

FULCRUM USER GUIDE.

Moving Apps and Data Between Plans

How to move data and apps between different Fulcrum plans.

Moving the apps between plans

To move the apps and any associated choice lists or classification sets you will want to use [the share app template option](#) found in the apps' dashboard pages.

After the app has been shared and if you shared the app with yourself. You will want make sure to switch to the plan you wish to add the apps to before clicking on the links in the share app template email.

After you or the person you shared the app with has clicked the link in the share app template email and the app has loaded in the app designer, you will need to make sure and save the app, then start the next one.

Notes:

- Any predefined choice lists or classification sets will be copied over when you move the app. So there is no need to reproduce these as long as they are being used by the app(s) being shared.
- If you are using record linking, you only need to share the app with the record link field. The app that is linked through the record link field will be copied over like the predefined choice lists/classification sets.
- Another note about record linking, if you have apps linked in a way that results in a circular loop (App A linked to App B, App B linked to App C, and App C linked to App A) the sharing of the apps will result in an error. The reason for this is that a circular loop is created, so the circular loop will need to be broken before the app can be shared. It is typically best to export all the data out, break the loop, copy the apps over. Then recreate the loop and import the data.

Moving the data

To export the data you will likely want to use [the exporter](#) over [the downloader](#). The main advantage the exporter has is that you can include the photo files if your app is capturing photos. If you do not have photos to move, you can use either option. It is typically easier to use the CSV file type when exporting the data but you can use Shapefile if you wish. When using the exporter, the only option that you should select is to include photos.

Once you have exported and downloaded the ZIP file that is produced you can take that ZIP file and directly [import](#) it into the new app as new records.

Notes:

- The created and edited timestamps and 'by' [system fields](#) will be changed to the current timestamp and user account importing the data. This is because the system is views this as new records in a new app.
- Do not select the option to include full history when exporting the data out of the original app. History cannot be transferred to the new app and including the history will just result in a record being created for every record version that is included in the data file.
- If you do have record linked apps, recreating the links can be a bit of a pain. This is due to the records getting new record IDs when they are being imported into the new apps. The best way to do this is to rename the record_id column in the data files to something else. Then in the app itself create a text field and map that column to the text field. This will allow you to see the original ID and the new ID. Starting from the linked app import the data into Fulcrum as new records. Then run an export and use that data file to replace the record IDs in the data file with the record link field. After everything is completed. You can delete the text field from the app.
- When importing data and photos, make sure that the uploaded ZIP file contains all the photos and the data files. The importer will see that the photo ID is already in use but since the photo is present it will upload the photo and rename the photo file.
- When uploading data in a [repeatable section](#), make sure to include both the parent and child data files. There is no need to worry about the record IDs like with record linking but the importer does need the parent file to import any child records.

How do I delete records?

Learn about the multiple ways to permanently delete records from your Fulcrum account.

Be careful when deleting records from Fulcrum. Unless you've exported and backed up your data, *once a record has been deleted from the system, it cannot be recovered from within Fulcrum*. If you plan has the ability to export the full record history it is possible to [export the full history](#) and locate the deleted record from the exported data file.

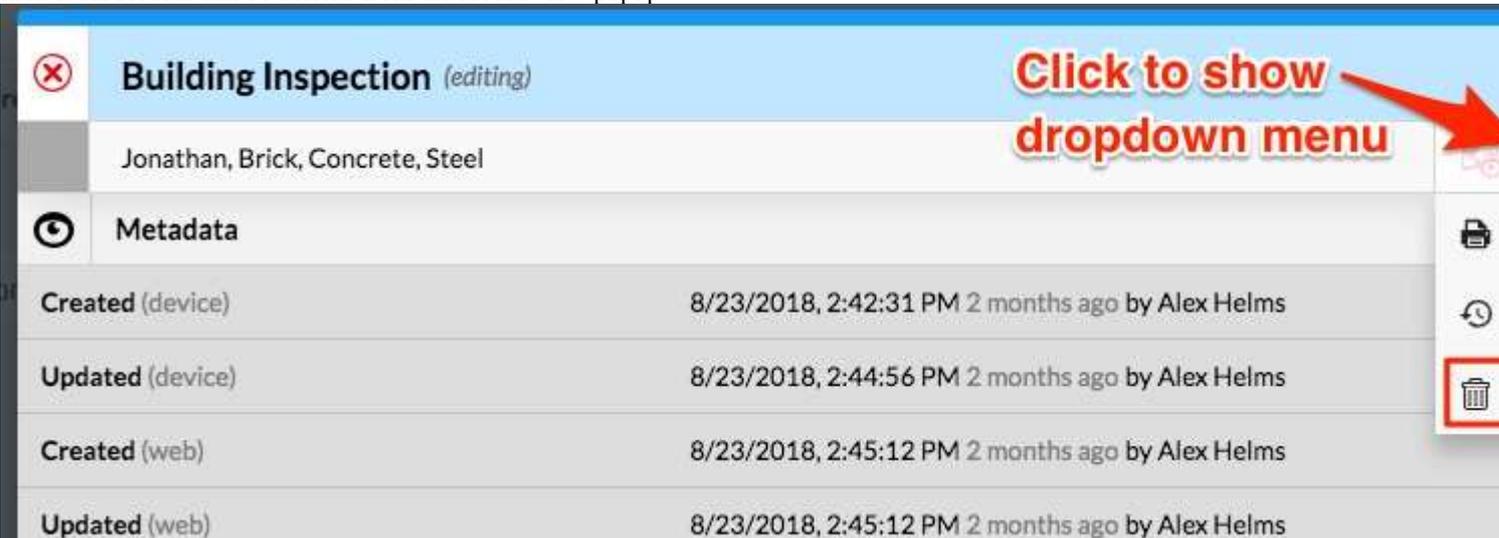
Deleting Records on Mobile

Only records that *have not been synced* can be permanently deleted via the mobile apps. Deleting a record which has been synced with the server will remove the record from that mobile device, but it will still be available in the system. Once a record has been synced, it can only be deleted from the system via the web admin console or API.

- [Deleting a record on Android](#)
- [Deleting a record on iOS](#)

Deleting Records on the Web

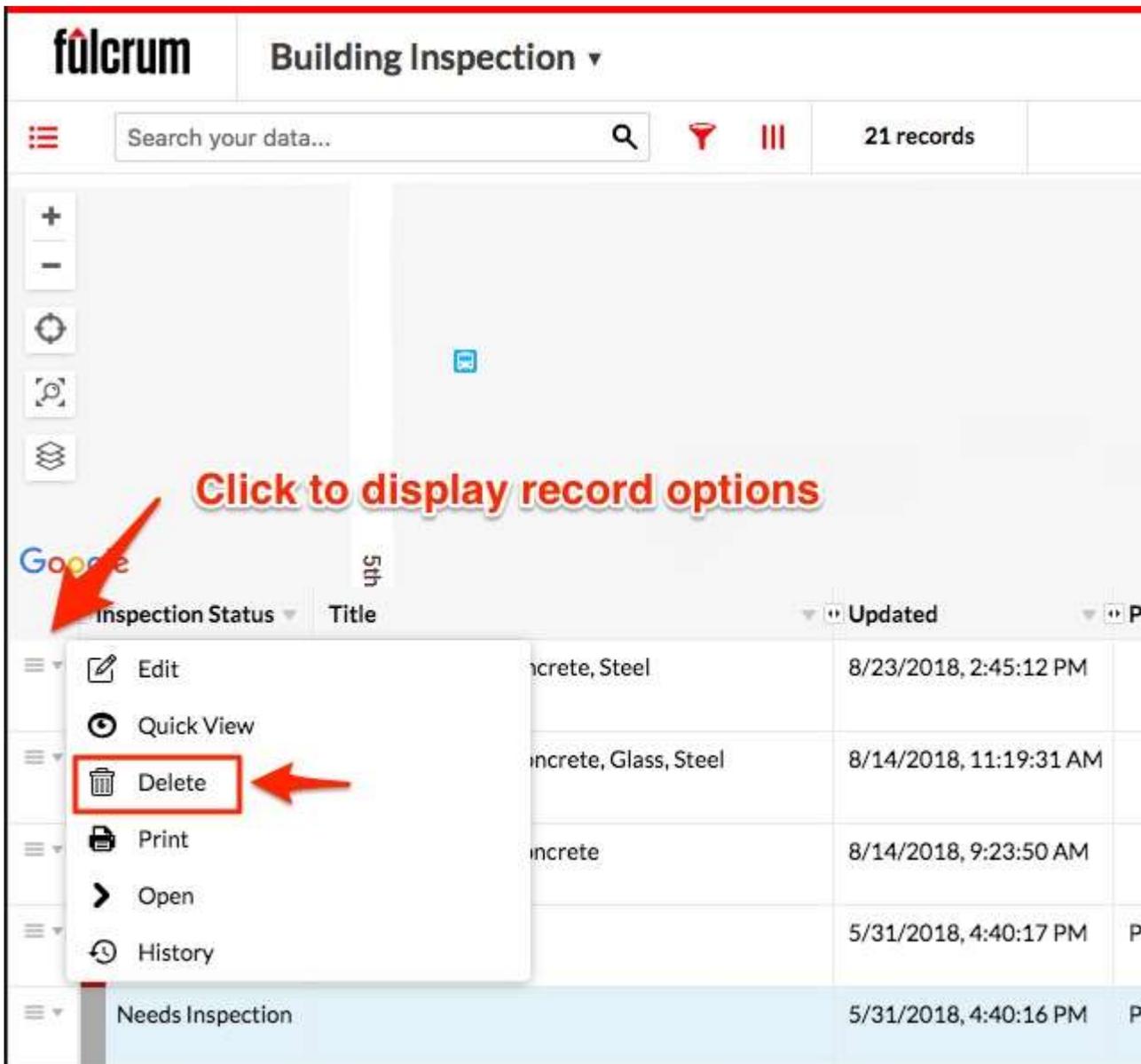
Individual records can be deleted from the record view popup



The screenshot shows a record view popup for 'Building Inspection' in editing mode. The record details are: Jonathan, Brick, Concrete, Steel. Below this is a 'Metadata' section with a table of creation and update events. A red arrow points to a dropdown menu icon in the top right corner of the popup, with the text 'Click to show dropdown menu' next to it. The dropdown menu is currently open, showing icons for print, refresh, and delete (trash).

Metadata	
Created (device)	8/23/2018, 2:42:31 PM 2 months ago by Alex Helms
Updated (device)	8/23/2018, 2:44:56 PM 2 months ago by Alex Helms
Created (web)	8/23/2018, 2:45:12 PM 2 months ago by Alex Helms
Updated (web)	8/23/2018, 2:45:12 PM 2 months ago by Alex Helms

Or the record options button in table or split view mode



Deleting records with the API

If you want to bulk delete records, you should use the [Records API](#). The [Fulcrum Node](#), [Fulcrum Python](#), and [Fulcrum Ruby](#) API wrappers all support record deletion as well.

Bulk Deleting Records

Fulcrum does not have a native way to bulk delete records.

One option for deleting *all* records in a form is to use the "[duplicate form](#)" option on the form settings and then delete the old form. The "duplicate form" will copy your form structure without any of the records. Once you have duplicated the form, you are able to delete the old form from your account. If you would like to include some records you will have to import those from the original form.

What projection does Fulcrum use?

Fulcrum leverages [WGS 84 \(EPSG:4326\)](#) reference coordinate system. This data is in a [decimal degrees](#) format.

When importing your data, if you use a CSV file type, you will want to make sure that your location data is in this projection. If you import a Shapefile, then Fulcrum can convert your data for most projections.

When you export your data out of Fulcrum, the location data will be in this format.

Custom Projections

While Fulcrum can only leverage WGS 84, [data events](#) and [calculation fields](#) can use a javascript libraries to dynamically convert the location data into a different projection. This will result in the location data being returned into user defined fields within the body of your record that can then be used outside of Fulcrum.

[This blog article](#) covers what is needed to convert Fulcrum location data into a different projection. The linked article has a calculation field example, there is also [an app in our app gallery](#) that can be added to your plan. Since the release of the blog article data events have been released. We have [added a data event example](#) on how this can all be done within a data event.

How do I export data from my account?

How to download or export data from your Fulcrum plan.

Note: Not all users can export/download data. The ability to export data depends on the [system role](#) or the [custom role](#) that your user account has in your Fulcrum plan.

There are two main export/download options.

Exporter

The exporter is a more all-inclusive exporter that has limited filter options. The Fulcrum exporter and can be accessed three ways:

1st By going to the [export page](#) when you click on the exports button (image below)

2nd By clicking the export button next to your app (image below)

3rd From your [apps' dashboard](#) view.

The main exporter has some additional customizable [settings](#) that the record editor data downloader does not currently have. Like exporting [full history](#), including the [Raw GPS data](#), and the ability to export the photos.

PLATFORM

Apps

Imports

Exports

Projects

Layers

Choice Lists

Classification Sets

Export Page

SETTINGS

Member Profile

Organization Profile

Billing

Members

Roles

API

Webhooks

Type to filter - 69 total

ACTIVE

SORT BY LAST ACTIVITY



Facility Inspection shared

Building inspection survey form.

Last activity 29 days ago



Agricultural Survey

This survey form is for collecting information about farms, such as which production, and fertilizers/pesticides used.

Last activity 2 months ago

Park Inventory shared

Collecting park asset inventory for repairs and maintenance.

Last activity 4 months ago



Data Events Tester

Building inspection survey form.

No records collected.

Culvert Inventory

Last activity 11 months ago



Archaeological Sites

Last activity 11 months ago

Record Editor Data Downloader

The other way of obtaining your data is from within the [data editor](#) for a specific app. This option will provide you with an export file that **contains just the filtered data**. So if you are looking to [not include certain columns](#) or wish to [filter what records are included](#), then you will want to use this export option.

When using [split](#) or [map](#) views, the downloaded export file will also be filtered to only contain the records that are displayed in the visible map area. The total number of records that will be contained in the downloaded file is displayed to the right of the column setup icon above the table/map area.

☰
Facility Inspection ▾

☰

🔍
🔴
☰
222 records

Filter Data

▼ Record Updated

- All
- Today 10/31/2019
- Yesterday 10/30/2019
- Last 7 days 10/24/2019 - 10/31/2019
- Last 30 days 10/01/2019 - 10/31/2019
- This Month 10/01/2019 - 10/31/2019
- Last Month 09/01/2019 - 09/30/2019
- Specific Range

-

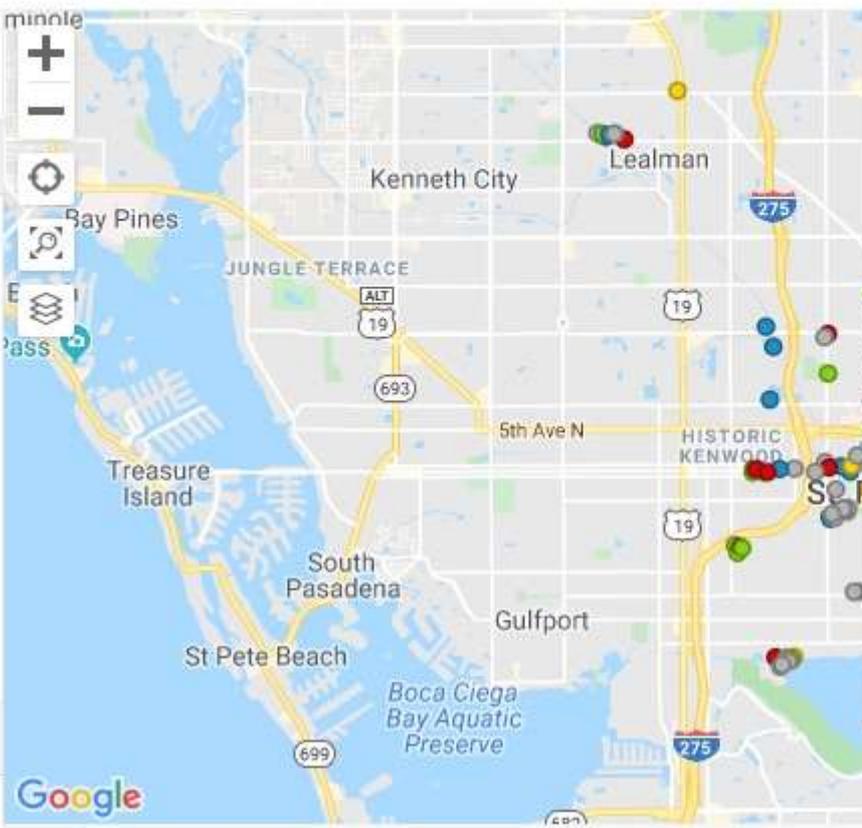
From
To

▼ Status

- Needs Inspection
- Incomplete
- Fail
- Pass
- Approved

▶ Assignment

▶ Projects



	Inspection Status ▾	Title
☰ ▾	Pass	Ponce de Leon Hotel, Brick, Glass
☰ ▾	Pass	Park Plaza Apartments, Concrete, Glass
☰ ▾	Pass	Mirror Lake Library, Stone, Steel, Glass
☰ ▾	Pass	Frescos, Concrete, Brick
☰ ▾	Pass	Chamber of Commerce Building, Brick, Con
☰ ▾	Pass	Bank of America, Concrete, Glass
☰ ▾	Pass	SunTrust Bank, Brick, Concrete, Glass

In both options, the data can be exported from your account in any of [several formats](#), (such as CSV, Excel, KML, Shapefile, and GeoJSON).

How are photos contained when I export and download my data?

How photos are included with the exported data.

When exporting photos and signatures out of Fulcrum, all photos will be contained in a ZIP file as .jpg files. Inside the record data file(s) there will be a column that contains the photo/signature file name. This file name is system generated to ensure uniqueness.

Note: When downloading the data through [the downloader](#), you will have the option on what you want the data columns for the media to be populated with. You can either choose to have a URL that can be used to view the media within Fulcrum (login required) or the media's unique ID.

In addition to the photos, there will be an additional file that contains the photos EXIF data.

Setting options for all field types in Fulcrum

A guide that explains the basic options that fields have. (Basic)

When first dragging and placing a field into the Layout area, or clicking on a field already in the Layout area, you will notice a popup that is displayed. This popup is the field settings menu and it allows you to do basic things like naming the field and setting restraints, some fields have more complex options that can be a little confusing to understand. This guide will explain the various options that can be set for all field types and provide links to additional resources that give more in-depth information on the option in Fulcrum.

Field settings menu options:

- Label: Enter a label for the field
- Description: Enter a description of the field
- Default Value: Enter an optional default value
- Data Name: Enter a name for the data attribute
- Required field?
- Hidden?
- Read-only field?
- Default to previous value?
- VALIDATION PATTERN
- Min Length: Enter min length
- Max Length: Enter max length
- VISIBILITY RULES
- REQUIREMENT RULES

Field Options

Below are all the field options that are possible. Not all fields have the same field options available.

Label

- **Available on:** All field types
- The label is what is the title of the field. The label is what is displayed on the mobile and web apps for the field. Multiple fields can use the same have the same text as the field's label.

Description

- **Available on:** All fields, except Sections and Repeatable Sections.
- The description can be used to provide the person in the field with more information. This can be used for instructions or guidance on how to collect data to this field. When a field has a description there will be an 'i' icon that is inline with the field label. When tapped on the field's description will display.

Default Value

- **Available on:** Text, Numeric, Yes/No, Date, Time, and Choice fields (Single choice, Multiple choice)
- When a default value is set the value will automatically be populated into the field when a new record is created. The default value can speed data collection time when the field usually will have the same value captured.

Data Name

- **Available on:** All field types
- The data name replaces the label when data is exported out of Fulcrum. So this is what will be used as the headers for your data columns. The Fulcrum system also uses the data names to match up the data to a field during import. **The data names for each field must be unique across all fields in an app.** The reason for this is that there will be errors in your export file if the two or more fields have the same header. By default, the data name will use the value entered into the label field and replace spaces with underscores.
- **Note:** Can only be populated with lowercase characters, numbers, and underscores. Spaces and special characters are not accepted and will result in an error being displayed if you try to save your app design.

Required Field?

- **Available on:** All field types, except for Sections, Label, Hyperlink, and Calculation fields
- When enabled the field will be required to contain a value before the record can be saved and synced to the server. This is ideal if you wish ensure that the data collector enters a value for the field.
- On the mobile devices records can be stored as a *draft* ([Android](#), [iOS](#)) and will be stored locally on the device until all the required field contain a value. This is helpful if the data collector needs to exit out of the record before they are able to finish collecting all the data for a record.

Hidden?

- **Available on:** All fields, except for Label fields
- When enabled the field will be hidden on all platforms when collecting and view specific records. This is good for keeping data that was collected outside of Fulcrum together.
- Fields set to hidden will be printed on default PDF reports.
- Calculation fields that are set to be hidden will still run their calculations when the record is opened in the record editor.
- **Note:** it is possible to view hidden fields within the data table on the [record editor](#) of the web app. This is done by enabling the field through the [column setup option](#).

Read-Only Field?

- **Available on:** All fields, except Sections, Repeatable Sections, Label, Signature, Hyperlink, Calculation fields.
- When enabled the field will be visible on all platforms, but the field contents cannot be edited within Fulcrum. This allows users to see data that has been seeded into Fulcrum.
- [Data events](#) can also be used to populate values into these fields that are set to read-only programmatically.

Default To Previous Value?

- **Available on:** All fields, except Sections, Repeatable Sections, Label, Signature, Photo, Video, Audio, and Hyperlink fields

- When enabled this will result in the next created record having the field automatically populated to the value in the field from the last record opened. Ideal where data is often the same between records being created but not often enough that the default value would work.
- This feature works within the app/platform that you are using.

Validation Pattern

- **Available on:** Text fields
- This option uses [regular expressions \(Regex\)](#) to valid that the contents entered into the field are a certain way. This can be used for things like only accepting alphanumeric characters, formatted phone numbers.

Minimum and Maximum Options

- **Available on:** Text, Numeric, Multiple Choice, Repeatable Sections, Photo, Video, and Audio fields
- Allows you to set the minimum and maximum limits for the field. For text fields this is the text length, numeric fields this is the range, and for the other fields this is the number of child records or media files.
- **Note:** These settings are only enforced if the field has something captured in it. This does not make the field required to have a entry. You will want to use the required checkbox to make the field required.

Visibility and Requirement Rules

- **Available on:** All fields, except Sections, Labels, Hyperlink, and Calculation fields only have visibility rules.
- Conditional logic rules can be set to make fields either required or visible based on what is entered into another field within your app.
- **Note:** If you wish to make a field required when it is visibility, you can set the field to be required using the checkbox option and then just add the visibility rules.

Format

- **Available on:** Numeric fields
- This is used to format the numeric field to accept integer or decimal values.

Enable N/A Choice?

- **Available on:** [Yes/No fields](#)
- Allows for a third choice option on the yes/no fields. When enabled you will see a third row appear in the yes/no field's setting menu.

Default to Today's Date/Time

- **Available on:** [Date](#) and [Time](#) fields
- When enabled the time or date fields will default to the current time or date on the device being used.
- **Note:** The date and time will not be accurate if the date or time is not correct on the platform the Fulcrum app is being used on.

Specify Choices Here and Use A Pre-Defiend Choice List

- **Available on:** Single and Multiple Choice fields
- These two options allow you to either use a predefined choice list or manually enter in the choice options for the choice field. Based on which check box is selected either a choices box will appear or a choice list pick-list will appear.

Allow "Other"

- **Available on:** Single, Multiple, and Classification Set fields.
- When enabled the user will be able to select an "other" option from the pick-list and manually enter in a value. This can be useful for capturing outliers where they are either unknown or it does not make sense to have them as choice options all the time.
- **Note:** Values captured this way are not added to the choice lists for future use.

Classification

- **Available on:** Classification Set fields
- A pick-list to set the predefined classification set you want to use for the classification set field.
- **Note:** Classification set lists need to be created before you attempt to add a classification set field to your app.

Display

- **Available on:** Sections
- Used to set the section to be displayed either inline or drill-down. When set to inline the section's contents will be displayed inline with the rest of the fields in your app. When set to drill-down the section's contents will be contained on another page that is accessed by tapping on the section's label inline with the rest of the field.
- **Note:** This only impacts the Fulcrum mobile apps.

Title

- **Available on:** Repeatable Sections
- This works the same as the record title option within the app's settings. You can use up to 5 fields contained within the repeatable section to create a record title for the child records created within the repeatable section.
- **Note:** If you change the title after data has been collected, you will need to reset the record cache and then run the sync on the mobile devices. The data is stored in a way that [titles cannot be updated while the records are at rest](#).

Location Enabled?

- **Available on:** Repeatable Sections
- When enabled the child records created within the repeatable section can be associated with a location and have coordinates captured.

Location Required?

- **Available on:** Repeatable Sections
- When enabled the child records will be required to have a location before the parent record can be fully saved.
- **Note:** requires the location enabled checkbox to be checked.

Agreement Text

- **Available on:** Signature Field
- Displays under the signature box on the mobile apps when capturing a signature.

Enable Annotations

- **Available on:** Photo Field
- When enabled the user will be able to annotate the photos captured to the photo field.
- Saving photo annotations will overwrite the original attached photo with the annotated photo. If you want to retain the original and attach it again, make sure to enable saving to the camera roll within the settings page of the Fulcrum mobile app.
- Annotated photos will retain the original photo's EXIF attributes, including any geographic information.

Audio Enabled?

- **Available on:** Video field
- When enabled the audio will be captured as the video is captured.

GPS Track Enabled?

- **Available on:** Video and Audio fields
- When enabled a GPS track will be captured as the media is being recorded. This GPS track can then be viewed along side the media within the web app and downloaded from the media player.

Auto Populate?

- **Available on:** Address field

- When enabled the address field will automatically populate and update when the location of the record is set.
- This feature leverages reverse geocoding functionality that is available on Android and iOS devices. As a result, the ability only works on the Fulcrum mobile apps.
- This feature also requires the mobile devices to have a network connection either through WiFi or Cellular.

Default URL?

- **Available on:** [Hyperlink field](#)
- The URL that you want the hyperlink field to link to.

Expression

- **Available on:** [Calculation field](#)
- This will open up a code builder where you can enter the code you wish the calculation field to run.

Display Format

- **Available on:** [Calculation field](#)
- Display the result of the code as a Number, Text, Date, or Currency.
- Text is the most forgiving format should accommodate most use cases.

Linked App

- **Available on:** [Record Link field](#)
- Select the app that you would like to link the record link field to.

Allow Selection of Existing Records

- **Available on:** [Record Link field](#)
- Allows the person entering the data to select records that already exist in the linked app.

Allow Creation of New Records

- **Available on:** [Record Link field](#)
- Allows the person entering the data to create new records in the linked app.

Allow Updating of Existing Records

- **Available on:** [Record Link field](#)
- Allows the person entering the data to edit existing records through the record link field.

Allow Multiple Records

- **Available on:** [Record Link field](#)
- Allows the person entering the data to link multiple records from the linked app.
- Note: enabling this will disable the auto population functionality.

Selection Filter

- **Available on:** [Record Link field](#)
- Filters the record pick list of the linked app based on values in the linked records with the values contained within the record is currently being editing.

Auto Populate Fields

- **Available on:** [Record Link field](#)
- Populates fields in the record currently being edited with data from the linked record.
- Best to link fields of the same field type. Certain fields cannot be linked together.

Can only populate data from one record. If allow multiple records is enabled this feature will be disabled.