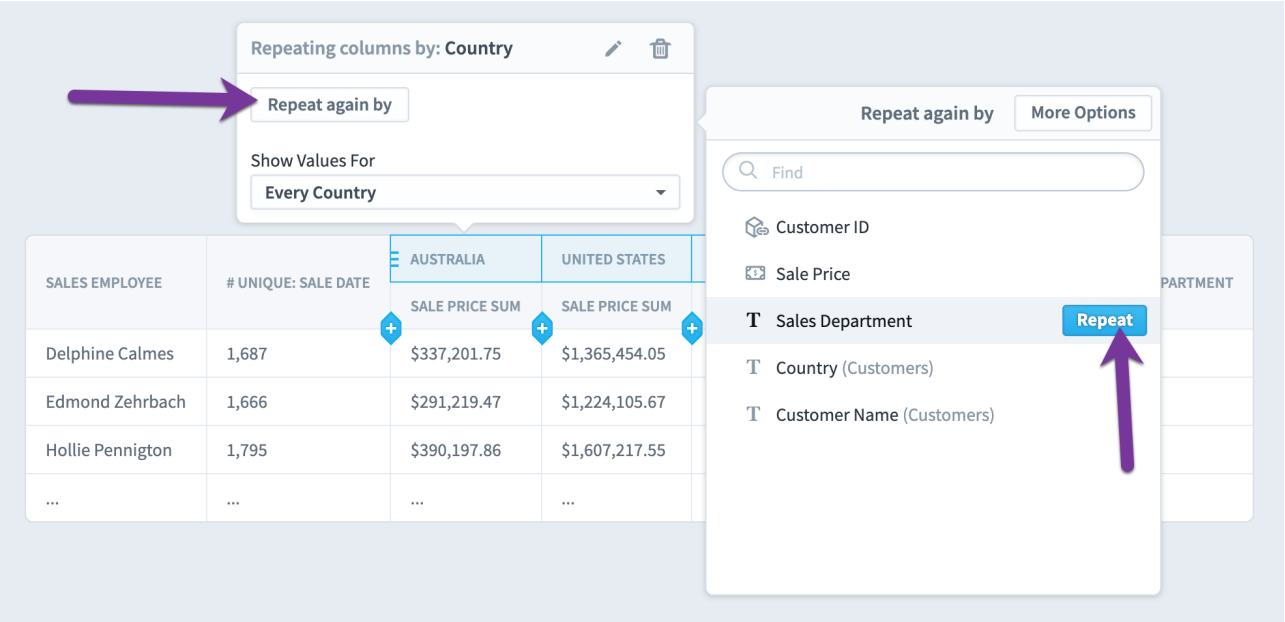
Scorecard, Initiative, and Dataset reports can all repeat columns a second time when individual records are turned off. For Scorecard and Initiative reports, repeating again is almost always used when multiple organizations have the same initiative or scorecard items and you want to compare them across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

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

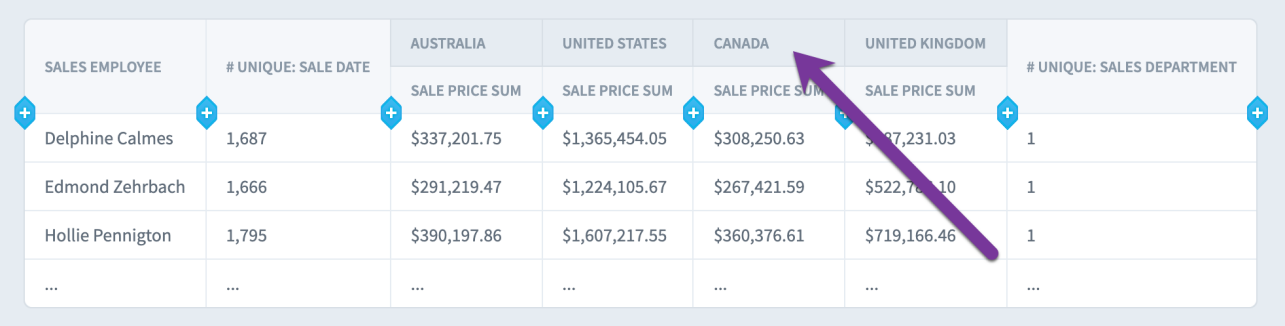


SALES EMPLOYEE	# UNIQUE: SALE DATE	RETAIL				CORPORATE				# UNIQUE: SALES DEPARTMENT
		UNITED KINGDOM	AUSTRALIA	CANADA	UNITED STATES	UNITED KINGDOM	AUSTRALIA	CANADA	UNITED STATES	
		SALE PRICE SUM	SALE PRICE SUM	SALE PRICE SUM	SALE PRICE SUM	SALE PRICE SUM	SALE PRICE SUM	SALE PRICE SUM	SALE PRICE SUM	
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
...	...	...	...	...	...	...	...	...	...	...

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.



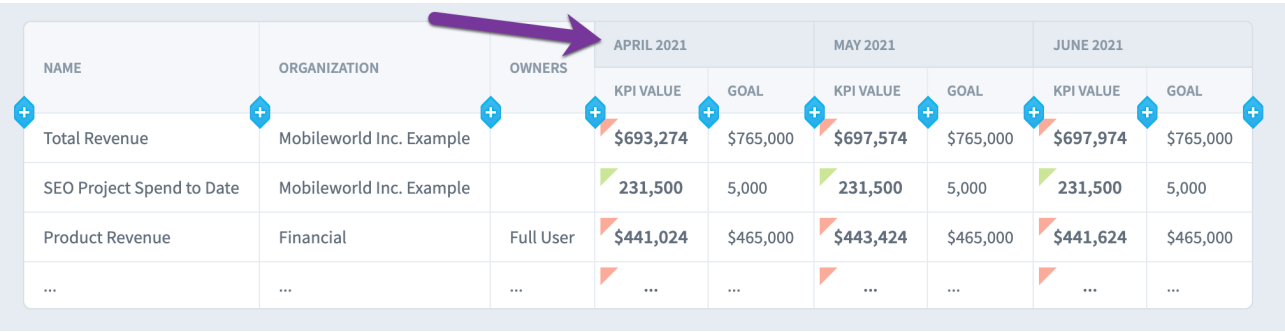
On the Edit tab there are all 0s for Corporate sales, but when you go to the View tab you can see that in this example employees either sell retail or corporate, never both.



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

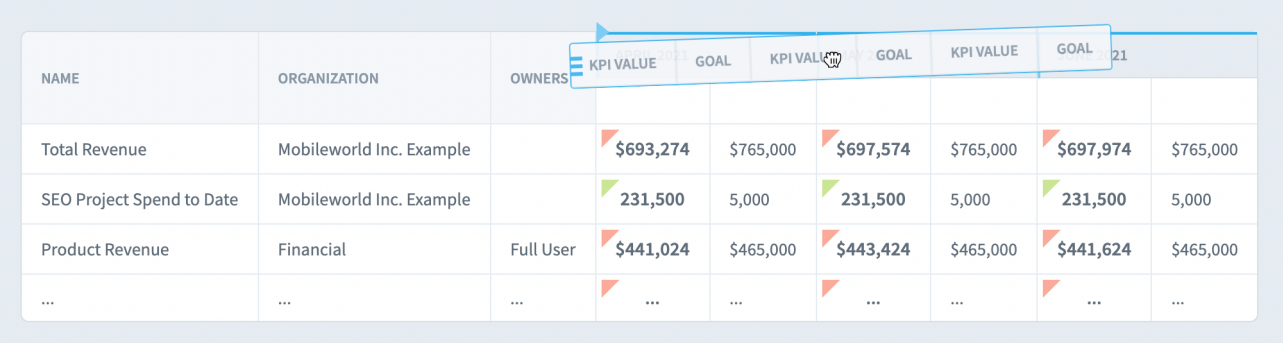
Changing header order

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.

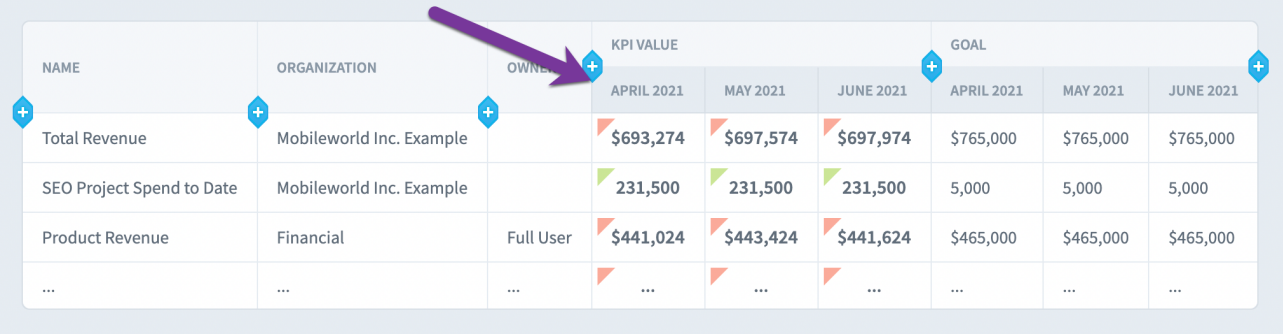


NAME	ORGANIZATION	OWNERS	APRIL 2021		MAY 2021		JUNE 2021	
			KPI VALUE	GOAL	KPI VALUE	GOAL	KPI VALUE	GOAL
Total Revenue	Mobileworld Inc. Example		$693,274	$765,000	$697,574	$765,000	$697,974	$765,000
SEO Project Spend to Date	Mobileworld Inc. Example		231,500	5,000	231,500	5,000	231,500	5,000
Product 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.



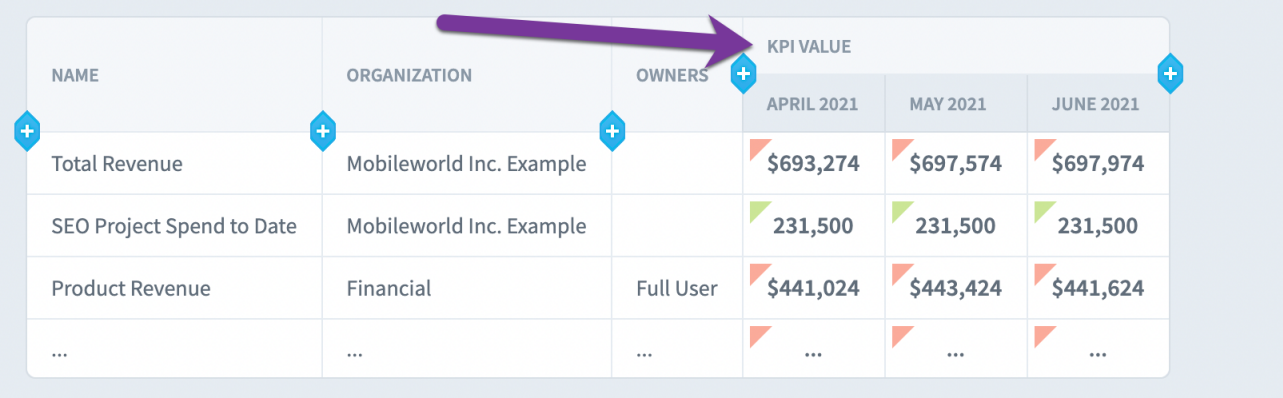
Now the report first groups by column, showing the three periods for KPI Value and then the three periods for Goal.



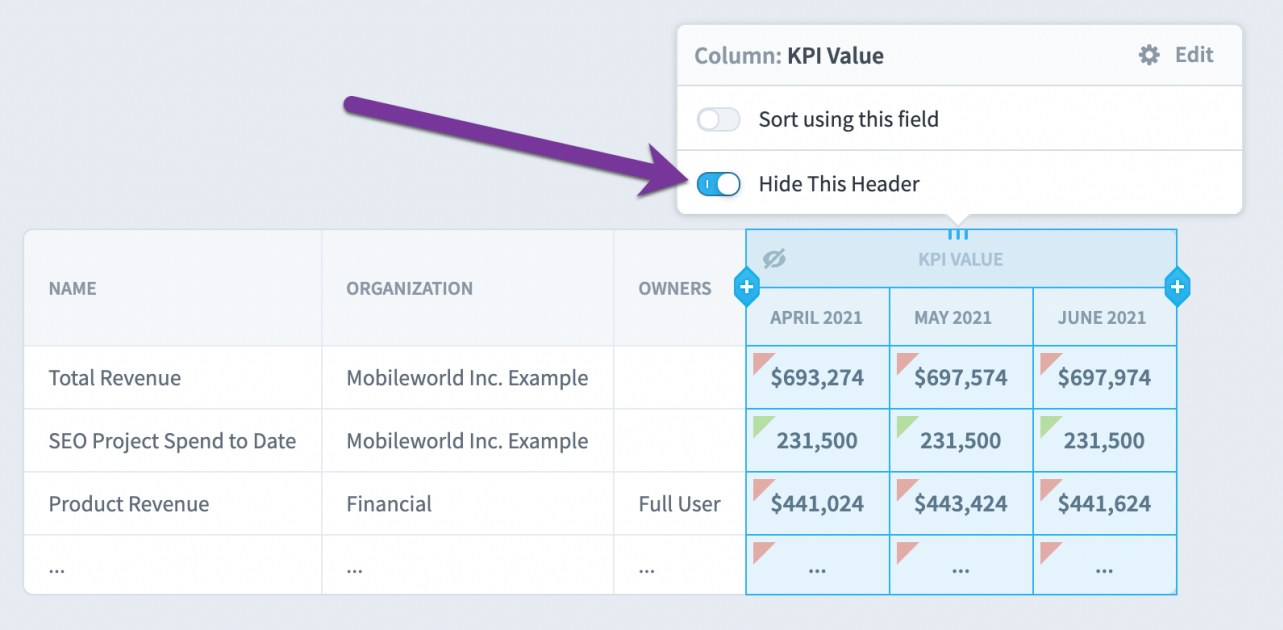
Hiding repeating column headers

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.

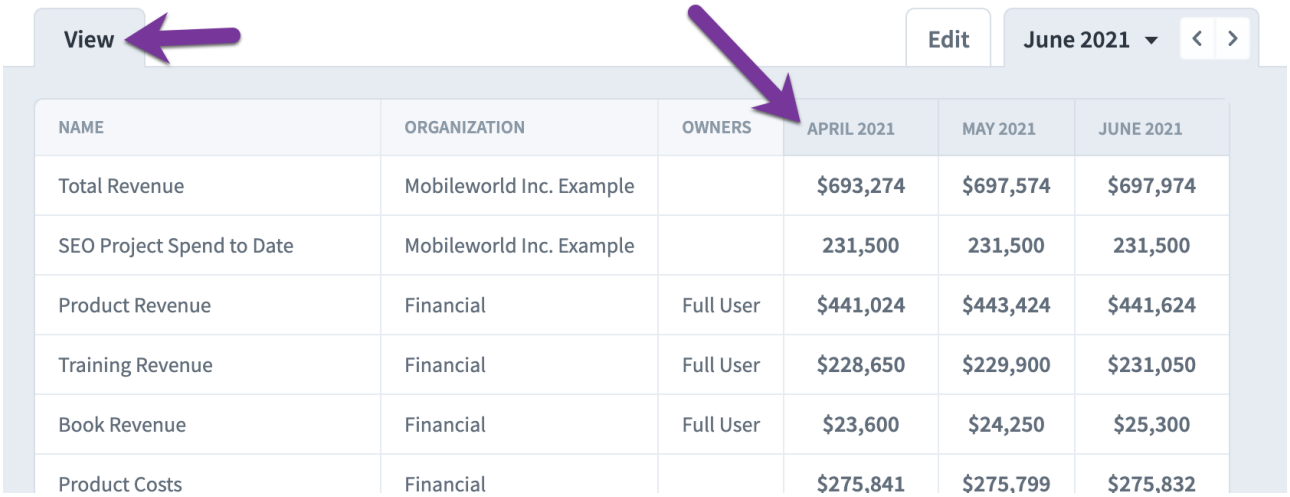
For example, here we're showing the KPI Value for three months. The KPI Value isn't adding a lot to the report in this situation, so we've dragged the column header to the top.



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.



NAME	ORGANIZATION	OWNERS	APRIL 2021	MAY 2021	JUNE 2021
Total Revenue	Mobileworld Inc. Example		$693,274	$697,574	$697,974
SEO Project Spend to Date	Mobileworld Inc. Example		231,500	231,500	231,500
Product Revenue	Financial	Full User	$441,024	$443,424	$441,624
Training Revenue	Financial	Full User	$228,650	$229,900	$231,050
Book Revenue	Financial	Full User	$23,600	$24,250	$25,300
Product Costs	Financial		$275,841	$275,799	$275,832

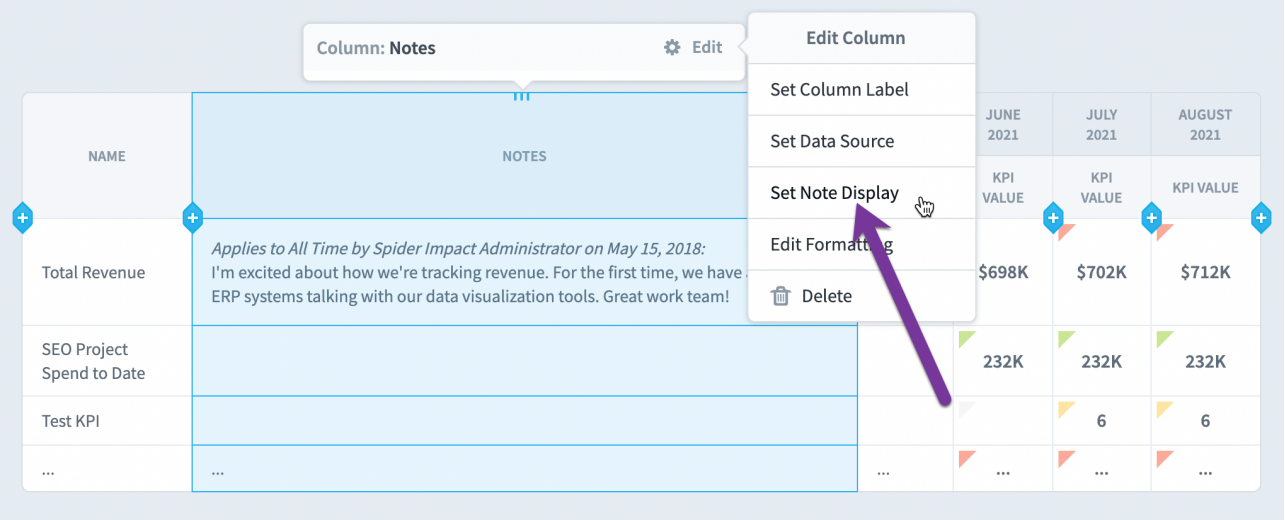
When you're repeating again, you can even hide two levels of headers. In this example we're showing data for a single field and for a single calendar period. We've chosen to hide all of the headers except the KPI name.



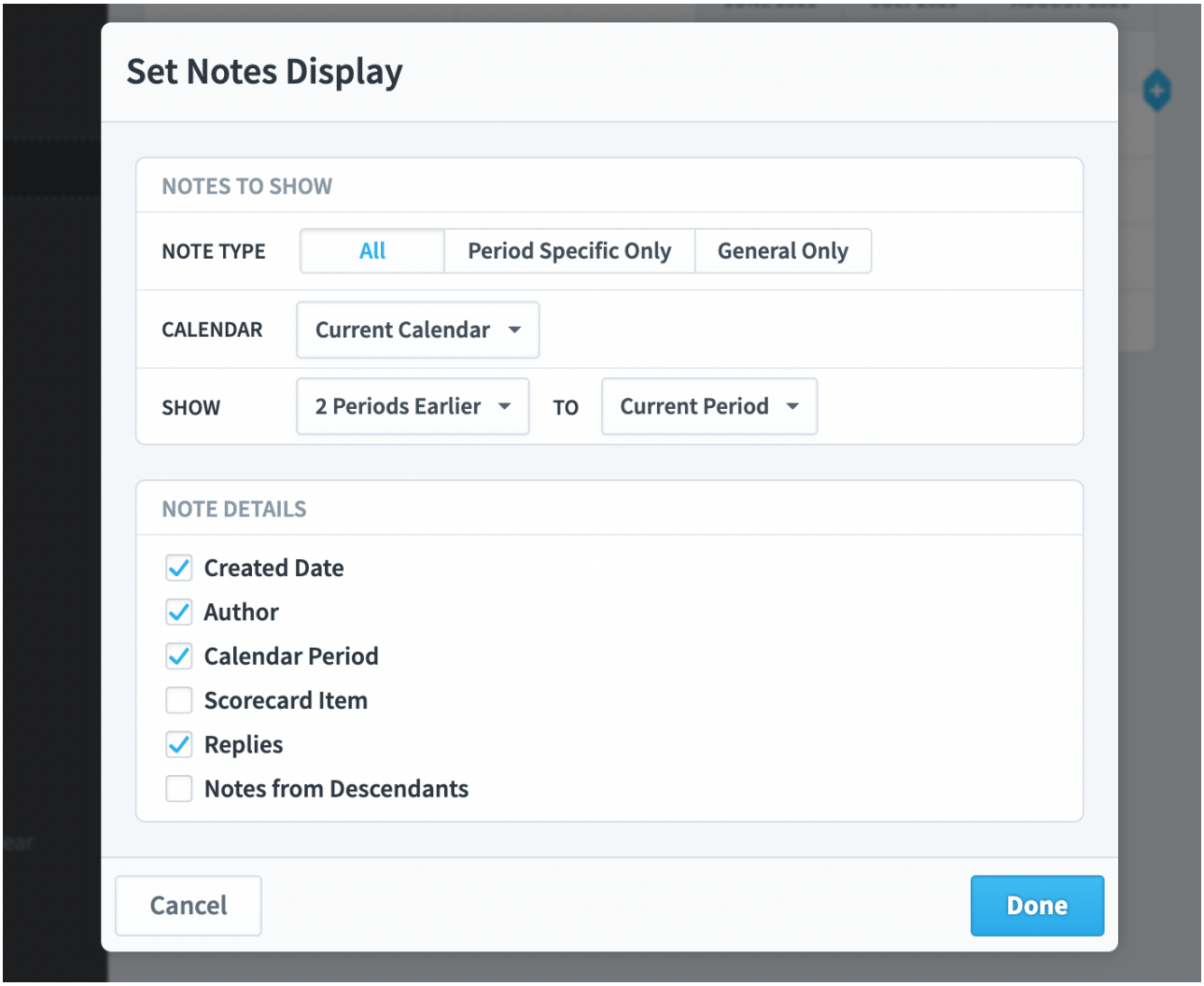
ORGANIZATION	SALES REVENUE	PRODUCT SALES REVENUE	TRAINING SALES REVENUE	BOOK SALES REVENUE	NEW CUSTOMERS	NUMBER OF RENEWALS	CLOSE RATIO
(sales template)	663K	402K	225K	35.7K	5	8	0.33
Africa	318K	128K	167K	23.2K	3	7	0.39
Australasia	505K	244K	243K	18.1K	4	2	0.23
...	...	...	...	...	...	...	...

Notes columns

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

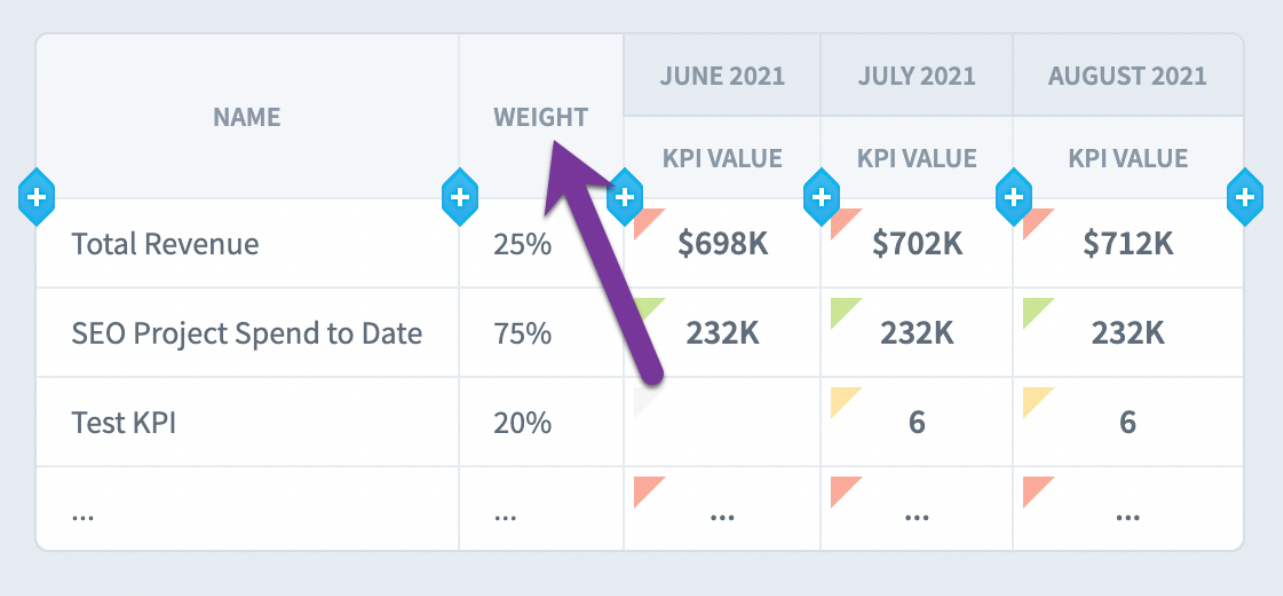


This allows you to choose not only the type of notes to show for your report, but also the information from each note you want to see.



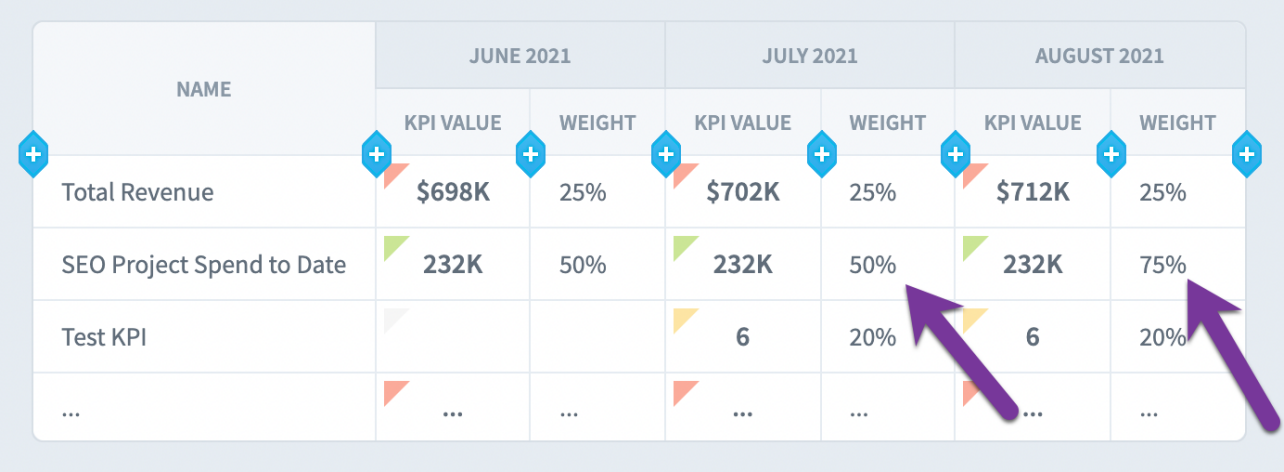
Weight columns

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.



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

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.

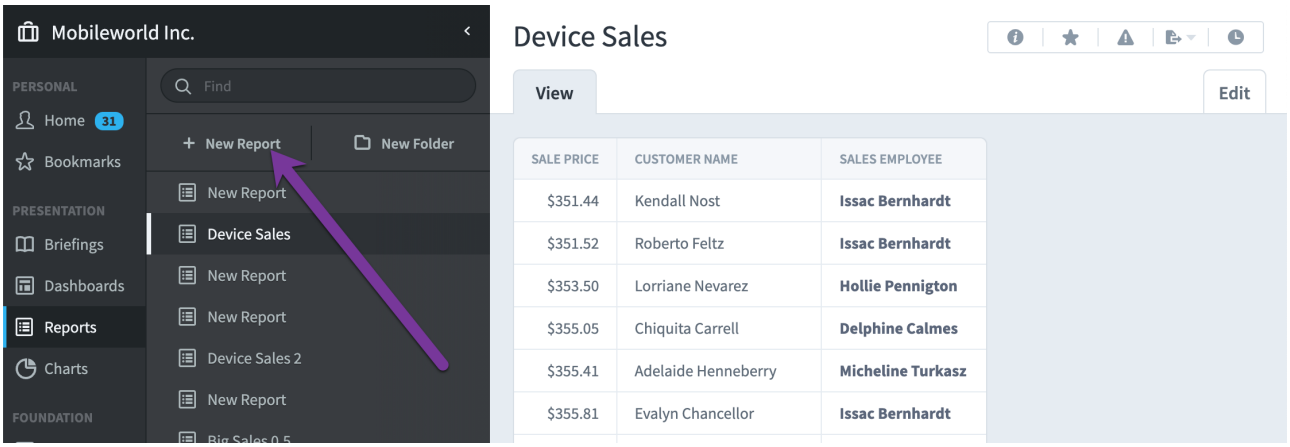


NAME	JUNE 2021		JULY 2021		AUGUST 2021	
	KPI VALUE	WEIGHT	KPI VALUE	WEIGHT	KPI VALUE	WEIGHT
Total Revenue	$698K	25%	$702K	25%	$712K	25%
SEO Project Spend to Date	232K	50%	232K	50%	232K	75%
Test KPI			6	20%	6	20%
...	...	...	...	...	...	...

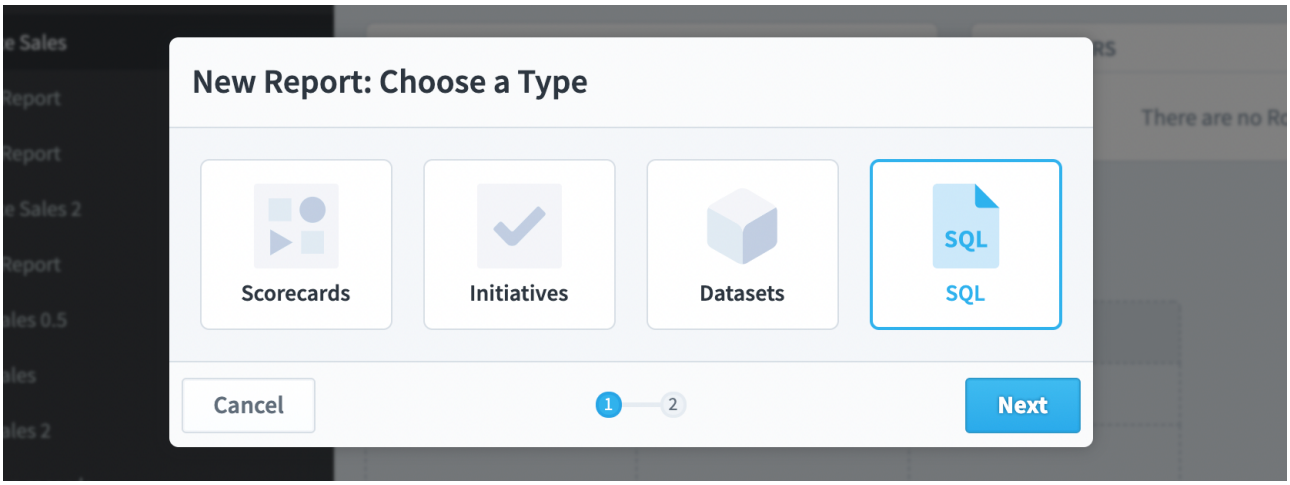
SQL Reports

Basics

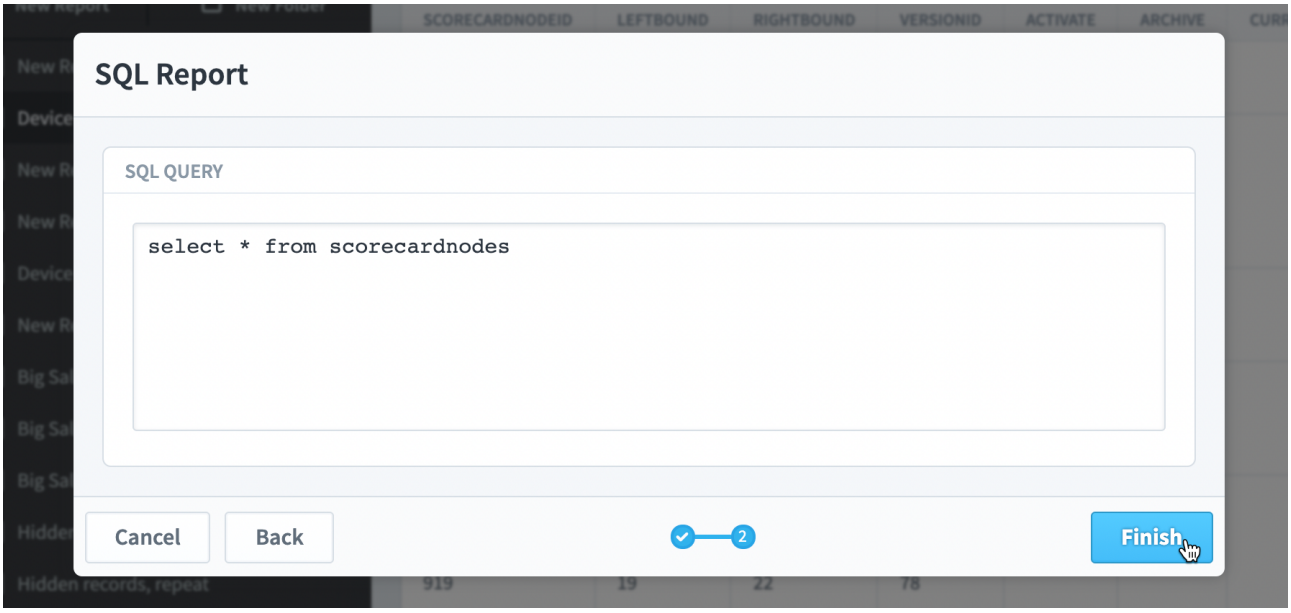
SQL Reports allow you to write raw SQL against a database that you have set up in Admin > Import Connections. To create a SQL report, click the "New Report" button.



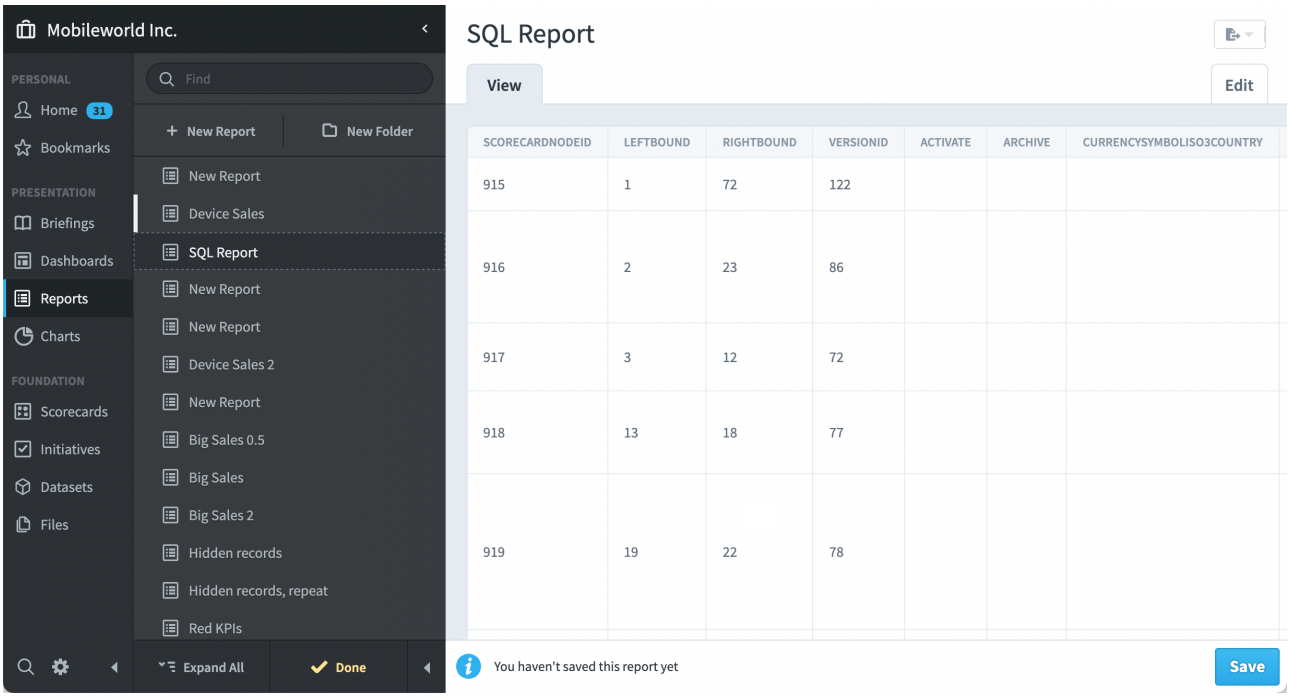
If you have the correct permissions, choose SQL for the report type.



And write SQL against the database.



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

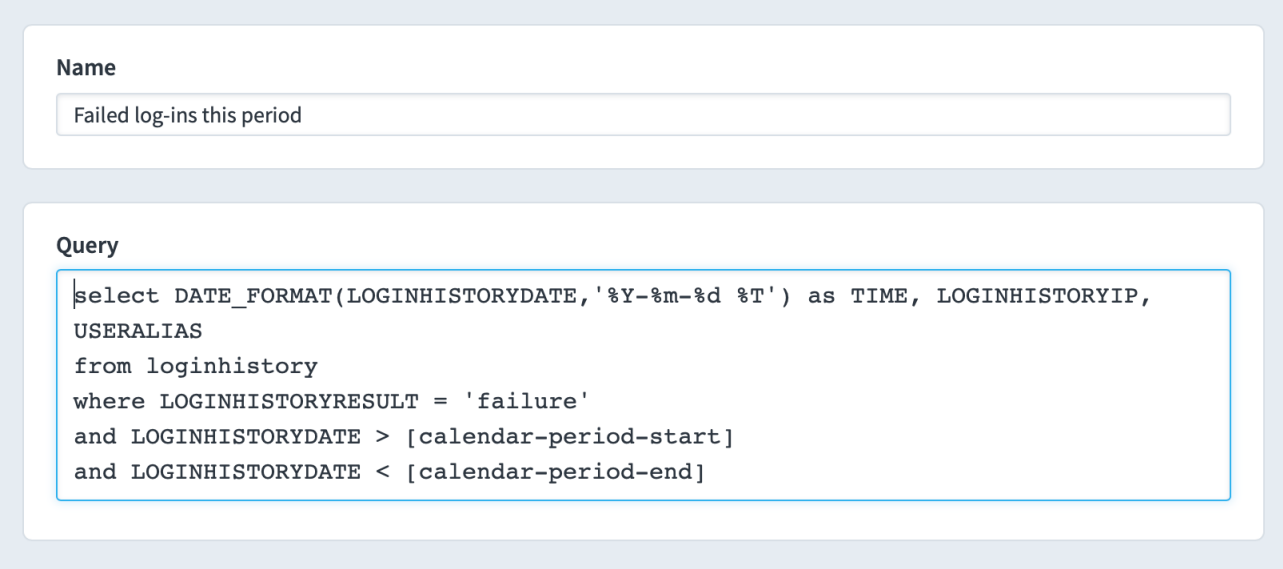


Example SQL

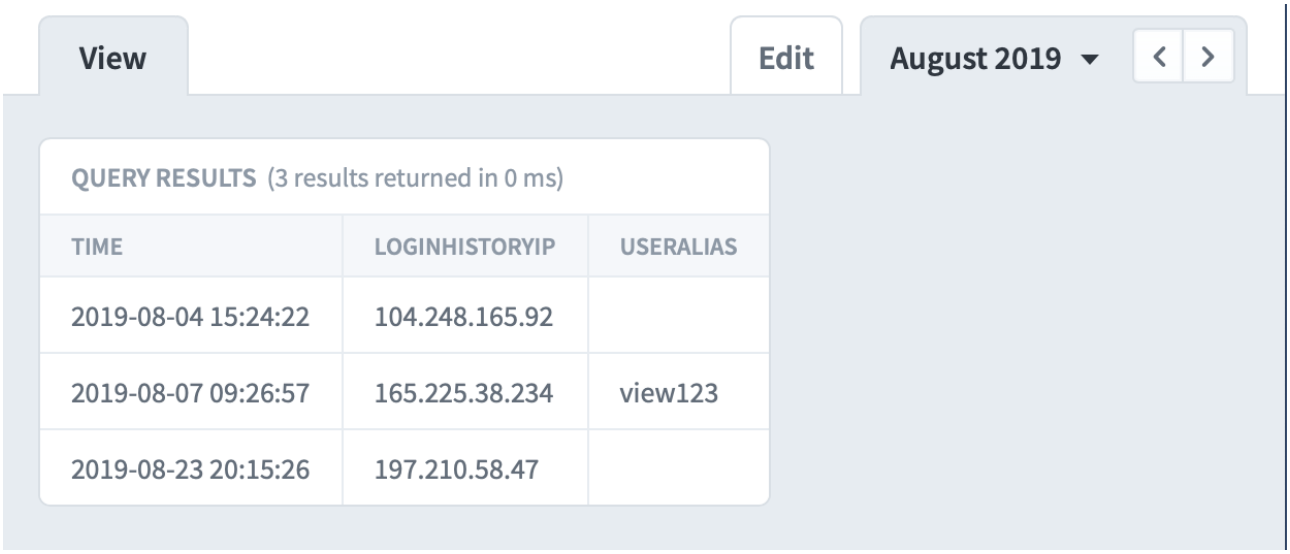
You can include the following text in your SQL queries.

- [calendar-period-id]
- [calendar-period-start]
- [calendar-period-end]
- [organization-id]

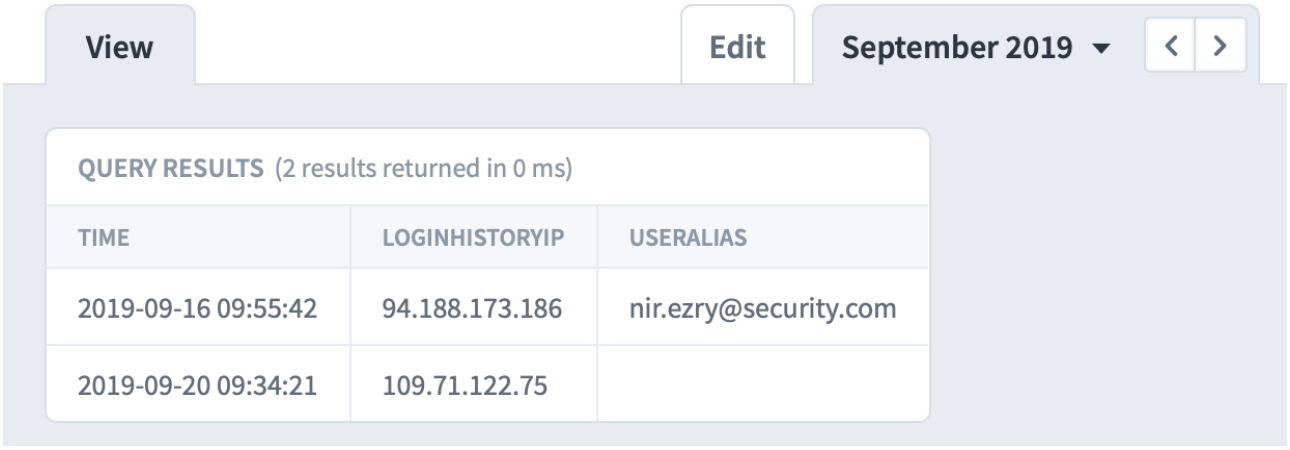
In this example we're referencing both the calendar period start date and end date to see all of the failed logins during the current period.



Here are the report results for August 2019. You can see there were three failed logins.



When you change the calendar period selector to September 2019, the SQL report shows different results.



Impact Intelligence

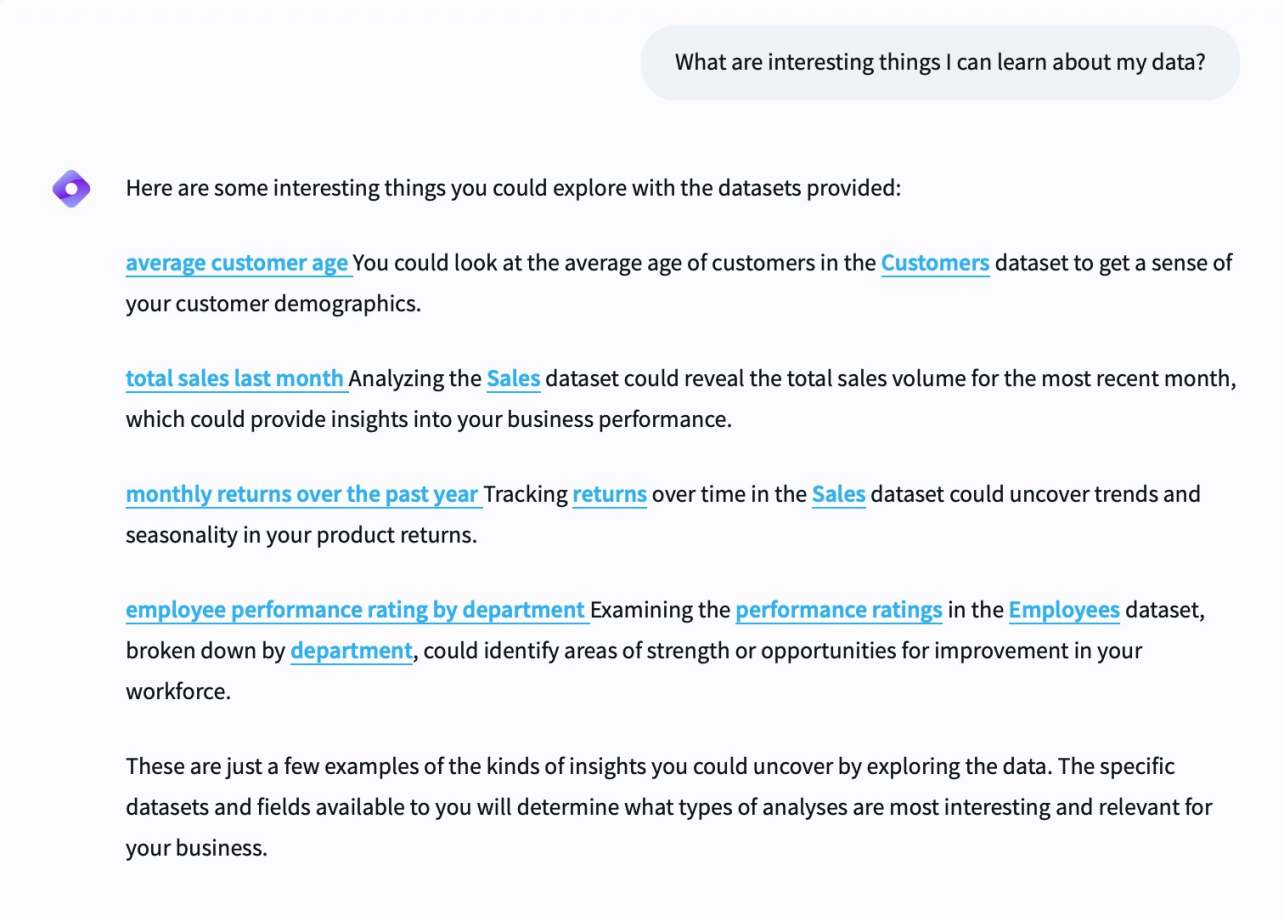
Overview of Impact Intelligence

Impact Intelligence is Spider Impact's comprehensive suite of smart capabilities that help you discover insights you didn't know existed and work more efficiently with your data. It combines powerful analytics, proactive monitoring, and AI-powered assistance to transform raw data into actionable intelligence. Impact Intelligence is the smart layer across Spider Impact that helps you understand what's happening, predict what's coming, and get answers instantly.

Most importantly, Impact Intelligence is secure and keeps your sensitive data private. See the Impact Intelligence Security and Privacy article for more information.

Impact Assistant

Impact Assistant is the AI-powered conversational interface at the heart of Impact Intelligence. It enables natural language conversations with your data and provides instant help with using the software. Simply ask questions like "What was our revenue last quarter?" or "How do I create a dashboard?" and get immediate answers with visualizations or step-by-step guidance.



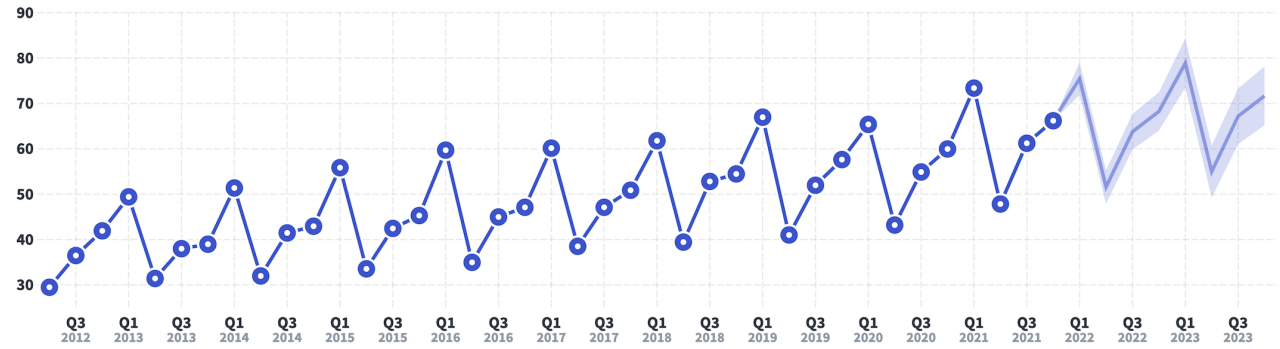
See our Impact Assistant article for more information.

Predictive Analytics

Forecasting

Spider Impact uses time-series analysis to predict future values based on historical data. The software automatically detects patterns and selects the best forecasting model:

- Automatically detects seasonal trends
- Uses exponential smoothing algorithms (Simple, Holt's, and Holt-Winters)
- Shows 90-99% confidence intervals
- Allows manual model selection and seasonality adjustments

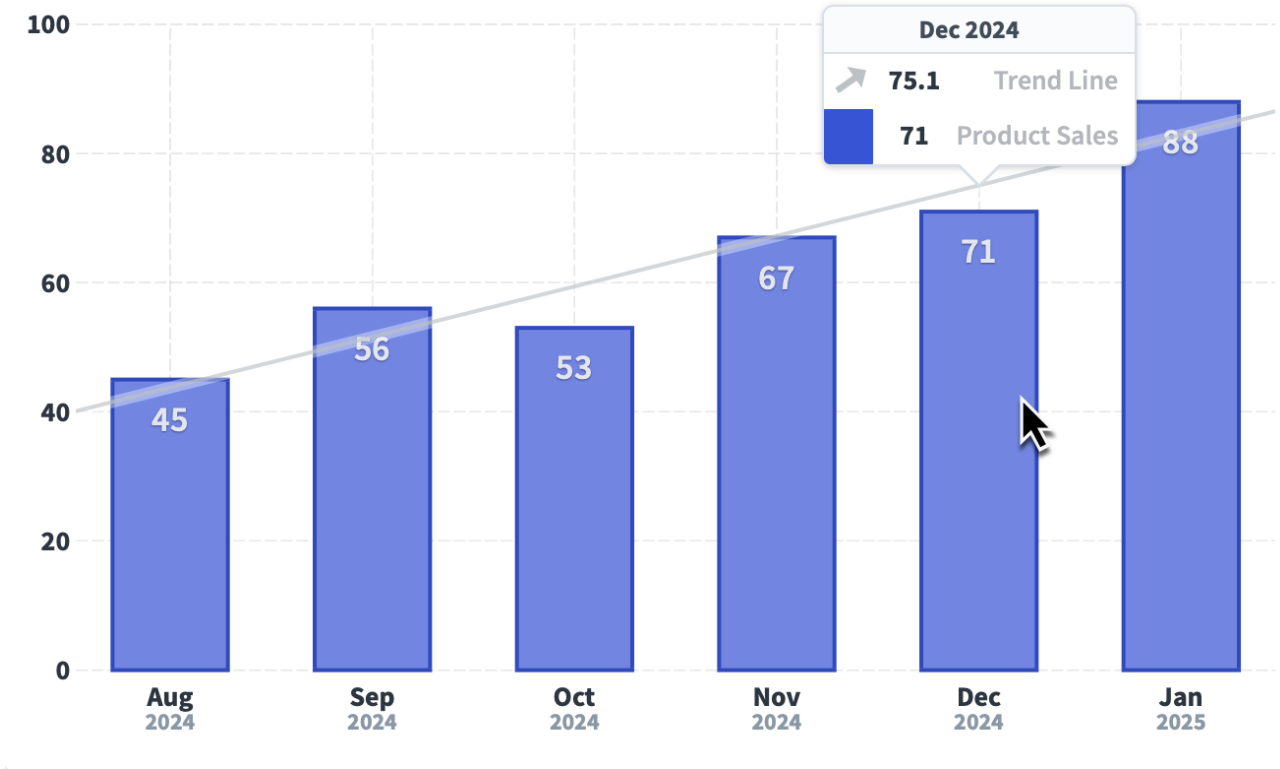


For more information about forecasting, see the Forecasting section of the Building Charts article.

Trend Analysis

You can add trend lines to any chart to see underlying patterns:

- Calculate trends across single or multiple data series
- Customize trend line appearance and data sources
- Add above/below fills to highlight deviations



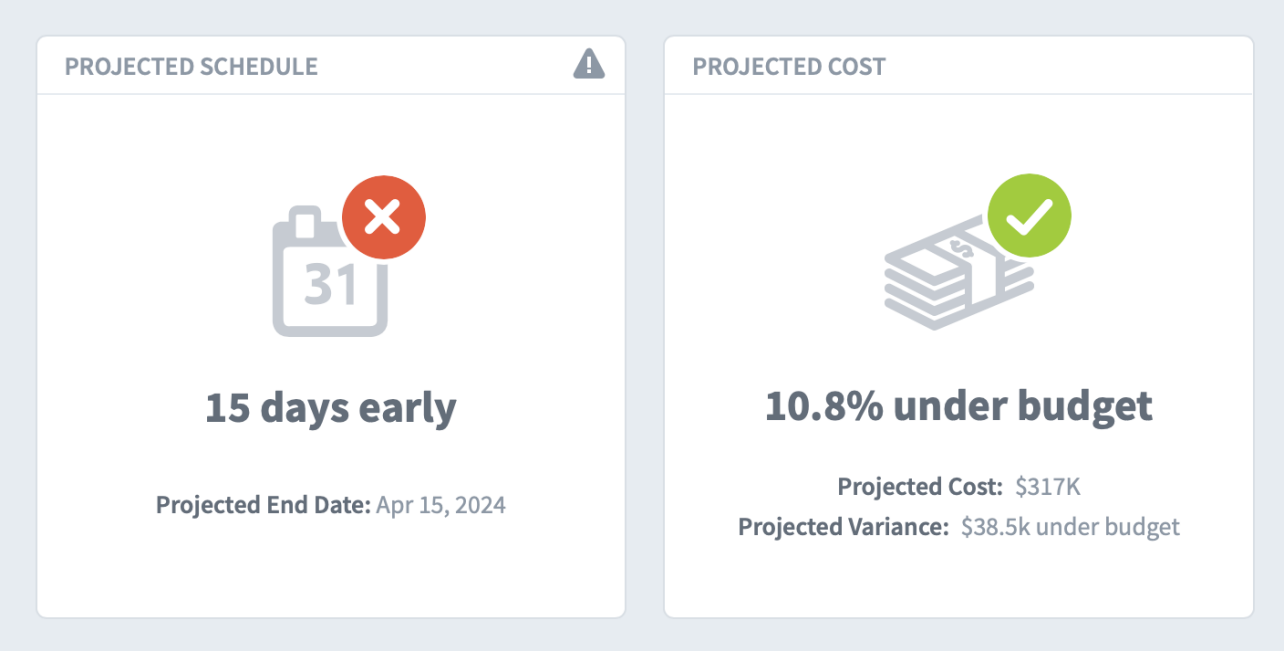
Trend lines are covered in detail in the Trend Lines section of the Building Charts article.

Performance Analytics

Earned Value Management (EVM)

EVM calculations are built into the Initiatives Overview tab to automatically predict initiative completion date and costs based on current performance:

- Tracks both schedule and cost performance
- Automatically calculates key EVM metrics
- Projects completion dates and final costs
- Only requires updates to percent complete and actual costs

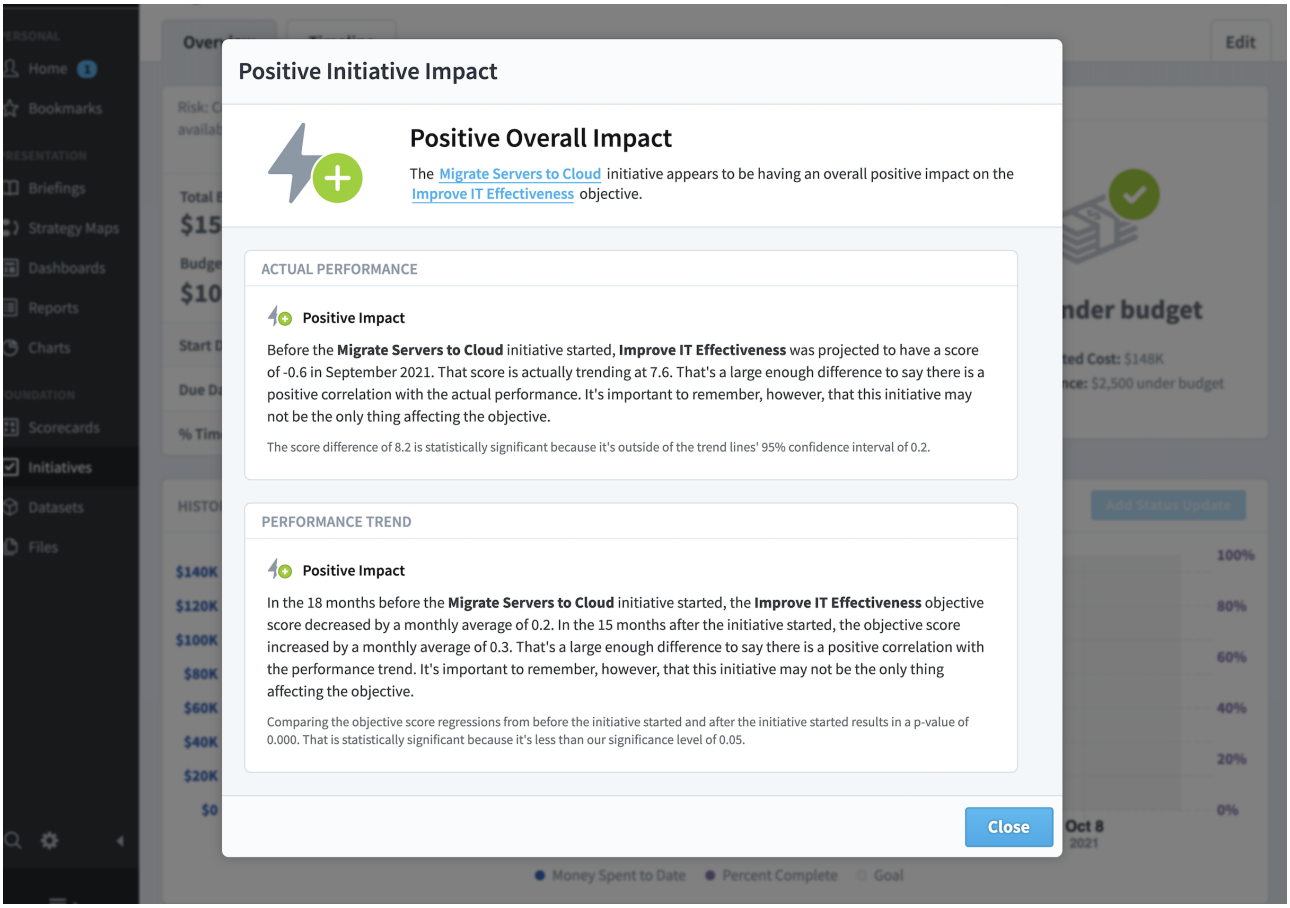


For more information about EVM, see the What is Earned Value Management? article on our website.

Initiative Impact Analysis

Spider Impact can determine how initiatives affect your metrics by:

- Analyzing pre- and post-initiative performance
- Detecting statistically significant changes
- Identifying positive, negative, or mixed impacts
- Using both trend and absolute performance changes

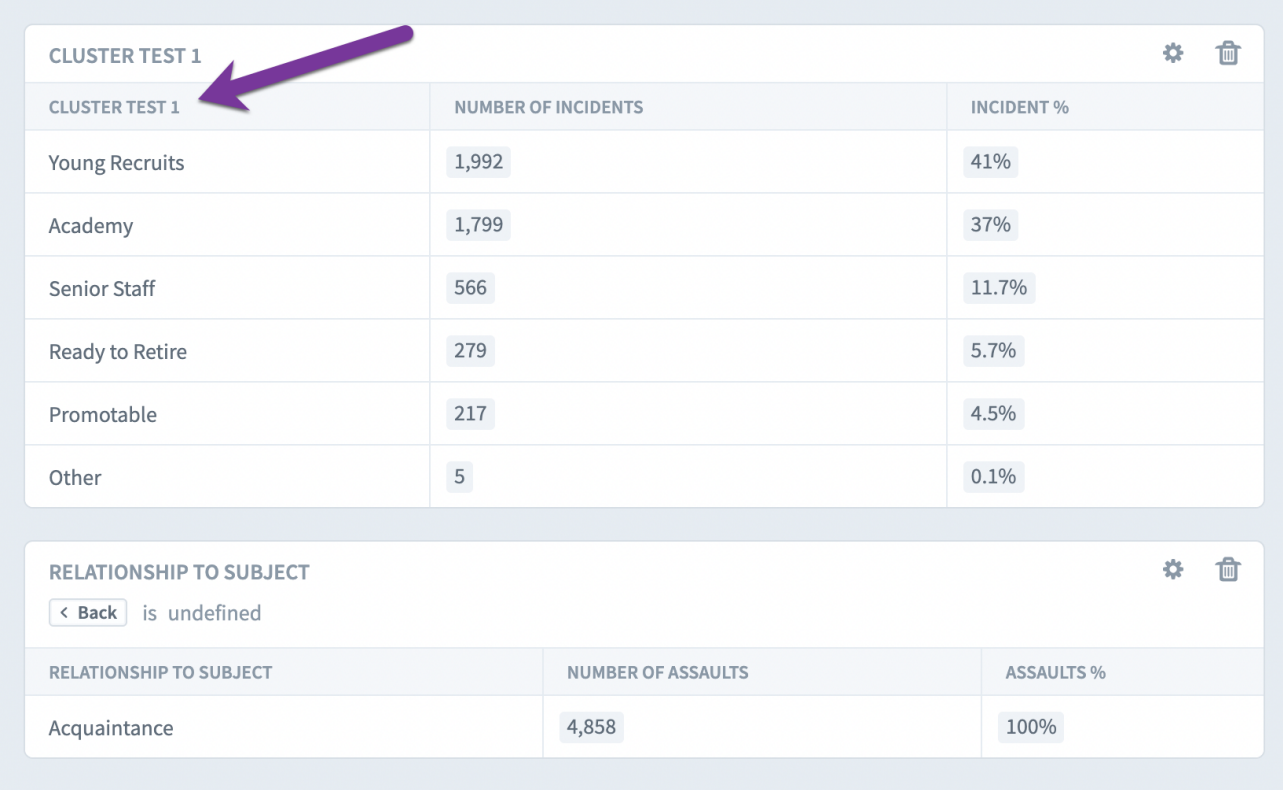


Initiative impact is covered in detail in the Determining Initiative Impact article.

Clustering

For discovering patterns in large datasets, Spider Impact's clustering analytics can:

- Find natural groupings in your data
- Work with multiple dimensions simultaneously
- Use sophisticated k-means++ algorithms
- Help identify meaningful segments and profiles



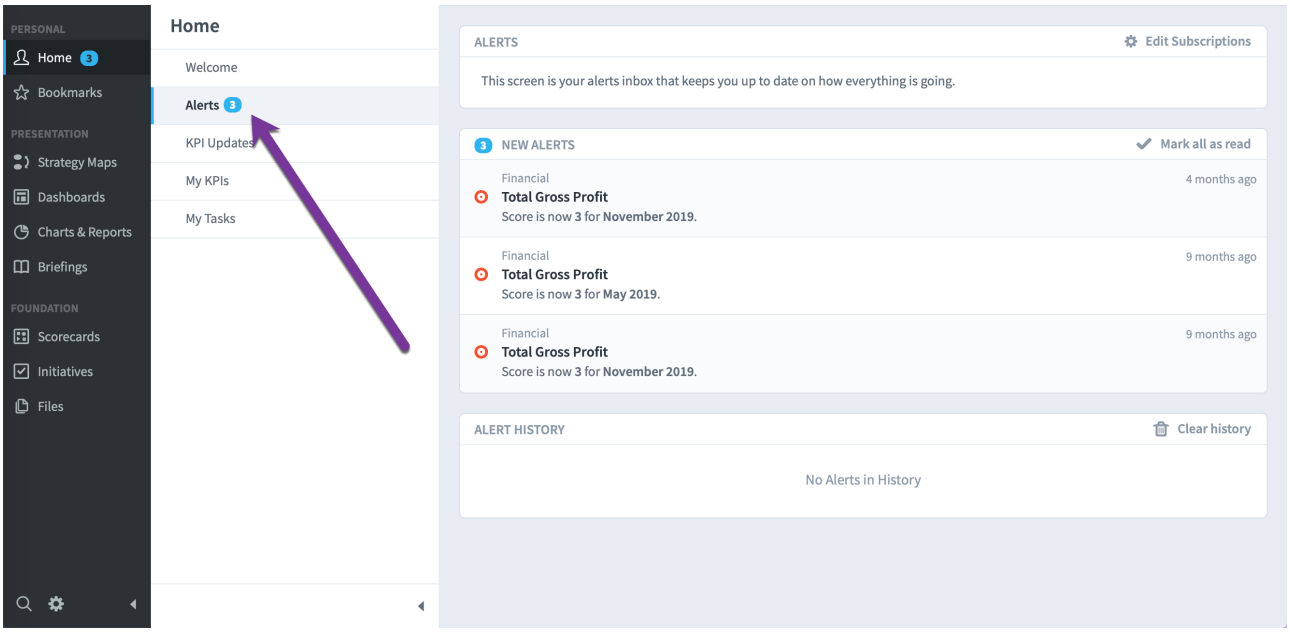
Learn more about clustering in the Advanced: Clustering Analytics article.

Proactive Intelligence

Smart Alerts

Spider Impact continuously monitors your data and automatically notifies relevant stakeholders of important changes and updates. The alert system includes:

- Performance alerts when KPIs turn red
- Notification of replies to comments and discussions
- Reminders for KPI data updates
- Alerts for linked item modifications
- Customizable alert preferences and delivery schedules

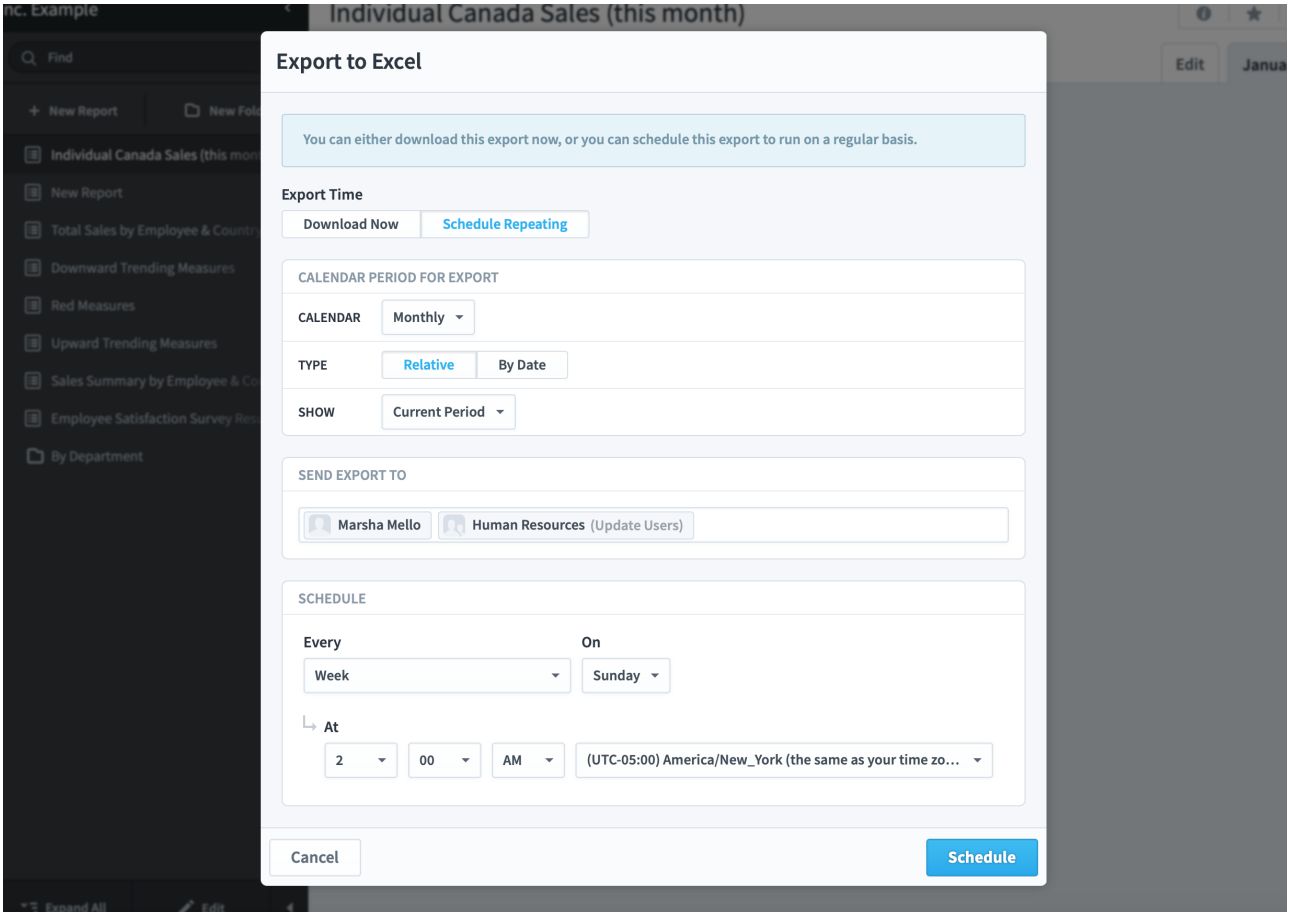


For comprehensive information about alerts, see our Overview of Alerts article.

Automated Reporting

Spider Impact can automatically generate and distribute reports on a schedule, keeping stakeholders informed without manual intervention:

- Schedule reports for regular delivery (daily, weekly, monthly)
- Customize report content and recipients
- Include critical performance indicators:
- Red KPIs and downward trends
- Over-budget or delayed initiatives
- Data quality issues



Learn more about automated reporting in our Overview of Reports article.

When to Use Each Type

- Use **Forecasting** for projecting future metric values based on historical patterns
- Use **Trend Analysis** to understand underlying patterns in your data
- Use **Clustering** to discover natural groupings in large datasets
- Use **Initiative Impact** and **EVM** to track and predict project performance
- Use **Impact Assistant** for instant answers to data questions and software help
- Configure **Alerts** to stay informed of important changes automatically
- Set up **Scheduled Reports** to regularly distribute key performance information

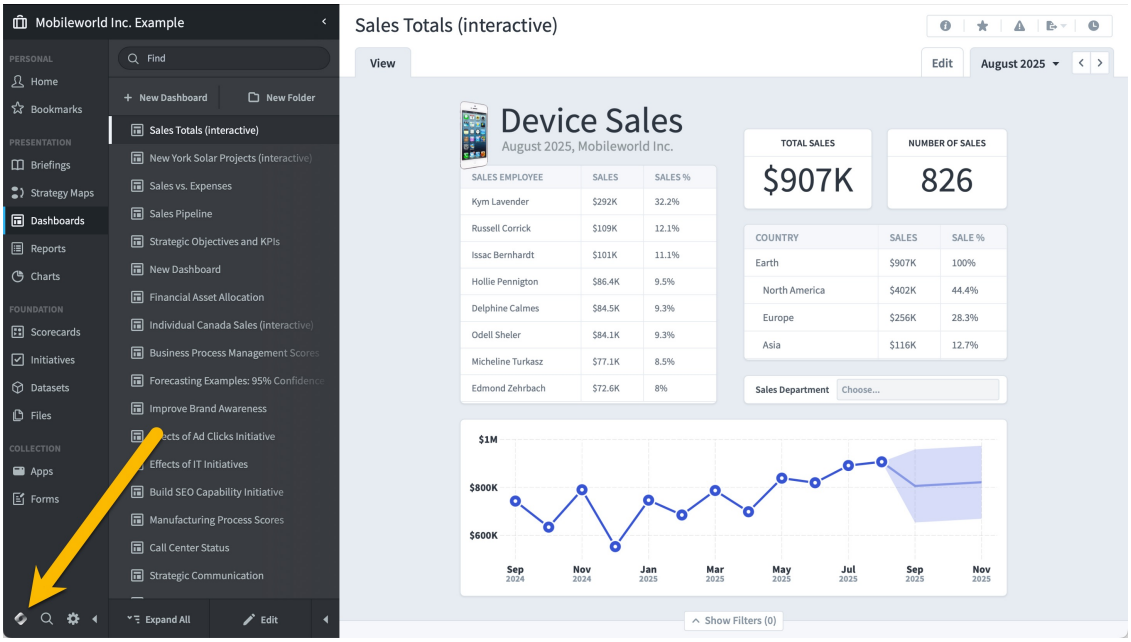
Impact Assistant

Using Impact Assistant

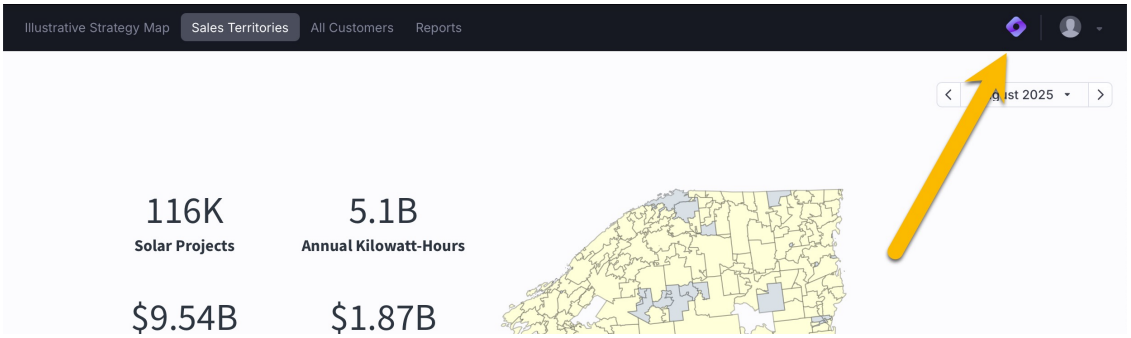
Impact Assistant enables you to ask questions about your data in natural language and receive instant visualizations and answers—no technical expertise required.

Accessing Impact Assistant

Click the Impact Assistant icon inside Spider Impact:



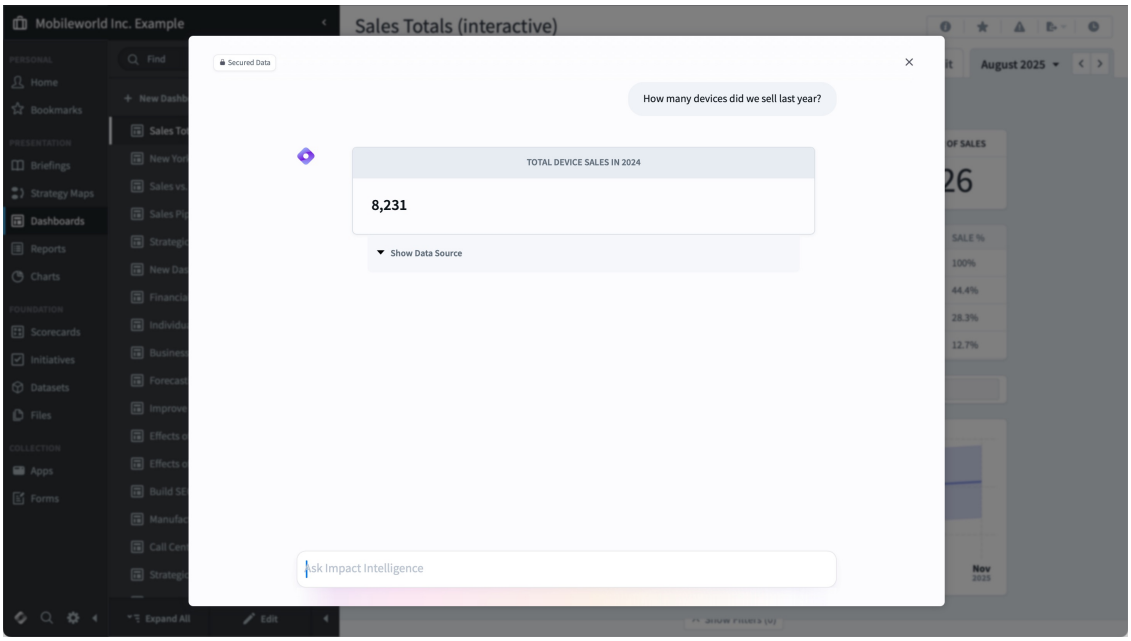
Or inside any stand-alone App you've built:



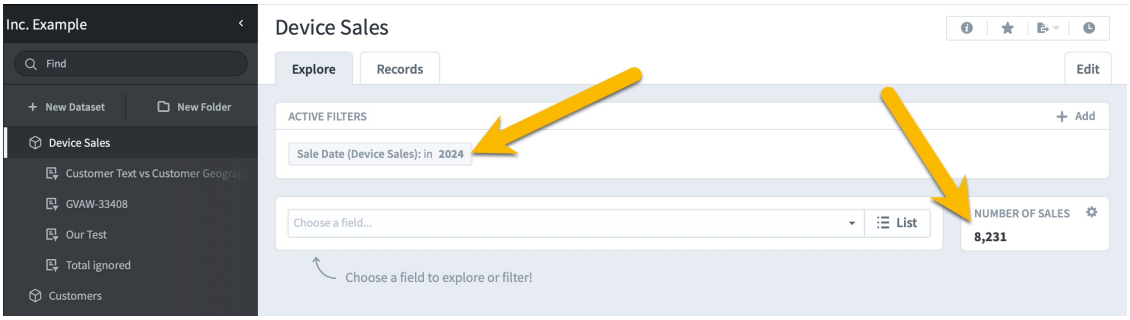
Asking Questions About Your Data

While dashboards and reports excel at displaying predetermined information, Impact Assistant shines when you need specific answers that aren't already configured. Simply ask questions like "What was the total revenue by product category last quarter?" or "Show me the trend of customer complaints over the past year."

In this example, asking how many devices were sold last year returns a clear answer:

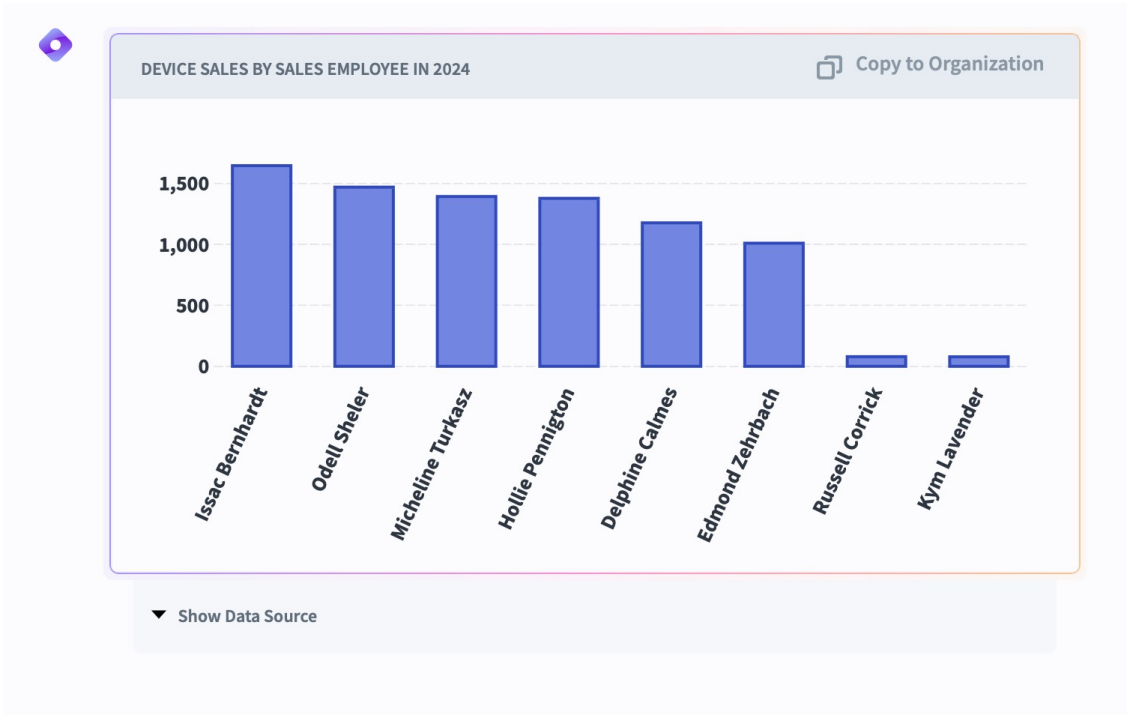


Clicking on the "8,231" number drills down into the Datasets section for further ad-hoc analytics:



Conversational Context

Impact Assistant maintains conversation history for contextual follow-up questions. When you say "break that down by salesperson," Impact Assistant understands you're still discussing last year's sales:



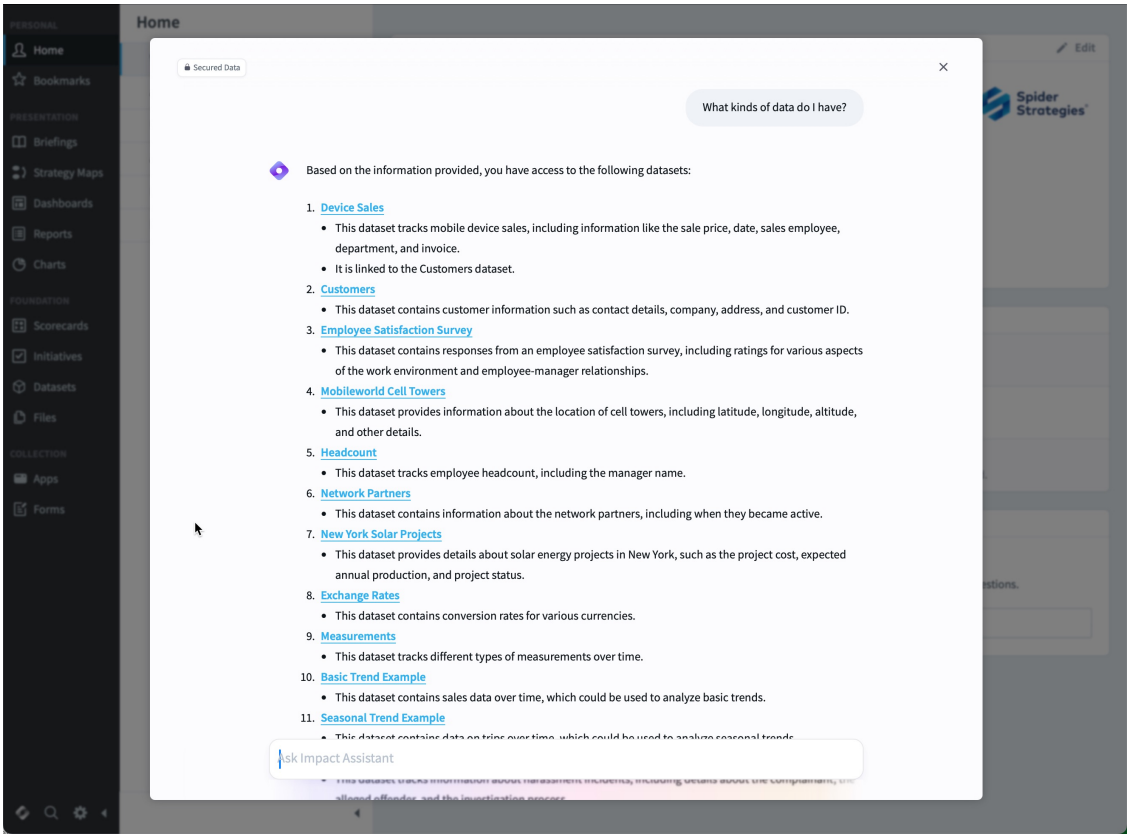
Saving Insights

When Impact Assistant creates a useful chart, use the "Copy to Organization" button to save it permanently. This allows you to reuse assistant-generated charts in dashboards and share insights with your team:

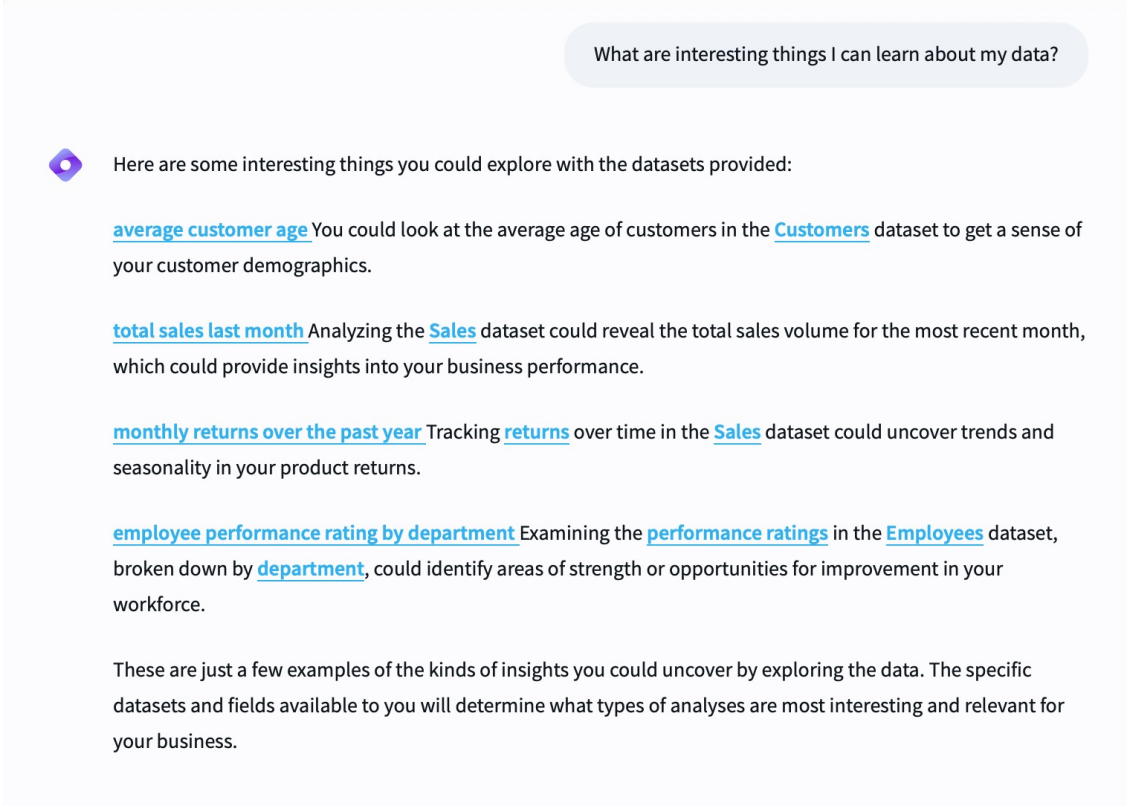


Discovering Data and Insights

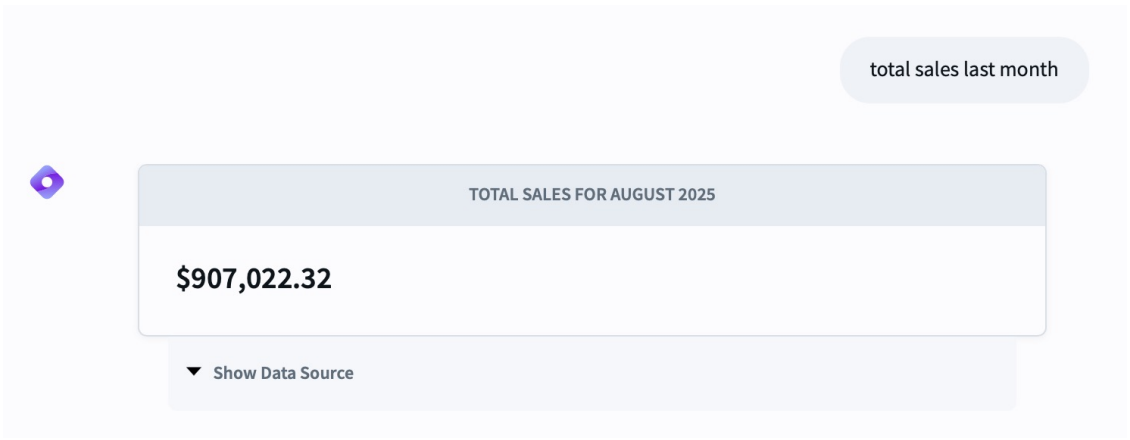
Impact Assistant helps you understand your data landscape and discover meaningful insights. You can ask general questions like "What kinds of data do I have?" to see a list of datasets and what they track:



One of Impact Intelligence's most powerful features is proactively suggesting insights to explore based on your data:

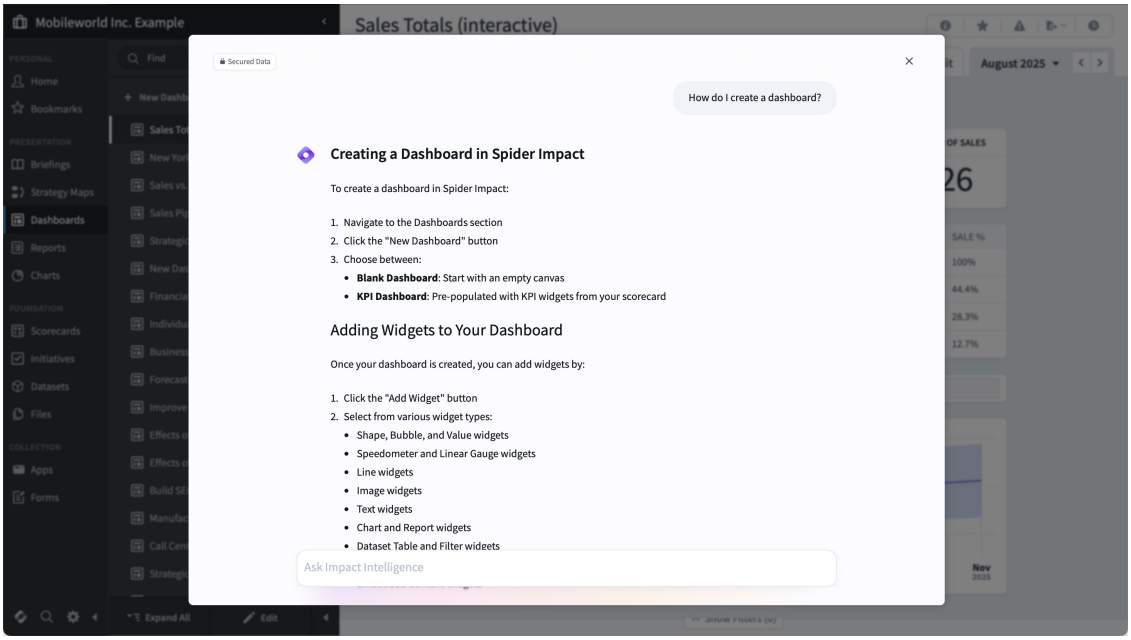


Clicking on suggestions like "total sales last month" provides immediate answers:



Getting Software Help

Beyond data analysis, Impact Assistant answers questions about Spider Impact features with detailed guidance and documentation links:



Current Capabilities

Impact Assistant currently:

- Aggregates and filters data from datasets to answer specific questions
- Generates appropriate visualizations (line, bar, and pie charts)
- Suggests potential insights from your data
- Answers questions about Spider Impact features with documentation links

Impact Assistant currently provides answers from datasets only. It cannot access scorecard KPI values or initiative data. Future releases will expand these capabilities.

Managing Conversations

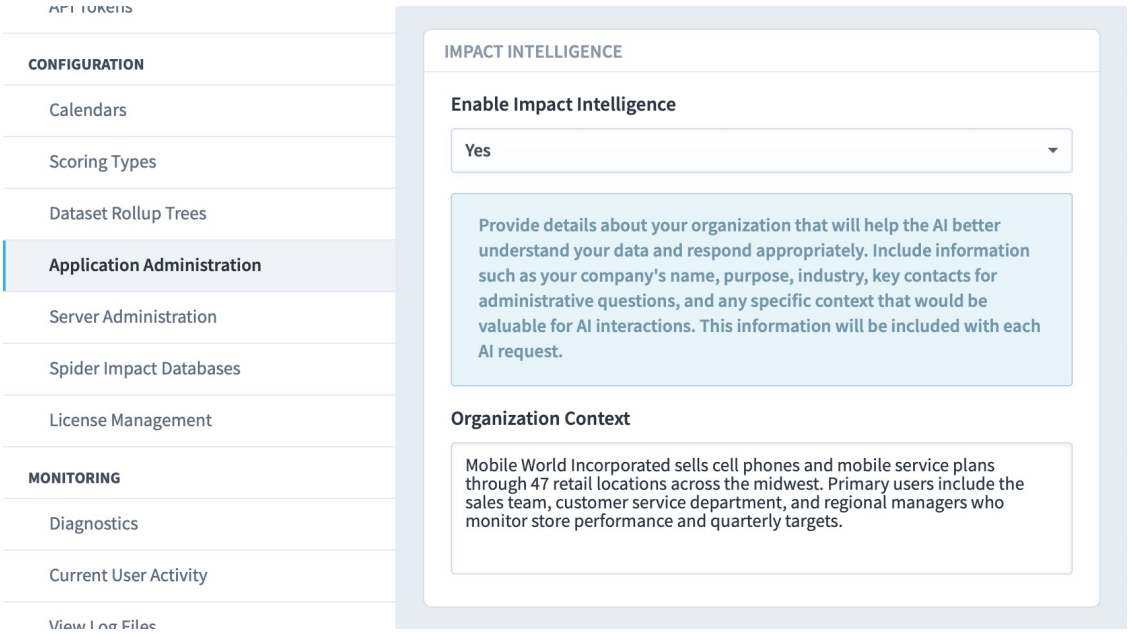
Like all AI assistants, Impact Assistant performs best with fresh conversations. If responses become less relevant or the conversation veers off track, simply close the assistant window and start a new chat rather than trying to correct the current one. This immediately resolves most issues and ensures optimal

performance—a quick conversation restart is always more effective than attempting to redirect a confused conversation.

Configuring Impact Intelligence

Enabling Impact Intelligence

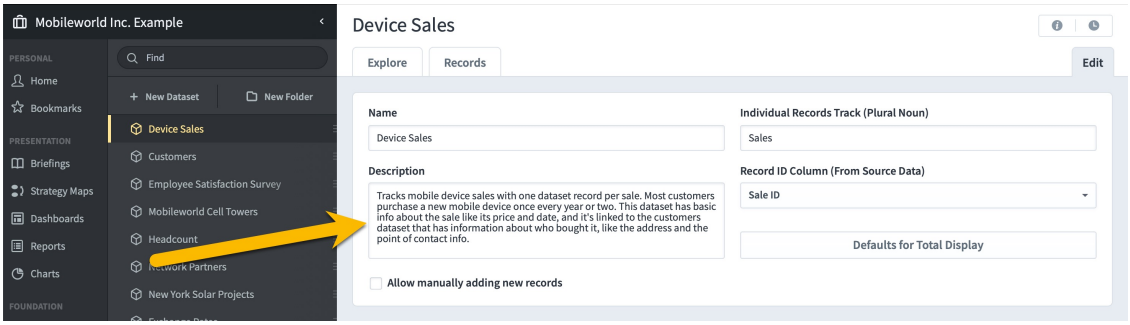
Administrators must first enable Impact Intelligence in Application Administration. Toggle "Enable Impact Intelligence" to "Yes" and provide information about your organization in the Organization Context field:



The Organization Context helps the AI understand your data and provide better responses. Include your company name, industry, the types of data you collect, and any big-picture business goals that are universal and don't change over time. If the AI has trouble differentiating between datasets or finding specific data, additional context here often solves the problem.

Dataset Descriptions

To help Impact Assistant better understand your data context, administrators can add descriptions to datasets. These descriptions help Impact Assistant provide more relevant insights and appropriate visualizations:



When writing dataset descriptions, explain the dataset as you would to a colleague. Include:

- What each record represents
- Types of information tracked for each record
- Why you're tracking this data
- Any important relationships to other datasets

Example description:

> Tracks mobile device sales with one dataset record per sale. Most customers purchase a new mobile device once every few years. This dataset has basic info about the sale like its price and date, and it's linked to the customers dataset that has information about who bought it, like the address and the point of contact info.

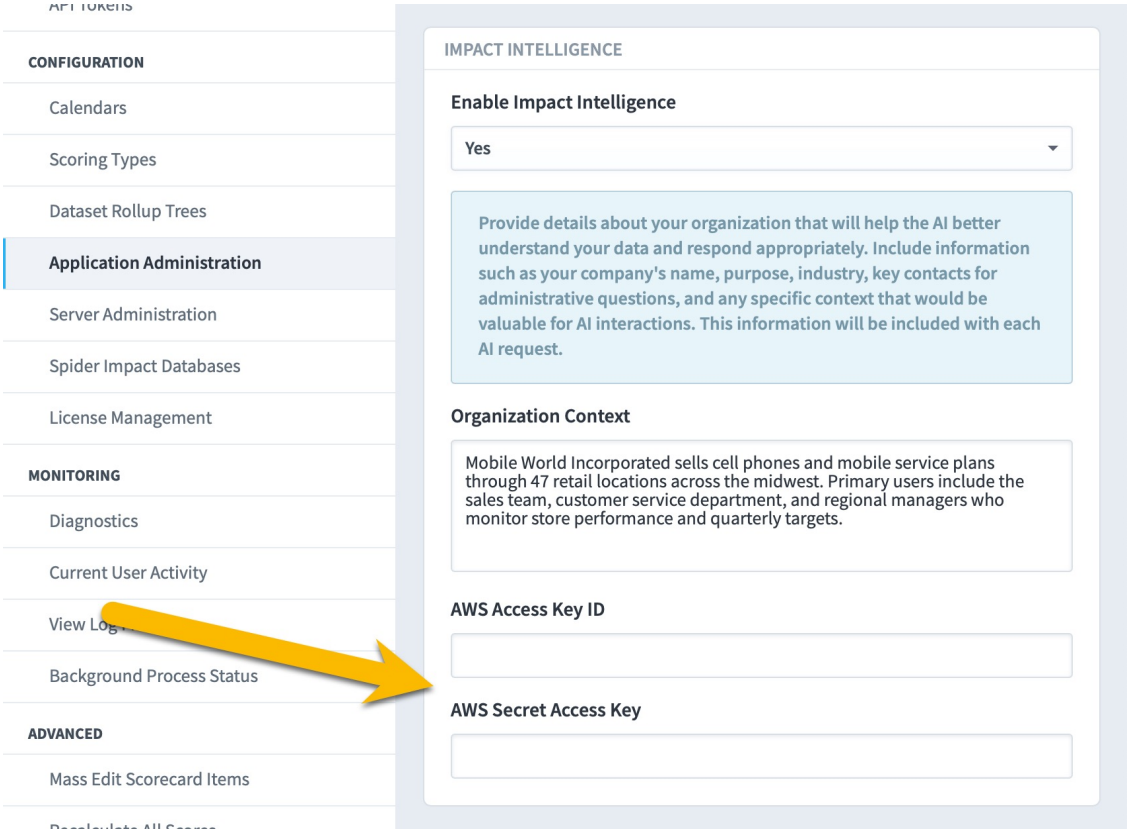
Good descriptions solve common confusion. For example, mentioning that a dataset tracks both "incident date" and "report date" helps the AI distinguish between them. Similarly, clarifying that "SARC Location" refers to where something happened helps with location-based queries.

API Keys for Self-Hosted Customers

Spider-hosted customers don't need to manage API keys—Spider Strategies handles all billing and infrastructure.

Self-hosted customers need to provide Amazon Web Services (AWS) credentials:

1. Create an AWS account and enable Amazon Bedrock
2. Generate access keys for Bedrock
3. Enter these keys when enabling Impact Intelligence



Alternatively, configure API keys at the server level by adding these JVM parameters to Tomcat:

```
-Dspring.ai.model.embedding=bedrock-titan
-Dspring.ai.bedrock.titan.embedding.enabled=true
```

```
-Dbedrock.access-key=YOUR_ACCESS_KEY_HERE
-Dbedrock.secret-key=YOUR_SECRET_KEY_HERE
```

With server-level configuration, the API key fields won't appear in the interface—you'll just toggle Impact Intelligence on or off for each instance.

Impact Intelligence Security and Privacy

Impact Intelligence maintains complete data security through an innovative architecture designed to protect your sensitive information while delivering powerful AI capabilities.

How Your Data Stays Secure

Your actual data values never leave your secure environment. Impact Intelligence uses a metadata-only approach where Impact Assistant receives only:

- Dataset names and their descriptions
- Field names and field types
- Aggregate statistics about fields (not associated with any individual record):
    - For date fields: The earliest and latest dates
    - For text fields: The 10 most common values

This metadata enables Impact Assistant to understand what questions it can answer and provide meaningful filtering and queries, while ensuring sensitive data remains completely protected.

Example of Privacy Protection

Consider a dataset called "Customer Orders" with thousands of records. If the dataset contains a "Product Type" field where "laptops," "tablets," and "phones" each appear in at least 1% of records, Impact Intelligence will know these are common product types to support queries like "show me laptop sales last quarter."

However, if the same dataset contains a "Shipping Address" field, individual addresses almost certainly won't represent 1% or more of records, so specific addresses are never sent to the AI. This protects personally identifiable information while still enabling powerful data analysis.

Government Cloud (FedRAMP) Security

For Spider Impact government customers, all infrastructure operates within Amazon GovCloud behind our secure FedRAMP-authorized boundary. The AI services are also within Amazon GovCloud and part of this secure boundary. While we are fully authorized to send secure information to these AI services, we maintain our metadata-only approach for additional privacy protection.

Commercial Cloud Security

For commercially hosted customers, we use Amazon Web Services with enterprise-grade security to process metadata. The AI services have contractual agreements that **your data will never be used for AI training**. This guarantee applies to both the metadata we send and ensures your organization's information remains completely private.

Key Security Benefits

- **No data values leave your environment** - All actual data processing happens securely on your server
- **AI cannot hallucinate data** - Since all values come directly from your database, Impact Assistant can only show real information
- **No AI training on your data** - Contractual agreements prevent any use of your information for model training
- **High performance** - Minimal data transfer means fast, responsive interactions

General

No-Code Apps

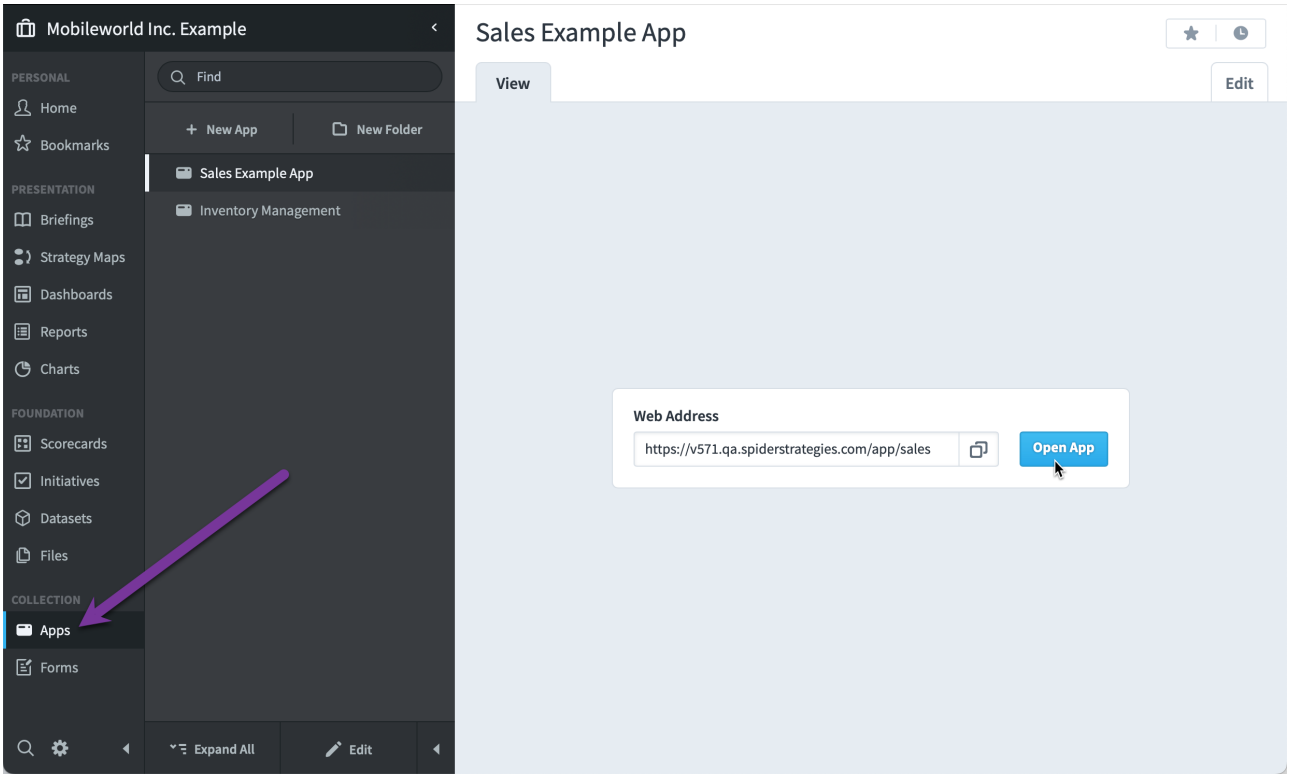
Apps is a powerful feature in Spider Impact that allows administrators to build curated, branded experiences for specific tasks. Apps enable streamlined workflows and customized interfaces by consolidating data collection, reporting, and operational tools into a single, integrated environment.

Key Benefits of Apps:

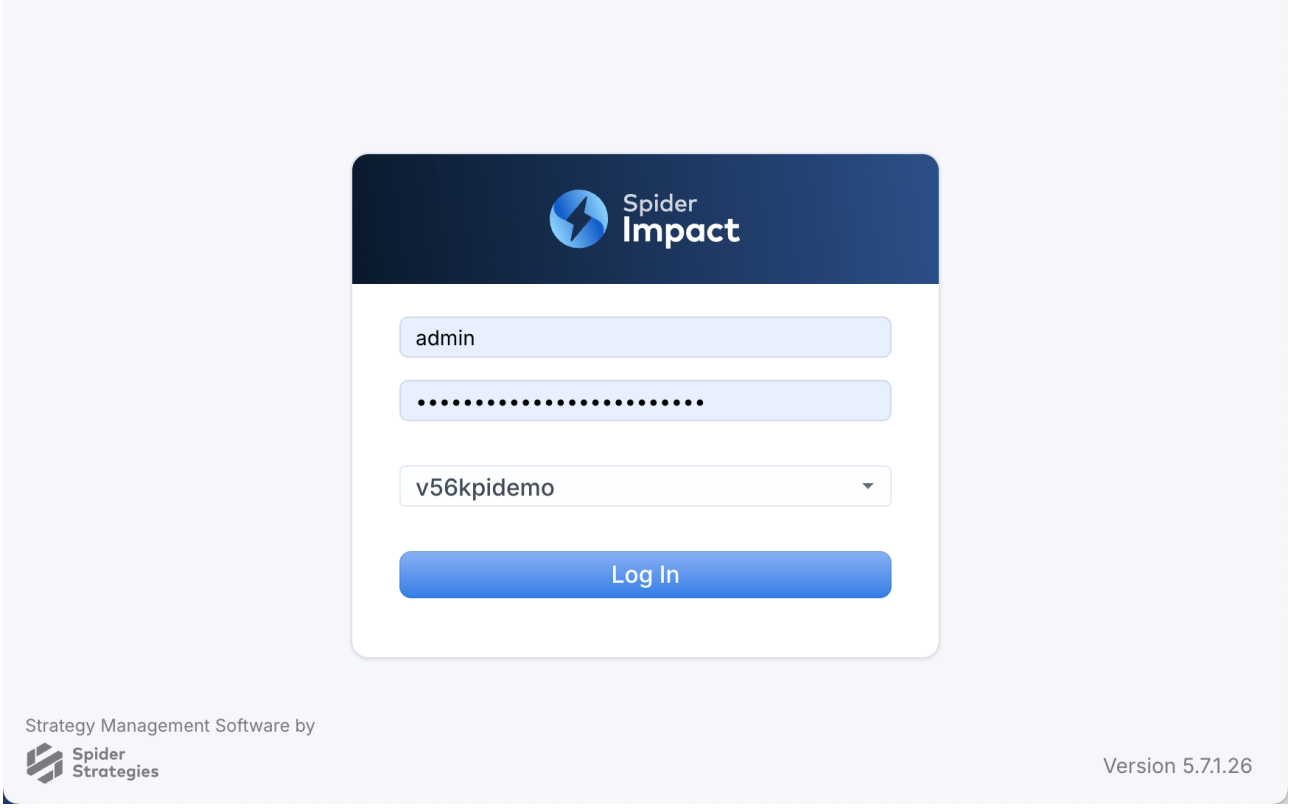
- **Task-Specific Experiences:** Create tailored applications for different departments or use cases, such as sales tracking, customer service, or project management.
- **Centralized Data and User Management:** Apps leverage Spider Impact's existing permissions architecture, ensuring secure and seamless data access.
- **Standalone Access:** Apps can be accessed independently of the main Impact UI, allowing users to interact with them via a dedicated URL.

Viewing and Accessing Apps

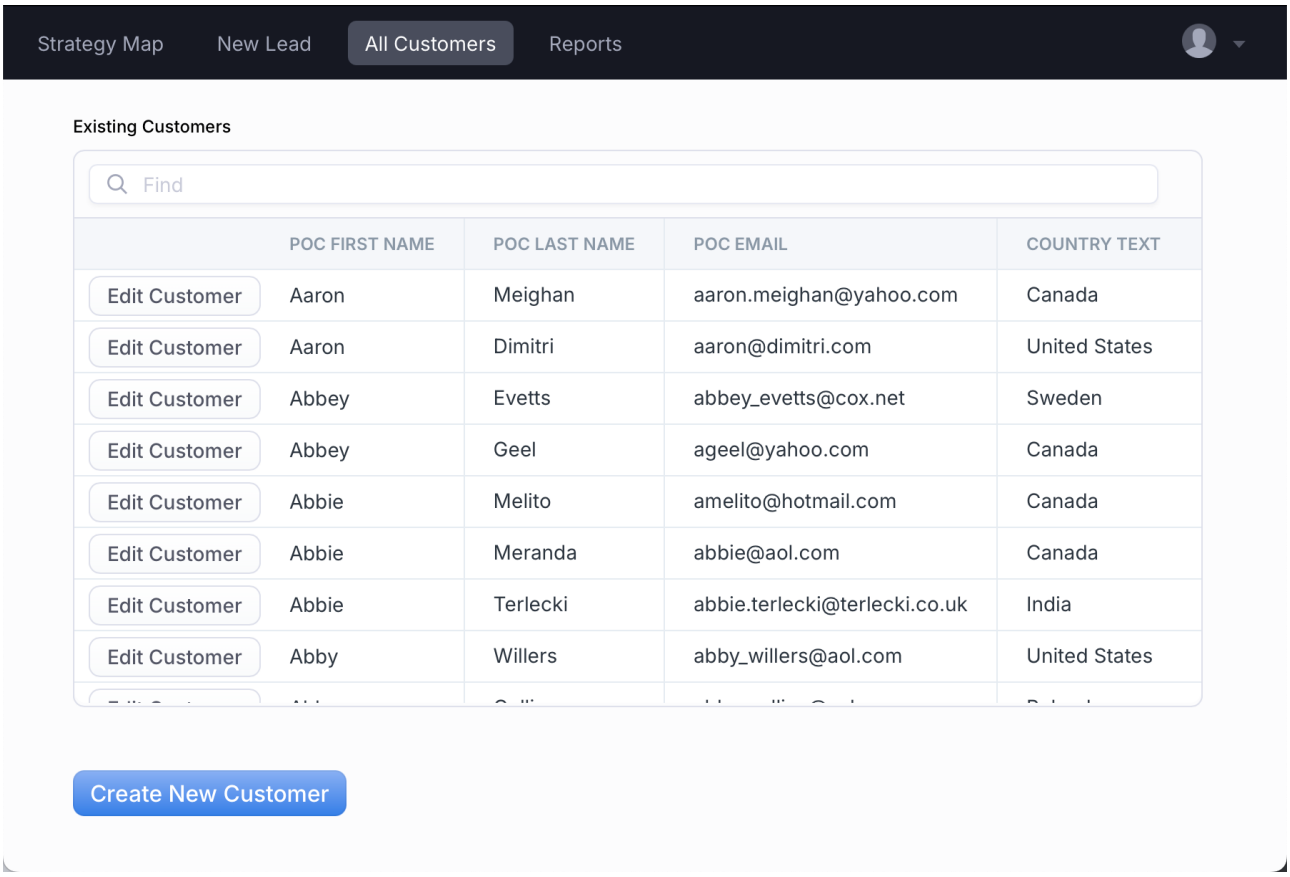
Apps provide a standalone experience separate from traditional Impact sections. When you navigate to an App's view tab, you'll see a single "Open App" button that launches the App in a new browser tab. Each App has its own dedicated URL, allowing you to create browser bookmarks for direct access.



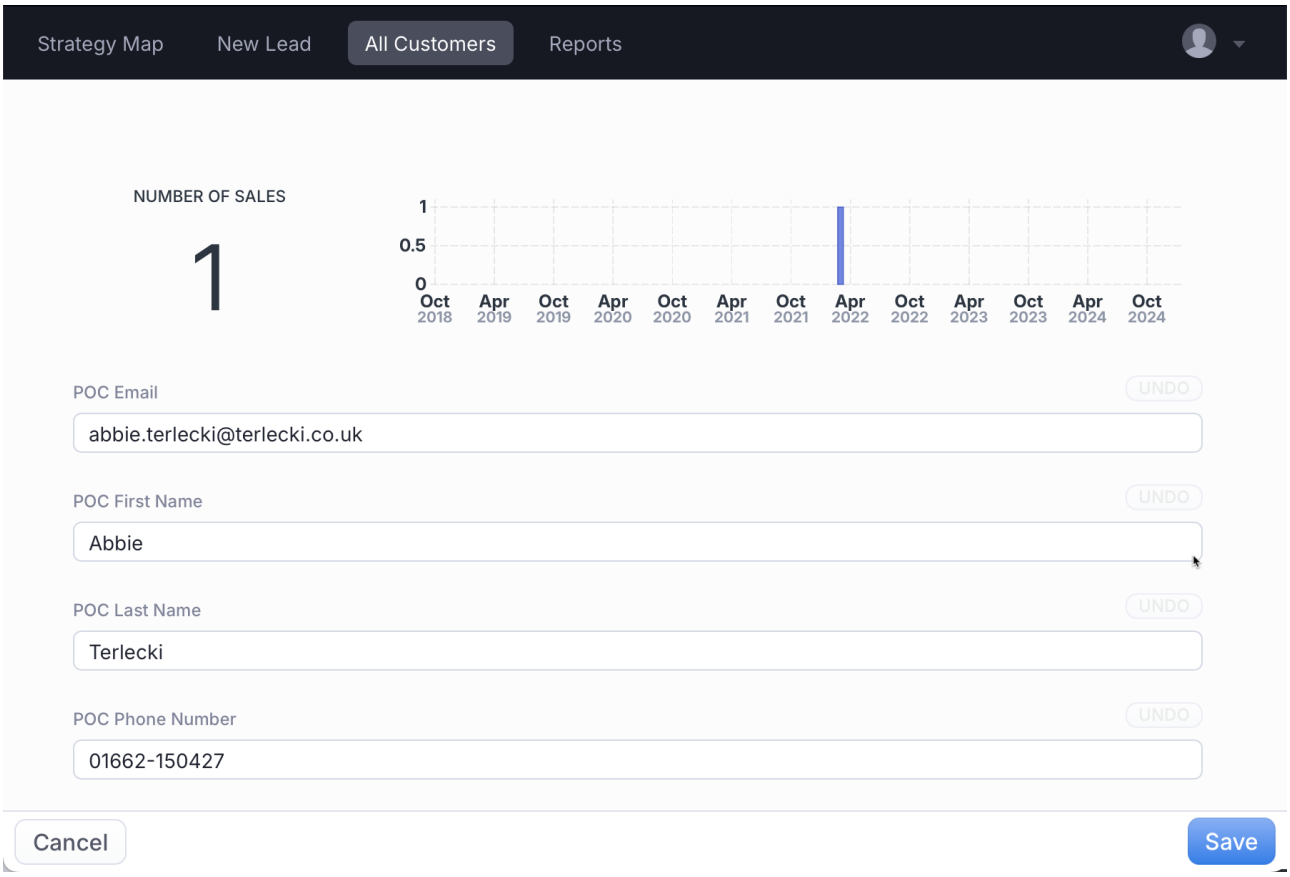
Apps require you to log in, and they share a security model with Spider Impact. You can only see data in Apps that you can already see in Impact.



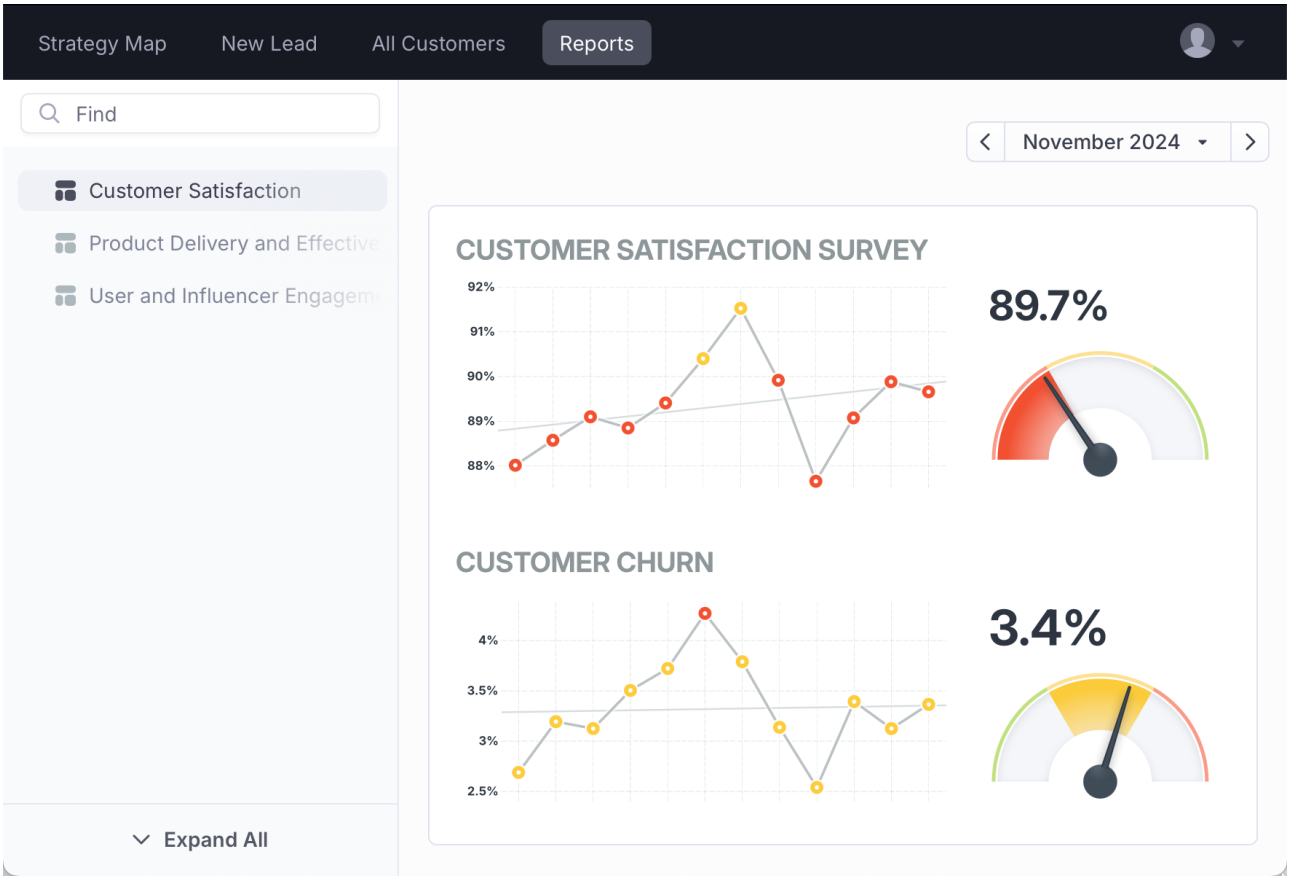
After logging in, you'll encounter a customized interface designed specifically for its purpose. Apps are built from existing Impact screens like Forms, Dashboards, and Reports. For example, this App has four sections. This "All Customers" section is a multi-page form that starts with a list of all customers.



When you click the "Edit Customer" link for a customer, you're taken to the customer details page where you can see a history of sales for that customer and edit the customer's contact information.



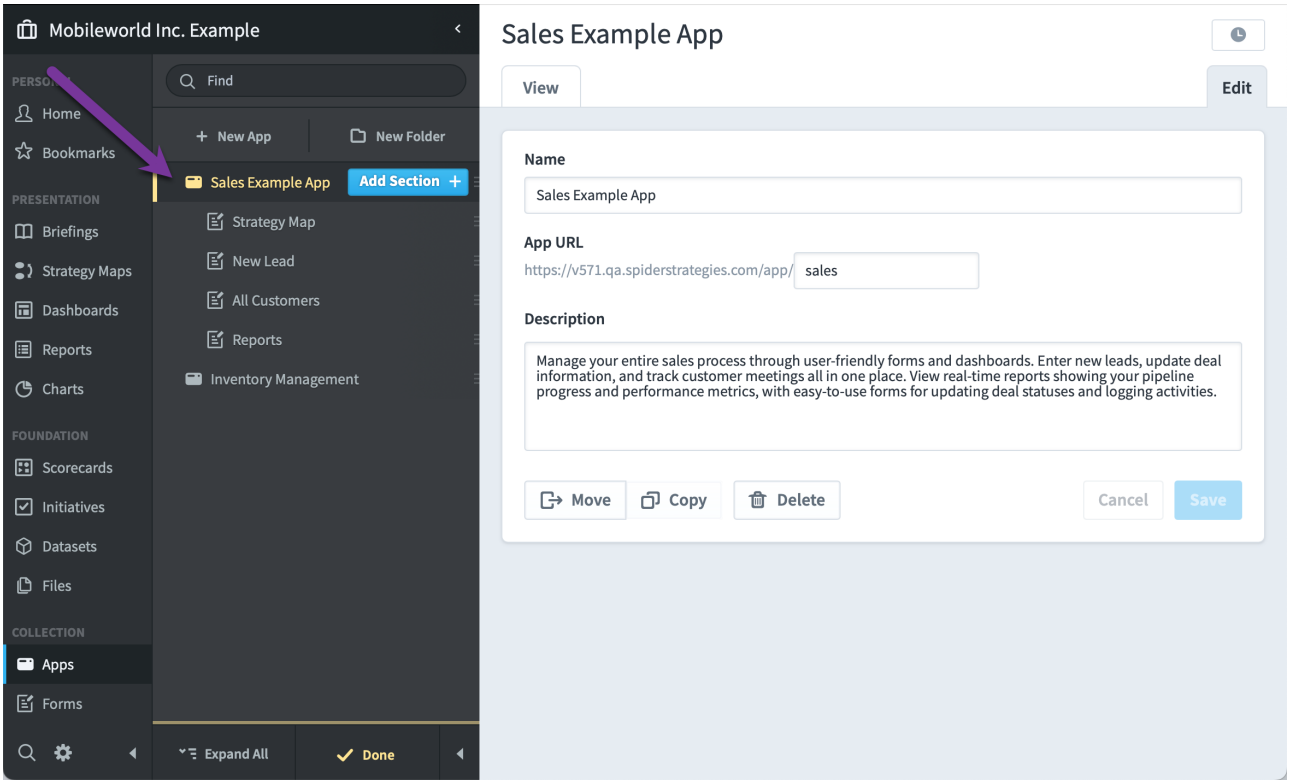
In this example, the "Reports" section allows you to choose between several dashboards, each displaying various sales data visualizations.



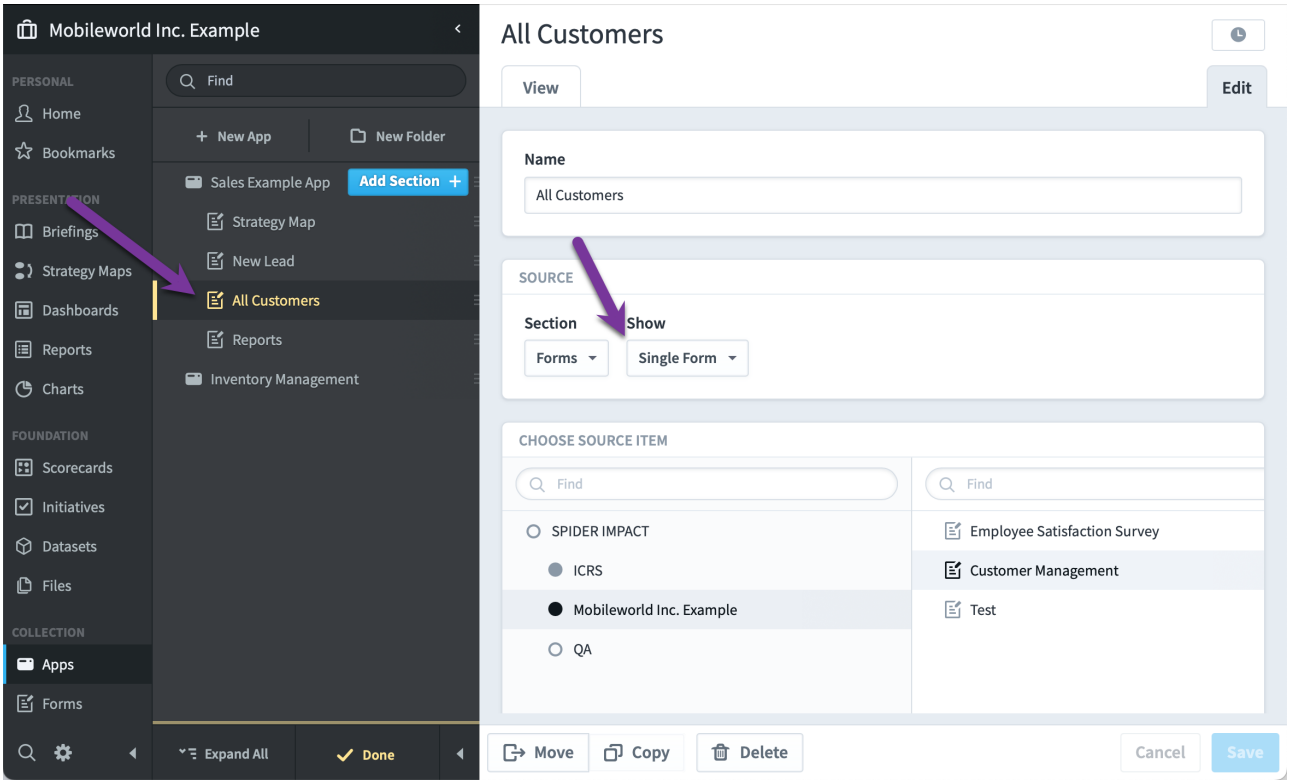
Creating and Managing Apps

Like every section in Spider Impact, Apps reside in organizations and follow the standard Spider Impact permission model. This means you can access every app in your viewable organizations. The "Modify Apps" permission allows administrators to configure and manage Apps in their viewable organizations.

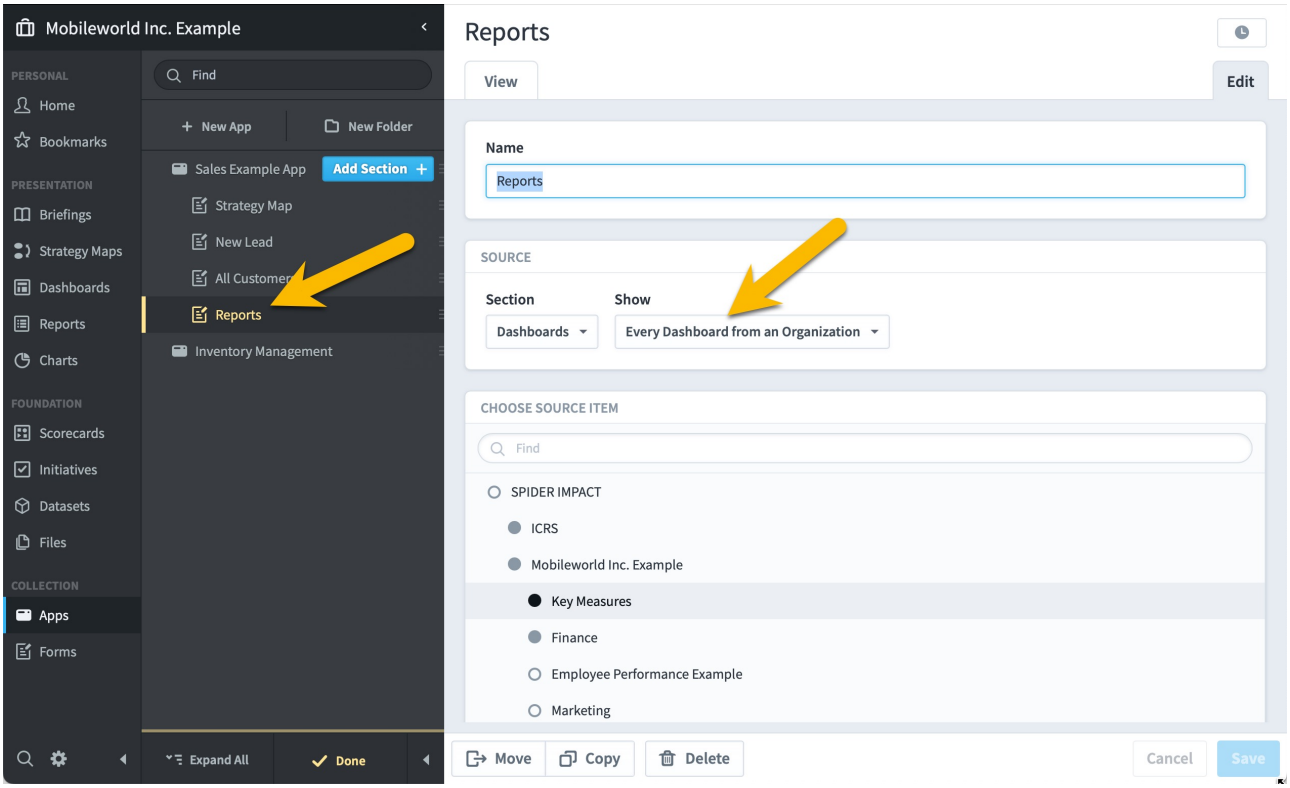
The Edit tab within the Apps section allows administrators to manage App settings. Here, the app itself is selected, and you can set the app's name, URL, and description.



Like editing Form Pages, when you edit an App, all its sections appear underneath it. Here we've selected the "All Customers" section and we can see that this App Section shows a single Form.



When you select the "Reports" section, you can see that it's showing every dashboard from an organization.

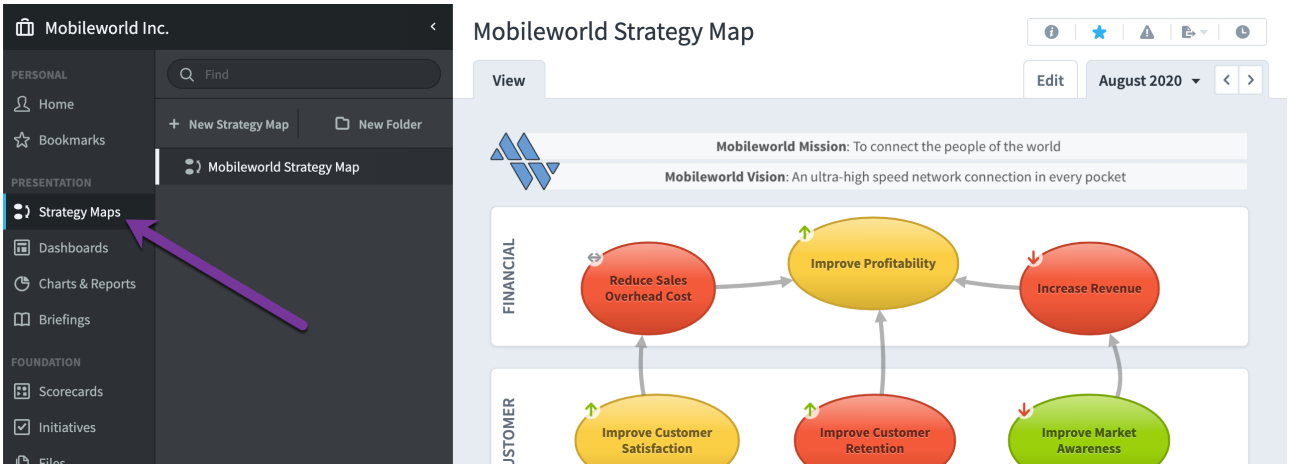


Because Apps use Spider Impact's existing permissions, if a user can't see a page inside of Spider Impact and that page is being used for an App's section, that section will be hidden for them inside of the App. This allows you to create apps with sections that only appear for some users.

Strategy Maps

Overview

Strategy Maps are similar to Dashboards, except they focus only on big-picture strategy. They have their own section in Spider Impact.

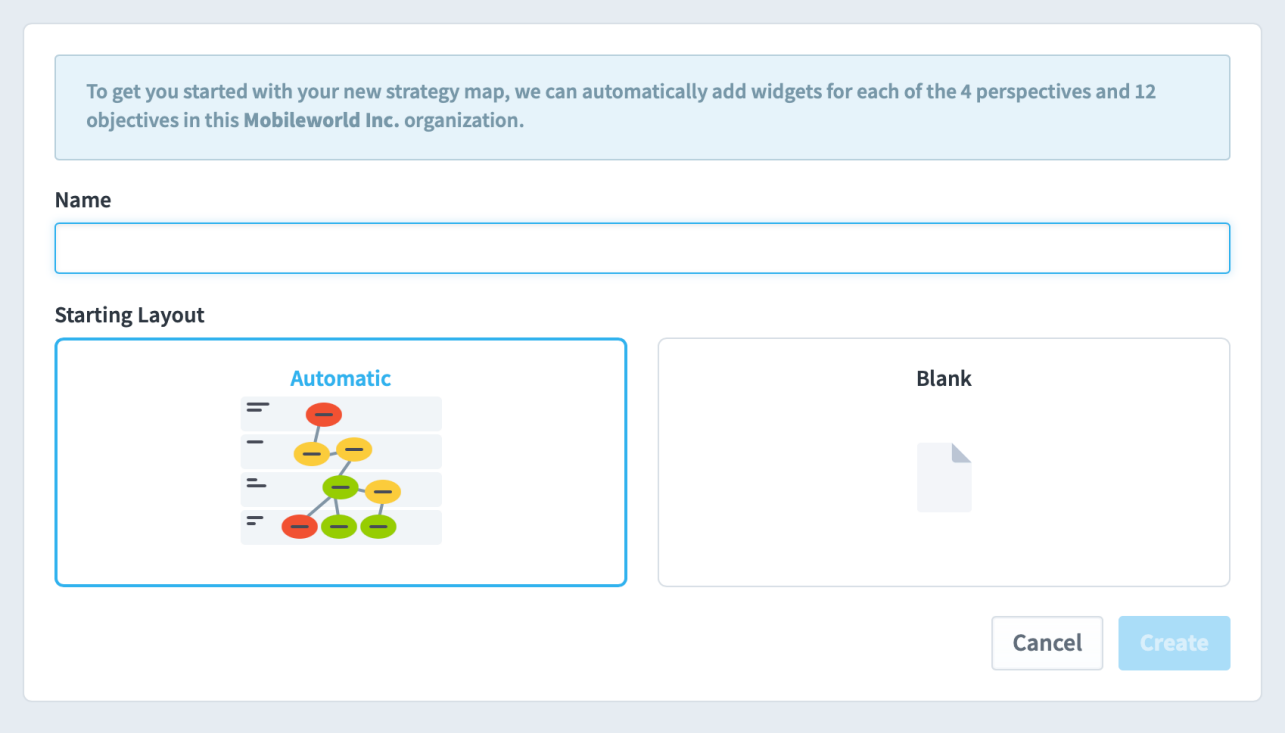


If you don't use the Balanced Scorecard methodology, there's a good change that you'll want to disable strategy maps. We explain how to do that in the Choosing Methodology article.

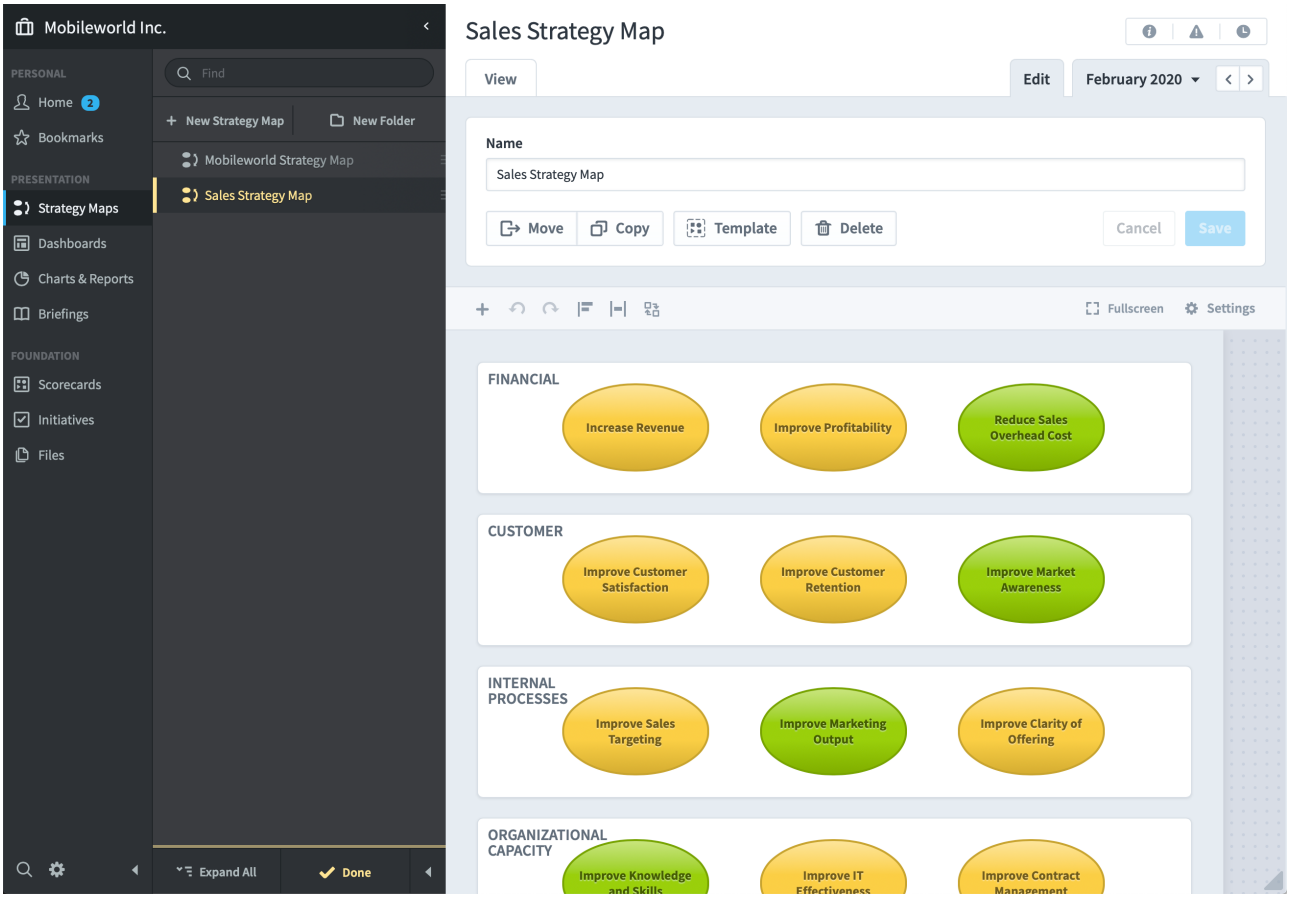
If you're unsure, we highly recommend reading our popular "What is a Balanced Scorecard?" article to learn more.

Creating a Strategy Map

When you create a new strategy map, you have a choice between Automatic and Blank.

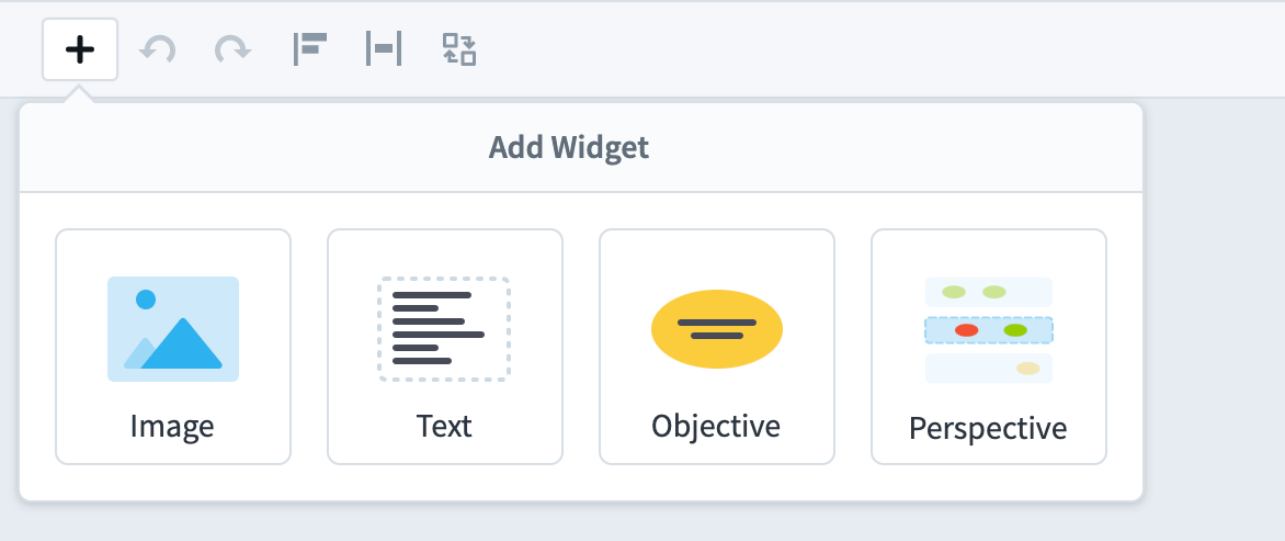


When you choose Automatic, your new strategy map will start with your current organization's perspectives and objectives already on the canvas. This saves a lot of time because all you need to do is adjust the position of your objectives and draw arrows.



Adding Widgets

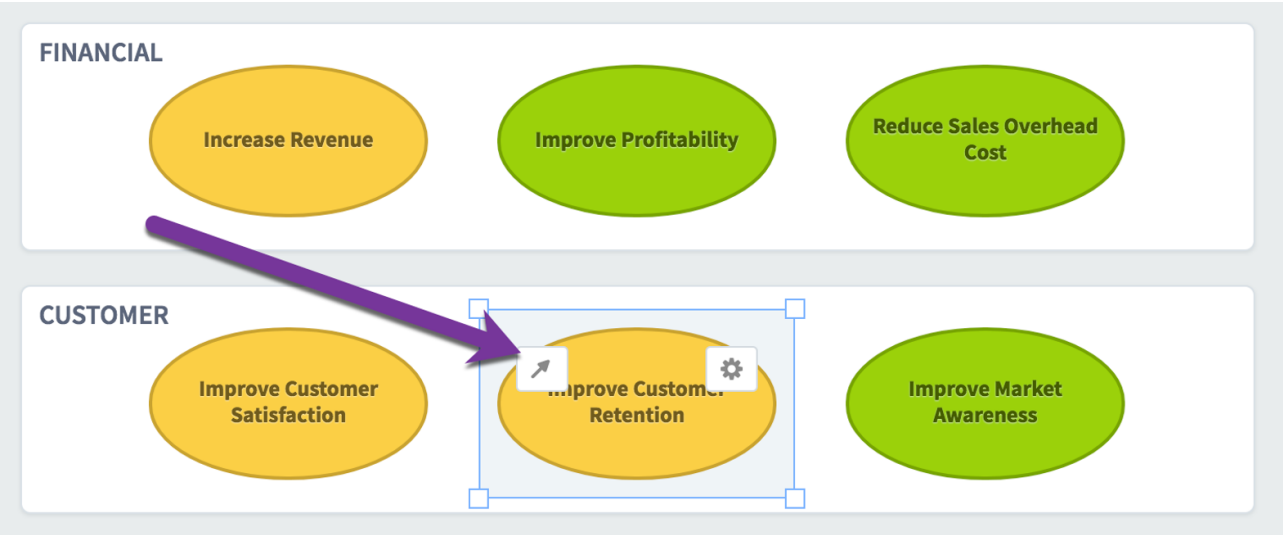
Adding new widgets is exactly the same as in Dashboards too. Just click the *Add Widget* button and choose an Objective or Perspective from the Scorecards section.



You can also add images widgets and text widgets, which are the same as on dashboards.

Drawing Arrows

You can draw arrows between the objectives on your strategy maps. Just select the objective where you want the arrow to start, click on the arrow button, and drag the new arrow to another perspective.



You can even change the arrow's thickness, opacity, and dotted style.



Background Images

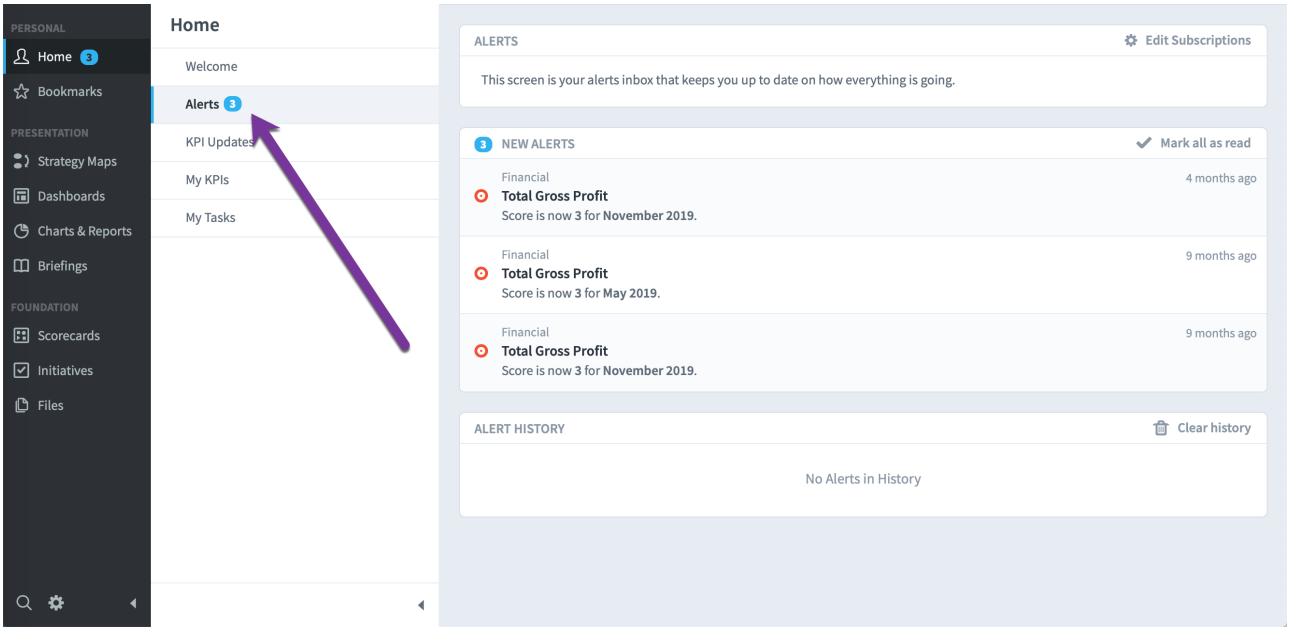
The Dashboard and Strategy Map Backgrounds article shows you how you can make strategy maps even better with background images.

Overview of Alerts

The Basics

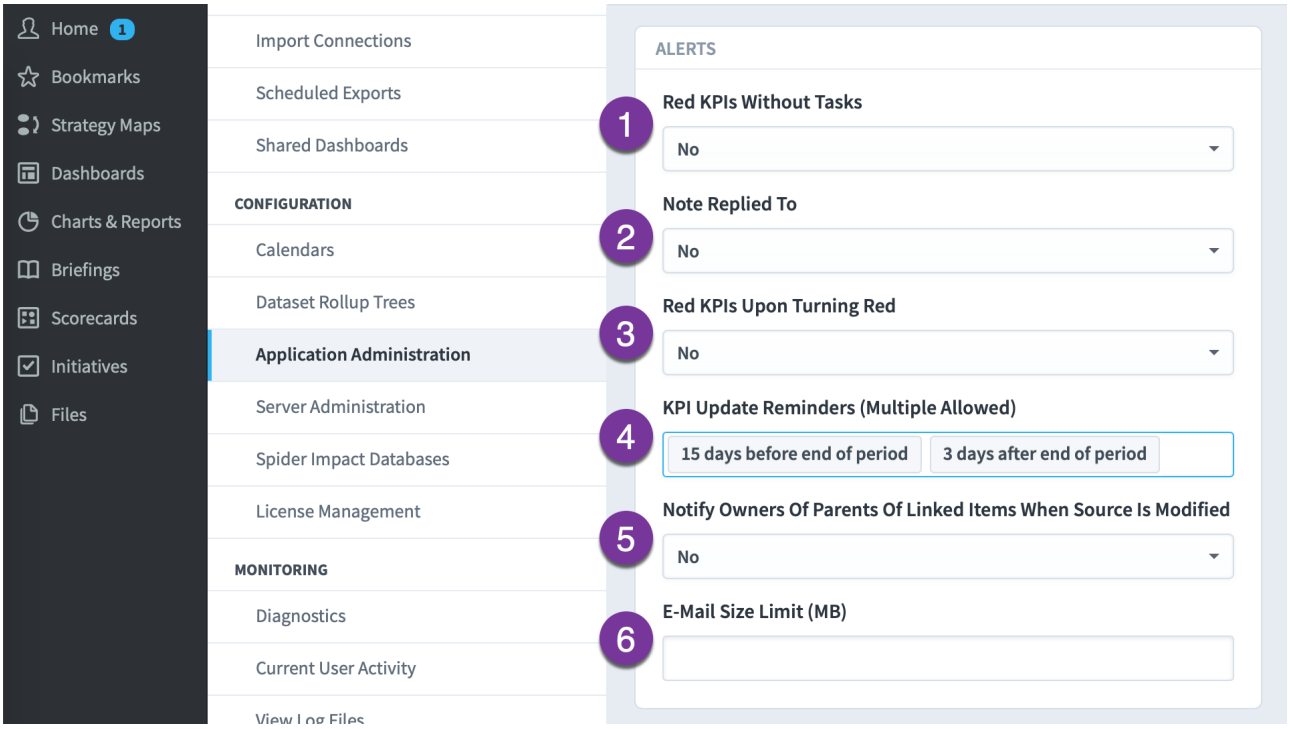
Spider Impact is a tool that encourages communication and collaboration. It helps you stay up-to-date on how every area of your organization is performing. You and your team can browse the various application sections exploring things like dashboards and reports, but it's also incredibly helpful when Spider Impact lets you know when there's something that needs your attention. That's where Alerts come in.

Whenever you get an alert in Spider Impact, you'll get an email (unless you've turned that off). You'll also see that alert on the Alerts page in the Home section.



Application-Wide Alerts

Spider Impact works best when users have to configure as little as possible. With this in mind, there are several types of alerts that you can turn on for every user in the software.

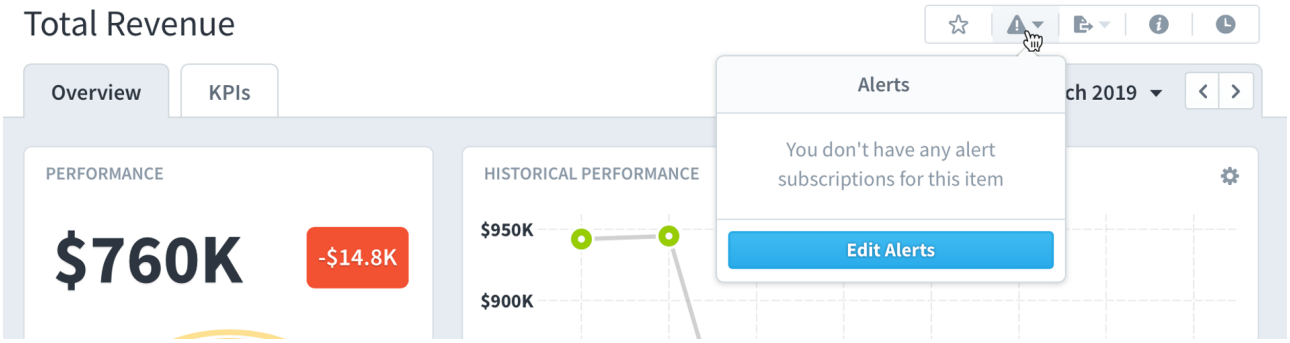


1. **Red KPIs without tasks** will send an alert to any KPI owner when that KPI turns red and it doesn't have an initiative related item to correct the KPI performance.
2. **Note replied to** will alert the author of any note when it gets a new reply.
3. **Red KPIs upon turning red** will send an alert to the KPI owner when any KPI turns red.
4. **KPI update reminders** will send out alerts to KPI updaters to remind them to update their KPI values when they haven't yet done so. In the example above, Spider Impact will send out alerts 15 days before the period is over to help people get their data in ahead of time, as well as 3 days after to remind people who have forgotten.
5. **Notify owners of parents of linked items when source is modified** will send the owners of linked scorecard items an alert when the source is edited or moved.

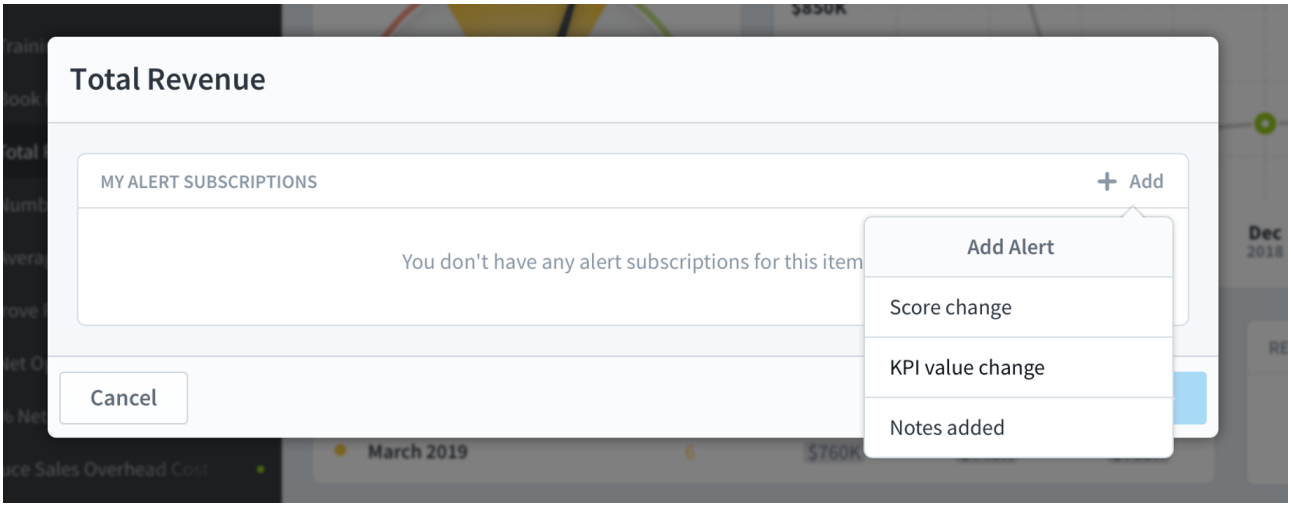
Finally, you can set an email size limit (6) to prevent Spider impact from attaching files larger than your email server can handle. Instead, your email will contain a link that allows you to download the file from the web.

Creating a New Alert

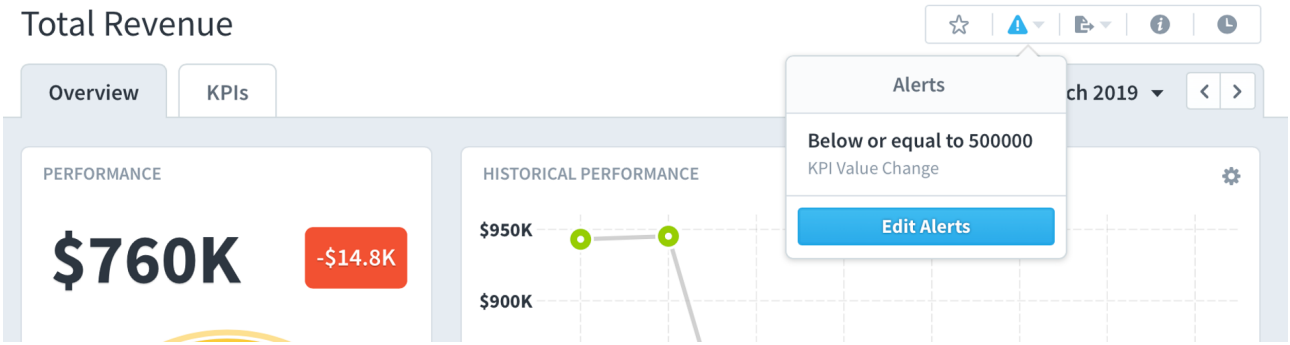
To create an Alert, just go to the Overview tab in the Scorecards section and click on the Alert button in the header. In this example we don't have any alerts set for the "Total Revenue" KPI, so we'll click the "Edit Alerts" button.



This opens the Edit Alerts dialog where we can add an alert for things like the Score or KPI value changing, or when someone adds a Note to this scorecard item or anything underneath it in the tree.



After you create an alert for a scorecard item, the Alert icon now turns blue. This is similar to the bookmark icon turning blue when you have a bookmark for the item.



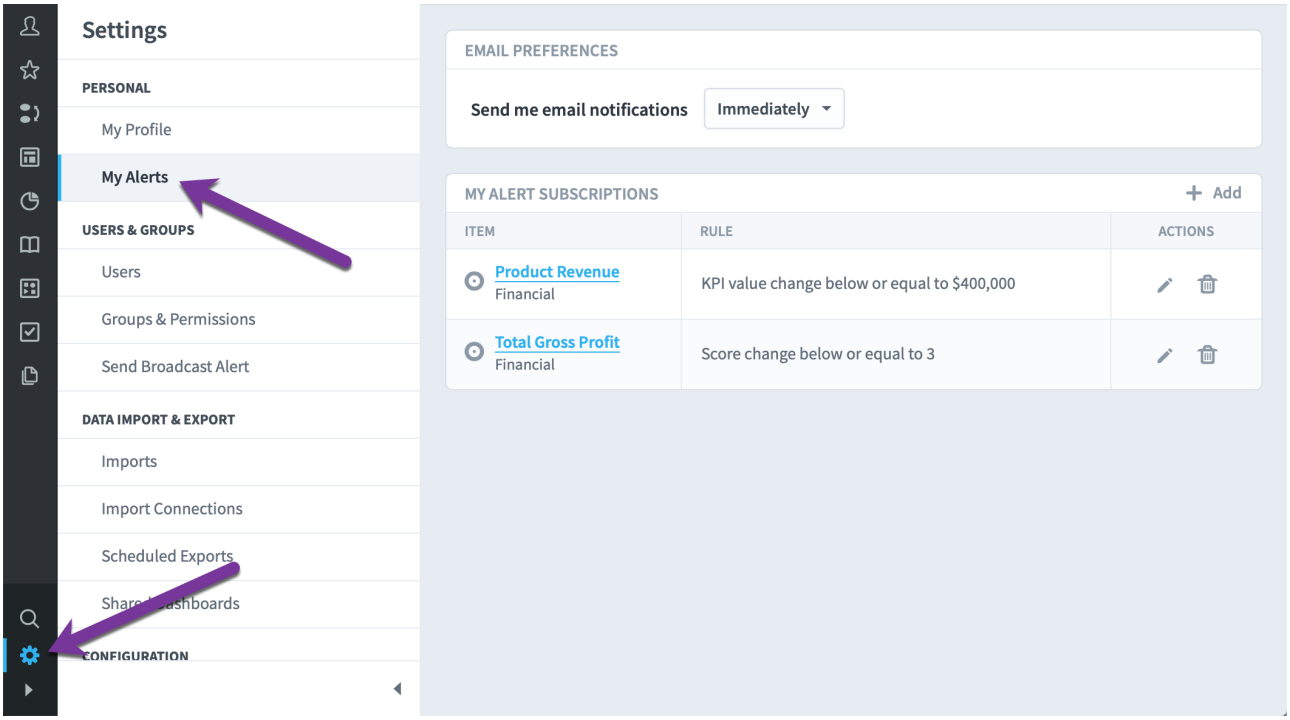
In addition to being able to create alerts for Scorecard items, you can also subscribe to be alerted when Dashboards and Briefings are published. That's covered in the Subscribing and Publishing article.

Broadcast Alerts

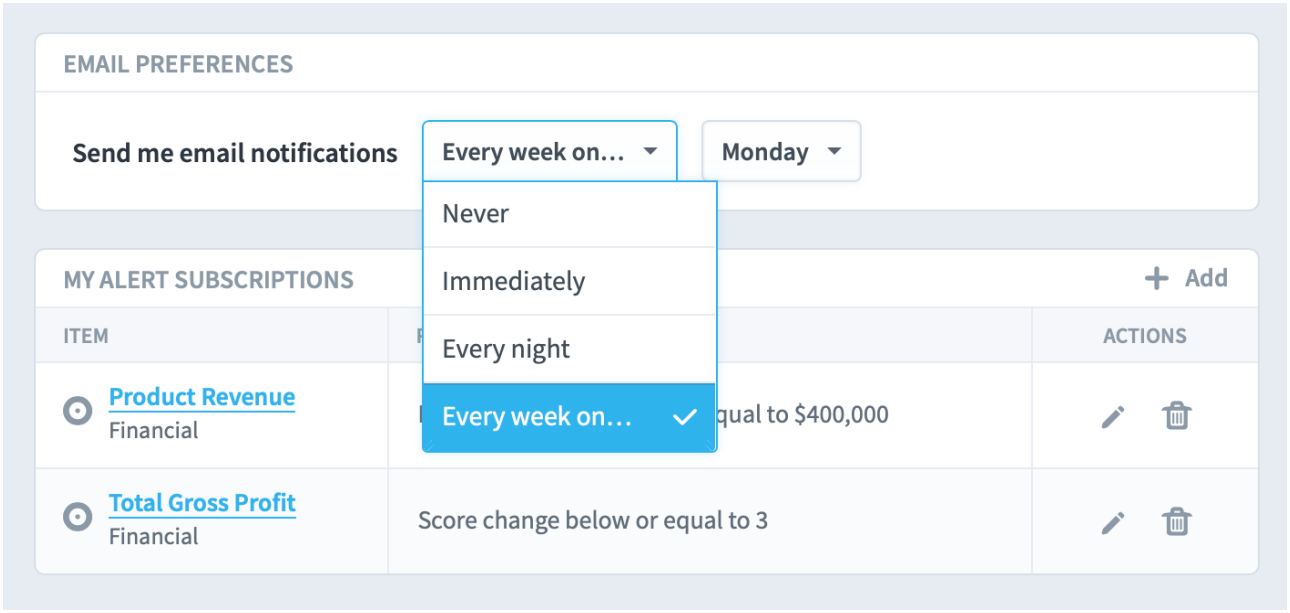
You can manually send alert messages to specific people or teams. That's covered in the Broadcast Alerts article.

Managing Alerts

You can manage all of your Alerts in the My Alerts page in the Admin section, which also includes the ability to including create new Alerts.



By default, Spider Impact will send you an email notification immediately when you get an Alert. You can change this to send emails nightly, weekly, or never.

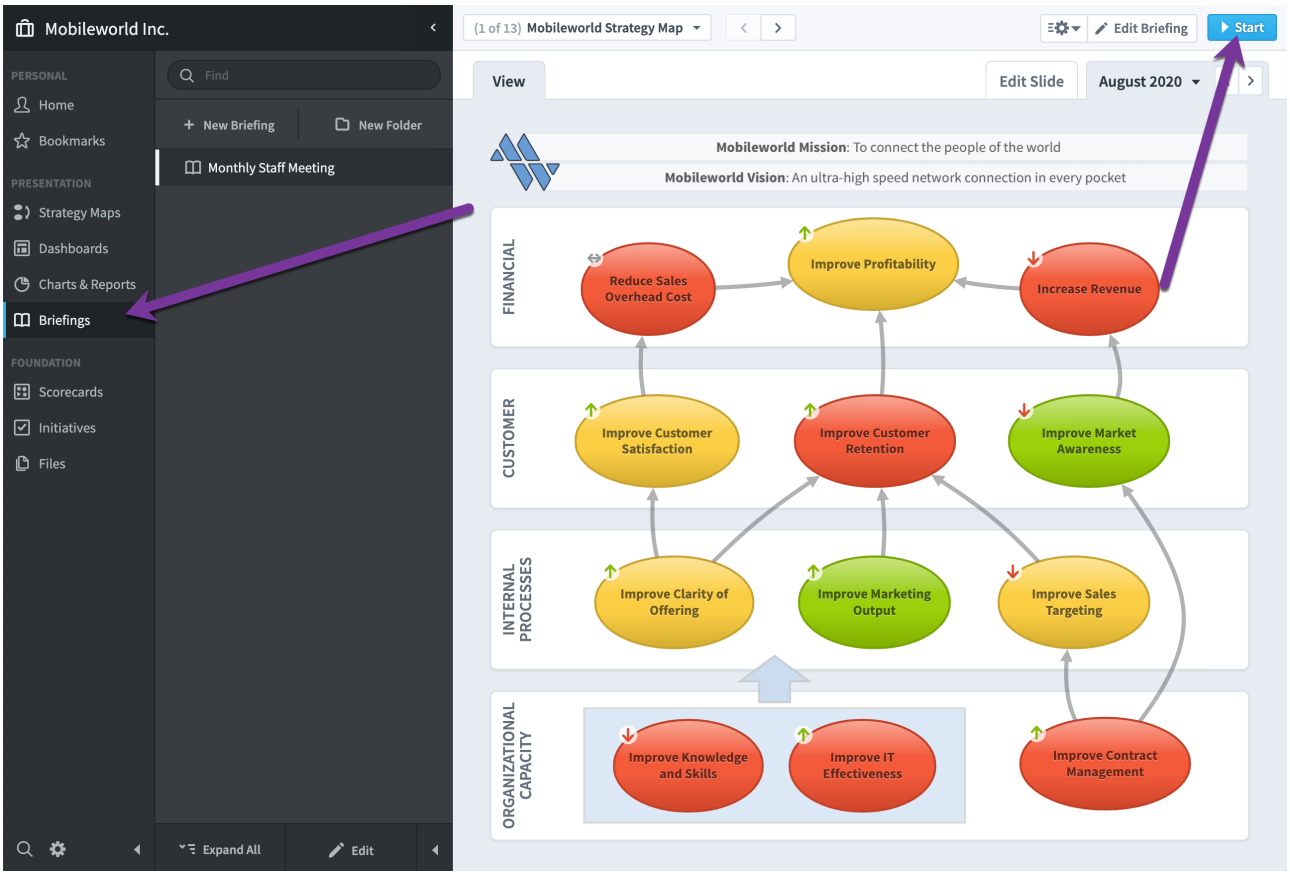


Briefings

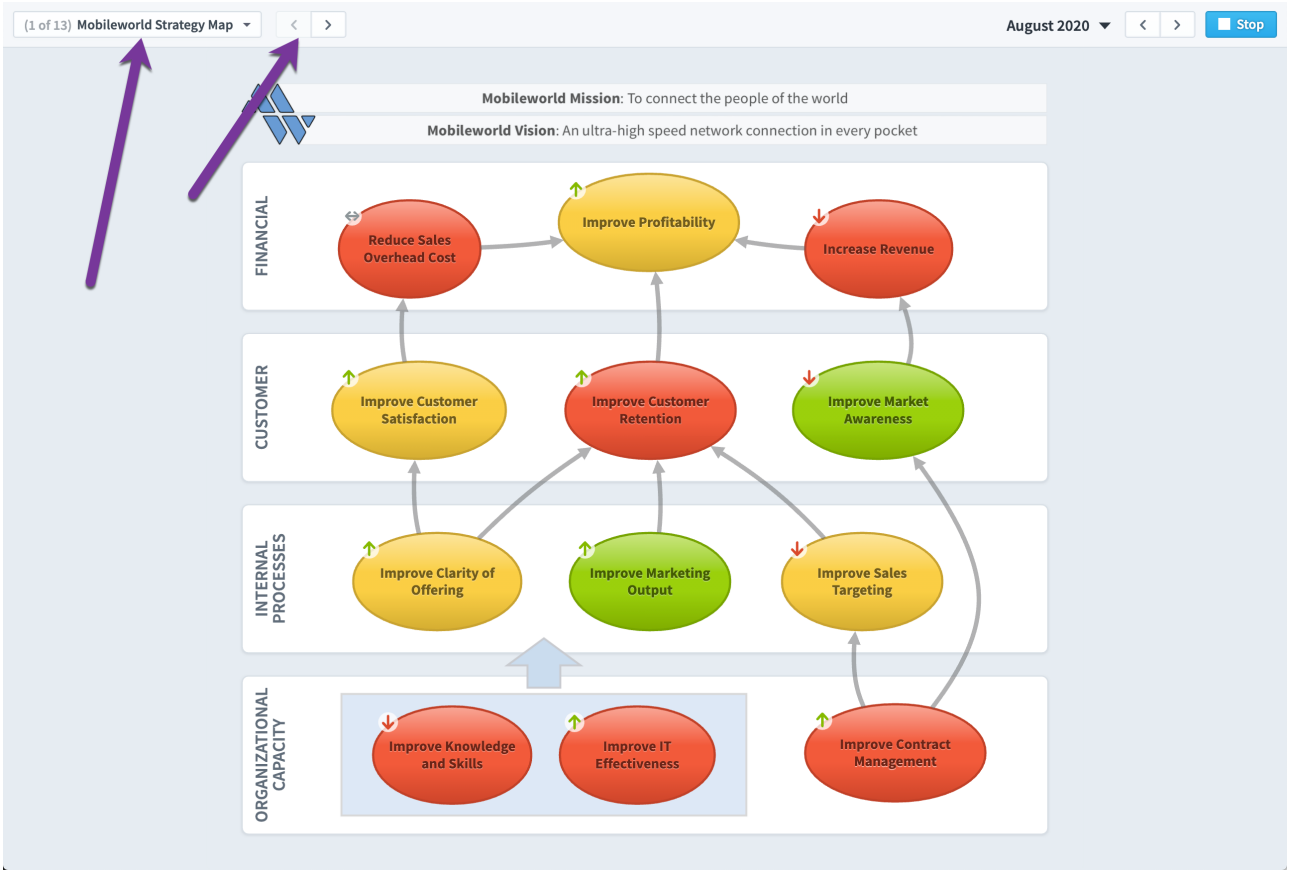
Starting a Briefing

Briefings are collections of pages from throughout Spider Impact. They allow you to run meetings from directly within the software.

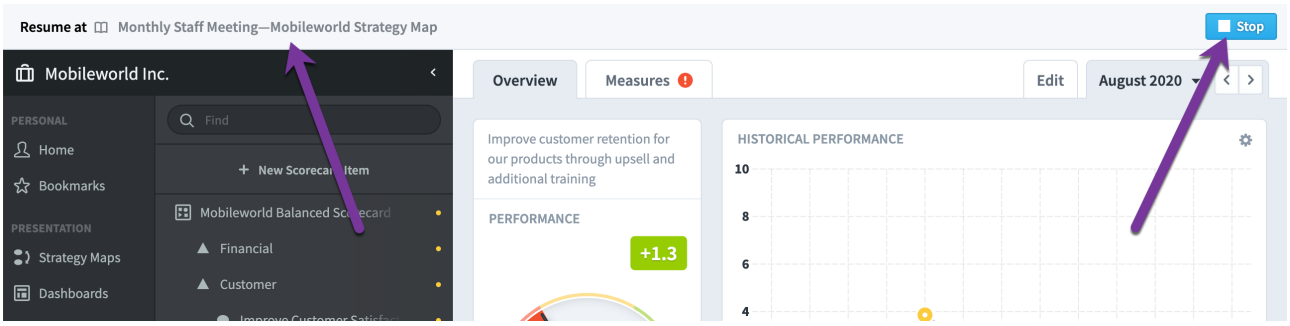
To start a briefing, go to the Briefings section, select which briefing you want, and click Start.



All of the other controls in Spider Impact slide out and you're now in full-screen briefing mode. You can advance through slides using the controls in the upper left corner.

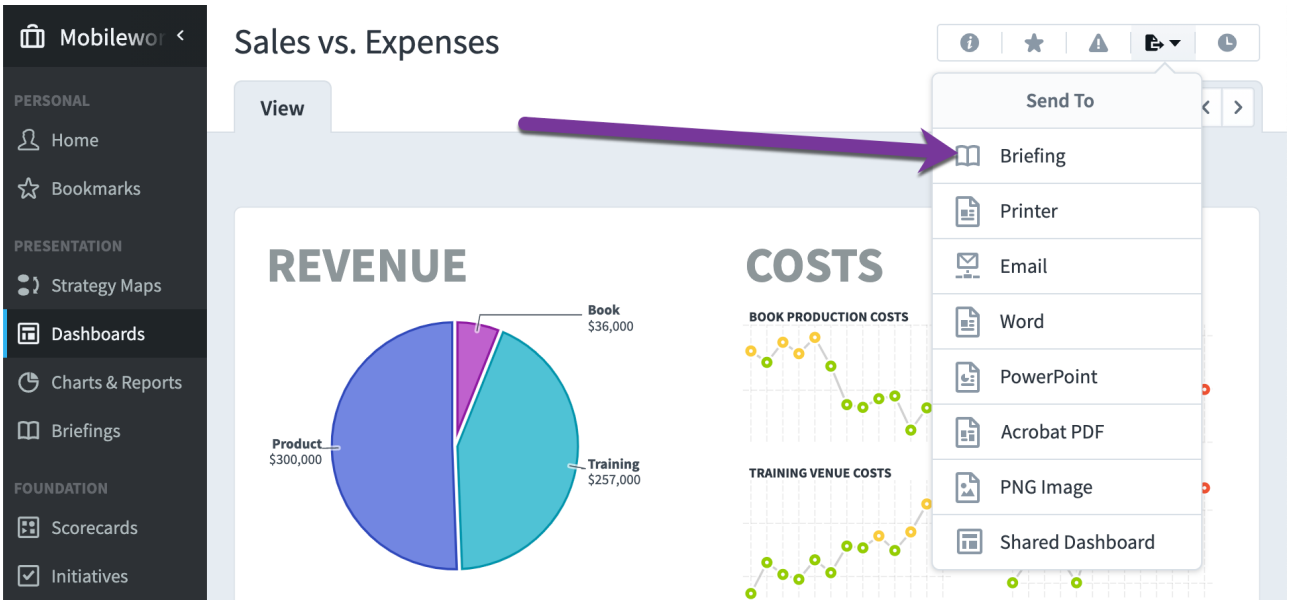


At any point in the briefing you can click on drill-down links in your slides. This will pause the briefing and take you to that section in Spider Impact, allowing you to answer questions on the fly using the live data in the software. The entire time the briefing is paused you'll see a bar on the top of the screen with links to stop or resume the briefing on the same slide you were on before.

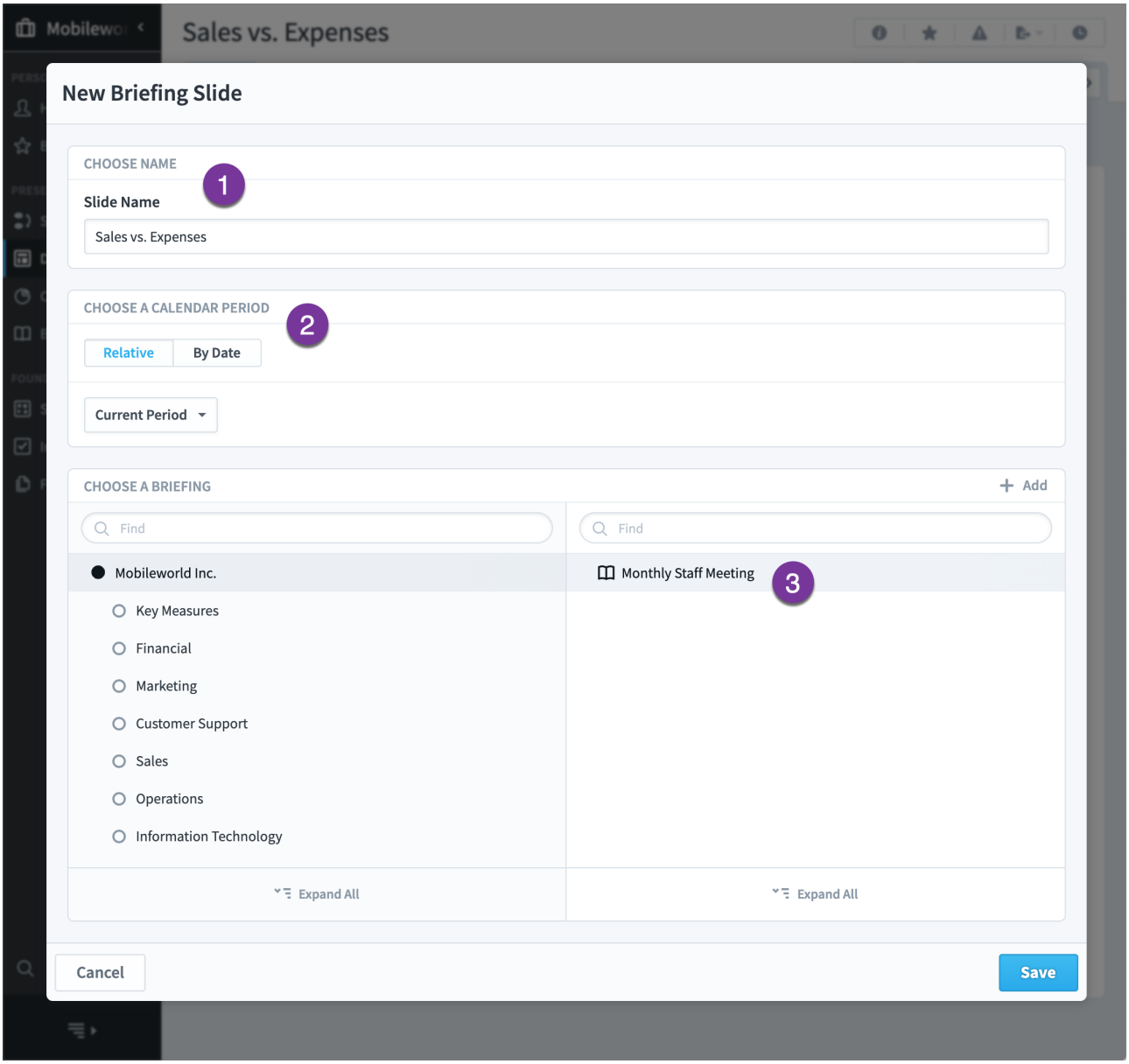


Adding Briefing Slides

You can add slides to a briefing by clicking on the "Send to" button in the top menu bar and choosing Briefing.



This opens a dialog with three things to choose:

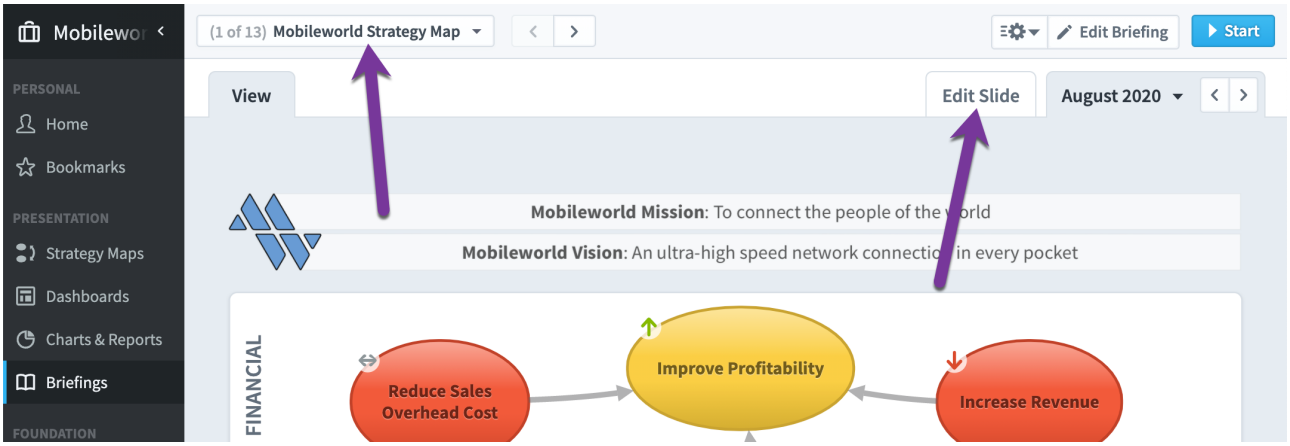


1. **The slide name**. This defaults to the name of the item you're adding.
2. A **calendar period** for the slide. We'll explain this more below.
3. Which **briefing** you want to add the slide to.

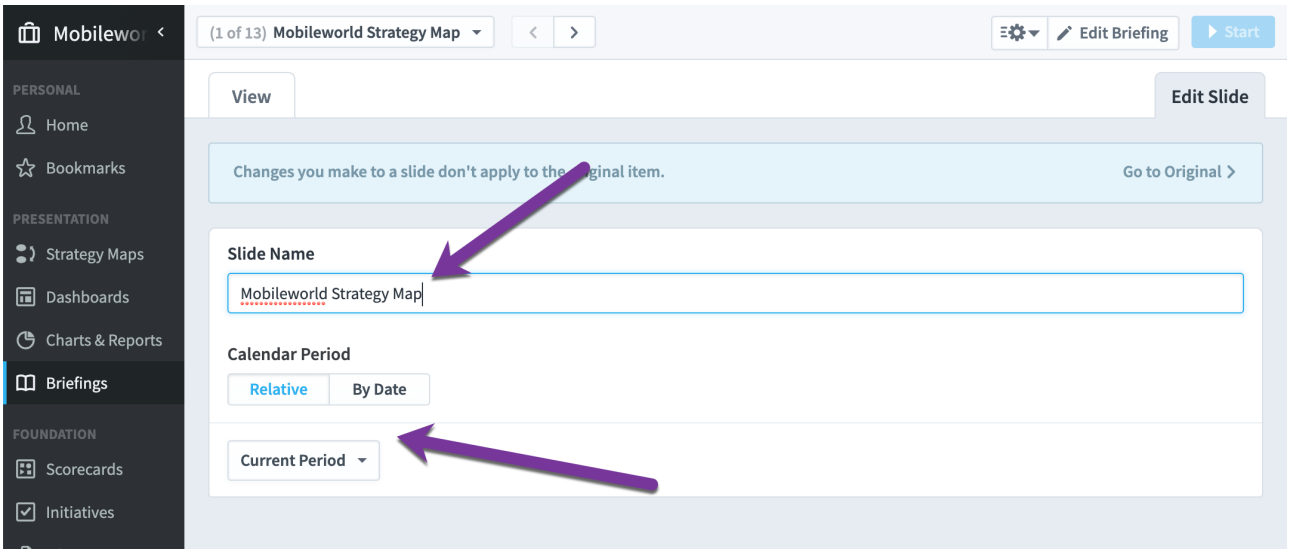
When you click Save, the slide will be added to your briefing.

Editing Slides

You can edit an individual slides in the briefing section by choosing the slide you want in the slide control on the top and then going to the Edit Slide tab.

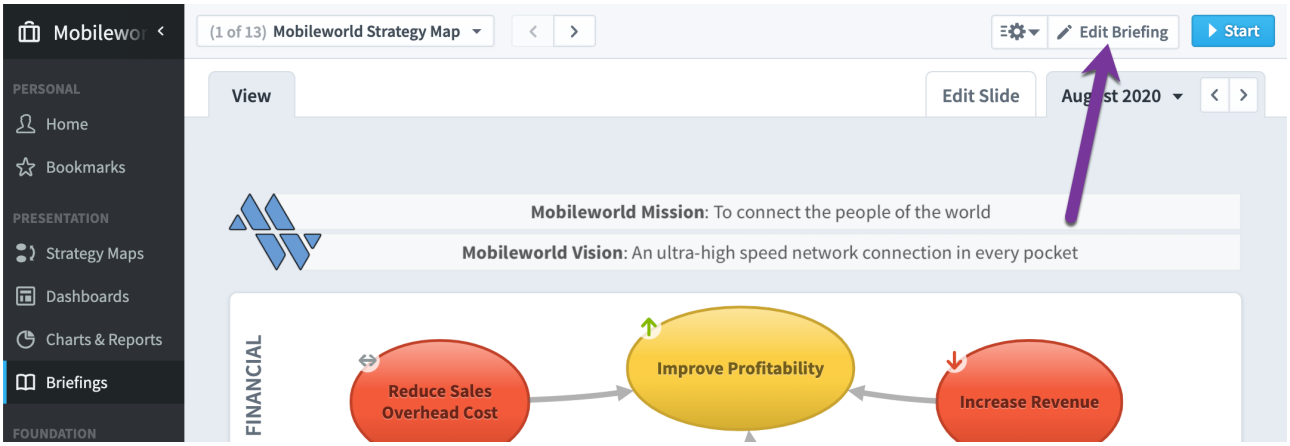


The only things to edit here are the things we set up when creating the slide, its name and calendar period.

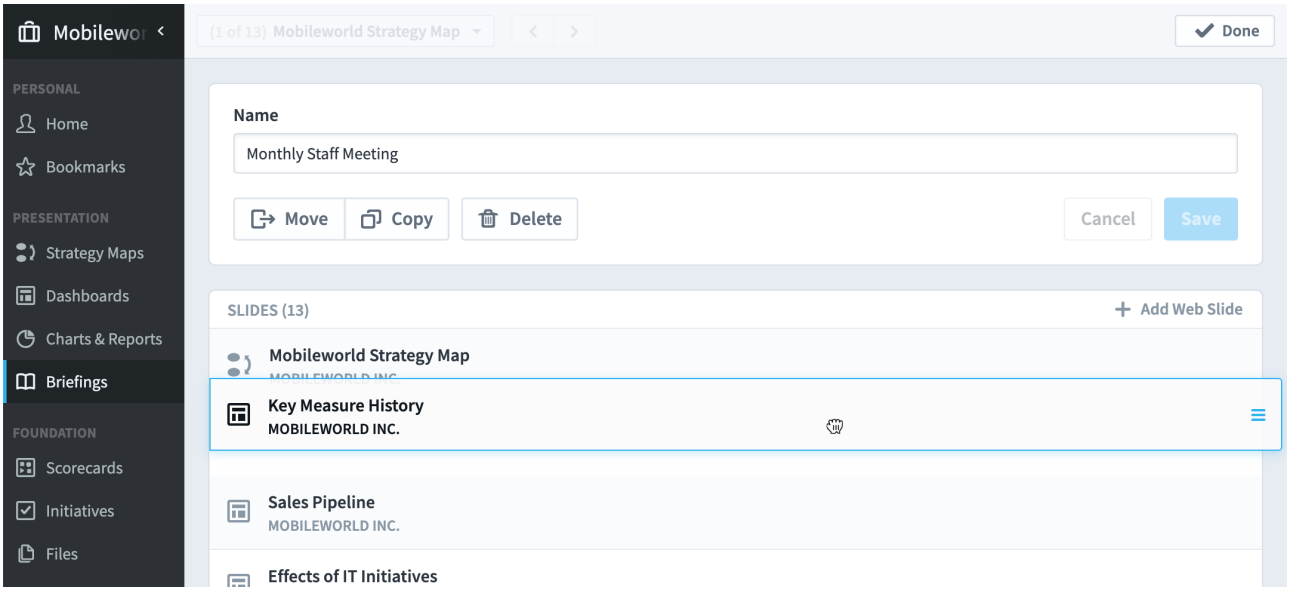


Editing a Briefing

To edit a briefing, click the Edit Briefing button on top.

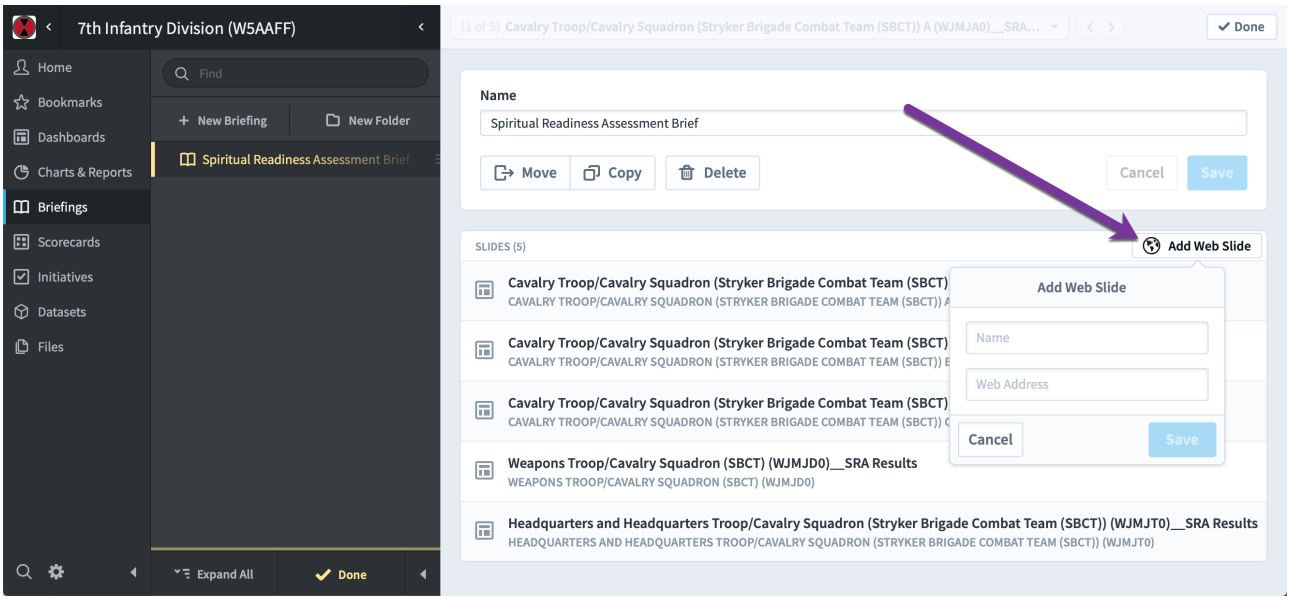


Here you can delete slides, or drag and drop them to rearrange them.

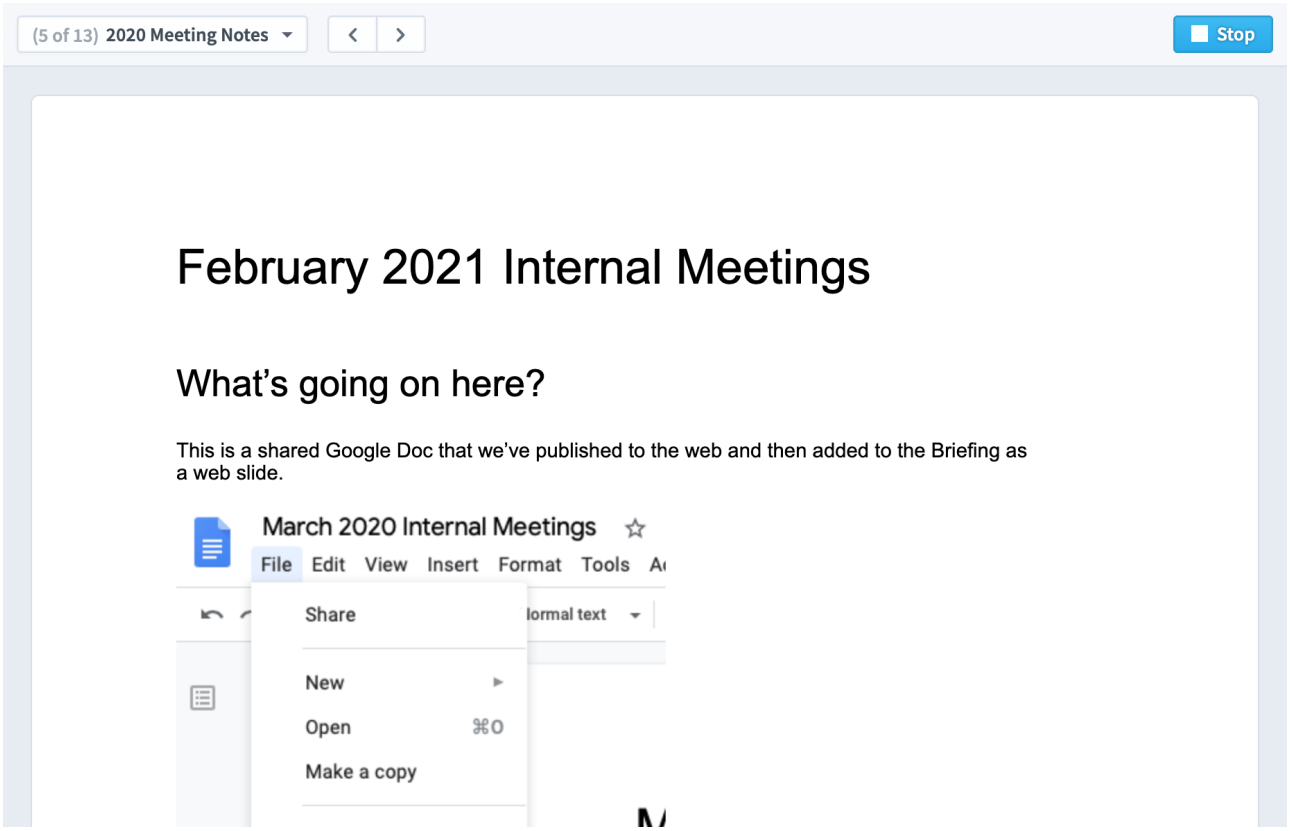


Web Slides

When you're editing a briefing you can also add a Web Slide that shows content from external web pages or web apps that support embedding. This is similar to the embedded content dashboard widget, except that it's an entire briefing slide rather than a widget on a dashboard.



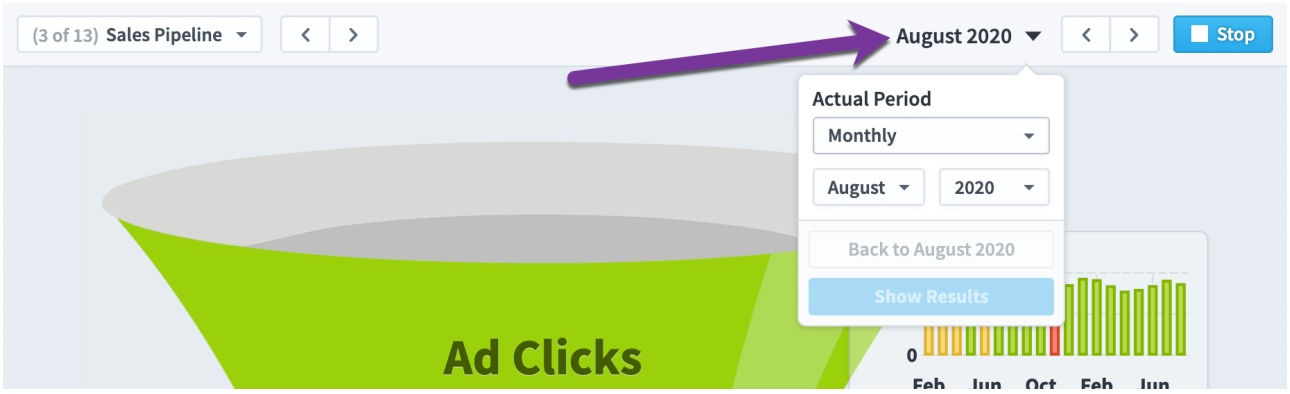
For example, here we're showing an embedded Google Doc that has meeting notes we want to review.



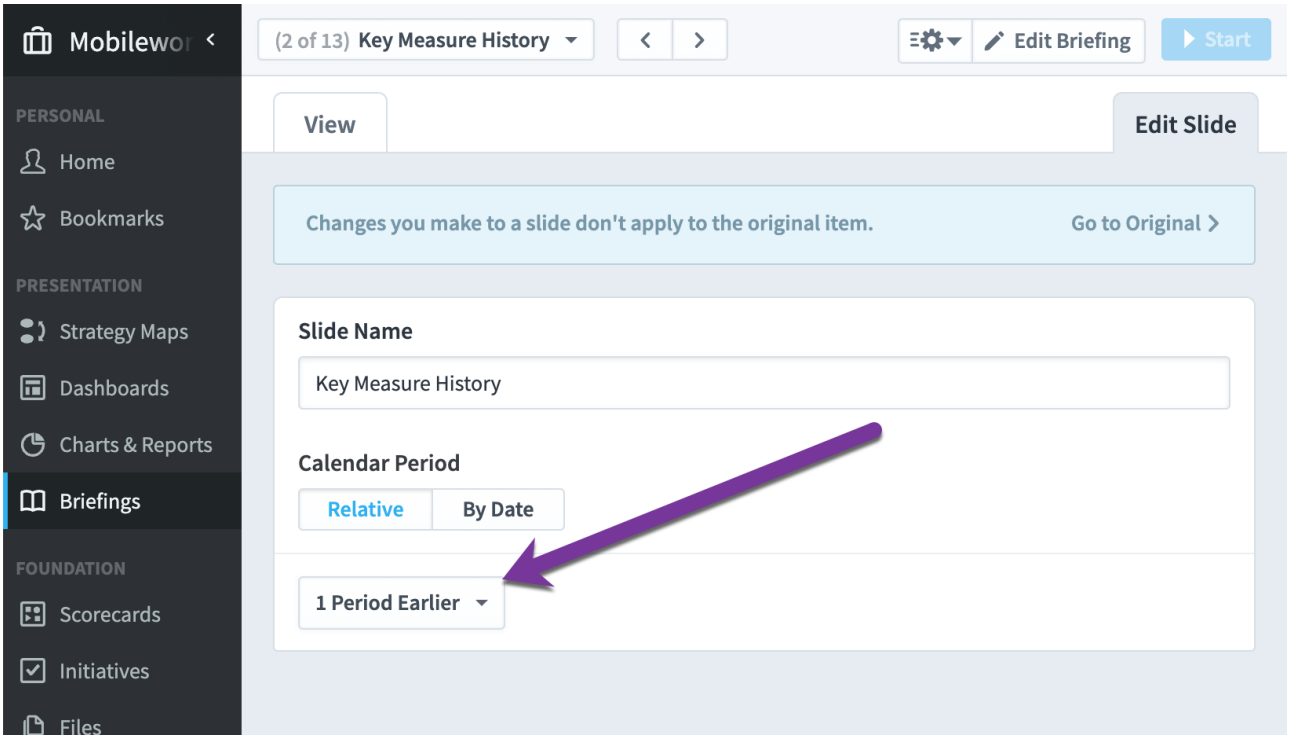
See the embedded content dashboard widget article for other embedding examples, like Power BI reports.

Briefing Slide Calendar Periods

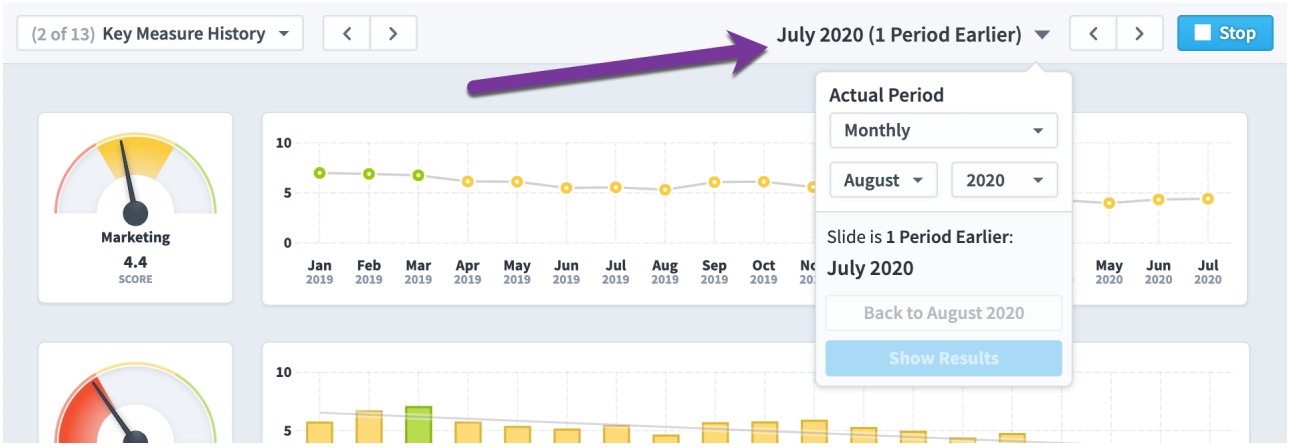
Throughout the software, Spider Impact has a calendar period selector in the upper right corner that shows you the period for the data that you're viewing. It works the same in dashboards as it does everywhere else. If you click the name of the calendar period on top, you can choose to view another period.



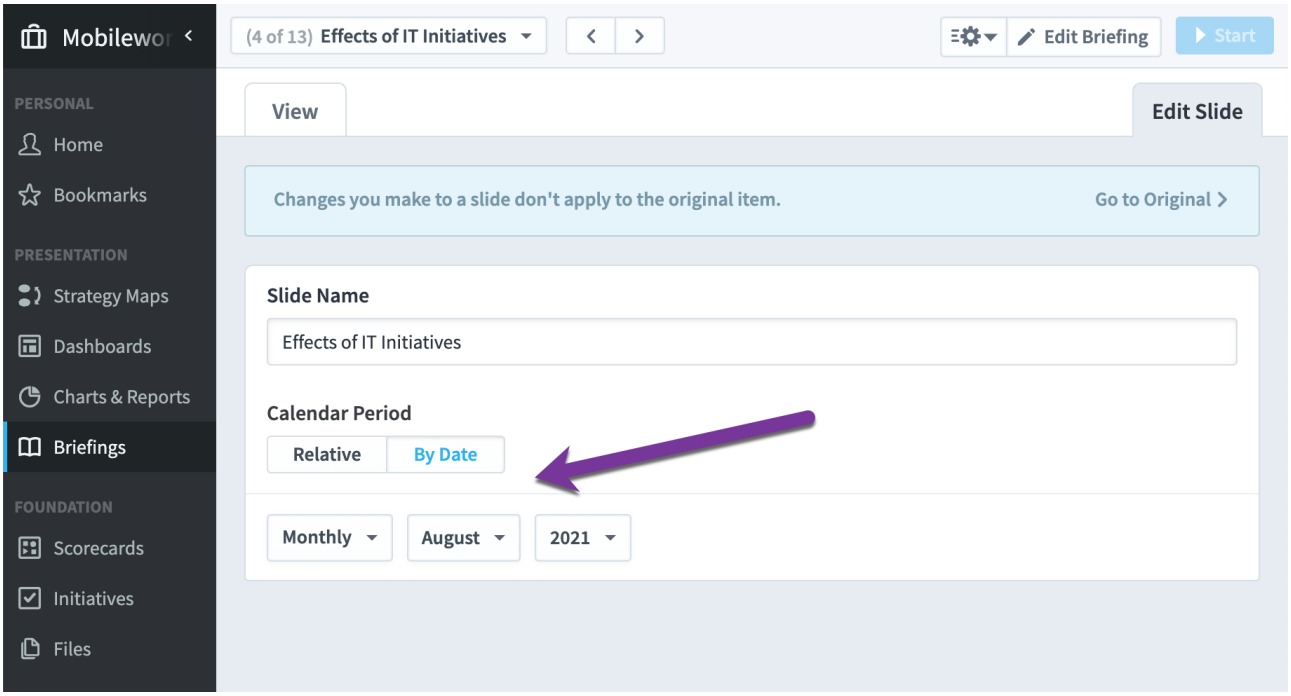
You can choose which calendar periods to show for individual slides, however. In this example, we're changing the Key Measure History slide to show data from 1 period earlier.



During your briefing, you'll this this clearly labeled on the top of your briefing. You can still change the overall calendar period selector, of course, but it's also clear both the overall change you're making and how it will affect your slide.



Similarly, you can choose to show a specific calendar period.



And this is what it looks like during a briefing.



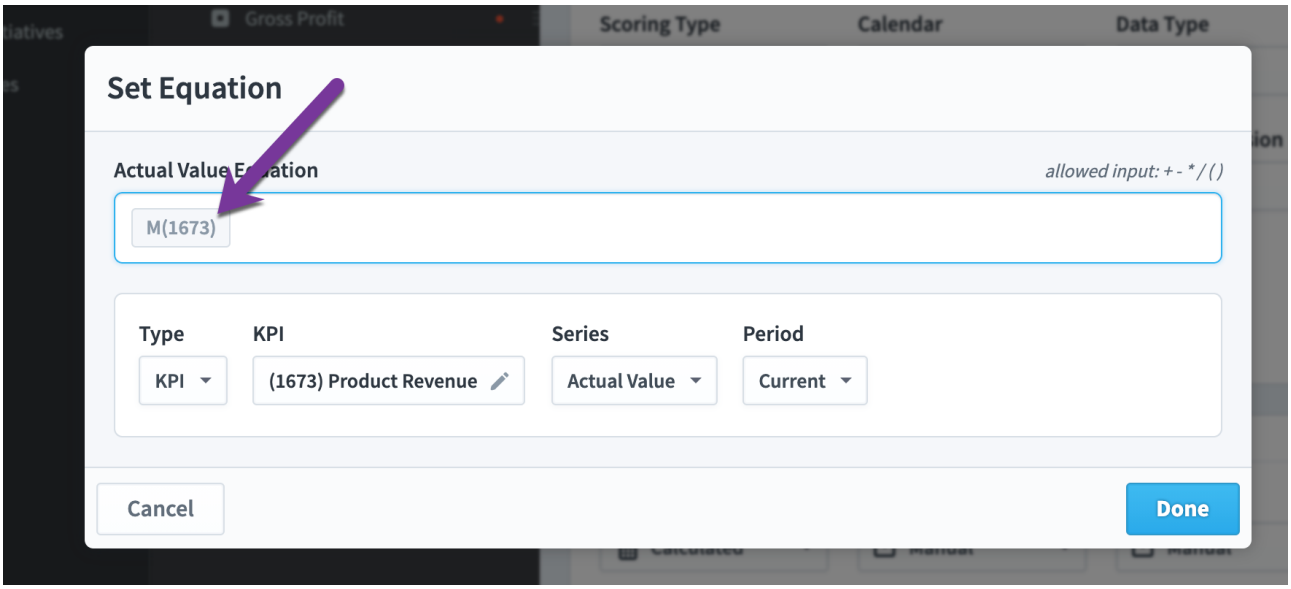
Equations

Equations are great for combining values from other places in Spider Impact. They're used throughout the software for things like calculated KPI values, building dataset fields, and adding advanced filters to reports, charts, and dashboards.

Referencing Other Values

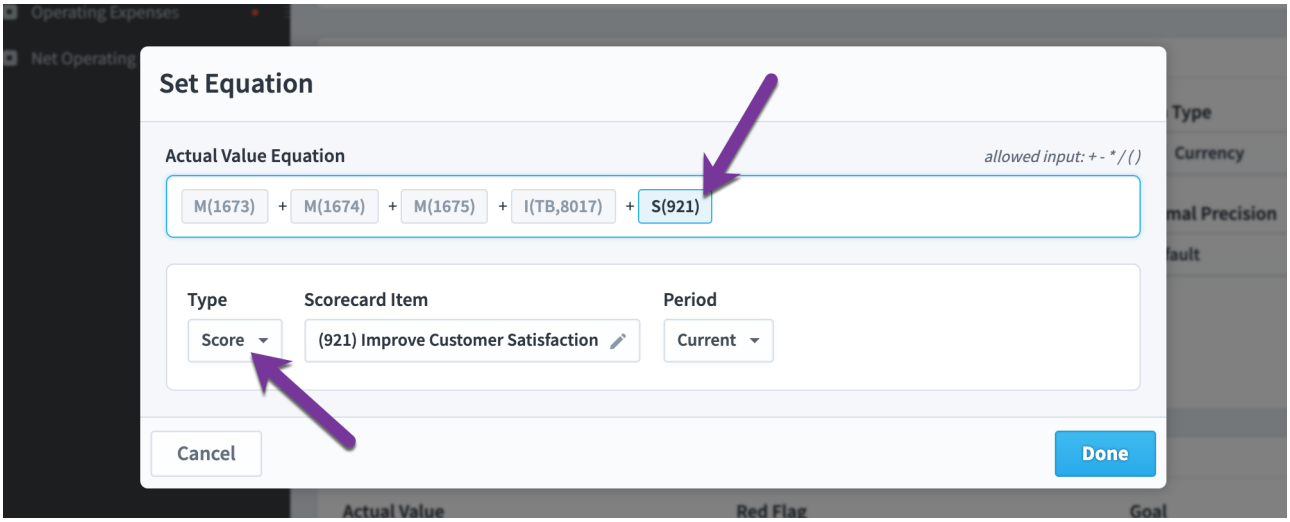
There are several types of values you can reference in equations. KPI values can only be used in calculated KPI equations. They're referenced by scorecard item ID like this:

```
M(123)
```



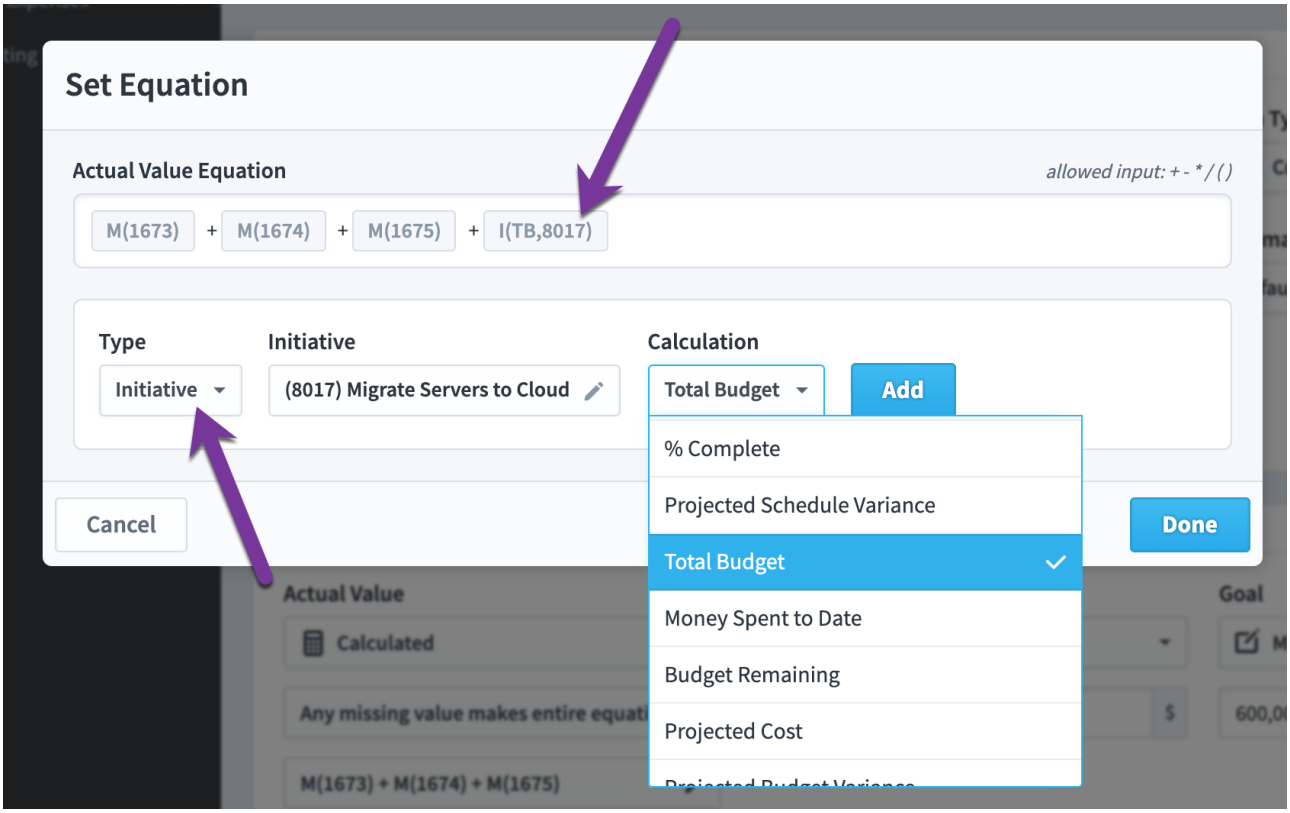
Scorecard item scores are the same kind of thing. They're only used in KPI equations, and they're referenced by scorecard item ID like this:

```
S(123)
```



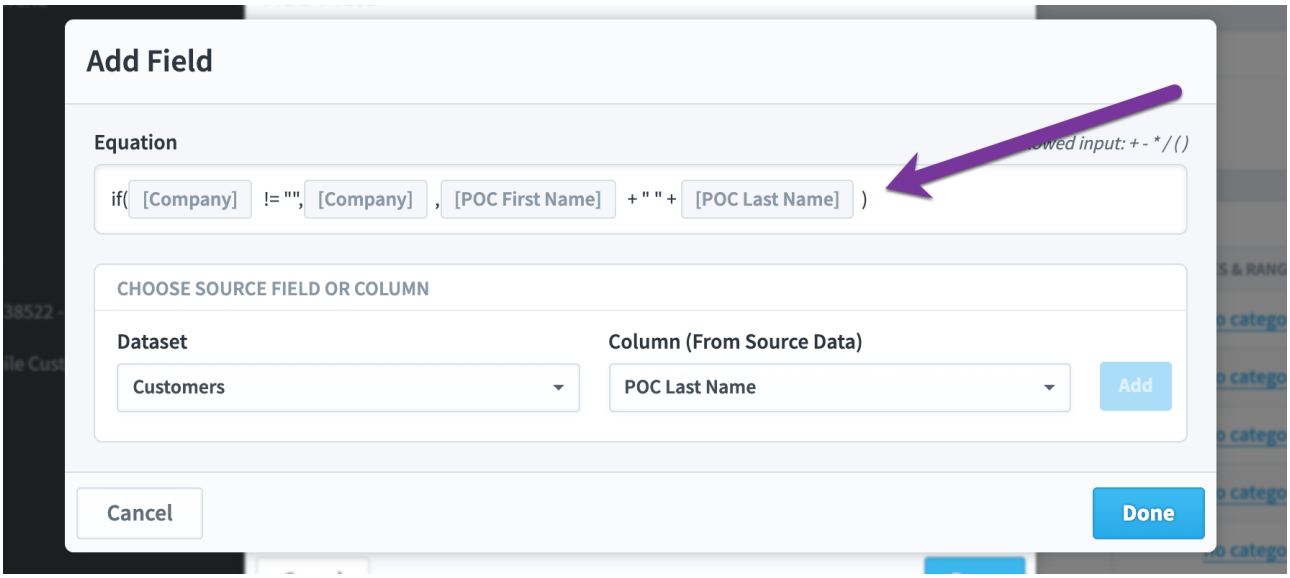
Similarly, initiative values are also only used in calculated KPI equations. They're referenced by initiative ID and field like this:

```
I(BR, 123)
```



Dataset values are different. They can only be used in calculated dataset fields and filters. They're referenced by field name like this:

```
[Incident Date]
```



This is just the start of what you can do with references to other values. Please see the the Calculated KPIs and Dataset Equations: Fields and Filters articles for more information.

If/Else

The syntax for an IF statement is:

```
if(condition, truevalue, falsevalue)
```

Here's an example equation. "If the value for KPI #123 is 5, this equation returns 10. Otherwise return 0."

```
if(M(123) == 5, 10, 0)
```

Note that you'll need to use the double equal operator == when checking for an equal value, as explained below.

You can also string together multiple IF statements to create an IF/ELSE chain like this. "If the value for KPI #123 is 5, return 10. Else if the value for KPI #123 is 4, return 100. Else return 0."

```
if(M(123) == 5, 10, if( M(123) == 4, 100, 0))
```

Text (String) Manipulation

You can concatenate text together with the + symbol, and you can reference specific text in quotes. For example, here's how you'd create a new text string that is the first name field, then a space, then the last name field:

```
[First Name] + " " + [Last Name]
```

You can also do text manipulation on numbers if you first tell the software to treat the number like text. In this example, we want to get the first four characters of a number. To do this, we first have to concatenate the number with blank text to turn it into text.

```
left(""+[myNumber],4)
```

Yes/No KPI Values

Yes/No values can be referenced as booleans (true/false) or as numbers (1/0).

In this example, we're building an equation for a number KPI, and we're using the value from a Yes/No KPI in that equation. "If the value for KPI #123 is yes, return 5. Else return 20"

```
if(M(123), 5, 20)
```

It goes the other way too. In this example, we're building an equation for a Yes/No KPI, and we're using the value from a number KPI in that equation. "If the value for KPI #456 is greater than 7 return true. Else return false"

```
if(M(456) > 7, true, false)
```

This is the same as:

```
if(M(456) > 7, 1, 0)
```

Note that in the example above we're using 1 and 0, but any non-zero number will evaluate to Yes in a Yes/No KPI's equation.

Because Yes/No KPI values are treated as 1 and 0, you can even use them in functions just like any other KPI value. In this example we're building an equation for a calculated Yes/No KPI. This equation looks at three other Yes/No KPIs. If most of them are yes, it returns yes. If most are no, it returns no.

```
if(avg(M(123), M(456), M(789)) > 0.5, true, false)
```

Dates

You can determine the number of days between two date fields using subtraction. For example, this would be the number of days between the incident date and the report date:

```
[Report Date] - [Incident Date]
```

You can adjust a date by a certain number of days using the plus and minus operators (+ and -). For example, this means 5 days after the incident date:

```
[Incident Date] + 5
```

and this means 5 days before the incident date:

```
[Incident Date] - 5
```

You can adjust a date by years, months, or days by using the add() and subtract() functions. For example, this would be three months after the incident date.

```
add([Incident Date], 3, "months")
```

and this would be one year before the incident date:

```
subtract([Incident Date], 1, "years")
```

You can reference specific attributes of a date by using the month(), year(), dayofweek(), dayofmonth(), and dayofyear() functions. Months are returned as 1 (for January) - 12 (for December) and days of the week return 1 (for Sunday) - 7 (for Saturday). For example, if the incident rate for a record were on July 1st, 2022, this would return a value of 7:

```
month([Incident Date])
```

And this would return 184:

```
dayofyear([Incident Date])
```

To reference the current date, use the today() function:

```
today()
```

You can parse dates from strings that are in ISO-8601 format with the date() function. For example, this evaluates to December 31st, 2018:

```
date("2018-12-31")
```

If the date string isn't in ISO-8601, you can tell Impact how to parse the dates with Y, M, and D characters. If mydate were formatted like 3/15/2020 you'd use:

```
date(mydate, "m/d/y")
```

If mydate were formatted like 15-Mar-20 you'd use:

```
date(mydate, "d-m-y")
```

If mydate were formatted like March 15, 2020 you'd use:

```
date(mydate, "m d, y")
```

Like all functions in equations, you can combine multiple date functions together. For example, here's how to determine the number of days in the current year:

```
dayofyear(year(today())+"-12-31")
```

Operators

Spider Impact supports a wide variety of operators in equations.

Arithmetic Operators

Operator	Symbol	Description
Addition	+	Adds two values
Subtraction	-	Subtracts the right value from the left value
Multiplication	*	Multiplies two values
Division	/	Divides the left value by the right value
Power	^	Raises the left value to the power of the right value
Modulus	%	Returns the remainder when the left value is divided by the right value

Comparison Operators

Operator	Symbol	Description
Equal	==	Checks if two values are equal
Not Equal	!=	Checks if two values are not equal
Less Than	<	Checks if the left value is less than the right value
Greater Than	>	Checks if the left value is greater than the right value
Less Than or Equal	<=	Checks if the left value is less than or equal to the right value
Greater Than or Equal	>=	Checks if the left value is greater than or equal to the right value

Logical Operators

Operator	Symbol	Description
Boolean AND	&&	Returns true if both operands are true
Boolean OR	||	Returns true if at least one operand is true
Boolean NOT	!	Inverts the boolean value of its operand

Unary Operators

Operator	Symbol	Description
Unary Plus	+x	Represents the identity of x
Unary Minus	-x	Negates the value of x

Functions

This is a comprehensive list of all functions available in Spider Impact. Please see the Calculated KPIs article for more information and examples about using the most popular functions in KPI equations, and the Dataset Equations: Fields and Filters article for information and examples about using dataset equations.

Calculated KPI Functions	**Format**
Empty (blank, null) KPI value check	isblank(kpi_id)
N/A (not applicable) KPI value check	isna(kpi_id)
KPI's own value	M()
KPI's own threshold	T(field)
KPI's own value in another period (three earlier)	M(-3p)
KPI's own threshold in another period	T(field, -3p)
another KPI value	M(kpi_id)
another KPI threshold	T(kpi_id, field)
another KPI value in another period	M(kpi_id, -3p)
another KPI threshold in another period	T(kpi_id, field, -3p)
another scorecard item score	S(item_id)
another scorecard item score in another period	S(item_id, -3p)
initiative item's value (see Calculated KPIs for list of fields)	I(field, initiative_id)

To-date aggregation (Sum or Average)	TD(calendar, kpi_id, field, aggregation)

Text (String) Functions	**Format**	**Notes**
Empty (blank, null) check	isblank(mystring)	returns true or false
Concatenation	mystring1 + mystring2	
Convert number to string	str()	
Left	left(mystring, 4)	first 4 characters
Right	right(mystring, 4)	last 4 characters
Middle	mid(mystring, 2, 3)	3-character string starting at the second character
Substring	substr(mystring, 2, 3)	Starting at the second character and ending at the third
Substring	substr(mystring, 2)	Everything starting at the second character
Lower Case	lower(mystring)	
Upper Case	upper(mystring)	
Length	len(mystring)	
Trim Whitespace	trim(mystring)	

Contains	contains("something", "s")	Returns true, case sensitive
Does not Contain	!contains("something", "s")	Returns false, case sensitive

Date Functions	**Format**
Day Addition, Day Subtraction	+, -
Add months, days, or years	add(mydate, 3, "months")
Subtract months, days, or years	subtract(mydate, 2, "years")
Month [1 (January) to 12 (December)]	month(mydate)
Year	year(mydate)
Day of the week [1 (Sunday) to 7 (Saturday)]	dayofweek(mydate)
Day of the month [1 to 31]	dayofmonth(mydate)
Day of the year [1 to 365]	dayofyear(mydate)
Current date	today()
Date parse (ISO-8601)	date(mydate)
Date parse (example, March 15, 2020)	date(mydate, 'm d, y')

Probability & Statistics Functions	**Format**

Average (ignores blanks)	avg(x1, x2, x3, ...)
Sum	sum(x1, x2, x3, ...)
Minimum (ignores blanks)	min(x1, x2, x3, ...)
Maximum (ignores blanks)	max(x1, x2, x3, ...)
Random Number (between 0 and 1)	rand()
Binomial coefficients	binom(n, i)
Modulus (remainder when x is divided by y)	mod(x,y)

Rounding Functions	**Format**
Round (round up when tied)	round(x), round(x, decimal_places)
Round (round to even value when tied)	rint(x), rint(x, decimal_places)
Floor	floor(x)
Ceiling	ceil(x)
Absolute Value / Magnitude	abs(x)
Signum (-1,0,1 depending on sign of argument)	signum(x)

Trigonometry Functions	**Format**
Sine	sin(x)

Cosine	cos(x)
Tangent	tan(x)
Arc Sine	asin(x)
Arc Cosine	acos(x)
Arc Tangent	atan(x)
Arc Tan with 2 parameters	atan2(y, x)
Secant	sec(x)
Cosecant	cosec(x)
Co-tangent	cot(x)
Hyperbolic Sine	sinh(x)
Hyperbolic Cosine	cosh(x)
Hyperbolic Tangent	tanh(x)
Inverse Hyperbolic Sine	asinh(x)
Inverse Hyperbolic Cosine	acosh(x)
Inverse Hyperbolic Tangent	atanh(x)

Log & Exponential Functions	**Format**
Natural Logarithm	ln(x)
Logarithm base 10	log(x)

Logarithm base 2	lg(x)
Exponential (e^x)	exp(x)
Power	pow(x)
Square Root	sqrt(x)

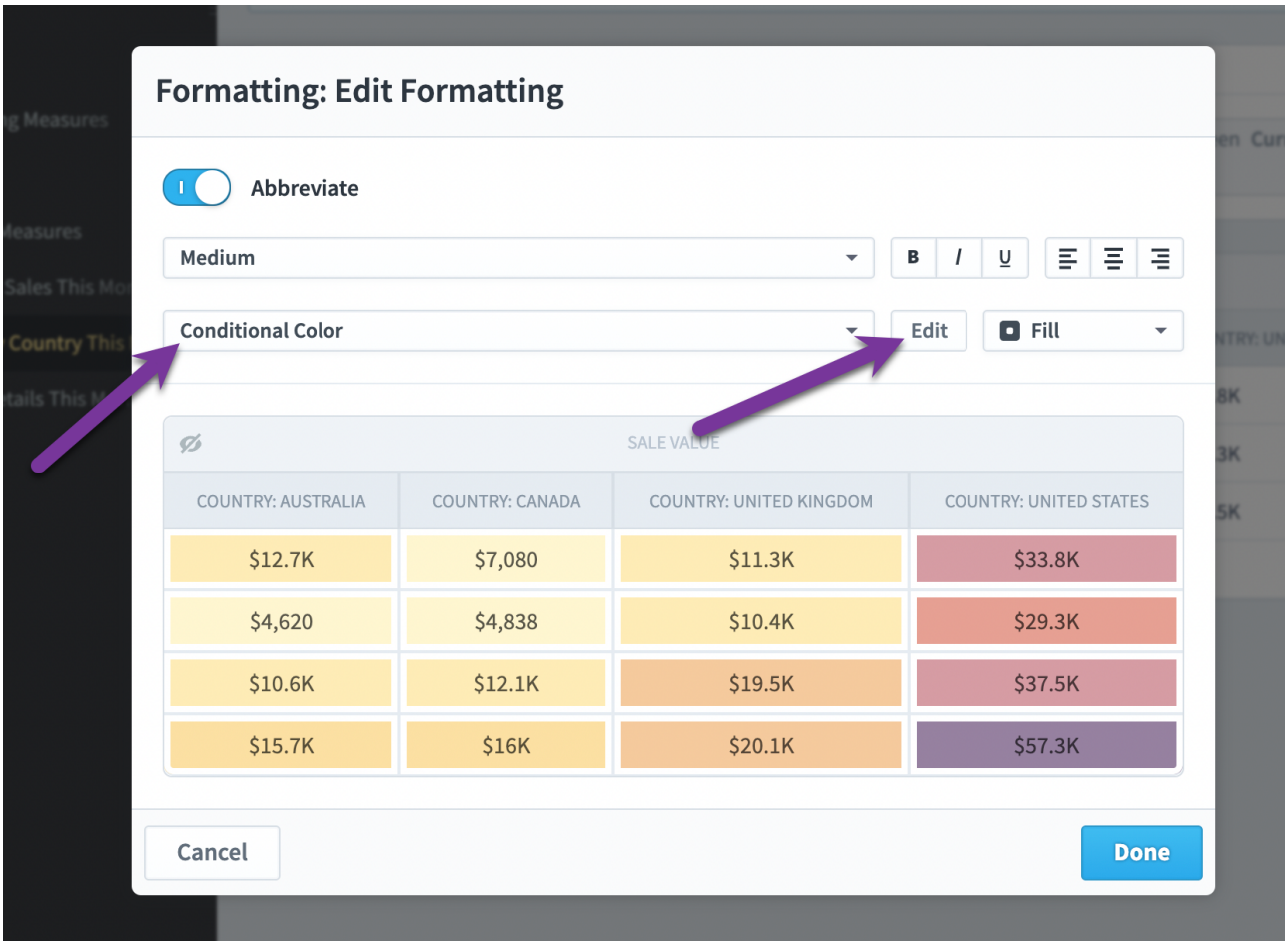
Always use "." for decimal and "," for functions

Many European languages use the "," character for the decimal separator and "." for the thousands separator. For everywhere except equations, Spider Impact looks at your browser's language settings and correctly displays numbers based on your region.

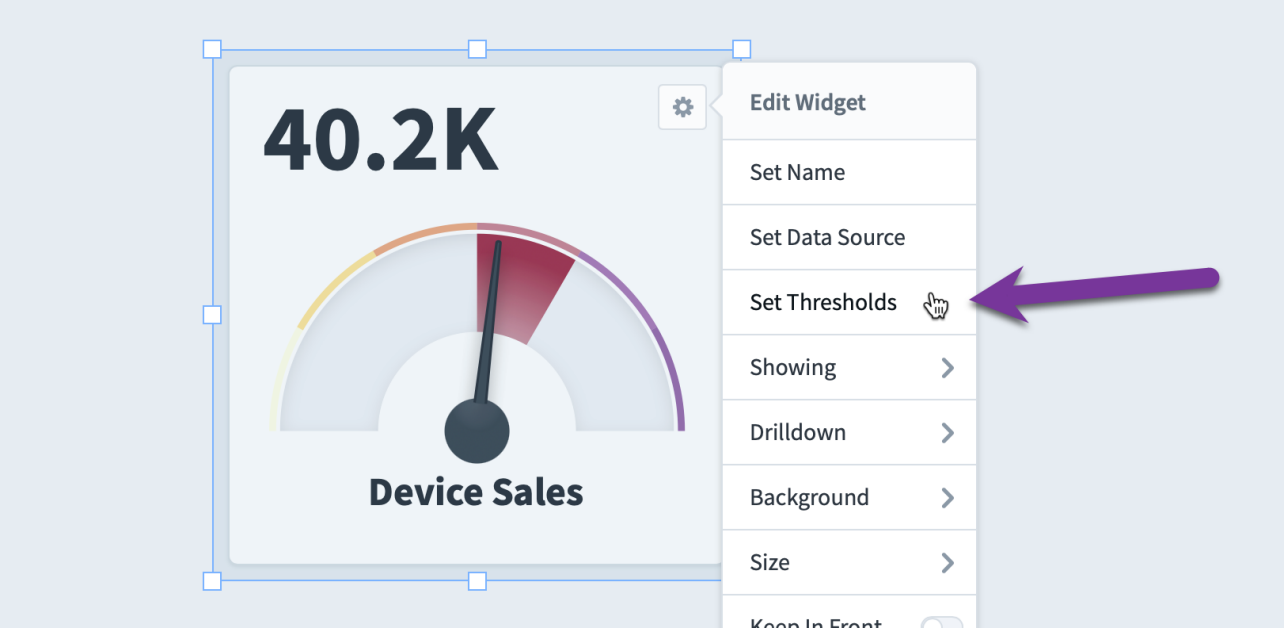
Equations in Spider Impact are different. Regardless of your language settings, you'll need to use "." for decimal separators and "," for separating function arguments. This is common in programming languages and allows you to build advanced equations in Spider Impact that are used across regions.

Conditional Coloring

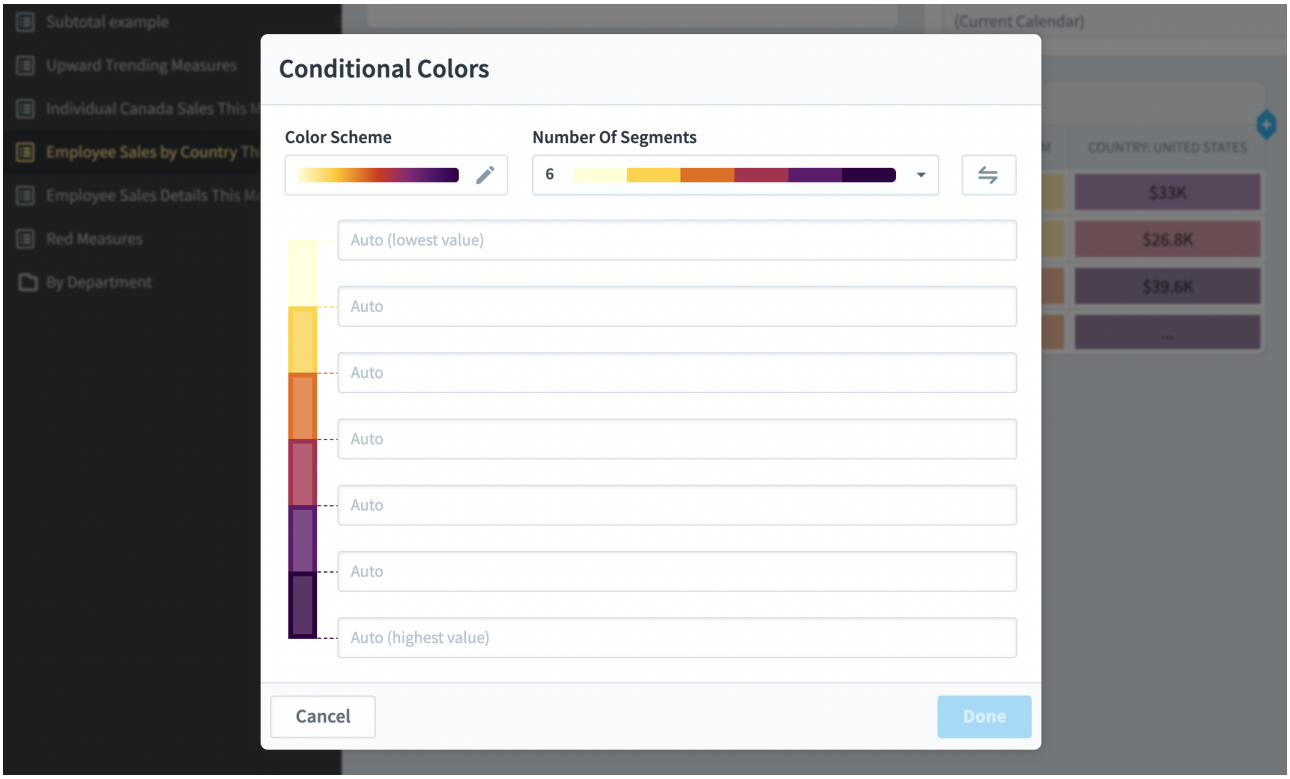
Reports, Speedometers, and Linear Gauge Widgets can use conditional coloring to show a performance color based on the coloring range you define. You can choose conditional coloring in Reports when editing column formatting.



For Speedometer and Linear Gauge widgets you can choose "Set Thresholds" when the data source is a Dataset or Initiative.



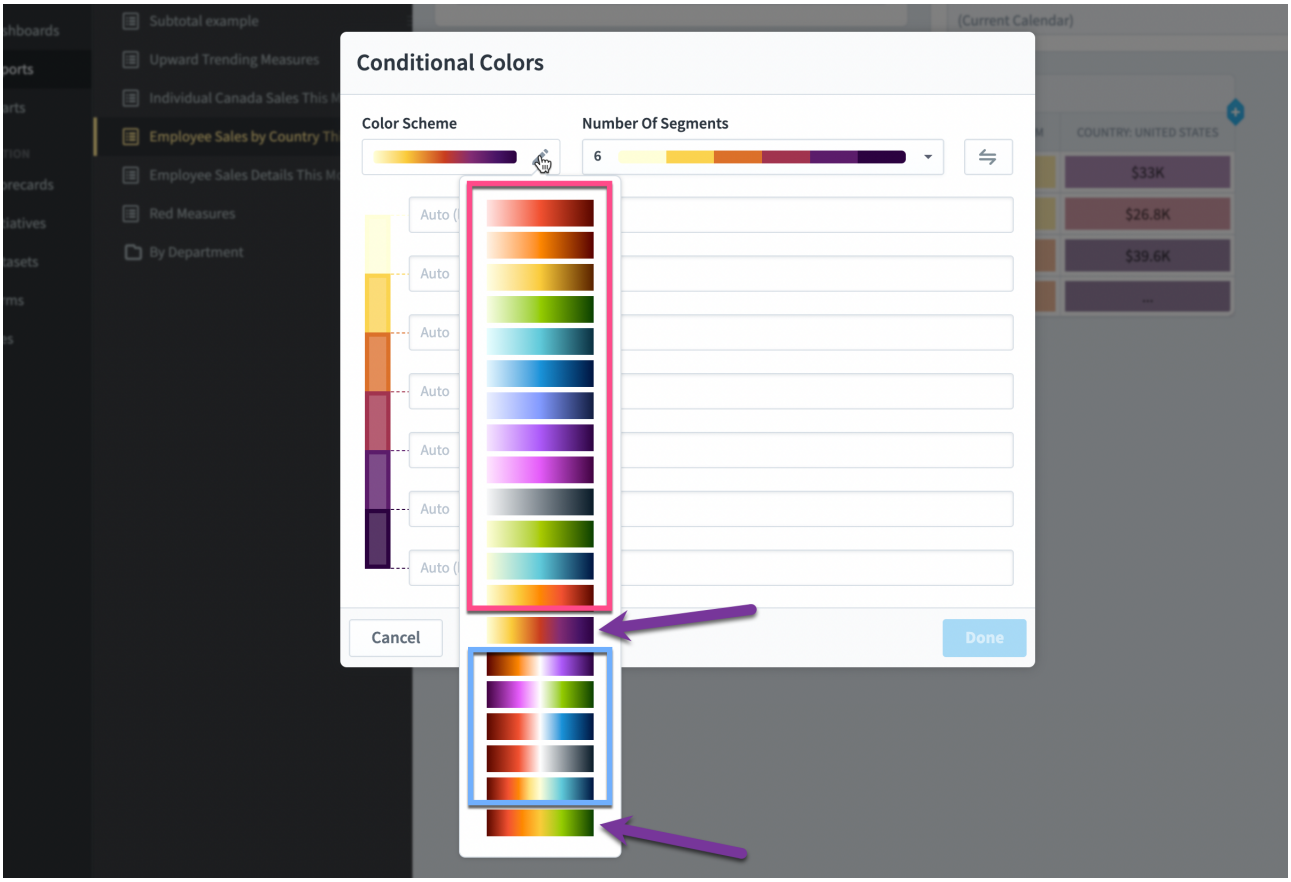
By default there are 6 conditional coloring segments, and all of the color thresholds are set to Auto.



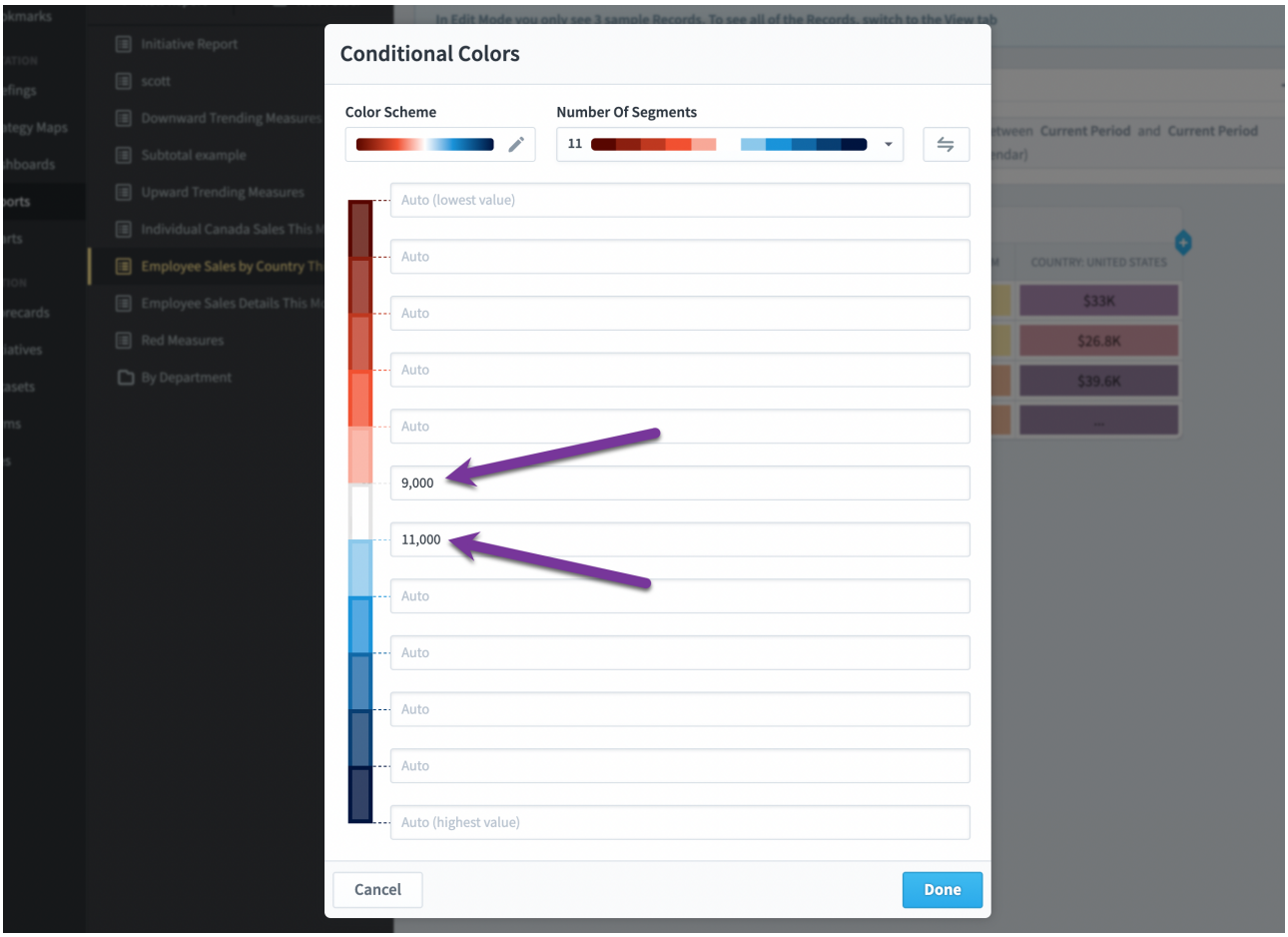
For Speedometers and Linear gauges you'll need to choose a value for the lowest and highest thresholds. If you leave those blank for reports, however, they will find the highest value in the column and lowest value in the column, and then breaks up that range into 6 evenly sized segments. This results in a report that looks like this:

SALES EMPLOYEE	COUNTRY: AUSTRALIA	COUNTRY: CANADA	COUNTRY: UNITED KINGDOM	COUNTRY: UNITED STATES
Delphine Calmes	$4,587	$2,823	$9,467	$33K
Edmond Zehrbach	$5,268	$3,107	$14K	$26.8K
Hollie Pennigton	$4,587	$8,652	$15.2K	$39.6K
Issac Bernhardt	$7,346	$14.5K	$17.3K	$37K
Kym Lavender		$11.4K	$20.9K	
Micheline Turkasz	$10.1K	$9,149	$13.2K	$33.4K
Odell Sheler	$10.4K	$11.7K	$18.3K	$39.5K
Russell Corrick	$25.9K	$18.1K	$34.2K	$28.6K

You can choose from a wide variety of color schemes. The options in the pink box are all smooth gradients that start in a light version of a color and end in a dark version of that color. The options in the blue box have a light color in the middle and have two different dark colors for high and low values. The two purple arrow options are gradients that hit different colors. One is a heat map gradient, and the other is a red/yellow/green scoring gradient.



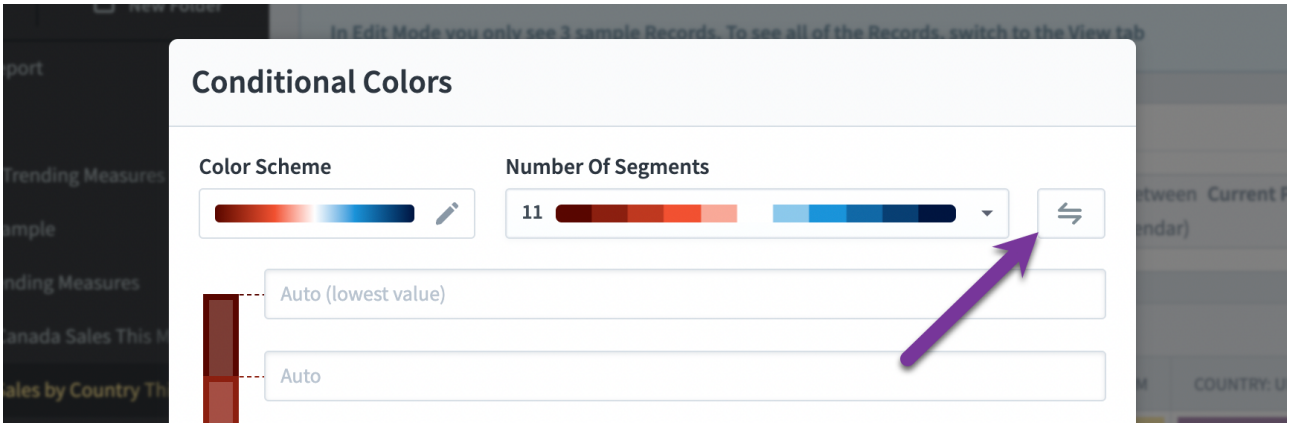
You can also override any of the thresholds to be a specific value. This is helpful when you know acceptable ranges ahead of time. In this example we've changed the color scheme and we've increased the number of segments. We've also added thresholds so that anything with a value between $9k and $11k will be white. Anything above that will be increasingly darker shades of blue. Anything below will be increasingly darker shades of red.



The report now looks like this.

SALES EMPLOYEE	COUNTRY: AUSTRALIA	COUNTRY: CANADA	COUNTRY: UNITED KINGDOM	COUNTRY: UNITED STATES
Delphine Calmes	$4,587	$2,823	$9,467	$33K
Edmond Zehrbach	$5,268	$3,107	$14K	$26.8K
Hollie Pennigton	$4,587	$8,652	$15.2K	$39.6K
Issac Bernhardt	$7,346	$14.5K	$17.3K	$37K
Kym Lavender		$11.4K	$20.9K	
Micheline Turkasz	$10.1K	$9,149	$13.2K	$33.4K
Odell Sheler	$10.4K	$11.7K	$18.3K	$39.5K
Russell Corrick	$25.9K	$18.1K	$34.2K	$28.6K

There's a "Flip" button to flip the color order. In this example, higher values are now red and lower values are now blue.



This creates a report that looks like this.

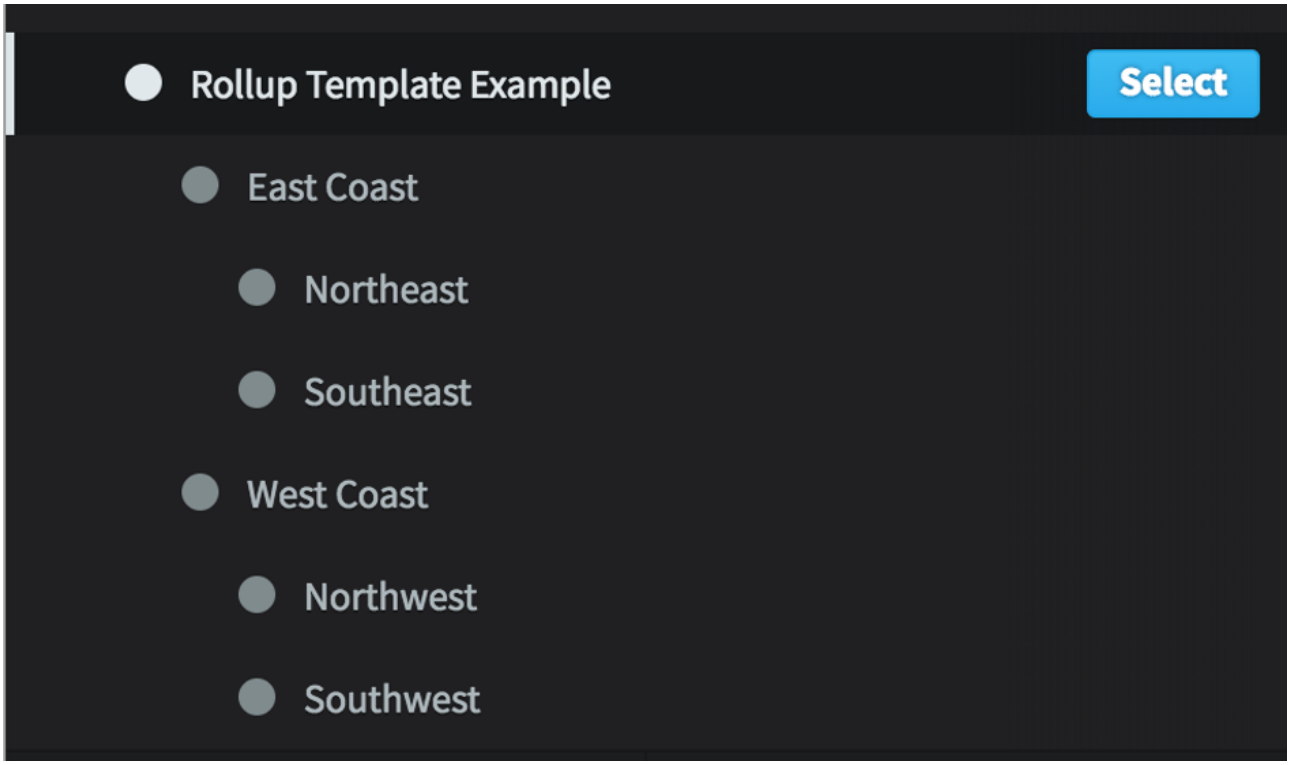
SALES EMPLOYEE	COUNTRY: AUSTRALIA	COUNTRY: CANADA	COUNTRY: UNITED KINGDOM	COUNTRY: UNITED STATES
Delphine Calmes	$4,587	$2,823	$9,467	$33K
Edmond Zehrbach	$5,268	$3,107	$14K	$26.8K
Hollie Pennigton	$4,587	$8,652	$15.2K	$39.6K
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Micheline Turkasz	$10.1K	$9,149	$13.2K	$33.4K
Odell Sheler	$10.4K	$11.7K	$18.3K	$39.5K
Russell Corrick	$25.9K	$18.1K	$34.2K	$28.6K

Organizations and Templates

Rolling Up KPIs Across Organizations

Overview

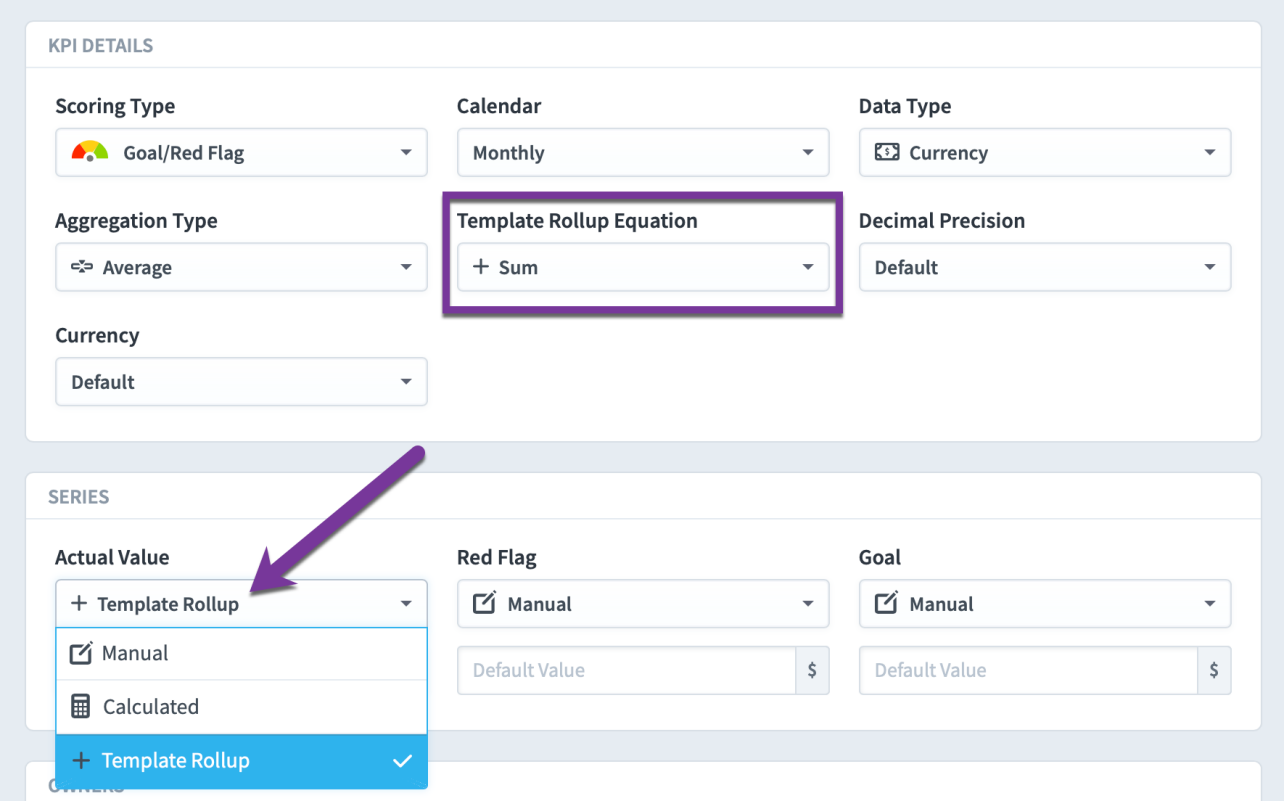
You can use templated organizations to create an organization tree that tracks the same KPIs for each organization. With rollup KPIs, you only have to update the KPIs at the bottom of the tree. The software will then automatically roll the KPI values up the tree to create totals for the KPIs in the higher organizations.



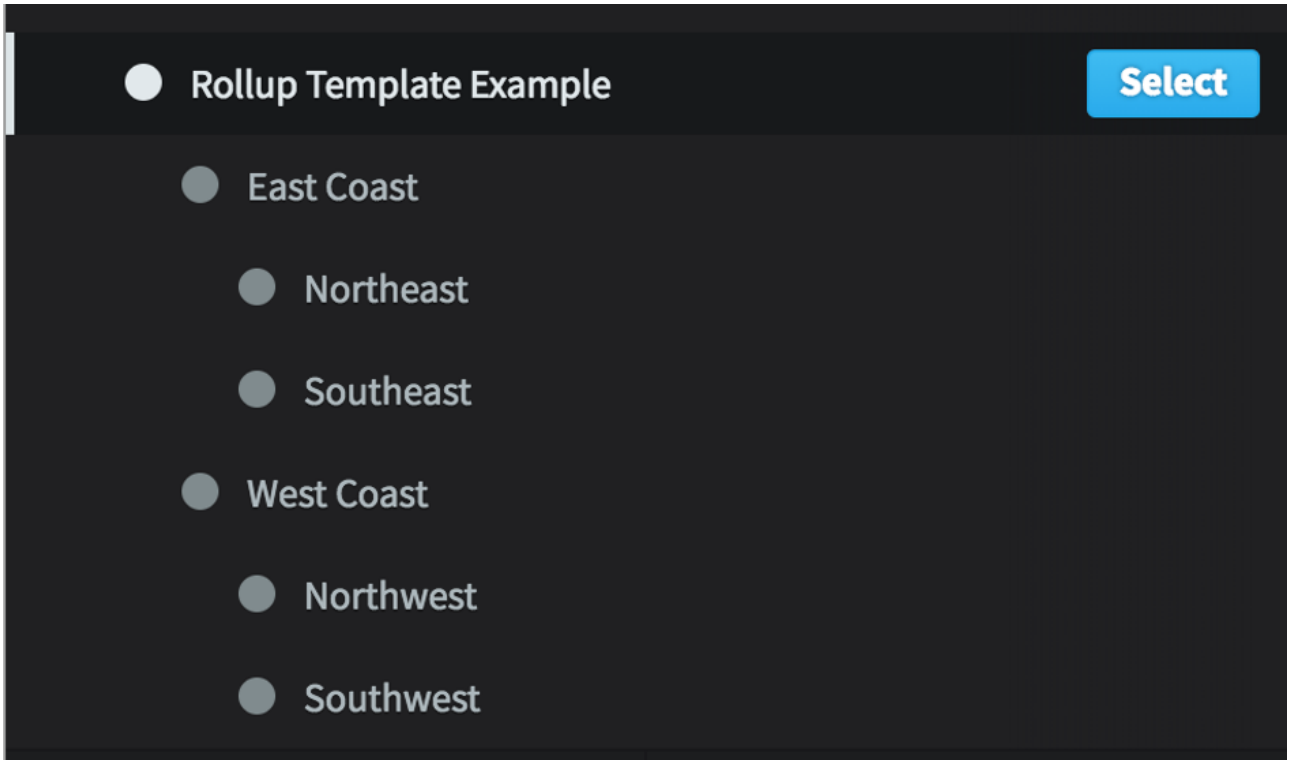
Building Rollup KPIs

KPI values can be updated in a variety of ways. They can be updated manually, they can be calculated, or they can be part of template rollups. When you select the "Template Rollup" update type, Spider Impact automatically aggregates the KPI values from children organizations that are based on the same organization template.

To set up these automated rollup KPIs, first create an organization that you want to use as your template. Any KPIs in the template that you want to be automatically calculated should have the update type of "Template Rollup." You also can change the Template Rollup Equation, which determines how the KPI values will be aggregated together as they're rolled up the organization tree.

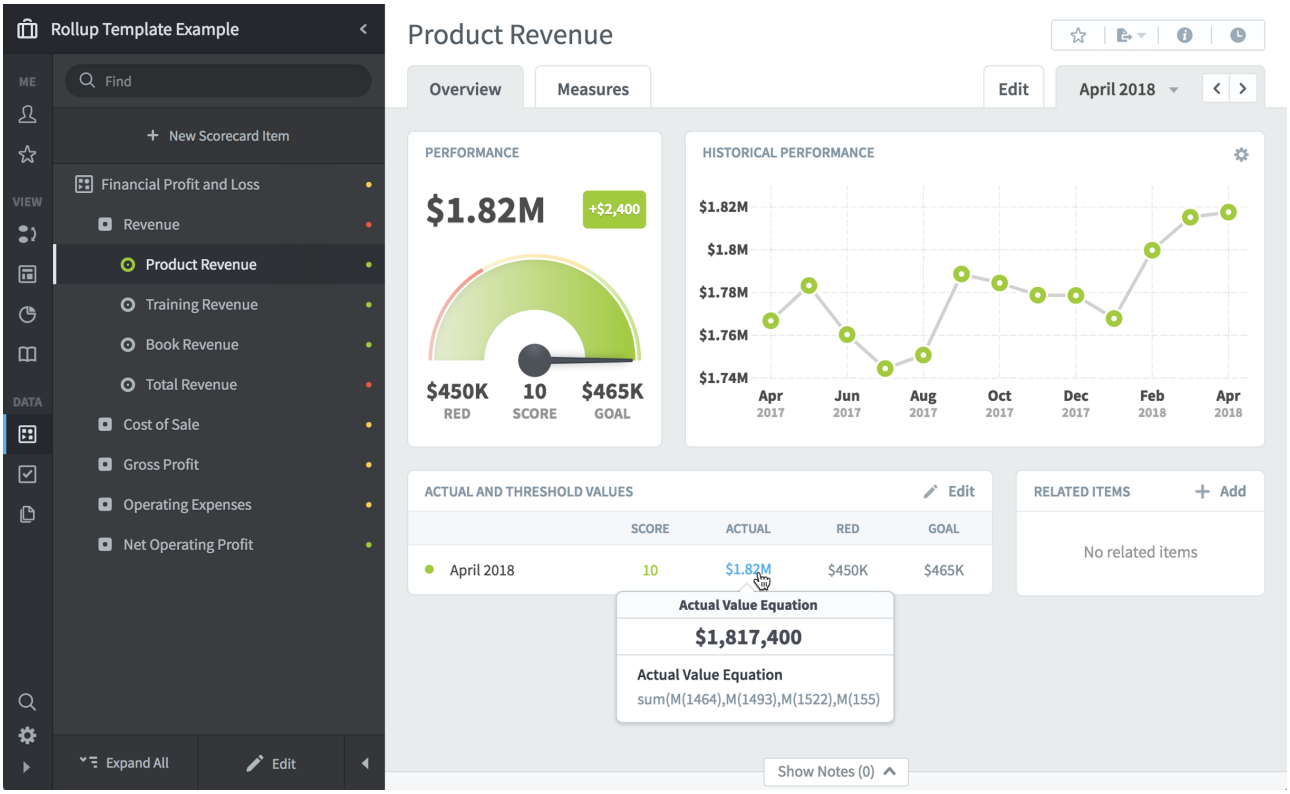


Once you've created your organization with rollup KPIs, the next step is to create templated copies of that organization in a tree structure. In this example, "Rollup Template Example" is the template organization we built, and the six organizations underneath it are templated copies.

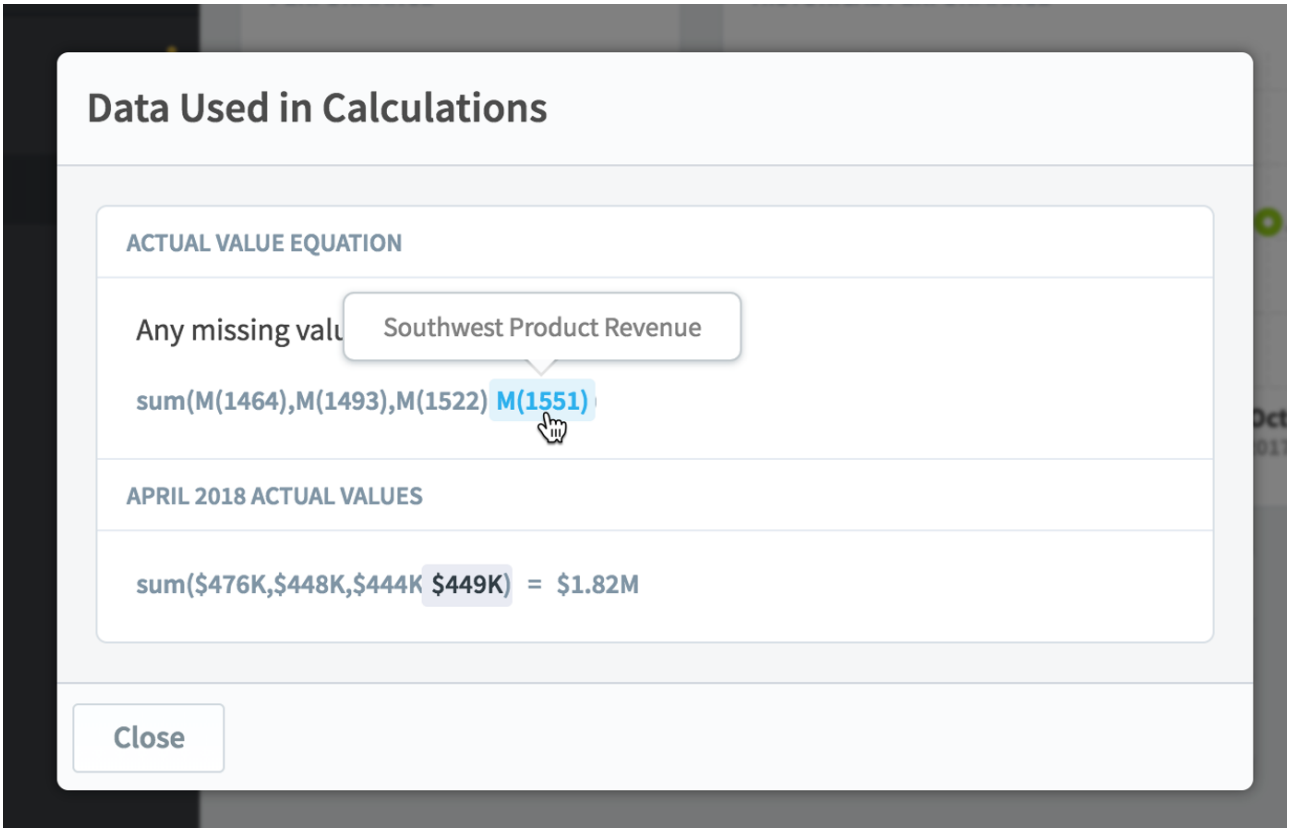


Finally, update the KPIs in the organizations at the bottom of the organization tree. The KPIs in the organizations higher up the tree will automatically have calculated values based on the KPIs in lower organizations.

For example, when we go to the highest-level organization and hover over the "product revenue" actual value, we can see that its actual value is being automatically calculated.



We can click on this value to see more information about where the data actually comes from.

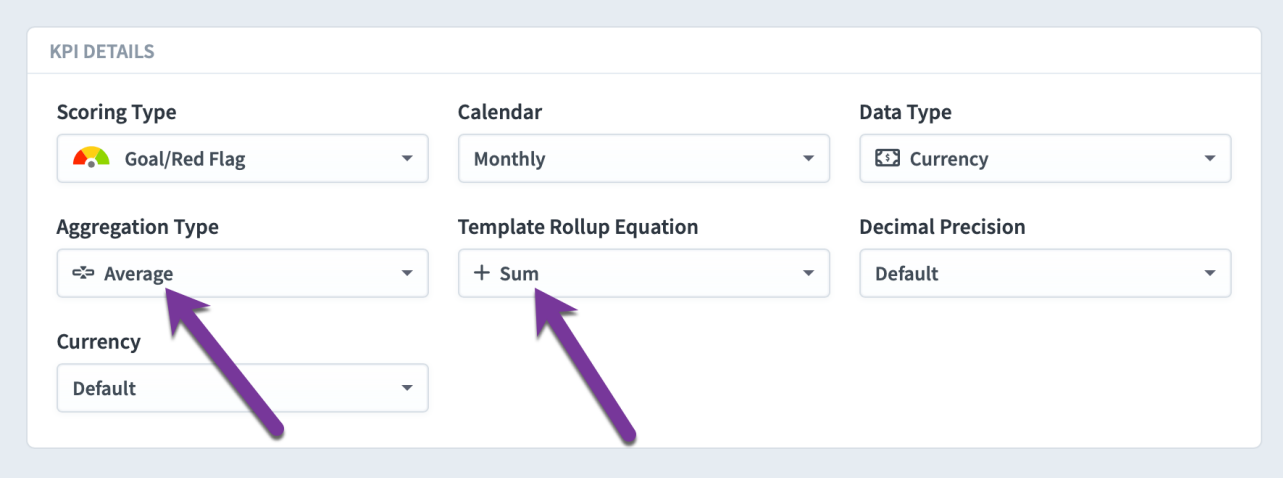


By hovering over the different parts of the equation, we can see that this highest-level KPI is the sum of the KPIs in the four organizations at the bottom of the tree. If you remember, though, the rollup tree is three levels deep. Why is the automatic template rollup equation skipping the middle level of the tree and going directly to the lowest level?

That's on purpose. For "sum" template rollup equations, the results would be the same either way, and it makes things a little simpler to show where the data is really coming from. For "average" template rollup equations, skipping the middle levels avoids some messy math problems that you'd get by taking averages of averages.

Separate Tree and Time Aggregations

Rollup KPIs are aggregated in two different ways. The template rollup equation is used when aggregating values up the organization tree. The aggregation type is used when aggregating smaller calendar periods into larger calendar periods, like turning monthly values into a yearly value.



An example will make it easier to understand the need for separate ways to aggregate. Let's say we run a large waste disposal company and we'd like to reduce the number of trucks that are out of service due to them being repaired. We have dozens of trucks in each city, and thousands of trucks across each region, so we realize that there will always be some that are broken. We just want to minimize that number over time.

We'll create a KPI called "Number of trucks out of service" that will track the number of broken trucks. We'll also make it a rollup KPI and build out a multi-level templated organization structure that matches our company.

So, we have a rollup KPI that takes the number of broken trucks and aggregates them up the org tree. What should the template rollup equation be? Sum makes the most sense, because the number of broken trucks at the regional level would be the sum of all broken trucks in that region's cities.

Now, how do we aggregate our broken truck KPIs over time? That's a little trickier. Let's say each of the cities update their KPI with a new value every week. What should each city's KPI value be when you look at it yearly? It doesn't really make sense to add all of the weekly values together. That would mean that the more often you measure the KPI, the higher the yearly value will be.

For this KPI, an average aggregation type makes the most sense. If you measure the number of broken trucks every week, and average those numbers over a year, you can good a good feel for how many trucks are out of service most of the time.

With this KPI structure, you could go to a region in the organization tree, change the application calendar to monthly, and you could see the average number of broken trucks in that region for that month. Each city updates their broken truck KPI every week, and the software takes care of the rest.

And that's why there are two different ways to aggregate rollup KPIs. There are situations like our example above where the KPI value should be summed up the rollup tree but averaged over time.

Rollup KPIs Without Templates

The vast majority of the time, rollup KPIs are only used in templated organizations. You may notice, however, that the "Template Rollup" update type shows up as an option for KPIs that aren't part of a template. That's because in some rare situations, you may want to use rollup KPIs with non-templated organizations.

The requirements for non-template structure are the same as templated. The organizations still need to be in a tree, and the scorecard structures that you're using for rollup KPIs need to have the same names. The only difference is that the software is matching the KPIs based on their names and their ancestor's names rather than the template they're using.

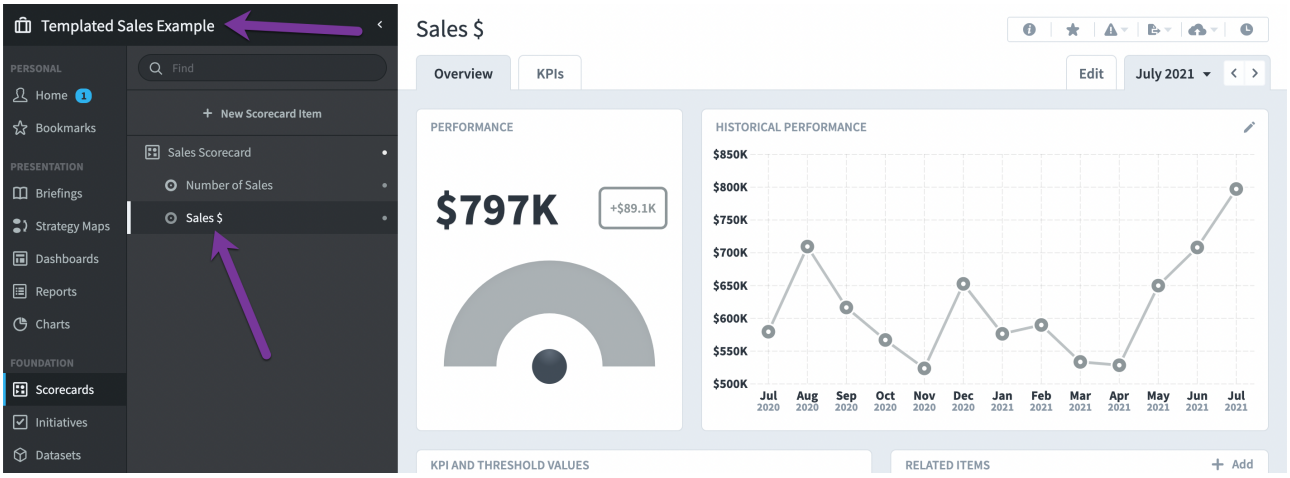
This is so uncommon, however, that we decided to call the update type "Template Rollup," even though the organizations don't technically have to share a template.

Templated Organizations from Datasets

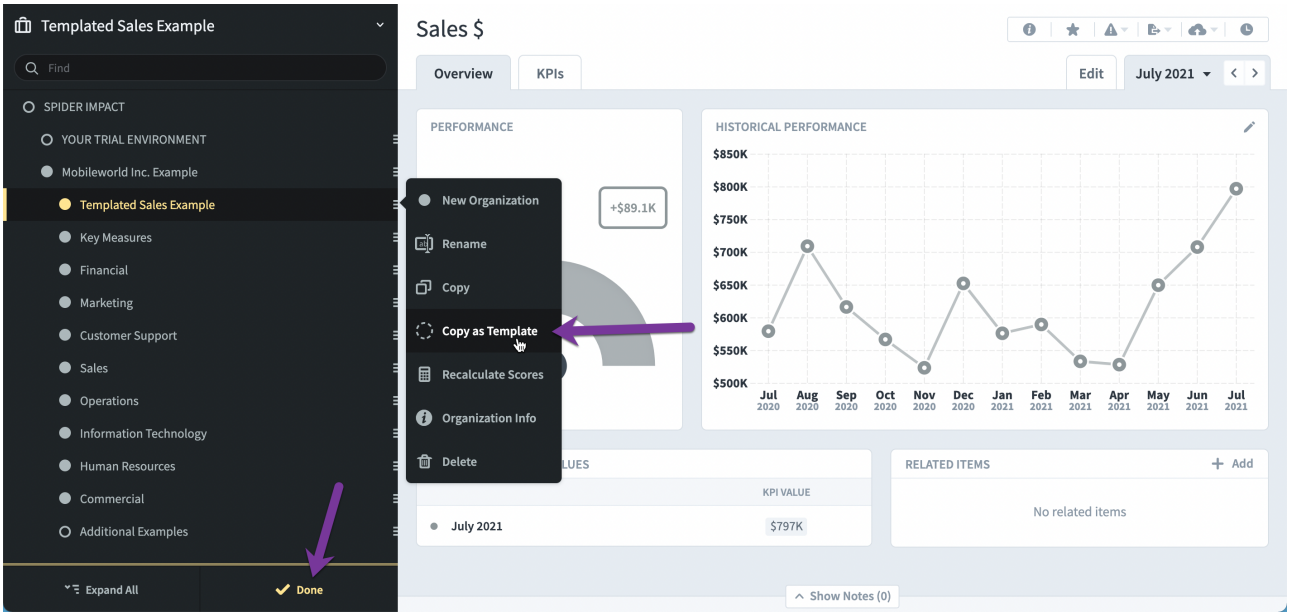
Templated organizations based on dataset values

Organization templates allow you to quickly roll out similar scorecard structures to multiple organizations. When your organizations have dataset KPIs, this process is even easier.

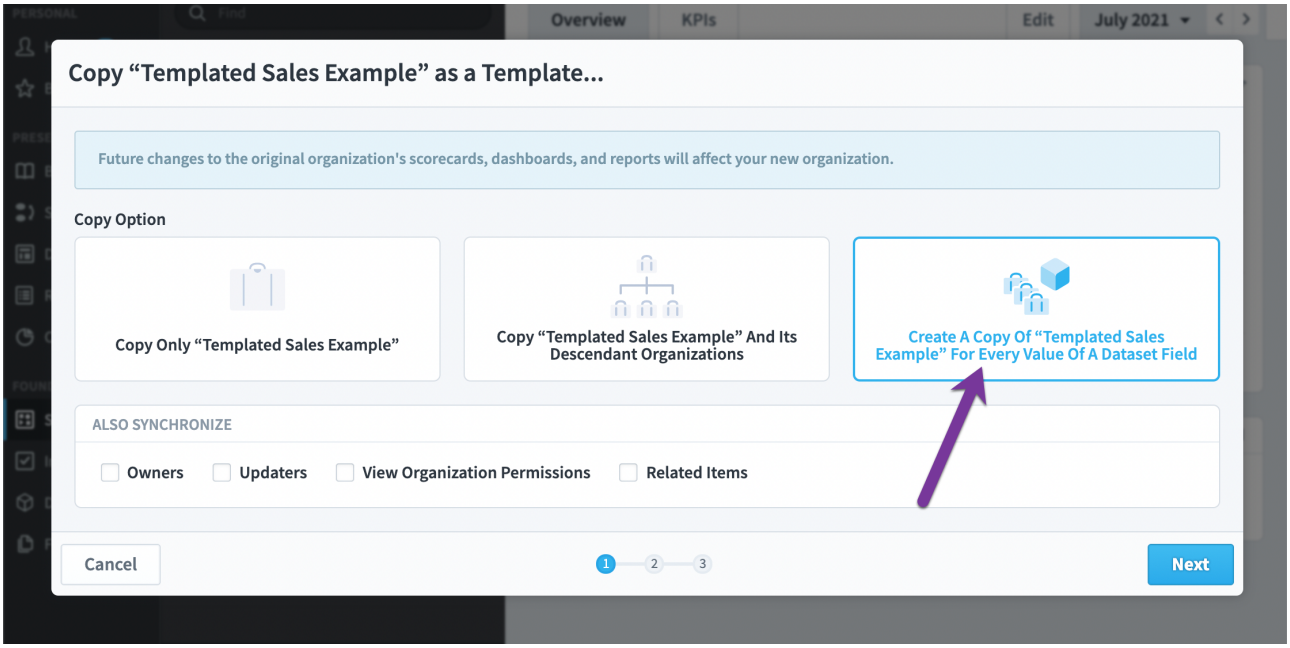
In this example we have an organization called "Templated Sales Example" that has two KPIs. "Number of Sales" tracks the total number of sales over time, and "Sales $" tracks the value of sales over time. As you can see here, there were $797,000 in sales in July 2021.



We're going to click on the organization name on top to expand the organization pane, and then put the organization tree into edit mode by clicking on the Edit button on the bottom. Then we'll click on our "Templated Sales Example" organization and choose "Copy as Template".

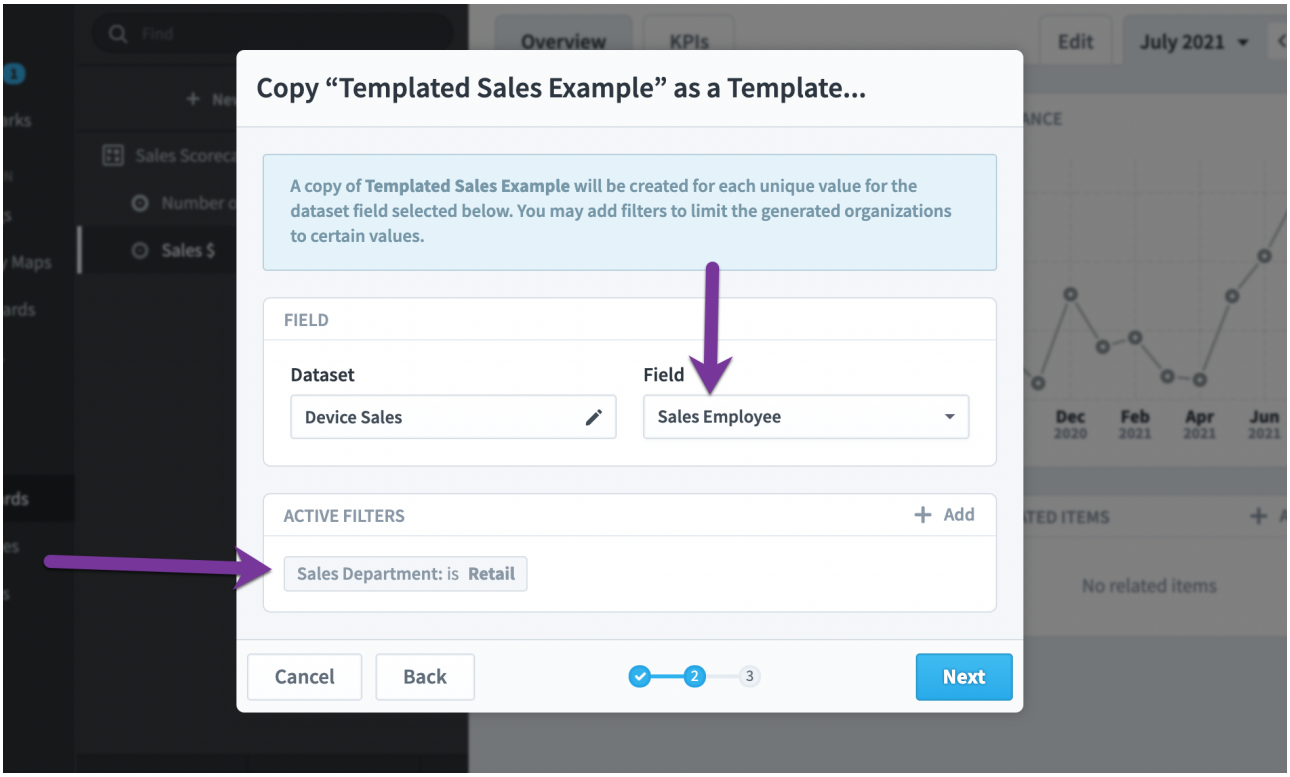


This opens the new template dialog. The first copy option would create a single copy of our organization. The middle option does the same thing, but would also copy any descendant organizations that we create later. We're going to choose the third option to "Create a copy of 'Templated sales example' for every value of a dataset field".

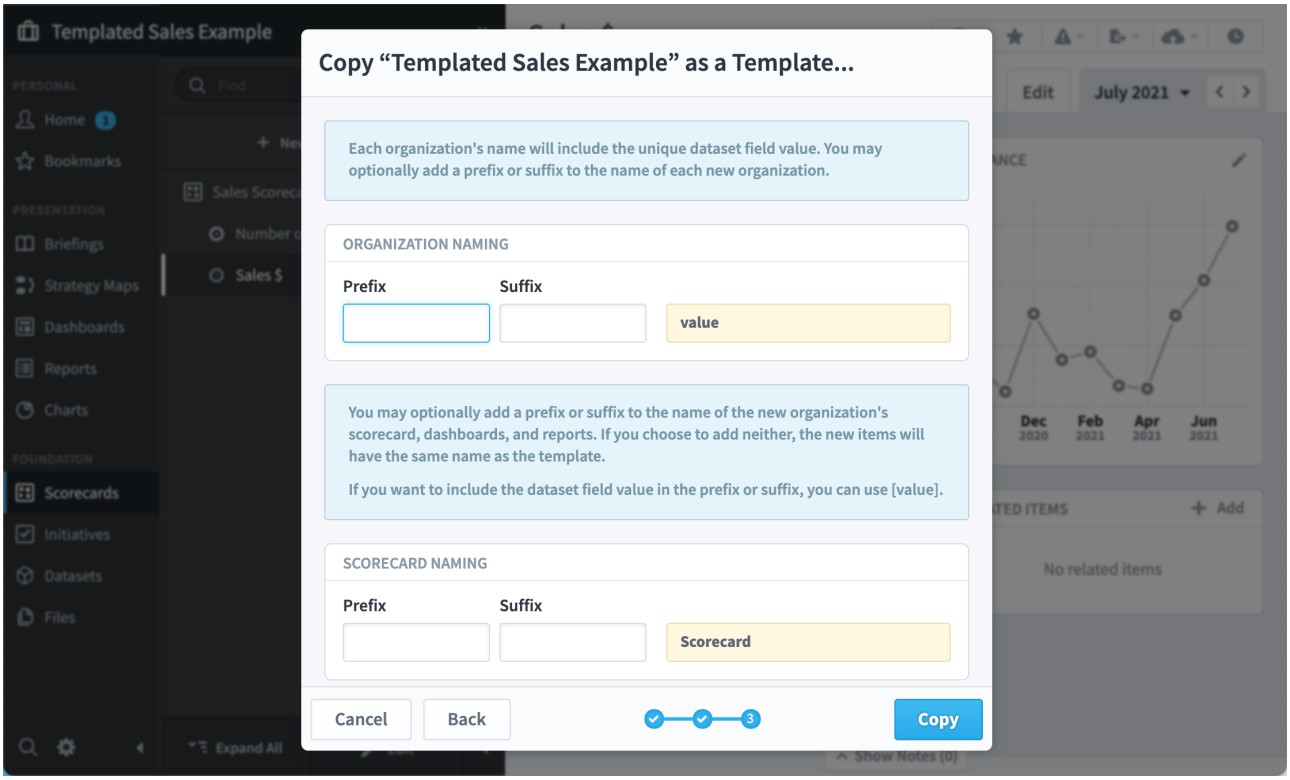


Our two KPIs are created from the Device Sales dataset, so we'll choose that here. We'll also choose the Sales Employee field. If we decide to not add any filters, Impact will create a separate organization for every sales employee.

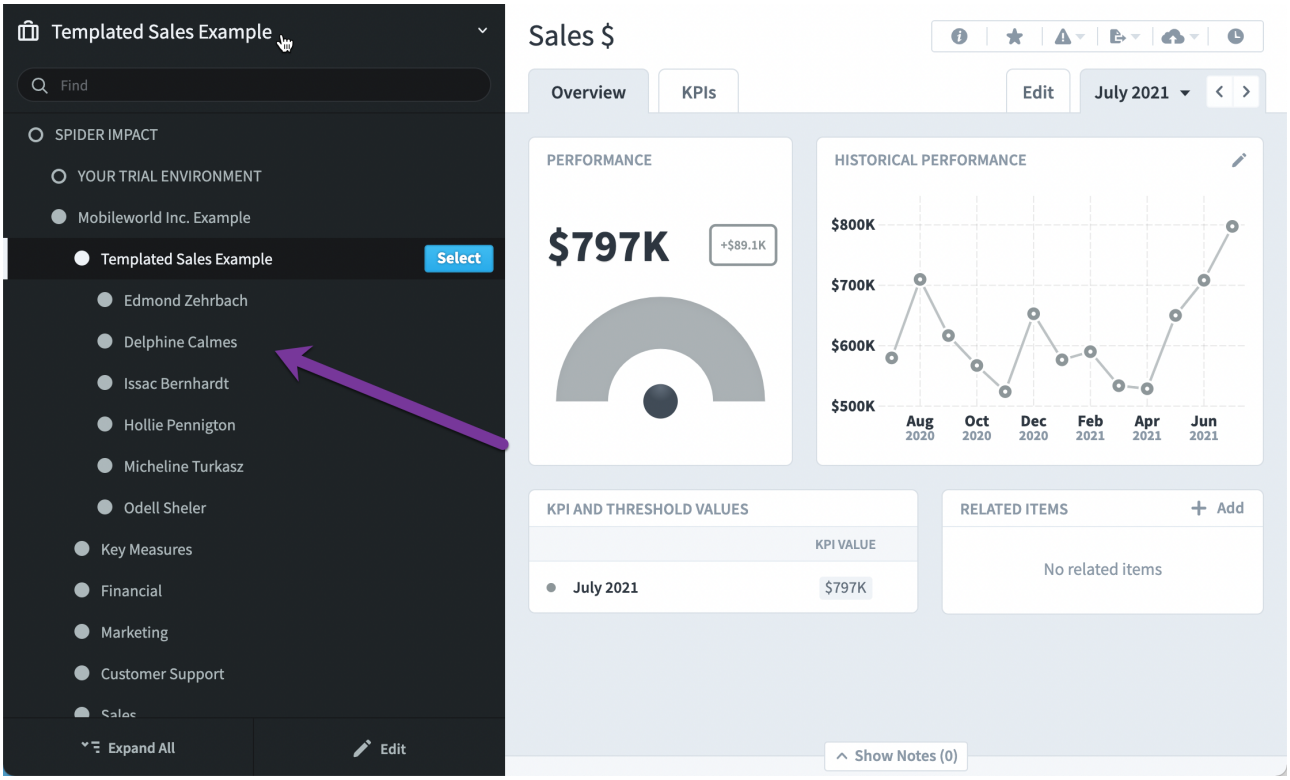
Finally, we're going to add a filter to only include records where the sales department is Retail. When you apply a filter, it restricts the records, which in turn can restrict the number of organizations that are created. So, rather than creating an organization for every sales employee, we're going to create an organization for every *retail* sales employee.



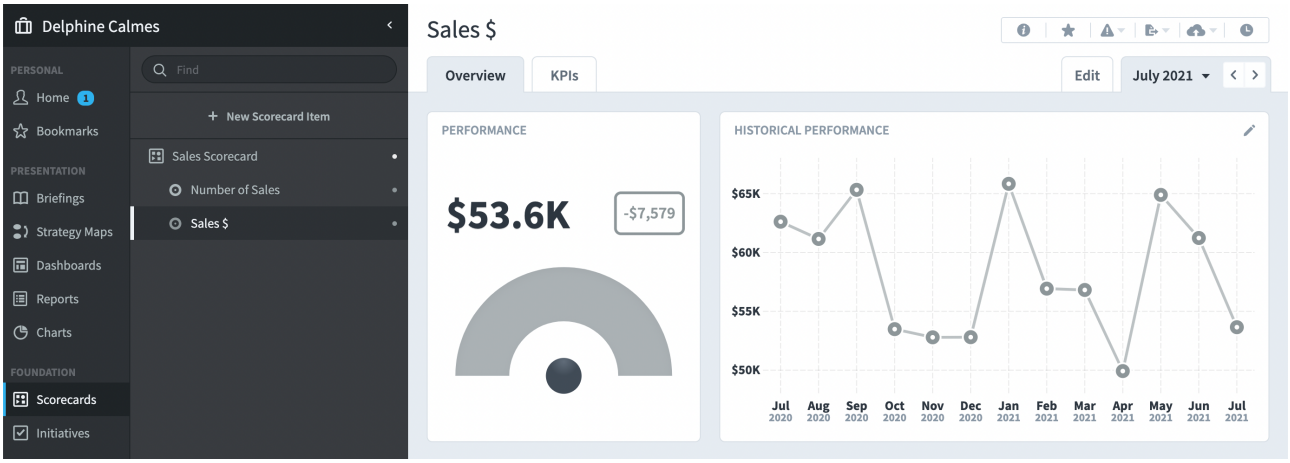
The last step in the wizard is to optionally add prefixes or suffixes to the names of templated items. We'll just click Copy.



After a few seconds, new organizations start to appear in the organization tree underneath our template. There are 6 organizations, one for every retail employee.



When we click on Delphine Calmes, we can see that the KPIs now show data specific to that employee. Delphine had $53,000 in sales in July 2021.

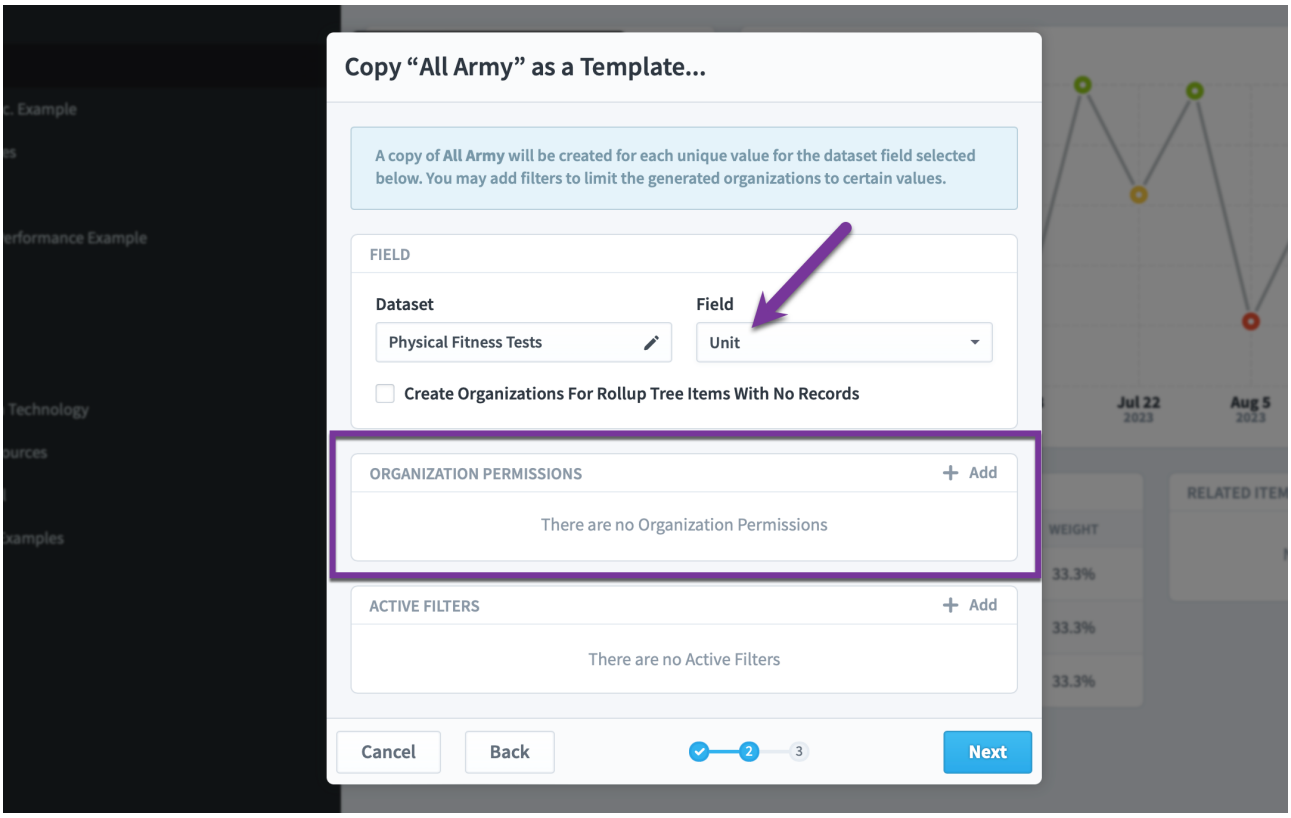


Just like with all organization templates in Impact, you can create additional KPIs in the template and they'll be automatically copied to the templated copies. You can also create KPIs in the templated copy organizations to track things for only that organization.

Organization permissions for rollup tree groups

In the example above we created a templated organization for every member of our retail sales team. If you choose to create templated organizations based on a rollup tree field, however, templates become even more powerful.

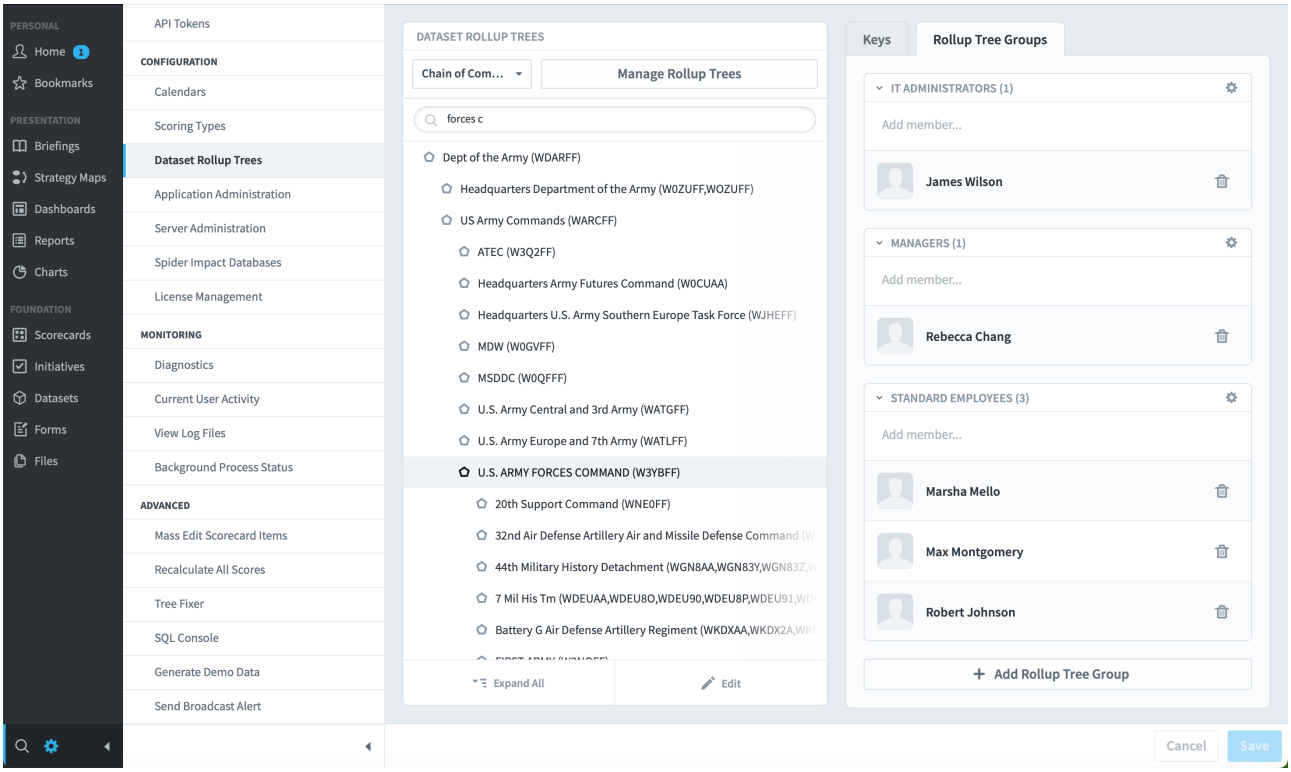
Let's create more templated organizations, this time based on values in the "Unit" field, which is a rollup tree field. As soon as we choose this rollup tree field, the Organization Permissions panel appears.



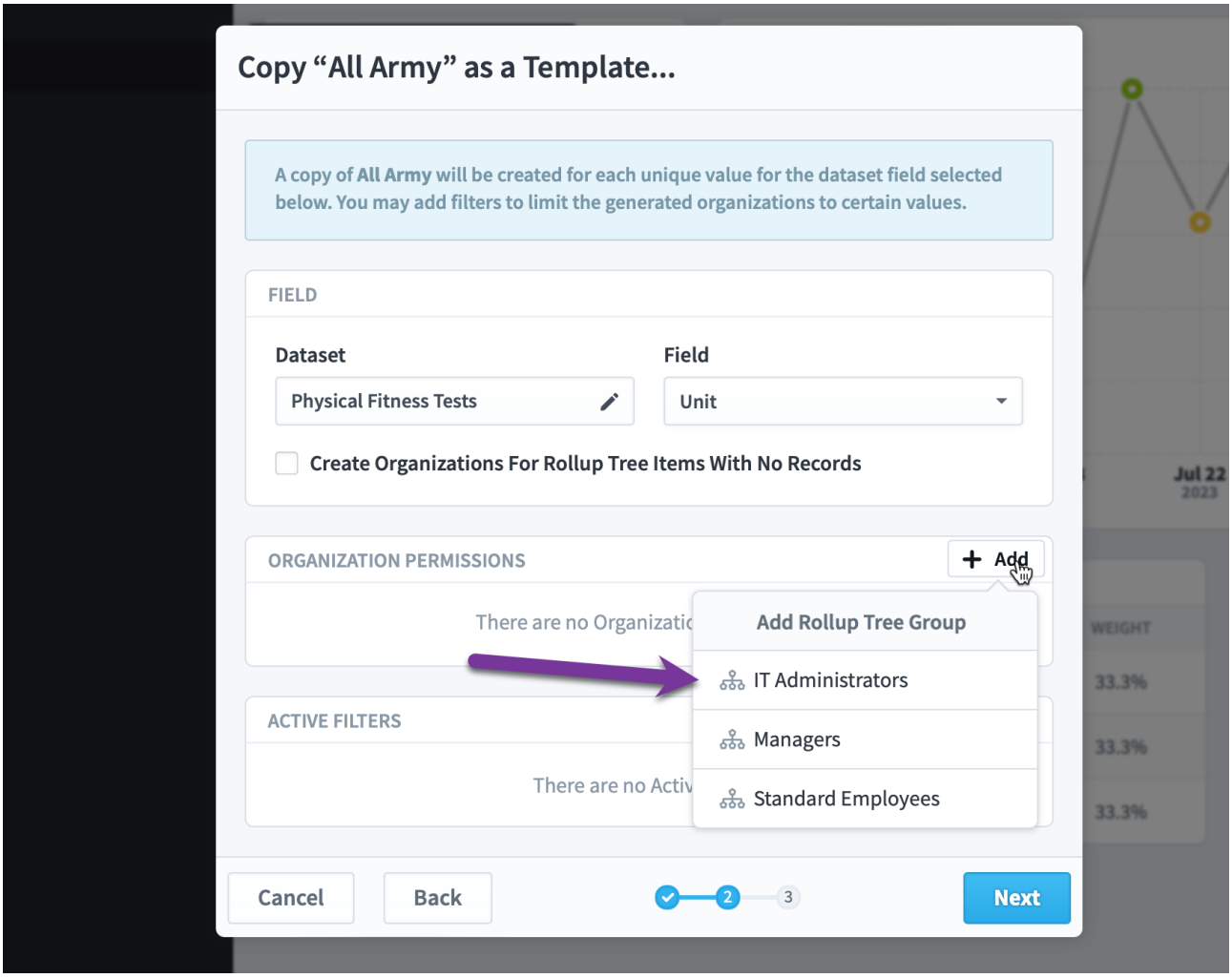
If you're not familiar with dataset rollup tree groups, we'd recommend reading the "Dataset Rollup Tree Groups" section of the Dataset Rollup Trees support article. The general idea, however, is that you can assign people to different types of positions at different levels of your rollup tree.

In this example we have a rollup tree based on military units, but your rollup tree could easily be your company's org chart, or thousands of retail stores organized

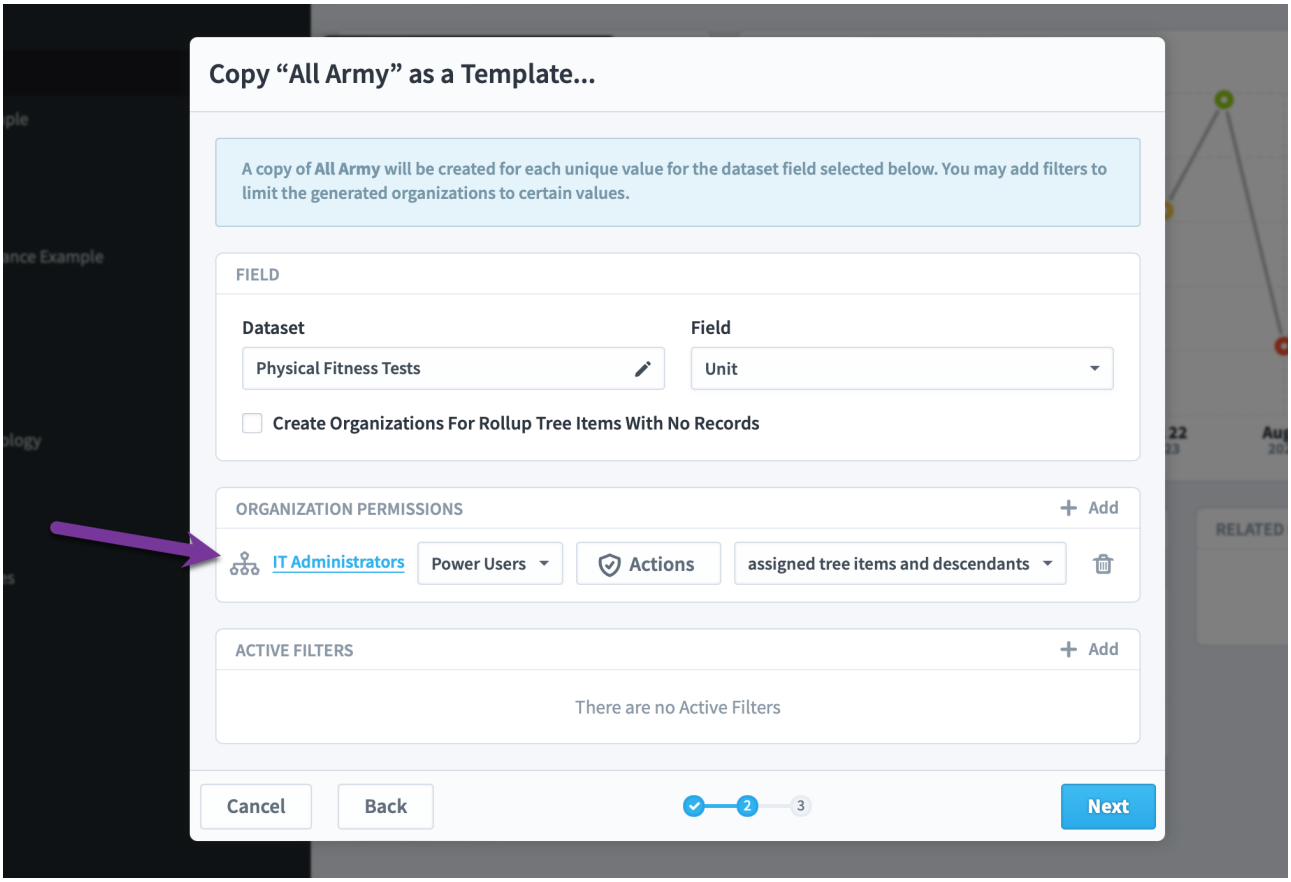
into regions. As you can see, we've selected the "Forces Command" item in the rollup tree, and we've added one person as an IT Administrator, one person as a Manager, and three people as standard employees. At every level of the rollup tree we can assign different people to these three rollup tree groups.



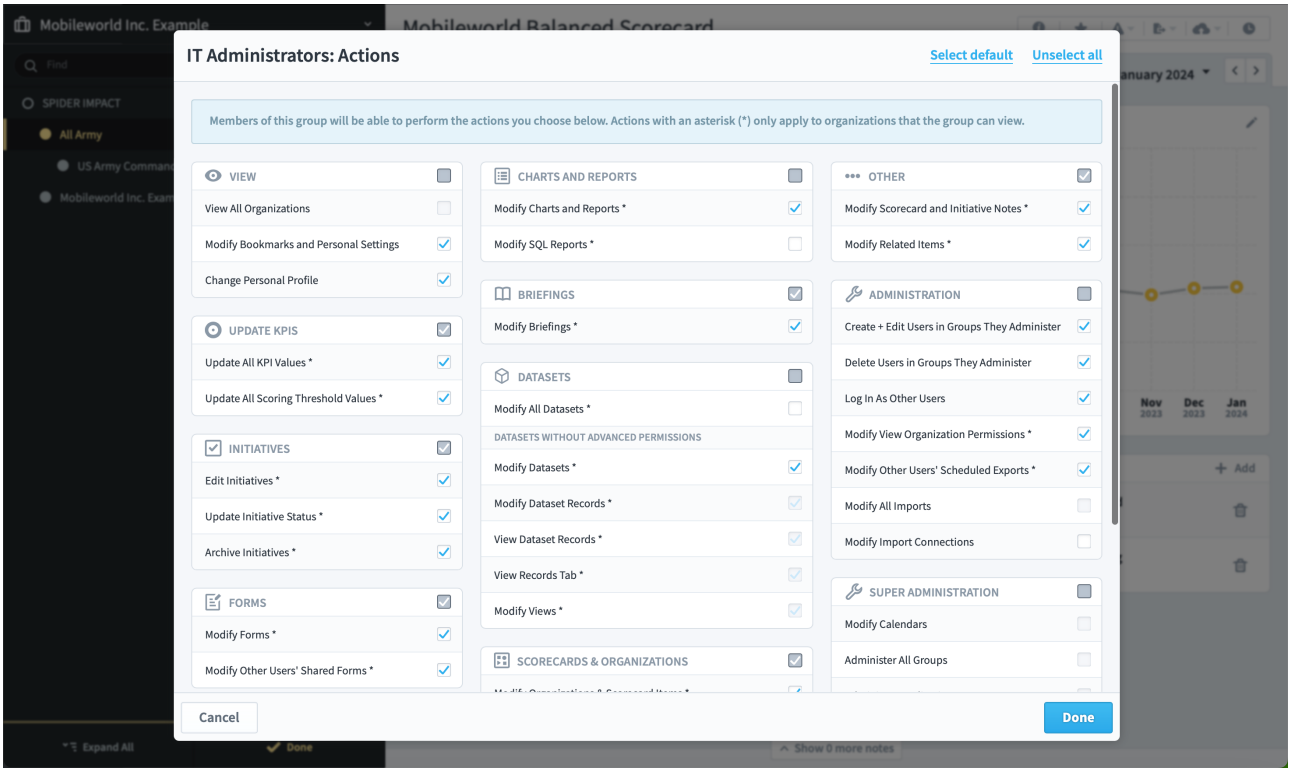
With that explanation out of the way, let's go back to creating our templated organizations. Because we've selected a rollup field, the Organization Permissions panel shows, and we can add the IT Administrators rollup tree group.



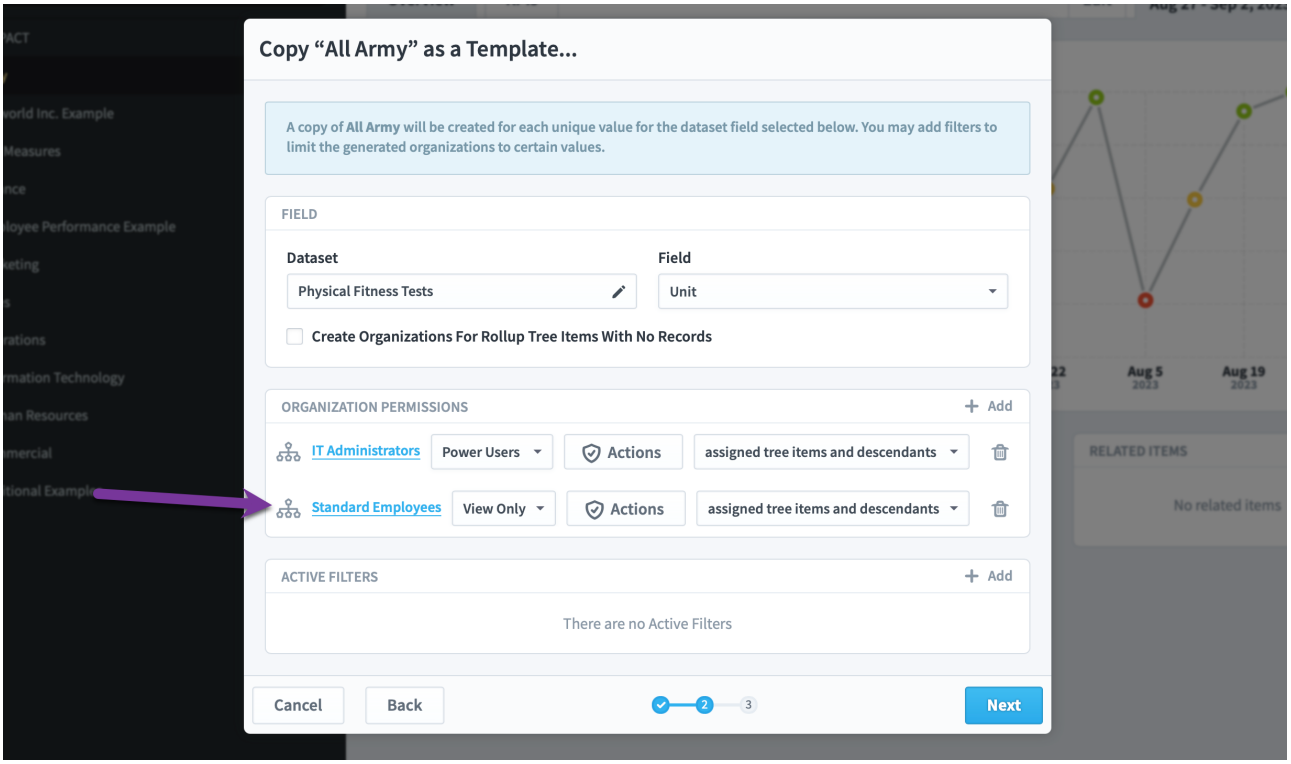
What happens next is deceptively simple, but incredibly powerful. By adding IT Administrators to the Organization Permissions, we have just given every IT Administrator access to view their organization and the organizations underneath it. It’s assigning potentially thousands of permissions at once.



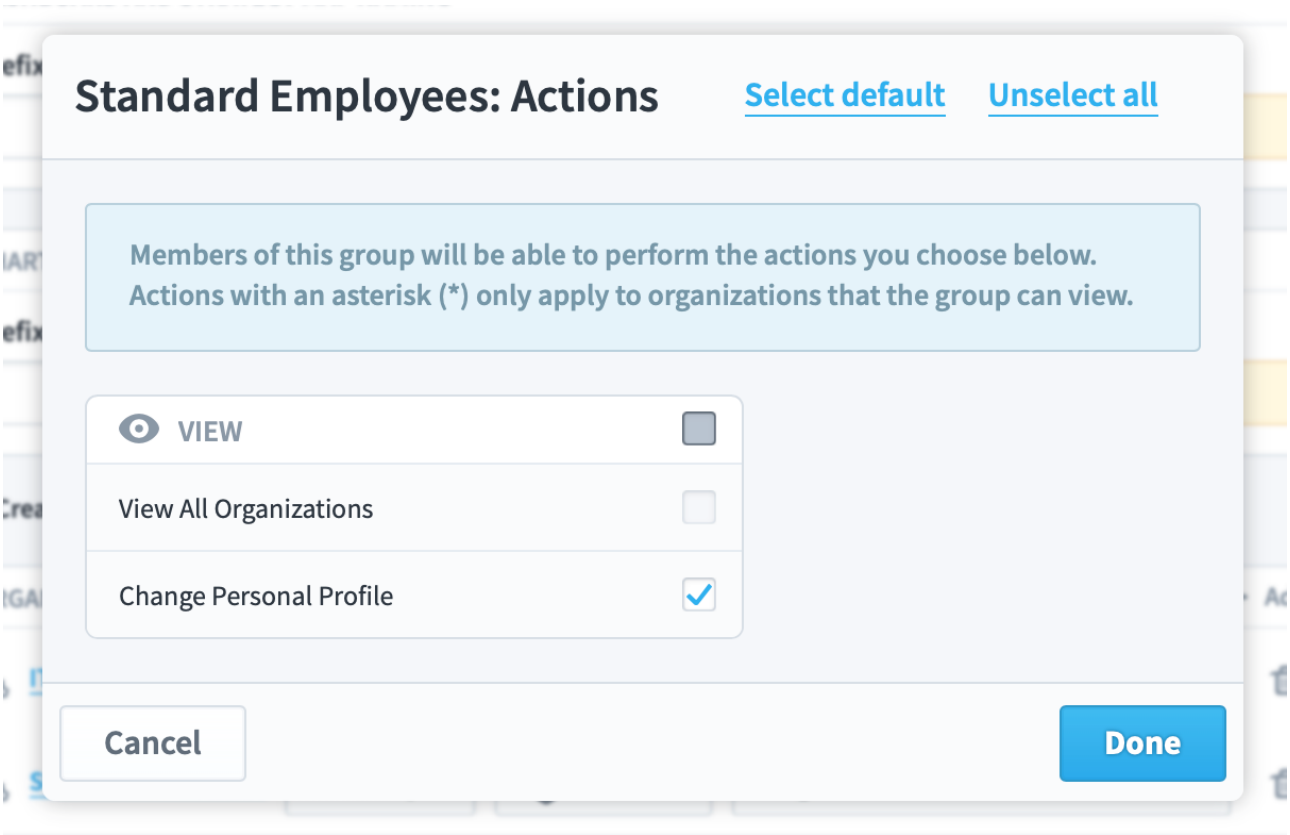
We also get to choose the actions our IT Administrators can do. We've chosen to make them Power Users, but we'll also click the Actions button to make sure they're getting the exact actions we want.



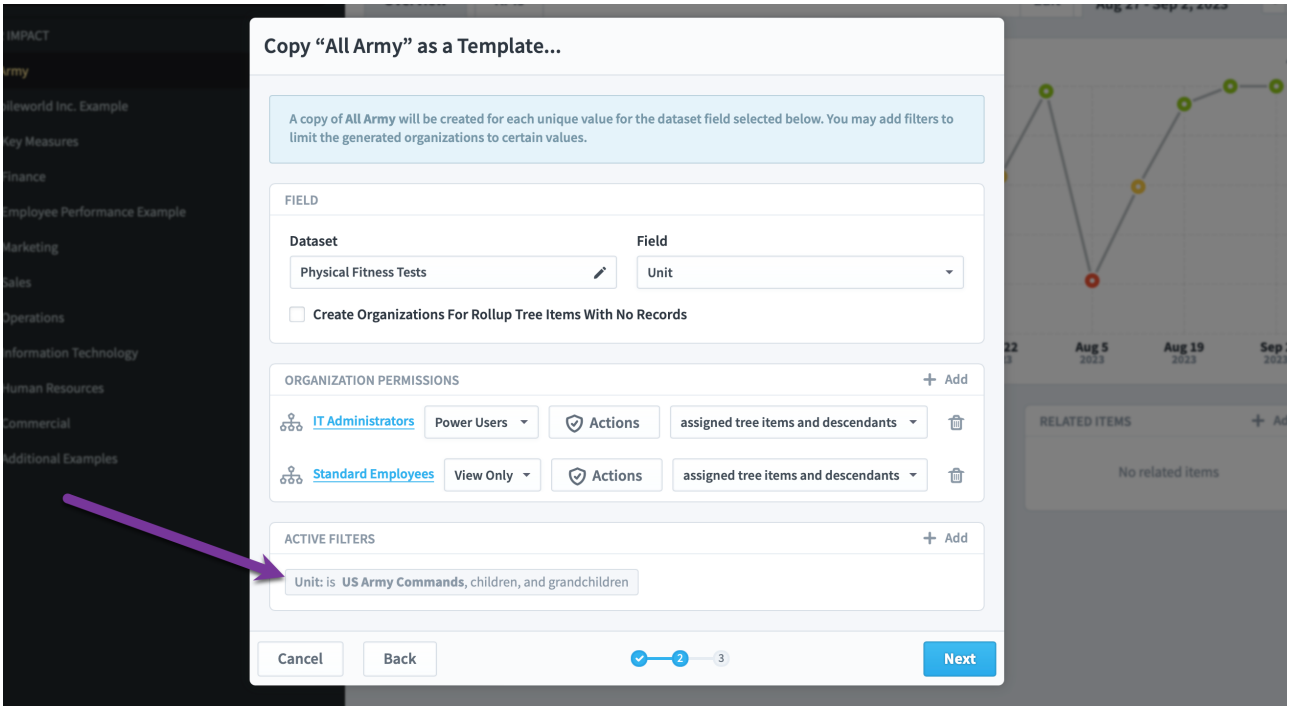
And, just as quickly, we'll give all of our Standard Employees permissions to their organizations, but for them it will be at a View Only level.



Just to be sure, we'll click on Actions to make sure our Standard Employees can do the correct things.

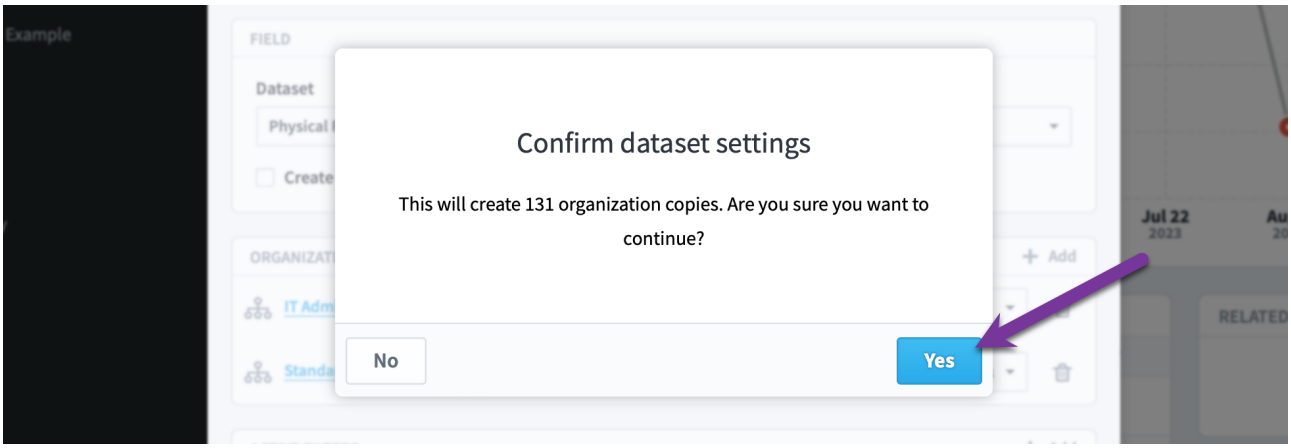


Finally, we'll add a filter so we don't create tens of thousands of organizations. Our rollup tree is the entire US Army chain of command tree with 40,000+ units that goes 8+ levels deep. We'll instead only create high-level organizations by adding a filter for US Army Commands, their children, and their grandchildren.

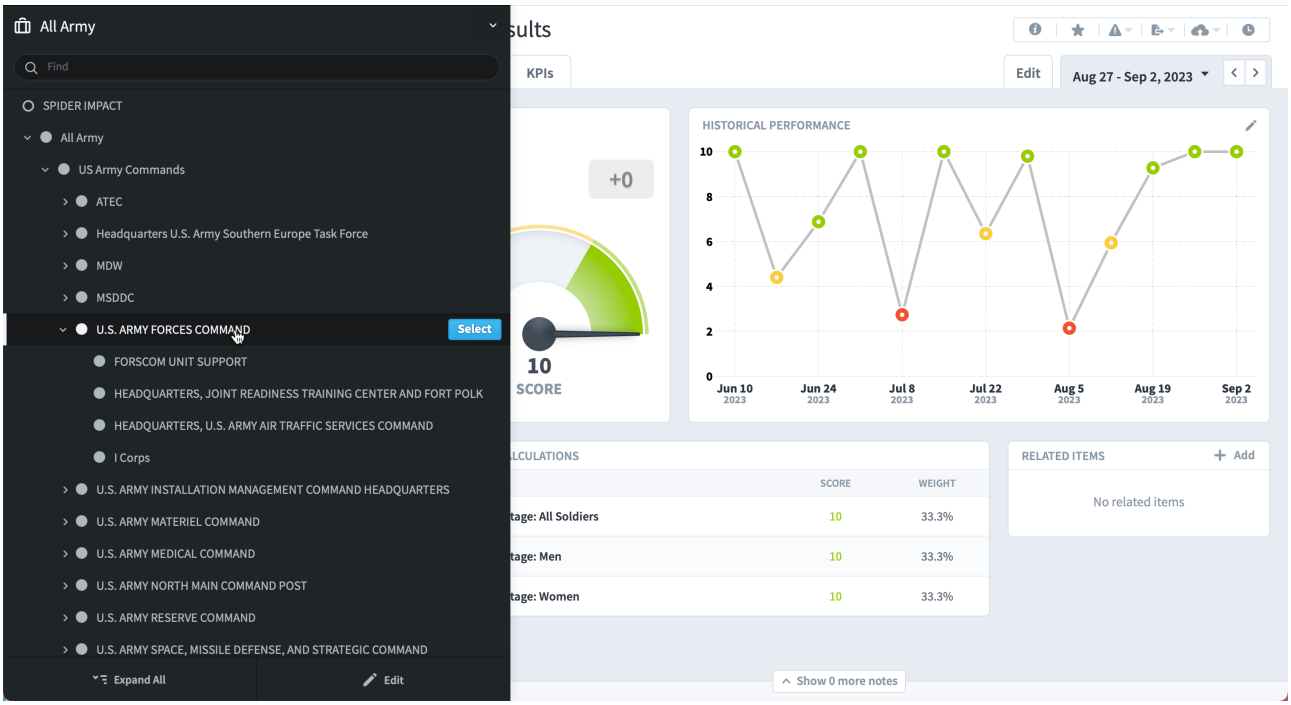


There’s a nuance worth noting about filters that only applies to rollup trees. If the filter is for the same rollup tree field as the field you’re using for the template, the filter only restricts the organizations you create. The descendant totals continue to be included for the KPIs. To put it another way, this filter is restricting the number of organizations created, but those organizations’ dataset KPIs still contain totals from records lower on the rollup tree that may not have organizations.

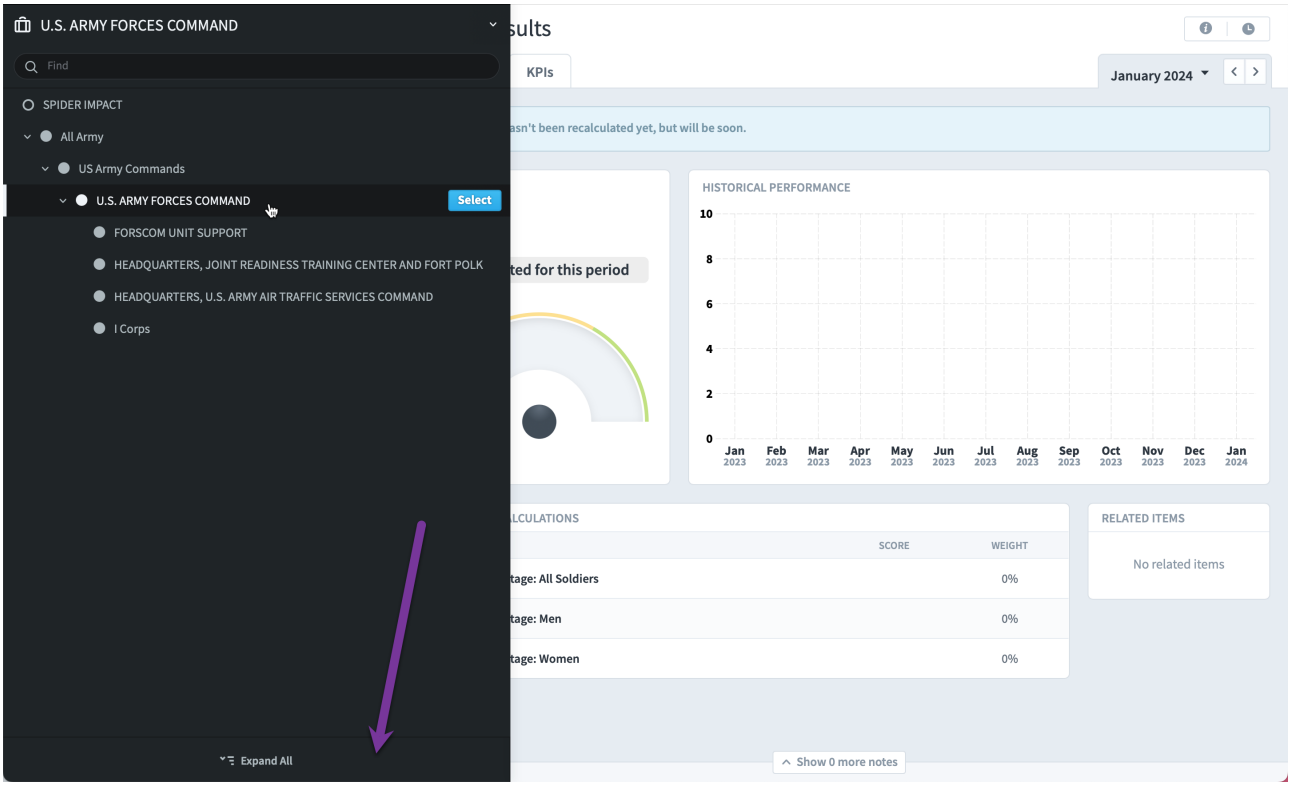
When we click Next, we’re asked to confirm that we want to create 131 organization.



Once we've confirmed and finished, there are now 131 new organizations, each with templated scorecards, dashboards, and reports showing their data.



More importantly, however, is the fact that thousands of users can now see their appropriate organization, and they have permission to do the appropriate actions based on their position. For example, this is what the "standard employee" Max Montgomery sees when he logs into the software. He can only see Forces Command and below, and there's no Edit button under the organization tree because he's just a standard employee.

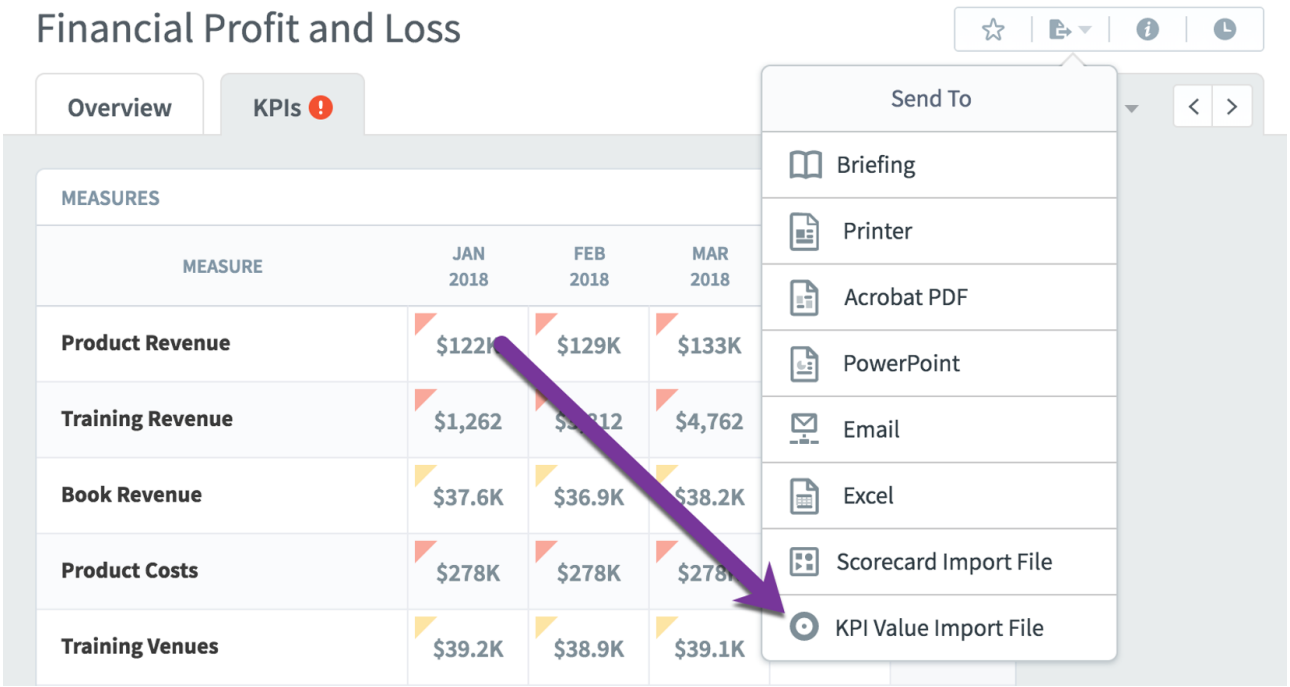

U.S. ARMY FORCES COMMAND
Find
SPIDER IMPACT
All Army
US Army Commands
U.S. ARMY FORCES COMMAND
Select
FORSCOM UNIT SUPPORT
HEADQUARTERS, JOINT READINESS TRAINING CENTER AND FORT POLK
HEADQUARTERS, U.S. ARMY AIR TRAFFIC SERVICES COMMAND
I Corps
Expand All
sults
KPIs
January 2024
asn't been recalculated yet, but will be soon.
ted for this period
HISTORICAL PERFORMANCE
10
8
6
4
2
0
Jan 2023
Feb 2023
Mar 2023
Apr 2023
May 2023
Jun 2023
Jul 2023
Aug 2023
Sep 2023
Oct 2023
Nov 2023
Dec 2023
Jan 2024
ALCULATIONS
SCORE
WEIGHT
tage: All Soldiers
0%
tage: Men
0%
tage: Women
0%
RELATED ITEMS
No related items
Show 0 more notes

Exporting and Sharing

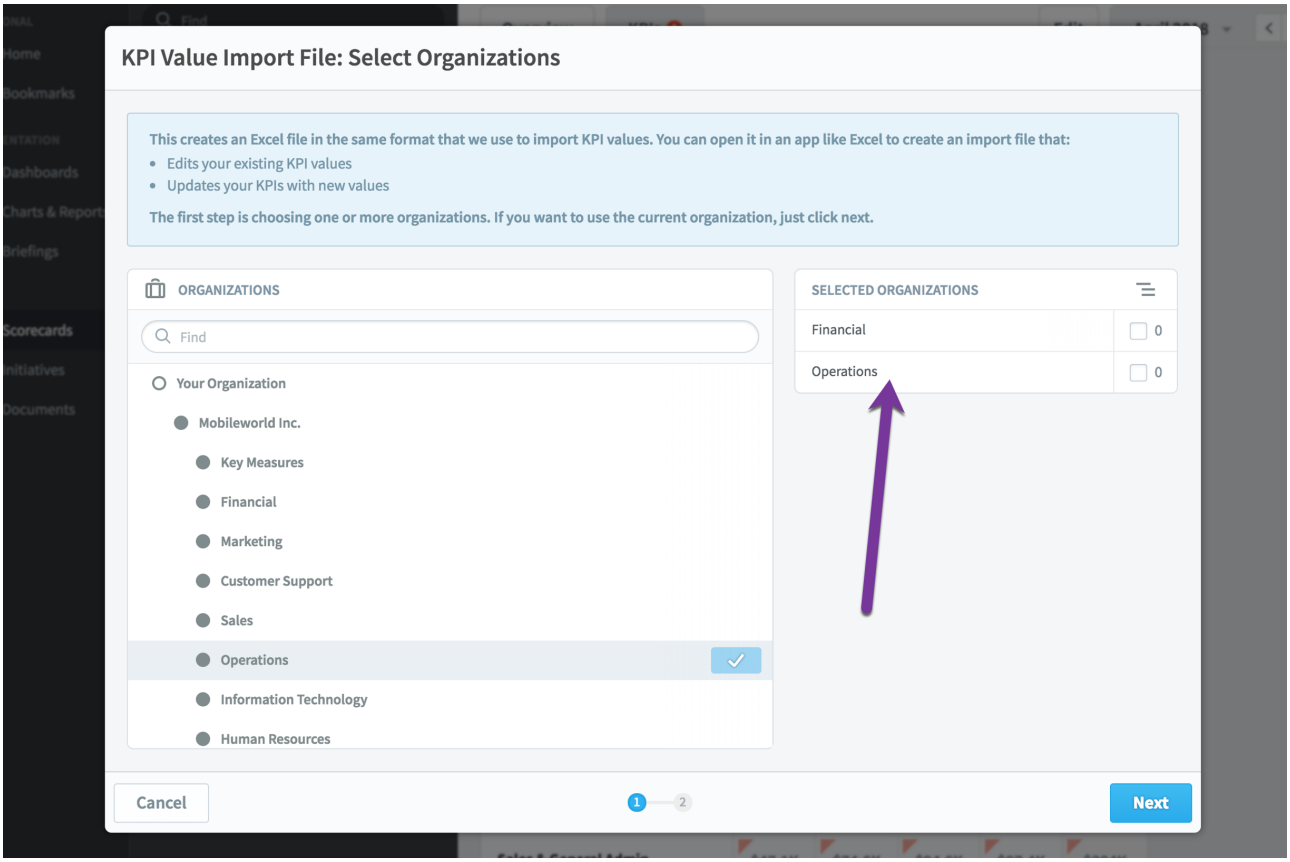
Exporting KPI Value Import File

You can import KPI values in multiple places throughout Spider Impact. Simple imports require a very specific data format for your KPI values, and you can create these files to match your existing scorecards.

Just click the "Send To" button in the menu bar on the top right, and select “KPI Value Import File.” This is useful when exporting and importing KPI values, or for creating blank import files to be filled in with KPI values manually.



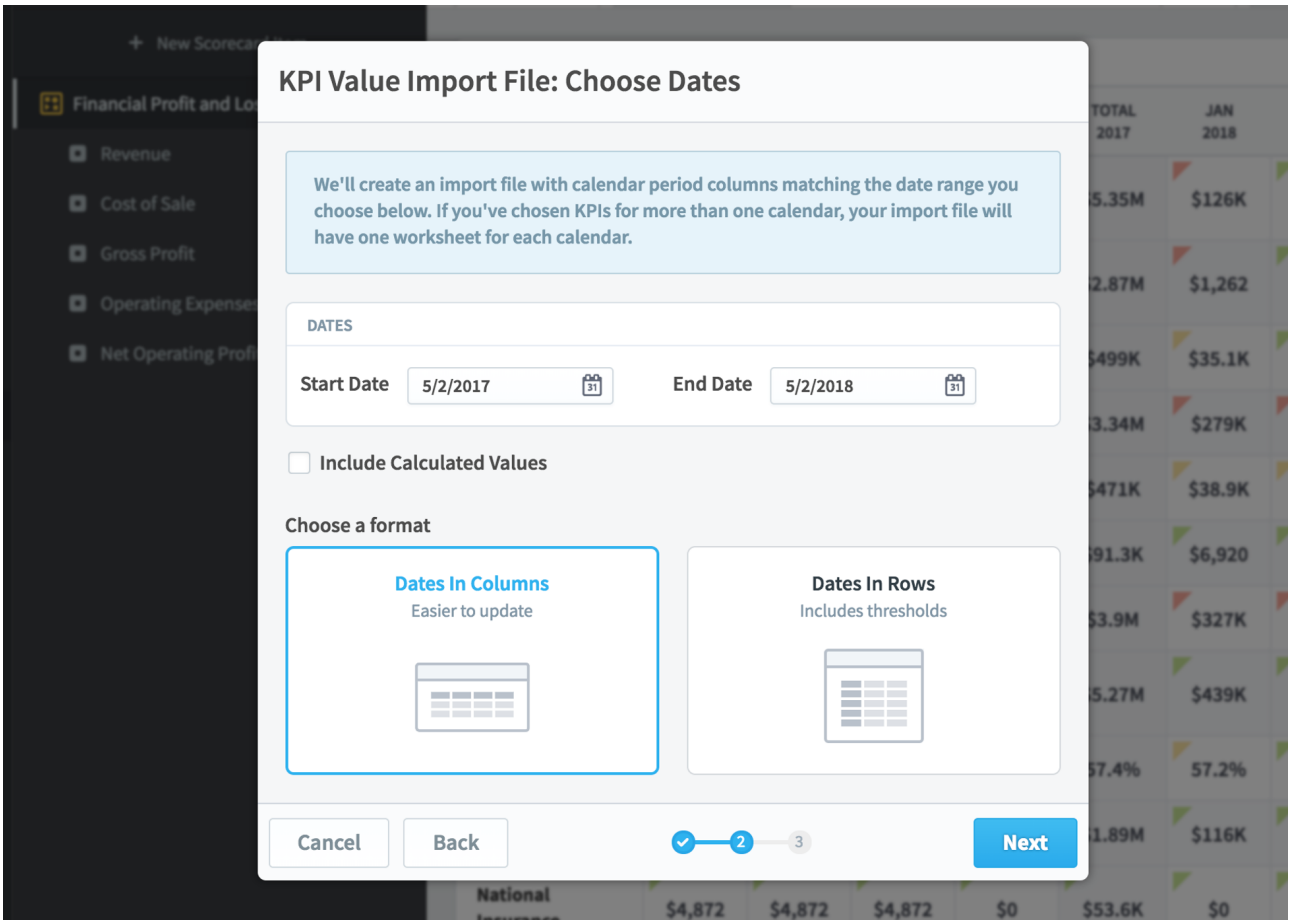
This will open a dialog and the first step is choosing which organizations you want to include in your file. It adds the current organization by default, so if that's all you want, just click next.



The next step has more options about what to include in the import file you're creating. You'll need to choose a start and end date, and you can choose whether to include calculated values or not. Most importantly, you'll want to choose which format you want your data to be in.

"Data in Columns" has one row for every KPI, with separate columns for each date. If you're going to be manually editing the spreadsheet, this is a great option to choose. "Data in rows" puts each KPI value in a row, which means each KPI spans multiple rows. It's harder for people to edit, but it has the added benefit of including thresholds. This is a great option for exporting data that isn't going to be edited before it's imported again.

Both options are readable by Spider Impact when you're importing the scorecard. In this example we'll choose "Dates in Columns."



The final step is a preview of your file before you download it. This is to make sure you've set things up properly.

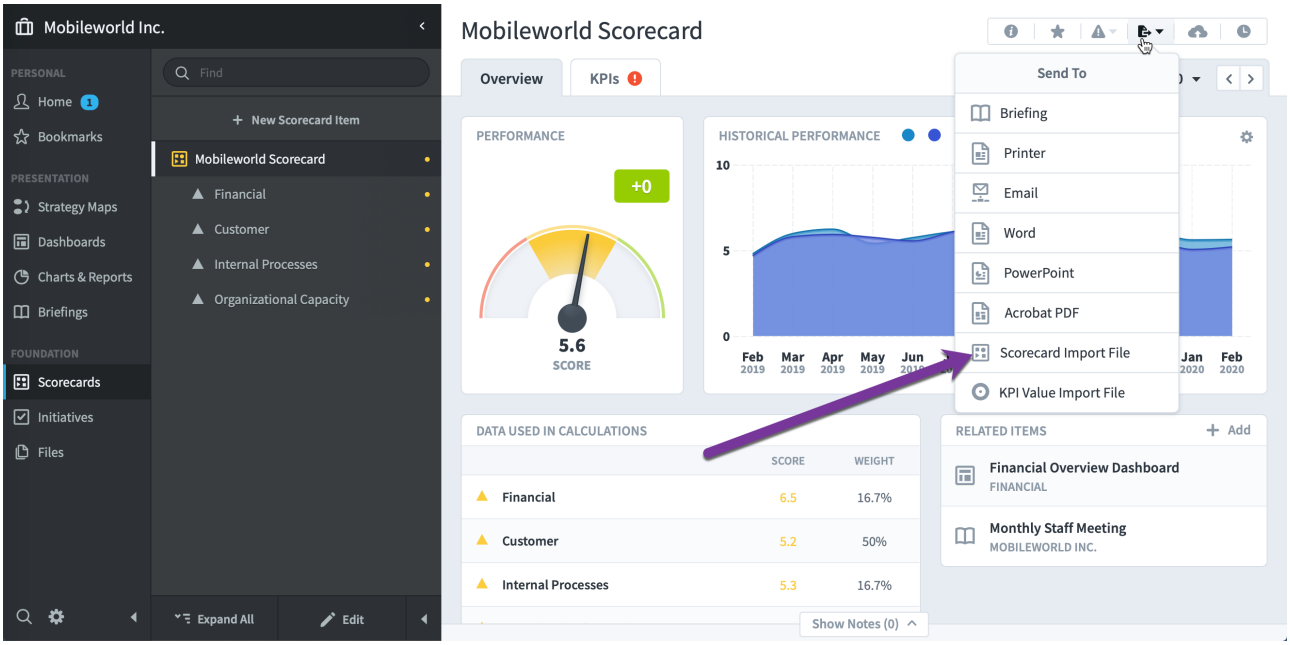


When you click the “Download Import File” button, it will save a spreadsheet that matches the preview. If you choose “Data in Columns” and have KPIs that use different calendars, your spreadsheet will have one worksheet for every calendar.

Exporting Scorecard Import File

You can import scorecard items in the Scorecards section. These imports require a very specific data format, and you can create these files to match your existing scorecards.

Just click the "Send To" button in the menu bar on the top right, and select "Scorecard Import File."



This exports a spreadsheet of your entire scorecard that is in the format required for scorecard item imports.

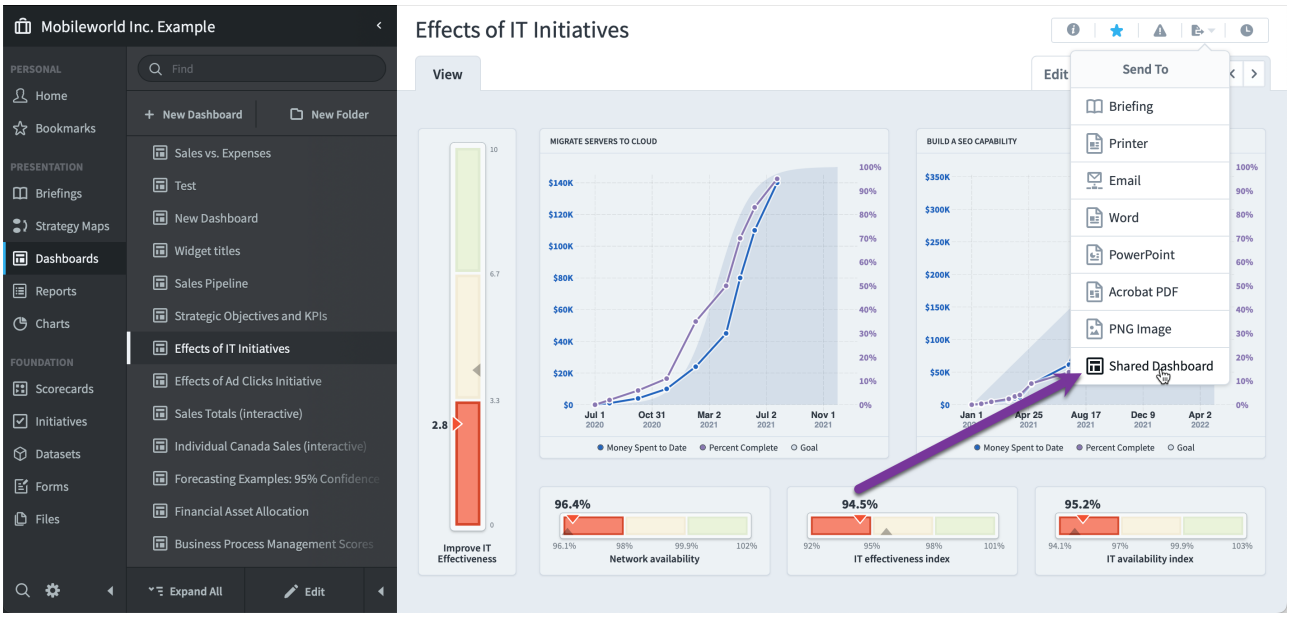
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	Scorecard	Theme	Measure	Organization	Description	Scoring Type	Calendar	Aggregation	Data Type	Weight	Is yes good?	Are higher va	Start date	Archive date	Threshold	Threshold
2	Financial Profit and Loss			Financial						1						
3		Revenue		Financial						1						
4			Product Reve	Financial		Goal/Red Fla	Monthly	Sum	Currency	1					450,000	465,000
5			Training Rev	Financial		Goal/Red Fla	Monthly	Sum	Currency	1					255,000	260,000
6			Book Revenu	Financial		Goal/Red Fla	Monthly	Sum	Currency	1					35,000	40,000
7		Cost of Sale		Financial						1						
8			Product Cost	Financial		Goal/Red Fla	Monthly	Sum	Currency	1					275,834	275,000
9			Training Ven	Financial		Goal/Red Fla	Monthly	Sum	Currency	1					39,584	38,750
10			Book Product	Financial		Goal/Red Fla	Monthly	Sum	Currency	1					8,334	7,500
11			Total Costs	Financial		Goal/Red Fla	Monthly	Sum	Currency	1					323,750	321,250
12		Gross Profit		Financial						1						
13			Total Gross I	Financial		Goal/Red Fla	Monthly	Sum	Currency	1					422,250	432,917
14			% Gross Prof	Financial		Goal/Red Fla	Monthly	Average	Percentage	1					56.6	57.4
15		Operating Expenses		Financial						1						
16			Salaries & W	Financial		Goal Only	Monthly	Sum	Currency	1		FALSE			153,096	
17			National Ins	Financial		Goal Only	Monthly	Sum	Currency	1		FALSE			21,128	
18			Pension Cont	Financial		Goal Only	Monthly	Sum	Currency	1		FALSE			4,593	
19			Marketing &	Financial		Goal Only	Monthly	Sum	Currency	1		FALSE			49,021	
20			Sales & Gen	Financial		Goal Only	Monthly	Sum	Currency	1		FALSE			30,167	
21			Interest & Ba	Financial		Goal Only	Monthly	Sum	Currency	1		FALSE			7,542	
22			Insurance	Financial		Goal Only	Monthly	Sum	Currency	1		FALSE			15,084	
23			Office Renta	Financial		Goal Only	Monthly	Sum	Currency	1		FALSE			24,888	
24			IT & Commu	Financial		Goal Only	Monthly	Sum	Currency	1		FALSE			23,380	
25			Travel	Financial		Goal Only	Monthly	Sum	Currency	1		FALSE			13,575	
26			Amortisatior	Financial		Goal Only	Monthly	Sum	Currency	1		FALSE			15,084	
27			Total Operat	Financial		Goal Only	Monthly	Sum	Currency	1		FALSE			357,554	
28		Net Operating Profit		Financial						1						
29			Net Operatir	Financial		Goal/Red Fla	Monthly	Sum	Currency	1					63,917	75,364
30			% Net Opera	Financial		Goal/Red Fla	Monthly	Average	Percentage	1					8.6	10
31																
32																

Sharing Dashboards, Strategy Maps, and Forms

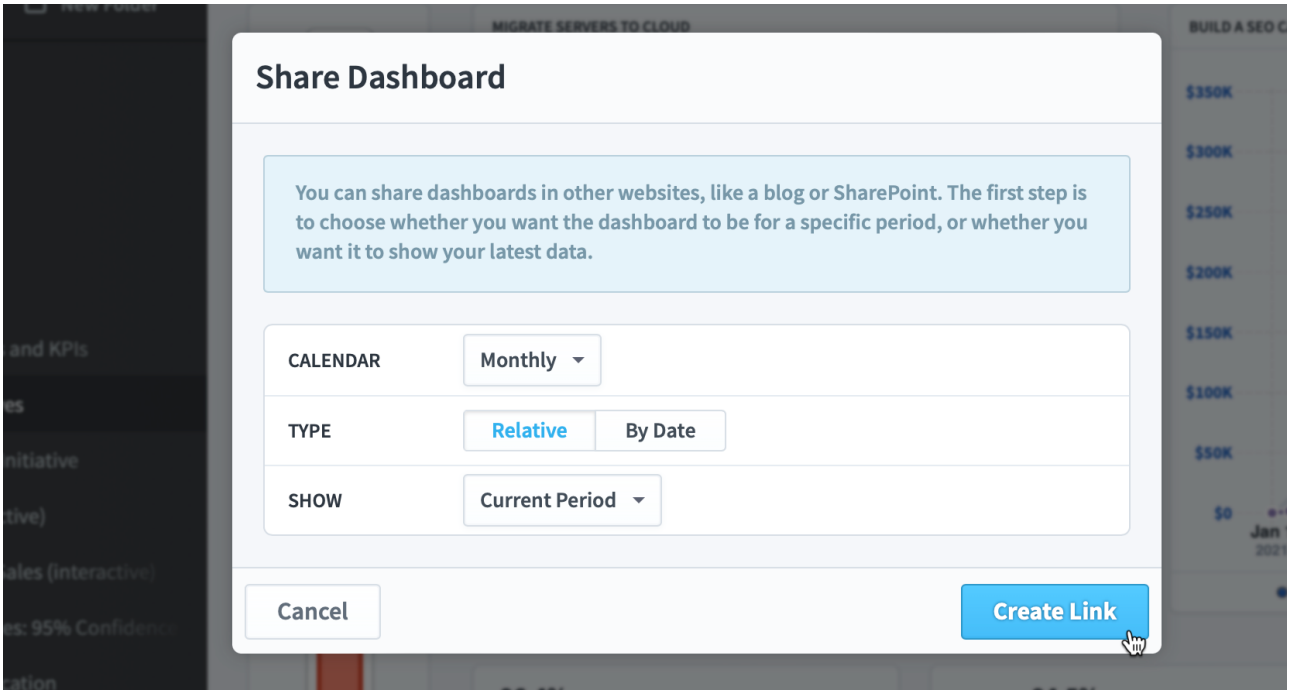
If you have 25 or more standard user licenses (or if you've purchased the sharing add-on), you'll be able to share a live version of dashboards, strategy maps, and forms. Anyone who has the special URL can view it without logging in. You'll also be able to embed them in other websites and web apps.

Sharing a Dashboard or Strategy Map

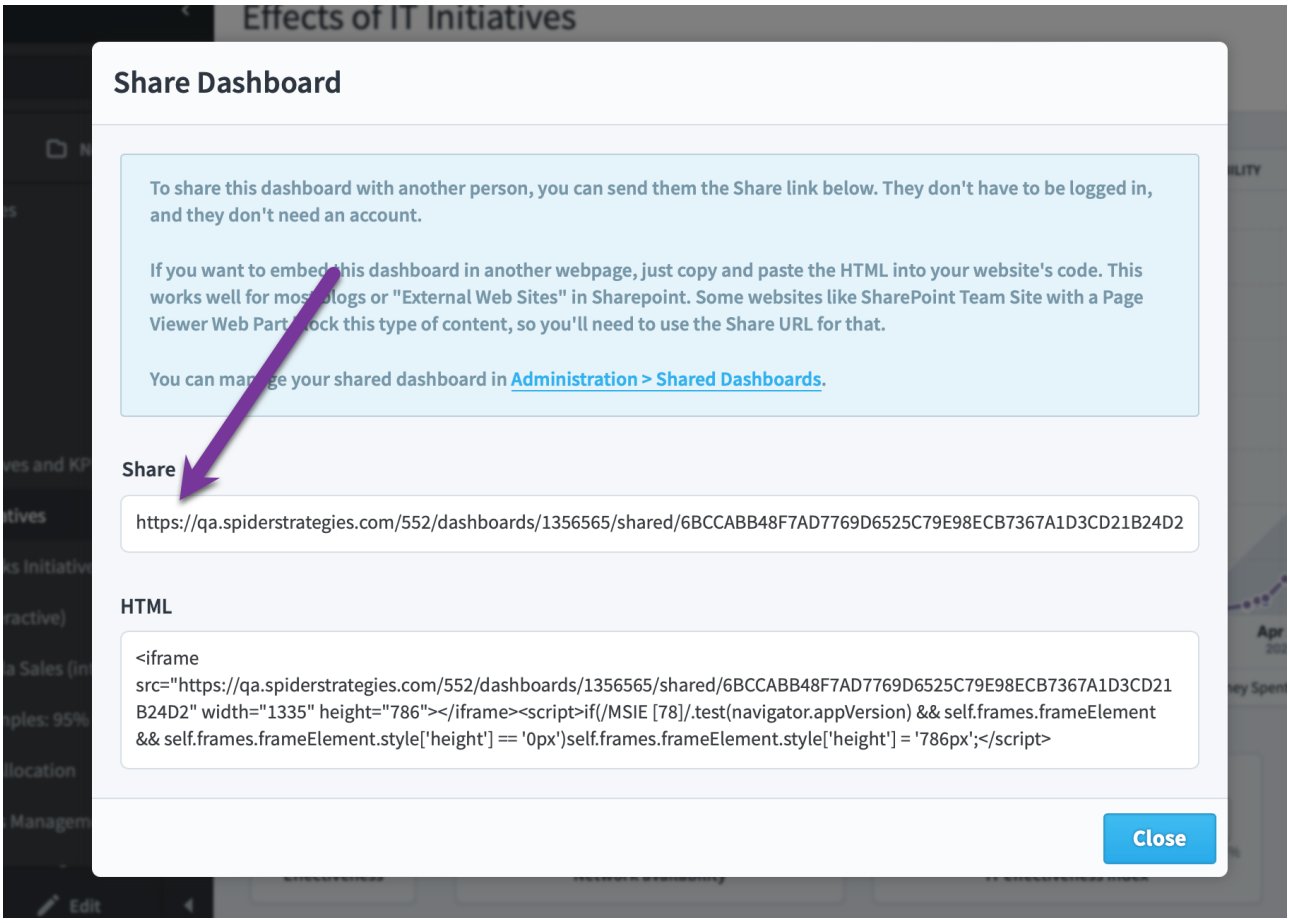
To share a dashboard or strategy map, choose the "Share" option in the "Send To" menu.



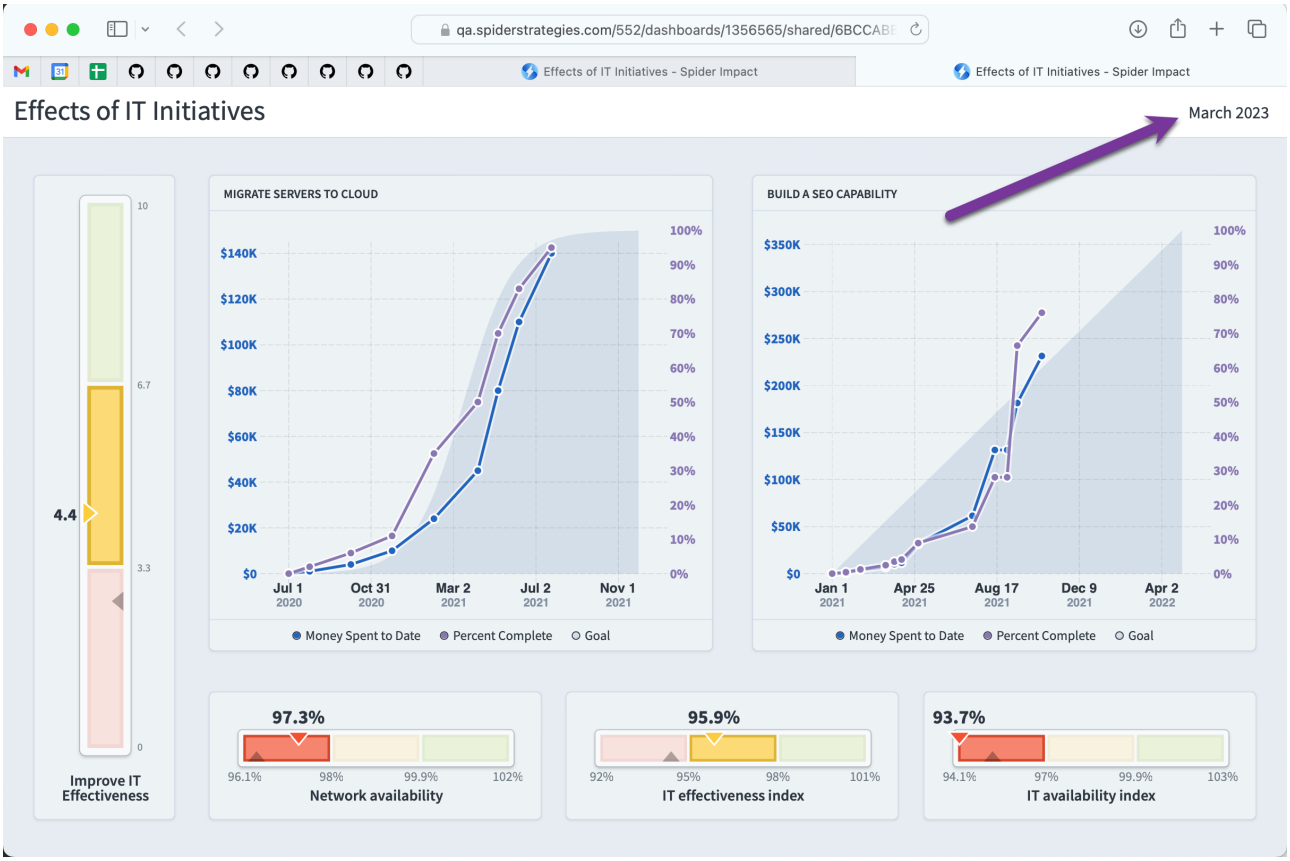
This opens a dialog where you choose the calendar period to show data for. In this example we'll be showing the most recent month.



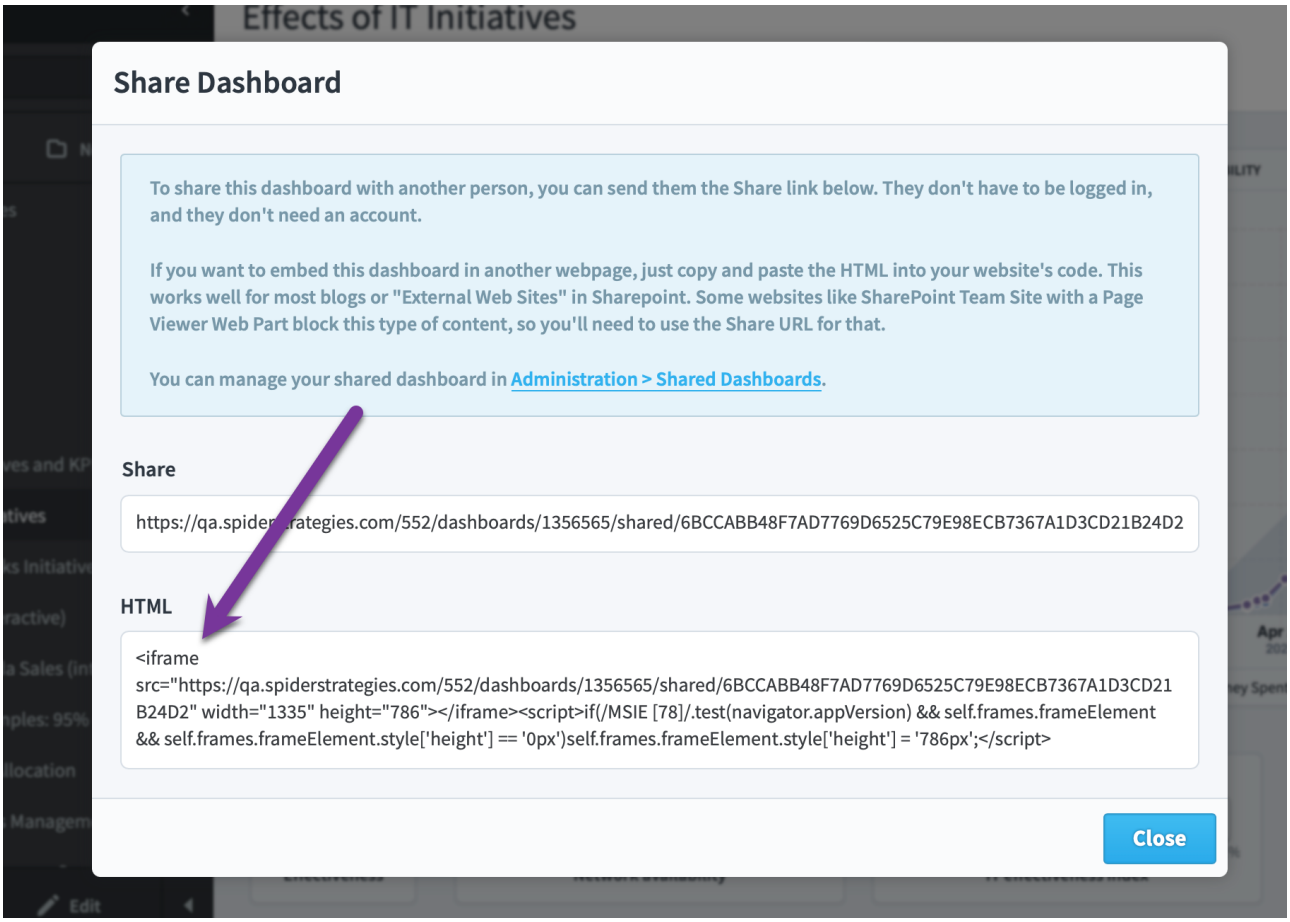
When you click Create Link, you now see two options to share your dashboard or strategy map. Most of the time you'll use the Share link. Just copy, paste, and send it to anyone you want.



They'll see your dashboard or strategy map like this. They don't have to be logged in, and they don't need an account.

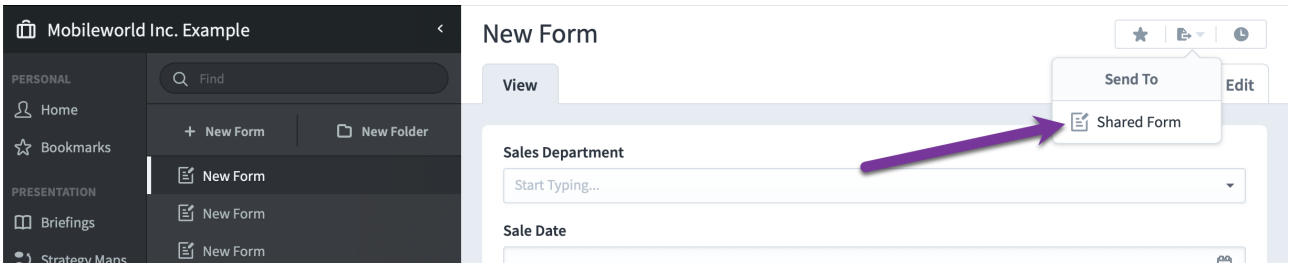


If you want to embed your dashboard or strategy map in another webpage or software application, just copy and paste the provided HTML. This works well for most blogs and web apps that allow embedding external content like Sharepoint "External Web Sites". Some websites like "SharePoint Team Site" with a "Page Viewer Web Part" block this type of content, so you'll need to use the Share URL in those situations.

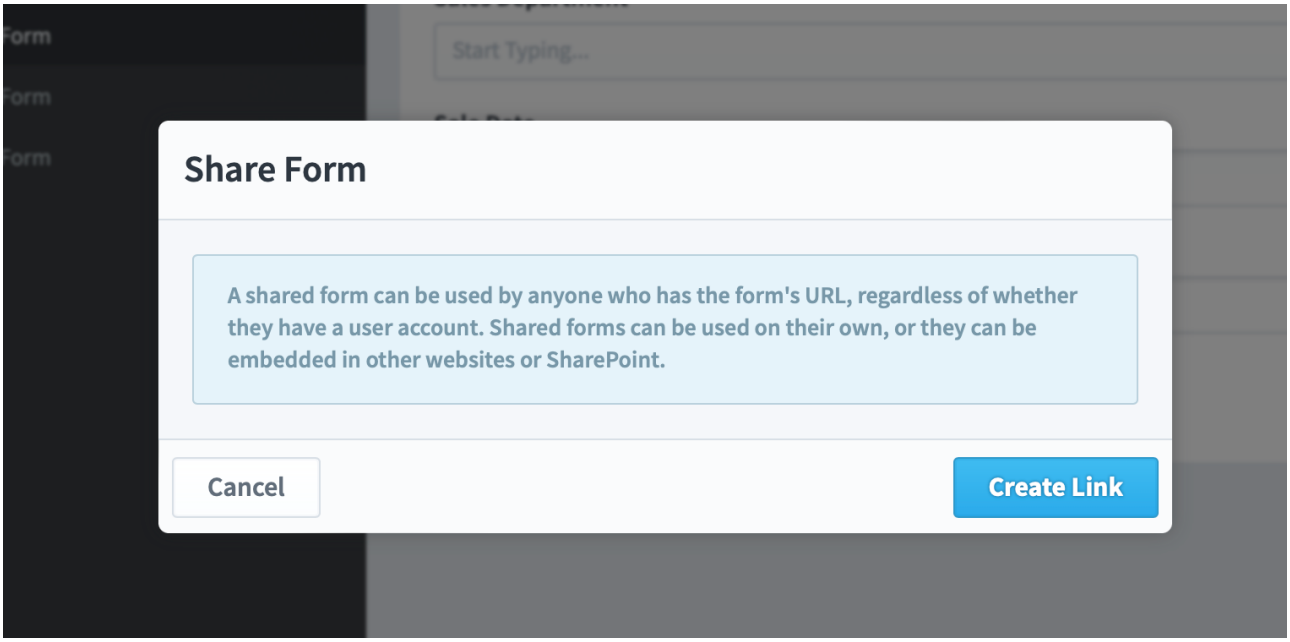


Sharing a Form

Sharing a form is similar to sharing a dashboard. Just choose "Shared Form" in the "Send To" menu.

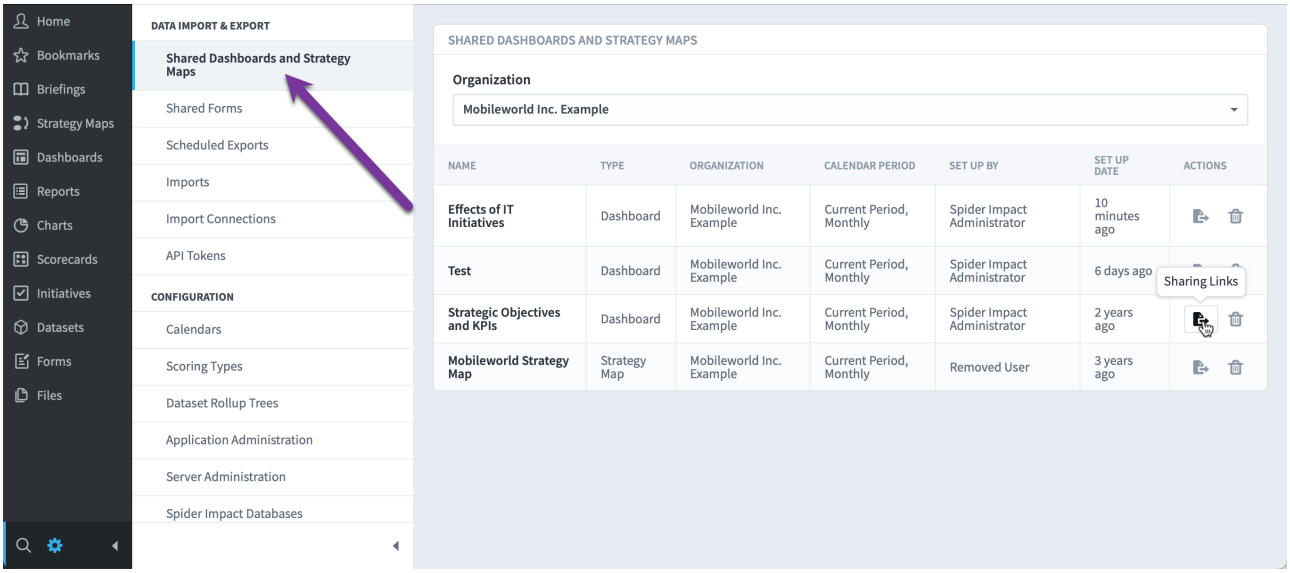


This opens the Share Form dialog.

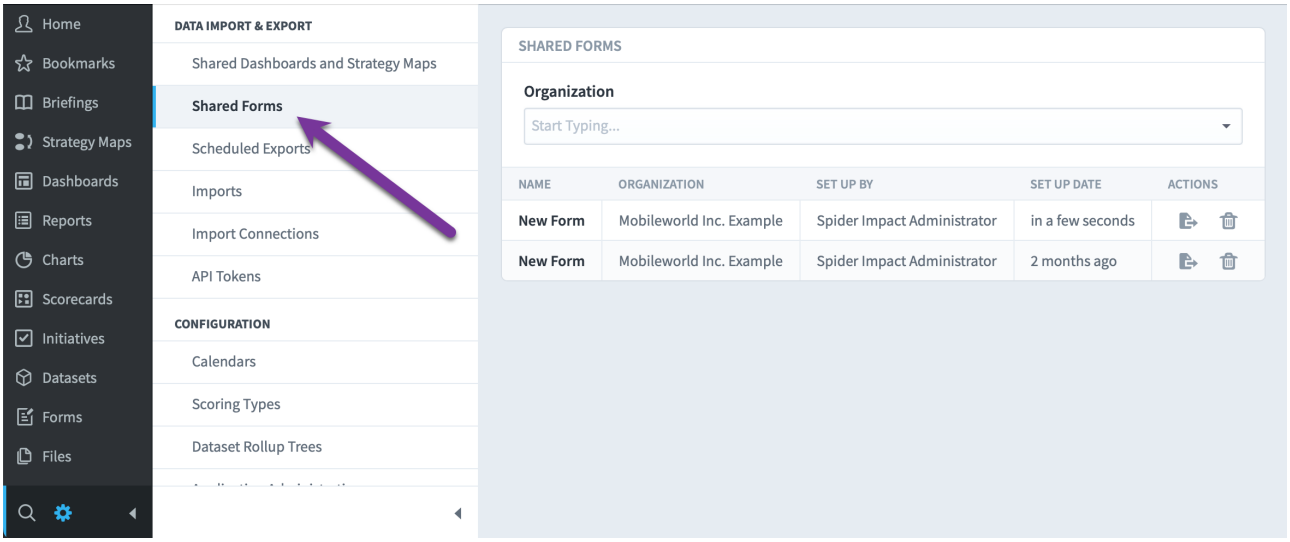


Managing Shares

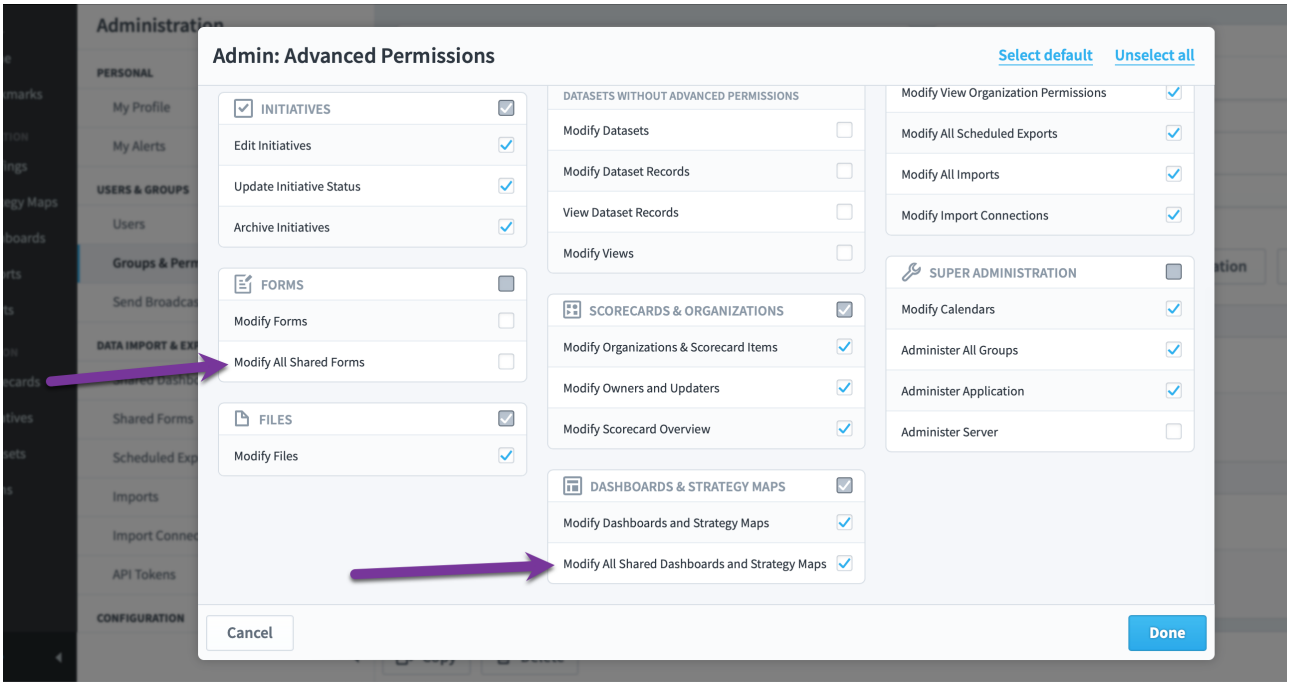
You can manage shares in the Administration section. All dashboards, strategy maps, and forms are shared using the permissions of the user who shared them, and you can view all of this information on those pages. Here is the Shared Dashboards and Strategy Maps page.



And here is the Shared Forms pages.

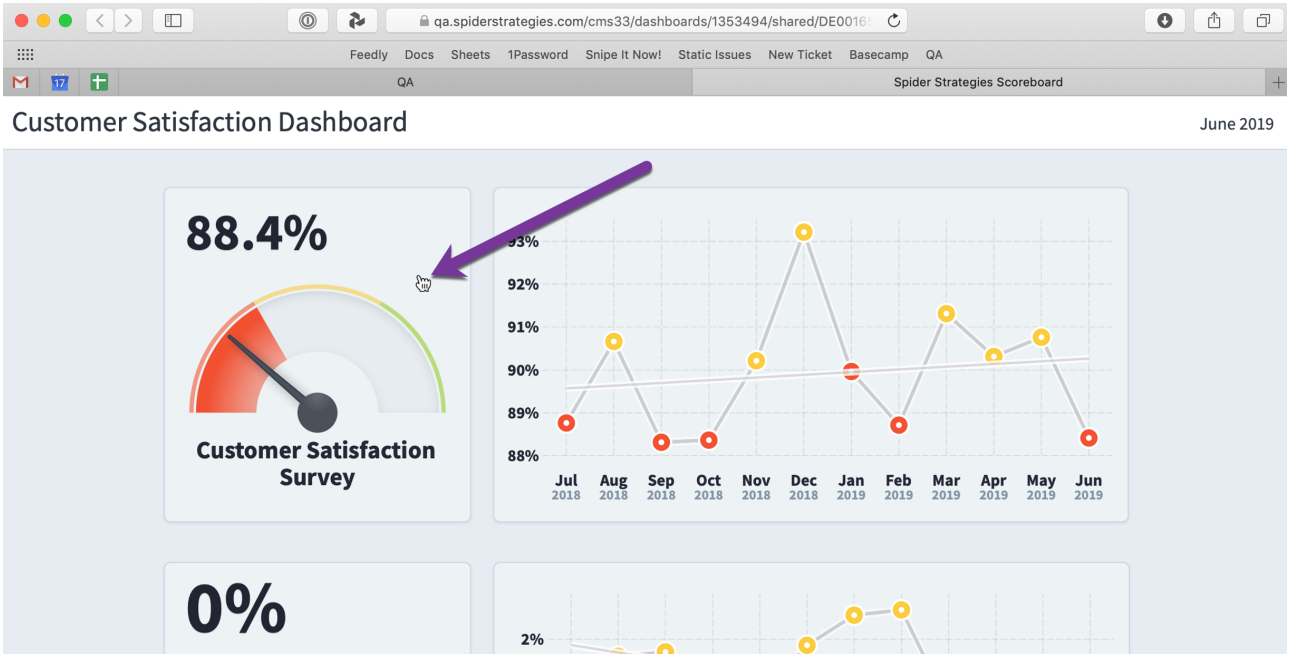


You can see who is sharing items, view the sharing code, and remove shares. By default you can only see and modify your own shares in Administration, but there are group permissions that allow group members to modify all shared forms and modify all shared dashboards and strategy maps.

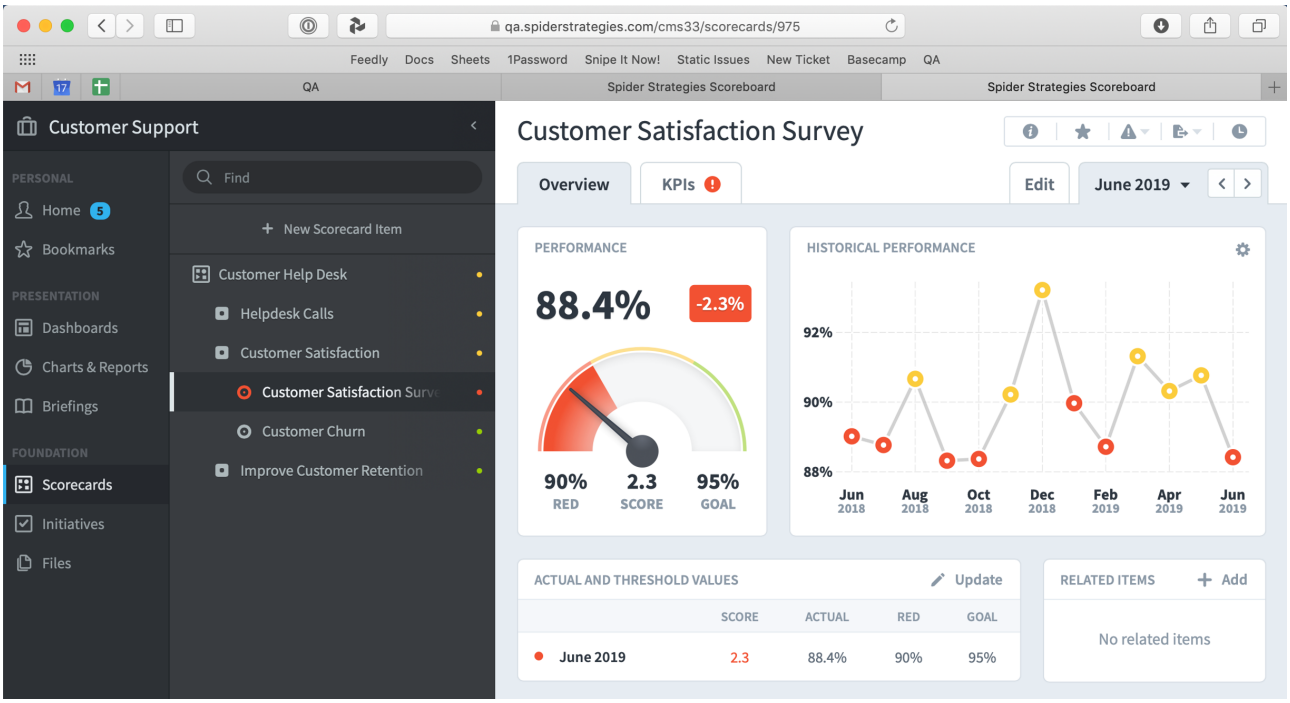


Links in Shared Dashboards and Strategy Maps

Shared dashboards have drill-down links, just as they do in Spider Impact.



Clicking on the link will send you to a login screen if you're not logged in yet, and then directly to the relevant screen in the software.

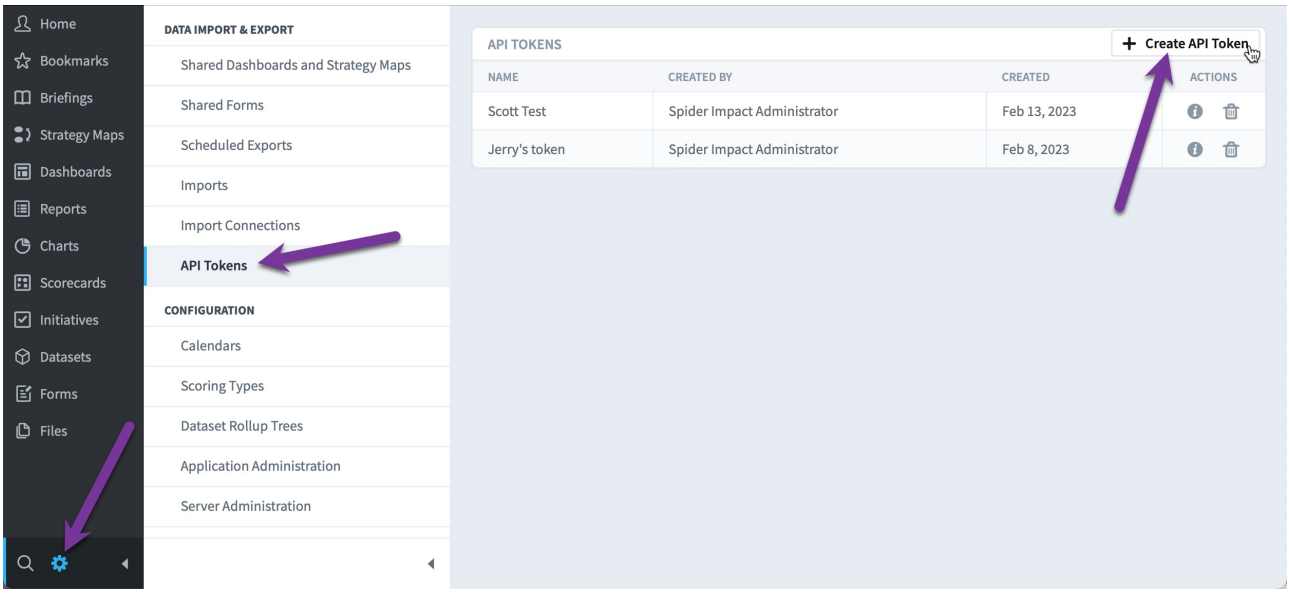


Advanced: Spider Impact API

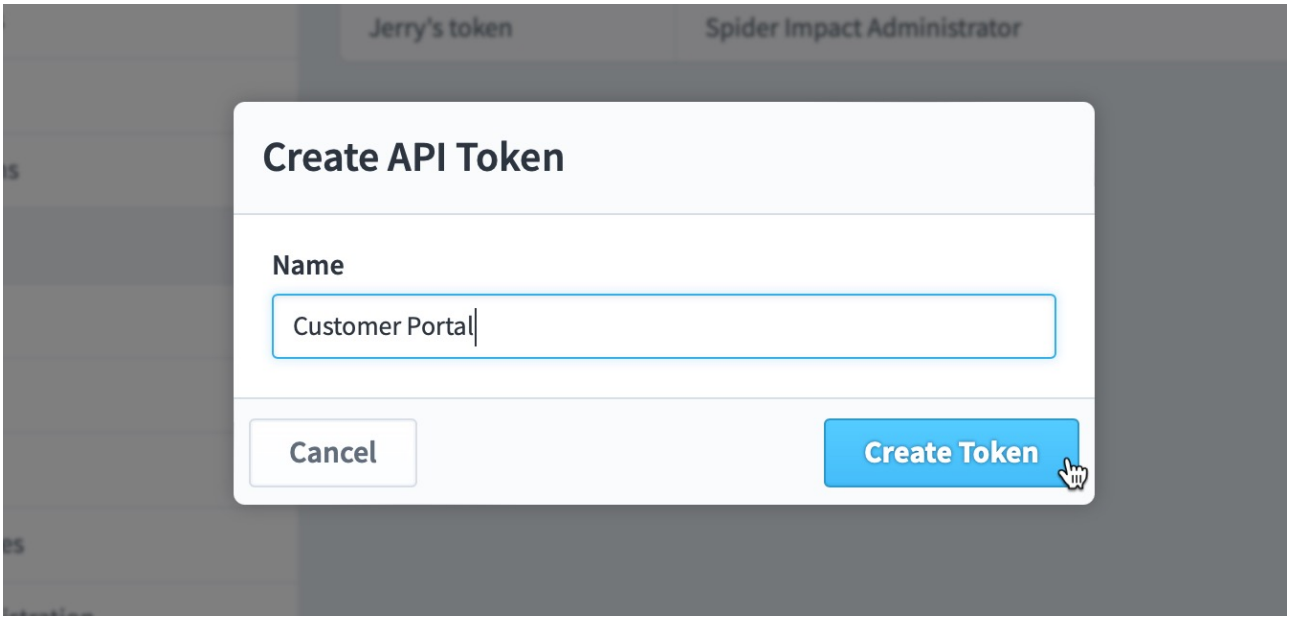
Spider Impact has an API for other software to read information about organizations and scorecards.

API Tokens

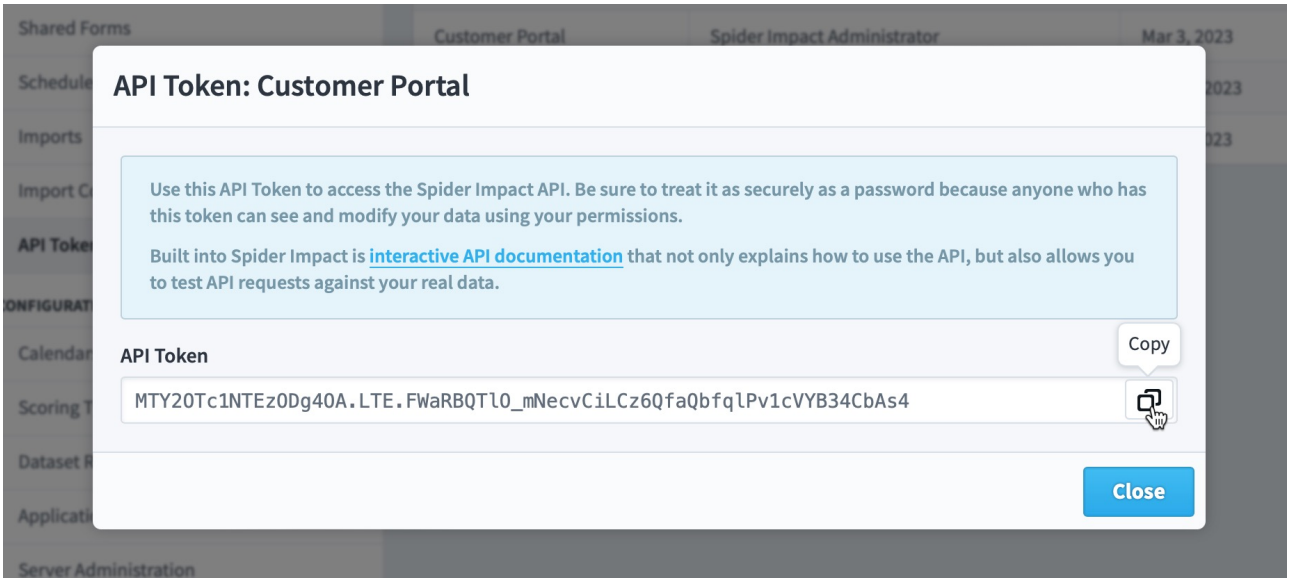
Everything that uses the Spider Impact API needs an API token. To manage these API tokens, go to the API Tokens screen in administration.



When you click "Create API Token" it shows this dialog where you give your new API token a name. It's a good idea to call it something related to the computer or software that will be using it.



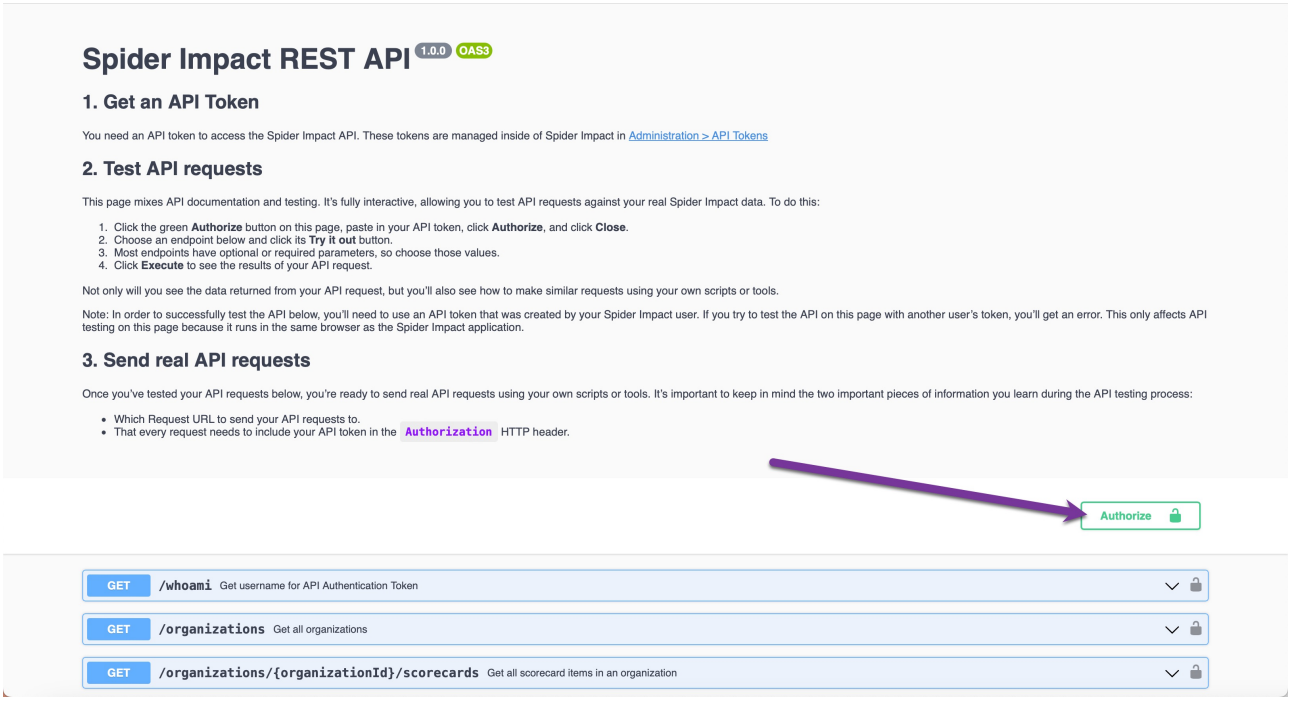
You now have a new API token, and anyone who uses it will interact with Spider Impact as the user you're logged in as right now. Copy the API token by clicking on the Copy link on the right.



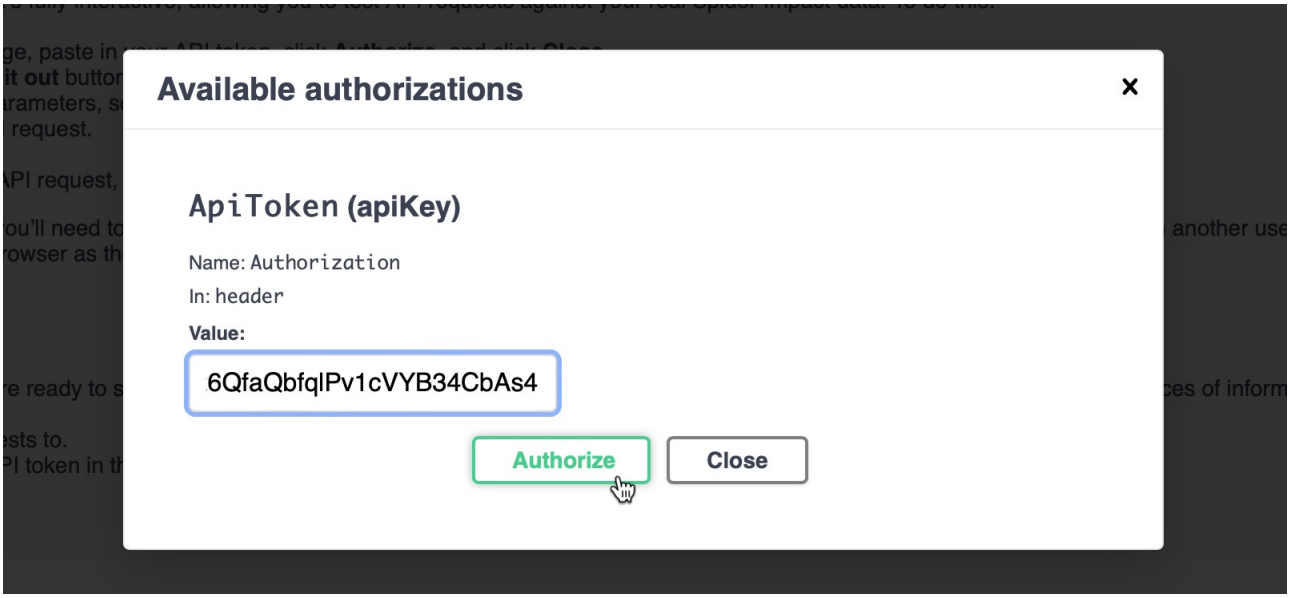
Interactive API Documentation

In the blue instructions in the last screenshot, you'll see an "interactive API documentation" link. When you click this, you'll be taken to the full API documentation that is part of your installation of Spider Impact. This is accessible at a URL like:
https://yourserver.com/resources/api-docs/api-docs.html

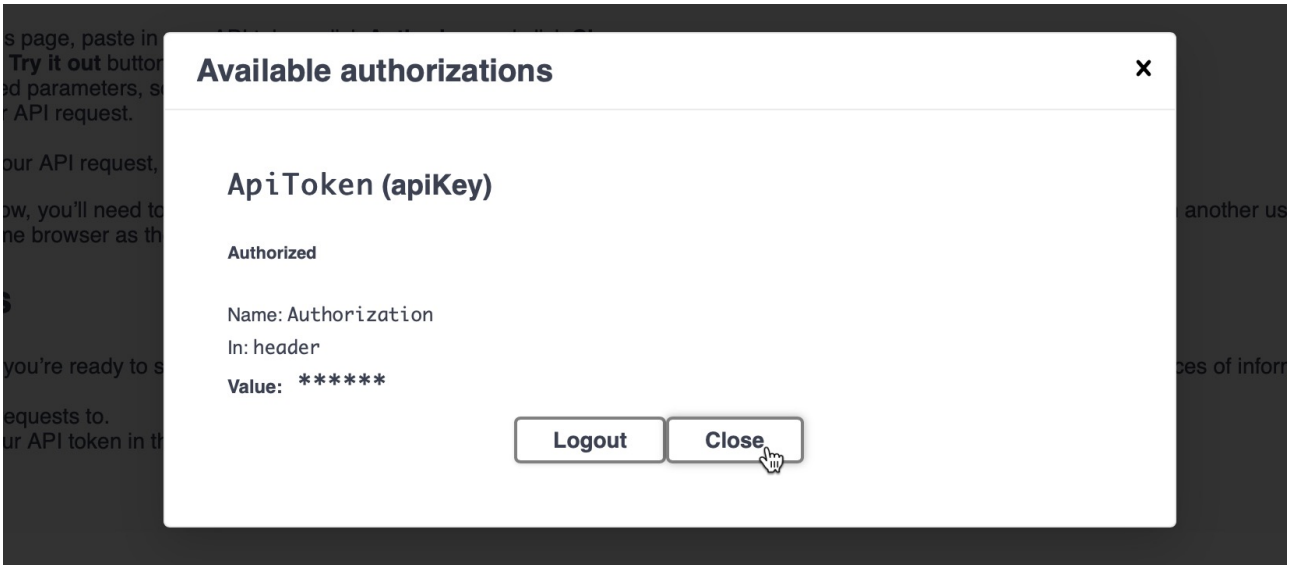
This documentation page explains how to communicate with Spider Impact's API. It also allows you to test the API by interacting with your real data. To start, click the green Authenticate button.



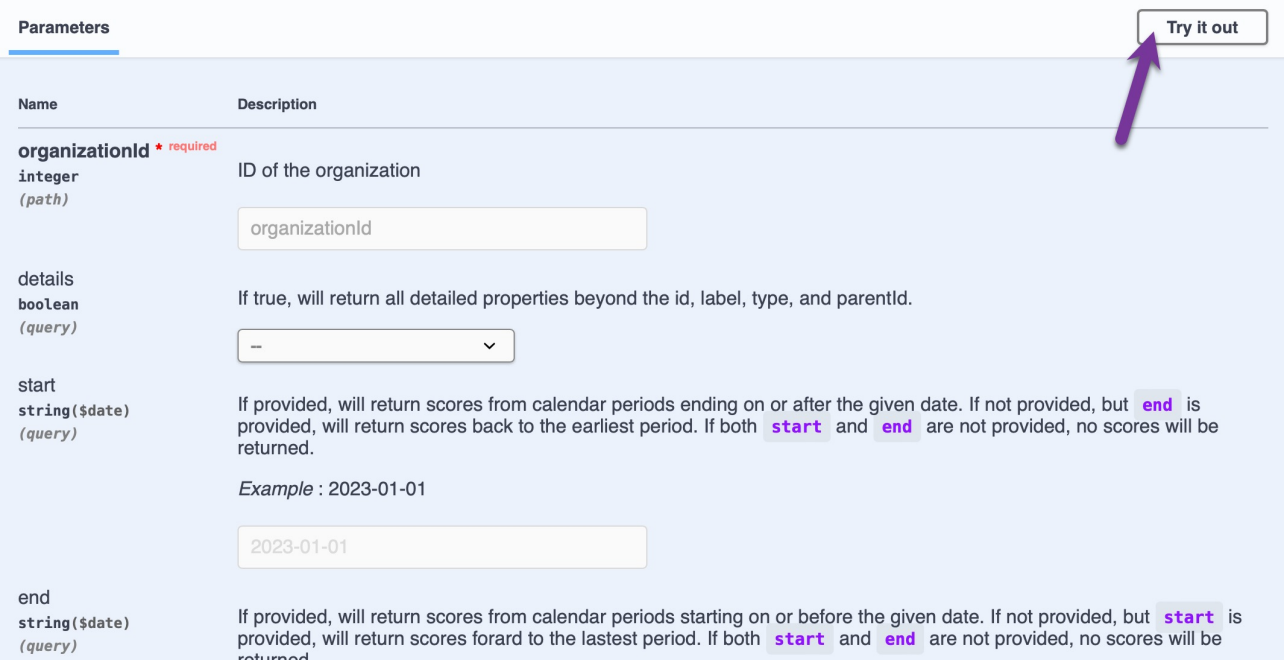
Then paste in your API Token and click Authorize.



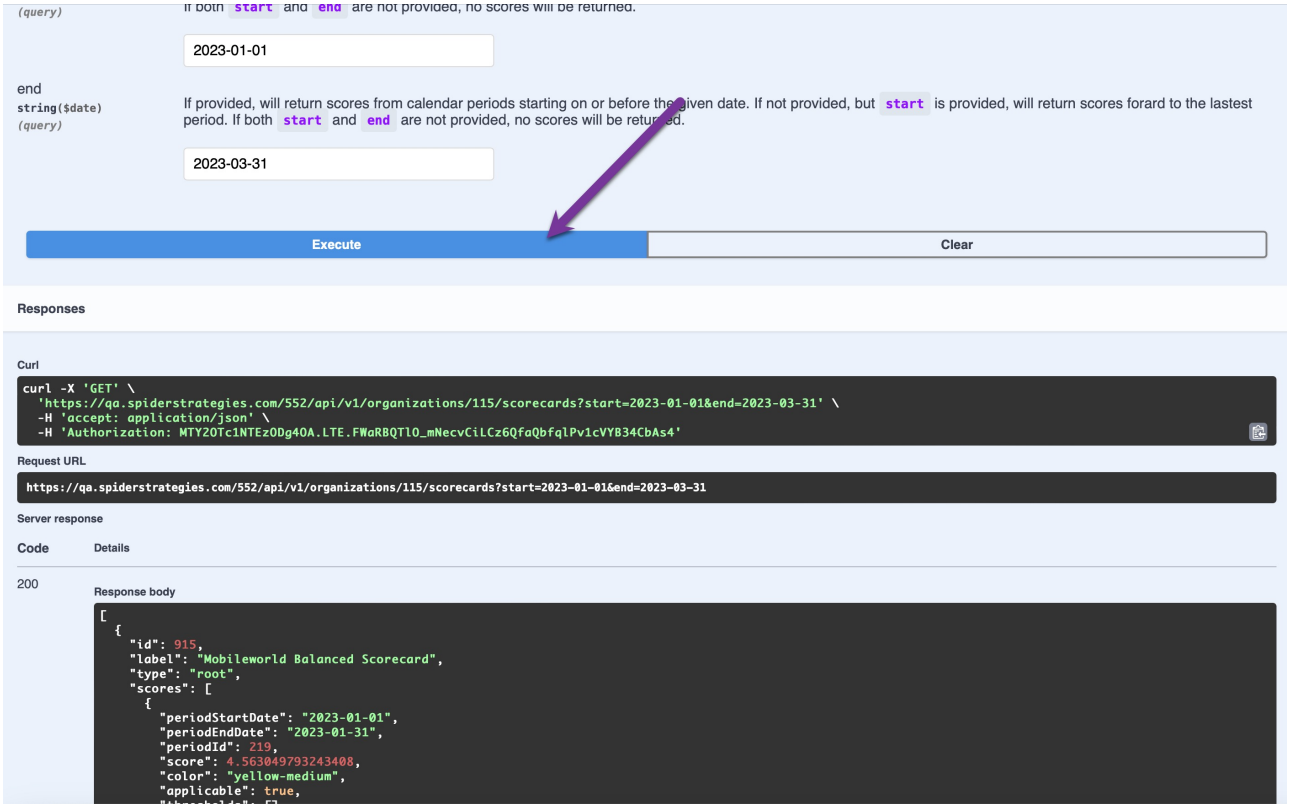
Finally click Close.



Now, when you're viewing the API documentation you'll be able to click the "Try it out" buttons.



These allow you to directly interact with your real data. In this example we've chosen to view information about a specific scorecard, and then clicked the Execute button. The interactive documentation not only shows you the results from the server, but it also shows you the exact request you need to make to the Spider Impact API to get that same data.

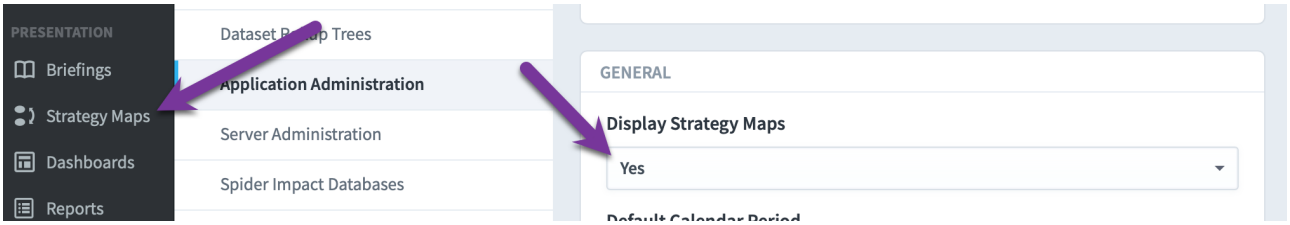

(query)
If both start and end are not provided, no scores will be returned.
2023-01-01
end
string($date)
(query)
If provided, will return scores from calendar periods starting on or before the given date. If not provided, but start is provided, will return scores forard to the lastest period. If both start and end are not provided, no scores will be returned.
2023-03-31
Execute
Clear
Responses
Curl
curl -X 'GET' \
'https://qa.spiderstrategies.com/552/api/v1/organizations/115/scorecards?start=2023-01-01&end=2023-03-31' \
-H 'accept: application/json' \
-H 'Authorization: MTY2OTc1NTEzODg4OA.LTE.FWaRBQTlO_mNecvCiLCz6QfaQbfqlPv1cVYB34CbAs4'
Request URL
https://qa.spiderstrategies.com/552/api/v1/organizations/115/scorecards?start=2023-01-01&end=2023-03-31
Server response
Code
Details
200
Response body
[
{
"id": 915,
"label": "Mobileworld Balanced Scorecard",
"type": "root",
"scores": [
{
"periodStartDate": "2023-01-01",
"periodEndDate": "2023-01-31",
"periodId": 219,
"score": 4.563049793243408,
"color": "yellow-medium",
"applicable": true,

Application Administration

Choosing Terminology and Methodology

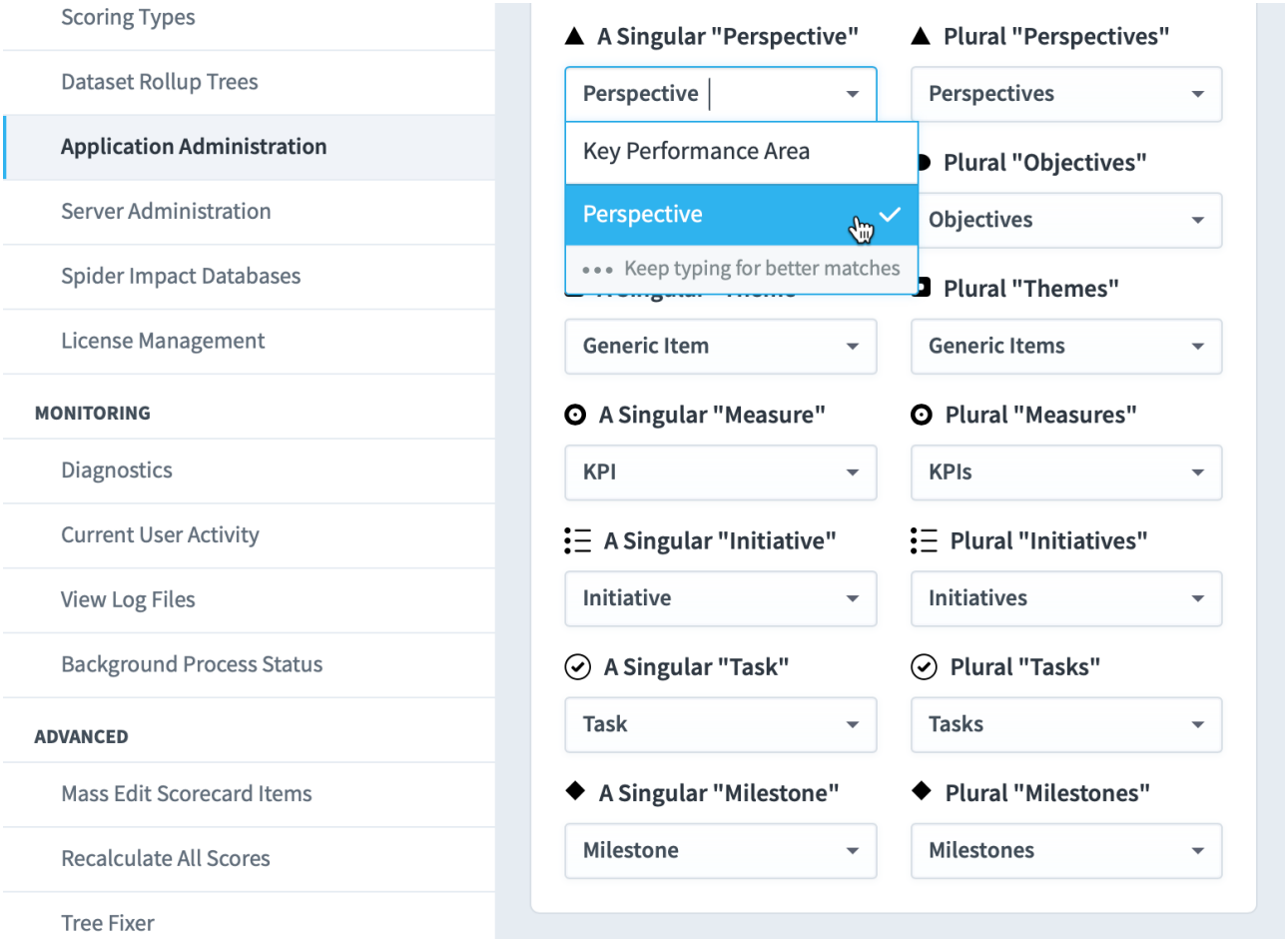
Enabling and Disabling Strategy Maps

Strategy Maps are similar to Dashboards, but they're solely focused on showing your big-picture strategy. If your organization doesn't use the balanced scorecard methodology, however, you can disable Strategy Maps in Application Administration and just use Dashboards.

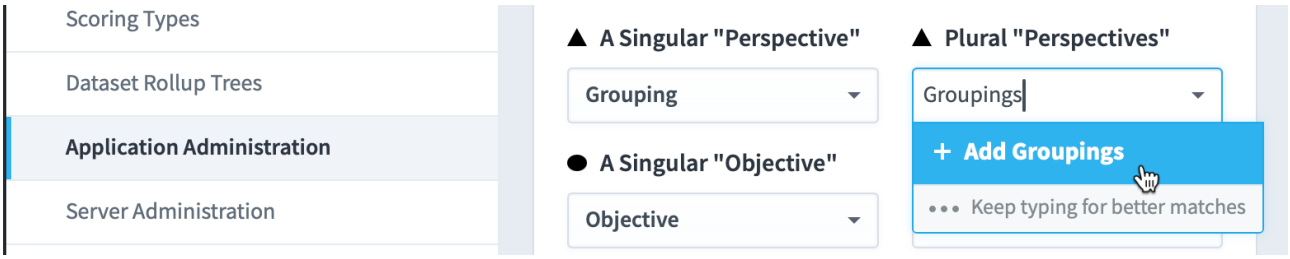


Configuring Initiative and Scorecard Item Names

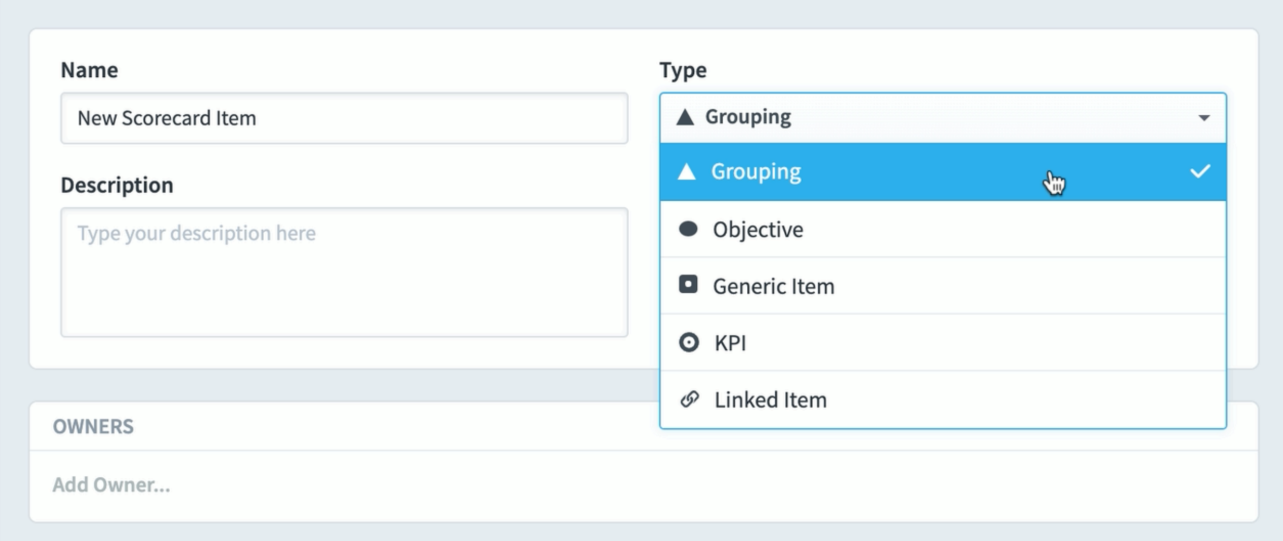
Many organizations have names for their performance items that differ from the standard Spider Impact defaults. You can now configure these scorecard and initiative item names in Application administration. You can choose from popular pre-defined names like "Key Performance Area" and "Perspective".



Or you can type whatever language you want. In this example we're using the term "Grouping".



Now when we create a scorecard item, it calls the object a Grouping.



Further Language Customizations

Every phrase in Spider Impact can be replaced with wording that you choose, including translating the entire app into another language. This requires maintaining your own customer message resource file. For assistance, please contact support@spiderstrategies.com.

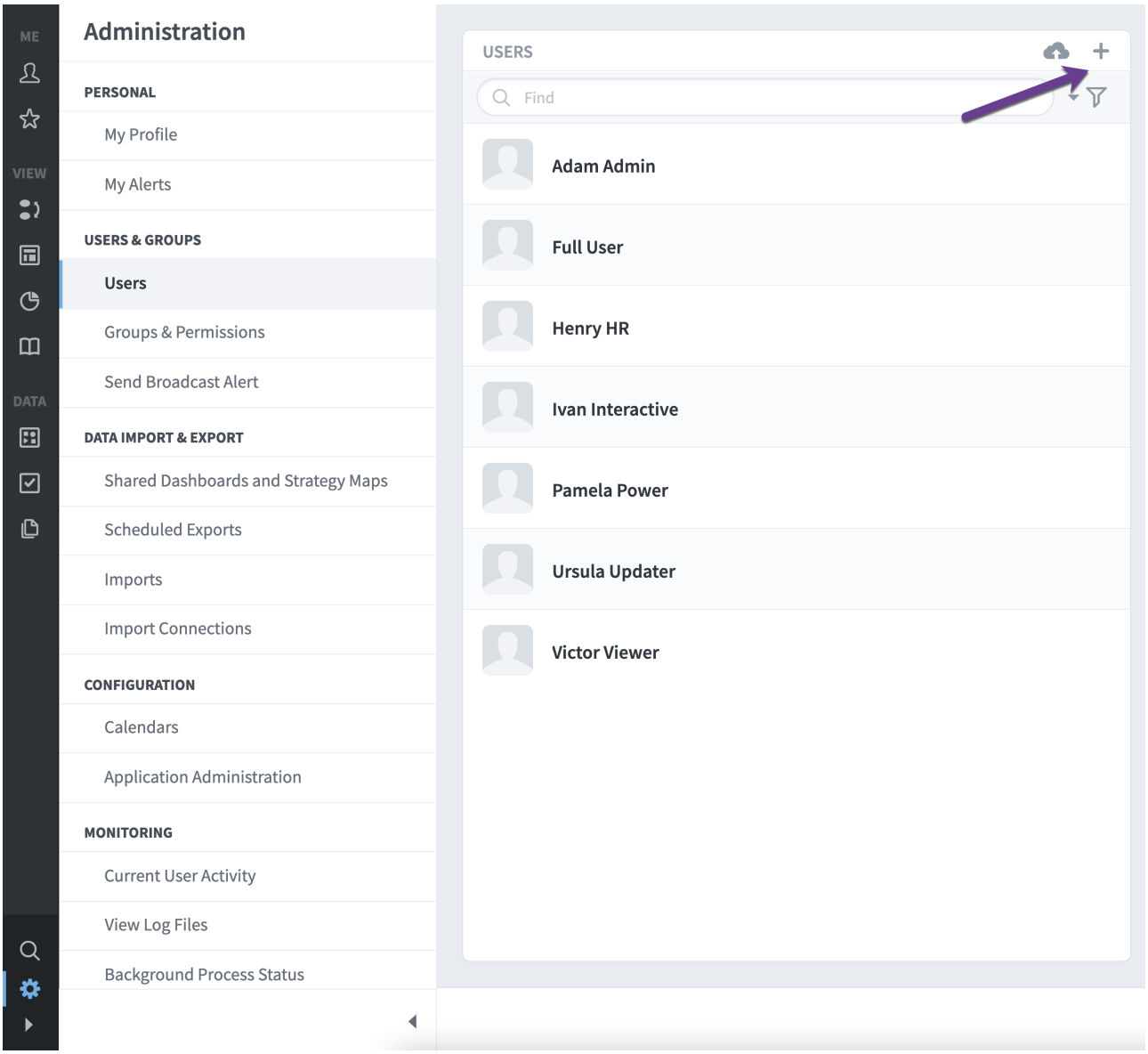
Users

Overview

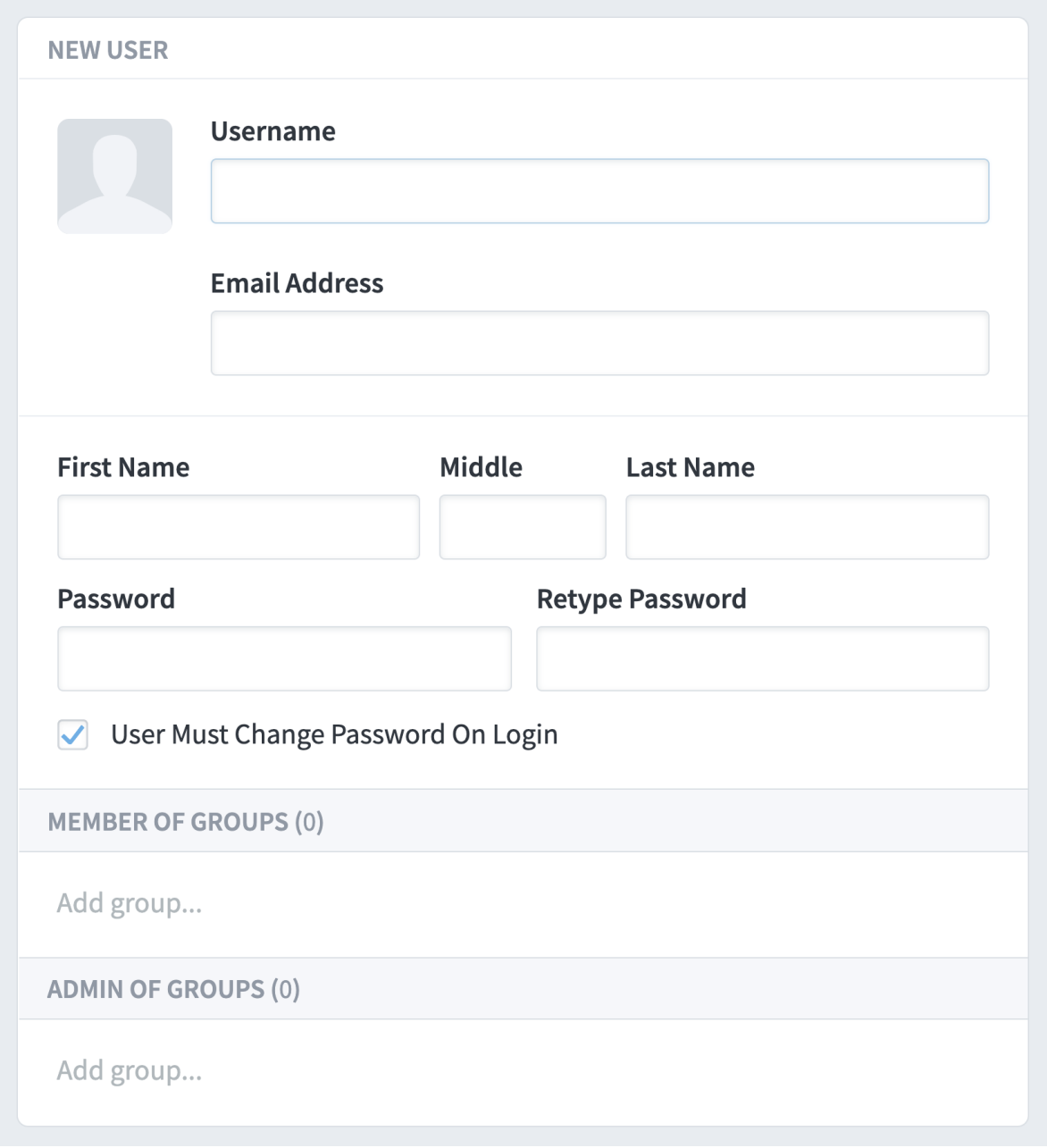
Users are created and managed on the Admin > Users screen.

Adding Users

You can add a new user using the + button.

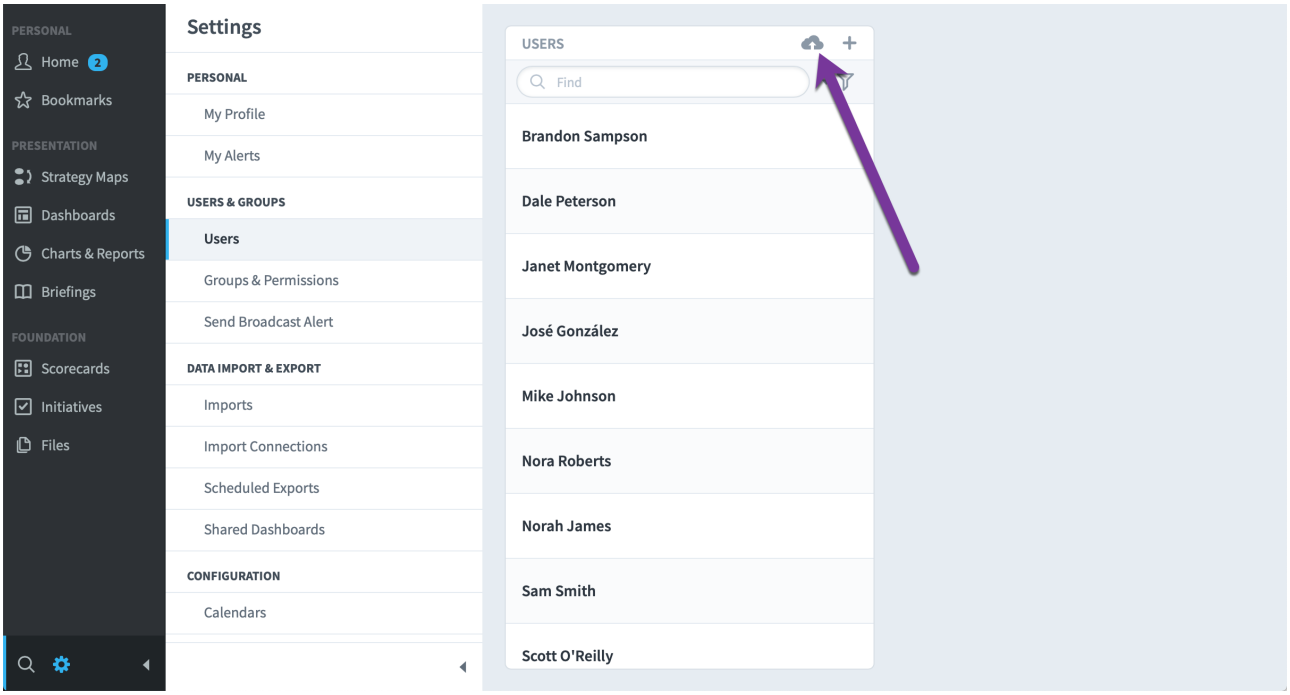


You can then enter a username, email address, first and last name, and password. You have the option of whether or not the user must change their password on initial login, and can assign the user as a member or admin of a group.

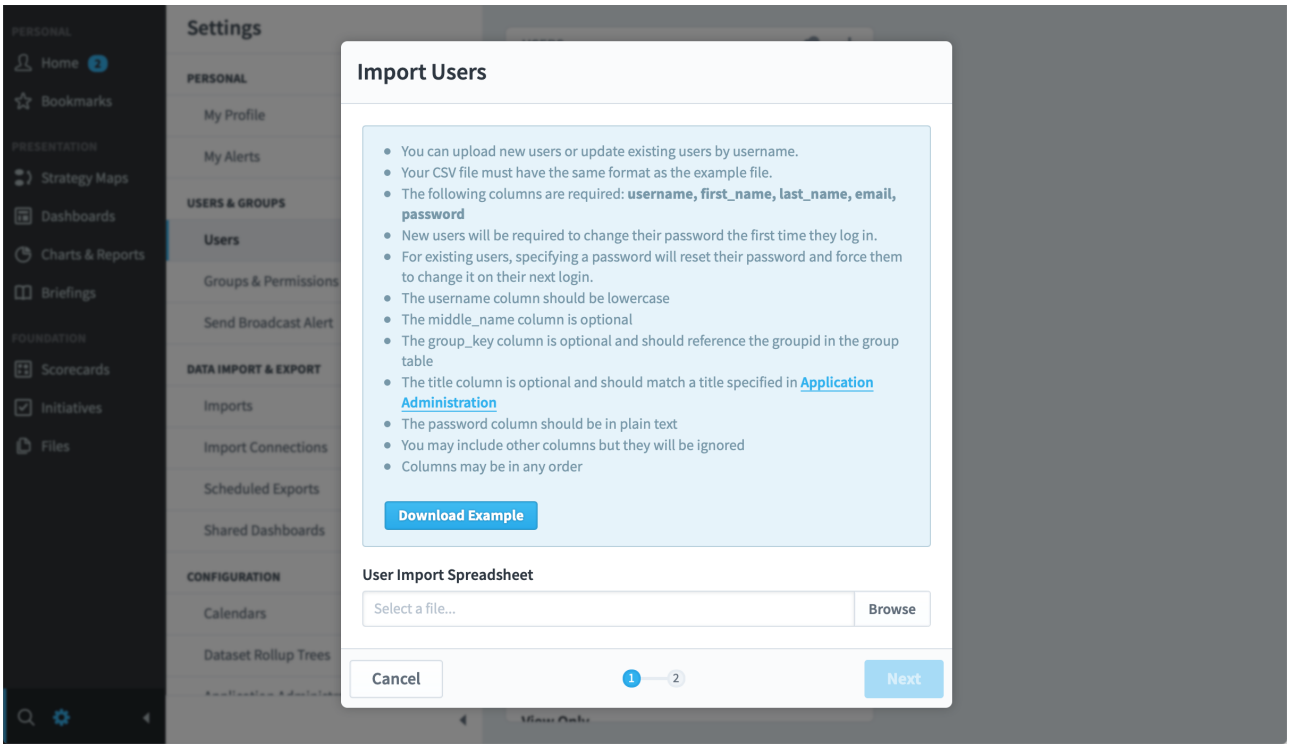


Importing Users

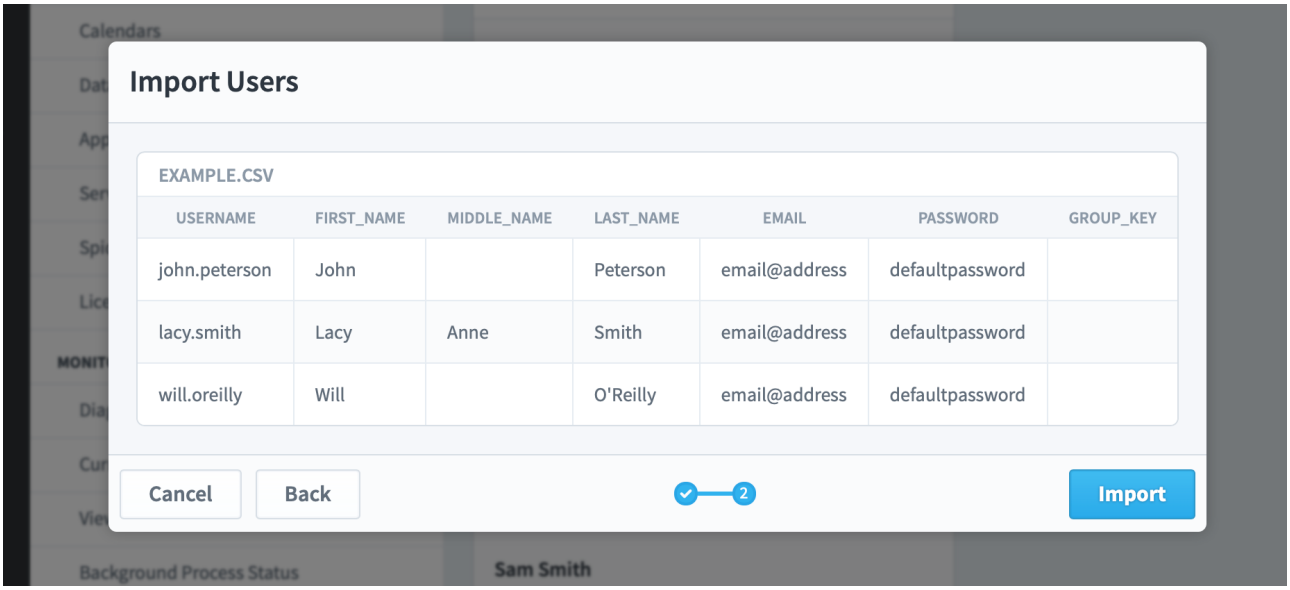
Rather than manually adding users one at a time, administrators can import multiple users at a time via spreadsheet. To start, just click on the "Import" button.



This brings up a dialog where you can upload your spreadsheet. It also has instructions on data format and an example file to download. You can build up a list of users to include their username, email address, first and last name, and password (the middle name, group_key, and title columns are optional). Once the file has been developed, you can import the users using the Browse button.

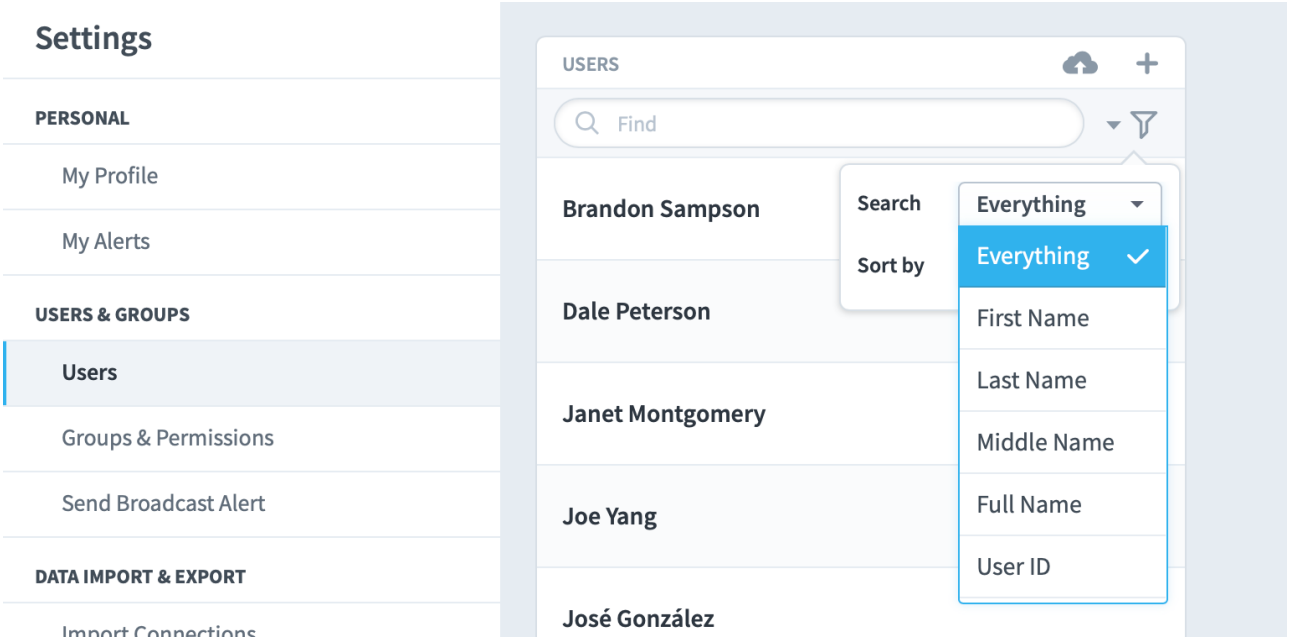


Before you run the import, you can preview your data and you will be alerted to any invalid fields. For existing users, specifying a password will reset it and force them to change it on their next login.



Searching Specific User Fields

Administrators can now choose which fields to search against when editing users. It defaults to Everything to match the previous functionality.



Permissions

User permissions are defined within groups.

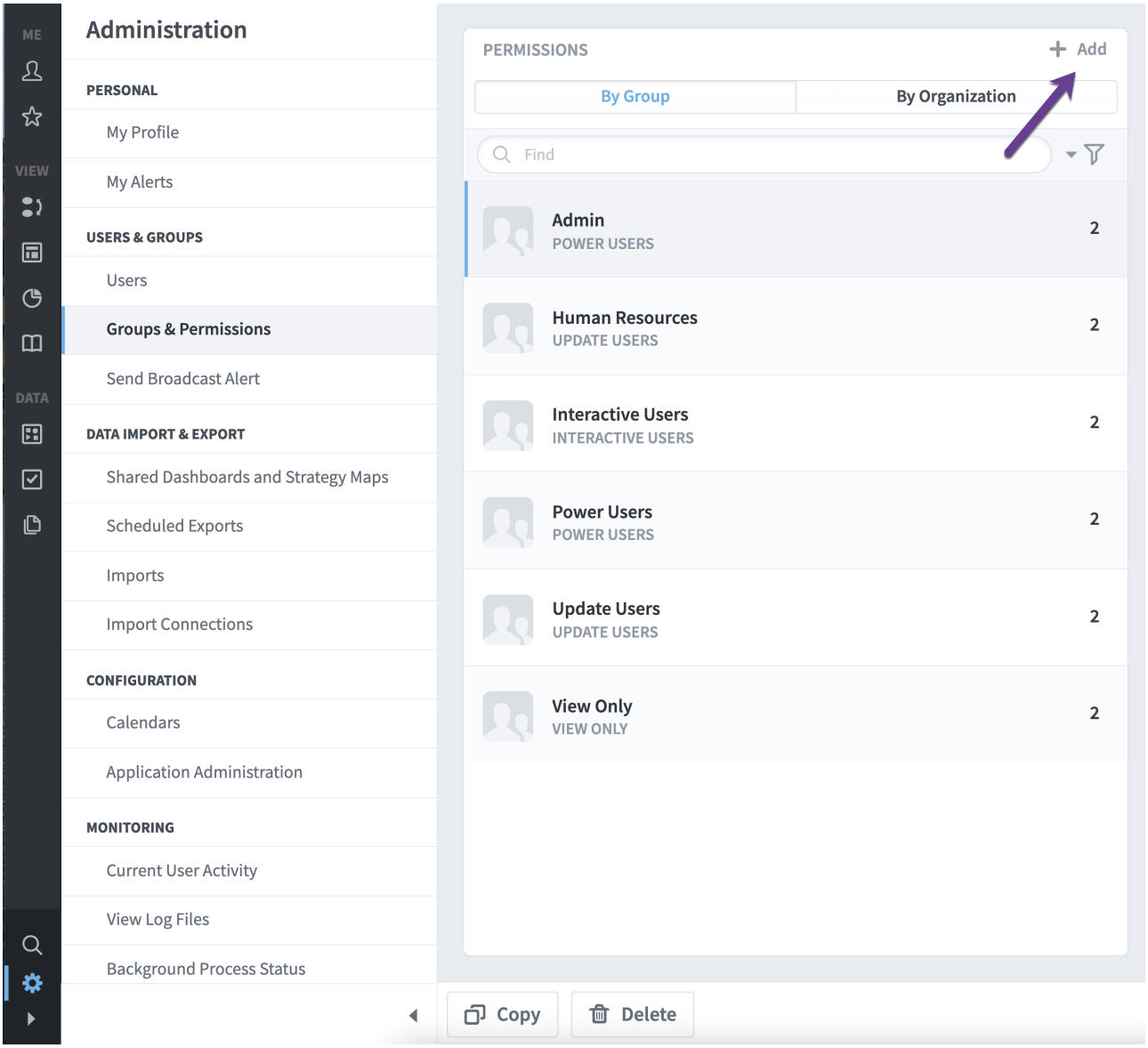
Groups

Overview

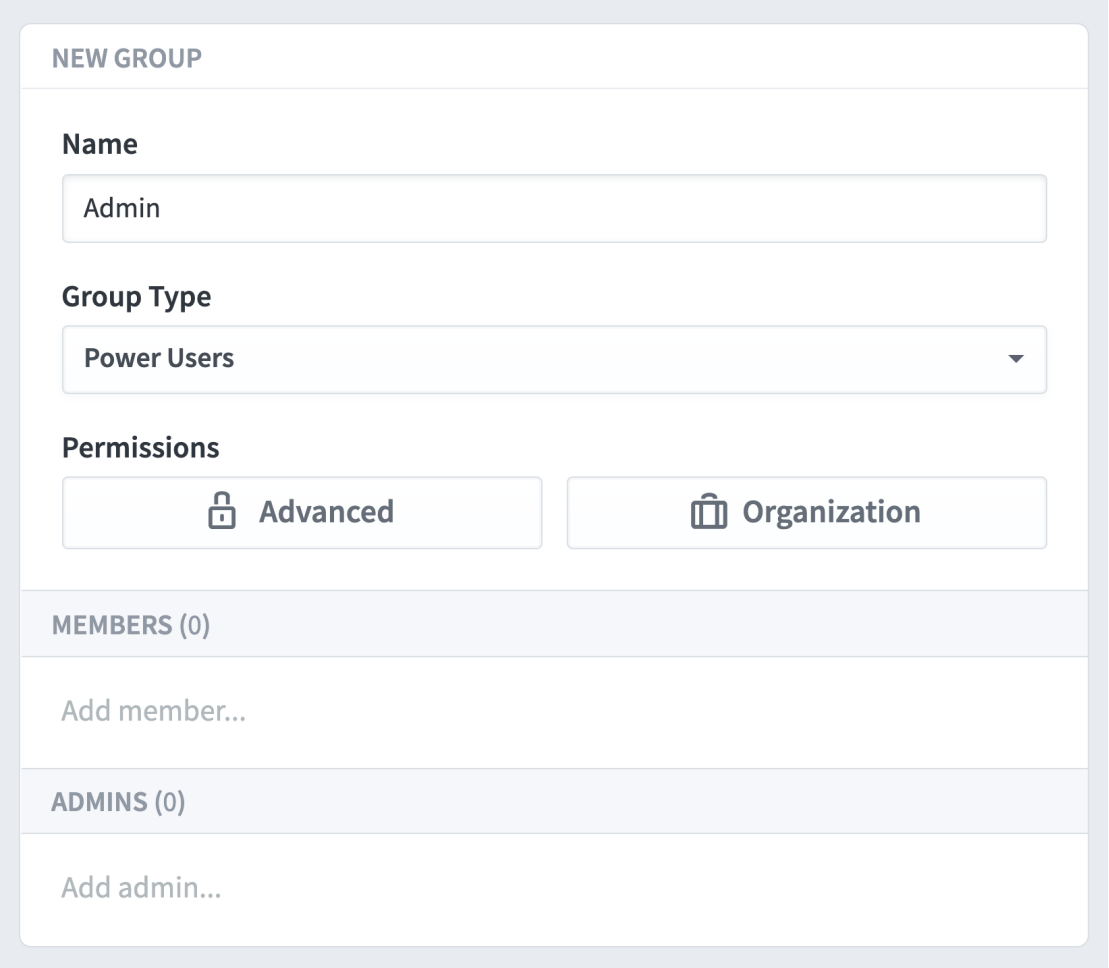
Groups are created and managed on the Admin > Groups & Permissions screen. Groups determine permissions within Spider Impact. Permissions applied to a group are granted to all of its members.

Creating Groups

You can create a new group using the + Add button.



You can then enter a name for the group, select a group type, apply Advanced and Organization permissions, add group members and group admins.

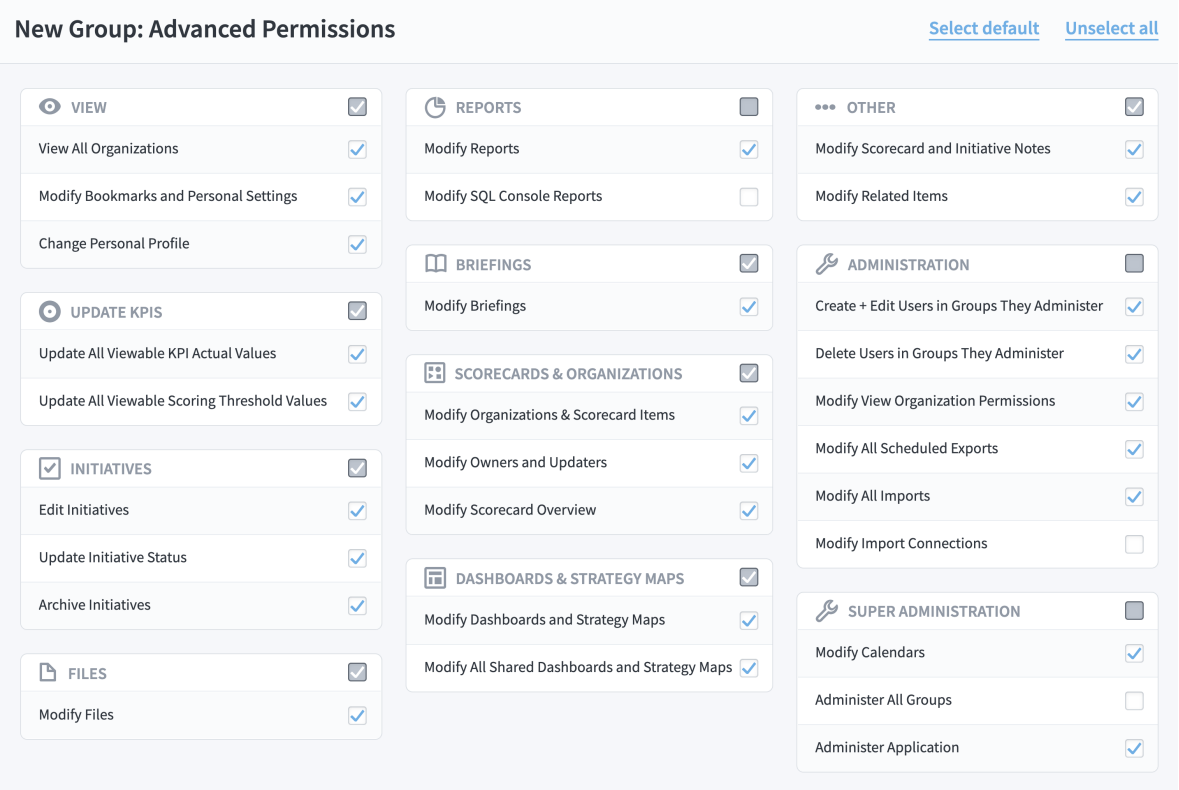


Group Types

You can pick from four different group types. Once you pick a group type, permissions for the group can be set under Advanced.

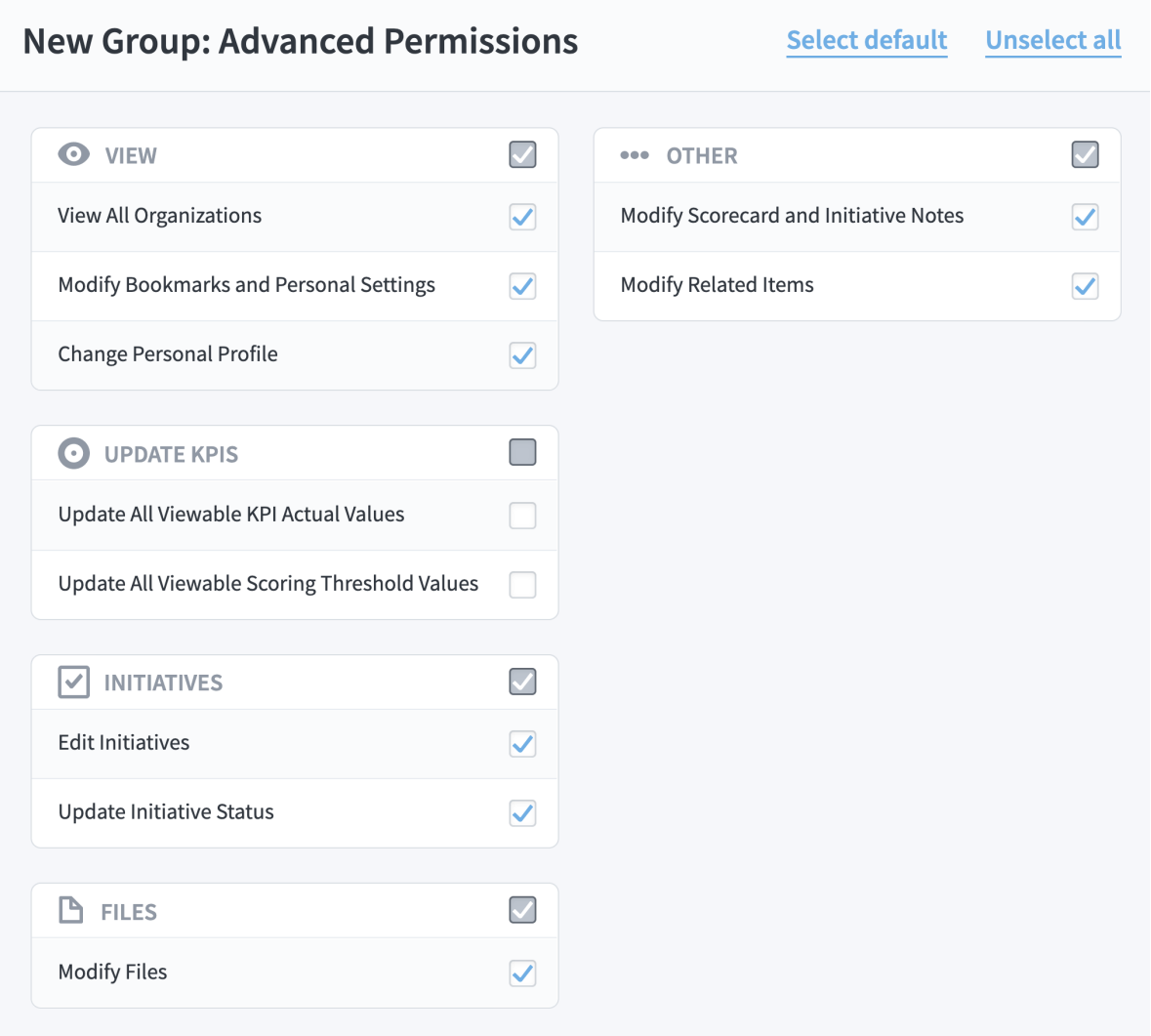
Power Users

Power Users have the most permissions available to them. Administrators are typically set as power users and granted all permissions.



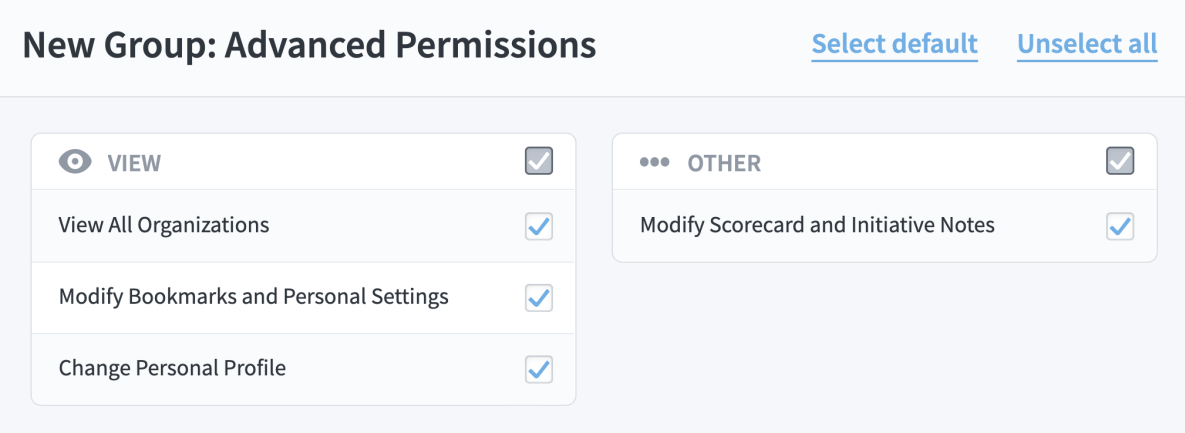
Update Users

Update Users can own items, set bookmarks, update KPI actual values and thresholds, add notes, modify files, set alerts and create tasks.



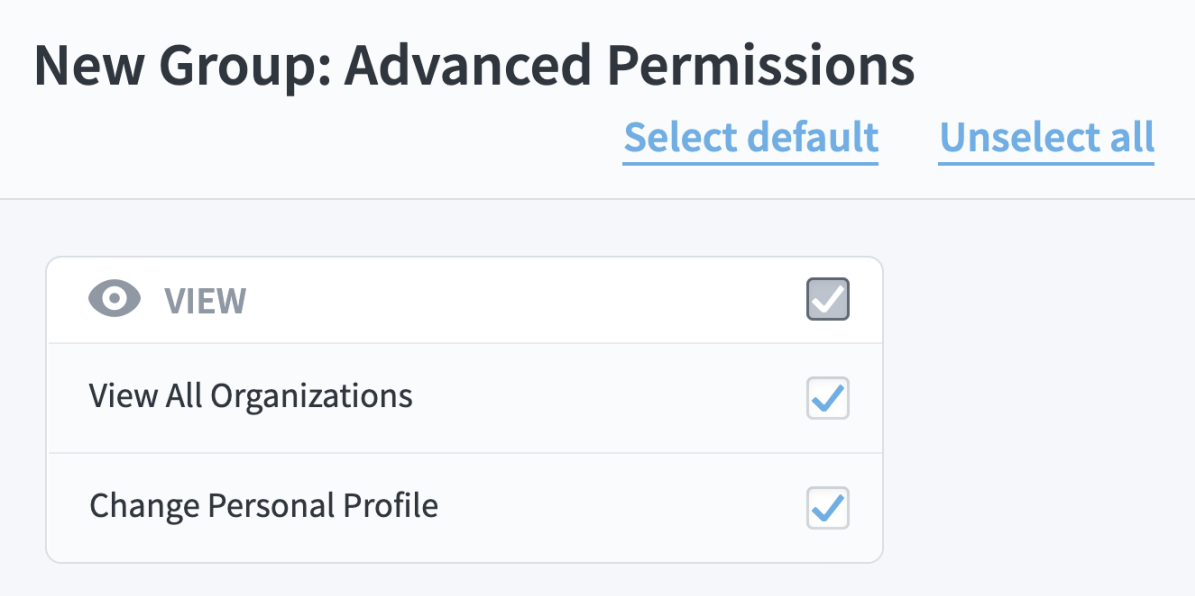
Interactive Users

Interactive Users can set bookmarks, add notes and set alerts. Company executives are typically set as interactive users and granted the ability to see all organizations. They can review performance and comment on their findings.



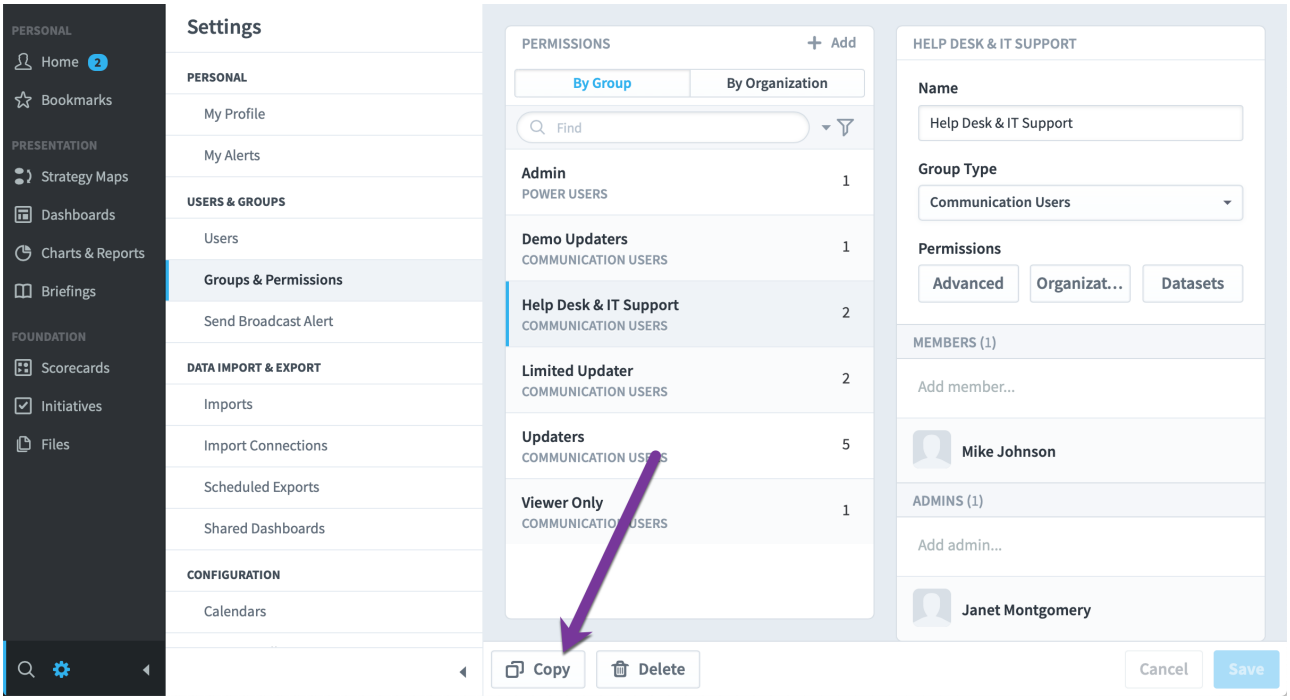
View Only

View Only users can only view things in Spider Impact.

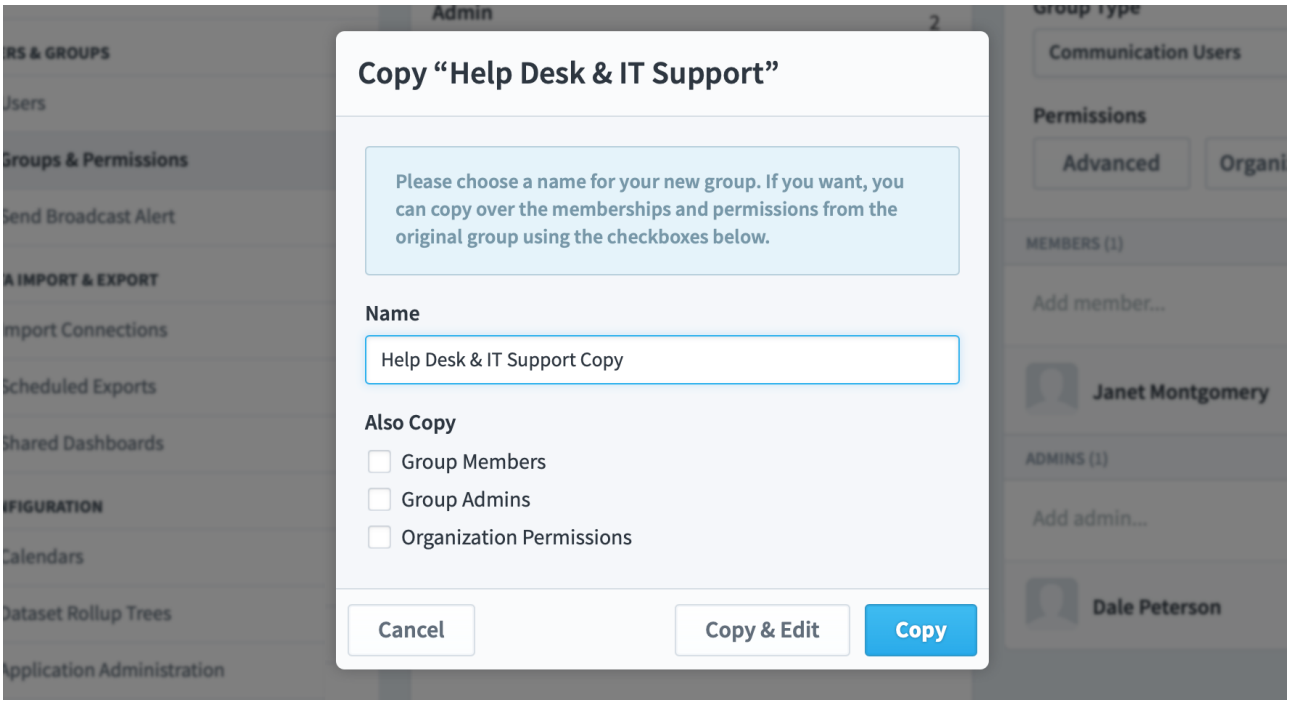


Copying Groups

You can copy a group by selecting the group and selecting the Copy button.

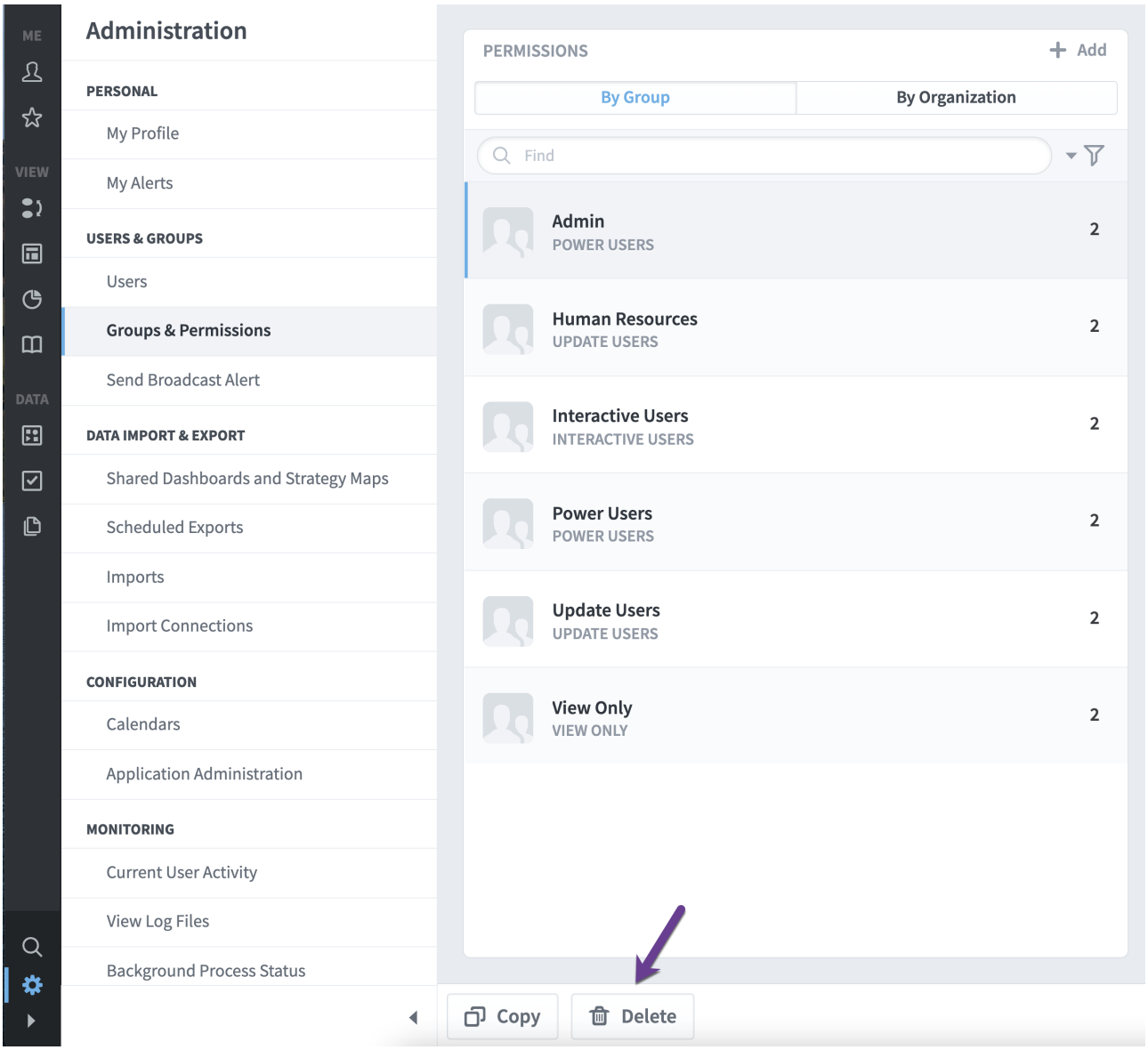


You can then rename the group, and choose whether or not to copy the original group's members, admins, and organization permissions (Advanced permissions automatically carry-over).



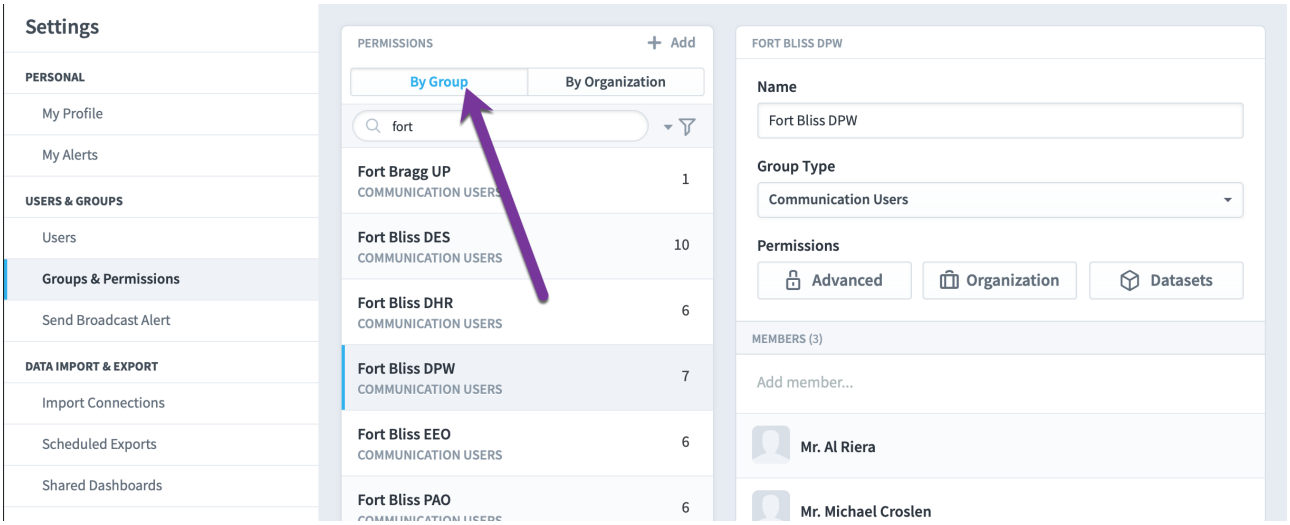
Deleting Groups

You can delete a group by selecting the group and clicking the Delete button.



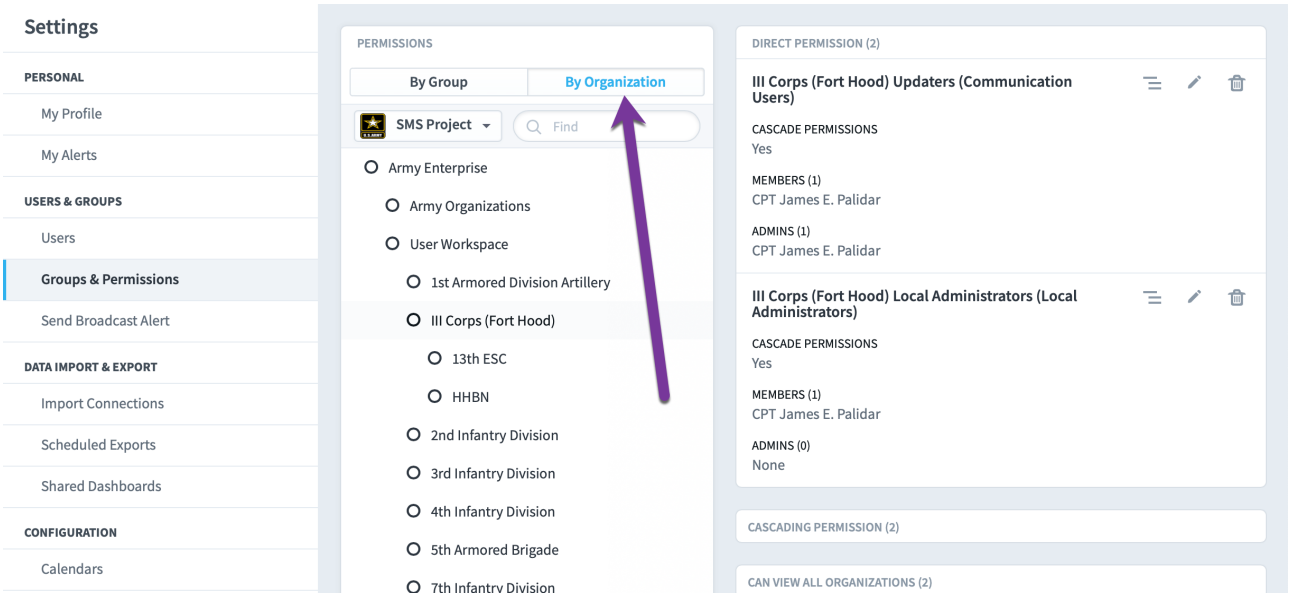
By Group vs. By Organization

You can edit a group by group or organization - the default view is "By Group".



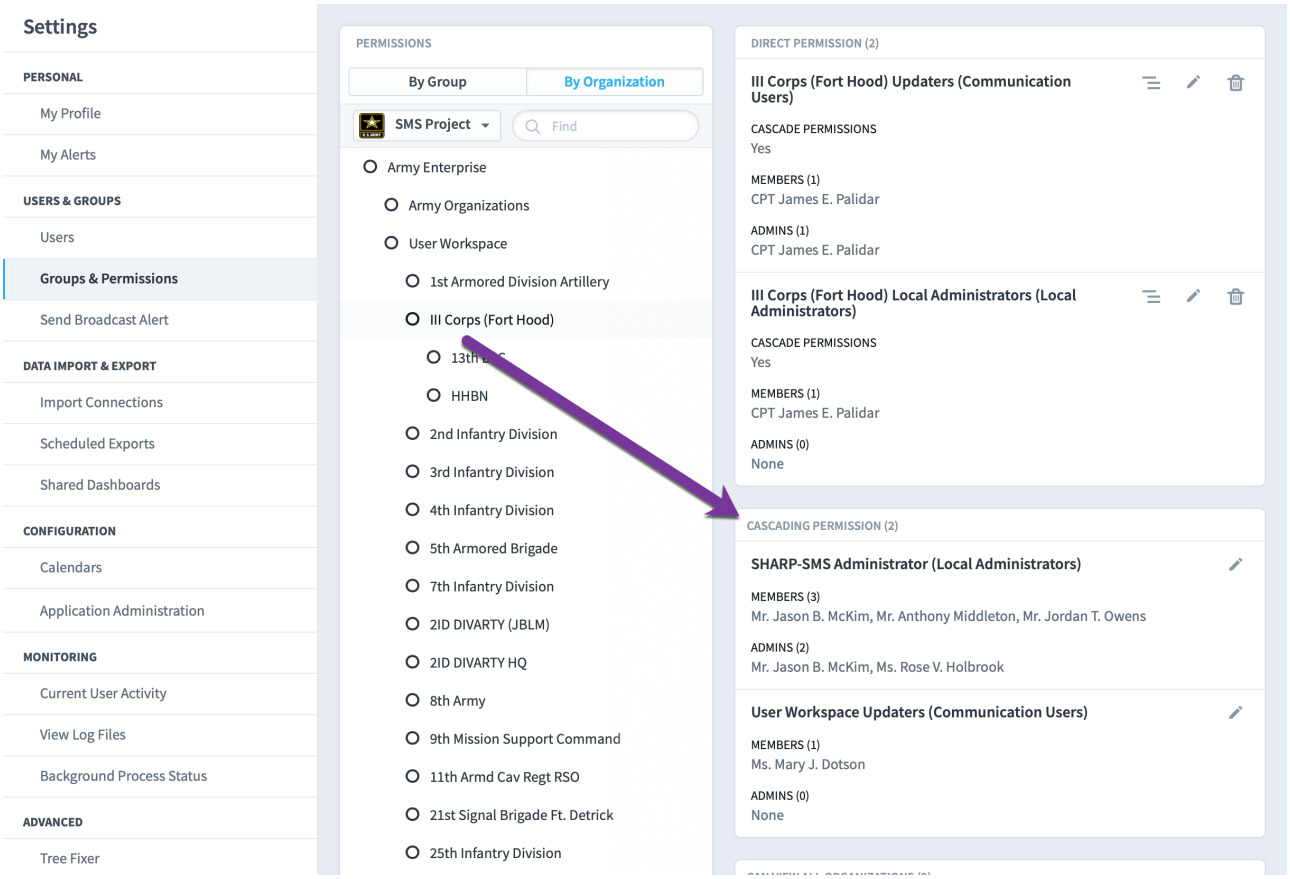
The "By Organization" view allows administrators to see all groups who can view a particular organization. The idea here is that you can choose an organization and then see exactly who has permission to view it.

The top window on the right shows all of the groups that have "Direct Permissions" to the selected organization.

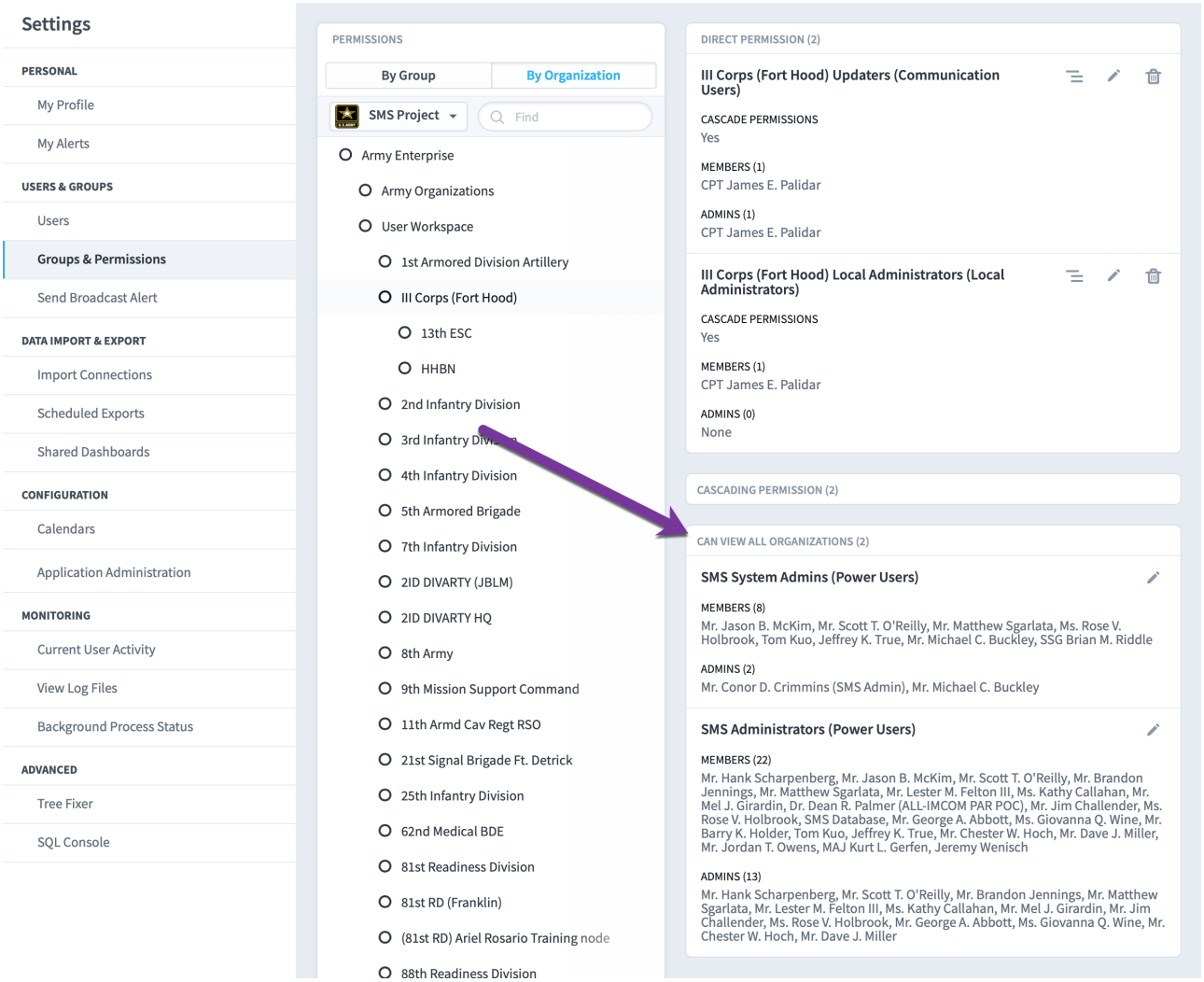


Administrators can also expand the "Cascading Permissions" box to see the groups who can see the selected organization based on permission to a higher-level

organization.



Similarly, administrators can also expand the "Can View All Organizations" box to see who can view the organization based on global permissions.

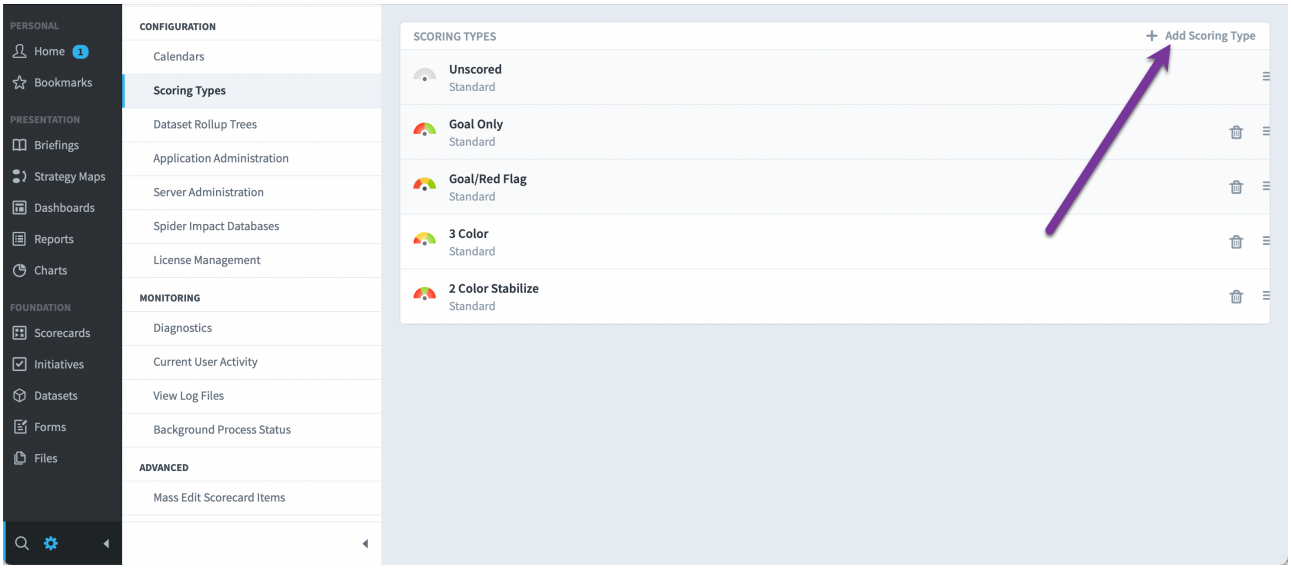

Settings
PERSONAL
My Profile
My Alerts
USERS & GROUPS
Users
Groups & Permissions
Send Broadcast Alert
DATA IMPORT & EXPORT
Import Connections
Scheduled Exports
Shared Dashboards
CONFIGURATION
Calendars
Application Administration
MONITORING
Current User Activity
View Log Files
Background Process Status
ADVANCED
Tree Fixer
SQL Console
PERMISSIONS
By Group
By Organization
SMS Project
Find
Army Enterprise
Army Organizations
User Workspace
1st Armored Division Artillery
III Corps (Fort Hood)
13th ESC
HHBN
2nd Infantry Division
3rd Infantry Division
4th Infantry Division
5th Armored Brigade
7th Infantry Division
2ID DIVARTY (JBLM)
2ID DIVARTY HQ
8th Army
9th Mission Support Command
11th Armd Cav Regt RSO
21st Signal Brigade Ft. Detrick
25th Infantry Division
62nd Medical BDE
81st Readiness Division
81st RD (Franklin)
(81st RD) Ariel Rosario Training node
88th Readiness Division
DIRECT PERMISSION (2)
III Corps (Fort Hood) Updaters (Communication Users)
CASCADE PERMISSIONS
Yes
MEMBERS (1)
CPT James E. Palidar
ADMINS (1)
CPT James E. Palidar
III Corps (Fort Hood) Local Administrators (Local Administrators)
CASCADE PERMISSIONS
Yes
MEMBERS (1)
CPT James E. Palidar
ADMINS (0)
None
CASCADING PERMISSION (2)
CAN VIEW ALL ORGANIZATIONS (2)
SMS System Admins (Power Users)
MEMBERS (8)
Mr. Jason B. McKim, Mr. Scott T. O'Reilly, Mr. Matthew Sgarlata, Ms. Rose V. Holbrook, Tom Kuo, Jeffrey K. True, Mr. Michael C. Buckley, SSG Brian M. Riddle
ADMINS (2)
Mr. Conor D. Crimmins (SMS Admin), Mr. Michael C. Buckley
SMS Administrators (Power Users)
MEMBERS (22)
Mr. Hank Scharpenberg, Mr. Jason B. McKim, Mr. Scott T. O'Reilly, Mr. Brandon Jennings, Mr. Matthew Sgarlata, Mr. Lester M. Felton III, Ms. Kathy Callahan, Mr. Mel J. Girardin, Dr. Dean R. Palmer (ALL-IMCOM PAR POC), Mr. Jim Challender, Ms. Rose V. Holbrook, SMS Database, Mr. George A. Abbott, Ms. Giovanna Q. Wine, Mr. Barry K. Holder, Tom Kuo, Jeffrey K. True, Mr. Chester W. Hoch, Mr. Dave J. Miller, Mr. Jordan T. Owens, MAJ Kurt L. Gerfen, Jeremy Wenisch
ADMINS (13)
Mr. Hank Scharpenberg, Mr. Scott T. O'Reilly, Mr. Brandon Jennings, Mr. Matthew Sgarlata, Mr. Lester M. Felton III, Ms. Kathy Callahan, Mr. Mel J. Girardin, Mr. Jim Challender, Ms. Rose V. Holbrook, Mr. George A. Abbott, Ms. Giovanna Q. Wine, Mr. Chester W. Hoch, Mr. Dave J. Miller

Editing Scoring Types

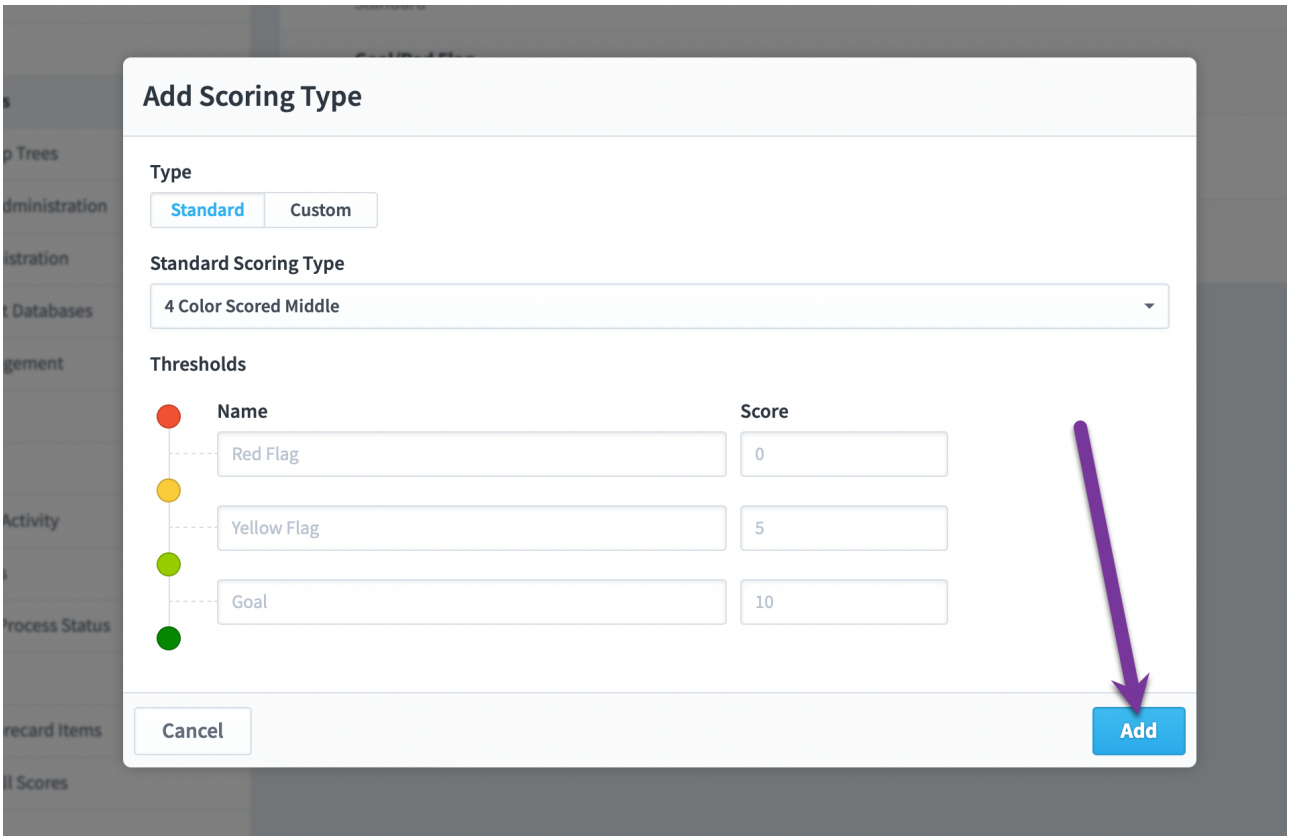
This article covers how to choose and edit the KPI scoring types that are available in Spider Impact. For information about actually using these KPI scoring types, see the Using KPI Scoring Types article. For information on changing how scores are displayed, see the App Administration: Scoring article.

Choosing Standard Scoring Types

The Scoring Types page in the Administration section allows you to choose which scoring types are available for both KPIs and non-KPIs. This allows system administrators to show fewer scoring type options to users. You can order scoring types via drag and drop, and you can add new scoring types by clicking the "Add Scoring Type" button.

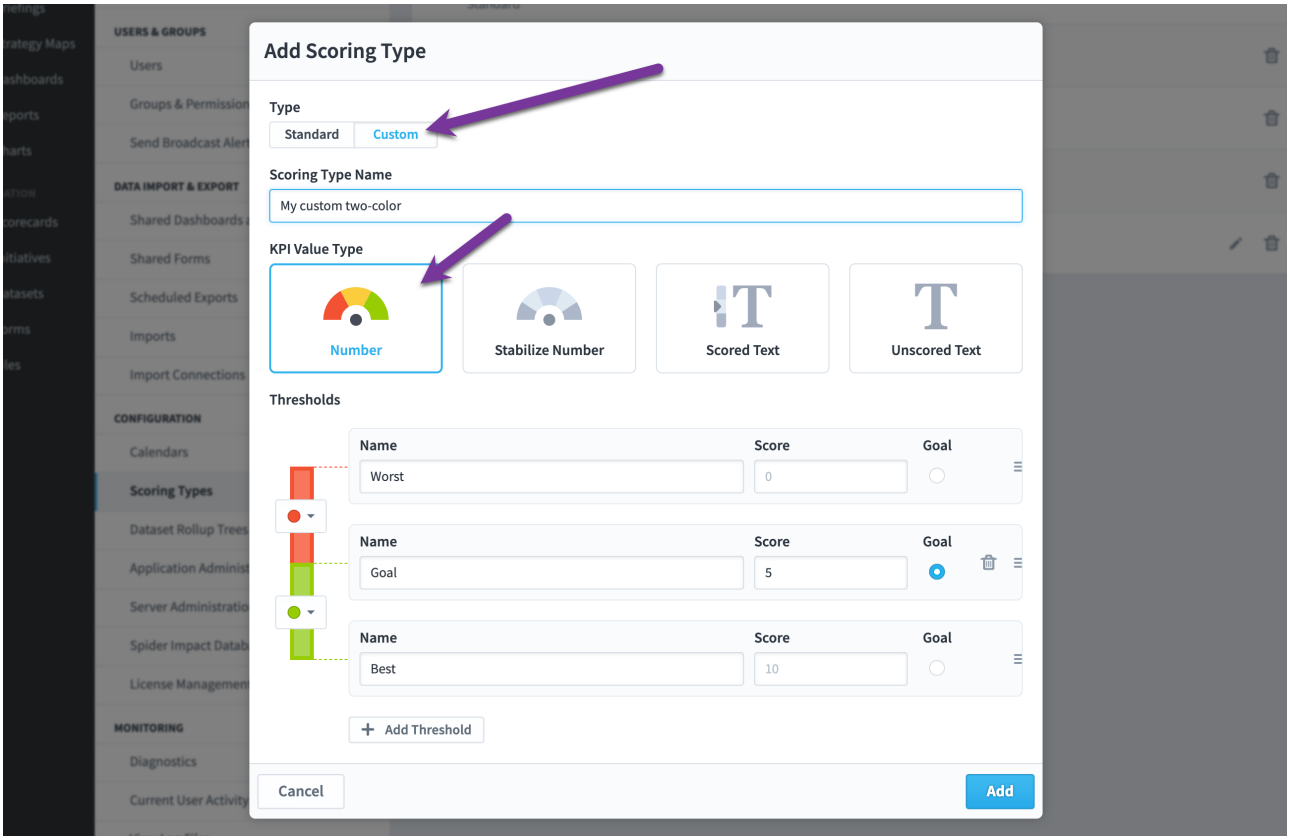


Here we're adding the standard "4 Color Scored Middle" scoring type, and when we select it, we can see a preview of that scoring type's thresholds and scores.

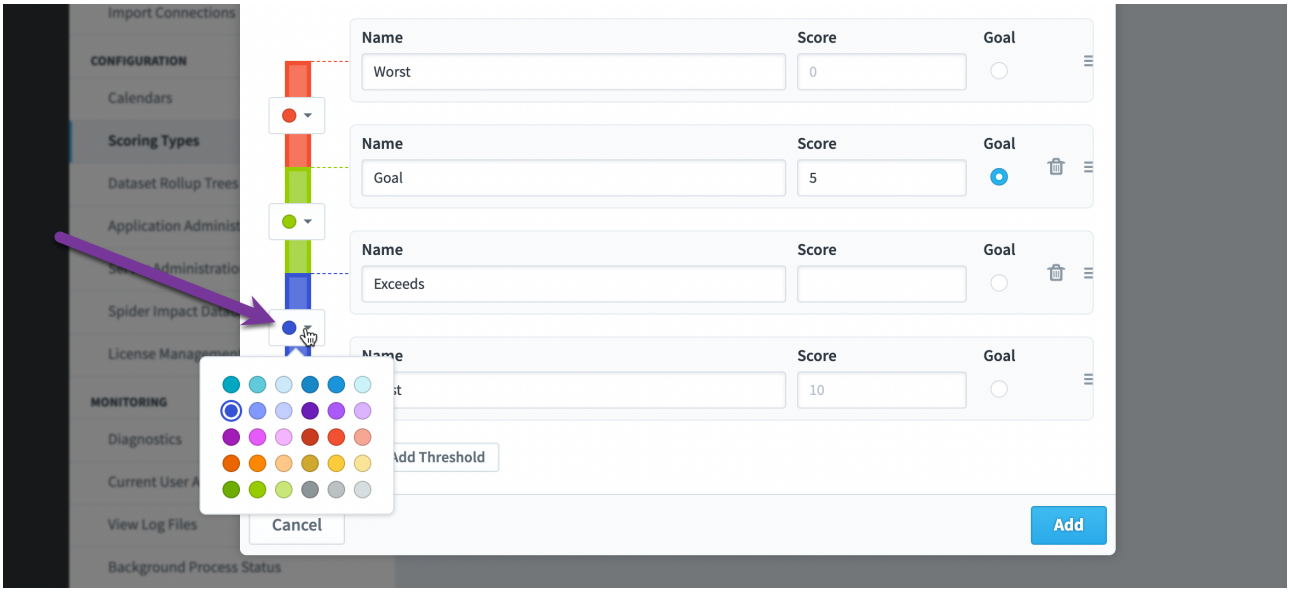


Custom Number Scoring Types

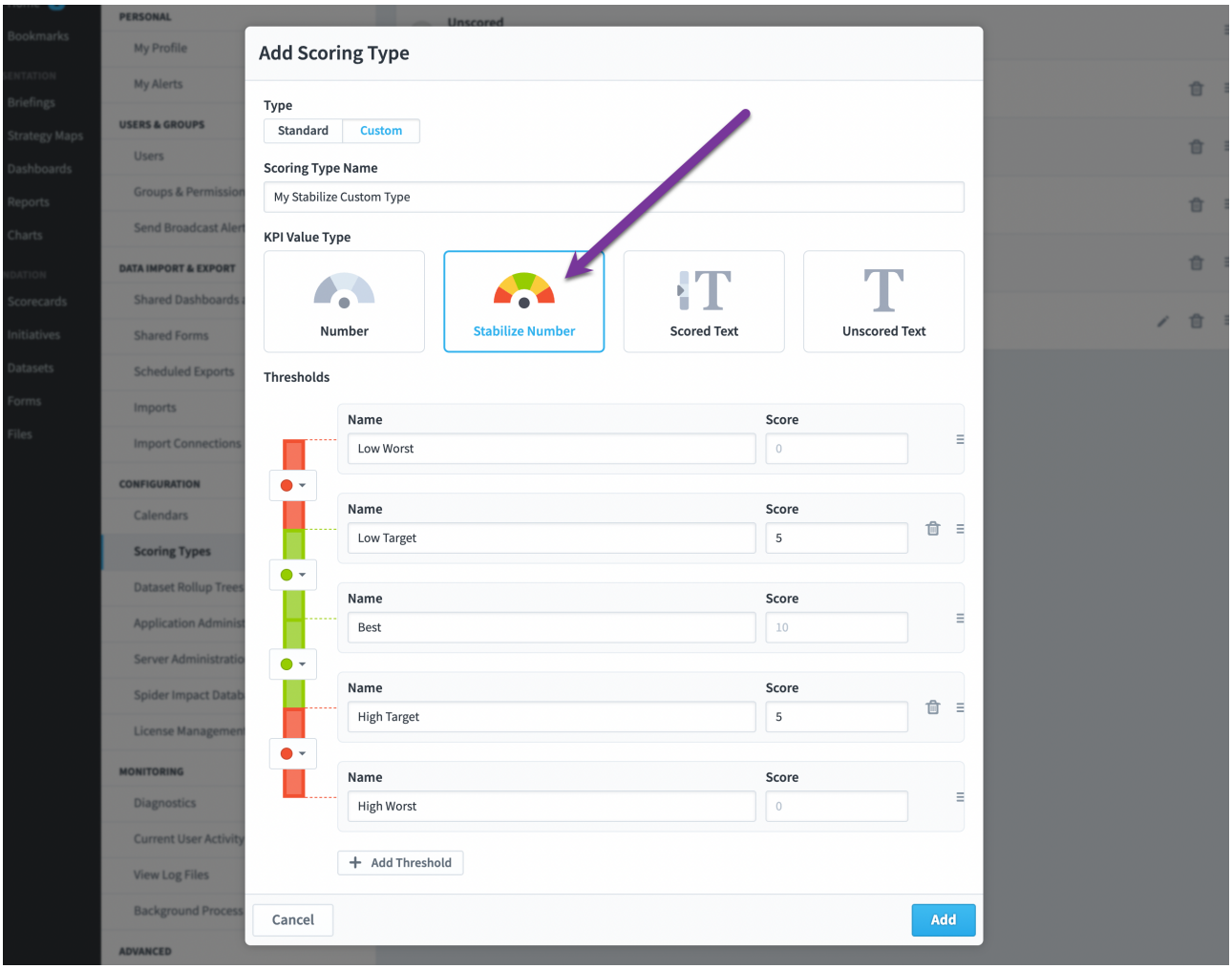
You can add custom scoring types to match any unconventional colors or thresholds you may have in your organization. Custom Number scoring types allow you to choose the number of thresholds, what they're called, what their scores are, and the colors between them.



Here we've added a fourth threshold and are choosing to make the KPI blue whenever the score is more than 9.



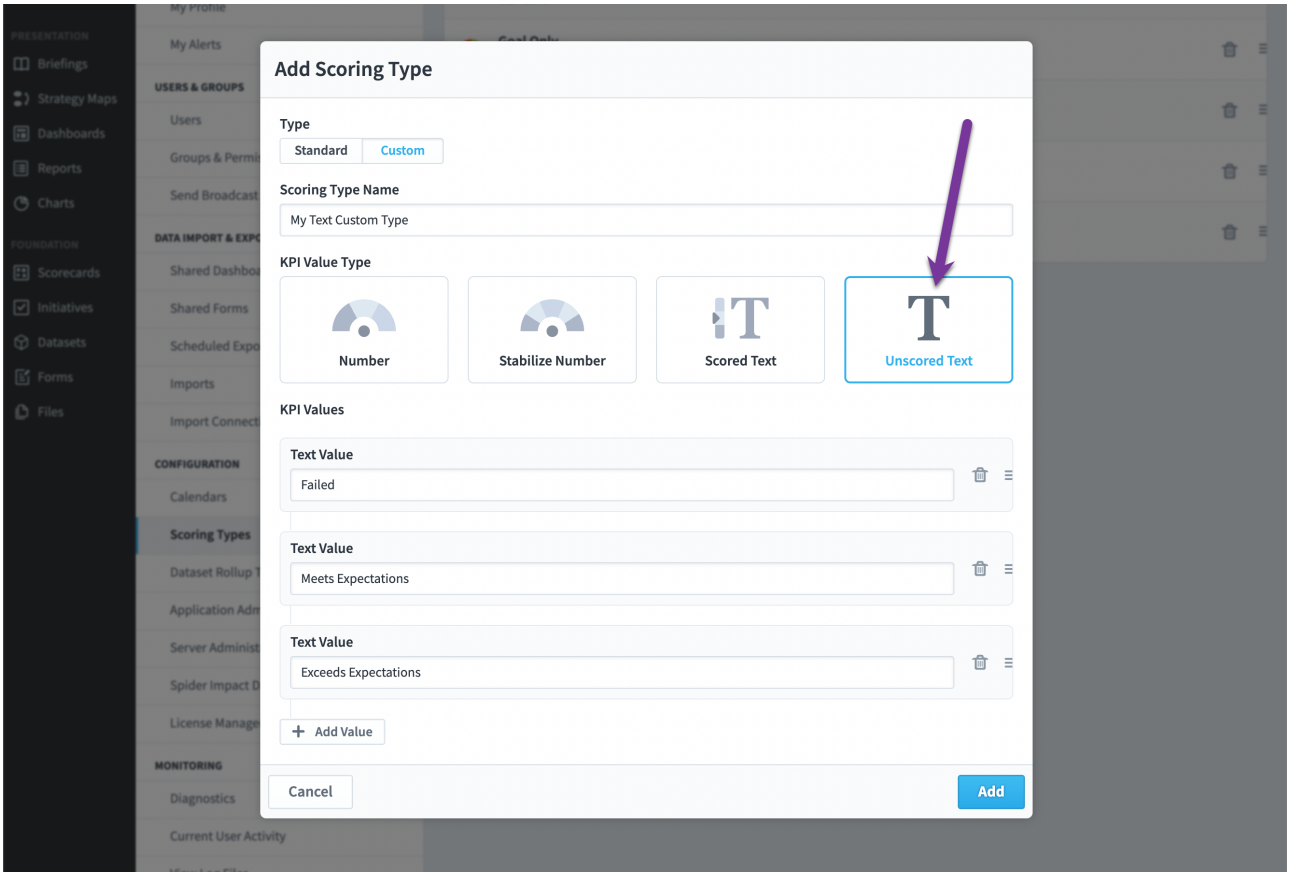
You can also create Stabilize Number custom scoring types. They're the same as Number custom scoring types except the highest score is in the middle.



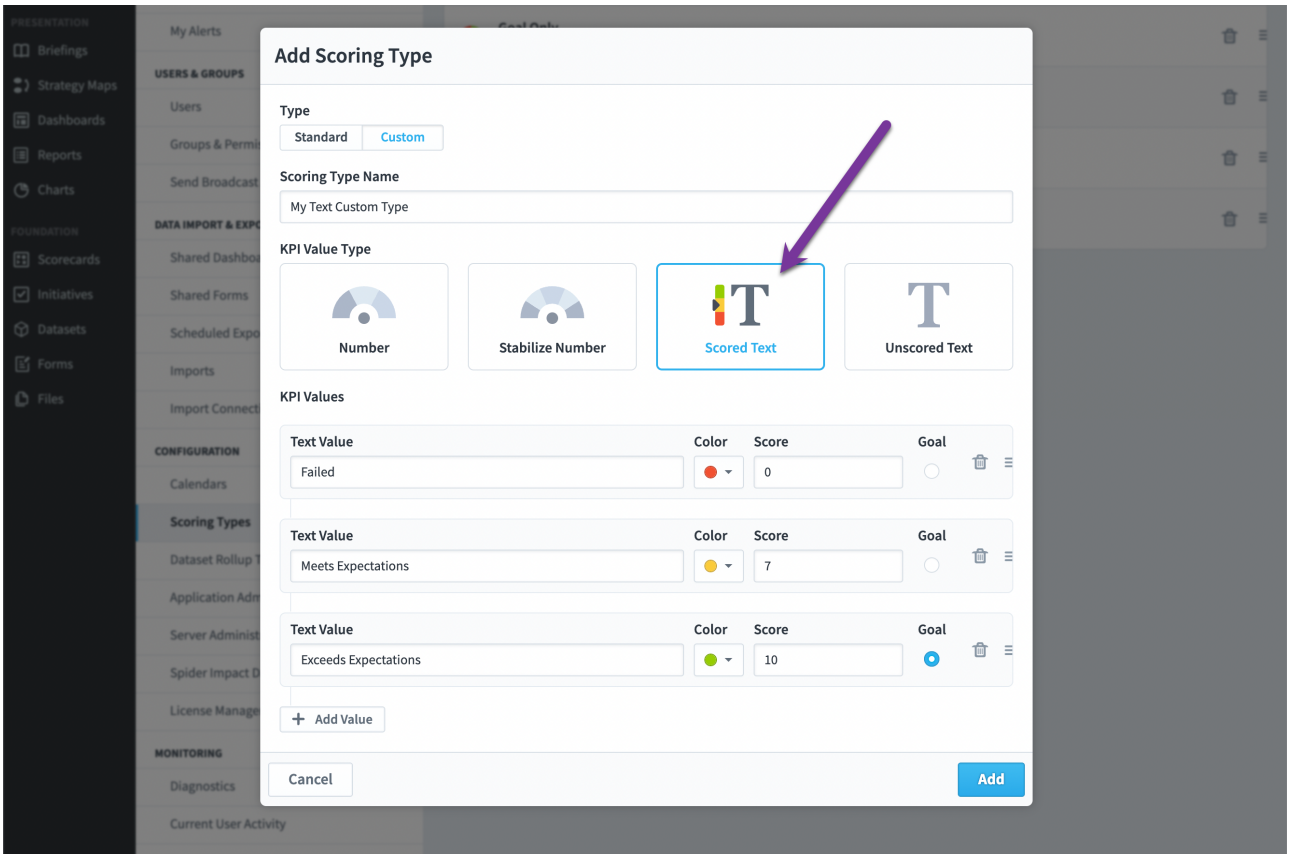
Custom Text Scoring Types

You can create custom text scoring types where you create a predefined list of text KPI values that a user can choose from. In this example we've chosen Unscored Text with the following options:

- Failed
- Meets Expectations
- Exceeds Expectations



When you choose Scored Text each KPI value also has a color and a score.

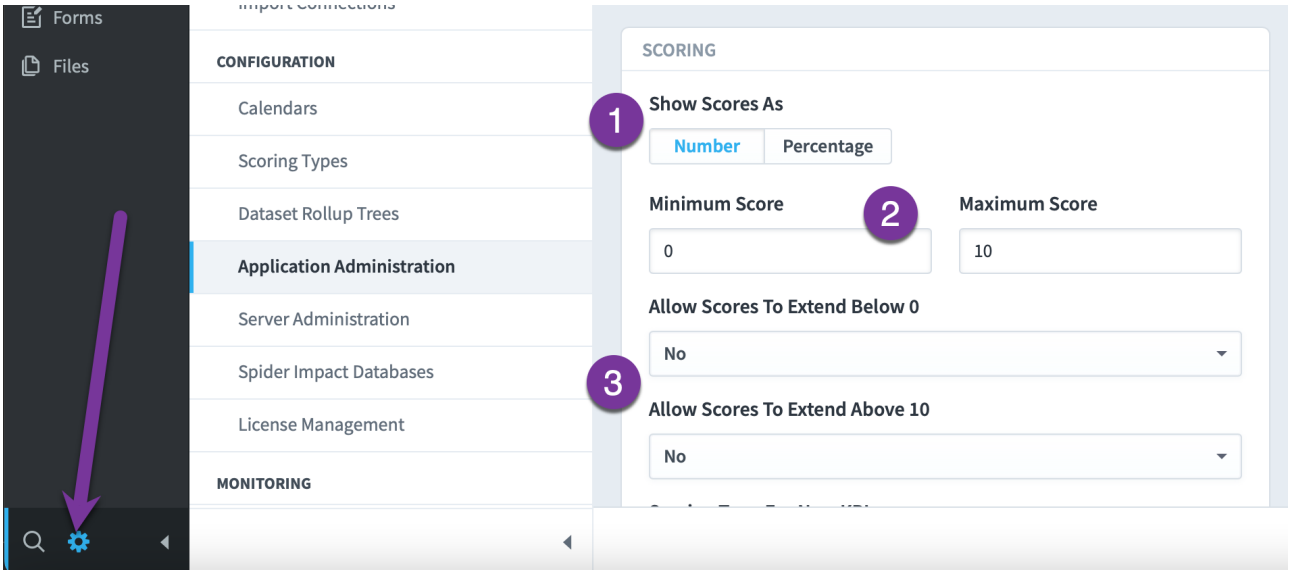

Add Scoring Type
Type
Standard
Custom
Scoring Type Name
My Text Custom Type
KPI Value Type
Number
Stabilize Number
Scored Text
Unscored Text
KPI Values
Text Value
Color
Score
Goal
Failed
0
Meets Expectations
7
Exceeds Expectations
10
Add Value
Cancel
Add

Scorecard Scoring Administration

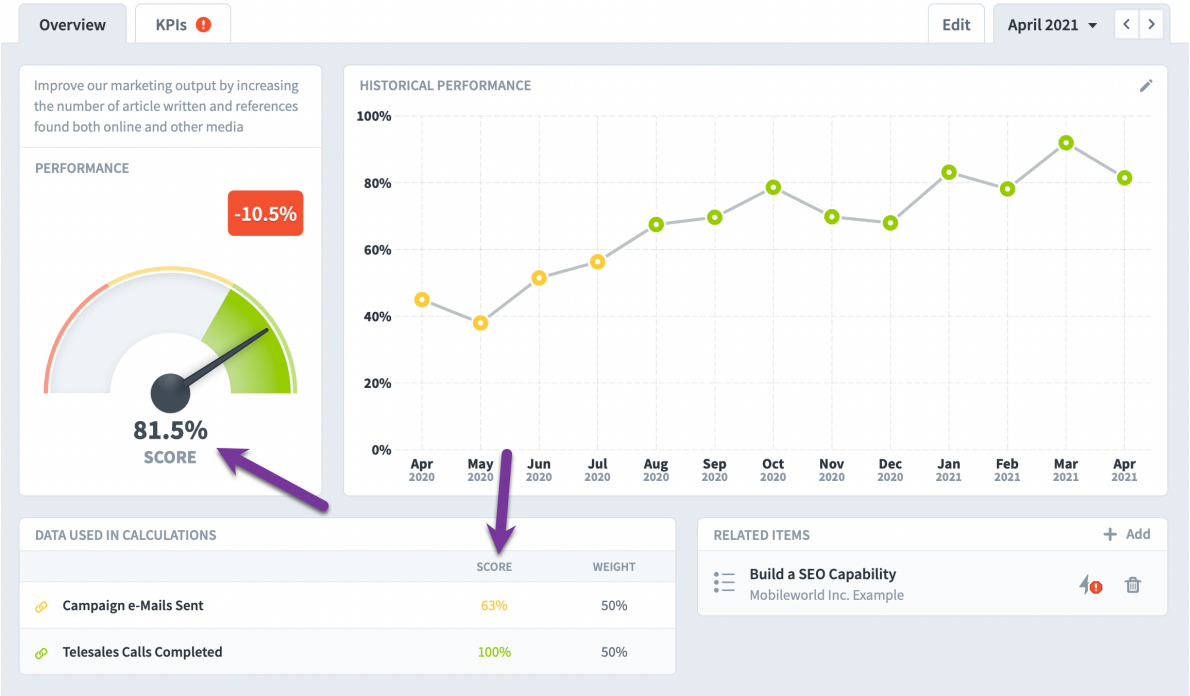
This article is about choosing the mechanics of scorecard scoring, including the scoring scale and how to treat missing data. For information about choosing which scoring types will appear as options for your KPIs, see the Editing Scoring Types article. For information about actually using these KPI scoring types, see the Using KPI Scoring Types article.

Scoring Scale

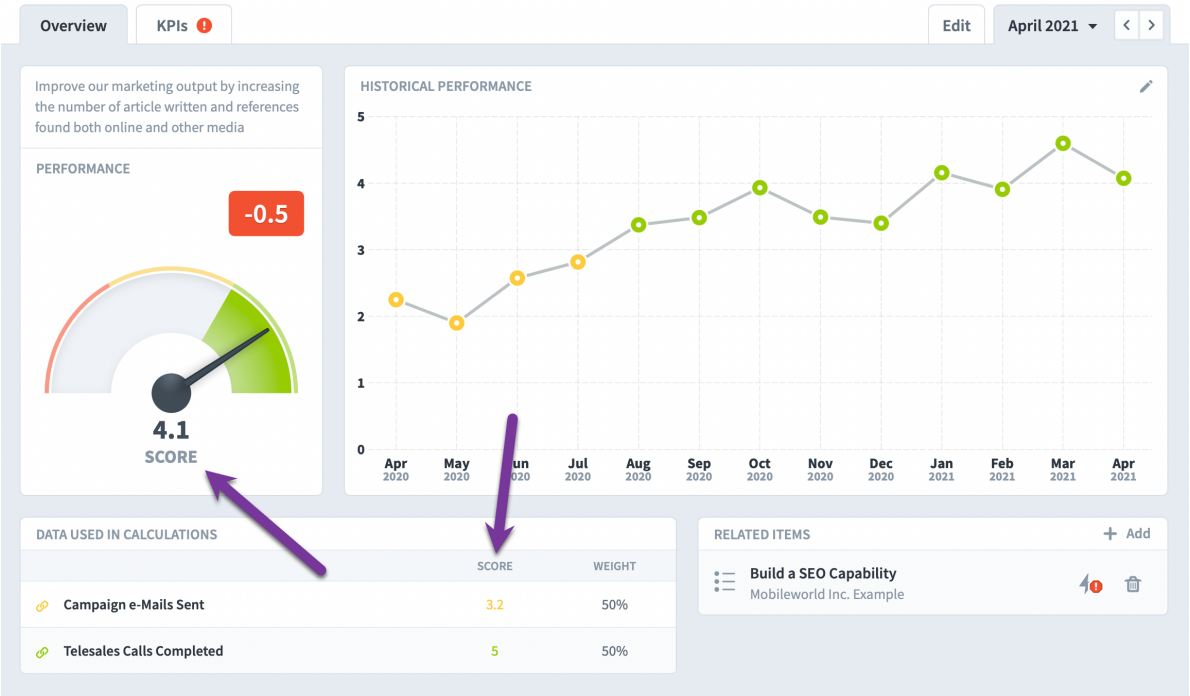
There are several configuration options that allow you to fully customize the scores that are assigned to scorecard items.



1. By default, scores are shown as numbers, but you can change them to be percentages. This is what that looks like in the software.



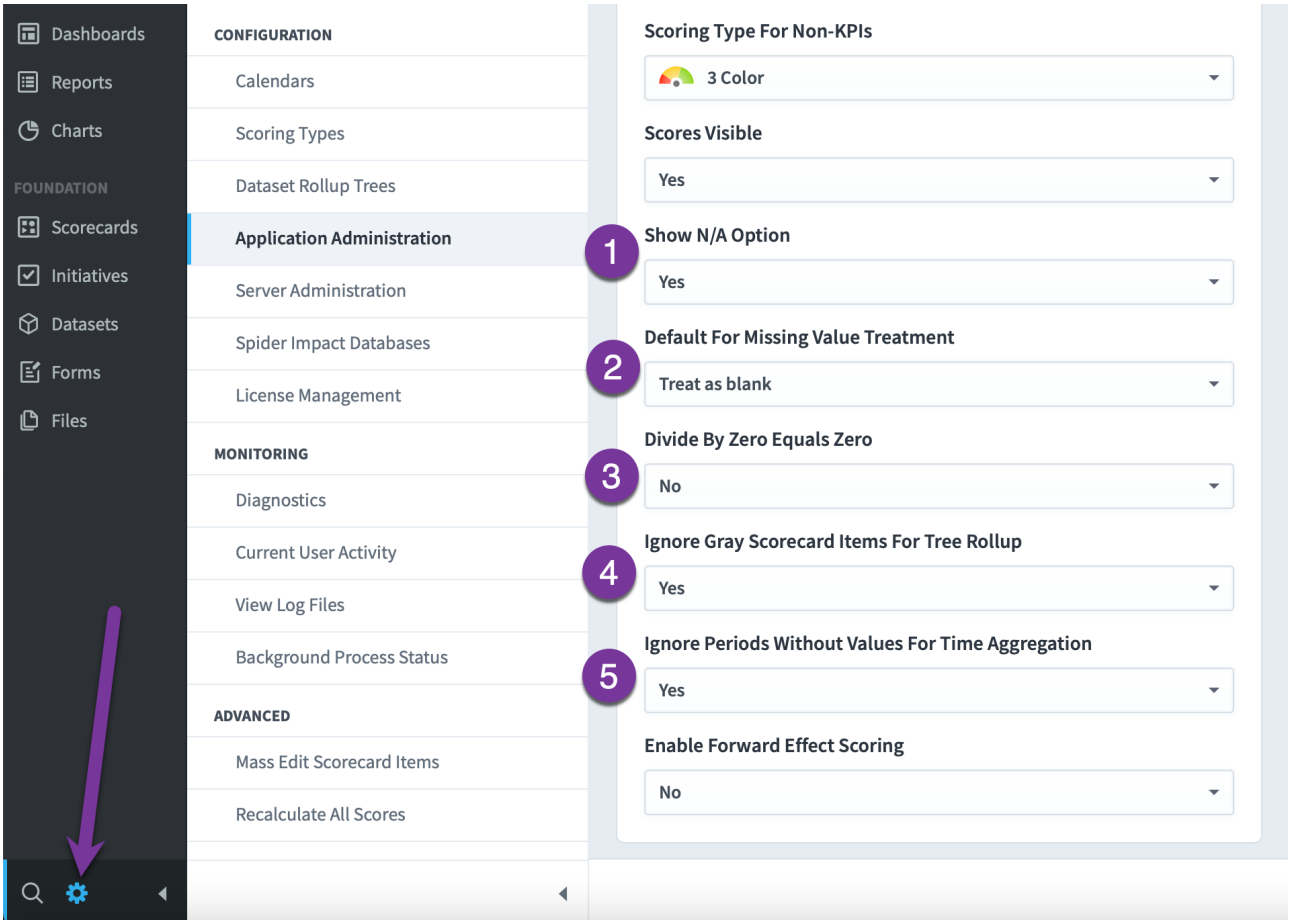
2. By default, scores are 0 to 10, but you can change these to any minimum and maximum value. For example, this is what 0 to 5 scoring looks like.



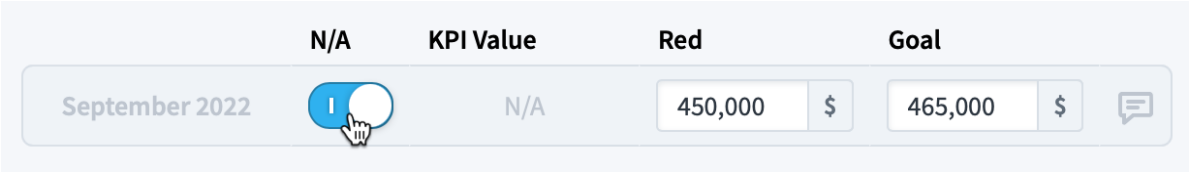
3. You can choose to allow your scores to go outside of the scoring range. When a KPI value is significantly above or below the goal, it can get a score outside of the normal range. In this example a value of 60% would be a perfect score of 10, but because its value is 60.5%, its score is 10.8.

Missing Data

There are several scoring configuration options that deal with how to treat missing data in various forms.

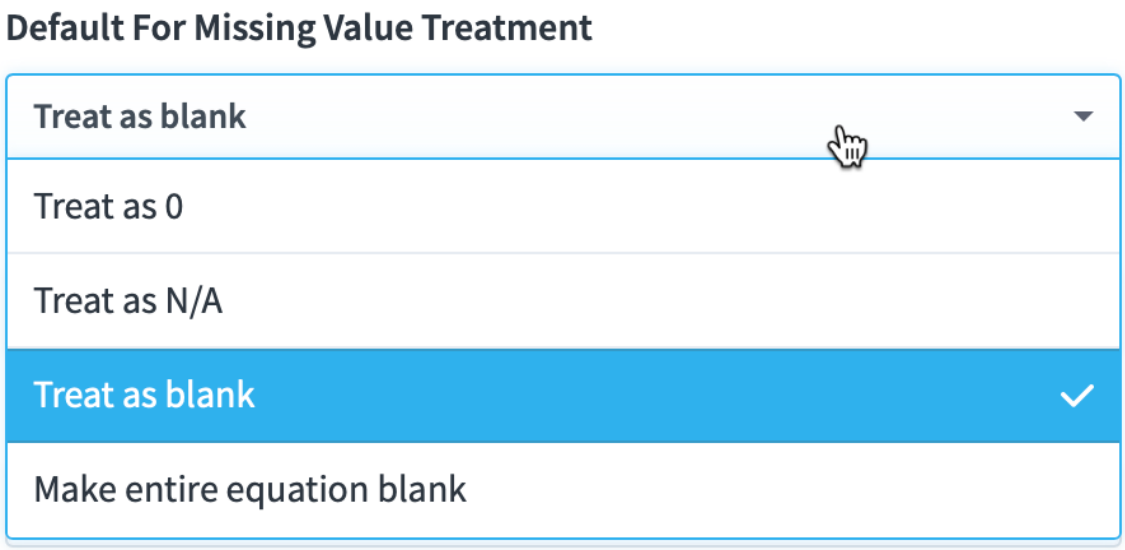


1. "**Show N/A Option**" is on by default, and allows choosing a value of N/A for KPIs instead of actually entering a number. This means Not Applicable and is like entering a blank value.

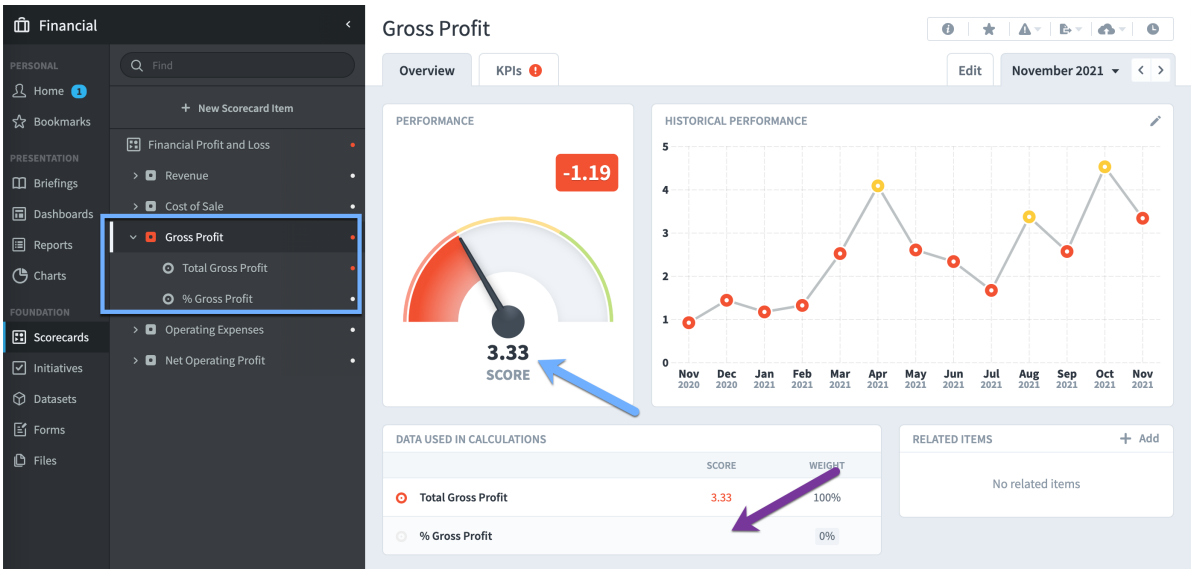


2. By default, missing KPI values in equations are treated as blank, but they can be treated as 0, N/A, or they can immediately make the entire equation

blank.

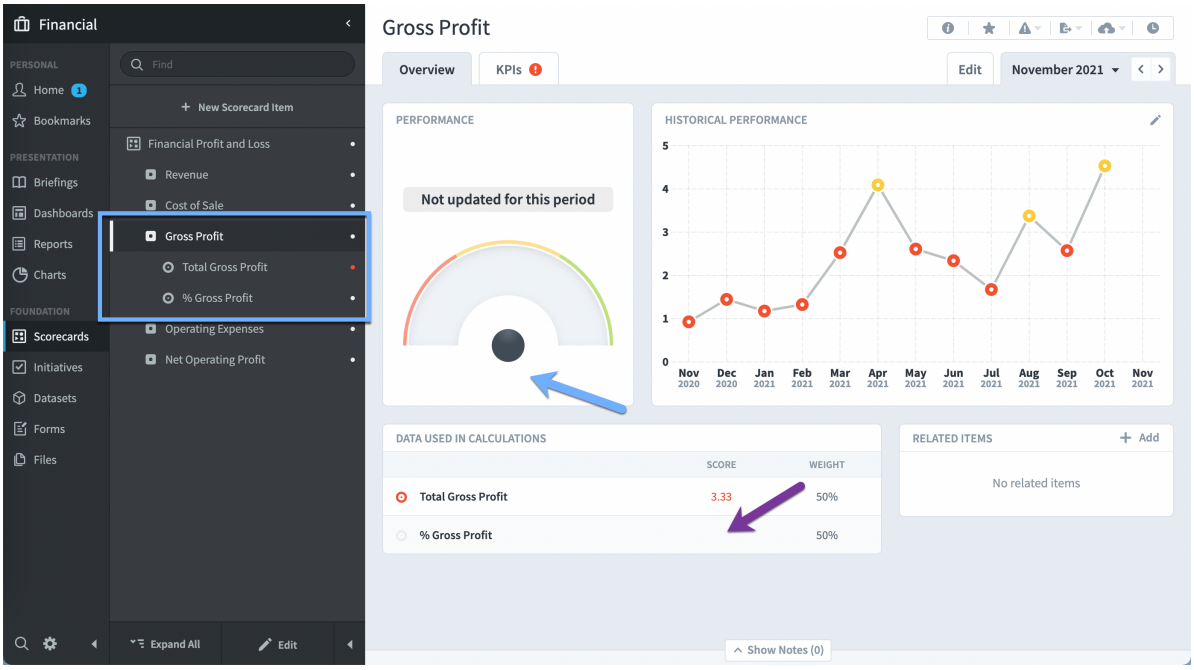


3. Dividing by 0 in an equation usually makes the result blank, but you can optionally make it evaluate to 0.
4. "**Ignore Gray Scorecard Items For Tree Rollup**" is for missing values when rolling scores up a scorecard tree. By default, missing values are ignored, which means that a parent will have a score if at least one of its children has a score.

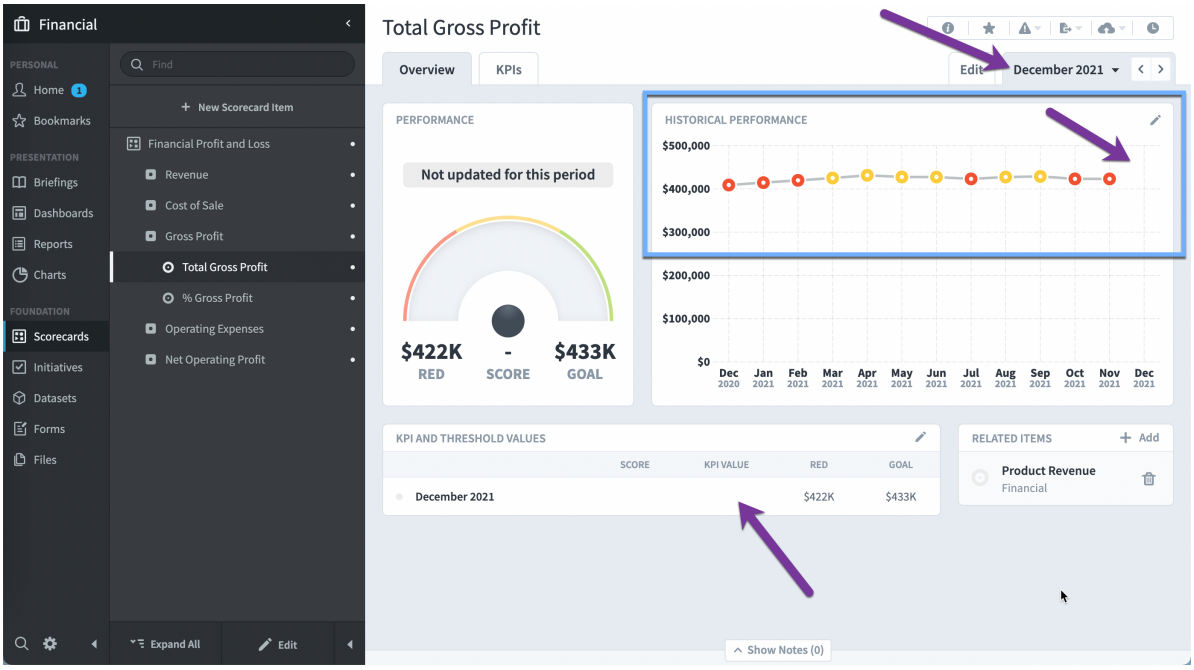


When "Ignore Gray Scorecard Items For Tree Rollup" is off, a single missing

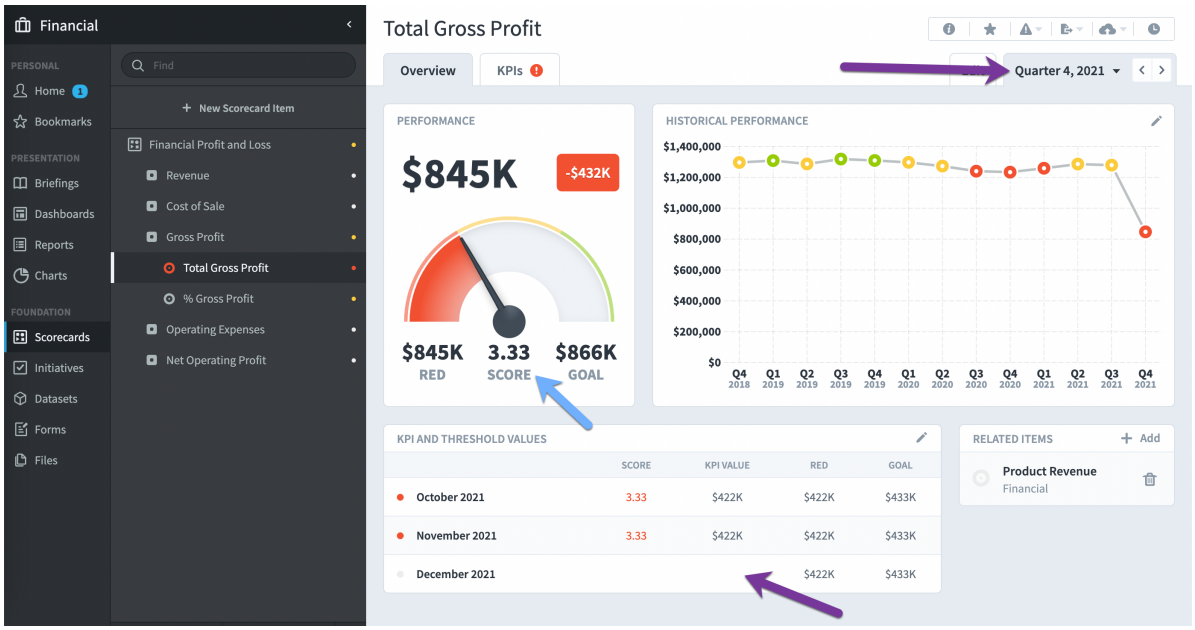
KPI value will cause everything in the tree above it to have no score.



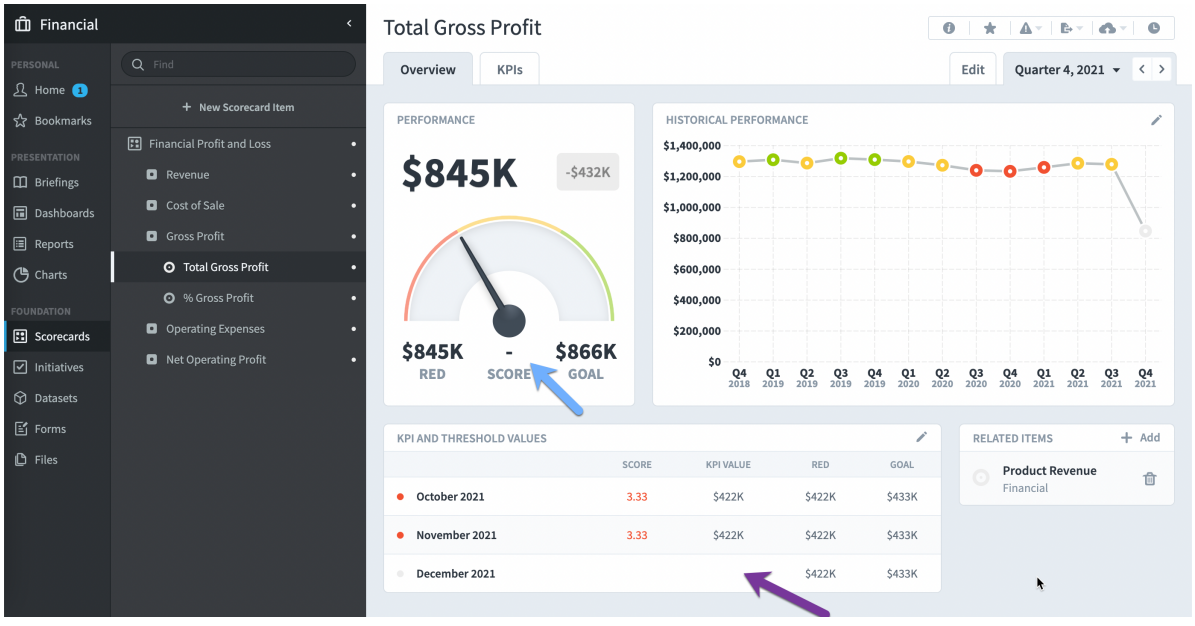
5. "**Ignore Periods Without Values For Time Aggregation**" is for missing values over time. By default missing values are ignored, so a larger period is scored even when not all of the smaller periods are complete. In this example the Total Gross Profit KPI does not yet have a value for December 2021.



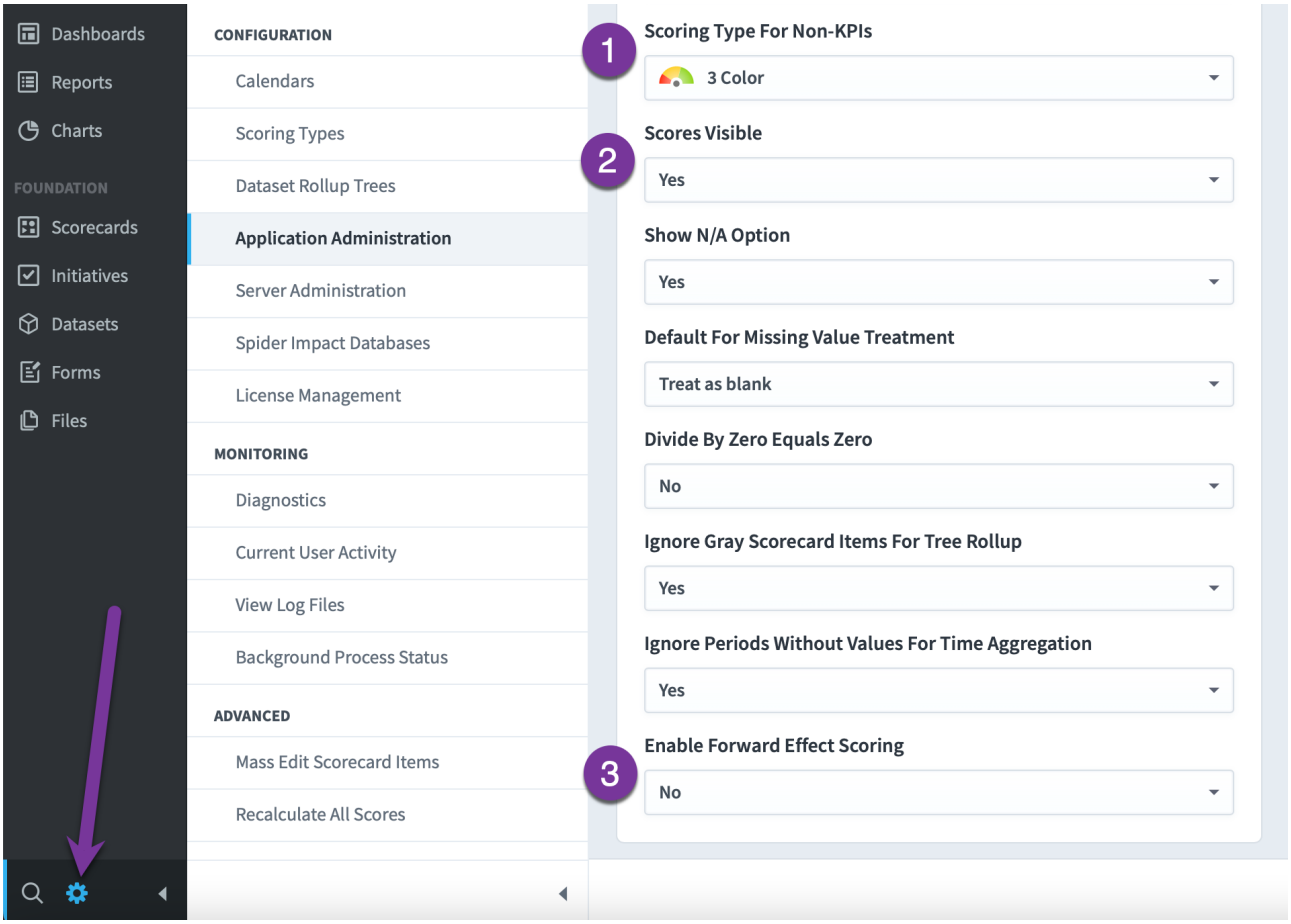
When you change the calendar to Quarter 4, 2021, the Total Gross Profit KPI has a score for that quarter, even though one of the months in the quarter doesn't have a value.



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.



Other Scoring Configuration



1. This sets the scoring type for all non-KPI scorecard items. You can choose from the enabled scoring types in Administration > Scoring Types.
2. Although it's not a popular configuration option, you can set "Scores Visible" to "no" in Application Administration. This will prevent scores from appearing in most places.



There are still a few places where scoring cannot be avoided, though, like graphing the performance of a non-KPI scorecard item.

3. Forward Effect Scoring is off by default and should not be used by most customers. Most people who enable this decide to disable it later. Forward effect scoring is best explained with an example. By default, a yearly KPI viewed in monthly mode is gray until the very end of the year when it's updated with that year's value. When forward effect scoring is enabled, the KPI would use the previous year's color and score when viewed monthly so it isn't gray. In practice this is very confusing to most users, and is only supported for legacy customers.