Query Builder User Guide

It's Your Data, Pull Your Reports How You Want

July, 2017

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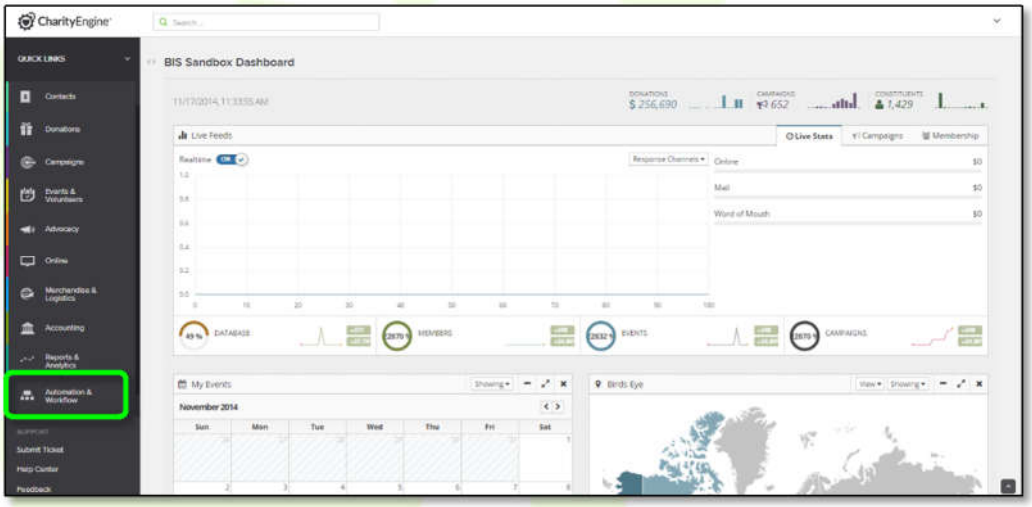
Overview

CharityEngine, at its core, is a data-driven solution. Data is the key to understanding how your donors and contacts relate and interact with you. The Query Builder tool is a robust option that provides over 9,000 fields that can be used as query filters, as well as report output.

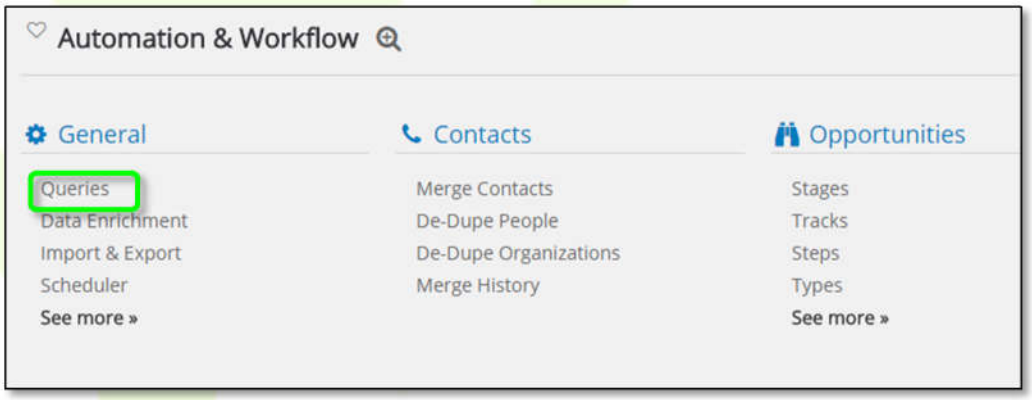
In addition, any created query can be used as a filter in another query. This allows for a powerful ability to segment your audience.

Locating Queries

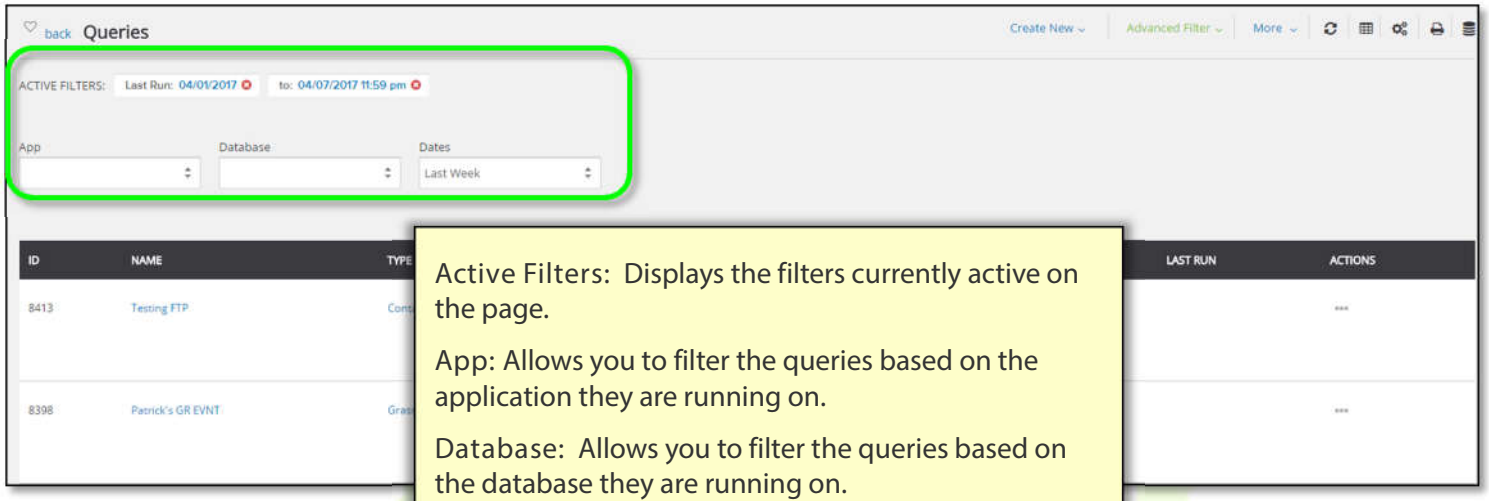
From you Dashboard, select the Automation & Workflow option.



From the General category, choose the Queries option.



This loads the Query Search & Manage page. From here, you can locate all existing Queries. Queries can be reused and scheduled to recur on a regular basis.



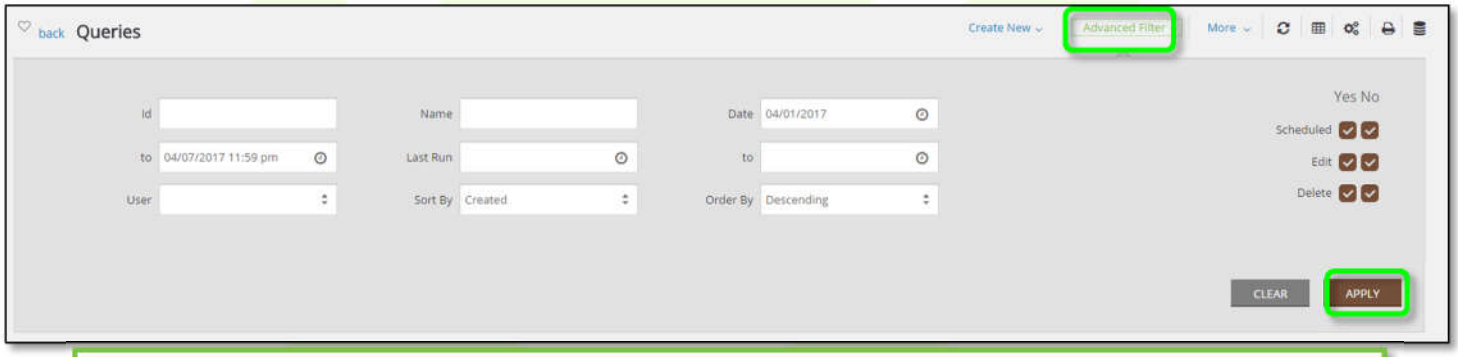
Active Filters: Displays the filters currently active on the page.

App: Allows you to filter the queries based on the application they are running on.

Database: Allows you to filter the queries based on the database they are running on.

Dates: Limits the displayed queries based on creation date.

The Advanced Filter provides options to locate specific queries. Make the appropriate changes and click Apply.



The fields present allow you to search for a query based on several different pieces of information.

ID: Search by the ID number of the query.

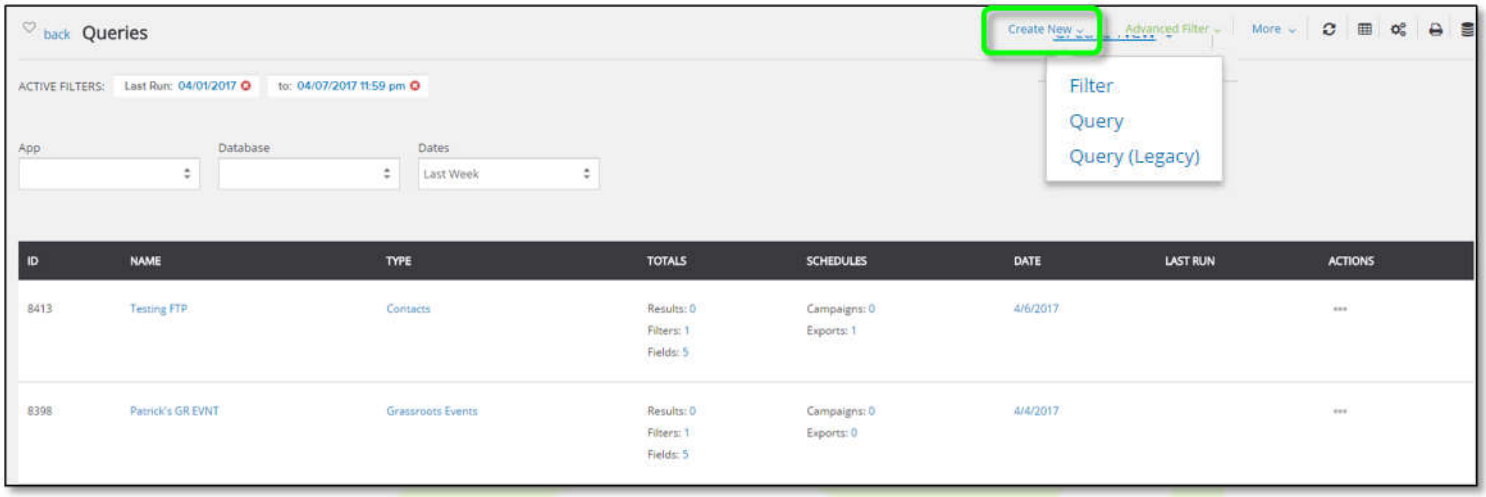
Name: Search by the name of the query.

Date / To: Search by a range of when the query was created.

Last Run / To: Search by a range of when the query was last run.

Creating a New Query

Click Create New in order to build a new query.



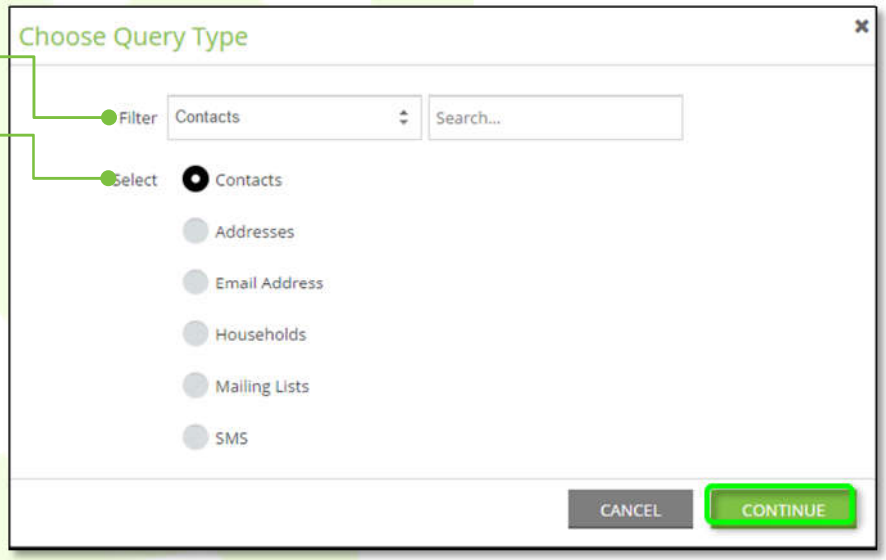
If you are using the new interface, select the Query option. If you are using the old interface, select Query (Legacy). This document provides instructions on the new interface.

Filter: Choose the application for the query.

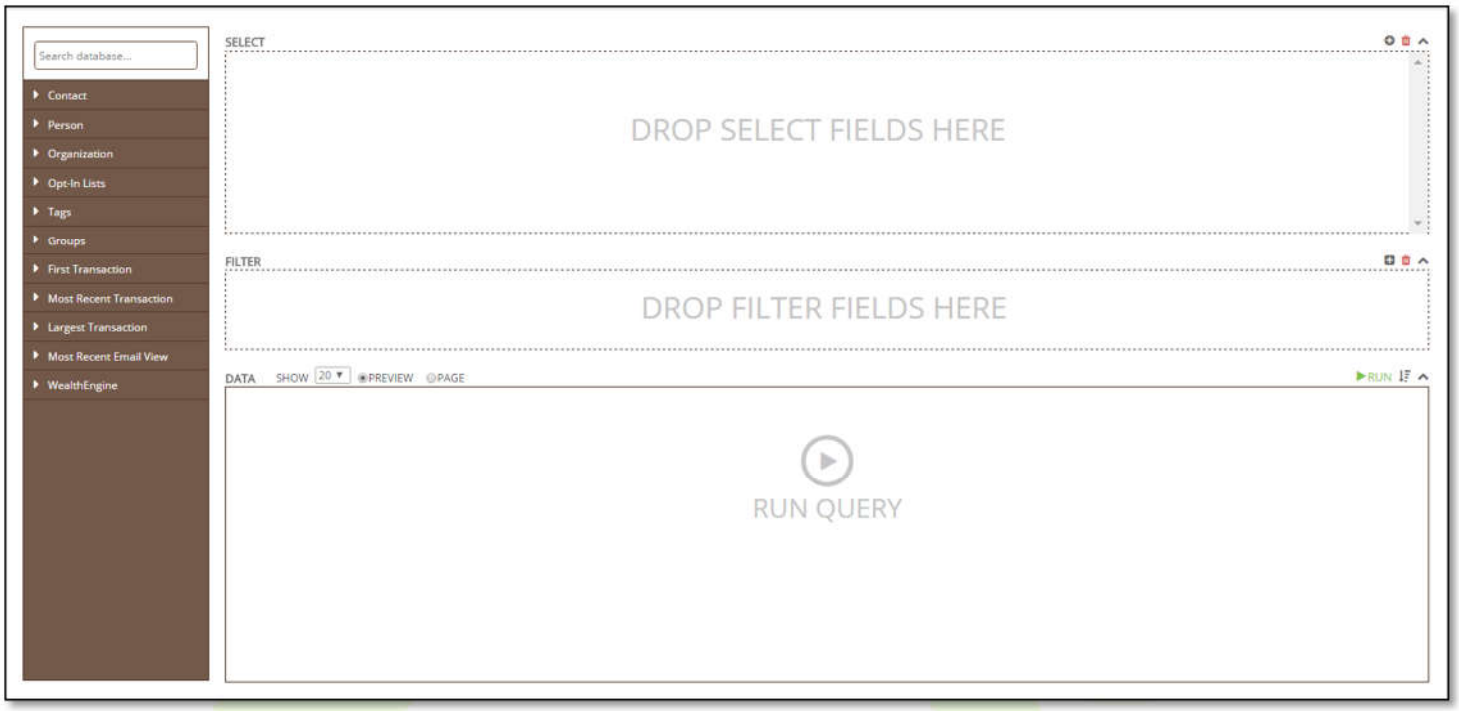
Select: Choose the database for the query.

These selections determine the output. If you want a list of everyone that has donated, choose Contacts. If you want a list of all transactions, choose Donations.

Click Continue.



The new interface is consolidated into one page for building your query.



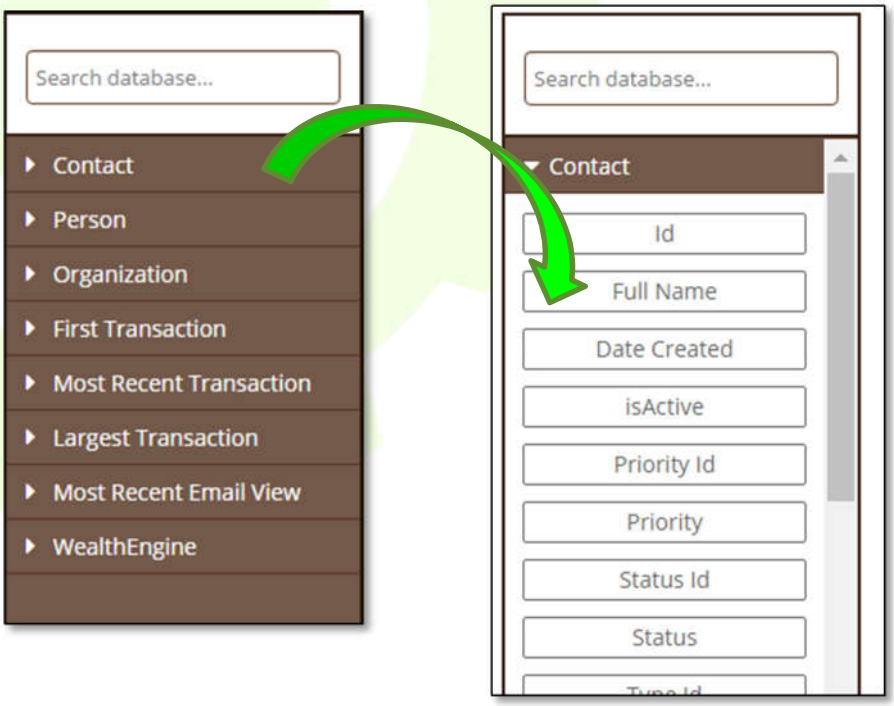
Let's break down the elements of this page one at a time.

Database Tables: These categorize the available fields to align with the tables the data is stored on in CharityEngine.

You can click each section to expand them and see the specific fields available underneath them.

They are organized by name to help you locate the fields you are looking for.

Example: The Organization table has the fields associated only with that type of record. The Person table has the fields associated only with that type of record. Meanwhile, the Contact table has all the fields associated with all types of records.



Selecting Fields for Output

The top section in this interface allows you to designate what fields you want to be listed in your reports results. Drag the fields from the left-hand column into the Select Fields Here.

This includes these items in the report in the order in which you place them. (You can drag them back and forth to update the order).

Each filed has a drop-down arrow that provides some additional options for the fields.

Set Formula: Allows you to set alterations for this field. For names it allows you to capitalize the first letter by default. For donation amounts it allows you to set it to sum, provide averages, etc.

Set Value if Blank: Allows you to set what should appear in an email using this query as the audience in the event this field is blank. (I.e. the Contact record has no first name).

Roll Up Dimension: If you are creating a query that is applying a formula to a numerical value field (i.e. sum all of these donations), this allows you to designate which fields should be used to aggregate the individual records. In order to work correctly, the query requires all non-formula fields to be a roll up item.

Remember! If this project is a sub-query, you must include the Contact ID field!

Advanced Field Options

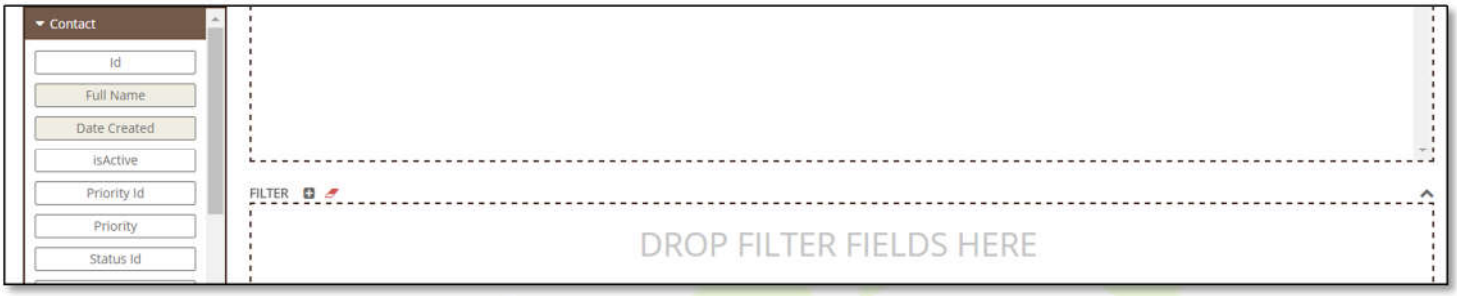
Frequently, reports are used to help update additional systems. Some of the challenges faced in these circumstances are the need to conform to an import template that is a hold-over from a legacy system and/or cannot be changed.

This problem is complicated when the template requires information that is not stored in CharityEngine, or where a column must always have the same value.

The updated interface provides a way to address both items.

Selecting Filters (Defining Your Audience)

Adding fields as a filter works identically to adding it as a field. Simply drag-and-drop the filters you would like to use to define your audience into the filter section. As you do, you'll need to provide some definitions and values for the query to compare against in order to build your results.

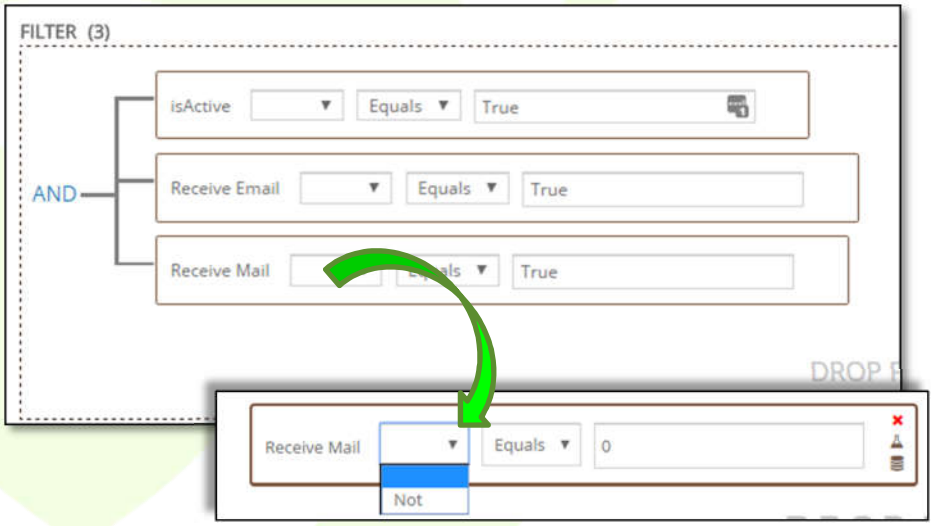


For example, if you wanted your query to provide you all Contacts who are Active in the system, accept Email, but do not accept physical mail you would set your filters as pictured below:

The "And" Operator: This designates that results must match all of these filters in order to be a part of the report. You can click on the AND to change it to: Or, And Not, Or Not

True/False: You can enter the values True or False. You can also use 1 (for true) and 0 (for false) in legacy queries.

Not: Sometimes you want everyone that does not meet your filter choice. In that case, click on the first drop-down on the filter and select the not option.

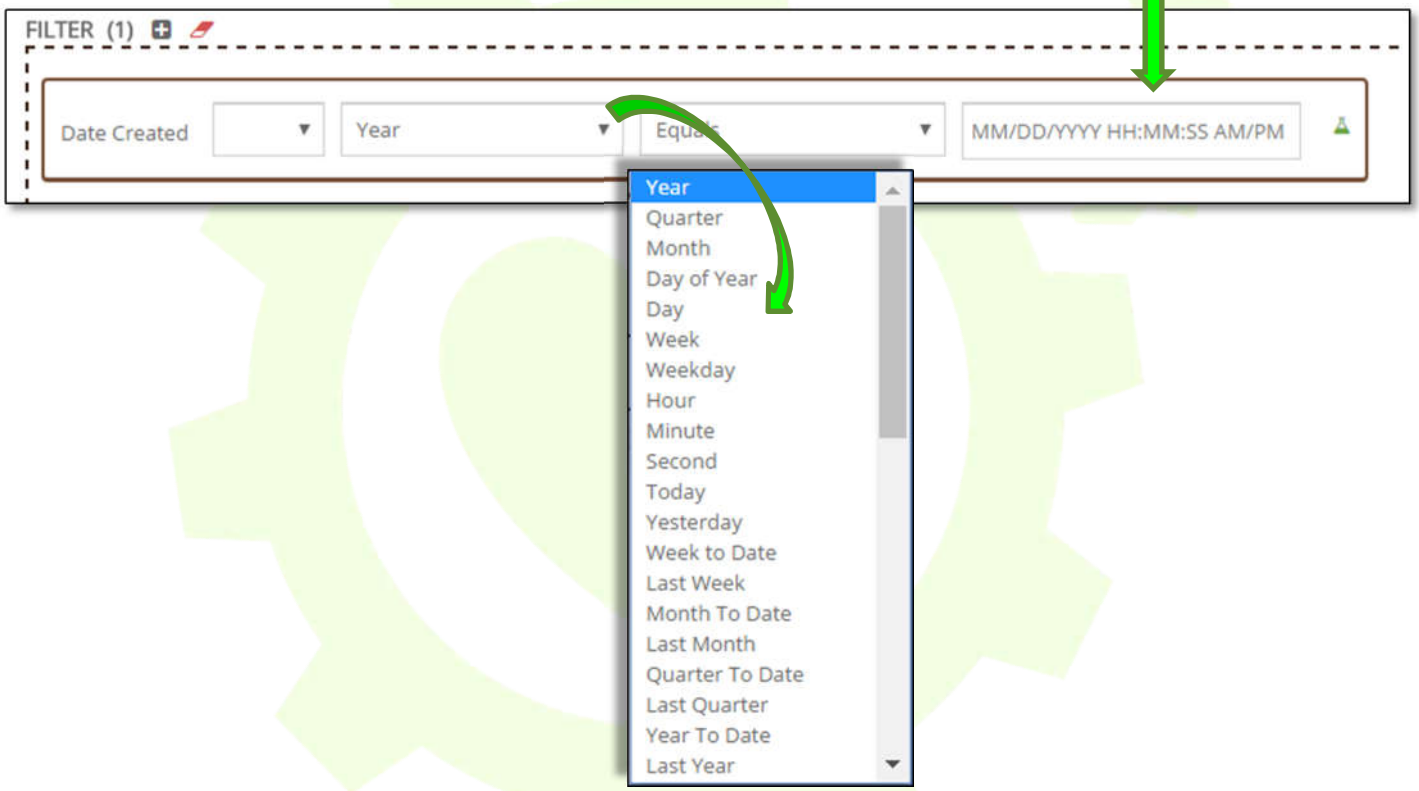


Dynamic Filters

For on-going reporting, some filters need to become subjective rather than objective (i.e. you want the dates for "Last Week" rather than a specific 7 day date range that doesn't move in further repetitions of the report.

Selecting the Formula beaker icon switches this filter over to a subjective stance.

Now your drop-down provides options that are based on the date the export is automatically run rather than specific dates.



Advanced Filter Sets

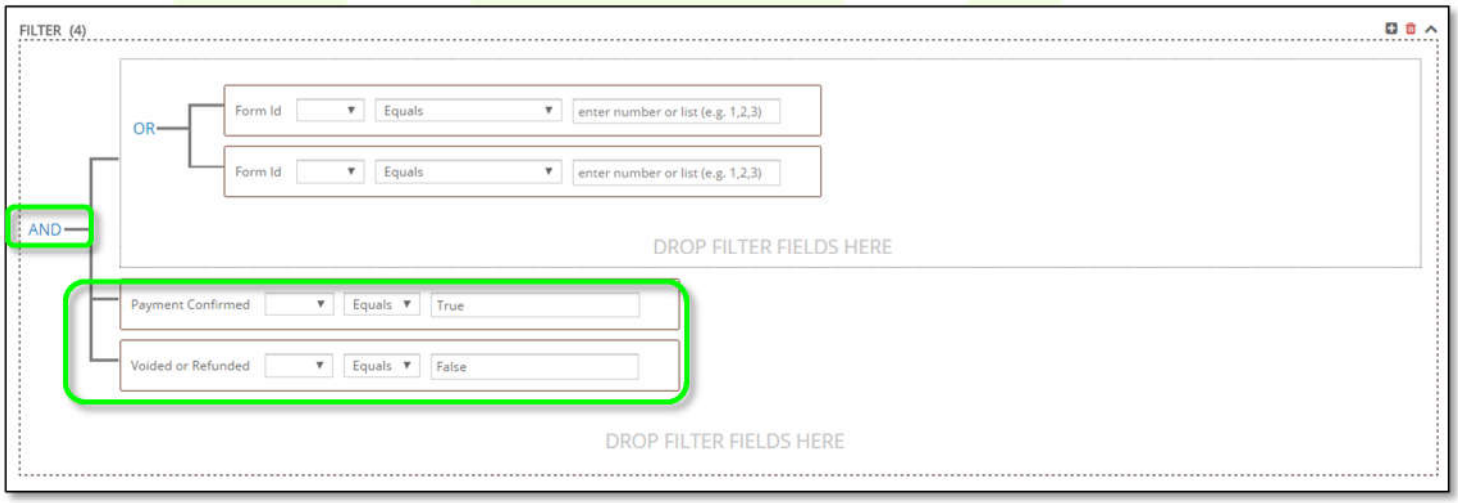
In more complex queries, the And operator may not be appropriate for all of the filters. Since it means that the results must meet all of the listed criteria, it prevents you from looking at multiple sets of data in the same report. In the legacy query builder, we addressed this by using parenthesis to note the sets of filters and the query would apply them from inside the parentheses outward.

In this interface, we use a much similar concept. These are filter groups that you can create and easily modify.

In the example below, there is an advanced set of filters that looks for all confirmed transactions that have not been refunded or voided that come from two different forms. Because each transaction in CharityEngine can only be tied to one form, the standard And operator for these two filters prevents any results from display. Use the + button to add a filter set, and then add the form filters to that set.

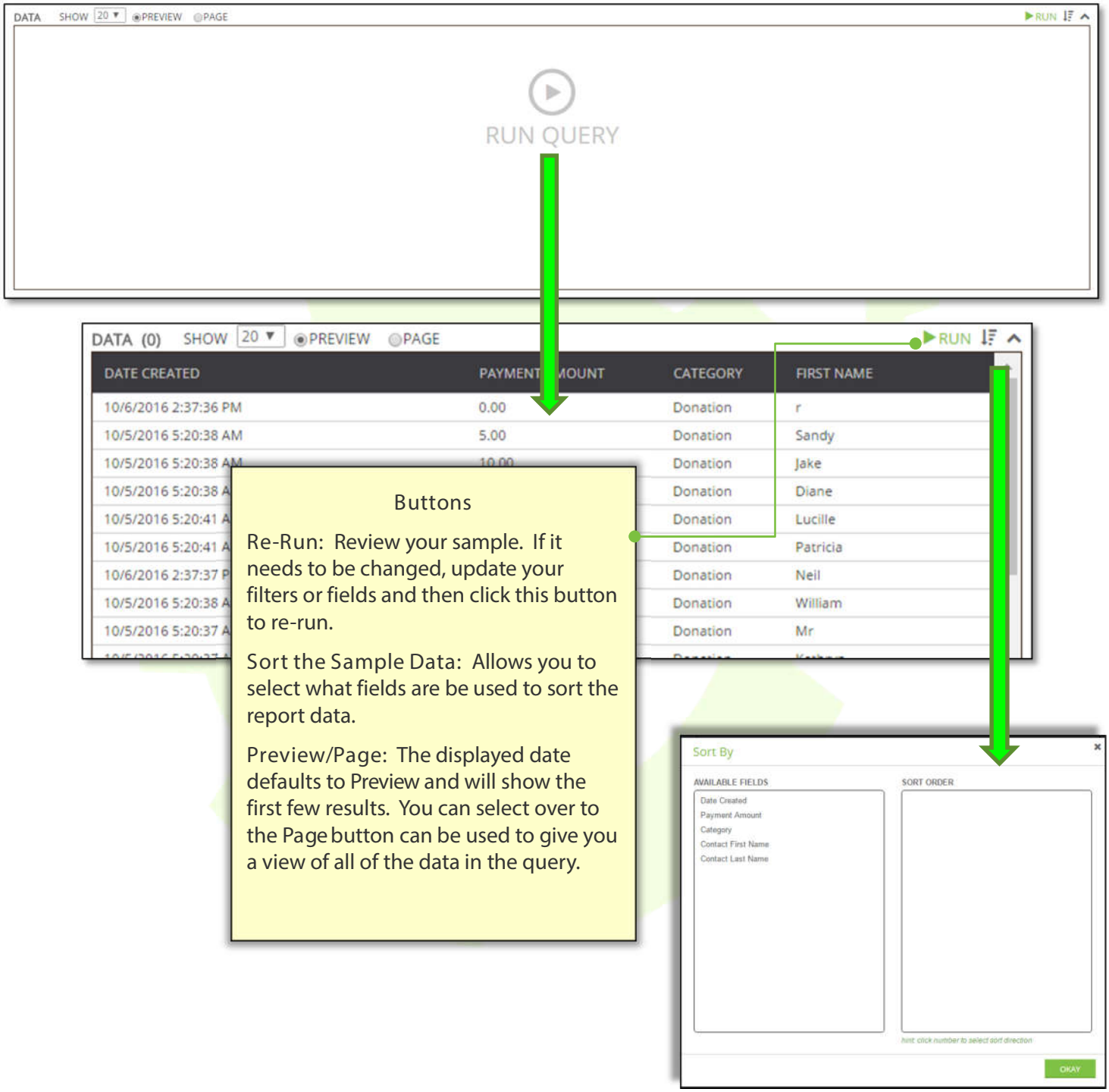
Click on the operator to change it to the Or operator.

The additional filters –the ones that apply to all the transactions from either form- are placed outside of the field set with the And operator.



Preview the Query

At the bottom of the query page is an option to run a dynamic preview. The legacy system required you to save the query and do a full export in order to preview your data; this is no longer the case. Click on the arrow in the pane to run the query as it stands above.

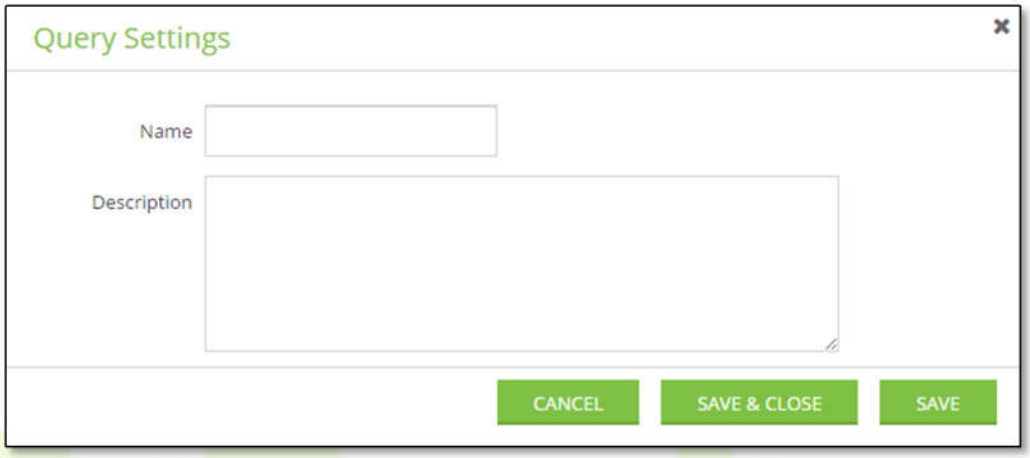


Save the Query

Click the Save button on the top-right of the query screen. Provide the name for the query and a brief description.

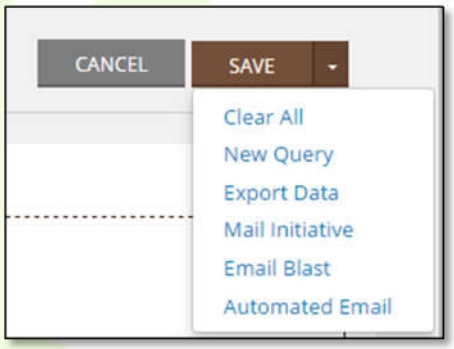
We do highly recommend including a description to that the purpose of the query can be quickly identified.

Once you've entered this information, click Save & Close.



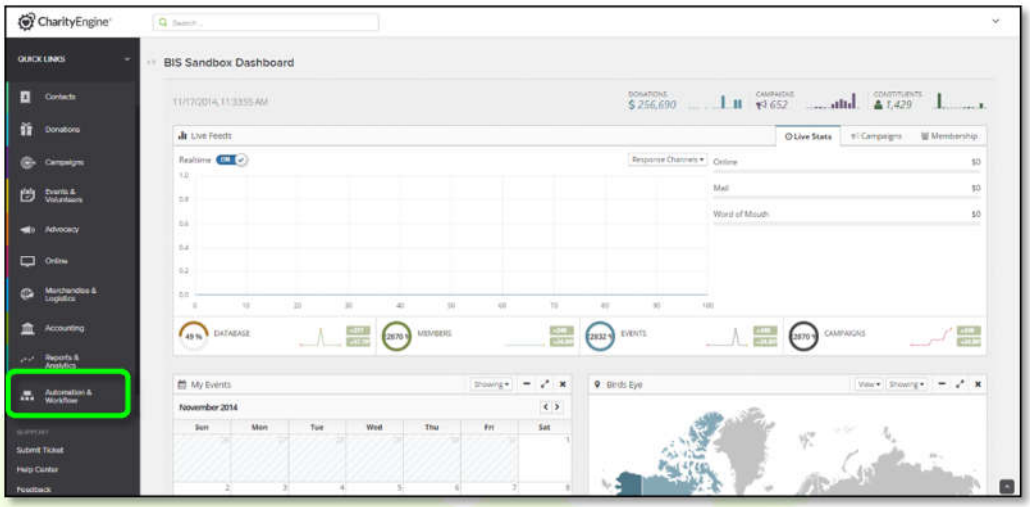
Immediate Functions

In addition to setting up an export after finalizing the query, you can use the down arrow beside the Save button. You can use this export the data immediately (even without saving the query) as well as jump to other options.

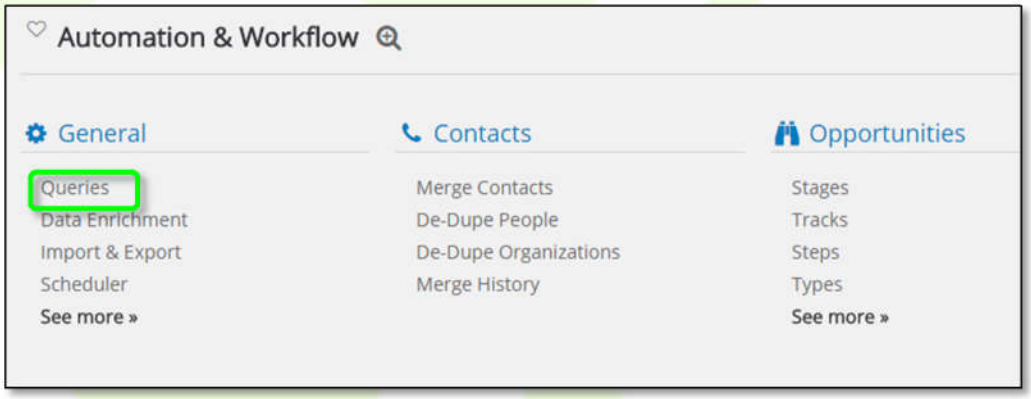


Exporting a Query

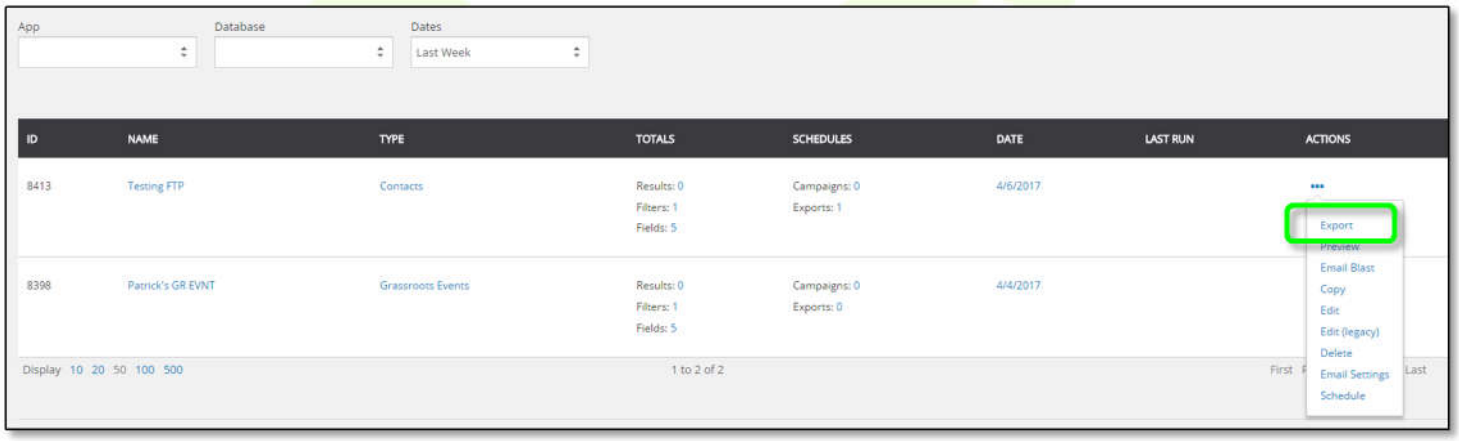
From you Dashboard, select the Automation & Workflow option.



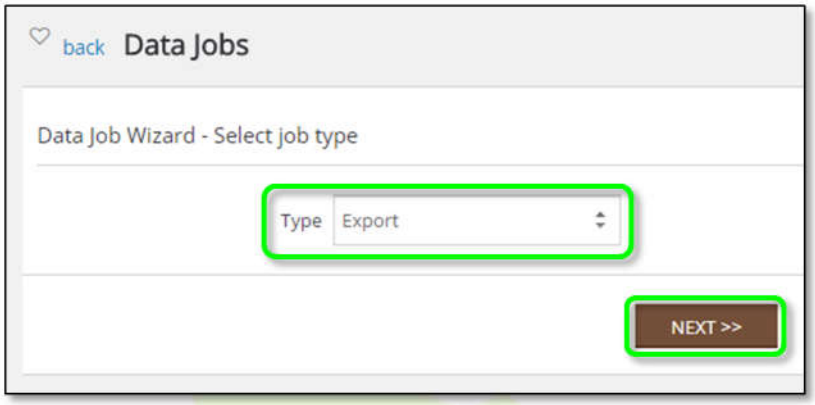
From the General category, choose the Queries option.



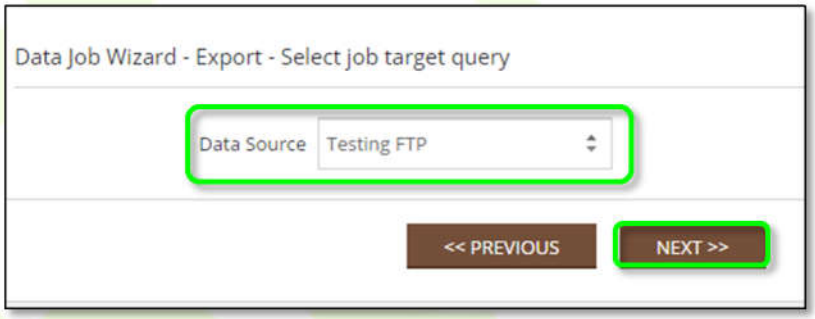
Locate the query you wish to export using the filter or the Advanced Filter. From the right-hand action column, select Export.



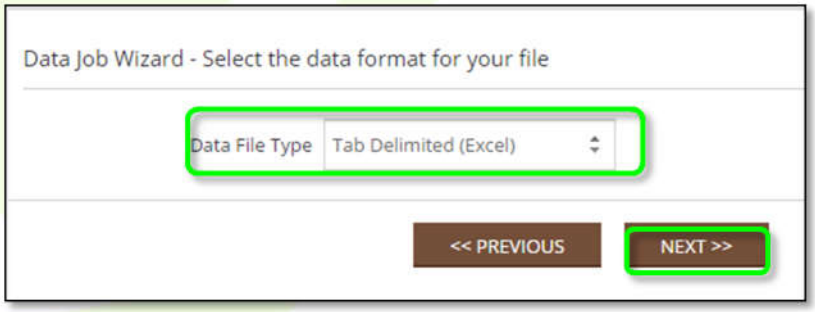
From the Job Type drop-down, select the Export option and then click the Next button.



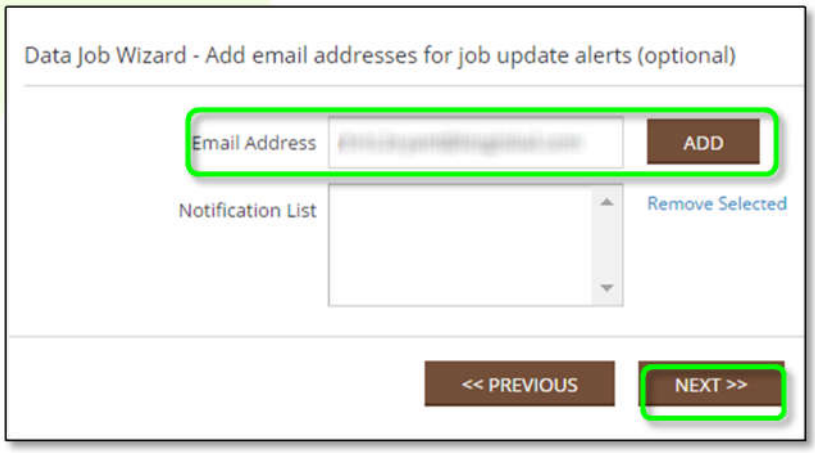
The query displays in the drop-down window. Double-check to make sure the correct query is selected and then click the Next button.



Next, select the data format the export. Click the Next button.

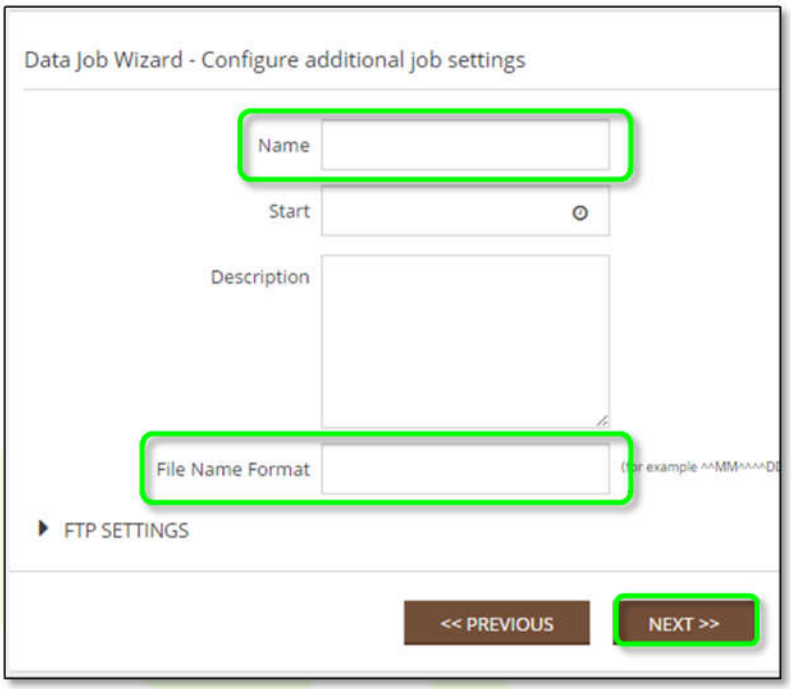


Notifications can be sent when the export job has been completed, and the file can be included. Your address loads by default, but any address can be included. Enter than and click the Add button. Once all the addresses have been added, click the Next button.

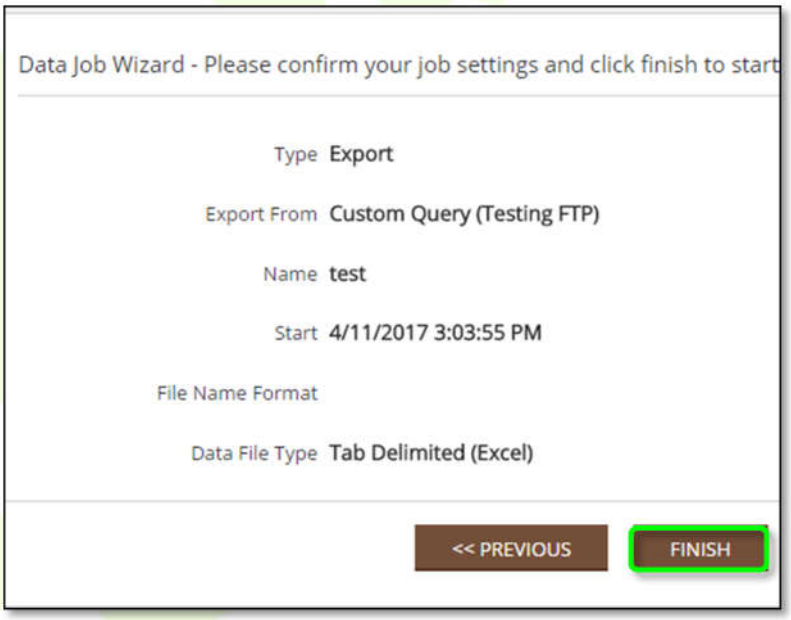


Provide a name for the export job. You can also enter the file name format to ensure that the file comes out with a name specific to this job rather than a generic export name.

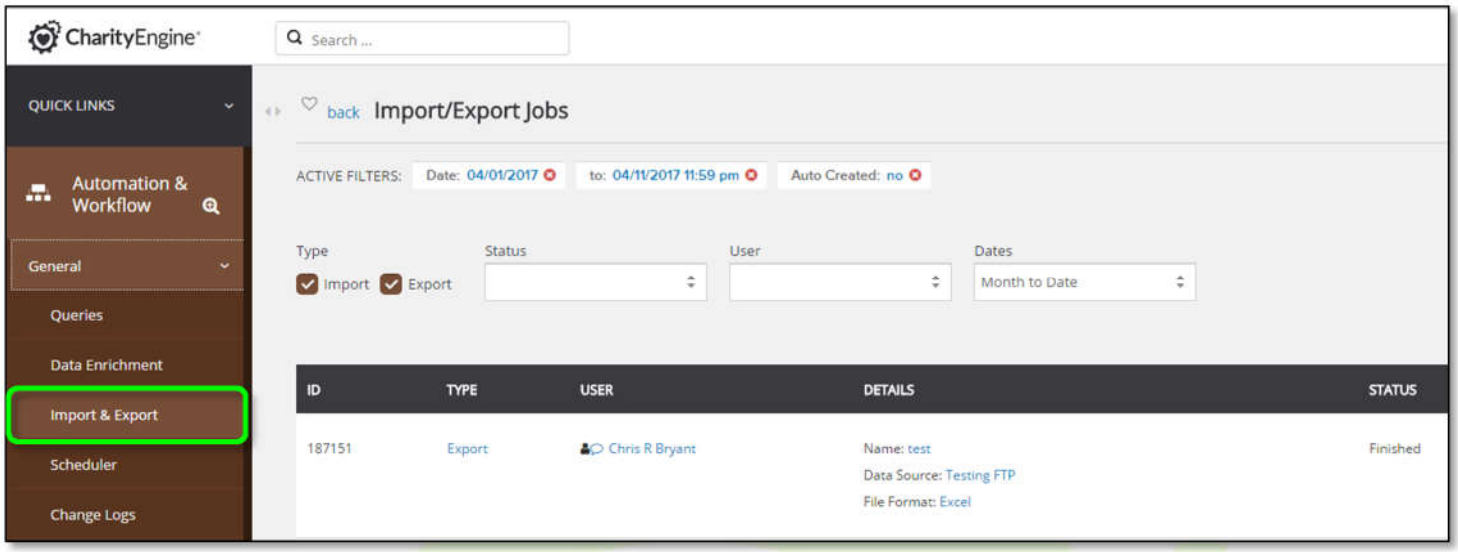
Best Practice Tip: Name your Export the same as your query. This makes it easier to locate in the future!



Review the settings and click Finish.

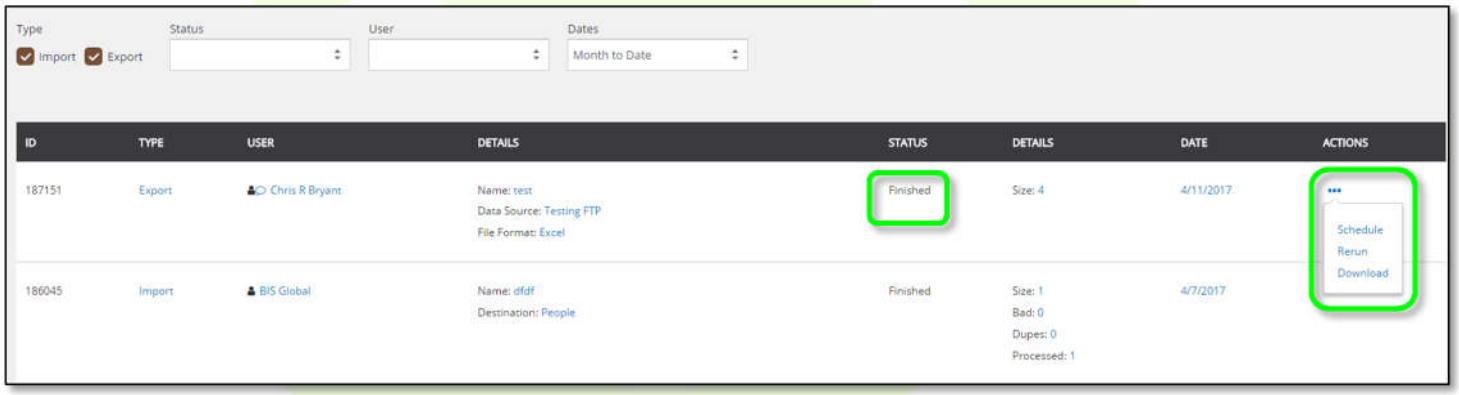


Please note, you are brought back to the list of queries while the export process runs. In order to download your file, select the Import & Export section.



Your export is listed along with any other recent exports. Check the status column. If you export is not listed as Finished you'll need to refresh the page every few minutes to update the export's status. Once set to Finished you'll be able to use the right-hand action column and select Download. To pull the record in your set format.

From here, you can also schedule the query to run on a regular basis.

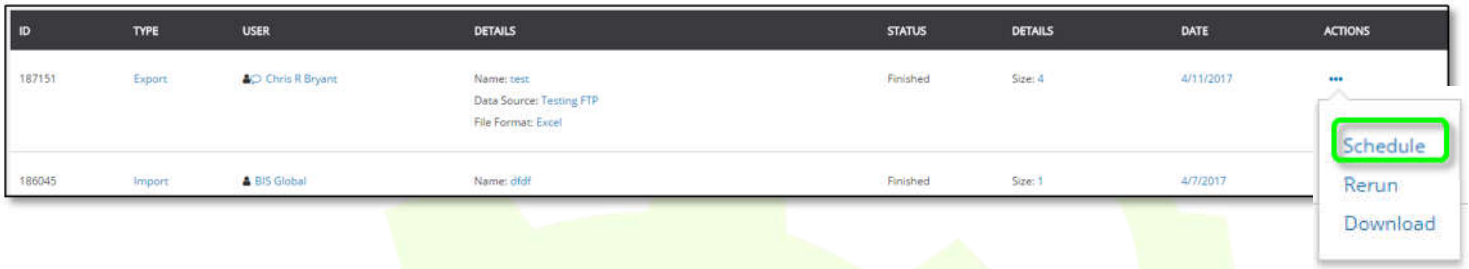


Scheduling an Export

Once you have built a query and created the first export, you can set the export to run on a regular basis.

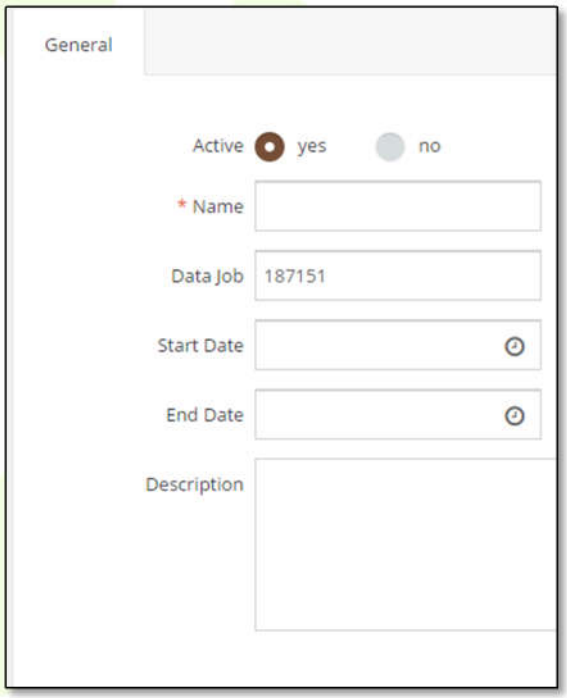
Setting a New Schedule

To set up a new schedule, use the export you created for your query. On the right-hand column, select the Schedule option.



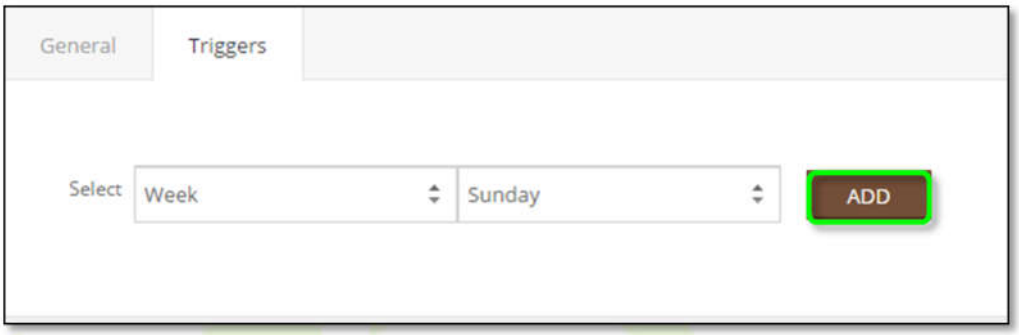
Enter a name for this schedule. You may set a start and end date for this particular schedule, if desired. Once you have entered the information click Create.

Best Practice Tip: Keep the name the same as the associated Export and Query!



Once you've created the schedule, you are able to view a new tab. Click the Triggers tab to set the frequency of this report.

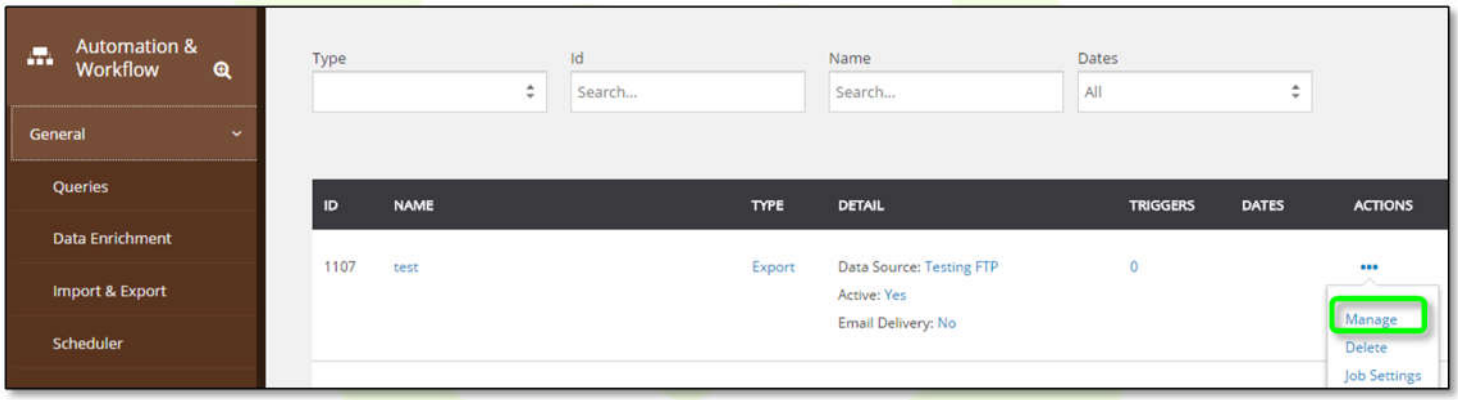
Select the interval you want from the first drop-down (Week, Month, etc.) and then select the specific point within that interval (Sunday, 1st of the month, etc.). Click Add.



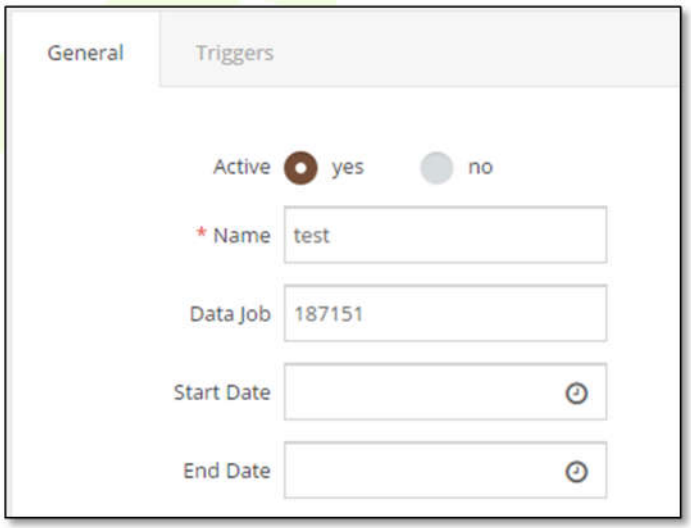
Updating a Schedule

Schedules live in their own place in the Automation & Workflow application. You can alter the schedule by navigating to that page and locating your schedule. (Clicking Schedule from the export file creates a new schedule. It does not alter the existing one).

Locate the schedule you wish to manage. From the right-hand action column select the Manage option.



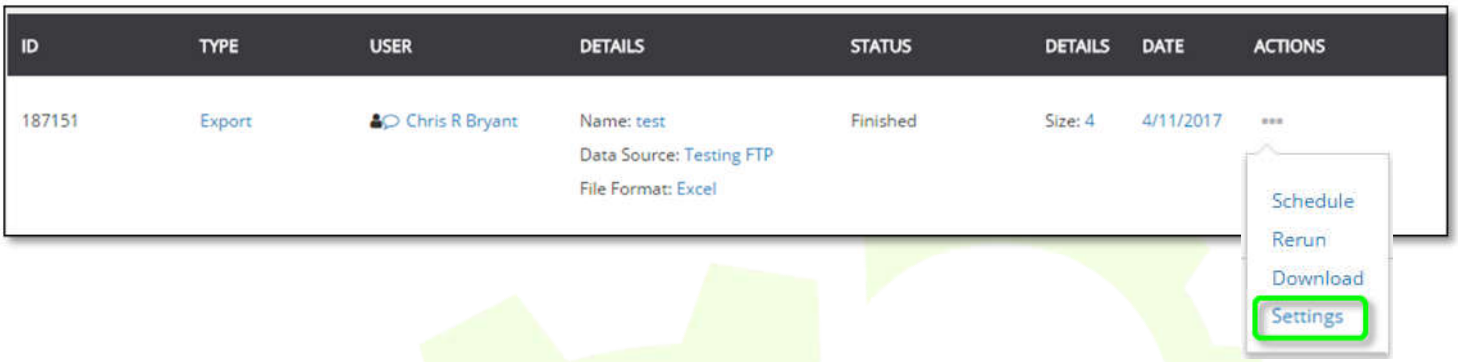
This allows you to change the end date as well as updating the triggers, if needed. Once you have made any needed changes, click Update.



Export Job Email Settings

Once you have set up the schedule, the export provides the options to detail to whom reports should be sent.

From the Export's right-hand action column, select Settings.



Name: Populates with the name assigned to this export.

Email List: Populates within anyone already set to receive email notifications. You can add additional emails by separating with a comma.

File Name Format: Populates with the export's settings, but can be updated.

Email Delivery Settings: Expand this section to mark if the report should be sent as an attachment and to assign a read/write password for the file.

In order to maintain PCI compliance, a read password should be included on any files that contain personal information of your contacts.